

superior conj	13600 Jan 15 19:41	6° $\approx$ 10'29	1°29'12	asc. node	13600 Dec 12 19:44	15° $\approx$ 24'28	
minimum elong	13600 Jan 15 21:29	6° $\approx$ 20'06	1°29'57		13600 Dec 20 11:47	0° $\approx$	
max. Earth dist.	13600 Jan 19 11:59	13° $\approx$ 52'18	1.33975 AU	morning set	13600 Dec 23 07:02	5° $\approx$ 53'57	
evening rise	13600 Jan 23 23:04	22° $\approx$ 47'55					
	13600 Jan 27 18:24	0° $\approx$		superior conj	13600 Dec 30 02:33	20° $\approx$ 46'06	1°36'39
desc. node	13600 Jan 28 17:06	1° $\approx$ 43'49		minimum elong	13600 Dec 30 03:19	20° $\approx$ 50'18	1°37'38
	13600 Feb 15 11:28	0° $\approx$		max. Earth dist.	13601 Jan 01 10:27	25° $\approx$ 49'06	1.32564 AU
evening max el	13600 Feb 27 18:57	14° $\approx$ 35'31	27°04'22		13601 Jan 03 09:34	0° $\approx$	
retrograde	13600 Mar 12 04:34	22° $\approx$ 02'59		evening rise	13601 Jan 06 14:14	6° $\approx$ 36'21	
evening set	13600 Mar 18 18:51	19° $\approx$ 30'47		desc. node	13601 Jan 14 13:48	21° $\approx$ 49'28	
min. Earth dist.	13600 Mar 22 17:17	15° $\approx$ 43'26	0.65510 AU		13601 Jan 19 08:05	0° $\approx$	
asc. node	13600 Mar 23 19:43	14° $\approx$ 29'02		evening max el	13601 Feb 09 07:26	27° $\approx$ 52'20	27°31'21
inferior conj	13600 Mar 24 22:56	13° $\approx$ 11'17	0°21'38		13601 Feb 11 16:09	0° $\approx$	
minimum elong	13600 Mar 24 22:20	13° $\approx$ 12'58	0°21'16	retrograde	13601 Feb 23 01:47	5° $\approx$ 19'15	
morning rise	13600 Mar 31 03:23	7° $\approx$ 38'57		evening set	13601 Mar 01 22:00	2° $\approx$ 52'57	
direct	13600 Apr 02 22:00	6° $\approx$ 57'29			13601 Mar 05 06:58	30° $\approx$ 11'	
morning max el	13600 Apr 09 06:17	10° $\approx$ 16'22	18°02'46	min. Earth dist.	13601 Mar 05 16:58	29° $\approx$ 35'29	0.63678 AU
	13600 Apr 23 03:25	0° $\approx$		inferior conj	13601 Mar 08 09:46	26° $\approx$ 49'32	-0°45'00
desc. node	13600 Apr 25 19:24	4° $\approx$ 20'13		minimum elong	13601 Mar 08 11:12	26° $\approx$ 45'52	0°44'15
morning set	13600 Apr 27 14:42	7° $\approx$ 16'43		asc. node	13601 Mar 10 17:11	24° $\approx$ 32'56	
	13600 May 11 18:21	0° $\approx$		morning rise	13601 Mar 15 02:44	21° $\approx$ 31'51	
				direct	13601 Mar 17 13:02	21° $\approx$ 02'46	
superior conj	13600 May 12 06:35	0° $\approx$ 48'12	-1°46'23	morning max el	13601 Mar 23 23:53	24° $\approx$ 21'27	17°47'28
minimum elong	13600 May 11 21:29	0° $\approx$ 12'22	1°46'27		13601 Mar 28 15:12	0° $\approx$	
max. Earth dist.	13600 May 15 05:07	5° $\approx$ 24'59	1.45702 AU	morning set	13601 Apr 09 13:25	19° $\approx$ 24'54	
evening rise	13600 May 28 09:02	25° $\approx$ 50'23		desc. node	13601 Apr 12 15:59	24° $\approx$ 42'26	
	13600 May 31 01:51	0° $\approx$			13601 Apr 15 19:14	0° $\approx$	
greatest brilliancy	13600 Jun 10 09:28	15° $\approx$ 40'22	-0.7m				
asc. node	13600 Jun 19 17:16	28° $\approx$ 26'47		superior conj	13601 Apr 22 08:54	10° $\approx$ 51'19	-1°10'37
	13600 Jun 21 02:04	0° $\approx$		minimum elong	13601 Apr 22 01:48	10° $\approx$ 22'26	1°10'17
evening max el	13600 Jun 22 03:49	1° $\approx$ 07'15	19°27'31	max. Earth dist.	13601 Apr 27 23:52	19° $\approx$ 53'12	1.44883 AU
retrograde	13600 Jun 29 07:32	5° $\approx$ 07'58			13601 May 04 10:48	0° $\approx$	
evening set	13600 Jul 02 23:21	3° $\approx$ 05'05		evening rise	13601 May 07 20:14	5° $\approx$ 13'31	
	13600 Jul 06 18:24	30° $\approx$ 11'			13601 May 24 11:42	0° $\approx$	
inferior conj	13600 Jul 08 08:27	27° $\approx$ 57'03	3°07'34	evening max el	13601 Jun 05 06:02	14° $\approx$ 56'16	20°27'48
minimum elong	13600 Jul 08 09:24	27° $\approx$ 53'57	3°06'30	asc. node	13601 Jun 06 14:18	16° $\approx$ 12'55	
min. Earth dist.	13600 Jul 09 15:31	26° $\approx$ 14'37	0.67266 AU	retrograde	13601 Jun 13 06:23	19° $\approx$ 32'49	
morning rise	13600 Jul 13 18:55	21° $\approx$ 32'52		evening set	13601 Jun 17 08:12	17° $\approx$ 58'04	
direct	13600 Jul 19 18:21	18° $\approx$ 56'12		inferior conj	13601 Jun 22 14:33	11° $\approx$ 52'42	3°12'15
desc. node	13600 Jul 22 18:59	19° $\approx$ 30'12		minimum elong	13601 Jun 22 14:28	11° $\approx$ 53'01	3°11'12
morning max el	13600 Aug 01 01:53	26° $\approx$ 18'54	25°33'43	min. Earth dist.	13601 Jun 23 07:37	10° $\approx$ 54'07	0.68295 AU
	13600 Aug 04 11:32	0° $\approx$		morning rise	13601 Jun 27 20:26	5° $\approx$ 31'48	
	13600 Aug 25 21:30	0° $\approx$		direct	13601 Jul 03 08:20	3° $\approx$ 06'28	
morning set	13600 Sep 06 01:13	19° $\approx$ 01'44		desc. node	13601 Jul 09 16:15	5° $\approx$ 34'27	
max. Earth dist.	13600 Sep 09 16:23	25° $\approx$ 44'57	1.35980 AU	morning max el	13601 Jul 14 12:01	9° $\approx$ 47'10	24°07'15
	13600 Sep 11 21:48	0° $\approx$			13601 Jul 30 11:57	0° $\approx$	
				morning set	13601 Aug 18 21:57	0° $\approx$ 34'19	
superior conj	13600 Sep 15 18:28	7° $\approx$ 36'14	-0°00'03		13601 Aug 18 13:57	0° $\approx$	
minimum elong	13600 Sep 15 18:28	7° $\approx$ 36'14	0°00'01	max. Earth dist.	13601 Aug 22 14:24	7° $\approx$ 01'27	1.38255 AU
behind sun begin	13600 Sep 15 13:07	7° $\approx$ 09'27					
behind sun end	13600 Sep 15 23:49	8° $\approx$ 03'04		superior conj	13601 Aug 29 22:14	20° $\approx$ 32'24	-0°33'44
asc. node	13600 Sep 15 18:34	7° $\approx$ 36'46		minimum elong	13601 Aug 30 00:36	20° $\approx$ 43'37	0°33'34
evening rise	13600 Sep 23 17:08	23° $\approx$ 50'19		asc. node	13601 Sep 02 15:08	27° $\approx$ 41'58	
	13600 Sep 26 18:15	0° $\approx$			13601 Sep 03 19:17	0° $\approx$	
evening max el	13600 Oct 11 11:10	23° $\approx$ 06'14	20°03'38	evening rise	13601 Sep 07 18:04	7° $\approx$ 48'12	
desc. node	13600 Oct 18 15:12	27° $\approx$ 49'09			13601 Sep 20 06:51	0° $\approx$	
retrograde	13600 Oct 21 23:27	28° $\approx$ 20'13		evening max el	13601 Sep 24 04:31	4° $\approx$ 40'44	19°02'50
evening set	13600 Oct 23 23:45	28° $\approx$ 09'35		retrograde	13601 Oct 03 01:48	9° $\approx$ 08'01	
inferior conj	13600 Nov 01 21:32	24° $\approx$ 11'08	-4°14'56	evening set	13601 Oct 04 22:31	8° $\approx$ 57'04	
minimum elong	13600 Nov 01 11:35	24° $\approx$ 26'06	4°11'07	desc. node	13601 Oct 05 12:37	8° $\approx$ 49'16	
min. Earth dist.	13600 Nov 03 16:37	23° $\approx$ 06'19	0.54937 AU	inferior conj	13601 Oct 13 08:08	4° $\approx$ 42'30	-2°27'57
morning rise	13600 Nov 09 22:15	20° $\approx$ 02'21		minimum elong	13601 Oct 13 01:50	4° $\approx$ 53'20	2°25'01
direct	13600 Nov 14 16:58	19° $\approx$ 12'34		min. Earth dist.	13601 Oct 16 04:31	2° $\approx$ 45'13	0.56243 AU
morning max el	13600 Nov 28 08:38	25° $\approx$ 56'32	24°15'36	morning rise	13601 Oct 21 02:18	29° $\approx$ 59'44	
	13600 Dec 02 04:44	0° $\approx$			13601 Oct 21 02:03	30° $\approx$ 11'	

direct	13601 Oct 26 16:35	28° $\Omega$ 46'33		direct	13602 Oct 08 06:04	8° $\Omega$ 58'57	
	13601 Nov 01 07:19	0° $\mathbb{M}$		morning max el	13602 Oct 22 13:36	16° $\Omega$ 35'48	27°13'31
morning max el	13601 Nov 09 19:44	6° $\mathbb{M}$ 00'22	25°57'08		13602 Nov 02 14:11	0° $\mathbb{M}$	
	13601 Nov 27 07:27	0° $\mathbb{A}$		asc. node	13602 Nov 16 13:33	23° $\mathbb{M}$ 40'00	
asc. node	13601 Nov 29 16:41	4° $\mathbb{A}$ 18'50			13602 Nov 19 17:23	0° $\mathbb{A}$	
morning set	13601 Dec 07 18:14	20° $\mathbb{A}$ 33'17		morning set	13602 Nov 22 02:57	5° $\mathbb{A}$ 01'29	
	13601 Dec 12 01:41	0° $\mathbb{B}$					
superior conj	13601 Dec 14 12:47	5° $\mathbb{B}$ 28'32	1°37'54	superior conj	13602 Nov 29 00:20	20° $\mathbb{A}$ 10'49	1°33'14
minimum elong	13601 Dec 14 12:28	5° $\mathbb{B}$ 26'44	1°38'58	minimum elong	13602 Nov 28 23:03	20° $\mathbb{A}$ 03'35	1°34'10
max. Earth dist.	13601 Dec 15 15:26	7° $\mathbb{B}$ 56'18	1.31634 AU	max. Earth dist.	13602 Nov 28 23:39	20° $\mathbb{A}$ 06'58	1.31210 AU
evening rise	13601 Dec 21 13:44	20° $\mathbb{B}$ 45'03			13602 Dec 03 10:26	0° $\mathbb{B}$	
	13601 Dec 26 03:38	0° $\mathbb{A}$		evening rise	13602 Dec 05 19:03	5° $\mathbb{B}$ 06'29	
desc. node	13602 Jan 01 10:35	11° $\mathbb{A}$ 34'14			13602 Dec 18 19:43	0° $\mathbb{A}$	
	13602 Jan 13 11:21	0° $\mathbb{H}$		desc. node	13602 Dec 19 07:29	0° $\mathbb{A}$ 48'42	
evening max el	13602 Jan 22 16:43	10° $\mathbb{H}$ 34'59	27°27'39	evening max el	13603 Jan 04 19:50	22° $\mathbb{A}$ 29'43	26°49'27
retrograde	13602 Feb 05 15:00	17° $\mathbb{H}$ 54'38		retrograde	13603 Jan 18 18:49	29° $\mathbb{A}$ 39'55	
evening set	13602 Feb 12 12:26	15° $\mathbb{H}$ 41'57		evening set	13603 Jan 25 10:36	27° $\mathbb{A}$ 48'28	
min. Earth dist.	13602 Feb 16 06:49	12° $\mathbb{H}$ 48'42	0.61605 AU	min. Earth dist.	13603 Jan 29 09:50	25° $\mathbb{A}$ 10'05	0.59424 AU
inferior conj	13602 Feb 19 08:08	10° $\mathbb{H}$ 02'27	-2°02'03	inferior conj	13603 Feb 01 14:20	22° $\mathbb{A}$ 38'59	-3°25'36
minimum elong	13602 Feb 19 12:26	9° $\mathbb{H}$ 52'41	1°59'54	minimum elong	13603 Feb 01 21:42	22° $\mathbb{A}$ 24'22	3°22'17
asc. node	13602 Feb 25 14:37	5° $\mathbb{H}$ 25'40		morning rise	13603 Feb 09 11:54	17° $\mathbb{A}$ 59'45	
morning rise	13602 Feb 26 15:20	5° $\mathbb{H}$ 02'22		direct	13603 Feb 11 12:52	17° $\mathbb{A}$ 44'25	
direct	13602 Feb 28 19:26	4° $\mathbb{H}$ 41'56		asc. node	13603 Feb 12 12:03	17° $\mathbb{A}$ 47'59	
morning max el	13602 Mar 07 16:47	8° $\mathbb{H}$ 10'39	17°50'01	morning max el	13603 Feb 19 05:26	21° $\mathbb{A}$ 33'20	18°11'44
	13602 Mar 21 23:14	0° $\mathbb{Y}$			13603 Feb 25 16:15	0° $\mathbb{H}$	
morning set	13602 Mar 23 09:33	2° $\mathbb{Y}$ 33'40		morning set	13603 Mar 06 21:04	16° $\mathbb{H}$ 24'06	
desc. node	13602 Mar 30 12:31	15° $\mathbb{Y}$ 13'19			13603 Mar 14 03:59	0° $\mathbb{Y}$	
superior conj	13602 Apr 03 10:54	22° $\mathbb{Y}$ 00'58	-0°30'38	superior conj	13603 Mar 16 12:00	4° $\mathbb{Y}$ 14'17	0°07'02
minimum elong	13602 Apr 03 08:02	21° $\mathbb{Y}$ 48'45	0°30'28	minimum elong	13603 Mar 16 12:32	4° $\mathbb{Y}$ 16'43	0°06'58
	13602 Apr 08 05:02	0° $\mathbb{B}$		behind sun begin	13603 Mar 16 05:41	3° $\mathbb{Y}$ 45'54	
max. Earth dist.	13602 Apr 10 15:35	3° $\mathbb{B}$ 59'58	1.43428 AU	behind sun end	13603 Mar 16 19:22	4° $\mathbb{Y}$ 47'28	
evening rise	13602 Apr 17 13:12	14° $\mathbb{B}$ 59'21		desc. node	13603 Mar 17 09:00	5° $\mathbb{Y}$ 48'31	
	13602 Apr 27 10:08	0° $\mathbb{I}$		max. Earth dist.	13603 Mar 24 02:50	17° $\mathbb{Y}$ 31'20	1.41479 AU
evening max el	13602 May 19 02:37	28° $\mathbb{I}$ 45'54	21°39'58	evening rise	13603 Mar 28 23:23	25° $\mathbb{Y}$ 33'18	
	13602 May 20 09:26	0° $\mathbb{B}$			13603 Mar 31 17:53	0° $\mathbb{B}$	
asc. node	13602 May 24 11:26	3° $\mathbb{B}$ 01'48			13603 Apr 21 05:11	0° $\mathbb{I}$	
retrograde	13602 May 28 04:42	4° $\mathbb{B}$ 04'59		evening max el	13603 May 01 18:48	12° $\mathbb{I}$ 36'22	22°59'25
evening set	13602 Jun 01 17:16	2° $\mathbb{B}$ 13'47		asc. node	13603 May 11 08:39	18° $\mathbb{I}$ 36'57	
	13602 Jun 03 22:03	30° $\mathbb{R}$ $\mathbb{I}$		retrograde	13603 May 12 01:02	18° $\mathbb{I}$ 39'05	
inferior conj	13602 Jun 06 23:25	25° $\mathbb{I}$ 57'41	3°05'34	evening set	13603 May 17 00:57	16° $\mathbb{I}$ 32'54	
minimum elong	13602 Jun 06 22:24	26° $\mathbb{I}$ 01'14	3°04'26	inferior conj	13603 May 22 09:04	10° $\mathbb{I}$ 08'15	2°48'26
min. Earth dist.	13602 Jun 07 03:05	25° $\mathbb{I}$ 44'53	0.68845 AU	minimum elong	13603 May 22 07:20	10° $\mathbb{I}$ 14'17	2°47'10
morning rise	13602 Jun 12 03:19	19° $\mathbb{I}$ 42'22		min. Earth dist.	13603 May 21 23:51	10° $\mathbb{I}$ 40'13	0.68912 AU
direct	13602 Jun 17 02:35	17° $\mathbb{I}$ 33'57		morning rise	13603 May 27 13:37	3° $\mathbb{I}$ 59'53	
desc. node	13602 Jun 26 13:25	22° $\mathbb{I}$ 58'46		direct	13603 Jun 01 00:01	2° $\mathbb{I}$ 11'32	
morning max el	13602 Jun 26 23:22	23° $\mathbb{I}$ 23'29	22°37'45	morning max el	13603 Jun 09 15:05	7° $\mathbb{I}$ 09'56	21°13'23
	13602 Jul 02 19:02	0° $\mathbb{B}$		desc. node	13603 Jun 13 10:29	11° $\mathbb{I}$ 21'50	
	13602 Jul 23 20:27	0° $\mathbb{Q}$			13603 Jun 27 03:14	0° $\mathbb{B}$	
morning set	13602 Jul 30 19:18	11° $\mathbb{Q}$ 04'46		morning set	13603 Jul 10 15:57	20° $\mathbb{B}$ 31'23	
max. Earth dist.	13602 Aug 04 13:40	19° $\mathbb{Q}$ 00'46	1.40610 AU		13603 Jul 16 14:36	0° $\mathbb{Q}$	
	13602 Aug 10 21:18	0° $\mathbb{P}$		max. Earth dist.	13603 Jul 17 18:38	1° $\mathbb{Q}$ 54'02	1.42750 AU
superior conj	13602 Aug 12 09:49	2° $\mathbb{P}$ 43'48	-1°08'52	superior conj	13603 Jul 25 00:46	14° $\mathbb{Q}$ 00'37	-1°41'26
minimum elong	13602 Aug 12 14:59	3° $\mathbb{P}$ 07'09	1°08'39	minimum elong	13603 Jul 25 07:56	14° $\mathbb{Q}$ 31'13	1°41'30
asc. node	13602 Aug 20 11:43	17° $\mathbb{P}$ 41'48			13603 Aug 03 03:38	0° $\mathbb{P}$	
evening rise	13602 Aug 22 10:03	21° $\mathbb{P}$ 20'41		evening rise	13603 Aug 05 12:58	4° $\mathbb{P}$ 17'31	
	13602 Aug 27 01:17	0° $\mathbb{Q}$		asc. node	13603 Aug 07 08:21	7° $\mathbb{P}$ 32'29	
evening max el	13602 Sep 07 08:54	16° $\mathbb{Q}$ 59'30	18°23'37		13603 Aug 21 22:44	0° $\mathbb{Q}$	
retrograde	13602 Sep 14 23:30	20° $\mathbb{Q}$ 50'38		evening max el	13603 Aug 21 20:11	29° $\mathbb{P}$ 53'44	18°04'50
evening set	13602 Sep 17 00:42	20° $\mathbb{Q}$ 34'35		retrograde	13603 Aug 28 15:04	3° $\mathbb{Q}$ 22'32	
desc. node	13602 Sep 22 10:08	17° $\mathbb{Q}$ 44'17		evening set	13603 Aug 30 23:39	2° $\mathbb{Q}$ 57'31	
inferior conj	13602 Sep 24 16:15	15° $\mathbb{Q}$ 59'00	-0°42'41		13603 Sep 04 16:47	30° $\mathbb{R}$ $\mathbb{P}$	
minimum elong	13602 Sep 24 14:37	16° $\mathbb{Q}$ 02'16	0°41'51	inferior conj	13603 Sep 06 21:20	28° $\mathbb{P}$ 01'35	0°44'12
min. Earth dist.	13602 Sep 27 22:55	13° $\mathbb{Q}$ 21'21	0.58177 AU	minimum elong	13603 Sep 06 22:41	27° $\mathbb{P}$ 58'25	0°43'34
morning rise	13602 Oct 02 01:04	10° $\mathbb{Q}$ 39'04		desc. node	13603 Sep 09 07:40	25° $\mathbb{P}$ 44'43	
				min. Earth dist.	13603 Sep 10 02:07	25° $\mathbb{P}$ 02'56	0.60422 AU

morning rise	13603 Sep 13 18:40	22° $\mathbb{M}$ 11'05		min. Earth dist.	13604 Aug 22 14:56	7° $\mathbb{M}$ 43'48	0.62691 AU
direct	13603 Sep 20 08:24	20° $\mathbb{M}$ 04'40		morning rise	13604 Aug 26 05:10	4° $\mathbb{M}$ 31'19	
morning max el	13603 Oct 04 15:21	27° $\mathbb{M}$ 58'22	27°53'24	desc. node	13604 Aug 26 05:12	4° $\mathbb{M}$ 31'15	
	13603 Oct 06 14:32	0° $\mathbb{L}$		direct	13604 Sep 01 21:25	2° $\mathbb{M}$ 04'17	
	13603 Oct 27 09:02	0° $\mathbb{M}$		morning max el	13604 Sep 15 22:48	10° $\mathbb{M}$ 05'56	27°54'18
asc. node	13603 Nov 03 10:20	13° $\mathbb{M}$ 20'48			13604 Oct 01 12:23	0° $\mathbb{L}$	
morning set	13603 Nov 06 07:24	19° $\mathbb{M}$ 14'27			13604 Oct 18 16:16	0° $\mathbb{M}$	
	13603 Nov 11 07:22	0° $\mathbb{X}$		morning set	13604 Oct 20 05:22	3° $\mathbb{M}$ 06'24	
max. Earth dist.	13603 Nov 12 07:25	2° $\mathbb{X}$ 12'49	1.31311 AU	asc. node	13604 Oct 20 07:01	3° $\mathbb{M}$ 14'47	
				max. Earth dist.	13604 Oct 25 10:43	14° $\mathbb{M}$ 03'24	1.31946 AU
superior conj	13603 Nov 13 11:26	4° $\mathbb{X}$ 48'19	1°22'47	superior conj	13604 Oct 27 20:07	19° $\mathbb{M}$ 15'25	1°06'37
minimum elong	13603 Nov 13 09:26	4° $\mathbb{X}$ 37'13	1°23'27	minimum elong	13604 Oct 27 17:50	19° $\mathbb{M}$ 02'55	1°06'59
evening rise	13603 Nov 20 04:09	19° $\mathbb{X}$ 35'52			13604 Nov 01 17:25	0° $\mathbb{X}$	
	13603 Nov 25 04:08	0° $\mathbb{Z}$		evening rise	13604 Nov 03 15:04	4° $\mathbb{X}$ 08'01	
desc. node	13603 Dec 06 04:32	19° $\mathbb{Z}$ 21'35			13604 Nov 17 06:05	0° $\mathbb{Z}$	
	13603 Dec 14 05:28	0° $\mathbb{A}$		desc. node	13604 Nov 22 01:41	6° $\mathbb{Z}$ 57'09	
evening max el	13603 Dec 17 14:37	3° $\mathbb{A}$ 31'01	25°38'07	evening max el	13604 Nov 28 02:08	13° $\mathbb{Z}$ 48'07	24°03'10
retrograde	13603 Dec 31 11:58	10° $\mathbb{A}$ 31'20		retrograde	13604 Dec 11 16:34	20° $\mathbb{Z}$ 34'35	
evening set	13604 Jan 06 12:23	9° $\mathbb{A}$ 07'45		evening set	13604 Dec 16 14:34	19° $\mathbb{Z}$ 41'46	
min. Earth dist.	13604 Jan 11 03:05	6° $\mathbb{A}$ 29'30	0.57348 AU	min. Earth dist.	13604 Dec 22 13:25	16° $\mathbb{Z}$ 45'10	0.55664 AU
inferior conj	13604 Jan 14 00:59	4° $\mathbb{A}$ 29'46	-4°45'35	inferior conj	13604 Dec 24 14:54	15° $\mathbb{Z}$ 30'18	-5°43'14
minimum elong	13604 Jan 14 09:49	4° $\mathbb{A}$ 14'36	4°42'22	minimum elong	13604 Dec 24 20:27	15° $\mathbb{Z}$ 21'54	5°41'34
morning rise	13604 Jan 22 09:56	0° $\mathbb{A}$ 12'50		morning rise	13605 Jan 02 04:13	11° $\mathbb{Z}$ 32'48	
	13604 Jan 23 23:50	30° $\mathbb{R}$ $\mathbb{Z}$		direct	13605 Jan 04 17:10	11° $\mathbb{Z}$ 16'18	
direct	13604 Jan 24 12:50	29° $\mathbb{Z}$ 59'05		morning max el	13605 Jan 15 02:09	16° $\mathbb{Z}$ 15'07	19°59'50
	13604 Jan 25 01:44	0° $\mathbb{A}$		asc. node	13605 Jan 16 06:45	17° $\mathbb{Z}$ 27'44	
asc. node	13604 Jan 30 09:26	1° $\mathbb{A}$ 51'36			13605 Jan 25 01:31	0° $\mathbb{A}$	
morning max el	13604 Feb 02 09:53	4° $\mathbb{A}$ 18'30	18°54'25	morning set	13605 Feb 02 00:21	15° $\mathbb{A}$ 17'03	
	13604 Feb 18 10:37	0° $\mathbb{X}$			13605 Feb 09 05:50	0° $\mathbb{X}$	
morning set	13604 Feb 18 19:11	0° $\mathbb{X}$ 42'00					
superior conj	13604 Feb 27 08:03	17° $\mathbb{X}$ 19'23	0°38'58	superior conj	13605 Feb 09 18:29	1° $\mathbb{X}$ 03'11	1°04'00
minimum elong	13604 Feb 27 10:22	17° $\mathbb{X}$ 30'24	0°38'55	minimum elong	13605 Feb 09 21:14	1° $\mathbb{X}$ 16'54	1°04'12
desc. node	13604 Mar 03 05:31	26° $\mathbb{X}$ 24'40		max. Earth dist.	13605 Feb 15 16:15	12° $\mathbb{X}$ 30'31	1.37018 AU
	13604 Mar 05 05:32	0° $\mathbb{Y}$		desc. node	13605 Feb 18 02:04	16° $\mathbb{X}$ 58'13	
max. Earth dist.	13604 Mar 05 09:52	0° $\mathbb{Y}$ 19'14	1.39258 AU	evening rise	13605 Feb 19 10:10	19° $\mathbb{X}$ 23'29	
evening rise	13604 Mar 09 06:46	7° $\mathbb{Y}$ 02'50			13605 Feb 25 13:08	0° $\mathbb{Y}$	
	13604 Mar 23 17:44	0° $\mathbb{B}$			13605 Mar 17 20:30	0° $\mathbb{B}$	
evening max el	13604 Apr 13 08:39	26° $\mathbb{B}$ 28'27	24°20'10	evening max el	13605 Mar 26 22:10	10° $\mathbb{B}$ 21'25	25°35'18
	13604 Apr 17 08:17	0° $\mathbb{I}$		retrograde	13605 Apr 08 06:53	17° $\mathbb{B}$ 29'27	
retrograde	13604 Apr 24 18:09	3° $\mathbb{I}$ 09'18		evening set	13605 Apr 14 05:44	15° $\mathbb{B}$ 01'53	
asc. node	13604 Apr 27 05:59	2° $\mathbb{I}$ 41'42		asc. node	13605 Apr 14 03:22	15° $\mathbb{B}$ 06'49	
evening set	13604 Apr 30 05:39	0° $\mathbb{I}$ 50'37		min. Earth dist.	13605 Apr 18 12:51	10° $\mathbb{B}$ 20'56	0.67673 AU
	13604 May 01 03:26	30° $\mathbb{R}$ $\mathbb{B}$		inferior conj	13605 Apr 19 23:02	8° $\mathbb{B}$ 31'24	1°43'27
min. Earth dist.	13604 May 04 19:49	25° $\mathbb{B}$ 34'07	0.68515 AU	minimum elong	13605 Apr 19 21:00	8° $\mathbb{B}$ 37'59	1°42'14
inferior conj	13604 May 05 17:35	24° $\mathbb{B}$ 20'46	2°21'08	morning rise	13605 Apr 25 12:46	2° $\mathbb{B}$ 40'19	
minimum elong	13604 May 05 15:28	24° $\mathbb{B}$ 27'56	2°19'48	direct	13605 Apr 28 23:17	1° $\mathbb{B}$ 32'30	
morning rise	13604 May 11 01:24	18° $\mathbb{B}$ 20'23		morning max el	13605 May 05 19:36	5° $\mathbb{B}$ 15'36	19°01'30
direct	13604 May 14 23:24	16° $\mathbb{B}$ 52'49		desc. node	13605 May 17 04:15	20° $\mathbb{B}$ 04'46	
morning max el	13604 May 22 13:36	21° $\mathbb{B}$ 07'45	20°00'04	greatest brilliancy	13605 May 19 00:28	22° $\mathbb{B}$ 50'01	-0.7m
	13604 May 29 23:15	0° $\mathbb{I}$			13605 May 23 17:25	0° $\mathbb{I}$	
desc. node	13604 May 30 07:25	0° $\mathbb{I}$ 27'36		morning set	13605 May 29 00:55	8° $\mathbb{I}$ 11'35	
morning set	13604 Jun 18 19:18	29° $\mathbb{I}$ 15'11		max. Earth dist.	13605 Jun 11 22:19	29° $\mathbb{I}$ 48'01	1.45515 AU
	13604 Jun 19 06:57	0° $\mathbb{C}$			13605 Jun 12 01:23	0° $\mathbb{C}$	
max. Earth dist.	13604 Jun 29 05:49	15° $\mathbb{C}$ 33'38	1.44443 AU				
superior conj	13604 Jul 04 15:59	24° $\mathbb{C}$ 16'43	-2°05'23	superior conj	13605 Jun 14 09:55	3° $\mathbb{C}$ 41'57	-2°13'33
minimum elong	13604 Jul 04 21:46	24° $\mathbb{C}$ 40'15	2°06'04	minimum elong	13605 Jun 14 09:19	3° $\mathbb{C}$ 39'38	2°14'36
	13604 Jul 08 03:47	0° $\mathbb{Q}$		evening rise	13605 Jun 29 07:33	27° $\mathbb{C}$ 33'31	
evening rise	13604 Jul 17 21:44	16° $\mathbb{Q}$ 25'13			13605 Jun 30 19:32	0° $\mathbb{Q}$	
asc. node	13604 Jul 24 05:02	27° $\mathbb{Q}$ 08'48		asc. node	13605 Jul 11 01:49	16° $\mathbb{Q}$ 25'15	
	13604 Jul 25 22:21	0° $\mathbb{M}$		evening max el	13605 Jul 19 00:15	26° $\mathbb{Q}$ 48'15	18°23'40
evening max el	13604 Aug 04 10:25	13° $\mathbb{M}$ 12'46	18°05'12		13605 Jul 23 19:51	0° $\mathbb{M}$	
retrograde	13604 Aug 10 20:01	16° $\mathbb{M}$ 33'11		retrograde	13605 Jul 25 10:03	0° $\mathbb{M}$ 13'51	
evening set	13604 Aug 13 12:52	15° $\mathbb{M}$ 55'53			13605 Jul 26 23:51	30° $\mathbb{R}$ $\mathbb{Q}$	
inferior conj	13604 Aug 19 19:40	10° $\mathbb{M}$ 41'45	1°48'44	evening set	13605 Jul 28 11:33	29° $\mathbb{Q}$ 21'46	
minimum elong	13604 Aug 19 22:07	10° $\mathbb{M}$ 35'15	1°47'33	inferior conj	13605 Aug 03 07:10	23° $\mathbb{Q}$ 51'19	2°32'36
				minimum elong	13605 Aug 03 09:27	23° $\mathbb{Q}$ 44'33	2°31'23

min. Earth dist.	13605 Aug 05 13:04	21°♎12'57	0.64762 AU	evening set	13606 Jul 12 16:11	13°♎08'37	
morning rise	13605 Aug 09 06:02	17°♎30'31		inferior conj	13606 Jul 18 04:10	7°♎23'23	2°59'03
desc. node	13605 Aug 13 02:42	15°♎17'55		minimum elong	13606 Jul 18 05:41	7°♎18'32	2°57'56
direct	13605 Aug 15 19:04	14°♎52'11		min. Earth dist.	13606 Jul 19 19:30	5°♎18'13	0.66478 AU
morning max el	13605 Aug 29 09:09	22°♎49'33	27°20'03	morning rise	13606 Jul 23 18:29	0°♎59'11	
	13605 Sep 04 17:30	0°♎			13606 Jul 25 00:48	30°♎	
	13605 Sep 24 19:11	0°♎		direct	13606 Jul 29 23:48	28°♎19'31	
morning set	13605 Oct 03 18:16	16°♎30'47		desc. node	13606 Jul 31 00:07	28°♎23'18	
asc. node	13605 Oct 07 03:39	23°♎17'06			13606 Aug 04 11:52	0°♎	
max. Earth dist.	13605 Oct 08 06:05	25°♎32'38	1.33123 AU	morning max el	13606 Aug 11 20:16	5°♎58'35	26°18'14
	13605 Oct 10 09:23	0°♎			13606 Aug 30 08:50	0°♎	
				morning set	13606 Sep 16 18:53	29°♎20'07	
superior conj	13605 Oct 12 00:19	3°♎26'18	0°44'50		13606 Sep 17 03:24	0°♎	
minimum elong	13605 Oct 11 22:19	3°♎15'39	0°44'57	max. Earth dist.	13606 Sep 20 15:43	6°♎43'30	1.34815 AU
evening rise	13605 Oct 19 01:58	18°♎38'04		asc. node	13606 Sep 24 00:14	13°♎23'46	
	13605 Oct 24 14:47	0°♎					
desc. node	13605 Nov 08 22:57	23°♎14'10		superior conj	13606 Sep 25 21:32	17°♎14'46	0°17'44
evening max el	13605 Nov 09 12:54	23°♎48'57	22°20'59	minimum elong	13606 Sep 25 20:34	17°♎09'45	0°17'45
	13605 Nov 20 06:16	0°♎			13606 Oct 02 00:14	0°♎	
retrograde	13605 Nov 22 08:28	0°♎10'06		evening rise	13606 Oct 03 10:54	3°♎01'10	
	13605 Nov 24 11:31	30°♎			13606 Oct 18 16:33	0°♎	
evening set	13605 Nov 25 21:16	29°♎42'41		evening max el	13606 Oct 22 08:19	4°♎10'41	20°48'21
inferior conj	13605 Dec 04 12:00	25°♎46'58	-5°54'25	desc. node	13606 Oct 26 20:17	7°♎46'51	
minimum elong	13605 Dec 04 09:04	25°♎51'06	5°53'13	retrograde	13606 Nov 02 19:02	9°♎52'02	
min. Earth dist.	13605 Dec 03 19:58	26°♎09'31	0.54671 AU	evening set	13606 Nov 05 04:24	9°♎38'15	
morning rise	13605 Dec 12 22:01	21°♎59'39		inferior conj	13606 Nov 14 03:28	5°♎44'15	-5°05'43
direct	13605 Dec 16 05:59	21°♎34'41		minimum elong	13606 Nov 13 17:55	5°♎57'54	5°02'38
morning max el	13605 Dec 28 03:47	27°♎16'35	21°27'50	min. Earth dist.	13606 Nov 15 02:07	5°♎11'53	0.54571 AU
	13605 Dec 30 18:10	0°♎		morning rise	13606 Nov 22 07:34	1°♎49'41	
asc. node	13606 Jan 03 03:59	4°♎19'19		direct	13606 Nov 26 13:57	1°♎10'42	
morning set	13606 Jan 17 09:46	0°♎00'37		morning max el	13606 Dec 09 17:29	7°♎32'57	23°12'47
	13606 Jan 17 09:38	0°♎		asc. node	13606 Dec 21 01:06	22°♎09'40	
					13606 Dec 25 13:00	0°♎	
superior conj	13606 Jan 24 15:13	15°♎13'45	1°21'57	morning set	13607 Jan 01 21:18	14°♎46'56	
minimum elong	13606 Jan 24 17:31	15°♎25'44	1°22'31				
max. Earth dist.	13606 Jan 29 03:07	24°♎24'01	1.34986 AU	superior conj	13607 Jan 08 19:10	29°♎42'34	1°33'07
	13606 Jan 31 23:45	0°♎		minimum elong	13607 Jan 08 20:33	29°♎50'02	1°34'00
evening rise	13606 Feb 02 06:09	2°♎24'58			13607 Jan 08 22:24	0°♎	
desc. node	13606 Feb 04 22:39	7°♎24'33		max. Earth dist.	13607 Jan 11 21:28	6°♎17'48	1.33321 AU
	13606 Feb 18 12:34	0°♎		evening rise	13607 Jan 16 15:16	15°♎58'39	
evening max el	13606 Mar 09 12:00	24°♎08'31	26°37'29	desc. node	13607 Jan 22 19:18	27°♎39'27	
	13606 Mar 17 02:57	0°♎			13607 Jan 24 02:44	0°♎	
retrograde	13606 Mar 22 14:07	1°♎31'21			13607 Feb 13 02:10	0°♎	
	13606 Mar 27 13:29	30°♎		evening max el	13607 Feb 20 01:24	7°♎39'37	27°19'13
evening set	13606 Mar 28 23:20	28°♎59'24		retrograde	13607 Mar 05 15:02	15°♎06'59	
asc. node	13606 Apr 01 00:48	26°♎01'13		evening set	13607 Mar 12 08:26	12°♎36'28	
min. Earth dist.	13606 Apr 02 00:41	24°♎53'00	0.66413 AU	min. Earth dist.	13607 Mar 16 05:13	9°♎02'26	0.64774 AU
inferior conj	13606 Apr 03 23:16	22°♎34'09	0°54'51	inferior conj	13607 Mar 18 15:47	6°♎23'10	-0°05'12
minimum elong	13606 Apr 03 21:55	22°♎38'12	0°54'03	minimum elong	13607 Mar 18 15:56	6°♎22'46	0°05'10
morning rise	13606 Apr 09 21:34	16°♎54'10		transit middle	13607 Mar 18 15:56	6°♎22'46	0°05'10
direct	13606 Apr 12 21:42	16°♎03'49		transit begin	13607 Mar 18 13:03	6°♎30'40	
morning max el	13606 Apr 19 07:59	19°♎27'54	18°19'20	transit end	13607 Mar 18 18:50	6°♎14'52	
	13606 Apr 27 12:45	0°♎		asc. node	13607 Mar 18 22:16	6°♎05'31	
desc. node	13606 May 04 00:58	10°♎04'09		morning rise	13607 Mar 25 01:16	0°♎56'42	
morning set	13606 May 09 04:14	18°♎14'06		direct	13607 Mar 27 16:17	0°♎20'48	
	13606 May 16 14:18	0°♎		morning max el	13607 Apr 03 00:30	3°♎37'53	17°54'08
				morning set	13607 Apr 20 11:51	29°♎39'04	
superior conj	13606 May 24 17:47	12°♎46'54	-2°01'37	desc. node	13607 Apr 20 21:34	0°♎19'26	
minimum elong	13606 May 24 10:12	12°♎17'17	2°02'08		13607 Apr 20 16:53	0°♎	
max. Earth dist.	13606 May 25 18:11	14°♎22'08	1.45857 AU				
	13606 Jun 04 18:40	0°♎		superior conj	13607 May 04 09:10	22°♎17'54	-1°32'16
evening rise	13606 Jun 09 16:55	7°♎42'01		minimum elong	13607 May 04 00:21	21°♎42'47	1°32'04
greatest brilliancy	13606 Jun 19 23:40	23°♎41'46	-0.8m	max. Earth dist.	13607 May 08 14:23	28°♎58'17	1.45444 AU
	13606 Jun 24 04:36	0°♎			13607 May 09 06:07	0°♎	
asc. node	13606 Jun 27 22:40	5°♎14'32		evening rise	13607 May 20 08:14	17°♎10'56	
evening max el	13606 Jul 02 10:56	10°♎32'57	18°59'30		13607 May 28 18:31	0°♎	
retrograde	13606 Jul 09 05:39	14°♎17'02		greatest brilliancy	13607 Jun 03 22:02	9°♎07'18	-0.6m

asc. node	13607 Jun 14 19:37	23°☿27'05		evening max el	13608 May 28 16:06	8°☿10'07	20°57'14
evening max el	13607 Jun 15 16:28	24°☿21'03	19°51'26	asc. node	13608 May 31 16:42	10°☿51'00	
retrograde	13607 Jun 23 04:03	28°☿35'48		retrograde	13608 Jun 06 03:02	13°☿04'48	
evening set	13607 Jun 27 00:07	27°☿10'31		evening set	13608 Jun 10 09:18	11°☿22'53	
inferior conj	13607 Jul 02 07:41	21°☿11'52	3°11'02	inferior conj	13608 Jun 15 15:15	5°☿12'28	3°10'44
minimum elong	13607 Jul 02 08:11	21°☿10'11	3°09'59	minimum elong	13608 Jun 15 14:45	5°☿14'13	3°09'40
min. Earth dist.	13607 Jul 03 08:37	19°☿47'58	0.67762 AU	min. Earth dist.	13608 Jun 16 02:30	4°☿33'27	0.68580 AU
morning rise	13607 Jul 07 15:54	14°☿48'51			13608 Jun 19 16:52	30°☿II	
direct	13607 Jul 13 10:33	12°☿16'30		morning rise	13608 Jun 20 19:57	28°II53'35	
desc. node	13607 Jul 17 21:27	13°☿30'00		direct	13608 Jun 26 02:25	26°II35'05	
morning max el	13607 Jul 25 06:52	19°☿22'32	24°57'59	desc. node	13608 Jul 03 18:40	0°☿11'28	
	13607 Aug 03 07:42	0°☿			13608 Jul 03 13:06	0°☿	
	13607 Aug 23 11:23	0°☿		morning max el	13608 Jul 06 17:25	2°☿55'17	23°29'07
morning set	13607 Aug 30 03:06	11°☿23'59			13608 Jul 27 09:23	0°☿	
max. Earth dist.	13607 Sep 02 16:53	17°☿51'29	1.36926 AU	morning set	13608 Aug 10 14:27	22°☿32'09	
				max. Earth dist.	13608 Aug 14 14:41	29°☿23'52	1.39262 AU
					13608 Aug 14 22:58	0°☿	
superior conj	13607 Sep 09 08:42	0°☿32'15	-0°13'58				
minimum elong	13607 Sep 09 09:36	0°☿36'41	0°13'54	superior conj	13608 Aug 22 06:09	13°☿10'47	-0°48'38
behind sun begin	13607 Sep 09 06:15	0°☿20'13		minimum elong	13608 Aug 22 09:41	13°☿27'17	0°48'25
behind sun end	13607 Sep 09 12:58	0°☿53'11		asc. node	13608 Aug 27 17:20	23°☿33'55	
	13607 Sep 09 02:07	0°☿			13608 Aug 31 01:00	0°☿	
asc. node	13607 Sep 10 20:46	3°☿30'23		evening rise	13608 Aug 31 13:11	0°☿59'03	
evening rise	13607 Sep 17 15:33	17°☿10'24		evening max el	13608 Sep 16 16:09	27°☿10'48	18°43'31
	13607 Sep 24 05:46	0°☿			13608 Sep 20 05:43	0°☿	
evening max el	13607 Oct 04 17:37	15°☿16'18	19°34'59	retrograde	13608 Sep 24 23:19	1°☿21'20	
desc. node	13607 Oct 13 17:43	20°☿08'20		evening set	13608 Sep 26 21:10	1°☿08'51	
retrograde	13607 Oct 14 12:51	20°☿10'12		desc. node	13608 Sep 29 15:10	0°☿10'50	
evening set	13607 Oct 16 10:05	20°☿00'07			13608 Sep 29 23:58	30°☿☿	
inferior conj	13607 Oct 25 03:51	15°☿55'22	-3°30'59	inferior conj	13608 Oct 04 23:26	26°☿45'43	-1°41'46
minimum elong	13607 Oct 24 19:01	16°☿09'23	3°27'15	minimum elong	13608 Oct 04 19:14	26°☿53'27	1°39'44
min. Earth dist.	13607 Oct 27 11:16	14°☿27'36	0.55397 AU	min. Earth dist.	13608 Oct 08 02:01	24°☿28'58	0.57008 AU
morning rise	13607 Nov 02 02:03	11°☿33'17		morning rise	13608 Oct 12 13:55	21°☿46'21	
direct	13607 Nov 07 05:15	10°☿34'32		direct	13608 Oct 18 11:00	20°☿21'50	
morning max el	13607 Nov 21 03:16	17°☿31'48	25°00'55	morning max el	13608 Nov 01 17:04	27°☿47'06	26°33'29
	13607 Dec 01 08:33	0°☿			13608 Nov 03 21:18	0°☿	
asc. node	13607 Dec 07 22:07	10°☿43'41		asc. node	13608 Nov 23 19:03	29°☿50'16	
morning set	13607 Dec 17 09:07	29°☿29'54			13608 Nov 23 21:06	0°☿	
	13607 Dec 17 14:43	0°☿		morning set	13608 Nov 30 19:29	14°☿05'00	
superior conj	13607 Dec 24 03:43	14°☿21'37	1°37'55	superior conj	13608 Dec 07 14:47	29°☿04'43	1°36'39
minimum elong	13607 Dec 24 04:01	14°☿23'15	1°38'57	minimum elong	13608 Dec 07 14:01	29°☿00'28	1°37'39
max. Earth dist.	13607 Dec 25 23:01	18°☿18'59	1.32105 AU	max. Earth dist.	13608 Dec 08 05:37	0°☿27'28	1.31387 AU
evening rise	13607 Dec 31 10:16	29°☿55'56			13608 Dec 08 00:42	0°☿	
	13607 Dec 31 11:03	0°☿		evening rise	13608 Dec 14 12:31	14°☿10'30	
desc. node	13608 Jan 09 16:03	17°☿36'54			13608 Dec 22 12:00	0°☿	
	13608 Jan 17 04:00	0°☿		desc. node	13608 Dec 26 12:54	7°☿09'40	
evening max el	13608 Feb 02 12:37	20°☿42'27	27°33'45		13609 Jan 11 18:48	0°☿	
retrograde	13608 Feb 16 08:55	28°☿07'05		evening max el	13609 Jan 14 19:26	3°☿05'06	27°15'40
evening set	13608 Feb 23 06:33	25°☿45'14		retrograde	13609 Jan 28 18:40	10°☿21'50	
min. Earth dist.	13608 Feb 27 00:39	22°☿39'19	0.62820 AU	evening set	13609 Feb 04 14:34	8°☿17'05	
inferior conj	13608 Feb 29 21:42	19°☿51'14	-1°16'34	min. Earth dist.	13609 Feb 08 09:58	5°☿31'35	0.60670 AU
minimum elong	13608 Mar 01 00:16	19°☿44'59	1°15'14	inferior conj	13609 Feb 11 13:37	2°☿49'29	-2°37'13
asc. node	13608 Mar 04 19:44	16°☿22'45		minimum elong	13609 Feb 11 19:16	2°☿37'21	2°34'28
morning rise	13608 Mar 07 20:36	14°☿41'01			13609 Feb 15 02:33	30°☿☿	
direct	13608 Mar 10 04:01	14°☿16'03		morning rise	13609 Feb 19 03:06	27°☿58'13	
morning max el	13608 Mar 16 18:15	17°☿37'30	17°46'23	asc. node	13609 Feb 19 17:12	27°☿49'44	
	13608 Mar 25 17:05	0°☿		direct	13609 Feb 21 05:14	27°☿40'31	
morning set	13608 Apr 01 20:26	12°☿15'06			13609 Feb 26 23:22	0°☿	
desc. node	13608 Apr 06 18:08	20°☿45'49		morning max el	13609 Feb 28 09:52	1°☿16'50	17°56'52
	13608 Apr 12 04:40	0°☿		morning set	13609 Mar 15 23:46	25°☿43'11	
					13609 Mar 18 07:54	0°☿	
superior conj	13608 Apr 13 21:15	2°☿48'55	-0°53'43	desc. node	13609 Mar 24 14:39	11°☿18'45	
minimum elong	13608 Apr 13 15:55	2°☿26'49	0°53'25				
max. Earth dist.	13608 Apr 20 08:06	13°☿19'15	1.44327 AU	superior conj	13609 Mar 26 09:28	14°☿26'41	-0°14'08
evening rise	13608 Apr 28 19:58	26°☿38'57		minimum elong	13609 Mar 26 08:14	14°☿21'19	0°14'05
	13608 May 01 00:25	0°☿		behind sun begin	13609 Mar 26 04:22	14°☿04'27	
	13608 May 21 17:56	0°☿					

behind sun end	13609 Mar 26 12:06	14° $\Upsilon$ 38'10			13610 Mar 10 09:47	0° $\Upsilon$	
max. Earth dist.	13609 Apr 02 21:27	27° $\Upsilon$ 10'07	1.42637 AU	desc. node	13610 Mar 11 11:11	1° $\Upsilon$ 54'52	
	13609 Apr 04 14:54	0° $\text{B}$		max. Earth dist.	13610 Mar 16 06:35	10° $\Upsilon$ 22'48	1.40556 AU
evening rise	13609 Apr 08 19:15	6° $\text{B}$ 42'51		evening rise	13610 Mar 20 14:29	17° $\Upsilon$ 41'09	
	13609 Apr 24 05:41	0° $\Pi$			13610 Mar 28 07:13	0° $\text{B}$	
evening max el	13609 May 11 10:32	21° $\Pi$ 59'39	22°13'15		13610 Apr 18 18:31	0° $\Pi$	
asc. node	13609 May 18 13:53	27° $\Pi$ 10'33		evening max el	13610 Apr 24 01:38	5° $\Pi$ 51'13	23°34'03
retrograde	13609 May 21 00:46	27° $\Pi$ 38'04		retrograde	13610 May 04 19:45	12° $\Pi$ 10'45	
evening set	13609 May 25 17:59	25° $\Pi$ 40'29		asc. node	13610 May 05 11:09	12° $\Pi$ 08'53	
inferior conj	13609 May 31 00:42	19° $\Pi$ 20'21	2°59'33	evening set	13610 May 10 00:34	9° $\Pi$ 59'08	
minimum elong	13609 May 30 23:21	19° $\Pi$ 25'05	2°58'22	inferior conj	13610 May 15 10:06	3° $\Pi$ 32'01	2°38'06
min. Earth dist.	13609 May 30 22:54	19° $\Pi$ 26'39	0.68925 AU	minimum elong	13610 May 15 08:10	3° $\Pi$ 38'43	2°36'48
morning rise	13609 Jun 05 04:32	13° $\Pi$ 07'34		min. Earth dist.	13610 May 14 19:37	4° $\Pi$ 21'46	0.68802 AU
direct	13609 Jun 09 22:17	11° $\Pi$ 07'20			13610 May 18 02:51	30° $\text{R}$ $\text{B}$	
morning max el	13609 Jun 19 06:10	16° $\Pi$ 35'12	22°00'48	morning rise	13610 May 20 15:42	27° $\text{B}$ 26'46	
desc. node	13609 Jun 20 15:48	18° $\Pi$ 02'44		direct	13610 May 24 20:51	25° $\text{B}$ 47'01	
	13609 Jun 30 05:51	0° $\text{E}$			13610 Jun 01 13:58	0° $\Pi$	
	13609 Jul 20 10:20	0° $\Omega$		morning max el	13610 Jun 02 00:23	0° $\Pi$ 25'24	20°40'30
morning set	13609 Jul 22 01:07	2° $\Omega$ 34'39		desc. node	13610 Jun 07 12:50	6° $\Pi$ 45'11	
max. Earth dist.	13609 Jul 27 15:23	11° $\Omega$ 43'09	1.41559 AU		13610 Jun 23 22:01	0° $\text{E}$	
				morning set	13610 Jul 01 12:36	11° $\text{E}$ 37'14	
superior conj	13609 Aug 04 09:29	25° $\Omega$ 00'02	-1°23'18	max. Earth dist.	13610 Jul 09 23:02	24° $\text{E}$ 57'02	1.43542 AU
minimum elong	13609 Aug 04 15:43	25° $\Omega$ 27'31	1°23'09		13610 Jul 13 01:37	0° $\Omega$	
	13609 Aug 07 04:56	0° $\Pi$					
asc. node	13609 Aug 14 13:57	13° $\Pi$ 30'13		superior conj	13610 Jul 16 14:30	5° $\Omega$ 50'58	-1°53'05
evening rise	13609 Aug 15 00:09	14° $\Pi$ 17'27		minimum elong	13610 Jul 16 21:40	6° $\Omega$ 20'52	1°53'22
	13609 Aug 23 19:12	0° $\text{A}$		evening rise	13610 Jul 28 19:55	26° $\Omega$ 54'12	
evening max el	13609 Aug 31 00:04	9° $\Omega$ 46'23	18°13'16		13610 Jul 30 14:08	0° $\Pi$	
retrograde	13609 Sep 07 04:52	13° $\Omega$ 25'55		asc. node	13610 Aug 01 10:35	3° $\Pi$ 14'59	
evening set	13609 Sep 09 09:03	13° $\Omega$ 06'30		evening max el	13610 Aug 14 13:05	22° $\Pi$ 52'13	18°02'45
inferior conj	13609 Sep 16 16:48	8° $\Omega$ 22'24	-0°03'13	retrograde	13610 Aug 21 02:36	26° $\Pi$ 15'26	
minimum elong	13609 Sep 16 16:41	8° $\Omega$ 22'38	0°03'07	evening set	13610 Aug 23 14:47	25° $\Pi$ 45'23	
transit middle	13609 Sep 16 16:41	8° $\Omega$ 22'38	0°03'07	inferior conj	13610 Aug 30 05:41	20° $\Pi$ 41'21	1°14'16
transit begin	13609 Sep 16 13:19	8° $\Omega$ 29'53		minimum elong	13610 Aug 30 07:42	20° $\Pi$ 36'22	1°13'18
transit end	13609 Sep 16 20:04	8° $\Omega$ 15'22		min. Earth dist.	13610 Sep 02 07:04	17° $\Pi$ 40'41	0.61403 AU
desc. node	13609 Sep 16 12:40	8° $\Omega$ 31'16		desc. node	13610 Sep 03 10:13	16° $\Pi$ 38'39	
min. Earth dist.	13609 Sep 20 00:05	5° $\Omega$ 32'59	0.59116 AU	morning rise	13610 Sep 05 21:57	14° $\Pi$ 41'27	
morning rise	13609 Sep 23 20:55	2° $\Omega$ 48'26		direct	13610 Sep 12 13:39	12° $\Pi$ 25'24	
direct	13609 Sep 30 06:39	0° $\Omega$ 56'20		morning max el	13610 Sep 26 18:29	20° $\Pi$ 22'47	27°58'28
morning max el	13609 Oct 14 14:14	8° $\Omega$ 41'29	27°35'08		13610 Oct 05 01:22	0° $\text{A}$	
	13609 Oct 30 20:35	0° $\Pi$			13610 Oct 23 20:15	0° $\Pi$	
asc. node	13609 Nov 10 15:53	19° $\Pi$ 20'44		asc. node	13610 Oct 28 12:37	9° $\Pi$ 07'36	
morning set	13609 Nov 15 02:40	28° $\Pi$ 27'36		morning set	13610 Oct 30 04:37	12° $\Pi$ 32'01	
	13609 Nov 15 20:03	0° $\text{A}$		max. Earth dist.	13610 Nov 04 20:27	24° $\Pi$ 37'53	1.31519 AU
max. Earth dist.	13609 Nov 21 14:01	12° $\text{A}$ 37'00	1.31188 AU				
				superior conj	13610 Nov 06 12:43	28° $\Pi$ 19'53	1°16'38
superior conj	13609 Nov 22 02:25	13° $\text{A}$ 46'15	1°29'31	minimum elong	13610 Nov 06 10:33	28° $\Pi$ 07'50	1°17'10
minimum elong	13609 Nov 22 00:47	13° $\text{A}$ 37'08	1°30'20		13610 Nov 07 06:47	0° $\text{A}$	
evening rise	13609 Nov 28 19:44	28° $\text{A}$ 36'34		evening rise	13610 Nov 13 05:51	13° $\text{A}$ 07'54	
	13609 Nov 29 11:21	0° $\text{B}$			13610 Nov 21 14:18	0° $\text{B}$	
desc. node	13609 Dec 13 09:51	26° $\text{B}$ 08'15		desc. node	13610 Nov 30 06:56	14° $\text{B}$ 18'53	
	13609 Dec 15 21:51	0° $\approx$		evening max el	13610 Dec 09 10:54	25° $\text{B}$ 19'22	24°59'49
evening max el	13609 Dec 27 19:24	14° $\approx$ 38'25	26°22'55		13610 Dec 15 13:31	0° $\approx$	
retrograde	13610 Jan 10 18:24	21° $\approx$ 44'27		retrograde	13610 Dec 23 05:55	2° $\approx$ 13'41	
evening set	13610 Jan 17 04:40	20° $\approx$ 04'34		evening set	13610 Dec 28 20:33	1° $\approx$ 03'20	
min. Earth dist.	13610 Jan 21 09:01	17° $\approx$ 27'57	0.58508 AU		13610 Dec 31 02:28	30° $\text{R}$ $\text{B}$	
inferior conj	13610 Jan 24 11:57	15° $\approx$ 08'28	-4°00'52	min. Earth dist.	13611 Jan 02 22:50	28° $\text{B}$ 19'47	0.56572 AU
minimum elong	13610 Jan 24 20:19	14° $\approx$ 52'52	3°57'24	inferior conj	13611 Jan 05 13:45	26° $\text{B}$ 38'05	-5°14'07
morning rise	13610 Feb 01 14:56	10° $\approx$ 38'22		minimum elong	13611 Jan 05 21:56	26° $\text{B}$ 24'49	5°11'28
direct	13610 Feb 03 15:49	10° $\approx$ 24'13		morning rise	13611 Jan 14 01:34	22° $\text{B}$ 29'50	
asc. node	13610 Feb 06 14:37	10° $\approx$ 55'29		direct	13611 Jan 16 07:49	22° $\text{B}$ 15'22	
morning max el	13610 Feb 11 19:35	14° $\approx$ 25'23	18°27'09	asc. node	13611 Jan 24 11:59	25° $\text{B}$ 39'55	
	13610 Feb 22 11:14	0° $\text{H}$		morning max el	13611 Jan 25 19:12	26° $\text{B}$ 50'31	19°19'20
morning set	13610 Feb 27 16:22	9° $\text{H}$ 47'15			13611 Jan 28 15:39	0° $\approx$	
				morning set	13611 Feb 11 17:53	24° $\approx$ 13'35	
superior conj	13610 Mar 08 19:14	27° $\text{H}$ 03'39	0°21'22		13611 Feb 14 15:09	0° $\text{H}$	
minimum elong	13610 Mar 08 20:43	27° $\text{H}$ 10'30	0°21'16				

superior conj	13611 Feb 19 21:55	10° $\text{H}$ 26'19	0°50'27	superior conj	13612 Feb 03 13:09	24° $\approx$ 22'30	1°12'27
minimum elong	13611 Feb 20 00:34	10° $\text{H}$ 39'07	0°50'29	minimum elong	13612 Feb 03 15:48	24° $\approx$ 35'55	1°12'49
desc. node	13611 Feb 26 07:43	22° $\text{H}$ 29'59			13612 Feb 06 08:23	0° $\text{H}$	
max. Earth dist.	13611 Feb 26 13:16	22° $\text{H}$ 55'13	1.38300 AU	max. Earth dist.	13612 Feb 08 21:04	4° $\text{H}$ 56'24	1.36119 AU
evening rise	13611 Mar 02 06:43	29° $\text{H}$ 33'02		evening rise	13612 Feb 12 17:33	12° $\text{H}$ 11'27	
	13611 Mar 02 12:55	0° $\text{Y}$		desc. node	13612 Feb 13 04:15	13° $\text{H}$ 00'30	
	13611 Mar 21 15:28	0° $\text{B}$			13612 Feb 23 01:44	0° $\text{Y}$	
evening max el	13611 Apr 06 15:16	19° $\text{B}$ 44'07	24°53'13		13612 Mar 15 18:42	0° $\text{B}$	
retrograde	13611 Apr 18 10:57	26° $\text{B}$ 37'10		evening max el	13612 Mar 19 04:43	3° $\text{B}$ 34'23	26°03'42
asc. node	13611 Apr 22 08:30	25° $\text{B}$ 31'17		retrograde	13612 Mar 31 21:25	10° $\text{B}$ 50'20	
evening set	13611 Apr 24 03:28	24° $\text{B}$ 14'09		evening set	13612 Apr 07 01:01	8° $\text{B}$ 19'55	
min. Earth dist.	13611 Apr 28 14:29	19° $\text{B}$ 13'05	0.68216 AU	asc. node	13612 Apr 08 05:55	7° $\text{B}$ 14'32	
inferior conj	13611 Apr 29 17:33	17° $\text{B}$ 43'41	2°06'28	min. Earth dist.	13612 Apr 11 05:26	3° $\text{B}$ 54'09	0.67188 AU
minimum elong	13611 Apr 29 15:23	17° $\text{B}$ 50'49	2°05'08	inferior conj	13612 Apr 12 21:01	1° $\text{B}$ 50'55	1°24'13
morning rise	13611 May 05 03:33	11° $\text{B}$ 47'15		minimum elong	13612 Apr 12 19:11	1° $\text{B}$ 56'40	1°23'06
direct	13611 May 08 20:39	10° $\text{B}$ 28'11			13612 Apr 14 09:20	30° $\text{R}$ $\text{Y}$	
morning max el	13611 May 16 02:07	14° $\text{B}$ 27'31	19°33'14	morning rise	13612 Apr 18 14:05	26° $\text{Y}$ 04'37	
desc. node	13611 May 25 09:44	26° $\text{B}$ 05'06		direct	13612 Apr 21 20:01	25° $\text{Y}$ 04'41	
	13611 May 28 03:03	0° $\text{II}$		morning max el	13612 Apr 28 11:08	28° $\text{Y}$ 38'01	18°41'32
greatest brilliancy	13611 May 28 17:28	0° $\text{II}$ 52'47	-0.6m		13612 Apr 29 18:45	0° $\text{B}$	
morning set	13611 Jun 10 14:10	20° $\text{II}$ 18'36		desc. node	13612 May 11 06:31	15° $\text{B}$ 52'12	
	13611 Jun 16 20:37	0° $\text{B}$		morning set	13612 May 20 03:12	29° $\text{B}$ 37'54	
max. Earth dist.	13611 Jun 22 13:20	8° $\text{B}$ 55'24	1.44984 AU		13612 May 20 08:52	0° $\text{II}$	
				max. Earth dist.	13612 Jun 04 07:34	23° $\text{II}$ 19'48	1.45746 AU
superior conj	13611 Jun 26 19:51	15° $\text{B}$ 42'37	-2°11'09	superior conj	13612 Jun 05 07:28	24° $\text{II}$ 53'10	-2°10'58
minimum elong	13611 Jun 26 23:28	15° $\text{B}$ 57'05	2°12'05	minimum elong	13612 Jun 05 03:30	24° $\text{II}$ 37'41	2°11'54
	13611 Jul 05 14:54	0° $\text{B}$			13612 Jun 08 13:50	0° $\text{B}$	
evening rise	13611 Jul 10 19:25	8° $\text{B}$ 37'39		evening rise	13612 Jun 20 18:39	19° $\text{B}$ 19'16	
asc. node	13611 Jul 19 07:18	22° $\text{B}$ 43'28			13612 Jun 27 11:12	0° $\text{B}$	
	13611 Jul 24 00:55	0° $\text{B}$		greatest brilliancy	13612 Jun 27 17:06	0° $\text{B}$ 23'26	-0.9m
evening max el	13611 Jul 29 03:30	6° $\text{B}$ 18'59	18°10'52	asc. node	13612 Jul 05 04:05	11° $\text{B}$ 48'59	
retrograde	13611 Aug 04 12:02	9° $\text{B}$ 40'05		evening max el	13612 Jul 11 16:10	19° $\text{B}$ 58'09	18°36'50
evening set	13611 Aug 07 08:34	8° $\text{B}$ 56'38		retrograde	13612 Jul 18 04:54	23° $\text{B}$ 30'30	
inferior conj	13611 Aug 13 10:06	3° $\text{B}$ 35'02	2°09'41	evening set	13612 Jul 21 10:06	22° $\text{B}$ 31'42	
minimum elong	13611 Aug 13 12:36	3° $\text{B}$ 28'04	2°08'26	inferior conj	13612 Jul 27 02:02	16° $\text{B}$ 54'39	2°45'46
min. Earth dist.	13611 Aug 15 23:49	0° $\text{B}$ 43'40	0.63602 AU	minimum elong	13612 Jul 27 04:03	16° $\text{B}$ 48'29	2°44'35
	13611 Aug 16 16:22	30° $\text{R}$ $\text{B}$		min. Earth dist.	13612 Jul 29 01:45	14° $\text{B}$ 29'00	0.65533 AU
morning rise	13611 Aug 19 14:52	27° $\text{B}$ 19'08		morning rise	13612 Aug 01 20:57	10° $\text{B}$ 31'23	
desc. node	13611 Aug 21 07:44	26° $\text{B}$ 10'18		desc. node	13612 Aug 07 05:13	7° $\text{B}$ 55'34	
direct	13611 Aug 26 06:15	24° $\text{B}$ 46'29		direct	13612 Aug 08 06:59	7° $\text{B}$ 51'22	
	13611 Sep 06 03:48	0° $\text{B}$		morning max el	13612 Aug 21 14:46	15° $\text{B}$ 43'34	26°56'41
morning max el	13611 Sep 09 03:40	2° $\text{B}$ 47'30	27°43'49		13612 Sep 02 08:58	0° $\text{B}$	
	13611 Sep 29 10:44	0° $\text{B}$			13612 Sep 21 05:55	0° $\text{B}$	
morning set	13611 Oct 13 23:05	26° $\text{B}$ 13'06		morning set	13612 Sep 26 07:11	9° $\text{B}$ 23'13	
asc. node	13611 Oct 15 09:16	29° $\text{B}$ 05'38		max. Earth dist.	13612 Sep 30 12:20	17° $\text{B}$ 41'05	1.33779 AU
	13611 Oct 15 19:54	0° $\text{B}$		asc. node	13612 Oct 01 05:51	19° $\text{B}$ 09'45	
max. Earth dist.	13611 Oct 18 21:02	6° $\text{B}$ 21'16	1.32385 AU				
superior conj	13611 Oct 21 19:45	12° $\text{B}$ 40'38	0°58'04	superior conj	13612 Oct 04 21:15	26° $\text{B}$ 41'58	0°33'57
minimum elong	13611 Oct 21 17:31	12° $\text{B}$ 28'29	0°58'19	minimum elong	13612 Oct 04 19:35	26° $\text{B}$ 33'13	0°34'01
evening rise	13611 Oct 28 17:00	27° $\text{B}$ 39'53			13612 Oct 06 10:45	0° $\text{B}$	
	13611 Oct 29 19:15	0° $\text{B}$		evening rise	13612 Oct 12 03:16	12° $\text{B}$ 06'50	
	13611 Nov 16 00:56	0° $\text{B}$			13612 Oct 21 05:35	0° $\text{B}$	
desc. node	13611 Nov 17 04:06	1° $\text{B}$ 23'49		evening max el	13612 Nov 01 10:00	15° $\text{B}$ 28'47	21°39'38
evening max el	13611 Nov 20 20:48	5° $\text{B}$ 24'18	23°19'23	desc. node	13612 Nov 03 01:22	16° $\text{B}$ 59'28	
retrograde	13611 Dec 04 04:41	12° $\text{B}$ 01'59		retrograde	13612 Nov 13 17:32	21° $\text{B}$ 35'22	
evening set	13611 Dec 08 13:07	11° $\text{B}$ 20'49		evening set	13612 Nov 16 16:51	21° $\text{B}$ 15'21	
min. Earth dist.	13611 Dec 15 06:43	8° $\text{B}$ 10'56	0.55150 AU	inferior conj	13612 Nov 25 12:29	17° $\text{B}$ 21'43	-5°40'58
inferior conj	13611 Dec 16 19:32	7° $\text{B}$ 17'29	-5°54'54	minimum elong	13612 Nov 25 05:58	17° $\text{B}$ 30'50	5°39'06
minimum elong	13611 Dec 16 21:53	7° $\text{B}$ 14'05	5°53'45	min. Earth dist.	13612 Nov 25 12:51	17° $\text{B}$ 21'12	0.54509 AU
morning rise	13611 Dec 25 08:17	3° $\text{B}$ 26'21		morning rise	13612 Dec 03 19:58	13° $\text{B}$ 33'42	
direct	13611 Dec 28 04:30	3° $\text{B}$ 06'59		direct	13612 Dec 07 13:04	13° $\text{B}$ 03'40	
morning max el	13612 Jan 08 05:17	8° $\text{B}$ 23'19	20°34'39	morning max el	13612 Dec 20 01:19	19° $\text{B}$ 03'42	22°11'03
asc. node	13612 Jan 11 09:15	11° $\text{B}$ 34'51		asc. node	13612 Dec 28 06:26	29° $\text{B}$ 08'08	
	13612 Jan 22 15:06	0° $\text{B}$			13612 Dec 28 20:08	0° $\text{B}$	
morning set	13612 Jan 27 01:06	8° $\text{B}$ 52'46		morning set	13613 Jan 10 11:39	23° $\text{B}$ 38'03	
					13613 Jan 13 11:24	0° $\text{B}$	





asc. node	13614 Dec 02 00:30	6°♊07'30			13615 Nov 21 04:59	0°♊	
morning set	13614 Dec 10 10:57	23°♊03'18		morning set	13615 Nov 24 20:11	7°♊33'18	
	13614 Dec 13 15:20	0°♊					
superior conj	13614 Dec 17 05:23	7°♊57'16	1°38'06	superior conj	13615 Dec 01 16:54	22°♊39'41	1°34'20
minimum elong	13614 Dec 17 05:13	7°♊56'21	1°39'09	minimum elong	13615 Dec 01 15:44	22°♊33'12	1°35'16
max. Earth dist.	13614 Dec 18 12:18	10°♊48'17	1.31740 AU	max. Earth dist.	13615 Dec 01 20:17	22°♊58'35	1.31240 AU
evening rise	13614 Dec 24 07:39	23°♊18'08		evening rise	13615 Dec 05 00:01	0°♊	
	13614 Dec 27 14:45	0°♊			13615 Dec 08 12:16	7°♊37'38	
desc. node	13615 Jan 03 18:17	13°♊18'37		desc. node	13615 Dec 20 01:51	0°♊	
	13615 Jan 14 09:32	0°♊			13615 Dec 21 15:12	2°♊37'57	
evening max el	13615 Jan 25 17:07	13°♊24'47	27°30'19	evening max el	13616 Jan 07 21:14	25°♊26'28	26°57'18
retrograde	13615 Feb 08 14:52	20°♊45'34		retrograde	13616 Jan 13 16:02	0°♊	
evening set	13615 Feb 15 12:37	18°♊30'18		evening set	13616 Jan 21 20:18	2°♊38'29	
min. Earth dist.	13615 Feb 19 06:47	15°♊34'04	0.61926 AU		13616 Jan 28 13:27	0°♊43'14	
inferior conj	13615 Feb 22 07:10	12°♊46'54	-1°49'51		13616 Jan 29 18:14	30°♊	
minimum elong	13615 Feb 22 10:59	12°♊38'03	1°47'53	min. Earth dist.	13616 Feb 01 11:21	28°♊03'33	0.59742 AU
asc. node	13615 Feb 27 22:20	8°♊24'21		inferior conj	13616 Feb 04 15:58	25°♊29'02	-3°12'54
morning rise	13615 Mar 01 12:11	7°♊44'05		minimum elong	13616 Feb 04 22:55	25°♊14'57	3°09'42
direct	13615 Mar 03 17:07	7°♊22'32		morning rise	13616 Feb 12 11:31	20°♊46'44	
morning max el	13615 Mar 10 12:15	10°♊48'55	17°48'28	direct	13616 Feb 14 12:39	20°♊30'54	
	13615 Mar 23 08:10	0°♊		asc. node	13616 Feb 14 19:46	20°♊31'15	
morning set	13615 Mar 26 06:51	5°♊13'38		morning max el	13616 Feb 22 01:50	24°♊16'10	18°07'19
desc. node	13615 Apr 01 20:18	16°♊48'55			13616 Feb 26 17:42	0°♊	
				morning set	13616 Mar 08 16:27	18°♊58'46	
superior conj	13615 Apr 06 14:02	24°♊57'19	-0°36'39		13616 Mar 14 14:46	0°♊	
minimum elong	13615 Apr 06 10:32	24°♊42'32	0°36'27	superior conj	13616 Mar 18 11:59	7°♊02'06	0°01'38
	13615 Apr 09 14:15	0°♊		minimum elong	13616 Mar 18 12:06	7°♊02'40	0°01'35
max. Earth dist.	13615 Apr 13 15:07	6°♊36'58	1.43680 AU	behind sun begin	13616 Mar 18 04:27	6°♊28'27	
evening rise	13615 Apr 20 21:53	18°♊09'47		behind sun end	13616 Mar 18 19:46	7°♊36'48	
	13615 Apr 28 16:12	0°♊		desc. node	13616 Mar 18 16:52	7°♊23'54	
	13615 May 20 17:34	0°♊		max. Earth dist.	13616 Mar 26 03:00	20°♊14'01	1.41786 AU
evening max el	13615 May 22 01:19	1°♊22'48	21°28'38	evening rise	13616 Mar 31 05:07	28°♊35'45	
asc. node	13615 May 26 19:09	5°♊15'58			13616 Apr 01 02:06	0°♊	
retrograde	13615 May 30 23:19	6°♊35'25			13616 Apr 21 06:31	0°♊	
evening set	13615 Jun 04 10:17	4°♊46'29		evening max el	13616 May 03 17:59	15°♊12'59	22°47'19
	13615 Jun 08 14:48	30°♊		asc. node	13616 May 12 16:22	21°♊03'39	
inferior conj	13615 Jun 09 16:18	28°♊31'45	3°07'14	retrograde	13616 May 13 20:07	21°♊09'45	
minimum elong	13615 Jun 09 15:24	28°♊34'51	3°06'08	evening set	13616 May 18 18:17	19°♊05'40	
min. Earth dist.	13615 Jun 09 21:53	28°♊12'17	0.68791 AU	inferior conj	13616 May 24 01:58	12°♊42'00	2°51'42
morning rise	13615 Jun 14 20:20	22°♊15'32		minimum elong	13616 May 24 00:19	12°♊47'43	2°50'28
direct	13615 Jun 19 21:27	20°♊04'31		min. Earth dist.	13616 May 23 18:38	13°♊07'29	0.68930 AU
desc. node	13615 Jun 28 21:07	24°♊58'55		morning rise	13616 May 29 06:15	6°♊32'25	
morning max el	13615 Jun 29 22:57	26°♊01'56	22°50'57	direct	13616 Jun 02 18:30	4°♊41'01	
	13615 Jul 03 14:07	0°♊		morning max el	13616 Jun 11 13:54	9°♊47'01	21°25'21
	13615 Jul 25 03:16	0°♊		desc. node	13616 Jun 14 18:13	13°♊14'19	
morning set	13615 Aug 03 02:18	14°♊15'36			13616 Jun 27 07:46	0°♊	
max. Earth dist.	13615 Aug 07 15:10	21°♊51'51	1.40266 AU	morning set	13616 Jul 13 02:29	23°♊51'15	
	13615 Aug 12 07:22	0°♊			13616 Jul 16 23:00	0°♊	
superior conj	13615 Aug 15 10:45	5°♊38'41	-1°03'34	max. Earth dist.	13616 Jul 19 18:56	4°♊36'08	1.42456 AU
minimum elong	13615 Aug 15 15:30	6°♊00'19	1°03'22	superior conj	13616 Jul 27 05:01	17°♊03'57	-1°36'54
asc. node	13615 Aug 22 19:32	19°♊22'58		minimum elong	13616 Jul 27 12:02	17°♊34'07	1°36'53
evening rise	13615 Aug 25 06:17	24°♊02'24			13616 Aug 03 13:21	0°♊	
	13615 Aug 28 09:58	0°♊		evening rise	13616 Aug 07 11:28	7°♊05'08	
evening max el	13615 Sep 10 05:34	19°♊47'22	18°28'05	asc. node	13616 Aug 08 16:10	9°♊15'10	
retrograde	13615 Sep 18 00:09	23°♊43'14			13616 Aug 21 08:23	0°♊	
evening set	13615 Sep 20 00:21	23°♊28'16		evening max el	13616 Aug 23 16:05	2°♊36'51	18°06'23
desc. node	13615 Sep 24 17:45	21°♊11'38		retrograde	13616 Aug 30 13:16	6°♊08'02	
inferior conj	13615 Sep 27 18:41	18°♊55'46	-0°57'43	evening set	13616 Sep 01 20:37	5°♊44'37	
minimum elong	13615 Sep 27 16:26	19°♊00'13	0°56'34	inferior conj	13616 Sep 08 20:51	0°♊51'45	0°32'25
min. Earth dist.	13615 Oct 01 00:39	16°♊23'00	0.57863 AU	minimum elong	13616 Sep 08 21:53	0°♊49'24	0°31'57
morning rise	13615 Oct 05 05:02	13°♊40'55			13616 Sep 09 19:17	30°♊	
direct	13615 Oct 11 08:05	12°♊04'57		desc. node	13616 Sep 10 15:16	29°♊13'54	
morning max el	13615 Oct 25 15:30	19°♊38'57	27°04'16	min. Earth dist.	13616 Sep 12 02:34	27°♊54'43	0.60083 AU
	13615 Nov 03 11:36	0°♊		morning rise	13616 Sep 15 19:56	25°♊05'06	
asc. node	13615 Nov 18 21:23	25°♊24'55		direct	13616 Sep 22 08:49	23°♊02'09	

	13616 Oct 05 17:39	0°♄		morning max el	13617 Sep 18 22:48	12°♄54'53	27°56'31
morning max el	13616 Oct 06 16:11	0°♄54'10	27°49'52		13617 Oct 02 14:43	0°♄	
	13616 Oct 27 16:42	0°♄			13617 Oct 20 03:39	0°♄	
asc. node	13616 Nov 04 18:10	15°♄03'00		asc. node	13617 Oct 22 14:52	4°♄55'24	
morning set	13616 Nov 08 01:23	21°♄48'44		morning set	13617 Oct 23 00:28	5°♄44'17	
	13616 Nov 11 20:56	0°♄		max. Earth dist.	13617 Oct 28 08:25	16°♄58'36	1.31815 AU
max. Earth dist.	13616 Nov 14 04:15	5°♄05'03	1.31262 AU				
				superior conj	13617 Oct 30 13:21	21°♄47'29	1°09'26
superior conj	13616 Nov 15 04:11	7°♄18'12	1°24'45	minimum elong	13617 Oct 30 11:05	21°♄35'00	1°09'52
minimum elong	13616 Nov 15 02:16	7°♄07'33	1°25'27		13617 Nov 03 06:42	0°♄	
evening rise	13616 Nov 21 20:55	22°♄05'59		evening rise	13617 Nov 06 07:41	6°♄38'20	
	13616 Nov 25 15:13	0°♄			13617 Nov 18 09:02	0°♄	
desc. node	13616 Dec 07 12:12	21°♄17'48		desc. node	13617 Nov 24 09:19	9°♄03'26	
	13616 Dec 13 17:54	0°♄		evening max el	13617 Dec 01 05:46	16°♄58'39	24°18'16
evening max el	13616 Dec 19 17:16	6°♄35'25	25°50'35	retrograde	13617 Dec 14 21:47	23°♄47'17	
retrograde	13617 Jan 02 15:18	13°♄37'34		evening set	13617 Dec 20 00:19	22°♄50'08	
evening set	13617 Jan 08 18:34	12°♄09'38		min. Earth dist.	13617 Dec 25 17:20	19°♄57'27	0.55879 AU
min. Earth dist.	13617 Jan 13 06:05	9°♄32'18	0.57632 AU	inferior conj	13617 Dec 27 22:41	18°♄35'26	-5°36'58
inferior conj	13617 Jan 16 05:41	7°♄26'57	-4°34'25	minimum elong	13617 Dec 28 05:08	18°♄25'30	5°35'02
minimum elong	13617 Jan 16 14:31	7°♄11'27	4°31'06	morning rise	13618 Jan 05 11:53	14°♄35'14	
morning rise	13617 Jan 24 13:18	3°♄06'44		direct	13618 Jan 07 22:47	14°♄19'24	
direct	13617 Jan 26 15:21	2°♄53'04		morning max el	13618 Jan 18 02:04	19°♄12'06	19°48'33
asc. node	13617 Jan 31 17:11	4°♄19'32		asc. node	13618 Jan 18 14:30	19°♄42'49	
morning max el	13617 Feb 04 07:47	7°♄07'35	18°46'43		13618 Jan 26 06:32	0°♄	
	13617 Feb 18 21:29	0°♄		morning set	13618 Feb 04 17:31	17°♄46'05	
morning set	13617 Feb 20 13:14	3°♄13'04			13618 Feb 10 18:13	0°♄	
				superior conj	13618 Feb 12 14:01	3°♄38'33	1°00'38
superior conj	13617 Mar 01 05:30	20°♄00'03	0°34'32	minimum elong	13618 Feb 12 16:46	3°♄52'11	1°00'48
minimum elong	13617 Mar 01 07:39	20°♄10'10	0°34'29	max. Earth dist.	13618 Feb 18 16:30	15°♄23'10	1.37346 AU
desc. node	13617 Mar 05 13:19	27°♄59'42		desc. node	13618 Feb 20 09:50	18°♄33'37	
	13617 Mar 06 16:03	0°♄		evening rise	13618 Feb 22 09:56	22°♄10'31	
max. Earth dist.	13617 Mar 08 10:14	3°♄07'07	1.39590 AU		13618 Feb 26 22:06	0°♄	
evening rise	13617 Mar 12 09:20	9°♄57'04			13618 Mar 18 19:56	0°♄	
	13617 Mar 24 23:29	0°♄		evening max el	13618 Mar 29 21:37	12°♄57'49	25°24'47
evening max el	13617 Apr 16 08:03	29°♄04'48	24°08'21	retrograde	13618 Apr 11 03:08	20°♄02'10	
	13617 Apr 17 06:49	0°♄		asc. node	13618 Apr 16 11:02	18°♄02'32	
retrograde	13617 Apr 27 13:47	5°♄40'40		evening set	13618 Apr 17 00:20	17°♄35'45	
asc. node	13617 Apr 29 13:40	5°♄22'54		min. Earth dist.	13618 Apr 21 08:27	12°♄49'33	0.67829 AU
evening set	13617 May 02 23:31	3°♄23'47		inferior conj	13618 Apr 22 16:46	11°♄05'08	1°49'55
	13617 May 06 02:54	30°♄		minimum elong	13618 Apr 22 14:40	11°♄11'56	1°48'38
min. Earth dist.	13617 May 07 14:53	28°♄01'47	0.68602 AU	morning rise	13618 Apr 28 05:25	5°♄12'32	
inferior conj	13617 May 08 10:45	26°♄54'27	2°25'59	direct	13618 May 01 17:39	4°♄01'47	
minimum elong	13617 May 08 08:40	27°♄01'32	2°24'39	morning max el	13618 May 08 16:03	7°♄48'39	19°09'11
morning rise	13617 May 13 17:54	20°♄52'40		desc. node	13618 May 19 12:01	21°♄46'59	
direct	13617 May 17 17:44	19°♄21'57		greatest brilliancy	13618 May 21 15:02	24°♄55'53	-0.7m
morning max el	13617 May 25 11:13	23°♄42'45	20°10'05		13618 May 24 23:41	0°♄	
	13617 May 30 22:07	0°♄		morning set	13618 Jun 01 11:10	11°♄28'20	
desc. node	13617 Jun 01 15:10	2°♄14'20			13618 Jun 13 09:29	0°♄	
	13617 Jun 20 14:10	0°♄		max. Earth dist.	13618 Jun 14 20:59	2°♄19'07	1.45402 AU
morning set	13617 Jun 22 07:23	2°♄38'17					
max. Earth dist.	13617 Jul 02 04:58	18°♄08'27	1.44231 AU	superior conj	13618 Jun 17 20:22	6°♄59'59	-2°13'33
				minimum elong	13618 Jun 17 20:58	7°♄02'22	2°14'37
superior conj	13617 Jul 07 23:49	27°♄29'00	-2°02'37		13618 Jul 02 03:23	0°♄	
minimum elong	13617 Jul 08 06:08	27°♄54'52	2°03'11	evening rise	13618 Jul 02 12:37	0°♄37'45	
	13617 Jul 09 12:36	0°♄		asc. node	13618 Jul 13 09:33	18°♄13'24	
evening rise	13617 Jul 20 23:12	19°♄20'32		evening max el	13618 Jul 21 20:11	29°♄26'07	18°19'48
asc. node	13617 Jul 26 12:49	28°♄53'44			13618 Jul 22 10:23	0°♄	
	13617 Jul 27 04:30	0°♄		retrograde	13618 Jul 28 05:17	2°♄50'00	
evening max el	13617 Aug 07 06:06	15°♄52'41	18°03'59	evening set	13618 Jul 31 05:32	2°♄00'09	
retrograde	13617 Aug 13 16:24	19°♄13'19			13618 Aug 02 21:20	30°♄	
evening set	13617 Aug 16 08:02	18°♄37'59		inferior conj	13618 Aug 06 02:34	26°♄31'57	2°27'08
inferior conj	13617 Aug 22 16:50	13°♄26'30	1°40'20	minimum elong	13618 Aug 06 04:56	26°♄25'02	2°25'54
minimum elong	13617 Aug 22 19:13	13°♄20'18	1°39'10	min. Earth dist.	13618 Aug 08 10:32	23°♄49'49	0.64473 AU
min. Earth dist.	13617 Aug 25 13:53	10°♄27'08	0.62365 AU	morning rise	13618 Aug 12 02:56	20°♄12'16	
desc. node	13617 Aug 28 12:48	7°♄47'13		desc. node	13618 Aug 15 10:19	18°♄13'00	
morning rise	13617 Aug 29 04:04	7°♄18'33		direct	13618 Aug 18 16:45	17°♄35'09	
direct	13617 Sep 04 20:26	4°♄53'58					

morning max el	13618 Sep 01 08:50	25° $\Omega$ 33'37	27°27'10	morning rise	13619 Jul 26 13:49	3° $\Omega$ 37'12	
	13618 Sep 05 10:40	0° $\mathbb{M}$		direct	13619 Aug 01 20:25	0° $\Omega$ 57'18	
	13618 Sep 26 03:19	0° $\underline{\Omega}$		desc. node	13619 Aug 02 07:45	0° $\Omega$ 58'07	
morning set	13618 Oct 06 14:52	19° $\underline{\Omega}$ 13'01		morning max el	13619 Aug 14 20:03	8° $\Omega$ 40'05	26°28'54
asc. node	13618 Oct 09 11:27	24° $\underline{\Omega}$ 56'33			13619 Aug 31 13:04	0° $\mathbb{M}$	
max. Earth dist.	13618 Oct 11 05:14	28° $\underline{\Omega}$ 31'34	1.32915 AU		13619 Sep 18 14:06	0° $\underline{\Omega}$	
	13618 Oct 11 22:11	0° $\mathbb{M}$		morning set	13619 Sep 19 17:32	2° $\underline{\Omega}$ 08'05	
superior conj	13618 Oct 14 18:20	6° $\mathbb{M}$ 01'04	0°48'29	max. Earth dist.	13619 Sep 23 16:27	9° $\underline{\Omega}$ 45'00	1.34536 AU
minimum elong	13618 Oct 14 16:15	5° $\mathbb{M}$ 49'54	0°48'39	asc. node	13619 Sep 26 08:01	15° $\underline{\Omega}$ 02'39	
evening rise	13618 Oct 21 18:41	21° $\mathbb{M}$ 09'03		superior conj	13619 Sep 28 16:45	19° $\underline{\Omega}$ 53'04	0°22'10
	13618 Oct 26 00:48	0° $\mathbb{M}$		minimum elong	13619 Sep 28 15:34	19° $\underline{\Omega}$ 46'56	0°22'11
desc. node	13618 Nov 11 06:33	25° $\mathbb{M}$ 33'55			13619 Oct 03 12:37	0° $\mathbb{M}$	
evening max el	13618 Nov 12 16:02	26° $\mathbb{M}$ 59'28	22°35'57	evening rise	13619 Oct 06 04:02	5° $\mathbb{M}$ 33'26	
	13618 Nov 16 05:07	0° $\mathbb{M}$			13619 Oct 19 11:20	0° $\mathbb{M}$	
retrograde	13618 Nov 25 15:09	3° $\mathbb{M}$ 25'12		evening max el	13619 Oct 25 09:31	7° $\mathbb{M}$ 15'16	21°01'00
evening set	13618 Nov 29 09:04	2° $\mathbb{M}$ 54'33		desc. node	13619 Oct 29 03:52	10° $\mathbb{M}$ 23'52	
	13618 Dec 06 01:08	30° $\mathbb{M}$ 33'55		retrograde	13619 Nov 06 01:54	13° $\mathbb{M}$ 03'40	
min. Earth dist.	13618 Dec 07 00:01	29° $\mathbb{M}$ 28'03	0.54770 AU	evening set	13619 Nov 08 14:26	12° $\mathbb{M}$ 48'35	
inferior conj	13618 Dec 07 21:43	28° $\mathbb{M}$ 57'23	-5°56'32	inferior conj	13619 Nov 17 13:02	8° $\mathbb{M}$ 54'58	-5°16'38
minimum elong	13618 Dec 07 20:12	28° $\mathbb{M}$ 59'33	5°55'26	minimum elong	13619 Nov 17 04:01	9° $\mathbb{M}$ 07'44	5°13'53
morning rise	13618 Dec 16 08:36	25° $\mathbb{M}$ 09'37		min. Earth dist.	13619 Nov 18 05:58	8° $\mathbb{M}$ 30'58	0.54528 AU
direct	13618 Dec 19 13:25	24° $\mathbb{M}$ 46'15		morning rise	13619 Nov 25 18:00	5° $\mathbb{M}$ 02'50	
	13618 Dec 30 20:41	0° $\mathbb{M}$		direct	13619 Nov 29 20:55	4° $\mathbb{M}$ 26'26	
morning max el	13618 Dec 31 05:49	0° $\mathbb{M}$ 21'23	21°13'22	morning max el	13619 Dec 12 20:54	10° $\mathbb{M}$ 42'55	22°56'33
asc. node	13619 Jan 05 11:44	6° $\mathbb{M}$ 24'00		asc. node	13619 Dec 23 08:53	24° $\mathbb{M}$ 06'10	
	13619 Jan 18 21:43	0° $\mathbb{M}$			13619 Dec 26 20:37	0° $\mathbb{M}$	
morning set	13619 Jan 20 02:26	2° $\mathbb{M}$ 28'46		morning set	13620 Jan 04 13:47	17° $\mathbb{M}$ 14'53	
					13620 Jan 10 11:52	0° $\mathbb{M}$	
superior conj	13619 Jan 27 09:25	17° $\mathbb{M}$ 45'34	1°19'40	superior conj	13620 Jan 11 12:28	2° $\mathbb{M}$ 12'07	1°31'51
minimum elong	13619 Jan 27 11:50	17° $\mathbb{M}$ 58'02	1°20'10	minimum elong	13620 Jan 11 14:01	2° $\mathbb{M}$ 20'23	1°32'41
max. Earth dist.	13619 Feb 01 02:36	27° $\mathbb{M}$ 18'36	1.35273 AU	max. Earth dist.	13620 Jan 14 19:40	9° $\mathbb{M}$ 10'56	1.33541 AU
	13619 Feb 02 11:33	0° $\mathbb{M}$		evening rise	13620 Jan 19 11:01	18° $\mathbb{M}$ 35'24	
evening rise	13619 Feb 05 03:40	5° $\mathbb{M}$ 06'15		desc. node	13620 Jan 25 03:00	29° $\mathbb{M}$ 17'40	
desc. node	13619 Feb 07 06:23	9° $\mathbb{M}$ 01'01			13620 Jan 25 12:23	0° $\mathbb{M}$	
	13619 Feb 19 18:05	0° $\mathbb{M}$			13620 Feb 13 22:33	0° $\mathbb{M}$	
evening max el	13619 Mar 12 11:23	26° $\mathbb{M}$ 45'59	26°29'19	evening max el	13620 Feb 23 00:49	10° $\mathbb{M}$ 19'45	27°14'32
	13619 Mar 16 03:05	0° $\mathbb{M}$		retrograde	13620 Mar 07 13:06	17° $\mathbb{M}$ 47'20	
retrograde	13619 Mar 25 11:09	4° $\mathbb{M}$ 07'06		evening set	13620 Mar 14 05:32	15° $\mathbb{M}$ 16'01	
evening set	13619 Mar 31 19:00	1° $\mathbb{M}$ 35'23		min. Earth dist.	13620 Mar 18 02:49	11° $\mathbb{M}$ 37'30	0.65038 AU
	13619 Apr 02 12:48	30° $\mathbb{M}$ 33'55		inferior conj	13620 Mar 20 11:44	9° $\mathbb{M}$ 00'26	0°04'37
asc. node	13619 Apr 03 08:29	29° $\mathbb{M}$ 08'27		minimum elong	13620 Mar 20 11:36	9° $\mathbb{M}$ 00'48	0°04'31
min. Earth dist.	13619 Apr 04 21:08	27° $\mathbb{M}$ 24'03	0.66627 AU	transit middle	13620 Mar 20 11:36	9° $\mathbb{M}$ 00'48	0°04'31
inferior conj	13619 Apr 06 17:53	25° $\mathbb{M}$ 09'04	1°02'58	transit begin	13620 Mar 20 08:41	9° $\mathbb{M}$ 08'52	
minimum elong	13619 Apr 06 16:23	25° $\mathbb{M}$ 13'37	1°02'04	transit end	13620 Mar 20 14:31	8° $\mathbb{M}$ 52'44	
morning rise	13619 Apr 12 14:45	19° $\mathbb{M}$ 27'25		asc. node	13620 Mar 20 05:58	9° $\mathbb{M}$ 16'25	
direct	13619 Apr 15 16:23	18° $\mathbb{M}$ 34'37		morning rise	13620 Mar 26 19:25	3° $\mathbb{M}$ 31'57	
morning max el	13619 Apr 22 03:36	22° $\mathbb{M}$ 00'33	18°24'34	direct	13620 Mar 29 11:40	2° $\mathbb{M}$ 54'10	
	13619 Apr 28 15:04	0° $\mathbb{M}$		morning max el	13620 Apr 04 19:44	6° $\mathbb{M}$ 11'35	17°56'49
desc. node	13619 May 06 08:44	11° $\mathbb{M}$ 43'16			13620 Apr 21 01:10	0° $\mathbb{M}$	
morning set	13619 May 12 10:30	21° $\mathbb{M}$ 19'03		desc. node	13620 Apr 22 05:21	1° $\mathbb{M}$ 56'21	
	13619 May 17 22:23	0° $\mathbb{M}$		morning set	13620 Apr 22 13:57	2° $\mathbb{M}$ 31'50	
superior conj	13619 May 28 04:39	16° $\mathbb{M}$ 04'57	-2°04'42	superior conj	13620 May 06 17:53	25° $\mathbb{M}$ 29'25	-1°37'31
minimum elong	13619 May 27 21:51	15° $\mathbb{M}$ 38'21	2°05'20	minimum elong	13620 May 06 08:51	24° $\mathbb{M}$ 53'37	1°37'24
max. Earth dist.	13619 May 28 16:45	16° $\mathbb{M}$ 52'08	1.45850 AU		13620 May 09 14:25	0° $\mathbb{M}$	
	13619 Jun 06 02:31	0° $\mathbb{M}$		max. Earth dist.	13620 May 10 12:57	1° $\mathbb{M}$ 28'27	1.45546 AU
evening rise	13619 Jun 13 01:30	10° $\mathbb{M}$ 54'48		evening rise	13620 May 22 18:42	20° $\mathbb{M}$ 27'09	
greatest brilliancy	13619 Jun 22 13:23	25° $\mathbb{M}$ 46'41	-0.8m		13620 May 29 00:39	0° $\mathbb{M}$	
	13619 Jun 25 07:46	0° $\mathbb{M}$		greatest brilliancy	13620 Jun 05 21:10	11° $\mathbb{M}$ 45'37	-0.6m
asc. node	13619 Jun 30 06:23	7° $\mathbb{M}$ 07'29		asc. node	13620 Jun 16 03:22	25° $\mathbb{M}$ 26'19	
evening max el	13619 Jul 05 07:28	13° $\mathbb{M}$ 09'53	18°53'04	evening max el	13620 Jun 17 13:49	26° $\mathbb{M}$ 57'27	19°42'45
retrograde	13619 Jul 12 00:21	16° $\mathbb{M}$ 50'31			13620 Jun 21 07:48	0° $\mathbb{M}$	
evening set	13619 Jul 15 09:29	15° $\mathbb{M}$ 44'35		retrograde	13620 Jun 24 22:32	1° $\mathbb{M}$ 07'11	
inferior conj	13619 Jul 20 22:22	10° $\mathbb{M}$ 01'18	2°55'59		13620 Jun 28 08:10	30° $\mathbb{M}$ 33'55	
minimum elong	13619 Jul 21 00:02	9° $\mathbb{M}$ 56'04	2°54'52	evening set	13620 Jun 28 17:05	29° $\mathbb{M}$ 44'29	
min. Earth dist.	13619 Jul 22 15:50	7° $\mathbb{M}$ 50'39	0.66245 AU				

inferior conj	13620 Jul 04 01:07	23°☿47'44	3°10'00	retrograde	13621 Jun 08 21:34	15°☿34'53	
minimum elong	13620 Jul 04 01:47	23°☿45'31	3°08'58	evening set	13621 Jun 13 02:13	13°☿55'30	
min. Earth dist.	13620 Jul 05 04:11	22°☿17'16	0.67596 AU	inferior conj	13621 Jun 18 08:16	7°☿46'48	3°11'29
morning rise	13620 Jul 09 10:04	17°☿24'09		minimum elong	13621 Jun 18 07:54	7°☿48'02	3°10'26
direct	13620 Jul 15 06:22	14°☿50'13		min. Earth dist.	13621 Jun 18 21:33	7°☿00'51	0.68489 AU
desc. node	13620 Jul 19 05:07	15°☿48'02		morning rise	13621 Jun 23 13:19	1°☿27'06	
morning max el	13620 Jul 27 06:49	22°☿02'30	25°10'43		13621 Jun 25 13:25	30°☿II	
	13620 Aug 03 05:44	0°☿		direct	13621 Jun 28 21:42	29°☿II06'04	
	13620 Aug 23 19:25	0°☿			13621 Jul 02 12:54	0°☿	
morning set	13620 Sep 01 04:31	14°☿19'31		desc. node	13621 Jul 06 02:23	2°☿16'46	
max. Earth dist.	13620 Sep 04 18:32	20°☿51'21	1.36591 AU	morning max el	13621 Jul 09 17:13	5°☿33'49	23°42'27
	13620 Sep 09 13:48	0°☿			13621 Jul 28 14:37	0°☿	
				morning set	13621 Aug 13 19:15	25°☿36'34	
superior conj	13620 Sep 11 05:39	3°☿15'36	-0°08'55		13621 Aug 16 08:43	0°☿	
minimum elong	13620 Sep 11 06:12	3°☿18'23	0°08'52	max. Earth dist.	13621 Aug 17 16:08	2°☿17'07	1.38909 AU
behind sun begin	13620 Sep 11 00:47	2°☿51'36					
behind sun end	13620 Sep 11 11:38	3°☿45'14		superior conj	13621 Aug 25 05:25	16°☿00'37	-0°43'17
asc. node	13620 Sep 12 04:34	5°☿09'26		minimum elong	13621 Aug 25 08:31	16°☿15'13	0°43'06
evening rise	13620 Sep 19 09:30	19°☿45'00		asc. node	13621 Aug 30 01:08	25°☿13'38	
	13620 Sep 24 13:53	0°☿			13621 Sep 01 11:56	0°☿	
evening max el	13620 Oct 06 16:41	18°☿13'43	19°44'30	evening rise	13621 Sep 03 08:23	3°☿37'10	
desc. node	13620 Oct 15 01:18	23°☿06'25		evening max el	13621 Sep 19 13:33	0°☿01'44	18°49'51
retrograde	13620 Oct 16 17:54	23°☿14'39			13621 Sep 19 12:51	0°☿	
evening set	13620 Oct 18 15:52	23°☿04'32		retrograde	13621 Sep 28 01:28	4°☿17'48	
inferior conj	13620 Oct 27 11:17	19°☿02'11	-3°47'02	evening set	13621 Sep 29 22:46	4°☿05'58	
minimum elong	13620 Oct 27 01:57	19°☿16'42	3°43'12	desc. node	13621 Oct 01 22:48	3°☿29'19	
min. Earth dist.	13620 Oct 29 14:41	17°☿42'17	0.55218 AU		13621 Oct 07 19:53	30°☿☿	
morning rise	13620 Nov 04 10:21	14°☿44'58		inferior conj	13621 Oct 08 03:41	29°☿45'58	-1°58'04
direct	13620 Nov 09 10:38	13°☿49'28		minimum elong	13621 Oct 07 22:45	29°☿54'50	1°55'41
morning max el	13620 Nov 23 06:46	20°☿42'27	24°45'24	min. Earth dist.	13621 Oct 11 04:28	27°☿35'40	0.56729 AU
	13620 Dec 01 06:03	0°☿		morning rise	13621 Oct 15 19:30	24°☿52'23	
asc. node	13620 Dec 09 05:55	12°☿34'23		direct	13621 Oct 21 14:22	23°☿31'46	
	13620 Dec 18 03:25	0°☿			13621 Nov 03 20:44	0°☿	
morning set	13620 Dec 19 01:42	1°☿58'59		morning max el	13621 Nov 04 19:32	0°☿53'18	26°21'23
					13621 Nov 25 06:08	0°☿	
superior conj	13620 Dec 25 20:33	16°☿50'33	1°37'35	asc. node	13621 Nov 26 02:50	1°☿36'47	
minimum elong	13620 Dec 25 21:01	16°☿53'07	1°38'36	morning set	13621 Dec 03 12:24	16°☿35'38	
max. Earth dist.	13620 Dec 27 20:13	21°☿10'56	1.32251 AU		13621 Dec 09 14:34	0°☿	
	13620 Dec 31 23:39	0°☿					
evening rise	13621 Jan 02 04:47	2°☿30'08		superior conj	13621 Dec 10 07:22	1°☿33'37	1°37'13
desc. node	13621 Jan 10 23:44	19°☿18'25		minimum elong	13621 Dec 10 06:45	1°☿30'14	1°38'15
	13621 Jan 17 08:35	0°☿		max. Earth dist.	13621 Dec 11 02:15	3°☿18'45	1.31460 AU
evening max el	13621 Feb 04 12:32	23°☿28'10	27°33'35	evening rise	13621 Dec 17 06:08	16°☿42'51	
	13621 Feb 13 21:22	0°☿			13621 Dec 23 21:35	0°☿	
retrograde	13621 Feb 18 08:20	0°☿53'59		desc. node	13621 Dec 28 20:34	8°☿55'41	
	13621 Feb 22 13:55	30°☿☿			13622 Jan 12 06:59	0°☿	
evening set	13621 Feb 25 05:32	28°☿30'21		evening max el	13622 Jan 17 20:17	5°☿58'11	27°20'38
min. Earth dist.	13621 Feb 28 23:51	25°☿20'33	0.63124 AU	retrograde	13622 Jan 31 19:23	13°☿16'08	
inferior conj	13621 Mar 03 19:31	22°☿32'49	-1°05'05	evening set	13622 Feb 07 15:54	11°☿08'32	
minimum elong	13621 Mar 03 21:39	22°☿27'30	1°03'56	min. Earth dist.	13622 Feb 11 10:50	8°☿20'29	0.60997 AU
asc. node	13621 Mar 07 03:28	19°☿28'11		inferior conj	13622 Feb 14 13:47	5°☿36'34	-2°24'33
morning rise	13621 Mar 10 16:19	17°☿19'59		minimum elong	13622 Feb 14 18:57	5°☿25'14	2°22'00
direct	13621 Mar 13 00:39	16°☿53'41		morning rise	13622 Feb 22 01:05	0°☿42'08	
morning max el	13621 Mar 19 13:34	20°☿13'59	17°46'23	asc. node	13622 Feb 22 00:57	0°☿42'13	
	13621 Mar 26 22:13	0°☿		direct	13622 Feb 24 03:47	0°☿23'34	
morning set	13621 Apr 04 19:15	14°☿58'53		morning max el	13622 Mar 03 05:44	3°☿57'06	17°54'02
desc. node	13621 Apr 09 01:55	22°☿21'26		morning set	13622 Mar 18 20:13	28°☿20'43	
	13621 Apr 13 14:03	0°☿			13622 Mar 19 18:04	0°☿	
				desc. node	13622 Mar 26 22:25	12°☿53'40	
superior conj	13621 Apr 17 02:31	5°☿50'55	-0°59'47				
minimum elong	13621 Apr 16 20:32	5°☿26'17	0°59'28	superior conj	13622 Mar 29 11:13	17°☿19'05	-0°19'58
max. Earth dist.	13621 Apr 23 06:58	15°☿52'04	1.44535 AU	minimum elong	13622 Mar 29 09:26	17°☿11'21	0°19'53
evening rise	13621 May 02 05:56	29°☿52'45			13622 Apr 05 23:53	0°☿	
	13621 May 02 07:49	0°☿		max. Earth dist.	13622 Apr 05 21:06	29°☿48'34	1.42926 AU
	13621 May 22 17:56	0°☿		evening rise	13622 Apr 12 02:50	9°☿50'06	
evening max el	13621 May 31 14:22	10°☿46'34	20°46'43		13622 Apr 25 10:30	0°☿	
asc. node	13621 Jun 03 00:27	12°☿58'38		evening max el	13622 May 14 09:33	24°☿36'17	22°01'30

asc. node	13622 May 20 21:39	29° $\Pi$ 29'10		retrograde	13623 May 07 14:56	14° $\Pi$ 41'12	
	13622 May 22 12:44	0° $\mathfrak{E}$		asc. node	13623 May 07 18:54	14° $\Pi$ 41'04	
retrograde	13622 May 23 19:29	0° $\mathfrak{E}$ 07'51		evening set	13623 May 12 18:03	12° $\Pi$ 31'24	
	13622 May 25 01:19	30° $\mathbb{R}$ $\Pi$		min. Earth dist.	13623 May 17 14:24	6° $\Pi$ 48'44	0.68854 AU
evening set	13622 May 28 11:05	28° $\Pi$ 12'31		inferior conj	13623 May 18 03:03	6° $\Pi$ 05'08	2°42'02
inferior conj	13622 Jun 02 17:34	21° $\Pi$ 53'49	3°01'55	minimum elong	13623 May 18 01:11	6° $\Pi$ 11'37	2°40'44
minimum elong	13622 Jun 02 16:19	21° $\Pi$ 58'09	3°00'45	morning rise	13623 May 23 08:15	29° $\mathfrak{S}$ 58'50	
min. Earth dist.	13622 Jun 02 17:42	21° $\Pi$ 53'22	0.68908 AU		13623 May 23 07:40	30° $\mathbb{R}$ $\mathfrak{S}$	
morning rise	13622 Jun 07 21:22	15° $\Pi$ 40'05		direct	13623 May 27 15:15	28° $\mathfrak{S}$ 16'02	
direct	13622 Jun 12 17:03	13° $\Pi$ 36'53			13623 Jun 01 09:08	0° $\Pi$	
morning max el	13622 Jun 22 05:22	19° $\Pi$ 12'14	22°13'33	morning max el	13623 Jun 04 22:38	3° $\Pi$ 01'05	20°51'43
desc. node	13622 Jun 22 23:31	19° $\Pi$ 58'45		desc. node	13623 Jun 09 20:33	8° $\Pi$ 34'33	
	13622 Jul 01 06:46	0° $\mathfrak{E}$			13623 Jun 25 04:01	0° $\mathfrak{E}$	
	13622 Jul 21 18:07	0° $\Omega$		morning set	13623 Jul 05 00:06	14° $\mathfrak{E}$ 59'08	
morning set	13622 Jul 25 09:40	5° $\Omega$ 48'58		max. Earth dist.	13623 Jul 12 23:04	27° $\mathfrak{E}$ 36'36	1.43277 AU
max. Earth dist.	13622 Jul 30 16:14	14° $\Omega$ 29'16	1.41231 AU		13623 Jul 14 10:22	0° $\Omega$	
superior conj	13622 Aug 07 11:45	27° $\Omega$ 58'08	-1°18'14	superior conj	13623 Jul 19 20:15	8° $\Omega$ 57'59	-1°49'09
minimum elong	13622 Aug 07 17:38	28° $\Omega$ 24'17	1°18'02	minimum elong	13623 Jul 20 03:30	9° $\Omega$ 28'30	1°49'21
	13622 Aug 08 15:05	0° $\mathbb{P}$		evening rise	13623 Jul 31 19:33	29° $\Omega$ 44'49	
asc. node	13622 Aug 16 21:45	15° $\mathbb{P}$ 11'34			13623 Jul 31 22:58	0° $\mathbb{P}$	
evening rise	13622 Aug 17 21:12	17° $\mathbb{P}$ 00'57		asc. node	13623 Aug 03 18:23	4° $\mathbb{P}$ 58'31	
	13622 Aug 25 00:22	0° $\mathfrak{L}$		evening max el	13623 Aug 17 08:49	25° $\mathbb{P}$ 33'49	18°03'06
evening max el	13622 Sep 02 20:22	12° $\mathfrak{L}$ 32'10	18°16'31	retrograde	13623 Aug 23 23:59	28° $\mathbb{P}$ 58'44	
retrograde	13622 Sep 10 04:19	16° $\mathfrak{L}$ 15'24		evening set	13623 Aug 26 10:54	28° $\mathbb{P}$ 30'30	
evening set	13622 Sep 12 07:28	15° $\mathfrak{L}$ 57'13		inferior conj	13623 Sep 02 04:06	23° $\mathbb{P}$ 29'09	1°03'59
desc. node	13622 Sep 18 20:20	12° $\mathfrak{L}$ 01'00		minimum elong	13623 Sep 02 05:54	23° $\mathbb{P}$ 24'45	1°03'07
inferior conj	13622 Sep 19 17:55	11° $\mathfrak{L}$ 16'04	-0°16'54	min. Earth dist.	13623 Sep 05 06:45	20° $\mathbb{P}$ 28'51	0.61059 AU
minimum elong	13622 Sep 19 17:18	11° $\mathfrak{L}$ 17'21	0°16'34	desc. node	13623 Sep 05 17:52	20° $\mathbb{P}$ 03'26	
min. Earth dist.	13622 Sep 23 01:12	8° $\mathfrak{L}$ 30'24	0.58783 AU	morning rise	13623 Sep 08 22:07	17° $\mathbb{P}$ 32'22	
morning rise	13622 Sep 26 23:42	5° $\mathfrak{L}$ 46'57		direct	13623 Sep 15 13:14	15° $\mathbb{P}$ 19'39	
direct	13622 Oct 03 07:58	3° $\mathfrak{L}$ 58'59		morning max el	13623 Sep 29 18:56	23° $\mathbb{P}$ 15'48	27°57'34
morning max el	13622 Oct 17 15:31	11° $\mathfrak{L}$ 41'08	27°28'20		13623 Oct 05 19:33	0° $\mathfrak{L}$	
	13622 Oct 31 23:42	0° $\mathbb{M}$			13623 Oct 25 05:44	0° $\mathbb{M}$	
asc. node	13622 Nov 12 23:39	21° $\mathbb{M}$ 04'13		asc. node	13623 Oct 30 20:22	10° $\mathbb{M}$ 49'01	
	13622 Nov 17 08:43	0° $\mathfrak{X}$		morning set	13623 Nov 01 23:01	15° $\mathbb{M}$ 08'00	
morning set	13622 Nov 17 20:10	1° $\mathfrak{X}$ 00'29		max. Earth dist.	13623 Nov 07 17:43	27° $\mathbb{M}$ 32'22	1.31436 AU
					13623 Nov 08 20:27	0° $\mathfrak{X}$	
superior conj	13622 Nov 24 19:01	16° $\mathfrak{X}$ 15'44	1°30'58	superior conj	13623 Nov 09 05:36	0° $\mathfrak{X}$ 50'46	1°18'57
minimum elong	13622 Nov 24 17:30	16° $\mathfrak{X}$ 07'15	1°31'50	minimum elong	13623 Nov 09 03:29	0° $\mathfrak{X}$ 39'00	1°19'33
max. Earth dist.	13622 Nov 24 10:42	15° $\mathfrak{X}$ 29'17	1.31187 AU	evening rise	13623 Nov 15 22:30	15° $\mathfrak{X}$ 38'25	
	13622 Dec 01 00:09	0° $\mathfrak{Z}$			13623 Nov 22 22:59	0° $\mathfrak{Z}$	
evening rise	13622 Dec 01 12:44	1° $\mathfrak{Z}$ 07'39		desc. node	13623 Dec 02 14:35	16° $\mathfrak{Z}$ 19'19	
desc. node	13622 Dec 15 17:32	28° $\mathfrak{Z}$ 00'19		evening max el	13623 Dec 12 14:02	28° $\mathfrak{Z}$ 26'59	25°13'37
	13622 Dec 16 23:38	0° $\approx$			13623 Dec 14 07:19	0° $\approx$	
evening max el	13622 Dec 30 21:28	17° $\approx$ 39'11	26°32'51	retrograde	13623 Dec 26 09:52	5° $\approx$ 23'22	
retrograde	13623 Jan 13 20:29	24° $\approx$ 46'26		evening set	13624 Jan 01 04:14	4° $\approx$ 08'18	
evening set	13623 Jan 20 08:51	23° $\approx$ 02'29		min. Earth dist.	13624 Jan 06 02:05	1° $\approx$ 27'01	0.56835 AU
min. Earth dist.	13623 Jan 24 11:13	20° $\approx$ 25'31	0.58826 AU		13624 Jan 08 06:59	30° $\mathbb{R}$ $\mathfrak{Z}$	
inferior conj	13623 Jan 27 14:53	18° $\approx$ 01'44	-3°48'25	inferior conj	13624 Jan 08 19:45	29° $\mathfrak{Z}$ 38'48	-5°04'34
minimum elong	13623 Jan 27 22:56	17° $\approx$ 46'22	3°44'59	minimum elong	13624 Jan 09 04:18	29° $\mathfrak{Z}$ 24'41	5°01'41
morning rise	13623 Feb 04 16:03	13° $\approx$ 28'20		morning rise	13624 Jan 17 06:45	25° $\mathfrak{Z}$ 27'37	
direct	13623 Feb 06 16:51	13° $\approx$ 13'49		direct	13624 Jan 19 11:40	25° $\mathfrak{Z}$ 13'29	
asc. node	13623 Feb 08 22:21	13° $\approx$ 32'04		asc. node	13624 Jan 26 19:40	28° $\mathfrak{Z}$ 02'09	
morning max el	13623 Feb 14 16:29	17° $\approx$ 10'32	18°21'19	morning max el	13624 Jan 28 17:51	29° $\mathfrak{Z}$ 42'50	19°10'10
	13623 Feb 23 18:43	0° $\mathfrak{X}$			13624 Jan 29 00:49	0° $\approx$	
morning set	13623 Mar 02 11:07	12° $\mathfrak{X}$ 20'14		morning set	13624 Feb 14 11:29	26° $\approx$ 43'56	
					13624 Feb 16 02:56	0° $\mathfrak{X}$	
superior conj	13623 Mar 11 18:01	29° $\mathfrak{X}$ 47'55	0°16'21	superior conj	13624 Feb 22 18:28	13° $\mathfrak{X}$ 04'51	0°46'28
minimum elong	13623 Mar 11 19:12	29° $\mathfrak{X}$ 53'19	0°16'17	minimum elong	13624 Feb 22 21:01	13° $\mathfrak{X}$ 17'08	0°46'29
	13623 Mar 11 20:40	0° $\mathbb{Y}$		desc. node	13624 Feb 28 15:26	24° $\mathfrak{X}$ 05'10	
desc. node	13623 Mar 13 18:56	3° $\mathbb{Y}$ 29'28		max. Earth dist.	13624 Feb 29 13:49	25° $\mathfrak{X}$ 46'22	1.38633 AU
max. Earth dist.	13623 Mar 19 07:03	13° $\mathbb{Y}$ 08'20	1.40886 AU		13624 Mar 02 22:54	0° $\mathbb{Y}$	
evening rise	13623 Mar 23 18:51	20° $\mathbb{Y}$ 39'51		evening rise	13624 Mar 04 08:00	2° $\mathbb{Y}$ 24'11	
	13623 Mar 29 14:39	0° $\mathfrak{B}$			13624 Mar 21 19:12	0° $\mathfrak{B}$	
	13623 Apr 19 15:17	0° $\Pi$					
evening max el	13623 Apr 27 01:00	8° $\Pi$ 27'37	23°21'55				

evening max el	13624 Apr 08 14:38	22°♄20'31	24°41'46			13625 Mar 16 11:17	0°♄	
retrograde	13624 Apr 20 06:48	29°♄09'34		evening max el	13625 Mar 22 04:01	6°♄11'40	25°54'04	
asc. node	13624 Apr 23 16:13	28°♄19'14		retrograde	13625 Apr 03 18:08	13°♄25'20		
evening set	13624 Apr 25 21:37	26°♄47'56		evening set	13625 Apr 09 20:04	10°♄55'46		
min. Earth dist.	13624 Apr 30 09:40	21°♄41'33	0.68332 AU	asc. node	13625 Apr 10 13:37	10°♄17'04		
inferior conj	13624 May 01 10:54	20°♄17'35	2°11'58	min. Earth dist.	13625 Apr 14 01:22	6°♄24'45	0.67365 AU	
minimum elong	13624 May 01 08:45	20°♄24'46	2°10'38	inferior conj	13625 Apr 15 15:06	4°♄26'03	1°31'21	
morning rise	13624 May 06 20:05	14°♄19'48		minimum elong	13625 Apr 15 13:10	4°♄32'08	1°30'12	
direct	13624 May 10 14:53	12°♄57'50			13625 Apr 19 12:52	30°♄♂		
morning max el	13624 May 17 23:16	17°♄02'19	19°42'20	morning rise	13625 Apr 21 06:56	28°♄38'04		
desc. node	13624 May 26 17:27	27°♄49'58		direct	13625 Apr 24 14:26	27°♄35'28		
	13624 May 28 06:20	0°♄			13625 Apr 29 23:25	0°♄		
greatest brilliancy	13624 May 30 17:31	3°♄33'38	-0.6m	morning max el	13625 May 01 07:15	1°♄12'04	18°48'11	
morning set	13624 Jun 13 01:54	23°♄40'43		desc. node	13625 May 13 14:13	17°♄33'36		
	13624 Jun 17 04:14	0°♄		greatest brilliancy	13625 May 15 07:22	20°♄10'10	-0.8m	
max. Earth dist.	13624 Jun 24 12:23	11°♄29'15	1.44812 AU		13625 May 21 15:59	0°♄		
				morning set	13625 May 23 11:57	2°♄51'02		
superior conj	13624 Jun 29 04:59	18°♄58'12	-2°09'27	max. Earth dist.	13625 Jun 07 05:58	25°♄50'18	1.45682 AU	
minimum elong	13624 Jun 29 09:29	19°♄16'18	2°10'19					
	13624 Jul 05 23:26	0°♄		superior conj	13625 Jun 08 18:31	28°♄13'20	-2°12'20	
evening rise	13624 Jul 12 22:24	11°♄37'17		minimum elong	13625 Jun 08 15:44	28°♄02'24	2°13'18	
asc. node	13624 Jul 20 15:05	24°♄30'09			13625 Jun 09 21:45	0°♄		
	13624 Jul 24 02:07	0°♄		evening rise	13625 Jun 24 01:21	22°♄28'23		
evening max el	13624 Jul 30 23:10	8°♄57'51	18°08'28		13625 Jun 28 17:40	0°♄		
retrograde	13624 Aug 06 07:56	12°♄18'31		asc. node	13625 Jul 07 11:53	13°♄40'01		
evening set	13624 Aug 09 03:08	11°♄37'18		evening max el	13625 Jul 14 12:19	22°♄36'05	18°31'50	
inferior conj	13624 Aug 15 06:26	6°♄18'14	2°02'34	retrograde	13625 Jul 20 23:52	26°♄05'49		
minimum elong	13624 Aug 15 08:56	6°♄11'22	2°01'21	evening set	13625 Jul 24 03:44	25°♄09'27		
min. Earth dist.	13624 Aug 17 22:08	3°♄24'10	0.63289 AU	inferior conj	13625 Jul 29 20:54	19°♄34'43	2°41'19	
morning rise	13624 Aug 21 12:50	0°♄03'58		minimum elong	13625 Jul 29 23:01	19°♄28'18	2°40'09	
	13624 Aug 21 14:56	30°♄♂		min. Earth dist.	13625 Jul 31 22:50	17°♄04'16	0.65273 AU	
desc. node	13624 Aug 22 15:23	29°♄17'39		morning rise	13625 Aug 04 17:10	13°♄12'08		
direct	13624 Aug 28 04:34	27°♄33'07		desc. node	13625 Aug 09 12:51	10°♄42'14		
	13624 Sep 04 10:07	0°♄		direct	13625 Aug 11 04:19	10°♄32'26		
morning max el	13624 Sep 11 03:35	5°♄34'43	27°48'12	morning max el	13625 Aug 24 14:29	18°♄26'56	27°05'21	
	13624 Sep 29 16:08	0°♄			13625 Sep 03 08:28	0°♄		
morning set	13624 Oct 15 18:44	28°♄52'48			13625 Sep 22 15:16	0°♄		
	13624 Oct 16 08:03	0°♄		morning set	13625 Sep 29 04:35	12°♄08'18		
asc. node	13624 Oct 16 17:02	0°♄45'39		max. Earth dist.	13625 Oct 03 11:58	20°♄40'52	1.33535 AU	
max. Earth dist.	13624 Oct 20 19:16	9°♄18'03	1.32216 AU	asc. node	13625 Oct 03 13:39	20°♄49'27		
superior conj	13624 Oct 23 13:13	15°♄13'34	1°01'14	superior conj	13625 Oct 07 15:44	29°♄18'35	0°37'58	
minimum elong	13624 Oct 23 10:57	15°♄01'13	1°01'32	minimum elong	13625 Oct 07 13:56	29°♄09'05	0°38'02	
evening rise	13624 Oct 30 09:34	0°♄10'15			13625 Oct 07 23:34	0°♄		
	13624 Oct 30 07:40	0°♄		evening rise	13625 Oct 14 20:06	14°♄38'32		
	13624 Nov 15 18:27	0°♄			13625 Oct 22 12:04	0°♄		
desc. node	13624 Nov 18 11:45	3°♄35'42		evening max el	13625 Nov 04 12:28	18°♄38'10	21°53'56	
evening max el	13624 Nov 23 00:16	8°♄35'17	23°34'48	desc. node	13625 Nov 05 09:02	19°♄27'00		
retrograde	13624 Dec 06 10:45	15°♄16'32		retrograde	13625 Nov 17 00:38	24°♄50'14		
evening set	13624 Dec 11 00:04	14°♄31'24		evening set	13625 Nov 20 04:24	24°♄27'56		
min. Earth dist.	13624 Dec 17 10:43	11°♄26'33	0.55311 AU	inferior conj	13625 Nov 28 22:28	20°♄33'54	-5°47'04	
inferior conj	13624 Dec 19 04:16	10°♄25'25	-5°51'55	minimum elong	13625 Nov 28 17:08	20°♄41'22	5°45'30	
minimum elong	13624 Dec 19 07:51	10°♄20'08	5°50'37	min. Earth dist.	13625 Nov 28 17:03	20°♄41'29	0.54541 AU	
morning rise	13624 Dec 27 17:24	6°♄32'22		morning rise	13625 Dec 07 06:51	16°♄46'30		
direct	13624 Dec 30 10:50	6°♄14'10		direct	13625 Dec 10 20:41	16°♄18'20		
morning max el	13625 Jan 10 06:10	11°♄24'20	20°22'01	morning max el	13625 Dec 23 04:08	22°♄12'21	21°55'36	
asc. node	13625 Jan 12 16:57	14°♄00'32			13625 Dec 29 18:38	0°♄		
	13625 Jan 23 00:19	0°♄		asc. node	13625 Dec 30 14:09	1°♄09'58		
morning set	13625 Jan 28 18:00	11°♄21'50		morning set	13626 Jan 13 04:14	26°♄07'03		
					13626 Jan 15 00:15	0°♄		
superior conj	13625 Feb 05 08:04	26°♄56'58	1°09'34					
minimum elong	13625 Feb 05 10:45	27°♄10'34	1°09'52	superior conj	13626 Jan 20 07:08	11°♄14'02	1°25'38	
	13625 Feb 06 20:32	0°♄		minimum elong	13626 Jan 20 09:13	11°♄24'59	1°26'17	
max. Earth dist.	13625 Feb 10 20:55	7°♄50'21	1.36426 AU	max. Earth dist.	13626 Jan 24 09:29	19°♄41'53	1.34482 AU	
desc. node	13625 Feb 14 11:57	14°♄36'48		evening rise	13626 Jan 28 16:17	28°♄08'22		
evening rise	13625 Feb 14 16:16	14°♄56'29			13626 Jan 29 15:44	0°♄		
	13625 Feb 23 09:24	0°♄		desc. node	13626 Feb 01 08:33	5°♄00'47		

	13626 Feb 16 15:19	0°♿				13627 Jan 06 11:44	0°♿	
evening max el	13626 Mar 04 17:47	19°♿55'26	26°51'20	max. Earth dist.		13627 Jan 07 05:53	1°♿36'41	1.32935 AU
retrograde	13626 Mar 17 23:55	27°♿21'07		evening rise		13627 Jan 12 04:27	11°♿49'19	
evening set	13626 Mar 24 11:35	24°♿48'52		desc. node		13627 Jan 19 05:14	25°♿11'23	
asc. node	13626 Mar 28 11:04	20°♿52'48				13627 Jan 21 22:51	0°♿	
min. Earth dist.	13626 Mar 28 11:30	20°♿51'36	0.65995 AU			13627 Feb 12 00:54	0°♿	
inferior conj	13626 Mar 30 13:29	18°♿25'55	0°39'39	evening max el		13627 Feb 15 06:57	3°♿20'36	27°26'18
minimum elong	13626 Mar 30 12:27	18°♿28'55	0°39'02	retrograde		13627 Feb 28 23:04	10°♿47'46	
morning rise	13626 Apr 05 14:37	12°♿49'25		evening set		13627 Mar 07 17:57	8°♿19'09	
direct	13626 Apr 08 12:01	12°♿03'30		min. Earth dist.		13627 Mar 11 13:50	4°♿53'11	0.64260 AU
morning max el	13626 Apr 14 21:04	15°♿24'43	18°10'35	inferior conj		13627 Mar 14 03:26	2°♿10'17	-0°23'32
	13626 Apr 25 15:42	0°♿		minimum elong		13627 Mar 14 04:09	2°♿08'23	0°23'10
desc. node	13626 Apr 30 10:54	7°♿37'51		asc. node		13627 Mar 15 08:33	0°♿54'13	
morning set	13626 May 03 22:59	13°♿16'01				13627 Mar 16 06:22	30°♿	
	13626 May 14 10:34	0°♿		morning rise		13627 Mar 20 16:25	26°♿47'46	
				direct		13627 Mar 23 05:08	26°♿15'14	
superior conj	13626 May 19 02:46	7°♿21'12	-1°55'02	morning max el		13627 Mar 29 14:13	29°♿32'36	17°50'09
minimum elong	13626 May 18 18:10	6°♿47'32	1°55'19			13627 Mar 30 01:09	0°♿	
max. Earth dist.	13626 May 21 01:43	10°♿24'51	1.45816 AU	morning set		13627 Apr 15 14:09	25°♿02'45	
	13626 Jun 02 15:56	0°♿		desc. node		13627 Apr 17 07:31	27°♿56'37	
evening rise	13626 Jun 04 04:38	2°♿22'26				13627 Apr 18 12:57	0°♿	
greatest brilliancy	13626 Jun 15 20:38	20°♿19'58	-0.7m					
	13626 Jun 22 13:40	0°♿		superior conj		13627 Apr 28 22:59	17°♿06'31	-1°22'14
asc. node	13626 Jun 24 08:47	2°♿20'25		minimum elong		13627 Apr 28 14:51	16°♿33'47	1°21'58
evening max el	13626 Jun 27 21:45	6°♿22'13	19°12'20	max. Earth dist.		13627 May 03 21:28	24°♿58'15	1.45206 AU
retrograde	13626 Jul 04 20:29	10°♿13'40				13627 May 07 02:20	0°♿	
evening set	13626 Jul 08 09:32	9°♿00'46		evening rise		13627 May 14 17:18	11°♿46'57	
inferior conj	13626 Jul 13 20:01	3°♿11'51	3°03'33			13627 May 26 19:27	0°♿	
minimum elong	13626 Jul 13 21:16	3°♿07'47	3°02'29	greatest brilliancy		13627 May 29 14:04	4°♿03'33	-0.6m
min. Earth dist.	13626 Jul 15 07:23	1°♿17'15	0.66882 AU	evening max el		13627 Jun 11 01:47	20°♿11'17	20°08'26
	13626 Jul 16 08:04	30°♿		asc. node		13627 Jun 11 05:48	20°♿21'15	
morning rise	13626 Jul 19 08:23	26°♿47'29		retrograde		13627 Jun 18 19:10	24°♿35'58	
direct	13626 Jul 25 11:02	24°♿08'49		evening set		13627 Jun 22 18:02	23°♿06'00	
desc. node	13626 Jul 27 10:16	24°♿23'11		inferior conj		13627 Jun 28 00:54	17°♿04'10	3°12'02
	13626 Aug 05 08:06	0°♿		minimum elong		13627 Jun 28 01:08	17°♿03'24	3°11'00
morning max el	13626 Aug 07 01:25	1°♿40'34	25°57'19	min. Earth dist.		13627 Jun 28 22:01	15°♿52'23	0.68041 AU
	13626 Aug 28 10:17	0°♿		morning rise		13627 Jul 03 07:55	10°♿42'10	
morning set	13626 Sep 12 01:04	24°♿45'44		direct		13627 Jul 08 23:23	8°♿12'58	
	13626 Sep 14 20:15	0°♿		desc. node		13627 Jul 14 07:36	9°♿58'38	
max. Earth dist.	13626 Sep 15 18:34	1°♿46'41	1.35362 AU	morning max el		13627 Jul 20 11:45	15°♿06'55	24°33'47
asc. node	13626 Sep 20 10:14	10°♿56'16				13627 Aug 01 16:44	0°♿	
						13627 Aug 21 07:45	0°♿	
superior conj	13626 Sep 21 10:31	12°♿59'01	0°09'31	morning set		13627 Aug 25 04:01	6°♿35'28	
minimum elong	13626 Sep 21 09:58	12°♿56'13	0°09'31	max. Earth dist.		13627 Aug 28 18:14	12°♿59'02	1.37565 AU
behind sun begin	13626 Sep 21 05:01	12°♿31'06						
behind sun end	13626 Sep 21 14:55	13°♿21'24		superior conj		13627 Sep 04 18:22	26°♿07'16	-0°23'13
evening rise	13626 Sep 29 04:06	28°♿57'53		minimum elong		13627 Sep 04 19:56	26°♿14'49	0°23'06
	13626 Sep 29 16:08	0°♿				13627 Sep 06 18:04	0°♿	
evening max el	13626 Oct 17 11:33	29°♿10'21	20°25'57	asc. node		13627 Sep 07 06:49	1°♿02'44	
	13626 Oct 18 08:18	0°♿		evening rise		13627 Sep 13 07:10	13°♿02'34	
desc. node	13626 Oct 23 06:25	3°♿25'37				13627 Sep 22 07:34	0°♿	
retrograde	13626 Oct 28 11:30	4°♿38'23		evening max el		13627 Sep 30 00:52	10°♿30'08	19°18'29
evening set	13626 Oct 30 15:51	4°♿26'28		retrograde		13627 Oct 09 09:06	15°♿10'49	
inferior conj	13626 Nov 08 14:55	0°♿31'02	-4°43'08	desc. node		13627 Oct 10 03:53	15°♿08'57	
minimum elong	13626 Nov 08 04:50	0°♿45'42	4°39'36	evening set		13627 Oct 11 05:46	15°♿00'28	
	13626 Nov 09 12:09	30°♿		inferior conj		13627 Oct 19 19:55	10°♿51'04	-3°01'14
min. Earth dist.	13626 Nov 09 23:55	29°♿42'52	0.54707 AU	minimum elong		13627 Oct 19 12:12	11°♿03'47	2°57'46
morning rise	13626 Nov 16 17:20	26°♿30'26		min. Earth dist.		13627 Oct 22 10:10	9°♿08'47	0.55781 AU
direct	13626 Nov 21 05:53	25°♿46'22		morning rise		13627 Oct 27 16:16	6°♿19'24	
	13626 Dec 01 22:44	0°♿		direct		13627 Nov 02 01:03	5°♿13'56	
morning max el	13626 Dec 04 15:40	2°♿19'28	23°43'13	morning max el		13627 Nov 16 01:47	12°♿19'01	25°28'57
asc. node	13626 Dec 17 11:16	19°♿13'08				13627 Nov 29 17:22	0°♿	
	13626 Dec 23 09:16	0°♿		asc. node		13627 Dec 04 08:16	7°♿57'00	
morning set	13626 Dec 28 16:03	10°♿52'31		morning set		13627 Dec 13 03:39	25°♿33'35	
						13627 Dec 15 04:44	0°♿	
superior conj	13627 Jan 04 12:36	25°♿46'04	1°35'02					
minimum elong	13627 Jan 04 13:42	25°♿52'02	1°35'58	superior conj		13627 Dec 19 22:04	10°♿26'27	1°38'09

minimum elong	13627 Dec 19 22:04	10° $\text{♁}$ 26'28	1°39'12	max. Earth dist.	13628 Dec 03 16:51	25° $\text{♁}$ 50'42	1.31278 AU
max. Earth dist.	13627 Dec 21 09:17	13° $\text{♁}$ 40'46	1.31857 AU		13628 Dec 05 13:36	0° $\text{♁}$	
evening rise	13627 Dec 27 01:44	25° $\text{♁}$ 51'52		evening rise	13628 Dec 10 05:33	10° $\text{♁}$ 09'47	
	13627 Dec 29 02:19	0° $\text{♁}$			13628 Dec 20 08:57	0° $\text{♁}$	
desc. node	13628 Jan 06 02:01	15° $\text{♁}$ 02'45		desc. node	13628 Dec 22 22:55	4° $\text{♁}$ 27'18	
	13628 Jan 15 09:51	0° $\text{♁}$		evening max el	13629 Jan 09 22:26	28° $\text{♁}$ 23'03	27°04'29
evening max el	13628 Jan 28 17:23	16° $\text{♁}$ 13'51	27°32'14		13629 Jan 11 17:28	0° $\text{♁}$	
retrograde	13628 Feb 11 14:36	23° $\text{♁}$ 35'58		retrograde	13629 Jan 23 21:38	5° $\text{♁}$ 36'59	
evening set	13628 Feb 18 12:28	21° $\text{♁}$ 18'13		evening set	13629 Jan 30 15:56	3° $\text{♁}$ 38'12	
min. Earth dist.	13628 Feb 22 06:32	18° $\text{♁}$ 18'51	0.62240 AU	min. Earth dist.	13629 Feb 03 12:45	0° $\text{♁}$ 56'48	0.60062 AU
inferior conj	13628 Feb 25 05:52	15° $\text{♁}$ 31'04	-1°37'46		13629 Feb 04 16:47	30° $\text{♁}$	
minimum elong	13628 Feb 25 09:13	15° $\text{♁}$ 23'08	1°36'02	inferior conj	13629 Feb 06 17:14	28° $\text{♁}$ 19'12	-3°00'08
asc. node	13628 Mar 01 06:02	11° $\text{♁}$ 25'36		minimum elong	13629 Feb 06 23:44	28° $\text{♁}$ 05'45	2°57'06
morning rise	13628 Mar 03 08:43	10° $\text{♁}$ 25'38		morning rise	13629 Feb 14 10:43	23° $\text{♁}$ 33'50	
direct	13628 Mar 05 14:29	10° $\text{♁}$ 02'56		asc. node	13629 Feb 16 03:28	23° $\text{♁}$ 17'58	
morning max el	13628 Mar 12 07:42	13° $\text{♁}$ 27'17	17°47'24	direct	13629 Feb 16 12:04	23° $\text{♁}$ 17'27	
	13628 Mar 23 16:17	0° $\text{♁}$		morning max el	13629 Feb 23 22:06	26° $\text{♁}$ 59'21	18°03'17
morning set	13628 Mar 28 04:34	7° $\text{♁}$ 55'14			13629 Feb 26 14:03	0° $\text{♁}$	
desc. node	13628 Apr 03 04:03	18° $\text{♁}$ 25'04		morning set	13629 Mar 11 12:04	21° $\text{♁}$ 34'54	
					13629 Mar 16 01:16	0° $\text{♁}$	
superior conj	13628 Apr 08 17:45	27° $\text{♁}$ 55'59	-0°42'44	desc. node	13629 Mar 21 00:33	8° $\text{♁}$ 59'24	
minimum elong	13628 Apr 08 13:36	27° $\text{♁}$ 38'35	0°42'30				
	13628 Apr 09 23:23	0° $\text{♁}$		superior conj	13629 Mar 21 12:24	9° $\text{♁}$ 51'56	-0°03'57
max. Earth dist.	13628 Apr 15 14:36	9° $\text{♁}$ 14'01	1.43917 AU	minimum elong	13629 Mar 21 12:04	9° $\text{♁}$ 50'29	0°03'58
evening rise	13628 Apr 23 06:59	21° $\text{♁}$ 22'02		behind sun begin	13629 Mar 21 04:27	9° $\text{♁}$ 16'40	
	13628 Apr 28 22:31	0° $\text{♁}$		behind sun end	13629 Mar 21 19:42	10° $\text{♁}$ 24'13	
	13628 May 20 08:51	0° $\text{♁}$		max. Earth dist.	13629 Mar 29 02:55	22° $\text{♁}$ 56'00	1.42090 AU
evening max el	13628 May 23 23:53	4° $\text{♁}$ 00'20	21°17'27		13629 Apr 02 10:21	0° $\text{♁}$	
asc. node	13628 May 28 02:54	7° $\text{♁}$ 29'11		evening rise	13629 Apr 03 11:20	1° $\text{♁}$ 40'18	
retrograde	13628 Jun 01 17:55	9° $\text{♁}$ 06'37			13629 Apr 22 08:49	0° $\text{♁}$	
evening set	13628 Jun 06 03:15	7° $\text{♁}$ 20'03		evening max el	13629 May 06 17:05	17° $\text{♁}$ 50'15	22°35'16
inferior conj	13628 Jun 11 09:11	1° $\text{♁}$ 06'43	3°08'44	asc. node	13629 May 15 00:06	23° $\text{♁}$ 28'45	
minimum elong	13628 Jun 11 08:26	1° $\text{♁}$ 09'20	3°07'37	retrograde	13629 May 16 15:06	23° $\text{♁}$ 40'49	
min. Earth dist.	13628 Jun 11 16:43	0° $\text{♁}$ 40'30	0.68728 AU	evening set	13629 May 21 11:31	21° $\text{♁}$ 38'56	
	13628 Jun 12 04:23	30° $\text{♁}$		inferior conj	13629 May 26 18:49	15° $\text{♁}$ 16'23	2°54'45
morning rise	13628 Jun 16 13:25	24° $\text{♁}$ 49'33		minimum elong	13629 May 26 17:16	15° $\text{♁}$ 21'47	2°53'31
direct	13628 Jun 21 16:23	22° $\text{♁}$ 35'56		min. Earth dist.	13629 May 26 13:24	15° $\text{♁}$ 35'13	0.68940 AU
desc. node	13628 Jun 30 04:48	27° $\text{♁}$ 01'09		morning rise	13629 May 31 22:53	9° $\text{♁}$ 05'35	
morning max el	13628 Jul 01 22:39	28° $\text{♁}$ 41'23	23°04'15	direct	13629 Jun 05 13:01	7° $\text{♁}$ 11'05	
	13628 Jul 03 04:54	0° $\text{♁}$		morning max el	13629 Jun 14 12:46	12° $\text{♁}$ 24'43	21°37'29
	13628 Jul 25 09:32	0° $\text{♁}$		desc. node	13629 Jun 17 01:53	15° $\text{♁}$ 08'16	
morning set	13628 Aug 05 08:44	17° $\text{♁}$ 25'30			13629 Jun 28 11:20	0° $\text{♁}$	
max. Earth dist.	13628 Aug 09 16:41	24° $\text{♁}$ 44'16	1.39918 AU	morning set	13629 Jul 16 12:27	27° $\text{♁}$ 10'10	
	13628 Aug 12 17:13	0° $\text{♁}$			13629 Jul 18 07:04	0° $\text{♁}$	
				max. Earth dist.	13629 Jul 22 19:07	7° $\text{♁}$ 18'55	1.42152 AU
superior conj	13628 Aug 17 11:12	8° $\text{♁}$ 32'48	-0°58'16				
minimum elong	13628 Aug 17 15:31	8° $\text{♁}$ 52'39	0°58'02	superior conj	13629 Jul 30 08:39	20° $\text{♁}$ 06'15	-1°32'12
asc. node	13628 Aug 24 03:22	21° $\text{♁}$ 04'32		minimum elong	13629 Jul 30 15:27	20° $\text{♁}$ 35'42	1°32'07
evening rise	13628 Aug 27 02:13	26° $\text{♁}$ 43'47			13629 Aug 04 23:05	0° $\text{♁}$	
	13628 Aug 28 19:18	0° $\text{♁}$		evening rise	13629 Aug 10 09:28	9° $\text{♁}$ 51'56	
evening max el	13628 Sep 12 02:21	22° $\text{♁}$ 36'30	18°33'02	asc. node	13629 Aug 10 23:57	10° $\text{♁}$ 58'05	
retrograde	13628 Sep 20 01:11	26° $\text{♁}$ 37'20			13629 Aug 22 03:38	0° $\text{♁}$	
evening set	13628 Sep 22 00:26	26° $\text{♁}$ 23'21		evening max el	13629 Aug 26 12:00	5° $\text{♁}$ 21'03	18°08'24
desc. node	13628 Sep 26 01:23	24° $\text{♁}$ 37'36		retrograde	13629 Sep 02 11:40	8° $\text{♁}$ 54'54	
inferior conj	13628 Sep 29 21:34	21° $\text{♁}$ 54'06	-1°13'06	evening set	13629 Sep 04 17:52	8° $\text{♁}$ 32'59	
minimum elong	13628 Sep 29 18:39	21° $\text{♁}$ 59'42	1°11'38	inferior conj	13629 Sep 11 20:41	3° $\text{♁}$ 43'13	0°20'11
min. Earth dist.	13628 Oct 03 02:35	19° $\text{♁}$ 26'34	0.57556 AU	minimum elong	13629 Sep 11 21:21	3° $\text{♁}$ 41'44	0°19'53
morning rise	13628 Oct 07 09:24	16° $\text{♁}$ 44'29		desc. node	13629 Sep 12 22:55	2° $\text{♁}$ 44'00	
direct	13628 Oct 13 10:27	15° $\text{♁}$ 12'33		min. Earth dist.	13629 Sep 15 03:10	0° $\text{♁}$ 48'19	0.59742 AU
morning max el	13628 Oct 27 17:36	22° $\text{♁}$ 43'44	26°54'14		13629 Sep 16 02:28	30° $\text{♁}$	
	13628 Nov 03 05:21	0° $\text{♁}$		morning rise	13629 Sep 18 21:32	28° $\text{♁}$ 00'46	
asc. node	13628 Nov 20 05:09	27° $\text{♁}$ 10'48		direct	13629 Sep 25 09:27	26° $\text{♁}$ 01'25	
	13628 Nov 21 15:50	0° $\text{♁}$			13629 Oct 05 06:35	0° $\text{♁}$	
morning set	13628 Nov 26 13:19	10° $\text{♁}$ 05'36		morning max el	13629 Oct 09 17:01	3° $\text{♁}$ 51'24	27°45'32
					13629 Oct 28 23:10	0° $\text{♁}$	
superior conj	13628 Dec 03 09:26	25° $\text{♁}$ 09'20	1°35'16	asc. node	13629 Nov 07 01:55	16° $\text{♁}$ 46'09	
minimum elong	13628 Dec 03 08:25	25° $\text{♁}$ 03'38	1°36'15	morning set	13629 Nov 10 19:12	24° $\text{♁}$ 23'29	



	13629 Nov 13 10:07	0°♄		max. Earth dist.	13630 Oct 31 05:58	19°♄54'24	1.31700 AU
max. Earth dist.	13629 Nov 17 00:57	7°♄58'04	1.31222 AU				
superior conj	13629 Nov 17 20:51	9°♄48'55	1°26'34	superior conj	13630 Nov 02 06:27	24°♄19'59	1°12'09
minimum elong	13629 Nov 17 19:01	9°♄38'46	1°27'20	minimum elong	13630 Nov 02 04:12	24°♄07'36	1°12'36
evening rise	13629 Nov 24 13:42	24°♄37'15		evening rise	13630 Nov 04 20:00	0°♄	
	13629 Nov 27 02:41	0°♄			13630 Nov 19 13:53	0°♄	
desc. node	13629 Dec 09 19:54	23°♄14'05		desc. node	13630 Nov 26 17:01	11°♄09'01	
	13629 Dec 14 11:16	0°♄		evening max el	13630 Dec 04 09:19	20°♄09'23	24°33'06
evening max el	13629 Dec 22 19:49	9°♄40'15	26°02'31	retrograde	13630 Dec 18 02:33	26°♄59'56	
retrograde	13630 Jan 05 18:24	16°♄43'58		evening set	13630 Dec 23 09:31	25°♄58'16	
evening set	13630 Jan 12 00:15	15°♄11'48		min. Earth dist.	13630 Dec 28 21:03	23°♄09'08	0.56111 AU
min. Earth dist.	13630 Jan 16 08:57	12°♄35'02	0.57929 AU	inferior conj	13630 Dec 31 06:00	21°♄40'08	-5°29'41
inferior conj	13630 Jan 19 09:58	10°♄24'23	-4°22'50	minimum elong	13630 Dec 31 13:11	21°♄28'51	5°27'29
minimum elong	13630 Jan 19 18:43	10°♄08'42	4°19'25	morning rise	13631 Jan 08 18:53	17°♄37'07	
morning rise	13630 Jan 27 16:06	6°♄00'44		direct	13631 Jan 11 03:58	17°♄21'51	
direct	13630 Jan 29 17:32	5°♄47'00		asc. node	13631 Jan 20 22:10	22°♄00'08	
asc. node	13630 Feb 03 00:52	6°♄50'44		morning max el	13631 Jan 21 01:36	22°♄08'21	19°37'49
morning max el	13630 Feb 07 05:26	9°♄56'48	18°39'25		13631 Jan 27 08:34	0°♄	
	13630 Feb 20 07:29	0°♄		morning set	13631 Feb 07 10:47	20°♄16'04	
morning set	13630 Feb 23 07:26	5°♄45'32			13631 Feb 12 06:24	0°♄	
superior conj	13630 Mar 04 03:16	22°♄42'28	0°29'57	superior conj	13631 Feb 15 09:47	6°♄15'14	0°57'08
minimum elong	13630 Mar 04 05:12	22°♄51'32	0°29'53	minimum elong	13631 Feb 15 12:31	6°♄28'40	0°57'15
desc. node	13630 Mar 07 21:03	29°♄35'19		max. Earth dist.	13631 Feb 21 16:54	18°♄16'20	1.37679 AU
	13630 Mar 08 02:31	0°♄		desc. node	13631 Feb 22 17:35	20°♄09'30	
max. Earth dist.	13630 Mar 11 10:35	5°♄55'08	1.39930 AU	evening rise	13631 Feb 25 10:05	24°♄59'10	
evening rise	13630 Mar 15 12:23	12°♄53'25			13631 Feb 28 07:16	0°♄	
	13630 Mar 26 05:34	0°♄			13631 Mar 19 20:45	0°♄	
	13630 Apr 17 15:55	0°♄		evening max el	13631 Apr 01 21:04	15°♄34'54	25°13'59
evening max el	13630 Apr 19 07:28	1°♄41'57	23°56'24	retrograde	13631 Apr 13 23:13	22°♄35'23	
retrograde	13630 Apr 30 09:16	8°♄12'18		asc. node	13631 Apr 18 18:45	20°♄56'43	
asc. node	13630 May 01 21:23	8°♄02'09		evening set	13631 Apr 19 18:48	20°♄10'06	
evening set	13630 May 05 17:14	5°♄57'17		min. Earth dist.	13631 Apr 24 03:56	15°♄18'43	0.67973 AU
min. Earth dist.	13630 May 10 09:52	0°♄29'50	0.68683 AU	inferior conj	13631 Apr 25 10:23	13°♄39'31	1°56'03
	13630 May 10 18:38	30°♄		minimum elong	13631 Apr 25 08:15	13°♄46'29	1°54'46
inferior conj	13630 May 11 03:50	29°♄28'37	2°30'33	morning rise	13631 Apr 30 22:03	7°♄45'31	
minimum elong	13630 May 11 01:48	29°♄35'36	2°29'14	direct	13631 May 04 11:59	6°♄31'50	
morning rise	13630 May 16 10:23	23°♄25'31		morning max el	13631 May 11 12:39	10°♄22'44	19°17'17
direct	13630 May 20 12:04	21°♄51'37		desc. node	13631 May 21 19:41	23°♄30'12	
morning max el	13630 May 28 08:56	26°♄18'23	20°20'25	greatest brilliancy	13631 May 24 07:24	27°♄09'16	-0.7m
	13630 May 31 17:41	0°♄			13631 May 26 05:09	0°♄	
desc. node	13630 Jun 03 22:50	4°♄02'09		morning set	13631 Jun 04 21:57	14°♄47'41	
	13630 Jun 21 20:56	0°♄			13631 Jun 14 17:20	0°♄	
morning set	13630 Jun 25 19:22	6°♄01'55		max. Earth dist.	13631 Jun 17 19:54	4°♄52'10	1.45271 AU
max. Earth dist.	13630 Jul 05 04:18	20°♄45'03	1.44003 AU				
	13630 Jul 10 21:12	0°♄		superior conj	13631 Jun 21 06:35	10°♄18'31	-2°13'07
superior conj	13630 Jul 11 07:06	0°♄40'43	-1°59'30	minimum elong	13631 Jun 21 08:20	10°♄25'27	2°14'09
minimum elong	13630 Jul 11 13:49	1°♄08'27	1°59'59		13631 Jul 03 11:17	0°♄	
evening rise	13630 Jul 24 00:09	22°♄15'16		evening rise	13631 Jul 05 17:11	3°♄41'52	
	13630 Jul 28 11:29	0°♄		asc. node	13631 Jul 15 17:22	20°♄02'13	
asc. node	13630 Jul 28 20:38	0°♄39'14			13631 Jul 22 18:10	0°♄	
evening max el	13630 Aug 10 01:47	18°♄33'55	18°03'10	evening max el	13631 Jul 24 16:04	2°♄05'13	18°16'17
retrograde	13630 Aug 16 12:57	21°♄55'03		retrograde	13631 Jul 31 00:44	5°♄27'47	
evening set	13630 Aug 19 03:23	21°♄21'37		evening set	13631 Aug 02 23:42	4°♄40'11	
inferior conj	13630 Aug 25 14:16	16°♄12'46	1°31'25		13631 Aug 08 06:08	30°♄	
minimum elong	13630 Aug 25 16:32	16°♄06'55	1°30'20	inferior conj	13631 Aug 08 22:13	29°♄14'11	2°21'13
min. Earth dist.	13630 Aug 28 12:57	13°♄12'30	0.62032 AU	minimum elong	13631 Aug 09 00:39	29°♄07'12	2°19'59
desc. node	13630 Aug 30 20:25	11°♄06'30		min. Earth dist.	13631 Aug 11 08:13	26°♄28'37	0.64176 AU
morning rise	13630 Sep 01 03:15	10°♄07'29		morning rise	13631 Aug 15 00:06	22°♄55'44	
direct	13630 Sep 07 19:34	7°♄45'40		desc. node	13631 Aug 17 17:56	21°♄12'20	
morning max el	13630 Sep 21 22:48	15°♄45'29	27°57'58	direct	13631 Aug 21 14:35	20°♄20'02	
	13630 Oct 03 15:07	0°♄		morning max el	13631 Sep 04 08:35	28°♄19'23	27°33'37
	13630 Oct 21 14:24	0°♄			13631 Sep 05 23:18	0°♄	
asc. node	13630 Oct 24 22:37	6°♄36'45			13631 Sep 27 10:37	0°♄	
morning set	13630 Oct 25 19:20	8°♄22'20		morning set	13631 Oct 09 11:13	21°♄55'16	
				asc. node	13631 Oct 11 19:15	26°♄36'47	

	13631 Oct 13 10:45	0°♌				13632 Sep 19 00:23	0°♏		
max. Earth dist.	13631 Oct 14 04:11	1°♌30'54	1.32720 AU	morning set		13632 Sep 21 15:53	4°♏55'45		
				max. Earth dist.		13632 Sep 25 16:57	12°♏46'42	1.34264 AU	
superior conj	13631 Oct 17 12:12	8°♌36'00	0°52'03	asc. node		13632 Sep 27 15:53	16°♏42'18		
minimum elong	13631 Oct 17 10:03	8°♌24'24	0°52'13						
evening rise	13631 Oct 24 11:22	23°♌40'35		superior conj	13632 Sep 30 11:47	22°♏31'17	0°26'30		
	13631 Oct 27 11:32	0°♐		minimum elong	13632 Sep 30 10:25	22°♏24'09	0°26'31		
desc. node	13631 Nov 13 14:14	27°♐52'04			13632 Oct 04 01:10	0°♌			
	13631 Nov 15 14:54	0°♑		evening rise	13632 Oct 07 21:07	8°♌05'57			
evening max el	13631 Nov 15 19:15	0°♑10'37	22°51'02		13632 Oct 19 10:50	0°♐			
retrograde	13631 Nov 28 21:37	6°♑40'44		evening max el	13632 Oct 27 11:02	10°♐21'27	21°14'06		
evening set	13631 Dec 02 20:43	6°♑06'34		desc. node	13632 Oct 30 11:33	12°♐58'38			
min. Earth dist.	13631 Dec 10 04:01	2°♑46'16	0.54887 AU	retrograde	13632 Nov 08 08:57	16°♐16'36			
inferior conj	13631 Dec 11 07:12	2°♑07'35	-5°57'11	evening set	13632 Nov 11 00:59	16°♐00'00			
minimum elong	13631 Dec 11 07:04	2°♑07'46	5°56'09	inferior conj	13632 Nov 19 22:46	12°♐06'34	-5°26'27		
	13631 Dec 15 05:44	30°♐♐		minimum elong	13632 Nov 19 14:30	12°♐18'14	5°24'01		
morning rise	13631 Dec 19 18:51	28°♐19'00		min. Earth dist.	13632 Nov 20 09:56	11°♐50'50	0.54500 AU		
direct	13631 Dec 22 20:35	27°♐57'09		morning rise	13632 Nov 28 04:37	8°♐16'21			
	13631 Dec 29 21:00	0°♑		direct	13632 Dec 02 04:04	7°♐42'21			
morning max el	13632 Jan 03 07:33	3°♑25'35	20°59'26	morning max el	13632 Dec 15 00:16	13°♐53'13	22°40'31		
asc. node	13632 Jan 07 19:25	8°♑30'19		asc. node	13632 Dec 24 16:35	26°♐04'05			
	13632 Jan 20 09:07	0°♒			13632 Dec 27 02:28	0°♑			
morning set	13632 Jan 22 19:11	4°♒57'47		morning set	13633 Jan 06 06:19	19°♑43'41			
					13633 Jan 11 01:10	0°♒			
superior conj	13632 Jan 30 03:49	20°♒18'39	1°17'13						
minimum elong	13632 Jan 30 06:19	20°♒31'31	1°17'40	superior conj	13633 Jan 13 05:57	4°♒42'56	1°30'25		
	13632 Feb 03 23:25	0°♐		minimum elong	13633 Jan 13 07:38	4°♒51'59	1°31'12		
max. Earth dist.	13632 Feb 04 02:13	0°♐13'45	1.35561 AU	max. Earth dist.	13633 Jan 16 18:03	12°♒05'10	1.33767 AU		
evening rise	13632 Feb 08 01:30	7°♐49'00		evening rise	13633 Jan 21 07:03	21°♒13'43			
desc. node	13632 Feb 09 14:09	10°♐38'09			13633 Jan 25 22:19	0°♐			
	13632 Feb 21 00:10	0°♑		desc. node	13633 Jan 26 10:48	0°♐56'48			
evening max el	13632 Mar 14 10:46	29°♑24'06	26°20'45		13633 Feb 13 20:58	0°♑			
	13632 Mar 15 01:43	0°♑		evening max el	13633 Feb 25 00:15	13°♑00'28	27°09'20		
retrograde	13632 Mar 27 08:07	6°♑43'34		retrograde	13633 Mar 10 11:10	20°♑28'09			
evening set	13632 Apr 02 14:34	4°♑12'10		evening set	13633 Mar 17 02:29	17°♑56'14			
asc. node	13632 Apr 04 16:11	2°♑15'35		min. Earth dist.	13633 Mar 21 00:20	14°♑13'05	0.65295 AU		
min. Earth dist.	13632 Apr 06 17:27	29°♑55'54	0.66831 AU	asc. node	13633 Mar 22 13:40	12°♑28'55			
	13632 Apr 06 16:05	30°♐♑		inferior conj	13633 Mar 23 07:33	11°♑38'28	0°14'16		
inferior conj	13632 Apr 08 12:25	27°♑44'50	1°10'49	minimum elong	13633 Mar 23 07:09	11°♑39'35	0°14'00		
minimum elong	13632 Apr 08 10:47	27°♑49'50	1°09'51	transit middle	13633 Mar 23 07:09	11°♑39'35	0°14'00		
morning rise	13632 Apr 14 07:53	22°♑01'35		transit begin	13633 Mar 23 05:41	11°♑43'42			
direct	13632 Apr 17 11:02	21°♑06'19		transit end	13633 Mar 23 08:36	11°♑35'29			
morning max el	13632 Apr 23 23:25	24°♑34'29	18°30'12	morning rise	13633 Mar 29 13:28	6°♑07'56			
	13632 Apr 28 14:35	0°♑		direct	13633 Apr 01 06:58	5°♑28'12			
desc. node	13632 May 07 16:26	13°♑23'19		morning max el	13633 Apr 07 15:05	8°♑46'17	17°59'51		
morning set	13632 May 14 17:30	24°♑27'02			13633 Apr 22 08:49	0°♑			
	13632 May 18 06:06	0°♒		desc. node	13633 Apr 24 13:05	3°♑34'05			
				morning set	13633 Apr 25 16:42	5°♑27'16			
superior conj	13632 May 30 15:43	19°♒24'35	-2°07'21						
minimum elong	13632 May 30 09:49	19°♒01'35	2°08'05	superior conj	13633 May 10 03:08	28°♑43'17	-1°42'32		
max. Earth dist.	13632 May 30 15:21	19°♒23'10	1.45829 AU	minimum elong	13633 May 09 18:01	28°♑07'15	1°42'30		
	13632 Jun 06 10:17	0°♑			13633 May 10 22:35	0°♒			
evening rise	13632 Jun 15 09:41	14°♑07'33		max. Earth dist.	13633 May 13 11:25	3°♒59'00	1.45637 AU		
greatest brilliancy	13632 Jun 24 01:49	27°♑47'25	-0.8m	evening rise	13633 May 26 05:06	23°♒44'05			
	13632 Jun 25 12:02	0°♒			13633 May 30 07:03	0°♑			
asc. node	13632 Jul 01 14:14	9°♒00'43		greatest brilliancy	13633 Jun 08 18:08	14°♑17'06	-0.7m		
evening max el	13632 Jul 07 03:55	15°♒47'39	18°47'00	asc. node	13633 Jun 18 11:11	27°♑25'24			
retrograde	13632 Jul 13 19:10	19°♒25'09		evening max el	13633 Jun 20 11:06	29°♑34'39	19°34'23		
evening set	13632 Jul 17 02:55	18°♒21'43			13633 Jun 20 21:26	0°♒			
inferior conj	13632 Jul 22 16:48	12°♒40'31	2°52'35	retrograde	13633 Jun 27 17:04	3°♒39'26			
minimum elong	13632 Jul 22 18:36	12°♒34'54	2°51'27	evening set	13633 Jul 01 10:08	2°♒19'21			
min. Earth dist.	13632 Jul 24 12:26	10°♒24'28	0.66006 AU		13633 Jul 03 21:55	30°♐♑			
morning rise	13632 Jul 28 09:25	6°♒16'32		inferior conj	13633 Jul 06 18:42	26°♑24'34	3°08'42		
direct	13632 Aug 03 17:14	3°♒36'30		minimum elong	13633 Jul 06 19:32	26°♑21'51	3°07'39		
desc. node	13632 Aug 03 15:22	3°♒36'31		min. Earth dist.	13633 Jul 07 23:55	24°♑47'35	0.67424 AU		
morning max el	13632 Aug 16 19:55	11°♒22'50	26°39'02	morning rise	13633 Jul 12 04:27	20°♑00'34			
	13632 Aug 31 16:11	0°♒		direct	13633 Jul 18 02:27	17°♑25'07			

desc. node	13633 Jul 21 12:44	18°☿08'47	morning rise	13634 Jun 26 06:46	4°☿01'02	
morning max el	13633 Jul 30 06:48	24°☿43'15 25°23'10	direct	13634 Jul 01 17:02	1°☿37'37	
	13633 Aug 04 01:10	0°♊	desc. node	13634 Jul 08 10:01	4°☿23'43	
	13633 Aug 25 02:55	0°♊	morning max el	13634 Jul 12 16:59	8°☿12'29	23°55'48
morning set	13633 Sep 04 05:31	17°♊14'31		13634 Jul 29 19:05	0°♊	
max. Earth dist.	13633 Sep 07 20:00	23°♊51'44 1.36259 AU	morning set	13634 Aug 16 23:31	28°♊39'53	
	13633 Sep 11 01:19	0°♋		13634 Aug 17 18:12	0°♊	
			max. Earth dist.	13634 Aug 20 17:42	5°♊11'55	1.38555 AU
superior conj	13633 Sep 14 02:21	5°♋58'53 -0°03'58				
minimum elong	13633 Sep 14 02:35	6°♋00'04 0°03'54	superior conj	13634 Aug 28 04:19	18°♊49'53 -0°37'58	
behind sun begin	13633 Sep 13 20:24	5°♋29'18	minimum elong	13634 Aug 28 07:00	19°♊02'36 0°37'47	
behind sun end	13633 Sep 14 08:46	6°♋30'54	asc. node	13634 Sep 01 09:02	26°♊54'04	
asc. node	13633 Sep 14 12:28	6°♋49'22		13634 Sep 02 23:04	0°♋	
evening rise	13633 Sep 22 03:21	22°♋19'51	evening rise	13634 Sep 06 03:22	6°♋15'04	
	13633 Sep 25 23:07	0°♌		13634 Sep 19 21:47	0°♌	
evening max el	13633 Oct 09 16:10	21°♌13'18 19°54'35	evening max el	13634 Sep 22 11:11	2°♌54'05 18°56'38	
desc. node	13633 Oct 17 08:56	26°♌02'09	retrograde	13634 Oct 01 04:02	7°♌16'03	
retrograde	13633 Oct 19 23:22	26°♌21'15	evening set	13634 Oct 03 00:58	7°♌04'43	
evening set	13633 Oct 21 22:25	26°♌10'56	desc. node	13634 Oct 04 06:24	6°♌45'40	
inferior conj	13633 Oct 30 19:12	22°♌10'48 -4°02'41	inferior conj	13634 Oct 11 08:28	2°♌47'41 -2°14'33	
minimum elong	13633 Oct 30 09:29	22°♌25'39 3°58'49	minimum elong	13634 Oct 11 02:46	2°♌57'40 2°11'51	
min. Earth dist.	13633 Nov 01 18:16	20°♌58'57 0.55056 AU	min. Earth dist.	13634 Oct 14 07:02	0°♌44'16 0.56464 AU	
morning rise	13633 Nov 07 19:08	17°♌58'15		13634 Oct 15 09:53	30°♌♋	
direct	13633 Nov 12 16:28	17°♌05'50	morning rise	13634 Oct 19 01:32	27°♋59'59	
morning max el	13633 Nov 26 10:21	23°♌54'10 24°29'31	direct	13634 Oct 24 18:02	26°♋43'18	
	13633 Dec 01 23:01	0°♌		13634 Nov 03 00:59	0°♌	
asc. node	13633 Dec 11 13:39	14°♌26'23	morning max el	13634 Nov 07 22:08	4°♌00'42 26°08'36	
	13633 Dec 19 15:33	0°♍		13634 Nov 26 14:04	0°♌	
morning set	13633 Dec 21 18:16	4°♍28'28	asc. node	13634 Nov 28 10:36	3°♌24'10	
			morning set	13634 Dec 06 05:14	19°♌06'09	
superior conj	13633 Dec 28 13:26	19°♍20'12 1°37'06		13634 Dec 11 04:22	0°♍	
minimum elong	13633 Dec 28 14:04	19°♍23'41 1°38'07				
max. Earth dist.	13633 Dec 30 17:31	24°♍03'34 1.32412 AU	superior conj	13634 Dec 12 23:56	4°♍02'33 1°37'39	
	13634 Jan 02 12:24	0°♎	minimum elong	13634 Dec 12 23:29	4°♍00'03 1°38'42	
evening rise	13634 Jan 04 23:29	5°♎05'24	max. Earth dist.	13634 Dec 13 22:57	6°♍10'26 1.31549 AU	
desc. node	13634 Jan 13 07:31	21°♎00'21	evening rise	13634 Dec 19 23:50	19°♍15'34	
	13634 Jan 18 14:11	0°♏		13634 Dec 25 07:49	0°♎	
evening max el	13634 Feb 07 12:23	26°♏13'29 27°32'40	desc. node	13634 Dec 31 04:19	10°♎41'22	
	13634 Feb 11 23:39	0°♐		13635 Jan 13 00:02	0°♏	
retrograde	13634 Feb 21 07:29	3°♐40'04	evening max el	13635 Jan 20 20:59	8°♏49'57 27°24'44	
evening set	13634 Feb 28 04:12	1°♐14'57	retrograde	13635 Feb 03 19:43	16°♏08'49	
	13634 Mar 01 18:52	30°♐♏	evening set	13635 Feb 10 16:44	13°♏58'29	
min. Earth dist.	13634 Mar 03 22:50	28°♏01'03 0.63427 AU	min. Earth dist.	13635 Feb 14 11:20	11°♏07'41 0.61324 AU	
inferior conj	13634 Mar 06 17:00	25°♏14'04 -0°53'45	inferior conj	13635 Feb 17 13:28	8°♏22'22 -2°12'01	
minimum elong	13634 Mar 06 18:44	25°♏09'41 0°52'51	minimum elong	13635 Feb 17 18:08	8°♏11'53 2°09'41	
asc. node	13634 Mar 09 11:07	22°♏35'36	asc. node	13635 Feb 24 08:33	3°♏36'38	
morning rise	13634 Mar 13 11:43	19°♏58'37	morning rise	13635 Feb 24 22:33	3°♏24'49	
direct	13634 Mar 15 21:06	19°♏30'51	direct	13635 Feb 27 01:58	3°♏05'17	
morning max el	13634 Mar 22 08:49	22°♏50'09 17°46'45	morning max el	13635 Mar 06 01:22	6°♏36'10 17°51'41	
	13634 Mar 28 01:07	0°♐		13635 Mar 21 03:52	0°♐	
morning set	13634 Apr 07 18:30	17°♐44'03	morning set	13635 Mar 21 16:54	0°♐58'46	
desc. node	13634 Apr 11 09:42	23°♐57'32	desc. node	13635 Mar 29 06:14	14°♐28'50	
	13634 Apr 14 23:20	0°♑				
superior conj	13634 Apr 20 08:17	8°♑54'27 -1°05'48	superior conj	13635 Apr 01 13:23	20°♐12'29 -0°25'51	
minimum elong	13634 Apr 20 01:41	8°♑27'25 1°05'29	minimum elong	13635 Apr 01 11:01	20°♐02'18 0°25'44	
max. Earth dist.	13634 Apr 26 05:40	18°♑24'15 1.44731 AU	max. Earth dist.	13635 Apr 07 09:01	0°♑	
	13634 May 03 15:22	0°♒	evening rise	13635 Apr 08 20:41	2°♑26'19 1.43201 AU	
evening rise	13634 May 05 16:05	3°♒07'25		13635 Apr 15 10:45	12°♑58'13	
	13634 May 23 19:34	0°☊		13635 Apr 26 15:53	0°♒	
evening max el	13634 Jun 03 12:31	13°☊23'15 20°36'27	evening max el	13635 May 17 08:26	27°♒12'55 21°49'52	
asc. node	13634 Jun 05 08:13	15°☊05'08		13635 May 20 10:58	0°☊	
retrograde	13634 Jun 11 16:00	18°☊05'13	asc. node	13635 May 23 05:20	1°☊45'59	
evening set	13634 Jun 15 19:07	16°☊28'19	retrograde	13635 May 26 14:06	2°☊37'41	
inferior conj	13634 Jun 21 01:18	10°☊21'27 3°11'59	evening set	13635 May 31 04:05	0°☊44'33	
minimum elong	13634 Jun 21 01:05	10°☊22'09 3°10'56		13635 May 31 23:45	30°♒♒	
min. Earth dist.	13634 Jun 21 16:38	9°☊28'36 0.68389 AU	inferior conj	13635 Jun 05 10:22	24°♒27'16 3°04'03	
			minimum elong	13635 Jun 05 09:15	24°♒31'11 3°02'54	

min. Earth dist.	13635 Jun 05 12:24	24° $\Pi$ 20'09	0.68878 AU	min. Earth dist.	13636 May 19 09:07	9° $\Pi$ 15'34	0.68892 AU
morning rise	13635 Jun 10 14:12	18° $\Pi$ 12'40		morning rise	13636 May 25 00:45	2° $\Pi$ 30'47	
direct	13635 Jun 15 11:49	16° $\Pi$ 06'38		direct	13636 May 29 09:36	0° $\Pi$ 44'59	
morning max el	13635 Jun 25 04:39	21° $\Pi$ 49'34	22°26'30	morning max el	13636 Jun 06 21:03	5° $\Pi$ 37'04	21°03'15
desc. node	13635 Jun 25 07:11	21° $\Pi$ 55'57		desc. node	13636 Jun 11 04:14	10° $\Pi$ 24'43	
	13635 Jul 02 05:59	0° $\mathfrak{E}$			13636 Jun 25 09:34	0° $\mathfrak{E}$	
	13635 Jul 23 01:35	0° $\Omega$		morning set	13636 Jul 07 11:17	18° $\mathfrak{E}$ 20'15	
morning set	13635 Jul 28 17:38	9° $\Omega$ 01'50			13636 Jul 14 19:03	0° $\Omega$	
max. Earth dist.	13635 Aug 02 17:22	17° $\Omega$ 17'14	1.40898 AU	max. Earth dist.	13636 Jul 14 23:12	0° $\Omega$ 16'52	1.43002 AU
	13635 Aug 10 01:14	0° $\mathfrak{M}$					
superior conj	13635 Aug 10 13:30	0° $\mathfrak{M}$ 54'50	-1°13'04	superior conj	13636 Jul 22 01:25	12° $\Omega$ 03'20	-1°44'59
minimum elong	13635 Aug 10 19:00	1° $\mathfrak{M}$ 19'29	1°12'51	minimum elong	13636 Jul 22 08:40	12° $\Omega$ 34'04	1°45'06
asc. node	13635 Aug 19 05:36	16° $\mathfrak{M}$ 52'57			13636 Aug 01 08:14	0° $\mathfrak{M}$	
evening rise	13635 Aug 20 17:55	19° $\mathfrak{M}$ 43'28		evening rise	13636 Aug 02 18:43	2° $\mathfrak{M}$ 33'59	
	13635 Aug 26 07:15	0° $\mathfrak{L}$		asc. node	13636 Aug 05 02:12	6° $\mathfrak{M}$ 41'38	
evening max el	13635 Sep 05 16:44	15° $\mathfrak{L}$ 18'16	18°20'10	evening max el	13636 Aug 19 04:32	28° $\mathfrak{M}$ 15'22	18°03'51
retrograde	13635 Sep 13 04:08	19° $\mathfrak{L}$ 05'38			13636 Aug 21 05:23	0° $\mathfrak{L}$	
evening set	13635 Sep 15 06:14	18° $\mathfrak{L}$ 48'37		retrograde	13636 Aug 25 21:37	1° $\mathfrak{L}$ 42'17	
desc. node	13635 Sep 21 03:55	15° $\mathfrak{L}$ 29'51		evening set	13636 Aug 28 07:15	1° $\mathfrak{L}$ 15'49	
inferior conj	13635 Sep 22 19:25	14° $\mathfrak{L}$ 10'25	-0°31'05		13636 Aug 30 17:25	30° $\mathfrak{R}$ $\mathfrak{M}$	
minimum elong	13635 Sep 22 18:16	14° $\mathfrak{L}$ 12'48	0°30'28	inferior conj	13636 Sep 04 02:51	26° $\mathfrak{M}$ 17'19	0°53'09
min. Earth dist.	13635 Sep 26 02:27	11° $\mathfrak{L}$ 28'57	0.58455 AU	minimum elong	13636 Sep 04 04:25	26° $\mathfrak{M}$ 13'34	0°52'25
morning rise	13635 Sep 30 02:51	8° $\mathfrak{L}$ 46'14		desc. node	13636 Sep 07 01:27	23° $\mathfrak{M}$ 29'39	
direct	13635 Oct 06 09:26	7° $\mathfrak{L}$ 02'29		min. Earth dist.	13636 Sep 07 06:40	23° $\mathfrak{M}$ 17'45	0.60716 AU
morning max el	13635 Oct 20 16:58	14° $\mathfrak{L}$ 41'42	27°20'42	morning rise	13636 Sep 10 22:38	20° $\mathfrak{M}$ 23'50	
	13635 Nov 02 01:04	0° $\mathfrak{M}$		direct	13636 Sep 17 13:04	18° $\mathfrak{M}$ 14'27	
asc. node	13635 Nov 15 07:28	22° $\mathfrak{M}$ 48'13		morning max el	13636 Oct 01 19:29	26° $\mathfrak{M}$ 09'20	27°55'45
	13635 Nov 18 21:03	0° $\mathfrak{X}$			13636 Oct 05 09:54	0° $\mathfrak{L}$	
morning set	13635 Nov 20 13:31	3° $\mathfrak{X}$ 32'41			13636 Oct 25 14:40	0° $\mathfrak{M}$	
superior conj	13635 Nov 27 11:33	18° $\mathfrak{X}$ 44'38	1°32'17	asc. node	13636 Nov 01 04:13	12° $\mathfrak{M}$ 30'39	
minimum elong	13635 Nov 27 10:09	18° $\mathfrak{X}$ 36'50	1°33'11	morning set	13636 Nov 03 17:14	17° $\mathfrak{M}$ 42'59	
max. Earth dist.	13635 Nov 27 07:21	18° $\mathfrak{X}$ 21'11	1.31197 AU		13636 Nov 09 10:09	0° $\mathfrak{X}$	
	13635 Dec 02 13:19	0° $\mathfrak{Z}$		max. Earth dist.	13636 Nov 09 14:47	0° $\mathfrak{X}$ 25'38	1.31360 AU
evening rise	13635 Dec 04 05:46	3° $\mathfrak{Z}$ 38'29		superior conj	13636 Nov 10 22:24	3° $\mathfrak{X}$ 20'51	1°21'09
desc. node	13635 Dec 18 01:14	29° $\mathfrak{Z}$ 51'17		minimum elong	13636 Nov 10 20:21	3° $\mathfrak{X}$ 09'26	1°21'47
	13635 Dec 18 03:22	0° $\mathfrak{A}$		evening rise	13636 Nov 17 15:10	18° $\mathfrak{X}$ 08'23	
evening max el	13636 Jan 02 23:15	20° $\mathfrak{A}$ 38'15	26°42'04		13636 Nov 23 08:45	0° $\mathfrak{Z}$	
retrograde	13636 Jan 16 22:12	27° $\mathfrak{A}$ 46'57		desc. node	13636 Dec 03 22:16	18° $\mathfrak{Z}$ 18'13	
evening set	13636 Jan 23 12:30	25° $\mathfrak{A}$ 58'56			13636 Dec 13 03:22	0° $\mathfrak{A}$	
min. Earth dist.	13636 Jan 27 13:08	23° $\mathfrak{A}$ 21'18	0.59145 AU	evening max el	13636 Dec 14 17:01	1° $\mathfrak{A}$ 33'31	25°27'06
inferior conj	13636 Jan 30 17:19	20° $\mathfrak{A}$ 53'31	-3°35'54	retrograde	13636 Dec 28 13:43	8° $\mathfrak{A}$ 32'08	
minimum elong	13636 Jan 31 01:01	20° $\mathfrak{A}$ 38'31	3°32'30	evening set	13637 Jan 03 11:28	7° $\mathfrak{A}$ 12'26	
morning rise	13636 Feb 07 16:35	16° $\mathfrak{A}$ 16'56		min. Earth dist.	13637 Jan 08 05:17	4° $\mathfrak{A}$ 33'00	0.57104 AU
direct	13636 Feb 09 17:26	16° $\mathfrak{A}$ 02'01		inferior conj	13637 Jan 11 01:23	2° $\mathfrak{A}$ 38'25	-4°54'22
asc. node	13636 Feb 11 05:59	16° $\mathfrak{A}$ 10'43		minimum elong	13637 Jan 11 10:08	2° $\mathfrak{A}$ 23'39	4°51'17
morning max el	13636 Feb 17 13:09	19° $\mathfrak{A}$ 54'24	18°15'58		13637 Jan 15 07:21	30° $\mathfrak{R}$ $\mathfrak{Z}$	
	13636 Feb 25 00:33	0° $\mathfrak{H}$		morning rise	13637 Jan 19 11:22	28° $\mathfrak{Z}$ 24'13	
morning set	13636 Mar 04 06:00	14° $\mathfrak{H}$ 53'25		direct	13637 Jan 21 15:06	28° $\mathfrak{Z}$ 10'21	
	13636 Mar 12 07:35	0° $\mathfrak{Y}$			13637 Jan 27 11:28	0° $\mathfrak{A}$	
superior conj	13636 Mar 13 17:09	2° $\mathfrak{Y}$ 32'59	0°11'14	asc. node	13637 Jan 28 03:22	0° $\mathfrak{A}$ 26'32	
minimum elong	13636 Mar 13 17:59	2° $\mathfrak{Y}$ 36'47	0°11'08	morning max el	13637 Jan 30 16:17	2° $\mathfrak{A}$ 34'14	19°01'28
behind sun begin	13636 Mar 13 12:38	2° $\mathfrak{Y}$ 12'27		morning set	13637 Feb 16 05:13	29° $\mathfrak{A}$ 14'26	
behind sun end	13636 Mar 13 23:21	3° $\mathfrak{Y}$ 01'03			13637 Feb 16 14:27	0° $\mathfrak{H}$	
desc. node	13636 Mar 15 02:43	5° $\mathfrak{Y}$ 04'11		superior conj	13637 Feb 24 15:19	15° $\mathfrak{H}$ 44'04	0°42'20
max. Earth dist.	13636 Mar 21 07:25	15° $\mathfrak{Y}$ 52'43	1.41206 AU	minimum elong	13637 Feb 24 17:45	15° $\mathfrak{H}$ 55'41	0°42'18
evening rise	13636 Mar 25 23:37	23° $\mathfrak{Y}$ 39'26		desc. node	13637 Mar 01 23:13	25° $\mathfrak{H}$ 40'16	
	13636 Mar 29 22:27	0° $\mathfrak{B}$		max. Earth dist.	13637 Mar 03 14:19	28° $\mathfrak{H}$ 36'14	1.38969 AU
	13636 Apr 19 14:15	0° $\Pi$			13637 Mar 04 09:10	0° $\mathfrak{Y}$	
evening max el	13636 Apr 29 00:14	11° $\Pi$ 03'46	23°09'47	evening rise	13637 Mar 07 09:45	5° $\mathfrak{Y}$ 16'14	
retrograde	13636 May 09 10:01	17° $\Pi$ 11'31			13637 Mar 22 23:52	0° $\mathfrak{B}$	
asc. node	13636 May 09 02:33	17° $\Pi$ 11'04		evening max el	13637 Apr 11 13:59	24° $\mathfrak{B}$ 56'23	24°30'08
evening set	13636 May 14 11:26	15° $\Pi$ 03'35			13637 Apr 17 19:39	0° $\Pi$	
inferior conj	13636 May 19 19:56	8° $\Pi$ 38'11	2°45'43	retrograde	13637 Apr 23 02:35	1° $\Pi$ 41'09	
minimum elong	13636 May 19 18:08	8° $\Pi$ 44'25	2°44'26	asc. node	13637 Apr 25 23:53	1° $\Pi$ 04'24	
					13637 Apr 27 20:02	30° $\mathfrak{R}$ $\mathfrak{B}$	

evening set	13637 Apr 28 15:38	29°♄21'01		inferior conj	13638 Apr 18 09:05	7°♄00'18	1°38'14
min. Earth dist.	13637 May 03 04:47	24°♄09'13	0.68438 AU	minimum elong	13638 Apr 18 07:05	7°♄06'41	1°37'03
inferior conj	13637 May 04 04:10	22°♄50'53	2°17'12	morning rise	13638 Apr 23 23:45	1°♄10'37	
minimum elong	13637 May 04 02:02	22°♄58'04	2°15'52	direct	13638 Apr 27 08:52	0°♄05'13	
morning rise	13637 May 09 12:36	16°♄51'42		morning max el	13638 May 04 03:30	3°♄45'15	18°55'09
direct	13637 May 13 09:06	15°♄26'44		desc. node	13638 May 15 21:57	19°♄14'44	
morning max el	13637 May 20 20:34	19°♄36'42	19°51'43	greatest brilliancy	13638 May 17 15:01	21°♄49'28	-0.8m
desc. node	13637 May 29 01:09	29°♄34'54			13638 May 22 23:00	0°♄	
	13637 May 29 08:26	0°♄		morning set	13638 May 26 21:15	6°♄04'48	
morning set	13637 Jun 16 13:46	27°♄02'41		max. Earth dist.	13638 Jun 10 04:21	28°♄19'59	1.45599 AU
	13637 Jun 18 11:49	0°♄			13638 Jun 11 05:54	0°♄	
max. Earth dist.	13637 Jun 27 11:23	14°♄02'40	1.44625 AU				
				superior conj	13638 Jun 12 05:25	1°♄32'16	-2°13'12
superior conj	13637 Jul 02 13:38	22°♄12'02	-2°07'22	minimum elong	13638 Jun 12 03:51	1°♄26'04	2°14'14
minimum elong	13637 Jul 02 18:54	22°♄33'19	2°08'08	evening rise	13638 Jun 27 07:30	25°♄35'12	
	13637 Jul 07 08:13	0°♄			13638 Jun 30 00:54	0°♄	
evening rise	13637 Jul 16 00:49	14°♄34'46		asc. node	13638 Jul 09 19:41	15°♄29'38	
asc. node	13637 Jul 22 22:53	26°♄15'49		evening max el	13638 Jul 17 08:25	25°♄13'42	18°27'17
	13637 Jul 25 05:51	0°♄		retrograde	13638 Jul 23 18:57	28°♄41'04	
evening max el	13637 Aug 02 18:50	11°♄36'29	18°06'29	evening set	13638 Jul 26 21:32	27°♄47'03	
retrograde	13637 Aug 09 03:58	14°♄56'56		inferior conj	13638 Aug 01 15:58	22°♄14'40	2°36'34
evening set	13637 Aug 11 21:53	14°♄17'52		minimum elong	13638 Aug 01 18:12	22°♄08'01	2°35'21
inferior conj	13637 Aug 18 03:03	9°♄01'25	1°55'01	min. Earth dist.	13638 Aug 03 20:04	19°♄39'47	0.65001 AU
minimum elong	13637 Aug 18 05:31	8°♄54'44	1°53'48	morning rise	13638 Aug 07 13:38	15°♄52'57	
min. Earth dist.	13637 Aug 20 20:42	6°♄05'02	0.62972 AU	desc. node	13638 Aug 11 20:27	13°♄31'43	
morning rise	13637 Aug 24 11:06	2°♄49'04		direct	13638 Aug 14 01:52	13°♄13'52	
desc. node	13637 Aug 24 22:58	2°♄27'42		morning max el	13638 Aug 27 14:11	21°♄10'09	27°13'31
direct	13637 Aug 31 03:08	0°♄20'10			13638 Sep 04 06:07	0°♄	
morning max el	13637 Sep 14 03:31	8°♄22'00	27°51'49		13638 Sep 24 00:19	0°♄	
	13637 Sep 30 20:40	0°♄		morning set	13638 Oct 02 01:45	14°♄52'04	
	13637 Oct 17 20:01	0°♄		asc. node	13638 Oct 05 21:32	22°♄28'54	
morning set	13637 Oct 18 14:12	1°♄31'25		max. Earth dist.	13638 Oct 06 11:27	23°♄39'58	1.33307 AU
asc. node	13637 Oct 19 00:54	2°♄25'40			13638 Oct 09 12:30	0°♄	
max. Earth dist.	13637 Oct 23 17:18	12°♄13'40	1.32060 AU				
				superior conj	13638 Oct 10 10:06	1°♄54'18	0°41'51
superior conj	13637 Oct 26 06:37	17°♄45'44	1°04'18	minimum elong	13638 Oct 10 08:11	1°♄44'07	0°41'57
minimum elong	13637 Oct 26 04:20	17°♄33'17	1°04'38	evening rise	13638 Oct 17 12:57	17°♄09'39	
	13637 Oct 31 20:35	0°♄			13638 Oct 23 20:19	0°♄	
evening rise	13637 Nov 02 02:10	2°♄40'07		evening max el	13638 Nov 07 15:12	21°♄47'27	22°08'24
	13637 Nov 16 16:36	0°♄		desc. node	13638 Nov 07 16:42	21°♄51'05	
desc. node	13637 Nov 20 19:26	5°♄45'15		retrograde	13638 Nov 20 07:31	28°♄04'30	
evening max el	13637 Nov 26 03:51	11°♄46'01	23°50'13	evening set	13638 Nov 23 16:04	27°♄39'34	
retrograde	13637 Dec 09 16:40	18°♄30'19		inferior conj	13638 Dec 02 08:23	23°♄44'49	-5°51'46
evening set	13637 Dec 14 10:42	17°♄41'06		minimum elong	13638 Dec 02 04:20	23°♄50'30	5°50'25
min. Earth dist.	13637 Dec 20 14:47	14°♄40'55	0.55489 AU	min. Earth dist.	13638 Dec 01 21:15	24°♄00'25	0.54601 AU
inferior conj	13637 Dec 22 12:45	13°♄32'18	-5°47'41	morning rise	13638 Dec 10 17:39	19°♄57'36	
minimum elong	13637 Dec 22 17:29	13°♄25'14	5°46'11	direct	13638 Dec 14 04:17	19°♄31'13	
morning rise	13637 Dec 31 02:05	9°♄36'58		morning max el	13638 Dec 26 06:40	25°♄18'51	21°40'30
direct	13638 Jan 02 16:57	9°♄19'46			13638 Dec 30 12:33	0°♄	
morning max el	13638 Jan 13 06:46	14°♄23'54	20°09'51	asc. node	13639 Jan 01 21:55	3°♄12'06	
asc. node	13638 Jan 15 00:42	16°♄12'35		morning set	13639 Jan 15 20:53	28°♄35'04	
	13638 Jan 24 08:21	0°♄			13639 Jan 16 13:02	0°♄	
morning set	13638 Jan 31 11:03	13°♄50'47					
				superior conj	13639 Jan 23 01:07	13°♄45'14	1°23'36
superior conj	13638 Feb 08 03:15	29°♄31'44	1°06'29	minimum elong	13639 Jan 23 03:19	13°♄56'47	1°24'13
minimum elong	13638 Feb 08 05:59	29°♄45'26	1°06'44	max. Earth dist.	13639 Jan 27 08:35	22°♄35'59	1.34751 AU
	13638 Feb 08 08:54	0°♄			13639 Jan 31 03:09	0°♄	
max. Earth dist.	13638 Feb 13 20:59	10°♄43'51	1.36743 AU	evening rise	13639 Jan 31 13:20	0°♄48'33	
desc. node	13638 Feb 16 19:45	16°♄12'50		desc. node	13639 Feb 03 16:21	6°♄38'03	
evening rise	13638 Feb 17 15:26	17°♄42'15			13639 Feb 17 19:23	0°♄	
	13638 Feb 24 17:44	0°♄		evening max el	13639 Mar 07 17:16	22°♄33'58	26°44'05
	13638 Mar 17 07:11	0°♄		retrograde	13639 Mar 20 21:18	29°♄58'13	
evening max el	13638 Mar 25 03:26	8°♄48'19	25°44'03	evening set	13639 Mar 27 07:41	27°♄26'07	
retrograde	13638 Apr 06 14:44	15°♄59'06		asc. node	13639 Mar 30 18:46	24°♄02'45	
evening set	13638 Apr 12 15:00	13°♄30'32		min. Earth dist.	13639 Mar 31 08:22	23°♄23'56	0.66225 AU
asc. node	13638 Apr 12 21:18	13°♄17'02		inferior conj	13639 Apr 02 08:31	21°♄01'49	0°48'17
min. Earth dist.	13638 Apr 16 21:15	8°♄54'10	0.67539 AU	minimum elong	13639 Apr 02 07:18	21°♄05'25	0°47'33

morning rise	13639 Apr 08 08:05	15° $\Upsilon$ 23'24		evening set	13640 Mar 09 15:33	11° $\Upsilon$ 00'24	
direct	13639 Apr 11 06:57	14° $\Upsilon$ 35'07		min. Earth dist.	13640 Mar 13 11:54	7° $\Upsilon$ 30'11	0.64537 AU
morning max el	13639 Apr 17 16:34	17° $\Upsilon$ 57'43	18°15'04	inferior conj	13640 Mar 15 23:54	4° $\Upsilon$ 49'07	-0°13'09
	13639 Apr 26 20:35	0° $\mathcal{B}$		minimum elong	13640 Mar 16 00:18	4° $\Upsilon$ 48'03	0°12'59
desc. node	13639 May 02 18:40	9° $\mathcal{B}$ 16'18		transit middle	13640 Mar 16 00:18	4° $\Upsilon$ 48'03	0°12'59
morning set	13639 May 07 04:05	16° $\mathcal{B}$ 17'35		transit begin	13640 Mar 15 22:30	4° $\Upsilon$ 52'53	
	13639 May 15 18:51	0° $\Pi$		transit end	13640 Mar 16 02:05	4° $\Upsilon$ 43'13	
				asc. node	13640 Mar 16 16:13	4° $\Upsilon$ 05'26	
superior conj	13639 May 22 13:17	10° $\Pi$ 38'03	-1°58'50		13640 Mar 21 07:57	30° $\mathcal{R}$ $\mathcal{H}$	
minimum elong	13639 May 22 05:11	10° $\Pi$ 06'21	1°59'14	morning rise	13640 Mar 22 10:58	29° $\mathcal{H}$ 24'27	
max. Earth dist.	13639 May 24 00:09	12° $\Pi$ 54'17	1.45846 AU	direct	13640 Mar 25 00:55	28° $\mathcal{H}$ 50'06	
	13639 Jun 03 23:30	0° $\mathcal{E}$			13640 Mar 28 17:55	0° $\Upsilon$	
evening rise	13639 Jun 07 13:57	5° $\mathcal{E}$ 36'41		morning max el	13640 Mar 31 09:26	2° $\Upsilon$ 07'12	17°52'08
greatest brilliancy	13639 Jun 18 12:30	22° $\mathcal{E}$ 32'43	-0.8m	morning set	13640 Apr 17 15:18	27° $\Upsilon$ 53'23	
	13639 Jun 23 13:38	0° $\Omega$		desc. node	13640 Apr 18 15:18	29° $\Upsilon$ 33'34	
asc. node	13639 Jun 26 16:34	4° $\Omega$ 15'06			13640 Apr 18 21:38	0° $\mathcal{B}$	
evening max el	13639 Jun 30 18:34	8° $\Omega$ 59'10	19°05'18				
retrograde	13639 Jul 07 15:02	12° $\Omega$ 46'29		superior conj	13640 May 01 06:52	20° $\mathcal{B}$ 15'59	-1°27'52
evening set	13639 Jul 11 02:44	11° $\Omega$ 35'59		minimum elong	13640 Apr 30 22:19	19° $\mathcal{B}$ 41'48	1°27'38
inferior conj	13639 Jul 16 14:00	5° $\Omega$ 49'05	3°01'06	max. Earth dist.	13640 May 05 20:22	27° $\mathcal{B}$ 30'22	1.45342 AU
minimum elong	13639 Jul 16 15:24	5° $\Omega$ 44'34	3°00'01		13640 May 07 10:28	0° $\Pi$	
min. Earth dist.	13639 Jul 18 03:30	3° $\Omega$ 48'43	0.66669 AU	evening rise	13640 May 17 03:58	15° $\Pi$ 03'45	
	13639 Jul 21 12:02	30° $\mathcal{R}$ $\mathcal{E}$			13640 May 27 00:36	0° $\mathcal{E}$	
morning rise	13639 Jul 22 03:24	29° $\mathcal{E}$ 24'47		greatest brilliancy	13640 Jun 01 01:06	7° $\mathcal{E}$ 24'10	-0.6m
direct	13639 Jul 28 07:30	26° $\mathcal{E}$ 45'31		asc. node	13640 Jun 12 13:32	22° $\mathcal{E}$ 22'52	
desc. node	13639 Jul 29 17:53	26° $\mathcal{E}$ 53'06		evening max el	13640 Jun 12 23:26	22° $\mathcal{E}$ 48'04	19°59'06
	13639 Aug 05 03:39	0° $\Omega$		retrograde	13640 Jun 20 13:36	27° $\mathcal{E}$ 07'14	
morning max el	13639 Aug 10 01:11	4° $\Omega$ 21'13	26°08'43	evening set	13640 Jun 24 10:58	25° $\mathcal{E}$ 39'45	
	13639 Aug 29 15:48	0° $\mathcal{H}$		inferior conj	13640 Jun 29 18:11	19° $\mathcal{E}$ 39'35	3°11'31
morning set	13639 Sep 15 00:27	27° $\mathcal{H}$ 35'45		minimum elong	13640 Jun 29 18:34	19° $\mathcal{E}$ 38'18	3°10'29
	13639 Sep 16 07:19	0° $\mathcal{L}$		min. Earth dist.	13640 Jun 30 17:21	18° $\mathcal{E}$ 21'17	0.67899 AU
max. Earth dist.	13639 Sep 18 19:38	4° $\mathcal{L}$ 48'12	1.35067 AU	morning rise	13640 Jul 05 01:50	13° $\mathcal{E}$ 17'01	
asc. node	13639 Sep 22 18:06	12° $\mathcal{L}$ 35'34		direct	13640 Jul 10 19:01	10° $\mathcal{E}$ 46'08	
				desc. node	13640 Jul 15 15:12	12° $\mathcal{E}$ 12'59	
superior conj	13639 Sep 24 06:12	15° $\mathcal{L}$ 38'56	0°14'08	morning max el	13640 Jul 22 11:41	17° $\mathcal{E}$ 46'35	24°46'49
minimum elong	13639 Sep 24 05:24	15° $\mathcal{L}$ 34'52	0°14'09		13640 Aug 01 17:32	0° $\Omega$	
behind sun begin	13639 Sep 24 02:31	15° $\mathcal{L}$ 20'06			13640 Aug 21 16:20	0° $\mathcal{H}$	
behind sun end	13639 Sep 24 08:18	15° $\mathcal{L}$ 49'39		morning set	13640 Aug 27 06:14	9° $\mathcal{H}$ 33'07	
	13639 Oct 01 03:58	0° $\mathcal{M}$		max. Earth dist.	13640 Aug 30 20:06	15° $\mathcal{H}$ 58'14	1.37223 AU
evening rise	13639 Oct 01 21:27	1° $\mathcal{M}$ 30'51					
	13639 Oct 18 10:52	0° $\mathcal{J}$		superior conj	13640 Sep 06 15:51	28° $\mathcal{H}$ 52'13	-0°18'03
evening max el	13639 Oct 20 12:13	2° $\mathcal{J}$ 13'22	20°37'45	minimum elong	13640 Sep 06 17:02	28° $\mathcal{H}$ 58'01	0°17'57
desc. node	13639 Oct 25 14:03	6° $\mathcal{J}$ 08'32			13640 Sep 07 05:43	0° $\mathcal{L}$	
retrograde	13639 Oct 31 17:57	7° $\mathcal{J}$ 48'33		asc. node	13640 Sep 08 14:39	2° $\mathcal{L}$ 42'15	
evening set	13639 Nov 03 00:54	7° $\mathcal{J}$ 35'41		evening rise	13640 Sep 15 01:23	15° $\mathcal{L}$ 38'04	
inferior conj	13639 Nov 12 00:05	3° $\mathcal{J}$ 41'09	-4°55'57		13640 Sep 22 12:48	0° $\mathcal{M}$	
minimum elong	13639 Nov 11 14:13	3° $\mathcal{J}$ 55'22	4°52'39	evening max el	13640 Oct 01 23:23	13° $\mathcal{M}$ 25'29	19°27'06
min. Earth dist.	13639 Nov 13 03:39	3° $\mathcal{J}$ 01'25	0.54627 AU	desc. node	13640 Oct 11 11:28	18° $\mathcal{M}$ 13'12	
	13639 Nov 19 07:57	30° $\mathcal{R}$ $\mathcal{M}$		retrograde	13640 Oct 11 13:27	18° $\mathcal{M}$ 13'13	
morning rise	13639 Nov 20 03:23	29° $\mathcal{M}$ 44'00		evening set	13640 Oct 13 10:20	18° $\mathcal{M}$ 03'04	
direct	13639 Nov 24 12:42	29° $\mathcal{M}$ 02'42		inferior conj	13640 Oct 22 02:30	13° $\mathcal{M}$ 56'10	-3°17'42
	13639 Nov 29 13:46	0° $\mathcal{J}$		minimum elong	13640 Oct 21 18:09	14° $\mathcal{M}$ 09'39	3°14'04
morning max el	13639 Dec 07 19:13	5° $\mathcal{J}$ 30'00	23°26'54	min. Earth dist.	13640 Oct 24 13:12	12° $\mathcal{M}$ 21'36	0.55569 AU
asc. node	13639 Dec 19 19:03	21° $\mathcal{J}$ 07'56		morning rise	13640 Oct 29 23:49	9° $\mathcal{M}$ 29'44	
	13639 Dec 24 18:52	0° $\mathcal{Z}$		direct	13640 Nov 04 05:41	8° $\mathcal{M}$ 27'54	
morning set	13639 Dec 31 08:34	13° $\mathcal{Z}$ 20'44		morning max el	13640 Nov 18 05:03	15° $\mathcal{M}$ 28'49	25°14'08
					13640 Nov 29 19:34	0° $\mathcal{J}$	
superior conj	13640 Jan 07 05:46	28° $\mathcal{Z}$ 15'17	1°34'01	asc. node	13640 Dec 05 16:02	9° $\mathcal{J}$ 46'29	
minimum elong	13640 Jan 07 07:02	28° $\mathcal{Z}$ 22'06	1°34'55	morning set	13640 Dec 14 20:16	28° $\mathcal{J}$ 02'55	
	13640 Jan 08 01:12	0° $\approx$			13640 Dec 15 17:58	0° $\mathcal{Z}$	
max. Earth dist.	13640 Jan 10 03:51	4° $\approx$ 29'50	1.33135 AU				
evening rise	13640 Jan 14 23:51	14° $\approx$ 25'22		superior conj	13640 Dec 21 14:44	12° $\mathcal{Z}$ 55'00	1°38'05
desc. node	13640 Jan 21 13:02	26° $\approx$ 50'59		minimum elong	13640 Dec 21 14:54	12° $\mathcal{Z}$ 55'56	1°39'07
	13640 Jan 23 07:32	0° $\mathcal{H}$		max. Earth dist.	13640 Dec 23 06:18	16° $\mathcal{Z}$ 32'36	1.31982 AU
	13640 Feb 12 15:38	0° $\Upsilon$		evening rise	13640 Dec 28 19:55	28° $\mathcal{Z}$ 5'11	
evening max el	13640 Feb 18 06:37	6° $\Upsilon$ 02'44	27°22'50		13640 Dec 29 14:23	0° $\approx$	
retrograde	13640 Mar 02 21:27	13° $\Upsilon$ 30'05		desc. node	13641 Jan 07 09:46	16° $\approx$ 45'46	

	13641 Jan 15 12:07	0°♄			13642 Jan 11 15:39	0°♄		
evening max el	13641 Jan 30 17:28	19°♄01'14	27°33'26	evening max el	13642 Jan 12 23:27	1°♄17'53	27°10'51	
retrograde	13641 Feb 13 14:12	26°♄24'50		retrograde	13642 Jan 26 22:45	8°♄33'30		
evening set	13641 Feb 20 12:01	24°♄04'48		evening set	13642 Feb 02 17:57	6°♄31'27		
min. Earth dist.	13641 Feb 24 06:03	21°♄02'03	0.62551 AU	min. Earth dist.	13642 Feb 06 13:54	3°♄47'57	0.60388 AU	
inferior conj	13641 Feb 27 04:13	18°♄13'54	-1°25'53	inferior conj	13642 Feb 09 18:03	1°♄07'42	-2°47'24	
minimum elong	13641 Feb 27 07:07	18°♄06'55	1°24'22	minimum elong	13642 Feb 10 00:05	0°♄54'57	2°44'31	
asc. node	13641 Mar 03 13:41	14°♄28'12			13642 Feb 11 02:37	30°♄		
morning rise	13641 Mar 06 04:56	13°♄05'55		morning rise	13642 Feb 17 09:24	26°♄19'11		
direct	13641 Mar 08 11:33	12°♄42'02		asc. node	13642 Feb 18 11:07	26°♄06'10		
morning max el	13641 Mar 15 03:05	16°♄04'40	17°46'42	direct	13642 Feb 19 11:07	26°♄02'08		
	13641 Mar 24 23:36	0°♄		morning max el	13642 Feb 26 18:10	29°♄40'57	17°59'39	
morning set	13641 Mar 31 02:38	10°♄37'14			13642 Feb 27 01:48	0°♄		
desc. node	13641 Apr 05 11:51	20°♄00'59		morning set	13642 Mar 14 07:55	24°♄10'51		
	13641 Apr 11 08:42	0°♄			13642 Mar 17 11:49	0°♄		
				desc. node	13642 Mar 23 08:23	10°♄34'42		
superior conj	13641 Apr 11 22:01	0°♄55'39	-0°48'50					
minimum elong	13641 Apr 11 17:14	0°♄35'39	0°48'34	superior conj	13642 Mar 24 13:14	12°♄42'00	-0°09'34	
max. Earth dist.	13641 Apr 18 13:50	11°♄49'13	1.44145 AU	minimum elong	13642 Mar 24 12:25	12°♄38'24	0°09'34	
evening rise	13641 Apr 26 16:27	24°♄34'46		behind sun begin	13642 Mar 24 05:58	12°♄10'02		
	13641 Apr 30 05:21	0°♄		behind sun end	13642 Mar 24 18:52	13°♄06'42		
	13641 May 21 04:38	0°♄		max. Earth dist.	13642 Apr 01 02:35	25°♄35'39	1.42390 AU	
evening max el	13641 May 26 22:19	6°♄37'04	21°06'25		13642 Apr 03 19:02	0°♄		
asc. node	13641 May 30 10:36	9°♄39'54		evening rise	13642 Apr 06 18:00	4°♄45'12		
retrograde	13641 Jun 04 12:30	11°♄37'04			13642 Apr 23 12:21	0°♄		
evening set	13641 Jun 08 20:10	9°♄52'58		evening max el	13642 May 09 16:09	20°♄26'47	22°23'20	
inferior conj	13641 Jun 14 02:05	3°♄41'10	3°09'54	asc. node	13642 May 17 07:46	25°♄50'51		
minimum elong	13641 Jun 14 01:29	3°♄43'17	3°08'49	retrograde	13642 May 19 09:59	26°♄10'51		
min. Earth dist.	13641 Jun 14 11:37	3°♄08'04	0.68658 AU	evening set	13642 May 24 04:40	24°♄11'17		
	13641 Jun 16 20:05	30°♄		inferior conj	13642 May 29 11:38	17°♄49'59	2°57'31	
morning rise	13641 Jun 19 06:34	27°♄23'00		minimum elong	13642 May 29 10:11	17°♄55'01	2°56'19	
direct	13641 Jun 24 11:23	25°♄06'46		min. Earth dist.	13642 May 29 08:10	18°♄02'03	0.68940 AU	
desc. node	13641 Jul 02 12:26	29°♄03'59		morning rise	13642 Jun 03 15:33	11°♄38'03		
	13641 Jul 03 13:21	0°♄		direct	13642 Jun 08 07:38	9°♄40'28		
morning max el	13641 Jul 04 22:23	1°♄20'13	23°17'32	morning max el	13642 Jun 17 11:44	15°♄01'45	21°49'53	
	13641 Jul 26 15:33	0°♄		desc. node	13642 Jun 19 09:34	17°♄02'34		
morning set	13641 Aug 08 14:33	20°♄32'58			13642 Jun 29 14:08	0°♄		
max. Earth dist.	13641 Aug 12 18:03	27°♄35'58	1.39567 AU	morning set	13642 Jul 19 21:59	0°♄27'21		
	13641 Aug 14 03:08	0°♄			13642 Jul 19 15:07	0°♄		
				max. Earth dist.	13642 Jul 25 19:31	10°♄02'27	1.41838 AU	
superior conj	13641 Aug 20 11:11	11°♄24'47	-0°52'56					
minimum elong	13641 Aug 20 15:05	11°♄42'47	0°52'43	superior conj	13642 Aug 02 11:50	23°♄06'56	-1°27'20	
asc. node	13641 Aug 26 11:12	22°♄45'06		minimum elong	13642 Aug 02 18:21	23°♄35'24	1°27'13	
evening rise	13641 Aug 29 21:50	29°♄23'25			13642 Aug 06 09:04	0°♄		
	13641 Aug 30 05:26	0°♄		evening rise	13642 Aug 13 07:08	12°♄37'19		
evening max el	13641 Sep 14 23:18	25°♄25'44	18°38'29	asc. node	13642 Aug 13 07:47	12°♄40'16		
retrograde	13641 Sep 23 02:35	29°♄31'45			13642 Aug 23 04:09	0°♄		
evening set	13641 Sep 25 00:59	29°♄18'38		evening max el	13642 Aug 29 08:04	8°♄05'38	18°10'50	
desc. node	13641 Sep 28 08:55	28°♄00'47		retrograde	13642 Sep 05 10:23	11°♄42'25		
inferior conj	13641 Oct 03 00:53	24°♄52'42	-1°28'52	evening set	13642 Sep 07 15:29	11°♄21'54		
minimum elong	13641 Oct 02 21:17	24°♄59'30	1°27'04	inferior conj	13642 Sep 14 20:57	6°♄35'12	0°07'22	
min. Earth dist.	13641 Oct 06 04:44	22°♄30'48	0.57254 AU	minimum elong	13642 Sep 14 21:12	6°♄34'39	0°07'18	
morning rise	13641 Oct 10 14:08	19°♄48'35		transit middle	13642 Sep 14 21:12	6°♄34'39	0°07'18	
direct	13641 Oct 16 13:06	18°♄20'36		transit begin	13642 Sep 14 18:09	6°♄41'19		
morning max el	13641 Oct 30 19:46	25°♄48'46	26°43'28	transit end	13642 Sep 15 00:14	6°♄27'58		
	13641 Nov 03 18:26	0°♄		desc. node	13642 Sep 15 06:27	6°♄14'15		
asc. node	13641 Nov 22 12:56	28°♄56'50		min. Earth dist.	13642 Sep 18 03:58	3°♄43'01	0.59403 AU	
	13641 Nov 23 02:05	0°♄		morning rise	13642 Sep 21 23:32	0°♄57'16		
morning set	13641 Nov 29 06:20	12°♄37'06			13642 Sep 23 20:35	30°♄		
				direct	13642 Sep 28 10:22	29°♄01'42		
superior conj	13641 Dec 06 01:57	27°♄38'31	1°36'06		13642 Oct 03 04:07	0°♄		
minimum elong	13641 Dec 06 01:05	27°♄33'38	1°37'06	morning max el	13642 Oct 12 17:59	6°♄49'14	27°40'21	
max. Earth dist.	13641 Dec 06 13:23	28°♄42'15	1.31328 AU		13642 Oct 30 04:34	0°♄		
	13641 Dec 07 03:20	0°♄		asc. node	13642 Nov 09 09:45	18°♄29'33		
evening rise	13641 Dec 12 22:54	12°♄41'44		morning set	13642 Nov 13 12:54	26°♄57'27		
	13641 Dec 21 17:10	0°♄			13642 Nov 14 23:10	0°♄		
desc. node	13641 Dec 25 06:36	6°♄15'12		max. Earth dist.	13642 Nov 19 21:38	10°♄50'41	1.31196 AU	

superior conj	13642 Nov 20 13:29	12° $\text{♊}$ 19'05	1°28'17	minimum elong	13643 Nov 04 21:17	26° $\text{♋}$ 39'26	1°15'13
minimum elong	13642 Nov 20 11:46	12° $\text{♊}$ 09'30	1°29'04		13643 Nov 06 09:32	0° $\text{♊}$	
evening rise	13642 Nov 27 06:32	27° $\text{♊}$ 08'21		evening rise	13643 Nov 11 16:54	11° $\text{♋}$ 40'10	
	13642 Nov 28 14:45	0° $\text{♋}$			13643 Nov 20 20:30	0° $\text{♋}$	
desc. node	13642 Dec 12 03:34	25° $\text{♋}$ 08'30		desc. node	13643 Nov 29 00:38	13° $\text{♋}$ 12'10	
	13642 Dec 15 08:37	0° $\text{♌}$		evening max el	13643 Dec 07 12:47	23° $\text{♋}$ 18'57	24°47'38
evening max el	13642 Dec 25 22:13	12° $\text{♌}$ 43'37	26°13'48		13643 Dec 19 01:23	0° $\text{♌}$	
retrograde	13643 Jan 08 21:06	19° $\text{♌}$ 48'34		retrograde	13643 Dec 21 06:59	0° $\text{♌}$ 11'28	
evening set	13643 Jan 15 05:22	18° $\text{♌}$ 12'15			13643 Dec 23 12:50	30° $\text{♌}$	
min. Earth dist.	13643 Jan 19 11:38	15° $\text{♌}$ 35'40	0.58237 AU	evening set	13643 Dec 26 18:13	29° $\text{♋}$ 05'09	
inferior conj	13643 Jan 22 13:47	13° $\text{♌}$ 20'09	-4°10'50	min. Earth dist.	13644 Jan 01 00:39	26° $\text{♋}$ 19'11	0.56352 AU
minimum elong	13643 Jan 22 22:21	13° $\text{♌}$ 04'27	4°07'23	inferior conj	13644 Jan 03 12:53	24° $\text{♋}$ 43'20	-5°21'30
morning rise	13643 Jan 30 18:17	8° $\text{♌}$ 52'58		minimum elong	13644 Jan 03 20:42	24° $\text{♋}$ 30'53	5°19'04
direct	13643 Feb 01 19:17	8° $\text{♌}$ 39'05		morning rise	13644 Jan 12 01:18	20° $\text{♋}$ 37'32	
asc. node	13643 Feb 05 08:33	9° $\text{♌}$ 23'30		direct	13644 Jan 14 08:46	20° $\text{♋}$ 22'45	
morning max el	13643 Feb 10 02:47	12° $\text{♌}$ 44'13	18°32'37	asc. node	13644 Jan 23 05:56	24° $\text{♋}$ 19'09	
	13643 Feb 21 16:47	0° $\text{♍}$		morning max el	13644 Jan 24 00:50	25° $\text{♋}$ 03'05	19°27'39
morning set	13643 Feb 26 01:48	8° $\text{♍}$ 17'47			13644 Jan 28 06:35	0° $\text{♍}$	
				morning set	13644 Feb 10 04:11	22° $\text{♌}$ 46'14	
superior conj	13643 Mar 07 01:21	25° $\text{♍}$ 25'04	0°25'14		13644 Feb 13 18:30	0° $\text{♍}$	
minimum elong	13643 Mar 07 03:03	25° $\text{♍}$ 32'58	0°25'08				
	13643 Mar 09 13:16	0° $\text{♎}$		superior conj	13644 Feb 18 05:50	8° $\text{♍}$ 52'30	0°53'27
desc. node	13643 Mar 10 04:53	1° $\text{♎}$ 10'36		minimum elong	13644 Feb 18 08:31	9° $\text{♍}$ 05'37	0°53'32
max. Earth dist.	13643 Mar 14 10:58	8° $\text{♎}$ 41'50	1.40267 AU	max. Earth dist.	13644 Feb 24 17:27	21° $\text{♍}$ 09'06	1.38010 AU
evening rise	13643 Mar 18 15:52	15° $\text{♎}$ 50'12		desc. node	13644 Feb 25 01:23	21° $\text{♍}$ 45'16	
	13643 Mar 27 12:17	0° $\text{♏}$		evening rise	13644 Feb 28 10:38	27° $\text{♍}$ 48'38	
	13643 Apr 18 07:04	0° $\text{♐}$			13644 Feb 29 16:48	0° $\text{♎}$	
evening max el	13643 Apr 22 06:55	4° $\text{♐}$ 18'44	23°44'26		13644 Mar 19 22:52	0° $\text{♏}$	
retrograde	13643 May 03 04:38	10° $\text{♐}$ 43'22		evening max el	13644 Apr 03 20:32	18° $\text{♏}$ 11'52	25°02'58
asc. node	13643 May 04 05:03	10° $\text{♐}$ 38'42		retrograde	13644 Apr 15 19:15	25° $\text{♏}$ 08'28	
evening set	13643 May 08 10:53	8° $\text{♐}$ 30'10		asc. node	13644 Apr 20 02:27	23° $\text{♏}$ 48'57	
min. Earth dist.	13643 May 13 04:49	2° $\text{♐}$ 57'23	0.68750 AU	evening set	13644 Apr 21 13:12	22° $\text{♏}$ 44'21	
inferior conj	13643 May 13 20:54	2° $\text{♐}$ 02'20	2°34'54	min. Earth dist.	13644 Apr 25 23:20	17° $\text{♏}$ 47'48	0.68107 AU
minimum elong	13643 May 13 18:54	2° $\text{♐}$ 09'10	2°33'35	inferior conj	13644 Apr 27 03:58	16° $\text{♏}$ 13'50	2°02'01
	13643 May 15 09:15	30° $\text{♏}$		minimum elong	13644 Apr 27 01:48	16° $\text{♏}$ 20'55	2°00'42
morning rise	13643 May 19 02:54	25° $\text{♏}$ 58'03		morning rise	13644 May 02 14:42	10° $\text{♏}$ 18'32	
direct	13643 May 23 06:27	24° $\text{♏}$ 20'58		direct	13644 May 06 06:21	9° $\text{♏}$ 01'56	
morning max el	13643 May 31 06:51	28° $\text{♏}$ 53'57	20°31'07	morning max el	13644 May 13 09:30	12° $\text{♏}$ 57'13	19°25'45
	13643 Jun 01 08:34	0° $\text{♐}$		desc. node	13644 May 23 03:28	25° $\text{♏}$ 14'17	
desc. node	13643 Jun 06 06:35	5° $\text{♐}$ 50'36		greatest brilliancy	13644 May 26 01:23	29° $\text{♏}$ 28'25	-0.7m
	13643 Jun 23 03:27	0° $\text{♑}$			13644 May 26 09:56	0° $\text{♐}$	
morning set	13643 Jun 29 07:20	9° $\text{♑}$ 25'22		morning set	13644 Jun 07 09:09	18° $\text{♐}$ 08'21	
max. Earth dist.	13643 Jul 08 04:01	23° $\text{♑}$ 23'06	1.43762 AU		13644 Jun 15 01:06	0° $\text{♑}$	
	13643 Jul 12 05:52	0° $\text{♒}$		max. Earth dist.	13644 Jun 19 18:59	7° $\text{♑}$ 25'58	1.45126 AU
superior conj	13643 Jul 14 13:55	3° $\text{♒}$ 51'03	-1°56'04	superior conj	13644 Jun 23 16:30	13° $\text{♑}$ 36'16	-2°12'13
minimum elong	13643 Jul 14 20:56	4° $\text{♒}$ 20'11	1°56'26	minimum elong	13644 Jun 23 19:19	13° $\text{♑}$ 47'31	2°13'12
evening rise	13643 Jul 27 00:40	25° $\text{♒}$ 08'41			13644 Jul 03 19:27	0° $\text{♒}$	
	13643 Jul 29 19:20	0° $\text{♓}$		evening rise	13644 Jul 07 21:15	6° $\text{♒}$ 44'39	
asc. node	13643 Jul 31 04:26	2° $\text{♓}$ 23'52		asc. node	13644 Jul 17 01:10	21° $\text{♒}$ 50'10	
evening max el	13643 Aug 12 21:31	21° $\text{♓}$ 15'23	18°02'44		13644 Jul 22 12:12	0° $\text{♓}$	
retrograde	13643 Aug 19 09:50	24° $\text{♓}$ 37'26		evening max el	13644 Jul 26 11:55	4° $\text{♓}$ 44'26	18°13'08
evening set	13643 Aug 21 23:03	24° $\text{♓}$ 05'51		retrograde	13644 Aug 01 20:25	8° $\text{♓}$ 06'04	
inferior conj	13643 Aug 28 12:04	18° $\text{♓}$ 59'34	1°22'02	evening set	13644 Aug 04 18:03	7° $\text{♓}$ 20'44	
minimum elong	13643 Aug 28 14:13	18° $\text{♓}$ 54'10	1°21'00	inferior conj	13644 Aug 10 18:11	1° $\text{♓}$ 57'01	2°14'54
min. Earth dist.	13643 Aug 31 12:15	15° $\text{♓}$ 58'56	0.61698 AU	minimum elong	13644 Aug 10 20:39	1° $\text{♓}$ 50'01	2°13'39
desc. node	13643 Sep 02 04:00	14° $\text{♓}$ 28'10			13644 Aug 12 11:28	30° $\text{♓}$	
morning rise	13643 Sep 04 02:50	12° $\text{♓}$ 57'07		min. Earth dist.	13644 Aug 13 06:10	29° $\text{♒}$ 08'15	0.63875 AU
direct	13643 Sep 10 18:54	10° $\text{♓}$ 38'20		morning rise	13644 Aug 16 21:37	25° $\text{♒}$ 39'52	
morning max el	13643 Sep 24 22:59	18° $\text{♓}$ 36'48	27°58'34	desc. node	13644 Aug 19 01:32	24° $\text{♒}$ 14'52	
	13643 Oct 04 13:41	0° $\text{♔}$		direct	13644 Aug 23 12:36	23° $\text{♒}$ 05'46	
	13643 Oct 23 00:48	0° $\text{♕}$			13644 Sep 05 05:31	0° $\text{♓}$	
asc. node	13643 Oct 27 06:29	8° $\text{♕}$ 18'16		morning max el	13644 Sep 06 08:28	1° $\text{♓}$ 05'56	27°39'20
morning set	13643 Oct 28 14:02	10° $\text{♕}$ 59'19			13644 Sep 27 17:16	0° $\text{♔}$	
max. Earth dist.	13643 Nov 03 03:25	22° $\text{♕}$ 49'21	1.31598 AU	morning set	13644 Oct 11 07:21	24° $\text{♔}$ 36'44	
				asc. node	13644 Oct 13 03:08	28° $\text{♔}$ 17'14	
superior conj	13643 Nov 04 23:30	26° $\text{♕}$ 51'39	1°14'42		13644 Oct 13 23:12	0° $\text{♕}$	



max. Earth dist.	13644 Oct 16 02:58	4°♍29'36	1.32535 AU	asc. node	13645 Sep 29 23:44	18°♊22'12	
superior conj	13644 Oct 19 05:59	11°♍10'17	0°55'27	superior conj	13645 Oct 03 06:38	25°♊09'14	0°30'42
minimum elong	13644 Oct 19 03:46	10°♍58'20	0°55'41	minimum elong	13645 Oct 03 05:06	25°♊01'09	0°30'45
evening rise	13644 Oct 26 04:04	26°♍11'52			13645 Oct 05 13:50	0°♍	
	13644 Oct 27 23:02	0°♊		evening rise	13645 Oct 10 14:08	10°♍38'28	
desc. node	13644 Nov 14 21:50	0°♊07'40			13645 Oct 20 13:37	0°♊	
	13644 Nov 14 19:13	0°♊		evening max el	13645 Oct 30 12:55	13°♊29'10	21°27'39
evening max el	13644 Nov 17 22:37	3°♊21'55	23°06'16	desc. node	13645 Nov 01 19:09	15°♊30'52	
retrograde	13644 Dec 01 04:04	9°♊56'19		retrograde	13645 Nov 11 16:09	19°♊30'37	
evening set	13644 Dec 05 08:14	9°♊18'28		evening set	13645 Nov 14 11:57	19°♊12'18	
min. Earth dist.	13644 Dec 12 08:02	6°♊03'58	0.55015 AU	inferior conj	13645 Nov 23 08:39	15°♊18'53	-5°35'02
inferior conj	13644 Dec 13 16:30	5°♊17'20	-5°56'36	minimum elong	13645 Nov 23 01:17	15°♊29'15	5°32'55
minimum elong	13644 Dec 13 17:45	5°♊15'31	5°55'30	min. Earth dist.	13645 Nov 23 14:02	15°♊11'20	0.54493 AU
morning rise	13644 Dec 22 04:49	1°♊27'36		morning rise	13645 Dec 01 15:22	11°♊30'05	
direct	13644 Dec 25 03:30	1°♊07'10		direct	13645 Dec 05 11:23	10°♊58'16	
morning max el	13645 Jan 05 09:03	6°♊29'09	20°45'57	morning max el	13645 Dec 18 03:30	17°♊03'30	22°24'38
asc. node	13645 Jan 09 03:12	10°♊38'39		asc. node	13645 Dec 27 00:23	28°♊04'01	
	13645 Jan 20 19:47	0°♊			13645 Dec 28 06:03	0°♊	
morning set	13645 Jan 24 12:01	7°♊27'17		morning set	13646 Jan 08 22:52	22°♊12'56	
					13646 Jan 12 14:16	0°♊	
superior conj	13645 Jan 31 22:26	22°♊52'45	1°14'36	superior conj	13646 Jan 15 23:32	7°♊14'37	1°28'49
minimum elong	13645 Feb 01 01:01	23°♊05'57	1°15'00	minimum elong	13646 Jan 16 01:23	7°♊24'23	1°29'34
	13645 Feb 04 11:22	0°♊		max. Earth dist.	13646 Jan 19 16:35	14°♊59'57	1.34005 AU
max. Earth dist.	13645 Feb 06 02:03	3°♊09'21	1.35856 AU	evening rise	13646 Jan 24 03:20	23°♊53'16	
evening rise	13645 Feb 09 23:40	10°♊33'01			13646 Jan 27 08:36	0°♊	
desc. node	13645 Feb 10 21:55	12°♊15'17		desc. node	13646 Jan 28 18:31	2°♊35'44	
	13645 Feb 21 06:51	0°♊			13646 Feb 14 21:08	0°♊	
	13645 Mar 15 10:06	0°♊		evening max el	13646 Feb 27 23:38	15°♊41'03	27°03'32
evening max el	13645 Mar 17 10:07	2°♊02'10	26°11'44	retrograde	13646 Mar 13 09:03	23°♊08'30	
retrograde	13645 Mar 30 05:00	9°♊19'50		evening set	13646 Mar 19 23:09	20°♊36'17	
evening set	13645 Apr 05 09:57	6°♊48'52		min. Earth dist.	13646 Mar 23 21:40	16°♊48'16	0.65547 AU
asc. node	13645 Apr 06 23:53	5°♊21'33		asc. node	13646 Mar 24 21:20	15°♊41'34	
min. Earth dist.	13645 Apr 09 13:37	2°♊27'34	0.67029 AU	inferior conj	13646 Mar 26 03:05	14°♊16'27	0°23'37
inferior conj	13645 Apr 11 06:48	0°♊20'33	1°18'28	minimum elong	13646 Mar 26 02:27	14°♊18'17	0°23'13
minimum elong	13645 Apr 11 05:02	0°♊26'00	1°17'24	morning rise	13646 Apr 01 07:17	8°♊43'49	
	13645 Apr 11 13:28	30°♊		direct	13646 Apr 04 02:06	8°♊02'02	
morning rise	13645 Apr 17 00:57	24°♊35'42		morning max el	13646 Apr 10 10:25	11°♊21'01	18°03'14
direct	13645 Apr 20 05:36	23°♊37'56			13646 Apr 23 15:48	0°♊	
morning max el	13645 Apr 26 19:22	27°♊08'43	18°36'08	desc. node	13646 Apr 26 20:53	5°♊12'45	
	13645 Apr 29 10:02	0°♊		morning set	13646 Apr 28 19:59	8°♊24'34	
desc. node	13645 May 10 00:14	15°♊04'15			13646 May 12 06:40	0°♊	
morning set	13645 May 18 01:05	27°♊36'46					
	13645 May 19 13:37	0°♊		superior conj	13646 May 13 12:43	1°♊58'26	-1°47'17
max. Earth dist.	13645 Jun 02 13:51	21°♊53'53	1.45794 AU	minimum elong	13646 May 13 03:39	1°♊22'44	1°47'20
superior conj	13645 Jun 03 02:48	22°♊44'25	-2°09'32	max. Earth dist.	13646 May 16 09:38	6°♊28'46	1.45715 AU
minimum elong	13645 Jun 02 21:56	22°♊25'25	2°10'23	evening rise	13646 May 29 15:13	27°♊00'42	
	13645 Jun 07 18:09	0°♊			13646 May 31 13:44	0°♊	
evening rise	13645 Jun 18 17:22	17°♊18'59		greatest brilliancy	13646 Jun 11 13:32	16°♊43'26	-0.7m
greatest brilliancy	13645 Jun 26 12:27	29°♊40'56	-0.9m	asc. node	13646 Jun 20 18:54	29°♊23'25	
	13645 Jun 26 17:18	0°♊			13646 Jun 21 07:22	0°♊	
asc. node	13645 Jul 03 22:00	10°♊52'51		evening max el	13646 Jun 23 08:11	2°♊12'02	19°26'24
evening max el	13645 Jul 10 00:14	18°♊25'20	18°41'20	retrograde	13646 Jun 30 11:32	6°♊12'02	
retrograde	13645 Jul 16 14:03	21°♊59'57		evening set	13646 Jul 04 03:09	4°♊54'30	
evening set	13645 Jul 19 20:25	20°♊59'02			13646 Jul 08 18:34	30°♊	
inferior conj	13645 Jul 25 11:22	15°♊20'02	2°48'51	inferior conj	13646 Jul 09 12:20	29°♊01'48	3°07'06
minimum elong	13645 Jul 25 13:17	15°♊14'05	2°47'41	minimum elong	13646 Jul 09 13:19	28°♊58'34	3°06'03
min. Earth dist.	13645 Jul 27 09:12	12°♊58'43	0.65757 AU	min. Earth dist.	13646 Jul 10 19:43	27°♊18'25	0.67240 AU
morning rise	13645 Jul 31 05:13	8°♊56'18		morning rise	13646 Jul 14 22:57	22°♊37'32	
desc. node	13645 Aug 05 23:01	6°♊17'44		direct	13646 Jul 20 22:36	20°♊00'44	
direct	13645 Aug 06 14:14	6°♊16'16		desc. node	13646 Jul 23 20:24	20°♊32'10	
morning max el	13645 Aug 19 19:45	14°♊05'57	26°48'42	morning max el	13646 Aug 02 06:38	27°♊24'11	25°35'25
	13645 Sep 01 18:05	0°♊			13646 Aug 04 17:10	0°♊	
	13645 Sep 20 10:17	0°♊			13646 Aug 26 09:49	0°♊	
morning set	13645 Sep 24 13:55	7°♊42'48		morning set	13646 Sep 07 06:03	20°♊08'43	
max. Earth dist.	13645 Sep 28 17:09	15°♊47'59	1.34000 AU	max. Earth dist.	13646 Sep 10 21:18	26°♊52'48	1.35935 AU

	13646 Sep 12 12:35	0°♄		morning set	13647 Aug 20 03:10	1°♎42'17	
				max. Earth dist.	13647 Aug 23 19:26	8°♎08'59	1.38206 AU
superior conj	13646 Sep 16 22:44	8°♄41'44	0°00'58				
minimum elong	13646 Sep 16 22:41	8°♄41'28	0°01'00	superior conj	13647 Aug 31 02:47	21°♎38'39	-0°32'39
behind sun begin	13646 Sep 16 16:27	8°♄10'13		minimum elong	13647 Aug 31 05:04	21°♎49'30	0°32'30
behind sun end	13646 Sep 17 04:55	9°♄12'46		asc. node	13647 Sep 03 16:48	28°♎34'32	
asc. node	13646 Sep 16 20:16	8°♄29'20			13647 Sep 04 10:14	0°♄	
evening rise	13646 Sep 24 21:01	24°♄54'39		evening rise	13647 Sep 08 22:06	8°♄52'54	
	13646 Sep 27 09:11	0°♄			13647 Sep 20 16:26	0°♄	
evening max el	13646 Oct 12 15:56	24°♄14'26	20°05'08	evening max el	13647 Sep 25 09:01	5°♄47'49	19°03'53
desc. node	13646 Oct 19 16:32	28°♄55'01		retrograde	13647 Oct 04 07:01	10°♄16'02	
retrograde	13646 Oct 23 05:02	29°♄29'21		evening set	13647 Oct 06 03:45	10°♄05'08	
evening set	13646 Oct 25 05:37	29°♄18'38		desc. node	13647 Oct 06 14:01	9°♄59'39	
inferior conj	13646 Nov 03 03:29	25°♄20'28	-4°17'41	inferior conj	13647 Oct 14 13:41	5°♄50'53	-2°31'09
minimum elong	13646 Nov 02 17:29	25°♄35'27	4°13'53	minimum elong	13647 Oct 14 07:16	6°♄01'54	2°28'09
min. Earth dist.	13646 Nov 04 21:55	24°♄16'47	0.54918 AU	min. Earth dist.	13647 Oct 17 09:40	3°♄54'40	0.56212 AU
morning rise	13646 Nov 11 04:16	21°♄12'21		morning rise	13647 Oct 22 07:57	1°♄08'58	
direct	13646 Nov 15 22:37	20°♄22'55			13647 Oct 26 15:50	30°♄	
morning max el	13646 Nov 29 13:54	27°♄06'10	24°13'22	direct	13647 Oct 27 21:57	29°♄56'15	
	13646 Dec 02 09:30	0°♄			13647 Oct 29 04:06	0°♄	
asc. node	13646 Dec 13 21:26	16°♄19'49		morning max el	13647 Nov 11 00:53	7°♄09'19	25°55'11
	13646 Dec 21 03:03	0°♄			13647 Nov 27 20:37	0°♄	
morning set	13646 Dec 24 10:46	6°♄57'52		asc. node	13647 Nov 30 18:23	5°♄12'47	
				morning set	13647 Dec 08 21:59	21°♄36'47	
superior conj	13646 Dec 31 06:20	21°♄50'03	1°36'29		13647 Dec 12 17:59	0°♄	
minimum elong	13646 Dec 31 07:08	21°♄54'26	1°37'28				
max. Earth dist.	13647 Jan 02 14:54	26°♄56'28	1.32586 AU	superior conj	13647 Dec 15 16:30	6°♄31'47	1°37'57
	13647 Jan 04 01:18	0°♄		minimum elong	13647 Dec 15 16:13	6°♄30'10	1°39'00
evening rise	13647 Jan 07 18:19	7°♄41'15		max. Earth dist.	13647 Dec 16 19:44	9°♄02'47	1.31650 AU
desc. node	13647 Jan 15 15:12	22°♄41'46		evening rise	13647 Dec 22 17:38	21°♄48'57	
	13647 Jan 19 20:42	0°♄			13647 Dec 26 18:32	0°♄	
evening max el	13647 Feb 10 12:10	28°♄58'24	27°31'05	desc. node	13648 Jan 02 12:00	12°♄26'41	
	13647 Feb 11 14:38	0°♄			13648 Jan 13 20:23	0°♄	
retrograde	13647 Feb 24 06:25	6°♄25'24		evening max el	13648 Jan 23 21:33	11°♄41'17	27°28'05
evening set	13647 Mar 03 02:30	3°♄58'59		retrograde	13648 Feb 06 19:46	19°♄01'08	
min. Earth dist.	13647 Mar 06 21:32	0°♄40'55	0.63722 AU	evening set	13648 Feb 13 17:12	16°♄48'09	
	13647 Mar 07 13:47	30°♄		min. Earth dist.	13648 Feb 17 11:34	13°♄54'29	0.61646 AU
inferior conj	13647 Mar 09 14:09	27°♄55'04	-0°42'45	inferior conj	13648 Feb 20 12:47	11°♄08'04	-1°59'39
minimum elong	13647 Mar 09 15:30	27°♄51'35	0°42'02	minimum elong	13648 Feb 20 16:59	10°♄58'29	1°57'32
asc. node	13647 Mar 11 18:48	25°♄44'32		asc. node	13648 Feb 26 16:16	6°♄34'06	
morning rise	13647 Mar 16 06:49	22°♄37'02		morning rise	13648 Feb 27 19:40	6°♄07'38	
direct	13647 Mar 18 17:18	22°♄07'42		direct	13648 Feb 29 23:52	5°♄47'02	
morning max el	13647 Mar 25 03:58	25°♄26'11	17°47'33	morning max el	13648 Mar 07 20:54	9°♄15'26	17°49'49
	13647 Mar 29 00:39	0°♄			13648 Mar 21 13:00	0°♄	
morning set	13647 Apr 10 18:09	20°♄31'05		morning set	13648 Mar 23 13:56	3°♄38'44	
desc. node	13647 Apr 13 17:27	25°♄34'27		desc. node	13648 Mar 30 14:00	16°♄04'57	
	13647 Apr 16 08:21	0°♄					
superior conj	13647 Apr 23 14:33	12°♄00'02	-1°11'45	superior conj	13648 Apr 03 16:06	23°♄08'26	-0°31'50
minimum elong	13647 Apr 23 07:21	11°♄30'46	1°11'26	minimum elong	13648 Apr 03 13:07	22°♄55'43	0°31'41
max. Earth dist.	13647 Apr 29 04:23	20°♄57'00	1.44911 AU		13648 Apr 07 18:03	0°♄	
	13647 May 04 22:54	0°♄		max. Earth dist.	13648 Apr 10 20:22	5°♄05'00	1.43462 AU
evening rise	13647 May 09 02:24	6°♄23'27		evening rise	13648 Apr 17 19:10	16°♄08'44	
	13647 May 24 22:15	0°♄			13648 Apr 26 21:29	0°♄	
evening max el	13647 Jun 06 10:31	16°♄00'48	20°26'26		13648 May 19 10:58	0°♄	
asc. node	13647 Jun 07 15:54	17°♄10'58		evening max el	13648 May 19 07:14	29°♄50'41	21°38'19
retrograde	13647 Jun 14 10:20	20°♄36'27		asc. node	13648 May 24 13:02	4°♄02'14	
evening set	13647 Jun 18 11:58	19°♄01'59		retrograde	13648 May 28 08:42	5°♄08'47	
inferior conj	13647 Jun 23 18:20	12°♄56'55	3°12'12	evening set	13648 Jun 01 21:04	3°♄17'51	
minimum elong	13647 Jun 23 18:17	12°♄57'06	3°11'10		13648 Jun 04 22:39	30°♄	
min. Earth dist.	13647 Jun 24 11:43	11°♄57'20	0.68277 AU	inferior conj	13648 Jun 07 03:11	27°♄01'57	3°05'55
morning rise	13647 Jun 29 00:18	6°♄35'55		minimum elong	13648 Jun 07 02:11	27°♄05'24	3°04'47
direct	13647 Jul 04 12:26	4°♄10'18		min. Earth dist.	13648 Jun 07 07:07	26°♄48'11	0.68840 AU
desc. node	13647 Jul 10 17:42	6°♄33'21		morning rise	13648 Jun 12 07:07	20°♄46'29	
morning max el	13647 Jul 15 16:44	10°♄51'58	24°09'08	direct	13648 Jun 17 06:38	18°♄37'43	
	13647 Jul 30 22:30	0°♄		desc. node	13648 Jun 26 14:53	23°♄55'40	
	13647 Aug 19 03:18	0°♄		morning max el	13648 Jun 27 04:05	24°♄28'22	22°39'36
					13648 Jul 02 02:37	0°♄	

	13648 Jul 23 08:29	0°♎		desc. node	13649 Jun 13 11:57	12°♐17'00	
morning set	13648 Jul 31 01:02	12°♎14'02			13649 Jun 26 14:19	0°♐	
max. Earth dist.	13648 Aug 04 18:40	20°♎07'22	1.40564 AU	morning set	13649 Jul 10 22:10	21°♐41'33	
	13648 Aug 10 11:11	0°♐			13649 Jul 16 03:23	0°♎	
				max. Earth dist.	13649 Jul 17 23:24	2°♎58'43	1.42716 AU
superior conj	13648 Aug 12 14:44	3°♐50'54	-1°07'50				
minimum elong	13648 Aug 12 19:50	4°♐13'56	1°07'37	superior conj	13649 Jul 25 06:07	15°♎08'22	-1°40'37
asc. node	13648 Aug 20 13:22	18°♐34'30		minimum elong	13649 Jul 25 13:16	15°♎38'56	1°40'38
evening rise	13648 Aug 22 14:19	22°♐25'54			13649 Aug 02 17:37	0°♐	
	13648 Aug 26 15:14	0°♎		evening rise	13649 Aug 05 17:32	5°♐23'03	
evening max el	13648 Sep 07 13:12	18°♎05'31	18°24'14	asc. node	13649 Aug 07 10:00	8°♐25'10	
retrograde	13648 Sep 15 04:21	21°♎57'21			13649 Aug 21 02:02	0°♎	
evening set	13648 Sep 17 05:24	21°♎41'28		evening max el	13649 Aug 22 00:19	0°♎58'21	18°05'01
desc. node	13648 Sep 22 11:32	18°♎58'01		retrograde	13649 Aug 28 19:33	4°♎27'31	
inferior conj	13648 Sep 24 21:22	17°♎06'16	-0°45'40	evening set	13649 Aug 31 03:55	4°♎02'45	
minimum elong	13648 Sep 24 19:37	17°♎09'47	0°44'46		13649 Sep 06 03:07	30°♐♐	
min. Earth dist.	13648 Sep 28 03:54	14°♎29'21	0.58134 AU	inferior conj	13649 Sep 07 01:59	29°♐07'14	0°41'50
morning rise	13648 Oct 02 06:22	11°♎47'05		minimum elong	13649 Sep 07 03:16	29°♐04'14	0°41'14
direct	13648 Oct 08 11:08	10°♎07'30		desc. node	13649 Sep 09 09:04	26°♐58'14	
morning max el	13648 Oct 22 18:38	17°♎43'53	27°12'16	min. Earth dist.	13649 Sep 10 06:54	26°♐08'47	0.60373 AU
	13648 Nov 02 00:04	0°♐		morning rise	13649 Sep 13 23:31	23°♐17'18	
asc. node	13648 Nov 16 15:15	24°♐33'10		direct	13649 Sep 20 13:10	21°♐11'18	
	13648 Nov 19 08:48	0°♐		morning max el	13649 Oct 04 20:12	29°♐04'50	27°53'04
morning set	13648 Nov 22 06:48	6°♐05'16			13649 Oct 05 18:06	0°♎	
					13649 Oct 26 22:40	0°♐	
superior conj	13648 Nov 29 04:04	21°♐14'07	1°33'29	asc. node	13649 Nov 03 12:02	14°♐13'19	
minimum elong	13648 Nov 29 02:48	21°♐07'02	1°34'25	morning set	13649 Nov 06 11:22	20°♐18'34	
max. Earth dist.	13648 Nov 29 03:58	21°♐13'32	1.31214 AU		13649 Nov 10 23:38	0°♐	
	13648 Dec 03 02:39	0°♐		max. Earth dist.	13649 Nov 12 11:47	3°♐19'25	1.31295 AU
evening rise	13648 Dec 05 22:53	6°♐10'08					
	13648 Dec 18 08:28	0°♐		superior conj	13649 Nov 13 15:12	5°♐51'46	1°23'13
desc. node	13648 Dec 19 08:54	1°♐42'02		minimum elong	13649 Nov 13 13:14	5°♐40'46	1°23'54
evening max el	13649 Jan 05 00:50	23°♐36'59	26°50'37	evening rise	13649 Nov 20 07:55	20°♐39'21	
	13649 Jan 14 14:06	0°♐			13649 Nov 24 19:13	0°♐	
retrograde	13649 Jan 18 23:49	0°♐47'27		desc. node	13649 Dec 06 05:56	20°♐16'27	
	13649 Jan 23 07:27	30°♐♐			13649 Dec 13 10:48	0°♐	
evening set	13649 Jan 25 15:46	28°♐55'31		evening max el	13649 Dec 17 19:51	4°♐39'52	25°40'03
min. Earth dist.	13649 Jan 29 14:51	26°♐16'55	0.59464 AU	retrograde	13649 Dec 31 17:21	11°♐40'31	
inferior conj	13649 Feb 01 19:22	23°♐45'21	-3°23'12	evening set	13650 Jan 06 18:10	10°♐16'20	
minimum elong	13649 Feb 02 02:40	23°♐30'49	3°19'55	min. Earth dist.	13650 Jan 11 08:23	7°♐38'15	0.57384 AU
morning rise	13649 Feb 09 16:40	19°♐05'42		inferior conj	13650 Jan 14 06:33	5°♐37'40	-4°43'33
direct	13649 Feb 11 17:38	18°♐50'19		minimum elong	13650 Jan 14 15:24	5°♐22'25	4°40'20
asc. node	13649 Feb 12 13:43	18°♐53'00		morning rise	13650 Jan 22 15:21	1°♐20'17	
morning max el	13649 Feb 19 09:42	22°♐38'42	18°11'07	direct	13650 Jan 24 18:04	1°♐06'34	
	13649 Feb 25 03:45	0°♐		asc. node	13650 Jan 30 11:08	2°♐53'50	
morning set	13649 Mar 07 01:11	17°♐28'18		morning max el	13650 Feb 02 14:28	5°♐25'19	18°53'16
	13649 Mar 13 18:16	0°♐			13650 Feb 18 01:29	0°♐	
				morning set	13650 Feb 18 23:09	1°♐45'57	
superior conj	13649 Mar 16 16:47	5°♐20'28	0°05'56				
minimum elong	13649 Mar 16 17:14	5°♐22'31	0°05'52	superior conj	13650 Feb 27 12:31	18°♐24'44	0°38'01
behind sun begin	13649 Mar 16 10:09	4°♐50'37		minimum elong	13650 Feb 27 14:48	18°♐35'34	0°37'59
behind sun end	13649 Mar 17 00:19	5°♐54'19		desc. node	13650 Mar 04 07:00	27°♐15'52	
desc. node	13649 Mar 17 10:29	6°♐39'50			13650 Mar 05 19:29	0°♐	
max. Earth dist.	13649 Mar 24 07:41	18°♐36'58	1.41521 AU	max. Earth dist.	13650 Mar 06 14:45	1°♐25'39	1.39308 AU
evening rise	13649 Mar 29 04:57	26°♐41'29		evening rise	13650 Mar 10 11:57	8°♐10'02	
	13649 Mar 31 06:22	0°♐			13650 Mar 24 05:07	0°♐	
	13649 Apr 20 14:35	0°♐		evening max el	13650 Apr 14 13:21	27°♐32'52	24°18'25
evening max el	13649 May 01 23:28	13°♐40'58	22°57'38		13650 Apr 17 05:05	0°♐	
asc. node	13649 May 11 10:17	19°♐40'03		retrograde	13650 Apr 25 22:20	4°♐12'58	
retrograde	13649 May 12 05:07	19°♐42'51		asc. node	13650 Apr 28 07:37	3°♐47'40	
evening set	13649 May 17 04:48	17°♐36'55		evening set	13650 May 01 09:35	1°♐54'31	
min. Earth dist.	13649 May 22 03:53	11°♐43'27	0.68920 AU		13650 May 03 07:22	30°♐♐	
inferior conj	13649 May 22 12:50	11°♐12'26	2°49'10	min. Earth dist.	13650 May 05 23:54	26°♐37'14	0.68534 AU
minimum elong	13649 May 22 11:07	11°♐18'23	2°47'54	inferior conj	13650 May 06 21:25	25°♐24'43	2°22'14
morning rise	13649 May 27 17:21	5°♐03'51		minimum elong	13650 May 06 19:18	25°♐31'52	2°20'53
direct	13649 Jun 01 04:01	3°♐15'04		morning rise	13650 May 12 05:07	19°♐24'07	
morning max el	13649 Jun 09 19:42	8°♐14'31	21°15'01	direct	13650 May 16 03:24	17°♐56'05	

morning max el	13650 May 23 18:03	22°♄11'48	20°01'24	greatest brilliancy	13651 May 20 03:39	23°♄48'37	-0.7m
	13650 May 30 08:35	0°♄			13651 May 24 05:25	0°♄	
desc. node	13650 May 31 08:54	1°♄21'20		morning set	13651 May 30 07:05	9°♄20'59	
	13650 Jun 19 19:03	0°♄			13651 Jun 12 13:51	0°♄	
morning set	13650 Jun 20 01:45	0°♄25'44		max. Earth dist.	13651 Jun 13 02:53	0°♄51'04	1.45500 AU
max. Earth dist.	13650 Jun 30 10:26	16°♄37'18	1.44419 AU				
				superior conj	13651 Jun 15 16:08	4°♄51'35	-2°13'36
superior conj	13650 Jul 05 21:51	25°♄25'39	-2°04'54	minimum elong	13651 Jun 15 15:45	4°♄50'08	2°14'39
minimum elong	13650 Jul 06 03:45	25°♄49'41	2°05'34	evening rise	13651 Jun 30 13:05	28°♄41'28	
	13650 Jul 08 16:52	0°♄			13651 Jul 01 08:22	0°♄	
evening rise	13650 Jul 19 02:45	17°♄31'49		asc. node	13651 Jul 12 03:27	17°♄19'09	
asc. node	13650 Jul 25 06:41	28°♄01'52		evening max el	13651 Jul 20 04:27	27°♄52'17	18°23'05
	13650 Jul 26 11:02	0°♄			13651 Jul 22 18:09	0°♄	
evening max el	13650 Aug 05 14:32	14°♄16'48	18°04'58	retrograde	13651 Jul 26 14:08	1°♄17'37	
retrograde	13650 Aug 12 00:13	17°♄37'13		evening set	13651 Jul 29 15:27	0°♄25'52	
evening set	13650 Aug 14 16:53	17°♄00'13			13651 Jul 30 08:12	30°♄	
inferior conj	13650 Aug 20 23:59	11°♄46'27	1°46'59	inferior conj	13651 Aug 04 11:15	24°♄55'44	2°31'22
minimum elong	13650 Aug 21 02:24	11°♄39'59	1°45'48	minimum elong	13651 Aug 04 13:34	24°♄48'56	2°30'09
min. Earth dist.	13650 Aug 23 19:30	8°♄48'14	0.62646 AU	min. Earth dist.	13651 Aug 06 17:27	22°♄16'51	0.64721 AU
morning rise	13650 Aug 27 09:43	5°♄36'20		morning rise	13651 Aug 10 10:21	18°♄35'04	
desc. node	13650 Aug 27 06:36	5°♄42'05		desc. node	13651 Aug 14 04:06	16°♄25'07	
direct	13650 Sep 03 02:00	3°♄09'37		direct	13651 Aug 16 23:30	15°♄56'57	
morning max el	13650 Sep 17 03:31	11°♄11'12	27°54'43	morning max el	13651 Aug 30 13:51	23°♄54'26	27°21'05
	13650 Oct 01 23:42	0°♄			13651 Sep 05 01:01	0°♄	
	13650 Oct 19 07:28	0°♄			13651 Sep 25 08:40	0°♄	
morning set	13650 Oct 21 09:29	4°♄10'33		morning set	13651 Oct 04 22:34	17°♄35'26	
asc. node	13650 Oct 21 08:43	4°♄06'40		asc. node	13651 Oct 08 05:20	24°♄08'44	
max. Earth dist.	13650 Oct 26 15:09	15°♄09'52	1.31920 AU	max. Earth dist.	13651 Oct 09 10:43	26°♄39'27	1.33093 AU
					13651 Oct 11 01:15	0°♄	
superior conj	13650 Oct 28 23:57	20°♄18'44	1°07'13				
minimum elong	13650 Oct 28 21:40	20°♄06'14	1°07'37	superior conj	13651 Oct 13 04:15	4°♄29'56	0°45'37
	13650 Nov 02 09:38	0°♄		minimum elong	13651 Oct 13 02:14	4°♄19'10	0°45'45
evening rise	13650 Nov 04 18:47	5°♄11'03		evening rise	13651 Oct 20 05:42	19°♄41'05	
	13650 Nov 17 17:49	0°♄			13651 Oct 25 05:39	0°♄	
desc. node	13650 Nov 23 03:04	7°♄53'38		desc. node	13651 Nov 10 00:18	24°♄12'59	
evening max el	13650 Nov 29 07:29	14°♄57'20	24°05'26	evening max el	13651 Nov 10 18:07	24°♄57'35	22°23'06
retrograde	13650 Dec 12 22:11	21°♄44'05			13651 Nov 17 18:13	0°♄	
evening set	13650 Dec 17 20:50	20°♄50'39		retrograde	13651 Nov 23 14:09	1°♄19'19	
min. Earth dist.	13650 Dec 23 18:48	17°♄54'40	0.55690 AU	evening set	13651 Nov 27 03:45	0°♄51'24	
inferior conj	13650 Dec 25 20:51	16°♄38'48	-5°42'18		13651 Nov 29 17:33	30°♄	
minimum elong	13650 Dec 26 02:35	16°♄30'05	5°40'34	min. Earth dist.	13651 Dec 05 01:20	27°♄19'11	0.54684 AU
morning rise	13651 Jan 03 10:13	12°♄40'53		inferior conj	13651 Dec 05 18:07	26°♄55'34	-5°55'01
direct	13651 Jan 05 22:47	12°♄24'31		minimum elong	13651 Dec 05 15:26	26°♄59'21	5°53'50
morning max el	13651 Jan 16 07:00	17°♄22'33	19°58'10	morning rise	13651 Dec 14 04:17	23°♄08'10	
asc. node	13651 Jan 17 08:27	18°♄26'51		direct	13651 Dec 17 11:47	22°♄43'27	
	13651 Jan 25 14:34	0°♄		morning max el	13651 Dec 29 08:52	28°♄24'28	21°25'47
morning set	13651 Feb 03 04:10	16°♄20'14			13651 Dec 30 22:42	0°♄	
	13651 Feb 09 21:13	0°♄		asc. node	13652 Jan 04 05:40	5°♄15'50	
					13652 Jan 18 01:22	0°♄	
superior conj	13651 Feb 10 22:38	2°♄07'15	1°03'16	morning set	13652 Jan 18 13:31	1°♄03'21	
minimum elong	13651 Feb 11 01:23	2°♄20'57	1°03'28				
max. Earth dist.	13651 Feb 16 21:06	13°♄37'08	1.37067 AU	superior conj	13652 Jan 25 19:11	16°♄16'58	1°21'27
desc. node	13651 Feb 19 03:31	17°♄48'55		minimum elong	13652 Jan 25 21:30	16°♄29'02	1°22'00
evening rise	13651 Feb 20 14:55	20°♄29'09		max. Earth dist.	13652 Jan 30 07:49	25°♄30'27	1.35026 AU
	13651 Feb 26 02:22	0°♄			13652 Feb 01 14:45	0°♄	
	13651 Mar 18 05:16	0°♄		evening rise	13652 Feb 03 10:35	3°♄29'33	
evening max el	13651 Mar 28 02:51	11°♄25'23	25°33'49	desc. node	13652 Feb 06 00:04	8°♄15'07	
retrograde	13651 Apr 09 11:09	18°♄32'54			13652 Feb 19 00:18	0°♄	
evening set	13651 Apr 15 09:46	16°♄05'28		evening max el	13652 Mar 09 16:42	25°♄12'33	26°36'22
asc. node	13651 Apr 15 05:02	16°♄15'18			13652 Mar 15 12:13	0°♄	
min. Earth dist.	13651 Apr 19 17:02	11°♄23'47	0.67699 AU	retrograde	13652 Mar 22 18:30	2°♄35'10	
inferior conj	13651 Apr 21 02:57	9°♄34'57	1°44'54	evening set	13652 Mar 29 03:32	0°♄03'15	
minimum elong	13651 Apr 21 00:54	9°♄41'34	1°43'39		13652 Mar 29 05:08	30°♄	
morning rise	13651 Apr 26 16:31	3°♄43'38		asc. node	13652 Apr 01 02:28	27°♄11'48	
direct	13651 Apr 30 03:17	2°♄35'23		min. Earth dist.	13652 Apr 02 04:59	25°♄56'11	0.66445 AU
morning max el	13651 May 06 23:52	6°♄18'59	19°02'30	inferior conj	13652 Apr 04 03:19	23°♄37'48	0°56'37
desc. node	13651 May 18 05:43	20°♄57'12		minimum elong	13652 Apr 04 01:56	23°♄41'57	0°55'47

morning rise	13652 Apr 10 01:24	17° $\Upsilon$ 57'36		transit middle	13653 Mar 18 20:09	7° $\Upsilon$ 27'20	0°03'05
direct	13652 Apr 13 01:46	17° $\Upsilon$ 06'53		transit begin	13653 Mar 18 17:09	7° $\Upsilon$ 35'33	
morning max el	13652 Apr 19 12:08	20° $\Upsilon$ 31'07	18°20'00	transit end	13653 Mar 18 23:09	7° $\Upsilon$ 19'09	
	13652 Apr 26 23:52	0° $\mathcal{B}$		asc. node	13653 Mar 18 23:55	7° $\Upsilon$ 17'03	
desc. node	13652 May 04 02:26	10° $\mathcal{B}$ 55'44		morning rise	13653 Mar 25 05:16	2° $\Upsilon$ 00'51	
morning set	13652 May 09 09:51	19° $\mathcal{B}$ 21'41		direct	13653 Mar 27 20:28	1° $\Upsilon$ 24'39	
	13652 May 16 02:54	0° $\Pi$		morning max el	13653 Apr 03 04:38	4° $\Upsilon$ 41'45	17°54'31
					13653 Apr 20 06:00	0° $\mathcal{B}$	
superior conj	13652 May 25 00:02	13° $\Pi$ 56'14	-2°02'14	morning set	13653 Apr 20 16:58	0° $\mathcal{B}$ 45'34	
minimum elong	13652 May 24 16:35	13° $\Pi$ 27'08	2°02'46	desc. node	13653 Apr 20 23:03	1° $\mathcal{B}$ 10'47	
max. Earth dist.	13652 May 25 22:45	15° $\Pi$ 24'57	1.45858 AU				
	13652 Jun 04 07:07	0° $\mathcal{B}$		superior conj	13653 May 04 15:13	23° $\mathcal{B}$ 26'58	-1°33'18
evening rise	13652 Jun 09 22:55	8° $\mathcal{B}$ 50'47		minimum elong	13653 May 04 06:22	22° $\mathcal{B}$ 51'44	1°33'07
greatest brilliancy	13652 Jun 20 03:08	24° $\mathcal{B}$ 41'28	-0.8m		13653 May 08 18:38	0° $\Pi$	
	13652 Jun 23 15:40	0° $\Omega$		max. Earth dist.	13653 May 08 19:06	0° $\Pi$ 01'49	1.45463 AU
asc. node	13652 Jun 28 00:19	6° $\Omega$ 09'13		evening rise	13653 May 20 14:33	18° $\Pi$ 20'36	
evening max el	13652 Jul 02 15:13	11° $\Omega$ 36'29	18°58'32		13653 May 28 06:18	0° $\mathcal{B}$	
retrograde	13652 Jul 09 09:39	15° $\Omega$ 20'01		greatest brilliancy	13653 Jun 04 02:41	10° $\mathcal{B}$ 11'16	-0.6m
evening set	13652 Jul 12 19:59	14° $\Omega$ 11'57		asc. node	13653 Jun 14 21:16	24° $\mathcal{B}$ 23'14	
inferior conj	13652 Jul 18 08:05	8° $\Omega$ 26'59	2°58'18	evening max el	13653 Jun 15 20:53	25° $\mathcal{B}$ 24'39	19°50'06
minimum elong	13652 Jul 18 09:38	8° $\Omega$ 22'04	2°57'12	retrograde	13653 Jun 23 08:02	29° $\mathcal{B}$ 38'35	
min. Earth dist.	13652 Jul 19 23:43	6° $\Omega$ 21'03	0.66449 AU	evening set	13653 Jun 27 03:53	28° $\mathcal{B}$ 13'39	
morning rise	13652 Jul 23 22:35	2° $\Omega$ 02'45		inferior conj	13653 Jul 02 11:31	22° $\mathcal{B}$ 15'16	3°10'44
	13652 Jul 27 02:59	30° $\mathcal{R}$ $\mathcal{B}$		minimum elong	13653 Jul 02 12:04	22° $\mathcal{B}$ 13'27	3°09'42
direct	13652 Jul 30 04:02	29° $\mathcal{B}$ 23'07		min. Earth dist.	13653 Jul 03 12:46	20° $\mathcal{B}$ 50'25	0.67746 AU
desc. node	13652 Jul 31 01:32	29° $\mathcal{B}$ 26'05		morning rise	13653 Jul 07 19:52	15° $\mathcal{B}$ 52'06	
	13652 Aug 02 09:59	0° $\Omega$		direct	13653 Jul 13 14:43	13° $\mathcal{B}$ 19'34	
morning max el	13652 Aug 12 00:56	7° $\Omega$ 02'39	26°19'41	desc. node	13653 Jul 17 22:54	14° $\mathcal{B}$ 29'28	
	13652 Aug 29 20:27	0° $\mathcal{M}$		morning max el	13653 Jul 25 11:38	20° $\mathcal{B}$ 26'28	24°59'41
morning set	13652 Sep 16 23:24	0° $\mathcal{B}$ 24'49			13653 Aug 02 16:44	0° $\Omega$	
	13652 Sep 16 18:05	0° $\mathcal{B}$			13653 Aug 23 00:32	0° $\mathcal{M}$	
max. Earth dist.	13652 Sep 20 20:31	7° $\mathcal{B}$ 49'57	1.34779 AU	morning set	13653 Aug 30 08:00	12° $\mathcal{M}$ 29'38	
asc. node	13652 Sep 24 01:53	14° $\mathcal{B}$ 14'47		max. Earth dist.	13653 Sep 02 21:47	18° $\mathcal{M}$ 57'31	1.36881 AU
					13653 Sep 08 17:21	0° $\mathcal{B}$	
superior conj	13652 Sep 26 01:36	18° $\mathcal{B}$ 18'11	0°18'39				
minimum elong	13652 Sep 26 00:35	18° $\mathcal{B}$ 12'56	0°18'40	superior conj	13653 Sep 09 13:01	1° $\mathcal{B}$ 36'19	-0°12'57
	13652 Oct 01 16:06	0° $\mathcal{M}$		minimum elong	13653 Sep 09 13:51	1° $\mathcal{B}$ 40'25	0°12'53
evening rise	13652 Oct 03 14:39	4° $\mathcal{M}$ 03'40		behind sun begin	13653 Sep 09 09:53	1° $\mathcal{B}$ 20'55	
	13652 Oct 18 01:06	0° $\mathcal{A}$		behind sun end	13653 Sep 09 17:49	1° $\mathcal{B}$ 59'56	
evening max el	13652 Oct 22 13:09	5° $\mathcal{A}$ 17'31	20°50'03	asc. node	13653 Sep 10 22:26	4° $\mathcal{B}$ 21'25	
desc. node	13652 Oct 26 21:39	8° $\mathcal{A}$ 48'29		evening rise	13653 Sep 17 19:26	18° $\mathcal{B}$ 13'10	
retrograde	13652 Nov 03 00:38	10° $\mathcal{A}$ 59'51			13653 Sep 23 19:55	0° $\mathcal{M}$	
evening set	13652 Nov 05 10:29	10° $\mathcal{A}$ 45'52		evening max el	13653 Oct 04 22:11	16° $\mathcal{M}$ 22'12	19°36'16
inferior conj	13652 Nov 14 09:26	6° $\mathcal{A}$ 51'57	-5°07'49	desc. node	13653 Oct 13 19:05	21° $\mathcal{M}$ 14'20	
minimum elong	13652 Nov 13 23:58	7° $\mathcal{A}$ 05'28	5°04'48	retrograde	13653 Oct 14 18:15	21° $\mathcal{M}$ 17'03	
min. Earth dist.	13652 Nov 15 07:22	6° $\mathcal{A}$ 20'40	0.54562 AU	evening set	13653 Oct 16 15:34	21° $\mathcal{M}$ 06'59	
morning rise	13652 Nov 22 13:36	2° $\mathcal{A}$ 57'46		inferior conj	13653 Oct 25 09:33	17° $\mathcal{M}$ 02'34	-3°34'02
direct	13652 Nov 26 19:34	2° $\mathcal{A}$ 19'08		minimum elong	13653 Oct 25 00:38	17° $\mathcal{M}$ 16'42	3°30'15
morning max el	13652 Dec 09 22:40	8° $\mathcal{A}$ 40'42	23°10'39	min. Earth dist.	13653 Oct 27 16:27	15° $\mathcal{M}$ 35'51	0.55370 AU
asc. node	13652 Dec 21 02:46	23° $\mathcal{A}$ 04'04		morning rise	13653 Nov 02 07:48	12° $\mathcal{M}$ 41'13	
	13652 Dec 25 03:10	0° $\mathcal{B}$		direct	13653 Nov 07 10:42	11° $\mathcal{M}$ 42'50	
morning set	13653 Jan 02 01:02	15° $\mathcal{B}$ 49'23		morning max el	13653 Nov 21 08:27	18° $\mathcal{M}$ 39'34	24°58'53
					13653 Nov 30 19:03	0° $\mathcal{A}$	
superior conj	13653 Jan 08 22:59	0° $\approx$ 45'14	1°32'51	asc. node	13653 Dec 07 23:47	11° $\mathcal{A}$ 36'54	
minimum elong	13653 Jan 09 00:24	0° $\approx$ 52'53	1°33'43		13653 Dec 17 06:48	0° $\mathcal{B}$	
	13653 Jan 08 14:35	0° $\approx$		morning set	13653 Dec 17 12:51	0° $\mathcal{B}$ 32'27	
max. Earth dist.	13653 Jan 12 02:00	7° $\approx$ 23'56	1.33344 AU				
evening rise	13653 Jan 16 19:26	17° $\approx$ 02'26		superior conj	13653 Dec 24 07:28	15° $\mathcal{B}$ 24'05	1°37'51
desc. node	13653 Jan 22 20:42	28° $\approx$ 30'12		minimum elong	13653 Dec 24 07:48	15° $\mathcal{B}$ 25'56	1°38'53
	13653 Jan 23 16:42	0° $\mathcal{H}$		max. Earth dist.	13653 Dec 26 03:24	19° $\mathcal{B}$ 24'50	1.32119 AU
	13653 Feb 12 09:59	0° $\Upsilon$			13653 Dec 31 02:45	0° $\approx$	
evening max el	13653 Feb 20 06:08	8° $\Upsilon$ 44'21	27°18'40	evening rise	13653 Dec 31 14:15	0° $\approx$ 59'13	
retrograde	13653 Mar 05 19:36	16° $\Upsilon$ 11'53		desc. node	13654 Jan 09 17:26	18° $\approx$ 28'04	
evening set	13653 Mar 12 12:51	13° $\Upsilon$ 41'15			13654 Jan 16 15:49	0° $\mathcal{H}$	
min. Earth dist.	13653 Mar 16 09:41	10° $\Upsilon$ 06'39	0.64810 AU	evening max el	13654 Feb 02 17:23	21° $\mathcal{H}$ 47'42	27°33'51
inferior conj	13653 Mar 18 20:04	7° $\Upsilon$ 27'35	-0°03'06	retrograde	13654 Feb 16 13:40	29° $\mathcal{H}$ 12'41	
minimum elong	13653 Mar 18 20:09	7° $\Upsilon$ 27'20	0°03'05	evening set	13654 Feb 23 11:13	26° $\mathcal{H}$ 50'37	

min. Earth dist.	13654 Feb 27 05:20	23° $\text{H}$ 44'10	0.62860 AU	retrograde	13655 Jan 29 23:36	11° $\text{H}$ 28'13	
inferior conj	13654 Mar 02 02:14	20° $\text{H}$ 56'02	-1°14'12	evening set	13655 Feb 05 19:33	9° $\text{H}$ 23'08	
minimum elong	13654 Mar 02 04:42	20° $\text{H}$ 49'59	1°12'54	min. Earth dist.	13655 Feb 09 14:54	6° $\text{H}$ 37'15	0.60715 AU
asc. node	13654 Mar 05 21:23	17° $\text{H}$ 32'24		inferior conj	13655 Feb 12 18:28	3° $\text{H}$ 54'50	-2°34'42
morning rise	13654 Mar 09 00:49	15° $\text{H}$ 45'28		minimum elong	13655 Feb 13 00:01	3° $\text{H}$ 42'51	2°32'00
direct	13654 Mar 11 08:22	15° $\text{H}$ 20'19			13655 Feb 18 00:56	30° $\text{R}$ $\approx$	
morning max el	13654 Mar 17 22:24	18° $\text{H}$ 41'33	17°46'23	morning rise	13655 Feb 20 07:38	29° $\approx$ 03'06	
	13654 Mar 26 05:41	0° $\text{Y}$		asc. node	13655 Feb 20 18:51	28° $\approx$ 56'06	
morning set	13654 Apr 03 01:04	13° $\text{Y}$ 20'04		direct	13655 Feb 22 09:50	28° $\approx$ 45'18	
desc. node	13654 Apr 07 19:36	21° $\text{Y}$ 36'33			13655 Feb 26 14:36	0° $\text{H}$	
	13654 Apr 12 18:03	0° $\text{B}$		morning max el	13655 Mar 01 14:05	2° $\text{H}$ 21'12	17°56'27
				morning set	13655 Mar 17 04:02	26° $\text{H}$ 47'00	
superior conj	13654 Apr 15 02:48	3° $\text{B}$ 56'28	-0°54'55		13655 Mar 18 22:15	0° $\text{Y}$	
minimum elong	13654 Apr 14 21:21	3° $\text{B}$ 33'53	0°54'38	desc. node	13655 Mar 25 16:06	12° $\text{Y}$ 09'06	
max. Earth dist.	13654 Apr 21 12:45	14° $\text{B}$ 22'38	1.44362 AU				
evening rise	13654 Apr 30 02:10	27° $\text{B}$ 47'56		superior conj	13655 Mar 27 14:30	15° $\text{Y}$ 32'41	-0°15'19
	13654 May 01 12:34	0° $\text{II}$		minimum elong	13655 Mar 27 13:10	15° $\text{Y}$ 26'50	0°15'15
	13654 May 22 03:17	0° $\text{E}$		behind sun begin	13655 Mar 27 10:44	15° $\text{Y}$ 16'14	
evening max el	13654 May 29 20:39	9° $\text{E}$ 13'34	20°55'42	behind sun end	13655 Mar 27 15:35	15° $\text{Y}$ 37'24	
asc. node	13654 Jun 01 18:21	11° $\text{E}$ 48'52		max. Earth dist.	13655 Apr 04 02:11	28° $\text{Y}$ 14'06	1.42680 AU
retrograde	13654 Jun 07 07:02	14° $\text{E}$ 07'17			13655 Apr 05 03:59	0° $\text{B}$	
evening set	13654 Jun 11 13:05	12° $\text{E}$ 25'42		evening rise	13655 Apr 10 01:05	7° $\text{B}$ 50'48	
inferior conj	13654 Jun 16 19:03	6° $\text{E}$ 15'32	3°10'52		13655 Apr 24 16:47	0° $\text{II}$	
minimum elong	13654 Jun 16 18:34	6° $\text{E}$ 17'10	3°09'48	evening max el	13655 May 12 15:12	23° $\text{II}$ 03'16	22°11'33
min. Earth dist.	13654 Jun 17 06:36	5° $\text{E}$ 35'28	0.68573 AU	asc. node	13655 May 19 15:33	28° $\text{II}$ 10'54	
morning rise	13654 Jun 21 23:49	29° $\text{II}$ 56'29		retrograde	13655 May 22 04:48	28° $\text{II}$ 40'39	
	13654 Jun 21 22:14	30° $\text{R}$ $\text{II}$		evening set	13655 May 26 21:49	26° $\text{II}$ 43'21	
direct	13654 Jun 27 06:31	27° $\text{II}$ 37'39		inferior conj	13655 Jun 01 04:29	20° $\text{II}$ 23'26	3°00'05
	13654 Jul 03 08:36	0° $\text{E}$		minimum elong	13655 Jun 01 03:09	20° $\text{II}$ 28'04	2°58'54
desc. node	13654 Jul 04 20:08	1° $\text{E}$ 08'15		min. Earth dist.	13655 Jun 01 02:58	20° $\text{II}$ 28'45	0.68927 AU
morning max el	13654 Jul 07 22:10	3° $\text{E}$ 58'54	23°30'55	morning rise	13655 Jun 06 08:19	14° $\text{II}$ 10'29	
	13654 Jul 27 21:05	0° $\text{Q}$		direct	13655 Jun 11 02:21	12° $\text{II}$ 09'50	
morning set	13654 Aug 11 19:51	23° $\text{Q}$ 39'06		morning max el	13655 Jun 20 10:50	17° $\text{II}$ 38'43	22°02'32
	13654 Aug 15 12:54	0° $\text{P}$		desc. node	13655 Jun 21 17:16	18° $\text{II}$ 57'42	
max. Earth dist.	13654 Aug 15 19:32	0° $\text{P}$ 28'55	1.39213 AU		13655 Jun 30 15:52	0° $\text{E}$	
					13655 Jul 20 23:01	0° $\text{Q}$	
superior conj	13654 Aug 23 10:48	14° $\text{P}$ 15'50	-0°47'35	morning set	13655 Jul 23 07:03	3° $\text{Q}$ 43'09	
minimum elong	13654 Aug 23 14:16	14° $\text{P}$ 31'58	0°47'22	max. Earth dist.	13655 Jul 28 20:15	12° $\text{Q}$ 47'41	1.41517 AU
asc. node	13654 Aug 28 19:00	24° $\text{P}$ 25'11					
	13654 Aug 31 16:03	0° $\text{A}$		superior conj	13655 Aug 05 14:35	26° $\text{Q}$ 06'20	-1°22'20
evening rise	13654 Sep 01 17:15	2° $\text{A}$ 02'26		minimum elong	13655 Aug 05 20:46	26° $\text{Q}$ 33'37	1°22'10
evening max el	13654 Sep 17 20:31	28° $\text{A}$ 16'04	18°44'25		13655 Aug 07 19:10	0° $\text{P}$	
	13654 Sep 19 19:23	0° $\text{M}$		asc. node	13655 Aug 15 15:37	14° $\text{P}$ 21'51	
retrograde	13654 Sep 26 04:23	2° $\text{M}$ 27'27		evening rise	13655 Aug 16 04:31	15° $\text{P}$ 21'42	
evening set	13654 Sep 28 02:07	2° $\text{M}$ 15'04			13655 Aug 24 07:56	0° $\text{A}$	
desc. node	13654 Sep 30 16:36	1° $\text{M}$ 21'30		evening max el	13655 Sep 01 04:17	10° $\text{A}$ 50'48	18°13'40
	13654 Oct 03 03:23	30° $\text{R}$ $\text{A}$		retrograde	13655 Sep 08 09:31	14° $\text{A}$ 30'51	
inferior conj	13654 Oct 06 04:46	27° $\text{A}$ 52'23	-1°44'56	evening set	13655 Sep 10 13:32	14° $\text{A}$ 11'37	
minimum elong	13654 Oct 06 00:26	28° $\text{A}$ 00'21	1°42'49	inferior conj	13655 Sep 17 21:41	9° $\text{A}$ 27'55	-0°05'53
min. Earth dist.	13654 Oct 09 07:06	25° $\text{A}$ 36'33	0.56966 AU	minimum elong	13655 Sep 17 21:29	9° $\text{A}$ 28'22	0°05'45
morning rise	13654 Oct 13 19:23	22° $\text{A}$ 53'55		transit middle	13655 Sep 17 21:29	9° $\text{A}$ 28'22	0°05'45
direct	13654 Oct 19 16:12	21° $\text{A}$ 29'53		transit begin	13655 Sep 17 18:16	9° $\text{A}$ 35'15	
morning max el	13654 Nov 02 22:09	28° $\text{A}$ 54'37	26°31'52	transit end	13655 Sep 18 00:42	9° $\text{A}$ 21'27	
	13654 Nov 04 00:33	0° $\text{M}$		desc. node	13655 Sep 17 14:08	9° $\text{A}$ 44'04	
	13654 Nov 24 11:39	0° $\text{X}$		min. Earth dist.	13655 Sep 21 04:57	6° $\text{A}$ 39'03	0.59071 AU
asc. node	13654 Nov 24 20:42	0° $\text{X}$ 42'49		morning rise	13655 Sep 25 02:00	3° $\text{A}$ 54'40	
morning set	13654 Dec 01 23:17	15° $\text{X}$ 07'54		direct	13655 Oct 01 11:35	2° $\text{A}$ 03'07	
				morning max el	13655 Oct 15 19:08	9° $\text{A}$ 47'47	27°34'15
superior conj	13654 Dec 08 18:30	0° $\text{Z}$ 07'19	1°36'46		13655 Oct 31 08:45	0° $\text{M}$	
minimum elong	13654 Dec 08 17:46	0° $\text{Z}$ 03'16	1°37'48	asc. node	13655 Nov 11 17:32	20° $\text{M}$ 12'24	
	13654 Dec 08 17:11	0° $\text{Z}$		morning set	13655 Nov 16 06:31	29° $\text{M}$ 30'23	
max. Earth dist.	13654 Dec 09 09:56	1° $\text{Z}$ 33'21	1.31394 AU		13655 Nov 16 12:06	0° $\text{X}$	
evening rise	13654 Dec 15 16:23	15° $\text{Z}$ 13'38					
	13654 Dec 23 02:21	0° $\approx$		superior conj	13655 Nov 23 06:08	14° $\text{X}$ 48'29	1°29'50
desc. node	13654 Dec 27 14:18	8° $\approx$ 01'44		minimum elong	13655 Nov 23 04:31	14° $\text{X}$ 39'30	1°30'40
	13655 Jan 11 23:52	0° $\text{H}$		max. Earth dist.	13655 Nov 22 18:19	13° $\text{X}$ 42'30	1.31186 AU
evening max el	13655 Jan 16 00:21	4° $\text{H}$ 11'17	27°16'26	evening rise	13655 Nov 29 23:30	29° $\text{X}$ 39'02	

	13655 Nov 30 03:24	0°♄			13656 Nov 21 04:37	0°♄	
desc. node	13655 Dec 14 11:16	27°♄01'12		desc. node	13656 Nov 30 08:21	15°♄13'26	
	13655 Dec 16 09:04	0°♄		evening max el	13656 Dec 09 16:06	26°♄27'05	25°01'49
evening max el	13655 Dec 29 00:27	15°♄45'11	26°24'23		13656 Dec 13 23:37	0°♄	
retrograde	13656 Jan 11 23:28	22°♄51'21		retrograde	13656 Dec 23 11:13	3°♄21'42	
evening set	13656 Jan 18 10:00	21°♄10'57		evening set	13656 Dec 29 02:25	2°♄10'43	
min. Earth dist.	13656 Jan 22 14:06	18°♄34'15	0.58548 AU		13657 Jan 02 07:07	30°♄♄	
inferior conj	13656 Jan 25 17:08	16°♄14'12	-3°58'35	min. Earth dist.	13657 Jan 03 04:03	29°♄27'30	0.56603 AU
minimum elong	13656 Jan 26 01:27	15°♄58'38	3°55'08	inferior conj	13657 Jan 05 19:21	27°♄44'55	-5°12'33
morning rise	13656 Feb 02 19:54	11°♄43'38		minimum elong	13657 Jan 06 03:38	27°♄31'29	5°09'51
direct	13656 Feb 04 20:43	11°♄29'28		morning rise	13657 Jan 14 07:07	23°♄36'18	
asc. node	13656 Feb 07 16:16	11°♄58'00		direct	13657 Jan 16 13:07	23°♄21'55	
morning max el	13656 Feb 12 23:54	15°♄30'01	18°26'20	asc. node	13657 Jan 24 13:38	26°♄39'35	
	13656 Feb 23 01:08	0°♄		morning max el	13657 Jan 25 23:48	27°♄56'19	19°18'02
morning set	13656 Feb 28 20:23	10°♄50'11			13657 Jan 27 22:16	0°♄	
				morning set	13657 Feb 11 21:43	25°♄16'16	
superior conj	13656 Mar 08 23:49	28°♄08'16	0°20'20		13657 Feb 14 06:30	0°♄	
minimum elong	13656 Mar 09 01:15	28°♄14'49	0°20'15				
	13656 Mar 10 00:12	0°♄		superior conj	13657 Feb 20 02:10	11°♄30'11	0°49'37
desc. node	13656 Mar 11 12:37	2°♄44'58		minimum elong	13657 Feb 20 04:47	11°♄42'52	0°49'38
max. Earth dist.	13656 Mar 16 11:26	11°♄27'47	1.40599 AU	desc. node	13657 Feb 26 09:06	23°♄20'10	
evening rise	13656 Mar 20 19:50	18°♄47'48		max. Earth dist.	13657 Feb 26 18:06	24°♄01'01	1.38344 AU
	13656 Mar 27 19:32	0°♄		evening rise	13657 Mar 02 11:37	0°♄38'40	
	13656 Apr 18 02:09	0°♄			13657 Mar 02 02:45	0°♄	
evening max el	13656 Apr 24 06:21	6°♄55'10	23°32'21		13657 Mar 21 02:10	0°♄	
retrograde	13656 May 04 23:53	13°♄13'54		evening max el	13657 Apr 06 19:57	20°♄48'00	24°51'38
asc. node	13656 May 05 12:50	13°♄12'35		retrograde	13657 Apr 18 15:10	27°♄40'35	
evening set	13656 May 10 04:28	11°♄02'29		asc. node	13657 Apr 22 10:11	26°♄38'09	
min. Earth dist.	13656 May 14 23:41	5°♄24'24	0.68810 AU	evening set	13657 Apr 24 07:27	25°♄17'44	
inferior conj	13656 May 15 13:55	4°♄35'33	2°39'01	min. Earth dist.	13657 Apr 28 18:35	20°♄15'57	0.68234 AU
minimum elong	13656 May 15 11:59	4°♄42'11	2°37'42	inferior conj	13657 Apr 29 21:24	18°♄47'16	2°07'41
	13656 May 19 05:03	30°♄♄		minimum elong	13657 Apr 29 19:14	18°♄54'25	2°06'22
morning rise	13656 May 20 19:27	28°♄30'08		morning rise	13657 May 05 07:17	12°♄50'40	
direct	13656 May 25 00:52	26°♄49'56		direct	13657 May 09 00:38	11°♄31'10	
	13656 May 31 14:34	0°♄		morning max el	13657 May 16 06:30	15°♄31'13	19°34'30
morning max el	13656 Jun 02 04:58	1°♄29'18	20°42'07	desc. node	13657 May 25 11:08	26°♄57'52	
desc. node	13656 Jun 07 14:16	7°♄39'04			13657 May 27 14:04	0°♄	
	13656 Jun 23 09:45	0°♄		greatest brilliancy	13657 May 28 21:45	1°♄55'29	-0.6m
morning set	13656 Jul 01 19:06	12°♄47'46		morning set	13657 Jun 10 20:38	21°♄29'02	
max. Earth dist.	13656 Jul 10 03:55	26°♄01'36	1.43510 AU		13657 Jun 16 08:57	0°♄	
	13656 Jul 12 14:40	0°♄		max. Earth dist.	13657 Jun 22 18:02	9°♄59'03	1.44965 AU
superior conj	13656 Jul 16 20:11	6°♄59'19	-1°52'21	superior conj	13657 Jun 27 01:57	16°♄52'01	-2°10'52
minimum elong	13656 Jul 17 03:23	7°♄29'24	1°52'37	minimum elong	13657 Jun 27 05:45	17°♄07'12	2°11'47
evening rise	13656 Jul 29 00:45	28°♄00'13			13657 Jul 05 03:59	0°♄	
	13656 Jul 30 03:56	0°♄		evening rise	13657 Jul 11 00:41	9°♄44'55	
asc. node	13656 Aug 01 12:17	4°♄07'38		asc. node	13657 Jul 19 09:00	23°♄36'56	
evening max el	13656 Aug 14 17:16	23°♄56'25	18°02'41		13657 Jul 23 11:32	0°♄	
retrograde	13656 Aug 21 06:59	27°♄19'49		evening max el	13657 Jul 29 07:39	7°♄22'48	18°10'27
evening set	13656 Aug 23 18:57	26°♄50'04		retrograde	13657 Aug 04 16:12	10°♄43'49	
inferior conj	13656 Aug 30 10:12	21°♄46'21	1°12'08	evening set	13657 Aug 07 12:31	10°♄00'44	
minimum elong	13656 Aug 30 12:10	21°♄41'29	1°11'11	inferior conj	13657 Aug 13 14:20	4°♄39'27	2°08'06
min. Earth dist.	13656 Sep 02 11:45	18°♄45'46	0.61361 AU	minimum elong	13657 Aug 13 16:49	4°♄32'30	2°06'53
desc. node	13656 Sep 03 11:40	17°♄51'03		min. Earth dist.	13657 Aug 16 04:20	1°♄47'42	0.63561 AU
morning rise	13656 Sep 06 02:43	15°♄46'53			13657 Aug 17 22:43	30°♄♄	
direct	13656 Sep 12 18:21	13°♄31'17		morning rise	13657 Aug 19 19:20	28°♄23'44	
morning max el	13656 Sep 26 23:18	21°♄28'22	27°58'21	desc. node	13657 Aug 21 09:09	27°♄19'28	
	13656 Oct 04 09:59	0°♄		direct	13657 Aug 26 10:45	25°♄51'22	
	13656 Oct 23 10:48	0°♄			13657 Sep 05 00:52	0°♄	
asc. node	13656 Oct 28 14:17	9°♄58'56		morning max el	13657 Sep 09 08:24	3°♄52'26	27°44'27
morning set	13656 Oct 30 08:36	13°♄35'13			13657 Sep 28 23:15	0°♄	
max. Earth dist.	13656 Nov 05 00:47	25°♄43'26	1.31505 AU	morning set	13657 Oct 14 03:16	27°♄17'05	
				asc. node	13657 Oct 15 10:57	29°♄56'59	
superior conj	13656 Nov 06 16:29	29°♄22'19	1°17'08		13657 Oct 15 11:32	0°♄	
minimum elong	13656 Nov 06 14:19	29°♄10'20	1°17'41	max. Earth dist.	13657 Oct 19 01:32	7°♄27'26	1.32357 AU
	13656 Nov 06 23:17	0°♄					
evening rise	13656 Nov 13 09:34	14°♄10'15		superior conj	13657 Oct 21 23:37	13°♄43'39	0°58'45

minimum elong	13657 Oct 21 21:22	13° $\mathbb{M}$ 31'27	0°59'01	minimum elong	13658 Oct 05 23:34	27° $\mathbb{A}$ 37'01	0°34'53
evening rise	13657 Oct 28 20:43	28° $\mathbb{M}$ 42'30			13658 Oct 07 02:40	0° $\mathbb{M}$	
	13657 Oct 29 11:12	0° $\mathbb{A}$		evening rise	13658 Oct 13 07:02	13° $\mathbb{M}$ 10'02	
	13657 Nov 15 08:55	0° $\mathbb{B}$			13658 Oct 21 18:59	0° $\mathbb{A}$	
desc. node	13657 Nov 17 05:31	2° $\mathbb{B}$ 21'03		evening max el	13658 Nov 02 15:08	16° $\mathbb{A}$ 37'25	21°41'39
evening max el	13657 Nov 21 02:06	6° $\mathbb{B}$ 32'59	23°21'39	desc. node	13658 Nov 04 02:49	18° $\mathbb{A}$ 00'07	
retrograde	13657 Dec 04 10:24	13° $\mathbb{B}$ 11'14		retrograde	13658 Nov 14 23:19	22° $\mathbb{A}$ 44'43	
evening set	13657 Dec 08 19:32	12° $\mathbb{B}$ 29'31		evening set	13658 Nov 17 23:18	22° $\mathbb{A}$ 24'22	
min. Earth dist.	13657 Dec 15 12:05	9° $\mathbb{B}$ 20'25	0.55165 AU	inferior conj	13658 Nov 26 18:39	18° $\mathbb{A}$ 30'44	-5°42'15
inferior conj	13657 Dec 17 01:34	8° $\mathbb{B}$ 25'55	-5°54'36	minimum elong	13658 Nov 26 12:21	18° $\mathbb{A}$ 39'34	5°40'27
minimum elong	13657 Dec 17 04:09	8° $\mathbb{B}$ 22'10	5°53'25	min. Earth dist.	13658 Nov 26 18:15	18° $\mathbb{A}$ 31'17	0.54512 AU
morning rise	13657 Dec 25 14:25	4° $\mathbb{B}$ 34'35		morning rise	13658 Dec 05 02:16	14° $\mathbb{A}$ 42'48	
direct	13657 Dec 28 10:10	4° $\mathbb{B}$ 15'26		direct	13658 Dec 08 18:54	14° $\mathbb{A}$ 13'02	
morning max el	13658 Jan 08 10:16	9° $\mathbb{B}$ 31'03	20°32'52	morning max el	13658 Dec 21 06:31	20° $\mathbb{A}$ 12'20	22°08'52
asc. node	13658 Jan 11 10:54	12° $\mathbb{B}$ 47'39		asc. node	13658 Dec 29 08:04	0° $\mathbb{B}$ 04'01	
	13658 Jan 22 05:44	0° $\approx$			13658 Dec 29 06:59	0° $\mathbb{B}$	
morning set	13658 Jan 27 04:54	9° $\approx$ 55'59		morning set	13659 Jan 11 15:24	24° $\mathbb{B}$ 41'08	
					13659 Jan 14 03:23	0° $\approx$	
superior conj	13658 Feb 03 17:13	25° $\approx$ 26'30	1°11'50	superior conj	13659 Jan 18 17:14	9° $\approx$ 45'32	1°27'05
minimum elong	13658 Feb 03 19:52	25° $\approx$ 39'56	1°12'10	minimum elong	13659 Jan 18 19:13	9° $\approx$ 55'59	1°27'46
	13658 Feb 05 23:37	0° $\mathbb{H}$		max. Earth dist.	13659 Jan 22 15:13	17° $\approx$ 53'36	1.34259 AU
max. Earth dist.	13658 Feb 09 01:54	6° $\mathbb{H}$ 03'30	1.36161 AU	evening rise	13659 Jan 26 23:51	26° $\approx$ 32'29	
evening rise	13658 Feb 12 22:09	13° $\mathbb{H}$ 16'57			13659 Jan 28 19:27	0° $\mathbb{H}$	
desc. node	13658 Feb 13 05:40	13° $\mathbb{H}$ 51'20		desc. node	13659 Jan 31 02:16	4° $\mathbb{H}$ 13'37	
	13658 Feb 22 14:23	0° $\mathbb{Y}$			13659 Feb 15 23:12	0° $\mathbb{Y}$	
	13658 Mar 16 00:32	0° $\mathbb{B}$		evening max el	13659 Mar 02 23:01	18° $\mathbb{Y}$ 20'11	26°57'11
evening max el	13658 Mar 20 09:24	4° $\mathbb{B}$ 38'43	26°02'19	retrograde	13659 Mar 16 06:48	25° $\mathbb{Y}$ 46'55	
retrograde	13658 Apr 02 01:45	11° $\mathbb{B}$ 54'22		evening set	13659 Mar 22 19:35	23° $\mathbb{Y}$ 14'39	
evening set	13658 Apr 08 05:07	9° $\mathbb{B}$ 24'02		min. Earth dist.	13659 Mar 26 18:49	19° $\mathbb{Y}$ 21'41	0.65791 AU
asc. node	13658 Apr 09 07:34	8° $\mathbb{B}$ 24'33		asc. node	13659 Mar 27 05:00	18° $\mathbb{Y}$ 52'49	
min. Earth dist.	13658 Apr 12 09:39	4° $\mathbb{B}$ 57'33	0.67219 AU	inferior conj	13659 Mar 28 22:25	16° $\mathbb{Y}$ 53'00	0°32'43
inferior conj	13658 Apr 14 00:59	2° $\mathbb{B}$ 54'54	1°25'47	minimum elong	13659 Mar 28 21:33	16° $\mathbb{Y}$ 55'31	0°32'11
minimum elong	13658 Apr 13 23:07	3° $\mathbb{B}$ 00'43	1°24'40	morning rise	13659 Apr 04 00:56	11° $\mathbb{Y}$ 18'18	
	13658 Apr 16 11:38	30° $\mathbb{R}$ $\mathbb{Y}$		direct	13659 Apr 06 21:07	10° $\mathbb{Y}$ 34'20	
morning rise	13658 Apr 19 17:52	27° $\mathbb{Y}$ 08'21		morning max el	13659 Apr 13 05:46	13° $\mathbb{Y}$ 54'25	18°07'00
direct	13658 Apr 23 00:01	26° $\mathbb{Y}$ 08'01			13659 Apr 24 22:16	0° $\mathbb{B}$	
morning max el	13658 Apr 29 15:21	29° $\mathbb{Y}$ 41'46	18°42'23	desc. node	13659 Apr 29 04:36	6° $\mathbb{B}$ 50'37	
	13658 Apr 29 22:43	0° $\mathbb{B}$		morning set	13659 May 01 23:53	11° $\mathbb{B}$ 22'48	
desc. node	13658 May 12 07:54	16° $\mathbb{B}$ 44'15			13659 May 13 14:58	0° $\mathbb{II}$	
	13658 May 20 21:09	0° $\mathbb{II}$		superior conj	13659 May 16 22:41	5° $\mathbb{II}$ 13'51	-1°51'41
morning set	13658 May 21 09:10	0° $\mathbb{II}$ 46'53		minimum elong	13659 May 16 13:49	4° $\mathbb{II}$ 39'02	1°51'53
max. Earth dist.	13658 Jun 05 12:07	24° $\mathbb{II}$ 22'51	1.45741 AU	max. Earth dist.	13659 May 19 07:52	8° $\mathbb{II}$ 57'46	1.45776 AU
					13659 Jun 01 20:55	0° $\mathbb{B}$	
superior conj	13658 Jun 06 13:45	26° $\mathbb{II}$ 03'04	-2°11'16	evening rise	13659 Jun 02 01:06	0° $\mathbb{B}$ 16'11	
minimum elong	13658 Jun 06 10:00	25° $\mathbb{II}$ 48'25	2°12'12	greatest brilliancy	13659 Jun 14 07:35	19° $\mathbb{B}$ 04'13	-0.7m
	13658 Jun 09 02:17	0° $\mathbb{B}$			13659 Jun 22 01:15	0° $\mathbb{B}$	
evening rise	13658 Jun 22 00:24	20° $\mathbb{B}$ 27'48		asc. node	13659 Jun 23 02:40	1° $\mathbb{B}$ 19'52	
	13658 Jun 27 23:34	0° $\mathbb{B}$		evening max el	13659 Jun 26 05:10	4° $\mathbb{B}$ 48'44	19°18'42
greatest brilliancy	13658 Jun 28 18:59	1° $\mathbb{B}$ 17'12	-0.9m	retrograde	13659 Jul 03 05:58	8° $\mathbb{B}$ 44'01	
asc. node	13658 Jul 06 05:47	12° $\mathbb{B}$ 43'33		evening set	13659 Jul 06 20:11	7° $\mathbb{B}$ 29'00	
evening max el	13658 Jul 12 20:24	21° $\mathbb{B}$ 02'07	18°36'07	inferior conj	13659 Jul 12 06:02	1° $\mathbb{B}$ 38'22	3°05'12
retrograde	13658 Jul 19 08:58	24° $\mathbb{B}$ 34'04		minimum elong	13659 Jul 12 07:10	1° $\mathbb{B}$ 34'40	3°04'08
evening set	13658 Jul 22 13:57	23° $\mathbb{B}$ 35'38		min. Earth dist.	13659 Jul 13 15:35	29° $\mathbb{B}$ 48'49	0.67051 AU
inferior conj	13658 Jul 28 06:04	17° $\mathbb{B}$ 58'55	2°44'43		13659 Jul 13 12:08	30° $\mathbb{R}$ $\mathbb{B}$	
minimum elong	13658 Jul 28 08:06	17° $\mathbb{B}$ 52'41	2°43'34	morning rise	13659 Jul 17 17:35	25° $\mathbb{B}$ 14'00	
min. Earth dist.	13658 Jul 30 06:06	15° $\mathbb{B}$ 32'34	0.65496 AU	direct	13659 Jul 23 18:52	22° $\mathbb{B}$ 36'06	
morning rise	13658 Aug 03 01:11	11° $\mathbb{B}$ 35'43		desc. node	13659 Jul 26 04:01	22° $\mathbb{B}$ 57'10	
desc. node	13658 Aug 08 06:37	9° $\mathbb{B}$ 01'00			13659 Aug 05 04:42	0° $\mathbb{B}$	
direct	13658 Aug 09 11:22	8° $\mathbb{B}$ 55'46		morning max el	13659 Aug 05 06:22	0° $\mathbb{B}$ 04'13	25°47'21
morning max el	13658 Aug 22 19:29	16° $\mathbb{B}$ 48'21	26°57'56		13659 Aug 27 16:24	0° $\mathbb{B}$	
	13658 Sep 02 18:47	0° $\mathbb{B}$		morning set	13659 Sep 10 06:05	23° $\mathbb{B}$ 00'30	
	13658 Sep 21 19:56	0° $\mathbb{A}$			13659 Sep 13 23:53	0° $\mathbb{A}$	
morning set	13658 Sep 27 11:36	10° $\mathbb{A}$ 28'19		max. Earth dist.	13659 Sep 13 22:26	29° $\mathbb{B}$ 53'05	1.35623 AU
max. Earth dist.	13658 Oct 01 17:03	18° $\mathbb{A}$ 48'05	1.33743 AU	asc. node	13659 Sep 19 04:05	10° $\mathbb{A}$ 08'35	
asc. node	13658 Oct 02 07:31	20° $\mathbb{A}$ 01'25					
superior conj	13658 Oct 06 01:16	27° $\mathbb{A}$ 45'56	0°34'49				



































































































































superior conj	13659 Sep 19 18:49	11° $\Omega$ 22'48	0°05'47	max. Earth dist.	13660 Aug 25 21:14	11° $\Pi$ 06'21	1.37862 AU
minimum elong	13659 Sep 19 18:29	11° $\Omega$ 21'03	0°05'48				
behind sun begin	13659 Sep 19 12:41	10° $\Omega$ 51'52		superior conj	13660 Sep 02 00:55	24° $\Pi$ 25'33	-0°27'24
behind sun end	13659 Sep 20 00:16	11° $\Omega$ 50'18		minimum elong	13660 Sep 02 02:47	24° $\Pi$ 34'33	0°27'16
evening rise	13659 Sep 27 14:30	27° $\Omega$ 27'55			13660 Sep 04 21:43	0° $\Omega$	
	13659 Sep 28 20:11	0° $\Pi$		asc. node	13660 Sep 05 00:39	0° $\Omega$ 14'23	
evening max el	13659 Oct 15 16:00	27° $\Pi$ 15'35	20°16'09	evening rise	13660 Sep 10 16:39	11° $\Omega$ 29'20	
	13659 Oct 18 21:25	0° $\mathcal{A}$			13660 Sep 20 16:45	0° $\Pi$	
desc. node	13659 Oct 22 00:11	1° $\mathcal{A}$ 43'42		evening max el	13660 Sep 27 07:03	8° $\Pi$ 41'22	19°11'33
retrograde	13659 Oct 26 10:56	2° $\mathcal{A}$ 37'32		retrograde	13660 Oct 06 10:28	13° $\Pi$ 16'11	
evening set	13659 Oct 28 13:27	2° $\mathcal{A}$ 26'13		desc. node	13660 Oct 07 21:39	13° $\Pi$ 09'35	
	13659 Nov 03 21:06	30° $\mathcal{R}\Pi$		evening set	13660 Oct 08 07:06	13° $\Pi$ 05'37	
inferior conj	13659 Nov 06 12:04	28° $\Pi$ 29'40	-4°32'05	inferior conj	13660 Oct 16 19:22	8° $\Pi$ 54'02	-2°47'46
minimum elong	13659 Nov 06 01:58	28° $\Pi$ 44'35	4°28'23	minimum elong	13660 Oct 16 12:13	9° $\Pi$ 06'02	2°44'30
min. Earth dist.	13659 Nov 08 01:33	27° $\Pi$ 34'18	0.54798 AU	min. Earth dist.	13660 Oct 19 12:23	7° $\Pi$ 05'14	0.55971 AU
morning rise	13659 Nov 14 13:42	24° $\Pi$ 25'43		morning rise	13660 Oct 24 14:44	4° $\Pi$ 17'46	
direct	13659 Nov 19 05:01	23° $\Pi$ 39'11		direct	13660 Oct 30 02:03	3° $\Pi$ 08'58	
	13659 Dec 02 10:08	0° $\mathcal{A}$		morning max el	13660 Nov 13 03:49	10° $\Pi$ 17'47	25°41'24
morning max el	13659 Dec 02 17:25	0° $\mathcal{A}$ 17'04	23°57'09		13660 Nov 28 01:53	0° $\mathcal{A}$	
asc. node	13659 Dec 16 05:09	18° $\mathcal{A}$ 13'00		asc. node	13660 Dec 02 02:09	7° $\mathcal{A}$ 01'16	
	13659 Dec 22 14:02	0° $\mathcal{B}$		morning set	13660 Dec 10 14:44	24° $\mathcal{A}$ 06'54	
morning set	13659 Dec 27 03:15	9° $\mathcal{B}$ 26'21			13660 Dec 13 07:34	0° $\mathcal{B}$	
superior conj	13660 Jan 02 23:19	24° $\mathcal{B}$ 19'12	1°35'43	superior conj	13660 Dec 17 09:09	9° $\mathcal{B}$ 00'39	1°38'06
minimum elong	13660 Jan 03 00:18	24° $\mathcal{B}$ 24'28	1°36'41	minimum elong	13660 Dec 17 09:01	8° $\mathcal{B}$ 59'57	1°39'10
max. Earth dist.	13660 Jan 05 12:31	29° $\mathcal{B}$ 49'11	1.32771 AU	max. Earth dist.	13660 Dec 18 16:42	11° $\mathcal{B}$ 55'08	1.31752 AU
	13660 Jan 05 14:32	0° $\approx$		evening rise	13660 Dec 24 11:37	24° $\mathcal{B}$ 22'15	
evening rise	13660 Jan 10 13:21	10° $\approx$ 16'46			13660 Dec 27 05:51	0° $\approx$	
desc. node	13660 Jan 17 22:58	24° $\approx$ 22'15		desc. node	13661 Jan 03 19:45	14° $\approx$ 11'15	
	13660 Jan 21 04:14	0° $\mathcal{H}$			13661 Jan 13 19:26	0° $\mathcal{H}$	
	13660 Feb 11 18:57	0° $\mathcal{Y}$		evening max el	13661 Jan 25 21:59	14° $\mathcal{H}$ 31'21	27°30'42
evening max el	13660 Feb 13 11:57	1° $\mathcal{Y}$ 42'03	27°28'49	retrograde	13661 Feb 08 19:41	21° $\mathcal{H}$ 52'25	
retrograde	13660 Feb 27 05:07	9° $\mathcal{Y}$ 09'12		evening set	13661 Feb 15 17:25	19° $\mathcal{H}$ 36'51	
evening set	13660 Mar 05 00:34	6° $\mathcal{Y}$ 41'35		min. Earth dist.	13661 Feb 19 11:36	16° $\mathcal{H}$ 40'11	0.61967 AU
min. Earth dist.	13660 Mar 08 20:04	3° $\mathcal{Y}$ 19'18	0.64011 AU	inferior conj	13661 Feb 22 11:50	13° $\mathcal{H}$ 52'53	-1°47'22
inferior conj	13660 Mar 11 11:04	0° $\mathcal{Y}$ 34'56	-0°31'55	minimum elong	13661 Feb 22 15:34	13° $\mathcal{H}$ 44'13	1°45'29
minimum elong	13660 Mar 11 12:03	0° $\mathcal{Y}$ 32'21	0°31'25	asc. node	13661 Feb 27 23:58	9° $\mathcal{H}$ 33'48	
	13660 Mar 12 00:28	30° $\mathcal{R}\mathcal{H}$		morning rise	13661 Mar 01 16:33	8° $\mathcal{H}$ 49'43	
asc. node	13660 Mar 13 02:28	28° $\mathcal{H}$ 54'15		direct	13661 Mar 03 21:35	8° $\mathcal{H}$ 28'00	
morning rise	13660 Mar 18 01:43	25° $\mathcal{H}$ 14'26		morning max el	13661 Mar 10 16:26	11° $\mathcal{H}$ 54'03	17°48'20
direct	13660 Mar 20 13:22	24° $\mathcal{H}$ 43'24			13661 Mar 22 21:40	0° $\mathcal{Y}$	
morning max el	13660 Mar 26 23:08	28° $\mathcal{H}$ 01'14	17°48'48	morning set	13661 Mar 26 11:21	6° $\mathcal{Y}$ 19'14	
	13660 Mar 28 19:08	0° $\mathcal{Y}$		desc. node	13661 Apr 01 21:45	17° $\mathcal{Y}$ 40'35	
morning set	13660 Apr 12 18:23	23° $\mathcal{Y}$ 19'07					
desc. node	13660 Apr 15 01:13	27° $\mathcal{Y}$ 10'53		superior conj	13661 Apr 06 19:24	26° $\mathcal{Y}$ 05'27	-0°37'53
	13660 Apr 16 17:24	0° $\mathcal{B}$		minimum elong	13661 Apr 06 15:47	25° $\mathcal{Y}$ 50'10	0°37'41
superior conj	13660 Apr 25 21:28	15° $\mathcal{B}$ 06'47	-1°17'36		13661 Apr 09 03:18	0° $\mathcal{B}$	
minimum elong	13660 Apr 25 13:43	14° $\mathcal{B}$ 35'30	1°17'19	max. Earth dist.	13661 Apr 13 19:57	7° $\mathcal{B}$ 42'17	1.43715 AU
max. Earth dist.	13660 May 01 03:18	23° $\mathcal{B}$ 29'33	1.45077 AU	evening rise	13661 Apr 21 04:00	19° $\mathcal{B}$ 19'46	
	13660 May 05 06:47	0° $\Pi$			13661 Apr 28 03:42	0° $\Pi$	
evening rise	13660 May 11 12:58	9° $\Pi$ 39'48		evening max el	13661 May 22 05:56	2° $\mathcal{B}$ 27'42	21°26'56
	13660 May 25 02:10	0° $\mathcal{B}$		asc. node	13661 May 26 20:49	6° $\mathcal{B}$ 16'12	
evening max el	13660 Jun 08 08:27	18° $\mathcal{B}$ 37'53	20°16'35	retrograde	13661 May 31 03:20	7° $\mathcal{B}$ 39'20	
asc. node	13660 Jun 08 23:40	19° $\mathcal{B}$ 15'06		evening set	13661 Jun 04 14:04	5° $\mathcal{B}$ 50'42	
retrograde	13660 Jun 16 04:42	23° $\mathcal{B}$ 07'26		inferior conj	13661 Jun 09 20:04	29° $\Pi$ 36'10	3°07'34
evening set	13660 Jun 20 04:51	21° $\mathcal{B}$ 35'24		minimum elong	13661 Jun 09 19:13	29° $\Pi$ 39'09	3°06'26
inferior conj	13660 Jun 25 11:28	15° $\mathcal{B}$ 32'04	3°12'12		13661 Jun 09 13:14	30° $\mathcal{R}\Pi$	
minimum elong	13660 Jun 25 11:35	15° $\mathcal{B}$ 31'43	3°11'09	min. Earth dist.	13661 Jun 10 01:56	29° $\Pi$ 15'43	0.68790 AU
min. Earth dist.	13660 Jun 26 06:52	14° $\mathcal{B}$ 25'53	0.68159 AU	morning rise	13661 Jun 15 00:09	23° $\Pi$ 19'46	
morning rise	13660 Jun 30 17:59	9° $\mathcal{B}$ 10'31		direct	13661 Jun 20 01:31	21° $\Pi$ 08'24	
direct	13660 Jul 06 07:56	6° $\mathcal{B}$ 42'56		desc. node	13661 Jun 28 22:33	25° $\Pi$ 56'05	
desc. node	13660 Jul 12 01:21	8° $\mathcal{B}$ 44'19		morning max el	13661 Jun 30 03:41	27° $\Pi$ 06'55	22°52'45
morning max el	13660 Jul 17 16:35	13° $\mathcal{B}$ 31'13	24°22'23		13661 Jul 02 20:16	0° $\mathcal{B}$	
	13660 Jul 31 01:11	0° $\mathcal{Q}$			13661 Jul 24 15:10	0° $\mathcal{Q}$	
	13660 Aug 19 12:21	0° $\Pi$		morning set	13661 Aug 03 07:55	15° $\mathcal{Q}$ 24'15	
morning set	13660 Aug 22 06:19	4° $\Pi$ 42'26		max. Earth dist.	13661 Aug 07 20:04	22° $\mathcal{Q}$ 57'50	1.40223 AU

	13661 Aug 11 21:15	0°♎			13662 Jul 17 11:37	0°♏	
			max. Earth dist.		13662 Jul 20 23:40	5°♏41'07	1.42417 AU
superior conj	13661 Aug 15 15:34	6°♎45'10 -1°02'33		superior conj	13662 Jul 28 10:18	18°♏11'52 -1°36'01	
minimum elong	13661 Aug 15 20:14	7°♎06'29 1°02'19		minimum elong	13662 Jul 28 17:17	18°♏41'58 1°35'59	
asc. node	13661 Aug 22 21:14	20°♎15'35			13662 Aug 04 03:17	0°♎	
evening rise	13661 Aug 25 10:28	25°♎07'03		evening rise	13662 Aug 08 15:58	8°♎10'54	
	13661 Aug 28 00:17	0°♎		asc. node	13662 Aug 09 17:52	10°♎08'24	
evening max el	13661 Sep 10 09:49	20°♎52'57 18°28'44			13662 Aug 21 16:23	0°♎	
retrograde	13661 Sep 18 05:02	24°♎49'34		evening max el	13662 Aug 24 20:14	3°♎42'02 18°06'37	
evening set	13661 Sep 20 05:02	24°♎34'45		retrograde	13662 Aug 31 17:45	7°♎13'37	
desc. node	13661 Sep 24 19:10	22°♎24'18		evening set	13662 Sep 03 00:55	6°♎50'27	
inferior conj	13661 Sep 27 23:46	20°♎02'43 -1°00'40		inferior conj	13662 Sep 10 01:32	1°♎58'02 0°29'58	
minimum elong	13661 Sep 27 21:24	20°♎07'22 0°59'28		minimum elong	13662 Sep 10 02:29	1°♎55'50 0°29'32	
min. Earth dist.	13661 Oct 01 05:37	17°♎30'39 0.57818 AU		desc. node	13662 Sep 11 16:41	0°♎27'58	
morning rise	13661 Oct 05 10:17	14°♎48'39			13662 Sep 12 04:57	30°♎♎	
direct	13661 Oct 11 13:06	13°♎13'10		min. Earth dist.	13662 Sep 13 07:22	29°♎01'15 0.60033 AU	
morning max el	13661 Oct 25 20:30	20°♎46'50 27°03'02		morning rise	13662 Sep 17 00:50	26°♎11'59	
	13661 Nov 02 20:20	0°♎		direct	13662 Sep 23 13:36	24°♎09'30	
asc. node	13661 Nov 18 23:02	26°♎18'10			13662 Oct 05 16:55	0°♎	
	13661 Nov 20 20:07	0°♎		morning max el	13662 Oct 07 21:01	2°♎01'17 27°49'25	
morning set	13661 Nov 25 00:01	8°♎37'20			13662 Oct 28 05:49	0°♎	
				asc. node	13662 Nov 05 19:49	15°♎55'58	
superior conj	13661 Dec 01 20:37	23°♎43'17 1°34'32		morning set	13662 Nov 09 05:19	22°♎53'19	
minimum elong	13661 Dec 01 19:29	23°♎36'58 1°35'30			13662 Nov 12 13:00	0°♎	
max. Earth dist.	13661 Dec 02 00:35	24°♎05'29 1.31237 AU		max. Earth dist.	13662 Nov 15 08:35	6°♎12'17 1.31249 AU	
	13661 Dec 04 16:14	0°♎					
evening rise	13661 Dec 08 16:05	8°♎34'139		superior conj	13662 Nov 16 07:55	8°♎22'09 1°25'09	
	13661 Dec 19 14:57	0°♎		minimum elong	13662 Nov 16 06:02	8°♎11'37 1°25'53	
desc. node	13661 Dec 21 16:39	3°♎31'51		evening rise	13662 Nov 23 00:39	23°♎10'01	
evening max el	13662 Jan 08 02:14	26°♎34'24 26°58'29			13662 Nov 26 06:27	0°♎	
	13662 Jan 12 04:24	0°♎		desc. node	13662 Dec 08 13:39	22°♎13'14	
retrograde	13662 Jan 22 01:22	3°♎46'49			13662 Dec 14 01:16	0°♎	
evening set	13662 Jan 28 18:40	1°♎51'06		evening max el	13662 Dec 20 22:29	7°♎44'41 25°52'25	
	13662 Jan 31 14:38	30°♎		retrograde	13663 Jan 03 20:37	14°♎47'05	
min. Earth dist.	13662 Feb 01 16:24	29°♎11'12 0.59785 AU		evening set	13663 Jan 10 00:14	13°♎18'34	
inferior conj	13662 Feb 04 21:02	26°♎36'09 -3°10'26		min. Earth dist.	13663 Jan 14 11:20	10°♎41'21 0.57672 AU	
minimum elong	13662 Feb 05 03:55	26°♎22'11 3°07'16		inferior conj	13663 Jan 17 11:10	8°♎35'12 -4°32'20	
morning rise	13662 Feb 12 16:19	21°♎53'26		minimum elong	13663 Jan 17 20:00	8°♎19'38 4°28'59	
direct	13662 Feb 14 17:26	21°♎37'33		morning rise	13663 Jan 25 18:37	4°♎14'29	
asc. node	13662 Feb 14 21:26	21°♎37'39		direct	13663 Jan 27 20:30	4°♎00'50	
morning max el	13662 Feb 22 06:09	25°♎22'17 18°06'40		asc. node	13663 Feb 01 18:48	5°♎22'38	
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morning set	13662 Mar 09 20:37	20°♎03'33			13663 Feb 19 12:01	0°♎	
	13662 Mar 15 04:58	0°♎		morning set	13663 Feb 21 17:12	4°♎17'27	
superior conj	13662 Mar 19 16:51	8°♎08'54 0°00'28		superior conj	13663 Mar 02 09:59	21°♎05'52 0°33'35	
minimum elong	13662 Mar 19 16:53	8°♎09'02 0°00'26		minimum elong	13663 Mar 02 12:05	21°♎15'46 0°33'30	
behind sun begin	13662 Mar 19 09:11	7°♎34'42		desc. node	13663 Mar 06 14:46	28°♎51'14	
behind sun end	13662 Mar 20 00:34	8°♎43'17			13663 Mar 07 06:00	0°♎	
desc. node	13662 Mar 19 18:15	8°♎15'12		max. Earth dist.	13663 Mar 09 15:06	4°♎13'45 1.39643 AU	
max. Earth dist.	13662 Mar 27 07:48	21°♎19'41 1.41833 AU		evening rise	13663 Mar 13 14:33	11°♎04'44	
evening rise	13662 Apr 01 10:46	29°♎44'26			13663 Mar 25 10:59	0°♎	
	13662 Apr 01 14:38	0°♎			13663 Apr 17 08:55	0°♎	
	13662 Apr 21 16:23	0°♎		evening max el	13663 Apr 17 12:45	0°♎09'33 24°06'38	
evening max el	13662 May 04 22:39	16°♎17'40 22°45'33		retrograde	13663 Apr 28 17:56	6°♎44'36	
asc. node	13662 May 13 18:03	22°♎06'20		asc. node	13663 Apr 30 15:21	6°♎28'37	
retrograde	13662 May 15 00:11	22°♎13'32		evening set	13663 May 04 03:25	4°♎27'55	
evening set	13662 May 19 22:08	20°♎09'43			13663 May 08 02:35	30°♎♎	
inferior conj	13662 May 25 05:44	13°♎46'13 2°52'22		min. Earth dist.	13663 May 08 18:58	29°♎05'09 0.68619 AU	
minimum elong	13662 May 25 04:07	13°♎51'52 2°51'07		inferior conj	13663 May 09 14:34	27°♎58'41 2°26'59	
min. Earth dist.	13662 May 24 22:41	14°♎10'44 0.68937 AU		minimum elong	13663 May 09 12:29	28°♎05'45 2°25'39	
morning rise	13662 May 30 09:59	7°♎36'26		morning rise	13663 May 14 21:37	21°♎56'42	
direct	13662 Jun 03 22:30	5°♎44'37			13663 May 18 21:43	20°♎25'30	
morning max el	13662 Jun 12 18:30	10°♎51'40 21°26'58		direct	13663 May 26 15:39	24°♎47'08 20°11'27	
desc. node	13662 Jun 15 19:36	14°♎09'37		morning max el			
	13662 Jun 27 18:30	0°♎		desc. node	13663 Jun 02 16:33	3°♎08'20	
morning set	13662 Jul 14 08:37	25°♎01'27					

	13663 Jun 21 02:02	0°☿				13664 Jun 12 21:40	0°☿	
morning set	13663 Jun 23 13:47	3°☿49'14		max. Earth dist.	13664 Jun 15 01:39	3°☿23'35	1.45387 AU	
max. Earth dist.	13663 Jul 03 09:37	19°☿12'50	1.44201 AU					
				superior conj	13664 Jun 18 02:36	8°☿10'49	-2°13'32	
superior conj	13663 Jul 09 05:36	28°☿38'21	-2°02'04	minimum elong	13664 Jun 18 03:25	8°☿14'03	2°14'34	
minimum elong	13663 Jul 09 12:00	29°☿04'38	2°02'38		13664 Jul 01 16:04	0°♊		
	13663 Jul 10 01:30	0°♊		evening rise	13664 Jul 02 18:07	1°♊46'42		
evening rise	13663 Jul 22 04:09	20°♊27'40		asc. node	13664 Jul 13 11:16	19°♊08'24		
asc. node	13663 Jul 27 14:32	29°♊47'42			13664 Jul 21 12:08	0°♋		
	13663 Jul 27 17:26	0°♋		evening max el	13664 Jul 22 00:23	0°♋31'09	18°19'14	
evening max el	13663 Aug 08 10:14	16°♋57'39	18°03'48	retrograde	13664 Jul 28 09:24	3°♋54'48		
retrograde	13663 Aug 14 20:39	20°♋18'19		evening set	13664 Jul 31 09:28	3°♋05'17		
evening set	13663 Aug 17 12:05	19°♋43'17			13664 Aug 04 03:38	30°♌♊		
inferior conj	13663 Aug 23 21:11	14°♋32'09	1°38'26	inferior conj	13664 Aug 06 06:43	27°♊37'22	2°25'48	
minimum elong	13663 Aug 23 23:32	14°♋26'01	1°37'19	minimum elong	13664 Aug 06 09:06	27°♊30'26	2°24'34	
min. Earth dist.	13663 Aug 26 18:26	11°♋32'41	0.62320 AU	min. Earth dist.	13664 Aug 08 14:58	24°♊54'46	0.64435 AU	
desc. node	13663 Aug 29 14:12	8°♋59'26		morning rise	13664 Aug 12 07:18	21°♊17'50		
morning rise	13663 Aug 30 08:40	8°♋24'34		desc. node	13664 Aug 15 11:41	19°♊21'48		
direct	13663 Sep 06 01:02	6°♋00'21		direct	13664 Aug 18 21:12	18°♊40'57		
morning max el	13663 Sep 20 03:30	14°♋01'05	27°56'46	morning max el	13664 Sep 01 13:32	26°♊39'24	27°28'02	
	13663 Oct 03 01:12	0°♌			13664 Sep 04 16:28	0°♋		
	13663 Oct 20 18:30	0°♌			13664 Sep 25 16:22	0°♌		
asc. node	13663 Oct 23 16:31	5°♌47'51		morning set	13664 Oct 06 19:06	20°♌18'07		
morning set	13663 Oct 24 04:30	6°♌48'51		asc. node	13664 Oct 09 13:09	25°♌48'58		
max. Earth dist.	13663 Oct 29 12:47	18°♌05'25	1.31798 AU	max. Earth dist.	13664 Oct 11 09:48	29°♌38'51	1.32889 AU	
					13664 Oct 11 13:51	0°♌		
superior conj	13663 Oct 31 17:08	22°♌51'15	1°10'02					
minimum elong	13663 Oct 31 14:51	22°♌38'47	1°10'27	superior conj	13664 Oct 14 22:13	7°♌05'09	0°49'15	
	13663 Nov 03 22:53	0°♍		minimum elong	13664 Oct 14 20:07	6°♌53'53	0°49'25	
evening rise	13663 Nov 07 11:22	7°♍41'51		evening rise	13664 Oct 21 22:23	22°♌12'34		
	13663 Nov 18 21:32	0°♎			13664 Oct 25 15:54	0°♍		
desc. node	13663 Nov 25 10:45	10°♎00'09		desc. node	13664 Nov 11 07:58	26°♍32'55		
evening max el	13663 Dec 02 11:00	18°♎07'50	24°20'23	evening max el	13664 Nov 12 21:11	28°♍08'26	22°38'01	
retrograde	13663 Dec 16 03:11	24°♎56'42			13664 Nov 14 22:42	0°♎		
evening set	13663 Dec 21 06:22	23°♎58'55		retrograde	13664 Nov 25 20:44	4°♎34'43		
min. Earth dist.	13663 Dec 26 22:38	21°♎06'44	0.55906 AU	evening set	13664 Nov 29 15:26	4°♎03'33		
inferior conj	13663 Dec 29 04:26	19°♎43'51	-5°35'49	min. Earth dist.	13664 Dec 07 05:19	0°♎37'55	0.54782 AU	
minimum elong	13663 Dec 29 11:02	19°♎33'39	5°33'51	inferior conj	13664 Dec 08 03:43	0°♎06'14	-5°56'51	
morning rise	13664 Jan 06 17:39	15°♎43'15		minimum elong	13664 Dec 08 02:26	0°♎08'03	5°55'46	
direct	13664 Jan 09 04:13	15°♎27'32			13664 Dec 08 08:08	30°♏♍		
morning max el	13664 Jan 19 06:47	20°♎19'29	19°47'04	morning rise	13664 Dec 16 14:44	26°♍18'23		
asc. node	13664 Jan 19 16:05	20°♎42'22		direct	13664 Dec 19 19:07	25°♍55'14		
	13664 Jan 26 18:26	0°♏			13664 Dec 29 18:20	0°♎		
morning set	13664 Feb 05 21:20	18°♏49'52		morning max el	13664 Dec 31 10:48	1°♎29'36	21°11'29	
	13664 Feb 11 09:28	0°♐		asc. node	13665 Jan 05 13:20	7°♎21'10		
					13665 Jan 18 13:04	0°♏		
superior conj	13664 Feb 13 18:11	4°♐43'19	0°59'54	morning set	13665 Jan 20 06:10	3°♏32'21		
minimum elong	13664 Feb 13 20:56	4°♐56'54	1°00'02					
max. Earth dist.	13664 Feb 19 21:20	16°♐30'18	1.37390 AU	superior conj	13665 Jan 27 13:23	18°♏49'43	1°19'08	
desc. node	13664 Feb 21 11:18	19°♐25'11		minimum elong	13665 Jan 27 15:48	19°♏02'16	1°19'38	
evening rise	13664 Feb 23 14:43	23°♐17'00		max. Earth dist.	13665 Feb 01 07:18	28°♏25'59	1.35307 AU	
	13664 Feb 27 11:19	0°♑			13665 Feb 02 02:27	0°♐		
	13664 Mar 18 05:06	0°♑		evening rise	13665 Feb 05 08:07	6°♐11'49		
evening max el	13664 Mar 30 02:19	14°♑02'53	25°23'18	desc. node	13665 Feb 07 07:51	9°♐52'48		
retrograde	13664 Apr 11 07:23	21°♑06'45			13665 Feb 19 05:52	0°♑		
asc. node	13664 Apr 16 12:41	19°♑11'49		evening max el	13665 Mar 12 16:05	27°♑51'17	26°28'10	
evening set	13664 Apr 17 04:22	18°♑40'28			13665 Mar 15 00:07	0°♑		
min. Earth dist.	13664 Apr 21 12:37	13°♑53'35	0.67850 AU	retrograde	13665 Mar 25 15:32	5°♑12'15		
inferior conj	13664 Apr 22 20:41	12°♑09'51	1°51'17	evening set	13665 Mar 31 23:11	2°♑40'33		
minimum elong	13664 Apr 22 18:34	12°♑16'41	1°50'01	asc. node	13665 Apr 03 10:06	0°♑20'21		
morning rise	13664 Apr 28 09:11	6°♑17'03			13665 Apr 03 17:34	30°♒♑		
direct	13664 May 01 21:40	5°♑05'52		min. Earth dist.	13665 Apr 05 01:24	28°♑28'36	0.66657 AU	
morning max el	13664 May 08 20:21	8°♑53'15	19°10'18	inferior conj	13665 Apr 06 21:56	26°♑14'04	1°04'43	
desc. node	13664 May 19 13:24	22°♑40'20		minimum elong	13665 Apr 06 20:24	26°♑18'43	1°03'47	
greatest brilliancy	13664 May 21 18:38	25°♑57'05	-0.7m	morning rise	13665 Apr 12 18:35	20°♑32'13		
	13664 May 24 11:12	0°♒		direct	13665 Apr 15 20:27	19°♑39'02		
morning set	13664 Jun 01 17:30	12°♒39'22		morning max el	13665 Apr 22 07:49	23°♑05'13	18°25'20	

	13665 Apr 28 00:56	0°♄	direct	13666 Mar 30 15:50	3°♄59'05	
desc. node	13665 May 06 10:09	12°♄35'57	morning max el	13666 Apr 05 23:53	7°♄16'31	17°57'13
morning set	13665 May 12 16:16	22°♄28'23		13666 Apr 21 13:53	0°♄	
	13665 May 17 10:38	0°♄	desc. node	13666 Apr 23 06:49	2°♄48'42	
			morning set	13666 Apr 23 19:09	3°♄39'32	
superior conj	13665 May 28 10:58	17°♄15'43 -2°05'14				
minimum elong	13665 May 28 04:20	16°♄49'47 2°05'53	superior conj	13666 May 07 24:00	26°♄39'39 -1°38'29	
max. Earth dist.	13665 May 28 21:24	17°♄56'27 1.45854 AU	minimum elong	13666 May 07 14:57	26°♄03'47 1°38'24	
	13665 Jun 05 14:42	0°♄		13666 May 10 02:44	0°♄	
evening rise	13665 Jun 13 07:28	12°♄04'39	max. Earth dist.	13666 May 11 17:34	2°♄32'37 1.45566 AU	
greatest brilliancy	13665 Jun 22 16:29	26°♄46'00 -0.8m	evening rise	13666 May 24 00:59	21°♄37'43	
	13665 Jun 24 19:06	0°♄		13666 May 29 12:20	0°♄	
asc. node	13665 Jun 30 08:06	8°♄03'11	greatest brilliancy	13666 Jun 07 01:27	12°♄49'13 -0.6m	
evening max el	13665 Jul 05 11:44	14°♄14'25 18°52'10	asc. node	13666 Jun 17 05:02	26°♄23'17	
retrograde	13665 Jul 12 04:22	17°♄54'32	evening max el	13666 Jun 18 18:13	28°♄01'59 19°41'30	
evening set	13665 Jul 15 13:19	16°♄48'57		13666 Jun 20 22:50	0°♄	
inferior conj	13665 Jul 21 02:21	11°♄05'57 2°55'12	retrograde	13666 Jun 26 02:32	2°♄10'57	
minimum elong	13665 Jul 21 04:02	11°♄00'38 2°54'05	evening set	13666 Jun 29 20:52	0°♄48'37	
min. Earth dist.	13665 Jul 22 20:07	8°♄54'31 0.66216 AU		13666 Jun 30 20:36	30°♄	
morning rise	13665 Jul 26 17:59	4°♄41'48	inferior conj	13666 Jul 05 04:59	24°♄52'07 3°09'41	
direct	13665 Aug 02 00:43	2°♄01'56	minimum elong	13666 Jul 05 05:41	24°♄49'48 3°08'38	
desc. node	13665 Aug 02 09:07	2°♄02'24	min. Earth dist.	13666 Jul 06 08:22	23°♄20'41 0.67577 AU	
morning max el	13665 Aug 15 00:47	9°♄45'14 26°30'16	morning rise	13666 Jul 10 14:04	18°♄28'25	
	13665 Aug 31 00:04	0°♄	direct	13666 Jul 16 10:35	15°♄54'18	
	13665 Sep 18 04:26	0°♄	desc. node	13666 Jul 20 06:30	16°♄48'48	
morning set	13665 Sep 19 22:03	3°♄13'48	morning max el	13666 Jul 28 11:35	23°♄07'24 25°12'24	
max. Earth dist.	13665 Sep 23 21:13	10°♄52'30 1.34495 AU		13666 Aug 03 13:36	0°♄	
asc. node	13665 Sep 26 09:45	15°♄55'03		13666 Aug 24 08:09	0°♄	
			morning set	13666 Sep 02 09:24	15°♄26'12	
superior conj	13665 Sep 28 20:49	20°♄57'35 0°23'04	max. Earth dist.	13666 Sep 05 23:25	21°♄58'25 1.36543 AU	
minimum elong	13665 Sep 28 19:35	20°♄51'14 0°23'06		13666 Sep 10 04:46	0°♄	
	13665 Oct 03 04:22	0°♄				
evening rise	13665 Oct 06 07:48	6°♄37'05	superior conj	13666 Sep 12 09:57	4°♄20'45 -0°07'56	
	13665 Oct 18 21:37	0°♄	minimum elong	13666 Sep 12 10:27	4°♄23'13 0°07'51	
evening max el	13665 Oct 25 14:29	8°♄23'52 21°02'52	behind sun begin	13666 Sep 12 04:48	3°♄55'14	
desc. node	13665 Oct 29 05:18	11°♄26'28	behind sun end	13666 Sep 12 16:07	4°♄51'16	
retrograde	13665 Nov 06 07:40	14°♄13'14	asc. node	13666 Sep 13 06:19	6°♄01'54	
evening set	13665 Nov 08 20:43	13°♄57'55	evening rise	13666 Sep 20 13:24	20°♄48'57	
inferior conj	13665 Nov 17 19:08	10°♄04'22 -5°18'39		13666 Sep 25 04:18	0°♄	
minimum elong	13665 Nov 17 10:15	10°♄16'58 5°15'55	evening max el	13666 Oct 07 21:22	19°♄21'17 19°45'56	
min. Earth dist.	13665 Nov 18 11:17	9°♄41'30 0.54518 AU	desc. node	13666 Oct 16 02:43	24°♄13'16	
morning rise	13665 Nov 26 00:11	6°♄12'35	retrograde	13666 Oct 17 23:27	24°♄23'15	
direct	13665 Nov 30 02:39	5°♄36'30	evening set	13666 Oct 19 21:34	24°♄13'06	
morning max el	13665 Dec 13 02:10	11°♄52'19 22°54'22	inferior conj	13666 Oct 28 17:09	20°♄11'05 -3°50'01	
asc. node	13665 Dec 23 10:30	25°♄01'59	minimum elong	13666 Oct 28 07:44	20°♄25'41 3°46'10	
	13665 Dec 26 09:53	0°♄	min. Earth dist.	13666 Oct 30 19:57	18°♄52'18 0.55192 AU	
morning set	13666 Jan 04 17:32	18°♄18'48	morning rise	13666 Nov 05 16:16	15°♄54'34	
	13666 Jan 10 03:49	0°♄	direct	13666 Nov 10 16:11	14°♄59'26	
			morning max el	13666 Nov 24 12:02	21°♄51'48 24°43'13	
superior conj	13666 Jan 11 16:20	3°♄16'17 1°31'32		13666 Dec 01 14:45	0°♄	
minimum elong	13666 Jan 11 17:55	3°♄24'43 1°32'21	asc. node	13666 Dec 10 07:34	13°♄28'56	
max. Earth dist.	13666 Jan 15 00:16	10°♄18'42 1.33568 AU		13666 Dec 18 19:07	0°♄	
evening rise	13666 Jan 19 15:16	19°♄40'44	morning set	13666 Dec 20 05:27	3°♄02'36	
desc. node	13666 Jan 25 04:30	0°♄10'04				
	13666 Jan 25 02:17	0°♄	superior conj	13666 Dec 27 00:18	17°♄54'08 1°37'28	
	13666 Feb 13 06:59	0°♄	minimum elong	13666 Dec 27 00:49	17°♄56'54 1°38'30	
evening max el	13666 Feb 23 05:33	11°♄25'34 27°13'50	max. Earth dist.	13666 Dec 29 00:37	22°♄17'49 1.32272 AU	
retrograde	13666 Mar 08 17:39	18°♄53'17		13667 Jan 01 15:18	0°♄	
evening set	13666 Mar 15 09:55	16°♄21'53	evening rise	13667 Jan 03 08:49	3°♄34'33	
min. Earth dist.	13666 Mar 19 07:17	12°♄42'45 0.65077 AU	desc. node	13667 Jan 12 01:14	20°♄10'51	
asc. node	13666 Mar 21 07:33	10°♄29'23		13667 Jan 17 20:40	0°♄	
inferior conj	13666 Mar 21 15:59	10°♄05'55 0°06'45	evening max el	13667 Feb 05 17:17	24°♄33'56 27°33'29	
minimum elong	13666 Mar 21 15:47	10°♄06'27 0°06'35		13667 Feb 12 18:44	0°♄	
transit middle	13666 Mar 21 15:47	10°♄06'27 0°06'35	retrograde	13667 Feb 19 13:01	1°♄59'55	
transit begin	13666 Mar 21 13:01	10°♄14'08		13667 Feb 25 19:46	30°♄	
transit end	13666 Mar 21 18:33	9°♄58'47	evening set	13667 Feb 26 10:07	29°♄36'07	
morning rise	13666 Mar 27 23:23	4°♄37'10	min. Earth dist.	13667 Mar 02 04:28	26°♄25'45 0.63167 AU	

inferior conj	13667 Mar 04 23:57	23° $\text{♄}$ 38'03	-1°02'43	inferior conj	13668 Feb 15 18:32	6° $\text{♄}$ 42'07	-2°22'06
minimum elong	13667 Mar 05 02:00	23° $\text{♄}$ 32'55	1°01'39	minimum elong	13668 Feb 15 23:36	6° $\text{♄}$ 30'57	2°19'36
asc. node	13667 Mar 08 05:03	20° $\text{♄}$ 38'49		morning rise	13668 Feb 23 05:30	1° $\text{♄}$ 47'14	
morning rise	13667 Mar 11 20:26	18° $\text{♄}$ 24'51		asc. node	13668 Feb 23 02:32	1° $\text{♄}$ 49'26	
direct	13667 Mar 14 04:56	17° $\text{♄}$ 58'20		direct	13668 Feb 25 08:18	1° $\text{♄}$ 28'33	
morning max el	13667 Mar 20 17:40	21° $\text{♄}$ 18'28	17°46'24	morning max el	13668 Mar 03 09:52	5° $\text{♄}$ 01'41	17°53'41
	13667 Mar 27 09:52	0° $\text{♄}$		morning set	13668 Mar 19 00:28	29° $\text{♄}$ 25'01	
morning set	13667 Apr 05 23:54	16° $\text{♄}$ 04'32			13668 Mar 19 08:11	0° $\text{♄}$	
desc. node	13667 Apr 10 03:24	23° $\text{♄}$ 13'07		desc. node	13668 Mar 26 23:55	13° $\text{♄}$ 44'53	
	13667 Apr 14 03:16	0° $\text{♄}$					
superior conj	13667 Apr 18 08:06	6° $\text{♄}$ 59'13	-1°00'58	superior conj	13668 Mar 29 16:15	18° $\text{♄}$ 25'38	-0°21'08
minimum elong	13667 Apr 18 02:00	6° $\text{♄}$ 34'08	1°00'39	minimum elong	13668 Mar 29 14:21	18° $\text{♄}$ 17'25	0°21'03
max. Earth dist.	13667 Apr 24 11:32	16° $\text{♄}$ 55'55	1.44564 AU	max. Earth dist.	13668 Apr 05 12:53	0° $\text{♄}$	
	13667 May 02 19:51	0° $\text{♄}$		evening rise	13668 Apr 06 01:48	0° $\text{♄}$ 53'04	1.42963 AU
evening rise	13667 May 03 12:07	1° $\text{♄}$ 02'33			13668 Apr 12 08:39	10° $\text{♄}$ 58'39	
	13667 May 23 03:42	0° $\text{♄}$		evening max el	13668 Apr 24 21:38	0° $\text{♄}$	
evening max el	13667 Jun 01 18:54	11° $\text{♄}$ 51'03	20°45'14		13668 May 14 14:10	25° $\text{♄}$ 40'42	21°59'50
asc. node	13667 Jun 04 02:05	13° $\text{♄}$ 57'12			13668 May 19 23:14	0° $\text{♄}$	
retrograde	13667 Jun 10 01:32	16° $\text{♄}$ 38'24		asc. node	13668 May 20 23:15	0° $\text{♄}$ 29'56	
evening set	13667 Jun 14 06:00	14° $\text{♄}$ 59'22		retrograde	13668 May 23 23:30	1° $\text{♄}$ 11'17	
inferior conj	13667 Jun 19 12:03	8° $\text{♄}$ 50'58	3°11'35		13668 May 27 15:32	30° $\text{♄}$	
minimum elong	13667 Jun 19 11:43	8° $\text{♄}$ 52'05	3°10'31	evening set	13668 May 28 14:52	29° $\text{♄}$ 16'13	
min. Earth dist.	13667 Jun 20 01:38	8° $\text{♄}$ 03'58	0.68477 AU	inferior conj	13668 Jun 02 21:18	22° $\text{♄}$ 57'44	3°02'22
morning rise	13667 Jun 24 17:10	2° $\text{♄}$ 31'06		minimum elong	13668 Jun 02 20:06	23° $\text{♄}$ 01'58	3°01'12
direct	13667 Jun 30 01:48	0° $\text{♄}$ 09'45		min. Earth dist.	13668 Jun 02 21:43	22° $\text{♄}$ 56'19	0.68906 AU
desc. node	13667 Jul 07 03:47	3° $\text{♄}$ 14'48		morning rise	13668 Jun 08 01:07	16° $\text{♄}$ 43'52	
morning max el	13667 Jul 10 21:58	6° $\text{♄}$ 38'31	23°44'19	direct	13668 Jun 12 21:05	14° $\text{♄}$ 40'16	
	13667 Jul 29 01:46	0° $\text{♄}$		morning max el	13668 Jun 22 10:02	20° $\text{♄}$ 16'42	22°15'22
morning set	13667 Aug 15 00:38	26° $\text{♄}$ 44'38		desc. node	13668 Jun 23 00:56	20° $\text{♄}$ 54'43	
	13667 Aug 16 22:18	0° $\text{♄}$			13668 Jun 30 15:53	0° $\text{♄}$	
max. Earth dist.	13667 Aug 18 21:07	3° $\text{♄}$ 23'49	1.38861 AU		13668 Jul 21 06:28	0° $\text{♄}$	
superior conj	13667 Aug 26 10:04	17° $\text{♄}$ 06'47	-0°42'14	morning set	13668 Jul 25 15:32	6° $\text{♄}$ 58'11	
minimum elong	13667 Aug 26 13:06	17° $\text{♄}$ 21'01	0°42'02	max. Earth dist.	13668 Jul 30 21:10	15° $\text{♄}$ 35'03	1.41191 AU
asc. node	13667 Aug 31 02:54	26° $\text{♄}$ 06'20		superior conj	13668 Aug 07 16:47	29° $\text{♄}$ 05'06	-1°17'14
	13667 Sep 02 02:52	0° $\text{♄}$		minimum elong	13668 Aug 07 22:36	29° $\text{♄}$ 31'00	1°17'02
evening rise	13667 Sep 04 12:28	4° $\text{♄}$ 41'39			13668 Aug 08 05:06	0° $\text{♄}$	
	13667 Sep 19 16:11	0° $\text{♄}$		asc. node	13668 Aug 16 23:28	16° $\text{♄}$ 04'10	
evening max el	13667 Sep 20 17:58	1° $\text{♄}$ 08'09	18°50'45	evening rise	13668 Aug 18 01:32	18° $\text{♄}$ 05'50	
retrograde	13667 Sep 29 06:33	5° $\text{♄}$ 25'03			13668 Aug 24 13:39	0° $\text{♄}$	
evening set	13667 Oct 01 03:48	5° $\text{♄}$ 13'17		evening max el	13668 Sep 03 00:34	13° $\text{♄}$ 37'12	18°16'56
desc. node	13667 Oct 03 00:11	4° $\text{♄}$ 40'23		retrograde	13668 Sep 10 08:59	17° $\text{♄}$ 20'58	
inferior conj	13667 Oct 09 09:06	0° $\text{♄}$ 53'43	-2°01'14	evening set	13668 Sep 12 11:58	17° $\text{♄}$ 02'57	
minimum elong	13667 Oct 09 04:02	1° $\text{♄}$ 02'49	1°58'47	desc. node	13668 Sep 18 21:42	13° $\text{♄}$ 14'12	
	13667 Oct 10 14:54	30° $\text{♄}$		inferior conj	13668 Sep 19 22:49	12° $\text{♄}$ 22'10	-0°19'41
min. Earth dist.	13667 Oct 12 09:35	28° $\text{♄}$ 44'22	0.56692 AU	minimum elong	13668 Sep 19 22:06	12° $\text{♄}$ 23'40	0°19'17
morning rise	13667 Oct 17 01:02	26° $\text{♄}$ 01'01		min. Earth dist.	13668 Sep 23 06:04	9° $\text{♄}$ 37'05	0.58741 AU
direct	13667 Oct 22 19:39	24° $\text{♄}$ 40'53		morning rise	13668 Sep 27 04:48	6° $\text{♄}$ 53'46	
	13667 Nov 03 18:30	0° $\text{♄}$		direct	13668 Oct 03 12:55	5° $\text{♄}$ 06'19	
morning max el	13667 Nov 06 00:39	2° $\text{♄}$ 01'48	26°19'40	morning max el	13668 Oct 17 20:25	12° $\text{♄}$ 47'59	27°27'23
	13667 Nov 25 20:09	0° $\text{♄}$			13668 Oct 31 11:07	0° $\text{♄}$	
asc. node	13667 Nov 27 04:33	2° $\text{♄}$ 30'23		asc. node	13668 Nov 13 01:23	21° $\text{♄}$ 56'52	
morning set	13667 Dec 04 16:11	17° $\text{♄}$ 39'09			13668 Nov 17 00:32	0° $\text{♄}$	
	13667 Dec 10 06:56	0° $\text{♄}$		morning set	13668 Nov 18 00:01	2° $\text{♄}$ 03'47	
superior conj	13667 Dec 11 11:05	2° $\text{♄}$ 36'49	1°37'18	superior conj	13668 Nov 24 22:43	17° $\text{♄}$ 18'31	1°31'16
minimum elong	13667 Dec 11 10:31	2° $\text{♄}$ 33'38	1°38'21	minimum elong	13668 Nov 24 21:14	17° $\text{♄}$ 10'11	1°32'08
max. Earth dist.	13667 Dec 12 06:34	4° $\text{♄}$ 25'15	1.31471 AU	max. Earth dist.	13668 Nov 24 14:58	16° $\text{♄}$ 35'12	1.31181 AU
evening rise	13667 Dec 18 10:00	17° $\text{♄}$ 46'36			13668 Nov 30 16:15	0° $\text{♄}$	
	13667 Dec 24 12:07	0° $\text{♄}$		evening rise	13668 Dec 01 16:30	2° $\text{♄}$ 10'44	
desc. node	13667 Dec 29 22:02	9° $\text{♄}$ 48'26		desc. node	13668 Dec 15 18:57	28° $\text{♄}$ 53'50	
	13668 Jan 12 13:55	0° $\text{♄}$			13668 Dec 16 11:26	0° $\text{♄}$	
evening max el	13668 Jan 19 01:10	7° $\text{♄}$ 04'35	27°21'17	evening max el	13668 Dec 31 02:31	18° $\text{♄}$ 46'46	26°34'20
retrograde	13668 Feb 02 00:13	14° $\text{♄}$ 22'39		retrograde	13669 Jan 14 01:34	25° $\text{♄}$ 54'18	
evening set	13668 Feb 08 20:46	12° $\text{♄}$ 14'44		evening set	13669 Jan 20 14:11	24° $\text{♄}$ 09'49	
min. Earth dist.	13668 Feb 12 15:41	9° $\text{♄}$ 26'15	0.61041 AU	min. Earth dist.	13669 Jan 24 16:19	21° $\text{♄}$ 32'47	0.58864 AU
				inferior conj	13669 Jan 27 20:05	19° $\text{♄}$ 08'24	-3°46'07

minimum elong	13669 Jan 28 04:05	18°  53'06	3°42'41	retrograde	13669 Dec 26 15:16	6°  32'05	
morning rise	13669 Feb 04 21:00	14°  34'34		evening set	13670 Jan 01 10:06	5°  16'22	
direct	13669 Feb 06 21:47	14°  20'02		min. Earth dist.	13670 Jan 06 07:20	2°  35'26	0.56865 AU
asc. node	13669 Feb 08 23:58	14°  36'08		inferior conj	13670 Jan 09 01:23	0°  46'17	-5°02'49
morning max el	13669 Feb 14 20:50	18°  16'07	18°20'32	minimum elong	13670 Jan 09 09:58	0°  32'03	4°59'54
	13669 Feb 23 07:48	0°  ✿			13670 Jan 10 05:34	30°  ✿	
morning set	13669 Mar 02 15:09	13°  ✿24'12		morning rise	13670 Jan 17 12:17	26°  ✿34'44	
	13669 Mar 11 10:57	0°  ♿		direct	13670 Jan 19 16:57	26°  ✿20'40	
				asc. node	13670 Jan 26 21:20	29°  ✿02'59	
superior conj	13669 Mar 11 22:40	0°  ♿53'36	0°15'18		13670 Jan 28 01:09	0°  ♿	
minimum elong	13669 Mar 11 23:47	0°  ♿58'40	0°15'12	morning max el	13670 Jan 28 22:28	0°  ♿49'20	19°08'55
behind sun begin	13669 Mar 11 21:34	0°  ♿48'35		morning set	13670 Feb 14 15:23	27°  ♿47'21	
behind sun end	13669 Mar 12 02:00	1°  ♿08'45			13670 Feb 15 18:06	0°  ✿	
desc. node	13669 Mar 13 20:24	4°  ♿20'37					
max. Earth dist.	13669 Mar 19 11:56	14°  ♿14'10	1.40930 AU	superior conj	13670 Feb 22 22:48	14°  ✿09'31	0°45'36
evening rise	13669 Mar 24 00:17	21°  ♿47'32		minimum elong	13670 Feb 23 01:20	14°  ✿21'39	0°45'35
	13669 Mar 29 02:56	0°  ♿		desc. node	13670 Feb 28 16:54	24°  ✿56'03	
	13669 Apr 18 23:40	0°  ♿		max. Earth dist.	13670 Mar 01 18:44	26°  ✿52'49	1.38681 AU
evening max el	13669 Apr 27 05:41	9°  ♿32'07	23°20'09		13670 Mar 03 12:46	0°  ♿	
retrograde	13669 May 07 19:01	15°  ♿44'52		evening rise	13670 Mar 05 13:01	3°  ♿30'34	
asc. node	13669 May 07 20:30	15°  ♿44'51			13670 Mar 22 06:11	0°  ♿	
evening set	13669 May 12 21:55	13°  ♿35'17		evening max el	13670 Apr 09 19:18	23°  ♿24'27	24°40'05
inferior conj	13669 May 18 06:50	7°  ♿09'10	2°42'50		13670 Apr 19 15:28	0°  ♿	
minimum elong	13669 May 18 04:59	7°  ♿15'35	2°41'33	retrograde	13670 Apr 21 10:59	0°  ♿12'53	
min. Earth dist.	13669 May 17 18:27	7°  ♿51'52	0.68864 AU		13670 Apr 23 04:43	30°  ♿✿	
morning rise	13669 May 23 11:58	1°  ♿02'41		asc. node	13670 Apr 24 17:49	29°  ♿25'38	
	13669 May 25 02:05	30°  ♿✿		evening set	13670 Apr 27 01:33	27°  ♿51'23	
direct	13669 May 27 19:14	29°  ♿19'28		min. Earth dist.	13670 May 01 13:45	22°  ♿44'15	0.68353 AU
	13669 May 30 16:29	0°  ♿		inferior conj	13670 May 02 14:44	21°  ♿21'03	2°13'07
morning max el	13669 Jun 05 03:12	4°  ♿05'28	20°53'19	minimum elong	13670 May 02 12:35	21°  ♿28'14	2°11'47
desc. node	13669 Jun 09 21:57	9°  ♿29'02		morning rise	13670 May 07 23:48	15°  ♿23'04	
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morning set	13669 Jul 05 06:28	16°  ♿09'41		morning max el	13670 May 19 03:39	18°  ♿05'53	19°43'34
max. Earth dist.	13669 Jul 13 03:52	28°  ♿41'22	1.43245 AU	desc. node	13670 May 27 18:51	28°  ♿42'48	
	13669 Jul 13 23:15	0°  ♿			13670 May 28 16:54	0°  ♿	
				greatest brilliancy	13670 May 31 22:43	4°  ♿39'31	-0.6m
superior conj	13669 Jul 20 01:47	10°  ♿06'13	-1°48'23	morning set	13670 Jun 14 08:17	24°  ♿50'47	
minimum elong	13669 Jul 20 09:02	10°  ♿36'50	1°48'33		13670 Jun 17 16:31	0°  ♿	
	13669 Jul 31 12:48	0°  ♿		max. Earth dist.	13670 Jun 25 16:59	12°  ♿32'33	1.44787 AU
evening rise	13669 Aug 01 00:15	0°  ♿50'45					
asc. node	13669 Aug 03 20:04	5°  ♿51'27		superior conj	13670 Jun 30 10:56	20°  ♿07'07	-2°09'07
evening max el	13669 Aug 17 12:56	26°  ♿38'11	18°03'06	minimum elong	13670 Jun 30 15:36	20°  ♿25'52	2°09'57
	13669 Aug 23 08:15	0°  ♿			13670 Jul 06 12:33	0°  ♿	
retrograde	13669 Aug 24 04:22	0°  ♿03'22		evening rise	13670 Jul 14 03:32	12°  ♿44'07	
	13669 Aug 25 00:34	30°  ♿♿		asc. node	13670 Jul 21 16:45	25°  ♿23'29	
evening set	13669 Aug 26 15:04	29°  ♿35'24			13670 Jul 24 13:46	0°  ♿	
inferior conj	13669 Sep 02 08:38	24°  ♿34'24	1°01'44	evening max el	13670 Aug 01 03:19	10°  ♿01'52	18°08'10
minimum elong	13669 Sep 02 10:23	24°  ♿30'08	1°00'55	retrograde	13670 Aug 07 12:07	13°  ♿22'31	
min. Earth dist.	13669 Sep 05 11:27	21°  ♿34'12	0.61016 AU	evening set	13670 Aug 10 07:07	12°  ♿41'39	
desc. node	13669 Sep 05 19:13	21°  ♿16'26		inferior conj	13670 Aug 16 10:42	7°  ♿22'57	2°00'56
morning rise	13669 Sep 09 02:54	18°  ♿38'04		minimum elong	13670 Aug 16 13:11	7°  ♿16'07	1°59'43
direct	13669 Sep 15 17:56	16°  ♿25'46		min. Earth dist.	13670 Aug 19 02:40	4°  ♿28'34	0.63242 AU
morning max el	13669 Sep 29 23:43	24°  ♿21'39	27°57'21	morning rise	13670 Aug 22 17:19	1°  ♿08'56	
	13669 Oct 05 02:46	0°  ♿		desc. node	13670 Aug 23 16:43	0°  ♿27'48	
	13669 Oct 24 19:58	0°  ♿			13670 Aug 24 11:05	30°  ♿♿	
asc. node	13669 Oct 30 22:06	11°  ♿41'03		direct	13670 Aug 29 09:06	28°  ♿43'82	
morning set	13669 Nov 02 02:58	16°  ♿11'27			13670 Sep 03 16:13	0°  ♿	
max. Earth dist.	13669 Nov 07 22:02	28°  ♿38'10	1.31420 AU	morning max el	13670 Sep 12 08:20	6°  ♿40'05	27°48'47
	13669 Nov 08 12:52	0°  ♿			13670 Sep 30 04:11	0°  ♿	
				morning set	13670 Oct 16 22:54	29°  ♿57'09	
superior conj	13669 Nov 09 09:21	1°  ♿53'28	1°19'26		13670 Oct 16 23:28	0°  ♿	
minimum elong	13669 Nov 09 07:14	1°  ♿41'47	1°20'02	asc. node	13670 Oct 17 18:45	1°  ♿37'35	
evening rise	13669 Nov 16 02:13	16°  ♿41'07		max. Earth dist.	13670 Oct 21 23:48	10°  ♿24'45	1.32193 AU
	13669 Nov 22 13:38	0°  ♿					
desc. node	13669 Dec 02 16:00	17°  ♿14'06		superior conj	13670 Oct 24 17:05	16°  ♿16'59	1°01'55
evening max el	13669 Dec 12 19:17	29°  ♿35'19	25°15'40	minimum elong	13670 Oct 24 14:49	16°  ♿04'36	1°02'13
	13669 Dec 13 05:48	0°  ♿			13670 Oct 30 23:43	0°  ♿	

evening rise	13670 Oct 31 13:19	1°♊13'18		evening rise	13671 Oct 15 23:52	15°♏41'25	
	13670 Nov 16 04:14	0°♊			13671 Oct 23 02:13	0°♊	
desc. node	13670 Nov 19 13:10	4°♊32'41		evening max el	13671 Nov 05 17:36	19°♊46'21	21°55'56
evening max el	13670 Nov 24 05:35	9°♊44'15	23°37'00	desc. node	13671 Nov 06 10:26	20°♊26'32	
retrograde	13670 Dec 07 16:24	16°♊25'52		retrograde	13671 Nov 18 06:18	25°♊59'00	
evening set	13670 Dec 12 06:26	15°♊40'08		evening set	13671 Nov 21 10:50	25°♊36'18	
min. Earth dist.	13670 Dec 18 16:08	12°♊35'56	0.55334 AU	inferior conj	13671 Nov 30 04:36	21°♊42'13	-5°48'07
inferior conj	13670 Dec 20 10:16	11°♊33'49	-5°51'19	minimum elong	13671 Nov 29 23:29	21°♊49'22	5°46'34
minimum elong	13670 Dec 20 14:05	11°♊28'11	5°49'59	min. Earth dist.	13671 Nov 29 22:27	21°♊50'49	0.54552 AU
morning rise	13670 Dec 28 23:29	7°♊40'24		morning rise	13671 Dec 08 13:06	17°♊54'47	
direct	13670 Dec 31 16:29	7°♊22'24		direct	13671 Dec 12 02:31	17°♊26'53	
morning max el	13671 Jan 11 11:06	12°♊31'48	20°20'17	morning max el	13671 Dec 24 09:17	23°♊20'03	21°53'28
asc. node	13671 Jan 13 18:37	14°♊58'36			13671 Dec 30 04:02	0°♊	
	13671 Jan 23 14:32	0°♊		asc. node	13671 Dec 31 15:49	2°♊05'30	
morning set	13671 Jan 29 21:50	12°♊24'54		morning set	13672 Jan 14 07:59	27°♊09'22	
					13672 Jan 15 16:17	0°♊	
superior conj	13671 Feb 06 12:12	28°♊00'53	1°08'53	superior conj	13672 Jan 21 11:04	12°♊16'47	1°25'11
minimum elong	13671 Feb 06 14:54	28°♊14'30	1°09'11	minimum elong	13672 Jan 21 13:11	12°♊27'53	1°25'50
	13671 Feb 07 11:54	0°♊		max. Earth dist.	13672 Jan 25 14:05	20°♊47'38	1.34518 AU
max. Earth dist.	13671 Feb 12 01:45	8°♊56'57	1.36472 AU	evening rise	13672 Jan 29 20:39	29°♊12'26	
evening rise	13671 Feb 15 20:58	16°♊01'57			13672 Jan 30 06:37	0°♊	
desc. node	13671 Feb 15 13:27	15°♊27'42		desc. node	13672 Feb 02 10:04	5°♊51'29	
	13671 Feb 23 22:23	0°♊			13672 Feb 17 02:30	0°♊	
	13671 Mar 16 18:36	0°♊		evening max el	13672 Mar 04 22:31	20°♊59'34	26°50'24
evening max el	13671 Mar 23 08:42	7°♊15'34	25°52'38	retrograde	13672 Mar 18 04:24	28°♊25'09	
retrograde	13671 Apr 04 22:26	14°♊28'52		evening set	13672 Mar 24 15:52	25°♊52'57	
evening set	13671 Apr 11 00:09	11°♊59'24		min. Earth dist.	13672 Mar 28 15:51	21°♊55'03	0.66024 AU
asc. node	13671 Apr 11 15:13	11°♊26'24		asc. node	13672 Mar 28 12:40	22°♊04'06	
min. Earth dist.	13671 Apr 15 05:35	7°♊27'37	0.67395 AU	inferior conj	13672 Mar 30 17:36	19°♊29'46	0°41'35
inferior conj	13671 Apr 16 19:03	5°♊29'34	1°32'54	minimum elong	13672 Mar 30 16:32	19°♊32'55	0°40'55
minimum elong	13671 Apr 16 17:06	5°♊35'43	1°31'43	morning rise	13672 Apr 05 18:30	13°♊53'02	
	13671 Apr 21 23:35	30°♊		direct	13672 Apr 08 16:07	13°♊06'45	
morning rise	13671 Apr 22 10:42	29°♊41'20		morning max el	13672 Apr 15 01:14	16°♊28'09	18°11'13
direct	13671 Apr 25 18:27	28°♊38'19			13672 Apr 25 03:44	0°♊	
	13671 Apr 29 17:43	0°♊		desc. node	13672 Apr 30 12:24	8°♊29'27	
morning max el	13671 May 02 11:30	2°♊15'20	18°49'05	morning set	13672 May 04 04:32	14°♊23'35	
desc. node	13671 May 14 15:41	18°♊25'34			13672 May 13 23:11	0°♊	
greatest brilliancy	13671 May 16 09:24	21°♊04'05	-0.8m	superior conj	13672 May 19 09:04	8°♊30'52	-1°55'47
	13671 May 22 04:18	0°♊		minimum elong	13672 May 19 00:33	7°♊57'32	1°56'06
morning set	13671 May 24 17:58	3°♊59'42		max. Earth dist.	13672 May 21 06:21	11°♊27'58	1.45822 AU
max. Earth dist.	13671 Jun 08 10:26	26°♊52'38	1.45672 AU		13672 Jun 02 04:15	0°♊	
superior conj	13671 Jun 10 00:46	29°♊22'38	-2°12'31	evening rise	13672 Jun 04 10:48	3°♊31'47	
minimum elong	13671 Jun 09 22:12	29°♊12'35	2°13'32	greatest brilliancy	13672 Jun 16 00:18	21°♊20'26	-0.7m
	13671 Jun 10 10:18	0°♊			13672 Jun 21 23:19	0°♊	
evening rise	13671 Jun 25 07:00	23°♊36'10		asc. node	13672 Jun 24 10:26	3°♊15'33	
	13671 Jun 29 06:21	0°♊		evening max el	13672 Jun 28 02:06	7°♊25'58	19°11'17
asc. node	13671 Jul 08 13:32	14°♊33'54		retrograde	13672 Jul 05 00:28	11°♊16'44	
evening max el	13671 Jul 15 16:31	23°♊39'42	18°31'12	evening set	13672 Jul 08 13:20	10°♊04'10	
retrograde	13671 Jul 22 03:56	27°♊09'06		inferior conj	13672 Jul 13 23:56	4°♊15'34	3°02'58
evening set	13671 Jul 25 07:36	26°♊13'05		minimum elong	13672 Jul 14 01:13	4°♊11'24	3°01'53
inferior conj	13671 Jul 31 00:57	20°♊38'42	2°40'17	min. Earth dist.	13672 Jul 15 11:37	2°♊20'05	0.66854 AU
minimum elong	13671 Jul 31 03:06	20°♊32'13	2°39'05		13672 Jul 17 09:40	30°♊	
min. Earth dist.	13671 Aug 02 03:11	18°♊07'36	0.65232 AU	morning rise	13672 Jul 19 12:28	27°♊51'09	
morning rise	13671 Aug 05 21:25	14°♊16'13		direct	13672 Jul 25 15:18	25°♊12'26	
desc. node	13671 Aug 10 14:14	11°♊48'00		desc. node	13672 Jul 27 11:39	25°♊25'06	
direct	13671 Aug 12 08:43	11°♊36'38			13672 Aug 04 08:21	0°♊	
morning max el	13671 Aug 25 19:11	19°♊31'25	27°06'33	morning max el	13672 Aug 07 06:09	2°♊44'42	25°58'54
	13671 Sep 03 17:38	0°♊			13672 Aug 27 22:23	0°♊	
	13671 Sep 23 05:09	0°♊		morning set	13672 Sep 12 05:45	25°♊51'01	
morning set	13671 Sep 30 08:58	13°♊13'01			13672 Sep 14 11:05	0°♊	
max. Earth dist.	13671 Oct 04 16:40	21°♊47'43	1.33503 AU	max. Earth dist.	13672 Sep 15 23:28	2°♊53'29	1.35321 AU
asc. node	13671 Oct 04 15:21	21°♊41'02		asc. node	13672 Sep 20 11:56	11°♊47'42	
superior conj	13671 Oct 08 19:43	0°♊22'12	0°38'47	superior conj	13672 Sep 21 14:41	14°♊02'58	0°10'28
minimum elong	13671 Oct 08 17:53	0°♊12'32	0°38'53	minimum elong	13672 Sep 21 14:04	13°♊59'53	0°10'30
	13671 Oct 08 15:31	0°♊					






































































































































































behind sun begin	13672 Sep 21 09:25	13°♄36'17		superior conj	13673 Sep 04 22:46	27°♄11'31	-0°22'11
behind sun end	13672 Sep 21 18:43	14°♄23'33		minimum elong	13673 Sep 05 00:15	27°♄18'43	0°22'03
evening rise	13672 Sep 29 07:54	0°♄00'44			13673 Sep 06 09:20	0°♄	
	13672 Sep 29 07:46	0°♄		asc. node	13673 Sep 07 08:31	1°♄54'02	
	13672 Oct 17 09:26	0°♄		evening rise	13673 Sep 13 11:05	14°♄05'25	
evening max el	13672 Oct 17 16:24	0°♄17'31	20°27'36		13673 Sep 21 20:29	0°♄	
desc. node	13672 Oct 23 07:48	4°♄28'54		evening max el	13673 Sep 30 05:22	11°♄35'55	19°19'42
retrograde	13672 Oct 28 17:09	5°♄46'33		retrograde	13673 Oct 09 14:28	16°♄17'40	
evening set	13672 Oct 30 21:55	5°♄34'29		desc. node	13673 Oct 10 05:13	16°♄16'32	
inferior conj	13672 Nov 08 20:57	1°♄39'11	-4°45'36	evening set	13673 Oct 11 11:08	16°♄07'22	
minimum elong	13672 Nov 08 10:54	1°♄53'48	4°42'07	inferior conj	13673 Oct 20 01:33	11°♄58'21	-3°04'22
min. Earth dist.	13672 Nov 10 05:12	0°♄52'12	0.54695 AU	minimum elong	13673 Oct 19 17:43	12°♄11'13	3°00'53
	13672 Nov 11 18:01	30°♄		min. Earth dist.	13673 Oct 22 15:19	10°♄17'09	0.55745 AU
morning rise	13672 Nov 16 23:27	27°♄39'08		morning rise	13673 Oct 27 21:58	7°♄27'32	
direct	13672 Nov 21 11:38	26°♄55'24		direct	13673 Nov 02 06:23	6°♄22'31	
	13672 Nov 30 13:59	0°♄		morning max el	13673 Nov 16 06:58	13°♄27'07	25°27'01
morning max el	13672 Dec 04 20:56	3°♄27'43	23°40'56		13673 Nov 29 05:23	0°♄	
asc. node	13672 Dec 17 12:57	20°♄07'22		asc. node	13673 Dec 04 09:58	8°♄50'28	
	13672 Dec 23 00:10	0°♄		morning set	13673 Dec 13 07:25	26°♄36'37	
morning set	13672 Dec 28 19:46	11°♄54'56			13673 Dec 14 20:58	0°♄	
superior conj	13673 Jan 04 16:24	26°♄48'34	1°34'49	superior conj	13673 Dec 20 01:48	11°♄29'19	1°38'09
minimum elong	13673 Jan 04 17:32	26°♄54'43	1°35'44	minimum elong	13673 Dec 20 01:51	11°♄29'32	1°39'11
	13673 Jan 06 03:54	0°♄		max. Earth dist.	13673 Dec 21 13:42	14°♄47'14	1.31869 AU
max. Earth dist.	13673 Jan 07 10:23	2°♄42'42	1.32961 AU	evening rise	13673 Dec 27 05:42	26°♄55'30	
evening rise	13673 Jan 12 08:35	12°♄52'52			13673 Dec 28 17:42	0°♄	
desc. node	13673 Jan 19 06:43	26°♄02'26		desc. node	13674 Jan 06 03:28	15°♄54'42	
	13673 Jan 21 12:27	0°♄			13674 Jan 14 20:39	0°♄	
	13673 Feb 11 06:26	0°♄		evening max el	13674 Jan 28 22:13	17°♄19'41	27°32'29
evening max el	13673 Feb 15 11:43	4°♄25'15	27°25'54	retrograde	13674 Feb 11 19:24	24°♄42'05	
retrograde	13673 Mar 01 03:40	11°♄52'32		evening set	13674 Feb 18 17:15	22°♄24'03	
evening set	13673 Mar 07 22:26	9°♄23'47		min. Earth dist.	13674 Feb 22 11:18	19°♄24'13	0.62287 AU
min. Earth dist.	13673 Mar 11 18:23	5°♄57'15	0.64297 AU	inferior conj	13674 Feb 25 10:30	16°♄36'16	-1°35'19
inferior conj	13673 Mar 14 07:47	3°♄14'33	-0°21'20	minimum elong	13674 Feb 25 13:46	16°♄28'32	1°33'38
minimum elong	13673 Mar 14 08:26	3°♄12'49	0°21'01	asc. node	13674 Mar 02 07:39	12°♄34'52	
asc. node	13673 Mar 15 10:11	2°♄05'16		morning rise	13674 Mar 04 13:03	11°♄30'29	
	13673 Mar 17 14:37	30°♄		direct	13674 Mar 06 18:57	11°♄07'37	
morning rise	13673 Mar 20 20:28	27°♄51'44		morning max el	13674 Mar 13 11:52	14°♄31'37	17°47'14
direct	13673 Mar 23 09:22	27°♄18'56			13674 Mar 24 05:40	0°♄	
	13673 Mar 29 02:51	0°♄		morning set	13674 Mar 29 09:04	8°♄59'56	
morning max el	13673 Mar 29 18:21	0°♄36'13	17°50'25	desc. node	13674 Apr 04 05:34	19°♄16'06	
morning set	13673 Apr 15 19:07	26°♄08'38					
desc. node	13673 Apr 17 09:01	28°♄47'46		superior conj	13674 Apr 09 23:10	29°♄03'13	-0°43'56
	13673 Apr 18 02:15	0°♄		minimum elong	13674 Apr 09 18:54	28°♄45'19	0°43'43
					13674 Apr 10 12:43	0°♄	
superior conj	13673 Apr 29 04:55	18°♄15'04	-1°23'22	max. Earth dist.	13674 Apr 16 19:18	10°♄17'44	1.43955 AU
minimum elong	13673 Apr 28 20:42	17°♄42'04	1°23'05	evening rise	13674 Apr 24 13:07	22°♄30'57	
max. Earth dist.	13673 May 04 02:13	26°♄01'52	1.45228 AU		13674 Apr 29 10:27	0°♄	
	13673 May 06 14:50	0°♄			13674 May 20 16:22	0°♄	
evening rise	13673 May 14 23:38	12°♄56'33		evening max el	13674 May 25 04:28	5°♄03'57	21°15'47
	13673 May 26 06:54	0°♄		asc. node	13674 May 29 04:32	8°♄27'46	
greatest brilliancy	13673 May 29 21:36	5°♄17'42	-0.6m	retrograde	13674 Jun 02 21:56	10°♄09'16	
asc. node	13673 Jun 11 07:26	21°♄17'51		evening set	13674 Jun 07 07:02	8°♄23'01	
evening max el	13673 Jun 11 06:16	21°♄14'54	20°07'00	inferior conj	13674 Jun 12 12:57	2°♄09'55	3°08'55
retrograde	13673 Jun 18 23:09	25°♄38'41		minimum elong	13674 Jun 12 12:14	2°♄12'26	3°07'50
evening set	13673 Jun 22 21:48	24°♄09'04		min. Earth dist.	13674 Jun 12 20:47	1°♄42'40	0.68724 AU
inferior conj	13673 Jun 28 04:44	18°♄07'25	3°11'51		13674 Jun 14 02:42	30°♄	
minimum elong	13673 Jun 28 04:59	18°♄06'33	3°10'49	morning rise	13674 Jun 17 17:14	25°♄52'32	
min. Earth dist.	13673 Jun 29 02:08	16°♄54'43	0.68028 AU	direct	13674 Jun 22 20:26	23°♄38'35	
morning rise	13673 Jul 03 11:50	11°♄45'19		desc. node	13674 Jul 01 06:13	27°♄57'24	
direct	13673 Jul 09 03:33	9°♄15'55		morning max el	13674 Jul 03 03:22	29°♄45'09	23°06'02
desc. node	13673 Jul 14 08:59	10°♄57'12			13674 Jul 03 09:13	0°♄	
morning max el	13673 Jul 20 16:30	16°♄10'43	24°35'32		13674 Jul 25 21:32	0°♄	
	13673 Aug 01 02:48	0°♄		morning set	13674 Aug 06 14:17	18°♄32'58	
	13673 Aug 20 21:09	0°♄		max. Earth dist.	13674 Aug 10 21:33	25°♄49'13	1.39872 AU
morning set	13673 Aug 25 09:02	7°♄41'20			13674 Aug 13 07:16	0°♄	
max. Earth dist.	13673 Aug 28 23:07	14°♄04'44	1.37518 AU				





























































































































































































































































































































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minimum elong	13674 Aug 18 20:13	9° $\cap$ 57'42	0°57'00	minimum elong	13675 Jul 31 20:40	21° $\Omega$ 42'42	1°31'11
asc. node	13674 Aug 25 05:05	21° $\cap$ 56'07			13675 Aug 05 13:14	0° $\cap$	
evening rise	13674 Aug 28 06:22	27° $\cap$ 47'24		evening rise	13675 Aug 11 13:58	10° $\cap$ 56'56	
	13674 Aug 29 10:05	0° $\underline{\cap}$		asc. node	13675 Aug 12 01:39	11° $\cap$ 50'23	
evening max el	13674 Sep 13 06:38	23° $\underline{\cap}$ 41'17	18°33'44		13675 Aug 22 14:14	0° $\underline{\cap}$	
retrograde	13674 Sep 21 06:05	27° $\underline{\cap}$ 42'54		evening max el	13675 Aug 27 16:13	6° $\underline{\cap}$ 25'43	18°08'41
evening set	13674 Sep 23 05:11	27° $\underline{\cap}$ 29'03		retrograde	13675 Sep 03 16:14	9° $\underline{\cap}$ 59'58	
desc. node	13674 Sep 27 02:43	25° $\underline{\cap}$ 49'01		evening set	13675 Sep 05 22:14	9° $\underline{\cap}$ 38'17	
inferior conj	13674 Oct 01 02:42	23° $\underline{\cap}$ 00'16	-1°16'10	inferior conj	13675 Sep 13 01:28	4° $\underline{\cap}$ 48'56	0°17'34
minimum elong	13674 Sep 30 23:40	23° $\underline{\cap}$ 06'07	1°14'37	minimum elong	13675 Sep 13 02:02	4° $\underline{\cap}$ 47'38	0°17'20
min. Earth dist.	13674 Oct 04 07:36	20° $\underline{\cap}$ 33'28	0.57510 AU	desc. node	13675 Sep 14 00:14	3° $\underline{\cap}$ 57'40	
morning rise	13674 Oct 08 14:40	17° $\underline{\cap}$ 51'29		min. Earth dist.	13675 Sep 16 08:00	1° $\underline{\cap}$ 54'26	0.59696 AU
direct	13674 Oct 14 15:29	16° $\underline{\cap}$ 20'02			13675 Sep 18 18:18	30° $\cap$	
morning max el	13674 Oct 28 22:36	23° $\underline{\cap}$ 50'51	26°52'54	morning rise	13675 Sep 20 02:31	29° $\cap$ 07'08	
	13674 Nov 03 12:48	0° $\cap$		direct	13675 Sep 26 14:21	27° $\cap$ 08'15	
asc. node	13674 Nov 21 06:51	28° $\cap$ 03'26			13675 Oct 04 21:24	0° $\underline{\cap}$	
	13674 Nov 22 06:52	0° $\nearrow$		morning max el	13675 Oct 10 21:53	4° $\underline{\cap}$ 57'52	27°44'53
morning set	13674 Nov 27 17:07	11° $\nearrow$ 08'39			13675 Oct 29 12:06	0° $\cap$	
				asc. node	13675 Nov 08 03:39	17° $\cap$ 38'24	
superior conj	13674 Dec 04 13:08	26° $\nearrow$ 11'59	1°35'28	morning set	13675 Nov 11 23:06	25° $\cap$ 26'48	
minimum elong	13674 Dec 04 12:09	26° $\nearrow$ 06'27	1°36'26		13675 Nov 14 02:18	0° $\nearrow$	
max. Earth dist.	13674 Dec 04 21:09	26° $\nearrow$ 56'42	1.31279 AU	max. Earth dist.	13675 Nov 18 05:14	9° $\nearrow$ 03'53	1.31215 AU
	13674 Dec 06 06:02	0° $\underline{\nearrow}$					
evening rise	13674 Dec 11 09:22	11° $\underline{\nearrow}$ 12'51		superior conj	13675 Nov 19 00:34	10° $\nearrow$ 51'36	1°26'57
	13674 Dec 20 22:42	0° $\approx$		minimum elong	13675 Nov 18 22:46	10° $\nearrow$ 41'35	1°27'43
desc. node	13674 Dec 24 00:18	5° $\approx$ 19'47		evening rise	13675 Nov 25 17:26	25° $\nearrow$ 40'04	
evening max el	13675 Jan 11 03:21	29° $\approx$ 29'33	27°05'28		13675 Nov 27 18:23	0° $\underline{\nearrow}$	
	13675 Jan 11 16:24	0° $\cap$		desc. node	13675 Dec 10 21:16	24° $\underline{\nearrow}$ 07'35	
retrograde	13675 Jan 25 02:37	6° $\cap$ 43'47			13675 Dec 14 20:38	0° $\approx$	
evening set	13675 Jan 31 21:00	4° $\cap$ 44'34		evening max el	13675 Dec 24 00:56	10° $\approx$ 47'45	26°04'12
min. Earth dist.	13675 Feb 04 17:41	2° $\cap$ 02'52	0.60109 AU	retrograde	13676 Jan 06 23:34	17° $\approx$ 51'39	
	13675 Feb 07 05:19	30° $\cap$		evening set	13676 Jan 13 05:44	16° $\approx$ 18'57	
inferior conj	13675 Feb 07 22:10	29° $\approx$ 24'50	-2°57'40	min. Earth dist.	13676 Jan 17 14:08	13° $\approx$ 42'11	0.57969 AU
minimum elong	13675 Feb 08 04:35	29° $\approx$ 11'31	2°54'39	inferior conj	13676 Jan 20 15:18	11° $\approx$ 30'53	-4°20'39
morning rise	13675 Feb 15 15:22	24° $\approx$ 39'01		minimum elong	13676 Jan 21 00:01	11° $\approx$ 15'10	4°17'14
asc. node	13675 Feb 17 05:06	24° $\approx$ 23'29		morning rise	13676 Jan 28 21:14	7° $\approx$ 06'44	
direct	13675 Feb 17 16:44	24° $\approx$ 22'33		direct	13676 Jan 30 22:33	6° $\approx$ 53'01	
morning max el	13675 Feb 25 02:20	28° $\approx$ 03'59	18°02'42	asc. node	13676 Feb 04 02:30	7° $\approx$ 52'49	
	13675 Feb 26 21:13	0° $\cap$		morning max el	13676 Feb 08 09:50	11° $\approx$ 02'11	18°38'26
morning set	13675 Mar 12 16:13	22° $\cap$ 38'25			13676 Feb 20 21:59	0° $\cap$	
	13675 Mar 16 15:43	0° $\cap$		morning set	13676 Feb 24 11:23	6° $\cap$ 48'38	
desc. node	13675 Mar 22 02:04	9° $\cap$ 50'03					
				superior conj	13676 Mar 04 07:44	23° $\cap$ 47'04	0°28'59
superior conj	13675 Mar 22 17:17	10° $\cap$ 57'30	-0°05'05	minimum elong	13676 Mar 04 09:38	23° $\cap$ 55'54	0°28'53
minimum elong	13675 Mar 22 16:51	10° $\cap$ 55'36	0°05'07	desc. node	13676 Mar 07 22:32	0° $\cap$ 25'56	
behind sun begin	13675 Mar 22 09:22	10° $\cap$ 22'26			13676 Mar 07 16:48	0° $\cap$	
behind sun end	13675 Mar 23 00:20	11° $\cap$ 28'42		max. Earth dist.	13676 Mar 11 15:24	7° $\cap$ 00'21	1.39977 AU
max. Earth dist.	13675 Mar 30 07:37	24° $\cap$ 00'03	1.42136 AU	evening rise	13676 Mar 15 17:36	13° $\cap$ 59'57	
	13675 Apr 02 23:18	0° $\cap$			13676 Mar 25 17:33	0° $\cap$	
evening rise	13675 Apr 04 16:59	2° $\cap$ 47'46			13676 Apr 16 21:05	0° $\cap$	
	13675 Apr 22 19:24	0° $\cap$		evening max el	13676 Apr 19 12:09	2° $\cap$ 45'46	23°54'43
evening max el	13675 May 07 21:43	18° $\cap$ 53'48	22°33'35	retrograde	13676 Apr 30 13:22	9° $\cap$ 15'20	
asc. node	13675 May 16 01:42	24° $\cap$ 29'50		asc. node	13676 May 01 22:59	9° $\cap$ 06'33	
retrograde	13675 May 17 19:09	24° $\cap$ 43'27		evening set	13676 May 05 21:07	7° $\cap$ 00'32	
evening set	13675 May 22 15:21	22° $\cap$ 41'52		min. Earth dist.	13676 May 10 13:57	1° $\cap$ 32'20	0.68696 AU
inferior conj	13675 May 27 22:34	16° $\cap$ 19'30	2°55'21	inferior conj	13676 May 11 07:39	0° $\cap$ 32'00	2°31'33
minimum elong	13675 May 27 21:03	16° $\cap$ 24'49	2°54'07	minimum elong	13676 May 11 05:37	0° $\cap$ 38'57	2°30'12
min. Earth dist.	13675 May 27 17:27	16° $\cap$ 37'21	0.68942 AU		13676 May 11 17:03	30° $\cap$	
morning rise	13675 Jun 02 02:37	10° $\cap$ 08'32		morning rise	13676 May 16 14:06	24° $\cap$ 28'44	
direct	13675 Jun 06 17:02	8° $\cap$ 13'36		direct	13676 May 20 16:03	22° $\cap$ 54'22	
morning max el	13675 Jun 15 17:24	13° $\cap$ 28'23	21°39'13	morning max el	13676 May 28 13:24	27° $\cap$ 21'59	20°21'52
desc. node	13675 Jun 18 03:20	16° $\cap$ 02'56			13676 May 31 00:24	0° $\cap$	
	13675 Jun 28 22:00	0° $\cap$		desc. node	13676 Jun 04 00:19	4° $\cap$ 55'48	
morning set	13675 Jul 17 18:35	28° $\cap$ 19'32			13676 Jun 21 08:54	0° $\cap$	
	13675 Jul 18 19:50	0° $\cap$		morning set	13676 Jun 26 01:47	7° $\cap$ 12'05	
max. Earth dist.	13675 Jul 23 23:58	8° $\cap$ 23'33	1.42109 AU	max. Earth dist.	13676 Jul 05 09:01	21° $\cap$ 48'53	1.43974 AU

	13676 Jul 10 10:17	0°♎		superior conj	13677 Jun 21 12:45	11°♊28'17	-2°12'59
				minimum elong	13677 Jun 21 14:42	11°♊36'03	2°14'01
superior conj	13676 Jul 11 12:48	1°♎49'01	-1°58'54		13677 Jul 03 00:15	0°♎	
minimum elong	13676 Jul 11 19:36	2°♎17'05	1°59'20	evening rise	13677 Jul 05 22:35	4°♎49'35	
evening rise	13676 Jul 24 05:01	23°♎21'18		asc. node	13677 Jul 15 19:01	20°♎55'46	
	13676 Jul 28 00:56	0°♎			13677 Jul 22 01:29	0°♎	
asc. node	13676 Jul 28 22:17	1°♎31'54		evening max el	13677 Jul 24 20:15	3°♎09'11	18°15'47
evening max el	13676 Aug 10 05:56	19°♎38'01	18°03'04	retrograde	13677 Jul 31 04:53	6°♎31'34	
retrograde	13676 Aug 16 17:16	22°♎59'16		evening set	13677 Aug 03 03:38	5°♎44'18	
evening set	13676 Aug 19 07:30	22°♎26'07		inferior conj	13677 Aug 09 02:24	0°♎18'36	2°19'51
inferior conj	13676 Aug 25 18:42	17°♎17'34	1°29'28	minimum elong	13677 Aug 09 04:51	0°♎11'37	2°18'36
minimum elong	13676 Aug 25 20:57	17°♎11'49	1°28'23		13677 Aug 09 08:53	30°♎♊	
min. Earth dist.	13676 Aug 28 17:34	14°♎17'18	0.61989 AU	min. Earth dist.	13677 Aug 11 12:41	27°♎32'35	0.64139 AU
desc. node	13676 Aug 30 21:48	12°♎18'22		morning rise	13677 Aug 15 04:31	24°♎00'17	
morning rise	13676 Sep 01 07:56	11°♎12'41		desc. node	13677 Aug 17 19:20	22°♎20'36	
direct	13676 Sep 08 00:13	8°♎51'17		direct	13677 Aug 21 19:02	21°♎24'52	
morning max el	13676 Sep 22 03:33	16°♎50'47	27°58'03	morning max el	13677 Sep 04 13:19	29°♎24'17	27°34'24
	13676 Oct 03 01:13	0°♎			13677 Sep 05 03:21	0°♎	
	13676 Oct 21 05:18	0°♎			13677 Sep 26 23:37	0°♎	
asc. node	13676 Oct 25 00:21	7°♎28'28		morning set	13677 Oct 09 15:26	22°♎59'28	
morning set	13676 Oct 25 23:21	9°♎25'44		asc. node	13677 Oct 11 20:59	27°♎28'27	
max. Earth dist.	13676 Oct 31 10:19	21°♎00'02	1.31683 AU	max. Earth dist.	13677 Oct 13 02:31	0°♎	
					13677 Oct 14 08:44	2°♎37'19	1.32692 AU
superior conj	13676 Nov 02 10:14	25°♎22'38	1°12'41				
minimum elong	13676 Nov 02 07:59	25°♎10'17	1°13'11	superior conj	13677 Oct 17 16:06	9°♎39'15	0°52'46
	13676 Nov 04 12:25	0°♎		minimum elong	13677 Oct 17 13:55	9°♎27'34	0°52'58
evening rise	13676 Nov 09 03:58	10°♎11'58		evening rise	13677 Oct 24 15:05	24°♎43'23	
	13676 Nov 19 03:19	0°♎			13677 Oct 27 03:05	0°♎	
desc. node	13676 Nov 26 18:22	12°♎04'10		desc. node	13677 Nov 13 15:36	28°♎49'54	
evening max el	13676 Dec 04 14:35	21°♎17'42	24°35'15		13677 Nov 14 17:15	0°♎	
retrograde	13676 Dec 18 07:59	28°♎08'33		evening max el	13677 Nov 16 00:30	1°♎19'19	22°53'13
evening set	13676 Dec 23 15:33	27°♎06'16		retrograde	13677 Nov 29 03:19	7°♎50'02	
min. Earth dist.	13676 Dec 29 02:22	24°♎17'36	0.56135 AU	evening set	13677 Dec 03 03:10	7°♎15'19	
inferior conj	13676 Dec 31 11:44	22°♎47'43	-5°28'23	min. Earth dist.	13677 Dec 10 09:22	3°♎55'53	0.54897 AU
minimum elong	13676 Dec 31 19:04	22°♎36'12	5°26'09	inferior conj	13677 Dec 11 13:16	3°♎16'08	-5°57'22
morning rise	13677 Jan 09 00:37	18°♎44'21		minimum elong	13677 Dec 11 13:23	3°♎15'57	5°56'18
direct	13677 Jan 11 09:25	18°♎29'11			13677 Dec 18 04:31	30°♎♊	
asc. node	13677 Jan 20 23:51	22°♎59'35		morning rise	13677 Dec 20 01:02	29°♎27'26	
morning max el	13677 Jan 21 06:18	23°♎14'59	19°36'26	direct	13677 Dec 23 02:17	29°♎05'48	
	13677 Jan 26 19:12	0°♎			13677 Dec 27 18:23	0°♎	
morning set	13677 Feb 07 14:38	21°♎19'26		morning max el	13678 Jan 03 12:34	4°♎33'29	20°57'35
	13677 Feb 11 21:45	0°♎		asc. node	13678 Jan 07 21:07	9°♎27'45	
					13678 Jan 20 00:18	0°♎	
superior conj	13677 Feb 15 14:01	7°♎19'40	0°56'20	morning set	13678 Jan 22 22:58	6°♎01'07	
minimum elong	13677 Feb 15 16:45	7°♎33'02	0°56'27				
max. Earth dist.	13677 Feb 21 21:50	19°♎23'17	1.37721 AU	superior conj	13678 Jan 30 07:51	21°♎22'40	1°16'39
desc. node	13677 Feb 22 19:03	21°♎00'30		minimum elong	13678 Jan 30 10:22	21°♎35'36	1°17'05
evening rise	13677 Feb 25 14:58	26°♎05'24			13678 Feb 03 14:31	0°♎	
	13677 Feb 27 20:46	0°♎		max. Earth dist.	13678 Feb 04 07:03	1°♎21'09	1.35599 AU
	13677 Mar 19 06:37	0°♎		evening rise	13678 Feb 08 06:02	8°♎54'29	
evening max el	13677 Apr 02 01:48	16°♎39'32	25°12'23	desc. node	13678 Feb 09 15:36	11°♎29'17	
retrograde	13677 Apr 14 03:28	23°♎39'28			13678 Feb 20 12:22	0°♎	
asc. node	13677 Apr 18 20:21	22°♎05'11			13678 Mar 15 03:46	0°♎	
evening set	13677 Apr 19 22:50	21°♎14'20		evening max el	13678 Mar 15 15:28	0°♎28'49	26°19'28
min. Earth dist.	13677 Apr 24 08:05	16°♎22'15	0.67998 AU	retrograde	13678 Mar 28 12:28	7°♎48'05	
inferior conj	13677 Apr 25 14:18	14°♎43'45	1°57'27	evening set	13678 Apr 03 18:43	5°♎16'44	
minimum elong	13677 Apr 25 12:10	14°♎50'43	1°56'07	asc. node	13678 Apr 05 17:49	3°♎26'37	
morning rise	13677 May 01 01:49	8°♎49'34		min. Earth dist.	13678 Apr 07 21:42	0°♎59'47	0.66864 AU
direct	13677 May 04 16:02	7°♎35'25			13678 Apr 08 17:23	30°♎♊	
morning max el	13677 May 11 17:01	11°♎26'54	19°18'26	inferior conj	13678 Apr 09 16:26	28°♎49'12	1°12'32
desc. node	13677 May 21 21:11	24°♎23'26		minimum elong	13678 Apr 09 14:46	28°♎54'20	1°11'32
greatest brilliancy	13677 May 24 11:21	28°♎11'06	-0.7m	morning rise	13678 Apr 15 11:42	23°♎05'45	
	13677 May 25 16:37	0°♎		direct	13678 Apr 18 15:05	22°♎10'07	
morning set	13677 Jun 05 04:19	15°♎58'05		morning max el	13678 Apr 25 03:38	25°♎38'35	18°30'59
	13677 Jun 14 05:41	0°♎			13678 Apr 28 23:13	0°♎	
max. Earth dist.	13677 Jun 18 00:36	5°♎56'00	1.45260 AU	desc. node	13678 May 08 17:56	14°♎15'51	
				morning set	13678 May 15 23:20	25°♎35'56	

	13678 May 18 18:28	0°♊		desc. node	13679 Apr 25 14:35	4°♌26'12	
				morning set	13679 Apr 26 21:55	6°♌34'34	
superior conj	13678 May 31 22:02	20°♊34'45	-2°07'47				
minimum elong	13678 May 31 16:19	20°♊12'27	2°08'34	superior conj	13679 May 11 09:15	29°♌53'06	-1°43'28
max. Earth dist.	13678 May 31 19:56	20°♊26'32	1.45831 AU	minimum elong	13679 May 11 00:08	29°♌17'08	1°43'27
	13678 Jun 06 22:40	0°♌			13679 May 11 11:00	0°♊	
evening rise	13678 Jun 16 15:35	15°♌16'37		max. Earth dist.	13679 May 14 15:56	5°♊02'25	1.45651 AU
greatest brilliancy	13678 Jun 25 04:42	28°♌45'18	-0.8m	evening rise	13679 May 27 11:19	24°♊54'09	
	13678 Jun 25 23:54	0°♎			13679 May 30 18:56	0°♌	
asc. node	13678 Jul 02 15:51	9°♎55'23		greatest brilliancy	13679 Jun 09 22:21	15°♌20'16	-0.7m
evening max el	13678 Jul 08 08:09	16°♎51'35	18°46'09	asc. node	13679 Jun 19 12:47	28°♌21'43	
retrograde	13678 Jul 14 23:12	20°♎28'38			13679 Jun 21 00:17	0°♎	
evening set	13678 Jul 18 06:44	19°♎25'36		evening max el	13679 Jun 21 15:27	0°♎38'56	19°33'11
inferior conj	13678 Jul 23 20:47	13°♎44'41	2°51'44	retrograde	13679 Jun 28 21:01	4°♎42'59	
minimum elong	13678 Jul 23 22:36	13°♎39'00	2°50'36	evening set	13679 Jul 02 13:53	3°♎23'16	
min. Earth dist.	13678 Jul 25 16:43	11°♎27'52	0.65972 AU		13679 Jul 05 23:35	30°♎	
morning rise	13678 Jul 29 13:35	7°♎20'42		inferior conj	13679 Jul 07 22:33	27°♌28'48	3°08'17
direct	13678 Aug 04 21:33	4°♎40'43		minimum elong	13679 Jul 07 23:24	27°♌25'58	3°07'15
desc. node	13678 Aug 04 16:49	4°♎40'52		min. Earth dist.	13679 Jul 09 04:05	25°♌50'51	0.67401 AU
morning max el	13678 Aug 18 00:39	12°♎27'36	26°40'25	morning rise	13679 Jul 13 08:26	21°♌04'42	
	13678 Sep 01 02:52	0°♏		direct	13679 Jul 19 06:38	18°♌29'06	
	13678 Sep 19 14:38	0°♐		desc. node	13679 Jul 22 14:12	19°♌09'58	
morning set	13678 Sep 22 20:24	6°♐01'13		morning max el	13679 Jul 31 11:31	25°♌47'59	25°24'52
max. Earth dist.	13678 Sep 26 21:43	13°♐53'57	1.34223 AU		13679 Aug 04 07:52	0°♎	
asc. node	13678 Sep 28 17:34	17°♐34'12			13679 Aug 25 15:27	0°♏	
				morning set	13679 Sep 05 10:19	18°♏20'54	
superior conj	13678 Oct 01 15:51	23°♐35'34	0°27'23	max. Earth dist.	13679 Sep 09 00:54	24°♏58'58	1.36216 AU
minimum elong	13678 Oct 01 14:27	23°♐28'13	0°27'26		13679 Sep 11 16:13	0°♐	
	13678 Oct 04 17:02	0°♑					
evening rise	13678 Oct 09 00:55	9°♑09'25		superior conj	13679 Sep 15 06:36	7°♐03'45	-0°02'57
	13678 Oct 19 22:37	0°♑		minimum elong	13679 Sep 15 06:46	7°♐04'38	0°02'54
evening max el	13678 Oct 28 16:06	11°♑30'07	21°16'03	behind sun begin	13679 Sep 15 00:32	6°♐33'32	
desc. node	13678 Oct 31 12:56	14°♑00'25		behind sun end	13679 Sep 15 13:01	7°♐35'48	
retrograde	13678 Nov 09 14:47	17°♑26'11		asc. node	13679 Sep 15 14:07	7°♐41'16	
evening set	13678 Nov 12 07:23	17°♑09'19		evening rise	13679 Sep 23 07:11	23°♐23'30	
inferior conj	13678 Nov 21 04:57	13°♑15'58	-5°28'12		13679 Sep 26 13:58	0°♑	
minimum elong	13678 Nov 20 20:49	13°♑27'25	5°25'49	evening max el	13679 Oct 10 20:50	22°♑20'36	19°56'01
min. Earth dist.	13678 Nov 21 15:20	13°♑01'20	0.54496 AU	desc. node	13679 Oct 18 10:21	27°♑07'53	
morning rise	13678 Nov 29 10:53	9°♑25'57		retrograde	13679 Oct 21 04:51	27°♑29'31	
direct	13678 Dec 03 09:51	8°♑52'16		evening set	13679 Oct 23 04:09	27°♑19'08	
morning max el	13678 Dec 16 05:33	15°♑02'25	22°38'16	inferior conj	13679 Nov 01 01:04	23°♑19'19	-4°05'29
asc. node	13678 Dec 25 18:18	27°♑00'10		minimum elong	13679 Oct 31 15:17	23°♑34'13	4°01'38
	13678 Dec 27 15:02	0°♒		min. Earth dist.	13679 Nov 02 23:31	22°♑08'33	0.55038 AU
morning set	13679 Jan 07 10:04	20°♒47'09		morning rise	13679 Nov 09 01:04	19°♑07'25	
	13679 Jan 11 17:10	0°♓		direct	13679 Nov 13 22:03	18°♑15'22	
				morning max el	13679 Nov 27 15:35	25°♑03'03	24°27'18
superior conj	13679 Jan 14 09:50	5°♓46'43	1°30'04		13679 Dec 02 05:49	0°♑	
minimum elong	13679 Jan 14 11:33	5°♓55'55	1°30'50	asc. node	13679 Dec 12 15:21	15°♑20'54	
max. Earth dist.	13679 Jan 17 22:39	13°♓12'15	1.33799 AU		13679 Dec 20 07:07	0°♒	
evening rise	13679 Jan 22 11:19	22°♓18'39		morning set	13679 Dec 22 21:59	5°♒31'34	
	13679 Jan 26 12:33	0°♈					
desc. node	13679 Jan 27 12:13	1°♈48'14		superior conj	13679 Dec 29 17:10	20°♒23'18	1°36'59
	13679 Feb 14 06:23	0°♉		minimum elong	13679 Dec 29 17:51	20°♒26'59	1°37'58
evening max el	13679 Feb 26 04:57	14°♉05'30	27°08'32	max. Earth dist.	13679 Dec 31 21:53	25°♒09'53	1.32433 AU
retrograde	13679 Mar 11 15:40	21°♉33'16			13680 Jan 03 04:13	0°♓	
evening set	13679 Mar 18 06:48	19°♉01'19		evening rise	13680 Jan 06 03:29	6°♓09'23	
min. Earth dist.	13679 Mar 22 04:44	15°♉17'30	0.65331 AU	desc. node	13680 Jan 14 08:55	21°♓52'04	
asc. node	13679 Mar 23 15:18	13°♉40'55			13680 Jan 19 02:46	0°♈	
inferior conj	13679 Mar 24 11:43	12°♉43'11	0°16'16	evening max el	13680 Feb 08 17:08	27°♈19'04	27°32'35
minimum elong	13679 Mar 24 11:16	12°♉44'27	0°15'58		13680 Feb 11 18:05	0°♉	
transit middle	13679 Mar 24 11:16	12°♉44'27	0°15'58	retrograde	13680 Feb 22 12:10	4°♉45'50	
transit begin	13679 Mar 24 11:04	12°♉45'01		evening set	13680 Feb 29 08:45	2°♉20'34	
transit end	13679 Mar 24 11:28	12°♉43'54			13680 Mar 03 04:53	30°♈	
morning rise	13679 Mar 30 17:22	7°♉12'23		min. Earth dist.	13680 Mar 04 03:26	29°♈06'07	0.63463 AU
direct	13679 Apr 02 11:04	6°♉32'20		inferior conj	13680 Mar 06 21:24	26°♈19'13	-0°51'30
morning max el	13679 Apr 08 19:11	9°♉50'30	18°00'18	minimum elong	13680 Mar 06 23:04	26°♈15'01	0°50'38
	13679 Apr 22 21:28	0°♊		asc. node	13680 Mar 09 12:47	23°♈46'23	

morning rise	13680 Mar 13 15:48	21°  03'25		morning rise	13681 Feb 25 02:58	4°  30'29	
direct	13680 Mar 16 01:20	20°  35'26		direct	13681 Feb 27 06:29	4°  10'48	
morning max el	13680 Mar 22 12:54	23°  54'37	17°46'52	morning max el	13681 Mar 06 05:31	7°  41'18	17°51'24
	13680 Mar 27 11:36	0°  			13681 Mar 20 17:43	0°  	
morning set	13680 Apr 07 23:12	18°   50'08		morning set	13681 Mar 21 21:14	2°   03'56	
desc. node	13680 Apr 11 11:08	24°   49'19		desc. node	13681 Mar 29 07:39	15°   20'23	
	13680 Apr 14 12:29	0°  8					
superior conj	13680 Apr 20 13:57	10°  803'18	-1°06'58	superior conj	13681 Apr 01 18:32	21°  19'57	-0°27'03
minimum elong	13680 Apr 20 07:14	9°  835'50	1°06'40	minimum elong	13681 Apr 01 16:02	21°  09'17	0°26'56
max. Earth dist.	13680 Apr 26 10:20	19°  828'46	1.44754 AU		13681 Apr 06 21:58	0°  8	
	13680 May 03 03:23	0°  II		max. Earth dist.	13681 Apr 09 01:27	3°  831'35	1.43236 AU
evening rise	13680 May 05 22:20	4°  II17'49		evening rise	13681 Apr 15 16:41	14°  807'43	
	13680 May 23 05:44	0°  8			13681 Apr 26 03:04	0°  II	
evening max el	13680 Jun 03 17:02	14°  828'20	20°34'58	evening max el	13681 May 17 13:04	28°  II18'00	21°48'11
asc. node	13680 Jun 05 09:51	16°  803'54			13681 May 19 08:16	0°  8	
retrograde	13680 Jun 11 19:58	19°  809'18		asc. node	13681 May 23 07:00	2°  847'05	
evening set	13680 Jun 15 22:53	17°  832'45		retrograde	13681 May 26 18:07	3°  841'47	
inferior conj	13680 Jun 21 05:05	11°  826'09	3°11'58	evening set	13681 May 31 07:53	1°  848'54	
minimum elong	13680 Jun 21 04:55	11°  826'44	3°10'56		13681 Jun 02 03:56	30°  8II	
min. Earth dist.	13680 Jun 21 20:43	10°  832'19	0.68377 AU	inferior conj	13681 Jun 05 14:07	25°  II31'52	3°04'25
morning rise	13680 Jun 26 10:38	5°  805'37		minimum elong	13681 Jun 05 13:02	25°  II35'40	3°03'17
direct	13680 Jul 01 21:10	2°  841'54		min. Earth dist.	13681 Jun 05 16:27	25°  II23'45	0.68877 AU
desc. node	13680 Jul 08 11:27	5°  822'44		morning rise	13681 Jun 10 17:59	19°  II17'06	
morning max el	13680 Jul 12 21:44	9°  817'45	23°57'39	direct	13681 Jun 15 15:52	17°  II10'41	
	13680 Jul 29 05:47	0°  8		desc. node	13681 Jun 25 08:36	22°  II52'50	
morning set	13680 Aug 17 04:46	29°  847'56		morning max el	13681 Jun 25 09:20	22°  II54'41	22°28'19
	13680 Aug 17 07:36	0°  8			13681 Jul 01 14:06	0°  8	
max. Earth dist.	13680 Aug 20 22:42	6°  819'10	1.38514 AU	morning set	13681 Jul 22 13:38	0°  8	
				max. Earth dist.	13681 Jul 28 23:26	10°  811'25	
superior conj	13680 Aug 28 08:53	19°  856'03	-0°36'53		13681 Aug 02 22:17	18°  823'35	1.40856 AU
minimum elong	13680 Aug 28 11:29	20°  808'24	0°36'43		13681 Aug 09 15:05	0°  8	
asc. node	13680 Sep 01 10:40	27°  846'26		superior conj	13681 Aug 10 18:27	2°  802'12	-1°12'04
	13680 Sep 02 14:00	0°  8		minimum elong	13681 Aug 10 23:53	2°  826'34	1°11'50
evening rise	13680 Sep 06 07:24	7°  819'34		asc. node	13681 Aug 19 07:15	17°  845'50	
	13680 Sep 19 05:48	0°  8		evening rise	13681 Aug 20 22:11	20°  848'51	
evening max el	13680 Sep 22 15:35	4°  800'30	18°57'32		13681 Aug 25 20:55	0°  8	
retrograde	13680 Oct 01 09:07	8°  823'17		evening max el	13681 Sep 05 20:56	16°  824'01	18°20'39
evening set	13680 Oct 03 06:01	8°  812'01		retrograde	13681 Sep 13 08:52	20°  812'01	
desc. node	13680 Oct 04 07:48	7°  855'52		evening set	13681 Sep 15 10:47	19°  855'11	
inferior conj	13680 Oct 11 13:52	3°  855'20	-2°17'42	desc. node	13681 Sep 21 05:17	16°  843'28	
minimum elong	13680 Oct 11 08:03	4°  805'32	2°14'56	inferior conj	13681 Sep 23 00:23	15°  817'22	-0°33'56
min. Earth dist.	13680 Oct 14 12:06	1°  852'54	0.56432 AU	minimum elong	13681 Sep 22 23:07	15°  819'58	0°33'16
	13680 Oct 17 13:12	30°  8 		min. Earth dist.	13681 Sep 26 07:21	12°  836'32	0.58412 AU
morning rise	13680 Oct 19 07:03	29°  808'30		morning rise	13681 Sep 30 07:59	9°  853'55	
direct	13680 Oct 24 23:19	27°  852'17		direct	13681 Oct 06 14:22	8°  810'42	
	13680 Nov 01 09:38	0°  8		morning max el	13681 Oct 20 21:54	15°  849'28	27°19'38
morning max el	13680 Nov 08 03:13	5°  809'01	26°06'49		13681 Nov 01 11:29	0°  8	
	13680 Nov 26 03:36	0°  8 		asc. node	13681 Nov 15 09:07	23°  841'25	
asc. node	13680 Nov 28 12:17	4°  8  17'48			13681 Nov 18 12:31	0°  8 	
morning set	13680 Dec 06 08:59	20°  8  09'33		morning set	13681 Nov 20 17:22	4°  8  36'49	
	13680 Dec 10 20:42	0°  8 					
superior conj	13680 Dec 13 03:38	5°  805'42	1°37'43	superior conj	13681 Nov 27 15:16	19°  8  48'17	1°32'33
minimum elong	13680 Dec 13 03:13	5°  803'24	1°38'46	minimum elong	13681 Nov 27 13:54	19°  8  40'38	1°33'28
max. Earth dist.	13680 Dec 14 03:14	7°  816'49	1.31559 AU	max. Earth dist.	13681 Nov 27 11:39	19°  8  28'03	1.31194 AU
evening rise	13680 Dec 20 03:42	20°  819'22			13681 Dec 02 05:24	0°  8 	
	13680 Dec 24 22:34	0°  8 		evening rise	13681 Dec 04 09:34	4°  8  42'29	
desc. node	13680 Dec 31 05:43	11°  8  33'58			13681 Dec 17 15:37	0°  8 	
	13681 Jan 12 08:18	0°  8 		desc. node	13681 Dec 18 02:37	0°  8 	
evening max el	13681 Jan 21 01:51	9°  856'40	27°25'22	evening max el	13682 Jan 03 04:18	21°  8  46'32	26°43'25
retrograde	13681 Feb 04 00:32	17°  8  15'46		retrograde	13682 Jan 17 03:18	28°  8  55'33	
evening set	13681 Feb 10 21:35	15°  8  05'08		evening set	13682 Jan 23 17:47	27°  8  07'02	
min. Earth dist.	13681 Feb 14 16:10	12°  8  13'57	0.61364 AU	min. Earth dist.	13682 Jan 27 18:11	24°  8  29'19	0.59186 AU
inferior conj	13681 Feb 17 18:12	9°  8  28'24	-2°09'35	inferior conj	13682 Jan 30 22:28	22°  8  00'55	-3°33'27
minimum elong	13681 Feb 17 22:47	9°  8  18'06	2°07'17	minimum elong	13682 Jan 31 06:06	21°  8  46'01	3°30'06
asc. node	13681 Feb 24 10:15	4°  8  44'58		morning rise	13682 Feb 07 21:29	17°  8  23'56	
				direct	13682 Feb 09 22:19	17°  8  08'58	

asc. node	13682 Feb 11 07:39	17°  16'13			13683 Jan 19 01:03	30° 		
morning max el	13682 Feb 17 17:30	21°  00'47	18°15'15	morning rise	13683 Jan 20 16:47	29°  31'44		
	13682 Feb 24 12:35	0° 		direct	13683 Jan 22 20:17	29°  31'55		
morning set	13682 Mar 05 10:07	15°  58'16			13683 Jan 26 11:32	0° 		
	13682 Mar 12 21:46	0° 		asc. node	13683 Jan 29 05:02	1°  28'24		
				morning max el	13683 Jan 31 20:50	3°  41'07	19°00'18	
superior conj	13682 Mar 14 21:55	3°  39'38	0°10'08	morning set	13683 Feb 17 09:09	0°  18'26		
minimum elong	13682 Mar 14 22:40	3°  43'05	0°10'03		13683 Feb 17 05:24	0° 		
behind sun begin	13682 Mar 14 16:50	3°  16'39						
behind sun end	13682 Mar 15 04:30	4°  09'28		superior conj	13683 Feb 25 19:43	16°  49'24	0°41'26	
desc. node	13682 Mar 16 04:10	5°  55'52		minimum elong	13683 Feb 25 22:07	17°  40'51	0°41'23	
max. Earth dist.	13682 Mar 22 12:18	16°  59'01	1.41254 AU	desc. node	13683 Mar 03 00:40	26°  31'40		
evening rise	13682 Mar 27 05:09	24°  48'00			13683 Mar 04 23:01	0° 		
	13682 Mar 30 10:45	0° 		max. Earth dist.	13683 Mar 04 19:09	29°  42'47	1.39018 AU	
	13682 Apr 19 23:12	0° 		evening rise	13683 Mar 08 14:49	6°  23'19		
evening max el	13682 Apr 30 04:55	12°  11'08'41	23°08'01		13683 Mar 23 10:59	0° 		
asc. node	13682 May 10 04:13	18°  14'46		evening max el	13683 Apr 12 18:39	26°  01'01	24°28'30	
retrograde	13682 May 10 14:06	18°  15'32			13683 Apr 17 09:02	0° 		
evening set	13682 May 15 15:18	16°  10'7'50		retrograde	13683 Apr 24 06:46	2°  14'5'12		
inferior conj	13682 May 20 23:43	9°  14'2'34	2°46'29	asc. node	13683 Apr 27 01:32	2°  11'1'03		
minimum elong	13682 May 20 21:56	9°  14'48'44	2°45'12	evening set	13683 Apr 29 19:35	0°  12'5'15		
min. Earth dist.	13682 May 20 13:10	10°  19'0'3	0.68901 AU		13683 Apr 30 06:52	30°  12'4'8		
morning rise	13682 May 26 04:30	3°  13'4'59		min. Earth dist.	13683 May 04 08:54	25°  12'4'1	0.68454 AU	
direct	13682 May 30 13:36	1°  14'48'46		inferior conj	13683 May 05 08:01	23°  55'0'9	2°18'22	
morning max el	13682 Jun 08 01:38	6°  14'1'53	21°04'51	minimum elong	13683 May 05 05:53	24°  02'2'0	2°17'00	
desc. node	13682 Jun 12 05:40	11°  19'5'56		morning rise	13683 May 10 16:20	17°  55'4'6		
	13682 Jun 25 20:40	0° 		direct	13683 May 14 13:06	16°  30'2'2		
morning set	13682 Jul 08 17:35	19°  31'0'8		morning max el	13683 May 22 01:00	20°  41'0'8	19°53'02	
	13682 Jul 15 07:43	0° 			13683 May 29 18:08	0° 		
max. Earth dist.	13682 Jul 16 03:59	1°  22'2'12	1.42963 AU	desc. node	13683 May 30 02:37	0°  12'8'57		
				morning set	13683 Jun 17 20:14	28°  13'5'4		
superior conj	13682 Jul 23 06:52	13°  11'5'9	-1°44'11		13683 Jun 18 23:48	0° 		
minimum elong	13682 Jul 23 14:07	13°  14'2'44	1°44'16	max. Earth dist.	13683 Jun 28 16:00	15°  06'5'9	1.44594 AU	
	13682 Aug 01 22:00	0° 						
evening rise	13682 Aug 03 23:21	3°  40'2'8		superior conj	13683 Jul 03 19:34	23°  02'1'56	-2°06'57	
asc. node	13682 Aug 06 03:52	7°  13'3'58		minimum elong	13683 Jul 04 00:58	23°  04'3'48	2°07'42	
evening max el	13682 Aug 20 08:41	29°  20'5'0	18°03'59		13683 Jul 07 21:06	0° 		
	13682 Aug 21 01:15	0° 		evening rise	13683 Jul 17 05:55	15°  14'2'34		
retrograde	13682 Aug 27 02:05	2°  14'48'06		asc. node	13683 Jul 24 00:33	27°  10'0'4		
evening set	13682 Aug 29 11:30	2°  14'21'54			13683 Jul 25 17:56	0° 		
	13682 Sep 02 09:38	30°  18'1'8		evening max el	13683 Aug 03 23:01	12°  14'1'54	18°06'18	
inferior conj	13682 Sep 05 07:28	27°  18'23'48	0°50'50	retrograde	13683 Aug 10 08:15	16°  18'0'22		
minimum elong	13682 Sep 05 08:58	27°  18'20'13	0°50'08	evening set	13683 Aug 13 01:57	15°  18'23'38		
desc. node	13682 Sep 08 02:51	24°  18'43'59		inferior conj	13683 Aug 19 07:24	10°  18'0'734	1°53'16	
min. Earth dist.	13682 Sep 08 11:26	24°  18'24'24	0.60666 AU	minimum elong	13683 Aug 19 09:52	10°  18'0'0'56	1°52'05	
morning rise	13682 Sep 12 03:28	21°  18'30'49		min. Earth dist.	13683 Aug 22 01:19	7°  18'10'58	0.62921 AU	
direct	13682 Sep 18 17:48	19°  18'21'54		morning rise	13683 Aug 25 15:41	3°  18'5'533		
morning max el	13682 Oct 03 00:20	27°  18'16'36	27°55'27	desc. node	13683 Aug 26 00:23	3°  18'39'47		
	13682 Oct 05 14:48	0° 		direct	13683 Sep 01 07:46	1°  18'26'58		
	13682 Oct 26 04:19	0° 		morning max el	13683 Sep 15 08:18	9°  18'28'47	27°52'19	
asc. node	13682 Nov 02 05:52	13°  18'23'34			13683 Oct 01 07:57	0° 		
morning set	13682 Nov 04 21:12	18°  18'47'41			13683 Oct 18 11:03	0° 		
	13682 Nov 10 02:19	0° 		morning set	13683 Oct 19 18:21	2°  18'36'55		
max. Earth dist.	13682 Nov 10 19:09	1°  18'32'54	1.31349 AU	asc. node	13683 Oct 20 02:34	3°  18'18'34		
				max. Earth dist.	13683 Oct 24 21:49	13°  18'21'35	1.32040 AU	
superior conj	13682 Nov 12 02:10	4°  18'24'49	1°21'36					
minimum elong	13682 Nov 12 00:08	4°  18'13'29	1°22'16	superior conj	13683 Oct 27 10:29	18°  18'50'18	1°04'56	
evening rise	13682 Nov 18 18:55	19°  18'12'21		minimum elong	13683 Oct 27 08:11	18°  18'37'50	1°05'18	
	13682 Nov 23 23:33	0° 			13683 Nov 01 12:33	0° 		
desc. node	13682 Dec 04 23:40	19°  18'13'37		evening rise	13683 Nov 03 05:55	3°  18'44'20		
	13682 Dec 13 06:38	0° 			13683 Nov 17 03:29	0° 		
evening max el	13682 Dec 15 22:12	2°  18'42'28	25°28'57	desc. node	13683 Nov 21 20:49	6°  18'34'249		
retrograde	13682 Dec 29 19:00	9°  18'44'1'20		evening max el	13683 Nov 27 09:10	12°  18'35'5'0	23°52'21	
evening set	13683 Jan 04 17:11	8°  18'42'1'01		retrograde	13683 Dec 10 22:12	19°  18'34'0'21		
min. Earth dist.	13683 Jan 09 10:31	5°  18'41'45	0.57142 AU	evening set	13683 Dec 15 16:57	18°  18'35'0'31		
inferior conj	13683 Jan 12 06:53	3°  18'46'23	-4°52'27	min. Earth dist.	13683 Dec 21 20:11	15°  18'50'5'2	0.55520 AU	
minimum elong	13683 Jan 12 15:41	3°  18'31'30	4°49'22	inferior conj	13683 Dec 23 18:41	14°  18'34'1'18	-5°46'53	

minimum elong	13683 Dec 23 23:36	14°  33'55	5°45'20	direct	13684 Dec 14 10:07	20°  40'54	
morning rise	13684 Jan 01 08:05	10°  345'32		morning max el	13684 Dec 26 11:47	26°  27'44	21°38'25
direct	13684 Jan 03 22:34	10°  328'29			13684 Dec 29 19:04	0°  3	
morning max el	13684 Jan 14 11:37	15°  331'49	20°08'09	asc. node	13685 Jan 01 23:34	4°  309'11	
asc. node	13684 Jan 16 02:21	17°  311'43		morning set	13685 Jan 16 00:37	29°  338'44	
	13684 Jan 24 21:46	0°  ≈			13685 Jan 16 04:40	0°  ≈	
morning set	13684 Feb 01 14:50	14°  ≈54'21					
				superior conj	13685 Jan 23 05:03	14°  ≈49'24	1°23'09
superior conj	13684 Feb 09 07:22	0°   36'11	1°05'48	minimum elong	13685 Jan 23 07:17	15°  ≈01'04	1°23'44
minimum elong	13684 Feb 09 10:06	0°   49'52	1°06'02	max. Earth dist.	13685 Jan 27 13:17	23°  ≈43'33	1.34788 AU
	13684 Feb 09 00:10	0°  			13685 Jan 30 17:53	0°  	
max. Earth dist.	13684 Feb 15 01:42	11°   50'32	1.36789 AU	evening rise	13685 Jan 31 17:44	1°   54'08	
desc. node	13684 Feb 17 21:12	17°   04'10		desc. node	13685 Feb 03 17:46	7°   29'41	
evening rise	13684 Feb 18 20:07	18°   48'18			13685 Feb 17 06:38	0°  	
	13684 Feb 25 06:44	0°  		evening max el	13685 Mar 07 22:00	23°   39'22	26°43'01
	13684 Mar 16 15:14	0°  			13685 Mar 16 13:06	0°  	
evening max el	13684 Mar 25 08:07	9°   53'06	25°42'40	retrograde	13685 Mar 21 01:44	1°   03'25	
retrograde	13684 Apr 06 19:02	17°   03'31			13685 Mar 25 06:10	30°   	
evening set	13684 Apr 12 19:04	14°   035'07		evening set	13685 Mar 27 11:55	28°   31'20	
asc. node	13684 Apr 12 22:57	14°   026'51		asc. node	13685 Mar 30 20:24	25°   14'56	
min. Earth dist.	13684 Apr 17 01:27	9°   58'01	0.67562 AU	min. Earth dist.	13685 Mar 31 12:42	24°   28'29	0.66258 AU
inferior conj	13684 Apr 18 13:02	8°   04'49	1°39'44	inferior conj	13685 Apr 02 12:36	22°   06'52	0°50'07
minimum elong	13684 Apr 18 11:01	8°   11'15	1°38'31	minimum elong	13685 Apr 02 11:21	22°   10'35	0°49'22
morning rise	13684 Apr 24 03:31	2°   14'55		morning rise	13685 Apr 08 11:56	16°   28'11	
direct	13684 Apr 27 12:53	1°   09'05		direct	13685 Apr 11 11:02	15°   39'31	
morning max el	13684 May 04 07:46	4°   49'35	18°56'09	morning max el	13685 Apr 17 20:45	19°   02'19	18°15'45
desc. node	13684 May 15 23:26	20°   08'00			13685 Apr 26 07:48	0°  	
greatest brilliancy	13684 May 17 17:58	22°   47'58	-0.8m	desc. node	13685 May 02 20:08	10°   09'01	
	13684 May 22 10:54	0°  		morning set	13685 May 07 09:43	17°   26'32	
morning set	13684 May 27 03:24	7°  	15'04		13685 May 15 07:11	0°  	
max. Earth dist.	13684 Jun 10 08:56	29°  	1.45589 AU				
	13684 Jun 10 18:09	0°  		superior conj	13685 May 22 19:38	11°   48'54	-1°59'31
				minimum elong	13685 May 22 11:39	11°   17'41	1°59'57
superior conj	13684 Jun 12 11:41	2°   42'51	-2°13'19	max. Earth dist.	13685 May 24 04:51	13°   48'41	1.45854 AU
minimum elong	13684 Jun 12 10:20	2°   37'31	2°14'21		13685 Jun 03 11:38	0°  	
evening rise	13684 Jun 27 13:06	26°   44'04		evening rise	13685 Jun 07 20:06	6°   47'02	
	13684 Jun 29 13:28	0°  		greatest brilliancy	13685 Jun 18 15:56	23°   33'15	-0.8m
asc. node	13684 Jul 09 21:21	16°   024'24			13685 Jun 22 23:59	0°  	
evening max el	13684 Jul 17 12:38	26°   018'21	18°26'39	asc. node	13685 Jun 26 18:14	5°   10'59	
retrograde	13684 Jul 23 23:01	29°   045'22		evening max el	13685 Jun 30 22:53	10°   03'43	19°04'13
evening set	13684 Jul 27 01:25	28°   051'41		retrograde	13685 Jul 07 19:01	13°   050'22	
inferior conj	13684 Aug 01 20:03	23°   019'36	2°35'23	evening set	13685 Jul 11 06:32	12°   040'13	
minimum elong	13684 Aug 01 22:18	23°   012'55	2°34'11	inferior conj	13685 Jul 16 17:55	6°   53'33	3°00'25
min. Earth dist.	13684 Aug 04 00:27	20°   044'09	0.64964 AU	minimum elong	13685 Jul 16 19:21	6°   48'57	2°59'20
morning rise	13684 Aug 07 17:56	16°   058'00		min. Earth dist.	13685 Jul 18 07:43	4°   52'23	0.66645 AU
desc. node	13684 Aug 11 21:54	14°   038'57		morning rise	13685 Jul 22 07:30	0°   29'12	
direct	13684 Aug 14 06:16	14°   019'05			13685 Jul 22 21:32	30°   	
morning max el	13684 Aug 27 18:53	22°   015'29	27°14'35	direct	13685 Jul 28 11:47	27°   49'55	
	13684 Sep 03 14:08	0°  		desc. node	13685 Jul 29 19:20	27°   56'19	
	13684 Sep 23 13:47	0°  			13685 Aug 03 18:51	0°  	
morning set	13684 Oct 02 06:04	15°   057'20		morning max el	13685 Aug 10 05:54	5°   26'07	26°10'11
asc. node	13684 Oct 05 23:11	23°   021'06			13685 Aug 29 03:25	0°  	
max. Earth dist.	13684 Oct 06 16:04	24°					

evening set	13685 Nov 03 07:01	8° $\text{♊}$ 44'38		evening max el	13686 Oct 03 03:56	14° $\text{♍}$ 32'27	19°28'22
inferior conj	13685 Nov 12 06:07	4° $\text{♊}$ 50'15	-4°58'19	retrograde	13686 Oct 12 18:52	19° $\text{♍}$ 21'14	
minimum elong	13685 Nov 11 20:18	5° $\text{♊}$ 04'22	4°55'03	desc. node	13686 Oct 12 12:53	19° $\text{♍}$ 21'03	
min. Earth dist.	13685 Nov 13 08:55	4° $\text{♊}$ 11'41	0.54610 AU	evening set	13686 Oct 14 15:48	19° $\text{♍}$ 11'06	
morning rise	13685 Nov 20 09:29	0° $\text{♊}$ 53'38		inferior conj	13686 Oct 23 08:13	15° $\text{♍}$ 04'35	-3°20'52
direct	13685 Nov 24 18:21	0° $\text{♊}$ 12'41		minimum elong	13686 Oct 22 23:45	15° $\text{♍}$ 18'12	3°17'10
morning max el	13685 Dec 08 00:27	6° $\text{♊}$ 39'17	23°24'42	min. Earth dist.	13686 Oct 25 18:25	13° $\text{♍}$ 31'05	0.55536 AU
asc. node	13685 Dec 19 20:41	22° $\text{♊}$ 03'27		morning rise	13686 Oct 31 05:36	10° $\text{♍}$ 38'56	
	13685 Dec 24 09:03	0° $\text{♊}$		direct	13686 Nov 05 11:06	9° $\text{♍}$ 37'33	
morning set	13685 Dec 31 12:17	14° $\text{♊}$ 24'30		morning max el	13686 Nov 19 10:17	16° $\text{♍}$ 37'56	25°12'06
					13686 Nov 30 06:28	0° $\text{♊}$	
superior conj	13686 Jan 07 09:34	29° $\text{♋}$ 19'10	1°33'45	asc. node	13686 Dec 06 17:41	10° $\text{♊}$ 40'41	
minimum elong	13686 Jan 07 10:52	29° $\text{♋}$ 26'10	1°34'39	morning set	13686 Dec 16 00:02	29° $\text{♊}$ 06'39	
	13686 Jan 07 17:09	0° $\text{♋}$			13686 Dec 16 09:56	0° $\text{♋}$	
max. Earth dist.	13686 Jan 10 08:25	5° $\text{♋}$ 37'32	1.33161 AU				
evening rise	13686 Jan 15 04:00	15° $\text{♋}$ 30'22		superior conj	13686 Dec 22 18:29	13° $\text{♋}$ 58'35	1°38'01
desc. node	13686 Jan 21 14:24	27° $\text{♋}$ 42'50		minimum elong	13686 Dec 22 18:41	13° $\text{♋}$ 59'43	1°39'04
	13686 Jan 22 21:06	0° $\text{♋}$		max. Earth dist.	13686 Dec 24 10:43	17° $\text{♋}$ 39'42	1.31996 AU
	13686 Feb 11 22:23	0° $\text{♋}$		evening rise	13686 Dec 29 23:53	29° $\text{♋}$ 29'30	
evening max el	13686 Feb 18 11:20	7° $\text{♋}$ 08'20	27°22'15		13686 Dec 30 05:49	0° $\text{♋}$	
retrograde	13686 Mar 04 01:58	14° $\text{♋}$ 35'44		desc. node	13687 Jan 08 11:09	17° $\text{♋}$ 38'01	
evening set	13686 Mar 10 19:58	12° $\text{♋}$ 05'56			13687 Jan 15 23:22	0° $\text{♋}$	
min. Earth dist.	13686 Mar 14 16:22	8° $\text{♋}$ 35'07	0.64581 AU	evening max el	13687 Jan 31 22:14	20° $\text{♋}$ 07'20	27°33'32
inferior conj	13686 Mar 17 04:10	5° $\text{♋}$ 54'13	-0°11'02	retrograde	13687 Feb 14 18:56	27° $\text{♋}$ 31'10	
minimum elong	13686 Mar 17 04:30	5° $\text{♋}$ 53'20	0°10'53	evening set	13687 Feb 21 16:41	25° $\text{♋}$ 10'52	
transit middle	13686 Mar 17 04:30	5° $\text{♋}$ 53'20	0°10'53	min. Earth dist.	13687 Feb 25 10:43	22° $\text{♋}$ 07'36	0.62597 AU
transit begin	13686 Mar 17 02:15	5° $\text{♋}$ 59'25		inferior conj	13687 Feb 28 08:45	19° $\text{♋}$ 19'21	-1°23'28
transit end	13686 Mar 17 06:45	5° $\text{♋}$ 47'15		minimum elong	13687 Feb 28 11:35	19° $\text{♋}$ 12'33	1°22'01
asc. node	13686 Mar 17 17:53	5° $\text{♋}$ 17'25		asc. node	13687 Mar 04 15:20	15° $\text{♋}$ 38'06	
morning rise	13686 Mar 23 14:58	0° $\text{♋}$ 29'16		morning rise	13687 Mar 07 09:10	14° $\text{♋}$ 11'00	
	13686 Mar 25 04:47	30° $\text{♋}$		direct	13687 Mar 09 15:55	13° $\text{♋}$ 46'56	
direct	13686 Mar 26 05:07	29° $\text{♋}$ 54'38		morning max el	13687 Mar 16 07:12	17° $\text{♋}$ 09'17	17°46'34
	13686 Mar 27 05:28	0° $\text{♋}$			13687 Mar 25 12:25	0° $\text{♋}$	
morning max el	13686 Apr 01 13:32	3° $\text{♋}$ 11'37	17°52'23	morning set	13687 Apr 01 07:07	11° $\text{♋}$ 42'16	
morning set	13686 Apr 18 20:17	28° $\text{♋}$ 59'59		desc. node	13687 Apr 06 13:15	20° $\text{♋}$ 52'01	
	13686 Apr 19 10:40	0° $\text{♋}$			13687 Apr 11 21:56	0° $\text{♋}$	
desc. node	13686 Apr 19 16:43	0° $\text{♋}$ 25'16					
				superior conj	13687 Apr 13 03:25	2° $\text{♋}$ 03'11	-0°50'01
superior conj	13686 May 02 12:47	21° $\text{♋}$ 25'10	-1°28'55	minimum elong	13687 Apr 12 22:30	1° $\text{♋}$ 42'41	0°49'45
minimum elong	13686 May 02 04:10	20° $\text{♋}$ 50'46	1°28'42	max. Earth dist.	13687 Apr 19 18:25	12° $\text{♋}$ 52'54	1.44180 AU
max. Earth dist.	13686 May 07 00:56	28° $\text{♋}$ 33'58	1.45365 AU	evening rise	13687 Apr 27 22:30	25° $\text{♋}$ 43'49	
	13686 May 07 22:50	0° $\text{♋}$			13687 Apr 30 17:18	0° $\text{♋}$	
evening rise	13686 May 18 10:13	16° $\text{♋}$ 13'43			13687 May 21 13:14	0° $\text{♋}$	
	13686 May 27 12:06	0° $\text{♋}$		evening max el	13687 May 28 02:50	7° $\text{♋}$ 40'59	21°04'53
greatest brilliancy	13686 Jun 02 06:25	8° $\text{♋}$ 31'02	-0.6m	asc. node	13687 May 31 12:16	10° $\text{♋}$ 38'36	
asc. node	13686 Jun 13 15:12	23° $\text{♋}$ 19'55		retrograde	13687 Jun 05 16:28	12° $\text{♋}$ 40'04	
evening max el	13686 Jun 14 03:51	23° $\text{♋}$ 52'13	19°57'47	evening set	13687 Jun 09 23:56	10° $\text{♋}$ 56'17	
retrograde	13686 Jun 21 17:34	28° $\text{♋}$ 10'36		inferior conj	13687 Jun 15 05:51	4° $\text{♋}$ 44'43	3°10'06
evening set	13686 Jun 25 14:43	26° $\text{♋}$ 43'28		minimum elong	13687 Jun 15 05:16	4° $\text{♋}$ 46'44	3°09'01
inferior conj	13686 Jun 30 22:00	20° $\text{♋}$ 43'34	3°11'18	min. Earth dist.	13687 Jun 15 15:40	4° $\text{♋}$ 10'36	0.68648 AU
minimum elong	13686 Jun 30 22:25	20° $\text{♋}$ 42'09	3°10'16		13687 Jun 18 21:20	30° $\text{♋}$	
min. Earth dist.	13686 Jul 01 21:28	19° $\text{♋}$ 24'17	0.67880 AU	morning rise	13687 Jun 20 10:22	28° $\text{♋}$ 26'24	
morning rise	13686 Jul 06 05:45	14° $\text{♋}$ 20'52		direct	13687 Jun 25 15:27	26° $\text{♋}$ 09'50	
direct	13686 Jul 11 23:09	11° $\text{♋}$ 49'47		desc. node	13687 Jul 03 13:52	0° $\text{♋}$ 01'03	
desc. node	13686 Jul 16 16:39	13° $\text{♋}$ 12'47			13687 Jul 03 13:22	0° $\text{♋}$	
morning max el	13686 Jul 23 16:25	18° $\text{♋}$ 51'10	24°48'37	morning max el	13687 Jul 06 03:06	2° $\text{♋}$ 24'26	23°19'22
	13686 Aug 02 02:46	0° $\text{♋}$			13687 Jul 27 03:11	0° $\text{♋}$	
	13686 Aug 22 05:22	0° $\text{♋}$		morning set	13687 Aug 09 20:01	21° $\text{♋}$ 40'55	
morning set	13686 Aug 28 11:15	10° $\text{♋}$ 39'59		max. Earth dist.	13687 Aug 13 23:01	28° $\text{♋}$ 42'10	1.39520 AU
max. Earth dist.	13686 Sep 01 01:02	17° $\text{♋}$ 05'10	1.37174 AU		13687 Aug 14 16:55	0° $\text{♋}$	
superior conj	13686 Sep 07 20:15	29° $\text{♌}$ 57'28	-0°17'01	superior conj	13687 Aug 21 15:54	12° $\text{♌}$ 30'44	-0°51'53
minimum elong	13686 Sep 07 21:22	0° $\text{♌}$ 02'55	0°16'55	minimum elong	13687 Aug 21 19:43	12° $\text{♌}$ 48'24	0°51'39
	13686 Sep 07 20:46	0° $\text{♌}$		asc. node	13687 Aug 27 12:52	23° $\text{♌}$ 37'05	
asc. node	13686 Sep 09 16:19	3° $\text{♌}$ 34'14			13687 Aug 30 20:14	0° $\text{♌}$	
evening rise	13686 Sep 16 05:19	16° $\text{♌}$ 41'59		evening rise	13687 Aug 31 01:58	0° $\text{♌}$ 27'40	
	13686 Sep 23 02:20	0° $\text{♌}$		evening max el	13687 Sep 16 03:38	26° $\text{♌}$ 31'24	18°39'15

	13687 Sep 21 02:16	0°♌	evening rise	13688 Aug 13 11:34	13°♏42'21	
retrograde	13687 Sep 24 07:32	0°♌38'08	asc. node	13688 Aug 13 09:28	13°♏32'41	
evening set	13687 Sep 26 05:50	0°♌25'08		13688 Aug 22 16:07	0°♏	
	13687 Sep 27 15:49	30°♌♌	evening max el	13688 Aug 29 12:17	9°♏10'32	18°11'11
desc. node	13687 Sep 29 10:23	29°♏12'12	retrograde	13688 Sep 05 15:00	12°♏47'45	
inferior conj	13687 Oct 04 06:09	25°♏59'38 -1°31'56	evening set	13688 Sep 07 19:56	12°♏27'26	
minimum elong	13687 Oct 04 02:24	26°♏06'40 1°30'05	inferior conj	13688 Sep 15 01:47	7°♏41'06	0°04'44
min. Earth dist.	13687 Oct 07 09:46	23°♏38'34 0.57216 AU	minimum elong	13688 Sep 15 01:57	7°♏40'45	0°04'42
morning rise	13687 Oct 11 19:31	20°♏56'20	transit middle	13688 Sep 15 01:57	7°♏40'45	0°04'42
direct	13687 Oct 17 18:17	19°♏28'49	transit begin	13688 Sep 14 22:41	7°♏47'52	
morning max el	13687 Nov 01 00:50	26°♏56'28 26°41'56	transit end	13688 Sep 15 05:13	7°♏33'36	
	13687 Nov 03 23:35	0°♌	desc. node	13688 Sep 15 07:54	7°♏27'42	
asc. node	13687 Nov 23 14:35	29°♌49'26	min. Earth dist.	13688 Sep 18 08:50	4°♏49'25	0.59361 AU
	13687 Nov 23 16:48	0°♌	morning rise	13688 Sep 22 04:35	2°♏03'51	
morning set	13687 Nov 30 10:07	13°♌40'10	direct	13688 Sep 28 15:19	0°♏08'46	
			morning max el	13688 Oct 12 22:52	7°♏55'45	27°39'32
superior conj	13687 Dec 07 05:40	28°♌41'13 1°36'14		13688 Oct 29 17:02	0°♌	
minimum elong	13687 Dec 07 04:49	28°♌36'31 1°37'15	asc. node	13688 Nov 09 11:24	19°♌21'22	
max. Earth dist.	13687 Dec 07 17:38	29°♌48'02 1.31333 AU	morning set	13688 Nov 13 16:47	28°♌00'32	
	13687 Dec 07 19:47	0°♌		13688 Nov 14 15:16	0°♌	
evening rise	13687 Dec 14 02:44	13°♌44'54	max. Earth dist.	13688 Nov 20 01:54	11°♌56'09	1.31192 AU
	13687 Dec 22 07:17	0°♌				
desc. node	13687 Dec 26 08:02	7°♌07'43	superior conj	13688 Nov 20 17:13	13°♌21'38	1°28'37
	13688 Jan 11 18:54	0°♌	minimum elong	13688 Nov 20 15:31	13°♌12'11	1°29'26
evening max el	13688 Jan 14 04:21	2°♌24'21 27°11'47	evening rise	13688 Nov 27 10:19	28°♌11'05	
retrograde	13688 Jan 28 03:41	9°♌40'16		13688 Nov 28 06:41	0°♌	
evening set	13688 Feb 03 22:57	7°♌37'51	desc. node	13688 Dec 12 05:01	26°♌01'58	
min. Earth dist.	13688 Feb 07 18:50	4°♌54'01 0.60428 AU		13688 Dec 14 19:12	0°♌	
inferior conj	13688 Feb 10 22:55	2°♌13'25 -2°44'55	evening max el	13688 Dec 26 03:20	13°♌50'56	26°15'24
minimum elong	13688 Feb 11 04:52	2°♌00'49 2°42'05	retrograde	13689 Jan 09 02:16	20°♌56'07	
	13688 Feb 13 17:03	30°♌♌	evening set	13689 Jan 15 10:49	19°♌19'17	
morning rise	13688 Feb 18 13:58	27°♌24'29	min. Earth dist.	13689 Jan 19 16:47	16°♌42'41	0.58272 AU
asc. node	13688 Feb 19 12:46	27°♌12'26	inferior conj	13689 Jan 22 19:03	14°♌26'33	-4°08'38
direct	13688 Feb 20 15:43	27°♌07'21	minimum elong	13689 Jan 23 03:35	14°♌10'51	4°05'10
	13688 Feb 27 02:42	0°♌	morning rise	13689 Jan 30 23:20	9°♌58'55	
morning max el	13688 Feb 27 22:23	0°♌45'44 17°59'12	direct	13689 Feb 02 00:17	9°♌45'00	
morning set	13688 Mar 14 12:08	25°♌14'58	asc. node	13689 Feb 05 10:11	10°♌26'08	
	13688 Mar 17 02:07	0°♌	morning max el	13689 Feb 10 07:11	13°♌49'35	18°31'46
desc. node	13688 Mar 23 09:47	11°♌25'24		13689 Feb 21 06:53	0°♌	
			morning set	13689 Feb 26 05:50	9°♌21'21	
superior conj	13688 Mar 24 18:11	13°♌48'16 -0°10'45				
minimum elong	13688 Mar 24 17:16	13°♌44'14 0°10'44	superior conj	13689 Mar 07 05:56	26°♌30'14	0°24'12
behind sun begin	13688 Mar 24 11:17	13°♌17'56	minimum elong	13689 Mar 07 07:35	26°♌37'51	0°24'06
behind sun end	13688 Mar 24 23:15	14°♌10'28		13689 Mar 09 03:35	0°♌	
max. Earth dist.	13688 Apr 01 07:20	26°♌40'22 1.42430 AU	desc. node	13689 Mar 10 06:18	2°♌01'07	
	13688 Apr 03 07:56	0°♌	max. Earth dist.	13689 Mar 14 15:53	9°♌47'36	1.40311 AU
evening rise	13688 Apr 06 23:44	5°♌53'28	evening rise	13689 Mar 18 21:13	16°♌57'22	
	13688 Apr 22 23:06	0°♌		13689 Mar 27 00:24	0°♌	
evening max el	13688 May 09 20:48	21°♌31'02 22°21'38		13689 Apr 17 13:51	0°♌	
asc. node	13688 May 17 09:27	26°♌52'13	evening max el	13689 Apr 22 11:38	5°♌22'55	23°42'39
retrograde	13688 May 19 14:02	27°♌14'08	retrograde	13689 May 03 08:44	11°♌46'38	
evening set	13688 May 24 08:30	25°♌14'50	asc. node	13689 May 04 06:44	11°♌42'52	
inferior conj	13688 May 29 15:24	18°♌53'46 2°58'05	evening set	13689 May 08 14:47	9°♌33'40	
minimum elong	13688 May 29 13:59	18°♌58'42 2°56'53	min. Earth dist.	13689 May 13 08:53	4°♌00'08	0.68766 AU
min. Earth dist.	13688 May 29 12:14	19°♌04'50 0.68942 AU	inferior conj	13689 May 14 00:42	3°♌05'58	2°35'49
morning rise	13688 Jun 03 19:19	12°♌41'39	minimum elong	13689 May 13 22:43	3°♌12'45	2°34'30
direct	13688 Jun 08 11:40	10°♌43'37		13689 May 16 09:04	30°♌♌	
morning max el	13688 Jun 17 16:23	16°♌05'59 21°51'38	morning rise	13689 May 19 06:38	27°♌01'29	
desc. node	13688 Jun 19 10:58	17°♌57'52	direct	13689 May 23 10:28	25°♌23'57	
	13688 Jun 29 00:15	0°♌	morning max el	13689 May 31 11:22	29°♌57'44	20°32'35
	13688 Jul 19 03:41	0°♌		13689 May 31 12:17	0°♌	
morning set	13688 Jul 20 04:01	1°♌36'46	desc. node	13689 Jun 06 07:59	6°♌44'14	
max. Earth dist.	13688 Jul 26 00:22	11°♌07'34 1.41798 AU		13689 Jun 22 15:18	0°♌	
			morning set	13689 Jun 29 13:42	10°♌35'17	
superior conj	13688 Aug 02 17:01	24°♌14'05 -1°26'23	max. Earth dist.	13689 Jul 08 08:43	24°♌26'47	1.43735 AU
minimum elong	13688 Aug 02 23:28	24°♌42'23 1°26'14		13689 Jul 11 18:57	0°♌	
	13688 Aug 05 23:09	0°♌				



superior conj	13689 Jul 14 19:32	4°♌58'54	-1°55'24	superior conj	13690 Jun 24 22:34	14°♊45'13	-2°12'00
minimum elong	13689 Jul 15 02:36	5°♌28'17	1°55'45	minimum elong	13690 Jun 25 01:35	14°♊57'13	2°12'58
evening rise	13689 Jul 27 05:27	26°♌14'13			13690 Jul 04 08:35	0°♌	
	13689 Jul 29 09:03	0°♍		evening rise	13690 Jul 09 02:31	7°♌51'29	
asc. node	13689 Jul 31 06:08	3°♍16'29		asc. node	13690 Jul 18 02:52	22°♌43'22	
evening max el	13689 Aug 13 01:39	22°♍19'13	18°02'42		13690 Jul 22 22:01	0°♍	
retrograde	13689 Aug 19 14:09	25°♍41'28		evening max el	13690 Jul 27 16:03	5°♍47'49	18°12'43
evening set	13689 Aug 22 03:11	25°♍10'10		retrograde	13690 Aug 03 00:33	9°♍09'20	
inferior conj	13689 Aug 28 16:32	20°♍04'13	1°19'58	evening set	13690 Aug 05 21:59	8°♍24'21	
minimum elong	13689 Aug 28 18:38	19°♍58'55	1°18'58	inferior conj	13690 Aug 11 22:21	3°♍00'57	2°13'25
min. Earth dist.	13689 Aug 31 16:54	17°♍03'36	0.61651 AU	minimum elong	13690 Aug 12 00:49	2°♍53'57	2°12'12
desc. node	13689 Sep 02 05:26	15°♍40'02		min. Earth dist.	13690 Aug 14 10:37	0°♍11'45	0.63831 AU
morning rise	13689 Sep 04 07:31	14°♍02'11			13690 Aug 14 14:58	30°♌	
direct	13689 Sep 10 23:32	11°♍43'51		morning rise	13690 Aug 18 02:01	26°♌43'58	
morning max el	13689 Sep 25 03:45	19°♍42'07	27°58'38	desc. node	13690 Aug 20 02:57	25°♌23'07	
	13689 Oct 03 22:57	0°♎		direct	13690 Aug 24 17:03	24°♌10'08	
	13689 Oct 22 15:28	0°♎			13690 Sep 05 06:17	0°♍	
asc. node	13689 Oct 27 08:09	9°♎09'46		morning max el	13690 Sep 07 13:11	2°♍10'28	27°40'07
morning set	13689 Oct 28 18:05	12°♎02'55			13690 Sep 28 06:01	0°♎	
max. Earth dist.	13689 Nov 03 07:50	23°♎55'27	1.31579 AU	morning set	13690 Oct 12 11:33	25°♎40'41	
				asc. node	13690 Oct 14 04:48	29°♎08'29	
superior conj	13689 Nov 05 03:18	27°♎54'30	1°15'14		13690 Oct 14 14:54	0°♎	
minimum elong	13689 Nov 05 01:06	27°♎42'19	1°15'46	max. Earth dist.	13690 Oct 17 07:31	5°♎35'58	1.32505 AU
	13689 Nov 06 01:59	0°♏					
evening rise	13689 Nov 11 20:38	12°♏42'57		superior conj	13690 Oct 20 09:51	12°♎13'17	0°56'10
	13689 Nov 20 10:29	0°♏		minimum elong	13690 Oct 20 07:37	12°♎01'16	0°56'24
desc. node	13689 Nov 29 02:06	14°♏07'30		evening rise	13690 Oct 27 07:46	27°♎14'28	
evening max el	13689 Dec 07 18:06	24°♏27'32	24°49'45		13690 Oct 28 14:51	0°♏	
	13689 Dec 15 13:55	0°♐			13690 Nov 15 01:36	0°♏	
retrograde	13689 Dec 21 12:27	1°♐20'20		desc. node	13690 Nov 15 23:18	1°♏05'13	
evening set	13689 Dec 27 00:15	0°♐13'22		evening max el	13690 Nov 19 03:54	4°♏30'30	23°08'30
	13689 Dec 27 13:16	30°♏		retrograde	13690 Dec 02 09:45	11°♏05'26	
min. Earth dist.	13690 Jan 01 05:58	27°♏27'49	0.56381 AU	evening set	13690 Dec 06 14:42	10°♏26'59	
inferior conj	13690 Jan 03 18:39	25°♏51'03	-5°20'02	min. Earth dist.	13690 Dec 13 13:25	7°♏13'17	0.55034 AU
minimum elong	13690 Jan 04 02:33	25°♏38'24	5°17'32	inferior conj	13690 Dec 14 22:35	6°♏25'34	-5°56'25
morning rise	13690 Jan 12 07:02	21°♏44'51		minimum elong	13690 Dec 15 00:05	6°♏23'24	5°55'19
direct	13690 Jan 14 14:13	21°♏30'10		morning rise	13690 Dec 23 11:01	2°♏35'36	
asc. node	13690 Jan 23 07:32	25°♏18'57		direct	13690 Dec 26 09:14	2°♏15'23	
morning max el	13690 Jan 24 05:32	26°♏09'45	19°26'18	morning max el	13691 Jan 06 14:03	7°♏36'31	20°44'04
	13690 Jan 27 15:04	0°♑		asc. node	13691 Jan 10 04:50	11°♏35'39	
morning set	13690 Feb 10 08:05	23°♑49'36			13691 Jan 21 10:47	0°♑	
	13690 Feb 13 09:51	0°♒		morning set	13691 Jan 25 15:47	8°♑29'49	
superior conj	13690 Feb 18 10:09	9°♒57'00	0°52'39	superior conj	13691 Feb 02 02:28	23°♑55'58	1°14'01
minimum elong	13690 Feb 18 12:49	10°♒10'01	0°52'41	minimum elong	13691 Feb 02 05:04	24°♑09'13	1°14'23
max. Earth dist.	13690 Feb 24 22:27	22°♒15'56	1.38057 AU		13691 Feb 05 02:43	0°♒	
desc. node	13690 Feb 25 02:50	22°♒35'58		max. Earth dist.	13691 Feb 07 06:47	4°♒15'26	1.35899 AU
evening rise	13690 Feb 28 15:37	28°♒54'53		evening rise	13691 Feb 11 04:14	11°♒37'40	
	13690 Mar 01 06:32	0°♓		desc. node	13691 Feb 11 23:23	13°♒05'43	
	13690 Mar 20 09:17	0°♓			13691 Feb 21 19:33	0°♓	
evening max el	13690 Apr 05 01:16	19°♓16'00	25°01'17		13691 Mar 15 15:06	0°♓	
retrograde	13690 Apr 16 23:27	26°♓11'59		evening max el	13691 Mar 18 14:47	3°♓05'49	26°10'26
asc. node	13690 Apr 21 04:05	24°♓56'20		retrograde	13691 Mar 31 09:20	10°♓23'19	
evening set	13690 Apr 22 17:12	23°♓48'00		evening set	13691 Apr 06 14:04	7°♓52'25	
min. Earth dist.	13690 Apr 27 03:27	18°♓50'44	0.68133 AU	asc. node	13691 Apr 08 01:30	6°♓31'16	
inferior conj	13690 Apr 28 07:50	17°♓17'29	2°03'18	min. Earth dist.	13691 Apr 10 17:50	3°♓30'25	0.67057 AU
minimum elong	13690 Apr 28 05:41	17°♓24'34	2°01'58	inferior conj	13691 Apr 12 10:46	1°♓23'58	1°20'05
morning rise	13690 May 03 18:27	11°♓21'59		minimum elong	13691 Apr 12 08:59	1°♓29'29	1°19'00
direct	13690 May 07 10:21	10°♓04'57			13691 Apr 13 14:17	30°♒	
morning max el	13690 May 14 13:52	14°♓00'50	19°26'54	morning rise	13691 Apr 18 04:43	25°♒38'53	
desc. node	13690 May 24 04:53	26°♓06'49		direct	13691 Apr 21 09:36	24°♒40'45	
	13690 May 26 21:14	0°♔		morning max el	13691 Apr 27 23:34	28°♒11'54	18°36'59
greatest brilliancy	13690 May 27 05:43	0°♔31'09	-0.7m		13691 Apr 29 16:33	0°♓	
morning set	13690 Jun 08 15:32	19°♔18'12		desc. node	13691 May 11 01:39	15°♓55'50	
	13690 Jun 15 13:33	0°♕		morning set	13691 May 19 07:00	28°♓45'14	
max. Earth dist.	13690 Jun 20 23:38	8°♕29'06	1.45110 AU		13691 May 20 02:04	0°♔	

superior conj	13691 Jun 04 09:07	23° $\Pi$ 54'04	-2°09'54	minimum elong	13692 May 13 09:52	2° $\Pi$ 32'03	1°48'14
minimum elong	13691 Jun 04 04:27	23° $\Pi$ 35'52	2°10'46	max. Earth dist.	13692 May 16 14:13	7° $\Pi$ 31'39	1.45723 AU
max. Earth dist.	13691 Jun 03 18:23	22° $\Pi$ 56'33	1.45788 AU	evening rise	13692 May 29 21:26	28° $\Pi$ 10'04	
	13691 Jun 08 06:41	0° $\mathfrak{S}$			13692 May 31 01:56	0° $\mathfrak{S}$	
evening rise	13691 Jun 19 23:12	18° $\mathfrak{S}$ 27'25		greatest brilliancy	13692 Jun 11 17:37	17° $\mathfrak{S}$ 45'26	-0.7m
	13691 Jun 27 05:36	0° $\Omega$		asc. node	13692 Jun 20 20:35	0° $\Omega$ 19'03	
greatest brilliancy	13691 Jun 27 15:04	0° $\Omega$ 37'18	-0.9m		13692 Jun 20 14:16	0° $\Omega$	
asc. node	13691 Jul 04 23:40	11° $\Omega$ 47'11		evening max el	13692 Jun 23 12:33	3° $\Omega$ 15'40	19°25'13
evening max el	13691 Jul 11 04:28	19° $\Omega$ 28'52	18°40'32	retrograde	13692 Jun 30 15:30	7° $\Omega$ 14'53	
retrograde	13691 Jul 17 18:05	23° $\Omega$ 03'05		evening set	13692 Jul 04 06:55	5° $\Omega$ 57'45	
evening set	13691 Jul 21 00:14	22° $\Omega$ 02'32		inferior conj	13692 Jul 09 16:11	0° $\Omega$ 05'20	3°06'38
inferior conj	13691 Jul 26 15:21	16° $\Omega$ 23'51	2°47'53	minimum elong	13692 Jul 09 17:12	0° $\Omega$ 02'00	3°05'34
minimum elong	13691 Jul 26 17:18	16° $\Omega$ 17'51	2°46'44		13692 Jul 09 17:48	30° $\mathfrak{R}$ $\mathfrak{S}$	
min. Earth dist.	13691 Jul 28 13:30	14° $\Omega$ 01'47	0.65722 AU	min. Earth dist.	13692 Jul 10 23:53	28° $\mathfrak{S}$ 21'03	0.67219 AU
morning rise	13691 Aug 01 09:24	10° $\Omega$ 00'09		morning rise	13692 Jul 15 02:57	23° $\mathfrak{S}$ 40'59	
desc. node	13691 Aug 07 00:23	7° $\Omega$ 22'15		direct	13692 Jul 21 02:50	21° $\mathfrak{S}$ 04'04	
direct	13691 Aug 07 18:33	7° $\Omega$ 20'09		desc. node	13692 Jul 23 21:46	21° $\mathfrak{S}$ 33'01	
morning max el	13691 Aug 21 00:27	15° $\Omega$ 10'14	26°50'01	morning max el	13692 Aug 02 11:21	28° $\mathfrak{S}$ 28'09	25°37'02
	13691 Sep 02 04:23	0° $\mathfrak{M}$			13692 Aug 03 22:29	0° $\Omega$	
	13691 Sep 21 00:28	0° $\underline{\Omega}$			13692 Aug 25 22:22	0° $\mathfrak{M}$	
morning set	13691 Sep 25 18:21	8° $\underline{\Omega}$ 47'28		morning set	13692 Sep 07 10:45	21° $\mathfrak{M}$ 13'51	
max. Earth dist.	13691 Sep 29 21:52	16° $\underline{\Omega}$ 54'36	1.33963 AU	max. Earth dist.	13692 Sep 11 02:07	27° $\mathfrak{M}$ 58'50	1.35896 AU
asc. node	13691 Oct 01 01:24	19° $\underline{\Omega}$ 13'31			13692 Sep 12 03:35	0° $\underline{\Omega}$	
				asc. node	13692 Sep 16 21:58	9° $\underline{\Omega}$ 20'34	
superior conj	13691 Oct 04 10:38	26° $\underline{\Omega}$ 12'40	0°31'34				
minimum elong	13691 Oct 04 09:04	26° $\underline{\Omega}$ 04'24	0°31'38	superior conj	13692 Sep 17 02:56	9° $\underline{\Omega}$ 45'29	0°01'57
	13691 Oct 06 05:49	0° $\mathfrak{M}$		minimum elong	13692 Sep 17 02:48	9° $\underline{\Omega}$ 44'51	0°02'00
evening rise	13691 Oct 11 17:52	11° $\mathfrak{M}$ 41'06		behind sun begin	13692 Sep 16 20:36	9° $\underline{\Omega}$ 13'46	
	13691 Oct 21 02:36	0° $\mathfrak{X}$		behind sun end	13692 Sep 17 09:00	10° $\underline{\Omega}$ 16'00	
evening max el	13691 Oct 31 17:58	14° $\mathfrak{X}$ 37'03	21°29'37	evening rise	13692 Sep 25 00:49	25° $\underline{\Omega}$ 57'06	
desc. node	13691 Nov 02 20:34	16° $\mathfrak{X}$ 31'21			13692 Sep 27 00:32	0° $\mathfrak{M}$	
retrograde	13691 Nov 12 21:54	20° $\mathfrak{X}$ 39'18		evening max el	13692 Oct 12 20:37	25° $\mathfrak{M}$ 20'41	20°06'36
evening set	13691 Nov 15 18:21	20° $\mathfrak{X}$ 20'40		desc. node	13692 Oct 19 17:56	29° $\mathfrak{M}$ 58'54	
inferior conj	13691 Nov 24 14:48	16° $\mathfrak{X}$ 27'17	-5°36'31		13692 Oct 19 19:14	0° $\mathfrak{X}$	
minimum elong	13691 Nov 24 07:37	16° $\mathfrak{X}$ 37'23	5°34'28	retrograde	13692 Oct 23 10:30	0° $\mathfrak{X}$ 36'33	
min. Earth dist.	13691 Nov 24 19:25	16° $\mathfrak{X}$ 20'49	0.54495 AU	evening set	13692 Oct 25 11:22	0° $\mathfrak{X}$ 25'45	
morning rise	13691 Dec 02 21:39	12° $\mathfrak{X}$ 38'36			13692 Oct 27 05:43	30° $\mathfrak{R}$ $\mathfrak{M}$	
direct	13691 Dec 06 17:11	12° $\mathfrak{X}$ 07'05		inferior conj	13692 Nov 03 09:19	26° $\mathfrak{M}$ 27'51	-4°20'26
morning max el	13691 Dec 19 08:43	18° $\mathfrak{X}$ 11'33	22°22'23	minimum elong	13692 Nov 02 23:18	26° $\mathfrak{M}$ 42'51	4°16'38
asc. node	13691 Dec 28 02:00	28° $\mathfrak{X}$ 59'00		min. Earth dist.	13692 Nov 05 03:07	25° $\mathfrak{M}$ 25'16	0.54899 AU
	13691 Dec 28 17:51	0° $\mathfrak{Z}$		morning rise	13692 Nov 11 10:10	22° $\mathfrak{M}$ 20'23	
morning set	13692 Jan 10 02:34	23° $\mathfrak{Z}$ 15'11		direct	13692 Nov 16 04:10	21° $\mathfrak{M}$ 31'18	
	13692 Jan 13 06:25	0° $\approx$		morning max el	13692 Nov 29 19:05	28° $\mathfrak{M}$ 13'56	24°11'14
					13692 Dec 01 13:35	0° $\mathfrak{X}$	
superior conj	13692 Jan 17 03:24	8° $\approx$ 17'13	1°28'26	asc. node	13692 Dec 13 23:04	17° $\mathfrak{X}$ 13'23	
minimum elong	13692 Jan 17 05:16	8° $\approx$ 27'08	1°29'10		13692 Dec 20 18:30	0° $\mathfrak{Z}$	
max. Earth dist.	13692 Jan 20 21:08	16° $\approx$ 05'43	1.34040 AU	morning set	13692 Dec 24 14:29	8° $\mathfrak{Z}$ 00'18	
evening rise	13692 Jan 25 07:36	24° $\approx$ 57'04					
	13692 Jan 27 23:14	0° $\mathfrak{H}$		superior conj	13692 Dec 31 10:06	22° $\mathfrak{Z}$ 52'32	1°36'18
desc. node	13692 Jan 29 19:59	3° $\mathfrak{H}$ 26'21		minimum elong	13692 Dec 31 10:57	22° $\mathfrak{Z}$ 57'07	1°37'18
	13692 Feb 15 07:32	0° $\mathfrak{Y}$		max. Earth dist.	13693 Jan 02 19:20	28° $\mathfrak{Z}$ 02'27	1.32606 AU
evening max el	13692 Feb 29 04:19	16° $\mathfrak{Y}$ 44'57	27°02'43		13693 Jan 03 17:20	0° $\approx$	
retrograde	13692 Mar 13 13:34	24° $\mathfrak{Y}$ 12'24		evening rise	13693 Jan 07 22:22	8° $\approx$ 44'44	
evening set	13692 Mar 20 03:26	21° $\mathfrak{Y}$ 40'11		desc. node	13693 Jan 15 16:40	23° $\approx$ 33'02	
min. Earth dist.	13692 Mar 24 02:02	17° $\mathfrak{Y}$ 51'30	0.65580 AU		13693 Jan 19 09:47	0° $\mathfrak{H}$	
asc. node	13692 Mar 24 22:58	16° $\mathfrak{Y}$ 52'32		evening max el	13693 Feb 10 16:56	0° $\mathfrak{Y}$ 03'26	27°30'54
inferior conj	13692 Mar 26 07:14	15° $\mathfrak{Y}$ 20'03	0°25'35		13693 Feb 10 15:30	0° $\mathfrak{Y}$	
minimum elong	13692 Mar 26 06:32	15° $\mathfrak{Y}$ 22'02	0°25'08	retrograde	13693 Feb 24 11:04	7° $\mathfrak{Y}$ 30'36	
morning rise	13692 Apr 01 11:10	9° $\mathfrak{Y}$ 47'09		evening set	13693 Mar 03 07:04	5° $\mathfrak{Y}$ 04'03	
direct	13692 Apr 04 06:11	9° $\mathfrak{Y}$ 05'02		min. Earth dist.	13693 Mar 07 02:10	1° $\mathfrak{Y}$ 45'24	0.63761 AU
morning max el	13692 Apr 10 14:31	12° $\mathfrak{Y}$ 24'10	18°03'45		13693 Mar 08 19:21	30° $\mathfrak{R}$ $\mathfrak{H}$	
	13692 Apr 23 04:26	0° $\mathfrak{Z}$		inferior conj	13693 Mar 09 18:34	28° $\mathfrak{H}$ 59'41	-0°40'26
desc. node	13692 Apr 26 22:18	6° $\mathfrak{Z}$ 03'46		minimum elong	13693 Mar 09 19:50	28° $\mathfrak{H}$ 56'23	0°39'47
morning set	13692 Apr 29 01:18	9° $\mathfrak{Z}$ 31'15		asc. node	13693 Mar 11 20:25	26° $\mathfrak{H}$ 55'24	
	13692 May 11 19:19	0° $\Pi$		morning rise	13693 Mar 16 10:55	23° $\mathfrak{H}$ 41'19	
				direct	13693 Mar 18 21:35	23° $\mathfrak{H}$ 11'43	
superior conj	13692 May 13 18:54	3° $\Pi$ 07'37	-1°48'08	morning max el	13693 Mar 25 08:05	26° $\mathfrak{H}$ 30'03	17°47'42

	13693 Mar 28 09:32	0°♿	desc. node	13694 Mar 31 15:26	16°♿55'34	
morning set	13693 Apr 10 22:59	21°♿36'44				
desc. node	13693 Apr 13 18:53	26°♿25'24	superior conj	13694 Apr 04 21:21	24°♿15'10	-0°33'03
	13693 Apr 15 21:42	0°♿	minimum elong	13694 Apr 04 18:15	24°♿01'57	0°32'53
				13694 Apr 08 07:19	0°♿	
superior conj	13693 Apr 23 20:21	13°♿08'23 -1°12'54	max. Earth dist.	13694 Apr 12 01:06	6°♿08'58	1.43502 AU
minimum elong	13693 Apr 23 13:03	12°♿38'43 1°12'36	evening rise	13694 Apr 19 01:09	17°♿17'13	
max. Earth dist.	13693 Apr 29 09:05	22°♿00'38 1.44937 AU		13694 Apr 27 09:10	0°♿	
	13693 May 04 11:15	0°♿		13694 May 19 14:42	0°♿	
evening rise	13693 May 09 08:43	7°♿33'09	evening max el	13694 May 20 11:50	0°♿54'24	21°36'41
	13693 May 24 09:10	0°♿	asc. node	13694 May 25 14:42	5°♿01'37	
evening max el	13693 Jun 06 15:03	17°♿04'48 20°24'56	retrograde	13694 May 29 12:43	6°♿11'31	
asc. node	13693 Jun 07 17:35	18°♿08'28	evening set	13694 Jun 03 00:53	4°♿20'53	
retrograde	13693 Jun 14 14:19	21°♿39'29		13694 Jun 06 21:39	30°♿♿	
evening set	13693 Jun 18 15:45	20°♿05'20	inferior conj	13694 Jun 08 06:58	28°♿05'11	3°06'15
inferior conj	13693 Jun 23 22:09	14°♿00'33 3°12'10	minimum elong	13694 Jun 08 06:00	28°♿08'32	3°05'07
minimum elong	13693 Jun 23 22:08	14°♿00'36 3°11'07	min. Earth dist.	13694 Jun 08 11:12	27°♿50'27	0.68836 AU
min. Earth dist.	13693 Jun 24 15:49	12°♿59'59 0.68267 AU	morning rise	13694 Jun 13 10:56	21°♿49'34	
morning rise	13693 Jun 29 04:12	7°♿39'24	direct	13694 Jun 18 10:42	19°♿40'29	
direct	13693 Jul 04 16:35	5°♿13'33	desc. node	13694 Jun 27 16:16	24°♿51'28	
desc. node	13693 Jul 10 19:04	7°♿31'32	morning max el	13694 Jun 28 08:49	25°♿32'16	22°41'25
morning max el	13693 Jul 15 21:29	11°♿56'07 24°10'57		13694 Jul 02 10:02	0°♿	
	13693 Jul 30 09:10	0°♿		13694 Jul 23 20:40	0°♿	
	13693 Aug 18 16:51	0°♿	morning set	13694 Aug 01 06:47	13°♿22'26	
morning set	13693 Aug 20 08:22	2°♿48'58	max. Earth dist.	13694 Aug 05 23:38	21°♿12'57	1.40515 AU
max. Earth dist.	13693 Aug 24 00:23	9°♿15'00 1.38163 AU		13694 Aug 11 01:13	0°♿	
superior conj	13693 Aug 31 07:19	22°♿43'33 -0°31'36	superior conj	13694 Aug 13 19:40	4°♿57'13	-1°06'48
minimum elong	13693 Aug 31 09:30	22°♿54'02 0°31'26	minimum elong	13694 Aug 14 00:42	5°♿19'57	1°06'34
asc. node	13693 Sep 03 18:31	29°♿26'10	asc. node	13694 Aug 21 15:06	19°♿26'45	
	13693 Sep 04 01:25	0°♿	evening rise	13694 Aug 23 18:34	23°♿30'22	
evening rise	13693 Sep 09 02:06	9°♿56'12		13694 Aug 27 05:29	0°♿	
	13693 Sep 20 03:11	0°♿	evening max el	13694 Sep 08 17:29	19°♿10'51	18°24'51
evening max el	13693 Sep 25 13:26	6°♿53'16 19°04'52	retrograde	13694 Sep 16 09:14	23°♿03'25	
retrograde	13693 Oct 04 12:10	11°♿22'24	evening set	13694 Sep 18 10:07	22°♿47'42	
evening set	13693 Oct 06 08:53	11°♿11'32	desc. node	13694 Sep 23 12:55	20°♿11'02	
desc. node	13693 Oct 06 15:24	11°♿08'12	inferior conj	13694 Sep 26 02:28	18°♿12'57	-0°48'38
inferior conj	13693 Oct 14 19:09	6°♿57'38 -2°34'17	minimum elong	13694 Sep 26 00:36	18°♿16'41	0°47'40
minimum elong	13693 Oct 14 12:35	7°♿08'51 2°31'14	min. Earth dist.	13694 Sep 29 08:54	15°♿36'45	0.58088 AU
min. Earth dist.	13693 Oct 17 14:45	5°♿02'25 0.56179 AU	morning rise	13694 Oct 03 11:38	12°♿54'32	
morning rise	13693 Oct 22 13:30	2°♿16'34	direct	13694 Oct 09 16:10	11°♿15'30	
direct	13693 Oct 28 03:12	1°♿04'19	morning max el	13694 Oct 23 23:40	18°♿51'27	27°11'02
morning max el	13693 Nov 11 05:59	8°♿16'46 25°53'25		13694 Nov 02 09:42	0°♿	
	13693 Nov 27 09:49	0°♿	asc. node	13694 Nov 17 16:55	25°♿25'46	
asc. node	13693 Nov 30 20:02	6°♿05'36		13694 Nov 20 00:12	0°♿	
morning set	13693 Dec 09 01:44	22°♿39'31	morning set	13694 Nov 23 10:39	7°♿08'43	
	13693 Dec 12 10:24	0°♿				
			superior conj	13694 Nov 30 07:48	22°♿17'03	1°33'43
superior conj	13693 Dec 15 20:13	7°♿34'17 1°37'59	minimum elong	13694 Nov 30 06:34	22°♿10'08	1°34'39
minimum elong	13693 Dec 15 19:58	7°♿32'53 1°39'02	max. Earth dist.	13694 Nov 30 08:19	22°♿19'53	1.31215 AU
max. Earth dist.	13693 Dec 17 00:05	10°♿08'40 1.31657 AU		13694 Dec 03 18:58	0°♿	
evening rise	13693 Dec 22 21:33	22°♿52'09	evening rise	13694 Dec 07 02:42	7°♿13'26	
	13693 Dec 26 09:39	0°♿		13694 Dec 18 21:29	0°♿	
desc. node	13694 Jan 02 13:27	13°♿18'43	desc. node	13694 Dec 20 10:22	2°♿35'14	
	13694 Jan 13 05:56	0°♿	evening max el	13695 Jan 06 05:50	24°♿44'02	26°51'47
evening max el	13694 Jan 24 02:24	12°♿47'16 27°28'35		13695 Jan 13 06:32	0°♿	
retrograde	13694 Feb 07 00:37	20°♿07'24	retrograde	13695 Jan 20 04:51	1°♿54'47	
evening set	13694 Feb 13 22:03	17°♿54'06	evening set	13695 Jan 26 20:58	0°♿02'21	
min. Earth dist.	13694 Feb 17 16:22	15°♿00'03 0.61690 AU		13695 Jan 26 22:40	30°♿♿	
inferior conj	13694 Feb 20 17:30	12°♿13'25 -1°57'10	min. Earth dist.	13695 Jan 30 19:52	27°♿23'33	0.59508 AU
minimum elong	13694 Feb 20 21:37	12°♿04'01 1°55'06	inferior conj	13695 Feb 03 00:25	24°♿51'28	-3°20'47
asc. node	13694 Feb 26 17:53	7°♿42'27	minimum elong	13695 Feb 03 07:39	24°♿37'03	3°17'30
morning rise	13694 Feb 28 00:05	7°♿12'36	morning rise	13695 Feb 10 21:28	20°♿11'23	
direct	13694 Mar 02 04:24	6°♿51'51	direct	13695 Feb 12 22:24	19°♿55'58	
morning max el	13694 Mar 09 01:05	10°♿19'52 17°49'33	asc. node	13695 Feb 13 15:19	19°♿57'52	
	13694 Mar 22 02:52	0°♿	morning max el	13695 Feb 20 14:01	23°♿43'49	18°10'28
morning set	13694 Mar 24 18:21	4°♿43'10		13695 Feb 25 14:47	0°♿	

morning set	13695 Mar 08 05:19	18° $\text{H}$ 32'02		morning max el	13696 Feb 03 18:56	6° $\approx$ 31'00	18°52'12
	13695 Mar 14 08:42	0° $\text{Y}$			13696 Feb 18 16:24	0° $\text{H}$	
				morning set	13696 Feb 20 03:04	2° $\text{H}$ 49'07	
superior conj	13695 Mar 17 21:34	6° $\text{Y}$ 26'06	0°04'50				
minimum elong	13695 Mar 17 21:57	6° $\text{Y}$ 27'47	0°04'45	superior conj	13696 Feb 28 16:56	19° $\text{H}$ 29'23	0°37'07
behind sun begin	13695 Mar 17 14:40	5° $\text{Y}$ 55'03		minimum elong	13696 Feb 28 19:10	19° $\text{H}$ 40'00	0°37'02
behind sun end	13695 Mar 18 05:14	7° $\text{Y}$ 00'27		desc. node	13696 Mar 04 08:29	28° $\text{H}$ 06'44	
desc. node	13695 Mar 18 11:58	7° $\text{Y}$ 30'33			13696 Mar 05 09:36	0° $\text{Y}$	
max. Earth dist.	13695 Mar 25 12:31	19° $\text{Y}$ 41'55	1.41568 AU	max. Earth dist.	13696 Mar 06 19:33	2° $\text{Y}$ 31'13	1.39352 AU
evening rise	13695 Mar 30 10:32	27° $\text{Y}$ 49'01		evening rise	13696 Mar 10 17:04	9° $\text{Y}$ 16'34	
	13695 Mar 31 19:04	0° $\text{B}$			13696 Mar 23 16:39	0° $\text{B}$	
	13695 Apr 21 00:25	0° $\text{II}$		evening max el	13696 Apr 14 18:03	28° $\text{B}$ 37'13	24°16'46
evening max el	13695 May 03 04:07	14° $\text{II}$ 44'44	22°55'54		13696 Apr 16 04:41	0° $\text{II}$	
asc. node	13695 May 12 11:56	20° $\text{II}$ 42'11		retrograde	13696 Apr 26 02:31	5° $\text{II}$ 16'41	
retrograde	13695 May 13 09:12	20° $\text{II}$ 45'45		asc. node	13696 Apr 28 09:14	4° $\text{II}$ 53'36	
evening set	13695 May 18 08:40	18° $\text{II}$ 40'04		evening set	13696 May 01 13:32	2° $\text{II}$ 58'27	
inferior conj	13695 May 23 16:37	12° $\text{II}$ 15'43	2°49'52		13696 May 04 08:56	30° $\text{R}$ 8	
minimum elong	13695 May 23 14:56	12° $\text{II}$ 21'36	2°48'36	min. Earth dist.	13696 May 06 04:01	27° $\text{B}$ 40'25	0.68547 AU
min. Earth dist.	13695 May 23 07:57	12° $\text{II}$ 45'49	0.68927 AU	inferior conj	13696 May 07 01:14	26° $\text{B}$ 28'45	2°23'18
morning rise	13695 May 28 21:06	6° $\text{II}$ 06'56		minimum elong	13696 May 06 23:08	26° $\text{B}$ 35'52	2°21'58
direct	13695 Jun 02 08:01	4° $\text{II}$ 17'44		morning rise	13696 May 12 08:51	20° $\text{B}$ 27'57	
morning max el	13695 Jun 11 00:19	9° $\text{II}$ 18'17	21°16'38	direct	13696 May 16 07:24	18° $\text{B}$ 59'27	
desc. node	13695 Jun 14 13:22	13° $\text{II}$ 11'16		morning max el	13696 May 23 22:31	23° $\text{B}$ 16'00	20°02'49
	13695 Jun 27 01:29	0° $\text{B}$			13696 May 29 17:30	0° $\text{II}$	
morning set	13695 Jul 12 04:22	22° $\text{B}$ 51'12		desc. node	13696 May 31 10:19	2° $\text{II}$ 15'00	
	13695 Jul 16 16:14	0° $\text{Q}$			13696 Jun 19 07:05	0° $\text{B}$	
max. Earth dist.	13695 Jul 19 04:11	4° $\text{Q}$ 03'07	1.42674 AU	morning set	13696 Jun 20 08:17	1° $\text{B}$ 36'44	
				max. Earth dist.	13696 Jun 30 15:07	17° $\text{B}$ 41'21	1.44394 AU
superior conj	13695 Jul 26 11:29	16° $\text{Q}$ 15'48	-1°39'45				
minimum elong	13695 Jul 26 18:37	16° $\text{Q}$ 46'21	1°39'46	superior conj	13696 Jul 06 03:46	26° $\text{B}$ 35'00	-2°04'24
	13695 Aug 03 07:40	0° $\text{P}$		minimum elong	13696 Jul 06 09:47	26° $\text{B}$ 59'30	2°05'03
evening rise	13695 Aug 06 22:07	6° $\text{P}$ 28'26			13696 Jul 08 05:53	0° $\text{Q}$	
asc. node	13695 Aug 08 11:43	9° $\text{P}$ 17'51		evening rise	13696 Jul 19 07:48	18° $\text{Q}$ 38'50	
	13695 Aug 21 07:47	0° $\text{B}$		asc. node	13696 Jul 25 08:24	28° $\text{Q}$ 55'24	
evening max el	13695 Aug 23 04:31	2° $\text{B}$ 03'07	18°05'14		13696 Jul 25 23:49	0° $\text{P}$	
retrograde	13695 Aug 30 00:05	5° $\text{B}$ 32'39		evening max el	13696 Aug 05 18:42	15° $\text{P}$ 21'15	18°04'44
evening set	13695 Sep 01 08:15	5° $\text{B}$ 08'09		retrograde	13696 Aug 12 04:28	18° $\text{P}$ 41'41	
inferior conj	13695 Sep 08 06:41	0° $\text{B}$ 13'04	0°39'24	evening set	13696 Aug 14 20:56	18° $\text{P}$ 05'00	
minimum elong	13695 Sep 08 07:54	0° $\text{B}$ 10'13	0°38'50	inferior conj	13696 Aug 21 04:20	12° $\text{P}$ 51'35	1°45'09
	13695 Sep 08 12:17	30° $\text{R}$ 11		minimum elong	13696 Aug 21 06:45	12° $\text{P}$ 45'11	1°43'59
desc. node	13695 Sep 10 10:28	28° $\text{P}$ 12'01		min. Earth dist.	13696 Aug 24 00:06	9° $\text{P}$ 53'12	0.62603 AU
min. Earth dist.	13695 Sep 11 11:42	27° $\text{P}$ 14'54	0.60324 AU	desc. node	13696 Aug 27 07:59	6° $\text{P}$ 53'37	
morning rise	13695 Sep 15 04:27	24° $\text{P}$ 23'42		morning rise	13696 Aug 27 14:19	6° $\text{P}$ 41'50	
direct	13695 Sep 21 18:00	22° $\text{P}$ 18'11		direct	13696 Sep 03 06:37	4° $\text{P}$ 15'28	
	13695 Oct 05 20:24	0° $\text{B}$		morning max el	13696 Sep 17 08:15	12° $\text{P}$ 16'52	27°55'02
morning max el	13695 Oct 06 01:04	0° $\text{B}$ 11'27	27°52'36		13696 Oct 01 10:44	0° $\text{B}$	
	13695 Oct 27 12:11	0° $\text{M}$			13696 Oct 18 22:32	0° $\text{M}$	
asc. node	13695 Nov 04 13:42	15° $\text{M}$ 05'29		asc. node	13696 Oct 21 10:25	4° $\text{M}$ 58'46	
morning set	13695 Nov 07 15:18	21° $\text{M}$ 22'13		morning set	13696 Oct 21 13:34	5° $\text{M}$ 14'44	
	13695 Nov 11 15:54	0° $\text{X}$		max. Earth dist.	13696 Oct 26 19:34	16° $\text{M}$ 16'19	1.31900 AU
max. Earth dist.	13695 Nov 13 16:06	4° $\text{X}$ 25'34	1.31289 AU				
superior conj	13695 Nov 14 18:57	6° $\text{X}$ 54'44	1°23'39	superior conj	13696 Oct 29 03:45	21° $\text{M}$ 22'04	1°07'51
minimum elong	13695 Nov 14 16:59	6° $\text{X}$ 43'50	1°24'20	minimum elong	13696 Oct 29 01:28	21° $\text{M}$ 09'34	1°08'14
evening rise	13695 Nov 21 11:39	21° $\text{X}$ 42'20			13696 Nov 02 01:52	0° $\text{X}$	
	13695 Nov 25 10:31	0° $\text{B}$		evening rise	13696 Nov 04 22:29	6° $\text{X}$ 14'06	
desc. node	13695 Dec 07 07:23	21° $\text{B}$ 10'51			13696 Nov 17 05:57	0° $\text{B}$	
	13695 Dec 13 17:19	0° $\approx$		desc. node	13696 Nov 23 04:30	8° $\text{B}$ 50'05	
evening max el	13695 Dec 19 00:59	5° $\approx$ 47'34	25°41'49	evening max el	13696 Nov 29 12:45	16° $\text{B}$ 06'10	24°07'36
retrograde	13696 Jan 01 22:34	12° $\approx$ 48'28		retrograde	13696 Dec 13 03:41	22° $\text{B}$ 53'11	
evening set	13696 Jan 07 23:46	11° $\approx$ 23'42		evening set	13696 Dec 18 02:59	21° $\text{B}$ 59'08	
min. Earth dist.	13696 Jan 12 13:35	8° $\approx$ 45'41	0.57421 AU	min. Earth dist.	13696 Dec 24 00:08	19° $\text{B}$ 03'42	0.55716 AU
inferior conj	13696 Jan 15 11:57	6° $\approx$ 44'22	-4°41'36	inferior conj	13696 Dec 26 02:41	17° $\text{B}$ 46'53	-5°41'17
minimum elong	13696 Jan 15 20:49	6° $\approx$ 29'03	4°38'20	minimum elong	13696 Dec 26 08:36	17° $\text{B}$ 37'54	5°39'31
morning rise	13696 Jan 23 20:37	2° $\approx$ 26'32		morning rise	13697 Jan 03 16:05	13° $\text{B}$ 48'35	
direct	13696 Jan 25 23:10	2° $\approx$ 12'52		direct	13697 Jan 06 04:18	13° $\text{B}$ 32'21	
asc. node	13696 Jan 31 12:43	3° $\approx$ 55'02		morning max el	13697 Jan 16 11:46	18° $\text{B}$ 29'38	19°56'35
				asc. node	13697 Jan 17 10:03	19° $\text{B}$ 25'39	

	13697 Jan 25 03:13	0°♊		morning max el	13697 Dec 29 13:59	29°♊33'26	21°23'44
morning set	13697 Feb 03 07:57	17°♊23'24			13697 Dec 30 00:58	0°♊	
	13697 Feb 09 12:34	0°♊		asc. node	13698 Jan 04 07:17	6°♊13'12	
					13698 Jan 17 16:48	0°♊	
superior conj	13697 Feb 11 02:45	3°♊11'22	1°02'33	morning set	13698 Jan 18 17:16	2°♊07'12	
minimum elong	13697 Feb 11 05:30	3°♊25'02	1°02'44				
max. Earth dist.	13697 Feb 17 01:54	14°♊43'46	1.37110 AU	superior conj	13698 Jan 25 23:08	17°♊21'18	1°20'56
desc. node	13697 Feb 19 04:59	18°♊40'04		minimum elong	13698 Jan 26 01:29	17°♊33'29	1°21'28
evening rise	13697 Feb 20 19:38	21°♊34'57		max. Earth dist.	13698 Jan 30 12:36	26°♊38'26	1.35066 AU
	13697 Feb 25 15:37	0°♊			13698 Feb 01 05:36	0°♊	
	13697 Mar 17 14:12	0°♊		evening rise	13698 Feb 03 15:02	4°♊35'19	
evening max el	13697 Mar 28 07:33	12°♊29'56	25°32'21	desc. node	13698 Feb 06 01:33	9°♊07'02	
retrograde	13697 Apr 09 15:24	19°♊36'58			13698 Feb 18 11:55	0°♊	
asc. node	13697 Apr 15 06:37	17°♊24'25		evening max el	13698 Mar 10 21:24	26°♊17'39	26°35'10
evening set	13697 Apr 15 13:48	17°♊09'41			13698 Mar 15 03:54	0°♊	
min. Earth dist.	13697 Apr 19 21:10	12°♊27'18	0.67723 AU	retrograde	13698 Mar 23 22:52	3°♊40'01	
inferior conj	13697 Apr 21 06:51	10°♊39'08	1°46'19	evening set	13698 Mar 30 07:43	1°♊08'08	
minimum elong	13697 Apr 21 04:47	10°♊45'49	1°45'04		13698 Mar 31 14:37	30°♊	
morning rise	13697 Apr 26 20:14	4°♊47'37		asc. node	13698 Apr 02 04:02	28°♊23'37	
direct	13697 Apr 30 07:16	3°♊38'55		min. Earth dist.	13698 Apr 03 09:16	27°♊00'23	0.66482 AU
morning max el	13697 May 07 04:08	7°♊23'02	19°03'35	inferior conj	13698 Apr 05 07:21	24°♊42'29	0°58'25
desc. node	13697 May 18 07:08	21°♊50'03		minimum elong	13698 Apr 05 05:56	24°♊46'45	0°57'33
greatest brilliancy	13697 May 20 07:02	24°♊48'32	-0.7m	morning rise	13698 Apr 11 05:13	19°♊02'03	
	13697 May 23 17:13	0°♊		direct	13698 Apr 14 05:49	18°♊10'57	
	13697 May 30 13:20	10°♊31'13		morning max el	13698 Apr 20 16:17	21°♊35'22	18°20'40
	13697 Jun 12 02:11	0°♊			13698 Apr 27 10:25	0°♊	
max. Earth dist.	13697 Jun 13 07:32	1°♊54'55	1.45491 AU	desc. node	13698 May 05 03:51	11°♊48'08	
				morning set	13698 May 10 15:28	20°♊30'16	
					13698 May 16 15:15	0°♊	
superior conj	13697 Jun 15 22:22	6°♊01'47	-2°13'38				
minimum elong	13697 Jun 15 22:14	6°♊01'14	2°14'41				
evening rise	13697 Jun 30 18:37	29°♊49'46		superior conj	13698 May 26 06:18	15°♊06'31	-2°02'49
	13697 Jun 30 21:08	0°♊		minimum elong	13698 May 25 22:59	14°♊37'58	2°03'24
				max. Earth dist.	13698 May 27 03:18	16°♊28'33	1.45863 AU
asc. node	13697 Jul 12 05:09	18°♊13'27			13698 Jun 04 19:20	0°♊	
evening max el	13697 Jul 20 08:38	28°♊56'24	18°22'28		13698 Jun 11 04:54	10°♊00'26	
	13697 Jul 21 12:16	0°♊		evening rise	13698 Jun 11 04:54	10°♊00'26	
retrograde	13697 Jul 26 18:11	2°♊21'25		greatest brilliancy	13698 Jun 21 06:24	25°♊41'17	-0.8m
evening set	13697 Jul 29 19:19	1°♊30'00			13698 Jun 24 02:43	0°♊	
	13697 Jul 31 21:04	30°♊		asc. node	13698 Jun 29 01:59	7°♊04'47	
inferior conj	13697 Aug 04 15:20	26°♊00'10	2°30'08	evening max el	13698 Jul 03 19:29	12°♊40'48	18°57'36
minimum elong	13697 Aug 04 17:39	25°♊53'20	2°28'55	retrograde	13698 Jul 10 13:38	16°♊23'49	
min. Earth dist.	13697 Aug 06 21:49	23°♊20'44	0.64685 AU	evening set	13698 Jul 13 23:46	15°♊16'07	
morning rise	13697 Aug 10 14:40	19°♊39'37		inferior conj	13698 Jul 19 12:00	9°♊31'25	2°57'35
desc. node	13697 Aug 14 05:27	17°♊32'28		minimum elong	13698 Jul 19 13:35	9°♊26'23	2°56'28
direct	13697 Aug 17 03:54	17°♊01'42		min. Earth dist.	13698 Jul 21 03:56	7°♊24'40	0.66418 AU
morning max el	13697 Aug 30 18:32	24°♊59'20	27°22'05	morning rise	13698 Jul 25 02:41	3°♊07'09	
	13697 Sep 04 08:01	0°♊		direct	13698 Jul 31 08:18	0°♊27'31	
	13697 Sep 24 22:00	0°♊		desc. node	13698 Aug 01 02:53	0°♊29'44	
morning set	13697 Oct 05 02:52	18°♊40'16		morning max el	13698 Aug 13 05:39	8°♊07'33	26°21'10
asc. node	13697 Oct 08 07:03	25°♊00'54			13698 Aug 30 07:42	0°♊	
max. Earth dist.	13697 Oct 09 15:17	27°♊46'18	1.33058 AU		13698 Sep 17 08:29	0°♊	
	13697 Oct 10 17:01	0°♊		morning set	13698 Sep 18 03:58	1°♊30'41	
				max. Earth dist.	13698 Sep 22 01:19	8°♊57'29	1.34737 AU
				asc. node	13698 Sep 25 03:37	15°♊07'11	
superior conj	13697 Oct 13 08:10	5°♊33'47	0°46'23				
minimum elong	13697 Oct 13 06:08	5°♊22'54	0°46'33				
evening rise	13697 Oct 20 09:25	20°♊44'21		superior conj	13698 Sep 27 05:42	19°♊22'49	0°19'34
	13697 Oct 24 20:35	0°♊		minimum elong	13698 Sep 27 04:38	19°♊17'19	0°19'37
					13698 Oct 02 07:47	0°♊	
desc. node	13697 Nov 10 01:43	25°♊12'29			13698 Oct 04 18:27	5°♊07'25	
evening max el	13697 Nov 10 23:22	26°♊06'59	22°25'19	evening rise	13698 Oct 04 18:27	5°♊07'25	
	13697 Nov 15 19:49	0°♊			13698 Oct 18 10:10	0°♊	
retrograde	13697 Nov 23 19:56	2°♊29'24		evening max el	13698 Oct 23 18:06	6°♊26'03	20°51'51
evening set	13697 Nov 27 10:19	2°♊01'00		desc. node	13698 Oct 27 23:03	9°♊51'35	
	13697 Dec 02 12:07	30°♊		retrograde	13698 Nov 04 06:23	12°♊09'25	
min. Earth dist.	13697 Dec 05 06:43	28°♊29'50	0.54690 AU	evening set	13698 Nov 06 16:43	11°♊55'13	
inferior conj	13697 Dec 06 00:18	28°♊05'05	-5°55'36	inferior conj	13698 Nov 15 15:33	8°♊01'25	-5°09'58
minimum elong	13697 Dec 05 21:52	28°♊08'31	5°54'26	minimum elong	13698 Nov 15 06:10	8°♊14'48	5°07'00
morning rise	13697 Dec 14 10:37	24°♊17'42		min. Earth dist.	13698 Nov 16 12:42	7°♊31'17	0.54552 AU
direct	13697 Dec 17 17:37	23°♊53'14		morning rise	13698 Nov 23 19:49	4°♊07'38	

direct	13698 Nov 28 01:17	3°♊29'22		evening set	13699 Oct 17 21:09	22°♍15'31	
morning max el	13698 Dec 11 03:57	9°♊50'13	23°08'23	inferior conj	13699 Oct 26 15:21	18°♍11'26	-3°37'03
asc. node	13698 Dec 22 04:26	23°♊59'50		minimum elong	13699 Oct 26 06:19	18°♍25'41	3°33'15
	13698 Dec 25 16:49	0°♊		min. Earth dist.	13699 Oct 28 21:41	16°♍45'48	0.55347 AU
morning set	13699 Jan 03 04:46	16°♊53'07		morning rise	13699 Nov 03 13:39	13°♍50'47	
	13699 Jan 09 06:33	0°♊		direct	13699 Nov 08 16:13	12°♍52'47	
				morning max el	13699 Nov 22 13:43	19°♍48'57	24°56'46
superior conj	13699 Jan 10 02:49	1°♋49'08	1°32'33		13699 Dec 01 04:43	0°♊	
minimum elong	13699 Jan 10 04:17	1°♋56'57	1°33'25	asc. node	13699 Dec 09 01:29	12°♊31'28	
max. Earth dist.	13699 Jan 13 06:33	8°♋31'20	1.33375 AU		13699 Dec 17 22:37	0°♊	
evening rise	13699 Jan 17 23:38	18°♋07'23		morning set	13699 Dec 18 16:37	1°♊36'12	
desc. node	13699 Jan 23 22:12	29°♋22'20					
	13699 Jan 24 06:32	0°♋		superior conj	13699 Dec 25 11:14	16°♊27'44	1°37'46
	13699 Feb 12 18:00	0°♋		minimum elong	13699 Dec 25 11:37	16°♊29'48	1°38'48
evening max el	13699 Feb 21 10:49	9°♋49'38	27°18'00	max. Earth dist.	13699 Dec 27 07:48	20°♊31'46	1.32138 AU
retrograde	13699 Mar 07 00:07	17°♋17'14			13699 Dec 31 18:20	0°♋	
evening set	13699 Mar 13 17:13	14°♋46'30		evening rise	13700 Jan 01 18:16	2°♋03'41	
min. Earth dist.	13699 Mar 17 14:07	11°♋11'18	0.64851 AU	desc. node	13700 Jan 10 18:55	19°♋20'38	
inferior conj	13699 Mar 20 00:17	8°♋32'27	-0°00'58		13700 Jan 17 03:37	0°♋	
minimum elong	13699 Mar 20 00:19	8°♋32'22	0°01'01	evening max el	13700 Feb 03 22:10	22°♋53'48	27°33'52
transit middle	13699 Mar 20 00:19	8°♋32'22	0°01'01		13700 Feb 15 03:33	0°♋	
transit begin	13699 Mar 19 21:16	8°♋40'43		retrograde	13700 Feb 17 18:24	0°♋19'01	
transit end	13699 Mar 20 03:22	8°♋24'01			13700 Feb 20 07:23	30°♋	
asc. node	13699 Mar 20 01:30	8°♋29'08		evening set	13700 Feb 24 15:51	27°♋56'44	
morning rise	13699 Mar 26 09:14	3°♋05'27		min. Earth dist.	13700 Feb 28 10:00	24°♋49'46	0.62901 AU
direct	13699 Mar 29 00:37	2°♋28'59		inferior conj	13700 Mar 03 06:44	22°♋01'36	-1°11'50
morning max el	13699 Apr 04 08:44	5°♋46'03	17°54'49	minimum elong	13700 Mar 03 09:07	21°♋55'44	1°10'36
	13699 Apr 20 18:54	0°♋		asc. node	13700 Mar 06 22:59	18°♋42'59	
morning set	13699 Apr 21 21:59	1°♋52'17		morning rise	13700 Mar 10 05:01	16°♋50'41	
desc. node	13699 Apr 22 00:30	2°♋02'45		direct	13700 Mar 12 12:41	16°♋25'21	
				morning max el	13700 Mar 19 02:31	19°♋46'24	17°46'21
superior conj	13699 May 05 21:09	24°♋36'17	-1°34'18		13700 Mar 26 17:47	0°♋	
minimum elong	13699 May 05 12:15	24°♋00'55	1°34'08	morning set	13700 Apr 04 05:39	14°♋25'48	
	13699 May 09 06:59	0°♋		desc. node	13700 Apr 08 21:06	22°♋28'30	
max. Earth dist.	13699 May 09 23:37	1°♋05'22	1.45479 AU		13700 Apr 13 07:13	0°♋	
evening rise	13699 May 21 20:44	19°♋30'36					
	13699 May 28 17:54	0°♋		superior conj	13700 Apr 16 08:18	5°♋04'48	-0°56'06
greatest brilliancy	13699 Jun 05 07:34	11°♋16'58	-0.6m	minimum elong	13700 Apr 16 02:44	4°♋41'45	0°55'49
asc. node	13699 Jun 15 22:55	25°♋20'20		max. Earth dist.	13700 Apr 22 17:23	15°♋27'00	1.44391 AU
evening max el	13699 Jun 17 01:17	26°♋29'11	19°48'53	evening rise	13700 May 01 08:17	28°♋57'49	
	13699 Jun 21 15:39	0°♋			13700 May 02 00:28	0°♋	
retrograde	13699 Jun 24 12:01	0°♋42'22			13700 May 22 12:33	0°♋	
	13699 Jun 27 05:02	30°♋		evening max el	13700 May 31 01:10	10°♋18'14	20°54'11
evening set	13699 Jun 28 07:39	29°♋17'48		asc. node	13700 Jun 02 19:58	12°♋47'52	
inferior conj	13699 Jul 03 15:21	23°♋19'42	3°10'27	retrograde	13700 Jun 08 11:01	15°♋11'01	
minimum elong	13699 Jul 03 15:55	23°♋17'47	3°09'25	evening set	13700 Jun 12 16:51	13°♋29'46	
min. Earth dist.	13699 Jul 04 16:54	21°♋53'52	0.67721 AU	inferior conj	13700 Jun 17 22:49	7°♋19'53	3°10'59
morning rise	13699 Jul 08 23:48	16°♋56'24		minimum elong	13700 Jun 17 22:23	7°♋21'23	3°09'55
direct	13699 Jul 14 18:52	14°♋23'43		min. Earth dist.	13700 Jun 18 10:40	6°♋38'47	0.68563 AU
desc. node	13699 Jul 19 00:14	15°♋30'00		morning rise	13700 Jun 23 03:39	1°♋00'39	
morning max el	13699 Jul 26 16:22	21°♋31'33	25°01'29		13700 Jun 24 10:39	30°♋	
	13699 Aug 03 01:04	0°♋		direct	13700 Jun 28 10:37	28°♋41'29	
	13699 Aug 23 13:16	0°♋			13700 Jul 02 20:33	0°♋	
morning set	13699 Aug 31 12:58	13°♋36'56		desc. node	13700 Jul 05 21:32	2°♋06'15	
max. Earth dist.	13699 Sep 04 02:48	20°♋05'31	1.36835 AU	morning max el	13700 Jul 09 02:53	5°♋03'50	23°32'44
	13699 Sep 09 08:15	0°♋			13700 Jul 28 08:18	0°♋	
				morning set	13700 Aug 13 01:14	24°♋47'20	
superior conj	13699 Sep 10 17:23	2°♋42'02	-0°11'56		13700 Aug 16 02:27	0°♋	
minimum elong	13699 Sep 10 18:09	2°♋45'47	0°11'50	max. Earth dist.	13700 Aug 17 00:27	1°♋35'33	1.39168 AU
behind sun begin	13699 Sep 10 13:41	2°♋23'49					
behind sun end	13699 Sep 10 22:37	3°♋07'47		superior conj	13700 Aug 24 15:27	15°♋22'08	-0°46'32
asc. node	13699 Sep 12 00:10	5°♋14'14		minimum elong	13700 Aug 24 18:50	15°♋37'54	0°46'19
evening rise	13699 Sep 18 23:22	19°♋17'35		asc. node	13700 Aug 29 20:43	25°♋17'58	
	13699 Sep 24 09:58	0°♋			13700 Sep 01 06:52	0°♋	
evening max el	13699 Oct 06 02:49	17°♋29'46	19°37'33	evening rise	13700 Sep 02 21:20	3°♋07'03	
desc. node	13699 Oct 14 20:27	22°♋21'50		evening max el	13700 Sep 19 00:52	29°♋22'22	18°45'15
retrograde	13699 Oct 15 23:42	22°♋25'36			13700 Sep 19 16:31	0°♋	

retrograde	13700 Sep 27 09:23	3° $\mathbb{M}$ 34'29		evening max el	13701 Sep 02 08:28	11° $\mathbb{L}$ 56'15	18°14'06
evening set	13700 Sep 29 07:03	3° $\mathbb{M}$ 22'12		retrograde	13701 Sep 09 14:08	15° $\mathbb{L}$ 36'50	
desc. node	13700 Oct 01 17:57	2° $\mathbb{M}$ 32'57		evening set	13701 Sep 11 18:00	15° $\mathbb{L}$ 17'47	
	13700 Oct 06 00:44	30° $\mathbb{R}$ $\mathbb{L}$		desc. node	13701 Sep 18 15:29	10° $\mathbb{L}$ 58'00	
inferior conj	13700 Oct 07 10:04	28° $\mathbb{L}$ 59'56	-1°48'03	inferior conj	13701 Sep 19 02:32	10° $\mathbb{L}$ 34'27	-0°08'38
minimum elong	13700 Oct 07 05:36	29° $\mathbb{L}$ 08'07	1°45'51	minimum elong	13701 Sep 19 02:14	10° $\mathbb{L}$ 35'06	0°08'25
min. Earth dist.	13700 Oct 10 12:10	26° $\mathbb{L}$ 44'59	0.56929 AU	transit middle	13701 Sep 19 02:14	10° $\mathbb{L}$ 35'06	0°08'25
morning rise	13700 Oct 15 00:48	24° $\mathbb{L}$ 02'19		transit begin	13701 Sep 18 23:18	10° $\mathbb{L}$ 41'23	
direct	13700 Oct 20 21:24	22° $\mathbb{L}$ 38'43		transit end	13701 Sep 19 05:10	10° $\mathbb{L}$ 28'48	
morning max el	13700 Nov 04 03:12	0° $\mathbb{M}$ 02'55	26°30'19	min. Earth dist.	13701 Sep 22 09:49	7° $\mathbb{L}$ 46'06	0.59024 AU
	13700 Nov 04 01:59	0° $\mathbb{M}$		morning rise	13701 Sep 26 07:03	5° $\mathbb{L}$ 01'56	
	13700 Nov 25 01:52	0° $\mathbb{X}$		direct	13701 Oct 02 16:28	3° $\mathbb{L}$ 10'53	
asc. node	13700 Nov 25 22:26	1° $\mathbb{X}$ 36'36		morning max el	13701 Oct 16 24:00	10° $\mathbb{L}$ 55'04	27°33'25
morning set	13700 Dec 03 03:06	16° $\mathbb{X}$ 11'48			13701 Oct 31 20:24	0° $\mathbb{M}$	
	13700 Dec 09 09:32	0° $\mathbb{Z}$		asc. node	13701 Nov 12 19:15	21° $\mathbb{M}$ 05'41	
				morning set	13701 Nov 17 10:23	0° $\mathbb{X}$ 34'29	
superior conj	13700 Dec 09 22:15	1° $\mathbb{Z}$ 10'56	1°36'54		13701 Nov 17 03:51	0° $\mathbb{X}$	
minimum elong	13700 Dec 09 21:33	1° $\mathbb{Z}$ 07'04	1°37'55				
max. Earth dist.	13700 Dec 10 14:14	2° $\mathbb{Z}$ 40'00	1.31398 AU	superior conj	13701 Nov 24 09:50	15° $\mathbb{X}$ 52'05	1°30'09
evening rise	13700 Dec 16 20:16	16° $\mathbb{Z}$ 17'47		minimum elong	13701 Nov 24 08:16	15° $\mathbb{X}$ 43'14	1°31'00
	13700 Dec 23 16:37	0° $\approx$		max. Earth dist.	13701 Nov 23 22:36	14° $\mathbb{X}$ 49'18	1.31179 AU
desc. node	13700 Dec 28 15:45	8° $\approx$ 55'05			13701 Nov 30 19:17	0° $\mathbb{Z}$	
	13701 Jan 12 05:22	0° $\mathbb{X}$		evening rise	13701 Dec 01 03:16	0° $\mathbb{Z}$ 42'54	
evening max el	13701 Jan 17 05:18	5° $\mathbb{X}$ 18'49	27°17'18	desc. node	13701 Dec 15 12:42	27° $\mathbb{Z}$ 55'35	
retrograde	13701 Jan 31 04:35	12° $\mathbb{X}$ 36'05			13701 Dec 16 20:13	0° $\approx$	
evening set	13701 Feb 07 00:34	10° $\mathbb{X}$ 30'42		evening max el	13701 Dec 30 05:35	16° $\approx$ 53'47	26°25'57
min. Earth dist.	13701 Feb 10 19:51	7° $\mathbb{X}$ 44'28	0.60754 AU	retrograde	13702 Jan 13 04:38	24° $\approx$ 00'12	
inferior conj	13701 Feb 13 23:21	5° $\mathbb{X}$ 01'44	-2°32'14	evening set	13702 Jan 19 15:26	22° $\approx$ 19'15	
minimum elong	13701 Feb 14 04:49	4° $\mathbb{X}$ 49'54	2°29'34	min. Earth dist.	13702 Jan 23 19:15	19° $\approx$ 42'32	0.58587 AU
morning rise	13701 Feb 21 12:13	0° $\mathbb{X}$ 09'36		inferior conj	13702 Jan 26 22:24	17° $\approx$ 21'51	-3°56'17
asc. node	13701 Feb 21 20:28	0° $\mathbb{X}$ 04'15		minimum elong	13702 Jan 27 06:41	17° $\approx$ 06'20	3°52'49
	13701 Feb 22 04:22	30° $\mathbb{R}$ $\approx$		morning rise	13702 Feb 04 00:56	12° $\approx$ 50'50	
direct	13701 Feb 23 14:28	29° $\approx$ 51'40		direct	13702 Feb 06 01:41	12° $\approx$ 36'38	
	13701 Feb 25 00:10	0° $\mathbb{X}$		asc. node	13702 Feb 08 17:55	13° $\approx$ 02'31	
morning max el	13701 Mar 02 18:20	3° $\mathbb{X}$ 27'12	17°56'04	morning max el	13702 Feb 14 04:18	16° $\approx$ 36'35	18°25'30
morning set	13701 Mar 18 08:22	27° $\mathbb{X}$ 52'38			13702 Feb 23 14:27	0° $\mathbb{X}$	
	13701 Mar 19 12:15	0° $\mathbb{Y}$		morning set	13702 Mar 02 00:26	11° $\mathbb{X}$ 54'56	
desc. node	13701 Mar 26 17:38	13° $\mathbb{Y}$ 01'20					
superior conj	13701 Mar 28 19:37	16° $\mathbb{Y}$ 40'30	-0°16'30	superior conj	13702 Mar 11 04:29	29° $\mathbb{X}$ 14'42	0°19'18
minimum elong	13701 Mar 28 18:09	16° $\mathbb{Y}$ 34'10	0°16'28	minimum elong	13702 Mar 11 05:50	29° $\mathbb{X}$ 20'57	0°19'11
max. Earth dist.	13701 Apr 05 07:01	29° $\mathbb{Y}$ 20'03	1.42723 AU	desc. node	13702 Mar 11 14:21	0° $\mathbb{Y}$	
	13701 Apr 05 16:44	0° $\mathbb{Z}$		max. Earth dist.	13702 Mar 13 14:07	3° $\mathbb{Y}$ 36'53	
evening rise	13701 Apr 11 07:00	9° $\mathbb{Z}$ 00'38		evening rise	13702 Mar 18 16:24	12° $\mathbb{Y}$ 34'37	1.40648 AU
	13701 Apr 25 03:33	0° $\mathbb{I}$			13702 Mar 23 01:16	19° $\mathbb{Y}$ 56'11	
evening max el	13701 May 13 19:52	24° $\mathbb{I}$ 08'30	22°09'47		13702 Mar 29 07:35	0° $\mathbb{Z}$	
asc. node	13701 May 20 17:09	29° $\mathbb{I}$ 12'40		evening max el	13702 Apr 19 09:50	0° $\mathbb{I}$	
retrograde	13701 May 23 08:50	29° $\mathbb{I}$ 44'47		retrograde	13702 Apr 26 11:03	8° $\mathbb{I}$ 00'09	23°30'32
evening set	13701 May 28 01:37	27° $\mathbb{I}$ 47'47		asc. node	13702 May 07 03:58	14° $\mathbb{I}$ 17'57	
inferior conj	13701 Jun 02 08:16	21° $\mathbb{I}$ 28'05	3°00'33	evening set	13702 May 07 14:25	14° $\mathbb{I}$ 17'06	
minimum elong	13701 Jun 02 06:57	21° $\mathbb{I}$ 32'38	2°59'23	min. Earth dist.	13702 May 12 08:20	12° $\mathbb{I}$ 06'45	
min. Earth dist.	13701 Jun 02 07:02	21° $\mathbb{I}$ 32'24	0.68933 AU	inferior conj	13702 May 17 03:44	6° $\mathbb{I}$ 27'55	0.68826 AU
morning rise	13701 Jun 07 12:06	15° $\mathbb{I}$ 14'57		minimum elong	13702 May 17 17:42	5° $\mathbb{I}$ 39'55	2°39'51
direct	13701 Jun 12 06:25	13° $\mathbb{I}$ 13'53			13702 May 17 15:47	5° $\mathbb{I}$ 46'31	2°38'33
morning max el	13701 Jun 21 15:30	18° $\mathbb{I}$ 43'45	22°04'14		13702 May 22 11:01	30° $\mathbb{R}$ $\mathbb{Z}$	
desc. node	13701 Jun 22 18:42	19° $\mathbb{I}$ 54'05		morning rise	13702 May 22 23:11	29° $\mathbb{Z}$ 34'22	
	13701 Jul 01 01:14	0° $\mathbb{O}$		direct	13702 May 27 04:52	27° $\mathbb{Z}$ 53'44	
	13701 Jul 21 11:19	0° $\mathbb{Q}$			13702 Jun 01 10:53	0° $\mathbb{I}$	
morning set	13701 Jul 24 12:56	4° $\mathbb{Q}$ 52'44		morning max el	13702 Jun 04 09:29	2° $\mathbb{I}$ 33'58	20°43'36
max. Earth dist.	13701 Jul 30 01:02	13° $\mathbb{Q}$ 53'14	1.41478 AU	desc. node	13702 Jun 09 15:43	8° $\mathbb{I}$ 33'55	
					13702 Jun 24 21:12	0° $\mathbb{O}$	
superior conj	13701 Aug 06 19:37	27° $\mathbb{Q}$ 13'41	-1°21'22	morning set	13702 Jul 04 01:24	13° $\mathbb{O}$ 58'29	
minimum elong	13701 Aug 07 01:45	27° $\mathbb{Q}$ 40'44	1°21'12	max. Earth dist.	13702 Jul 12 08:38	27° $\mathbb{O}$ 06'23	1.43478 AU
	13701 Aug 08 09:06	0° $\mathbb{P}$			13702 Jul 14 03:28	0° $\mathbb{Q}$	
asc. node	13701 Aug 16 17:18	15° $\mathbb{P}$ 14'50		superior conj	13702 Jul 19 01:42	8° $\mathbb{Q}$ 07'53	-1°51'38
evening rise	13701 Aug 17 08:51	16° $\mathbb{P}$ 26'58		minimum elong	13702 Jul 19 08:56	8° $\mathbb{Q}$ 38'08	1°51'53
	13701 Aug 24 20:40	0° $\mathbb{L}$		evening rise	13702 Jul 31 05:26	29° $\mathbb{Q}$ 06'33	

	13702 Jul 31 17:33	0°♎		evening rise	13703 Jul 13 05:55	10°♏52'48	
asc. node	13702 Aug 03 13:56	5°♎00'58		asc. node	13703 Jul 21 10:38	24°♏30'54	
evening max el	13702 Aug 16 21:22	25°♎01'21	18°02'43		13703 Jul 24 22:24	0°♎	
retrograde	13702 Aug 23 11:20	28°♎25'02		evening max el	13703 Jul 31 11:47	8°♎27'22	18°10'02
evening set	13702 Aug 25 23:06	27°♎55'33		retrograde	13703 Aug 06 20:21	11°♎48'18	
inferior conj	13702 Sep 01 14:42	22°♎52'12	1°10'00	evening set	13703 Aug 09 16:27	11°♎05'34	
minimum elong	13702 Sep 01 16:37	22°♎47'27	1°09'05	inferior conj	13703 Aug 15 18:31	5°♎44'37	2°06'36
min. Earth dist.	13702 Sep 04 16:24	19°♎51'41	0.61310 AU	minimum elong	13703 Aug 15 21:01	5°♎37'42	2°05'22
desc. node	13702 Sep 05 13:01	19°♎04'27		min. Earth dist.	13703 Aug 18 08:47	2°♎52'29	0.63520 AU
morning rise	13702 Sep 08 07:26	16°♎53'11			13703 Aug 21 08:20	30°♏♏	
direct	13702 Sep 14 23:00	14°♎38'03		morning rise	13703 Aug 21 23:46	29°♏29'07	
morning max el	13702 Sep 29 04:04	22°♎35'00	27°58'21	desc. node	13703 Aug 23 10:32	28°♏29'31	
	13702 Oct 05 17:45	0°♏		direct	13703 Aug 28 15:13	26°♏56'59	
	13702 Oct 25 00:56	0°♎			13703 Sep 05 17:57	0°♎	
asc. node	13702 Oct 30 15:59	10°♎51'57		morning max el	13703 Sep 11 13:06	4°♎58'07	27°45'04
morning set	13702 Nov 01 12:35	14°♎39'53			13703 Sep 30 11:24	0°♏	
max. Earth dist.	13702 Nov 07 05:11	26°♎50'48	1.31488 AU	morning set	13703 Oct 16 07:23	28°♏21'41	
					13703 Oct 17 02:54	0°♎	
superior conj	13702 Nov 08 20:14	0°♏26'16	1°17'38	asc. node	13703 Oct 17 12:37	0°♎49'18	
minimum elong	13702 Nov 08 18:04	0°♏14'20	1°18'13	max. Earth dist.	13703 Oct 21 06:00	8°♎34'18	1.32332 AU
	13702 Nov 08 15:29	0°♏					
evening rise	13702 Nov 15 13:16	15°♏14'09		superior conj	13703 Oct 24 03:25	14°♎47'17	0°59'25
	13702 Nov 22 18:47	0°♏		minimum elong	13703 Oct 24 01:09	14°♎35'02	0°59'42
desc. node	13702 Dec 02 09:44	16°♏09'25		evening rise	13703 Oct 31 00:23	29°♎45'43	
evening max el	13702 Dec 11 21:22	27°♏36'35	25°03'53		13703 Oct 31 03:02	0°♏	
	13702 Dec 14 15:14	0°♏			13703 Nov 16 17:30	0°♏	
retrograde	13702 Dec 25 16:35	4°♏31'28		desc. node	13703 Nov 19 06:53	3°♏18'34	
evening set	13702 Dec 31 08:20	3°♏19'47		evening max el	13703 Nov 23 07:17	7°♏41'55	23°23'49
min. Earth dist.	13703 Jan 05 09:20	0°♏36'53	0.56638 AU	retrograde	13703 Dec 06 15:57	14°♏20'39	
	13703 Jan 06 08:19	30°♏♏		evening set	13703 Dec 11 01:50	13°♏38'21	
inferior conj	13703 Jan 08 01:01	28°♏53'24	-5°10'51	min. Earth dist.	13703 Dec 17 17:24	10°♏29'56	0.55184 AU
minimum elong	13703 Jan 08 09:23	28°♏39'48	5°08'08	inferior conj	13703 Dec 19 07:30	9°♏34'25	-5°54'14
morning rise	13703 Jan 16 12:43	24°♏44'21		minimum elong	13703 Dec 19 10:18	9°♏30'20	5°53'01
direct	13703 Jan 18 18:28	24°♏30'03		morning rise	13703 Dec 27 20:27	5°♏42'48	
asc. node	13703 Jan 26 15:17	27°♏40'47		direct	13703 Dec 30 15:45	5°♏23'51	
morning max el	13703 Jan 28 04:25	29°♏03'38	19°16'43	morning max el	13704 Jan 10 15:08	10°♏38'44	20°31'07
	13703 Jan 29 02:37	0°♏		asc. node	13704 Jan 13 12:33	13°♏45'47	
morning set	13703 Feb 14 01:36	26°♏20'20			13704 Jan 23 20:08	0°♏	
	13703 Feb 15 21:37	0°♏		morning set	13704 Jan 29 08:39	10°♏59'15	
superior conj	13703 Feb 22 06:29	12°♏35'27	0°48'46	superior conj	13704 Feb 05 21:15	26°♏30'33	1°11'12
minimum elong	13703 Feb 22 09:05	12°♏48'01	0°48'47	minimum elong	13704 Feb 05 23:55	26°♏44'02	1°11'32
desc. node	13703 Feb 28 10:36	24°♏11'52			13704 Feb 07 14:50	0°♏	
max. Earth dist.	13703 Feb 28 22:59	25°♏08'05	1.38393 AU	max. Earth dist.	13704 Feb 11 06:36	7°♏10'10	1.36200 AU
	13703 Mar 03 16:25	0°♏		evening rise	13704 Feb 15 02:43	14°♏22'30	
evening rise	13703 Mar 04 16:36	1°♏45'41		desc. node	13704 Feb 15 07:08	14°♏42'44	
	13703 Mar 22 12:46	0°♏			13704 Feb 24 03:04	0°♏	
evening max el	13703 Apr 09 00:38	21°♏52'47	24°49'59		13704 Mar 16 06:48	0°♏	
retrograde	13703 Apr 20 19:21	28°♏44'49		evening max el	13704 Mar 21 14:05	5°♏43'33	26°01'02
asc. node	13703 Apr 24 11:46	27°♏45'52		retrograde	13704 Apr 03 06:07	12°♏59'02	
evening set	13703 Apr 26 11:25	26°♏22'06		evening set	13704 Apr 09 09:15	10°♏28'47	
min. Earth dist.	13703 Apr 30 22:41	21°♏19'35	0.68255 AU	asc. node	13704 Apr 10 09:10	9°♏35'16	
inferior conj	13703 May 02 01:15	19°♏51'40	2°08'55	min. Earth dist.	13704 Apr 13 13:52	6°♏01'37	0.67241 AU
minimum elong	13703 May 01 23:05	19°♏58'49	2°07'35	inferior conj	13704 Apr 15 04:57	3°♏59'31	1°27'24
morning rise	13703 May 07 11:00	13°♏54'51		minimum elong	13704 Apr 15 03:04	4°♏05'25	1°26'15
direct	13703 May 11 04:36	12°♏34'56			13704 Apr 18 16:20	30°♏♏	
morning max el	13703 May 18 10:52	16°♏35'40	19°35'44	morning rise	13704 Apr 20 21:38	28°♏12'46	
desc. node	13703 May 27 12:37	27°♏51'43		direct	13704 Apr 24 04:02	27°♏12'01	
	13703 May 29 00:42	0°♏			13704 Apr 29 23:45	0°♏	
greatest brilliancy	13703 May 31 02:15	2°♏59'43	-0.6m	morning max el	13704 Apr 30 19:37	0°♏46'15	18°43'22
morning set	13703 Jun 13 03:03	22°♏40'04		desc. node	13704 May 13 09:23	17°♏37'24	
	13703 Jun 17 21:04	0°♏			13704 May 21 09:14	0°♏	
max. Earth dist.	13703 Jun 24 22:39	11°♏03'14	1.44944 AU	morning set	13704 May 22 15:16	1°♏57'11	
				max. Earth dist.	13704 Jun 06 16:47	25°♏27'13	1.45733 AU
superior conj	13703 Jun 29 08:00	18°♏02'01	-2°10'35	superior conj	13704 Jun 07 20:11	27°♏14'19	-2°11'33
minimum elong	13703 Jun 29 11:58	18°♏17'55	2°11'29	minimum elong	13704 Jun 07 16:39	27°♏00'31	2°12'30
	13703 Jul 06 16:53	0°♏					



	13704 Jun 09 14:31	0°☿		evening rise	13705 Jun 03 07:18	1°☿26'24	
evening rise	13704 Jun 23 06:16	21°☿37'37		greatest brilliancy	13705 Jun 15 11:23	20°☿06'00	-0.7m
	13704 Jun 28 11:48	0°♊			13705 Jun 22 09:51	0°♊	
greatest brilliancy	13704 Jun 29 20:33	2°♊10'26	-0.9m	asc. node	13705 Jun 24 04:19	2°♊15'59	
asc. node	13704 Jul 07 07:25	13°♊38'43		evening max el	13705 Jun 27 09:33	5°♊53'16	19°17'35
evening max el	13704 Jul 14 00:39	22°♊06'57	18°35'17	retrograde	13705 Jul 04 09:58	9°♊47'50	
retrograde	13704 Jul 20 13:01	25°♊38'26		evening set	13705 Jul 08 00:00	8°♊33'11	
evening set	13704 Jul 23 17:48	24°♊40'23		inferior conj	13705 Jul 13 09:58	2°♊42'50	3°04'37
inferior conj	13704 Jul 29 10:06	19°♊04'00	2°43'42	minimum elong	13705 Jul 13 11:08	2°♊39'01	3°03'34
minimum elong	13704 Jul 29 12:09	18°♊57'42	2°42'32	min. Earth dist.	13705 Jul 14 19:49	0°♊52'25	0.67027 AU
min. Earth dist.	13704 Jul 31 10:27	16°♊36'56	0.65465 AU		13705 Jul 15 12:18	30°♊☿	
morning rise	13704 Aug 04 05:26	12°♊40'49		morning rise	13705 Jul 18 21:40	26°☿18'24	
desc. node	13704 Aug 09 08:00	10°♊07'21		direct	13705 Jul 24 23:10	23°☿40'26	
direct	13704 Aug 10 15:46	10°♊00'57		desc. node	13705 Jul 27 05:25	23°☿59'26	
morning max el	13704 Aug 24 00:13	17°♊53'46	26°59'04		13705 Aug 05 07:07	0°♊	
	13704 Sep 03 04:10	0°♊		morning max el	13705 Aug 06 11:07	1°♊09'06	25°48'55
	13704 Sep 22 09:47	0°♊			13705 Aug 28 04:30	0°♊	
morning set	13704 Sep 28 15:58	11°♊33'28		morning set	13705 Sep 11 10:49	24°♊06'33	
max. Earth dist.	13704 Oct 02 21:41	19°♊55'01	1.33713 AU		13705 Sep 14 14:38	0°♊	
asc. node	13704 Oct 03 09:13	20°♊53'31		max. Earth dist.	13705 Sep 15 03:16	1°♊00'08	1.35581 AU
				asc. node	13705 Sep 20 05:48	11°♊00'39	
superior conj	13704 Oct 07 05:14	28°♊49'54	0°35'38				
minimum elong	13704 Oct 07 03:30	28°♊40'49	0°35'44	superior conj	13705 Sep 20 23:02	12°♊27'28	0°06'45
	13704 Oct 07 18:32	0°♊		minimum elong	13705 Sep 20 22:38	12°♊25'27	0°06'47
evening rise	13704 Oct 14 10:45	14°♊13'11		behind sun begin	13705 Sep 20 17:01	11°♊57'06	
	13704 Oct 22 08:37	0°♊		behind sun end	13705 Sep 21 04:15	12°♊53'53	
evening max el	13704 Nov 03 20:10	17°♊45'44	21°43'36	evening rise	13705 Sep 28 18:21	28°♊31'27	
desc. node	13704 Nov 05 04:10	19°♊00'19			13705 Sep 29 11:35	0°♊	
retrograde	13704 Nov 16 05:00	23°♊53'43		evening max el	13705 Oct 16 20:48	28°♊23'13	20°17'43
evening set	13704 Nov 19 05:39	23°♊33'02			13705 Oct 18 15:02	0°♊	
inferior conj	13704 Nov 28 00:42	19°♊39'25	-5°43'31	desc. node	13705 Oct 23 01:33	2°♊48'03	
minimum elong	13704 Nov 27 18:36	19°♊47'59	5°41'45	retrograde	13705 Oct 27 16:32	3°♊46'07	
min. Earth dist.	13704 Nov 27 23:34	19°♊41'01	0.54513 AU	evening set	13705 Oct 29 19:23	3°♊34'42	
morning rise	13704 Dec 06 08:26	15°♊51'36			13705 Nov 07 03:19	30°♊♊	
direct	13704 Dec 10 00:38	15°♊22'04		inferior conj	13705 Nov 07 18:02	29°♊38'22	-4°34'40
morning max el	13704 Dec 22 11:39	21°♊20'41	22°06'47	minimum elong	13705 Nov 07 07:56	29°♊53'15	4°31'00
	13704 Dec 29 17:15	0°♊		min. Earth dist.	13705 Nov 09 06:51	28°♊44'07	0.54781 AU
asc. node	13704 Dec 30 09:45	1°♊00'12		morning rise	13705 Nov 15 19:44	25°♊35'03	
morning set	13705 Jan 12 19:06	25°♊44'14		direct	13705 Nov 20 10:41	24°♊48'51	
	13705 Jan 14 19:17	0°♊			13705 Dec 02 08:16	0°♊	
				morning max el	13705 Dec 03 22:40	1°♊26'01	23°54'57
superior conj	13705 Jan 19 21:06	10°♊49'03	1°26'40	asc. node	13705 Dec 17 06:51	19°♊07'56	
minimum elong	13705 Jan 19 23:06	10°♊59'38	1°27'21		13705 Dec 23 04:58	0°♊	
max. Earth dist.	13705 Jan 23 19:49	19°♊00'30	1.34289 AU	morning set	13705 Dec 28 07:00	10°♊29'48	
evening rise	13705 Jan 28 04:08	27°♊37'17					
	13705 Jan 29 10:02	0°♊		superior conj	13706 Jan 04 03:08	25°♊22'43	1°35'31
desc. node	13705 Feb 01 03:42	5°♊05'03		minimum elong	13706 Jan 04 04:08	25°♊28'11	1°36'28
	13705 Feb 16 09:50	0°♊			13706 Jan 06 06:29	0°♊	
evening max el	13705 Mar 04 03:44	19°♊25'15	26°56'20	max. Earth dist.	13706 Jan 06 17:01	0°♊56'17	1.32792 AU
retrograde	13705 Mar 17 11:16	26°♊51'57		evening rise	13706 Jan 11 17:28	11°♊21'20	
evening set	13705 Mar 23 23:52	24°♊19'41		desc. node	13706 Jan 19 00:24	25°♊14'10	
min. Earth dist.	13705 Mar 27 23:12	20°♊26'03	0.65823 AU		13706 Jan 21 17:26	0°♊	
asc. node	13705 Mar 28 06:38	20°♊04'58			13706 Feb 11 22:46	0°♊	
inferior conj	13705 Mar 30 02:34	17°♊57'46	0°34'39	evening max el	13706 Feb 14 16:44	2°♊47'48	27°28'28
minimum elong	13705 Mar 30 01:39	18°♊00'25	0°34'05	retrograde	13706 Feb 28 09:45	10°♊15'01	
morning rise	13705 Apr 05 04:50	12°♊22'46		evening set	13706 Mar 07 05:05	7°♊47'17	
direct	13705 Apr 08 01:14	11°♊38'28		min. Earth dist.	13706 Mar 11 00:38	4°♊24'25	0.64054 AU
morning max el	13705 Apr 14 09:55	14°♊58'42	18°07'35	inferior conj	13706 Mar 13 15:27	1°♊40'10	-0°29'40
	13705 Apr 25 10:21	0°♊		minimum elong	13706 Mar 13 16:22	1°♊37'46	0°29'12
desc. node	13705 Apr 30 06:04	7°♊42'53		asc. node	13706 Mar 15 04:06	0°♊06'04	
morning set	13705 May 03 05:20	12°♊30'51			13706 Mar 15 06:33	30°♊♊	
	13705 May 14 03:24	0°♊		morning rise	13706 Mar 20 05:48	26°♊19'20	
				direct	13706 Mar 22 17:40	25°♊48'02	
superior conj	13705 May 18 04:56	6°♊24'09	-1°52'31	morning max el	13706 Mar 29 03:15	29°♊05'41	17°48'58
minimum elong	13705 May 17 20:08	5°♊49'35	1°52'43		13706 Mar 30 00:25	0°♊	
max. Earth dist.	13705 May 20 12:30	10°♊01'41	1.45785 AU	morning set	13706 Apr 14 23:15	24°♊25'21	
	13705 Jun 02 08:59	0°♊		desc. node	13706 Apr 17 02:42	28°♊02'37	

	13706 Apr 18 06:36	0°♄		minimum elong	13707 Apr 08 20:57	26°♄56'38	0°38'53
superior conj	13706 Apr 28 03:17	16°♄15'35	-1°18'44	max. Earth dist.	13707 Apr 10 16:35	0°♄	
minimum elong	13706 Apr 27 19:27	15°♄43'58	1°18'27	evening rise	13707 Apr 16 00:40	8°♄46'17	1.43750 AU
max. Earth dist.	13706 May 03 07:55	24°♄33'14	1.45103 AU		13707 Apr 23 10:01	20°♄28'29	
	13706 May 06 19:06	0°♄			13707 Apr 29 15:30	0°♄	
evening rise	13706 May 13 19:14	10°♄49'40		evening max el	13707 May 21 05:03	0°♄	
	13706 May 26 13:19	0°♄		asc. node	13707 May 24 10:30	3°♄31'37	21°25'21
evening max el	13706 Jun 10 12:57	19°♄42'06	20°15'12	retrograde	13707 May 28 22:25	7°♄15'22	
asc. node	13706 Jun 11 01:19	20°♄12'29		evening set	13707 Jun 02 07:20	8°♄42'19	
retrograde	13706 Jun 18 08:42	24°♄10'46		inferior conj	13707 Jun 06 17:52	6°♄53'58	
evening set	13706 Jun 22 08:40	22°♄39'02		minimum elong	13707 Jun 11 23:50	0°♄39'40	3°07'50
inferior conj	13706 Jun 27 15:19	16°♄35'58	3°12'03	min. Earth dist.	13707 Jun 12 23:01	0°♄42'32	3°06'44
minimum elong	13706 Jun 27 15:27	16°♄35'29	3°11'01		13707 Jun 12 05:59	0°♄18'12	0.68781 AU
min. Earth dist.	13706 Jun 28 11:00	15°♄28'48	0.68143 AU	morning rise	13707 Jun 12 11:13	30°♄♄	
morning rise	13706 Jul 02 21:56	10°♄14'17		direct	13707 Jun 17 03:57	24°♄23'06	
direct	13706 Jul 08 12:06	7°♄46'29		desc. node	13707 Jun 22 05:35	22°♄11'23	
desc. node	13706 Jul 14 02:46	9°♄43'14		morning max el	13707 Jul 01 00:00	26°♄52'34	
morning max el	13706 Jul 19 21:21	14°♄35'41	24°24'13		13707 Jul 02 08:26	28°♄11'06	22°54'39
	13706 Aug 01 11:20	0°♄			13707 Jul 04 01:55	0°♄	
	13706 Aug 21 01:39	0°♄		morning set	13707 Jul 26 03:08	0°♄	
morning set	13706 Aug 24 11:30	5°♄49'38		max. Earth dist.	13707 Aug 05 13:37	16°♄32'50	
max. Earth dist.	13706 Aug 28 02:17	12°♄13'24	1.37813 AU		13707 Aug 10 01:05	24°♄04'00	1.40172 AU
					13707 Aug 13 11:10	0°♄	
superior conj	13706 Sep 04 05:26	25°♄31'06	-0°26'20	superior conj	13707 Aug 17 20:27	7°♄51'40	-1°01'30
minimum elong	13706 Sep 04 07:14	25°♄39'45	0°26'12	minimum elong	13707 Aug 18 01:03	8°♄12'39	1°01'16
	13706 Sep 06 12:48	0°♄		asc. node	13707 Aug 24 22:55	21°♄07'48	
asc. node	13706 Sep 07 02:21	1°♄06'29		evening rise	13707 Aug 27 14:42	26°♄11'45	
evening rise	13706 Sep 12 20:40	12°♄33'26			13707 Aug 29 14:46	0°♄	
	13706 Sep 22 04:49	0°♄		evening max el	13707 Sep 12 14:09	21°♄58'46	18°29'26
evening max el	13706 Sep 29 11:36	9°♄48'02	19°12'40	retrograde	13707 Sep 20 09:59	25°♄56'07	
retrograde	13706 Oct 08 15:47	14°♄23'53		evening set	13707 Sep 22 09:50	25°♄41'28	
desc. node	13706 Oct 09 23:01	14°♄18'41		desc. node	13707 Sep 26 20:32	23°♄37'22	
evening set	13706 Oct 10 12:26	14°♄13'20		inferior conj	13707 Sep 30 04:59	21°♄09'52	-1°03'47
inferior conj	13706 Oct 19 01:00	10°♄02'05	-2°50'58	minimum elong	13707 Sep 30 02:29	21°♄14'46	1°02'29
minimum elong	13706 Oct 18 17:43	10°♄14'16	2°47'39	min. Earth dist.	13707 Oct 03 10:40	18°♄38'37	0.57774 AU
min. Earth dist.	13706 Oct 21 17:34	8°♄14'22	0.55940 AU	morning rise	13707 Oct 07 15:40	15°♄56'36	
morning rise	13706 Oct 26 20:28	5°♄26'38		direct	13707 Oct 13 18:15	14°♄21'38	
direct	13706 Nov 01 07:25	4°♄18'19		morning max el	13707 Oct 28 01:36	21°♄54'50	27°01'37
morning max el	13706 Nov 15 09:02	11°♄26'28	25°39'24		13707 Nov 04 04:38	0°♄	
	13706 Nov 29 14:16	0°♄		asc. node	13707 Nov 21 00:45	27°♄11'06	
asc. node	13706 Dec 04 03:51	7°♄54'58			13707 Nov 22 11:15	0°♄	
morning set	13706 Dec 12 18:29	25°♄10'07		morning set	13707 Nov 27 03:51	9°♄40'42	
	13706 Dec 14 23:50	0°♄					
superior conj	13706 Dec 19 12:53	10°♄03'37	1°38'07	superior conj	13707 Dec 04 00:21	24°♄46'10	1°34'44
minimum elong	13706 Dec 19 12:48	10°♄03'07	1°39'10	minimum elong	13707 Dec 03 23:15	24°♄40'02	1°35'43
max. Earth dist.	13706 Dec 20 21:04	13°♄01'31	1.31769 AU	max. Earth dist.	13707 Dec 04 04:54	25°♄11'39	1.31245 AU
evening rise	13706 Dec 26 15:34	25°♄25'55		evening rise	13707 Dec 06 08:38	0°♄	
	13706 Dec 28 21:08	0°♄			13707 Dec 10 19:55	9°♄44'53	
desc. node	13707 Jan 05 21:10	15°♄03'13		desc. node	13707 Dec 21 04:29	0°♄	
	13707 Jan 15 05:49	0°♄		evening max el	13707 Dec 23 18:02	4°♄24'22	
evening max el	13707 Jan 28 02:48	15°♄37'04	27°30'59		13708 Jan 10 07:09	27°♄40'45	26°59'28
retrograde	13707 Feb 11 00:26	22°♄58'20		retrograde	13708 Jan 12 22:36	0°♄	
evening set	13707 Feb 17 22:09	20°♄42'28		evening set	13708 Jan 24 06:18	4°♄53'26	
min. Earth dist.	13707 Feb 21 16:19	17°♄45'22	0.62011 AU	min. Earth dist.	13708 Jan 30 23:44	2°♄57'17	
inferior conj	13707 Feb 24 16:27	14°♄57'55	-1°44'58		13708 Feb 03 21:21	0°♄17'03	0.59829 AU
minimum elong	13707 Feb 24 20:05	14°♄49'26	1°43'06	inferior conj	13708 Feb 04 06:01	30°♄♄	
asc. node	13707 Mar 02 01:35	10°♄42'22		minimum elong	13708 Feb 07 01:58	27°♄41'35	-3°08'00
morning rise	13707 Mar 03 20:50	9°♄54'24		morning rise	13708 Feb 07 08:46	27°♄27'45	3°04'52
direct	13707 Mar 06 02:00	9°♄32'31		direct	13708 Feb 14 20:58	22°♄58'27	
morning max el	13707 Mar 12 20:34	12°♄58'15	17°48'10	asc. node	13708 Feb 16 22:06	22°♄42'30	
	13707 Mar 24 11:15	0°♄		morning max el	13708 Feb 16 23:03	22°♄42'31	
morning set	13707 Mar 28 15:47	7°♄23'46			13708 Feb 24 10:22	26°♄26'45	18°06'06
desc. node	13707 Apr 03 23:16	18°♄31'40		morning set	13708 Feb 27 12:28	0°♄	
					13708 Mar 11 00:43	21°♄06'57	
superior conj	13707 Apr 09 00:41	27°♄12'25	-0°39'04		13708 Mar 15 19:26	0°♄	

superior conj	13708 Mar 20 21:38	9° $\Upsilon$ 14'17	-0°00'39	superior conj	13709 Mar 03 14:27	22° $\text{X}$ 10'38	0°32'36
minimum elong	13708 Mar 20 21:35	9° $\Upsilon$ 14'04	0°00'42	minimum elong	13709 Mar 03 16:30	22° $\text{X}$ 20'19	0°32'32
behind sun begin	13708 Mar 20 13:53	8° $\Upsilon$ 39'40		desc. node	13709 Mar 07 16:12	29° $\text{X}$ 41'51	
behind sun end	13708 Mar 21 05:18	9° $\Upsilon$ 48'22			13709 Mar 07 20:13	0° $\Upsilon$	
desc. node	13708 Mar 20 19:44	9° $\Upsilon$ 05'45		max. Earth dist.	13709 Mar 10 19:57	5° $\Upsilon$ 19'24	1.39691 AU
max. Earth dist.	13708 Mar 28 12:31	22° $\Upsilon$ 23'58	1.41873 AU	evening rise	13709 Mar 14 19:46	12° $\Upsilon$ 11'28	
	13708 Apr 02 03:29	0° $\text{Z}$			13709 Mar 25 22:49	0° $\text{Z}$	
evening rise	13708 Apr 02 16:21	0° $\text{Z}$ 51'50			13709 Apr 17 12:36	0° $\text{II}$	
	13708 Apr 22 02:39	0° $\text{II}$		evening max el	13709 Apr 18 17:27	1° $\text{II}$ 13'35	24°04'52
evening max el	13708 May 06 03:16	17° $\text{II}$ 21'27	22°43'50	retrograde	13709 Apr 29 22:05	7° $\text{II}$ 47'50	
asc. node	13708 May 14 19:38	23° $\text{II}$ 08'03		asc. node	13709 May 01 16:56	7° $\text{II}$ 33'36	
retrograde	13708 May 16 04:14	23° $\text{II}$ 16'27		evening set	13709 May 05 07:19	5° $\text{II}$ 31'24	
evening set	13708 May 21 01:57	21° $\text{II}$ 12'55		min. Earth dist.	13709 May 09 23:02	0° $\text{II}$ 07'52	0.68636 AU
inferior conj	13708 May 26 09:29	14° $\text{II}$ 49'35	2°53'02		13709 May 10 01:22	30° $\text{R}$ $\text{Z}$	
minimum elong	13708 May 26 07:53	14° $\text{II}$ 55'09	2°51'47	inferior conj	13709 May 10 18:22	29° $\text{Z}$ 02'15	2°28'02
min. Earth dist.	13708 May 26 02:43	15° $\text{II}$ 13'08	0.68941 AU	minimum elong	13709 May 10 16:18	29° $\text{Z}$ 09'18	2°26'41
morning rise	13708 May 31 13:43	8° $\text{II}$ 39'35		morning rise	13709 May 16 01:20	23° $\text{Z}$ 00'04	
direct	13708 Jun 05 02:29	6° $\text{II}$ 47'20		direct	13709 May 20 01:42	21° $\text{Z}$ 28'24	
morning max el	13708 Jun 13 23:07	11° $\text{II}$ 55'29	21°28'40	morning max el	13709 May 27 20:07	25° $\text{Z}$ 50'51	20°12'52
desc. node	13708 Jun 16 21:05	15° $\text{II}$ 04'24			13709 May 31 13:58	0° $\text{II}$	
	13708 Jun 28 05:22	0° $\text{Z}$		desc. node	13709 Jun 03 18:02	4° $\text{II}$ 01'57	
morning set	13708 Jul 15 14:45	26° $\text{Z}$ 10'49			13709 Jun 21 14:06	0° $\text{Z}$	
	13708 Jul 18 00:25	0° $\Omega$		morning set	13709 Jun 24 20:14	4° $\text{Z}$ 59'28	
max. Earth dist.	13708 Jul 22 04:25	6° $\Omega$ 45'19	1.42378 AU	max. Earth dist.	13709 Jul 04 14:18	20° $\text{Z}$ 16'25	1.44178 AU
superior conj	13708 Jul 29 15:34	19° $\Omega$ 18'51	-1°35'08	superior conj	13709 Jul 10 11:23	29° $\text{Z}$ 46'43	-2°01'30
minimum elong	13708 Jul 29 22:31	19° $\Omega$ 48'50	1°35'05	minimum elong	13709 Jul 10 17:53	0° $\Omega$ 13'24	2°02'02
	13708 Aug 04 17:25	0° $\text{II}$			13709 Jul 10 14:37	0° $\Omega$	
evening rise	13708 Aug 09 20:27	9° $\text{II}$ 15'43		evening rise	13709 Jul 23 09:04	21° $\Omega$ 33'36	
asc. node	13708 Aug 10 19:30	11° $\text{II}$ 00'22			13709 Jul 28 06:44	0° $\text{II}$	
	13708 Aug 22 01:46	0° $\Omega$		asc. node	13709 Jul 28 16:09	0° $\text{II}$ 40'05	
evening max el	13708 Aug 26 00:23	4° $\Omega$ 46'16	18°06'53	evening max el	13709 Aug 09 14:21	18° $\text{II}$ 01'16	18°03'38
retrograde	13708 Sep 01 22:16	8° $\Omega$ 18'15		retrograde	13709 Aug 16 00:51	21° $\text{II}$ 21'57	
evening set	13708 Sep 04 05:14	7° $\Omega$ 55'19		evening set	13709 Aug 18 16:07	20° $\text{II}$ 47'12	
inferior conj	13708 Sep 11 06:14	3° $\Omega$ 03'18	0°27'29	inferior conj	13709 Aug 25 01:32	15° $\text{II}$ 36'25	1°36'35
minimum elong	13708 Sep 11 07:07	3° $\Omega$ 01'17	0°27'05	minimum elong	13709 Aug 25 03:52	15° $\text{II}$ 30'21	1°35'28
desc. node	13708 Sep 12 18:04	1° $\Omega$ 41'06		min. Earth dist.	13709 Aug 27 23:01	12° $\text{II}$ 36'48	0.62276 AU
min. Earth dist.	13708 Sep 14 12:11	0° $\Omega$ 06'50	0.59986 AU	desc. node	13709 Aug 30 15:36	10° $\text{II}$ 10'18	
	13708 Sep 14 15:21	30° $\text{R}$ $\text{II}$		morning rise	13709 Aug 31 13:15	9° $\text{II}$ 29'11	
morning rise	13708 Sep 18 05:46	27° $\text{II}$ 17'53		direct	13709 Sep 07 05:38	7° $\text{II}$ 05'21	
direct	13708 Sep 24 18:26	25° $\text{II}$ 15'50		morning max el	13709 Sep 21 08:13	15° $\text{II}$ 05'53	27°57'02
	13708 Oct 05 14:21	0° $\Omega$			13709 Oct 03 11:50	0° $\Omega$	
morning max el	13708 Oct 09 01:52	3° $\Omega$ 07'19	27°48'54		13709 Oct 21 09:33	0° $\text{II}$	
	13708 Oct 28 19:03	0° $\text{II}$		asc. node	13709 Oct 24 18:12	6° $\text{II}$ 39'12	
asc. node	13708 Nov 06 21:32	16° $\text{II}$ 47'57		morning set	13709 Oct 25 08:33	7° $\text{II}$ 52'15	
morning set	13708 Nov 10 09:14	23° $\text{II}$ 56'35		max. Earth dist.	13709 Oct 30 17:10	19° $\text{II}$ 11'07	1.31774 AU
	13708 Nov 13 05:15	0° $\text{Z}$					
max. Earth dist.	13708 Nov 16 12:52	7° $\text{Z}$ 18'01	1.31237 AU	superior conj	13709 Nov 01 20:55	23° $\text{II}$ 53'53	1°10'36
superior conj	13708 Nov 17 11:39	9° $\text{Z}$ 24'47	1°25'32	minimum elong	13709 Nov 01 18:39	23° $\text{II}$ 41'26	1°11'03
minimum elong	13708 Nov 17 09:47	9° $\text{Z}$ 14'22	1°26'18		13709 Nov 04 15:17	0° $\text{Z}$	
evening rise	13708 Nov 24 04:23	24° $\text{Z}$ 12'45		evening rise	13709 Nov 08 15:04	8° $\text{Z}$ 44'16	
	13708 Nov 26 22:02	0° $\text{Z}$			13709 Nov 19 10:34	0° $\text{Z}$	
desc. node	13708 Dec 09 15:01	23° $\text{Z}$ 06'57		desc. node	13709 Nov 26 12:07	10° $\text{Z}$ 55'40	
	13708 Dec 14 09:42	0° $\approx$		evening max el	13709 Dec 03 16:22	19° $\text{Z}$ 16'34	24°22'40
evening max el	13708 Dec 22 03:39	8° $\approx$ 52'32	25°54'15	retrograde	13709 Dec 17 08:44	26° $\text{Z}$ 05'44	
retrograde	13709 Jan 05 01:55	15° $\approx$ 55'13		evening set	13709 Dec 22 12:34	25° $\text{Z}$ 07'17	
evening set	13709 Jan 11 05:52	14° $\approx$ 26'08		min. Earth dist.	13709 Dec 28 04:00	22° $\text{Z}$ 15'42	0.55932 AU
min. Earth dist.	13709 Jan 15 16:33	11° $\approx$ 49'00	0.57709 AU	inferior conj	13709 Dec 30 10:20	20° $\text{Z}$ 51'49	-5°34'40
inferior conj	13709 Jan 18 16:36	9° $\approx$ 42'06	-4°30'12	minimum elong	13709 Dec 30 17:05	20° $\text{Z}$ 41'22	5°32'38
minimum elong	13709 Jan 19 01:26	9° $\approx$ 26'29	4°26'50	morning rise	13710 Jan 07 23:33	16° $\text{Z}$ 50'50	
morning rise	13709 Jan 26 23:53	5° $\approx$ 20'53		direct	13710 Jan 10 09:47	16° $\text{Z}$ 35'15	
direct	13709 Jan 29 01:37	5° $\approx$ 07'16		morning max el	13710 Jan 20 11:34	21° $\text{Z}$ 26'24	19°45'30
asc. node	13709 Feb 02 20:28	6° $\approx$ 24'38		asc. node	13710 Jan 20 17:48	21° $\text{Z}$ 41'38	
morning max el	13709 Feb 06 16:47	9° $\approx$ 20'31	18°44'32		13710 Jan 27 06:01	0° $\approx$	
	13709 Feb 20 02:41	0° $\text{X}$		morning set	13710 Feb 07 01:10	19° $\approx$ 52'53	
morning set	13709 Feb 22 21:08	5° $\text{X}$ 20'44			13710 Feb 12 00:54	0° $\text{X}$	

superior conj	13710 Feb 14 22:23	5° $\text{H}$ 47'18	0°59'07	morning set	13711 Jan 22 09:58	4° $\approx$ 35'15	
minimum elong	13710 Feb 15 01:07	6° $\text{H}$ 00'50	0°59'16				
max. Earth dist.	13710 Feb 21 02:16	17° $\text{H}$ 36'58	1.37440 AU	superior conj	13711 Jan 29 17:25	19° $\approx$ 53'11	1°18'35
desc. node	13710 Feb 22 12:42	20° $\text{H}$ 15'32		minimum elong	13711 Jan 29 19:51	20° $\approx$ 05'48	1°19'04
evening rise	13710 Feb 24 19:33	24° $\text{H}$ 22'42		max. Earth dist.	13711 Feb 03 12:07	29° $\approx$ 32'45	1.35350 AU
	13710 Feb 28 00:51	0° $\text{Y}$			13711 Feb 03 17:39	0° $\text{H}$	
	13710 Mar 19 14:51	0° $\text{B}$		evening rise	13711 Feb 07 12:38	7° $\text{H}$ 16'42	
evening max el	13710 Apr 01 07:01	15° $\text{B}$ 06'37	25°21'41	desc. node	13711 Feb 09 09:16	10° $\text{H}$ 43'14	
retrograde	13710 Apr 13 11:35	22° $\text{B}$ 09'53			13711 Feb 20 18:05	0° $\text{Y}$	
asc. node	13710 Apr 18 14:19	20° $\text{B}$ 19'28		evening max el	13711 Mar 14 20:47	28° $\text{Y}$ 55'12	26°26'55
evening set	13710 Apr 19 08:22	19° $\text{B}$ 43'44			13711 Mar 16 00:09	0° $\text{B}$	
min. Earth dist.	13710 Apr 23 16:46	14° $\text{B}$ 56'06	0.67879 AU	retrograde	13711 Mar 27 19:53	6° $\text{B}$ 15'55	
inferior conj	13710 Apr 25 00:33	13° $\text{B}$ 13'07	1°52'39	evening set	13711 Apr 03 03:22	3° $\text{B}$ 44'16	
minimum elong	13710 Apr 24 22:27	13° $\text{B}$ 19'59	1°51'22	asc. node	13711 Apr 05 11:46	1° $\text{B}$ 30'34	
morning rise	13710 Apr 30 12:54	7° $\text{B}$ 20'06			13711 Apr 06 20:02	30° $\text{R}$ $\text{Y}$	
direct	13710 May 04 01:39	6° $\text{B}$ 08'28		min. Earth dist.	13711 Apr 07 05:40	29° $\text{Y}$ 31'38	0.66692 AU
morning max el	13710 May 11 00:38	9° $\text{B}$ 56'22	19°11'21	inferior conj	13711 Apr 09 01:58	27° $\text{Y}$ 17'34	1°06'26
desc. node	13710 May 21 14:52	23° $\text{B}$ 32'35		minimum elong	13711 Apr 09 00:24	27° $\text{Y}$ 22'19	1°05'29
greatest brilliancy	13710 May 23 22:16	26° $\text{B}$ 57'03	-0.7m	morning rise	13711 Apr 14 22:24	21° $\text{Y}$ 35'30	
	13710 May 25 23:02	0° $\text{II}$		direct	13711 Apr 18 00:31	20° $\text{Y}$ 41'57	
morning set	13710 Jun 03 23:43	13° $\text{II}$ 48'35		morning max el	13711 Apr 24 11:59	24° $\text{Y}$ 08'22	18°26'02
	13710 Jun 14 10:12	0° $\text{B}$			13711 Apr 29 10:44	0° $\text{B}$	
max. Earth dist.	13710 Jun 17 06:13	4° $\text{B}$ 26'16	1.45373 AU	desc. node	13711 May 08 11:37	13° $\text{B}$ 27'26	
				morning set	13711 May 14 21:59	23° $\text{B}$ 36'03	
superior conj	13710 Jun 20 08:45	9° $\text{B}$ 19'51	-2°13'28		13711 May 18 23:15	0° $\text{II}$	
minimum elong	13710 Jun 20 09:48	9° $\text{B}$ 23'56	2°14'31				
	13710 Jul 03 05:06	0° $\text{B}$		superior conj	13711 May 30 17:14	18° $\text{II}$ 24'54	-2°05'45
evening rise	13710 Jul 04 23:32	2° $\text{B}$ 53'53		minimum elong	13711 May 30 10:45	17° $\text{II}$ 59'35	2°06'25
asc. node	13710 Jul 15 12:54	20° $\text{B}$ 01'34		max. Earth dist.	13711 May 31 01:56	18° $\text{II}$ 58'51	1.45854 AU
	13710 Jul 22 17:08	0° $\text{B}$			13711 Jun 07 03:15	0° $\text{B}$	
evening max el	13710 Jul 24 04:33	1° $\text{B}$ 34'34	18°18'43	evening rise	13711 Jun 15 13:23	13° $\text{B}$ 13'02	
retrograde	13710 Jul 30 13:30	4° $\text{B}$ 58'02		greatest brilliancy	13711 Jun 24 19:46	27° $\text{B}$ 44'51	-0.8m
evening set	13710 Aug 02 13:21	4° $\text{B}$ 08'51			13711 Jun 26 06:54	0° $\text{B}$	
	13710 Aug 07 07:12	30° $\text{R}$ $\text{B}$		asc. node	13711 Jul 02 09:44	8° $\text{B}$ 57'26	
inferior conj	13710 Aug 08 10:49	28° $\text{B}$ 41'13	2°24'29	evening max el	13711 Jul 07 16:00	15° $\text{B}$ 17'45	18°51'17
minimum elong	13710 Aug 08 13:13	28° $\text{B}$ 34'16	2°23'16	retrograde	13711 Jul 14 08:23	18° $\text{B}$ 57'25	
min. Earth dist.	13710 Aug 10 19:21	25° $\text{B}$ 58'09	0.64393 AU	evening set	13711 Jul 17 17:07	17° $\text{B}$ 52'13	
morning rise	13710 Aug 14 11:38	22° $\text{B}$ 21'51		inferior conj	13711 Jul 23 06:18	12° $\text{B}$ 09'30	2°54'22
desc. node	13710 Aug 17 13:05	20° $\text{B}$ 29'03		minimum elong	13711 Jul 23 08:01	12° $\text{B}$ 04'06	2°53'16
direct	13710 Aug 21 01:36	19° $\text{B}$ 45'11		min. Earth dist.	13711 Jul 25 00:22	9° $\text{B}$ 57'17	0.66182 AU
morning max el	13710 Sep 03 18:13	27° $\text{B}$ 43'46	27°29'00	morning rise	13711 Jul 28 22:06	5° $\text{B}$ 45'19	
	13710 Sep 05 22:02	0° $\text{B}$		direct	13711 Aug 04 04:59	3° $\text{B}$ 05'30	
	13710 Sep 27 05:35	0° $\text{B}$		desc. node	13711 Aug 04 10:34	3° $\text{B}$ 05'42	
morning set	13710 Oct 08 23:23	21° $\text{B}$ 22'18		morning max el	13711 Aug 17 05:29	10° $\text{B}$ 49'18	26°31'41
asc. node	13710 Oct 11 14:49	26° $\text{B}$ 40'11			13711 Sep 01 11:11	0° $\text{B}$	
	13710 Oct 13 05:41	0° $\text{B}$			13711 Sep 19 18:54	0° $\text{B}$	
max. Earth dist.	13710 Oct 13 14:23	0° $\text{B}$ 45'13	1.32857 AU	morning set	13711 Sep 22 02:34	4° $\text{B}$ 18'29	
				max. Earth dist.	13711 Sep 26 02:03	11° $\text{B}$ 59'08	1.34459 AU
superior conj	13710 Oct 17 02:09	8° $\text{B}$ 08'21	0°50'01	asc. node	13711 Sep 28 11:24	16° $\text{B}$ 45'58	
minimum elong	13710 Oct 17 00:01	7° $\text{B}$ 56'59	0°50'12				
evening rise	13710 Oct 24 02:08	23° $\text{B}$ 15'16		superior conj	13711 Oct 01 00:53	22° $\text{B}$ 01'00	0°23'59
	13710 Oct 27 07:19	0° $\text{B}$		minimum elong	13711 Sep 30 23:37	21° $\text{B}$ 54'26	0°24'01
desc. node	13710 Nov 13 09:21	27° $\text{B}$ 31'03			13711 Oct 04 20:20	0° $\text{B}$	
evening max el	13710 Nov 15 02:28	29° $\text{B}$ 17'06	22°40'14	evening rise	13711 Oct 08 11:35	7° $\text{B}$ 39'38	
	13710 Nov 15 20:35	0° $\text{B}$			13711 Oct 20 08:50	0° $\text{B}$	
retrograde	13710 Nov 28 02:28	5° $\text{B}$ 44'01		evening max el	13711 Oct 27 19:24	9° $\text{B}$ 30'59	21°04'38
evening set	13710 Dec 01 21:59	5° $\text{B}$ 12'18		desc. node	13711 Oct 31 06:42	12° $\text{B}$ 27'30	
min. Earth dist.	13710 Dec 09 10:43	1° $\text{B}$ 47'36	0.54794 AU	retrograde	13711 Nov 08 13:20	15° $\text{B}$ 21'15	
inferior conj	13710 Dec 10 09:53	1° $\text{B}$ 14'49	-5°57'11	evening set	13711 Nov 11 02:56	15° $\text{B}$ 05'42	
minimum elong	13710 Dec 10 08:51	1° $\text{B}$ 16'17	5°56'06	inferior conj	13711 Nov 20 01:11	11° $\text{B}$ 12'13	-5°20'29
	13710 Dec 12 15:41	30° $\text{R}$ $\text{B}$		minimum elong	13711 Nov 19 16:24	11° $\text{B}$ 24'38	5°17'50
morning rise	13710 Dec 18 21:02	27° $\text{B}$ 26'52		min. Earth dist.	13711 Nov 20 16:35	10° $\text{B}$ 50'25	0.54514 AU
direct	13710 Dec 22 00:55	27° $\text{B}$ 03'58		morning rise	13711 Nov 28 06:19	7° $\text{B}$ 20'41	
	13710 Dec 30 11:36	0° $\text{B}$		direct	13711 Dec 02 08:21	6° $\text{B}$ 44'56	
morning max el	13711 Jan 02 15:54	2° $\text{B}$ 37'29	21°09'30	morning max el	13711 Dec 15 07:23	13° $\text{B}$ 00'05	22°52'13
asc. node	13711 Jan 07 15:02	8° $\text{B}$ 18'03		asc. node	13711 Dec 25 12:11	25° $\text{B}$ 56'31	
	13711 Jan 20 04:30	0° $\approx$			13711 Dec 27 23:12	0° $\text{B}$	

morning set	13712 Jan 06 21:17	19° $\text{♁}$ 21'07		morning rise	13712 Nov 06 22:06	17° $\text{♁}$ 02'40	
	13712 Jan 11 20:03	0° $\text{♁}$		direct	13712 Nov 11 21:43	16° $\text{♁}$ 07'52	
				morning max el	13712 Nov 25 17:14	22° $\text{♁}$ 59'37	24°41'06
superior conj	13712 Jan 13 20:12	4° $\text{♁}$ 18'52	1°31'13		13712 Dec 01 23:13	0° $\text{♁}$	
minimum elong	13712 Jan 13 21:49	4° $\text{♁}$ 27'29	1°32'01	asc. node	13712 Dec 11 09:13	14° $\text{♁}$ 22'14	
max. Earth dist.	13712 Jan 17 04:49	11° $\text{♁}$ 24'34	1.33594 AU		13712 Dec 19 10:58	0° $\text{♁}$	
evening rise	13712 Jan 21 19:29	20° $\text{♁}$ 44'25		morning set	13712 Dec 21 09:10	4° $\text{♁}$ 04'59	
	13712 Jan 26 16:38	0° $\text{♁}$					
desc. node	13712 Jan 27 05:55	1° $\text{♁}$ 00'35		superior conj	13712 Dec 28 04:04	18° $\text{♁}$ 56'29	1°37'22
	13712 Feb 14 16:14	0° $\text{♁}$		minimum elong	13712 Dec 28 04:36	18° $\text{♁}$ 59'28	1°38'23
evening max el	13712 Feb 25 10:16	12° $\text{♁}$ 29'57	27°13'13	max. Earth dist.	13712 Dec 30 04:58	23° $\text{♁}$ 23'21	1.32288 AU
retrograde	13712 Mar 09 22:13	19° $\text{♁}$ 57'50			13713 Jan 02 07:12	0° $\text{♁}$	
evening set	13712 Mar 16 14:19	17° $\text{♁}$ 26'22		evening rise	13713 Jan 04 12:49	4° $\text{♁}$ 37'47	
min. Earth dist.	13712 Mar 20 11:44	13° $\text{♁}$ 46'38	0.65110 AU	desc. node	13713 Jan 13 02:39	21° $\text{♁}$ 01'58	
asc. node	13712 Mar 22 09:14	11° $\text{♁}$ 40'44			13713 Jan 18 09:11	0° $\text{♁}$	
inferior conj	13712 Mar 22 20:14	11° $\text{♁}$ 10'03	0°08'47	evening max el	13713 Feb 06 22:03	25° $\text{♁}$ 39'07	27°33'32
minimum elong	13712 Mar 22 19:59	11° $\text{♁}$ 10'45	0°08'36		13713 Feb 12 05:07	0° $\text{♁}$	
transit middle	13712 Mar 22 19:59	11° $\text{♁}$ 10'45	0°08'36	retrograde	13713 Feb 20 17:45	3° $\text{♁}$ 05'26	
transit begin	13712 Mar 22 17:25	11° $\text{♁}$ 17'51		evening set	13713 Feb 27 14:45	0° $\text{♁}$ 41'29	
transit end	13712 Mar 22 22:32	11° $\text{♁}$ 03'38			13713 Feb 28 13:15	30° $\text{♁}$	
morning rise	13712 Mar 29 03:22	5° $\text{♁}$ 41'02		min. Earth dist.	13713 Mar 03 09:08	27° $\text{♁}$ 30'34	0.63203 AU
direct	13712 Mar 31 19:59	5° $\text{♁}$ 02'40		inferior conj	13713 Mar 06 04:27	24° $\text{♁}$ 42'52	-1°00'24
morning max el	13712 Apr 07 04:02	8° $\text{♁}$ 20'11	17°57'38	minimum elong	13713 Mar 06 06:25	24° $\text{♁}$ 37'56	0°59'23
	13712 Apr 22 02:51	0° $\text{♁}$		asc. node	13713 Mar 09 06:44	21° $\text{♁}$ 49'01	
desc. node	13712 Apr 24 08:16	3° $\text{♁}$ 39'54		morning rise	13713 Mar 13 00:37	19° $\text{♁}$ 29'21	
morning set	13712 Apr 25 00:20	4° $\text{♁}$ 46'06		direct	13713 Mar 15 09:16	19° $\text{♁}$ 02'38	
				morning max el	13713 Mar 21 21:49	22° $\text{♁}$ 22'36	17°46'28
superior conj	13712 May 09 06:06	27° $\text{♁}$ 48'47	-1°39'28		13713 Mar 27 21:16	0° $\text{♁}$	
minimum elong	13712 May 08 21:03	27° $\text{♁}$ 12'54	1°39'24	morning set	13713 Apr 07 04:37	17° $\text{♁}$ 09'58	
	13712 May 10 15:18	0° $\text{♁}$		desc. node	13713 Apr 11 04:50	24° $\text{♁}$ 04'04	
max. Earth dist.	13712 May 12 22:13	3° $\text{♁}$ 35'55	1.45580 AU		13713 Apr 14 16:38	0° $\text{♁}$	
evening rise	13712 May 25 07:16	22° $\text{♁}$ 47'18					
	13712 May 30 00:18	0° $\text{♁}$		superior conj	13713 Apr 19 13:45	8° $\text{♁}$ 07'18	-1°02'09
greatest brilliancy	13712 Jun 08 05:50	13° $\text{♁}$ 52'21	-0.6m	minimum elong	13713 Apr 19 07:32	7° $\text{♁}$ 41'45	1°01'51
asc. node	13712 Jun 18 06:42	27° $\text{♁}$ 19'20		max. Earth dist.	13713 Apr 25 16:14	17° $\text{♁}$ 59'43	1.44594 AU
evening max el	13712 Jun 19 22:38	29° $\text{♁}$ 05'46	19°40'15		13713 May 03 08:03	0° $\text{♁}$	
	13712 Jun 20 21:16	0° $\text{♁}$		evening rise	13713 May 04 18:22	2° $\text{♁}$ 12'06	
retrograde	13712 Jun 27 06:32	3° $\text{♁}$ 13'57			13713 May 23 13:51	0° $\text{♁}$	
evening set	13712 Jul 01 00:40	1° $\text{♁}$ 52'00		evening max el	13713 Jun 02 23:26	12° $\text{♁}$ 54'57	20°43'40
	13712 Jul 03 02:02	30° $\text{♁}$		asc. node	13713 Jun 05 03:46	14° $\text{♁}$ 55'09	
inferior conj	13712 Jul 06 08:51	25° $\text{♁}$ 55'48	3°09'17	retrograde	13713 Jun 11 05:31	17° $\text{♁}$ 41'17	
minimum elong	13712 Jul 06 09:35	25° $\text{♁}$ 53'21	3°08'15	evening set	13713 Jun 15 09:46	16° $\text{♁}$ 02'35	
min. Earth dist.	13712 Jul 07 12:32	24° $\text{♁}$ 23'25	0.67557 AU	inferior conj	13713 Jun 20 15:50	9° $\text{♁}$ 54'27	3°11'36
morning rise	13712 Jul 11 18:04	19° $\text{♁}$ 31'59		minimum elong	13713 Jun 20 15:33	9° $\text{♁}$ 55'27	3°10'33
direct	13712 Jul 17 14:48	16° $\text{♁}$ 57'42		min. Earth dist.	13713 Jun 21 05:44	9° $\text{♁}$ 06'25	0.68472 AU
desc. node	13712 Jul 21 07:57	17° $\text{♁}$ 49'01		morning rise	13713 Jun 25 21:03	3° $\text{♁}$ 34'26	
morning max el	13712 Jul 29 16:21	24° $\text{♁}$ 11'38	25°14'05	direct	13713 Jul 01 05:56	1° $\text{♁}$ 12'47	
	13712 Aug 03 21:16	0° $\text{♁}$		desc. node	13713 Jul 08 05:13	4° $\text{♁}$ 12'18	
	13712 Aug 24 20:58	0° $\text{♁}$		morning max el	13713 Jul 12 02:41	7° $\text{♁}$ 42'29	23°46'04
morning set	13712 Sep 03 14:15	16° $\text{♁}$ 31'59			13713 Jul 29 12:59	0° $\text{♁}$	
max. Earth dist.	13712 Sep 07 04:20	23° $\text{♁}$ 04'54	1.36501 AU	morning set	13713 Aug 16 05:54	27° $\text{♁}$ 51'30	
	13712 Sep 10 19:51	0° $\text{♁}$			13713 Aug 17 12:00	0° $\text{♁}$	
				max. Earth dist.	13713 Aug 20 01:57	4° $\text{♁}$ 29'14	1.38816 AU
superior conj	13712 Sep 13 14:15	5° $\text{♁}$ 25'00	-0°06'54				
minimum elong	13712 Sep 13 14:40	5° $\text{♁}$ 27'07	0°06'50	superior conj	13713 Aug 27 14:38	18° $\text{♁}$ 11'51	-0°41'11
behind sun begin	13712 Sep 13 08:49	4° $\text{♁}$ 58'09		minimum elong	13713 Aug 27 17:35	18° $\text{♁}$ 25'43	0°40'59
behind sun end	13712 Sep 13 20:31	5° $\text{♁}$ 56'09		asc. node	13713 Sep 01 04:33	26° $\text{♁}$ 57'48	
asc. node	13712 Sep 14 07:58	6° $\text{♁}$ 53'03			13713 Sep 02 17:57	0° $\text{♁}$	
evening rise	13712 Sep 21 17:16	21° $\text{♁}$ 51'54		evening rise	13713 Sep 05 16:29	5° $\text{♁}$ 45'05	
	13712 Sep 25 19:05	0° $\text{♁}$			13713 Sep 19 22:03	0° $\text{♁}$	
evening max el	13712 Oct 09 02:00	20° $\text{♁}$ 27'33	19°47'16	evening max el	13713 Sep 21 22:20	2° $\text{♁}$ 13'40	18°51'41
desc. node	13712 Oct 17 04:07	25° $\text{♁}$ 18'35		retrograde	13713 Sep 30 11:37	6° $\text{♁}$ 31'26	
retrograde	13712 Oct 19 04:53	25° $\text{♁}$ 30'25		evening set	13713 Oct 02 08:49	6° $\text{♁}$ 19'45	
evening set	13712 Oct 21 03:10	25° $\text{♁}$ 20'14		desc. node	13713 Oct 04 01:35	5° $\text{♁}$ 50'23	
inferior conj	13712 Oct 29 22:55	21° $\text{♁}$ 18'31	-3°52'56	inferior conj	13713 Oct 10 14:28	2° $\text{♁}$ 00'35	-2°04'24
minimum elong	13712 Oct 29 13:26	21° $\text{♁}$ 33'12	3°49'04	minimum elong	13713 Oct 10 09:15	2° $\text{♁}$ 09'54	2°01'52
min. Earth dist.	13712 Nov 01 01:10	20° $\text{♁}$ 00'47	0.55172 AU		13713 Oct 13 10:08	30° $\text{♁}$	

min. Earth dist.	13713 Oct 13 14:39	29° $\Omega$ 52'12	0.56653 AU	min. Earth dist.	13714 Sep 25 10:56	10° $\Omega$ 43'44	0.58692 AU
morning rise	13713 Oct 18 06:30	27° $\Omega$ 08'48		morning rise	13714 Sep 29 09:54	8° $\Omega$ 00'32	
direct	13713 Oct 24 00:52	25° $\Omega$ 49'08		direct	13714 Oct 05 17:48	6° $\Omega$ 13'40	
	13713 Nov 03 13:32	0° $\mathbb{M}$		morning max el	13714 Oct 20 01:19	13° $\Omega$ 54'55	27°26'25
morning max el	13713 Nov 07 05:42	3° $\mathbb{M}$ 09'28	26°17'59		13714 Nov 01 22:12	0° $\mathbb{M}$	
	13713 Nov 26 10:05	0° $\mathbb{A}$		asc. node	13714 Nov 15 03:00	22° $\mathbb{M}$ 49'12	
asc. node	13713 Nov 28 06:10	3° $\mathbb{A}$ 23'10			13714 Nov 18 16:13	0° $\mathbb{A}$	
morning set	13713 Dec 05 19:57	18° $\mathbb{A}$ 42'13		morning set	13714 Nov 20 03:50	3° $\mathbb{A}$ 07'11	
	13713 Dec 10 23:22	0° $\mathbb{B}$					
superior conj	13713 Dec 12 14:48	3° $\mathbb{B}$ 39'37	1°37'24	superior conj	13714 Nov 27 02:24	18° $\mathbb{A}$ 21'23	1°31'32
minimum elong	13713 Dec 12 14:15	3° $\mathbb{B}$ 36'38	1°38'27	minimum elong	13714 Nov 27 00:56	18° $\mathbb{A}$ 13'12	1°32'26
max. Earth dist.	13713 Dec 13 10:53	5° $\mathbb{B}$ 31'22	1.31478 AU	max. Earth dist.	13714 Nov 26 19:16	17° $\mathbb{A}$ 41'30	1.31181 AU
evening rise	13713 Dec 19 13:53	18° $\mathbb{B}$ 50'02			13714 Dec 02 08:22	0° $\mathbb{B}$	
	13713 Dec 25 02:49	0° $\approx$		evening rise	13714 Dec 03 20:15	3° $\mathbb{B}$ 13'55	
desc. node	13713 Dec 30 23:27	10° $\approx$ 40'46		desc. node	13714 Dec 17 20:22	29° $\mathbb{B}$ 47'14	
	13714 Jan 12 21:29	0° $\mathbb{X}$			13714 Dec 17 23:31	0° $\approx$	
evening max el	13714 Jan 20 06:05	8° $\mathbb{X}$ 11'07	27°21'58	evening max el	13715 Jan 02 07:32	19° $\approx$ 53'57	26°35'40
retrograde	13714 Feb 03 05:07	15° $\mathbb{X}$ 29'23		retrograde	13715 Jan 16 06:32	27° $\approx$ 01'40	
evening set	13714 Feb 10 01:41	13° $\mathbb{X}$ 21'08		evening set	13715 Jan 22 19:25	25° $\approx$ 16'39	
min. Earth dist.	13714 Feb 13 20:34	10° $\mathbb{X}$ 32'17	0.61083 AU	min. Earth dist.	13715 Jan 26 21:21	22° $\approx$ 39'29	0.58908 AU
inferior conj	13714 Feb 16 23:19	7° $\mathbb{X}$ 47'53	-2°19'35	inferior conj	13715 Jan 30 01:10	20° $\approx$ 14'34	-3°43'44
minimum elong	13714 Feb 17 04:18	7° $\mathbb{X}$ 36'53	2°17'08	minimum elong	13715 Jan 30 09:07	19° $\approx$ 59'19	3°40'20
morning rise	13714 Feb 24 09:59	2° $\mathbb{X}$ 52'33		morning rise	13715 Feb 07 01:52	15° $\approx$ 40'17	
asc. node	13714 Feb 24 04:10	2° $\mathbb{X}$ 57'01		direct	13715 Feb 09 02:37	15° $\approx$ 25'42	
direct	13714 Feb 26 12:52	2° $\mathbb{X}$ 33'44		asc. node	13715 Feb 11 01:35	15° $\approx$ 39'50	
morning max el	13714 Mar 05 14:04	6° $\mathbb{X}$ 06'30	17°53'21	morning max el	13715 Feb 17 01:07	19° $\approx$ 21'09	18°19'47
	13714 Mar 20 22:17	0° $\mathbb{Y}$			13715 Feb 24 20:39	0° $\mathbb{X}$	
morning set	13714 Mar 21 04:49	0° $\mathbb{Y}$ 29'39		morning set	13715 Mar 04 19:11	14° $\mathbb{X}$ 27'41	
desc. node	13714 Mar 29 01:22	14° $\mathbb{Y}$ 35'51			13715 Mar 13 01:21	0° $\mathbb{Y}$	
superior conj	13714 Mar 31 21:24	19° $\mathbb{Y}$ 32'31	-0°22'20	superior conj	13715 Mar 14 03:19	1° $\mathbb{Y}$ 58'51	0°14'15
minimum elong	13714 Mar 31 19:23	19° $\mathbb{Y}$ 23'49	0°22'15	minimum elong	13715 Mar 14 04:21	2° $\mathbb{Y}$ 03'35	0°14'09
	13714 Apr 07 01:59	0° $\mathbb{B}$		behind sun begin	13715 Mar 14 00:57	1° $\mathbb{Y}$ 48'03	
max. Earth dist.	13714 Apr 08 06:37	1° $\mathbb{B}$ 57'49	1.43005 AU	behind sun end	13715 Mar 14 07:45	2° $\mathbb{Y}$ 19'06	
evening rise	13714 Apr 14 14:36	12° $\mathbb{B}$ 07'30		desc. node	13715 Mar 15 21:51	5° $\mathbb{Y}$ 11'17	
	13714 Apr 26 08:55	0° $\mathbb{I}$		max. Earth dist.	13715 Mar 21 16:44	15° $\mathbb{Y}$ 19'16	1.40974 AU
evening max el	13714 May 16 18:49	26° $\mathbb{I}$ 44'50	21°58'05	evening rise	13715 Mar 26 05:41	22° $\mathbb{Y}$ 54'44	
	13714 May 20 12:08	0° $\mathbb{C}$			13715 Mar 30 15:22	0° $\mathbb{B}$	
asc. node	13714 May 23 00:55	1° $\mathbb{C}$ 30'18		evening max el	13715 Apr 20 08:26	0° $\mathbb{I}$	
retrograde	13714 May 26 03:30	2° $\mathbb{C}$ 14'19		retrograde	13715 Apr 29 10:21	10° $\mathbb{I}$ 36'18	23°18'28
evening set	13714 May 30 18:40	0° $\mathbb{C}$ 19'32		asc. node	13715 May 09 23:06	16° $\mathbb{I}$ 48'15	
	13714 May 31 03:38	30° $\mathbb{R}$ $\mathbb{I}$		evening set	13715 May 09 22:09	16° $\mathbb{I}$ 48'15	
inferior conj	13714 Jun 05 01:04	24° $\mathbb{I}$ 01'17	3°02'49	inferior conj	13715 May 15 01:47	14° $\mathbb{I}$ 38'53	
minimum elong	13714 Jun 04 23:53	24° $\mathbb{I}$ 05'25	3°01'39	minimum elong	13715 May 20 10:37	8° $\mathbb{I}$ 12'55	2°43'41
min. Earth dist.	13714 Jun 05 01:45	23° $\mathbb{I}$ 58'53	0.68910 AU	min. Earth dist.	13715 May 20 08:46	8° $\mathbb{I}$ 19'17	2°42'23
morning rise	13714 Jun 10 04:54	17° $\mathbb{I}$ 47'15		morning rise	13715 May 19 22:29	8° $\mathbb{I}$ 54'43	0.68869 AU
direct	13714 Jun 15 01:08	15° $\mathbb{I}$ 43'15		direct	13715 May 25 15:41	2° $\mathbb{I}$ 06'17	
morning max el	13714 Jun 24 14:42	21° $\mathbb{I}$ 20'42	22°17'05	morning max el	13715 May 29 23:13	0° $\mathbb{I}$ 22'37	
desc. node	13714 Jun 25 02:22	21° $\mathbb{I}$ 50'23		desc. node	13715 Jun 07 07:46	5° $\mathbb{I}$ 09'40	20°54'58
	13714 Jul 02 00:52	0° $\mathbb{C}$			13715 Jun 11 23:24	10° $\mathbb{I}$ 23'34	
	13714 Jul 22 18:51	0° $\mathbb{Q}$		morning set	13715 Jun 26 02:50	0° $\mathbb{C}$	
morning set	13714 Jul 27 21:21	8° $\mathbb{Q}$ 06'42		max. Earth dist.	13715 Jul 07 12:52	17° $\mathbb{C}$ 20'25	
max. Earth dist.	13714 Aug 02 02:01	16° $\mathbb{Q}$ 40'00	1.41148 AU		13715 Jul 15 08:43	29° $\mathbb{C}$ 46'20	1.43208 AU
					13715 Jul 15 12:05	0° $\mathbb{Q}$	
superior conj	13714 Aug 09 21:46	0° $\mathbb{P}$ 11'28	-1°16'15	superior conj	13715 Jul 22 07:20	11° $\mathbb{Q}$ 14'42	-1°47'36
minimum elong	13714 Aug 10 03:31	0° $\mathbb{P}$ 37'06	1°16'02	minimum elong	13715 Jul 22 14:37	11° $\mathbb{Q}$ 45'25	1°47'45
	13714 Aug 09 19:11	0° $\mathbb{P}$			13715 Aug 02 02:37	0° $\mathbb{P}$	
asc. node	13714 Aug 19 01:07	16° $\mathbb{P}$ 56'10		evening rise	13715 Aug 03 04:58	1° $\mathbb{P}$ 57'00	
evening rise	13714 Aug 20 05:49	19° $\mathbb{P}$ 10'12		asc. node	13715 Aug 05 21:45	6° $\mathbb{P}$ 44'33	
	13714 Aug 26 03:13	0° $\mathbb{L}$		evening max el	13715 Aug 19 17:06	27° $\mathbb{P}$ 43'04	18°03'09
evening max el	13714 Sep 05 04:46	14° $\mathbb{L}$ 42'00	18°17'25		13715 Aug 22 13:41	0° $\mathbb{L}$	
retrograde	13714 Sep 12 13:39	18° $\mathbb{L}$ 26'23		retrograde	13715 Aug 26 08:48	1° $\mathbb{L}$ 08'34	
evening set	13714 Sep 14 16:28	18° $\mathbb{L}$ 08'34		evening set	13715 Aug 28 19:17	0° $\mathbb{L}$ 40'54	
desc. node	13714 Sep 20 23:06	14° $\mathbb{L}$ 27'09			13715 Aug 30 05:56	30° $\mathbb{R}$ $\mathbb{P}$	
inferior conj	13714 Sep 22 03:43	13° $\mathbb{L}$ 28'12	-0°22'28	inferior conj	13715 Sep 04 13:12	25° $\mathbb{P}$ 40'17	0°59'30
minimum elong	13714 Sep 22 02:54	13° $\mathbb{L}$ 29'54	0°22'01	minimum elong	13715 Sep 04 14:55	25° $\mathbb{P}$ 36'08	0°58'41

min. Earth dist.	13715 Sep 07 16:10	22° $\mathbb{M}$ 40'13	0.60968 AU	evening set	13716 Aug 11 11:07	13° $\mathbb{M}$ 46'34	
desc. node	13715 Sep 07 20:38	22° $\mathbb{M}$ 30'00		inferior conj	13716 Aug 17 14:59	8° $\mathbb{M}$ 28'13	1°59'15
morning rise	13715 Sep 11 07:43	19° $\mathbb{M}$ 44'26		minimum elong	13716 Aug 17 17:28	8° $\mathbb{M}$ 21'25	1°58'04
direct	13715 Sep 17 22:40	17° $\mathbb{M}$ 32'35		min. Earth dist.	13716 Aug 20 07:14	5° $\mathbb{M}$ 33'31	0.63203 AU
morning max el	13715 Oct 02 04:33	25° $\mathbb{M}$ 28'14	27°57'08	morning rise	13716 Aug 23 21:51	2° $\mathbb{M}$ 14'26	
	13715 Oct 06 09:07	0° $\mathbb{L}$		desc. node	13716 Aug 24 18:10	1° $\mathbb{M}$ 38'27	
	13715 Oct 26 09:55	0° $\mathbb{M}$			13716 Aug 28 08:57	30° $\mathbb{R}$ 00	
asc. node	13715 Nov 01 23:45	12° $\mathbb{M}$ 33'21		direct	13716 Aug 30 13:40	29° $\mathbb{L}$ 44'09	
morning set	13715 Nov 04 06:56	17° $\mathbb{M}$ 15'31			13716 Sep 01 20:12	0° $\mathbb{M}$	
max. Earth dist.	13715 Nov 10 02:23	29° $\mathbb{M}$ 44'46	1.31408 AU	morning max el	13716 Sep 13 13:05	7° $\mathbb{M}$ 45'49	27°49'14
	13715 Nov 10 05:09	0° $\mathbb{X}$			13716 Sep 30 15:59	0° $\mathbb{L}$	
					13716 Oct 17 14:46	0° $\mathbb{M}$	
superior conj	13715 Nov 11 13:05	2° $\mathbb{X}$ 56'46	1°19'54	morning set	13716 Oct 18 03:02	1° $\mathbb{M}$ 01'30	
minimum elong	13715 Nov 11 10:59	2° $\mathbb{X}$ 45'09	1°20'32	asc. node	13716 Oct 18 20:26	2° $\mathbb{M}$ 29'34	
evening rise	13715 Nov 18 05:55	17° $\mathbb{X}$ 44'23		max. Earth dist.	13716 Oct 23 04:14	11° $\mathbb{M}$ 31'14	1.32169 AU
	13715 Nov 24 04:20	0° $\mathbb{Z}$					
desc. node	13715 Dec 04 17:24	18° $\mathbb{Z}$ 09'09		superior conj	13716 Oct 25 20:55	17° $\mathbb{M}$ 20'25	1°02'33
	13715 Dec 14 06:28	0° $\mathbb{X}$		minimum elong	13716 Oct 25 18:38	17° $\mathbb{M}$ 08'00	1°02'53
evening max el	13715 Dec 15 00:26	0° $\mathbb{X}$ 43'40	25°17'35		13716 Oct 31 15:46	0° $\mathbb{X}$	
retrograde	13715 Dec 28 20:32	7° $\mathbb{X}$ 40'44		evening rise	13716 Nov 01 17:00	2° $\mathbb{X}$ 16'22	
evening set	13716 Jan 03 15:52	6° $\mathbb{X}$ 24'23			13716 Nov 16 14:31	0° $\mathbb{Z}$	
min. Earth dist.	13716 Jan 08 12:33	3° $\mathbb{X}$ 43'39	0.56902 AU	desc. node	13716 Nov 20 14:34	5° $\mathbb{Z}$ 29'52	
inferior conj	13716 Jan 11 06:55	1° $\mathbb{X}$ 53'40	-5°01'03	evening max el	13716 Nov 25 10:52	10° $\mathbb{Z}$ 53'19	23°39'14
minimum elong	13716 Jan 11 15:34	1° $\mathbb{X}$ 39'17	4°58'06	retrograde	13716 Dec 08 22:03	17° $\mathbb{Z}$ 35'24	
	13716 Jan 14 06:21	30° $\mathbb{R}$ 00		evening set	13716 Dec 13 12:44	16° $\mathbb{Z}$ 49'06	
morning rise	13716 Jan 19 17:45	27° $\mathbb{Z}$ 41'41		min. Earth dist.	13716 Dec 19 21:29	13° $\mathbb{Z}$ 45'37	0.55352 AU
direct	13716 Jan 21 22:11	27° $\mathbb{Z}$ 27'42		inferior conj	13716 Dec 21 16:14	12° $\mathbb{Z}$ 42'29	-5°50'46
asc. node	13716 Jan 28 22:57	0° $\mathbb{X}$ 03'47		minimum elong	13716 Dec 21 20:15	12° $\mathbb{Z}$ 36'33	5°49'23
	13716 Jan 28 20:55	0° $\mathbb{X}$		morning rise	13716 Dec 30 05:31	8° $\mathbb{Z}$ 48'48	
morning max el	13716 Jan 31 03:00	1° $\mathbb{X}$ 55'36	19°07'40	direct	13717 Jan 01 22:04	8° $\mathbb{Z}$ 30'58	
morning set	13716 Feb 16 19:13	28° $\mathbb{X}$ 50'31		morning max el	13717 Jan 12 15:59	13° $\mathbb{Z}$ 39'43	20°18'35
	13716 Feb 17 09:14	0° $\mathbb{X}$		asc. node	13717 Jan 14 20:15	15° $\mathbb{Z}$ 57'17	
					13717 Jan 24 04:21	0° $\mathbb{X}$	
superior conj	13716 Feb 25 03:05	15° $\mathbb{X}$ 13'57	0°44'44	morning set	13717 Jan 31 01:37	13° $\mathbb{X}$ 28'33	
minimum elong	13716 Feb 25 05:35	15° $\mathbb{X}$ 25'56	0°44'43				
desc. node	13716 Mar 01 18:19	25° $\mathbb{X}$ 46'48		superior conj	13717 Feb 07 16:17	29° $\mathbb{X}$ 05'25	1°08'14
max. Earth dist.	13716 Mar 02 23:29	27° $\mathbb{X}$ 58'36	1.38726 AU	minimum elong	13717 Feb 07 19:00	29° $\mathbb{X}$ 19'02	1°08'30
	13716 Mar 04 02:42	0° $\mathbb{Y}$			13717 Feb 08 03:08	0° $\mathbb{X}$	
evening rise	13716 Mar 06 17:58	4° $\mathbb{Y}$ 36'45		max. Earth dist.	13717 Feb 13 06:34	10° $\mathbb{X}$ 04'21	1.36513 AU
	13716 Mar 22 17:15	0° $\mathbb{X}$		desc. node	13717 Feb 16 14:52	16° $\mathbb{X}$ 19'03	
evening max el	13716 Apr 10 23:59	24° $\mathbb{X}$ 28'47	24°38'31	evening rise	13717 Feb 17 01:37	17° $\mathbb{X}$ 08'04	
	13716 Apr 18 01:09	0° $\mathbb{I}$			13717 Feb 24 11:14	0° $\mathbb{Y}$	
retrograde	13716 Apr 22 15:11	1° $\mathbb{I}$ 16'43			13717 Mar 17 02:01	0° $\mathbb{X}$	
asc. node	13716 Apr 25 19:29	0° $\mathbb{I}$ 32'26		evening max el	13717 Mar 24 13:25	8° $\mathbb{X}$ 20'37	25°51'14
	13716 Apr 26 18:54	30° $\mathbb{R}$ 00		retrograde	13717 Apr 06 02:46	15° $\mathbb{X}$ 33'35	
evening set	13716 Apr 28 05:31	28° $\mathbb{X}$ 55'24		evening set	13717 Apr 12 04:15	13° $\mathbb{X}$ 04'14	
min. Earth dist.	13716 May 02 17:50	23° $\mathbb{X}$ 47'33	0.68366 AU	asc. node	13717 Apr 12 16:52	12° $\mathbb{X}$ 36'46	
inferior conj	13716 May 03 18:34	22° $\mathbb{X}$ 25'06	2°14'19	min. Earth dist.	13717 Apr 16 09:48	8° $\mathbb{X}$ 31'43	0.67422 AU
minimum elong	13716 May 03 16:25	22° $\mathbb{X}$ 32'17	2°12'58	inferior conj	13717 Apr 17 23:01	6° $\mathbb{X}$ 34'18	1°34'25
morning rise	13716 May 09 03:31	16° $\mathbb{X}$ 26'56		minimum elong	13717 Apr 17 21:03	6° $\mathbb{X}$ 40'31	1°33'14
direct	13716 May 12 22:49	15° $\mathbb{X}$ 04'06		morning rise	13717 Apr 23 14:29	0° $\mathbb{X}$ 45'49	
morning max el	13716 May 20 08:03	19° $\mathbb{X}$ 10'07	19°44'55		13717 Apr 25 04:14	30° $\mathbb{R}$ 00	
desc. node	13716 May 28 20:18	29° $\mathbb{X}$ 36'26		direct	13717 Apr 26 22:28	29° $\mathbb{Y}$ 42'22	
	13716 May 29 03:05	0° $\mathbb{I}$			13717 Apr 28 17:41	0° $\mathbb{X}$	
greatest brilliancy	13716 Jun 02 03:56	5° $\mathbb{I}$ 46'08	-0.6m	morning max el	13717 May 03 15:46	3° $\mathbb{X}$ 19'52	18°50'03
morning set	13716 Jun 15 14:48	26° $\mathbb{I}$ 01'58		desc. node	13717 May 15 17:06	19° $\mathbb{X}$ 18'37	
	13716 Jun 18 04:36	0° $\mathbb{L}$		greatest brilliancy	13717 May 17 11:24	21° $\mathbb{X}$ 59'02	-0.8m
max. Earth dist.	13716 Jun 26 21:42	13° $\mathbb{L}$ 36'59	1.44763 AU		13717 May 22 16:16	0° $\mathbb{I}$	
				morning set	13717 May 26 00:06	5° $\mathbb{I}$ 09'59	
superior conj	13716 Jul 01 16:59	21° $\mathbb{L}$ 17'03	-2°08'44	max. Earth dist.	13717 Jun 09 15:03	27° $\mathbb{I}$ 56'46	1.45665 AU
minimum elong	13716 Jul 01 21:47	21° $\mathbb{L}$ 36'26	2°09'34		13717 Jun 10 22:33	0° $\mathbb{L}$	
	13716 Jul 07 01:29	0° $\mathbb{L}$					
evening rise	13716 Jul 15 08:44	13° $\mathbb{L}$ 51'52		superior conj	13717 Jun 11 07:07	0° $\mathbb{L}$ 33'33	-2°12'43
asc. node	13716 Jul 22 18:27	26° $\mathbb{L}$ 17'27		minimum elong	13717 Jun 11 04:46	0° $\mathbb{L}$ 24'22	2°13'44
	13716 Jul 25 01:33	0° $\mathbb{M}$		evening rise	13717 Jun 26 12:44	24° $\mathbb{L}$ 45'31	
evening max el	13716 Aug 02 07:29	11° $\mathbb{M}$ 06'31	18°07'49		13717 Jun 29 18:47	0° $\mathbb{L}$	
retrograde	13716 Aug 08 16:20	14° $\mathbb{M}$ 27'06		asc. node	13717 Jul 09 15:14	15° $\mathbb{L}$ 29'02	

evening max el	13717 Jul 16 20:47	24° $\Omega$ 44'33	18°30'30	retrograde	13718 Jul 07 04:28	12° $\Omega$ 20'46	
retrograde	13717 Jul 23 08:02	28° $\Omega$ 13'33		evening set	13718 Jul 10 17:09	11° $\Omega$ 08'32	
evening set	13717 Jul 26 11:30	27° $\Omega$ 17'53		inferior conj	13718 Jul 16 03:51	5° $\Omega$ 20'14	3°02'21
inferior conj	13717 Aug 01 05:02	21° $\Omega$ 43'49	2°39'08	minimum elong	13718 Jul 16 05:10	5° $\Omega$ 15'58	3°01'17
minimum elong	13717 Aug 01 07:12	21° $\Omega$ 37'17	2°37'57	min. Earth dist.	13718 Jul 17 15:51	3° $\Omega$ 23'54	0.66822 AU
min. Earth dist.	13717 Aug 03 07:35	19° $\Omega$ 12'06	0.65198 AU		13718 Jul 20 13:35	30° $\mathbb{R}$ $\mathfrak{E}$	
morning rise	13717 Aug 07 01:44	15° $\Omega$ 21'24		morning rise	13718 Jul 21 16:33	28° $\mathfrak{E}$ 55'48	
desc. node	13717 Aug 11 15:39	12° $\Omega$ 54'59		direct	13718 Jul 27 19:33	26° $\mathfrak{E}$ 17'04	
direct	13717 Aug 13 13:10	12° $\Omega$ 41'56		desc. node	13718 Jul 29 13:05	26° $\mathfrak{E}$ 28'11	
morning max el	13717 Aug 26 23:55	20° $\Omega$ 36'56	27°07'39		13718 Aug 05 05:37	0° $\Omega$	
	13717 Sep 04 02:13	0° $\mathfrak{M}$		morning max el	13718 Aug 09 10:53	3° $\Omega$ 49'56	26°00'34
	13717 Sep 23 18:45	0° $\mathfrak{L}$			13718 Aug 29 10:02	0° $\mathfrak{M}$	
morning set	13717 Oct 01 13:21	14° $\mathfrak{L}$ 18'26		morning set	13718 Sep 14 10:29	26° $\mathfrak{M}$ 57'55	
asc. node	13717 Oct 05 17:03	22° $\mathfrak{L}$ 33'16			13718 Sep 16 01:35	0° $\mathfrak{L}$	
max. Earth dist.	13717 Oct 05 21:18	22° $\mathfrak{L}$ 54'55	1.33470 AU	max. Earth dist.	13718 Sep 18 04:25	4° $\mathfrak{L}$ 01'54	1.35276 AU
	13717 Oct 09 07:19	0° $\mathfrak{M}$		asc. node	13718 Sep 22 13:38	12° $\mathfrak{L}$ 40'24	
superior conj	13717 Oct 09 23:43	1° $\mathfrak{M}$ 26'33	0°39'37	superior conj	13718 Sep 23 18:54	15° $\mathfrak{L}$ 08'33	0°11'27
minimum elong	13717 Oct 09 21:52	1° $\mathfrak{M}$ 16'44	0°39'43	minimum elong	13718 Sep 23 18:15	15° $\mathfrak{L}$ 05'12	0°11'29
evening rise	13717 Oct 17 03:38	16° $\mathfrak{M}$ 45'03		behind sun begin	13718 Sep 23 13:57	14° $\mathfrak{L}$ 43'23	
	13717 Oct 23 16:25	0° $\mathfrak{J}$		behind sun end	13718 Sep 23 22:33	15° $\mathfrak{L}$ 27'04	
evening max el	13717 Nov 06 22:47	20° $\mathfrak{J}$ 55'31	21°57'58		13718 Sep 30 23:11	0° $\mathfrak{M}$	
desc. node	13717 Nov 07 11:51	21° $\mathfrak{J}$ 26'55		evening rise	13718 Oct 01 11:47	1° $\mathfrak{M}$ 05'16	
retrograde	13717 Nov 19 12:03	27° $\mathfrak{J}$ 08'50			13718 Oct 18 12:30	0° $\mathfrak{J}$	
evening set	13717 Nov 22 17:18	26° $\mathfrak{J}$ 45'44		evening max el	13718 Oct 19 21:18	1° $\mathfrak{J}$ 26'26	20°29'16
inferior conj	13717 Dec 01 10:44	22° $\mathfrak{J}$ 51'40	-5°49'07	desc. node	13718 Oct 25 09:14	5° $\mathfrak{J}$ 33'47	
minimum elong	13717 Dec 01 05:51	22° $\mathfrak{J}$ 58'31	5°47'38	retrograde	13718 Oct 30 22:51	6° $\mathfrak{J}$ 56'28	
min. Earth dist.	13717 Dec 01 03:51	23° $\mathfrak{J}$ 01'19	0.54555 AU	evening set	13718 Nov 02 04:03	6° $\mathfrak{J}$ 44'14	
morning rise	13717 Dec 09 19:23	19° $\mathfrak{J}$ 04'18		inferior conj	13718 Nov 11 03:03	2° $\mathfrak{J}$ 49'05	-4°48'07
direct	13717 Dec 13 08:18	18° $\mathfrak{J}$ 36'40		minimum elong	13718 Nov 10 17:02	3° $\mathfrak{J}$ 03'38	4°44'38
morning max el	13717 Dec 25 14:26	24° $\mathfrak{J}$ 29'06	21°51'23	min. Earth dist.	13718 Nov 12 10:33	2° $\mathfrak{J}$ 03'17	0.54684 AU
	13717 Dec 30 12:14	0° $\mathfrak{Z}$			13718 Nov 16 06:35	30° $\mathfrak{R}$ $\mathfrak{M}$	
asc. node	13718 Jan 01 17:28	3° $\mathfrak{Z}$ 02'25		morning rise	13718 Nov 19 05:38	28° $\mathfrak{M}$ 49'33	
morning set	13718 Jan 15 11:45	28° $\mathfrak{Z}$ 13'14		direct	13718 Nov 23 17:24	28° $\mathfrak{M}$ 06'12	
	13718 Jan 16 08:00	0° $\mathfrak{X}$			13718 Nov 30 20:20	0° $\mathfrak{J}$	
superior conj	13718 Jan 22 15:00	13° $\mathfrak{X}$ 21'07	1°24'44	morning max el	13718 Dec 07 02:16	4° $\mathfrak{J}$ 37'41	23°38'37
minimum elong	13718 Jan 22 17:09	13° $\mathfrak{X}$ 32'19	1°25'22	asc. node	13718 Dec 19 14:35	21° $\mathfrak{J}$ 02'58	
max. Earth dist.	13718 Jan 26 18:47	21° $\mathfrak{X}$ 55'28	1.34554 AU		13718 Dec 24 14:35	0° $\mathfrak{Z}$	
	13718 Jan 30 21:15	0° $\mathfrak{H}$		morning set	13718 Dec 30 23:31	12° $\mathfrak{Z}$ 58'57	
evening rise	13718 Jan 31 01:02	0° $\mathfrak{H}$ 18'08		superior conj	13719 Jan 06 20:14	27° $\mathfrak{Z}$ 52'41	1°34'34
desc. node	13718 Feb 03 11:28	6° $\mathfrak{H}$ 43'13		minimum elong	13719 Jan 06 21:25	27° $\mathfrak{Z}$ 59'01	1°35'29
	13718 Feb 17 13:29	0° $\mathfrak{Y}$			13719 Jan 07 19:49	0° $\mathfrak{X}$	
evening max el	13718 Mar 07 03:13	22° $\mathfrak{Y}$ 04'54	26°49'21	max. Earth dist.	13719 Jan 09 14:55	3° $\mathfrak{X}$ 50'18	1.32990 AU
retrograde	13718 Mar 20 08:49	29° $\mathfrak{Y}$ 30'18		evening rise	13719 Jan 14 12:45	13° $\mathfrak{X}$ 58'00	
evening set	13718 Mar 26 20:06	26° $\mathfrak{Y}$ 58'08		desc. node	13719 Jan 21 08:09	26° $\mathfrak{X}$ 54'38	
asc. node	13718 Mar 30 14:19	23° $\mathfrak{Y}$ 16'15			13719 Jan 23 01:52	0° $\mathfrak{H}$	
min. Earth dist.	13718 Mar 30 20:12	22° $\mathfrak{Y}$ 59'32	0.66063 AU		13719 Feb 12 12:15	0° $\mathfrak{Y}$	
inferior conj	13718 Apr 01 21:43	20° $\mathfrak{Y}$ 34'42	0°43'25	evening max el	13719 Feb 17 16:27	5° $\mathfrak{Y}$ 31'04	27°25'24
minimum elong	13718 Apr 01 20:36	20° $\mathfrak{Y}$ 37'58	0°42'45	retrograde	13719 Mar 03 08:13	12° $\mathfrak{Y}$ 58'21	
morning rise	13718 Apr 07 22:22	14° $\mathfrak{Y}$ 57'41		evening set	13719 Mar 10 02:51	10° $\mathfrak{Y}$ 29'29	
direct	13718 Apr 10 20:13	14° $\mathfrak{Y}$ 11'03		min. Earth dist.	13719 Mar 13 22:52	7° $\mathfrak{Y}$ 02'23	0.64340 AU
morning max el	13718 Apr 17 05:22	17° $\mathfrak{Y}$ 32'32	18°11'46	inferior conj	13719 Mar 16 12:04	4° $\mathfrak{Y}$ 19'51	-0°19'09
	13718 Apr 26 15:20	0° $\mathfrak{B}$		minimum elong	13719 Mar 16 12:39	4° $\mathfrak{Y}$ 18'18	0°18'53
desc. node	13718 May 02 13:49	9° $\mathfrak{B}$ 21'43		asc. node	13719 Mar 17 11:48	3° $\mathfrak{Y}$ 17'20	
morning set	13718 May 06 09:59	15° $\mathfrak{B}$ 31'43			13719 Mar 21 03:57	30° $\mathfrak{R}$ $\mathfrak{H}$	
	13718 May 15 11:35	0° $\mathfrak{I}$		morning rise	13719 Mar 23 00:28	28° $\mathfrak{H}$ 56'45	
				direct	13719 Mar 25 13:33	28° $\mathfrak{H}$ 23'40	
superior conj	13718 May 21 15:16	9° $\mathfrak{I}$ 41'01	-1°56'31		13719 Mar 29 22:47	0° $\mathfrak{Y}$	
minimum elong	13718 May 21 06:51	9° $\mathfrak{I}$ 08'03	1°56'51	morning max el	13719 Mar 31 22:26	1° $\mathfrak{Y}$ 40'51	17°50'39
max. Earth dist.	13718 May 23 10:50	12° $\mathfrak{I}$ 31'23	1.45830 AU	morning set	13719 Apr 18 00:00	27° $\mathfrak{Y}$ 15'18	
	13718 Jun 03 16:22	0° $\mathfrak{E}$		desc. node	13719 Apr 19 10:26	29° $\mathfrak{Y}$ 39'42	
evening rise	13718 Jun 06 16:52	4° $\mathfrak{E}$ 41'38			13719 Apr 19 15:16	0° $\mathfrak{B}$	
greatest brilliancy	13718 Jun 18 04:01	22° $\mathfrak{E}$ 22'02	-0.7m	superior conj	13719 May 01 10:44	19° $\mathfrak{B}$ 24'17	-1°24'25
	13718 Jun 23 09:06	0° $\Omega$		minimum elong	13719 May 01 02:27	18° $\mathfrak{B}$ 51'00	1°24'11
asc. node	13718 Jun 26 12:07	4° $\Omega$ 11'44		max. Earth dist.	13719 May 06 06:48	27° $\mathfrak{B}$ 05'54	1.45251 AU
evening max el	13718 Jun 30 06:26	8° $\Omega$ 30'36	19°10'18				



	13719 May 08 03:05	0°♂			13720 Apr 29 22:05	0°♂	
evening rise	13719 May 17 05:50	14°♂06'40			13720 May 20 23:57	0°♂	
	13719 May 27 18:09	0°♂		evening max el	13720 May 26 09:01	6°♂08'58	21°14'10
greatest brilliancy	13719 Jun 01 04:30	6°♂30'38	-0.6m	asc. node	13720 May 30 06:11	9°♂27'47	
asc. node	13719 Jun 13 09:05	22°♂15'25		retrograde	13720 Jun 04 01:55	11°♂13'22	
evening max el	13719 Jun 13 10:40	22°♂19'24	20°05'41	evening set	13720 Jun 08 10:48	9°♂27'26	
retrograde	13719 Jun 21 03:06	26°♂42'21		inferior conj	13720 Jun 13 16:42	3°♂14'34	3°09'11
evening set	13719 Jun 25 01:33	25°♂13'04		minimum elong	13720 Jun 13 16:01	3°♂16'57	3°08'04
inferior conj	13719 Jun 30 08:31	19°♂11'40	3°11'43	min. Earth dist.	13720 Jun 14 00:49	2°♂46'18	0.68719 AU
minimum elong	13719 Jun 30 08:48	19°♂10'41	3°10'40		13720 Jun 16 02:11	30°♂♂	
min. Earth dist.	13719 Jul 01 06:13	17°♂58'00	0.68007 AU	morning rise	13720 Jun 18 21:02	26°♂♂57'00	
morning rise	13719 Jul 05 15:44	12°♂49'27		direct	13720 Jun 24 00:29	24°♂♂42'41	
direct	13719 Jul 11 07:39	10°♂19'52		desc. node	13720 Jul 02 07:36	28°♂♂55'10	
desc. node	13719 Jul 16 10:25	11°♂57'00			13720 Jul 03 11:38	0°♂	
morning max el	13719 Jul 22 21:14	17°♂15'39	24°37'23	morning max el	13720 Jul 04 08:06	0°♂50'24	23°07'53
	13719 Aug 02 12:15	0°♂			13720 Jul 26 09:03	0°♂	
	13719 Aug 22 10:08	0°♂		morning set	13720 Aug 07 19:48	19°♂41'47	
morning set	13719 Aug 27 14:06	8°♂48'53		max. Earth dist.	13720 Aug 12 02:27	26°♂55'47	1.39827 AU
max. Earth dist.	13719 Aug 31 04:09	15°♂12'37	1.37468 AU		13720 Aug 13 20:55	0°♂	
superior conj	13719 Sep 07 03:11	28°♂17'26	-0°21'08	superior conj	13720 Aug 19 20:43	10°♂44'53	-0°56'11
minimum elong	13719 Sep 07 04:35	28°♂24'17	0°21'00	minimum elong	13720 Aug 20 00:53	11°♂04'03	0°55'57
	13719 Sep 08 00:15	0°♂		asc. node	13720 Aug 26 06:44	22°♂48'56	
asc. node	13719 Sep 09 10:10	2°♂46'37		evening rise	13720 Aug 29 10:29	28°♂52'19	
evening rise	13719 Sep 15 15:01	15°♂09'58			13720 Aug 30 00:36	0°♂	
	13719 Sep 23 09:24	0°♂		evening max el	13720 Sep 14 10:55	24°♂47'29	18°34'30
evening max el	13719 Oct 02 09:56	12°♂43'24	19°20'56	retrograde	13720 Sep 22 11:01	28°♂49'51	
retrograde	13719 Oct 11 19:50	17°♂26'10		evening set	13720 Sep 24 09:58	28°♂36'08	
desc. node	13719 Oct 12 06:41	17°♂25'33		desc. node	13720 Sep 28 04:09	27°♂01'35	
evening set	13719 Oct 13 16:34	17°♂15'53		inferior conj	13720 Oct 02 07:54	24°♂07'48	-1°19'11
inferior conj	13719 Oct 22 07:15	13°♂07'11	-3°07'32	minimum elong	13720 Oct 02 04:44	24°♂13'52	1°17'35
minimum elong	13719 Oct 21 23:18	13°♂20'13	3°03'59	min. Earth dist.	13720 Oct 05 12:37	21°♂41'48	0.57468 AU
min. Earth dist.	13719 Oct 24 20:30	11°♂27'07	0.55716 AU	morning rise	13720 Oct 09 20:01	18°♂59'50	
morning rise	13719 Oct 30 03:44	8°♂37'09		direct	13720 Oct 15 20:36	17°♂28'50	
direct	13719 Nov 04 11:50	7°♂32'36		morning max el	13720 Oct 30 03:37	24°♂59'12	26°51'28
morning max el	13719 Nov 18 12:12	14°♂36'33	25°24'56		13720 Nov 03 19:10	0°♂	
	13719 Nov 30 16:49	0°♂		asc. node	13720 Nov 22 08:29	28°♂56'49	
asc. node	13719 Dec 06 11:35	9°♂44'41			13720 Nov 22 21:35	0°♂	
morning set	13719 Dec 15 11:09	27°♂40'24		morning set	13720 Nov 28 20:55	12°♂12'39	
	13719 Dec 16 12:59	0°♂					
superior conj	13719 Dec 22 05:32	12°♂32'54	1°38'06	superior conj	13720 Dec 05 16:51	27°♂15'36	1°35'38
minimum elong	13719 Dec 22 05:37	12°♂33'19	1°39'10	minimum elong	13720 Dec 05 15:53	27°♂10'15	1°36'38
max. Earth dist.	13719 Dec 23 18:03	15°♂54'11	1.31886 AU	max. Earth dist.	13720 Dec 06 01:25	28°♂03'28	1.31281 AU
evening rise	13719 Dec 29 09:39	27°♂59'48			13720 Dec 06 22:19	0°♂	
	13719 Dec 30 09:02	0°♂		evening rise	13720 Dec 12 13:11	12°♂16'53	
desc. node	13720 Jan 08 04:55	16°♂47'24			13720 Dec 21 12:25	0°♂	
	13720 Jan 16 07:32	0°♂		desc. node	13720 Dec 25 01:46	6°♂13'30	
evening max el	13720 Jan 31 03:00	18°♂26'00	27°32'43		13721 Jan 11 16:54	0°♂	
retrograde	13720 Feb 14 00:08	25°♂48'43		evening max el	13721 Jan 12 08:18	0°♂37'07	27°06'30
evening set	13720 Feb 20 21:56	23°♂30'25		retrograde	13721 Jan 26 07:37	7°♂51'41	
min. Earth dist.	13720 Feb 24 16:00	20°♂30'06	0.62327 AU	evening set	13721 Feb 02 02:05	5°♂52'04	
inferior conj	13720 Feb 27 15:03	17°♂42'03	-1°32'54	min. Earth dist.	13721 Feb 05 22:39	3°♂10'05	0.60150 AU
minimum elong	13720 Feb 27 18:14	17°♂34'30	1°31'17	inferior conj	13721 Feb 09 03:07	0°♂31'36	-2°55'12
asc. node	13720 Mar 03 09:16	13°♂44'44		minimum elong	13721 Feb 09 09:27	0°♂18'25	2°52'13
morning rise	13720 Mar 05 17:17	12°♂35'57			13721 Feb 09 18:22	30°♂♂	
direct	13720 Mar 07 23:18	12°♂12'55		morning rise	13721 Feb 16 20:01	25°♂45'22	
morning max el	13720 Mar 14 15:59	15°♂36'39	17°47'08	asc. node	13721 Feb 18 06:43	25°♂30'19	
	13720 Mar 24 18:38	0°♂		direct	13721 Feb 18 21:25	25°♂28'49	
morning set	13720 Mar 30 13:33	10°♂05'38		morning max el	13721 Feb 26 06:35	29°♂09'49	18°02'10
desc. node	13720 Apr 05 06:58	20°♂07'51			13721 Feb 27 02:07	0°♂	
				morning set	13721 Mar 13 20:24	23°♂43'19	
					13721 Mar 17 05:53	0°♂	
superior conj	13720 Apr 11 04:32	0°♂11'32	-0°45'09	desc. node	13721 Mar 23 03:28	10°♂41'34	
minimum elong	13720 Apr 11 00:09	29°♂53'08	0°44'55				
	13720 Apr 11 01:47	0°♂		superior conj	13721 Mar 23 22:11	12°♂04'28	-0°06'14
max. Earth dist.	13720 Apr 18 00:01	11°♂22'46	1.43986 AU	minimum elong	13721 Mar 23 21:40	12°♂02'10	0°06'15
evening rise	13720 Apr 25 19:12	23°♂41'04		behind sun begin	13721 Mar 23 14:22	11°♂29'52	

behind sun end	13721 Mar 24 04:58	12° $\Upsilon$ 34'24		superior conj	13722 Mar 06 12:19	24° $\Upsilon$ 53'16	0°27'59
max. Earth dist.	13721 Mar 31 12:23	25° $\Upsilon$ 05'39	1.42179 AU	minimum elong	13722 Mar 06 14:09	25° $\Upsilon$ 01'50	0°27'52
	13721 Apr 03 11:57	0° $\Upsilon$			13722 Mar 09 06:53	0° $\Upsilon$	
evening rise	13721 Apr 05 22:42	3° $\Upsilon$ 56'46		desc. node	13722 Mar 09 23:59	1° $\Upsilon$ 17'36	
	13721 Apr 23 05:44	0° $\Pi$		max. Earth dist.	13722 Mar 13 20:20	8° $\Upsilon$ 07'15	1.40030 AU
evening max el	13721 May 09 02:22	19° $\Pi$ 58'44	22°31'48	evening rise	13722 Mar 17 22:56	15° $\Upsilon$ 08'04	
asc. node	13721 May 17 03:23	25° $\Pi$ 32'11			13722 Mar 27 05:21	0° $\Upsilon$	
retrograde	13721 May 18 23:12	25° $\Pi$ 47'23			13722 Apr 18 02:41	0° $\Pi$	
evening set	13721 May 23 19:09	23° $\Pi$ 46'07		evening max el	13722 Apr 21 16:52	3° $\Pi$ 50'39	23°52'55
inferior conj	13721 May 29 02:19	17° $\Pi$ 23'57	2°55'56	retrograde	13722 May 02 17:30	10° $\Pi$ 19'19	
minimum elong	13721 May 29 00:49	17° $\Pi$ 29'10	2°54'43	asc. node	13722 May 04 00:39	10° $\Pi$ 11'46	
min. Earth dist.	13721 May 28 21:29	17° $\Pi$ 40'48	0.68950 AU	evening set	13722 May 08 01:01	8° $\Pi$ 04'43	
morning rise	13721 Jun 03 06:21	11° $\Pi$ 12'45		inferior conj	13722 May 13 11:27	1° $\Pi$ 36'20	2°32'28
direct	13721 Jun 07 21:02	9° $\Pi$ 17'24		minimum elong	13722 May 13 09:26	1° $\Pi$ 43'14	2°31'09
morning max el	13721 Jun 16 22:00	14° $\Pi$ 33'13	21°40'52	min. Earth dist.	13722 May 12 18:02	2° $\Pi$ 35'45	0.68714 AU
desc. node	13721 Jun 19 04:41	16° $\Pi$ 58'38			13722 May 14 16:00	30° $\Upsilon$	
	13721 Jun 29 08:12	0° $\Upsilon$		morning rise	13722 May 18 17:50	25° $\Upsilon$ 32'51	
morning set	13721 Jul 19 00:37	29° $\Upsilon$ 29'29		direct	13722 May 22 20:04	23° $\Upsilon$ 58'00	
	13721 Jul 19 08:17	0° $\Omega$		morning max el	13722 May 30 17:53	28° $\Upsilon$ 26'27	20°23'17
max. Earth dist.	13721 Jul 25 04:41	9° $\Omega$ 28'39	1.42072 AU		13722 Jun 01 05:49	0° $\Pi$	
				desc. node	13722 Jun 06 01:41	5° $\Pi$ 49'58	
superior conj	13721 Aug 01 19:06	22° $\Omega$ 21'02	-1°30'22		13722 Jun 22 20:38	0° $\Upsilon$	
minimum elong	13721 Aug 02 01:48	22° $\Omega$ 50'12	1°30'15	morning set	13722 Jun 28 08:11	8° $\Upsilon$ 22'56	
	13721 Aug 06 03:11	0° $\Pi$		max. Earth dist.	13722 Jul 07 13:42	22° $\Upsilon$ 53'18	1.43946 AU
evening rise	13721 Aug 12 18:23	12° $\Pi$ 02'25			13722 Jul 11 23:10	0° $\Omega$	
asc. node	13721 Aug 13 03:21	12° $\Pi$ 43'28					
	13721 Aug 23 01:16	0° $\Omega$		superior conj	13722 Jul 13 18:30	2° $\Omega$ 58'01	-1°58'16
evening max el	13721 Aug 28 20:21	7° $\Omega$ 30'52	18°08'59	minimum elong	13722 Jul 14 01:23	3° $\Omega$ 26'23	1°58'42
retrograde	13721 Sep 04 20:44	11° $\Omega$ 05'32		evening rise	13722 Jul 26 09:53	24° $\Omega$ 27'59	
evening set	13721 Sep 07 02:34	10° $\Omega$ 44'04			13722 Jul 29 14:17	0° $\Pi$	
inferior conj	13721 Sep 14 06:11	5° $\Omega$ 55'08	0°15'02	asc. node	13722 Jul 31 00:00	2° $\Pi$ 25'33	
minimum elong	13721 Sep 14 06:41	5° $\Omega$ 54'01	0°14'50	evening max el	13722 Aug 12 10:04	20° $\Pi$ 42'45	18°02'57
transit middle	13721 Sep 14 06:41	5° $\Omega$ 54'01	0°14'50	retrograde	13722 Aug 18 21:32	24° $\Pi$ 04'07	
transit begin	13721 Sep 14 05:20	5° $\Omega$ 57'02		evening set	13722 Aug 21 11:35	23° $\Pi$ 31'15	
transit end	13721 Sep 14 08:02	5° $\Omega$ 51'01		inferior conj	13722 Aug 27 23:06	18° $\Pi$ 23'03	1°27'28
desc. node	13721 Sep 15 01:38	5° $\Omega$ 11'30		minimum elong	13722 Aug 28 01:18	18° $\Pi$ 17'23	1°26'25
min. Earth dist.	13721 Sep 17 12:49	3° $\Omega$ 00'59	0.59647 AU	min. Earth dist.	13722 Aug 30 22:10	15° $\Pi$ 22'45	0.61942 AU
morning rise	13721 Sep 21 07:27	0° $\Omega$ 14'01		desc. node	13722 Sep 01 23:11	13° $\Pi$ 30'50	
	13721 Sep 21 17:03	30° $\Upsilon$		morning rise	13722 Sep 03 12:34	12° $\Pi$ 18'34	
direct	13721 Sep 27 19:10	28° $\Pi$ 15'36		direct	13722 Sep 10 04:51	9° $\Pi$ 57'35	
	13721 Oct 04 04:26	0° $\Omega$		morning max el	13722 Sep 24 08:17	17° $\Pi$ 56'54	27°58'15
morning max el	13721 Oct 12 02:43	6° $\Omega$ 04'55	27°44'19		13722 Oct 04 10:45	0° $\Omega$	
	13721 Oct 30 00:37	0° $\Pi$			13722 Oct 22 19:53	0° $\Pi$	
asc. node	13721 Nov 09 05:17	18° $\Pi$ 31'15		asc. node	13722 Oct 27 02:01	8° $\Pi$ 20'52	
morning set	13721 Nov 13 03:01	26° $\Pi$ 31'15		morning set	13722 Oct 28 03:23	10° $\Pi$ 30'15	
	13721 Nov 14 18:14	0° $\Upsilon$		max. Earth dist.	13722 Nov 02 14:43	22° $\Pi$ 06'58	1.31663 AU
max. Earth dist.	13721 Nov 19 09:34	10° $\Upsilon$ 10'57	1.31202 AU				
				superior conj	13722 Nov 04 14:01	26° $\Pi$ 26'24	1°13'15
superior conj	13721 Nov 20 04:19	11° $\Upsilon$ 55'29	1°27'19	minimum elong	13722 Nov 04 11:47	26° $\Pi$ 14'05	1°13'45
minimum elong	13721 Nov 20 02:32	11° $\Upsilon$ 45'35	1°28'07		13722 Nov 06 04:40	0° $\Upsilon$	
evening rise	13721 Nov 26 21:12	26° $\Upsilon$ 44'06		evening rise	13722 Nov 11 07:41	11° $\Upsilon$ 15'34	
	13721 Nov 28 09:58	0° $\Upsilon$			13722 Nov 20 16:45	0° $\Upsilon$	
desc. node	13721 Dec 11 22:44	25° $\Upsilon$ 02'48		desc. node	13722 Nov 28 19:50	13° $\Upsilon$ 00'37	
	13721 Dec 15 06:06	0° $\approx$		evening max el	13722 Dec 06 19:53	22° $\Upsilon$ 27'06	24°37'23
evening max el	13721 Dec 25 06:08	11° $\approx$ 57'00	26°05'59	retrograde	13722 Dec 20 13:23	29° $\Upsilon$ 18'12	
retrograde	13722 Jan 08 04:51	19° $\approx$ 01'07		evening set	13722 Dec 25 21:37	28° $\Upsilon$ 15'15	
evening set	13722 Jan 14 11:20	17° $\approx$ 27'51		min. Earth dist.	13722 Dec 31 07:41	25° $\Upsilon$ 27'04	0.56166 AU
min. Earth dist.	13722 Jan 18 19:22	14° $\approx$ 51'08	0.58008 AU	inferior conj	13723 Jan 02 17:31	23° $\Upsilon$ 56'14	-5°27'01
inferior conj	13722 Jan 21 20:44	12° $\approx$ 39'07	-4°18'27	minimum elong	13723 Jan 03 00:59	23° $\Upsilon$ 44'30	5°24'43
minimum elong	13722 Jan 22 05:26	12° $\approx$ 23'23	4°15'00	morning rise	13723 Jan 11 06:24	19° $\Upsilon$ 52'28	
morning rise	13722 Jan 30 02:28	8° $\approx$ 14'26		direct	13723 Jan 13 14:54	19° $\Upsilon$ 37'25	
direct	13722 Feb 01 03:39	8° $\approx$ 00'44		asc. node	13723 Jan 23 01:27	23° $\Upsilon$ 59'42	
asc. node	13722 Feb 05 04:06	8° $\approx$ 56'36		morning max el	13723 Jan 23 11:01	24° $\Upsilon$ 22'23	19°34'59
morning max el	13722 Feb 09 14:20	12° $\approx$ 09'15	18°37'26		13723 Jan 28 04:56	0° $\approx$	
	13722 Feb 21 12:05	0° $\Upsilon$		morning set	13723 Feb 09 18:31	22° $\approx$ 23'14	
morning set	13722 Feb 25 15:24	7° $\Upsilon$ 53'18			13723 Feb 13 13:02	0° $\Upsilon$	

superior conj	13723 Feb 17 18:16	8° <del>✕</del> 24'27	0°55'34	superior conj	13724 Feb 01 11:52	22° <del>≈</del> 26'32	1°16'05
minimum elong	13723 Feb 17 20:59	8° <del>✕</del> 37'44	0°55'38	minimum elong	13724 Feb 01 14:24	22° <del>≈</del> 39'33	1°16'30
max. Earth dist.	13723 Feb 24 02:43	20° <del>✕</del> 30'13	1.37770 AU		13724 Feb 05 05:42	0° <del>✕</del>	
desc. node	13723 Feb 24 20:32	21° <del>✕</del> 51'51		max. Earth dist.	13724 Feb 06 11:48	2° <del>✕</del> 28'03	1.35638 AU
evening rise	13723 Feb 27 19:50	27° <del>✕</del> 11'51		evening rise	13724 Feb 10 10:33	9° <del>✕</del> 59'46	
	13723 Mar 01 10:18	0° <del>∩</del>		desc. node	13724 Feb 11 17:06	12° <del>✕</del> 20'37	
	13723 Mar 20 16:39	0° <del>8</del>			13724 Feb 22 00:44	0° <del>∩</del>	
evening max el	13723 Apr 04 06:31	17° <del>8</del> 44'07	25°10'50		13724 Mar 15 07:04	0° <del>8</del>	
retrograde	13723 Apr 16 07:42	24° <del>8</del> 43'31		evening max el	13724 Mar 16 20:10	1° <del>8</del> 33'27	26°18'15
asc. node	13723 Apr 20 22:00	23° <del>8</del> 13'25		retrograde	13724 Mar 29 16:51	8° <del>8</del> 52'33	
evening set	13723 Apr 22 02:52	22° <del>8</del> 18'30		evening set	13724 Apr 04 22:53	6° <del>8</del> 21'12	
min. Earth dist.	13723 Apr 26 12:14	17° <del>8</del> 25'43	0.68020 AU	asc. node	13724 Apr 06 19:26	4° <del>8</del> 37'34	
inferior conj	13723 Apr 27 18:12	15° <del>8</del> 47'54	1°58'44	min. Earth dist.	13724 Apr 09 01:57	2° <del>8</del> 03'37	0.66892 AU
minimum elong	13723 Apr 27 16:04	15° <del>8</del> 54'55	1°57'25	inferior conj	13724 Apr 10 20:28	29° <del>∩</del> 53'31	1°14'13
morning rise	13723 May 03 05:35	9° <del>8</del> 53'33		minimum elong	13724 Apr 10 18:46	29° <del>∩</del> 58'44	1°13'11
direct	13723 May 06 20:03	8° <del>8</del> 38'59			13724 Apr 10 18:21	30° <del>∩</del> ∩	
morning max el	13723 May 13 21:22	12° <del>8</del> 31'00	19°19'33	morning rise	13724 Apr 16 15:32	24° <del>∩</del> 09'52	
desc. node	13723 May 23 22:35	25° <del>8</del> 16'28		direct	13724 Apr 19 19:08	23° <del>∩</del> 13'50	
greatest brilliancy	13723 May 26 15:08	29° <del>8</del> 12'31	-0.7m	morning max el	13724 Apr 26 07:52	26° <del>∩</del> 42'38	18°31'47
	13723 May 27 03:56	0° <del>II</del>			13724 Apr 29 07:03	0° <del>8</del>	
morning set	13723 Jun 07 10:39	17° <del>II</del> 08'39		desc. node	13724 May 09 19:22	15° <del>8</del> 08'08	
	13723 Jun 15 17:56	0° <del>☾</del>		morning set	13724 May 17 05:11	26° <del>8</del> 44'54	
max. Earth dist.	13723 Jun 20 05:15	6° <del>☾</del> 59'58	1.45240 AU		13724 May 19 06:48	0° <del>II</del>	
superior conj	13723 Jun 23 18:54	12° <del>☾</del> 38'21	-2°12'51	superior conj	13724 Jun 02 04:21	21° <del>II</del> 44'59	-2°08'13
minimum elong	13723 Jun 23 21:04	12° <del>☾</del> 46'56	2°13'51	minimum elong	13724 Jun 01 22:50	21° <del>II</del> 23'26	2°09'01
	13723 Jul 04 13:06	0° <del>∩</del>		max. Earth dist.	13724 Jun 02 00:34	21° <del>II</del> 30'15	1.45829 AU
evening rise	13723 Jul 08 03:58	5° <del>∩</del> 57'46			13724 Jun 07 11:01	0° <del>☾</del>	
asc. node	13723 Jul 17 20:44	21° <del>∩</del> 50'14		evening rise	13724 Jun 17 21:29	16° <del>☾</del> 25'48	
	13723 Jul 23 09:42	0° <del>∩</del>			13724 Jun 26 11:52	0° <del>∩</del>	
evening max el	13723 Jul 27 00:26	4° <del>∩</del> 13'51	18°15'19	greatest brilliancy	13724 Jun 26 07:42	29° <del>☾</del> 43'43	-0.8m
retrograde	13723 Aug 02 09:02	7° <del>∩</del> 36'07		asc. node	13724 Jul 03 17:33	10° <del>∩</del> 50'26	
evening set	13723 Aug 05 07:36	6° <del>∩</del> 49'11		evening max el	13724 Jul 09 12:25	17° <del>∩</del> 55'41	18°45'18
inferior conj	13723 Aug 11 06:36	1° <del>∩</del> 23'47	2°18'24	retrograde	13724 Jul 16 03:14	21° <del>∩</del> 32'17	
minimum elong	13723 Aug 11 09:02	1° <del>∩</del> 16'48	2°17'11	evening set	13724 Jul 19 10:34	20° <del>∩</del> 29'36	
	13723 Aug 12 11:48	30° <del>∩</del> ∩		inferior conj	13724 Jul 25 00:46	14° <del>∩</del> 49'00	2°50'50
min. Earth dist.	13723 Aug 13 17:08	28° <del>∩</del> 37'20	0.64096 AU	minimum elong	13724 Jul 25 02:37	14° <del>∩</del> 43'14	2°49'42
morning rise	13723 Aug 17 08:56	25° <del>∩</del> 05'39		min. Earth dist.	13724 Jul 26 21:01	12° <del>∩</del> 31'25	0.65942 AU
desc. node	13723 Aug 19 20:42	23° <del>∩</del> 29'50		morning rise	13724 Jul 30 17:46	8° <del>∩</del> 24'58	
direct	13723 Aug 23 23:30	22° <del>∩</del> 30'28		desc. node	13724 Aug 05 18:10	5° <del>∩</del> 45'25	
	13723 Sep 06 05:59	0° <del>∩</del>		direct	13724 Aug 06 01:53	5° <del>∩</del> 45'02	
morning max el	13723 Sep 06 18:02	0° <del>∩</del> 29'58	27°35'13	morning max el	13724 Aug 19 05:22	13° <del>∩</del> 32'22	26°41'41
	13723 Sep 28 12:18	0° <del>∩</del>			13724 Sep 01 13:21	0° <del>∩</del>	
morning set	13723 Oct 11 19:40	24° <del>∩</del> 04'24			13724 Sep 20 04:50	0° <del>∩</del>	
asc. node	13723 Oct 13 22:41	28° <del>∩</del> 20'44		morning set	13724 Sep 24 00:50	7° <del>∩</del> 06'10	
	13723 Oct 14 18:05	0° <del>∩</del>		max. Earth dist.	13724 Sep 28 02:25	15° <del>∩</del> 00'41	1.34188 AU
max. Earth dist.	13723 Oct 16 13:20	3° <del>∩</del> 44'39	1.32666 AU	asc. node	13724 Sep 29 19:17	18° <del>∩</del> 26'02	
superior conj	13723 Oct 19 19:59	10° <del>∩</del> 43'10	0°53'30	superior conj	13724 Oct 02 19:52	24° <del>∩</del> 39'18	0°28'15
minimum elong	13723 Oct 19 17:48	10° <del>∩</del> 31'23	0°53'43	minimum elong	13724 Oct 02 18:25	24° <del>∩</del> 31'45	0°28'19
evening rise	13723 Oct 26 18:49	25° <del>∩</del> 46'50			13724 Oct 05 08:56	0° <del>∩</del>	
	13723 Oct 28 18:38	0° <del>∩</del>		evening rise	13724 Oct 10 04:39	10° <del>∩</del> 12'20	
desc. node	13723 Nov 15 17:02	29° <del>∩</del> 48'16			13724 Oct 20 10:57	0° <del>∩</del>	
	13723 Nov 15 21:11	0° <del>8</del>		evening max el	13724 Oct 29 21:04	12° <del>∩</del> 38'01	21°17'55
evening max el	13723 Nov 18 05:45	2° <del>8</del> 28'20	22°55'21	desc. node	13724 Nov 01 14:20	15° <del>∩</del> 01'28	
retrograde	13723 Dec 01 08:57	8° <del>8</del> 59'35		retrograde	13724 Nov 10 20:31	18° <del>∩</del> 34'55	
evening set	13723 Dec 05 09:35	8° <del>8</del> 24'20		evening set	13724 Nov 13 13:40	18° <del>∩</del> 17'48	
min. Earth dist.	13723 Dec 12 14:42	5° <del>8</del> 05'41	0.54914 AU	inferior conj	13724 Nov 22 11:01	14° <del>∩</del> 24'30	-5°29'55
inferior conj	13723 Dec 13 19:18	4° <del>8</del> 24'52	-5°57'22	minimum elong	13724 Nov 22 03:02	14° <del>∩</del> 35'43	5°27'35
minimum elong	13723 Dec 13 19:41	4° <del>8</del> 24'20	5°56'19	min. Earth dist.	13724 Nov 22 20:38	14° <del>∩</del> 10'56	0.54491 AU
morning rise	13723 Dec 22 07:13	0° <del>8</del> 36'01		morning rise	13724 Nov 30 17:03	10° <del>∩</del> 34'43	
direct	13723 Dec 25 08:01	0° <del>8</del> 14'36		direct	13724 Dec 04 15:33	10° <del>∩</del> 01'19	
morning max el	13724 Jan 05 17:34	5° <del>8</del> 41'28	20°55'43	morning max el	13724 Dec 17 10:44	16° <del>∩</del> 10'50	22°36'09
asc. node	13724 Jan 09 22:44	10° <del>8</del> 25'02		asc. node	13724 Dec 26 19:55	27° <del>∩</del> 55'29	
	13724 Jan 21 15:22	0° <del>≈</del>			13724 Dec 28 03:19	0° <del>8</del>	
morning set	13724 Jan 25 02:44	7° <del>≈</del> 04'21		morning set	13725 Jan 08 13:47	21° <del>8</del> 50'16	
					13725 Jan 12 09:13	0° <del>≈</del>	

superior conj	13725 Jan 15 13:42	6° $\approx$ 50'10	1°29'42	morning set	13725 Dec 24 01:41	6° $\approx$ 34'29	
minimum elong	13725 Jan 15 15:27	6° $\approx$ 59'32	1°30'29				
max. Earth dist.	13725 Jan 19 03:14	14° $\approx$ 19'09	1.33826 AU	superior conj	13725 Dec 30 20:55	21° $\approx$ 26'16	1°36'49
evening rise	13725 Jan 23 15:35	23° $\approx$ 23'20		minimum elong	13725 Dec 30 21:38	21° $\approx$ 30'09	1°37'49
	13725 Jan 27 02:54	0° $\approx$		max. Earth dist.	13726 Jan 02 02:17	26° $\approx$ 16'15	1.32452 AU
desc. node	13725 Jan 28 13:42	2° $\approx$ 39'51			13726 Jan 03 20:06	0° $\approx$	
	13725 Feb 14 16:07	0° $\approx$		evening rise	13726 Jan 07 07:31	7° $\approx$ 13'18	
evening max el	13725 Feb 27 09:40	15° $\approx$ 10'41	27°07'48	desc. node	13726 Jan 15 10:22	22° $\approx$ 43'49	
retrograde	13725 Mar 12 20:13	22° $\approx$ 38'34			13726 Jan 19 15:32	0° $\approx$	
evening set	13725 Mar 19 11:10	20° $\approx$ 06'35		evening max el	13726 Feb 09 21:53	28° $\approx$ 42'27	27°32'25
min. Earth dist.	13725 Mar 23 09:11	16° $\approx$ 22'07	0.65366 AU		13726 Feb 11 15:39	0° $\approx$	
asc. node	13725 Mar 24 16:52	14° $\approx$ 53'26		retrograde	13726 Feb 23 16:50	5° $\approx$ 51'22	
inferior conj	13725 Mar 25 15:56	13° $\approx$ 48'05	0°18'21	evening set	13726 Mar 02 13:17	3° $\approx$ 25'58	
minimum elong	13725 Mar 25 15:25	13° $\approx$ 49'31	0°17'59	min. Earth dist.	13726 Mar 06 08:02	0° $\approx$ 10'55	0.63505 AU
morning rise	13725 Mar 31 21:19	8° $\approx$ 17'00			13726 Mar 06 12:28	30° $\approx$	
direct	13725 Apr 03 15:13	7° $\approx$ 36'39		inferior conj	13726 Mar 09 01:49	27° $\approx$ 42'06	-0°49'10
morning max el	13725 Apr 09 23:21	10° $\approx$ 54'53	18°00'46	minimum elong	13726 Mar 09 03:23	27° $\approx$ 40'05	0°48'22
	13725 Apr 23 10:04	0° $\approx$		asc. node	13726 Mar 11 14:21	24° $\approx$ 57'13	
desc. node	13725 Apr 26 16:03	5° $\approx$ 18'10		morning rise	13726 Mar 15 19:54	22° $\approx$ 07'56	
morning set	13725 Apr 28 03:14	7° $\approx$ 42'09		direct	13726 Mar 18 05:37	21° $\approx$ 39'43	
	13725 May 11 23:28	0° $\approx$		morning max el	13726 Mar 24 17:00	24° $\approx$ 58'44	17°46'58
					13726 Mar 28 21:35	0° $\approx$	
superior conj	13725 May 12 15:27	1° $\approx$ 03'08	-1°44'22	morning set	13726 Apr 10 03:57	19° $\approx$ 55'42	
minimum elong	13725 May 12 06:21	0° $\approx$ 27'13	1°44'24	desc. node	13726 Apr 13 12:37	25° $\approx$ 40'33	
max. Earth dist.	13725 May 15 20:33	6° $\approx$ 06'04	1.45668 AU		13726 Apr 16 01:50	0° $\approx$	
evening rise	13725 May 28 17:37	26° $\approx$ 04'18					
	13725 May 31 06:56	0° $\approx$		superior conj	13726 Apr 22 19:38	11° $\approx$ 11'28	-1°08'09
greatest brilliancy	13725 Jun 11 02:26	16° $\approx$ 22'39	-0.7m	minimum elong	13726 Apr 22 12:49	10° $\approx$ 43'35	1°07'50
asc. node	13725 Jun 20 14:28	29° $\approx$ 17'51		max. Earth dist.	13726 Apr 28 14:57	20° $\approx$ 32'12	1.44784 AU
	13725 Jun 21 05:10	0° $\approx$			13726 May 04 15:40	0° $\approx$	
evening max el	13725 Jun 22 19:50	1° $\approx$ 42'55	19°31'57	evening rise	13726 May 08 04:34	5° $\approx$ 27'18	
retrograde	13725 Jun 30 01:00	5° $\approx$ 46'11			13726 May 24 16:23	0° $\approx$	
evening set	13725 Jul 03 17:39	4° $\approx$ 26'50		evening max el	13726 Jun 05 21:32	15° $\approx$ 32'08	20°33'29
	13725 Jul 07 23:45	30° $\approx$		asc. node	13726 Jun 07 11:28	17° $\approx$ 01'24	
inferior conj	13725 Jul 09 02:24	28° $\approx$ 32'39	3°07'53	retrograde	13726 Jun 13 23:55	20° $\approx$ 12'05	
minimum elong	13725 Jul 09 03:18	28° $\approx$ 29'42	3°06'49	evening set	13726 Jun 18 02:38	18° $\approx$ 35'52	
min. Earth dist.	13725 Jul 10 08:16	26° $\approx$ 53'45	0.67383 AU	inferior conj	13726 Jun 23 08:51	12° $\approx$ 29'32	3°12'00
morning rise	13725 Jul 14 12:27	22° $\approx$ 08'26		minimum elong	13726 Jun 23 08:43	12° $\approx$ 30'01	3°10'56
direct	13725 Jul 20 10:52	19° $\approx$ 32'41		min. Earth dist.	13726 Jun 24 00:48	11° $\approx$ 34'41	0.68366 AU
desc. node	13725 Jul 23 15:34	20° $\approx$ 10'42		morning rise	13726 Jun 28 14:30	6° $\approx$ 08'52	
morning max el	13725 Aug 01 16:14	26° $\approx$ 52'14	25°26'28	direct	13726 Jul 04 01:17	3° $\approx$ 44'53	
	13725 Aug 04 14:10	0° $\approx$		desc. node	13726 Jul 10 12:50	6° $\approx$ 20'27	
	13725 Aug 26 04:02	0° $\approx$		morning max el	13726 Jul 15 02:27	10° $\approx$ 21'39	23°59'29
morning set	13725 Sep 06 15:06	19° $\approx$ 26'34			13726 Jul 30 16:40	0° $\approx$	
max. Earth dist.	13725 Sep 10 05:42	26° $\approx$ 05'09	1.36172 AU		13726 Aug 18 21:11	0° $\approx$	
	13725 Sep 12 07:11	0° $\approx$		morning set	13726 Aug 19 10:01	0° $\approx$ 54'49	
				max. Earth dist.	13726 Aug 23 03:37	7° $\approx$ 25'07	1.38465 AU
superior conj	13725 Sep 16 10:49	8° $\approx$ 07'54	-0°01'58				
minimum elong	13725 Sep 16 10:56	8° $\approx$ 08'31	0°01'54	superior conj	13726 Aug 30 13:26	21° $\approx$ 01'10	-0°35'51
behind sun begin	13725 Sep 16 04:40	7° $\approx$ 37'12		minimum elong	13726 Aug 30 15:57	21° $\approx$ 13'09	0°35'39
behind sun end	13725 Sep 16 17:13	8° $\approx$ 39'53		asc. node	13726 Sep 03 12:23	28° $\approx$ 38'16	
asc. node	13725 Sep 16 15:52	8° $\approx$ 33'06			13726 Sep 04 05:07	0° $\approx$	
evening rise	13725 Sep 24 11:01	24° $\approx$ 26'29		evening rise	13726 Sep 08 11:24	8° $\approx$ 23'04	
	13725 Sep 27 05:02	0° $\approx$			13726 Sep 20 15:08	0° $\approx$	
evening max el	13725 Oct 12 01:30	23° $\approx$ 27'21	19°57'29	evening max el	13726 Sep 24 20:01	5° $\approx$ 06'21	18°58'33
desc. node	13725 Oct 19 11:43	28° $\approx$ 12'54		retrograde	13726 Oct 03 14:16	9° $\approx$ 30'03	
retrograde	13725 Oct 22 10:20	28° $\approx$ 37'14		evening set	13726 Oct 05 11:08	9° $\approx$ 18'51	
evening set	13725 Oct 24 09:52	28° $\approx$ 26'47		desc. node	13726 Oct 06 09:11	9° $\approx$ 05'31	
inferior conj	13725 Nov 02 06:54	24° $\approx$ 27'18	-4°08'21	inferior conj	13726 Oct 13 19:20	5° $\approx$ 02'35	-2°20'52
minimum elong	13725 Nov 01 21:04	24° $\approx$ 42'14	4°04'29	minimum elong	13726 Oct 13 13:23	5° $\approx$ 12'59	2°18'02
min. Earth dist.	13725 Nov 04 04:46	23° $\approx$ 17'37	0.55014 AU	min. Earth dist.	13726 Oct 16 17:12	3° $\approx$ 01'10	0.56394 AU
morning rise	13725 Nov 10 06:56	20° $\approx$ 16'04		morning rise	13726 Oct 21 12:37	0° $\approx$ 16'38	
direct	13725 Nov 15 03:35	19° $\approx$ 24'23			13726 Oct 22 04:49	30° $\approx$	
morning max el	13725 Nov 28 20:47	26° $\approx$ 11'26	24°25'09	direct	13726 Oct 27 04:36	29° $\approx$ 00'56	
	13725 Dec 02 11:47	0° $\approx$			13726 Nov 01 04:53	0° $\approx$	
asc. node	13725 Dec 13 16:59	16° $\approx$ 14'55		morning max el	13726 Nov 10 08:20	6° $\approx$ 17'03	26°05'01
	13725 Dec 20 22:36	0° $\approx$			13726 Nov 27 17:02	0° $\approx$	

asc. node	13726 Nov 30 13:57	5°♊10'58			13727 Nov 20 04:09	0°♊	
morning set	13726 Dec 08 12:44	21°♊12'34		morning set	13727 Nov 22 21:11	5°♊39'27	
	13726 Dec 12 13:06	0°♊					
superior conj	13726 Dec 15 07:20	6°♊08'26	1°37'46	superior conj	13727 Nov 29 18:57	20°♊50'23	1°32'49
minimum elong	13726 Dec 15 06:57	6°♊06'20	1°38'49	minimum elong	13727 Nov 29 17:37	20°♊42'54	1°33'44
max. Earth dist.	13726 Dec 16 07:35	8°♊23'05	1.31570 AU	max. Earth dist.	13727 Nov 29 15:54	20°♊33'23	1.31193 AU
evening rise	13726 Dec 22 07:35	21°♊22'45		evening rise	13727 Dec 03 21:46	0°♊	
	13726 Dec 26 13:31	0°♊			13727 Dec 06 13:19	5°♊44'55	
desc. node	13727 Jan 02 07:10	12°♊26'10		desc. node	13727 Dec 19 04:28	0°♊	
	13727 Jan 13 17:15	0°♊			13727 Dec 20 04:05	1°♊38'02	
evening max el	13727 Jan 23 06:42	11°♊02'35	27°25'52	evening max el	13728 Jan 05 09:17	22°♊52'56	26°44'42
retrograde	13727 Feb 06 05:19	18°♊21'49		retrograde	13728 Jan 18 09:22	0°♊	
evening set	13727 Feb 13 02:24	16°♊10'51			13728 Jan 19 08:18	0°♊02'17	
min. Earth dist.	13727 Feb 16 20:59	13°♊19'14	0.61410 AU	evening set	13728 Jan 20 07:09	30°♊	
inferior conj	13727 Feb 19 22:53	10°♊33'31	-2°07'07	min. Earth dist.	13728 Jan 25 23:00	28°♊13'16	
minimum elong	13727 Feb 20 03:23	10°♊23'23	2°04'52	inferior conj	13728 Jan 29 23:12	25°♊35'24	0.59226 AU
asc. node	13727 Feb 26 11:49	5°♊52'32		minimum elong	13728 Feb 02 03:32	23°♊06'28	-3°31'07
morning rise	13727 Feb 27 07:21	5°♊35'09		morning rise	13728 Feb 02 11:06	22°♊51'38	3°27'46
direct	13727 Mar 01 10:58	5°♊15'20		direct	13728 Feb 10 02:18	18°♊29'04	
morning max el	13727 Mar 08 09:39	8°♊45'26	17°51'06	asc. node	13728 Feb 12 03:06	18°♊14'04	
	13727 Mar 22 07:44	0°♊		morning max el	13728 Feb 13 09:16	18°♊20'01	
morning set	13727 Mar 24 01:33	3°♊07'58			13728 Feb 19 21:47	22°♊05'19	18°14'34
desc. node	13727 Mar 31 09:07	16°♊11'05		morning set	13728 Feb 26 00:33	0°♊	
					13728 Mar 06 14:11	17°♊01'27	
superior conj	13727 Apr 03 23:40	22°♊26'18	-0°28'14		13728 Mar 13 12:16	0°♊	
minimum elong	13727 Apr 03 21:03	22°♊15'08	0°28'07	superior conj	13728 Mar 16 02:37	4°♊44'43	0°09'03
	13727 Apr 08 11:13	0°♊		minimum elong	13728 Mar 16 03:17	4°♊47'48	0°08'57
max. Earth dist.	13727 Apr 11 06:10	4°♊35'31	1.43275 AU	behind sun begin	13728 Mar 15 21:04	4°♊19'36	
evening rise	13727 Apr 17 22:35	15°♊15'59		behind sun end	13728 Mar 16 09:31	5°♊15'57	
	13727 Apr 27 14:39	0°♊		desc. node	13728 Mar 17 05:38	6°♊46'20	
evening max el	13727 May 19 17:40	29°♊21'43	21°46'32	max. Earth dist.	13728 Mar 23 17:07	18°♊03'45	1.41294 AU
	13727 May 20 09:14	0°♊		evening rise	13728 Mar 28 10:38	25°♊55'05	
asc. node	13727 May 25 08:36	3°♊46'42			13728 Mar 30 23:26	0°♊	
retrograde	13727 May 28 22:06	4°♊44'31			13728 Apr 20 08:43	0°♊	
evening set	13727 Jun 02 11:40	2°♊51'55		evening max el	13728 May 01 09:36	13°♊12'40	23°06'18
	13727 Jun 05 04:54	30°♊		asc. node	13728 May 11 05:50	19°♊17'33	
inferior conj	13727 Jun 07 17:52	26°♊35'04	3°04'49	retrograde	13728 May 11 18:12	19°♊18'45	
minimum elong	13727 Jun 07 16:49	26°♊38'46	3°03'40	evening set	13728 May 16 19:11	17°♊11'17	
min. Earth dist.	13727 Jun 07 20:28	26°♊26'00	0.68874 AU	min. Earth dist.	13728 May 21 17:14	11°♊21'43	0.68906 AU
morning rise	13727 Jun 12 21:45	20°♊20'11		inferior conj	13728 May 22 03:30	10°♊46'10	2°47'13
direct	13727 Jun 17 19:54	18°♊13'23		minimum elong	13728 May 22 01:45	10°♊52'16	2°45'57
desc. node	13727 Jun 27 10:01	23°♊48'28		morning rise	13728 May 27 08:14	4°♊38'24	
morning max el	13727 Jun 27 14:02	23°♊58'30	22°30'08	direct	13728 May 31 17:36	2°♊51'46	
	13727 Jul 02 22:15	0°♊		morning max el	13728 Jun 09 06:15	7°♊45'57	21°06'32
	13727 Jul 24 01:56	0°♊		desc. node	13728 Jun 13 07:04	12°♊14'15	
morning set	13727 Jul 31 05:13	11°♊19'41			13728 Jun 26 07:56	0°♊	
max. Earth dist.	13727 Aug 05 03:14	19°♊28'52	1.40813 AU	morning set	13728 Jul 09 23:56	20°♊41'23	
	13727 Aug 11 05:10	0°♊			13728 Jul 15 20:36	0°♊	
superior conj	13727 Aug 12 23:24	3°♊08'18	-1°11'02	max. Earth dist.	13728 Jul 17 08:53	2°♊26'59	1.42928 AU
minimum elong	13727 Aug 13 04:46	3°♊32'23	1°10'49	superior conj	13728 Jul 24 12:22	14°♊19'51	-1°43'20
asc. node	13727 Aug 21 08:57	18°♊37'43		minimum elong	13728 Jul 24 19:36	14°♊50'37	1°43'25
evening rise	13727 Aug 23 02:27	21°♊53'00			13728 Aug 02 12:02	0°♊	
	13727 Aug 27 11:01	0°♊		evening rise	13728 Aug 05 04:02	4°♊46'03	
evening max el	13727 Sep 08 01:11	17°♊28'40	18°21'10	asc. node	13728 Aug 07 05:34	8°♊27'40	
retrograde	13727 Sep 15 13:38	21°♊17'18			13728 Aug 21 03:00	0°♊	
evening set	13727 Sep 17 15:23	21°♊00'38		evening max el	13728 Aug 21 12:52	0°♊25'03	18°04'03
desc. node	13727 Sep 23 06:41	17°♊55'54		retrograde	13728 Aug 28 06:32	3°♊52'37	
inferior conj	13727 Sep 25 05:23	16°♊23'11	-0°36'48	evening set	13728 Aug 30 15:45	3°♊26'41	
minimum elong	13727 Sep 25 04:00	16°♊26'01	0°36'04		13728 Sep 04 20:42	30°♊	
min. Earth dist.	13727 Sep 28 12:15	13°♊43'02	0.58369 AU	inferior conj	13728 Sep 06 12:06	28°♊28'57	0°48'28
morning rise	13727 Oct 02 13:10	11°♊00'29		minimum elong	13728 Sep 06 13:33	28°♊25'31	0°47'48
direct	13727 Oct 08 19:21	9°♊17'47		desc. node	13728 Sep 09 04:13	25°♊57'04	
morning max el	13727 Oct 23 02:51	16°♊56'04	27°18'30	min. Earth dist.	13728 Sep 09 16:13	25°♊29'43	0.60625 AU
	13727 Nov 02 21:55	0°♊		morning rise	13728 Sep 13 08:21	22°♊36'27	
asc. node	13727 Nov 17 10:49	24°♊33'28		direct	13728 Sep 19 22:35	20°♊27'57	

morning max el	13728 Oct 04 05:11	28° $\cap$ 22'21	27°55'04	morning max el	13729 Sep 16 13:04	10° $\cap$ 33'47	27°52'45
	13728 Oct 05 19:20	0° $\Omega$			13729 Oct 01 19:29	0° $\Omega$	
	13728 Oct 26 18:13	0° $\cap$			13729 Oct 19 02:21	0° $\cap$	
asc. node	13728 Nov 03 07:36	14° $\cap$ 15'07		morning set	13729 Oct 20 22:30	3° $\cap$ 40'40	
morning set	13728 Nov 06 01:09	19° $\cap$ 50'34		asc. node	13729 Oct 21 04:18	4° $\cap$ 10'08	
	13728 Nov 10 18:46	0° $\nearrow$		max. Earth dist.	13729 Oct 26 02:16	14° $\cap$ 27'29	1.32017 AU
max. Earth dist.	13728 Nov 11 23:28	2° $\nearrow$ 38'06	1.31338 AU				
superior conj	13728 Nov 13 05:55	5° $\nearrow$ 26'59	1°22'03	superior conj	13729 Oct 28 14:20	19° $\cap$ 53'12	1°05'35
minimum elong	13728 Nov 13 03:54	5° $\nearrow$ 15'45	1°22'43	minimum elong	13729 Oct 28 12:03	19° $\cap$ 40'43	1°05'57
evening rise	13728 Nov 19 22:39	20° $\nearrow$ 14'31			13729 Nov 02 04:52	0° $\nearrow$	
	13728 Nov 24 14:49	0° $\Xi$		evening rise	13729 Nov 04 09:39	4° $\nearrow$ 46'54	
desc. node	13728 Dec 06 01:06	20° $\Xi$ 07'31			13729 Nov 17 15:09	0° $\Xi$	
	13728 Dec 13 11:43	0° $\approx$		desc. node	13729 Nov 22 22:14	7° $\Xi$ 38'59	
evening max el	13728 Dec 17 03:23	3° $\approx$ 49'50	25°30'51	evening max el	13729 Nov 28 14:30	14° $\Xi$ 04'23	23°54'34
retrograde	13728 Dec 31 00:20	10° $\approx$ 49'03		retrograde	13729 Dec 12 03:49	20° $\Xi$ 49'15	
evening set	13729 Jan 05 22:54	9° $\approx$ 28'09		evening set	13729 Dec 16 23:14	19° $\Xi$ 58'49	
min. Earth dist.	13729 Jan 10 15:43	6° $\approx$ 49'06	0.57173 AU	min. Earth dist.	13729 Dec 23 01:35	16° $\Xi$ 59'47	0.55541 AU
inferior conj	13729 Jan 13 12:23	4° $\approx$ 52'54	-4°50'35	inferior conj	13729 Dec 25 00:38	15° $\Xi$ 49'16	-5°46'02
minimum elong	13729 Jan 13 21:13	4° $\approx$ 37'55	4°47'27	minimum elong	13729 Dec 25 05:45	15° $\Xi$ 41'35	5°44'28
morning rise	13729 Jan 21 22:10	0° $\approx$ 37'50		morning rise	13730 Jan 02 14:05	11° $\Xi$ 53'10	
direct	13729 Jan 24 01:27	0° $\approx$ 24'06		direct	13730 Jan 05 04:09	11° $\Xi$ 36'17	
asc. node	13729 Jan 30 06:40	2° $\approx$ 29'02		morning max el	13730 Jan 15 16:29	16° $\Xi$ 38'53	20°06'31
morning max el	13729 Feb 02 01:22	4° $\approx$ 46'41	18°59'10	asc. node	13730 Jan 17 03:59	18° $\Xi$ 10'00	
	13729 Feb 17 20:31	0° $\text{X}$			13730 Jan 25 11:04	0° $\approx$	
morning set	13729 Feb 18 13:03	1° $\text{X}$ 21'16		morning set	13730 Feb 02 18:41	15° $\approx$ 57'21	
					13730 Feb 09 15:37	0° $\text{X}$	
superior conj	13729 Feb 27 00:05	17° $\text{X}$ 53'35	0°40'32	superior conj	13730 Feb 10 11:32	1° $\text{X}$ 40'03	1°05'06
minimum elong	13729 Feb 27 02:27	18° $\text{X}$ 04'52	0°40'28	minimum elong	13730 Feb 10 14:16	1° $\text{X}$ 53'44	1°05'19
desc. node	13729 Mar 04 02:09	27° $\text{X}$ 22'05		max. Earth dist.	13730 Feb 16 06:35	12° $\text{X}$ 57'11	1.36834 AU
	13729 Mar 05 13:11	0° $\Upsilon$		desc. node	13730 Feb 18 22:42	17° $\text{X}$ 54'58	
max. Earth dist.	13729 Mar 06 00:03	0° $\Upsilon$ 48'28	1.39062 AU	evening rise	13730 Feb 20 00:52	19° $\text{X}$ 53'49	
evening rise	13729 Mar 09 19:53	7° $\Upsilon$ 29'18			13730 Feb 25 20:00	0° $\Upsilon$	
	13729 Mar 23 22:31	0° $\text{B}$			13730 Mar 17 23:53	0° $\text{B}$	
evening max el	13729 Apr 13 23:21	27° $\text{B}$ 04'45	24°26'50	evening max el	13730 Mar 27 12:49	10° $\text{B}$ 57'00	25°41'10
	13729 Apr 17 04:35	0° $\text{II}$		retrograde	13730 Apr 08 23:18	18° $\text{B}$ 06'56	
retrograde	13729 Apr 25 10:58	3° $\text{II}$ 48'18		evening set	13730 Apr 14 23:07	15° $\text{B}$ 38'40	
asc. node	13729 Apr 28 03:10	3° $\text{II}$ 16'42		asc. node	13730 Apr 15 00:32	15° $\text{B}$ 35'41	
evening set	13729 Apr 30 23:32	1° $\text{II}$ 28'32		min. Earth dist.	13730 Apr 19 05:39	11° $\text{B}$ 00'49	0.67591 AU
	13729 May 02 11:59	30° $\text{R}$ $\text{B}$		inferior conj	13730 Apr 20 16:57	9° $\text{B}$ 08'17	1°41'13
min. Earth dist.	13729 May 05 12:59	26° $\text{B}$ 15'13	0.68471 AU	minimum elong	13730 Apr 20 14:55	9° $\text{B}$ 14'47	1°39'59
inferior conj	13729 May 06 11:51	24° $\text{B}$ 58'29	2°19'26	morning rise	13730 Apr 26 07:17	3° $\text{B}$ 18'09	
minimum elong	13729 May 06 09:43	25° $\text{B}$ 05'39	2°18'06	direct	13730 Apr 29 16:54	2° $\text{B}$ 11'54	
morning rise	13729 May 11 20:03	18° $\text{B}$ 58'53		morning max el	13730 May 06 12:02	5° $\text{B}$ 52'49	18°57'06
direct	13729 May 15 17:05	17° $\text{B}$ 33'01		desc. node	13730 May 18 00:52	21° $\text{B}$ 00'00	
morning max el	13729 May 23 05:26	21° $\text{B}$ 44'37	19°54'21	greatest brilliancy	13730 May 19 21:11	23° $\text{B}$ 46'27	-0.8m
	13729 May 30 03:50	0° $\text{II}$			13730 May 23 23:02	0° $\text{II}$	
desc. node	13729 May 31 04:01	1° $\text{II}$ 21'46		morning set	13730 May 29 09:31	8° $\text{II}$ 24'00	
morning set	13729 Jun 19 02:41	29° $\text{II}$ 24'00			13730 Jun 12 06:42	0° $\text{E}$	
	13729 Jun 19 12:03	0° $\text{E}$		max. Earth dist.	13730 Jun 12 13:25	0° $\text{E}$ 26'17	1.45579 AU
max. Earth dist.	13729 Jun 29 20:40	16° $\text{E}$ 10'18	1.44570 AU				
superior conj	13729 Jul 05 01:30	24° $\text{E}$ 30'37	-2°06'31	superior conj	13730 Jun 14 17:54	3° $\text{E}$ 52'05	-2°13'25
minimum elong	13729 Jul 05 07:02	24° $\text{E}$ 53'02	2°07'14	minimum elong	13730 Jun 14 16:47	3° $\text{E}$ 47'39	2°14'28
	13729 Jul 08 10:16	0° $\Omega$		evening rise	13730 Jun 29 18:39	27° $\text{E}$ 51'37	
evening rise	13729 Jul 18 11:00	16° $\Omega$ 49'00			13730 Jul 01 02:19	0° $\Omega$	
asc. node	13729 Jul 25 02:16	28° $\Omega$ 03'03		asc. node	13730 Jul 11 23:00	17° $\Omega$ 18'04	
	13729 Jul 26 06:34	0° $\cap$		evening max el	13730 Jul 19 16:50	27° $\Omega$ 21'56	18°26'04
evening max el	13729 Aug 05 03:11	13° $\cap$ 45'39	18°06'02		13730 Jul 23 02:51	0° $\cap$	
retrograde	13729 Aug 11 12:29	17° $\cap$ 06'06		retrograde	13730 Jul 26 03:06	0° $\cap$ 48'41	
evening set	13729 Aug 14 05:59	16° $\cap$ 27'41		evening set	13730 Jul 29 05:18	29° $\Omega$ 55'20	
inferior conj	13729 Aug 20 11:43	11° $\cap$ 12'00	1°51'31		13730 Jul 29 01:57	30° $\text{R}$ $\Omega$	
minimum elong	13729 Aug 20 14:10	11° $\cap$ 05'24	1°50'21	inferior conj	13730 Aug 04 00:08	24° $\Omega$ 23'34	2°34'14
min. Earth dist.	13729 Aug 23 05:53	8° $\cap$ 15'08	0.62877 AU	minimum elong	13730 Aug 04 02:24	24° $\Omega$ 16'51	2°33'01
morning rise	13729 Aug 26 20:15	5° $\cap$ 00'16		min. Earth dist.	13730 Aug 06 04:50	21° $\Omega$ 47'32	0.64922 AU
desc. node	13729 Aug 27 01:44	4° $\cap$ 50'16		morning rise	13730 Aug 09 22:14	18° $\Omega$ 02'07	
direct	13729 Sep 02 12:22	2° $\cap$ 31'59		desc. node	13730 Aug 13 23:14	15° $\Omega$ 45'27	
				direct	13730 Aug 16 10:41	15° $\Omega$ 23'22	

morning max el	13730 Aug 29 23:34	23°Ω19'58	27°15'43	morning rise	13731 Jul 24 11:34	1°Ω32'53	
	13730 Sep 04 22:00	0°ྐ			13731 Jul 26 15:14	30°᠕᠙᠗	
	13730 Sep 25 03:21	0°᠘		direct	13731 Jul 30 16:00	28°᠗53'37	
morning set	13730 Oct 04 10:25	17°᠘02'01		desc. node	13731 Jul 31 20:40	28°᠗58'54	
asc. node	13730 Oct 08 00:54	24°᠘12'47			13731 Aug 04 01:32	0°Ω	
max. Earth dist.	13730 Oct 08 20:45	25°᠘54'14	1.33241 AU	morning max el	13731 Aug 12 10:36	6°Ω30'24	26°11'47
	13730 Oct 10 20:08	0°᠓			13731 Aug 30 15:00	0°ྐ	
				morning set	13731 Sep 17 09:40	29°ྐ46'59	
superior conj	13730 Oct 12 18:00	4°᠓02'09	0°43'27		13731 Sep 17 12:28	0°᠘	
minimum elong	13730 Oct 12 16:02	3°᠓51'42	0°43'36	max. Earth dist.	13731 Sep 21 05:20	7°᠘02'40	1.34982 AU
evening rise	13730 Oct 19 20:25	19°᠓16'11		asc. node	13731 Sep 24 21:28	14°᠘19'18	
	13730 Oct 25 01:36	0°᠗					
desc. node	13730 Nov 09 19:29	23°᠗50'15		superior conj	13731 Sep 26 14:26	17°᠘47'37	0°16'01
evening max el	13730 Nov 10 01:36	24°᠗05'21	22°12'37	minimum elong	13731 Sep 26 13:33	17°᠘43'02	0°16'04
	13730 Nov 19 14:34	0°᠔		behind sun begin	13731 Sep 26 13:07	17°᠘40'50	
retrograde	13730 Nov 22 18:55	0°᠔23'36		behind sun end	13731 Sep 26 13:58	17°᠘45'14	
evening set	13730 Nov 26 05:04	29°᠗57'45			13731 Oct 02 11:18	0°᠓	
	13730 Nov 26 01:20	30°᠕᠗		evening rise	13731 Oct 04 05:01	3°᠓37'34	
inferior conj	13730 Dec 04 20:41	26°᠗02'51	-5°53'20		13731 Oct 19 00:45	0°᠗	
minimum elong	13730 Dec 04 17:07	26°᠗07'51	5°52'02	evening max el	13731 Oct 22 22:00	4°᠗29'18	20°41'16
min. Earth dist.	13730 Dec 04 08:01	26°᠗20'37	0.54621 AU	desc. node	13731 Oct 27 16:48	8°᠗14'58	
morning rise	13730 Dec 13 06:15	22°᠗15'36		retrograde	13731 Nov 03 05:21	10°᠗06'30	
direct	13730 Dec 16 15:59	21°᠗49'42		evening set	13731 Nov 05 13:12	9°᠗53'17	
morning max el	13730 Dec 28 16:55	27°᠗35'38	21°36'18	inferior conj	13731 Nov 14 12:13	5°᠗58'58	-5°00'36
	13730 Dec 31 00:40	0°᠔		minimum elong	13731 Nov 14 02:28	6°᠗12'59	4°57'22
asc. node	13731 Jan 04 01:13	5°᠔05'15		min. Earth dist.	13731 Nov 15 14:13	5°᠗21'37	0.54604 AU
	13731 Jan 17 20:29	0°᠗		morning rise	13731 Nov 22 15:41	2°᠗02'47	
morning set	13731 Jan 18 04:22	0°᠗41'13		direct	13731 Nov 27 00:08	1°᠗22'11	
				morning max el	13731 Dec 10 05:44	7°᠗47'56	23°22'21
superior conj	13731 Jan 25 08:59	15°᠗52'21	1°22'39	asc. node	13731 Dec 21 22:21	22°᠗᠕8'09	
minimum elong	13731 Jan 25 11:15	16°᠗04'07	1°23'14		13731 Dec 25 23:14	0°᠔	
max. Earth dist.	13731 Jan 29 17:55	24°᠗49'36	1.34828 AU	morning set	13732 Jan 02 15:59	15°᠔27'07	
	13731 Feb 01 08:56	0°᠗			13732 Jan 09 09:19	0°᠗	
evening rise	13731 Feb 02 22:08	2°᠗58'24		superior conj	13732 Jan 09 13:23	0°᠗21'54	1°33'29
desc. node	13731 Feb 05 19:16	8°᠗20'25		minimum elong	13732 Jan 09 14:43	0°᠗29'04	1°34'22
	13731 Feb 18 18:23	0°᠙		max. Earth dist.	13732 Jan 12 12:56	6°᠗43'42	1.33193 AU
evening max el	13731 Mar 10 02:41	24°᠙43'17	26°41'57	evening rise	13732 Jan 17 08:10	16°᠗34'10	
	13731 Mar 16 16:59	0°᠘		desc. node	13732 Jan 23 15:54	28°᠗33'58	
retrograde	13731 Mar 23 06:08	2°᠘07'08			13732 Jan 24 11:03	0°᠗	
	13731 Mar 29 03:07	30°᠕᠙᠙			13732 Feb 13 06:03	0°᠙	
evening set	13731 Mar 29 16:06	29°᠙35'06		evening max el	13732 Feb 20 16:02	8°᠙12'44	27°21'42
asc. node	13731 Apr 01 21:59	26°᠙25'44		retrograde	13732 Mar 05 06:29	15°᠙40'13	
min. Earth dist.	13731 Apr 02 16:59	25°᠙31'37	0.66291 AU	evening set	13732 Mar 12 00:21	13°᠙10'19	
inferior conj	13731 Apr 04 16:39	23°᠙10'25	0°51'58	min. Earth dist.	13732 Mar 15 20:50	9°᠙38'54	0.64617 AU
minimum elong	13731 Apr 04 15:22	23°᠙14'16	0°51'09	inferior conj	13732 Mar 18 08:25	6°᠙58'14	-0°08'53
morning rise	13731 Apr 10 15:46	17°᠙31'31		minimum elong	13732 Mar 18 08:41	6°᠙57'31	0°08'48
direct	13731 Apr 13 15:05	16°᠙42'30		transit middle	13732 Mar 18 08:41	6°᠙57'31	0°08'48
morning max el	13731 Apr 20 00:52	20°᠙05'28	18°16'24	transit begin	13732 Mar 18 06:07	7°᠙04'28	
	13731 Apr 27 19:05	0°᠘		transit end	13732 Mar 18 11:15	6°᠙50'35	
desc. node	13731 May 04 21:36	11°᠘00'35		asc. node	13732 Mar 18 19:27	6°᠙28'29	
morning set	13731 May 09 15:16	18°᠘33'56		morning rise	13732 Mar 24 18:55	1°᠙33'02	
	13731 May 16 19:49	0°᠒		direct	13732 Mar 27 09:15	0°᠙58'08	
				morning max el	13732 Apr 02 17:37	4°᠙15'05	17°52'44
superior conj	13731 May 25 01:51	12°᠒58'10	-2°00'09		13732 Apr 19 23:50	0°᠘	
minimum elong	13731 May 24 17:59	12°᠒27'24	2°00'38	morning set	13732 Apr 20 01:16	0°᠘06'01	
max. Earth dist.	13731 May 26 09:24	15°᠒01'24	1.45857 AU	desc. node	13732 Apr 20 18:13	1°᠘16'40	
	13731 Jun 05 00:02	0°᠗					
evening rise	13731 Jun 10 02:06	7°᠗55'51		superior conj	13732 May 03 18:43	22°᠘33'54	-1°29'58
greatest brilliancy	13731 Jun 20 19:23	24°᠗33'01	-0.8m	minimum elong	13732 May 03 10:04	21°᠘59'18	1°29'46
	13731 Jun 24 10:51	0°Ω		max. Earth dist.	13732 May 08 05:36	29°᠘37'26	1.45382 AU
asc. node	13731 Jun 28 19:51	6°Ω05'48			13732 May 08 11:20	0°᠒	
evening max el	13731 Jul 03 03:10	11°Ω07'20	19°03'16	evening rise	13732 May 19 16:29	17°᠒23'20	
retrograde	13731 Jul 09 23:00	14°Ω53'26			13732 May 27 23:45	0°᠗	
evening set	13731 Jul 13 10:19	13°Ω43'38		greatest brilliancy	13732 Jun 03 11:28	9°᠗36'36	-0.6m
inferior conj	13731 Jul 18 21:49	7°Ω57'16	2°59'45	asc. node	13732 Jun 14 16:48	24°᠗16'20	
minimum elong	13731 Jul 18 23:17	7°Ω52'34	2°58'40	evening max el	13732 Jun 15 08:15	24°᠗55'58	19°56'26
min. Earth dist.	13731 Jul 20 11:56	5°Ω55'16	0.66612 AU				

retrograde	13732 Jun 22 21:31	29°☿13'32		retrograde	13733 Jun 06 20:28	13°☿43'21	
evening set	13732 Jun 26 18:28	27°☿46'46		evening set	13733 Jun 11 03:43	11°☿59'56	
inferior conj	13732 Jul 02 01:47	21°☿47'06	3°11'03	inferior conj	13733 Jun 16 09:37	5°☿48'37	3°10'14
minimum elong	13732 Jul 02 02:14	21°☿45'35	3°10'01	minimum elong	13733 Jun 16 09:04	5°☿50'31	3°09'09
min. Earth dist.	13732 Jul 03 01:33	20°☿26'52	0.67863 AU	min. Earth dist.	13733 Jun 16 19:45	5°☿13'26	0.68643 AU
morning rise	13732 Jul 07 09:40	15°☿24'16			13733 Jun 21 01:22	30°☿II	
direct	13732 Jul 13 03:16	12°☿53'00		morning rise	13733 Jun 21 14:12	29°II30'05	
desc. node	13732 Jul 17 18:02	14°☿12'09		direct	13733 Jun 26 19:32	27°II13'11	
morning max el	13732 Jul 24 21:09	19°☿55'17	24°50'21		13733 Jul 03 10:15	0°☿	
	13732 Aug 02 11:52	0°♊		desc. node	13733 Jul 04 15:17	0°☿58'22	
	13732 Aug 22 18:25	0°♊		morning max el	13733 Jul 07 07:50	3°☿28'51	23°21'10
morning set	13732 Aug 29 16:11	11°♊46'02			13733 Jul 27 14:43	0°♊	
max. Earth dist.	13732 Sep 02 05:55	18°♊11'23	1.37129 AU	morning set	13733 Aug 11 01:28	22°♊48'36	
	13732 Sep 08 11:53	0°♊		max. Earth dist.	13733 Aug 15 03:53	29°♊47'45	1.39476 AU
					13733 Aug 15 06:42	0°♊	
superior conj	13732 Sep 09 00:34	1°♊01'54	-0°15'59	superior conj	13733 Aug 22 20:36	13°♊36'22	-0°50'50
minimum elong	13732 Sep 09 01:37	1°♊07'00	0°15'53	minimum elong	13733 Aug 23 00:20	13°♊53'41	0°50'36
behind sun begin	13732 Sep 09 00:25	1°♊01'11		asc. node	13733 Aug 28 14:33	24°♊29'02	
behind sun end	13732 Sep 09 02:48	1°♊12'50			13733 Aug 31 11:07	0°♊	
asc. node	13732 Sep 10 18:00	4°♊25'51		evening rise	13733 Sep 01 06:04	1°♊31'32	
evening rise	13732 Sep 17 09:11	17°♊45'07		evening max el	13733 Sep 17 07:56	27°♊36'43	18°40'02
	13732 Sep 23 16:14	0°♋			13733 Sep 20 04:57	0°♋	
evening max el	13732 Oct 04 08:28	15°♋38'42	19°29'39	retrograde	13733 Sep 25 12:28	1°♋44'15	
desc. node	13732 Oct 13 14:12	20°♋28'01		evening set	13733 Sep 27 10:40	1°♋31'21	
retrograde	13732 Oct 14 00:17	20°♋28'33		desc. node	13733 Sep 30 11:42	0°♋23'18	
evening set	13732 Oct 15 21:16	20°♋18'25			13733 Oct 01 05:00	30°☿♊	
inferior conj	13732 Oct 24 13:54	16°♋12'17	-3°23'55	inferior conj	13733 Oct 05 11:21	27°♊06'20	-1°35'03
minimum elong	13732 Oct 24 05:20	16°♋26'02	3°20'13	minimum elong	13733 Oct 05 07:29	27°♊13'35	1°33'06
min. Earth dist.	13732 Oct 26 23:36	14°♋39'52	0.55505 AU	min. Earth dist.	13733 Oct 08 14:49	24°♊46'03	0.57172 AU
morning rise	13732 Nov 01 11:21	11°♋47'25		morning rise	13733 Oct 13 00:52	22°♊03'53	
direct	13732 Nov 06 16:29	10°♋46'27		direct	13733 Oct 18 23:23	20°♊36'50	
morning max el	13732 Nov 20 15:29	17°♋46'21	25°10'05	morning max el	13733 Nov 02 05:51	28°♊04'06	26°40'30
	13732 Nov 30 17:06	0°♌			13733 Nov 04 03:39	0°♋	
asc. node	13732 Dec 07 19:23	11°♌34'33			13733 Nov 24 07:18	0°♌	
morning set	13732 Dec 17 03:47	0°♌09'52		asc. node	13733 Nov 24 16:18	0°♌42'43	
	13732 Dec 17 01:56	0°♌		morning set	13733 Dec 01 13:55	14°♌43'42	
superior conj	13732 Dec 23 22:14	15°♌01'41	1°37'58	superior conj	13733 Dec 08 09:23	29°♌44'26	1°36'24
minimum elong	13732 Dec 23 22:29	15°♌03'01	1°39'00	minimum elong	13733 Dec 08 08:34	29°♌39'55	1°37'24
max. Earth dist.	13732 Dec 25 15:06	18°♌46'14	1.32011 AU		13733 Dec 08 12:10	0°♌	
	13732 Dec 30 21:25	0°♍		max. Earth dist.	13733 Dec 08 21:57	0°♌54'35	1.31334 AU
evening rise	13732 Dec 31 03:53	0°♍33'24		evening rise	13733 Dec 15 06:35	14°♌48'37	
desc. node	13733 Jan 09 12:36	18°♍30'05			13733 Dec 22 21:26	0°♍	
	13733 Jan 16 10:58	0°♎		desc. node	13733 Dec 27 09:26	8°♍00'39	
evening max el	13733 Feb 02 03:03	21°♎13'16	27°33'41		13734 Jan 11 23:04	0°♎	
retrograde	13733 Feb 15 23:43	28°♎37'26		evening max el	13734 Jan 15 09:18	3°♎31'35	27°12'42
evening set	13733 Feb 22 21:24	26°♎16'53		retrograde	13734 Jan 29 08:41	10°♎47'47	
min. Earth dist.	13733 Feb 26 15:27	23°♎13'07	0.62640 AU	evening set	13734 Feb 05 04:01	8°♎45'00	
inferior conj	13733 Mar 01 13:20	20°♎24'47	-1°21'04	min. Earth dist.	13734 Feb 08 23:49	6°♎00'50	0.60474 AU
minimum elong	13733 Mar 01 16:04	20°♎18'10	1°19'39	inferior conj	13734 Feb 12 03:51	3°♎19'51	-2°42'26
asc. node	13733 Mar 05 16:56	16°♎48'13		minimum elong	13734 Feb 12 09:43	3°♎07'23	2°39'38
morning rise	13733 Mar 08 13:25	15°♎16'05			13734 Feb 16 12:24	30°☿♎	
direct	13733 Mar 10 20:19	14°♎51'50		morning rise	13734 Feb 19 18:36	28°♎30'26	
morning max el	13733 Mar 17 11:22	18°♎13'57	17°46'31	asc. node	13734 Feb 20 14:25	28°♎19'31	
	13733 Mar 26 01:02	0°♏		direct	13734 Feb 21 20:23	28°♎13'13	
morning set	13733 Apr 02 11:43	12°♏47'42			13734 Feb 26 21:50	0°♏	
desc. node	13733 Apr 07 14:47	21°♏43'38		morning max el	13734 Mar 01 02:38	1°♏51'10	17°58'41
	13733 Apr 12 11:13	0°♐		morning set	13734 Mar 16 16:23	26°♏19'30	
superior conj	13733 Apr 14 08:56	3°♏11'16	-0°51'14		13734 Mar 18 16:22	0°♏	
minimum elong	13733 Apr 14 03:54	2°♏50'16	0°50'58	desc. node	13734 Mar 25 11:17	12°♏16'44	
max. Earth dist.	13733 Apr 20 23:07	13°♏57'05	1.44214 AU	superior conj	13734 Mar 26 23:11	14°♏54'53	-0°11'54
evening rise	13733 Apr 29 04:43	26°♏53'33		minimum elong	13734 Mar 26 22:09	14°♏50'23	0°11'54
	13733 May 01 05:16	0°♑		behind sun begin	13734 Mar 26 16:45	14°♏26'41	
	13733 May 21 22:09	0°☿		behind sun end	13734 Mar 27 03:34	15°♏14'03	
evening max el	13733 May 29 07:24	8°☿45'16	21°03'15	max. Earth dist.	13734 Apr 03 12:06	27°♏45'11	1.42477 AU
asc. node	13733 Jun 01 13:53	11°☿37'22					



	13734 Apr 04 20:51	0°♄		max. Earth dist.	13735 Mar 16 20:44	10°♄53'36	1.40363 AU
evening rise	13734 Apr 09 05:31	7°♄01'59		evening rise	13735 Mar 21 02:33	18°♄04'57	
	13734 Apr 24 09:57	0°♄			13735 Mar 28 12:29	0°♄	
evening max el	13734 May 12 01:27	22°♄35'15	22°19'55		13735 Apr 18 21:02	0°♄	
asc. node	13734 May 19 11:04	27°♄53'23		evening max el	13735 Apr 24 16:20	6°♄27'21	23°40'55
retrograde	13734 May 21 18:05	28°♄17'20		retrograde	13735 May 05 12:50	12°♄50'12	
evening set	13734 May 26 12:19	26°♄18'20		asc. node	13735 May 06 08:21	12°♄47'14	
inferior conj	13734 May 31 19:11	19°♄57'28	2°58'36	evening set	13735 May 10 18:41	10°♄37'26	
minimum elong	13734 May 31 17:47	20°♄02'19	2°57'24	min. Earth dist.	13735 May 15 12:58	5°♄03'09	0.68780 AU
min. Earth dist.	13734 May 31 16:17	20°♄07'33	0.68945 AU	inferior conj	13735 May 16 04:31	4°♄09'52	2°36'43
morning rise	13734 Jun 05 23:05	13°♄45'12		minimum elong	13735 May 16 02:33	4°♄16'37	2°35'24
direct	13734 Jun 10 15:43	11°♄46'44			13735 May 19 10:34	30°♄	
morning max el	13734 Jun 19 21:02	17°♄10'11	21°53'20	morning rise	13735 May 21 10:23	28°♄05'14	
desc. node	13734 Jun 21 12:26	18°♄53'21		direct	13735 May 25 14:28	26°♄27'15	
	13734 Jun 30 10:10	0°♄			13735 Jun 01 13:47	0°♄	
	13734 Jul 20 16:10	0°♄		morning max el	13735 Jun 02 15:52	1°♄01'53	20°34'03
morning set	13734 Jul 22 10:01	2°♄46'14		desc. node	13735 Jun 08 09:28	7°♄38'34	
max. Earth dist.	13734 Jul 28 05:12	12°♄12'41	1.41755 AU		13735 Jun 24 02:57	0°♄	
				morning set	13735 Jul 01 20:04	11°♄45'52	
superior conj	13734 Aug 04 22:10	25°♄21'22	-1°25'26	max. Earth dist.	13735 Jul 10 13:26	25°♄31'17	1.43701 AU
minimum elong	13734 Aug 05 04:34	25°♄49'28	1°25'17		13735 Jul 13 07:50	0°♄	
	13734 Aug 07 13:10	0°♄					
asc. node	13734 Aug 15 11:09	14°♄25'16		superior conj	13735 Jul 17 01:09	6°♄07'34	-1°54'44
evening rise	13734 Aug 15 15:59	14°♄47'33		minimum elong	13735 Jul 17 08:16	6°♄37'11	1°55'03
	13734 Aug 24 04:25	0°♄		evening rise	13735 Jul 29 10:16	27°♄20'41	
evening max el	13734 Aug 31 16:29	10°♄15'46	18°11'33		13735 Jul 30 22:37	0°♄	
retrograde	13734 Sep 07 19:37	13°♄53'27		asc. node	13735 Aug 02 07:47	4°♄09'39	
evening set	13734 Sep 10 00:22	13°♄33'20		evening max el	13735 Aug 15 05:48	23°♄24'02	18°02'39
inferior conj	13734 Sep 17 06:37	8°♄47'25	0°02'03	retrograde	13735 Aug 21 18:30	26°♄46'30	
minimum elong	13734 Sep 17 06:41	8°♄47'16	0°02'05	evening set	13735 Aug 24 07:20	26°♄15'29	
transit middle	13734 Sep 17 06:41	8°♄47'16	0°02'05	inferior conj	13735 Aug 30 21:00	21°♄09'51	1°17'55
transit begin	13734 Sep 17 03:18	8°♄54'38		minimum elong	13735 Aug 30 23:04	21°♄04'40	1°16'56
transit end	13734 Sep 17 10:05	8°♄39'52		min. Earth dist.	13735 Sep 02 21:32	18°♄09'18	0.61606 AU
desc. node	13734 Sep 17 09:15	8°♄41'40		desc. node	13735 Sep 04 06:49	16°♄53'01	
min. Earth dist.	13734 Sep 20 13:41	5°♄56'13	0.59312 AU	morning rise	13735 Sep 06 12:14	15°♄08'15	
morning rise	13734 Sep 24 09:37	3°♄10'53		direct	13735 Sep 13 04:11	12°♄50'21	
direct	13734 Sep 30 20:14	1°♄16'19		morning max el	13735 Sep 27 08:30	20°♄48'19	27°58'37
morning max el	13734 Oct 15 03:45	9°♄02'55	27°38'48		13735 Oct 05 07:33	0°♄	
	13734 Oct 31 05:05	0°♄			13735 Oct 24 05:51	0°♄	
asc. node	13734 Nov 11 13:07	20°♄14'22		asc. node	13735 Oct 29 09:51	10°♄02'08	
morning set	13734 Nov 15 20:41	29°♄04'37		morning set	13735 Oct 30 22:04	13°♄06'59	
	13734 Nov 16 07:08	0°♄		max. Earth dist.	13735 Nov 05 12:11	25°♄01'54	1.31566 AU
superior conj	13734 Nov 22 20:57	14°♄25'10	1°28'57	superior conj	13735 Nov 07 07:03	28°♄57'48	1°15'45
minimum elong	13734 Nov 22 19:17	14°♄15'51	1°29'47	minimum elong	13735 Nov 07 04:51	28°♄45'40	1°16'18
max. Earth dist.	13734 Nov 22 06:13	13°♄02'55	1.31185 AU		13735 Nov 07 18:18	0°♄	
evening rise	13734 Nov 29 14:05	29°♄14'49		evening rise	13735 Nov 14 00:20	13°♄46'09	
	13734 Nov 29 22:31	0°♄			13735 Nov 22 00:31	0°♄	
desc. node	13734 Dec 14 06:24	26°♄56'08		desc. node	13735 Dec 01 03:28	15°♄02'55	
	13734 Dec 16 05:52	0°♄		evening max el	13735 Dec 09 23:19	25°♄36'10	24°51'46
evening max el	13734 Dec 28 08:28	14°♄59'23	26°17'01		13735 Dec 15 14:34	0°♄	
retrograde	13735 Jan 11 07:26	22°♄04'45		retrograde	13735 Dec 23 17:47	2°♄29'15	
evening set	13735 Jan 17 16:17	20°♄27'24		evening set	13735 Dec 29 06:08	1°♄21'39	
min. Earth dist.	13735 Jan 21 21:58	17°♄50'46	0.58315 AU		13736 Jan 01 02:39	30°♄	
inferior conj	13735 Jan 25 00:22	15°♄33'59	-4°06'20	min. Earth dist.	13736 Jan 03 11:12	28°♄36'30	0.56410 AU
minimum elong	13735 Jan 25 08:52	15°♄18'19	4°02'53	inferior conj	13736 Jan 06 00:17	26°♄58'51	-5°18'30
morning rise	13735 Feb 02 04:27	11°♄05'52		minimum elong	13736 Jan 06 08:17	26°♄46'00	5°15'58
direct	13735 Feb 04 05:19	10°♄51'56		morning rise	13736 Jan 14 12:37	22°♄52'18	
asc. node	13735 Feb 07 11:51	11°♄29'52		direct	13736 Jan 16 19:33	22°♄37'42	
morning max el	13735 Feb 12 11:36	14°♄55'51	18°30'49	asc. node	13736 Jan 25 09:12	26°♄19'18	
	13735 Feb 22 20:39	0°♄		morning max el	13736 Jan 26 10:09	27°♄16'34	19°25'00
morning set	13735 Feb 28 09:50	10°♄25'27			13736 Jan 28 22:11	0°♄	
				morning set	13736 Feb 12 11:57	24°♄53'20	
superior conj	13735 Mar 09 10:31	27°♄35'54	0°23'11		13736 Feb 15 01:04	0°♄	
minimum elong	13735 Mar 09 12:06	27°♄43'14	0°23'05				
	13735 Mar 10 17:50	0°♄		superior conj	13736 Feb 20 14:24	11°♄01'53	0°51'49
desc. node	13735 Mar 12 07:47	2°♄52'27		minimum elong	13736 Feb 20 17:03	11°♄14'49	0°51'51

max. Earth dist.	13736 Feb 27 03:20	23° $\text{H}$ 22'57	1.38100 AU			13737 Feb 05 17:51	0° $\text{H}$	
desc. node	13736 Feb 27 04:18	23° $\text{H}$ 27'22		max. Earth dist.	13737 Feb 08 11:33	5° $\text{H}$ 22'57	1.35935 AU	
evening rise	13736 Mar 01 20:31	0° $\text{Y}$ 01'32		evening rise	13737 Feb 12 08:46	12° $\text{H}$ 43'35		
	13736 Mar 01 20:10	0° $\text{Y}$		desc. node	13737 Feb 13 00:48	13° $\text{H}$ 57'17		
	13736 Mar 20 19:39	0° $\text{B}$			13737 Feb 22 08:01	0° $\text{Y}$		
evening max el	13736 Apr 06 05:59	20° $\text{B}$ 21'00	24°59'42		13737 Mar 15 20:18	0° $\text{B}$		
retrograde	13736 Apr 18 03:41	27° $\text{B}$ 16'28		evening max el	13737 Mar 19 19:27	4° $\text{B}$ 11'00	26°09'08	
asc. node	13736 Apr 22 05:42	26° $\text{B}$ 04'37		retrograde	13737 Apr 01 13:40	11° $\text{B}$ 28'21		
evening set	13736 Apr 23 21:12	24° $\text{B}$ 52'37		evening set	13737 Apr 07 18:11	8° $\text{B}$ 57'31		
min. Earth dist.	13736 Apr 28 07:35	19° $\text{B}$ 54'39	0.68153 AU	asc. node	13737 Apr 09 03:07	7° $\text{B}$ 42'31		
inferior conj	13736 Apr 29 11:43	18° $\text{B}$ 22'06	2°04'35	min. Earth dist.	13737 Apr 11 22:03	4° $\text{B}$ 34'50	0.67086 AU	
minimum elong	13736 Apr 29 09:34	18° $\text{B}$ 29'12	2°03'15	inferior conj	13737 Apr 13 14:45	2° $\text{B}$ 28'55	1°21'43	
morning rise	13736 May 04 22:12	12° $\text{B}$ 26'26		minimum elong	13737 Apr 13 12:57	2° $\text{B}$ 34'32	1°20'37	
direct	13736 May 08 14:22	11° $\text{B}$ 08'58			13737 Apr 15 16:31	30° $\text{R}$ $\text{Y}$		
morning max el	13736 May 15 18:15	15° $\text{B}$ 05'30	19°28'08	morning rise	13737 Apr 19 08:30	26° $\text{Y}$ 43'36		
desc. node	13736 May 25 06:21	27° $\text{B}$ 00'40		direct	13737 Apr 22 13:36	25° $\text{Y}$ 45'05		
	13736 May 27 08:07	0° $\text{II}$		morning max el	13737 Apr 29 03:48	29° $\text{Y}$ 16'38	18°37'52	
greatest brilliancy	13736 May 28 09:51	1° $\text{II}$ 34'14	-0.7m		13737 Apr 29 20:59	0° $\text{B}$		
morning set	13736 Jun 09 21:58	20° $\text{II}$ 29'26		desc. node	13737 May 12 03:07	16° $\text{B}$ 49'02		
	13736 Jun 16 01:39	0° $\text{B}$		morning set	13737 May 20 12:56	29° $\text{B}$ 55'06		
max. Earth dist.	13736 Jun 22 04:21	9° $\text{B}$ 33'43	1.45093 AU		13737 May 20 14:11	0° $\text{II}$		
				max. Earth dist.	13737 Jun 04 22:58	24° $\text{II}$ 00'34	1.45788 AU	
superior conj	13736 Jun 26 04:42	15° $\text{B}$ 55'34	-2°11'46	superior conj	13737 Jun 05 15:26	25° $\text{II}$ 04'54	-2°10'15	
minimum elong	13736 Jun 26 07:54	16° $\text{B}$ 08'21	2°12'44	minimum elong	13737 Jun 05 10:59	24° $\text{II}$ 47'29	2°11'08	
	13736 Jul 04 21:24	0° $\text{Q}$			13737 Jun 08 18:54	0° $\text{B}$		
evening rise	13736 Jul 10 07:51	8° $\text{Q}$ 59'47		evening rise	13737 Jun 21 05:00	19° $\text{B}$ 36'52		
asc. node	13736 Jul 19 04:30	23° $\text{Q}$ 37'32			13737 Jun 27 17:42	0° $\text{Q}$		
	13736 Jul 23 08:06	0° $\text{H}$		greatest brilliancy	13737 Jun 28 17:22	1° $\text{Q}$ 33'30	-0.9m	
evening max el	13736 Jul 28 20:13	6° $\text{H}$ 52'34	18°12'16	asc. node	13737 Jul 06 01:18	12° $\text{Q}$ 42'13		
retrograde	13736 Aug 04 04:43	10° $\text{H}$ 13'58		evening max el	13737 Jul 12 08:40	20° $\text{Q}$ 33'18	18°39'44	
evening set	13736 Aug 07 01:56	9° $\text{H}$ 29'19		retrograde	13737 Jul 18 22:06	24° $\text{Q}$ 07'04		
inferior conj	13736 Aug 13 02:34	4° $\text{H}$ 06'14	2°11'56	evening set	13737 Jul 22 04:03	23° $\text{Q}$ 06'55		
minimum elong	13736 Aug 13 05:02	3° $\text{H}$ 59'15	2°10'42	inferior conj	13737 Jul 27 19:21	17° $\text{Q}$ 28'32	2°46'56	
min. Earth dist.	13736 Aug 15 15:06	1° $\text{H}$ 16'37	0.63792 AU	minimum elong	13737 Jul 27 21:19	17° $\text{Q}$ 22'28	2°45'47	
	13736 Aug 16 20:20	30° $\text{R}$ $\text{Q}$		min. Earth dist.	13737 Jul 29 17:49	15° $\text{Q}$ 05'44	0.65689 AU	
morning rise	13736 Aug 19 06:27	27° $\text{Q}$ 49'25		morning rise	13737 Aug 02 13:36	11° $\text{Q}$ 04'52		
desc. node	13736 Aug 21 04:20	26° $\text{Q}$ 32'54		desc. node	13737 Aug 08 01:48	8° $\text{Q}$ 27'44		
direct	13736 Aug 25 21:32	25° $\text{Q}$ 15'51		direct	13737 Aug 08 22:54	8° $\text{Q}$ 24'54		
	13736 Sep 05 04:27	0° $\text{H}$		morning max el	13737 Aug 22 05:10	16° $\text{Q}$ 15'25	26°51'16	
morning max el	13736 Sep 08 17:55	3° $\text{H}$ 16'16	27°40'47		13737 Sep 02 14:11	0° $\text{H}$		
	13736 Sep 28 18:22	0° $\text{B}$			13737 Sep 21 14:22	0° $\text{B}$		
morning set	13736 Oct 13 15:43	26° $\text{B}$ 45'23		morning set	13737 Sep 26 22:46	9° $\text{B}$ 53'04		
asc. node	13736 Oct 15 06:30	0° $\text{M}$ 00'45		max. Earth dist.	13737 Oct 01 02:32	18° $\text{B}$ 01'53	1.33923 AU	
	13736 Oct 15 06:21	0° $\text{M}$		asc. node	13737 Oct 02 03:05	20° $\text{B}$ 05'49		
max. Earth dist.	13736 Oct 18 12:01	6° $\text{M}$ 42'55	1.32481 AU					
superior conj	13736 Oct 21 13:41	13° $\text{M}$ 17'01	0°56'51	superior conj	13737 Oct 05 14:38	27° $\text{B}$ 17'06	0°32'26	
minimum elong	13736 Oct 21 11:27	13° $\text{M}$ 04'56	0°57'07	minimum elong	13737 Oct 05 13:01	27° $\text{B}$ 08'39	0°32'30	
evening rise	13736 Oct 28 11:28	28° $\text{M}$ 17'45			13737 Oct 06 21:36	0° $\text{M}$		
	13736 Oct 29 06:36	0° $\text{J}$		evening rise	13737 Oct 12 21:36	12° $\text{M}$ 44'46		
	13736 Nov 15 08:48	0° $\text{B}$			13737 Oct 21 15:40	0° $\text{J}$		
desc. node	13736 Nov 17 00:39	2° $\text{B}$ 02'57		evening max el	13737 Nov 01 23:03	15° $\text{J}$ 46'11	21°31'39	
evening max el	13736 Nov 20 09:06	5° $\text{B}$ 39'28	23°10'39	desc. node	13737 Nov 03 21:56	17° $\text{J}$ 32'49		
retrograde	13736 Dec 03 15:21	12° $\text{B}$ 14'53		retrograde	13737 Nov 14 03:41	21° $\text{J}$ 49'18		
evening set	13736 Dec 07 21:01	11° $\text{B}$ 35'53		evening set	13737 Nov 17 00:47	21° $\text{J}$ 30'21		
min. Earth dist.	13736 Dec 14 18:43	8° $\text{B}$ 22'55	0.55049 AU	inferior conj	13737 Nov 25 20:58	17° $\text{J}$ 37'01	-5°38'00	
inferior conj	13736 Dec 16 04:31	7° $\text{B}$ 34'12	-5°56'17	minimum elong	13737 Nov 25 13:57	17° $\text{J}$ 46'52	5°36'00	
minimum elong	13736 Dec 16 06:15	7° $\text{B}$ 31'41	5°55'09	min. Earth dist.	13737 Nov 26 00:48	17° $\text{J}$ 31'38	0.54492 AU	
morning rise	13736 Dec 24 17:04	3° $\text{B}$ 44'02		morning rise	13737 Dec 04 03:54	13° $\text{J}$ 48'29		
direct	13736 Dec 27 14:49	3° $\text{B}$ 24'01		direct	13737 Dec 07 22:58	13° $\text{J}$ 17'15		
morning max el	13737 Jan 07 18:57	8° $\text{B}$ 44'26	20°42'20	morning max el	13737 Dec 20 13:55	19° $\text{J}$ 21'02	22°20'12	
asc. node	13737 Jan 11 06:29	12° $\text{B}$ 33'43		asc. node	13737 Dec 29 03:40	29° $\text{J}$ 55'45		
	13737 Jan 22 01:23	0° $\text{B}$			13737 Dec 29 04:47	0° $\text{B}$		
morning set	13737 Jan 26 19:33	9° $\text{B}$ 33'27		morning set	13738 Jan 11 06:17	24° $\text{B}$ 19'10		
					13738 Jan 13 22:14	0° $\text{B}$		
superior conj	13737 Feb 03 06:29	25° $\text{B}$ 00'22	1°13'24	superior conj	13738 Jan 18 07:16	9° $\text{B}$ 21'34	1°28'04	
minimum elong	13737 Feb 03 09:06	25° $\text{B}$ 13'40	1°13'46					

minimum elong	13738 Jan 18 09:10	9° $\approx$ 31'37	1°28'46			13738 Dec 22 09:33	0° $\approx$	
max. Earth dist.	13738 Jan 22 01:44	17° $\approx$ 13'27	1.34072 AU	morning set		13738 Dec 26 18:12	9° $\approx$ 03'59	
evening rise	13738 Jan 26 11:53	26° $\approx$ 02'41						
	13738 Jan 28 13:35	0° $\approx$		superior conj		13739 Jan 02 13:52	23° $\approx$ 56'15	1°36'09
desc. node	13738 Jan 30 21:24	4° $\approx$ 18'25		minimum elong		13739 Jan 02 14:44	24° $\approx$ 01'02	1°37'06
	13738 Feb 15 17:41	0° $\approx$		max. Earth dist.		13739 Jan 04 23:47	29° $\approx$ 09'38	1.32631 AU
evening max el	13738 Mar 02 09:01	17° $\approx$ 50'39	27°01'49			13739 Jan 05 09:11	0° $\approx$	
retrograde	13738 Mar 15 18:03	25° $\approx$ 18'05		evening rise		13739 Jan 10 02:26	9° $\approx$ 49'24	
evening set	13738 Mar 22 07:44	22° $\approx$ 45'52		desc. node		13739 Jan 17 18:05	24° $\approx$ 25'10	
min. Earth dist.	13738 Mar 26 06:25	18° $\approx$ 56'31	0.65617 AU			13739 Jan 20 22:46	0° $\approx$	
asc. node	13738 Mar 27 00:34	18° $\approx$ 05'19				13739 Feb 11 17:30	0° $\approx$	
inferior conj	13738 Mar 28 11:22	16° $\approx$ 25'25	0°27'34	evening max el		13739 Feb 12 21:41	1° $\approx$ 09'15	27°30'37
minimum elong	13738 Mar 28 10:38	16° $\approx$ 27'32	0°27'05	retrograde		13739 Feb 26 15:41	8° $\approx$ 36'27	
morning rise	13738 Apr 03 15:03	10° $\approx$ 52'13		evening set		13739 Mar 05 11:33	6° $\approx$ 09'46	
direct	13738 Apr 06 10:17	10° $\approx$ 09'46		min. Earth dist.		13739 Mar 09 06:43	2° $\approx$ 50'32	0.63801 AU
morning max el	13738 Apr 12 18:39	13° $\approx$ 29'00	18°04'14	inferior conj		13739 Mar 11 22:55	0° $\approx$ 04'58	-0°38'13
	13738 Apr 24 16:36	0° $\approx$		minimum elong		13739 Mar 12 00:07	0° $\approx$ 01'51	0°37'36
desc. node	13738 Apr 28 23:46	6° $\approx$ 56'31				13739 Mar 12 00:50	30° $\approx$	
morning set	13738 May 01 06:38	10° $\approx$ 39'29		asc. node		13739 Mar 13 22:03	28° $\approx$ 06'50	
	13738 May 13 07:37	0° $\approx$		morning rise		13739 Mar 18 14:58	24° $\approx$ 46'15	
				direct		13739 Mar 21 01:48	24° $\approx$ 16'25	
superior conj	13738 May 16 01:06	4° $\approx$ 18'11	-1°49'00	morning max el		13739 Mar 27 12:09	27° $\approx$ 34'37	17°47'52
minimum elong	13738 May 15 16:06	3° $\approx$ 42'47	1°49'07			13739 Mar 29 17:01	0° $\approx$	
max. Earth dist.	13738 May 18 18:45	8° $\approx$ 35'35	1.45738 AU	morning set		13739 Apr 13 03:46	22° $\approx$ 43'08	
evening rise	13738 Jun 01 03:38	29° $\approx$ 20'34		desc. node		13739 Apr 15 20:22	27° $\approx$ 17'32	
	13738 Jun 01 13:51	0° $\approx$				13739 Apr 17 10:49	0° $\approx$	
greatest brilliancy	13738 Jun 13 21:29	18° $\approx$ 47'45	-0.7m					
	13738 Jun 21 21:43	0° $\approx$		superior conj		13739 Apr 26 02:05	14° $\approx$ 17'30	-1°14'02
asc. node	13738 Jun 22 22:11	1° $\approx$ 15'29		minimum elong		13739 Apr 25 18:41	13° $\approx$ 47'27	1°13'45
evening max el	13738 Jun 25 16:53	4° $\approx$ 20'18	19°24'04	max. Earth dist.		13739 May 01 13:44	23° $\approx$ 05'04	1.44960 AU
retrograde	13738 Jul 02 19:27	8° $\approx$ 18'46				13739 May 05 23:22	0° $\approx$	
evening set	13738 Jul 06 10:40	7° $\approx$ 01'59		evening rise		13739 May 11 14:59	8° $\approx$ 43'39	
inferior conj	13738 Jul 11 20:03	1° $\approx$ 09'52	3°06'07			13739 May 25 19:53	0° $\approx$	
minimum elong	13738 Jul 11 21:05	1° $\approx$ 06'26	3°05'04	evening max el		13739 Jun 08 19:33	18° $\approx$ 09'52	20°23'30
	13738 Jul 12 17:15	30° $\approx$		asc. node		13739 Jun 09 19:12	19° $\approx$ 06'53	
min. Earth dist.	13738 Jul 13 04:04	29° $\approx$ 24'40	0.67196 AU	retrograde		13739 Jun 16 18:18	22° $\approx$ 43'37	
morning rise	13738 Jul 17 06:58	24° $\approx$ 45'28		evening set		13739 Jun 20 19:31	21° $\approx$ 09'48	
direct	13738 Jul 23 07:03	22° $\approx$ 08'26		inferior conj		13739 Jun 26 01:56	15° $\approx$ 05'17	3°12'05
desc. node	13738 Jul 25 23:12	22° $\approx$ 35'03		minimum elong		13739 Jun 26 01:58	15° $\approx$ 05'13	3°11'03
morning max el	13738 Aug 04 16:03	29° $\approx$ 33'08	25°38'39	min. Earth dist.		13739 Jun 26 19:54	14° $\approx$ 03'44	0.68251 AU
	13738 Aug 05 02:33	0° $\approx$		morning rise		13739 Jul 01 08:06	8° $\approx$ 44'02	
	13738 Aug 27 10:30	0° $\approx$		direct		13739 Jul 06 20:43	6° $\approx$ 17'56	
morning set	13738 Sep 09 15:30	22° $\approx$ 20'21		desc. node		13739 Jul 12 20:31	8° $\approx$ 31'04	
max. Earth dist.	13738 Sep 13 06:58	29° $\approx$ 06'19	1.35851 AU	morning max el		13739 Jul 18 02:15	13° $\approx$ 01'27	24°12'50
	13738 Sep 13 18:16	0° $\approx$				13739 Jul 31 19:19	0° $\approx$	
asc. node	13738 Sep 18 23:37	10° $\approx$ 12'53				13739 Aug 20 06:01	0° $\approx$	
				morning set		13739 Aug 22 13:35	3° $\approx$ 57'03	
superior conj	13738 Sep 19 07:08	10° $\approx$ 50'35	0°02'57	max. Earth dist.		13739 Aug 26 05:25	10° $\approx$ 22'43	1.38118 AU
minimum elong	13738 Sep 19 06:57	10° $\approx$ 49'41	0°02'59					
behind sun begin	13738 Sep 19 00:49	10° $\approx$ 18'52		superior conj		13739 Sep 02 11:51	23° $\approx$ 49'53	-0°30'32
behind sun end	13738 Sep 19 13:05	11° $\approx$ 20'33		minimum elong		13739 Sep 02 13:58	24° $\approx$ 00'00	0°30'22
evening rise	13738 Sep 27 04:38	27° $\approx$ 01'05		asc. node		13739 Sep 05 20:11	0° $\approx$ 18'51	
	13738 Sep 28 15:41	0° $\approx$				13739 Sep 05 16:20	0° $\approx$	
evening max el	13738 Oct 15 01:23	26° $\approx$ 28'49	20°08'11	evening rise		13739 Sep 11 06:07	11° $\approx$ 00'58	
	13738 Oct 19 12:22	0° $\approx$				13739 Sep 21 14:15	0° $\approx$	
desc. node	13738 Oct 21 19:20	1° $\approx$ 04'29		evening max el		13739 Sep 27 17:55	8° $\approx$ 00'19	19°05'53
retrograde	13738 Oct 25 16:05	1° $\approx$ 45'40		retrograde		13739 Oct 06 17:24	12° $\approx$ 30'21	
evening set	13738 Oct 27 17:16	1° $\approx$ 34'46		evening set		13739 Oct 08 14:06	12° $\approx$ 19'32	
	13738 Nov 01 08:29	30° $\approx$		desc. node		13739 Oct 08 16:47	12° $\approx$ 18'13	
inferior conj	13738 Nov 05 15:17	27° $\approx$ 37'09	-4°23'08	inferior conj		13739 Oct 17 00:41	8° $\approx$ 05'58	-2°37'29
minimum elong	13738 Nov 05 05:14	27° $\approx$ 52'09	4°19'22	minimum elong		13739 Oct 16 18:00	8° $\approx$ 17'23	2°34'21
min. Earth dist.	13738 Nov 07 08:24	26° $\approx$ 35'43	0.54880 AU	min. Earth dist.		13739 Oct 19 19:52	6° $\approx$ 11'48	0.56148 AU
morning rise	13738 Nov 13 16:12	23° $\approx$ 30'20		morning rise		13739 Oct 24 19:09	3° $\approx$ 25'46	
direct	13738 Nov 18 09:51	22° $\approx$ 41'36		direct		13739 Oct 30 08:33	2° $\approx$ 13'59	
morning max el	13738 Dec 02 00:21	29° $\approx$ 23'31	24°08'58	morning max el		13739 Nov 13 11:08	9° $\approx$ 25'45	25°51'31
	13738 Dec 02 15:29	0° $\approx$				13739 Nov 28 22:30	0° $\approx$	
asc. node	13738 Dec 16 00:45	18° $\approx$ 08'38		asc. node		13739 Dec 02 21:44	6° $\approx$ 59'43	

morning set	13739 Dec 11 05:30	23° $\text{♁}$ 43'16		morning set	13740 Nov 24 14:30	8° $\text{♁}$ 12'33	
	13739 Dec 14 02:38	0° $\text{♁}$					
superior conj	13739 Dec 17 23:57	8° $\text{♁}$ 37'46	1°38'01	superior conj	13740 Dec 01 11:32	23° $\text{♁}$ 20'24	1°33'56
minimum elong	13739 Dec 17 23:44	8° $\text{♁}$ 36'34	1°39'04	minimum elong	13740 Dec 01 10:20	23° $\text{♁}$ 13'40	1°34'54
max. Earth dist.	13739 Dec 19 04:25	11° $\text{♁}$ 15'31	1.31670 AU	max. Earth dist.	13740 Dec 01 12:36	23° $\text{♁}$ 26'22	1.31212 AU
evening rise	13739 Dec 25 01:28	23° $\text{♁}$ 56'18		evening rise	13740 Dec 04 11:14	0° $\text{♁}$	
	13739 Dec 28 00:42	0° $\text{♁}$			13740 Dec 08 06:31	8° $\text{♁}$ 17'10	
desc. node	13740 Jan 04 14:52	14° $\text{♁}$ 11'20		desc. node	13740 Dec 19 10:34	0° $\text{♁}$	
	13740 Jan 14 15:39	0° $\text{♁}$		evening max el	13740 Dec 21 11:45	3° $\text{♁}$ 28'44	
evening max el	13740 Jan 26 07:14	13° $\text{♁}$ 53'45	27°29'01		13741 Jan 07 10:52	25° $\text{♁}$ 51'53	26°53'03
retrograde	13740 Feb 09 05:22	21° $\text{♁}$ 14'05		retrograde	13741 Jan 12 13:52	0° $\text{♁}$	
evening set	13740 Feb 16 02:50	19° $\text{♁}$ 00'29		evening set	13741 Jan 21 09:57	3° $\text{♁}$ 03'03	
min. Earth dist.	13740 Feb 19 21:09	16° $\text{♁}$ 06'00	0.61732 AU		13741 Jan 28 02:12	1° $\text{♁}$ 10'07	
inferior conj	13740 Feb 22 22:09	13° $\text{♁}$ 19'11	-1°54'45	min. Earth dist.	13741 Jan 29 23:50	30° $\text{♁}$	
minimum elong	13740 Feb 23 02:11	13° $\text{♁}$ 09'58	1°52'43	inferior conj	13741 Feb 01 00:54	28° $\text{♁}$ 31'11	0.59546 AU
asc. node	13740 Feb 28 19:33	8° $\text{♁}$ 51'15		minimum elong	13741 Feb 04 05:31	25° $\text{♁}$ 58'32	-3°18'18
morning rise	13740 Mar 01 04:25	8° $\text{♁}$ 18'01		morning rise	13741 Feb 04 12:41	25° $\text{♁}$ 44'13	3°15'05
direct	13740 Mar 03 08:52	7° $\text{♁}$ 57'07		direct	13741 Feb 12 02:17	21° $\text{♁}$ 18'04	
morning max el	13740 Mar 10 05:13	11° $\text{♁}$ 24'44	17°49'20	asc. node	13741 Feb 14 03:13	21° $\text{♁}$ 02'35	
	13740 Mar 22 16:28	0° $\text{♁}$		morning max el	13741 Feb 14 17:00	21° $\text{♁}$ 03'51	
morning set	13740 Mar 25 22:43	5° $\text{♁}$ 48'17			13741 Feb 21 18:21	24° $\text{♁}$ 49'56	18°09'50
desc. node	13740 Apr 01 16:54	17° $\text{♁}$ 47'15		morning set	13741 Feb 26 00:52	0° $\text{♁}$	
					13741 Mar 09 09:28	19° $\text{♁}$ 36'51	
superior conj	13740 Apr 06 02:33	25° $\text{♁}$ 22'42	-0°34'13		13741 Mar 14 22:56	0° $\text{♁}$	
minimum elong	13740 Apr 05 23:20	25° $\text{♁}$ 08'59	0°34'05	superior conj	13741 Mar 19 02:24	7° $\text{♁}$ 32'53	0°03'42
	13740 Apr 08 20:24	0° $\text{♁}$		minimum elong	13741 Mar 19 02:41	7° $\text{♁}$ 34'09	0°03'38
max. Earth dist.	13740 Apr 13 05:50	7° $\text{♁}$ 13'54	1.43534 AU	behind sun begin	13741 Mar 18 19:14	7° $\text{♁}$ 00'44	
evening rise	13740 Apr 20 07:07	18° $\text{♁}$ 26'42		behind sun end	13741 Mar 19 10:07	8° $\text{♁}$ 07'28	
	13740 Apr 27 20:37	0° $\text{♁}$		desc. node	13741 Mar 19 13:24	8° $\text{♁}$ 22'08	
	13740 May 19 19:16	0° $\text{♁}$		max. Earth dist.	13741 Mar 26 17:24	20° $\text{♁}$ 48'03	1.41611 AU
evening max el	13740 May 21 16:27	1° $\text{♁}$ 59'24	21°35'03	evening rise	13741 Mar 31 16:08	28° $\text{♁}$ 57'41	
asc. node	13740 May 26 16:21	6° $\text{♁}$ 02'13			13741 Apr 01 07:35	0° $\text{♁}$	
retrograde	13740 May 30 16:44	7° $\text{♁}$ 15'36			13741 Apr 21 10:08	0° $\text{♁}$	
evening set	13740 Jun 04 04:41	5° $\text{♁}$ 25'15		evening max el	13741 May 04 08:49	15° $\text{♁}$ 49'43	22°54'08
	13740 Jun 08 20:18	30° $\text{♁}$		asc. node	13741 May 13 13:35	21° $\text{♁}$ 45'24	
inferior conj	13740 Jun 09 10:44	29° $\text{♁}$ 09'47	3°06'35	retrograde	13741 May 14 13:17	21° $\text{♁}$ 49'50	
minimum elong	13740 Jun 09 09:48	29° $\text{♁}$ 13'01	3°05'27	evening set	13741 May 19 12:32	19° $\text{♁}$ 44'24	
min. Earth dist.	13740 Jun 09 15:15	28° $\text{♁}$ 54'03	0.68830 AU	inferior conj	13741 May 24 20:25	13° $\text{♁}$ 20'12	2°50'35
morning rise	13740 Jun 14 14:43	22° $\text{♁}$ 54'00		minimum elong	13741 May 24 18:44	13° $\text{♁}$ 26'00	2°49'18
direct	13740 Jun 19 14:44	20° $\text{♁}$ 44'33		min. Earth dist.	13741 May 24 12:00	13° $\text{♁}$ 49'21	0.68934 AU
desc. node	13740 Jun 28 17:43	25° $\text{♁}$ 48'47		morning rise	13741 May 30 00:51	7° $\text{♁}$ 11'13	
morning max el	13740 Jun 29 13:32	26° $\text{♁}$ 37'27	22°43'16	direct	13741 Jun 03 12:02	5° $\text{♁}$ 21'35	
	13740 Jul 02 16:25	0° $\text{♁}$		morning max el	13741 Jun 12 04:57	10° $\text{♁}$ 23'12	21°18'16
	13740 Jul 24 08:30	0° $\text{♁}$		desc. node	13741 Jun 15 14:48	14° $\text{♁}$ 06'48	
morning set	13740 Aug 02 12:31	14° $\text{♁}$ 31'50			13741 Jun 27 12:15	0° $\text{♁}$	
max. Earth dist.	13740 Aug 07 04:37	22° $\text{♁}$ 19'38	1.40474 AU	morning set	13741 Jul 13 10:37	24° $\text{♁}$ 01'53	
	13740 Aug 11 15:00	0° $\text{♁}$			13741 Jul 17 04:48	0° $\text{♁}$	
superior conj	13740 Aug 15 00:35	6° $\text{♁}$ 04'23	-1°05'46	max. Earth dist.	13741 Jul 20 09:00	5° $\text{♁}$ 08'34	1.42638 AU
minimum elong	13740 Aug 15 05:32	6° $\text{♁}$ 26'47	1°05'31	superior conj	13741 Jul 27 16:51	17° $\text{♁}$ 24'08	-1°38'53
asc. node	13740 Aug 22 16:46	20° $\text{♁}$ 19'30		minimum elong	13741 Jul 27 23:58	17° $\text{♁}$ 54'38	1°38'53
evening rise	13740 Aug 24 22:49	24° $\text{♁}$ 35'35			13741 Aug 03 21:33	0° $\text{♁}$	
	13740 Aug 27 19:40	0° $\text{♁}$		evening rise	13741 Aug 08 02:41	7° $\text{♁}$ 34'33	
evening max el	13740 Sep 09 21:44	20° $\text{♁}$ 16'33	18°25'22	asc. node	13741 Aug 09 13:22	10° $\text{♁}$ 10'56	
retrograde	13740 Sep 17 14:02	24° $\text{♁}$ 09'47			13741 Aug 21 15:05	0° $\text{♁}$	
evening set	13740 Sep 19 14:44	23° $\text{♁}$ 54'14		evening max el	13741 Aug 24 08:41	3° $\text{♁}$ 08'19	18°05'24
desc. node	13740 Sep 24 14:19	21° $\text{♁}$ 24'04		retrograde	13741 Aug 31 04:33	6° $\text{♁}$ 38'11	
inferior conj	13740 Sep 27 07:31	19° $\text{♁}$ 19'52	-0°51'35	evening set	13741 Sep 02 12:31	6° $\text{♁}$ 13'56	
minimum elong	13740 Sep 27 05:32	19° $\text{♁}$ 23'50	0°50'32	inferior conj	13741 Sep 09 11:21	1° $\text{♁}$ 19'15	0°36'59
min. Earth dist.	13740 Sep 30 13:51	16° $\text{♁}$ 44'19	0.58048 AU	minimum elong	13741 Sep 09 12:30	1° $\text{♁}$ 16'35	0°36'27
morning rise	13740 Oct 04 16:51	14° $\text{♁}$ 02'11			13741 Sep 10 21:16	30° $\text{♁}$	
direct	13740 Oct 10 21:10	12° $\text{♁}$ 23'38		desc. node	13741 Sep 11 11:51	29° $\text{♁}$ 26'07	
morning max el	13740 Oct 25 04:39	19° $\text{♁}$ 59'10	27°09'51	min. Earth dist.	13741 Sep 12 16:30	28° $\text{♁}$ 21'20	0.60279 AU
	13740 Nov 02 18:47	0° $\text{♁}$		morning rise	13741 Sep 16 09:21	25° $\text{♁}$ 30'27	
asc. node	13740 Nov 18 18:37	26° $\text{♁}$ 18'56		direct	13741 Sep 22 22:48	23° $\text{♁}$ 25'22	
	13740 Nov 20 15:25	0° $\text{♁}$			13741 Oct 05 21:01	0° $\text{♁}$	

morning max el	13741 Oct 07 05:55	1° $\Omega$ 18'22	27°52'09		13742 Oct 02 21:22	0° $\Omega$	
	13741 Oct 28 01:27	0° $\mathbb{M}$			13742 Oct 20 13:25	0° $\mathbb{M}$	
asc. node	13741 Nov 05 15:23	15° $\mathbb{M}$ 58'03		morning set	13742 Oct 23 17:39	6° $\mathbb{M}$ 19'33	
morning set	13741 Nov 08 19:14	22° $\mathbb{M}$ 26'19		asc. node	13742 Oct 23 12:03	5° $\mathbb{M}$ 51'06	
	13741 Nov 12 08:03	0° $\mathbb{A}$		max. Earth dist.	13742 Oct 29 00:01	17° $\mathbb{M}$ 23'34	1.31881 AU
max. Earth dist.	13741 Nov 14 20:24	5° $\mathbb{A}$ 32'06	1.31278 AU				
				superior conj	13742 Oct 31 07:34	22° $\mathbb{M}$ 26'03	1°08'27
superior conj	13741 Nov 15 22:41	7° $\mathbb{A}$ 58'10	1°24'03	minimum elong	13742 Oct 31 05:17	22° $\mathbb{M}$ 13'33	1°08'52
minimum elong	13741 Nov 15 20:45	7° $\mathbb{A}$ 47'22	1°24'47		13742 Nov 03 18:02	0° $\mathbb{A}$	
evening rise	13741 Nov 22 15:23	22° $\mathbb{A}$ 45'49		evening rise	13742 Nov 07 02:13	7° $\mathbb{A}$ 17'48	
	13741 Nov 26 01:49	0° $\mathbb{Z}$			13742 Nov 18 18:17	0° $\mathbb{Z}$	
desc. node	13741 Dec 08 08:46	22° $\mathbb{Z}$ 05'34		desc. node	13742 Nov 25 05:53	9° $\mathbb{Z}$ 46'47	
	13741 Dec 14 00:24	0° $\approx$		evening max el	13742 Dec 01 18:04	17° $\mathbb{Z}$ 15'34	24°09'45
evening max el	13741 Dec 20 06:11	6° $\approx$ 56'15	25°43'41	retrograde	13742 Dec 15 09:10	24° $\mathbb{Z}$ 02'46	
retrograde	13742 Jan 03 03:53	13° $\approx$ 57'28		evening set	13742 Dec 20 09:10	23° $\mathbb{Z}$ 08'06	
evening set	13742 Jan 09 05:27	12° $\approx$ 32'07		min. Earth dist.	13742 Dec 26 05:31	20° $\mathbb{Z}$ 13'10	0.55748 AU
min. Earth dist.	13742 Jan 13 18:50	9° $\approx$ 54'14	0.57456 AU	inferior conj	13742 Dec 28 08:34	18° $\mathbb{Z}$ 55'26	-5°40'16
inferior conj	13742 Jan 16 17:26	7° $\approx$ 52'09	-4°39'34	minimum elong	13742 Dec 28 14:38	18° $\mathbb{Z}$ 46'10	5°38'26
minimum elong	13742 Jan 17 02:19	7° $\approx$ 36'45	4°36'18	morning rise	13743 Jan 05 22:01	14° $\mathbb{Z}$ 56'42	
morning rise	13742 Jan 25 01:58	3° $\approx$ 33'51		direct	13743 Jan 08 09:54	14° $\mathbb{Z}$ 40'35	
direct	13742 Jan 27 04:19	3° $\approx$ 20'15		morning max el	13743 Jan 18 16:33	19° $\mathbb{Z}$ 37'04	19°54'58
asc. node	13742 Feb 01 14:24	4° $\approx$ 57'28		asc. node	13743 Jan 19 11:42	20° $\mathbb{Z}$ 24'55	
morning max el	13742 Feb 04 23:28	7° $\approx$ 37'44	18°51'06		13743 Jan 26 15:26	0° $\approx$	
	13742 Feb 19 07:06	0° $\mathbb{H}$		morning set	13743 Feb 05 11:46	18° $\approx$ 26'45	
morning set	13742 Feb 21 07:01	3° $\mathbb{H}$ 53'09			13743 Feb 11 03:56	0° $\mathbb{H}$	
superior conj	13742 Mar 01 21:22	20° $\mathbb{H}$ 34'48	0°36'09	superior conj	13743 Feb 13 06:55	4° $\mathbb{H}$ 15'39	1°01'49
minimum elong	13742 Mar 01 23:35	20° $\mathbb{H}$ 45'14	0°36'05	minimum elong	13743 Feb 13 09:40	4° $\mathbb{H}$ 29'17	1°01'59
desc. node	13742 Mar 06 09:54	28° $\mathbb{H}$ 57'52		max. Earth dist.	13743 Feb 19 06:41	15° $\mathbb{H}$ 50'19	1.37158 AU
	13742 Mar 06 23:38	0° $\mathbb{Y}$		desc. node	13743 Feb 21 06:24	19° $\mathbb{H}$ 30'56	
max. Earth dist.	13742 Mar 09 00:26	3° $\mathbb{Y}$ 37'46	1.39402 AU	evening rise	13743 Feb 23 00:24	22° $\mathbb{H}$ 40'54	
evening rise	13742 Mar 12 22:13	10° $\mathbb{Y}$ 23'49			13743 Feb 27 04:58	0° $\mathbb{Y}$	
	13742 Mar 25 04:12	0° $\mathbb{B}$			13743 Mar 18 23:26	0° $\mathbb{B}$	
evening max el	13742 Apr 16 22:44	29° $\mathbb{B}$ 41'35	24°15'03	evening max el	13743 Mar 30 12:15	13° $\mathbb{B}$ 34'14	25°30'51
	13742 Apr 17 06:13	0° $\mathbb{I}$		retrograde	13743 Apr 11 19:39	20° $\mathbb{B}$ 40'44	
retrograde	13742 Apr 28 06:39	6° $\mathbb{I}$ 20'19		asc. node	13743 Apr 17 08:16	18° $\mathbb{B}$ 33'04	
asc. node	13742 Apr 30 10:53	5° $\mathbb{I}$ 59'17		evening set	13743 Apr 17 17:49	18° $\mathbb{B}$ 13'35	
evening set	13742 May 03 17:27	4° $\mathbb{I}$ 02'18		min. Earth dist.	13743 Apr 22 01:19	13° $\mathbb{B}$ 30'29	0.67749 AU
	13742 May 07 08:59	30° $\mathbb{R}$ $\mathbb{B}$		inferior conj	13743 Apr 23 10:45	11° $\mathbb{B}$ 43'01	1°47'44
min. Earth dist.	13742 May 08 08:06	28° $\mathbb{B}$ 43'27	0.68566 AU	minimum elong	13743 Apr 23 08:40	11° $\mathbb{B}$ 49'44	1°46'28
inferior conj	13742 May 09 05:03	27° $\mathbb{B}$ 32'39	2°24'22	morning rise	13743 Apr 28 23:58	5° $\mathbb{B}$ 51'17	
minimum elong	13742 May 09 02:57	27° $\mathbb{B}$ 39'46	2°23'01	direct	13743 May 02 11:16	4° $\mathbb{B}$ 42'08	
morning rise	13742 May 14 12:34	21° $\mathbb{B}$ 31'37		morning max el	13743 May 09 08:24	8° $\mathbb{B}$ 26'42	19°04'37
direct	13742 May 18 11:22	20° $\mathbb{B}$ 02'40		desc. node	13743 May 20 08:35	22° $\mathbb{B}$ 42'47	
morning max el	13742 May 26 02:56	24° $\mathbb{B}$ 20'01	20°04'08	greatest brilliancy	13743 May 22 10:28	25° $\mathbb{B}$ 48'18	-0.7m
	13742 May 31 01:59	0° $\mathbb{I}$			13743 May 25 05:02	0° $\mathbb{I}$	
desc. node	13742 Jun 02 11:45	3° $\mathbb{I}$ 08'46		morning set	13743 Jun 01 19:31	11° $\mathbb{I}$ 40'56	
	13742 Jun 20 19:04	0° $\mathbb{E}$			13743 Jun 13 14:34	0° $\mathbb{E}$	
morning set	13742 Jun 22 14:40	2° $\mathbb{E}$ 47'18		max. Earth dist.	13743 Jun 15 12:04	2° $\mathbb{E}$ 58'06	1.45477 AU
max. Earth dist.	13742 Jul 02 19:41	18° $\mathbb{E}$ 45'04	1.44363 AU				
				superior conj	13743 Jun 18 04:33	7° $\mathbb{E}$ 11'29	-2°13'38
superior conj	13742 Jul 08 09:34	27° $\mathbb{E}$ 44'03	-2°03'53	minimum elong	13743 Jun 18 04:38	7° $\mathbb{E}$ 11'47	2°14'42
minimum elong	13742 Jul 08 15:42	28° $\mathbb{E}$ 09'02	2°04'31		13743 Jul 02 09:57	0° $\mathbb{O}$	
	13742 Jul 09 18:50	0° $\mathbb{O}$		evening rise	13743 Jul 03 00:05	0° $\mathbb{O}$ 57'39	
evening rise	13742 Jul 21 12:45	19° $\mathbb{O}$ 45'42		asc. node	13743 Jul 14 06:46	19° $\mathbb{O}$ 07'21	
asc. node	13742 Jul 27 10:02	29° $\mathbb{O}$ 48'52		evening max el	13743 Jul 22 12:48	0° $\mathbb{O}$ 00'27	18°21'55
	13742 Jul 27 12:41	0° $\mathbb{O}$			13743 Jul 22 12:37	0° $\mathbb{O}$	
evening max el	13742 Aug 07 22:51	16° $\mathbb{O}$ 26'02	18°04'36	retrograde	13743 Jul 28 22:15	3° $\mathbb{O}$ 25'13	
retrograde	13742 Aug 14 08:44	19° $\mathbb{O}$ 46'32		evening set	13743 Jul 31 23:11	2° $\mathbb{O}$ 34'08	
evening set	13742 Aug 17 01:00	19° $\mathbb{O}$ 10'09			13743 Aug 04 04:13	30° $\mathbb{R}$ $\mathbb{O}$	
inferior conj	13742 Aug 23 08:41	13° $\mathbb{O}$ 57'07	1°43'19	inferior conj	13743 Aug 06 19:25	27° $\mathbb{O}$ 04'36	2°28'53
minimum elong	13742 Aug 23 11:05	13° $\mathbb{O}$ 50'47	1°42'11	minimum elong	13743 Aug 06 21:45	26° $\mathbb{O}$ 57'45	2°27'41
min. Earth dist.	13742 Aug 26 04:41	10° $\mathbb{O}$ 58'35	0.62553 AU	min. Earth dist.	13743 Aug 09 02:11	24° $\mathbb{O}$ 24'39	0.64643 AU
desc. node	13742 Aug 29 09:23	8° $\mathbb{O}$ 05'34		morning rise	13743 Aug 12 18:58	20° $\mathbb{O}$ 44'12	
morning rise	13742 Aug 29 18:55	7° $\mathbb{O}$ 47'44		desc. node	13743 Aug 16 06:54	18° $\mathbb{O}$ 39'52	
direct	13742 Sep 05 11:13	5° $\mathbb{O}$ 21'43		direct	13743 Aug 19 08:17	18° $\mathbb{O}$ 06'30	
morning max el	13742 Sep 19 12:59	13° $\mathbb{O}$ 23'01	27°55'24	morning max el	13743 Sep 01 23:12	26° $\mathbb{O}$ 04'15	27°23'06

	13743 Sep 05 14:25	0°♍	direct	13744 Aug 01 12:35	1°♊31'33	
	13743 Sep 26 11:13	0°♌	desc. node	13744 Aug 02 04:20	1°♊33'09	
morning set	13743 Oct 07 07:07	19°♌44'59	morning max el	13744 Aug 14 10:23	9°♊12'04	26°22'36
asc. node	13743 Oct 10 08:40	25°♌52'28		13744 Aug 30 18:57	0°♍	
max. Earth dist.	13743 Oct 11 19:55	28°♌53'23	1.33029 AU	13744 Sep 17 22:58	0°♌	
	13743 Oct 12 08:45	0°♍	morning set	13744 Sep 19 08:30	2°♌35'44	
			max. Earth dist.	13744 Sep 23 06:06	10°♌04'11	1.34698 AU
superior conj	13743 Oct 15 12:04	6°♍37'28	0°47'10	asc. node	13744 Sep 26 05:15	15°♌58'26
minimum elong	13743 Oct 15 10:00	6°♍26'28	0°47'20			
evening rise	13743 Oct 22 13:07	21°♍47'26		superior conj	13744 Sep 28 09:46	20°♌26'34
	13743 Oct 26 11:42	0°♎	minimum elong	13744 Sep 28 08:40	20°♌20'51	0°20'32
desc. node	13743 Nov 12 03:07	26°♎11'18		13744 Oct 02 23:38	0°♍	
evening max el	13743 Nov 13 04:32	27°♎15'38	22°27'24	evening rise	13744 Oct 05 22:12	6°♍10'14
	13743 Nov 16 08:51	0°♏		13744 Oct 18 20:15	0°♎	
retrograde	13743 Nov 26 01:34	3°♏38'35		evening max el	13744 Oct 24 23:00	7°♎33'34
evening set	13743 Nov 29 16:44	3°♏09'41		desc. node	13744 Oct 29 00:28	10°♎53'36
	13743 Dec 06 21:18	30°♏♎		retrograde	13744 Nov 05 12:05	13°♎17'55
min. Earth dist.	13743 Dec 07 12:01	29°♎39'25	0.54705 AU	evening set	13744 Nov 07 22:55	13°♎03'31
inferior conj	13743 Dec 08 06:22	29°♎13'35	-5°56'04	inferior conj	13744 Nov 16 21:37	9°♎09'48
minimum elong	13743 Dec 08 04:11	29°♎16'40	5°54'56	minimum elong	13744 Nov 16 12:19	9°♎23'02
morning rise	13743 Dec 16 16:50	25°♎26'08		min. Earth dist.	13744 Nov 17 17:59	8°♎40'48
direct	13743 Dec 19 23:23	25°♎01'53		morning rise	13744 Nov 25 01:58	5°♎16'23
	13743 Dec 31 01:09	0°♏		direct	13744 Nov 29 06:58	4°♎38'27
morning max el	13743 Dec 31 19:01	0°♏41'12	21°21'43	morning max el	13744 Dec 12 09:11	10°♎58'34
asc. node	13744 Jan 06 08:55	7°♏09'42		asc. node	13744 Dec 23 06:04	24°♎54'37
	13744 Jan 19 08:21	0°♐		13744 Dec 26 06:25	0°♏	
morning set	13744 Jan 20 20:59	3°♐09'55		morning set	13745 Jan 04 08:28	17°♏55'52
				13745 Jan 09 22:42	0°♐	
superior conj	13744 Jan 28 03:05	18°♐24'34	1°20'26			
minimum elong	13744 Jan 28 05:27	18°♐36'51	1°20'57	superior conj	13745 Jan 11 06:38	2°♐52'04
max. Earth dist.	13744 Feb 01 17:17	27°♐44'53	1.35104 AU	minimum elong	13745 Jan 11 08:07	3°♐00'04
	13744 Feb 02 20:42	0°♑		max. Earth dist.	13745 Jan 14 11:05	9°♐37'48
evening rise	13744 Feb 05 19:27	5°♑39'59		evening rise	13745 Jan 19 03:48	19°♐11'26
desc. node	13744 Feb 08 02:58	9°♑57'42		desc. node	13745 Jan 24 23:36	0°♑13'17
	13744 Feb 19 23:54	0°♒		13745 Jan 24 20:40	0°♑	
evening max el	13744 Mar 12 02:06	27°♒22'02	26°34'05	13745 Feb 13 02:37	0°♒	
	13744 Mar 15 00:03	0°♓		evening max el	13745 Feb 22 15:31	10°♒54'18
retrograde	13744 Mar 25 03:14	4°♓44'16		retrograde	13745 Mar 08 04:39	18°♒22'04
evening set	13744 Mar 31 11:54	2°♓12'24		evening set	13745 Mar 14 21:37	15°♒51'14
	13744 Apr 02 20:15	30°♓♒		min. Earth dist.	13745 Mar 18 18:34	12°♒15'26
asc. node	13744 Apr 03 05:42	29°♒34'35		inferior conj	13745 Mar 21 04:32	9°♒36'47
min. Earth dist.	13744 Apr 04 13:33	28°♒04'00	0.66510 AU	minimum elong	13745 Mar 21 04:30	9°♒36'53
inferior conj	13744 Apr 06 11:24	25°♒46'36	1°00'10	transit middle	13745 Mar 21 04:30	9°♒36'53
minimum elong	13744 Apr 06 09:57	25°♒50'58	0°59'17	transit begin	13745 Mar 21 01:28	9°♒45'15
morning rise	13744 Apr 12 09:02	20°♒05'57		transit end	13745 Mar 21 07:33	9°♒28'32
direct	13744 Apr 15 09:52	19°♒14'29		asc. node	13745 Mar 21 03:10	9°♒40'32
morning max el	13744 Apr 21 20:28	22°♒39'09	18°21'27	morning rise	13745 Mar 27 13:12	4°♒09'33
	13744 Apr 27 20:44	0°♓		direct	13745 Mar 30 04:47	3°♒32'48
desc. node	13744 May 06 05:18	12°♓40'12		morning max el	13745 Apr 05 12:51	6°♒49'50
morning set	13744 May 11 21:13	21°♓38'53		13745 Apr 21 07:56	0°♓	
	13744 May 17 03:43	0°♔		morning set	13745 Apr 23 03:05	2°♓58'44
				desc. node	13745 Apr 23 01:56	2°♓53'55
superior conj	13744 May 27 12:40	16°♔16'50	-2°03'25			
minimum elong	13744 May 27 05:30	15°♔48'52	2°04'00	superior conj	13745 May 07 03:11	25°♓45'21
max. Earth dist.	13744 May 28 08:01	17°♔32'23	1.45865 AU	minimum elong	13745 May 06 18:16	25°♓09'52
	13744 Jun 05 07:40	0°♕		13745 May 09 19:32	0°♔	
evening rise	13744 Jun 12 10:59	11°♕10'03		max. Earth dist.	13745 May 11 04:14	2°♔08'39
greatest brilliancy	13744 Jun 22 09:38	26°♕40'31	-0.8m	evening rise	13745 May 23 03:02	20°♔40'15
	13744 Jun 24 14:04	0°♌		13745 May 29 05:46	0°♕	
asc. node	13744 Jun 30 03:38	7°♌59'52		greatest brilliancy	13745 Jun 06 12:14	12°♕21'04
evening max el	13744 Jul 04 23:47	13°♌44'50	18°56'36	asc. node	13745 Jun 17 00:37	26°♕16'38
retrograde	13744 Jul 11 17:39	17°♌27'16		evening max el	13745 Jun 18 05:42	27°♕32'54
evening set	13744 Jul 15 03:34	16°♌19'56		13745 Jun 21 01:39	0°♌	
inferior conj	13744 Jul 20 15:57	10°♌35'28	2°56'48	retrograde	13745 Jun 25 16:00	1°♌45'20
minimum elong	13744 Jul 20 17:33	10°♌30'22	2°55'42	evening set	13745 Jun 29 11:26	0°♌21'07
min. Earth dist.	13744 Jul 22 08:11	8°♌27'57	0.66390 AU	13745 Jun 29 22:16	30°♒♕	
morning rise	13744 Jul 26 06:49	4°♌11'09		inferior conj	13745 Jul 04 19:12	24°♕23'17
						3°10'08

minimum elong	13745 Jul 04 19:48	24°☿21'14	3°09'06	evening set	13746 Jun 13 20:39	14°☿32'39	
min. Earth dist.	13745 Jul 05 21:04	22°☿56'28	0.67703 AU	inferior conj	13746 Jun 19 02:36	8°☿23'00	3°11'05
morning rise	13745 Jul 10 03:47	17°☿59'50		minimum elong	13746 Jun 19 02:12	8°☿24'23	3°10'01
direct	13745 Jul 15 23:03	15°☿26'57		min. Earth dist.	13746 Jun 19 14:45	7°☿40'53	0.68555 AU
desc. node	13745 Jul 20 01:41	16°☿29'48		morning rise	13746 Jun 24 07:30	2°☿03'37	
morning max el	13745 Jul 27 21:08	22°☿35'39	25°03'12		13746 Jun 27 18:45	30°☿II	
	13745 Aug 03 09:23	0°☿		direct	13746 Jun 29 14:44	29°II44'07	
	13745 Aug 24 02:12	0°☿			13746 Jul 01 12:45	0°☿	
morning set	13745 Sep 01 17:54	14°☿42'52		desc. node	13746 Jul 06 22:57	3°☿03'09	
max. Earth dist.	13745 Sep 05 07:41	21°☿11'40	1.36788 AU	morning max el	13746 Jul 10 07:37	6°☿07'32	23°34'32
	13745 Sep 09 23:22	0°☿			13746 Jul 28 19:45	0°☿	
				morning set	13746 Aug 14 06:38	25°☿54'25	
superior conj	13745 Sep 11 21:43	3°☿46'21	-0°10'54		13746 Aug 16 16:15	0°☿	
minimum elong	13745 Sep 11 22:25	3°☿49'47	0°10'48	max. Earth dist.	13746 Aug 18 05:22	2°☿40'59	1.39120 AU
behind sun begin	13745 Sep 11 17:33	3°☿25'50					
behind sun end	13745 Sep 12 03:17	4°☿13'47		superior conj	13746 Aug 25 20:08	16°☿27'21	-0°45'29
asc. node	13745 Sep 13 01:50	6°☿05'30		minimum elong	13746 Aug 25 23:26	16°☿42'45	0°45'15
evening rise	13745 Sep 20 03:15	20°☿20'38		asc. node	13746 Aug 30 22:25	26°☿09'27	
	13745 Sep 25 00:28	0°☿			13746 Sep 01 21:57	0°☿	
evening max el	13745 Oct 07 07:25	18°☿36'11	19°38'55	evening rise	13746 Sep 04 01:26	4°☿10'36	
desc. node	13745 Oct 15 21:53	23°☿28'08			13746 Sep 19 18:26	0°☿	
retrograde	13745 Oct 17 05:10	23°☿33'05		evening max el	13746 Sep 20 05:15	0°☿27'41	18°46'06
evening set	13745 Oct 19 02:44	23°☿22'59		retrograde	13746 Sep 28 14:24	4°☿40'35	
inferior conj	13745 Oct 27 21:08	19°☿19'18	-3°40'08	evening set	13746 Sep 30 12:00	4°☿28'23	
minimum elong	13745 Oct 27 12:01	19°☿33'39	3°36'17	desc. node	13746 Oct 02 19:23	3°☿43'15	
min. Earth dist.	13745 Oct 30 02:57	17°☿54'43	0.55316 AU	inferior conj	13746 Oct 08 15:23	0°☿06'34	-1°51'11
morning rise	13745 Nov 04 19:29	14°☿59'24		minimum elong	13746 Oct 08 10:46	0°☿14'58	1°48'55
direct	13745 Nov 09 21:41	14°☿01'48			13746 Oct 08 18:58	30°☿☿	
morning max el	13745 Nov 23 18:58	20°☿57'28	24°54'41	min. Earth dist.	13746 Oct 11 17:13	27°☿52'31	0.56889 AU
	13745 Dec 01 14:04	0°☿		morning rise	13746 Oct 16 06:14	25°☿09'49	
asc. node	13745 Dec 10 03:06	13°☿25'07		direct	13746 Oct 22 02:38	23°☿46'40	
	13745 Dec 18 14:29	0°☿			13746 Nov 04 01:58	0°☿	
morning set	13745 Dec 19 20:22	2°☿39'19		morning max el	13746 Nov 05 08:16	1°☿10'20	26°28'43
					13746 Nov 25 16:07	0°☿	
superior conj	13745 Dec 26 15:01	17°☿30'48	1°37'41	asc. node	13746 Nov 27 00:03	2°☿28'58	
minimum elong	13745 Dec 26 15:25	17°☿33'04	1°38'42	morning set	13746 Dec 04 06:53	17°☿14'36	
max. Earth dist.	13745 Dec 28 12:14	21°☿38'22	1.32154 AU		13746 Dec 10 02:02	0°☿	
	13746 Jan 01 10:05	0°☿					
evening rise	13746 Jan 02 22:18	3°☿07'34		superior conj	13746 Dec 11 01:58	2°☿13'24	1°37'00
desc. node	13746 Jan 11 20:21	20°☿12'21		minimum elong	13746 Dec 11 01:18	2°☿09'44	1°38'02
	13746 Jan 17 15:45	0°☿		max. Earth dist.	13746 Dec 11 18:32	3°☿45'46	1.31405 AU
evening max el	13746 Feb 05 02:58	23°☿59'24	27°33'52	evening rise	13746 Dec 18 00:08	17°☿20'47	
	13746 Feb 13 07:27	0°☿			13746 Dec 24 07:15	0°☿	
retrograde	13746 Feb 18 23:10	1°☿24'49		desc. node	13746 Dec 29 17:11	9°☿47'09	
	13746 Feb 24 06:48	30°☿☿			13747 Jan 12 12:07	0°☿	
evening set	13746 Feb 25 20:31	29°☿02'20		evening max el	13747 Jan 18 10:11	6°☿24'43	27°18'02
min. Earth dist.	13746 Mar 01 14:42	25°☿54'49	0.62948 AU	retrograde	13747 Feb 01 09:27	13°☿42'11	
inferior conj	13746 Mar 04 11:16	23°☿06'36	-1°09'26	evening set	13747 Feb 08 05:29	11°☿36'27	
minimum elong	13746 Mar 04 13:34	23°☿00'56	1°08'15	min. Earth dist.	13747 Feb 12 00:44	8°☿49'50	0.60799 AU
asc. node	13746 Mar 08 00:38	19°☿53'05		inferior conj	13747 Feb 15 04:09	6°☿06'49	-2°29'43
morning rise	13746 Mar 11 09:14	17°☿55'18		minimum elong	13747 Feb 15 09:31	5°☿55'09	2°27'07
direct	13746 Mar 13 17:02	17°☿29'47		morning rise	13747 Feb 22 16:42	1°☿14'14	
morning max el	13746 Mar 20 06:40	20°☿50'36	17°46'17	asc. node	13747 Feb 22 22:05	1°☿10'38	
	13746 Mar 27 05:47	0°☿		direct	13747 Feb 24 19:02	0°☿56'12	
morning set	13746 Apr 05 10:15	15°☿30'42		morning max el	13747 Mar 03 22:30	4°☿31'18	17°55'39
desc. node	13746 Apr 09 22:31	23°☿19'10		morning set	13747 Mar 19 12:37	28°☿56'11	
	13746 Apr 13 20:39	0°☿			13747 Mar 20 02:36	0°☿	
				desc. node	13747 Mar 27 19:03	13°☿51'33	
superior conj	13746 Apr 17 13:50	6°☿12'16	-0°57'17				
minimum elong	13746 Apr 17 08:09	5°☿48'44	0°57'00	superior conj	13747 Mar 30 00:37	17°☿46'13	-0°17'40
max. Earth dist.	13746 Apr 23 22:00	16°☿30'15	1.44427 AU	minimum elong	13747 Mar 29 23:03	17°☿39'25	0°17'37
evening rise	13746 May 02 14:28	0°☿06'45			13747 Apr 06 05:57	0°☿	
	13746 May 02 12:42	0°☿		max. Earth dist.	13747 Apr 06 11:42	0°☿23'43	1.42764 AU
	13746 May 22 22:26	0°☿		evening rise	13747 Apr 12 12:46	10°☿08'16	
evening max el	13746 Jun 01 05:43	11°☿21'45	20°52'39		13747 Apr 25 14:52	0°☿	
asc. node	13746 Jun 03 21:41	13°☿45'44		evening max el	13747 May 15 00:29	25°☿12'00	22°08'07
retrograde	13746 Jun 09 15:01	16°☿13'33			13747 May 21 06:57	0°☿	

asc. node	13747 May 21 18:49	0°☿12'50			13748 Apr 18 18:17	0°♊	
retrograde	13747 May 24 12:50	0°☿47'18		evening max el	13748 Apr 26 15:43	9°♊03'48	23°28'49
	13747 May 27 13:10	30°♊		retrograde	13748 May 07 08:02	15°♊20'44	
evening set	13747 May 29 05:26	28°♊50'34		asc. node	13748 May 07 16:04	15°♊20'13	
inferior conj	13747 Jun 03 12:01	22°♊31'08	3°01'04	evening set	13748 May 12 12:11	13°♊09'45	
minimum elong	13747 Jun 03 10:45	22°♊35'34	2°59'52	inferior conj	13748 May 17 21:28	6°♊43'03	2°40'43
min. Earth dist.	13747 Jun 03 11:04	22°♊34'26	0.68932 AU	minimum elong	13748 May 17 19:34	6°♊49'35	2°39'24
morning rise	13747 Jun 08 15:52	16°♊17'50		min. Earth dist.	13748 May 17 07:45	7°♊30'11	0.68836 AU
direct	13747 Jun 13 10:26	14°♊16'22		morning rise	13748 May 23 02:53	0°♊37'20	
morning max el	13747 Jun 22 20:10	19°♊47'19	22°06'01		13748 May 23 23:40	30°♊	
desc. node	13747 Jun 23 20:06	20°♊49'02		direct	13748 May 27 08:51	28°♊56'16	
	13747 Jul 01 10:45	0°☿			13748 May 31 00:19	0°♊	
	13747 Jul 21 23:50	0°♊		morning max el	13748 Jun 04 14:00	3°♊37'25	20°45'08
morning set	13747 Jul 25 18:54	6°♊01'34		desc. node	13748 Jun 09 17:07	9°♊27'29	
max. Earth dist.	13747 Jul 31 05:56	14°♊58'08	1.41433 AU		13748 Jun 24 08:53	0°☿	
				morning set	13748 Jul 04 07:44	15°☿08'07	
superior conj	13747 Aug 08 00:44	28°♊20'22	-1°20'24	max. Earth dist.	13748 Jul 12 13:24	28°☿10'16	1.43447 AU
minimum elong	13747 Aug 08 06:48	28°♊47'11	1°20'11		13748 Jul 13 16:31	0°♊	
	13747 Aug 08 23:13	0°♊					
asc. node	13747 Aug 17 19:01	16°♊06'58		superior conj	13748 Jul 19 07:14	9°♊15'21	-1°50'53
evening rise	13747 Aug 18 13:14	17°♊31'35		minimum elong	13748 Jul 19 14:29	9°♊45'45	1°51'08
	13747 Aug 25 09:54	0°♊		evening rise	13748 Jul 31 10:08	0°♊11'46	
evening max el	13747 Sep 03 12:43	13°♊01'03	18°14'30		13748 Jul 31 07:28	0°♊	
retrograde	13747 Sep 10 18:49	16°♊42'10		asc. node	13748 Aug 03 15:37	5°♊53'18	
evening set	13747 Sep 12 22:31	16°♊23'19		evening max el	13748 Aug 17 01:30	26°♊05'05	18°02'44
desc. node	13747 Sep 19 16:53	12°♊11'13		retrograde	13748 Aug 23 15:42	29°♊29'02	
inferior conj	13747 Sep 20 07:27	11°♊40'21	-0°11'24	evening set	13748 Aug 26 03:16	28°♊59'50	
minimum elong	13747 Sep 20 07:03	11°♊41'13	0°11'08	inferior conj	13748 Sep 01 19:12	23°♊56'49	1°07'49
transit middle	13747 Sep 20 07:03	11°♊41'13	0°11'08	minimum elong	13748 Sep 01 21:05	23°♊52'11	1°06'57
transit begin	13747 Sep 20 04:33	11°♊46'32		min. Earth dist.	13748 Sep 04 21:04	20°♊56'22	0.61265 AU
transit end	13747 Sep 20 09:33	11°♊35'52		desc. node	13748 Sep 05 14:25	20°♊16'34	
min. Earth dist.	13747 Sep 23 14:42	8°♊52'35	0.58980 AU	morning rise	13748 Sep 08 12:11	17°♊58'14	
morning rise	13747 Sep 27 12:10	6°♊08'34		direct	13748 Sep 15 03:39	15°♊43'33	
direct	13747 Oct 03 21:26	4°♊18'02		morning max el	13748 Sep 29 08:51	23°♊40'17	27°58'14
morning max el	13747 Oct 18 04:55	12°♊01'40	27°32'30		13748 Oct 05 01:28	0°♊	
	13747 Nov 01 08:02	0°♊			13748 Oct 24 15:16	0°♊	
asc. node	13747 Nov 13 20:54	21°♊57'29		asc. node	13748 Oct 30 17:39	11°♊43'16	
	13747 Nov 17 19:46	0°♊		morning set	13748 Nov 01 16:34	15°♊42'59	
morning set	13747 Nov 18 14:15	1°♊37'26		max. Earth dist.	13748 Nov 07 09:32	27°♊56'20	1.31472 AU
max. Earth dist.	13747 Nov 25 02:53	15°♊54'50	1.31177 AU		13748 Nov 08 07:58	0°♊	
superior conj	13747 Nov 25 13:34	16°♊54'29	1°30'27	superior conj	13748 Nov 08 23:58	1°♊28'36	1°18'08
minimum elong	13747 Nov 25 12:00	16°♊45'48	1°31'20	minimum elong	13748 Nov 08 21:50	1°♊16'44	1°18'44
	13747 Dec 01 11:28	0°♊		evening rise	13748 Nov 15 16:59	16°♊16'28	
evening rise	13747 Dec 02 07:02	1°♊45'33			13748 Nov 22 09:27	0°♊	
desc. node	13747 Dec 16 14:07	28°♊48'32		desc. node	13748 Dec 02 11:10	17°♊04'00	
	13747 Dec 17 08:02	0°♊		evening max el	13748 Dec 12 02:37	28°♊44'32	25°05'56
evening max el	13747 Dec 31 10:38	18°♊00'35	26°27'23		13748 Dec 13 11:43	0°♊	
retrograde	13748 Jan 14 09:41	25°♊07'10		retrograde	13748 Dec 25 21:58	5°♊39'46	
evening set	13748 Jan 20 20:44	23°♊25'44		evening set	13748 Dec 31 14:13	4°♊27'25	
min. Earth dist.	13748 Jan 25 00:18	20°♊48'56	0.58627 AU	min. Earth dist.	13749 Jan 05 14:35	1°♊44'53	0.56666 AU
inferior conj	13748 Jan 28 03:34	18°♊27'40	-3°53'59	inferior conj	13749 Jan 08 06:39	0°♊00'31	-5°09'14
minimum elong	13748 Jan 28 11:48	18°♊12'11	3°50'32	minimum elong	13749 Jan 08 15:05	29°♊46'45	5°06'27
morning rise	13748 Feb 05 05:52	13°♊56'12			13749 Jan 08 06:58	30°♊	
direct	13748 Feb 07 06:36	13°♊41'58		morning rise	13749 Jan 16 18:17	25°♊51'05	
asc. node	13748 Feb 09 19:31	14°♊05'19		direct	13749 Jan 18 23:46	25°♊36'52	
morning max el	13748 Feb 15 08:38	17°♊41'19	18°24'42	asc. node	13749 Jan 26 16:52	28°♊40'48	
	13748 Feb 24 03:52	0°♊			13749 Jan 28 04:59	0°♊	
morning set	13748 Mar 02 04:27	12°♊57'59		morning max el	13749 Jan 28 09:02	0°♊09'44	19°15'28
				morning set	13749 Feb 14 05:29	27°♊23'28	
					13749 Feb 15 12:53	0°♊	
superior conj	13748 Mar 11 09:04	0°♊19'23	0°18'15				
minimum elong	13748 Mar 11 10:21	0°♊25'19	0°18'08				
	13748 Mar 11 04:51	0°♊		superior conj	13749 Feb 22 10:48	13°♊39'50	0°47'55
desc. node	13748 Mar 13 15:32	4°♊27'02		minimum elong	13749 Feb 22 13:22	13°♊52'17	0°47'54
max. Earth dist.	13748 Mar 18 21:13	13°♊39'30	1.40692 AU	desc. node	13749 Feb 28 12:02	25°♊02'24	
evening rise	13748 Mar 23 06:37	21°♊02'49		max. Earth dist.	13749 Mar 01 03:57	26°♊14'36	1.38437 AU
	13748 Mar 28 20:03	0°♊			13749 Mar 03 06:21	0°♊	



evening rise	13749 Mar 04 21:35	2° $\Upsilon$ 51'52		desc. node	13750 Feb 15 08:34	15° $\Upsilon$ 33'22	
	13749 Mar 21 23:43	0° $\Upsilon$			13750 Feb 23 16:02	0° $\Upsilon$	
evening max el	13749 Apr 09 05:20	22° $\Upsilon$ 56'51	24°48'17		13750 Mar 16 13:52	0° $\Upsilon$	
retrograde	13749 Apr 20 23:32	29° $\Upsilon$ 48'19		evening max el	13750 Mar 22 18:45	6° $\Upsilon$ 47'32	25°59'37
asc. node	13749 Apr 24 13:23	28° $\Upsilon$ 52'42		retrograde	13750 Apr 04 10:26	14° $\Upsilon$ 02'43	
evening set	13749 Apr 26 15:23	27° $\Upsilon$ 25'45		evening set	13750 Apr 10 13:19	11° $\Upsilon$ 32'35	
min. Earth dist.	13749 May 01 02:47	22° $\Upsilon$ 22'30	0.68278 AU	asc. node	13750 Apr 11 10:47	10° $\Upsilon$ 44'53	
inferior conj	13749 May 02 05:06	20° $\Upsilon$ 55'18	2°10'08	min. Earth dist.	13750 Apr 14 18:04	7° $\Upsilon$ 04'40	0.67272 AU
minimum elong	13749 May 02 02:56	21° $\Upsilon$ 02'28	2°08'47	inferior conj	13750 Apr 16 08:54	5° $\Upsilon$ 03'11	1°28'57
morning rise	13749 May 07 14:43	14° $\Upsilon$ 58'18		minimum elong	13750 Apr 16 07:00	5° $\Upsilon$ 09'09	1°27'47
direct	13749 May 11 08:34	13° $\Upsilon$ 37'57			13750 Apr 21 00:42	30° $\Upsilon$	
morning max el	13749 May 18 15:15	17° $\Upsilon$ 39'23	19°36'58	morning rise	13750 Apr 22 01:24	29° $\Upsilon$ 16'11	
desc. node	13749 May 27 14:01	28° $\Upsilon$ 44'30		direct	13750 Apr 25 08:02	28° $\Upsilon$ 15'03	
	13749 May 28 11:24	0° $\Upsilon$			13750 Apr 29 20:39	0° $\Upsilon$	
greatest brilliancy	13749 May 31 07:11	4° $\Upsilon$ 04'43	-0.6m	morning max el	13750 May 01 23:50	1° $\Upsilon$ 49'41	18°44'15
morning set	13749 Jun 13 09:27	23° $\Upsilon$ 50'06		desc. node	13750 May 14 10:48	18° $\Upsilon$ 29'20	
	13749 Jun 17 09:23	0° $\Upsilon$			13750 May 21 21:33	0° $\Upsilon$	
max. Earth dist.	13749 Jun 25 03:17	12° $\Upsilon$ 06'27	1.44928 AU	morning set	13750 May 23 21:16	3° $\Upsilon$ 06'01	
				max. Earth dist.	13750 Jun 07 21:16	26° $\Upsilon$ 29'48	1.45728 AU
superior conj	13749 Jun 29 13:59	19° $\Upsilon$ 10'50	-2°10'16	superior conj	13750 Jun 09 02:28	28° $\Upsilon$ 23'58	-2°11'49
minimum elong	13749 Jun 29 18:08	19° $\Upsilon$ 27'25	2°11'10	minimum elong	13750 Jun 08 23:10	28° $\Upsilon$ 11'01	2°12'46
	13749 Jul 06 06:00	0° $\Upsilon$			13750 Jun 10 03:01	0° $\Upsilon$	
evening rise	13749 Jul 13 11:06	11° $\Upsilon$ 59'26		evening rise	13750 Jun 24 11:58	22° $\Upsilon$ 45'47	
asc. node	13749 Jul 21 12:18	25° $\Upsilon$ 23'54			13750 Jun 29 00:22	0° $\Upsilon$	
	13749 Jul 24 09:56	0° $\Upsilon$		greatest brilliancy	13750 Jun 30 21:35	3° $\Upsilon$ 00'29	-0.9m
evening max el	13749 Jul 31 15:54	9° $\Upsilon$ 30'46	18°09'41	asc. node	13750 Jul 08 09:05	14° $\Upsilon$ 32'50	
retrograde	13749 Aug 07 00:30	12° $\Upsilon$ 51'38		evening max el	13750 Jul 15 04:51	23° $\Upsilon$ 10'29	18°34'34
evening set	13749 Aug 09 20:24	12° $\Upsilon$ 09'14		retrograde	13750 Jul 21 17:02	26° $\Upsilon$ 41'35	
inferior conj	13749 Aug 15 22:44	6° $\Upsilon$ 48'38	2°05'00	evening set	13750 Jul 24 21:38	25° $\Upsilon$ 43'54	
minimum elong	13749 Aug 16 01:13	6° $\Upsilon$ 41'44	2°03'48	inferior conj	13750 Jul 30 14:06	20° $\Upsilon$ 07'50	2°42'40
min. Earth dist.	13749 Aug 18 13:17	3° $\Upsilon$ 56'08	0.63478 AU	minimum elong	13750 Jul 30 16:11	20° $\Upsilon$ 01'29	2°41'30
morning rise	13749 Aug 22 04:13	0° $\Upsilon$ 33'20		min. Earth dist.	13750 Aug 01 14:47	17° $\Upsilon$ 40'04	0.65429 AU
	13749 Aug 22 22:40	30° $\Upsilon$		morning rise	13750 Aug 05 09:39	13° $\Upsilon$ 44'44	
desc. node	13749 Aug 23 11:56	29° $\Upsilon$ 38'31		desc. node	13750 Aug 10 09:24	11° $\Upsilon$ 12'35	
direct	13749 Aug 28 19:43	28° $\Upsilon$ 01'29		direct	13750 Aug 11 20:07	11° $\Upsilon$ 04'58	
	13749 Sep 04 05:58	0° $\Upsilon$		morning max el	13750 Aug 25 04:54	18° $\Upsilon$ 58'07	27°00'18
morning max el	13749 Sep 11 17:49	6° $\Upsilon$ 02'43	27°45'40		13750 Sep 03 13:31	0° $\Upsilon$	
	13749 Sep 29 23:39	0° $\Upsilon$			13750 Sep 22 23:40	0° $\Upsilon$	
morning set	13749 Oct 16 11:32	29° $\Upsilon$ 25'23		morning set	13750 Sep 29 20:23	12° $\Upsilon$ 38'17	
	13749 Oct 16 18:25	0° $\Upsilon$		max. Earth dist.	13750 Oct 04 02:22	21° $\Upsilon$ 01'48	1.33675 AU
asc. node	13749 Oct 17 14:17	1° $\Upsilon$ 40'33		asc. node	13750 Oct 04 10:54	21° $\Upsilon$ 45'01	
max. Earth dist.	13749 Oct 21 10:27	9° $\Upsilon$ 40'13	1.32304 AU				
superior conj	13749 Oct 24 07:15	15° $\Upsilon$ 50'05	1°00'06	superior conj	13750 Oct 08 09:14	29° $\Upsilon$ 53'35	0°36'30
minimum elong	13749 Oct 24 04:59	15° $\Upsilon$ 37'47	1°00'24	minimum elong	13750 Oct 08 07:29	29° $\Upsilon$ 44'20	0°36'35
	13749 Oct 30 19:08	0° $\Upsilon$			13750 Oct 08 10:27	0° $\Upsilon$	
evening rise	13749 Oct 31 04:04	0° $\Upsilon$ 48'10		evening rise	13750 Oct 15 14:30	15° $\Upsilon$ 16'09	
	13749 Nov 16 02:58	0° $\Upsilon$			13750 Oct 22 22:35	0° $\Upsilon$	
desc. node	13749 Nov 19 08:20	4° $\Upsilon$ 15'37		evening max el	13750 Nov 05 01:20	18° $\Upsilon$ 54'20	21°45'41
evening max el	13749 Nov 23 12:36	8° $\Upsilon$ 50'33	23°26'06	desc. node	13750 Nov 06 05:37	20° $\Upsilon$ 00'40	
retrograde	13749 Dec 06 21:37	15° $\Upsilon$ 29'47		retrograde	13750 Nov 17 10:47	25° $\Upsilon$ 03'03	
evening set	13749 Dec 11 08:14	14° $\Upsilon$ 46'54		evening set	13750 Nov 20 12:09	24° $\Upsilon$ 42'00	
min. Earth dist.	13749 Dec 17 22:47	11° $\Upsilon$ 39'13	0.55202 AU	inferior conj	13750 Nov 29 06:55	20° $\Upsilon$ 48'25	-5°44'44
inferior conj	13749 Dec 19 13:31	10° $\Upsilon$ 42'40	-5°53'49	minimum elong	13750 Nov 29 01:01	20° $\Upsilon$ 56'41	5°43'02
minimum elong	13749 Dec 19 16:34	10° $\Upsilon$ 38'14	5°52'35	min. Earth dist.	13750 Nov 29 05:00	20° $\Upsilon$ 51'07	0.54517 AU
morning rise	13749 Dec 28 02:34	6° $\Upsilon$ 50'46		morning rise	13750 Dec 07 14:47	17° $\Upsilon$ 00'40	
direct	13749 Dec 30 21:25	6° $\Upsilon$ 32'01		direct	13750 Dec 11 06:31	16° $\Upsilon$ 31'25	
morning max el	13750 Jan 10 20:05	11° $\Upsilon$ 46'08	20°29'20	morning max el	13750 Dec 23 16:52	22° $\Upsilon$ 29'15	22°04'34
asc. node	13750 Jan 13 14:10	14° $\Upsilon$ 43'27			13750 Dec 30 02:57	0° $\Upsilon$	
	13750 Jan 23 10:27	0° $\Upsilon$		asc. node	13750 Dec 31 11:23	1° $\Upsilon$ 56'05	
morning set	13750 Jan 29 12:26	12° $\Upsilon$ 02'10		morning set	13751 Jan 13 22:51	26° $\Upsilon$ 47'08	
					13751 Jan 15 11:15	0° $\Upsilon$	
superior conj	13750 Feb 06 01:20	27° $\Upsilon$ 34'16	1°10'34	superior conj	13751 Jan 21 01:01	11° $\Upsilon$ 52'21	1°26'15
minimum elong	13750 Feb 06 04:00	27° $\Upsilon$ 47'47	1°10'52	minimum elong	13751 Jan 21 03:03	12° $\Upsilon$ 03'05	1°26'55
	13750 Feb 07 06:13	0° $\Upsilon$		max. Earth dist.	13751 Jan 25 00:28	20° $\Upsilon$ 07'04	1.34327 AU
max. Earth dist.	13750 Feb 11 11:24	8° $\Upsilon$ 16'45	1.36244 AU	evening rise	13751 Jan 29 08:30	28° $\Upsilon$ 41'52	
evening rise	13750 Feb 15 07:21	15° $\Upsilon$ 27'46					

	13751 Jan 30 00:49	0° $\text{H}$		superior conj	13752 Jan 05 06:55	26° $\text{Z}$ 25'30	1°35'18
desc. node	13751 Feb 02 05:10	5° $\text{H}$ 56'01		minimum elong	13752 Jan 05 07:58	26° $\text{Z}$ 31'10	1°36'15
	13751 Feb 16 20:52	0° $\text{Y}$			13752 Jan 06 22:36	0° $\approx$	
evening max el	13751 Mar 05 08:27	20° $\text{Y}$ 29'37	26°55'23	max. Earth dist.	13752 Jan 07 21:29	2° $\approx$ 02'34	1.32815 AU
retrograde	13751 Mar 18 15:44	27° $\text{Y}$ 56'10		evening rise	13752 Jan 12 21:33	12° $\approx$ 25'09	
evening set	13751 Mar 25 04:08	25° $\text{Y}$ 23'55		desc. node	13752 Jan 20 01:52	26° $\approx$ 05'37	
min. Earth dist.	13751 Mar 29 03:34	21° $\text{Y}$ 29'36	0.65858 AU		13752 Jan 22 06:55	0° $\text{H}$	
asc. node	13751 Mar 29 08:15	21° $\text{Y}$ 16'16			13752 Feb 12 03:43	0° $\text{Y}$	
inferior conj	13751 Mar 31 06:40	19° $\text{Y}$ 01'44	0°36'33	evening max el	13752 Feb 15 21:29	3° $\text{Y}$ 52'55	27°28'11
minimum elong	13751 Mar 31 05:43	19° $\text{Y}$ 04'31	0°35'57	retrograde	13752 Feb 29 14:23	11° $\text{Y}$ 20'17	
morning rise	13751 Apr 06 08:41	13° $\text{Y}$ 26'27		evening set	13752 Mar 07 09:36	8° $\text{Y}$ 52'26	
direct	13751 Apr 09 05:19	12° $\text{Y}$ 41'48		min. Earth dist.	13752 Mar 11 05:12	5° $\text{Y}$ 29'00	0.64090 AU
morning max el	13751 Apr 15 14:02	16° $\text{Y}$ 02'11	18°08'08	inferior conj	13752 Mar 13 19:49	2° $\text{Y}$ 44'55	-0°27'26
	13751 Apr 25 22:27	0° $\text{B}$		minimum elong	13752 Mar 13 20:40	2° $\text{Y}$ 42'42	0°27'02
desc. node	13751 May 01 07:30	8° $\text{B}$ 34'20		asc. node	13752 Mar 15 05:45	1° $\text{Y}$ 17'24	
morning set	13751 May 04 10:44	13° $\text{B}$ 38'06			13752 Mar 16 14:07	30° $\text{R}$ $\text{H}$	
	13751 May 14 16:00	0° $\text{II}$		morning rise	13752 Mar 20 09:52	27° $\text{H}$ 23'47	
				direct	13752 Mar 22 21:54	26° $\text{H}$ 52'13	
superior conj	13751 May 19 11:09	7° $\text{II}$ 33'41	-1°53'17		13752 Mar 29 03:19	0° $\text{Y}$	
minimum elong	13751 May 19 02:25	6° $\text{II}$ 59'24	1°53'32	morning max el	13752 Mar 29 07:22	0° $\text{Y}$ 09'46	17°49'12
max. Earth dist.	13751 May 21 17:04	11° $\text{II}$ 04'43	1.45793 AU	morning set	13752 Apr 15 04:09	25° $\text{Y}$ 31'34	
	13751 Jun 02 21:13	0° $\text{E}$		desc. node	13752 Apr 17 04:07	28° $\text{Y}$ 53'57	
evening rise	13751 Jun 04 13:28	2° $\text{E}$ 35'50			13752 Apr 17 19:49	0° $\text{B}$	
greatest brilliancy	13751 Jun 16 15:13	21° $\text{E}$ 07'19	-0.7m				
	13751 Jun 22 19:10	0° $\text{O}$		superior conj	13752 Apr 28 09:08	17° $\text{B}$ 24'31	-1°19'51
asc. node	13751 Jun 25 05:59	3° $\text{O}$ 11'35		minimum elong	13752 Apr 28 01:13	16° $\text{B}$ 52'34	1°19'35
evening max el	13751 Jun 28 13:53	6° $\text{O}$ 57'11	19°16'29	max. Earth dist.	13752 May 03 12:36	25° $\text{B}$ 37'18	1.45123 AU
retrograde	13751 Jul 05 13:56	10° $\text{O}$ 51'01			13752 May 06 07:25	0° $\text{II}$	
evening set	13751 Jul 09 03:46	9° $\text{O}$ 36'44		evening rise	13752 May 14 01:34	11° $\text{II}$ 59'54	
inferior conj	13751 Jul 14 13:50	3° $\text{O}$ 46'41	3°04'06		13752 May 26 00:28	0° $\text{E}$	
minimum elong	13751 Jul 14 15:02	3° $\text{O}$ 42'46	3°03'01	evening max el	13752 Jun 10 17:27	20° $\text{E}$ 46'42	20°13'46
min. Earth dist.	13751 Jul 16 00:00	1° $\text{O}$ 55'24	0.67001 AU	asc. node	13752 Jun 11 03:00	21° $\text{E}$ 10'16	
	13751 Jul 17 13:11	30° $\text{R}$ $\text{E}$		retrograde	13752 Jun 18 12:42	25° $\text{E}$ 14'29	
morning rise	13751 Jul 20 01:42	27° $\text{E}$ 22'12		evening set	13752 Jun 22 12:27	23° $\text{E}$ 43'04	
direct	13751 Jul 26 03:24	24° $\text{E}$ 44'10		inferior conj	13752 Jun 27 19:08	17° $\text{E}$ 40'16	3°11'56
desc. node	13751 Jul 28 06:50	25° $\text{E}$ 01'16		minimum elong	13752 Jun 27 19:18	17° $\text{E}$ 39'40	3°10'53
	13751 Aug 05 08:10	0° $\text{O}$		min. Earth dist.	13752 Jun 28 15:07	16° $\text{E}$ 32'09	0.68127 AU
morning max el	13751 Aug 07 15:50	2° $\text{O}$ 13'25	25°50'32	morning rise	13752 Jul 03 01:51	11° $\text{E}$ 18'28	
	13751 Aug 28 16:34	0° $\text{H}$		direct	13752 Jul 08 16:15	8° $\text{E}$ 50'27	
morning set	13751 Sep 12 15:30	25° $\text{H}$ 12'05		desc. node	13752 Jul 14 04:08	10° $\text{E}$ 42'35	
	13751 Sep 15 05:24	0° $\text{A}$		morning max el	13752 Jul 20 02:07	15° $\text{E}$ 40'32	24°26'02
max. Earth dist.	13751 Sep 16 08:08	2° $\text{A}$ 06'56	1.35542 AU		13752 Jul 31 21:12	0° $\text{O}$	
asc. node	13751 Sep 21 07:29	11° $\text{A}$ 52'11			13752 Aug 20 14:50	0° $\text{H}$	
				morning set	13752 Aug 24 16:37	6° $\text{H}$ 56'48	
superior conj	13751 Sep 22 03:13	13° $\text{A}$ 31'39	0°07'43	max. Earth dist.	13752 Aug 28 07:17	13° $\text{H}$ 20'26	1.37772 AU
minimum elong	13751 Sep 22 02:45	13° $\text{A}$ 29'20	0°07'46				
behind sun begin	13751 Sep 21 21:20	13° $\text{A}$ 01'57		superior conj	13752 Sep 04 09:54	26° $\text{H}$ 36'29	-0°25'17
behind sun end	13751 Sep 22 08:10	13° $\text{A}$ 56'47		minimum elong	13752 Sep 04 11:37	26° $\text{H}$ 44'46	0°25'08
evening rise	13751 Sep 29 22:09	29° $\text{A}$ 34'29			13752 Sep 06 03:51	0° $\text{A}$	
	13751 Sep 30 03:07	0° $\text{M}$		asc. node	13752 Sep 07 04:03	1° $\text{A}$ 58'36	
evening max el	13751 Oct 18 01:35	29° $\text{M}$ 30'17	20°19'16	evening rise	13752 Sep 13 00:39	13° $\text{A}$ 37'18	
	13751 Oct 18 13:48	0° $\text{A}$			13752 Sep 21 17:21	0° $\text{M}$	
desc. node	13751 Oct 24 03:00	3° $\text{A}$ 51'48		evening max el	13752 Sep 29 16:03	10° $\text{M}$ 54'12	19°13'42
retrograde	13751 Oct 28 22:06	4° $\text{A}$ 54'07		retrograde	13752 Oct 08 21:01	15° $\text{M}$ 30'59	
evening set	13751 Oct 31 01:18	4° $\text{A}$ 42'35		desc. node	13752 Oct 10 00:26	15° $\text{M}$ 26'59	
inferior conj	13751 Nov 08 23:58	0° $\text{A}$ 46'26	-4°37'14	evening set	13752 Oct 10 17:41	15° $\text{M}$ 20'29	
minimum elong	13751 Nov 08 13:52	1° $\text{A}$ 01'17	4°33'35	inferior conj	13752 Oct 19 06:32	11° $\text{M}$ 09'34	-2°54'04
	13751 Nov 10 07:31	30° $\text{R}$ $\text{M}$		minimum elong	13752 Oct 18 23:08	11° $\text{M}$ 21'55	2°50'42
min. Earth dist.	13751 Nov 10 12:05	29° $\text{M}$ 53'19	0.54767 AU	min. Earth dist.	13752 Oct 21 22:41	9° $\text{M}$ 22'51	0.55911 AU
morning rise	13751 Nov 17 01:45	26° $\text{M}$ 43'43		morning rise	13752 Oct 27 02:05	6° $\text{M}$ 34'54	
direct	13751 Nov 21 16:19	25° $\text{M}$ 57'52		direct	13752 Nov 01 12:43	5° $\text{M}$ 27'02	
	13751 Dec 02 03:20	0° $\text{A}$		morning max el	13752 Nov 15 14:10	12° $\text{M}$ 34'35	25°37'30
morning max el	13751 Dec 05 03:54	2° $\text{A}$ 34'18	23°52'45		13752 Nov 29 02:26	0° $\text{A}$	
asc. node	13751 Dec 18 08:29	20° $\text{A}$ 02'08		asc. node	13752 Dec 04 05:29	8° $\text{A}$ 48'19	
	13751 Dec 23 19:53	0° $\text{Z}$		morning set	13752 Dec 12 22:14	26° $\text{A}$ 13'10	
morning set	13751 Dec 29 10:44	11° $\text{Z}$ 32'32			13752 Dec 14 16:04	0° $\text{Z}$	

superior conj	13752 Dec 19 16:36	11° $\text{♄}$ 06'28	1°38'07	minimum elong	13753 Dec 04 02:59	25° $\text{♄}$ 43'42	1°35'55
minimum elong	13752 Dec 19 16:33	11° $\text{♄}$ 06'11	1°39'10	max. Earth dist.	13753 Dec 04 09:12	26° $\text{♄}$ 18'26	1.31246 AU
max. Earth dist.	13752 Dec 21 01:23	14° $\text{♄}$ 07'40	1.31779 AU		13753 Dec 06 00:56	0° $\text{♄}$	
evening rise	13752 Dec 26 19:29	26° $\text{♄}$ 29'30		evening rise	13753 Dec 10 23:45	10° $\text{♄}$ 48'48	
	13752 Dec 28 12:29	0° $\approx$			13753 Dec 20 18:00	0° $\approx$	
desc. node	13753 Jan 05 22:38	15° $\approx$ 55'35		desc. node	13753 Dec 23 19:30	5° $\approx$ 18'08	
	13753 Jan 14 16:25	0° $\text{♄}$		evening max el	13754 Jan 10 12:08	28° $\approx$ 48'26	27°00'34
evening max el	13753 Jan 28 07:38	16° $\text{♄}$ 43'18	27°31'23		13754 Jan 11 19:28	0° $\text{♄}$	
retrograde	13753 Feb 11 05:15	24° $\text{♄}$ 04'55		retrograde	13754 Jan 24 11:20	6° $\text{♄}$ 01'29	
evening set	13753 Feb 18 02:57	21° $\text{♄}$ 48'45		evening set	13754 Jan 31 04:52	4° $\text{♄}$ 04'53	
min. Earth dist.	13753 Feb 21 21:04	18° $\text{♄}$ 51'16	0.62052 AU	min. Earth dist.	13754 Feb 04 02:21	1° $\text{♄}$ 24'25	0.59872 AU
inferior conj	13753 Feb 24 21:06	16° $\text{♄}$ 03'37	-1°42'30		13754 Feb 05 20:14	30° $\text{♄}$	
minimum elong	13753 Feb 25 00:39	15° $\text{♄}$ 55'19	1°40'42	inferior conj	13754 Feb 07 06:59	28° $\approx$ 48'28	-3°05'31
asc. node	13753 Mar 02 03:13	11° $\text{♄}$ 51'47		minimum elong	13754 Feb 07 13:42	28° $\approx$ 34'45	3°02'25
morning rise	13753 Mar 04 01:11	10° $\text{♄}$ 59'46		morning rise	13754 Feb 15 01:42	24° $\approx$ 04'55	
direct	13753 Mar 06 06:28	10° $\text{♄}$ 37'44		direct	13754 Feb 17 02:50	23° $\approx$ 48'55	
morning max el	13753 Mar 13 00:44	14° $\text{♄}$ 03'07	17°47'58	asc. node	13754 Feb 17 00:38	23° $\approx$ 48'57	
	13753 Mar 24 00:35	0° $\text{♄}$		morning max el	13754 Feb 24 14:39	27° $\approx$ 32'41	18°05'31
morning set	13753 Mar 28 20:14	8° $\text{♄}$ 28'57			13754 Feb 26 19:58	0° $\text{♄}$	
desc. node	13753 Apr 04 00:40	19° $\text{♄}$ 22'53		morning set	13754 Mar 12 04:54	22° $\text{♄}$ 11'43	
					13754 Mar 16 09:41	0° $\text{♄}$	
superior conj	13753 Apr 09 06:00	28° $\text{♄}$ 20'02	-0°40'17	desc. node	13754 Mar 21 21:12	9° $\text{♄}$ 57'19	
minimum elong	13753 Apr 09 02:08	28° $\text{♄}$ 03'45	0°40'05				
	13753 Apr 10 05:47	0° $\text{♄}$		superior conj	13754 Mar 22 02:33	10° $\text{♄}$ 21'09	-0°01'48
max. Earth dist.	13753 Apr 16 05:25	9° $\text{♄}$ 50'57	1.43785 AU	minimum elong	13754 Mar 22 02:23	10° $\text{♄}$ 20'27	0°01'51
evening rise	13753 Apr 23 16:03	21° $\text{♄}$ 37'52		behind sun begin	13754 Mar 21 18:41	9° $\text{♄}$ 46'07	
	13753 Apr 29 03:12	0° $\text{♄}$		behind sun end	13754 Mar 22 10:06	10° $\text{♄}$ 54'41	
	13753 May 20 11:58	0° $\text{♄}$		max. Earth dist.	13754 Mar 29 17:21	23° $\text{♄}$ 29'39	1.41922 AU
evening max el	13753 May 24 15:06	4° $\text{♄}$ 36'05	21°23'43		13754 Apr 02 16:10	0° $\text{♄}$	
asc. node	13753 May 29 00:06	8° $\text{♄}$ 15'06		evening rise	13754 Apr 03 22:02	2° $\text{♄}$ 00'33	
retrograde	13753 Jun 02 11:21	9° $\text{♄}$ 45'49			13754 Apr 22 12:52	0° $\text{♄}$	
evening set	13753 Jun 06 21:40	7° $\text{♄}$ 57'47		evening max el	13754 May 07 07:55	18° $\text{♄}$ 25'57	22°42'04
inferior conj	13753 Jun 12 03:36	1° $\text{♄}$ 43'40	3°08'06	asc. node	13754 May 15 21:17	24° $\text{♄}$ 10'20	
minimum elong	13753 Jun 12 02:49	1° $\text{♄}$ 46'26	3°06'59	retrograde	13754 May 17 08:17	24° $\text{♄}$ 20'01	
min. Earth dist.	13753 Jun 12 10:03	1° $\text{♄}$ 21'13	0.68777 AU	evening set	13754 May 22 05:46	22° $\text{♄}$ 16'45	
	13753 Jun 13 09:34	30° $\text{♄}$		inferior conj	13754 May 27 13:14	15° $\text{♄}$ 53'36	2°53'39
morning rise	13753 Jun 17 07:46	25° $\text{♄}$ 26'56		minimum elong	13754 May 27 11:40	15° $\text{♄}$ 59'04	2°52'25
direct	13753 Jun 22 09:38	23° $\text{♄}$ 14'53		min. Earth dist.	13754 May 27 06:45	16° $\text{♄}$ 16'09	0.68948 AU
desc. node	13753 Jul 01 01:20	27° $\text{♄}$ 49'22		morning rise	13754 Jun 01 17:27	9° $\text{♄}$ 43'23	
morning max el	13753 Jul 02 13:10	29° $\text{♄}$ 15'45	22°56'27	direct	13754 Jun 06 06:29	7° $\text{♄}$ 50'41	
	13753 Jul 03 06:25	0° $\text{♄}$		morning max el	13754 Jun 15 03:43	12° $\text{♄}$ 59'56	21°30'18
	13753 Jul 25 14:53	0° $\text{♄}$		desc. node	13754 Jun 17 22:27	15° $\text{♄}$ 59'30	
morning set	13753 Aug 05 19:14	17° $\text{♄}$ 41'29			13754 Jun 28 15:54	0° $\text{♄}$	
max. Earth dist.	13753 Aug 10 06:01	25° $\text{♄}$ 10'12	1.40125 AU	morning set	13754 Jul 16 20:52	27° $\text{♄}$ 20'49	
	13753 Aug 13 00:57	0° $\text{♄}$			13754 Jul 18 12:57	0° $\text{♄}$	
				max. Earth dist.	13754 Jul 23 09:08	7° $\text{♄}$ 50'09	1.42335 AU
superior conj	13753 Aug 18 01:16	8° $\text{♄}$ 58'14	-1°00'28				
minimum elong	13753 Aug 18 05:47	9° $\text{♄}$ 18'53	1°00'13	superior conj	13754 Jul 30 20:49	20° $\text{♄}$ 26'39	-1°34'14
asc. node	13753 Aug 25 00:38	22° $\text{♄}$ 00'31		minimum elong	13754 Jul 31 03:44	20° $\text{♄}$ 56'33	1°34'10
evening rise	13753 Aug 27 18:53	27° $\text{♄}$ 16'31			13754 Aug 05 07:20	0° $\text{♄}$	
	13753 Aug 29 05:14	0° $\text{♄}$		evening rise	13754 Aug 11 00:56	10° $\text{♄}$ 21'26	
evening max el	13753 Sep 12 18:25	23° $\text{♄}$ 04'34	18°30'06	asc. node	13754 Aug 11 21:13	11° $\text{♄}$ 53'39	
retrograde	13753 Sep 20 14:51	27° $\text{♄}$ 02'40			13754 Aug 22 11:43	0° $\text{♄}$	
evening set	13753 Sep 22 14:34	26° $\text{♄}$ 48'09		evening max el	13754 Aug 27 04:34	5° $\text{♄}$ 51'43	18°07'11
desc. node	13753 Sep 26 21:54	24° $\text{♄}$ 50'06		retrograde	13754 Sep 03 02:48	9° $\text{♄}$ 24'07	
inferior conj	13753 Sep 30 10:07	22° $\text{♄}$ 17'01	-1°06'46	evening set	13754 Sep 05 09:35	9° $\text{♄}$ 01'26	
minimum elong	13753 Sep 30 07:29	22° $\text{♄}$ 22'09	1°05'25	inferior conj	13754 Sep 12 10:58	4° $\text{♄}$ 09'51	0°24'56
min. Earth dist.	13753 Oct 03 15:39	19° $\text{♄}$ 46'29	0.57730 AU	minimum elong	13754 Sep 12 11:46	4° $\text{♄}$ 08'01	0°24'36
morning rise	13753 Oct 07 20:56	17° $\text{♄}$ 04'32		desc. node	13754 Sep 13 19:25	2° $\text{♄}$ 55'37	
direct	13753 Oct 13 23:18	15° $\text{♄}$ 30'04		min. Earth dist.	13754 Sep 15 16:59	1° $\text{♄}$ 13'46	0.59935 AU
morning max el	13753 Oct 28 06:37	23° $\text{♄}$ 02'53	27°00'19		13754 Sep 17 04:42	30° $\text{♄}$	
	13753 Nov 03 12:15	0° $\text{♄}$		morning rise	13754 Sep 19 10:42	28° $\text{♄}$ 25'06	
asc. node	13753 Nov 21 02:23	28° $\text{♄}$ 04'13		direct	13754 Sep 25 23:16	26° $\text{♄}$ 23'31	
	13753 Nov 22 02:10	0° $\text{♄}$			13754 Oct 05 07:48	0° $\text{♄}$	
morning set	13753 Nov 27 07:40	10° $\text{♄}$ 44'38		morning max el	13754 Oct 10 06:42	4° $\text{♄}$ 14'42	27°48'21
					13754 Oct 29 07:48	0° $\text{♄}$	
superior conj	13753 Dec 04 04:03	25° $\text{♄}$ 49'40	1°34'56	asc. node	13754 Nov 07 23:10	17° $\text{♄}$ 40'53	

morning set	13754 Nov 11 13:08	25° $\text{♊}$ 01'01		morning set	13755 Oct 26 12:37	8° $\text{♊}$ 57'15	
	13754 Nov 13 21:13	0° $\text{♊}$		max. Earth dist.	13755 Oct 31 21:36	20° $\text{♊}$ 18'41	1.31756 AU
max. Earth dist.	13754 Nov 17 17:11	8° $\text{♊}$ 25'01	1.31231 AU				
superior conj	13754 Nov 18 15:22	10° $\text{♊}$ 28'35	1°25'57	superior conj	13755 Nov 03 00:42	24° $\text{♊}$ 58'03	1°11'11
minimum elong	13754 Nov 18 13:31	10° $\text{♊}$ 18'16	1°26'42	minimum elong	13755 Nov 02 22:27	24° $\text{♊}$ 45'37	1°11'39
evening rise	13754 Nov 25 08:08	25° $\text{♊}$ 16'37			13755 Nov 05 07:26	0° $\text{♊}$	
	13754 Nov 27 13:31	0° $\text{♊}$		evening rise	13755 Nov 09 18:46	9° $\text{♊}$ 48'14	
desc. node	13754 Dec 10 16:28	24° $\text{♊}$ 01'56			13755 Nov 19 23:34	0° $\text{♊}$	
	13754 Dec 14 18:28	0° $\text{♊}$		desc. node	13755 Nov 27 13:33	11° $\text{♊}$ 52'30	
evening max el	13754 Dec 23 08:45	10° $\text{♊}$ 00'57	25°55'54	evening max el	13755 Dec 04 21:39	20° $\text{♊}$ 26'09	24°24'47
retrograde	13755 Jan 06 07:05	17° $\text{♊}$ 03'47		retrograde	13755 Dec 18 14:10	27° $\text{♊}$ 15'28	
evening set	13755 Jan 12 11:21	15° $\text{♊}$ 34'11		evening set	13755 Dec 23 18:39	26° $\text{♊}$ 16'23	
min. Earth dist.	13755 Jan 16 21:44	12° $\text{♊}$ 57'02	0.57751 AU	min. Earth dist.	13755 Dec 29 09:18	23° $\text{♊}$ 25'16	0.55965 AU
inferior conj	13755 Jan 19 21:56	10° $\text{♊}$ 49'27	-4°28'06	inferior conj	13755 Dec 31 16:07	22° $\text{♊}$ 00'27	-5°33'24
minimum elong	13755 Jan 20 06:46	10° $\text{♊}$ 33'48	4°24'43	minimum elong	13755 Dec 31 23:01	21° $\text{♊}$ 49'45	5°31'19
morning rise	13755 Jan 28 05:03	6° $\text{♊}$ 27'45		morning rise	13756 Jan 09 05:22	17° $\text{♊}$ 59'02	
direct	13755 Jan 30 06:40	6° $\text{♊}$ 14'08		direct	13756 Jan 11 15:17	17° $\text{♊}$ 43'33	
asc. node	13755 Feb 03 22:01	7° $\text{♊}$ 27'06		morning max el	13756 Jan 21 16:16	22° $\text{♊}$ 33'52	19°43'58
morning max el	13755 Feb 07 21:13	10° $\text{♊}$ 26'46	18°43'32	asc. node	13756 Jan 21 19:22	22° $\text{♊}$ 41'24	
	13755 Feb 20 17:07	0° $\text{♊}$			13756 Jan 27 16:48	0° $\text{♊}$	
morning set	13755 Feb 24 01:04	6° $\text{♊}$ 24'36		morning set	13756 Feb 08 04:58	20° $\text{♊}$ 56'32	
					13756 Feb 12 16:11	0° $\text{♊}$	
superior conj	13755 Mar 04 18:54	23° $\text{♊}$ 16'00	0°31'40	superior conj	13756 Feb 16 02:32	6° $\text{♊}$ 51'57	0°58'23
minimum elong	13755 Mar 04 20:55	23° $\text{♊}$ 25'27	0°31'33	minimum elong	13756 Feb 16 05:16	7° $\text{♊}$ 05'25	0°58'29
	13755 Mar 08 10:21	0° $\text{♊}$		max. Earth dist.	13756 Feb 22 07:03	18° $\text{♊}$ 43'50	1.37486 AU
desc. node	13755 Mar 08 17:42	0° $\text{♊}$ 33'21		desc. node	13756 Feb 23 14:12	21° $\text{♊}$ 07'12	
max. Earth dist.	13755 Mar 12 00:43	6° $\text{♊}$ 25'17	1.39738 AU	evening rise	13756 Feb 26 00:19	25° $\text{♊}$ 29'01	
evening rise	13755 Mar 16 00:57	13° $\text{♊}$ 18'45			13756 Feb 28 14:15	0° $\text{♊}$	
	13755 Mar 26 10:34	0° $\text{♊}$			13756 Mar 19 00:31	0° $\text{♊}$	
	13755 Apr 17 17:02	0° $\text{♊}$		evening max el	13756 Apr 01 11:43	16° $\text{♊}$ 11'35	25°20'12
evening max el	13755 Apr 19 22:08	2° $\text{♊}$ 18'18	24°03'12	retrograde	13756 Apr 13 15:50	23° $\text{♊}$ 14'21	
retrograde	13755 May 01 02:12	8° $\text{♊}$ 51'47		asc. node	13756 Apr 18 15:54	21° $\text{♊}$ 28'32	
asc. node	13755 May 02 18:32	8° $\text{♊}$ 39'11		evening set	13756 Apr 19 12:23	20° $\text{♊}$ 48'20	
evening set	13755 May 06 11:13	6° $\text{♊}$ 35'36		min. Earth dist.	13756 Apr 23 20:54	16° $\text{♊}$ 00'02	0.67900 AU
min. Earth dist.	13755 May 11 03:07	1° $\text{♊}$ 11'18	0.68648 AU	inferior conj	13756 Apr 25 04:27	14° $\text{♊}$ 17'44	1°54'01
inferior conj	13755 May 11 22:10	0° $\text{♊}$ 06'34	2°29'01	minimum elong	13756 Apr 25 02:20	14° $\text{♊}$ 24'38	1°52'43
minimum elong	13755 May 11 20:07	0° $\text{♊}$ 13'34	2°27'41	morning rise	13756 Apr 30 16:39	8° $\text{♊}$ 24'33	
	13755 May 12 00:06	30° $\text{♊}$		direct	13756 May 04 05:39	7° $\text{♊}$ 12'28	
morning rise	13755 May 17 05:03	24° $\text{♊}$ 04'12		morning max el	13756 May 11 04:57	11° $\text{♊}$ 00'56	19°12'30
direct	13755 May 21 05:41	22° $\text{♊}$ 32'04		desc. node	13756 May 21 16:18	24° $\text{♊}$ 26'07	
morning max el	13755 May 29 00:34	26° $\text{♊}$ 55'20	20°14'19	greatest brilliancy	13756 May 24 01:55	27° $\text{♊}$ 58'29	-0.7m
	13755 May 31 20:45	0° $\text{♊}$			13756 May 25 10:25	0° $\text{♊}$	
desc. node	13755 Jun 04 19:27	4° $\text{♊}$ 56'10		morning set	13756 Jun 04 06:04	14° $\text{♊}$ 59'37	
	13755 Jun 22 01:52	0° $\text{♊}$			13756 Jun 13 22:22	0° $\text{♊}$	
morning set	13755 Jun 26 02:43	6° $\text{♊}$ 10'44		max. Earth dist.	13756 Jun 17 10:57	5° $\text{♊}$ 31'00	1.45360 AU
max. Earth dist.	13755 Jul 05 18:58	21° $\text{♊}$ 20'57	1.44146 AU				
	13755 Jul 11 03:26	0° $\text{♊}$		superior conj	13756 Jun 20 14:58	10° $\text{♊}$ 30'31	-2°13'24
				minimum elong	13756 Jun 20 16:14	10° $\text{♊}$ 35'28	2°14'26
superior conj	13755 Jul 11 17:10	0° $\text{♊}$ 56'15	-2°00'55		13756 Jul 02 17:49	0° $\text{♊}$	
minimum elong	13755 Jul 11 23:46	1° $\text{♊}$ 23'18	2°01'26	evening rise	13756 Jul 05 05:00	4° $\text{♊}$ 02'35	
evening rise	13755 Jul 24 14:00	22° $\text{♊}$ 40'50		asc. node	13756 Jul 15 14:35	20° $\text{♊}$ 56'14	
	13755 Jul 28 19:50	0° $\text{♊}$			13756 Jul 21 23:29	0° $\text{♊}$	
asc. node	13755 Jul 29 17:51	1° $\text{♊}$ 34'09		evening max el	13756 Jul 24 08:44	2° $\text{♊}$ 39'19	18°18'09
evening max el	13755 Aug 10 18:31	19° $\text{♊}$ 06'31	18°03'31	retrograde	13756 Jul 30 17:36	6° $\text{♊}$ 02'32	
retrograde	13755 Aug 17 05:09	22° $\text{♊}$ 27'19		evening set	13756 Aug 02 17:16	5° $\text{♊}$ 13'42	
evening set	13755 Aug 19 20:13	21° $\text{♊}$ 52'51			13756 Aug 08 10:14	30° $\text{♊}$	
inferior conj	13755 Aug 26 05:57	16° $\text{♊}$ 42'26	1°34'37	inferior conj	13756 Aug 08 14:58	29° $\text{♊}$ 46'21	2°23'09
minimum elong	13755 Aug 26 08:15	16° $\text{♊}$ 36'27	1°33'32	minimum elong	13756 Aug 08 17:22	29° $\text{♊}$ 39'23	2°21'56
min. Earth dist.	13755 Aug 29 03:39	13° $\text{♊}$ 42'44	0.62227 AU	min. Earth dist.	13756 Aug 10 23:46	27° $\text{♊}$ 02'48	0.64356 AU
desc. node	13755 Aug 31 16:57	11° $\text{♊}$ 23'16		morning rise	13756 Aug 14 16:00	23° $\text{♊}$ 27'06	
morning rise	13755 Sep 01 17:54	10° $\text{♊}$ 35'37		desc. node	13756 Aug 17 14:28	21° $\text{♊}$ 37'46	
direct	13755 Sep 08 10:17	8° $\text{♊}$ 12'11		direct	13756 Aug 21 06:03	20° $\text{♊}$ 50'41	
morning max el	13755 Sep 22 12:58	16° $\text{♊}$ 12'30	27°57'16	morning max el	13756 Sep 03 22:56	28° $\text{♊}$ 49'22	27°29'52
	13755 Oct 03 21:42	0° $\text{♊}$			13756 Sep 05 02:21	0° $\text{♊}$	
	13755 Oct 22 00:09	0° $\text{♊}$			13756 Sep 26 18:26	0° $\text{♊}$	
asc. node	13755 Oct 25 19:53	7° $\text{♊}$ 32'09		morning set	13756 Oct 09 03:37	22° $\text{♊}$ 27'22	

asc. node	13756 Oct 11 16:33	27° $\Omega$ 32'45			13757 Aug 31 21:48	0° $\mathbb{M}$		
	13756 Oct 12 21:16	0° $\mathbb{M}$			13757 Sep 19 09:04	0° $\Omega$		
max. Earth dist.	13756 Oct 13 18:56	1° $\mathbb{M}$ 52'24	1.32825 AU	morning set	13757 Sep 22 07:05	5° $\Omega$ 24'17		
				max. Earth dist.	13757 Sep 26 06:46	13° $\Omega$ 06'26	1.34419 AU	
superior conj	13756 Oct 17 06:02	9° $\mathbb{M}$ 12'27	0°50'45	asc. node	13757 Sep 28 13:09	17° $\Omega$ 38'31		
minimum elong	13756 Oct 17 03:54	9° $\mathbb{M}$ 00'59	0°50'57					
evening rise	13756 Oct 24 05:49	24° $\mathbb{M}$ 18'51		superior conj	13757 Oct 01 04:57	23° $\Omega$ 05'34	0°24'52	
	13756 Oct 26 22:38	0° $\mathbb{M}$		minimum elong	13757 Oct 01 03:39	22° $\Omega$ 58'46	0°24'55	
desc. node	13756 Nov 13 10:46	28° $\mathbb{M}$ 30'17			13757 Oct 04 12:06	0° $\mathbb{M}$		
	13756 Nov 14 20:53	0° $\mathbb{Z}$		evening rise	13757 Oct 08 15:22	8° $\mathbb{M}$ 43'22		
evening max el	13756 Nov 15 07:44	0° $\mathbb{Z}$ 26'48	22°42'29		13757 Oct 19 20:16	0° $\mathbb{M}$		
retrograde	13756 Nov 28 08:12	6° $\mathbb{Z}$ 54'23		evening max el	13757 Oct 28 00:23	10° $\mathbb{M}$ 39'43	21°06'32	
evening set	13756 Dec 02 04:30	6° $\mathbb{Z}$ 22'08		desc. node	13757 Oct 31 08:05	13° $\mathbb{M}$ 29'54		
min. Earth dist.	13756 Dec 09 16:06	2° $\mathbb{Z}$ 58'22	0.54803 AU	retrograde	13757 Nov 08 19:07	16° $\mathbb{M}$ 30'59		
inferior conj	13756 Dec 10 16:01	2° $\mathbb{Z}$ 24'29	-5°57'28	evening set	13757 Nov 11 09:15	16° $\mathbb{M}$ 15'13		
minimum elong	13756 Dec 10 15:15	2° $\mathbb{Z}$ 25'35	5°56'24	inferior conj	13757 Nov 20 07:18	12° $\mathbb{M}$ 21'51	-5°22'27	
	13756 Dec 15 05:15	30° $\mathbb{R}$ $\mathbb{M}$		minimum elong	13757 Nov 19 22:39	12° $\mathbb{M}$ 34'05	5°19'49	
morning rise	13756 Dec 19 03:18	28° $\mathbb{M}$ 36'28		min. Earth dist.	13757 Nov 20 21:56	12° $\mathbb{M}$ 01'09	0.54502 AU	
direct	13756 Dec 22 06:42	28° $\mathbb{M}$ 13'49		morning rise	13757 Nov 28 12:32	8° $\mathbb{M}$ 30'38		
	13756 Dec 28 20:08	0° $\mathbb{Z}$		direct	13757 Dec 02 14:04	7° $\mathbb{M}$ 55'14		
morning max el	13757 Jan 02 20:58	3° $\mathbb{Z}$ 46'29	21°07'33	morning max el	13757 Dec 15 12:39	14° $\mathbb{M}$ 09'46	22°50'02	
asc. node	13757 Jan 07 16:39	9° $\mathbb{Z}$ 16'02		asc. node	13757 Dec 25 13:51	26° $\mathbb{M}$ 52'51		
	13757 Jan 19 19:33	0° $\approx$			13757 Dec 27 11:49	0° $\mathbb{Z}$		
morning set	13757 Jan 22 13:44	5° $\approx$ 39'26		morning set	13758 Jan 07 01:01	20° $\mathbb{Z}$ 25'15		
					13758 Jan 11 11:57	0° $\approx$		
superior conj	13757 Jan 29 21:25	20° $\approx$ 57'57	1°18'02					
minimum elong	13757 Jan 29 23:52	21° $\approx$ 10'39	1°18'30	superior conj	13758 Jan 14 00:04	5° $\approx$ 23'16	1°30'52	
	13757 Feb 03 08:36	0° $\mathbb{H}$		minimum elong	13758 Jan 14 01:42	5° $\approx$ 32'03	1°31'41	
max. Earth dist.	13757 Feb 03 16:56	0° $\mathbb{H}$ 41'01	1.35389 AU	max. Earth dist.	13758 Jan 17 09:26	12° $\approx$ 32'34	1.33624 AU	
evening rise	13757 Feb 07 17:09	8° $\mathbb{H}$ 22'56		evening rise	13758 Jan 21 23:43	21° $\approx$ 49'57		
desc. node	13757 Feb 09 10:46	11° $\mathbb{H}$ 35'29			13758 Jan 26 06:42	0° $\mathbb{H}$		
	13757 Feb 20 06:04	0° $\mathbb{Y}$		desc. node	13758 Jan 27 07:23	1° $\mathbb{H}$ 52'58		
evening max el	13757 Mar 15 01:30	0° $\mathbb{B}$ 00'46	26°25'40		13758 Feb 14 01:20	0° $\mathbb{Y}$		
	13757 Mar 15 01:12	0° $\mathbb{B}$		evening max el	13758 Feb 25 14:58	13° $\mathbb{Y}$ 35'41	27°12'27	
retrograde	13757 Mar 28 00:16	7° $\mathbb{B}$ 21'18		retrograde	13758 Mar 11 02:45	21° $\mathbb{Y}$ 03'37		
evening set	13757 Apr 03 07:33	4° $\mathbb{B}$ 49'40		evening set	13758 Mar 17 18:40	18° $\mathbb{Y}$ 32'03		
asc. node	13757 Apr 05 13:21	2° $\mathbb{B}$ 42'44		min. Earth dist.	13758 Mar 21 16:09	14° $\mathbb{Y}$ 51'41	0.65152 AU	
min. Earth dist.	13757 Apr 07 09:57	0° $\mathbb{B}$ 36'21	0.66726 AU	asc. node	13758 Mar 23 10:49	12° $\mathbb{Y}$ 53'27		
	13757 Apr 07 22:04	30° $\mathbb{R}$ $\mathbb{Y}$		inferior conj	13758 Mar 24 00:26	12° $\mathbb{Y}$ 15'21	0°10'52	
inferior conj	13757 Apr 09 06:01	28° $\mathbb{Y}$ 22'47	1°08'11	minimum elong	13758 Mar 24 00:08	12° $\mathbb{Y}$ 16'12	0°10'37	
minimum elong	13757 Apr 09 04:25	28° $\mathbb{Y}$ 27'39	1°07'11	transit middle	13758 Mar 24 00:08	12° $\mathbb{Y}$ 16'12	0°10'37	
morning rise	13757 Apr 15 02:14	22° $\mathbb{Y}$ 40'31		transit begin	13758 Mar 23 21:52	12° $\mathbb{Y}$ 22'31		
direct	13757 Apr 18 04:35	21° $\mathbb{Y}$ 46'35		transit end	13758 Mar 24 02:24	12° $\mathbb{Y}$ 09'54		
morning max el	13757 Apr 24 16:12	25° $\mathbb{Y}$ 13'15	18°26'48	morning rise	13758 Mar 30 07:19	6° $\mathbb{Y}$ 46'02		
	13757 Apr 28 19:27	0° $\mathbb{B}$		direct	13758 Apr 02 00:08	6° $\mathbb{Y}$ 07'23		
desc. node	13757 May 08 13:04	14° $\mathbb{B}$ 20'33		morning max el	13758 Apr 08 08:09	9° $\mathbb{Y}$ 24'54	17°57'59	
morning set	13757 May 15 03:47	24° $\mathbb{B}$ 45'42			13758 Apr 22 15:30	0° $\mathbb{B}$		
	13757 May 18 11:27	0° $\mathbb{H}$		desc. node	13758 Apr 25 09:44	4° $\mathbb{B}$ 32'14		
				morning set	13758 Apr 26 05:28	5° $\mathbb{B}$ 53'27		
superior conj	13757 May 30 23:36	19° $\mathbb{H}$ 36'02	-2°06'14					
minimum elong	13757 May 30 17:18	19° $\mathbb{H}$ 11'24	2°06'58	superior conj	13758 May 10 12:09	28° $\mathbb{B}$ 58'38	-1°40'25	
max. Earth dist.	13757 May 31 06:34	20° $\mathbb{H}$ 03'13	1.45857 AU	minimum elong	13758 May 10 03:04	28° $\mathbb{B}$ 22'43	1°40'22	
	13757 Jun 06 15:24	0° $\mathbb{B}$			13758 May 11 03:40	0° $\mathbb{H}$		
evening rise	13757 Jun 15 19:24	14° $\mathbb{B}$ 23'15		max. Earth dist.	13758 May 14 02:43	4° $\mathbb{H}$ 39'35	1.45597 AU	
greatest brilliancy	13757 Jun 24 22:53	28° $\mathbb{B}$ 44'24	-0.8m	evening rise	13758 May 26 13:29	23° $\mathbb{H}$ 57'32		
	13757 Jun 25 18:28	0° $\mathbb{Q}$			13758 May 30 12:05	0° $\mathbb{B}$		
asc. node	13757 Jul 02 11:25	9° $\mathbb{Q}$ 53'10		greatest brilliancy	13758 Jun 09 10:18	14° $\mathbb{B}$ 56'38	-0.6m	
evening max el	13757 Jul 07 20:17	16° $\mathbb{Q}$ 22'30	18°50'20	asc. node	13758 Jun 19 08:21	28° $\mathbb{B}$ 16'10		
retrograde	13757 Jul 14 12:25	20° $\mathbb{Q}$ 01'40			13758 Jun 20 22:55	0° $\mathbb{Q}$		
evening set	13757 Jul 17 20:57	18° $\mathbb{Q}$ 56'50		evening max el	13758 Jun 21 03:00	0° $\mathbb{Q}$ 10'19	19°39'03	
inferior conj	13757 Jul 23 10:16	13° $\mathbb{Q}$ 14'24	2°53'34	retrograde	13758 Jun 28 10:31	4° $\mathbb{Q}$ 17'46		
minimum elong	13757 Jul 23 12:01	13° $\mathbb{Q}$ 08'55	2°52'26	evening set	13758 Jul 02 04:26	2° $\mathbb{Q}$ 56'11		
min. Earth dist.	13757 Jul 25 04:39	11° $\mathbb{Q}$ 01'24	0.66155 AU		13758 Jul 05 04:35	30° $\mathbb{R}$ $\mathbb{B}$		
morning rise	13757 Jul 29 02:16	6° $\mathbb{Q}$ 50'10		inferior conj	13758 Jul 07 12:41	27° $\mathbb{B}$ 00'18	3°08'57	
direct	13757 Aug 04 09:18	4° $\mathbb{Q}$ 10'22		minimum elong	13758 Jul 07 13:28	26° $\mathbb{B}$ 57'44	3°07'54	
desc. node	13757 Aug 04 11:56	4° $\mathbb{Q}$ 10'25		min. Earth dist.	13758 Jul 08 16:42	25° $\mathbb{B}$ 26'56	0.67533 AU	
morning max el	13757 Aug 17 10:13	11° $\mathbb{Q}$ 54'37	26°33'02	morning rise	13758 Jul 12 22:02	20° $\mathbb{B}$ 36'22		

direct	13758 Jul 18 18:59	18° $\mathfrak{D}$ 01'55		min. Earth dist.	13759 Jun 22 09:48	10° $\mathfrak{D}$ 09'30	0.68459 AU
desc. node	13758 Jul 22 09:19	18° $\mathfrak{D}$ 50'07		morning rise	13759 Jun 27 00:53	4° $\mathfrak{D}$ 38'24	
morning max el	13758 Jul 30 21:06	25° $\mathfrak{D}$ 16'44	25°15'50	direct	13759 Jul 02 10:01	2° $\mathfrak{D}$ 16'26	
	13758 Aug 04 04:08	0° $\mathfrak{Q}$		desc. node	13759 Jul 09 06:36	5° $\mathfrak{D}$ 10'31	
	13758 Aug 25 09:26	0° $\mathfrak{P}$		morning max el	13759 Jul 13 07:23	8° $\mathfrak{D}$ 47'10	23°47'55
morning set	13758 Sep 04 19:10	17° $\mathfrak{P}$ 39'04			13759 Jul 29 23:49	0° $\mathfrak{Q}$	
max. Earth dist.	13758 Sep 08 09:17	24° $\mathfrak{P}$ 12'39	1.36455 AU	morning set	13759 Aug 17 11:11	28° $\mathfrak{Q}$ 59'23	
	13758 Sep 11 10:39	0° $\mathfrak{A}$			13759 Aug 18 01:25	0° $\mathfrak{P}$	
				max. Earth dist.	13759 Aug 21 06:53	5° $\mathfrak{P}$ 36'00	1.38770 AU
superior conj	13758 Sep 14 18:35	6° $\mathfrak{A}$ 30'33	-0°05'54	superior conj	13759 Aug 28 19:13	19° $\mathfrak{P}$ 17'55	-0°40'07
minimum elong	13758 Sep 14 18:56	6° $\mathfrak{A}$ 32'22	0°05'48	minimum elong	13759 Aug 28 22:06	19° $\mathfrak{P}$ 31'25	0°39'55
behind sun begin	13758 Sep 14 12:56	6° $\mathfrak{A}$ 02'35		asc. node	13759 Sep 02 06:14	27° $\mathfrak{P}$ 50'21	
behind sun end	13758 Sep 15 00:57	7° $\mathfrak{A}$ 02'12			13759 Sep 03 08:52	0° $\mathfrak{A}$	
asc. node	13758 Sep 15 09:43	7° $\mathfrak{A}$ 45'49		evening rise	13759 Sep 06 20:31	6° $\mathfrak{A}$ 49'31	
evening rise	13758 Sep 22 21:11	22° $\mathfrak{A}$ 56'12			13759 Sep 20 05:18	0° $\mathfrak{M}$	
	13758 Sep 26 09:46	0° $\mathfrak{M}$		evening max el	13759 Sep 23 02:44	3° $\mathfrak{M}$ 20'00	18°52'35
evening max el	13758 Oct 10 06:41	21° $\mathfrak{M}$ 35'21	19°48'39	retrograde	13759 Oct 01 16:41	7° $\mathfrak{M}$ 38'34	
desc. node	13758 Oct 18 05:29	26° $\mathfrak{M}$ 25'18		evening set	13759 Oct 03 13:49	7° $\mathfrak{M}$ 26'56	
retrograde	13758 Oct 20 10:23	26° $\mathfrak{M}$ 39'12		desc. node	13759 Oct 05 02:57	7° $\mathfrak{M}$ 00'59	
evening set	13758 Oct 22 08:51	26° $\mathfrak{M}$ 28'58		inferior conj	13759 Oct 11 19:50	3° $\mathfrak{M}$ 08'08	-2°07'31
inferior conj	13758 Oct 31 04:46	22° $\mathfrak{M}$ 27'37	-3°55'52	minimum elong	13759 Oct 11 14:29	3° $\mathfrak{M}$ 17'40	2°04'55
minimum elong	13758 Oct 30 19:13	22° $\mathfrak{M}$ 42'22	3°52'00	min. Earth dist.	13759 Oct 14 19:43	1° $\mathfrak{M}$ 00'43	0.56621 AU
min. Earth dist.	13758 Nov 02 06:26	21° $\mathfrak{M}$ 10'58	0.55147 AU		13759 Oct 16 08:32	30° $\mathfrak{R}$ $\mathfrak{A}$	
morning rise	13758 Nov 08 04:00	18° $\mathfrak{M}$ 12'28		morning rise	13759 Oct 19 12:00	28° $\mathfrak{A}$ 17'13	
direct	13758 Nov 13 03:18	17° $\mathfrak{M}$ 18'02		direct	13759 Oct 25 06:07	26° $\mathfrak{A}$ 58'00	
morning max el	13758 Nov 26 22:30	24° $\mathfrak{M}$ 09'13	24°38'56		13759 Nov 03 03:49	0° $\mathfrak{M}$	
	13758 Dec 02 06:26	0° $\mathfrak{A}$		morning max el	13759 Nov 08 10:45	4° $\mathfrak{M}$ 17'38	26°16'15
asc. node	13758 Dec 12 10:55	15° $\mathfrak{A}$ 17'14			13759 Nov 26 23:44	0° $\mathfrak{A}$	
	13758 Dec 20 02:27	0° $\mathfrak{Z}$		asc. node	13759 Nov 29 07:52	4° $\mathfrak{A}$ 16'43	
morning set	13758 Dec 22 12:55	5° $\mathfrak{Z}$ 08'56		morning set	13759 Dec 06 23:42	19° $\mathfrak{A}$ 45'32	
					13759 Dec 11 15:44	0° $\mathfrak{Z}$	
superior conj	13758 Dec 29 07:50	20° $\mathfrak{Z}$ 00'25	1°37'14	superior conj	13759 Dec 13 18:29	4° $\mathfrak{Z}$ 42'41	1°37'29
minimum elong	13758 Dec 29 08:25	20° $\mathfrak{Z}$ 03'35	1°38'15	minimum elong	13759 Dec 13 17:59	4° $\mathfrak{Z}$ 39'53	1°38'32
max. Earth dist.	13758 Dec 31 09:24	24° $\mathfrak{Z}$ 30'41	1.32308 AU	max. Earth dist.	13759 Dec 14 15:08	6° $\mathfrak{Z}$ 37'28	1.31486 AU
	13759 Jan 02 22:55	0° $\mathfrak{A}$		evening rise	13759 Dec 20 17:44	19° $\mathfrak{Z}$ 53'40	
evening rise	13759 Jan 05 16:51	5° $\mathfrak{A}$ 42'33			13759 Dec 25 17:33	0° $\mathfrak{A}$	
desc. node	13759 Jan 14 04:05	21° $\mathfrak{A}$ 54'30		desc. node	13760 Jan 01 00:53	11° $\mathfrak{A}$ 33'30	
	13759 Jan 18 21:33	0° $\mathfrak{H}$			13760 Jan 13 05:30	0° $\mathfrak{H}$	
evening max el	13759 Feb 08 02:48	26° $\mathfrak{H}$ 45'16	27°33'26	evening max el	13760 Jan 21 10:57	9° $\mathfrak{H}$ 17'48	27°22'41
	13759 Feb 11 21:04	0° $\mathfrak{Y}$		retrograde	13760 Feb 04 09:59	16° $\mathfrak{H}$ 36'20	
retrograde	13759 Feb 21 22:25	4° $\mathfrak{Y}$ 11'44		evening set	13760 Feb 11 06:34	14° $\mathfrak{H}$ 27'48	
evening set	13759 Feb 28 19:19	1° $\mathfrak{Y}$ 47'36		min. Earth dist.	13760 Feb 15 01:24	11° $\mathfrak{H}$ 38'35	0.61122 AU
	13759 Mar 03 01:33	30° $\mathfrak{R}$ $\mathfrak{H}$		inferior conj	13760 Feb 18 04:04	8° $\mathfrak{H}$ 53'55	-2°17'09
min. Earth dist.	13759 Mar 04 13:46	28° $\mathfrak{H}$ 36'06	0.63247 AU	minimum elong	13760 Feb 18 08:58	8° $\mathfrak{H}$ 43'06	2°14'44
inferior conj	13759 Mar 07 08:53	25° $\mathfrak{H}$ 48'26	-0°58'03	asc. node	13760 Feb 25 05:46	4° $\mathfrak{H}$ 05'02	
minimum elong	13759 Mar 07 10:46	25° $\mathfrak{H}$ 43'42	0°57'05	morning rise	13760 Feb 25 14:25	3° $\mathfrak{H}$ 58'12	
asc. node	13759 Mar 10 08:19	23° $\mathfrak{H}$ 00'10		direct	13760 Feb 27 17:23	3° $\mathfrak{H}$ 39'15	
morning rise	13759 Mar 14 04:45	20° $\mathfrak{H}$ 34'33		morning max el	13760 Mar 05 18:13	7° $\mathfrak{H}$ 11'38	17°53'03
direct	13759 Mar 16 13:33	20° $\mathfrak{H}$ 07'37			13760 Mar 20 12:12	0° $\mathfrak{Y}$	
morning max el	13759 Mar 23 01:54	23° $\mathfrak{H}$ 27'22	17°46'28	morning set	13760 Mar 21 09:08	1° $\mathfrak{Y}$ 34'44	
	13759 Mar 28 07:58	0° $\mathfrak{Y}$		desc. node	13760 Mar 29 02:50	15° $\mathfrak{Y}$ 27'33	
morning set	13759 Apr 08 09:14	18° $\mathfrak{Y}$ 15'46					
desc. node	13759 Apr 12 06:18	24° $\mathfrak{Y}$ 55'56		superior conj	13760 Apr 01 02:30	20° $\mathfrak{Y}$ 39'51	-0°23'31
	13759 Apr 15 05:50	0° $\mathfrak{B}$		minimum elong	13760 Apr 01 00:23	20° $\mathfrak{Y}$ 30'40	0°23'27
superior conj	13759 Apr 20 19:17	9° $\mathfrak{B}$ 15'40	-1°03'19		13760 Apr 06 14:57	0° $\mathfrak{B}$	
minimum elong	13759 Apr 20 12:58	8° $\mathfrak{B}$ 49'41	1°03'01	max. Earth dist.	13760 Apr 08 11:23	3° $\mathfrak{B}$ 03'05	1.43042 AU
max. Earth dist.	13759 Apr 26 20:47	19° $\mathfrak{B}$ 03'39	1.44624 AU	evening rise	13760 Apr 14 20:29	13° $\mathfrak{B}$ 16'51	
	13759 May 03 20:06	0° $\mathfrak{I}$			13760 Apr 25 20:05	0° $\mathfrak{I}$	
evening rise	13759 May 06 00:29	3° $\mathfrak{I}$ 21'50		evening max el	13760 May 16 23:27	27° $\mathfrak{I}$ 49'44	21°56'23
	13759 May 23 24:00	0° $\mathfrak{D}$			13760 May 19 07:43	0° $\mathfrak{D}$	
evening max el	13759 Jun 04 03:54	13° $\mathfrak{D}$ 59'23	20°42'14	asc. node	13760 May 23 02:30	2° $\mathfrak{D}$ 31'19	
asc. node	13759 Jun 06 05:22	15° $\mathfrak{D}$ 53'31		retrograde	13760 May 26 07:29	3° $\mathfrak{D}$ 18'10	
retrograde	13759 Jun 12 09:28	18° $\mathfrak{D}$ 44'47		evening set	13760 May 30 22:27	1° $\mathfrak{D}$ 23'40	
evening set	13759 Jun 16 13:31	17° $\mathfrak{D}$ 06'24			13760 Jun 01 09:16	30° $\mathfrak{R}$ $\mathfrak{I}$	
inferior conj	13759 Jun 21 19:36	10° $\mathfrak{D}$ 58'33	3°11'39	inferior conj	13760 Jun 05 04:49	25° $\mathfrak{I}$ 05'38	3°03'13
minimum elong	13759 Jun 21 19:20	10° $\mathfrak{D}$ 59'25	3°10'36				

minimum elong	13760 Jun 05 03:40	25° $\Pi$ 09'39	3°02'04	inferior conj	13761 May 20 14:22	9° $\Pi$ 16'53	2°44'27
min. Earth dist.	13760 Jun 05 05:47	25° $\Pi$ 02'14	0.68911 AU	minimum elong	13761 May 20 12:33	9° $\Pi$ 23'11	2°43'09
morning rise	13760 Jun 10 08:40	18° $\Pi$ 51'26		morning rise	13761 May 25 19:24	3° $\Pi$ 10'04	
direct	13760 Jun 15 05:10	16° $\Pi$ 47'03		direct	13761 May 30 03:12	1° $\Pi$ 25'59	
morning max el	13760 Jun 24 19:22	22° $\Pi$ 25'31	22°18'52	morning max el	13761 Jun 07 12:19	6° $\Pi$ 13'59	20°56'30
desc. node	13760 Jun 25 03:46	22° $\Pi$ 46'47		desc. node	13761 Jun 12 00:49	11° $\Pi$ 18'08	
	13760 Jul 01 09:16	0° $\mathfrak{D}$			13761 Jun 25 14:09	0° $\mathfrak{D}$	
	13760 Jul 22 06:58	0° $\mathcal{O}$		morning set	13761 Jul 07 19:06	18° $\mathfrak{D}$ 30'28	
morning set	13760 Jul 28 03:09	9° $\mathcal{O}$ 15'59			13761 Jul 15 00:55	0° $\mathcal{O}$	
max. Earth dist.	13760 Aug 02 06:54	17° $\mathcal{O}$ 45'56	1.41108 AU	max. Earth dist.	13761 Jul 15 13:27	0° $\mathcal{O}$ 50'44	1.43176 AU
	13760 Aug 09 09:04	0° $\mathfrak{P}$					
superior conj	13760 Aug 10 02:44	1° $\mathfrak{P}$ 18'31	-1°15'15	superior conj	13761 Jul 22 12:44	12° $\mathcal{O}$ 22'27	-1°46'50
minimum elong	13760 Aug 10 08:25	1° $\mathfrak{P}$ 43'53	1°15'02	minimum elong	13761 Jul 22 20:02	12° $\mathcal{O}$ 53'14	1°46'57
asc. node	13760 Aug 19 02:47	17° $\mathfrak{P}$ 48'52			13761 Aug 01 16:29	0° $\mathfrak{P}$	
evening rise	13760 Aug 20 10:05	20° $\mathfrak{P}$ 15'14		evening rise	13761 Aug 03 09:34	3° $\mathfrak{P}$ 02'32	
	13760 Aug 25 16:50	0° $\mathfrak{A}$		asc. node	13761 Aug 05 23:24	7° $\mathfrak{P}$ 37'18	
evening max el	13760 Sep 05 08:58	15° $\mathfrak{A}$ 47'20	18°17'53	evening max el	13761 Aug 19 21:12	28° $\mathfrak{P}$ 47'24	18°03'15
retrograde	13760 Sep 12 18:21	19° $\mathfrak{A}$ 32'20			13761 Aug 21 05:20	0° $\mathfrak{A}$	
evening set	13760 Sep 14 21:00	19° $\mathfrak{A}$ 14'41		retrograde	13761 Aug 26 13:11	2° $\mathfrak{A}$ 13'12	
desc. node	13760 Sep 21 00:27	15° $\mathfrak{A}$ 40'38		evening set	13761 Aug 28 23:27	1° $\mathfrak{A}$ 45'49	
inferior conj	13760 Sep 22 08:39	14° $\mathfrak{A}$ 34'39	-0°25'18		13761 Sep 01 01:33	30° $\mathfrak{R}$ $\mathfrak{P}$	
minimum elong	13760 Sep 22 07:44	14° $\mathfrak{A}$ 36'35	0°24'46	inferior conj	13761 Sep 04 17:44	26° $\mathfrak{P}$ 45'34	0°57'14
min. Earth dist.	13760 Sep 25 15:48	11° $\mathfrak{A}$ 50'48	0.58651 AU	minimum elong	13761 Sep 04 19:24	26° $\mathfrak{P}$ 41'34	0°56'29
morning rise	13760 Sep 29 15:01	9° $\mathfrak{A}$ 07'43		desc. node	13761 Sep 07 21:58	23° $\mathfrak{P}$ 43'04	
direct	13760 Oct 05 22:44	7° $\mathfrak{A}$ 21'21		min. Earth dist.	13761 Sep 07 20:51	23° $\mathfrak{P}$ 45'38	0.60919 AU
morning max el	13760 Oct 20 06:13	15° $\mathfrak{A}$ 02'05	27°25'22	morning rise	13761 Sep 11 12:28	20° $\mathfrak{P}$ 50'12	
	13760 Nov 01 08:57	0° $\mathfrak{M}$		direct	13761 Sep 18 03:20	18° $\mathfrak{P}$ 38'48	
asc. node	13760 Nov 15 04:42	23° $\mathfrak{M}$ 41'57		morning max el	13761 Oct 02 09:20	26° $\mathfrak{P}$ 34'20	27°56'58
	13760 Nov 18 07:49	0° $\mathfrak{X}$			13761 Oct 05 14:54	0° $\mathfrak{A}$	
morning set	13760 Nov 20 07:39	4° $\mathfrak{X}$ 10'33			13761 Oct 25 23:47	0° $\mathfrak{M}$	
superior conj	13760 Nov 27 06:06	19° $\mathfrak{X}$ 24'14	1°31'50	asc. node	13761 Nov 02 01:27	13° $\mathfrak{M}$ 25'43	
minimum elong	13760 Nov 27 04:39	19° $\mathfrak{X}$ 16'12	1°32'43	morning set	13761 Nov 04 10:54	18° $\mathfrak{M}$ 19'27	
max. Earth dist.	13760 Nov 26 23:31	18° $\mathfrak{X}$ 47'30	1.31179 AU		13761 Nov 09 21:26	0° $\mathfrak{X}$	
	13760 Dec 02 00:34	0° $\mathfrak{Z}$		max. Earth dist.	13761 Nov 10 06:44	0° $\mathfrak{X}$ 51'17	1.31393 AU
evening rise	13760 Dec 04 00:01	4° $\mathfrak{Z}$ 17'06		superior conj	13761 Nov 11 16:50	4° $\mathfrak{X}$ 00'01	1°20'23
	13760 Dec 17 11:51	0° $\mathfrak{A}$		minimum elong	13761 Nov 11 14:45	3° $\mathfrak{X}$ 48'29	1°21'01
desc. node	13760 Dec 17 21:48	0° $\mathfrak{A}$ 40'44		evening rise	13761 Nov 18 09:39	18° $\mathfrak{X}$ 47'38	
evening max el	13761 Jan 02 12:35	21° $\mathfrak{A}$ 01'27	26°37'04		13761 Nov 23 19:12	0° $\mathfrak{Z}$	
retrograde	13761 Jan 16 11:36	28° $\mathfrak{A}$ 09'27		desc. node	13761 Dec 04 18:49	19° $\mathfrak{Z}$ 04'16	
evening set	13761 Jan 23 00:42	26° $\mathfrak{A}$ 23'56			13761 Dec 13 08:51	0° $\mathfrak{A}$	
min. Earth dist.	13761 Jan 27 02:23	23° $\mathfrak{A}$ 46'41	0.58944 AU	evening max el	13761 Dec 15 05:40	1° $\mathfrak{A}$ 52'22	25°19'34
inferior conj	13761 Jan 30 06:18	21° $\mathfrak{A}$ 21'12	-3°41'26	retrograde	13761 Dec 29 01:53	8° $\mathfrak{A}$ 49'46	
minimum elong	13761 Jan 30 14:12	21° $\mathfrak{A}$ 06'01	3°38'01	evening set	13762 Jan 03 21:42	7° $\mathfrak{A}$ 32'46	
morning rise	13761 Feb 07 06:44	16° $\mathfrak{A}$ 46'30		min. Earth dist.	13762 Jan 08 17:49	4° $\mathfrak{A}$ 52'17	0.56936 AU
direct	13761 Feb 09 07:27	16° $\mathfrak{A}$ 31'53		inferior conj	13762 Jan 11 12:31	3° $\mathfrak{A}$ 01'26	-4°59'12
asc. node	13761 Feb 11 03:12	16° $\mathfrak{A}$ 44'11		minimum elong	13762 Jan 11 21:13	2° $\mathfrak{A}$ 46'55	4°56'13
morning max el	13761 Feb 17 05:26	20° $\mathfrak{A}$ 26'47	18°19'05		13762 Jan 16 14:11	30° $\mathfrak{R}$ $\mathfrak{Z}$	
	13761 Feb 24 09:03	0° $\mathfrak{X}$		morning rise	13762 Jan 19 23:15	28° $\mathfrak{Z}$ 49'01	
morning set	13761 Mar 04 23:15	15° $\mathfrak{X}$ 31'55		direct	13762 Jan 22 03:28	28° $\mathfrak{Z}$ 35'06	
	13761 Mar 12 15:40	0° $\mathfrak{Y}$			13762 Jan 27 08:04	0° $\mathfrak{A}$	
superior conj	13761 Mar 14 08:00	3° $\mathfrak{Y}$ 04'53	0°13'11	asc. node	13762 Jan 29 00:35	1° $\mathfrak{A}$ 05'00	
minimum elong	13761 Mar 14 08:58	3° $\mathfrak{Y}$ 09'17	0°13'04	morning max el	13762 Jan 31 07:36	3° $\mathfrak{A}$ 02'17	19°06'27
behind sun begin	13761 Mar 14 04:43	2° $\mathfrak{Y}$ 49'55		morning set	13762 Feb 16 23:08	29° $\mathfrak{A}$ 54'15	
behind sun end	13761 Mar 14 13:14	3° $\mathfrak{Y}$ 28'37			13762 Feb 17 00:18	0° $\mathfrak{X}$	
desc. node	13761 Mar 15 23:20	6° $\mathfrak{Y}$ 02'40		superior conj	13762 Feb 25 07:29	16° $\mathfrak{X}$ 19'01	0°43'50
max. Earth dist.	13761 Mar 21 21:41	16° $\mathfrak{Y}$ 25'32	1.41018 AU	minimum elong	13762 Feb 25 09:57	16° $\mathfrak{X}$ 30'50	0°43'48
evening rise	13761 Mar 26 11:10	24° $\mathfrak{Y}$ 02'46		desc. node	13762 Mar 02 19:50	26° $\mathfrak{X}$ 38'06	
	13761 Mar 30 03:46	0° $\mathfrak{Z}$		max. Earth dist.	13762 Mar 04 04:24	29° $\mathfrak{X}$ 05'11	1.38775 AU
	13761 Apr 19 17:22	0° $\mathfrak{II}$			13762 Mar 04 16:40	0° $\mathfrak{Y}$	
evening max el	13761 Apr 29 15:01	11° $\mathfrak{II}$ 40'51	23°16'39	evening rise	13762 Mar 07 23:03	5° $\mathfrak{Y}$ 43'36	
asc. node	13761 May 09 23:44	17° $\mathfrak{II}$ 51'48			13762 Mar 23 04:26	0° $\mathfrak{Z}$	
retrograde	13761 May 10 03:10	17° $\mathfrak{II}$ 51'54		evening max el	13762 Apr 12 04:40	25° $\mathfrak{Z}$ 33'05	24°36'48
evening set	13761 May 15 05:38	15° $\mathfrak{II}$ 42'44			13762 Apr 17 11:01	0° $\mathfrak{II}$	
min. Earth dist.	13761 May 20 02:31	9° $\mathfrak{II}$ 57'49	0.68883 AU	retrograde	13762 Apr 23 19:22	2° $\mathfrak{II}$ 20'26	
				asc. node	13762 Apr 26 21:04	1° $\mathfrak{II}$ 39'05	

evening set	13762 Apr 29 09:28	29° $\text{R}$ 59'18		asc. node	13763 Apr 13 18:29	13° $\text{R}$ 46'08	
	13762 Apr 29 09:09	30° $\text{R}$ 8		min. Earth dist.	13763 Apr 17 14:01	9° $\text{R}$ 34'49	0.67444 AU
min. Earth dist.	13762 May 03 21:57	24° $\text{R}$ 50'39	0.68386 AU	inferior conj	13763 Apr 19 02:58	7° $\text{R}$ 38'01	1°35'58
inferior conj	13762 May 04 22:24	23° $\text{R}$ 29'00	2°15'28	minimum elong	13763 Apr 19 00:59	7° $\text{R}$ 44'18	1°34'44
minimum elong	13762 May 04 20:16	23° $\text{R}$ 36'11	2°14'07	morning rise	13763 Apr 24 18:15	1° $\text{R}$ 49'19	
morning rise	13762 May 10 07:15	17° $\text{R}$ 30'37		direct	13763 Apr 28 02:29	0° $\text{R}$ 45'27	
direct	13762 May 14 02:48	16° $\text{R}$ 07'20		morning max el	13763 May 04 20:02	4° $\text{R}$ 23'26	18°51'02
morning max el	13762 May 21 12:28	20° $\text{R}$ 14'06	19°46'11	desc. node	13763 May 16 18:35	20° $\text{R}$ 11'05	
desc. node	13762 May 29 21:46	0° $\text{II}$ 29'51		greatest brilliancy	13763 May 18 13:20	22° $\text{R}$ 52'58	-0.8m
	13762 May 29 13:06	0° $\text{II}$			13763 May 23 04:25	0° $\text{II}$	
greatest brilliancy	13762 Jun 03 10:13	6° $\text{II}$ 56'16	-0.6m	morning set	13763 May 27 06:15	6° $\text{II}$ 19'32	
morning set	13762 Jun 16 21:14	27° $\text{II}$ 12'26		max. Earth dist.	13763 Jun 10 19:40	29° $\text{II}$ 00'09	1.45653 AU
	13762 Jun 18 16:47	0° $\text{E}$			13763 Jun 11 10:58	0° $\text{E}$	
max. Earth dist.	13762 Jun 28 02:17	14° $\text{E}$ 40'22	1.44741 AU				
				superior conj	13763 Jun 12 13:28	1° $\text{E}$ 43'45	-2°12'53
superior conj	13762 Jul 02 22:56	22° $\text{E}$ 26'10	-2°08'22	minimum elong	13763 Jun 12 11:21	1° $\text{E}$ 35'28	2°13'55
minimum elong	13762 Jul 03 03:54	22° $\text{E}$ 46'10	2°09'10	evening rise	13763 Jun 27 18:27	25° $\text{E}$ 54'08	
	13762 Jul 07 14:31	0° $\text{O}$			13763 Jun 30 07:25	0° $\text{O}$	
evening rise	13762 Jul 16 13:51	14° $\text{O}$ 58'44		asc. node	13763 Jul 10 16:53	16° $\text{O}$ 23'18	
asc. node	13762 Jul 23 20:05	27° $\text{O}$ 10'41		evening max el	13763 Jul 18 01:01	25° $\text{O}$ 48'42	18°29'48
	13762 Jul 25 13:43	0° $\text{P}$		retrograde	13763 Jul 24 12:05	29° $\text{O}$ 17'17	
evening max el	13762 Aug 03 11:36	12° $\text{P}$ 10'28	18°07'31	evening set	13763 Jul 27 15:22	28° $\text{O}$ 22'00	
retrograde	13762 Aug 09 20:31	15° $\text{P}$ 31'02		inferior conj	13763 Aug 02 09:06	22° $\text{O}$ 48'15	2°38'01
evening set	13762 Aug 12 15:05	14° $\text{P}$ 50'50		minimum elong	13763 Aug 02 11:17	22° $\text{O}$ 41'40	2°36'50
inferior conj	13762 Aug 18 19:14	9° $\text{P}$ 32'50	1°57'38	min. Earth dist.	13763 Aug 04 11:57	20° $\text{O}$ 15'54	0.65162 AU
minimum elong	13762 Aug 18 21:43	9° $\text{P}$ 26'04	1°56'26	morning rise	13763 Aug 08 06:01	16° $\text{O}$ 25'55	
min. Earth dist.	13762 Aug 21 11:45	6° $\text{P}$ 37'48	0.63157 AU	desc. node	13763 Aug 12 17:01	14° $\text{O}$ 01'26	
morning rise	13762 Aug 25 02:20	3° $\text{P}$ 19'20		direct	13763 Aug 14 17:35	13° $\text{O}$ 46'36	
desc. node	13762 Aug 25 19:31	2° $\text{P}$ 48'38		morning max el	13763 Aug 28 04:38	21° $\text{O}$ 41'46	27°08'46
direct	13762 Aug 31 18:11	0° $\text{P}$ 49'19			13763 Sep 04 10:37	0° $\text{P}$	
morning max el	13762 Sep 14 17:47	8° $\text{P}$ 51'00	27°49'48		13763 Sep 24 08:25	0° $\text{A}$	
	13762 Oct 01 03:40	0° $\text{A}$		morning set	13763 Oct 02 17:42	15° $\text{A}$ 23'05	
	13762 Oct 18 06:02	0° $\text{M}$		asc. node	13763 Oct 06 18:45	23° $\text{A}$ 24'56	
morning set	13762 Oct 19 07:09	2° $\text{M}$ 05'44		max. Earth dist.	13763 Oct 07 01:57	24° $\text{A}$ 01'36	1.33439 AU
asc. node	13762 Oct 19 22:08	3° $\text{M}$ 21'31			13763 Oct 09 23:12	0° $\text{M}$	
max. Earth dist.	13762 Oct 24 08:42	12° $\text{M}$ 37'49	1.32143 AU				
				superior conj	13763 Oct 11 03:40	2° $\text{M}$ 30'04	0°40'25
superior conj	13762 Oct 27 00:44	18° $\text{M}$ 23'43	1°03'13	minimum elong	13763 Oct 11 01:47	2° $\text{M}$ 20'06	0°40'33
minimum elong	13762 Oct 26 22:27	18° $\text{M}$ 11'17	1°03'33	evening rise	13763 Oct 18 07:21	17° $\text{M}$ 47'49	
	13762 Nov 01 07:54	0° $\text{J}$			13763 Oct 24 06:57	0° $\text{J}$	
evening rise	13762 Nov 02 20:42	3° $\text{J}$ 19'19		evening max el	13763 Nov 08 03:55	22° $\text{J}$ 03'44	22°00'01
	13762 Nov 17 01:21	0° $\text{Z}$		desc. node	13763 Nov 08 13:13	22° $\text{J}$ 26'11	
desc. node	13762 Nov 21 15:58	6° $\text{Z}$ 26'44		retrograde	13763 Nov 20 17:45	28° $\text{J}$ 17'38	
evening max el	13762 Nov 26 16:09	12° $\text{Z}$ 02'10	23°41'27	evening set	13763 Nov 23 23:44	27° $\text{J}$ 54'08	
retrograde	13762 Dec 10 03:39	18° $\text{Z}$ 44'36		inferior conj	13763 Dec 02 16:51	24° $\text{J}$ 00'01	-5°50'06
evening set	13762 Dec 14 19:03	17° $\text{Z}$ 57'42		minimum elong	13763 Dec 02 12:11	24° $\text{J}$ 06'33	5°48'38
min. Earth dist.	13762 Dec 21 02:51	14° $\text{Z}$ 54'50	0.55377 AU	min. Earth dist.	13763 Dec 02 09:12	24° $\text{J}$ 10'45	0.54563 AU
inferior conj	13762 Dec 22 22:11	13° $\text{Z}$ 50'43	-5°50'05	morning rise	13763 Dec 11 01:38	20° $\text{J}$ 12'41	
minimum elong	13762 Dec 23 02:25	13° $\text{Z}$ 44'26	5°48'41	direct	13763 Dec 14 14:07	19° $\text{J}$ 45'17	
morning rise	13762 Dec 31 11:34	9° $\text{Z}$ 56'39		morning max el	13763 Dec 26 19:33	25° $\text{J}$ 36'54	21°49'16
direct	13763 Jan 03 03:43	9° $\text{Z}$ 39'00			13763 Dec 30 19:51	0° $\text{Z}$	
morning max el	13763 Jan 13 20:53	14° $\text{Z}$ 46'57	20°16'50	asc. node	13764 Jan 02 19:09	3° $\text{Z}$ 58'20	
asc. node	13763 Jan 15 21:55	16° $\text{Z}$ 55'26		morning set	13764 Jan 16 15:27	29° $\text{Z}$ 15'39	
	13763 Jan 24 18:05	0° $\approx$			13764 Jan 16 23:53	0° $\approx$	
morning set	13763 Feb 01 05:24	14° $\approx$ 31'18					
				superior conj	13764 Jan 23 18:54	14° $\approx$ 23'56	1°24'17
superior conj	13763 Feb 08 20:23	0° $\text{X}$ 08'59	1°07'33	minimum elong	13764 Jan 23 21:04	14° $\approx$ 35'16	1°24'54
minimum elong	13763 Feb 08 23:05	0° $\text{X}$ 22'37	1°07'49	max. Earth dist.	13764 Jan 27 23:25	23° $\approx$ 01'35	1.34590 AU
	13763 Feb 08 18:36	0° $\text{X}$			13764 Jan 31 12:14	0° $\text{X}$	
max. Earth dist.	13763 Feb 14 11:17	11° $\text{X}$ 10'19	1.36558 AU	evening rise	13764 Feb 01 05:22	1° $\text{X}$ 22'16	
desc. node	13763 Feb 17 16:22	17° $\text{X}$ 09'52		desc. node	13764 Feb 04 12:57	7° $\text{X}$ 33'57	
evening rise	13763 Feb 18 06:16	18° $\text{X}$ 13'10			13764 Feb 18 01:01	0° $\text{Y}$	
	13763 Feb 25 00:26	0° $\text{Y}$		evening max el	13764 Mar 07 07:55	23° $\text{Y}$ 09'00	26°48'25
	13763 Mar 17 10:09	0° $\text{B}$			13764 Mar 17 06:03	0° $\text{B}$	
evening max el	13763 Mar 25 18:07	9° $\text{B}$ 24'37	25°49'53	retrograde	13764 Mar 20 13:14	0° $\text{B}$ 34'17	
retrograde	13763 Apr 07 07:07	16° $\text{B}$ 37'15			13764 Mar 23 15:59	30° $\text{R}$ 9	
evening set	13763 Apr 13 08:21	14° $\text{B}$ 08'02		evening set	13764 Mar 27 00:21	28° $\text{Y}$ 02'08	



asc. node	13764 Mar 30 15:57	24°♄27'20			13765 Jan 22 15:37	0°♄	
min. Earth dist.	13764 Mar 31 00:33	24°♄02'53	0.66093 AU		13765 Feb 11 18:58	0°♄	
inferior conj	13764 Apr 02 01:49	21°♄38'30	0°45'18	evening max el	13765 Feb 17 21:12	6°♄36'05	27°24'58
minimum elong	13764 Apr 02 00:40	21°♄41'53	0°44'35	retrograde	13765 Mar 03 12:49	14°♄03'29	
morning rise	13764 Apr 08 02:14	16°♄01'13		evening set	13765 Mar 10 07:19	11°♄34'30	
direct	13764 Apr 11 00:18	15°♄14'14		min. Earth dist.	13765 Mar 14 03:23	8°♄06'49	0.64380 AU
morning max el	13764 Apr 17 09:31	18°♄35'53	18°12'24	inferior conj	13765 Mar 16 16:24	5°♄24'26	-0°16'56
	13764 Apr 26 02:58	0°♄		minimum elong	13765 Mar 16 16:55	5°♄23'04	0°16'43
desc. node	13764 May 02 15:18	10°♄13'25		asc. node	13765 Mar 17 13:25	4°♄28'52	
morning set	13764 May 06 15:30	16°♄39'14		morning rise	13765 Mar 23 04:31	0°♄01'04	
	13764 May 15 00:12	0°♄			13765 Mar 23 05:30	30°♄	
				direct	13765 Mar 25 17:48	29°♄27'42	
superior conj	13764 May 21 21:32	10°♄50'39	-1°57'14		13765 Mar 28 06:05	0°♄	
minimum elong	13764 May 21 13:12	10°♄18'04	1°57'37	morning max el	13765 Apr 01 02:33	2°♄44'46	17°50'54
max. Earth dist.	13764 May 23 15:29	13°♄34'39	1.45835 AU	morning set	13765 Apr 18 04:59	28°♄21'23	
	13764 Jun 03 04:40	0°♄		desc. node	13765 Apr 19 11:56	0°♄31'05	
evening rise	13764 Jun 06 23:01	5°♄51'06			13765 Apr 19 04:30	0°♄	
greatest brilliancy	13764 Jun 18 07:42	23°♄22'46	-0.7m				
	13764 Jun 22 19:28	0°♄		superior conj	13765 May 01 16:40	20°♄32'59	-1°25'31
asc. node	13764 Jun 26 13:45	5°♄06'58		minimum elong	13765 May 01 08:18	19°♄59'27	1°25'17
evening max el	13764 Jun 30 10:47	9°♄34'30	19°09'13	max. Earth dist.	13765 May 06 11:28	28°♄09'19	1.45274 AU
retrograde	13764 Jul 07 08:28	13°♄24'01			13765 May 07 15:36	0°♄	
evening set	13764 Jul 10 20:57	12°♄12'08		evening rise	13765 May 17 12:10	15°♄16'20	
inferior conj	13764 Jul 16 07:45	6°♄24'05	3°01'42		13765 May 27 05:43	0°♄	
minimum elong	13764 Jul 16 09:06	6°♄19'43	3°00'38	greatest brilliancy	13765 Jun 01 11:13	7°♄41'59	-0.6m
min. Earth dist.	13764 Jul 17 20:03	4°♄26'57	0.66798 AU	asc. node	13765 Jun 13 10:43	23°♄12'00	
morning rise	13764 Jul 21 20:38	29°♄59'37		evening max el	13765 Jun 13 15:08	23°♄23'11	20°04'18
	13764 Jul 21 20:27	30°♄		retrograde	13765 Jun 21 07:05	27°♄45'17	
direct	13764 Jul 27 23:49	27°♄20'51		evening set	13765 Jun 25 05:20	26°♄16'20	
desc. node	13764 Jul 29 14:27	27°♄30'28		inferior conj	13765 Jun 30 12:20	20°♄15'12	3°11'29
	13764 Aug 03 23:40	0°♄		minimum elong	13765 Jun 30 12:40	20°♄14'04	3°10'28
morning max el	13764 Aug 09 15:35	4°♄54'11	26°02'05	min. Earth dist.	13765 Jul 01 10:21	19°♄00'32	0.67991 AU
	13764 Aug 28 21:52	0°♄		morning rise	13765 Jul 05 19:40	13°♄52'49	
morning set	13764 Sep 14 15:06	28°♄02'58		direct	13765 Jul 11 11:48	11°♄23'03	
	13764 Sep 15 16:17	0°♄		desc. node	13765 Jul 16 11:49	12°♄56'00	
max. Earth dist.	13764 Sep 18 09:12	5°♄08'13	1.35238 AU	morning max el	13765 Jul 23 01:59	18°♄19'44	24°39'10
asc. node	13764 Sep 22 15:20	13°♄31'44			13765 Aug 01 21:47	0°♄	
					13765 Aug 21 23:19	0°♄	
superior conj	13764 Sep 23 23:02	16°♄12'16	0°12'23	morning set	13765 Aug 27 19:09	9°♄55'12	
minimum elong	13764 Sep 23 22:20	16°♄08'39	0°12'26	max. Earth dist.	13765 Aug 31 09:08	16°♄19'02	1.37422 AU
behind sun begin	13764 Sep 23 18:27	15°♄48'54					
behind sun end	13764 Sep 24 02:12	16°♄28'26		superior conj	13765 Sep 07 07:36	29°♄22'05	-0°20'05
	13764 Sep 30 14:55	0°♄		minimum elong	13765 Sep 07 08:56	29°♄28'35	0°19'57
evening rise	13764 Oct 01 15:34	2°♄07'55			13765 Sep 07 15:24	0°♄	
	13764 Oct 17 18:05	0°♄		asc. node	13765 Sep 09 11:52	3°♄38'04	
evening max el	13764 Oct 20 02:06	2°♄33'16	20°30'53	evening rise	13765 Sep 15 18:58	16°♄13'13	
desc. node	13764 Oct 25 10:33	6°♄36'25			13765 Sep 22 22:56	0°♄	
retrograde	13764 Oct 31 04:26	8°♄04'17		evening max el	13765 Oct 02 14:26	13°♄49'19	19°22'05
evening set	13764 Nov 02 10:02	7°♄51'54		retrograde	13765 Oct 12 01:09	18°♄33'06	
inferior conj	13764 Nov 11 09:00	3°♄56'55	-4°50'30	desc. node	13765 Oct 12 07:59	18°♄32'51	
minimum elong	13764 Nov 10 23:00	4°♄11'24	4°47'04	evening set	13765 Oct 13 21:55	18°♄22'50	
min. Earth dist.	13764 Nov 12 15:48	3°♄12'13	0.54669 AU	inferior conj	13765 Oct 22 12:52	14°♄14'30	-3°10'40
morning rise	13764 Nov 19 11:39	29°♄57'56		minimum elong	13765 Oct 22 04:48	14°♄27'41	3°07'04
	13764 Nov 19 09:01	30°♄		min. Earth dist.	13765 Oct 25 01:39	12°♄35'27	0.55685 AU
direct	13764 Nov 23 23:00	29°♄14'55		morning rise	13765 Oct 30 09:26	9°♄45'14	
	13764 Nov 28 10:23	0°♄		direct	13765 Nov 04 17:11	8°♄41'07	
morning max el	13764 Dec 07 07:28	5°♄45'42	23°36'27	morning max el	13765 Nov 18 17:23	15°♄44'32	25°22'57
asc. node	13764 Dec 19 16:16	21°♄57'23			13765 Nov 30 04:11	0°♄	
	13764 Dec 24 05:06	0°♄		asc. node	13765 Dec 06 13:16	10°♄38'02	
morning set	13764 Dec 31 03:15	14°♄01'38		morning set	13765 Dec 15 14:53	28°♄43'08	
					13765 Dec 16 05:09	0°♄	
superior conj	13765 Jan 07 00:02	28°♄55'28	1°34'20				
minimum elong	13765 Jan 07 01:14	29°♄02'00	1°35'14	superior conj	13765 Dec 22 09:15	13°♄35'26	1°38'05
	13765 Jan 07 11:58	0°♄		minimum elong	13765 Dec 22 09:22	13°♄36'04	1°39'07
max. Earth dist.	13765 Jan 09 19:25	4°♄56'42	1.33012 AU	max. Earth dist.	13765 Dec 23 22:25	17°♄00'12	1.31899 AU
evening rise	13765 Jan 14 16:52	15°♄01'53		evening rise	13765 Dec 29 13:35	29°♄03'06	
desc. node	13765 Jan 21 09:35	27°♄45'48			13765 Dec 30 00:38	0°♄	

desc. node	13766 Jan 08 06:18	17° $\approx$ 38'49		desc. node	13766 Dec 26 03:08	7° $\approx$ 05'42	
	13766 Jan 15 18:55	0° $\text{H}$			13767 Jan 11 19:28	0° $\text{H}$	
evening max el	13766 Jan 31 07:47	19° $\text{H}$ 31'24	27°32'55	evening max el	13767 Jan 13 13:12	1° $\text{H}$ 43'18	27°07'23
retrograde	13766 Feb 14 04:52	26° $\text{H}$ 54'24		retrograde	13767 Jan 27 12:33	8° $\text{H}$ 58'08	
evening set	13766 Feb 21 02:38	24° $\text{H}$ 35'48		evening set	13767 Feb 03 07:06	6° $\text{H}$ 58'08	
min. Earth dist.	13766 Feb 24 20:41	21° $\text{H}$ 35'02	0.62371 AU	min. Earth dist.	13767 Feb 07 03:36	4° $\text{H}$ 15'47	0.60195 AU
inferior conj	13766 Feb 27 19:37	18° $\text{H}$ 46'51	-1°30'30	inferior conj	13767 Feb 10 08:00	1° $\text{H}$ 36'55	-2°52'44
minimum elong	13766 Feb 27 22:42	18° $\text{H}$ 39'30	1°28'55	minimum elong	13767 Feb 10 14:15	1° $\text{H}$ 23'52	2°49'47
asc. node	13766 Mar 04 10:53	14° $\text{H}$ 53'43			13767 Feb 12 07:48	30° $\text{R}$ $\approx$	
morning rise	13766 Mar 06 21:33	13° $\text{H}$ 40'24		morning rise	13767 Feb 18 00:36	26° $\approx$ 50'15	
direct	13766 Mar 09 03:40	13° $\text{H}$ 17'12		asc. node	13767 Feb 19 08:21	26° $\approx$ 35'48	
morning max el	13766 Mar 15 20:07	16° $\text{H}$ 40'39	17°47'01	direct	13767 Feb 20 02:03	26° $\approx$ 33'37	
	13766 Mar 25 07:44	0° $\text{Y}$			13767 Feb 27 04:55	0° $\text{H}$	
morning set	13766 Mar 31 18:03	11° $\text{Y}$ 10'04		morning max el	13767 Feb 27 10:47	0° $\text{H}$ 14'10	18°01'39
desc. node	13766 Apr 06 08:28	20° $\text{Y}$ 58'37		morning set	13767 Mar 15 00:34	24° $\text{H}$ 46'44	
	13766 Apr 11 15:13	0° $\text{B}$			13767 Mar 17 20:22	0° $\text{Y}$	
				desc. node	13767 Mar 24 04:57	11° $\text{Y}$ 32'02	
superior conj	13766 Apr 12 09:55	1° $\text{B}$ 18'27	-0°46'20	superior conj	13767 Mar 25 03:04	13° $\text{Y}$ 10'00	-0°07'22
minimum elong	13766 Apr 12 05:25	0° $\text{B}$ 59'33	0°46'07	minimum elong	13767 Mar 25 02:27	13° $\text{Y}$ 07'15	0°07'24
max. Earth dist.	13766 Apr 19 04:40	12° $\text{B}$ 26'09	1.44023 AU	behind sun begin	13767 Mar 24 19:24	12° $\text{Y}$ 36'05	
evening rise	13766 Apr 27 01:16	24° $\text{B}$ 49'32		behind sun end	13767 Mar 25 09:30	13° $\text{Y}$ 38'21	
	13766 Apr 30 10:11	0° $\text{II}$		max. Earth dist.	13767 Apr 01 17:04	26° $\text{Y}$ 09'31	1.42222 AU
	13766 May 21 08:31	0° $\text{E}$			13767 Apr 04 01:01	0° $\text{B}$	
evening max el	13766 May 27 13:33	7° $\text{E}$ 12'18	21°12'36	evening rise	13767 Apr 07 04:23	5° $\text{B}$ 04'13	
asc. node	13766 May 31 07:46	10° $\text{E}$ 25'56			13767 Apr 23 16:36	0° $\text{II}$	
retrograde	13766 Jun 05 05:54	12° $\text{E}$ 15'46		evening max el	13767 May 10 06:59	21° $\text{II}$ 02'12	22°30'06
evening set	13766 Jun 09 14:34	10° $\text{E}$ 30'09		asc. node	13767 May 18 04:58	26° $\text{II}$ 32'59	
inferior conj	13766 Jun 14 20:28	4° $\text{E}$ 17'31	3°09'22	retrograde	13767 May 20 03:13	26° $\text{II}$ 49'55	
minimum elong	13766 Jun 14 19:48	4° $\text{E}$ 19'48	3°08'17	evening set	13767 May 24 22:57	24° $\text{II}$ 48'55	
min. Earth dist.	13766 Jun 15 04:53	3° $\text{E}$ 48'14	0.68710 AU	inferior conj	13767 May 30 06:04	18° $\text{II}$ 26'57	2°56'32
	13766 Jun 18 02:28	30° $\text{R}$ $\text{II}$		minimum elong	13767 May 30 04:36	18° $\text{II}$ 32'05	2°55'18
morning rise	13766 Jun 20 00:50	27° $\text{II}$ 59'47		min. Earth dist.	13767 May 30 01:31	18° $\text{II}$ 42'48	0.68952 AU
direct	13766 Jun 25 04:32	25° $\text{II}$ 45'08		morning rise	13767 Jun 04 10:06	12° $\text{II}$ 15'35	
desc. node	13766 Jul 03 09:04	29° $\text{II}$ 51'31		direct	13767 Jun 09 01:03	10° $\text{II}$ 19'47	
	13766 Jul 03 12:54	0° $\text{E}$		morning max el	13767 Jun 18 02:37	15° $\text{II}$ 36'40	21°42'35
morning max el	13766 Jul 05 12:50	1° $\text{E}$ 54'04	23°09'44	desc. node	13767 Jun 20 06:11	17° $\text{II}$ 53'22	
	13766 Jul 26 20:51	0° $\text{O}$			13767 Jun 29 18:36	0° $\text{E}$	
morning set	13766 Aug 09 01:22	20° $\text{O}$ 49'31			13767 Jul 19 20:59	0° $\text{O}$	
max. Earth dist.	13766 Aug 13 07:23	28° $\text{O}$ 01'18	1.39775 AU	morning set	13767 Jul 20 06:39	0° $\text{O}$ 38'21	
	13766 Aug 14 10:48	0° $\text{M}$		max. Earth dist.	13767 Jul 26 09:27	10° $\text{O}$ 32'48	1.42030 AU
superior conj	13766 Aug 21 01:29	11° $\text{M}$ 50'37	-0°55'07	superior conj	13767 Aug 03 00:17	23° $\text{O}$ 27'39	-1°29'26
minimum elong	13766 Aug 21 05:35	12° $\text{M}$ 09'27	0°54'53	minimum elong	13767 Aug 03 06:56	23° $\text{O}$ 56'39	1°29'18
asc. node	13766 Aug 27 08:24	23° $\text{M}$ 40'36			13767 Aug 06 17:20	0° $\text{M}$	
evening rise	13766 Aug 30 14:39	29° $\text{M}$ 56'20		evening rise	13767 Aug 13 22:48	13° $\text{M}$ 06'56	
	13766 Aug 30 15:25	0° $\text{A}$		asc. node	13767 Aug 14 04:58	13° $\text{M}$ 35'10	
evening max el	13766 Sep 15 15:16	25° $\text{A}$ 53'02	18°35'18		13767 Aug 23 13:04	0° $\text{A}$	
retrograde	13766 Sep 23 16:01	29° $\text{A}$ 56'10		evening max el	13767 Aug 30 00:33	8° $\text{A}$ 35'18	18°09'20
evening set	13766 Sep 25 14:50	29° $\text{A}$ 42'36		retrograde	13767 Sep 06 01:20	12° $\text{A}$ 10'26	
desc. node	13766 Sep 29 05:30	28° $\text{A}$ 13'38		evening set	13767 Sep 08 06:59	11° $\text{A}$ 49'10	
inferior conj	13766 Oct 03 13:10	25° $\text{A}$ 14'45	-1°22'21	inferior conj	13767 Sep 15 10:59	7° $\text{A}$ 00'39	0°12'26
minimum elong	13766 Oct 03 09:52	25° $\text{A}$ 21'03	1°20'39	minimum elong	13767 Sep 15 11:24	6° $\text{A}$ 59'43	0°12'17
min. Earth dist.	13766 Oct 06 17:41	22° $\text{A}$ 49'36	0.57424 AU	transit middle	13767 Sep 15 11:24	6° $\text{A}$ 59'43	0°12'17
morning rise	13766 Oct 11 01:26	20° $\text{A}$ 07'37		transit begin	13767 Sep 15 09:12	7° $\text{A}$ 04'37	
direct	13766 Oct 17 01:47	18° $\text{A}$ 37'08		transit end	13767 Sep 15 13:36	6° $\text{A}$ 54'49	
morning max el	13766 Oct 31 08:42	26° $\text{A}$ 07'02	26°49'58	desc. node	13767 Sep 16 03:04	6° $\text{A}$ 24'44	
	13766 Nov 04 00:58	0° $\text{M}$		min. Earth dist.	13767 Sep 18 17:41	4° $\text{A}$ 06'57	0.59600 AU
asc. node	13766 Nov 23 10:10	29° $\text{M}$ 49'40		morning rise	13767 Sep 22 12:28	1° $\text{A}$ 20'14	
	13766 Nov 23 12:20	0° $\text{J}$			13767 Sep 25 08:09	30° $\text{R}$ $\text{M}$	
morning set	13766 Nov 30 00:43	13° $\text{J}$ 15'49		direct	13767 Sep 29 00:03	29° $\text{M}$ 22'19	
					13767 Oct 02 18:42	0° $\text{A}$	
superior conj	13766 Dec 06 20:34	28° $\text{J}$ 18'21	1°35'48	morning max el	13767 Oct 13 07:35	7° $\text{A}$ 11'10	27°43'36
minimum elong	13766 Dec 06 19:38	28° $\text{J}$ 13'11	1°36'48		13767 Oct 30 13:12	0° $\text{M}$	
max. Earth dist.	13766 Dec 07 05:43	29° $\text{J}$ 09'30	1.31289 AU	asc. node	13767 Nov 10 06:58	19° $\text{M}$ 23'10	
	13766 Dec 07 14:46	0° $\text{B}$		morning set	13767 Nov 14 06:54	27° $\text{M}$ 34'18	
evening rise	13766 Dec 13 17:02	13° $\text{B}$ 20'04			13767 Nov 15 10:20	0° $\text{J}$	
	13766 Dec 22 02:32	0° $\approx$					

max. Earth dist.	13767 Nov 20 13:51	11° $\text{♊}$ 16'34	1.31197 AU	superior conj	13768 Nov 04 17:48	27° $\text{♍}$ 29'03	1°13'47
				minimum elong	13768 Nov 04 15:35	27° $\text{♍}$ 16'46	1°14'19
superior conj	13767 Nov 21 08:02	12° $\text{♊}$ 57'57	1°27'41		13768 Nov 05 21:08	0° $\text{♊}$	
minimum elong	13767 Nov 21 06:16	12° $\text{♊}$ 48'10	1°28'29	evening rise	13768 Nov 11 11:24	12° $\text{♊}$ 18'05	
evening rise	13767 Nov 28 00:56	27° $\text{♊}$ 46'43			13768 Nov 20 06:39	0° $\text{♋}$	
	13767 Nov 29 01:52	0° $\text{♋}$		desc. node	13768 Nov 28 21:13	13° $\text{♋}$ 55'41	
desc. node	13767 Dec 13 00:07	25° $\text{♋}$ 56'03		evening max el	13768 Dec 07 01:12	23° $\text{♋}$ 35'30	24°39'32
	13767 Dec 15 16:27	0° $\text{♌}$			13768 Dec 17 08:35	0° $\text{♌}$	
evening max el	13767 Dec 26 11:16	13° $\text{♌}$ 04'16	26°07'38	retrograde	13768 Dec 20 18:50	0° $\text{♌}$ 26'53	
retrograde	13768 Jan 09 10:02	20° $\text{♌}$ 08'33			13768 Dec 24 05:48	30° $\text{♌}$ 33'15	
evening set	13768 Jan 15 16:49	18° $\text{♌}$ 34'46		evening set	13768 Dec 26 03:40	29° $\text{♌}$ 23'15	
min. Earth dist.	13768 Jan 20 00:32	15° $\text{♌}$ 58'02	0.58047 AU	min. Earth dist.	13768 Dec 31 13:00	26° $\text{♌}$ 35'33	0.56193 AU
inferior conj	13768 Jan 23 02:02	13° $\text{♌}$ 45'21	-4°16'14	inferior conj	13769 Jan 02 23:17	25° $\text{♌}$ 03'49	-5°25'38
minimum elong	13768 Jan 23 10:43	13° $\text{♌}$ 29'38	4°12'48	minimum elong	13769 Jan 03 06:52	24° $\text{♌}$ 51'51	5°23'18
morning rise	13768 Jan 31 07:34	9° $\text{♌}$ 20'11		morning rise	13769 Jan 11 12:09	20° $\text{♌}$ 59'40	
direct	13768 Feb 02 08:40	9° $\text{♌}$ 06'28		direct	13769 Jan 13 20:21	20° $\text{♌}$ 44'43	
asc. node	13768 Feb 06 05:46	9° $\text{♌}$ 58'43		asc. node	13769 Jan 23 03:09	24° $\text{♌}$ 59'16	
morning max el	13768 Feb 10 18:44	13° $\text{♌}$ 14'24	18°36'29	morning max el	13769 Jan 23 15:43	25° $\text{♌}$ 28'53	19°33'33
	13768 Feb 22 02:21	0° $\text{♍}$			13769 Jan 27 13:59	0° $\text{♍}$	
morning set	13768 Feb 26 19:22	8° $\text{♍}$ 56'19		morning set	13769 Feb 09 22:21	23° $\text{♍}$ 26'17	
					13769 Feb 13 04:26	0° $\text{♍}$	
superior conj	13768 Mar 06 16:49	25° $\text{♍}$ 57'52	0°26'59	superior conj	13769 Feb 17 22:30	9° $\text{♍}$ 28'34	0°54'45
minimum elong	13768 Mar 06 18:36	26° $\text{♍}$ 06'10	0°26'52	minimum elong	13769 Feb 18 01:11	9° $\text{♍}$ 41'47	0°54'49
	13768 Mar 08 21:17	0° $\text{♎}$		max. Earth dist.	13769 Feb 24 07:39	21° $\text{♍}$ 36'50	1.37816 AU
desc. node	13768 Mar 10 01:27	2° $\text{♎}$ 07'59		desc. node	13769 Feb 24 21:57	22° $\text{♍}$ 42'20	
max. Earth dist.	13768 Mar 14 01:10	9° $\text{♎}$ 12'27	1.40075 AU	evening rise	13769 Feb 28 00:43	28° $\text{♍}$ 17'43	
evening rise	13768 Mar 18 04:12	16° $\text{♎}$ 14'40			13769 Mar 01 00:03	0° $\text{♏}$	
	13768 Mar 26 17:31	0° $\text{♏}$			13769 Mar 20 03:01	0° $\text{♏}$	
evening max el	13768 Apr 21 21:36	4° $\text{♏}$ 54'43	23°51'13	evening max el	13769 Apr 04 11:13	18° $\text{♏}$ 48'10	25°09'14
retrograde	13768 May 02 21:38	11° $\text{♏}$ 22'33		retrograde	13769 Apr 16 11:54	25° $\text{♏}$ 47'01	
asc. node	13768 May 04 02:16	11° $\text{♏}$ 16'11		asc. node	13769 Apr 20 23:39	24° $\text{♏}$ 20'57	
evening set	13768 May 08 04:56	9° $\text{♏}$ 08'11		evening set	13769 Apr 22 06:51	23° $\text{♏}$ 22'07	
min. Earth dist.	13768 May 12 22:06	3° $\text{♏}$ 38'30	0.68726 AU	min. Earth dist.	13769 Apr 26 16:22	18° $\text{♏}$ 28'38	0.68045 AU
inferior conj	13768 May 13 15:15	2° $\text{♏}$ 39'55	2°33'27	inferior conj	13769 Apr 27 22:04	16° $\text{♏}$ 51'33	2°00'03
minimum elong	13768 May 13 13:15	2° $\text{♏}$ 46'47	2°32'07	minimum elong	13769 Apr 27 19:56	16° $\text{♏}$ 58'35	1°58'43
	13768 May 15 15:27	30° $\text{♏}$ 33'17		morning rise	13769 May 03 09:19	10° $\text{♏}$ 57'00	
morning rise	13768 May 18 21:34	26° $\text{♏}$ 36'17		direct	13769 May 07 00:02	9° $\text{♏}$ 42'00	
direct	13768 May 23 00:04	25° $\text{♏}$ 00'58		morning max el	13769 May 14 01:41	13° $\text{♏}$ 34'36	19°20'42
morning max el	13768 May 30 22:24	29° $\text{♏}$ 30'17	20°24'48	desc. node	13769 May 24 00:03	26° $\text{♏}$ 09'11	
	13768 May 31 10:11	0° $\text{♐}$			13769 May 26 15:18	0° $\text{♐}$	
desc. node	13768 Jun 06 03:11	6° $\text{♐}$ 43'50		greatest brilliancy	13769 May 26 19:04	0° $\text{♐}$ 13'54	-0.7m
	13768 Jun 22 08:30	0° $\text{♑}$		morning set	13769 Jun 07 17:00	18° $\text{♐}$ 18'37	
morning set	13768 Jun 28 14:41	9° $\text{♑}$ 33'25			13769 Jun 15 06:20	0° $\text{♑}$	
max. Earth dist.	13768 Jul 07 18:30	23° $\text{♑}$ 57'29	1.43919 AU	max. Earth dist.	13769 Jun 20 09:53	8° $\text{♑}$ 03'17	1.45226 AU
	13768 Jul 11 12:12	0° $\text{♒}$					
superior conj	13768 Jul 14 00:16	4° $\text{♒}$ 06'28	-1°57'37	superior conj	13769 Jun 24 01:03	13° $\text{♑}$ 47'43	-2°12'41
minimum elong	13768 Jul 14 07:12	4° $\text{♒}$ 35'08	1°58'02	minimum elong	13769 Jun 24 03:24	13° $\text{♑}$ 57'06	2°13'42
evening rise	13768 Jul 26 14:46	25° $\text{♒}$ 34'03		evening rise	13769 Jul 04 02:07	0° $\text{♒}$	
	13768 Jul 29 03:54	0° $\text{♓}$		asc. node	13769 Jul 08 09:20	7° $\text{♒}$ 05'07	
asc. node	13768 Jul 31 01:38	3° $\text{♓}$ 18'01			13769 Jul 17 22:23	22° $\text{♒}$ 43'32	
evening max el	13768 Aug 12 14:13	21° $\text{♓}$ 46'44	18°02'49	evening max el	13769 Jul 22 19:04	0° $\text{♓}$	
retrograde	13768 Aug 19 01:50	25° $\text{♓}$ 08'11		retrograde	13769 Jul 27 04:35	5° $\text{♓}$ 17'30	18°14'49
evening set	13768 Aug 21 15:41	24° $\text{♓}$ 35'36		evening set	13769 Aug 02 13:10	8° $\text{♓}$ 39'37	
inferior conj	13768 Aug 28 03:32	19° $\text{♓}$ 27'44	1°25'30	inferior conj	13769 Aug 05 11:30	7° $\text{♓}$ 53'03	
minimum elong	13768 Aug 28 05:43	19° $\text{♓}$ 22'10	1°24'27	minimum elong	13769 Aug 11 10:45	2° $\text{♓}$ 27'56	2°17'00
min. Earth dist.	13768 Aug 31 02:48	16° $\text{♓}$ 27'23	0.61899 AU		13769 Aug 11 13:12	2° $\text{♓}$ 20'56	2°15'47
desc. node	13768 Sep 02 00:36	14° $\text{♓}$ 42'34		min. Earth dist.	13769 Aug 13 14:43	30° $\text{♓}$ 00'00	
morning rise	13768 Sep 03 17:14	13° $\text{♓}$ 23'38		morning rise	13769 Aug 13 21:34	29° $\text{♓}$ 41'02	0.64055 AU
direct	13768 Sep 10 09:30	11° $\text{♓}$ 03'05		desc. node	13769 Aug 17 13:19	26° $\text{♓}$ 09'57	
morning max el	13768 Sep 24 13:03	19° $\text{♓}$ 02'09	27°58'20	direct	13769 Aug 19 22:07	24° $\text{♓}$ 38'00	
	13768 Sep 24 13:03	0° $\text{♔}$			13769 Aug 24 03:57	23° $\text{♓}$ 35'01	
	13768 Oct 03 20:15	0° $\text{♕}$			13769 Sep 05 07:37	0° $\text{♔}$	
	13768 Oct 22 10:36	0° $\text{♕}$		morning max el	13769 Sep 06 22:45	1° $\text{♔}$ 34'38	27°36'04
asc. node	13768 Oct 27 03:42	9° $\text{♕}$ 12'19			13769 Sep 28 01:03	0° $\text{♕}$	
morning set	13768 Oct 28 07:26	11° $\text{♕}$ 33'39		morning set	13769 Oct 11 23:55	25° $\text{♕}$ 08'42	
max. Earth dist.	13768 Nov 02 19:06	23° $\text{♕}$ 12'44	1.31644 AU	asc. node	13769 Oct 14 00:22	29° $\text{♕}$ 12'10	

	13769 Oct 14 09:44	0°♄		max. Earth dist.	13770 Sep 29 07:11	16°♄07'46	1.34149 AU
max. Earth dist.	13769 Oct 16 17:54	4°♄51'05	1.32633 AU	asc. node	13770 Sep 30 20:56	19°♄17'32	
superior conj	13769 Oct 19 23:54	11°♄46'28	0°54'13	superior conj	13770 Oct 03 23:54	25°♄43'14	0°29'08
minimum elong	13769 Oct 19 21:42	11°♄34'37	0°54'28	minimum elong	13770 Oct 03 22:25	25°♄35'29	0°29'12
evening rise	13769 Oct 26 22:33	26°♄49'41			13770 Oct 06 00:49	0°♄	
	13769 Oct 28 10:22	0°♄		evening rise	13770 Oct 11 08:24	11°♄15'27	
	13769 Nov 15 02:36	0°♄			13770 Oct 20 23:38	0°♄	
desc. node	13769 Nov 15 18:25	0°♄46'12		evening max el	13770 Oct 31 02:05	13°♄46'12	21°19'50
evening max el	13769 Nov 18 11:02	3°♄37'18	22°57'37	desc. node	13770 Nov 02 15:44	16°♄02'39	
retrograde	13769 Dec 01 14:42	10°♄09'14		retrograde	13770 Nov 12 02:16	19°♄43'58	
evening set	13769 Dec 05 16:06	9°♄33'25		evening set	13770 Nov 14 20:00	19°♄26'35	
min. Earth dist.	13769 Dec 12 20:07	6°♄15'40	0.54925 AU	inferior conj	13770 Nov 23 17:08	15°♄33'20	-5°31'32
inferior conj	13769 Dec 14 01:26	5°♄33'47	-5°57'26	minimum elong	13770 Nov 23 09:19	15°♄44'20	5°29'16
minimum elong	13769 Dec 14 02:04	5°♄32'53	5°56'22	min. Earth dist.	13770 Nov 24 01:59	15°♄20'53	0.54489 AU
morning rise	13769 Dec 22 13:29	1°♄44'48		morning rise	13770 Dec 01 23:17	11°♄43'46	
direct	13769 Dec 25 13:47	1°♄23'38		direct	13770 Dec 05 21:19	11°♄10'40	
morning max el	13770 Jan 05 22:38	6°♄49'43	20°53'47	morning max el	13770 Dec 18 15:59	17°♄19'31	22°33'56
asc. node	13770 Jan 10 00:25	11°♄22'43		asc. node	13770 Dec 27 21:35	28°♄51'05	
	13770 Jan 21 06:17	0°♄			13770 Dec 28 15:13	0°♄	
morning set	13770 Jan 25 06:32	8°♄07'47		morning set	13771 Jan 09 17:31	22°♄53'16	
					13771 Jan 13 01:16	0°♄	
superior conj	13770 Feb 01 15:55	23°♄30'37	1°15'30	superior conj	13771 Jan 16 17:33	7°♄53'29	1°29'21
minimum elong	13770 Feb 01 18:27	23°♄43'40	1°15'53	minimum elong	13771 Jan 16 19:21	8°♄02'59	1°30'05
	13770 Feb 04 20:55	0°♄		max. Earth dist.	13771 Jan 20 07:48	15°♄25'46	1.33859 AU
max. Earth dist.	13770 Feb 06 16:37	3°♄35'23	1.35680 AU	evening rise	13771 Jan 24 19:49	24°♄27'47	
evening rise	13770 Feb 10 15:07	11°♄05'17			13771 Jan 27 17:23	0°♄	
desc. node	13770 Feb 11 18:30	13°♄11'34		desc. node	13771 Jan 29 15:07	3°♄30'57	
	13770 Feb 21 13:13	0°♄			13771 Feb 15 02:12	0°♄	
	13770 Mar 15 11:25	0°♄		evening max el	13771 Feb 28 14:20	16°♄15'19	27°07'01
evening max el	13770 Mar 18 00:51	2°♄37'51	26°16'55	retrograde	13771 Mar 14 00:43	23°♄43'16	
retrograde	13770 Mar 30 21:11	9°♄56'42		evening set	13771 Mar 20 15:28	21°♄11'15	
evening set	13770 Apr 06 03:01	7°♄25'24		min. Earth dist.	13771 Mar 24 13:34	17°♄26'08	0.65403 AU
asc. node	13770 Apr 07 21:05	5°♄48'01		asc. node	13771 Mar 25 18:31	16°♄05'02	
min. Earth dist.	13770 Apr 10 06:11	3°♄07'07	0.66927 AU	inferior conj	13771 Mar 26 20:06	14°♄52'25	0°20'19
inferior conj	13770 Apr 12 00:28	0°♄57'32	1°15'52	minimum elong	13771 Mar 26 19:32	14°♄54'00	0°19'56
minimum elong	13770 Apr 11 22:44	1°♄02'49	1°14'49	morning rise	13771 Apr 02 01:13	9°♄21'03	
	13770 Apr 12 19:20	30°♄		direct	13771 Apr 04 19:18	8°♄40'24	
morning rise	13770 Apr 17 19:20	25°♄13'39		morning max el	13771 Apr 11 03:27	11°♄58'45	18°01'12
direct	13770 Apr 20 23:10	24°♄17'15			13771 Apr 23 22:38	0°♄	
morning max el	13770 Apr 27 12:03	27°♄46'21	18°32'32	desc. node	13771 Apr 27 17:28	6°♄09'49	
	13770 Apr 29 13:56	0°♄		morning set	13771 Apr 29 08:26	8°♄49'04	
desc. node	13770 May 10 20:48	16°♄00'10			13771 May 12 11:58	0°♄	
morning set	13770 May 18 10:58	27°♄53'20					
	13770 May 19 19:12	0°♄		superior conj	13771 May 13 21:31	2°♄12'32	-1°45'17
superior conj	13770 Jun 03 10:36	22°♄54'39	-2°08'39	minimum elong	13771 May 13 12:26	1°♄36'42	1°45'19
minimum elong	13770 Jun 03 05:16	22°♄33'50	2°09'27	max. Earth dist.	13771 May 17 01:04	7°♄09'14	1.45679 AU
max. Earth dist.	13770 Jun 03 05:04	22°♄33'02	1.45828 AU	evening rise	13771 May 29 23:46	27°♄13'57	
	13770 Jun 07 23:28	0°♄			13771 May 31 18:56	0°♄	
evening rise	13770 Jun 19 03:18	17°♄34'24		greatest brilliancy	13771 Jun 12 06:37	17°♄25'35	-0.7m
	13770 Jun 26 23:59	0°♄			13771 Jun 21 11:19	0°♄	
greatest brilliancy	13770 Jun 27 10:41	0°♄41'52	-0.8m	asc. node	13771 Jun 21 16:06	0°♄14'05	
asc. node	13770 Jul 04 19:12	11°♄44'55		evening max el	13771 Jun 24 00:11	2°♄47'06	19°30'49
evening max el	13770 Jul 10 16:38	18°♄59'23	18°44'29	retrograde	13771 Jul 01 04:58	6°♄49'39	
retrograde	13770 Jul 17 07:15	22°♄35'34		evening set	13771 Jul 04 21:25	5°♄30'40	
evening set	13770 Jul 20 14:23	21°♄33'15			13771 Jul 09 23:14	30°♄	
inferior conj	13770 Jul 26 04:44	15°♄52'58	2°49'55	inferior conj	13771 Jul 10 06:15	29°♄36'47	3°07'24
minimum elong	13770 Jul 26 06:36	15°♄47'08	2°48'48	minimum elong	13771 Jul 10 07:10	29°♄33'44	3°06'22
min. Earth dist.	13770 Jul 28 01:18	13°♄34'37	0.65906 AU	min. Earth dist.	13771 Jul 11 12:25	27°♄56'58	0.67357 AU
morning rise	13770 Jul 31 21:55	9°♄28'56		morning rise	13771 Jul 15 16:26	23°♄12'31	
desc. node	13770 Aug 06 19:35	6°♄49'46		direct	13771 Jul 21 15:04	20°♄36'36	
direct	13770 Aug 07 06:09	6°♄49'03		desc. node	13771 Jul 24 16:57	21°♄11'57	
morning max el	13770 Aug 20 10:04	14°♄36'52	26°43'03	morning max el	13771 Aug 02 20:57	27°♄56'58	25°28'11
	13770 Sep 01 23:39	0°♄			13771 Aug 04 19:36	0°♄	
	13770 Sep 20 18:56	0°♄			13771 Aug 26 16:22	0°♄	
morning set	13770 Sep 25 05:18	8°♄11'18		morning set	13771 Sep 07 19:53	20°♄32'59	

max. Earth dist.	13771 Sep 11 10:36	27° $\mathbb{M}$ 12'30	1.36129 AU		13772 Aug 18 10:32	0° $\mathbb{M}$	
	13771 Sep 12 21:57	0° $\mathbb{L}$		morning set	13772 Aug 19 15:11	2° $\mathbb{M}$ 02'05	
				max. Earth dist.	13772 Aug 23 08:30	8° $\mathbb{M}$ 31'32	1.38421 AU
superior conj	13771 Sep 17 15:04	9° $\mathbb{L}$ 12'54	-0°00'57				
minimum elong	13771 Sep 17 15:07	9° $\mathbb{L}$ 13'08	0°00'53	superior conj	13772 Aug 30 17:56	22° $\mathbb{M}$ 06'41	-0°34'48
behind sun begin	13771 Sep 17 08:50	8° $\mathbb{L}$ 41'45		minimum elong	13772 Aug 30 20:22	22° $\mathbb{M}$ 18'18	0°34'36
behind sun end	13771 Sep 17 21:25	9° $\mathbb{L}$ 44'36		asc. node	13772 Sep 03 14:02	29° $\mathbb{M}$ 30'20	
asc. node	13771 Sep 17 17:29	9° $\mathbb{L}$ 24'58			13772 Sep 03 20:06	0° $\mathbb{L}$	
evening rise	13771 Sep 25 14:52	25° $\mathbb{L}$ 30'13		evening rise	13772 Sep 08 15:22	9° $\mathbb{L}$ 27'00	
	13771 Sep 27 20:06	0° $\mathbb{M}$			13772 Sep 20 01:14	0° $\mathbb{M}$	
evening max el	13771 Oct 13 06:13	24° $\mathbb{M}$ 34'45	19°58'55	evening max el	13772 Sep 25 00:24	6° $\mathbb{M}$ 12'29	18°59'33
desc. node	13771 Oct 20 13:06	29° $\mathbb{M}$ 18'22		retrograde	13772 Oct 03 19:23	10° $\mathbb{M}$ 37'06	
retrograde	13771 Oct 23 15:50	29° $\mathbb{M}$ 45'33		evening set	13772 Oct 05 16:13	10° $\mathbb{M}$ 25'57	
evening set	13771 Oct 25 15:37	29° $\mathbb{M}$ 35'02		desc. node	13772 Oct 06 10:33	10° $\mathbb{M}$ 15'15	
inferior conj	13771 Nov 03 12:46	25° $\mathbb{M}$ 35'47	-4°11'09	inferior conj	13772 Oct 14 00:45	6° $\mathbb{M}$ 10'03	-2°24'03
minimum elong	13771 Nov 03 02:53	25° $\mathbb{M}$ 50'46	4°07'17	minimum elong	13772 Oct 13 18:39	6° $\mathbb{M}$ 20'39	2°21'08
min. Earth dist.	13771 Nov 05 10:01	24° $\mathbb{M}$ 27'13	0.54998 AU	min. Earth dist.	13772 Oct 16 22:16	4° $\mathbb{M}$ 09'38	0.56358 AU
morning rise	13771 Nov 11 12:53	21° $\mathbb{M}$ 25'12		morning rise	13772 Oct 21 18:08	1° $\mathbb{M}$ 24'59	
direct	13771 Nov 16 09:11	20° $\mathbb{M}$ 33'51		direct	13772 Oct 27 09:50	0° $\mathbb{M}$ 09'45	
morning max el	13771 Nov 30 02:00	27° $\mathbb{M}$ 20'10	24°22'56	morning max el	13772 Nov 10 13:24	7° $\mathbb{M}$ 25'15	26°03'16
	13771 Dec 02 16:33	0° $\mathbb{L}$			13772 Nov 27 06:09	0° $\mathbb{L}$	
asc. node	13771 Dec 14 18:38	17° $\mathbb{L}$ 09'11		asc. node	13772 Nov 30 15:36	6° $\mathbb{L}$ 04'29	
	13771 Dec 21 13:58	0° $\mathbb{L}$		morning set	13772 Dec 08 16:30	22° $\mathbb{L}$ 16'06	
morning set	13771 Dec 25 05:24	7° $\mathbb{L}$ 37'33			13772 Dec 12 05:23	0° $\mathbb{L}$	
superior conj	13772 Jan 01 00:41	22° $\mathbb{L}$ 29'21	1°36'41	superior conj	13772 Dec 15 11:03	7° $\mathbb{L}$ 11'45	1°37'50
minimum elong	13772 Jan 01 01:26	22° $\mathbb{L}$ 33'26	1°37'40	minimum elong	13772 Dec 15 10:43	7° $\mathbb{L}$ 09'51	1°38'53
max. Earth dist.	13772 Jan 03 06:40	27° $\mathbb{L}$ 22'31	1.32475 AU	max. Earth dist.	13772 Dec 16 11:54	9° $\mathbb{L}$ 29'41	1.31578 AU
	13772 Jan 04 12:03	0° $\mathbb{L}$		evening rise	13772 Dec 22 11:30	22° $\mathbb{L}$ 26'45	
evening rise	13772 Jan 08 11:34	8° $\mathbb{L}$ 17'18			13772 Dec 26 04:29	0° $\mathbb{L}$	
desc. node	13772 Jan 16 11:48	23° $\mathbb{L}$ 35'28		desc. node	13773 Jan 02 08:34	13° $\mathbb{L}$ 18'52	
	13772 Jan 20 04:28	0° $\mathbb{L}$			13773 Jan 13 02:22	0° $\mathbb{L}$	
evening max el	13772 Feb 11 02:37	29° $\mathbb{L}$ 29'55	27°32'17	evening max el	13773 Jan 23 11:37	12° $\mathbb{L}$ 09'37	27°26'28
	13772 Feb 11 15:22	0° $\mathbb{Y}$		retrograde	13773 Feb 06 10:12	19° $\mathbb{L}$ 29'07	
retrograde	13772 Feb 24 21:29	6° $\mathbb{Y}$ 57'01		evening set	13773 Feb 13 07:17	17° $\mathbb{L}$ 17'50	
evening set	13772 Mar 02 17:50	4° $\mathbb{Y}$ 31'30		min. Earth dist.	13773 Feb 17 01:49	14° $\mathbb{L}$ 25'51	0.61450 AU
min. Earth dist.	13772 Mar 06 12:37	1° $\mathbb{Y}$ 15'54	0.63543 AU	inferior conj	13773 Feb 20 03:38	11° $\mathbb{L}$ 39'54	-2°04'36
	13772 Mar 07 18:49	30° $\mathbb{R}$		minimum elong	13773 Feb 20 08:03	11° $\mathbb{L}$ 29'58	2°02'25
inferior conj	13772 Mar 09 06:13	28° $\mathbb{L}$ 29'10	-0°46'54	asc. node	13773 Feb 26 13:28	7° $\mathbb{L}$ 01'32	
minimum elong	13772 Mar 09 07:43	28° $\mathbb{L}$ 25'20	0°46'08	morning rise	13773 Feb 27 11:46	6° $\mathbb{L}$ 41'10	
asc. node	13772 Mar 11 16:00	26° $\mathbb{L}$ 08'10		direct	13773 Mar 01 15:30	6° $\mathbb{L}$ 21'12	
morning rise	13772 Mar 15 24:00	23° $\mathbb{L}$ 12'40		morning max el	13773 Mar 08 13:51	9° $\mathbb{L}$ 50'56	17°50'53
direct	13772 Mar 18 09:52	22° $\mathbb{L}$ 44'13			13773 Mar 21 21:26	0° $\mathbb{Y}$	
morning max el	13772 Mar 24 21:05	26° $\mathbb{L}$ 03'05	17°47'05	morning set	13773 Mar 24 05:59	4° $\mathbb{Y}$ 13'40	
	13772 Mar 28 06:42	0° $\mathbb{Y}$		desc. node	13773 Mar 31 10:35	17° $\mathbb{Y}$ 02'56	
morning set	13772 Apr 10 08:41	21° $\mathbb{Y}$ 01'40					
desc. node	13772 Apr 13 14:03	26° $\mathbb{Y}$ 32'07		superior conj	13773 Apr 04 04:56	23° $\mathbb{Y}$ 34'22	-0°29'27
	13772 Apr 15 15:05	0° $\mathbb{L}$		minimum elong	13773 Apr 04 02:13	23° $\mathbb{Y}$ 22'42	0°29'20
					13773 Apr 08 00:15	0° $\mathbb{L}$	
superior conj	13772 Apr 23 01:19	12° $\mathbb{L}$ 20'05	-1°09'17	max. Earth dist.	13773 Apr 11 11:03	5° $\mathbb{L}$ 41'17	1.43315 AU
minimum elong	13772 Apr 22 18:23	11° $\mathbb{L}$ 51'47	1°09'00	evening rise	13773 Apr 18 04:39	16° $\mathbb{L}$ 25'59	
max. Earth dist.	13772 Apr 28 19:35	21° $\mathbb{L}$ 36'17	1.44811 AU		13773 Apr 27 01:58	0° $\mathbb{L}$	
	13772 May 04 03:50	0° $\mathbb{L}$			13773 May 19 11:47	0° $\mathbb{L}$	
evening rise	13772 May 08 10:48	6° $\mathbb{L}$ 37'20		evening max el	13773 May 19 22:18	0° $\mathbb{L}$ 26'42	21°44'46
	13772 May 24 03:00	0° $\mathbb{L}$		asc. node	13773 May 25 10:14	4° $\mathbb{L}$ 47'26	
evening max el	13772 Jun 06 02:01	16° $\mathbb{L}$ 36'34	20°32'00	retrograde	13773 May 29 02:07	5° $\mathbb{L}$ 48'25	
asc. node	13772 Jun 07 13:07	17° $\mathbb{L}$ 59'33		evening set	13773 Jun 02 15:28	3° $\mathbb{L}$ 56'06	
retrograde	13772 Jun 14 03:51	21° $\mathbb{L}$ 15'33			13773 Jun 06 04:39	30° $\mathbb{R}$	
evening set	13772 Jun 18 06:23	19° $\mathbb{L}$ 39'40		inferior conj	13773 Jun 07 21:38	27° $\mathbb{L}$ 39'28	3°05'12
inferior conj	13772 Jun 23 12:37	13° $\mathbb{L}$ 33'38	3°11'57	minimum elong	13773 Jun 07 20:37	27° $\mathbb{L}$ 43'03	3°04'02
minimum elong	13772 Jun 23 12:32	13° $\mathbb{L}$ 33'58	3°10'54	min. Earth dist.	13773 Jun 08 00:31	27° $\mathbb{L}$ 29'25	0.68877 AU
min. Earth dist.	13772 Jun 24 04:52	12° $\mathbb{L}$ 37'46	0.68356 AU	morning rise	13773 Jun 13 01:33	21° $\mathbb{L}$ 24'24	
morning rise	13772 Jun 28 18:22	7° $\mathbb{L}$ 12'49		direct	13773 Jun 17 23:58	19° $\mathbb{L}$ 17'16	
direct	13772 Jul 04 05:23	4° $\mathbb{L}$ 48'34		desc. node	13773 Jun 27 11:28	24° $\mathbb{L}$ 45'18	
desc. node	13772 Jul 10 14:16	7° $\mathbb{L}$ 19'01		morning max el	13773 Jun 27 18:44	25° $\mathbb{L}$ 03'24	22°31'53
morning max el	13772 Jul 15 07:09	11° $\mathbb{L}$ 26'12	24°01'16		13773 Jul 02 05:36	0° $\mathbb{L}$	
	13772 Jul 30 03:13	0° $\mathbb{L}$			13773 Jul 23 13:56	0° $\mathbb{L}$	

morning set	13773 Jul 31 10:56	12°♊28'36			13774 Jun 26 18:54	0°♊		
max. Earth dist.	13773 Aug 05 08:07	20°♊34'44	1.40772 AU	morning set	13774 Jul 11 06:12	21°♊52'05		
	13773 Aug 10 19:01	0°♊		max. Earth dist.	13774 Jul 16 09:13	0°♊		
					13774 Jul 18 13:38	3°♊32'04	1.42891 AU	
superior conj	13773 Aug 13 04:18	4°♊15'02	-1°10'02	superior conj	13774 Jul 25 17:47	15°♊28'15	-1°42'31	
minimum elong	13773 Aug 13 09:35	4°♊38'50	1°09'47	minimum elong	13774 Jul 26 01:01	15°♊59'02	1°42'34	
asc. node	13773 Aug 21 10:36	19°♊30'15			13774 Aug 03 01:50	0°♊		
evening rise	13773 Aug 23 06:41	22°♊57'48		evening rise	13774 Aug 06 08:39	5°♊52'18		
	13773 Aug 27 01:02	0°♊		asc. node	13774 Aug 08 07:14	9°♊20'57		
evening max el	13773 Sep 08 05:23	18°♊34'05	18°21'43		13774 Aug 21 07:23	0°♊		
retrograde	13773 Sep 15 18:22	22°♊23'23		evening max el	13774 Aug 22 17:00	1°♊30'19	18°04'12	
evening set	13773 Sep 17 19:58	22°♊06'54		retrograde	13774 Aug 29 11:01	4°♊58'14		
desc. node	13773 Sep 23 08:06	19°♊09'02		evening set	13774 Aug 31 20:00	4°♊32'35		
inferior conj	13773 Sep 25 10:21	17°♊29'53	-0°39'40		13774 Sep 07 06:13	30°♊		
minimum elong	13773 Sep 25 08:52	17°♊32'55	0°38'52	inferior conj	13774 Sep 07 16:43	29°♊35'16	0°46'09	
min. Earth dist.	13773 Sep 28 17:09	14°♊50'22	0.58322 AU	minimum elong	13774 Sep 07 18:06	29°♊31'58	0°45'30	
morning rise	13773 Oct 02 18:19	12°♊07'55		desc. node	13774 Sep 10 05:39	27°♊11'10		
direct	13773 Oct 09 00:18	10°♊25'45		min. Earth dist.	13774 Sep 10 20:58	26°♊36'13	0.60575 AU	
morning max el	13773 Oct 23 07:48	18°♊03'40	27°17'27	morning rise	13774 Sep 14 13:11	23°♊43'18		
	13773 Nov 02 07:40	0°♊		direct	13774 Sep 21 03:20	21°♊35'15		
asc. node	13773 Nov 17 12:28	25°♊26'34		morning max el	13774 Oct 05 10:01	29°♊29'28	27°54'45	
	13773 Nov 19 19:26	0°♊			13774 Oct 05 22:14	0°♊		
morning set	13773 Nov 23 01:01	6°♊43'27			13774 Oct 27 07:36	0°♊		
				asc. node	13774 Nov 04 09:14	15°♊08'01		
superior conj	13773 Nov 29 22:39	21°♊53'54	1°33'03	morning set	13774 Nov 07 05:06	20°♊55'12		
minimum elong	13773 Nov 29 21:20	21°♊46'35	1°34'00		13774 Nov 11 10:52	0°♊		
max. Earth dist.	13773 Nov 29 20:13	21°♊40'18	1.31190 AU	max. Earth dist.	13774 Nov 13 03:48	3°♊45'19	1.31325 AU	
	13773 Dec 03 13:57	0°♊						
evening rise	13773 Dec 06 17:06	6°♊48'48		superior conj	13774 Nov 14 09:39	6°♊30'54	1°22'29	
	13773 Dec 18 17:13	0°♊		minimum elong	13774 Nov 14 07:39	6°♊19'45	1°23'11	
desc. node	13773 Dec 20 05:29	2°♊31'54		evening rise	13774 Nov 21 02:22	21°♊18'26		
evening max el	13774 Jan 05 14:18	24°♊00'56	26°46'01		13774 Nov 25 05:52	0°♊		
	13774 Jan 14 03:30	0°♊		desc. node	13774 Dec 07 02:31	21°♊02'58		
retrograde	13774 Jan 19 13:20	1°♊10'36			13774 Dec 13 17:14	0°♊		
	13774 Jan 24 20:26	30°♊		evening max el	13774 Dec 18 08:34	4°♊58'53	25°32'45	
evening set	13774 Jan 26 04:15	29°♊21'04		retrograde	13775 Jan 01 05:38	11°♊58'24		
min. Earth dist.	13774 Jan 30 04:15	26°♊43'03	0.59268 AU	evening set	13775 Jan 07 04:38	10°♊36'52		
inferior conj	13774 Feb 02 08:38	24°♊13'34	-3°28'40	min. Earth dist.	13775 Jan 11 20:57	7°♊57'58	0.57212 AU	
minimum elong	13774 Feb 02 16:09	23°♊58'49	3°25'21	inferior conj	13775 Jan 14 17:54	6°♊00'55	-4°48'39	
morning rise	13774 Feb 10 07:09	19°♊35'45		minimum elong	13775 Jan 15 02:46	5°♊45'51	4°45'29	
direct	13774 Feb 12 07:56	19°♊20'42		morning rise	13775 Jan 23 03:34	1°♊45'24		
asc. node	13774 Feb 13 10:55	19°♊25'28		direct	13775 Jan 25 06:40	1°♊31'42		
morning max el	13774 Feb 20 02:06	23°♊11'23	18°13'53	asc. node	13775 Jan 31 08:19	3°♊31'08		
	13774 Feb 25 11:39	0°♊		morning max el	13775 Feb 03 05:55	5°♊53'36	18°57'59	
morning set	13774 Mar 07 18:18	18°♊06'05			13775 Feb 18 11:19	0°♊		
	13774 Mar 14 02:33	0°♊		morning set	13775 Feb 19 16:57	2°♊25'12		
superior conj	13774 Mar 17 07:23	5°♊51'13	0°07'57	superior conj	13775 Feb 28 04:28	18°♊58'54	0°39'37	
minimum elong	13774 Mar 17 07:59	5°♊53'56	0°07'52	minimum elong	13775 Feb 28 06:47	19°♊09'59	0°39'33	
behind sun begin	13774 Mar 17 01:25	5°♊24'14		desc. node	13775 Mar 05 03:34	28°♊13'25		
behind sun end	13774 Mar 17 14:33	6°♊23'33			13775 Mar 06 03:10	0°♊		
desc. node	13774 Mar 18 07:05	7°♊37'48		max. Earth dist.	13775 Mar 07 04:49	1°♊54'46	1.39111 AU	
max. Earth dist.	13774 Mar 24 21:58	19°♊09'46	1.41341 AU	evening rise	13775 Mar 11 00:57	8°♊36'24		
evening rise	13774 Mar 29 16:11	27°♊03'30			13775 Mar 24 09:52	0°♊		
	13774 Mar 31 11:55	0°♊		evening max el	13775 Apr 15 04:02	28°♊09'33	24°25'12	
	13774 Apr 20 18:09	0°♊			13775 Apr 17 02:55	0°♊		
evening max el	13774 May 02 14:17	14°♊17'27	23°04'32	retrograde	13775 Apr 26 15:10	4°♊52'29		
asc. node	13774 May 12 07:30	20°♊20'59		asc. node	13775 Apr 29 04:50	4°♊23'19		
retrograde	13774 May 12 22:18	20°♊22'42		evening set	13775 May 02 03:30	2°♊32'56		
evening set	13774 May 17 23:03	18°♊15'29			13775 May 04 14:36	30°♊		
inferior conj	13774 May 23 07:18	11°♊50'30	2°48'00	min. Earth dist.	13775 May 06 17:06	27°♊18'52	0.68486 AU	
minimum elong	13774 May 23 05:33	11°♊56'32	2°46'42	inferior conj	13775 May 07 15:41	26°♊02'56	2°20'34	
min. Earth dist.	13774 May 22 21:18	12°♊25'08	0.68914 AU	minimum elong	13775 May 07 13:34	26°♊10'05	2°19'12	
morning rise	13774 May 28 11:59	5°♊42'33		morning rise	13775 May 12 23:47	20°♊03'08		
direct	13774 Jun 01 21:35	3°♊55'30		direct	13775 May 16 21:04	18°♊36'49		
morning max el	13774 Jun 10 10:52	8°♊50'44	21°08'08	morning max el	13775 May 24 09:51	22°♊49'14	19°55'42	
desc. node	13774 Jun 14 08:32	13°♊09'35						

	13775 May 30 12:49	0°♂			13776 May 23 10:44	0°♂	
desc. node	13775 Jun 01 05:28	2°♂15'59		morning set	13776 May 29 15:46	9°♂34'57	
	13775 Jun 19 23:57	0°♂			13776 Jun 11 18:50	0°♂	
morning set	13775 Jun 20 09:11	0°♂35'27		max. Earth dist.	13776 Jun 12 18:06	1°♂30'59	1.45567 AU
max. Earth dist.	13775 Jul 01 01:21	17°♂15'01	1.44544 AU				
				superior conj	13776 Jun 15 00:15	5°♂03'22	-2°13'31
superior conj	13775 Jul 06 07:27	25°♂40'40	-2°06'03	minimum elong	13776 Jun 14 23:21	4°♂59'49	2°14'33
minimum elong	13775 Jul 06 13:07	26°♂03'38	2°06'46	evening rise	13776 Jun 30 00:20	29°♂01'11	
	13775 Jul 08 23:05	0°♂			13776 Jun 30 14:50	0°♂	
evening rise	13775 Jul 19 16:07	17°♂56'49		asc. node	13776 Jul 12 00:42	18°♂13'18	
asc. node	13775 Jul 26 03:56	28°♂57'08		evening max el	13776 Jul 19 21:03	28°♂27'05	18°25'23
	13775 Jul 26 19:04	0°♂			13776 Jul 21 15:07	0°♂	
evening max el	13775 Aug 06 07:20	14°♂50'40	18°05'43	retrograde	13776 Jul 26 07:11	1°♂53'28	
retrograde	13775 Aug 12 16:41	18°♂11'05		evening set	13776 Jul 29 09:11	1°♂00'28	
evening set	13775 Aug 15 09:59	17°♂32'59			13776 Jul 30 20:19	30°♂♂	
inferior conj	13775 Aug 21 16:01	12°♂17'39	1°49'46	inferior conj	13776 Aug 04 04:14	25°♂29'00	2°32'59
minimum elong	13775 Aug 21 18:27	12°♂11'06	1°48'36	minimum elong	13776 Aug 04 06:30	25°♂22'14	2°31'48
min. Earth dist.	13775 Aug 24 10:26	9°♂20'33	0.62837 AU	min. Earth dist.	13776 Aug 06 09:12	22°♂52'25	0.64888 AU
morning rise	13775 Aug 28 00:47	6°♂06'14		morning rise	13776 Aug 10 02:33	19°♂07'39	
desc. node	13775 Aug 28 03:11	6°♂01'50		desc. node	13776 Aug 14 00:39	16°♂53'27	
direct	13775 Sep 03 16:56	3°♂38'16		direct	13776 Aug 16 15:08	16°♂29'05	
morning max el	13775 Sep 17 17:46	11°♂39'55	27°53'05	morning max el	13776 Aug 30 04:16	24°♂25'44	27°16'41
	13775 Oct 02 06:28	0°♂			13776 Sep 04 05:01	0°♂	
	13775 Oct 19 17:20	0°♂			13776 Sep 24 16:34	0°♂	
morning set	13775 Oct 22 02:33	4°♂45'11		morning set	13776 Oct 04 14:42	18°♂07'13	
asc. node	13775 Oct 22 05:56	5°♂02'20		asc. node	13776 Oct 08 02:33	25°♂04'57	
max. Earth dist.	13775 Oct 27 06:38	15°♂34'09	1.31997 AU	max. Earth dist.	13776 Oct 09 01:18	27°♂01'17	1.33214 AU
					13776 Oct 10 11:49	0°♂	
superior conj	13775 Oct 29 18:07	20°♂56'50	1°06'11				
minimum elong	13775 Oct 29 15:49	20°♂44'20	1°06'35	superior conj	13776 Oct 12 21:55	5°♂06'17	0°44'15
	13775 Nov 02 20:59	0°♂		minimum elong	13776 Oct 12 19:56	4°♂55'42	0°44'23
evening rise	13775 Nov 05 13:19	5°♂50'10		evening rise	13776 Oct 20 00:08	20°♂19'38	
	13775 Nov 18 02:58	0°♂			13776 Oct 24 16:26	0°♂	
desc. node	13775 Nov 23 23:39	8°♂35'55		desc. node	13776 Nov 09 20:53	24°♂49'46	
evening max el	13775 Nov 29 19:43	15°♂13'26	23°56'43	evening max el	13776 Nov 10 06:43	25°♂14'08	22°14'37
retrograde	13775 Dec 13 09:19	21°♂58'35			13776 Nov 16 17:26	0°♂	
evening set	13775 Dec 18 05:22	21°♂07'34		retrograde	13776 Nov 23 00:31	1°♂32'59	
min. Earth dist.	13775 Dec 24 06:53	18°♂09'09	0.55564 AU	evening set	13776 Nov 26 11:25	1°♂06'41	
inferior conj	13775 Dec 26 06:27	16°♂57'42	-5°45'13		13776 Nov 29 16:50	30°♂♂	
minimum elong	13775 Dec 26 11:45	16°♂49'43	5°43'36	min. Earth dist.	13776 Dec 04 13:20	27°♂30'30	0.54628 AU
morning rise	13776 Jan 03 19:58	13°♂01'14		inferior conj	13776 Dec 05 02:42	27°♂11'44	-5°54'01
direct	13776 Jan 06 09:38	12°♂44'29		minimum elong	13776 Dec 04 23:22	27°♂16'25	5°52'46
morning max el	13776 Jan 16 21:15	17°♂46'24	20°04'55	morning rise	13776 Dec 13 12:24	23°♂24'29	
asc. node	13776 Jan 18 05:37	19°♂09'02		direct	13776 Dec 16 21:41	22°♂58'50	
	13776 Jan 25 23:49	0°♂		morning max el	13776 Dec 28 21:57	28°♂44'00	21°34'20
morning set	13776 Feb 03 22:27	17°♂00'53			13776 Dec 30 04:25	0°♂	
	13776 Feb 10 06:55	0°♂		asc. node	13777 Jan 04 02:50	6°♂02'09	
					13777 Jan 17 11:59	0°♂	
superior conj	13776 Feb 11 15:37	2°♂44'31	1°04'24	morning set	13777 Jan 18 08:04	1°♂44'46	
minimum elong	13776 Feb 11 18:21	2°♂58'10	1°04'36				
max. Earth dist.	13776 Feb 17 11:21	14°♂04'15	1.36875 AU	superior conj	13777 Jan 25 12:53	16°♂56'22	1°22'11
desc. node	13776 Feb 20 00:06	18°♂46'18		minimum elong	13777 Jan 25 15:10	17°♂08'15	1°22'44
evening rise	13776 Feb 21 05:31	20°♂59'54		max. Earth dist.	13777 Jan 29 22:35	25°♂57'03	1.34861 AU
	13776 Feb 26 09:08	0°♂			13777 Jan 31 23:47	0°♂	
	13776 Mar 17 08:31	0°♂		evening rise	13777 Feb 03 02:29	4°♂03'49	
evening max el	13776 Mar 27 17:31	12°♂02'06	25°39'47	desc. node	13777 Feb 05 20:39	9°♂11'58	
retrograde	13776 Apr 09 03:36	19°♂11'40			13777 Feb 18 05:56	0°♂	
evening set	13776 Apr 15 03:12	16°♂43'31		evening max el	13777 Mar 10 07:21	25°♂48'31	26°40'54
asc. node	13776 Apr 15 02:12	16°♂45'35			13777 Mar 15 05:53	0°♂	
min. Earth dist.	13776 Apr 19 09:50	12°♂04'57	0.67613 AU	retrograde	13777 Mar 23 10:30	3°♂12'13	
inferior conj	13776 Apr 20 20:53	10°♂13'06	1°42'40	evening set	13777 Mar 29 20:17	0°♂40'13	
minimum elong	13776 Apr 20 18:50	10°♂19'39	1°41'25		13777 Mar 30 15:16	30°♂♂	
morning rise	13776 Apr 26 11:02	4°♂22'44		asc. node	13777 Apr 01 23:37	27°♂37'38	
direct	13776 Apr 29 20:54	3°♂16'02		min. Earth dist.	13777 Apr 02 21:16	26°♂36'04	0.66324 AU
morning max el	13776 May 06 16:18	6°♂57'29	18°58'10	inferior conj	13777 Apr 04 20:42	24°♂15'19	0°53'44
desc. node	13776 May 18 02:17	21°♂53'24		minimum elong	13777 Apr 04 19:22	24°♂19'17	0°52'55
greatest brilliancy	13776 May 20 00:07	24°♂45'17	-0.7m	morning rise	13777 Apr 10 19:35	18°♂36'10	

direct	13777 Apr 13 19:09	17° $\Upsilon$ 46'46		transit begin	13778 Mar 19 10:05	8° $\Upsilon$ 10'29	
morning max el	13777 Apr 20 05:01	21° $\Upsilon$ 09'53	18°17'04	transit end	13778 Mar 19 15:39	7° $\Upsilon$ 55'23	
	13777 Apr 27 05:46	0° $\mathcal{B}$		asc. node	13778 Mar 19 21:04	7° $\Upsilon$ 40'45	
desc. node	13777 May 04 22:59	11° $\mathcal{B}$ 52'59		morning rise	13778 Mar 25 22:54	2° $\Upsilon$ 37'58	
morning set	13777 May 09 20:51	19° $\mathcal{B}$ 42'38		direct	13778 Mar 28 13:25	2° $\Upsilon$ 02'48	
	13777 May 16 08:09	0° $\Pi$		morning max el	13778 Apr 03 21:42	5° $\Upsilon$ 19'40	17°53'01
					13778 Apr 20 12:46	0° $\mathcal{B}$	
superior conj	13777 May 25 08:06	14° $\Pi$ 08'40	-2°00'49	morning set	13778 Apr 21 06:15	1° $\mathcal{B}$ 12'51	
minimum elong	13777 May 25 00:21	13° $\Pi$ 38'24	2°01'18	desc. node	13778 Apr 21 19:37	2° $\mathcal{B}$ 08'30	
max. Earth dist.	13777 May 26 13:57	16° $\Pi$ 05'17	1.45861 AU				
	13777 Jun 04 12:09	0° $\mathcal{E}$		superior conj	13778 May 05 00:37	23° $\mathcal{B}$ 43'13	-1°30'59
evening rise	13777 Jun 10 08:08	9° $\mathcal{E}$ 05'49		minimum elong	13778 May 04 15:55	23° $\mathcal{B}$ 08'28	1°30'49
greatest brilliancy	13777 Jun 20 22:51	25° $\mathcal{E}$ 33'48	-0.8m		13778 May 08 23:42	0° $\Pi$	
	13777 Jun 23 21:40	0° $\Omega$		max. Earth dist.	13778 May 09 10:11	0° $\Pi$ 41'16	1.45403 AU
asc. node	13777 Jun 28 21:32	7° $\Omega$ 01'51		evening rise	13778 May 20 22:40	18° $\Pi$ 33'18	
evening max el	13777 Jul 03 07:28	12° $\Omega$ 12'03	19°02'19		13778 May 28 11:19	0° $\mathcal{E}$	
retrograde	13777 Jul 10 03:00	15° $\Omega$ 57'35		greatest brilliancy	13778 Jun 04 16:21	10° $\mathcal{E}$ 42'09	-0.6m
evening set	13777 Jul 13 14:08	14° $\Omega$ 48'08		asc. node	13778 Jun 15 18:28	25° $\mathcal{E}$ 13'26	
inferior conj	13777 Jul 19 01:45	9° $\Omega$ 02'03	2°59'02	evening max el	13778 Jun 16 12:38	26° $\mathcal{E}$ 00'15	19°55'11
minimum elong	13777 Jul 19 03:14	8° $\Omega$ 57'15	2°57'58		13778 Jun 22 06:36	0° $\Omega$	
min. Earth dist.	13777 Jul 20 16:10	6° $\Omega$ 59'14	0.66580 AU	retrograde	13778 Jun 24 01:29	0° $\Omega$ 17'02	
morning rise	13777 Jul 24 15:41	2° $\Omega$ 37'38			13778 Jun 25 18:58	30° $\mathcal{R}$ $\mathcal{E}$	
	13777 Jul 30 04:41	30° $\mathcal{R}$ $\mathcal{E}$		evening set	13778 Jun 27 22:13	28° $\mathcal{E}$ 50'36	
direct	13777 Jul 30 20:16	29° $\mathcal{E}$ 58'23		inferior conj	13778 Jul 03 05:36	22° $\mathcal{E}$ 51'12	3°10'49
desc. node	13777 Jul 31 22:04	0° $\Omega$ 02'40		minimum elong	13778 Jul 03 06:05	22° $\mathcal{E}$ 49'33	3°09'47
	13777 Jul 31 12:04	0° $\Omega$		min. Earth dist.	13778 Jul 04 05:40	21° $\mathcal{E}$ 30'00	0.67840 AU
morning max el	13777 Aug 12 15:20	7° $\Omega$ 35'42	26°13'20	morning rise	13778 Jul 08 13:35	16° $\mathcal{E}$ 28'13	
	13777 Aug 30 02:12	0° $\mathcal{M}$		direct	13778 Jul 14 07:24	13° $\mathcal{E}$ 56'47	
	13777 Sep 17 02:47	0° $\mathcal{L}$		desc. node	13778 Jul 18 19:26	15° $\mathcal{E}$ 12'10	
morning set	13777 Sep 17 14:17	0° $\mathcal{L}$ 53'24		morning max el	13778 Jul 26 01:54	21° $\mathcal{E}$ 00'02	24°52'10
max. Earth dist.	13777 Sep 21 10:13	8° $\mathcal{L}$ 10'48	1.34940 AU		13778 Aug 02 20:28	0° $\Omega$	
asc. node	13777 Sep 24 23:08	15° $\mathcal{L}$ 11'44			13778 Aug 23 07:12	0° $\mathcal{M}$	
				morning set	13778 Aug 30 21:11	12° $\mathcal{M}$ 53'14	
superior conj	13777 Sep 26 18:35	18° $\mathcal{L}$ 52'45	0°16'58	max. Earth dist.	13778 Sep 03 10:55	19° $\mathcal{M}$ 19'04	1.37077 AU
minimum elong	13777 Sep 26 17:39	18° $\mathcal{L}$ 47'55	0°17'01		13778 Sep 09 02:46	0° $\mathcal{L}$	
	13777 Oct 02 02:54	0° $\mathcal{M}$					
evening rise	13777 Oct 04 08:50	4° $\mathcal{M}$ 41'44		superior conj	13778 Sep 10 04:57	2° $\mathcal{L}$ 07'31	-0°14'57
	13777 Oct 18 09:10	0° $\mathcal{J}$		minimum elong	13778 Sep 10 05:55	2° $\mathcal{L}$ 12'17	0°14'50
evening max el	13777 Oct 23 02:54	5° $\mathcal{J}$ 37'57	20°42'59	behind sun begin	13778 Sep 10 03:18	1° $\mathcal{L}$ 59'28	
desc. node	13777 Oct 27 18:14	9° $\mathcal{J}$ 18'43		behind sun end	13778 Sep 10 08:32	2° $\mathcal{L}$ 25'07	
retrograde	13777 Nov 03 11:03	11° $\mathcal{J}$ 16'10		asc. node	13778 Sep 11 19:41	5° $\mathcal{L}$ 18'15	
evening set	13777 Nov 05 19:23	11° $\mathcal{J}$ 02'45		evening rise	13778 Sep 18 13:07	18° $\mathcal{L}$ 49'27	
inferior conj	13777 Nov 14 18:18	7° $\mathcal{J}$ 08'34	-5°02'52		13778 Sep 24 06:10	0° $\mathcal{M}$	
minimum elong	13777 Nov 14 08:37	7° $\mathcal{J}$ 22'28	4°59'41	evening max el	13778 Oct 05 13:06	16° $\mathcal{M}$ 46'19	19°30'59
min. Earth dist.	13777 Nov 15 19:32	6° $\mathcal{J}$ 32'22	0.54594 AU	desc. node	13778 Oct 14 15:40	21° $\mathcal{M}$ 36'10	
morning rise	13777 Nov 22 21:51	3° $\mathcal{J}$ 12'49		retrograde	13778 Oct 15 05:45	21° $\mathcal{M}$ 37'11	
direct	13777 Nov 27 05:52	2° $\mathcal{J}$ 32'35		evening set	13778 Oct 17 02:50	21° $\mathcal{M}$ 27'04	
morning max el	13777 Dec 10 11:01	8° $\mathcal{J}$ 57'36	23°20'04	inferior conj	13778 Oct 25 19:43	17° $\mathcal{M}$ 21'15	-3°27'04
asc. node	13777 Dec 21 23:57	23° $\mathcal{J}$ 53'43		minimum elong	13778 Oct 25 11:02	17° $\mathcal{M}$ 35'09	3°23'18
	13777 Dec 25 12:58	0° $\mathcal{Z}$		min. Earth dist.	13778 Oct 28 04:49	15° $\mathcal{M}$ 50'00	0.55478 AU
morning set	13778 Jan 02 19:43	16° $\mathcal{Z}$ 30'58		morning rise	13778 Nov 02 17:13	12° $\mathcal{M}$ 57'09	
	13778 Jan 09 01:17	0° $\approx$		direct	13778 Nov 07 22:01	11° $\mathcal{M}$ 56'36	
				morning max el	13778 Nov 21 20:45	18° $\mathcal{M}$ 55'52	25°07'53
superior conj	13778 Jan 09 17:12	1° $\approx$ 25'54	1°33'13		13778 Dec 01 03:05	0° $\mathcal{J}$	
minimum elong	13778 Jan 09 18:34	1° $\approx$ 33'15	1°34'05	asc. node	13778 Dec 08 20:59	12° $\mathcal{J}$ 28'42	
max. Earth dist.	13778 Jan 12 17:28	7° $\approx$ 51'14	1.33221 AU		13778 Dec 17 17:47	0° $\mathcal{Z}$	
evening rise	13778 Jan 17 12:20	17° $\approx$ 39'13		morning set	13778 Dec 18 07:30	1° $\mathcal{Z}$ 13'26	
desc. node	13778 Jan 23 17:19	29° $\approx$ 26'03					
	13778 Jan 24 00:50	0° $\mathcal{H}$		superior conj	13778 Dec 25 01:59	16° $\mathcal{Z}$ 05'06	1°37'54
	13778 Feb 12 13:46	0° $\Upsilon$		minimum elong	13778 Dec 25 02:15	16° $\mathcal{Z}$ 06'39	1°38'56
evening max el	13778 Feb 20 20:44	9° $\Upsilon$ 18'25	27°21'07	max. Earth dist.	13778 Dec 26 19:29	19° $\mathcal{Z}$ 53'00	1.32034 AU
retrograde	13778 Mar 06 11:01	16° $\Upsilon$ 45'58			13778 Dec 31 13:01	0° $\approx$	
evening set	13778 Mar 13 04:44	14° $\Upsilon$ 15'56		evening rise	13779 Jan 01 07:52	1° $\approx$ 37'35	
min. Earth dist.	13778 Mar 17 01:16	10° $\Upsilon$ 43'56	0.64659 AU	desc. node	13779 Jan 10 14:04	19° $\approx$ 22'23	
inferior conj	13778 Mar 19 12:40	8° $\Upsilon$ 03'28	-0°06'45		13779 Jan 16 22:45	0° $\mathcal{H}$	
minimum elong	13778 Mar 19 12:52	8° $\Upsilon$ 02'56	0°06'42	evening max el	13779 Feb 03 07:47	22° $\mathcal{H}$ 18'53	27°33'43
transit middle	13778 Mar 19 12:52	8° $\Upsilon$ 02'56	0°06'42	retrograde	13779 Feb 17 04:24	29° $\mathcal{H}$ 43'18	



evening set	13779 Feb 24 02:00	27° $\text{H}$ 22'33		evening max el	13780 Jan 16 14:13	4° $\text{H}$ 38'18	27°13'29
min. Earth dist.	13779 Feb 27 20:05	24° $\text{H}$ 18'14	0.62682 AU	retrograde	13780 Jan 30 13:37	11° $\text{H}$ 54'41	
inferior conj	13779 Mar 02 17:48	21° $\text{H}$ 29'51	-1°18'41	evening set	13780 Feb 06 08:59	9° $\text{H}$ 51'32	
minimum elong	13779 Mar 02 20:27	21° $\text{H}$ 23'26	1°17'20	min. Earth dist.	13780 Feb 10 04:44	7° $\text{H}$ 07'00	0.60518 AU
asc. node	13779 Mar 06 18:32	17° $\text{H}$ 57'58		inferior conj	13780 Feb 13 08:42	4° $\text{H}$ 25'41	-2°39'57
morning rise	13779 Mar 09 17:35	16° $\text{H}$ 20'50		minimum elong	13780 Feb 13 14:28	4° $\text{H}$ 13'22	2°37'11
direct	13779 Mar 12 00:37	15° $\text{H}$ 56'25			13780 Feb 19 19:05	30° $\text{R}$ $\approx$	
morning max el	13779 Mar 18 15:26	19° $\text{H}$ 18'18	17°46'28	morning rise	13780 Feb 20 23:08	29° $\approx$ 35'49	
	13779 Mar 26 13:23	0° $\text{Y}$		asc. node	13780 Feb 21 16:01	29° $\approx$ 26'08	
morning set	13779 Apr 03 16:15	13° $\text{Y}$ 52'54		direct	13780 Feb 23 00:59	29° $\approx$ 18'29	
desc. node	13779 Apr 08 16:12	22° $\text{Y}$ 34'55			13780 Feb 26 04:35	0° $\text{H}$	
	13779 Apr 13 00:30	0° $\text{B}$		morning max el	13780 Mar 01 06:50	2° $\text{H}$ 56'02	17°58'13
				morning set	13780 Mar 16 20:35	27° $\text{H}$ 23'42	
superior conj	13779 Apr 15 14:22	4° $\text{B}$ 19'05	-0°52'25		13780 Mar 18 06:38	0° $\text{Y}$	
minimum elong	13779 Apr 15 09:13	3° $\text{B}$ 57'36	0°52'10	desc. node	13780 Mar 25 12:44	13° $\text{Y}$ 07'41	
max. Earth dist.	13779 Apr 22 03:43	15° $\text{B}$ 01'02	1.44243 AU				
evening rise	13779 Apr 30 10:49	28° $\text{B}$ 03'00		superior conj	13780 Mar 27 04:08	16° $\text{Y}$ 01'14	-0°13'04
	13779 May 01 17:14	0° $\text{II}$		minimum elong	13780 Mar 27 03:00	15° $\text{Y}$ 56'17	0°13'03
	13779 May 22 07:19	0° $\text{E}$		behind sun begin	13780 Mar 26 22:20	15° $\text{Y}$ 35'46	
evening max el	13779 May 30 11:56	9° $\text{E}$ 49'39	21°01'43	behind sun end	13780 Mar 27 07:41	16° $\text{Y}$ 16'46	
asc. node	13779 Jun 02 15:32	12° $\text{E}$ 36'22		max. Earth dist.	13780 Apr 03 16:48	28° $\text{Y}$ 49'44	1.42517 AU
retrograde	13779 Jun 08 00:27	14° $\text{E}$ 46'50			13780 Apr 04 09:51	0° $\text{B}$	
evening set	13779 Jun 12 07:29	13° $\text{E}$ 03'44		evening rise	13780 Apr 09 11:16	8° $\text{B}$ 10'21	
inferior conj	13779 Jun 17 13:23	6° $\text{E}$ 52'41	3°10'25		13780 Apr 23 20:53	0° $\text{II}$	
minimum elong	13779 Jun 17 12:52	6° $\text{E}$ 54'27	3°09'20	evening max el	13780 May 12 06:05	23° $\text{II}$ 39'38	22°18'13
min. Earth dist.	13779 Jun 17 23:48	6° $\text{E}$ 16'27	0.68632 AU	asc. node	13780 May 19 12:43	28° $\text{II}$ 54'40	
morning rise	13779 Jun 22 18:01	0° $\text{E}$ 33'59		retrograde	13780 May 21 22:06	29° $\text{II}$ 20'43	
	13779 Jun 23 10:21	30° $\text{R}$ $\text{II}$		evening set	13780 May 26 16:07	27° $\text{II}$ 22'01	
direct	13779 Jun 27 23:36	28° $\text{II}$ 16'43		inferior conj	13780 May 31 22:55	21° $\text{II}$ 01'22	2°59'09
	13779 Jul 03 01:48	0° $\text{E}$		minimum elong	13780 May 31 21:34	21° $\text{II}$ 06'07	2°57'57
desc. node	13779 Jul 05 16:41	1° $\text{E}$ 55'56		min. Earth dist.	13780 May 31 20:19	21° $\text{II}$ 10'27	0.68947 AU
morning max el	13779 Jul 08 12:34	4° $\text{E}$ 33'31	23°23'04	morning rise	13780 Jun 06 02:50	14° $\text{II}$ 48'55	
	13779 Jul 28 02:03	0° $\text{Q}$		direct	13780 Jun 10 19:44	12° $\text{II}$ 50'01	
morning set	13779 Aug 12 06:58	23° $\text{Q}$ 57'02		morning max el	13780 Jun 20 01:40	18° $\text{II}$ 14'31	21°55'05
	13779 Aug 15 20:17	0° $\text{P}$		desc. node	13780 Jun 21 13:50	19° $\text{II}$ 48'52	
max. Earth dist.	13779 Aug 16 08:48	0° $\text{P}$ 54'12	1.39426 AU		13780 Jun 29 19:51	0° $\text{E}$	
					13780 Jul 20 04:36	0° $\text{Q}$	
superior conj	13779 Aug 24 01:19	14° $\text{P}$ 42'49	-0°49'47	morning set	13780 Jul 22 16:00	3° $\text{Q}$ 55'34	
minimum elong	13779 Aug 24 04:58	14° $\text{P}$ 59'46	0°49'32	max. Earth dist.	13780 Jul 28 10:02	13° $\text{Q}$ 17'46	1.41716 AU
asc. node	13779 Aug 29 16:15	25° $\text{P}$ 21'39					
	13779 Sep 01 01:54	0° $\text{A}$		superior conj	13780 Aug 05 03:17	26° $\text{Q}$ 28'24	-1°24'29
evening rise	13779 Sep 02 10:12	2° $\text{A}$ 36'16		minimum elong	13780 Aug 05 09:38	26° $\text{Q}$ 56'17	1°24'18
evening max el	13779 Sep 18 12:19	28° $\text{A}$ 43'10	18°40'54		13780 Aug 07 03:11	0° $\text{P}$	
	13779 Sep 19 21:47	0° $\text{M}$		evening rise	13780 Aug 15 20:22	15° $\text{P}$ 52'24	
retrograde	13779 Sep 26 17:31	2° $\text{M}$ 51'29		asc. node	13780 Aug 15 12:51	15° $\text{P}$ 17'47	
evening set	13779 Sep 28 15:37	2° $\text{M}$ 38'42			13780 Aug 23 17:07	0° $\text{A}$	
desc. node	13779 Oct 01 13:09	1° $\text{M}$ 35'26		evening max el	13780 Aug 31 20:40	11° $\text{A}$ 20'32	18°11'54
	13779 Oct 04 05:35	30° $\text{R}$ $\text{A}$		retrograde	13780 Sep 08 00:11	14° $\text{A}$ 58'41	
inferior conj	13779 Oct 06 16:42	28° $\text{A}$ 14'07	-1°38'10	evening set	13780 Sep 10 04:47	14° $\text{A}$ 38'46	
minimum elong	13779 Oct 06 12:41	28° $\text{A}$ 21'36	1°36'10	inferior conj	13780 Sep 17 11:26	9° $\text{A}$ 53'14	-0°00'36
min. Earth dist.	13779 Oct 09 19:56	25° $\text{A}$ 54'44	0.57132 AU	minimum elong	13780 Sep 17 11:24	9° $\text{A}$ 53'17	0°00'31
morning rise	13779 Oct 14 06:20	23° $\text{A}$ 12'32		transit middle	13780 Sep 17 11:24	9° $\text{A}$ 53'17	0°00'31
direct	13779 Oct 20 04:37	21° $\text{A}$ 45'57		transit begin	13780 Sep 17 07:59	10° $\text{A}$ 00'42	
morning max el	13779 Nov 03 10:57	29° $\text{A}$ 12'40	26°38'53	transit end	13780 Sep 17 14:49	9° $\text{A}$ 45'50	
	13779 Nov 04 06:12	0° $\text{M}$		desc. node	13780 Sep 17 10:40	9° $\text{A}$ 54'54	
	13779 Nov 24 21:36	0° $\text{J}$		min. Earth dist.	13780 Sep 20 18:32	7° $\text{A}$ 02'29	0.59265 AU
asc. node	13779 Nov 25 17:57	1° $\text{J}$ 35'59		morning rise	13780 Sep 24 14:38	4° $\text{A}$ 17'24	
morning set	13779 Dec 02 17:44	15° $\text{J}$ 47'28		direct	13780 Oct 01 01:06	2° $\text{A}$ 23'20	
	13779 Dec 09 04:33	0° $\text{B}$		morning max el	13780 Oct 15 08:38	10° $\text{A}$ 09'32	27°38'06
					13780 Oct 30 17:01	0° $\text{M}$	
superior conj	13779 Dec 09 13:07	0° $\text{B}$ 47'49	1°36'31	asc. node	13780 Nov 11 14:48	21° $\text{M}$ 06'45	
minimum elong	13779 Dec 09 12:20	0° $\text{B}$ 43'30	1°37'33		13780 Nov 15 23:01	0° $\text{J}$	
max. Earth dist.	13779 Dec 10 02:16	2° $\text{B}$ 01'10	1.31343 AU	morning set	13780 Nov 16 00:36	0° $\text{J}$ 08'18	
evening rise	13779 Dec 16 10:28	15° $\text{B}$ 52'29		max. Earth dist.	13780 Nov 22 10:32	14° $\text{J}$ 09'17	1.31174 AU
	13779 Dec 23 11:46	0° $\approx$					
desc. node	13779 Dec 28 10:54	8° $\approx$ 53'41		superior conj	13780 Nov 23 00:42	15° $\text{J}$ 28'19	1°29'17
	13780 Jan 12 04:19	0° $\text{H}$		minimum elong	13780 Nov 22 23:03	15° $\text{J}$ 19'08	1°30'08

evening rise	13780 Nov 29 17:52	0° $\text{Z}$ 18'11		evening rise	13781 Nov 14 04:03	14° $\text{Z}$ 49'03	
	13780 Nov 29 14:29	0° $\text{Z}$			13781 Nov 21 14:48	0° $\text{Z}$	
desc. node	13780 Dec 14 07:51	27° $\text{Z}$ 50'18		desc. node	13781 Dec 01 04:55	15° $\text{Z}$ 58'27	
	13780 Dec 15 16:58	0° $\approx$		evening max el	13781 Dec 10 04:37	26° $\text{Z}$ 45'04	24°53'58
evening max el	13780 Dec 28 13:39	16° $\approx$ 07'42	26°18'41		13781 Dec 14 01:54	0° $\approx$	
retrograde	13781 Jan 11 12:39	23° $\approx$ 13'18		retrograde	13781 Dec 23 23:14	3° $\approx$ 38'31	
evening set	13781 Jan 17 21:48	21° $\approx$ 35'23		evening set	13781 Dec 29 12:10	2° $\approx$ 30'14	
min. Earth dist.	13781 Jan 22 03:10	18° $\approx$ 58'46	0.58354 AU		13782 Jan 03 07:12	30° $\text{R}$ $\text{Z}$	
inferior conj	13781 Jan 25 05:44	16° $\approx$ 41'19	-4°04'03	min. Earth dist.	13782 Jan 03 16:31	29° $\text{Z}$ 45'32	0.56440 AU
minimum elong	13781 Jan 25 14:11	16° $\approx$ 25'40	4°00'35	inferior conj	13782 Jan 06 06:03	28° $\text{Z}$ 06'55	-5°16'57
morning rise	13781 Feb 02 09:34	12° $\approx$ 12'43		minimum elong	13782 Jan 06 14:09	27° $\text{Z}$ 53'53	5°14'22
direct	13781 Feb 04 10:22	11° $\approx$ 58'47		morning rise	13782 Jan 14 18:21	23° $\text{Z}$ 59'59	
asc. node	13781 Feb 07 13:27	12° $\approx$ 33'34		direct	13782 Jan 17 01:00	23° $\text{Z}$ 45'28	
morning max el	13781 Feb 12 16:02	16° $\approx$ 02'02	18°29'53	asc. node	13782 Jan 25 10:49	27° $\text{Z}$ 19'38	
	13781 Feb 22 10:14	0° $\text{H}$		morning max el	13782 Jan 26 14:51	28° $\text{Z}$ 23'32	19°23'35
morning set	13781 Feb 28 13:52	11° $\text{H}$ 29'31			13782 Jan 28 03:49	0° $\approx$	
				morning set	13782 Feb 12 15:49	25° $\approx$ 56'47	
superior conj	13781 Mar 09 15:07	28° $\text{H}$ 41'34	0°22'10		13782 Feb 14 16:21	0° $\text{H}$	
minimum elong	13781 Mar 09 16:38	28° $\text{H}$ 48'36	0°22'02				
	13781 Mar 10 08:08	0° $\text{Y}$		superior conj	13782 Feb 20 18:41	12° $\text{H}$ 06'26	0°50'59
desc. node	13781 Mar 12 09:14	3° $\text{Y}$ 43'31		minimum elong	13782 Feb 20 21:19	12° $\text{H}$ 19'15	0°51'00
max. Earth dist.	13781 Mar 17 01:41	11° $\text{Y}$ 59'52	1.40413 AU	desc. node	13782 Feb 27 05:44	24° $\text{H}$ 18'09	
evening rise	13781 Mar 21 07:56	19° $\text{Y}$ 12'35		max. Earth dist.	13782 Feb 27 08:15	24° $\text{H}$ 29'37	1.38152 AU
	13781 Mar 28 00:41	0° $\text{B}$			13782 Mar 02 10:01	0° $\text{Y}$	
	13781 Apr 18 04:43	0° $\text{II}$		evening rise	13782 Mar 03 01:28	1° $\text{Y}$ 07'46	
evening max el	13781 Apr 24 21:02	7° $\text{II}$ 31'42	23°39'07		13782 Mar 21 06:25	0° $\text{B}$	
retrograde	13781 May 05 16:55	13° $\text{II}$ 53'38		evening max el	13782 Apr 07 10:39	21° $\text{B}$ 24'50	24°58'01
asc. node	13781 May 06 09:59	13° $\text{II}$ 51'22		retrograde	13782 Apr 19 07:52	28° $\text{B}$ 19'42	
evening set	13781 May 10 22:33	11° $\text{II}$ 41'04		asc. node	13782 Apr 23 07:20	27° $\text{B}$ 11'29	
min. Earth dist.	13781 May 15 17:01	6° $\text{II}$ 06'02	0.68796 AU	evening set	13782 Apr 25 01:10	25° $\text{B}$ 56'00	
inferior conj	13781 May 16 08:18	5° $\text{II}$ 13'39	2°37'36	min. Earth dist.	13782 Apr 29 11:41	20° $\text{B}$ 57'17	0.68179 AU
minimum elong	13781 May 16 06:21	5° $\text{II}$ 20'20	2°36'17	inferior conj	13782 Apr 30 15:34	19° $\text{B}$ 25'27	2°05'48
	13781 May 20 14:46	30° $\text{R}$ $\text{B}$		minimum elong	13782 Apr 30 13:24	19° $\text{B}$ 32'34	2°04'28
morning rise	13781 May 21 14:06	29° $\text{B}$ 08'50		morning rise	13782 May 06 01:55	13° $\text{B}$ 29'37	
direct	13781 May 25 18:28	27° $\text{B}$ 30'24		direct	13782 May 09 18:20	12° $\text{B}$ 11'43	
	13781 May 31 12:11	0° $\text{II}$		morning max el	13782 May 16 22:34	16° $\text{B}$ 08'52	19°29'15
morning max el	13781 Jun 02 20:22	2° $\text{II}$ 05'54	20°35'32	desc. node	13782 May 26 07:44	27° $\text{B}$ 53'06	
desc. node	13781 Jun 08 10:51	8° $\text{II}$ 32'29			13782 May 27 19:09	0° $\text{II}$	
	13781 Jun 23 14:37	0° $\text{E}$		greatest brilliancy	13782 May 29 13:55	2° $\text{II}$ 35'57	-0.7m
morning set	13781 Jul 02 02:26	12° $\text{E}$ 56'06		morning set	13782 Jun 11 04:16	21° $\text{II}$ 39'05	
max. Earth dist.	13781 Jul 10 18:10	26° $\text{E}$ 35'22	1.43673 AU		13782 Jun 16 14:01	0° $\text{E}$	
	13781 Jul 12 20:47	0° $\Omega$		max. Earth dist.	13782 Jun 23 08:54	10° $\text{E}$ 36'36	1.45072 AU
superior conj	13781 Jul 17 06:46	7° $\Omega$ 15'43	-1°54'01	superior conj	13782 Jun 27 10:42	17° $\text{E}$ 04'26	-2°11'33
minimum elong	13781 Jul 17 13:55	7° $\Omega$ 45'32	1°54'20	minimum elong	13782 Jun 27 14:06	17° $\text{E}$ 17'57	2°12'29
evening rise	13781 Jul 29 15:01	28° $\Omega$ 26'30			13782 Jul 05 10:28	0° $\Omega$	
	13781 Jul 30 12:20	0° $\text{H}$		evening rise	13782 Jul 11 13:05	10° $\Omega$ 06'41	
asc. node	13781 Aug 02 09:29	5° $\text{H}$ 02'30		asc. node	13782 Jul 20 06:11	24° $\Omega$ 30'56	
evening max el	13781 Aug 15 09:55	24° $\text{H}$ 28'03	18°02'36		13782 Jul 23 18:55	0° $\text{H}$	
retrograde	13781 Aug 21 22:48	27° $\text{H}$ 50'42		evening max el	13782 Jul 30 00:21	7° $\text{H}$ 56'17	18°11'52
evening set	13781 Aug 24 11:25	27° $\text{H}$ 19'58		retrograde	13782 Aug 05 08:51	11° $\text{H}$ 17'37	
inferior conj	13781 Aug 31 01:26	22° $\text{H}$ 14'38	1°15'49	evening set	13782 Aug 08 05:51	10° $\text{H}$ 33'19	
minimum elong	13781 Aug 31 03:28	22° $\text{H}$ 09'34	1°14'52	inferior conj	13782 Aug 14 06:44	5° $\text{H}$ 10'34	2°10'24
min. Earth dist.	13781 Sep 03 02:08	19° $\text{H}$ 14'06	0.61559 AU	minimum elong	13782 Aug 14 09:13	5° $\text{H}$ 03'36	2°09'12
desc. node	13781 Sep 04 08:11	18° $\text{H}$ 05'06		min. Earth dist.	13782 Aug 16 19:33	2° $\text{H}$ 20'32	0.63746 AU
morning rise	13781 Sep 06 16:54	16° $\text{H}$ 13'28			13782 Aug 19 03:31	30° $\text{R}$ $\Omega$	
direct	13781 Sep 13 08:49	13° $\text{H}$ 55'58		morning rise	13782 Aug 20 10:51	28° $\Omega$ 53'55	
morning max el	13781 Sep 27 13:14	21° $\text{H}$ 53'44	27°58'41	desc. node	13782 Aug 22 05:41	27° $\Omega$ 41'50	
	13781 Oct 04 15:57	0° $\text{L}$		direct	13782 Aug 27 01:58	26° $\Omega$ 20'37	
	13781 Oct 23 20:15	0° $\text{M}$			13782 Sep 05 00:09	0° $\text{H}$	
asc. node	13781 Oct 29 11:31	10° $\text{M}$ 53'56		morning max el	13782 Sep 09 22:37	4° $\text{H}$ 21'10	27°41'33
morning set	13781 Oct 31 02:04	14° $\text{M}$ 10'42			13782 Sep 29 06:43	0° $\text{L}$	
max. Earth dist.	13781 Nov 05 16:33	26° $\text{M}$ 08'03	1.31544 AU	morning set	13782 Oct 14 19:54	27° $\text{L}$ 49'38	
					13782 Oct 15 21:51	0° $\text{M}$	
superior conj	13781 Nov 07 10:49	0° $\text{Z}$ 00'47	1°16'17	asc. node	13782 Oct 16 08:10	0° $\text{M}$ 52'23	
minimum elong	13781 Nov 07 08:38	29° $\text{M}$ 48'42	1°16'50	max. Earth dist.	13782 Oct 19 16:34	7° $\text{M}$ 49'34	1.32453 AU
	13781 Nov 07 10:40	0° $\text{Z}$					

superior conj	13782 Oct 22 17:33	14° $\mathbb{M}$ 20'16	0°57'34	superior conj	13783 Oct 06 18:36	28° $\mathbb{A}$ 20'13	0°33'17
minimum elong	13782 Oct 22 15:18	14° $\mathbb{M}$ 08'08	0°57'50	minimum elong	13783 Oct 06 16:57	28° $\mathbb{A}$ 11'36	0°33'22
evening rise	13782 Oct 29 15:10	29° $\mathbb{M}$ 20'36		evening rise	13783 Oct 07 13:35	0° $\mathbb{M}$	
	13782 Oct 29 22:32	0° $\mathbb{A}$			13783 Oct 14 01:19	13° $\mathbb{M}$ 47'06	
	13782 Nov 15 17:00	0° $\mathbb{B}$			13783 Oct 22 05:20	0° $\mathbb{A}$	
desc. node	13782 Nov 18 02:05	3° $\mathbb{B}$ 00'27		evening max el	13783 Nov 03 04:03	16° $\mathbb{A}$ 53'34	21°33'34
evening max el	13782 Nov 21 14:23	6° $\mathbb{B}$ 48'14	23°12'52	desc. node	13783 Nov 04 23:21	18° $\mathbb{A}$ 32'38	
retrograde	13782 Dec 04 21:02	13° $\mathbb{B}$ 24'10		retrograde	13783 Nov 15 09:22	22° $\mathbb{A}$ 57'23	
evening set	13782 Dec 09 03:26	12° $\mathbb{B}$ 44'36		evening set	13783 Nov 18 07:04	22° $\mathbb{A}$ 38'08	
min. Earth dist.	13782 Dec 16 00:04	9° $\mathbb{B}$ 32'24	0.55067 AU	inferior conj	13783 Nov 27 03:00	18° $\mathbb{A}$ 44'49	-5°39'25
inferior conj	13782 Dec 17 10:34	8° $\mathbb{B}$ 42'36	-5°56'01	minimum elong	13783 Nov 26 20:10	18° $\mathbb{A}$ 54'24	5°37'27
minimum elong	13782 Dec 17 12:32	8° $\mathbb{B}$ 39'44	5°54'54	min. Earth dist.	13783 Nov 27 06:07	18° $\mathbb{A}$ 40'27	0.54492 AU
morning rise	13782 Dec 25 23:14	4° $\mathbb{B}$ 52'12		morning rise	13783 Dec 05 10:03	14° $\mathbb{A}$ 56'23	
direct	13782 Dec 28 20:31	4° $\mathbb{B}$ 32'24		direct	13783 Dec 09 04:39	14° $\mathbb{A}$ 25'25	
morning max el	13783 Jan 08 23:56	9° $\mathbb{B}$ 52'02	20°40'29	morning max el	13783 Dec 21 19:03	20° $\mathbb{A}$ 28'31	22°18'08
asc. node	13783 Jan 12 08:05	13° $\mathbb{B}$ 31'04			13783 Dec 29 15:39	0° $\mathbb{B}$	
	13783 Jan 22 16:00	0° $\approx$		asc. node	13783 Dec 30 05:16	0° $\mathbb{B}$ 50'36	
morning set	13783 Jan 27 23:20	10° $\approx$ 36'20		morning set	13784 Jan 12 10:01	25° $\mathbb{B}$ 21'29	
					13784 Jan 14 14:21	0° $\approx$	
superior conj	13783 Feb 04 10:33	26° $\approx$ 04'00	1°12'47	superior conj	13784 Jan 19 11:09	10° $\approx$ 24'17	1°27'39
minimum elong	13783 Feb 04 13:10	26° $\approx$ 17'20	1°13'08	minimum elong	13784 Jan 19 13:05	10° $\approx$ 34'30	1°28'22
	13783 Feb 06 09:14	0° $\mathbb{H}$		max. Earth dist.	13784 Jan 23 06:19	18° $\approx$ 19'24	1.34101 AU
max. Earth dist.	13783 Feb 09 16:21	6° $\mathbb{H}$ 29'29	1.35979 AU	evening rise	13784 Jan 27 16:10	27° $\approx$ 06'40	
evening rise	13783 Feb 13 13:21	13° $\mathbb{H}$ 48'39			13784 Jan 29 04:22	0° $\mathbb{H}$	
desc. node	13783 Feb 14 02:17	14° $\mathbb{H}$ 48'01		desc. node	13784 Jan 31 22:53	5° $\mathbb{H}$ 09'13	
	13783 Feb 22 20:53	0° $\mathbb{Y}$			13784 Feb 16 04:27	0° $\mathbb{Y}$	
	13783 Mar 16 02:38	0° $\mathbb{B}$		evening max el	13784 Mar 02 13:43	18° $\mathbb{Y}$ 55'01	27°01'02
evening max el	13783 Mar 21 00:07	5° $\mathbb{B}$ 14'50	26°07'47	retrograde	13784 Mar 15 22:34	26° $\mathbb{Y}$ 22'31	
retrograde	13783 Apr 02 18:00	12° $\mathbb{B}$ 31'55		evening set	13784 Mar 22 12:03	23° $\mathbb{Y}$ 50'19	
evening set	13783 Apr 08 22:17	10° $\mathbb{B}$ 01'08		min. Earth dist.	13784 Mar 26 10:49	20° $\mathbb{Y}$ 00'18	0.65649 AU
asc. node	13783 Apr 10 04:43	8° $\mathbb{B}$ 52'13		asc. node	13784 Mar 27 02:09	19° $\mathbb{Y}$ 17'00	
min. Earth dist.	13783 Apr 13 02:16	5° $\mathbb{B}$ 37'45	0.67117 AU	inferior conj	13784 Mar 28 15:33	17° $\mathbb{Y}$ 29'33	0°29'33
inferior conj	13783 Apr 14 18:43	3° $\mathbb{B}$ 32'22	1°23'19	minimum elong	13784 Mar 28 14:45	17° $\mathbb{Y}$ 31'49	0°29'02
minimum elong	13783 Apr 14 16:53	3° $\mathbb{B}$ 38'04	1°22'12	morning rise	13784 Apr 03 18:57	11° $\mathbb{Y}$ 56'05	
	13783 Apr 17 19:55	30° $\mathbb{R}$ $\mathbb{Y}$		direct	13784 Apr 06 14:24	11° $\mathbb{Y}$ 13'18	
morning rise	13783 Apr 20 12:17	27° $\mathbb{Y}$ 46'50		morning max el	13784 Apr 12 22:48	14° $\mathbb{Y}$ 32'39	18°04'48
direct	13783 Apr 23 17:37	26° $\mathbb{Y}$ 47'55			13784 Apr 24 04:58	0° $\mathbb{B}$	
	13783 Apr 29 23:41	0° $\mathbb{B}$		desc. node	13784 Apr 29 01:13	7° $\mathbb{B}$ 47'55	
morning max el	13783 Apr 30 08:00	0° $\mathbb{B}$ 19'52	18°38'40	morning set	13784 May 01 12:03	11° $\mathbb{B}$ 46'46	
desc. node	13783 May 13 04:31	17° $\mathbb{B}$ 40'39			13784 May 12 20:15	0° $\mathbb{H}$	
	13783 May 21 02:38	0° $\mathbb{H}$		superior conj	13784 May 16 07:20	5° $\mathbb{H}$ 27'47	-1°49'50
morning set	13783 May 21 18:49	1° $\mathbb{H}$ 03'20		minimum elong	13784 May 15 22:23	4° $\mathbb{H}$ 52'34	1°50'00
max. Earth dist.	13783 Jun 06 03:29	25° $\mathbb{H}$ 03'06	1.45783 AU	max. Earth dist.	13784 May 18 23:21	9° $\mathbb{H}$ 38'42	1.45751 AU
superior conj	13783 Jun 06 21:41	26° $\mathbb{H}$ 14'10	-2°10'35	evening rise	13784 Jun 01 09:53	0° $\mathbb{B}$ 30'09	
minimum elong	13783 Jun 06 17:26	25° $\mathbb{H}$ 57'34	2°11'29		13784 Jun 01 02:04	0° $\mathbb{B}$	
	13783 Jun 09 07:27	0° $\mathbb{B}$		greatest brilliancy	13784 Jun 14 01:21	19° $\mathbb{B}$ 48'59	-0.7m
evening rise	13783 Jun 22 10:45	20° $\mathbb{B}$ 44'54			13784 Jun 21 06:14	0° $\mathbb{B}$	
	13783 Jun 28 06:09	0° $\mathbb{B}$		asc. node	13784 Jun 22 23:52	2° $\mathbb{B}$ 10'59	
greatest brilliancy	13783 Jun 29 19:56	2° $\mathbb{B}$ 29'30	-0.9m	evening max el	13784 Jun 25 21:15	5° $\mathbb{B}$ 23'56	19°22'54
asc. node	13783 Jul 07 02:58	13° $\mathbb{B}$ 36'18		retrograde	13784 Jul 02 23:25	9° $\mathbb{B}$ 21'39	
evening max el	13783 Jul 13 12:52	21° $\mathbb{B}$ 36'38	18°38'58	evening set	13784 Jul 06 14:27	8° $\mathbb{B}$ 05'13	
retrograde	13783 Jul 20 02:07	25° $\mathbb{B}$ 10'00		inferior conj	13784 Jul 11 23:55	2° $\mathbb{B}$ 13'25	3°05'38
evening set	13783 Jul 23 07:52	24° $\mathbb{B}$ 10'13		minimum elong	13784 Jul 12 01:00	2° $\mathbb{B}$ 09'52	3°04'34
inferior conj	13783 Jul 28 23:19	18° $\mathbb{B}$ 32'10	2°45'58	min. Earth dist.	13784 Jul 13 08:16	0° $\mathbb{B}$ 27'17	0.67176 AU
minimum elong	13783 Jul 29 01:19	18° $\mathbb{B}$ 26'01	2°44'49		13784 Jul 13 16:43	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	13783 Jul 30 22:06	16° $\mathbb{B}$ 08'39	0.65654 AU	morning rise	13784 Jul 17 11:00	25° $\mathbb{B}$ 48'56	
morning rise	13783 Aug 03 17:46	12° $\mathbb{B}$ 08'31		direct	13784 Jul 23 11:18	23° $\mathbb{B}$ 11'48	
desc. node	13783 Aug 09 03:10	9° $\mathbb{B}$ 32'18		desc. node	13784 Jul 26 00:34	23° $\mathbb{B}$ 36'06	
direct	13783 Aug 10 03:13	9° $\mathbb{B}$ 28'37			13784 Aug 04 05:56	0° $\mathbb{B}$	
morning max el	13783 Aug 23 09:50	17° $\mathbb{B}$ 19'32	26°52'31	morning max el	13784 Aug 04 20:45	0° $\mathbb{B}$ 37'02	25°40'14
	13783 Sep 03 00:00	0° $\mathbb{H}$			13784 Aug 26 22:50	0° $\mathbb{H}$	
	13783 Sep 22 04:24	0° $\mathbb{A}$		morning set	13784 Sep 09 20:12	23° $\mathbb{H}$ 25'26	
morning set	13783 Sep 28 03:08	10° $\mathbb{A}$ 57'22			13784 Sep 13 09:10	0° $\mathbb{A}$	
max. Earth dist.	13783 Oct 02 07:11	19° $\mathbb{A}$ 08'04	1.33890 AU	max. Earth dist.	13784 Sep 13 11:46	0° $\mathbb{A}$ 12'19	1.35811 AU
asc. node	13783 Oct 03 04:45	20° $\mathbb{A}$ 57'00					

superior conj	13784 Sep 19 11:19	11° $\Omega$ 54'14	0°03'55	morning set	13785 Aug 22 18:43	5° $\Pi$ 03'12	
minimum elong	13784 Sep 19 11:05	11° $\Omega$ 53'03	0°03'59	max. Earth dist.	13785 Aug 26 10:20	11° $\Pi$ 28'22	1.38071 AU
behind sun begin	13784 Sep 19 05:02	11° $\Omega$ 22'40					
behind sun end	13784 Sep 19 17:07	12° $\Omega$ 23'31		superior conj	13785 Sep 02 16:19	24° $\Pi$ 54'22	-0°29'30
asc. node	13784 Sep 19 01:19	11° $\Omega$ 04'06		minimum elong	13785 Sep 02 18:22	25° $\Pi$ 04'07	0°29'19
evening rise	13784 Sep 27 08:26	28° $\Omega$ 03'36			13785 Sep 05 07:32	0° $\Omega$	
	13784 Sep 28 07:11	0° $\Pi$		asc. node	13785 Sep 05 21:54	1° $\Omega$ 10'16	
evening max el	13784 Oct 15 06:06	27° $\Pi$ 35'11	20°09'41	evening rise	13785 Sep 11 10:05	12° $\Omega$ 03'57	
	13784 Oct 18 00:45	0° $\Sigma$			13785 Sep 21 02:14	0° $\Pi$	
desc. node	13784 Oct 21 20:44	2° $\Sigma$ 08'10		evening max el	13785 Sep 27 22:23	9° $\Pi$ 05'52	19°06'59
retrograde	13784 Oct 25 21:35	2° $\Sigma$ 52'59		retrograde	13785 Oct 06 22:38	13° $\Pi$ 36'54	
evening set	13784 Oct 27 23:04	2° $\Sigma$ 41'59		evening set	13785 Oct 08 19:19	13° $\Pi$ 26'08	
	13784 Nov 03 17:29	30° $\Sigma$ $\Pi$		desc. node	13785 Oct 08 18:11	13° $\Pi$ 26'40	
inferior conj	13784 Nov 05 21:09	28° $\Pi$ 44'36	-4°25'50	inferior conj	13785 Oct 17 06:13	9° $\Pi$ 12'58	-2°40'37
minimum elong	13784 Nov 05 11:05	28° $\Pi$ 59'36	4°22'03	minimum elong	13785 Oct 16 23:24	9° $\Pi$ 24'35	2°37'27
min. Earth dist.	13784 Nov 07 13:38	27° $\Pi$ 44'15	0.54862 AU	min. Earth dist.	13785 Oct 20 00:59	7° $\Pi$ 19'52	0.56110 AU
morning rise	13784 Nov 13 22:07	24° $\Pi$ 38'23		morning rise	13785 Oct 25 00:46	4° $\Pi$ 33'38	
direct	13784 Nov 18 15:25	23° $\Pi$ 50'00		direct	13785 Oct 30 13:52	3° $\Pi$ 22'22	
	13784 Dec 01 16:06	0° $\Sigma$		morning max el	13785 Nov 13 16:17	10° $\Pi$ 33'34	25°49'40
morning max el	13784 Dec 02 05:32	0° $\Sigma$ 31'12	24°06'48		13785 Nov 28 11:09	0° $\Sigma$	
asc. node	13784 Dec 16 02:22	19° $\Sigma$ 02'11		asc. node	13785 Dec 02 23:23	7° $\Sigma$ 52'42	
	13784 Dec 22 00:45	0° $\Sigma$		morning set	13785 Dec 11 09:16	24° $\Sigma$ 46'07	
morning set	13784 Dec 26 21:54	10° $\Sigma$ 06'15			13785 Dec 13 18:58	0° $\Sigma$	
superior conj	13785 Jan 02 17:38	24° $\Sigma$ 58'36	1°35'57	superior conj	13785 Dec 18 03:40	9° $\Sigma$ 40'22	1°38'02
minimum elong	13785 Jan 02 18:32	25° $\Sigma$ 03'34	1°36'56	minimum elong	13785 Dec 18 03:30	9° $\Sigma$ 39'22	1°39'05
max. Earth dist.	13785 Jan 05 04:11	0° $\approx$ 15'20	1.32650 AU	max. Earth dist.	13785 Dec 19 08:48	12° $\Sigma$ 21'43	1.31681 AU
	13785 Jan 05 01:20	0° $\approx$		evening rise	13785 Dec 25 05:23	24° $\Sigma$ 59'39	
evening rise	13785 Jan 10 06:29	10° $\approx$ 52'45			13785 Dec 27 16:01	0° $\approx$	
desc. node	13785 Jan 17 19:33	25° $\approx$ 16'23		desc. node	13786 Jan 04 16:21	15° $\approx$ 03'27	
	13785 Jan 20 12:09	0° $\text{H}$			13786 Jan 14 01:56	0° $\text{H}$	
	13785 Feb 10 21:05	0° $\Upsilon$		evening max el	13786 Jan 26 12:07	14° $\text{H}$ 59'39	27°29'27
evening max el	13785 Feb 13 02:27	2° $\Upsilon$ 14'15	27°30'25	retrograde	13786 Feb 09 10:10	22° $\text{H}$ 20'12	
retrograde	13785 Feb 26 20:21	9° $\Upsilon$ 41'35		evening set	13786 Feb 16 07:39	20° $\text{H}$ 06'17	
evening set	13785 Mar 05 16:05	7° $\Upsilon$ 14'47		min. Earth dist.	13786 Feb 20 01:57	17° $\text{H}$ 11'22	0.61776 AU
min. Earth dist.	13785 Mar 09 11:18	3° $\Upsilon$ 55'00	0.63838 AU	inferior conj	13786 Feb 23 02:51	14° $\text{H}$ 24'23	-1°52'16
inferior conj	13785 Mar 12 03:19	1° $\Upsilon$ 09'33	-0°35'55	minimum elong	13786 Feb 23 06:46	14° $\text{H}$ 15'21	1°50'17
minimum elong	13785 Mar 12 04:26	1° $\Upsilon$ 06'38	0°35'22	asc. node	13786 Feb 28 21:08	9° $\text{H}$ 59'42	
	13785 Mar 13 06:30	30° $\text{R}$ $\text{H}$		morning rise	13786 Mar 02 08:47	9° $\text{H}$ 22'50	
asc. node	13785 Mar 13 23:39	29° $\text{H}$ 17'51		direct	13786 Mar 04 13:21	9° $\text{H}$ 01'46	
morning rise	13785 Mar 18 19:03	25° $\text{H}$ 50'30		morning max el	13786 Mar 11 09:22	12° $\text{H}$ 29'00	17°49'07
direct	13785 Mar 21 06:04	25° $\text{H}$ 20'24			13786 Mar 23 06:10	0° $\Upsilon$	
morning max el	13785 Mar 27 16:17	28° $\text{H}$ 38'29	17°48'04	morning set	13786 Mar 27 03:09	6° $\Upsilon$ 52'45	
	13785 Mar 28 23:19	0° $\Upsilon$		desc. node	13786 Apr 02 18:23	18° $\Upsilon$ 38'05	
morning set	13785 Apr 13 08:38	23° $\Upsilon$ 48'52					
desc. node	13785 Apr 15 21:49	28° $\Upsilon$ 08'29		superior conj	13786 Apr 07 07:51	26° $\Upsilon$ 29'36	-0°35'27
	13785 Apr 17 00:13	0° $\text{B}$		minimum elong	13786 Apr 07 04:30	26° $\Upsilon$ 15'23	0°35'17
					13786 Apr 09 09:45	0° $\text{B}$	
superior conj	13785 Apr 26 07:54	15° $\text{B}$ 25'50	-1°15'12	max. Earth dist.	13786 Apr 14 10:37	8° $\text{B}$ 18'03	1.43573 AU
minimum elong	13785 Apr 26 00:24	14° $\text{B}$ 55'26	1°14'54	evening rise	13786 Apr 21 13:10	19° $\text{B}$ 35'27	
max. Earth dist.	13785 May 01 18:27	24° $\text{B}$ 08'41	1.44988 AU		13786 Apr 28 08:26	0° $\text{II}$	
	13785 May 05 11:49	0° $\text{II}$			13786 May 20 01:18	0° $\text{B}$	
evening rise	13785 May 11 21:18	9° $\text{II}$ 53'11		evening max el	13786 May 22 21:04	3° $\text{B}$ 03'08	21°33'22
	13785 May 25 07:05	0° $\text{B}$		asc. node	13786 May 27 18:00	7° $\text{B}$ 01'24	
evening max el	13785 Jun 09 00:03	19° $\text{B}$ 13'27	20°22'02	retrograde	13786 May 31 20:45	8° $\text{B}$ 18'21	
asc. node	13785 Jun 09 20:52	20° $\text{B}$ 03'52		evening set	13786 Jun 05 08:29	6° $\text{B}$ 28'16	
retrograde	13785 Jun 16 22:16	23° $\text{B}$ 46'13		inferior conj	13786 Jun 10 14:30	0° $\text{B}$ 13'00	3°06'53
evening set	13785 Jun 20 23:17	22° $\text{B}$ 12'44		minimum elong	13786 Jun 10 13:36	0° $\text{B}$ 16'08	3°05'45
inferior conj	13785 Jun 26 05:45	16° $\text{B}$ 08'27	3°12'00		13786 Jun 10 18:14	30° $\text{R}$ $\text{II}$	
minimum elong	13785 Jun 26 05:48	16° $\text{B}$ 08'16	3°10'57	min. Earth dist.	13786 Jun 10 19:18	29° $\text{II}$ 56'18	0.68829 AU
min. Earth dist.	13785 Jun 27 00:01	15° $\text{B}$ 05'57	0.68241 AU	morning rise	13786 Jun 15 18:32	23° $\text{II}$ 57'03	
morning rise	13785 Jul 01 12:00	9° $\text{B}$ 47'05		direct	13786 Jun 20 18:48	21° $\text{II}$ 47'15	
direct	13785 Jul 07 00:52	7° $\text{B}$ 20'45		desc. node	13786 Jun 29 19:06	26° $\text{II}$ 44'37	
desc. node	13785 Jul 12 21:53	9° $\text{B}$ 28'59		morning max el	13786 Jun 30 18:16	27° $\text{II}$ 41'16	22°45'03
morning max el	13785 Jul 18 06:59	14° $\text{B}$ 05'08	24°14'35		13786 Jul 02 22:35	0° $\text{B}$	
	13785 Jul 31 05:46	0° $\Omega$			13786 Jul 24 20:36	0° $\Omega$	
	13785 Aug 19 19:30	0° $\Pi$		morning set	13786 Aug 03 18:12	15° $\Omega$ 39'40	

max. Earth dist.	13786 Aug 08 09:31	23° $\Omega$ 24'38	1.40429 AU	morning set	13787 Jul 14 16:55	25° $\Theta$ 12'02	
	13786 Aug 12 05:01	0° $\Pi$			13787 Jul 17 17:32	0° $\Omega$	
				max. Earth dist.	13787 Jul 21 13:52	6° $\Omega$ 13'25	1.42598 AU
superior conj	13786 Aug 16 05:27	7° $\Pi$ 10'06	-1°04'44				
minimum elong	13786 Aug 16 10:20	7° $\Pi$ 32'13	1°04'29	superior conj	13787 Jul 28 22:16	18° $\Omega$ 31'56	-1°38'00
asc. node	13786 Aug 23 18:29	21° $\Pi$ 11'18		minimum elong	13787 Jul 29 05:22	19° $\Omega$ 02'22	1°37'59
evening rise	13786 Aug 26 03:03	25° $\Pi$ 39'29			13787 Aug 04 11:34	0° $\Pi$	
	13786 Aug 28 10:12	0° $\Omega$		evening rise	13787 Aug 09 07:18	8° $\Pi$ 40'07	
evening max el	13786 Sep 11 01:59	21° $\Omega$ 21'15	18°25'59	asc. node	13787 Aug 10 15:05	11° $\Pi$ 03'39	
retrograde	13786 Sep 18 18:52	25° $\Omega$ 15'12			13787 Aug 21 23:51	0° $\Omega$	
evening set	13786 Sep 20 19:24	24° $\Omega$ 59'50		evening max el	13787 Aug 25 12:51	4° $\Omega$ 12'54	18°05'32
desc. node	13786 Sep 25 15:41	22° $\Omega$ 36'08		retrograde	13787 Sep 01 09:02	7° $\Omega$ 43'07	
inferior conj	13786 Sep 28 12:34	20° $\Omega$ 25'53	-0°54'31	evening set	13787 Sep 03 16:49	7° $\Omega$ 19'06	
minimum elong	13786 Sep 28 10:28	20° $\Omega$ 30'05	0°53'25	inferior conj	13787 Sep 10 16:02	2° $\Omega$ 24'51	0°34'29
min. Earth dist.	13786 Oct 01 18:48	17° $\Omega$ 51'03	0.58003 AU	minimum elong	13787 Sep 10 17:07	2° $\Omega$ 22'20	0°34'02
morning rise	13786 Oct 05 22:04	15° $\Omega$ 09'00		desc. node	13787 Sep 12 13:12	0° $\Omega$ 39'45	
direct	13786 Oct 12 02:10	13° $\Omega$ 30'57			13787 Sep 13 06:35	30° $\mathbb{R}$ $\Pi$	
morning max el	13786 Oct 26 09:37	21° $\Omega$ 06'05	27°08'37	min. Earth dist.	13787 Sep 13 21:18	29° $\Pi$ 27'10	0.60235 AU
	13786 Nov 03 03:37	0° $\mathbb{M}$		morning rise	13787 Sep 17 14:15	26° $\Pi$ 36'36	
asc. node	13786 Nov 19 20:17	27° $\mathbb{M}$ 11'12		direct	13787 Sep 24 03:37	24° $\Pi$ 31'58	
	13786 Nov 21 06:40	0° $\mathbb{X}$			13787 Oct 05 19:58	0° $\Omega$	
morning set	13786 Nov 25 18:18	9° $\mathbb{X}$ 15'25		morning max el	13787 Oct 08 10:46	2° $\Omega$ 24'38	27°51'38
					13787 Oct 28 14:43	0° $\mathbb{M}$	
superior conj	13786 Dec 02 15:13	24° $\mathbb{X}$ 22'47	1°34'10	asc. node	13787 Nov 06 17:05	16° $\mathbb{M}$ 50'05	
minimum elong	13786 Dec 02 14:02	24° $\mathbb{X}$ 16'13	1°35'07	morning set	13787 Nov 09 23:09	23° $\mathbb{M}$ 29'34	
max. Earth dist.	13786 Dec 02 16:52	24° $\mathbb{X}$ 32'03	1.31214 AU		13787 Nov 13 00:18	0° $\mathbb{X}$	
	13786 Dec 05 03:41	0° $\mathbb{Z}$		max. Earth dist.	13787 Nov 16 00:41	6° $\mathbb{X}$ 37'45	1.31269 AU
evening rise	13786 Dec 09 10:18	9° $\mathbb{Z}$ 19'53					
	13786 Dec 20 00:05	0° $\approx$		superior conj	13787 Nov 17 02:24	9° $\mathbb{X}$ 00'43	1°24'29
desc. node	13786 Dec 22 13:13	4° $\approx$ 21'29		minimum elong	13787 Nov 17 00:29	8° $\mathbb{X}$ 50'01	1°25'12
evening max el	13787 Jan 08 15:47	26° $\approx$ 58'08	26°54'10	evening rise	13787 Nov 23 19:06	23° $\mathbb{X}$ 48'24	
	13787 Jan 12 05:10	0° $\mathbb{H}$			13787 Nov 26 17:23	0° $\mathbb{Z}$	
retrograde	13787 Jan 22 14:54	4° $\mathbb{H}$ 09'37		desc. node	13787 Dec 09 10:11	22° $\mathbb{Z}$ 59'31	
evening set	13787 Jan 29 07:19	2° $\mathbb{H}$ 16'14			13787 Dec 14 08:29	0° $\approx$	
	13787 Feb 01 17:47	30° $\mathbb{R}$ $\approx$		evening max el	13787 Dec 21 11:17	8° $\approx$ 03'43	25°45'28
min. Earth dist.	13787 Feb 02 05:51	29° $\approx$ 37'03	0.59590 AU	retrograde	13788 Jan 04 09:07	15° $\approx$ 05'09	
inferior conj	13787 Feb 05 10:29	27° $\approx$ 03'55	-3°15'54	evening set	13788 Jan 10 11:01	13° $\approx$ 39'16	
minimum elong	13787 Feb 05 17:35	26° $\approx$ 49'42	3°12'42	min. Earth dist.	13788 Jan 14 23:59	11° $\approx$ 01'29	0.57493 AU
morning rise	13787 Feb 13 07:00	22° $\approx$ 23'02		inferior conj	13788 Jan 17 22:50	8° $\approx$ 58'39	-4°37'33
direct	13787 Feb 15 07:56	22° $\approx$ 07'30		minimum elong	13788 Jan 18 07:43	8° $\approx$ 43'11	4°34'15
asc. node	13787 Feb 15 18:35	22° $\approx$ 08'16		morning rise	13788 Jan 26 07:12	4° $\approx$ 39'52	
morning max el	13787 Feb 22 22:35	25° $\approx$ 54'20	18°09'12	direct	13788 Jan 28 09:22	4° $\approx$ 26'18	
	13787 Feb 26 10:28	0° $\mathbb{H}$		asc. node	13788 Feb 02 15:59	5° $\approx$ 58'42	
morning set	13787 Mar 10 13:32	20° $\mathbb{H}$ 40'02		morning max el	13788 Feb 06 03:55	8° $\approx$ 43'11	18°50'01
	13787 Mar 15 13:29	0° $\mathbb{Y}$			13788 Feb 19 21:53	0° $\mathbb{H}$	
				morning set	13788 Feb 22 10:54	4° $\mathbb{H}$ 55'59	
superior conj	13787 Mar 20 07:09	8° $\mathbb{Y}$ 38'01	0°02'37				
minimum elong	13787 Mar 20 07:21	8° $\mathbb{Y}$ 38'55	0°02'31	superior conj	13788 Mar 02 01:44	21° $\mathbb{H}$ 39'04	0°35'14
behind sun begin	13787 Mar 19 23:48	8° $\mathbb{Y}$ 05'03		minimum elong	13788 Mar 02 03:54	21° $\mathbb{H}$ 49'17	0°35'08
behind sun end	13787 Mar 20 14:54	9° $\mathbb{Y}$ 12'41		desc. node	13788 Mar 06 11:22	29° $\mathbb{H}$ 48'31	
desc. node	13787 Mar 20 14:54	9° $\mathbb{Y}$ 12'43			13788 Mar 06 13:54	0° $\mathbb{Y}$	
max. Earth dist.	13787 Mar 27 22:07	21° $\mathbb{Y}$ 52'15	1.41652 AU	max. Earth dist.	13788 Mar 09 05:12	4° $\mathbb{Y}$ 43'00	1.39446 AU
evening rise	13787 Apr 01 21:40	0° $\mathbb{B}$ 04'49		evening rise	13788 Mar 13 03:17	11° $\mathbb{Y}$ 29'56	
	13787 Apr 01 20:28	0° $\mathbb{B}$			13788 Mar 24 16:02	0° $\mathbb{B}$	
	13787 Apr 21 20:20	0° $\mathbb{I}$			13788 Apr 16 09:21	0° $\mathbb{I}$	
evening max el	13787 May 05 13:28	16° $\mathbb{I}$ 53'34	22°52'27	evening max el	13788 Apr 17 03:24	0° $\mathbb{I}$ 45'32	24°13'26
asc. node	13787 May 14 15:11	22° $\mathbb{I}$ 47'29		retrograde	13788 Apr 28 10:48	7° $\mathbb{I}$ 23'36	
retrograde	13787 May 15 17:22	22° $\mathbb{I}$ 52'53		asc. node	13788 Apr 30 12:28	7° $\mathbb{I}$ 04'35	
evening set	13787 May 20 16:23	20° $\mathbb{I}$ 47'43		evening set	13788 May 03 21:22	5° $\mathbb{I}$ 05'47	
min. Earth dist.	13787 May 25 16:03	14° $\mathbb{I}$ 51'54	0.68935 AU		13788 May 08 08:03	30° $\mathbb{R}$ $\mathbb{B}$	
inferior conj	13787 May 26 00:10	14° $\mathbb{I}$ 23'42	2°51'15	min. Earth dist.	13788 May 08 12:10	29° $\mathbb{B}$ 46'12	0.68578 AU
minimum elong	13787 May 25 22:32	14° $\mathbb{I}$ 29'25	2°50'00	inferior conj	13788 May 09 08:51	28° $\mathbb{B}$ 36'15	2°25'24
morning rise	13787 May 31 04:35	8° $\mathbb{I}$ 14'31		minimum elong	13788 May 09 06:46	28° $\mathbb{B}$ 43'20	2°24'03
direct	13787 Jun 04 16:01	6° $\mathbb{I}$ 24'27		morning rise	13788 May 14 16:16	22° $\mathbb{B}$ 35'01	
morning max el	13787 Jun 13 09:34	11° $\mathbb{I}$ 27'13	21°20'00	direct	13788 May 18 15:20	21° $\mathbb{B}$ 05'35	
desc. node	13787 Jun 16 16:12	15° $\mathbb{I}$ 01'20		morning max el	13788 May 26 07:22	25° $\mathbb{B}$ 23'50	20°05'34
	13787 Jun 27 23:08	0° $\Theta$			13788 May 30 09:59	0° $\mathbb{I}$	

desc. node	13788 Jun 02 13:09	4° $\Pi$ 02'11		morning set	13789 Jun 02 01:45	12° $\Pi$ 50'55	
	13788 Jun 20 07:04	0° $\mathfrak{G}$			13789 Jun 13 02:54	0° $\mathfrak{G}$	
morning set	13788 Jun 22 21:10	3° $\mathfrak{G}$ 58'00		max. Earth dist.	13789 Jun 15 16:38	4° $\mathfrak{G}$ 01'30	1.45465 AU
max. Earth dist.	13788 Jul 03 00:25	19° $\mathfrak{G}$ 49'11	1.44337 AU				
				superior conj	13789 Jun 18 10:45	8° $\mathfrak{G}$ 21'24	-2°13'38
superior conj	13788 Jul 08 15:27	28° $\mathfrak{G}$ 53'07	-2°03'23	minimum elong	13789 Jun 18 11:04	8° $\mathfrak{G}$ 22'36	2°14'42
minimum elong	13788 Jul 08 21:40	29° $\mathfrak{G}$ 18'33	2°03'58		13789 Jul 01 22:45	0° $\mathcal{O}$	
	13788 Jul 09 07:49	0° $\mathcal{O}$		evening rise	13789 Jul 03 05:35	2° $\mathcal{O}$ 05'44	
evening rise	13788 Jul 21 17:46	20° $\mathcal{O}$ 52'26		asc. node	13789 Jul 14 08:26	20° $\mathcal{O}$ 01'28	
asc. node	13788 Jul 27 11:43	0° $\mathfrak{M}$ 42'08			13789 Jul 21 16:14	0° $\mathfrak{M}$	
	13788 Jul 27 01:45	0° $\mathfrak{M}$		evening max el	13789 Jul 22 16:59	1° $\mathfrak{M}$ 04'40	18°21'23
evening max el	13788 Aug 08 03:00	17° $\mathfrak{M}$ 30'18	18°04'22	retrograde	13789 Jul 29 02:21	4° $\mathfrak{M}$ 29'13	
retrograde	13788 Aug 14 12:58	20° $\mathfrak{M}$ 50'47		evening set	13789 Aug 01 03:06	3° $\mathfrak{M}$ 38'27	
evening set	13788 Aug 17 05:02	20° $\mathfrak{M}$ 14'42			13789 Aug 05 08:42	30° $\mathcal{R}$ $\mathcal{O}$	
inferior conj	13788 Aug 23 13:03	15° $\mathfrak{M}$ 02'00	1°41'27	inferior conj	13789 Aug 06 23:32	28° $\mathcal{O}$ 09'13	2°27'37
minimum elong	13788 Aug 23 15:25	14° $\mathfrak{M}$ 55'45	1°40'20	minimum elong	13789 Aug 07 01:53	28° $\mathcal{O}$ 02'19	2°26'24
min. Earth dist.	13788 Aug 26 09:16	12° $\mathfrak{M}$ 03'20	0.62512 AU	min. Earth dist.	13789 Aug 09 06:36	25° $\mathcal{O}$ 28'45	0.64603 AU
desc. node	13788 Aug 29 10:43	9° $\mathfrak{M}$ 17'04		morning rise	13789 Aug 12 23:19	21° $\mathcal{O}$ 48'58	
morning rise	13788 Aug 29 23:31	8° $\mathfrak{M}$ 52'58		desc. node	13789 Aug 16 08:14	19° $\mathcal{O}$ 47'41	
direct	13788 Sep 05 15:52	6° $\mathfrak{M}$ 27'18		direct	13789 Aug 19 12:43	19° $\mathcal{O}$ 11'28	
morning max el	13788 Sep 19 17:44	14° $\mathfrak{M}$ 28'24	27°55'40	morning max el	13789 Sep 02 03:53	27° $\mathcal{O}$ 09'18	27°24'05
	13788 Oct 02 07:59	0° $\mathfrak{L}$			13789 Sep 04 20:09	0° $\mathfrak{M}$	
	13788 Oct 20 04:23	0° $\mathfrak{M}$			13789 Sep 26 00:18	0° $\mathfrak{L}$	
morning set	13788 Oct 23 21:43	7° $\mathfrak{M}$ 23'19		morning set	13789 Oct 07 11:25	20° $\mathfrak{L}$ 49'49	
asc. node	13788 Oct 23 13:47	6° $\mathfrak{M}$ 43'00		asc. node	13789 Oct 10 10:24	26° $\mathfrak{L}$ 44'37	
max. Earth dist.	13788 Oct 29 04:23	18° $\mathfrak{M}$ 29'26	1.31860 AU	max. Earth dist.	13789 Oct 12 00:32	0° $\mathfrak{M}$ 00'25	1.32998 AU
					13789 Oct 12 00:27	0° $\mathfrak{M}$	
superior conj	13788 Oct 31 11:22	23° $\mathfrak{M}$ 29'00	1°09'03				
minimum elong	13788 Oct 31 09:05	23° $\mathfrak{M}$ 16'30	1°09'29	superior conj	13789 Oct 15 16:00	7° $\mathfrak{M}$ 41'19	0°47'56
	13788 Nov 03 10:22	0° $\mathcal{X}$		minimum elong	13789 Oct 15 13:55	7° $\mathfrak{M}$ 30'12	0°48'08
evening rise	13788 Nov 07 05:54	8° $\mathcal{X}$ 20'29		evening rise	13789 Oct 22 16:51	22° $\mathfrak{M}$ 50'45	
	13788 Nov 18 07:07	0° $\mathfrak{Z}$			13789 Oct 26 02:57	0° $\mathcal{X}$	
desc. node	13788 Nov 25 07:17	10° $\mathfrak{Z}$ 42'43		desc. node	13789 Nov 12 04:30	27° $\mathcal{X}$ 10'14	
evening max el	13788 Dec 01 23:22	18° $\mathfrak{Z}$ 24'15	24°11'57	evening max el	13789 Nov 13 09:47	28° $\mathcal{X}$ 24'42	22°29'33
retrograde	13788 Dec 15 14:41	25° $\mathfrak{Z}$ 11'46			13789 Nov 15 03:31	0° $\mathfrak{Z}$	
evening set	13788 Dec 20 15:20	24° $\mathfrak{Z}$ 16'29		retrograde	13789 Nov 26 07:16	4° $\mathfrak{Z}$ 48'16	
min. Earth dist.	13788 Dec 26 10:52	21° $\mathfrak{Z}$ 22'09	0.55770 AU	evening set	13789 Nov 29 23:14	4° $\mathfrak{Z}$ 18'52	
inferior conj	13788 Dec 28 14:25	20° $\mathfrak{Z}$ 03'30	-5°39'11	min. Earth dist.	13789 Dec 07 17:24	0° $\mathfrak{Z}$ 49'33	0.54716 AU
minimum elong	13788 Dec 28 20:39	19° $\mathfrak{Z}$ 53'57	5°37'19	inferior conj	13789 Dec 08 12:30	0° $\mathfrak{Z}$ 22'39	-5°56'34
morning rise	13789 Jan 06 03:53	16° $\mathfrak{Z}$ 04'26		minimum elong	13789 Dec 08 10:34	0° $\mathfrak{Z}$ 25'23	5°55'26
direct	13789 Jan 08 15:24	15° $\mathfrak{Z}$ 48'27			13789 Dec 09 04:36	30° $\mathcal{R}$ $\mathcal{X}$	
morning max el	13789 Jan 18 21:20	20° $\mathfrak{Z}$ 44'12	19°53'25	morning rise	13789 Dec 16 23:07	26° $\mathcal{X}$ 35'08	
asc. node	13789 Jan 19 13:19	21° $\mathfrak{Z}$ 23'58		direct	13789 Dec 20 05:12	26° $\mathcal{X}$ 11'08	
	13789 Jan 26 03:12	0° $\approx$			13789 Dec 29 21:42	0° $\mathfrak{Z}$	
morning set	13789 Feb 05 15:35	19° $\approx$ 30'09		morning max el	13790 Jan 01 00:07	1° $\mathfrak{Z}$ 49'37	21°19'43
	13789 Feb 10 19:19	0° $\mathfrak{H}$		asc. node	13790 Jan 06 10:34	8° $\mathfrak{Z}$ 06'49	
					13790 Jan 18 23:43	0° $\approx$	
superior conj	13789 Feb 13 11:05	5° $\mathfrak{H}$ 20'00	1°01'05	morning set	13790 Jan 21 00:45	4° $\approx$ 13'19	
minimum elong	13789 Feb 13 13:49	5° $\mathfrak{H}$ 33'36	1°01'13				
max. Earth dist.	13789 Feb 19 11:34	16° $\mathfrak{H}$ 57'24	1.37203 AU	superior conj	13790 Jan 28 07:04	19° $\approx$ 28'31	1°19'54
desc. node	13789 Feb 21 07:53	20° $\mathfrak{H}$ 22'13		minimum elong	13790 Jan 28 09:27	19° $\approx$ 40'53	1°20'25
evening rise	13789 Feb 23 05:10	23° $\mathfrak{H}$ 46'58		max. Earth dist.	13790 Feb 01 22:03	28° $\approx$ 52'11	1.35144 AU
	13789 Feb 26 18:22	0° $\mathfrak{Y}$			13790 Feb 02 11:46	0° $\mathfrak{H}$	
	13789 Mar 18 08:53	0° $\mathfrak{B}$		evening rise	13790 Feb 05 23:55	6° $\mathfrak{H}$ 45'19	
evening max el	13789 Mar 30 16:57	14° $\mathfrak{B}$ 38'46	25°29'18	desc. node	13790 Feb 08 04:27	10° $\mathfrak{H}$ 49'09	
retrograde	13789 Apr 11 23:53	21° $\mathfrak{B}$ 44'44			13790 Feb 19 11:55	0° $\mathfrak{Y}$	
asc. node	13789 Apr 17 09:49	19° $\mathfrak{B}$ 42'03		evening max el	13790 Mar 13 06:47	28° $\mathfrak{Y}$ 26'44	26°32'52
evening set	13789 Apr 17 21:51	19° $\mathfrak{B}$ 17'44			13790 Mar 14 22:44	0° $\mathfrak{B}$	
min. Earth dist.	13789 Apr 22 05:29	14° $\mathfrak{B}$ 33'54	0.67776 AU	retrograde	13790 Mar 26 07:36	5° $\mathfrak{B}$ 48'42	
inferior conj	13789 Apr 23 14:39	12° $\mathfrak{B}$ 47'08	1°49'10	evening set	13790 Apr 01 16:03	3° $\mathfrak{B}$ 16'52	
minimum elong	13789 Apr 23 12:33	12° $\mathfrak{B}$ 53'53	1°47'52	asc. node	13790 Apr 04 07:15	0° $\mathfrak{B}$ 45'53	
morning rise	13789 Apr 29 03:43	6° $\mathfrak{B}$ 55'11			13790 Apr 04 23:46	30° $\mathcal{R}$ $\mathfrak{Y}$	
direct	13789 May 02 15:16	5° $\mathfrak{B}$ 45'35		min. Earth dist.	13790 Apr 05 17:48	29° $\mathfrak{Y}$ 07'49	0.66546 AU
morning max el	13789 May 09 12:41	9° $\mathfrak{B}$ 30'38	19°05'39	inferior conj	13790 Apr 07 15:26	26° $\mathfrak{Y}$ 50'52	1°01'58
desc. node	13789 May 20 10:01	23° $\mathfrak{B}$ 35'36		minimum elong	13790 Apr 07 13:56	26° $\mathfrak{Y}$ 55'21	1°01'02
greatest brilliancy	13789 May 22 14:00	26° $\mathfrak{B}$ 48'40	-0.7m	morning rise	13790 Apr 13 12:50	21° $\mathfrak{Y}$ 10'01	
	13789 May 24 16:44	0° $\Pi$		direct	13790 Apr 16 13:55	20° $\mathfrak{Y}$ 18'10	

morning max el	13790 Apr 23 00:37	23° $\Upsilon$ 43'03	18°22'08	morning rise	13791 Mar 28 17:08	5° $\Upsilon$ 13'56	
	13790 Apr 28 06:33	0° $\mathcal{B}$		direct	13791 Mar 31 08:54	4° $\Upsilon$ 36'55	
desc. node	13790 May 07 06:47	13° $\mathcal{B}$ 32'29		morning max el	13791 Apr 06 16:57	7° $\Upsilon$ 53'58	17°55'33
morning set	13790 May 13 02:52	22° $\mathcal{B}$ 47'09			13791 Apr 21 20:49	0° $\mathcal{B}$	
	13790 May 17 16:10	0° $\Pi$		morning set	13791 Apr 24 08:10	4° $\mathcal{B}$ 05'33	
				desc. node	13791 Apr 24 03:26	3° $\mathcal{B}$ 45'59	
superior conj	13790 May 28 18:54	17° $\Pi$ 26'41	-2°03'58	superior conj	13791 May 08 09:11	26° $\mathcal{B}$ 54'46	-1°36'18
minimum elong	13790 May 28 11:53	16° $\Pi$ 59'18	2°04'36	minimum elong	13791 May 08 00:14	26° $\mathcal{B}$ 19'11	1°36'11
max. Earth dist.	13790 May 29 12:33	18° $\Pi$ 35'35	1.45867 AU		13791 May 10 07:58	0° $\Pi$	
	13790 Jun 05 19:59	0° $\mathcal{E}$			13791 May 12 08:49	3° $\Pi$ 12'14	1.45514 AU
evening rise	13790 Jun 13 16:55	12° $\mathcal{E}$ 19'12		max. Earth dist.	13791 May 24 09:15	21° $\Pi$ 50'15	
greatest brilliancy	13790 Jun 23 12:56	27° $\mathcal{E}$ 40'12	-0.8m	evening rise	13791 May 29 17:30	0° $\mathcal{E}$	
	13790 Jun 25 01:32	0° $\Omega$			13791 Jun 07 16:46	13° $\mathcal{E}$ 25'19	-0.6m
asc. node	13790 Jul 01 05:15	8° $\Omega$ 54'57		greatest brilliancy	13791 Jun 18 02:12	27° $\mathcal{E}$ 13'14	
evening max el	13790 Jul 06 04:02	14° $\Omega$ 48'57	18°55'44	asc. node	13791 Jun 19 10:04	28° $\mathcal{E}$ 37'07	19°46'20
retrograde	13790 Jul 12 21:39	18° $\Omega$ 30'54		evening max el	13791 Jun 20 21:33	0° $\Omega$	
evening set	13790 Jul 16 07:23	17° $\Omega$ 23'56			13791 Jun 26 19:58	2° $\Omega$ 48'48	
inferior conj	13790 Jul 21 19:53	11° $\Omega$ 39'46	2°56'05	retrograde	13791 Jun 30 15:11	1° $\Omega$ 24'58	
minimum elong	13790 Jul 21 21:31	11° $\Omega$ 34'34	2°54'58	evening set	13791 Jul 02 05:50	30° $\mathcal{R}$ $\mathcal{E}$	
min. Earth dist.	13790 Jul 23 12:26	9° $\Omega$ 31'26	0.66353 AU		13791 Jul 05 23:00	25° $\mathcal{E}$ 27'25	3°09'50
morning rise	13790 Jul 27 10:55	5° $\Omega$ 15'26		minimum elong	13791 Jul 05 23:39	25° $\mathcal{E}$ 25'15	3°08'48
direct	13790 Aug 02 16:51	2° $\Omega$ 35'52		min. Earth dist.	13791 Jul 07 01:11	23° $\mathcal{E}$ 59'38	0.67682 AU
desc. node	13790 Aug 03 05:42	2° $\Omega$ 36'55		morning rise	13791 Jul 11 07:43	19° $\mathcal{E}$ 03'51	
morning max el	13790 Aug 15 15:07	10° $\Omega$ 17'01	26°24'09	direct	13791 Jul 17 03:12	16° $\mathcal{E}$ 30'47	
	13790 Aug 31 05:51	0° $\mathcal{M}$		desc. node	13791 Jul 21 03:06	17° $\mathcal{E}$ 30'16	
	13790 Sep 18 13:12	0° $\underline{\mathcal{A}}$		morning max el	13791 Jul 29 01:52	23° $\mathcal{E}$ 40'23	25°04'57
morning set	13790 Sep 20 13:06	3° $\underline{\mathcal{A}}$ 41'52			13791 Aug 03 17:04	0° $\Omega$	
max. Earth dist.	13790 Sep 24 11:01	11° $\underline{\mathcal{A}}$ 12'21	1.34655 AU		13791 Aug 24 14:50	0° $\mathcal{M}$	
asc. node	13790 Sep 27 06:58	16° $\underline{\mathcal{A}}$ 50'55			13791 Sep 02 22:48	15° $\mathcal{M}$ 49'35	
				morning set	13791 Sep 06 12:36	22° $\mathcal{M}$ 18'52	1.36741 AU
superior conj	13790 Sep 29 13:54	21° $\underline{\mathcal{A}}$ 31'29	0°21'25	max. Earth dist.	13791 Sep 10 14:14	0° $\underline{\mathcal{A}}$	
minimum elong	13790 Sep 29 12:45	21° $\underline{\mathcal{A}}$ 25'31	0°21'29				
	13790 Oct 03 15:20	0° $\mathcal{M}$					
evening rise	13790 Oct 07 02:01	7° $\mathcal{M}$ 14'16		superior conj	13791 Sep 13 02:01	4° $\underline{\mathcal{A}}$ 51'30	-0°09'53
	13790 Oct 19 06:45	0° $\mathcal{X}$		minimum elong	13791 Sep 13 02:39	4° $\underline{\mathcal{A}}$ 54'35	0°09'47
evening max el	13790 Oct 26 04:00	8° $\mathcal{X}$ 42'28	20°55'30	behind sun begin	13791 Sep 12 21:27	4° $\underline{\mathcal{A}}$ 28'58	
desc. node	13790 Oct 30 01:50	11° $\mathcal{X}$ 56'38		behind sun end	13791 Sep 13 07:51	5° $\underline{\mathcal{A}}$ 20'14	
retrograde	13790 Nov 06 17:53	14° $\mathcal{X}$ 27'47		asc. node	13791 Sep 14 03:31	6° $\underline{\mathcal{A}}$ 57'42	
evening set	13790 Nov 09 05:15	14° $\mathcal{X}$ 13'10		evening rise	13791 Sep 21 07:08	21° $\underline{\mathcal{A}}$ 24'31	
inferior conj	13790 Nov 18 03:48	10° $\mathcal{X}$ 19'30	-5°14'08		13791 Sep 25 14:56	0° $\mathcal{M}$	
minimum elong	13790 Nov 17 18:36	10° $\mathcal{X}$ 32'34	5°11'15	evening max el	13791 Oct 08 12:02	19° $\mathcal{M}$ 43'26	19°40'17
min. Earth dist.	13790 Nov 18 23:21	9° $\mathcal{X}$ 51'41	0.54538 AU	desc. node	13791 Oct 16 23:15	24° $\mathcal{M}$ 35'01	
morning rise	13790 Nov 26 08:14	6° $\mathcal{X}$ 26'25		retrograde	13791 Oct 18 10:39	24° $\mathcal{M}$ 41'21	
direct	13790 Nov 30 12:48	5° $\mathcal{X}$ 48'50		evening set	13791 Oct 20 08:20	24° $\mathcal{M}$ 31'14	
morning max el	13790 Dec 13 14:30	12° $\mathcal{X}$ 08'09	23°03'50	inferior conj	13791 Oct 29 02:56	20° $\mathcal{M}$ 27'53	-3°43'05
asc. node	13790 Dec 24 07:45	25° $\mathcal{X}$ 50'27		minimum elong	13791 Oct 28 17:44	20° $\mathcal{M}$ 42'19	3°39'15
	13790 Dec 26 19:36	0° $\mathcal{Z}$		min. Earth dist.	13791 Oct 31 08:11	19° $\mathcal{M}$ 04'23	0.55291 AU
morning set	13791 Jan 05 12:13	18° $\mathcal{Z}$ 59'25		morning rise	13791 Nov 06 01:20	16° $\mathcal{M}$ 08'41	
	13791 Jan 10 14:45	0° $\approx$		direct	13791 Nov 11 03:11	15° $\mathcal{M}$ 11'28	
				morning max el	13791 Nov 25 00:13	22° $\mathcal{M}$ 06'33	24°52'33
superior conj	13791 Jan 12 10:30	3° $\approx$ 55'49	1°31'57		13791 Dec 01 22:38	0° $\mathcal{X}$	
minimum elong	13791 Jan 12 12:01	4° $\approx$ 03'59	1°32'47	asc. node	13791 Dec 11 04:49	14° $\mathcal{X}$ 19'40	
max. Earth dist.	13791 Jan 15 15:40	10° $\approx$ 44'56	1.33436 AU		13791 Dec 19 06:10	0° $\mathcal{Z}$	
evening rise	13791 Jan 20 08:02	20° $\approx$ 16'16		morning set	13791 Dec 21 00:07	3° $\mathcal{Z}$ 42'50	
	13791 Jan 25 10:48	0° $\mathcal{X}$					
desc. node	13791 Jan 26 01:04	1° $\mathcal{X}$ 05'02		superior conj	13791 Dec 27 18:46	18° $\mathcal{Z}$ 34'16	1°37'35
	13791 Feb 13 11:28	0° $\Upsilon$		minimum elong	13791 Dec 27 19:13	18° $\mathcal{Z}$ 36'44	1°38'36
evening max el	13791 Feb 23 20:12	11° $\Upsilon$ 59'19	27°16'41	max. Earth dist.	13791 Dec 29 16:36	22° $\mathcal{Z}$ 45'02	1.32171 AU
retrograde	13791 Mar 09 09:09	19° $\Upsilon$ 27'10			13792 Jan 02 01:48	0° $\approx$	
evening set	13791 Mar 16 01:58	16° $\Upsilon$ 56'16		evening rise	13792 Jan 04 02:18	4° $\approx$ 11'50	
min. Earth dist.	13791 Mar 19 23:00	13° $\Upsilon$ 19'49	0.64927 AU	desc. node	13792 Jan 12 21:48	21° $\approx$ 04'37	
inferior conj	13791 Mar 22 08:45	10° $\Upsilon$ 41'26	0°03'12		13792 Jan 18 03:58	0° $\mathcal{X}$	
minimum elong	13791 Mar 22 08:39	10° $\Upsilon$ 41'41	0°03'04	evening max el	13792 Feb 06 07:44	25° $\mathcal{X}$ 05'26	27°33'55
transit middle	13791 Mar 22 08:39	10° $\Upsilon$ 41'41	0°03'04		13792 Feb 12 11:56	0° $\Upsilon$	
transit begin	13791 Mar 22 05:40	10° $\Upsilon$ 49'56		retrograde	13792 Feb 20 03:55	2° $\Upsilon$ 31'09	
transit end	13791 Mar 22 11:38	10° $\Upsilon$ 33'28		evening set	13792 Feb 27 01:09	0° $\Upsilon$ 08'29	
asc. node	13791 Mar 22 04:45	10° $\Upsilon$ 52'26			13792 Feb 27 06:02	30° $\mathcal{R}$ $\mathcal{X}$	

min. Earth dist.	13792 Mar 01 19:22	27° $\text{H}$ 00'26	0.62986 AU	min. Earth dist.	13793 Feb 12 05:39	9° $\text{H}$ 56'47	0.60841 AU
inferior conj	13792 Mar 04 15:46	24° $\text{H}$ 12'12	-1°07'06	inferior conj	13793 Feb 15 09:00	7° $\text{H}$ 13'27	-2°27'15
minimum elong	13792 Mar 04 17:59	24° $\text{H}$ 06'43	1°05'58	minimum elong	13793 Feb 15 14:17	7° $\text{H}$ 01'57	2°24'41
asc. node	13792 Mar 08 02:16	21° $\text{H}$ 03'51		morning rise	13793 Feb 22 21:15	2° $\text{H}$ 20'25	
morning rise	13792 Mar 11 13:25	19° $\text{H}$ 00'34		asc. node	13793 Feb 22 23:45	2° $\text{H}$ 18'41	
direct	13792 Mar 13 21:22	18° $\text{H}$ 34'50		direct	13793 Feb 24 23:38	2° $\text{H}$ 02'17	
morning max el	13792 Mar 20 10:47	21° $\text{H}$ 55'29	17°46'17	morning max el	13793 Mar 04 02:43	5° $\text{H}$ 36'58	17°55'13
	13792 Mar 26 17:11	0° $\text{Y}$		morning set	13793 Mar 19 16:53	0° $\text{Y}$ 01'20	
morning set	13792 Apr 05 14:54	16° $\text{Y}$ 36'43			13793 Mar 19 16:35	0° $\text{Y}$	
desc. node	13792 Apr 10 00:00	24° $\text{Y}$ 11'12		desc. node	13793 Mar 27 20:31	14° $\text{Y}$ 43'20	
	13792 Apr 13 09:50	0° $\text{Z}$					
superior conj	13792 Apr 17 19:24	7° $\text{Z}$ 21'00	-0°58'29	superior conj	13793 Mar 30 05:39	18° $\text{Y}$ 53'31	-0°18'50
minimum elong	13792 Apr 17 13:36	6° $\text{Z}$ 56'59	0°58'12	minimum elong	13793 Mar 30 03:59	18° $\text{Y}$ 46'16	0°18'48
max. Earth dist.	13792 Apr 24 02:40	17° $\text{Z}$ 34'52	1.44454 AU	max. Earth dist.	13793 Apr 05 18:52	0° $\text{Z}$	
	13792 May 02 00:39	0° $\text{II}$			13793 Apr 06 16:30	1° $\text{Z}$ 29'14	1.42808 AU
evening rise	13792 May 02 20:41	1° $\text{II}$ 17'07		evening rise	13793 Apr 12 18:37	11° $\text{Z}$ 17'34	
	13792 May 22 08:07	0° $\text{E}$			13793 Apr 25 01:54	0° $\text{II}$	
evening max el	13792 Jun 01 10:15	12° $\text{E}$ 26'46	20°51'04	evening max el	13793 May 15 05:07	26° $\text{II}$ 16'48	22°06'23
asc. node	13792 Jun 03 23:16	14° $\text{E}$ 44'49			13793 May 19 14:12	0° $\text{E}$	
retrograde	13792 Jun 09 19:00	17° $\text{E}$ 17'33		asc. node	13793 May 21 20:26	1° $\text{E}$ 14'05	
evening set	13792 Jun 14 00:24	15° $\text{E}$ 37'01		retrograde	13793 May 24 16:50	1° $\text{E}$ 51'03	
inferior conj	13792 Jun 19 06:22	9° $\text{E}$ 27'39	3°11'09	evening set	13793 May 29 09:13	29° $\text{II}$ 54'36	
minimum elong	13792 Jun 19 06:00	9° $\text{E}$ 28'55	3°10'05		13793 May 29 06:37	30° $\text{R}$ $\text{II}$	
min. Earth dist.	13792 Jun 19 18:50	8° $\text{E}$ 44'29	0.68547 AU	inferior conj	13793 Jun 03 15:45	23° $\text{II}$ 35'22	3°01'29
morning rise	13792 Jun 24 11:21	3° $\text{E}$ 08'05		minimum elong	13793 Jun 03 14:31	23° $\text{II}$ 39'43	3°00'19
direct	13792 Jun 29 18:50	0° $\text{E}$ 48'17		min. Earth dist.	13793 Jun 03 15:05	23° $\text{II}$ 37'42	0.68937 AU
desc. node	13792 Jul 07 00:22	4° $\text{E}$ 01'35		morning rise	13793 Jun 08 19:37	17° $\text{II}$ 21'55	
morning max el	13792 Jul 10 12:21	7° $\text{E}$ 12'41	23°36'21	direct	13793 Jun 13 14:27	15° $\text{II}$ 20'03	
	13792 Jul 28 06:44	0° $\text{O}$		morning max el	13793 Jun 23 00:47	20° $\text{II}$ 52'03	22°07'44
morning set	13792 Aug 14 11:59	27° $\text{O}$ 02'35		desc. node	13793 Jun 23 21:31	21° $\text{II}$ 45'16	
	13792 Aug 16 05:42	0° $\text{P}$			13793 Jun 30 19:38	0° $\text{E}$	
max. Earth dist.	13792 Aug 18 10:15	3° $\text{P}$ 47'34	1.39077 AU	morning set	13793 Jul 21 12:01	0° $\text{O}$	
				max. Earth dist.	13793 Jul 26 00:45	7° $\text{O}$ 10'59	
superior conj	13792 Aug 26 00:45	17° $\text{P}$ 33'32	-0°44'25		13793 Jul 31 10:45	16° $\text{O}$ 03'43	1.41393 AU
minimum elong	13792 Aug 26 03:58	17° $\text{P}$ 48'35	0°44'12	superior conj	13793 Aug 08 05:45	29° $\text{O}$ 27'38	-1°19'25
asc. node	13792 Aug 31 00:04	27° $\text{P}$ 01'54		minimum elong	13793 Aug 08 11:46	29° $\text{O}$ 54'12	1°19'12
	13792 Sep 01 12:47	0° $\text{A}$			13793 Aug 08 13:04	0° $\text{P}$	
evening rise	13792 Sep 04 05:29	5° $\text{A}$ 15'02		asc. node	13793 Aug 17 20:40	16° $\text{P}$ 59'46	
	13792 Sep 18 22:47	0° $\text{M}$		evening rise	13793 Aug 18 17:32	18° $\text{P}$ 36'48	
evening max el	13792 Sep 20 09:35	1° $\text{M}$ 33'48	18°46'56		13793 Aug 24 23:09	0° $\text{A}$	
retrograde	13792 Sep 28 19:23	5° $\text{M}$ 47'29		evening max el	13793 Sep 03 16:53	14° $\text{A}$ 06'28	18°14'55
evening set	13792 Sep 30 16:54	5° $\text{M}$ 35'22		retrograde	13793 Sep 10 23:26	17° $\text{A}$ 48'08	
desc. node	13792 Oct 02 20:44	4° $\text{M}$ 54'15		evening set	13793 Sep 13 02:57	17° $\text{A}$ 29'28	
inferior conj	13792 Oct 08 20:41	1° $\text{M}$ 13'59	-1°54'17	desc. node	13793 Sep 19 18:13	13° $\text{A}$ 24'58	
minimum elong	13792 Oct 08 15:56	1° $\text{M}$ 22'37	1°51'57	inferior conj	13793 Sep 20 12:17	12° $\text{A}$ 46'54	-0°14'08
	13792 Oct 10 13:10	30° $\text{R}$ $\text{A}$		minimum elong	13793 Sep 20 11:47	12° $\text{A}$ 47'58	0°13'48
min. Earth dist.	13792 Oct 11 22:17	29° $\text{A}$ 00'49	0.56851 AU	transit middle	13793 Sep 20 11:47	12° $\text{A}$ 47'58	0°13'48
morning rise	13792 Oct 16 11:39	26° $\text{A}$ 18'06		transit begin	13793 Sep 20 09:59	12° $\text{A}$ 51'47	
direct	13792 Oct 22 07:48	24° $\text{A}$ 55'25		transit end	13793 Sep 20 13:35	12° $\text{A}$ 44'08	
	13792 Nov 02 23:12	0° $\text{M}$		min. Earth dist.	13793 Sep 23 19:31	9° $\text{A}$ 59'41	0.58932 AU
morning max el	13792 Nov 05 13:18	2° $\text{M}$ 18'33	26°27'07	morning rise	13793 Sep 27 17:11	7° $\text{A}$ 15'50	
	13792 Nov 25 06:00	0° $\text{X}$		direct	13793 Oct 04 02:18	5° $\text{A}$ 25'50	
asc. node	13792 Nov 27 01:45	3° $\text{X}$ 22'42		morning max el	13793 Oct 18 09:46	13° $\text{A}$ 09'04	27°31'41
morning set	13792 Dec 04 10:39	18° $\text{X}$ 18'20			13793 Oct 31 19:06	0° $\text{M}$	
	13792 Dec 09 18:21	0° $\text{Z}$		asc. node	13793 Nov 13 22:35	22° $\text{M}$ 50'46	
superior conj	13792 Dec 11 05:39	3° $\text{Z}$ 16'50	1°37'07		13793 Nov 17 11:19	0° $\text{X}$	
minimum elong	13792 Dec 11 05:02	3° $\text{Z}$ 13'21	1°38'09	morning set	13793 Nov 18 18:06	2° $\text{X}$ 41'44	
max. Earth dist.	13792 Dec 11 22:49	4° $\text{Z}$ 52'28	1.31409 AU	superior conj	13793 Nov 25 17:16	17° $\text{X}$ 58'17	1°30'46
evening rise	13792 Dec 18 03:59	18° $\text{Z}$ 24'48		minimum elong	13793 Nov 25 15:44	17° $\text{X}$ 49'44	1°31'38
	13792 Dec 23 21:46	0° $\text{A}$		max. Earth dist.	13793 Nov 25 07:11	17° $\text{X}$ 01'53	1.31170 AU
desc. node	13792 Dec 29 18:36	10° $\text{A}$ 40'17			13793 Dec 01 03:25	0° $\text{Z}$	
	13793 Jan 11 19:05	0° $\text{H}$		evening rise	13793 Dec 02 10:48	2° $\text{Z}$ 49'38	
evening max el	13793 Jan 18 15:07	7° $\text{H}$ 32'07	27°18'52	desc. node	13793 Dec 16 15:31	29° $\text{Z}$ 43'00	
retrograde	13793 Feb 01 14:24	14° $\text{H}$ 49'49			13793 Dec 16 19:44	0° $\text{A}$	
evening set	13793 Feb 08 10:28	12° $\text{H}$ 43'45		evening max el	13793 Dec 31 15:44	19° $\text{A}$ 09'20	26°28'55



retrograde	13794 Jan 14 14:48	26° $\approx$ 16'10			13794 Dec 13 10:32	0° $\approx$	
evening set	13794 Jan 21 02:08	24° $\approx$ 34'11		evening max el	13794 Dec 13 07:48	29° $\approx$ 53'30	25°07'54
min. Earth dist.	13794 Jan 25 05:26	21° $\approx$ 57'21	0.58669 AU	retrograde	13794 Dec 27 03:16	6° $\approx$ 49'02	
inferior conj	13794 Jan 28 08:49	19° $\approx$ 35'26	-3°51'36	evening set	13795 Jan 01 20:01	5° $\approx$ 36'02	
minimum elong	13794 Jan 28 16:59	19° $\approx$ 20'00	3°48'10	min. Earth dist.	13795 Jan 06 19:47	2° $\approx$ 53'47	0.56700 AU
morning rise	13794 Feb 05 10:52	15° $\approx$ 03'31		inferior conj	13795 Jan 09 12:13	1° $\approx$ 08'33	-5°07'30
direct	13794 Feb 07 11:34	14° $\approx$ 49'14		minimum elong	13795 Jan 09 20:43	0° $\approx$ 54'37	5°04'41
asc. node	13794 Feb 09 21:09	15° $\approx$ 10'10			13795 Jan 11 06:49	30° $\approx$ 8'3	
morning max el	13794 Feb 15 13:00	18° $\approx$ 47'56	18°23'52	morning rise	13795 Jan 17 23:47	26° $\approx$ 35'42	
	13794 Feb 23 16:38	0° $\approx$		direct	13795 Jan 20 05:02	26° $\approx$ 34'34	
morning set	13794 Mar 03 08:30	14° $\approx$ 02'43		asc. node	13795 Jan 27 18:30	29° $\approx$ 34'56	
	13794 Mar 11 19:04	0° $\approx$			13795 Jan 28 03:28	0° $\approx$	
				morning max el	13795 Jan 29 13:36	1° $\approx$ 16'42	19°14'13
superior conj	13794 Mar 12 13:43	1° $\approx$ 25'47	0°17'12	morning set	13795 Feb 15 09:21	28° $\approx$ 27'22	
minimum elong	13794 Mar 12 14:56	1° $\approx$ 31'24	0°17'05		13795 Feb 16 03:58	0° $\approx$	
desc. node	13794 Mar 14 17:01	5° $\approx$ 18'52		superior conj	13795 Feb 23 15:06	14° $\approx$ 44'58	0°47'03
max. Earth dist.	13794 Mar 20 02:06	14° $\approx$ 46'00	1.40743 AU	minimum elong	13795 Feb 23 17:39	14° $\approx$ 57'16	0°47'02
evening rise	13794 Mar 24 12:02	22° $\approx$ 11'08		desc. node	13795 Mar 01 13:31	25° $\approx$ 53'58	
	13794 Mar 29 08:16	0° $\approx$		max. Earth dist.	13795 Mar 02 08:47	27° $\approx$ 21'22	1.38483 AU
	13794 Apr 19 02:41	0° $\approx$			13795 Mar 03 20:11	0° $\approx$	
evening max el	13794 Apr 27 20:23	10° $\approx$ 08'35	23°27'02	evening rise	13795 Mar 06 02:32	3° $\approx$ 58'42	
retrograde	13794 May 08 12:06	16° $\approx$ 24'37			13795 Mar 22 10:35	0° $\approx$	
asc. node	13794 May 08 17:40	16° $\approx$ 24'22		evening max el	13795 Apr 10 10:01	24° $\approx$ 01'41	24°46'42
evening set	13794 May 13 16:03	14° $\approx$ 13'50			13795 Apr 18 09:10	0° $\approx$	
min. Earth dist.	13794 May 18 11:48	8° $\approx$ 33'30	0.68850 AU	retrograde	13795 Apr 22 03:44	0° $\approx$ 52'36	
inferior conj	13794 May 19 01:14	7° $\approx$ 47'16	2°41'32	asc. node	13795 Apr 25 14:59	0° $\approx$ 00'15	
minimum elong	13794 May 18 23:21	7° $\approx$ 53'45	2°40'13		13795 Apr 25 15:11	30° $\approx$ 8'3	
morning rise	13794 May 24 06:36	1° $\approx$ 41'22		evening set	13795 Apr 27 19:21	28° $\approx$ 30'11	
	13794 May 28 09:07	30° $\approx$ 8'3		min. Earth dist.	13795 May 02 06:53	23° $\approx$ 26'12	0.68295 AU
direct	13794 May 28 12:49	29° $\approx$ 59'52		inferior conj	13795 May 03 08:56	21° $\approx$ 59'45	2°11'22
	13794 May 28 16:31	0° $\approx$		minimum elong	13795 May 03 06:47	22° $\approx$ 06'55	2°10'00
morning max el	13794 Jun 05 18:30	4° $\approx$ 41'55	20°46'38	morning rise	13795 May 08 18:27	16° $\approx$ 02'34	
desc. node	13794 Jun 10 18:33	10° $\approx$ 22'18		direct	13795 May 12 12:33	14° $\approx$ 41'47	
	13794 Jun 24 20:12	0° $\approx$		morning max el	13795 May 19 19:39	18° $\approx$ 43'58	19°38'14
morning set	13794 Jul 05 14:01	16° $\approx$ 18'48		desc. node	13795 May 28 15:29	29° $\approx$ 38'28	
max. Earth dist.	13794 Jul 13 18:06	29° $\approx$ 15'01	1.43411 AU		13795 May 28 21:38	0° $\approx$	
	13794 Jul 14 05:13	0° $\approx$		greatest brilliancy	13795 Jun 01 11:51	5° $\approx$ 09'40	-0.6m
superior conj	13794 Jul 20 12:44	10° $\approx$ 23'58	-1°50'10	morning set	13795 Jun 14 15:53	25° $\approx$ 01'21	
minimum elong	13794 Jul 20 20:01	10° $\approx$ 54'31	1°50'22		13795 Jun 17 21:24	0° $\approx$	
	13794 Jul 31 21:07	0° $\approx$		max. Earth dist.	13795 Jun 26 07:58	13° $\approx$ 11'02	1.44903 AU
evening rise	13794 Aug 01 14:50	1° $\approx$ 18'13		superior conj	13795 Jun 30 20:02	20° $\approx$ 21'02	-2°09'58
asc. node	13794 Aug 04 17:16	6° $\approx$ 46'42		minimum elong	13795 Jul 01 00:20	20° $\approx$ 38'19	2°10'50
evening max el	13794 Aug 18 05:36	27° $\approx$ 10'09	18°02'46		13795 Jul 06 18:48	0° $\approx$	
	13794 Aug 22 04:03	0° $\approx$		evening rise	13795 Jul 14 16:19	13° $\approx$ 07'32	
retrograde	13794 Aug 24 20:03	0° $\approx$ 34'24		asc. node	13795 Jul 22 13:57	26° $\approx$ 01'18	
evening set	13794 Aug 27 07:25	0° $\approx$ 05'29			13795 Jul 24 21:25	0° $\approx$	
	13794 Aug 27 12:53	30° $\approx$ 8'3		evening max el	13795 Aug 01 20:03	10° $\approx$ 35'49	18°09'20
inferior conj	13794 Sep 02 23:41	25° $\approx$ 02'50	1°05'39	retrograde	13795 Aug 08 04:42	13° $\approx$ 56'37	
minimum elong	13794 Sep 03 01:31	24° $\approx$ 58'19	1°04'48	evening set	13795 Aug 11 00:23	13° $\approx$ 14'34	
min. Earth dist.	13794 Sep 06 01:43	22° $\approx$ 02'28	0.61216 AU	inferior conj	13795 Aug 17 03:00	7° $\approx$ 54'19	2°03'24
desc. node	13794 Sep 06 15:46	21° $\approx$ 30'12		minimum elong	13795 Aug 17 05:29	7° $\approx$ 47'27	2°02'12
morning rise	13794 Sep 09 16:54	19° $\approx$ 04'42		min. Earth dist.	13795 Aug 19 17:48	5° $\approx$ 01'29	0.63434 AU
direct	13794 Sep 16 08:17	16° $\approx$ 50'27		morning rise	13795 Aug 23 08:43	1° $\approx$ 39'14	
morning max el	13794 Sep 30 13:36	24° $\approx$ 46'59	27°58'08	desc. node	13795 Aug 24 13:18	0° $\approx$ 49'25	
	13794 Oct 05 08:07	0° $\approx$			13795 Aug 26 01:50	30° $\approx$ 8'3	
	13794 Oct 25 05:09	0° $\approx$		direct	13795 Aug 30 00:15	29° $\approx$ 07'40	
asc. node	13794 Oct 31 19:18	12° $\approx$ 36'05			13795 Sep 03 04:39	0° $\approx$	
morning set	13794 Nov 02 20:31	16° $\approx$ 47'31		morning max el	13795 Sep 12 22:34	7° $\approx$ 08'58	27°46'15
max. Earth dist.	13794 Nov 08 13:53	29° $\approx$ 03'25	1.31458 AU		13795 Sep 30 11:22	0° $\approx$	
	13794 Nov 09 00:09	0° $\approx$			13795 Oct 17 09:36	0° $\approx$	
superior conj	13794 Nov 10 03:43	2° $\approx$ 32'22	1°18'37	morning set	13795 Oct 17 15:40	0° $\approx$ 30'22	
minimum elong	13794 Nov 10 01:35	2° $\approx$ 20'34	1°19'14	asc. node	13795 Oct 18 15:59	2° $\approx$ 33'10	
evening rise	13794 Nov 16 20:41	17° $\approx$ 20'12		max. Earth dist.	13795 Oct 22 14:57	10° $\approx$ 47'30	1.32282 AU
	13794 Nov 22 23:59	0° $\approx$		superior conj	13795 Oct 25 11:05	16° $\approx$ 54'05	1°00'45
desc. node	13794 Dec 03 12:32	17° $\approx$ 35'37					

minimum elong	13795 Oct 25 08:48	16° $\mathbb{M}$ 41'45	1°01'05	superior conj	13796 Oct 08 13:12	0° $\mathbb{M}$ 57'42	0°37'19
	13795 Oct 31 11:03	0° $\mathbb{A}$		minimum elong	13796 Oct 08 11:24	0° $\mathbb{M}$ 48'17	0°37'26
evening rise	13795 Nov 01 07:46	1° $\mathbb{A}$ 51'45		evening rise	13796 Oct 15 18:13	16° $\mathbb{M}$ 19'33	
	13795 Nov 16 12:48	0° $\mathbb{B}$			13796 Oct 22 12:40	0° $\mathbb{A}$	
desc. node	13795 Nov 20 09:41	5° $\mathbb{B}$ 13'07		evening max el	13796 Nov 05 06:26	20° $\mathbb{A}$ 03'15	21°47'44
evening max el	13795 Nov 24 17:49	9° $\mathbb{B}$ 59'44	23°28'14	desc. node	13796 Nov 06 06:58	21° $\mathbb{A}$ 01'08	
retrograde	13795 Dec 08 03:12	16° $\mathbb{B}$ 39'21		retrograde	13796 Nov 17 16:31	26° $\mathbb{A}$ 12'43	
evening set	13795 Dec 12 14:30	15° $\mathbb{B}$ 55'52		evening set	13796 Nov 20 18:35	25° $\mathbb{A}$ 51'18	
min. Earth dist.	13795 Dec 19 04:07	12° $\mathbb{B}$ 48'50	0.55223 AU	inferior conj	13796 Nov 29 13:03	21° $\mathbb{A}$ 57'44	-5°45'57
inferior conj	13795 Dec 20 19:26	11° $\mathbb{B}$ 51'20	-5°53'22	minimum elong	13796 Nov 29 07:21	22° $\mathbb{A}$ 05'43	5°44'16
minimum elong	13795 Dec 20 22:42	11° $\mathbb{B}$ 46'33	5°52'06	min. Earth dist.	13796 Nov 29 10:23	22° $\mathbb{A}$ 01'29	0.54517 AU
morning rise	13795 Dec 29 08:35	7° $\mathbb{B}$ 59'06		morning rise	13796 Dec 07 21:02	18° $\mathbb{A}$ 10'04	
direct	13796 Jan 01 02:58	7° $\mathbb{B}$ 40'33		direct	13796 Dec 11 12:18	17° $\mathbb{A}$ 41'05	
morning max el	13796 Jan 12 00:57	12° $\mathbb{B}$ 53'56	20°27'38	morning max el	13796 Dec 23 22:02	23° $\mathbb{A}$ 38'13	22°02'28
asc. node	13796 Jan 14 15:49	15° $\mathbb{B}$ 41'52			13796 Dec 29 11:42	0° $\mathbb{B}$	
	13796 Jan 24 00:24	0° $\approx$		asc. node	13796 Dec 31 13:03	2° $\mathbb{B}$ 52'49	
morning set	13796 Jan 30 16:11	13° $\approx$ 05'38		morning set	13797 Jan 14 02:35	27° $\mathbb{B}$ 50'50	
					13797 Jan 15 03:01	0° $\approx$	
superior conj	13796 Feb 07 05:23	28° $\approx$ 38'33	1°09'55	superior conj	13797 Jan 21 04:56	12° $\approx$ 56'31	1°25'49
minimum elong	13796 Feb 07 08:03	28° $\approx$ 52'05	1°10'13	minimum elong	13797 Jan 21 07:00	13° $\approx$ 07'22	1°26'28
	13796 Feb 07 21:30	0° $\mathbb{H}$		max. Earth dist.	13797 Jan 25 05:06	21° $\approx$ 14'36	1.34359 AU
max. Earth dist.	13796 Feb 12 16:07	9° $\mathbb{H}$ 23'44	1.36283 AU	evening rise	13797 Jan 29 12:50	29° $\approx$ 47'23	
evening rise	13796 Feb 16 11:56	16° $\mathbb{H}$ 33'35			13797 Jan 29 15:28	0° $\mathbb{H}$	
desc. node	13796 Feb 16 10:02	16° $\mathbb{H}$ 24'53		desc. node	13797 Feb 02 06:37	6° $\mathbb{H}$ 47'54	
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	13796 Mar 15 21:06	0° $\mathbb{B}$		evening max el	13797 Mar 05 13:11	21° $\mathbb{Y}$ 35'15	26°54'26
evening max el	13796 Mar 22 23:25	7° $\mathbb{B}$ 52'29	25°58'20	retrograde	13797 Mar 18 20:14	29° $\mathbb{Y}$ 01'42	
retrograde	13796 Apr 04 14:45	15° $\mathbb{B}$ 07'27		evening set	13797 Mar 25 08:25	26° $\mathbb{Y}$ 29'29	
evening set	13796 Apr 10 17:26	12° $\mathbb{B}$ 37'26		asc. node	13797 Mar 29 09:52	22° $\mathbb{Y}$ 29'03	
asc. node	13796 Apr 11 12:24	11° $\mathbb{B}$ 55'33		min. Earth dist.	13797 Mar 29 07:57	22° $\mathbb{Y}$ 34'30	0.65893 AU
min. Earth dist.	13796 Apr 14 22:17	8° $\mathbb{B}$ 08'48	0.67296 AU	inferior conj	13797 Mar 31 10:49	20° $\mathbb{Y}$ 07'02	0°38'30
inferior conj	13796 Apr 16 12:52	6° $\mathbb{B}$ 07'55	1°30'33	minimum elong	13797 Mar 31 09:49	20° $\mathbb{Y}$ 09'57	0°37'51
minimum elong	13796 Apr 16 10:57	6° $\mathbb{B}$ 13'57	1°29'21	morning rise	13797 Apr 06 12:35	14° $\mathbb{Y}$ 31'28	
morning rise	13796 Apr 22 05:10	0° $\mathbb{B}$ 20'40		direct	13797 Apr 09 09:26	13° $\mathbb{Y}$ 46'27	
	13796 Apr 22 19:48	30° $\mathbb{R}$ $\mathbb{Y}$		morning max el	13797 Apr 15 18:13	17° $\mathbb{Y}$ 06'58	18°08'43
direct	13796 Apr 25 12:03	29° $\mathbb{Y}$ 19'08			13797 Apr 25 10:07	0° $\mathbb{B}$	
	13796 Apr 28 06:29	0° $\mathbb{B}$		desc. node	13797 May 01 09:01	9° $\mathbb{B}$ 27'10	
morning max el	13796 May 02 04:05	2° $\mathbb{B}$ 54'13	18°45'11	morning set	13797 May 04 16:14	14° $\mathbb{B}$ 46'43	
desc. node	13796 May 14 12:18	19° $\mathbb{B}$ 22'35			13797 May 14 04:23	0° $\mathbb{II}$	
	13796 May 21 09:35	0° $\mathbb{II}$		superior conj	13797 May 19 17:27	8° $\mathbb{II}$ 44'25	-1°54'04
morning set	13796 May 24 03:19	4° $\mathbb{II}$ 16'05		minimum elong	13797 May 19 08:47	8° $\mathbb{II}$ 10'26	1°54'21
max. Earth dist.	13796 Jun 08 01:51	27° $\mathbb{II}$ 33'49	1.45723 AU	max. Earth dist.	13797 May 21 21:41	12° $\mathbb{II}$ 08'50	1.45806 AU
					13797 Jun 02 09:17	0° $\mathbb{B}$	
superior conj	13796 Jun 09 08:47	29° $\mathbb{II}$ 34'44	-2°12'03	evening rise	13797 Jun 04 19:41	3° $\mathbb{B}$ 46'17	
minimum elong	13796 Jun 09 05:42	29° $\mathbb{II}$ 22'38	2°13'02	greatest brilliancy	13797 Jun 16 18:55	22° $\mathbb{B}$ 08'48	-0.7m
	13796 Jun 09 15:15	0° $\mathbb{B}$			13797 Jun 22 04:45	0° $\mathbb{B}$	
evening rise	13796 Jun 24 17:43	23° $\mathbb{B}$ 55'02		asc. node	13797 Jun 25 07:37	4° $\mathbb{B}$ 07'36	
	13796 Jun 28 12:44	0° $\mathbb{B}$		evening max el	13797 Jun 28 18:14	8° $\mathbb{B}$ 01'42	19°15'22
greatest brilliancy	13796 Jun 30 21:36	3° $\mathbb{B}$ 47'25	-0.9m	retrograde	13797 Jul 05 17:55	11° $\mathbb{B}$ 54'48	
asc. node	13796 Jul 08 10:44	15° $\mathbb{B}$ 27'44		evening set	13797 Jul 09 07:34	10° $\mathbb{B}$ 40'50	
evening max el	13796 Jul 15 09:04	24° $\mathbb{B}$ 15'02	18°33'50	inferior conj	13797 Jul 14 17:44	4° $\mathbb{B}$ 51'04	3°03'29
retrograde	13796 Jul 21 21:06	27° $\mathbb{B}$ 45'44		minimum elong	13797 Jul 14 18:58	4° $\mathbb{B}$ 47'04	3°02'26
evening set	13796 Jul 25 01:29	26° $\mathbb{B}$ 48'24		min. Earth dist.	13797 Jul 16 04:13	2° $\mathbb{B}$ 58'55	0.66979 AU
inferior conj	13796 Jul 30 18:09	21° $\mathbb{B}$ 12'38	2°41'36		13797 Jul 18 15:52	30° $\mathbb{R}$ $\mathbb{B}$	
minimum elong	13796 Jul 30 20:15	21° $\mathbb{B}$ 06'15	2°40'27	morning rise	13797 Jul 20 05:46	28° $\mathbb{B}$ 26'32	
min. Earth dist.	13796 Aug 01 19:08	18° $\mathbb{B}$ 44'13	0.65396 AU	direct	13797 Jul 26 07:40	25° $\mathbb{B}$ 48'26	
morning rise	13796 Aug 05 13:55	14° $\mathbb{B}$ 49'36		desc. node	13797 Jul 28 08:16	26° $\mathbb{B}$ 03'42	
desc. node	13796 Aug 10 10:49	12° $\mathbb{B}$ 18'54			13797 Aug 04 06:57	0° $\mathbb{B}$	
direct	13796 Aug 12 00:31	12° $\mathbb{B}$ 09'54		morning max el	13797 Aug 07 20:32	3° $\mathbb{B}$ 18'10	25°52'04
morning max el	13796 Aug 25 09:36	20° $\mathbb{B}$ 03'18	27°01'26		13797 Aug 28 04:25	0° $\mathbb{B}$	
	13796 Sep 02 22:19	0° $\mathbb{B}$		morning set	13797 Sep 12 20:10	26° $\mathbb{B}$ 18'00	
	13796 Sep 22 13:18	0° $\mathbb{B}$			13797 Sep 14 20:01	0° $\mathbb{B}$	
morning set	13796 Sep 30 00:44	13° $\mathbb{B}$ 43'30		max. Earth dist.	13797 Sep 16 12:57	3° $\mathbb{B}$ 13'58	1.35499 AU
max. Earth dist.	13796 Oct 04 06:59	22° $\mathbb{B}$ 08'47	1.33640 AU	asc. node	13797 Sep 21 09:10	12° $\mathbb{B}$ 44'11	
asc. node	13796 Oct 04 12:36	22° $\mathbb{B}$ 37'15					
	13796 Oct 08 02:14	0° $\mathbb{M}$					




































































































































superior conj	13797 Sep 22 07:23	14°♄36'14	0°08'41	max. Earth dist.	13798 Aug 29 12:16	14°♄27'26	1.37723 AU
minimum elong	13797 Sep 22 06:52	14°♄33'40	0°08'44				
behind sun begin	13797 Sep 22 01:41	14°♄07'24		superior conj	13798 Sep 05 14:23	27°♄42'00	-0°24'13
behind sun end	13797 Sep 22 12:04	14°♄59'58		minimum elong	13798 Sep 05 16:01	27°♄49'56	0°24'05
	13797 Sep 29 18:36	0°♄			13798 Sep 06 18:51	0°♄	
evening rise	13797 Sep 30 01:58	0°♄37'59		asc. node	13798 Sep 08 05:43	2°♄50'39	
	13797 Oct 17 15:29	0°♄		evening rise	13798 Sep 14 04:37	14°♄41'22	
evening max el	13797 Oct 18 06:23	0°♄38'06	20°20'55		13798 Sep 22 06:13	0°♄	
desc. node	13797 Oct 24 04:21	4°♄56'06		evening max el	13798 Sep 30 20:34	12°♄00'55	19°14'51
retrograde	13797 Oct 29 03:43	6°♄02'58		retrograde	13798 Oct 10 02:21	16°♄38'42	
evening set	13797 Oct 31 07:17	5°♄51'18		desc. node	13798 Oct 11 01:48	16°♄35'47	
inferior conj	13797 Nov 09 05:57	1°♄55'23	-4°39'47	evening set	13798 Oct 11 23:00	16°♄28'14	
minimum elong	13797 Nov 08 19:52	2°♄10'11	4°36'10	inferior conj	13798 Oct 20 12:09	12°♄17'40	-2°57'15
min. Earth dist.	13797 Nov 10 17:21	1°♄03'26	0.54748 AU	minimum elong	13798 Oct 20 04:38	12°♄30'12	2°53'49
	13797 Nov 12 14:08	30°♄		min. Earth dist.	13798 Oct 23 03:50	10°♄32'03	0.55878 AU
morning rise	13797 Nov 17 07:48	27°♄53'17		morning rise	13798 Oct 28 07:47	7°♄43'51	
direct	13797 Nov 21 22:00	27°♄07'47		direct	13798 Nov 02 18:05	6°♄36'27	
	13797 Nov 30 16:54	0°♄		morning max el	13798 Nov 16 19:21	13°♄43'23	25°35'32
morning max el	13797 Dec 05 09:09	3°♄43'30	23°50'31		13798 Nov 29 14:09	0°♄	
asc. node	13797 Dec 18 10:10	20°♄57'22		asc. node	13798 Dec 05 07:11	9°♄42'21	
	13797 Dec 23 10:28	0°♄		morning set	13798 Dec 14 01:59	27°♄16'38	
morning set	13797 Dec 29 14:27	12°♄36'03			13798 Dec 15 08:11	0°♄	
superior conj	13798 Jan 05 10:42	27°♄29'05	1°35'06	superior conj	13798 Dec 20 20:19	12°♄09'41	1°38'06
minimum elong	13798 Jan 05 11:47	27°♄34'56	1°36'01	minimum elong	13798 Dec 20 20:18	12°♄09'36	1°39'09
	13798 Jan 06 14:35	0°♄		max. Earth dist.	13798 Dec 22 05:45	15°♄14'23	1.31794 AU
max. Earth dist.	13798 Jan 08 02:00	3°♄09'49	1.32841 AU	evening rise	13798 Dec 27 23:24	27°♄33'23	
evening rise	13798 Jan 13 01:39	13°♄29'46			13798 Dec 29 03:52	0°♄	
desc. node	13798 Jan 20 03:16	26°♄57'25		desc. node	13799 Jan 07 00:00	16°♄47'36	
	13798 Jan 21 20:22	0°♄			13799 Jan 15 03:18	0°♄	
	13798 Feb 11 09:16	0°♄		evening max el	13799 Jan 29 12:24	17°♄49'09	27°31'39
evening max el	13798 Feb 16 02:14	4°♄58'29	27°27'46	retrograde	13799 Feb 12 09:57	25°♄11'00	
retrograde	13798 Mar 01 18:56	12°♄25'52		evening set	13799 Feb 19 07:38	22°♄54'32	
evening set	13798 Mar 08 14:03	9°♄57'52		min. Earth dist.	13799 Feb 23 01:46	19°♄56'34	0.62097 AU
min. Earth dist.	13798 Mar 12 09:43	6°♄33'50	0.64133 AU	inferior conj	13799 Feb 26 01:41	17°♄08'46	-1°40'06
inferior conj	13798 Mar 15 00:08	3°♄49'57	-0°25'14	minimum elong	13799 Feb 26 05:08	17°♄00'39	1°38'21
minimum elong	13798 Mar 15 00:54	3°♄47'54	0°24'52	asc. node	13799 Mar 03 04:52	13°♄00'37	
asc. node	13798 Mar 16 07:22	2°♄29'00		morning rise	13799 Mar 05 05:27	12°♄04'34	
	13798 Mar 19 01:10	30°♄		direct	13799 Mar 07 10:51	11°♄42'22	
morning rise	13798 Mar 21 13:53	28°♄28'29		morning max el	13799 Mar 14 04:49	15°♄07'24	17°47'47
direct	13798 Mar 24 02:07	27°♄56'39			13799 Mar 24 13:51	0°♄	
	13798 Mar 29 02:02	0°♄		morning set	13799 Mar 30 00:38	9°♄33'31	
morning max el	13798 Mar 30 11:27	1°♄14'04	17°49'24	desc. node	13799 Apr 05 02:07	20°♄14'00	
morning set	13798 Apr 16 09:01	26°♄37'51					
desc. node	13798 Apr 18 05:36	29°♄45'49		superior conj	13799 Apr 10 11:15	29°♄27'05	-0°41'28
	13798 Apr 18 08:59	0°♄		minimum elong	13799 Apr 10 07:16	29°♄10'18	0°41'17
					13799 Apr 10 19:05	0°♄	
superior conj	13798 Apr 29 14:57	18°♄33'26	-1°20'57	max. Earth dist.	13799 Apr 17 10:02	10°♄54'47	1.43818 AU
minimum elong	13798 Apr 29 06:57	18°♄01'12	1°20'42	evening rise	13799 Apr 24 22:02	22°♄46'42	
max. Earth dist.	13798 May 04 17:15	26°♄41'12	1.45147 AU		13799 Apr 29 15:02	0°♄	
	13798 May 06 19:46	0°♄			13799 May 20 19:34	0°♄	
evening rise	13798 May 15 07:50	13°♄09'56		evening max el	13799 May 25 19:38	5°♄40'11	21°22'08
	13798 May 26 11:44	0°♄		asc. node	13799 May 30 01:42	9°♄14'23	
evening max el	13798 Jun 11 21:54	21°♄51'01	20°12'23	retrograde	13799 Jun 03 15:19	10°♄49'02	
asc. node	13798 Jun 12 04:37	22°♄07'38		evening set	13799 Jun 08 01:26	9°♄01'18	
retrograde	13798 Jun 19 16:39	26°♄17'55		inferior conj	13799 Jun 13 07:21	2°♄47'26	3°08'22
evening set	13798 Jun 23 16:12	24°♄46'50		minimum elong	13799 Jun 13 06:35	2°♄50'05	3°07'15
inferior conj	13798 Jun 28 22:55	18°♄44'16	3°11'47	min. Earth dist.	13799 Jun 13 14:04	2°♄23'58	0.68768 AU
minimum elong	13798 Jun 28 23:08	18°♄43'33	3°10'45		13799 Jun 15 08:23	30°♄	
min. Earth dist.	13798 Jun 29 19:12	17°♄35'11	0.68111 AU	morning rise	13799 Jun 18 11:32	26°♄30'30	
morning rise	13798 Jul 04 05:45	12°♄22'21		direct	13799 Jun 23 13:38	24°♄18'07	
direct	13798 Jul 09 20:23	9°♄54'07		desc. node	13799 Jul 02 02:48	28°♄46'20	
desc. node	13798 Jul 15 05:36	11°♄41'55			13799 Jul 03 09:47	0°♄	
morning max el	13798 Jul 21 06:52	16°♄45'10	24°27'53	morning max el	13799 Jul 03 17:52	0°♄20'10	22°58'19
	13798 Aug 01 06:53	0°♄			13799 Jul 26 02:37	0°♄	
	13798 Aug 21 03:56	0°♄		morning set	13799 Aug 07 00:51	18°♄49'55	
morning set	13798 Aug 25 21:45	8°♄04'00		max. Earth dist.	13799 Aug 11 10:59	26°♄16'17	1.40081 AU

	13799 Aug 13 14:44	0°♎				13800 Jul 19 01:32	0°♏	
				max. Earth dist.		13800 Jul 24 13:59	8°♏55'17	1.42298 AU
superior conj	13799 Aug 19 06:05	10°♎04'29	-0°59'25					
minimum elong	13799 Aug 19 10:31	10°♎24'48	0°59'10	superior conj	13800 Aug 01 02:06	21°♏34'14	-1°33'20	
asc. node	13799 Aug 26 02:15	22°♎52'25		minimum elong	13800 Aug 01 08:59	22°♏04'00	1°33'14	
evening rise	13799 Aug 28 23:04	28°♎20'55			13800 Aug 05 21:20	0°♎		
	13799 Aug 29 19:50	0°♏		evening rise	13800 Aug 12 05:26	11°♎26'48		
evening max el	13799 Sep 13 22:41	24°♏09'48	18°30'44	asc. node	13800 Aug 12 22:50	12°♎45'57		
retrograde	13799 Sep 21 19:42	28°♏08'36			13800 Aug 22 22:34	0°♏		
evening set	13799 Sep 23 19:16	27°♏54'14		evening max el	13800 Aug 28 08:44	6°♏56'24	18°07'24	
desc. node	13799 Sep 27 23:18	26°♏02'00		retrograde	13800 Sep 04 07:18	10°♏29'08		
inferior conj	13799 Oct 01 15:14	23°♏23'30	-1°09'46	evening set	13800 Sep 06 13:54	10°♏06'40		
minimum elong	13799 Oct 01 12:28	23°♏28'52	1°08'21	inferior conj	13800 Sep 13 15:41	5°♏15'29	0°22'26	
min. Earth dist.	13799 Oct 04 20:39	20°♏53'42	0.57692 AU	minimum elong	13800 Sep 13 16:25	5°♏13'49	0°22'07	
morning rise	13799 Oct 09 02:12	18°♏11'47		desc. node	13800 Sep 14 20:50	4°♏09'01		
direct	13799 Oct 15 04:21	16°♏37'46		min. Earth dist.	13800 Sep 16 21:47	2°♏19'44	0.59893 AU	
morning max el	13799 Oct 29 11:36	24°♏10'08	26°58'57		13800 Sep 19 21:48	30°♎		
	13799 Nov 03 19:28	0°♎		morning rise	13800 Sep 20 15:39	29°♎31'19		
asc. node	13799 Nov 22 04:03	28°♎56'45		direct	13800 Sep 27 04:09	27°♎30'10		
	13799 Nov 22 17:07	0°♎			13800 Oct 04 20:50	0°♏		
morning set	13799 Nov 28 11:27	11°♎47'33		morning max el	13800 Oct 11 11:33	5°♏20'57	27°47'42	
					13800 Oct 29 20:40	0°♎		
superior conj	13799 Dec 05 07:44	26°♎52'09	1°35'08	asc. node	13800 Nov 09 00:50	18°♎32'38		
minimum elong	13799 Dec 05 06:42	26°♎46'21	1°36'07	morning set	13800 Nov 12 17:01	26°♎04'04		
max. Earth dist.	13799 Dec 05 13:26	27°♎24'00	1.31246 AU		13800 Nov 14 13:23	0°♎		
	13799 Dec 06 17:23	0°♏		max. Earth dist.	13800 Nov 18 21:25	9°♎30'22	1.31223 AU	
evening rise	13799 Dec 12 03:31	11°♏51'39						
	13799 Dec 21 07:52	0°♏		superior conj	13800 Nov 19 19:05	11°♎31'03	1°26'19	
desc. node	13799 Dec 24 20:52	6°♏10'35		minimum elong	13800 Nov 19 17:16	11°♎20'51	1°27'06	
evening max el	13800 Jan 11 17:03	29°♏55'01	27°01'42	evening rise	13800 Nov 26 11:52	26°♎19'10		
	13800 Jan 11 19:10	0°♎			13800 Nov 28 05:19	0°♏		
retrograde	13800 Jan 25 16:20	7°♎08'27		desc. node	13800 Dec 11 17:51	24°♏55'29		
evening set	13800 Feb 01 09:58	5°♎11'25			13800 Dec 15 04:03	0°♏		
min. Earth dist.	13800 Feb 05 07:18	2°♎30'43	0.59910 AU	evening max el	13800 Dec 24 13:54	11°♏08'32	25°57'41	
inferior conj	13800 Feb 08 11:56	29°♏54'18	-3°03'04	retrograde	13801 Jan 07 12:19	18°♏11'40		
minimum elong	13800 Feb 08 18:34	29°♏40'42	3°00'00	evening set	13801 Jan 13 16:55	16°♏41'31		
	13800 Feb 08 09:09	30°♎		min. Earth dist.	13801 Jan 18 02:56	14°♏04'26	0.57784 AU	
morning rise	13800 Feb 16 06:22	25°♏10'20		inferior conj	13801 Jan 21 03:19	11°♏56'10	-4°25'59	
direct	13800 Feb 18 07:30	24°♏54'16		minimum elong	13801 Jan 21 12:08	11°♏40'29	4°22'35	
asc. node	13800 Feb 18 02:18	24°♏54'27		morning rise	13801 Jan 29 10:15	7°♏34'00		
morning max el	13800 Feb 25 18:53	28°♏37'35	18°04'57	direct	13801 Jan 31 11:43	7°♏20'25		
	13800 Feb 27 02:09	0°♎		asc. node	13801 Feb 04 23:42	8°♏29'14		
morning set	13800 Mar 13 09:02	23°♎15'35		morning max el	13801 Feb 09 01:40	11°♏32'27	18°42'33	
	13800 Mar 17 00:05	0°♎			13801 Feb 21 07:33	0°♎		
desc. node	13800 Mar 22 22:36	10°♎48'04		morning set	13801 Feb 25 05:03	7°♎28'00		
superior conj	13800 Mar 23 07:21	11°♎27'00	-0°02'56	superior conj	13801 Mar 05 23:23	24°♎20'54	0°30'40	
minimum elong	13800 Mar 23 07:07	11°♎25'55	0°02'59	minimum elong	13801 Mar 06 01:21	24°♎30'06	0°30'34	
behind sun begin	13800 Mar 22 23:27	10°♎51'51			13801 Mar 09 00:40	0°♎		
behind sun end	13800 Mar 23 14:46	11°♎59'54		desc. node	13801 Mar 09 19:06	1°♎23'46		
max. Earth dist.	13800 Mar 30 22:07	24°♎34'32	1.41962 AU	max. Earth dist.	13801 Mar 13 05:37	7°♎31'11	1.39786 AU	
	13800 Apr 03 05:02	0°♎		evening rise	13801 Mar 17 06:10	14°♎25'33		
evening rise	13800 Apr 05 03:39	3°♎08'25			13801 Mar 26 22:35	0°♎		
	13800 Apr 22 23:19	0°♎			13801 Apr 17 22:35	0°♎		
evening max el	13800 May 08 12:34	19°♎30'14	22°40'21	evening max el	13801 Apr 21 02:49	3°♎22'12	24°01'27	
asc. node	13800 May 16 22:54	25°♎12'19		retrograde	13801 May 02 06:19	9°♎54'52		
retrograde	13800 May 18 12:21	25°♎23'24		asc. node	13801 May 03 20:12	9°♎43'45		
evening set	13800 May 23 09:36	23°♎20'25		evening set	13801 May 07 15:07	7°♎38'54		
inferior conj	13800 May 28 17:00	16°♎57'26	2°54'18	min. Earth dist.	13801 May 12 07:11	2°♎13'49	0.68666 AU	
minimum elong	13800 May 28 15:27	17°♎02'50	2°53'03	inferior conj	13801 May 13 01:58	1°♎09'59	2°30'01	
min. Earth dist.	13800 May 28 10:48	17°♎19'02	0.68951 AU	minimum elong	13801 May 12 23:55	1°♎16'57	2°28'40	
morning rise	13800 Jun 02 21:11	10°♎47'03			13801 May 13 22:41	30°♎		
direct	13800 Jun 07 10:29	8°♎53'54		morning rise	13801 May 18 08:45	25°♎07'23		
morning max el	13800 Jun 16 08:21	14°♎04'16	21°32'01	direct	13801 May 22 09:40	23°♎34'47		
desc. node	13800 Jun 18 23:53	16°♎54'43		morning max el	13801 May 30 05:01	27°♎58'52	20°15'42	
	13800 Jun 29 02:20	0°♎			13801 Jun 01 02:57	0°♎		
morning set	13800 Jul 18 03:01	28°♎30'46		desc. node	13801 Jun 05 20:52	5°♎49'33		

	13801 Jun 22 13:51	0°☿				13802 Jun 15 10:52	0°☿	
morning set	13801 Jun 27 09:06	7°☿20'42			max. Earth dist.	13802 Jun 19 15:31	6°☿33'40	1.45345 AU
max. Earth dist.	13801 Jul 06 23:34	22°☿24'15	1.44118 AU					
	13801 Jul 11 16:29	0°♌			superior conj	13802 Jun 22 21:06	11°☿39'27	-2°13'18
					minimum elong	13802 Jun 22 22:34	11°☿45'14	2°14'21
superior conj	13801 Jul 12 22:54	2°♌04'29	-2°00'21			13802 Jul 04 06:51	0°♌	
minimum elong	13801 Jul 13 05:35	2°♌31'55	2°00'50		evening rise	13802 Jul 07 10:23	5°♌09'36	
evening rise	13801 Jul 25 18:53	23°♌46'49			asc. node	13802 Jul 17 16:14	21°♌49'27	
	13801 Jul 29 09:15	0°♍				13802 Jul 23 07:31	0°♍	
asc. node	13801 Jul 30 19:30	2°♍26'48			evening max el	13802 Jul 26 12:53	3°♍42'49	18°17'41
evening max el	13801 Aug 11 22:39	20°♍10'35	18°03'25		retrograde	13802 Aug 01 21:43	7°♍05'53	
retrograde	13801 Aug 18 09:26	23°♍31'29			evening set	13802 Aug 04 21:11	6°♍17'23	
evening set	13801 Aug 21 00:18	22°♍57'20			inferior conj	13802 Aug 10 19:06	0°♍50'20	2°21'48
inferior conj	13801 Aug 27 10:20	17°♍47'14	1°32'42		minimum elong	13802 Aug 10 21:30	0°♍43'22	2°20'35
minimum elong	13801 Aug 27 12:37	17°♍41'20	1°31'38			13802 Aug 11 12:28	30°♍♌	
min. Earth dist.	13801 Aug 30 08:15	14°♍47'29	0.62179 AU		min. Earth dist.	13802 Aug 13 04:11	28°♌06'19	0.64310 AU
desc. node	13801 Sep 01 18:21	12°♍34'56			morning rise	13802 Aug 16 20:22	24°♌31'16	
morning rise	13801 Sep 02 22:32	11°♍40'50			desc. node	13802 Aug 19 15:54	22°♌45'23	
direct	13801 Sep 09 14:54	9°♍17'48			direct	13802 Aug 23 10:28	21°♌55'06	
morning max el	13801 Sep 23 17:42	17°♍17'55	27°57'31		morning max el	13802 Sep 06 03:38	29°♌53'57	27°30'50
	13801 Oct 04 07:35	0°♎				13802 Sep 06 06:02	0°♎	
	13801 Oct 22 14:55	0°♏				13802 Sep 28 07:20	0°♎	
asc. node	13801 Oct 26 21:32	8°♏23'42			morning set	13802 Oct 11 07:53	23°♎31'45	
morning set	13801 Oct 27 16:41	10°♏01'12			asc. node	13802 Oct 13 18:10	28°♎23'59	
max. Earth dist.	13801 Nov 02 02:02	21°♏25'02	1.31737 AU			13802 Oct 14 12:57	0°♏	
					max. Earth dist.	13802 Oct 15 23:36	2°♏59'21	1.32795 AU
superior conj	13801 Nov 04 04:32	26°♏01'14	1°11'46					
minimum elong	13801 Nov 04 02:17	25°♏48'49	1°12'15		superior conj	13802 Oct 19 09:57	10°♏15'49	0°51'31
	13801 Nov 05 23:49	0°♐			minimum elong	13802 Oct 19 07:47	10°♏04'15	0°51'43
evening rise	13801 Nov 10 22:31	10°♐51'13			evening rise	13802 Oct 26 09:33	25°♏21'44	
	13801 Nov 20 13:05	0°♑				13802 Oct 28 14:14	0°♐	
desc. node	13801 Nov 28 14:58	12°♑48'10			desc. node	13802 Nov 15 12:11	29°♐28'21	
evening max el	13801 Dec 06 02:59	21°♑34'53	24°26'55			13802 Nov 15 23:46	0°♑	
retrograde	13801 Dec 19 19:38	28°♑24'26			evening max el	13802 Nov 17 13:00	1°♑35'23	22°44'38
evening set	13801 Dec 25 00:46	27°♑24'43			retrograde	13802 Nov 30 13:53	8°♑03'28	
min. Earth dist.	13801 Dec 30 14:40	24°♑34'05	0.55994 AU		evening set	13802 Dec 04 10:59	7°♑30'41	
inferior conj	13802 Jan 01 21:57	23°♑08'20	-5°32'09		min. Earth dist.	13802 Dec 11 21:27	4°♑07'45	0.54822 AU
minimum elong	13802 Jan 02 05:00	22°♑57'23	5°30'01		inferior conj	13802 Dec 12 22:07	3°♑32'46	-5°57'38
morning rise	13802 Jan 10 11:12	19°♑06'31			minimum elong	13802 Dec 12 21:36	3°♑33'31	5°56'34
direct	13802 Jan 12 20:51	18°♑51'08				13802 Dec 20 10:26	30°♑♐	
asc. node	13802 Jan 22 21:02	23°♑40'39			morning rise	13802 Dec 21 09:34	29°♐44'36	
morning max el	13802 Jan 22 21:02	23°♑40'41	19°42'29		direct	13802 Dec 24 12:30	29°♐22'11	
	13802 Jan 28 03:09	0°♒				13802 Dec 28 10:45	0°♑	
morning set	13802 Feb 09 08:50	21°♒59'42			morning max el	13803 Jan 05 02:01	4°♑53'56	21°05'34
	13802 Feb 13 07:39	0°♓			asc. node	13803 Jan 09 18:18	10°♑12'32	
						13803 Jan 21 10:51	0°♒	
superior conj	13802 Feb 17 06:47	7°♓56'06	0°57'36		morning set	13803 Jan 24 17:30	6°♒41'47	
minimum elong	13802 Feb 17 09:30	8°♓09'30	0°57'41					
max. Earth dist.	13802 Feb 23 11:58	19°♓50'20	1.37534 AU		superior conj	13803 Feb 01 01:24	22°♒00'53	1°17'30
desc. node	13802 Feb 24 15:38	21°♓57'39			minimum elong	13803 Feb 01 03:53	22°♒13'40	1°17'56
evening rise	13802 Feb 27 05:12	26°♓34'52				13803 Feb 04 23:59	0°♓	
	13802 Mar 01 03:58	0°♔			max. Earth dist.	13803 Feb 05 21:38	1°♓46'58	1.35430 AU
	13802 Mar 20 10:40	0°♕			evening rise	13803 Feb 09 21:38	9°♓27'14	
evening max el	13802 Apr 03 16:26	17°♕15'31	25°18'36		desc. node	13803 Feb 11 12:12	12°♓25'41	
retrograde	13802 Apr 15 20:03	24°♕17'40				13803 Feb 21 18:38	0°♔	
asc. node	13802 Apr 20 17:34	22°♕36'13				13803 Mar 16 04:19	0°♕	
evening set	13802 Apr 21 16:24	21°♕51'47			evening max el	13803 Mar 17 06:11	1°♕04'28	26°24'30
min. Earth dist.	13802 Apr 26 01:02	17°♕02'46	0.67927 AU		retrograde	13803 Mar 30 04:38	8°♕24'52	
inferior conj	13802 Apr 27 08:20	15°♕21'09	1°55'23		evening set	13803 Apr 05 11:43	5°♕53'16	
minimum elong	13802 Apr 27 06:13	15°♕28'05	1°54'03		asc. node	13803 Apr 07 15:00	3°♕52'47	
morning rise	13802 May 02 20:24	9°♕27'46			min. Earth dist.	13803 Apr 09 14:12	1°♕39'18	0.66753 AU
direct	13802 May 06 09:39	8°♕15'15				13803 Apr 10 22:58	30°♕♔	
morning max el	13802 May 13 09:16	12°♕04'13	19°13'34		inferior conj	13803 Apr 11 10:02	29°♔26'14	1°09'52
desc. node	13802 May 23 17:45	25°♕18'25			minimum elong	13803 Apr 11 08:25	29°♔31'12	1°08'52
greatest brilliancy	13802 May 26 05:46	28°♕59'14	-0.7m		morning rise	13803 Apr 17 06:02	23°♔43'46	
	13802 May 26 22:03	0°♖			direct	13803 Apr 20 08:36	22°♔49'28	
morning set	13802 Jun 06 12:19	16°♖08'57			morning max el	13803 Apr 26 20:24	26°♔16'27	18°27'36

	13803 Apr 30 03:56	0°♄	direct	13804 Apr 03 04:15	7°♄10'36	
desc. node	13803 May 10 14:31	15°♄12'08	morning max el	13804 Apr 09 12:16	10°♄28'12	17°58'25
morning set	13803 May 17 09:36	25°♄53'53		13804 Apr 23 04:23	0°♄	
	13803 May 19 24:00	0°♄	desc. node	13804 Apr 26 11:09	5°♄23'13	
			morning set	13804 Apr 27 10:39	6°♄59'47	
superior conj	13803 Jun 02 05:56	20°♄45'42 -2°06'44				
minimum elong	13803 Jun 01 23:48	20°♄21'45 2°07'28	superior conj	13804 May 11 18:14	0°♄07'36 -1°41'22	
max. Earth dist.	13803 Jun 02 11:13	21°♄06'17 1.45854 AU	minimum elong	13804 May 11 09:09	29°♄31'41 1°41'21	
	13803 Jun 08 03:54	0°♄		13804 May 11 16:19	0°♄	
evening rise	13803 Jun 18 01:21	15°♄32'02	max. Earth dist.	13804 May 15 07:18	5°♄42'28 1.45610 AU	
greatest brilliancy	13803 Jun 27 01:58	29°♄42'37 -0.8m	evening rise	13804 May 27 19:45	25°♄06'57	
	13803 Jun 27 06:27	0°♄		13804 May 31 00:10	0°♄	
asc. node	13803 Jul 04 13:05	10°♄47'40	greatest brilliancy	13804 Jun 10 14:44	15°♄59'49 -0.7m	
evening max el	13803 Jul 10 00:32	17°♄26'05 18°49'27	asc. node	13804 Jun 20 10:01	29°♄12'01	
retrograde	13803 Jul 16 16:27	21°♄04'47		13804 Jun 21 03:11	0°♄	
evening set	13803 Jul 20 00:46	20°♄00'20	evening max el	13804 Jun 22 07:23	1°♄13'51 19°37'47	
inferior conj	13803 Jul 25 14:14	14°♄18'11 2°52'41	retrograde	13804 Jun 29 14:28	5°♄20'32	
minimum elong	13803 Jul 25 16:00	14°♄12'37 2°51'35	evening set	13804 Jul 03 08:11	3°♄59'19	
min. Earth dist.	13803 Jul 27 08:56	12°♄04'24 0.66121 AU		13804 Jul 07 04:58	30°♄	
morning rise	13803 Jul 31 06:25	7°♄53'56	inferior conj	13804 Jul 08 16:32	28°♄03'43 3°08'32	
direct	13803 Aug 06 13:36	5°♄14'10	minimum elong	13804 Jul 08 17:20	28°♄01'03 3°07'30	
desc. node	13803 Aug 06 13:21	5°♄14'10	min. Earth dist.	13804 Jul 09 20:51	26°♄29'23 0.67515 AU	
morning max el	13803 Aug 19 14:57	12°♄58'56 26°34'28	morning rise	13804 Jul 14 02:01	21°♄39'40	
	13803 Sep 02 08:30	0°♄	direct	13804 Jul 19 23:10	19°♄05'03	
	13803 Sep 20 23:20	0°♄	desc. node	13804 Jul 23 10:44	19°♄50'15	
morning set	13803 Sep 24 11:35	6°♄29'11	morning max el	13804 Aug 01 01:49	26°♄20'35 25°17'29	
max. Earth dist.	13803 Sep 28 11:34	14°♄13'13 1.34380 AU		13804 Aug 04 10:52	0°♄	
asc. node	13803 Sep 30 14:47	18°♄29'39		13804 Aug 25 22:07	0°♄	
			morning set	13804 Sep 05 23:58	18°♄44'26	
superior conj	13803 Oct 03 09:00	24°♄09'11 0°25'46	max. Earth dist.	13804 Sep 09 14:06	25°♄18'27 1.36411 AU	
minimum elong	13803 Oct 03 07:39	24°♄02'11 0°25'50		13804 Sep 12 01:40	0°♄	
	13803 Oct 06 04:02	0°♄				
evening rise	13803 Oct 10 19:07	9°♄46'08	superior conj	13804 Sep 15 22:49	7°♄34'22 -0°04'53	
	13803 Oct 21 08:24	0°♄	minimum elong	13804 Sep 15 23:07	7°♄35'52 0°04'48	
evening max el	13803 Oct 30 05:23	11°♄47'27 21°08'25	behind sun begin	13804 Sep 15 16:59	7°♄05'28	
desc. node	13803 Nov 02 09:30	14°♄31'11	behind sun end	13804 Sep 16 05:15	8°♄06'21	
retrograde	13803 Nov 11 00:53	17°♄39'38	asc. node	13804 Sep 16 11:22	8°♄36'49	
evening set	13803 Nov 13 15:34	17°♄23'36	evening rise	13804 Sep 24 01:00	23°♄58'47	
inferior conj	13803 Nov 22 13:26	13°♄30'17 -5°24'15		13804 Sep 27 00:50	0°♄	
minimum elong	13803 Nov 22 04:55	13°♄42'19 5°21'42	evening max el	13804 Oct 11 11:18	22°♄41'33 19°50'05	
min. Earth dist.	13803 Nov 23 03:17	13°♄10'43 0.54500 AU	desc. node	13804 Oct 19 06:53	27°♄30'21	
morning rise	13803 Nov 30 18:47	9°♄39'18	retrograde	13804 Oct 21 15:50	27°♄46'24	
direct	13803 Dec 04 19:49	9°♄04'13	evening set	13804 Oct 23 14:30	27°♄36'08	
morning max el	13803 Dec 17 17:54	15°♄18'00 22°47'44	inferior conj	13804 Nov 01 10:34	23°♄35'10 -3°58'49	
asc. node	13803 Dec 27 15:28	27°♄47'35	minimum elong	13804 Nov 01 00:56	23°♄49'59 3°54'55	
	13803 Dec 29 00:26	0°♄	min. Earth dist.	13804 Nov 03 11:41	22°♄19'35 0.55121 AU	
morning set	13804 Jan 09 04:43	21°♄27'36	morning rise	13804 Nov 09 09:51	19°♄20'44	
	13804 Jan 13 04:09	0°♄	direct	13804 Nov 14 08:47	18°♄26'42	
			morning max el	13804 Nov 28 03:43	25°♄17'21 24°36'50	
superior conj	13804 Jan 16 03:54	6°♄25'53 1°30'33		13804 Dec 02 13:13	0°♄	
minimum elong	13804 Jan 16 05:34	6°♄34'49 1°31'19	asc. node	13804 Dec 13 12:32	16°♄10'47	
max. Earth dist.	13804 Jan 19 13:57	13°♄38'26 1.33656 AU		13804 Dec 20 18:03	0°♄	
evening rise	13804 Jan 24 03:56	22°♄53'40	morning set	13804 Dec 23 16:39	6°♄11'44	
	13804 Jan 27 21:14	0°♄				
desc. node	13804 Jan 29 08:49	2°♄43'31	superior conj	13804 Dec 30 11:35	21°♄03'13 1°37'07	
	13804 Feb 15 11:14	0°♄	minimum elong	13804 Dec 30 12:12	21°♄06'36 1°38'08	
evening max el	13804 Feb 27 19:39	14°♄39'44 27°11'45	max. Earth dist.	13805 Jan 01 13:49	25°♄36'59 1.32325 AU	
retrograde	13804 Mar 12 07:17	22°♄07'48		13805 Jan 03 14:51	0°♄	
evening set	13804 Mar 18 23:01	19°♄36'11	evening rise	13805 Jan 06 20:53	6°♄46'17	
min. Earth dist.	13804 Mar 22 20:34	15°♄55'11 0.65186 AU	desc. node	13805 Jan 15 05:30	22°♄45'59	
asc. node	13804 Mar 24 12:29	14°♄04'26		13805 Jan 19 10:19	0°♄	
inferior conj	13804 Mar 25 04:38	13°♄19'06 0°12'53	evening max el	13805 Feb 09 07:36	27°♄50'43 27°33'22	
minimum elong	13804 Mar 25 04:17	13°♄20'07 0°12'37		13805 Feb 11 17:10	0°♄	
transit middle	13804 Mar 25 04:17	13°♄20'07 0°12'37	retrograde	13805 Feb 23 03:09	5°♄17'22	
transit begin	13804 Mar 25 02:25	13°♄25'19	evening set	13805 Mar 01 23:56	2°♄53'04	
transit end	13804 Mar 25 06:08	13°♄14'55		13805 Mar 05 10:31	30°♄	
morning rise	13804 Mar 31 11:14	7°♄49'33	min. Earth dist.	13805 Mar 05 18:25	29°♄41'01 0.63290 AU	

inferior conj	13805 Mar 08 13:22	26° $\text{H}$ 53'22	-0°55'41	inferior conj	13806 Feb 19 08:50	9° $\text{H}$ 59'22	-2°14'37
minimum elong	13805 Mar 08 15:10	26° $\text{H}$ 48'49	0°54'47	minimum elong	13806 Feb 19 13:38	9° $\text{H}$ 48'43	2°12'16
asc. node	13805 Mar 11 09:56	24° $\text{H}$ 10'45		asc. node	13806 Feb 26 07:23	5° $\text{H}$ 12'33	
morning rise	13805 Mar 15 08:55	21° $\text{H}$ 39'05		morning rise	13806 Feb 26 18:52	5° $\text{H}$ 03'13	
direct	13805 Mar 17 17:52	21° $\text{H}$ 11'57		direct	13806 Feb 28 21:56	4° $\text{H}$ 44'07	
morning max el	13805 Mar 24 06:02	24° $\text{H}$ 31'31	17°46'30	morning max el	13806 Mar 07 22:23	8° $\text{H}$ 16'04	17°52'41
	13805 Mar 28 18:17	0° $\text{Y}$			13806 Mar 22 02:17	0° $\text{Y}$	
morning set	13805 Apr 09 13:56	19° $\text{Y}$ 21'05		morning set	13806 Mar 23 13:26	2° $\text{Y}$ 38'49	
desc. node	13805 Apr 13 07:44	25° $\text{Y}$ 46'50		desc. node	13806 Mar 31 04:15	16° $\text{Y}$ 18'03	
	13805 Apr 15 19:15	0° $\text{B}$					
superior conj	13805 Apr 22 00:56	10° $\text{B}$ 23'37	-1°04'29	superior conj	13806 Apr 03 07:36	21° $\text{Y}$ 46'07	-0°24'42
minimum elong	13805 Apr 21 18:30	9° $\text{B}$ 57'12	1°04'13	minimum elong	13806 Apr 03 05:21	21° $\text{Y}$ 36'27	0°24'38
max. Earth dist.	13805 Apr 28 01:27	20° $\text{B}$ 07'11	1.44656 AU	max. Earth dist.	13806 Apr 08 04:14	0° $\text{B}$	
	13805 May 04 08:25	0° $\text{II}$			13806 Apr 10 16:04	4° $\text{B}$ 06'56	1.43086 AU
evening rise	13805 May 07 06:45	4° $\text{II}$ 31'15		evening rise	13806 Apr 17 02:21	14° $\text{B}$ 24'58	
	13805 May 24 10:33	0° $\text{E}$			13806 Apr 27 07:38	0° $\text{II}$	
evening max el	13805 Jun 05 08:26	15° $\text{E}$ 03'07	20°40'41	evening max el	13806 May 19 04:02	28° $\text{II}$ 53'18	21°54'44
asc. node	13805 Jun 07 07:03	16° $\text{E}$ 51'12			13806 May 20 07:38	0° $\text{E}$	
retrograde	13805 Jun 13 13:26	19° $\text{E}$ 47'29		asc. node	13806 May 25 04:09	3° $\text{E}$ 31'05	
evening set	13805 Jun 17 17:17	18° $\text{E}$ 09'27		retrograde	13806 May 28 11:28	4° $\text{E}$ 20'45	
inferior conj	13805 Jun 22 23:22	12° $\text{E}$ 01'52	3°11'41	evening set	13806 Jun 02 02:15	2° $\text{E}$ 26'30	
minimum elong	13805 Jun 22 23:09	12° $\text{E}$ 02'36	3°10'37		13806 Jun 04 11:03	30° $\text{R}$ $\text{II}$	
min. Earth dist.	13805 Jun 23 13:52	11° $\text{E}$ 11'48	0.68451 AU	inferior conj	13806 Jun 07 08:34	26° $\text{II}$ 08'42	3°03'40
morning rise	13805 Jun 28 04:44	5° $\text{E}$ 41'34		minimum elong	13806 Jun 07 07:26	26° $\text{II}$ 12'38	3°02'29
direct	13805 Jul 03 14:07	3° $\text{E}$ 19'19		min. Earth dist.	13806 Jun 07 09:49	26° $\text{II}$ 04'20	0.68909 AU
desc. node	13805 Jul 10 08:00	6° $\text{E}$ 07'59		morning rise	13806 Jun 12 12:26	19° $\text{II}$ 54'22	
morning max el	13805 Jul 14 12:06	9° $\text{E}$ 51'00	23°49'43	direct	13806 Jun 17 09:11	17° $\text{II}$ 49'37	
	13805 Jul 30 10:48	0° $\text{O}$		morning max el	13806 Jun 27 00:01	23° $\text{II}$ 29'09	22°20'39
morning set	13805 Aug 18 16:28	0° $\text{O}$ 06'09		desc. node	13806 Jun 27 05:11	23° $\text{II}$ 42'11	
	13805 Aug 18 15:01	0° $\text{O}$			13806 Jul 02 17:39	0° $\text{E}$	
max. Earth dist.	13805 Aug 22 11:46	6° $\text{O}$ 41'29	1.38724 AU		13806 Jul 23 19:16	0° $\text{O}$	
				morning set	13806 Jul 30 09:00	10° $\text{O}$ 24'31	
superior conj	13805 Aug 29 23:48	20° $\text{O}$ 22'50	-0°39'05	max. Earth dist.	13806 Aug 04 11:47	18° $\text{O}$ 251'00	1.41061 AU
minimum elong	13805 Aug 30 02:35	20° $\text{O}$ 35'59	0°38'51		13806 Aug 10 23:05	0° $\text{O}$	
asc. node	13805 Sep 03 07:54	28° $\text{O}$ 41'44		superior conj	13806 Aug 12 07:44	2° $\text{O}$ 24'58	-1°14'15
	13805 Sep 03 23:59	0° $\text{A}$		minimum elong	13806 Aug 12 13:22	2° $\text{O}$ 50'04	1°14'00
evening rise	13805 Sep 08 00:32	7° $\text{A}$ 52'46		asc. node	13806 Aug 21 04:28	18° $\text{O}$ 40'58	
	13805 Sep 20 14:08	0° $\text{M}$		evening rise	13806 Aug 22 14:23	21° $\text{O}$ 19'43	
evening max el	13805 Sep 24 07:05	4° $\text{M}$ 25'14	18°53'29		13806 Aug 27 06:44	0° $\text{A}$	
retrograde	13805 Oct 02 21:43	8° $\text{M}$ 44'38		evening max el	13806 Sep 07 13:12	16° $\text{A}$ 52'21	18°18'23
evening set	13805 Oct 04 18:48	8° $\text{M}$ 33'05		retrograde	13806 Sep 14 23:05	20° $\text{A}$ 38'00	
desc. node	13805 Oct 06 04:20	8° $\text{M}$ 10'21		evening set	13806 Sep 17 01:34	20° $\text{A}$ 20'31	
inferior conj	13805 Oct 13 01:10	4° $\text{M}$ 14'42	-2°10'40	desc. node	13806 Sep 23 01:52	16° $\text{A}$ 53'43	
minimum elong	13805 Oct 12 19:41	4° $\text{M}$ 24'26	2°08'00	inferior conj	13806 Sep 24 13:37	15° $\text{A}$ 40'53	-0°28'08
min. Earth dist.	13805 Oct 16 00:44	2° $\text{M}$ 08'13	0.56581 AU	minimum elong	13806 Sep 24 12:35	15° $\text{A}$ 43'02	0°27'33
	13805 Oct 19 12:20	30° $\text{R}$ $\text{A}$		min. Earth dist.	13806 Sep 27 20:42	12° $\text{A}$ 57'41	0.58604 AU
morning rise	13805 Oct 20 17:26	29° $\text{A}$ 24'41		morning rise	13806 Oct 01 20:10	10° $\text{A}$ 14'42	
direct	13805 Oct 26 11:19	28° $\text{A}$ 05'56		direct	13806 Oct 08 03:41	8° $\text{A}$ 28'53	
	13805 Nov 02 11:10	0° $\text{M}$		morning max el	13806 Oct 22 11:09	16° $\text{A}$ 09'08	27°24'21
morning max el	13805 Nov 09 15:48	5° $\text{M}$ 25'03	26°14'37		13806 Nov 02 19:26	0° $\text{M}$	
	13805 Nov 27 13:19	0° $\text{X}$		asc. node	13806 Nov 17 06:20	24° $\text{M}$ 34'16	
asc. node	13805 Nov 30 09:29	5° $\text{X}$ 09'24			13806 Nov 19 23:22	0° $\text{X}$	
morning set	13805 Dec 08 03:28	20° $\text{X}$ 48'29		morning set	13806 Nov 22 11:30	5° $\text{X}$ 13'54	
	13805 Dec 12 08:10	0° $\text{Z}$					
superior conj	13805 Dec 14 22:11	5° $\text{Z}$ 45'21	1°37'33	superior conj	13806 Nov 29 09:48	20° $\text{X}$ 27'04	1°32'05
minimum elong	13805 Dec 14 21:43	5° $\text{Z}$ 42'45	1°38'37	minimum elong	13806 Nov 29 08:24	20° $\text{X}$ 19'11	1°33'01
max. Earth dist.	13805 Dec 15 19:27	7° $\text{Z}$ 43'35	1.31493 AU	max. Earth dist.	13806 Nov 29 03:50	19° $\text{X}$ 53'39	1.31178 AU
evening rise	13805 Dec 21 21:36	20° $\text{Z}$ 56'59			13806 Dec 03 16:49	0° $\text{Z}$	
	13805 Dec 26 08:29	0° $\text{A}$		evening rise	13806 Dec 06 03:48	5° $\text{Z}$ 20'14	
desc. node	13806 Jan 02 02:17	12° $\text{A}$ 25'39			13806 Dec 19 00:27	0° $\text{A}$	
	13806 Jan 13 14:09	0° $\text{H}$		desc. node	13806 Dec 19 23:12	1° $\text{A}$ 33'57	
evening max el	13806 Jan 22 15:49	10° $\text{H}$ 24'01	27°23'19	evening max el	13807 Jan 04 17:36	22° $\text{A}$ 08'38	26°38'24
retrograde	13806 Feb 05 14:48	17° $\text{H}$ 42'45		retrograde	13807 Jan 18 16:39	29° $\text{A}$ 16'52	
evening set	13806 Feb 12 11:27	15° $\text{H}$ 33'53		evening set	13807 Jan 25 05:57	27° $\text{A}$ 30'50	
				min. Earth dist.	13807 Jan 29 07:24	24° $\text{A}$ 53'29	0.58988 AU
min. Earth dist.	13806 Feb 16 06:15	12° $\text{H}$ 44'16	0.61169 AU	inferior conj	13807 Feb 01 11:25	22° $\text{A}$ 27'24	-3°39'02

minimum elong	13807 Feb 01 19:15	22°  12'18	3°35'38	min. Earth dist.	13808 Jan 10 23:01	6°  00'03	0.56967 AU
morning rise	13807 Feb 09 11:37	17°  52'17		inferior conj	13808 Jan 13 18:01	4°  08'24	-4°57'26
direct	13807 Feb 11 12:19	17°  37'37		minimum elong	13808 Jan 14 02:46	3°  53'46	4°54'25
asc. node	13807 Feb 13 04:49	17°  48'12			13808 Jan 21 20:46	30°  R 	
morning max el	13807 Feb 19 09:44	21°  31'56	18°18'19	morning rise	13808 Jan 22 04:39	29°  Z55'35	
	13807 Feb 25 21:08	0°  H		direct	13808 Jan 24 08:37	29°  Z41'45	
morning set	13807 Mar 07 03:18	16°  H35'25			13808 Jan 26 18:46	0°  ≈	
	13807 Mar 14 06:09	0°  Y		asc. node	13808 Jan 31 02:12	2°  ≈05'43	
				morning max el	13808 Feb 02 12:08	4°  ≈08'18	19°05'19
superior conj	13807 Mar 16 12:40	4°  Y10'08	0°12'06		13808 Feb 18 15:22	0°  H	
minimum elong	13807 Mar 16 13:34	4°  Y14'11	0°12'00	morning set	13808 Feb 19 03:02	0°  H57'34	
behind sun begin	13807 Mar 16 08:40	3°  Y51'53					
behind sun end	13807 Mar 16 18:28	4°  Y36'27		superior conj	13808 Feb 27 11:50	17°  H23'42	0°42'58
desc. node	13807 Mar 18 00:45	6°  Y53'10		minimum elong	13808 Feb 27 14:16	17°  H35'22	0°42'54
max. Earth dist.	13807 Mar 24 02:29	17°  Y30'31	1.41065 AU	desc. node	13808 Mar 03 21:16	27°  H28'52	
evening rise	13807 Mar 28 16:35	25°  Y09'53			13808 Mar 05 06:43	0°  Y	
	13807 Mar 31 16:24	0°  B		max. Earth dist.	13808 Mar 05 09:18	0°  Y11'32	1.38818 AU
	13807 Apr 21 02:44	0°  II		evening rise	13808 Mar 09 04:05	6°  Y50'07	
evening max el	13807 May 01 19:41	12°  II44'40	23°14'56		13808 Mar 23 15:45	0°  B	
retrograde	13807 May 12 07:14	18°  II54'53		evening max el	13808 Apr 13 09:21	26°  B37'32	24°35'09
asc. node	13807 May 12 01:23	18°  II54'37			13808 Apr 17 04:16	0°  II	
evening set	13807 May 17 09:29	16°  II45'57		retrograde	13808 Apr 24 23:33	3°  II24'19	
inferior conj	13807 May 22 18:09	10°  II20'13	2°45'15	asc. node	13808 Apr 27 22:42	2°  II45'47	
minimum elong	13807 May 22 16:20	10°  II26'27	2°43'57	evening set	13808 Apr 30 13:26	1°  II03'22	
min. Earth dist.	13807 May 22 06:33	11°  II00'16	0.68891 AU		13808 May 01 16:21	30°  R 	
morning rise	13807 May 27 23:08	4°  II13'15		min. Earth dist.	13808 May 05 02:03	25°  B53'59	0.68405 AU
direct	13807 Jun 01 07:11	2°  II28'45		inferior conj	13808 May 06 02:15	24°  B33'07	2°16'37
morning max el	13807 Jun 09 16:52	7°  II17'45	20°58'04	minimum elong	13808 May 06 00:07	24°  B40'17	2°15'16
desc. node	13807 Jun 14 02:15	12°  II12'16		morning rise	13808 May 11 10:59	18°  B34'31	
	13807 Jun 27 01:29	0°  S		direct	13808 May 15 06:47	17°  B10'47	
morning set	13807 Jul 10 01:22	19°  S40'19		morning max el	13808 May 22 16:54	21°  B18'21	19°47'30
	13807 Jul 16 13:45	0°  Q			13808 May 29 22:46	0°  II	
max. Earth dist.	13807 Jul 17 18:15	1°  Q55'10	1.43139 AU	desc. node	13808 May 30 23:11	1°  II23'21	
				greatest brilliancy	13808 Jun 04 17:27	8°  II10'04	-0.6m
superior conj	13807 Jul 24 18:11	13°  Q30'08	-1°46'02	morning set	13808 Jun 18 03:42	28°  II23'13	
minimum elong	13807 Jul 25 01:29	14°  Q00'59	1°46'09		13808 Jun 19 04:52	0°  S	
	13807 Aug 03 06:24	0°  M		max. Earth dist.	13808 Jun 29 06:57	15°  S44'21	1.44721 AU
evening rise	13807 Aug 05 14:13	4°  M08'04					
asc. node	13807 Aug 08 01:05	8°  M29'56		superior conj	13808 Jul 04 04:55	23°  S35'33	-2°07'58
evening max el	13807 Aug 22 01:21	29°  M51'48	18°03'21	minimum elong	13808 Jul 04 10:01	23°  S56'10	2°08'45
	13807 Aug 22 04:42	0°  L			13808 Jul 08 03:30	0°  Q	
retrograde	13807 Aug 28 17:37	3°  L17'55		evening rise	13808 Jul 17 19:00	16°  Q05'54	
evening set	13807 Aug 31 03:42	2°  L50'48		asc. node	13808 Jul 24 21:47	28°  Q04'14	
	13807 Sep 04 14:18	30°  R 			13808 Jul 26 02:04	0°  M	
inferior conj	13807 Sep 06 22:20	27°  M50'56	0°54'58	evening max el	13808 Aug 04 15:45	13°  M14'39	18°07'12
minimum elong	13807 Sep 06 23:56	27°  M47'04	0°54'15	retrograde	13808 Aug 11 00:43	16°  M35'10	
desc. node	13807 Sep 09 23:25	24°  M56'06		evening set	13808 Aug 13 19:06	15°  M55'17	
min. Earth dist.	13807 Sep 10 01:35	24°  M51'09	0.60873 AU	inferior conj	13808 Aug 19 23:31	10°  M37'38	1°55'56
morning rise	13807 Sep 13 17:17	21°  M56'01		minimum elong	13808 Aug 20 01:59	10°  M30'55	1°54'45
direct	13807 Sep 20 08:04	19°  M45'05		min. Earth dist.	13808 Aug 22 16:18	7°  M42'19	0.63117 AU
morning max el	13807 Oct 04 14:09	27°  M40'23	27°56'41	morning rise	13808 Aug 26 06:52	4°  M24'23	
	13807 Oct 06 19:54	0°  L		desc. node	13808 Aug 26 20:57	3°  M59'03	
	13807 Oct 27 13:36	0°  M		direct	13808 Sep 01 22:45	1°  M54'39	
asc. node	13807 Nov 04 03:06	14°  M17'25		morning max el	13808 Sep 15 22:31	9°  M56'19	27°50'15
morning set	13807 Nov 06 14:50	19°  M22'48			13808 Oct 01 15:10	0°  L	
	13807 Nov 11 13:47	0°  S			13808 Oct 18 21:14	0°  M	
max. Earth dist.	13807 Nov 12 11:03	1°  S57'04	1.31382 AU	morning set	13808 Oct 20 11:16	3°  M09'45	
				asc. node	13808 Oct 20 23:48	4°  M13'12	
superior conj	13807 Nov 13 20:34	5°  S02'38	1°20'50	max. Earth dist.	13808 Oct 25 13:07	13°  M43'54	1.32120 AU
minimum elong	13807 Nov 13 18:30	4°  S51'10	1°21'30				
evening rise	13807 Nov 20 13:21	19°  S50'14		superior conj	13808 Oct 28 04:33	19°  M26'52	1°03'51
	13807 Nov 25 10:19	0°  Z		minimum elong	13808 Oct 28 02:16	19°  M14'24	1°04'13
desc. node	13807 Dec 06 20:15	19°  Z58'47			13808 Nov 02 00:06	0°  S	
	13807 Dec 14 12:55	0°  ≈		evening rise	13808 Nov 04 00:24	4°  S22'05	
evening max el	13807 Dec 17 10:50	3°  ≈00'11	25°21'29		13808 Nov 17 12:41	0°  Z	
retrograde	13807 Dec 31 07:12	9°  ≈57'55		desc. node	13808 Nov 22 17:25	7°  Z23'31	
evening set	13808 Jan 06 03:25	8°  ≈40'19		evening max el	13808 Nov 27 21:24	13°  Z10'48	23°43'38



retrograde	13808 Dec 11 09:12	19°♄53'38		retrograde	13809 Nov 21 23:31	29°♄27'35	
evening set	13808 Dec 16 01:17	19°♄06'09		evening set	13809 Nov 25 06:15	29°♄03'41	
min. Earth dist.	13808 Dec 22 08:12	16°♄03'55	0.55396 AU	inferior conj	13809 Dec 03 23:02	25°♄09'33	-5°51'01
inferior conj	13808 Dec 24 04:05	14°♄58'51	-5°49'26	minimum elong	13809 Dec 03 18:36	25°♄15'45	5°49'36
minimum elong	13808 Dec 24 08:31	14°♄52'16	5°47'59	min. Earth dist.	13809 Dec 03 14:35	25°♄21'23	0.54567 AU
morning rise	13809 Jan 01 17:31	11°♄04'29		morning rise	13809 Dec 12 07:58	21°♄22'16	
direct	13809 Jan 04 09:15	10°♄46'59		direct	13809 Dec 15 19:59	20°♄55'07	
morning max el	13809 Jan 15 01:42	15°♄54'16	20°15'13	morning max el	13809 Dec 28 00:43	26°♄45'57	21°47'08
asc. node	13809 Jan 16 23:32	17°♄53'45			13809 Dec 31 01:58	0°♄	
	13809 Jan 25 07:26	0°♄		asc. node	13810 Jan 03 20:45	4°♄55'10	
morning set	13809 Feb 02 09:11	15°♄34'36		morning set	13810 Jan 17 19:11	0°♄19'16	
	13809 Feb 09 09:58	0°♄			13810 Jan 17 15:31	0°♄	
superior conj	13809 Feb 10 00:28	1°♄13'10	1°06'53	superior conj	13810 Jan 24 22:49	15°♄28'00	1°23'50
minimum elong	13809 Feb 10 03:11	1°♄26'48	1°07'07	minimum elong	13810 Jan 25 01:00	15°♄39'28	1°24'25
max. Earth dist.	13809 Feb 15 16:05	12°♄17'13	1.36598 AU	max. Earth dist.	13810 Jan 29 04:06	24°♄09'05	1.34628 AU
desc. node	13809 Feb 18 17:48	18°♄00'57			13810 Feb 01 03:04	0°♄	
evening rise	13809 Feb 19 10:55	19°♄18'59		evening rise	13810 Feb 02 09:44	2°♄27'41	
	13809 Feb 25 13:34	0°♄		desc. node	13810 Feb 05 14:23	8°♄25'37	
	13809 Mar 17 18:26	0°♄			13810 Feb 18 12:25	0°♄	
evening max el	13809 Mar 26 22:48	10°♄29'17	25°48'27	evening max el	13810 Mar 09 12:37	24°♄14'06	26°47'21
retrograde	13809 Apr 08 11:25	17°♄41'34			13810 Mar 16 23:30	0°♄	
evening set	13809 Apr 14 12:25	15°♄12'30		retrograde	13810 Mar 22 17:38	1°♄39'10	
asc. node	13809 Apr 14 20:07	14°♄55'58			13810 Mar 27 23:10	30°♄	
min. Earth dist.	13809 Apr 18 18:12	10°♄38'33	0.67472 AU	evening set	13810 Mar 29 04:33	29°♄07'02	
inferior conj	13809 Apr 20 06:54	8°♄42'23	1°37'26	asc. node	13810 Apr 01 17:33	25°♄39'14	
minimum elong	13809 Apr 20 04:54	8°♄48'44	1°36'13	min. Earth dist.	13810 Apr 02 04:51	25°♄07'07	0.66130 AU
morning rise	13809 Apr 25 22:00	2°♄53'27		inferior conj	13810 Apr 04 05:53	22°♄43'11	0°47'08
direct	13809 Apr 29 06:29	1°♄49'10		minimum elong	13810 Apr 04 04:41	22°♄46'42	0°46'23
morning max el	13809 May 06 00:16	5°♄27'35	18°51'59	morning rise	13810 Apr 10 06:03	17°♄05'38	
desc. node	13809 May 17 20:00	21°♄03'48		direct	13810 Apr 13 04:21	16°♄18'17	
greatest brilliancy	13809 May 19 16:02	23°♄50'18	-0.8m	morning max el	13810 Apr 19 13:38	19°♄40'05	18°13'00
	13809 May 23 16:23	0°♄			13810 Apr 27 14:09	0°♄	
morning set	13809 May 28 12:21	7°♄29'21		desc. node	13810 May 04 16:41	11°♄05'36	
	13809 Jun 11 23:18	0°♄		morning set	13810 May 08 20:59	17°♄47'28	
max. Earth dist.	13809 Jun 12 00:11	0°♄03'29	1.45648 AU		13810 May 16 12:37	0°♄	
superior conj	13809 Jun 13 19:44	2°♄53'59	-2°13'03	superior conj	13810 May 24 03:45	12°♄00'52	-1°57'56
minimum elong	13809 Jun 13 17:51	2°♄46'34	2°14'05	minimum elong	13810 May 23 19:32	11°♄28'41	1°58'20
evening rise	13809 Jun 29 00:05	27°♄02'39		max. Earth dist.	13810 May 25 20:03	14°♄38'23	1.45843 AU
	13809 Jun 30 20:02	0°♄			13810 Jun 04 16:49	0°♄	
asc. node	13809 Jul 11 18:34	17°♄17'48		evening rise	13810 Jun 09 05:05	7°♄00'57	
evening max el	13809 Jul 19 05:12	26°♄52'46	18°29'07	greatest brilliancy	13810 Jun 20 11:11	24°♄23'23	-0.7m
	13809 Jul 23 17:06	0°♄			13810 Jun 24 05:56	0°♄	
retrograde	13809 Jul 25 16:07	0°♄21'00		asc. node	13810 Jun 28 15:25	6°♄02'49	
	13809 Jul 27 14:27	30°♄		evening max el	13810 Jul 02 15:03	10°♄38'49	19°08'11
evening set	13809 Jul 28 19:13	29°♄26'03		retrograde	13810 Jul 09 12:25	14°♄27'40	
inferior conj	13809 Aug 03 13:08	23°♄52'38	2°36'53	evening set	13810 Jul 13 00:42	13°♄16'08	
minimum elong	13809 Aug 03 15:20	23°♄46'01	2°35'43	inferior conj	13810 Jul 18 11:37	7°♄28'22	3°01'05
min. Earth dist.	13809 Aug 05 16:18	21°♄19'38	0.65125 AU	minimum elong	13810 Jul 18 13:00	7°♄23'54	3°00'00
morning rise	13809 Aug 09 10:16	17°♄30'25		min. Earth dist.	13810 Jul 20 00:13	5°♄30'25	0.66770 AU
desc. node	13809 Aug 13 18:26	15°♄07'55		morning rise	13810 Jul 24 00:40	1°♄03'52	
direct	13809 Aug 15 21:58	14°♄51'13			13810 Jul 25 09:29	30°♄	
morning max el	13809 Aug 29 09:19	22°♄46'37	27°09'54	direct	13810 Jul 30 04:02	28°♄25'05	
	13809 Sep 04 18:34	0°♄		desc. node	13810 Jul 31 15:51	28°♄33'21	
	13809 Sep 24 21:52	0°♄			13810 Aug 04 11:03	0°♄	
morning set	13809 Oct 03 22:03	16°♄28'14		morning max el	13810 Aug 11 20:16	5°♄58'58	26°03'39
asc. node	13809 Oct 07 20:26	24°♄16'57			13810 Aug 30 09:21	0°♄	
max. Earth dist.	13809 Oct 08 06:36	25°♄08'43	1.33402 AU	morning set	13810 Sep 16 19:43	29°♄08'55	
	13809 Oct 10 14:57	0°♄			13810 Sep 17 06:44	0°♄	
superior conj	13809 Oct 12 07:38	3°♄34'10	0°41'15	max. Earth dist.	13810 Sep 20 14:02	6°♄15'40	1.35196 AU
minimum elong	13809 Oct 12 05:44	3°♄24'04	0°41'23	asc. node	13810 Sep 24 17:00	14°♄23'52	
evening rise	13809 Oct 19 11:05	18°♄51'14		superior conj	13810 Sep 26 03:09	17°♄16'57	0°13'20
	13809 Oct 24 21:33	0°♄		minimum elong	13810 Sep 26 02:24	17°♄13'04	0°13'23
evening max el	13809 Nov 09 09:06	23°♄12'59	22°02'09	behind sun begin	13810 Sep 25 23:00	16°♄55'48	
desc. node	13809 Nov 09 14:40	23°♄26'30		behind sun end	13810 Sep 26 05:47	17°♄30'21	

	13810 Oct 02 06:29	0°♍		minimum elong	13811 Sep 09 13:16	0°♌34'08	0°18'54
evening rise	13810 Oct 03 19:20	3°♍11'34		asc. node	13811 Sep 11 13:33	4°♌30'48	
	13810 Oct 19 00:47	0°♌		evening rise	13811 Sep 17 22:54	17°♌17'43	
evening max el	13810 Oct 22 06:56	3°♌41'21	20°32'34		13811 Sep 24 12:28	0°♍	
desc. node	13810 Oct 27 12:01	7°♌40'18		evening max el	13811 Oct 04 18:57	14°♍56'27	19°23'14
retrograde	13810 Nov 02 10:05	9°♌13'21		retrograde	13811 Oct 14 06:29	19°♍41'13	
evening set	13810 Nov 04 16:05	9°♌00'49		desc. node	13811 Oct 14 09:24	19°♍41'10	
inferior conj	13810 Nov 13 15:00	5°♌05'58	-4°52'54	evening set	13811 Oct 16 03:18	19°♍30'58	
minimum elong	13810 Nov 13 05:03	5°♌20'22	4°49'30	inferior conj	13811 Oct 24 18:31	15°♍22'57	-3°13'44
min. Earth dist.	13810 Nov 14 21:03	4°♌22'27	0.54657 AU	minimum elong	13811 Oct 24 10:20	15°♍36'17	3°10'07
morning rise	13810 Nov 21 17:45	1°♌07'31		min. Earth dist.	13811 Oct 27 06:49	13°♍44'57	0.55659 AU
direct	13810 Nov 26 04:41	0°♌24'52		morning rise	13811 Nov 01 15:09	10°♍54'26	
morning max el	13810 Dec 09 12:42	6°♌54'51	23°34'11	direct	13811 Nov 06 22:33	9°♍50'45	
asc. node	13810 Dec 21 17:53	22°♌52'28		morning max el	13811 Nov 20 22:34	16°♍53'33	25°20'55
	13810 Dec 25 19:13	0°♌			13811 Dec 01 14:56	0°♌	
morning set	13811 Jan 02 06:56	15°♌04'58		asc. node	13811 Dec 08 14:53	11°♌32'04	
				morning set	13811 Dec 17 18:37	29°♌46'43	
superior conj	13811 Jan 09 03:48	29°♌58'52	1°34'05		13811 Dec 17 21:05	0°♌	
minimum elong	13811 Jan 09 05:02	0°♌05'34	1°34'59				
	13811 Jan 09 04:01	0°♌		superior conj	13811 Dec 24 12:59	14°♌38'51	1°38'02
max. Earth dist.	13811 Jan 11 23:53	6°♌03'36	1.33040 AU	minimum elong	13811 Dec 24 13:08	14°♌39'41	1°39'05
evening rise	13811 Jan 16 20:58	16°♌06'18		max. Earth dist.	13811 Dec 26 02:45	18°♌06'52	1.31914 AU
desc. node	13811 Jan 23 11:03	28°♌37'46		evening rise	13811 Dec 31 17:32	0°♌07'14	
	13811 Jan 24 05:22	0°♌			13811 Dec 31 16:08	0°♌	
	13811 Feb 13 02:07	0°♌		desc. node	13812 Jan 10 07:47	18°♌31'32	
evening max el	13811 Feb 20 01:53	7°♌41'18	27°24'31		13812 Jan 17 06:18	0°♌	
retrograde	13811 Mar 05 17:20	15°♌08'49		evening max el	13812 Feb 02 12:33	20°♌37'38	27°33'09
evening set	13811 Mar 12 11:43	12°♌39'43		retrograde	13812 Feb 16 09:37	28°♌00'56	
min. Earth dist.	13811 Mar 16 07:51	9°♌11'28	0.64417 AU	evening set	13812 Feb 23 07:19	25°♌42'04	
inferior conj	13811 Mar 18 20:40	6°♌29'16	-0°14'47	min. Earth dist.	13812 Feb 27 01:22	22°♌40'50	0.62411 AU
minimum elong	13811 Mar 18 21:06	6°♌28'05	0°14'37	inferior conj	13812 Mar 01 00:10	19°♌52'31	-1°28'05
transit middle	13811 Mar 18 21:06	6°♌28'05	0°14'37	minimum elong	13812 Mar 01 03:10	19°♌45'21	1°26'34
transit begin	13811 Mar 18 19:51	6°♌31'26		asc. node	13812 Mar 05 12:29	16°♌03'43	
transit end	13811 Mar 18 22:21	6°♌24'44		morning rise	13812 Mar 08 01:47	14°♌45'44	
asc. node	13811 Mar 19 15:01	5°♌40'33		direct	13812 Mar 10 08:02	14°♌22'22	
morning rise	13811 Mar 25 08:29	1°♌05'38		morning max el	13812 Mar 17 00:13	17°♌45'34	17°46'55
direct	13811 Mar 27 21:57	0°♌32'00			13812 Mar 25 20:23	0°♌	
morning max el	13811 Apr 03 06:36	3°♌48'59	17°51'10	morning set	13812 Apr 01 22:31	12°♌15'35	
morning set	13811 Apr 20 09:52	29°♌27'57		desc. node	13812 Apr 07 09:53	21°♌50'17	
	13811 Apr 20 17:31	0°♌			13812 Apr 12 04:24	0°♌	
desc. node	13811 Apr 21 13:19	1°♌22'52					
				superior conj	13812 Apr 13 15:17	2°♌26'31	-0°47'33
superior conj	13811 May 03 22:30	21°♌42'16	-1°26'34	minimum elong	13812 Apr 13 10:39	2°♌07'08	0°47'19
minimum elong	13811 May 03 14:05	21°♌08'30	1°26'22	max. Earth dist.	13812 Apr 20 09:20	13°♌30'52	1.44053 AU
max. Earth dist.	13811 May 08 16:04	29°♌13'26	1.45290 AU	evening rise	13812 Apr 28 07:20	25°♌59'21	
	13811 May 09 03:53	0°♌			13812 Apr 30 21:57	0°♌	
evening rise	13811 May 19 18:24	16°♌26'44			13812 May 21 17:00	0°♌	
	13811 May 28 17:03	0°♌		evening max el	13812 May 28 18:06	8°♌17'15	21°11'02
greatest brilliancy	13811 Jun 03 17:36	8°♌53'18	-0.6m	asc. node	13812 Jun 01 09:27	11°♌25'45	
asc. node	13811 Jun 15 12:23	24°♌09'52		retrograde	13812 Jun 06 09:54	13°♌19'47	
evening max el	13811 Jun 15 19:34	24°♌28'05	20°02'58	evening set	13812 Jun 10 18:21	11°♌34'31	
retrograde	13811 Jun 23 11:03	28°♌49'24		inferior conj	13812 Jun 16 00:13	5°♌22'07	3°09'34
evening set	13811 Jun 27 09:05	27°♌20'47		minimum elong	13812 Jun 15 23:36	5°♌24'16	3°08'29
inferior conj	13811 Jul 02 16:08	21°♌19'55	3°11'18	min. Earth dist.	13812 Jun 16 08:56	4°♌51'49	0.68701 AU
minimum elong	13811 Jul 02 16:30	21°♌18'41	3°10'16		13812 Jun 20 05:30	30°♌	
min. Earth dist.	13811 Jul 03 14:26	20°♌04'17	0.67971 AU	morning rise	13812 Jun 21 04:38	29°♌04'12	
morning rise	13811 Jul 07 23:34	14°♌57'25		direct	13812 Jun 26 08:35	26°♌49'13	
direct	13811 Jul 13 15:55	12°♌27'27			13812 Jul 03 10:51	0°♌	
desc. node	13811 Jul 18 13:09	13°♌56'17		desc. node	13812 Jul 04 10:24	0°♌49'15	
morning max el	13811 Jul 25 06:43	19°♌25'04	24°41'00	morning max el	13812 Jul 06 17:34	2°♌59'17	23°11'35
	13811 Aug 03 06:39	0°♌			13812 Jul 27 08:11	0°♌	
	13811 Aug 23 12:05	0°♌		morning set	13812 Aug 10 06:54	21°♌58'26	
morning set	13811 Aug 30 00:11	11°♌02'50		max. Earth dist.	13812 Aug 14 12:20	29°♌08'11	1.39731 AU
max. Earth dist.	13811 Sep 02 14:09	17°♌26'55	1.37379 AU		13812 Aug 15 00:20	0°♌	
	13811 Sep 09 06:14	0°♌					
				superior conj	13812 Aug 22 06:14	12°♌57'26	-0°54'05
superior conj	13811 Sep 09 12:00	0°♌27'59	-0°19'03	minimum elong	13812 Aug 22 10:15	13°♌15'54	0°53'49



























































































































































































































asc. node	13812 Aug 28 10:07	24° $\mathbb{M}$ 33'39		superior conj	13813 Aug 04 05:28	24° $\mathbb{Q}$ 35'35	-1°28'30
	13812 Aug 31 06:02	0° $\mathbb{Q}$		minimum elong	13813 Aug 04 12:05	25° $\mathbb{Q}$ 04'26	1°28'21
evening rise	13812 Aug 31 18:47	1° $\mathbb{Q}$ 01'21			13813 Aug 07 07:10	0° $\mathbb{M}$	
evening max el	13812 Sep 16 19:33	26° $\mathbb{Q}$ 59'13	18°36'00	evening rise	13813 Aug 15 03:14	14° $\mathbb{M}$ 12'45	
	13812 Sep 20 18:31	0° $\mathbb{M}$		asc. node	13813 Aug 15 06:42	14° $\mathbb{M}$ 28'38	
retrograde	13812 Sep 24 20:54	1° $\mathbb{M}$ 03'04			13813 Aug 24 00:59	0° $\mathbb{Q}$	
evening set	13812 Sep 26 19:37	0° $\mathbb{M}$ 49'37		evening max el	13813 Aug 31 04:44	9° $\mathbb{Q}$ 41'02	18°09'41
	13812 Sep 29 04:16	30° $\mathbb{R}$ $\mathbb{Q}$		retrograde	13813 Sep 07 05:55	13° $\mathbb{Q}$ 16'37	
desc. node	13812 Sep 30 06:52	29° $\mathbb{Q}$ 25'55		evening set	13813 Sep 09 11:23	12° $\mathbb{Q}$ 55'34	
inferior conj	13812 Oct 04 18:21	26° $\mathbb{Q}$ 22'13	-1°25'23	inferior conj	13813 Sep 16 15:47	8° $\mathbb{Q}$ 07'27	0°09'47
minimum elong	13812 Oct 04 14:54	26° $\mathbb{Q}$ 28'46	1°23'38	minimum elong	13813 Sep 16 16:06	8° $\mathbb{Q}$ 06'43	0°09'42
min. Earth dist.	13812 Oct 07 22:42	23° $\mathbb{Q}$ 57'51	0.57385 AU	transit middle	13813 Sep 16 16:06	8° $\mathbb{Q}$ 06'43	0°09'42
morning rise	13812 Oct 12 06:44	21° $\mathbb{Q}$ 15'54		transit begin	13813 Sep 16 13:24	8° $\mathbb{Q}$ 12'43	
direct	13812 Oct 18 06:53	19° $\mathbb{Q}$ 45'52		transit end	13813 Sep 16 18:49	8° $\mathbb{Q}$ 00'41	
morning max el	13812 Nov 01 13:44	27° $\mathbb{Q}$ 15'22	26°48'32	desc. node	13813 Sep 17 04:25	7° $\mathbb{Q}$ 39'19	
	13812 Nov 04 05:35	0° $\mathbb{M}$		min. Earth dist.	13813 Sep 19 22:31	5° $\mathbb{Q}$ 14'11	0.59551 AU
asc. node	13812 Nov 24 11:49	0° $\mathbb{R}$ 43'05		morning rise	13813 Sep 23 17:28	2° $\mathbb{Q}$ 27'44	
	13812 Nov 24 02:47	0° $\mathbb{R}$		direct	13813 Sep 30 04:57	0° $\mathbb{Q}$ 30'17	
morning set	13812 Dec 01 04:32	14° $\mathbb{R}$ 19'52		morning max el	13813 Oct 14 12:27	8° $\mathbb{Q}$ 18'44	27°42'56
					13813 Oct 31 01:14	0° $\mathbb{M}$	
superior conj	13812 Dec 08 00:17	29° $\mathbb{R}$ 22'02	1°35'58	asc. node	13813 Nov 11 08:39	20° $\mathbb{M}$ 16'24	
minimum elong	13812 Dec 07 23:24	29° $\mathbb{R}$ 17'04	1°36'59	morning set	13813 Nov 15 10:48	28° $\mathbb{M}$ 38'51	
	13812 Dec 08 07:05	0° $\mathbb{Z}$			13813 Nov 16 02:08	0° $\mathbb{R}$	
max. Earth dist.	13812 Dec 08 10:00	0° $\mathbb{Z}$ 16'18	1.31290 AU				
evening rise	13812 Dec 14 20:52	14° $\mathbb{Z}$ 24'13		superior conj	13813 Nov 22 11:46	14° $\mathbb{R}$ 01'57	1°28'03
	13812 Dec 22 16:33	0° $\mathbb{M}$		minimum elong	13813 Nov 22 10:02	13° $\mathbb{R}$ 52'18	1°28'51
desc. node	13812 Dec 27 04:37	7° $\mathbb{M}$ 59'30		max. Earth dist.	13813 Nov 21 18:09	12° $\mathbb{R}$ 23'43	1.31191 AU
	13813 Jan 11 22:45	0° $\mathbb{R}$		evening rise	13813 Nov 29 04:43	28° $\mathbb{R}$ 50'53	
evening max el	13813 Jan 14 18:10	2° $\mathbb{R}$ 51'07	27°08'24		13813 Nov 29 17:36	0° $\mathbb{Z}$	
retrograde	13813 Jan 28 17:34	10° $\mathbb{R}$ 06'19		desc. node	13813 Dec 14 01:35	26° $\mathbb{Z}$ 51'00	
evening set	13813 Feb 04 12:12	8° $\mathbb{R}$ 05'56			13813 Dec 16 02:49	0° $\mathbb{M}$	
min. Earth dist.	13813 Feb 08 08:35	5° $\mathbb{R}$ 23'17	0.60235 AU	evening max el	13813 Dec 27 16:24	14° $\mathbb{M}$ 13'05	26°09'16
inferior conj	13813 Feb 11 12:57	2° $\mathbb{R}$ 44'01	-2°50'14	retrograde	13814 Jan 10 15:14	21° $\mathbb{M}$ 17'33	
minimum elong	13813 Feb 11 19:07	2° $\mathbb{R}$ 31'06	2°47'19	evening set	13814 Jan 16 22:19	19° $\mathbb{M}$ 43'15	
	13813 Feb 15 01:12	30° $\mathbb{R}$ $\mathbb{M}$		min. Earth dist.	13814 Jan 21 05:44	17° $\mathbb{M}$ 06'31	0.58088 AU
morning rise	13813 Feb 19 05:16	27° $\mathbb{M}$ 56'55		inferior conj	13814 Jan 24 07:23	14° $\mathbb{M}$ 53'10	-4°14'01
asc. node	13813 Feb 20 09:56	27° $\mathbb{M}$ 43'13		minimum elong	13814 Jan 24 16:02	14° $\mathbb{M}$ 37'26	4°10'34
direct	13813 Feb 21 06:44	27° $\mathbb{M}$ 40'13		morning rise	13814 Feb 01 12:43	10° $\mathbb{M}$ 27'30	
	13813 Feb 27 02:50	0° $\mathbb{R}$		direct	13814 Feb 03 13:44	10° $\mathbb{M}$ 13'47	
morning max el	13813 Feb 28 15:04	1° $\mathbb{R}$ 20'20	18°01'09	asc. node	13814 Feb 07 07:22	11° $\mathbb{M}$ 02'22	
morning set	13813 Mar 16 04:49	25° $\mathbb{R}$ 52'04		morning max el	13814 Feb 11 23:10	14° $\mathbb{M}$ 21'05	18°35'31
	13813 Mar 18 10:30	0° $\mathbb{Y}$			13814 Feb 22 16:10	0° $\mathbb{R}$	
desc. node	13813 Mar 25 06:25	12° $\mathbb{Y}$ 24'01		morning set	13814 Feb 27 23:22	10° $\mathbb{R}$ 00'47	
superior conj	13813 Mar 26 08:03	14° $\mathbb{Y}$ 17'24	-0°08'32	superior conj	13814 Mar 08 21:23	27° $\mathbb{R}$ 03'50	0°25'59
minimum elong	13813 Mar 26 07:20	14° $\mathbb{Y}$ 14'13	0°08'34	minimum elong	13814 Mar 08 23:07	27° $\mathbb{R}$ 11'53	0°25'51
behind sun begin	13813 Mar 26 00:35	13° $\mathbb{Y}$ 44'29			13814 Mar 10 11:30	0° $\mathbb{Y}$	
behind sun end	13813 Mar 26 14:04	14° $\mathbb{Y}$ 43'54		desc. node	13814 Mar 12 02:56	2° $\mathbb{Y}$ 59'41	
max. Earth dist.	13813 Apr 02 21:54	27° $\mathbb{Y}$ 15'28	1.42267 AU	max. Earth dist.	13814 Mar 16 06:01	10° $\mathbb{Y}$ 18'52	1.40125 AU
	13813 Apr 04 13:46	0° $\mathbb{Z}$		evening rise	13814 Mar 20 09:30	17° $\mathbb{Y}$ 22'32	
evening rise	13813 Apr 08 10:09	6° $\mathbb{Z}$ 13'33			13814 Mar 28 05:30	0° $\mathbb{Z}$	
	13813 Apr 24 03:09	0° $\mathbb{I}$			13814 Apr 18 16:03	0° $\mathbb{I}$	
evening max el	13813 May 11 11:39	22° $\mathbb{I}$ 07'13	22°28'21	evening max el	13814 Apr 24 02:17	5° $\mathbb{I}$ 59'31	23°49'28
asc. node	13813 May 19 06:36	27° $\mathbb{I}$ 35'13		retrograde	13814 May 05 01:45	12° $\mathbb{I}$ 26'27	
retrograde	13813 May 21 07:16	27° $\mathbb{I}$ 53'56		asc. node	13814 May 06 03:53	12° $\mathbb{I}$ 21'09	
evening set	13813 May 26 02:47	25° $\mathbb{I}$ 53'13		evening set	13814 May 10 08:49	10° $\mathbb{I}$ 12'19	
inferior conj	13813 May 31 09:50	19° $\mathbb{I}$ 31'27	2°57'06	min. Earth dist.	13814 May 15 02:10	4° $\mathbb{I}$ 41'52	0.68741 AU
minimum elong	13813 May 31 08:24	19° $\mathbb{I}$ 36'30	2°55'52	inferior conj	13814 May 15 19:04	3° $\mathbb{I}$ 44'10	2°34'22
min. Earth dist.	13813 May 31 05:35	19° $\mathbb{I}$ 46'18	0.68958 AU	minimum elong	13814 May 15 17:04	3° $\mathbb{I}$ 51'00	2°33'02
morning rise	13813 Jun 05 13:51	13° $\mathbb{I}$ 19'53			13814 May 18 16:24	30° $\mathbb{R}$ $\mathbb{Z}$	
direct	13813 Jun 10 05:05	11° $\mathbb{I}$ 23'38		morning rise	13814 May 21 01:18	27° $\mathbb{Z}$ 40'21	
morning max el	13813 Jun 19 07:16	16° $\mathbb{I}$ 41'36	21°44'16	direct	13814 May 25 04:04	26° $\mathbb{Z}$ 04'35	
desc. node	13813 Jun 21 07:33	18° $\mathbb{I}$ 49'11			13814 Jun 01 12:30	0° $\mathbb{I}$	
	13813 Jun 30 04:26	0° $\mathbb{Z}$		morning max el	13814 Jun 02 02:52	0° $\mathbb{I}$ 34'43	20°26'14
	13813 Jul 20 09:19	0° $\mathbb{Q}$		desc. node	13814 Jun 08 04:35	7° $\mathbb{I}$ 38'11	
morning set	13813 Jul 21 12:42	1° $\mathbb{Q}$ 48'31			13814 Jun 23 20:06	0° $\mathbb{Z}$	
max. Earth dist.	13813 Jul 27 14:13	11° $\mathbb{Q}$ 38'14	1.41988 AU	morning set	13814 Jun 30 21:03	10° $\mathbb{Z}$ 44'16	

max. Earth dist.	13814 Jul 09 23:09	25°01'54"	1.43885 AU		13815 Jun 16 18:30	0°00'	
	13814 Jul 13 00:59	0°00'		max. Earth dist.	13815 Jun 22 14:34	9°07'32"	1.45208 AU
superior conj	13814 Jul 16 05:55	5°01'52"	-1°56'59"	superior conj	13815 Jun 26 07:09	14°05'45"	-2°12'31"
minimum elong	13814 Jul 16 12:55	5°04'26"	1°57'22"	minimum elong	13815 Jun 26 09:43	15°07'57"	2°13'31"
evening rise	13814 Jul 28 19:35	26°04'49"			13815 Jul 05 14:56	0°00'	
	13814 Jul 30 17:18	0°00'		evening rise	13815 Jul 10 14:41	8°01'13"	
asc. node	13814 Aug 02 03:20	4°00'11"		asc. node	13815 Jul 20 00:03	23°03'44"	
evening max el	13814 Aug 14 18:22	22°00'51"	18°02'49"		13815 Jul 24 04:51	0°00'	
retrograde	13814 Aug 21 06:10	26°00'13"		evening max el	13815 Jul 29 08:44	6°00'21"	18°14'20"
evening set	13814 Aug 23 19:50	25°00'41"		retrograde	13815 Aug 04 17:16	9°00'43"	
inferior conj	13814 Aug 30 07:59	20°00'33"	1°23'26"	evening set	13815 Aug 07 15:25	8°00'57"	
minimum elong	13814 Aug 30 10:08	20°00'28"	1°22'27"	inferior conj	13815 Aug 13 14:53	3°00'32"	2°15'34"
min. Earth dist.	13814 Sep 02 07:27	17°00'33"	0.61846 AU	minimum elong	13815 Aug 13 17:21	3°00'25"	2°14'21"
desc. node	13814 Sep 04 01:58	15°00'55"		min. Earth dist.	13815 Aug 16 01:59	0°00'45"	0.64014 AU
morning rise	13814 Sep 05 21:56	14°00'30"			13815 Aug 16 18:52	30°00'00"	
direct	13814 Sep 12 14:08	12°00'10"		morning rise	13815 Aug 19 17:41	27°01'15"	
morning max el	13814 Sep 26 17:49	20°00'08"	27°58'30"	desc. node	13815 Aug 21 23:29	25°01'47"	
	13814 Oct 05 04:53	0°00'		direct	13815 Aug 26 08:23	24°01'40"	
	13814 Oct 24 00:51	0°00'			13815 Sep 06 07:08	0°00'	
asc. node	13814 Oct 29 05:23	10°00'05"		morning max el	13815 Sep 09 03:27	2°00'40"	27°36'51"
morning set	13814 Oct 30 11:28	12°00'38"			13815 Sep 29 13:27	0°00'	
max. Earth dist.	13814 Nov 04 23:34	24°00'20"	1.31628 AU	morning set	13815 Oct 14 04:05	26°00'13"	
				asc. node	13815 Oct 16 02:03	0°00'04"	
superior conj	13814 Nov 06 21:36	28°00'33"	1°14'21"		13815 Oct 16 01:10	0°00'	
minimum elong	13814 Nov 06 19:23	28°00'21"	1°14'53"	max. Earth dist.	13815 Oct 18 22:24	5°00'58"	1.32605 AU
	13814 Nov 07 13:17	0°00'					
evening rise	13814 Nov 13 15:08	13°00'22"		superior conj	13815 Oct 22 03:44	12°00'50"	0°54'56"
	13814 Nov 21 20:26	0°00'		minimum elong	13815 Oct 22 01:31	12°00'38"	0°55'11"
desc. node	13814 Nov 30 22:39	14°00'52"		evening rise	13815 Oct 29 02:13	27°00'53"	
evening max el	13814 Dec 09 06:30	24°00'45"	24°41'37"		13815 Oct 30 02:03	0°00'	
	13814 Dec 16 11:28	0°00'			13815 Nov 16 09:03	0°00'	
retrograde	13814 Dec 23 00:15	1°00'36"		desc. node	13815 Nov 17 19:49	1°00'44"	
evening set	13814 Dec 28 09:41	0°00'32"		evening max el	13815 Nov 20 16:15	4°00'46"	22°59'49"
	13814 Dec 29 16:24	30°00'00"		retrograde	13815 Dec 03 20:21	11°00'00"	
min. Earth dist.	13815 Jan 02 18:19	27°00'45"	0.56231 AU	evening set	13815 Dec 07 22:31	10°00'42"	
inferior conj	13815 Jan 05 05:04	26°00'12"	-5°24'09"	min. Earth dist.	13815 Dec 15 01:26	7°00'25"	0.54940 AU
minimum elong	13815 Jan 05 12:45	26°00'00"	5°21'46"	inferior conj	13815 Dec 16 07:28	6°00'42"	-5°57'23"
morning rise	13815 Jan 13 17:54	22°00'07"		minimum elong	13815 Dec 16 08:20	6°00'41"	5°56'19"
direct	13815 Jan 16 01:50	21°00'53"		morning rise	13815 Dec 24 19:39	2°00'00'	
asc. node	13815 Jan 25 04:44	25°00'59"		direct	13815 Dec 27 19:27	2°00'32"	
morning max el	13815 Jan 25 20:24	26°00'36"	19°32'04"	morning max el	13816 Jan 08 03:35	7°00'57"	20°51'55"
	13815 Jan 28 21:41	0°00'		asc. node	13816 Jan 12 02:01	12°00'00'	
morning set	13815 Feb 12 02:11	24°00'30"			13816 Jan 22 20:58	0°00'	
	13815 Feb 14 19:41	0°00'		morning set	13816 Jan 27 10:16	9°00'11"	
superior conj	13815 Feb 20 02:43	10°00'33"	0°53'58"	superior conj	13816 Feb 03 19:54	24°00'34"	1°14'54"
minimum elong	13815 Feb 20 05:24	10°00'46"	0°54'00"	minimum elong	13816 Feb 03 22:28	24°00'47"	1°15'17"
max. Earth dist.	13815 Feb 26 12:29	22°00'43"	1.37866 AU		13816 Feb 06 12:06	0°00'	
desc. node	13815 Feb 26 23:27	23°00'33"		max. Earth dist.	13816 Feb 08 21:21	4°00'42"	1.35721 AU
evening rise	13815 Mar 02 05:35	29°00'24"		evening rise	13816 Feb 12 19:38	12°00'10"	
	13815 Mar 02 13:43	0°00'		desc. node	13816 Feb 13 19:59	14°00'03"	
	13815 Mar 21 13:23	0°00'			13816 Feb 23 01:44	0°00'	
evening max el	13815 Apr 06 15:55	19°00'52"	25°07'40"		13816 Mar 15 16:23	0°00'	
retrograde	13815 Apr 18 16:06	26°00'51"		evening max el	13816 Mar 19 05:31	3°00'42"	26°15'39"
asc. node	13815 Apr 23 01:15	25°00'29"		retrograde	13816 Apr 01 01:32	11°00'01"	
evening set	13815 Apr 24 10:51	24°00'26"		evening set	13816 Apr 07 07:09	8°00'30"	
min. Earth dist.	13815 Apr 28 20:29	19°00'32"	0.68066 AU	asc. node	13816 Apr 08 22:39	6°00'59"	
inferior conj	13815 Apr 30 01:56	17°00'55"	2°01'20"	min. Earth dist.	13816 Apr 11 10:25	4°00'11"	0.66955 AU
minimum elong	13815 Apr 29 23:47	18°00'02"	2°00'00"	inferior conj	13816 Apr 13 04:27	2°00'02"	1°17'32"
morning rise	13815 May 05 13:02	12°00'01"		minimum elong	13816 Apr 13 02:42	2°00'07"	1°16'27"
direct	13815 May 09 04:00	10°00'45"			13816 Apr 14 21:12	30°00'00'	
morning max el	13815 May 16 06:01	14°00'38"	19°21'52"	morning rise	13816 Apr 18 23:07	26°00'18"	
desc. node	13815 May 26 01:29	27°00'02"		direct	13816 Apr 22 03:11	25°00'21"	
	13815 May 28 02:21	0°00'		morning max el	13816 Apr 28 16:16	28°00'50"	18°33'23"
greatest brilliancy	13815 May 28 22:55	1°00'15"	-0.7m		13816 Apr 29 19:12	0°00'	
morning set	13815 Jun 09 23:20	19°00'29"		desc. node	13816 May 11 22:15	16°00'52"	

morning set	13816 May 19 16:54	29°♄02'58		13817 May 13 00:27	0°♄	
	13816 May 20 07:25	0°♄				
superior conj	13816 Jun 04 16:59	24°♄05'34	-2°09'02	superior conj	13817 May 15 03:38	3°♄22'13 -1°46'10
minimum elong	13816 Jun 04 11:51	23°♄45'31	2°09'53	minimum elong	13817 May 14 18:34	2°♄46'28 1°46'14
max. Earth dist.	13816 Jun 04 09:42	23°♄37'05	1.45826 AU	max. Earth dist.	13817 May 18 05:35	8°♄12'34 1.45696 AU
	13816 Jun 08 11:43	0°♄		evening rise	13817 May 31 05:58	28°♄23'44
evening rise	13816 Jun 20 09:15	18°♄44'10			13817 Jun 01 06:58	0°♄
	13816 Jun 27 12:01	0°♄		greatest brilliancy	13817 Jun 13 10:42	18°♄28'06 -0.7m
greatest brilliancy	13816 Jun 28 13:31	1°♄40'02	-0.8m		13817 Jun 21 18:33	0°♄
asc. node	13816 Jul 05 20:51	12°♄40'06		asc. node	13817 Jun 22 17:45	1°♄10'09
evening max el	13816 Jul 11 20:52	20°♄03'47	18°43'35	evening max el	13817 Jun 25 04:31	3°♄51'06 19°29'39
retrograde	13816 Jul 18 11:16	23°♄39'29		retrograde	13817 Jul 02 08:56	7°♄52'53
evening set	13816 Jul 21 18:11	22°♄37'33		evening set	13817 Jul 06 01:11	6°♄34'17
inferior conj	13816 Jul 27 08:42	16°♄57'33	2°49'01	inferior conj	13817 Jul 11 10:06	0°♄40'42 3°06'58
minimum elong	13816 Jul 27 10:35	16°♄51'39	2°47'53	minimum elong	13817 Jul 11 11:03	0°♄37'32 3°05'55
min. Earth dist.	13816 Jul 29 05:35	14°♄38'26	0.65878 AU		13817 Jul 11 22:23	30°♄
morning rise	13816 Aug 02 02:05	10°♄33'30		min. Earth dist.	13817 Jul 12 16:35	28°♄59'56 0.67336 AU
desc. node	13816 Aug 07 20:56	7°♄54'48		morning rise	13817 Jul 16 20:25	24°♄16'20
direct	13816 Aug 08 10:28	7°♄53'38		direct	13817 Jul 22 19:17	21°♄40'18
morning max el	13816 Aug 21 14:45	15°♄41'48	26°44'19	desc. node	13817 Jul 25 18:19	22°♄13'00
	13816 Sep 02 09:39	0°♄		morning max el	13817 Aug 04 01:40	29°♄01'22 25°29'50
	13816 Sep 21 08:55	0°♄			13817 Aug 05 00:21	0°♄
morning set	13816 Sep 26 09:43	9°♄16'26			13817 Aug 27 04:41	0°♄
max. Earth dist.	13816 Sep 30 11:50	17°♄14'27	1.34112 AU	morning set	13817 Sep 09 00:41	21°♄38'59
asc. node	13816 Oct 01 22:38	20°♄09'31		max. Earth dist.	13817 Sep 12 15:26	28°♄19'11 1.36083 AU
					13817 Sep 13 12:45	0°♄
superior conj	13816 Oct 05 03:53	26°♄47'07	0°30'00	superior conj	13817 Sep 18 19:19	10°♄17'26 0°00'03
minimum elong	13816 Oct 05 02:22	26°♄39'10	0°30'05	minimum elong	13817 Sep 18 19:18	10°♄17'24 0°00'08
	13816 Oct 06 16:40	0°♄		behind sun begin	13817 Sep 18 13:03	9°♄46'11
evening rise	13816 Oct 12 12:07	12°♄18'30		behind sun end	13817 Sep 19 01:33	10°♄48'41
	13816 Oct 21 12:39	0°♄		asc. node	13817 Sep 18 19:12	10°♄16'53
evening max el	13816 Nov 01 07:03	14°♄54'21	21°21'46	evening rise	13817 Sep 26 18:43	26°♄33'34
desc. node	13816 Nov 03 17:06	17°♄03'42			13817 Sep 28 11:19	0°♄
retrograde	13816 Nov 13 07:58	20°♄53'00		evening max el	13817 Oct 14 10:55	25°♄42'01 20°00'25
evening set	13816 Nov 16 02:18	20°♄35'20			13817 Oct 20 12:28	0°♄
inferior conj	13816 Nov 24 23:12	16°♄42'11	-5°33'12	desc. node	13817 Oct 21 14:28	0°♄23'34
minimum elong	13816 Nov 24 15:32	16°♄52'57	5°30'58	retrograde	13817 Oct 24 21:22	0°♄53'47
min. Earth dist.	13816 Nov 25 07:18	16°♄30'46	0.54481 AU	evening set	13817 Oct 26 21:24	0°♄43'12
morning rise	13816 Dec 03 05:26	12°♄52'49			13817 Oct 29 12:10	30°♄
direct	13816 Dec 07 03:00	12°♄20'01		inferior conj	13817 Nov 04 18:39	26°♄44'17 -4°13'58
morning max el	13816 Dec 19 21:09	18°♄28'16	22°31'48	minimum elong	13817 Nov 04 08:43	26°♄59'17 4°10'06
asc. node	13816 Dec 28 23:12	29°♄46'57		min. Earth dist.	13817 Nov 06 15:16	25°♄36'50 0.54973 AU
	13816 Dec 29 02:36	0°♄		morning rise	13817 Nov 12 18:49	22°♄34'24
morning set	13817 Jan 10 21:13	23°♄56'39		direct	13817 Nov 17 14:47	21°♄43'24
	13817 Jan 13 17:13	0°♄		morning max el	13817 Dec 01 07:15	28°♄29'08 24°20'47
					13817 Dec 02 19:55	0°♄
superior conj	13817 Jan 17 21:24	8°♄57'12	1°28'58	asc. node	13817 Dec 15 20:17	18°♄03'44
minimum elong	13817 Jan 17 23:13	9°♄06'52	1°29'43		13817 Dec 22 05:09	0°♄
max. Earth dist.	13817 Jan 21 12:22	16°♄32'59	1.33887 AU	morning set	13817 Dec 26 09:09	8°♄41'02
evening rise	13817 Jan 26 00:03	25°♄32'43				
	13817 Jan 28 07:51	0°♄		superior conj	13818 Jan 02 04:28	23°♄32'51 1°36'31
desc. node	13817 Jan 30 16:33	4°♄22'42		minimum elong	13818 Jan 02 05:15	23°♄37'08 1°37'30
	13817 Feb 15 12:22	0°♄		max. Earth dist.	13818 Jan 04 11:08	28°♄29'38 1.32494 AU
evening max el	13817 Mar 01 19:01	17°♄20'30	27°06'12		13818 Jan 05 03:58	0°♄
retrograde	13817 Mar 15 05:13	24°♄48'27		evening rise	13818 Jan 09 15:37	9°♄21'45
evening set	13817 Mar 21 19:46	22°♄16'25		desc. node	13818 Jan 17 13:15	24°♄27'37
min. Earth dist.	13817 Mar 25 17:57	18°♄30'38	0.65441 AU		13818 Jan 20 17:27	0°♄
asc. node	13817 Mar 26 20:06	17°♄17'20			13818 Feb 11 16:39	0°♄
inferior conj	13817 Mar 28 00:15	15°♄57'14	0°22'20	evening max el	13818 Feb 12 07:23	0°♄35'42 27°32'04
minimum elong	13817 Mar 27 23:39	15°♄58'58	0°21'55	retrograde	13818 Feb 26 02:08	8°♄02'53
morning rise	13817 Apr 03 05:07	10°♄25'34		evening set	13818 Mar 04 22:23	5°♄37'14
direct	13817 Apr 05 23:25	9°♄44'36		min. Earth dist.	13818 Mar 08 17:14	2°♄21'02 0.63588 AU
morning max el	13817 Apr 12 07:34	13°♄03'01	18°01'38	inferior conj	13818 Mar 11 10:38	29°♄34'23 -0°44'34
	13817 Apr 24 11:03	0°♄		minimum elong	13818 Mar 11 12:03	29°♄30'44 0°43'52
desc. node	13817 Apr 28 18:54	7°♄01'45			13818 Mar 11 00:39	30°♄
morning set	13817 Apr 30 13:41	9°♄56'23		asc. node	13818 Mar 13 17:34	27°♄19'31

morning rise	13818 Mar 18 04:07	24° $\text{H}$ 17'30		morning max el	13819 Mar 10 17:59	10° $\text{H}$ 55'11	17°50'38
direct	13818 Mar 20 14:09	23° $\text{H}$ 48'49			13819 Mar 23 11:17	0° $\text{Y}$	
morning max el	13818 Mar 27 01:11	27° $\text{H}$ 07'29	17°47'08	morning set	13819 Mar 26 10:20	5° $\text{Y}$ 18'00	
	13818 Mar 29 14:49	0° $\text{Y}$		desc. node	13819 Apr 02 12:05	17° $\text{Y}$ 53'56	
morning set	13818 Apr 12 13:24	22° $\text{Y}$ 07'20					
desc. node	13818 Apr 15 15:30	27° $\text{Y}$ 23'33		superior conj	13819 Apr 06 10:06	24° $\text{Y}$ 41'01	-0°30'38
	13818 Apr 17 04:23	0° $\text{Z}$		minimum elong	13819 Apr 06 07:16	24° $\text{Y}$ 28'51	0°30'32
					13819 Apr 09 13:32	0° $\text{Z}$	
superior conj	13818 Apr 25 06:58	13° $\text{Z}$ 28'17	-1°10'27	max. Earth dist.	13819 Apr 13 15:47	6° $\text{Z}$ 45'29	1.43351 AU
minimum elong	13818 Apr 24 23:56	12° $\text{Z}$ 59'35	1°10'09	evening rise	13819 Apr 20 10:35	17° $\text{Z}$ 34'32	
max. Earth dist.	13818 May 01 00:09	22° $\text{Z}$ 39'44	1.44843 AU		13819 Apr 28 13:37	0° $\text{II}$	
	13818 May 05 16:09	0° $\text{II}$			13819 May 20 16:09	0° $\text{III}$	
evening rise	13818 May 10 17:00	7° $\text{II}$ 46'46		evening max el	13819 May 22 02:55	1° $\text{III}$ 30'44	21°43'08
	13818 May 25 13:53	0° $\text{III}$		asc. node	13819 May 27 11:51	5° $\text{III}$ 47'11	
evening max el	13818 Jun 08 06:30	17° $\text{III}$ 40'24	20°30'34	retrograde	13819 May 31 06:07	6° $\text{III}$ 51'27	
asc. node	13818 Jun 09 14:45	18° $\text{III}$ 57'00		evening set	13819 Jun 04 19:16	4° $\text{III}$ 59'25	
retrograde	13818 Jun 16 07:48	22° $\text{III}$ 18'27			13819 Jun 09 03:13	30° $\text{R}$ $\text{II}$	
evening set	13818 Jun 20 10:08	20° $\text{III}$ 42'51		inferior conj	13819 Jun 10 01:24	28° $\text{II}$ 43'00	3°05'32
inferior conj	13818 Jun 25 16:24	14° $\text{III}$ 37'05	3°11'55	minimum elong	13819 Jun 10 00:24	28° $\text{II}$ 46'29	3°04'24
minimum elong	13818 Jun 25 16:20	14° $\text{III}$ 37'18	3°10'52	min. Earth dist.	13819 Jun 10 04:33	28° $\text{II}$ 31'59	0.68873 AU
min. Earth dist.	13818 Jun 26 08:57	13° $\text{III}$ 40'15	0.68343 AU	morning rise	13819 Jun 15 05:21	22° $\text{II}$ 27'47	
morning rise	13818 Jun 30 22:14	8° $\text{III}$ 16'09		direct	13819 Jun 20 04:00	20° $\text{II}$ 20'18	
direct	13818 Jul 06 09:30	5° $\text{III}$ 51'39		desc. node	13819 Jun 29 12:51	25° $\text{II}$ 41'16	
desc. node	13818 Jul 12 15:38	8° $\text{III}$ 17'00		morning max el	13819 Jun 29 23:26	26° $\text{II}$ 07'32	22°33'42
morning max el	13818 Jul 17 11:51	12° $\text{III}$ 30'13	24°03'04		13819 Jul 03 12:38	0° $\text{III}$	
	13818 Jul 31 13:46	0° $\text{IV}$			13819 Jul 25 02:00	0° $\text{IV}$	
	13818 Aug 19 23:56	0° $\text{V}$		morning set	13819 Aug 02 16:42	13° $\text{IV}$ 37'12	
morning set	13818 Aug 21 20:24	3° $\text{V}$ 09'05		max. Earth dist.	13819 Aug 07 13:06	21° $\text{IV}$ 40'28	1.40728 AU
max. Earth dist.	13818 Aug 25 13:27	9° $\text{V}$ 37'46	1.38373 AU		13819 Aug 12 08:58	0° $\text{V}$	
superior conj	13818 Sep 01 22:28	23° $\text{V}$ 11'59	-0°33'44	superior conj	13819 Aug 15 09:15	5° $\text{V}$ 11'29	-1°09'00
minimum elong	13818 Sep 02 00:50	23° $\text{V}$ 23'14	0°33'33	minimum elong	13819 Aug 15 14:28	5° $\text{V}$ 44'58	1°08'45
	13818 Sep 05 11:10	0° $\text{VI}$		asc. node	13819 Aug 23 12:19	20° $\text{V}$ 22'30	
asc. node	13818 Sep 05 15:44	0° $\text{VI}$ 22'17		evening rise	13819 Aug 25 10:58	24° $\text{V}$ 02'20	
evening rise	13818 Sep 10 19:23	10° $\text{VI}$ 30'45			13819 Aug 28 15:17	0° $\text{VI}$	
	13818 Sep 21 12:10	0° $\text{VII}$		evening max el	13819 Sep 10 09:40	19° $\text{VI}$ 39'11	18°22'15
evening max el	13818 Sep 27 04:51	7° $\text{VII}$ 18'30	19°00'32	retrograde	13819 Sep 17 23:11	23° $\text{VI}$ 29'09	
retrograde	13818 Oct 06 00:32	11° $\text{VII}$ 44'00		evening set	13819 Sep 20 00:36	23° $\text{VI}$ 12'50	
evening set	13818 Oct 07 21:22	11° $\text{VII}$ 32'54		desc. node	13819 Sep 25 09:27	20° $\text{VI}$ 21'56	
desc. node	13818 Oct 08 11:56	11° $\text{VII}$ 24'42		inferior conj	13819 Sep 27 15:25	18° $\text{VI}$ 36'11	-0°42'37
inferior conj	13818 Oct 16 06:13	7° $\text{VII}$ 17'20	-2°27'10	minimum elong	13819 Sep 27 13:48	18° $\text{VI}$ 39'27	0°41'44
minimum elong	13818 Oct 15 23:59	7° $\text{VII}$ 28'08	2°24'13	min. Earth dist.	13819 Sep 30 22:07	15° $\text{VI}$ 57'20	0.58281 AU
min. Earth dist.	13818 Oct 19 03:22	5° $\text{VII}$ 17'56	0.56325 AU	morning rise	13819 Oct 04 23:32	13° $\text{VI}$ 14'56	
morning rise	13818 Oct 23 23:42	2° $\text{VII}$ 33'07		direct	13819 Oct 11 05:18	11° $\text{VI}$ 33'17	
direct	13818 Oct 29 15:07	1° $\text{VII}$ 18'21		morning max el	13819 Oct 25 12:47	19° $\text{VI}$ 10'43	27°16'16
morning max el	13818 Nov 12 18:30	8° $\text{VII}$ 33'09	26°01'28		13819 Nov 03 17:15	0° $\text{VIII}$	
	13818 Nov 28 19:09	0° $\text{X}$		asc. node	13819 Nov 19 14:10	26° $\text{VII}$ 18'54	
asc. node	13818 Dec 02 17:16	6° $\text{X}$ 57'37			13819 Nov 21 10:51	0° $\text{X}$	
morning set	13818 Dec 10 20:15	23° $\text{X}$ 19'00		morning set	13819 Nov 25 04:51	7° $\text{X}$ 46'21	
	13818 Dec 13 21:46	0° $\text{XI}$					
				superior conj	13819 Dec 02 02:22	22° $\text{X}$ 56'16	1°33'19
superior conj	13818 Dec 17 14:46	8° $\text{XI}$ 14'23	1°37'53	minimum elong	13819 Dec 02 01:05	22° $\text{X}$ 49'07	1°34'15
minimum elong	13818 Dec 17 14:28	8° $\text{XI}$ 12'41	1°38'56	max. Earth dist.	13819 Dec 02 00:30	22° $\text{X}$ 45'52	1.31191 AU
max. Earth dist.	13818 Dec 18 16:13	10° $\text{XI}$ 35'35	1.31589 AU		13819 Dec 05 06:23	0° $\text{XI}$	
evening rise	13818 Dec 24 15:23	23° $\text{XI}$ 30'01		evening rise	13819 Dec 08 20:55	7° $\text{XI}$ 51'32	
	13818 Dec 27 19:40	0° $\text{XII}$			13819 Dec 20 06:28	0° $\text{XII}$	
desc. node	13819 Jan 04 10:03	14° $\text{XII}$ 11'03		desc. node	13819 Dec 22 06:56	3° $\text{XII}$ 24'36	
	13819 Jan 14 12:07	0° $\text{XIII}$		evening max el	13820 Jan 07 19:18	25° $\text{XII}$ 07'29	26°47'15
evening max el	13819 Jan 25 16:27	13° $\text{XIII}$ 15'28	27°26'59		13820 Jan 14 03:20	0° $\text{XIII}$	
retrograde	13819 Feb 08 15:00	20° $\text{XIII}$ 35'10		retrograde	13820 Jan 21 18:21	2° $\text{XIII}$ 17'26	
evening set	13819 Feb 15 12:06	18° $\text{XIII}$ 23'36		evening set	13820 Jan 28 09:26	0° $\text{XIII}$ 27'24	
min. Earth dist.	13819 Feb 19 06:36	15° $\text{XIII}$ 31'12	0.61492 AU		13820 Jan 29 04:44	30° $\text{R}$ $\text{XII}$	
inferior conj	13819 Feb 22 08:19	12° $\text{XIII}$ 45'03	-2°02'10	min. Earth dist.	13820 Feb 01 09:14	27° $\text{XII}$ 49'13	0.59306 AU
minimum elong	13819 Feb 22 12:38	12° $\text{XIII}$ 35'17	2°00'01	inferior conj	13820 Feb 04 13:41	25° $\text{XII}$ 19'13	-3°26'18
asc. node	13819 Feb 28 15:02	8° $\text{XIV}$ 09'26		minimum elong	13820 Feb 04 21:07	25° $\text{XII}$ 04'34	3°23'00
morning rise	13819 Mar 01 16:09	7° $\text{XIV}$ 45'56		morning rise	13820 Feb 12 11:55	20° $\text{XII}$ 41'00	
direct	13819 Mar 03 19:59	7° $\text{XIV}$ 25'49		direct	13820 Feb 14 12:42	20° $\text{XII}$ 25'54	

asc. node	13820 Feb 15 12:31	20° $\approx$ 29'38		morning rise	13821 Jan 24 08:57	2° $\approx$ 51'57	
morning max el	13820 Feb 22 06:23	24° $\approx$ 16'04	18°13'17	direct	13821 Jan 26 11:51	2° $\approx$ 38'19	
	13820 Feb 26 22:25	0° $\text{H}$		asc. node	13821 Feb 01 09:56	4° $\approx$ 32'20	
morning set	13820 Mar 08 22:24	19° $\text{H}$ 09'36		morning max el	13821 Feb 04 10:27	6° $\approx$ 59'34	18°56'52
	13820 Mar 14 17:04	0° $\text{Y}$		morning set	13821 Feb 19 02:14	0° $\text{H}$	
					13821 Feb 20 20:53	3° $\text{H}$ 28'31	
superior conj	13820 Mar 18 12:08	6° $\text{Y}$ 56'39	0°06'52	superior conj	13821 Mar 01 08:53	20° $\text{H}$ 03'37	0°38'41
minimum elong	13820 Mar 18 12:39	6° $\text{Y}$ 59'00	0°06'45	minimum elong	13821 Mar 01 11:10	20° $\text{H}$ 14'31	0°38'36
behind sun begin	13820 Mar 18 05:48	6° $\text{Y}$ 28'03		desc. node	13821 Mar 06 05:05	29° $\text{H}$ 04'19	
behind sun end	13820 Mar 18 19:30	7° $\text{Y}$ 29'52			13821 Mar 06 17:22	0° $\text{Y}$	
desc. node	13820 Mar 19 08:35	8° $\text{Y}$ 28'35		max. Earth dist.	13821 Mar 08 09:43	3° $\text{Y}$ 00'49	1.39156 AU
max. Earth dist.	13820 Mar 26 02:51	20° $\text{Y}$ 14'57	1.41382 AU	evening rise	13821 Mar 12 06:05	9° $\text{Y}$ 43'00	
evening rise	13820 Mar 30 21:43	28° $\text{Y}$ 10'54			13821 Mar 24 21:32	0° $\text{B}$	
	13820 Apr 01 00:41	0° $\text{B}$		evening max el	13821 Apr 16 08:43	29° $\text{B}$ 13'35	24°23'27
	13820 Apr 21 04:02	0° $\text{II}$			13821 Apr 17 03:50	0° $\text{II}$	
evening max el	13820 May 03 18:56	15° $\text{II}$ 21'24	23°02'46	retrograde	13821 Apr 27 19:19	5° $\text{II}$ 55'51	
asc. node	13820 May 13 09:05	21° $\text{II}$ 23'26		asc. node	13821 Apr 30 06:23	5° $\text{II}$ 29'06	
retrograde	13820 May 14 02:22	21° $\text{II}$ 25'47		evening set	13821 May 03 07:25	3° $\text{II}$ 36'30	
evening set	13820 May 19 02:53	19° $\text{II}$ 18'48			13821 May 06 15:08	30° $\text{R}$ $\text{B}$	
inferior conj	13820 May 24 11:04	12° $\text{II}$ 53'58	2°48'42	min. Earth dist.	13821 May 07 21:11	28° $\text{B}$ 21'38	0.68505 AU
minimum elong	13820 May 24 09:20	12° $\text{II}$ 59'55	2°47'25	inferior conj	13821 May 08 19:30	27° $\text{B}$ 06'33	2°21'40
min. Earth dist.	13820 May 24 01:19	13° $\text{II}$ 27'42	0.68923 AU	minimum elong	13821 May 08 17:23	27° $\text{B}$ 13'41	2°20'18
morning rise	13820 May 29 15:43	6° $\text{II}$ 45'49		morning rise	13821 May 14 03:30	21° $\text{B}$ 06'31	
direct	13820 Jun 03 01:35	4° $\text{II}$ 58'20		direct	13821 May 18 01:02	19° $\text{B}$ 39'45	
morning max el	13820 Jun 11 15:28	9° $\text{II}$ 54'37	21°09'44	morning max el	13821 May 25 14:17	23° $\text{B}$ 52'56	19°57'02
desc. node	13820 Jun 15 09:57	14° $\text{II}$ 03'54			13821 May 30 21:39	0° $\text{II}$	
	13820 Jun 27 06:01	0° $\text{E}$		desc. node	13821 Jun 02 06:55	3° $\text{II}$ 09'15	
morning set	13820 Jul 12 12:26	23° $\text{E}$ 01'35			13821 Jun 20 12:06	0° $\text{E}$	
	13820 Jul 16 22:03	0° $\text{O}$		morning set	13821 Jun 21 15:37	1° $\text{E}$ 45'33	
max. Earth dist.	13820 Jul 19 18:25	4° $\text{O}$ 36'13	1.42858 AU	max. Earth dist.	13821 Jul 02 05:56	18° $\text{E}$ 18'03	1.44523 AU
superior conj	13820 Jul 26 23:08	16° $\text{O}$ 35'22	-1°41'41	superior conj	13821 Jul 07 13:19	26° $\text{E}$ 49'08	-2°05'35
minimum elong	13820 Jul 27 06:22	17° $\text{O}$ 06'08	1°41'43	minimum elong	13821 Jul 07 19:06	27° $\text{E}$ 12'37	2°06'16
	13820 Aug 03 15:54	0° $\text{H}$			13821 Jul 09 12:11	0° $\text{O}$	
evening rise	13820 Aug 07 13:13	6° $\text{H}$ 57'12		evening rise	13821 Jul 20 21:07	19° $\text{O}$ 02'55	
asc. node	13820 Aug 09 08:55	10° $\text{H}$ 13'08		asc. node	13821 Jul 27 05:34	29° $\text{O}$ 49'42	
	13820 Aug 21 14:15	0° $\text{E}$			13821 Jul 27 08:02	0° $\text{H}$	
evening max el	13820 Aug 23 21:08	2° $\text{E}$ 34'11	18°04'20	evening max el	13821 Aug 07 11:25	15° $\text{H}$ 54'05	18°05'29
retrograde	13820 Aug 30 15:26	6° $\text{E}$ 02'25		retrograde	13821 Aug 13 20:51	19° $\text{H}$ 14'29	
evening set	13820 Sep 02 00:14	5° $\text{E}$ 37'02		evening set	13821 Aug 16 13:58	18° $\text{H}$ 36'42	
inferior conj	13820 Sep 08 21:19	0° $\text{E}$ 40'07	0°43'46	inferior conj	13821 Aug 22 20:18	13° $\text{H}$ 21'42	1°48'01
minimum elong	13820 Sep 08 22:39	0° $\text{E}$ 36'59	0°43'11	minimum elong	13821 Aug 22 22:43	13° $\text{H}$ 15'13	1°46'52
	13820 Sep 09 14:15	30° $\text{R}$ $\text{H}$		min. Earth dist.	13821 Aug 25 14:59	10° $\text{H}$ 24'22	0.62794 AU
desc. node	13820 Sep 11 06:59	28° $\text{H}$ 23'58		morning rise	13821 Aug 29 05:19	7° $\text{H}$ 10'37	
min. Earth dist.	13820 Sep 12 01:42	27° $\text{H}$ 41'17	0.60529 AU	desc. node	13821 Aug 29 04:31	7° $\text{H}$ 12'04	
morning rise	13820 Sep 15 18:01	24° $\text{H}$ 48'41		direct	13821 Sep 04 21:29	4° $\text{H}$ 42'57	
direct	13820 Sep 22 08:06	22° $\text{H}$ 41'04		morning max el	13821 Sep 18 22:28	12° $\text{H}$ 44'30	27°53'30
	13820 Oct 06 00:24	0° $\text{E}$			13821 Oct 02 17:35	0° $\text{E}$	
morning max el	13820 Oct 06 14:50	0° $\text{E}$ 35'06	27°54'25		13821 Oct 20 08:27	0° $\text{H}$	
	13820 Oct 27 21:09	0° $\text{H}$		morning set	13821 Oct 23 06:37	5° $\text{H}$ 48'41	
asc. node	13820 Nov 05 10:58	15° $\text{H}$ 59'51		asc. node	13821 Oct 23 07:38	5° $\text{H}$ 53'51	
morning set	13820 Nov 08 09:03	21° $\text{H}$ 58'19		max. Earth dist.	13821 Oct 28 11:03	16° $\text{H}$ 39'57	1.31972 AU
	13820 Nov 12 03:12	0° $\text{A}$					
max. Earth dist.	13820 Nov 14 08:07	4° $\text{A}$ 50'50	1.31311 AU	superior conj	13821 Oct 30 21:54	21° $\text{H}$ 59'29	1°06'48
				minimum elong	13821 Oct 30 19:37	21° $\text{H}$ 46'59	1°07'13
superior conj	13820 Nov 15 13:24	7° $\text{A}$ 33'21	1°22'56		13821 Nov 03 13:20	0° $\text{A}$	
minimum elong	13820 Nov 15 11:24	7° $\text{A}$ 22'18	1°23'38	evening rise	13821 Nov 06 17:00	6° $\text{A}$ 52'34	
evening rise	13820 Nov 22 06:06	22° $\text{A}$ 20'54			13821 Nov 18 15:22	0° $\text{B}$	
	13820 Nov 25 21:19	0° $\text{B}$		desc. node	13821 Nov 25 01:02	9° $\text{B}$ 31'53	
desc. node	13820 Dec 08 03:55	21° $\text{B}$ 57'01		evening max el	13821 Dec 01 01:02	16° $\text{B}$ 21'57	23°58'59
	13820 Dec 14 00:04	0° $\approx$		retrograde	13821 Dec 14 14:54	23° $\text{B}$ 07'27	
evening max el	13820 Dec 19 13:46	6° $\approx$ 06'43	25°34'42	evening set	13821 Dec 19 11:38	22° $\text{B}$ 15'50	
retrograde	13821 Jan 02 10:58	13° $\approx$ 06'36		min. Earth dist.	13821 Dec 25 12:15	19° $\text{B}$ 18'01	0.55589 AU
evening set	13821 Jan 08 10:22	11° $\approx$ 44'29		inferior conj	13821 Dec 27 12:23	18° $\text{B}$ 05'34	-5°44'18
min. Earth dist.	13821 Jan 13 02:12	9° $\approx$ 05'45	0.57243 AU	minimum elong	13821 Dec 27 17:52	17° $\text{B}$ 57'17	5°42'38
inferior conj	13821 Jan 15 23:26	7° $\approx$ 07'54	-4°46'41	morning rise	13822 Jan 05 01:57	14° $\text{B}$ 08'43	
minimum elong	13821 Jan 16 08:19	6° $\approx$ 52'44	4°43'30				

direct	13822 Jan 07 15:15	13°  52'07		min. Earth dist.	13822 Dec 06 18:40	28°  39'57	0.54639 AU
morning max el	13822 Jan 18 02:05	18°  53'16	20°03'15	morning rise	13822 Dec 15 18:41	24°  32'47	
asc. node	13822 Jan 19 07:16	20°  07'25		direct	13822 Dec 19 03:29	24°  07'23	
	13822 Jan 26 12:25	0°  ≈		morning max el	13822 Dec 31 03:02	29°  51'40	21°32'14
morning set	13822 Feb 05 02:14	18°  ≈03'30			13822 Dec 31 06:31	0°  	
	13822 Feb 10 22:27	0°  ✕		asc. node	13823 Jan 06 04:31	6°  58'20	
					13823 Jan 19 03:39	0°  ≈	
superior conj	13822 Feb 12 19:44	3°  ✕48'02	1°03'41	morning set	13823 Jan 20 11:47	2°  ≈47'07	
minimum elong	13822 Feb 12 22:28	4°  ✕01'40	1°03'52				
max. Earth dist.	13822 Feb 18 16:09	15°  ✕10'18	1.36922 AU	superior conj	13823 Jan 27 16:49	17°  ≈59'11	1°21'41
desc. node	13822 Feb 21 01:35	19°  ✕36'50		minimum elong	13823 Jan 27 19:07	18°  ≈11'10	1°22'14
evening rise	13822 Feb 22 10:14	22°  ✕05'02		max. Earth dist.	13823 Feb 01 03:16	27°  ≈03'11	1.34902 AU
	13822 Feb 26 22:38	0°  			13823 Feb 02 15:00	0°  ✕	
	13822 Mar 18 17:50	0°  ✕		evening rise	13823 Feb 05 06:52	5°  ✕07'59	
evening max el	13822 Mar 29 22:12	13°   05'48	25°38'19	desc. node	13823 Feb 07 22:07	10°  ✕02'28	
retrograde	13822 Apr 11 07:52	20°  			13823 Feb 19 18:01	0°  	
evening set	13822 Apr 17 07:13	17°   46'52		evening max el	13823 Mar 12 12:02	26°   52'13	26°39'49
asc. node	13822 Apr 17 03:47	17°  			13823 Mar 16 00:44	0°  ✕	
min. Earth dist.	13822 Apr 21 13:59	13°   07'36	0.67639 AU	retrograde	13823 Mar 25 14:51	4°   15'43	
inferior conj	13822 Apr 23 00:47	11°   16'26	1°44'09	evening set	13823 Apr 01 00:28	1°   43'43	
minimum elong	13822 Apr 22 22:43	11°   23'01	1°42'52		13823 Apr 02 22:04	30°   	
morning rise	13822 Apr 28 14:45	5°   25'50		asc. node	13823 Apr 04 01:13	28°   54'02	
direct	13822 May 02 00:52	4°  		min. Earth dist.	13823 Apr 05 01:32	27°   53'55	0.66355 AU
morning max el	13822 May 08 20:33	8°   00'37	18°59'11	inferior conj	13823 Apr 07 00:44	25°   51'39	0°55'33
desc. node	13822 May 20 03:45	22°   45'38		minimum elong	13823 Apr 06 23:22	25°   52'44	0°54'41
greatest brilliancy	13822 May 22 03:05	25°   42'52	-0.7m	morning rise	13823 Apr 12 23:23	19°   53'17	
	13822 May 24 22:45	0°  		direct	13823 Apr 15 23:11	18°   54'31	
morning set	13822 May 31 21:55	10°   11'44'08		morning max el	13823 Apr 22 09:08	22°   51'24'49	18°17'45
	13822 Jun 13 07:20	0°  			13823 Apr 28 16:28	0°  ✕	
max. Earth dist.	13822 Jun 14 22:40	2°   33'49	1.45555 AU	desc. node	13823 May 07 00:28	12°   44'31	
				morning set	13823 May 12 02:26	20°   45'01	
superior conj	13822 Jun 17 06:30	6°   12'50	-2°13'34		13823 May 17 20:48	0°  	
minimum elong	13822 Jun 17 05:49	6°   10'11	2°14'38				
evening rise	13822 Jul 02 05:53	0°   08'54		superior conj	13823 May 27 14:21	15°   11'59	-2°01'26
	13822 Jul 02 03:42	0°  		minimum elong	13823 May 27 06:44	14°   11'48'12	2°01'58
asc. node	13822 Jul 14 02:18	19°   08'06'46		max. Earth dist.	13823 May 28 18:32	17°   11'08'04	1.45862 AU
evening max el	13822 Jul 22 01:14	29°   03'38	18°24'45		13823 Jun 06 00:35	0°  	
	13822 Jul 22 13:28	0°  		evening rise	13823 Jun 12 14:11	10°   14'46	
retrograde	13822 Jul 28 11:13	2°   15'56'41		greatest brilliancy	13823 Jun 23 02:20	26°   15'33'34	-0.8m
evening set	13822 Jul 31 13:01	2°   15'04'02			13823 Jun 25 08:59	0°  	
	13822 Aug 03 04:59	30°   15'03'00		asc. node	13823 Jun 30 23:08	7°   15'56'30	
inferior conj	13822 Aug 06 08:17	26°   13'32'53	2°31'48	evening max el	13823 Jul 05 11:45	13°   15'38	19°01'19
minimum elong	13822 Aug 06 10:34	26°   12'26'06	2°30'36	retrograde	13823 Jul 12 06:59	17°   12'00'37	
min. Earth dist.	13822 Aug 08 13:33	23°   12'55'45	0.64850 AU	evening set	13823 Jul 15 17:54	15°   12'51'31	
morning rise	13822 Aug 12 06:49	20°   11'11'39		inferior conj	13823 Jul 21 05:39	10°   12'05'41	2°58'20
desc. node	13822 Aug 16 02:01	18°   12'00'02		minimum elong	13823 Jul 21 07:10	10°   12'00'48	2°57'15
direct	13822 Aug 18 19:30	17°   12'33'17		min. Earth dist.	13823 Jul 22 20:22	8°   12'02'06	0.66551 AU
morning max el	13822 Sep 01 08:56	25°   12'30'05	27°17'45	morning rise	13823 Jul 26 19:45	3°   12'41'15	
	13822 Sep 05 11:55	0°  		direct	13823 Aug 02 00:31	1°   12'02'00	
	13822 Sep 26 05:56	0°  		desc. node	13823 Aug 02 23:28	1°   12'05'23	
morning set	13822 Oct 06 18:59	19°   11'11'26		morning max el	13823 Aug 14 20:01	8°   12'39'47	26°14'49
asc. node	13822 Oct 10 04:14	25°   11'56'22			13823 Aug 31 13:34	0°  	
max. Earth dist.	13822 Oct 11 05:55	28°   11'07'42	1.33183 AU		13823 Sep 18 17:18	0°  	
	13822 Oct 12 03:38	0°  		morning set	13823 Sep 19 18:50	1°   11'58'11	
				max. Earth dist.	13823 Sep 23 15:00	9°   11'17'13	1.34905 AU
superior conj	13822 Oct 15 01:50	6°   11'09'29	0°45'02	asc. node	13823 Sep 27 00:48	16°   11'02'50	
minimum elong	13822 Oct 14 23:49	5°   11'58'47	0°45'12				
evening rise	13822 Oct 22 03:50	21°   11'22'13		superior conj	13823 Sep 28 22:40	19°   11'56'12	0°17'53
	13822 Oct 26 07:34	0°  		minimum elong	13823 Sep 28 21:40	19°   11'51'07	0°17'57
desc. node	13822 Nov 11 22:14	25°   11'48'22			13823 Oct 03 18:46	0°  	
evening max el	13822 Nov 12 11:55	26°   11'22'27	22°16'45	evening rise	13823 Oct 06 12:36	5°   11'44'12	
	13822 Nov 16 22:47	0°  			13823 Oct 19 18:56	0°  	
retrograde	13822 Nov 25 06:13	2°   11'30'41'53		evening max el	13823 Oct 25 07:43	6°   11'44'38	20°44'38
evening set	13822 Nov 28 17:54	2°   11'35'07		desc. node	13823 Oct 29 19:34	10°   11'20'20	



minimum elong	13823 Nov 16 14:38	8° $\text{♁}$ 29'55	5°01'52	evening max el	13824 Oct 06 17:39	17° $\text{♁}$ 52'23	19°32'11
min. Earth dist.	13823 Nov 18 00:46	7° $\text{♁}$ 41'00	0.54585 AU	desc. node	13824 Oct 15 17:00	22° $\text{♁}$ 42'32	
morning rise	13823 Nov 25 03:53	4° $\text{♁}$ 20'48		retrograde	13824 Oct 16 11:06	22° $\text{♁}$ 44'12	
direct	13823 Nov 29 11:27	3° $\text{♁}$ 40'55		evening set	13824 Oct 18 08:16	22° $\text{♁}$ 34'05	
morning max el	13823 Dec 12 16:12	10° $\text{♁}$ 05'15	23°17'55	inferior conj	13824 Oct 27 01:23	18° $\text{♁}$ 28'37	-3°30'04
asc. node	13823 Dec 24 01:38	24° $\text{♁}$ 48'03		minimum elong	13824 Oct 26 16:37	18° $\text{♁}$ 42'37	3°26'17
	13823 Dec 27 02:49	0° $\text{♁}$		min. Earth dist.	13824 Oct 29 10:00	16° $\text{♁}$ 58'22	0.55454 AU
morning set	13824 Jan 04 23:25	17° $\text{♁}$ 33'14		morning rise	13824 Nov 03 22:57	14° $\text{♁}$ 05'13	
	13824 Jan 10 17:32	0° $\text{♁}$		direct	13824 Nov 09 03:26	13° $\text{♁}$ 05'03	
				morning max el	13824 Nov 23 01:57	20° $\text{♁}$ 03'46	25°05'51
superior conj	13824 Jan 11 21:00	2° $\text{♁}$ 28'20	1°32'57		13824 Dec 01 12:55	0° $\text{♁}$	
minimum elong	13824 Jan 11 22:24	2° $\text{♁}$ 35'52	1°33'48	asc. node	13824 Dec 09 22:41	13° $\text{♁}$ 22'06	
max. Earth dist.	13824 Jan 14 21:57	8° $\text{♁}$ 57'04	1.33244 AU		13824 Dec 18 09:45	0° $\text{♁}$	
evening rise	13824 Jan 19 16:28	18° $\text{♁}$ 42'44		morning set	13824 Dec 19 11:14	2° $\text{♁}$ 15'58	
desc. node	13824 Jan 25 18:45	0° $\text{♁}$					
	13824 Jan 25 15:02	0° $\text{♁}$		superior conj	13824 Dec 26 05:42	17° $\text{♁}$ 07'34	1°37'50
	13824 Feb 13 22:18	0° $\text{♁}$		minimum elong	13824 Dec 26 06:01	17° $\text{♁}$ 09'19	1°38'52
evening max el	13824 Feb 23 01:27	10° $\text{♁}$ 22'54	27°20'37	max. Earth dist.	13824 Dec 27 23:49	20° $\text{♁}$ 58'44	1.32047 AU
retrograde	13824 Mar 07 15:35	17° $\text{♁}$ 50'38			13825 Jan 01 04:51	0° $\text{♁}$	
evening set	13824 Mar 14 09:09	15° $\text{♁}$ 20'30		evening rise	13825 Jan 02 11:49	2° $\text{♁}$ 40'49	
min. Earth dist.	13824 Mar 18 05:44	11° $\text{♁}$ 47'57	0.64694 AU	desc. node	13825 Jan 11 15:28	20° $\text{♁}$ 13'43	
inferior conj	13824 Mar 20 16:56	9° $\text{♁}$ 07'38	-0°04'37		13825 Jan 17 10:54	0° $\text{♁}$	
minimum elong	13824 Mar 20 17:05	9° $\text{♁}$ 07'16	0°04'37	evening max el	13825 Feb 04 12:33	23° $\text{♁}$ 24'18	27°33'53
transit middle	13824 Mar 20 17:05	9° $\text{♁}$ 07'16	0°04'37		13825 Feb 14 02:41	0° $\text{♁}$	
transit begin	13824 Mar 20 14:09	9° $\text{♁}$ 15'15		retrograde	13825 Feb 18 09:10	0° $\text{♁}$ 49'04	
transit end	13824 Mar 20 20:01	8° $\text{♁}$ 59'18			13825 Feb 22 11:03	30° $\text{♁}$	
asc. node	13824 Mar 20 22:42	8° $\text{♁}$ 52'02		evening set	13825 Feb 25 06:41	28° $\text{♁}$ 28'04	
morning rise	13824 Mar 27 02:53	3° $\text{♁}$ 41'55		min. Earth dist.	13825 Mar 01 00:47	25° $\text{♁}$ 23'17	0.62722 AU
direct	13824 Mar 29 17:36	3° $\text{♁}$ 06'28		inferior conj	13825 Mar 03 22:21	22° $\text{♁}$ 34'49	-1°16'19
morning max el	13824 Apr 05 01:50	6° $\text{♁}$ 23'18	17°53'22	minimum elong	13825 Mar 04 00:55	22° $\text{♁}$ 28'35	1°15'01
	13824 Apr 21 01:54	0° $\text{♁}$		asc. node	13825 Mar 07 20:12	19° $\text{♁}$ 07'42	
morning set	13824 Apr 22 11:19	2° $\text{♁}$ 19'06		morning rise	13825 Mar 10 21:50	17° $\text{♁}$ 25'27	
desc. node	13824 Apr 22 21:07	2° $\text{♁}$ 59'52		direct	13825 Mar 13 04:58	17° $\text{♁}$ 00'52	
				morning max el	13825 Mar 19 19:36	20° $\text{♁}$ 22'32	17°46'25
superior conj	13824 May 06 06:37	24° $\text{♁}$ 52'09	-1°32'02		13825 Mar 27 01:33	0° $\text{♁}$	
minimum elong	13824 May 05 21:52	24° $\text{♁}$ 17'14	1°31'52	morning set	13825 Apr 04 20:50	14° $\text{♁}$ 57'52	
	13824 May 09 12:15	0° $\text{♁}$		desc. node	13825 Apr 09 17:41	23° $\text{♁}$ 25'56	
max. Earth dist.	13824 May 10 14:50	1° $\text{♁}$ 44'42	1.45419 AU		13825 Apr 13 13:55	0° $\text{♁}$	
evening rise	13824 May 22 04:59	19° $\text{♁}$ 43'05					
	13824 May 28 23:05	0° $\text{♁}$		superior conj	13825 Apr 16 19:51	5° $\text{♁}$ 26'35	-0°53'37
greatest brilliancy	13824 Jun 05 21:34	11° $\text{♁}$ 48'22	-0.6m	minimum elong	13825 Apr 16 14:34	5° $\text{♁}$ 04'38	0°53'22
asc. node	13824 Jun 16 20:06	26° $\text{♁}$ 09'55		max. Earth dist.	13825 Apr 23 08:24	16° $\text{♁}$ 04'45	1.44277 AU
evening max el	13824 Jun 17 17:06	27° $\text{♁}$ 04'17	19°53'52	evening rise	13825 May 01 16:56	29° $\text{♁}$ 12'01	
	13824 Jun 21 05:42	0° $\text{♁}$			13825 May 02 05:24	0° $\text{♁}$	
retrograde	13824 Jun 25 05:29	1° $\text{♁}$ 20'17			13825 May 22 16:58	0° $\text{♁}$	
	13824 Jun 28 22:52	30° $\text{♁}$		evening max el	13825 May 31 16:28	10° $\text{♁}$ 53'20	21°00'11
evening set	13824 Jun 29 02:01	29° $\text{♁}$ 54'13		asc. node	13825 Jun 03 17:10	13° $\text{♁}$ 34'30	
inferior conj	13824 Jul 04 09:27	23° $\text{♁}$ 55'05	3°10'31	retrograde	13825 Jun 09 04:27	15° $\text{♁}$ 49'35	
minimum elong	13824 Jul 04 09:58	23° $\text{♁}$ 53'19	3°09'30	evening set	13825 Jun 13 11:16	14° $\text{♁}$ 06'49	
min. Earth dist.	13824 Jul 05 09:50	22° $\text{♁}$ 32'54	0.67821 AU	inferior conj	13825 Jun 18 17:10	7° $\text{♁}$ 56'00	3°10'31
morning rise	13824 Jul 09 17:33	17° $\text{♁}$ 31'57		minimum elong	13825 Jun 18 16:41	7° $\text{♁}$ 57'40	3°09'27
direct	13824 Jul 15 11:35	15° $\text{♁}$ 00'20		min. Earth dist.	13825 Jun 19 03:54	7° $\text{♁}$ 18'45	0.68624 AU
desc. node	13824 Jul 19 20:51	16° $\text{♁}$ 12'01		morning rise	13825 Jun 23 21:52	1° $\text{♁}$ 37'09	
morning max el	13824 Jul 27 06:40	22° $\text{♁}$ 04'30	24°53'56		13825 Jun 26 06:29	30° $\text{♁}$	
	13824 Aug 03 04:52	0° $\text{♁}$		direct	13825 Jun 29 03:41	29° $\text{♁}$ 19'32	
	13824 Aug 23 20:05	0° $\text{♁}$			13825 Jul 02 06:03	0° $\text{♁}$	
morning set	13824 Sep 01 02:10	13° $\text{♁}$ 59'34		desc. node	13825 Jul 06 18:07	2° $\text{♁}$ 52'54	
max. Earth dist.	13824 Sep 04 15:55	20° $\text{♁}$ 25'54	1.37035 AU	morning max el	13825 Jul 09 17:19	5° $\text{♁}$ 37'28	23°24'53
	13824 Sep 09 17:48	0° $\text{♁}$			13825 Jul 28 13:28	0° $\text{♁}$	
				morning set	13825 Aug 13 12:25	25° $\text{♁}$ 04'38	
superior conj	13824 Sep 11 09:19	3° $\text{♁}$ 12'10	-0°13'55		13825 Aug 16 09:58	0° $\text{♁}$	
minimum elong	13824 Sep 11 10:13	3° $\text{♁}$ 16'36	0°13'48	max. Earth dist.	13825 Aug 17 13:41	1° $\text{♁}$ 59'50	1.39375 AU
behind sun begin	13824 Sep 11 06:47	2° $\text{♁}$ 59'44					
behind sun end	13824 Sep 11 13:40	3° $\text{♁}$ 33'28		superior conj	13825 Aug 25 06:01	15° $\text{♁}$ 48'29	-0°48'43
asc. node	13824 Sep 12 21:21	6° $\text{♁}$ 09'43		minimum elong	13825 Aug 25 09:35	16° $\text{♁}$ 05'05	0°48'28
evening rise	13824 Sep 19 17:02	19° $\text{♁}$ 52'44		asc. node	13825 Aug 30 17:55	26° $\text{♁}$ 13'28	
	13824 Sep 24 20:32	0° $\text{♁}$			13825 Sep 01 16:49	0° $\text{♁}$	





























































































































evening rise	13825 Sep 03 14:17	3°♄40'16		minimum elong	13826 Aug 07 14:41	28°♄02'55	1°23'20
evening max el	13825 Sep 19 16:41	29°♄48'57	18°41'46		13826 Aug 08 17:12	0°♄	
	13825 Sep 19 21:10	0°♄		asc. node	13826 Aug 17 14:30	16°♄09'58	
retrograde	13825 Sep 27 22:33	3°♄58'04		evening rise	13826 Aug 18 00:43	16°♄57'12	
evening set	13825 Sep 29 20:33	3°♄45'24			13826 Aug 25 06:05	0°♄	
desc. node	13825 Oct 02 14:30	2°♄46'49		evening max el	13826 Sep 03 00:53	12°♄25'38	18°12'21
	13825 Oct 07 00:59	30°♄		retrograde	13826 Sep 10 04:50	16°♄04'21	
inferior conj	13825 Oct 07 22:01	29°♄21'17	-1°41'21	evening set	13826 Sep 12 09:15	15°♄44'37	
minimum elong	13825 Oct 07 17:51	29°♄29'00	1°39'16	inferior conj	13826 Sep 19 16:17	10°♄59'30	-0°03'18
min. Earth dist.	13825 Oct 11 01:00	27°♄02'49	0.57089 AU	minimum elong	13826 Sep 19 16:10	10°♄59'45	0°03'10
morning rise	13825 Oct 15 11:47	24°♄20'35		transit middle	13826 Sep 19 16:10	10°♄59'45	0°03'10
direct	13825 Oct 21 09:50	22°♄54'28		transit begin	13826 Sep 19 12:49	11°♄07'01	
	13825 Nov 04 07:22	0°♄		transit end	13826 Sep 19 19:32	10°♄52'28	
morning max el	13825 Nov 04 16:02	0°♄20'40	26°37'18	desc. node	13826 Sep 19 12:03	11°♄08'40	
	13825 Nov 25 11:48	0°♄		min. Earth dist.	13826 Sep 22 23:24	8°♄09'17	0.59215 AU
asc. node	13825 Nov 26 19:37	2°♄29'05		morning rise	13826 Sep 26 19:41	5°♄24'25	
morning set	13825 Dec 03 21:31	16°♄50'51		direct	13826 Oct 03 06:00	3°♄30'53	
	13825 Dec 09 20:58	0°♄		morning max el	13826 Oct 17 13:30	11°♄16'37	27°37'18
					13826 Nov 01 04:36	0°♄	
superior conj	13825 Dec 10 16:50	1°♄50'53	1°36'40	asc. node	13826 Nov 13 16:27	21°♄59'21	
minimum elong	13825 Dec 10 16:06	1°♄46'45	1°37'41		13826 Nov 17 14:46	0°♄	
max. Earth dist.	13825 Dec 11 06:34	3°♄07'29	1.31351 AU	morning set	13826 Nov 18 04:27	1°♄12'04	
evening rise	13825 Dec 17 14:20	16°♄56'03		max. Earth dist.	13826 Nov 24 14:51	15°♄15'51	1.31173 AU
	13825 Dec 24 02:16	0°♄					
desc. node	13825 Dec 29 12:19	9°♄46'13		superior conj	13826 Nov 25 04:24	16°♄31'31	1°29'37
	13826 Jan 12 10:25	0°♄		minimum elong	13826 Nov 25 02:47	16°♄22'28	1°30'28
evening max el	13826 Jan 17 19:08	5°♄44'56	27°14'18		13826 Dec 01 06:29	0°♄	
retrograde	13826 Jan 31 18:32	13°♄01'34		evening rise	13826 Dec 01 21:37	1°♄21'36	
evening set	13826 Feb 07 13:58	10°♄58'06		desc. node	13826 Dec 16 09:14	28°♄43'58	
min. Earth dist.	13826 Feb 11 09:39	8°♄13'10	0.60563 AU		13826 Dec 17 04:27	0°♄	
inferior conj	13826 Feb 14 13:33	5°♄31'32	-2°37'28	evening max el	13826 Dec 30 18:42	17°♄15'17	26°20'08
minimum elong	13826 Feb 14 19:14	5°♄19'23	2°34'44	retrograde	13827 Jan 13 17:43	24°♄20'58	
morning rise	13826 Feb 22 03:42	0°♄41'14		evening set	13827 Jan 20 03:08	22°♄42'32	
asc. node	13826 Feb 22 17:39	0°♄32'55		min. Earth dist.	13827 Jan 24 08:15	20°♄05'50	0.58399 AU
direct	13826 Feb 24 05:37	0°♄23'48		inferior conj	13827 Jan 27 10:55	17°♄47'47	-4°01'44
morning max el	13826 Mar 03 11:02	4°♄00'55	17°57'46	minimum elong	13827 Jan 27 19:20	17°♄32'10	3°58'17
morning set	13826 Mar 19 00:50	28°♄27'56		morning rise	13827 Feb 04 14:33	13°♄18'41	
	13826 Mar 19 20:54	0°♄		direct	13827 Feb 06 15:17	13°♄04'43	
desc. node	13826 Mar 27 14:13	13°♄58'41		asc. node	13827 Feb 09 15:05	13°♄36'37	
				morning max el	13827 Feb 14 20:22	17°♄07'21	18°29'01
superior conj	13826 Mar 29 09:08	17°♄07'35	-0°14'13		13827 Feb 23 23:40	0°♄	
minimum elong	13826 Mar 29 07:54	17°♄02'11	0°14'13	morning set	13827 Mar 02 17:50	12°♄32'56	
behind sun begin	13826 Mar 29 04:12	16°♄45'59					
behind sun end	13826 Mar 29 11:36	17°♄18'22		superior conj	13827 Mar 11 19:40	29°♄46'36	0°21'08
	13826 Apr 05 22:56	0°♄		minimum elong	13827 Mar 11 21:07	29°♄53'21	0°21'01
max. Earth dist.	13826 Apr 05 21:31	29°♄54'11	1.42562 AU		13827 Mar 11 22:34	0°♄	
evening rise	13826 Apr 11 17:04	9°♄18'40		desc. node	13827 Mar 14 10:42	4°♄34'22	
	13826 Apr 25 08:01	0°♄		max. Earth dist.	13827 Mar 19 06:28	13°♄05'09	1.40459 AU
evening max el	13826 May 14 10:43	24°♄43'33	22°16'29	evening rise	13827 Mar 23 13:14	20°♄19'35	
asc. node	13826 May 21 14:21	29°♄55'23			13827 Mar 29 13:01	0°♄	
	13826 May 21 19:38	0°♄			13827 Apr 19 12:47	0°♄	
retrograde	13826 May 24 02:07	0°♄23'35		evening max el	13827 Apr 27 01:43	8°♄36'02	23°37'25
	13826 May 26 05:46	30°♄		retrograde	13827 May 07 21:01	14°♄57'09	
evening set	13826 May 28 19:56	28°♄25'11		asc. node	13827 May 08 11:36	14°♄55'29	
inferior conj	13826 Jun 03 02:41	22°♄04'45	2°59'39	evening set	13827 May 13 02:25	12°♄44'48	
minimum elong	13826 Jun 03 01:21	22°♄09'25	2°58'27	min. Earth dist.	13827 May 17 21:02	7°♄09'03	0.68805 AU
min. Earth dist.	13826 Jun 03 00:22	22°♄12'50	0.68952 AU	inferior conj	13827 May 18 12:04	6°♄17'32	2°38'30
morning rise	13826 Jun 08 06:35	15°♄52'07		minimum elong	13827 May 18 10:08	6°♄24'10	2°37'10
direct	13826 Jun 12 23:45	13°♄52'48		morning rise	13827 May 23 17:48	0°♄12'34	
morning max el	13826 Jun 22 06:18	19°♄18'19	21°56'47		13827 May 24 00:22	30°♄	
desc. node	13826 Jun 23 15:17	20°♄44'08		direct	13827 May 27 22:26	28°♄33'40	
	13826 Jul 01 05:25	0°♄			13827 Jun 01 04:48	0°♄	
	13826 Jul 21 17:03	0°♄		morning max el	13827 Jun 05 00:53	3°♄10'08	20°37'06
morning set	13826 Jul 24 21:56	5°♄04'31		desc. node	13827 Jun 10 12:19	9°♄26'55	
max. Earth dist.	13826 Jul 30 14:47	14°♄22'20	1.41671 AU		13827 Jun 25 02:07	0°♄	
				morning set	13827 Jul 04 08:53	14°♄07'00	
superior conj	13826 Aug 07 08:23	27°♄35'14	-1°23'32	max. Earth dist.	13827 Jul 12 22:59	27°♄40'16	1.43640 AU

	13827 Jul 14 09:36	0°♎		max. Earth dist.	13828 Jun 24 13:34	11°♎40'50	1.45055 AU
superior conj	13827 Jul 19 12:25	8°♎24'31	-1°53'20	superior conj	13828 Jun 28 16:47	18°♎14'23	-2°11'17
minimum elong	13827 Jul 19 19:37	8°♎54'32	1°53'36	minimum elong	13828 Jun 28 20:21	18°♎28'40	2°12'13
evening rise	13827 Jul 31 19:49	29°♎32'58			13828 Jul 05 23:19	0°♎	
	13827 Aug 01 01:59	0°♎		evening rise	13828 Jul 12 18:22	11°♎14'33	
asc. node	13827 Aug 04 11:08	5°♎55'35		asc. node	13828 Jul 21 07:49	25°♎24'46	
evening max el	13827 Aug 17 14:03	25°♎32'49	18°02'33		13828 Jul 24 05:59	0°♎	
retrograde	13827 Aug 24 03:09	28°♎55'40		evening max el	13828 Jul 31 04:28	9°♎00'35	18°11'26
evening set	13827 Aug 26 15:34	28°♎25'12		retrograde	13828 Aug 06 12:59	12°♎21'50	
inferior conj	13827 Sep 02 05:55	23°♎20'14	1°13'43	evening set	13828 Aug 09 09:47	11°♎37'53	
minimum elong	13827 Sep 02 07:54	23°♎15'16	1°12'48	inferior conj	13828 Aug 15 10:55	6°♎15'26	2°08'54
min. Earth dist.	13827 Sep 05 06:48	20°♎19'45	0.61512 AU	minimum elong	13828 Aug 15 13:24	6°♎08'29	2°07'42
desc. node	13827 Sep 06 09:35	19°♎18'08		min. Earth dist.	13828 Aug 18 00:01	3°♎25'01	0.63707 AU
morning rise	13827 Sep 08 21:37	17°♎19'30		morning rise	13828 Aug 21 15:16	29°♎58'59	
direct	13827 Sep 15 13:28	15°♎02'28			13828 Aug 21 14:45	30°♎♎	
morning max el	13827 Sep 29 18:02	23°♎00'01	27°58'41	desc. node	13828 Aug 23 07:05	28°♎51'23	
	13827 Oct 05 23:39	0°♎		direct	13828 Aug 28 06:26	27°♎25'55	
	13827 Oct 25 10:24	0°♎			13828 Sep 04 15:19	0°♎	
asc. node	13827 Oct 31 13:11	11°♎46'13		morning max el	13828 Sep 11 03:20	5°♎26'34	27°42'14
morning set	13827 Nov 02 06:04	15°♎14'51			13828 Sep 29 18:50	0°♎	
max. Earth dist.	13827 Nov 07 20:55	27°♎14'43	1.31528 AU	morning set	13828 Oct 16 00:04	28°♎54'14	
	13827 Nov 09 02:57	0°♎♎			13828 Oct 16 13:12	0°♎	
				asc. node	13828 Oct 17 09:50	1°♎44'26	
superior conj	13827 Nov 09 14:34	1°♎04'09	1°16'47	max. Earth dist.	13828 Oct 20 21:02	8°♎56'15	1.32422 AU
minimum elong	13827 Nov 09 12:23	0°♎52'07	1°17'22				
evening rise	13827 Nov 16 07:44	15°♎52'19		superior conj	13828 Oct 23 21:23	15°♎23'54	0°58'14
	13827 Nov 23 05:12	0°♎		minimum elong	13828 Oct 23 19:08	15°♎11'43	0°58'33
desc. node	13827 Dec 03 06:17	16°♎53'49		evening rise	13828 Oct 30 18:51	0°♎23'50	
evening max el	13827 Dec 12 09:50	27°♎53'47	24°56'00		13828 Oct 30 14:25	0°♎♎	
	13827 Dec 14 19:05	0°♎			13828 Nov 16 01:46	0°♎	
retrograde	13827 Dec 26 04:32	4°♎47'30		desc. node	13828 Nov 19 03:27	3°♎58'23	
evening set	13827 Dec 31 18:03	3°♎38'32		evening max el	13828 Nov 22 19:39	7°♎57'41	23°15'10
min. Earth dist.	13828 Jan 05 21:45	0°♎54'12	0.56474 AU	retrograde	13828 Dec 06 02:44	14°♎34'15	
	13828 Jan 07 07:41	30°♎♎		evening set	13828 Dec 10 09:53	13°♎54'07	
inferior conj	13828 Jan 08 11:41	29°♎14'41	-5°15'21	min. Earth dist.	13828 Dec 17 05:27	10°♎42'45	0.55079 AU
minimum elong	13828 Jan 08 19:53	29°♎01'28	5°12'44	inferior conj	13828 Dec 18 16:37	9°♎51'53	-5°55'48
morning rise	13828 Jan 16 23:57	25°♎07'20		minimum elong	13828 Dec 18 18:51	9°♎48'40	5°54'39
direct	13828 Jan 19 06:19	24°♎52'55		morning rise	13828 Dec 27 05:25	6°♎01'18	
asc. node	13828 Jan 27 12:27	28°♎20'00		direct	13828 Dec 30 02:12	5°♎41'44	
morning max el	13828 Jan 28 19:27	29°♎30'10	19°22'14	morning max el	13829 Jan 10 04:55	11°♎00'39	20°38'39
	13828 Jan 29 07:27	0°♎		asc. node	13829 Jan 13 09:44	14°♎29'41	
morning set	13828 Feb 14 19:37	27°♎00'07			13829 Jan 23 06:11	0°♎	
	13828 Feb 16 07:34	0°♎♎		morning set	13829 Jan 29 03:06	11°♎40'20	
superior conj	13828 Feb 22 22:54	13°♎10'54	0°50'09	superior conj	13829 Feb 05 14:36	27°♎08'45	1°12'10
minimum elong	13828 Feb 23 01:31	13°♎23'36	0°50'10	minimum elong	13829 Feb 05 17:13	27°♎22'07	1°12'29
desc. node	13828 Feb 29 07:10	25°♎09'09			13829 Feb 07 00:25	0°♎♎	
max. Earth dist.	13828 Feb 29 13:04	25°♎36'05	1.38197 AU	max. Earth dist.	13829 Feb 10 21:09	7°♎37'20	1.36020 AU
	13828 Mar 02 23:52	0°♎♎		evening rise	13829 Feb 14 17:56	14°♎54'54	
evening rise	13828 Mar 04 06:19	2°♎13'57		desc. node	13829 Feb 15 03:41	15°♎39'40	
	13828 Mar 21 17:12	0°♎♎			13829 Feb 23 09:33	0°♎♎	
evening max el	13828 Apr 08 15:18	22°♎29'15	24°56'26		13829 Mar 16 09:05	0°♎♎	
retrograde	13828 Apr 20 12:02	29°♎23'38		evening max el	13829 Mar 22 04:48	6°♎19'59	26°06'24
asc. node	13828 Apr 24 08:56	28°♎18'59		retrograde	13829 Apr 03 22:20	13°♎36'47	
evening set	13828 Apr 26 05:07	27°♎00'05		evening set	13829 Apr 10 02:24	11°♎06'06	
min. Earth dist.	13828 Apr 30 15:45	22°♎00'40	0.68197 AU	asc. node	13829 Apr 11 06:20	10°♎03'10	
inferior conj	13828 May 01 19:23	20°♎29'33	2°07'04	min. Earth dist.	13829 Apr 14 06:29	6°♎41'59	0.67149 AU
minimum elong	13828 May 01 17:14	20°♎36'41	2°05'42	inferior conj	13829 Apr 15 22:41	4°♎37'10	1°24'56
morning rise	13828 May 07 05:36	14°♎33'32		minimum elong	13829 Apr 15 20:50	4°♎42'56	1°23'47
direct	13828 May 10 22:16	13°♎15'14			13829 Apr 20 03:03	30°♎♎♎	
morning max el	13828 May 18 02:55	17°♎13'04	19°30'30	morning rise	13829 Apr 21 16:04	28°♎51'23	
desc. node	13828 May 27 09:11	28°♎46'39		direct	13829 Apr 24 21:38	27°♎52'05	
	13828 May 28 05:47	0°♎♎			13829 Apr 29 22:10	0°♎♎	
greatest brilliancy	13828 May 30 18:08	3°♎39'02	-0.7m	morning max el	13829 May 01 12:13	1°♎24'24	18°39'30
morning set	13828 Jun 12 10:40	22°♎49'58		desc. node	13829 May 14 05:58	18°♎33'42	
	13828 Jun 17 02:09	0°♎♎			13829 May 21 14:44	0°♎♎	

morning set	13829 May 23 00:44	2° $\Pi$ 12'58		superior conj	13830 May 18 13:27	6° $\Pi$ 37'43	-1°50'40
max. Earth dist.	13829 Jun 07 08:00	26° $\Pi$ 06'47	1.45782 AU	minimum elong	13830 May 18 04:33	6° $\Pi$ 02'43	1°50'51
				max. Earth dist.	13830 May 21 03:50	10° $\Pi$ 42'11	1.45762 AU
superior conj	13829 Jun 08 03:59	27° $\Pi$ 24'46	-2°10'53		13830 Jun 02 14:05	0° $\mathfrak{D}$	
minimum elong	13829 Jun 07 23:56	27° $\Pi$ 08'59	2°11'49	evening rise	13830 Jun 03 15:59	1° $\mathfrak{D}$ 40'04	
	13829 Jun 09 19:41	0° $\mathfrak{D}$		greatest brilliancy	13830 Jun 16 05:18	20° $\mathfrak{D}$ 51'27	-0.7m
evening rise	13829 Jun 23 16:32	21° $\mathfrak{D}$ 54'11			13830 Jun 22 15:03	0° $\Omega$	
	13829 Jun 28 18:24	0° $\Omega$		asc. node	13830 Jun 25 01:29	3° $\Omega$ 07'17	
greatest brilliancy	13829 Jun 30 22:16	3° $\Omega$ 25'43	-0.9m	evening max el	13830 Jun 28 01:35	6° $\Omega$ 28'29	19°21'49
asc. node	13829 Jul 08 04:36	14° $\Omega$ 31'17		retrograde	13830 Jul 05 03:24	10° $\Omega$ 25'31	
evening max el	13829 Jul 14 17:05	22° $\Omega$ 41'06	18°38'11	evening set	13830 Jul 08 18:13	9° $\Omega$ 09'26	
retrograde	13829 Jul 21 06:09	26° $\Omega$ 14'02		inferior conj	13830 Jul 14 03:47	3° $\Omega$ 17'55	3°05'05
evening set	13829 Jul 24 11:41	25° $\Omega$ 14'36		minimum elong	13830 Jul 14 04:54	3° $\Omega$ 14'16	3°04'02
inferior conj	13829 Jul 30 03:20	19° $\Omega$ 36'53	2°44'57	min. Earth dist.	13830 Jul 15 12:26	1° $\Omega$ 30'55	0.67148 AU
minimum elong	13829 Jul 30 05:20	19° $\Omega$ 30'41	2°43'49		13830 Jul 16 17:13	30° $\mathfrak{R}$ $\mathfrak{D}$	
min. Earth dist.	13829 Aug 01 02:25	17° $\Omega$ 12'38	0.65621 AU	morning rise	13830 Jul 19 15:01	26° $\mathfrak{D}$ 53'25	
morning rise	13829 Aug 04 21:58	13° $\Omega$ 13'16		direct	13830 Jul 25 15:31	24° $\mathfrak{D}$ 16'11	
desc. node	13829 Aug 10 04:35	10° $\Omega$ 38'04		desc. node	13830 Jul 28 02:00	24° $\mathfrak{D}$ 38'20	
direct	13829 Aug 11 07:33	10° $\Omega$ 33'26			13830 Aug 05 07:28	0° $\Omega$	
morning max el	13829 Aug 24 14:32	18° $\Omega$ 24'42	26°53'44	morning max el	13830 Aug 07 01:28	1° $\Omega$ 42'08	25°41'55
	13829 Sep 03 09:16	0° $\mathfrak{P}$			13830 Aug 28 10:42	0° $\mathfrak{P}$	
	13829 Sep 22 18:07	0° $\mathfrak{D}$		morning set	13830 Sep 12 00:58	24° $\mathfrak{P}$ 32'15	
morning set	13829 Sep 29 07:34	12° $\mathfrak{D}$ 02'52			13830 Sep 14 23:42	0° $\mathfrak{D}$	
max. Earth dist.	13829 Oct 03 11:52	20° $\mathfrak{D}$ 15'20	1.33853 AU	max. Earth dist.	13830 Sep 15 16:40	1° $\mathfrak{D}$ 20'12	1.35767 AU
asc. node	13829 Oct 04 06:26	21° $\mathfrak{D}$ 49'07		asc. node	13830 Sep 21 03:00	11° $\mathfrak{D}$ 56'35	
superior conj	13829 Oct 07 22:37	29° $\mathfrak{D}$ 24'35	0°34'08	superior conj	13830 Sep 21 15:34	12° $\mathfrak{D}$ 59'44	0°04'55
minimum elong	13829 Oct 07 20:56	29° $\mathfrak{D}$ 15'46	0°34'14	minimum elong	13830 Sep 21 15:16	12° $\mathfrak{D}$ 58'13	0°04'59
	13829 Oct 08 05:21	0° $\mathfrak{L}$		behind sun begin	13830 Sep 21 09:20	12° $\mathfrak{D}$ 28'23	
evening rise	13829 Oct 15 05:04	14° $\mathfrak{L}$ 50'41		behind sun end	13830 Sep 21 21:12	13° $\mathfrak{D}$ 28'07	
	13829 Oct 22 19:01	0° $\mathfrak{J}$		evening rise	13830 Sep 29 12:19	29° $\mathfrak{D}$ 07'55	
evening max el	13829 Nov 04 09:09	18° $\mathfrak{J}$ 02'39	21°35'35		13830 Sep 29 22:28	0° $\mathfrak{L}$	
desc. node	13829 Nov 06 00:44	19° $\mathfrak{J}$ 33'48		evening max el	13830 Oct 17 10:54	28° $\mathfrak{L}$ 43'31	20°11'13
retrograde	13829 Nov 16 15:10	24° $\mathfrak{J}$ 07'16			13830 Oct 18 19:38	0° $\mathfrak{J}$	
evening set	13829 Nov 19 13:30	23° $\mathfrak{J}$ 47'42		desc. node	13830 Oct 23 22:07	3° $\mathfrak{J}$ 13'34	
inferior conj	13829 Nov 28 09:09	19° $\mathfrak{J}$ 54'27	-5°40'48	retrograde	13830 Oct 28 03:10	4° $\mathfrak{J}$ 02'16	
minimum elong	13829 Nov 28 02:31	20° $\mathfrak{J}$ 03'46	5°38'53	evening set	13830 Oct 30 05:00	3° $\mathfrak{J}$ 51'08	
min. Earth dist.	13829 Nov 28 11:29	19° $\mathfrak{J}$ 51'11	0.54490 AU		13830 Nov 07 23:04	30° $\mathfrak{R}$ $\mathfrak{L}$	
morning rise	13829 Dec 06 16:19	16° $\mathfrak{J}$ 06'11		inferior conj	13830 Nov 08 03:07	29° $\mathfrak{L}$ 53'58	-4°28'30
direct	13829 Dec 10 10:28	15° $\mathfrak{J}$ 35'29		minimum elong	13830 Nov 07 17:02	0° $\mathfrak{J}$ 08'58	4°24'45
morning max el	13829 Dec 23 00:16	21° $\mathfrak{J}$ 37'57	22°15'57	min. Earth dist.	13830 Nov 09 18:56	28° $\mathfrak{L}$ 54'46	0.54847 AU
	13829 Dec 30 01:30	0° $\mathfrak{Z}$		morning rise	13830 Nov 16 04:10	25° $\mathfrak{L}$ 48'23	
asc. node	13829 Dec 31 06:56	1° $\mathfrak{Z}$ 47'22		direct	13830 Nov 20 21:06	25° $\mathfrak{L}$ 00'21	
morning set	13830 Jan 13 13:46	26° $\mathfrak{Z}$ 25'24			13830 Dec 02 13:24	0° $\mathfrak{J}$	
	13830 Jan 15 06:09	0° $\approx$		morning max el	13830 Dec 04 10:48	1° $\mathfrak{J}$ 40'47	24°04'34
				asc. node	13830 Dec 18 04:03	19° $\mathfrak{J}$ 57'29	
					13830 Dec 23 15:32	0° $\mathfrak{Z}$	
superior conj	13830 Jan 20 15:03	11° $\approx$ 28'35	1°27'16	morning set	13830 Dec 29 01:39	11° $\mathfrak{Z}$ 10'07	
minimum elong	13830 Jan 20 17:01	11° $\approx$ 38'56	1°27'56				
max. Earth dist.	13830 Jan 24 10:58	19° $\approx$ 27'12	1.34136 AU				
evening rise	13830 Jan 28 20:29	28° $\approx$ 12'13		superior conj	13831 Jan 04 21:26	26° $\mathfrak{Z}$ 02'31	1°35'46
	13830 Jan 29 18:55	0° $\mathfrak{H}$		minimum elong	13831 Jan 04 22:23	26° $\mathfrak{Z}$ 07'41	1°36'43
desc. node	13830 Feb 02 00:17	6° $\mathfrak{H}$ 01'01			13831 Jan 06 17:17	0° $\approx$	
	13830 Feb 16 15:07	0° $\mathfrak{Y}$		max. Earth dist.	13831 Jan 07 08:40	1° $\approx$ 22'37	1.32675 AU
evening max el	13830 Mar 04 18:24	20° $\mathfrak{Y}$ 00'22	27°00'06	evening rise	13831 Jan 12 10:36	11° $\approx$ 57'39	
retrograde	13830 Mar 18 03:01	27° $\mathfrak{Y}$ 27'45		desc. node	13831 Jan 19 20:58	26° $\approx$ 08'29	
evening set	13830 Mar 24 16:19	24° $\mathfrak{Y}$ 55'33			13831 Jan 22 01:25	0° $\mathfrak{H}$	
min. Earth dist.	13830 Mar 28 15:12	21° $\mathfrak{Y}$ 04'50	0.65688 AU		13831 Feb 12 01:16	0° $\mathfrak{Y}$	
asc. node	13830 Mar 29 03:48	20° $\mathfrak{Y}$ 29'16		evening max el	13831 Feb 15 07:12	3° $\mathfrak{Y}$ 20'09	27°30'06
inferior conj	13830 Mar 30 19:41	18° $\mathfrak{Y}$ 34'29	0°31'29	retrograde	13831 Mar 01 00:57	10° $\mathfrak{Y}$ 47'33	
minimum elong	13830 Mar 30 18:50	18° $\mathfrak{Y}$ 36'54	0°30'56	evening set	13831 Mar 07 20:34	8° $\mathfrak{Y}$ 20'38	
morning rise	13830 Apr 05 22:50	13° $\mathfrak{Y}$ 00'43		min. Earth dist.	13831 Mar 11 15:51	5° $\mathfrak{Y}$ 00'17	0.63880 AU
direct	13830 Apr 08 18:29	12° $\mathfrak{Y}$ 17'36		inferior conj	13831 Mar 14 07:40	2° $\mathfrak{Y}$ 14'57	-0°33'41
morning max el	13830 Apr 15 02:55	15° $\mathfrak{Y}$ 37'03	18°05'15	minimum elong	13831 Mar 14 08:43	2° $\mathfrak{Y}$ 12'12	0°33'11
	13830 Apr 25 16:58	0° $\mathfrak{B}$		asc. node	13831 Mar 16 01:18	0° $\mathfrak{Y}$ 29'33	
desc. node	13830 May 01 02:40	8° $\mathfrak{B}$ 40'16			13831 Mar 16 13:41	30° $\mathfrak{R}$ $\mathfrak{H}$	
morning set	13830 May 03 17:20	12° $\mathfrak{B}$ 54'26		morning rise	13831 Mar 20 23:07	26° $\mathfrak{H}$ 55'34	
	13830 May 14 08:41	0° $\Pi$		direct	13831 Mar 23 10:19	26° $\mathfrak{H}$ 25'13	

morning max el	13831 Mar 29 20:22	29° $\text{H}$ 43'08	17°48'12	morning set	13832 Mar 28 07:36	7° $\text{Y}$ 58'33	
	13831 Mar 30 03:10	0° $\text{Y}$		desc. node	13832 Apr 03 19:49	19° $\text{Y}$ 29'59	
morning set	13831 Apr 15 13:26	24° $\text{Y}$ 55'15					
desc. node	13831 Apr 17 23:17	29° $\text{Y}$ 00'30		superior conj	13832 Apr 08 13:09	27° $\text{Y}$ 37'51	-0°36'39
	13831 Apr 18 13:21	0° $\text{B}$		minimum elong	13832 Apr 08 09:41	27° $\text{Y}$ 23'08	0°36'30
					13832 Apr 09 22:49	0° $\text{B}$	
superior conj	13831 Apr 28 13:37	16° $\text{B}$ 34'47	-1°16'18	max. Earth dist.	13832 Apr 15 15:27	9° $\text{B}$ 23'46	1.43608 AU
minimum elong	13831 Apr 28 06:02	16° $\text{B}$ 04'01	1°16'02	evening rise	13832 Apr 22 19:13	20° $\text{B}$ 45'34	
max. Earth dist.	13831 May 03 23:02	25° $\text{B}$ 12'46	1.45012 AU		13832 Apr 28 19:56	0° $\text{H}$	
	13831 May 07 00:01	0° $\text{H}$			13832 May 20 07:39	0° $\text{B}$	
evening rise	13831 May 14 03:30	11° $\text{H}$ 03'21		evening max el	13832 May 24 01:39	4° $\text{B}$ 08'16	21°31'40
	13831 May 26 18:04	0° $\text{B}$		asc. node	13832 May 28 19:37	8° $\text{B}$ 01'54	
evening max el	13831 Jun 11 04:30	20° $\text{B}$ 18'06	20°20'38	retrograde	13832 Jun 02 00:44	9° $\text{B}$ 22'28	
asc. node	13831 Jun 11 22:30	21° $\text{B}$ 01'52		evening set	13832 Jun 06 12:16	7° $\text{B}$ 32'41	
retrograde	13831 Jun 19 02:12	24° $\text{B}$ 49'58		inferior conj	13832 Jun 11 18:15	1° $\text{B}$ 17'36	3°07'12
evening set	13831 Jun 23 03:02	23° $\text{B}$ 16'48		minimum elong	13832 Jun 11 17:24	1° $\text{B}$ 20'37	3°06'04
inferior conj	13831 Jun 28 09:32	17° $\text{B}$ 12'47	3°11'54	min. Earth dist.	13832 Jun 11 23:20	0° $\text{B}$ 59'56	0.68827 AU
minimum elong	13831 Jun 28 09:37	17° $\text{B}$ 12'29	3°10'52		13832 Jun 12 16:36	30° $\text{R}$ $\text{H}$	
min. Earth dist.	13831 Jun 29 04:05	16° $\text{B}$ 09'18	0.68226 AU	morning rise	13832 Jun 16 22:20	25° $\text{H}$ 01'29	
morning rise	13831 Jul 03 15:53	10° $\text{B}$ 51'17		direct	13832 Jun 21 22:51	22° $\text{H}$ 51'20	
direct	13831 Jul 09 04:58	8° $\text{B}$ 24'45		desc. node	13832 Jun 30 20:33	27° $\text{H}$ 42'03	
desc. node	13831 Jul 14 23:21	10° $\text{B}$ 28'23		morning max el	13832 Jul 01 22:59	28° $\text{H}$ 46'27	22°46'50
morning max el	13831 Jul 20 11:42	15° $\text{B}$ 10'01	24°16'24		13832 Jul 03 03:21	0° $\text{B}$	
	13831 Aug 01 15:38	0° $\text{Q}$			13832 Jul 25 08:16	0° $\text{Q}$	
	13831 Aug 21 08:34	0° $\text{H}$		morning set	13832 Aug 04 23:49	16° $\text{Q}$ 48'35	
morning set	13831 Aug 24 23:50	6° $\text{H}$ 10'46		max. Earth dist.	13832 Aug 09 14:26	24° $\text{Q}$ 31'01	1.40387 AU
max. Earth dist.	13831 Aug 28 15:19	12° $\text{H}$ 35'43	1.38026 AU		13832 Aug 12 18:42	0° $\text{H}$	
superior conj	13831 Sep 04 20:48	26° $\text{H}$ 00'14	-0°28'26	superior conj	13832 Aug 17 10:16	8° $\text{H}$ 16'51	-1°03'43
minimum elong	13831 Sep 04 22:45	26° $\text{H}$ 09'38	0°28'16	minimum elong	13832 Aug 17 15:04	8° $\text{H}$ 38'38	1°03'27
	13831 Sep 06 22:26	0° $\text{Q}$		asc. node	13832 Aug 24 20:06	22° $\text{H}$ 03'53	
asc. node	13831 Sep 07 23:32	2° $\text{Q}$ 02'38		evening rise	13832 Aug 27 07:13	26° $\text{H}$ 44'22	
evening rise	13831 Sep 13 14:03	13° $\text{Q}$ 08'19			13832 Aug 29 00:32	0° $\text{Q}$	
	13831 Sep 22 14:24	0° $\text{H}$		evening max el	13832 Sep 12 06:12	22° $\text{Q}$ 26'56	18°26'35
evening max el	13831 Sep 30 02:49	10° $\text{H}$ 12'34	19°08'01	retrograde	13832 Sep 19 23:40	26° $\text{Q}$ 21'34	
retrograde	13831 Oct 09 03:49	14° $\text{H}$ 44'33		evening set	13832 Sep 22 00:02	26° $\text{Q}$ 06'21	
desc. node	13831 Oct 10 19:36	14° $\text{H}$ 36'01		desc. node	13832 Sep 26 17:06	23° $\text{Q}$ 48'55	
evening set	13831 Oct 11 00:31	14° $\text{H}$ 33'49		inferior conj	13832 Sep 29 17:37	21° $\text{Q}$ 32'50	-0°57'28
inferior conj	13831 Oct 19 11:44	10° $\text{H}$ 20'59	-2°43'47	minimum elong	13832 Sep 29 15:24	21° $\text{Q}$ 37'15	0°56'17
minimum elong	13831 Oct 19 04:46	10° $\text{H}$ 32'46	2°40'32	min. Earth dist.	13832 Oct 02 23:43	18° $\text{Q}$ 58'42	0.57960 AU
min. Earth dist.	13831 Oct 22 06:05	8° $\text{H}$ 28'53	0.56080 AU	morning rise	13832 Oct 07 03:16	16° $\text{Q}$ 16'41	
morning rise	13831 Oct 27 06:22	5° $\text{H}$ 42'26		direct	13832 Oct 13 07:09	14° $\text{Q}$ 39'08	
direct	13831 Nov 01 19:09	4° $\text{H}$ 31'38		morning max el	13832 Oct 27 14:35	22° $\text{Q}$ 13'52	27°07'23
morning max el	13831 Nov 15 21:25	11° $\text{H}$ 42'12	25°47'48		13832 Nov 03 11:40	0° $\text{H}$	
	13831 Nov 29 23:20	0° $\text{H}$		asc. node	13832 Nov 20 21:55	28° $\text{H}$ 04'18	
asc. node	13831 Dec 05 01:03	8° $\text{H}$ 46'35			13832 Nov 21 21:37	0° $\text{H}$	
morning set	13831 Dec 13 13:01	25° $\text{H}$ 49'42		morning set	13832 Nov 26 22:05	10° $\text{H}$ 19'10	
	13831 Dec 15 11:08	0° $\text{B}$					
				superior conj	13832 Dec 03 18:54	25° $\text{H}$ 26'05	1°34'22
superior conj	13831 Dec 20 07:24	10° $\text{B}$ 43'44	1°38'03	minimum elong	13832 Dec 03 17:45	25° $\text{H}$ 19'41	1°35'21
minimum elong	13831 Dec 20 07:15	10° $\text{B}$ 42'56	1°39'07	max. Earth dist.	13832 Dec 03 21:07	25° $\text{H}$ 38'33	1.31213 AU
max. Earth dist.	13831 Dec 21 13:07	13° $\text{B}$ 28'20	1.31691 AU		13832 Dec 05 19:58	0° $\text{B}$	
evening rise	13831 Dec 27 09:18	26° $\text{B}$ 03'42		evening rise	13832 Dec 10 14:04	10° $\text{B}$ 23'35	
	13831 Dec 29 07:16	0° $\text{B}$			13832 Dec 20 13:32	0° $\text{B}$	
desc. node	13832 Jan 06 17:45	15° $\text{B}$ 56'01		desc. node	13832 Dec 23 14:37	5° $\text{B}$ 15'02	
	13832 Jan 15 12:17	0° $\text{H}$		evening max el	13833 Jan 09 20:45	28° $\text{B}$ 05'49	26°55'23
evening max el	13832 Jan 28 16:58	16° $\text{H}$ 06'26	27°29'55		13833 Jan 11 24:00	0° $\text{H}$	
retrograde	13832 Feb 11 14:59	23° $\text{H}$ 27'18		retrograde	13833 Jan 23 19:55	5° $\text{H}$ 17'43	
evening set	13832 Feb 18 12:27	21° $\text{H}$ 13'04		evening set	13833 Jan 30 12:29	3° $\text{H}$ 23'51	
min. Earth dist.	13832 Feb 22 06:43	18° $\text{H}$ 17'46	0.61814 AU	min. Earth dist.	13833 Feb 03 10:51	0° $\text{H}$ 44'29	0.59628 AU
inferior conj	13832 Feb 25 07:31	15° $\text{H}$ 30'36	-1°49'48		13833 Feb 04 09:30	30° $\text{R}$ $\text{B}$	
minimum elong	13832 Feb 25 11:21	15° $\text{H}$ 21'45	1°47'53	inferior conj	13833 Feb 06 15:31	28° $\text{B}$ 10'50	-3°13'27
asc. node	13832 Mar 01 22:47	11° $\text{H}$ 09'14		minimum elong	13833 Feb 06 22:32	27° $\text{B}$ 56'44	3°10'17
morning rise	13832 Mar 03 13:08	10° $\text{H}$ 28'42		morning rise	13833 Feb 14 11:44	23° $\text{B}$ 29'34	
direct	13832 Mar 05 17:48	10° $\text{H}$ 07'29		direct	13833 Feb 16 12:40	23° $\text{B}$ 13'59	
morning max el	13832 Mar 12 13:32	13° $\text{H}$ 34'25	17°48'58	asc. node	13833 Feb 16 20:15	23° $\text{B}$ 14'22	
	13832 Mar 23 19:28	0° $\text{Y}$		morning max el	13833 Feb 24 02:51	27° $\text{B}$ 00'18	18°08'36

	13833 Feb 26 18:35	0° $\text{H}$		asc. node	13834 Feb 03 17:37	7° $\approx$ 01'24	
morning set	13833 Mar 11 17:41	21° $\text{H}$ 44'52		morning max el	13834 Feb 07 08:25	9° $\approx$ 50'00	18°48'55
	13833 Mar 16 03:44	0° $\text{Y}$			13834 Feb 20 12:20	0° $\text{H}$	
				morning set	13834 Feb 23 14:50	6° $\text{H}$ 00'07	
superior conj	13833 Mar 21 11:58	9° $\text{Y}$ 44'51	0°01'28				
minimum elong	13833 Mar 21 12:05	9° $\text{Y}$ 45'21	0°01'23	superior conj	13834 Mar 04 06:11	22° $\text{H}$ 44'38	0°34'17
behind sun begin	13833 Mar 21 04:28	9° $\text{Y}$ 11'13		minimum elong	13834 Mar 04 08:18	22° $\text{H}$ 54'39	0°34'10
behind sun end	13833 Mar 21 19:42	10° $\text{Y}$ 19'24			13834 Mar 08 04:02	0° $\text{Y}$	
desc. node	13833 Mar 21 16:20	10° $\text{Y}$ 04'23		desc. node	13834 Mar 08 12:47	0° $\text{Y}$ 39'49	
max. Earth dist.	13833 Mar 29 02:58	22° $\text{Y}$ 58'23	1.41697 AU	max. Earth dist.	13834 Mar 11 10:02	5° $\text{Y}$ 49'25	1.39496 AU
	13833 Apr 02 09:05	0° $\text{B}$		evening rise	13834 Mar 15 08:28	12° $\text{Y}$ 37'23	
evening rise	13833 Apr 03 03:17	1° $\text{B}$ 13'37			13834 Mar 26 03:45	0° $\text{B}$	
	13833 Apr 22 06:21	0° $\text{II}$			13834 Apr 17 13:20	0° $\text{II}$	
evening max el	13833 May 06 18:06	17° $\text{II}$ 58'24	22°50'39	evening max el	13834 Apr 19 08:05	1° $\text{II}$ 50'15	24°11'42
asc. node	13833 May 15 16:51	23° $\text{II}$ 50'23		retrograde	13834 Apr 30 14:57	8° $\text{II}$ 27'33	
retrograde	13833 May 16 21:25	23° $\text{II}$ 56'49		asc. node	13834 May 02 14:08	8° $\text{II}$ 10'23	
evening set	13833 May 21 20:12	21° $\text{II}$ 51'55		evening set	13834 May 06 01:16	6° $\text{II}$ 09'58	
inferior conj	13833 May 27 03:55	15° $\text{II}$ 28'02	2°51'56	min. Earth dist.	13834 May 10 16:14	0° $\text{II}$ 49'36	0.68595 AU
minimum elong	13833 May 27 02:18	15° $\text{II}$ 33'41	2°50'40		13834 May 11 06:54	30° $\text{R}$ 8	
min. Earth dist.	13833 May 26 20:05	15° $\text{II}$ 55'16	0.68945 AU	inferior conj	13834 May 11 12:39	29° $\text{B}$ 40'30	2°26'27
morning rise	13833 Jun 01 08:18	9° $\text{II}$ 18'38		minimum elong	13834 May 11 10:34	29° $\text{B}$ 47'33	2°25'05
direct	13833 Jun 05 20:00	7° $\text{II}$ 28'09		morning rise	13834 May 16 19:58	23° $\text{B}$ 39'04	
morning max el	13833 Jun 14 14:09	12° $\text{II}$ 31'56	21°21'36	direct	13834 May 20 19:19	22° $\text{B}$ 09'09	
desc. node	13833 Jun 17 17:37	15° $\text{II}$ 56'49		morning max el	13834 May 28 11:48	26° $\text{B}$ 28'12	20°06'56
	13833 Jun 28 09:40	0° $\text{E}$			13834 May 31 17:09	0° $\text{II}$	
morning set	13833 Jul 15 23:01	26° $\text{E}$ 22'09		desc. node	13834 Jun 04 14:35	4° $\text{II}$ 56'17	
	13833 Jul 18 06:02	0° $\text{O}$			13834 Jun 21 18:54	0° $\text{E}$	
max. Earth dist.	13833 Jul 22 18:32	7° $\text{O}$ 18'07	1.42561 AU	morning set	13834 Jun 25 03:36	5° $\text{E}$ 08'57	
				max. Earth dist.	13834 Jul 05 05:02	20° $\text{E}$ 53'21	1.44310 AU
superior conj	13833 Jul 30 03:31	19° $\text{O}$ 39'43	-1°37'08				
minimum elong	13833 Jul 30 10:35	20° $\text{O}$ 10'05	1°37'05	superior conj	13834 Jul 10 21:16	0° $\text{O}$ 02'27	-2°02'50
	13833 Aug 05 01:25	0° $\text{np}$		minimum elong	13834 Jul 11 03:36	0° $\text{O}$ 28'19	2°03'25
evening rise	13833 Aug 10 11:46	9° $\text{np}$ 45'44			13834 Jul 10 20:40	0° $\text{O}$	
asc. node	13833 Aug 11 16:43	11° $\text{np}$ 56'34		evening rise	13834 Jul 23 22:44	21° $\text{O}$ 59'26	
	13833 Aug 22 09:24	0° $\text{u}$			13834 Jul 28 14:49	0° $\text{np}$	
evening max el	13833 Aug 26 16:57	5° $\text{u}$ 17'52	18°05'46	asc. node	13834 Jul 29 13:22	1° $\text{np}$ 35'42	
retrograde	13833 Sep 02 13:29	8° $\text{u}$ 48'28		evening max el	13834 Aug 10 07:06	18° $\text{np}$ 34'55	18°04'10
evening set	13833 Sep 04 21:04	8° $\text{u}$ 24'43		retrograde	13834 Aug 16 17:09	21° $\text{np}$ 55'26	
inferior conj	13833 Sep 11 20:39	3° $\text{u}$ 30'52	0°32'06	evening set	13834 Aug 19 09:02	21° $\text{np}$ 19'39	
minimum elong	13833 Sep 11 21:40	3° $\text{u}$ 28'31	0°31'40	inferior conj	13834 Aug 25 17:21	16° $\text{np}$ 07'18	1°39'37
desc. node	13833 Sep 13 14:37	1° $\text{u}$ 53'29		minimum elong	13834 Aug 25 19:42	16° $\text{np}$ 01'07	1°38'31
min. Earth dist.	13833 Sep 15 02:03	0° $\text{u}$ 33'27	0.60185 AU	min. Earth dist.	13834 Aug 28 13:49	13° $\text{np}$ 08'28	0.62466 AU
	13833 Sep 15 17:34	30° $\text{R}$ np		desc. node	13834 Aug 31 12:08	10° $\text{np}$ 28'46	
morning rise	13833 Sep 18 19:06	27° $\text{np}$ 43'14		morning rise	13834 Sep 01 04:04	9° $\text{np}$ 58'38	
direct	13833 Sep 25 08:22	25° $\text{np}$ 39'01		direct	13834 Sep 07 20:26	7° $\text{np}$ 33'20	
	13833 Oct 05 15:59	0° $\text{u}$		morning max el	13834 Sep 21 22:25	15° $\text{np}$ 34'15	27°55'59
morning max el	13833 Oct 09 15:33	3° $\text{u}$ 31'28	27°51'14		13834 Oct 03 18:09	0° $\text{u}$	
	13833 Oct 29 03:35	0° $\text{ml}$			13834 Oct 21 19:06	0° $\text{ml}$	
asc. node	13833 Nov 07 18:41	17° $\text{ml}$ 42'43		asc. node	13834 Oct 25 15:23	7° $\text{ml}$ 35'00	
morning set	13833 Nov 11 03:03	24° $\text{ml}$ 33'55		morning set	13834 Oct 26 01:45	8° $\text{ml}$ 27'39	
	13833 Nov 13 16:17	0° $\text{x}$		max. Earth dist.	13834 Oct 31 08:46	19° $\text{ml}$ 36'10	1.31841 AU
max. Earth dist.	13833 Nov 17 04:59	7° $\text{x}$ 44'41	1.31256 AU				
				superior conj	13834 Nov 02 15:08	24° $\text{ml}$ 32'31	1°09'38
superior conj	13833 Nov 18 06:07	10° $\text{x}$ 04'26	1°24'53	minimum elong	13834 Nov 02 12:51	24° $\text{ml}$ 20'02	1°10'05
minimum elong	13833 Nov 18 04:13	9° $\text{x}$ 53'50	1°25'38		13834 Nov 05 02:35	0° $\text{x}$	
evening rise	13833 Nov 24 22:49	24° $\text{x}$ 52'11		evening rise	13834 Nov 09 09:34	9° $\text{x}$ 23'44	
	13833 Nov 27 08:49	0° $\text{Z}$			13834 Nov 19 20:06	0° $\text{Z}$	
desc. node	13833 Dec 10 11:36	23° $\text{Z}$ 54'40		desc. node	13834 Nov 27 08:42	11° $\text{Z}$ 39'14	
	13833 Dec 14 16:48	0° $\approx$		evening max el	13834 Dec 04 04:37	19° $\text{Z}$ 33'14	24°14'06
evening max el	13833 Dec 22 16:28	9° $\approx$ 12'40	25°47'19	retrograde	13834 Dec 17 20:07	26° $\text{Z}$ 20'58	
retrograde	13834 Jan 05 14:24	16° $\approx$ 14'22		evening set	13834 Dec 22 21:24	25° $\text{Z}$ 25'03	
evening set	13834 Jan 11 16:40	14° $\approx$ 47'54		min. Earth dist.	13834 Dec 28 16:09	22° $\text{Z}$ 31'14	0.55799 AU
min. Earth dist.	13834 Jan 16 05:12	12° $\approx$ 10'12	0.57531 AU	inferior conj	13834 Dec 30 20:12	21° $\text{Z}$ 11'39	-5°38'06
inferior conj	13834 Jan 19 04:17	10° $\approx$ 06'34	-4°35'28	minimum elong	13834 Dec 31 02:36	21° $\text{Z}$ 01'50	5°36'11
minimum elong	13834 Jan 19 13:11	9° $\approx$ 51'04	4°32'09	morning rise	13835 Jan 08 09:42	17° $\text{Z}$ 12'10	
morning rise	13834 Jan 27 12:30	5° $\approx$ 47'18		direct	13835 Jan 10 20:53	16° $\text{Z}$ 56'18	
direct	13834 Jan 29 14:31	5° $\approx$ 33'46		morning max el	13835 Jan 21 02:03	21° $\text{Z}$ 51'16	19°51'53

asc. node	13835 Jan 21 14:55	22°  23'06		direct	13835 Dec 22 10:55	27°  19'47	
	13835 Jan 27 14:26	0° 			13835 Dec 30 13:16	0° 	
morning set	13835 Feb 07 19:22	20°  33'21		morning max el	13836 Jan 03 05:07	2°  57'26	21°17'46
	13835 Feb 12 10:43	0° 		asc. node	13836 Jan 08 12:11	9°  03'29	
					13836 Jan 20 15:02	0° 	
superior conj	13835 Feb 15 15:12	6°  24'08	1°00'21	morning set	13836 Jan 23 04:28	5°  16'16	
minimum elong	13835 Feb 15 17:56	6°  37'41	1°00'28				
max. Earth dist.	13835 Feb 21 16:21	18°  03'53	1.37248 AU	superior conj	13836 Jan 30 11:00	20°  31'58	1°19'24
desc. node	13835 Feb 23 09:19	21°  13'09		minimum elong	13836 Jan 30 13:24	20°  44'26	1°19'52
evening rise	13835 Feb 25 09:54	24°  52'45		max. Earth dist.	13836 Feb 04 02:43	29°  58'52	1.35180 AU
	13835 Feb 28 07:53	0° 			13836 Feb 04 02:57	0° 	
	13835 Mar 19 18:35	0° 		evening rise	13836 Feb 08 04:19	7°  50'10	
evening max el	13835 Apr 01 21:38	15°  43'17	25°27'53	desc. node	13836 Feb 10 05:53	11°  40'09	
retrograde	13835 Apr 14 04:08	22°  48'49			13836 Feb 21 00:07	0° 	
asc. node	13835 Apr 19 11:29	20°  50'48		evening max el	13836 Mar 14 11:28	29°  31'17	26°31'47
evening set	13835 Apr 20 01:53	20°  21'56			13836 Mar 14 23:25	0° 	
min. Earth dist.	13835 Apr 24 09:39	15°  37'24	0.67796 AU	retrograde	13836 Mar 27 11:59	6°  53'08	
inferior conj	13835 Apr 25 18:33	13°  51'21	1°50'33	evening set	13836 Apr 02 20:15	4°  21'19	
minimum elong	13835 Apr 25 16:27	13°  58'09	1°49'15	asc. node	13836 Apr 05 08:55	1°  56'59	
morning rise	13835 May 01 07:27	7°  59'12		min. Earth dist.	13836 Apr 06 22:04	0°  11'38	0.66574 AU
direct	13835 May 04 19:16	6°  49'10			13836 Apr 07 02:01	30°  R 	
morning max el	13835 May 11 16:59	10°  34'46	19°06'47	inferior conj	13836 Apr 08 19:29	27°  55'08	1°03'41
desc. node	13835 May 22 11:26	24°  28'39		minimum elong	13836 Apr 08 17:58	27°  59'44	1°02'45
greatest brilliancy	13835 May 24 17:20	27°  48'33	-0.7m	morning rise	13836 Apr 14 16:40	22°  14'05	
	13835 May 26 04:18	0° 		direct	13836 Apr 17 17:59	21°  14'05	
morning set	13835 Jun 04 08:04	14°  01'38		morning max el	13836 Apr 24 04:48	24°  46'59	18°22'52
	13835 Jun 14 15:08	0° 			13836 Apr 28 15:51	0° 	
max. Earth dist.	13835 Jun 17 21:21	5°  05'52	1.45449 AU	desc. node	13836 May 08 08:11	14°  24'31	
				morning set	13836 May 14 08:35	23°  55'46	
superior conj	13835 Jun 20 17:04	9°  32'09	-2°13'38		13836 May 18 04:35	0° 	
minimum elong	13835 Jun 20 17:35	9°  34'13	2°14'41				
	13835 Jul 03 11:27	0° 		superior conj	13836 May 30 01:13	18°  36'58	-2°04'32
evening rise	13835 Jul 05 11:09	3°  01'43		minimum elong	13836 May 29 18:22	18°  10'12	2°05'11
asc. node	13835 Jul 16 10:07	20°  05'09		max. Earth dist.	13836 May 30 17:11	19°  39'19	1.45867 AU
	13835 Jul 22 21:48	0° 			13836 Jun 06 08:16	0° 	
evening max el	13835 Jul 24 21:12	2°  09'30	18°20'46	evening rise	13836 Jun 14 22:56	13°  28'48	
retrograde	13835 Jul 31 06:27	5°  09'33'46		greatest brilliancy	13836 Jun 24 16:17	28°  40'07	-0.8m
evening set	13835 Aug 03 07:00	4°  43'21			13836 Jun 25 13:07	0° 	
	13835 Aug 08 11:57	30°  R 		asc. node	13836 Jul 02 06:58	9°  05'24	
inferior conj	13835 Aug 09 03:40	29°  01'42	2°26'16	evening max el	13836 Jul 07 08:21	15°  05'18	18°54'47
minimum elong	13835 Aug 09 06:02	29°  07'29	2°25'05	retrograde	13836 Jul 14 01:42	19°  03'45	
min. Earth dist.	13835 Aug 11 11:00	26°  03'33'28	0.64565 AU	evening set	13836 Jul 17 11:14	18°  02'08	
morning rise	13835 Aug 15 03:41	22°  05'41'17		inferior conj	13836 Jul 22 23:52	12°  04'41'15	2°55'15
desc. node	13835 Aug 18 09:38	20°  05'08		minimum elong	13836 Jul 23 01:32	12°  03'58'08	2°54'09
direct	13835 Aug 21 17:11	20°  01'17'01		min. Earth dist.	13836 Jul 24 16:43	10°  03'57'00	0.66324 AU
morning max el	13835 Sep 04 08:37	28°  01'45'2	27°25'00	morning rise	13836 Jul 28 15:05	6°  01'19'51	
	13835 Sep 06 00:57	0° 		direct	13836 Aug 03 21:09	3°  04'01'19	
	13835 Sep 27 13:12	0° 		desc. node	13836 Aug 04 07:06	3°  04'05'57	
morning set	13835 Oct 09 15:40	21°  05'43'39		morning max el	13836 Aug 16 19:51	11°  02'15'56	26°25'34
asc. node	13835 Oct 12 12:02	27°  05'36'26			13836 Aug 31 16:40	0° 	
	13835 Oct 13 16:04	0° 			13836 Sep 19 03:26	0° 	
max. Earth dist.	13835 Oct 14 05:06	1°  07'23	1.32972 AU	morning set	13836 Sep 21 17:39	4°  05'47'19	
				max. Earth dist.	13836 Sep 25 15:50	12°  05'19'33	1.34617 AU
superior conj	13835 Oct 17 19:54	8°  04'50'06	0°48'42	asc. node	13836 Sep 28 08:39	17°  05'42'39	
minimum elong	13835 Oct 17 17:48	8°  03'33'52	0°48'54				
evening rise	13835 Oct 24 20:34	23°  05'53'55		superior conj	13836 Sep 30 17:59	22°  05'35'38	0°22'20
	13835 Oct 27 18:18	0° 		minimum elong	13836 Sep 30 16:47	22°  05'29'26	0°22'24
desc. node	13835 Nov 14 05:56	28°  08'56			13836 Oct 04 07:09	0° 	
evening max el	13835 Nov 15 14:57	29°  08'33'18	22°31'37	evening rise	13836 Oct 08 05:48	8°  05'17'31	
	13835 Nov 16 02:06	0° 			13836 Oct 19 18:01	0° 	
retrograde	13835 Nov 28 12:52	5°  05'57'25		evening max el	13836 Oct 27 08:56	9°  05'50'20	20°57'16
evening set	13835 Dec 02 05:38	5°  03'27'31		desc. node	13836 Oct 31 03:15	12°  05'58'43	
min. Earth dist.	13835 Dec 09 22:44	1°  03'59'04	0.54728 AU	retrograde	13836 Nov 07 23:36	15°  05'36'36	
inferior conj	13835 Dec 10 18:32	1°  03'31'08	-5°56'56	evening set	13836 Nov 10 11:28	15°  05'21'46	
minimum elong	13835 Dec 10 16:50	1°  03'33'32	5°55'50	inferior conj	13836 Nov 19 09:52	11°  05'28'12	-5°16'09
	13835 Dec 13 12:50	30°  R		minimum elong	13836 Nov 19 00:47	11°  05'41'06	5°13'19
morning rise	13835 Dec 19 05:17	27°  05'43'33		min. Earth dist.	13836 Nov 20 04:40	11°  05'01'29	0.54529 AU

morning rise	13836 Nov 27 14:24	7°♊35'28		retrograde	13837 Oct 19 16:08	25°♍49'18	
direct	13836 Dec 01 18:30	6°♊58'12		evening set	13837 Oct 21 13:58	25°♍39'10	
morning max el	13836 Dec 14 19:45	13°♊16'53	23°01'39	inferior conj	13837 Oct 30 08:45	21°♍36'10	-3°46'09
asc. node	13836 Dec 25 09:21	26°♊45'29		minimum elong	13837 Oct 29 23:28	21°♍50'43	3°42'16
	13836 Dec 27 08:35	0°♊		min. Earth dist.	13837 Nov 01 13:26	20°♍13'48	0.55265 AU
morning set	13837 Jan 06 15:57	20°♊02'37		morning rise	13837 Nov 07 07:13	17°♍17'43	
	13837 Jan 11 06:50	0°♊		direct	13837 Nov 12 08:44	16°♍20'52	
				morning max el	13837 Nov 26 05:28	23°♍15'21	24°50'22
superior conj	13837 Jan 13 14:21	4°♋59'15	1°31'39		13837 Dec 02 06:38	0°♋	
minimum elong	13837 Jan 13 15:54	5°♋07'36	1°32'27	asc. node	13837 Dec 12 06:25	15°♋13'26	
max. Earth dist.	13837 Jan 16 20:14	11°♋51'55	1.33462 AU		13837 Dec 19 21:49	0°♋	
evening rise	13837 Jan 21 12:14	21°♋20'49		morning set	13837 Dec 22 03:50	4°♋45'54	
	13837 Jan 26 01:03	0°♋					
desc. node	13837 Jan 27 02:31	1°♋56'34		superior conj	13837 Dec 28 22:31	19°♋37'15	1°37'28
	13837 Feb 13 20:39	0°♋		minimum elong	13837 Dec 28 23:00	19°♋39'55	1°38'30
evening max el	13837 Feb 25 00:56	13°♋04'33	27°16'03	max. Earth dist.	13837 Dec 30 20:59	23°♋51'22	1.32193 AU
retrograde	13837 Mar 10 13:43	20°♋32'31			13838 Jan 02 17:41	0°♋	
evening set	13837 Mar 17 06:22	18°♋01'31		evening rise	13838 Jan 05 06:18	5°♋15'39	
min. Earth dist.	13837 Mar 21 03:27	14°♋24'29	0.64965 AU	desc. node	13838 Jan 13 23:14	21°♋56'16	
asc. node	13837 Mar 23 06:22	12°♋04'39			13838 Jan 18 16:31	0°♋	
inferior conj	13837 Mar 23 13:00	11°♋46'18	0°05'18	evening max el	13838 Feb 07 12:27	26°♋10'35	27°33'51
minimum elong	13837 Mar 23 12:51	11°♋46'43	0°05'08		13838 Feb 12 01:34	0°♋	
transit middle	13837 Mar 23 12:51	11°♋46'43	0°05'08	retrograde	13838 Feb 21 08:34	3°♋36'31	
transit begin	13837 Mar 23 09:58	11°♋54'40		evening set	13838 Feb 28 05:43	1°♋13'41	
transit end	13837 Mar 23 15:44	11°♋38'47			13838 Mar 01 20:35	30°♋	
morning rise	13837 Mar 29 21:07	6°♋18'30		min. Earth dist.	13838 Mar 03 23:59	28°♋05'02	0.63030 AU
direct	13837 Apr 01 13:04	5°♋41'12		inferior conj	13838 Mar 06 20:12	25°♋16'49	-1°04'43
morning max el	13837 Apr 07 21:06	8°♋58'15	17°55'54	minimum elong	13838 Mar 06 22:20	25°♋11'31	1°03'40
	13837 Apr 22 09:41	0°♋		asc. node	13838 Mar 10 03:51	22°♋13'44	
desc. node	13837 Apr 25 04:52	4°♋37'33		morning rise	13838 Mar 13 17:33	20°♋04'50	
morning set	13837 Apr 25 13:18	5°♋12'25		direct	13838 Mar 16 01:39	19°♋38'54	
				morning max el	13838 Mar 22 14:52	22°♋59'20	17°46'18
superior conj	13837 May 09 15:15	28°♌04'08	-1°37'16		13838 Mar 28 04:22	0°♋	
minimum elong	13837 May 09 06:16	27°♌28'30	1°37'12	morning set	13838 Apr 07 19:30	17°♋41'36	
	13837 May 10 20:30	0°♌		desc. node	13838 Apr 12 01:27	25°♋02'00	
max. Earth dist.	13837 May 13 13:26	4°♌15'46	1.45534 AU		13838 Apr 14 23:18	0°♌	
evening rise	13837 May 25 15:32	23°♌00'05					
	13837 May 30 05:23	0°♌		superior conj	13838 Apr 20 00:56	8°♌28'27	-0°59'39
greatest brilliancy	13837 Jun 08 21:18	14°♌29'10	-0.6m	minimum elong	13838 Apr 19 19:00	8°♌04'00	0°59'23
asc. node	13837 Jun 19 03:54	28°♌09'40		max. Earth dist.	13838 Apr 26 07:13	18°♌37'57	1.44486 AU
evening max el	13837 Jun 20 14:29	29°♌41'03	19°45'04		13838 May 03 12:56	0°♌	
	13837 Jun 20 22:10	0°♌		evening rise	13838 May 05 02:49	2°♌26'03	
retrograde	13837 Jun 27 23:58	3°♌51'58			13838 May 23 18:23	0°♌	
evening set	13837 Jul 01 18:59	2°♌28'29		evening max el	13838 Jun 03 14:45	13°♌30'20	20°49'35
	13837 Jul 04 09:09	30°♌		asc. node	13838 Jun 06 00:55	15°♌42'37	
inferior conj	13837 Jul 07 02:52	26°♌31'12	3°09'30	retrograde	13838 Jun 11 22:57	18°♌20'10	
minimum elong	13837 Jul 07 03:33	26°♌28'55	3°08'27	evening set	13838 Jun 16 04:09	16°♌39'57	
min. Earth dist.	13837 Jul 08 05:21	25°♌02'27	0.67661 AU	inferior conj	13838 Jun 21 10:08	10°♌30'53	3°11'16
morning rise	13837 Jul 12 11:42	20°♌07'30		minimum elong	13838 Jun 21 09:48	10°♌32'01	3°10'11
direct	13837 Jul 18 07:24	17°♌34'16		min. Earth dist.	13838 Jun 21 22:54	9°♌46'39	0.68535 AU
desc. node	13837 Jul 22 04:30	18°♌30'24		morning rise	13838 Jun 26 15:10	4°♌11'10	
morning max el	13837 Jul 30 06:38	24°♌44'46	25°06'41	direct	13838 Jul 01 22:54	1°♌51'01	
	13837 Aug 04 00:28	0°♌		desc. node	13838 Jul 09 01:47	4°♌58'45	
	13837 Aug 25 03:31	0°♌		morning max el	13838 Jul 12 17:04	8°♌16'29	23°38'14
morning set	13837 Sep 04 03:44	16°♌55'55			13838 Jul 29 17:52	0°♌	
max. Earth dist.	13837 Sep 07 17:32	23°♌25'40	1.36693 AU	morning set	13838 Aug 16 17:23	28°♌10'03	
	13837 Sep 11 05:10	0°♌			13838 Aug 17 19:17	0°♌	
				max. Earth dist.	13838 Aug 20 15:09	4°♌53'21	1.39025 AU
superior conj	13837 Sep 14 06:22	5°♌56'17	-0°08'52				
minimum elong	13837 Sep 14 06:55	5°♌59'03	0°08'45	superior conj	13838 Aug 28 05:25	18°♌39'08	-0°43'22
behind sun begin	13837 Sep 14 01:26	5°♌32'01		minimum elong	13838 Aug 28 08:33	18°♌53'49	0°43'07
behind sun end	13837 Sep 14 12:24	6°♌26'07		asc. node	13838 Sep 02 01:46	27°♌53'51	
asc. node	13837 Sep 15 05:13	7°♌49'31			13838 Sep 03 03:47	0°♌	
evening rise	13837 Sep 22 11:02	22°♌28'02		evening rise	13838 Sep 06 09:34	6°♌18'58	
	13837 Sep 26 05:40	0°♌			13838 Sep 20 05:15	0°♌	
evening max el	13837 Oct 09 16:41	20°♌50'25	19°41'39	evening max el	13838 Sep 22 13:59	2°♌39'48	18°47'53
desc. node	13837 Oct 18 00:40	25°♌41'28		retrograde	13838 Oct 01 00:30	6°♌54'22	



evening set	13838 Oct 02 21:56	6° $\mathbb{M}$ 42'20	retrograde	13839 Sep 13 04:04	18° $\mathbb{A}$ 53'06	
desc. node	13838 Oct 04 22:08	6° $\mathbb{M}$ 05'08	evening set	13839 Sep 15 07:26	18° $\mathbb{A}$ 34'37	
inferior conj	13838 Oct 11 02:05	2° $\mathbb{M}$ 21'22 -1°57'29	desc. node	13839 Sep 21 19:39	14° $\mathbb{A}$ 37'34	
minimum elong	13838 Oct 10 21:12	2° $\mathbb{M}$ 30'13 1°55'05	inferior conj	13839 Sep 22 17:10	13° $\mathbb{A}$ 52'26 -0°16'52	
min. Earth dist.	13838 Oct 14 03:24	0° $\mathbb{M}$ 09'11 0.56810 AU	minimum elong	13839 Sep 22 16:34	13° $\mathbb{A}$ 53'43 0°16'29	
	13838 Oct 14 08:42	30° $\mathbb{R}$ $\mathbb{A}$	min. Earth dist.	13839 Sep 26 00:22	11° $\mathbb{A}$ 05'47 0.58888 AU	
morning rise	13838 Oct 18 17:11	27° $\mathbb{A}$ 26'25	morning rise	13839 Sep 29 22:16	8° $\mathbb{A}$ 22'05	
direct	13838 Oct 24 13:05	26° $\mathbb{A}$ 04'13	direct	13839 Oct 06 07:12	6° $\mathbb{A}$ 32'38	
	13838 Nov 03 17:13	0° $\mathbb{M}$	morning max el	13839 Oct 20 14:40	14° $\mathbb{A}$ 15'24 27°30'45	
morning max el	13838 Nov 07 18:25	3° $\mathbb{M}$ 26'44 26°25'24		13839 Nov 02 06:14	0° $\mathbb{M}$	
	13838 Nov 26 19:47	0° $\mathbb{A}$	asc. node	13839 Nov 16 00:13	23° $\mathbb{M}$ 42'34	
asc. node	13838 Nov 29 03:23	4° $\mathbb{A}$ 15'41		13839 Nov 19 03:04	0° $\mathbb{A}$	
morning set	13838 Dec 06 14:25	19° $\mathbb{A}$ 21'30	morning set	13839 Nov 20 21:56	3° $\mathbb{A}$ 44'32	
	13838 Dec 11 10:47	0° $\mathbb{B}$				
superior conj	13838 Dec 13 09:22	4° $\mathbb{B}$ 19'41 1°37'12	superior conj	13839 Nov 27 20:57	19° $\mathbb{A}$ 00'32 1°31'03	
minimum elong	13838 Dec 13 08:47	4° $\mathbb{B}$ 16'25 1°38'16	minimum elong	13839 Nov 27 19:27	18° $\mathbb{A}$ 52'07 1°31'57	
max. Earth dist.	13838 Dec 14 03:08	5° $\mathbb{B}$ 58'39 1.31422 AU	max. Earth dist.	13839 Nov 27 11:27	18° $\mathbb{A}$ 07'25 1.31165 AU	
evening rise	13838 Dec 20 07:51	19° $\mathbb{B}$ 28'11		13839 Dec 02 19:42	0° $\mathbb{B}$	
	13838 Dec 25 12:35	0° $\mathbb{A}$	evening rise	13839 Dec 04 14:32	3° $\mathbb{B}$ 52'10	
desc. node	13838 Dec 31 20:01	11° $\mathbb{A}$ 32'30		13839 Dec 18 08:04	0° $\mathbb{A}$	
	13839 Jan 13 03:01	0° $\mathbb{H}$	desc. node	13839 Dec 18 16:57	0° $\mathbb{A}$ 36'05	
evening max el	13839 Jan 20 19:58	8° $\mathbb{H}$ 38'03 27°19'30	evening max el	13840 Jan 02 20:48	20° $\mathbb{A}$ 16'19 26°30'24	
retrograde	13839 Feb 03 19:13	15° $\mathbb{H}$ 55'51	retrograde	13840 Jan 16 19:51	27° $\mathbb{A}$ 23'23	
evening set	13839 Feb 10 15:20	13° $\mathbb{H}$ 49'26	evening set	13840 Jan 23 07:28	25° $\mathbb{A}$ 40'53	
min. Earth dist.	13839 Feb 14 10:30	11° $\mathbb{H}$ 02'03 0.60889 AU	min. Earth dist.	13840 Jan 27 10:31	23° $\mathbb{A}$ 03'59 0.58709 AU	
inferior conj	13839 Feb 17 13:44	8° $\mathbb{H}$ 18'28 -2°24'46	inferior conj	13840 Jan 30 14:00	20° $\mathbb{A}$ 41'28 -3°49'17	
minimum elong	13839 Feb 17 18:56	8° $\mathbb{H}$ 07'08 2°22'14	minimum elong	13840 Jan 30 22:07	20° $\mathbb{A}$ 26'05 3°45'51	
morning rise	13839 Feb 25 01:41	3° $\mathbb{H}$ 24'57	morning rise	13840 Feb 07 15:49	16° $\mathbb{A}$ 09'06	
asc. node	13839 Feb 25 01:19	3° $\mathbb{H}$ 25'13	direct	13840 Feb 09 16:28	15° $\mathbb{A}$ 54'48	
direct	13839 Feb 27 04:09	3° $\mathbb{H}$ 06'41	asc. node	13840 Feb 11 22:45	16° $\mathbb{A}$ 13'26	
morning max el	13839 Mar 06 06:50	6° $\mathbb{H}$ 40'58 17°54'49	morning max el	13840 Feb 17 17:19	19° $\mathbb{A}$ 52'52 18°23'02	
	13839 Mar 21 06:50	0° $\mathbb{Y}$		13840 Feb 25 05:22	0° $\mathbb{H}$	
morning set	13839 Mar 21 21:05	1° $\mathbb{Y}$ 04'53	morning set	13840 Mar 04 12:29	15° $\mathbb{H}$ 05'53	
desc. node	13839 Mar 29 21:56	15° $\mathbb{Y}$ 33'39		13840 Mar 12 09:36	0° $\mathbb{Y}$	
superior conj	13839 Apr 01 10:38	19° $\mathbb{Y}$ 59'15 -0°20'00	superior conj	13840 Mar 13 18:19	2° $\mathbb{Y}$ 30'39 0°16'09	
minimum elong	13839 Apr 01 08:51	19° $\mathbb{Y}$ 51'31 0°19'58	minimum elong	13840 Mar 13 19:28	2° $\mathbb{Y}$ 35'57 0°16'01	
	13839 Apr 07 08:09	0° $\mathbb{B}$	desc. node	13840 Mar 15 18:26	6° $\mathbb{Y}$ 09'10	
max. Earth dist.	13839 Apr 08 21:09	2° $\mathbb{B}$ 32'51 1.42846 AU	max. Earth dist.	13840 Mar 21 06:57	15° $\mathbb{Y}$ 51'08 1.40789 AU	
evening rise	13839 Apr 15 00:23	12° $\mathbb{B}$ 25'15	evening rise	13840 Mar 25 17:25	23° $\mathbb{Y}$ 17'59	
	13839 Apr 26 13:20	0° $\mathbb{H}$		13840 Mar 29 20:51	0° $\mathbb{B}$	
evening max el	13839 May 17 09:43	27° $\mathbb{H}$ 20'24 22°04'44	evening max el	13840 Apr 19 11:42	0° $\mathbb{H}$	
	13839 May 20 08:12	0° $\mathbb{B}$	retrograde	13840 Apr 29 01:03	11° $\mathbb{H}$ 12'20 23°25'16	
asc. node	13839 May 23 22:03	2° $\mathbb{B}$ 14'08	asc. node	13840 May 09 16:10	17° $\mathbb{H}$ 27'33	
retrograde	13839 May 26 20:49	2° $\mathbb{B}$ 53'39	evening set	13840 May 09 19:18	17° $\mathbb{H}$ 27'28	
evening set	13839 May 31 12:59	0° $\mathbb{B}$ 57'28	min. Earth dist.	13840 May 14 19:53	15° $\mathbb{H}$ 16'58	
	13839 Jun 01 13:42	30° $\mathbb{R}$ $\mathbb{H}$	inferior conj	13840 May 19 15:49	9° $\mathbb{H}$ 35'53 0.68861 AU	
inferior conj	13839 Jun 05 19:28	24° $\mathbb{H}$ 38'28 3°01'59	minimum elong	13840 May 20 04:59	8° $\mathbb{H}$ 50'32 2°42'21	
minimum elong	13839 Jun 05 18:15	24° $\mathbb{H}$ 42'43 3°00'48	morning rise	13840 May 20 03:07	8° $\mathbb{H}$ 56'58 2°41'03	
min. Earth dist.	13839 Jun 05 19:05	24° $\mathbb{H}$ 39'49 0.68934 AU	direct	13840 May 25 10:18	2° $\mathbb{H}$ 44'29	
morning rise	13839 Jun 10 23:20	18° $\mathbb{H}$ 24'53	morning max el	13840 May 29 16:47	1° $\mathbb{H}$ 02'33	
direct	13839 Jun 15 18:27	16° $\mathbb{H}$ 22'35	desc. node	13840 Jun 06 23:02	5° $\mathbb{H}$ 45'34 20°48'13	
morning max el	13839 Jun 25 05:25	21° $\mathbb{H}$ 55'39 22°09'32		13840 Jun 11 19:56	11° $\mathbb{H}$ 16'03	
desc. node	13839 Jun 25 22:55	22° $\mathbb{H}$ 40'27	morning set	13840 Jun 25 07:42	0° $\mathbb{B}$	
	13839 Jul 02 04:33	0° $\mathbb{B}$		13840 Jul 06 20:22	17° $\mathbb{B}$ 28'39	
morning set	13839 Jul 23 00:24	0° $\mathbb{Q}$	max. Earth dist.	13840 Jul 14 18:10	0° $\mathbb{Q}$	
	13839 Jul 28 06:37	8° $\mathbb{Q}$ 19'29		13840 Jul 14 22:53	0° $\mathbb{Q}$ 19'07 1.43381 AU	
max. Earth dist.	13839 Aug 02 15:38	17° $\mathbb{Q}$ 08'36 1.41351 AU	superior conj	13840 Jul 21 18:16	11° $\mathbb{Q}$ 31'34 -1°49'23	
superior conj	13839 Aug 10 10:47	0° $\mathbb{H}$ 33'54 -1°18'26	minimum elong	13840 Jul 22 01:34	12° $\mathbb{Q}$ 02'14 1°49'35	
minimum elong	13839 Aug 10 16:43	1° $\mathbb{H}$ 00'14 1°18'13		13840 Aug 01 11:03	0° $\mathbb{H}$	
	13839 Aug 10 03:07	0° $\mathbb{H}$	evening rise	13840 Aug 02 19:31	2° $\mathbb{H}$ 23'32	
asc. node	13839 Aug 19 22:20	17° $\mathbb{H}$ 51'36	asc. node	13840 Aug 05 18:57	7° $\mathbb{H}$ 39'01	
evening rise	13839 Aug 20 21:51	19° $\mathbb{H}$ 41'00	evening max el	13840 Aug 19 09:43	28° $\mathbb{H}$ 13'50 18°02'46	
	13839 Aug 26 12:50	0° $\mathbb{A}$		13840 Aug 21 11:31	0° $\mathbb{A}$	
evening max el	13839 Sep 05 21:04	15° $\mathbb{A}$ 10'53 18°15'21	retrograde	13840 Aug 26 00:25	1° $\mathbb{A}$ 38'19	
			evening set	13840 Aug 28 11:33	1° $\mathbb{A}$ 09'41	

	13840 Aug 30 16:05	30° $\mathbb{R}$ $\mathbb{M}$				13841 Jul 25 09:33	0° $\mathbb{M}$	
inferior conj	13840 Sep 04 04:11	26° $\mathbb{M}$ 07'21	1°03'28	evening max el		13841 Aug 03 00:10	11° $\mathbb{M}$ 39'11	18°09'00
minimum elong	13840 Sep 04 05:58	26° $\mathbb{M}$ 02'59	1°02'39	retrograde		13841 Aug 09 08:52	14° $\mathbb{M}$ 59'58	
min. Earth dist.	13840 Sep 07 06:22	23° $\mathbb{M}$ 07'05	0.61172 AU	evening set		13841 Aug 12 04:20	14° $\mathbb{M}$ 18'15	
desc. node	13840 Sep 07 17:10	22° $\mathbb{M}$ 42'15		inferior conj		13841 Aug 18 07:13	8° $\mathbb{M}$ 58'22	2°01'47
morning rise	13840 Sep 10 21:37	20° $\mathbb{M}$ 09'40		minimum elong		13841 Aug 18 09:41	8° $\mathbb{M}$ 51'31	2°00'36
direct	13840 Sep 17 12:58	17° $\mathbb{M}$ 55'51		min. Earth dist.		13841 Aug 20 22:18	6° $\mathbb{M}$ 05'09	0.63389 AU
morning max el	13840 Oct 01 18:22	25° $\mathbb{M}$ 52'08	27°58'00	morning rise		13841 Aug 24 13:09	2° $\mathbb{M}$ 43'31	
	13840 Oct 05 14:39	0° $\mathbb{L}$		desc. node		13841 Aug 25 14:40	1° $\mathbb{M}$ 58'39	
	13840 Oct 25 19:16	0° $\mathbb{M}$		direct		13841 Aug 31 04:43	0° $\mathbb{M}$ 12'12	
asc. node	13840 Nov 01 20:58	13° $\mathbb{M}$ 27'19		morning max el		13841 Sep 14 03:16	8° $\mathbb{M}$ 13'36	27°46'54
morning set	13840 Nov 04 00:29	17° $\mathbb{M}$ 50'29				13841 Sep 30 23:16	0° $\mathbb{L}$	
	13840 Nov 09 16:36	0° $\mathbb{X}$				13841 Oct 18 00:58	0° $\mathbb{M}$	
max. Earth dist.	13840 Nov 09 18:11	0° $\mathbb{X}$ 08'45	1.31441 AU	morning set		13841 Oct 18 19:51	1° $\mathbb{M}$ 34'18	
				asc. node		13841 Oct 19 17:39	3° $\mathbb{M}$ 24'28	
superior conj	13840 Nov 11 07:27	3° $\mathbb{X}$ 34'37	1°19'07	max. Earth dist.		13841 Oct 23 19:27	11° $\mathbb{M}$ 53'42	1.32254 AU
minimum elong	13840 Nov 11 05:20	3° $\mathbb{X}$ 22'53	1°19'44					
evening rise	13840 Nov 18 00:23	18° $\mathbb{X}$ 22'24		superior conj		13841 Oct 26 14:57	17° $\mathbb{M}$ 57'06	1°01'27
	13840 Nov 23 14:59	0° $\mathbb{Z}$		minimum elong		13841 Oct 26 12:40	17° $\mathbb{M}$ 44'43	1°01'46
desc. node	13840 Dec 04 13:59	18° $\mathbb{Z}$ 54'10				13841 Nov 01 03:15	0° $\mathbb{X}$	
	13840 Dec 13 11:59	0° $\mathbb{M}$		evening rise		13841 Nov 02 11:30	2° $\mathbb{X}$ 54'23	
evening max el	13840 Dec 14 13:01	1° $\mathbb{M}$ 01'25	25°09'58			13841 Nov 16 23:25	0° $\mathbb{Z}$	
retrograde	13840 Dec 28 08:39	7° $\mathbb{M}$ 57'21		desc. node		13841 Nov 21 11:09	6° $\mathbb{Z}$ 10'07	
evening set	13841 Jan 03 01:54	6° $\mathbb{M}$ 43'44		evening max el		13841 Nov 25 23:09	11° $\mathbb{Z}$ 08'30	23°30'30
min. Earth dist.	13841 Jan 08 01:02	4° $\mathbb{M}$ 01'50	0.56730 AU	retrograde		13841 Dec 09 08:54	17° $\mathbb{Z}$ 48'35	
inferior conj	13841 Jan 10 17:52	2° $\mathbb{M}$ 15'40	-5°05'49	evening set		13841 Dec 13 20:55	17° $\mathbb{Z}$ 04'32	
minimum elong	13841 Jan 11 02:26	2° $\mathbb{M}$ 01'36	5°02'57	min. Earth dist.		13841 Dec 20 09:31	13° $\mathbb{Z}$ 58'14	0.55242 AU
	13841 Jan 14 09:41	30° $\mathbb{R}$ $\mathbb{Z}$		inferior conj		13841 Dec 22 01:29	12° $\mathbb{Z}$ 59'41	-5°52'50
morning rise	13841 Jan 19 05:21	28° $\mathbb{Z}$ 05'28		minimum elong		13841 Dec 22 04:58	12° $\mathbb{Z}$ 54'35	5°51'33
direct	13841 Jan 21 10:20	27° $\mathbb{Z}$ 51'24		morning rise		13841 Dec 30 14:43	9° $\mathbb{Z}$ 07'11	
	13841 Jan 27 20:48	0° $\mathbb{M}$		direct		13842 Jan 02 08:39	8° $\mathbb{Z}$ 48'49	
asc. node	13841 Jan 28 20:07	0° $\mathbb{M}$ 42'12		morning max el		13842 Jan 13 05:55	14° $\mathbb{Z}$ 01'29	20°25'51
morning max el	13841 Jan 30 18:13	2° $\mathbb{M}$ 22'50	19°12'56	asc. node		13842 Jan 15 17:26	16° $\mathbb{Z}$ 39'42	
morning set	13841 Feb 16 13:13	29° $\mathbb{M}$ 30'21				13842 Jan 24 14:17	0° $\mathbb{M}$	
	13841 Feb 16 19:12	0° $\mathbb{X}$		morning set		13842 Jan 31 20:01	14° $\mathbb{M}$ 08'40	
superior conj	13841 Feb 24 19:25	15° $\mathbb{X}$ 49'11	0°46'11	superior conj		13842 Feb 08 09:30	29° $\mathbb{M}$ 42'24	1°09'16
minimum elong	13841 Feb 24 21:56	16° $\mathbb{X}$ 01'21	0°46'09	minimum elong		13842 Feb 08 12:11	29° $\mathbb{M}$ 55'57	1°09'31
desc. node	13841 Mar 02 14:56	26° $\mathbb{X}$ 44'19				13842 Feb 08 12:59	0° $\mathbb{X}$	
max. Earth dist.	13841 Mar 03 13:41	28° $\mathbb{X}$ 27'27	1.38532 AU	max. Earth dist.		13842 Feb 13 20:59	10° $\mathbb{X}$ 30'27	1.36329 AU
	13841 Mar 04 10:18	0° $\mathbb{Y}$		desc. node		13842 Feb 17 11:30	17° $\mathbb{X}$ 15'35	
evening rise	13841 Mar 07 07:32	5° $\mathbb{Y}$ 04'39		evening rise		13842 Feb 17 16:37	17° $\mathbb{X}$ 38'57	
	13841 Mar 22 21:54	0° $\mathbb{Z}$				13842 Feb 24 18:05	0° $\mathbb{Y}$	
evening max el	13841 Apr 11 14:40	25° $\mathbb{Z}$ 05'14	24°45'00			13842 Mar 17 05:06	0° $\mathbb{Z}$	
	13841 Apr 17 14:11	0° $\mathbb{M}$		evening max el		13842 Mar 25 04:06	8° $\mathbb{Z}$ 56'20	25°56'53
retrograde	13841 Apr 23 07:54	1° $\mathbb{M}$ 55'33		retrograde		13842 Apr 06 19:04	16° $\mathbb{Z}$ 10'55	
asc. node	13841 Apr 26 16:37	1° $\mathbb{M}$ 06'18		evening set		13842 Apr 12 21:31	13° $\mathbb{Z}$ 41'00	
	13841 Apr 28 10:12	30° $\mathbb{R}$ $\mathbb{Z}$		asc. node		13842 Apr 13 14:01	13° $\mathbb{Z}$ 04'46	
evening set	13841 Apr 28 23:17	29° $\mathbb{Z}$ 33'18		min. Earth dist.		13842 Apr 17 02:29	9° $\mathbb{Z}$ 11'37	0.67328 AU
min. Earth dist.	13841 May 03 10:57	24° $\mathbb{Z}$ 28'34	0.68318 AU	inferior conj		13842 Apr 18 16:49	7° $\mathbb{Z}$ 11'20	1°32'03
inferior conj	13841 May 04 12:46	23° $\mathbb{Z}$ 02'52	2°12'30	minimum elong		13842 Apr 18 14:53	7° $\mathbb{Z}$ 17'27	1°30'52
minimum elong	13841 May 04 10:37	23° $\mathbb{Z}$ 10'01	2°11'09	morning rise		13842 Apr 24 08:57	1° $\mathbb{Z}$ 23'51	
morning rise	13841 May 09 22:10	17° $\mathbb{Z}$ 05'28		direct		13842 Apr 27 16:04	0° $\mathbb{Z}$ 21'54	
direct	13841 May 13 16:31	15° $\mathbb{Z}$ 44'16		morning max el		13842 May 04 08:19	3° $\mathbb{Z}$ 57'24	18°46'02
morning max el	13841 May 21 00:00	19° $\mathbb{Z}$ 47'08	19°39'26	desc. node		13842 May 16 13:41	20° $\mathbb{Z}$ 14'12	
	13841 May 29 08:00	0° $\mathbb{M}$		greatest brilliancy		13842 May 18 15:44	23° $\mathbb{Z}$ 52'03	-0.8m
desc. node	13841 May 29 16:52	0° $\mathbb{M}$ 30'48				13842 May 22 21:54	0° $\mathbb{M}$	
greatest brilliancy	13841 Jun 02 16:41	6° $\mathbb{M}$ 13'53	-0.6m	morning set		13842 May 26 09:16	5° $\mathbb{M}$ 24'26	
morning set	13841 Jun 15 22:14	26° $\mathbb{M}$ 10'52		max. Earth dist.		13842 Jun 10 06:20	28° $\mathbb{M}$ 36'02	1.45717 AU
	13841 Jun 18 09:45	0° $\mathbb{L}$				13842 Jun 11 03:48	0° $\mathbb{L}$	
max. Earth dist.	13841 Jun 27 12:31	14° $\mathbb{L}$ 13'40	1.44882 AU					
superior conj	13841 Jul 02 01:59	21° $\mathbb{L}$ 29'27	-2°09'38	superior conj		13842 Jun 11 15:00	0° $\mathbb{L}$ 43'48	-2°12'17
minimum elong	13841 Jul 02 06:27	21° $\mathbb{L}$ 47'24	2°10'29	minimum elong		13842 Jun 11 12:08	0° $\mathbb{L}$ 32'34	2°13'16
	13841 Jul 07 07:57	0° $\mathbb{M}$		evening rise		13842 Jun 26 23:22	25° $\mathbb{L}$ 02'38	
evening rise	13841 Jul 15 21:28	14° $\mathbb{M}$ 13'54				13842 Jun 30 01:27	0° $\mathbb{M}$	
asc. node	13841 Jul 23 15:39	27° $\mathbb{M}$ 11'10		greatest brilliancy		13842 Jul 02 20:44	4° $\mathbb{M}$ 29'31	-0.9m
				asc. node		13842 Jul 10 12:25	16° $\mathbb{M}$ 21'34	

evening max el	13842 Jul 17 13:16	25°♎18'17	18°33'10	asc. node	13843 Jun 27 09:18	5°♏02'59	
retrograde	13842 Jul 24 01:08	28°♎48'37		evening max el	13843 Jun 30 22:34	9°♏05'26	19°14'18
evening set	13842 Jul 27 05:19	27°♎51'39		retrograde	13843 Jul 07 21:53	12°♏57'51	
inferior conj	13842 Aug 01 22:10	22°♎16'13	2°40'33	evening set	13843 Jul 11 11:20	11°♏44'14	
minimum elong	13842 Aug 02 00:17	22°♎09'46	2°39'23	inferior conj	13843 Jul 16 21:37	5°♏54'47	3°02'55
min. Earth dist.	13842 Aug 03 23:27	19°♎47'09	0.65357 AU	minimum elong	13843 Jul 16 22:53	5°♏50'40	3°01'51
morning rise	13842 Aug 07 18:07	15°♎53'16		min. Earth dist.	13843 Jul 18 08:25	4°♏01'46	0.66952 AU
desc. node	13842 Aug 12 12:11	13°♎24'09			13843 Jul 21 20:50	30°♏	
direct	13842 Aug 14 04:52	13°♎13'40		morning rise	13843 Jul 22 09:49	29°♏30'12	
morning max el	13842 Aug 27 14:16	21°♎07'25	27°02'39	direct	13843 Jul 28 11:53	26°♏52'03	
	13842 Sep 04 07:04	0°♎		desc. node	13843 Jul 30 09:36	27°♏05'34	
	13842 Sep 24 03:02	0°♎			13843 Aug 05 02:59	0°♎	
morning set	13842 Oct 02 05:07	14°♎47'55		morning max el	13843 Aug 10 01:14	4°♏22'19	25°53'40
max. Earth dist.	13842 Oct 06 11:39	23°♎15'10	1.33605 AU		13843 Aug 29 16:14	0°♎	
asc. node	13842 Oct 06 14:16	23°♎28'30		morning set	13843 Sep 15 00:50	27°♎23'24	
	13842 Oct 09 18:09	0°♎			13843 Sep 16 10:39	0°♎	
				max. Earth dist.	13843 Sep 18 17:49	4°♎20'46	1.35458 AU
superior conj	13842 Oct 10 17:10	2°♎01'01	0°38'09	asc. node	13843 Sep 23 10:51	13°♎35'47	
minimum elong	13842 Oct 10 15:21	1°♎51'26	0°38'16				
evening rise	13842 Oct 17 21:57	17°♎22'07		superior conj	13843 Sep 24 11:32	15°♎40'17	0°09'38
	13842 Oct 24 03:10	0°♎		minimum elong	13843 Sep 24 10:58	15°♎37'26	0°09'43
evening max el	13842 Nov 07 11:33	21°♎11'11	21°49'43	behind sun begin	13843 Sep 24 06:03	15°♎12'31	
desc. node	13842 Nov 08 08:25	22°♎00'43		behind sun end	13843 Sep 24 15:53	16°♎02'24	
retrograde	13842 Nov 19 22:12	27°♎21'17			13843 Oct 01 10:14	0°♎	
evening set	13842 Nov 23 00:59	26°♎59'29		evening rise	13843 Oct 02 05:46	1°♎40'57	
inferior conj	13842 Dec 01 19:09	23°♎05'55	-5°47'02		13843 Oct 18 19:46	0°♎	
minimum elong	13842 Dec 01 13:40	23°♎13'35	5°45'25	evening max el	13843 Oct 20 11:10	1°♎45'10	20°22'30
min. Earth dist.	13842 Dec 01 15:44	23°♎10'42	0.54523 AU	desc. node	13843 Oct 26 05:45	5°♎59'32	
morning rise	13842 Dec 10 03:16	19°♎18'18		retrograde	13843 Oct 31 09:16	7°♎11'00	
direct	13842 Dec 13 18:05	18°♎49'34		evening set	13843 Nov 02 13:14	6°♎59'10	
morning max el	13842 Dec 26 03:10	24°♎45'56	22°00'21	inferior conj	13843 Nov 11 11:54	3°♎03'25	-4°42'18
	13842 Dec 30 20:00	0°♎		minimum elong	13843 Nov 11 01:49	3°♎18'10	4°38'42
asc. node	13843 Jan 02 14:40	3°♎48'09		min. Earth dist.	13843 Nov 12 22:36	2°♎12'35	0.54736 AU
morning set	13843 Jan 16 06:20	28°♎53'15			13843 Nov 17 02:19	30°♎	
	13843 Jan 16 18:59	0°♎		morning rise	13843 Nov 19 13:50	29°♎01'50	
				direct	13843 Nov 24 03:38	28°♎16'42	
superior conj	13843 Jan 23 08:50	13°♎59'19	1°25'23		13843 Nov 30 22:28	0°♎	
minimum elong	13843 Jan 23 10:56	14°♎10'18	1°26'01	morning max el	13843 Dec 07 14:22	4°♎51'37	23°48'17
max. Earth dist.	13843 Jan 27 09:43	22°♎20'35	1.34394 AU	asc. node	13843 Dec 20 11:47	21°♎51'22	
	13843 Jan 31 06:29	0°♎			13843 Dec 25 01:05	0°♎	
evening rise	13843 Jan 31 17:10	0°♎51'29		morning set	13843 Dec 31 18:09	13°♎38'31	
desc. node	13843 Feb 04 08:07	7°♎38'42					
	13843 Feb 17 19:15	0°♎		superior conj	13844 Jan 07 14:28	28°♎31'39	1°34'52
evening max el	13843 Mar 07 17:52	22°♎39'22	26°53'31	minimum elong	13844 Jan 07 15:35	28°♎37'42	1°35'48
	13843 Mar 19 16:44	0°♎			13844 Jan 08 06:47	0°♎	
retrograde	13843 Mar 21 00:41	0°♎05'45		max. Earth dist.	13844 Jan 10 06:26	4°♎15'44	1.32865 AU
	13843 Mar 22 07:52	30°♎		evening rise	13844 Jan 15 05:45	14°♎33'22	
evening set	13843 Mar 27 12:41	27°♎33'35		desc. node	13844 Jan 22 04:46	27°♎48'48	
asc. node	13843 Mar 31 11:28	23°♎40'19			13844 Jan 23 10:09	0°♎	
min. Earth dist.	13843 Mar 31 12:18	23°♎37'56	0.65925 AU		13844 Feb 12 15:45	0°♎	
inferior conj	13843 Apr 02 14:56	21°♎10'53	0°40'24	evening max el	13844 Feb 18 06:59	6°♎03'24	27°27'26
minimum elong	13843 Apr 02 13:54	21°♎13'56	0°39'43	retrograde	13844 Mar 02 23:33	13°♎30'55	
morning rise	13843 Apr 08 16:27	15°♎35'04		evening set	13844 Mar 09 18:31	11°♎02'48	
direct	13843 Apr 11 13:32	14°♎49'42		min. Earth dist.	13844 Mar 13 14:15	7°♎38'15	0.64169 AU
morning max el	13843 Apr 17 22:21	18°♎10'20	18°09'17	inferior conj	13844 Mar 16 04:28	4°♎54'29	-0°23'00
	13843 Apr 26 21:55	0°♎		minimum elong	13844 Mar 16 05:10	4°♎52'38	0°22'42
desc. node	13843 May 03 10:25	10°♎18'29		asc. node	13844 Mar 17 08:57	3°♎40'22	
morning set	13843 May 06 21:40	15°♎53'56			13844 Mar 21 19:43	30°♎	
	13843 May 15 17:01	0°♎		morning rise	13844 Mar 22 17:55	29°♎32'45	
				direct	13844 Mar 25 06:20	29°♎00'39	
superior conj	13843 May 21 23:39	9°♎53'48	-1°54'50		13844 Mar 28 16:40	0°♎	
minimum elong	13843 May 21 15:04	9°♎20'06	1°55'09	morning max el	13844 Mar 31 15:33	2°♎17'58	17°49'39
max. Earth dist.	13843 May 24 02:14	13°♎11'42	1.45814 AU	morning set	13844 Apr 17 13:55	27°♎43'55	
	13843 Jun 03 21:34	0°♎			13844 Apr 18 22:13	0°♎	
evening rise	13843 Jun 07 01:48	4°♎55'31		desc. node	13844 Apr 19 07:03	0°♎37'06	
greatest brilliancy	13843 Jun 18 22:38	23°♎09'35	-0.7m				
	13843 Jun 23 14:54	0°♎		superior conj	13844 Apr 30 20:49	19°♎42'10	-1°22'04

minimum elong	13844 Apr 30 12:44	19°♄09'38	1°21'49	evening rise	13845 Apr 26 04:11	23°♄56'22	
max. Earth dist.	13844 May 05 21:58	27°♄45'08	1.45171 AU		13845 Apr 30 02:53	0°♄	
	13844 May 07 08:13	0°♄			13845 May 21 03:37	0°♄	
evening rise	13844 May 16 14:07	14°♄19'47		evening max el	13845 May 27 00:12	6°♄44'26	21°20'25
	13844 May 26 23:09	0°♄		asc. node	13845 May 31 03:20	10°♄13'40	
evening max el	13844 Jun 13 02:21	22°♄54'55	20°10'56	retrograde	13845 Jun 04 19:19	11°♄52'18	
asc. node	13844 Jun 13 06:16	23°♄04'40		evening set	13845 Jun 09 05:11	10°♄04'54	
retrograde	13844 Jun 20 20:36	27°♄20'54		inferior conj	13845 Jun 14 11:05	3°♄51'15	3°08'35
evening set	13844 Jun 24 19:56	25°♄50'09		minimum elong	13845 Jun 14 10:22	3°♄53'46	3°07'29
inferior conj	13844 Jun 30 02:42	19°♄47'50	3°11'37	min. Earth dist.	13845 Jun 14 18:07	3°♄26'46	0.68768 AU
minimum elong	13844 Jun 30 02:57	19°♄46'59	3°10'35		13845 Jun 17 08:19	30°♄	
min. Earth dist.	13844 Jun 30 23:16	18°♄37'48	0.68099 AU	morning rise	13845 Jun 19 15:20	27°♄34'07	
morning rise	13844 Jul 05 09:38	13°♄25'46		direct	13845 Jun 24 17:41	25°♄21'23	
direct	13844 Jul 11 00:30	10°♄57'21		desc. node	13845 Jul 03 04:10	29°♄43'04	
desc. node	13844 Jul 16 06:56	12°♄40'42			13845 Jul 03 11:35	0°♄	
morning max el	13844 Jul 22 11:34	17°♄49'15	24°29'37	morning max el	13845 Jul 04 22:35	1°♄24'32	23°00'05
	13844 Aug 01 16:29	0°♄			13845 Jul 26 14:18	0°♄	
	13844 Aug 21 17:05	0°♄		morning set	13845 Aug 08 06:23	19°♄57'50	
morning set	13844 Aug 27 02:45	9°♄10'11		max. Earth dist.	13845 Aug 12 15:48	27°♄21'35	1.40037 AU
max. Earth dist.	13844 Aug 30 17:10	15°♄33'33	1.37678 AU		13845 Aug 14 04:31	0°♄	
superior conj	13844 Sep 06 18:45	28°♄46'34	-0°23'13	superior conj	13845 Aug 20 10:50	11°♄10'18	-0°58'23
minimum elong	13844 Sep 06 20:19	28°♄54'08	0°23'02	minimum elong	13845 Aug 20 15:12	11°♄30'17	0°58'07
	13844 Sep 07 09:55	0°♄		asc. node	13845 Aug 27 03:58	23°♄44'39	
asc. node	13844 Sep 09 07:25	3°♄42'25		evening rise	13845 Aug 30 03:11	29°♄24'57	
evening rise	13844 Sep 15 08:30	15°♄44'31			13845 Aug 30 10:31	0°♄	
	13844 Sep 22 19:32	0°♄		evening max el	13845 Sep 15 02:55	25°♄14'56	18°31'25
evening max el	13844 Oct 02 01:01	13°♄06'48	19°16'00	retrograde	13845 Sep 23 00:33	29°♄14'29	
retrograde	13844 Oct 11 07:36	17°♄45'36		evening set	13845 Sep 24 23:57	29°♄00'17	
desc. node	13844 Oct 12 03:09	17°♄43'35		desc. node	13845 Sep 29 00:38	27°♄13'51	
evening set	13844 Oct 13 04:17	17°♄35'10		inferior conj	13845 Oct 02 20:19	24°♄30'01	-1°12'47
inferior conj	13844 Oct 21 17:42	13°♄24'59	-3°00'22	minimum elong	13845 Oct 02 17:26	24°♄35'37	1°11'17
minimum elong	13844 Oct 21 10:03	13°♄37'41	2°56'53	min. Earth dist.	13845 Oct 06 01:36	22°♄00'57	0.57645 AU
min. Earth dist.	13844 Oct 24 08:55	11°♄40'25	0.55843 AU	morning rise	13845 Oct 10 07:26	19°♄19'07	
morning rise	13844 Oct 29 13:24	8°♄51'59		direct	13845 Oct 16 09:21	17°♄45'35	
direct	13844 Nov 03 23:22	7°♄45'03		morning max el	13845 Oct 30 16:34	25°♄17'36	26°57'40
morning max el	13844 Nov 18 00:29	14°♄51'29	25°33'38		13845 Nov 04 01:50	0°♄	
	13844 Nov 30 01:39	0°♄		asc. node	13845 Nov 23 05:42	29°♄49'46	
asc. node	13844 Dec 06 08:48	10°♄35'43			13845 Nov 23 07:50	0°♄	
morning set	13844 Dec 15 05:42	28°♄19'44		morning set	13845 Nov 29 15:13	12°♄51'05	
	13844 Dec 16 00:17	0°♄		superior conj	13845 Dec 06 11:25	27°♄55'15	1°35'19
superior conj	13844 Dec 22 00:01	13°♄12'35	1°38'05	minimum elong	13845 Dec 06 10:24	27°♄49'39	1°36'19
minimum elong	13844 Dec 22 00:03	13°♄12'42	1°39'09	max. Earth dist.	13845 Dec 06 17:42	28°♄30'25	1.31246 AU
max. Earth dist.	13844 Dec 23 10:07	16°♄20'49	1.31804 AU		13845 Dec 07 09:45	0°♄	
evening rise	13844 Dec 29 03:19	28°♄37'04		evening rise	13845 Dec 13 07:18	12°♄55'10	
	13844 Dec 29 19:23	0°♄			13845 Dec 21 21:47	0°♄	
desc. node	13845 Jan 08 01:29	17°♄40'01		desc. node	13845 Dec 25 22:19	7°♄03'53	
	13845 Jan 15 14:27	0°♄			13846 Jan 11 20:28	0°♄	
evening max el	13845 Jan 30 17:14	18°♄55'20	27°31'59	evening max el	13846 Jan 12 21:58	1°♄02'04	27°02'44
retrograde	13845 Feb 13 14:44	26°♄17'31		retrograde	13846 Jan 26 21:18	8°♄15'49	
evening set	13845 Feb 20 12:24	24°♄00'45		evening set	13846 Feb 02 15:02	6°♄18'22	
min. Earth dist.	13845 Feb 24 06:31	21°♄02'21	0.62138 AU	min. Earth dist.	13846 Feb 06 12:14	3°♄37'23	0.59955 AU
inferior conj	13845 Feb 27 06:18	18°♄14'23	-1°37'37	inferior conj	13846 Feb 09 16:52	1°♄00'29	-3°00'37
minimum elong	13845 Feb 27 09:40	18°♄06'28	1°35'56	minimum elong	13846 Feb 09 23:25	0°♄47'01	2°57'34
asc. node	13845 Mar 04 06:24	14°♄10'15			13846 Feb 10 22:42	30°♄	
morning rise	13845 Mar 06 09:45	13°♄09'51		morning rise	13846 Feb 17 11:01	26°♄16'05	
direct	13845 Mar 08 15:16	12°♄47'30		asc. node	13846 Feb 19 03:52	26°♄00'25	
morning max el	13845 Mar 15 08:58	16°♄12'13	17°47'40	direct	13846 Feb 19 12:11	25°♄59'57	
	13845 Mar 25 02:54	0°♄		morning max el	13846 Feb 26 23:07	29°♄42'48	18°04'23
morning set	13845 Mar 31 05:08	10°♄38'51			13846 Feb 27 06:01	0°♄	
desc. node	13845 Apr 06 03:36	21°♄05'34		morning set	13846 Mar 14 13:10	24°♄19'42	
	13845 Apr 11 08:21	0°♄			13846 Mar 17 14:27	0°♄	
superior conj	13845 Apr 11 16:40	0°♄35'00	-0°42'41	desc. node	13846 Mar 24 00:06	11°♄39'22	
minimum elong	13845 Apr 11 12:33	0°♄17'42	0°42'30	superior conj	13846 Mar 24 12:12	12°♄33'10	-0°04'03
max. Earth dist.	13845 Apr 18 14:49	11°♄59'31	1.43856 AU	minimum elong	13846 Mar 24 11:52	12°♄31'40	0°04'08

behind sun begin	13846 Mar 24 04:18	11° $\Upsilon$ 58'03			13847 Mar 09 14:57	0° $\Upsilon$	
behind sun end	13846 Mar 24 19:26	13° $\Upsilon$ 05'12		desc. node	13847 Mar 10 20:36	2° $\Upsilon$ 15'04	
max. Earth dist.	13846 Apr 01 02:49	25° $\Upsilon$ 39'15	1.42006 AU	max. Earth dist.	13847 Mar 14 10:23	8° $\Upsilon$ 36'55	1.39834 AU
	13846 Apr 03 17:55	0° $\text{B}$		evening rise	13847 Mar 18 11:20	15° $\Upsilon$ 32'30	
evening rise	13846 Apr 06 09:17	4° $\text{B}$ 16'32			13847 Mar 27 10:35	0° $\text{B}$	
	13846 Apr 23 09:53	0° $\text{II}$			13847 Apr 18 04:39	0° $\text{II}$	
evening max el	13846 May 09 17:12	20° $\text{II}$ 34'35	22°38'39	evening max el	13847 Apr 22 07:30	4° $\text{II}$ 26'42	23°59'50
asc. node	13846 May 18 00:30	26° $\text{II}$ 14'16		retrograde	13847 May 03 10:28	10° $\text{II}$ 58'37	
retrograde	13846 May 19 16:25	26° $\text{II}$ 26'50		asc. node	13847 May 04 21:47	10° $\text{II}$ 48'57	
evening set	13846 May 24 13:26	24° $\text{II}$ 24'09		evening set	13847 May 08 19:02	8° $\text{II}$ 42'51	
inferior conj	13846 May 29 20:46	18° $\text{II}$ 01'22	2°54'55	min. Earth dist.	13847 May 13 11:16	3° $\text{II}$ 17'02	0.68677 AU
minimum elong	13846 May 29 19:14	18° $\text{II}$ 06'41	2°53'40	inferior conj	13847 May 14 05:47	2° $\text{II}$ 14'04	2°30'59
min. Earth dist.	13846 May 29 14:50	18° $\text{II}$ 21'59	0.68954 AU	minimum elong	13847 May 14 03:44	2° $\text{II}$ 21'01	2°29'39
morning rise	13846 Jun 04 00:55	11° $\text{II}$ 50'47			13847 May 15 22:00	30° $\text{R}$ $\text{B}$	
direct	13846 Jun 08 14:29	9° $\text{II}$ 57'12		morning rise	13847 May 19 12:28	26° $\text{B}$ 11'18	
morning max el	13846 Jun 17 12:58	15° $\text{II}$ 08'41	21°33'44	direct	13847 May 23 13:39	24° $\text{B}$ 38'14	
desc. node	13846 Jun 20 01:18	17° $\text{II}$ 50'01		morning max el	13847 May 31 09:29	29° $\text{B}$ 03'12	20°17'11
	13846 Jun 29 12:35	0° $\text{B}$			13847 Jun 01 07:43	0° $\text{II}$	
morning set	13846 Jul 19 09:11	29° $\text{B}$ 40'55		desc. node	13847 Jun 06 22:18	6° $\text{II}$ 43'46	
	13846 Jul 19 14:00	0° $\text{Q}$			13847 Jun 23 01:33	0° $\text{B}$	
max. Earth dist.	13846 Jul 25 18:47	10° $\text{Q}$ 00'26	1.42257 AU	morning set	13847 Jun 28 15:35	8° $\text{B}$ 31'55	
				max. Earth dist.	13847 Jul 08 04:21	23° $\text{B}$ 29'11	1.44088 AU
superior conj	13846 Aug 02 07:23	22° $\text{Q}$ 42'05	-1°32'24		13847 Jul 12 05:16	0° $\text{Q}$	
minimum elong	13846 Aug 02 14:14	23° $\text{Q}$ 11'44	1°32'18				
	13846 Aug 06 11:15	0° $\text{B}$		superior conj	13847 Jul 14 04:42	3° $\text{Q}$ 13'57	-1°59'44
evening rise	13846 Aug 13 09:56	12° $\text{B}$ 32'29		minimum elong	13847 Jul 14 11:27	3° $\text{Q}$ 41'43	2°00'12
asc. node	13846 Aug 14 00:33	13° $\text{B}$ 39'00		evening rise	13847 Jul 26 23:50	24° $\text{Q}$ 53'59	
	13846 Aug 23 09:52	0° $\text{B}$			13847 Jul 29 22:33	0° $\text{B}$	
evening max el	13846 Aug 29 12:54	8° $\text{B}$ 01'36	18°07'39	asc. node	13847 Jul 31 21:11	3° $\text{B}$ 20'30	
retrograde	13846 Sep 05 11:50	11° $\text{B}$ 34'44		evening max el	13847 Aug 13 02:49	21° $\text{B}$ 15'34	18°03'15
evening set	13846 Sep 07 18:15	11° $\text{B}$ 12'29		retrograde	13847 Aug 19 13:43	24° $\text{B}$ 36'32	
inferior conj	13846 Sep 14 20:25	6° $\text{B}$ 21'44	0°19'51	evening set	13847 Aug 22 04:23	24° $\text{B}$ 02'40	
minimum elong	13846 Sep 14 21:04	6° $\text{B}$ 20'16	0°19'37	inferior conj	13847 Aug 28 14:45	18° $\text{B}$ 52'54	1°30'44
desc. node	13846 Sep 15 22:10	5° $\text{B}$ 23'13		minimum elong	13847 Aug 28 17:00	18° $\text{B}$ 47'05	1°29'41
min. Earth dist.	13846 Sep 18 02:37	3° $\text{B}$ 26'20	0.59846 AU	min. Earth dist.	13847 Aug 31 12:52	15° $\text{B}$ 53'07	0.62138 AU
morning rise	13846 Sep 21 20:36	0° $\text{B}$ 38'14		desc. node	13847 Sep 02 19:43	13° $\text{B}$ 47'36	
	13846 Sep 22 23:53	30° $\text{R}$ $\text{B}$		morning rise	13847 Sep 04 03:12	12° $\text{B}$ 46'53	
direct	13846 Sep 28 08:59	28° $\text{B}$ 37'34		direct	13847 Sep 10 19:34	10° $\text{B}$ 24'15	
	13846 Oct 04 00:08	0° $\text{B}$		morning max el	13847 Sep 24 22:27	18° $\text{B}$ 24'04	27°57'37
morning max el	13846 Oct 12 16:24	6° $\text{B}$ 28'00	27°47'07		13847 Oct 04 16:59	0° $\text{B}$	
	13846 Oct 30 09:07	0° $\text{B}$			13847 Oct 23 05:28	0° $\text{B}$	
asc. node	13846 Nov 10 02:32	19° $\text{B}$ 25'31		asc. node	13847 Oct 27 23:15	9° $\text{B}$ 16'06	
morning set	13846 Nov 13 20:55	27° $\text{B}$ 08'08		morning set	13847 Oct 28 20:42	11° $\text{B}$ 05'18	
	13846 Nov 15 05:19	0° $\text{B}$		max. Earth dist.	13847 Nov 03 06:22	22° $\text{B}$ 31'19	1.31721 AU
max. Earth dist.	13846 Nov 20 01:43	10° $\text{B}$ 37'01	1.31215 AU				
superior conj	13846 Nov 20 22:48	12° $\text{B}$ 34'28	1°26'42	superior conj	13847 Nov 05 08:18	27° $\text{B}$ 04'34	1°12'20
minimum elong	13846 Nov 20 21:00	12° $\text{B}$ 24'23	1°27'29	minimum elong	13847 Nov 05 06:03	26° $\text{B}$ 52'11	1°12'49
evening rise	13846 Nov 27 15:35	27° $\text{B}$ 22'42			13847 Nov 06 16:06	0° $\text{B}$	
	13846 Nov 28 21:01	0° $\text{B}$		evening rise	13847 Nov 12 02:12	11° $\text{B}$ 54'21	
desc. node	13846 Dec 12 19:16	25° $\text{B}$ 50'02			13847 Nov 21 02:43	0° $\text{B}$	
	13846 Dec 15 13:51	0° $\text{B}$		desc. node	13847 Nov 29 16:22	13° $\text{B}$ 44'09	
evening max el	13846 Dec 25 19:01	12° $\text{B}$ 16'52	25°59'24	evening max el	13847 Dec 07 08:14	22° $\text{B}$ 43'45	24°29'03
retrograde	13847 Jan 08 17:31	19° $\text{B}$ 20'09		retrograde	13847 Dec 21 01:03	29° $\text{B}$ 33'35	
evening set	13847 Jan 14 22:27	17° $\text{B}$ 49'27		evening set	13847 Dec 26 06:47	28° $\text{B}$ 33'15	
min. Earth dist.	13847 Jan 19 08:06	15° $\text{B}$ 12'24	0.57825 AU	min. Earth dist.	13847 Dec 31 19:58	25° $\text{B}$ 43'07	0.56019 AU
inferior conj	13847 Jan 22 08:40	13° $\text{B}$ 03'25	-4°23'50	inferior conj	13848 Jan 03 03:41	24° $\text{B}$ 16'29	-5°30'52
minimum elong	13847 Jan 22 17:29	12° $\text{B}$ 47'43	4°20'25	minimum elong	13848 Jan 03 10:52	24° $\text{B}$ 05'18	5°28'42
morning rise	13847 Jan 30 15:25	8° $\text{B}$ 40'44		morning rise	13848 Jan 11 16:57	20° $\text{B}$ 14'19	
direct	13847 Feb 01 16:46	8° $\text{B}$ 27'10		direct	13848 Jan 14 02:16	19° $\text{B}$ 59'03	
asc. node	13847 Feb 06 01:17	9° $\text{B}$ 31'52		asc. node	13848 Jan 23 22:39	24° $\text{B}$ 40'29	
morning max el	13847 Feb 10 06:05	12° $\text{B}$ 38'33	18°41'30	morning max el	13848 Jan 24 01:44	24° $\text{B}$ 47'52	19°41'03
	13847 Feb 21 21:44	0° $\text{B}$			13848 Jan 28 12:30	0° $\text{B}$	
morning set	13847 Feb 26 08:57	8° $\text{B}$ 31'36		morning set	13848 Feb 10 12:40	23° $\text{B}$ 03'27	
					13848 Feb 13 22:56	0° $\text{B}$	
superior conj	13847 Mar 07 03:50	25° $\text{B}$ 25'58	0°29'43	superior conj	13848 Feb 18 10:58	9° $\text{B}$ 00'53	0°56'49
minimum elong	13847 Mar 07 05:44	25° $\text{B}$ 34'55	0°29'35	minimum elong	13848 Feb 18 13:41	9° $\text{B}$ 14'13	0°56'54

max. Earth dist.	13848 Feb 24 16:50	20° $\text{H}$ 57'36	1.37577 AU			13849 Feb 04 15:06	0° $\text{H}$	
desc. node	13848 Feb 25 17:07	22° $\text{H}$ 49'19		max. Earth dist.		13849 Feb 06 02:24	2° $\text{H}$ 54'43	1.35466 AU
evening rise	13848 Feb 28 10:00	27° $\text{H}$ 41'24		evening rise		13849 Feb 10 02:07	10° $\text{H}$ 33'07	
	13848 Feb 29 17:31	0° $\text{Y}$		desc. node		13849 Feb 11 13:40	13° $\text{H}$ 17'33	
	13848 Mar 19 20:42	0° $\text{B}$				13849 Feb 21 06:55	0° $\text{Y}$	
evening max el	13848 Apr 03 21:09	18° $\text{B}$ 20'35	25°17'05			13849 Mar 15 07:54	0° $\text{B}$	
retrograde	13848 Apr 16 00:17	25° $\text{B}$ 22'15		evening max el		13849 Mar 17 10:52	2° $\text{B}$ 09'43	26°23'15
asc. node	13848 Apr 20 19:09	23° $\text{B}$ 45'14		retrograde		13849 Mar 30 08:58	9° $\text{B}$ 29'55	
evening set	13848 Apr 21 20:26	22° $\text{B}$ 56'29		evening set		13849 Apr 05 15:51	6° $\text{B}$ 58'20	
min. Earth dist.	13848 Apr 26 05:12	18° $\text{B}$ 06'46	0.67949 AU	asc. node		13849 Apr 07 16:35	5° $\text{B}$ 04'24	
inferior conj	13848 Apr 27 12:14	16° $\text{B}$ 25'52	1°56'44	min. Earth dist.		13849 Apr 09 18:26	2° $\text{B}$ 43'43	0.66787 AU
minimum elong	13848 Apr 27 10:06	16° $\text{B}$ 32'49	1°55'24	inferior conj		13849 Apr 11 14:02	0° $\text{B}$ 31'07	1°11'35
morning rise	13848 May 03 00:09	10° $\text{B}$ 32'18		minimum elong		13849 Apr 11 12:23	0° $\text{B}$ 36'10	1°10'33
direct	13848 May 06 13:40	9° $\text{B}$ 19'20				13849 Apr 12 00:17	30° $\text{R}$ $\text{Y}$	
morning max el	13848 May 13 13:35	13° $\text{B}$ 08'50	19°14'43	morning rise		13849 Apr 17 09:50	24° $\text{Y}$ 48'25	
desc. node	13848 May 23 19:11	26° $\text{B}$ 12'03		direct		13849 Apr 20 12:38	23° $\text{Y}$ 53'45	
	13848 May 26 09:14	0° $\text{II}$		morning max el		13849 Apr 27 00:35	27° $\text{Y}$ 21'01	18°28'21
greatest brilliancy	13848 May 26 09:25	0° $\text{II}$ 00'40	-0.7m			13849 Apr 29 11:02	0° $\text{B}$	
morning set	13848 Jun 06 18:41	17° $\text{II}$ 20'05		desc. node		13849 May 10 15:58	16° $\text{B}$ 04'59	
	13848 Jun 14 22:59	0° $\text{B}$		morning set		13849 May 17 15:21	27° $\text{B}$ 03'02	
max. Earth dist.	13848 Jun 19 20:13	7° $\text{B}$ 38'16	1.45330 AU			13849 May 19 12:14	0° $\text{II}$	
superior conj	13848 Jun 23 03:19	12° $\text{B}$ 50'12	-2°13'12	superior conj		13849 Jun 02 12:12	21° $\text{II}$ 56'09	-2°07'12
minimum elong	13848 Jun 23 05:00	12° $\text{B}$ 56'51	2°14'14	minimum elong		13849 Jun 02 06:14	21° $\text{II}$ 32'54	2°07'58
	13848 Jul 03 19:33	0° $\text{Q}$		max. Earth dist.		13849 Jun 02 15:45	22° $\text{II}$ 10'03	1.45856 AU
evening rise	13848 Jul 07 15:51	6° $\text{Q}$ 18'27				13849 Jun 07 16:07	0° $\text{B}$	
asc. node	13848 Jul 17 17:55	22° $\text{Q}$ 44'06		evening rise		13849 Jun 18 07:13	16° $\text{B}$ 41'31	
	13848 Jul 22 16:06	0° $\text{M}$				13849 Jun 26 18:16	0° $\text{Q}$	
evening max el	13848 Jul 26 17:06	4° $\text{M}$ 47'49	18°17'09	greatest brilliancy		13849 Jun 27 05:03	0° $\text{Q}$ 41'54	-0.8m
retrograde	13848 Aug 02 01:52	8° $\text{M}$ 10'42		asc. node		13849 Jul 04 14:43	11° $\text{Q}$ 43'00	
evening set	13848 Aug 05 01:07	7° $\text{M}$ 22'32		evening max el		13849 Jul 10 04:46	18° $\text{Q}$ 30'36	18°48'37
inferior conj	13848 Aug 10 23:16	1° $\text{M}$ 55'47	2°20'25	retrograde		13849 Jul 16 20:28	22° $\text{Q}$ 08'51	
minimum elong	13848 Aug 11 01:42	1° $\text{M}$ 48'48	2°19'12	evening set		13849 Jul 20 04:35	21° $\text{Q}$ 04'46	
	13848 Aug 12 15:23	30° $\text{R}$ $\text{Q}$		inferior conj		13849 Jul 25 18:12	15° $\text{Q}$ 22'56	2°51'52
min. Earth dist.	13848 Aug 13 08:38	29° $\text{Q}$ 11'18	0.64273 AU	minimum elong		13849 Jul 25 19:59	15° $\text{Q}$ 17'17	2°50'45
morning rise	13848 Aug 17 00:46	25° $\text{Q}$ 36'50		min. Earth dist.		13849 Jul 27 13:12	13° $\text{Q}$ 08'22	0.66085 AU
desc. node	13848 Aug 19 17:15	23° $\text{Q}$ 54'41		morning rise		13849 Jul 31 10:34	8° $\text{Q}$ 58'40	
direct	13848 Aug 23 14:56	23° $\text{Q}$ 00'55		direct		13849 Aug 06 17:53	6° $\text{Q}$ 18'57	
	13848 Sep 05 08:01	0° $\text{M}$		desc. node		13849 Aug 06 14:43	6° $\text{Q}$ 19'00	
morning max el	13848 Sep 06 08:22	0° $\text{M}$ 59'48	27°31'38	morning max el		13849 Aug 19 19:42	14° $\text{Q}$ 04'19	26°35'54
	13848 Sep 27 19:53	0° $\text{A}$				13849 Sep 01 18:40	0° $\text{M}$	
morning set	13848 Oct 11 12:07	24° $\text{A}$ 36'49				13849 Sep 20 13:15	0° $\text{A}$	
asc. node	13848 Oct 13 19:54	29° $\text{A}$ 16'31		morning set		13849 Sep 24 16:07	7° $\text{A}$ 35'29	
	13848 Oct 14 04:26	0° $\text{M}$		max. Earth dist.		13849 Sep 28 16:23	15° $\text{A}$ 21'25	1.34338 AU
max. Earth dist.	13848 Oct 16 04:10	4° $\text{M}$ 06'36	1.32769 AU	asc. node		13849 Sep 30 16:30	19° $\text{A}$ 22'25	
superior conj	13848 Oct 19 13:51	11° $\text{M}$ 19'53	0°52'15	superior conj		13849 Oct 03 13:05	25° $\text{A}$ 14'15	0°26'40
minimum elong	13848 Oct 19 11:41	11° $\text{M}$ 08'14	0°52'29	minimum elong		13849 Oct 03 11:42	25° $\text{A}$ 07'02	0°26'45
evening rise	13848 Oct 26 13:17	26° $\text{M}$ 25'17				13849 Oct 05 19:42	0° $\text{M}$	
	13848 Oct 28 05:48	0° $\text{A}$		evening rise		13849 Oct 10 22:54	10° $\text{M}$ 50'21	
	13848 Nov 15 04:04	0° $\text{B}$				13849 Oct 20 20:37	0° $\text{A}$	
desc. node	13848 Nov 15 13:34	0° $\text{B}$ 26'52		evening max el		13849 Oct 30 10:24	12° $\text{A}$ 56'46	21°10'19
evening max el	13848 Nov 17 18:11	2° $\text{B}$ 44'28	22°46'43	desc. node		13849 Nov 02 10:52	15° $\text{A}$ 33'46	
retrograde	13848 Nov 30 19:31	9° $\text{B}$ 13'09		retrograde		13849 Nov 11 06:42	18° $\text{A}$ 49'52	
evening set	13848 Dec 04 17:22	8° $\text{B}$ 39'50		evening set		13849 Nov 13 21:56	18° $\text{A}$ 33'35	
min. Earth dist.	13848 Dec 12 02:46	5° $\text{B}$ 17'46	0.54833 AU	inferior conj		13849 Nov 22 19:37	14° $\text{A}$ 40'19	-5°26'05
inferior conj	13848 Dec 13 04:08	4° $\text{B}$ 41'45	-5°57'50	minimum elong		13849 Nov 22 11:14	14° $\text{A}$ 52'09	5°23'35
minimum elong	13848 Dec 13 03:52	4° $\text{B}$ 42'08	5°56'46	min. Earth dist.		13849 Nov 23 08:39	14° $\text{A}$ 21'54	0.54496 AU
morning rise	13848 Dec 21 15:43	0° $\text{B}$ 53'30		morning rise		13849 Dec 01 01:04	10° $\text{A}$ 49'36	
direct	13848 Dec 24 18:10	0° $\text{B}$ 31'19		direct		13849 Dec 05 01:37	10° $\text{A}$ 14'50	
morning max el	13849 Jan 05 07:00	6° $\text{B}$ 02'19	21°03'43	morning max el		13849 Dec 17 23:11	16° $\text{A}$ 27'54	22°45'27
asc. node	13849 Jan 09 19:57	11° $\text{B}$ 10'16		asc. node		13849 Dec 27 17:08	28° $\text{A}$ 44'04	
	13849 Jan 21 01:44	0° $\text{B}$				13849 Dec 28 12:18	0° $\text{B}$	
morning set	13849 Jan 24 21:15	7° $\text{B}$ 45'36		morning set		13850 Jan 09 08:27	22° $\text{B}$ 31'37	
						13850 Jan 12 20:03	0° $\text{B}$	
superior conj	13849 Feb 01 05:24	23° $\text{B}$ 05'20	1°16'55	superior conj		13850 Jan 16 07:45	7° $\text{B}$ 30'10	1°30'11
minimum elong	13849 Feb 01 07:53	23° $\text{B}$ 18'11	1°17'21					

minimum elong	13850 Jan 16 09:28	7° $\approx$ 39'15	1°30'58	asc. node	13850 Dec 14 14:12	17° $\approx$ 05'49	
max. Earth dist.	13850 Jan 19 18:32	14° $\approx$ 46'08	1.33689 AU		13850 Dec 21 09:19	0° $\approx$	
evening rise	13850 Jan 24 08:11	23° $\approx$ 59'06		morning set	13850 Dec 24 20:21	7° $\approx$ 15'25	
	13850 Jan 27 11:32	0° $\approx$					
desc. node	13850 Jan 29 10:16	3° $\approx$ 35'43		superior conj	13850 Dec 31 15:20	22° $\approx$ 06'53	1°37'00
	13850 Feb 14 20:57	0° $\approx$		minimum elong	13850 Dec 31 15:59	22° $\approx$ 10'28	1°37'59
evening max el	13850 Feb 28 00:18	15° $\approx$ 45'14	27°10'58	max. Earth dist.	13851 Jan 02 18:10	26° $\approx$ 43'52	1.32349 AU
retrograde	13850 Mar 13 11:45	23° $\approx$ 13'22			13851 Jan 04 06:41	0° $\approx$	
evening set	13850 Mar 20 03:19	20° $\approx$ 41'43		evening rise	13851 Jan 08 00:53	7° $\approx$ 50'48	
min. Earth dist.	13850 Mar 24 00:57	17° $\approx$ 00'03	0.65225 AU	desc. node	13851 Jan 16 06:57	23° $\approx$ 38'22	
asc. node	13850 Mar 25 14:02	15° $\approx$ 17'00			13851 Jan 19 23:05	0° $\approx$	
inferior conj	13850 Mar 26 08:48	14° $\approx$ 24'16	0°14'56	evening max el	13851 Feb 10 12:19	28° $\approx$ 56'31	27°33'13
minimum elong	13850 Mar 26 08:23	14° $\approx$ 25'26	0°14'37		13851 Feb 11 15:38	0° $\approx$	
transit middle	13850 Mar 26 08:23	14° $\approx$ 25'26	0°14'37	retrograde	13851 Feb 24 07:48	6° $\approx$ 23'18	
transit begin	13850 Mar 26 07:09	14° $\approx$ 28'53		evening set	13851 Mar 03 04:28	3° $\approx$ 58'54	
transit end	13850 Mar 26 09:37	14° $\approx$ 21'59		min. Earth dist.	13851 Mar 06 23:00	0° $\approx$ 46'15	0.63330 AU
morning rise	13850 Apr 01 15:08	8° $\approx$ 54'26			13851 Mar 07 17:46	30° $\approx$	
direct	13850 Apr 04 08:20	8° $\approx$ 15'12		inferior conj	13851 Mar 09 17:45	27° $\approx$ 58'40	-0°53'24
morning max el	13850 Apr 10 16:21	11° $\approx$ 32'50	17°58'49	minimum elong	13851 Mar 09 19:29	27° $\approx$ 54'18	0°52'33
	13850 Apr 23 16:52	0° $\approx$		asc. node	13851 Mar 12 11:31	25° $\approx$ 21'44	
desc. node	13850 Apr 27 12:37	6° $\approx$ 15'41		morning rise	13851 Mar 16 12:59	22° $\approx$ 44'03	
morning set	13850 Apr 28 15:48	8° $\approx$ 07'17		direct	13851 Mar 18 22:06	22° $\approx$ 16'41	
	13850 May 12 04:41	0° $\approx$		morning max el	13851 Mar 25 10:05	25° $\approx$ 36'07	17°46'34
					13851 Mar 29 03:41	0° $\approx$	
superior conj	13850 May 13 00:16	1° $\approx$ 17'32	-1°42'18	morning set	13851 Apr 10 18:35	20° $\approx$ 27'06	
minimum elong	13850 May 12 15:11	0° $\approx$ 41'38	1°42'17	desc. node	13851 Apr 14 09:13	26° $\approx$ 38'53	
max. Earth dist.	13850 May 16 11:47	6° $\approx$ 46'09	1.45627 AU		13851 Apr 16 08:28	0° $\approx$	
evening rise	13850 May 29 01:55	26° $\approx$ 17'08					
	13850 May 31 11:59	0° $\approx$		superior conj	13851 Apr 23 06:31	11° $\approx$ 32'20	-1°05'40
greatest brilliancy	13850 Jun 11 18:53	17° $\approx$ 03'05	-0.7m	minimum elong	13851 Apr 22 23:58	11° $\approx$ 05'28	1°05'23
asc. node	13850 Jun 21 11:36	0° $\approx$ 08'34		max. Earth dist.	13851 Apr 29 06:01	21° $\approx$ 11'27	1.44681 AU
	13850 Jun 21 08:38	0° $\approx$			13851 May 04 20:28	0° $\approx$	
evening max el	13850 Jun 23 11:42	2° $\approx$ 18'14	19°36'37	evening rise	13851 May 08 12:56	5° $\approx$ 41'31	
retrograde	13850 Jun 30 18:24	6° $\approx$ 24'12			13851 May 24 20:55	0° $\approx$	
evening set	13850 Jul 04 11:55	5° $\approx$ 03'21		evening max el	13851 Jun 06 12:56	16° $\approx$ 08'05	20°39'12
	13850 Jul 09 04:39	30° $\approx$		asc. node	13851 Jun 08 08:37	17° $\approx$ 49'55	
inferior conj	13850 Jul 09 20:20	29° $\approx$ 08'02	3°08'09	retrograde	13851 Jun 14 17:23	20° $\approx$ 51'28	
minimum elong	13850 Jul 09 21:10	29° $\approx$ 05'15	3°07'07	evening set	13851 Jun 18 21:01	19° $\approx$ 13'46	
min. Earth dist.	13850 Jul 11 00:59	27° $\approx$ 32'44	0.67491 AU	inferior conj	13851 Jun 24 03:07	13° $\approx$ 06'28	3°11'40
morning rise	13850 Jul 15 05:57	22° $\approx$ 43'53		minimum elong	13851 Jun 24 02:56	13° $\approx$ 07'05	3°10'38
direct	13850 Jul 21 03:20	20° $\approx$ 09'05		min. Earth dist.	13851 Jun 24 17:55	12° $\approx$ 15'24	0.68439 AU
desc. node	13850 Jul 24 12:07	20° $\approx$ 51'24		morning rise	13851 Jun 29 08:34	6° $\approx$ 46'02	
morning max el	13850 Aug 02 06:31	27° $\approx$ 25'28	25°19'13	direct	13851 Jul 04 18:13	4° $\approx$ 23'29	
	13850 Aug 04 16:35	0° $\approx$		desc. node	13851 Jul 11 09:24	7° $\approx$ 06'48	
	13850 Aug 26 10:22	0° $\approx$		morning max el	13851 Jul 15 16:48	10° $\approx$ 56'07	23°51'34
morning set	13850 Sep 07 04:48	19° $\approx$ 51'21			13851 Jul 30 21:16	0° $\approx$	
max. Earth dist.	13850 Sep 10 18:58	26° $\approx$ 26'01	1.36362 AU		13851 Aug 19 04:14	0° $\approx$	
	13850 Sep 12 16:20	0° $\approx$		morning set	13851 Aug 19 21:44	1° $\approx$ 14'18	
				max. Earth dist.	13851 Aug 23 16:43	7° $\approx$ 48'37	1.38679 AU
superior conj	13850 Sep 17 03:04	8° $\approx$ 39'49	-0°03'53				
minimum elong	13850 Sep 17 03:18	8° $\approx$ 40'58	0°03'47	superior conj	13851 Aug 31 04:22	21° $\approx$ 29'08	-0°38'00
behind sun begin	13850 Sep 16 21:05	8° $\approx$ 10'04		minimum elong	13851 Aug 31 07:04	21° $\approx$ 41'55	0°37'48
behind sun end	13850 Sep 17 09:31	9° $\approx$ 11'55		asc. node	13851 Sep 04 09:34	29° $\approx$ 34'26	
asc. node	13850 Sep 17 13:01	9° $\approx$ 29'22			13851 Sep 04 14:50	0° $\approx$	
evening rise	13850 Sep 25 04:51	25° $\approx$ 03'00		evening rise	13851 Sep 09 04:33	8° $\approx$ 57'23	
	13850 Sep 27 15:42	0° $\approx$			13851 Sep 20 23:35	0° $\approx$	
evening max el	13850 Oct 12 15:59	23° $\approx$ 49'35	19°51'34	evening max el	13851 Sep 25 11:29	5° $\approx$ 31'55	18°54'26
desc. node	13850 Oct 20 08:16	28° $\approx$ 37'00		retrograde	13851 Oct 04 02:48	9° $\approx$ 52'10	
retrograde	13850 Oct 22 21:22	28° $\approx$ 55'27		evening set	13851 Oct 05 23:52	9° $\approx$ 40'40	
evening set	13850 Oct 24 20:15	28° $\approx$ 45'08		desc. node	13851 Oct 07 05:42	9° $\approx$ 21'05	
inferior conj	13850 Nov 02 16:28	24° $\approx$ 44'28	-4°01'41	inferior conj	13851 Oct 14 06:35	5° $\approx$ 22'41	-2°13'49
minimum elong	13850 Nov 02 06:46	24° $\approx$ 59'20	3°57'48	minimum elong	13851 Oct 14 00:57	5° $\approx$ 32'38	2°11'05
min. Earth dist.	13850 Nov 04 16:57	23° $\approx$ 30'02	0.55099 AU	min. Earth dist.	13851 Oct 17 05:50	3° $\approx$ 17'11	0.56545 AU
morning rise	13850 Nov 10 15:49	20° $\approx$ 30'44		morning rise	13851 Oct 21 22:57	0° $\approx$ 33'31	
direct	13850 Nov 15 14:23	19° $\approx$ 37'04			13851 Oct 23 09:02	30° $\approx$	
morning max el	13850 Nov 29 08:58	26° $\approx$ 27'01	24°34'33	direct	13851 Oct 27 16:35	29° $\approx$ 15'16	
	13850 Dec 02 18:33	0° $\approx$			13851 Nov 01 00:46	0° $\approx$	

morning max el	13851 Nov 10 20:53	6° $\mathbb{M}$ 33'44	26°12'52		13852 Nov 02 05:28	0° $\mathbb{M}$	
	13851 Nov 28 02:28	0° $\mathbb{A}$		asc. node	13852 Nov 17 08:02	25° $\mathbb{M}$ 27'26	
asc. node	13851 Dec 01 11:10	6° $\mathbb{A}$ 03'21			13852 Nov 19 14:43	0° $\mathbb{A}$	
morning set	13851 Dec 09 07:13	21° $\mathbb{A}$ 52'15		morning set	13852 Nov 22 15:22	6° $\mathbb{A}$ 17'56	
	13851 Dec 13 00:25	0° $\mathbb{B}$					
				superior conj	13852 Nov 29 13:32	21° $\mathbb{A}$ 30'35	1°32'22
superior conj	13851 Dec 16 01:54	6° $\mathbb{B}$ 48'50	1°37'39	minimum elong	13852 Nov 29 12:09	21° $\mathbb{A}$ 22'53	1°33'18
minimum elong	13851 Dec 16 01:28	6° $\mathbb{B}$ 46'26	1°38'41	max. Earth dist.	13852 Nov 29 08:08	21° $\mathbb{A}$ 00'26	1.31170 AU
max. Earth dist.	13851 Dec 16 23:46	8° $\mathbb{B}$ 50'25	1.31503 AU		13852 Dec 03 09:00	0° $\mathbb{B}$	
evening rise	13851 Dec 23 01:29	22° $\mathbb{B}$ 01'05		evening rise	13852 Dec 06 07:35	6° $\mathbb{B}$ 24'07	
	13851 Dec 26 23:23	0° $\mathbb{A}$			13852 Dec 18 13:05	0° $\mathbb{A}$	
desc. node	13852 Jan 03 03:44	13° $\mathbb{A}$ 18'39		desc. node	13852 Dec 20 00:37	2° $\mathbb{A}$ 28'00	
	13852 Jan 13 23:03	0° $\mathbb{H}$		evening max el	13853 Jan 04 22:41	23° $\mathbb{A}$ 17'01	26°39'51
evening max el	13852 Jan 23 20:42	11° $\mathbb{H}$ 30'57	27°23'57		13853 Jan 15 16:01	0° $\mathbb{H}$	
retrograde	13852 Feb 06 19:39	18° $\mathbb{H}$ 49'52		retrograde	13853 Jan 18 21:45	0° $\mathbb{H}$ 25'36	
evening set	13852 Feb 13 16:19	16° $\mathbb{H}$ 40'40			13853 Jan 22 02:30	30° $\mathbb{R}$ $\mathbb{A}$	
min. Earth dist.	13852 Feb 17 11:06	13° $\mathbb{H}$ 50'40	0.61211 AU	evening set	13853 Jan 25 11:18	28° $\mathbb{A}$ 39'03	
inferior conj	13852 Feb 20 13:34	11° $\mathbb{H}$ 05'32	-2°12'10	min. Earth dist.	13853 Jan 29 12:31	26° $\mathbb{A}$ 01'37	0.59027 AU
minimum elong	13852 Feb 20 18:17	10° $\mathbb{H}$ 55'03	2°09'51	inferior conj	13853 Feb 01 16:38	23° $\mathbb{A}$ 34'55	-3°36'35
asc. node	13852 Feb 27 09:00	6° $\mathbb{H}$ 20'55		minimum elong	13853 Feb 02 00:24	23° $\mathbb{A}$ 19'54	3°33'13
morning rise	13852 Feb 27 23:17	6° $\mathbb{H}$ 08'57		morning rise	13853 Feb 09 16:34	18° $\mathbb{A}$ 59'23	
direct	13852 Mar 01 02:28	5° $\mathbb{H}$ 49'44		direct	13853 Feb 11 17:15	18° $\mathbb{A}$ 44'40	
morning max el	13852 Mar 08 02:32	9° $\mathbb{H}$ 21'16	17°52'22	asc. node	13853 Feb 13 06:27	18° $\mathbb{A}$ 53'37	
	13852 Mar 21 16:05	0° $\mathbb{Y}$		morning max el	13853 Feb 19 14:07	22° $\mathbb{A}$ 38'23	18°17'34
morning set	13852 Mar 23 17:44	3° $\mathbb{Y}$ 43'53			13853 Feb 25 08:28	0° $\mathbb{H}$	
desc. node	13852 Mar 31 05:44	17° $\mathbb{Y}$ 09'51		morning set	13853 Mar 07 07:25	17° $\mathbb{H}$ 40'15	
					13853 Mar 13 20:27	0° $\mathbb{Y}$	
superior conj	13852 Apr 03 12:42	22° $\mathbb{Y}$ 53'28	-0°25'53				
minimum elong	13852 Apr 03 10:21	22° $\mathbb{Y}$ 43'19	0°25'49	superior conj	13853 Mar 16 17:25	5° $\mathbb{Y}$ 16'45	0°11'01
	13852 Apr 07 17:18	0° $\mathbb{B}$		minimum elong	13853 Mar 16 18:14	5° $\mathbb{Y}$ 20'26	0°10'53
max. Earth dist.	13852 Apr 10 20:51	5° $\mathbb{B}$ 12'15	1.43125 AU	behind sun begin	13853 Mar 16 12:47	4° $\mathbb{Y}$ 55'41	
evening rise	13852 Apr 17 08:15	15° $\mathbb{B}$ 34'19		behind sun end	13853 Mar 16 23:41	5° $\mathbb{Y}$ 45'09	
	13852 Apr 26 18:57	0° $\mathbb{I}$		desc. node	13853 Mar 18 02:15	7° $\mathbb{Y}$ 45'02	
	13852 May 19 09:23	0° $\mathbb{E}$		max. Earth dist.	13853 Mar 24 07:25	18° $\mathbb{Y}$ 36'58	1.41115 AU
evening max el	13852 May 19 08:39	29° $\mathbb{I}$ 58'10	21°53'01	evening rise	13853 Mar 28 22:07	26° $\mathbb{Y}$ 18'25	
asc. node	13852 May 25 05:46	4° $\mathbb{E}$ 31'57			13853 Mar 31 04:52	0° $\mathbb{B}$	
retrograde	13852 May 28 15:28	5° $\mathbb{E}$ 24'36			13853 Apr 20 12:04	0° $\mathbb{I}$	
evening set	13852 Jun 02 06:01	3° $\mathbb{E}$ 30'37		evening max el	13853 May 02 00:22	13° $\mathbb{I}$ 49'25	23°13'07
	13852 Jun 05 11:18	30° $\mathbb{R}$ $\mathbb{I}$		retrograde	13853 May 12 11:18	19° $\mathbb{I}$ 58'44	
inferior conj	13852 Jun 07 12:18	27° $\mathbb{I}$ 13'03	3°04'01	asc. node	13853 May 12 02:59	19° $\mathbb{I}$ 58'12	
minimum elong	13852 Jun 07 11:12	27° $\mathbb{I}$ 16'52	3°02'52	evening set	13853 May 17 13:20	17° $\mathbb{I}$ 50'02	
min. Earth dist.	13852 Jun 07 13:50	27° $\mathbb{I}$ 07'42	0.68910 AU	inferior conj	13853 May 22 21:55	11° $\mathbb{I}$ 24'25	2°46'00
morning rise	13852 Jun 12 16:11	20° $\mathbb{I}$ 58'33		minimum elong	13853 May 22 20:08	11° $\mathbb{I}$ 30'36	2°44'42
direct	13852 Jun 17 13:13	18° $\mathbb{I}$ 53'25		min. Earth dist.	13853 May 22 10:36	12° $\mathbb{I}$ 03'34	0.68904 AU
morning max el	13852 Jun 27 04:41	24° $\mathbb{I}$ 34'01	22°22'26	morning rise	13853 May 28 02:52	5° $\mathbb{I}$ 17'15	
desc. node	13852 Jun 27 06:35	24° $\mathbb{I}$ 38'49		direct	13853 Jun 01 11:10	3° $\mathbb{I}$ 32'21	
	13852 Jul 02 01:12	0° $\mathbb{E}$		morning max el	13853 Jun 09 21:26	8° $\mathbb{I}$ 22'18	20°59'37
	13852 Jul 23 07:14	0° $\mathbb{Q}$		desc. node	13853 Jun 14 03:41	13° $\mathbb{I}$ 07'15	
morning set	13852 Jul 30 14:46	11° $\mathbb{Q}$ 33'44			13853 Jun 26 12:33	0° $\mathbb{E}$	
max. Earth dist.	13852 Aug 04 16:39	19° $\mathbb{Q}$ 56'53	1.41022 AU	morning set	13853 Jul 10 07:38	20° $\mathbb{E}$ 50'43	
	13852 Aug 10 12:52	0° $\mathbb{P}$			13853 Jul 16 02:26	0° $\mathbb{Q}$	
				max. Earth dist.	13853 Jul 17 22:58	2° $\mathbb{Q}$ 59'49	1.43105 AU
superior conj	13852 Aug 12 12:41	3° $\mathbb{P}$ 31'58	-1°13'15				
minimum elong	13852 Aug 12 18:15	3° $\mathbb{P}$ 56'47	1°13'00	superior conj	13853 Jul 24 23:38	14° $\mathbb{Q}$ 38'16	-1°45'15
asc. node	13852 Aug 21 06:08	19° $\mathbb{P}$ 33'40		minimum elong	13853 Jul 25 06:56	15° $\mathbb{Q}$ 09'10	1°45'19
evening rise	13852 Aug 22 18:39	22° $\mathbb{P}$ 24'43			13853 Aug 02 20:13	0° $\mathbb{P}$	
	13852 Aug 26 20:39	0° $\mathbb{U}$		evening rise	13853 Aug 05 18:51	5° $\mathbb{P}$ 14'00	
evening max el	13852 Sep 07 17:23	17° $\mathbb{U}$ 57'39	18°18'51	asc. node	13853 Aug 08 02:45	9° $\mathbb{P}$ 22'55	
retrograde	13852 Sep 15 03:46	21° $\mathbb{U}$ 43'53			13853 Aug 21 07:50	0° $\mathbb{U}$	
evening set	13852 Sep 17 06:04	21° $\mathbb{U}$ 26'36		evening max el	13853 Aug 22 05:28	0° $\mathbb{U}$ 56'29	18°03'26
desc. node	13852 Sep 23 03:12	18° $\mathbb{U}$ 06'59		retrograde	13853 Aug 28 22:01	4° $\mathbb{U}$ 22'55	
inferior conj	13852 Sep 24 18:31	16° $\mathbb{U}$ 47'20	-0°30'59	evening set	13853 Aug 31 07:53	3° $\mathbb{U}$ 56'04	
minimum elong	13852 Sep 24 17:23	16° $\mathbb{U}$ 49'43	0°30'18		13853 Sep 06 00:03	30° $\mathbb{R}$ $\mathbb{P}$	
min. Earth dist.	13852 Sep 28 01:33	14° $\mathbb{U}$ 04'44	0.58559 AU	inferior conj	13853 Sep 07 02:53	28° $\mathbb{P}$ 56'35	0°52'41
morning rise	13852 Oct 02 01:15	11° $\mathbb{U}$ 21'53		minimum elong	13853 Sep 07 04:25	28° $\mathbb{P}$ 52'52	0°52'00
direct	13852 Oct 08 08:35	9° $\mathbb{U}$ 36'34		desc. node	13853 Sep 10 00:45	26° $\mathbb{P}$ 09'36	
morning max el	13852 Oct 22 16:03	17° $\mathbb{U}$ 16'26	27°23'25	min. Earth dist.	13853 Sep 10 06:17	25° $\mathbb{P}$ 56'55	0.60825 AU



morning rise	13853 Sep 13 22:03	23° $\cap$ 02'09		morning rise	13854 Aug 27 11:23	5° $\cap$ 29'50	
direct	13853 Sep 20 12:44	20° $\cap$ 51'38		desc. node	13854 Aug 27 22:18	5° $\cap$ 10'02	
morning max el	13853 Oct 04 18:57	28° $\cap$ 46'45	27°56'29	direct	13854 Sep 03 03:19	3° $\cap$ 00'24	
	13853 Oct 05 23:47	0° $\Omega$		morning max el	13854 Sep 17 03:15	11° $\cap$ 02'04	27°50'45
	13853 Oct 27 03:09	0° $\cap$			13854 Oct 02 02:21	0° $\Omega$	
asc. node	13853 Nov 04 04:48	15° $\cap$ 10'01			13854 Oct 19 12:16	0° $\cap$	
morning set	13853 Nov 06 18:48	20° $\cap$ 26'58		morning set	13854 Oct 21 15:22	4° $\cap$ 14'15	
	13853 Nov 11 05:58	0° $\nearrow$		asc. node	13854 Oct 22 01:29	5° $\cap$ 05'26	
max. Earth dist.	13853 Nov 12 15:24	3° $\nearrow$ 03'46	1.31365 AU	max. Earth dist.	13854 Oct 26 17:34	14° $\cap$ 50'43	1.32098 AU
superior conj	13853 Nov 14 00:19	6° $\nearrow$ 06'04	1°21'18	superior conj	13854 Oct 29 08:23	20° $\cap$ 30'27	1°04'29
minimum elong	13853 Nov 13 22:16	5° $\nearrow$ 54'41	1°21'58	minimum elong	13854 Oct 29 06:05	20° $\cap$ 17'58	1°04'53
evening rise	13853 Nov 20 17:05	20° $\nearrow$ 53'41			13854 Nov 02 16:15	0° $\nearrow$	
	13853 Nov 25 01:25	0° $\Xi$		evening rise	13854 Nov 05 04:06	5° $\nearrow$ 25'19	
desc. node	13853 Dec 06 21:38	20° $\Xi$ 53'55			13854 Nov 18 00:20	0° $\Xi$	
	13853 Dec 13 17:50	0° $\approx$		desc. node	13854 Nov 23 18:46	8° $\Xi$ 20'15	
evening max el	13853 Dec 17 16:04	4° $\approx$ 09'05	25°23'29	evening max el	13854 Nov 29 02:41	14° $\Xi$ 19'48	23°45'49
retrograde	13853 Dec 31 12:34	11° $\approx$ 07'10		retrograde	13854 Dec 12 14:45	21° $\Xi$ 02'55	
evening set	13854 Jan 06 09:14	9° $\approx$ 48'56		evening set	13854 Dec 17 07:32	20° $\Xi$ 14'50	
min. Earth dist.	13854 Jan 11 04:16	7° $\approx$ 08'55	0.57000 AU	min. Earth dist.	13854 Dec 23 13:34	17° $\Xi$ 13'11	0.55421 AU
inferior conj	13854 Jan 13 23:36	5° $\approx$ 16'22	-4°55'32	inferior conj	13854 Dec 25 09:59	16° $\Xi$ 07'10	-5°48'43
minimum elong	13854 Jan 14 08:24	5° $\approx$ 01'38	4°52'29	minimum elong	13854 Dec 25 14:38	16° $\Xi$ 00'16	5°47'13
morning rise	13854 Jan 22 10:09	1° $\approx$ 03'08		morning rise	13855 Jan 02 23:30	12° $\Xi$ 12'24	
direct	13854 Jan 24 13:54	0° $\approx$ 49'22		direct	13855 Jan 05 14:49	11° $\Xi$ 55'05	
asc. node	13854 Jan 31 03:52	3° $\approx$ 07'26		morning max el	13855 Jan 16 06:32	17° $\Xi$ 01'35	20°13'32
morning max el	13854 Feb 02 16:44	5° $\approx$ 15'13	19°04'06	asc. node	13855 Jan 18 01:11	18° $\Xi$ 52'15	
	13854 Feb 18 06:18	0° $\nmid$			13855 Jan 25 20:30	0° $\approx$	
morning set	13854 Feb 19 06:57	2° $\nmid$ 01'25		morning set	13855 Feb 03 12:58	16° $\approx$ 37'39	
					13855 Feb 10 01:25	0° $\nmid$	
superior conj	13854 Feb 27 16:13	18° $\nmid$ 28'51	0°42'03	superior conj	13855 Feb 11 04:34	2° $\nmid$ 17'05	1°06'12
minimum elong	13854 Feb 27 18:37	18° $\nmid$ 40'21	0°41'59	minimum elong	13855 Feb 11 07:17	2° $\nmid$ 30'43	1°06'25
desc. node	13854 Mar 04 22:45	28° $\nmid$ 20'12		max. Earth dist.	13855 Feb 16 20:51	13° $\nmid$ 23'41	1.36643 AU
	13854 Mar 05 20:47	0° $\Upsilon$		desc. node	13855 Feb 19 19:16	18° $\nmid$ 51'55	
max. Earth dist.	13854 Mar 06 14:11	1° $\Upsilon$ 18'05	1.38867 AU	evening rise	13855 Feb 20 15:35	20° $\nmid$ 24'29	
evening rise	13854 Mar 10 09:09	7° $\Upsilon$ 56'58			13855 Feb 26 02:52	0° $\Upsilon$	
	13854 Mar 24 03:09	0° $\delta$			13855 Mar 18 03:10	0° $\delta$	
evening max el	13854 Apr 14 14:02	27° $\delta$ 41'53	24°33'29	evening max el	13855 Mar 28 03:28	11° $\delta$ 33'28	25°47'04
	13854 Apr 17 01:35	0° $\Pi$		retrograde	13855 Apr 09 15:41	18° $\delta$ 45'22	
retrograde	13854 Apr 26 03:45	4° $\Pi$ 28'02		evening set	13855 Apr 15 16:29	16° $\delta$ 16'26	
asc. node	13854 Apr 29 00:19	3° $\Pi$ 52'13		asc. node	13855 Apr 15 21:43	16° $\delta$ 05'15	
evening set	13854 May 01 17:24	2° $\Pi$ 07'15		min. Earth dist.	13855 Apr 19 22:23	11° $\delta$ 41'45	0.67498 AU
	13854 May 03 19:50	30° $\Re$ $\delta$		inferior conj	13855 Apr 21 10:50	9° $\delta$ 46'15	1°38'58
min. Earth dist.	13854 May 06 06:09	26° $\delta$ 57'07	0.68424 AU	minimum elong	13855 Apr 21 08:49	9° $\delta$ 52'38	1°37'42
inferior conj	13854 May 07 06:06	25° $\delta$ 37'01	2°17'46	morning rise	13855 Apr 27 01:46	3° $\delta$ 57'04	
minimum elong	13854 May 07 03:58	25° $\delta$ 44'11	2°16'23	direct	13855 Apr 30 10:29	2° $\delta$ 52'21	
morning rise	13854 May 12 14:43	19° $\delta$ 38'13		morning max el	13855 May 07 04:31	6° $\delta$ 31'13	18°52'57
direct	13854 May 16 10:46	18° $\delta$ 14'03		desc. node	13855 May 18 21:29	21° $\delta$ 56'27	
morning max el	13854 May 23 21:18	22° $\delta$ 22'23	19°48'45	greatest brilliancy	13855 May 20 18:40	24° $\delta$ 46'58	-0.8m
	13854 May 30 08:08	0° $\Pi$			13855 May 24 04:25	0° $\Pi$	
desc. node	13854 Jun 01 00:39	2° $\Pi$ 16'58		morning set	13855 May 29 18:26	8° $\Pi$ 38'42	
greatest brilliancy	13854 Jun 06 01:28	9° $\Pi$ 26'37	-0.6m		13855 Jun 12 11:41	0° $\Theta$	
morning set	13854 Jun 19 10:05	29° $\Pi$ 33'43		max. Earth dist.	13855 Jun 13 04:43	1° $\Theta$ 06'36	1.45639 AU
	13854 Jun 19 16:56	0° $\Theta$		superior conj	13855 Jun 15 01:58	4° $\Theta$ 03'48	-2°13'11
max. Earth dist.	13854 Jun 30 11:34	16° $\Theta$ 48'07	1.44696 AU	minimum elong	13855 Jun 15 00:18	3° $\Theta$ 57'15	2°14'14
superior conj	13854 Jul 05 10:50	24° $\Theta$ 44'49	-2°07'34	evening rise	13855 Jun 30 05:41	28° $\Theta$ 10'51	
minimum elong	13854 Jul 05 16:05	25° $\Theta$ 06'02	2°08'20		13855 Jul 01 08:43	0° $\Omega$	
	13854 Jul 08 16:25	0° $\Omega$		asc. node	13855 Jul 12 20:10	18° $\Omega$ 11'46	
evening rise	13854 Jul 19 00:05	17° $\Omega$ 13'02		evening max el	13855 Jul 20 09:23	27° $\Omega$ 56'37	18°28'27
asc. node	13854 Jul 25 23:25	28° $\Omega$ 57'43			13855 Jul 22 20:08	0° $\cap$	
	13854 Jul 26 14:32	0° $\cap$		retrograde	13855 Jul 26 20:09	1° $\cap$ 24'30	
evening max el	13854 Aug 05 19:53	14° $\cap$ 19'07	18°06'56	evening set	13855 Jul 29 23:03	0° $\cap$ 29'53	
retrograde	13854 Aug 12 04:55	17° $\cap$ 39'37			13855 Jul 30 17:37	30° $\Re$ $\Omega$	
evening set	13854 Aug 14 23:05	17° $\cap$ 00'04		inferior conj	13855 Aug 04 17:10	24° $\Omega$ 56'46	2°35'45
inferior conj	13854 Aug 21 03:48	11° $\cap$ 42'48	1°54'15	minimum elong	13855 Aug 04 19:23	24° $\Omega$ 50'07	2°34'34
minimum elong	13854 Aug 21 06:15	11° $\cap$ 36'07	1°53'04	min. Earth dist.	13855 Aug 06 20:37	22° $\Omega$ 23'12	0.65091 AU
min. Earth dist.	13854 Aug 23 20:50	8° $\cap$ 47'12	0.63070 AU				

morning rise	13855 Aug 10 14:30	18° $\Omega$ 34'40		inferior conj	13856 Jul 18 15:31	8° $\Omega$ 32'12	3°00'24
desc. node	13855 Aug 14 19:49	16° $\Omega$ 14'18		minimum elong	13856 Jul 18 16:56	8° $\Omega$ 27'39	2°59'20
direct	13855 Aug 17 02:20	15° $\Omega$ 55'37		min. Earth dist.	13856 Jul 20 04:25	6° $\Omega$ 33'25	0.66747 AU
morning max el	13855 Aug 30 13:56	23° $\Omega$ 51'07	27°10'57	morning rise	13856 Jul 24 04:44	2° $\Omega$ 07'39	
	13855 Sep 05 02:10	0° $\mathbb{M}$			13856 Jul 27 13:41	30° $\mathbb{R}\mathfrak{E}$	
	13855 Sep 25 11:19	0° $\mathfrak{A}$		direct	13856 Jul 30 08:18	29° $\mathfrak{E}$ 28'51	
morning set	13855 Oct 05 02:19	17° $\mathfrak{A}$ 32'32		desc. node	13856 Jul 31 17:16	29° $\mathfrak{E}$ 35'52	
asc. node	13855 Oct 08 22:05	25° $\mathfrak{A}$ 08'25			13856 Aug 02 07:03	0° $\Omega$	
max. Earth dist.	13855 Oct 09 11:09	26° $\mathfrak{A}$ 14'57	1.33372 AU	morning max el	13856 Aug 12 00:58	7° $\Omega$ 03'11	26°05'07
	13855 Oct 11 06:45	0° $\mathbb{M}$			13856 Aug 29 20:53	0° $\mathbb{M}$	
					13856 Sep 16 21:17	0° $\mathfrak{A}$	
superior conj	13855 Oct 13 11:32	4° $\mathbb{M}$ 37'24	0°42'02	morning set	13856 Sep 17 00:17	0° $\mathfrak{A}$ 13'53	
minimum elong	13855 Oct 13 09:36	4° $\mathbb{M}$ 27'09	0°42'11	max. Earth dist.	13856 Sep 20 18:49	7° $\mathfrak{A}$ 22'07	1.35157 AU
evening rise	13855 Oct 20 14:45	19° $\mathbb{M}$ 53'48		asc. node	13856 Sep 24 18:39	15° $\mathfrak{A}$ 15'05	
	13855 Oct 25 12:27	0° $\mathfrak{A}$					
evening max el	13855 Nov 10 14:10	24° $\mathfrak{A}$ 20'54	22°04'09	superior conj	13856 Sep 26 07:15	18° $\mathfrak{A}$ 20'36	0°14'16
desc. node	13855 Nov 10 16:00	24° $\mathfrak{A}$ 25'21		minimum elong	13856 Sep 26 06:26	18° $\mathfrak{A}$ 16'28	0°14'20
	13855 Nov 19 07:02	0° $\mathfrak{Z}$		behind sun begin	13856 Sep 26 03:39	18° $\mathfrak{A}$ 02'19	
retrograde	13855 Nov 23 05:05	0° $\mathfrak{Z}$ 36'06		behind sun end	13856 Sep 26 09:13	18° $\mathfrak{A}$ 30'38	
evening set	13855 Nov 26 12:35	0° $\mathfrak{Z}$ 11'46			13856 Oct 01 22:15	0° $\mathbb{M}$	
	13855 Nov 27 06:27	30° $\mathbb{R}\mathfrak{A}$		evening rise	13856 Oct 03 23:05	4° $\mathbb{M}$ 14'12	
inferior conj	13855 Dec 05 05:03	26° $\mathfrak{A}$ 17'36	-5°51'55		13856 Oct 18 08:58	0° $\mathfrak{A}$	
minimum elong	13855 Dec 05 00:50	26° $\mathfrak{A}$ 23'30	5°50'31	evening max el	13856 Oct 22 11:43	4° $\mathfrak{A}$ 48'16	20°34'13
min. Earth dist.	13855 Dec 04 19:53	26° $\mathfrak{A}$ 30'27	0.54573 AU	desc. node	13856 Oct 27 13:21	8° $\mathfrak{A}$ 42'47	
morning rise	13855 Dec 13 14:06	22° $\mathfrak{A}$ 30'20		retrograde	13856 Nov 02 15:39	10° $\mathfrak{A}$ 21'16	
direct	13855 Dec 17 01:42	22° $\mathfrak{A}$ 03'25		evening set	13856 Nov 04 22:05	10° $\mathfrak{A}$ 08'34	
morning max el	13855 Dec 29 05:45	27° $\mathfrak{A}$ 53'30	21°45'08	inferior conj	13856 Nov 13 20:57	6° $\mathfrak{A}$ 13'51	-4°55'13
	13855 Dec 31 07:09	0° $\mathfrak{Z}$		minimum elong	13856 Nov 13 11:02	6° $\mathfrak{A}$ 28'10	4°51'51
asc. node	13856 Jan 04 22:25	5° $\mathfrak{Z}$ 51'10		min. Earth dist.	13856 Nov 15 02:15	5° $\mathfrak{A}$ 31'28	0.54643 AU
	13856 Jan 18 07:15	0° $\approx$		morning rise	13856 Nov 21 23:46	2° $\mathfrak{A}$ 15'54	
morning set	13856 Jan 18 22:54	1° $\approx$ 21'53		direct	13856 Nov 26 10:18	1° $\mathfrak{A}$ 33'37	
				morning max el	13856 Dec 09 17:53	8° $\mathfrak{A}$ 02'53	23°31'59
superior conj	13856 Jan 26 02:43	16° $\approx$ 31'07	1°23'22	asc. node	13856 Dec 21 19:32	23° $\mathfrak{A}$ 46'58	
minimum elong	13856 Jan 26 04:55	16° $\approx$ 42'41	1°23'57		13856 Dec 25 09:19	0° $\mathfrak{Z}$	
max. Earth dist.	13856 Jan 30 08:43	25° $\approx$ 15'27	1.34659 AU	morning set	13857 Jan 02 10:37	16° $\mathfrak{Z}$ 07'29	
	13856 Feb 01 18:07	0° $\mathfrak{H}$			13857 Jan 08 20:12	0° $\approx$	
evening rise	13856 Feb 03 14:05	3° $\mathfrak{H}$ 32'10					
desc. node	13856 Feb 06 15:48	9° $\mathfrak{H}$ 16'29		superior conj	13857 Jan 09 07:33	1° $\approx$ 01'30	1°33'51
	13856 Feb 19 00:09	0° $\mathbb{Y}$		minimum elong	13857 Jan 09 08:50	1° $\approx$ 08'23	1°34'44
evening max el	13856 Mar 09 17:19	25° $\mathbb{Y}$ 18'46	26°46'23	max. Earth dist.	13857 Jan 12 04:22	7° $\approx$ 09'50	1.33063 AU
	13856 Mar 15 09:15	0° $\mathfrak{B}$		evening rise	13857 Jan 17 01:03	17° $\approx$ 10'00	
retrograde	13856 Mar 22 22:04	2° $\mathfrak{B}$ 43'43		desc. node	13857 Jan 23 12:25	29° $\approx$ 28'40	
evening set	13856 Mar 29 08:47	0° $\mathfrak{B}$ 11'36			13857 Jan 23 19:22	0° $\mathfrak{H}$	
	13856 Mar 29 14:31	30° $\mathbb{R}\mathfrak{Y}$			13857 Feb 12 09:56	0° $\mathbb{Y}$	
asc. node	13856 Apr 01 19:10	26° $\mathbb{Y}$ 50'51		evening max el	13857 Feb 20 06:35	8° $\mathbb{Y}$ 46'04	27°24'03
min. Earth dist.	13856 Apr 02 09:10	26° $\mathbb{Y}$ 11'03	0.66160 AU	retrograde	13857 Mar 05 21:51	16° $\mathbb{Y}$ 13'43	
inferior conj	13856 Apr 04 09:58	23° $\mathbb{Y}$ 47'33	0°49'01	evening set	13857 Mar 12 16:08	13° $\mathbb{Y}$ 44'28	
minimum elong	13856 Apr 04 08:44	23° $\mathbb{Y}$ 51'11	0°48'13	min. Earth dist.	13857 Mar 16 12:19	10° $\mathbb{Y}$ 15'39	0.64455 AU
morning rise	13856 Apr 10 09:54	18° $\mathbb{Y}$ 09'45		inferior conj	13857 Mar 19 00:55	7° $\mathbb{Y}$ 33'39	-0°12'39
direct	13856 Apr 13 08:26	17° $\mathbb{Y}$ 22'01		minimum elong	13857 Mar 19 01:18	7° $\mathbb{Y}$ 32'37	0°12'31
morning max el	13856 Apr 19 17:47	20° $\mathbb{Y}$ 44'00	18°13'41	transit middle	13857 Mar 19 01:18	7° $\mathbb{Y}$ 32'37	0°12'31
	13856 Apr 27 01:10	0° $\mathfrak{B}$		transit begin	13857 Mar 18 23:23	7° $\mathbb{Y}$ 37'47	
desc. node	13856 May 04 18:11	11° $\mathfrak{B}$ 57'49		transit end	13857 Mar 19 03:13	7° $\mathbb{Y}$ 27'28	
morning set	13856 May 09 02:35	18° $\mathfrak{B}$ 55'42		asc. node	13857 Mar 19 16:38	6° $\mathbb{Y}$ 51'45	
	13856 May 16 01:08	0° $\mathbb{I}$		morning rise	13857 Mar 25 12:27	2° $\mathbb{Y}$ 09'43	
				direct	13857 Mar 28 02:07	1° $\mathbb{Y}$ 35'49	
superior conj	13856 May 24 10:05	13° $\mathbb{I}$ 11'04	-1°58'39	morning max el	13857 Apr 03 10:41	4° $\mathbb{Y}$ 52'42	17°51'29
minimum elong	13856 May 24 01:58	12° $\mathbb{I}$ 39'18	1°59'04		13857 Apr 20 06:43	0° $\mathfrak{B}$	
max. Earth dist.	13856 May 26 00:43	15° $\mathbb{I}$ 42'02	1.45851 AU	morning set	13857 Apr 20 14:51	0° $\mathfrak{B}$ 34'01	
	13856 Jun 04 05:05	0° $\mathfrak{E}$		desc. node	13857 Apr 21 14:47	2° $\mathfrak{B}$ 14'10	
evening rise	13856 Jun 09 11:15	8° $\mathfrak{E}$ 10'41					
greatest brilliancy	13856 Jun 20 14:39	25° $\mathfrak{E}$ 23'29	-0.7m	superior conj	13857 May 04 04:25	22° $\mathfrak{B}$ 50'56	-1°27'39
	13856 Jun 23 16:47	0° $\Omega$		minimum elong	13857 May 03 19:56	22° $\mathfrak{B}$ 16'57	1°27'27
asc. node	13856 Jun 28 17:01	6° $\Omega$ 57'56			13857 May 08 16:27	0° $\mathbb{I}$	
evening max el	13856 Jul 02 19:22	11° $\Omega$ 42'43	19°07'06	max. Earth dist.	13857 May 08 20:44	0° $\mathbb{I}$ 16'52	1.45313 AU
retrograde	13856 Jul 09 16:23	15° $\Omega$ 30'54		evening rise	13857 May 20 00:41	17° $\mathbb{I}$ 36'15	
evening set	13856 Jul 13 04:28	14° $\Omega$ 19'43			13857 May 28 04:45	0° $\mathfrak{E}$	

greatest brilliancy	13857 Jun 03 23:02	10°☿00'02	-0.6m	asc. node	13858 Jun 02 11:04	12°☿24'01	
asc. node	13857 Jun 15 13:59	25°☿06'11		retrograde	13858 Jun 07 13:53	14°☿22'24	
evening max el	13857 Jun 15 23:59	25°☿31'37	20°01'36	evening set	13858 Jun 11 22:07	12°☿37'27	
retrograde	13857 Jun 23 15:00	29°☿52'06		inferior conj	13858 Jun 17 03:59	6°☿25'17	3°09'45
evening set	13857 Jun 27 12:50	28°☿23'50		minimum elong	13858 Jun 17 03:24	6°☿27'20	3°08'40
inferior conj	13857 Jul 02 19:55	22°☿23'12	3°11'04	min. Earth dist.	13858 Jun 17 12:59	5°☿53'57	0.68692 AU
minimum elong	13857 Jul 02 20:19	22°☿21'50	3°10'02	morning rise	13858 Jun 22 08:27	0°☿07'11	
min. Earth dist.	13857 Jul 03 18:32	21°☿06'37	0.67955 AU		13858 Jun 22 11:44	30°♁II	
morning rise	13857 Jul 08 03:29	16°☿00'33		direct	13858 Jun 27 12:39	27°♁51'51	
direct	13857 Jul 13 20:03	13°☿30'24			13858 Jul 03 05:25	0°☿	
desc. node	13857 Jul 18 14:37	14°☿55'20		desc. node	13858 Jul 05 11:52	1°☿45'54	
morning max el	13857 Jul 25 11:28	20°☿28'56	24°42'46	morning max el	13858 Jul 07 22:17	4°☿03'03	23°13'25
	13857 Aug 02 15:41	0°♁			13858 Jul 27 19:47	0°♁	
	13857 Aug 23 01:08	0°♁		morning set	13858 Aug 11 12:25	23°♁05'59	
morning set	13857 Aug 30 05:11	12°♁08'50		max. Earth dist.	13858 Aug 15 17:16	0°♁13'37	1.39684 AU
max. Earth dist.	13857 Sep 02 19:03	18°♁32'54	1.37331 AU		13858 Aug 15 14:07	0°♁	
	13857 Sep 08 21:20	0°♁		superior conj	13858 Aug 23 11:00	14°♁02'56	-0°53'01
superior conj	13857 Sep 09 16:22	1°♁32'21	-0°18'00	minimum elong	13858 Aug 23 14:55	14°♁21'04	0°52'46
minimum elong	13857 Sep 09 17:34	1°♁38'09	0°17'52	asc. node	13858 Aug 29 11:45	25°♁25'00	
asc. node	13857 Sep 11 15:11	5°♁21'57			13858 Aug 31 20:57	0°♁	
evening rise	13857 Sep 18 02:48	18°♁20'44		evening rise	13858 Sep 01 22:56	2°♁05'06	
	13857 Sep 24 02:31	0°♁		evening max el	13858 Sep 17 23:52	28°♁04'16	18°36'44
evening max el	13857 Oct 04 23:28	16°♁02'28	19°24'29		13858 Sep 20 05:12	0°♁	
retrograde	13857 Oct 14 11:52	20°♁48'17		retrograde	13858 Sep 26 01:50	2°♁08'52	
desc. node	13857 Oct 14 10:47	20°♁48'17		evening set	13858 Sep 28 00:26	1°♁55'32	
evening set	13857 Oct 16 08:42	20°♁38'03		desc. node	13858 Oct 01 08:18	0°♁36'56	
inferior conj	13857 Oct 25 00:11	16°♁30'26	-3°16'52		13858 Oct 02 09:39	30°♁♁	
minimum elong	13857 Oct 24 15:53	16°♁43'54	3°13'11	inferior conj	13858 Oct 05 23:34	27°♁28'35	-1°28'28
min. Earth dist.	13857 Oct 27 11:59	14°♁53'31	0.55626 AU	minimum elong	13858 Oct 05 20:00	27°♁35'22	1°26'38
morning rise	13857 Nov 01 20:53	12°♁02'43		min. Earth dist.	13858 Oct 09 03:45	25°♁05'01	0.57345 AU
direct	13857 Nov 07 03:55	10°♁59'28		morning rise	13858 Oct 13 12:06	22°♁23'05	
morning max el	13857 Nov 21 03:45	18°♁01'45	25°18'53	direct	13858 Oct 19 12:01	20°♁53'32	
	13857 Dec 01 01:28	0°♁		morning max el	13858 Nov 02 18:46	28°♁22'32	26°47'02
asc. node	13857 Dec 08 16:33	12°♁25'33			13858 Nov 04 09:32	0°♁	
morning set	13857 Dec 17 22:20	0°♁49'32			13858 Nov 24 17:21	0°♁	
	13857 Dec 17 13:06	0°♁		asc. node	13858 Nov 25 13:28	1°♁35'20	
				morning set	13858 Dec 02 08:18	15°♁22'28	
superior conj	13857 Dec 24 16:41	15°♁41'31	1°38'00		13858 Dec 08 23:38	0°♁	
minimum elong	13857 Dec 24 16:53	15°♁42'33	1°39'02	superior conj	13858 Dec 09 03:58	0°♁24'14	1°36'07
max. Earth dist.	13857 Dec 26 07:07	19°♁13'02	1.31930 AU	minimum elong	13858 Dec 09 03:07	0°♁19'27	1°37'08
	13857 Dec 31 07:51	0°♁		max. Earth dist.	13858 Dec 09 14:16	1°♁21'43	1.31296 AU
evening rise	13857 Dec 31 21:28	1°♁10'38		evening rise	13858 Dec 16 00:41	15°♁26'51	
desc. node	13858 Jan 10 09:09	19°♁22'59			13858 Dec 23 07:01	0°♁	
	13858 Jan 16 18:09	0°♁		desc. node	13858 Dec 28 06:01	8°♁51'26	
evening max el	13858 Feb 02 17:18	21°♁42'53	27°33'18		13859 Jan 12 03:45	0°♁	
retrograde	13858 Feb 16 14:20	29°♁06'28		evening max el	13859 Jan 15 23:03	3°♁56'57	27°09'19
evening set	13858 Feb 23 11:59	26°♁47'20		retrograde	13859 Jan 29 22:30	11°♁12'24	
min. Earth dist.	13858 Feb 27 06:02	23°♁45'36	0.62455 AU	evening set	13859 Feb 05 17:11	9°♁11'39	
inferior conj	13858 Mar 02 04:42	20°♁57'10	-1°25'42	min. Earth dist.	13859 Feb 09 13:29	6°♁28'40	0.60278 AU
minimum elong	13858 Mar 02 07:37	20°♁50'12	1°24'14	inferior conj	13859 Feb 12 17:49	3°♁49'01	-2°47'45
asc. node	13858 Mar 06 14:07	17°♁12'42		minimum elong	13859 Feb 12 23:54	3°♁36'15	2°44'54
morning rise	13858 Mar 09 06:00	15°♁50'02			13859 Feb 18 00:08	30°♁♁	
direct	13858 Mar 11 12:23	15°♁26'30		morning rise	13859 Feb 20 09:50	29°♁01'28	
morning max el	13858 Mar 18 04:19	18°♁49'24	17°46'48	asc. node	13859 Feb 21 11:35	28°♁48'37	
	13858 Mar 26 09:03	0°♁		direct	13859 Feb 22 11:20	28°♁44'42	
morning set	13858 Apr 03 03:00	13°♁19'57			13859 Feb 26 17:54	0°♁	
desc. node	13858 Apr 08 11:20	22°♁40'57		morning max el	13859 Mar 01 19:15	2°♁24'23	18°00'39
	13858 Apr 12 17:53	0°♁		morning set	13859 Mar 17 08:58	26°♁55'18	
					13859 Mar 19 01:00	0°♁	
superior conj	13858 Apr 14 20:39	3°♁33'27	-0°48'44	desc. node	13859 Mar 26 07:52	13°♁14'13	
minimum elong	13858 Apr 14 15:54	3°♁13'34	0°48'31				
max. Earth dist.	13858 Apr 21 13:56	14°♁34'04	1.44086 AU	superior conj	13859 Mar 27 12:55	15°♁22'44	-0°09'40
evening rise	13858 Apr 29 13:24	27°♁07'56		minimum elong	13859 Mar 27 12:06	15°♁19'06	0°09'42
	13858 May 01 10:07	0°♁		behind sun begin	13859 Mar 27 05:44	14°♁51'04	
	13858 May 22 02:15	0°☿		behind sun end	13859 Mar 27 18:28	15°♁47'05	
evening max el	13858 May 29 22:38	9°☿20'47	21°09'28				

max. Earth dist.	13859 Apr 04 02:35	28° $\Upsilon$ 19'17	1.42306 AU	desc. node	13860 Mar 12 04:21	3° $\Upsilon$ 49'47	
	13859 Apr 05 02:57	0° $\text{B}$		max. Earth dist.	13860 Mar 16 10:51	11° $\Upsilon$ 23'56	1.40170 AU
evening rise	13859 Apr 09 15:48	7° $\text{B}$ 20'53		evening rise	13860 Mar 20 14:44	18° $\Upsilon$ 28'54	
	13859 Apr 24 14:14	0° $\Pi$			13860 Mar 27 17:53	0° $\text{B}$	
evening max el	13859 May 12 16:18	23° $\Pi$ 11'00	22°26'42		13860 Apr 17 23:42	0° $\Pi$	
asc. node	13859 May 20 08:15	28° $\Pi$ 36'12		evening max el	13860 Apr 24 06:58	7° $\Pi$ 03'10	23°47'47
retrograde	13859 May 22 11:20	28° $\Pi$ 56'48		retrograde	13860 May 05 05:50	13° $\Pi$ 29'18	
evening set	13859 May 27 06:37	26° $\Pi$ 56'23		asc. node	13860 May 06 05:32	13° $\Pi$ 24'57	
inferior conj	13859 Jun 01 13:36	20° $\Pi$ 34'50	2°57'40	evening set	13860 May 10 12:42	11° $\Pi$ 15'22	
minimum elong	13859 Jun 01 12:11	20° $\Pi$ 39'47	2°56'27	inferior conj	13860 May 15 22:51	4° $\Pi$ 47'23	2°35'19
min. Earth dist.	13859 Jun 01 09:38	20° $\Pi$ 48'41	0.68956 AU	minimum elong	13860 May 15 20:52	4° $\Pi$ 54'10	2°33'58
morning rise	13859 Jun 06 17:36	14° $\Pi$ 23'06		min. Earth dist.	13860 May 15 06:13	5° $\Pi$ 44'11	0.68753 AU
direct	13859 Jun 11 09:06	12° $\Pi$ 26'24			13860 May 19 19:12	30° $\text{R}$ $\text{B}$	
morning max el	13859 Jun 20 11:55	17° $\Pi$ 45'31	21°46'04	morning rise	13860 May 21 05:00	28° $\text{B}$ 43'22	
desc. node	13859 Jun 22 09:00	19° $\Pi$ 44'14		direct	13860 May 25 08:03	27° $\text{B}$ 07'09	
	13859 Jun 30 14:22	0° $\text{B}$			13860 May 31 12:36	0° $\Pi$	
	13859 Jul 20 21:49	0° $\Omega$		morning max el	13860 Jun 02 07:21	1° $\Pi$ 38'09	20°27'43
morning set	13859 Jul 22 18:50	2° $\Omega$ 58'08		desc. node	13860 Jun 08 06:01	8° $\Pi$ 31'38	
max. Earth dist.	13859 Jul 28 19:10	12° $\Omega$ 43'27	1.41947 AU		13860 Jun 23 07:55	0° $\text{B}$	
				morning set	13860 Jul 01 03:28	11° $\text{B}$ 54'19	
superior conj	13859 Aug 05 10:44	25° $\Omega$ 42'54	-1°27'33	max. Earth dist.	13860 Jul 10 03:52	26° $\text{B}$ 05'39	1.43854 AU
minimum elong	13859 Aug 05 17:18	26° $\Omega$ 11'34	1°27'22		13860 Jul 12 13:58	0° $\Omega$	
	13859 Aug 07 21:12	0° $\Pi$					
evening rise	13859 Aug 16 07:44	15° $\Pi$ 17'53		superior conj	13860 Jul 16 11:36	6° $\Omega$ 23'35	-1°56'19
asc. node	13859 Aug 16 08:22	15° $\Pi$ 20'44		minimum elong	13860 Jul 16 18:40	6° $\Omega$ 52'49	1°56'41
	13859 Aug 24 13:33	0° $\Omega$		evening rise	13860 Jul 29 00:25	27° $\Omega$ 46'37	
evening max el	13859 Sep 01 08:58	10° $\Omega$ 45'45	18°09'57		13860 Jul 30 07:00	0° $\Pi$	
retrograde	13859 Sep 08 10:30	14° $\Omega$ 21'42		asc. node	13860 Aug 02 05:00	5° $\Pi$ 04'21	
evening set	13859 Sep 10 15:48	14° $\Omega$ 00'52		evening max el	13860 Aug 14 22:31	23° $\Pi$ 55'58	18°02'44
inferior conj	13859 Sep 17 20:36	9° $\Omega$ 13'08	0°07'09	retrograde	13860 Aug 21 10:29	27° $\Pi$ 17'49	
minimum elong	13859 Sep 17 20:50	9° $\Omega$ 12'35	0°07'07	evening set	13860 Aug 23 23:57	26° $\Pi$ 45'48	
transit middle	13859 Sep 17 20:50	9° $\Omega$ 12'35	0°07'07	inferior conj	13860 Aug 30 12:26	21° $\Pi$ 38'36	1°21'24
transit begin	13859 Sep 17 17:47	9° $\Omega$ 19'19		minimum elong	13860 Aug 30 14:33	21° $\Pi$ 33'14	1°20'25
transit end	13859 Sep 17 23:53	9° $\Omega$ 05'51		min. Earth dist.	13860 Sep 02 12:05	18° $\Pi$ 38'16	0.61800 AU
desc. node	13859 Sep 18 05:49	8° $\Omega$ 52'41		desc. node	13860 Sep 04 03:21	17° $\Pi$ 08'00	
min. Earth dist.	13859 Sep 21 03:22	6° $\Omega$ 20'19	0.59510 AU	morning rise	13860 Sep 06 02:37	15° $\Pi$ 35'23	
morning rise	13859 Sep 24 22:30	3° $\Omega$ 34'04		direct	13860 Sep 12 18:47	13° $\Pi$ 15'41	
direct	13859 Oct 01 09:54	1° $\Omega$ 37'06		morning max el	13860 Sep 26 22:34	21° $\Pi$ 14'18	27°58'36
morning max el	13859 Oct 15 17:21	9° $\Omega$ 25'02	27°42'09		13860 Oct 04 13:34	0° $\Omega$	
	13859 Oct 31 13:26	0° $\Pi$			13860 Oct 23 15:20	0° $\Pi$	
asc. node	13859 Nov 12 10:19	21° $\Pi$ 07'58		asc. node	13860 Oct 29 07:03	10° $\Pi$ 56'52	
morning set	13859 Nov 16 14:41	29° $\Pi$ 41'39		morning set	13860 Oct 30 15:31	13° $\Pi$ 42'20	
	13859 Nov 16 18:10	0° $\text{A}$		max. Earth dist.	13860 Nov 05 03:57	25° $\Pi$ 26'32	1.31610 AU
max. Earth dist.	13859 Nov 22 22:25	13° $\text{A}$ 28'54	1.31187 AU				
				superior conj	13860 Nov 07 01:24	29° $\Pi$ 36'10	1°14'53
superior conj	13859 Nov 23 15:30	15° $\text{A}$ 04'11	1°28'23	minimum elong	13860 Nov 06 23:11	29° $\Pi$ 23'57	1°15'26
minimum elong	13859 Nov 23 13:47	14° $\text{A}$ 54'40	1°29'13		13860 Nov 07 05:43	0° $\text{A}$	
evening rise	13859 Nov 30 08:28	29° $\text{A}$ 53'15		evening rise	13860 Nov 13 18:52	14° $\text{A}$ 24'57	
	13859 Nov 30 09:44	0° $\text{B}$			13860 Nov 21 10:44	0° $\text{B}$	
desc. node	13859 Dec 15 02:58	27° $\text{B}$ 43'57		desc. node	13860 Dec 01 00:02	15° $\text{B}$ 47'19	
	13859 Dec 16 14:01	0° $\approx$		evening max el	13860 Dec 09 11:48	25° $\text{B}$ 53'37	24°43'44
evening max el	13859 Dec 28 21:29	15° $\approx$ 19'58	26°10'52		13860 Dec 14 15:46	0° $\approx$	
retrograde	13860 Jan 11 20:21	22° $\approx$ 24'39		retrograde	13860 Dec 23 05:41	2° $\approx$ 45'28	
evening set	13860 Jan 18 03:44	20° $\approx$ 49'50		evening set	13860 Dec 28 15:42	1° $\approx$ 40'32	
min. Earth dist.	13860 Jan 22 10:52	18° $\approx$ 13'05	0.58125 AU		13861 Jan 01 02:59	30° $\text{R}$ $\text{B}$	
inferior conj	13860 Jan 25 12:39	15° $\approx$ 59'08	-4°11'47	min. Earth dist.	13861 Jan 02 23:37	28° $\text{B}$ 53'42	0.56259 AU
minimum elong	13860 Jan 25 21:17	15° $\approx$ 43'24	4°08'21	inferior conj	13861 Jan 05 10:48	27° $\text{B}$ 20'05	-5°22'42
morning rise	13860 Feb 02 17:47	11° $\approx$ 33'00		minimum elong	13861 Jan 05 18:37	27° $\text{B}$ 07'42	5°20'16
direct	13860 Feb 04 18:42	11° $\approx$ 19'17		morning rise	13861 Jan 13 23:38	23° $\text{B}$ 15'08	
asc. node	13860 Feb 08 09:01	12° $\approx$ 04'28		direct	13861 Jan 16 07:17	23° $\text{B}$ 00'23	
morning max el	13860 Feb 13 03:33	15° $\approx$ 25'58	18°34'37	asc. node	13861 Jan 25 06:22	26° $\text{B}$ 59'21	
	13860 Feb 23 06:05	0° $\text{H}$		morning max el	13861 Jan 26 01:06	27° $\text{B}$ 42'56	19°30'40
morning set	13860 Feb 29 03:20	11° $\text{H}$ 03'39			13861 Jan 28 04:21	0° $\approx$	
				morning set	13861 Feb 12 06:03	25° $\approx$ 33'15	
superior conj	13860 Mar 09 01:53	28° $\text{H}$ 08'15	0°24'59		13861 Feb 14 11:04	0° $\text{H}$	
minimum elong	13860 Mar 09 03:33	28° $\text{H}$ 16'01	0°24'51				
	13860 Mar 10 02:01	0° $\Upsilon$		superior conj	13861 Feb 20 06:59	11° $\text{H}$ 37'41	0°53'09

minimum elong	13861 Feb 20 09:39	11° $\text{H}$ 50'42	0°53'10	minimum elong	13862 Feb 04 02:30	25° $\approx$ 51'26	1°14'40
max. Earth dist.	13861 Feb 26 17:25	23° $\text{H}$ 50'22	1.37912 AU		13862 Feb 06 03:31	0° $\text{H}$	
desc. node	13861 Feb 27 00:52	24° $\text{H}$ 24'25		max. Earth dist.	13862 Feb 09 02:06	5° $\text{H}$ 49'06	1.35765 AU
evening rise	13861 Mar 02 10:29	0° $\text{Y}$ 30'14		evening rise	13862 Feb 13 00:10	13° $\text{H}$ 15'49	
	13861 Mar 02 03:37	0° $\text{Y}$		desc. node	13862 Feb 13 21:24	14° $\text{H}$ 53'40	
	13861 Mar 21 00:05	0° $\text{B}$			13862 Feb 22 14:35	0° $\text{Y}$	
evening max el	13861 Apr 06 20:36	20° $\text{B}$ 56'49	25°06'00		13862 Mar 15 22:25	0° $\text{B}$	
retrograde	13861 Apr 18 20:18	27° $\text{B}$ 54'31		evening max el	13862 Mar 20 10:09	4° $\text{B}$ 46'31	26°14'20
asc. node	13861 Apr 23 02:52	26° $\text{B}$ 36'22		retrograde	13862 Apr 02 05:50	12° $\text{B}$ 05'02	
evening set	13861 Apr 24 14:49	25° $\text{B}$ 29'52		evening set	13862 Apr 08 11:15	9° $\text{B}$ 33'51	
min. Earth dist.	13861 Apr 29 00:35	20° $\text{B}$ 34'58	0.68093 AU	asc. node	13862 Apr 10 00:16	8° $\text{B}$ 09'00	
inferior conj	13861 Apr 30 05:48	18° $\text{B}$ 59'17	2°02'38	min. Earth dist.	13862 Apr 12 14:37	5° $\text{B}$ 14'11	0.66986 AU
minimum elong	13861 Apr 30 03:38	19° $\text{B}$ 06'21	2°01'17	inferior conj	13862 Apr 14 08:24	3° $\text{B}$ 05'40	1°19'10
morning rise	13861 May 05 16:46	13° $\text{B}$ 04'23		minimum elong	13862 Apr 14 06:38	3° $\text{B}$ 11'08	1°18'04
direct	13861 May 09 07:59	11° $\text{B}$ 48'31			13862 Apr 16 23:58	30° $\text{R}$ $\text{Y}$	
morning max el	13861 May 16 10:20	15° $\text{B}$ 42'18	19°22'59	morning rise	13862 Apr 20 02:52	27° $\text{Y}$ 21'21	
desc. node	13861 May 26 02:54	27° $\text{B}$ 55'07		direct	13862 Apr 23 07:08	26° $\text{Y}$ 24'13	
	13861 May 27 13:30	0° $\text{II}$			13862 Apr 29 22:52	0° $\text{B}$	
greatest brilliancy	13861 May 29 03:02	2° $\text{II}$ 17'38	-0.7m	morning max el	13862 Apr 29 20:26	29° $\text{Y}$ 54'02	18°34'11
morning set	13861 Jun 10 05:38	20° $\text{II}$ 38'54		desc. node	13862 May 12 23:41	17° $\text{B}$ 44'48	
	13861 Jun 16 06:53	0° $\text{B}$		morning set	13862 May 20 22:42	0° $\text{II}$ 11'13	
max. Earth dist.	13861 Jun 22 19:08	10° $\text{B}$ 10'25	1.45192 AU		13862 May 20 19:51	0° $\text{II}$	
superior conj	13861 Jun 26 13:12	16° $\text{B}$ 06'39	-2°12'20	superior conj	13862 Jun 05 23:14	25° $\text{II}$ 15'01	-2°09'26
minimum elong	13861 Jun 26 15:58	16° $\text{B}$ 17'37	2°13'19	minimum elong	13862 Jun 05 18:18	24° $\text{II}$ 55'44	2°10'17
	13861 Jul 05 03:58	0° $\text{Q}$		max. Earth dist.	13862 Jun 05 14:11	24° $\text{II}$ 39'42	1.45823 AU
evening rise	13861 Jul 10 19:57	9° $\text{Q}$ 20'04			13862 Jun 09 00:11	0° $\text{B}$	
asc. node	13861 Jul 20 01:41	24° $\text{Q}$ 30'53		evening rise	13862 Jun 21 15:02	19° $\text{B}$ 52'30	
	13861 Jul 23 15:27	0° $\text{P}$			13862 Jun 28 00:20	0° $\text{Q}$	
evening max el	13861 Jul 29 12:52	7° $\text{P}$ 25'32	18°13'56	greatest brilliancy	13862 Jun 29 16:17	2° $\text{Q}$ 37'07	-0.8m
retrograde	13861 Aug 04 21:24	10° $\text{P}$ 47'24		asc. node	13862 Jul 06 22:29	13° $\text{Q}$ 34'22	
evening set	13861 Aug 07 19:20	10° $\text{P}$ 01'31		evening max el	13862 Jul 13 01:04	21° $\text{Q}$ 07'19	18°42'48
inferior conj	13861 Aug 13 19:03	4° $\text{P}$ 37'01	2°14'06	retrograde	13862 Jul 19 15:16	24° $\text{Q}$ 42'37	
minimum elong	13861 Aug 13 21:31	4° $\text{P}$ 30'02	2°12'55	evening set	13862 Jul 22 21:58	23° $\text{Q}$ 41'04	
min. Earth dist.	13861 Aug 16 06:25	1° $\text{P}$ 49'14	0.63968 AU	inferior conj	13862 Jul 28 12:39	18° $\text{Q}$ 01'24	2°48'05
	13861 Aug 18 00:26	30° $\text{R}$ $\text{Q}$		minimum elong	13862 Jul 28 14:34	17° $\text{Q}$ 55'25	2°46'57
morning rise	13861 Aug 19 22:04	28° $\text{Q}$ 19'22		min. Earth dist.	13862 Jul 30 09:51	15° $\text{Q}$ 41'31	0.65840 AU
desc. node	13861 Aug 22 00:53	26° $\text{Q}$ 55'33		morning rise	13862 Aug 03 06:14	11° $\text{Q}$ 37'22	
direct	13861 Aug 26 12:48	25° $\text{Q}$ 44'57		desc. node	13862 Aug 08 22:21	8° $\text{Q}$ 59'15	
	13861 Sep 05 04:40	0° $\text{P}$		direct	13862 Aug 09 14:46	8° $\text{Q}$ 57'32	
morning max el	13861 Sep 09 08:10	3° $\text{P}$ 44'54	27°37'42	morning max el	13862 Aug 22 19:27	16° $\text{Q}$ 46'15	26°45'43
	13861 Sep 29 01:53	0° $\text{A}$			13862 Sep 02 19:29	0° $\text{P}$	
morning set	13861 Oct 14 08:18	27° $\text{A}$ 17'48			13862 Sep 21 22:50	0° $\text{A}$	
	13861 Oct 15 16:39	0° $\text{M}$		morning set	13862 Sep 27 14:11	10° $\text{A}$ 21'40	
asc. node	13861 Oct 16 03:41	0° $\text{M}$ 55'54		max. Earth dist.	13862 Oct 01 16:35	18° $\text{A}$ 21'39	1.34071 AU
max. Earth dist.	13861 Oct 19 03:00	7° $\text{M}$ 05'01	1.32574 AU	asc. node	13862 Oct 03 00:16	21° $\text{A}$ 01'05	
superior conj	13861 Oct 22 07:37	13° $\text{M}$ 53'37	0°55'39	superior conj	13862 Oct 06 07:54	27° $\text{A}$ 51'09	0°30'53
minimum elong	13861 Oct 22 05:23	13° $\text{M}$ 41'38	0°55'56	minimum elong	13862 Oct 06 06:21	27° $\text{A}$ 43'00	0°30'58
evening rise	13861 Oct 29 05:56	28° $\text{M}$ 55'58			13862 Oct 07 08:30	0° $\text{M}$	
	13861 Oct 29 17:55	0° $\text{X}$		evening rise	13862 Oct 13 15:52	13° $\text{M}$ 21'44	
	13861 Nov 15 16:39	0° $\text{B}$			13862 Oct 22 01:58	0° $\text{X}$	
desc. node	13861 Nov 17 21:13	2° $\text{B}$ 42'17		evening max el	13862 Nov 02 12:08	16° $\text{X}$ 02'59	21°23'47
evening max el	13861 Nov 20 21:33	5° $\text{B}$ 55'27	23°02'03	desc. node	13862 Nov 04 18:30	18° $\text{X}$ 04'58	
retrograde	13861 Dec 04 02:04	12° $\text{B}$ 28'28		retrograde	13862 Nov 14 13:46	22° $\text{X}$ 02'29	
evening set	13861 Dec 08 05:00	11° $\text{B}$ 51'31		evening set	13862 Nov 17 08:45	21° $\text{X}$ 44'31	
min. Earth dist.	13861 Dec 15 06:48	8° $\text{B}$ 35'24	0.54959 AU	inferior conj	13862 Nov 26 05:24	17° $\text{X}$ 51'23	-5°34'45
inferior conj	13861 Dec 16 13:34	7° $\text{B}$ 51'20	-5°57'18	minimum elong	13862 Nov 25 21:55	18° $\text{X}$ 01'55	5°32'35
minimum elong	13861 Dec 16 14:41	7° $\text{B}$ 49'44	5°56'13	min. Earth dist.	13862 Nov 26 12:43	17° $\text{X}$ 41'07	0.54482 AU
morning rise	13861 Dec 25 01:53	4° $\text{B}$ 01'58		morning rise	13862 Dec 04 11:46	14° $\text{X}$ 02'10	
direct	13861 Dec 28 01:12	3° $\text{B}$ 41'16		direct	13862 Dec 08 08:49	13° $\text{X}$ 29'41	
morning max el	13862 Jan 08 08:36	9° $\text{B}$ 05'41	20°49'58	morning max el	13862 Dec 21 02:24	19° $\text{X}$ 37'08	22°29'29
asc. node	13862 Jan 12 03:39	13° $\text{B}$ 17'48			13862 Dec 29 13:34	0° $\text{B}$	
	13862 Jan 22 11:40	0° $\approx$		asc. node	13862 Dec 30 00:50	0° $\text{B}$ 42'35	
morning set	13862 Jan 27 14:01	10° $\approx$ 14'03		morning set	13863 Jan 12 00:56	24° $\text{B}$ 59'32	
					13863 Jan 14 09:15	0° $\approx$	
superior conj	13862 Feb 03 23:55	25° $\approx$ 38'16	1°14'19				

superior conj	13863 Jan 19 01:16	10° $\approx$ 00'26	1°28'36	asc. node	13863 Dec 16 21:55	18° $\times$ 57'54	
minimum elong	13863 Jan 19 03:07	10° $\approx$ 10'15	1°29'19		13863 Dec 22 20:17	0° $\text{Z}$	
max. Earth dist.	13863 Jan 22 16:56	17° $\approx$ 39'23	1.33925 AU	morning set	13863 Dec 27 12:52	9° $\text{Z}$ 44'05	
evening rise	13863 Jan 27 04:20	26° $\approx$ 37'08					
	13863 Jan 28 22:34	0° $\text{X}$		superior conj	13864 Jan 03 08:14	24° $\text{Z}$ 35'57	1°36'21
desc. node	13863 Jan 31 17:59	5° $\text{X}$ 13'35		minimum elong	13864 Jan 03 09:03	24° $\text{Z}$ 40'26	1°37'20
	13863 Feb 15 23:02	0° $\text{Y}$		max. Earth dist.	13864 Jan 05 15:34	29° $\text{Z}$ 36'11	1.32514 AU
evening max el	13863 Mar 02 23:41	18° $\text{Y}$ 24'45	27°05'21		13864 Jan 05 20:00	0° $\approx$	
retrograde	13863 Mar 16 09:42	25° $\text{Y}$ 52'41		evening rise	13864 Jan 10 19:41	10° $\approx$ 25'50	
evening set	13863 Mar 23 00:03	23° $\text{Y}$ 20'39		desc. node	13864 Jan 18 14:40	25° $\approx$ 19'14	
min. Earth dist.	13863 Mar 26 22:19	19° $\text{Y}$ 34'11	0.65477 AU		13864 Jan 21 06:41	0° $\text{X}$	
asc. node	13863 Mar 27 21:44	18° $\text{Y}$ 28'29			13864 Feb 11 19:24	0° $\text{Y}$	
inferior conj	13863 Mar 29 04:23	17° $\text{Y}$ 01'08	0°24'17	evening max el	13864 Feb 13 12:10	1° $\text{Y}$ 41'22	27°31'54
minimum elong	13863 Mar 29 03:43	17° $\text{Y}$ 03'01	0°23'50	retrograde	13864 Feb 27 06:49	9° $\text{Y}$ 08'40	
morning rise	13863 Apr 04 08:59	11° $\text{Y}$ 29'12		evening set	13864 Mar 05 02:57	6° $\text{Y}$ 42'52	
direct	13863 Apr 07 03:29	10° $\text{Y}$ 47'55		min. Earth dist.	13864 Mar 08 21:51	3° $\text{Y}$ 26'06	0.63628 AU
morning max el	13863 Apr 13 11:39	14° $\text{Y}$ 06'26	18°02'06	inferior conj	13864 Mar 11 15:03	0° $\text{Y}$ 39'33	-0°42'16
	13863 Apr 24 23:31	0° $\text{Z}$		minimum elong	13864 Mar 11 16:24	0° $\text{Y}$ 36'06	0°41'37
desc. node	13863 Apr 29 20:21	7° $\text{Z}$ 53'10			13864 Mar 12 06:35	30° $\text{R}$ $\text{X}$	
morning set	13863 May 01 18:55	11° $\text{Z}$ 03'08		asc. node	13864 Mar 13 19:13	28° $\text{X}$ 30'46	
	13863 May 13 13:04	0° $\text{II}$		morning rise	13864 Mar 18 08:14	25° $\text{X}$ 22'19	
				direct	13864 Mar 20 18:26	24° $\text{X}$ 53'24	
superior conj	13863 May 16 09:45	4° $\text{II}$ 31'28	-1°47'02	morning max el	13864 Mar 27 05:19	28° $\text{X}$ 11'55	17°47'15
minimum elong	13863 May 16 00:42	3° $\text{II}$ 55'50	1°47'08		13864 Mar 28 21:37	0° $\text{Y}$	
max. Earth dist.	13863 May 19 10:06	9° $\text{II}$ 15'27	1.45706 AU	morning set	13864 Apr 12 18:12	23° $\text{Y}$ 13'24	
evening rise	13863 Jun 01 12:09	29° $\text{II}$ 33'14		desc. node	13864 Apr 15 16:56	28° $\text{Y}$ 15'00	
	13863 Jun 01 19:06	0° $\text{Z}$			13864 Apr 16 17:41	0° $\text{Z}$	
greatest brilliancy	13863 Jun 14 14:50	19° $\text{Z}$ 30'33	-0.7m				
	13863 Jun 22 02:38	0° $\text{O}$		superior conj	13864 Apr 25 12:43	14° $\text{Z}$ 37'00	-1°11'35
asc. node	13863 Jun 23 19:23	2° $\text{O}$ 05'57		minimum elong	13864 Apr 25 05:34	14° $\text{Z}$ 07'55	1°11'20
evening max el	13863 Jun 26 08:51	4° $\text{O}$ 54'55	19°28'28	max. Earth dist.	13864 May 01 04:51	23° $\text{Z}$ 43'56	1.44870 AU
retrograde	13863 Jul 03 12:52	8° $\text{O}$ 55'57			13864 May 05 04:25	0° $\text{II}$	
evening set	13863 Jul 07 04:55	7° $\text{O}$ 37'42		evening rise	13864 May 10 23:17	8° $\text{II}$ 56'54	
inferior conj	13863 Jul 12 13:55	1° $\text{O}$ 44'26	3°06'30		13864 May 25 00:46	0° $\text{Z}$	
minimum elong	13863 Jul 12 14:55	1° $\text{O}$ 41'09	3°05'27	evening max el	13864 Jun 08 11:01	18° $\text{Z}$ 44'51	20°29'03
	13863 Jul 13 21:34	30° $\text{R}$ $\text{Z}$		asc. node	13864 Jun 09 16:24	19° $\text{Z}$ 54'59	
min. Earth dist.	13863 Jul 13 20:44	0° $\text{O}$ 02'44	0.67313 AU	retrograde	13864 Jun 16 11:47	23° $\text{Z}$ 21'54	
morning rise	13863 Jul 18 00:23	25° $\text{Z}$ 20'00		evening set	13864 Jun 20 13:54	21° $\text{Z}$ 46'39	
direct	13863 Jul 23 23:27	22° $\text{Z}$ 43'49		inferior conj	13864 Jun 25 20:12	15° $\text{Z}$ 41'08	3°11'52
desc. node	13863 Jul 26 19:45	23° $\text{Z}$ 14'05		minimum elong	13864 Jun 25 20:10	15° $\text{Z}$ 41'14	3°10'49
	13863 Aug 05 04:09	0° $\text{O}$		min. Earth dist.	13864 Jun 26 13:01	14° $\text{Z}$ 43'19	0.68334 AU
morning max el	13863 Aug 05 06:21	0° $\text{O}$ 05'33	25°31'28	morning rise	13864 Jul 01 02:07	9° $\text{Z}$ 20'05	
	13863 Aug 27 16:55	0° $\text{P}$		direct	13864 Jul 06 13:38	6° $\text{Z}$ 55'20	
morning set	13863 Sep 10 05:25	22° $\text{P}$ 44'40		desc. node	13864 Jul 12 17:04	9° $\text{Z}$ 15'42	
max. Earth dist.	13863 Sep 13 20:15	29° $\text{P}$ 25'41	1.36041 AU	morning max el	13864 Jul 17 16:35	13° $\text{Z}$ 34'48	24°04'52
	13863 Sep 14 03:31	0° $\text{O}$			13864 Jul 31 00:02	0° $\text{O}$	
					13864 Aug 19 13:12	0° $\text{P}$	
superior conj	13863 Sep 19 23:30	11° $\text{O}$ 21'39	0°01'03	morning set	13864 Aug 22 01:35	4° $\text{P}$ 16'11	
minimum elong	13863 Sep 19 23:26	11° $\text{O}$ 21'19	0°01'08	max. Earth dist.	13864 Aug 25 18:22	10° $\text{P}$ 44'08	1.38331 AU
behind sun begin	13863 Sep 19 17:10	10° $\text{O}$ 50'01					
behind sun end	13863 Sep 20 05:42	11° $\text{O}$ 52'42		superior conj	13864 Sep 02 02:59	24° $\text{P}$ 17'19	-0°32'41
asc. node	13863 Sep 19 20:48	11° $\text{O}$ 08'10		minimum elong	13864 Sep 02 05:16	24° $\text{P}$ 28'12	0°32'29
evening rise	13863 Sep 27 22:31	27° $\text{O}$ 36'35			13864 Sep 05 02:11	0° $\text{O}$	
	13863 Sep 29 02:39	0° $\text{P}$		asc. node	13864 Sep 05 17:23	1° $\text{O}$ 14'06	
evening max el	13863 Oct 15 15:36	26° $\text{P}$ 48'52	20°01'54	evening rise	13864 Sep 10 23:22	11° $\text{O}$ 34'28	
	13863 Oct 19 13:37	0° $\text{X}$			13864 Sep 20 23:43	0° $\text{P}$	
desc. node	13863 Oct 22 15:53	1° $\text{X}$ 28'17		evening max el	13864 Sep 27 09:14	8° $\text{P}$ 24'20	19°01'30
retrograde	13863 Oct 26 02:50	2° $\text{X}$ 01'37		retrograde	13864 Oct 06 05:39	12° $\text{P}$ 50'43	
evening set	13863 Oct 28 03:09	1° $\text{X}$ 50'57		evening set	13864 Oct 08 02:27	12° $\text{P}$ 39'41	
	13863 Nov 02 06:53	30° $\text{R}$ $\text{P}$		desc. node	13864 Oct 08 13:21	12° $\text{P}$ 33'46	
inferior conj	13863 Nov 06 00:30	27° $\text{P}$ 52'21	-4°16'45	inferior conj	13864 Oct 16 11:38	8° $\text{P}$ 24'29	-2°30'19
minimum elong	13863 Nov 05 14:32	28° $\text{P}$ 07'23	4°12'53	minimum elong	13864 Oct 16 05:16	8° $\text{P}$ 35'29	2°27'17
min. Earth dist.	13863 Nov 07 20:30	26° $\text{P}$ 45'59	0.54952 AU	min. Earth dist.	13864 Oct 19 08:25	6° $\text{P}$ 26'03	0.56289 AU
morning rise	13863 Nov 14 00:43	23° $\text{P}$ 43'08		morning rise	13864 Oct 24 05:12	3° $\text{P}$ 41'09	
direct	13863 Nov 18 20:21	22° $\text{P}$ 52'30		direct	13864 Oct 29 20:21	2° $\text{P}$ 26'50	
morning max el	13863 Dec 02 12:28	29° $\text{P}$ 37'37	24°18'38	morning max el	13864 Nov 12 23:34	9° $\text{P}$ 41'05	25°59'45
	13863 Dec 02 21:48	0° $\text{X}$			13864 Nov 28 07:51	0° $\text{X}$	

asc. node	13864 Dec 02 18:54	7°♊50'55			13865 Nov 21 01:57	0°♊	
morning set	13864 Dec 11 00:01	24°♊22'21		morning set	13865 Nov 25 08:41	8°♊50'23	
	13864 Dec 13 14:02	0°♊					
superior conj	13864 Dec 17 18:29	9°♊17'30	1°37'55	superior conj	13865 Dec 02 06:05	23°♊59'48	1°33'32
minimum elong	13864 Dec 17 18:13	9°♊16'00	1°38'59	minimum elong	13865 Dec 02 04:50	23°♊52'49	1°34'30
max. Earth dist.	13864 Dec 18 20:33	11°♊42'08	1.31595 AU	max. Earth dist.	13865 Dec 02 04:49	23°♊52'44	1.31188 AU
evening rise	13864 Dec 24 19:16	24°♊33'50		evening rise	13865 Dec 04 22:38	0°♊	
	13864 Dec 27 10:51	0°♊			13865 Dec 09 00:42	8°♊55'25	
desc. node	13865 Jan 04 11:27	15°♊03'38		desc. node	13865 Dec 19 19:38	0°♊	
	13865 Jan 13 22:01	0°♊			13865 Dec 22 08:22	4°♊18'31	
evening max el	13865 Jan 25 21:20	14°♊22'16	27°27'34	evening max el	13866 Jan 08 00:19	26°♊15'27	26°48'31
retrograde	13865 Feb 08 19:51	21°♊42'16		retrograde	13866 Jan 12 13:28	0°♊	
evening set	13865 Feb 15 16:59	19°♊30'23		evening set	13866 Jan 21 23:25	3°♊25'45	
min. Earth dist.	13865 Feb 19 11:27	16°♊37'37	0.61535 AU		13866 Jan 28 14:40	1°♊35'12	
inferior conj	13865 Feb 22 13:05	13°♊51'13	-1°59'39	min. Earth dist.	13866 Jan 31 03:40	30°♊	
minimum elong	13865 Feb 22 17:18	13°♊41'38	1°57'34	inferior conj	13866 Feb 01 14:16	28°♊56'53	0.59349 AU
asc. node	13865 Feb 28 16:42	9°♊18'27		minimum elong	13866 Feb 04 18:47	26°♊26'18	-3°23'49
morning rise	13865 Mar 01 20:35	8°♊51'43		morning rise	13866 Feb 05 02:09	26°♊11'45	3°20'33
direct	13865 Mar 04 00:33	8°♊31'27		direct	13866 Feb 12 16:45	21°♊47'40	
morning max el	13865 Mar 10 22:10	12°♊00'24	17°50'20	asc. node	13866 Feb 14 17:31	21°♊32'31	
	13865 Mar 23 00:53	0°♊		morning max el	13866 Feb 15 14:08	21°♊35'19	
morning set	13865 Mar 26 14:44	6°♊23'09		morning set	13866 Feb 22 10:42	25°♊22'07	18°12'35
desc. node	13865 Apr 02 13:29	18°♊45'10			13866 Feb 26 08:05	0°♊	
					13866 Mar 10 02:30	20°♊14'09	
superior conj	13865 Apr 06 15:19	25°♊48'27	-0°31'51		13866 Mar 15 07:24	0°♊	
minimum elong	13865 Apr 06 12:21	25°♊35'47	0°31'44	superior conj	13866 Mar 19 16:54	8°♊03'05	0°05'45
	13865 Apr 09 02:44	0°♊		minimum elong	13866 Mar 19 17:20	8°♊05'02	0°05'39
max. Earth dist.	13865 Apr 13 20:34	7°♊50'23	1.43394 AU	behind sun begin	13866 Mar 19 10:15	7°♊33'04	
evening rise	13865 Apr 20 16:33	18°♊43'46		behind sun end	13866 Mar 20 00:25	8°♊36'56	
	13865 Apr 28 01:13	0°♊		desc. node	13866 Mar 20 10:00	9°♊19'54	
	13865 May 19 21:31	0°♊		max. Earth dist.	13866 Mar 27 07:42	21°♊20'46	1.41430 AU
evening max el	13865 May 22 07:31	2°♊35'03	21°41'27	evening rise	13866 Apr 01 03:16	29°♊19'11	
asc. node	13865 May 27 13:32	6°♊47'16			13866 Apr 01 13:20	0°♊	
retrograde	13865 May 31 10:07	7°♊54'47			13866 Apr 21 13:55	0°♊	
evening set	13865 Jun 04 23:04	6°♊03'02		evening max el	13866 May 04 23:36	16°♊25'54	23°01'01
inferior conj	13865 Jun 10 05:10	29°♊46'49	3°05'53	asc. node	13866 May 14 10:45	22°♊26'20	
minimum elong	13865 Jun 10 04:12	29°♊50'11	3°04'44	retrograde	13866 May 15 06:26	22°♊29'23	
	13865 Jun 10 01:23	30°♊		evening set	13866 May 20 06:44	20°♊22'38	
min. Earth dist.	13865 Jun 10 08:36	29°♊34'49	0.68874 AU	min. Earth dist.	13866 May 25 05:22	14°♊30'44	0.68932 AU
morning rise	13865 Jun 15 09:08	23°♊31'26		inferior conj	13866 May 25 14:50	13°♊57'55	2°49'25
direct	13865 Jun 20 08:02	21°♊23'36		minimum elong	13866 May 25 13:08	14°♊03'48	2°48'08
desc. node	13865 Jun 29 14:16	26°♊37'40		morning rise	13866 May 30 19:27	7°♊49'34	
morning max el	13865 Jun 30 04:07	27°♊11'55	22°35'27	direct	13866 Jun 04 05:34	6°♊01'41	
	13865 Jul 02 18:54	0°♊		morning max el	13866 Jun 12 20:02	10°♊59'00	21°11'18
	13865 Jul 24 13:55	0°♊		desc. node	13866 Jun 16 11:21	14°♊58'49	
morning set	13865 Aug 02 22:24	14°♊45'54			13866 Jun 27 16:50	0°♊	
max. Earth dist.	13865 Aug 07 17:58	22°♊46'07	1.40683 AU	morning set	13866 Jul 13 18:36	24°♊11'44	
	13865 Aug 11 22:45	0°♊			13866 Jul 17 10:38	0°♊	
superior conj	13865 Aug 15 14:09	6°♊28'06	-1°08'00	max. Earth dist.	13866 Jul 20 23:09	5°♊41'01	1.42819 AU
minimum elong	13865 Aug 15 19:18	6°♊51'17	1°07'43	superior conj	13866 Jul 28 04:30	17°♊43'21	-1°40'51
asc. node	13865 Aug 23 13:59	21°♊14'58		minimum elong	13866 Jul 28 11:42	18°♊14'07	1°40'51
evening rise	13865 Aug 25 15:12	25°♊07'06			13866 Aug 04 05:44	0°♊	
	13865 Aug 28 05:32	0°♊		evening rise	13866 Aug 08 17:47	8°♊03'05	
evening max el	13865 Sep 10 13:53	20°♊44'38	18°22'49	asc. node	13866 Aug 10 10:35	11°♊06'16	
retrograde	13865 Sep 18 03:58	24°♊35'20			13866 Aug 21 22:13	0°♊	
evening set	13865 Sep 20 05:13	24°♊19'11		evening max el	13866 Aug 25 01:16	3°♊39'14	18°04'30
desc. node	13865 Sep 25 10:52	21°♊34'57		retrograde	13866 Aug 31 19:53	7°♊07'49	
inferior conj	13865 Sep 27 20:25	19°♊42'57	-0°45'30	evening set	13866 Sep 03 04:29	6°♊42'42	
minimum elong	13865 Sep 27 18:41	19°♊46'27	0°44'34	inferior conj	13866 Sep 10 01:56	1°♊46'13	0°41'25
min. Earth dist.	13865 Oct 01 03:02	17°♊04'46	0.58234 AU	minimum elong	13866 Sep 10 03:12	1°♊43'14	0°40'51
morning rise	13865 Oct 05 04:42	14°♊22'29			13866 Sep 11 22:53	30°♊	
direct	13865 Oct 11 10:14	12°♊41'20		desc. node	13866 Sep 12 08:24	29°♊37'49	
morning max el	13865 Oct 25 17:44	20°♊18'23	27°15'10	min. Earth dist.	13866 Sep 13 06:26	28°♊47'35	0.60482 AU
	13865 Nov 03 02:09	0°♊		morning rise	13866 Sep 16 22:51	25°♊55'19	
asc. node	13865 Nov 19 15:47	27°♊11'50		direct	13866 Sep 23 12:50	23°♊48'09	

	13866 Oct 06 00:24	0°♄		morning max el	13867 Sep 20 03:10	13°♄50'41	27°53'51
morning max el	13866 Oct 07 19:38	1°♄41'57	27°54'01		13867 Oct 03 04:05	0°♄	
	13866 Oct 28 10:17	0°♄			13867 Oct 20 23:15	0°♄	
asc. node	13866 Nov 06 12:34	16°♄52'14		morning set	13867 Oct 24 10:40	6°♄53'17	
morning set	13866 Nov 09 12:57	23°♄02'25		asc. node	13867 Oct 24 09:16	6°♄46'11	
	13866 Nov 12 19:17	0°♄		max. Earth dist.	13867 Oct 29 15:25	17°♄46'44	1.31953 AU
max. Earth dist.	13866 Nov 15 12:24	5°♄57'25	1.31302 AU				
				superior conj	13867 Nov 01 01:41	23°♄03'13	1°07'25
superior conj	13866 Nov 16 17:06	8°♄36'45	1°23'21	minimum elong	13867 Oct 31 23:23	22°♄50'43	1°07'50
minimum elong	13866 Nov 16 15:08	8°♄25'47	1°24'04		13867 Nov 04 05:29	0°♄	
evening rise	13866 Nov 23 09:47	23°♄24'19		evening rise	13867 Nov 07 20:40	7°♄55'59	
	13866 Nov 26 12:41	0°♄			13867 Nov 19 03:52	0°♄	
desc. node	13866 Dec 09 05:21	22°♄52'01		desc. node	13867 Nov 26 02:27	10°♄28'47	
	13866 Dec 14 07:27	0°♄		evening max el	13867 Dec 02 06:15	17°♄30'59	24°01'06
evening max el	13866 Dec 20 18:52	7°♄15'01	25°36'30	retrograde	13867 Dec 15 20:20	24°♄16'43	
retrograde	13867 Jan 03 16:12	14°♄15'10		evening set	13867 Dec 20 17:44	23°♄24'31	
evening set	13867 Jan 09 15:58	12°♄52'29		min. Earth dist.	13867 Dec 26 17:33	20°♄27'14	0.55613 AU
min. Earth dist.	13867 Jan 14 07:22	10°♄13'51	0.57278 AU	inferior conj	13867 Dec 28 18:10	19°♄13'54	-5°43'23
inferior conj	13867 Jan 17 04:50	8°♄15'15	-4°44'45	minimum elong	13867 Dec 28 23:50	19°♄05'20	5°41'41
minimum elong	13867 Jan 17 13:44	8°♄00'01	4°41'32	morning rise	13868 Jan 06 07:46	15°♄16'41	
morning rise	13867 Jan 25 14:13	3°♄58'52		direct	13868 Jan 08 20:44	15°♄00'13	
direct	13867 Jan 27 16:55	3°♄45'17		morning max el	13868 Jan 19 06:49	20°♄00'38	20°01'42
asc. node	13867 Feb 02 11:30	5°♄34'05		asc. node	13868 Jan 20 08:50	21°♄06'24	
morning max el	13867 Feb 05 14:55	8°♄05'55	18°55'47		13868 Jan 27 00:21	0°♄	
	13867 Feb 19 16:55	0°♄		morning set	13868 Feb 06 05:59	19°♄07'04	
morning set	13867 Feb 22 00:46	4°♄32'17			13868 Feb 11 13:47	0°♄	
				superior conj	13868 Feb 13 23:49	4°♄52'30	1°03'00
superior conj	13867 Mar 02 13:15	21°♄08'50	0°37'47	minimum elong	13868 Feb 14 02:33	5°♄06'07	1°03'09
minimum elong	13867 Mar 02 15:31	21°♄19'32	0°37'40	max. Earth dist.	13868 Feb 19 20:53	16°♄17'15	1.36962 AU
desc. node	13867 Mar 07 06:30	29°♄55'35		desc. node	13868 Feb 22 03:00	20°♄28'19	
	13867 Mar 07 07:29	0°♄		evening rise	13868 Feb 23 14:54	23°♄11'12	
max. Earth dist.	13867 Mar 09 14:32	4°♄07'10	1.39201 AU		13868 Feb 27 11:56	0°♄	
evening rise	13867 Mar 13 11:09	10°♄50'03			13868 Mar 18 03:00	0°♄	
	13867 Mar 25 09:06	0°♄		evening max el	13868 Mar 30 02:52	14°♄10'54	25°36'54
	13867 Apr 17 06:01	0°♄		retrograde	13868 Apr 11 12:07	21°♄19'34	
evening max el	13867 Apr 17 13:23	0°♄18'24	24°21'49	evening set	13868 Apr 17 11:15	18°♄51'42	
retrograde	13867 Apr 28 23:29	7°♄00'03		asc. node	13868 Apr 17 05:23	19°♄03'47	
asc. node	13867 May 01 08:02	6°♄35'32		min. Earth dist.	13868 Apr 21 18:08	14°♄11'44	0.67662 AU
evening set	13867 May 04 11:21	4°♄40'55		inferior conj	13868 Apr 23 04:41	12°♄21'13	1°45'34
	13867 May 08 14:50	30°♄		minimum elong	13868 Apr 23 02:36	12°♄27'51	1°44'17
min. Earth dist.	13867 May 09 01:16	29°♄25'17	0.68519 AU	morning rise	13868 Apr 28 18:29	6°♄30'25	
inferior conj	13867 May 09 23:19	28°♄11'03	2°22'45	direct	13868 May 02 04:52	5°♄22'50	
minimum elong	13867 May 09 21:13	28°♄18'09	2°21'23	morning max el	13868 May 09 00:49	9°♄05'14	19°00'14
morning rise	13867 May 15 07:12	22°♄10'47		desc. node	13868 May 20 05:08	23°♄38'58	
direct	13867 May 19 05:00	20°♄43'34		greatest brilliancy	13868 May 22 06:26	26°♄43'15	-0.7m
morning max el	13867 May 26 18:43	24°♄57'36	19°58'25		13868 May 24 10:21	0°♄	
	13867 May 31 05:42	0°♄		morning set	13868 Jun 01 04:08	11°♄54'51	
desc. node	13867 Jun 03 08:19	4°♄03'21			13868 Jun 12 19:30	0°♄	
	13867 Jun 20 23:56	0°♄		max. Earth dist.	13868 Jun 15 03:17	3°♄38'06	1.45547 AU
morning set	13867 Jun 22 22:05	2°♄56'58					
max. Earth dist.	13867 Jul 03 10:35	19°♄22'38	1.44498 AU	superior conj	13868 Jun 17 12:45	7°♄23'35	-2°13'38
				minimum elong	13868 Jun 17 12:18	7°♄21'49	2°14'41
superior conj	13867 Jul 08 19:14	27°♄59'01	-2°05'06		13868 Jul 01 16:17	0°♄	
minimum elong	13867 Jul 09 01:08	28°♄23'00	2°05'46	evening rise	13868 Jul 02 11:26	1°♄17'46	
	13867 Jul 10 00:57	0°♄		asc. node	13868 Jul 14 03:59	20°♄01'38	
evening rise	13867 Jul 22 02:10	20°♄10'31			13868 Jul 21 15:35	0°♄	
	13867 Jul 27 20:48	0°♄		evening max el	13868 Jul 22 05:24	0°♄35'15	18°24'07
asc. node	13867 Jul 28 07:15	0°♄43'51		retrograde	13868 Jul 28 15:15	4°♄00'58	
evening max el	13867 Aug 08 15:34	16°♄59'05	18°05'14	evening set	13868 Jul 31 16:53	3°♄08'39	
retrograde	13867 Aug 15 01:04	20°♄19'29			13868 Aug 04 10:23	30°♄	
evening set	13867 Aug 17 17:59	19°♄42'01		inferior conj	13868 Aug 06 12:21	27°♄37'48	2°30'33
inferior conj	13867 Aug 24 00:37	14°♄27'23	1°46'12	minimum elong	13868 Aug 06 14:39	27°♄30'58	2°29'22
minimum elong	13867 Aug 24 03:01	14°♄20'57	1°45'05	min. Earth dist.	13868 Aug 08 17:55	25°♄00'06	0.64814 AU
min. Earth dist.	13867 Aug 26 19:32	11°♄29'51	0.62751 AU	morning rise	13868 Aug 12 11:07	21°♄16'41	
morning rise	13867 Aug 30 09:52	8°♄16'37		desc. node	13868 Aug 16 03:24	19°♄07'45	
desc. node	13867 Aug 30 05:55	8°♄23'59		direct	13868 Aug 18 23:54	18°♄38'30	
direct	13867 Sep 06 02:04	5°♄49'16					



morning max el	13868 Sep 01 13:36	26° $\Omega$ 35'22	27°18'44	morning rise	13869 Jul 26 23:51	4° $\Omega$ 45'54	
	13868 Sep 04 17:54	0° $\mathbb{M}$		direct	13869 Aug 02 04:47	2° $\Omega$ 06'40	
	13868 Sep 25 18:57	0° $\underline{\Omega}$		desc. node	13869 Aug 03 00:51	2° $\Omega$ 09'15	
morning set	13868 Oct 06 23:15	20° $\underline{\Omega}$ 16'36		morning max el	13869 Aug 15 00:44	9° $\Omega$ 44'57	26°16'17
asc. node	13868 Oct 10 05:55	26° $\underline{\Omega}$ 48'41			13869 Aug 31 00:30	0° $\mathbb{M}$	
max. Earth dist.	13868 Oct 11 10:29	29° $\underline{\Omega}$ 14'56	1.33148 AU		13869 Sep 18 07:31	0° $\underline{\Omega}$	
	13868 Oct 11 19:13	0° $\mathbb{M}$		morning set	13869 Sep 19 23:24	3° $\underline{\Omega}$ 04'08	
				max. Earth dist.	13869 Sep 23 19:47	10° $\underline{\Omega}$ 24'41	1.34863 AU
superior conj	13868 Oct 15 05:44	7° $\mathbb{M}$ 13'39	0°45'49	asc. node	13869 Sep 27 02:29	16° $\underline{\Omega}$ 55'12	
minimum elong	13868 Oct 15 03:42	7° $\mathbb{M}$ 02'49	0°45'59				
evening rise	13868 Oct 22 07:31	22° $\mathbb{M}$ 25'46		superior conj	13869 Sep 29 02:45	21° $\underline{\Omega}$ 00'55	0°18'49
	13868 Oct 25 22:38	0° $\mathbb{M}$		minimum elong	13869 Sep 29 01:43	20° $\underline{\Omega}$ 55'36	0°18'53
desc. node	13868 Nov 11 23:40	26° $\mathbb{M}$ 48'14			13869 Oct 03 10:25	0° $\mathbb{M}$	
evening max el	13868 Nov 12 17:06	27° $\mathbb{M}$ 31'55	22°18'55	evening rise	13869 Oct 06 16:22	6° $\mathbb{M}$ 48'00	
	13868 Nov 15 12:50	0° $\mathbb{M}$			13869 Oct 19 05:02	0° $\mathbb{M}$	
retrograde	13868 Nov 25 11:56	3° $\mathbb{M}$ 52'01		evening max el	13869 Oct 25 12:38	7° $\mathbb{M}$ 53'13	20°46'26
evening set	13868 Nov 29 00:23	3° $\mathbb{M}$ 24'47		desc. node	13869 Oct 29 21:01	11° $\mathbb{M}$ 23'45	
	13868 Dec 06 17:19	30° $\mathbb{M}$ 48'14		retrograde	13869 Nov 05 22:22	13° $\mathbb{M}$ 33'25	
min. Earth dist.	13868 Dec 07 00:01	29° $\mathbb{M}$ 50'38	0.54645 AU	evening set	13869 Nov 08 07:37	13° $\mathbb{M}$ 19'38	
inferior conj	13868 Dec 07 14:57	29° $\mathbb{M}$ 29'39	-5°55'19	inferior conj	13869 Nov 17 06:20	9° $\mathbb{M}$ 25'41	-5°07'13
minimum elong	13868 Dec 07 12:07	29° $\mathbb{M}$ 33'38	5°54'07	minimum elong	13869 Nov 16 20:48	9° $\mathbb{M}$ 39'19	5°04'07
morning rise	13868 Dec 16 00:57	25° $\mathbb{M}$ 42'23		min. Earth dist.	13869 Nov 18 06:04	8° $\mathbb{M}$ 51'43	0.54573 AU
direct	13868 Dec 19 09:18	25° $\mathbb{M}$ 17'13		morning rise	13869 Nov 25 10:04	5° $\mathbb{M}$ 30'47	
	13868 Dec 30 05:23	0° $\mathbb{M}$		direct	13869 Nov 29 17:10	4° $\mathbb{M}$ 51'16	
morning max el	13868 Dec 31 08:07	1° $\mathbb{M}$ 00'42	21°30'12	morning max el	13869 Dec 12 21:27	11° $\mathbb{M}$ 14'51	23°15'39
asc. node	13869 Jan 06 06:05	7° $\mathbb{M}$ 55'40		asc. node	13869 Dec 24 03:15	25° $\mathbb{M}$ 43'46	
	13869 Jan 18 18:57	0° $\mathbb{M}$			13869 Dec 26 16:03	0° $\mathbb{M}$	
morning set	13869 Jan 20 15:31	3° $\mathbb{M}$ 51'05		morning set	13870 Jan 05 03:08	18° $\mathbb{M}$ 37'03	
					13870 Jan 10 09:32	0° $\mathbb{M}$	
superior conj	13869 Jan 27 20:45	19° $\mathbb{M}$ 03'40	1°21'11	superior conj	13870 Jan 12 00:48	3° $\mathbb{M}$ 32'17	1°32'39
minimum elong	13869 Jan 27 23:04	19° $\mathbb{M}$ 15'45	1°21'42	minimum elong	13870 Jan 12 02:14	3° $\mathbb{M}$ 40'00	1°33'30
max. Earth dist.	13869 Feb 01 08:00	28° $\mathbb{M}$ 11'13	1.34938 AU	max. Earth dist.	13870 Jan 15 02:30	10° $\mathbb{M}$ 04'37	1.33275 AU
	13869 Feb 02 05:56	0° $\mathbb{M}$		evening rise	13870 Jan 19 20:38	19° $\mathbb{M}$ 47'45	
evening rise	13869 Feb 05 11:17	6° $\mathbb{M}$ 13'53			13870 Jan 25 05:04	0° $\mathbb{M}$	
desc. node	13869 Feb 07 23:34	10° $\mathbb{M}$ 54'33		desc. node	13870 Jan 25 20:13	1° $\mathbb{M}$ 09'01	
	13869 Feb 19 05:49	0° $\mathbb{M}$			13870 Feb 13 06:53	0° $\mathbb{M}$	
evening max el	13869 Mar 12 16:45	27° $\mathbb{M}$ 57'52	26°38'42	evening max el	13870 Feb 23 06:07	11° $\mathbb{M}$ 28'18	27°19'59
	13869 Mar 14 21:51	0° $\mathbb{M}$		retrograde	13870 Mar 08 20:05	18° $\mathbb{M}$ 56'08	
retrograde	13869 Mar 25 19:14	5° $\mathbb{M}$ 21'10		evening set	13870 Mar 15 13:31	16° $\mathbb{M}$ 25'54	
evening set	13869 Apr 01 04:40	2° $\mathbb{M}$ 49'11		min. Earth dist.	13870 Mar 19 10:10	12° $\mathbb{M}$ 52'43	0.64734 AU
asc. node	13869 Apr 04 02:48	0° $\mathbb{M}$ 00'26		inferior conj	13870 Mar 21 21:10	10° $\mathbb{M}$ 12'38	-0°02'30
	13869 Apr 04 02:58	30° $\mathbb{M}$ 48'14		minimum elong	13870 Mar 21 21:14	10° $\mathbb{M}$ 12'26	0°02'33
min. Earth dist.	13869 Apr 05 05:50	28° $\mathbb{M}$ 43'43	0.66390 AU	transit middle	13870 Mar 21 21:14	10° $\mathbb{M}$ 12'26	0°02'33
inferior conj	13869 Apr 07 04:48	26° $\mathbb{M}$ 23'56	0°57'21	transit begin	13870 Mar 21 18:13	10° $\mathbb{M}$ 20'40	
minimum elong	13869 Apr 07 03:23	26° $\mathbb{M}$ 28'07	0°56'28	transit end	13870 Mar 22 00:16	10° $\mathbb{M}$ 04'12	
morning rise	13869 Apr 13 03:13	20° $\mathbb{M}$ 44'19		asc. node	13870 Mar 22 00:17	10° $\mathbb{M}$ 04'09	
direct	13869 Apr 16 03:14	19° $\mathbb{M}$ 54'10		morning rise	13870 Mar 28 06:50	4° $\mathbb{M}$ 46'39	
morning max el	13869 Apr 22 13:17	23° $\mathbb{M}$ 17'40	18°18'26	direct	13870 Mar 30 21:44	4° $\mathbb{M}$ 10'55	
	13869 Apr 28 02:17	0° $\mathbb{M}$		morning max el	13870 Apr 06 05:54	7° $\mathbb{M}$ 27'43	17°53'41
desc. node	13869 May 07 01:53	13° $\mathbb{M}$ 37'21			13870 Apr 21 14:46	0° $\mathbb{M}$	
morning set	13869 May 12 08:05	21° $\mathbb{M}$ 59'16		morning set	13870 Apr 23 16:19	3° $\mathbb{M}$ 26'00	
	13869 May 17 09:04	0° $\mathbb{M}$		desc. node	13870 Apr 23 22:32	3° $\mathbb{M}$ 51'52	
superior conj	13869 May 27 20:40	16° $\mathbb{M}$ 28'58	-2°02'03	superior conj	13870 May 07 12:34	26° $\mathbb{M}$ 01'44	-1°33'03
minimum elong	13869 May 27 13:11	15° $\mathbb{M}$ 59'45	2°02'37	minimum elong	13870 May 07 03:46	25° $\mathbb{M}$ 26'39	1°32'55
max. Earth dist.	13869 May 28 23:11	18° $\mathbb{M}$ 12'31	1.45869 AU		13870 May 10 00:37	0° $\mathbb{M}$	
	13869 Jun 05 12:41	0° $\mathbb{M}$		max. Earth dist.	13870 May 11 19:23	2° $\mathbb{M}$ 48'35	1.45435 AU
evening rise	13869 Jun 12 20:15	11° $\mathbb{M}$ 25'06		evening rise	13870 May 23 11:14	20° $\mathbb{M}$ 53'29	
greatest brilliancy	13869 Jun 23 05:34	27° $\mathbb{M}$ 33'37	-0.8m		13870 May 29 10:40	0° $\mathbb{M}$	
	13869 Jun 24 20:09	0° $\mathbb{M}$		greatest brilliancy	13870 Jun 07 02:38	12° $\mathbb{M}$ 54'53	-0.6m
asc. node	13869 Jul 01 00:49	8° $\mathbb{M}$ 52'30		asc. node	13870 Jun 17 21:46	27° $\mathbb{M}$ 07'19	
evening max el	13869 Jul 05 16:02	14° $\mathbb{M}$ 20'20	19°00'19	evening max el	13870 Jun 18 21:30	28° $\mathbb{M}$ 09'02	19°52'35
retrograde	13869 Jul 12 10:59	18° $\mathbb{M}$ 04'43			13870 Jun 20 22:20	0° $\mathbb{M}$	
evening set	13869 Jul 15 21:41	16° $\mathbb{M}$ 55'58		retrograde	13870 Jun 26 09:28	2° $\mathbb{M}$ 24'16	
inferior conj	13869 Jul 21 09:34	11° $\mathbb{M}$ 10'23	2°57'37	evening set	13870 Jun 30 05:47	0° $\mathbb{M}$ 58'34	
minimum elong	13869 Jul 21 11:07	11° $\mathbb{M}$ 05'24	2°56'31		13870 Jul 01 09:23	30° $\mathbb{M}$ 48'14	
min. Earth dist.	13869 Jul 23 00:35	9° $\mathbb{M}$ 06'00	0.66524 AU				

inferior conj	13870 Jul 05 13:16	24°☿59'43	3°10'17	retrograde	13871 Jun 10 08:27	16°☿53'21	
minimum elong	13870 Jul 05 13:49	24°☿57'49	3°09'14	evening set	13871 Jun 14 15:02	15°☿10'56	
min. Earth dist.	13870 Jul 06 13:57	23°☿36'32	0.67799 AU	inferior conj	13871 Jun 19 20:55	9°☿00'24	3°10'41
morning rise	13870 Jul 10 21:29	18°☿36'27		minimum elong	13871 Jun 19 20:29	9°☿01'57	3°09'36
direct	13870 Jul 16 15:43	16°☿04'39		min. Earth dist.	13871 Jun 20 07:57	8°☿22'08	0.68611 AU
desc. node	13870 Jul 20 22:14	17°☿12'42		morning rise	13871 Jun 25 01:40	2°☿41'23	
morning max el	13870 Jul 28 11:26	23°☿09'44	24°55'45	direct	13871 Jun 30 07:46	0°☿23'26	
	13870 Aug 03 12:37	0°♊		desc. node	13871 Jul 07 19:30	3°☿50'55	
	13870 Aug 24 08:37	0°♊		morning max el	13871 Jul 10 22:02	6°☿42'31	23°26'46
morning set	13870 Sep 02 07:11	15°♊07'02			13871 Jul 29 00:29	0°♊	
max. Earth dist.	13870 Sep 05 20:55	21°♊33'43	1.36988 AU	morning set	13871 Aug 14 17:52	26°♊13'13	
	13870 Sep 10 08:35	0°♊			13871 Aug 16 23:23	0°♊	
				max. Earth dist.	13871 Aug 18 18:41	3°♊06'51	1.39331 AU
superior conj	13870 Sep 12 13:43	4°♊17'59	-0°12'53				
minimum elong	13870 Sep 12 14:33	4°♊22'04	0°12'45	superior conj	13871 Aug 26 10:44	16°♊55'03	-0°47'39
behind sun begin	13870 Sep 12 10:29	4°♊02'10		minimum elong	13871 Aug 26 14:13	17°♊11'16	0°47'24
behind sun end	13870 Sep 12 18:36	4°♊41'59		asc. node	13871 Aug 31 19:37	27°♊06'11	
asc. node	13870 Sep 13 23:04	7°♊02'27			13871 Sep 02 07:36	0°♊	
evening rise	13870 Sep 20 20:59	20°♊57'12		evening rise	13871 Sep 04 18:25	4°♊45'03	
	13870 Sep 25 10:50	0°♊			13871 Sep 19 24:00	0°♊	
evening max el	13870 Oct 07 22:15	18°♊59'53	19°33'27	evening max el	13871 Sep 20 21:01	0°♊55'04	18°42'31
desc. node	13870 Oct 16 18:25	23°♊50'12		retrograde	13871 Sep 29 03:30	5°♊04'53	
retrograde	13870 Oct 17 16:32	23°♊52'43		evening set	13871 Oct 01 01:24	4°♊52'18	
evening set	13870 Oct 19 13:48	23°♊42'34		desc. node	13871 Oct 03 15:54	3°♊58'07	
inferior conj	13870 Oct 28 07:09	19°♊37'27	-3°33'08	inferior conj	13871 Oct 09 03:16	0°♊28'36	-1°44'24
minimum elong	13870 Oct 27 22:16	19°♊51'35	3°29'19	minimum elong	13871 Oct 08 22:59	0°♊36'33	1°42'15
min. Earth dist.	13870 Oct 30 15:15	18°♊08'16	0.55428 AU		13871 Oct 09 18:39	30°♊	
morning rise	13870 Nov 05 04:46	15°♊14'47		min. Earth dist.	13871 Oct 12 06:02	28°♊10'58	0.57055 AU
direct	13870 Nov 10 08:53	14°♊15'02		morning rise	13871 Oct 16 17:10	25°♊28'43	
morning max el	13870 Nov 24 07:12	21°♊13'10	25°03'44	direct	13871 Oct 22 15:02	24°♊03'03	
	13870 Dec 01 21:51	0°♊			13871 Nov 04 06:33	0°♊	
asc. node	13870 Dec 11 00:20	14°♊16'32		morning max el	13871 Nov 05 21:05	1°♊28'42	26°35'44
	13870 Dec 19 01:26	0°♊			13871 Nov 26 01:50	0°♊	
morning set	13870 Dec 20 14:59	3°♊19'44		asc. node	13871 Nov 27 21:17	3°♊22'15	
				morning set	13871 Dec 05 01:18	17°♊54'16	
superior conj	13870 Dec 27 09:28	18°♊11'12	1°37'44		13871 Dec 10 13:22	0°♊	
minimum elong	13870 Dec 27 09:49	18°♊13'09	1°38'47				
max. Earth dist.	13870 Dec 29 04:12	22°♊05'41	1.32065 AU	superior conj	13871 Dec 11 20:32	2°♊53'58	1°36'47
	13871 Jan 01 20:33	0°♊		minimum elong	13871 Dec 11 19:50	2°♊50'01	1°37'49
evening rise	13871 Jan 03 15:49	3°♊45'12		max. Earth dist.	13871 Dec 12 10:49	4°♊13'36	1.31355 AU
desc. node	13871 Jan 12 16:56	21°♊06'15		evening rise	13871 Dec 18 18:10	17°♊59'38	
	13871 Jan 17 23:02	0°♊			13871 Dec 24 16:50	0°♊	
evening max el	13871 Feb 05 17:18	24°♊30'14	27°33'56	desc. node	13871 Dec 30 13:46	10°♊39'13	
	13871 Feb 12 22:03	0°♊			13872 Jan 12 17:08	0°♊	
retrograde	13871 Feb 19 13:52	1°♊55'13		evening max el	13872 Jan 19 00:02	6°♊51'55	27°15'13
	13871 Feb 25 19:15	30°♊		retrograde	13872 Feb 01 23:29	14°♊08'52	
evening set	13871 Feb 26 11:18	29°♊33'59		evening set	13872 Feb 08 18:58	12°♊05'02	
min. Earth dist.	13871 Mar 02 05:25	26°♊28'40	0.62765 AU	min. Earth dist.	13872 Feb 12 14:35	9°♊19'47	0.60602 AU
inferior conj	13871 Mar 05 02:50	23°♊40'09	-1°13'56	inferior conj	13872 Feb 15 18:25	6°♊37'49	-2°34'58
minimum elong	13871 Mar 05 05:19	23°♊34'07	1°12'42	minimum elong	13872 Feb 16 00:00	6°♊25'49	2°32'18
asc. node	13871 Mar 08 21:47	20°♊17'55		morning rise	13872 Feb 23 08:15	1°♊47'05	
morning rise	13871 Mar 12 02:00	18°♊30'25		asc. node	13872 Feb 23 19:15	1°♊40'17	
direct	13871 Mar 14 09:16	18°♊05'39		direct	13872 Feb 25 10:13	1°♊29'34	
morning max el	13871 Mar 20 23:41	21°♊27'06	17°46'21	morning max el	13872 Mar 03 15:15	5°♊06'16	17°57'20
	13871 Mar 27 13:14	0°♊		morning set	13872 Mar 19 05:04	29°♊32'43	
morning set	13871 Apr 06 01:20	16°♊03'10			13872 Mar 19 11:01	0°♊	
desc. node	13871 Apr 10 19:07	24°♊17'26		desc. node	13872 Mar 27 15:39	14°♊50'07	
	13871 Apr 14 03:13	0°♊					
superior conj	13871 Apr 18 01:16	6°♊34'29	-0°54'48	superior conj	13872 Mar 29 14:07	18°♊14'30	-0°15'24
minimum elong	13871 Apr 17 19:52	6°♊12'03	0°54'33	minimum elong	13872 Mar 29 12:46	18°♊08'38	0°15'24
max. Earth dist.	13871 Apr 24 12:59	17°♊08'46	1.44305 AU	behind sun begin	13872 Mar 29 10:36	17°♊59'09	
evening rise	13871 May 02 23:00	0°♊21'33		behind sun end	13872 Mar 29 14:56	18°♊18'06	
	13871 May 02 17:25	0°♊			13872 Apr 05 11:55	0°♊	
	13871 May 23 02:35	0°♊		max. Earth dist.	13872 Apr 06 02:17	0°♊59'26	1.42603 AU
evening max el	13871 Jun 01 21:00	11°♊58'03	20°58'41	evening rise	13872 Apr 11 22:50	10°♊27'32	
asc. node	13871 Jun 04 18:49	14°♊33'38			13872 Apr 24 19:02	0°♊	
				evening max el	13872 May 14 15:21	25°♊48'14	22°14'47

	13872 May 19 17:54	0°☿			13873 Mar 29 01:21	0°♄		
asc. node	13872 May 21 15:58	0°☿56'48			13873 Apr 18 21:10	0°♄		
retrograde	13872 May 24 06:07	1°☿27'16		evening max el	13873 Apr 27 06:23	9°♄40'18	23°35'38	
	13872 May 28 08:02	30°♄		retrograde	13873 May 08 01:04	16°♄00'28		
evening set	13872 May 28 23:43	29°♄29'08		asc. node	13873 May 08 13:12	15°♄59'19		
inferior conj	13872 Jun 03 06:26	23°♄08'56	3°00'09	evening set	13873 May 13 06:15	13°♄48'19		
minimum elong	13872 Jun 03 05:07	23°♄13'30	2°58'57	min. Earth dist.	13873 May 18 01:03	8°♄11'48	0.68821 AU	
min. Earth dist.	13872 Jun 03 04:24	23°♄16'01	0.68954 AU	inferior conj	13873 May 18 15:49	7°♄21'10	2°39'20	
morning rise	13872 Jun 08 10:20	16°♄56'07		minimum elong	13873 May 18 13:54	7°♄27'45	2°38'01	
direct	13872 Jun 13 03:46	14°♄56'24		morning rise	13873 May 23 21:30	1°♄16'02		
morning max el	13872 Jun 22 10:56	20°♄22'57	21°58'31		13873 May 26 01:03	30°♄		
desc. node	13872 Jun 23 16:39	21°♄40'00		direct	13873 May 28 02:24	29°♄36'42		
	13872 Jun 30 14:30	0°☿			13873 May 30 06:03	0°♄		
	13872 Jul 21 05:16	0°♄		morning max el	13873 Jun 05 05:21	4°♄14'00	20°38'33	
morning set	13872 Jul 25 03:53	6°♄14'10		desc. node	13873 Jun 10 13:40	10°♄20'50		
max. Earth dist.	13872 Jul 30 19:36	15°♄27'50	1.41631 AU		13873 Jun 24 13:38	0°☿		
				morning set	13873 Jul 04 15:09	15°☿17'00		
superior conj	13872 Aug 07 13:29	28°♄42'39	-1°22'33	max. Earth dist.	13873 Jul 13 03:37	28°☿44'10	1.43606 AU	
minimum elong	13872 Aug 07 19:43	29°♄10'07	1°22'21		13873 Jul 13 22:25	0°♄		
	13872 Aug 08 07:02	0°♄						
asc. node	13872 Aug 17 16:11	17°♄02'52		superior conj	13873 Jul 19 17:56	9°♄32'31	-1°52'37	
evening rise	13872 Aug 18 05:05	18°♄02'30		minimum elong	13873 Jul 20 01:10	10°♄02'43	1°52'52	
	13872 Aug 24 19:13	0°♄			13873 Jul 31 15:41	0°♄		
evening max el	13872 Sep 03 05:04	13°♄30'56	18°12'43	evening rise	13873 Aug 01 00:30	0°♄38'47		
retrograde	13872 Sep 10 09:26	17°♄10'08		asc. node	13873 Aug 04 12:48	6°♄48'38		
evening set	13872 Sep 12 13:41	16°♄50'35		evening max el	13873 Aug 17 18:09	26°♄37'20	18°02'36	
inferior conj	13872 Sep 19 21:07	12°♄05'50	-0°06'01		13873 Aug 23 23:56	0°♄		
minimum elong	13872 Sep 19 20:54	12°♄06'17	0°05'49	retrograde	13873 Aug 24 07:29	0°♄00'29		
transit middle	13872 Sep 19 20:54	12°♄06'17	0°05'49		13873 Aug 24 15:03	30°♄		
transit begin	13872 Sep 19 17:42	12°♄13'11		evening set	13873 Aug 26 19:42	29°♄30'18		
transit end	13872 Sep 20 00:06	11°♄59'22		inferior conj	13873 Sep 02 10:23	24°♄25'42	1°11'34	
desc. node	13872 Sep 19 13:25	12°♄22'26		minimum elong	13873 Sep 02 12:20	24°♄20'51	1°10'41	
min. Earth dist.	13872 Sep 23 04:14	9°♄16'09	0.59172 AU	min. Earth dist.	13873 Sep 05 11:26	21°♄25'15	0.61459 AU	
morning rise	13872 Sep 27 00:44	6°♄31'27		desc. node	13873 Sep 06 10:55	20°♄31'09		
direct	13872 Oct 03 10:54	4°♄38'25		morning rise	13873 Sep 09 02:18	18°♄25'25		
morning max el	13872 Oct 17 18:21	12°♄23'36	27°36'27	direct	13873 Sep 15 18:05	16°♄08'51		
	13872 Oct 31 15:57	0°♄		morning max el	13873 Sep 29 22:47	24°♄06'15	27°58'44	
asc. node	13872 Nov 13 18:06	22°♄51'55			13873 Oct 05 06:48	0°♄		
	13872 Nov 17 06:29	0°♄			13873 Oct 25 00:24	0°♄		
morning set	13872 Nov 18 08:18	2°♄15'38		asc. node	13873 Oct 31 14:50	12°♄38'39		
				morning set	13873 Nov 02 10:04	16°♄19'16		
superior conj	13872 Nov 25 08:06	17°♄34'34	1°29'56	max. Earth dist.	13873 Nov 08 01:21	28°♄21'55	1.31512 AU	
minimum elong	13872 Nov 25 06:30	17°♄25'39	1°30'48		13873 Nov 08 19:11	0°♄		
max. Earth dist.	13872 Nov 24 19:06	16°♄21'56	1.31168 AU					
	13872 Nov 30 22:34	0°♄		superior conj	13873 Nov 09 18:20	2°♄07'48	1°17'19	
evening rise	13872 Dec 02 01:22	2°♄24'53		minimum elong	13873 Nov 09 16:10	1°♄55'50	1°17'54	
desc. node	13872 Dec 16 10:41	29°♄37'56		evening rise	13873 Nov 16 11:28	16°♄55'56		
	13872 Dec 16 16:12	0°♄			13873 Nov 22 19:43	0°♄		
evening max el	13872 Dec 30 23:48	18°♄23'12	26°21'42	desc. node	13873 Dec 03 07:43	17°♄49'37		
retrograde	13873 Jan 13 22:51	25°♄29'07		evening max el	13873 Dec 12 15:07	29°♄02'55	24°58'03	
evening set	13873 Jan 20 08:32	23°♄50'10			13873 Dec 13 15:53	0°♄		
min. Earth dist.	13873 Jan 24 13:22	21°♄13'28	0.58436 AU	retrograde	13873 Dec 26 09:56	5°♄56'52		
inferior conj	13873 Jan 27 16:10	18°♄54'46	-3°59'29	evening set	13873 Dec 31 23:59	4°♄47'13		
minimum elong	13873 Jan 28 00:33	18°♄39'11	3°56'01	min. Earth dist.	13874 Jan 06 03:02	2°♄03'12	0.56510 AU	
morning rise	13873 Feb 04 19:34	14°♄25'14		inferior conj	13874 Jan 08 17:23	0°♄22'46	-5°13'42	
direct	13873 Feb 06 20:16	14°♄11'14		minimum elong	13874 Jan 09 01:40	0°♄09'23	5°11'01	
asc. node	13873 Feb 09 16:41	14°♄40'18			13874 Jan 09 07:30	30°♄		
morning max el	13873 Feb 15 00:44	18°♄13'16	18°28'10	morning rise	13874 Jan 17 05:36	26°♄14'59		
	13873 Feb 23 12:43	0°♄		direct	13874 Jan 19 11:43	26°♄00'39		
morning set	13873 Mar 02 21:51	13°♄37'00		asc. node	13874 Jan 27 14:02	29°♄20'30		
	13873 Mar 11 12:56	0°♄			13874 Jan 28 08:17	0°♄		
				morning max el	13874 Jan 29 00:05	0°♄37'03	19°20'52	
superior conj	13873 Mar 12 00:15	0°♄52'17	0°20'07	morning set	13874 Feb 14 23:29	28°♄03'35		
minimum elong	13873 Mar 12 01:39	0°♄58'43	0°19'58		13874 Feb 15 22:47	0°♄		
desc. node	13873 Mar 14 12:08	5°♄25'30						
max. Earth dist.	13873 Mar 19 11:22	14°♄11'19	1.40507 AU	superior conj	13874 Feb 23 03:12	14°♄15'33	0°49'19	
evening rise	13873 Mar 23 18:35	21°♄27'12		minimum elong	13874 Feb 23 05:47	14°♄28'08	0°49'18	

desc. node	13874 Mar 01 08:39	26° $\text{X}$ 00'12		superior conj	13875 Feb 06 18:38	28° $\approx$ 12'10	1°11'32
max. Earth dist.	13874 Mar 01 17:58	26° $\text{X}$ 42'38	1.38247 AU	minimum elong	13875 Feb 06 21:16	28° $\approx$ 25'35	1°11'51
	13874 Mar 03 13:50	0° $\text{Y}$			13875 Feb 07 15:54	0° $\text{X}$	
evening rise	13874 Mar 05 11:17	3° $\text{Y}$ 20'19		max. Earth dist.	13875 Feb 12 01:51	8° $\text{X}$ 43'22	1.36064 AU
	13874 Mar 22 04:12	0° $\text{B}$		evening rise	13875 Feb 15 22:30	15° $\text{X}$ 59'47	
evening max el	13874 Apr 09 19:58	23° $\text{B}$ 33'20	24°54'47	desc. node	13875 Feb 16 05:12	16° $\text{X}$ 30'30	
	13874 Apr 18 23:45	0° $\text{II}$			13875 Feb 23 22:38	0° $\text{Y}$	
retrograde	13874 Apr 21 16:12	0° $\text{II}$ 27'07			13875 Mar 16 16:25	0° $\text{B}$	
	13874 Apr 24 04:57	30° $\text{K}$ $\text{B}$		evening max el	13875 Mar 23 09:27	7° $\text{B}$ 23'54	26°05'07
asc. node	13874 Apr 25 10:32	29° $\text{B}$ 25'57		retrograde	13875 Apr 05 02:40	14° $\text{B}$ 40'31	
evening set	13874 Apr 27 09:04	28° $\text{B}$ 03'41		evening set	13875 Apr 11 06:31	12° $\text{B}$ 09'55	
min. Earth dist.	13874 May 01 19:50	23° $\text{B}$ 03'32	0.68220 AU	asc. node	13875 Apr 12 07:56	11° $\text{B}$ 13'00	
inferior conj	13874 May 02 23:13	21° $\text{B}$ 33'11	2°08'16	min. Earth dist.	13875 Apr 15 10:42	7° $\text{B}$ 45'06	0.67173 AU
minimum elong	13874 May 02 21:04	21° $\text{B}$ 40'18	2°06'54	inferior conj	13875 Apr 17 02:39	5° $\text{B}$ 40'51	1°26'32
morning rise	13874 May 08 09:19	15° $\text{B}$ 36'57		minimum elong	13875 Apr 17 00:47	5° $\text{B}$ 46'42	1°25'21
direct	13874 May 12 02:13	14° $\text{B}$ 18'13		morning rise	13875 Apr 22 19:49	29° $\text{Y}$ 54'51	
morning max el	13874 May 19 07:15	18° $\text{B}$ 16'43	19°31'42		13875 Apr 22 16:31	30° $\text{K}$ $\text{Y}$	
desc. node	13874 May 28 10:36	29° $\text{B}$ 39'28		direct	13875 Apr 26 01:37	28° $\text{Y}$ 55'10	
	13874 May 28 16:24	0° $\text{II}$			13875 Apr 29 13:55	0° $\text{B}$	
greatest brilliancy	13874 May 31 22:33	4° $\text{II}$ 42'18	-0.7m	morning max el	13875 May 02 16:26	2° $\text{B}$ 27'54	18°40'26
morning set	13874 Jun 13 17:00	23° $\text{II}$ 59'56		desc. node	13875 May 15 07:24	19° $\text{B}$ 25'46	
	13874 Jun 17 14:25	0° $\text{B}$			13875 May 22 03:02	0° $\text{II}$	
max. Earth dist.	13874 Jun 25 18:09	12° $\text{B}$ 44'02	1.45035 AU	morning set	13875 May 24 06:45	3° $\text{II}$ 22'06	
				max. Earth dist.	13875 Jun 08 12:36	27° $\text{II}$ 10'00	1.45774 AU
superior conj	13874 Jun 29 22:47	19° $\text{B}$ 23'24	-2°11'02				
minimum elong	13874 Jun 30 02:32	19° $\text{B}$ 38'24	2°11'56	superior conj	13875 Jun 09 10:21	28° $\text{II}$ 34'56	-2°11'12
	13874 Jul 06 12:19	0° $\text{Q}$		minimum elong	13875 Jun 09 06:31	28° $\text{II}$ 20'00	2°12'09
evening rise	13874 Jul 13 23:34	12° $\text{Q}$ 21'29			13875 Jun 10 08:06	0° $\text{B}$	
asc. node	13874 Jul 22 09:29	26° $\text{Q}$ 18'10		evening rise	13875 Jun 24 22:22	23° $\text{B}$ 03'01	
	13874 Jul 24 17:33	0° $\text{P}$			13875 Jun 29 06:51	0° $\text{Q}$	
evening max el	13874 Aug 01 08:34	10° $\text{P}$ 04'21	18°11'04	greatest brilliancy	13875 Jul 02 00:24	4° $\text{Q}$ 20'28	-0.9m
retrograde	13874 Aug 07 17:07	13° $\text{P}$ 25'31		asc. node	13875 Jul 09 06:17	15° $\text{Q}$ 25'47	
evening set	13874 Aug 10 13:42	12° $\text{P}$ 41'55		evening max el	13875 Jul 15 21:19	23° $\text{Q}$ 45'00	18°37'23
inferior conj	13874 Aug 16 15:05	7° $\text{P}$ 19'50	2°07'23	retrograde	13875 Jul 22 10:11	27° $\text{Q}$ 17'30	
minimum elong	13874 Aug 16 17:34	7° $\text{P}$ 12'53	2°06'11	evening set	13875 Jul 25 15:31	26° $\text{Q}$ 18'27	
min. Earth dist.	13874 Aug 19 04:27	4° $\text{P}$ 29'00	0.63660 AU	inferior conj	13875 Jul 31 07:20	20° $\text{Q}$ 41'02	2°43'57
morning rise	13874 Aug 22 19:40	1° $\text{P}$ 03'34		minimum elong	13875 Jul 31 09:22	20° $\text{Q}$ 34'47	2°42'48
desc. node	13874 Aug 24 08:27	0° $\text{P}$ 00'35		min. Earth dist.	13875 Aug 02 06:45	18° $\text{Q}$ 16'04	0.65588 AU
	13874 Aug 24 08:50	30° $\text{K}$ $\text{Q}$		morning rise	13875 Aug 06 02:11	14° $\text{Q}$ 17'27	
direct	13874 Aug 29 10:53	28° $\text{Q}$ 30'47		desc. node	13875 Aug 11 05:55	11° $\text{Q}$ 43'24	
	13874 Sep 03 23:08	0° $\text{P}$		direct	13875 Aug 12 11:55	11° $\text{Q}$ 37'41	
morning max el	13874 Sep 12 08:01	6° $\text{P}$ 31'35	27°42'58	morning max el	13875 Aug 25 19:14	19° $\text{Q}$ 29'15	26°54'58
	13874 Sep 30 06:50	0° $\text{B}$			13875 Sep 03 18:26	0° $\text{P}$	
morning set	13874 Oct 17 04:13	29° $\text{B}$ 58'33			13875 Sep 23 07:55	0° $\text{B}$	
	13874 Oct 17 04:31	0° $\text{M}$		morning set	13875 Sep 30 11:58	13° $\text{B}$ 07'32	
asc. node	13874 Oct 18 11:30	2° $\text{M}$ 36'12		max. Earth dist.	13875 Oct 04 16:32	21° $\text{B}$ 21'50	1.33817 AU
max. Earth dist.	13874 Oct 22 01:33	10° $\text{M}$ 02'59	1.32395 AU	asc. node	13875 Oct 05 08:08	22° $\text{B}$ 40'39	
					13875 Oct 08 21:15	0° $\text{M}$	
superior conj	13874 Oct 25 01:13	16° $\text{M}$ 27'15	0°58'57				
minimum elong	13874 Oct 24 22:57	16° $\text{M}$ 15'00	0°59'15	superior conj	13875 Oct 09 02:35	0° $\text{M}$ 28'03	0°34'59
	13874 Oct 31 06:25	0° $\text{X}$		minimum elong	13875 Oct 09 00:53	0° $\text{M}$ 19'04	0°35'06
evening rise	13874 Oct 31 22:32	1° $\text{X}$ 26'46		evening rise	13875 Oct 16 08:47	15° $\text{M}$ 53'21	
	13874 Nov 16 11:22	0° $\text{B}$			13875 Oct 23 09:08	0° $\text{X}$	
desc. node	13874 Nov 20 04:52	4° $\text{B}$ 55'50		evening max el	13875 Nov 05 14:12	19° $\text{X}$ 10'37	21°37'34
evening max el	13874 Nov 24 00:53	9° $\text{B}$ 06'26	23°17'22	desc. node	13875 Nov 07 02:08	20° $\text{X}$ 33'52	
retrograde	13874 Dec 07 08:20	15° $\text{B}$ 43'28		retrograde	13875 Nov 17 20:52	25° $\text{X}$ 15'59	
evening set	13874 Dec 11 16:15	15° $\text{B}$ 02'44		evening set	13875 Nov 20 19:54	24° $\text{X}$ 56'06	
min. Earth dist.	13874 Dec 18 10:48	11° $\text{B}$ 52'04	0.55101 AU	inferior conj	13875 Nov 29 15:17	21° $\text{X}$ 02'53	-5°42'09
inferior conj	13874 Dec 19 22:37	11° $\text{B}$ 00'10	-5°55'26	minimum elong	13875 Nov 29 08:50	21° $\text{X}$ 11'56	5°40'17
minimum elong	13874 Dec 20 01:04	10° $\text{B}$ 56'36	5°54'16	min. Earth dist.	13875 Nov 29 16:51	21° $\text{X}$ 00'40	0.54490 AU
morning rise	13874 Dec 28 11:31	7° $\text{B}$ 09'17		morning rise	13875 Dec 07 22:34	17° $\text{X}$ 14'44	
direct	13874 Dec 31 07:51	6° $\text{B}$ 49'55		direct	13875 Dec 11 16:16	16° $\text{X}$ 44'19	
morning max el	13875 Jan 11 09:50	12° $\text{B}$ 08'00	20°36'49	morning max el	13875 Dec 24 05:27	22° $\text{X}$ 46'04	22°13'47
asc. node	13875 Jan 14 11:20	15° $\text{B}$ 27'05			13875 Dec 30 11:01	0° $\text{B}$	
	13875 Jan 23 20:25	0° $\approx$		asc. node	13876 Jan 01 08:33	2° $\text{B}$ 42'48	
morning set	13875 Jan 30 06:51	12° $\approx$ 43'00		morning set	13876 Jan 14 17:28	27° $\text{B}$ 27'58	
					13876 Jan 15 22:08	0° $\approx$	

superior conj	13876 Jan 21 18:55	12° $\approx$ 31'33	1°26'51	asc. node	13876 Dec 18 05:41	20° $\approx$ 51'37	
minimum elong	13876 Jan 21 20:54	12° $\approx$ 42'02	1°27'31		13876 Dec 23 06:21	0° $\approx$	
max. Earth dist.	13876 Jan 25 15:33	20° $\approx$ 33'28	1.34169 AU	morning set	13876 Dec 29 05:24	12° $\approx$ 13'03	
evening rise	13876 Jan 30 00:46	29° $\approx$ 16'26					
	13876 Jan 30 09:49	0° $\approx$		superior conj	13877 Jan 05 01:14	27° $\approx$ 05'30	1°35'34
desc. node	13876 Feb 03 01:47	6° $\approx$ 52'05		minimum elong	13877 Jan 05 02:13	27° $\approx$ 10'52	1°36'31
	13876 Feb 17 02:17	0° $\approx$			13877 Jan 06 09:24	0° $\approx$	
evening max el	13876 Mar 04 23:07	21° $\approx$ 04'47	26°59'15	max. Earth dist.	13877 Jan 07 13:11	2° $\approx$ 29'20	1.32696 AU
retrograde	13876 Mar 18 07:31	28° $\approx$ 32'07		evening rise	13877 Jan 12 14:42	13° $\approx$ 01'41	
evening set	13876 Mar 24 20:37	25° $\approx$ 59'55		desc. node	13877 Jan 19 22:27	27° $\approx$ 00'11	
min. Earth dist.	13876 Mar 28 19:35	22° $\approx$ 08'33	0.65722 AU		13877 Jan 21 14:58	0° $\approx$	
asc. node	13876 Mar 29 05:24	21° $\approx$ 40'50			13877 Feb 11 06:35	0° $\approx$	
inferior conj	13876 Mar 30 23:50	19° $\approx$ 38'33	0°33'27	evening max el	13877 Feb 15 11:59	4° $\approx$ 25'30	27°29'47
minimum elong	13876 Mar 30 22:57	19° $\approx$ 41'06	0°32'51	retrograde	13877 Mar 01 05:35	11° $\approx$ 52'59	
morning rise	13876 Apr 06 02:44	14° $\approx$ 04'29		evening set	13877 Mar 08 01:07	9° $\approx$ 25'56	
direct	13876 Apr 08 22:36	13° $\approx$ 21'03		min. Earth dist.	13877 Mar 11 20:27	6° $\approx$ 04'59	0.63924 AU
morning max el	13876 Apr 15 07:04	16° $\approx$ 40'37	18°05'47	inferior conj	13877 Mar 14 12:04	3° $\approx$ 19'47	-0°31'22
	13876 Apr 25 05:03	0° $\approx$		minimum elong	13877 Mar 14 13:03	3° $\approx$ 17'14	0°30'56
desc. node	13876 May 01 04:07	9° $\approx$ 31'41		asc. node	13877 Mar 16 02:52	1° $\approx$ 41'04	
morning set	13876 May 03 22:43	14° $\approx$ 01'33			13877 Mar 17 23:13	30° $\approx$	
	13876 May 13 21:20	0° $\approx$		morning rise	13877 Mar 21 03:13	28° $\approx$ 00'03	
				direct	13877 Mar 23 14:37	27° $\approx$ 29'27	
superior conj	13876 May 18 19:39	7° $\approx$ 47'07	-1°51'29		13877 Mar 29 04:01	0° $\approx$	
minimum elong	13876 May 18 10:48	7° $\approx$ 12'20	1°51'41	morning max el	13877 Mar 30 00:30	0° $\approx$ 47'10	17°48'20
max. Earth dist.	13876 May 21 08:27	11° $\approx$ 45'17	1.45773 AU	morning set	13877 Apr 15 18:16	26° $\approx$ 00'56	
	13876 Jun 02 02:21	0° $\approx$		desc. node	13877 Apr 18 00:46	29° $\approx$ 51'43	
evening rise	13876 Jun 03 22:11	2° $\approx$ 49'28			13877 Apr 18 02:43	0° $\approx$	
greatest brilliancy	13876 Jun 16 09:13	21° $\approx$ 52'49	-0.7m				
	13876 Jun 22 00:37	0° $\approx$		superior conj	13877 Apr 28 19:25	17° $\approx$ 43'01	-1°17'26
asc. node	13876 Jun 25 03:10	4° $\approx$ 02'44		minimum elong	13877 Apr 28 11:44	17° $\approx$ 11'56	1°17'10
evening max el	13876 Jun 28 05:57	7° $\approx$ 32'10	19°20'41	max. Earth dist.	13877 May 04 03:41	26° $\approx$ 16'04	1.45043 AU
retrograde	13876 Jul 05 07:22	11° $\approx$ 28'25			13877 May 06 12:32	0° $\approx$	
evening set	13876 Jul 08 22:00	10° $\approx$ 12'42		evening rise	13877 May 14 09:47	12° $\approx$ 12'45	
inferior conj	13876 Jul 14 07:41	4° $\approx$ 21'29	3°04'33		13877 May 26 05:27	0° $\approx$	
minimum elong	13876 Jul 14 08:49	4° $\approx$ 17'44	3°03'30	evening max el	13877 Jun 11 08:59	21° $\approx$ 21'37	20°19'12
min. Earth dist.	13876 Jul 15 16:38	2° $\approx$ 33'36	0.67126 AU	asc. node	13877 Jun 12 00:09	21° $\approx$ 58'39	
	13876 Jul 17 18:40	30° $\approx$		retrograde	13877 Jun 19 06:10	25° $\approx$ 52'33	
morning rise	13876 Jul 19 19:04	27° $\approx$ 56'54		evening set	13877 Jun 23 06:48	24° $\approx$ 19'41	
direct	13876 Jul 25 19:46	25° $\approx$ 19'35		inferior conj	13877 Jun 28 13:19	18° $\approx$ 15'56	3°11'47
desc. node	13876 Jul 28 03:21	25° $\approx$ 39'36		minimum elong	13877 Jun 28 13:27	18° $\approx$ 15'30	3°10'45
	13876 Aug 04 07:42	0° $\approx$		min. Earth dist.	13877 Jun 29 08:11	17° $\approx$ 11'28	0.68214 AU
morning max el	13876 Aug 07 06:10	2° $\approx$ 46'05	25°43'29	morning rise	13877 Jul 03 19:47	11° $\approx$ 54'18	
	13876 Aug 27 22:47	0° $\approx$		direct	13877 Jul 09 09:06	9° $\approx$ 27'32	
morning set	13876 Sep 12 05:41	25° $\approx$ 37'24		desc. node	13877 Jul 15 00:42	11° $\approx$ 26'26	
	13876 Sep 14 14:29	0° $\approx$		morning max el	13877 Jul 20 16:25	16° $\approx$ 13'41	24°18'11
max. Earth dist.	13876 Sep 15 21:28	2° $\approx$ 26'16	1.35724 AU		13877 Aug 01 01:40	0° $\approx$	
asc. node	13876 Sep 21 04:43	12° $\approx$ 47'59			13877 Aug 20 21:52	0° $\approx$	
				morning set	13877 Aug 25 04:58	7° $\approx$ 17'02	
superior conj	13876 Sep 21 19:45	14° $\approx$ 03'29	0°05'52	max. Earth dist.	13877 Aug 28 20:14	13° $\approx$ 41'25	1.37979 AU
minimum elong	13876 Sep 21 19:24	14° $\approx$ 01'42	0°05'58				
behind sun begin	13876 Sep 21 13:36	13° $\approx$ 32'34		superior conj	13877 Sep 05 01:17	27° $\approx$ 04'50	-0°27'24
behind sun end	13876 Sep 22 01:11	14° $\approx$ 30'54		minimum elong	13877 Sep 05 03:10	27° $\approx$ 13'52	0°27'12
evening rise	13876 Sep 29 16:07	0° $\approx$ 10'32			13877 Sep 06 13:35	0° $\approx$	
	13876 Sep 29 14:04	0° $\approx$		asc. node	13877 Sep 08 01:16	2° $\approx$ 54'09	
evening max el	13876 Oct 17 15:39	29° $\approx$ 50'16	20°12'47	evening rise	13877 Sep 13 18:02	14° $\approx$ 11'26	
	13876 Oct 17 19:35	0° $\approx$			13877 Sep 22 03:16	0° $\approx$	
desc. node	13876 Oct 23 23:29	4° $\approx$ 17'17		evening max el	13877 Sep 30 07:16	11° $\approx$ 18'09	19°09'05
retrograde	13876 Oct 28 08:45	5° $\approx$ 10'00		retrograde	13877 Oct 09 09:02	15° $\approx$ 51'07	
evening set	13876 Oct 30 10:52	4° $\approx$ 58'47		desc. node	13877 Oct 10 20:56	15° $\approx$ 44'10	
inferior conj	13876 Nov 08 09:03	1° $\approx$ 01'52	-4°31'10	evening set	13877 Oct 11 05:44	15° $\approx$ 40'25	
minimum elong	13876 Nov 07 22:56	1° $\approx$ 16'51	4°27'25	inferior conj	13877 Oct 19 17:14	11° $\approx$ 27'56	-2°46'55
min. Earth dist.	13876 Nov 10 00:11	0° $\approx$ 03'48	0.54825 AU	minimum elong	13877 Oct 19 10:09	11° $\approx$ 39'55	2°43'37
	13876 Nov 10 02:46	30° $\approx$		min. Earth dist.	13877 Oct 22 11:11	9° $\approx$ 36'52	0.56044 AU
morning rise	13876 Nov 16 10:09	26° $\approx$ 56'58		morning rise	13877 Oct 27 11:57	6° $\approx$ 50'15	
direct	13876 Nov 21 02:43	26° $\approx$ 09'16		direct	13877 Nov 02 00:24	5° $\approx$ 39'55	
	13876 Dec 01 07:42	0° $\approx$		morning max el	13877 Nov 16 02:32	12° $\approx$ 49'54	25°45'58
morning max el	13876 Dec 04 16:02	2° $\approx$ 49'04	24°02'25		13877 Nov 29 11:26	0° $\approx$	

asc. node	13877 Dec 05 02:42	9°♊39'39			13878 Nov 22 12:38	0°♊	
morning set	13877 Dec 13 16:46	26°♊52'30		morning set	13878 Nov 28 01:53	11°♊22'04	
	13877 Dec 15 03:23	0°♊					
superior conj	13877 Dec 20 11:07	11°♊46'17	1°38'04	superior conj	13878 Dec 04 22:35	26°♊28'29	1°34'35
minimum elong	13877 Dec 20 11:00	11°♊45'42	1°39'07	minimum elong	13878 Dec 04 21:28	26°♊22'16	1°35'34
max. Earth dist.	13877 Dec 21 17:29	14°♊34'22	1.31702 AU	max. Earth dist.	13878 Dec 05 01:24	26°♊44'15	1.31215 AU
evening rise	13877 Dec 27 13:13	27°♊06'57		evening rise	13878 Dec 06 12:28	0°♊	
	13877 Dec 28 22:46	0°♊			13878 Dec 11 17:52	11°♊26'21	
desc. node	13878 Jan 06 19:11	16°♊47'55		desc. node	13878 Dec 21 03:24	0°♊	
	13878 Jan 14 23:10	0°♊			13878 Dec 24 16:01	6°♊07'28	
evening max el	13878 Jan 28 21:46	17°♊12'00	27°30'16	evening max el	13879 Jan 11 01:40	29°♊12'05	26°56'29
retrograde	13878 Feb 11 19:44	24°♊33'06		retrograde	13879 Jan 11 22:23	0°♊	
evening set	13878 Feb 18 17:12	22°♊18'34		evening set	13879 Jan 25 00:53	6°♊24'18	
min. Earth dist.	13878 Feb 22 11:27	19°♊22'52	0.61861 AU	min. Earth dist.	13879 Jan 31 17:34	4°♊29'58	
inferior conj	13878 Feb 25 12:09	16°♊35'29	-1°47'21		13879 Feb 04 15:48	1°♊50'22	0.59671 AU
minimum elong	13878 Feb 25 15:53	16°♊26'49	1°45'28	inferior conj	13879 Feb 06 22:56	30°♊	
asc. node	13878 Mar 03 00:20	12°♊17'38		minimum elong	13879 Feb 07 20:28	29°♊16'14	-3°11'02
morning rise	13878 Mar 04 17:27	11°♊33'14		morning rise	13879 Feb 08 03:24	29°♊02'15	3°07'52
direct	13878 Mar 06 22:15	11°♊11'51		direct	13879 Feb 15 16:25	24°♊34'32	
morning max el	13878 Mar 13 17:39	14°♊38'24	17°48'44	asc. node	13879 Feb 17 17:20	24°♊18'54	
	13878 Mar 24 08:58	0°♊		morning max el	13879 Feb 17 21:48	24°♊19'02	
morning set	13878 Mar 29 11:59	9°♊02'40			13879 Feb 25 07:04	28°♊04'44	18°08'01
desc. node	13878 Apr 04 21:19	20°♊20'44		morning set	13879 Feb 27 01:44	0°♊	
					13879 Mar 12 21:46	22°♊48'07	
superior conj	13878 Apr 09 18:23	28°♊44'20	-0°37'50		13879 Mar 16 18:17	0°♊	
minimum elong	13878 Apr 09 14:48	28°♊29'07	0°37'42	superior conj	13879 Mar 22 16:45	10°♊50'07	0°00'21
	13878 Apr 10 12:18	0°♊		minimum elong	13879 Mar 22 16:46	10°♊50'11	0°00'15
max. Earth dist.	13878 Apr 16 20:07	10°♊27'14	1.43647 AU	behind sun begin	13879 Mar 22 09:07	10°♊16'00	
evening rise	13878 Apr 24 01:12	21°♊53'47		behind sun end	13879 Mar 23 00:24	11°♊24'17	
	13878 Apr 29 07:55	0°♊		desc. node	13879 Mar 22 17:48	10°♊54'50	
	13878 May 20 15:11	0°♊		max. Earth dist.	13879 Mar 30 07:43	24°♊02'41	1.41740 AU
evening max el	13878 May 25 06:13	5°♊11'39	21°30'04		13879 Apr 02 22:06	0°♊	
asc. node	13878 May 29 21:12	9°♊00'35		evening rise	13879 Apr 04 08:50	2°♊20'46	
retrograde	13878 Jun 03 04:43	10°♊24'53			13879 Apr 22 16:54	0°♊	
evening set	13878 Jun 07 16:02	8°♊35'25		evening max el	13879 May 07 22:43	19°♊01'53	22°48'56
inferior conj	13878 Jun 12 22:00	2°♊20'33	3°07'28	asc. node	13879 May 16 18:23	24°♊51'50	
minimum elong	13878 Jun 12 21:10	2°♊23'27	3°06'21	retrograde	13879 May 18 01:27	24°♊59'27	
min. Earth dist.	13878 Jun 13 03:21	2°♊01'52	0.68821 AU	evening set	13879 May 22 24:00	22°♊54'48	
	13878 Jun 14 14:53	30°♊		inferior conj	13879 May 28 07:40	16°♊31'05	2°52'35
morning rise	13878 Jun 18 02:06	26°♊04'15		minimum elong	13879 May 28 06:03	16°♊36'40	2°51'20
direct	13878 Jun 23 02:52	23°♊53'47		min. Earth dist.	13879 May 28 00:06	16°♊57'23	0.68950 AU
desc. node	13878 Jul 01 21:56	28°♊37'52		morning rise	13879 Jun 02 12:01	10°♊21'30	
morning max el	13878 Jul 03 03:41	29°♊50'03	22°48'40	direct	13879 Jun 06 23:58	8°♊30'35	
	13878 Jul 03 07:37	0°♊		morning max el	13879 Jun 15 18:44	13°♊35'29	21°23'15
	13878 Jul 25 20:12	0°♊		desc. node	13879 Jun 18 19:03	16°♊51'11	
morning set	13878 Aug 06 05:29	17°♊56'32			13879 Jun 28 20:24	0°♊	
max. Earth dist.	13878 Aug 10 19:23	25°♊36'22	1.40338 AU	morning set	13879 Jul 17 05:08	27°♊31'14	
	13878 Aug 13 08:36	0°♊			13879 Jul 18 18:45	0°♊	
superior conj	13878 Aug 18 15:08	9°♊22'44	-1°02'40	max. Earth dist.	13879 Jul 23 23:17	8°♊22'11	1.42524 AU
minimum elong	13878 Aug 18 19:51	9°♊44'11	1°02'24	superior conj	13879 Jul 31 08:47	20°♊46'30	-1°36'16
asc. node	13878 Aug 25 21:49	22°♊55'47		minimum elong	13879 Jul 31 15:49	21°♊16'46	1°36'12
evening rise	13878 Aug 28 11:25	27°♊48'25			13879 Aug 05 15:30	0°♊	
	13878 Aug 29 15:10	0°♊		evening rise	13879 Aug 11 16:15	10°♊50'23	
evening max el	13878 Sep 13 10:29	23°♊31'56	18°27'14	asc. node	13879 Aug 12 18:22	12°♊48'32	
retrograde	13878 Sep 21 04:31	27°♊27'19			13879 Aug 22 20:02	0°♊	
evening set	13878 Sep 23 04:45	27°♊12'15		evening max el	13879 Aug 27 21:06	6°♊21'52	18°06'00
desc. node	13878 Sep 27 18:25	25°♊01'13		retrograde	13879 Sep 03 17:58	9°♊52'50	
inferior conj	13878 Sep 30 22:44	22°♊39'10	-1°00'30	evening set	13879 Sep 06 01:21	9°♊29'18	
minimum elong	13878 Sep 30 20:23	22°♊43'49	0°59'14	inferior conj	13879 Sep 13 01:20	4°♊35'52	0°29'37
min. Earth dist.	13878 Oct 04 04:42	20°♊05'45	0.57916 AU	minimum elong	13879 Sep 13 02:16	4°♊33'42	0°29'14
morning rise	13878 Oct 08 08:32	17°♊23'47		desc. node	13879 Sep 14 15:57	3°♊06'25	
direct	13878 Oct 14 12:12	15°♊46'44		min. Earth dist.	13879 Sep 16 06:49	1°♊38'45	0.60141 AU
morning max el	13878 Oct 28 19:35	23°♊21'03	27°06'05		13879 Sep 18 06:55	30°♊	
	13878 Nov 03 19:22	0°♊		morning rise	13879 Sep 19 23:59	28°♊48'49	
asc. node	13878 Nov 21 23:37	28°♊56'46		direct	13879 Sep 26 13:10	26°♊45'02	

	13879 Oct 05 08:56	0°♄		morning max el	13880 Sep 22 03:07	16°♄39'05	27°56'13
morning max el	13879 Oct 10 20:22	4°♄37'10	27°50'42		13880 Oct 03 04:19	0°♄	
	13879 Oct 29 16:36	0°♄			13880 Oct 21 09:57	0°♄	
asc. node	13879 Nov 08 20:24	18°♄34'29		asc. node	13880 Oct 25 17:06	8°♄26'34	
morning set	13879 Nov 12 06:56	25°♄36'43		morning set	13880 Oct 26 05:47	9°♄31'01	
	13879 Nov 14 08:29	0°♄		max. Earth dist.	13880 Oct 31 13:08	20°♄41'46	1.31819 AU
max. Earth dist.	13879 Nov 18 09:13	8°♄49'47	1.31246 AU				
				superior conj	13880 Nov 02 18:54	25°♄35'06	1°10'13
superior conj	13879 Nov 19 09:49	11°♄06'36	1°25'17	minimum elong	13880 Nov 02 16:38	25°♄22'37	1°10'41
minimum elong	13879 Nov 19 07:56	10°♄56'07	1°26'02		13880 Nov 04 19:00	0°♄	
evening rise	13879 Nov 26 02:30	25°♄54'24		evening rise	13880 Nov 09 13:15	10°♄26'06	
	13879 Nov 28 00:38	0°♄			13880 Nov 19 09:32	0°♄	
desc. node	13879 Dec 11 12:59	24°♄48'10		desc. node	13880 Nov 27 10:05	12°♄34'45	
	13879 Dec 15 02:08	0°♄		evening max el	13880 Dec 04 09:55	20°♄41'40	24°16'19
evening max el	13879 Dec 23 21:35	10°♄19'59	25°49'09	retrograde	13880 Dec 18 01:38	27°♄29'41	
retrograde	13880 Jan 06 19:38	17°♄22'01		evening set	13880 Dec 23 03:33	26°♄33'10	
evening set	13880 Jan 12 22:15	15°♄55'00		min. Earth dist.	13880 Dec 28 21:28	23°♄39'54	0.55822 AU
min. Earth dist.	13880 Jan 17 10:24	13°♄17'25	0.57563 AU	inferior conj	13880 Dec 31 02:02	22°♄19'22	-5°36'58
inferior conj	13880 Jan 20 09:40	11°♄13'03	-4°33'25	minimum elong	13880 Dec 31 08:36	22°♄09'17	5°35'01
minimum elong	13880 Jan 20 18:34	10°♄57'29	4°30'05	morning rise	13881 Jan 08 15:33	18°♄19'31	
morning rise	13880 Jan 28 17:43	6°♄53'21		direct	13881 Jan 11 02:25	18°♄03'46	
direct	13880 Jan 30 19:34	6°♄39'50		morning max el	13881 Jan 21 06:48	22°♄58'00	19°50'22
asc. node	13880 Feb 04 19:13	8°♄02'53		asc. node	13881 Jan 21 16:35	23°♄22'04	
morning max el	13880 Feb 08 12:52	10°♄55'29	18°47'54		13881 Jan 27 01:08	0°♄	
	13880 Feb 21 02:53	0°♄		morning set	13881 Feb 07 23:11	21°♄36'22	
morning set	13880 Feb 24 18:46	7°♄03'18			13881 Feb 12 02:12	0°♄	
				superior conj	13881 Feb 15 19:22	7°♄28'09	0°59'35
superior conj	13880 Mar 04 10:38	23°♄49'20	0°33'19	minimum elong	13881 Feb 15 22:06	7°♄41'39	0°59'42
minimum elong	13880 Mar 04 12:42	23°♄59'07	0°33'12	max. Earth dist.	13881 Feb 21 21:14	19°♄10'34	1.37292 AU
	13880 Mar 07 18:23	0°♄		desc. node	13881 Feb 23 10:47	22°♄03'57	
desc. node	13880 Mar 08 14:16	1°♄30'37		evening rise	13881 Feb 25 14:41	25°♄58'29	
max. Earth dist.	13880 Mar 11 14:53	6°♄55'10	1.39540 AU		13881 Feb 27 21:33	0°♄	
evening rise	13880 Mar 15 13:38	13°♄44'03			13881 Mar 19 04:34	0°♄	
	13880 Mar 25 15:44	0°♄		evening max el	13881 Apr 02 02:21	16°♄47'32	25°26'20
	13880 Apr 16 18:27	0°♄		retrograde	13881 Apr 14 08:22	23°♄52'30	
evening max el	13880 Apr 19 12:47	2°♄54'26	24°09'57	asc. node	13881 Apr 19 13:04	21°♄59'13	
retrograde	13880 Apr 30 19:06	9°♄30'58		evening set	13881 Apr 20 05:54	21°♄25'45	
asc. node	13880 May 02 15:41	9°♄15'38		min. Earth dist.	13881 Apr 24 13:48	16°♄40'31	0.67823 AU
evening set	13880 May 06 05:10	7°♄13'37		inferior conj	13881 Apr 25 22:26	14°♄55'09	1°51'57
min. Earth dist.	13880 May 10 20:19	1°♄52'29	0.68612 AU	minimum elong	13881 Apr 25 20:20	15°♄01'59	1°50'38
inferior conj	13880 May 11 16:27	0°♄44'15	2°27'29	morning rise	13881 May 01 11:11	9°♄02'48	
minimum elong	13880 May 11 14:23	0°♄51'17	2°26'07	direct	13881 May 04 23:15	7°♄52'19	
	13880 May 12 05:34	30°♄		morning max el	13881 May 11 21:16	11°♄38'26	19°07'51
morning rise	13880 May 16 23:41	24°♄42'36		desc. node	13881 May 22 12:54	25°♄21'22	
direct	13880 May 20 23:18	23°♄12'14		greatest brilliancy	13881 May 24 20:54	28°♄48'45	-0.7m
morning max el	13880 May 28 16:15	27°♄32'04	20°08'20		13881 May 25 15:55	0°♄	
	13880 May 30 23:40	0°♄		morning set	13881 Jun 04 14:19	15°♄11'25	
desc. node	13880 Jun 04 16:02	5°♄49'56			13881 Jun 14 03:32	0°♄	
	13880 Jun 21 06:52	0°♄		max. Earth dist.	13881 Jun 18 01:58	6°♄09'11	1.45439 AU
morning set	13880 Jun 25 10:02	6°♄19'15					
max. Earth dist.	13880 Jul 05 09:40	21°♄56'52	1.44288 AU	superior conj	13881 Jun 20 23:16	10°♄41'45	-2°13'35
	13880 Jul 10 09:40	0°♄		minimum elong	13881 Jun 21 00:01	10°♄44'42	2°14'39
superior conj	13880 Jul 11 03:03	1°♄10'56	-2°02'17		13881 Jul 03 00:20	0°♄	
minimum elong	13880 Jul 11 09:29	1°♄37'13	2°02'50	evening rise	13881 Jul 05 16:38	4°♄22'21	
evening rise	13880 Jul 24 03:40	23°♄05'32		asc. node	13881 Jul 16 11:45	21°♄49'38	
	13880 Jul 28 04:10	0°♄			13881 Jul 22 05:10	0°♄	
asc. node	13880 Jul 29 15:00	2°♄28'17		evening max el	13881 Jul 25 01:22	3°♄13'11	18°20'11
evening max el	13880 Aug 10 11:13	19°♄38'37	18°03'58	retrograde	13881 Jul 31 10:31	6°♄37'11	
retrograde	13880 Aug 16 21:23	22°♄59'09		evening set	13881 Aug 03 10:52	5°♄47'07	
evening set	13880 Aug 19 13:04	22°♄23'39		inferior conj	13881 Aug 09 07:45	0°♄18'28	2°25'01
inferior conj	13880 Aug 25 21:41	17°♄11'38	1°37'46	minimum elong	13881 Aug 09 10:08	0°♄11'32	2°23'48
minimum elong	13880 Aug 26 00:01	17°♄05'32	1°36'40		13881 Aug 09 14:05	30°♄	
min. Earth dist.	13880 Aug 28 18:23	14°♄12'40	0.62425 AU	min. Earth dist.	13881 Aug 11 15:22	27°♄37'01	0.64526 AU
desc. node	13880 Aug 31 13:30	11°♄39'48		morning rise	13881 Aug 15 07:59	23°♄58'29	
morning rise	13880 Sep 01 08:39	11°♄03'20		desc. node	13881 Aug 18 11:01	22°♄03'34	
direct	13880 Sep 08 01:01	8°♄38'23		direct	13881 Aug 21 21:34	21°♄21'28	

morning max el	13881 Sep 04 13:18	29° $\Omega$ 19'28	27°25'58	morning rise	13882 Jul 29 19:12	7° $\Omega$ 23'58	
	13881 Sep 05 05:11	0° $\mathbb{M}$		direct	13882 Aug 05 01:25	4° $\Omega$ 44'27	
	13881 Sep 27 02:08	0° $\underline{\Omega}$		desc. node	13882 Aug 05 08:30	4° $\Omega$ 44'46	
morning set	13881 Oct 09 19:57	22° $\underline{\Omega}$ 59'05		morning max el	13882 Aug 18 00:33	12° $\Omega$ 26'34	26°27'01
asc. node	13881 Oct 12 13:44	28° $\underline{\Omega}$ 28'06			13882 Sep 01 03:19	0° $\mathbb{M}$	
	13881 Oct 13 07:44	0° $\mathbb{M}$			13882 Sep 19 17:37	0° $\underline{\Omega}$	
max. Earth dist.	13881 Oct 14 09:42	2° $\mathbb{M}$ 14'00	1.32939 AU	morning set	13882 Sep 22 22:11	5° $\underline{\Omega}$ 52'38	
				max. Earth dist.	13882 Sep 26 20:38	13° $\underline{\Omega}$ 26'39	1.34580 AU
superior conj	13881 Oct 17 23:49	9° $\mathbb{M}$ 48'33	0°49'28	asc. node	13882 Sep 29 10:19	18° $\underline{\Omega}$ 34'16	
minimum elong	13881 Oct 17 21:42	9° $\mathbb{M}$ 37'14	0°49'41				
evening rise	13881 Oct 25 00:17	24° $\mathbb{M}$ 56'51		superior conj	13882 Oct 01 22:03	23° $\underline{\Omega}$ 39'39	0°23'14
	13881 Oct 27 09:49	0° $\mathbb{M}$		minimum elong	13882 Oct 01 20:49	23° $\underline{\Omega}$ 33'14	0°23'19
desc. node	13881 Nov 14 07:18	29° $\mathbb{M}$ 07'28			13882 Oct 04 22:58	0° $\mathbb{M}$	
	13881 Nov 15 03:17	0° $\mathbb{Z}$		evening rise	13882 Oct 09 09:34	9° $\mathbb{M}$ 20'39	
evening max el	13881 Nov 15 20:12	0° $\mathbb{Z}$ 42'13	22°33'49		13882 Oct 20 05:49	0° $\mathbb{M}$	
retrograde	13881 Nov 28 18:37	7° $\mathbb{Z}$ 06'59		evening max el	13882 Oct 28 13:50	10° $\mathbb{M}$ 58'02	20°59'02
evening set	13881 Dec 02 12:09	6° $\mathbb{Z}$ 36'33		desc. node	13882 Nov 01 04:38	14° $\mathbb{M}$ 00'27	
min. Earth dist.	13881 Dec 10 04:06	3° $\mathbb{Z}$ 09'05	0.54738 AU	retrograde	13882 Nov 09 05:16	16° $\mathbb{M}$ 45'15	
inferior conj	13881 Dec 11 00:41	2° $\mathbb{Z}$ 40'03	-5°57'21	evening set	13882 Nov 11 17:39	16° $\mathbb{M}$ 30'12	
minimum elong	13881 Dec 10 23:15	2° $\mathbb{Z}$ 42'04	5°56'14	inferior conj	13882 Nov 20 15:54	12° $\mathbb{M}$ 36'43	-5°18'04
	13881 Dec 16 04:11	30° $\mathbb{R}$ $\mathbb{M}$		minimum elong	13882 Nov 20 06:56	12° $\mathbb{M}$ 49'27	5°15'17
morning rise	13881 Dec 19 11:35	28° $\mathbb{M}$ 52'23		min. Earth dist.	13882 Nov 21 09:58	12° $\mathbb{M}$ 11'05	0.54524 AU
direct	13881 Dec 22 16:43	28° $\mathbb{M}$ 28'53		morning rise	13882 Nov 28 20:33	8° $\mathbb{M}$ 44'17	
	13881 Dec 28 19:21	0° $\mathbb{Z}$		direct	13882 Dec 03 00:10	8° $\mathbb{M}$ 07'23	
morning max el	13882 Jan 03 10:13	4° $\mathbb{Z}$ 05'39	21°15'45	morning max el	13882 Dec 16 00:59	14° $\mathbb{M}$ 25'22	22°59'25
asc. node	13882 Jan 08 13:52	10° $\mathbb{Z}$ 00'37		asc. node	13882 Dec 26 11:02	27° $\mathbb{M}$ 40'40	
	13882 Jan 20 06:15	0° $\approx$			13882 Dec 27 21:18	0° $\mathbb{Z}$	
morning set	13882 Jan 23 08:14	6° $\approx$ 19'27		morning set	13883 Jan 07 19:40	21° $\mathbb{Z}$ 05'26	
					13883 Jan 11 22:59	0° $\approx$	
superior conj	13882 Jan 30 14:59	21° $\approx$ 35'40	1°18'51	superior conj	13883 Jan 14 18:09	6° $\approx$ 02'17	1°31'20
minimum elong	13882 Jan 30 17:24	21° $\approx$ 48'12	1°19'19	minimum elong	13883 Jan 14 19:45	6° $\approx$ 10'47	1°32'08
	13882 Feb 03 18:12	0° $\mathbb{H}$		max. Earth dist.	13883 Jan 18 00:43	12° $\approx$ 58'11	1.33489 AU
max. Earth dist.	13882 Feb 04 07:29	1° $\mathbb{H}$ 05'56	1.35221 AU	evening rise	13883 Jan 22 16:24	22° $\approx$ 24'54	
evening rise	13882 Feb 08 08:48	8° $\mathbb{H}$ 55'16			13883 Jan 26 15:28	0° $\mathbb{H}$	
desc. node	13882 Feb 10 07:20	12° $\mathbb{H}$ 31'13		desc. node	13883 Jan 28 03:58	2° $\mathbb{H}$ 47'49	
	13882 Feb 20 12:28	0° $\mathbb{Y}$			13883 Feb 14 06:15	0° $\mathbb{Y}$	
	13882 Mar 15 01:41	0° $\mathbb{B}$		evening max el	13883 Feb 26 05:37	14° $\mathbb{Y}$ 09'16	27°15'27
evening max el	13882 Mar 15 16:09	0° $\mathbb{B}$ 35'39	26°30'35	retrograde	13883 Mar 11 18:15	21° $\mathbb{Y}$ 37'25	
retrograde	13882 Mar 28 16:20	7° $\mathbb{B}$ 57'19		evening set	13883 Mar 18 10:44	19° $\mathbb{Y}$ 06'18	
evening set	13882 Apr 04 00:25	5° $\mathbb{B}$ 25'31		min. Earth dist.	13883 Mar 22 07:52	15° $\mathbb{Y}$ 28'41	0.64999 AU
asc. node	13882 Apr 06 10:31	3° $\mathbb{B}$ 07'51		asc. node	13883 Mar 24 08:00	13° $\mathbb{Y}$ 16'18	
min. Earth dist.	13882 Apr 08 02:20	1° $\mathbb{B}$ 15'10	0.66607 AU	inferior conj	13883 Mar 24 17:13	12° $\mathbb{Y}$ 50'44	0°07'22
	13882 Apr 09 03:25	30° $\mathbb{R}$ $\mathbb{Y}$		minimum elong	13883 Mar 24 17:01	12° $\mathbb{Y}$ 51'18	0°07'09
inferior conj	13882 Apr 09 23:30	28° $\mathbb{Y}$ 59'10	1°05'26	transit middle	13883 Mar 24 17:01	12° $\mathbb{Y}$ 51'18	0°07'09
minimum elong	13882 Apr 09 21:57	29° $\mathbb{Y}$ 03'51	1°04'27	transit begin	13883 Mar 24 14:18	12° $\mathbb{Y}$ 58'50	
morning rise	13882 Apr 15 20:28	23° $\mathbb{Y}$ 17'53		transit end	13883 Mar 24 19:44	12° $\mathbb{Y}$ 43'48	
direct	13882 Apr 18 22:01	22° $\mathbb{Y}$ 25'18		morning rise	13883 Mar 31 01:04	7° $\mathbb{Y}$ 22'42	
morning max el	13882 Apr 25 08:58	25° $\mathbb{Y}$ 50'39	18°23'36	direct	13883 Apr 02 17:12	6° $\mathbb{Y}$ 45'06	
	13882 Apr 29 00:31	0° $\mathbb{B}$		morning max el	13883 Apr 09 01:11	10° $\mathbb{Y}$ 02'12	17°56'17
desc. node	13882 May 09 09:39	15° $\mathbb{B}$ 16'40			13883 Apr 22 22:29	0° $\mathbb{B}$	
morning set	13882 May 15 14:17	25° $\mathbb{B}$ 04'05		desc. node	13883 Apr 26 06:19	5° $\mathbb{B}$ 29'22	
	13882 May 18 17:03	0° $\mathbb{H}$		morning set	13883 Apr 26 18:24	6° $\mathbb{B}$ 19'14	
superior conj	13882 May 31 07:31	19° $\mathbb{H}$ 46'56	-2°05'04	superior conj	13883 May 10 21:16	29° $\mathbb{B}$ 13'39	-1°38'16
minimum elong	13882 May 31 00:49	19° $\mathbb{H}$ 20'46	2°05'45	minimum elong	13883 May 10 12:16	28° $\mathbb{B}$ 37'56	1°38'12
max. Earth dist.	13882 May 31 21:46	20° $\mathbb{H}$ 42'34	1.45868 AU		13883 May 11 08:58	0° $\mathbb{H}$	
	13882 Jun 06 20:38	0° $\mathbb{B}$		max. Earth dist.	13883 May 14 18:01	5° $\mathbb{H}$ 19'29	1.45544 AU
evening rise	13882 Jun 16 04:55	14° $\mathbb{B}$ 38'04		evening rise	13883 May 26 21:47	24° $\mathbb{H}$ 10'17	
greatest brilliancy	13882 Jun 25 19:33	29° $\mathbb{B}$ 39'31	-0.8m		13883 May 30 17:11	0° $\mathbb{B}$	
	13882 Jun 26 00:53	0° $\Omega$		greatest brilliancy	13883 Jun 10 02:02	15° $\mathbb{B}$ 34'24	-0.6m
asc. node	13882 Jul 03 08:34	10° $\Omega$ 45'15		asc. node	13883 Jun 20 05:31	29° $\mathbb{B}$ 06'31	
evening max el	13882 Jul 08 12:36	16° $\Omega$ 57'15	18°53'51		13883 Jun 21 01:09	0° $\Omega$	
retrograde	13882 Jul 15 05:42	20° $\Omega$ 38'13		evening max el	13883 Jun 21 18:53	0° $\Omega$ 45'42	19°43'49
evening set	13882 Jul 18 15:01	19° $\Omega$ 31'59		retrograde	13883 Jun 29 03:57	4° $\Omega$ 55'52	
inferior conj	13882 Jul 24 03:47	13° $\Omega$ 48'22	2°54'28	evening set	13883 Jul 02 22:45	3° $\Omega$ 32'46	
minimum elong	13882 Jul 24 05:29	13° $\Omega$ 43'00	2°53'22		13883 Jul 06 10:29	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	13882 Jul 25 20:57	11° $\Omega$ 38'28	0.66292 AU				



inferior conj	13883 Jul 08 06:42	27°☿35'47	3°09'07	retrograde	13884 Jun 12 02:56	19°☿23'48	
minimum elong	13883 Jul 08 07:25	27°☿33'23	3°08'06	evening set	13884 Jun 16 07:55	17°☿43'55	
min. Earth dist.	13883 Jul 09 09:31	26°☿06'04	0.67638 AU	inferior conj	13884 Jun 21 13:53	11°☿35'07	3°11'17
morning rise	13883 Jul 13 15:40	21°☿11'58		minimum elong	13884 Jun 21 13:36	11°☿36'08	3°10'14
direct	13883 Jul 19 11:35	18°☿38'33		min. Earth dist.	13884 Jun 22 02:58	10°☿49'53	0.68525 AU
desc. node	13883 Jul 23 05:52	19°☿31'26		morning rise	13884 Jun 26 19:00	5°☿15'15	
morning max el	13883 Jul 31 11:24	25°☿49'55	25°08'26	direct	13884 Jul 02 03:00	2°☿54'47	
	13883 Aug 04 07:04	0°♊		desc. node	13884 Jul 09 03:10	5°☿56'56	
	13883 Aug 25 15:55	0°♊		morning max el	13884 Jul 12 21:47	9°☿21'18	23°40'03
morning set	13883 Sep 05 08:38	18°♊02'50			13884 Jul 29 04:38	0°♊	
max. Earth dist.	13883 Sep 08 22:31	24°♊33'20	1.36652 AU	morning set	13884 Aug 16 22:43	29°♊18'04	
	13883 Sep 11 19:56	0°♋			13884 Aug 17 08:36	0°♊	
				max. Earth dist.	13884 Aug 20 20:02	5°♊59'53	1.38979 AU
superior conj	13883 Sep 15 10:41	7°♋01'33	-0°07'50				
minimum elong	13883 Sep 15 11:10	7°♋03'59	0°07'43	superior conj	13884 Aug 28 10:01	19°♊45'17	-0°42'18
behind sun begin	13883 Sep 15 05:27	6°♋35'47		minimum elong	13884 Aug 28 13:04	19°♊59'36	0°42'03
behind sun end	13883 Sep 15 16:53	7°♋32'14		asc. node	13884 Sep 02 03:25	28°♊46'17	
asc. node	13883 Sep 16 06:52	8°♋41'37			13884 Sep 02 18:37	0°♋	
evening rise	13883 Sep 23 14:56	23°♋31'58		evening rise	13884 Sep 06 13:36	7°♋23'27	
	13883 Sep 26 20:27	0°♌			13884 Sep 19 13:02	0°♌	
evening max el	13883 Oct 10 21:17	21°♌57'25	19°42'55	evening max el	13884 Sep 22 18:21	3°♌46'10	18°48'46
desc. node	13883 Oct 19 02:01	26°♌47'41		retrograde	13884 Oct 01 05:31	8°♌01'32	
retrograde	13883 Oct 20 21:32	26°♌57'12		evening set	13884 Oct 03 02:54	7°♌49'35	
evening set	13883 Oct 22 19:31	26°♌47'01		desc. node	13884 Oct 04 23:27	7°♌16'09	
inferior conj	13883 Oct 31 14:30	22°♌44'22	-3°49'02	inferior conj	13884 Oct 11 07:25	3°♌29'02	-2°00'40
minimum elong	13883 Oct 31 05:08	22°♌58'59	3°45'09	minimum elong	13884 Oct 11 02:23	3°♌38'06	1°58'10
min. Earth dist.	13883 Nov 02 18:38	21°♌23'01	0.55246 AU	min. Earth dist.	13884 Oct 14 08:26	1°♌17'48	0.56773 AU
morning rise	13883 Nov 08 13:02	18°♌26'34			13884 Oct 16 07:43	30°♌	
direct	13883 Nov 13 14:14	17°♌30'05		morning rise	13884 Oct 18 22:38	28°♌34'59	
morning max el	13883 Nov 27 10:40	24°♌23'58	24°48'13	direct	13884 Oct 24 18:17	27°♌13'15	
	13883 Dec 02 13:54	0°♍			13884 Nov 02 06:03	0°♌	
asc. node	13883 Dec 13 08:05	16°♍07'30		morning max el	13884 Nov 07 23:27	4°♌35'09	26°23'44
	13883 Dec 20 13:23	0°♎			13884 Nov 26 09:15	0°♍	
morning set	13883 Dec 23 07:32	5°♎48'53		asc. node	13884 Nov 29 05:02	5°♍09'20	
				morning set	13884 Dec 06 18:10	20°♍25'16	
superior conj	13883 Dec 30 02:14	20°♎40'12	1°37'23		13884 Dec 11 03:04	0°♎	
minimum elong	13883 Dec 30 02:46	20°♎43'05	1°38'23				
max. Earth dist.	13884 Jan 01 01:19	24°♎57'30	1.32210 AU	superior conj	13884 Dec 13 13:04	5°♎23'12	1°37'19
	13884 Jan 03 09:34	0°♏		minimum elong	13884 Dec 13 12:31	5°♎20'07	1°38'21
evening rise	13884 Jan 06 10:17	6°♏19'26		max. Earth dist.	13884 Dec 14 07:25	7°♎05'20	1.31430 AU
desc. node	13884 Jan 15 00:39	22°♏48'07		evening rise	13884 Dec 20 11:43	20°♎32'18	
	13884 Jan 19 05:10	0°♐			13884 Dec 25 03:21	0°♏	
evening max el	13884 Feb 08 17:12	27°♐16'20	27°33'56	desc. node	13884 Dec 31 21:26	12°♏25'32	
	13884 Feb 11 19:38	0°♑			13885 Jan 12 11:09	0°♐	
retrograde	13884 Feb 22 13:17	4°♑42'34		evening max el	13885 Jan 21 00:52	9°♐45'17	27°20'14
evening set	13884 Feb 29 10:20	2°♑19'32		retrograde	13885 Feb 04 00:07	17°♐03'20	
	13884 Mar 03 07:23	30°♑		evening set	13885 Feb 10 20:15	14°♐56'37	
min. Earth dist.	13884 Mar 04 04:38	29°♑10'22	0.63067 AU	min. Earth dist.	13885 Feb 14 15:23	12°♑08'51	0.60931 AU
inferior conj	13884 Mar 07 00:40	26°♑22'08	-1°02'25	inferior conj	13885 Feb 17 18:33	9°♑25'00	-2°22'15
minimum elong	13884 Mar 07 02:44	26°♑17'02	1°01'23	minimum elong	13885 Feb 17 23:39	9°♑13'50	2°19'47
asc. node	13884 Mar 10 05:29	23°♑24'22		morning rise	13885 Feb 25 06:10	4°♑31'04	
morning rise	13884 Mar 13 21:43	21°♑09'49		asc. node	13885 Feb 25 02:56	4°♑33'28	
direct	13884 Mar 16 05:56	20°♑43'41		direct	13885 Feb 27 08:44	4°♑12'41	
morning max el	13884 Mar 22 18:59	24°♑03'57	17°46'19	morning max el	13885 Mar 06 11:02	7°♑46'33	17°54'28
	13884 Mar 27 14:51	0°♒			13885 Mar 20 20:45	0°♑	
morning set	13884 Apr 08 00:07	18°♒47'19		morning set	13885 Mar 22 01:25	2°♒10'13	
desc. node	13884 Apr 12 02:54	25°♒53'41		desc. node	13885 Mar 29 23:26	16°♒25'33	
	13884 Apr 14 12:36	0°♓					
superior conj	13884 Apr 20 06:28	9°♓36'48	-1°00'50	superior conj	13885 Apr 01 15:45	21°♒06'48	-0°21'11
minimum elong	13884 Apr 20 00:25	9°♓11'53	1°00'35	minimum elong	13885 Apr 01 13:51	20°♒58'35	0°21'10
max. Earth dist.	13884 Apr 26 11:52	19°♓42'15	1.44514 AU		13885 Apr 06 21:10	0°♓	
	13884 May 03 01:01	0°♐		max. Earth dist.	13885 Apr 09 01:56	3°♓38'19	1.42890 AU
evening rise	13884 May 05 08:58	3°♐35'56		evening rise	13885 Apr 15 06:17	13°♓34'46	
	13884 May 23 04:33	0°♑			13885 Apr 26 00:32	0°♐	
evening max el	13884 Jun 03 19:16	14°♑34'56	20°48'04	evening max el	13885 May 17 14:20	28°♐25'11	22°02'59
					13885 May 19 06:16	0°♑	
asc. node	13884 Jun 06 02:32	16°♑41'15		asc. node	13885 May 23 23:39	3°♑15'10	

retrograde	13885 May 27 00:48	3°☿57'20		retrograde	13886 May 10 20:14	18°♊31'27	
evening set	13885 May 31 16:46	2°☿01'26		asc. node	13886 May 10 20:53	18°♊31'27	
	13885 Jun 02 16:59	30°♊II		evening set	13886 May 15 23:45	16°♊21'05	
inferior conj	13885 Jun 05 23:13	25°♊42'39	3°02'24	inferior conj	13886 May 21 08:45	9°♊54'48	2°43'12
minimum elong	13885 Jun 05 22:02	25°♊46'48	3°01'13	minimum elong	13886 May 21 06:55	10°♊01'10	2°41'52
min. Earth dist.	13885 Jun 05 23:07	25°♊43'00	0.68938 AU	min. Earth dist.	13886 May 20 19:51	10°♊39'16	0.68869 AU
morning rise	13885 Jun 11 03:06	19°♊28'53		morning rise	13886 May 26 14:01	3°♊48'35	
direct	13885 Jun 15 22:28	17°♊26'13		direct	13886 May 30 20:45	2°♊06'13	
morning max el	13885 Jun 25 10:03	23°♊00'15	22°11'16	morning max el	13886 Jun 08 03:35	6°♊50'14	20°49'48
desc. node	13885 Jun 26 00:21	23°♊36'44		desc. node	13886 Jun 12 21:25	12°♊11'09	
	13885 Jul 01 12:49	0°☿			13886 Jun 25 18:51	0°☿	
	13885 Jul 22 12:28	0°♊		morning set	13886 Jul 08 02:43	18°☿39'42	
morning set	13885 Jul 28 12:28	9°♊28'52			13886 Jul 15 06:46	0°♊	
max. Earth dist.	13885 Aug 02 20:25	18°♊14'05	1.41306 AU	max. Earth dist.	13886 Jul 16 03:41	1°♊24'22	1.43343 AU
	13885 Aug 09 16:54	0°♊					
				superior conj	13886 Jul 22 23:48	12°♊40'27	-1°48'38
superior conj	13885 Aug 10 15:47	1°♊41'08	-1°17'27	minimum elong	13886 Jul 23 07:07	13°♊11'13	1°48'48
minimum elong	13885 Aug 10 21:40	2°♊07'13	1°17'12		13886 Aug 02 00:41	0°♊	
asc. node	13885 Aug 19 23:58	18°♊44'24		evening rise	13886 Aug 04 00:13	3°♊30'10	
evening rise	13885 Aug 21 02:08	20°♊46'14		asc. node	13886 Aug 06 20:35	8°♊32'28	
	13885 Aug 26 02:25	0°♊		evening max el	13886 Aug 20 13:52	29°♊19'14	18°02'50
evening max el	13885 Sep 06 01:16	16°♊16'37	18°15'52		13886 Aug 21 07:08	0°♊	
retrograde	13885 Sep 13 08:45	19°♊59'28		retrograde	13886 Aug 27 04:49	2°♊44'02	
evening set	13885 Sep 15 11:57	19°♊41'10		evening set	13886 Aug 29 15:45	2°♊15'40	
desc. node	13885 Sep 21 20:59	15°♊51'42			13886 Sep 02 07:57	30°♊♊	
inferior conj	13885 Sep 22 22:04	14°♊59'23	-0°19'41	inferior conj	13886 Sep 05 08:44	27°♊13'44	1°01'15
minimum elong	13885 Sep 22 21:22	15°♊00'53	0°19'14	minimum elong	13886 Sep 05 10:29	27°♊09'29	1°00'28
min. Earth dist.	13885 Sep 26 05:14	12°♊13'21	0.58837 AU	min. Earth dist.	13886 Sep 08 11:05	24°♊13'35	0.61120 AU
morning rise	13885 Sep 30 03:21	9°♊29'49		desc. node	13886 Sep 08 18:33	23°♊56'23	
direct	13885 Oct 06 12:05	7°♊40'54		morning rise	13886 Sep 12 02:24	21°♊16'32	
morning max el	13885 Oct 20 19:33	15°♊23'15	27°29'51	direct	13886 Sep 18 17:40	19°♊03'10	
	13885 Nov 01 16:38	0°♊		morning max el	13886 Oct 02 23:12	26°♊59'19	27°57'54
asc. node	13885 Nov 16 01:53	24°♊36'00			13886 Oct 05 19:48	0°♊	
	13885 Nov 18 18:25	0°♊			13886 Oct 26 08:50	0°♊	
morning set	13885 Nov 21 01:47	4°♊48'56		asc. node	13886 Nov 02 22:39	14°♊20'27	
max. Earth dist.	13885 Nov 27 15:47	19°♊14'47	1.31164 AU	morning set	13886 Nov 05 04:28	18°♊55'23	
					13886 Nov 10 08:42	0°♊	
superior conj	13885 Nov 28 00:39	20°♊04'23	1°31'21	max. Earth dist.	13886 Nov 10 22:35	1°♊16'21	1.31427 AU
minimum elong	13885 Nov 27 23:11	19°♊56'08	1°32'15				
	13885 Dec 02 11:45	0°♊		superior conj	13886 Nov 12 11:12	4°♊38'44	1°19'35
evening rise	13885 Dec 04 18:19	4°♊56'21		minimum elong	13886 Nov 12 09:06	4°♊27'04	1°20'14
	13885 Dec 17 20:20	0°♊		evening rise	13886 Nov 19 04:05	19°♊26'29	
desc. node	13885 Dec 18 18:19	1°♊30'15			13886 Nov 24 05:46	0°♊	
evening max el	13886 Jan 03 01:50	21°♊24'33	26°31'45	desc. node	13886 Dec 05 15:21	19°♊49'52	
retrograde	13886 Jan 17 00:53	28°♊31'45			13886 Dec 13 14:33	0°♊	
evening set	13886 Jan 23 12:44	26°♊48'43		evening max el	13886 Dec 15 18:14	2°♊10'42	25°11'56
min. Earth dist.	13886 Jan 27 15:34	24°♊11'42	0.58755 AU	retrograde	13886 Dec 29 13:58	9°♊06'54	
inferior conj	13886 Jan 30 19:09	21°♊48'36	-3°46'53	evening set	13887 Jan 04 07:43	7°♊52'36	
minimum elong	13886 Jan 31 03:13	21°♊33'17	3°43'28	min. Earth dist.	13887 Jan 09 06:17	5°♊10'57	0.56769 AU
morning rise	13886 Feb 07 20:44	17°♊15'46		inferior conj	13887 Jan 11 23:28	3°♊23'54	-5°04'00
direct	13886 Feb 09 21:21	17°♊01'25		minimum elong	13887 Jan 12 08:05	3°♊09'42	5°01'07
asc. node	13886 Feb 12 00:22	17°♊17'56			13887 Jan 17 23:09	30°♊☿	
morning max el	13886 Feb 17 21:38	20°♊58'52	18°22'14	morning rise	13887 Jan 20 10:53	29°♊13'15	
	13886 Feb 24 17:29	0°♊		direct	13887 Jan 22 15:38	28°♊59'17	
morning set	13886 Mar 05 16:31	16°♊10'08			13887 Jan 27 02:01	0°♊	
	13886 Mar 12 23:57	0°♊		asc. node	13887 Jan 29 21:46	1°♊43'40	
				morning max el	13887 Jan 31 22:48	3°♊29'53	19°11'36
superior conj	13886 Mar 14 22:57	3°♊36'37	0°15'06		13887 Feb 17 10:11	0°♊	
minimum elong	13886 Mar 15 00:02	3°♊41'35	0°14'58	morning set	13887 Feb 17 17:03	0°♊34'04	
behind sun begin	13886 Mar 14 21:31	3°♊30'03					
behind sun end	13886 Mar 15 02:33	3°♊53'06		superior conj	13887 Feb 25 23:41	16°♊54'08	0°45'19
desc. node	13886 Mar 16 19:55	7°♊00'41		minimum elong	13887 Feb 26 02:11	17°♊06'10	0°45'17
max. Earth dist.	13886 Mar 22 11:46	16°♊57'01	1.40836 AU	desc. node	13887 Mar 03 16:23	27°♊35'42	
evening rise	13886 Mar 26 22:48	24°♊25'51		max. Earth dist.	13887 Mar 04 18:27	29°♊33'50	1.38581 AU
	13886 Mar 30 09:17	0°♊			13887 Mar 05 00:16	0°♊	
	13886 Apr 19 20:42	0°♊		evening rise	13887 Mar 08 12:28	6°♊11'19	
evening max el	13886 Apr 30 05:43	12°♊17'05	23°23'33		13887 Mar 23 09:04	0°♊	

evening max el	13887 Apr 12 19:19	26°♄09'48	24°43'25		13888 Mar 16 13:03	0°♄	
	13887 Apr 17 04:51	0°♄		evening max el	13888 Mar 25 08:48	10°♄01'34	25°55'30
retrograde	13887 Apr 24 12:05	2°♄59'38		retrograde	13888 Apr 06 23:25	17°♄15'49	
asc. node	13887 Apr 27 18:15	2°♄13'27		evening set	13888 Apr 13 01:37	14°♄46'01	
evening set	13887 Apr 30 03:15	0°♄37'33		asc. node	13888 Apr 13 15:39	14°♄15'24	
	13887 Apr 30 19:47	30°♄		min. Earth dist.	13888 Apr 17 06:42	10°♄15'55	0.67356 AU
min. Earth dist.	13887 May 04 15:03	25°♄32'05	0.68334 AU	inferior conj	13888 Apr 18 20:47	8°♄16'15	1°33'37
inferior conj	13887 May 05 16:36	24°♄07'09	2°13'43	minimum elong	13888 Apr 18 18:49	8°♄22'25	1°32'24
minimum elong	13887 May 05 14:27	24°♄14'19	2°12'20	morning rise	13888 Apr 24 12:43	2°♄28'31	
morning rise	13887 May 11 01:52	18°♄09'34		direct	13888 Apr 27 20:05	1°♄26'09	
direct	13887 May 14 20:27	16°♄47'57		morning max el	13888 May 04 12:34	5°♄02'05	18°46'57
morning max el	13887 May 22 04:23	20°♄51'35	19°40'44	desc. node	13888 May 16 15:10	21°♄07'39	
	13887 May 29 17:44	0°♄		greatest brilliancy	13888 May 18 15:24	24°♄11'15	-0.8m
desc. node	13887 May 30 18:21	1°♄24'53			13888 May 22 09:48	0°♄	
greatest brilliancy	13887 Jun 03 21:31	7°♄19'25	-0.6m	morning set	13888 May 26 15:21	6°♄34'44	
morning set	13887 Jun 17 04:40	27°♄22'05		max. Earth dist.	13888 Jun 10 10:55	29°♄40'13	1.45712 AU
	13887 Jun 18 21:43	0°♄			13888 Jun 10 15:59	0°♄	
max. Earth dist.	13887 Jun 28 17:11	15°♄18'11	1.44860 AU	superior conj	13888 Jun 11 21:21	1°♄54'50	-2°12'29
superior conj	13887 Jul 03 08:00	22°♄39'32	-2°09'17	minimum elong	13888 Jun 11 18:41	1°♄44'27	2°13'30
minimum elong	13887 Jul 03 12:38	22°♄58'09	2°10'07	evening rise	13888 Jun 27 05:07	26°♄12'09	
	13887 Jul 07 20:44	0°♄			13888 Jun 29 13:51	0°♄	
evening rise	13887 Jul 17 02:39	15°♄21'51		asc. node	13888 Jul 10 14:03	17°♄16'36	
asc. node	13887 Jul 24 17:16	28°♄05'10		evening max el	13888 Jul 17 17:30	26°♄23'05	18°32'24
	13887 Jul 25 21:35	0°♄		retrograde	13888 Jul 24 05:10	29°♄52'59	
evening max el	13887 Aug 04 04:19	12°♄43'58	18°08'38	evening set	13888 Jul 27 09:10	28°♄56'22	
retrograde	13887 Aug 10 13:02	16°♄04'41		inferior conj	13888 Aug 02 02:12	23°♄21'16	2°39'27
evening set	13887 Aug 13 08:18	15°♄23'19		minimum elong	13888 Aug 02 04:21	23°♄14'46	2°38'17
inferior conj	13887 Aug 19 11:27	10°♄03'45	2°00'11	min. Earth dist.	13888 Aug 04 03:48	20°♄51'32	0.65326 AU
minimum elong	13887 Aug 19 13:55	9°♄56'56	1°59'00	morning rise	13888 Aug 07 22:22	16°♄58'22	
min. Earth dist.	13887 Aug 22 02:48	7°♄10'12	0.63348 AU	desc. node	13888 Aug 12 13:36	14°♄30'56	
morning rise	13887 Aug 25 17:38	3°♄49'07		direct	13888 Aug 14 09:16	14°♄18'52	
desc. node	13887 Aug 26 16:06	3°♄09'18		morning max el	13888 Aug 27 18:58	22°♄12'48	27°03'46
direct	13887 Sep 01 09:15	1°♄18'03			13888 Sep 03 15:05	0°♄	
morning max el	13887 Sep 15 07:59	9°♄19'27	27°47'26		13888 Sep 23 16:27	0°♄	
	13887 Oct 01 10:41	0°♄		morning set	13888 Oct 02 09:28	15°♄53'15	
	13887 Oct 18 16:02	0°♄		max. Earth dist.	13888 Oct 06 16:15	24°♄22'11	1.33571 AU
morning set	13887 Oct 19 23:58	2°♄38'59		asc. node	13888 Oct 06 15:56	24°♄20'38	
asc. node	13887 Oct 20 19:19	4°♄16'48			13888 Oct 09 09:51	0°♄	
max. Earth dist.	13887 Oct 24 23:53	13°♄00'30	1.32228 AU	superior conj	13888 Oct 10 21:08	3°♄05'15	0°38'58
superior conj	13887 Oct 27 18:45	19°♄00'50	1°02'05	minimum elong	13888 Oct 10 19:18	2°♄55'31	0°39'06
minimum elong	13887 Oct 27 16:29	18°♄48'26	1°02'27	evening rise	13888 Oct 18 01:41	18°♄25'34	
	13887 Nov 01 19:17	0°♄			13888 Oct 23 17:39	0°♄	
evening rise	13887 Nov 03 15:10	3°♄57'45		evening max el	13888 Nov 07 16:39	22°♄20'08	21°51'45
	13887 Nov 17 10:16	0°♄		desc. node	13888 Nov 08 09:47	23°♄01'02	
desc. node	13887 Nov 22 12:31	7°♄07'37		retrograde	13888 Nov 20 03:56	28°♄30'56	
evening max el	13887 Nov 27 04:24	12°♄17'54	23°32'45	evening set	13888 Nov 23 07:23	28°♄08'47	
retrograde	13887 Dec 10 14:31	18°♄58'28		inferior conj	13888 Dec 02 01:14	24°♄15'14	-5°48'09
evening set	13887 Dec 15 03:14	18°♄13'52		minimum elong	13888 Dec 01 19:58	24°♄22'37	5°46'34
min. Earth dist.	13887 Dec 21 14:51	15°♄08'16	0.55259 AU	min. Earth dist.	13888 Dec 01 21:04	24°♄21'05	0.54522 AU
inferior conj	13887 Dec 23 07:26	14°♄08'43	-5°52'21	morning rise	13888 Dec 10 09:29	20°♄27'44	
minimum elong	13887 Dec 23 11:09	14°♄03'16	5°51'01	direct	13888 Dec 13 23:51	19°♄59'15	
morning rise	13887 Dec 31 20:46	10°♄15'56		morning max el	13888 Dec 26 08:18	25°♄54'57	21°58'17
direct	13888 Jan 03 14:16	9°♄57'45			13888 Dec 30 02:52	0°♄	
morning max el	13888 Jan 14 10:48	15°♄09'43	20°24'08	asc. node	13889 Jan 02 16:19	4°♄45'08	
asc. node	13888 Jan 16 19:06	17°♄38'42		morning set	13889 Jan 16 10:04	29°♄57'06	
	13888 Jan 25 03:38	0°♄			13889 Jan 16 10:37	0°♄	
morning set	13888 Feb 01 23:47	15°♄12'32		superior conj	13889 Jan 23 12:44	15°♄03'36	1°24'57
	13888 Feb 09 04:16	0°♄		minimum elong	13889 Jan 23 14:51	15°♄14'43	1°25'33
superior conj	13888 Feb 09 13:34	0°♄47'08	1°08'36	max. Earth dist.	13889 Jan 27 14:23	23°♄28'28	1.34427 AU
minimum elong	13888 Feb 09 16:15	1°♄00'41	1°08'51		13889 Jan 30 21:15	0°♄	
max. Earth dist.	13888 Feb 15 01:45	11°♄38'00	1.36371 AU	evening rise	13889 Jan 31 21:30	1°♄57'06	
evening rise	13888 Feb 18 21:14	18°♄45'15		desc. node	13889 Feb 04 09:29	8°♄30'25	
desc. node	13888 Feb 18 12:55	18°♄07'14			13889 Feb 17 06:31	0°♄	
	13888 Feb 25 07:05	0°♄		evening max el	13889 Mar 07 22:33	23°♄44'48	26°52'31

	13889 Mar 16 08:51	0°♄			13890 Jan 07 22:46	0°♁	
retrograde	13889 Mar 21 05:05	1°♄11'01		max. Earth dist.	13890 Jan 10 10:56	5°♁23'11	1.32889 AU
	13889 Mar 25 16:17	30°♄♂		evening rise	13890 Jan 15 09:51	15°♁38'16	
evening set	13889 Mar 27 16:55	28°♄♂38'51		desc. node	13890 Jan 22 06:08	28°♁40'46	
min. Earth dist.	13889 Mar 31 16:38	24°♄♂42'32	0.65965 AU		13890 Jan 22 23:48	0°♄	
asc. node	13889 Mar 31 13:06	24°♄♂52'33			13890 Feb 11 22:29	0°♄	
inferior conj	13889 Apr 02 19:02	22°♄♂15'54	0°42'16	evening max el	13890 Feb 18 11:41	7°♄09'09	27°26'59
minimum elong	13889 Apr 02 17:57	22°♄♂19'05	0°41'34	retrograde	13890 Mar 04 04:05	14°♄36'42	
morning rise	13889 Apr 08 20:19	16°♄♂39'48		evening set	13890 Mar 10 22:57	12°♄08'28	
direct	13889 Apr 11 17:36	15°♄♂54'05		min. Earth dist.	13890 Mar 14 18:44	8°♄43'20	0.64213 AU
morning max el	13889 Apr 18 02:28	19°♄♂14'48	18°09'48	inferior conj	13890 Mar 17 08:45	5°♄59'43	-0°20'49
	13889 Apr 26 09:12	0°♄		minimum elong	13890 Mar 17 09:23	5°♄58'02	0°20'33
desc. node	13889 May 03 11:52	11°♄10'57		asc. node	13890 Mar 18 10:34	4°♄52'15	
morning set	13889 May 07 03:04	17°♄01'58		morning rise	13890 Mar 23 21:55	0°♄37'40	
	13889 May 15 05:27	0°♄		direct	13890 Mar 26 10:32	0°♄05'18	
				morning max el	13890 Apr 01 19:37	3°♄22'27	17°49'50
superior conj	13889 May 22 05:49	11°♄03'50	-1°55'35	morning set	13890 Apr 18 18:45	28°♄50'16	
minimum elong	13889 May 21 21:18	10°♄03'29	1°55'54		13890 Apr 19 11:19	0°♄	
max. Earth dist.	13889 May 24 06:44	14°♄01'13	1.45826 AU	desc. node	13890 Apr 20 08:28	1°♄28'54	
	13889 Jun 03 09:40	0°♄					
evening rise	13889 Jun 07 07:52	6°♄05'19		superior conj	13890 May 02 02:34	20°♄51'01	-1°23'08
greatest brilliancy	13889 Jun 19 02:18	24°♄01'53	-0.7m	minimum elong	13890 May 01 18:25	20°♄18'12	1°22'55
	13889 Jun 23 01:11	0°♄		max. Earth dist.	13890 May 07 02:31	28°♄48'51	1.45196 AU
asc. node	13889 Jun 27 10:55	5°♄58'51			13890 May 07 20:34	0°♄	
evening max el	13889 Jul 01 02:51	10°♄09'45	19°13'16	evening rise	13890 May 17 20:18	15°♄29'36	
retrograde	13889 Jul 08 01:50	14°♄01'31			13890 May 27 10:32	0°♄	
evening set	13889 Jul 11 15:06	12°♄48'15		asc. node	13890 Jun 14 07:53	24°♄01'54	
inferior conj	13889 Jul 17 01:29	6°♄59'04	3°02'17	evening max el	13890 Jun 14 06:45	23°♄59'04	20°09'36
minimum elong	13889 Jul 17 02:47	6°♄54'51	3°01'14	retrograde	13890 Jun 22 00:31	28°♄24'12	
min. Earth dist.	13889 Jul 18 12:35	5°♄05'13	0.66925 AU	evening set	13890 Jun 25 23:40	26°♄53'47	
morning rise	13889 Jul 22 13:51	0°♄34'28		inferior conj	13890 Jul 01 06:28	20°♄51'42	3°11'27
	13889 Jul 23 06:27	30°♄♂		minimum elong	13890 Jul 01 06:45	20°♄50'45	3°10'25
direct	13889 Jul 28 16:06	27°♄56'16		min. Earth dist.	13890 Jul 02 03:20	19°♄40'42	0.68081 AU
desc. node	13889 Jul 30 11:02	28°♄08'12		morning rise	13890 Jul 06 13:30	14°♄29'31	
	13889 Aug 03 17:53	0°♄		direct	13890 Jul 12 04:34	12°♄00'55	
morning max el	13889 Aug 10 05:55	5°♄27'08	25°55'16	desc. node	13890 Jul 17 08:22	13°♄40'07	
	13889 Aug 29 03:45	0°♄		morning max el	13890 Jul 23 16:16	18°♄53'44	24°31'25
morning set	13889 Sep 15 05:31	28°♄29'40			13890 Aug 02 01:41	0°♄	
	13889 Sep 16 01:04	0°♄			13890 Aug 22 05:58	0°♄	
max. Earth dist.	13889 Sep 18 22:39	5°♄28'13	1.35414 AU	morning set	13890 Aug 28 07:48	10°♄17'16	
asc. node	13889 Sep 23 12:30	14°♄27'55		max. Earth dist.	13890 Aug 31 22:08	16°♄40'47	1.37631 AU
superior conj	13889 Sep 24 15:43	16°♄45'16	0°10'37	superior conj	13890 Sep 07 23:10	29°♄52'00	-0°22'09
minimum elong	13889 Sep 24 15:06	16°♄42'08	0°10'41	minimum elong	13890 Sep 08 00:39	29°♄59'13	0°21'59
behind sun begin	13889 Sep 24 10:29	16°♄18'45			13890 Sep 08 00:49	0°♄	
behind sun end	13889 Sep 24 19:42	17°♄05'32		asc. node	13890 Sep 10 09:02	4°♄34'23	
	13889 Oct 01 01:45	0°♄		evening rise	13890 Sep 16 12:26	16°♄48'34	
evening rise	13889 Oct 02 09:35	2°♄44'50			13890 Sep 23 09:00	0°♄	
	13889 Oct 18 01:27	0°♄		evening max el	13890 Oct 03 05:30	14°♄13'32	19°17'09
evening max el	13889 Oct 20 15:59	2°♄53'20	20°24'07	retrograde	13890 Oct 12 12:53	18°♄53'21	
desc. node	13889 Oct 26 07:08	7°♄03'53		desc. node	13890 Oct 13 04:35	18°♄52'02	
retrograde	13889 Oct 31 14:53	8°♄20'09		evening set	13890 Oct 14 09:36	18°♄42'56	
evening set	13889 Nov 02 19:14	8°♄08'11		inferior conj	13890 Oct 22 23:18	14°♄33'04	-3°03'30
inferior conj	13889 Nov 11 17:53	4°♄12'37	-4°44'48	minimum elong	13890 Oct 22 15:32	14°♄45'55	2°59'58
minimum elong	13889 Nov 11 07:49	4°♄27'19	4°41'14	min. Earth dist.	13890 Oct 25 14:03	12°♄49'33	0.55814 AU
min. Earth dist.	13889 Nov 13 03:53	3°♄22'55	0.54720 AU	morning rise	13890 Oct 30 19:04	10°♄00'49	
morning rise	13889 Nov 19 19:53	0°♄11'37		direct	13890 Nov 05 04:43	8°♄54'21	
	13889 Nov 20 11:31	30°♄♂		morning max el	13890 Nov 19 05:39	16°♄00'09	25°31'38
direct	13889 Nov 24 09:17	29°♄26'51			13890 Nov 30 12:43	0°♄	
	13889 Nov 28 05:20	0°♄		asc. node	13890 Dec 07 10:26	11°♄29'25	
morning max el	13889 Dec 07 19:36	6°♄01'01	23°46'04	morning set	13890 Dec 16 09:26	29°♄22'57	
asc. node	13889 Dec 20 13:26	22°♄46'46			13890 Dec 16 16:18	0°♄	
	13889 Dec 24 15:15	0°♄					
morning set	13889 Dec 31 21:52	14°♄42'20		superior conj	13890 Dec 23 03:43	14°♄15'36	1°38'05
				minimum elong	13890 Dec 23 03:47	14°♄15'55	1°39'07
superior conj	13890 Jan 07 18:16	29°♄35'31	1°34'39	max. Earth dist.	13890 Dec 24 14:25	17°♄27'08	1.31819 AU
minimum elong	13890 Jan 07 19:25	29°♄41'45	1°35'33	evening rise	13890 Dec 30 07:14	29°♄40'47	

	13890 Dec 30 10:57	0°♊			13891 Dec 08 02:12	0°♊	
desc. node	13891 Jan 09 02:53	18°♊32'06		evening rise	13891 Dec 14 11:07	13°♊58'21	
	13891 Jan 16 01:50	0°♋			13891 Dec 22 11:57	0°♋	
evening max el	13891 Jan 31 22:00	20°♋01'16	27°32'18	desc. node	13891 Dec 26 23:44	7°♋56'37	
retrograde	13891 Feb 14 19:27	27°♋23'45			13892 Jan 11 23:23	0°♋	
evening set	13891 Feb 21 17:06	25°♋06'41		evening max el	13892 Jan 14 02:52	2°♋08'42	27°03'47
min. Earth dist.	13891 Feb 25 11:12	22°♋07'51	0.62178 AU	retrograde	13892 Jan 28 02:16	9°♋22'50	
inferior conj	13891 Feb 28 10:51	19°♋19'46	-1°35'13	evening set	13892 Feb 03 20:06	7°♋24'59	
minimum elong	13891 Feb 28 14:08	19°♋12'02	1°33'35	min. Earth dist.	13892 Feb 07 17:11	4°♋43'42	0.59992 AU
asc. node	13891 Mar 05 08:02	15°♋19'33		inferior conj	13892 Feb 10 21:47	2°♋06'23	-2°58'08
morning rise	13891 Mar 07 13:59	14°♋14'53		minimum elong	13892 Feb 11 04:15	1°♋53'03	2°55'09
direct	13891 Mar 09 19:38	13°♋52'22			13892 Feb 13 13:58	30°♋	
morning max el	13891 Mar 16 13:04	17°♋16'49	17°47'34	morning rise	13892 Feb 18 15:38	27°♋21'35	
	13891 Mar 25 15:45	0°♌		asc. node	13892 Feb 20 05:30	27°♋06'15	
morning set	13891 Apr 01 09:35	11°♌44'01		direct	13892 Feb 20 16:49	27°♋05'23	
desc. node	13891 Apr 07 05:01	21°♌56'53			13892 Feb 27 06:44	0°♌	
	13891 Apr 11 21:38	0°♍		morning max el	13892 Feb 28 03:20	0°♌47'49	18°03'54
				morning set	13892 Mar 14 17:20	25°♌23'57	
superior conj	13891 Apr 12 21:59	1°♍42'41	-0°43'53		13892 Mar 17 04:49	0°♌	
minimum elong	13891 Apr 12 17:45	1°♍24'53	0°43'42	desc. node	13892 Mar 24 01:31	12°♌30'19	
max. Earth dist.	13891 Apr 19 19:32	13°♍04'09	1.43887 AU				
evening rise	13891 Apr 27 10:13	25°♍05'50		superior conj	13892 Mar 24 17:05	13°♌39'31	-0°05'13
	13891 Apr 30 14:43	0°♎		minimum elong	13892 Mar 24 16:39	13°♌37'35	0°05'16
	13891 May 21 12:00	0°♏		behind sun begin	13892 Mar 24 09:14	13°♌04'38	
evening max el	13891 May 28 04:45	7°♏48'58	21°18'49	behind sun end	13892 Mar 25 00:04	14°♌10'27	
asc. node	13891 Jun 01 04:57	11°♏13'12		max. Earth dist.	13892 Apr 01 07:36	26°♌44'25	1.42046 AU
retrograde	13891 Jun 05 23:17	12°♏55'54			13892 Apr 03 06:51	0°♍	
evening set	13891 Jun 10 08:57	11°♏08'48		evening rise	13892 Apr 06 14:57	5°♍24'53	
inferior conj	13891 Jun 15 14:50	4°♏55'21	3°08'49		13892 Apr 22 20:32	0°♎	
minimum elong	13891 Jun 15 14:08	4°♏57'47	3°07'43	evening max el	13892 May 09 21:51	21°♎38'59	22°36'53
min. Earth dist.	13891 Jun 15 22:09	4°♏29'53	0.68761 AU	asc. node	13892 May 18 02:09	27°♎16'11	
	13891 Jun 19 10:09	30°♎		retrograde	13892 May 19 20:27	27°♎30'18	
morning rise	13891 Jun 20 19:08	28°♎38'03		evening set	13892 May 24 17:14	25°♎27'54	
direct	13891 Jun 25 21:44	26°♎24'59		inferior conj	13892 May 30 00:30	19°♎05'18	2°55'32
	13891 Jul 03 10:59	0°♏		minimum elong	13892 May 29 23:00	19°♎10'31	2°54'17
desc. node	13891 Jul 04 05:35	0°♏40'22		min. Earth dist.	13892 May 29 18:52	19°♎24'55	0.68961 AU
morning max el	13891 Jul 06 03:18	2°♏29'17	23°01'55	morning rise	13892 Jun 04 04:39	12°♎54'29	
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morning set	13891 Aug 09 11:56	21°♐06'18		morning max el	13892 Jun 17 17:35	16°♎13'00	21°35'24
max. Earth dist.	13891 Aug 13 20:44	28°♐27'53	1.39993 AU	desc. node	13892 Jun 20 02:43	18°♎45'17	
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					13892 Jul 19 02:29	0°♐	
superior conj	13891 Aug 21 15:36	12°♑16'40	-0°57'21	morning set	13892 Jul 19 15:13	0°♐50'20	
minimum elong	13891 Aug 21 19:53	12°♑36'18	0°57'04	max. Earth dist.	13892 Jul 25 23:30	11°♐04'50	1.42221 AU
asc. node	13891 Aug 28 05:35	24°♑36'52					
evening rise	13891 Aug 31 07:20	0°♒29'32		superior conj	13892 Aug 02 12:34	23°♒49'10	-1°31'31
	13891 Aug 31 01:10	0°♓		minimum elong	13892 Aug 02 19:23	24°♒18'40	1°31'22
evening max el	13891 Sep 16 07:12	26°♓20'37	18°32'07		13892 Aug 06 01:13	0°♑	
	13891 Sep 21 21:10	0°♑		evening rise	13892 Aug 13 14:22	13°♑37'22	
retrograde	13891 Sep 24 05:26	0°♑20'52		asc. node	13892 Aug 14 02:12	14°♑31'18	
evening set	13891 Sep 26 04:43	0°♑06'48			13892 Aug 22 21:46	0°♒	
	13891 Sep 26 15:12	30°♒		evening max el	13892 Aug 29 17:02	9°♒06'04	18°07'56
desc. node	13891 Sep 30 02:04	28°♒26'00		retrograde	13892 Sep 05 16:20	12°♒39'37	
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minimum elong	13891 Oct 03 22:28	25°♒42'48	1°14'14	inferior conj	13892 Sep 15 01:07	7°♒27'15	0°17'20
min. Earth dist.	13891 Oct 07 06:35	23°♒08'41	0.57607 AU	minimum elong	13892 Sep 15 01:42	7°♒25'57	0°17'09
morning rise	13891 Oct 11 12:44	20°♒26'51		desc. node	13892 Sep 15 23:35	6°♒36'22	
direct	13891 Oct 17 14:28	18°♒53'47		min. Earth dist.	13892 Sep 18 07:25	4°♒32'11	0.59799 AU
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	13891 Nov 23 22:28	0°♒		direct	13892 Sep 28 13:48	29°♑44'12	
asc. node	13891 Nov 24 07:20	0°♒42'25			13892 Sep 30 23:50	0°♓	
morning set	13891 Nov 30 19:00	13°♒54'16		morning max el	13892 Oct 12 21:13	7°♓34'16	27°46'33
					13892 Oct 29 21:31	0°♑	
superior conj	13891 Dec 07 15:06	28°♒58'02	1°35'29	asc. node	13892 Nov 10 04:10	20°♑17'34	
minimum elong	13891 Dec 07 14:08	28°♒52'36	1°36'30	morning set	13892 Nov 14 00:49	28°♑11'44	
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































































































































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				minimum elong	13893 Nov 05 09:50	27° $\text{♁}$ 55'14	1°13'24
superior conj	13892 Nov 21 02:32	13° $\text{♁}$ 37'30	1°27'04		13893 Nov 06 08:27	0° $\text{♁}$	
minimum elong	13892 Nov 21 00:45	13° $\text{♁}$ 27'33	1°27'53	evening rise	13893 Nov 12 05:54	12° $\text{♁}$ 57'13	
evening rise	13892 Nov 27 19:20	28° $\text{♁}$ 25'52			13893 Nov 20 16:39	0° $\text{♁}$	
	13892 Nov 28 12:54	0° $\text{♁}$		desc. node	13893 Nov 29 17:48	14° $\text{♁}$ 39'53	
desc. node	13892 Dec 12 20:42	26° $\text{♁}$ 44'12		evening max el	13893 Dec 07 13:32	23° $\text{♁}$ 52'32	24°31'13
	13892 Dec 15 00:12	0° $\text{♁}$			13893 Dec 16 22:46	0° $\text{♁}$	
evening max el	13892 Dec 26 00:12	13° $\text{♁}$ 25'06	26°01'10	retrograde	13893 Dec 21 06:30	0° $\text{♁}$ 42'36	
retrograde	13893 Jan 08 22:47	20° $\text{♁}$ 28'37			13893 Dec 25 15:36	30° $\text{♁}$	
evening set	13893 Jan 15 04:02	18° $\text{♁}$ 57'23		evening set	13893 Dec 26 12:53	29° $\text{♁}$ 41'36	
min. Earth dist.	13893 Jan 19 13:20	16° $\text{♁}$ 20'23	0.57861 AU	min. Earth dist.	13894 Jan 01 01:17	26° $\text{♁}$ 51'58	0.56051 AU
inferior conj	13893 Jan 22 14:05	14° $\text{♁}$ 10'41	-4°21'38	inferior conj	13894 Jan 03 09:31	25° $\text{♁}$ 24'22	-5°29'33
minimum elong	13893 Jan 22 22:52	13° $\text{♁}$ 54'57	4°18'13	minimum elong	13894 Jan 03 16:49	25° $\text{♁}$ 12'57	5°27'19
morning rise	13893 Jan 30 20:38	9° $\text{♁}$ 47'29		morning rise	13894 Jan 11 22:46	21° $\text{♁}$ 21'48	
direct	13893 Feb 01 21:52	9° $\text{♁}$ 33'56		direct	13894 Jan 14 07:47	21° $\text{♁}$ 06'39	
asc. node	13893 Feb 06 02:55	10° $\text{♁}$ 34'37		asc. node	13894 Jan 24 00:17	25° $\text{♁}$ 39'52	
morning max el	13893 Feb 10 10:34	13° $\text{♁}$ 44'43	18°40'31	morning max el	13894 Jan 24 06:27	25° $\text{♁}$ 54'35	19°39'31
	13893 Feb 21 11:48	0° $\text{♁}$			13894 Jan 27 21:05	0° $\text{♁}$	
morning set	13893 Feb 26 12:57	9° $\text{♁}$ 35'27		morning set	13894 Feb 10 16:29	24° $\text{♁}$ 06'21	
					13894 Feb 13 14:24	0° $\text{♁}$	
superior conj	13893 Mar 07 08:22	26° $\text{♁}$ 31'21	0°28'43	superior conj	13894 Feb 18 15:10	10° $\text{♁}$ 04'44	0°56'03
minimum elong	13893 Mar 07 10:14	26° $\text{♁}$ 40'03	0°28'35	minimum elong	13894 Feb 18 17:52	10° $\text{♁}$ 18'00	0°56'06
	13893 Mar 09 05:19	0° $\text{♁}$		max. Earth dist.	13894 Feb 24 21:40	22° $\text{♁}$ 03'45	1.37626 AU
desc. node	13893 Mar 10 22:02	3° $\text{♁}$ 05'58		desc. node	13894 Feb 25 18:33	23° $\text{♁}$ 39'42	
max. Earth dist.	13893 Mar 14 15:18	9° $\text{♁}$ 43'06	1.39882 AU	evening rise	13894 Feb 28 14:49	28° $\text{♁}$ 46'53	
evening rise	13893 Mar 18 16:37	16° $\text{♁}$ 39'50			13894 Mar 01 07:24	0° $\text{♁}$	
	13893 Mar 26 22:42	0° $\text{♁}$			13894 Mar 20 07:15	0° $\text{♁}$	
	13893 Apr 17 11:21	0° $\text{♁}$		evening max el	13894 Apr 05 01:50	19° $\text{♁}$ 24'23	25°15'33
evening max el	13893 Apr 22 12:14	5° $\text{♁}$ 31'08	23°58'03	retrograde	13894 Apr 17 04:30	26° $\text{♁}$ 25'32	
retrograde	13893 May 03 14:36	12° $\text{♁}$ 02'09		asc. node	13894 Apr 21 20:48	24° $\text{♁}$ 52'42	
asc. node	13893 May 04 23:26	11° $\text{♁}$ 53'48		evening set	13894 Apr 23 00:26	23° $\text{♁}$ 59'53	
evening set	13893 May 08 22:56	9° $\text{♁}$ 46'37		min. Earth dist.	13894 Apr 27 09:20	19° $\text{♁}$ 09'27	0.67971 AU
min. Earth dist.	13893 May 13 15:20	4° $\text{♁}$ 20'02	0.68694 AU	inferior conj	13894 Apr 28 16:07	17° $\text{♁}$ 29'17	1°58'03
inferior conj	13893 May 14 09:35	3° $\text{♁}$ 17'56	2°31'59	minimum elong	13894 Apr 28 13:59	17° $\text{♁}$ 36'15	1°56'43
minimum elong	13893 May 14 07:33	3° $\text{♁}$ 24'51	2°30'37	morning rise	13894 May 04 03:52	11° $\text{♁}$ 35'31	
	13893 May 16 22:18	30° $\text{♁}$		direct	13894 May 07 17:39	10° $\text{♁}$ 22'08	
morning rise	13893 May 19 16:12	27° $\text{♁}$ 14'58		morning max el	13894 May 14 17:53	14° $\text{♁}$ 12'13	19°15'51
direct	13893 May 23 17:39	25° $\text{♁}$ 41'26		desc. node	13894 May 24 20:37	27° $\text{♁}$ 04'31	
	13893 May 31 11:02	0° $\text{♁}$			13894 May 26 20:36	0° $\text{♁}$	
morning max el	13893 May 31 13:58	0° $\text{♁}$ 07'13	20°18'36	greatest brilliancy	13894 May 27 12:56	1° $\text{♁}$ 00'29	-0.7m
desc. node	13893 Jun 06 23:43	7° $\text{♁}$ 37'36		morning set	13894 Jun 08 01:00	18° $\text{♁}$ 30'00	
	13893 Jun 22 13:21	0° $\text{♁}$			13894 Jun 15 11:21	0° $\text{♁}$	
morning set	13893 Jun 28 22:01	9° $\text{♁}$ 42'19		max. Earth dist.	13894 Jun 21 00:51	8° $\text{♁}$ 41'40	1.45311 AU
max. Earth dist.	13893 Jul 08 09:02	24° $\text{♁}$ 33'00	1.44062 AU				
	13893 Jul 11 18:12	0° $\text{♁}$		superior conj	13894 Jun 24 09:30	13° $\text{♁}$ 59'48	-2°13'05
superior conj	13893 Jul 14 10:26	4° $\text{♁}$ 22'26	-1°59'07	minimum elong	13894 Jun 24 11:24	14° $\text{♁}$ 07'17	2°14'07
minimum elong	13893 Jul 14 17:16	4° $\text{♁}$ 50'33	1°59'34		13894 Jul 04 08:28	0° $\text{♁}$	
evening rise	13893 Jul 27 04:42	26° $\text{♁}$ 00'04		evening rise	13894 Jul 08 21:17	7° $\text{♁}$ 26'09	
	13893 Jul 29 12:04	0° $\text{♁}$		asc. node	13894 Jul 18 19:35	23° $\text{♁}$ 37'48	
asc. node	13893 Jul 31 22:51	4° $\text{♁}$ 13'18			13894 Jul 23 01:42	0° $\text{♁}$	
evening max el	13893 Aug 13 06:56	22° $\text{♁}$ 19'33	18°03'07	evening max el	13894 Jul 27 21:16	5° $\text{♁}$ 51'48	18°16'38
retrograde	13893 Aug 19 17:57	25° $\text{♁}$ 40'36		retrograde	13894 Aug 03 05:59	9° $\text{♁}$ 14'31	
evening set	13893 Aug 22 08:26	25° $\text{♁}$ 07'01		evening set	13894 Aug 06 05:02	8° $\text{♁}$ 26'42	
inferior conj	13893 Aug 28 19:07	19° $\text{♁}$ 57'35	1°28'47	inferior conj	13894 Aug 12 03:25	3° $\text{♁}$ 00'14	2°18'59
minimum elong	13893 Aug 28 21:20	19° $\text{♁}$ 51'52	1°27'46	minimum elong	13894 Aug 12 05:50	2° $\text{♁}$ 53'15	2°17'48
min. Earth dist.	13893 Aug 31 17:27	16° $\text{♁}$ 57'43	0.62092 AU	min. Earth dist.	13894 Aug 14 13:03	0° $\text{♁}$ 15'19	0.64231 AU
desc. node	13893 Sep 02 21:08	14° $\text{♁}$ 59'09			13894 Aug 14 18:35	30° $\text{♁}$	
morning rise	13893 Sep 04 07:48	13° $\text{♁}$ 51'57		morning rise	13894 Aug 18 05:08	26° $\text{♁}$ 41'27	
direct	13893 Sep 11 00:10	11° $\text{♁}$ 29'44		desc. node	13894 Aug 20 18:39	25° $\text{♁}$ 03'02	
morning max el	13893 Sep 25 03:10	19° $\text{♁}$ 29'22	27°57'51	direct	13894 Aug 24 19:23	24° $\text{♁}$ 05'47	
	13893 Oct 04 02:14	0° $\text{♁}$			13894 Sep 05 08:49	0° $\text{♁}$	
	13893 Oct 22 20:00	0° $\text{♁}$		morning max el	13894 Sep 07 13:04	2° $\text{♁}$ 04'45	27°32'32
asc. node	13893 Oct 28 00:53	10° $\text{♁}$ 07'41			13894 Sep 28 08:28	0° $\text{♁}$	
morning set	13893 Oct 29 00:44	12° $\text{♁}$ 09'06		morning set	13894 Oct 12 16:21	25° $\text{♁}$ 41'08	
max. Earth dist.	13893 Nov 03 10:47	23° $\text{♁}$ 37'37	1.31701 AU	asc. node	13894 Oct 14 21:33	0° $\text{♁}$ 07'54	

	13894 Oct 14 19:59	0°♄		max. Earth dist.	13895 Sep 29 21:07	16°♄27'55	1.34304 AU
max. Earth dist.	13894 Oct 17 08:45	5°♄13'15	1.32742 AU	asc. node	13895 Oct 01 18:08	20°♄13'27	
superior conj	13894 Oct 20 17:44	12°♄23'10	0°52'59	superior conj	13895 Oct 04 17:06	26°♄17'36	0°27'33
minimum elong	13894 Oct 20 15:33	12°♄11'25	0°53'14	minimum elong	13895 Oct 04 15:40	26°♄10'11	0°27'38
evening rise	13894 Oct 27 16:59	27°♄28'04			13895 Oct 06 11:38	0°♄	
	13894 Oct 28 21:34	0°♄		evening rise	13895 Oct 12 02:38	11°♄52'50	
	13894 Nov 15 09:58	0°♄			13895 Oct 21 09:37	0°♄	
desc. node	13894 Nov 16 14:59	1°♄24'42		evening max el	13895 Oct 31 15:19	14°♄03'54	21°12'07
evening max el	13894 Nov 18 23:24	3°♄52'54	22°48'52	desc. node	13895 Nov 03 12:16	16°♄34'19	
retrograde	13894 Dec 02 01:10	10°♄22'10		retrograde	13895 Nov 12 12:21	19°♄57'51	
evening set	13894 Dec 05 23:48	9°♄48'18		evening set	13895 Nov 15 04:08	19°♄41'20	
min. Earth dist.	13894 Dec 13 08:06	6°♄27'04	0.54850 AU	inferior conj	13895 Nov 24 01:37	15°♄48'08	-5°27'48
inferior conj	13894 Dec 14 10:12	5°♄49'59	-5°57'55	minimum elong	13895 Nov 23 17:23	15°♄59'45	5°25'21
minimum elong	13894 Dec 14 10:11	5°♄50'01	5°56'52	min. Earth dist.	13895 Nov 24 13:56	15°♄30'45	0.54491 AU
morning rise	13894 Dec 22 21:56	2°♄01'35		morning rise	13895 Dec 02 07:10	11°♄57'39	
direct	13894 Dec 25 23:55	1°♄39'39		direct	13895 Dec 06 07:16	11°♄23'11	
morning max el	13895 Jan 06 12:01	7°♄09'48	21°01'45	morning max el	13895 Dec 19 04:21	17°♄35'38	22°43'19
asc. node	13895 Jan 10 21:33	12°♄06'57		asc. node	13895 Dec 28 18:43	29°♄38'38	
	13895 Jan 21 16:42	0°♄			13895 Dec 29 00:12	0°♄	
morning set	13895 Jan 26 00:59	8°♄48'04		morning set	13896 Jan 10 12:09	23°♄33'59	
					13896 Jan 13 12:12	0°♄	
superior conj	13895 Feb 02 09:22	24°♄08'24	1°16'22	superior conj	13896 Jan 17 11:35	8°♄32'52	1°29'51
minimum elong	13895 Feb 02 11:52	24°♄21'19	1°16'46	minimum elong	13896 Jan 17 13:19	8°♄42'07	1°30'36
	13895 Feb 05 06:32	0°♄		max. Earth dist.	13896 Jan 20 23:04	15°♄52'13	1.33716 AU
max. Earth dist.	13895 Feb 07 07:06	4°♄00'48	1.35508 AU	evening rise	13896 Jan 25 12:23	25°♄02'59	
evening rise	13895 Feb 11 06:35	11°♄37'33			13896 Jan 28 02:12	0°♄	
desc. node	13895 Feb 12 15:06	14°♄07'55		desc. node	13896 Jan 30 11:42	4°♄26'27	
	13895 Feb 21 19:42	0°♄			13896 Feb 15 07:17	0°♄	
	13895 Mar 15 12:57	0°♄		evening max el	13896 Feb 29 05:00	16°♄49'42	27°10'16
evening max el	13895 Mar 18 15:31	3°♄13'22	26°22'03	retrograde	13896 Mar 13 16:17	24°♄17'57	
retrograde	13895 Mar 31 13:18	10°♄33'24		evening set	13896 Mar 20 07:40	21°♄46'14	
evening set	13895 Apr 06 20:00	8°♄01'50		min. Earth dist.	13896 Mar 24 05:22	18°♄03'56	0.65261 AU
asc. node	13895 Apr 08 18:13	6°♄14'15		asc. node	13896 Mar 25 15:39	16°♄28'34	
min. Earth dist.	13895 Apr 10 22:39	3°♄46'34	0.66815 AU	inferior conj	13896 Mar 26 13:00	15°♄28'26	0°16'58
inferior conj	13895 Apr 12 18:02	1°♄34'27	1°13'15	minimum elong	13896 Mar 26 12:31	15°♄29'46	0°16'37
minimum elong	13895 Apr 12 16:21	1°♄39'36	1°12'11	morning rise	13896 Apr 01 19:04	9°♄58'18	
	13895 Apr 14 01:31	30°♄		direct	13896 Apr 04 12:28	9°♄18'46	
morning rise	13895 Apr 18 13:37	25°♄51'34		morning max el	13896 Apr 10 20:29	12°♄36'29	17°59'15
direct	13895 Apr 21 16:39	24°♄56'32			13896 Apr 23 05:33	0°♄	
morning max el	13895 Apr 28 04:45	28°♄24'05	18°29'07	desc. node	13896 Apr 27 14:02	7°♄06'51	
	13895 Apr 29 17:22	0°♄		morning set	13896 Apr 28 21:01	9°♄13'57	
desc. node	13895 May 11 17:22	16°♄56'28			13896 May 11 17:20	0°♄	
morning set	13895 May 18 21:07	28°♄11'04					
	13895 May 20 00:45	0°♄		superior conj	13896 May 13 06:23	2°♄26'41	-1°43'13
superior conj	13895 Jun 03 18:29	23°♄05'41	-2°07'40	minimum elong	13896 May 12 21:19	1°♄50'50	1°43'15
minimum elong	13895 Jun 03 12:42	22°♄43'09	2°08'27	max. Earth dist.	13896 May 16 16:23	7°♄49'10	1.45642 AU
max. Earth dist.	13895 Jun 03 20:20	23°♄12'55	1.45850 AU	evening rise	13896 May 29 08:10	27°♄26'35	
	13895 Jun 08 04:36	0°♄			13896 May 31 00:06	0°♄	
evening rise	13895 Jun 19 13:08	17°♄50'14		greatest brilliancy	13896 Jun 11 23:09	18°♄05'45	-0.7m
	13895 Jun 27 06:25	0°♄			13896 Jun 20 15:33	0°♄	
greatest brilliancy	13895 Jun 28 08:17	1°♄40'49	-0.8m	asc. node	13896 Jun 21 13:17	1°♄04'22	
asc. node	13895 Jul 05 16:23	12°♄37'33		evening max el	13896 Jun 23 16:05	3°♄21'52	19°35'24
evening max el	13895 Jul 11 09:02	19°♄34'18	18°47'45	retrograde	13896 Jun 30 22:23	7°♄27'03	
retrograde	13895 Jul 18 00:29	23°♄12'05		evening set	13896 Jul 04 15:41	6°♄06'34	
evening set	13895 Jul 21 08:23	22°♄08'22		inferior conj	13896 Jul 10 00:11	0°♄11'33	3°07'44
inferior conj	13895 Jul 26 22:09	16°♄26'50	2°50'57	minimum elong	13896 Jul 10 01:03	0°♄08'39	3°06'42
minimum elong	13895 Jul 26 23:58	16°♄21'07	2°49'51		13896 Jul 10 03:39	30°♄	
min. Earth dist.	13895 Jul 28 17:28	14°♄11'30	0.66052 AU	min. Earth dist.	13896 Jul 11 05:09	28°♄35'18	0.67469 AU
morning rise	13895 Aug 01 14:42	10°♄02'32		morning rise	13896 Jul 15 09:56	23°♄47'18	
direct	13895 Aug 07 22:10	7°♄22'51		direct	13896 Jul 21 07:33	21°♄12'20	
desc. node	13895 Aug 07 16:06	7°♄23'05		desc. node	13896 Jul 24 13:30	21°♄51'48	
morning max el	13895 Aug 21 00:23	15°♄08'40	26°37'15	morning max el	13896 Aug 02 11:15	28°♄29'30	25°20'54
	13895 Sep 02 04:55	0°♄			13896 Aug 03 21:53	0°♄	
	13895 Sep 21 03:20	0°♄			13896 Aug 25 22:49	0°♄	
morning set	13895 Sep 25 20:35	8°♄40'06		morning set	13896 Sep 07 09:37	20°♄57'00	

max. Earth dist.	13896 Sep 10 23:50	27° $\mathbb{M}$ 32'18	1.36318 AU	morning max el	13897 Jul 15 21:31	11° $\mathbb{S}$ 59'36	23°53'24
	13896 Sep 12 07:12	0° $\mathbb{A}$			13897 Jul 30 08:01	0° $\mathbb{Q}$	
					13897 Aug 18 17:43	0° $\mathbb{M}$	
superior conj	13896 Sep 17 07:19	9° $\mathbb{A}$ 43'55	-0°02'53	morning set	13897 Aug 20 03:01	2° $\mathbb{M}$ 21'04	
minimum elong	13896 Sep 17 07:30	9° $\mathbb{A}$ 44'47	0°02'46	max. Earth dist.	13897 Aug 23 21:36	8° $\mathbb{M}$ 54'10	1.38627 AU
behind sun begin	13896 Sep 17 01:13	9° $\mathbb{A}$ 13'33					
behind sun end	13896 Sep 17 13:47	10° $\mathbb{A}$ 16'04		superior conj	13897 Aug 31 08:56	22° $\mathbb{M}$ 34'10	-0°36'57
asc. node	13896 Sep 17 14:41	10° $\mathbb{A}$ 20'37		minimum elong	13897 Aug 31 11:33	22° $\mathbb{M}$ 46'34	0°36'43
evening rise	13896 Sep 25 08:41	26° $\mathbb{A}$ 05'53		asc. node	13897 Sep 04 11:14	0° $\mathbb{A}$ 25'56	
	13896 Sep 27 06:57	0° $\mathbb{M}$			13897 Sep 04 05:54	0° $\mathbb{A}$	
evening max el	13896 Oct 12 20:38	24° $\mathbb{M}$ 56'02	19°52'58	evening rise	13897 Sep 09 08:34	10° $\mathbb{A}$ 00'49	
desc. node	13896 Oct 20 09:39	29° $\mathbb{M}$ 41'53			13897 Sep 20 10:08	0° $\mathbb{M}$	
	13896 Oct 22 02:45	0° $\mathbb{A}$		evening max el	13897 Sep 25 15:55	6° $\mathbb{M}$ 37'47	18°55'29
retrograde	13896 Oct 23 02:50	0° $\mathbb{A}$ 02'49		retrograde	13897 Oct 04 07:58	10° $\mathbb{M}$ 58'59	
	13896 Oct 24 03:12	30° $\mathbb{R}$ $\mathbb{M}$		evening set	13897 Oct 06 05:00	10° $\mathbb{M}$ 47'33	
evening set	13896 Oct 25 01:55	29° $\mathbb{M}$ 52'27		desc. node	13897 Oct 07 07:07	10° $\mathbb{M}$ 30'58	
inferior conj	13896 Nov 02 22:16	25° $\mathbb{M}$ 52'05	-4°04'35	inferior conj	13897 Oct 14 12:04	6° $\mathbb{M}$ 29'58	-2°17'01
minimum elong	13896 Nov 02 12:31	26° $\mathbb{M}$ 07'01	4°00'41	minimum elong	13897 Oct 14 06:18	6° $\mathbb{M}$ 40'08	2°14'14
min. Earth dist.	13896 Nov 04 22:10	24° $\mathbb{M}$ 38'44	0.55077 AU	min. Earth dist.	13897 Oct 17 10:57	4° $\mathbb{M}$ 25'31	0.56504 AU
morning rise	13896 Nov 10 21:40	21° $\mathbb{M}$ 39'01		morning rise	13897 Oct 22 04:32	1° $\mathbb{M}$ 41'45	
direct	13896 Nov 15 19:55	20° $\mathbb{M}$ 45'42		direct	13897 Oct 27 21:52	0° $\mathbb{M}$ 24'00	
morning max el	13896 Nov 29 14:10	27° $\mathbb{M}$ 35'01	24°32'24	morning max el	13897 Nov 11 02:01	7° $\mathbb{M}$ 41'50	26°11'05
	13896 Dec 01 23:15	0° $\mathbb{A}$			13897 Nov 27 15:33	0° $\mathbb{A}$	
asc. node	13896 Dec 14 15:47	17° $\mathbb{A}$ 59'13		asc. node	13897 Dec 01 12:46	6° $\mathbb{A}$ 56'16	
	13896 Dec 21 00:42	0° $\mathbb{S}$		morning set	13897 Dec 09 10:59	22° $\mathbb{A}$ 55'22	
morning set	13896 Dec 25 00:03	8° $\mathbb{S}$ 17'54			13897 Dec 12 16:46	0° $\mathbb{S}$	
superior conj	13896 Dec 31 19:04	23° $\mathbb{S}$ 09'23	1°36'50	superior conj	13897 Dec 16 05:37	7° $\mathbb{S}$ 51'41	1°37'42
minimum elong	13896 Dec 31 19:45	23° $\mathbb{S}$ 13'10	1°37'51	minimum elong	13897 Dec 16 05:13	7° $\mathbb{S}$ 49'30	1°38'45
max. Earth dist.	13897 Jan 02 22:33	27° $\mathbb{S}$ 49'43	1.32368 AU	max. Earth dist.	13897 Dec 17 04:07	9° $\mathbb{S}$ 56'46	1.31515 AU
	13897 Jan 03 22:45	0° $\mathbb{A}$		evening rise	13897 Dec 23 05:23	23° $\mathbb{S}$ 04'35	
evening rise	13897 Jan 08 04:54	8° $\mathbb{A}$ 54'14			13897 Dec 26 14:33	0° $\mathbb{A}$	
desc. node	13897 Jan 16 08:22	24° $\mathbb{A}$ 29'32		desc. node	13898 Jan 03 05:10	14° $\mathbb{A}$ 10'51	
	13897 Jan 19 12:14	0° $\mathbb{A}$			13898 Jan 13 08:36	0° $\mathbb{A}$	
evening max el	13897 Feb 10 17:03	0° $\mathbb{Y}$ 01'32	27°33'07	evening max el	13898 Jan 24 01:35	12° $\mathbb{A}$ 36'59	27°24'28
	13897 Feb 10 16:24	0° $\mathbb{Y}$		retrograde	13898 Feb 07 00:28	19° $\mathbb{A}$ 56'00	
retrograde	13897 Feb 24 12:28	7° $\mathbb{Y}$ 28'31		evening set	13898 Feb 13 21:10	17° $\mathbb{A}$ 46'29	
evening set	13897 Mar 03 09:01	5° $\mathbb{Y}$ 03'58		min. Earth dist.	13898 Feb 17 15:56	14° $\mathbb{A}$ 56'03	0.61259 AU
min. Earth dist.	13897 Mar 07 03:36	1° $\mathbb{Y}$ 50'46	0.63371 AU	inferior conj	13898 Feb 20 18:18	12° $\mathbb{A}$ 10'42	-2°09'39
	13897 Mar 08 23:50	30° $\mathbb{R}$ $\mathbb{A}$		minimum elong	13898 Feb 20 22:55	12° $\mathbb{A}$ 00'24	2°07'24
inferior conj	13897 Mar 09 22:10	29° $\mathbb{A}$ 03'14	-0°51'04	asc. node	13898 Feb 27 10:35	7° $\mathbb{A}$ 28'24	
minimum elong	13897 Mar 09 23:49	28° $\mathbb{A}$ 59'04	0°50'16	morning rise	13898 Feb 28 03:42	7° $\mathbb{A}$ 13'41	
asc. node	13897 Mar 12 13:07	26° $\mathbb{A}$ 32'06		direct	13898 Mar 02 06:59	6° $\mathbb{A}$ 54'19	
morning rise	13897 Mar 16 17:06	23° $\mathbb{A}$ 48'16		morning max el	13898 Mar 09 06:41	10° $\mathbb{A}$ 25'27	17°52'02
direct	13897 Mar 19 02:23	23° $\mathbb{A}$ 20'40			13898 Mar 22 06:04	0° $\mathbb{Y}$	
morning max el	13897 Mar 25 14:11	26° $\mathbb{A}$ 39'55	17°46'39	morning set	13898 Mar 24 22:02	4° $\mathbb{Y}$ 47'52	
	13897 Mar 28 12:28	0° $\mathbb{Y}$		desc. node	13898 Apr 01 07:09	18° $\mathbb{Y}$ 00'15	
morning set	13897 Apr 10 23:18	21° $\mathbb{Y}$ 32'15					
desc. node	13897 Apr 14 10:37	27° $\mathbb{Y}$ 29'33		superior conj	13898 Apr 04 17:50	23° $\mathbb{Y}$ 59'43	-0°27'05
	13897 Apr 15 21:57	0° $\mathbb{B}$		minimum elong	13898 Apr 04 15:21	23° $\mathbb{Y}$ 49'04	0°27'00
					13898 Apr 08 06:42	0° $\mathbb{B}$	
superior conj	13897 Apr 23 12:10	12° $\mathbb{B}$ 40'01	-1°06'49	max. Earth dist.	13898 Apr 12 01:35	6° $\mathbb{B}$ 16'08	1.43166 AU
minimum elong	13897 Apr 23 05:30	12° $\mathbb{B}$ 12'44	1°06'33	evening rise	13898 Apr 18 14:08	16° $\mathbb{B}$ 42'28	
max. Earth dist.	13897 Apr 29 10:37	22° $\mathbb{B}$ 14'30	1.44714 AU		13898 Apr 27 06:40	0° $\mathbb{I}$	
	13897 May 04 08:54	0° $\mathbb{I}$			13898 May 19 13:18	0° $\mathbb{S}$	
evening rise	13897 May 08 19:08	6° $\mathbb{I}$ 50'31		evening max el	13898 May 20 13:16	1° $\mathbb{S}$ 01'44	21°51'21
	13897 May 24 07:50	0° $\mathbb{S}$		asc. node	13898 May 26 07:25	5° $\mathbb{S}$ 31'30	
evening max el	13897 Jun 06 17:25	17° $\mathbb{S}$ 11'24	20°37'43	retrograde	13898 May 29 19:27	6° $\mathbb{S}$ 27'08	
asc. node	13897 Jun 08 10:17	18° $\mathbb{S}$ 47'06		evening set	13898 Jun 03 09:48	4° $\mathbb{S}$ 33'26	
retrograde	13897 Jun 14 21:19	21° $\mathbb{S}$ 53'48			13898 Jun 07 09:59	30° $\mathbb{R}$ $\mathbb{I}$	
evening set	13897 Jun 19 00:45	20° $\mathbb{S}$ 16'26		inferior conj	13898 Jun 08 16:03	28° $\mathbb{I}$ 16'03	3°04'26
inferior conj	13897 Jun 24 06:53	14° $\mathbb{S}$ 09'24	3°11'42	minimum elong	13898 Jun 08 14:59	28° $\mathbb{I}$ 19'46	3°03'16
minimum elong	13897 Jun 24 06:44	14° $\mathbb{S}$ 09'55	3°10'38	min. Earth dist.	13898 Jun 08 17:51	28° $\mathbb{I}$ 09'45	0.68909 AU
min. Earth dist.	13897 Jun 24 22:00	13° $\mathbb{S}$ 17'18	0.68428 AU	morning rise	13898 Jun 13 19:57	22° $\mathbb{I}$ 01'25	
morning rise	13897 Jun 29 12:25	7° $\mathbb{S}$ 48'51		direct	13898 Jun 18 17:15	19° $\mathbb{I}$ 55'55	
direct	13897 Jul 04 22:19	5° $\mathbb{S}$ 26'01		desc. node	13898 Jun 28 08:00	25° $\mathbb{I}$ 34'12	
desc. node	13897 Jul 11 10:48	8° $\mathbb{S}$ 04'06		morning max el	13898 Jun 28 09:21	25° $\mathbb{I}$ 37'36	22°24'12
































































































































	13898 Jul 02 08:41	0°☿		morning max el	13899 Jun 11 02:01	9°☿26'18	21°01'16
	13898 Jul 23 19:27	0°♌		desc. node	13899 Jun 15 05:04	14°☿01'29	
morning set	13898 Jul 31 20:33	12°♌41'52			13899 Jun 26 23:41	0°☿	
max. Earth dist.	13898 Aug 05 21:34	21°♌01'50	1.40976 AU	morning set	13899 Jul 11 13:59	22°☿00'58	
	13898 Aug 11 02:51	0°♍		max. Earth dist.	13899 Jul 16 15:11	0°♌	
					13899 Jul 19 03:49	4°♌04'28	1.43071 AU
superior conj	13898 Aug 13 17:39	4°♍37'59	-1°12'14				
minimum elong	13898 Aug 13 23:08	5°♍02'32	1°11'59	superior conj	13899 Jul 26 05:08	15°♌46'12	-1°44'25
asc. node	13898 Aug 22 07:49	20°♍25'27		minimum elong	13899 Jul 26 12:26	16°♌17'08	1°44'29
evening rise	13898 Aug 23 22:55	23°♍28'48			13899 Aug 03 10:09	0°♍	
	13898 Aug 27 10:52	0°♎		evening rise	13899 Aug 06 23:32	6°♍19'41	
evening max el	13898 Sep 08 21:38	19°♎02'22	18°19'24	asc. node	13899 Aug 09 04:27	10°♍15'37	
retrograde	13898 Sep 16 08:32	22°♎49'17			13899 Aug 21 13:38	0°♎	
evening set	13898 Sep 18 10:40	22°♎32'10		evening max el	13899 Aug 23 09:37	2°♎00'46	18°03'28
desc. node	13898 Sep 24 04:39	19°♎19'35		retrograde	13899 Aug 30 02:27	5°♎27'29	
inferior conj	13898 Sep 25 23:31	17°♎53'19	-0°33'48	evening set	13899 Sep 01 12:06	5°♎00'55	
minimum elong	13898 Sep 25 22:16	17°♎55'54	0°33'05	inferior conj	13899 Sep 08 07:28	0°♎01'48	0°50'23
min. Earth dist.	13898 Sep 29 06:28	15°♎11'21	0.58512 AU	minimum elong	13899 Sep 08 08:57	29°♍58'14	0°49'44
morning rise	13898 Oct 03 06:24	12°♎28'37			13899 Sep 08 08:13	30°♍	
direct	13898 Oct 09 13:32	10°♎43'51		desc. node	13899 Sep 11 02:10	27°♍22'35	
morning max el	13898 Oct 23 21:00	18°♎23'18	27°22'22	min. Earth dist.	13899 Sep 11 11:01	27°♍02'17	0.60781 AU
	13898 Nov 02 15:18	0°♏		morning rise	13899 Sep 15 02:52	24°♍07'52	
asc. node	13898 Nov 18 09:39	26°♏19'28		direct	13899 Sep 21 17:29	21°♍57'46	
	13898 Nov 20 06:07	0°♐		morning max el	13899 Oct 05 23:46	29°♍52'39	27°56'12
morning set	13898 Nov 23 19:11	7°♐20'59			13899 Oct 06 02:44	0°♎	
					13899 Oct 27 16:42	0°♏	
superior conj	13898 Nov 30 17:13	22°♐33'06	1°32'38	asc. node	13899 Nov 05 06:27	16°♏01'39	
minimum elong	13898 Nov 30 15:52	22°♐25'32	1°33'34	morning set	13899 Nov 07 22:46	21°♏30'19	
max. Earth dist.	13898 Nov 30 12:26	22°♐06'21	1.31170 AU		13899 Nov 11 22:16	0°♐	
	13898 Dec 04 01:23	0°♑		max. Earth dist.	13899 Nov 13 19:42	4°♐09'27	1.31351 AU
evening rise	13898 Dec 07 11:21	7°♑26'56					
	13898 Dec 19 02:13	0°♒		superior conj	13899 Nov 15 04:03	7°♐08'41	1°21'45
desc. node	13898 Dec 21 02:05	3°♒21'06		minimum elong	13899 Nov 15 02:01	6°♐57'24	1°22'26
evening max el	13899 Jan 06 03:41	24°♒23'47	26°41'09	evening rise	13899 Nov 21 20:47	21°♐56'17	
	13899 Jan 13 21:07	0°♓			13899 Nov 25 16:47	0°♑	
retrograde	13899 Jan 20 02:45	1°♓32'38		desc. node	13899 Dec 07 23:06	21°♑48'26	
	13899 Jan 26 05:16	30°♓			13899 Dec 14 00:04	0°♒	
evening set	13899 Jan 26 16:32	29°♒45'33		evening max el	13899 Dec 18 21:14	5°♒16'57	25°25'26
min. Earth dist.	13899 Jan 30 17:32	27°♒07'59	0.59071 AU	retrograde	13900 Jan 01 17:53	12°♒15'24	
inferior conj	13899 Feb 02 21:43	24°♒40'43	-3°34'12	evening set	13900 Jan 07 14:58	10°♒56'34	
minimum elong	13899 Feb 03 05:25	24°♒25'47	3°30'51	min. Earth dist.	13900 Jan 12 09:28	8°♒16'47	0.57032 AU
morning rise	13899 Feb 10 21:24	20°♒04'45		inferior conj	13900 Jan 15 05:08	6°♒23'22	-4°53'41
direct	13899 Feb 12 22:04	19°♒50'01		minimum elong	13900 Jan 15 13:58	6°♒08'31	4°50'36
asc. node	13899 Feb 14 08:02	19°♒57'29		morning rise	13900 Jan 23 15:33	2°♒09'44	
morning max el	13899 Feb 20 18:24	23°♒43'06	18°16'50	direct	13900 Jan 25 19:05	1°♒56'02	
	13899 Feb 25 19:33	0°♓		asc. node	13900 Feb 01 05:27	4°♒08'17	
morning set	13899 Mar 08 11:26	18°♓43'27		morning max el	13900 Feb 03 21:16	6°♒21'14	19°02'55
	13899 Mar 14 11:02	0°♈			13900 Feb 18 21:16	0°♓	
				morning set	13900 Feb 20 10:50	3°♓04'32	
superior conj	13899 Mar 17 22:05	6°♈21'47	0°09'57				
minimum elong	13899 Mar 17 22:50	6°♈25'08	0°09'49	superior conj	13900 Feb 28 20:32	19°♓33'18	0°41'10
behind sun begin	13899 Mar 17 16:56	5°♈58'23		minimum elong	13900 Feb 28 22:55	19°♓44'38	0°41'04
behind sun end	13899 Mar 18 04:43	6°♈51'50		desc. node	13900 Mar 06 00:11	29°♓10'51	
desc. node	13899 Mar 19 03:41	8°♈35'22			13900 Mar 06 11:00	0°♈	
max. Earth dist.	13899 Mar 25 12:13	19°♈41'46	1.41158 AU	max. Earth dist.	13900 Mar 07 19:00	2°♈23'59	1.38913 AU
evening rise	13899 Mar 30 03:34	27°♈25'27		evening rise	13900 Mar 11 14:09	9°♈03'14	
	13899 Mar 31 17:40	0°♉			13900 Mar 24 14:46	0°♉	
	13899 Apr 20 21:53	0°♊		evening max el	13900 Apr 15 18:42	28°♉45'54	24°31'48
evening max el	13899 May 03 05:02	14°♊53'19	23°11'23		13900 Apr 17 01:36	0°♊	
asc. node	13899 May 13 04:38	21°♊00'57		retrograde	13900 Apr 27 07:55	5°♊31'27	
retrograde	13899 May 13 15:24	21°♊01'52		asc. node	13900 Apr 30 01:57	4°♊58'14	
evening set	13899 May 18 17:12	18°♊53'23		evening set	13900 May 02 21:19	3°♊10'52	
min. Earth dist.	13899 May 23 14:38	13°♊06'10	0.68909 AU		13900 May 05 21:03	30°♓	
inferior conj	13899 May 24 01:41	12°♊27'56	2°46'46	min. Earth dist.	13900 May 07 10:13	27°♉59'58	0.68442 AU
minimum elong	13899 May 23 23:56	12°♊34'02	2°45'28	inferior conj	13900 May 08 09:55	26°♉40'41	2°18'51
morning rise	13899 May 29 06:35	6°♊20'35		minimum elong	13900 May 08 07:47	26°♉47'49	2°17'30
direct	13899 Jun 02 15:09	4°♊35'16		morning rise	13900 May 13 18:25	20°♉41'40	

direct	13900 May 17 14:43	19°  17'03		desc. node	13901 May 19 22:51	22°  48'56	
morning max el	13900 May 25 01:42	23°  26'10	19°50'03	greatest brilliancy	13901 May 21 21:37	25°  45'12	-0.8m
	13900 May 30 17:09	0°  II			13901 May 24 16:20	0°  II	
desc. node	13900 Jun 02 02:01	3°  II10'02		morning set	13901 May 31 00:29	9°  II48'09	
	13900 Jun 20 05:02	0°  ☿			13901 Jun 13 00:02	0°  ☿	
morning set	13900 Jun 20 16:31	0°  ☿44'05		max. Earth dist.	13901 Jun 14 09:14	2°  ☿09'45	1.45633 AU
max. Earth dist.	13900 Jul 01 16:11	17°  ☿51'39	1.44674 AU				
				superior conj	13901 Jun 16 08:11	5°  ☿13'38	-2°13'19
superior conj	13900 Jul 06 16:45	25°  ☿53'49	-2°07'09	minimum elong	13901 Jun 16 06:44	5°  ☿07'59	2°14'21
minimum elong	13900 Jul 06 22:09	26°  ☿15'35	2°07'53	evening rise	13901 Jul 01 11:16	29°  ☿19'01	
	13900 Jul 09 05:24	0°  ♊			13901 Jul 01 21:24	0°  ♊	
evening rise	13900 Jul 20 05:11	18°  ♊19'48		asc. node	13901 Jul 13 21:51	19°  ♊06'03	
asc. node	13900 Jul 27 01:08	29°  ♊51'05		evening max el	13901 Jul 21 13:33	29°  ♊00'32	18°27'49
	13900 Jul 27 03:17	0°  ♋			13901 Jul 22 15:11	0°  ♋	
evening max el	13900 Aug 07 00:00	15°  ♋23'00	18°06'37	retrograde	13901 Jul 28 00:11	2°  ♋28'05	
retrograde	13900 Aug 13 09:05	18°  ♋43'27		evening set	13901 Jul 31 02:53	1°  ♋33'49	
evening set	13900 Aug 16 03:04	18°  ♋04'14			13901 Aug 02 05:09	30°  ♋♌	
inferior conj	13900 Aug 22 08:04	12°  ♋47'19	1°52'30	inferior conj	13901 Aug 05 21:12	26°  ♌01'00	2°34'35
minimum elong	13900 Aug 22 10:30	12°  ♋40'41	1°51'22	minimum elong	13901 Aug 05 23:26	25°  ♌54'18	2°33'25
min. Earth dist.	13900 Aug 25 01:22	9°  ♋51'25	0.63029 AU	min. Earth dist.	13901 Aug 08 00:57	23°  ♌26'51	0.65054 AU
morning rise	13900 Aug 28 15:52	6°  ♋34'38		morning rise	13901 Aug 11 18:45	19°  ♌39'01	
desc. node	13900 Aug 28 23:40	6°  ♋20'24		desc. node	13901 Aug 15 21:10	17°  ♌20'55	
direct	13900 Sep 04 07:50	4°  ♋05'29		direct	13901 Aug 18 06:42	17°  ♌00'07	
morning max el	13900 Sep 18 07:57	12°  ♋07'08	27°51'14	morning max el	13901 Aug 31 18:36	24°  ♌55'49	27°12'03
	13900 Oct 02 13:28	0°  ♌			13901 Sep 05 09:13	0°  ♋	
	13900 Oct 20 03:20	0°  ♌			13901 Sep 26 00:35	0°  ♌	
morning set	13900 Oct 22 19:30	5°  ♌18'18		morning set	13901 Oct 06 06:38	18°  ♌37'21	
asc. node	13900 Oct 23 03:10	5°  ♌57'07		asc. node	13901 Oct 09 23:46	26°  ♌00'18	
max. Earth dist.	13900 Oct 27 21:59	15°  ♌56'52	1.32071 AU	max. Earth dist.	13901 Oct 10 15:44	27°  ♌21'43	1.33339 AU
					13901 Oct 11 22:28	0°  ♌	
superior conj	13900 Oct 30 12:12	21°  ♌33'36	1°05'08				
minimum elong	13900 Oct 30 09:55	21°  ♌21'06	1°05'31	superior conj	13901 Oct 14 15:28	5°  ♌41'13	0°42'51
	13900 Nov 03 08:30	0°  ♍		minimum elong	13901 Oct 14 13:31	5°  ♌30'50	0°43'00
evening rise	13900 Nov 06 07:48	6°  ♍28'08		evening rise	13901 Oct 21 18:28	20°  ♌56'57	
	13900 Nov 18 12:25	0°  ♍			13901 Oct 26 03:25	0°  ♍	
desc. node	13900 Nov 24 20:12	9°  ♍17'08		desc. node	13901 Nov 11 17:26	25°  ♍25'04	
evening max el	13900 Nov 30 07:59	15°  ♍28'52	23°48'06	evening max el	13901 Nov 11 19:21	25°  ♍29'45	22°06'15
retrograde	13900 Dec 13 20:25	22°  ♍12'25			13901 Nov 17 18:17	0°  ♍	
evening set	13900 Dec 18 13:51	21°  ♍23'45		retrograde	13901 Nov 24 10:48	1°  ♍45'37	
min. Earth dist.	13900 Dec 24 18:57	18°  ♍22'49	0.55438 AU	evening set	13901 Nov 27 19:03	1°  ♍20'51	
inferior conj	13900 Dec 26 15:57	17°  ♍15'48	-5°47'56		13901 Dec 01 14:18	30°  ♋♌	
minimum elong	13900 Dec 26 20:48	17°  ♍08'35	5°46'25	inferior conj	13901 Dec 06 11:10	27°  ♌26'39	-5°52'44
morning rise	13901 Jan 04 05:33	13°  ♍20'43		minimum elong	13901 Dec 06 07:12	27°  ♌32'13	5°51'22
direct	13901 Jan 06 20:25	13°  ♍03'34		min. Earth dist.	13901 Dec 06 01:15	27°  ♌40'34	0.54580 AU
morning max el	13901 Jan 17 11:26	18°  ♍09'23	20°11'51	morning rise	13901 Dec 14 20:23	23°  ♌39'24	
asc. node	13901 Jan 19 02:46	19°  ♍50'57		direct	13901 Dec 18 07:29	23°  ♌12'46	
	13901 Jan 26 09:07	0°  ♎		morning max el	13901 Dec 30 10:52	29°  ♌02'02	21°43'02
morning set	13901 Feb 04 16:46	17°  ♎41'14			13901 Dec 31 10:23	0°  ♍	
	13901 Feb 10 16:49	0°  ♎		asc. node	13902 Jan 05 24:00	6°  ♍47'40	
					13902 Jan 18 22:49	0°  ♎	
superior conj	13901 Feb 12 08:41	3°  ♎21'33	1°05'31	morning set	13902 Jan 20 02:38	2°  ♎25'09	
minimum elong	13901 Feb 12 11:24	3°  ♎35'10	1°05'42				
max. Earth dist.	13901 Feb 18 01:43	14°  ♎31'04	1.36687 AU	superior conj	13902 Jan 27 06:38	17°  ♎34'50	1°22'53
desc. node	13901 Feb 20 20:43	19°  ♎43'16		minimum elong	13902 Jan 27 08:52	17°  ♎46'31	1°23'27
evening rise	13901 Feb 21 20:17	21°  ♎30'34		max. Earth dist.	13902 Jan 31 13:23	26°  ♎22'32	1.34698 AU
	13901 Feb 26 16:10	0°  ♏			13902 Feb 02 09:09	0°  ♎	
	13901 Mar 18 12:04	0°  ♏		evening rise	13902 Feb 04 18:27	4°  ♎37'14	
evening max el	13901 Mar 29 08:09	12°  ♏38'05	25°45'35	desc. node	13902 Feb 07 17:17	10°  ♎07'59	
retrograde	13901 Apr 10 19:58	19°  ♏49'31			13902 Feb 19 11:57	0°  ♏	
evening set	13901 Apr 16 20:32	17°  ♏20'42		evening max el	13902 Mar 11 21:59	26°  ♏23'25	26°45'19
asc. node	13901 Apr 16 23:18	17°  ♏14'51			13902 Mar 16 01:37	0°  ♏	
min. Earth dist.	13901 Apr 21 02:34	12°  ♏45'17	0.67529 AU	retrograde	13902 Mar 25 02:26	3°  ♏48'10	
inferior conj	13901 Apr 22 14:45	10°  ♏50'26	1°40'26	evening set	13902 Mar 31 12:58	1°  ♏16'06	
minimum elong	13901 Apr 22 12:43	10°  ♏56'53	1°39'10		13902 Apr 01 23:35	30°  ♋♌	
morning rise	13901 Apr 28 05:30	5°  ♏01'01		asc. node	13902 Apr 03 20:43	28°  ♏02'22	
direct	13901 May 01 14:29	3°  ♏55'52		min. Earth dist.	13902 Apr 04 13:27	27°  ♏14'52	0.66196 AU
morning max el	13901 May 08 08:45	7°  ♏35'10	18°53'52	inferior conj	13902 Apr 06 14:01	24°  ♏51'49	0°50'51

minimum elong	13902 Apr 06 12:44	24° $\Upsilon$ 55'35	0°50'01	minimum elong	13903 Mar 21 05:29	8° $\Upsilon$ 37'37	0°10'24
morning rise	13902 Apr 12 13:43	19° $\Upsilon$ 13'47		transit middle	13903 Mar 21 05:29	8° $\Upsilon$ 37'37	0°10'24
direct	13902 Apr 15 12:29	18° $\Upsilon$ 25'41		transit begin	13903 Mar 21 03:09	8° $\Upsilon$ 43'55	
morning max el	13902 Apr 21 21:53	21° $\Upsilon$ 47'47	18°14'17	transit end	13903 Mar 21 07:50	8° $\Upsilon$ 31'19	
	13902 Apr 28 11:51	0° $\text{B}$		asc. node	13903 Mar 21 18:12	8° $\Upsilon$ 03'38	
desc. node	13902 May 06 19:36	12° $\text{B}$ 49'46		morning rise	13903 Mar 27 16:25	3° $\Upsilon$ 14'16	
morning set	13902 May 11 08:03	20° $\text{B}$ 03'31		direct	13903 Mar 30 06:17	2° $\Upsilon$ 40'06	
	13902 May 17 13:38	0° $\text{II}$		morning max el	13903 Apr 05 14:46	5° $\Upsilon$ 56'56	17°51'47
					13903 Apr 21 19:45	0° $\text{B}$	
superior conj	13902 May 26 16:15	14° $\text{II}$ 20'48	-1°59'18	morning set	13903 Apr 22 19:48	1° $\text{B}$ 40'37	
minimum elong	13902 May 26 08:15	13° $\text{II}$ 49'29	1°59'46	desc. node	13903 Apr 23 16:14	3° $\text{B}$ 06'03	
max. Earth dist.	13902 May 28 05:12	16° $\text{II}$ 45'11	1.45856 AU				
	13902 Jun 05 17:18	0° $\text{B}$		superior conj	13903 May 06 10:19	24° $\text{B}$ 00'11	-1°28'42
evening rise	13902 Jun 11 17:14	9° $\text{B}$ 20'05		minimum elong	13903 May 06 01:46	23° $\text{B}$ 25'58	1°28'31
greatest brilliancy	13902 Jun 22 18:11	26° $\text{B}$ 24'08	-0.8m		13903 May 10 04:51	0° $\text{II}$	
	13902 Jun 25 03:46	0° $\Omega$		max. Earth dist.	13903 May 11 01:22	1° $\text{II}$ 20'56	1.45331 AU
asc. node	13902 Jun 30 18:40	7° $\Omega$ 53'31		evening rise	13903 May 22 06:55	18° $\text{II}$ 46'25	
evening max el	13902 Jul 04 23:38	12° $\Omega$ 46'52	19°06'08		13903 May 29 16:16	0° $\text{B}$	
retrograde	13902 Jul 11 20:20	16° $\Omega$ 34'29		greatest brilliancy	13903 Jun 06 04:32	11° $\text{B}$ 07'50	-0.6m
evening set	13902 Jul 15 08:14	15° $\Omega$ 23'38		asc. node	13903 Jun 17 15:37	26° $\text{B}$ 03'26	
inferior conj	13902 Jul 20 19:24	9° $\Omega$ 36'25	2°59'45	evening max el	13903 Jun 18 04:23	26° $\text{B}$ 36'03	20°00'16
minimum elong	13902 Jul 20 20:50	9° $\Omega$ 31'46	2°58'41		13903 Jun 22 11:40	0° $\Omega$	
min. Earth dist.	13902 Jul 22 08:36	7° $\Omega$ 36'49	0.66715 AU	retrograde	13903 Jun 25 18:57	0° $\Omega$ 55'43	
morning rise	13902 Jul 26 08:47	3° $\Omega$ 11'50			13903 Jun 28 21:36	30° $\text{R}$ $\text{B}$	
direct	13902 Aug 01 12:30	0° $\Omega$ 33'02		evening set	13903 Jun 29 16:34	29° $\text{B}$ 27'48	
desc. node	13902 Aug 02 18:35	0° $\Omega$ 38'53		inferior conj	13903 Jul 04 23:42	23° $\text{B}$ 27'25	3°10'52
morning max el	13902 Aug 14 05:38	8° $\Omega$ 07'56	26°06'42	minimum elong	13903 Jul 05 00:09	23° $\text{B}$ 25'56	3°09'49
	13902 Aug 31 08:03	0° $\text{B}$		min. Earth dist.	13903 Jul 05 22:37	22° $\text{B}$ 09'53	0.67937 AU
	13902 Sep 18 11:34	0° $\text{B}$		morning rise	13903 Jul 10 07:23	17° $\text{B}$ 04'38	
morning set	13902 Sep 19 04:54	1° $\text{B}$ 19'55		direct	13903 Jul 16 00:10	14° $\text{B}$ 34'18	
max. Earth dist.	13902 Sep 22 23:42	8° $\text{B}$ 29'54	1.35116 AU	desc. node	13903 Jul 20 15:58	15° $\text{B}$ 55'18	
asc. node	13902 Sep 26 20:20	16° $\text{B}$ 07'26		morning max el	13903 Jul 27 16:11	21° $\text{B}$ 33'46	24°44'32
					13903 Aug 04 00:05	0° $\Omega$	
superior conj	13902 Sep 28 11:22	19° $\text{B}$ 25'21	0°15'13		13903 Aug 24 13:50	0° $\text{B}$	
minimum elong	13902 Sep 28 10:30	19° $\text{B}$ 20'58	0°15'18	morning set	13903 Sep 01 10:08	13° $\text{B}$ 15'41	
behind sun begin	13902 Sep 28 08:37	19° $\text{B}$ 11'17		max. Earth dist.	13903 Sep 04 24:00	19° $\text{B}$ 40'09	1.37287 AU
behind sun end	13902 Sep 28 12:24	19° $\text{B}$ 30'39			13903 Sep 10 12:11	0° $\text{B}$	
	13902 Oct 03 13:52	0° $\text{B}$		superior conj	13903 Sep 11 20:43	2° $\text{B}$ 37'34	-0°16'59
evening rise	13902 Oct 06 02:53	5° $\text{B}$ 17'59		minimum elong	13903 Sep 11 21:50	2° $\text{B}$ 43'02	0°16'50
	13902 Oct 19 17:50	0° $\text{B}$		asc. node	13903 Sep 13 16:53	6° $\text{B}$ 14'20	
evening max el	13902 Oct 24 16:35	5° $\text{B}$ 56'25	20°35'54	evening rise	13903 Sep 20 06:41	19° $\text{B}$ 24'37	
desc. node	13902 Oct 29 14:44	9° $\text{B}$ 46'20			13903 Sep 25 16:36	0° $\text{B}$	
retrograde	13902 Nov 04 21:17	11° $\text{B}$ 30'24		evening max el	13903 Oct 07 03:58	17° $\text{B}$ 09'11	19°25'41
evening set	13902 Nov 07 04:11	11° $\text{B}$ 17'31		retrograde	13903 Oct 16 17:11	21° $\text{B}$ 55'59	
inferior conj	13902 Nov 16 02:58	7° $\text{B}$ 22'55	-4°57'34	desc. node	13903 Oct 16 12:09	21° $\text{B}$ 55'51	
minimum elong	13902 Nov 15 17:07	7° $\text{B}$ 37'09	4°54'13	evening set	13903 Oct 18 14:05	21° $\text{B}$ 45'46	
min. Earth dist.	13902 Nov 17 07:32	6° $\text{B}$ 41'40	0.54635 AU	inferior conj	13903 Oct 27 05:49	17° $\text{B}$ 38'29	-3°19'54
morning rise	13902 Nov 24 05:53	3° $\text{B}$ 25'25		minimum elong	13903 Oct 26 21:24	17° $\text{B}$ 52'07	3°16'12
direct	13902 Nov 28 16:00	2° $\text{B}$ 43'29		min. Earth dist.	13903 Oct 29 17:07	16° $\text{B}$ 02'38	0.55598 AU
morning max el	13902 Dec 11 23:08	9° $\text{B}$ 11'58	23°29'43	morning rise	13903 Nov 04 02:34	13° $\text{B}$ 11'31	
asc. node	13902 Dec 23 21:09	24° $\text{B}$ 42'00		direct	13903 Nov 09 09:17	12° $\text{B}$ 08'42	
	13902 Dec 26 23:03	0° $\text{B}$		morning max el	13903 Nov 23 08:56	19° $\text{B}$ 10'27	25°16'54
morning set	13903 Jan 04 14:20	17° $\text{B}$ 10'46			13903 Dec 02 11:23	0° $\text{B}$	
	13903 Jan 10 12:18	0° $\approx$		asc. node	13903 Dec 10 18:12	13° $\text{B}$ 19'34	
					13903 Dec 19 04:56	0° $\text{B}$	
superior conj	13903 Jan 11 11:22	2° $\approx$ 04'55	1°33'34	morning set	13903 Dec 20 02:04	1° $\text{B}$ 52'59	
minimum elong	13903 Jan 11 12:40	2° $\approx$ 12'00	1°34'28				
max. Earth dist.	13903 Jan 14 08:51	8° $\approx$ 16'38	1.33092 AU	superior conj	13903 Dec 26 20:25	16° $\text{B}$ 44'50	1°37'56
evening rise	13903 Jan 19 05:12	18° $\approx$ 14'28		minimum elong	13903 Dec 26 20:39	16° $\text{B}$ 46'05	1°38'59
	13903 Jan 25 09:22	0° $\text{B}$		max. Earth dist.	13903 Dec 28 11:27	20° $\text{B}$ 19'37	1.31943 AU
desc. node	13903 Jan 25 13:55	0° $\text{B}$ 20'36			13904 Jan 01 23:32	0° $\approx$	
	13903 Feb 13 18:03	0° $\Upsilon$		evening rise	13904 Jan 03 01:26	2° $\approx$ 14'44	
evening max el	13903 Feb 22 11:17	9° $\Upsilon$ 51'17	27°23'33	desc. node	13904 Jan 12 10:38	20° $\approx$ 15'34	
retrograde	13903 Mar 08 02:24	17° $\Upsilon$ 19'02			13904 Jan 18 06:00	0° $\text{B}$	
evening set	13903 Mar 14 20:31	14° $\Upsilon$ 49'40		evening max el	13904 Feb 04 22:06	22° $\text{B}$ 49'14	27°33'32
min. Earth dist.	13903 Mar 18 16:46	11° $\Upsilon$ 20'16	0.64493 AU		13904 Feb 16 14:28	0° $\Upsilon$	
inferior conj	13903 Mar 21 05:11	8° $\Upsilon$ 38'27	-0°10'28				

retrograde	13904 Feb 18 19:06	0°♿13'13		desc. node	13904 Dec 29 07:28	9°♿44'57	
	13904 Feb 20 22:30	30°♿♿			13905 Jan 12 09:06	0°♿	
evening set	13904 Feb 25 16:42	27°♿53'50		evening max el	13905 Jan 17 03:59	5°♿04'27	27°10'18
min. Earth dist.	13904 Feb 29 10:45	24°♿51'37	0.62493 AU	retrograde	13905 Jan 31 03:30	12°♿20'14	
inferior conj	13904 Mar 03 09:16	22°♿03'06	-1°23'16	evening set	13905 Feb 06 22:14	10°♿19'06	
minimum elong	13904 Mar 03 12:06	21°♿56'19	1°21'52	min. Earth dist.	13905 Feb 10 18:26	7°♿35'49	0.60320 AU
asc. node	13904 Mar 07 15:42	18°♿23'14		inferior conj	13905 Feb 13 22:44	4°♿55'46	-2°45'18
morning rise	13904 Mar 10 10:15	16°♿55'38		minimum elong	13905 Feb 14 04:44	4°♿43'09	2°42'28
direct	13904 Mar 12 16:45	16°♿31'56		morning rise	13905 Feb 21 14:27	0°♿07'47	
morning max el	13904 Mar 19 08:28	19°♿54'37	17°46'46		13905 Feb 22 03:47	30°♿♿	
	13904 Mar 26 21:09	0°♿		asc. node	13905 Feb 22 13:12	29°♿55'55	
morning set	13904 Apr 04 07:35	14°♿26'00		direct	13905 Feb 23 15:59	29°♿50'55	
desc. node	13904 Apr 09 12:49	23°♿33'02			13905 Feb 25 03:41	0°♿	
	13904 Apr 13 07:06	0°♿		morning max el	13905 Mar 02 23:30	3°♿30'12	18°00'09
				morning set	13905 Mar 18 13:11	28°♿00'19	
superior conj	13904 Apr 16 02:09	4°♿42'08	-0°49'57		13905 Mar 19 15:09	0°♿	
minimum elong	13904 Apr 15 21:16	4°♿21'46	0°49'44	desc. node	13905 Mar 27 09:20	14°♿06'00	
max. Earth dist.	13904 Apr 22 18:42	15°♿39'13	1.44119 AU				
evening rise	13904 Apr 30 19:35	28°♿18'19		superior conj	13905 Mar 28 17:53	16°♿29'51	-0°10'50
	13904 May 01 21:59	0°♿		minimum elong	13905 Mar 28 16:57	16°♿25'46	0°10'52
	13904 May 22 11:22	0°♿		behind sun begin	13905 Mar 28 11:04	15°♿59'51	
evening max el	13904 May 31 03:12	10°♿25'42	21°07'49	behind sun end	13905 Mar 28 22:50	16°♿51'38	
asc. node	13904 Jun 03 12:41	13°♿23'32		max. Earth dist.	13905 Apr 05 07:21	29°♿24'49	1.42350 AU
retrograde	13904 Jun 08 17:52	15°♿26'21			13905 Apr 05 15:51	0°♿	
evening set	13904 Jun 13 01:53	13°♿41'44		evening rise	13905 Apr 10 21:34	8°♿29'59	
inferior conj	13904 Jun 18 07:45	7°♿29'48	3°09'55		13905 Apr 25 01:03	0°♿	
minimum elong	13904 Jun 18 07:11	7°♿31'44	3°08'50	evening max el	13905 May 13 20:57	24°♿15'53	22°24'57
min. Earth dist.	13904 Jun 18 17:03	6°♿57'26	0.68689 AU	asc. node	13905 May 21 09:52	29°♿38'06	
morning rise	13904 Jun 23 12:16	1°♿11'30			13905 May 23 06:25	0°♿	
	13904 Jun 25 02:25	30°♿♿		retrograde	13905 May 23 15:23	0°♿00'40	
direct	13904 Jun 28 16:43	28°♿55'50			13905 May 24 00:16	30°♿♿	
	13904 Jul 02 15:06	0°♿		evening set	13905 May 28 10:26	28°♿00'33	
desc. node	13904 Jul 06 13:15	2°♿43'44		inferior conj	13905 Jun 02 17:22	21°♿39'12	2°58'11
morning max el	13904 Jul 09 03:01	5°♿08'06	23°15'12	minimum elong	13905 Jun 02 15:58	21°♿44'04	2°56'59
	13904 Jul 28 07:00	0°♿		min. Earth dist.	13905 Jun 02 13:41	21°♿52'04	0.68962 AU
morning set	13904 Aug 12 17:52	24°♿14'14		morning rise	13905 Jun 07 21:21	15°♿27'16	
	13904 Aug 16 03:36	0°♿		direct	13905 Jun 12 13:08	13°♿30'09	
max. Earth dist.	13904 Aug 16 22:05	1°♿19'37	1.39641 AU	morning max el	13905 Jun 21 16:33	18°♿50'19	21°47'45
				desc. node	13905 Jun 23 10:23	20°♿40'09	
superior conj	13904 Aug 24 15:40	15°♿09'08	-0°51'59		13905 Jun 30 23:48	0°♿	
minimum elong	13904 Aug 24 19:31	15°♿26'54	0°51'43		13905 Jul 21 10:03	0°♿	
asc. node	13904 Aug 30 13:27	26°♿17'38		morning set	13905 Jul 24 00:50	4°♿08'04	
	13904 Sep 01 11:41	0°♿		max. Earth dist.	13905 Jul 29 23:55	13°♿48'46	1.41906 AU
evening rise	13904 Sep 03 03:01	3°♿09'32					
evening max el	13904 Sep 19 04:08	29°♿10'03	18°37'30	superior conj	13905 Aug 06 15:53	26°♿50'37	-1°26'35
	13904 Sep 20 01:13	0°♿		minimum elong	13905 Aug 06 22:24	27°♿19'06	1°26'25
retrograde	13904 Sep 27 06:45	3°♿15'24			13905 Aug 08 11:00	0°♿	
evening set	13904 Sep 29 05:13	3°♿02'11		asc. node	13905 Aug 17 10:03	16°♿13'52	
desc. node	13904 Oct 02 09:39	1°♿48'35		evening rise	13905 Aug 17 12:07	16°♿23'26	
	13904 Oct 05 06:54	30°♿♿			13905 Aug 25 02:11	0°♿	
inferior conj	13904 Oct 07 04:44	28°♿35'41	-1°31'29	evening max el	13905 Sep 02 13:07	11°♿51'13	18°10'18
minimum elong	13904 Oct 07 01:02	28°♿42'41	1°29'36	retrograde	13905 Sep 09 15:02	15°♿27'39	
min. Earth dist.	13904 Oct 10 08:45	26°♿12'54	0.57303 AU	evening set	13905 Sep 11 20:11	15°♿07'00	
morning rise	13904 Oct 14 17:24	23°♿31'01		inferior conj	13905 Sep 19 01:21	10°♿19'42	0°04'31
direct	13904 Oct 20 17:06	22°♿01'54		minimum elong	13905 Sep 19 01:31	10°♿19'21	0°04'32
morning max el	13904 Nov 03 23:45	29°♿30'28	26°45'37	transit middle	13905 Sep 19 01:31	10°♿19'21	0°04'32
	13904 Nov 04 11:50	0°♿		transit begin	13905 Sep 18 22:15	10°♿26'32	
	13904 Nov 25 07:31	0°♿		transit end	13905 Sep 19 04:47	10°♿12'09	
asc. node	13904 Nov 26 15:09	2°♿28'50		desc. node	13905 Sep 19 07:10	10°♿06'51	
morning set	13904 Dec 03 12:04	16°♿26'15		min. Earth dist.	13905 Sep 22 08:11	7°♿27'19	0.59461 AU
	13904 Dec 09 15:57	0°♿		morning rise	13905 Sep 26 03:29	4°♿41'20	
				direct	13905 Oct 02 14:44	2°♿44'53	
superior conj	13904 Dec 10 07:39	1°♿27'41	1°36'16	morning max el	13905 Oct 16 22:11	10°♿32'27	27°41'30
minimum elong	13904 Dec 10 06:50	1°♿23'05	1°37'17		13905 Nov 01 01:01	0°♿	
max. Earth dist.	13904 Dec 10 18:31	2°♿28'20	1.31297 AU	asc. node	13905 Nov 13 11:59	22°♿01'16	
evening rise	13904 Dec 17 04:30	16°♿30'47			13905 Nov 17 09:48	0°♿	
	13904 Dec 23 21:21	0°♿		morning set	13905 Nov 17 18:34	0°♿46'09	

max. Earth dist.	13905 Nov 24 02:43	14°  36'09	1.31179 AU		13906 Nov 08 21:55	0° 	
superior conj	13905 Nov 24 19:12	16°  08'06	1°28'44	superior conj	13906 Nov 09 05:07	0°  39'45	1°15'25
minimum elong	13905 Nov 24 17:31	15°  58'42	1°29'34	minimum elong	13906 Nov 09 02:55	0°  27'35	1°15'58
	13905 Dec 01 01:34	0° 		evening rise	13906 Nov 15 22:31	15°  28'24	
evening rise	13905 Dec 01 12:12	0°  57'21			13906 Nov 23 00:59	0° 	
desc. node	13905 Dec 16 04:24	28°  38'53		desc. node	13906 Dec 03 01:27	16°  34'16	
	13905 Dec 17 01:04	0° 		evening max el	13906 Dec 11 16:59	27°  02'29	24°45'46
evening max el	13905 Dec 30 02:38	16°  28'54	26°12'31		13906 Dec 15 04:42	0° 	
retrograde	13906 Jan 13 01:31	23°  33'44		retrograde	13906 Dec 25 10:58	3°  54'37	
evening set	13906 Jan 19 09:13	21°  58'21		evening set	13906 Dec 30 21:35	2°  49'02	
min. Earth dist.	13906 Jan 23 16:02	19°  21'37	0.58168 AU	min. Earth dist.	13907 Jan 05 04:50	0°  02'36	0.56289 AU
inferior conj	13906 Jan 26 17:58	17°  06'58	-4°09'31		13907 Jan 05 06:30	30°  R 	
minimum elong	13906 Jan 27 02:34	16°  51'15	4°06'04	inferior conj	13907 Jan 07 16:26	28°  32'06	-5°21'12
morning rise	13906 Feb 03 22:54	12°  40'19		minimum elong	13907 Jan 08 00:21	28°  31'31	5°18'44
direct	13906 Feb 05 23:44	12°  26'35		morning rise	13907 Jan 16 05:15	24°  32'47	
asc. node	13906 Feb 09 10:37	13°  08'22		direct	13907 Jan 18 12:37	24°  30'07	
morning max el	13906 Feb 14 07:57	16°  32'36	18°33'38	asc. node	13907 Jan 27 07:57	27°  35'37	
	13906 Feb 23 19:26	0° 		morning max el	13907 Jan 28 05:42	28°  49'54	19°29'19
morning set	13906 Mar 02 07:18	12°  07'59			13907 Jan 29 09:06	0° 	
				morning set	13907 Feb 14 09:51	26°  36'55	
superior conj	13906 Mar 11 06:24	29°  14'08	0°23'59		13907 Feb 16 02:16	0° 	
minimum elong	13906 Mar 11 08:01	29°  21'38	0°23'50				
	13906 Mar 11 16:18	0° 		superior conj	13907 Feb 22 11:10	12°  42'25	0°52'21
desc. node	13906 Mar 14 05:50	4°  41'31		minimum elong	13907 Feb 22 13:49	12°  55'21	0°52'21
max. Earth dist.	13906 Mar 18 15:42	12°  30'19	1.40221 AU	max. Earth dist.	13907 Feb 28 22:14	24°  57'12	1.37956 AU
evening rise	13906 Mar 22 20:01	19°  36'42		desc. node	13907 Mar 01 02:21	25°  16'01	
	13906 Mar 29 06:02	0° 			13907 Mar 03 17:24	0° 	
	13906 Apr 19 07:23	0° 		evening rise	13907 Mar 04 15:18	1°  36'40	
evening max el	13906 Apr 26 11:39	8°  08'02	23°46'03		13907 Mar 22 10:43	0° 	
retrograde	13906 May 07 09:56	14°  33'19		evening max el	13907 Apr 09 01:16	22°  01'41	25°04'29
asc. node	13906 May 08 07:08	14°  29'49		retrograde	13907 Apr 21 00:30	28°  58'54	
evening set	13906 May 12 16:35	12°  19'35		asc. node	13907 Apr 25 04:27	27°  44'38	
min. Earth dist.	13906 May 17 10:17	6°  47'39	0.68766 AU	evening set	13907 Apr 26 18:48	26°  34'24	
inferior conj	13906 May 18 02:38	5°  51'44	2°36'11	min. Earth dist.	13907 May 01 04:41	21°  38'47	0.68110 AU
minimum elong	13906 May 18 00:40	5°  58'28	2°34'51	inferior conj	13907 May 02 09:39	20°  03'49	2°03'54
morning rise	13906 May 23 08:43	29°  47'33		minimum elong	13907 May 02 07:30	20°  10'54	2°02'33
	13906 May 23 02:33	30°  R 		morning rise	13907 May 07 20:29	14°  08'45	
direct	13906 May 27 12:01	28°  10'53		direct	13907 May 11 11:58	12°  52'28	
	13906 Jun 01 07:40	0° 		morning max el	13907 May 18 14:40	16°  46'53	19°24'13
morning max el	13906 Jun 04 11:49	2°  42'46	20°29'12	desc. node	13907 May 28 04:19	28°  48'51	
desc. node	13906 Jun 10 07:25	9°  26'14			13907 May 29 00:09	0° 	
	13906 Jun 24 19:21	0° 		greatest brilliancy	13907 May 31 06:47	3°  19'28	-0.7m
morning set	13906 Jul 03 09:53	13°  05'31		morning set	13907 Jun 12 12:03	21°  15'02	
max. Earth dist.	13906 Jul 12 08:37	27°  01'41	1.43822 AU		13907 Jun 17 18:54	0° 	
	13906 Jul 14 02:38	0° 		max. Earth dist.	13907 Jun 24 23:50	11°  05'14	1.45171 AU
superior conj	13906 Jul 18 17:17	7°  02'55	-1°55'39	superior conj	13907 Jun 28 19:23	17°  05'26	-2°12'08
minimum elong	13906 Jul 19 00:24	8°  02'23	1°55'59	minimum elong	13907 Jun 28 22:20	17°  05'29'13	2°13'06
evening rise	13906 Jul 31 05:15	28°  02'53'40			13907 Jul 06 16:39	0° 	
	13906 Jul 31 20:27	0° 		evening rise	13907 Jul 13 01:20	10°  02'28'54	
asc. node	13906 Aug 04 06:40	5°  07'58'06		asc. node	13907 Jul 22 03:21	25°  02'53'37	
evening max el	13906 Aug 17 02:38	25°  01'06	18°02'38		13907 Jul 25 02:06	0° 	
retrograde	13906 Aug 23 14:47	28°  07'23'06		evening max el	13907 Jul 31 17:02	8°  30'43	18°13'27
evening set	13906 Aug 26 04:02	27°  07'51'22		retrograde	13907 Aug 07 01:34	11°  07'52'29	
inferior conj	13906 Sep 01 16:51	22°  07'44'29	1°19'21	evening set	13907 Aug 09 23:17	11°  07'06'57	
minimum elong	13906 Sep 01 18:55	22°  07'39'13	1°18'24	inferior conj	13907 Aug 15 23:15	5°  07'42'46	2°12'37
min. Earth dist.	13906 Sep 04 16:40	19°  07'44'11	0.61756 AU	minimum elong	13907 Aug 16 01:43	5°  07'35'47	2°11'25
desc. node	13906 Sep 06 04:42	18°  07'21'10		min. Earth dist.	13907 Aug 18 10:54	2°  07'54'34	0.63928 AU
morning rise	13906 Sep 08 07:16	16°  07'41'41			13907 Aug 21 09:33	30°  R 	
direct	13906 Sep 14 23:24	14°  07'22'25		morning rise	13907 Aug 22 02:30	29°  02'25'15	
morning max el	13906 Sep 29 03:17	22°  07'20'45	27°58'39	desc. node	13907 Aug 24 02:12	28°  02'05'47	
	13906 Oct 05 21:26	0° 		direct	13907 Aug 28 17:17	26°  02'51'06	
	13906 Oct 25 05:26	0° 			13907 Sep 05 22:04	0° 	
asc. node	13906 Oct 31 08:43	11°  07'49'29		morning max el	13907 Sep 11 12:53	4°  07'51'04	27°38'25
morning set	13906 Nov 01 19:29	14°  07'46'42			13907 Sep 30 13:53	0°	
max. Earth dist.	13906 Nov 07 08:17	26°  07'33'17	1.31596 AU	morning set	13907 Oct 16 12:29	28°  02'22'50	

	13907 Oct 17 07:55	0° $\mathbb{M}$		morning set	13908 Sep 28 18:38	11° $\underline{\mathbf{a}}$ 27'29	
asc. node	13907 Oct 18 05:22	1° $\mathbb{M}$ 48'28		max. Earth dist.	13908 Oct 02 21:19	19° $\underline{\mathbf{a}}$ 29'18	1.34032 AU
max. Earth dist.	13907 Oct 21 07:32	8° $\mathbb{M}$ 12'19	1.32551 AU	asc. node	13908 Oct 04 01:59	21° $\underline{\mathbf{a}}$ 53'38	
superior conj	13907 Oct 24 11:27	14° $\mathbb{M}$ 57'37	0°56'22	superior conj	13908 Oct 07 11:56	28° $\underline{\mathbf{a}}$ 55'45	0°31'44
minimum elong	13907 Oct 24 09:13	14° $\mathbb{M}$ 45'33	0°56'39	minimum elong	13908 Oct 07 10:20	28° $\underline{\mathbf{a}}$ 47'25	0°31'52
evening rise	13907 Oct 31 09:38	29° $\mathbb{M}$ 59'29			13908 Oct 08 00:12	0° $\mathbb{M}$	
	13907 Oct 31 09:43	0° $\mathbf{x}$		evening rise	13908 Oct 14 19:37	14° $\mathbb{M}$ 25'32	
	13907 Nov 17 00:57	0° $\mathbf{z}$			13908 Oct 22 15:28	0° $\mathbf{x}$	
desc. node	13907 Nov 19 22:36	3° $\mathbf{z}$ 40'17		evening max el	13908 Nov 03 17:11	17° $\mathbf{x}$ 12'02	21°25'45
evening max el	13907 Nov 23 02:43	7° $\mathbf{z}$ 04'24	23°04'08	desc. node	13908 Nov 05 19:52	19° $\mathbf{x}$ 06'28	
retrograde	13907 Dec 06 07:38	13° $\mathbf{z}$ 37'56		retrograde	13908 Nov 15 19:34	23° $\mathbf{x}$ 12'21	
evening set	13907 Dec 10 11:18	13° $\mathbf{z}$ 00'27		evening set	13908 Nov 18 15:09	22° $\mathbf{x}$ 54'06	
min. Earth dist.	13907 Dec 17 12:05	9° $\mathbf{z}$ 45'03	0.54975 AU	inferior conj	13908 Nov 27 11:33	19° $\mathbf{x}$ 01'01	-5°36'19
inferior conj	13907 Dec 18 19:30	8° $\mathbf{z}$ 59'59	-5°57'10	minimum elong	13908 Nov 27 04:14	19° $\mathbf{x}$ 11'17	5°34'12
minimum elong	13907 Dec 18 20:52	8° $\mathbf{z}$ 58'02	5°56'05	min. Earth dist.	13908 Nov 27 18:05	18° $\mathbf{x}$ 51'50	0.54480 AU
morning rise	13907 Dec 27 07:57	5° $\mathbf{z}$ 10'26		morning rise	13908 Dec 05 18:02	15° $\mathbf{x}$ 11'57	
direct	13907 Dec 30 06:48	4° $\mathbf{z}$ 49'57		direct	13908 Dec 09 14:37	14° $\mathbf{x}$ 39'45	
morning max el	13908 Jan 10 13:31	10° $\mathbf{z}$ 13'38	20°48'12	morning max el	13908 Dec 22 07:38	20° $\mathbf{x}$ 46'31	22°27'17
asc. node	13908 Jan 14 05:15	14° $\mathbf{z}$ 15'35			13908 Dec 29 23:48	0° $\mathbf{z}$	
	13908 Jan 24 02:01	0° $\approx$		asc. node	13908 Dec 31 02:28	1° $\mathbf{z}$ 38'58	
morning set	13908 Jan 29 17:45	11° $\approx$ 17'34		morning set	13909 Jan 13 04:39	26° $\mathbf{z}$ 03'19	
					13909 Jan 15 01:05	0° $\approx$	
superior conj	13908 Feb 06 03:54	26° $\approx$ 42'29	1°13'43	superior conj	13909 Jan 20 05:08	11° $\approx$ 04'34	1°28'13
minimum elong	13908 Feb 06 06:29	26° $\approx$ 55'42	1°14'04	minimum elong	13909 Jan 20 07:01	11° $\approx$ 14'32	1°28'55
	13908 Feb 07 18:46	0° $\mathbf{x}$		max. Earth dist.	13909 Jan 23 21:32	18° $\approx$ 46'54	1.33957 AU
max. Earth dist.	13908 Feb 11 06:49	6° $\mathbf{x}$ 56'21	1.35801 AU	evening rise	13909 Jan 28 08:37	27° $\approx$ 42'30	
evening rise	13908 Feb 15 04:39	14° $\mathbf{x}$ 21'28			13909 Jan 29 13:09	0° $\mathbf{x}$	
desc. node	13908 Feb 15 22:51	15° $\mathbf{x}$ 45'23		desc. node	13909 Feb 01 19:27	6° $\mathbf{x}$ 05'42	
	13908 Feb 24 03:17	0° $\mathbf{y}$			13909 Feb 16 09:37	0° $\mathbf{y}$	
	13908 Mar 16 04:38	0° $\mathbf{y}$		evening max el	13909 Mar 04 04:22	19° $\mathbf{y}$ 30'15	27°04'30
evening max el	13908 Mar 21 14:48	5° $\mathbf{y}$ 51'33	26°13'05	retrograde	13909 Mar 17 14:11	26° $\mathbf{y}$ 58'13	
retrograde	13908 Apr 03 10:10	13° $\mathbf{y}$ 09'54		evening set	13909 Mar 24 04:21	24° $\mathbf{y}$ 26'10	
evening set	13908 Apr 09 15:22	10° $\mathbf{y}$ 38'45		min. Earth dist.	13909 Mar 28 02:42	20° $\mathbf{y}$ 39'01	0.65515 AU
asc. node	13908 Apr 11 01:50	9° $\mathbf{y}$ 20'11		asc. node	13909 Mar 28 23:17	19° $\mathbf{y}$ 41'16	
min. Earth dist.	13908 Apr 13 18:49	6° $\mathbf{y}$ 18'26	0.67014 AU	inferior conj	13909 Mar 30 08:33	18° $\mathbf{y}$ 06'19	0°26'19
inferior conj	13908 Apr 15 12:23	4° $\mathbf{y}$ 10'25	1°20'49	minimum elong	13909 Mar 30 07:50	18° $\mathbf{y}$ 08'20	0°25'48
minimum elong	13908 Apr 15 10:35	4° $\mathbf{y}$ 15'58	1°19'41	morning rise	13909 Apr 05 12:53	12° $\mathbf{y}$ 34'04	
	13908 Apr 19 05:44	30° $\mathbf{y}$		direct	13909 Apr 08 07:36	11° $\mathbf{y}$ 52'28	
morning rise	13908 Apr 21 06:38	28° $\mathbf{y}$ 25'52		morning max el	13909 Apr 14 15:47	15° $\mathbf{y}$ 11'04	18°02'35
direct	13908 Apr 24 11:09	27° $\mathbf{y}$ 28'21			13909 Apr 25 11:37	0° $\mathbf{y}$	
	13908 Apr 29 23:04	0° $\mathbf{y}$		desc. node	13909 Apr 30 21:49	8° $\mathbf{y}$ 45'38	
morning max el	13908 May 01 00:38	0° $\mathbf{y}$ 58'32	18°35'02	morning set	13909 May 03 00:13	12° $\mathbf{y}$ 10'59	
desc. node	13908 May 14 01:07	18° $\mathbf{y}$ 37'42			13909 May 14 01:30	0° $\mathbf{y}$	
	13908 May 21 08:00	0° $\mathbf{y}$					
morning set	13908 May 22 04:35	1° $\mathbf{y}$ 20'47		superior conj	13909 May 17 15:54	5° $\mathbf{y}$ 41'36	-1°47'54
superior conj	13908 Jun 07 05:32	26° $\mathbf{y}$ 25'41	-2°09'48	minimum elong	13909 May 17 06:53	5° $\mathbf{y}$ 06'06	1°48'02
minimum elong	13908 Jun 07 00:47	26° $\mathbf{y}$ 07'11	2°10'41	max. Earth dist.	13909 May 20 14:37	10° $\mathbf{y}$ 19'03	1.45723 AU
max. Earth dist.	13908 Jun 06 18:46	25° $\mathbf{y}$ 43'40	1.45821 AU		13909 Jun 02 07:05	0° $\mathbf{y}$	
	13908 Jun 09 12:24	0° $\mathbf{y}$		evening rise	13909 Jun 02 18:20	0° $\mathbf{y}$ 43'21	
evening rise	13908 Jun 22 20:51	21° $\mathbf{y}$ 01'58		greatest brilliancy	13909 Jun 15 18:45	20° $\mathbf{y}$ 32'41	-0.7m
	13908 Jun 28 12:27	0° $\mathbf{y}$			13909 Jun 22 11:12	0° $\mathbf{y}$	
greatest brilliancy	13908 Jun 30 18:58	3° $\mathbf{y}$ 34'50	-0.8m	asc. node	13909 Jun 24 21:00	3° $\mathbf{y}$ 02'05	
asc. node	13908 Jul 08 00:07	14° $\mathbf{y}$ 29'35		evening max el	13909 Jun 27 13:12	5° $\mathbf{y}$ 59'11	19°27'20
evening max el	13908 Jul 14 05:18	22° $\mathbf{y}$ 11'55	18°42'01	retrograde	13909 Jul 04 16:49	9° $\mathbf{y}$ 59'29	
retrograde	13908 Jul 20 19:18	25° $\mathbf{y}$ 46'46		evening set	13909 Jul 08 08:41	8° $\mathbf{y}$ 41'35	
evening set	13908 Jul 24 01:49	24° $\mathbf{y}$ 45'36		inferior conj	13909 Jul 13 17:47	2° $\mathbf{y}$ 48'37	3°06'01
inferior conj	13908 Jul 29 16:39	19° $\mathbf{y}$ 06'15	2°47'08	minimum elong	13909 Jul 13 18:48	2° $\mathbf{y}$ 45'13	3°04'59
minimum elong	13908 Jul 29 18:36	19° $\mathbf{y}$ 00'13	2°46'00	min. Earth dist.	13909 Jul 15 00:55	1° $\mathbf{y}$ 05'58	0.67290 AU
min. Earth dist.	13908 Jul 31 14:10	16° $\mathbf{y}$ 45'38	0.65805 AU		13909 Jul 15 21:27	30° $\mathbf{y}$	
morning rise	13908 Aug 04 10:26	12° $\mathbf{y}$ 42'14		morning rise	13909 Jul 19 04:24	26° $\mathbf{y}$ 24'06	
desc. node	13908 Aug 09 23:41	10° $\mathbf{y}$ 04'52		direct	13909 Jul 25 03:41	23° $\mathbf{y}$ 47'47	
direct	13908 Aug 10 19:07	10° $\mathbf{y}$ 02'27		desc. node	13909 Jul 27 21:08	24° $\mathbf{y}$ 15'37	
morning max el	13908 Aug 24 00:11	17° $\mathbf{y}$ 51'39	26°47'01		13909 Aug 05 06:35	0° $\mathbf{y}$	
	13908 Sep 03 04:50	0° $\mathbf{y}$		morning max el	13909 Aug 06 11:03	1° $\mathbf{y}$ 10'11	25°33'08
	13908 Sep 22 12:31	0° $\mathbf{y}$			13909 Aug 28 04:55	0° $\mathbf{y}$	

morning set	13909 Sep 11 10:12	23° $\mathbb{M}$ 51'06		desc. node	13910 Jul 14 18:28	10° $\mathbb{G}$ 14'21	
	13909 Sep 14 18:07	0° $\mathbb{L}$		morning max el	13910 Jul 19 21:19	14° $\mathbb{G}$ 39'19	24°06'45
max. Earth dist.	13909 Sep 15 01:06	0° $\mathbb{L}$ 32'54	1.35992 AU		13910 Aug 01 10:06	0° $\mathbb{Q}$	
asc. node	13909 Sep 20 22:32	12° $\mathbb{L}$ 00'37			13910 Aug 21 02:22	0° $\mathbb{M}$	
				morning set	13910 Aug 24 06:50	5° $\mathbb{M}$ 23'45	
superior conj	13909 Sep 21 03:45	12° $\mathbb{L}$ 26'44	0°02'03	max. Earth dist.	13910 Aug 27 23:23	11° $\mathbb{M}$ 51'05	1.38281 AU
minimum elong	13909 Sep 21 03:37	12° $\mathbb{L}$ 26'04	0°02'09				
behind sun begin	13909 Sep 20 21:24	11° $\mathbb{L}$ 54'56		superior conj	13910 Sep 04 07:32	25° $\mathbb{M}$ 23'09	-0°31'37
behind sun end	13909 Sep 21 09:50	12° $\mathbb{L}$ 57'16		minimum elong	13910 Sep 04 09:45	25° $\mathbb{M}$ 33'40	0°31'25
evening rise	13909 Sep 29 02:22	28° $\mathbb{L}$ 40'29			13910 Sep 06 17:07	0° $\mathbb{L}$	
	13909 Sep 29 17:55	0° $\mathbb{M}$		asc. node	13910 Sep 07 19:06	2° $\mathbb{L}$ 06'28	
evening max el	13909 Oct 16 20:23	27° $\mathbb{M}$ 56'57	20°03'30	evening rise	13910 Sep 13 03:23	12° $\mathbb{L}$ 38'44	
	13909 Oct 19 03:40	0° $\mathbb{J}$			13910 Sep 22 11:39	0° $\mathbb{M}$	
desc. node	13909 Oct 23 17:15	2° $\mathbb{J}$ 33'57		evening max el	13910 Sep 29 13:43	9° $\mathbb{M}$ 31'01	19°02'33
retrograde	13909 Oct 27 08:27	3° $\mathbb{J}$ 10'44		retrograde	13910 Oct 08 10:52	13° $\mathbb{M}$ 58'21	
evening set	13909 Oct 29 09:04	2° $\mathbb{J}$ 59'58		evening set	13910 Oct 10 07:40	13° $\mathbb{M}$ 47'21	
	13909 Nov 05 15:11	30° $\mathbb{K}$ $\mathbb{M}$		desc. node	13910 Oct 10 14:42	13° $\mathbb{M}$ 43'42	
inferior conj	13909 Nov 07 06:30	29° $\mathbb{M}$ 01'38	-4°19'32	inferior conj	13910 Oct 18 17:11	9° $\mathbb{M}$ 32'33	-2°33'31
minimum elong	13909 Nov 06 20:29	29° $\mathbb{M}$ 16'41	4°15'41	minimum elong	13910 Oct 18 10:40	9° $\mathbb{M}$ 43'45	2°30'26
min. Earth dist.	13909 Nov 09 01:49	27° $\mathbb{M}$ 56'27	0.54931 AU	min. Earth dist.	13910 Oct 21 13:33	7° $\mathbb{M}$ 35'11	0.56253 AU
morning rise	13909 Nov 15 06:47	24° $\mathbb{M}$ 53'06		morning rise	13910 Oct 26 10:51	4° $\mathbb{M}$ 50'05	
direct	13909 Nov 20 02:02	24° $\mathbb{M}$ 02'50		direct	13910 Nov 01 01:42	3° $\mathbb{M}$ 36'17	
	13909 Dec 02 21:15	0° $\mathbb{J}$		morning max el	13910 Nov 15 04:45	10° $\mathbb{M}$ 49'54	25°57'52
morning max el	13909 Dec 03 17:45	0° $\mathbb{J}$ 47'12	24°16'19		13910 Nov 29 20:12	0° $\mathbb{J}$	
asc. node	13909 Dec 17 23:35	19° $\mathbb{J}$ 52'57		asc. node	13910 Dec 04 20:37	8° $\mathbb{J}$ 44'50	
	13909 Dec 23 11:09	0° $\mathbb{Z}$		morning set	13910 Dec 13 03:47	25° $\mathbb{J}$ 25'55	
morning set	13909 Dec 28 16:35	10° $\mathbb{Z}$ 47'40			13910 Dec 15 06:14	0° $\mathbb{Z}$	
superior conj	13910 Jan 04 12:00	25° $\mathbb{Z}$ 39'34	1°36'11	superior conj	13910 Dec 19 22:13	10° $\mathbb{Z}$ 20'45	1°37'57
minimum elong	13910 Jan 04 12:52	25° $\mathbb{Z}$ 44'14	1°37'09	minimum elong	13910 Dec 19 21:59	10° $\mathbb{Z}$ 19'28	1°39'00
	13910 Jan 06 11:59	0° $\mathbb{A}$		max. Earth dist.	13910 Dec 21 00:55	12° $\mathbb{Z}$ 48'55	1.31609 AU
max. Earth dist.	13910 Jan 06 20:01	0° $\mathbb{A}$ 43'15	1.32541 AU	evening rise	13910 Dec 26 23:12	25° $\mathbb{Z}$ 37'46	
evening rise	13910 Jan 11 23:46	11° $\mathbb{A}$ 30'23			13910 Dec 29 02:08	0° $\mathbb{A}$	
desc. node	13910 Jan 19 16:07	26° $\mathbb{A}$ 11'20		desc. node	13911 Jan 06 12:53	15° $\mathbb{A}$ 56'00	
	13910 Jan 21 19:59	0° $\mathbb{H}$			13911 Jan 15 08:22	0° $\mathbb{H}$	
	13910 Feb 11 23:15	0° $\mathbb{Y}$		evening max el	13911 Jan 28 02:11	15° $\mathbb{H}$ 28'25	27°27'59
evening max el	13910 Feb 14 16:55	2° $\mathbb{Y}$ 46'51	27°31'36	retrograde	13911 Feb 11 00:36	22° $\mathbb{H}$ 48'32	
retrograde	13910 Feb 28 11:26	10° $\mathbb{Y}$ 14'10		evening set	13911 Feb 17 21:46	20° $\mathbb{H}$ 36'19	
evening set	13910 Mar 07 07:26	7° $\mathbb{Y}$ 48'14		min. Earth dist.	13911 Feb 21 16:13	17° $\mathbb{H}$ 43'06	0.61582 AU
min. Earth dist.	13910 Mar 11 02:25	4° $\mathbb{Y}$ 30'52	0.63671 AU	inferior conj	13911 Feb 24 17:44	14° $\mathbb{H}$ 56'32	-1°57'13
inferior conj	13910 Mar 13 19:25	1° $\mathbb{Y}$ 44'27	-0°40'00	minimum elong	13911 Feb 24 21:52	14° $\mathbb{H}$ 47'08	1°55'10
minimum elong	13910 Mar 13 20:41	1° $\mathbb{Y}$ 41'11	0°39'24	asc. node	13911 Mar 02 18:18	10° $\mathbb{H}$ 26'42	
asc. node	13910 Mar 15 20:47	29° $\mathbb{H}$ 41'53		morning rise	13911 Mar 04 00:56	9° $\mathbb{H}$ 56'38	
	13910 Mar 15 13:09	30° $\mathbb{K}$ $\mathbb{H}$		direct	13911 Mar 06 05:00	9° $\mathbb{H}$ 36'13	
morning rise	13910 Mar 20 12:16	26° $\mathbb{H}$ 26'52		morning max el	13911 Mar 13 02:17	13° $\mathbb{H}$ 04'44	17°50'04
direct	13910 Mar 22 22:40	25° $\mathbb{H}$ 57'41			13911 Mar 24 14:30	0° $\mathbb{Y}$	
morning max el	13910 Mar 29 09:23	29° $\mathbb{H}$ 16'03	17°47'23	morning set	13911 Mar 28 19:03	7° $\mathbb{Y}$ 27'29	
	13910 Mar 30 02:38	0° $\mathbb{Y}$		desc. node	13911 Apr 04 14:59	19° $\mathbb{Y}$ 36'22	
morning set	13910 Apr 14 22:57	24° $\mathbb{Y}$ 19'11					
desc. node	13910 Apr 17 18:27	29° $\mathbb{Y}$ 06'44		superior conj	13911 Apr 08 20:28	26° $\mathbb{Y}$ 55'08	-0°33'01
	13910 Apr 18 07:00	0° $\mathbb{B}$		minimum elong	13911 Apr 08 17:23	26° $\mathbb{Y}$ 41'59	0°32'55
					13911 Apr 10 16:05	0° $\mathbb{B}$	
superior conj	13910 Apr 27 18:24	15° $\mathbb{B}$ 45'26	-1°12'44	max. Earth dist.	13911 Apr 16 01:15	8° $\mathbb{B}$ 54'30	1.43429 AU
minimum elong	13910 Apr 27 11:10	15° $\mathbb{B}$ 15'58	1°12'28	evening rise	13911 Apr 22 22:28	19° $\mathbb{B}$ 52'21	
max. Earth dist.	13910 May 03 09:27	24° $\mathbb{B}$ 47'38	1.44895 AU		13911 Apr 29 12:57	0° $\mathbb{I}$	
	13910 May 06 16:45	0° $\mathbb{I}$			13911 May 21 03:48	0° $\mathbb{G}$	
evening rise	13910 May 13 05:30	10° $\mathbb{I}$ 06'42		evening max el	13911 May 24 12:05	3° $\mathbb{G}$ 39'09	21°39'49
	13910 May 26 11:47	0° $\mathbb{G}$		asc. node	13911 May 29 15:07	7° $\mathbb{G}$ 46'57	
evening max el	13910 Jun 10 15:30	19° $\mathbb{G}$ 49'10	20°27'37	retrograde	13911 Jun 02 14:05	8° $\mathbb{G}$ 57'56	
asc. node	13910 Jun 11 18:00	20° $\mathbb{G}$ 52'41		evening set	13911 Jun 07 02:49	7° $\mathbb{G}$ 06'27	
retrograde	13910 Jun 18 15:43	24° $\mathbb{G}$ 25'15		inferior conj	13911 Jun 12 08:53	0° $\mathbb{G}$ 50'27	3°06'12
evening set	13910 Jun 22 17:39	22° $\mathbb{G}$ 50'19		minimum elong	13911 Jun 12 07:57	0° $\mathbb{G}$ 53'43	3°05'04
inferior conj	13910 Jun 27 23:58	16° $\mathbb{G}$ 45'05	3°11'48	min. Earth dist.	13911 Jun 12 12:36	0° $\mathbb{G}$ 37'29	0.68869 AU
minimum elong	13910 Jun 27 23:58	16° $\mathbb{G}$ 45'03	3°10'46		13911 Jun 12 23:22	30° $\mathbb{R}$ $\mathbb{I}$	
min. Earth dist.	13910 Jun 28 17:06	15° $\mathbb{G}$ 46'16	0.68318 AU	morning rise	13911 Jun 17 12:53	24° $\mathbb{I}$ 34'55	
morning rise	13910 Jul 03 05:59	10° $\mathbb{G}$ 23'54		direct	13911 Jun 22 12:03	22° $\mathbb{I}$ 26'44	
direct	13910 Jul 08 17:44	7° $\mathbb{G}$ 58'53		desc. node	13911 Jul 01 15:42	27° $\mathbb{I}$ 34'03	

morning max el	13911 Jul 02 08:48	28° $\Pi$ 16'10	22°37'18	direct	13912 Jun 05 09:32	7° $\Pi$ 04'42	
	13911 Jul 04 00:25	0° $\mathfrak{D}$		morning max el	13912 Jun 14 00:36	12° $\Pi$ 03'03	21°12'55
	13911 Jul 26 01:48	0° $\Omega$		desc. node	13912 Jun 17 12:47	15° $\Pi$ 53'32	
morning set	13911 Aug 05 04:07	15° $\Omega$ 54'24			13912 Jun 28 03:39	0° $\mathfrak{D}$	
max. Earth dist.	13911 Aug 09 22:54	23° $\Omega$ 51'47	1.40641 AU	morning set	13912 Jul 15 00:48	25° $\mathfrak{D}$ 21'26	
	13911 Aug 13 12:34	0° $\mathfrak{M}$			13912 Jul 17 23:18	0° $\Omega$	
				max. Earth dist.	13912 Jul 22 03:53	6° $\Omega$ 45'17	1.42785 AU
superior conj	13911 Aug 17 19:02	7° $\mathfrak{M}$ 34'23	-1°06'57				
minimum elong	13911 Aug 18 00:07	7° $\mathfrak{M}$ 57'16	1°06'41	superior conj	13912 Jul 29 09:50	18° $\Omega$ 50'42	-1°40'00
asc. node	13911 Aug 25 15:38	22° $\mathfrak{M}$ 06'59		minimum elong	13912 Jul 29 17:02	19° $\Omega$ 21'26	1°39'59
evening rise	13911 Aug 27 19:25	26° $\mathfrak{M}$ 11'27			13912 Aug 04 19:42	0° $\mathfrak{M}$	
	13911 Aug 29 19:57	0° $\mathfrak{L}$		evening rise	13912 Aug 09 22:20	9° $\mathfrak{M}$ 08'13	
evening max el	13911 Sep 12 18:06	21° $\mathfrak{L}$ 49'30	18°23'21	asc. node	13912 Aug 11 12:13	11° $\mathfrak{M}$ 58'27	
retrograde	13911 Sep 20 08:44	25° $\mathfrak{L}$ 40'50			13912 Aug 22 07:32	0° $\mathfrak{L}$	
evening set	13911 Sep 22 09:48	25° $\mathfrak{L}$ 24'52		evening max el	13912 Aug 26 05:22	4° $\mathfrak{L}$ 43'18	18°04'38
desc. node	13911 Sep 27 12:13	22° $\mathfrak{L}$ 47'18		retrograde	13912 Sep 02 00:17	8° $\mathfrak{L}$ 12'13	
inferior conj	13911 Sep 30 01:24	20° $\mathfrak{L}$ 49'02	-0°48'25	evening set	13912 Sep 04 08:42	7° $\mathfrak{L}$ 47'20	
minimum elong	13911 Sep 29 23:34	20° $\mathfrak{L}$ 52'45	0°47'24	inferior conj	13912 Sep 11 06:31	2° $\mathfrak{L}$ 51'14	0°39'02
min. Earth dist.	13911 Oct 03 07:56	18° $\mathfrak{L}$ 11'29	0.58192 AU	minimum elong	13912 Sep 11 07:43	2° $\mathfrak{L}$ 48'25	0°38'31
morning rise	13911 Oct 07 09:52	15° $\mathfrak{L}$ 29'18		desc. node	13912 Sep 13 09:45	0° $\mathfrak{L}$ 50'44	
direct	13911 Oct 13 15:12	13° $\mathfrak{L}$ 48'38			13912 Sep 14 07:57	30° $\mathfrak{R}$ $\mathfrak{M}$	
morning max el	13911 Oct 27 22:40	21° $\mathfrak{L}$ 25'17	27°14'03	min. Earth dist.	13912 Sep 14 11:10	29° $\mathfrak{M}$ 52'47	0.60437 AU
	13911 Nov 04 10:48	0° $\mathfrak{M}$		morning rise	13912 Sep 18 03:39	27° $\mathfrak{M}$ 00'52	
asc. node	13911 Nov 21 17:30	28° $\mathfrak{M}$ 04'29		direct	13912 Sep 24 17:33	24° $\mathfrak{M}$ 54'06	
	13911 Nov 22 17:05	0° $\mathfrak{X}$			13912 Oct 05 22:47	0° $\mathfrak{L}$	
morning set	13911 Nov 27 12:31	9° $\mathfrak{X}$ 53'33		morning max el	13912 Oct 09 00:25	2° $\mathfrak{L}$ 47'39	27°53'39
					13912 Oct 28 23:29	0° $\mathfrak{M}$	
superior conj	13911 Dec 04 09:46	25° $\mathfrak{X}$ 02'29	1°33'47	asc. node	13912 Nov 07 14:15	17° $\mathfrak{M}$ 44'06	
minimum elong	13911 Dec 04 08:33	24° $\mathfrak{X}$ 55'40	1°34'44	morning set	13912 Nov 10 16:52	24° $\mathfrak{M}$ 05'37	
max. Earth dist.	13911 Dec 04 09:05	24° $\mathfrak{X}$ 58'36	1.31183 AU		13912 Nov 13 11:29	0° $\mathfrak{X}$	
	13911 Dec 06 15:04	0° $\mathfrak{Z}$		max. Earth dist.	13912 Nov 16 16:40	7° $\mathfrak{X}$ 03'00	1.31287 AU
evening rise	13911 Dec 11 04:29	9° $\mathfrak{Z}$ 58'27					
	13911 Dec 21 09:10	0° $\mathfrak{A}$		superior conj	13912 Nov 17 20:49	9° $\mathfrak{X}$ 39'16	1°23'47
desc. node	13911 Dec 24 09:45	5° $\mathfrak{A}$ 11'29		minimum elong	13912 Nov 17 18:52	9° $\mathfrak{X}$ 28'24	1°24'31
evening max el	13912 Jan 10 05:19	27° $\mathfrak{A}$ 22'40	26°49'50	evening rise	13912 Nov 24 13:29	24° $\mathfrak{X}$ 26'53	
	13912 Jan 13 05:58	0° $\mathfrak{H}$			13912 Nov 27 04:18	0° $\mathfrak{Z}$	
retrograde	13912 Jan 24 04:28	4° $\mathfrak{H}$ 33'23		desc. node	13912 Dec 10 06:43	23° $\mathfrak{Z}$ 46'05	
evening set	13912 Jan 30 19:55	2° $\mathfrak{H}$ 42'21			13912 Dec 14 15:40	0° $\mathfrak{A}$	
	13912 Feb 03 21:20	30° $\mathfrak{R}$ $\mathfrak{A}$		evening max el	13912 Dec 22 00:04	8° $\mathfrak{A}$ 23'07	25°38'28
min. Earth dist.	13912 Feb 03 19:17	0° $\mathfrak{H}$ 03'54	0.59388 AU	retrograde	13913 Jan 04 21:33	15° $\mathfrak{A}$ 23'38	
inferior conj	13912 Feb 06 23:52	27° $\mathfrak{A}$ 32'44	-3°21'23	evening set	13913 Jan 10 21:42	14° $\mathfrak{A}$ 00'21	
minimum elong	13912 Feb 07 07:10	27° $\mathfrak{A}$ 18'17	3°18'08	min. Earth dist.	13913 Jan 15 12:36	11° $\mathfrak{A}$ 21'56	0.57310 AU
morning rise	13912 Feb 14 21:35	22° $\mathfrak{A}$ 53'42		inferior conj	13913 Jan 18 10:21	9° $\mathfrak{A}$ 22'30	-4°42'44
direct	13912 Feb 16 22:20	22° $\mathfrak{A}$ 38'31		minimum elong	13913 Jan 18 19:16	9° $\mathfrak{A}$ 07'11	4°39'30
asc. node	13912 Feb 17 15:46	22° $\mathfrak{A}$ 40'31		morning rise	13913 Jan 26 19:35	5° $\mathfrak{A}$ 05'40	
morning max el	13912 Feb 24 15:00	26° $\mathfrak{A}$ 27'34	18°11'53	direct	13913 Jan 28 22:05	4° $\mathfrak{A}$ 52'08	
	13912 Feb 27 16:56	0° $\mathfrak{H}$		asc. node	13913 Feb 03 13:10	6° $\mathfrak{A}$ 35'50	
morning set	13912 Mar 11 06:36	21° $\mathfrak{H}$ 18'10		morning max el	13913 Feb 06 19:27	9° $\mathfrak{A}$ 12'08	18°54'39
	13912 Mar 15 21:51	0° $\mathfrak{Y}$			13913 Feb 20 07:37	0° $\mathfrak{H}$	
				morning set	13913 Feb 23 04:42	5° $\mathfrak{H}$ 35'42	
superior conj	13912 Mar 20 21:39	9° $\mathfrak{Y}$ 08'59	0°04'39				
minimum elong	13912 Mar 20 22:00	9° $\mathfrak{Y}$ 10'35	0°04'32	superior conj	13913 Mar 03 17:40	22° $\mathfrak{H}$ 13'38	0°36'49
behind sun begin	13912 Mar 20 14:44	8° $\mathfrak{Y}$ 37'48		minimum elong	13913 Mar 03 19:53	22° $\mathfrak{H}$ 24'09	0°36'43
behind sun end	13912 Mar 21 05:17	9° $\mathfrak{Y}$ 43'17			13913 Mar 07 21:47	0° $\mathfrak{Y}$	
desc. node	13912 Mar 21 11:28	10° $\mathfrak{Y}$ 11'02		desc. node	13913 Mar 08 07:57	0° $\mathfrak{Y}$ 46'20	
max. Earth dist.	13912 Mar 28 12:32	22° $\mathfrak{Y}$ 26'11	1.41476 AU	max. Earth dist.	13913 Mar 10 19:26	5° $\mathfrak{Y}$ 13'20	1.39251 AU
evening rise	13912 Apr 02 08:49	0° $\mathfrak{B}$ 27'04		evening rise	13913 Mar 14 16:17	11° $\mathfrak{Y}$ 56'41	
	13912 Apr 02 02:09	0° $\mathfrak{B}$			13913 Mar 25 20:59	0° $\mathfrak{B}$	
	13912 Apr 22 00:04	0° $\mathfrak{H}$			13913 Apr 17 09:52	0° $\mathfrak{H}$	
evening max el	13912 May 06 04:15	17° $\mathfrak{H}$ 30'02	22°59'13	evening max el	13913 Apr 18 18:04	1° $\mathfrak{H}$ 22'12	24°20'04
asc. node	13912 May 15 12:19	23° $\mathfrak{H}$ 28'47		retrograde	13913 Apr 30 03:37	8° $\mathfrak{H}$ 03'04	
retrograde	13912 May 16 10:29	23° $\mathfrak{H}$ 32'38		asc. node	13913 May 02 09:37	7° $\mathfrak{H}$ 40'43	
evening set	13912 May 21 10:33	21° $\mathfrak{H}$ 26'09		evening set	13913 May 05 15:15	5° $\mathfrak{H}$ 44'09	
inferior conj	13912 May 26 18:35	15° $\mathfrak{H}$ 01'34	2°50'07	min. Earth dist.	13913 May 10 05:20	0° $\mathfrak{H}$ 27'44	0.68542 AU
minimum elong	13912 May 26 16:54	15° $\mathfrak{H}$ 07'23	2°48'50		13913 May 10 13:35	30° $\mathfrak{R}$ $\mathfrak{B}$	
min. Earth dist.	13912 May 26 09:23	15° $\mathfrak{H}$ 33'27	0.68941 AU	inferior conj	13913 May 11 03:07	29° $\mathfrak{B}$ 14'19	2°23'48
morning rise	13912 May 31 23:10	8° $\mathfrak{H}$ 53'00		minimum elong	13913 May 11 01:01	29° $\mathfrak{B}$ 21'25	2°22'26



morning rise	13913 May 16 10:54	23° $\text{J}$ 13'51		morning max el	13914 May 11 05:04	10° $\text{J}$ 08'23	19°01'13
direct	13913 May 20 08:58	21° $\text{J}$ 46'09		desc. node	13914 May 22 06:37	24° $\text{J}$ 31'11	
morning max el	13913 May 27 23:07	26° $\text{J}$ 00'58	19°59'41	greatest brilliancy	13914 May 24 09:50	27° $\text{J}$ 42'22	-0.7m
	13913 May 31 13:29	0° $\text{II}$			13914 May 25 22:15	0° $\text{II}$	
desc. node	13913 Jun 04 09:45	4° $\text{II}$ 56'29		morning set	13914 Jun 03 10:16	13° $\text{II}$ 03'48	
	13913 Jun 21 12:02	0° $\text{J}$			13914 Jun 14 08:00	0° $\text{J}$	
morning set	13913 Jun 24 04:26	4° $\text{J}$ 06'38		max. Earth dist.	13914 Jun 17 07:47	4° $\text{J}$ 40'32	1.45537 AU
max. Earth dist.	13913 Jul 04 15:07	20° $\text{J}$ 25'30	1.44473 AU				
				superior conj	13914 Jun 19 18:55	8° $\text{J}$ 32'38	-2°13'39
superior conj	13913 Jul 10 01:01	29° $\text{J}$ 07'13	-2°04'37	minimum elong	13914 Jun 19 18:42	8° $\text{J}$ 31'45	2°14'44
minimum elong	13913 Jul 10 07:02	29° $\text{J}$ 31'42	2°05'15		13914 Jul 03 05:13	0° $\text{J}$	
	13913 Jul 10 13:59	0° $\text{J}$		evening rise	13914 Jul 04 16:56	2° $\text{J}$ 25'04	
evening rise	13913 Jul 23 07:08	21° $\text{J}$ 16'31		asc. node	13914 Jul 16 05:35	20° $\text{J}$ 54'49	
	13913 Jul 28 09:58	0° $\text{J}$			13914 Jul 22 20:42	0° $\text{J}$	
asc. node	13913 Jul 29 08:51	1° $\text{J}$ 36'23		evening max el	13914 Jul 24 09:33	1° $\text{J}$ 38'34	18°23'33
evening max el	13913 Aug 09 19:39	18° $\text{J}$ 02'45	18°05'02	retrograde	13914 Jul 30 19:17	5° $\text{J}$ 04'02	
retrograde	13913 Aug 16 05:15	21° $\text{J}$ 23'09		evening set	13914 Aug 02 20:44	4° $\text{J}$ 12'02	
evening set	13913 Aug 18 21:58	20° $\text{J}$ 46'00			13914 Aug 07 13:23	30° $\text{R}$ $\text{J}$	
inferior conj	13913 Aug 25 04:53	15° $\text{J}$ 31'43	1°44'26	inferior conj	13914 Aug 08 16:24	28° $\text{J}$ 41'28	2°29'21
minimum elong	13913 Aug 25 07:17	15° $\text{J}$ 25'21	1°43'19	minimum elong	13914 Aug 08 18:43	28° $\text{J}$ 34'38	2°28'09
min. Earth dist.	13913 Aug 28 00:03	12° $\text{J}$ 34'00	0.62704 AU	min. Earth dist.	13914 Aug 10 22:16	26° $\text{J}$ 03'15	0.64775 AU
desc. node	13913 Aug 31 07:16	9° $\text{J}$ 34'38		morning rise	13914 Aug 14 15:23	22° $\text{J}$ 20'31	
morning rise	13913 Aug 31 14:23	9° $\text{J}$ 21'18		desc. node	13914 Aug 18 04:48	20° $\text{J}$ 14'21	
direct	13913 Sep 07 06:38	6° $\text{J}$ 54'17		direct	13914 Aug 21 04:16	19° $\text{J}$ 42'31	
morning max el	13913 Sep 21 07:51	14° $\text{J}$ 55'38	27°54'16	morning max el	13914 Sep 03 18:14	27° $\text{J}$ 39'30	27°19'46
	13913 Oct 03 14:37	0° $\text{J}$			13914 Sep 05 23:33	0° $\text{J}$	
	13913 Oct 21 14:08	0° $\text{J}$			13914 Sep 27 08:07	0° $\text{J}$	
asc. node	13913 Oct 25 10:56	7° $\text{J}$ 37'42		morning set	13914 Oct 09 03:30	21° $\text{J}$ 20'34	
morning set	13913 Oct 25 14:45	7° $\text{J}$ 57'04		asc. node	13914 Oct 12 07:33	27° $\text{J}$ 39'42	
max. Earth dist.	13913 Oct 30 19:50	18° $\text{J}$ 52'49	1.31930 AU		13914 Oct 13 10:58	0° $\text{J}$	
				max. Earth dist.	13914 Oct 13 15:05	0° $\text{J}$ 21'08	1.33119 AU
superior conj	13913 Nov 02 05:29	24° $\text{J}$ 06'12	1°08'01	superior conj	13914 Oct 17 09:38	8° $\text{J}$ 16'35	0°46'35
minimum elong	13913 Nov 02 03:12	23° $\text{J}$ 53'41	1°08'28	minimum elong	13914 Oct 17 07:35	8° $\text{J}$ 05'38	0°46'47
	13913 Nov 04 21:49	0° $\text{J}$		evening rise	13914 Oct 24 11:13	23° $\text{J}$ 28'06	
evening rise	13913 Nov 09 00:22	8° $\text{J}$ 58'40			13914 Oct 27 14:05	0° $\text{J}$	
	13913 Nov 19 16:50	0° $\text{J}$		desc. node	13914 Nov 14 01:02	27° $\text{J}$ 46'19	
desc. node	13913 Nov 27 03:49	11° $\text{J}$ 24'44		evening max el	13914 Nov 14 22:14	28° $\text{J}$ 39'41	22°20'58
evening max el	13913 Dec 03 11:33	18° $\text{J}$ 39'41	24°03'20		13914 Nov 16 08:59	0° $\text{J}$	
retrograde	13913 Dec 17 01:52	25° $\text{J}$ 25'43		retrograde	13914 Nov 27 17:31	5° $\text{J}$ 00'21	
evening set	13913 Dec 21 23:57	24° $\text{J}$ 32'53		evening set	13914 Dec 01 06:45	4° $\text{J}$ 32'38	
min. Earth dist.	13913 Dec 27 22:55	21° $\text{J}$ 36'11	0.55638 AU	min. Earth dist.	13914 Dec 09 05:19	0° $\text{J}$ 59'23	0.54657 AU
inferior conj	13913 Dec 30 00:03	20° $\text{J}$ 21'54	-5°42'24	inferior conj	13914 Dec 09 20:58	0° $\text{J}$ 37'23	-5°55'54
minimum elong	13913 Dec 30 05:54	20° $\text{J}$ 13'02	5°40'39	minimum elong	13914 Dec 09 18:22	0° $\text{J}$ 41'02	5°54'42
morning rise	13914 Jan 07 13:43	16° $\text{J}$ 24'17			13914 Dec 10 23:41	30° $\text{R}$ $\text{J}$	
direct	13914 Jan 10 02:18	16° $\text{J}$ 07'58		morning rise	13914 Dec 18 07:08	26° $\text{J}$ 50'02	
morning max el	13914 Jan 20 11:38	21° $\text{J}$ 07'36	20°00'05	direct	13914 Dec 21 15:01	26° $\text{J}$ 25'07	
asc. node	13914 Jan 21 10:29	22° $\text{J}$ 05'06			13914 Dec 31 01:24	0° $\text{J}$	
	13914 Jan 27 11:58	0° $\text{J}$		morning max el	13915 Jan 02 13:09	2° $\text{J}$ 07'47	21°28'15
morning set	13914 Feb 07 09:49	20° $\text{J}$ 10'02		asc. node	13915 Jan 08 07:44	8° $\text{J}$ 51'31	
	13914 Feb 12 05:19	0° $\text{J}$			13915 Jan 20 10:29	0° $\text{J}$	
				morning set	13915 Jan 22 19:15	4° $\text{J}$ 53'18	
superior conj	13914 Feb 15 03:59	5° $\text{J}$ 56'24	1°02'15				
minimum elong	13914 Feb 15 06:43	6° $\text{J}$ 09'59	1°02'24	superior conj	13915 Jan 30 00:41	20° $\text{J}$ 06'24	1°20'41
max. Earth dist.	13914 Feb 21 01:44	17° $\text{J}$ 23'41	1.37010 AU	minimum elong	13915 Jan 30 03:02	20° $\text{J}$ 18'35	1°21'11
desc. node	13914 Feb 23 04:27	21° $\text{J}$ 18'53		max. Earth dist.	13915 Feb 03 12:40	29° $\text{J}$ 17'06	1.34973 AU
evening rise	13914 Feb 24 19:40	24° $\text{J}$ 16'45			13915 Feb 03 21:18	0° $\text{J}$	
	13914 Feb 28 01:35	0° $\text{J}$		evening rise	13915 Feb 07 15:41	7° $\text{J}$ 18'00	
	13914 Mar 19 12:46	0° $\text{J}$		desc. node	13915 Feb 10 01:01	11° $\text{J}$ 44'53	
evening max el	13914 Apr 01 07:33	15° $\text{J}$ 14'43	25°35'22		13915 Feb 20 18:10	0° $\text{J}$	
retrograde	13914 Apr 13 16:21	22° $\text{J}$ 22'50		evening max el	13915 Mar 14 21:27	29° $\text{J}$ 01'55	26°37'39
asc. node	13914 Apr 19 06:59	20° $\text{J}$ 12'04			13915 Mar 15 21:56	0° $\text{J}$	
evening set	13914 Apr 19 15:17	19° $\text{J}$ 55'08		retrograde	13915 Mar 27 23:39	6° $\text{J}$ 25'05	
min. Earth dist.	13914 Apr 23 22:18	15° $\text{J}$ 14'24	0.67691 AU	evening set	13915 Apr 03 08:53	3° $\text{J}$ 53'07	
inferior conj	13914 Apr 25 08:35	13° $\text{J}$ 24'36	1°47'01	asc. node	13915 Apr 06 04:26	1° $\text{J}$ 11'12	
minimum elong	13914 Apr 25 06:30	13° $\text{J}$ 31'17	1°45'42		13915 Apr 07 05:40	30° $\text{R}$ $\text{J}$	
morning rise	13914 Apr 30 22:13	7° $\text{J}$ 33'33		min. Earth dist.	13915 Apr 07 10:07	29° $\text{J}$ 47'02	0.66418 AU
direct	13914 May 04 08:51	6° $\text{J}$ 25'33					

inferior conj	13915 Apr 09 08:52	27° $\Upsilon$ 27'42	0°59'10	transit middle	13916 Mar 23 01:27	11° $\Upsilon$ 16'49	0°00'29
minimum elong	13915 Apr 09 07:25	27° $\Upsilon$ 32'00	0°58'14	transit begin	13916 Mar 22 22:23	11° $\Upsilon$ 25'10	
morning rise	13915 Apr 15 07:03	21° $\Upsilon$ 47'53		transit end	13916 Mar 23 04:30	11° $\Upsilon$ 08'28	
direct	13915 Apr 18 07:19	20° $\Upsilon$ 57'21		asc. node	13916 Mar 23 01:56	11° $\Upsilon$ 15'29	
morning max el	13915 Apr 24 17:28	24° $\Upsilon$ 21'06	18°19'11	morning rise	13916 Mar 29 10:49	5° $\Upsilon$ 50'36	
	13915 Apr 29 12:01	0° $\text{♄}$		direct	13916 Apr 01 01:54	5° $\Upsilon$ 14'36	
desc. node	13915 May 09 03:22	14° $\text{♄}$ 29'08		morning max el	13916 Apr 07 10:02	8° $\Upsilon$ 31'24	17°54'04
morning set	13915 May 14 13:47	23° $\text{♄}$ 07'19			13916 Apr 22 03:49	0° $\text{♄}$	
	13915 May 18 21:40	0° $\text{♄}$		morning set	13916 Apr 24 21:25	4° $\text{♄}$ 32'25	
				desc. node	13916 Apr 25 00:00	4° $\text{♄}$ 43'09	
superior conj	13915 May 30 03:01	17° $\text{♄}$ 38'48	-2°02'40	superior conj	13916 May 08 18:37	27° $\text{♄}$ 10'48	-1°34'05
minimum elong	13915 May 29 19:40	17° $\text{♄}$ 10'06	2°03'15	minimum elong	13916 May 08 09:47	26° $\text{♄}$ 35'36	1°33'57
max. Earth dist.	13915 May 31 03:52	19° $\text{♄}$ 15'51	1.45872 AU		13916 May 10 13:14	0° $\text{♄}$	
	13915 Jun 07 01:06	0° $\text{♄}$		max. Earth dist.	13916 May 13 00:06	3° $\text{♄}$ 52'09	1.45454 AU
evening rise	13915 Jun 15 02:20	12° $\text{♄}$ 34'19		evening rise	13916 May 24 17:34	22° $\text{♄}$ 03'14	
greatest brilliancy	13915 Jun 25 08:54	28° $\text{♄}$ 32'53	-0.8m		13916 May 29 22:34	0° $\text{♄}$	
	13915 Jun 26 07:46	0° $\text{♄}$		greatest brilliancy	13916 Jun 08 07:19	13° $\text{♄}$ 58'57	-0.6m
asc. node	13915 Jul 03 02:26	9° $\text{♄}$ 47'08		asc. node	13916 Jun 18 23:24	28° $\text{♄}$ 03'26	
evening max el	13915 Jul 07 20:20	15° $\text{♄}$ 24'00	18°59'19	evening max el	13916 Jun 20 01:55	29° $\text{♄}$ 12'39	19°51'13
retrograde	13915 Jul 14 14:59	19° $\text{♄}$ 07'49			13916 Jun 20 21:32	0° $\text{♄}$	
evening set	13915 Jul 18 01:29	17° $\text{♄}$ 59'26		retrograde	13916 Jun 27 13:27	3° $\text{♄}$ 27'05	
inferior conj	13915 Jul 23 13:30	12° $\text{♄}$ 14'07	2°56'51	evening set	13916 Jul 01 09:33	2° $\text{♄}$ 01'45	
minimum elong	13915 Jul 23 15:05	12° $\text{♄}$ 09'03	2°55'46		13916 Jul 03 13:48	30° $\text{♄}$	
min. Earth dist.	13915 Jul 25 04:49	10° $\text{♄}$ 08'55	0.66496 AU	inferior conj	13916 Jul 06 17:06	26° $\text{♄}$ 03'08	3°09'55
morning rise	13915 Jul 29 03:58	5° $\text{♄}$ 49'34		minimum elong	13916 Jul 06 17:41	26° $\text{♄}$ 01'08	3°08'54
direct	13915 Aug 04 09:04	3° $\text{♄}$ 10'22		min. Earth dist.	13916 Jul 07 18:06	24° $\text{♄}$ 39'01	0.67784 AU
desc. node	13915 Aug 05 02:16	3° $\text{♄}$ 12'16		morning rise	13916 Jul 12 01:27	19° $\text{♄}$ 39'44	
morning max el	13915 Aug 17 05:27	10° $\text{♄}$ 49'08	26°17'43	direct	13916 Jul 17 19:54	17° $\text{♄}$ 07'45	
	13915 Sep 01 11:32	0° $\text{♄}$		desc. node	13916 Jul 21 23:39	18° $\text{♄}$ 12'17	
	13915 Sep 19 21:53	0° $\text{♄}$		morning max el	13916 Jul 29 16:11	24° $\text{♄}$ 13'41	24°57'26
morning set	13915 Sep 22 03:57	4° $\text{♄}$ 08'52			13916 Aug 03 20:22	0° $\text{♄}$	
max. Earth dist.	13915 Sep 26 00:36	11° $\text{♄}$ 31'14	1.34826 AU		13916 Aug 24 21:25	0° $\text{♄}$	
asc. node	13915 Sep 29 04:08	17° $\text{♄}$ 46'13		morning set	13916 Sep 03 12:05	16° $\text{♄}$ 12'38	
				max. Earth dist.	13916 Sep 07 01:45	22° $\text{♄}$ 39'27	1.36943 AU
superior conj	13915 Oct 01 06:50	22° $\text{♄}$ 04'22	0°19'44		13916 Sep 10 23:36	0° $\text{♄}$	
minimum elong	13915 Oct 01 05:45	21° $\text{♄}$ 58'48	0°19'49	superior conj	13916 Sep 13 18:01	5° $\text{♄}$ 21'59	-0°11'51
	13915 Oct 05 02:19	0° $\text{♄}$		minimum elong	13916 Sep 13 18:46	5° $\text{♄}$ 25'43	0°11'44
evening rise	13915 Oct 08 20:08	7° $\text{♄}$ 50'30		behind sun begin	13916 Sep 13 14:14	5° $\text{♄}$ 03'29	
	13915 Oct 20 16:09	0° $\text{♄}$		behind sun end	13916 Sep 13 23:18	5° $\text{♄}$ 48'00	
evening max el	13915 Oct 27 17:30	9° $\text{♄}$ 00'10	20°48'09	asc. node	13916 Sep 15 00:43	7° $\text{♄}$ 53'28	
desc. node	13915 Oct 31 22:23	12° $\text{♄}$ 25'20		evening rise	13916 Sep 22 00:50	21° $\text{♄}$ 59'55	
retrograde	13915 Nov 08 04:01	14° $\text{♄}$ 41'18			13916 Sep 26 01:35	0° $\text{♄}$	
evening set	13915 Nov 10 13:44	14° $\text{♄}$ 27'19		evening max el	13916 Oct 09 02:48	20° $\text{♄}$ 05'51	19°34'46
inferior conj	13915 Nov 19 12:20	10° $\text{♄}$ 33'26	-5°09'17	desc. node	13916 Oct 17 19:47	24° $\text{♄}$ 56'12	
minimum elong	13915 Nov 19 02:53	10° $\text{♄}$ 46'56	5°06'16	retrograde	13916 Oct 18 21:57	24° $\text{♄}$ 59'42	
min. Earth dist.	13915 Nov 20 11:18	10° $\text{♄}$ 00'35	0.54565 AU	evening set	13916 Oct 20 19:18	24° $\text{♄}$ 49'34	
morning rise	13915 Nov 27 16:10	6° $\text{♄}$ 38'55		inferior conj	13916 Oct 29 12:51	20° $\text{♄}$ 44'50	-3°36'10
direct	13915 Dec 01 22:50	5° $\text{♄}$ 59'43		minimum elong	13916 Oct 29 03:53	20° $\text{♄}$ 59'05	3°32'19
morning max el	13915 Dec 15 02:40	12° $\text{♄}$ 22'35	23°13'27	min. Earth dist.	13916 Oct 31 20:27	19° $\text{♄}$ 16'43	0.55397 AU
asc. node	13915 Dec 26 04:55	26° $\text{♄}$ 38'04		morning rise	13916 Nov 06 10:32	16° $\text{♄}$ 22'55	
	13915 Dec 28 05:23	0° $\text{♄}$		direct	13916 Nov 11 14:18	15° $\text{♄}$ 23'34	
morning set	13916 Jan 07 06:49	19° $\text{♄}$ 39'11		morning max el	13916 Nov 25 12:23	22° $\text{♄}$ 21'13	25°01'40
	13916 Jan 12 01:48	0° $\text{♄}$			13916 Dec 02 06:29	0° $\text{♄}$	
superior conj	13916 Jan 14 04:36	4° $\text{♄}$ 34'36	1°32'23	asc. node	13916 Dec 12 01:58	15° $\text{♄}$ 09'59	
minimum elong	13916 Jan 14 06:04	4° $\text{♄}$ 42'29	1°33'12		13916 Dec 19 17:12	0° $\text{♄}$	
max. Earth dist.	13916 Jan 17 06:59	11° $\text{♄}$ 10'22	1.33299 AU	morning set	13916 Dec 21 18:42	4° $\text{♄}$ 22'28	
evening rise	13916 Jan 22 00:46	20° $\text{♄}$ 51'10					
	13916 Jan 26 19:30	0° $\text{♄}$		superior conj	13916 Dec 28 13:11	19° $\text{♄}$ 13'51	1°37'41
desc. node	13916 Jan 27 21:38	1° $\text{♄}$ 59'37		minimum elong	13916 Dec 28 13:35	19° $\text{♄}$ 16'00	1°38'42
	13916 Feb 14 16:10	0° $\text{♄}$		max. Earth dist.	13916 Dec 30 08:34	23° $\text{♄}$ 11'43	1.32080 AU
evening max el	13916 Feb 25 10:50	12° $\text{♄}$ 32'46	27°19'29		13917 Jan 02 12:28	0° $\text{♄}$	
retrograde	13916 Mar 10 00:38	20° $\text{♄}$ 00'50		evening rise	13917 Jan 04 19:47	4° $\text{♄}$ 48'39	
evening set	13916 Mar 16 17:56	17° $\text{♄}$ 30'28		desc. node	13917 Jan 13 18:21	21° $\text{♄}$ 57'44	
min. Earth dist.	13916 Mar 20 14:38	13° $\text{♄}$ 56'44	0.64767 AU		13917 Jan 18 11:32	0° $\text{♄}$	
inferior conj	13916 Mar 23 01:26	11° $\text{♄}$ 16'51	-0°00'24	evening max el	13917 Feb 06 22:04	25° $\text{♄}$ 35'39	27°34'02
minimum elong	13916 Mar 23 01:27	11° $\text{♄}$ 16'49	0°00'29				

	13917 Feb 12 07:35	0°♿			13918 Jan 13 00:43	0°♿	
retrograde	13917 Feb 20 18:38	3°♿00'57		evening max el	13918 Jan 20 04:54	7°♿58'00	27°15'59
evening set	13917 Feb 27 15:58	0°♿39'30		retrograde	13918 Feb 03 04:20	15°♿15'07	
	13917 Feb 28 13:55	30°♿♿		evening set	13918 Feb 09 23:52	13°♿10'56	
min. Earth dist.	13917 Mar 03 10:06	27°♿33'39	0.62806 AU	min. Earth dist.	13918 Feb 13 19:27	10°♿25'18	0.60648 AU
inferior conj	13917 Mar 06 07:22	24°♿45'03	-1°11'33	inferior conj	13918 Feb 16 23:12	7°♿43'01	-2°32'29
minimum elong	13917 Mar 06 09:45	24°♿39'13	1°10'22	minimum elong	13918 Feb 17 04:42	7°♿31'11	2°29'51
asc. node	13917 Mar 09 23:24	21°♿27'50		morning rise	13918 Feb 24 12:44	2°♿51'49	
morning rise	13917 Mar 13 06:12	19°♿34'59		asc. node	13918 Feb 24 20:52	2°♿46'36	
direct	13917 Mar 15 13:37	19°♿10'01		direct	13918 Feb 26 14:45	2°♿34'12	
morning max el	13917 Mar 22 03:48	22°♿31'15	17°46'19	morning max el	13918 Mar 05 19:24	6°♿10'29	17°56'53
	13917 Mar 28 00:38	0°♿		morning set	13918 Mar 21 09:15	0°♿36'19	
morning set	13917 Apr 07 05:57	17°♿08'15			13918 Mar 21 01:19	0°♿	
desc. node	13917 Apr 11 20:35	25°♿08'29		desc. node	13918 Mar 29 17:05	15°♿40'39	
	13917 Apr 14 16:41	0°♿					
superior conj	13917 Apr 19 06:49	7°♿42'13	-0°55'59	superior conj	13918 Mar 31 19:03	19°♿20'14	-0°16'32
minimum elong	13917 Apr 19 01:17	7°♿19'18	0°55'45	minimum elong	13918 Mar 31 17:36	19°♿13'55	0°16'33
max. Earth dist.	13917 Apr 25 17:38	18°♿12'26	1.44338 AU	max. Earth dist.	13918 Apr 07 01:11	0°♿	
	13917 May 03 05:39	0°♿		evening rise	13918 Apr 08 06:57	2°♿03'19	1.42642 AU
evening rise	13917 May 04 05:13	1°♿30'55			13918 Apr 14 04:33	11°♿35'16	
	13917 May 23 12:40	0°♿		evening max el	13918 Apr 26 06:23	0°♿	
evening max el	13917 Jun 03 01:33	13°♿01'54	20°57'05		13918 May 16 19:59	26°♿52'11	22°13'08
asc. node	13917 Jun 05 20:27	15°♿31'46		asc. node	13918 May 20 08:53	0°♿	
retrograde	13917 Jun 11 12:26	17°♿56'12		retrograde	13918 May 23 17:35	1°♿57'24	
evening set	13917 Jun 15 18:48	16°♿14'08		evening set	13918 May 26 10:09	2°♿30'15	
inferior conj	13917 Jun 21 00:41	10°♿03'52	3°10'45		13918 May 31 03:32	0°♿32'23	
minimum elong	13917 Jun 21 00:17	10°♿05'17	3°09'41	inferior conj	13918 May 31 17:59	30°♿♿	
min. Earth dist.	13917 Jun 21 12:02	9°♿24'32	0.68605 AU	minimum elong	13918 Jun 05 10:10	24°♿12'26	3°00'40
morning rise	13917 Jun 26 05:31	3°♿44'39		min. Earth dist.	13918 Jun 05 08:54	24°♿16'54	2°59'27
direct	13917 Jul 01 11:51	1°♿26'23		morning rise	13918 Jun 05 08:26	24°♿18'31	0.68951 AU
desc. node	13917 Jul 08 20:56	4°♿48'05		direct	13918 Jun 10 14:04	17°♿59'29	
morning max el	13917 Jul 12 02:46	7°♿46'29	23°28'33	morning max el	13918 Jun 15 07:47	15°♿59'19	
	13917 Jul 29 11:41	0°♿		desc. node	13918 Jun 24 15:35	21°♿27'02	22°00'21
morning set	13917 Aug 15 23:17	27°♿20'29			13918 Jun 25 18:05	22°♿35'31	
	13917 Aug 17 12:59	0°♿		morning set	13918 Jul 01 23:27	0°♿	
max. Earth dist.	13917 Aug 19 23:33	4°♿12'10	1.39286 AU	max. Earth dist.	13918 Jul 22 17:32	0°♿	
					13918 Jul 27 09:55	7°♿23'45	
superior conj	13917 Aug 27 15:24	18°♿00'21	-0°46'36	superior conj	13918 Aug 02 00:33	16°♿33'25	1.41587 AU
minimum elong	13917 Aug 27 18:48	18°♿16'13	0°46'20	minimum elong	13918 Aug 09 18:39	29°♿50'01	-1°21'34
asc. node	13917 Sep 01 21:16	27°♿57'37			13918 Aug 10 00:50	0°♿17'15	1°21'20
	13917 Sep 02 22:36	0°♿		asc. node	13918 Aug 09 20:55	0°♿	
evening rise	13917 Sep 05 22:29	5°♿48'36		evening rise	13918 Aug 19 17:50	17°♿55'13	
	13917 Sep 20 05:34	0°♿			13918 Aug 20 09:30	19°♿07'43	
evening max el	13917 Sep 22 01:20	2°♿00'14	18°43'19		13918 Aug 26 08:37	0°♿	
retrograde	13917 Sep 30 08:27	6°♿10'51		evening max el	13918 Sep 05 09:17	14°♿36'05	18°13'03
evening set	13917 Oct 02 06:16	5°♿58'22		retrograde	13918 Sep 12 14:04	18°♿15'46	
desc. node	13917 Oct 04 17:16	5°♿08'28		evening set	13918 Sep 14 18:08	17°♿56'25	
inferior conj	13917 Oct 10 08:31	1°♿35'08	-1°47'32	desc. node	13918 Sep 21 14:47	13°♿36'04	
minimum elong	13917 Oct 10 04:05	1°♿43'17	1°45'18	inferior conj	13918 Sep 22 01:59	13°♿12'03	-0°08'45
	13917 Oct 12 11:56	30°♿♿		minimum elong	13918 Sep 22 01:40	13°♿12'43	0°08'30
min. Earth dist.	13917 Oct 13 11:05	29°♿18'21	0.57014 AU	transit middle	13918 Sep 22 01:40	13°♿12'43	0°08'30
morning rise	13917 Oct 17 22:32	26°♿36'08		transit begin	13918 Sep 21 22:45	13°♿19'00	
direct	13917 Oct 23 20:10	25°♿10'56		transit end	13918 Sep 22 04:35	13°♿06'25	
	13917 Nov 04 03:29	0°♿		min. Earth dist.	13918 Sep 25 09:05	10°♿22'55	0.59129 AU
morning max el	13917 Nov 07 02:06	2°♿36'06	26°34'11	morning rise	13918 Sep 29 05:48	7°♿38'23	
	13917 Nov 26 15:46	0°♿		direct	13918 Oct 05 15:51	5°♿45'53	
asc. node	13917 Nov 28 22:55	4°♿14'54		morning max el	13918 Oct 19 23:15	13°♿30'34	27°35'33
morning set	13917 Dec 06 05:03	18°♿57'10			13918 Nov 02 03:05	0°♿	
	13917 Dec 11 05:49	0°♿		asc. node	13918 Nov 15 19:45	23°♿44'09	
					13918 Nov 18 22:09	0°♿	
superior conj	13917 Dec 13 00:13	3°♿56'31	1°36'54	morning set	13918 Nov 20 12:09	3°♿18'54	
minimum elong	13917 Dec 12 23:32	3°♿52'47	1°37'56				
max. Earth dist.	13917 Dec 13 15:06	5°♿19'30	1.31362 AU	superior conj	13918 Nov 27 11:47	18°♿37'16	1°30'14
evening rise	13917 Dec 19 21:58	19°♿02'43		minimum elong	13918 Nov 27 10:13	18°♿28'30	1°31'08
	13917 Dec 25 07:38	0°♿		max. Earth dist.	13918 Nov 26 23:21	17°♿27'48	1.31167 AU
desc. node	13917 Dec 31 15:08	11°♿31'20			13918 Dec 02 14:45	0°♿	

evening rise	13918 Dec 04 05:06	3° $\text{Z}$ 27'48			13919 Nov 24 10:33	0° $\text{Z}$	
	13918 Dec 18 04:21	0° $\approx$		desc. node	13919 Dec 05 09:06	18° $\text{Z}$ 44'27	
desc. node	13918 Dec 18 12:03	0° $\approx$ 31'05			13919 Dec 14 15:41	0° $\approx$	
evening max el	13919 Jan 02 04:49	19° $\approx$ 30'19	26°23'10	evening max el	13919 Dec 14 20:19	0° $\approx$ 11'07	25°00'03
retrograde	13919 Jan 16 03:52	26° $\approx$ 36'24		retrograde	13919 Dec 28 15:17	7° $\approx$ 05'25	
evening set	13919 Jan 22 13:50	24° $\approx$ 56'58		evening set	13920 Jan 03 05:51	5° $\approx$ 55'08	
min. Earth dist.	13919 Jan 26 18:25	22° $\approx$ 20'11	0.58478 AU	min. Earth dist.	13920 Jan 08 08:14	3° $\approx$ 11'30	0.56539 AU
inferior conj	13919 Jan 29 21:20	20° $\approx$ 00'54	-3°57'08	inferior conj	13920 Jan 10 22:59	1° $\approx$ 30'11	-5°12'05
minimum elong	13919 Jan 30 05:40	19° $\approx$ 45'21	3°53'42	minimum elong	13920 Jan 11 07:21	1° $\approx$ 16'38	5°09'22
morning rise	13919 Feb 07 00:31	15° $\approx$ 30'54			13920 Jan 13 08:19	30° $\text{R}$ $\text{Z}$	
direct	13919 Feb 09 01:10	15° $\approx$ 16'53		morning rise	13920 Jan 19 11:09	27° $\text{Z}$ 22'03	
asc. node	13919 Feb 11 18:18	15° $\approx$ 43'18		direct	13920 Jan 21 17:00	27° $\text{Z}$ 07'49	
morning max el	13919 Feb 17 05:02	19° $\approx$ 18'16	18°27'18		13920 Jan 29 05:09	0° $\approx$	
	13919 Feb 25 01:37	0° $\text{X}$		asc. node	13920 Jan 29 15:40	0° $\approx$ 20'52	
morning set	13919 Mar 05 01:47	14° $\text{X}$ 40'04		morning max el	13920 Jan 31 04:41	1° $\approx$ 43'31	19°19'36
	13919 Mar 13 03:29	0° $\text{Y}$		morning set	13920 Feb 17 03:20	29° $\approx$ 07'01	
					13920 Feb 17 13:58	0° $\text{X}$	
superior conj	13919 Mar 14 04:45	1° $\text{Y}$ 56'55	0°19'05	superior conj	13920 Feb 25 07:28	15° $\text{X}$ 20'11	0°48'28
minimum elong	13919 Mar 14 06:05	2° $\text{Y}$ 03'04	0°18'57	minimum elong	13920 Feb 25 10:02	15° $\text{X}$ 32'39	0°48'26
desc. node	13919 Mar 16 13:33	6° $\text{Y}$ 15'56		desc. node	13920 Mar 02 10:03	26° $\text{X}$ 51'05	
max. Earth dist.	13919 Mar 21 16:06	15° $\text{Y}$ 16'07	1.40552 AU	max. Earth dist.	13920 Mar 02 22:52	27° $\text{X}$ 49'22	1.38291 AU
evening rise	13919 Mar 25 23:49	22° $\text{Y}$ 33'43			13920 Mar 04 03:50	0° $\text{Y}$	
	13919 Mar 30 13:54	0° $\text{B}$		evening rise	13920 Mar 06 16:12	4° $\text{Y}$ 26'42	
	13919 Apr 20 05:59	0° $\text{II}$			13920 Mar 22 15:16	0° $\text{B}$	
evening max el	13919 Apr 29 11:01	10° $\text{II}$ 44'07	23°34'00	evening max el	13920 Apr 11 00:39	24° $\text{B}$ 37'49	24°53'09
retrograde	13919 May 10 05:07	17° $\text{II}$ 03'32			13920 Apr 17 18:38	0° $\text{II}$	
asc. node	13919 May 10 14:49	17° $\text{II}$ 02'48		retrograde	13920 Apr 22 20:23	1° $\text{II}$ 31'02	
evening set	13919 May 15 10:06	14° $\text{II}$ 51'35		asc. node	13920 Apr 26 12:08	0° $\text{II}$ 33'15	
min. Earth dist.	13919 May 20 05:05	9° $\text{II}$ 14'21	0.68827 AU		13920 Apr 27 09:53	30° $\text{R}$ $\text{B}$	
inferior conj	13919 May 20 19:34	8° $\text{II}$ 24'35	2°40'14	evening set	13920 Apr 28 13:02	29° $\text{B}$ 07'45	
minimum elong	13919 May 20 17:40	8° $\text{II}$ 31'07	2°38'53	min. Earth dist.	13920 May 02 23:55	24° $\text{B}$ 06'53	0.68241 AU
morning rise	13919 May 26 01:11	2° $\text{II}$ 19'18		inferior conj	13920 May 04 03:03	22° $\text{B}$ 37'14	2°09'31
direct	13919 May 30 06:21	0° $\text{II}$ 39'32		minimum elong	13920 May 04 00:54	22° $\text{B}$ 44'22	2°08'08
morning max el	13919 Jun 07 09:50	5° $\text{II}$ 17'47	20°40'09	morning rise	13920 May 09 13:02	16° $\text{B}$ 40'50	
desc. node	13919 Jun 12 15:07	11° $\text{II}$ 14'57		direct	13920 May 13 06:12	15° $\text{B}$ 21'39	
	13919 Jun 26 01:05	0° $\text{E}$		morning max el	13920 May 20 11:37	19° $\text{B}$ 20'50	19°32'55
morning set	13919 Jul 06 21:33	16° $\text{E}$ 27'30			13920 May 29 02:40	0° $\text{II}$	
	13919 Jul 15 11:12	0° $\text{O}$		desc. node	13920 May 29 12:02	0° $\text{II}$ 32'53	
max. Earth dist.	13919 Jul 15 08:26	29° $\text{E}$ 48'50	1.43571 AU	greatest brilliancy	13920 Jun 02 03:00	5° $\text{II}$ 46'02	-0.6m
superior conj	13919 Jul 21 23:32	10° $\text{O}$ 40'58	-1°51'53	morning set	13920 Jun 14 23:23	25° $\text{II}$ 10'32	
minimum elong	13919 Jul 22 06:49	11° $\text{O}$ 11'21	1°52'07		13920 Jun 18 02:32	0° $\text{E}$	
	13919 Aug 02 05:23	0° $\text{P}$		max. Earth dist.	13920 Jun 26 22:47	13° $\text{E}$ 47'57	1.45014 AU
evening rise	13919 Aug 03 05:17	1° $\text{P}$ 45'01		superior conj	13920 Jul 01 04:49	20° $\text{E}$ 33'02	-2°10'44
asc. node	13919 Aug 06 14:26	7° $\text{P}$ 41'29		minimum elong	13920 Jul 01 08:45	20° $\text{E}$ 48'44	2°11'39
evening max el	13919 Aug 19 22:18	27° $\text{P}$ 41'56	18°02'34		13920 Jul 07 01:11	0° $\text{O}$	
	13919 Aug 22 19:50	0° $\text{E}$		evening rise	13920 Jul 15 04:47	13° $\text{O}$ 29'03	
retrograde	13919 Aug 26 11:51	1° $\text{E}$ 05'20		asc. node	13920 Jul 23 11:07	27° $\text{O}$ 11'53	
evening set	13919 Aug 28 23:52	0° $\text{E}$ 35'26			13920 Jul 25 05:16	0° $\text{P}$	
	13919 Aug 30 05:24	30° $\text{R}$ $\text{P}$		evening max el	13920 Aug 02 12:44	11° $\text{P}$ 08'49	18°10'43
inferior conj	13919 Sep 04 14:54	25° $\text{P}$ 31'09	1°09'26	retrograde	13920 Aug 08 21:18	14° $\text{P}$ 29'55	
minimum elong	13919 Sep 04 16:48	25° $\text{P}$ 26'25	1°08'34	evening set	13920 Aug 11 17:41	13° $\text{P}$ 46'39	
min. Earth dist.	13919 Sep 07 16:06	22° $\text{P}$ 30'48	0.61416 AU	inferior conj	13920 Aug 17 19:20	8° $\text{P}$ 24'54	2°05'48
desc. node	13919 Sep 08 12:20	21° $\text{P}$ 44'08		minimum elong	13920 Aug 17 21:48	8° $\text{P}$ 18'00	2°04'37
morning rise	13919 Sep 11 07:03	19° $\text{P}$ 31'18		min. Earth dist.	13920 Aug 20 08:58	5° $\text{P}$ 33'42	0.63616 AU
direct	13919 Sep 17 22:46	17° $\text{P}$ 15'10		morning rise	13920 Aug 24 00:08	2° $\text{P}$ 08'51	
morning max el	13919 Oct 02 03:34	25° $\text{P}$ 12'16	27°58'36	desc. node	13920 Aug 25 09:52	1° $\text{P}$ 10'35	
	13919 Oct 06 13:28	0° $\text{E}$			13920 Aug 27 23:45	30° $\text{R}$ $\text{O}$	
	13919 Oct 26 14:23	0° $\text{M}$		direct	13920 Aug 30 15:24	29° $\text{O}$ 36'20	
asc. node	13919 Nov 02 16:29	13° $\text{M}$ 30'28			13920 Sep 02 09:49	0° $\text{P}$	
morning set	13919 Nov 04 14:02	17° $\text{M}$ 22'54		morning max el	13920 Sep 13 12:46	7° $\text{P}$ 37'15	27°43'38
max. Earth dist.	13919 Nov 10 05:40	29° $\text{M}$ 27'54	1.31499 AU		13920 Sep 30 18:34	0° $\text{E}$	
	13919 Nov 10 11:31	0° $\text{X}$			13920 Oct 17 19:42	0° $\text{M}$	
superior conj	13919 Nov 11 22:04	3° $\text{X}$ 10'39	1°17'48	morning set	13920 Oct 18 08:24	1° $\text{M}$ 03'17	
minimum elong	13919 Nov 11 19:55	2° $\text{X}$ 58'44	1°18'25	asc. node	13920 Oct 19 13:09	3° $\text{M}$ 28'12	
evening rise	13919 Nov 18 15:09	17° $\text{X}$ 58'43		max. Earth dist.	13920 Oct 23 06:05	11° $\text{M}$ 10'03	1.32369 AU

superior conj	13920 Oct 26 05:05	17° $\mathbb{M}$ 31'03	0°59'38	superior conj	13921 Oct 10 06:37	1° $\mathbb{M}$ 32'44	0°35'51
minimum elong	13920 Oct 26 02:49	17° $\mathbb{M}$ 18'45	0°59'57	minimum elong	13921 Oct 10 04:52	1° $\mathbb{M}$ 23'35	0°35'58
	13920 Oct 31 22:26	0° $\mathbb{A}$		evening rise	13921 Oct 17 12:33	16° $\mathbb{M}$ 57'17	
evening rise	13920 Nov 02 02:16	2° $\mathbb{A}$ 30'09			13921 Oct 23 23:15	0° $\mathbb{A}$	
	13920 Nov 16 21:27	0° $\mathbb{B}$		evening max el	13921 Nov 06 19:22	20° $\mathbb{A}$ 20'13	21°39'39
desc. node	13920 Nov 21 06:16	5° $\mathbb{B}$ 53'29		desc. node	13921 Nov 08 03:33	21° $\mathbb{A}$ 35'14	
evening max el	13920 Nov 25 06:11	10° $\mathbb{B}$ 15'43	23°19'34	retrograde	13921 Nov 19 02:42	26° $\mathbb{A}$ 26'21	
retrograde	13920 Dec 08 14:01	16° $\mathbb{B}$ 53'13		evening set	13921 Nov 22 02:26	26° $\mathbb{A}$ 06'07	
evening set	13920 Dec 12 22:38	16° $\mathbb{B}$ 11'55		inferior conj	13921 Nov 30 21:31	22° $\mathbb{A}$ 12'56	-5°43'26
min. Earth dist.	13920 Dec 19 16:10	13° $\mathbb{B}$ 01'59	0.55120 AU	minimum elong	13921 Nov 30 15:17	22° $\mathbb{A}$ 21'41	5°41'37
inferior conj	13920 Dec 21 04:38	12° $\mathbb{B}$ 09'04	-5°55'06	min. Earth dist.	13921 Nov 30 22:18	22° $\mathbb{A}$ 11'50	0.54493 AU
minimum elong	13920 Dec 21 07:20	12° $\mathbb{B}$ 05'09	5°53'54	morning rise	13921 Dec 09 04:57	18° $\mathbb{A}$ 24'52	
morning rise	13920 Dec 29 17:40	8° $\mathbb{B}$ 17'54		direct	13921 Dec 12 22:09	17° $\mathbb{A}$ 54'45	
direct	13921 Jan 01 13:30	7° $\mathbb{B}$ 58'45		morning max el	13921 Dec 25 10:43	23° $\mathbb{A}$ 55'42	22°11'30
morning max el	13921 Jan 12 14:47	13° $\mathbb{B}$ 16'05	20°35'01		13921 Dec 30 19:24	0° $\mathbb{B}$	
asc. node	13921 Jan 15 12:59	16° $\mathbb{B}$ 25'24		asc. node	13922 Jan 02 10:12	3° $\mathbb{B}$ 39'37	
	13921 Jan 24 10:15	0° $\approx$		morning set	13922 Jan 15 21:13	28° $\mathbb{B}$ 31'45	
morning set	13921 Jan 31 10:37	13° $\approx$ 46'31			13922 Jan 16 13:53	0° $\approx$	
superior conj	13921 Feb 07 22:41	29° $\approx$ 16'29	1°10'54	superior conj	13922 Jan 22 22:50	13° $\approx$ 35'43	1°26'26
minimum elong	13921 Feb 08 01:20	29° $\approx$ 29'55	1°11'11	minimum elong	13922 Jan 23 00:51	13° $\approx$ 46'20	1°27'05
	13921 Feb 08 07:16	0° $\mathbb{H}$		max. Earth dist.	13922 Jan 26 20:10	21° $\approx$ 40'51	1.34209 AU
max. Earth dist.	13921 Feb 13 06:38	9° $\mathbb{H}$ 50'37	1.36107 AU	evening rise	13922 Jan 31 05:07	0° $\mathbb{H}$ 21'52	
evening rise	13921 Feb 17 03:06	17° $\mathbb{H}$ 05'37			13922 Jan 31 00:35	0° $\mathbb{H}$	
desc. node	13921 Feb 17 06:35	17° $\mathbb{H}$ 21'36		desc. node	13922 Feb 04 03:11	7° $\mathbb{H}$ 43'38	
	13921 Feb 24 11:39	0° $\mathbb{Y}$			13922 Feb 17 13:25	0° $\mathbb{Y}$	
	13921 Mar 16 23:58	0° $\mathbb{B}$		evening max el	13922 Mar 07 03:48	22° $\mathbb{Y}$ 09'48	26°58'16
evening max el	13921 Mar 24 14:06	8° $\mathbb{B}$ 28'31	26°03'43	retrograde	13922 Mar 20 11:57	29° $\mathbb{Y}$ 36'59	
retrograde	13921 Apr 06 06:58	15° $\mathbb{B}$ 44'52		evening set	13922 Mar 27 00:51	27° $\mathbb{Y}$ 04'49	
evening set	13921 Apr 12 10:35	13° $\mathbb{B}$ 14'22		min. Earth dist.	13922 Mar 30 23:55	23° $\mathbb{Y}$ 12'45	0.65760 AU
asc. node	13921 Apr 13 09:34	12° $\mathbb{B}$ 23'14		asc. node	13922 Mar 31 07:02	22° $\mathbb{Y}$ 52'40	
min. Earth dist.	13921 Apr 16 14:53	8° $\mathbb{B}$ 48'49	0.67205 AU	inferior conj	13922 Apr 02 03:56	20° $\mathbb{Y}$ 43'10	0°35'20
inferior conj	13921 Apr 18 06:36	6° $\mathbb{B}$ 45'10	1°28'06	minimum elong	13922 Apr 02 03:00	20° $\mathbb{Y}$ 45'52	0°34'43
minimum elong	13921 Apr 18 04:42	6° $\mathbb{B}$ 51'05	1°26'55	morning rise	13922 Apr 08 06:35	15° $\mathbb{Y}$ 08'50	
morning rise	13921 Apr 23 23:35	0° $\mathbb{B}$ 58'55		direct	13922 Apr 11 02:40	14° $\mathbb{Y}$ 25'03	
	13921 Apr 26 18:40	30° $\mathbb{R}$ $\mathbb{Y}$		morning max el	13922 Apr 17 11:09	17° $\mathbb{Y}$ 44'43	18°06'17
direct	13921 Apr 27 05:36	29° $\mathbb{Y}$ 58'50			13922 Apr 26 16:46	0° $\mathbb{B}$	
	13921 Apr 27 16:36	0° $\mathbb{B}$		desc. node	13922 May 03 05:32	10° $\mathbb{B}$ 23'48	
morning max el	13921 May 03 20:39	3° $\mathbb{B}$ 31'58	18°41'17	morning set	13922 May 06 04:03	15° $\mathbb{B}$ 09'13	
desc. node	13921 May 16 08:51	20° $\mathbb{B}$ 18'23			13922 May 15 09:49	0° $\mathbb{I}$	
	13921 May 22 15:11	0° $\mathbb{I}$		superior conj	13922 May 21 01:48	8° $\mathbb{I}$ 57'02	-1°52'17
morning set	13921 May 25 12:40	4° $\mathbb{I}$ 31'17		minimum elong	13922 May 20 17:00	8° $\mathbb{I}$ 22'29	1°52'31
max. Earth dist.	13921 Jun 09 17:03	28° $\mathbb{I}$ 13'02	1.45770 AU	max. Earth dist.	13922 May 23 12:56	12° $\mathbb{I}$ 48'38	1.45784 AU
superior conj	13921 Jun 10 16:35	29° $\mathbb{I}$ 44'59	-2°11'29		13922 Jun 03 14:25	0° $\mathbb{E}$	
minimum elong	13921 Jun 10 12:58	29° $\mathbb{I}$ 30'51	2°12'26	evening rise	13922 Jun 06 04:18	3° $\mathbb{E}$ 59'19	
	13921 Jun 10 20:26	0° $\mathbb{E}$		greatest brilliancy	13922 Jun 18 13:03	22° $\mathbb{E}$ 54'45	-0.7m
evening rise	13921 Jun 26 04:04	24° $\mathbb{E}$ 11'39			13922 Jun 23 10:22	0° $\mathbb{Q}$	
	13921 Jun 29 19:16	0° $\mathbb{Q}$		asc. node	13922 Jun 27 04:48	4° $\mathbb{Q}$ 58'46	
greatest brilliancy	13921 Jul 03 02:21	5° $\mathbb{Q}$ 14'49	-0.9m	evening max el	13922 Jun 30 10:15	8° $\mathbb{Q}$ 36'27	19°19'36
asc. node	13921 Jul 10 07:55	16° $\mathbb{Q}$ 20'23		retrograde	13922 Jul 07 11:18	12° $\mathbb{Q}$ 32'00	
evening max el	13921 Jul 17 01:30	24° $\mathbb{Q}$ 49'05	18°36'41	evening set	13922 Jul 11 01:45	11° $\mathbb{Q}$ 16'38	
retrograde	13921 Jul 23 14:12	28° $\mathbb{Q}$ 21'14		inferior conj	13922 Jul 16 11:30	5° $\mathbb{Q}$ 25'44	3°04'00
evening set	13921 Jul 26 19:20	27° $\mathbb{Q}$ 22'33		minimum elong	13922 Jul 16 12:41	5° $\mathbb{Q}$ 21'51	3°02'57
inferior conj	13921 Aug 01 11:20	21° $\mathbb{Q}$ 45'28	2°42'56	min. Earth dist.	13922 Jul 17 20:47	3° $\mathbb{Q}$ 36'56	0.67099 AU
minimum elong	13921 Aug 01 13:23	21° $\mathbb{Q}$ 39'09	2°41'48		13922 Jul 20 22:21	30° $\mathbb{R}$ $\mathbb{E}$	
min. Earth dist.	13921 Aug 03 11:04	19° $\mathbb{Q}$ 19'47	0.65549 AU	morning rise	13922 Jul 21 23:03	29° $\mathbb{E}$ 01'05	
morning rise	13921 Aug 07 06:23	15° $\mathbb{Q}$ 21'57		direct	13922 Jul 27 23:58	26° $\mathbb{E}$ 23'41	
desc. node	13921 Aug 12 07:22	12° $\mathbb{Q}$ 49'07		desc. node	13922 Jul 30 04:48	26° $\mathbb{E}$ 41'48	
direct	13921 Aug 13 16:15	12° $\mathbb{Q}$ 42'14			13922 Aug 05 05:03	0° $\mathbb{Q}$	
morning max el	13921 Aug 26 23:56	20° $\mathbb{Q}$ 34'15	26°56'17	morning max el	13922 Aug 09 10:51	3° $\mathbb{Q}$ 50'48	25°45'08
	13921 Sep 04 03:05	0° $\mathbb{M}$			13922 Aug 29 10:28	0° $\mathbb{M}$	
	13921 Sep 23 21:26	0° $\mathbb{E}$		morning set	13922 Sep 14 10:23	26° $\mathbb{M}$ 43'45	
morning set	13921 Oct 01 16:25	14° $\mathbb{E}$ 13'21			13922 Sep 16 04:56	0° $\mathbb{E}$	
max. Earth dist.	13921 Oct 05 21:15	22° $\mathbb{E}$ 29'33	1.33776 AU	max. Earth dist.	13922 Sep 18 02:20	3° $\mathbb{E}$ 33'49	1.35679 AU
asc. node	13921 Oct 06 09:46	23° $\mathbb{E}$ 32'50		asc. node	13922 Sep 23 06:20	13° $\mathbb{E}$ 40'01	
	13921 Oct 09 12:55	0° $\mathbb{M}$					

superior conj	13922 Sep 23 23:56	15° $\Omega$ 08'28	0°06'52	max. Earth dist.	13923 Aug 31 01:11	14° $\Pi$ 48'47	1.37936 AU
minimum elong	13922 Sep 23 23:31	15° $\Omega$ 06'24	0°06'56				
behind sun begin	13922 Sep 23 17:54	14° $\Omega$ 38'06		superior conj	13923 Sep 07 05:43	28° $\Pi$ 10'44	-0°26'21
behind sun end	13922 Sep 24 05:08	15° $\Omega$ 34'46		minimum elong	13923 Sep 07 07:32	28° $\Pi$ 19'24	0°26'09
	13922 Oct 01 05:29	0° $\Pi$			13923 Sep 08 04:24	0° $\Omega$	
evening rise	13922 Oct 01 19:55	1° $\Pi$ 14'23		asc. node	13923 Sep 10 02:54	3° $\Omega$ 46'33	
	13922 Oct 18 21:57	0° $\mathcal{A}$		evening rise	13923 Sep 15 21:58	15° $\Omega$ 15'48	
evening max el	13922 Oct 19 20:25	0° $\mathcal{A}$ 58'20	20°14'23		13923 Sep 23 16:11	0° $\Pi$	
desc. node	13922 Oct 26 00:56	5° $\mathcal{A}$ 22'16		evening max el	13923 Oct 02 11:43	12° $\Pi$ 24'54	19°10'08
retrograde	13922 Oct 30 14:19	6° $\mathcal{A}$ 19'04		retrograde	13923 Oct 11 14:15	16° $\Pi$ 58'47	
evening set	13922 Nov 01 16:49	6° $\mathcal{A}$ 07'43		desc. node	13923 Oct 12 22:21	16° $\Pi$ 53'15	
inferior conj	13922 Nov 10 15:01	2° $\mathcal{A}$ 11'03	-4°33'47	evening set	13923 Oct 13 10:56	16° $\Pi$ 48'08	
minimum elong	13922 Nov 10 04:54	2° $\mathcal{A}$ 26'01	4°30'04	inferior conj	13923 Oct 21 22:45	12° $\Pi$ 35'59	-2°50'03
min. Earth dist.	13922 Nov 12 05:27	1° $\mathcal{A}$ 14'09	0.54808 AU	minimum elong	13923 Oct 21 15:32	12° $\Pi$ 48'09	2°46'42
	13922 Nov 14 09:53	30° $\mathcal{R}\Pi$		min. Earth dist.	13923 Oct 24 16:16	10° $\Pi$ 45'57	0.56012 AU
morning rise	13922 Nov 18 16:12	28° $\Pi$ 06'46		morning rise	13923 Oct 29 17:32	7° $\Pi$ 59'08	
direct	13922 Nov 23 08:23	27° $\Pi$ 19'27		direct	13923 Nov 04 05:42	6° $\Pi$ 49'15	
	13922 Dec 01 19:58	0° $\mathcal{A}$		morning max el	13923 Nov 18 07:39	13° $\Pi$ 58'38	25°44'06
morning max el	13922 Dec 06 21:18	3° $\mathcal{A}$ 58'30	24°00'09		13923 Nov 30 22:59	0° $\mathcal{A}$	
asc. node	13922 Dec 20 07:19	21° $\mathcal{A}$ 46'42		asc. node	13923 Dec 07 04:18	10° $\mathcal{A}$ 33'30	
	13922 Dec 24 20:49	0° $\mathcal{B}$		morning set	13923 Dec 15 20:30	27° $\mathcal{A}$ 56'13	
morning set	13922 Dec 31 09:07	13° $\mathcal{B}$ 16'39			13923 Dec 16 19:25	0° $\mathcal{B}$	
superior conj	13923 Jan 07 05:00	28° $\mathcal{B}$ 09'08	1°35'22	superior conj	13923 Dec 22 14:48	12° $\mathcal{B}$ 49'46	1°38'04
minimum elong	13923 Jan 07 06:01	28° $\mathcal{B}$ 14'42	1°36'18	minimum elong	13923 Dec 22 14:44	12° $\mathcal{B}$ 49'23	1°39'07
	13923 Jan 08 01:25	0° $\approx$		max. Earth dist.	13923 Dec 23 21:48	15° $\mathcal{B}$ 41'15	1.31712 AU
max. Earth dist.	13923 Jan 09 17:38	3° $\approx$ 36'29	1.32721 AU	evening rise	13923 Dec 29 17:07	28° $\mathcal{B}$ 11'09	
evening rise	13923 Jan 14 18:47	14° $\approx$ 06'19			13923 Dec 30 14:09	0° $\approx$	
desc. node	13923 Jan 21 23:52	27° $\approx$ 52'11		desc. node	13924 Jan 08 20:37	17° $\approx$ 40'45	
	13923 Jan 23 04:31	0° $\mathcal{H}$			13924 Jan 16 10:03	0° $\mathcal{H}$	
	13923 Feb 12 12:25	0° $\mathcal{Y}$		evening max el	13924 Jan 31 02:36	18° $\mathcal{H}$ 18'48	27°30'43
evening max el	13923 Feb 17 16:44	5° $\mathcal{Y}$ 31'17	27°29'28	retrograde	13924 Feb 14 00:32	25° $\mathcal{H}$ 40'14	
retrograde	13923 Mar 03 10:11	12° $\mathcal{Y}$ 58'50		evening set	13924 Feb 20 22:00	23° $\mathcal{H}$ 25'23	
evening set	13923 Mar 10 05:36	10° $\mathcal{Y}$ 31'39		min. Earth dist.	13924 Feb 24 16:12	20° $\mathcal{H}$ 29'17	0.61902 AU
min. Earth dist.	13923 Mar 14 01:00	7° $\mathcal{Y}$ 10'08	0.63964 AU	inferior conj	13924 Feb 27 16:48	17° $\mathcal{H}$ 41'42	-1°44'52
inferior conj	13923 Mar 16 16:25	4° $\mathcal{Y}$ 25'05	-0°29'10	minimum elong	13924 Feb 27 20:27	17° $\mathcal{H}$ 33'13	1°43'04
minimum elong	13923 Mar 16 17:19	4° $\mathcal{Y}$ 22'43	0°28'46	asc. node	13924 Mar 04 01:59	13° $\mathcal{H}$ 27'24	
asc. node	13923 Mar 18 04:31	2° $\mathcal{Y}$ 52'47		morning rise	13924 Mar 05 21:48	12° $\mathcal{H}$ 39'07	
	13923 Mar 21 14:17	30° $\mathcal{R}\mathcal{H}$		direct	13924 Mar 08 02:43	12° $\mathcal{H}$ 17'34	
morning rise	13923 Mar 23 07:15	29° $\mathcal{H}$ 05'02		morning max el	13924 Mar 14 21:48	15° $\mathcal{H}$ 43'46	17°48'31
direct	13923 Mar 25 18:50	28° $\mathcal{H}$ 34'11			13924 Mar 24 21:59	0° $\mathcal{Y}$	
	13923 Mar 29 22:35	0° $\mathcal{Y}$		morning set	13924 Mar 30 16:23	10° $\mathcal{Y}$ 08'15	
morning max el	13923 Apr 01 04:34	1° $\mathcal{Y}$ 51'46	17°48'30	desc. node	13924 Apr 05 22:41	21° $\mathcal{Y}$ 12'24	
morning set	13923 Apr 17 23:04	27° $\mathcal{Y}$ 07'25					
	13923 Apr 19 15:50	0° $\mathcal{B}$		superior conj	13924 Apr 10 23:39	29° $\mathcal{Y}$ 52'20	-0°39'03
desc. node	13923 Apr 20 02:09	0° $\mathcal{B}$ 43'32		minimum elong	13924 Apr 10 19:56	29° $\mathcal{Y}$ 36'37	0°38'54
					13924 Apr 11 01:28	0° $\mathcal{B}$	
superior conj	13923 May 01 01:10	18° $\mathcal{B}$ 52'12	-1°18'32	max. Earth dist.	13924 Apr 18 00:51	11° $\mathcal{B}$ 32'25	1.43684 AU
minimum elong	13923 Apr 30 17:24	18° $\mathcal{B}$ 20'46	1°18'18	evening rise	13924 Apr 25 07:12	23° $\mathcal{B}$ 03'36	
max. Earth dist.	13923 May 06 08:20	27° $\mathcal{B}$ 20'34	1.45064 AU		13924 Apr 29 19:34	0° $\Pi$	
	13923 May 08 00:46	0° $\Pi$			13924 May 20 22:47	0° $\mathcal{B}$	
evening rise	13923 May 16 16:02	13° $\Pi$ 23'15		evening max el	13924 May 26 10:46	6° $\mathcal{B}$ 16'26	21°28'23
	13923 May 27 16:33	0° $\mathcal{B}$		asc. node	13924 May 30 22:53	10° $\mathcal{B}$ 00'45	
evening max el	13923 Jun 13 13:27	22° $\mathcal{B}$ 26'34	20°17'46	retrograde	13924 Jun 04 08:41	11° $\mathcal{B}$ 28'44	
asc. node	13923 Jun 14 01:48	22° $\mathcal{B}$ 56'53		evening set	13924 Jun 08 19:47	9° $\mathcal{B}$ 39'33	
retrograde	13923 Jun 21 10:07	26° $\mathcal{B}$ 56'36		inferior conj	13924 Jun 14 01:43	3° $\mathcal{B}$ 24'54	3°07'44
evening set	13923 Jun 25 10:33	25° $\mathcal{B}$ 24'05		minimum elong	13924 Jun 14 00:55	3° $\mathcal{B}$ 27'41	3°06'36
inferior conj	13923 Jun 30 17:06	19° $\mathcal{B}$ 20'33	3°11'39	min. Earth dist.	13924 Jun 14 07:22	3° $\mathcal{B}$ 05'13	0.68820 AU
minimum elong	13923 Jun 30 17:15	19° $\mathcal{B}$ 20'00	3°10'37		13924 Jun 16 14:27	30° $\mathcal{R}\Pi$	
min. Earth dist.	13923 Jul 01 12:14	18° $\mathcal{B}$ 15'09	0.68199 AU	morning rise	13924 Jun 19 05:52	27° $\Pi$ 08'24	
morning rise	13923 Jul 05 23:39	12° $\mathcal{B}$ 58'50		direct	13924 Jun 24 06:52	24° $\Pi$ 57'36	
direct	13923 Jul 11 13:12	10° $\mathcal{B}$ 31'50		desc. node	13924 Jul 02 23:18	29° $\Pi$ 35'06	
desc. node	13923 Jul 17 02:06	12° $\mathcal{B}$ 26'11			13924 Jul 03 09:55	0° $\mathcal{B}$	
morning max el	13923 Jul 22 21:08	17° $\mathcal{B}$ 18'55	24°20'01	morning max el	13924 Jul 04 08:21	0° $\mathcal{B}$ 54'58	22°50'26
	13923 Aug 02 11:03	0° $\mathcal{Q}$			13924 Jul 26 07:43	0° $\mathcal{Q}$	
	13923 Aug 22 10:45	0° $\Pi$		morning set	13924 Aug 07 11:04	19° $\mathcal{Q}$ 05'19	
morning set	13923 Aug 27 10:05	8° $\Pi$ 24'40		max. Earth dist.	13924 Aug 12 00:13	26° $\mathcal{Q}$ 42'26	1.40295 AU

	13924 Aug 13 22:10	0°♎			13925 Jul 19 07:08	0°♏	
			max. Earth dist.		13925 Jul 25 03:59	9°♏27'10	1.42486 AU
superior conj	13924 Aug 19 19:55	10°♎29'24 -1°01'39		superior conj	13925 Aug 01 14:02	21°♏54'25 -1°35'23	
minimum elong	13924 Aug 20 00:33	10°♎50'32 1°01'21		minimum elong	13925 Aug 01 21:03	22°♏24'37 1°35'18	
asc. node	13924 Aug 26 23:28	23°♎48'30			13925 Aug 06 05:18	0°♎	
evening rise	13924 Aug 29 15:34	28°♎53'17		evening rise	13925 Aug 12 20:44	11°♎56'10	
	13924 Aug 30 05:37	0°♎		asc. node	13925 Aug 13 20:03	13°♎41'45	
evening max el	13924 Sep 14 14:41	24°♎37'40 18°27'51			13925 Aug 23 06:58	0°♎	
retrograde	13924 Sep 22 09:19	28°♎33'46		evening max el	13925 Aug 29 01:13	7°♎27'07 18°06'14	
evening set	13924 Sep 24 09:23	28°♎18'51		retrograde	13925 Sep 04 22:26	10°♎58'27	
desc. node	13924 Sep 28 19:49	26°♎13'52		evening set	13925 Sep 07 05:38	10°♎35'10	
inferior conj	13924 Oct 02 03:45	23°♎46'13 -1°03'26		inferior conj	13925 Sep 14 05:59	5°♎42'10 0°27'09	
minimum elong	13924 Oct 02 01:17	23°♎51'06 1°02'07		minimum elong	13925 Sep 14 06:51	5°♎40'10 0°26'49	
min. Earth dist.	13924 Oct 05 09:38	21°♎13'28 0.57871 AU		desc. node	13925 Sep 15 17:21	4°♎20'30	
morning rise	13924 Oct 09 13:42	18°♎31'36		min. Earth dist.	13925 Sep 17 11:34	2°♎45'20 0.60092 AU	
direct	13924 Oct 15 17:08	16°♎55'02		morning rise	13925 Sep 21 04:51	29°♎55'44	
morning max el	13924 Oct 30 00:32	24°♎29'01 27°04'54			13925 Sep 21 02:07	30°♎	
	13924 Nov 04 02:05	0°♎		direct	13925 Sep 27 17:57	27°♎52'24	
asc. node	13924 Nov 23 01:12	29°♎49'58			13925 Oct 04 19:10	0°♎	
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morning set	13924 Nov 29 05:42	12°♎26'19			13925 Oct 30 05:04	0°♎	
				asc. node	13925 Nov 09 22:00	19°♎27'13	
superior conj	13924 Dec 06 02:17	27°♎32'18 1°34'47		morning set	13925 Nov 13 10:50	26°♎41'08	
minimum elong	13924 Dec 06 01:12	27°♎26'15 1°35'47			13925 Nov 15 00:21	0°♎	
max. Earth dist.	13924 Dec 06 05:41	27°♎51'19 1.31211 AU		max. Earth dist.	13925 Nov 19 13:30	9°♎56'44 1.31236 AU	
	13924 Dec 07 04:43	0°♎					
evening rise	13924 Dec 12 21:40	12°♎30'35		superior conj	13925 Nov 20 13:31	12°♎10'24 1°25'41	
	13924 Dec 21 17:06	0°♎		minimum elong	13925 Nov 20 11:40	12°♎00'01 1°26'27	
desc. node	13924 Dec 25 17:28	7°♎01'36		evening rise	13925 Nov 27 06:14	26°♎58'16	
	13925 Jan 11 22:09	0°♎			13925 Nov 28 16:15	0°♎	
evening max el	13925 Jan 12 06:40	0°♎20'21 26°57'41		desc. node	13925 Dec 12 14:26	25°♎43'18	
retrograde	13925 Jan 26 05:57	7°♎32'58			13925 Dec 15 11:33	0°♎	
evening set	13925 Feb 01 22:45	5°♎38'10		evening max el	13925 Dec 25 02:43	11°♎28'48 25°50'56	
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minimum elong	13925 Feb 09 08:22	0°♎09'49 3°05'23		min. Earth dist.	13926 Jan 18 15:36	14°♎25'56 0.57602 AU	
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morning rise	13925 Feb 16 21:11	25°♎41'34		minimum elong	13926 Jan 21 23:58	12°♎05'15 4°27'58	
direct	13925 Feb 18 22:06	25°♎25'52		morning rise	13926 Jan 29 22:57	8°♎00'39	
asc. node	13925 Feb 18 23:24	25°♎25'53		direct	13926 Feb 01 00:39	7°♎47'10	
morning max el	13925 Feb 26 11:23	29°♎11'13 18°07'24		asc. node	13926 Feb 05 20:48	9°♎05'40	
	13925 Feb 27 06:25	0°♎		morning max el	13926 Feb 09 17:19	12°♎02'10 18°46'52	
morning set	13925 Mar 14 01:56	23°♎53'21			13926 Feb 21 17:06	0°♎	
	13925 Mar 17 08:31	0°♎		morning set	13926 Feb 25 22:42	8°♎07'28	
superior conj	13925 Mar 23 21:36	11°♎57'17 -0°00'48		superior conj	13926 Mar 06 15:05	24°♎54'58 0°32'22	
minimum elong	13925 Mar 23 21:32	11°♎56'59 0°00'54		minimum elong	13926 Mar 06 17:07	25°♎04'31 0°32'14	
behind sun begin	13925 Mar 23 13:52	11°♎22'43			13926 Mar 09 08:37	0°♎	
behind sun end	13925 Mar 24 05:12	12°♎31'10		desc. node	13926 Mar 10 15:43	2°♎22'05	
desc. node	13925 Mar 23 19:13	11°♎46'35		max. Earth dist.	13926 Mar 13 19:43	8°♎01'35 1.39589 AU	
max. Earth dist.	13925 Mar 31 12:34	25°♎08'57 1.41789 AU		evening rise	13926 Mar 17 18:49	14°♎51'32	
	13925 Apr 03 10:49	0°♎			13926 Mar 27 03:37	0°♎	
evening rise	13925 Apr 05 14:30	3°♎29'53			13926 Apr 18 00:04	0°♎	
	13925 Apr 23 03:11	0°♎		evening max el	13926 Apr 21 17:27	3°♎59'11 24°08'17	
evening max el	13925 May 09 03:22	20°♎06'47 22°47'08		retrograde	13926 May 02 23:14	10°♎34'58	
asc. node	13925 May 17 20:03	25°♎54'34		asc. node	13926 May 04 17:19	10°♎21'19	
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inferior conj	13925 May 29 11:25	17°♎35'27 2°53'14		inferior conj	13926 May 13 20:16	1°♎48'35 2°28'30	
minimum elong	13925 May 29 09:50	17°♎40'57 2°51'58		minimum elong	13926 May 13 18:12	1°♎55'35 2°27'08	
min. Earth dist.	13925 May 29 04:07	18°♎00'47 0.68960 AU			13926 May 15 04:46	30°♎	
morning rise	13925 Jun 03 15:45	11°♎25'39		morning rise	13926 May 19 03:24	25°♎46'44	
direct	13925 Jun 08 03:58	9°♎34'18		direct	13926 May 23 03:17	24°♎15'54	
morning max el	13925 Jun 16 23:19	14°♎40'15 21°24'51		morning max el	13926 May 30 20:42	28°♎36'33 20°09'44	
desc. node	13925 Jun 19 20:26	17°♎46'40			13926 Jun 01 04:55	0°♎	
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morning set	13925 Jul 18 11:14	28°♎41'24					

































































































































	13926 Jun 22 18:35	0°☿			13927 Jun 15 15:43	0°☿	
morning set	13926 Jun 27 16:28	7°☿30'22		max. Earth dist.	13927 Jun 20 06:38	7°☿13'25	1.45426 AU
max. Earth dist.	13926 Jul 07 14:18	23°☿01'15	1.44259 AU				
	13926 Jul 11 22:24	0°♊		superior conj	13927 Jun 23 05:28	11°☿52'06	-2°13'32
				minimum elong	13927 Jun 23 06:26	11°☿55'54	2°14'35
superior conj	13926 Jul 13 08:51	2°♊20'24	-2°01'43		13927 Jul 04 13:03	0°♊	
minimum elong	13926 Jul 13 15:22	2°♊47'05	2°02'15	evening rise	13927 Jul 07 22:06	5°♊30'48	
evening rise	13926 Jul 26 08:36	24°♊12'43		asc. node	13927 Jul 18 13:26	22°♊44'06	
	13926 Jul 29 17:19	0°♋			13927 Jul 23 13:23	0°♋	
asc. node	13926 Jul 31 16:42	3°♋22'14		evening max el	13927 Jul 27 05:32	4°♋17'41	18°19'37
evening max el	13926 Aug 12 15:21	20°♋43'42	18°03'50	retrograde	13927 Aug 02 14:36	7°♋41'27	
retrograde	13926 Aug 19 01:39	24°♋04'20		evening set	13927 Aug 05 14:46	6°♋51'43	
evening set	13926 Aug 21 17:08	23°♋29'08		inferior conj	13927 Aug 11 11:53	1°♋23'20	2°23'39
inferior conj	13926 Aug 28 02:04	18°♋17'28	1°35'50	minimum elong	13927 Aug 11 14:16	1°♋16'23	2°22'29
minimum elong	13926 Aug 28 04:22	18°♋11'26	1°34'47		13927 Aug 12 16:24	30°♋♊	
min. Earth dist.	13926 Aug 30 22:59	15°♋18'24	0.62378 AU	min. Earth dist.	13927 Aug 13 19:46	28°♊41'24	0.64490 AU
desc. node	13926 Sep 02 14:53	12°♋52'23		morning rise	13927 Aug 17 12:20	25°♊03'29	
morning rise	13926 Sep 03 13:16	12°♋09'34		desc. node	13927 Aug 20 12:25	23°♊11'53	
direct	13926 Sep 10 05:39	9°♋44'59		direct	13927 Aug 24 01:59	22°♊26'41	
morning max el	13926 Sep 24 07:50	17°♋45'28	27°56'29		13927 Sep 06 08:04	0°♋	
	13926 Oct 04 13:47	0°♌		morning max el	13927 Sep 06 17:59	0°♋24'44	27°26'50
	13926 Oct 23 00:25	0°♍			13927 Sep 28 14:48	0°♌	
asc. node	13926 Oct 27 18:44	9°♍19'05		morning set	13927 Oct 12 00:09	24°♌03'45	
morning set	13926 Oct 28 09:50	10°♍35'47		asc. node	13927 Oct 14 15:24	29°♌20'05	
max. Earth dist.	13926 Nov 02 17:32	21°♍48'56	1.31802 AU		13927 Oct 14 23:14	0°♍	
				max. Earth dist.	13927 Oct 16 14:15	3°♍20'54	1.32910 AU
superior conj	13926 Nov 04 22:41	26°♍39'02	1°10'48				
minimum elong	13926 Nov 04 20:25	26°♍26'35	1°11'17	superior conj	13927 Oct 20 03:41	10°♍52'13	0°50'13
	13926 Nov 06 11:10	0°♎		minimum elong	13927 Oct 20 01:33	10°♍40'48	0°50'26
evening rise	13926 Nov 11 16:57	11°♎29'48		evening rise	13927 Oct 27 03:58	25°♍59'59	
	13926 Nov 20 22:58	0°♏			13927 Oct 29 01:22	0°♎	
desc. node	13926 Nov 29 11:31	13°♏31'25		desc. node	13927 Nov 16 08:44	0°♏06'13	
evening max el	13926 Dec 06 15:11	21°♏50'58	24°18'26		13927 Nov 16 06:27	0°♏	
retrograde	13926 Dec 20 07:02	28°♏39'10		evening max el	13927 Nov 18 01:23	1°♏51'07	22°35'58
evening set	13926 Dec 25 09:38	27°♏42'01		retrograde	13927 Dec 01 00:16	8°♏16'29	
min. Earth dist.	13926 Dec 31 02:47	24°♏49'15	0.55852 AU	evening set	13927 Dec 04 18:34	7°♏45'33	
inferior conj	13927 Jan 02 07:49	23°♏27'48	-5°35'48	min. Earth dist.	13927 Dec 12 09:24	4°♏18'58	0.54748 AU
minimum elong	13927 Jan 02 14:32	23°♏17'28	5°33'48	inferior conj	13927 Dec 13 06:44	3°♏48'52	-5°57'39
morning rise	13927 Jan 10 21:22	19°♏27'32		minimum elong	13927 Dec 13 05:32	3°♏50'32	5°56'35
direct	13927 Jan 13 07:55	19°♏11'54		morning rise	13927 Dec 21 17:47	0°♏01'08	
morning max el	13927 Jan 23 11:31	24°♏05'20	19°48'51		13927 Dec 21 19:43	30°♋♎	
asc. node	13927 Jan 23 18:10	24°♏21'35		direct	13927 Dec 24 22:26	29°♎37'53	
	13927 Jan 28 10:57	0°♐			13927 Dec 27 23:01	0°♏	
morning set	13927 Feb 10 02:59	22°♐39'57		morning max el	13928 Jan 05 15:13	5°♏13'51	21°13'50
	13927 Feb 13 17:33	0°♑		asc. node	13928 Jan 10 15:27	10°♏57'45	
					13928 Jan 21 21:15	0°♐	
superior conj	13927 Feb 17 23:32	8°♑32'41	0°58'51	morning set	13928 Jan 25 11:58	7°♐22'53	
minimum elong	13927 Feb 18 02:15	8°♑46'08	0°58'56				
max. Earth dist.	13927 Feb 24 02:01	20°♑17'22	1.37336 AU	superior conj	13928 Feb 01 18:57	22°♐39'43	1°18'19
desc. node	13927 Feb 25 12:14	22°♑55'18		minimum elong	13928 Feb 01 21:23	22°♐52'20	1°18'46
evening rise	13927 Feb 27 19:26	27°♑04'41			13928 Feb 05 09:24	0°♑	
	13927 Mar 01 11:09	0°♒		max. Earth dist.	13928 Feb 06 12:14	2°♑13'24	1.35256 AU
	13927 Mar 20 14:36	0°♓		evening rise	13928 Feb 10 13:15	10°♑00'45	
evening max el	13927 Apr 04 07:03	17°♓52'22	25°24'52	desc. node	13928 Feb 12 08:47	13°♑22'45	
retrograde	13927 Apr 16 12:37	24°♓56'50			13928 Feb 22 00:49	0°♒	
asc. node	13927 Apr 21 14:41	23°♓08'08			13928 Mar 15 04:50	0°♓	
evening set	13927 Apr 22 09:56	22°♓30'13		evening max el	13928 Mar 16 20:52	1°♓40'53	26°29'26
min. Earth dist.	13927 Apr 26 17:57	17°♓44'18	0.67845 AU	retrograde	13928 Mar 29 20:43	9°♓02'25	
inferior conj	13927 Apr 28 02:21	15°♓59'36	1°53'19	evening set	13928 Apr 05 04:37	6°♓30'37	
minimum elong	13927 Apr 28 00:14	16°♓06'28	1°52'00	asc. node	13928 Apr 07 12:07	4°♓19'40	
morning rise	13927 May 03 14:56	10°♓07'04		min. Earth dist.	13928 Apr 09 06:37	2°♓19'36	0.66638 AU
direct	13927 May 07 03:16	8°♓56'08		inferior conj	13928 Apr 11 03:33	0°♓04'05	1°07'11
morning max el	13927 May 14 01:34	12°♓42'46	19°08'57	minimum elong	13928 Apr 11 01:58	0°♓08'53	1°06'11
desc. node	13927 May 24 14:19	26°♓14'38			13928 Apr 11 04:54	30°♋♒	
greatest brilliancy	13927 May 27 00:26	29°♓49'30	-0.7m	morning rise	13928 Apr 17 00:18	24°♒22'36	
	13927 May 27 03:15	0°♐		direct	13928 Apr 20 02:04	23°♒29'38	
morning set	13927 Jun 06 20:36	16°♐22'01		morning max el	13928 Apr 26 13:10	26°♒55'14	18°24'23



	13928 Apr 29 08:05	0°♄		direct	13929 Apr 03 21:19	7°♄49'14	
desc. node	13928 May 10 11:05	16°♄09'22		morning max el	13929 Apr 10 05:17	11°♄06'21	17°56'40
morning set	13928 May 16 20:05	26°♄13'28			13929 Apr 23 11:11	0°♄	
	13928 May 19 05:21	0°♄		desc. node	13929 Apr 27 07:44	6°♄21'01	
				morning set	13929 Apr 27 23:31	7°♄26'09	
superior conj	13928 Jun 01 13:54	20°♄57'51	-2°05'36		13929 May 11 21:28	0°♄	
minimum elong	13928 Jun 01 07:22	20°♄32'22	2°06'18				
max. Earth dist.	13928 Jun 02 02:28	21°♄46'54	1.45873 AU	superior conj	13929 May 12 03:18	0°♄23'08	-1°39'13
	13928 Jun 07 08:50	0°♄		minimum elong	13929 May 11 18:17	29°♄47'23	1°39'11
evening rise	13928 Jun 17 10:58	15°♄48'06		max. Earth dist.	13929 May 15 22:32	6°♄22'49	1.45561 AU
	13928 Jun 26 12:38	0°♄		evening rise	13929 May 28 04:02	25°♄20'16	
greatest brilliancy	13928 Jun 26 22:40	0°♄38'44	-0.8m		13929 May 31 05:05	0°♄	
asc. node	13928 Jul 04 10:15	11°♄40'40		greatest brilliancy	13929 Jun 11 06:32	16°♄38'23	-0.6m
evening max el	13928 Jul 09 16:52	18°♄01'36	18°52'52	asc. node	13929 Jun 21 07:10	0°♄02'58	
retrograde	13928 Jul 16 09:42	21°♄42'01			13929 Jun 21 06:07	0°♄	
evening set	13928 Jul 19 18:49	20°♄36'09		evening max el	13929 Jun 22 23:15	1°♄49'44	19°42'34
inferior conj	13928 Jul 25 07:44	14°♄52'47	2°53'38	retrograde	13929 Jun 30 07:54	5°♄59'08	
minimum elong	13928 Jul 25 09:27	14°♄47'21	2°52'32	evening set	13929 Jul 04 02:30	4°♄36'25	
min. Earth dist.	13928 Jul 27 01:12	12°♄42'06	0.66266 AU		13929 Jul 08 10:17	30°♄	
morning rise	13928 Jul 30 23:19	8°♄28'19		inferior conj	13929 Jul 09 10:31	28°♄39'44	3°08'47
direct	13928 Aug 06 05:42	5°♄48'49		minimum elong	13929 Jul 09 11:16	28°♄37'12	3°07'45
desc. node	13928 Aug 06 09:53	5°♄48'56		min. Earth dist.	13929 Jul 10 13:39	27°♄09'00	0.67617 AU
morning max el	13928 Aug 19 05:16	13°♄31'24	26°28'22	morning rise	13929 Jul 14 19:37	22°♄15'46	
	13928 Sep 01 13:45	0°♄		direct	13929 Jul 20 15:44	19°♄42'11	
	13928 Sep 20 07:42	0°♄		desc. node	13929 Jul 24 07:15	20°♄31'55	
morning set	13928 Sep 24 02:41	6°♄57'51		morning max el	13929 Aug 01 16:07	26°♄54'23	25°10'11
max. Earth dist.	13928 Sep 28 01:20	14°♄33'23	1.34541 AU		13929 Aug 04 13:17	0°♄	
asc. node	13928 Sep 30 12:00	19°♄26'06			13929 Aug 26 04:21	0°♄	
				morning set	13929 Sep 06 13:32	19°♄09'14	
superior conj	13928 Oct 03 02:05	24°♄43'37	0°24'08	max. Earth dist.	13929 Sep 10 03:24	25°♄40'07	1.36605 AU
minimum elong	13928 Oct 03 00:48	24°♄36'58	0°24'13		13929 Sep 12 10:44	0°♄	
	13928 Oct 05 14:47	0°♄					
evening rise	13928 Oct 10 13:19	10°♄23'44		superior conj	13929 Sep 16 14:59	8°♄06'23	-0°06'49
	13928 Oct 20 18:02	0°♄		minimum elong	13929 Sep 16 15:24	8°♄08'29	0°06'42
evening max el	13928 Oct 29 18:45	12°♄05'57	21°00'52	behind sun begin	13929 Sep 16 09:30	7°♄39'18	
desc. node	13928 Nov 02 06:02	15°♄02'20		behind sun end	13929 Sep 16 21:19	8°♄37'42	
retrograde	13928 Nov 10 10:59	17°♄54'09		asc. node	13929 Sep 17 08:34	9°♄33'32	
evening set	13928 Nov 12 23:52	17°♄38'52		evening rise	13929 Sep 24 18:48	24°♄35'30	
inferior conj	13928 Nov 21 21:57	13°♄45'30	-5°20'02		13929 Sep 27 11:24	0°♄	
minimum elong	13928 Nov 21 13:05	13°♄58'04	5°17'18	evening max el	13929 Oct 12 01:54	23°♄04'25	19°44'18
min. Earth dist.	13928 Nov 22 15:15	13°♄20'58	0.54513 AU	desc. node	13929 Oct 20 03:25	27°♄53'52	
morning rise	13928 Nov 30 02:41	9°♄53'24		retrograde	13929 Oct 22 02:59	28°♄05'12	
direct	13928 Dec 04 05:48	9°♄16'51		evening set	13929 Oct 24 01:08	27°♄55'00	
morning max el	13928 Dec 17 06:11	15°♄34'10	22°57'14	inferior conj	13929 Nov 01 20:18	23°♄52'43	-3°52'01
asc. node	13928 Dec 27 12:38	28°♄36'04		minimum elong	13929 Nov 01 10:51	24°♄07'26	3°48'07
	13928 Dec 28 09:34	0°♄		min. Earth dist.	13929 Nov 03 23:53	22°♄32'28	0.55219 AU
morning set	13929 Jan 08 23:21	22°♄08'42		morning rise	13929 Nov 09 18:53	19°♄35'39	
	13929 Jan 12 15:00	0°♄		direct	13929 Nov 14 19:44	18°♄39'35	
				morning max el	13929 Nov 28 15:54	25°♄32'55	24°46'03
superior conj	13929 Jan 15 21:58	7°♄05'47	1°31'00		13929 Dec 02 20:12	0°♄	
minimum elong	13929 Jan 15 23:35	7°♄14'27	1°31'48	asc. node	13929 Dec 14 09:42	17°♄01'38	
max. Earth dist.	13929 Jan 19 05:15	14°♄05'14	1.33517 AU		13929 Dec 21 04:48	0°♄	
evening rise	13929 Jan 23 20:34	23°♄29'32		morning set	13929 Dec 24 11:15	6°♄52'10	
	13929 Jan 27 05:52	0°♄					
desc. node	13929 Jan 29 05:23	3°♄39'23		superior conj	13929 Dec 31 05:58	21°♄43'26	1°37'15
	13929 Feb 14 16:00	0°♄		minimum elong	13929 Dec 31 06:32	21°♄46'30	1°38'16
evening max el	13929 Feb 27 10:16	15°♄14'19	27°14'46	max. Earth dist.	13930 Jan 02 05:42	26°♄04'11	1.32230 AU
retrograde	13929 Mar 12 22:45	22°♄42'35			13930 Jan 04 01:29	0°♄	
evening set	13929 Mar 19 15:04	20°♄11'24		evening rise	13930 Jan 07 14:16	7°♄23'29	
min. Earth dist.	13929 Mar 23 12:16	16°♄33'09	0.65038 AU	desc. node	13930 Jan 16 02:05	23°♄40'04	
asc. node	13929 Mar 25 09:35	14°♄28'18			13930 Jan 19 17:58	0°♄	
inferior conj	13929 Mar 25 21:24	13°♄55'26	0°09'26	evening max el	13930 Feb 09 21:56	28°♄21'47	27°33'51
minimum elong	13929 Mar 25 21:08	13°♄56'10	0°09'11		13930 Feb 11 16:59	0°♄	
transit middle	13929 Mar 25 21:08	13°♄56'10	0°09'11	retrograde	13930 Feb 23 17:57	5°♄48'09	
transit begin	13929 Mar 25 18:39	14°♄03'04		evening set	13930 Mar 02 14:54	3°♄24'56	
transit end	13929 Mar 25 23:37	13°♄49'17		min. Earth dist.	13930 Mar 06 09:14	0°♄15'12	0.63112 AU
morning rise	13929 Apr 01 04:59	8°♄27'07			13930 Mar 06 15:33	30°♄	

inferior conj	13930 Mar 09 05:06	27° $\text{H}$ 26'58	-1°00'03	inferior conj	13931 Feb 19 23:18	10° $\text{H}$ 30'13	-2°19'46
minimum elong	13930 Mar 09 07:04	27° $\text{H}$ 22'04	0°59'05	minimum elong	13931 Feb 20 04:19	10° $\text{H}$ 19'13	2°17'21
asc. node	13930 Mar 12 07:03	24° $\text{H}$ 34'39		morning rise	13931 Feb 27 10:36	5° $\text{H}$ 35'53	
morning rise	13930 Mar 16 01:50	22° $\text{H}$ 14'15		asc. node	13931 Feb 27 04:30	5° $\text{H}$ 40'31	
direct	13930 Mar 18 10:12	21° $\text{H}$ 47'56		direct	13931 Mar 01 13:15	5° $\text{H}$ 17'21	
morning max el	13930 Mar 24 23:02	25° $\text{H}$ 07'59	17°46'17	morning max el	13931 Mar 08 15:10	8° $\text{H}$ 50'49	17°54'06
	13930 Mar 29 00:47	0° $\text{Y}$			13931 Mar 22 10:49	0° $\text{Y}$	
morning set	13930 Apr 10 04:41	19° $\text{Y}$ 52'19		morning set	13931 Mar 24 05:39	3° $\text{Y}$ 14'12	
desc. node	13930 Apr 14 04:18	26° $\text{Y}$ 44'38		desc. node	13931 Apr 01 00:51	17° $\text{Y}$ 16'11	
	13930 Apr 16 02:02	0° $\text{B}$					
superior conj	13930 Apr 22 11:57	10° $\text{B}$ 44'22	-1°02'00	superior conj	13931 Apr 03 20:45	22° $\text{Y}$ 12'58	-0°22'22
minimum elong	13930 Apr 22 05:48	10° $\text{B}$ 19'01	1°01'44	minimum elong	13931 Apr 03 18:45	22° $\text{Y}$ 04'17	0°22'20
max. Earth dist.	13930 Apr 28 16:24	20° $\text{B}$ 45'32	1.44543 AU	max. Earth dist.	13931 Apr 08 10:28	0° $\text{B}$	
	13930 May 04 13:18	0° $\text{II}$		evening rise	13931 Apr 11 06:38	4° $\text{B}$ 42'29	1.42927 AU
evening rise	13930 May 07 15:04	4° $\text{II}$ 45'01			13931 Apr 17 12:05	14° $\text{B}$ 42'56	
	13930 May 24 15:04	0° $\text{E}$		evening max el	13931 Apr 27 12:02	0° $\text{II}$	
evening max el	13930 Jun 05 23:46	15° $\text{E}$ 38'53	20°46'36		13931 May 19 18:57	29° $\text{II}$ 29'17	22°01'20
asc. node	13930 Jun 08 04:10	17° $\text{E}$ 39'16			13931 May 20 07:25	0° $\text{E}$	
retrograde	13930 Jun 14 06:53	20° $\text{E}$ 26'48		asc. node	13931 May 26 01:17	4° $\text{E}$ 15'34	
evening set	13930 Jun 18 11:39	18° $\text{E}$ 47'15		retrograde	13931 May 29 04:48	5° $\text{E}$ 00'28	
inferior conj	13930 Jun 23 17:38	12° $\text{E}$ 38'43	3°11'22	evening set	13931 Jun 02 20:33	3° $\text{E}$ 04'50	
minimum elong	13930 Jun 23 17:22	12° $\text{E}$ 39'37	3°10'18		13931 Jun 05 17:40	30° $\text{R}$ $\text{II}$	
min. Earth dist.	13930 Jun 24 07:00	11° $\text{E}$ 52'28	0.68512 AU	inferior conj	13931 Jun 08 02:58	26° $\text{II}$ 46'18	3°02'50
morning rise	13930 Jun 28 22:49	6° $\text{E}$ 18'44		minimum elong	13931 Jun 08 01:48	26° $\text{II}$ 50'21	3°01'40
direct	13930 Jul 04 07:04	3° $\text{E}$ 57'56		min. Earth dist.	13931 Jun 08 03:09	26° $\text{II}$ 45'39	0.68935 AU
desc. node	13930 Jul 11 04:32	6° $\text{E}$ 54'35		morning rise	13931 Jun 13 06:51	20° $\text{II}$ 32'22	
morning max el	13930 Jul 15 02:29	10° $\text{E}$ 25'31	23°41'56	direct	13931 Jun 18 02:29	18° $\text{II}$ 29'18	
	13930 Jul 30 15:24	0° $\text{O}$		morning max el	13931 Jun 27 14:43	24° $\text{II}$ 04'26	22°13'06
	13930 Aug 18 22:00	0° $\text{P}$		desc. node	13931 Jun 28 01:42	24° $\text{II}$ 32'20	
morning set	13930 Aug 19 04:04	0° $\text{P}$ 25'40			13931 Jul 02 20:49	0° $\text{E}$	
max. Earth dist.	13930 Aug 23 01:01	7° $\text{P}$ 06'17	1.38933 AU		13931 Jul 24 00:36	0° $\text{O}$	
				morning set	13931 Jul 30 18:23	10° $\text{O}$ 38'03	
superior conj	13930 Aug 30 14:39	20° $\text{P}$ 50'59	-0°41'14	max. Earth dist.	13931 Aug 05 01:21	19° $\text{O}$ 19'44	1.41263 AU
minimum elong	13930 Aug 30 17:37	21° $\text{P}$ 04'55	0°40'59		13931 Aug 11 06:45	0° $\text{P}$	
asc. node	13930 Sep 04 05:05	29° $\text{P}$ 38'13		superior conj	13931 Aug 12 20:51	2° $\text{P}$ 48'06	-1°16'26
	13930 Sep 04 09:35	0° $\text{A}$		minimum elong	13931 Aug 13 02:40	3° $\text{P}$ 13'56	1°16'11
evening rise	13930 Sep 08 17:39	8° $\text{A}$ 27'25		asc. node	13931 Aug 22 01:40	19° $\text{P}$ 36'48	
	13930 Sep 20 22:11	0° $\text{M}$		evening rise	13931 Aug 23 06:29	21° $\text{P}$ 51'07	
evening max el	13930 Sep 24 22:43	4° $\text{M}$ 51'54	18°49'37		13931 Aug 27 16:19	0° $\text{A}$	
retrograde	13930 Oct 03 10:32	9° $\text{M}$ 08'01		evening max el	13931 Sep 08 05:30	17° $\text{A}$ 21'40	18°16'17
evening set	13930 Oct 05 07:52	8° $\text{M}$ 56'09		retrograde	13931 Sep 15 13:27	21° $\text{A}$ 05'05	
desc. node	13930 Oct 07 00:53	8° $\text{M}$ 26'14		evening set	13931 Sep 17 16:29	20° $\text{A}$ 46'57	
inferior conj	13930 Oct 13 12:45	4° $\text{M}$ 35'59	-2°03'44	desc. node	13931 Sep 23 22:22	17° $\text{A}$ 04'55	
minimum elong	13930 Oct 13 07:35	4° $\text{M}$ 45'16	2°01'12	inferior conj	13931 Sep 25 03:00	16° $\text{A}$ 05'30	-0°22'30
min. Earth dist.	13930 Oct 16 13:29	2° $\text{M}$ 25'41	0.56740 AU	minimum elong	13931 Sep 25 02:12	16° $\text{A}$ 07'13	0°21'59
	13930 Oct 20 13:36	30° $\text{R}$ $\text{A}$		min. Earth dist.	13931 Sep 28 10:07	13° $\text{A}$ 20'04	0.58797 AU
morning rise	13930 Oct 21 04:06	29° $\text{A}$ 42'47		morning rise	13931 Oct 02 08:29	10° $\text{A}$ 36'38	
direct	13930 Oct 26 23:32	28° $\text{A}$ 21'30		direct	13931 Oct 08 17:03	8° $\text{A}$ 48'14	
	13930 Nov 02 10:50	0° $\text{M}$		morning max el	13931 Oct 23 00:28	16° $\text{A}$ 29'59	27°28'49
morning max el	13930 Nov 10 04:31	5° $\text{M}$ 42'46	26°22'01		13931 Nov 03 03:04	0° $\text{M}$	
	13930 Nov 27 22:44	0° $\text{X}$		asc. node	13931 Nov 18 03:31	25° $\text{M}$ 27'52	
asc. node	13930 Dec 01 06:39	6° $\text{X}$ 01'55			13931 Nov 20 09:59	0° $\text{X}$	
morning set	13930 Dec 08 21:55	21° $\text{X}$ 27'58		morning set	13931 Nov 23 05:37	5° $\text{X}$ 51'48	
	13930 Dec 12 19:30	0° $\text{Z}$					
superior conj	13930 Dec 15 16:45	6° $\text{Z}$ 25'35	1°37'24	superior conj	13931 Nov 30 04:22	21° $\text{X}$ 06'44	1°31'38
minimum elong	13930 Dec 15 16:14	6° $\text{Z}$ 22'42	1°38'27	minimum elong	13931 Nov 30 02:55	20° $\text{X}$ 58'37	1°32'33
max. Earth dist.	13930 Dec 16 11:39	8° $\text{Z}$ 10'53	1.31438 AU	max. Earth dist.	13931 Nov 29 20:02	20° $\text{X}$ 20'09	1.31164 AU
evening rise	13930 Dec 22 15:32	21° $\text{Z}$ 35'14			13931 Dec 04 04:08	0° $\text{Z}$	
	13930 Dec 26 18:25	0° $\text{A}$		evening rise	13931 Dec 06 22:05	5° $\text{Z}$ 58'57	
desc. node	13931 Jan 02 22:53	13° $\text{A}$ 17'45			13931 Dec 19 09:12	0° $\text{A}$	
	13931 Jan 13 20:05	0° $\text{H}$		desc. node	13931 Dec 20 19:48	2° $\text{A}$ 23'19	
evening max el	13931 Jan 23 05:43	10° $\text{H}$ 51'12	27°20'58	evening max el	13932 Jan 05 06:53	22° $\text{A}$ 31'22	26°33'10
retrograde	13931 Feb 06 04:57	18° $\text{H}$ 09'29		retrograde	13932 Jan 19 05:57	29° $\text{A}$ 38'51	
evening set	13931 Feb 13 01:08	16° $\text{H}$ 02'27		evening set	13932 Jan 25 18:02	27° $\text{A}$ 55'19	
min. Earth dist.	13931 Feb 16 20:14	13° $\text{H}$ 14'19	0.60972 AU	min. Earth dist.	13932 Jan 29 20:36	25° $\text{A}$ 18'15	0.58792 AU
				inferior conj	13932 Feb 02 00:17	22° $\text{A}$ 54'34	-3°44'34

minimum elong	13932 Feb 02 08:18	22° $\approx$ 39'18	3°41'09	min. Earth dist.	13933 Jan 10 11:34	6° $\approx$ 19'15	0.56802 AU
morning rise	13932 Feb 10 01:38	18° $\approx$ 21'19		inferior conj	13933 Jan 13 05:06	4° $\approx$ 31'19	-5°02'11
direct	13932 Feb 12 02:14	18° $\approx$ 06'56		minimum elong	13933 Jan 13 13:47	4° $\approx$ 16'58	4°59'16
asc. node	13932 Feb 14 01:57	18° $\approx$ 21'26		morning rise	13933 Jan 21 16:26	0° $\approx$ 20'14	
morning max el	13932 Feb 20 01:58	22° $\approx$ 03'49	18°21'30	direct	13933 Jan 23 20:56	0° $\approx$ 06'20	
	13932 Feb 26 05:23	0° $\mathcal{H}$		asc. node	13933 Jan 30 23:21	2° $\approx$ 44'15	
morning set	13932 Mar 06 20:34	17° $\mathcal{H}$ 13'36		morning max el	13933 Feb 02 03:25	4° $\approx$ 36'13	19°10'22
	13932 Mar 13 14:31	0° $\mathcal{Y}$			13933 Feb 18 01:18	0° $\mathcal{H}$	
				morning set	13933 Feb 18 20:59	1° $\mathcal{H}$ 37'21	
superior conj	13932 Mar 16 03:36	4° $\mathcal{Y}$ 41'49	0°14'03	superior conj	13933 Feb 27 04:04	17° $\mathcal{H}$ 58'43	0°44'27
minimum elong	13932 Mar 16 04:37	4° $\mathcal{Y}$ 46'27	0°13'53	minimum elong	13933 Feb 27 06:32	18° $\mathcal{H}$ 10'35	0°44'22
behind sun begin	13932 Mar 16 01:00	4° $\mathcal{Y}$ 29'57		desc. node	13933 Mar 04 17:54	28° $\mathcal{H}$ 26'29	
behind sun end	13932 Mar 16 08:13	5° $\mathcal{Y}$ 02'55			13933 Mar 05 14:30	0° $\mathcal{Y}$	
desc. node	13932 Mar 17 21:22	7° $\mathcal{Y}$ 51'15		max. Earth dist.	13933 Mar 05 23:24	0° $\mathcal{Y}$ 40'08	1.38629 AU
max. Earth dist.	13932 Mar 23 16:41	18° $\mathcal{Y}$ 02'28	1.40880 AU	evening rise	13933 Mar 09 17:31	7° $\mathcal{Y}$ 17'40	
evening rise	13932 Mar 28 04:13	25° $\mathcal{Y}$ 33'00			13933 Mar 23 20:35	0° $\mathcal{B}$	
	13932 Mar 30 22:00	0° $\mathcal{B}$		evening max el	13933 Apr 14 00:00	27° $\mathcal{B}$ 13'41	24°41'41
	13932 Apr 20 06:11	0° $\mathcal{I}$			13933 Apr 17 00:57	0° $\mathcal{I}$	
evening max el	13932 May 01 10:23	13° $\mathcal{I}$ 20'56	23°21'47	retrograde	13933 Apr 25 16:15	4° $\mathcal{I}$ 02'55	
asc. node	13932 May 11 22:31	19° $\mathcal{I}$ 34'23		asc. node	13933 Apr 28 19:50	3° $\mathcal{I}$ 19'42	
retrograde	13932 May 12 00:18	19° $\mathcal{I}$ 34'24		evening set	13933 May 01 07:11	1° $\mathcal{I}$ 40'59	
evening set	13932 May 17 03:35	17° $\mathcal{I}$ 24'16			13933 May 03 00:23	30° $\mathcal{R}$ $\mathcal{B}$	
min. Earth dist.	13932 May 21 23:52	11° $\mathcal{I}$ 41'40	0.68881 AU	min. Earth dist.	13933 May 05 19:09	26° $\mathcal{B}$ 34'45	0.68357 AU
inferior conj	13932 May 22 12:31	10° $\mathcal{I}$ 58'05	2°43'58	inferior conj	13933 May 06 20:26	25° $\mathcal{B}$ 10'36	2°14'51
minimum elong	13932 May 22 10:41	11° $\mathcal{I}$ 04'23	2°42'39	minimum elong	13933 May 06 18:17	25° $\mathcal{B}$ 17'45	2°13'29
morning rise	13932 May 27 17:44	4° $\mathcal{I}$ 51'41		morning rise	13933 May 12 05:35	19° $\mathcal{B}$ 12'47	
direct	13932 Jun 01 00:44	3° $\mathcal{I}$ 08'55		direct	13933 May 16 00:26	17° $\mathcal{B}$ 50'44	
morning max el	13932 Jun 09 08:06	7° $\mathcal{I}$ 53'51	20°51'21	morning max el	13933 May 23 08:47	21° $\mathcal{B}$ 55'06	19°41'57
desc. node	13932 Jun 13 22:47	13° $\mathcal{I}$ 04'53			13933 May 30 03:28	0° $\mathcal{I}$	
	13932 Jun 26 06:13	0° $\mathcal{E}$		desc. node	13933 May 31 19:45	2° $\mathcal{I}$ 17'34	
morning set	13932 Jul 09 09:01	19° $\mathcal{E}$ 49'21		greatest brilliancy	13933 Jun 05 03:11	8° $\mathcal{I}$ 26'51	-0.6m
	13932 Jul 15 19:37	0° $\mathcal{Q}$		morning set	13933 Jun 18 11:03	28° $\mathcal{I}$ 31'53	
max. Earth dist.	13932 Jul 17 08:25	2° $\mathcal{Q}$ 28'12	1.43309 AU		13933 Jun 19 09:59	0° $\mathcal{E}$	
				max. Earth dist.	13933 Jun 29 21:45	16° $\mathcal{E}$ 21'00	1.44840 AU
superior conj	13932 Jul 24 05:16	13° $\mathcal{Q}$ 47'55	-1°47'52	superior conj	13933 Jul 04 13:57	23° $\mathcal{E}$ 48'04	-2°08'56
minimum elong	13932 Jul 24 12:36	14° $\mathcal{Q}$ 18'47	1°48'00	minimum elong	13933 Jul 04 18:44	24° $\mathcal{E}$ 07'19	2°09'44
	13932 Aug 02 14:36	0° $\mathcal{M}$			13933 Jul 08 09:49	0° $\mathcal{Q}$	
evening rise	13932 Aug 05 04:53	4° $\mathcal{M}$ 35'27		evening rise	13933 Jul 18 07:47	16° $\mathcal{Q}$ 28'11	
asc. node	13932 Aug 07 22:17	9° $\mathcal{M}$ 25'01		asc. node	13933 Jul 25 18:57	28° $\mathcal{Q}$ 58'05	
	13932 Aug 21 08:47	0° $\mathcal{L}$			13933 Jul 26 10:08	0° $\mathcal{M}$	
evening max el	13932 Aug 21 18:00	0° $\mathcal{L}$ 23'19	18°02'56	evening max el	13933 Aug 05 08:25	13° $\mathcal{M}$ 47'23	18°08'20
retrograde	13932 Aug 28 09:14	3° $\mathcal{L}$ 48'25		retrograde	13933 Aug 11 17:12	17° $\mathcal{M}$ 08'05	
evening set	13932 Aug 30 19:57	3° $\mathcal{L}$ 20'20		evening set	13933 Aug 14 12:16	16° $\mathcal{M}$ 27'03	
	13932 Sep 04 18:28	30° $\mathcal{R}$ $\mathcal{M}$		inferior conj	13933 Aug 20 15:41	11° $\mathcal{M}$ 07'51	1°58'32
inferior conj	13932 Sep 06 13:17	28° $\mathcal{M}$ 18'47	0°58'58	minimum elong	13933 Aug 20 18:09	11° $\mathcal{M}$ 01'04	1°57'22
minimum elong	13932 Sep 06 14:58	28° $\mathcal{M}$ 14'40	0°58'15	min. Earth dist.	13933 Aug 23 07:19	8° $\mathcal{M}$ 13'57	0.63300 AU
min. Earth dist.	13932 Sep 09 15:47	25° $\mathcal{M}$ 18'44	0.61070 AU	morning rise	13933 Aug 26 22:05	4° $\mathcal{M}$ 53'29	
desc. node	13932 Sep 09 19:54	25° $\mathcal{M}$ 09'15		desc. node	13933 Aug 27 17:27	4° $\mathcal{M}$ 18'55	
morning rise	13932 Sep 13 07:11	22° $\mathcal{M}$ 22'03		direct	13933 Sep 02 13:45	2° $\mathcal{M}$ 22'41	
direct	13932 Sep 19 22:21	20° $\mathcal{M}$ 09'09		morning max el	13933 Sep 16 12:42	10° $\mathcal{M}$ 24'13	27°48'06
morning max el	13932 Oct 04 04:01	28° $\mathcal{M}$ 05'09	27°57'47		13933 Oct 01 22:10	0° $\mathcal{L}$	
	13932 Oct 06 00:33	0° $\mathcal{L}$			13933 Oct 19 07:12	0° $\mathcal{M}$	
	13932 Oct 26 22:34	0° $\mathcal{M}$		morning set	13933 Oct 21 04:07	3° $\mathcal{M}$ 43'03	
asc. node	13932 Nov 04 00:19	15° $\mathcal{M}$ 12'15		asc. node	13933 Oct 21 21:00	5° $\mathcal{M}$ 08'24	
morning set	13932 Nov 06 08:29	19° $\mathcal{M}$ 59'04		max. Earth dist.	13933 Oct 26 04:23	14° $\mathcal{M}$ 06'57	1.32199 AU
	13932 Nov 11 01:00	0° $\mathcal{X}$					
max. Earth dist.	13932 Nov 12 03:00	2° $\mathcal{X}$ 22'39	1.31412 AU	superior conj	13933 Oct 28 22:36	20° $\mathcal{M}$ 03'58	1°02'46
				minimum elong	13933 Oct 28 20:19	19° $\mathcal{M}$ 51'32	1°03'08
superior conj	13932 Nov 13 14:59	5° $\mathcal{X}$ 41'40	1°20'05		13933 Nov 02 11:30	0° $\mathcal{X}$	
minimum elong	13932 Nov 13 12:54	5° $\mathcal{X}$ 30'05	1°20'44	evening rise	13933 Nov 04 18:53	5° $\mathcal{X}$ 00'31	
evening rise	13932 Nov 20 07:51	20° $\mathcal{X}$ 29'25			13933 Nov 17 21:47	0° $\mathcal{B}$	
	13932 Nov 24 20:57	0° $\mathcal{B}$		desc. node	13933 Nov 23 13:57	8° $\mathcal{B}$ 04'31	
desc. node	13932 Dec 06 16:49	20° $\mathcal{B}$ 44'46		evening max el	13933 Nov 28 09:43	13° $\mathcal{B}$ 26'42	23°35'00
	13932 Dec 13 18:55	0° $\approx$		retrograde	13933 Dec 11 20:09	20° $\mathcal{B}$ 07'41	
evening max el	13932 Dec 16 23:30	3° $\approx$ 19'04	25°13'56	evening set	13933 Dec 16 09:36	19° $\mathcal{B}$ 22'27	
retrograde	13932 Dec 30 19:22	10° $\approx$ 15'34					
evening set	13933 Jan 05 13:36	9° $\approx$ 00'37					

min. Earth dist.	13933 Dec 22 20:16	16°  17'32	0.55284 AU	inferior conj	13934 Dec 04 07:24	25°  23'47	-5°49'12
inferior conj	13933 Dec 24 13:28	15°  16'57	-5°51'41	minimum elong	13934 Dec 04 02:22	25°  30'51	5°47'39
minimum elong	13933 Dec 24 17:23	15°  11'10	5°50'20	min. Earth dist.	13934 Dec 04 02:26	25°  30'44	0.54528 AU
morning rise	13934 Jan 02 02:54	11°  23'48		morning rise	13934 Dec 12 15:47	21°  36'19	
direct	13934 Jan 04 19:57	11°  05'49		direct	13934 Dec 16 05:42	21°  08'06	
morning max el	13934 Jan 15 15:44	16°  16'57	20°22'18	morning max el	13934 Dec 28 13:27	27°  02'59	21°56'06
asc. node	13934 Jan 17 20:42	18°  36'28			13934 Dec 31 08:57	0° 	
	13934 Jan 25 16:58	0° 		asc. node	13935 Jan 04 17:56	5°  40'50	
morning set	13934 Feb 03 03:33	16°  15'03			13935 Jan 18 02:26	0° 	
	13934 Feb 09 19:51	0° 		morning set	13935 Jan 18 13:45	0° 	59'29
superior conj	13934 Feb 10 17:38	1°  50'26	1°07'56	superior conj	13935 Jan 25 16:37	16° 	06'26 1°24'29
minimum elong	13934 Feb 10 20:20	2°  04'00	1°08'10	minimum elong	13935 Jan 25 18:45	16° 	17'40 1°25'06
max. Earth dist.	13934 Feb 16 06:28	12°  43'45	1.36418 AU	max. Earth dist.	13935 Jan 29 19:00	24° 	34'34 1.34466 AU
desc. node	13934 Feb 19 14:25	18°  57'47			13935 Feb 01 12:24	0° 	
evening rise	13934 Feb 20 01:51	19°  50'03		evening rise	13935 Feb 03 01:49	3° 	01'13
	13934 Feb 25 20:33	0° 		desc. node	13935 Feb 06 10:59	9° 	21'13
	13934 Mar 17 21:50	0° 			13935 Feb 18 18:21	0° 	
evening max el	13934 Mar 27 13:27	11°  05'02	25°54'07	evening max el	13935 Mar 10 03:14	24° 	48'42 26°51'33
retrograde	13934 Apr 09 03:42	18°  18'58			13935 Mar 16 14:09	0° 	
evening set	13934 Apr 15 05:41	15°  49'18		retrograde	13935 Mar 23 09:30	2° 	14'44
asc. node	13934 Apr 15 17:14	15°  24'17		evening set	13935 Mar 29 21:08	29° 	42'35
min. Earth dist.	13934 Apr 19 10:53	11°  18'29	0.67382 AU		13935 Mar 29 12:04	30° 	
inferior conj	13934 Apr 21 00:42	9°  19'26	1°35'08	asc. node	13935 Apr 02 14:41	26° 	03'24
minimum elong	13934 Apr 20 22:44	9°  25'40	1°33'53	min. Earth dist.	13935 Apr 02 20:58	25° 	45'36 0.65998 AU
morning rise	13934 Apr 26 16:27	3°  31'29		inferior conj	13935 Apr 04 23:07	23° 	19'24 0°44'09
direct	13934 Apr 30 00:03	2°  28'43		minimum elong	13935 Apr 04 21:59	23° 	22'43 0°43'24
morning max el	13934 May 06 16:46	6°  05'06	18°47'53	morning rise	13935 Apr 11 00:08	17° 	43'01
desc. node	13934 May 18 16:35	21°  05'26		direct	13935 Apr 13 21:39	16° 	56'57
greatest brilliancy	13934 May 20 16:16	25°  00'39	-0.8m	morning max el	13935 Apr 20 06:34	20° 	17'49 18°10'23
	13934 May 23 22:02	0° 			13935 Apr 27 20:34	0° 	
morning set	13934 May 28 21:22	7°  43'27		desc. node	13935 May 05 13:18	12° 	02'15
	13934 Jun 12 04:29	0° 		morning set	13935 May 09 08:29	18° 	08'57
max. Earth dist.	13934 Jun 12 15:25	0°  42'44	1.45702 AU		13935 May 16 18:09	0° 	
superior conj	13934 Jun 14 03:37	3°  04'18	-2°12'41	superior conj	13935 May 24 12:00	12° 	13'01 -1°56'18
minimum elong	13934 Jun 14 01:11	2°  05'48	2°13'43	minimum elong	13935 May 24 03:34	11° 	40'00 1°56'40
evening rise	13934 Jun 29 10:47	27°  02'06		max. Earth dist.	13935 May 26 11:19	15° 	18'04 1.45831 AU
	13934 Jul 01 02:34	0° 			13935 Jun 04 22:02	0° 	
asc. node	13934 Jul 12 15:43	18°  10'29		evening rise	13935 Jun 09 13:59	7° 	14'24
evening max el	13934 Jul 19 21:41	27°  02'34	18°31'42	greatest brilliancy	13935 Jun 21 06:01	25° 	11'32 -0.7m
	13934 Jul 23 03:34	0° 			13935 Jun 24 11:57	0° 	
retrograde	13934 Jul 26 09:11	0°  56'06		asc. node	13935 Jun 29 12:34	6° 	02'53'53
evening set	13934 Jul 29 12:59	29°  05'50		evening max el	13935 Jul 03 07:10	11° 	02'13'18 19°12'10
	13934 Jul 29 12:52	30° 		retrograde	13935 Jul 10 05:47	15° 	04'24
inferior conj	13934 Aug 04 06:12	24°  02'50'3	2°38'21	evening set	13935 Jul 13 18:51	13° 	02'51'29
minimum elong	13934 Aug 04 08:22	24°  18'31	2°37'12	inferior conj	13935 Jul 19 05:20	8° 	02'34 3°01'41
min. Earth dist.	13934 Aug 06 08:07	21°  05'43'9	0.65288 AU	minimum elong	13935 Jul 19 06:40	7° 	05'58'15 3°00'37
morning rise	13934 Aug 10 02:35	18°  02'15		min. Earth dist.	13935 Jul 20 16:44	6° 	07'54 0.66900 AU
desc. node	13934 Aug 14 14:56	15°  03'36'9		morning rise	13935 Jul 24 17:52	1° 	03'55
direct	13934 Aug 16 13:37	15°  02'22'52			13935 Jul 27 00:53	30° 	
morning max el	13934 Aug 29 23:38	23°  01'17'03	27°04'58	direct	13935 Jul 30 20:19	28° 	05'59'42
	13934 Sep 04 23:01	0° 		desc. node	13935 Aug 01 12:21	29° 	05'10'05
	13934 Sep 25 05:57	0° 			13935 Aug 03 23:44	0° 	
morning set	13934 Oct 04 13:49	16°  05'57'47		morning max el	13935 Aug 12 10:35	6° 	03'11'04 25°56'49
asc. node	13934 Oct 08 17:38	25°  05'12'10			13935 Aug 30 15:22	0° 	
max. Earth dist.	13934 Oct 08 20:54	25°  05'28'45	1.33536 AU	morning set	13935 Sep 17 10:07	29° 	05'34'33
	13934 Oct 11 01:39	0° 			13935 Sep 17 15:39	0° 	
superior conj	13934 Oct 13 01:05	4°  08'38	0°39'47	max. Earth dist.	13935 Sep 21 03:25	6° 	05'34'22 1.35375 AU
minimum elong	13934 Oct 12 23:13	3°  08'58'45	0°39'57	asc. node	13935 Sep 25 14:12	15° 	05'19'13
evening rise	13934 Oct 20 05:23	19°  08'28'15		superior conj	13935 Sep 26 19:49	17° 	05'48'49 0°11'32
	13934 Oct 25 08:28	0° 		minimum elong	13935 Sep 26 19:09	17° 	05'45'25 0°11'38
evening max el	13934 Nov 09 21:47	23°  05'28'26	21°53'50	behind sun begin	13935 Sep 26 14:54	17° 	05'23'52
desc. node	13934 Nov 10 11:10	24°  05'00'33		behind sun end	13935 Sep 26 23:24	18° 	05'07'01
retrograde	13934 Nov 22 09:39	29°  05'39'53			13935 Oct 02 17:30	0° 	
evening set	13934 Nov 25 13:51	29°  05'17'21		evening rise	13935 Oct 04 13:20	3° 	05'47'19

	13935 Oct 19 08:56	0°♊		retrograde	13936 Oct 13 18:08	19°♌59'56	
evening max el	13935 Oct 22 20:44	4°♊00'00	20°25'43	desc. node	13936 Oct 14 05:54	19°♌59'12	
desc. node	13935 Oct 28 08:29	8°♊06'36		evening set	13936 Oct 15 14:52	19°♌49'33	
retrograde	13935 Nov 02 20:27	9°♊27'48		inferior conj	13936 Oct 24 04:50	15°♌40'02	-3°06'33
evening set	13935 Nov 05 01:10	9°♊15'43		minimum elong	13936 Oct 23 20:56	15°♌53'03	3°03'00
inferior conj	13935 Nov 13 23:47	5°♊20'20	-4°47'15	min. Earth dist.	13936 Oct 26 19:09	13°♌57'31	0.55782 AU
minimum elong	13935 Nov 13 13:45	5°♊34'59	4°43'43	morning rise	13936 Nov 01 00:40	11°♌08'35	
min. Earth dist.	13935 Nov 15 09:05	4°♊31'46	0.54703 AU	direct	13936 Nov 06 09:57	10°♌02'33	
morning rise	13935 Nov 22 01:52	1°♊19'55		morning max el	13936 Nov 20 10:46	17°♌07'51	25°29'46
direct	13935 Nov 26 14:52	0°♊35'30			13936 Nov 30 23:34	0°♊	
morning max el	13935 Dec 10 00:47	7°♊09'00	23°43'55	asc. node	13936 Dec 08 12:05	12°♊22'43	
asc. node	13935 Dec 22 15:03	23°♊40'57			13936 Dec 17 08:21	0°♊	
	13935 Dec 26 05:27	0°♊		morning set	13936 Dec 17 13:09	0°♊25'49	
morning set	13936 Jan 03 01:35	15°♊44'59					
				superior conj	13936 Dec 24 07:26	15°♊18'18	1°38'03
superior conj	13936 Jan 09 22:02	0°♋38'16	1°34'25	minimum elong	13936 Dec 24 07:32	15°♊18'49	1°39'06
minimum elong	13936 Jan 09 23:13	0°♋44'41	1°35'19	max. Earth dist.	13936 Dec 25 18:46	18°♊33'15	1.31828 AU
	13936 Jan 09 14:59	0°♋		evening rise	13936 Dec 31 11:09	0°♋44'13	
max. Earth dist.	13936 Jan 12 15:25	6°♋29'35	1.32911 AU		13936 Dec 31 02:38	0°♋	
evening rise	13936 Jan 17 13:57	16°♋42'05		desc. node	13937 Jan 10 04:19	19°♋24'05	
desc. node	13936 Jan 24 07:36	29°♋32'10			13937 Jan 16 13:30	0°♋	
	13936 Jan 24 13:46	0°♋		evening max el	13937 Feb 02 02:48	21°♋07'07	27°32'35
	13936 Feb 13 06:01	0°♋		retrograde	13937 Feb 16 00:13	28°♋29'56	
evening max el	13936 Feb 20 16:25	8°♋14'11	27°26'36	evening set	13937 Feb 22 21:50	26°♋12'34	
retrograde	13936 Mar 05 08:40	15°♋41'53		min. Earth dist.	13937 Feb 26 15:54	23°♋13'19	0.62221 AU
evening set	13936 Mar 12 03:25	13°♋13'30		inferior conj	13937 Mar 01 15:27	20°♋25'02	-1°32'46
min. Earth dist.	13936 Mar 15 23:15	9°♋47'48	0.64253 AU	minimum elong	13937 Mar 01 18:39	20°♋17'30	1°31'11
inferior conj	13936 Mar 18 13:05	7°♋04'20	-0°18'34	asc. node	13937 Mar 06 09:36	16°♋29'01	
minimum elong	13936 Mar 18 13:39	7°♋02'50	0°18'22	morning rise	13937 Mar 08 18:17	15°♋19'49	
asc. node	13936 Mar 19 12:08	6°♋03'52		direct	13937 Mar 11 00:02	14°♋57'08	
morning rise	13936 Mar 25 01:58	1°♋42'00		morning max el	13937 Mar 17 17:12	18°♋21'16	17°47'25
direct	13936 Mar 27 14:46	1°♋09'22			13937 Mar 26 04:28	0°♋	
morning max el	13936 Apr 02 23:43	4°♋26'23	17°50'04	morning set	13937 Apr 02 14:03	12°♋48'49	
morning set	13936 Apr 19 23:41	29°♋56'17		desc. node	13937 Apr 08 06:30	22°♋48'01	
	13936 Apr 20 00:34	0°♋			13937 Apr 12 11:05	0°♋	
desc. node	13936 Apr 21 09:56	2°♋20'17					
				superior conj	13937 Apr 14 03:20	2°♋49'55	-0°45'05
superior conj	13936 May 03 08:27	21°♋59'39	-1°24'14	minimum elong	13937 Apr 13 22:59	2°♋31'38	0°44'55
minimum elong	13936 May 03 00:13	21°♋26'34	1°24'01	max. Earth dist.	13937 Apr 21 00:13	14°♋08'00	1.43926 AU
	13936 May 08 09:07	0°♌		evening rise	13937 Apr 28 16:16	26°♋14'39	
max. Earth dist.	13936 May 08 07:11	29°♋52'21	1.45221 AU		13937 May 01 02:47	0°♌	
evening rise	13936 May 19 02:36	16°♌39'16			13937 May 21 21:00	0°♌	
	13936 May 27 22:08	0°♌		evening max el	13937 May 29 09:17	8°♌52'37	21°17'13
greatest brilliancy	13936 Jun 02 21:37	8°♌49'04	-0.6m	asc. node	13937 Jun 02 06:33	12°♌11'44	
asc. node	13936 Jun 15 09:30	24°♌58'31		retrograde	13937 Jun 07 03:16	13°♌58'35	
evening max el	13936 Jun 15 11:11	25°♌02'46	20°08'11	evening set	13937 Jun 11 12:43	12°♌11'49	
retrograde	13936 Jun 23 04:28	29°♌27'03		inferior conj	13937 Jun 16 18:35	5°♌58'35	3°09'01
evening set	13936 Jun 27 03:25	27°♌56'58		minimum elong	13937 Jun 16 17:56	6°♌00'53	3°07'55
inferior conj	13936 Jul 02 10:15	21°♌55'08	3°11'16	min. Earth dist.	13937 Jun 17 02:11	5°♌32'06	0.68755 AU
minimum elong	13936 Jul 02 10:34	21°♌54'03	3°10'14	morning rise	13937 Jun 21 22:56	29°♌41'06	
min. Earth dist.	13936 Jul 03 07:25	20°♌43'10	0.68068 AU		13937 Jun 21 14:38	30°♌♌	
morning rise	13936 Jul 07 17:24	15°♌32'48		direct	13937 Jun 27 01:46	27°♌27'42	
direct	13936 Jul 13 08:41	13°♌04'00			13937 Jul 03 07:27	0°♌	
desc. node	13936 Jul 18 09:43	14°♌38'57		desc. node	13937 Jul 05 06:59	1°♌36'49	
morning max el	13936 Jul 24 20:58	19°♌57'42	24°33'10	morning max el	13937 Jul 07 08:00	3°♌33'09	23°03'43
	13936 Aug 02 10:48	0°♍			13937 Jul 27 13:22	0°♍	
	13936 Aug 22 19:00	0°♍		morning set	13937 Aug 10 17:29	22°♍14'07	
morning set	13936 Aug 29 12:49	11°♍23'23		max. Earth dist.	13937 Aug 15 01:37	29°♍33'22	1.39943 AU
max. Earth dist.	13936 Sep 02 03:02	17°♍46'46	1.37587 AU		13937 Aug 15 07:49	0°♍	
	13936 Sep 08 15:52	0°♎					
				superior conj	13937 Aug 22 20:22	13°♍22'29	-0°56'17
superior conj	13936 Sep 09 03:33	0°♎56'26	-0°21'07	minimum elong	13937 Aug 23 00:34	13°♍41'47	0°56'01
minimum elong	13936 Sep 09 04:58	1°♎03'18	0°20'57	asc. node	13937 Aug 29 07:17	25°♍28'52	
asc. node	13936 Sep 11 10:44	5°♎25'54			13937 Aug 31 15:56	0°♎	
evening rise	13936 Sep 17 16:21	17°♎51'36		evening rise	13937 Sep 01 11:29	1°♎33'36	
	13936 Sep 23 22:55	0°♎		evening max el	13937 Sep 17 11:29	27°♎26'03	18°32'51
evening max el	13936 Oct 04 09:57	15°♎19'07	19°18'16		13937 Sep 20 15:45	0°♎	

retrograde	13937 Sep 25 10:21	1° $\mathbb{M}$ 27'04		asc. node	13938 Aug 16 03:52	15° $\mathbb{M}$ 23'44	
evening set	13937 Sep 27 09:29	1° $\mathbb{M}$ 13'07			13938 Aug 24 10:03	0° $\mathbb{L}$	
	13937 Sep 30 11:48	30° $\mathbb{R}$ $\mathbb{L}$		evening max el	13938 Aug 31 21:13	10° $\mathbb{L}$ 10'54	18°08'14
desc. node	13937 Oct 01 03:24	29° $\mathbb{L}$ 37'59		retrograde	13938 Sep 07 20:53	13° $\mathbb{L}$ 44'52	
inferior conj	13937 Oct 05 06:39	26° $\mathbb{L}$ 43'47	-1°18'53	evening set	13938 Sep 10 02:56	13° $\mathbb{L}$ 23'04	
minimum elong	13937 Oct 05 03:31	26° $\mathbb{L}$ 49'50	1°17'14	inferior conj	13938 Sep 17 05:52	8° $\mathbb{L}$ 33'07	0°14'45
min. Earth dist.	13937 Oct 08 11:36	24° $\mathbb{L}$ 16'16	0.57562 AU	minimum elong	13938 Sep 17 06:22	8° $\mathbb{L}$ 32'01	0°14'37
morning rise	13937 Oct 12 18:03	21° $\mathbb{L}$ 34'28		transit middle	13938 Sep 17 06:22	8° $\mathbb{L}$ 32'01	0°14'37
direct	13937 Oct 18 19:33	20° $\mathbb{L}$ 01'54		transit begin	13938 Sep 17 04:55	8° $\mathbb{L}$ 35'15	
morning max el	13937 Nov 02 02:37	27° $\mathbb{L}$ 33'04	26°54'51	transit end	13938 Sep 17 07:49	8° $\mathbb{L}$ 28'46	
	13937 Nov 04 11:55	0° $\mathbb{M}$		desc. node	13938 Sep 18 00:57	7° $\mathbb{L}$ 50'03	
	13937 Nov 24 12:56	0° $\mathbb{X}$		min. Earth dist.	13938 Sep 20 12:13	5° $\mathbb{L}$ 38'29	0.59754 AU
asc. node	13937 Nov 25 09:01	1° $\mathbb{X}$ 35'26		morning rise	13938 Sep 24 06:29	2° $\mathbb{L}$ 50'57	
morning set	13937 Dec 01 22:49	14° $\mathbb{X}$ 57'45		direct	13938 Sep 30 18:39	0° $\mathbb{L}$ 51'12	
				morning max el	13938 Oct 15 02:03	8° $\mathbb{L}$ 40'51	27°45'53
superior conj	13937 Dec 08 18:49	0° $\mathbb{Z}$ 01'06	1°35'41		13938 Oct 31 09:40	0° $\mathbb{M}$	
minimum elong	13937 Dec 08 17:52	29° $\mathbb{X}$ 55'52	1°36'41	asc. node	13938 Nov 12 05:50	21° $\mathbb{M}$ 09'55	
	13937 Dec 08 18:37	0° $\mathbb{Z}$		morning set	13938 Nov 16 04:41	29° $\mathbb{M}$ 15'08	
max. Earth dist.	13937 Dec 09 02:15	0° $\mathbb{Z}$ 42'39	1.31253 AU		13938 Nov 16 13:11	0° $\mathbb{X}$	
evening rise	13937 Dec 15 14:56	15° $\mathbb{Z}$ 01'52		max. Earth dist.	13938 Nov 22 10:15	12° $\mathbb{X}$ 48'58	1.31200 AU
	13937 Dec 23 02:12	0° $\approx$					
desc. node	13937 Dec 28 01:10	8° $\approx$ 49'36		superior conj	13938 Nov 23 06:14	14° $\mathbb{X}$ 40'20	1°27'27
	13938 Jan 12 03:24	0° $\mathbb{H}$		minimum elong	13938 Nov 23 04:28	14° $\mathbb{X}$ 30'29	1°28'15
evening max el	13938 Jan 15 07:49	3° $\mathbb{H}$ 15'42	27°04'47	evening rise	13938 Nov 29 23:03	29° $\mathbb{X}$ 28'48	
retrograde	13938 Jan 29 07:15	10° $\mathbb{H}$ 30'08			13938 Nov 30 04:51	0° $\mathbb{Z}$	
evening set	13938 Feb 05 01:10	8° $\mathbb{H}$ 31'51		desc. node	13938 Dec 14 22:07	27° $\mathbb{Z}$ 38'03	
min. Earth dist.	13938 Feb 08 22:09	5° $\mathbb{H}$ 50'16	0.60037 AU		13938 Dec 16 11:00	0° $\approx$	
inferior conj	13938 Feb 12 02:43	3° $\mathbb{H}$ 12'32	-2°55'40	evening max el	13938 Dec 28 05:17	14° $\approx$ 32'40	26°02'50
minimum elong	13938 Feb 12 09:07	2° $\mathbb{H}$ 59'19	2°52'42	retrograde	13939 Jan 11 03:56	21° $\approx$ 36'25	
	13938 Feb 16 09:46	30° $\mathbb{R}$ $\approx$		evening set	13939 Jan 17 09:29	20° $\approx$ 04'40	
morning rise	13938 Feb 19 20:17	28° $\approx$ 27'17		min. Earth dist.	13939 Jan 21 18:28	17° $\approx$ 27'41	0.57898 AU
asc. node	13938 Feb 21 07:05	28° $\approx$ 12'26		inferior conj	13939 Jan 24 19:22	15° $\approx$ 17'20	-4°19'28
direct	13938 Feb 21 21:29	28° $\approx$ 11'01		minimum elong	13939 Jan 25 04:08	15° $\approx$ 01'36	4°16'03
	13938 Feb 27 01:53	0° $\mathbb{H}$		morning rise	13939 Feb 02 01:44	10° $\approx$ 53'41	
morning max el	13938 Mar 01 07:35	1° $\mathbb{H}$ 52'59	18°03'21	direct	13939 Feb 04 02:51	10° $\approx$ 40'08	
morning set	13938 Mar 16 21:30	26° $\mathbb{H}$ 28'03		asc. node	13939 Feb 08 04:31	11° $\approx$ 36'59	
	13938 Mar 18 19:12	0° $\mathbb{Y}$		morning max el	13939 Feb 12 14:57	14° $\approx$ 50'21	18°39'35
desc. node	13938 Mar 26 03:01	13° $\mathbb{Y}$ 21'29			13939 Feb 23 01:41	0° $\mathbb{H}$	
				morning set	13939 Feb 28 16:55	10° $\mathbb{H}$ 39'03	
superior conj	13938 Mar 26 21:58	14° $\mathbb{Y}$ 45'39	-0°06'20				
minimum elong	13938 Mar 26 21:26	14° $\mathbb{Y}$ 43'18	0°06'25	superior conj	13939 Mar 09 12:51	27° $\mathbb{H}$ 36'29	0°27'44
behind sun begin	13938 Mar 26 14:13	14° $\mathbb{Y}$ 11'16		minimum elong	13939 Mar 09 14:40	27° $\mathbb{H}$ 44'57	0°27'35
behind sun end	13938 Mar 27 04:40	15° $\mathbb{Y}$ 15'15			13939 Mar 10 19:43	0° $\mathbb{Y}$	
max. Earth dist.	13938 Apr 03 12:21	27° $\mathbb{Y}$ 49'09	1.42092 AU	desc. node	13939 Mar 12 23:32	3° $\mathbb{Y}$ 57'10	
	13938 Apr 04 19:54	0° $\mathbb{B}$		max. Earth dist.	13939 Mar 16 20:07	10° $\mathbb{Y}$ 48'56	1.39925 AU
evening rise	13938 Apr 08 20:38	6° $\mathbb{B}$ 32'56		evening rise	13939 Mar 20 21:51	17° $\mathbb{Y}$ 46'59	
	13938 Apr 24 07:25	0° $\mathbb{I}$			13939 Mar 28 10:52	0° $\mathbb{B}$	
evening max el	13938 May 12 02:28	22° $\mathbb{I}$ 42'58	22°35'10		13939 Apr 18 18:29	0° $\mathbb{I}$	
asc. node	13938 May 20 03:44	28° $\mathbb{I}$ 17'34		evening max el	13939 Apr 24 16:56	6° $\mathbb{I}$ 35'47	23°56'20
retrograde	13938 May 22 00:29	28° $\mathbb{I}$ 33'20		retrograde	13939 May 05 18:43	13° $\mathbb{I}$ 06'00	
evening set	13938 May 26 21:03	26° $\mathbb{I}$ 31'13		asc. node	13939 May 07 01:01	12° $\mathbb{I}$ 58'54	
inferior conj	13938 Jun 01 04:16	20° $\mathbb{I}$ 08'48	2°56'06	evening set	13939 May 11 02:50	10° $\mathbb{I}$ 50'43	
minimum elong	13938 Jun 01 02:47	20° $\mathbb{I}$ 13'57	2°54'52	min. Earth dist.	13939 May 15 19:25	5° $\mathbb{I}$ 23'23	0.68707 AU
min. Earth dist.	13938 May 31 22:55	20° $\mathbb{I}$ 27'26	0.68966 AU	inferior conj	13939 May 16 13:23	4° $\mathbb{I}$ 22'10	2°32'56
morning rise	13938 Jun 06 08:24	13° $\mathbb{I}$ 57'48		minimum elong	13939 May 16 11:22	4° $\mathbb{I}$ 29'01	2°31'35
direct	13938 Jun 10 22:30	12° $\mathbb{I}$ 03'21			13939 May 20 00:33	30° $\mathbb{R}$ $\mathbb{B}$	
morning max el	13938 Jun 19 22:12	17° $\mathbb{I}$ 16'57	21°37'03	morning rise	13939 May 21 19:55	28° $\mathbb{B}$ 19'01	
desc. node	13938 Jun 22 04:08	19° $\mathbb{I}$ 40'18		direct	13939 May 25 21:39	26° $\mathbb{B}$ 45'00	
	13938 Jun 30 08:43	0° $\mathbb{S}$			13939 Jun 01 11:54	0° $\mathbb{I}$	
	13938 Jul 20 14:57	0° $\mathbb{Q}$		morning max el	13939 Jun 02 18:27	1° $\mathbb{I}$ 11'37	20°20'05
morning set	13938 Jul 21 21:16	1° $\mathbb{Q}$ 59'40		desc. node	13939 Jun 09 01:10	8° $\mathbb{I}$ 31'55	
max. Earth dist.	13938 Jul 28 04:15	12° $\mathbb{Q}$ 09'25	1.42180 AU		13939 Jun 24 00:58	0° $\mathbb{S}$	
				morning set	13939 Jul 01 04:29	10° $\mathbb{S}$ 53'22	
superior conj	13938 Aug 04 17:46	24° $\mathbb{Q}$ 56'18	-1°30'35	max. Earth dist.	13939 Jul 10 13:46	25° $\mathbb{S}$ 37'36	1.44035 AU
minimum elong	13938 Aug 05 00:33	25° $\mathbb{Q}$ 25'40	1°30'27		13939 Jul 13 06:59	0° $\mathbb{Q}$	
	13938 Aug 07 15:10	0° $\mathbb{M}$					
evening rise	13938 Aug 15 18:49	14° $\mathbb{M}$ 42'26		superior conj	13939 Jul 16 16:12	5° $\mathbb{Q}$ 31'34	-1°58'30

minimum elong	13939 Jul 16 23:06	6°Ω00'00	1°58'55	minimum elong	13940 Jun 25 17:46	15°Ω18'23	2°13'58
evening rise	13939 Jul 29 09:36	27°Ω06'49			13940 Jul 04 21:14	0°Ω	
	13939 Jul 31 01:31	0°൬		evening rise	13940 Jul 10 02:40	8°Ω34'21	
asc. node	13939 Aug 03 00:31	5°൬06'37		asc. node	13940 Jul 19 21:12	24°Ω31'50	
evening max el	13939 Aug 15 11:04	23°൬24'11	18°02'58		13940 Jul 23 11:46	0°൬	
retrograde	13939 Aug 21 22:14	26°൬45'20		evening max el	13940 Jul 29 01:24	6°൬56'07	18°16'06
evening set	13939 Aug 24 12:31	26°൬12'02		retrograde	13940 Aug 04 10:04	10°൬18'38	
inferior conj	13939 Aug 30 23:31	21°൬02'56	1°26'49	evening set	13940 Aug 07 08:55	9°൬31'10	
minimum elong	13939 Aug 31 01:43	20°൬57'18	1°25'48	inferior conj	13940 Aug 13 07:32	4°൬04'59	2°17'37
min. Earth dist.	13939 Sep 02 22:03	18°൬03'00	0.62049 AU	minimum elong	13940 Aug 13 09:58	3°൬58'00	2°16'25
desc. node	13939 Sep 04 22:29	16°൬11'38		min. Earth dist.	13940 Aug 15 17:26	1°൬19'36	0.64192 AU
morning rise	13939 Sep 06 12:27	14°൬57'41			13940 Aug 16 23:10	30°RΩ	
direct	13939 Sep 13 04:47	12°൬35'52		morning rise	13940 Aug 19 09:29	27°Ω46'21	
morning max el	13939 Sep 27 07:53	20°൬35'13	27°57'58	desc. node	13940 Aug 21 20:00	26°Ω11'48	
	13939 Oct 05 10:58	0°Ω		direct	13940 Aug 25 23:48	25°Ω10'56	
	13939 Oct 24 10:22	0°ℳ			13940 Sep 05 07:28	0°൬	
asc. node	13939 Oct 30 02:35	10°ℳ59'55		morning max el	13940 Sep 08 17:46	3°൬10'03	27°33'23
morning set	13939 Oct 31 04:45	13°ℳ13'06			13940 Sep 28 20:48	0°Ω	
max. Earth dist.	13939 Nov 05 15:08	24°ℳ43'59	1.31684 AU	morning set	13940 Oct 13 20:34	26°Ω45'57	
					13940 Oct 15 11:22	0°ℳ	
superior conj	13939 Nov 07 15:50	29°ℳ10'48	1°13'26	asc. node	13940 Oct 15 23:15	1°ℳ00'11	
minimum elong	13939 Nov 07 13:36	28°ℳ58'29	1°13'58	max. Earth dist.	13940 Oct 18 13:16	6°ℳ20'15	1.32709 AU
	13939 Nov 08 00:45	0°𐤀					
evening rise	13939 Nov 14 09:35	14°𐤀00'16		superior conj	13940 Oct 21 21:35	13°ℳ27'01	0°53'42
	13939 Nov 22 06:44	0°𐤀		minimum elong	13940 Oct 21 19:24	13°ℳ15'12	0°53'58
desc. node	13939 Dec 01 19:11	15°𐤀35'32		evening rise	13940 Oct 28 20:40	28°ℳ31'27	
evening max el	13939 Dec 09 18:47	25°𐤀01'12	24°33'19		13940 Oct 29 13:17	0°𐤀	
	13939 Dec 16 11:21	0°≈			13940 Nov 15 16:40	0°𐤀	
retrograde	13939 Dec 23 11:53	1°≈51'30		desc. node	13940 Nov 17 16:21	2°𐤀23'17	
evening set	13939 Dec 28 18:51	0°≈49'52		evening max el	13940 Nov 20 04:39	5°𐤀02'24	22°51'08
	13939 Dec 30 16:59	30°R𐤀		retrograde	13940 Dec 03 06:53	11°𐤀32'19	
min. Earth dist.	13940 Jan 03 06:32	28°𐤀00'42	0.56077 AU	evening set	13940 Dec 07 06:17	10°𐤀57'55	
inferior conj	13940 Jan 05 15:12	26°𐤀32'13	-5°28'11	min. Earth dist.	13940 Dec 14 13:27	7°𐤀37'35	0.54860 AU
minimum elong	13940 Jan 05 22:39	26°𐤀20'34	5°25'56	inferior conj	13940 Dec 15 16:18	6°𐤀59'24	-5°58'02
morning rise	13940 Jan 14 04:27	22°𐤀29'16		minimum elong	13940 Dec 15 16:32	6°𐤀59'04	5°56'58
direct	13940 Jan 16 13:10	22°𐤀14'12		morning rise	13940 Dec 24 04:11	3°𐤀10'53	
asc. node	13940 Jan 26 01:54	26°𐤀39'35		direct	13940 Dec 27 05:38	2°𐤀49'12	
morning max el	13940 Jan 26 11:06	27°𐤀01'24	19°38'07	morning max el	13941 Jan 07 17:02	8°𐤀18'32	20°59'48
	13940 Jan 29 04:24	0°≈		asc. node	13941 Jan 11 23:12	13°𐤀05'02	
morning set	13940 Feb 12 20:17	25°≈09'49			13941 Jan 22 07:16	0°≈	
	13940 Feb 15 05:43	0°𐤀		morning set	13941 Jan 27 04:43	9°≈51'56	
superior conj	13940 Feb 20 19:20	11°𐤀09'17	0°55'16	superior conj	13941 Feb 03 13:21	25°≈12'53	1°15'47
minimum elong	13940 Feb 20 22:01	11°𐤀22'29	0°55'18	minimum elong	13941 Feb 03 15:52	25°≈25'52	1°16'11
max. Earth dist.	13940 Feb 27 02:33	23°𐤀10'49	1.37667 AU		13941 Feb 05 21:44	0°𐤀	
desc. node	13940 Feb 27 20:01	24°𐤀31'04		max. Earth dist.	13941 Feb 08 11:52	5°𐤀08'36	1.35548 AU
evening rise	13940 Mar 01 19:37	29°𐤀53'11		evening rise	13941 Feb 12 11:04	12°𐤀43'29	
	13940 Mar 01 21:09	0°𐤀		desc. node	13941 Feb 13 16:33	14°𐤀59'46	
	13940 Mar 20 17:41	0°𐤀			13941 Feb 22 08:14	0°𐤀	
evening max el	13940 Apr 06 06:32	20°𐤀29'17	25°14'00		13941 Mar 15 18:14	0°𐤀	
retrograde	13940 Apr 18 08:42	27°𐤀29'54		evening max el	13941 Mar 19 20:10	4°𐤀18'30	26°20'47
asc. node	13940 Apr 22 22:22	26°𐤀01'16		retrograde	13941 Apr 01 17:38	11°𐤀38'22	
evening set	13940 Apr 24 04:26	25°𐤀04'22		evening set	13941 Apr 08 00:07	9°𐤀06'51	
min. Earth dist.	13940 Apr 28 13:26	20°𐤀13'16	0.67994 AU	asc. node	13941 Apr 09 19:47	7°𐤀25'44	
inferior conj	13940 Apr 29 19:59	18°𐤀33'47	1°59'23	min. Earth dist.	13941 Apr 12 02:53	4°𐤀50'53	0.66848 AU
minimum elong	13940 Apr 29 17:50	18°𐤀40'47	1°58'02	inferior conj	13941 Apr 13 22:01	2°𐤀39'17	1°14'57
morning rise	13940 May 05 07:35	12°𐤀39'51		minimum elong	13941 Apr 13 20:18	2°𐤀44'31	1°13'51
direct	13940 May 08 21:37	11°𐤀26'01			13941 Apr 16 04:17	30°R𐤀	
morning max el	13940 May 15 22:12	15°𐤀16'41	19°17'01	morning rise	13941 Apr 19 17:23	26°𐤀56'11	
desc. node	13940 May 25 22:03	27°𐤀58'03		direct	13941 Apr 22 20:39	26°𐤀00'47	
	13940 May 27 07:34	0°𐤀		morning max el	13941 Apr 29 08:55	29°𐤀28'38	18°29'55
greatest brilliancy	13940 May 28 16:47	2°𐤀02'29	-0.7m		13941 Apr 29 21:28	0°𐤀	
morning set	13940 Jun 09 07:21	19°𐤀40'51		desc. node	13941 May 12 18:49	17°𐤀49'28	
	13940 Jun 15 23:30	0°Ω		morning set	13941 May 20 02:55	29°𐤀20'30	
max. Earth dist.	13940 Jun 22 05:32	9°Ω45'58	1.45299 AU		13941 May 20 12:56	0°𐤀	
superior conj	13940 Jun 25 15:40	15°Ω10'03	-2°12'57	superior conj	13941 Jun 05 00:47	24°𐤀16'30	-2°08'06

minimum elong	13941 Jun 04 19:12	23° $\Pi$ 54'41	2°08'55		max. Earth dist.	13942 May 18 20:53	8° $\Pi$ 52'58	1.45652 AU
max. Earth dist.	13941 Jun 05 00:52	24° $\Pi$ 16'49	1.45852 AU		evening rise	13942 May 31 14:21	28° $\Pi$ 37'00	
	13941 Jun 08 16:47	0° $\mathfrak{S}$				13942 Jun 01 11:56	0° $\mathfrak{S}$	
evening rise	13941 Jun 20 19:02	19° $\mathfrak{S}$ 00'01			greatest brilliancy	13942 Jun 14 03:33	19° $\mathfrak{S}$ 10'09	-0.7m
	13941 Jun 27 18:22	0° $\Omega$				13942 Jun 21 22:54	0° $\Omega$	
greatest brilliancy	13941 Jun 29 11:12	2° $\Omega$ 39'34	-0.8m		asc. node	13942 Jun 23 14:52	2° $\Omega$ 01'16	
asc. node	13941 Jul 06 17:59	13° $\Omega$ 32'48			evening max el	13942 Jun 25 20:27	4° $\Omega$ 26'50	19°34'14
evening max el	13941 Jul 12 13:14	20° $\Omega$ 38'46	18°46'52		retrograde	13942 Jul 03 02:21	8° $\Omega$ 31'16	
retrograde	13941 Jul 19 04:28	24° $\Omega$ 16'07			evening set	13942 Jul 06 19:27	7° $\Omega$ 11'11	
evening set	13941 Jul 22 12:10	23° $\Omega$ 12'47			inferior conj	13942 Jul 12 04:01	1° $\Omega$ 16'29	3°07'17
inferior conj	13941 Jul 28 02:05	17° $\Omega$ 31'32	2°50'05		minimum elong	13942 Jul 12 04:55	1° $\Omega$ 13'28	3°06'16
minimum elong	13941 Jul 28 03:56	17° $\Omega$ 25'45	2°48'58			13942 Jul 13 03:01	30° $\mathfrak{R}$ $\mathfrak{S}$	
min. Earth dist.	13941 Jul 29 21:44	15° $\Omega$ 15'25	0.66021 AU		min. Earth dist.	13942 Jul 13 09:18	29° $\mathfrak{S}$ 39'16	0.67443 AU
morning rise	13941 Aug 02 18:50	11° $\Omega$ 07'13			morning rise	13942 Jul 17 13:55	24° $\mathfrak{S}$ 52'09	
desc. node	13941 Aug 08 17:28	8° $\Omega$ 28'04			direct	13942 Jul 23 11:44	22° $\mathfrak{S}$ 17'02	
direct	13941 Aug 09 02:27	8° $\Omega$ 27'33			desc. node	13942 Jul 26 14:52	22° $\mathfrak{S}$ 53'45	
morning max el	13941 Aug 22 05:04	16° $\Omega$ 13'50	26°38'37		morning max el	13942 Aug 04 15:58	29° $\mathfrak{S}$ 35'01	25°22'39
	13941 Sep 02 14:40	0° $\mathfrak{M}$				13942 Aug 05 01:45	0° $\Omega$	
	13941 Sep 21 17:08	0° $\mathfrak{L}$				13942 Aug 27 10:46	0° $\mathfrak{M}$	
morning set	13941 Sep 27 01:02	9° $\mathfrak{L}$ 45'51			morning set	13942 Sep 09 14:28	22° $\mathfrak{M}$ 04'18	
max. Earth dist.	13941 Oct 01 01:51	17° $\mathfrak{L}$ 35'24	1.34264 AU		max. Earth dist.	13942 Sep 13 04:47	28° $\mathfrak{M}$ 40'31	1.36275 AU
asc. node	13941 Oct 02 19:48	21° $\mathfrak{L}$ 05'46				13942 Sep 13 21:42	0° $\mathfrak{L}$	
superior conj	13941 Oct 05 21:07	27° $\mathfrak{L}$ 22'06	0°28'26		superior conj	13942 Sep 19 11:36	10° $\mathfrak{L}$ 49'41	-0°01'51
minimum elong	13941 Oct 05 19:39	27° $\mathfrak{L}$ 14'29	0°28'32		minimum elong	13942 Sep 19 11:43	10° $\mathfrak{L}$ 50'14	0°01'45
	13941 Oct 07 03:20	0° $\mathfrak{M}$			behind sun begin	13942 Sep 19 05:24	10° $\mathfrak{L}$ 18'49	
evening rise	13941 Oct 13 06:22	12° $\mathfrak{M}$ 56'31			behind sun end	13942 Sep 19 18:02	11° $\mathfrak{L}$ 21'43	
	13941 Oct 21 22:39	0° $\mathfrak{J}$			asc. node	13942 Sep 19 16:23	11° $\mathfrak{L}$ 13'28	
evening max el	13941 Nov 01 20:18	15° $\mathfrak{J}$ 12'43	21°14'03		evening rise	13942 Sep 27 12:34	27° $\mathfrak{L}$ 10'21	
desc. node	13941 Nov 04 13:38	17° $\mathfrak{J}$ 36'15				13942 Sep 28 21:59	0° $\mathfrak{M}$	
retrograde	13941 Nov 13 18:06	21° $\mathfrak{J}$ 07'35			evening max el	13942 Oct 15 01:20	26° $\mathfrak{M}$ 04'02	19°54'22
evening set	13941 Nov 16 10:28	20° $\mathfrak{J}$ 50'49				13942 Oct 20 08:17	0° $\mathfrak{J}$	
inferior conj	13941 Nov 25 07:45	16° $\mathfrak{J}$ 57'42	-5°29'32		desc. node	13942 Oct 22 11:00	0° $\mathfrak{J}$ 48'06	
minimum elong	13941 Nov 24 23:39	17° $\mathfrak{J}$ 09'07	5°27'08		retrograde	13942 Oct 25 08:19	1° $\mathfrak{J}$ 11'43	
min. Earth dist.	13941 Nov 25 19:17	16° $\mathfrak{J}$ 41'26	0.54486 AU		evening set	13942 Oct 27 07:38	1° $\mathfrak{J}$ 01'17	
morning rise	13941 Dec 03 13:24	13° $\mathfrak{J}$ 07'28				13942 Oct 30 16:20	30° $\mathfrak{R}$ $\mathfrak{M}$	
direct	13941 Dec 07 13:00	12° $\mathfrak{J}$ 33'20			inferior conj	13942 Nov 05 04:08	27° $\mathfrak{M}$ 01'12	-4°07'24
morning max el	13941 Dec 20 09:36	18° $\mathfrak{J}$ 45'07	22°41'03		minimum elong	13942 Nov 04 18:19	27° $\mathfrak{M}$ 16'11	4°03'30
	13941 Dec 29 11:16	0° $\mathfrak{Z}$			min. Earth dist.	13942 Nov 07 03:25	25° $\mathfrak{M}$ 48'58	0.55060 AU
asc. node	13941 Dec 29 20:23	0° $\mathfrak{Z}$ 34'58			morning rise	13942 Nov 13 03:36	22° $\mathfrak{M}$ 48'49	
morning set	13942 Jan 11 15:51	24° $\mathfrak{Z}$ 37'38			direct	13942 Nov 18 01:32	21° $\mathfrak{M}$ 55'50	
	13942 Jan 14 04:06	0° $\approx$			morning max el	13942 Dec 01 19:24	28° $\mathfrak{M}$ 44'29	24°30'11
						13942 Dec 03 02:06	0° $\mathfrak{J}$	
superior conj	13942 Jan 18 15:25	9° $\approx$ 36'48	1°29'30		asc. node	13942 Dec 16 17:28	18° $\mathfrak{J}$ 54'11	
minimum elong	13942 Jan 18 17:11	9° $\approx$ 46'12	1°30'14			13942 Dec 22 15:46	0° $\mathfrak{Z}$	
max. Earth dist.	13942 Jan 22 03:36	16° $\approx$ 59'29	1.33749 AU		morning set	13942 Dec 27 03:46	9° $\mathfrak{Z}$ 21'35	
evening rise	13942 Jan 26 16:35	26° $\approx$ 08'01						
	13942 Jan 28 16:43	0° $\mathfrak{H}$			superior conj	13943 Jan 02 22:49	24° $\mathfrak{Z}$ 13'04	1°36'42
desc. node	13942 Jan 31 13:08	5° $\mathfrak{H}$ 18'22			minimum elong	13943 Jan 02 23:33	24° $\mathfrak{Z}$ 17'02	1°37'41
	13942 Feb 15 17:35	0° $\mathfrak{Y}$			max. Earth dist.	13943 Jan 05 02:56	28° $\mathfrak{Z}$ 56'40	1.32391 AU
evening max el	13942 Mar 02 09:39	17° $\mathfrak{Y}$ 54'51	27°09'29			13943 Jan 05 14:41	0° $\approx$	
retrograde	13942 Mar 15 20:46	25° $\mathfrak{Y}$ 23'08			evening rise	13943 Jan 10 08:56	9° $\approx$ 58'48	
evening set	13942 Mar 22 11:57	22° $\mathfrak{Y}$ 51'22			desc. node	13943 Jan 18 09:48	25° $\approx$ 21'48	
min. Earth dist.	13942 Mar 26 09:44	19° $\mathfrak{Y}$ 08'26	0.65297 AU			13943 Jan 21 01:18	0° $\mathfrak{H}$	
asc. node	13942 Mar 27 17:14	17° $\mathfrak{Y}$ 40'43				13943 Feb 11 18:17	0° $\mathfrak{Y}$	
inferior conj	13942 Mar 28 17:08	16° $\mathfrak{Y}$ 33'14	0°18'59		evening max el	13943 Feb 12 21:47	1° $\mathfrak{Y}$ 07'28	27°33'00
minimum elong	13942 Mar 28 16:37	16° $\mathfrak{Y}$ 34'43	0°18'34		retrograde	13943 Feb 26 17:06	8° $\mathfrak{Y}$ 34'35	
morning rise	13942 Apr 03 22:56	11° $\mathfrak{Y}$ 02'49			evening set	13943 Mar 05 13:33	6° $\mathfrak{Y}$ 09'53	
direct	13942 Apr 06 16:32	10° $\mathfrak{Y}$ 22'59			min. Earth dist.	13943 Mar 09 08:13	2° $\mathfrak{Y}$ 56'06	0.63412 AU
morning max el	13942 Apr 13 00:33	13° $\mathfrak{Y}$ 40'48	17°59'40		inferior conj	13943 Mar 12 02:34	0° $\mathfrak{Y}$ 08'39	-0°48'47
	13942 Apr 24 17:53	0° $\mathfrak{X}$			minimum elong	13943 Mar 12 04:09	0° $\mathfrak{Y}$ 04'40	0°48'02
desc. node	13942 Apr 29 15:30	7° $\mathfrak{X}$ 59'14				13943 Mar 12 05:59	30° $\mathfrak{R}$ $\mathfrak{H}$	
morning set	13942 May 01 02:10	10° $\mathfrak{X}$ 21'20			asc. node	13943 Mar 14 14:43	27° $\mathfrak{H}$ 43'21	
	13942 May 13 05:44	0° $\Pi$			morning rise	13943 Mar 18 21:12	24° $\mathfrak{H}$ 53'19	
					direct	13943 Mar 21 06:38	24° $\mathfrak{H}$ 25'30	
superior conj	13942 May 15 12:26	3° $\Pi$ 36'40	-1°44'08		morning max el	13943 Mar 27 18:16	27° $\mathfrak{H}$ 44'34	17°46'43
minimum elong	13942 May 15 03:22	3° $\Pi$ 00'51	1°44'11			13943 Mar 29 19:47	0° $\mathfrak{Y}$	



morning set	13943 Apr 13 03:58	22° $\Upsilon$ 38'17		superior conj	13944 Apr 05 23:02	25° $\Upsilon$ 07'45	-0°28'16
desc. node	13943 Apr 16 12:06	28° $\Upsilon$ 21'38		minimum elong	13944 Apr 05 20:26	24° $\Upsilon$ 56'36	0°28'13
	13943 Apr 17 11:12	0° $\mathcal{B}$			13944 Apr 08 19:47	0° $\mathcal{B}$	
				max. Earth dist.	13944 Apr 13 06:25	7° $\mathcal{B}$ 21'57	1.43205 AU
superior conj	13943 Apr 25 17:45	13° $\mathcal{B}$ 48'39	-1°07'58	evening rise	13944 Apr 19 20:07	17° $\mathcal{B}$ 52'25	
minimum elong	13943 Apr 25 10:59	13° $\mathcal{B}$ 20'58	1°07'43		13944 Apr 27 18:02	0° $\Pi$	
max. Earth dist.	13943 May 01 15:12	23° $\mathcal{B}$ 18'45	1.44739 AU		13944 May 19 17:54	0° $\mathcal{E}$	
	13943 May 05 21:03	0° $\Pi$		evening max el	13944 May 21 17:54	2° $\mathcal{E}$ 06'52	21°49'37
evening rise	13943 May 11 01:17	8° $\Pi$ 00'38		asc. node	13944 May 27 09:00	6° $\mathcal{E}$ 32'24	
	13943 May 25 18:28	0° $\mathcal{E}$		retrograde	13944 May 30 23:27	7° $\mathcal{E}$ 31'11	
evening max el	13943 Jun 08 21:55	18° $\mathcal{E}$ 16'20	20°36'17	evening set	13944 Jun 04 13:36	5° $\mathcal{E}$ 37'46	
asc. node	13943 Jun 10 11:52	19° $\mathcal{E}$ 45'40			13944 Jun 09 08:30	30° $\mathcal{R}\Pi$	
retrograde	13943 Jun 17 01:17	22° $\mathcal{E}$ 57'49		inferior conj	13944 Jun 09 19:48	29° $\Pi$ 20'36	3°04'48
evening set	13943 Jun 21 04:31	21° $\mathcal{E}$ 20'46		minimum elong	13944 Jun 09 18:46	29° $\Pi$ 24'13	3°03'38
inferior conj	13943 Jun 26 10:39	15° $\mathcal{E}$ 14'02	3°11'40	min. Earth dist.	13944 Jun 09 21:53	29° $\Pi$ 13'18	0.68911 AU
minimum elong	13943 Jun 26 10:32	15° $\mathcal{E}$ 14'25	3°10'37	morning rise	13944 Jun 14 23:44	23° $\Pi$ 05'47	
min. Earth dist.	13943 Jun 27 02:04	14° $\mathcal{E}$ 20'56	0.68414 AU	direct	13944 Jun 19 21:17	20° $\Pi$ 59'56	
morning rise	13943 Jul 01 16:16	8° $\mathcal{E}$ 53'21		desc. node	13944 Jun 29 09:27	26° $\Pi$ 31'11	
direct	13943 Jul 07 02:25	6° $\mathcal{E}$ 30'14		morning max el	13944 Jun 29 14:02	26° $\Pi$ 42'39	22°25'58
desc. node	13943 Jul 13 12:13	9° $\mathcal{E}$ 03'11			13944 Jul 02 15:04	0° $\mathcal{E}$	
morning max el	13943 Jul 18 02:14	13° $\mathcal{E}$ 04'49	23°55'16		13944 Jul 24 07:14	0° $\Omega$	
	13943 Jul 31 18:09	0° $\Omega$		morning set	13944 Aug 02 02:20	13° $\Omega$ 51'19	
	13943 Aug 20 06:47	0° $\mathcal{N}$		max. Earth dist.	13944 Aug 07 02:27	22° $\Omega$ 08'01	1.40933 AU
morning set	13943 Aug 22 08:17	3° $\mathcal{N}$ 29'20			13944 Aug 11 16:30	0° $\mathcal{N}$	
max. Earth dist.	13943 Aug 26 02:34	10° $\mathcal{N}$ 01'32	1.38583 AU				
				superior conj	13944 Aug 14 22:35	5° $\mathcal{N}$ 45'16	-1°11'13
superior conj	13943 Sep 02 13:30	23° $\mathcal{N}$ 40'36	-0°35'53	minimum elong	13944 Aug 15 04:00	6° $\mathcal{N}$ 09'31	1°10'57
minimum elong	13943 Sep 02 16:03	23° $\mathcal{N}$ 52'38	0°35'39	asc. node	13944 Aug 23 09:27	21° $\mathcal{N}$ 18'18	
	13943 Sep 05 20:42	0° $\mathcal{A}$		evening rise	13944 Aug 25 03:10	24° $\mathcal{N}$ 34'06	
asc. node	13943 Sep 06 12:53	1° $\mathcal{A}$ 18'39			13944 Aug 28 00:55	0° $\mathcal{A}$	
evening rise	13943 Sep 11 12:35	11° $\mathcal{A}$ 05'36		evening max el	13944 Sep 10 01:51	20° $\mathcal{A}$ 08'15	18°19'56
	13943 Sep 21 21:07	0° $\mathcal{M}$		retrograde	13944 Sep 17 13:16	23° $\mathcal{A}$ 55'51	
evening max el	13943 Sep 27 20:19	7° $\mathcal{M}$ 44'31	18°56'24	evening set	13944 Sep 19 15:15	23° $\mathcal{A}$ 38'54	
retrograde	13943 Oct 06 13:04	12° $\mathcal{M}$ 06'32		desc. node	13944 Sep 25 06:00	20° $\mathcal{A}$ 33'26	
evening set	13943 Oct 08 10:03	11° $\mathcal{M}$ 55'10		inferior conj	13944 Sep 27 04:30	19° $\mathcal{A}$ 00'27	-0°36'42
desc. node	13943 Oct 09 08:28	11° $\mathcal{M}$ 41'25		minimum elong	13944 Sep 27 03:08	19° $\mathcal{A}$ 03'16	0°35'55
inferior conj	13943 Oct 16 17:28	7° $\mathcal{M}$ 37'56	-2°20'11	min. Earth dist.	13944 Sep 30 11:23	16° $\mathcal{A}$ 19'07	0.58465 AU
minimum elong	13943 Oct 16 11:33	7° $\mathcal{M}$ 48'18	2°17'19	morning rise	13944 Oct 04 11:34	13° $\mathcal{A}$ 36'29	
min. Earth dist.	13943 Oct 19 16:01	5° $\mathcal{M}$ 34'27	0.56472 AU	direct	13944 Oct 10 18:28	11° $\mathcal{A}$ 52'15	
morning rise	13943 Oct 24 10:03	2° $\mathcal{M}$ 50'35		morning max el	13944 Oct 25 01:57	19° $\mathcal{A}$ 31'16	27°21'18
direct	13943 Oct 30 03:07	1° $\mathcal{M}$ 33'17			13944 Nov 03 00:23	0° $\mathcal{M}$	
morning max el	13943 Nov 13 07:05	8° $\mathcal{M}$ 50'27	26°09'20	asc. node	13944 Nov 19 11:20	27° $\mathcal{M}$ 12'56	
	13943 Nov 29 04:15	0° $\mathcal{J}$			13944 Nov 20 21:11	0° $\mathcal{J}$	
asc. node	13943 Dec 03 14:27	7° $\mathcal{J}$ 50'14		morning set	13944 Nov 24 23:02	8° $\mathcal{J}$ 25'14	
morning set	13943 Dec 11 14:46	23° $\mathcal{J}$ 59'11					
	13943 Dec 14 08:59	0° $\mathcal{Z}$		superior conj	13944 Dec 01 20:56	23° $\mathcal{J}$ 36'49	1°32'53
				minimum elong	13944 Dec 01 19:36	23° $\mathcal{J}$ 29'26	1°33'50
superior conj	13943 Dec 18 09:20	8° $\mathcal{Z}$ 55'15	1°37'46	max. Earth dist.	13944 Dec 01 16:45	23° $\mathcal{J}$ 13'28	1.31168 AU
minimum elong	13943 Dec 18 08:59	8° $\mathcal{Z}$ 53'16	1°38'49		13944 Dec 04 17:36	0° $\mathcal{Z}$	
max. Earth dist.	13943 Dec 19 08:25	11° $\mathcal{Z}$ 03'28	1.31523 AU	evening rise	13944 Dec 08 15:09	8° $\mathcal{Z}$ 31'02	
evening rise	13943 Dec 25 09:17	24° $\mathcal{Z}$ 08'47			13944 Dec 19 15:16	0° $\mathcal{A}$	
	13943 Dec 28 05:39	0° $\mathcal{A}$		desc. node	13944 Dec 22 03:28	4° $\mathcal{A}$ 15'01	
desc. node	13944 Jan 05 06:34	15° $\mathcal{A}$ 03'45		evening max el	13945 Jan 07 08:44	25° $\mathcal{A}$ 32'00	26°42'28
	13944 Jan 14 18:15	0° $\mathcal{H}$			13945 Jan 13 00:35	0° $\mathcal{H}$	
evening max el	13944 Jan 26 06:29	13° $\mathcal{H}$ 44'13	27°25'08	retrograde	13945 Jan 21 07:49	2° $\mathcal{H}$ 41'08	
retrograde	13944 Feb 09 05:21	21° $\mathcal{H}$ 03'31		evening set	13945 Jan 27 21:49	0° $\mathcal{H}$ 53'31	
evening set	13944 Feb 16 02:04	18° $\mathcal{H}$ 53'42			13945 Jan 29 10:34	30° $\mathcal{R}\mathcal{A}$	
min. Earth dist.	13944 Feb 19 20:46	16° $\mathcal{H}$ 02'55	0.61298 AU	min. Earth dist.	13945 Jan 31 22:36	28° $\mathcal{A}$ 15'50	0.59113 AU
inferior conj	13944 Feb 22 23:04	13° $\mathcal{H}$ 17'19	-2°07'10	inferior conj	13945 Feb 04 02:51	25° $\mathcal{A}$ 48'00	-3°31'46
minimum elong	13944 Feb 23 03:35	13° $\mathcal{H}$ 07'12	2°04'57	minimum elong	13945 Feb 04 10:29	25° $\mathcal{A}$ 33'09	3°28'26
asc. node	13944 Feb 29 12:13	8° $\mathcal{H}$ 37'31		morning rise	13945 Feb 12 02:17	21° $\mathcal{A}$ 11'36	
morning rise	13944 Mar 01 08:09	8° $\mathcal{H}$ 19'55		direct	13945 Feb 14 02:55	20° $\mathcal{A}$ 56'49	
direct	13944 Mar 03 11:32	8° $\mathcal{H}$ 00'25		asc. node	13945 Feb 15 09:42	21° $\mathcal{A}$ 02'58	
morning max el	13944 Mar 10 10:53	11° $\mathcal{H}$ 31'10	17°51'46	morning max el	13945 Feb 21 22:43	24° $\mathcal{A}$ 49'19	18°16'07
	13944 Mar 22 19:39	0° $\mathcal{Y}$			13945 Feb 26 05:35	0° $\mathcal{H}$	
morning set	13944 Mar 26 02:26	5° $\mathcal{Y}$ 53'37		morning set	13945 Mar 09 15:32	19° $\mathcal{H}$ 48'09	
desc. node	13944 Apr 02 08:39	18° $\mathcal{Y}$ 52'26			13945 Mar 15 01:23	0° $\mathcal{Y}$	

superior conj	13945 Mar 19 02:49	7° $\Upsilon$ 28'19	0°08'51	superior conj	13946 Mar 02 00:54	20° $\text{X}$ 38'32	0°40'14
minimum elong	13945 Mar 19 03:29	7° $\Upsilon$ 31'18	0°08'43	minimum elong	13946 Mar 02 03:14	20° $\text{X}$ 49'41	0°40'09
behind sun begin	13945 Mar 18 21:12	7° $\Upsilon$ 02'51		desc. node	13946 Mar 07 01:37	0° $\Upsilon$ 02'09	
behind sun end	13945 Mar 19 09:45	7° $\Upsilon$ 59'41			13946 Mar 07 01:09	0° $\Upsilon$	
desc. node	13945 Mar 20 05:09	9° $\Upsilon$ 27'03		max. Earth dist.	13946 Mar 08 23:48	3° $\Upsilon$ 30'18	1.38964 AU
max. Earth dist.	13945 Mar 26 17:07	20° $\Upsilon$ 48'07	1.41205 AU	evening rise	13946 Mar 12 19:13	10° $\Upsilon$ 10'13	
evening rise	13945 Mar 31 09:05	28° $\Upsilon$ 33'52			13946 Mar 25 02:22	0° $\text{B}$	
	13945 Apr 01 06:16	0° $\text{B}$		evening max el	13946 Apr 16 23:21	29° $\text{B}$ 50'20	24°30'08
	13945 Apr 21 07:35	0° $\text{II}$			13946 Apr 17 03:16	0° $\text{II}$	
evening max el	13945 May 04 09:41	15° $\text{II}$ 58'05	23°09'36	retrograde	13946 Apr 28 12:04	6° $\text{II}$ 35'17	
asc. node	13945 May 14 06:15	22° $\text{II}$ 04'21		asc. node	13946 May 01 03:34	6° $\text{II}$ 04'33	
retrograde	13945 May 14 19:27	22° $\text{II}$ 05'43		evening set	13946 May 04 01:14	4° $\text{II}$ 14'53	
evening set	13945 May 19 21:02	19° $\text{II}$ 57'28			13946 May 07 21:04	30° $\text{R}$ $\text{B}$	
inferior conj	13945 May 25 05:27	13° $\text{II}$ 32'08	2°47'31	min. Earth dist.	13946 May 08 14:18	29° $\text{B}$ 03'13	0.68460 AU
minimum elong	13945 May 25 03:42	13° $\text{II}$ 38'11	2°46'12	inferior conj	13946 May 09 13:43	27° $\text{B}$ 44'44	2°19'59
min. Earth dist.	13945 May 24 18:39	14° $\text{II}$ 09'28	0.68921 AU	minimum elong	13946 May 09 11:35	27° $\text{B}$ 51'53	2°18'36
morning rise	13945 May 30 10:19	7° $\text{II}$ 24'36		morning rise	13946 May 14 22:06	21° $\text{B}$ 45'30	
direct	13945 Jun 03 19:07	5° $\text{II}$ 38'51		direct	13946 May 18 18:39	20° $\text{B}$ 20'27	
morning max el	13945 Jun 12 06:35	10° $\text{II}$ 30'54	21°02'49	morning max el	13946 May 26 06:04	24° $\text{B}$ 30'21	19°51'21
desc. node	13945 Jun 16 06:32	14° $\text{II}$ 56'41			13946 May 31 01:34	0° $\text{II}$	
	13945 Jun 27 10:31	0° $\text{S}$		desc. node	13946 Jun 03 03:29	4° $\text{II}$ 03'58	
morning set	13945 Jul 12 20:13	23° $\text{S}$ 11'22			13946 Jun 20 16:58	0° $\text{S}$	
	13945 Jul 17 03:43	0° $\Omega$		morning set	13946 Jun 21 22:55	1° $\text{S}$ 54'54	
max. Earth dist.	13945 Jul 20 08:30	5° $\Omega$ 09'12	1.43033 AU	max. Earth dist.	13946 Jul 02 20:45	18° $\text{S}$ 55'31	1.44649 AU
superior conj	13945 Jul 27 10:31	16° $\Omega$ 54'23	-1°43'37	superior conj	13946 Jul 07 22:40	27° $\text{S}$ 03'18	-2°06'42
minimum elong	13945 Jul 27 17:49	17° $\Omega$ 25'20	1°43'39	minimum elong	13946 Jul 08 04:12	27° $\text{S}$ 25'39	2°07'26
	13945 Aug 03 23:54	0° $\text{np}$			13946 Jul 09 18:14	0° $\Omega$	
evening rise	13945 Aug 08 04:07	7° $\text{np}$ 25'43		evening rise	13946 Jul 21 10:15	19° $\Omega$ 27'03	
asc. node	13945 Aug 10 06:04	11° $\text{np}$ 08'39			13946 Jul 27 16:01	0° $\text{np}$	
	13945 Aug 21 20:50	0° $\underline{\Omega}$		asc. node	13946 Jul 28 02:44	0° $\text{np}$ 44'34	
evening max el	13945 Aug 24 13:44	3° $\underline{\Omega}$ 05'54	18°03'39	evening max el	13946 Aug 08 04:06	16° $\text{np}$ 27'27	18°06'20
retrograde	13945 Aug 31 06:53	6° $\underline{\Omega}$ 32'59		retrograde	13946 Aug 14 13:15	19° $\text{np}$ 47'53	
evening set	13945 Sep 02 16:19	6° $\underline{\Omega}$ 06'41		evening set	13946 Aug 17 07:01	19° $\text{np}$ 08'59	
inferior conj	13945 Sep 09 12:02	1° $\underline{\Omega}$ 08'00	0°48'05	inferior conj	13946 Aug 23 12:18	13° $\text{np}$ 52'25	1°50'49
minimum elong	13945 Sep 09 13:28	1° $\underline{\Omega}$ 04'35	0°47'27	minimum elong	13946 Aug 23 14:43	13° $\text{np}$ 45'50	1°49'40
	13945 Sep 10 16:22	30° $\text{R}$ $\text{np}$		min. Earth dist.	13946 Aug 26 05:52	10° $\text{np}$ 56'15	0.62985 AU
desc. node	13945 Sep 12 03:32	28° $\text{np}$ 36'39		morning rise	13946 Aug 29 20:21	7° $\text{np}$ 40'02	
min. Earth dist.	13945 Sep 12 15:44	28° $\text{np}$ 08'39	0.60728 AU	desc. node	13946 Aug 30 01:05	7° $\text{np}$ 31'21	
morning rise	13945 Sep 16 07:40	25° $\text{np}$ 14'36		direct	13946 Sep 05 12:21	5° $\text{np}$ 11'10	
direct	13945 Sep 22 22:12	23° $\text{np}$ 04'57		morning max el	13946 Sep 19 12:37	13° $\text{np}$ 12'45	27°51'42
	13945 Oct 06 03:47	0° $\underline{\Omega}$			13946 Oct 03 00:10	0° $\underline{\Omega}$	
morning max el	13945 Oct 07 04:35	0° $\underline{\Omega}$ 59'44	27°55'59		13946 Oct 20 18:09	0° $\text{ml}$	
	13945 Oct 28 05:48	0° $\text{ml}$		morning set	13946 Oct 23 23:33	6° $\text{ml}$ 22'43	
asc. node	13945 Nov 06 08:06	16° $\text{ml}$ 54'42		asc. node	13946 Oct 24 04:47	6° $\text{ml}$ 49'09	
morning set	13945 Nov 09 02:43	22° $\text{ml}$ 35'07		max. Earth dist.	13946 Oct 29 02:23	17° $\text{ml}$ 03'35	1.32048 AU
	13945 Nov 12 14:15	0° $\text{x}$					
max. Earth dist.	13945 Nov 15 00:05	5° $\text{x}$ 16'57	1.31337 AU	superior conj	13946 Oct 31 15:58	22° $\text{ml}$ 37'07	1°05'45
superior conj	13945 Nov 16 07:47	8° $\text{x}$ 12'45	1°22'12	minimum elong	13946 Oct 31 13:41	22° $\text{ml}$ 24'37	1°06'10
minimum elong	13945 Nov 16 05:46	8° $\text{x}$ 01'33	1°22'55		13946 Nov 04 00:40	0° $\text{x}$	
evening rise	13945 Nov 23 00:31	23° $\text{x}$ 00'20		evening rise	13946 Nov 07 11:27	7° $\text{x}$ 31'19	
	13945 Nov 26 08:00	0° $\text{Z}$			13946 Nov 19 00:45	0° $\text{Z}$	
desc. node	13945 Dec 09 00:27	22° $\text{Z}$ 43'54		desc. node	13946 Nov 25 21:34	10° $\text{Z}$ 13'56	
	13945 Dec 14 06:42	0° $\approx$		evening max el	13946 Dec 01 13:13	16° $\text{Z}$ 37'53	23°50'18
evening max el	13945 Dec 20 02:26	6° $\approx$ 26'15	25°27'22	retrograde	13946 Dec 15 01:56	23° $\text{Z}$ 21'45	
retrograde	13946 Jan 02 23:12	13° $\approx$ 24'59		evening set	13946 Dec 19 20:02	22° $\text{Z}$ 32'31	
evening set	13946 Jan 08 20:45	12° $\approx$ 05'31		min. Earth dist.	13946 Dec 26 00:15	19° $\text{Z}$ 32'12	0.55462 AU
min. Earth dist.	13946 Jan 13 14:45	9° $\approx$ 25'53	0.57073 AU	inferior conj	13946 Dec 27 21:49	18° $\text{Z}$ 24'12	-5°47'08
inferior conj	13946 Jan 16 10:42	7° $\approx$ 31'37	-4°51'43	minimum elong	13946 Dec 28 02:52	18° $\text{Z}$ 16'40	5°45'35
minimum elong	13946 Jan 16 19:34	7° $\approx$ 16'40	4°48'36	morning rise	13947 Jan 05 11:29	14° $\text{Z}$ 28'46	
morning rise	13946 Jan 24 21:01	3° $\approx$ 17'30		direct	13947 Jan 08 01:59	14° $\text{Z}$ 11'46	
direct	13946 Jan 27 00:20	3° $\approx$ 03'51		morning max el	13947 Jan 18 16:14	19° $\text{Z}$ 16'51	20°10'11
asc. node	13946 Feb 02 07:06	5° $\approx$ 10'25		asc. node	13947 Jan 20 04:24	20° $\text{Z}$ 49'47	
morning max el	13946 Feb 05 01:50	7° $\approx$ 28'17	19°01'40		13947 Jan 26 21:20	0° $\approx$	
	13946 Feb 19 11:59	0° $\text{X}$		morning set	13947 Feb 05 20:31	18° $\approx$ 44'28	
morning set	13946 Feb 21 14:42	4° $\text{X}$ 08'26			13947 Feb 11 08:15	0° $\text{X}$	

superior conj	13947 Feb 13 12:45	4° $\text{H}$ 25'40	1°04'49	morning set	13948 Jan 21 06:20	3° $\approx$ 28'14	
minimum elong	13947 Feb 13 15:28	4° $\text{H}$ 39'17	1°04'59				
max. Earth dist.	13947 Feb 19 06:26	15° $\text{H}$ 37'42	1.36731 AU	superior conj	13948 Jan 28 10:31	18° $\approx$ 38'22	1°22'25
desc. node	13947 Feb 21 22:07	20° $\text{H}$ 34'18		minimum elong	13948 Jan 28 12:46	18° $\approx$ 50'09	1°22'57
evening rise	13947 Feb 23 00:55	22° $\text{H}$ 36'18		max. Earth dist.	13948 Feb 01 18:03	27° $\approx$ 29'35	1.34731 AU
	13947 Feb 27 05:34	0° $\text{Y}$			13948 Feb 03 00:15	0° $\text{H}$	
	13947 Mar 18 21:16	0° $\text{B}$		evening rise	13948 Feb 05 22:47	5° $\text{H}$ 42'08	
evening max el	13947 Mar 30 12:50	13° $\text{B}$ 42'42	25°44'11	desc. node	13948 Feb 08 18:40	10° $\text{H}$ 59'03	
retrograde	13947 Apr 12 00:15	20° $\text{B}$ 53'43			13948 Feb 19 23:54	0° $\text{Y}$	
evening set	13947 Apr 18 00:35	18° $\text{B}$ 25'02		evening max el	13948 Mar 12 02:40	27° $\text{Y}$ 28'15	26°44'18
asc. node	13947 Apr 18 00:56	18° $\text{B}$ 24'18			13948 Mar 14 21:45	0° $\text{B}$	
min. Earth dist.	13947 Apr 22 06:44	13° $\text{B}$ 48'53	0.67552 AU	retrograde	13948 Mar 25 06:49	4° $\text{B}$ 52'51	
inferior conj	13947 Apr 23 18:40	11° $\text{B}$ 54'43	1°41'55	evening set	13948 Mar 31 17:11	2° $\text{B}$ 20'47	
minimum elong	13947 Apr 23 16:37	12° $\text{B}$ 01'13	1°40'38		13948 Apr 03 05:23	30° $\text{R}$ $\text{Y}$	
morning rise	13947 Apr 29 09:14	6° $\text{B}$ 05'04		asc. node	13948 Apr 03 22:22	29° $\text{Y}$ 13'56	
direct	13947 May 02 18:28	4° $\text{B}$ 59'28		min. Earth dist.	13948 Apr 04 17:46	28° $\text{Y}$ 18'55	0.66229 AU
morning max el	13947 May 09 13:00	8° $\text{B}$ 39'16	18°54'54	inferior conj	13948 Apr 06 18:05	25° $\text{Y}$ 56'18	0°52'40
desc. node	13947 May 21 00:18	23° $\text{B}$ 41'58		minimum elong	13948 Apr 06 16:47	26° $\text{Y}$ 00'11	0°51'49
greatest brilliancy	13947 May 23 00:18	26° $\text{B}$ 42'34	-0.8m	morning rise	13948 Apr 12 17:33	20° $\text{Y}$ 18'01	
	13947 May 25 04:07	0° $\text{II}$		direct	13948 Apr 15 16:33	19° $\text{Y}$ 29'33	
morning set	13947 Jun 01 06:40	10° $\text{II}$ 58'23		morning max el	13948 Apr 22 02:02	22° $\text{Y}$ 51'48	18°14'55
	13947 Jun 13 12:17	0° $\text{B}$			13948 Apr 27 22:07	0° $\text{B}$	
max. Earth dist.	13947 Jun 15 13:52	3° $\text{B}$ 13'47	1.45622 AU	desc. node	13948 May 06 21:01	13° $\text{B}$ 41'52	
				morning set	13948 May 11 13:37	21° $\text{B}$ 11'40	
superior conj	13947 Jun 17 14:30	6° $\text{B}$ 24'19	-2°13'25		13948 May 17 02:08	0° $\text{II}$	
minimum elong	13947 Jun 17 13:18	6° $\text{B}$ 19'33	2°14'29				
	13947 Jul 02 10:00	0° $\text{B}$		superior conj	13948 May 26 22:30	15° $\text{II}$ 30'48	-1°59'59
evening rise	13947 Jul 02 16:56	0° $\text{B}$ 28'01		minimum elong	13948 May 26 14:37	14° $\text{II}$ 59'56	2°00'27
asc. node	13947 Jul 14 23:29	20° $\text{B}$ 00'34		max. Earth dist.	13948 May 28 09:48	17° $\text{II}$ 48'41	1.45865 AU
evening max el	13947 Jul 22 17:45	0° $\text{B}$ 05'04	18°27'06		13948 Jun 05 05:33	0° $\text{B}$	
	13947 Jul 22 15:43	0° $\text{B}$		evening rise	13948 Jun 11 23:19	10° $\text{B}$ 29'37	
retrograde	13947 Jul 29 04:13	3° $\text{B}$ 32'13		greatest brilliancy	13948 Jun 22 21:38	27° $\text{B}$ 24'13	-0.8m
evening set	13947 Aug 01 06:44	2° $\text{B}$ 38'17			13948 Jun 24 14:59	0° $\text{B}$	
	13947 Aug 04 11:42	30° $\text{R}$ $\text{B}$		asc. node	13948 Jun 30 20:19	8° $\text{B}$ 48'47	
inferior conj	13947 Aug 07 01:15	27° $\text{B}$ 05'47	2°33'23	evening max el	13948 Jul 05 03:56	13° $\text{B}$ 50'52	19°05'07
minimum elong	13947 Aug 07 03:30	26° $\text{B}$ 59'03	2°32'13	retrograde	13948 Jul 12 00:19	17° $\text{B}$ 37'52	
min. Earth dist.	13947 Aug 09 05:18	24° $\text{B}$ 31'03	0.65020 AU	evening set	13948 Jul 15 12:01	16° $\text{B}$ 27'22	
morning rise	13947 Aug 12 23:02	20° $\text{B}$ 43'53		inferior conj	13948 Jul 20 23:18	10° $\text{B}$ 40'24	2°59'02
desc. node	13947 Aug 16 22:34	18° $\text{B}$ 28'09		minimum elong	13948 Jul 21 00:47	10° $\text{B}$ 35'39	2°57'58
direct	13947 Aug 19 11:06	18° $\text{B}$ 05'08		min. Earth dist.	13948 Jul 22 12:49	8° $\text{B}$ 40'00	0.66689 AU
morning max el	13947 Sep 01 23:16	26° $\text{B}$ 00'56	27°13'06	morning rise	13948 Jul 26 12:52	4° $\text{B}$ 15'47	
	13947 Sep 05 15:36	0° $\text{B}$		direct	13948 Aug 01 16:45	1° $\text{B}$ 36'58	
	13947 Sep 26 13:43	0° $\text{B}$		desc. node	13948 Aug 02 20:01	1° $\text{B}$ 41'46	
morning set	13947 Oct 07 10:55	19° $\text{B}$ 42'05		morning max el	13948 Aug 14 10:20	9° $\text{B}$ 12'21	26°08'12
asc. node	13947 Oct 11 01:24	26° $\text{B}$ 51'55			13948 Aug 30 19:13	0° $\text{B}$	
max. Earth dist.	13947 Oct 11 20:18	28° $\text{B}$ 28'23	1.33308 AU		13948 Sep 18 01:55	0° $\text{B}$	
	13947 Oct 12 14:07	0° $\text{B}$		morning set	13948 Sep 19 09:30	2° $\text{B}$ 25'18	
				max. Earth dist.	13948 Sep 23 04:29	9° $\text{B}$ 36'39	1.35075 AU
superior conj	13947 Oct 15 19:23	6° $\text{B}$ 44'52	0°43'38	asc. node	13948 Sep 26 21:59	16° $\text{B}$ 58'52	
minimum elong	13947 Oct 15 17:24	6° $\text{B}$ 34'21	0°43'49				
evening rise	13947 Oct 22 22:09	21° $\text{B}$ 59'53		superior conj	13948 Sep 28 15:29	20° $\text{B}$ 29'27	0°16'10
	13947 Oct 26 18:32	0° $\text{B}$		minimum elong	13948 Sep 28 14:35	20° $\text{B}$ 24'48	0°16'15
desc. node	13947 Nov 12 18:48	26° $\text{B}$ 24'14			13948 Oct 03 05:37	0° $\text{B}$	
evening max el	13947 Nov 13 00:27	26° $\text{B}$ 38'11	22°08'18	evening rise	13948 Oct 06 06:40	6° $\text{B}$ 21'05	
	13947 Nov 17 01:54	0° $\text{B}$			13948 Oct 19 03:42	0° $\text{B}$	
retrograde	13947 Nov 25 16:26	2° $\text{B}$ 54'39		evening max el	13948 Oct 24 21:25	7° $\text{B}$ 03'59	20°37'37
evening set	13947 Nov 29 01:25	2° $\text{B}$ 29'28		desc. node	13948 Oct 29 16:08	10° $\text{B}$ 49'11	
	13947 Dec 05 03:41	30° $\text{R}$ $\text{B}$		retrograde	13948 Nov 05 02:57	12° $\text{B}$ 38'59	
inferior conj	13947 Dec 07 17:13	28° $\text{B}$ 35'13	-5°53'30	evening set	13948 Nov 07 10:16	12° $\text{B}$ 25'56	
minimum elong	13947 Dec 07 13:29	28° $\text{B}$ 40'28	5°52'11	inferior conj	13948 Nov 16 08:59	8° $\text{B}$ 31'30	-4°59'50
min. Earth dist.	13947 Dec 07 06:32	28° $\text{B}$ 50'11	0.54585 AU	minimum elong	13948 Nov 15 23:12	8° $\text{B}$ 45'37	4°56'33
morning rise	13947 Dec 16 02:34	24° $\text{B}$ 48'00		min. Earth dist.	13948 Nov 17 12:49	7° $\text{B}$ 51'22	0.54619 AU
direct	13947 Dec 19 13:12	24° $\text{B}$ 21'36		morning rise	13948 Nov 24 11:59	4° $\text{B}$ 34'29	
	13947 Dec 31 11:38	0° $\text{B}$		direct	13948 Nov 28 21:38	3° $\text{B}$ 52'56	
morning max el	13947 Dec 31 15:55	0° $\text{B}$ 10'05	21°41'01	morning max el	13948 Dec 12 04:22	10° $\text{B}$ 20'44	23°27'32
asc. node	13948 Jan 07 01:38	7° $\text{B}$ 44'11		asc. node	13948 Dec 23 22:46	25° $\text{B}$ 36'55	
	13948 Jan 19 14:18	0° $\approx$			13948 Dec 26 12:35	0° $\text{B}$	

morning set	13949 Jan 04 18:03	18° $\text{Z}$ 14'03		morning rise	13949 Nov 04 08:19	14° $\text{M}$ 20'03	
	13949 Jan 10 04:25	0° $\approx$		direct	13949 Nov 09 14:42	13° $\text{M}$ 17'40	
				morning max el	13949 Nov 23 14:09	20° $\text{M}$ 18'51	25°14'50
superior conj	13949 Jan 11 15:10	3° $\approx$ 08'20	1°33'20		13949 Dec 01 20:57	0° $\text{Z}$	
minimum elong	13949 Jan 11 16:31	3° $\approx$ 15'35	1°34'10	asc. node	13949 Dec 10 19:50	14° $\text{Z}$ 12'59	
max. Earth dist.	13949 Jan 14 13:24	9° $\approx$ 23'42	1.33116 AU		13949 Dec 18 20:48	0° $\text{Z}$	
evening rise	13949 Jan 19 09:20	19° $\approx$ 18'58		morning set	13949 Dec 20 05:49	2° $\text{Z}$ 55'53	
	13949 Jan 24 23:29	0° $\text{X}$					
desc. node	13949 Jan 25 15:19	1° $\text{X}$ 12'06		superior conj	13949 Dec 27 00:09	17° $\text{Z}$ 47'35	1°37'53
	13949 Feb 13 02:33	0° $\text{Y}$		minimum elong	13949 Dec 27 00:25	17° $\text{Z}$ 49'02	1°38'55
evening max el	13949 Feb 22 16:01	10° $\text{Y}$ 56'36	27°23'00	max. Earth dist.	13949 Dec 28 15:50	21° $\text{Z}$ 25'46	1.31960 AU
retrograde	13949 Mar 08 06:57	18° $\text{Y}$ 24'26			13950 Jan 01 15:23	0° $\approx$	
evening set	13949 Mar 15 00:57	15° $\text{Y}$ 54'57		evening rise	13950 Jan 03 05:24	3° $\approx$ 18'13	
min. Earth dist.	13949 Mar 18 21:14	12° $\text{Y}$ 24'59	0.64536 AU	desc. node	13950 Jan 12 12:03	21° $\approx$ 07'07	
inferior conj	13949 Mar 21 09:28	9° $\text{Y}$ 43'19	-0°08'18		13950 Jan 17 18:16	0° $\text{X}$	
minimum elong	13949 Mar 21 09:43	9° $\text{Y}$ 42'39	0°08'16	evening max el	13950 Feb 05 02:51	23° $\text{X}$ 54'29	27°33'39
transit middle	13949 Mar 21 09:43	9° $\text{Y}$ 42'39	0°08'16		13950 Feb 13 12:27	0° $\text{Y}$	
transit begin	13949 Mar 21 07:05	9° $\text{Y}$ 49'45		retrograde	13950 Feb 18 23:48	1° $\text{Y}$ 18'44	
transit end	13949 Mar 21 12:21	9° $\text{Y}$ 35'33			13950 Feb 24 04:07	30° $\text{R}$ $\text{X}$	
asc. node	13949 Mar 21 19:49	9° $\text{Y}$ 15'32		evening set	13950 Feb 25 21:20	28° $\text{X}$ 59'06	
morning rise	13949 Mar 27 20:26	4° $\text{Y}$ 18'51		min. Earth dist.	13950 Mar 01 15:25	25° $\text{X}$ 56'23	0.62536 AU
direct	13949 Mar 30 10:30	3° $\text{Y}$ 44'24		inferior conj	13950 Mar 04 13:47	23° $\text{X}$ 07'46	-1°20'52
morning max el	13949 Apr 05 18:53	7° $\text{Y}$ 01'07	17°52'02	minimum elong	13950 Mar 04 16:31	23° $\text{X}$ 01'11	1°19'31
	13949 Apr 21 08:49	0° $\text{Z}$		asc. node	13950 Mar 08 17:18	19° $\text{X}$ 32'28	
morning set	13949 Apr 23 00:46	2° $\text{Z}$ 46'56		morning rise	13950 Mar 11 14:27	17° $\text{X}$ 59'58	
desc. node	13949 Apr 23 17:40	3° $\text{Z}$ 57'32		direct	13950 Mar 13 21:05	17° $\text{X}$ 36'05	
				morning max el	13950 Mar 20 12:34	20° $\text{X}$ 58'32	17°46'41
superior conj	13949 May 06 16:13	25° $\text{Z}$ 09'02	-1°29'44		13950 Mar 27 09:12	0° $\text{Y}$	
minimum elong	13949 May 06 07:38	24° $\text{Z}$ 34'38	1°29'35	morning set	13950 Apr 05 12:05	15° $\text{Y}$ 30'35	
	13949 May 09 17:24	0° $\text{II}$		desc. node	13950 Apr 10 14:16	24° $\text{Y}$ 23'48	
max. Earth dist.	13949 May 11 05:58	2° $\text{II}$ 24'18	1.45356 AU		13950 Apr 13 20:37	0° $\text{Z}$	
evening rise	13949 May 22 13:10	19° $\text{II}$ 56'02					
	13949 May 29 04:02	0° $\text{Z}$		superior conj	13950 Apr 17 07:33	5° $\text{Z}$ 49'17	-0°51'07
greatest brilliancy	13949 Jun 06 09:55	12° $\text{Z}$ 14'32	-0.6m	minimum elong	13950 Apr 17 02:33	5° $\text{Z}$ 28'25	0°50'56
asc. node	13949 Jun 17 17:16	26° $\text{Z}$ 59'53		max. Earth dist.	13950 Apr 23 23:20	16° $\text{Z}$ 42'41	1.44150 AU
evening max el	13949 Jun 18 08:48	27° $\text{Z}$ 39'46	19°58'57	evening rise	13950 May 02 01:39	29° $\text{Z}$ 27'05	
	13949 Jun 21 00:35	0° $\text{O}$			13950 May 02 10:11	0° $\text{II}$	
retrograde	13949 Jun 25 22:55	1° $\text{O}$ 58'36			13950 May 22 21:06	0° $\text{Z}$	
evening set	13949 Jun 29 20:20	0° $\text{O}$ 31'02		evening max el	13950 Jun 01 07:44	11° $\text{Z}$ 29'26	21°06'17
	13949 Jun 30 11:39	30° $\text{R}$ $\text{Z}$		asc. node	13950 Jun 04 14:19	14° $\text{Z}$ 21'52	
inferior conj	13949 Jul 05 03:32	24° $\text{Z}$ 30'54	3°10'35	retrograde	13950 Jun 09 21:52	16° $\text{Z}$ 29'09	
minimum elong	13949 Jul 05 04:00	24° $\text{Z}$ 29'18	3°09'34	evening set	13950 Jun 14 05:39	14° $\text{Z}$ 44'52	
min. Earth dist.	13949 Jul 06 02:45	23° $\text{Z}$ 12'23	0.67919 AU	inferior conj	13950 Jun 19 11:30	8° $\text{Z}$ 33'12	3°10'05
morning rise	13949 Jul 10 11:19	18° $\text{Z}$ 07'57		minimum elong	13950 Jun 19 10:59	8° $\text{Z}$ 35'00	3°09'00
direct	13949 Jul 16 04:18	15° $\text{Z}$ 37'28		min. Earth dist.	13950 Jun 19 21:07	7° $\text{Z}$ 59'47	0.68679 AU
desc. node	13949 Jul 20 17:24	16° $\text{Z}$ 54'41		morning rise	13950 Jun 24 16:05	2° $\text{Z}$ 14'43	
morning max el	13949 Jul 27 20:55	22° $\text{Z}$ 37'50	24°46'17		13950 Jun 29 08:06	30° $\text{R}$ $\text{II}$	
	13949 Aug 03 08:24	0° $\text{O}$		direct	13950 Jun 29 20:48	29° $\text{II}$ 58'42	
	13949 Aug 24 02:39	0° $\text{P}$			13950 Jun 30 09:39	0° $\text{Z}$	
morning set	13949 Sep 01 15:08	14° $\text{P}$ 22'00		desc. node	13950 Jul 07 14:41	3° $\text{Z}$ 40'41	
max. Earth dist.	13949 Sep 05 04:57	20° $\text{P}$ 46'43	1.37238 AU	morning max el	13950 Jul 10 07:45	6° $\text{Z}$ 12'08	23°17'04
	13949 Sep 10 03:08	0° $\text{O}$			13950 Jul 28 18:20	0° $\text{O}$	
				morning set	13950 Aug 13 23:23	25° $\text{O}$ 22'06	
superior conj	13949 Sep 12 01:06	3° $\text{O}$ 42'18	-0°15'56		13950 Aug 16 17:12	0° $\text{P}$	
minimum elong	13949 Sep 12 02:09	3° $\text{O}$ 47'24	0°15'47	max. Earth dist.	13950 Aug 18 03:03	2° $\text{P}$ 25'30	1.39592 AU
behind sun begin	13949 Sep 12 00:45	3° $\text{O}$ 40'34					
behind sun end	13949 Sep 12 03:33	3° $\text{O}$ 54'15		superior conj	13950 Aug 25 20:26	16° $\text{P}$ 14'59	-0°50'55
asc. node	13949 Sep 13 18:32	7° $\text{O}$ 05'46		minimum elong	13950 Aug 26 00:12	16° $\text{P}$ 32'23	0°50'38
evening rise	13949 Sep 20 10:37	20° $\text{O}$ 28'02		asc. node	13950 Aug 31 15:07	27° $\text{P}$ 09'25	
	13949 Sep 25 07:00	0° $\text{M}$			13950 Sep 02 02:35	0° $\text{O}$	
evening max el	13949 Oct 07 08:32	18° $\text{M}$ 15'37	19°26'56	evening rise	13950 Sep 04 07:10	4° $\text{O}$ 13'39	
retrograde	13949 Oct 16 22:34	23° $\text{M}$ 03'25			13950 Sep 20 02:20	0° $\text{M}$	
desc. node	13949 Oct 16 13:34	23° $\text{M}$ 03'00		evening max el	13950 Sep 20 08:30	0° $\text{M}$ 15'38	18°38'16
evening set	13949 Oct 18 19:33	22° $\text{M}$ 53'13		retrograde	13950 Sep 28 11:44	4° $\text{M}$ 21'43	
inferior conj	13949 Oct 27 11:31	18° $\text{M}$ 46'17	-3°23'01	evening set	13950 Sep 30 10:05	4° $\text{M}$ 08'37	
minimum elong	13949 Oct 27 03:00	19° $\text{M}$ 00'02	3°19'16	desc. node	13950 Oct 03 11:03	2° $\text{M}$ 59'57	
min. Earth dist.	13949 Oct 29 22:18	17° $\text{M}$ 11'29	0.55569 AU	inferior conj	13950 Oct 08 10:01	29° $\text{O}$ 42'33	-1°34'38

minimum elong	13950 Oct 08 06:10	29° $\Omega$ 49'47	1°32'39	evening set	13951 Sep 13 00:33	16° $\Omega$ 11'45	
	13950 Oct 08 00:43	30° $\kappa$ $\Omega$		inferior conj	13951 Sep 20 06:08	11° $\Omega$ 24'49	0°01'55
min. Earth dist.	13950 Oct 11 13:48	27° $\Omega$ 20'39	0.57265 AU	minimum elong	13951 Sep 20 06:12	11° $\Omega$ 24'40	0°01'59
morning rise	13950 Oct 15 22:49	24° $\Omega$ 38'44		transit middle	13951 Sep 20 06:12	11° $\Omega$ 24'40	0°01'59
direct	13950 Oct 21 22:18	23° $\Omega$ 10'04		transit begin	13951 Sep 20 02:49	11° $\Omega$ 32'04	
	13950 Nov 04 12:44	0° $\mathbb{M}$		transit end	13951 Sep 20 09:34	11° $\Omega$ 17'14	
morning max el	13950 Nov 05 04:49	0° $\mathbb{M}$ 38'05	26°44'03	desc. node	13951 Sep 20 08:35	11° $\Omega$ 19'25	
	13950 Nov 25 21:44	0° $\mathcal{A}$		min. Earth dist.	13951 Sep 23 13:00	8° $\Omega$ 32'53	0.59417 AU
asc. node	13950 Nov 27 16:48	3° $\mathcal{A}$ 21'17		morning rise	13951 Sep 27 08:27	5° $\Omega$ 47'09	
morning set	13950 Dec 04 15:52	17° $\mathcal{A}$ 29'04		direct	13951 Oct 03 19:35	3° $\Omega$ 51'11	
	13950 Dec 10 08:29	0° $\mathcal{Z}$		morning max el	13951 Oct 18 03:01	11° $\Omega$ 38'16	27°40'46
					13951 Nov 01 12:46	0° $\mathbb{M}$	
superior conj	13950 Dec 11 11:22	2° $\mathcal{Z}$ 30'07	1°36'24	asc. node	13951 Nov 14 13:38	22° $\mathbb{M}$ 52'50	
minimum elong	13950 Dec 11 10:34	2° $\mathcal{Z}$ 25'42	1°37'26		13951 Nov 18 01:41	0° $\mathcal{A}$	
max. Earth dist.	13950 Dec 11 22:47	3° $\mathcal{Z}$ 33'50	1.31306 AU	morning set	13951 Nov 18 22:25	1° $\mathcal{A}$ 48'53	
evening rise	13950 Dec 18 08:20	17° $\mathcal{Z}$ 33'39					
	13950 Dec 24 12:04	0° $\approx$		superior conj	13951 Nov 25 22:53	17° $\mathcal{A}$ 10'16	1°29'03
desc. node	13950 Dec 30 08:52	10° $\approx$ 36'55		minimum elong	13951 Nov 25 21:14	17° $\mathcal{A}$ 01'01	1°29'55
	13951 Jan 12 15:45	0° $\mathcal{H}$		max. Earth dist.	13951 Nov 25 06:58	15° $\mathcal{A}$ 41'26	1.31171 AU
evening max el	13951 Jan 18 08:51	6° $\mathcal{H}$ 10'17	27°11'09		13951 Dec 01 17:47	0° $\mathcal{Z}$	
retrograde	13951 Feb 01 08:22	13° $\mathcal{H}$ 26'20		evening rise	13951 Dec 02 15:56	1° $\mathcal{Z}$ 59'44	
evening set	13951 Feb 08 03:11	11° $\mathcal{H}$ 24'51		desc. node	13951 Dec 17 05:48	29° $\mathcal{Z}$ 31'57	
min. Earth dist.	13951 Feb 11 23:20	8° $\mathcal{H}$ 41'12	0.60361 AU		13951 Dec 17 12:52	0° $\approx$	
inferior conj	13951 Feb 15 03:33	6° $\mathcal{H}$ 00'48	-2°42'48	evening max el	13951 Dec 31 07:44	17° $\approx$ 36'07	26°14'11
minimum elong	13951 Feb 15 09:28	5° $\mathcal{H}$ 48'20	2°40'02	retrograde	13952 Jan 14 06:41	24° $\approx$ 41'10	
morning rise	13951 Feb 22 18:58	1° $\mathcal{H}$ 12'24		evening set	13952 Jan 20 14:40	23° $\approx$ 05'16	
asc. node	13951 Feb 23 14:48	1° $\mathcal{H}$ 01'37		min. Earth dist.	13952 Jan 24 21:09	20° $\approx$ 28'32	0.58204 AU
direct	13951 Feb 24 20:33	0° $\mathcal{H}$ 55'26		inferior conj	13952 Jan 27 23:15	18° $\approx$ 13'13	-4°07'16
morning max el	13951 Mar 04 03:39	4° $\mathcal{H}$ 34'18	17°59'42	minimum elong	13952 Jan 28 07:49	17° $\approx$ 57'32	4°03'49
morning set	13951 Mar 19 17:22	29° $\mathcal{H}$ 03'47		morning rise	13952 Feb 05 03:58	13° $\approx$ 46'06	
	13951 Mar 20 05:34	0° $\mathcal{Y}$		direct	13952 Feb 07 04:43	13° $\approx$ 32'22	
desc. node	13951 Mar 28 10:46	14° $\mathcal{Y}$ 56'20		asc. node	13952 Feb 10 12:14	14° $\approx$ 10'58	
				morning max el	13952 Feb 15 12:20	17° $\approx$ 37'48	18°32'45
superior conj	13951 Mar 29 22:47	17° $\mathcal{Y}$ 35'25	-0°11'59		13952 Feb 24 08:49	0° $\mathcal{H}$	
minimum elong	13951 Mar 29 21:45	17° $\mathcal{Y}$ 30'54	0°12'01	morning set	13952 Mar 02 11:17	13° $\mathcal{H}$ 11'15	
behind sun begin	13951 Mar 29 16:27	17° $\mathcal{Y}$ 07'35					
behind sun end	13951 Mar 30 03:03	17° $\mathcal{Y}$ 54'11		superior conj	13952 Mar 11 10:56	0° $\mathcal{Y}$ 19'00	0°22'57
	13951 Apr 06 05:06	0° $\mathcal{B}$		minimum elong	13952 Mar 11 12:30	0° $\mathcal{Y}$ 26'13	0°22'48
max. Earth dist.	13951 Apr 06 12:02	0° $\mathcal{B}$ 28'44	1.42389 AU		13952 Mar 11 06:51	0° $\mathcal{Y}$	
evening rise	13951 Apr 12 03:15	9° $\mathcal{B}$ 37'33		desc. node	13952 Mar 14 07:14	5° $\mathcal{Y}$ 31'53	
	13951 Apr 25 12:18	0° $\mathbb{I}$		max. Earth dist.	13952 Mar 18 20:36	13° $\mathcal{Y}$ 35'55	1.40265 AU
evening max el	13951 May 15 01:33	25° $\mathbb{I}$ 19'32	22°23'15	evening rise	13952 Mar 23 01:19	20° $\mathcal{Y}$ 43'34	
	13951 May 20 23:43	0° $\mathcal{E}$			13952 Mar 28 18:30	0° $\mathcal{B}$	
asc. node	13951 May 22 11:29	0° $\mathcal{E}$ 38'45			13952 Apr 18 15:44	0° $\mathbb{I}$	
retrograde	13951 May 24 19:22	1° $\mathcal{E}$ 03'20		evening max el	13952 Apr 26 16:21	9° $\mathbb{I}$ 12'02	23°44'17
	13951 May 28 07:24	30° $\kappa$ $\mathbb{I}$		retrograde	13952 May 07 14:01	15° $\mathbb{I}$ 36'26	
evening set	13951 May 29 14:13	29° $\mathbb{I}$ 03'31		asc. node	13952 May 08 08:44	15° $\mathbb{I}$ 33'43	
inferior conj	13951 Jun 03 21:05	22° $\mathbb{I}$ 42'23	2°58'45	evening set	13952 May 12 20:27	13° $\mathbb{I}$ 22'55	
minimum elong	13951 Jun 03 19:43	22° $\mathbb{I}$ 47'10	2°57'32	min. Earth dist.	13952 May 17 14:18	7° $\mathbb{I}$ 50'14	0.68781 AU
min. Earth dist.	13951 Jun 03 17:42	22° $\mathbb{I}$ 54'15	0.68964 AU	inferior conj	13952 May 18 06:23	6° $\mathbb{I}$ 55'11	2°37'07
morning rise	13951 Jun 09 01:04	16° $\mathbb{I}$ 30'17		minimum elong	13952 May 18 04:26	7° $\mathbb{I}$ 01'53	2°35'46
direct	13951 Jun 13 17:07	14° $\mathbb{I}$ 32'44		morning rise	13952 May 23 12:24	0° $\mathbb{I}$ 50'51	
morning max el	13951 Jun 22 21:09	19° $\mathbb{I}$ 53'55	21°49'28		13952 May 24 18:56	30° $\kappa$ $\mathcal{B}$	
desc. node	13951 Jun 24 11:49	21° $\mathbb{I}$ 35'07		direct	13952 May 27 15:59	29° $\mathcal{B}$ 13'42	
	13951 Jul 01 09:18	0° $\mathcal{E}$			13952 May 30 17:27	0° $\mathbb{I}$	
	13951 Jul 21 22:31	0° $\Omega$		morning max el	13952 Jun 04 16:18	3° $\mathbb{I}$ 46'27	20°30'41
morning set	13951 Jul 25 06:48	5° $\Omega$ 16'46		desc. node	13952 Jun 10 08:50	10° $\mathbb{I}$ 19'57	
max. Earth dist.	13951 Jul 31 04:41	14° $\Omega$ 53'02	1.41868 AU		13952 Jun 24 07:00	0° $\mathcal{E}$	
				morning set	13952 Jul 03 16:15	14° $\mathcal{E}$ 15'29	
superior conj	13951 Aug 07 21:00	27° $\Omega$ 57'02	-1°25'39	max. Earth dist.	13952 Jul 12 13:21	28° $\mathcal{E}$ 14'29	1.43796 AU
minimum elong	13951 Aug 08 03:28	28° $\Omega$ 25'19	1°25'27		13952 Jul 13 15:34	0° $\Omega$	
	13951 Aug 09 01:01	0° $\mathbb{M}$					
asc. node	13951 Aug 18 11:41	17° $\mathbb{M}$ 05'34		superior conj	13952 Jul 18 22:54	8° $\Omega$ 40'46	-1°54'58
evening rise	13951 Aug 18 16:29	17° $\mathbb{M}$ 27'42		minimum elong	13952 Jul 19 06:04	9° $\Omega$ 10'29	1°55'17
	13951 Aug 25 15:23	0° $\Omega$		evening rise	13952 Jul 31 10:01	29° $\Omega$ 59'08	
evening max el	13951 Sep 03 17:16	12° $\Omega$ 55'19	18°10'38		13952 Jul 31 10:13	0° $\mathbb{M}$	
retrograde	13951 Sep 10 19:35	16° $\Omega$ 32'12		asc. node	13952 Aug 04 08:17	6° $\mathbb{M}$ 50'20	

evening max el	13952 Aug 17 06:43	26° $\cap$ 04'41	18°02'33	evening rise	13953 Jul 13 06:37	11° $\Omega$ 35'53	
retrograde	13952 Aug 23 19:02	29° $\cap$ 26'51		asc. node	13953 Jul 22 05:00	26° $\Omega$ 18'42	
evening set	13952 Aug 26 08:06	28° $\cap$ 55'24			13953 Jul 24 13:30	0° $\cap$	
inferior conj	13952 Sep 01 21:15	23° $\cap$ 48'50	1°17'18	evening max el	13953 Jul 31 21:09	9° $\cap$ 34'12	18°13'00
minimum elong	13952 Sep 01 23:17	23° $\cap$ 43'41	1°16'23	retrograde	13953 Aug 07 05:41	12° $\cap$ 55'52	
min. Earth dist.	13952 Sep 04 21:16	20° $\cap$ 48'31	0.61711 AU	evening set	13953 Aug 10 03:10	12° $\cap$ 10'42	
desc. node	13952 Sep 06 06:07	19° $\cap$ 32'42		inferior conj	13953 Aug 16 03:23	6° $\cap$ 46'50	2°11'07
morning rise	13952 Sep 08 11:55	17° $\cap$ 46'26		minimum elong	13953 Aug 16 05:51	6° $\cap$ 39'52	2°09'57
direct	13952 Sep 15 04:00	15° $\cap$ 27'36		min. Earth dist.	13953 Aug 18 15:19	3° $\cap$ 58'12	0.63885 AU
morning max el	13952 Sep 29 08:01	23° $\cap$ 25'44	27°58'43	morning rise	13953 Aug 22 06:52	0° $\cap$ 29'30	
	13952 Oct 05 05:17	0° $\Omega$			13953 Aug 22 22:46	30° $\mathbb{R}$ $\Omega$	
	13952 Oct 24 19:42	0° $\mathbb{L}$		desc. node	13953 Aug 24 03:37	29° $\Omega$ 14'18	
asc. node	13952 Oct 31 10:21	12° $\mathbb{L}$ 40'40		direct	13953 Aug 28 21:43	27° $\Omega$ 55'36	
morning set	13952 Nov 01 23:28	15° $\mathbb{L}$ 49'52			13953 Sep 04 10:53	0° $\cap$	
max. Earth dist.	13952 Nov 07 12:37	27° $\mathbb{L}$ 38'55	1.31575 AU	morning max el	13953 Sep 11 17:34	5° $\cap$ 55'42	27°39'12
	13952 Nov 08 14:20	0° $\mathbb{X}$			13953 Sep 30 02:02	0° $\Omega$	
				morning set	13953 Oct 16 16:40	29° $\Omega$ 26'53	
superior conj	13952 Nov 09 08:51	1° $\mathbb{X}$ 42'11	1°15'56		13953 Oct 16 23:19	0° $\mathbb{L}$	
minimum elong	13952 Nov 09 06:40	1° $\mathbb{X}$ 30'04	1°16'31	asc. node	13953 Oct 18 06:59	2° $\mathbb{L}$ 39'37	
evening rise	13952 Nov 16 02:12	16° $\mathbb{X}$ 30'45		max. Earth dist.	13953 Oct 21 12:03	9° $\mathbb{L}$ 18'38	1.32523 AU
	13952 Nov 22 15:39	0° $\mathbb{Z}$					
desc. node	13952 Dec 03 02:51	17° $\mathbb{Z}$ 38'11		superior conj	13953 Oct 24 15:19	16° $\mathbb{L}$ 00'40	0°57'05
evening max el	13952 Dec 11 22:15	28° $\mathbb{Z}$ 10'48	24°47'56	minimum elong	13953 Oct 24 13:04	15° $\mathbb{L}$ 48'33	0°57'22
	13952 Dec 13 23:11	0° $\approx$			13953 Oct 31 01:46	0° $\mathbb{X}$	
retrograde	13952 Dec 25 16:23	5° $\approx$ 03'15		evening rise	13953 Oct 31 13:19	1° $\mathbb{X}$ 02'07	
evening set	13952 Dec 31 03:36	3° $\approx$ 56'58			13953 Nov 16 10:11	0° $\mathbb{Z}$	
min. Earth dist.	13953 Jan 05 10:07	1° $\approx$ 11'00	0.56318 AU	desc. node	13953 Nov 20 00:01	4° $\mathbb{Z}$ 37'43	
	13953 Jan 07 06:54	30° $\mathbb{R}$ $\mathbb{Z}$		evening max el	13953 Nov 23 07:58	8° $\mathbb{Z}$ 13'00	23°06'22
inferior conj	13953 Jan 07 22:11	29° $\mathbb{Z}$ 35'33	-5°19'43	retrograde	13953 Dec 06 13:19	14° $\mathbb{Z}$ 47'07	
minimum elong	13953 Jan 08 06:12	29° $\mathbb{Z}$ 22'46	5°17'11	evening set	13953 Dec 10 17:44	14° $\mathbb{Z}$ 09'04	
morning rise	13953 Jan 16 10:57	25° $\mathbb{Z}$ 29'51		min. Earth dist.	13953 Dec 17 17:27	10° $\mathbb{Z}$ 54'29	0.54992 AU
direct	13953 Jan 18 18:01	25° $\mathbb{Z}$ 15'17		inferior conj	13953 Dec 19 01:34	10° $\mathbb{Z}$ 08'20	-5°57'00
asc. node	13953 Jan 27 09:36	28° $\mathbb{Z}$ 59'19		minimum elong	13953 Dec 19 03:10	10° $\mathbb{Z}$ 06'01	5°55'53
	13953 Jan 28 11:55	0° $\approx$		morning rise	13953 Dec 27 14:09	6° $\mathbb{Z}$ 18'35	
morning max el	13953 Jan 28 10:22	29° $\mathbb{Z}$ 56'13	19°27'54	direct	13953 Dec 30 12:31	5° $\mathbb{Z}$ 58'20	
morning set	13953 Feb 14 13:41	27° $\approx$ 39'45		morning max el	13954 Jan 10 18:31	11° $\mathbb{Z}$ 21'13	20°46'18
	13953 Feb 15 17:37	0° $\mathbb{X}$		asc. node	13954 Jan 14 06:52	15° $\mathbb{Z}$ 12'50	
					13954 Jan 23 16:22	0° $\approx$	
superior conj	13953 Feb 22 15:24	13° $\mathbb{X}$ 46'21	0°51'31	morning set	13954 Jan 29 21:30	12° $\approx$ 20'15	
minimum elong	13953 Feb 22 18:01	13° $\mathbb{X}$ 59'10	0°51'31				
max. Earth dist.	13953 Mar 01 03:07	26° $\mathbb{X}$ 03'24	1.38005 AU	superior conj	13954 Feb 06 07:56	27° $\approx$ 45'52	1°13'07
desc. node	13953 Mar 01 03:44	26° $\mathbb{X}$ 06'11		minimum elong	13954 Feb 06 10:31	27° $\approx$ 59'08	1°13'26
	13953 Mar 03 07:29	0° $\mathbb{Y}$			13954 Feb 07 10:17	0° $\mathbb{X}$	
evening rise	13953 Mar 04 20:10	2° $\mathbb{Y}$ 42'19		max. Earth dist.	13954 Feb 11 11:34	8° $\mathbb{X}$ 02'36	1.35845 AU
	13953 Mar 21 21:48	0° $\mathbb{B}$		evening rise	13954 Feb 15 09:12	15° $\mathbb{X}$ 26'16	
evening max el	13953 Apr 09 05:56	23° $\mathbb{B}$ 05'18	25°02'51	desc. node	13954 Feb 16 00:16	16° $\mathbb{X}$ 35'44	
	13953 Apr 20 11:36	0° $\mathbb{I}$			13954 Feb 23 16:24	0° $\mathbb{Y}$	
retrograde	13953 Apr 21 04:40	0° $\mathbb{I}$ 01'59			13954 Mar 16 11:51	0° $\mathbb{B}$	
	13953 Apr 21 21:28	30° $\mathbb{R}$ $\mathbb{B}$		evening max el	13954 Mar 22 19:27	6° $\mathbb{B}$ 55'12	26°11'47
asc. node	13953 Apr 25 06:05	28° $\mathbb{B}$ 51'22		retrograde	13954 Apr 04 14:29	14° $\mathbb{B}$ 13'18	
evening set	13953 Apr 26 22:45	27° $\mathbb{B}$ 37'36		evening set	13954 Apr 10 19:28	11° $\mathbb{B}$ 42'13	
min. Earth dist.	13953 May 01 08:46	22° $\mathbb{B}$ 41'15	0.68134 AU	asc. node	13954 Apr 12 03:29	10° $\mathbb{B}$ 29'37	
inferior conj	13953 May 02 13:28	21° $\mathbb{B}$ 07'02	2°05'09	min. Earth dist.	13954 Apr 14 23:01	7° $\mathbb{B}$ 21'11	0.67044 AU
minimum elong	13953 May 02 11:19	21° $\mathbb{B}$ 14'07	2°03'47	inferior conj	13954 Apr 16 16:20	5° $\mathbb{B}$ 13'42	1°22'24
morning rise	13953 May 08 00:10	15° $\mathbb{B}$ 11'46		minimum elong	13954 Apr 16 14:31	5° $\mathbb{B}$ 19'20	1°21'16
direct	13953 May 11 15:54	13° $\mathbb{B}$ 55'04			13954 Apr 21 15:49	30° $\mathbb{R}$ $\mathbb{Y}$	
morning max el	13953 May 18 18:59	17° $\mathbb{B}$ 50'07	19°25'23	morning rise	13954 Apr 22 10:24	29° $\mathbb{Y}$ 28'56	
desc. node	13953 May 28 05:43	29° $\mathbb{B}$ 41'15		direct	13954 Apr 25 15:08	28° $\mathbb{Y}$ 31'02	
	13953 May 28 10:58	0° $\mathbb{I}$			13954 Apr 29 18:32	0° $\mathbb{B}$	
greatest brilliancy	13953 May 31 10:43	4° $\mathbb{I}$ 20'37	-0.7m	morning max el	13954 May 02 04:49	2° $\mathbb{B}$ 01'35	18°35'51
morning set	13953 Jun 12 18:23	23° $\mathbb{I}$ 00'01		desc. node	13954 May 15 02:31	19° $\mathbb{B}$ 29'14	
	13953 Jun 17 07:15	0° $\mathbb{G}$			13954 May 21 20:26	0° $\mathbb{I}$	
max. Earth dist.	13953 Jun 25 04:26	12° $\mathbb{G}$ 18'12	1.45152 AU	morning set	13954 May 23 10:26	2° $\mathbb{I}$ 28'59	
superior conj	13953 Jun 29 01:27	18° $\mathbb{G}$ 26'26	-2°11'55	superior conj	13954 Jun 08 11:48	27° $\mathbb{I}$ 35'08	-2°10'10
minimum elong	13953 Jun 29 04:36	18° $\mathbb{G}$ 38'58	2°12'52	minimum elong	13954 Jun 08 07:16	27° $\mathbb{I}$ 17'26	2°11'03
	13953 Jul 06 05:40	0° $\Omega$		max. Earth dist.	13954 Jun 07 23:16	26° $\mathbb{I}$ 46'13	1.45813 AU



























































































































	13954 Jun 10 00:53	0°☿		evening rise	13955 Jun 04 00:33	1°☿53'00	
evening rise	13954 Jun 24 02:40	22°☿10'20		greatest brilliancy	13955 Jun 16 22:50	21°☿35'04	-0.7m
	13954 Jun 29 00:54	0°♊			13955 Jun 22 20:23	0°♊	
greatest brilliancy	13954 Jul 01 21:51	4°♊32'20	-0.8m	asc. node	13955 Jun 25 22:41	3°♊58'05	
asc. node	13954 Jul 09 01:47	15°♊23'52		evening max el	13955 Jun 28 17:35	7°♊03'19	19°26'12
evening max el	13954 Jul 15 09:31	23°♊15'33	18°41'13	retrograde	13955 Jul 05 20:50	11°♊02'52	
retrograde	13954 Jul 21 23:19	26°♊50'00		evening set	13955 Jul 09 12:29	9°♊45'21	
evening set	13954 Jul 25 05:37	25°♊49'12		inferior conj	13955 Jul 14 21:40	3°♊52'41	3°05'31
inferior conj	13954 Jul 30 20:37	20°♊10'11	2°46'09	minimum elong	13955 Jul 14 22:44	3°♊49'11	3°04'29
minimum elong	13954 Jul 30 22:36	20°♊04'05	2°45'02	min. Earth dist.	13955 Jul 16 05:06	2°♊09'09	0.67264 AU
min. Earth dist.	13954 Aug 01 18:28	17°♊48'49	0.65769 AU		13955 Jul 17 22:21	30°☿	
morning rise	13954 Aug 05 14:36	13°♊46'11		morning rise	13955 Jul 20 08:26	27°☿28'07	
desc. node	13954 Aug 11 01:06	11°♊09'38		direct	13955 Jul 26 07:56	24°☿51'41	
direct	13954 Aug 11 23:25	11°♊06'27		desc. node	13955 Jul 28 22:31	25°☿17'09	
morning max el	13954 Aug 25 04:53	18°♊56'04	26°48'19		13955 Aug 05 07:30	0°♊	
	13954 Sep 03 14:10	0°♎		morning max el	13955 Aug 07 15:48	2°♊14'47	25°34'49
	13954 Sep 23 02:19	0°♏			13955 Aug 28 16:53	0°♎	
morning set	13954 Sep 29 23:04	12°♏32'13		morning set	13955 Sep 12 14:59	24°♎57'08	
max. Earth dist.	13954 Oct 04 02:02	20°♏36'00	1.33999 AU		13955 Sep 15 08:44	0°♏	
asc. node	13954 Oct 05 03:35	22°♏44'41		max. Earth dist.	13955 Sep 16 06:00	1°♏39'57	1.35952 AU
superior conj	13954 Oct 08 15:56	29°♏59'15	0°32'38	superior conj	13955 Sep 22 07:59	13°♏31'16	0°03'03
minimum elong	13954 Oct 08 14:18	29°♏50'44	0°32'44	minimum elong	13955 Sep 22 07:48	13°♏30'19	0°03'09
	13954 Oct 08 16:04	0°♐		behind sun begin	13955 Sep 22 01:38	12°♏59'29	
evening rise	13954 Oct 15 23:21	15°♐28'11		behind sun end	13955 Sep 22 13:57	14°♏01'13	
	13954 Oct 23 05:28	0°♑		asc. node	13955 Sep 22 00:11	12°♏52'10	
evening max el	13954 Nov 04 22:11	18°♑19'36	21°27'36	evening rise	13955 Sep 30 06:13	29°♏43'49	
desc. node	13954 Nov 06 21:18	20°♑06'41			13955 Sep 30 09:22	0°♐	
retrograde	13954 Nov 17 01:15	24°♑20'38		evening max el	13955 Oct 18 01:06	29°♐03'58	20°04'56
evening set	13954 Nov 19 21:26	24°♑02'06			13955 Oct 19 00:39	0°♑	
inferior conj	13954 Nov 28 17:36	20°♑09'03	-5°37'44	desc. node	13955 Oct 24 18:41	3°♑38'26	
minimum elong	13954 Nov 28 10:28	20°♑19'05	5°35'40	retrograde	13955 Oct 28 13:57	4°♑18'38	
min. Earth dist.	13954 Nov 28 23:24	20°♑00'55	0.54482 AU	evening set	13955 Oct 30 14:51	4°♑07'46	
morning rise	13954 Dec 07 00:12	16°♑20'09		inferior conj	13955 Nov 08 12:22	0°♑09'40	-4°22'15
direct	13954 Dec 10 20:21	15°♑48'13		minimum elong	13955 Nov 08 02:20	0°♑24'43	4°18'24
morning max el	13954 Dec 23 12:48	21°♑54'20	22°25'09		13955 Nov 08 18:48	30°♐	
	13954 Dec 30 09:49	0°♒		min. Earth dist.	13955 Nov 10 07:04	29°♐05'35	0.54917 AU
asc. node	13955 Jan 01 04:04	2°♒33'54		morning rise	13955 Nov 16 12:44	26°♐01'45	
morning set	13955 Jan 14 08:23	27°♒05'43		direct	13955 Nov 21 07:38	25°♐11'50	
	13955 Jan 15 17:09	0°♓			13955 Dec 02 18:29	0°♑	
				morning max el	13955 Dec 04 22:57	1°♑55'26	24°14'06
superior conj	13955 Jan 21 09:00	12°♓07'20	1°27'50	asc. node	13955 Dec 19 01:10	20°♑46'42	
minimum elong	13955 Jan 21 10:55	12°♓17'27	1°28'31		13955 Dec 24 02:04	0°♒	
max. Earth dist.	13955 Jan 25 02:05	19°♓52'53	1.33987 AU	morning set	13955 Dec 29 20:18	11°♒50'15	
evening rise	13955 Jan 29 12:52	28°♓46'28					
	13955 Jan 30 04:05	0°♈		superior conj	13956 Jan 05 15:46	26°♒42'12	1°36'00
desc. node	13955 Feb 02 20:54	6°♈56'23		minimum elong	13956 Jan 05 16:39	26°♒47'05	1°36'58
	13955 Feb 16 20:44	0°♉			13956 Jan 07 04:09	0°♓	
evening max el	13955 Mar 05 09:03	20°♉34'35	27°03'45	max. Earth dist.	13956 Jan 08 00:24	1°♓49'08	1.32563 AU
retrograde	13955 Mar 18 18:41	28°♉02'35		evening rise	13956 Jan 13 03:48	12°♓34'01	
evening set	13955 Mar 25 08:40	25°♉30'31		desc. node	13956 Jan 20 17:34	27°♓02'43	
min. Earth dist.	13955 Mar 29 07:07	21°♉42'43	0.65547 AU		13956 Jan 22 09:33	0°♈	
asc. node	13955 Mar 30 00:55	20°♉52'41			13956 Feb 12 04:09	0°♉	
inferior conj	13955 Mar 31 12:43	19°♉10'22	0°28'16	evening max el	13956 Feb 15 21:40	3°♉52'06	27°31'26
minimum elong	13955 Mar 31 11:57	19°♉12'32	0°27'44	retrograde	13956 Feb 29 16:05	11°♉19'35	
morning rise	13955 Apr 06 16:47	13°♉37'51		evening set	13956 Mar 07 11:58	8°♉53'33	
direct	13955 Apr 09 11:42	12°♉55'56		min. Earth dist.	13956 Mar 11 07:01	5°♉35'39	0.63709 AU
morning max el	13955 Apr 15 19:55	16°♉14'39	18°03'05	inferior conj	13956 Mar 13 23:49	2°♉49'19	-0°37'43
	13955 Apr 25 23:48	0°♊		minimum elong	13956 Mar 14 01:01	2°♉46'15	0°37'10
desc. node	13955 May 01 23:13	9°♊36'53		asc. node	13956 Mar 15 22:25	0°♉53'02	
morning set	13955 May 04 05:32	13°♊18'00			13956 Mar 16 21:39	30°♈	
	13955 May 14 14:09	0°♋		morning rise	13956 Mar 20 16:23	27°♈31'25	
				direct	13956 Mar 23 02:57	27°♈01'59	
superior conj	13955 May 18 22:04	6°♋51'03	-1°48'46		13956 Mar 29 05:01	0°♉	
minimum elong	13955 May 18 13:05	6°♋15'43	1°48'55	morning max el	13956 Mar 29 13:30	0°♉20'12	17°47'31
max. Earth dist.	13955 May 21 19:12	11°♋22'14	1.45731 AU	morning set	13956 Apr 15 03:45	25°♉25'02	
	13955 Jun 02 19:15	0°♌		desc. node	13956 Apr 17 19:51	29°♉57'49	

	13956 Apr 17 20:21	0°♄		minimum elong	13957 Apr 08 22:31	27°♄48'55	0°34'08
					13957 Apr 10 05:24	0°♄	
superior conj	13956 Apr 28 00:08	16°♄53'51	-1°13'52	max. Earth dist.	13957 Apr 16 06:03	9°♄59'20	1.43470 AU
minimum elong	13956 Apr 27 16:48	16°♄24'00	1°13'37	evening rise	13957 Apr 23 04:29	21°♄01'38	
max. Earth dist.	13956 May 03 14:07	25°♄51'25	1.44923 AU		13957 Apr 29 00:42	0°♄	
	13956 May 06 05:09	0°♄			13957 May 20 10:46	0°♄	
evening rise	13956 May 13 11:46	11°♄16'23		evening max el	13957 May 24 16:41	4°♄43'22	21°38'06
	13956 May 25 22:58	0°♄		asc. node	13957 May 29 16:46	8°♄46'43	
evening max el	13956 Jun 10 20:00	20°♄53'07	20°26'10	retrograde	13957 Jun 02 18:04	10°♄01'07	
asc. node	13956 Jun 11 19:41	21°♄50'11		evening set	13957 Jun 07 06:35	8°♄09'55	
retrograde	13956 Jun 18 19:40	25°♄28'14		inferior conj	13957 Jun 12 12:37	1°♄54'06	3°06'31
evening set	13956 Jun 22 21:25	23°♄53'37		minimum elong	13957 Jun 12 11:43	1°♄57'15	3°05'22
inferior conj	13956 Jun 28 03:45	17°♄48'39	3°11'44	min. Earth dist.	13957 Jun 12 16:37	1°♄40'09	0.68869 AU
minimum elong	13956 Jun 28 03:47	17°♄48'30	3°10'41		13957 Jun 13 21:38	30°♄	
min. Earth dist.	13956 Jun 28 21:11	16°♄48'50	0.68307 AU	morning rise	13957 Jun 17 16:40	25°♄38'24	
morning rise	13956 Jul 03 09:52	11°♄27'20		direct	13957 Jun 22 16:04	23°♄29'52	
direct	13956 Jul 08 21:51	9°♄02'05		desc. node	13957 Jul 01 17:04	28°♄30'19	
desc. node	13956 Jul 14 19:51	11°♄12'39		morning max el	13957 Jul 02 13:29	29°♄20'24	22°39'04
morning max el	13956 Jul 20 02:01	15°♄43'24	24°08'33		13957 Jul 03 04:58	0°♄	
	13956 Jul 31 20:06	0°♄			13957 Jul 25 13:37	0°♄	
	13956 Aug 20 15:32	0°♄		morning set	13957 Aug 05 09:47	17°♄02'47	
morning set	13956 Aug 24 12:00	6°♄30'43		max. Earth dist.	13957 Aug 10 03:45	24°♄57'11	1.40593 AU
max. Earth dist.	13956 Aug 28 04:17	12°♄57'20	1.38231 AU		13957 Aug 13 02:19	0°♄	
superior conj	13956 Sep 04 12:02	26°♄28'25	-0°30'35	superior conj	13957 Aug 17 23:54	8°♄40'42	-1°05'57
minimum elong	13956 Sep 04 14:10	26°♄38'35	0°30'21	minimum elong	13957 Aug 18 04:54	9°♄03'17	1°05'39
	13956 Sep 06 08:04	0°♄		asc. node	13957 Aug 25 17:19	22°♄59'22	
asc. node	13956 Sep 07 20:46	2°♄58'23		evening rise	13957 Aug 27 23:36	27°♄15'55	
evening rise	13956 Sep 13 07:21	13°♄42'29			13957 Aug 29 10:23	0°♄	
	13956 Sep 22 00:07	0°♄		evening max el	13957 Sep 12 22:19	22°♄54'56	18°24'00
evening max el	13956 Sep 29 18:10	10°♄37'21	19°03'39	retrograde	13957 Sep 20 13:32	26°♄47'01	
retrograde	13956 Oct 08 16:06	15°♄05'42		evening set	13957 Sep 22 14:26	26°♄31'12	
evening set	13956 Oct 10 12:52	14°♄54'45		desc. node	13957 Sep 27 13:36	24°♄00'14	
desc. node	13956 Oct 10 16:07	14°♄53'08		inferior conj	13957 Sep 30 06:26	21°♄55'50	-0°51'21
inferior conj	13956 Oct 18 22:42	10°♄40'20	-2°36'43	minimum elong	13957 Sep 30 04:28	21°♄59'47	0°50'16
minimum elong	13956 Oct 18 16:04	10°♄51'44	2°33'34	min. Earth dist.	13957 Oct 03 12:52	19°♄19'00	0.58141 AU
min. Earth dist.	13956 Oct 21 18:41	8°♄44'01	0.56215 AU	morning rise	13957 Oct 07 15:03	16°♄36'53	
morning rise	13956 Oct 26 16:28	5°♄58'45		direct	13957 Oct 13 20:10	14°♄56'47	
direct	13956 Nov 01 06:59	4°♄45'29		morning max el	13957 Oct 28 03:38	22°♄33'06	27°12'55
morning max el	13956 Nov 15 09:54	11°♄58'29	25°56'00		13957 Nov 03 18:39	0°♄	
	13956 Nov 29 08:16	0°♄		asc. node	13957 Nov 21 19:05	28°♄57'25	
asc. node	13956 Dec 04 22:11	9°♄38'14			13957 Nov 22 07:56	0°♄	
morning set	13956 Dec 13 07:33	26°♄29'28		morning set	13957 Nov 27 16:19	10°♄57'29	
	13956 Dec 14 22:23	0°♄					
superior conj	13956 Dec 20 01:56	11°♄24'04	1°37'59	superior conj	13957 Dec 04 13:27	26°♄05'55	1°34'00
minimum elong	13956 Dec 20 01:44	11°♄22'59	1°39'02	minimum elong	13957 Dec 04 12:16	25°♄59'16	1°34'59
max. Earth dist.	13956 Dec 21 05:18	13°♄55'48	1.31622 AU	max. Earth dist.	13957 Dec 04 13:23	26°♄05'33	1.31185 AU
evening rise	13956 Dec 27 03:07	26°♄41'47		evening rise	13957 Dec 06 07:21	0°♄	
	13956 Dec 28 17:30	0°♄			13957 Dec 20 22:44	0°♄	
desc. node	13957 Jan 06 14:20	16°♄48'41		desc. node	13957 Dec 24 11:11	6°♄05'13	
	13957 Jan 14 18:56	0°♄		evening max el	13958 Jan 10 10:15	28°♄30'01	26°50'58
evening max el	13957 Jan 28 07:04	16°♄34'59	27°28'25		13958 Jan 12 02:05	0°♄	
retrograde	13957 Feb 11 05:25	23°♄55'19		retrograde	13958 Jan 24 09:25	5°♄41'01	
evening set	13957 Feb 18 02:35	21°♄42'46		evening set	13958 Jan 31 01:02	3°♄49'29	
min. Earth dist.	13957 Feb 21 21:01	18°♄49'09	0.61628 AU	min. Earth dist.	13958 Feb 04 00:16	1°♄10'48	0.59436 AU
inferior conj	13957 Feb 24 22:26	16°♄02'22	-1°54'40		13958 Feb 05 12:28	30°♄	
minimum elong	13957 Feb 25 02:28	15°♄53'10	1°52'42	inferior conj	13958 Feb 07 04:53	28°♄39'07	-3°18'55
asc. node	13957 Mar 02 19:52	11°♄35'41		minimum elong	13958 Feb 07 12:06	28°♄24'46	3°15'42
morning rise	13957 Mar 04 05:18	11°♄02'06		morning rise	13958 Feb 15 02:19	23°♄59'39	
direct	13957 Mar 06 09:30	10°♄41'31		direct	13958 Feb 17 03:04	23°♄44'24	
morning max el	13957 Mar 13 06:26	14°♄09'40	17°49'49	asc. node	13958 Feb 17 17:19	23°♄45'45	
	13957 Mar 24 03:55	0°♄		morning max el	13958 Feb 24 19:14	27°♄32'52	18°11'12
morning set	13957 Mar 28 23:27	8°♄32'31			13958 Feb 27 00:33	0°♄	
desc. node	13957 Apr 04 16:24	20°♄27'35		morning set	13958 Mar 12 10:39	22°♄22'01	
					13958 Mar 16 12:18	0°♄	
superior conj	13957 Apr 09 01:44	28°♄02'34	-0°34'15				



superior conj	13958 Mar 22 02:23	10° $\Upsilon$ 14'49	0°03'33	superior conj	13959 Mar 04 22:01	23° $\text{H}$ 18'39	0°35'55
minimum elong	13958 Mar 22 02:38	10° $\Upsilon$ 15'59	0°03'26	minimum elong	13959 Mar 05 00:11	23° $\text{H}$ 28'58	0°35'47
behind sun begin	13958 Mar 21 19:13	9° $\Upsilon$ 42'36			13959 Mar 08 12:01	0° $\Upsilon$	
behind sun end	13958 Mar 22 10:04	10° $\Upsilon$ 49'17		desc. node	13959 Mar 09 09:23	1° $\Upsilon$ 37'34	
desc. node	13958 Mar 22 12:54	11° $\Upsilon$ 02'02		max. Earth dist.	13959 Mar 12 00:10	6° $\Upsilon$ 19'16	1.39299 AU
max. Earth dist.	13958 Mar 29 17:14	23° $\Upsilon$ 31'03	1.41522 AU	evening rise	13959 Mar 15 21:20	13° $\Upsilon$ 03'32	
	13958 Apr 02 15:00	0° $\text{B}$			13959 Mar 26 08:49	0° $\text{B}$	
evening rise	13958 Apr 03 14:18	1° $\text{B}$ 34'46			13959 Apr 17 14:24	0° $\text{II}$	
	13958 Apr 22 10:19	0° $\text{II}$		evening max el	13959 Apr 19 22:43	2° $\text{II}$ 26'42	24°18'25
evening max el	13958 May 07 08:52	18° $\text{II}$ 34'17	22°57'30	retrograde	13959 May 01 07:46	9° $\text{II}$ 06'53	
asc. node	13958 May 16 13:57	24° $\text{II}$ 31'21		asc. node	13959 May 03 11:13	8° $\text{II}$ 46'34	
retrograde	13958 May 17 14:32	24° $\text{II}$ 36'06		evening set	13959 May 06 19:09	6° $\text{II}$ 48'11	
evening set	13958 May 22 14:22	22° $\text{II}$ 29'52		min. Earth dist.	13959 May 11 09:23	1° $\text{II}$ 31'01	0.68555 AU
inferior conj	13958 May 27 22:19	16° $\text{II}$ 05'28	2°50'48	inferior conj	13959 May 12 06:54	0° $\text{II}$ 18'26	2°24'51
minimum elong	13958 May 27 20:39	16° $\text{II}$ 11'12	2°49'32	minimum elong	13959 May 12 04:48	0° $\text{II}$ 25'31	2°23'28
min. Earth dist.	13958 May 27 13:24	16° $\text{II}$ 36'23	0.68945 AU		13959 May 12 12:22	30° $\text{R}$ $\text{B}$	
morning rise	13958 Jun 02 02:52	9° $\text{II}$ 56'42		morning rise	13959 May 17 14:35	24° $\text{B}$ 17'47	
direct	13958 Jun 06 13:29	8° $\text{II}$ 07'59		direct	13959 May 21 12:55	22° $\text{B}$ 49'38	
morning max el	13958 Jun 15 05:11	13° $\text{II}$ 07'27	21°14'36	morning max el	13959 May 29 03:31	27° $\text{B}$ 05'16	20°01'04
desc. node	13958 Jun 18 14:10	16° $\text{II}$ 48'31			13959 May 31 20:13	0° $\text{II}$	
	13958 Jun 28 14:13	0° $\text{B}$		desc. node	13959 Jun 05 11:08	5° $\text{II}$ 50'24	
morning set	13958 Jul 16 07:03	26° $\text{B}$ 31'57			13959 Jun 21 23:50	0° $\text{B}$	
	13958 Jul 18 11:46	0° $\Omega$		morning set	13959 Jun 25 10:52	5° $\text{B}$ 17'42	
max. Earth dist.	13958 Jul 23 08:39	7° $\Omega$ 50'17	1.42745 AU	max. Earth dist.	13959 Jul 05 19:47	21° $\text{B}$ 29'57	1.44447 AU
superior conj	13958 Jul 30 15:13	19° $\Omega$ 58'55	-1°39'07	superior conj	13959 Jul 11 06:52	0° $\Omega$ 16'46	-2°04'07
minimum elong	13958 Jul 30 22:24	20° $\Omega$ 29'36	1°39'06	minimum elong	13959 Jul 11 13:00	0° $\Omega$ 41'42	2°04'44
	13958 Aug 05 09:30	0° $\text{B}$			13959 Jul 11 02:45	0° $\Omega$	
evening rise	13958 Aug 11 02:54	10° $\text{B}$ 14'13		evening rise	13959 Jul 24 12:08	22° $\Omega$ 23'46	
asc. node	13958 Aug 12 13:55	12° $\text{B}$ 51'43			13959 Jul 28 22:59	0° $\text{B}$	
	13958 Aug 22 17:28	0° $\text{B}$		asc. node	13959 Jul 30 10:33	2° $\text{B}$ 30'15	
evening max el	13958 Aug 27 09:31	5° $\text{B}$ 48'25	18°04'48	evening max el	13959 Aug 10 23:47	19° $\text{B}$ 07'26	18°04'47
retrograde	13958 Sep 03 04:45	9° $\text{B}$ 17'42		retrograde	13959 Aug 17 09:27	22° $\text{B}$ 27'49	
evening set	13958 Sep 05 12:57	8° $\text{B}$ 53'05		evening set	13959 Aug 20 01:59	21° $\text{B}$ 50'58	
inferior conj	13958 Sep 12 11:09	3° $\text{B}$ 57'24	0°36'36	inferior conj	13959 Aug 26 09:12	16° $\text{B}$ 37'02	1°42'35
minimum elong	13958 Sep 12 12:17	3° $\text{B}$ 54'44	0°36'08	minimum elong	13959 Aug 26 11:34	16° $\text{B}$ 30'44	1°41'30
desc. node	13958 Sep 14 11:07	2° $\text{B}$ 04'49		min. Earth dist.	13959 Aug 29 04:36	13° $\text{B}$ 39'07	0.62663 AU
min. Earth dist.	13958 Sep 15 15:56	0° $\text{B}$ 59'10	0.60388 AU	desc. node	13959 Sep 01 08:39	10° $\text{B}$ 46'20	
	13958 Sep 16 19:28	30° $\text{R}$ $\text{B}$		morning rise	13959 Sep 01 18:56	10° $\text{B}$ 26'57	
morning rise	13958 Sep 19 08:31	28° $\text{B}$ 07'36		direct	13959 Sep 08 11:13	8° $\text{B}$ 00'15	
direct	13958 Sep 25 22:19	26° $\text{B}$ 01'16		morning max el	13959 Sep 22 12:34	16° $\text{B}$ 01'26	27°54'35
	13958 Oct 05 17:45	0° $\text{B}$			13959 Oct 04 00:41	0° $\text{B}$	
morning max el	13958 Oct 10 05:14	3° $\text{B}$ 54'34	27°53'17		13959 Oct 22 04:48	0° $\text{B}$	
	13958 Oct 29 12:17	0° $\text{B}$		morning set	13959 Oct 26 18:48	9° $\text{B}$ 01'27	
asc. node	13958 Nov 08 15:54	18° $\text{B}$ 36'45		asc. node	13959 Oct 26 12:36	8° $\text{B}$ 29'58	
morning set	13958 Nov 11 20:47	25° $\text{B}$ 09'53		max. Earth dist.	13959 Nov 01 00:11	19° $\text{B}$ 59'19	1.31907 AU
	13958 Nov 14 03:27	0° $\text{B}$					
max. Earth dist.	13958 Nov 17 20:58	8° $\text{B}$ 09'46	1.31275 AU	superior conj	13959 Nov 03 09:16	25° $\text{B}$ 09'45	1°08'38
superior conj	13958 Nov 19 00:31	10° $\text{B}$ 42'50	1°24'12	minimum elong	13959 Nov 03 06:58	24° $\text{B}$ 57'14	1°09'05
minimum elong	13958 Nov 18 22:35	10° $\text{B}$ 32'04	1°24'57		13959 Nov 05 14:02	0° $\text{B}$	
evening rise	13958 Nov 25 17:11	25° $\text{B}$ 30'28		evening rise	13959 Nov 10 04:02	10° $\text{B}$ 01'56	
	13958 Nov 27 19:50	0° $\text{B}$			13959 Nov 20 05:55	0° $\text{B}$	
desc. node	13958 Dec 11 08:09	24° $\text{B}$ 41'10		desc. node	13959 Nov 28 05:15	12° $\text{B}$ 21'37	
	13958 Dec 15 00:16	0° $\approx$		evening max el	13959 Dec 04 16:51	19° $\text{B}$ 49'10	24°05'36
evening max el	13958 Dec 23 05:12	9° $\approx$ 31'43	25°40'19	retrograde	13959 Dec 18 07:26	26° $\text{B}$ 35'33	
retrograde	13959 Jan 06 02:48	16° $\approx$ 32'30		evening set	13959 Dec 23 06:09	25° $\text{B}$ 42'06	
evening set	13959 Jan 12 03:20	15° $\approx$ 08'39		min. Earth dist.	13959 Dec 29 04:15	22° $\text{B}$ 46'02	0.55658 AU
min. Earth dist.	13959 Jan 16 17:47	12° $\approx$ 30'21	0.57349 AU	inferior conj	13959 Dec 31 05:56	21° $\text{B}$ 30'48	-5°41'24
inferior conj	13959 Jan 19 15:48	10° $\approx$ 30'06	-4°40'43	minimum elong	13959 Dec 31 11:58	21° $\text{B}$ 21'39	5°39'36
minimum elong	13959 Jan 20 00:44	10° $\approx$ 14'43	4°37'27	morning rise	13960 Jan 08 19:38	17° $\text{B}$ 32'50	
morning rise	13959 Jan 28 00:54	6° $\approx$ 12'47		direct	13960 Jan 11 07:50	17° $\text{B}$ 16'39	
direct	13959 Jan 30 03:13	5° $\approx$ 59'18		morning max el	13960 Jan 21 16:26	22° $\text{B}$ 15'35	19°58'31
asc. node	13959 Feb 04 14:43	7° $\approx$ 37'54		asc. node	13960 Jan 22 12:04	23° $\text{B}$ 04'43	
morning max el	13959 Feb 07 23:56	10° $\approx$ 18'38	18°53'29		13960 Jan 27 22:44	0° $\approx$	
	13959 Feb 20 22:05	0° $\text{H}$		morning set	13960 Feb 08 13:37	21° $\approx$ 14'08	
morning set	13959 Feb 24 08:33	6° $\text{H}$ 39'20			13960 Feb 12 20:37	0° $\text{H}$	

superior conj	13960 Feb 16 08:08	7° $\text{H}$ 01'27	1°01'32	morning set	13961 Jan 22 23:01	5° $\approx$ 57'24	
minimum elong	13960 Feb 16 10:51	7° $\text{H}$ 15'00	1°01'38				
max. Earth dist.	13960 Feb 22 06:38	18° $\text{H}$ 31'36	1.37054 AU	superior conj	13961 Jan 30 04:39	21° $\approx$ 11'01	1°20'10
desc. node	13960 Feb 24 05:55	22° $\text{H}$ 10'46		minimum elong	13961 Jan 30 07:01	21° $\approx$ 23'17	1°20'39
evening rise	13960 Feb 26 00:25	25° $\text{H}$ 23'31		max. Earth dist.	13961 Feb 03 17:26	0° $\text{H}$ 25'15	1.35010 AU
	13960 Feb 28 15:00	0° $\text{Y}$			13961 Feb 03 12:22	0° $\text{H}$	
	13960 Mar 18 22:22	0° $\text{B}$		evening rise	13961 Feb 07 20:07	8° $\text{H}$ 24'02	
evening max el	13960 Apr 01 12:16	16° $\text{B}$ 20'01	25°33'50	desc. node	13961 Feb 10 02:29	12° $\text{H}$ 36'59	
retrograde	13960 Apr 13 20:36	23° $\text{B}$ 27'38			13961 Feb 20 06:15	0° $\text{Y}$	
asc. node	13960 Apr 19 08:34	21° $\text{B}$ 21'51			13961 Mar 14 23:07	0° $\text{B}$	
evening set	13960 Apr 19 19:19	21° $\text{B}$ 00'03		evening max el	13961 Mar 15 02:08	0° $\text{B}$ 07'21	26°36'28
min. Earth dist.	13960 Apr 24 02:29	16° $\text{B}$ 18'36	0.67720 AU	retrograde	13961 Mar 28 04:01	7° $\text{B}$ 30'18	
inferior conj	13960 Apr 25 12:30	14° $\text{B}$ 29'30	1°48'25	evening set	13961 Apr 03 13:04	4° $\text{B}$ 58'21	
minimum elong	13960 Apr 25 10:24	14° $\text{B}$ 36'13	1°47'07	asc. node	13961 Apr 06 06:01	2° $\text{B}$ 23'17	
morning rise	13960 May 01 01:58	8° $\text{B}$ 38'13		min. Earth dist.	13961 Apr 07 14:24	0° $\text{B}$ 51'36	0.66456 AU
direct	13960 May 04 12:52	7° $\text{B}$ 29'46			13961 Apr 08 07:50	30° $\text{R}$ $\text{Y}$	
morning max el	13960 May 11 09:20	11° $\text{B}$ 13'05	19°02'14	inferior conj	13961 Apr 09 12:54	28° $\text{Y}$ 32'43	1°00'56
desc. node	13960 May 22 08:00	25° $\text{B}$ 24'35		minimum elong	13961 Apr 09 11:26	28° $\text{Y}$ 37'07	0°59'59
greatest brilliancy	13960 May 24 13:17	28° $\text{B}$ 43'07	-0.7m	morning rise	13961 Apr 15 10:53	22° $\text{Y}$ 52'40	
	13960 May 25 09:41	0° $\text{II}$		direct	13961 Apr 18 11:23	22° $\text{Y}$ 01'46	
morning set	13960 Jun 03 16:28	14° $\text{II}$ 14'23		morning max el	13961 Apr 24 21:38	25° $\text{Y}$ 25'40	18°19'49
	13960 Jun 13 20:09	0° $\text{B}$			13961 Apr 28 20:46	0° $\text{B}$	
max. Earth dist.	13960 Jun 17 12:23	5° $\text{B}$ 44'44	1.45529 AU	desc. node	13961 May 09 04:46	15° $\text{B}$ 21'45	
				morning set	13961 May 14 19:23	24° $\text{B}$ 16'04	
superior conj	13960 Jun 20 01:09	9° $\text{B}$ 43'15	-2°13'41		13961 May 18 10:00	0° $\text{II}$	
minimum elong	13960 Jun 20 01:09	9° $\text{B}$ 43'15	2°14'44				
	13960 Jul 02 17:49	0° $\text{B}$		superior conj	13961 May 30 09:14	18° $\text{II}$ 49'10	-2°03'14
evening rise	13960 Jul 04 22:28	3° $\text{B}$ 33'52		minimum elong	13961 May 30 02:03	18° $\text{II}$ 21'03	2°03'51
asc. node	13960 Jul 16 07:16	21° $\text{B}$ 49'35		max. Earth dist.	13961 May 31 08:24	20° $\text{II}$ 19'34	1.45879 AU
	13960 Jul 22 03:06	0° $\text{B}$			13961 Jun 06 13:16	0° $\text{B}$	
evening max el	13960 Jul 24 13:44	2° $\text{B}$ 43'13	18°22'56	evening rise	13961 Jun 15 08:18	13° $\text{B}$ 44'03	
retrograde	13960 Jul 30 23:22	6° $\text{B}$ 08'23		greatest brilliancy	13961 Jun 25 12:15	29° $\text{B}$ 33'12	-0.8m
evening set	13960 Aug 03 00:37	5° $\text{B}$ 16'44			13961 Jun 25 19:16	0° $\text{B}$	
inferior conj	13960 Aug 08 20:30	29° $\text{B}$ 46'27	2°28'04	asc. node	13961 Jul 03 04:06	10° $\text{B}$ 42'49	
minimum elong	13960 Aug 08 22:50	29° $\text{B}$ 39'35	2°26'53	evening max el	13961 Jul 08 00:35	16° $\text{B}$ 28'27	18°58'23
	13960 Aug 08 15:53	30° $\text{R}$ $\text{B}$		retrograde	13961 Jul 14 18:58	20° $\text{B}$ 11'46	
min. Earth dist.	13960 Aug 11 02:38	27° $\text{B}$ 07'44	0.64739 AU	evening set	13961 Jul 18 05:17	19° $\text{B}$ 03'44	
morning rise	13960 Aug 14 19:42	23° $\text{B}$ 25'36		inferior conj	13961 Jul 23 17:25	13° $\text{B}$ 18'42	2°56'07
desc. node	13960 Aug 18 06:10	21° $\text{B}$ 22'24		minimum elong	13961 Jul 23 19:02	13° $\text{B}$ 13'33	2°55'01
direct	13960 Aug 21 08:41	20° $\text{B}$ 47'49		min. Earth dist.	13961 Jul 25 09:03	11° $\text{B}$ 12'42	0.66465 AU
morning max el	13960 Sep 03 22:55	28° $\text{B}$ 44'53	27°20'44	morning rise	13961 Jul 29 08:03	6° $\text{B}$ 54'08	
	13960 Sep 05 03:59	0° $\text{B}$		direct	13961 Aug 04 13:17	4° $\text{B}$ 14'56	
	13960 Sep 26 20:54	0° $\text{B}$		desc. node	13961 Aug 05 03:38	4° $\text{B}$ 16'16	
morning set	13960 Oct 09 07:47	22° $\text{B}$ 25'39		morning max el	13961 Aug 17 10:09	11° $\text{B}$ 54'17	26°19'14
asc. node	13960 Oct 12 09:15	28° $\text{B}$ 32'02			13961 Aug 31 22:05	0° $\text{B}$	
	13960 Oct 13 02:29	0° $\text{B}$			13961 Sep 19 11:54	0° $\text{B}$	
max. Earth dist.	13960 Oct 13 19:38	1° $\text{B}$ 28'09	1.33088 AU	morning set	13961 Sep 22 08:32	5° $\text{B}$ 15'10	
				max. Earth dist.	13961 Sep 26 05:28	12° $\text{B}$ 39'18	1.34784 AU
superior conj	13960 Oct 17 13:33	9° $\text{B}$ 20'42	0°47'22	asc. node	13961 Sep 29 05:51	18° $\text{B}$ 38'49	
minimum elong	13960 Oct 17 11:29	9° $\text{B}$ 09'38	0°47'34				
evening rise	13960 Oct 24 14:56	24° $\text{B}$ 31'38		superior conj	13961 Oct 01 10:57	23° $\text{B}$ 09'24	0°20'39
	13960 Oct 27 05:26	0° $\text{B}$		minimum elong	13961 Oct 01 09:49	23° $\text{B}$ 03'36	0°20'45
desc. node	13960 Nov 14 02:28	28° $\text{B}$ 45'50			13961 Oct 04 17:57	0° $\text{B}$	
evening max el	13960 Nov 15 03:26	29° $\text{B}$ 49'02	22°23'07	evening rise	13961 Oct 08 23:56	8° $\text{B}$ 54'38	
	13960 Nov 15 07:58	0° $\text{B}$			13961 Oct 20 03:25	0° $\text{B}$	
retrograde	13960 Nov 27 23:13	6° $\text{B}$ 10'22		evening max el	13961 Oct 27 22:26	10° $\text{B}$ 08'57	20°49'56
evening set	13960 Dec 01 13:14	5° $\text{B}$ 42'11		desc. node	13961 Oct 31 23:47	13° $\text{B}$ 28'37	
min. Earth dist.	13960 Dec 09 10:41	2° $\text{B}$ 09'55	0.54661 AU	retrograde	13961 Nov 08 09:44	15° $\text{B}$ 51'06	
inferior conj	13960 Dec 10 03:05	1° $\text{B}$ 46'52	-5°56'27	evening set	13961 Nov 10 19:58	15° $\text{B}$ 36'55	
minimum elong	13960 Dec 10 00:44	1° $\text{B}$ 50'10	5°55'17	inferior conj	13961 Nov 19 18:26	11° $\text{B}$ 43'08	-5°11'27
	13960 Dec 13 09:45	30° $\text{R}$ $\text{B}$		minimum elong	13961 Nov 19 09:04	11° $\text{B}$ 56'29	5°08'27
morning rise	13960 Dec 18 13:22	27° $\text{B}$ 59'31		min. Earth dist.	13961 Nov 20 16:38	11° $\text{B}$ 11'25	0.54555 AU
direct	13960 Dec 21 20:47	27° $\text{B}$ 34'52		morning rise	13961 Nov 27 22:21	7° $\text{B}$ 49'00	
	13960 Dec 29 14:40	0° $\text{B}$		direct	13961 Dec 02 04:34	7° $\text{B}$ 10'09	
morning max el	13961 Jan 02 18:13	3° $\text{B}$ 16'44	21°26'16	morning max el	13961 Dec 15 07:57	13° $\text{B}$ 32'19	23°11'13
asc. node	13961 Jan 08 09:21	9° $\text{B}$ 49'01		asc. node	13961 Dec 26 06:32	27° $\text{B}$ 33'57	
	13961 Jan 20 01:35	0° $\approx$			13961 Dec 27 18:02	0° $\text{B}$	

morning set	13962 Jan 07 10:34	20°  43'12		morning rise	13962 Nov 07 16:19	17°  32'11	
	13962 Jan 11 17:47	0° 		direct	13962 Nov 12 19:46	16°  33'12	
				morning max el	13962 Nov 26 17:35	23°  30'15	24°59'33
superior conj	13962 Jan 14 08:27	5°  38'48	1°32'04		13962 Dec 02 14:10	0° 	
minimum elong	13962 Jan 14 09:57	5°  46'52	1°32'54	asc. node	13962 Dec 13 03:36	16°  27'04'15	
max. Earth dist.	13962 Jan 17 11:33	12°  18'03	1.33327 AU		13962 Dec 20 08:43	0° 	
evening rise	13962 Jan 22 04:58	21°  56'26		morning set	13962 Dec 22 22:24	5°  25'54	
	13962 Jan 26 09:42	0° 					
desc. node	13962 Jan 27 23:06	2°  51'57		superior conj	13962 Dec 29 16:54	20°  17'12	1°37'35
	13962 Feb 14 01:21	0° 		minimum elong	13962 Dec 29 17:20	20°  19'34	1°38'36
evening max el	13962 Feb 25 15:31	13°  07'38'28	27°18'51	max. Earth dist.	13962 Dec 31 12:52	24°  18'13	1.32096 AU
retrograde	13962 Mar 11 05:09	21°  06'36			13963 Jan 03 04:17	0° 	
evening set	13962 Mar 17 22:18	18°  07'36'08		evening rise	13963 Jan 05 23:44	5°  52'47	
min. Earth dist.	13962 Mar 21 19:03	15°  01'48	0.64807 AU	desc. node	13963 Jan 14 19:49	22°  50'13	
inferior conj	13962 Mar 24 05:39	12°  07'22'07	0°01'44		13963 Jan 19 00:02	0° 	
minimum elong	13962 Mar 24 05:36	12°  07'22'15	0°01'35	evening max el	13963 Feb 08 02:48	26°  41'45	27°34'10
transit middle	13962 Mar 24 05:36	12°  07'22'15	0°01'35		13963 Feb 11 23:06	0° 	
transit begin	13962 Mar 24 02:34	12°  07'30'34		retrograde	13963 Feb 21 23:21	4°  07'24	
transit end	13962 Mar 24 08:39	12°  07'13'56		evening set	13963 Feb 28 20:36	1°  45'45	
asc. node	13962 Mar 24 03:30	12°  07'28'02			13963 Mar 03 03:07	30° 	
morning rise	13962 Mar 30 14:46	6°  07'55'35		min. Earth dist.	13963 Mar 04 14:45	28°  39'23	0.62842 AU
direct	13962 Apr 02 06:03	6°  07'19'19		inferior conj	13963 Mar 07 11:50	25°  35'04'5	-1°09'11
morning max el	13962 Apr 08 14:07	9°  07'36'06	17°54'23	minimum elong	13963 Mar 07 14:09	25°  35'04'5	1°08'03
	13962 Apr 22 16:33	0° 		asc. node	13963 Mar 11 00:59	22°  38'40	
morning set	13962 Apr 26 02:26	5°  39'32		morning rise	13963 Mar 14 10:22	20°  38'40'21	
desc. node	13962 Apr 26 01:26	5°  35'22		direct	13963 Mar 16 17:55	20°  38'40'21	
				morning max el	13963 Mar 23 07:54	23°  36'16	17°46'21
superior conj	13962 May 10 00:33	28°  20'27	-1°35'05		13963 Mar 28 11:16	0° 	
minimum elong	13962 May 09 15:41	27°  45'08	1°34'59	morning set	13963 Apr 08 10:32	18°  07'14'21	
	13962 May 11 01:37	0° 		desc. node	13963 Apr 12 22:01	26°  00'29	
max. Earth dist.	13962 May 14 04:40	4°  56'09	1.45473 AU		13963 Apr 15 05:55	0° 	
evening rise	13962 May 25 23:46	23°  51'13'31					
	13962 May 30 10:15	0° 		superior conj	13963 Apr 20 12:19	8°  51'00	-0°57'12
greatest brilliancy	13962 Jun 09 11:58	15°  04'00	-0.6m	minimum elong	13963 Apr 20 06:41	8°  51'00'37	0°56'57
asc. node	13962 Jun 20 01:01	29°  00'29		max. Earth dist.	13963 Apr 26 22:17	19°  17'16	1.44366 AU
	13962 Jun 20 23:30	0° 			13963 May 03 17:37	0° 	
evening max el	13962 Jun 21 06:17	0°  17'09	19°49'58	evening rise	13963 May 05 11:23	2°  51'41'21	
retrograde	13962 Jun 28 17:23	4°  30'49			13963 May 23 22:34	0° 	
evening set	13962 Jul 02 13:16	3°  05'51		evening max el	13963 Jun 04 06:04	14°  06'58	20°55'30
	13962 Jul 05 15:43	30° 		asc. node	13963 Jun 06 22:03	16°  06'31'02	
inferior conj	13962 Jul 07 20:53	27°  07'31	3°09'39	retrograde	13963 Jun 12 16:23	19°  00'00'17	
minimum elong	13962 Jul 07 21:31	27°  05'23	3°08'37	evening set	13963 Jun 16 22:33	17°  00'18'33	
min. Earth dist.	13962 Jul 08 22:12	25°  04'25	0.67763 AU	inferior conj	13963 Jun 22 04:26	11°  00'08'33	3°10'51
morning rise	13962 Jul 13 05:22	20°  04'43'58		minimum elong	13963 Jun 22 04:04	11°  00'09'51	3°09'47
direct	13962 Jul 19 00:02	18°  01'11'49		min. Earth dist.	13963 Jun 22 16:05	10°  00'28'11	0.68598 AU
desc. node	13962 Jul 23 01:01	19°  01'25'55		morning rise	13963 Jun 27 09:20	4°  00'49'10	
morning max el	13962 Jul 30 20:54	25°  01'18'41	24°59'11	direct	13963 Jul 02 15:56	2°  00'30'33	
	13962 Aug 04 03:15	0° 		desc. node	13963 Jul 09 22:17	5°  00'46'26	
	13962 Aug 25 09:48	0° 		morning max el	13963 Jul 13 07:28	8°  00'51'40	23°30'22
morning set	13962 Sep 04 16:59	17°  00'19'38			13963 Jul 29 22:25	0° 	
max. Earth dist.	13962 Sep 08 06:41	23°  00'17'47'01	1.36898 AU	morning set	13963 Aug 17 04:38	28°  00'28'46	
	13962 Sep 11 14:17	0° 			13963 Aug 18 02:15	0° 	
				max. Earth dist.	13963 Aug 21 04:24	5°  00'18'43	1.39243 AU
superior conj	13962 Sep 14 22:19	6°  00'27'23	-0°10'51				
minimum elong	13962 Sep 14 23:00	6°  00'30'48	0°10'42	superior conj	13963 Aug 28 20:00	19°  00'06'37	-0°45'32
behind sun begin	13962 Sep 14 18:05	6°  00'06'35		minimum elong	13963 Aug 28 23:20	19°  00'07'22'07	0°45'16
behind sun end	13962 Sep 15 03:56	6°  00'55'03		asc. node	13963 Sep 02 22:56	28°  00'07'50'19	
asc. node	13962 Sep 16 02:23	8°  00'45'58			13963 Sep 03 13:22	0° 	
evening rise	13962 Sep 23 04:43	23°  00'04'03		evening rise	13963 Sep 07 02:31	6°  00'05'53'08	
	13962 Sep 26 16:12	0° 			13963 Sep 20 12:33	0° 	
evening max el	13962 Oct 10 07:22	21°  00'13'09	19°36'03	evening max el	13963 Sep 23 05:38	3°  00'06'22	18°44'08
desc. node	13962 Oct 18 21:12	26°  00'13'03'18		retrograde	13963 Oct 01 13:24	7°  00'13'17'44	
retrograde	13962 Oct 20 03:21	26°  00'13'07'56		evening set	13963 Oct 03 11:09	7°  00'13'05'21	
evening set	13962 Oct 22 00:49	25°  00'13'57'48		desc. node	13963 Oct 05 18:38	6°  00'13'19'35	
inferior conj	13962 Oct 30 18:35	21°  00'13'53'23	-3°39'07	inferior conj	13963 Oct 11 13:46	2°  00'13'42'31	-1°50'36
minimum elong	13962 Oct 30 09:31	22°  00'13'07'45	3°35'16	minimum elong	13963 Oct 11 09:12	2°  00'13'50'53	1°48'18
min. Earth dist.	13962 Nov 02 01:37	20°  00'13'26'21	0.55374 AU	min. Earth dist.	13963 Oct 14 16:06	0°  00'13'26'37	0.56978 AU

	13963 Oct 15 07:25	30° $\mathbb{R}$ $\mathbb{A}$		transit middle	13964 Sep 22 06:22	14° $\mathbb{A}$ 19'11	0°11'09
morning rise	13963 Oct 19 03:55	27° $\mathbb{A}$ 44'22		transit begin	13964 Sep 22 03:53	14° $\mathbb{A}$ 24'31	
direct	13963 Oct 25 01:19	26° $\mathbb{A}$ 19'38		transit end	13964 Sep 22 08:51	14° $\mathbb{A}$ 13'50	
	13963 Nov 03 20:30	0° $\mathbb{M}$		min. Earth dist.	13964 Sep 25 13:53	11° $\mathbb{A}$ 29'41	0.59082 AU
morning max el	13963 Nov 08 07:05	3° $\mathbb{M}$ 44'10	26°32'34	morning rise	13964 Sep 29 10:47	8° $\mathbb{A}$ 45'22	
	13963 Nov 27 05:22	0° $\mathbb{A}$		direct	13964 Oct 05 20:40	6° $\mathbb{A}$ 53'23	
asc. node	13963 Nov 30 00:33	5° $\mathbb{A}$ 08'17		morning max el	13964 Oct 20 04:05	14° $\mathbb{A}$ 37'39	27°34'45
morning set	13963 Dec 07 08:47	20° $\mathbb{A}$ 00'36			13964 Nov 01 13:48	0° $\mathbb{M}$	
	13963 Dec 11 22:08	0° $\mathbb{B}$		asc. node	13964 Nov 15 21:24	24° $\mathbb{M}$ 37'06	
					13964 Nov 18 13:36	0° $\mathbb{A}$	
superior conj	13963 Dec 14 03:53	4° $\mathbb{B}$ 59'41	1°37'01	morning set	13964 Nov 20 15:59	4° $\mathbb{A}$ 22'55	
minimum elong	13963 Dec 14 03:14	4° $\mathbb{B}$ 56'07	1°38'03	max. Earth dist.	13964 Nov 27 03:39	18° $\mathbb{A}$ 34'37	1.31160 AU
max. Earth dist.	13963 Dec 14 19:18	6° $\mathbb{B}$ 25'43	1.31368 AU				
evening rise	13963 Dec 21 01:47	20° $\mathbb{B}$ 06'24		superior conj	13964 Nov 27 15:29	19° $\mathbb{A}$ 40'45	1°30'34
	13963 Dec 25 22:24	0° $\mathbb{A}$		minimum elong	13964 Nov 27 13:56	19° $\mathbb{A}$ 32'08	1°31'27
desc. node	13964 Jan 01 16:36	12° $\mathbb{A}$ 24'28			13964 Dec 02 06:51	0° $\mathbb{B}$	
	13964 Jan 13 08:37	0° $\mathbb{H}$		evening rise	13964 Dec 04 08:50	4° $\mathbb{B}$ 31'35	
evening max el	13964 Jan 21 09:47	9° $\mathbb{H}$ 05'01	27°16'51		13964 Dec 17 16:32	0° $\mathbb{A}$	
retrograde	13964 Feb 04 09:15	16° $\mathbb{H}$ 22'24		desc. node	13964 Dec 18 13:30	1° $\mathbb{A}$ 25'32	
evening set	13964 Feb 11 04:50	14° $\mathbb{H}$ 17'54		evening max el	13965 Jan 02 09:55	20° $\mathbb{A}$ 38'48	26°24'44
min. Earth dist.	13964 Feb 15 00:20	11° $\mathbb{H}$ 31'56	0.60686 AU	retrograde	13965 Jan 16 08:58	27° $\mathbb{A}$ 45'05	
inferior conj	13964 Feb 18 04:01	8° $\mathbb{H}$ 49'20	-2°30'01	evening set	13965 Jan 22 19:14	26° $\mathbb{A}$ 05'06	
minimum elong	13964 Feb 18 09:26	8° $\mathbb{H}$ 37'39	2°27'26	min. Earth dist.	13965 Jan 26 23:33	23° $\mathbb{A}$ 28'17	0.58519 AU
morning rise	13964 Feb 25 17:13	3° $\mathbb{H}$ 57'42		inferior conj	13965 Jan 30 02:35	21° $\mathbb{A}$ 08'21	-3°54'48
asc. node	13964 Feb 25 22:27	3° $\mathbb{H}$ 54'14		minimum elong	13965 Jan 30 10:52	20° $\mathbb{A}$ 52'51	3°51'22
direct	13964 Feb 27 19:19	3° $\mathbb{H}$ 39'57		morning rise	13965 Feb 07 05:32	16° $\mathbb{A}$ 37'52	
morning max el	13964 Mar 05 23:34	7° $\mathbb{H}$ 15'52	17°56'30	direct	13965 Feb 09 06:08	16° $\mathbb{A}$ 23'50	
	13964 Mar 20 15:18	0° $\mathbb{Y}$		asc. node	13965 Feb 11 19:52	16° $\mathbb{A}$ 47'38	
morning set	13964 Mar 21 13:30	1° $\mathbb{Y}$ 41'22		morning max el	13965 Feb 17 09:24	20° $\mathbb{A}$ 24'33	18°26'27
desc. node	13964 Mar 29 18:32	16° $\mathbb{Y}$ 32'21			13965 Feb 24 13:55	0° $\mathbb{H}$	
				morning set	13965 Mar 05 05:49	15° $\mathbb{H}$ 44'29	
superior conj	13964 Apr 01 00:04	20° $\mathbb{Y}$ 27'30	-0°17'44		13965 Mar 12 17:52	0° $\mathbb{Y}$	
minimum elong	13964 Mar 31 22:31	20° $\mathbb{Y}$ 20'42	0°17'44				
	13964 Apr 06 14:13	0° $\mathbb{B}$		superior conj	13965 Mar 14 09:22	3° $\mathbb{Y}$ 02'59	0°18'03
max. Earth dist.	13964 Apr 08 11:45	3° $\mathbb{B}$ 08'56	1.42682 AU	minimum elong	13965 Mar 14 10:38	3° $\mathbb{Y}$ 08'49	0°17'53
evening rise	13964 Apr 14 10:22	12° $\mathbb{B}$ 44'36		desc. node	13965 Mar 16 15:03	7° $\mathbb{Y}$ 07'35	
	13964 Apr 25 17:31	0° $\mathbb{I}$		max. Earth dist.	13965 Mar 21 21:01	16° $\mathbb{Y}$ 22'32	1.40601 AU
evening max el	13964 May 17 00:37	27° $\mathbb{I}$ 57'09	22°11'22	evening rise	13965 Mar 26 05:13	23° $\mathbb{Y}$ 41'45	
	13964 May 19 05:18	0° $\mathbb{B}$			13965 Mar 30 02:19	0° $\mathbb{B}$	
asc. node	13964 May 23 19:11	2° $\mathbb{B}$ 58'51			13965 Apr 19 14:51	0° $\mathbb{I}$	
retrograde	13964 May 26 14:08	3° $\mathbb{B}$ 34'08		evening max el	13965 Apr 29 15:42	11° $\mathbb{I}$ 48'55	23°32'12
evening set	13964 May 31 07:18	1° $\mathbb{B}$ 36'34		retrograde	13965 May 10 09:12	18° $\mathbb{I}$ 07'27	
	13964 Jun 01 22:39	30° $\mathbb{R}$ $\mathbb{I}$		asc. node	13965 May 10 16:25	18° $\mathbb{I}$ 07'03	
inferior conj	13964 Jun 05 13:54	25° $\mathbb{I}$ 16'49	3°01'06	evening set	13965 May 15 13:58	15° $\mathbb{I}$ 55'42	
minimum elong	13964 Jun 05 12:39	25° $\mathbb{I}$ 21'11	2°59'55	inferior conj	13965 May 20 23:21	9° $\mathbb{I}$ 28'50	2°41'02
min. Earth dist.	13964 Jun 05 12:26	25° $\mathbb{I}$ 21'55	0.68956 AU	minimum elong	13965 May 20 21:28	9° $\mathbb{I}$ 35'19	2°39'43
morning rise	13964 Jun 10 17:48	19° $\mathbb{I}$ 03'41		min. Earth dist.	13965 May 20 09:07	10° $\mathbb{I}$ 17'42	0.68840 AU
direct	13964 Jun 15 11:48	17° $\mathbb{I}$ 03'07		morning rise	13965 May 26 04:54	3° $\mathbb{I}$ 23'22	
morning max el	13964 Jun 24 20:12	22° $\mathbb{I}$ 31'49	22°02'04	direct	13965 May 30 10:20	1° $\mathbb{I}$ 43'10	
desc. node	13964 Jun 25 19:26	23° $\mathbb{I}$ 31'38		morning max el	13965 Jun 07 14:21	6° $\mathbb{I}$ 22'20	20°41'41
	13964 Jul 01 07:51	0° $\mathbb{B}$		desc. node	13965 Jun 12 16:30	12° $\mathbb{I}$ 09'32	
	13964 Jul 22 05:36	0° $\mathbb{Q}$			13965 Jun 25 12:20	0° $\mathbb{B}$	
morning set	13964 Jul 27 15:48	8° $\mathbb{Q}$ 33'12		morning set	13965 Jul 07 03:55	17° $\mathbb{B}$ 38'21	
max. Earth dist.	13964 Aug 02 05:19	17° $\mathbb{Q}$ 38'49	1.41548 AU		13965 Jul 14 23:51	0° $\mathbb{Q}$	
	13964 Aug 09 10:41	0° $\mathbb{M}$		max. Earth dist.	13965 Jul 15 13:11	0° $\mathbb{Q}$ 53'36	1.43539 AU
superior conj	13964 Aug 09 23:41	0° $\mathbb{M}$ 57'13	-1°20'35	superior conj	13965 Jul 22 05:07	11° $\mathbb{Q}$ 49'41	-1°51'09
minimum elong	13964 Aug 10 05:48	1° $\mathbb{M}$ 24'13	1°20'21	minimum elong	13965 Jul 22 12:26	12° $\mathbb{Q}$ 20'13	1°51'22
asc. node	13964 Aug 19 19:31	18° $\mathbb{M}$ 48'05			13965 Aug 01 19:02	0° $\mathbb{M}$	
evening rise	13964 Aug 20 13:48	20° $\mathbb{M}$ 12'47		evening rise	13965 Aug 03 10:01	2° $\mathbb{M}$ 51'25	
	13964 Aug 25 22:08	0° $\mathbb{A}$		asc. node	13965 Aug 06 16:07	8° $\mathbb{M}$ 34'49	
evening max el	13964 Sep 05 13:25	15° $\mathbb{A}$ 41'14	18°13'27	evening max el	13965 Aug 20 02:24	28° $\mathbb{M}$ 46'40	18°02'33
retrograde	13964 Sep 12 18:38	19° $\mathbb{A}$ 21'26			13965 Aug 21 10:57	0° $\mathbb{A}$	
evening set	13964 Sep 14 22:32	19° $\mathbb{A}$ 02'17		retrograde	13965 Aug 26 16:11	2° $\mathbb{A}$ 10'17	
desc. node	13964 Sep 21 16:07	14° $\mathbb{A}$ 49'35		evening set	13965 Aug 29 03:59	1° $\mathbb{A}$ 40'40	
inferior conj	13964 Sep 22 06:46	14° $\mathbb{A}$ 18'19	-0°11'28		13965 Sep 01 01:00	30° $\mathbb{R}$ $\mathbb{M}$	
minimum elong	13964 Sep 22 06:22	14° $\mathbb{A}$ 19'11	0°11'09	inferior conj	13965 Sep 04 19:21	26° $\mathbb{M}$ 36'43	1°07'15

minimum elong	13965 Sep 04 21:12	26° $\mathbb{M}$ 32'07	1°06'26	retrograde	13966 Aug 10 01:29	15° $\mathbb{M}$ 34'36	
min. Earth dist.	13965 Sep 07 20:44	23° $\mathbb{M}$ 36'26	0.61368 AU	evening set	13966 Aug 12 21:40	14° $\mathbb{M}$ 51'41	
desc. node	13965 Sep 08 13:39	22° $\mathbb{M}$ 57'20		inferior conj	13966 Aug 18 23:34	9° $\mathbb{M}$ 30'16	2°04'12
morning rise	13965 Sep 11 11:45	20° $\mathbb{M}$ 37'19		minimum elong	13966 Aug 19 02:02	9° $\mathbb{M}$ 23'23	2°03'02
direct	13965 Sep 18 03:24	18° $\mathbb{M}$ 21'37		min. Earth dist.	13966 Aug 21 13:29	6° $\mathbb{M}$ 38'41	0.63572 AU
morning max el	13965 Oct 02 08:19	26° $\mathbb{M}$ 18'30	27°58'34	morning rise	13966 Aug 25 04:37	3° $\mathbb{M}$ 14'25	
	13965 Oct 05 19:20	0° $\underline{\mathbb{M}}$		desc. node	13966 Aug 26 11:11	2° $\mathbb{M}$ 21'08	
	13965 Oct 26 04:08	0° $\mathbb{M}$		direct	13966 Aug 31 19:54	0° $\mathbb{M}$ 42'09	
asc. node	13965 Nov 02 18:09	14° $\mathbb{M}$ 22'54		morning max el	13966 Sep 14 17:31	8° $\mathbb{M}$ 43'06	27°44'16
morning set	13965 Nov 04 18:00	18° $\mathbb{M}$ 27'02			13966 Oct 01 06:06	0° $\underline{\mathbb{M}}$	
	13965 Nov 10 03:43	0° $\mathbb{M}$			13966 Oct 18 10:49	0° $\mathbb{M}$	
max. Earth dist.	13965 Nov 10 10:01	0° $\mathbb{M}$ 34'34	1.31484 AU	morning set	13966 Oct 19 12:34	2° $\mathbb{M}$ 07'56	
				asc. node	13966 Oct 20 14:51	4° $\mathbb{M}$ 20'26	
superior conj	13965 Nov 12 01:48	4° $\mathbb{M}$ 14'00	1°18'19	max. Earth dist.	13966 Oct 24 10:36	12° $\mathbb{M}$ 17'03	1.32347 AU
minimum elong	13965 Nov 11 23:40	4° $\mathbb{M}$ 02'10	1°18'56				
evening rise	13965 Nov 18 18:51	19° $\mathbb{M}$ 02'02		superior conj	13966 Oct 27 08:56	18° $\mathbb{M}$ 34'39	1°00'18
	13965 Nov 24 01:24	0° $\mathbb{M}$		minimum elong	13966 Oct 27 06:39	18° $\mathbb{M}$ 22'19	1°00'39
desc. node	13965 Dec 05 10:31	19° $\mathbb{M}$ 39'57			13966 Nov 01 14:31	0° $\mathbb{M}$	
	13965 Dec 13 17:17	0° $\mathbb{M}$		evening rise	13966 Nov 03 05:58	3° $\mathbb{M}$ 33'20	
evening max el	13965 Dec 15 01:31	1° $\mathbb{M}$ 19'47	25°02'04		13966 Nov 17 08:09	0° $\mathbb{M}$	
retrograde	13965 Dec 28 20:35	8° $\mathbb{M}$ 14'23		desc. node	13966 Nov 22 07:39	6° $\mathbb{M}$ 50'42	
evening set	13966 Jan 03 11:42	7° $\mathbb{M}$ 03'29		evening max el	13966 Nov 26 11:25	11° $\mathbb{M}$ 24'25	23°21'42
min. Earth dist.	13966 Jan 08 13:28	4° $\mathbb{M}$ 20'10	0.56574 AU	retrograde	13966 Dec 09 19:37	18° $\mathbb{M}$ 02'20	
inferior conj	13966 Jan 11 04:36	2° $\mathbb{M}$ 37'56	-5°10'22	evening set	13966 Dec 14 04:56	17° $\mathbb{M}$ 20'28	
minimum elong	13966 Jan 11 13:03	2° $\mathbb{M}$ 24'13	5°07'38	min. Earth dist.	13966 Dec 20 21:30	14° $\mathbb{M}$ 11'12	0.55141 AU
	13966 Jan 15 14:23	30° $\mathbb{M}$		inferior conj	13966 Dec 22 10:35	13° $\mathbb{M}$ 17'17	-5°54'39
morning rise	13966 Jan 19 16:43	28° $\mathbb{M}$ 29'24		minimum elong	13966 Dec 22 13:30	13° $\mathbb{M}$ 13'02	5°53'26
direct	13966 Jan 21 22:20	28° $\mathbb{M}$ 15'15		morning rise	13966 Dec 30 23:43	9° $\mathbb{M}$ 25'51	
	13966 Jan 27 18:55	0° $\mathbb{M}$		direct	13967 Jan 02 19:07	9° $\mathbb{M}$ 06'54	
asc. node	13966 Jan 29 17:15	1° $\mathbb{M}$ 21'25		morning max el	13967 Jan 13 19:41	14° $\mathbb{M}$ 23'29	20°33'14
morning max el	13966 Jan 31 09:18	2° $\mathbb{M}$ 50'10	19°18'16	asc. node	13967 Jan 16 14:35	17° $\mathbb{M}$ 23'05	
morning set	13966 Feb 17 07:11	0° $\mathbb{M}$ 10'19			13967 Jan 24 23:58	0° $\mathbb{M}$	
	13966 Feb 17 05:07	0° $\mathbb{M}$		morning set	13967 Feb 01 14:22	14° $\mathbb{M}$ 49'21	
					13967 Feb 08 22:46	0° $\mathbb{M}$	
superior conj	13966 Feb 25 11:43	16° $\mathbb{M}$ 24'38	0°47'38				
minimum elong	13966 Feb 25 14:16	16° $\mathbb{M}$ 36'58	0°47'35	superior conj	13967 Feb 09 02:43	0° $\mathbb{M}$ 20'05	1°10'16
desc. node	13966 Mar 03 11:34	27° $\mathbb{M}$ 42'15		minimum elong	13967 Feb 09 05:22	0° $\mathbb{M}$ 33'33	1°10'32
max. Earth dist.	13966 Mar 04 03:39	28° $\mathbb{M}$ 55'24	1.38339 AU	max. Earth dist.	13967 Feb 14 11:21	10° $\mathbb{M}$ 56'58	1.36148 AU
	13966 Mar 04 17:56	0° $\mathbb{M}$		evening rise	13967 Feb 18 07:39	18° $\mathbb{M}$ 10'41	
evening rise	13966 Mar 07 21:06	5° $\mathbb{M}$ 32'47		desc. node	13967 Feb 18 08:06	18° $\mathbb{M}$ 12'42	
	13966 Mar 23 02:32	0° $\mathbb{M}$			13967 Feb 25 00:53	0° $\mathbb{M}$	
evening max el	13966 Apr 12 05:18	25° $\mathbb{M}$ 41'57	24°51'36		13967 Mar 17 08:04	0° $\mathbb{M}$	
	13966 Apr 17 06:24	0° $\mathbb{M}$		evening max el	13967 Mar 25 18:46	9° $\mathbb{M}$ 32'39	26°02'27
retrograde	13966 Apr 24 00:35	2° $\mathbb{M}$ 34'42		retrograde	13967 Apr 07 11:18	16° $\mathbb{M}$ 48'45	
asc. node	13966 Apr 27 13:44	1° $\mathbb{M}$ 40'16		evening set	13967 Apr 13 14:42	14° $\mathbb{M}$ 18'19	
evening set	13966 Apr 29 17:00	0° $\mathbb{M}$ 11'33		asc. node	13967 Apr 14 11:08	13° $\mathbb{M}$ 33'06	
	13966 Apr 29 22:18	30° $\mathbb{M}$		min. Earth dist.	13967 Apr 17 19:06	9° $\mathbb{M}$ 52'05	0.67230 AU
min. Earth dist.	13966 May 04 04:01	25° $\mathbb{M}$ 09'57	0.68256 AU	inferior conj	13967 Apr 19 10:34	7° $\mathbb{M}$ 49'00	1°29'41
inferior conj	13966 May 05 06:54	23° $\mathbb{M}$ 41'02	2°10'43	minimum elong	13967 Apr 19 08:39	7° $\mathbb{M}$ 54'59	1°28'28
minimum elong	13966 May 05 04:45	23° $\mathbb{M}$ 48'11	2°09'20	morning rise	13967 Apr 25 03:21	2° $\mathbb{M}$ 02'31	
morning rise	13966 May 10 16:45	17° $\mathbb{M}$ 44'28		direct	13967 Apr 28 09:37	1° $\mathbb{M}$ 02'02	
direct	13966 May 14 10:09	16° $\mathbb{M}$ 24'52		morning max el	13967 May 05 00:52	4° $\mathbb{M}$ 35'37	18°42'10
morning max el	13966 May 21 15:59	20° $\mathbb{M}$ 24'47	19°34'11	desc. node	13967 May 17 10:18	21° $\mathbb{M}$ 10'45	
	13966 May 29 12:43	0° $\mathbb{M}$			13967 May 23 03:23	0° $\mathbb{M}$	
desc. node	13966 May 30 13:28	1° $\mathbb{M}$ 26'09		morning set	13967 May 26 18:38	5° $\mathbb{M}$ 40'20	
greatest brilliancy	13966 Jun 03 07:07	6° $\mathbb{M}$ 48'31	-0.6m	max. Earth dist.	13967 Jun 10 21:37	29° $\mathbb{M}$ 16'21	1.45761 AU
morning set	13966 Jun 16 05:50	26° $\mathbb{M}$ 21'22			13967 Jun 11 08:48	0° $\mathbb{M}$	
	13966 Jun 18 14:38	0° $\mathbb{M}$					
max. Earth dist.	13966 Jun 28 03:27	14° $\mathbb{M}$ 52'03	1.44988 AU	superior conj	13967 Jun 11 22:52	0° $\mathbb{M}$ 55'00	-2°11'45
				minimum elong	13967 Jun 11 19:28	0° $\mathbb{M}$ 41'43	2°12'44
superior conj	13966 Jul 02 10:55	21° $\mathbb{M}$ 42'59	-2°10'27	evening rise	13967 Jun 27 09:49	25° $\mathbb{M}$ 20'23	
minimum elong	13966 Jul 02 15:01	21° $\mathbb{M}$ 59'25	2°11'19		13967 Jun 30 07:45	0° $\mathbb{M}$	
	13966 Jul 07 14:01	0° $\mathbb{M}$		greatest brilliancy	13967 Jul 04 04:18	6° $\mathbb{M}$ 08'59	-0.9m
evening rise	13966 Jul 16 10:04	14° $\mathbb{M}$ 36'59		asc. node	13967 Jul 11 09:34	17° $\mathbb{M}$ 14'55	
asc. node	13966 Jul 24 12:48	28° $\mathbb{M}$ 05'58		evening max el	13967 Jul 18 05:45	25° $\mathbb{M}$ 53'17	18°35'58
	13966 Jul 25 17:10	0° $\mathbb{M}$		retrograde	13967 Jul 24 18:16	29° $\mathbb{M}$ 25'01	
evening max el	13966 Aug 03 16:54	12° $\mathbb{M}$ 13'32	18°10'19	evening set	13967 Jul 27 23:12	28° $\mathbb{M}$ 26'42	

inferior conj	13967 Aug 02 15:22	22° $\Omega$ 49'57	2°41'54	evening set	13968 Jul 11 05:31	12° $\Omega$ 19'59	
minimum elong	13967 Aug 02 17:27	22° $\Omega$ 43'35	2°40'45	inferior conj	13968 Jul 16 15:23	6° $\Omega$ 29'21	3°03'27
min. Earth dist.	13967 Aug 04 15:24	20° $\Omega$ 23'36	0.65513 AU	minimum elong	13968 Jul 16 16:36	6° $\Omega$ 25'23	3°02'23
morning rise	13967 Aug 08 10:37	16° $\Omega$ 26'30		min. Earth dist.	13968 Jul 18 00:58	4° $\Omega$ 39'41	0.67076 AU
desc. node	13967 Aug 13 08:42	13° $\Omega$ 55'04		morning rise	13968 Jul 22 03:05	0° $\Omega$ 04'40	
direct	13967 Aug 14 20:39	13° $\Omega$ 46'51			13968 Jul 22 05:13	30° $\mathcal{R}$ $\mathfrak{E}$	
morning max el	13967 Aug 28 04:39	21° $\Omega$ 39'10	26°57'29	direct	13968 Jul 28 04:12	27° $\mathfrak{E}$ 27'11	
	13967 Sep 04 11:27	0° $\mathfrak{M}$		desc. node	13968 Jul 30 06:09	27° $\mathfrak{E}$ 43'24	
	13967 Sep 24 10:57	0° $\mathfrak{A}$			13968 Aug 03 22:58	0° $\Omega$	
morning set	13967 Oct 02 20:48	15° $\mathfrak{A}$ 18'19		morning max el	13968 Aug 09 15:32	4° $\Omega$ 54'51	25°46'44
max. Earth dist.	13967 Oct 07 01:55	23° $\mathfrak{A}$ 36'21	1.33742 AU		13968 Aug 28 22:14	0° $\mathfrak{M}$	
asc. node	13967 Oct 07 11:28	24° $\mathfrak{A}$ 24'43		morning set	13968 Sep 14 15:05	27° $\mathfrak{M}$ 49'14	
	13967 Oct 10 04:41	0° $\mathfrak{M}$			13968 Sep 15 19:30	0° $\mathfrak{A}$	
				max. Earth dist.	13968 Sep 18 07:09	4° $\mathfrak{A}$ 40'20	1.35634 AU
superior conj	13967 Oct 11 10:36	2° $\mathfrak{M}$ 36'31	0°36'40	asc. node	13968 Sep 23 08:02	14° $\mathfrak{A}$ 31'40	
minimum elong	13967 Oct 11 08:49	2° $\mathfrak{M}$ 27'12	0°36'50				
evening rise	13967 Oct 18 16:17	18° $\mathfrak{M}$ 00'17		superior conj	13968 Sep 24 04:06	16° $\mathfrak{A}$ 12'37	0°07'49
	13967 Oct 24 13:44	0° $\mathfrak{A}$		minimum elong	13968 Sep 24 03:38	16° $\mathfrak{A}$ 10'15	0°07'55
evening max el	13967 Nov 08 00:27	21° $\mathfrak{A}$ 28'28	21°41'37	behind sun begin	13968 Sep 23 22:13	15° $\mathfrak{A}$ 42'57	
desc. node	13967 Nov 09 04:54	22° $\mathfrak{A}$ 35'12		behind sun end	13968 Sep 24 09:03	16° $\mathfrak{A}$ 37'36	
retrograde	13967 Nov 20 08:24	27° $\mathfrak{A}$ 35'16			13968 Sep 30 21:06	0° $\mathfrak{M}$	
evening set	13967 Nov 23 08:48	27° $\mathfrak{A}$ 14'41		evening rise	13968 Oct 01 23:43	2° $\mathfrak{M}$ 17'23	
inferior conj	13967 Dec 02 03:37	23° $\mathfrak{A}$ 21'31	-5°44'42		13968 Oct 18 02:47	0° $\mathfrak{A}$	
minimum elong	13967 Dec 01 21:34	23° $\mathfrak{A}$ 29'59	5°42'55	evening max el	13968 Oct 20 01:12	2° $\mathfrak{A}$ 05'33	20°16'00
min. Earth dist.	13967 Dec 02 03:39	23° $\mathfrak{A}$ 21'28	0.54496 AU	desc. node	13968 Oct 26 02:15	6° $\mathfrak{A}$ 26'07	
morning rise	13967 Dec 10 11:10	19° $\mathfrak{A}$ 33'32		retrograde	13968 Oct 30 19:54	7° $\mathfrak{A}$ 27'18	
direct	13967 Dec 14 03:55	19° $\mathfrak{A}$ 03'41		evening set	13968 Nov 01 22:45	7° $\mathfrak{A}$ 15'50	
morning max el	13967 Dec 26 15:51	25° $\mathfrak{A}$ 03'55	22°09'23	inferior conj	13968 Nov 10 20:58	3° $\mathfrak{A}$ 19'24	-4°36'24
	13967 Dec 31 03:14	0° $\mathfrak{Z}$		minimum elong	13968 Nov 10 10:51	3° $\mathfrak{A}$ 34'19	4°32'42
asc. node	13968 Jan 03 11:50	4° $\mathfrak{Z}$ 35'24		min. Earth dist.	13968 Nov 12 10:43	2° $\mathfrak{A}$ 23'38	0.54789 AU
morning set	13968 Jan 17 00:56	29° $\mathfrak{Z}$ 34'38			13968 Nov 16 23:57	30° $\mathcal{R}$ $\mathfrak{M}$	
	13968 Jan 17 05:44	0° $\mathfrak{A}$		morning rise	13968 Nov 18 22:13	29° $\mathfrak{M}$ 15'43	
				direct	13968 Nov 23 14:01	28° $\mathfrak{M}$ 28'46	
superior conj	13968 Jan 24 02:43	14° $\mathfrak{A}$ 39'02	1°26'00		13968 Nov 29 22:57	0° $\mathfrak{A}$	
minimum elong	13968 Jan 24 04:46	14° $\mathfrak{A}$ 49'47	1°26'39	morning max el	13968 Dec 07 02:31	5° $\mathfrak{A}$ 07'04	23°57'54
max. Earth dist.	13968 Jan 28 00:46	22° $\mathfrak{A}$ 47'30	1.34241 AU	asc. node	13968 Dec 20 08:58	22° $\mathfrak{A}$ 41'13	
	13968 Jan 31 15:34	0° $\mathfrak{X}$			13968 Dec 24 11:14	0° $\mathfrak{Z}$	
evening rise	13968 Feb 01 09:25	1° $\mathfrak{X}$ 26'30		morning set	13968 Dec 31 12:48	14° $\mathfrak{Z}$ 19'30	
desc. node	13968 Feb 05 04:40	8° $\mathfrak{X}$ 34'58					
	13968 Feb 18 00:51	0° $\mathfrak{Y}$		superior conj	13969 Jan 07 08:46	29° $\mathfrak{Z}$ 12'04	1°35'09
evening max el	13968 Mar 07 08:30	23° $\mathfrak{Y}$ 14'36	26°57'22	minimum elong	13969 Jan 07 09:49	29° $\mathfrak{Z}$ 17'49	1°36'05
	13968 Mar 17 00:01	0° $\mathfrak{X}$			13969 Jan 07 17:35	0° $\mathfrak{A}$	
retrograde	13968 Mar 20 16:25	0° $\mathfrak{X}$ 41'44		max. Earth dist.	13969 Jan 09 22:06	4° $\mathfrak{A}$ 42'58	1.32746 AU
	13968 Mar 24 03:31	30° $\mathcal{R}$ $\mathfrak{Y}$		evening rise	13969 Jan 14 22:51	15° $\mathfrak{A}$ 10'16	
evening set	13968 Mar 27 05:08	28° $\mathfrak{Y}$ 09'36		desc. node	13969 Jan 22 01:17	28° $\mathfrak{A}$ 43'33	
min. Earth dist.	13968 Mar 31 04:18	24° $\mathfrak{Y}$ 16'52	0.65796 AU		13969 Jan 22 18:20	0° $\mathfrak{X}$	
asc. node	13968 Mar 31 08:35	24° $\mathfrak{Y}$ 04'47			13969 Feb 11 19:10	0° $\mathfrak{Y}$	
inferior conj	13968 Apr 02 08:04	21° $\mathfrak{Y}$ 47'40	0°37'19	evening max el	13969 Feb 17 21:27	6° $\mathfrak{Y}$ 36'13	27°29'05
minimum elong	13968 Apr 02 07:05	21° $\mathfrak{Y}$ 50'30	0°36'38	retrograde	13969 Mar 03 14:44	14° $\mathfrak{Y}$ 03'47	
morning rise	13968 Apr 08 10:28	16° $\mathfrak{Y}$ 13'03		evening set	13969 Mar 10 10:02	11° $\mathfrak{Y}$ 36'28	
direct	13968 Apr 11 06:47	15° $\mathfrak{Y}$ 28'55		min. Earth dist.	13969 Mar 14 05:30	8° $\mathfrak{Y}$ 14'22	0.64007 AU
morning max el	13968 Apr 17 15:18	18° $\mathfrak{Y}$ 48'41	18°06'50	inferior conj	13969 Mar 16 20:43	5° $\mathfrak{Y}$ 29'29	-0°26'56
	13968 Apr 26 04:22	0° $\mathfrak{X}$		minimum elong	13969 Mar 16 21:33	5° $\mathfrak{Y}$ 27'18	0°26'34
desc. node	13968 May 03 07:02	11° $\mathfrak{X}$ 15'50		asc. node	13969 Mar 18 06:04	4° $\mathfrak{Y}$ 03'49	
morning set	13968 May 06 09:28	16° $\mathfrak{X}$ 16'49		morning rise	13969 Mar 23 11:16	0° $\mathfrak{Y}$ 09'06	
	13968 May 14 22:25	0° $\mathfrak{I}$			13969 Mar 23 20:51	30° $\mathcal{R}$ $\mathfrak{X}$	
				direct	13969 Mar 25 23:01	29° $\mathfrak{X}$ 37'58	
superior conj	13968 May 21 08:01	10° $\mathfrak{I}$ 06'47	-1°53'04		13969 Mar 28 01:05	0° $\mathfrak{Y}$	
minimum elong	13968 May 20 23:17	9° $\mathfrak{I}$ 32'30	1°53'20	morning max el	13969 Apr 01 08:38	2° $\mathfrak{Y}$ 55'26	17°48'42
max. Earth dist.	13968 May 23 17:29	13° $\mathfrak{I}$ 51'47	1.45798 AU	morning set	13969 Apr 18 03:54	28° $\mathfrak{Y}$ 12'57	
	13968 Jun 03 02:39	0° $\mathfrak{E}$			13969 Apr 19 05:12	0° $\mathfrak{X}$	
evening rise	13968 Jun 06 10:29	5° $\mathfrak{E}$ 08'54		desc. node	13969 Apr 20 03:38	1° $\mathfrak{X}$ 34'46	
greatest brilliancy	13968 Jun 18 16:50	23° $\mathfrak{E}$ 55'50	-0.7m				
	13968 Jun 22 20:37	0° $\Omega$		superior conj	13969 May 01 06:56	20° $\mathfrak{X}$ 00'19	-1°19'39
asc. node	13968 Jun 27 06:25	5° $\Omega$ 54'04		minimum elong	13969 Apr 30 23:05	19° $\mathfrak{X}$ 28'35	1°19'25
evening max el	13968 Jun 30 14:35	9° $\Omega$ 40'11	19°18'28	max. Earth dist.	13969 May 06 12:57	28° $\mathfrak{X}$ 23'44	1.45092 AU
retrograde	13968 Jul 07 15:15	13° $\Omega$ 35'01			13969 May 07 13:21	0° $\mathfrak{I}$	

evening rise	13969 May 16 22:15	14° $\Pi$ 32'29		evening max el	13970 May 27 15:17	7° $\mathfrak{D}$ 19'48	21°26'47
	13969 May 27 04:04	0° $\mathfrak{D}$		asc. node	13970 Jun 01 00:26	10° $\mathfrak{D}$ 59'18	
evening max el	13969 Jun 13 17:53	23° $\mathfrak{D}$ 29'59	20°16'21	retrograde	13970 Jun 05 12:39	12° $\mathfrak{D}$ 31'12	
asc. node	13969 Jun 14 03:22	23° $\mathfrak{D}$ 53'23		evening set	13970 Jun 09 23:31	10° $\mathfrak{D}$ 42'19	
retrograde	13969 Jun 21 14:02	27° $\mathfrak{D}$ 59'06		inferior conj	13970 Jun 15 05:26	4° $\mathfrak{D}$ 27'53	3°07'59
evening set	13969 Jun 25 14:16	26° $\mathfrak{D}$ 26'54		minimum elong	13970 Jun 15 04:40	4° $\mathfrak{D}$ 30'34	3°06'52
inferior conj	13969 Jun 30 20:51	20° $\mathfrak{D}$ 23'37	3°11'31	min. Earth dist.	13970 Jun 15 11:22	4° $\mathfrak{D}$ 07'13	0.68813 AU
minimum elong	13969 Jun 30 21:03	20° $\mathfrak{D}$ 22'57	3°10'30		13970 Jun 18 15:02	30° $\mathfrak{R}$ $\Pi$	
min. Earth dist.	13969 Jul 01 16:18	19° $\mathfrak{D}$ 17'15	0.68184 AU	morning rise	13970 Jun 20 09:37	28° $\Pi$ 11'13	
morning rise	13969 Jul 06 03:31	14° $\mathfrak{D}$ 01'46		direct	13970 Jun 25 10:52	26° $\Pi$ 00'05	
direct	13969 Jul 11 17:17	11° $\mathfrak{D}$ 34'34			13970 Jul 03 10:50	0° $\mathfrak{D}$	
desc. node	13969 Jul 17 03:30	13° $\mathfrak{D}$ 24'30		desc. node	13970 Jul 04 00:44	0° $\mathfrak{D}$ 31'13	
morning max el	13969 Jul 23 01:51	18° $\mathfrak{D}$ 22'35	24°21'50	morning max el	13970 Jul 05 13:02	1° $\mathfrak{D}$ 58'37	22°52'17
	13969 Aug 01 20:38	0° $\mathfrak{Q}$			13970 Jul 26 19:28	0° $\mathfrak{Q}$	
	13969 Aug 21 23:52	0° $\mathfrak{P}$		morning set	13970 Aug 08 16:40	20° $\mathfrak{Q}$ 13'01	
morning set	13969 Aug 27 15:12	9° $\mathfrak{P}$ 31'09		max. Earth dist.	13970 Aug 13 05:07	27° $\mathfrak{Q}$ 47'35	1.40249 AU
max. Earth dist.	13969 Aug 31 06:08	15° $\mathfrak{P}$ 54'57	1.37883 AU		13970 Aug 14 11:58	0° $\mathfrak{P}$	
superior conj	13969 Sep 07 10:11	29° $\mathfrak{P}$ 15'33	-0°25'17	superior conj	13970 Aug 21 00:43	11° $\mathfrak{P}$ 34'59	-1°00'36
minimum elong	13969 Sep 07 11:55	29° $\mathfrak{P}$ 23'51	0°25'06	minimum elong	13970 Aug 21 05:17	11° $\mathfrak{P}$ 55'46	1°00'19
	13969 Sep 07 19:25	0° $\mathfrak{L}$		asc. node	13970 Aug 28 01:06	24° $\mathfrak{P}$ 39'56	
asc. node	13969 Sep 10 04:34	4° $\mathfrak{L}$ 38'06		evening rise	13970 Aug 30 19:44	29° $\mathfrak{P}$ 57'03	
evening rise	13969 Sep 16 01:55	16° $\mathfrak{L}$ 19'10			13970 Aug 30 20:22	0° $\mathfrak{L}$	
	13969 Sep 23 05:36	0° $\mathfrak{M}$		evening max el	13970 Sep 15 18:56	25° $\mathfrak{L}$ 42'22	18°28'30
evening max el	13969 Oct 02 16:12	13° $\mathfrak{M}$ 31'05	19°11'19	retrograde	13970 Sep 23 14:10	29° $\mathfrak{L}$ 39'10	
retrograde	13969 Oct 11 19:33	18° $\mathfrak{M}$ 06'03		evening set	13970 Sep 25 14:04	29° $\mathfrak{L}$ 24'25	
desc. node	13969 Oct 12 23:41	18° $\mathfrak{M}$ 01'48		desc. node	13970 Sep 29 21:11	27° $\mathfrak{L}$ 25'28	
evening set	13969 Oct 13 16:15	17° $\mathfrak{M}$ 55'26		inferior conj	13970 Oct 03 08:51	24° $\mathfrak{L}$ 52'13	-1°06'26
inferior conj	13969 Oct 22 04:21	13° $\mathfrak{M}$ 43'41	-2°53'15	minimum elong	13970 Oct 03 06:15	24° $\mathfrak{L}$ 57'20	1°05'02
minimum elong	13969 Oct 21 21:01	13° $\mathfrak{M}$ 56'01	2°49'51	min. Earth dist.	13970 Oct 06 14:36	22° $\mathfrak{L}$ 20'12	0.57829 AU
min. Earth dist.	13969 Oct 24 21:24	11° $\mathfrak{M}$ 54'45	0.55974 AU	morning rise	13970 Oct 10 18:57	19° $\mathfrak{L}$ 38'23	
morning rise	13969 Oct 29 23:14	9° $\mathfrak{M}$ 07'41		direct	13970 Oct 16 22:11	18° $\mathfrak{L}$ 02'17	
direct	13969 Nov 04 11:03	7° $\mathfrak{M}$ 58'19		morning max el	13970 Oct 31 05:31	25° $\mathfrak{L}$ 35'51	27°03'36
morning max el	13969 Nov 18 12:51	15° $\mathfrak{M}$ 07'09	25°42'09		13970 Nov 04 08:29	0° $\mathfrak{M}$	
	13969 Nov 30 10:18	0° $\mathfrak{X}$			13970 Nov 23 18:05	0° $\mathfrak{X}$	
asc. node	13969 Dec 07 05:59	11° $\mathfrak{X}$ 27'10		asc. node	13970 Nov 24 02:53	0° $\mathfrak{X}$ 42'16	
morning set	13969 Dec 16 00:14	28° $\mathfrak{X}$ 59'23		morning set	13970 Nov 30 09:29	13° $\mathfrak{X}$ 28'58	
	13969 Dec 16 11:29	0° $\mathfrak{Z}$		superior conj	13970 Dec 07 05:58	28° $\mathfrak{X}$ 34'30	1°35'00
superior conj	13969 Dec 22 18:31	13° $\mathfrak{Z}$ 52'40	1°38'04	minimum elong	13970 Dec 07 04:55	28° $\mathfrak{X}$ 28'38	1°35'59
minimum elong	13969 Dec 22 18:29	13° $\mathfrak{Z}$ 52'29	1°39'07	max. Earth dist.	13970 Dec 07 09:56	28° $\mathfrak{X}$ 56'42	1.31212 AU
max. Earth dist.	13969 Dec 24 02:11	16° $\mathfrak{Z}$ 47'51	1.31728 AU		13970 Dec 07 21:15	0° $\mathfrak{Z}$	
evening rise	13969 Dec 29 21:02	29° $\mathfrak{Z}$ 14'46		evening rise	13970 Dec 14 01:26	13° $\mathfrak{Z}$ 33'08	
	13969 Dec 30 05:45	0° $\mathfrak{A}$			13970 Dec 22 07:18	0° $\mathfrak{A}$	
desc. node	13970 Jan 08 22:00	18° $\mathfrak{A}$ 32'35		desc. node	13970 Dec 26 18:51	7° $\mathfrak{A}$ 53'53	
	13970 Jan 15 21:25	0° $\mathfrak{H}$			13971 Jan 12 00:22	0° $\mathfrak{H}$	
evening max el	13970 Jan 31 07:23	19° $\mathfrak{H}$ 24'24	27°30'59	evening max el	13971 Jan 13 11:35	1° $\mathfrak{H}$ 26'38	26°58'50
retrograde	13970 Feb 14 05:13	26° $\mathfrak{H}$ 46'01		retrograde	13971 Jan 27 10:57	8° $\mathfrak{H}$ 39'37	
evening set	13970 Feb 21 02:42	24° $\mathfrak{H}$ 30'50		evening set	13971 Feb 03 03:52	6° $\mathfrak{H}$ 44'23	
min. Earth dist.	13970 Feb 24 20:55	21° $\mathfrak{H}$ 34'15	0.61951 AU	min. Earth dist.	13971 Feb 07 01:45	4° $\mathfrak{H}$ 04'21	0.59753 AU
inferior conj	13970 Feb 27 21:23	18° $\mathfrak{H}$ 46'31	-1°42'27	inferior conj	13971 Feb 10 06:29	1° $\mathfrak{H}$ 29'10	-3°06'03
minimum elong	13970 Feb 28 00:57	18° $\mathfrak{H}$ 38'14	1°40'40	minimum elong	13971 Feb 10 13:15	1° $\mathfrak{H}$ 15'26	3°02'58
asc. node	13970 Mar 05 03:34	14° $\mathfrak{H}$ 35'51			13971 Feb 12 03:33	30° $\mathfrak{R}$ $\mathfrak{A}$	
morning rise	13970 Mar 07 02:05	13° $\mathfrak{H}$ 43'33		morning rise	13971 Feb 18 01:52	26° $\mathfrak{A}$ 46'39	
direct	13970 Mar 09 07:06	13° $\mathfrak{H}$ 21'51		direct	13971 Feb 20 02:48	26° $\mathfrak{A}$ 30'53	
morning max el	13970 Mar 16 01:53	16° $\mathfrak{H}$ 47'38	17°48'18	asc. node	13971 Feb 20 01:01	26° $\mathfrak{A}$ 30'54	
	13970 Mar 25 11:08	0° $\mathfrak{Y}$			13971 Feb 27 09:04	0° $\mathfrak{H}$	
morning set	13970 Mar 31 20:45	11° $\mathfrak{Y}$ 12'15		morning max el	13971 Feb 27 15:37	0° $\mathfrak{H}$ 15'45	18°06'48
desc. node	13970 Apr 07 00:09	22° $\mathfrak{Y}$ 03'06		morning set	13971 Mar 15 06:02	24° $\mathfrak{H}$ 56'43	
	13970 Apr 11 15:00	0° $\mathfrak{B}$			13971 Mar 17 23:04	0° $\mathfrak{Y}$	
superior conj	13970 Apr 12 04:52	0° $\mathfrak{B}$ 58'46	-0°40'14	desc. node	13971 Mar 24 20:40	12° $\mathfrak{Y}$ 37'06	
minimum elong	13970 Apr 12 01:02	0° $\mathfrak{B}$ 42'34	0°40'05	superior conj	13971 Mar 25 02:24	13° $\mathfrak{Y}$ 02'44	-0°01'56
max. Earth dist.	13970 Apr 19 05:29	12° $\mathfrak{B}$ 35'46	1.43721 AU	minimum elong	13971 Mar 25 02:14	13° $\mathfrak{Y}$ 01'57	0°02'02
evening rise	13970 Apr 26 13:09	24° $\mathfrak{B}$ 11'48		behind sun begin	13971 Mar 24 18:35	12° $\mathfrak{Y}$ 27'47	
	13970 Apr 30 07:39	0° $\mathfrak{I}$		behind sun end	13971 Mar 25 09:53	13° $\mathfrak{Y}$ 36'03	
	13970 May 21 07:16	0° $\mathfrak{D}$		max. Earth dist.	13971 Apr 01 17:18	26° $\mathfrak{Y}$ 13'15	1.41831 AU

	13971 Apr 03 23:55	0°♄		evening rise	13972 Mar 18 00:00	15°♄58'07	
evening rise	13971 Apr 06 20:04	4°♄37'15			13972 Mar 26 15:50	0°♄	
	13971 Apr 23 13:58	0°♄			13972 Apr 17 06:40	0°♄	
evening max el	13971 May 10 08:00	21°♄10'32	22°45'24	evening max el	13972 Apr 21 22:09	5°♄03'03	24°06'32
asc. node	13971 May 18 21:38	26°♄56'06		retrograde	13972 May 03 03:22	11°♄38'00	
retrograde	13971 May 20 09:33	27°♄06'15		asc. node	13972 May 04 18:55	11°♄25'56	
evening set	13971 May 25 07:38	25°♄02'11		evening set	13972 May 08 12:59	9°♄21'06	
inferior conj	13971 May 30 15:09	18°♄38'47	2°53'51	min. Earth dist.	13972 May 13 04:28	3°♄58'25	0.68646 AU
minimum elong	13971 May 30 13:36	18°♄44'12	2°52'36	inferior conj	13972 May 14 00:04	2°♄51'56	2°29'29
min. Earth dist.	13971 May 30 08:09	19°♄03'09	0.68964 AU	minimum elong	13972 May 13 22:01	2°♄58'54	2°28'07
morning rise	13971 Jun 04 19:28	12°♄28'47			13972 May 16 04:29	30°♄	
direct	13971 Jun 09 07:57	10°♄37'00		morning rise	13972 May 19 07:07	26°♄49'52	
morning max el	13971 Jun 18 03:55	15°♄44'03	21°26'32	direct	13972 May 23 07:16	25°♄18'34	
desc. node	13971 Jun 20 21:51	18°♄41'21		morning max el	13972 May 31 01:08	29°♄40'01	20°11'06
	13971 Jun 29 17:00	0°♄			13972 May 31 09:08	0°♄	
morning set	13971 Jul 19 17:24	29°♄50'53		desc. node	13972 Jun 06 18:52	7°♄37'26	
	13971 Jul 19 19:42	0°♄			13972 Jun 22 06:32	0°♄	
max. Earth dist.	13971 Jul 26 08:48	10°♄31'40	1.42450 AU	morning set	13972 Jun 27 22:51	8°♄40'11	
				max. Earth dist.	13972 Jul 07 18:56	24°♄04'30	1.44234 AU
superior conj	13971 Aug 02 19:20	23°♄01'34	-1°34'29		13972 Jul 11 11:24	0°♄	
minimum elong	13971 Aug 03 02:19	23°♄31'39	1°34'22				
	13971 Aug 06 19:18	0°♄		superior conj	13972 Jul 13 14:36	3°♄28'31	-2°01'10
evening rise	13971 Aug 14 01:16	13°♄01'06		minimum elong	13972 Jul 13 21:13	3°♄55'36	2°01'39
asc. node	13971 Aug 14 21:41	14°♄33'41		evening rise	13972 Jul 26 13:31	25°♄18'32	
	13971 Aug 23 18:42	0°♄			13972 Jul 29 06:51	0°♄	
evening max el	13971 Aug 30 05:23	8°♄31'16	18°06'25	asc. node	13972 Jul 31 18:20	4°♄14'39	
retrograde	13971 Sep 06 02:54	12°♄02'56		evening max el	13972 Aug 12 19:28	21°♄47'21	18°03'40
evening set	13971 Sep 08 09:55	11°♄39'53		retrograde	13972 Aug 19 05:52	25°♄08'01	
inferior conj	13971 Sep 15 10:40	6°♄47'16	0°24'39	evening set	13972 Aug 21 21:11	24°♄33'08	
minimum elong	13971 Sep 15 11:27	6°♄45'27	0°24'22	inferior conj	13972 Aug 28 06:25	19°♄21'48	1°33'57
desc. node	13971 Sep 16 18:43	5°♄33'29		minimum elong	13972 Aug 28 08:41	19°♄15'50	1°32'54
min. Earth dist.	13971 Sep 18 16:22	3°♄50'43	0.60050 AU	min. Earth dist.	13972 Aug 31 03:32	16°♄22'38	0.62333 AU
morning rise	13971 Sep 22 09:45	1°♄01'25		desc. node	13972 Sep 02 16:15	14°♄03'31	
	13971 Sep 24 07:48	30°♄		morning rise	13972 Sep 03 17:51	13°♄14'16	
direct	13971 Sep 28 22:46	28°♄58'31		direct	13972 Sep 10 10:15	10°♄50'05	
	13971 Oct 03 18:31	0°♄		morning max el	13972 Sep 24 12:33	18°♄50'24	27°56'46
morning max el	13971 Oct 13 06:00	6°♄50'01	27°49'41		13972 Oct 03 23:19	0°♄	
	13971 Oct 30 17:43	0°♄			13972 Oct 22 15:03	0°♄	
asc. node	13971 Nov 10 23:41	20°♄18'49		asc. node	13972 Oct 27 20:26	10°♄10'31	
morning set	13971 Nov 14 14:44	27°♄43'59		morning set	13972 Oct 28 13:54	11°♄39'22	
	13971 Nov 15 16:28	0°♄		max. Earth dist.	13972 Nov 02 21:56	22°♄54'46	1.31780 AU
max. Earth dist.	13971 Nov 20 17:46	11°♄01'55	1.31225 AU				
				superior conj	13972 Nov 05 02:30	27°♄41'53	1°11'22
superior conj	13971 Nov 21 17:15	13°♄12'37	1°26'04	minimum elong	13972 Nov 05 00:14	27°♄29'27	1°11'53
minimum elong	13971 Nov 21 15:24	13°♄02'21	1°26'51		13972 Nov 06 03:35	0°♄	
evening rise	13971 Nov 28 09:57	28°♄00'35		evening rise	13972 Nov 11 20:41	12°♄32'26	
	13971 Nov 29 08:14	0°♄			13972 Nov 20 12:52	0°♄	
desc. node	13971 Dec 13 15:49	26°♄36'44		desc. node	13972 Nov 29 12:54	14°♄26'57	
	13971 Dec 15 21:50	0°♄		evening max el	13972 Dec 06 20:31	22°♄59'40	24°20'39
evening max el	13971 Dec 26 07:52	12°♄36'17	25°52'46	retrograde	13972 Dec 20 12:33	29°♄48'10	
retrograde	13972 Jan 09 06:08	19°♄38'49		evening set	13972 Dec 25 15:48	28°♄50'24	
evening set	13972 Jan 15 09:26	18°♄10'42		min. Earth dist.	13972 Dec 31 08:10	25°♄58'11	0.55876 AU
min. Earth dist.	13972 Jan 19 20:47	15°♄33'16	0.57634 AU	inferior conj	13973 Jan 02 13:41	24°♄35'48	-5°34'34
inferior conj	13972 Jan 22 20:29	13°♄27'27	-4°29'11	minimum elong	13973 Jan 02 20:33	24°♄25'12	5°32'32
minimum elong	13972 Jan 23 05:22	13°♄11'48	4°25'50	morning rise	13973 Jan 11 03:15	20°♄35'11	
morning rise	13972 Jan 31 04:11	9°♄06'46		direct	13973 Jan 13 13:28	20°♄19'40	
direct	13972 Feb 02 05:43	8°♄53'19		morning max el	13973 Jan 23 16:18	25°♄12'20	19°47'20
asc. node	13972 Feb 06 22:27	10°♄07'29		asc. node	13973 Jan 23 19:49	25°♄20'51	
morning max el	13972 Feb 10 21:48	13°♄07'44	18°45'51		13973 Jan 27 20:03	0°♄	
	13972 Feb 22 07:22	0°♄		morning set	13973 Feb 10 06:51	23°♄43'14	
morning set	13972 Feb 27 02:39	9°♄10'39			13973 Feb 13 09:02	0°♄	
superior conj	13972 Mar 06 19:33	25°♄59'37	0°31'23	superior conj	13973 Feb 18 03:45	9°♄36'57	0°58'04
minimum elong	13972 Mar 06 21:32	26°♄08'57	0°31'15	minimum elong	13973 Feb 18 06:27	9°♄50'20	0°58'08
	13972 Mar 08 23:06	0°♄		max. Earth dist.	13973 Feb 24 06:57	21°♄24'14	1.37384 AU
desc. node	13972 Mar 10 17:10	3°♄12'37		desc. node	13973 Feb 25 13:42	23°♄46'07	
max. Earth dist.	13972 Mar 14 00:37	9°♄07'24	1.39636 AU	evening rise	13973 Feb 28 00:17	28°♄10'39	



	13973 Mar 01 00:59	0°♿		desc. node	13974 Feb 12 10:14	14°♿13'26	
	13973 Mar 20 01:00	0°♿			13974 Feb 21 13:30	0°♿	
evening max el	13973 Apr 04 11:46	18°♿56'28	25°23'15		13974 Mar 15 09:22	0°♿	
retrograde	13973 Apr 16 16:50	26°♿00'21		evening max el	13974 Mar 18 01:32	2°♿44'56	26°28'16
asc. node	13973 Apr 21 16:17	24°♿16'11		retrograde	13974 Mar 31 01:04	10°♿06'18	
evening set	13973 Apr 22 13:57	23°♿33'52		evening set	13974 Apr 06 08:46	7°♿34'31	
min. Earth dist.	13973 Apr 26 22:06	18°♿47'13	0.67874 AU	asc. node	13974 Apr 08 13:43	5°♿30'10	
inferior conj	13973 Apr 28 06:14	17°♿03'14	1°54'42	min. Earth dist.	13974 Apr 10 10:51	3°♿22'53	0.66669 AU
minimum elong	13973 Apr 28 04:07	17°♿10'08	1°53'21	inferior conj	13974 Apr 12 07:33	1°♿07'49	1°08'56
morning rise	13973 May 03 18:41	11°♿10'29		minimum elong	13974 Apr 12 05:56	1°♿12'43	1°07'53
direct	13973 May 07 07:16	9°♿59'07			13974 Apr 13 06:11	30°♿♿	
morning max el	13973 May 14 05:51	13°♿46'12	19°09'59	morning rise	13974 Apr 18 04:05	25°♿26'08	
desc. node	13973 May 24 15:46	27°♿07'08		direct	13974 Apr 21 06:05	24°♿32'48	
	13973 May 26 14:43	0°♿		morning max el	13974 Apr 27 17:19	27°♿58'41	18°25'07
greatest brilliancy	13973 May 27 04:09	0°♿50'00	-0.7m		13974 Apr 29 14:52	0°♿	
morning set	13973 Jun 07 02:49	17°♿31'24		desc. node	13974 May 11 12:33	17°♿01'20	
	13973 Jun 15 04:08	0°♿		morning set	13974 May 18 01:47	27°♿21'37	
max. Earth dist.	13973 Jun 20 11:10	8°♿16'08	1.45414 AU		13974 May 19 17:51	0°♿	
superior conj	13973 Jun 23 11:36	13°♿01'12	-2°13'28	superior conj	13974 Jun 02 20:10	22°♿07'32	-2°06'06
minimum elong	13973 Jun 23 12:46	13°♿05'52	2°14'31	minimum elong	13974 Jun 02 13:48	21°♿42'42	2°06'50
	13973 Jul 04 01:59	0°♿		max. Earth dist.	13974 Jun 03 07:03	22°♿50'01	1.45871 AU
evening rise	13973 Jul 08 03:30	6°♿38'01			13974 Jun 07 21:14	0°♿	
asc. node	13973 Jul 18 15:03	23°♿37'18		evening rise	13974 Jun 18 16:54	16°♿57'01	
	13973 Jul 22 22:44	0°♿			13974 Jun 27 00:37	0°♿	
evening max el	13973 Jul 27 09:41	5°♿21'07	18°19'06	greatest brilliancy	13974 Jun 28 01:51	1°♿37'41	-0.8m
retrograde	13973 Aug 02 18:41	8°♿44'42		asc. node	13974 Jul 05 11:51	12°♿35'16	
evening set	13973 Aug 05 18:39	7°♿55'18		evening max el	13974 Jul 10 21:07	19°♿05'24	18°51'59
inferior conj	13973 Aug 11 15:58	2°♿27'13	2°22'21	retrograde	13974 Jul 17 13:42	22°♿45'19	
minimum elong	13973 Aug 11 18:22	2°♿20'15	2°21'10	evening set	13974 Jul 20 22:35	21°♿39'50	
	13973 Aug 13 18:46	30°♿♿		inferior conj	13974 Jul 26 11:39	15°♿56'46	2°52'48
min. Earth dist.	13973 Aug 14 00:09	29°♿44'48	0.64448 AU	minimum elong	13974 Jul 26 13:24	15°♿51'15	2°51'42
morning rise	13973 Aug 17 16:39	26°♿07'31		min. Earth dist.	13974 Jul 28 05:26	13°♿45'17	0.66232 AU
desc. node	13973 Aug 20 13:47	24°♿19'20		morning rise	13974 Aug 01 03:26	9°♿32'16	
direct	13973 Aug 24 06:22	23°♿30'57		direct	13974 Aug 07 09:58	6°♿52'49	
	13973 Sep 05 09:57	0°♿		desc. node	13974 Aug 07 11:15	6°♿52'50	
morning max el	13973 Sep 06 22:38	1°♿29'08	27°27'48	morning max el	13974 Aug 20 09:59	14°♿35'58	26°29'48
	13973 Sep 28 03:29	0°♿			13974 Sep 02 00:00	0°♿	
morning set	13973 Oct 12 04:24	25°♿07'59			13974 Sep 20 21:42	0°♿	
asc. node	13973 Oct 14 17:03	0°♿11'27		morning set	13974 Sep 25 07:10	8°♿03'05	
	13973 Oct 14 14:48	0°♿		max. Earth dist.	13974 Sep 29 06:08	15°♿40'37	1.34502 AU
max. Earth dist.	13973 Oct 16 18:51	4°♿27'31	1.32880 AU	asc. node	13974 Oct 01 13:38	20°♿17'40	
superior conj	13973 Oct 20 07:35	11°♿55'28	0°50'57	superior conj	13974 Oct 04 06:07	25°♿47'34	0°25'02
minimum elong	13973 Oct 20 05:26	11°♿43'56	0°51'12	minimum elong	13974 Oct 04 04:48	25°♿40'42	0°25'08
evening rise	13973 Oct 27 07:40	27°♿02'44			13974 Oct 06 06:34	0°♿	
	13973 Oct 28 17:06	0°♿		evening rise	13974 Oct 11 17:03	11°♿26'49	
	13973 Nov 15 11:23	0°♿			13974 Oct 21 06:40	0°♿	
desc. node	13973 Nov 16 10:06	1°♿04'15		evening max el	13974 Oct 30 23:41	13°♿13'49	21°02'42
evening max el	13973 Nov 18 06:36	2°♿59'34	22°38'06	desc. node	13974 Nov 03 07:23	16°♿03'52	
retrograde	13973 Dec 01 05:55	9°♿25'32		retrograde	13974 Nov 11 16:42	19°♿02'54	
evening set	13973 Dec 05 01:01	8°♿54'06		evening set	13974 Nov 14 06:07	18°♿47'24	
min. Earth dist.	13973 Dec 12 14:44	5°♿28'25	0.54762 AU	inferior conj	13974 Nov 23 04:01	14°♿54'04	-5°21'53
inferior conj	13973 Dec 13 12:48	4°♿57'13	-5°57'57	minimum elong	13974 Nov 22 19:17	15°♿06'26	5°19'13
minimum elong	13973 Dec 13 11:53	4°♿58'32	5°56'52	min. Earth dist.	13974 Nov 23 20:32	14°♿30'39	0.54510 AU
morning rise	13973 Dec 22 00:01	1°♿09'25		morning rise	13974 Dec 01 08:52	11°♿02'14	
direct	13973 Dec 25 04:12	0°♿46'24		direct	13974 Dec 05 11:32	10°♿25'59	
morning max el	13974 Jan 05 20:16	6°♿21'32	21°11'52	morning max el	13974 Dec 18 11:24	16°♿42'35	22°54'58
asc. node	13974 Jan 10 17:06	11°♿54'28		asc. node	13974 Dec 28 14:16	29°♿31'07	
	13974 Jan 21 12:17	0°♿			13974 Dec 28 21:35	0°♿	
morning set	13974 Jan 25 15:43	8°♿25'35		morning set	13975 Jan 10 03:02	23°♿11'18	
					13975 Jan 13 07:08	0°♿	
superior conj	13974 Feb 01 22:55	23°♿42'58	1°17'47				
minimum elong	13974 Feb 02 01:22	23°♿55'39	1°18'12	superior conj	13975 Jan 17 01:46	8°♿08'39	1°30'41
	13974 Feb 05 00:49	0°♿		minimum elong	13975 Jan 17 03:25	8°♿17'28	1°31'27
max. Earth dist.	13974 Feb 06 16:56	3°♿19'45	1.35295 AU	max. Earth dist.	13975 Jan 20 09:45	15°♿11'21	1.33548 AU
evening rise	13974 Feb 10 17:42	11°♿05'22		evening rise	13975 Jan 25 00:45	24°♿33'30	

	13975 Jan 27 20:31	0° $\text{H}$		superior conj	13976 Jan 01 09:41	22° $\text{Z}$ 46'26	1°37'09
desc. node	13975 Jan 30 06:49	4° $\text{H}$ 30'22		minimum elong	13976 Jan 01 10:17	22° $\text{Z}$ 49'43	1°38'08
	13975 Feb 15 02:12	0° $\text{Y}$		max. Earth dist.	13976 Jan 03 10:02	27° $\text{Z}$ 10'27	1.32246 AU
evening max el	13975 Feb 28 14:56	16° $\text{Y}$ 18'49	27°14'07		13976 Jan 04 17:28	0° $\approx$	
retrograde	13975 Mar 14 03:15	23° $\text{Y}$ 47'15		evening rise	13976 Jan 08 18:15	8° $\approx$ 27'23	
evening set	13975 Mar 20 19:24	21° $\text{Y}$ 16'00		desc. node	13976 Jan 17 03:29	24° $\approx$ 31'50	
min. Earth dist.	13975 Mar 24 16:40	17° $\text{Y}$ 37'08	0.65071 AU		13976 Jan 20 06:56	0° $\text{H}$	
asc. node	13975 Mar 26 11:11	15° $\text{Y}$ 39'49		evening max el	13976 Feb 11 02:42	29° $\text{H}$ 27'37	27°33'52
inferior conj	13975 Mar 27 01:35	14° $\text{Y}$ 59'41	0°11'28		13976 Feb 11 16:27	0° $\text{Y}$	
minimum elong	13975 Mar 27 01:16	15° $\text{Y}$ 00'35	0°11'11	retrograde	13976 Feb 24 22:41	6° $\text{Y}$ 54'15	
transit middle	13975 Mar 27 01:16	15° $\text{Y}$ 00'35	0°11'11	evening set	13976 Mar 02 19:31	4° $\text{Y}$ 30'53	
transit begin	13975 Mar 26 23:06	15° $\text{Y}$ 06'36		min. Earth dist.	13976 Mar 06 13:53	1° $\text{Y}$ 20'36	0.63151 AU
transit end	13975 Mar 27 03:26	14° $\text{Y}$ 54'34			13976 Mar 07 22:39	30° $\text{R}$ $\text{H}$	
morning rise	13975 Apr 02 08:53	9° $\text{Y}$ 31'06		inferior conj	13976 Mar 09 09:34	28° $\text{H}$ 32'23	-0°57'43
direct	13975 Apr 05 01:24	8° $\text{Y}$ 52'57		minimum elong	13976 Mar 09 11:27	28° $\text{H}$ 27'40	0°56'47
morning max el	13975 Apr 11 09:22	12° $\text{Y}$ 10'08	17°57'06	asc. node	13976 Mar 12 08:40	25° $\text{H}$ 45'37	
	13975 Apr 23 23:52	0° $\text{Z}$		morning rise	13976 Mar 16 05:58	23° $\text{H}$ 19'19	
desc. node	13975 Apr 28 09:12	7° $\text{Z}$ 12'44		direct	13976 Mar 18 14:30	22° $\text{H}$ 52'46	
morning set	13975 Apr 29 04:39	8° $\text{Z}$ 32'55		morning max el	13976 Mar 25 03:09	26° $\text{H}$ 12'41	17°46'21
	13975 May 12 10:02	0° $\text{II}$			13976 Mar 28 09:45	0° $\text{Y}$	
				morning set	13976 Apr 10 09:23	20° $\text{Y}$ 58'23	
superior conj	13975 May 13 09:22	1° $\text{II}$ 32'32	-1°40'12	desc. node	13976 Apr 14 05:46	27° $\text{Y}$ 36'26	
minimum elong	13975 May 13 00:20	0° $\text{II}$ 56'45	1°40'10		13976 Apr 15 15:22	0° $\text{Z}$	
max. Earth dist.	13975 May 17 03:08	7° $\text{II}$ 26'20	1.45576 AU				
evening rise	13975 May 29 10:17	26° $\text{II}$ 30'10		superior conj	13976 Apr 22 17:37	11° $\text{Z}$ 53'09	-1°03'11
	13975 May 31 17:02	0° $\text{Z}$		minimum elong	13976 Apr 22 11:20	11° $\text{Z}$ 27'20	1°02'57
greatest brilliancy	13975 Jun 12 10:56	17° $\text{Z}$ 41'56	-0.6m	max. Earth dist.	13976 Apr 28 21:05	21° $\text{Z}$ 49'58	1.44574 AU
	13975 Jun 21 12:23	0° $\Omega$			13976 May 04 01:29	0° $\text{II}$	
asc. node	13975 Jun 22 08:46	0° $\Omega$ 59'08		evening rise	13976 May 07 21:22	5° $\text{II}$ 55'22	
evening max el	13975 Jun 24 03:36	2° $\Omega$ 53'42	19°41'17		13976 May 24 01:34	0° $\text{Z}$	
retrograde	13975 Jul 01 11:51	7° $\Omega$ 02'20		evening max el	13976 Jun 06 04:18	16° $\text{Z}$ 43'28	20°45'00
evening set	13975 Jul 05 06:13	5° $\Omega$ 39'59		asc. node	13976 Jun 08 05:47	18° $\text{Z}$ 37'40	
	13975 Jul 10 09:24	30° $\text{R}$ $\text{Z}$		retrograde	13976 Jun 14 10:50	21° $\text{Z}$ 30'19	
inferior conj	13975 Jul 10 14:19	29° $\text{Z}$ 43'35	3°08'22	evening set	13976 Jun 18 15:24	19° $\text{Z}$ 51'08	
minimum elong	13975 Jul 10 15:06	29° $\text{Z}$ 40'57	3°07'21	inferior conj	13976 Jun 23 21:24	13° $\text{Z}$ 42'52	3°11'22
min. Earth dist.	13975 Jul 11 17:46	28° $\text{Z}$ 11'54	0.67599 AU	minimum elong	13976 Jun 23 21:10	13° $\text{Z}$ 43'39	3°10'19
morning rise	13975 Jul 15 23:33	23° $\text{Z}$ 19'31		min. Earth dist.	13976 Jun 24 11:05	12° $\text{Z}$ 55'35	0.68506 AU
direct	13975 Jul 21 19:53	20° $\text{Z}$ 45'44		morning rise	13976 Jun 29 02:40	7° $\text{Z}$ 22'43	
desc. node	13975 Jul 25 08:39	21° $\text{Z}$ 32'28		direct	13976 Jul 04 11:11	5° $\text{Z}$ 01'37	
morning max el	13975 Aug 02 20:48	27° $\text{Z}$ 58'43	25°11'51	desc. node	13976 Jul 11 05:58	7° $\text{Z}$ 52'52	
	13975 Aug 04 18:49	0° $\Omega$		morning max el	13976 Jul 15 07:12	11° $\text{Z}$ 30'07	23°43'43
	13975 Aug 26 16:42	0° $\text{M}$			13976 Jul 30 01:57	0° $\Omega$	
morning set	13975 Sep 07 18:20	20° $\text{M}$ 15'06			13976 Aug 18 11:18	0° $\text{M}$	
max. Earth dist.	13975 Sep 11 08:11	26° $\text{M}$ 46'21	1.36562 AU	morning set	13976 Aug 19 09:21	1° $\text{M}$ 33'07	
	13975 Sep 13 01:29	0° $\text{Z}$		max. Earth dist.	13976 Aug 23 05:52	8° $\text{M}$ 12'16	1.38889 AU
superior conj	13975 Sep 17 19:12	9° $\text{Z}$ 10'40	-0°05'49	superior conj	13976 Aug 30 19:13	21° $\text{M}$ 56'32	-0°40'10
minimum elong	13975 Sep 17 19:34	9° $\text{Z}$ 12'27	0°05'42	minimum elong	13976 Aug 30 22:06	22° $\text{M}$ 10'07	0°39'55
behind sun begin	13975 Sep 17 13:30	8° $\text{Z}$ 42'31		asc. node	13976 Sep 04 06:43	0° $\text{Z}$ 30'05	
behind sun end	13975 Sep 18 01:37	9° $\text{Z}$ 42'27			13976 Sep 04 00:30	0° $\text{Z}$	
asc. node	13975 Sep 18 10:11	10° $\text{Z}$ 25'02		evening rise	13976 Sep 08 21:39	9° $\text{Z}$ 31'15	
evening rise	13975 Sep 25 22:36	25° $\text{Z}$ 38'33			13976 Sep 20 08:13	0° $\text{M}$	
	13975 Sep 28 02:29	0° $\text{M}$		evening max el	13976 Sep 25 03:02	5° $\text{M}$ 57'36	18°50'30
evening max el	13975 Oct 13 06:28	24° $\text{M}$ 10'55	19°45'41	retrograde	13976 Oct 03 15:31	10° $\text{M}$ 14'33	
desc. node	13975 Oct 21 04:45	28° $\text{M}$ 59'22		evening set	13976 Oct 05 12:48	10° $\text{M}$ 02'45	
retrograde	13975 Oct 23 08:24	29° $\text{M}$ 12'42		desc. node	13976 Oct 07 02:14	9° $\text{M}$ 36'15	
evening set	13975 Oct 25 06:42	29° $\text{M}$ 02'28		inferior conj	13976 Oct 13 18:03	5° $\text{M}$ 43'01	-2°06'53
inferior conj	13975 Nov 03 02:02	25° $\text{M}$ 00'32	-3°54'56	minimum elong	13976 Oct 13 12:44	5° $\text{M}$ 52'31	2°04'16
minimum elong	13975 Nov 02 16:31	25° $\text{M}$ 15'19	3°51'00	min. Earth dist.	13976 Oct 16 18:31	3° $\text{M}$ 33'37	0.56700 AU
min. Earth dist.	13975 Nov 05 05:04	23° $\text{M}$ 41'20	0.55193 AU	morning rise	13976 Oct 21 09:30	0° $\text{M}$ 50'42	
morning rise	13975 Nov 11 00:40	20° $\text{M}$ 44'11			13976 Oct 23 16:18	30° $\text{R}$ $\text{Z}$	
direct	13975 Nov 16 01:11	19° $\text{M}$ 48'29		direct	13976 Oct 27 04:41	29° $\text{Z}$ 29'55	
morning max el	13975 Nov 29 21:04	26° $\text{M}$ 41'15	24°43'57		13976 Oct 30 17:40	0° $\text{M}$	
	13975 Dec 03 01:38	0° $\text{Z}$		morning max el	13976 Nov 10 09:32	6° $\text{M}$ 50'39	26°20'25
asc. node	13975 Dec 15 11:21	17° $\text{Z}$ 55'40			13976 Nov 27 11:52	0° $\text{Z}$	
	13975 Dec 21 20:08	0° $\text{Z}$		asc. node	13976 Dec 01 08:18	6° $\text{Z}$ 55'22	
morning set	13975 Dec 25 14:56	7° $\text{Z}$ 55'10		morning set	13976 Dec 09 01:39	22° $\text{Z}$ 31'26	

	13976 Dec 12 11:47	0°♄		superior conj	13977 Nov 30 08:04	22°♄10'17	1°31'55
				minimum elong	13977 Nov 30 06:38	22°♄02'21	1°32'50
superior conj	13976 Dec 15 20:25	7°♄28'46	1°37'29	max. Earth dist.	13977 Nov 30 00:20	21°♄27'03	1.31161 AU
minimum elong	13976 Dec 15 19:56	7°♄26'05	1°38'32		13977 Dec 03 20:20	0°♄	
max. Earth dist.	13976 Dec 16 15:57	9°♄17'31	1.31443 AU	evening rise	13977 Dec 07 01:51	7°♄02'49	
evening rise	13976 Dec 22 19:22	22°♄39'03			13977 Dec 18 21:58	0°♄	
	13976 Dec 26 09:26	0°♄		desc. node	13977 Dec 20 21:10	3°♄17'12	
desc. node	13977 Jan 03 00:15	14°♄10'23		evening max el	13978 Jan 05 11:55	23°♄39'27	26°34'35
	13977 Jan 13 05:12	0°♄			13978 Jan 15 00:42	0°♄	
evening max el	13977 Jan 23 10:36	11°♄58'08	27°21'40	retrograde	13978 Jan 19 11:00	0°♄47'12	
retrograde	13977 Feb 06 09:48	19°♄16'37			13978 Jan 23 19:41	30°♄	
evening set	13977 Feb 13 06:02	17°♄09'14		evening set	13978 Jan 25 23:20	29°♄03'08	
min. Earth dist.	13977 Feb 17 01:05	14°♄20'43	0.61017 AU	min. Earth dist.	13978 Jan 30 01:40	26°♄25'58	0.58836 AU
inferior conj	13977 Feb 20 04:05	11°♄36'21	-2°17'16	inferior conj	13978 Feb 02 05:28	24°♄01'40	-3°42'08
minimum elong	13977 Feb 20 09:00	11°♄25'31	2°14'54	minimum elong	13978 Feb 02 13:25	23°♄46'28	3°38'45
asc. node	13977 Feb 27 06:09	6°♄48'33		morning rise	13978 Feb 10 06:34	19°♄27'59	
morning rise	13977 Feb 27 15:04	6°♄41'34		direct	13978 Feb 12 07:08	19°♄13'34	
direct	13977 Mar 01 17:48	6°♄22'55		asc. node	13978 Feb 14 03:36	19°♄26'11	
morning max el	13977 Mar 08 19:20	9°♄55'57	17°53'44	morning max el	13978 Feb 20 06:17	23°♄09'47	18°20'41
	13977 Mar 22 00:42	0°♄			13978 Feb 25 16:30	0°♄	
morning set	13977 Mar 24 09:56	4°♄19'00		morning set	13978 Mar 08 00:35	18°♄17'43	
desc. node	13977 Apr 01 02:17	18°♄07'32			13978 Mar 14 04:57	0°♄	
superior conj	13977 Apr 04 01:50	23°♄19'59	-0°23'33	superior conj	13978 Mar 17 08:13	5°♄47'38	0°12'59
minimum elong	13977 Apr 03 23:43	23°♄10'48	0°23'31	minimum elong	13978 Mar 17 09:09	5°♄51'56	0°12'50
	13977 Apr 07 23:41	0°♄		behind sun begin	13978 Mar 17 04:47	5°♄31'57	
max. Earth dist.	13977 Apr 11 11:23	5°♄47'25	1.42969 AU	behind sun end	13978 Mar 17 13:32	6°♄11'53	
evening rise	13977 Apr 17 17:56	15°♄51'53		desc. node	13978 Mar 18 22:47	8°♄42'28	
	13977 Apr 26 23:28	0°♄		max. Earth dist.	13978 Mar 24 21:28	19°♄08'07	1.40928 AU
	13977 May 19 10:16	0°♄		evening rise	13978 Mar 29 09:36	26°♄40'41	
evening max el	13977 May 19 23:35	0°♄33'53	21°59'39		13978 Mar 31 10:36	0°♄	
asc. node	13977 May 26 02:55	5°♄16'20			13978 Apr 20 15:40	0°♄	
retrograde	13977 May 29 08:49	6°♄04'03		evening max el	13978 May 02 15:03	14°♄25'29	23°20'05
evening set	13977 Jun 03 00:22	4°♄08'41		retrograde	13978 May 13 04:23	20°♄38'10	
	13977 Jun 06 17:04	30°♄		asc. node	13978 May 13 00:09	20°♄38'01	
inferior conj	13977 Jun 08 06:43	27°♄50'22	3°03'16	evening set	13978 May 18 07:28	18°♄28'14	
minimum elong	13977 Jun 08 05:35	27°♄54'19	3°02'05	min. Earth dist.	13978 May 23 03:55	12°♄44'54	0.68888 AU
min. Earth dist.	13977 Jun 08 07:11	27°♄48'45	0.68935 AU	inferior conj	13978 May 23 16:18	12°♄02'11	2°44'47
morning rise	13977 Jun 13 10:37	21°♄36'19		minimum elong	13978 May 23 14:30	12°♄08'26	2°43'27
direct	13977 Jun 18 06:31	19°♄32'52		morning rise	13978 May 28 21:28	5°♄55'38	
morning max el	13977 Jun 27 19:23	25°♄09'06	22°14'53	direct	13978 Jun 02 04:43	4°♄12'27	
desc. node	13977 Jun 28 03:09	25°♄28'46		morning max el	13978 Jun 10 12:39	8°♄58'24	20°52'56
	13977 Jul 02 04:13	0°♄		desc. node	13978 Jun 15 00:14	13°♄59'54	
	13977 Jul 23 12:33	0°♄			13978 Jun 26 17:12	0°♄	
morning set	13977 Jul 31 00:16	11°♄47'36		morning set	13978 Jul 10 15:22	21°♄00'22	
max. Earth dist.	13977 Aug 05 06:16	20°♄25'41	1.41219 AU		13978 Jul 16 08:09	0°♄	
	13977 Aug 10 20:28	0°♄		max. Earth dist.	13978 Jul 18 13:14	3°♄33'33	1.43272 AU
superior conj	13977 Aug 13 01:54	3°♄55'29	-1°15'26	superior conj	13978 Jul 25 10:49	14°♄56'49	-1°47'05
minimum elong	13977 Aug 13 07:39	4°♄21'02	1°15'10	minimum elong	13978 Jul 25 18:10	15°♄27'46	1°47'11
asc. node	13977 Aug 22 03:17	20°♄29'26			13978 Aug 03 04:16	0°♄	
evening rise	13977 Aug 23 10:48	22°♄56'27		evening rise	13978 Aug 06 09:36	5°♄42'10	
	13977 Aug 27 06:13	0°♄		asc. node	13978 Aug 08 23:55	10°♄18'20	
evening max el	13977 Sep 08 09:43	18°♄27'18	18°16'44		13978 Aug 21 13:05	0°♄	
retrograde	13977 Sep 15 18:09	22°♄11'18		evening max el	13978 Aug 22 22:09	1°♄28'37	18°02'57
evening set	13977 Sep 17 21:00	21°♄53'22		retrograde	13978 Aug 29 13:39	4°♄54'02	
desc. node	13977 Sep 23 23:46	18°♄18'39		evening set	13978 Sep 01 00:10	4°♄26'14	
inferior conj	13977 Sep 25 07:56	17°♄12'19	-0°25'18		13978 Sep 07 03:21	30°♄	
minimum elong	13977 Sep 25 07:00	17°♄14'15	0°24'44	inferior conj	13978 Sep 07 17:51	29°♄25'02	0°56'45
min. Earth dist.	13977 Sep 28 15:00	14°♄27'29	0.58751 AU	minimum elong	13978 Sep 07 19:29	29°♄21'04	0°56'01
morning rise	13977 Oct 02 13:35	11°♄44'12		desc. node	13978 Sep 10 21:20	26°♄23'12	
direct	13977 Oct 08 21:59	9°♄56'20		min. Earth dist.	13978 Sep 10 20:30	26°♄25'07	0.61026 AU
morning max el	13977 Oct 23 05:24	17°♄37'38	27°27'52	morning rise	13978 Sep 14 11:58	23°♄28'46	
	13977 Nov 02 12:52	0°♄		direct	13978 Sep 21 03:04	21°♄16'17	
asc. node	13977 Nov 18 05:10	26°♄20'58		morning max el	13978 Oct 05 08:49	29°♄12'01	27°57'31
	13977 Nov 20 01:13	0°♄			13978 Oct 06 03:52	0°♄	
morning set	13977 Nov 23 09:28	6°♄55'54			13978 Oct 27 11:57	0°♄	

asc. node	13978 Nov 05 01:56	16°♍04'38			13979 Oct 19 22:03	0°♍	
morning set	13978 Nov 07 12:25	21°♍03'13		morning set	13979 Oct 22 08:14	4°♍48'03	
	13978 Nov 11 17:08	0°♌		asc. node	13979 Oct 22 22:38	6°♍00'46	
max. Earth dist.	13978 Nov 13 07:18	3°♌29'12	1.31402 AU	max. Earth dist.	13979 Oct 27 08:50	15°♍14'08	1.32179 AU
superior conj	13978 Nov 14 18:42	6°♌45'03	1°20'32	superior conj	13979 Oct 30 02:25	21°♍08'01	1°03'25
minimum elong	13978 Nov 14 16:38	6°♌33'32	1°21'13	minimum elong	13979 Oct 30 00:08	20°♍55'32	1°03'48
evening rise	13978 Nov 21 11:32	21°♌32'46			13979 Nov 03 03:35	0°♌	
	13978 Nov 25 12:07	0°♏		evening rise	13979 Nov 05 22:35	6°♌04'09	
desc. node	13978 Dec 07 18:12	21°♏39'52			13979 Nov 18 09:30	0°♏	
	13978 Dec 14 00:15	0°♎		desc. node	13979 Nov 24 15:20	9°♏01'52	
evening max el	13978 Dec 18 04:39	4°♎27'31	25°15'50	evening max el	13979 Nov 29 14:56	14°♏35'55	23°37'07
retrograde	13979 Jan 01 00:40	11°♎24'21		retrograde	13979 Dec 13 01:41	21°♏17'13	
evening set	13979 Jan 06 19:19	10°♎08'49		evening set	13979 Dec 17 15:48	20°♏31'25	
min. Earth dist.	13979 Jan 11 16:44	7°♎27'41	0.56833 AU	min. Earth dist.	13979 Dec 24 01:35	17°♏27'07	0.55304 AU
inferior conj	13979 Jan 14 10:36	5°♎38'55	-5°00'25	inferior conj	13979 Dec 25 19:20	16°♏25'36	-5°51'05
minimum elong	13979 Jan 14 19:21	5°♎24'27	4°57'27	minimum elong	13979 Dec 25 23:28	16°♏19'30	5°49'42
morning rise	13979 Jan 22 21:51	1°♎27'28		morning rise	13980 Jan 03 08:51	12°♏32'07	
direct	13979 Jan 25 02:07	1°♎13'38		direct	13980 Jan 06 01:27	12°♏14'19	
asc. node	13979 Feb 01 00:58	3°♎45'31		morning max el	13980 Jan 16 20:33	17°♏24'45	20°20'39
morning max el	13979 Feb 03 07:57	5°♎42'53	19°09'11	asc. node	13980 Jan 18 22:18	19°♏35'12	
	13979 Feb 18 16:11	0°♎			13980 Jan 26 05:43	0°♎	
morning set	13979 Feb 20 00:50	2°♎41'09		morning set	13980 Feb 04 07:18	17°♎18'44	
					13980 Feb 10 11:12	0°♎	
superior conj	13979 Feb 28 08:22	19°♎03'50	0°43'33	superior conj	13980 Feb 11 21:41	2°♎54'59	1°07'16
minimum elong	13979 Feb 28 10:48	19°♎15'33	0°43'29	minimum elong	13980 Feb 12 00:23	3°♎08'34	1°07'29
desc. node	13979 Mar 05 19:18	29°♎17'47		max. Earth dist.	13980 Feb 17 11:13	13°♎51'04	1.36457 AU
	13979 Mar 06 04:34	0°♏		desc. node	13980 Feb 20 15:48	19°♎49'14	
max. Earth dist.	13979 Mar 07 04:14	1°♏46'56	1.38671 AU	evening rise	13980 Feb 21 06:27	20°♎56'12	
evening rise	13979 Mar 10 22:29	8°♏24'32			13980 Feb 26 09:44	0°♏	
	13979 Mar 24 07:57	0°♏			13980 Mar 17 06:26	0°♏	
evening max el	13979 Apr 15 04:41	28°♏18'38	24°40'05	evening max el	13980 Mar 27 18:06	12°♏10'11	25°52'44
	13979 Apr 16 23:33	0°♏		retrograde	13980 Apr 09 07:58	19°♏23'49	
retrograde	13979 Apr 26 20:27	5°♏07'19		evening set	13980 Apr 15 09:44	16°♏54'16	
asc. node	13979 Apr 29 21:28	4°♏26'57		asc. node	13980 Apr 15 18:51	16°♏34'39	
evening set	13979 May 02 11:09	2°♏45'33		min. Earth dist.	13980 Apr 19 15:03	12°♏22'43	0.67409 AU
	13979 May 05 02:46	30°♏♏		inferior conj	13980 Apr 21 04:37	10°♏24'18	1°36'39
min. Earth dist.	13979 May 06 23:14	27°♏38'35	0.68373 AU	minimum elong	13980 Apr 21 02:38	10°♏30'36	1°35'24
inferior conj	13979 May 08 00:16	26°♏15'12	2°16'02	morning rise	13980 Apr 26 20:12	4°♏36'06	
minimum elong	13979 May 07 22:07	26°♏22'21	2°14'39	direct	13980 Apr 30 04:02	3°♏32'55	
morning rise	13979 May 13 09:18	20°♏17'11		morning max el	13980 May 06 21:00	7°♏09'44	18°48'50
direct	13979 May 17 04:24	18°♏54'41		desc. node	13980 May 18 18:00	22°♏52'42	
morning max el	13979 May 24 13:11	22°♏59'51	19°43'16	greatest brilliancy	13980 May 20 18:33	25°♏56'53	-0.8m
	13979 May 30 12:27	0°♏			13980 May 23 09:50	0°♏	
desc. node	13979 Jun 01 21:11	3°♏11'43		morning set	13980 May 29 03:25	8°♏53'38	
greatest brilliancy	13979 Jun 06 08:30	9°♏34'18	-0.6m		13980 Jun 11 16:39	0°♏	
morning set	13979 Jun 19 17:32	29°♏43'26		max. Earth dist.	13980 Jun 12 19:55	1°♏46'32	1.45698 AU
	13979 Jun 19 21:51	0°♏					
max. Earth dist.	13979 Jul 01 02:27	17°♏25'51	1.44815 AU	superior conj	13980 Jun 14 09:52	4°♏14'59	-2°12'52
superior conj	13979 Jul 05 19:59	24°♏58'29	-2°08'33	minimum elong	13980 Jun 14 07:40	4°♏06'20	2°13'54
minimum elong	13979 Jul 06 00:55	25°♏18'22	2°09'21	evening rise	13980 Jun 29 16:25	28°♏29'09	
	13979 Jul 08 22:30	0°♏			13980 Jun 30 15:01	0°♏	
evening rise	13979 Jul 19 12:59	17°♏36'26		asc. node	13980 Jul 12 17:21	19°♏05'24	
asc. node	13979 Jul 26 20:36	29°♏52'24		evening max el	13980 Jul 20 01:51	28°♏31'11	18°31'02
	13979 Jul 26 22:27	0°♏			13980 Jul 21 17:39	0°♏	
evening max el	13979 Aug 06 12:36	14°♏52'39	18°08'00	retrograde	13980 Jul 26 13:13	2°♏00'21	
retrograde	13979 Aug 12 21:25	18°♏13'17		evening set	13980 Jul 29 16:49	1°♏04'26	
evening set	13979 Aug 15 16:16	17°♏32'35			13980 Jul 31 04:59	30°♏♏	
inferior conj	13979 Aug 21 19:58	12°♏13'45	1°56'51	inferior conj	13980 Aug 04 10:14	25°♏29'59	2°37'13
minimum elong	13979 Aug 21 22:25	12°♏07'01	1°55'42	minimum elong	13980 Aug 04 12:25	25°♏23'24	2°36'05
min. Earth dist.	13979 Aug 24 11:51	9°♏19'33	0.63259 AU	min. Earth dist.	13980 Aug 06 12:27	22°♏58'57	0.65251 AU
morning rise	13979 Aug 28 02:37	5°♏59'39		morning rise	13980 Aug 10 06:50	19°♏07'18	
desc. node	13979 Aug 28 18:52	5°♏30'24		desc. node	13980 Aug 14 16:21	16°♏43'36	
direct	13979 Sep 03 18:19	3°♏29'08		direct	13980 Aug 16 17:59	16°♏28'01	
morning max el	13979 Sep 17 17:27	11°♏30'39	27°48'35	morning max el	13980 Aug 30 04:18	24°♏22'28	27°06'09
	13979 Oct 02 09:04	0°♏			13980 Sep 04 06:06	0°♏	

	13980 Sep 24 19:04	0°♄		desc. node	13981 Aug 01 13:47	0°♄13'01	
morning set	13980 Oct 04 18:12	18°♄03'36		morning max el	13981 Aug 12 15:15	7°♄35'58	25°58'25
asc. node	13980 Oct 08 19:15	26°♄04'34			13981 Aug 30 02:33	0°♄	
max. Earth dist.	13980 Oct 09 01:33	26°♄36'31	1.33498 AU		13981 Sep 17 05:52	0°♄	
	13980 Oct 10 17:11	0°♄		morning set	13981 Sep 17 14:46	0°♄40'54	
				max. Earth dist.	13981 Sep 21 08:16	7°♄42'12	1.35329 AU
superior conj	13980 Oct 13 05:03	5°♄13'23	0°40'37	asc. node	13981 Sep 25 15:49	16°♄11'29	
minimum elong	13980 Oct 13 03:09	5°♄03'21	0°40'47				
evening rise	13980 Oct 20 09:07	20°♄32'17		superior conj	13981 Sep 26 23:57	18°♄53'54	0°12'31
	13980 Oct 24 23:10	0°♄		minimum elong	13981 Sep 26 23:14	18°♄50'14	0°12'36
evening max el	13980 Nov 10 02:57	24°♄38'12	21°55'57	behind sun begin	13981 Sep 26 19:24	18°♄30'49	
desc. node	13980 Nov 10 12:34	25°♄01'25		behind sun end	13981 Sep 27 03:03	19°♄09'41	
	13980 Nov 18 00:47	0°♄			13981 Oct 02 09:00	0°♄	
retrograde	13980 Nov 22 15:24	0°♄50'22		evening rise	13981 Oct 04 17:07	4°♄51'22	
evening set	13980 Nov 25 20:22	0°♄27'25			13981 Oct 18 17:03	0°♄	
	13980 Nov 27 10:51	30°♄♄		evening max el	13981 Oct 23 01:35	5°♄08'38	20°27'27
inferior conj	13980 Dec 04 13:35	26°♄33'51	-5°50'10	desc. node	13981 Oct 28 09:55	9°♄11'11	
minimum elong	13980 Dec 04 08:46	26°♄40'36	5°48'41	retrograde	13981 Nov 03 02:07	10°♄37'30	
min. Earth dist.	13980 Dec 04 07:51	26°♄41'54	0.54533 AU	evening set	13981 Nov 05 07:15	10°♄25'14	
morning rise	13980 Dec 12 22:07	22°♄46'26		inferior conj	13981 Nov 14 05:51	6°♄30'02	-4°49'43
direct	13980 Dec 16 11:33	22°♄18'30		minimum elong	13981 Nov 13 19:51	6°♄44'36	4°46'13
morning max el	13980 Dec 28 18:38	28°♄12'33	21°53'54	min. Earth dist.	13981 Nov 15 14:22	5°♄42'41	0.54689 AU
	13980 Dec 30 13:04	0°♄		morning rise	13981 Nov 22 08:01	2°♄30'11	
asc. node	13981 Jan 04 19:32	6°♄38'04		direct	13981 Nov 26 20:36	1°♄46'09	
	13981 Jan 17 17:53	0°♄		morning max el	13981 Dec 10 06:04	8°♄18'52	23°41'35
morning set	13981 Jan 18 17:28	2°♄03'30		asc. node	13981 Dec 22 16:40	24°♄36'30	
					13981 Dec 25 19:09	0°♄	
superior conj	13981 Jan 25 20:31	17°♄10'52	1°24'03	morning set	13982 Jan 03 05:16	16°♄48'47	
minimum elong	13981 Jan 25 22:40	17°♄22'13	1°24'37		13982 Jan 09 07:00	0°♄	
max. Earth dist.	13981 Jan 29 23:38	25°♄42'21	1.34504 AU				
	13981 Feb 01 03:18	0°♄		superior conj	13982 Jan 10 01:48	1°♄42'07	1°34'11
evening rise	13981 Feb 03 06:10	4°♄06'59		minimum elong	13982 Jan 10 03:02	1°♄48'44	1°35'03
desc. node	13981 Feb 06 12:22	10°♄13'08		max. Earth dist.	13982 Jan 12 19:55	7°♄37'04	1.32942 AU
	13981 Feb 18 05:56	0°♄		evening rise	13982 Jan 17 18:03	17°♄46'58	
evening max el	13981 Mar 10 07:55	25°♄54'10	26°50'31	desc. node	13982 Jan 24 09:01	0°♄24'13	
	13981 Mar 15 03:29	0°♄			13982 Jan 24 03:40	0°♄	
retrograde	13981 Mar 23 13:53	3°♄19'59			13982 Feb 12 13:50	0°♄	
evening set	13981 Mar 30 01:20	0°♄47'52		evening max el	13982 Feb 20 21:06	9°♄19'38	27°26'06
	13981 Mar 30 23:58	30°♄♄		retrograde	13982 Mar 06 13:10	16°♄47'21	
asc. node	13981 Apr 02 16:17	27°♄15'37		evening set	13982 Mar 13 07:48	14°♄18'51	
min. Earth dist.	13981 Apr 03 01:15	26°♄50'12	0.66035 AU	min. Earth dist.	13982 Mar 17 03:43	10°♄52'32	0.64295 AU
inferior conj	13981 Apr 05 03:10	24°♄24'27	0°46'00	inferior conj	13982 Mar 19 17:20	8°♄09'17	-0°16'25
minimum elong	13981 Apr 05 02:00	24°♄27'53	0°45'14	minimum elong	13982 Mar 19 17:50	8°♄07'57	0°16'16
morning rise	13981 Apr 11 03:57	18°♄47'48		asc. node	13982 Mar 20 13:45	7°♄15'31	
direct	13981 Apr 14 01:42	18°♄01'21		morning rise	13982 Mar 26 05:55	2°♄46'39	
morning max el	13981 Apr 20 10:39	21°♄22'22	18°10'59	direct	13982 Mar 28 18:55	2°♄13'45	
	13981 Apr 27 07:14	0°♄		morning max el	13982 Apr 04 03:45	5°♄30'39	17°50'18
desc. node	13981 May 05 14:42	12°♄54'50			13982 Apr 20 13:36	0°♄	
morning set	13981 May 09 13:56	19°♄17'24		morning set	13982 Apr 21 04:31	1°♄02'42	
	13981 May 16 06:31	0°♄		desc. node	13982 Apr 22 11:20	3°♄12'06	
superior conj	13981 May 24 18:12	13°♄23'27	-1°57'02	superior conj	13982 May 04 14:14	23°♄08'44	-1°25'17
minimum elong	13981 May 24 09:52	12°♄50'49	1°57'25	minimum elong	13982 May 04 05:57	22°♄35'24	1°25'06
max. Earth dist.	13981 May 26 15:51	16°♄21'57	1.45842 AU		13982 May 08 21:29	0°♄	
	13981 Jun 04 10:05	0°♄		max. Earth dist.	13982 May 09 11:46	0°♄56'24	1.45239 AU
evening rise	13981 Jun 09 20:02	8°♄24'28		evening rise	13982 May 20 08:48	17°♄49'30	
greatest brilliancy	13981 Jun 21 09:31	26°♄12'31	-0.7m		13982 May 28 09:32	0°♄	
	13981 Jun 23 22:40	0°♄		greatest brilliancy	13982 Jun 04 06:14	10°♄08'21	-0.6m
asc. node	13981 Jun 29 14:11	7°♄49'53		asc. node	13982 Jun 16 11:08	25°♄56'16	
evening max el	13981 Jul 03 11:26	12°♄17'46	19°11'08	evening max el	13982 Jun 16 15:37	26°♄07'32	20°06'51
retrograde	13981 Jul 10 09:42	16°♄08'11			13982 Jun 21 21:47	0°♄	
evening set	13981 Jul 13 22:35	14°♄55'37		retrograde	13982 Jun 24 08:25	0°♄31'00	
inferior conj	13981 Jul 19 09:11	9°♄06'58	3°01'02		13982 Jun 26 16:23	30°♄♄	
minimum elong	13981 Jul 19 10:33	9°♄02'34	3°00'00	evening set	13982 Jun 28 07:09	29°♄01'15	
min. Earth dist.	13981 Jul 20 20:54	7°♄11'27	0.66873 AU	inferior conj	13982 Jul 03 14:01	22°♄59'40	3°11'04
morning rise	13981 Jul 24 21:53	2°♄42'17		minimum elong	13982 Jul 03 14:23	22°♄58'27	3°10'02
direct	13981 Jul 31 00:31	0°♄04'01		min. Earth dist.	13982 Jul 04 11:29	21°♄46'45	0.68047 AU

morning rise	13982 Jul 08 21:17	16°☿37'13		direct	13983 Jun 28 05:47	28°♄31'18	
direct	13982 Jul 14 12:47	14°☿08'13			13983 Jul 02 21:27	0°☿	
desc. node	13982 Jul 19 11:07	15°☿39'05		desc. node	13983 Jul 06 08:23	2°☿34'14	
morning max el	13982 Jul 26 01:42	21°☿02'54	24°35'03	morning max el	13983 Jul 08 12:42	4°☿37'52	23°05'33
	13982 Aug 02 19:16	0°♌			13983 Jul 28 00:38	0°♌	
	13982 Aug 23 07:37	0°♍		morning set	13983 Aug 11 23:01	23°♌22'35	
morning set	13982 Aug 30 17:53	12°♍31'03			13983 Aug 15 21:18	0°♍	
max. Earth dist.	13982 Sep 03 08:02	18°♍54'32	1.37540 AU	max. Earth dist.	13983 Aug 16 06:31	0°♍39'33	1.39900 AU
	13982 Sep 09 06:36	0°♎					
				superior conj	13983 Aug 24 01:07	14°♍28'50	-0°55'15
superior conj	13982 Sep 10 07:59	2°♎02'25	-0°20'04	minimum elong	13983 Aug 24 05:14	14°♍47'47	0°54'57
minimum elong	13982 Sep 10 09:19	2°♎08'55	0°19'53	asc. node	13983 Aug 30 08:56	26°♍21'16	
asc. node	13982 Sep 12 12:22	6°♎18'26			13983 Sep 01 06:38	0°♎	
evening rise	13982 Sep 18 20:18	18°♎56'10		evening rise	13983 Sep 02 15:37	2°♎38'09	
	13982 Sep 24 12:46	0°♏		evening max el	13983 Sep 18 15:44	28°♎31'38	18°33'32
evening max el	13982 Oct 05 14:28	16°♏26'25	19°19'26		13983 Sep 20 06:55	0°♏	
retrograde	13982 Oct 14 23:29	21°♏08'13		retrograde	13983 Sep 26 15:12	2°♏33'21	
desc. node	13982 Oct 15 07:19	21°♏07'53		evening set	13983 Sep 28 14:13	2°♏19'33	
evening set	13982 Oct 16 20:15	20°♏57'51		desc. node	13983 Oct 02 04:49	0°♏49'43	
inferior conj	13982 Oct 25 10:29	16°♏48'41	-3°09'43		13983 Oct 03 12:45	30°♏♎	
minimum elong	13982 Oct 25 02:29	17°♏01'52	3°06'06	inferior conj	13983 Oct 06 11:46	27°♎50'39	-1°21'53
min. Earth dist.	13982 Oct 28 00:19	15°♏07'15	0.55752 AU	minimum elong	13983 Oct 06 08:30	27°♎56'56	1°20'10
morning rise	13982 Nov 02 06:24	12°♏18'02		min. Earth dist.	13983 Oct 09 16:36	25°♎23'51	0.57521 AU
direct	13982 Nov 07 15:21	11°♏12'26		morning rise	13983 Oct 13 23:18	22°♎42'07	
morning max el	13982 Nov 21 15:58	18°♏17'07	25°27'44	direct	13983 Oct 20 00:36	21°♎10'00	
	13982 Dec 01 09:41	0°♐		morning max el	13983 Nov 03 07:36	28°♎40'46	26°53'31
asc. node	13982 Dec 09 13:42	13°♐16'51			13983 Nov 04 15:19	0°♐	
	13982 Dec 18 00:09	0°♑			13983 Nov 25 03:15	0°♐	
morning set	13982 Dec 18 16:54	1°♑29'36		asc. node	13983 Nov 26 10:39	2°♐28'23	
				morning set	13983 Dec 03 02:38	16°♐01'27	
					13983 Dec 09 11:00	0°♑	
superior conj	13982 Dec 25 11:10	16°♑21'52	1°38'01				
minimum elong	13982 Dec 25 11:18	16°♑22'36	1°39'03	superior conj	13983 Dec 09 22:32	1°♑04'25	1°35'50
max. Earth dist.	13982 Dec 26 23:07	19°♑40'11	1.31845 AU	minimum elong	13983 Dec 09 21:37	0°♑59'22	1°36'51
	13982 Dec 31 18:17	0°♒		max. Earth dist.	13983 Dec 10 06:32	1°♑49'06	1.31251 AU
evening rise	13983 Jan 01 15:06	1°♒48'30		evening rise	13983 Dec 16 18:46	16°♑05'37	
desc. node	13983 Jan 11 05:45	20°♒16'36			13983 Dec 23 16:32	0°♒	
	13983 Jan 17 01:17	0°♓		desc. node	13983 Dec 29 02:35	9°♒42'55	
evening max el	13983 Feb 03 07:33	22°♓13'15	27°32'48		13984 Jan 12 08:16	0°♓	
retrograde	13983 Feb 17 04:57	29°♓36'21		evening max el	13984 Jan 16 12:47	4°♓23'15	27°05'52
evening set	13983 Feb 24 02:31	27°♓18'43		retrograde	13984 Jan 30 12:18	11°♓38'03	
min. Earth dist.	13983 Feb 27 20:35	24°♓18'59	0.62265 AU	evening set	13984 Feb 06 06:17	9°♓39'22	
inferior conj	13983 Mar 02 20:01	21°♓30'33	-1°30'20	min. Earth dist.	13984 Feb 10 03:08	6°♓57'33	0.60077 AU
minimum elong	13983 Mar 02 23:07	21°♓23'13	1°28'49	inferior conj	13984 Feb 13 07:43	4°♓19'20	-2°53'07
asc. node	13983 Mar 07 11:14	17°♓38'42		minimum elong	13984 Feb 13 14:01	4°♓06'16	2°50'12
morning rise	13983 Mar 09 22:32	16°♓25'00			13984 Feb 19 17:48	30°♓♒	
direct	13983 Mar 12 04:25	16°♓02'09		morning rise	13984 Feb 21 00:59	29°♒33'40	
morning max el	13983 Mar 18 21:18	19°♓25'59	17°47'15	asc. node	13984 Feb 22 08:42	29°♒19'25	
	13983 Mar 26 16:49	0°♔		direct	13984 Feb 23 02:12	29°♒17'19	
morning set	13983 Apr 03 18:29	13°♔53'56			13984 Feb 26 07:58	0°♔	
desc. node	13983 Apr 09 07:54	23°♔39'24		morning max el	13984 Mar 01 11:52	2°♔58'51	18°02'48
	13983 Apr 13 00:25	0°♕		morning set	13984 Mar 17 01:43	27°♔32'55	
					13984 Mar 18 09:27	0°♔	
superior conj	13983 Apr 15 08:39	3°♕57'33	-0°46'16	desc. node	13984 Mar 26 04:26	14°♔12'54	
minimum elong	13983 Apr 15 04:10	3°♕38'46	0°46'06				
max. Earth dist.	13983 Apr 22 04:50	15°♕12'16	1.43958 AU	superior conj	13984 Mar 27 02:54	15°♔52'35	-0°07'31
evening rise	13983 Apr 29 22:16	27°♕24'01		minimum elong	13984 Mar 27 02:16	15°♔49'47	0°07'35
	13983 May 01 14:44	0°♖		behind sun begin	13984 Mar 26 19:18	15°♔18'55	
	13983 May 22 06:03	0°☿		behind sun end	13984 Mar 27 09:14	16°♔20'34	
evening max el	13983 May 30 13:49	9°☿57'05	21°15'38	max. Earth dist.	13984 Apr 03 17:10	28°♔54'50	1.42138 AU
asc. node	13983 Jun 03 08:13	13°☿11'11			13984 Apr 04 08:52	0°♕	
retrograde	13983 Jun 08 07:15	15°☿02'09		evening rise	13984 Apr 09 02:21	7°♕41'47	
evening set	13983 Jun 12 16:28	13°☿15'42			13984 Apr 23 18:14	0°♖	
inferior conj	13983 Jun 17 22:19	7°☿02'43	3°09'14	evening max el	13984 May 12 07:07	23°♖47'34	22°33'23
minimum elong	13983 Jun 17 21:41	7°☿04'54	3°08'08	asc. node	13984 May 20 05:23	29°♖19'25	
min. Earth dist.	13983 Jun 18 06:13	6°☿35'12	0.68747 AU	retrograde	13984 May 22 04:32	29°♖36'55	
morning rise	13983 Jun 23 02:42	0°☿45'02		evening set	13984 May 27 00:52	27°♖35'05	
	13983 Jun 24 01:08	30°♗♖					

inferior conj	13984 Jun 01 08:01	21° $\Pi$ 12'51	2°56'41	evening set	13985 May 11 06:43	11° $\Pi$ 54'15	
minimum elong	13984 Jun 01 06:34	21° $\Pi$ 17'54	2°55'26	min. Earth dist.	13985 May 15 23:28	6° $\Pi$ 26'09	0.68725 AU
min. Earth dist.	13984 Jun 01 02:57	21° $\Pi$ 30'30	0.68974 AU	inferior conj	13985 May 16 17:10	5° $\Pi$ 25'50	2°33'52
morning rise	13984 Jun 06 12:08	15° $\Pi$ 01'39		minimum elong	13985 May 16 15:10	5° $\Pi$ 32'39	2°32'30
direct	13984 Jun 11 02:31	13° $\Pi$ 06'45			13985 May 21 05:49	30° $\mathbb{R}$ 8	
morning max el	13984 Jun 20 02:48	18° $\Pi$ 21'24	21°38'42	morning rise	13985 May 21 23:38	29°822'29	
desc. node	13984 Jun 22 05:32	20° $\Pi$ 35'47		direct	13985 May 26 01:38	27°848'01	
	13984 Jun 29 18:22	0° $\mathfrak{C}$			13985 May 31 09:22	0° $\Pi$	
	13984 Jul 20 03:17	0° $\Omega$		morning max el	13985 Jun 02 22:53	2° $\Pi$ 15'26	20°21'28
morning set	13984 Jul 22 03:17	3° $\Omega$ 09'15		desc. node	13985 Jun 09 02:33	9° $\Pi$ 25'39	
max. Earth dist.	13984 Jul 28 08:59	13° $\Omega$ 14'14	1.42142 AU		13985 Jun 23 12:39	0° $\mathfrak{C}$	
				morning set	13985 Jul 01 10:48	12° $\mathfrak{C}$ 03'25	
superior conj	13984 Aug 04 22:57	26° $\Omega$ 03'38	-1°29'40	max. Earth dist.	13985 Jul 10 18:21	26° $\mathfrak{C}$ 41'10	1.44005 AU
minimum elong	13984 Aug 05 05:41	26° $\Omega$ 32'51	1°29'30		13985 Jul 12 19:49	0° $\Omega$	
	13984 Aug 07 05:01	0° $\mathbb{M}$					
evening rise	13984 Aug 15 23:14	15° $\mathbb{M}$ 47'36		superior conj	13985 Jul 16 21:50	6° $\Omega$ 39'51	-1°57'52
asc. node	13984 Aug 16 05:31	16° $\mathbb{M}$ 16'21		minimum elong	13985 Jul 17 04:48	7° $\Omega$ 08'35	1°58'16
	13984 Aug 23 22:36	0° $\underline{\mathfrak{A}}$		evening rise	13985 Jul 29 14:24	28° $\Omega$ 12'51	
evening max el	13984 Sep 01 01:22	11° $\underline{\mathfrak{A}}$ 15'46	18°08'32		13985 Jul 30 15:04	0° $\mathbb{M}$	
retrograde	13984 Sep 08 01:23	14° $\underline{\mathfrak{A}}$ 50'07		asc. node	13985 Aug 03 02:10	5° $\mathbb{M}$ 59'35	
evening set	13984 Sep 10 07:16	14° $\underline{\mathfrak{A}}$ 28'31		evening max el	13985 Aug 15 15:10	24° $\mathbb{M}$ 28'29	18°02'54
inferior conj	13984 Sep 17 10:35	9° $\underline{\mathfrak{A}}$ 38'59	0°12'12	retrograde	13985 Aug 22 02:30	27° $\mathbb{M}$ 49'48	
minimum elong	13984 Sep 17 11:00	9° $\underline{\mathfrak{A}}$ 38'04	0°12'07	evening set	13985 Aug 24 16:36	27° $\mathbb{M}$ 16'47	
transit middle	13984 Sep 17 11:00	9° $\underline{\mathfrak{A}}$ 38'04	0°12'07	inferior conj	13985 Aug 31 03:54	22° $\mathbb{M}$ 08'00	1°24'49
transit begin	13984 Sep 17 08:45	9° $\underline{\mathfrak{A}}$ 43'04		minimum elong	13985 Aug 31 06:04	22° $\mathbb{M}$ 02'28	1°23'50
transit end	13984 Sep 17 13:14	9° $\underline{\mathfrak{A}}$ 33'03		min. Earth dist.	13985 Sep 03 02:38	19° $\mathbb{M}$ 08'04	0.61999 AU
desc. node	13984 Sep 18 02:21	9° $\underline{\mathfrak{A}}$ 03'32		desc. node	13985 Sep 04 23:53	17° $\mathbb{M}$ 23'47	
min. Earth dist.	13984 Sep 20 17:00	6° $\underline{\mathfrak{A}}$ 44'43	0.59706 AU	morning rise	13985 Sep 06 17:04	16° $\mathbb{M}$ 03'12	
morning rise	13984 Sep 24 11:24	3° $\underline{\mathfrak{A}}$ 57'28		direct	13985 Sep 13 09:22	13° $\mathbb{M}$ 41'47	
direct	13984 Sep 30 23:30	1° $\underline{\mathfrak{A}}$ 58'10		morning max el	13985 Sep 27 12:35	21° $\mathbb{M}$ 40'55	27°58'10
morning max el	13984 Oct 15 06:52	9° $\underline{\mathfrak{A}}$ 47'28	27°45'18		13985 Oct 04 19:16	0° $\underline{\mathfrak{A}}$	
	13984 Oct 30 21:33	0° $\mathbb{M}$			13985 Oct 24 00:35	0° $\mathbb{M}$	
asc. node	13984 Nov 12 07:28	22° $\mathbb{M}$ 02'14		asc. node	13985 Oct 30 04:12	11° $\mathbb{M}$ 51'51	
morning set	13984 Nov 16 08:35	0° $\mathfrak{X}$ 18'57		morning set	13985 Oct 31 08:46	14° $\mathbb{M}$ 17'15	
	13984 Nov 16 04:59	0° $\mathfrak{X}$		max. Earth dist.	13985 Nov 05 19:32	25° $\mathbb{M}$ 50'40	1.31665 AU
max. Earth dist.	13984 Nov 22 14:32	13° $\mathfrak{X}$ 55'20	1.31188 AU				
				superior conj	13985 Nov 07 19:36	0° $\mathfrak{X}$ 14'10	1°13'59
superior conj	13984 Nov 23 09:57	15° $\mathfrak{X}$ 43'35	1°27'48	minimum elong	13985 Nov 07 17:22	0° $\mathfrak{X}$ 01'53	1°14'32
minimum elong	13984 Nov 23 08:13	15° $\mathfrak{X}$ 33'52	1°28'38		13985 Nov 07 17:01	0° $\mathfrak{X}$	
	13984 Nov 29 20:49	0° $\mathfrak{Z}$		evening rise	13985 Nov 14 13:17	15° $\mathfrak{X}$ 03'29	
evening rise	13984 Nov 30 02:48	0° $\mathfrak{Z}$ 32'12			13985 Nov 21 20:59	0° $\mathfrak{Z}$	
desc. node	13984 Dec 14 23:33	28° $\mathfrak{Z}$ 32'26		desc. node	13985 Dec 01 20:36	16° $\mathfrak{Z}$ 31'25	
	13984 Dec 15 22:02	0° $\approx$		evening max el	13985 Dec 10 00:03	26° $\mathfrak{Z}$ 10'08	24°35'27
evening max el	13984 Dec 28 10:26	15° $\approx$ 41'10	26°04'36		13985 Dec 14 17:49	0° $\approx$	
retrograde	13985 Jan 11 09:10	22° $\approx$ 45'09		retrograde	13985 Dec 23 17:17	3° $\approx$ 00'41	
evening set	13985 Jan 17 15:03	21° $\approx$ 12'52		evening set	13985 Dec 29 00:53	1° $\approx$ 58'23	
min. Earth dist.	13985 Jan 21 23:41	18° $\approx$ 35'56	0.57936 AU		13986 Jan 02 02:04	30° $\mathbb{R}$ 3	
inferior conj	13985 Jan 25 00:45	16° $\approx$ 24'52	-4°17'15	min. Earth dist.	13986 Jan 03 11:49	29° $\mathfrak{Z}$ 09'40	0.56109 AU
minimum elong	13985 Jan 25 09:31	16° $\approx$ 09'08	4°13'49	inferior conj	13986 Jan 05 20:58	27° $\mathfrak{Z}$ 40'14	-5°26'48
morning rise	13985 Feb 02 06:56	12° $\approx$ 00'45		minimum elong	13986 Jan 06 04:32	27° $\mathfrak{Z}$ 28'22	5°24'29
direct	13985 Feb 04 07:56	11° $\approx$ 47'11		morning rise	13986 Jan 14 10:12	23° $\mathfrak{Z}$ 36'53	
asc. node	13985 Feb 08 06:08	12° $\approx$ 40'15		direct	13986 Jan 16 18:39	23° $\mathfrak{Z}$ 21'55	
morning max el	13985 Feb 12 19:25	15° $\approx$ 56'45	18°38'35	asc. node	13986 Jan 26 03:29	27° $\mathfrak{Z}$ 39'16	
	13985 Feb 22 15:16	0° $\mathfrak{H}$		morning max el	13986 Jan 26 15:47	28° $\mathfrak{Z}$ 08'18	19°36'40
morning set	13985 Feb 28 20:54	11° $\mathfrak{H}$ 43'05			13986 Jan 28 10:18	0° $\approx$	
				morning set	13986 Feb 13 00:07	26° $\approx$ 13'05	
superior conj	13985 Mar 09 17:23	28° $\mathfrak{H}$ 42'01	0°26'44		13986 Feb 14 21:04	0° $\mathfrak{H}$	
minimum elong	13985 Mar 09 19:08	28° $\mathfrak{H}$ 50'13	0°26'35				
	13985 Mar 10 10:07	0° $\mathbb{Y}$		superior conj	13986 Feb 20 23:33	12° $\mathfrak{H}$ 13'35	0°54'29
desc. node	13985 Mar 13 00:57	4° $\mathbb{Y}$ 48'10		minimum elong	13986 Feb 21 02:13	12° $\mathfrak{H}$ 26'42	0°54'29
max. Earth dist.	13985 Mar 17 01:00	11° $\mathbb{Y}$ 55'11	1.39977 AU	max. Earth dist.	13986 Feb 27 07:24	24° $\mathfrak{H}$ 17'20	1.37716 AU
evening rise	13985 Mar 21 03:07	18° $\mathbb{Y}$ 54'24		desc. node	13986 Feb 27 21:27	25° $\mathfrak{H}$ 21'50	
	13985 Mar 27 23:07	0° $\mathfrak{B}$			13986 Mar 02 11:07	0° $\mathbb{Y}$	
	13985 Mar 18 02:08	0° $\Pi$		evening rise	13986 Mar 03 00:28	0° $\mathbb{Y}$ 59'11	
evening max el	13985 Apr 24 21:36	7° $\Pi$ 40'00	23°54'34		13986 Mar 21 04:28	0° $\mathfrak{B}$	
retrograde	13985 May 05 22:48	14° $\Pi$ 09'20		evening max el	13986 Apr 07 11:13	21° $\mathfrak{B}$ 33'20	25°12'24
asc. node	13985 May 07 02:39	14° $\Pi$ 03'20		retrograde	13986 Apr 19 12:54	28° $\mathfrak{B}$ 33'22	

asc. node	13986 Apr 23 23:59	27°♄08'46		retrograde	13987 Apr 02 21:59	12°♄42'30	
evening set	13986 Apr 25 08:24	26°♄07'58		evening set	13987 Apr 09 04:15	10°♄11'01	
min. Earth dist.	13986 Apr 29 17:32	21°♄16'09	0.68019 AU	asc. node	13987 Apr 10 21:23	8°♄36'15	
inferior conj	13986 Apr 30 23:50	19°♄37'22	2°00'40	min. Earth dist.	13987 Apr 13 07:06	5°♄54'24	0.66874 AU
minimum elong	13986 Apr 30 21:41	19°♄44'23	1°59'18	inferior conj	13987 Apr 15 02:00	3°♄43'18	1°16'36
morning rise	13986 May 06 11:18	13°♄43'15		minimum elong	13987 Apr 15 00:16	3°♄48'38	1°15'30
direct	13986 May 10 01:36	12°♄28'59			13987 Apr 18 08:47	30°♄	
morning max el	13986 May 17 02:30	16°♄20'12	19°18'07	morning rise	13987 Apr 20 21:10	27°♄59'59	
desc. node	13986 May 26 23:27	28°♄50'38		direct	13987 Apr 24 00:39	27°♄04'12	
	13986 May 27 18:37	0°♄			13987 Apr 29 23:21	0°♄	
greatest brilliancy	13986 May 29 20:32	3°♄03'17	-0.7m	morning max el	13987 Apr 30 13:07	0°♄32'26	18°30'46
morning set	13986 Jun 10 13:36	20°♄50'34		desc. node	13987 May 13 20:13	18°♄41'29	
	13986 Jun 16 11:49	0°♄		morning set	13987 May 21 08:49	0°♄29'28	
max. Earth dist.	13986 Jun 23 10:08	10°♄49'11	1.45283 AU		13987 May 21 01:19	0°♄	
superior conj	13986 Jun 26 21:45	16°♄19'15	-2°12'48	superior conj	13987 Jun 06 07:11	25°♄26'48	-2°08'32
minimum elong	13986 Jun 27 00:03	16°♄28'22	2°13'48	minimum elong	13987 Jun 06 01:47	25°♄05'45	2°09'21
	13986 Jul 05 10:09	0°♄		max. Earth dist.	13987 Jun 06 05:32	25°♄20'22	1.45851 AU
evening rise	13986 Jul 11 07:59	9°♄41'38			13987 Jun 09 05:10	0°♄	
asc. node	13986 Jul 20 22:51	25°♄25'19		evening rise	13987 Jun 22 01:00	20°♄09'13	
	13986 Jul 23 22:30	0°♄			13987 Jun 28 06:35	0°♄	
evening max el	13986 Jul 30 05:31	7°♄59'47	18°15'37	greatest brilliancy	13987 Jun 30 14:02	3°♄37'10	-0.8m
retrograde	13986 Aug 05 14:09	11°♄22'09		asc. node	13987 Jul 07 19:39	14°♄27'27	
evening set	13986 Aug 08 12:47	10°♄35'02		evening max el	13987 Jul 13 17:28	21°♄42'32	18°45'57
inferior conj	13986 Aug 14 11:38	5°♄09'10	2°16'11	retrograde	13987 Jul 20 08:28	25°♄19'23	
minimum elong	13986 Aug 14 14:04	5°♄02'10	2°15'01	evening set	13987 Jul 23 15:57	24°♄16'27	
min. Earth dist.	13986 Aug 16 21:49	2°♄23'19	0.64150 AU	inferior conj	13987 Jul 29 06:02	18°♄35'29	2°49'10
	13986 Aug 19 05:37	30°♄		minimum elong	13987 Jul 29 07:55	18°♄29'37	2°48'03
morning rise	13986 Aug 20 13:49	28°♄50'40		min. Earth dist.	13987 Jul 31 02:00	16°♄18'36	0.65992 AU
desc. node	13986 Aug 22 21:24	27°♄19'59		morning rise	13987 Aug 03 22:59	12°♄11'09	
direct	13986 Aug 27 04:11	26°♄15'29		desc. node	13987 Aug 09 18:51	9°♄32'25	
	13986 Sep 05 03:38	0°♄		direct	13987 Aug 10 06:46	9°♄31'30	
morning max el	13986 Sep 09 22:25	4°♄14'43	27°34'12	morning max el	13987 Aug 23 09:47	17°♄18'12	26°39'54
	13986 Sep 29 09:07	0°♄			13987 Sep 03 00:26	0°♄	
morning set	13986 Oct 15 00:43	27°♄49'56			13987 Sep 22 07:03	0°♄	
	13986 Oct 16 02:47	0°♄		morning set	13987 Sep 28 05:27	10°♄50'21	
asc. node	13986 Oct 17 00:51	1°♄51'26		max. Earth dist.	13987 Oct 02 06:30	18°♄41'34	1.34228 AU
max. Earth dist.	13986 Oct 19 17:47	7°♄26'39	1.32683 AU	asc. node	13987 Oct 03 21:27	21°♄56'55	
superior conj	13986 Oct 23 01:24	14°♄30'00	0°54'26	superior conj	13987 Oct 07 01:05	28°♄25'21	0°29'18
minimum elong	13986 Oct 22 23:12	14°♄18'06	0°54'42	minimum elong	13987 Oct 06 23:35	28°♄17'32	0°29'25
evening rise	13986 Oct 30 00:19	29°♄33'57			13987 Oct 07 19:13	0°♄	
	13986 Oct 30 05:12	0°♄		evening rise	13987 Oct 14 10:04	13°♄58'55	
	13986 Nov 16 00:40	0°♄			13987 Oct 22 12:15	0°♄	
desc. node	13986 Nov 18 17:46	3°♄20'51		evening max el	13987 Nov 03 01:14	16°♄20'03	21°15'56
evening max el	13986 Nov 21 09:49	6°♄10'33	22°53'15	desc. node	13987 Nov 05 15:02	18°♄36'46	
retrograde	13986 Dec 04 12:28	12°♄40'58		retrograde	13987 Nov 14 23:46	22°♄15'47	
evening set	13986 Dec 08 12:37	12°♄06'02		evening set	13987 Nov 17 16:43	21°♄58'45	
min. Earth dist.	13986 Dec 15 18:43	8°♄46'30	0.54875 AU	inferior conj	13987 Nov 26 13:46	18°♄05'42	-5°31'12
inferior conj	13986 Dec 16 22:15	8°♄07'16	-5°58'02	minimum elong	13987 Nov 26 05:50	18°♄16'53	5°28'51
minimum elong	13986 Dec 16 22:44	8°♄06'35	5°56'59	min. Earth dist.	13987 Nov 27 00:34	17°♄50'29	0.54481 AU
morning rise	13986 Dec 25 10:16	4°♄18'35		morning rise	13987 Dec 04 19:33	14°♄15'40	
direct	13986 Dec 28 11:16	3°♄57'07		direct	13987 Dec 08 18:39	13°♄41'50	
morning max el	13987 Jan 08 21:58	9°♄25'39	20°57'59	morning max el	13987 Dec 21 14:45	19°♄52'56	22°38'54
asc. node	13987 Jan 13 00:45	14°♄01'37			13987 Dec 29 22:12	0°♄	
	13987 Jan 22 21:54	0°♄		asc. node	13987 Dec 30 21:57	1°♄29'42	
morning set	13987 Jan 28 08:26	10°♄54'29		morning set	13988 Jan 12 19:31	25°♄39'59	
					13988 Jan 14 20:12	0°♄	
superior conj	13987 Feb 04 17:19	26°♄16'08	1°15'14	superior conj	13988 Jan 19 19:13	10°♄39'28	1°29'08
minimum elong	13987 Feb 04 19:51	26°♄29'10	1°15'35	minimum elong	13988 Jan 19 21:00	10°♄49'02	1°29'51
	13987 Feb 06 13:13	0°♄		max. Earth dist.	13988 Jan 23 08:06	18°♄05'26	1.33777 AU
max. Earth dist.	13987 Feb 09 16:34	6°♄14'55	1.35585 AU	evening rise	13988 Jan 27 20:46	27°♄11'52	
evening rise	13987 Feb 13 15:32	13°♄48'10			13988 Jan 29 07:33	0°♄	
desc. node	13987 Feb 14 17:59	15°♄50'25		desc. node	13988 Feb 01 14:34	6°♄09'12	
	13987 Feb 22 21:10	0°♄			13988 Feb 16 04:23	0°♄	
evening max el	13987 Mar 16 00:29	0°♄		evening max el	13988 Mar 02 14:18	18°♄59'17	27°08'47
	13987 Mar 21 00:50	5°♄22'44	26°19'35				



retrograde	13988 Mar 16 01:16	26°♄27'42		evening rise	13989 Jan 10 12:58	11°♊02'33	
evening set	13988 Mar 22 16:17	23°♄55'54		desc. node	13989 Jan 18 11:16	26°♊13'25	
min. Earth dist.	13988 Mar 26 14:08	20°♄12'19	0.65331 AU		13989 Jan 20 14:42	0°♋	
asc. node	13988 Mar 27 18:50	18°♄52'17			13989 Feb 10 21:43	0°♌	
inferior conj	13988 Mar 28 21:18	17°♄37'24	0°20'59	evening max el	13989 Feb 13 02:33	2°♌12'43	27°32'51
minimum elong	13988 Mar 28 20:44	17°♄39'02	0°20'33	retrograde	13989 Feb 26 21:47	9°♌39'55	
morning rise	13988 Apr 04 02:50	12°♄06'44		evening set	13989 Mar 05 18:07	7°♌15'03	
direct	13988 Apr 06 20:38	11°♄26'34		min. Earth dist.	13989 Mar 09 12:50	4°♌00'41	0.63455 AU
morning max el	13988 Apr 13 04:40	14°♄44'29	18°00'09	inferior conj	13989 Mar 12 07:00	1°♌13'18	-0°46'26
	13988 Apr 24 06:19	0°♍		minimum elong	13989 Mar 12 08:30	1°♌09'31	0°45'45
desc. node	13988 Apr 29 16:54	8°♍50'27			13989 Mar 13 12:20	30°♋	
morning set	13988 May 01 07:26	11°♍28'16		asc. node	13989 Mar 14 16:18	28°♋54'02	
	13988 May 12 18:23	0°♎		morning rise	13989 Mar 19 01:19	25°♋57'35	
				direct	13989 Mar 21 10:55	25°♋29'32	
superior conj	13988 May 15 18:35	4°♎46'05	-1°45'03	morning max el	13989 Mar 27 22:21	28°♋48'26	17°46'46
minimum elong	13988 May 15 09:32	4°♎10'21	1°45'07		13989 Mar 29 01:48	0°♏	
max. Earth dist.	13988 May 19 01:28	9°♎56'06	1.45668 AU	morning set	13989 Apr 13 08:40	23°♏43'29	
evening rise	13988 May 31 20:37	29°♎46'40		desc. node	13989 Apr 16 13:31	29°♏12'23	
	13988 Jun 01 00:05	0°♐			13989 Apr 17 00:41	0°♑	
greatest brilliancy	13988 Jun 14 07:40	20°♐12'20	-0.7m				
	13988 Jun 21 07:22	0°♑		superior conj	13989 Apr 25 23:24	14°♑56'29	-1°09'08
asc. node	13988 Jun 23 16:33	2°♑57'02		minimum elong	13989 Apr 25 16:32	14°♑28'23	1°08'53
evening max el	13988 Jun 26 00:49	5°♑30'26	19°32'59	max. Earth dist.	13989 May 01 19:50	24°♑22'05	1.44768 AU
retrograde	13988 Jul 03 06:19	9°♑34'05			13989 May 05 09:31	0°♒	
evening set	13988 Jul 06 23:12	8°♑14'21		evening rise	13989 May 11 07:32	9°♒09'54	
inferior conj	13988 Jul 12 07:52	2°♑19'57	3°06'51		13989 May 25 05:34	0°♓	
minimum elong	13988 Jul 12 08:48	2°♑16'49	3°05'49	evening max el	13989 Jun 09 02:26	19°♓20'04	20°34'48
min. Earth dist.	13988 Jul 13 13:28	0°♑41'46	0.67424 AU	asc. node	13989 Jun 10 13:33	20°♓43'06	
	13988 Jul 14 02:18	30°♋♓		retrograde	13989 Jun 17 05:15	24°♓00'33	
morning rise	13988 Jul 17 17:54	25°♓55'30		evening set	13989 Jun 21 08:17	22°♓23'50	
direct	13988 Jul 23 15:56	23°♓20'15		inferior conj	13989 Jun 26 14:26	16°♓17'22	3°11'39
desc. node	13988 Jul 26 16:15	23°♓54'17		minimum elong	13989 Jun 26 14:22	16°♓17'37	3°10'36
	13988 Aug 04 05:07	0°♑		min. Earth dist.	13989 Jun 27 06:09	15°♓23'16	0.68402 AU
morning max el	13988 Aug 04 20:41	0°♑38'54	25°24'17	morning rise	13989 Jul 01 20:08	9°♓56'33	
	13988 Aug 26 23:02	0°♒		direct	13989 Jul 07 06:32	7°♓33'09	
morning set	13988 Sep 09 19:16	23°♒09'42		desc. node	13989 Jul 13 13:34	10°♓00'54	
max. Earth dist.	13988 Sep 13 09:36	29°♒46'27	1.36230 AU	morning max el	13989 Jul 18 06:58	14°♓08'42	23°57'06
	13988 Sep 13 12:29	0°♓			13989 Jul 31 04:31	0°♑	
					13989 Aug 19 20:06	0°♒	
superior conj	13988 Sep 19 15:51	11°♓53'37	-0°00'51	morning set	13989 Aug 22 13:34	4°♒36'11	
minimum elong	13988 Sep 19 15:53	11°♓53'50	0°00'44	max. Earth dist.	13989 Aug 26 07:32	11°♒07'26	1.38536 AU
behind sun begin	13988 Sep 19 09:34	11°♓22'21					
behind sun end	13988 Sep 19 22:12	12°♓25'22		superior conj	13989 Sep 02 18:05	24°♒45'42	-0°34'49
asc. node	13988 Sep 19 18:03	12°♓04'36		minimum elong	13989 Sep 02 20:33	24°♒57'22	0°34'34
evening rise	13988 Sep 27 16:23	28°♓13'02			13989 Sep 05 11:45	0°♓	
	13988 Sep 28 13:24	0°♔		asc. node	13989 Sep 06 14:36	2°♓10'14	
evening max el	13988 Oct 15 06:00	27°♔10'33	19°55'51	evening rise	13989 Sep 11 16:38	12°♓09'04	
	13988 Oct 18 14:55	0°♕			13989 Sep 21 09:00	0°♔	
desc. node	13988 Oct 22 12:25	1°♕52'50		evening max el	13989 Sep 28 00:44	8°♔50'04	18°57'20
retrograde	13988 Oct 25 13:48	2°♕19'15		retrograde	13989 Oct 06 18:11	13°♔12'57	
evening set	13988 Oct 27 13:22	2°♕08'44		evening set	13989 Oct 08 15:08	13°♔01'39	
	13988 Nov 02 05:56	30°♕♔		desc. node	13989 Oct 09 09:52	12°♔50'33	
inferior conj	13988 Nov 05 09:59	28°♔09'02	-4°10'16	inferior conj	13989 Oct 16 22:53	8°♔44'48	-2°23'18
minimum elong	13988 Nov 05 00:08	28°♔24'03	4°06'21	minimum elong	13989 Oct 16 16:51	8°♔55'22	2°20'24
min. Earth dist.	13988 Nov 07 08:41	26°♔57'54	0.55034 AU	min. Earth dist.	13989 Oct 19 21:06	6°♔42'19	0.56437 AU
morning rise	13988 Nov 13 09:31	23°♔57'21		morning rise	13989 Oct 24 15:35	3°♔58'19	
direct	13988 Nov 18 07:05	23°♔04'46		direct	13989 Oct 30 08:24	2°♔41'30	
morning max el	13988 Dec 02 00:39	29°♔52'50	24°28'01	morning max el	13989 Nov 13 12:11	9°♔58'03	26°07'33
	13988 Dec 02 03:39	0°♕			13989 Nov 28 16:58	0°♕	
asc. node	13988 Dec 16 19:03	19°♕47'54		asc. node	13989 Dec 03 16:04	8°♕42'49	
	13988 Dec 22 06:51	0°♖		morning set	13989 Dec 11 18:31	25°♕01'50	
morning set	13988 Dec 27 07:29	10°♖24'23			13989 Dec 14 01:21	0°♖	
superior conj	13989 Jan 03 02:34	25°♖15'53	1°36'33	superior conj	13989 Dec 18 13:02	9°♖57'36	1°37'48
minimum elong	13989 Jan 03 03:20	25°♖20'04	1°37'31	minimum elong	13989 Dec 18 12:43	9°♖55'49	1°38'52
	13989 Jan 05 06:48	0°♗		max. Earth dist.	13989 Dec 19 12:43	12°♖09'14	1.31535 AU
max. Earth dist.	13989 Jan 05 07:22	0°♗03'04	1.32410 AU	evening rise	13989 Dec 25 13:09	25°♖11'46	



































































































































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desc. node	13990 Jan 05 08:03	15°♊55'45		desc. node	13990 Dec 23 04:55	5°♊07'47	
	13990 Jan 14 04:36	0°♋		evening max el	13991 Jan 08 13:42	26°♊38'25	26°43'43
evening max el	13990 Jan 26 11:19	14°♋49'45	27°25'39		13991 Jan 12 13:58	0°♋	
retrograde	13990 Feb 09 10:07	22°♋09'14		retrograde	13991 Jan 22 12:48	3°♋47'50	
evening set	13990 Feb 16 06:52	19°♋59'06		evening set	13991 Jan 29 02:59	1°♋59'44	
min. Earth dist.	13990 Feb 20 01:34	17°♋07'54	0.61344 AU		13991 Feb 01 06:46	30°♋	
inferior conj	13990 Feb 23 03:46	14°♋22'05	-2°04'40	min. Earth dist.	13991 Feb 02 03:33	29°♋21'55	0.59153 AU
minimum elong	13990 Feb 23 08:11	14°♋12'08	2°02'31	inferior conj	13991 Feb 05 07:54	26°♋53'31	-3°29'22
asc. node	13990 Mar 01 13:46	9°♋44'54		minimum elong	13991 Feb 05 15:28	26°♋38'46	3°26'04
morning rise	13990 Mar 02 12:32	9°♋24'17		morning rise	13991 Feb 13 07:04	22°♋16'44	
direct	13990 Mar 04 16:02	9°♋04'37		direct	13991 Feb 15 07:41	22°♋01'54	
morning max el	13990 Mar 11 15:00	12°♋34'57	17°51'27	asc. node	13991 Feb 16 11:14	22°♋06'51	
	13990 Mar 23 09:29	0°♌		morning max el	13991 Feb 23 02:59	25°♋53'51	18°15'26
morning set	13990 Mar 27 06:43	6°♌57'17			13991 Feb 26 15:09	0°♋	
desc. node	13990 Apr 03 10:05	19°♌42'47		morning set	13991 Mar 10 19:34	20°♋51'15	
					13991 Mar 15 16:01	0°♌	
superior conj	13990 Apr 07 04:07	26°♌13'40	-0°29'28	superior conj	13991 Mar 20 07:29	8°♌33'14	0°07'47
minimum elong	13990 Apr 07 01:24	26°♌02'02	0°29'23	minimum elong	13991 Mar 20 08:04	8°♌35'52	0°07'38
	13990 Apr 09 09:18	0°♍		behind sun begin	13991 Mar 20 01:28	8°♌05'59	
max. Earth dist.	13990 Apr 14 11:04	8°♍25'24	1.43242 AU	behind sun end	13991 Mar 20 14:39	9°♌05'40	
evening rise	13990 Apr 21 01:58	19°♍00'15			13991 Mar 21 06:36	10°♌17'27	
	13990 Apr 28 05:54	0°♎		desc. node	13991 Mar 27 21:54	21°♌52'43	1.41248 AU
	13990 May 19 23:57	0°♏		evening rise	13991 Apr 01 14:30	29°♌40'41	
evening max el	13990 May 22 22:30	3°♏10'32	21°48'01		13991 Apr 01 19:14	0°♍	
asc. node	13990 May 28 10:38	7°♏31'58			13991 Apr 21 17:48	0°♎	
retrograde	13990 Jun 01 03:27	8°♏33'57		evening max el	13991 May 05 14:19	17°♎01'40	23°07'54
evening set	13990 Jun 05 17:24	6°♏40'47		asc. node	13991 May 15 07:50	23°♎06'33	
inferior conj	13990 Jun 10 23:33	0°♏23'52	3°05'10	retrograde	13991 May 15 23:30	23°♎08'29	
minimum elong	13990 Jun 10 22:33	0°♏27'22	3°04'01	evening set	13991 May 21 00:51	21°♎00'28	
min. Earth dist.	13990 Jun 11 01:55	0°♏15'35	0.68903 AU	inferior conj	13991 May 26 09:11	14°♎35'15	2°48'14
	13990 Jun 11 06:23	30°♎		minimum elong	13991 May 26 07:28	14°♎41'14	2°46'57
morning rise	13990 Jun 16 03:30	24°♎08'55		min. Earth dist.	13991 May 25 22:40	15°♎11'42	0.68926 AU
direct	13990 Jun 21 01:18	22°♎02'41		morning rise	13991 May 31 14:00	8°♎27'33	
desc. node	13990 Jun 30 10:48	27°♎26'49		direct	13991 Jun 04 23:05	6°♎41'23	
morning max el	13990 Jun 30 18:44	27°♎46'34	22°27'52	morning max el	13991 Jun 13 11:08	11°♎34'29	21°04'27
	13990 Jul 02 21:08	0°♏		desc. node	13991 Jun 17 07:53	15°♎50'40	
	13990 Jul 24 19:12	0°♐			13991 Jun 27 21:30	0°♏	
morning set	13990 Aug 03 08:13	15°♐00'14		morning set	13991 Jul 14 02:28	24°♏21'05	
max. Earth dist.	13990 Aug 08 07:28	23°♐13'50	1.40886 AU		13991 Jul 17 16:25	0°♐	
	13990 Aug 12 06:19	0°♑		max. Earth dist.	13991 Jul 21 13:18	6°♐13'30	1.42995 AU
superior conj	13990 Aug 16 03:38	6°♑52'00	-1°10'11	superior conj	13991 Jul 28 15:56	18°♐01'51	-1°42'46
minimum elong	13990 Aug 16 08:58	7°♑15'58	1°09'54	minimum elong	13991 Jul 28 23:14	18°♐32'49	1°42'48
asc. node	13990 Aug 24 11:11	22°♑10'38			13991 Aug 04 13:50	0°♑	
evening rise	13990 Aug 26 07:31	25°♑38'52		evening rise	13991 Aug 09 08:43	8°♑30'59	
	13990 Aug 28 15:16	0°♒		asc. node	13991 Aug 11 07:45	12°♑01'10	
evening max el	13990 Sep 11 06:07	21°♒13'23	18°20'25		13991 Aug 22 05:36	0°♒	
retrograde	13990 Sep 18 18:04	25°♒01'37		evening max el	13991 Aug 25 17:52	4°♒10'09	18°03'47
evening set	13990 Sep 20 19:51	24°♒44'51		retrograde	13991 Sep 01 11:19	7°♒37'34	
desc. node	13990 Sep 26 07:22	21°♒46'24		evening set	13991 Sep 03 20:33	7°♒11'32	
inferior conj	13990 Sep 28 09:31	20°♒06'46	-0°39'37	inferior conj	13991 Sep 10 16:39	2°♒13'15	0°45'41
minimum elong	13990 Sep 28 08:02	20°♒09'49	0°38'46	minimum elong	13991 Sep 10 18:01	2°♒09'59	0°45'07
min. Earth dist.	13990 Oct 01 16:20	17°♒26'07	0.58424 AU	desc. node	13991 Sep 13 04:53	29°♒49'53	
morning rise	13990 Oct 05 16:46	14°♒43'33			13991 Sep 13 00:33	30°♒	
direct	13990 Oct 11 23:28	12°♒59'50		min. Earth dist.	13991 Sep 13 20:29	29°♒14'05	0.60681 AU
morning max el	13990 Oct 26 06:56	20°♒38'19	27°20'08	morning rise	13991 Sep 17 12:30	26°♒20'22	
	13990 Nov 03 09:22	0°♓		direct	13991 Sep 24 02:57	24°♒11'09	
asc. node	13990 Nov 20 12:59	28°♓04'58			13991 Oct 06 03:32	0°♒	
	13990 Nov 21 12:24	0°♔		morning max el	13991 Oct 08 09:25	2°♒05'44	27°55'40
morning set	13990 Nov 26 02:52	9°♔28'07			13991 Oct 28 19:03	0°♓	
superior conj	13990 Dec 03 00:38	24°♔39'09	1°33'08	asc. node	13991 Nov 07 09:47	17°♓46'31	
minimum elong	13990 Dec 02 23:20	24°♔31'56	1°34'05	morning set	13991 Nov 10 06:39	23°♓38'29	
max. Earth dist.	13990 Dec 02 21:01	24°♔18'58	1.31170 AU		13991 Nov 13 06:27	0°♔	
	13990 Dec 05 10:05	0°♕		max. Earth dist.	13991 Nov 16 04:24	6°♔22'46	1.31325 AU
evening rise	13990 Dec 09 18:56	9°♕33'41					

superior conj	13991 Nov 17 11:31	9° $\text{♊}$ 15'24	1°22'39	minimum elong	13992 Oct 31 17:29	23° $\text{♋}$ 27'48	1°06'49
minimum elong	13991 Nov 17 09:31	9° $\text{♊}$ 04'17	1°23'22		13992 Nov 03 16:56	0° $\text{♊}$	
evening rise	13991 Nov 24 04:14	24° $\text{♊}$ 02'59		evening rise	13992 Nov 07 15:08	8° $\text{♊}$ 34'13	
	13991 Nov 26 23:36	0° $\text{♋}$			13992 Nov 18 13:29	0° $\text{♋}$	
desc. node	13991 Dec 10 01:53	23° $\text{♋}$ 38'14		desc. node	13992 Nov 25 22:59	11° $\text{♋}$ 10'36	
	13991 Dec 14 14:33	0° $\text{♌}$		evening max el	13992 Dec 01 18:32	17° $\text{♋}$ 46'59	23°52'35
evening max el	13991 Dec 21 07:37	7° $\text{♌}$ 34'10	25°29'17	retrograde	13992 Dec 15 07:32	24° $\text{♋}$ 31'13	
retrograde	13992 Jan 04 04:32	14° $\text{♌}$ 33'14		evening set	13992 Dec 20 02:21	23° $\text{♋}$ 41'22	
evening set	13992 Jan 10 02:28	13° $\text{♌}$ 13'10		min. Earth dist.	13992 Dec 26 05:39	20° $\text{♋}$ 41'41	0.55487 AU
min. Earth dist.	13992 Jan 14 19:58	10° $\text{♌}$ 33'44	0.57105 AU	inferior conj	13992 Dec 28 03:48	19° $\text{♋}$ 32'41	-5°46'15
inferior conj	13992 Jan 17 16:13	8° $\text{♌}$ 38'39	-4°49'47	minimum elong	13992 Dec 28 09:02	19° $\text{♋}$ 24'51	5°44'39
minimum elong	13992 Jan 18 01:07	8° $\text{♌}$ 23'36	4°46'38	morning rise	13993 Jan 05 17:31	15° $\text{♋}$ 36'53	
morning rise	13992 Jan 26 02:24	4° $\text{♌}$ 24'07		direct	13993 Jan 08 07:37	15° $\text{♋}$ 20'02	
direct	13992 Jan 28 05:30	4° $\text{♌}$ 10'32		morning max el	13993 Jan 18 21:05	20° $\text{♋}$ 24'19	20°08'27
asc. node	13992 Feb 03 08:39	6° $\text{♌}$ 11'29		asc. node	13993 Jan 20 06:00	21° $\text{♋}$ 48'27	
morning max el	13992 Feb 06 06:22	8° $\text{♌}$ 34'20	19°00'31		13993 Jan 26 09:09	0° $\text{♌}$	
	13992 Feb 20 02:46	0° $\text{♍}$		morning set	13993 Feb 06 00:18	19° $\text{♌}$ 47'35	
morning set	13992 Feb 22 18:36	5° $\text{♍}$ 11'43			13993 Feb 10 23:45	0° $\text{♍}$	
superior conj	13992 Mar 02 05:16	21° $\text{♍}$ 43'13	0°39'20	superior conj	13993 Feb 13 16:52	5° $\text{♍}$ 29'40	1°04'06
minimum elong	13992 Mar 02 07:34	21° $\text{♍}$ 54'11	0°39'13	minimum elong	13993 Feb 13 19:34	5° $\text{♍}$ 43'16	1°04'16
	13992 Mar 06 15:28	0° $\text{♎}$		max. Earth dist.	13993 Feb 19 11:13	16° $\text{♍}$ 44'14	1.36780 AU
desc. node	13992 Mar 07 03:05	0° $\text{♎}$ 53'03		desc. node	13993 Feb 21 23:36	21° $\text{♍}$ 25'16	
max. Earth dist.	13992 Mar 09 04:41	4° $\text{♎}$ 36'31	1.39010 AU	evening rise	13993 Feb 23 05:37	23° $\text{♍}$ 41'56	
evening rise	13992 Mar 13 00:17	11° $\text{♎}$ 16'46			13993 Feb 26 19:09	0° $\text{♎}$	
	13992 Mar 24 14:11	0° $\text{♏}$			13993 Mar 18 06:52	0° $\text{♏}$	
	13992 Apr 16 06:28	0° $\text{♐}$		evening max el	13993 Mar 30 17:30	14° $\text{♏}$ 46'43	25°42'40
evening max el	13992 Apr 17 04:01	0° $\text{♐}$ 54'25	24°28'24	retrograde	13993 Apr 12 04:29	21° $\text{♏}$ 57'16	
retrograde	13992 Apr 28 16:13	7° $\text{♐}$ 38'42		evening set	13993 Apr 18 04:35	19° $\text{♏}$ 28'45	
asc. node	13992 May 01 05:06	7° $\text{♐}$ 10'26		asc. node	13993 Apr 18 02:29	19° $\text{♏}$ 33'08	
evening set	13992 May 04 05:09	5° $\text{♐}$ 18'31		min. Earth dist.	13993 Apr 22 10:53	14° $\text{♏}$ 51'52	0.67582 AU
	13992 May 08 20:11	30° $\text{♏}$		inferior conj	13993 Apr 23 22:32	12° $\text{♏}$ 58'22	1°43'22
min. Earth dist.	13992 May 08 18:22	0° $\text{♐}$ 06'03	0.68480 AU	minimum elong	13993 Apr 23 20:29	13° $\text{♏}$ 04'55	1°42'04
inferior conj	13992 May 09 17:31	28° $\text{♏}$ 48'24	2°21'04	morning rise	13993 Apr 29 12:57	7° $\text{♏}$ 08'29	
minimum elong	13992 May 09 15:23	28° $\text{♏}$ 55'31	2°19'41	direct	13993 May 02 22:26	6° $\text{♏}$ 02'29	
morning rise	13992 May 15 01:48	22° $\text{♏}$ 48'56		morning max el	13993 May 09 17:12	9° $\text{♏}$ 42'43	18°55'51
direct	13992 May 18 22:37	21° $\text{♏}$ 23'25		desc. node	13993 May 21 01:42	24° $\text{♏}$ 34'17	
morning max el	13992 May 26 10:28	25° $\text{♏}$ 34'06	19°52'39	greatest brilliancy	13993 May 23 03:19	27° $\text{♏}$ 40'37	-0.8m
	13992 May 30 09:35	0° $\text{♑}$			13993 May 24 15:59	0° $\text{♑}$	
desc. node	13992 Jun 03 04:52	4° $\text{♑}$ 57'07		morning set	13993 Jun 01 12:45	12° $\text{♑}$ 07'37	
	13992 Jun 20 05:02	0° $\text{♒}$			13993 Jun 13 00:41	0° $\text{♒}$	
morning set	13992 Jun 22 05:19	3° $\text{♒}$ 04'59		max. Earth dist.	13993 Jun 15 18:21	4° $\text{♒}$ 16'33	1.45614 AU
max. Earth dist.	13992 Jul 03 01:18	19° $\text{♒}$ 58'36	1.44628 AU	superior conj	13993 Jun 17 20:42	7° $\text{♒}$ 33'52	-2°13'31
superior conj	13992 Jul 08 04:31	28° $\text{♒}$ 11'54	-2°06'16	minimum elong	13993 Jun 17 19:43	7° $\text{♒}$ 30'00	2°14'34
minimum elong	13992 Jul 08 10:10	28° $\text{♒}$ 34'46	2°06'57		13993 Jul 01 22:46	0° $\text{♓}$	
	13992 Jul 09 07:11	0° $\text{♓}$		evening rise	13993 Jul 02 22:28	1° $\text{♓}$ 35'51	
evening rise	13992 Jul 21 15:16	20° $\text{♓}$ 33'22		asc. node	13993 Jul 15 01:07	20° $\text{♓}$ 54'25	
	13992 Jul 27 05:01	0° $\text{♐}$			13993 Jul 21 19:39	0° $\text{♐}$	
asc. node	13992 Jul 28 04:23	1° $\text{♐}$ 37'32		evening max el	13993 Jul 22 21:54	1° $\text{♐}$ 08'44	18°26'29
evening max el	13992 Aug 08 08:12	17° $\text{♐}$ 31'11	18°06'07	retrograde	13993 Jul 29 08:13	4° $\text{♐}$ 35'34	
retrograde	13992 Aug 14 17:25	20° $\text{♐}$ 51'37		evening set	13993 Aug 01 10:33	3° $\text{♐}$ 41'58	
evening set	13992 Aug 17 11:00	20° $\text{♐}$ 13'03			13993 Aug 05 15:21	30° $\text{♐}$	
inferior conj	13992 Aug 23 16:34	14° $\text{♐}$ 56'50	1°49'03	inferior conj	13993 Aug 07 05:16	28° $\text{♐}$ 09'48	2°32'13
minimum elong	13992 Aug 23 18:59	14° $\text{♐}$ 50'18	1°47'56	minimum elong	13993 Aug 07 07:32	28° $\text{♐}$ 03'02	2°31'03
min. Earth dist.	13992 Aug 26 10:23	12° $\text{♐}$ 00'25	0.62939 AU	min. Earth dist.	13993 Aug 09 09:37	25° $\text{♐}$ 34'27	0.64979 AU
morning rise	13992 Aug 30 00:51	8° $\text{♐}$ 44'47		morning rise	13993 Aug 13 03:15	21° $\text{♐}$ 48'01	
desc. node	13992 Aug 30 02:25	8° $\text{♐}$ 41'54		desc. node	13993 Aug 16 23:54	19° $\text{♐}$ 34'47	
direct	13992 Sep 05 16:54	6° $\text{♐}$ 16'12		direct	13993 Aug 19 15:27	19° $\text{♐}$ 09'26	
morning max el	13992 Sep 19 17:19	14° $\text{♐}$ 17'46	27°52'12	morning max el	13993 Sep 02 03:55	27° $\text{♐}$ 05'26	27°14'15
	13992 Oct 02 10:48	0° $\text{♑}$			13993 Sep 04 21:30	0° $\text{♑}$	
	13992 Oct 20 09:01	0° $\text{♒}$			13993 Sep 26 02:46	0° $\text{♑}$	
morning set	13992 Oct 24 03:39	7° $\text{♒}$ 26'47		morning set	13993 Oct 07 15:15	20° $\text{♑}$ 47'01	
asc. node	13992 Oct 24 06:28	7° $\text{♒}$ 40'59		asc. node	13993 Oct 11 03:05	27° $\text{♑}$ 43'52	
max. Earth dist.	13992 Oct 29 06:49	18° $\text{♒}$ 09'55	1.32022 AU	max. Earth dist.	13993 Oct 12 00:57	29° $\text{♑}$ 35'30	1.33271 AU
					13993 Oct 12 05:44	0° $\text{♒}$	
superior conj	13992 Oct 31 19:46	23° $\text{♒}$ 40'20	1°06'23				

superior conj	13993 Oct 15 23:19	7° $\mathbb{M}$ 48'45	0°44'26	asc. node	13994 Sep 27 23:40	17° $\underline{\Omega}$ 50'40	
minimum elong	13993 Oct 15 21:19	7° $\mathbb{M}$ 38'06	0°44'38				
evening rise	13993 Oct 23 01:52	23° $\mathbb{M}$ 03'09		superior conj	13994 Sep 29 19:35	21° $\underline{\Omega}$ 33'35	0°17'05
	13993 Oct 26 09:44	0° $\mathbb{A}$		minimum elong	13994 Sep 29 18:37	21° $\underline{\Omega}$ 28'41	0°17'11
desc. node	13993 Nov 12 20:11	27° $\mathbb{A}$ 23'54			13994 Oct 03 21:21	0° $\mathbb{M}$	
evening max el	13993 Nov 13 05:41	27° $\mathbb{A}$ 47'26	22°10'29	evening rise	13994 Oct 07 10:26	7° $\mathbb{M}$ 24'13	
	13993 Nov 15 17:28	0° $\mathbb{B}$			13994 Oct 19 14:15	0° $\mathbb{A}$	
retrograde	13993 Nov 25 22:12	4° $\mathbb{B}$ 04'35		evening max el	13994 Oct 26 02:15	8° $\mathbb{A}$ 11'33	20°39'18
evening set	13993 Nov 29 07:59	3° $\mathbb{B}$ 38'56		desc. node	13994 Oct 30 17:31	11° $\mathbb{A}$ 51'54	
inferior conj	13993 Dec 07 23:26	29° $\mathbb{A}$ 44'37	-5°54'17	retrograde	13994 Nov 06 08:35	13° $\mathbb{A}$ 47'32	
minimum elong	13993 Dec 07 19:56	29° $\mathbb{A}$ 49'30	5°52'59	evening set	13994 Nov 08 16:20	13° $\mathbb{A}$ 34'18	
min. Earth dist.	13993 Dec 07 11:56	0° $\mathbb{B}$ 00'43	0.54593 AU	inferior conj	13994 Nov 17 14:58	9° $\mathbb{A}$ 40'00	-5°02'05
	13993 Dec 07 12:27	30° $\mathbb{R}$ $\mathbb{A}$		minimum elong	13994 Nov 17 05:14	9° $\mathbb{A}$ 54'00	4°58'51
morning rise	13993 Dec 16 08:56	25° $\mathbb{A}$ 57'24		min. Earth dist.	13994 Nov 18 18:04	9° $\mathbb{A}$ 01'00	0.54608 AU
direct	13993 Dec 19 19:06	25° $\mathbb{A}$ 31'16		morning rise	13994 Nov 25 18:03	5° $\mathbb{A}$ 43'27	
	13993 Dec 30 09:50	0° $\mathbb{B}$		direct	13994 Nov 30 03:16	5° $\mathbb{A}$ 02'15	
morning max el	13993 Dec 31 21:05	1° $\mathbb{B}$ 18'53	21°38'52	morning max el	13994 Dec 13 09:36	11° $\mathbb{A}$ 29'21	23°25'21
asc. node	13994 Jan 07 03:15	8° $\mathbb{B}$ 41'00		asc. node	13994 Dec 25 00:25	26° $\mathbb{A}$ 31'52	
	13994 Jan 19 05:42	0° $\approx$			13994 Dec 27 01:52	0° $\mathbb{B}$	
morning set	13994 Jan 21 10:04	4° $\approx$ 31'30		morning set	13995 Jan 05 21:47	19° $\mathbb{B}$ 17'12	
					13995 Jan 10 20:34	0° $\approx$	
superior conj	13994 Jan 28 14:28	19° $\approx$ 42'07	1°21'55	superior conj	13995 Jan 12 18:59	4° $\approx$ 11'36	1°33'02
minimum elong	13994 Jan 28 16:44	19° $\approx$ 54'00	1°22'27	minimum elong	13995 Jan 12 20:22	4° $\approx$ 19'02	1°33'54
max. Earth dist.	13994 Feb 01 22:46	28° $\approx$ 36'44	1.34775 AU	max. Earth dist.	13995 Jan 15 17:55	10° $\approx$ 30'30	1.33140 AU
	13994 Feb 02 15:28	0° $\mathbb{H}$		evening rise	13995 Jan 20 13:29	20° $\approx$ 23'19	
evening rise	13994 Feb 06 03:12	6° $\mathbb{H}$ 47'14			13995 Jan 25 13:44	0° $\mathbb{H}$	
desc. node	13994 Feb 08 20:09	11° $\mathbb{H}$ 50'23		desc. node	13995 Jan 26 16:48	2° $\mathbb{H}$ 03'50	
	13994 Feb 19 12:04	0° $\mathbb{Y}$			13995 Feb 13 11:26	0° $\mathbb{Y}$	
evening max el	13994 Mar 13 07:22	28° $\mathbb{Y}$ 32'42	26°43'10	evening max el	13995 Feb 23 20:44	12° $\mathbb{Y}$ 01'54	27°22'32
	13994 Mar 14 20:43	0° $\mathbb{B}$		retrograde	13995 Mar 09 11:32	19° $\mathbb{Y}$ 29'56	
retrograde	13994 Mar 26 11:11	5° $\mathbb{B}$ 57'02		evening set	13995 Mar 16 05:24	17° $\mathbb{Y}$ 00'19	
evening set	13994 Apr 01 21:22	3° $\mathbb{B}$ 24'58		min. Earth dist.	13995 Mar 20 01:44	13° $\mathbb{Y}$ 29'48	0.64573 AU
asc. node	13994 Apr 04 23:56	0° $\mathbb{B}$ 25'05		inferior conj	13995 Mar 22 13:46	10° $\mathbb{Y}$ 48'17	-0°06'08
	13994 Apr 05 08:55	30° $\mathbb{R}$ $\mathbb{Y}$		minimum elong	13995 Mar 22 13:57	10° $\mathbb{Y}$ 47'48	0°06'09
min. Earth dist.	13994 Apr 05 22:03	29° $\mathbb{Y}$ 22'26	0.66266 AU	transit middle	13995 Mar 22 13:57	10° $\mathbb{Y}$ 47'48	0°06'09
inferior conj	13994 Apr 07 22:08	27° $\mathbb{Y}$ 00'18	0°54'29	transit begin	13995 Mar 22 11:07	10° $\mathbb{Y}$ 55'28	
minimum elong	13994 Apr 07 20:47	27° $\mathbb{Y}$ 04'18	0°53'36	transit end	13995 Mar 22 16:47	10° $\mathbb{Y}$ 40'08	
morning rise	13994 Apr 13 21:22	21° $\mathbb{Y}$ 21'46		asc. node	13995 Mar 22 21:25	10° $\mathbb{Y}$ 27'42	
direct	13994 Apr 16 20:35	20° $\mathbb{Y}$ 32'57		morning rise	13995 Mar 29 00:27	5° $\mathbb{Y}$ 23'35	
morning max el	13994 Apr 23 06:09	23° $\mathbb{Y}$ 55'22	18°15'33	direct	13995 Mar 31 14:42	4° $\mathbb{Y}$ 48'51	
	13994 Apr 28 08:01	0° $\mathbb{B}$		morning max el	13995 Apr 06 23:00	8° $\mathbb{Y}$ 05'31	17°52'20
desc. node	13994 May 07 22:27	14° $\mathbb{B}$ 33'45			13995 Apr 21 21:46	0° $\mathbb{B}$	
morning set	13994 May 12 19:08	22° $\mathbb{B}$ 19'24		morning set	13995 Apr 24 05:47	3° $\mathbb{B}$ 53'45	
	13994 May 17 14:41	0° $\mathbb{H}$		desc. node	13995 Apr 24 19:08	4° $\mathbb{B}$ 49'26	
superior conj	13994 May 28 04:43	16° $\mathbb{H}$ 40'27	-2°00'37	superior conj	13995 May 07 22:11	26° $\mathbb{B}$ 18'31	-1°30'48
minimum elong	13994 May 27 20:57	16° $\mathbb{H}$ 10'04	2°01'08	minimum elong	13995 May 07 13:32	25° $\mathbb{B}$ 43'56	1°30'38
max. Earth dist.	13994 May 29 14:22	18° $\mathbb{H}$ 51'55	1.45869 AU		13995 May 10 05:51	0° $\mathbb{H}$	
	13994 Jun 05 17:51	0° $\mathbb{B}$		max. Earth dist.	13995 May 12 10:36	3° $\mathbb{H}$ 28'21	1.45375 AU
evening rise	13994 Jun 13 05:21	11° $\mathbb{B}$ 38'57		evening rise	13995 May 23 19:28	21° $\mathbb{H}$ 06'26	
greatest brilliancy	13994 Jun 24 01:07	28° $\mathbb{B}$ 24'28	-0.8m		13995 May 29 15:40	0° $\mathbb{B}$	
	13994 Jun 25 02:23	0° $\mathbb{Q}$		greatest brilliancy	13995 Jun 07 15:23	13° $\mathbb{B}$ 22'13	-0.6m
asc. node	13994 Jul 01 21:57	9° $\mathbb{Q}$ 43'59		asc. node	13995 Jun 18 18:54	27° $\mathbb{B}$ 57'02	
evening max el	13994 Jul 06 08:12	14° $\mathbb{Q}$ 54'48	19°04'06	evening max el	13995 Jun 19 13:14	28° $\mathbb{B}$ 44'17	19°57'35
retrograde	13994 Jul 13 04:16	18° $\mathbb{Q}$ 41'13			13995 Jun 20 21:21	0° $\mathbb{Q}$	
evening set	13994 Jul 16 15:47	17° $\mathbb{Q}$ 31'05		retrograde	13995 Jun 27 02:53	3° $\mathbb{Q}$ 02'21	
inferior conj	13994 Jul 22 03:10	11° $\mathbb{Q}$ 44'22	2°58'22	evening set	13995 Jul 01 00:06	1° $\mathbb{Q}$ 35'08	
minimum elong	13994 Jul 22 04:41	11° $\mathbb{Q}$ 39'32	2°57'17		13995 Jul 02 18:08	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	13994 Jul 23 16:59	9° $\mathbb{Q}$ 43'11	0.66659 AU	inferior conj	13995 Jul 06 07:20	25° $\mathbb{B}$ 35'15	3°10'19
morning rise	13994 Jul 27 16:55	5° $\mathbb{Q}$ 19'44		minimum elong	13995 Jul 06 07:51	25° $\mathbb{B}$ 33'32	3°09'18
direct	13994 Aug 02 20:58	2° $\mathbb{Q}$ 40'55		min. Earth dist.	13995 Jul 07 06:52	24° $\mathbb{B}$ 15'46	0.67902 AU
desc. node	13994 Aug 03 21:22	2° $\mathbb{Q}$ 44'46		morning rise	13995 Jul 11 15:15	19° $\mathbb{B}$ 12'10	
morning max el	13994 Aug 15 15:01	10° $\mathbb{Q}$ 16'51	26°09'44	direct	13995 Jul 17 08:26	16° $\mathbb{B}$ 41'30	
	13994 Aug 31 06:11	0° $\mathbb{H}$		desc. node	13995 Jul 21 18:45	17° $\mathbb{B}$ 54'55	
	13994 Sep 18 16:09	0° $\underline{\Omega}$		morning max el	13995 Jul 29 01:40	23° $\mathbb{B}$ 42'45	24°48'02
morning set	13994 Sep 20 14:04	3° $\underline{\Omega}$ 30'44			13995 Aug 03 16:02	0° $\mathbb{Q}$	
max. Earth dist.	13994 Sep 24 09:17	10° $\underline{\Omega}$ 43'38	1.35035 AU				

	13995 Aug 24 15:12	0°♍		morning max el	13996 Jul 10 12:27	7°♊16'48	23°18'49
morning set	13995 Sep 02 20:06	15°♍28'47			13996 Jul 28 05:21	0°♊	
max. Earth dist.	13995 Sep 06 09:53	21°♍53'43	1.37196 AU	morning set	13996 Aug 14 04:48	26°♊30'09	
	13995 Sep 10 17:56	0°♊			13996 Aug 16 06:35	0°♍	
				max. Earth dist.	13996 Aug 18 07:53	3°♍31'32	1.39546 AU
superior conj	13995 Sep 13 05:27	4°♊47'24	-0°14'55				
minimum elong	13995 Sep 13 06:26	4°♊52'09	0°14'45	superior conj	13996 Aug 26 01:06	17°♍21'06	-0°49'52
behind sun begin	13995 Sep 13 03:43	4°♊38'54		minimum elong	13996 Aug 26 04:47	17°♍38'09	0°49'35
behind sun end	13995 Sep 13 09:09	5°♊05'26		asc. node	13996 Aug 31 16:47	28°♍01'55	
asc. node	13995 Sep 14 20:14	7°♊57'54			13996 Sep 01 17:21	0°♊	
evening rise	13995 Sep 21 14:31	21°♊31'45		evening rise	13996 Sep 04 11:14	5°♊18'02	
	13995 Sep 25 21:29	0°♌			13996 Sep 19 06:17	0°♌	
evening max el	13995 Oct 08 13:02	19°♌22'04	19°28'07	evening max el	13996 Sep 20 12:47	1°♌21'33	18°39'03
desc. node	13995 Oct 17 14:56	24°♌09'59		retrograde	13996 Sep 28 16:38	5°♌28'24	
retrograde	13995 Oct 18 03:52	24°♌10'51		evening set	13996 Sep 30 14:54	5°♌15'24	
evening set	13995 Oct 20 00:55	24°♌00'39		desc. node	13996 Oct 03 12:23	4°♌11'31	
inferior conj	13995 Oct 28 17:08	19°♌54'04	-3°26'00	inferior conj	13996 Oct 08 15:12	0°♌49'49	-1°37'42
minimum elong	13995 Oct 28 08:31	20°♌07'57	3°22'14	minimum elong	13996 Oct 08 11:14	0°♌57'17	1°35'39
min. Earth dist.	13995 Oct 31 03:28	18°♌20'15	0.55541 AU		13996 Oct 09 17:36	30°♌	
morning rise	13995 Nov 05 14:00	15°♌28'34		min. Earth dist.	13996 Oct 11 18:48	28°♊28'43	0.57223 AU
direct	13995 Nov 10 20:02	14°♌26'34		morning rise	13996 Oct 16 04:08	25°♊46'51	
morning max el	13995 Nov 24 19:18	21°♌27'16	25°12'52	direct	13996 Oct 22 03:25	24°♊18'39	
	13995 Dec 02 05:53	0°♌			13996 Nov 03 11:18	0°♌	
asc. node	13995 Dec 11 21:29	15°♌06'53		morning max el	13996 Nov 05 09:49	1°♌46'14	26°42'36
	13995 Dec 19 12:30	0°♊			13996 Nov 25 11:34	0°♌	
morning set	13995 Dec 21 09:32	3°♊59'09		asc. node	13996 Nov 27 18:26	4°♌14'46	
				morning set	13996 Dec 04 19:38	18°♌33'01	
superior conj	13995 Dec 28 03:52	18°♊50'45	1°37'50		13996 Dec 10 00:46	0°♊	
minimum elong	13995 Dec 28 04:10	18°♊52'24	1°38'51				
max. Earth dist.	13995 Dec 29 20:09	22°♊32'11	1.31970 AU	superior conj	13996 Dec 11 15:03	3°♊33'43	1°36'33
	13996 Jan 02 07:12	0°♋		minimum elong	13996 Dec 11 14:18	3°♊29'30	1°37'35
evening rise	13996 Jan 04 09:20	4°♋22'09		max. Earth dist.	13996 Dec 12 03:03	4°♊40'41	1.31308 AU
desc. node	13996 Jan 13 13:31	21°♋59'33		evening rise	13996 Dec 18 12:09	18°♊37'46	
	13996 Jan 18 06:32	0°♋			13996 Dec 24 02:38	0°♋	
evening max el	13996 Feb 06 07:38	25°♋00'49	27°33'54	desc. node	13996 Dec 30 10:19	11°♋30'30	
	13996 Feb 12 15:21	0°♌			13997 Jan 11 22:33	0°♋	
retrograde	13996 Feb 20 04:36	2°♌25'26		evening max el	13997 Jan 18 13:47	7°♋17'56	27°12'06
evening set	13996 Feb 27 02:04	0°♌05'32		retrograde	13997 Feb 01 13:20	14°♋34'17	
	13996 Feb 27 05:20	30°♋		evening set	13997 Feb 08 08:13	12°♋32'26	
min. Earth dist.	13996 Mar 01 20:07	27°♋02'24	0.62576 AU	min. Earth dist.	13997 Feb 12 04:17	9°♋48'27	0.60404 AU
inferior conj	13996 Mar 04 18:22	24°♋13'38	-1°18'28	inferior conj	13997 Feb 15 08:27	7°♋07'40	-2°40'17
minimum elong	13996 Mar 04 21:01	24°♋07'14	1°17'09	minimum elong	13997 Feb 15 14:16	6°♋55'21	2°37'33
asc. node	13996 Mar 08 18:55	20°♋43'08		morning rise	13997 Feb 22 23:33	2°♋18'49	
morning rise	13996 Mar 11 18:43	19°♋05'30		asc. node	13997 Feb 23 16:21	2°♋09'18	
direct	13996 Mar 14 01:28	18°♋41'27		direct	13997 Feb 25 01:12	2°♋01'46	
morning max el	13996 Mar 20 16:43	22°♋03'39	17°46'36	morning max el	13997 Mar 04 07:53	5°♋40'11	17°59'14
	13996 Mar 26 20:37	0°♌		morning set	13997 Mar 19 21:36	0°♌08'56	
morning set	13996 Apr 05 16:38	16°♌36'21			13997 Mar 19 19:39	0°♌	
desc. node	13996 Apr 10 15:43	25°♌15'37		desc. node	13997 Mar 28 12:15	15°♌48'18	
	13996 Apr 13 09:55	0°♋					
superior conj	13996 Apr 17 13:00	6°♋57'35	-0°52'20	superior conj	13997 Mar 30 03:46	18°♌42'42	-0°13'09
minimum elong	13996 Apr 17 07:53	6°♋36'15	0°52'08	minimum elong	13997 Mar 30 02:38	18°♌37'43	0°13'12
max. Earth dist.	13996 Apr 24 04:02	17°♋47'26	1.44186 AU	behind sun begin	13997 Mar 29 22:05	18°♌17'45	
	13996 May 01 22:12	0°♌		behind sun end	13997 Mar 30 07:11	18°♌57'40	
evening rise	13996 May 02 07:47	0°♌37'00			13997 Apr 05 18:06	0°♋	
	13996 May 22 06:49	0°♊		max. Earth dist.	13997 Apr 06 16:49	1°♋34'22	1.42435 AU
evening max el	13996 Jun 01 12:16	12°♊33'56	21°04'40	evening rise	13997 Apr 12 09:02	10°♋46'47	
asc. node	13996 Jun 04 15:57	15°♊20'51			13997 Apr 24 23:19	0°♌	
retrograde	13996 Jun 10 01:51	17°♊32'39		evening max el	13997 May 15 06:12	26°♌24'19	22°21'29
evening set	13996 Jun 14 09:25	15°♊48'43			13997 May 19 10:14	0°♊	
inferior conj	13996 Jun 19 15:16	9°♊37'17	3°10'11	asc. node	13997 May 22 13:05	1°♊40'20	
minimum elong	13996 Jun 19 14:46	9°♊38'58	3°09'07	retrograde	13997 May 24 23:23	2°♊07'04	
min. Earth dist.	13996 Jun 20 01:10	9°♊02'51	0.68675 AU	evening set	13997 May 29 18:00	0°♊07'31	
morning rise	13996 Jun 24 19:54	3°♊18'37			13997 May 29 21:30	30°♌	
direct	13996 Jun 30 00:51	1°♊02'16		inferior conj	13997 Jun 04 00:50	23°♌46'37	2°59'14
desc. node	13996 Jul 07 16:02	4°♊38'13		minimum elong	13997 Jun 03 23:30	23°♌51'17	2°58'01
				min. Earth dist.	13997 Jun 03 21:44	23°♌57'28	0.68971 AU

































































































































morning rise	13997 Jun 09 04:49	17° $\Pi$ 34'19		min. Earth dist.	13998 May 18 18:20	8° $\Pi$ 53'43	0.68791 AU
direct	13997 Jun 13 21:08	15° $\Pi$ 36'21		morning rise	13998 May 24 16:06	1° $\Pi$ 55'02	
morning max el	13997 Jun 23 01:45	20° $\Pi$ 58'33	21°51'08	direct	13998 May 28 19:57	0° $\Pi$ 17'27	
desc. node	13997 Jun 24 13:12	22° $\Pi$ 30'59		morning max el	13998 Jun 05 20:47	4° $\Pi$ 51'05	20°32'14
	13997 Jun 30 18:15	0° $\mathfrak{C}$		desc. node	13998 Jun 11 10:16	11° $\Pi$ 14'44	
	13997 Jul 21 10:40	0° $\Omega$			13998 Jun 24 18:18	0° $\mathfrak{C}$	
morning set	13997 Jul 25 12:44	6° $\Omega$ 26'24		morning set	13998 Jul 04 22:40	15° $\mathfrak{C}$ 26'44	
max. Earth dist.	13997 Jul 31 09:24	15° $\Omega$ 58'09	1.41827 AU	max. Earth dist.	13998 Jul 13 18:06	29° $\mathfrak{C}$ 19'35	1.43763 AU
					13998 Jul 14 04:09	0° $\Omega$	
superior conj	13997 Aug 08 02:06	29° $\Omega$ 04'31	-1°24'42	superior conj	13998 Jul 20 04:33	9° $\Omega$ 50'00	-1°54'17
minimum elong	13997 Aug 08 08:31	29° $\Omega$ 32'36	1°24'29	minimum elong	13998 Jul 20 11:45	10° $\Omega$ 19'56	1°54'33
	13997 Aug 08 14:45	0° $\mathfrak{M}$			13998 Jul 31 23:42	0° $\mathfrak{M}$	
evening rise	13997 Aug 18 20:51	18° $\mathfrak{M}$ 33'07		evening rise	13998 Aug 01 14:49	1° $\mathfrak{M}$ 06'05	
asc. node	13997 Aug 18 13:21	17° $\mathfrak{M}$ 58'33		asc. node	13998 Aug 05 09:57	7° $\mathfrak{M}$ 44'03	
	13997 Aug 25 04:32	0° $\underline{\mathfrak{A}}$		evening max el	13998 Aug 18 10:50	27° $\mathfrak{M}$ 09'54	18°02'30
evening max el	13997 Sep 03 21:26	14° $\underline{\mathfrak{A}}$ 00'46	18°11'00		13998 Aug 22 09:59	0° $\underline{\mathfrak{A}}$	
retrograde	13997 Sep 11 00:09	17° $\underline{\mathfrak{A}}$ 38'08		retrograde	13998 Aug 24 23:21	0° $\underline{\mathfrak{A}}$ 32'17	
evening set	13997 Sep 13 04:56	17° $\underline{\mathfrak{A}}$ 17'54		evening set	13998 Aug 27 12:13	0° $\underline{\mathfrak{A}}$ 01'06	
inferior conj	13997 Sep 20 10:54	12° $\underline{\mathfrak{A}}$ 31'21	-0°00'47		13998 Aug 27 13:19	30° $\mathfrak{R}$ $\mathfrak{M}$	
minimum elong	13997 Sep 20 10:52	12° $\underline{\mathfrak{A}}$ 31'24	0°00'38	inferior conj	13998 Sep 03 01:42	24° $\mathfrak{M}$ 54'54	1°15'12
transit middle	13997 Sep 20 10:52	12° $\underline{\mathfrak{A}}$ 31'24	0°00'38	minimum elong	13998 Sep 03 03:42	24° $\mathfrak{M}$ 49'51	1°14'19
transit begin	13997 Sep 20 07:28	12° $\underline{\mathfrak{A}}$ 38'51		min. Earth dist.	13998 Sep 06 01:53	21° $\mathfrak{M}$ 54'37	0.61664 AU
transit end	13997 Sep 20 14:17	12° $\underline{\mathfrak{A}}$ 23'56		desc. node	13998 Sep 07 07:26	20° $\mathfrak{M}$ 46'18	
desc. node	13997 Sep 20 09:54	12° $\underline{\mathfrak{A}}$ 33'32		morning rise	13998 Sep 09 16:36	18° $\mathfrak{M}$ 52'55	
min. Earth dist.	13997 Sep 23 17:47	9° $\underline{\mathfrak{A}}$ 39'56	0.59369 AU	direct	13998 Sep 16 08:37	16° $\mathfrak{M}$ 34'32	
morning rise	13997 Sep 27 13:25	6° $\underline{\mathfrak{A}}$ 54'25		morning max el	13998 Sep 30 12:46	24° $\mathfrak{M}$ 32'25	27°58'43
direct	13997 Oct 04 00:26	4° $\underline{\mathfrak{A}}$ 58'57			13998 Oct 05 12:03	0° $\underline{\mathfrak{A}}$	
morning max el	13997 Oct 18 07:49	12° $\underline{\mathfrak{A}}$ 45'35	27°40'00		13998 Oct 25 09:31	0° $\mathfrak{M}$	
	13997 Oct 31 23:51	0° $\mathfrak{M}$		asc. node	13998 Nov 01 12:01	13° $\mathfrak{M}$ 33'34	
asc. node	13997 Nov 14 15:16	23° $\mathfrak{M}$ 45'52		morning set	13998 Nov 03 03:25	16° $\mathfrak{M}$ 54'23	
	13997 Nov 17 17:12	0° $\mathfrak{X}$		max. Earth dist.	13998 Nov 08 16:59	28° $\mathfrak{M}$ 46'02	1.31563 AU
morning set	13997 Nov 19 02:15	2° $\mathfrak{X}$ 52'57			13998 Nov 09 06:28	0° $\mathfrak{X}$	
max. Earth dist.	13997 Nov 25 11:13	16° $\mathfrak{X}$ 48'07	1.31168 AU				
superior conj	13997 Nov 26 02:34	18° $\mathfrak{X}$ 13'48	1°29'24	superior conj	13998 Nov 10 12:35	2° $\mathfrak{X}$ 45'53	1°16'27
minimum elong	13997 Nov 26 00:56	18° $\mathfrak{X}$ 04'41	1°30'16	minimum elong	13998 Nov 10 10:24	2° $\mathfrak{X}$ 33'50	1°17'03
	13997 Dec 01 09:48	0° $\mathfrak{Z}$		evening rise	13998 Nov 17 05:52	17° $\mathfrak{X}$ 34'22	
evening rise	13997 Dec 02 19:39	3° $\mathfrak{Z}$ 03'28			13998 Nov 23 06:13	0° $\mathfrak{Z}$	
desc. node	13997 Dec 17 07:12	0° $\approx$ 26'17		desc. node	13998 Dec 04 04:13	18° $\mathfrak{Z}$ 33'57	
	13997 Dec 17 00:39	0° $\approx$		evening max el	13998 Dec 13 03:26	29° $\mathfrak{Z}$ 19'42	24°49'56
evening max el	13997 Dec 31 12:46	18° $\approx$ 44'11	26°15'42		13998 Dec 13 20:44	0° $\approx$	
retrograde	13998 Jan 14 11:45	25° $\approx$ 49'23		retrograde	13998 Dec 26 21:41	6° $\approx$ 12'21	
evening set	13998 Jan 20 20:00	24° $\approx$ 12'59		evening set	13999 Jan 01 09:26	5° $\approx$ 05'26	
min. Earth dist.	13998 Jan 25 02:13	21° $\approx$ 36'13	0.58245 AU	min. Earth dist.	13999 Jan 06 15:18	2° $\approx$ 19'49	0.56351 AU
inferior conj	13998 Jan 28 04:26	19° $\approx$ 20'17	-4°04'59	inferior conj	13999 Jan 09 03:46	0° $\approx$ 43'29	-5°18'08
minimum elong	13998 Jan 28 12:58	19° $\approx$ 04'37	4°01'33	minimum elong	13999 Jan 09 11:53	0° $\approx$ 30'31	5°15'35
morning rise	13998 Feb 05 08:56	14° $\approx$ 52'41			13999 Jan 10 07:13	30° $\mathfrak{R}$ $\mathfrak{Z}$	
direct	13998 Feb 07 09:38	14° $\approx$ 38'55		morning rise	13999 Jan 17 16:31	26° $\mathfrak{Z}$ 37'22	
asc. node	13998 Feb 10 13:47	15° $\approx$ 14'25		direct	13999 Jan 19 23:19	26° $\mathfrak{Z}$ 22'54	
morning max el	13998 Feb 15 16:39	18° $\approx$ 43'45	18°31'53	asc. node	13999 Jan 28 11:11	29° $\mathfrak{Z}$ 59'43	
	13998 Feb 23 21:40	0° $\mathfrak{H}$			13999 Jan 28 11:19	0° $\approx$	
morning set	13998 Mar 03 15:14	14° $\mathfrak{H}$ 15'19		morning max el	13999 Jan 29 14:56	1° $\approx$ 03'03	19°26'34
	13998 Mar 11 21:15	0° $\mathfrak{Y}$		morning set	13999 Feb 15 17:28	28° $\approx$ 43'20	
					13999 Feb 16 08:46	0° $\mathfrak{H}$	
superior conj	13998 Mar 12 15:28	1° $\mathfrak{Y}$ 24'39	0°21'58	superior conj	13999 Feb 23 19:35	14° $\mathfrak{H}$ 51'04	0°50'42
minimum elong	13998 Mar 12 16:57	1° $\mathfrak{Y}$ 31'34	0°21'47	minimum elong	13999 Feb 23 22:12	15° $\mathfrak{H}$ 03'47	0°50'41
desc. node	13998 Mar 15 08:45	6° $\mathfrak{Y}$ 23'33		desc. node	13999 Mar 02 05:13	26° $\mathfrak{H}$ 57'48	
max. Earth dist.	13998 Mar 20 01:22	14° $\mathfrak{Y}$ 41'53	1.40311 AU	max. Earth dist.	13999 Mar 02 07:55	27° $\mathfrak{H}$ 10'12	1.38047 AU
evening rise	13998 Mar 24 06:34	21° $\mathfrak{Y}$ 51'09			13999 Mar 03 21:25	0° $\mathfrak{Y}$	
	13998 Mar 29 06:49	0° $\mathfrak{B}$		evening rise	13999 Mar 06 01:00	3° $\mathfrak{Y}$ 48'44	
	13998 Apr 19 00:06	0° $\Pi$			13999 Mar 22 08:43	0° $\mathfrak{B}$	
evening max el	13998 Apr 27 21:01	10° $\Pi$ 16'52	23°42'35	evening max el	13999 Apr 10 10:35	24° $\mathfrak{B}$ 10'12	25°01'19
retrograde	13998 May 08 18:05	16° $\Pi$ 40'26			13999 Apr 18 01:24	0° $\Pi$	
asc. node	13998 May 09 10:17	16° $\Pi$ 38'23		retrograde	13999 Apr 22 08:51	1° $\Pi$ 06'25	
evening set	13998 May 14 00:18	14° $\Pi$ 27'07		asc. node	13999 Apr 26 07:38	29° $\mathfrak{B}$ 59'30	
inferior conj	13998 May 19 10:09	7° $\Pi$ 59'33	2°38'00		13999 Apr 26 07:17	30° $\mathfrak{R}$ $\mathfrak{B}$	
minimum elong	13998 May 19 08:13	8° $\Pi$ 06'11	2°36'39				

evening set	13999 Apr 28 02:43	28°  42'09		evening set	14000 Apr 10 23:35	12°  47'29	
min. Earth dist.	13999 May 02 12:51	23°  45'08	0.68151 AU	asc. node	14000 Apr 12 05:03	11°  41'04	
inferior conj	13999 May 03 17:19	22°  11'36	2°06'26	min. Earth dist.	14000 Apr 15 03:14	8°  25'44	0.67073 AU
minimum elong	13999 May 03 15:09	22°  18'43	2°05'03	inferior conj	14000 Apr 16 20:19	6°  18'48	1°24'04
morning rise	13999 May 09 03:52	16°  16'10		minimum elong	14000 Apr 16 18:28	6°  24'31	1°22'53
direct	13999 May 12 19:51	14°  59'02		morning rise	14000 Apr 22 14:10	0°  33'49	
morning max el	13999 May 19 23:19	18°  54'46	19°26'38		14000 Apr 23 17:17	30°  	
	13999 May 28 21:14	0°  II		direct	14000 Apr 25 19:09	29°  Y35'31	
desc. node	13999 May 29 07:11	0°  II35'14			14000 Apr 27 22:12	0°  8	
greatest brilliancy	13999 Jun 01 14:51	5°  II23'52	-0.7m	morning max el	14000 May 02 09:02	3°  806'27	18°36'44
morning set	13999 Jun 14 00:47	24°  II11'19		desc. node	14000 May 15 04:00	20°  822'43	
	13999 Jun 17 19:14	0°  8			14000 May 21 08:27	0°  II	
max. Earth dist.	13999 Jun 26 09:09	13°  822'59	1.45135 AU	morning set	14000 May 23 16:24	3°  II39'09	
				max. Earth dist.	14000 Jun 08 03:51	27°  II50'27	1.45812 AU
superior conj	13999 Jun 30 07:33	19°  836'51	-2°11'41	superior conj	14000 Jun 08 18:11	28°  II46'23	-2°10'29
minimum elong	13999 Jun 30 10:54	19°  850'10	2°12'37	minimum elong	14000 Jun 08 13:51	28°  II29'29	2°11'25
	13999 Jul 06 18:21	0°  8			14000 Jun 09 13:02	0°  8	
evening rise	13999 Jul 14 11:55	12°  844'12		evening rise	14000 Jun 24 08:32	23°  820'16	
asc. node	13999 Jul 23 06:37	27°  812'58			14000 Jun 28 13:04	0°  8	
	13999 Jul 25 00:55	0°  m		greatest brilliancy	14000 Jul 02 00:20	5°  829'28	-0.9m
evening max el	13999 Aug 02 01:17	10°  m38'58	18°12'33	asc. node	14000 Jul 09 03:24	16°  819'06	
retrograde	13999 Aug 08 09:48	14°  m00'30		evening max el	14000 Jul 15 13:45	24°  820'15	18°40'23
evening set	13999 Aug 11 07:06	13°  m15'40		retrograde	14000 Jul 22 03:21	27°  854'15	
inferior conj	13999 Aug 17 07:34	7°  m52'06	2°09'38	evening set	14000 Jul 25 09:26	26°  853'50	
minimum elong	13999 Aug 17 10:02	7°  m45'09	2°08'27	inferior conj	14000 Jul 31 00:37	21°  815'06	2°45'11
min. Earth dist.	13999 Aug 19 19:46	5°  m03'05	0.63846 AU	minimum elong	14000 Jul 31 02:37	21°  808'57	2°44'03
morning rise	13999 Aug 23 11:17	1°  m34'57		min. Earth dist.	14000 Aug 01 22:46	18°  853'00	0.65740 AU
desc. node	13999 Aug 25 04:58	0°  m24'15		morning rise	14000 Aug 05 18:47	14°  851'07	
	13999 Aug 25 23:17	30°  		desc. node	14000 Aug 11 02:29	12°  815'30	
direct	13999 Aug 30 02:11	29°  801'18		direct	14000 Aug 12 03:46	12°  811'25	
	13999 Sep 03 11:58	0°  m		morning max el	14000 Aug 25 09:34	20°  801'21	26°49'33
morning max el	13999 Sep 12 22:17	7°  m01'29	27°39'53		14000 Sep 02 22:56	0°  m	
	13999 Sep 30 13:46	0°  8			14000 Sep 22 15:50	0°  8	
morning set	13999 Oct 17 20:49	0°  m31'44		morning set	14000 Sep 30 03:29	13°  837'43	
	13999 Oct 17 14:26	0°  m		max. Earth dist.	14000 Oct 04 06:41	21°  843'08	1.33962 AU
asc. node	13999 Oct 19 08:42	3°  m32'11		asc. node	14000 Oct 05 05:18	23°  837'04	
max. Earth dist.	13999 Oct 22 16:31	10°  m25'40	1.32494 AU		14000 Oct 08 07:46	0°  m	
superior conj	13999 Oct 25 19:08	17°  m04'33	0°57'45	superior conj	14000 Oct 08 19:56	1°  m03'34	0°33'28
minimum elong	13999 Oct 25 16:53	16°  m52'22	0°58'05	minimum elong	14000 Oct 08 18:16	0°  m54'52	0°33'36
	13999 Oct 31 17:40	0°  8		evening rise	14000 Oct 16 03:05	16°  m31'43	
evening rise	13999 Nov 01 16:59	2°  805'34			14000 Oct 22 19:31	0°  8	
	13999 Nov 16 19:48	0°  8		evening max el	14000 Nov 05 03:14	19°  828'30	21°29'36
desc. node	13999 Nov 21 01:22	5°  835'48		desc. node	14000 Nov 06 22:39	21°  807'48	
evening max el	13999 Nov 24 13:13	9°  822'28	23°08'37	retrograde	14000 Nov 17 07:00	25°  830'22	
retrograde	13999 Dec 07 18:59	15°  857'11		evening set	14000 Nov 20 03:49	25°  811'33	
evening set	13999 Dec 12 00:08	15°  818'34		inferior conj	14000 Nov 28 23:44	21°  818'36	-5°39'14
min. Earth dist.	13999 Dec 18 22:48	12°  804'46	0.55006 AU	minimum elong	14000 Nov 28 16:46	21°  828'22	5°37'12
inferior conj	13999 Dec 20 07:35	11°  817'35	-5°56'50	min. Earth dist.	14000 Nov 29 04:46	21°  811'32	0.54477 AU
minimum elong	13999 Dec 20 09:27	11°  814'55	5°55'41	morning rise	14000 Dec 07 06:27	17°  829'52	
morning rise	13999 Dec 28 20:18	7°  827'37		direct	14000 Dec 11 02:07	16°  858'15	
direct	13999 Dec 31 18:10	7°  807'36		morning max el	14000 Dec 23 18:01	23°  803'43	22°22'57
morning max el	14000 Jan 11 23:27	12°  829'43	20°44'28		14000 Dec 29 18:44	0°  8	
asc. node	14000 Jan 15 08:30	16°  811'20		asc. node	14001 Jan 01 05:44	3°  830'38	
	14000 Jan 24 06:14	0°  8		morning set	14001 Jan 14 12:05	28°  809'28	
morning set	14000 Jan 31 01:14	13°  824'08			14001 Jan 15 08:55	0°  8	
superior conj	14000 Feb 07 11:56	28°  850'30	1°12'30	superior conj	14001 Jan 21 12:52	13°  811'28	1°27'26
minimum elong	14000 Feb 07 14:33	29°  803'48	1°12'49	minimum elong	14001 Jan 21 14:48	13°  821'43	1°28'06
	14000 Feb 08 01:35	0°  8		max. Earth dist.	14001 Jan 25 06:40	21°  800'27	1.34021 AU
max. Earth dist.	14000 Feb 12 16:19	9°  810'18	1.35885 AU	evening rise	14001 Jan 29 17:08	29°  851'49	
evening rise	14000 Feb 16 13:44	16°  832'24			14001 Jan 29 18:49	0°  8	
desc. node	14000 Feb 17 01:44	17°  827'41		desc. node	14001 Feb 02 22:19	7°  848'17	
	14000 Feb 24 05:16	0°  Y			14001 Feb 16 07:44	0°  Y	
	14000 Mar 15 19:00	0°  8		evening max el	14001 Mar 05 13:44	21°  Y39'53	27°02'51
evening max el	14000 Mar 23 00:08	8°  800'33	26°10'28	retrograde	14001 Mar 18 23:09	29°  Y07'48	
retrograde	14000 Apr 04 18:50	15°  818'30					

evening set	14001 Mar 25 12:56	26° $\Upsilon$ 35'43		desc. node	14002 Jan 20 18:58	27° $\approx$ 54'46	
min. Earth dist.	14001 Mar 29 11:28	22° $\Upsilon$ 47'14	0.65586 AU		14002 Jan 21 23:04	0° $\text{H}$	
asc. node	14001 Mar 30 02:31	22° $\Upsilon$ 04'57			14002 Feb 11 09:37	0° $\Upsilon$	
inferior conj	14001 Mar 31 16:50	20° $\Upsilon$ 15'15	0°30'14	evening max el	14002 Feb 16 02:23	4° $\Upsilon$ 57'48	27°31'08
minimum elong	14001 Mar 31 16:01	20° $\Upsilon$ 17'34	0°29'39	retrograde	14002 Mar 01 20:39	12° $\Upsilon$ 25'19	
morning rise	14001 Apr 06 20:39	14° $\Upsilon$ 42'25		evening set	14002 Mar 08 16:27	9° $\Upsilon$ 59'09	
direct	14001 Apr 09 15:47	14° $\Upsilon$ 00'10		min. Earth dist.	14002 Mar 12 11:34	6° $\Upsilon$ 40'38	0.63753 AU
morning max el	14001 Apr 16 00:00	17° $\Upsilon$ 18'59	18°03'33	inferior conj	14002 Mar 15 04:10	3° $\Upsilon$ 54'26	-0°35'28
	14001 Apr 25 11:37	0° $\text{B}$		minimum elong	14002 Mar 15 05:17	3° $\Upsilon$ 51'33	0°34'58
desc. node	14001 May 02 00:42	10° $\text{B}$ 29'22		asc. node	14002 Mar 17 00:01	2° $\Upsilon$ 04'26	
morning set	14001 May 04 10:48	14° $\text{B}$ 25'41			14002 Mar 19 10:02	30° $\text{R}$ $\text{H}$	
	14001 May 14 02:37	0° $\text{II}$		morning rise	14002 Mar 21 20:25	28° $\text{H}$ 36'11	
				direct	14002 Mar 24 07:10	28° $\text{H}$ 06'30	
superior conj	14001 May 19 04:11	8° $\text{II}$ 01'06	-1°49'36		14002 Mar 29 02:45	0° $\Upsilon$	
minimum elong	14001 May 18 19:15	7° $\text{II}$ 25'56	1°49'47	morning max el	14002 Mar 30 17:33	1° $\Upsilon$ 24'31	17°47'37
max. Earth dist.	14001 May 21 23:42	12° $\text{II}$ 25'51	1.45742 AU	morning set	14002 Apr 16 08:27	26° $\Upsilon$ 30'51	
	14001 Jun 02 07:15	0° $\text{B}$			14002 Apr 18 09:37	0° $\text{B}$	
evening rise	14001 Jun 04 06:43	3° $\text{B}$ 03'12		desc. node	14002 Apr 18 21:18	0° $\text{B}$ 49'37	
greatest brilliancy	14001 Jun 17 02:55	22° $\text{B}$ 38'04	-0.7m				
	14001 Jun 22 05:49	0° $\Omega$		superior conj	14002 Apr 29 05:46	18° $\text{B}$ 02'13	-1°14'59
asc. node	14001 Jun 26 00:17	4° $\Omega$ 54'24		minimum elong	14002 Apr 28 22:20	17° $\text{B}$ 32'01	1°14'45
evening max el	14001 Jun 28 21:56	8° $\Omega$ 07'58	19°25'04	max. Earth dist.	14002 May 04 18:38	26° $\text{B}$ 55'02	1.44948 AU
retrograde	14001 Jul 06 00:48	12° $\Omega$ 06'47			14002 May 06 17:30	0° $\text{II}$	
evening set	14001 Jul 09 16:14	10° $\Omega$ 49'38		evening rise	14002 May 14 17:54	12° $\text{II}$ 26'04	
inferior conj	14001 Jul 15 01:31	4° $\Omega$ 57'17	3°05'00		14002 May 26 10:07	0° $\text{B}$	
minimum elong	14001 Jul 15 02:37	4° $\Omega$ 53'40	3°03'58	evening max el	14002 Jun 12 00:27	21° $\text{B}$ 57'34	20°24'47
min. Earth dist.	14001 Jul 16 09:16	3° $\Omega$ 12'49	0.67237 AU	asc. node	14002 Jun 12 21:15	22° $\text{B}$ 47'56	
	14001 Jul 19 01:02	30° $\text{R}$ $\text{B}$		retrograde	14002 Jun 19 23:37	26° $\text{B}$ 31'48	
morning rise	14001 Jul 20 12:26	28° $\text{B}$ 32'39		evening set	14002 Jun 24 01:09	24° $\text{B}$ 57'30	
direct	14001 Jul 26 12:09	25° $\text{B}$ 56'06		inferior conj	14002 Jun 29 07:30	18° $\text{B}$ 52'48	3°11'38
desc. node	14001 Jul 28 23:55	26° $\text{B}$ 19'21		minimum elong	14002 Jun 29 07:35	18° $\text{B}$ 52'32	3°10'36
	14001 Aug 04 06:00	0° $\Omega$		min. Earth dist.	14002 Jun 30 01:14	17° $\text{B}$ 52'01	0.68288 AU
morning max el	14001 Aug 07 20:31	3° $\Omega$ 19'54	25°36'31	morning rise	14002 Jul 04 13:42	12° $\text{B}$ 31'24	
	14001 Aug 28 04:34	0° $\text{H}$		direct	14002 Jul 10 01:56	10° $\text{B}$ 05'54	
morning set	14001 Sep 12 19:48	26° $\text{H}$ 03'59		desc. node	14002 Jul 15 21:16	12° $\text{B}$ 11'48	
	14001 Sep 14 23:09	0° $\text{B}$		morning max el	14002 Jul 21 06:44	16° $\text{B}$ 48'11	24°10'27
max. Earth dist.	14001 Sep 16 10:55	2° $\text{B}$ 47'45	1.35907 AU		14002 Aug 01 05:41	0° $\Omega$	
asc. node	14001 Sep 22 01:52	13° $\text{B}$ 44'38			14002 Aug 21 04:27	0° $\text{H}$	
				morning set	14002 Aug 25 17:12	7° $\text{H}$ 38'29	
superior conj	14001 Sep 22 12:15	14° $\text{B}$ 36'41	0°04'03	max. Earth dist.	14002 Aug 29 09:18	14° $\text{H}$ 04'42	1.38185 AU
minimum elong	14001 Sep 22 12:00	14° $\text{B}$ 35'25	0°04'09				
behind sun begin	14001 Sep 22 05:56	14° $\text{B}$ 05'03		superior conj	14002 Sep 05 16:33	27° $\text{H}$ 34'25	-0°29'29
behind sun end	14001 Sep 22 18:03	15° $\text{B}$ 05'52		minimum elong	14002 Sep 05 18:36	27° $\text{H}$ 44'12	0°29'17
evening rise	14001 Sep 30 10:04	0° $\text{H}$ 48'00			14002 Sep 06 22:53	0° $\text{B}$	
	14001 Sep 30 00:43	0° $\text{H}$		asc. node	14002 Sep 08 22:23	3° $\text{B}$ 50'38	
evening max el	14001 Oct 18 05:52	0° $\text{B}$ 12'03	20°06'27	evening rise	14002 Sep 14 11:21	14° $\text{B}$ 46'54	
	14001 Oct 18 01:04	0° $\text{B}$			14002 Sep 22 12:52	0° $\text{H}$	
desc. node	14001 Oct 24 20:01	4° $\text{B}$ 43'46		evening max el	14002 Sep 30 22:36	11° $\text{H}$ 43'55	19°04'38
retrograde	14001 Oct 28 19:31	5° $\text{B}$ 27'40		retrograde	14002 Oct 09 21:15	16° $\text{H}$ 13'09	
evening set	14001 Oct 30 20:43	5° $\text{B}$ 16'42		evening set	14002 Oct 11 18:02	16° $\text{H}$ 02'15	
inferior conj	14001 Nov 08 18:18	1° $\text{B}$ 18'52	-4°24'56	desc. node	14002 Oct 11 17:28	16° $\text{H}$ 02'31	
minimum elong	14001 Nov 08 08:15	1° $\text{B}$ 33'56	4°21'08	inferior conj	14002 Oct 20 04:11	11° $\text{H}$ 48'08	-2°39'51
min. Earth dist.	14001 Nov 10 12:20	0° $\text{B}$ 15'56	0.54898 AU	minimum elong	14002 Oct 19 21:25	11° $\text{H}$ 59'44	2°36'39
	14001 Nov 10 23:09	30° $\text{R}$ $\text{H}$		min. Earth dist.	14002 Oct 22 23:46	9° $\text{H}$ 52'51	0.56186 AU
morning rise	14001 Nov 16 18:45	27° $\text{H}$ 11'37		morning rise	14002 Oct 27 22:03	7° $\text{H}$ 07'22	
direct	14001 Nov 21 13:18	26° $\text{H}$ 22'04		direct	14002 Nov 02 12:17	5° $\text{H}$ 54'33	
	14001 Dec 01 11:19	0° $\text{B}$		morning max el	14002 Nov 16 15:00	13° $\text{H}$ 06'51	25°54'07
morning max el	14001 Dec 05 04:13	3° $\text{B}$ 04'58	24°11'52		14002 Nov 29 20:06	0° $\text{B}$	
asc. node	14001 Dec 19 02:52	21° $\text{B}$ 41'59		asc. node	14002 Dec 05 23:51	10° $\text{B}$ 31'51	
	14001 Dec 23 16:36	0° $\text{B}$		morning set	14002 Dec 14 11:16	27° $\text{B}$ 32'37	
morning set	14001 Dec 30 00:01	12° $\text{B}$ 54'01			14002 Dec 15 14:31	0° $\text{B}$	
superior conj	14002 Jan 05 19:32	27° $\text{B}$ 45'58	1°35'49	superior conj	14002 Dec 21 05:37	12° $\text{B}$ 26'58	1°38'01
minimum elong	14002 Jan 05 20:28	27° $\text{B}$ 51'02	1°36'45	minimum elong	14002 Dec 21 05:28	12° $\text{B}$ 26'05	1°39'03
	14002 Jan 06 20:10	0° $\approx$		max. Earth dist.	14002 Dec 22 09:34	15° $\text{B}$ 01'52	1.31633 AU
max. Earth dist.	14002 Jan 08 04:52	2° $\approx$ 56'26	1.32587 AU	evening rise	14002 Dec 28 06:59	27° $\text{B}$ 45'21	
evening rise	14002 Jan 13 07:52	13° $\approx$ 38'44			14002 Dec 29 08:59	0° $\approx$	





























































































































desc. node	14003 Jan 07 15:44	17° $\approx$ 40'53		desc. node	14003 Dec 25 12:34	6° $\approx$ 58'11	
	14003 Jan 15 05:51	0° $\text{H}$		evening max el	14004 Jan 11 15:14	29° $\approx$ 37'08	26°52'11
evening max el	14003 Jan 29 11:52	17° $\text{H}$ 41'13	27°28'55		14004 Jan 12 01:00	0° $\text{H}$	
retrograde	14003 Feb 12 10:12	25° $\text{H}$ 01'51		retrograde	14004 Jan 25 14:26	6° $\text{H}$ 48'28	
evening set	14003 Feb 19 07:22	22° $\text{H}$ 49'00		evening set	14004 Feb 01 06:12	4° $\text{H}$ 56'28	
min. Earth dist.	14003 Feb 23 01:45	19° $\text{H}$ 55'01	0.61667 AU	min. Earth dist.	14004 Feb 05 05:15	2° $\text{H}$ 17'36	0.59474 AU
inferior conj	14003 Feb 26 03:05	17° $\text{H}$ 08'01	-1°52'14	inferior conj	14004 Feb 08 09:54	29° $\approx$ 45'24	-3°16'28
minimum elong	14003 Feb 26 07:02	16° $\text{H}$ 58'59	1°50'18	minimum elong	14004 Feb 08 17:02	29° $\approx$ 31'10	3°13'17
asc. node	14003 Mar 03 21:29	12° $\text{H}$ 44'32			14004 Feb 08 02:36	30° $\text{R}$ $\approx$	
morning rise	14003 Mar 05 09:38	12° $\text{H}$ 07'24		morning rise	14004 Feb 16 07:04	25° $\approx$ 05'32	
direct	14003 Mar 07 13:57	11° $\text{H}$ 46'40		direct	14004 Feb 18 07:48	24° $\approx$ 50'14	
morning max el	14003 Mar 14 10:34	15° $\text{H}$ 14'28	17°49'36	asc. node	14004 Feb 18 18:57	24° $\approx$ 51'04	
	14003 Mar 24 17:10	0° $\text{Y}$		morning max el	14004 Feb 25 23:30	28° $\approx$ 38'12	18°10'36
morning set	14003 Mar 30 03:49	9° $\text{Y}$ 37'31			14004 Feb 27 06:34	0° $\text{H}$	
desc. node	14003 Apr 05 17:51	21° $\text{Y}$ 19'05		morning set	14004 Mar 12 14:45	23° $\text{H}$ 26'11	
					14004 Mar 16 02:45	0° $\text{Y}$	
superior conj	14003 Apr 10 06:55	29° $\text{Y}$ 09'56	-0°35'26	superior conj	14004 Mar 22 07:09	11° $\text{Y}$ 20'56	0°02'26
minimum elong	14003 Apr 10 03:35	28° $\text{Y}$ 55'46	0°35'20	minimum elong	14004 Mar 22 07:20	11° $\text{Y}$ 21'44	0°02'18
	14003 Apr 10 18:42	0° $\text{B}$		behind sun begin	14004 Mar 21 23:49	10° $\text{Y}$ 47'55	
max. Earth dist.	14003 Apr 17 10:47	11° $\text{B}$ 04'10	1.43505 AU	behind sun end	14004 Mar 22 14:51	11° $\text{Y}$ 55'28	
evening rise	14003 Apr 24 10:26	22° $\text{B}$ 10'51		desc. node	14004 Mar 22 14:20	11° $\text{Y}$ 53'09	
	14003 Apr 29 12:25	0° $\text{II}$		max. Earth dist.	14004 Mar 29 22:06	24° $\text{Y}$ 36'43	1.41565 AU
	14003 May 20 18:12	0° $\text{E}$			14004 Apr 02 03:54	0° $\text{B}$	
evening max el	14003 May 25 21:15	5° $\text{E}$ 47'53	21°36'27	evening rise	14004 Apr 03 19:53	2° $\text{B}$ 42'52	
asc. node	14003 May 30 18:20	9° $\text{E}$ 46'39			14004 Apr 21 20:43	0° $\text{II}$	
retrograde	14003 Jun 03 22:02	11° $\text{E}$ 04'40		evening max el	14004 May 07 13:29	19° $\text{II}$ 38'30	22°55'42
evening set	14003 Jun 08 10:21	9° $\text{E}$ 13'46		asc. node	14004 May 16 15:32	25° $\text{II}$ 33'40	
inferior conj	14003 Jun 13 16:21	2° $\text{E}$ 58'09	3°06'48	retrograde	14004 May 17 18:33	25° $\text{II}$ 39'24	
minimum elong	14003 Jun 13 15:29	3° $\text{E}$ 01'12	3°05'41	evening set	14004 May 22 18:10	23° $\text{II}$ 33'25	
min. Earth dist.	14003 Jun 13 20:38	2° $\text{E}$ 43'13	0.68865 AU	min. Earth dist.	14004 May 27 17:24	17° $\text{II}$ 39'08	0.68956 AU
	14003 Jun 15 20:42	30° $\text{R}$ $\text{II}$		inferior conj	14004 May 28 02:02	17° $\text{II}$ 09'09	2°51'28
morning rise	14003 Jun 18 20:25	26° $\text{II}$ 42'16		minimum elong	14004 May 28 00:24	17° $\text{II}$ 14'49	2°50'12
direct	14003 Jun 23 20:05	24° $\text{II}$ 33'24		morning rise	14004 Jun 02 06:34	11° $\text{II}$ 00'10	
desc. node	14003 Jul 02 18:29	29° $\text{II}$ 27'11		direct	14004 Jun 06 17:27	9° $\text{II}$ 11'00	
	14003 Jul 03 08:05	0° $\text{E}$		morning max el	14004 Jun 15 09:44	14° $\text{II}$ 11'32	21°16'11
morning max el	14003 Jul 03 18:10	0° $\text{E}$ 25'03	22°40'54	desc. node	14004 Jun 18 15:35	17° $\text{II}$ 43'21	
	14003 Jul 26 01:13	0° $\text{O}$			14004 Jun 28 00:45	0° $\text{E}$	
morning set	14003 Aug 06 15:29	18° $\text{O}$ 11'43		morning set	14004 Jul 16 13:10	27° $\text{E}$ 41'28	
max. Earth dist.	14003 Aug 11 08:41	26° $\text{O}$ 03'25	1.40548 AU		14004 Jul 18 00:19	0° $\text{O}$	
	14003 Aug 13 15:54	0° $\text{M}$		max. Earth dist.	14004 Jul 23 13:18	8° $\text{O}$ 54'21	1.42708 AU
superior conj	14003 Aug 19 04:46	9° $\text{M}$ 47'27	-1°04'54	superior conj	14004 Jul 30 20:29	21° $\text{O}$ 06'09	-1°38'17
minimum elong	14003 Aug 19 09:41	10° $\text{M}$ 09'42	1°04'36	minimum elong	14004 Jul 31 03:39	21° $\text{O}$ 36'46	1°38'13
asc. node	14003 Aug 26 18:55	23° $\text{M}$ 51'41			14004 Aug 04 23:24	0° $\text{M}$	
evening rise	14003 Aug 29 03:48	28° $\text{M}$ 20'46		evening rise	14004 Aug 11 07:23	11° $\text{M}$ 19'19	
	14003 Aug 30 00:48	0° $\text{A}$		asc. node	14004 Aug 12 15:31	13° $\text{M}$ 44'00	
evening max el	14003 Sep 14 02:33	24° $\text{A}$ 00'31	18°24'36		14004 Aug 22 04:14	0° $\text{A}$	
retrograde	14003 Sep 21 18:19	27° $\text{A}$ 53'17		evening max el	14004 Aug 27 13:37	6° $\text{A}$ 52'54	18°05'02
evening set	14003 Sep 23 19:05	27° $\text{A}$ 37'38		retrograde	14004 Sep 03 09:12	10° $\text{A}$ 22'34	
desc. node	14003 Sep 28 14:58	25° $\text{A}$ 13'11		evening set	14004 Sep 05 17:12	9° $\text{A}$ 58'12	
inferior conj	14003 Oct 01 11:29	23° $\text{A}$ 02'40	-0°54'20	inferior conj	14004 Sep 12 15:46	5° $\text{A}$ 02'57	0°34'11
minimum elong	14003 Oct 01 09:24	23° $\text{A}$ 06'51	0°53'10	minimum elong	14004 Sep 12 16:50	5° $\text{A}$ 00'27	0°33'46
min. Earth dist.	14003 Oct 04 17:48	20° $\text{A}$ 26'31	0.58099 AU	desc. node	14004 Sep 14 12:28	3° $\text{A}$ 18'15	
morning rise	14003 Oct 08 20:16	17° $\text{A}$ 44'27		min. Earth dist.	14004 Sep 15 20:41	2° $\text{A}$ 04'58	0.60336 AU
direct	14003 Oct 15 01:10	16° $\text{A}$ 04'51			14004 Sep 18 10:09	30° $\text{R}$ $\text{M}$	
morning max el	14003 Oct 29 08:37	23° $\text{A}$ 40'42	27°11'39	morning rise	14004 Sep 19 13:20	29° $\text{M}$ 13'45	
	14003 Nov 04 01:59	0° $\text{M}$		direct	14004 Sep 26 03:04	27° $\text{M}$ 07'51	
asc. node	14003 Nov 22 20:44	29° $\text{M}$ 50'11			14004 Oct 04 08:44	0° $\text{A}$	
	14003 Nov 22 22:46	0° $\text{J}$		morning max el	14004 Oct 10 10:03	5° $\text{A}$ 00'59	27°52'56
morning set	14003 Nov 28 20:07	12° $\text{J}$ 00'51			14004 Oct 29 00:58	0° $\text{M}$	
superior conj	14003 Dec 05 17:08	27° $\text{J}$ 08'47	1°34'14	asc. node	14004 Nov 08 17:31	19° $\text{M}$ 29'04	
minimum elong	14003 Dec 05 15:59	27° $\text{J}$ 02'18	1°35'12	morning set	14004 Nov 12 00:43	26° $\text{M}$ 13'54	
max. Earth dist.	14003 Dec 05 17:39	27° $\text{J}$ 11'38	1.31186 AU		14004 Nov 13 19:25	0° $\text{J}$	
	14003 Dec 06 23:46	0° $\text{B}$		max. Earth dist.	14004 Nov 18 01:18	9° $\text{J}$ 16'24	1.31262 AU
evening rise	14003 Dec 12 12:02	12° $\text{B}$ 05'29		superior conj	14004 Nov 19 04:15	11° $\text{J}$ 46'12	1°24'37
	14003 Dec 21 12:35	0° $\approx$					

minimum elong	14004 Nov 19 02:20	11°  35'33	1°25'23			14005 Nov 05 06:20	0° 	
evening rise	14004 Nov 25 20:55	26°  33'53		evening rise		14005 Nov 10 07:43	11°  04'49	
	14004 Nov 27 11:31	0° 				14005 Nov 19 19:22	0° 	
desc. node	14004 Dec 11 09:32	25°  35'46		desc. node		14005 Nov 28 06:38	13°  17'44	
	14004 Dec 14 09:30	0° 		evening max el		14005 Dec 04 22:09	20°  58'01	24°07'49
evening max el	14004 Dec 23 10:23	10°  40'19	25°42'12	retrograde		14005 Dec 18 12:58	27°  44'38	
retrograde	14005 Jan 06 08:06	17°  41'22		evening set		14005 Dec 23 12:20	26°  50'35	
evening set	14005 Jan 12 09:02	16°  16'55		min. Earth dist.		14005 Dec 29 09:36	23°  55'05	0.55688 AU
min. Earth dist.	14005 Jan 16 23:03	13°  38'43	0.57388 AU	inferior conj		14005 Dec 31 11:49	22°  38'50	-5°40'20
inferior conj	14005 Jan 19 21:18	11°  37'40	-4°38'35	minimum elong		14005 Dec 31 18:01	22°  29'25	5°38'29
minimum elong	14005 Jan 20 06:14	11°  22'13	4°35'19	morning rise		14006 Jan 09 01:34	18°  40'28	
morning rise	14005 Jan 28 06:15	7°  19'52		direct		14006 Jan 11 13:26	18°  24'25	
direct	14005 Jan 30 08:24	7°  06'24		morning max el		14006 Jan 21 21:13	23°  22'32	19°56'52
asc. node	14005 Feb 04 16:21	8°  40'03		asc. node		14006 Jan 22 13:43	24°  03'33	
morning max el	14005 Feb 08 04:27	11°  25'02	18°52'21			14006 Jan 27 09:08	0° 	
	14005 Feb 20 12:29	0° 		morning set		14006 Feb 08 17:25	22°  16'53	
morning set	14005 Feb 24 12:29	7°  42'56				14006 Feb 12 12:10	0° 	
superior conj	14005 Mar 05 02:28	24°  42'34	0°34'57	superior conj		14006 Feb 16 12:16	8°  05'06	1°00'47
minimum elong	14005 Mar 05 04:36	24°  33'48	0°34'49	minimum elong		14006 Feb 16 14:59	8°  18'37	1°00'53
	14005 Mar 08 02:25	0° 		max. Earth dist.		14006 Feb 22 11:25	19°  37'35	1.37102 AU
desc. node	14005 Mar 09 10:50	2°  28'27		desc. node		14006 Feb 24 07:21	23°  01'12	
max. Earth dist.	14005 Mar 12 05:00	7°  25'11	1.39350 AU	evening rise		14006 Feb 26 05:08	26°  48'46	
evening rise	14005 Mar 16 02:30	14°  10'25				14006 Feb 28 04:50	0° 	
	14005 Mar 25 20:52	0° 				14006 Mar 19 08:36	0° 	
	14005 Apr 16 19:57	0° 		evening max el		14006 Apr 02 16:58	17°  23'50	25°32'23
evening max el	14005 Apr 20 03:23	3°  30'46	24°16'40	retrograde		14006 Apr 15 00:51	24°  30'57	
retrograde	14005 May 01 11:54	10°  10'11		asc. node		14006 Apr 20 10:12	22°  29'56	
asc. node	14005 May 03 12:50	9°  51'49		evening set		14006 Apr 20 23:21	22°  03'29	
evening set	14005 May 06 23:03	7°  51'44		min. Earth dist.		14006 Apr 25 06:38	17°  21'20	0.67742 AU
min. Earth dist.	14005 May 11 13:27	2°  33'45	0.68575 AU	inferior conj		14006 Apr 26 16:24	15°  32'55	1°49'51
inferior conj	14005 May 12 10:42	1°  22'03	2°25'54	minimum elong		14006 Apr 26 14:18	15°  39'41	1°48'30
minimum elong	14005 May 12 08:36	1°  29'06	2°24'31	morning rise		14006 May 02 05:42	9°  41'27	
	14005 May 13 11:13	30°  48'08		direct		14006 May 05 16:51	8°  32'33	
morning rise	14005 May 17 18:17	25°  21'09		morning max el		14006 May 12 13:37	12°  16'23	19°03'18
direct	14005 May 21 16:53	23°  52'33		desc. node		14006 May 23 09:27	26°  17'00	
morning max el	14005 May 29 07:55	28°  08'58	20°02'25	greatest brilliancy		14006 May 25 16:27	29°  41'35	-0.7m
	14005 May 31 02:14	0° 				14006 May 25 21:21	0° 	
desc. node	14005 Jun 05 12:35	6°  43'55		morning set		14006 Jun 04 22:42	15°  24'01	
	14005 Jun 21 11:48	0° 				14006 Jun 14 08:33	0° 	
morning set	14005 Jun 25 17:16	6°  27'49		max. Earth dist.		14006 Jun 18 17:03	6°  48'06	1.45514 AU
max. Earth dist.	14005 Jul 06 00:20	22°  33'04	1.44423 AU					
	14005 Jul 10 15:41	0° 		superior conj		14006 Jun 21 07:24	10°  53'01	-2°13'41
superior conj	14005 Jul 11 12:41	1°  25'17	-2°03'36	minimum elong		14006 Jun 21 07:38	10°  53'54	2°14'45
minimum elong	14005 Jul 11 18:56	1°  50'42	2°04'11			14006 Jul 03 06:39	0° 	
evening rise	14005 Jul 24 17:06	23°  02'58		evening rise		14006 Jul 06 04:02	4°  41'54	
	14005 Jul 28 12:17	0° 		asc. node		14006 Jul 17 08:54	22°  03'18	
asc. node	14005 Jul 30 12:10	3°  22'55				14006 Jul 22 11:00	0° 	
evening max el	14005 Aug 11 03:52	20°  11'14	18°04'35	evening max el		14006 Jul 25 17:56	3°  47'09	18°22'19
retrograde	14005 Aug 17 13:38	23°  13'39		retrograde		14006 Aug 01 03:26	7°  12'02	
evening set	14005 Aug 20 05:58	22°  55'06		evening set		14006 Aug 04 04:29	6°  20'43	
inferior conj	14005 Aug 26 13:29	17°  41'31	1°40'48	inferior conj		14006 Aug 10 00:35	0°  50'44	2°26'46
minimum elong	14005 Aug 26 15:50	17°  35'17	1°39'43	minimum elong		14006 Aug 10 02:56	0°  43'50	2°25'36
min. Earth dist.	14005 Aug 29 09:08	14°  43'24	0.62616 AU			14006 Aug 10 17:47	30°  48'02	
desc. node	14005 Sep 01 10:02	11°  57'15		min. Earth dist.		14006 Aug 12 07:00	28°  01'30	0.64701 AU
morning rise	14005 Sep 01 23:27	11°  31'48		morning rise		14006 Aug 16 00:01	24°  03'01	
direct	14005 Sep 08 15:45	9°  05'27		desc. node		14006 Aug 19 07:33	22°  02'50	
morning max el	14005 Sep 22 17:14	17°  06'30	27°55'00	direct		14006 Aug 22 13:06	21°  02'26	
	14005 Oct 03 10:36	0° 		morning max el		14006 Sep 05 03:36	29°  49'36	27°21'44
	14005 Oct 21 19:27	0° 				14006 Sep 05 07:43	0° 	
morning set	14005 Oct 26 22:52	10°  05'27		morning set		14006 Sep 27 09:44	0° 	
asc. node	14005 Oct 26 14:14	9°  21'36		asc. node		14006 Oct 10 12:04	23°  02'59	
max. Earth dist.	14005 Nov 01 04:37	21°  05'46	1.31883 AU			14006 Oct 13 10:53	29°  02'38	
				max. Earth dist.		14006 Oct 13 18:06	0° 	
superior conj	14005 Nov 03 13:02	26°  05'54	1°09'13			14006 Oct 15 00:14	2°  34'40	1.33058 AU
minimum elong	14005 Nov 03 10:46	26°  00'24	1°09'42	superior conj		14006 Oct 18 17:28	10°  23'58	0°48'08

























































































































minimum elong	14006 Oct 18 15:22	10° $\mathbb{M}$ 12'48	0°48'21	superior conj	14007 Oct 02 15:00	24° $\mathbb{L}$ 12'42	0°21'34
evening rise	14006 Oct 25 18:38	25° $\mathbb{M}$ 34'18		minimum elong	14007 Oct 02 13:50	24° $\mathbb{L}$ 06'40	0°21'40
	14006 Oct 27 21:02	0° $\mathbb{X}$			14007 Oct 05 09:51	0° $\mathbb{M}$	
desc. node	14006 Nov 15 03:50	29° $\mathbb{X}$ 44'07		evening rise	14007 Oct 10 03:41	9° $\mathbb{M}$ 57'02	
	14006 Nov 15 09:53	0° $\mathbb{Z}$			14007 Oct 20 15:33	0° $\mathbb{X}$	
evening max el	14006 Nov 16 08:38	0° $\mathbb{Z}$ 57'21	22°25'14	evening max el	14007 Oct 29 03:17	11° $\mathbb{X}$ 15'53	20°51'41
retrograde	14006 Nov 29 04:54	7° $\mathbb{Z}$ 19'16		desc. node	14007 Nov 02 01:09	14° $\mathbb{X}$ 29'56	
evening set	14006 Dec 02 19:41	6° $\mathbb{Z}$ 50'35		retrograde	14007 Nov 09 15:23	16° $\mathbb{X}$ 59'02	
min. Earth dist.	14006 Dec 10 16:01	3° $\mathbb{Z}$ 19'16	0.54673 AU	evening set	14007 Nov 12 02:05	16° $\mathbb{X}$ 44'39	
inferior conj	14006 Dec 11 09:10	2° $\mathbb{Z}$ 55'08	-5°56'56	inferior conj	14007 Nov 21 00:25	12° $\mathbb{X}$ 51'01	-5°13'29
minimum elong	14006 Dec 11 07:04	2° $\mathbb{Z}$ 58'05	5°55'47	minimum elong	14007 Nov 20 15:09	13° $\mathbb{X}$ 04'13	5°10'33
	14006 Dec 17 03:22	30° $\mathbb{R}$ $\mathbb{X}$		min. Earth dist.	14007 Nov 21 21:54	12° $\mathbb{X}$ 20'22	0.54543 AU
morning rise	14006 Dec 19 19:38	29° $\mathbb{X}$ 07'44		morning rise	14007 Nov 29 04:25	8° $\mathbb{X}$ 57'16	
direct	14006 Dec 23 02:33	28° $\mathbb{X}$ 43'20		direct	14007 Dec 03 10:10	8° $\mathbb{X}$ 18'47	
	14006 Dec 28 17:45	0° $\mathbb{Z}$		morning max el	14007 Dec 16 13:09	14° $\mathbb{X}$ 40'20	23°09'04
morning max el	14007 Jan 03 23:17	4° $\mathbb{Z}$ 24'20	21°24'15	asc. node	14007 Dec 27 08:09	28° $\mathbb{X}$ 28'31	
asc. node	14007 Jan 09 10:59	10° $\mathbb{Z}$ 45'22			14007 Dec 28 06:41	0° $\mathbb{Z}$	
	14007 Jan 20 16:50	0° $\approx$		morning set	14008 Jan 08 14:17	21° $\mathbb{Z}$ 45'52	
morning set	14007 Jan 24 02:44	6° $\approx$ 59'53			14008 Jan 12 09:58	0° $\approx$	
superior conj	14007 Jan 31 08:35	22° $\approx$ 13'59	1°19'40	superior conj	14008 Jan 15 12:15	6° $\approx$ 41'41	1°31'46
minimum elong	14007 Jan 31 10:58	22° $\approx$ 26'21	1°20'07	minimum elong	14008 Jan 15 13:47	6° $\approx$ 49'55	1°32'34
	14007 Feb 04 03:47	0° $\mathbb{X}$		max. Earth dist.	14008 Jan 18 16:05	13° $\approx$ 24'29	1.33351 AU
max. Earth dist.	14007 Feb 04 22:08	1° $\mathbb{X}$ 31'34	1.35048 AU	evening rise	14008 Jan 23 09:08	23° $\approx$ 00'26	
evening rise	14007 Feb 09 00:31	9° $\mathbb{X}$ 28'23			14008 Jan 27 00:15	0° $\mathbb{X}$	
desc. node	14007 Feb 11 03:54	13° $\mathbb{X}$ 27'26		desc. node	14008 Jan 29 00:30	3° $\mathbb{X}$ 42'53	
	14007 Feb 20 18:50	0° $\mathbb{Y}$			14008 Feb 14 11:08	0° $\mathbb{Y}$	
	14007 Mar 15 02:13	0° $\mathbb{B}$		evening max el	14008 Feb 26 20:14	14° $\mathbb{Y}$ 43'17	27°18'15
evening max el	14007 Mar 16 06:49	1° $\mathbb{B}$ 11'19	26°35'23	retrograde	14008 Mar 11 09:43	22° $\mathbb{Y}$ 11'35	
retrograde	14007 Mar 29 08:23	8° $\mathbb{B}$ 34'07		evening set	14008 Mar 18 02:43	19° $\mathbb{Y}$ 40'59	
evening set	14007 Apr 04 17:16	6° $\mathbb{B}$ 02'11		min. Earth dist.	14008 Mar 21 23:31	16° $\mathbb{Y}$ 06'05	0.64846 AU
asc. node	14007 Apr 07 07:39	3° $\mathbb{B}$ 33'48		inferior conj	14008 Mar 24 09:55	13° $\mathbb{Y}$ 26'34	0°03'51
min. Earth dist.	14007 Apr 08 18:41	1° $\mathbb{B}$ 54'47	0.66487 AU	minimum elong	14008 Mar 24 09:48	13° $\mathbb{Y}$ 26'52	0°03'40
	14007 Apr 10 09:06	30° $\mathbb{R}$ $\mathbb{Y}$		transit middle	14008 Mar 24 09:48	13° $\mathbb{Y}$ 26'52	0°03'40
inferior conj	14007 Apr 10 16:58	29° $\mathbb{Y}$ 36'21	1°02'42	transit begin	14008 Mar 24 06:50	13° $\mathbb{Y}$ 35'02	
minimum elong	14007 Apr 10 15:27	29° $\mathbb{Y}$ 40'53	1°01'43	transit end	14008 Mar 24 12:47	13° $\mathbb{Y}$ 18'44	
morning rise	14007 Apr 16 14:42	23° $\mathbb{Y}$ 56'06		asc. node	14008 Mar 24 05:06	13° $\mathbb{Y}$ 39'48	
direct	14007 Apr 19 15:26	23° $\mathbb{Y}$ 04'50		morning rise	14008 Mar 30 18:45	7° $\mathbb{Y}$ 59'47	
morning max el	14007 Apr 26 01:47	26° $\mathbb{Y}$ 28'56	18°20'31	direct	14008 Apr 02 10:13	7° $\mathbb{Y}$ 23'13	
	14007 Apr 29 05:08	0° $\mathbb{B}$		morning max el	14008 Apr 08 18:15	10° $\mathbb{Y}$ 39'59	17°54'43
desc. node	14007 May 10 06:13	16° $\mathbb{B}$ 13'22			14008 Apr 22 05:28	0° $\mathbb{B}$	
morning set	14007 May 16 01:01	25° $\mathbb{B}$ 23'49		morning set	14008 Apr 26 07:32	6° $\mathbb{B}$ 45'56	
	14007 May 18 22:36	0° $\mathbb{I}$		desc. node	14008 Apr 26 02:53	6° $\mathbb{B}$ 26'42	
superior conj	14007 May 31 15:31	19° $\mathbb{I}$ 58'39	-2°03'50	superior conj	14008 May 10 06:35	29° $\mathbb{B}$ 29'24	-1°36'04
minimum elong	14007 May 31 08:27	19° $\mathbb{I}$ 31'07	2°04'27	minimum elong	14008 May 09 21:41	28° $\mathbb{B}$ 54'00	1°36'00
max. Earth dist.	14007 Jun 01 13:01	21° $\mathbb{I}$ 22'36	1.45881 AU		14008 May 10 14:17	0° $\mathbb{I}$	
	14007 Jun 07 01:42	0° $\mathbb{B}$		max. Earth dist.	14008 May 14 09:17	5° $\mathbb{I}$ 59'19	1.45494 AU
evening rise	14007 Jun 16 14:19	14° $\mathbb{B}$ 52'59		evening rise	14008 May 26 06:04	24° $\mathbb{I}$ 23'02	
	14007 Jun 26 07:08	0° $\mathbb{Q}$			14008 May 29 22:15	0° $\mathbb{B}$	
greatest brilliancy	14007 Jun 26 15:39	0° $\mathbb{Q}$ 32'38	-0.8m	greatest brilliancy	14008 Jun 09 16:44	16° $\mathbb{B}$ 08'18	-0.6m
asc. node	14007 Jul 04 05:45	11° $\mathbb{Q}$ 37'24		asc. node	14008 Jun 20 02:39	29° $\mathbb{B}$ 56'21	
evening max el	14007 Jul 09 04:52	17° $\mathbb{Q}$ 32'00	18°57'24		14008 Jun 20 03:59	0° $\mathbb{Q}$	
retrograde	14007 Jul 15 22:58	21° $\mathbb{Q}$ 14'46		evening max el	14008 Jun 21 10:41	1° $\mathbb{Q}$ 20'36	19°48'39
evening set	14007 Jul 19 09:04	20° $\mathbb{Q}$ 07'07		retrograde	14008 Jun 28 21:21	5° $\mathbb{Q}$ 33'27	
inferior conj	14007 Jul 24 21:20	14° $\mathbb{Q}$ 22'19	2°55'17	evening set	14008 Jul 02 17:02	4° $\mathbb{Q}$ 08'51	
minimum elong	14007 Jul 24 22:59	14° $\mathbb{Q}$ 17'06	2°54'13		14008 Jul 06 15:41	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	14007 Jul 26 13:16	12° $\mathbb{Q}$ 15'33	0.66437 AU	inferior conj	14008 Jul 08 00:42	28° $\mathbb{B}$ 10'48	3°09'17
morning rise	14007 Jul 30 12:10	7° $\mathbb{Q}$ 57'43		minimum elong	14008 Jul 08 01:22	28° $\mathbb{B}$ 08'33	3°08'16
direct	14007 Aug 05 17:33	5° $\mathbb{Q}$ 18'32		min. Earth dist.	14008 Jul 09 02:19	26° $\mathbb{B}$ 44'42	0.67746 AU
desc. node	14007 Aug 06 05:02	5° $\mathbb{Q}$ 19'23		morning rise	14008 Jul 13 09:19	21° $\mathbb{B}$ 47'05	
morning max el	14007 Aug 18 14:50	12° $\mathbb{Q}$ 58'20	26°20'39	direct	14008 Jul 19 04:11	19° $\mathbb{B}$ 14'45	
	14007 Sep 01 08:47	0° $\mathbb{P}$		desc. node	14008 Jul 23 02:26	20° $\mathbb{B}$ 12'32	
	14007 Sep 20 02:07	0° $\mathbb{L}$		morning max el	14008 Jul 31 01:37	26° $\mathbb{B}$ 22'28	25°00'52
morning set	14007 Sep 23 13:03	6° $\mathbb{L}$ 19'45			14008 Aug 03 10:00	0° $\mathbb{Q}$	
max. Earth dist.	14007 Sep 27 10:12	13° $\mathbb{L}$ 45'25	1.34746 AU		14008 Aug 24 22:25	0° $\mathbb{P}$	
asc. node	14007 Sep 30 07:29	19° $\mathbb{L}$ 29'43		morning set	14008 Sep 04 21:52	18° $\mathbb{P}$ 25'15	

max. Earth dist.	14008 Sep 08 11:33	24° $\mathbb{M}$ 52'58	1.36853 AU	morning set	14009 Aug 17 10:01	29° $\mathbb{Q}$ 35'53	
	14008 Sep 11 05:12	0° $\mathbb{L}$			14009 Aug 17 15:44	0° $\mathbb{M}$	
				max. Earth dist.	14009 Aug 21 09:17	6° $\mathbb{M}$ 24'06	1.39193 AU
superior conj	14008 Sep 15 02:37	7° $\mathbb{L}$ 31'27	-0°09'49				
minimum elong	14008 Sep 15 03:15	7° $\mathbb{L}$ 34'31	0°09'41	superior conj	14009 Aug 29 00:39	20° $\mathbb{M}$ 11'53	-0°44'29
behind sun begin	14008 Sep 14 21:59	7° $\mathbb{L}$ 08'41		minimum elong	14009 Aug 29 03:54	20° $\mathbb{M}$ 27'01	0°44'12
behind sun end	14008 Sep 15 08:30	8° $\mathbb{L}$ 00'25		asc. node	14009 Sep 03 00:34	29° $\mathbb{M}$ 41'41	
asc. node	14008 Sep 16 04:02	9° $\mathbb{L}$ 36'58			14009 Sep 03 04:22	0° $\mathbb{L}$	
evening rise	14008 Sep 23 08:35	24° $\mathbb{L}$ 06'48		evening rise	14009 Sep 07 06:35	7° $\mathbb{L}$ 56'43	
	14008 Sep 26 07:13	0° $\mathbb{M}$			14009 Sep 19 21:08	0° $\mathbb{M}$	
evening max el	14008 Oct 10 11:55	22° $\mathbb{M}$ 19'05	19°37'21	evening max el	14009 Sep 23 10:00	4° $\mathbb{M}$ 11'51	18°45'01
desc. node	14008 Oct 18 22:33	27° $\mathbb{M}$ 08'54		retrograde	14009 Oct 01 18:25	8° $\mathbb{M}$ 24'02	
retrograde	14008 Oct 20 08:42	27° $\mathbb{M}$ 14'50		evening set	14009 Oct 03 16:05	8° $\mathbb{M}$ 11'44	
evening set	14008 Oct 22 06:18	27° $\mathbb{M}$ 04'41		desc. node	14009 Oct 05 20:01	7° $\mathbb{M}$ 30'02	
inferior conj	14008 Oct 31 00:16	23° $\mathbb{M}$ 00'40	-3°42'08	inferior conj	14009 Oct 11 19:05	3° $\mathbb{M}$ 49'20	-1°53'46
minimum elong	14008 Oct 30 15:07	23° $\mathbb{M}$ 15'07	3°38'15	minimum elong	14009 Oct 11 14:23	3° $\mathbb{M}$ 57'56	1°51'24
min. Earth dist.	14008 Nov 02 06:47	21° $\mathbb{M}$ 34'39	0.55346 AU	min. Earth dist.	14009 Oct 14 21:09	1° $\mathbb{M}$ 34'23	0.56938 AU
morning rise	14008 Nov 07 22:04	18° $\mathbb{M}$ 40'11			14009 Oct 17 06:40	30° $\mathbb{R}$ $\mathbb{L}$	
direct	14008 Nov 13 01:11	17° $\mathbb{M}$ 41'36		morning rise	14009 Oct 19 09:22	28° $\mathbb{L}$ 52'05	
morning max el	14008 Nov 26 22:46	24° $\mathbb{M}$ 38'11	24°57'31	direct	14009 Oct 25 06:31	27° $\mathbb{L}$ 27'49	
	14008 Dec 01 21:24	0° $\mathbb{X}$			14009 Nov 02 08:25	0° $\mathbb{M}$	
asc. node	14008 Dec 13 05:13	16° $\mathbb{X}$ 57'34		morning max el	14009 Nov 08 12:08	4° $\mathbb{M}$ 51'47	26°30'55
	14008 Dec 20 00:18	0° $\mathbb{Z}$			14009 Nov 26 18:55	0° $\mathbb{X}$	
morning set	14008 Dec 23 02:06	6° $\mathbb{Z}$ 28'32		asc. node	14009 Nov 30 02:10	6° $\mathbb{X}$ 00'54	
				morning set	14009 Dec 07 12:32	21° $\mathbb{X}$ 03'28	
					14009 Dec 11 14:34	0° $\mathbb{Z}$	
superior conj	14008 Dec 29 20:37	21° $\mathbb{Z}$ 19'46	1°37'29				
minimum elong	14008 Dec 29 21:05	21° $\mathbb{Z}$ 22'21	1°38'30				
max. Earth dist.	14008 Dec 31 17:14	25° $\mathbb{Z}$ 24'14	1.32112 AU	superior conj	14009 Dec 14 07:34	6° $\mathbb{Z}$ 02'14	1°37'07
	14009 Jan 02 20:19	0° $\mathbb{A}$		minimum elong	14009 Dec 14 06:57	5° $\mathbb{Z}$ 58'52	1°38'10
evening rise	14009 Jan 06 03:42	6° $\mathbb{A}$ 56'11		max. Earth dist.	14009 Dec 14 23:34	7° $\mathbb{Z}$ 31'29	1.31377 AU
desc. node	14009 Jan 14 21:11	23° $\mathbb{A}$ 41'26		evening rise	14009 Dec 21 05:37	21° $\mathbb{Z}$ 09'29	
	14009 Jan 18 12:54	0° $\mathbb{H}$			14009 Dec 25 13:27	0° $\mathbb{A}$	
evening max el	14009 Feb 08 07:32	27° $\mathbb{H}$ 46'56	27°34'12	desc. node	14010 Jan 01 17:58	13° $\mathbb{A}$ 16'24	
	14009 Feb 10 19:01	0° $\mathbb{Y}$			14010 Jan 12 17:17	0° $\mathbb{H}$	
retrograde	14009 Feb 22 04:02	5° $\mathbb{Y}$ 12'50		evening max el	14010 Jan 21 14:38	10° $\mathbb{H}$ 10'59	27°17'35
evening set	14009 Mar 01 01:12	2° $\mathbb{Y}$ 50'58		retrograde	14010 Feb 04 14:06	17° $\mathbb{H}$ 28'35	
	14009 Mar 04 12:35	30° $\mathbb{R}$ $\mathbb{H}$		evening set	14010 Feb 11 09:43	15° $\mathbb{H}$ 23'45	
min. Earth dist.	14009 Mar 04 19:23	29° $\mathbb{H}$ 44'03	0.62886 AU	min. Earth dist.	14010 Feb 15 05:11	12° $\mathbb{H}$ 37'24	0.60731 AU
inferior conj	14009 Mar 07 16:18	26° $\mathbb{H}$ 55'23	-1°06'48	inferior conj	14010 Feb 18 08:47	9° $\mathbb{H}$ 54'30	-2°27'30
minimum elong	14009 Mar 07 18:32	26° $\mathbb{H}$ 49'56	1°05'43	minimum elong	14010 Feb 18 14:06	9° $\mathbb{H}$ 42'59	2°24'58
asc. node	14009 Mar 11 02:34	23° $\mathbb{H}$ 48'28		morning rise	14010 Feb 25 21:41	5° $\mathbb{H}$ 02'26	
morning rise	14009 Mar 14 14:31	21° $\mathbb{H}$ 44'37		asc. node	14010 Feb 26 00:03	5° $\mathbb{H}$ 00'49	
direct	14009 Mar 16 22:12	21° $\mathbb{H}$ 19'17		direct	14010 Feb 27 23:51	4° $\mathbb{H}$ 44'34	
morning max el	14009 Mar 23 11:59	24° $\mathbb{H}$ 40'07	17°46'18	morning max el	14010 Mar 07 03:43	8° $\mathbb{H}$ 20'04	17°56'06
	14009 Mar 27 21:37	0° $\mathbb{Y}$			14010 Mar 21 05:30	0° $\mathbb{Y}$	
morning set	14009 Apr 08 15:07	19° $\mathbb{Y}$ 19'03		morning set	14010 Mar 22 17:43	2° $\mathbb{Y}$ 45'05	
desc. node	14009 Apr 12 23:27	26° $\mathbb{Y}$ 51'10		desc. node	14010 Mar 30 19:57	17° $\mathbb{Y}$ 22'44	
	14009 Apr 14 19:30	0° $\mathbb{B}$					
				superior conj	14010 Apr 02 05:03	21° $\mathbb{Y}$ 33'21	-0°18'54
superior conj	14009 Apr 20 17:49	9° $\mathbb{B}$ 58'14	-0°58'21	minimum elong	14010 Apr 02 03:22	21° $\mathbb{Y}$ 26'05	0°18'54
minimum elong	14009 Apr 20 12:03	9° $\mathbb{B}$ 34'23	0°58'08		14010 Apr 07 03:36	0° $\mathbb{B}$	
max. Earth dist.	14009 Apr 27 02:52	20° $\mathbb{B}$ 20'19	1.44400 AU	max. Earth dist.	14010 Apr 09 16:24	4° $\mathbb{B}$ 12'44	1.42724 AU
	14009 May 03 06:00	0° $\mathbb{I}$		evening rise	14010 Apr 15 16:08	13° $\mathbb{B}$ 52'23	
evening rise	14009 May 05 17:30	3° $\mathbb{I}$ 50'03			14010 Apr 26 05:04	0° $\mathbb{I}$	
	14009 May 23 09:06	0° $\mathbb{G}$		evening max el	14010 May 18 05:12	29° $\mathbb{I}$ 00'43	22°09'42
evening max el	14009 Jun 04 10:33	15° $\mathbb{G}$ 10'17	20°54'00		14010 May 19 05:37	0° $\mathbb{G}$	
asc. node	14009 Jun 06 23:40	17° $\mathbb{G}$ 28'34		asc. node	14010 May 24 20:48	3° $\mathbb{G}$ 58'55	
retrograde	14009 Jun 12 20:20	20° $\mathbb{G}$ 02'39		retrograde	14010 May 27 18:06	4° $\mathbb{G}$ 36'40	
evening set	14009 Jun 17 02:17	18° $\mathbb{G}$ 21'15		evening set	14010 Jun 01 11:04	2° $\mathbb{G}$ 39'23	
inferior conj	14009 Jun 22 08:11	12° $\mathbb{G}$ 11'30	3°10'56		14010 Jun 03 23:53	30° $\mathbb{R}$ $\mathbb{I}$	
minimum elong	14009 Jun 22 07:51	12° $\mathbb{G}$ 12'41	3°09'52	inferior conj	14010 Jun 06 17:37	26° $\mathbb{I}$ 19'53	3°01'36
min. Earth dist.	14009 Jun 22 20:08	11° $\mathbb{G}$ 30'06	0.68588 AU	minimum elong	14010 Jun 06 16:24	26° $\mathbb{I}$ 24'09	3°00'24
morning rise	14009 Jun 27 13:08	5° $\mathbb{G}$ 51'59		min. Earth dist.	14010 Jun 06 16:27	26° $\mathbb{I}$ 23'59	0.68956 AU
direct	14009 Jul 02 20:00	3° $\mathbb{G}$ 33'02		morning rise	14010 Jun 11 21:32	20° $\mathbb{I}$ 06'35	
desc. node	14009 Jul 09 23:43	6° $\mathbb{G}$ 43'24		direct	14010 Jun 16 15:47	18° $\mathbb{I}$ 05'37	
morning max el	14009 Jul 13 12:10	9° $\mathbb{G}$ 55'15	23°32'13	morning max el	14010 Jun 26 00:49	23° $\mathbb{I}$ 35'20	22°03'49
	14009 Jul 29 09:25	0° $\mathbb{Q}$		desc. node	14010 Jun 26 20:53	24° $\mathbb{I}$ 26'51	




































































































































	14010 Jul 01 16:14	0°☿		desc. node	14011 Jun 13 17:55	13°♊03'47	
	14010 Jul 22 17:52	0°♊			14011 Jun 25 23:38	0°☿	
morning set	14010 Jul 28 21:40	9°♊41'40		morning set	14011 Jul 08 10:18	18°☿48'43	
max. Earth dist.	14010 Aug 03 10:09	18°♊43'28	1.41506 AU		14011 Jul 15 12:37	0°♊	
	14010 Aug 10 00:36	0°♎		max. Earth dist.	14011 Jul 16 18:00	1°♊58'11	1.43509 AU
superior conj	14010 Aug 11 04:43	2°♎03'31	-1°19'37	superior conj	14011 Jul 23 10:42	12°♊57'49	-1°50'24
minimum elong	14010 Aug 11 10:47	2°♎30'16	1°19'22	minimum elong	14011 Jul 23 18:02	13°♊28'30	1°50'35
asc. node	14010 Aug 20 21:07	19°♎39'42			14011 Aug 02 08:50	0°♎	
evening rise	14010 Aug 21 18:07	21°♎17'02		evening rise	14011 Aug 04 14:45	3°♎57'13	
	14010 Aug 26 12:00	0°♌		asc. node	14011 Aug 07 17:45	9°♎27'20	
evening max el	14010 Sep 06 17:36	16°♌45'41	18°13'53		14011 Aug 21 10:18	0°♌	
retrograde	14010 Sep 13 23:15	20°♌26'27		evening max el	14011 Aug 21 06:32	29°♎50'47	18°02'31
evening set	14010 Sep 16 03:00	20°♌07'28		retrograde	14011 Aug 27 20:32	3°♌14'37	
desc. node	14010 Sep 22 17:33	16°♌02'15		evening set	14011 Aug 30 08:08	2°♌45'17	
inferior conj	14010 Sep 23 11:38	15°♌23'53	-0°14'10		14011 Sep 03 13:05	30°♎♎	
minimum elong	14010 Sep 23 11:08	15°♌24'57	0°13'49	inferior conj	14011 Sep 05 23:51	27°♎41'41	1°05'06
transit middle	14010 Sep 23 11:08	15°♌24'57	0°13'49	minimum elong	14011 Sep 06 01:40	27°♎37'12	1°04'18
transit begin	14010 Sep 23 09:20	15°♌28'47		min. Earth dist.	14011 Sep 09 01:23	24°♎41'27	0.61325 AU
transit end	14010 Sep 23 12:55	15°♌21'07		desc. node	14011 Sep 09 15:05	24°♎09'45	
min. Earth dist.	14010 Sep 26 18:43	12°♌35'49	0.59038 AU	morning rise	14011 Sep 12 16:28	21°♎42'42	
morning rise	14010 Sep 30 15:51	9°♌51'39		direct	14011 Sep 19 08:05	19°♎27'26	
direct	14010 Oct 07 01:33	8°♌00'12		morning max el	14011 Oct 03 13:06	27°♎24'06	27°58'27
morning max el	14010 Oct 21 08:56	15°♌43'56	27°33'50		14011 Oct 06 00:42	0°♌	
	14010 Nov 02 00:28	0°♍			14011 Oct 26 17:56	0°♍	
asc. node	14010 Nov 16 23:01	25°♍28'46		asc. node	14011 Nov 03 19:47	15°♍14'19	
	14010 Nov 19 05:11	0°♎		morning set	14011 Nov 05 21:58	19°♍30'19	
morning set	14010 Nov 21 19:48	5°♎25'38			14011 Nov 10 20:03	0°♎	
				max. Earth dist.	14011 Nov 11 14:21	1°♎40'17	1.31469 AU
superior conj	14010 Nov 28 19:09	20°♎42'55	1°30'51	superior conj	14011 Nov 13 05:32	5°♎16'34	1°18'47
minimum elong	14010 Nov 28 17:38	20°♎34'26	1°31'46	minimum elong	14011 Nov 13 03:24	5°♎04'47	1°19'26
max. Earth dist.	14010 Nov 28 07:53	19°♎39'58	1.31158 AU	evening rise	14011 Nov 19 22:32	20°♎04'32	
	14010 Dec 02 23:13	0°♏			14011 Nov 24 16:33	0°♏	
evening rise	14010 Dec 05 12:34	5°♏34'00		desc. node	14011 Dec 06 11:56	20°♏34'38	
	14010 Dec 18 05:17	0°♐			14011 Dec 13 20:46	0°♐	
desc. node	14010 Dec 19 14:54	2°♐18'25		evening max el	14011 Dec 16 06:43	2°♐27'49	25°04'06
evening max el	14011 Jan 03 14:58	21°♐45'37	26°26'13	retrograde	14011 Dec 30 01:56	9°♐22'46	
retrograde	14011 Jan 17 14:02	28°♐52'09		evening set	14012 Jan 04 17:33	8°♐11'12	
evening set	14011 Jan 24 00:32	27°♐11'38		min. Earth dist.	14012 Jan 09 18:42	5°♐28'13	0.56603 AU
min. Earth dist.	14011 Jan 28 04:35	24°♐34'47	0.58556 AU	inferior conj	14012 Jan 12 10:13	3°♐45'07	-5°08'44
inferior conj	14011 Jan 31 07:44	22°♐14'15	-3°52'29	minimum elong	14012 Jan 12 18:44	3°♐31'15	5°05'56
minimum elong	14011 Jan 31 15:59	21°♐58'48	3°49'03		14012 Jan 19 11:00	30°♎♏	
morning rise	14011 Feb 08 10:27	17°♐43'21		morning rise	14012 Jan 20 22:16	29°♏36'13	
direct	14011 Feb 10 11:00	17°♐29'16		direct	14012 Jan 23 03:36	29°♏22'08	
asc. node	14011 Feb 12 21:29	17°♐50'42			14012 Jan 26 16:27	0°♐	
morning max el	14011 Feb 18 13:42	21°♐29'26	18°25'40	asc. node	14012 Jan 30 18:53	2°♐21'41	
	14011 Feb 25 02:03	0°♑		morning max el	14012 Feb 01 13:52	3°♐56'19	19°17'00
morning set	14011 Mar 06 09:49	16°♑47'46			14012 Feb 17 20:15	0°♑	
	14011 Mar 13 08:28	0°♒		morning set	14012 Feb 18 11:02	1°♑13'26	
superior conj	14011 Mar 15 13:58	4°♒08'01	0°17'00	superior conj	14012 Feb 26 15:59	17°♑29'00	0°46'46
minimum elong	14011 Mar 15 15:10	4°♒13'32	0°16'50	minimum elong	14012 Feb 26 18:31	17°♑41'12	0°46'43
desc. node	14011 Mar 17 16:27	7°♒57'59		desc. node	14012 Mar 03 12:57	28°♑32'45	
max. Earth dist.	14011 Mar 23 01:54	17°♒28'02	1.40643 AU		14012 Mar 04 08:08	0°♒	
evening rise	14011 Mar 27 10:34	24°♒48'48		max. Earth dist.	14012 Mar 04 08:31	0°♒01'47	1.38383 AU
	14011 Mar 30 15:00	0°♓		evening rise	14012 Mar 08 02:02	6°♒38'56	
	14011 Apr 20 00:08	0°♈			14012 Mar 22 13:56	0°♓	
evening max el	14011 Apr 30 20:24	12°♈53'08	23°30'27	evening max el	14012 Apr 12 09:58	26°♓46'09	24°49'57
retrograde	14011 May 11 13:17	19°♈10'49			14012 Apr 16 00:32	0°♈	
asc. node	14011 May 11 18:02	19°♈10'39		retrograde	14012 Apr 24 04:46	3°♈38'25	
evening set	14011 May 16 17:50	16°♈59'17		asc. node	14012 Apr 27 15:23	2°♈47'08	
min. Earth dist.	14011 May 21 13:09	11°♈20'33	0.68850 AU	evening set	14012 Apr 29 20:58	1°♈15'26	
inferior conj	14011 May 22 03:07	10°♈32'33	2°41'54		14012 May 01 04:41	30°♎♓	
minimum elong	14011 May 22 01:15	10°♈38'59	2°40'34	min. Earth dist.	14012 May 04 08:07	26°♓13'06	0.68277 AU
morning rise	14011 May 27 08:37	4°♈26'56		inferior conj	14012 May 05 10:44	24°♓44'56	2°11'54
direct	14011 May 31 14:18	2°♈46'17		minimum elong	14012 May 05 08:35	24°♓52'05	2°10'31
morning max el	14011 Jun 08 18:53	7°♈26'25	20°43'15				

morning rise	14012 May 10 20:27	18°  48'09		direct	14013 Apr 28 13:36	2°  05'26	
direct	14012 May 14 14:06	17°  28'08		morning max el	14013 May 05 05:04	5°  39'26	18°43'02
morning max el	14012 May 21 20:21	21°  28'46	19°35'25	desc. node	14013 May 17 11:41	22°  03'04	
	14012 May 28 22:28	0°  II			14013 May 22 15:29	0°  II	
desc. node	14012 May 30 14:51	2°  II19'18		morning set	14013 May 27 00:35	6°  II49'31	
greatest brilliancy	14012 Jun 03 11:46	7°  II52'48	-0.6m		14013 Jun 10 21:07	0°  ☿	
morning set	14012 Jun 16 12:15	27°  II31'53		max. Earth dist.	14013 Jun 11 02:07	0°  ☿19'32	1.45755 AU
	14012 Jun 18 02:45	0°  ☿					
max. Earth dist.	14012 Jun 28 08:05	15°  ☿55'38	1.44970 AU	superior conj	14013 Jun 12 05:09	2°  ☿05'06	-2°12'01
				minimum elong	14013 Jun 12 01:58	1°  ☿52'40	2°12'59
superior conj	14012 Jul 02 16:57	22°  ☿52'26	-2°10'08	evening rise	14013 Jun 27 15:33	26°  ☿29'07	
minimum elong	14012 Jul 02 21:14	23°  ☿09'33	2°11'00		14013 Jun 29 20:15	0°  ♌	
	14012 Jul 07 02:55	0°  ♌		greatest brilliancy	14013 Jul 04 05:58	7°  ♌02'09	-0.9m
evening rise	14012 Jul 16 15:18	15°  ♌44'16		asc. node	14013 Jul 11 11:13	18°  ♌09'34	
asc. node	14012 Jul 24 14:27	28°  ♌59'25		evening max el	14013 Jul 18 09:57	26°  ♌57'24	18°35'13
	14012 Jul 25 05:26	0°  ♍			14013 Jul 22 15:14	0°  ♍	
evening max el	14012 Aug 03 21:01	13°  ♍17'26	18°09'55	retrograde	14013 Jul 24 22:17	0°  ♍28'44	
retrograde	14012 Aug 10 05:38	16°  ♍38'25			14013 Jul 27 04:14	30°  ♍♌	
evening set	14012 Aug 13 01:35	15°  ♍55'51		evening set	14013 Jul 28 03:01	29°  ♌30'47	
inferior conj	14012 Aug 19 03:46	10°  ♍34'47	2°02'36	inferior conj	14013 Aug 02 19:22	23°  ♌54'21	2°40'48
minimum elong	14012 Aug 19 06:14	10°  ♍27'56	2°01'27	minimum elong	14013 Aug 02 21:28	23°  ♌47'57	2°39'41
min. Earth dist.	14012 Aug 21 17:58	7°  ♍42'49	0.63531 AU	min. Earth dist.	14013 Aug 04 19:43	21°  ♌27'19	0.65477 AU
morning rise	14012 Aug 25 09:02	4°  ♍19'09		morning rise	14013 Aug 08 14:49	17°  ♌30'58	
desc. node	14012 Aug 26 12:36	3°  ♍30'43		desc. node	14013 Aug 13 10:06	15°  ♌01'02	
direct	14012 Sep 01 00:23	1°  ♍47'08		direct	14013 Aug 15 00:59	14°  ♌51'25	
morning max el	14012 Sep 14 22:13	9°  ♍48'11	27°44'55	morning max el	14013 Aug 28 09:19	22°  ♌44'04	26°58'43
	14012 Sep 30 17:35	0°  ♎			14013 Sep 03 19:23	0°  ♍	
	14012 Oct 18 01:57	0°  ♎			14013 Sep 24 00:20	0°  ♎	
morning set	14012 Oct 19 16:44	3°  ♎12'14		morning set	14013 Oct 03 01:11	16°  ♎23'31	
asc. node	14012 Oct 20 16:29	5°  ♎11'59		max. Earth dist.	14013 Oct 07 06:35	24°  ♎43'30	1.33708 AU
max. Earth dist.	14012 Oct 24 15:05	13°  ♎23'31	1.32318 AU	asc. node	14013 Oct 07 13:06	25°  ♎16'26	
					14013 Oct 09 20:22	0°  ♎	
superior conj	14012 Oct 27 12:47	19°  ♎38'00	1°00'59				
minimum elong	14012 Oct 27 10:30	19°  ♎25'38	1°01'20	superior conj	14013 Oct 11 14:34	3°  ♎40'34	0°37'32
	14012 Nov 01 06:40	0°  ♏		minimum elong	14013 Oct 11 12:46	3°  ♎31'05	0°37'40
evening rise	14012 Nov 03 09:40	4°  ♏36'18		evening rise	14013 Oct 18 20:00	19°  ♎03'33	
	14012 Nov 16 19:19	0°  ♏			14013 Oct 24 04:21	0°  ♏	
desc. node	14012 Nov 22 09:05	7°  ♏48'08		evening max el	14013 Nov 08 05:31	22°  ♏37'03	21°43'36
evening max el	14012 Nov 26 16:42	12°  ♏33'29	23°23'58	desc. node	14013 Nov 09 06:21	23°  ♏35'37	
retrograde	14012 Dec 10 01:17	19°  ♏11'57		retrograde	14013 Nov 20 14:07	28°  ♏44'32	
evening set	14012 Dec 14 11:20	18°  ♏29'32		evening set	14013 Nov 23 15:11	28°  ♏23'37	
min. Earth dist.	14012 Dec 21 02:53	15°  ♏21'02	0.55158 AU	inferior conj	14013 Dec 02 09:43	24°  ♏30'28	-5°45'50
inferior conj	14012 Dec 22 16:37	14°  ♏26'04	-5°54'13	minimum elong	14013 Dec 02 03:53	24°  ♏38'38	5°44'08
minimum elong	14012 Dec 22 19:46	14°  ♏21'28	5°52'58	min. Earth dist.	14013 Dec 02 09:00	24°  ♏31'29	0.54500 AU
morning rise	14012 Dec 31 05:52	10°  ♏34'23		morning rise	14013 Dec 10 17:25	20°  ♏42'35	
direct	14013 Jan 03 00:47	10°  ♏15'38		direct	14013 Dec 14 09:42	20°  ♏12'59	
morning max el	14013 Jan 14 00:39	15°  ♏31'29	20°31'26	morning max el	14013 Dec 26 21:01	26°  ♏12'29	22°07'13
asc. node	14013 Jan 16 16:12	18°  ♏21'21			14013 Dec 30 09:56	0°  ♏	
	14013 Jan 24 13:18	0°  ♐		asc. node	14014 Jan 03 13:25	5°  ♏31'27	
morning set	14013 Feb 01 18:08	15°  ♐52'42			14014 Jan 16 21:29	0°  ♐	
	14013 Feb 08 14:13	0°  ♐		morning set	14014 Jan 17 04:38	0°  ♐37'40	
superior conj	14013 Feb 09 06:46	1°  ♐24'13	1°09'38	superior conj	14014 Jan 24 06:35	15°  ♐42'26	1°25'35
minimum elong	14013 Feb 09 09:26	1°  ♐37'42	1°09'52	minimum elong	14014 Jan 24 08:39	15°  ♐53'19	1°26'11
max. Earth dist.	14013 Feb 14 16:07	12°  ♐03'54	1.36192 AU	max. Earth dist.	14014 Jan 28 05:21	23°  ♐54'10	1.34276 AU
desc. node	14013 Feb 18 09:30	19°  ♐03'40			14014 Jan 31 06:35	0°  ♐	
evening rise	14013 Feb 18 12:15	19°  ♐16'18		evening rise	14014 Feb 01 13:41	2°  ♐31'08	
	14013 Feb 24 14:08	0°  ♑		desc. node	14014 Feb 05 06:05	9°  ♐26'11	
	14013 Mar 16 16:27	0°  ♑			14014 Feb 17 12:27	0°  ♑	
evening max el	14013 Mar 25 23:26	10°  ♑37'02	26°01'04	evening max el	14014 Mar 08 13:09	24°  ♑19'11	26°56'29
retrograde	14013 Apr 07 15:36	17°  ♑52'49			14014 Mar 15 20:28	0°  ♑	
evening set	14013 Apr 13 18:46	15°  ♑22'29		retrograde	14014 Mar 21 20:50	1°  ♑46'13	
asc. node	14013 Apr 14 12:46	14°  ♑42'54			14014 Mar 27 07:59	30°  ♑♑	
min. Earth dist.	14013 Apr 17 23:17	10°  ♑55'31	0.67260 AU	evening set	14014 Mar 28 09:22	29°  ♑14'05	
inferior conj	14013 Apr 19 14:30	8°  ♑53'02	1°31'12	asc. node	14014 Apr 01 10:12	25°  ♑16'15	
minimum elong	14013 Apr 19 12:34	8°  ♑59'06	1°29'59	min. Earth dist.	14014 Apr 01 08:38	25°  ♑20'41	0.65829 AU
morning rise	14013 Apr 25 07:06	3°  ♑06'19		inferior conj	14014 Apr 03 12:09	22°  ♑51'55	0°39'11

minimum elong	14014 Apr 03 11:08	22° $\Upsilon$ 54'52	0°38'29	retrograde	14015 Mar 04 19:18	15° $\Upsilon$ 09'17	
morning rise	14014 Apr 09 14:18	17° $\Upsilon$ 17'01		evening set	14015 Mar 11 14:28	12° $\Upsilon$ 41'51	
direct	14014 Apr 12 10:49	16° $\Upsilon$ 32'33		min. Earth dist.	14015 Mar 15 10:00	9° $\Upsilon$ 19'13	0.64045 AU
morning max el	14014 Apr 18 19:22	19° $\Upsilon$ 52'26	18°07'22	inferior conj	14015 Mar 18 01:01	6° $\Upsilon$ 34'27	-0°24'42
	14014 Apr 26 15:42	0° $\text{B}$		minimum elong	14015 Mar 18 01:47	6° $\Upsilon$ 32'27	0°24'25
desc. node	14014 May 04 08:24	12° $\text{B}$ 07'36		asc. node	14015 Mar 19 07:39	5° $\Upsilon$ 15'25	
morning set	14014 May 07 14:47	17° $\text{B}$ 24'17		morning rise	14015 Mar 24 15:16	1° $\Upsilon$ 13'47	
	14014 May 15 10:56	0° $\text{II}$		direct	14015 Mar 27 03:13	0° $\Upsilon$ 42'23	
				morning max el	14015 Apr 02 12:41	3° $\Upsilon$ 59'43	17°48'54
superior conj	14014 May 22 14:08	11° $\text{II}$ 16'32	-1°53'50	morning set	14015 Apr 19 08:42	29° $\Upsilon$ 19'14	
minimum elong	14014 May 22 05:28	10° $\text{II}$ 42'32	1°54'08		14015 Apr 19 18:21	0° $\text{B}$	
max. Earth dist.	14014 May 24 21:59	14° $\text{II}$ 55'10	1.45802 AU	desc. node	14015 Apr 21 05:02	2° $\text{B}$ 26'26	
	14014 Jun 03 14:45	0° $\text{B}$					
evening rise	14014 Jun 07 16:34	6° $\text{B}$ 18'45		superior conj	14015 May 02 12:40	21° $\text{B}$ 09'11	-1°20'44
greatest brilliancy	14014 Jun 19 20:43	24° $\text{B}$ 58'06	-0.7m	minimum elong	14015 May 02 04:44	20° $\text{B}$ 37'08	1°20'32
	14014 Jun 23 06:55	0° $\text{Q}$		max. Earth dist.	14015 May 07 17:33	29° $\text{B}$ 27'48	1.45113 AU
asc. node	14014 Jun 28 08:04	6° $\text{Q}$ 50'22			14015 May 08 01:42	0° $\text{II}$	
evening max el	14014 Jul 01 18:54	10° $\text{Q}$ 44'51	19°17'26	evening rise	14015 May 18 04:27	15° $\text{II}$ 42'32	
retrograde	14014 Jul 08 19:14	14° $\text{Q}$ 39'02			14015 May 27 15:24	0° $\text{B}$	
evening set	14014 Jul 12 09:17	13° $\text{Q}$ 24'21		evening max el	14015 Jun 14 22:18	24° $\text{B}$ 34'29	20°14'58
inferior conj	14014 Jul 17 19:15	7° $\text{Q}$ 34'02	3°02'51	asc. node	14015 Jun 15 05:01	24° $\text{B}$ 51'07	
minimum elong	14014 Jul 17 20:30	7° $\text{Q}$ 29'58	3°01'49	retrograde	14015 Jun 22 17:57	29° $\text{B}$ 02'44	
min. Earth dist.	14014 Jul 19 05:08	5° $\text{Q}$ 43'31	0.67045 AU	evening set	14015 Jun 26 18:00	27° $\text{B}$ 30'51	
morning rise	14014 Jul 23 07:07	1° $\text{Q}$ 09'19		inferior conj	14015 Jul 02 00:36	21° $\text{B}$ 27'51	3°11'23
	14014 Jul 24 18:59	30° $\text{R}$ $\text{B}$		minimum elong	14015 Jul 02 00:50	21° $\text{B}$ 27'02	3°10'21
direct	14014 Jul 29 08:25	28° $\text{B}$ 31'46		min. Earth dist.	14015 Jul 02 20:21	20° $\text{B}$ 20'29	0.68167 AU
desc. node	14014 Jul 31 07:31	28° $\text{B}$ 46'12		morning rise	14015 Jul 07 07:22	15° $\text{B}$ 05'50	
	14014 Aug 03 09:28	0° $\text{Q}$		direct	14015 Jul 12 21:22	12° $\text{B}$ 38'27	
morning max el	14014 Aug 10 20:14	6° $\text{Q}$ 00'05	25°48'26	desc. node	14015 Jul 18 04:51	14° $\text{B}$ 23'58	
	14014 Aug 29 09:33	0° $\text{P}$		morning max el	14015 Jul 24 06:32	19° $\text{B}$ 27'23	24°23'39
morning set	14014 Sep 15 19:48	28° $\text{P}$ 55'56			14015 Aug 02 05:36	0° $\text{Q}$	
	14014 Sep 16 09:45	0° $\text{B}$			14015 Aug 22 12:37	0° $\text{P}$	
max. Earth dist.	14014 Sep 19 12:04	5° $\text{B}$ 48'26	1.35594 AU	morning set	14015 Aug 28 20:16	10° $\text{P}$ 38'32	
asc. node	14014 Sep 24 09:40	15° $\text{B}$ 24'01		max. Earth dist.	14015 Sep 01 11:05	17° $\text{P}$ 02'14	1.37837 AU
					14015 Sep 08 10:11	0° $\text{B}$	
superior conj	14014 Sep 25 08:18	17° $\text{B}$ 17'54	0°08'49				
minimum elong	14014 Sep 25 07:46	17° $\text{B}$ 15'16	0°08'55	superior conj	14015 Sep 08 14:36	0° $\text{B}$ 21'15	-0°24'15
behind sun begin	14014 Sep 25 02:36	16° $\text{B}$ 49'10		minimum elong	14015 Sep 08 16:15	0° $\text{B}$ 29'12	0°24'02
behind sun end	14014 Sep 25 12:56	17° $\text{B}$ 41'24		asc. node	14015 Sep 11 06:13	5° $\text{B}$ 30'34	
	14014 Oct 01 12:33	0° $\text{M}$		evening rise	14015 Sep 17 05:50	17° $\text{B}$ 23'25	
evening rise	14014 Oct 03 03:33	3° $\text{M}$ 21'32			14015 Sep 23 19:07	0° $\text{M}$	
	14014 Oct 18 08:59	0° $\text{A}$		evening max el	14015 Oct 03 20:39	14° $\text{M}$ 37'55	19°12'26
evening max el	14014 Oct 21 05:58	3° $\text{A}$ 13'36	20°17'31	retrograde	14015 Oct 13 00:47	19° $\text{M}$ 13'54	
desc. node	14014 Oct 27 03:40	7° $\text{A}$ 30'41		desc. node	14015 Oct 14 01:04	19° $\text{M}$ 10'44	
retrograde	14014 Nov 01 01:27	8° $\text{A}$ 36'15		evening set	14015 Oct 14 21:30	19° $\text{M}$ 03'19	
evening set	14014 Nov 03 04:40	8° $\text{A}$ 24'39		inferior conj	14015 Oct 23 09:54	14° $\text{M}$ 51'56	-2°56'24
inferior conj	14014 Nov 12 02:55	4° $\text{A}$ 28'22	-4°38'57	minimum elong	14015 Oct 23 02:26	15° $\text{M}$ 04'26	2°52'56
minimum elong	14014 Nov 11 16:48	4° $\text{A}$ 43'15	4°35'16	min. Earth dist.	14015 Oct 26 02:30	13° $\text{M}$ 04'02	0.55942 AU
min. Earth dist.	14014 Nov 13 15:58	3° $\text{A}$ 33'44	0.54780 AU	morning rise	14015 Oct 31 04:51	10° $\text{M}$ 16'44	
morning rise	14014 Nov 20 04:15	0° $\text{A}$ 25'14		direct	14015 Nov 05 16:20	9° $\text{M}$ 07'51	
	14014 Nov 21 16:50	30° $\text{R}$ $\text{M}$		morning max el	14015 Nov 19 17:59	16° $\text{M}$ 16'06	25°40'13
direct	14014 Nov 24 19:40	29° $\text{M}$ 38'38			14015 Nov 30 21:06	0° $\text{A}$	
	14014 Nov 27 21:32	0° $\text{A}$		asc. node	14015 Dec 08 07:33	12° $\text{A}$ 21'04	
morning max el	14014 Dec 08 07:44	6° $\text{A}$ 16'06	23°55'37	morning set	14015 Dec 17 03:58	0° $\text{B}$ 03'10	
asc. node	14014 Dec 21 10:32	23° $\text{A}$ 35'49			14015 Dec 17 03:23	0° $\text{B}$	
	14014 Dec 25 01:24	0° $\text{B}$					
morning set	14015 Jan 01 16:29	15° $\text{B}$ 22'40		superior conj	14015 Dec 23 22:14	14° $\text{B}$ 56'15	1°38'03
	14015 Jan 08 09:42	0° $\approx$		minimum elong	14015 Dec 23 22:14	14° $\text{B}$ 56'17	1°39'07
				max. Earth dist.	14015 Dec 25 06:31	17° $\text{B}$ 54'50	1.31741 AU
superior conj	14015 Jan 08 12:31	0° $\approx$ 15'18	1°34'57		14015 Dec 30 21:17	0° $\approx$	
minimum elong	14015 Jan 08 13:36	0° $\approx$ 21'15	1°35'51	evening rise	14015 Dec 31 00:57	0° $\approx$ 19'05	
max. Earth dist.	14015 Jan 11 02:29	5° $\approx$ 49'26	1.32772 AU	desc. node	14016 Jan 09 23:27	19° $\approx$ 25'30	
evening rise	14015 Jan 16 02:55	16° $\approx$ 14'29			14016 Jan 16 08:49	0° $\text{H}$	
desc. node	14015 Jan 23 02:44	29° $\approx$ 35'24		evening max el	14016 Feb 01 12:12	20° $\text{H}$ 31'10	27°31'20
	14015 Jan 23 08:12	0° $\text{H}$		retrograde	14016 Feb 15 10:00	27° $\text{H}$ 53'05	
	14015 Feb 12 02:19	0° $\Upsilon$		evening set	14016 Feb 22 07:28	25° $\text{H}$ 37'36	
evening max el	14015 Feb 19 02:09	7° $\Upsilon$ 41'35	27°28'46	min. Earth dist.	14016 Feb 26 01:40	22° $\text{H}$ 40'36	0.61992 AU

inferior conj	14016 Feb 29 02:01	19°  52'42	-1°39'56	evening set	14017 Feb 03 08:59	7°  52'12	
minimum elong	14016 Feb 29 05:29	19°  44'36	1°38'15	min. Earth dist.	14017 Feb 07 06:44	5°  11'52	0.59800 AU
asc. node	14016 Mar 05 05:07	15°  45'54		inferior conj	14017 Feb 10 11:28	2°  36'13	-3°03'32
morning rise	14016 Mar 07 06:22	14°  49'23		minimum elong	14017 Feb 10 18:10	2°  22'36	3°00'29
direct	14016 Mar 09 11:32	14°  27'32			14017 Feb 13 21:35	30°  R $\approx$	
morning max el	14016 Mar 16 06:01	17°  53'01	17°48'10	morning rise	14017 Feb 18 06:35	27° $\approx$ 53'15	
	14016 Mar 24 23:47	0°  Y		direct	14017 Feb 20 07:31	27° $\approx$ 37'25	
morning set	14016 Apr 01 01:13	12°  Y18'06		asc. node	14017 Feb 20 02:36	27° $\approx$ 37'35	
desc. node	14016 Apr 07 01:36	22°  Y55'03			14017 Feb 26 06:58	0°  X	
	14016 Apr 11 04:14	0°  8		morning max el	14017 Feb 27 19:52	1°  X21'46	18°06'11
				morning set	14017 Mar 15 10:10	26°  X01'27	
superior conj	14016 Apr 12 10:14	2°  807'07	-0°41'27		14017 Mar 17 13:21	0°  Y	
minimum elong	14016 Apr 12 06:16	1°  850'25	0°41'18	desc. node	14017 Mar 24 22:06	13°  Y28'43	
max. Earth dist.	14016 Apr 19 10:17	13°  841'13	1.43758 AU				
evening rise	14016 Apr 26 19:15	25°  821'55		superior conj	14017 Mar 25 07:14	14°  Y09'25	-0°03'05
	14016 Apr 29 19:25	0°  II		minimum elong	14017 Mar 25 06:59	14°  Y08'16	0°03'10
	14016 May 20 15:43	0°  ☿		behind sun begin	14017 Mar 24 23:23	13°  Y34'23	
evening max el	14016 May 27 19:51	8°  ☿24'37	21°25'05	behind sun end	14017 Mar 25 14:35	14°  Y42'05	
asc. node	14016 Jun 01 02:05	11°  ☿59'13		max. Earth dist.	14017 Apr 01 22:00	27°  Y18'37	1.41878 AU
retrograde	14016 Jun 05 16:37	13°  ☿34'59			14017 Apr 03 12:49	0°  8	
evening set	14016 Jun 10 03:16	11°  ☿46'26		evening rise	14017 Apr 07 01:42	5°  845'52	
inferior conj	14016 Jun 15 09:10	5°  ☿32'11	3°08'15		14017 Apr 23 00:35	0°  II	
minimum elong	14016 Jun 15 08:26	5°  ☿34'45	3°07'07	evening max el	14017 May 10 12:37	22°  II15'13	22°43'40
min. Earth dist.	14016 Jun 15 15:23	5°  ☿10'30	0.68812 AU	asc. node	14017 May 18 23:16	27°  II58'30	
	14016 Jun 19 18:30	30°  R $\approx$ II		retrograde	14017 May 20 13:35	28°  II10'03	
morning rise	14016 Jun 20 13:24	29°  II15'20		evening set	14017 May 25 11:27	26°  II06'16	
direct	14016 Jun 25 14:54	27°  II03'51		inferior conj	14017 May 30 18:54	19°  II43'03	2°54'29
	14016 Jul 02 08:24	0°  ☿		minimum elong	14017 May 30 17:22	19°  II48'23	2°53'13
desc. node	14016 Jul 04 02:07	1°  ☿28'30		min. Earth dist.	14017 May 30 12:11	20°  II06'25	0.68969 AU
morning max el	14016 Jul 05 17:43	3°  ☿03'29	22°54'03	morning rise	14017 Jun 04 23:11	13°  II32'51	
	14016 Jul 26 06:51	0°  Ω		direct	14017 Jun 09 11:55	11°  II40'37	
morning set	14016 Aug 08 22:14	21°  Ω21'41		morning max el	14017 Jun 18 08:31	16°  II48'45	21°28'12
max. Earth dist.	14016 Aug 13 09:56	28°  Ω53'34	1.40202 AU	desc. node	14017 Jun 20 23:15	19°  II36'55	
	14016 Aug 14 01:27	0°  ♍			14017 Jun 29 02:54	0°  ☿	
					14017 Jul 19 07:59	0°  Ω	
superior conj	14016 Aug 21 05:29	12°  ♍41'34	-0°59'35	morning set	14017 Jul 19 23:31	1°  Ω01'11	
minimum elong	14016 Aug 21 09:58	13°  ♍02'02	0°59'16	max. Earth dist.	14017 Jul 26 13:30	11°  Ω36'39	1.42408 AU
asc. node	14016 Aug 28 02:46	25°  ♍32'43					
	14016 Aug 30 10:53	0°  ♌		superior conj	14017 Aug 03 00:36	24°  Ω09'38	-1°33'34
evening rise	14016 Aug 30 23:52	1°  ♌01'50		minimum elong	14017 Aug 03 07:33	24°  Ω39'36	1°33'27
evening max el	14016 Sep 15 23:10	26°  ♌48'23	18°29'14		14017 Aug 06 09:01	0°  ♍	
	14016 Sep 20 08:25	0°  ♍		evening rise	14017 Aug 14 05:44	14°  ♍07'00	
retrograde	14016 Sep 23 19:01	0°  ♍45'56		asc. node	14017 Aug 14 23:22	15°  ♍27'01	
evening set	14016 Sep 25 18:46	0°  ♍31'20			14017 Aug 23 06:32	0°  ♌	
	14016 Sep 27 08:54	30°  R $\approx$ ♌		evening max el	14017 Aug 30 09:31	9°  ♌36'46	18°06'42
desc. node	14016 Sep 29 22:34	28°  ♌38'20		retrograde	14017 Sep 06 07:25	13°  ♌08'52	
inferior conj	14016 Oct 03 13:57	25°  ♌59'37	-1°09'25	evening set	14017 Sep 08 14:14	12°  ♌46'03	
minimum elong	14016 Oct 03 11:14	26°  ♌04'58	1°07'58	inferior conj	14017 Sep 15 15:21	7°  ♌53'52	0°22'08
min. Earth dist.	14016 Oct 06 19:34	23°  ♌28'21	0.57780 AU	minimum elong	14017 Sep 15 16:05	7°  ♌52'14	0°21'54
morning rise	14016 Oct 11 00:12	20°  ♌46'36		desc. node	14017 Sep 16 20:06	6°  ♌47'54	
direct	14016 Oct 17 03:13	19°  ♌11'00		min. Earth dist.	14017 Sep 18 21:10	4°  ♌57'39	0.59998 AU
morning max el	14016 Oct 31 10:31	26°  ♌44'16	27°02'20	morning rise	14017 Sep 22 14:40	2°  ♌08'42	
	14016 Nov 03 13:29	0°  ♍		direct	14017 Sep 29 03:34	0°  ♌06'15	
	14016 Nov 23 08:24	0°  ♌		morning max el	14017 Oct 13 10:50	7°  ♌57'28	27°49'13
asc. node	14016 Nov 24 04:29	1°  ♌35'51			14017 Oct 30 05:43	0°  ♍	
morning set	14016 Nov 30 13:17	14°  ♌33'24		asc. node	14017 Nov 11 01:19	21°  ♍12'01	
				morning set	14017 Nov 14 18:39	28°  ♍48'48	
					14017 Nov 15 08:09	0°  ♌	
superior conj	14016 Dec 07 09:39	29°  ♌38'30	1°35'10	max. Earth dist.	14017 Nov 20 22:06	12°  ♌09'25	1.31215 AU
minimum elong	14016 Dec 07 08:38	29°  ♌32'49	1°36'11				
max. Earth dist.	14016 Dec 07 14:14	0°  ♌04'08	1.31213 AU				
	14016 Dec 07 13:30	0°  ♌		superior conj	14017 Nov 21 20:58	14°  ♌16'48	1°26'27
evening rise	14016 Dec 14 05:14	14°  ♌37'33		minimum elong	14017 Nov 21 19:09	14°  ♌06'39	1°27'15
	14016 Dec 21 21:18	0° $\approx$		evening rise	14017 Nov 28 13:41	29°  ♌04'51	
desc. node	14016 Dec 26 20:17	8° $\approx$ 47'57			14017 Nov 28 23:57	0°  ♌	
	14017 Jan 11 03:19	0°  X		desc. node	14017 Dec 13 17:15	27°  ♌32'07	
evening max el	14017 Jan 13 16:32	2°  X34'35	26°59'53		14017 Dec 15 08:03	0° $\approx$	
retrograde	14017 Jan 27 15:56	9°  X47'53		evening max el	14017 Dec 26 13:02	13° $\approx$ 45'29	25°54'32




































































































































retrograde	14018 Jan 09 11:24	20°  48'13		retrograde	14018 Dec 21 17:59	0°  57'45	
evening set	14018 Jan 15 15:02	19°  19'32		evening set	14018 Dec 26 21:51	29°  59'21	
min. Earth dist.	14018 Jan 20 02:00	16°  42'10	0.57678 AU		14018 Dec 26 21:08	30°  R 	
inferior conj	14018 Jan 23 01:55	14°  35'34	-4°27'02	min. Earth dist.	14019 Jan 01 13:26	27°  30'40	0.55902 AU
minimum elong	14018 Jan 23 10:48	14°  19'53	4°23'38	inferior conj	14019 Jan 03 19:27	25°  34'22	-5°33'20
morning rise	14018 Jan 31 09:27	10°  14'22		minimum elong	14019 Jan 04 02:28	25°  33'32	5°31'15
direct	14018 Feb 02 10:51	10°  00'55		morning rise	14019 Jan 12 09:02	21°  34'22	
asc. node	14018 Feb 07 00:02	11°  10'44		direct	14019 Jan 14 18:55	21°  32'59	
morning max el	14018 Feb 11 02:16	14°  14'39	18°44'43	asc. node	14019 Jan 24 21:23	26°  32'04	
	14018 Feb 21 21:11	0°  H		morning max el	14019 Jan 24 21:00	26°  31'53	19°45'50
morning set	14018 Feb 27 06:34	10°  H14'47			14019 Jan 28 03:53	0°  R	
				morning set	14019 Feb 11 10:39	24°  47'08	
					14019 Feb 14 00:18	0°  H	
superior conj	14018 Mar 07 23:59	27°  H05'12	0°30'26				
minimum elong	14018 Mar 08 01:55	27°  H14'17	0°30'16	superior conj	14019 Feb 19 07:54	10°  H41'51	0°57'19
	14018 Mar 09 13:25	0°  Y		minimum elong	14019 Feb 19 10:36	10°  H55'10	0°57'21
desc. node	14018 Mar 11 18:37	4°  Y04'06		max. Earth dist.	14019 Feb 25 11:49	22°  H31'45	1.37428 AU
max. Earth dist.	14018 Mar 15 05:23	10°  Y13'34	1.39688 AU	desc. node	14019 Feb 26 15:08	24°  H37'45	
evening rise	14018 Mar 19 05:10	17°  Y05'32		evening rise	14019 Mar 01 05:03	29°  H17'16	
	14018 Mar 27 03:55	0°  B			14019 Mar 01 14:41	0°  Y	
	14018 Apr 17 13:30	0°  II			14019 Mar 20 11:18	0°  B	
evening max el	14018 Apr 23 02:50	6°  II07'44	24°04'51	evening max el	14019 Apr 05 16:27	20°  B01'36	25°21'44
retrograde	14018 May 04 07:29	12°  II41'53		retrograde	14019 Apr 17 21:03	27°  B04'58	
asc. node	14018 May 05 20:33	12°  II31'17		asc. node	14019 Apr 22 17:53	25°  B25'11	
evening set	14018 May 09 16:53	10°  II25'12		evening set	14019 Apr 23 17:58	24°  B38'35	
min. Earth dist.	14018 May 14 08:32	5°  II01'45	0.68660 AU	min. Earth dist.	14019 Apr 28 02:14	19°  B51'14	0.67898 AU
inferior conj	14018 May 15 03:52	3°  II56'08	2°30'27	inferior conj	14019 Apr 29 10:07	18°  B07'58	1°56'02
minimum elong	14018 May 15 01:49	4°  II03'05	2°29'05	minimum elong	14019 Apr 29 07:59	18°  B14'53	1°54'41
	14018 May 18 05:58	30°  R  B			14019 May 04 22:25	12°  B15'01	
morning rise	14018 May 20 10:49	27°  B53'54		morning rise	14019 May 08 11:16	11°  B03'13	
direct	14018 May 24 11:14	26°  B22'07		direct	14019 May 15 10:09	14°  B50'51	19°11'06
	14018 May 31 10:59	0°  II		morning max el	14019 May 25 17:09	28°  B00'36	
morning max el	14018 Jun 01 05:34	0°  II44'25	20°12'30	desc. node	14019 May 27 01:44	0°  II	
desc. node	14018 Jun 07 20:16	8°  II31'40			14019 May 28 07:44	1°  II51'15	-0.7m
	14018 Jun 22 18:08	0°  B		greatest brilliancy	14019 Jun 08 09:07	18°  II42'22	
morning set	14018 Jun 29 05:16	9°  B51'16		morning set	14019 Jun 15 16:13	0°  B	
max. Earth dist.	14018 Jul 08 23:38	25°  B09'12	1.44205 AU	max. Earth dist.	14019 Jun 21 15:50	9°  B20'38	1.45402 AU
	14018 Jul 12 00:04	0°  O					
superior conj	14018 Jul 14 20:23	4°  O37'58	-2°00'34	superior conj	14019 Jun 24 17:49	14°  B11'55	-2°13'24
minimum elong	14018 Jul 15 03:05	5°  O05'25	2°01'03	minimum elong	14019 Jun 24 19:12	14°  B17'26	2°14'25
evening rise	14018 Jul 27 18:27	26°  O25'42			14019 Jul 04 14:37	0°  O	
	14018 Jul 29 20:07	0°  np		evening rise	14019 Jul 09 08:59	7°  O46'50	
asc. node	14018 Aug 01 20:01	5°  np08'30		asc. node	14019 Jul 19 16:44	24°  O32'01	
evening max el	14018 Aug 13 23:36	22°  np52'18	18°03'29		14019 Jul 23 08:23	0°  np	
retrograde	14018 Aug 20 10:06	26°  np13'01		evening max el	14019 Jul 28 13:51	6°  np25'54	18°18'31
evening set	14018 Aug 23 01:13	25°  np38'24		retrograde	14019 Aug 03 02:47	9°  np49'16	
inferior conj	14018 Aug 29 10:45	20°  np27'24	1°32'01	evening set	14019 Aug 06 22:32	9°  np00'12	
minimum elong	14018 Aug 29 13:00	20°  np21'32	1°31'00	inferior conj	14019 Aug 12 20:05	3°  np32'22	2°20'58
min. Earth dist.	14018 Sep 01 08:06	17°  np28'08	0.62290 AU	minimum elong	14019 Aug 12 22:29	3°  np25'25	2°19'48
desc. node	14018 Sep 03 17:39	15°  np15'54		min. Earth dist.	14019 Aug 15 04:32	0°  np49'31	0.64412 AU
morning rise	14018 Sep 04 22:26	14°  np20'15			14019 Aug 15 22:32	30°  R  O	
direct	14018 Sep 11 14:50	11°  np56'26		morning rise	14019 Aug 18 20:59	27°  O12'49	
morning max el	14018 Sep 25 17:15	19°  np56'31	27°57'00	desc. node	14019 Aug 21 15:09	25°  O28'13	
	14018 Oct 04 08:08	0°  A		direct	14019 Aug 25 10:48	24°  O36'28	
	14018 Oct 23 05:20	0°  ml			14019 Sep 05 09:38	0°  np	
asc. node	14018 Oct 28 22:04	11°  ml02'54		morning max el	14019 Sep 08 03:19	2°  np34'40	27°28'40
morning set	14018 Oct 29 17:55	12°  ml43'50			14019 Sep 28 15:48	0°  A	
max. Earth dist.	14018 Nov 04 02:17	24°  ml01'31	1.31760 AU	morning set	14019 Oct 13 08:37	26°  A12'51	
					14019 Oct 15 06:10	0°  ml	
superior conj	14018 Nov 06 06:15	28°  ml45'32	1°11'57	asc. node	14019 Oct 15 18:43	1°  ml03'37	
minimum elong	14018 Nov 06 04:00	28°  ml33'07	1°12'27	max. Earth dist.	14019 Oct 17 23:22	5°  ml34'23	1.32851 AU
	14018 Nov 06 19:47	0°  A					
evening rise	14018 Nov 13 00:20	13°  A35'51		superior conj	14019 Oct 21 11:27	12°  ml59'18	0°51'42
	14018 Nov 21 02:45	0°  B		minimum elong	14019 Oct 21 09:17	12°  ml47'42	0°51'57
desc. node	14018 Nov 30 14:20	15°  B23'30		evening rise	14019 Oct 28 11:21	28°  ml06'02	
evening max el	14018 Dec 08 01:46	24°  B08'58	24°22'49		14019 Oct 29 08:46	0°  A	
	14018 Dec 16 17:01	0°  B			14019 Nov 15 17:24	0°  B	

desc. node	14019 Nov 17 11:31	2°30'25.4"		evening max el	14020 Oct 31 04:37	14°22'19"	21°04'34"
evening max el	14019 Nov 19 11:45	4°30'8.30"	22°40'13"	desc. node	14020 Nov 03 08:47	17°27'06.02"	
retrograde	14019 Dec 02 11:32	10°33'50.6"		retrograde	14020 Nov 11 22:26	20°27'12.22"	
evening set	14019 Dec 06 07:23	10°33'03.08"		evening set	14020 Nov 14 12:23	19°27'56.38"	
min. Earth dist.	14019 Dec 13 20:02	6°33'38.20"	0.54769 AU	inferior conj	14020 Nov 23 10:06	16°27'03.24"	-5°23'48"
inferior conj	14019 Dec 14 18:48	6°30'06.07"	-5°58'11"	minimum elong	14020 Nov 23 01:30	16°27'15.35"	5°21'10"
minimum elong	14019 Dec 14 18:07	6°30'07.05"	5°57'07"	min. Earth dist.	14020 Nov 24 01:51	15°27'41.06"	0.54500 AU
morning rise	14019 Dec 23 06:09	2°31'18.15"		morning rise	14020 Dec 01 15:03	12°27'11.53"	
direct	14019 Dec 26 09:51	1°35'55.29"		direct	14020 Dec 05 17:14	11°27'35.58"	
morning max el	14020 Jan 07 01:15	7°32'29.52"	21°10'00"	morning max el	14020 Dec 18 16:38	17°27'51.57"	22°52'46"
asc. node	14020 Jan 11 18:40	12°35'15.54"			14020 Dec 28 08:57	0°30'00.00"	
	14020 Jan 22 02:57	0°00'00.00"		asc. node	14020 Dec 28 15:51	0°30'26.55"	
morning set	14020 Jan 26 19:27	9°00'29.19"		morning set	14021 Jan 10 06:45	24°30'15.05"	
					14021 Jan 12 23:04	0°00'00.00"	
superior conj	14020 Feb 03 02:52	24°00'47.17"	1°17'13"	superior conj	14021 Jan 17 05:36	9°00'12.41"	1°30'20"
minimum elong	14020 Feb 03 05:20	25°00'00.03"	1°17'38"	minimum elong	14021 Jan 17 07:17	9°00'21.41"	1°31'06"
	14020 Feb 05 16:03	0°00'00.00"		max. Earth dist.	14021 Jan 20 14:19	16°00'18.58"	1.33576 AU
max. Earth dist.	14020 Feb 07 21:40	4°00'27.28"	1.35331 AU	evening rise	14021 Jan 25 04:57	25°00'38.41"	
evening rise	14020 Feb 11 22:08	12°00'11.06"			14021 Jan 27 11:01	0°00'00.00"	
desc. node	14020 Feb 13 11:40	15°00'05.12"		desc. node	14021 Jan 30 08:17	5°00'22.31"	
	14020 Feb 22 02:01	0°00'00.00"			14021 Feb 14 12:22	0°00'00.00"	
	14020 Mar 14 14:17	0°00'00.00"		evening max el	14021 Feb 28 19:36	17°00'24.19"	27°13'23"
evening max el	14020 Mar 18 06:11	3°00'50.07"	26°27'03"	retrograde	14021 Mar 14 07:45	24°00'52.49"	
retrograde	14020 Mar 31 05:24	11°00'11.19"		evening set	14021 Mar 20 23:44	22°00'21.29"	
evening set	14020 Apr 06 12:54	8°00'39.33"		min. Earth dist.	14021 Mar 24 21:04	18°00'41.58"	0.65112 AU
asc. node	14020 Apr 08 15:17	6°00'41.45"		asc. node	14021 Mar 26 12:43	16°00'52.25"	
min. Earth dist.	14020 Apr 10 15:04	4°00'27.16"	0.66703 AU	inferior conj	14021 Mar 27 05:46	16°00'04.46"	0°13'34"
inferior conj	14020 Apr 12 11:33	2°00'12.40"	1°10'37"	minimum elong	14021 Mar 27 05:24	16°00'05.50"	0°13'13"
minimum elong	14020 Apr 12 09:54	2°00'17.39"	1°09'34"	transit middle	14021 Mar 27 05:24	16°00'05.50"	0°13'13"
	14020 Apr 14 08:38	30°00'00.00"		transit begin	14021 Mar 27 03:41	16°00'10.35"	
morning rise	14020 Apr 18 07:53	26°00'30.46"		transit end	14021 Mar 27 07:06	16°00'01.05"	
direct	14020 Apr 21 10:07	25°00'37.04"		morning rise	14021 Apr 02 12:48	10°00'35.54"	
morning max el	14020 Apr 27 21:29	29°00'03.11"	18°25'51"	direct	14021 Apr 05 05:31	9°00'57.27"	
	14020 Apr 28 19:47	0°00'00.00"		morning max el	14021 Apr 11 13:27	13°00'14.40"	17°57'27"
desc. node	14020 May 11 13:55	17°00'53.52"			14021 Apr 23 12:20	0°00'00.00"	
morning set	14020 May 18 07:30	28°00'30.36"		desc. node	14021 Apr 28 10:36	8°00'04.43"	
	14020 May 19 06:07	0°00'00.00"		morning set	14021 Apr 29 09:45	9°00'40.04"	
					14021 May 11 22:31	0°00'00.00"	
superior conj	14020 Jun 03 02:24	23°00'17.54"	-2°06'36"	superior conj	14021 May 13 15:22	2°00'42.07"	-1°41'08"
minimum elong	14020 Jun 02 20:13	22°00'53.45"	2°07'20"	minimum elong	14021 May 13 06:20	2°00'06.20"	1°41'08"
max. Earth dist.	14020 Jun 03 11:34	23°00'53.39"	1.45876 AU	max. Earth dist.	14021 May 17 07:39	8°00'29.52"	1.45596 AU
	14020 Jun 07 09:28	0°00'00.00"		evening rise	14021 May 29 16:28	27°00'40.04"	
evening rise	14020 Jun 18 22:47	18°00'06.27"			14021 May 31 04:57	0°00'00.00"	
	14020 Jun 26 12:33	0°00'00.00"		greatest brilliancy	14021 Jun 12 15:07	18°00'44.58"	-0.6m
greatest brilliancy	14020 Jun 28 04:58	2°00'36.57"	-0.8m		14021 Jun 20 19:33	0°00'00.00"	
asc. node	14020 Jul 05 13:31	13°00'30.32"		asc. node	14021 Jun 22 10:23	1°00'55.29"	
evening max el	14020 Jul 11 01:20	20°00'09.34"	18°51'05"	evening max el	14021 Jun 24 07:56	3°00'57.44"	19°40'05"
retrograde	14020 Jul 17 17:41	23°00'49.01"		retrograde	14021 Jul 01 15:47	8°00'05.36"	
evening set	14020 Jul 21 02:22	22°00'43.54"		evening set	14021 Jul 05 09:57	6°00'43.37"	
inferior conj	14020 Jul 26 15:35	17°00'01.07"	2°51'58"	inferior conj	14021 Jul 10 18:07	0°00'47.29"	3°08'00"
minimum elong	14020 Jul 26 17:21	16°00'55.31"	2°50'52"	minimum elong	14021 Jul 10 18:56	0°00'44.45"	3°06'59"
min. Earth dist.	14020 Jul 28 09:40	14°00'48.50"	0.66201 AU		14021 Jul 11 08:19	30°00'00.00"	
morning rise	14020 Aug 01 07:32	10°00'36.35"		min. Earth dist.	14021 Jul 11 21:53	29°00'14.51"	0.67577 AU
direct	14020 Aug 07 14:12	7°00'57.10"		morning rise	14021 Jul 16 03:29	24°00'23.19"	
desc. node	14020 Aug 07 12:36	7°00'57.11"		direct	14021 Jul 22 00:03	21°00'49.22"	
morning max el	14020 Aug 20 14:40	15°00'40.50"	26°31'13"	desc. node	14021 Jul 25 10:00	22°00'33.06"	
	14020 Sep 01 09:56	0°00'00.00"		morning max el	14021 Aug 03 01:30	29°00'03.11"	25°13'32"
	14020 Sep 20 11:31	0°00'00.00"			14021 Aug 03 23:30	0°00'00.00"	
morning set	14020 Sep 25 11:40	9°00'08.44"		morning set	14021 Aug 26 04:53	0°00'00.00"	
max. Earth dist.	14020 Sep 29 10:54	16°00'48.01"	1.34460 AU	max. Earth dist.	14021 Sep 07 23:09	21°00'21.29"	
asc. node	14020 Oct 01 15:19	21°00'09.50"			14021 Sep 11 13:03	27°00'53.20"	1.36515 AU
					14021 Sep 12 16:07	0°00'00.00"	
superior conj	14020 Oct 04 10:10	26°00'51.58"	0°25'56"	superior conj	14021 Sep 17 23:27	10°00'15.33"	-0°04'49"
minimum elong	14020 Oct 04 08:48	26°00'44.54"	0°26'03"	minimum elong	14021 Sep 17 23:45	10°00'17.01"	0°04'40"
	14020 Oct 05 22:17	0°00'00.00"					
evening rise	14020 Oct 11 20:48	12°00'00.00"					
	14020 Oct 20 19:33	0°00'00.00"					

behind sun begin	14021 Sep 17 17:35	9° $\Omega$ 46'28		superior conj	14022 Aug 31 23:48	23° $\Pi$ 02'21	-0°39'07
behind sun end	14021 Sep 18 05:56	10° $\Omega$ 47'39		minimum elong	14022 Sep 01 02:37	23° $\Pi$ 15'33	0°38'51
asc. node	14021 Sep 18 11:52	11° $\Omega$ 17'08			14022 Sep 04 15:23	0° $\Omega$	
evening rise	14021 Sep 26 02:27	26° $\Omega$ 42'14		asc. node	14022 Sep 05 08:25	1° $\Omega$ 22'26	
	14021 Sep 27 17:35	0° $\Pi$		evening rise	14022 Sep 10 01:41	10° $\Omega$ 35'24	
evening max el	14021 Oct 13 11:08	25° $\Pi$ 18'14	19°47'07		14022 Sep 20 18:58	0° $\Pi$	
	14021 Oct 20 21:09	0° $\mathcal{A}$		evening max el	14022 Sep 26 07:26	7° $\Pi$ 03'43	18°51'25
desc. node	14021 Oct 21 06:10	0° $\mathcal{A}$ 05'29		retrograde	14022 Oct 04 20:36	11° $\Pi$ 21'29	
retrograde	14021 Oct 23 13:52	0° $\mathcal{A}$ 20'57		evening set	14022 Oct 06 17:50	11° $\Pi$ 09'46	
evening set	14021 Oct 25 12:22	0° $\mathcal{A}$ 10'41		desc. node	14022 Oct 08 03:36	10° $\Pi$ 46'34	
	14021 Oct 26 08:44	30° $\mathcal{R}\Pi$		inferior conj	14022 Oct 14 23:26	6° $\Pi$ 50'24	-2°10'00
inferior conj	14021 Nov 03 07:51	26° $\Pi$ 09'04	-3°57'50	minimum elong	14022 Oct 14 18:00	7° $\Pi$ 00'07	2°07'20
minimum elong	14021 Nov 02 22:16	26° $\Pi$ 23'54	3°53'54	min. Earth dist.	14022 Oct 17 23:36	4° $\Pi$ 41'58	0.56666 AU
min. Earth dist.	14021 Nov 05 10:18	24° $\Pi$ 50'59	0.55171 AU	morning rise	14022 Oct 22 15:00	1° $\Pi$ 58'57	
morning rise	14021 Nov 11 06:33	21° $\Pi$ 53'24		direct	14022 Oct 28 09:56	0° $\Pi$ 38'38	
direct	14021 Nov 16 06:44	20° $\Pi$ 58'03		morning max el	14022 Nov 11 14:36	7° $\Pi$ 58'40	26°18'40
morning max el	14021 Nov 30 02:17	27° $\Pi$ 50'10	24°41'46		14022 Nov 28 00:50	0° $\mathcal{A}$	
	14021 Dec 02 05:44	0° $\mathcal{A}$		asc. node	14022 Dec 02 09:57	7° $\mathcal{A}$ 48'26	
asc. node	14021 Dec 15 12:57	18° $\mathcal{A}$ 49'46		morning set	14022 Dec 10 05:24	23° $\mathcal{A}$ 34'28	
	14021 Dec 21 11:19	0° $\mathcal{B}$			14022 Dec 13 04:07	0° $\mathcal{B}$	
morning set	14021 Dec 25 18:38	8° $\mathcal{B}$ 58'20					
				superior conj	14022 Dec 17 00:07	8° $\mathcal{B}$ 31'31	1°37'33
superior conj	14022 Jan 01 13:25	23° $\mathcal{B}$ 49'34	1°37'01	minimum elong	14022 Dec 16 23:40	8° $\mathcal{B}$ 29'02	1°38'36
minimum elong	14022 Jan 01 14:03	23° $\mathcal{B}$ 53'02	1°38'00	max. Earth dist.	14022 Dec 17 20:14	10° $\mathcal{B}$ 23'26	1.31454 AU
max. Earth dist.	14022 Jan 03 14:23	28° $\mathcal{B}$ 16'50	1.32267 AU	evening rise	14022 Dec 23 23:14	23° $\mathcal{B}$ 42'23	
	14022 Jan 04 09:29	0° $\approx$			14022 Dec 27 00:40	0° $\approx$	
evening rise	14022 Jan 08 22:14	9° $\approx$ 31'21		desc. node	14023 Jan 04 01:44	15° $\approx$ 02'50	
desc. node	14022 Jan 17 04:58	25° $\approx$ 23'55			14023 Jan 13 14:55	0° $\mathcal{H}$	
	14022 Jan 19 20:04	0° $\mathcal{H}$		evening max el	14023 Jan 24 15:28	13° $\mathcal{H}$ 04'16	27°22'20
	14022 Feb 10 17:45	0° $\mathcal{Y}$		retrograde	14023 Feb 07 14:39	20° $\mathcal{H}$ 22'55	
evening max el	14022 Feb 11 07:24	0° $\mathcal{Y}$ 33'03	27°33'48	evening set	14023 Feb 14 10:54	18° $\mathcal{H}$ 15'13	
retrograde	14022 Feb 25 03:20	7° $\mathcal{Y}$ 59'53		min. Earth dist.	14023 Feb 18 05:55	15° $\mathcal{H}$ 26'20	0.61057 AU
evening set	14022 Mar 04 00:03	5° $\mathcal{Y}$ 36'22		inferior conj	14023 Feb 21 08:48	12° $\mathcal{H}$ 41'43	-2°14'48
min. Earth dist.	14022 Mar 07 18:28	2° $\mathcal{Y}$ 25'30	0.63191 AU	minimum elong	14023 Feb 21 13:38	12° $\mathcal{H}$ 31'03	2°12'29
	14022 Mar 10 04:56	30° $\mathcal{R}\mathcal{H}$		asc. node	14023 Feb 28 07:42	7° $\mathcal{H}$ 56'00	
inferior conj	14022 Mar 10 13:58	29° $\mathcal{H}$ 37'20	-0°55'21	morning rise	14023 Feb 28 19:28	7° $\mathcal{H}$ 46'30	
minimum elong	14022 Mar 10 15:47	29° $\mathcal{H}$ 32'48	0°54'30	direct	14023 Mar 02 22:18	7° $\mathcal{H}$ 27'43	
asc. node	14022 Mar 13 10:12	26° $\mathcal{H}$ 56'16		morning max el	14023 Mar 09 23:28	11° $\mathcal{H}$ 00'23	17°53'26
morning rise	14022 Mar 17 10:03	24° $\mathcal{H}$ 23'55			14023 Mar 22 14:35	0° $\mathcal{Y}$	
direct	14022 Mar 19 18:45	23° $\mathcal{H}$ 57'09		morning set	14023 Mar 25 14:14	5° $\mathcal{Y}$ 23'23	
morning max el	14022 Mar 26 07:13	27° $\mathcal{H}$ 16'53	17°46'25	desc. node	14023 Apr 02 03:46	18° $\mathcal{Y}$ 58'40	
	14022 Mar 28 17:45	0° $\mathcal{Y}$					
morning set	14022 Apr 11 14:01	22° $\mathcal{Y}$ 03'53		superior conj	14023 Apr 05 06:55	24° $\mathcal{Y}$ 26'38	-0°24'44
desc. node	14022 Apr 15 07:13	28° $\mathcal{Y}$ 27'54		minimum elong	14023 Apr 05 04:41	24° $\mathcal{Y}$ 16'59	0°24'42
	14022 Apr 16 04:45	0° $\mathcal{B}$			14023 Apr 08 13:01	0° $\mathcal{B}$	
				max. Earth dist.	14023 Apr 12 16:10	6° $\mathcal{B}$ 52'09	1.43005 AU
superior conj	14022 Apr 23 23:10	13° $\mathcal{B}$ 01'17	-1°04'22	evening rise	14023 Apr 18 23:48	17° $\mathcal{B}$ 00'35	
minimum elong	14022 Apr 23 16:47	12° $\mathcal{B}$ 35'02	1°04'07		14023 Apr 27 11:03	0° $\Pi$	
max. Earth dist.	14022 Apr 30 01:39	22° $\mathcal{B}$ 53'42	1.44602 AU		14023 May 19 14:37	0° $\mathcal{E}$	
	14022 May 04 13:45	0° $\Pi$		evening max el	14023 May 21 04:13	1° $\mathcal{E}$ 38'13	21°57'56
evening rise	14022 May 09 03:32	7° $\Pi$ 05'02		asc. node	14023 May 27 04:31	6° $\mathcal{E}$ 16'42	
	14022 May 24 12:15	0° $\mathcal{E}$		retrograde	14023 May 30 12:48	7° $\mathcal{E}$ 07'20	
evening max el	14022 Jun 07 08:47	17° $\mathcal{E}$ 47'47	20°43'30	evening set	14023 Jun 04 04:08	5° $\mathcal{E}$ 12'15	
asc. node	14022 Jun 09 07:23	19° $\mathcal{E}$ 35'53			14023 Jun 08 15:31	30° $\mathcal{R}\Pi$	
retrograde	14022 Jun 15 14:46	22° $\mathcal{E}$ 33'40		inferior conj	14023 Jun 09 10:27	28° $\Pi$ 54'09	3°03'39
evening set	14022 Jun 19 19:08	20° $\mathcal{E}$ 54'49		minimum elong	14023 Jun 09 09:21	28° $\Pi$ 57'59	3°02'29
inferior conj	14022 Jun 25 01:09	14° $\mathcal{E}$ 46'51	3°11'24	min. Earth dist.	14023 Jun 09 11:11	28° $\Pi$ 51'34	0.68936 AU
minimum elong	14022 Jun 25 00:57	14° $\mathcal{E}$ 47'30	3°10'21	morning rise	14023 Jun 14 14:22	22° $\Pi$ 39'56	
min. Earth dist.	14022 Jun 25 15:08	13° $\mathcal{E}$ 58'31	0.68495 AU	direct	14023 Jun 19 10:33	20° $\Pi$ 36'06	
morning rise	14022 Jun 30 06:29	8° $\mathcal{E}$ 26'32		morning max el	14023 Jun 29 00:03	26° $\Pi$ 13'23	22°16'39
direct	14022 Jul 05 15:15	6° $\mathcal{E}$ 05'09		desc. node	14023 Jun 29 04:31	26° $\Pi$ 24'40	
desc. node	14022 Jul 12 07:18	8° $\mathcal{E}$ 50'56			14023 Jul 02 11:10	0° $\mathcal{E}$	
morning max el	14022 Jul 16 11:54	12° $\mathcal{E}$ 34'37	23°45'35		14023 Jul 24 00:34	0° $\mathcal{O}$	
	14022 Jul 30 12:21	0° $\mathcal{O}$		morning set	14023 Aug 01 06:05	12° $\mathcal{O}$ 56'16	
	14022 Aug 19 00:30	0° $\Pi$		max. Earth dist.	14023 Aug 06 11:09	21° $\mathcal{O}$ 31'00	1.41181 AU
morning set	14022 Aug 20 14:39	2° $\Pi$ 40'47			14023 Aug 11 10:17	0° $\Pi$	
max. Earth dist.	14022 Aug 24 10:48	9° $\Pi$ 18'42	1.38843 AU				

superior conj	14023 Aug 14 06:52	5° $\cap$ 01'54	-1°14'25	superior conj	14024 Jul 25 16:18	16° $\Omega$ 04'34	-1°46'17
minimum elong	14023 Aug 14 12:33	5° $\cap$ 27'11	1°14'09	minimum elong	14024 Jul 25 23:39	16° $\Omega$ 35'34	1°46'22
asc. node	14023 Aug 23 04:59	21° $\cap$ 21'39			14024 Aug 02 18:08	0° $\cap$	
evening rise	14023 Aug 24 15:04	24° $\cap$ 00'48		evening rise	14024 Aug 06 14:15	6° $\cap$ 47'37	
	14023 Aug 27 20:23	0° $\underline{\Omega}$		asc. node	14024 Aug 09 01:35	11° $\cap$ 10'52	
evening max el	14023 Sep 09 13:53	19° $\underline{\Omega}$ 31'52	18°17'10		14024 Aug 20 19:50	0° $\underline{\Omega}$	
retrograde	14023 Sep 16 22:47	23° $\underline{\Omega}$ 16'28		evening max el	14024 Aug 23 02:14	2° $\underline{\Omega}$ 32'34	18°02'59
evening set	14023 Sep 19 01:29	22° $\underline{\Omega}$ 58'42		retrograde	14024 Aug 29 18:00	5° $\underline{\Omega}$ 58'14	
desc. node	14023 Sep 25 01:06	19° $\underline{\Omega}$ 31'15		evening set	14024 Sep 01 04:18	5° $\underline{\Omega}$ 30'44	
inferior conj	14023 Sep 26 12:48	18° $\underline{\Omega}$ 18'02	-0°28'07	inferior conj	14024 Sep 07 22:21	0° $\underline{\Omega}$ 29'53	0°54'28
minimum elong	14023 Sep 26 11:47	18° $\underline{\Omega}$ 20'11	0°27'28	minimum elong	14024 Sep 07 23:56	0° $\underline{\Omega}$ 26'03	0°53'48
min. Earth dist.	14023 Sep 29 19:51	15° $\underline{\Omega}$ 33'46	0.58706 AU		14024 Sep 08 10:39	30° $\mathbb{R}$ $\cap$	
morning rise	14023 Oct 03 18:39	12° $\underline{\Omega}$ 50'38		desc. node	14024 Sep 10 22:39	27° $\cap$ 35'52	
direct	14023 Oct 10 02:52	11° $\underline{\Omega}$ 03'17		min. Earth dist.	14024 Sep 11 01:10	27° $\cap$ 30'04	0.60980 AU
morning max el	14023 Oct 24 10:17	18° $\underline{\Omega}$ 44'12	27°26'56	morning rise	14024 Sep 14 16:42	24° $\cap$ 34'05	
	14023 Nov 02 22:34	0° $\mathbb{L}$		direct	14024 Sep 21 07:44	22° $\cap$ 22'01	
asc. node	14023 Nov 19 06:52	27° $\mathbb{L}$ 13'20			14024 Oct 05 06:26	0° $\underline{\Omega}$	
	14023 Nov 20 16:33	0° $\mathbb{X}$		morning max el	14024 Oct 05 13:35	0° $\underline{\Omega}$ 17'33	27°57'21
morning set	14023 Nov 24 13:19	7° $\mathbb{X}$ 59'04			14024 Oct 27 01:25	0° $\mathbb{L}$	
				asc. node	14024 Nov 05 03:38	16° $\mathbb{L}$ 56'30	
superior conj	14023 Dec 01 11:46	23° $\mathbb{X}$ 12'56	1°32'11	morning set	14024 Nov 07 16:21	22° $\mathbb{L}$ 06'35	
minimum elong	14023 Dec 01 10:22	23° $\mathbb{X}$ 05'09	1°33'07		14024 Nov 11 09:22	0° $\mathbb{X}$	
max. Earth dist.	14023 Dec 01 04:37	22° $\mathbb{X}$ 32'59	1.31154 AU	max. Earth dist.	14024 Nov 13 11:37	4° $\mathbb{X}$ 35'00	1.31384 AU
	14023 Dec 04 12:43	0° $\mathbb{Z}$					
evening rise	14023 Dec 08 05:36	8° $\mathbb{Z}$ 05'48		superior conj	14024 Nov 14 22:25	7° $\mathbb{X}$ 47'41	1°21'01
	14023 Dec 19 11:09	0° $\approx$		minimum elong	14024 Nov 14 20:22	7° $\mathbb{X}$ 36'15	1°21'41
desc. node	14023 Dec 21 22:37	4° $\approx$ 10'36		evening rise	14024 Nov 21 15:14	22° $\mathbb{X}$ 35'23	
evening max el	14024 Jan 06 16:59	24° $\approx$ 46'56	26°36'03		14024 Nov 25 03:32	0° $\mathbb{Z}$	
	14024 Jan 13 16:26	0° $\mathbb{X}$		desc. node	14024 Dec 07 19:37	22° $\mathbb{Z}$ 34'29	
retrograde	14024 Jan 20 16:04	1° $\mathbb{X}$ 54'59			14024 Dec 13 06:42	0° $\approx$	
evening set	14024 Jan 27 04:40	0° $\mathbb{X}$ 10'23		evening max el	14024 Dec 18 09:51	5° $\approx$ 35'44	25°17'53
	14024 Jan 27 12:28	30° $\mathbb{R}$ $\approx$		retrograde	14025 Jan 01 06:02	12° $\approx$ 32'58	
min. Earth dist.	14024 Jan 31 06:45	27° $\approx$ 33'09	0.58874 AU	evening set	14025 Jan 07 01:10	11° $\approx$ 16'49	
inferior conj	14024 Feb 03 10:39	25° $\approx$ 08'14	-3°39'45	min. Earth dist.	14025 Jan 11 21:59	8° $\approx$ 35'58	0.56866 AU
minimum elong	14024 Feb 03 18:32	24° $\approx$ 53'07	3°36'22	inferior conj	14025 Jan 14 16:13	6° $\approx$ 46'16	-4°58'33
morning rise	14024 Feb 11 11:30	20° $\approx$ 34'08		minimum elong	14025 Jan 15 01:01	6° $\approx$ 31'41	4°55'34
direct	14024 Feb 13 12:02	20° $\approx$ 19'41		morning rise	14025 Jan 23 03:23	2° $\approx$ 34'25	
asc. node	14024 Feb 15 05:11	20° $\approx$ 30'30		direct	14025 Jan 25 07:25	2° $\approx$ 20'40	
morning max el	14024 Feb 21 10:37	24° $\approx$ 15'16	18°19'56	asc. node	14025 Feb 01 02:35	4° $\approx$ 46'24	
	14024 Feb 26 03:06	0° $\mathbb{X}$		morning max el	14025 Feb 03 12:33	6° $\approx$ 49'10	19°07'54
morning set	14024 Mar 08 04:39	19° $\mathbb{X}$ 21'39			14025 Feb 18 07:09	0° $\mathbb{X}$	
	14024 Mar 13 19:29	0° $\mathbb{Y}$		morning set	14025 Feb 20 04:42	3° $\mathbb{X}$ 44'12	
superior conj	14024 Mar 17 12:54	6° $\mathbb{Y}$ 53'21	0°11'55	superior conj	14025 Feb 28 12:40	20° $\mathbb{X}$ 08'08	0°42'40
minimum elong	14024 Mar 17 13:46	6° $\mathbb{Y}$ 57'18	0°11'44	minimum elong	14025 Feb 28 15:05	20° $\mathbb{X}$ 19'41	0°42'34
behind sun begin	14024 Mar 17 08:46	6° $\mathbb{Y}$ 34'28		desc. node	14025 Mar 05 20:46	0° $\mathbb{Y}$ 08'29	
behind sun end	14024 Mar 17 18:47	7° $\mathbb{Y}$ 20'06			14025 Mar 05 18:55	0° $\mathbb{Y}$	
desc. node	14024 Mar 19 00:17	9° $\mathbb{Y}$ 33'36		max. Earth dist.	14025 Mar 07 09:04	2° $\mathbb{Y}$ 52'41	1.38721 AU
max. Earth dist.	14024 Mar 25 02:24	20° $\mathbb{Y}$ 14'00	1.40973 AU	evening rise	14025 Mar 11 03:28	9° $\mathbb{Y}$ 30'31	
evening rise	14024 Mar 29 15:05	27° $\mathbb{Y}$ 48'24			14025 Mar 23 19:44	0° $\mathbb{X}$	
	14024 Mar 30 23:22	0° $\mathbb{X}$		evening max el	14025 Apr 15 09:20	29° $\mathbb{X}$ 22'16	24°38'26
	14024 Apr 20 01:27	0° $\mathbb{I}$			14025 Apr 16 00:50	0° $\mathbb{I}$	
evening max el	14024 May 02 19:44	15° $\mathbb{I}$ 29'47	23°18'17	retrograde	14025 Apr 27 00:37	6° $\mathbb{I}$ 10'22	
retrograde	14024 May 13 08:27	21° $\mathbb{I}$ 41'36		asc. node	14025 Apr 29 23:02	5° $\mathbb{I}$ 32'48	
asc. node	14024 May 13 01:44	21° $\mathbb{I}$ 41'14		evening set	14025 May 02 15:05	3° $\mathbb{I}$ 48'47	
evening set	14024 May 18 11:19	19° $\mathbb{I}$ 31'53			14025 May 06 03:04	30° $\mathbb{R}$ $\mathbb{X}$	
inferior conj	14024 May 23 20:04	13° $\mathbb{I}$ 05'58	2°45'32	min. Earth dist.	14025 May 07 03:19	28° $\mathbb{X}$ 41'03	0.68391 AU
minimum elong	14024 May 23 18:17	13° $\mathbb{I}$ 12'09	2°44'13	inferior conj	14025 May 08 04:05	27° $\mathbb{X}$ 18'26	2°17'09
min. Earth dist.	14024 May 23 07:57	13° $\mathbb{I}$ 47'46	0.68900 AU	minimum elong	14025 May 08 01:57	27° $\mathbb{X}$ 25'35	2°15'46
morning rise	14024 May 29 01:10	6° $\mathbb{I}$ 59'13		morning rise	14025 May 13 13:00	21° $\mathbb{X}$ 20'14	
direct	14024 Jun 02 08:41	5° $\mathbb{I}$ 15'36		direct	14025 May 17 08:20	19° $\mathbb{X}$ 57'17	
morning max el	14024 Jun 10 17:13	10° $\mathbb{I}$ 02'32	20°54'30	morning max el	14025 May 24 17:32	24° $\mathbb{X}$ 03'13	19°44'32
desc. node	14024 Jun 15 01:37	14° $\mathbb{I}$ 54'14			14025 May 29 21:21	0° $\mathbb{I}$	
	14024 Jun 26 04:16	0° $\mathbb{X}$		desc. node	14025 Jun 01 22:35	4° $\mathbb{I}$ 04'33	
morning set	14024 Jul 10 21:40	22° $\mathbb{X}$ 10'26		greatest brilliancy	14025 Jun 06 13:36	10° $\mathbb{I}$ 39'46	-0.6m
	14024 Jul 15 20:51	0° $\Omega$			14025 Jun 19 09:59	0° $\mathbb{X}$	
max. Earth dist.	14024 Jul 18 17:59	4° $\Omega$ 37'46	1.43241 AU	morning set	14025 Jun 19 23:55	0° $\mathbb{X}$ 53'28	

max. Earth dist.	14025 Jul 01 07:02	18°  29'01	1.44790 AU	superior conj	14026 Jun 15 16:06	5°  24'18	-2°13'02
				minimum elong	14026 Jun 15 14:07	5°  16'32	2°14'04
superior conj	14025 Jul 06 01:56	26°  07'24	-2°08'10	evening rise	14026 Jun 30 22:03	29°  23'02	
minimum elong	14025 Jul 06 07:02	26°  27'54	2°08'56		14026 Jul 01 03:46	0° 	
	14025 Jul 08 11:28	0° 		asc. node	14026 Jul 13 18:58	19°  25'08	
evening rise	14025 Jul 19 18:07	18°  24'13		evening max el	14026 Jul 21 06:03	29°  24'51	18°30'22
	14025 Jul 26 11:12	0° 			14026 Jul 21 16:28	0° 	
asc. node	14025 Jul 26 22:14	0°  45'30		retrograde	14026 Jul 27 17:15	3°  03'38	
evening max el	14025 Aug 06 16:43	15°  25'33	18°07'41	evening set	14026 Jul 30 20:39	2°  08'05	
retrograde	14025 Aug 13 01:34	19°  27'08			14026 Aug 02 12:50	30°  27'02	
evening set	14025 Aug 15 20:13	18°  26'46		inferior conj	14026 Aug 05 14:15	26°  23'57	2°36'07
inferior conj	14025 Aug 22 00:12	13°  28'19	1°55'10	minimum elong	14026 Aug 05 16:27	26°  27'19	2°34'57
minimum elong	14025 Aug 22 02:39	13°  28'11'37	1°54'01	min. Earth dist.	14026 Aug 07 16:46	24°  20'19	0.65213 AU
min. Earth dist.	14025 Aug 24 16:22	10°  23'47	0.63214 AU	morning rise	14026 Aug 11 11:03	20°  21'22	
morning rise	14025 Aug 28 07:05	7°  04'28		desc. node	14026 Aug 15 17:41	17°  24'45	
desc. node	14025 Aug 28 20:10	6°  24'04		direct	14026 Aug 17 22:21	17°  23'13	
direct	14025 Sep 03 22:50	4°  23'14		morning max el	14026 Aug 31 08:57	25°  26'52	27°07'17
morning max el	14025 Sep 17 22:09	12°  23'45	27°49'08		14026 Sep 04 12:59	0° 	
	14025 Oct 01 20:03	0° 			14026 Sep 25 08:20	0° 	
	14025 Oct 19 13:01	0° 		morning set	14026 Oct 05 22:30	19°  27'54	
morning set	14025 Oct 22 12:21	5°  25'01		asc. node	14026 Oct 09 20:55	26°  25'52	
asc. node	14025 Oct 23 00:18	6°  25'27		max. Earth dist.	14026 Oct 10 06:09	27°  24'49	1.33470 AU
max. Earth dist.	14025 Oct 27 13:18	16°  20'27	1.32156 AU		14026 Oct 11 08:55	0° 	
superior conj	14025 Oct 30 06:14	22°  21'11'03	1°04'04	superior conj	14026 Oct 14 08:58	6°  16'33	0°41'26
minimum elong	14025 Oct 30 03:56	21°  21'58'33	1°04'28	minimum elong	14026 Oct 14 07:03	6°  06'23	0°41'37
	14025 Nov 02 19:51	0° 		evening rise	14026 Oct 21 12:48	21°  21'34'43	
evening rise	14025 Nov 06 02:16	7°  20'48			14026 Oct 25 14:20	0° 	
	14025 Nov 17 21:48	0° 		evening max el	14026 Nov 11 08:01	25°  24'45'48	21°57'54
desc. node	14025 Nov 24 16:43	9°  25'58'18		desc. node	14026 Nov 11 13:55	26°  24'00'09	
evening max el	14025 Nov 29 20:12	15°  24'42'26	23°39'19		14026 Nov 16 19:32	0° 	
retrograde	14025 Dec 13 07:17	22°  26'06		retrograde	14026 Nov 23 20:59	1°  25'58'32	
evening set	14025 Dec 17 22:05	21°  23'39'43		evening set	14026 Nov 27 02:40	1°  23'35'10	
min. Earth dist.	14025 Dec 24 06:56	18°  23'36'05	0.55328 AU		14026 Dec 01 11:19	30°  27'21	
inferior conj	14025 Dec 26 01:16	17°  23'33'34	-5°50'23	inferior conj	14026 Dec 05 19:36	27°  24'41'35	-5°51'07
minimum elong	14025 Dec 26 05:37	17°  22'07'08	5°48'58	minimum elong	14026 Dec 05 15:00	27°  24'48'01	5°49'39
morning rise	14026 Jan 03 14:53	13°  23'39'44		min. Earth dist.	14026 Dec 05 13:08	27°  24'50'37	0.54542 AU
direct	14026 Jan 06 07:03	13°  22'20'07		morning rise	14026 Dec 14 04:16	23°  24'54'11	
morning max el	14026 Jan 17 01:25	18°  23'31'47	20°18'54	direct	14026 Dec 17 17:15	23°  24'26'30	
asc. node	14026 Jan 18 23:54	20°  23'33'06		morning max el	14026 Dec 29 23:40	29°  24'19'46	21°51'52
	14026 Jan 25 18:20	0° 			14026 Dec 30 16:11	0° 	
morning set	14026 Feb 04 11:03	18°  22'11'18		asc. node	14027 Jan 05 21:08	7°  23'33'28	
	14026 Feb 10 02:49	0° 			14027 Jan 18 09:36	0° 	
				morning set	14027 Jan 19 21:10	3°  24'05'41	
superior conj	14026 Feb 12 01:45	3°  24'58'23	1°06'35	superior conj	14027 Jan 27 00:24	18°  24'13'31	1°23'35
minimum elong	14026 Feb 12 04:27	4°  24'11'58	1°06'47	minimum elong	14027 Jan 27 02:35	18°  24'24'59	1°24'09
max. Earth dist.	14026 Feb 17 15:58	14°  24'25'06	1.36503 AU	max. Earth dist.	14027 Jan 31 04:13	26°  24'28'12	1.34537 AU
desc. node	14026 Feb 20 17:17	20°  24'23'50			14027 Feb 01 18:35	0° 	
evening rise	14026 Feb 21 11:05	22°  24'21'08		evening rise	14027 Feb 04 10:29	5°  24'21'59	
	14026 Feb 25 23:21	0° 		desc. node	14027 Feb 07 13:51	11°  24'21'48	
	14026 Mar 17 15:48	0° 			14027 Feb 18 18:04	0° 	
evening max el	14026 Mar 28 22:45	13°  24'13'44	25°51'21	evening max el	14027 Mar 11 12:36	26°  24'21'20	26°49'35
retrograde	14026 Apr 10 12:14	20°  24'26'58			14027 Mar 14 22:23	0° 	
evening set	14026 Apr 16 13:46	17°  24'25'31		retrograde	14027 Mar 24 18:18	4°  24'24'05	
asc. node	14026 Apr 16 20:25	17°  24'43'21		evening set	14027 Mar 31 05:34	1°  24'51'59	
min. Earth dist.	14026 Apr 20 19:13	13°  24'25'14	0.67436 AU		14027 Apr 02 06:59	30°  24'27'02	
inferior conj	14026 Apr 22 08:32	11°  24'27'28	1°38'09	asc. node	14027 Apr 03 17:50	28°  24'26'56	
minimum elong	14026 Apr 22 06:31	11°  24'33'49	1°36'52	min. Earth dist.	14027 Apr 04 05:34	27°  24'25'41	0.66066 AU
morning rise	14026 Apr 27 23:55	5°  24'39'01		inferior conj	14027 Apr 06 07:15	25°  24'28'21	0°47'54
direct	14026 May 01 08:00	4°  24'35'24		minimum elong	14027 Apr 06 06:03	25°  24'31'55	0°47'05
morning max el	14026 May 08 01:12	8°  24'12'40	18°49'46	morning rise	14027 Apr 12 07:48	19°  24'25'12	
desc. node	14026 May 19 19:26	23°  24'28'44'35		direct	14027 Apr 15 05:47	19°  24'25'04'39	
greatest brilliancy	14026 May 21 20:31	26°  24'25'03'31	-0.8m	morning max el	14027 Apr 21 14:48	22°  24'25'48	18°11'37
	14026 May 23 21:58	0° 			14027 Apr 27 17:53	0° 	
morning set	14026 May 30 09:26	10°  24'22'13		desc. node	14027 May 06 16:11	13°  24'28'30	
	14026 Jun 12 05:08	0° 		morning set	14027 May 10 19:28	20°  24'24'59	
max. Earth dist.	14026 Jun 14 00:26	2°  24'29'08	1.45685 AU				

	14027 May 16 19:11	0°♂		morning max el	14028 Apr 04 07:51	6°♂34'19	17°50'35
superior conj	14027 May 26 00:28	14°♂33'02	-1°57'44	morning set	14028 Apr 20 02:51	0°♂	
minimum elong	14027 May 25 16:13	14°♂00'48	1°58'10	desc. node	14028 Apr 21 09:29	2°♂08'38	
max. Earth dist.	14027 May 27 20:26	17°♂24'58	1.45849 AU		14028 Apr 22 12:49	4°♂03'20	
	14027 Jun 04 22:26	0°♂		superior conj	14028 May 04 20:08	24°♂17'15	-1°26'23
evening rise	14027 Jun 11 02:11	9°♂33'47		minimum elong	14028 May 04 11:46	23°♂43'41	1°26'11
greatest brilliancy	14027 Jun 22 13:07	27°♂12'49	-0.7m		14028 May 08 10:07	0°♂	
	14027 Jun 24 09:50	0°♂		max. Earth dist.	14028 May 09 16:27	1°♂59'51	1.45263 AU
asc. node	14027 Jun 30 15:47	8°♂44'48		evening rise	14028 May 20 15:05	18°♂58'55	
evening max el	14027 Jul 04 15:45	13°♂21'27	19°10'05		14028 May 27 21:18	0°♂	
retrograde	14027 Jul 11 13:40	17°♂11'14		greatest brilliancy	14028 Jun 04 12:49	11°♂19'02	-0.6m
evening set	14027 Jul 15 02:22	15°♂58'59		asc. node	14028 Jun 16 12:44	26°♂52'29	
inferior conj	14027 Jul 20 13:05	10°♂10'38	3°00'25	evening max el	14028 Jun 16 20:02	27°♂10'57	20°05'28
minimum elong	14027 Jul 20 14:28	10°♂06'08	2°59'21		14028 Jun 20 03:50	0°♂	
min. Earth dist.	14027 Jul 22 01:06	8°♂14'16	0.66846 AU	retrograde	14028 Jun 24 12:22	1°♂33'32	
morning rise	14027 Jul 26 01:57	3°♂45'54		evening set	14028 Jun 28 10:54	0°♂04'08	
direct	14027 Aug 01 04:45	1°♂07'37			14028 Jun 28 13:03	30°♂♂	
desc. node	14027 Aug 02 15:08	1°♂15'17		inferior conj	14028 Jul 03 17:49	24°♂02'46	3°10'50
morning max el	14027 Aug 13 19:56	8°♂40'03	25°59'59	minimum elong	14028 Jul 03 18:12	24°♂01'27	3°09'49
	14027 Aug 30 13:51	0°♂		min. Earth dist.	14028 Jul 04 15:35	22°♂48'53	0.68032 AU
	14027 Sep 17 20:15	0°♂		morning rise	14028 Jul 09 01:11	17°♂40'11	
morning set	14027 Sep 18 19:23	1°♂46'04		direct	14028 Jul 14 16:55	15°♂11'00	
max. Earth dist.	14027 Sep 22 13:07	8°♂48'52	1.35289 AU	desc. node	14028 Jul 19 12:30	16°♂37'50	
asc. node	14027 Sep 26 17:29	17°♂02'48		morning max el	14028 Jul 26 06:26	22°♂06'37	24°36'49
					14028 Aug 02 03:51	0°♂	
superior conj	14027 Sep 28 04:05	19°♂57'43	0°13'27		14028 Aug 22 20:30	0°♂	
minimum elong	14027 Sep 28 03:18	19°♂53'46	0°13'34	morning set	14028 Aug 30 22:55	13°♂37'06	
behind sun begin	14027 Sep 27 24:00	19°♂36'59		max. Earth dist.	14028 Sep 03 12:58	20°♂00'35	1.37489 AU
behind sun end	14027 Sep 28 06:36	20°♂10'35			14028 Sep 08 21:34	0°♂	
	14027 Oct 03 00:46	0°♂					
evening rise	14027 Oct 05 20:53	5°♂54'07		superior conj	14028 Sep 10 12:22	3°♂06'52	-0°19'02
	14027 Oct 19 02:32	0°♂		minimum elong	14028 Sep 10 13:38	3°♂13'01	0°18'50
evening max el	14027 Oct 24 06:22	6°♂15'34	20°29'04	asc. node	14028 Sep 12 14:03	7°♂09'49	
desc. node	14027 Oct 29 11:15	10°♂13'50		evening rise	14028 Sep 19 00:12	19°♂59'15	
retrograde	14027 Nov 04 07:41	11°♂45'23			14028 Sep 24 03:05	0°♂	
evening set	14027 Nov 06 13:15	11°♂32'59		evening max el	14028 Oct 05 19:00	17°♂32'37	19°20'43
inferior conj	14027 Nov 15 11:48	7°♂37'55	-4°52'05	retrograde	14028 Oct 15 04:52	22°♂15'30	
minimum elong	14027 Nov 15 01:50	7°♂52'25	4°48'38	desc. node	14028 Oct 15 08:40	22°♂15'25	
min. Earth dist.	14027 Nov 16 19:35	6°♂51'41	0.54677 AU	evening set	14028 Oct 17 01:40	22°♂05'10	
morning rise	14027 Nov 23 14:03	3°♂38'34		inferior conj	14028 Oct 25 16:10	17°♂56'24	-3°12'51
direct	14027 Nov 28 02:14	2°♂54'54		minimum elong	14028 Oct 25 08:03	18°♂09'44	3°09'12
morning max el	14027 Dec 11 11:16	9°♂26'51	23°39'20	min. Earth dist.	14028 Oct 28 05:30	16°♂16'05	0.55716 AU
asc. node	14027 Dec 23 18:18	25°♂30'40		morning rise	14028 Nov 02 12:08	13°♂26'34	
	14027 Dec 26 08:58	0°♂		direct	14028 Nov 07 20:45	12°♂21'27	
morning set	14028 Jan 04 08:57	17°♂51'06		morning max el	14028 Nov 21 21:11	19°♂25'38	25°25'43
	14028 Jan 09 23:16	0°♂			14028 Nov 30 19:33	0°♂	
				asc. node	14028 Dec 09 15:21	14°♂10'30	
superior conj	14028 Jan 11 05:34	2°♂44'33	1°33'56		14028 Dec 17 16:01	0°♂	
minimum elong	14028 Jan 11 06:49	2°♂51'20	1°34'48	morning set	14028 Dec 18 20:38	2°♂32'43	
max. Earth dist.	14028 Jan 14 00:22	8°♂42'56	1.32966 AU				
evening rise	14028 Jan 18 22:08	18°♂50'27		superior conj	14028 Dec 25 14:53	17°♂32'49	1°37'59
	14028 Jan 24 17:56	0°♂		minimum elong	14028 Dec 25 15:03	17°♂25'45	1°39'01
desc. node	14028 Jan 25 10:27	1°♂15'11		max. Earth dist.	14028 Dec 27 03:31	20°♂46'45	1.31861 AU
	14028 Feb 12 22:23	0°♂			14028 Dec 31 10:06	0°♂	
evening max el	14028 Feb 22 01:49	10°♂24'17	27°25'41	evening rise	14029 Jan 01 19:03	2°♂52'13	
retrograde	14028 Mar 06 17:44	17°♂52'08		desc. node	14029 Jan 11 07:11	21°♂08'30	
evening set	14028 Mar 13 12:14	15°♂23'30			14029 Jan 16 13:25	0°♂	
min. Earth dist.	14028 Mar 17 08:11	11°♂56'39	0.64332 AU	evening max el	14029 Feb 03 12:21	23°♂18'52	27°32'58
inferior conj	14028 Mar 19 21:37	9°♂13'33	-0°14'14		14029 Feb 13 10:07	0°♂	
minimum elong	14028 Mar 19 22:03	9°♂12'24	0°14'07	retrograde	14029 Feb 17 09:40	0°♂42'15	
transit middle	14028 Mar 19 22:03	9°♂12'24	0°14'07		14029 Feb 21 05:29	30°♂♂	
transit begin	14028 Mar 19 20:36	9°♂16'17		evening set	14029 Feb 24 07:13	28°♂24'19	
transit end	14028 Mar 19 23:30	9°♂08'32		min. Earth dist.	14029 Feb 28 01:18	25°♂24'05	0.62312 AU
asc. node	14028 Mar 20 15:19	8°♂26'45		inferior conj	14029 Mar 03 00:35	22°♂35'33	-1°27'55
morning rise	14028 Mar 26 09:55	3°♂50'39		minimum elong	14029 Mar 03 03:36	22°♂28'24	1°26'26
direct	14028 Mar 28 23:06	3°♂17'29		asc. node	14029 Mar 07 12:49	18°♂48'02	

morning rise	14029 Mar 10 02:47	17° $\text{K}$ 29'38		minimum elong	14030 Feb 13 18:48	5° $\text{K}$ 11'51	2°47'46
direct	14029 Mar 12 08:48	17° $\text{K}$ 06'37		morning rise	14030 Feb 21 05:34	0° $\text{K}$ 38'40	
morning max el	14029 Mar 19 01:25	20° $\text{K}$ 30'08	17°47'07	asc. node	14030 Feb 22 10:17	0° $\text{K}$ 25'08	
	14029 Mar 26 05:01	0° $\text{Y}$		direct	14030 Feb 23 06:49	0° $\text{K}$ 22'14	
morning set	14029 Apr 03 22:58	14° $\text{Y}$ 58'30		morning max el	14030 Mar 02 16:03	4° $\text{K}$ 03'18	18°02'14
desc. node	14029 Apr 09 09:24	24° $\text{Y}$ 30'24		morning set	14030 Mar 18 05:50	28° $\text{K}$ 36'22	
	14029 Apr 12 13:58	0° $\text{B}$			14030 Mar 18 23:54	0° $\text{Y}$	
				desc. node	14030 Mar 27 05:55	15° $\text{Y}$ 03'36	
superior conj	14029 Apr 15 14:01	5° $\text{B}$ 04'40	-0°47'28				
minimum elong	14029 Apr 15 09:25	4° $\text{B}$ 45'24	0°47'18	superior conj	14030 Mar 28 07:44	16° $\text{Y}$ 58'04	-0°08'37
max. Earth dist.	14029 Apr 22 09:29	16° $\text{B}$ 15'51	1.43994 AU	minimum elong	14030 Mar 28 07:00	16° $\text{Y}$ 54'50	0°08'43
evening rise	14029 Apr 30 04:21	28° $\text{B}$ 32'49		behind sun begin	14030 Mar 28 00:21	16° $\text{Y}$ 25'24	
	14029 May 01 02:56	0° $\text{II}$		behind sun end	14030 Mar 28 13:39	17° $\text{Y}$ 24'13	
	14029 May 21 15:39	0° $\text{B}$			14030 Apr 04 22:07	0° $\text{B}$	
evening max el	14029 May 30 18:22	11° $\text{B}$ 00'43	21°14'02	max. Earth dist.	14030 Apr 04 21:49	29° $\text{Y}$ 58'45	1.42180 AU
asc. node	14029 Jun 03 09:49	14° $\text{B}$ 09'33		evening rise	14030 Apr 10 07:58	8° $\text{B}$ 49'16	
retrograde	14029 Jun 08 11:14	16° $\text{B}$ 04'51			14030 Apr 24 05:24	0° $\text{II}$	
evening set	14029 Jun 12 20:14	14° $\text{B}$ 18'44		evening max el	14030 May 13 11:45	24° $\text{II}$ 51'23	22°31'42
inferior conj	14029 Jun 18 02:04	8° $\text{B}$ 05'58	3°09'23		14030 May 20 08:26	0° $\text{B}$	
minimum elong	14029 Jun 18 01:29	8° $\text{B}$ 08'03	3°08'18	asc. node	14030 May 21 06:58	0° $\text{B}$ 20'29	
min. Earth dist.	14029 Jun 18 10:16	7° $\text{B}$ 37'26	0.68742 AU	retrograde	14030 May 23 08:34	0° $\text{B}$ 39'49	
morning rise	14029 Jun 23 06:30	1° $\text{B}$ 48'05			14030 May 26 03:49	30° $\text{R}$ $\text{II}$	
	14029 Jun 26 02:32	30° $\text{R}$ $\text{II}$		evening set	14030 May 28 04:40	28° $\text{II}$ 38'17	
direct	14029 Jun 28 09:50	29° $\text{II}$ 34'01		inferior conj	14030 Jun 02 11:45	22° $\text{II}$ 16'16	2°57'14
	14029 Jun 30 20:24	0° $\text{B}$		minimum elong	14030 Jun 02 10:20	22° $\text{II}$ 21'14	2°56'00
desc. node	14029 Jul 06 09:47	3° $\text{B}$ 30'50		min. Earth dist.	14030 Jun 02 06:59	22° $\text{II}$ 32'55	0.68974 AU
morning max el	14029 Jul 08 17:24	5° $\text{B}$ 41'43	23°07'21	morning rise	14030 Jun 07 15:51	16° $\text{II}$ 04'53	
	14029 Jul 27 12:04	0° $\text{O}$		direct	14030 Jun 12 06:30	14° $\text{II}$ 09'34	
morning set	14029 Aug 12 04:32	24° $\text{O}$ 30'11		morning max el	14030 Jun 21 07:24	19° $\text{II}$ 25'20	21°40'27
	14029 Aug 15 10:56	0° $\text{np}$		desc. node	14030 Jun 23 06:57	21° $\text{II}$ 30'52	
max. Earth dist.	14029 Aug 16 11:22	1° $\text{np}$ 44'40	1.39852 AU		14030 Jun 30 03:56	0° $\text{B}$	
					14030 Jul 20 15:38	0° $\text{O}$	
superior conj	14029 Aug 24 05:52	15° $\text{np}$ 34'25	-0°54'11	morning set	14030 Jul 23 09:24	4° $\text{O}$ 18'54	
minimum elong	14029 Aug 24 09:55	15° $\text{np}$ 53'01	0°53'54	max. Earth dist.	14030 Jul 29 13:50	14° $\text{O}$ 19'12	1.42101 AU
asc. node	14029 Aug 30 10:36	27° $\text{np}$ 12'56					
	14029 Aug 31 21:30	0° $\text{B}$		superior conj	14030 Aug 06 04:12	27° $\text{O}$ 11'03	-1°28'43
evening rise	14029 Sep 02 19:45	3° $\text{B}$ 41'59		minimum elong	14030 Aug 06 10:53	27° $\text{O}$ 40'05	1°28'32
evening max el	14029 Sep 18 20:02	29° $\text{B}$ 36'50	18°34'17		14030 Aug 07 18:53	0° $\text{np}$	
	14029 Sep 19 05:32	0° $\text{ml}$		evening rise	14030 Aug 17 03:42	16° $\text{np}$ 52'49	
retrograde	14029 Sep 26 20:07	3° $\text{ml}$ 39'19		asc. node	14030 Aug 17 07:12	17° $\text{np}$ 08'46	
evening set	14029 Sep 28 19:00	3° $\text{ml}$ 25'39			14030 Aug 24 11:30	0° $\text{B}$	
desc. node	14029 Oct 02 06:10	2° $\text{ml}$ 01'10		evening max el	14030 Sep 02 05:32	12° $\text{B}$ 20'32	18°08'47
	14029 Oct 05 07:37	30° $\text{R}$ $\text{B}$		retrograde	14030 Sep 09 05:54	15° $\text{B}$ 55'17	
inferior conj	14029 Oct 06 16:57	28° $\text{B}$ 57'13	-1°24'57	evening set	14030 Sep 11 11:37	15° $\text{B}$ 33'54	
minimum elong	14029 Oct 06 13:33	29° $\text{B}$ 03'44	1°23'10	inferior conj	14030 Sep 18 15:20	10° $\text{B}$ 44'45	0°09'35
min. Earth dist.	14029 Oct 09 21:37	26° $\text{B}$ 31'12	0.57477 AU	minimum elong	14030 Sep 18 15:39	10° $\text{B}$ 44'02	0°09'33
morning rise	14029 Oct 14 04:38	23° $\text{B}$ 49'32		transit middle	14030 Sep 18 15:39	10° $\text{B}$ 44'02	0°09'33
direct	14029 Oct 20 05:41	22° $\text{B}$ 17'53		transit begin	14030 Sep 18 12:56	10° $\text{B}$ 50'07	
morning max el	14029 Nov 03 12:37	29° $\text{B}$ 48'13	26°52'06	transit end	14030 Sep 18 18:23	10° $\text{B}$ 37'56	
	14029 Nov 03 17:28	0° $\text{ml}$		desc. node	14030 Sep 19 03:41	10° $\text{B}$ 17'05	
	14029 Nov 24 17:28	0° $\text{A}$		min. Earth dist.	14030 Sep 21 21:49	7° $\text{B}$ 50'53	0.59662 AU
asc. node	14029 Nov 26 12:18	3° $\text{A}$ 21'08		morning rise	14030 Sep 25 16:21	5° $\text{B}$ 03'54	
morning set	14029 Dec 03 06:24	17° $\text{A}$ 04'34		direct	14030 Oct 02 04:21	3° $\text{B}$ 05'04	
	14029 Dec 09 03:27	0° $\text{B}$		morning max el	14030 Oct 16 11:43	10° $\text{B}$ 53'56	27°44'38
					14030 Oct 31 09:17	0° $\text{ml}$	
superior conj	14029 Dec 10 02:12	2° $\text{B}$ 07'07	1°36'00	asc. node	14030 Nov 13 09:09	22° $\text{ml}$ 54'28	
minimum elong	14029 Dec 10 01:20	2° $\text{B}$ 02'15	1°37'01		14030 Nov 16 20:46	0° $\text{A}$	
max. Earth dist.	14029 Dec 10 10:48	2° $\text{B}$ 55'05	1.31257 AU	morning set	14030 Nov 17 12:27	1° $\text{A}$ 22'18	
evening rise	14029 Dec 16 22:34	17° $\text{B}$ 08'45		max. Earth dist.	14030 Nov 23 18:48	15° $\text{A}$ 01'10	1.31181 AU
	14029 Dec 23 07:08	0° $\text{B}$					
desc. node	14029 Dec 29 04:00	10° $\text{B}$ 35'25		superior conj	14030 Nov 24 13:39	16° $\text{A}$ 46'18	1°28'09
	14030 Jan 11 14:19	0° $\text{K}$		minimum elong	14030 Nov 24 11:56	16° $\text{A}$ 36'43	1°29'00
evening max el	14030 Jan 16 17:40	5° $\text{K}$ 29'33	27°06'48		14030 Nov 30 12:56	0° $\text{B}$	
retrograde	14030 Jan 30 17:13	12° $\text{K}$ 44'37		evening rise	14030 Dec 01 06:31	1° $\text{B}$ 35'04	
evening set	14030 Feb 06 11:18	10° $\text{K}$ 45'33		desc. node	14030 Dec 16 00:55	29° $\text{B}$ 26'01	
min. Earth dist.	14030 Feb 10 08:02	8° $\text{K}$ 03'24	0.60123 AU		14030 Dec 16 09:33	0° $\text{B}$	
inferior conj	14030 Feb 13 12:35	5° $\text{K}$ 24'46	-2°50'39	evening max el	14030 Dec 29 15:31	16° $\text{B}$ 48'44	26°06'16



























































































































retrograde	14031 Jan 12 14:18	23° $\approx$ 52'53		retrograde	14031 Dec 24 22:42	4° $\approx$ 09'56	
evening set	14031 Jan 18 20:29	22° $\approx$ 20'04		evening set	14031 Dec 30 06:55	3° $\approx$ 07'00	
min. Earth dist.	14031 Jan 23 04:47	19° $\approx$ 43'10	0.57974 AU	min. Earth dist.	14032 Jan 04 17:07	0° $\approx$ 18'48	0.56133 AU
inferior conj	14031 Jan 26 06:02	17° $\approx$ 31'26	-4°15'00		14032 Jan 05 05:16	30° $\approx$ 30'	
minimum elong	14031 Jan 26 14:46	17° $\approx$ 15'41	4°11'35	inferior conj	14032 Jan 07 02:43	28° $\approx$ 48'26	-5°25'22
morning rise	14031 Feb 03 12:00	13° $\approx$ 06'48		minimum elong	14032 Jan 07 10:25	28° $\approx$ 36'20	5°23'01
direct	14031 Feb 05 12:54	12° $\approx$ 53'16		morning rise	14032 Jan 15 15:57	24° $\approx$ 44'44	
asc. node	14031 Feb 09 07:44	13° $\approx$ 42'45		direct	14032 Jan 18 00:05	24° $\approx$ 29'53	
morning max el	14031 Feb 13 23:46	17° $\approx$ 02'12	18°37'37	asc. node	14032 Jan 27 05:06	28° $\approx$ 39'27	
	14031 Feb 23 04:43	0° $\approx$		morning max el	14032 Jan 27 20:29	29° $\approx$ 15'30	19°35'15
morning set	14031 Mar 02 00:49	12° $\approx$ 46'19			14032 Jan 28 14:13	0° $\approx$	
				morning set	14032 Feb 14 03:57	27° $\approx$ 16'53	
					14032 Feb 15 12:19	0° $\approx$	
superior conj	14031 Mar 10 21:49	29° $\approx$ 46'46	0°25'45				
minimum elong	14031 Mar 10 23:31	29° $\approx$ 54'42	0°25'35	superior conj	14032 Feb 22 03:46	13° $\approx$ 18'25	0°53'39
	14031 Mar 11 00:39	0° $\approx$		minimum elong	14032 Feb 22 06:25	13° $\approx$ 31'27	0°53'40
desc. node	14031 Mar 14 02:24	5° $\approx$ 38'59		max. Earth dist.	14032 Feb 28 12:19	25° $\approx$ 24'42	1.37761 AU
max. Earth dist.	14031 Mar 18 05:49	13° $\approx$ 00'42	1.40023 AU	desc. node	14032 Feb 28 22:53	26° $\approx$ 13'13	
evening rise	14031 Mar 22 08:17	20° $\approx$ 01'04			14032 Mar 02 01:00	0° $\approx$	
	14031 Mar 28 11:32	0° $\approx$		evening rise	14032 Mar 03 05:19	2° $\approx$ 05'45	
	14031 Apr 18 10:14	0° $\approx$			14032 Mar 20 15:13	0° $\approx$	
evening max el	14031 Apr 26 02:15	8° $\approx$ 44'03	23°52'53	evening max el	14032 Apr 07 15:53	22° $\approx$ 38'02	25°10'46
retrograde	14031 May 07 02:52	15° $\approx$ 12'35		retrograde	14032 Apr 19 17:05	29° $\approx$ 37'31	
asc. node	14031 May 08 04:13	15° $\approx$ 07'36		asc. node	14032 Apr 24 01:32	28° $\approx$ 16'57	
evening set	14031 May 12 10:34	12° $\approx$ 57'42		evening set	14032 Apr 25 12:22	27° $\approx$ 12'14	
min. Earth dist.	14031 May 17 03:29	7° $\approx$ 28'52	0.68739 AU	min. Earth dist.	14032 Apr 29 21:38	22° $\approx$ 19'42	0.68046 AU
inferior conj	14031 May 17 20:55	6° $\approx$ 29'25	2°34'48	inferior conj	14032 May 01 03:41	20° $\approx$ 41'37	2°02'00
minimum elong	14031 May 17 18:56	6° $\approx$ 36'12	2°33'26	minimum elong	14032 May 01 01:32	20° $\approx$ 48'39	2°00'36
morning rise	14031 May 23 03:18	0° $\approx$ 25'54		morning rise	14032 May 06 15:01	14° $\approx$ 47'19	
	14031 May 23 17:39	30° $\approx$ 30'		direct	14032 May 10 05:34	13° $\approx$ 32'37	
direct	14031 May 27 05:34	28° $\approx$ 50'59		morning max el	14032 May 17 06:48	17° $\approx$ 24'23	19°19'13
	14031 May 30 23:53	0° $\approx$		desc. node	14032 May 27 00:53	29° $\approx$ 44'00	
morning max el	14031 Jun 04 03:19	3° $\approx$ 19'15	20°22'56		14032 May 27 05:20	0° $\approx$	
desc. node	14031 Jun 10 03:59	10° $\approx$ 19'34		greatest brilliancy	14032 May 30 00:28	4° $\approx$ 05'20	-0.7m
	14031 Jun 24 00:15	0° $\approx$		morning set	14032 Jun 10 19:52	22° $\approx$ 00'51	
morning set	14031 Jul 02 17:11	13° $\approx$ 13'48			14032 Jun 15 23:58	0° $\approx$	
max. Earth dist.	14031 Jul 11 23:04	27° $\approx$ 45'23	1.43976 AU	max. Earth dist.	14032 Jun 23 14:42	11° $\approx$ 52'48	1.45270 AU
	14031 Jul 13 08:35	0° $\approx$					
superior conj	14031 Jul 18 03:31	7° $\approx$ 48'22	-1°57'14	superior conj	14032 Jun 27 03:49	17° $\approx$ 28'54	-2°12'38
minimum elong	14031 Jul 18 10:33	8° $\approx$ 17'23	1°57'35	minimum elong	14032 Jun 27 06:19	17° $\approx$ 38'51	2°13'38
evening rise	14031 Jul 30 19:14	29° $\approx$ 19'05			14032 Jul 04 22:56	0° $\approx$	
	14031 Jul 31 04:39	0° $\approx$		evening rise	14032 Jul 11 13:17	10° $\approx$ 49'18	
asc. node	14031 Aug 04 03:47	6° $\approx$ 52'26		asc. node	14032 Jul 21 00:27	26° $\approx$ 18'58	
evening max el	14031 Aug 16 19:16	25° $\approx$ 32'42	18°02'47		14032 Jul 23 09:32	0° $\approx$	
retrograde	14031 Aug 23 06:45	28° $\approx$ 54'09		evening max el	14032 Jul 30 09:37	9° $\approx$ 03'49	18°15'09
evening set	14031 Aug 25 20:39	28° $\approx$ 21'25		retrograde	14032 Aug 05 18:14	12° $\approx$ 26'05	
inferior conj	14031 Sep 01 08:17	23° $\approx$ 12'57	1°22'49	evening set	14032 Aug 08 16:40	11° $\approx$ 39'18	
minimum elong	14031 Sep 01 10:25	23° $\approx$ 07'31	1°21'52	inferior conj	14032 Aug 14 15:46	6° $\approx$ 13'43	2°14'46
min. Earth dist.	14031 Sep 04 07:12	20° $\approx$ 13'00	0.61956 AU	minimum elong	14032 Aug 14 18:12	6° $\approx$ 06'44	2°13'36
desc. node	14031 Sep 06 01:13	18° $\approx$ 35'56		min. Earth dist.	14032 Aug 17 02:13	3° $\approx$ 27'26	0.64110 AU
morning rise	14031 Sep 07 21:41	17° $\approx$ 08'33		morning rise	14032 Aug 20 18:10	29° $\approx$ 55'23	
direct	14031 Sep 14 13:59	14° $\approx$ 47'33			14032 Aug 20 15:50	30° $\approx$ 30'	
morning max el	14031 Sep 28 17:18	22° $\approx$ 46'26	27°58'18	desc. node	14032 Aug 22 22:45	28° $\approx$ 02'45	
	14031 Oct 05 03:13	0° $\approx$		direct	14032 Aug 27 08:34	27° $\approx$ 20'27	
	14031 Oct 24 14:46	0° $\approx$			14032 Sep 03 19:32	0° $\approx$	
asc. node	14031 Oct 31 05:53	12° $\approx$ 43'49		morning max el	14032 Sep 10 03:05	5° $\approx$ 19'48	27°35'00
morning set	14031 Nov 01 12:46	15° $\approx$ 21'04			14032 Sep 28 21:10	0° $\approx$	
max. Earth dist.	14031 Nov 06 23:52	26° $\approx$ 56'45	1.31644 AU	morning set	14032 Oct 15 04:54	28° $\approx$ 54'31	
	14031 Nov 08 09:19	0° $\approx$			14032 Oct 15 18:04	0° $\approx$	
superior conj	14031 Nov 08 23:21	1° $\approx$ 17'14	1°14'31	asc. node	14032 Oct 17 02:30	2° $\approx$ 43'23	
minimum elong	14031 Nov 08 21:08	1° $\approx$ 05'00	1°15'06	max. Earth dist.	14032 Oct 19 22:19	8° $\approx$ 33'29	1.32653 AU
evening rise	14031 Nov 15 16:57	16° $\approx$ 06'25		superior conj	14032 Oct 23 05:15	15° $\approx$ 33'36	0°55'08
	14031 Nov 22 11:27	0° $\approx$		minimum elong	14032 Oct 23 03:02	15° $\approx$ 21'38	0°55'26
desc. node	14031 Dec 02 21:57	17° $\approx$ 26'55			14032 Oct 29 21:05	0° $\approx$	
evening max el	14031 Dec 11 05:19	27° $\approx$ 19'02	24°37'38	evening rise	14032 Oct 30 04:01	0° $\approx$ 37'09	
	14031 Dec 14 08:13	0° $\approx$			14032 Nov 15 09:15	0° $\approx$	



desc. node	14032 Nov 18 19:07	4°♁18'56		evening max el	14033 Nov 03 06:17	17°♁29'02	21°17'52
evening max el	14032 Nov 21 15:03	7°♁19'42	22°55'29	desc. node	14033 Nov 05 16:24	19°♁38'29	
retrograde	14032 Dec 04 18:09	13°♁50'45		retrograde	14033 Nov 15 05:33	23°♁25'35	
evening set	14032 Dec 08 19:04	13°♁15'16		evening set	14033 Nov 17 23:05	23°♁08'16	
min. Earth dist.	14032 Dec 16 00:03	9°♁56'35	0.54887 AU	inferior conj	14033 Nov 26 19:55	19°♁15'16	-5°32'49
inferior conj	14032 Dec 17 04:19	9°♁16'16	-5°58'04	minimum elong	14033 Nov 26 12:08	19°♁26'14	5°30'32
minimum elong	14032 Dec 17 05:02	9°♁15'14	5°56'59	min. Earth dist.	14033 Nov 27 05:56	19°♁01'10	0.54480 AU
morning rise	14032 Dec 25 16:28	5°♁27'27		morning rise	14033 Dec 05 01:48	15°♁25'25	
direct	14032 Dec 28 16:58	5°♁06'14		direct	14033 Dec 09 00:26	14°♁51'53	
morning max el	14033 Jan 09 02:58	10°♁34'01	20°56'06	morning max el	14033 Dec 21 19:59	21°♁02'17	22°36'39
asc. node	14033 Jan 13 02:24	14°♁59'33			14033 Dec 29 08:15	0°♁	
	14033 Jan 22 12:10	0°♁		asc. node	14033 Dec 30 23:37	2°♁25'59	
morning set	14033 Jan 28 12:11	11°♁58'04		morning set	14034 Jan 12 23:14	26°♁43'34	
					14034 Jan 14 12:05	0°♁	
superior conj	14033 Feb 04 21:19	27°♁20'24	1°14'38	superior conj	14034 Jan 19 23:05	11°♁43'23	1°28'46
minimum elong	14033 Feb 04 23:52	27°♁33'29	1°14'59	minimum elong	14034 Jan 20 00:55	11°♁53'06	1°29'28
	14033 Feb 06 04:34	0°♁		max. Earth dist.	14034 Jan 23 12:39	19°♁12'36	1.33811 AU
max. Earth dist.	14033 Feb 09 21:20	7°♁22'23	1.35625 AU	evening rise	14034 Jan 28 01:02	28°♁16'58	
evening rise	14033 Feb 13 20:02	14°♁53'51			14034 Jan 28 22:17	0°♁	
desc. node	14033 Feb 14 19:24	16°♁41'49		desc. node	14034 Feb 01 15:59	7°♁00'50	
	14033 Feb 22 10:01	0°♁			14034 Feb 15 15:11	0°♁	
	14033 Mar 15 07:06	0°♁		evening max el	14034 Mar 03 18:58	20°♁04'25	27°07'59
evening max el	14033 Mar 21 05:29	6°♁27'27	26°18'16	retrograde	14034 Mar 17 05:45	27°♁32'52	
retrograde	14033 Apr 03 02:17	13°♁46'59		evening set	14034 Mar 23 20:34	25°♁01'03	
evening set	14033 Apr 09 08:21	11°♁15'32		min. Earth dist.	14034 Mar 27 18:31	21°♁16'47	0.65367 AU
asc. node	14033 Apr 10 22:57	9°♁47'03		asc. node	14034 Mar 28 20:26	20°♁04'26	
min. Earth dist.	14033 Apr 13 11:18	6°♁58'14	0.66908 AU	inferior conj	14034 Mar 30 01:27	18°♁42'13	0°22'59
inferior conj	14033 Apr 15 05:58	4°♁47'38	1°18'17	minimum elong	14034 Mar 30 00:49	18°♁43'59	0°22'30
minimum elong	14033 Apr 15 04:12	4°♁53'04	1°17'08	morning rise	14034 Apr 05 06:43	13°♁11'15	
	14033 Apr 19 17:10	30°♁		direct	14034 Apr 08 00:43	12°♁30'47	
morning rise	14033 Apr 21 00:56	29°♁04'06		morning max el	14034 Apr 14 08:45	15°♁48'46	18°00'37
direct	14033 Apr 24 04:38	28°♁07'57			14034 Apr 24 18:26	0°♁	
	14033 Apr 28 20:48	0°♁		desc. node	14034 Apr 30 18:23	9°♁42'48	
morning max el	14033 Apr 30 17:17	1°♁36'30	18°31'32	morning set	14034 May 02 12:38	12°♁35'43	
desc. node	14033 May 13 21:41	19°♁34'10			14034 May 13 06:52	0°♁	
	14033 May 20 13:35	0°♁		superior conj	14034 May 17 00:40	5°♁55'59	-1°45'56
morning set	14033 May 21 14:34	1°♁38'17		minimum elong	14034 May 16 15:38	5°♁20'20	1°46'02
superior conj	14033 Jun 06 13:24	26°♁36'52	-2°08'56	max. Earth dist.	14034 May 20 05:58	10°♁59'40	1.45680 AU
minimum elong	14033 Jun 06 08:12	26°♁16'33	2°09'47		14034 Jun 01 12:03	0°♁	
max. Earth dist.	14033 Jun 06 10:01	26°♁23'41	1.45850 AU	evening rise	14034 Jun 02 02:48	0°♁56'49	
	14033 Jun 08 17:26	0°♁		greatest brilliancy	14034 Jun 15 11:47	21°♁15'23	-0.7m
evening rise	14033 Jun 22 06:48	21°♁18'14			14034 Jun 21 16:06	0°♁	
	14033 Jun 27 18:45	0°♁		asc. node	14034 Jun 24 18:07	3°♁53'22	
greatest brilliancy	14033 Jun 30 16:58	4°♁35'35	-0.8m	evening max el	14034 Jun 27 05:09	6°♁34'53	19°31'49
asc. node	14033 Jul 07 21:13	15°♁22'13		retrograde	14034 Jul 04 10:15	10°♁37'48	
evening max el	14033 Jul 13 21:40	22°♁46'42	18°45'09	evening set	14034 Jul 08 02:56	9°♁18'26	
retrograde	14033 Jul 20 12:28	26°♁23'07		inferior conj	14034 Jul 13 11:41	3°♁24'20	3°06'23
evening set	14033 Jul 23 19:44	25°♁20'33		minimum elong	14034 Jul 13 12:39	3°♁21'06	3°05'21
inferior conj	14033 Jul 29 09:59	19°♁39'55	2°48'15	min. Earth dist.	14034 Jul 14 17:36	1°♁45'14	0.67401 AU
minimum elong	14033 Jul 29 11:52	19°♁33'59	2°47'09		14034 Jul 16 02:37	30°♁	
min. Earth dist.	14033 Jul 31 06:15	17°♁22'17	0.65956 AU	morning rise	14034 Jul 18 21:52	26°♁59'49	
morning rise	14033 Aug 04 03:07	13°♁15'35		direct	14034 Jul 24 20:07	24°♁24'25	
desc. node	14033 Aug 09 20:15	10°♁37'24		desc. node	14034 Jul 27 17:41	24°♁55'57	
direct	14033 Aug 10 11:02	10°♁35'59			14034 Aug 04 06:39	0°♁	
morning max el	14033 Aug 23 14:28	18°♁23'15	26°41'17	morning max el	14034 Aug 06 01:22	1°♁43'46	25°25'57
	14033 Sep 02 09:41	0°♁			14034 Aug 27 10:53	0°♁	
	14033 Sep 21 20:39	0°♁		morning set	14034 Sep 11 00:01	24°♁16'10	
morning set	14033 Sep 28 09:55	11°♁56'09			14034 Sep 14 02:57	0°♁	
max. Earth dist.	14033 Oct 02 11:16	19°♁49'19	1.34188 AU	max. Earth dist.	14034 Sep 14 14:26	0°♁53'41	1.36188 AU
asc. node	14033 Oct 03 23:06	22°♁49'07		superior conj	14034 Sep 20 20:03	12°♁58'35	0°00'09
superior conj	14033 Oct 07 05:07	29°♁29'57	0°30'11	minimum elong	14034 Sep 20 20:02	12°♁58'30	0°00'16
minimum elong	14033 Oct 07 03:35	29°♁21'56	0°30'19	behind sun begin	14034 Sep 20 13:44	12°♁27'06	
	14033 Oct 07 10:53	0°♁		behind sun end	14034 Sep 21 02:20	13°♁29'59	
evening rise	14033 Oct 14 13:49	15°♁02'42		asc. node	14034 Sep 20 19:39	12°♁56'35	
	14033 Oct 22 01:52	0°♁					

evening rise	14034 Sep 28 20:12	29° $\Omega$ 16'48			14035 Sep 06 02:32	0° $\Omega$	
	14034 Sep 29 04:40	0° $\mathbb{M}$		asc. node	14035 Sep 07 16:13	3° $\Omega$ 02'32	
evening max el	14034 Oct 16 10:39	28° $\mathbb{M}$ 17'58	19°57'17	evening rise	14035 Sep 12 20:36	13° $\Omega$ 13'22	
	14034 Oct 18 07:29	0° $\mathcal{A}$			14035 Sep 21 21:06	0° $\mathbb{M}$	
desc. node	14034 Oct 23 13:47	2° $\mathcal{A}$ 58'15		evening max el	14035 Sep 29 05:06	9° $\mathbb{M}$ 56'24	18°58'17
retrograde	14034 Oct 26 19:15	3° $\mathcal{A}$ 27'37		retrograde	14035 Oct 07 23:15	14° $\mathbb{M}$ 20'09	
evening set	14034 Oct 28 19:05	3° $\mathcal{A}$ 17'02		evening set	14035 Oct 09 20:10	14° $\mathbb{M}$ 08'54	
	14034 Nov 05 11:43	30° $\mathcal{R}\mathbb{M}$		desc. node	14035 Oct 10 11:15	14° $\mathbb{M}$ 00'18	
inferior conj	14034 Nov 06 15:48	29° $\mathbb{M}$ 17'37	-4°13'00	inferior conj	14035 Oct 18 04:16	9° $\mathbb{M}$ 52'26	-2°26'27
minimum elong	14034 Nov 06 05:54	29° $\mathbb{M}$ 32'40	4°09'06	minimum elong	14035 Oct 17 22:06	10° $\mathbb{M}$ 03'13	2°23'27
min. Earth dist.	14034 Nov 08 13:54	28° $\mathbb{M}$ 07'33	0.55016 AU	min. Earth dist.	14035 Oct 21 02:08	7° $\mathbb{M}$ 50'55	0.56403 AU
morning rise	14034 Nov 14 15:24	25° $\mathbb{M}$ 06'35		morning rise	14035 Oct 25 21:04	5° $\mathbb{M}$ 06'49	
direct	14034 Nov 19 12:37	24° $\mathbb{M}$ 14'22		direct	14035 Oct 31 13:37	3° $\mathbb{M}$ 50'29	
	14034 Dec 02 02:48	0° $\mathcal{A}$		morning max el	14035 Nov 14 17:14	11° $\mathbb{M}$ 06'26	26°05'48
morning max el	14034 Dec 03 05:50	1° $\mathcal{A}$ 01'44	24°25'50		14035 Nov 29 05:09	0° $\mathcal{A}$	
asc. node	14034 Dec 17 20:43	20° $\mathcal{A}$ 42'37		asc. node	14035 Dec 04 17:43	9° $\mathcal{A}$ 36'40	
	14034 Dec 22 21:41	0° $\mathcal{B}$		morning set	14035 Dec 12 22:14	26° $\mathcal{A}$ 05'26	
morning set	14034 Dec 28 11:11	11° $\mathcal{B}$ 27'44			14035 Dec 14 17:28	0° $\mathcal{B}$	
superior conj	14035 Jan 04 06:19	26° $\mathcal{B}$ 19'16	1°36'24	superior conj	14035 Dec 19 16:42	11° $\mathcal{B}$ 00'57	1°37'52
minimum elong	14035 Jan 04 07:07	26° $\mathcal{B}$ 23'38	1°37'21	minimum elong	14035 Dec 19 16:25	10° $\mathcal{B}$ 59'22	1°38'54
	14035 Jan 05 22:51	0° $\approx$		max. Earth dist.	14035 Dec 20 17:01	13° $\mathcal{B}$ 16'00	1.31542 AU
max. Earth dist.	14035 Jan 06 11:44	1° $\approx$ 09'37	1.32430 AU	evening rise	14035 Dec 26 17:00	26° $\mathcal{B}$ 15'48	
evening rise	14035 Jan 11 16:59	12° $\approx$ 06'51			14035 Dec 28 12:20	0° $\approx$	
desc. node	14035 Jan 19 12:40	27° $\approx$ 05'22		desc. node	14036 Jan 06 09:25	16° $\approx$ 48'31	
	14035 Jan 21 04:05	0° $\mathcal{H}$			14036 Jan 14 14:56	0° $\mathcal{H}$	
	14035 Feb 11 01:52	0° $\mathcal{Y}$		evening max el	14036 Jan 27 16:11	15° $\mathcal{H}$ 56'49	27°26'17
evening max el	14035 Feb 14 07:19	3° $\mathcal{Y}$ 18'44	27°32'46	retrograde	14036 Feb 10 14:57	23° $\mathcal{H}$ 16'33	
retrograde	14035 Feb 28 02:28	10° $\mathcal{Y}$ 46'09		evening set	14036 Feb 17 11:44	21° $\mathcal{H}$ 06'04	
evening set	14035 Mar 06 22:41	8° $\mathcal{Y}$ 21'09		min. Earth dist.	14036 Feb 21 06:24	18° $\mathcal{H}$ 14'30	0.61385 AU
min. Earth dist.	14035 Mar 10 17:26	5° $\mathcal{Y}$ 06'14	0.63491 AU	inferior conj	14036 Feb 24 08:29	15° $\mathcal{H}$ 28'27	-2°02'12
inferior conj	14035 Mar 13 11:25	2° $\mathcal{Y}$ 18'56	-0°44'10	minimum elong	14036 Feb 24 12:50	15° $\mathcal{H}$ 18'42	2°00'05
minimum elong	14035 Mar 13 12:50	2° $\mathcal{Y}$ 15'20	0°43'30	asc. node	14036 Mar 01 15:27	10° $\mathcal{H}$ 53'57	
asc. node	14035 Mar 15 17:57	0° $\mathcal{Y}$ 05'39		morning rise	14036 Mar 02 16:56	10° $\mathcal{H}$ 30'16	
	14035 Mar 15 20:26	30° $\mathcal{R}\mathcal{H}$		direct	14036 Mar 04 20:32	10° $\mathcal{H}$ 10'29	
morning rise	14035 Mar 20 05:24	27° $\mathcal{H}$ 02'53		morning max el	14036 Mar 11 19:09	13° $\mathcal{H}$ 40'24	17°51'10
direct	14035 Mar 22 15:11	26° $\mathcal{H}$ 34'36			14036 Mar 22 22:52	0° $\mathcal{Y}$	
morning max el	14035 Mar 29 02:28	29° $\mathcal{H}$ 53'22	17°46'55	morning set	14036 Mar 27 11:03	8° $\mathcal{Y}$ 02'44	
	14035 Mar 29 05:10	0° $\mathcal{Y}$		desc. node	14036 Apr 03 11:30	20° $\mathcal{Y}$ 34'34	
morning set	14035 Apr 14 13:26	24° $\mathcal{Y}$ 50'08					
desc. node	14035 Apr 17 14:58	0° $\mathcal{B}$ 04'37		superior conj	14036 Apr 07 09:16	27° $\mathcal{Y}$ 21'27	-0°30'39
	14035 Apr 17 13:53	0° $\mathcal{B}$		minimum elong	14036 Apr 07 06:27	27° $\mathcal{Y}$ 09'20	0°30'35
					14036 Apr 08 22:29	0° $\mathcal{B}$	
superior conj	14035 Apr 27 05:07	16° $\mathcal{B}$ 05'50	-1°10'18	max. Earth dist.	14036 Apr 14 15:52	9° $\mathcal{B}$ 31'03	1.43280 AU
minimum elong	14035 Apr 26 22:08	15° $\mathcal{B}$ 37'20	1°10'03	evening rise	14036 Apr 21 07:55	20° $\mathcal{B}$ 10'00	
max. Earth dist.	14035 May 03 00:32	25° $\mathcal{B}$ 27'02	1.44794 AU		14036 Apr 27 17:25	0° $\mathbb{I}$	
	14035 May 05 21:41	0° $\mathbb{I}$			14036 May 19 06:19	0° $\mathcal{E}$	
evening rise	14035 May 12 13:49	10° $\mathbb{I}$ 20'46		evening max el	14036 May 23 03:06	4° $\mathcal{E}$ 15'34	21°46'18
	14035 May 25 16:22	0° $\mathcal{E}$		asc. node	14036 May 28 12:17	8° $\mathcal{E}$ 32'44	
evening max el	14035 Jun 10 06:57	20° $\mathcal{E}$ 25'15	20°33'16	retrograde	14036 Jun 01 07:26	9° $\mathcal{E}$ 37'58	
asc. node	14035 Jun 11 15:09	21° $\mathcal{E}$ 41'44		evening set	14036 Jun 05 21:10	7° $\mathcal{E}$ 45'05	
retrograde	14035 Jun 18 09:12	25° $\mathcal{E}$ 04'42		inferior conj	14036 Jun 11 03:17	1° $\mathcal{E}$ 28'21	3°05'29
evening set	14035 Jun 22 12:02	23° $\mathcal{E}$ 28'19		minimum elong	14036 Jun 11 02:19	1° $\mathcal{E}$ 31'45	3°04'21
inferior conj	14035 Jun 27 18:13	17° $\mathcal{E}$ 22'07	3°11'35	min. Earth dist.	14036 Jun 11 05:56	1° $\mathcal{E}$ 19'06	0.68904 AU
minimum elong	14035 Jun 27 18:10	17° $\mathcal{E}$ 22'15	3°10'33		14036 Jun 12 04:45	30° $\mathcal{R}\mathbb{I}$	
min. Earth dist.	14035 Jun 28 10:13	16° $\mathcal{E}$ 27'01	0.68393 AU	morning rise	14036 Jun 16 07:16	25° $\mathbb{I}$ 13'14	
morning rise	14035 Jul 03 00:00	11° $\mathcal{E}$ 01'09		direct	14036 Jun 21 05:19	23° $\mathbb{I}$ 06'39	
direct	14035 Jul 08 10:39	8° $\mathcal{E}$ 37'30		desc. node	14036 Jun 30 12:12	28° $\mathbb{I}$ 23'53	
desc. node	14035 Jul 14 15:01	11° $\mathcal{E}$ 00'14		morning max el	14036 Jun 30 23:24	28° $\mathbb{I}$ 51'37	22°29'38
morning max el	14035 Jul 19 11:41	15° $\mathcal{E}$ 13'55	23°58'54		14036 Jul 02 01:51	0° $\mathcal{E}$	
	14035 Jul 31 14:18	0° $\mathcal{Q}$			14036 Jul 24 06:49	0° $\mathcal{Q}$	
	14035 Aug 20 09:04	0° $\mathbb{P}$		morning set	14036 Aug 03 13:56	16° $\mathcal{Q}$ 09'32	
morning set	14035 Aug 23 18:46	5° $\mathbb{P}$ 43'59		max. Earth dist.	14036 Aug 08 12:19	24° $\mathcal{Q}$ 19'55	1.40844 AU
max. Earth dist.	14035 Aug 27 12:27	12° $\mathbb{P}$ 14'23	1.38494 AU		14036 Aug 11 19:52	0° $\mathbb{P}$	
superior conj	14035 Sep 03 22:36	25° $\mathbb{P}$ 51'39	-0°33'45	superior conj	14036 Aug 16 08:32	7° $\mathbb{P}$ 59'09	-1°09'10
minimum elong	14035 Sep 04 00:59	26° $\mathbb{P}$ 02'57	0°33'31	minimum elong	14036 Aug 16 13:48	8° $\mathbb{P}$ 22'48	1°08'52






























































































































asc. node	14036 Aug 24 12:47	23° $\mathbb{M}$ 03'21		minimum elong	14037 Jul 29 04:38	19° $\mathcal{Q}$ 41'25	1°41'56
evening rise	14036 Aug 26 11:44	26° $\mathbb{M}$ 44'03			14037 Aug 04 03:30	0° $\mathbb{M}$	
	14036 Aug 28 05:29	0° $\mathcal{L}$		evening rise	14037 Aug 09 13:19	9° $\mathbb{M}$ 37'25	
evening max el	14036 Sep 11 10:17	22° $\mathcal{L}$ 19'04	18°20'56	asc. node	14037 Aug 11 09:22	12° $\mathbb{M}$ 54'29	
retrograde	14036 Sep 18 22:47	26° $\mathcal{L}$ 07'58			14037 Aug 21 15:00	0° $\mathcal{L}$	
evening set	14036 Sep 21 00:23	25° $\mathcal{L}$ 51'22		evening max el	14037 Aug 25 21:59	5° $\mathcal{L}$ 15'28	18°03'53
desc. node	14036 Sep 26 08:44	22° $\mathcal{L}$ 59'43		retrograde	14037 Sep 01 15:43	8° $\mathcal{L}$ 43'14	
inferior conj	14036 Sep 28 14:27	21° $\mathcal{L}$ 13'43	-0°42'29	evening set	14037 Sep 04 00:45	8° $\mathcal{L}$ 17'27	
minimum elong	14036 Sep 28 12:51	21° $\mathcal{L}$ 16'58	0°41'34	inferior conj	14037 Sep 10 21:13	3° $\mathcal{L}$ 19'35	0°43'22
min. Earth dist.	14036 Oct 01 21:11	18° $\mathcal{L}$ 33'40	0.58378 AU	minimum elong	14037 Sep 10 22:31	3° $\mathcal{L}$ 16'28	0°42'49
morning rise	14036 Oct 05 21:52	15° $\mathcal{L}$ 51'14		desc. node	14037 Sep 13 06:16	1° $\mathcal{L}$ 04'00	
direct	14036 Oct 12 04:23	14° $\mathcal{L}$ 08'02		min. Earth dist.	14037 Sep 14 01:12	0° $\mathcal{L}$ 20'34	0.60634 AU
morning max el	14036 Oct 26 11:50	21° $\mathcal{L}$ 46'09	27°19'06		14037 Sep 14 10:24	30° $\mathbb{R}$ $\mathbb{M}$	
	14036 Nov 02 17:30	0° $\mathbb{M}$		morning rise	14037 Sep 17 17:17	27° $\mathbb{M}$ 27'12	
asc. node	14036 Nov 20 14:35	28° $\mathbb{M}$ 58'16		direct	14037 Sep 24 07:39	25° $\mathbb{M}$ 18'25	
	14036 Nov 21 03:14	0° $\mathcal{X}$			14037 Oct 05 00:24	0° $\mathcal{L}$	
morning set	14036 Nov 26 06:40	10° $\mathcal{X}$ 32'23		morning max el	14037 Oct 08 14:11	3° $\mathcal{L}$ 12'44	27°55'20
					14037 Oct 28 07:50	0° $\mathbb{M}$	
superior conj	14036 Dec 03 04:18	25° $\mathcal{X}$ 42'56	1°33'23	asc. node	14037 Nov 07 11:22	18° $\mathbb{M}$ 39'05	
minimum elong	14036 Dec 03 03:03	25° $\mathcal{X}$ 35'52	1°34'20	morning set	14037 Nov 10 10:33	24° $\mathbb{M}$ 42'50	
max. Earth dist.	14036 Dec 03 01:18	25° $\mathcal{X}$ 26'06	1.31166 AU		14037 Nov 12 22:23	0° $\mathcal{X}$	
	14036 Dec 05 02:19	0° $\mathcal{Z}$		max. Earth dist.	14037 Nov 16 08:41	7° $\mathcal{X}$ 29'37	1.31315 AU
evening rise	14036 Dec 09 22:41	10° $\mathcal{Z}$ 37'48					
	14036 Dec 19 18:14	0° $\approx$		superior conj	14037 Nov 17 15:13	10° $\mathcal{X}$ 19'01	1°23'05
desc. node	14036 Dec 23 06:18	6° $\approx$ 01'53		minimum elong	14037 Nov 17 13:14	10° $\mathcal{X}$ 08'00	1°23'49
evening max el	14037 Jan 08 18:42	27° $\approx$ 46'41	26°45'03	evening rise	14037 Nov 24 07:54	25° $\mathcal{X}$ 06'36	
	14037 Jan 11 07:19	0° $\mathcal{H}$			14037 Nov 26 15:04	0° $\mathcal{Z}$	
retrograde	14037 Jan 22 17:50	4° $\mathcal{H}$ 56'28		desc. node	14037 Dec 10 03:16	24° $\mathcal{Z}$ 33'19	
evening set	14037 Jan 29 08:14	3° $\mathcal{H}$ 07'51			14037 Dec 13 22:45	0° $\approx$	
min. Earth dist.	14037 Feb 02 08:35	0° $\mathcal{H}$ 29'53	0.59197 AU	evening max el	14037 Dec 21 12:43	8° $\approx$ 42'43	25°31'07
	14037 Feb 03 00:18	30° $\mathbb{R}$ $\approx$		retrograde	14038 Jan 04 09:47	15° $\approx$ 42'03	
inferior conj	14037 Feb 05 13:00	28° $\approx$ 00'53	-3°26'53	evening set	14038 Jan 10 08:06	14° $\approx$ 21'25	
minimum elong	14037 Feb 05 20:30	27° $\approx$ 46'13	3°23'36	min. Earth dist.	14038 Jan 15 01:07	11° $\approx$ 42'09	0.57141 AU
morning rise	14037 Feb 13 11:55	23° $\approx$ 23'41		inferior conj	14038 Jan 17 21:38	9° $\approx$ 46'15	-4°47'49
direct	14037 Feb 15 12:32	23° $\approx$ 08'48		minimum elong	14038 Jan 18 06:34	9° $\approx$ 31'07	4°44'39
asc. node	14037 Feb 16 12:52	23° $\approx$ 12'40		morning rise	14038 Jan 26 07:43	5° $\approx$ 31'16	
morning max el	14037 Feb 23 07:17	27° $\approx$ 00'08	18°14'41	direct	14038 Jan 28 10:37	5° $\approx$ 17'44	
	14037 Feb 25 23:09	0° $\mathcal{H}$		asc. node	14038 Feb 03 10:14	7° $\approx$ 13'20	
morning set	14037 Mar 10 23:37	21° $\mathcal{H}$ 55'54		morning max el	14038 Feb 06 10:50	9° $\approx$ 40'53	18°59'22
	14037 Mar 15 06:22	0° $\mathcal{Y}$			14038 Feb 19 17:18	0° $\mathcal{H}$	
				morning set	14038 Feb 22 22:27	6° $\mathcal{H}$ 15'26	
superior conj	14037 Mar 20 12:11	9° $\mathcal{Y}$ 39'43	0°06'41				
minimum elong	14037 Mar 20 12:41	9° $\mathcal{Y}$ 41'59	0°06'32	superior conj	14038 Mar 03 09:36	22° $\mathcal{H}$ 48'18	0°38'25
behind sun begin	14037 Mar 20 05:49	9° $\mathcal{Y}$ 10'55		minimum elong	14038 Mar 03 11:51	22° $\mathcal{H}$ 59'05	0°38'18
behind sun end	14037 Mar 20 19:33	10° $\mathcal{Y}$ 12'58			14038 Mar 07 05:43	0° $\mathcal{Y}$	
desc. node	14037 Mar 21 08:00	11° $\mathcal{Y}$ 09'02		desc. node	14038 Mar 08 04:30	1° $\mathcal{Y}$ 44'19	
max. Earth dist.	14037 Mar 28 02:40	22° $\mathcal{Y}$ 58'38	1.41296 AU	max. Earth dist.	14038 Mar 10 09:27	5° $\mathcal{Y}$ 42'45	1.39057 AU
	14037 Apr 01 07:57	0° $\mathcal{B}$		evening rise	14038 Mar 14 05:17	12° $\mathcal{Y}$ 23'35	
evening rise	14037 Apr 01 19:59	0° $\mathcal{B}$ 49'03			14038 Mar 25 01:58	0° $\mathcal{B}$	
	14037 Apr 21 03:49	0° $\mathbb{I}$			14038 Apr 16 10:32	0° $\mathbb{I}$	
evening max el	14037 May 05 18:57	18° $\mathbb{I}$ 06'27	23°06'09	evening max el	14038 Apr 18 08:40	1° $\mathbb{I}$ 59'02	24°26'48
asc. node	14037 May 15 09:28	24° $\mathbb{I}$ 09'52		retrograde	14038 Apr 29 20:22	8° $\mathbb{I}$ 42'42	
retrograde	14037 May 16 03:33	24° $\mathbb{I}$ 12'25		asc. node	14038 May 02 06:44	8° $\mathbb{I}$ 16'43	
evening set	14037 May 21 04:41	22° $\mathbb{I}$ 04'39		evening set	14038 May 05 09:04	6° $\mathbb{I}$ 22'42	
min. Earth dist.	14037 May 26 02:41	16° $\mathbb{I}$ 15'05	0.68934 AU	min. Earth dist.	14038 May 09 22:26	1° $\mathbb{I}$ 09'29	0.68493 AU
inferior conj	14037 May 26 12:56	15° $\mathbb{I}$ 39'35	2°48'58	inferior conj	14038 May 10 21:19	29° $\mathcal{B}$ 52'39	2°22'11
minimum elong	14037 May 26 11:14	15° $\mathbb{I}$ 45'28	2°47'40	minimum elong	14038 May 10 19:12	29° $\mathcal{B}$ 59'46	2°20'47
morning rise	14037 May 31 17:42	9° $\mathbb{I}$ 31'39			14038 May 10 19:08	30° $\mathbb{R}$ $\mathcal{B}$	
direct	14037 Jun 05 03:02	7° $\mathbb{I}$ 45'05		morning rise	14038 May 16 05:29	23° $\mathcal{B}$ 52'59	
morning max el	14037 Jun 13 15:40	12° $\mathbb{I}$ 39'14	21°06'03	direct	14038 May 20 02:34	22° $\mathcal{B}$ 27'01	
desc. node	14037 Jun 17 09:18	16° $\mathbb{I}$ 46'01		morning max el	14038 May 27 14:52	26° $\mathcal{B}$ 38'32	19°54'01
	14037 Jun 27 08:03	0° $\mathcal{E}$			14038 May 30 16:39	0° $\mathbb{I}$	
morning set	14037 Jul 14 08:43	25° $\mathcal{E}$ 31'54		desc. node	14038 Jun 04 06:17	5° $\mathbb{I}$ 51'14	
	14037 Jul 17 04:48	0° $\mathcal{Q}$			14038 Jun 20 16:48	0° $\mathcal{E}$	
max. Earth dist.	14037 Jul 21 18:02	7° $\mathcal{Q}$ 18'41	1.42956 AU	morning set	14038 Jun 23 11:47	4° $\mathcal{E}$ 16'24	
				max. Earth dist.	14038 Jul 04 05:58	21° $\mathcal{E}$ 03'16	1.44597 AU
superior conj	14037 Jul 28 21:21	19° $\mathcal{Q}$ 10'28	-1°41'57				

superior conj	14038 Jul 09 10:28	29°  22'01	-2°05'48	minimum elong	14039 Jun 19 02:10	8°  41'16	2°14'39
minimum elong	14038 Jul 09 16:15	29°  45'26	2°06'28		14039 Jul 02 11:22	0° 	
	14038 Jul 09 19:51	0° 		evening rise	14039 Jul 04 04:02	2° 	44'31
evening rise	14038 Jul 22 20:21	21°  41'18		asc. node	14039 Jul 16 02:45	21° 	48'58
	14038 Jul 27 17:50	0° 			14039 Jul 22 01:19	0° 	
asc. node	14038 Jul 29 06:01	2°  31'43		evening max el	14039 Jul 24 02:05	2° 	13'17 18°25'53
evening max el	14038 Aug 09 12:22	18°  36'33	18°05'52	retrograde	14039 Jul 30 12:17	5° 	39'49
retrograde	14038 Aug 15 21:39	21°  36'58		evening set	14039 Aug 02 14:26	4° 	46'34
evening set	14038 Aug 18 15:01	21°  38'42			14039 Aug 07 18:00	30° 	
inferior conj	14038 Aug 24 20:53	16°  32'52	1°47'16	inferior conj	14039 Aug 08 09:21	29° 	14'40 2°30'59
minimum elong	14038 Aug 24 23:17	15°  36'24	1°46'10	minimum elong	14039 Aug 08 11:38	29° 	07'52 2°29'50
min. Earth dist.	14038 Aug 27 14:57	13°  36'15	0.62893 AU	min. Earth dist.	14039 Aug 10 14:00	26° 	38'47 0.64941 AU
morning rise	14038 Aug 31 05:25	9°  31'08		morning rise	14039 Aug 14 07:33	22° 	53'02
desc. node	14038 Aug 31 03:48	9°  34'08		desc. node	14039 Aug 18 01:19	20° 	42'23
direct	14038 Sep 06 21:31	7°  32'52		direct	14039 Aug 20 19:51	20° 	14'37
morning max el	14038 Sep 20 22:03	15°  34'19	27°52'36	morning max el	14039 Sep 03 08:35	28° 	10'44 27°15'18
	14038 Oct 02 20:50	0° 			14039 Sep 05 02:25	0° 	
	14038 Oct 20 23:35	0° 			14039 Sep 26 15:35	0° 	
morning set	14038 Oct 25 07:44	8°  31'42		morning set	14039 Oct 08 19:33	21° 	52'15
asc. node	14038 Oct 25 08:04	8°  33'23		asc. node	14039 Oct 12 04:43	28° 	43'55
max. Earth dist.	14038 Oct 30 11:14	19°  31'06	1.32005 AU		14039 Oct 12 21:13	0° 	
				max. Earth dist.	14039 Oct 13 05:34	0° 	42'49 1.33238 AU
superior conj	14038 Nov 01 23:34	24°  34'19	1°07'00				
minimum elong	14038 Nov 01 21:17	24°  31'48	1°07'27	superior conj	14039 Oct 17 03:15	8° 	52'56 0°45'14
	14038 Nov 04 09:05	0° 		minimum elong	14039 Oct 17 01:13	8° 	42'09 0°45'26
evening rise	14038 Nov 08 18:49	9°  37'51		evening rise	14039 Oct 24 05:35	24° 	06'42
	14038 Nov 19 02:24	0° 			14039 Oct 27 01:01	0° 	
desc. node	14038 Nov 27 00:22	12°  30'728		desc. node	14039 Nov 13 21:35	28° 	37'23'35
evening max el	14038 Dec 02 23:46	18°  35'06	23°54'41	evening max el	14039 Nov 14 10:52	28° 	56'42 22°12'37
retrograde	14038 Dec 16 12:59	25°  34'0'31			14039 Nov 15 13:54	0° 	
evening set	14038 Dec 21 08:27	24°  35'0'05		retrograde	14039 Nov 27 03:53	5° 	14'29
min. Earth dist.	14038 Dec 27 10:57	21°  35'0'56	0.55513 AU	evening set	14039 Nov 30 14:28	4° 	34'8'22
inferior conj	14038 Dec 29 09:36	20°  34'1'02	-5°45'23	min. Earth dist.	14039 Dec 08 17:18	1° 	11'10 0.54601 AU
minimum elong	14038 Dec 29 15:01	20°  32'5'4	5°43'44	inferior conj	14039 Dec 09 05:34	0° 	35'3'59 -5°54'58
morning rise	14039 Jan 06 23:23	16°  34'4'50		minimum elong	14039 Dec 09 02:19	0° 	38'3'32 5°53'42
direct	14039 Jan 09 13:06	16°  32'8'08			14039 Dec 10 20:23	30° 	
morning max el	14039 Jan 20 01:50	21°  31'4'40	20°06'51	morning rise	14039 Dec 17 15:13	27° 	37'0'6'45
asc. node	14039 Jan 21 07:34	22°  34'7'19		direct	14039 Dec 21 00:56	26° 	37'4'0'53
	14039 Jan 26 20:22	0° 			14039 Dec 30 03:50	0° 	
morning set	14039 Feb 07 04:03	20°  35'0'55		morning max el	14040 Jan 02 02:11	2° 	32'7'40 21°36'48
	14039 Feb 11 15:11	0° 		asc. node	14040 Jan 08 04:51	9° 	38'0'1
					14040 Jan 19 20:55	0° 	
superior conj	14039 Feb 14 20:56	6°  33'3'54	1°03'25	morning set	14040 Jan 22 13:48	5° 	35'0'5
minimum elong	14039 Feb 14 23:38	6°  34'7'28	1°03'32				
max. Earth dist.	14039 Feb 20 15:57	17°  35'0'58	1.36821 AU	superior conj	14040 Jan 29 18:24	20° 	34'6'12 1°21'26
desc. node	14039 Feb 23 01:00	22°  31'6'29		minimum elong	14040 Jan 29 20:41	20° 	35'8'12 1°21'56
evening rise	14039 Feb 24 10:16	24°  31'4'747		max. Earth dist.	14040 Feb 03 03:28	29° 	34'4'12 1.34811 AU
	14039 Feb 27 08:42	0° 			14040 Feb 03 06:37	0° 	
	14039 Mar 18 16:29	0° 		evening rise	14040 Feb 07 07:36	7° 	35'2'43
evening max el	14039 Mar 31 22:09	15°  35'1'28	25°41'17	desc. node	14040 Feb 09 21:34	12° 	34'1'56
retrograde	14039 Apr 13 08:44	23°  30'1'38			14040 Feb 20 00:13	0° 	
evening set	14039 Apr 19 08:37	20°  33'3'14		evening max el	14040 Mar 13 12:05	29° 	37'3'58 26°42'04
asc. node	14039 Apr 19 04:06	20°  34'2'36			14040 Mar 13 21:14	0° 	
min. Earth dist.	14039 Apr 23 15:03	15°  35'5'38	0.67605 AU	retrograde	14040 Mar 26 15:35	7° 	30'2'06
inferior conj	14039 Apr 25 02:27	14°  30'2'49	1°44'50	evening set	14040 Apr 02 01:34	4° 	30'0'4
minimum elong	14039 Apr 25 00:23	14°  30'9'25	1°43'31	asc. node	14040 Apr 05 01:32	1° 	37'0'5
morning rise	14039 Apr 30 16:41	8°  31'2'42		min. Earth dist.	14040 Apr 06 02:21	0° 	32'6'52 0.66301 AU
direct	14039 May 04 02:25	7°  30'6'16			14040 Apr 06 11:33	30° 	
morning max el	14039 May 10 21:27	10°  34'6'57	18°56'53	inferior conj	14040 Apr 08 02:12	28° 	35'0'12 0°56'18
desc. node	14039 May 22 03:08	25°  32'7'26		minimum elong	14040 Apr 08 00:48	28° 	35'0'19 0°55'23
greatest brilliancy	14039 May 24 06:34	28°  34'0'20	-0.8m	morning rise	14040 Apr 14 01:12	22° 	37'2'6'25
	14039 May 25 03:36	0° 		direct	14040 Apr 17 00:40	21° 	37'3'13
morning set	14039 Jun 02 18:54	13°  31'17'47		morning max el	14040 Apr 23 10:18	24° 	35'9'49 18°16'13
	14039 Jun 13 12:53	0°			14040 Apr 27 17:08	0°	
max. Earth dist.	14039 Jun 16 22:55	5°  32'0'20	1.45604 AU	desc. node	14040 May 07 23:54	15°	32'6'17
				morning set	14040 May 13 00:45	23°	32'8'06
superior conj	14039 Jun 19 02:56	8°  34'4'16	-2°13'36		14040 May 17 03:06	0°	

superior conj	14040 May 28 11:01	17° $\Pi$ 50'55	-2°01'15	superior conj	14041 May 08 04:05	27° $\text{C}$ 27'22	-1°31'48
minimum elong	14040 May 28 03:22	17° $\Pi$ 21'03	2°01'48	minimum elong	14041 May 07 19:23	26° $\text{C}$ 52'38	1°31'41
max. Earth dist.	14040 May 29 19:00	19° $\Pi$ 55'52	1.45878 AU		14041 May 09 18:25	0° $\Pi$	
	14040 Jun 05 06:03	0° $\text{C}$		max. Earth dist.	14041 May 12 15:10	4° $\Pi$ 31'41	1.45394 AU
evening rise	14040 Jun 13 11:26	12° $\text{C}$ 48'49		evening rise	14041 May 24 01:42	22° $\Pi$ 16'07	
greatest brilliancy	14040 Jun 24 04:28	29° $\text{C}$ 24'27	-0.8m		14041 May 29 03:27	0° $\text{C}$	
	14040 Jun 24 13:50	0° $\Omega$		greatest brilliancy	14041 Jun 07 20:32	14° $\text{C}$ 28'21	-0.6m
asc. node	14040 Jul 01 23:35	10° $\Omega$ 39'22		asc. node	14041 Jun 18 20:32	28° $\text{C}$ 53'39	
evening max el	14040 Jul 06 12:29	15° $\Omega$ 58'58	19°03'05	evening max el	14041 Jun 19 17:37	29° $\text{C}$ 48'12	19°56'17
retrograde	14040 Jul 13 08:15	19° $\Omega$ 44'46			14041 Jun 19 22:22	0° $\Omega$	
evening set	14040 Jul 16 19:33	18° $\Omega$ 34'58		retrograde	14041 Jun 27 06:50	4° $\Omega$ 05'29	
inferior conj	14040 Jul 22 07:05	12° $\Omega$ 48'31	2°57'37	evening set	14041 Jul 01 03:50	2° $\Omega$ 38'38	
minimum elong	14040 Jul 22 08:37	12° $\Omega$ 43'35	2°56'34		14041 Jul 03 20:42	30° $\text{R}$ $\text{C}$	
min. Earth dist.	14040 Jul 23 21:12	10° $\Omega$ 46'30	0.66633 AU	inferior conj	14041 Jul 06 11:07	26° $\text{C}$ 39'01	3°10'03
morning rise	14040 Jul 27 21:00	6° $\Omega$ 23'49		minimum elong	14041 Jul 06 11:40	26° $\text{C}$ 37'10	3°09'02
direct	14040 Aug 03 01:13	3° $\Omega$ 45'00		min. Earth dist.	14041 Jul 07 10:57	25° $\text{C}$ 18'33	0.67882 AU
desc. node	14040 Aug 03 22:48	3° $\Omega$ 48'01		morning rise	14041 Jul 11 19:09	20° $\text{C}$ 15'48	
morning max el	14040 Aug 15 19:43	11° $\Omega$ 21'27	26°11'14	direct	14041 Jul 17 12:33	17° $\text{C}$ 44'55	
	14040 Aug 30 16:58	0° $\text{M}$		desc. node	14041 Jul 21 20:11	18° $\text{C}$ 54'46	
	14040 Sep 18 06:17	0° $\underline{\text{C}}$		morning max el	14041 Jul 29 06:24	24° $\text{C}$ 47'08	24°49'50
morning set	14040 Sep 20 18:40	4° $\underline{\text{C}}$ 36'23			14041 Aug 02 23:23	0° $\Omega$	
max. Earth dist.	14040 Sep 24 14:07	11° $\underline{\text{C}}$ 50'50	1.34990 AU		14041 Aug 24 03:45	0° $\text{M}$	
asc. node	14040 Sep 28 01:19	18° $\underline{\text{C}}$ 42'26		morning set	14041 Sep 03 01:07	16° $\text{M}$ 35'31	
				max. Earth dist.	14041 Sep 06 14:49	23° $\text{M}$ 00'32	1.37147 AU
superior conj	14040 Sep 29 23:41	22° $\underline{\text{C}}$ 37'59	0°18'02		14041 Sep 10 08:44	0° $\underline{\text{C}}$	
minimum elong	14040 Sep 29 22:41	22° $\underline{\text{C}}$ 32'50	0°18'08				
	14040 Oct 03 13:03	0° $\text{M}$		superior conj	14041 Sep 13 09:50	5° $\underline{\text{C}}$ 52'30	-0°13'52
evening rise	14040 Oct 07 14:13	8° $\text{M}$ 27'41		minimum elong	14041 Sep 13 10:44	5° $\underline{\text{C}}$ 56'54	0°13'42
	14040 Oct 19 01:19	0° $\text{C}$		behind sun begin	14041 Sep 13 07:13	5° $\underline{\text{C}}$ 39'42	
evening max el	14040 Oct 26 07:10	9° $\text{C}$ 19'48	20°41'06	behind sun end	14041 Sep 13 14:16	6° $\underline{\text{C}}$ 14'08	
desc. node	14040 Oct 30 18:55	12° $\text{C}$ 55'07		asc. node	14041 Sep 14 21:53	8° $\underline{\text{C}}$ 49'41	
retrograde	14040 Nov 06 14:19	14° $\text{C}$ 56'51		evening rise	14041 Sep 21 18:26	22° $\underline{\text{C}}$ 35'31	
evening set	14040 Nov 08 22:32	14° $\text{C}$ 43'27			14041 Sep 25 12:07	0° $\text{M}$	
inferior conj	14040 Nov 17 21:04	10° $\text{C}$ 49'16	-5°04'22	evening max el	14041 Oct 08 17:37	20° $\text{M}$ 29'00	19°29'24
minimum elong	14040 Nov 17 11:24	11° $\text{C}$ 03'09	5°01'10	desc. node	14041 Oct 17 16:20	25° $\text{M}$ 17'18	
min. Earth dist.	14040 Nov 18 23:21	10° $\text{C}$ 11'28	0.54593 AU	retrograde	14041 Oct 18 09:19	25° $\text{M}$ 18'48	
morning rise	14040 Nov 26 00:14	6° $\text{C}$ 53'13		evening set	14041 Oct 20 06:26	25° $\text{M}$ 08'37	
direct	14040 Nov 30 09:00	6° $\text{C}$ 12'22		inferior conj	14041 Oct 28 22:52	21° $\text{M}$ 02'25	-3°29'08
morning max el	14040 Dec 13 14:53	12° $\text{C}$ 38'46	23°23'03	minimum elong	14041 Oct 28 14:09	21° $\text{M}$ 16'26	3°25'19
asc. node	14040 Dec 25 02:02	27° $\text{C}$ 27'17		min. Earth dist.	14041 Oct 31 08:41	19° $\text{M}$ 29'42	0.55510 AU
	14040 Dec 26 14:45	0° $\text{C}$		morning rise	14041 Nov 05 19:48	16° $\text{M}$ 37'41	
morning set	14041 Jan 06 01:29	20° $\text{C}$ 20'43		direct	14041 Nov 11 01:29	15° $\text{M}$ 36'07	
	14041 Jan 10 12:38	0° $\approx$		morning max el	14041 Nov 25 00:32	22° $\text{M}$ 36'16	25°10'46
superior conj	14041 Jan 12 22:47	5° $\approx$ 15'15	1°32'46		14041 Dec 01 14:07	0° $\text{C}$	
minimum elong	14041 Jan 13 00:12	5° $\approx$ 22'52	1°33'36	asc. node	14041 Dec 11 23:06	16° $\text{C}$ 00'52	
max. Earth dist.	14041 Jan 15 22:29	11° $\approx$ 37'53	1.33170 AU		14041 Dec 19 04:05	0° $\text{C}$	
evening rise	14041 Jan 20 17:38	21° $\approx$ 28'02		morning set	14041 Dec 21 13:16	5° $\text{C}$ 02'34	
	14041 Jan 25 04:02	0° $\text{C}$					
desc. node	14041 Jan 26 18:11	2° $\text{C}$ 55'24		superior conj	14041 Dec 28 07:36	19° $\text{C}$ 54'01	1°37'45
	14041 Feb 12 20:40	0° $\text{Y}$		minimum elong	14041 Dec 28 07:57	19° $\text{C}$ 55'52	1°38'47
evening max el	14041 Feb 24 01:25	13° $\text{Y}$ 06'58	27°21'54	max. Earth dist.	14041 Dec 30 00:32	23° $\text{C}$ 38'53	1.31988 AU
retrograde	14041 Mar 09 16:01	20° $\text{Y}$ 35'02			14042 Jan 01 23:05	0° $\approx$	
evening set	14041 Mar 16 09:46	18° $\text{Y}$ 05'18		evening rise	14042 Jan 04 13:18	5° $\approx$ 26'08	
min. Earth dist.	14041 Mar 20 06:10	14° $\text{Y}$ 34'08	0.64616 AU	desc. node	14042 Jan 13 14:53	22° $\approx$ 51'23	
inferior conj	14041 Mar 22 18:00	11° $\text{Y}$ 52'51	-0°04'02		14042 Jan 17 19:04	0° $\text{C}$	
minimum elong	14041 Mar 22 18:07	11° $\text{Y}$ 52'32	0°04'05	evening max el	14042 Feb 06 12:22	26° $\text{C}$ 06'19	27°33'58
transit middle	14041 Mar 22 18:07	11° $\text{Y}$ 52'32	0°04'05		14042 Feb 11 04:08	0° $\text{Y}$	
transit begin	14041 Mar 22 15:09	12° $\text{Y}$ 00'35		retrograde	14042 Feb 20 09:18	3° $\text{Y}$ 31'11	
transit end	14041 Mar 22 21:05	11° $\text{Y}$ 44'30		evening set	14042 Feb 27 06:41	1° $\text{Y}$ 11'02	
asc. node	14041 Mar 22 23:01	11° $\text{Y}$ 39'16			14042 Feb 28 21:04	30° $\text{R}$ $\text{C}$	
morning rise	14041 Mar 29 04:24	6° $\text{Y}$ 27'51		min. Earth dist.	14042 Mar 03 00:45	28° $\text{C}$ 07'21	0.62622 AU
direct	14041 Mar 31 18:50	5° $\text{Y}$ 52'51		inferior conj	14042 Mar 05 22:51	25° $\text{C}$ 18'30	-1°16'04
morning max el	14041 Apr 07 03:04	9° $\text{Y}$ 09'26	17°52'37	minimum elong	14042 Mar 06 01:25	25° $\text{C}$ 12'17	1°14'49
	14041 Apr 21 10:45	0° $\text{C}$		asc. node	14042 Mar 09 20:31	21° $\text{C}$ 52'45	
morning set	14041 Apr 24 10:44	4° $\text{C}$ 59'59		morning rise	14042 Mar 12 22:54	20° $\text{C}$ 10'00	
desc. node	14041 Apr 24 20:33	5° $\text{C}$ 40'53		direct	14042 Mar 15 05:47	19° $\text{C}$ 45'46	
				morning max el	14042 Mar 21 20:47	23° $\text{C}$ 07'42	17°46'29

	14042 Mar 27 07:46	0°♿			14043 Mar 20 09:54	0°♿	
morning set	14042 Apr 06 21:06	17°♿40'55		morning set	14043 Mar 21 01:47	1°♿12'54	
desc. node	14042 Apr 11 17:06	26°♿06'22		desc. node	14043 Mar 29 13:38	16°♿38'50	
	14042 Apr 13 23:27	0°♿					
superior conj	14042 Apr 18 18:21	8°♿04'41	-0°53'30	superior conj	14043 Mar 31 08:41	19°♿48'47	-0°14'19
minimum elong	14042 Apr 18 13:07	7°♿42'52	0°53'18	minimum elong	14043 Mar 31 07:27	19°♿43'22	0°14'21
max. Earth dist.	14042 Apr 25 08:33	18°♿50'33	1.44217 AU	behind sun begin	14043 Mar 31 03:54	19°♿27'49	
	14042 May 02 10:28	0°♿		behind sun end	14043 Mar 31 11:00	19°♿58'53	
evening rise	14042 May 03 13:48	1°♿45'42		max. Earth dist.	14043 Apr 07 21:34	2°♿38'59	1.42476 AU
	14042 May 22 16:56	0°♿		evening rise	14043 Apr 13 14:45	11°♿54'52	
evening max el	14042 Jun 02 16:45	13°♿37'39	21°03'09		14043 Apr 25 10:38	0°♿	
asc. node	14042 Jun 05 17:34	16°♿19'06		evening max el	14043 May 16 10:49	27°♿28'19	22°19'46
retrograde	14042 Jun 11 05:47	18°♿35'26			14043 May 19 05:12	0°♿	
evening set	14042 Jun 15 13:08	16°♿51'51		asc. node	14043 May 23 14:42	2°♿41'06	
inferior conj	14042 Jun 20 18:59	10°♿40'40	3°10'21	retrograde	14043 May 26 03:23	3°♿10'02	
minimum elong	14042 Jun 20 18:31	10°♿42'15	3°09'15	evening set	14043 May 30 21:47	1°♿10'46	
min. Earth dist.	14042 Jun 21 05:11	10°♿05'12	0.68664 AU		14043 Jun 01 03:31	30°♿♿	
morning rise	14042 Jun 25 23:40	4°♿21'51		inferior conj	14043 Jun 05 04:33	24°♿50'04	2°59'45
direct	14042 Jul 01 04:52	2°♿05'10		minimum elong	14043 Jun 05 03:15	24°♿54'39	2°58'32
desc. node	14042 Jul 08 17:27	5°♿35'22		min. Earth dist.	14043 Jun 05 01:44	24°♿59'56	0.68974 AU
morning max el	14042 Jul 11 17:07	8°♿20'48	23°20'41	morning rise	14043 Jun 10 08:32	18°♿37'35	
	14042 Jul 28 16:25	0°♿		direct	14043 Jun 15 01:07	16°♿39'12	
morning set	14042 Aug 15 10:14	27°♿37'46		morning max el	14043 Jun 24 06:22	22°♿02'27	21°52'51
	14042 Aug 16 20:02	0°♿		desc. node	14043 Jun 25 14:35	23°♿26'12	
max. Earth dist.	14042 Aug 19 12:47	4°♿37'19	1.39501 AU		14043 Jul 01 03:05	0°♿	
					14043 Jul 21 22:56	0°♿	
superior conj	14042 Aug 27 05:46	18°♿26'41	-0°48'49	morning set	14043 Jul 26 18:41	7°♿35'20	
minimum elong	14042 Aug 27 09:22	18°♿43'23	0°48'31	max. Earth dist.	14043 Aug 01 14:13	17°♿02'56	1.41789 AU
asc. node	14042 Sep 01 18:25	28°♿53'31					
	14042 Sep 02 08:14	0°♿		superior conj	14043 Aug 09 07:11	0°♿11'11	-1°23'44
evening rise	14042 Sep 05 15:19	6°♿21'51		minimum elong	14043 Aug 09 13:33	0°♿39'04	1°23'30
	14042 Sep 19 12:37	0°♿			14043 Aug 09 04:38	0°♿	
evening max el	14042 Sep 21 17:04	2°♿26'43	18°39'48	asc. node	14043 Aug 19 14:58	18°♿50'28	
retrograde	14042 Sep 29 21:32	6°♿34'17		evening rise	14043 Aug 20 01:12	19°♿37'38	
evening set	14042 Oct 01 19:42	6°♿21'23			14043 Aug 25 18:05	0°♿	
desc. node	14042 Oct 04 13:49	5°♿21'59		evening max el	14043 Sep 05 01:35	15°♿05'07	18°11'20
inferior conj	14042 Oct 09 20:24	1°♿56'14	-1°40'45	retrograde	14043 Sep 12 04:41	18°♿42'55	
minimum elong	14042 Oct 09 16:17	2°♿03'55	1°38'38	evening set	14043 Sep 14 09:19	18°♿22'52	
	14042 Oct 12 10:32	30°♿♿		desc. node	14043 Sep 21 11:18	13°♿46'10	
min. Earth dist.	14042 Oct 12 23:49	29°♿35'56	0.57186 AU	inferior conj	14043 Sep 21 15:40	13°♿36'41	-0°03'24
morning rise	14042 Oct 17 09:27	26°♿54'05		minimum elong	14043 Sep 21 15:33	13°♿36'56	0°03'13
direct	14042 Oct 23 08:32	25°♿26'20		transit middle	14043 Sep 21 15:33	13°♿36'56	0°03'13
	14042 Nov 03 07:38	0°♿		transit begin	14043 Sep 21 12:12	13°♿44'14	
morning max el	14042 Nov 06 14:49	2°♿53'24	26°41'05	transit end	14043 Sep 21 18:53	13°♿29'38	
	14042 Nov 26 01:27	0°♿		min. Earth dist.	14043 Sep 24 22:34	10°♿45'44	0.59327 AU
asc. node	14042 Nov 28 20:03	5°♿07'06		morning rise	14043 Sep 28 18:24	8°♿00'25	
morning set	14042 Dec 05 23:24	19°♿35'44		direct	14043 Oct 05 05:18	6°♿05'26	
	14042 Dec 10 17:15	0°♿		morning max el	14043 Oct 19 12:38	13°♿51'34	27°39'13
					14043 Nov 01 11:02	0°♿	
superior conj	14042 Dec 12 18:44	4°♿36'06	1°36'40	asc. node	14043 Nov 15 16:52	24°♿37'22	
minimum elong	14042 Dec 12 18:00	4°♿32'04	1°37'43		14043 Nov 18 08:54	0°♿	
max. Earth dist.	14042 Dec 13 07:17	5°♿46'09	1.31310 AU	morning set	14043 Nov 20 06:05	3°♿55'42	
evening rise	14042 Dec 19 15:57	19°♿40'38		max. Earth dist.	14043 Nov 26 15:26	17°♿53'20	1.31161 AU
	14042 Dec 24 17:32	0°♿					
desc. node	14042 Dec 31 11:43	12°♿22'43		superior conj	14043 Nov 27 06:15	19°♿16'02	1°29'43
	14043 Jan 12 06:21	0°♿		minimum elong	14043 Nov 27 04:38	19°♿07'03	1°30'36
evening max el	14043 Jan 19 18:40	8°♿24'17	27°13'04		14043 Dec 02 02:06	0°♿	
retrograde	14043 Feb 02 18:16	15°♿40'56		evening rise	14043 Dec 03 23:22	4°♿05'54	
evening set	14043 Feb 09 13:13	13°♿38'43			14043 Dec 17 13:00	0°♿	
min. Earth dist.	14043 Feb 13 09:11	10°♿54'26	0.60443 AU	desc. node	14043 Dec 18 08:38	1°♿19'31	
inferior conj	14043 Feb 16 13:19	8°♿13'17	-2°37'46	evening max el	14044 Jan 01 17:51	19°♿51'29	26°17'21
minimum elong	14043 Feb 16 19:03	8°♿01'07	2°35'05	retrograde	14044 Jan 15 16:52	26°♿56'57	
morning rise	14043 Feb 24 04:06	3°♿23'59		evening set	14044 Jan 22 01:25	25°♿20'02	
asc. node	14043 Feb 24 17:58	3°♿15'50		min. Earth dist.	14044 Jan 26 07:21	22°♿43'16	0.58280 AU
direct	14043 Feb 26 05:47	3°♿06'51		inferior conj	14044 Jan 29 09:42	20°♿26'42	-4°02'43
morning max el	14043 Mar 05 12:04	6°♿44'51	17°58'46	minimum elong	14044 Jan 29 18:12	20°♿11'03	3°59'16

morning rise	14044 Feb 06 13:59	15° $\approx$ 58'40		14045 Jan 12 09:43	30° $\approx$ 30	
direct	14044 Feb 08 14:37	15° $\approx$ 44'53		morning rise	14045 Jan 17 22:10	27° $\approx$ 44'26
asc. node	14044 Feb 11 15:23	16° $\approx$ 17'25		direct	14045 Jan 20 04:43	27° $\approx$ 30'02
morning max el	14044 Feb 16 21:01	19° $\approx$ 49'05	18°31'01		14045 Jan 27 06:10	0° $\approx$
	14044 Feb 24 10:23	0° $\approx$		asc. node	14045 Jan 28 12:45	0° $\approx$ 59'31
morning set	14044 Mar 03 19:14	15° $\approx$ 18'46		morning max el	14045 Jan 29 19:36	2° $\approx$ 09'26 19°25'13
	14044 Mar 11 11:51	0° $\approx$		morning set	14045 Feb 15 21:21	29° $\approx$ 46'24
					14045 Feb 16 00:04	0° $\approx$
superior conj	14044 Mar 12 20:01	2° $\approx$ 29'41	0°20'55	superior conj	14045 Feb 23 23:53	15° $\approx$ 55'17 0°49'53
minimum elong	14044 Mar 12 21:27	2° $\approx$ 36'19	0°20'45	minimum elong	14045 Feb 24 02:28	16° $\approx$ 07'53 0°49'50
desc. node	14044 Mar 15 10:08	7° $\approx$ 13'54		desc. node	14045 Mar 02 06:39	27° $\approx$ 48'14
max. Earth dist.	14044 Mar 20 06:16	15° $\approx$ 47'34	1.40359 AU	max. Earth dist.	14045 Mar 02 12:50	28° $\approx$ 16'27 1.38096 AU
evening rise	14044 Mar 24 11:53	22° $\approx$ 58'08			14045 Mar 03 11:39	0° $\approx$
	14044 Mar 28 19:26	0° $\approx$		evening rise	14045 Mar 06 05:56	4° $\approx$ 54'39
	14044 Apr 18 09:05	0° $\approx$			14045 Mar 21 20:04	0° $\approx$
evening max el	14044 Apr 28 01:40	11° $\approx$ 20'39	23°40'47	evening max el	14045 Apr 10 15:16	25° $\approx$ 13'53 24°59'39
retrograde	14044 May 08 22:08	17° $\approx$ 43'18			14045 Apr 16 09:07	0° $\approx$
asc. node	14044 May 09 11:56	17° $\approx$ 41'49		retrograde	14045 Apr 22 13:01	2° $\approx$ 09'29
evening set	14044 May 14 04:09	15° $\approx$ 30'12		asc. node	14045 Apr 26 09:15	1° $\approx$ 06'04
min. Earth dist.	14044 May 18 22:21	9° $\approx$ 56'02	0.68808 AU		14045 Apr 27 23:38	30° $\approx$ 30
inferior conj	14044 May 19 13:54	9° $\approx$ 02'45	2°38'52	evening set	14045 Apr 28 06:40	29° $\approx$ 45'21
minimum elong	14044 May 19 11:59	9° $\approx$ 09'20	2°37'31	min. Earth dist.	14045 May 02 16:56	24° $\approx$ 47'36 0.68176 AU
morning rise	14044 May 24 19:48	2° $\approx$ 58'03		inferior conj	14045 May 03 21:09	23° $\approx$ 14'47 2°07'39
direct	14044 May 28 23:55	1° $\approx$ 20'01		minimum elong	14045 May 03 18:59	23° $\approx$ 21'54 2°06'16
morning max el	14044 Jun 06 01:15	5° $\approx$ 54'28	20°33'40	morning rise	14045 May 09 07:35	17° $\approx$ 19'10
desc. node	14044 Jun 11 11:37	12° $\approx$ 08'08		direct	14045 May 12 23:49	16° $\approx$ 01'36
	14044 Jun 24 05:51	0° $\approx$		morning max el	14045 May 20 03:39	19° $\approx$ 57'57 19°27'47
morning set	14044 Jul 05 04:57	16° $\approx$ 36'11			14045 May 28 07:40	0° $\approx$
	14044 Jul 13 17:01	0° $\approx$		desc. node	14045 May 29 08:34	1° $\approx$ 27'29
max. Earth dist.	14044 Jul 13 22:43	0° $\approx$ 22'51	1.43733 AU	greatest brilliancy	14045 Jun 01 19:06	6° $\approx$ 26'00 -0.7m
				morning set	14045 Jun 14 07:04	25° $\approx$ 20'40
superior conj	14044 Jul 20 10:06	10° $\approx$ 57'29	-1°53'35		14045 Jun 17 07:35	0° $\approx$
minimum elong	14044 Jul 20 17:20	11° $\approx$ 27'37	1°53'50	max. Earth dist.	14045 Jun 26 13:42	14° $\approx$ 25'38 1.45117 AU
	14044 Jul 31 13:30	0° $\approx$				
evening rise	14044 Aug 01 19:31	2° $\approx$ 11'19		superior conj	14045 Jun 30 13:33	20° $\approx$ 45'21 -2°11'26
asc. node	14044 Aug 05 11:36	8° $\approx$ 36'21		minimum elong	14045 Jun 30 17:04	20° $\approx$ 59'23 2°12'22
evening max el	14044 Aug 18 14:55	28° $\approx$ 13'33	18°02'29		14045 Jul 06 07:23	0° $\approx$
	14044 Aug 20 16:57	0° $\approx$		evening rise	14045 Jul 14 17:08	13° $\approx$ 50'40
retrograde	14044 Aug 25 03:39	1° $\approx$ 36'10		asc. node	14045 Jul 23 08:17	28° $\approx$ 05'54
evening set	14044 Aug 27 16:19	1° $\approx$ 05'17			14045 Jul 24 12:58	0° $\approx$
	14044 Aug 29 16:29	30° $\approx$ 30		evening max el	14045 Aug 02 05:23	11° $\approx$ 42'11 18°12'10
inferior conj	14044 Sep 03 06:07	25° $\approx$ 59'24	1°13'06	retrograde	14045 Aug 08 13:55	15° $\approx$ 03'38
minimum elong	14044 Sep 03 08:05	25° $\approx$ 54'28	1°12'15	evening set	14045 Aug 11 11:00	14° $\approx$ 19'09
min. Earth dist.	14044 Sep 06 06:29	22° $\approx$ 59'09	0.61616 AU	inferior conj	14045 Aug 17 11:43	8° $\approx$ 55'56 2°08'06
desc. node	14044 Sep 07 08:49	21° $\approx$ 58'09		minimum elong	14045 Aug 17 14:11	8° $\approx$ 49'00 2°06'57
morning rise	14044 Sep 09 21:15	19° $\approx$ 57'52		min. Earth dist.	14045 Aug 20 00:11	6° $\approx$ 06'29 0.63800 AU
direct	14044 Sep 16 13:12	17° $\approx$ 39'55		morning rise	14045 Aug 23 15:39	2° $\approx$ 38'57
morning max el	14044 Sep 30 17:28	25° $\approx$ 37'36	27°58'47	desc. node	14045 Aug 25 06:22	1° $\approx$ 32'44
	14044 Oct 04 18:40	0° $\approx$		direct	14045 Aug 30 06:36	0° $\approx$ 05'34
	14044 Oct 24 23:29	0° $\approx$		morning max el	14045 Sep 13 02:58	8° $\approx$ 05'56 27°40'39
asc. node	14044 Nov 01 13:37	14° $\approx$ 24'48			14045 Sep 30 01:37	0° $\approx$
morning set	14044 Nov 03 07:25	17° $\approx$ 57'50			14045 Oct 17 05:43	0° $\approx$
	14044 Nov 08 22:49	0° $\approx$		morning set	14045 Oct 18 00:58	1° $\approx$ 35'30
max. Earth dist.	14044 Nov 08 21:21	29° $\approx$ 52'00	1.31545 AU	asc. node	14045 Oct 19 10:18	4° $\approx$ 23'10
				max. Earth dist.	14045 Oct 22 21:03	11° $\approx$ 31'55 1.32467 AU
superior conj	14044 Nov 10 16:20	3° $\approx$ 48'35	1°16'58			
minimum elong	14044 Nov 10 14:10	3° $\approx$ 36'34	1°17'35	superior conj	14045 Oct 25 22:58	18° $\approx$ 07'20 0°58'28
evening rise	14044 Nov 17 09:35	18° $\approx$ 37'00		minimum elong	14045 Oct 25 20:42	17° $\approx$ 55'07 0°58'47
	14044 Nov 22 21:10	0° $\approx$			14045 Oct 31 09:50	0° $\approx$
desc. node	14044 Dec 04 05:40	19° $\approx$ 29'02		evening rise	14045 Nov 01 20:40	3° $\approx$ 07'57
	14044 Dec 12 21:07	0° $\approx$			14045 Nov 16 06:21	0° $\approx$
evening max el	14044 Dec 13 08:42	0° $\approx$ 27'59	24°52'01	desc. node	14045 Nov 21 02:50	6° $\approx$ 32'51
retrograde	14044 Dec 27 03:04	7° $\approx$ 20'58		evening max el	14045 Nov 24 18:25	10° $\approx$ 30'34 23°10'46
evening set	14045 Jan 01 15:23	6° $\approx$ 13'24		retrograde	14045 Dec 08 00:34	17° $\approx$ 05'43
min. Earth dist.	14045 Jan 06 20:34	3° $\approx$ 28'11	0.56382 AU	evening set	14045 Dec 12 06:28	16° $\approx$ 26'32
inferior conj	14045 Jan 09 09:28	1° $\approx$ 50'55	-5°16'33	min. Earth dist.	14045 Dec 19 04:06	13° $\approx$ 13'29 0.55026 AU
minimum elong	14045 Jan 09 17:41	1° $\approx$ 37'46	5°13'57			

inferior conj	14045 Dec 20 13:33	12°  25'16	-5°56'31	morning rise	14046 Dec 08 12:41	18°  38'08	
minimum elong	14045 Dec 20 15:39	12°  22'15	5°55'23	direct	14046 Dec 12 07:53	18°  06'47	
morning rise	14045 Dec 29 02:23	8°  35'02		morning max el	14046 Dec 24 23:10	24°  11'30	22°20'44
direct	14045 Dec 31 23:47	8°  15'14			14046 Dec 30 03:18	0° 	
morning max el	14046 Jan 12 04:23	13°  36'33	20°42'39	asc. node	14047 Jan 02 07:18	4°  25'33	
asc. node	14046 Jan 15 10:04	17°  08'03		morning set	14047 Jan 15 15:45	29°  11'35	
	14046 Jan 23 20:13	0° 			14047 Jan 16 00:54	0° 	
morning set	14046 Jan 31 04:59	14°  26'21					
				superior conj	14047 Jan 22 16:42	14°  13'58	1°27'02
superior conj	14046 Feb 07 15:57	29°  53'27	1°11'54	minimum elong	14047 Jan 22 18:39	14°  24'21	1°27'41
minimum elong	14046 Feb 07 18:34	0°  06'48	1°12'10	max. Earth dist.	14047 Jan 26 11:10	22°  06'01	1.34055 AU
	14046 Feb 07 17:14	0° 			14047 Jan 30 09:57	0° 	
max. Earth dist.	14046 Feb 12 21:01	10°  16'00	1.35925 AU	evening rise	14047 Jan 30 21:22	0°  55'33	
evening rise	14046 Feb 16 18:15	17°  36'47		desc. node	14047 Feb 03 23:47	8°  38'55	
desc. node	14046 Feb 17 03:12	18°  17'59			14047 Feb 16 19:19	0° 	
	14046 Feb 23 18:39	0° 		evening max el	14047 Mar 06 18:24	22°  43'56	27°02'04
	14046 Mar 16 03:06	0° 			14047 Mar 18 05:06	0° 	
evening max el	14046 Mar 24 04:46	9°  04'08	26°09'13	retrograde	14047 Mar 20 03:39	0°  11'52	
retrograde	14046 Apr 05 23:09	16°  21'55			14047 Mar 22 00:40	30°  R 	
evening set	14046 Apr 12 03:42	13°  50'59		evening set	14047 Mar 26 17:13	27°  43'56	
asc. node	14046 Apr 13 06:39	12°  50'34		min. Earth dist.	14047 Mar 30 15:50	23°  43'56	0.65617 AU
min. Earth dist.	14046 Apr 16 07:27	9°  28'33	0.67098 AU	asc. node	14047 Mar 31 04:07	23°  43'56	
inferior conj	14046 Apr 18 00:17	7°  22'11	1°25'39	inferior conj	14047 Apr 01 20:58	21°  43'56	0°32'10
minimum elong	14046 Apr 17 22:25	7°  27'58	1°24'28	minimum elong	14047 Apr 01 20:07	21°  43'56	0°31'34
morning rise	14046 Apr 23 17:56	1°  36'57		morning rise	14047 Apr 08 00:31	15°  43'56	
direct	14046 Apr 26 23:08	0°  38'17		direct	14047 Apr 10 19:52	15°  43'56	
morning max el	14046 May 03 13:15	4°  09'39	18°37'37	morning max el	14047 Apr 17 04:07	18°  43'56	18°04'05
desc. node	14046 May 16 05:24	21°  08'14'20			14047 Apr 25 23:28	0° 	
	14046 May 21 20:50	0° 		desc. node	14047 May 03 02:06	11°  43'56	
morning set	14046 May 24 22:20	4°  47'42		morning set	14047 May 05 16:08	15°  43'56	
max. Earth dist.	14046 Jun 09 08:25	28°  53'16	1.45806 AU		14047 May 14 15:19	0° 	
				superior conj	14047 May 20 10:22	9°  43'56	-1°50'26
superior conj	14046 Jun 10 00:30	29°  56'03	-2°10'50	minimum elong	14047 May 20 01:29	8°  43'56	1°50'39
minimum elong	14046 Jun 09 20:23	29°  39'59	2°11'45	max. Earth dist.	14047 May 23 04:17	13°  43'56	1.45753 AU
	14046 Jun 10 01:30	0° 			14047 Jun 02 19:30	0° 	
evening rise	14046 Jun 25 14:21	24°  28'42		evening rise	14047 Jun 05 12:56	4°  43'56	
	14046 Jun 29 01:36	0° 		greatest brilliancy	14047 Jun 18 06:52	23°  43'56	-0.7m
greatest brilliancy	14046 Jul 03 02:47	6°  25'12	-0.9m		14047 Jun 22 15:55	0° 	
asc. node	14046 Jul 10 05:04	17°  01'32		asc. node	14047 Jun 27 01:57	5°  43'56	
evening max el	14046 Jul 16 17:58	25°  02'49	18°39'36	evening max el	14047 Jun 30 02:16	9°  43'56	19°23'53
retrograde	14046 Jul 23 07:22	28°  05'25		retrograde	14047 Jul 07 04:44	13°  43'56	
evening set	14046 Jul 26 13:15	27°  05'22		evening set	14047 Jul 10 19:59	11°  43'56	
inferior conj	14046 Aug 01 04:36	22°  08'57	2°44'10	inferior conj	14047 Jul 16 05:21	6°  43'56	3°04'28
minimum elong	14046 Aug 01 06:37	22°  08'12'44	2°43'03	minimum elong	14047 Jul 16 06:29	5°  43'56	3°03'26
min. Earth dist.	14046 Aug 03 03:05	19°  05'08	0.65705 AU	min. Earth dist.	14047 Jul 17 13:26	4°  43'56	0.67218 AU
morning rise	14046 Aug 06 22:59	15°  05'01			14047 Jul 21 05:59	30°  R 	
desc. node	14046 Aug 12 03:51	13°  02'28		morning rise	14047 Jul 21 16:26	29°  43'56	
direct	14046 Aug 13 08:07	13°  01'52		direct	14047 Jul 27 16:21	26°  43'56	
morning max el	14046 Aug 26 14:16	21°  05'40	26°50'49	desc. node	14047 Jul 30 01:16	27°  43'56	
	14046 Sep 03 07:38	0° 			14047 Aug 04 01:58	0° 	
	14046 Sep 23 05:28	0° 		morning max el	14047 Aug 09 01:11	4°  43'56	25°38'05
morning set	14046 Oct 01 07:53	14°  42'18			14047 Aug 28 16:25	0° 	
max. Earth dist.	14046 Oct 05 11:22	22°  49'34	1.33926 AU	morning set	14047 Sep 14 00:28	27°  43'56	
asc. node	14046 Oct 06 06:57	24°  48'16			14047 Sep 15 13:45	0° 	
	14046 Oct 08 23:35	0° 		max. Earth dist.	14047 Sep 17 15:41	3°  43'56	1.35865 AU
				asc. node	14047 Sep 23 03:32	14°  43'56	
superior conj	14046 Oct 09 23:54	2°  46'55	0°34'20				
minimum elong	14046 Oct 09 22:12	1°  48'03	0°34'28	superior conj	14047 Sep 23 16:24	15°  43'56	0°05'01
evening rise	14046 Oct 17 06:48	17°  41'17		minimum elong	14047 Sep 23 16:05	15°  43'56	0°05'08
	14046 Oct 23 09:58	0° 		behind sun begin	14047 Sep 23 10:09	15°  43'56	
evening max el	14046 Nov 06 08:16	20°  36'14	21°31'33	behind sun end	14047 Sep 23 22:01	16°  43'56	
desc. node	14046 Nov 08 00:05	22°  37'52			14047 Sep 30 16:21	0° 	
retrograde	14046 Nov 18 12:41	26°  38'50		evening rise	14047 Oct 01 13:50	1°  43'56	
evening set	14046 Nov 21 10:10	22°  37'19'41			14047 Oct 18 04:44	0° 	
inferior conj	14046 Nov 30 05:50	22°  36'45	-5°40'35				
minimum elong	14046 Nov 29 23:04	22°  36'15	5°38'37	evening max el	14047 Oct 19 10:32	1°  43'56	20°07'59
min. Earth dist.	14046 Nov 30 10:07	22°  36'45	0.54480 AU	desc. node	14047 Oct 25 21:25	5°  43'56	



retrograde	14047 Oct 30 01:00	6°♊35'08		retrograde	14048 Oct 10 02:24	17°♌19'41	
evening set	14047 Nov 01 02:30	6°♊24'04		evening set	14048 Oct 11 23:09	17°♌08'50	
inferior conj	14047 Nov 10 00:09	2°♊26'33	-4°27'39	desc. node	14048 Oct 11 18:50	17°♌10'48	
minimum elong	14047 Nov 09 14:05	2°♊41'36	4°23'50	inferior conj	14048 Oct 20 09:37	12°♌55'07	-2°42'58
min. Earth dist.	14047 Nov 11 17:33	1°♊24'43	0.54876 AU	minimum elong	14048 Oct 20 02:43	13°♌06'53	2°39'43
	14047 Nov 14 05:34	30°♌		min. Earth dist.	14048 Oct 23 04:48	11°♌00'49	0.56149 AU
morning rise	14047 Nov 18 00:39	28°♌19'58		morning rise	14048 Oct 28 03:33	8°♌15'13	
direct	14047 Nov 22 18:50	27°♌30'46		direct	14048 Nov 02 17:30	7°♌02'52	
	14047 Nov 30 23:00	0°♊		morning max el	14048 Nov 16 20:04	14°♌14'38	25°52'20
morning max el	14047 Dec 06 09:24	4°♊13'03	24°09'42		14048 Nov 29 07:41	0°♊	
asc. node	14047 Dec 20 04:26	22°♊35'49		asc. node	14048 Dec 06 01:27	11°♊24'58	
	14047 Dec 24 07:09	0°♊		morning set	14048 Dec 14 15:00	28°♊35'40	
morning set	14047 Dec 31 03:42	13°♊56'40			14048 Dec 15 06:37	0°♊	
superior conj	14048 Jan 06 23:16	28°♋48'40	1°35'37	superior conj	14048 Dec 21 09:18	13°♋29'45	1°38'01
minimum elong	14048 Jan 07 00:14	28°♋53'57	1°36'34	minimum elong	14048 Dec 21 09:10	13°♋29'04	1°39'04
	14048 Jan 07 12:22	0°♌		max. Earth dist.	14048 Dec 22 13:53	16°♋08'13	1.31642 AU
max. Earth dist.	14048 Jan 09 09:18	4°♌02'45	1.32607 AU	evening rise	14048 Dec 28 10:51	28°♋48'50	
evening rise	14048 Jan 14 11:54	14°♌42'27			14048 Dec 29 00:33	0°♌	
desc. node	14048 Jan 21 20:26	28°♌46'18		desc. node	14049 Jan 07 17:09	18°♌33'09	
	14048 Jan 22 12:53	0°♋			14049 Jan 14 17:04	0°♋	
	14048 Feb 11 16:01	0°♌		evening max el	14049 Jan 29 16:39	18°♋47'09	27°29'21
evening max el	14048 Feb 17 07:08	6°♌03'01	27°30'54	retrograde	14049 Feb 12 14:55	26°♋08'02	
retrograde	14048 Mar 02 01:17	13°♌30'39		evening set	14049 Feb 19 12:07	23°♋54'51	
evening set	14048 Mar 08 20:58	11°♌04'19		min. Earth dist.	14049 Feb 23 06:29	21°♋00'27	0.61714 AU
min. Earth dist.	14048 Mar 12 16:08	7°♌45'15	0.63794 AU	inferior conj	14049 Feb 26 07:43	18°♋13'14	-1°49'44
inferior conj	14048 Mar 15 08:32	4°♌59'10	-0°33'10	minimum elong	14049 Feb 26 11:34	18°♋04'23	1°47'52
minimum elong	14048 Mar 15 09:35	4°♌56'28	0°32'43	asc. node	14049 Mar 03 23:02	13°♋53'07	
asc. node	14048 Mar 17 01:34	3°♌15'41		morning rise	14049 Mar 05 13:58	13°♋12'15	
	14048 Mar 21 07:24	30°♋		direct	14049 Mar 07 18:24	12°♋51'21	
morning rise	14048 Mar 22 00:29	29°♋40'34		morning max el	14049 Mar 14 14:40	16°♋18'44	17°49'20
direct	14048 Mar 24 11:25	29°♋10'38			14049 Mar 24 06:22	0°♌	
	14048 Mar 27 14:56	0°♌		morning set	14049 Mar 30 08:09	10°♌41'48	
morning max el	14048 Mar 30 21:38	2°♌28'30	17°47'46	desc. node	14049 Apr 05 19:16	22°♌09'52	
morning set	14048 Apr 16 13:15	27°♌36'37			14049 Apr 10 08:12	0°♋	
	14048 Apr 17 22:59	0°♋		superior conj	14049 Apr 10 12:05	0°♋16'32	-0°36'37
desc. node	14048 Apr 18 22:44	1°♋40'46		minimum elong	14049 Apr 10 08:39	0°♋01'54	0°36'31
superior conj	14048 Apr 29 11:32	19°♋10'40	-1°16'07	max. Earth dist.	14049 Apr 17 15:24	12°♋07'53	1.43544 AU
minimum elong	14048 Apr 29 04:00	18°♋40'07	1°15'54	evening rise	14049 Apr 24 16:20	23°♋19'16	
max. Earth dist.	14048 May 04 23:20	27°♋58'51	1.44975 AU		14049 Apr 29 00:23	0°♌	
	14048 May 06 06:00	0°♌			14049 May 20 02:19	0°♌	
evening rise	14048 May 15 00:12	13°♌35'52		evening max el	14049 May 26 01:48	6°♌51'43	21°34'51
	14048 May 25 21:29	0°♌		asc. node	14049 May 30 19:58	10°♌45'57	
evening max el	14048 Jun 12 04:56	23°♌01'29	20°23'17	retrograde	14049 Jun 04 02:01	12°♌07'36	
asc. node	14048 Jun 12 22:55	23°♌45'12		evening set	14049 Jun 08 14:07	10°♌16'59	
retrograde	14048 Jun 20 03:33	27°♌34'45		inferior conj	14049 Jun 13 20:05	4°♌01'36	3°07'07
evening set	14048 Jun 24 04:53	26°♌00'46		minimum elong	14049 Jun 13 19:15	4°♌04'32	3°05'59
inferior conj	14048 Jun 29 11:16	19°♌56'19	3°11'32	min. Earth dist.	14049 Jun 14 00:39	3°♌45'40	0.68857 AU
minimum elong	14048 Jun 29 11:23	19°♌55'56	3°10'30		14049 Jun 16 20:46	30°♌	
min. Earth dist.	14048 Jun 30 05:18	18°♌54'35	0.68278 AU	morning rise	14049 Jun 19 00:11	27°♌45'34	
morning rise	14048 Jul 04 17:34	13°♌34'47		direct	14049 Jun 24 00:05	25°♌36'21	
direct	14048 Jul 10 06:02	11°♌09'03			14049 Jul 02 09:43	0°♌	
desc. node	14048 Jul 15 22:36	13°♌10'11		desc. node	14049 Jul 02 19:50	0°♌23'27	
morning max el	14048 Jul 21 11:26	17°♌52'15	24°12'14	morning max el	14049 Jul 03 22:51	1°♌29'12	22°42'46
	14048 Jul 31 15:17	0°♌			14049 Jul 25 12:51	0°♌	
	14048 Aug 20 17:32	0°♎		morning set	14049 Aug 06 21:13	19°♌20'27	
morning set	14048 Aug 25 22:20	8°♎45'03		max. Earth dist.	14049 Aug 11 13:37	27°♌09'17	1.40500 AU
max. Earth dist.	14048 Aug 29 14:11	15°♎10'35	1.38140 AU		14049 Aug 13 05:32	0°♎	
superior conj	14048 Sep 05 21:01	28°♎39'15	-0°28'27	superior conj	14049 Aug 19 09:41	10°♎54'05	-1°03'51
minimum elong	14048 Sep 05 23:00	28°♎48'40	0°28'13	minimum elong	14049 Aug 19 14:31	11°♎16'00	1°03'33
	14048 Sep 06 13:52	0°♏		asc. node	14049 Aug 26 20:37	24°♎44'10	
asc. node	14048 Sep 09 00:05	4°♏42'18		evening rise	14049 Aug 29 08:03	29°♎25'31	
evening rise	14048 Sep 14 15:18	15°♏50'11			14049 Aug 29 15:20	0°♏	
	14048 Sep 22 02:10	0°♎		evening max el	14049 Sep 14 06:48	25°♏06'00	18°25'10
evening max el	14048 Oct 01 02:59	12°♎49'31	19°05'39	retrograde	14049 Sep 21 23:09	28°♏59'29	

evening set	14049 Sep 23 23:44	28° $\Omega$ 44'01		evening max el	14050 Aug 28 17:47	7° $\Omega$ 57'56	18°05'14
desc. node	14049 Sep 28 16:19	26° $\Omega$ 25'59		retrograde	14050 Sep 04 13:41	11° $\Omega$ 27'56	
inferior conj	14049 Oct 01 16:33	24° $\Omega$ 09'28	-0°57'17	evening set	14050 Sep 06 21:30	11° $\Omega$ 03'49	
minimum elong	14049 Oct 01 14:21	24° $\Omega$ 13'53	0°56'04	inferior conj	14050 Sep 13 20:27	6° $\Omega$ 08'59	0°31'43
min. Earth dist.	14049 Oct 04 22:46	21° $\Omega$ 34'01	0.58056 AU	minimum elong	14050 Sep 13 21:27	6° $\Omega$ 06'40	0°31'21
morning rise	14049 Oct 09 01:29	18° $\Omega$ 52'02		desc. node	14050 Sep 15 13:51	4° $\Omega$ 32'16	
direct	14049 Oct 15 06:10	17° $\Omega$ 12'55		min. Earth dist.	14050 Sep 17 01:28	3° $\Omega$ 11'18	0.60291 AU
morning max el	14049 Oct 29 13:36	24° $\Omega$ 48'21	27°10'24	morning rise	14050 Sep 20 18:15	0° $\Omega$ 20'22	
	14049 Nov 03 08:39	0° $\mathbb{M}$			14050 Sep 21 07:42	30° $\mathbb{R}$ $\mathbb{M}$	
asc. node	14049 Nov 22 22:22	0° $\mathbb{X}$ 42'55		direct	14050 Sep 27 07:54	28° $\mathbb{M}$ 14'55	
	14049 Nov 22 13:27	0° $\mathbb{X}$			14050 Oct 03 16:18	0° $\Omega$	
morning set	14049 Nov 28 23:55	13° $\mathbb{X}$ 04'20		morning max el	14050 Oct 11 14:53	6° $\Omega$ 07'43	27°52'24
					14050 Oct 29 13:29	0° $\mathbb{M}$	
superior conj	14049 Dec 05 20:49	28° $\mathbb{X}$ 11'45	1°34'26	asc. node	14050 Nov 09 19:10	20° $\mathbb{M}$ 21'19	
minimum elong	14049 Dec 05 19:41	28° $\mathbb{X}$ 05'27	1°35'25	morning set	14050 Nov 13 04:36	27° $\mathbb{M}$ 17'33	
max. Earth dist.	14049 Dec 05 21:55	28° $\mathbb{X}$ 17'53	1.31188 AU		14050 Nov 14 11:22	0° $\mathbb{X}$	
	14049 Dec 06 16:11	0° $\mathbb{Z}$		max. Earth dist.	14050 Nov 19 05:34	10° $\mathbb{X}$ 22'25	1.31255 AU
evening rise	14049 Dec 12 15:48	13° $\mathbb{Z}$ 08'48					
	14049 Dec 21 02:35	0° $\approx$		superior conj	14050 Nov 20 07:58	12° $\mathbb{X}$ 49'11	1°25'02
desc. node	14049 Dec 25 14:00	7° $\approx$ 51'24		minimum elong	14050 Nov 20 06:04	12° $\mathbb{X}$ 38'38	1°25'48
	14050 Jan 11 01:54	0° $\mathbb{X}$		evening rise	14050 Nov 27 00:38	27° $\mathbb{X}$ 36'54	
evening max el	14050 Jan 11 20:09	0° $\mathbb{X}$ 44'06	26°53'20		14050 Nov 28 03:20	0° $\mathbb{Z}$	
retrograde	14050 Jan 25 19:25	7° $\mathbb{X}$ 55'45		desc. node	14050 Dec 12 10:59	26° $\mathbb{Z}$ 30'11	
evening set	14050 Feb 01 11:19	6° $\mathbb{X}$ 03'16			14050 Dec 14 19:20	0° $\approx$	
min. Earth dist.	14050 Feb 05 10:11	3° $\mathbb{X}$ 24'13	0.59518 AU	evening max el	14050 Dec 24 15:30	11° $\approx$ 48'16	25°44'00
inferior conj	14050 Feb 08 14:53	0° $\mathbb{X}$ 51'28	-3°14'01	retrograde	14051 Jan 07 13:20	18° $\approx$ 49'35	
minimum elong	14050 Feb 08 21:57	0° $\mathbb{X}$ 37'21	3°10'51	evening set	14051 Jan 13 14:36	17° $\approx$ 24'36	
	14050 Feb 09 16:54	30° $\mathbb{R}$ $\approx$		min. Earth dist.	14051 Jan 18 04:13	14° $\approx$ 46'30	0.57421 AU
morning rise	14050 Feb 16 11:47	26° $\approx$ 11'11		inferior conj	14051 Jan 21 02:41	12° $\approx$ 44'43	-4°36'35
direct	14050 Feb 18 12:31	25° $\approx$ 55'50		minimum elong	14051 Jan 21 11:38	12° $\approx$ 29'13	4°33'17
asc. node	14050 Feb 18 20:29	25° $\approx$ 56'16		morning rise	14051 Jan 29 11:29	8° $\approx$ 26'29	
morning max el	14050 Feb 26 03:44	29° $\approx$ 43'17	18°09'56	direct	14051 Jan 31 13:28	8° $\approx$ 13'04	
	14050 Feb 26 10:27	0° $\mathbb{X}$		asc. node	14051 Feb 05 17:54	9° $\approx$ 41'56	
morning set	14050 Mar 13 18:48	24° $\mathbb{X}$ 29'51		morning max el	14051 Feb 09 08:54	12° $\approx$ 31'07	18°51'19
	14050 Mar 16 17:15	0° $\mathbb{Y}$			14051 Feb 21 02:44	0° $\mathbb{X}$	
				morning set	14051 Feb 25 16:24	8° $\mathbb{X}$ 46'37	
superior conj	14050 Mar 23 11:52	12° $\mathbb{Y}$ 26'28	0°01'20				
minimum elong	14050 Mar 23 11:57	12° $\mathbb{Y}$ 26'53	0°01'11	superior conj	14051 Mar 06 06:52	25° $\mathbb{X}$ 28'51	0°34'01
behind sun begin	14050 Mar 23 04:23	11° $\mathbb{Y}$ 52'50		minimum elong	14051 Mar 06 08:57	25° $\mathbb{X}$ 38'44	0°33'51
behind sun end	14050 Mar 23 19:32	13° $\mathbb{Y}$ 00'50			14051 Mar 08 16:47	0° $\mathbb{Y}$	
desc. node	14050 Mar 23 15:49	12° $\mathbb{Y}$ 44'10		desc. node	14051 Mar 10 12:18	3° $\mathbb{Y}$ 19'44	
max. Earth dist.	14050 Mar 31 02:48	25° $\mathbb{Y}$ 41'22	1.41611 AU	max. Earth dist.	14051 Mar 13 09:52	8° $\mathbb{Y}$ 31'32	1.39394 AU
	14050 Apr 02 16:56	0° $\mathbb{Z}$		evening rise	14051 Mar 17 07:37	15° $\mathbb{Y}$ 17'30	
evening rise	14050 Apr 05 01:21	3° $\mathbb{Z}$ 50'15			14051 Mar 26 08:52	0° $\mathbb{Z}$	
	14050 Apr 22 07:20	0° $\mathbb{I}$			14051 Apr 17 01:57	0° $\mathbb{I}$	
evening max el	14050 May 08 18:05	20° $\mathbb{I}$ 42'23	22°54'02	evening max el	14051 Apr 21 08:04	4° $\mathbb{I}$ 35'26	24°14'58
asc. node	14050 May 17 17:07	26° $\mathbb{I}$ 35'38		retrograde	14051 May 02 16:02	11° $\mathbb{I}$ 14'09	
retrograde	14050 May 18 22:36	26° $\mathbb{I}$ 42'26		asc. node	14051 May 04 14:24	10° $\mathbb{I}$ 57'40	
evening set	14050 May 23 21:59	24° $\mathbb{I}$ 36'44		evening set	14051 May 08 02:57	8° $\mathbb{I}$ 55'54	
inferior conj	14050 May 29 05:46	18° $\mathbb{I}$ 12'37	2°52'08	min. Earth dist.	14051 May 12 17:32	3° $\mathbb{I}$ 37'09	0.68591 AU
minimum elong	14050 May 29 04:10	18° $\mathbb{I}$ 18'12	2°50'52	inferior conj	14051 May 13 14:30	2° $\mathbb{I}$ 26'19	2°26'55
min. Earth dist.	14050 May 28 21:25	18° $\mathbb{I}$ 41'40	0.68959 AU	minimum elong	14051 May 13 12:25	2° $\mathbb{I}$ 33'20	2°25'33
morning rise	14050 Jun 03 10:16	12° $\mathbb{I}$ 03'28			14051 May 15 10:54	30° $\mathbb{R}$ $\mathbb{Z}$	
direct	14050 Jun 07 21:24	10° $\mathbb{I}$ 13'52		morning rise	14051 May 18 21:59	26° $\mathbb{Z}$ 25'12	
morning max el	14050 Jun 16 14:18	15° $\mathbb{I}$ 15'31	21°17'51	direct	14051 May 22 20:51	24° $\mathbb{Z}$ 56'07	
desc. node	14050 Jun 19 16:58	18° $\mathbb{I}$ 38'03		morning max el	14051 May 30 12:22	29° $\mathbb{Z}$ 13'21	20°03'48
	14050 Jun 28 11:06	0° $\mathbb{O}$			14051 May 31 06:44	0° $\mathbb{I}$	
morning set	14050 Jul 17 19:21	28° $\mathbb{O}$ 51'29		desc. node	14051 Jun 06 13:58	7° $\mathbb{I}$ 37'55	
	14050 Jul 18 12:45	0° $\Omega$			14051 Jun 21 23:32	0° $\mathbb{O}$	
max. Earth dist.	14050 Jul 24 18:06	9° $\Omega$ 59'20	1.42666 AU	morning set	14051 Jun 26 23:42	7° $\mathbb{O}$ 38'47	
				max. Earth dist.	14051 Jul 07 04:58	23° $\mathbb{O}$ 37'15	1.44398 AU
superior conj	14050 Aug 01 01:50	22° $\Omega$ 13'59	-1°37'23		14051 Jul 11 04:25	0° $\Omega$	
minimum elong	14050 Aug 01 08:58	22° $\Omega$ 44'32	1°37'19				
	14050 Aug 05 13:12	0° $\mathbb{M}$		superior conj	14051 Jul 12 18:31	2° $\Omega$ 34'37	-2°03'04
evening rise	14050 Aug 12 11:56	12° $\mathbb{M}$ 25'01		minimum elong	14051 Jul 13 00:52	3° $\Omega$ 00'28	2°03'38
asc. node	14050 Aug 13 17:11	14° $\mathbb{M}$ 36'55		evening rise	14051 Jul 25 22:05	24° $\Omega$ 37'00	
	14050 Aug 22 15:29	0° $\Omega$			14051 Jul 29 01:29	0° $\mathbb{M}$	

































































































































asc. node	14051 Jul 31 13:50	4° $\cap$ 16'33		evening max el	14052 Jul 25 22:04	4° $\cap$ 51'23	18°21'45
evening max el	14051 Aug 12 08:01	21° $\cap$ 15'56	18°04'24	retrograde	14052 Aug 01 07:29	8° $\cap$ 16'01	
retrograde	14051 Aug 18 17:53	24° $\cap$ 36'24		evening set	14052 Aug 04 08:20	7° $\cap$ 25'02	
evening set	14051 Aug 21 10:01	24° $\cap$ 00'09		inferior conj	14052 Aug 10 04:39	1° $\cap$ 55'21	2°25'30
inferior conj	14051 Aug 27 17:50	18° $\cap$ 46'54	1°38'55	minimum elong	14052 Aug 10 07:00	1° $\cap$ 48'26	2°24'21
minimum elong	14051 Aug 27 20:10	18° $\cap$ 40'45	1°37'52		14052 Aug 11 19:55	30° $\Re$ 0	
min. Earth dist.	14051 Aug 30 13:43	15° $\cap$ 48'40	0.62572 AU	min. Earth dist.	14052 Aug 12 11:21	29° $\Omega$ 15'34	0.64660 AU
desc. node	14051 Sep 02 11:24	13° $\cap$ 09'19		morning rise	14052 Aug 16 04:18	25° $\Omega$ 34'46	
morning rise	14051 Sep 03 04:03	12° $\cap$ 37'34		desc. node	14052 Aug 19 08:54	23° $\Omega$ 37'44	
direct	14051 Sep 09 20:22	10° $\cap$ 11'33		direct	14052 Aug 22 17:27	22° $\Omega$ 57'24	
morning max el	14051 Sep 23 21:58	18° $\cap$ 12'25	27°55'19		14052 Sep 04 10:04	0° $\cap$	
	14051 Oct 03 20:02	0° $\Omega$		morning max el	14052 Sep 05 08:17	0° $\cap$ 54'46	27°22'47
	14051 Oct 22 09:54	0° $\cap$			14052 Sep 26 22:15	0° $\Omega$	
asc. node	14051 Oct 27 15:55	10° $\cap$ 13'55		morning set	14052 Oct 10 16:22	24° $\Omega$ 35'20	
morning set	14051 Oct 28 02:57	11° $\cap$ 09'55			14052 Oct 13 09:28	0° $\cap$	
max. Earth dist.	14051 Nov 02 09:01	22° $\cap$ 12'28	1.31863 AU	asc. node	14052 Oct 13 12:35	0° $\cap$ 15'46	
				max. Earth dist.	14052 Oct 15 04:52	3° $\cap$ 42'17	1.33021 AU
superior conj	14051 Nov 04 16:51	27° $\cap$ 16'33	1°09'50	superior conj	14052 Oct 18 21:23	11° $\cap$ 28'20	0°48'54
minimum elong	14051 Nov 04 14:34	27° $\cap$ 04'04	1°10'19	minimum elong	14052 Oct 18 19:16	11° $\cap$ 17'03	0°49'08
	14051 Nov 05 22:35	0° $\Re$		evening rise	14052 Oct 25 22:21	26° $\cap$ 38'07	
evening rise	14051 Nov 11 11:25	12° $\Re$ 08'13			14052 Oct 27 12:31	0° $\Re$	
	14051 Nov 20 08:59	0° $\Re$			14052 Nov 14 13:13	0° $\Re$	
desc. node	14051 Nov 29 08:04	14° $\Re$ 14'19		desc. node	14052 Nov 15 05:15	0° $\Re$ 43'50	
evening max el	14051 Dec 06 03:27	22° $\Re$ 07'14	24°09'59	evening max el	14052 Nov 16 13:53	2° $\Re$ 07'15	22°27'28
retrograde	14051 Dec 19 18:26	28° $\Re$ 54'06		retrograde	14052 Nov 29 10:40	8° $\Re$ 29'51	
evening set	14051 Dec 24 18:29	27° $\Re$ 59'27		evening set	14052 Dec 03 02:15	8° $\Re$ 00'41	
min. Earth dist.	14051 Dec 30 14:56	25° $\Re$ 04'29	0.55713 AU	min. Earth dist.	14052 Dec 10 21:23	4° $\Re$ 30'23	0.54682 AU
inferior conj	14052 Jan 01 17:40	23° $\Re$ 47'20	-5°39'13	inferior conj	14052 Dec 11 15:22	4° $\Re$ 05'05	-5°57'23
minimum elong	14052 Jan 02 00:01	23° $\Re$ 37'38	5°37'20	minimum elong	14052 Dec 11 13:32	4° $\Re$ 07'41	5°56'15
morning rise	14052 Jan 10 07:26	19° $\Re$ 48'35		morning rise	14052 Dec 20 01:59	0° $\Re$ 17'41	
direct	14052 Jan 12 18:58	19° $\Re$ 32'39			14052 Dec 21 16:15	30° $\Re$ 2	
morning max el	14052 Jan 23 01:59	24° $\Re$ 30'01	19°55'19	direct	14052 Dec 23 08:24	29° $\Re$ 53'32	
asc. node	14052 Jan 23 15:17	25° $\Re$ 02'58			14052 Dec 24 23:58	0° $\Re$	
	14052 Jan 27 18:34	0° $\approx$		morning max el	14053 Jan 04 04:24	5° $\Re$ 33'41	21°22'09
morning set	14052 Feb 09 21:13	23° $\approx$ 20'33		asc. node	14053 Jan 09 12:35	11° $\Re$ 43'10	
	14052 Feb 13 03:33	0° $\Re$			14053 Jan 20 07:40	0° $\approx$	
superior conj	14052 Feb 17 16:24	9° $\Re$ 09'44	1°00'03	morning set	14053 Jan 24 06:29	8° $\approx$ 03'56	
minimum elong	14052 Feb 17 19:07	9° $\Re$ 23'12	1°00'08	superior conj	14053 Jan 31 12:33	23° $\approx$ 18'33	1°19'07
max. Earth dist.	14052 Feb 23 16:14	20° $\Re$ 44'45	1.37147 AU	minimum elong	14053 Jan 31 14:57	23° $\approx$ 31'00	1°19'34
desc. node	14052 Feb 25 08:49	23° $\Re$ 52'43			14053 Feb 03 18:58	0° $\Re$	
evening rise	14052 Feb 27 09:53	27° $\Re$ 35'06		max. Earth dist.	14053 Feb 05 02:53	2° $\Re$ 39'36	1.35091 AU
	14052 Feb 28 18:31	0° $\Upsilon$		evening rise	14053 Feb 09 04:58	10° $\Re$ 34'19	
	14052 Mar 18 18:43	0° $\Re$		desc. node	14053 Feb 11 05:22	14° $\Re$ 19'27	
evening max el	14052 Apr 02 21:39	18° $\Re$ 28'44	25°30'51		14053 Feb 20 07:13	0° $\Upsilon$	
retrograde	14052 Apr 15 05:05	25° $\Re$ 35'19			14053 Mar 14 05:54	0° $\Re$	
asc. node	14052 Apr 20 11:47	23° $\Re$ 39'05		evening max el	14053 Mar 16 11:29	2° $\Re$ 16'27	26°34'09
evening set	14052 Apr 21 03:21	23° $\Re$ 08'00		retrograde	14053 Mar 29 12:43	9° $\Re$ 38'59	
min. Earth dist.	14052 Apr 25 10:46	18° $\Re$ 25'09	0.67770 AU	evening set	14053 Apr 04 21:24	7° $\Re$ 07'03	
inferior conj	14052 Apr 26 20:16	16° $\Re$ 37'24	1°51'13	asc. node	14053 Apr 07 09:13	4° $\Re$ 45'25	
minimum elong	14052 Apr 26 18:10	16° $\Re$ 44'12	1°49'53	min. Earth dist.	14053 Apr 08 22:56	2° $\Re$ 58'59	0.66524 AU
morning rise	14052 May 02 09:26	10° $\Re$ 45'43		inferior conj	14053 Apr 10 20:58	0° $\Re$ 41'03	1°04'26
direct	14052 May 05 20:50	9° $\Re$ 36'23		minimum elong	14053 Apr 10 19:25	0° $\Re$ 45'41	1°03'26
morning max el	14052 May 12 17:52	13° $\Re$ 20'41	19°04'20		14053 Apr 11 10:42	30° $\Re$ $\Upsilon$	
desc. node	14052 May 23 10:52	27° $\Re$ 10'09		morning rise	14053 Apr 16 18:29	25° $\Upsilon$ 00'34	
	14052 May 25 08:40	0° $\Pi$		direct	14053 Apr 19 19:27	24° $\Upsilon$ 08'56	
greatest brilliancy	14052 May 25 19:59	0° $\Pi$ 42'22	-0.7m	morning max el	14053 Apr 26 05:55	27° $\Upsilon$ 33'15	18°21'12
morning set	14052 Jun 05 04:53	16° $\Pi$ 34'16			14053 Apr 28 12:08	0° $\Re$	
	14052 Jun 13 20:45	0° $\Re$		desc. node	14053 May 10 07:37	17° $\Re$ 05'56	
max. Earth dist.	14052 Jun 18 21:36	7° $\Re$ 51'47	1.45506 AU	morning set	14053 May 16 06:38	26° $\Re$ 32'31	
					14053 May 18 10:56	0° $\Pi$	
superior conj	14052 Jun 21 13:35	12° $\Re$ 03'09	-2°13'41	superior conj	14053 May 31 21:45	21° $\Pi$ 09'01	-2°04'22
minimum elong	14052 Jun 21 14:02	12° $\Re$ 04'55	2°14'44	minimum elong	14053 May 31 14:50	20° $\Pi$ 42'04	2°05'02
	14052 Jul 02 19:20	0° $\Omega$		max. Earth dist.	14053 Jun 01 17:34	22° $\Pi$ 26'24	1.45885 AU
evening rise	14052 Jul 06 09:29	5° $\Omega$ 50'07			14053 Jun 06 13:53	0° $\Re$	
asc. node	14052 Jul 17 10:34	23° $\Omega$ 37'36					
	14052 Jul 21 19:41	0° $\cap$					

evening rise	14053 Jun 16 20:17	16°☿02'41		max. Earth dist.	14054 May 15 13:46	7°♊03'09	1.45509 AU
	14053 Jun 25 18:51	0°♊		evening rise	14054 May 27 12:16	25°♊33'26	
greatest brilliancy	14053 Jun 26 18:52	1°♊32'25	-0.8m		14054 May 30 09:57	0°♊	
asc. node	14053 Jul 04 07:22	12°♊32'53		greatest brilliancy	14054 Jun 10 21:34	17°♊14'12	-0.6m
evening max el	14053 Jul 09 09:05	18°♊36'19	18°56'27		14054 Jun 20 09:24	0°♊	
retrograde	14053 Jul 16 02:55	22°♊18'34		asc. node	14054 Jun 21 04:16	0°♊53'33	
evening set	14053 Jul 19 12:49	21°♊11'17		evening max el	14054 Jun 22 15:02	2°♊25'23	19°47'23
inferior conj	14053 Jul 25 01:13	15°♊26'46	2°54'33	retrograde	14054 Jun 30 01:17	6°♊37'30	
minimum elong	14053 Jul 25 02:53	15°♊21'27	2°53'28	evening set	14054 Jul 03 20:45	5°♊13'16	
min. Earth dist.	14053 Jul 26 17:27	13°♊19'12	0.66405 AU		14054 Jul 08 15:11	30°♋☿	
morning rise	14053 Jul 30 16:13	9°♊02'07		inferior conj	14054 Jul 09 04:29	29°♊15'30	3°08'57
direct	14053 Aug 05 21:46	6°♊22'57		minimum elong	14054 Jul 09 05:11	29°♊13'09	3°07'56
desc. node	14053 Aug 06 06:22	6°♊23'25		min. Earth dist.	14054 Jul 10 06:26	27°♊48'27	0.67723 AU
morning max el	14053 Aug 18 19:31	14°♊03'19	26°22'09	morning rise	14054 Jul 14 13:13	22°♊51'41	
	14053 Aug 31 18:58	0°♋		direct	14054 Jul 20 08:18	20°♊19'09	
	14053 Sep 19 15:59	0°♊		desc. node	14054 Jul 24 03:44	21°♊13'37	
morning set	14053 Sep 23 17:35	7°♊25'43		morning max el	14054 Aug 01 06:19	27°♊27'45	25°02'38
max. Earth dist.	14053 Sep 27 14:59	14°♊53'05	1.34704 AU		14054 Aug 03 15:34	0°♊	
asc. node	14053 Sep 30 09:09	20°♊22'06			14054 Aug 25 10:32	0°♋	
				morning set	14054 Sep 06 02:46	19°♋32'28	
superior conj	14053 Oct 02 19:03	25°♊17'23	0°22'29	max. Earth dist.	14054 Sep 09 16:28	26°♋00'40	1.36809 AU
minimum elong	14053 Oct 02 17:50	25°♊11'07	0°22'36		14054 Sep 11 19:44	0°♊	
	14053 Oct 05 01:29	0°♋					
evening rise	14053 Oct 10 07:25	11°♋00'50		superior conj	14054 Sep 16 06:55	8°♊37'01	-0°08'48
	14053 Oct 20 03:47	0°♋		minimum elong	14054 Sep 16 07:28	8°♊39'45	0°08'38
evening max el	14053 Oct 29 08:11	12°♋24'31	20°53'30	behind sun begin	14054 Sep 16 01:56	8°♊12'31	
desc. node	14053 Nov 02 02:33	15°♋32'48		behind sun end	14054 Sep 16 13:00	9°♊07'02	
retrograde	14053 Nov 09 21:07	18°♋08'40		asc. node	14054 Sep 17 05:42	10°♊29'39	
evening set	14053 Nov 12 08:18	17°♋54'05		evening rise	14054 Sep 24 12:26	25°♊11'03	
inferior conj	14053 Nov 21 06:30	14°♋00'33	-5°15'32		14054 Sep 26 22:03	0°♋	
minimum elong	14053 Nov 20 21:20	14°♋13'36	5°12'38	evening max el	14054 Oct 11 16:29	23°♋26'28	19°38'38
min. Earth dist.	14053 Nov 22 03:12	13°♋31'03	0.54534 AU	desc. node	14054 Oct 19 23:54	28°♋15'47	
morning rise	14053 Nov 29 10:37	10°♋07'10		retrograde	14054 Oct 21 14:05	28°♋23'11	
direct	14053 Dec 03 15:51	9°♋29'03		evening set	14054 Oct 23 11:49	28°♋13'00	
morning max el	14053 Dec 16 18:24	15°♋49'53	23°06'46	inferior conj	14054 Nov 01 05:59	24°♋09'19	-3°45'04
asc. node	14053 Dec 27 09:46	29°♋24'23		minimum elong	14054 Oct 31 20:44	24°♋23'52	3°41'10
	14053 Dec 27 18:40	0°♌		min. Earth dist.	14054 Nov 03 11:59	22°♋44'21	0.55322 AU
morning set	14054 Jan 08 17:58	22°♌49'33		morning rise	14054 Nov 09 03:50	19°♋49'32	
	14054 Jan 12 01:57	0°♌		direct	14054 Nov 14 06:38	18°♋51'20	
				morning max el	14054 Nov 28 03:57	25°♋47'20	24°55'24
superior conj	14054 Jan 15 16:03	7°♌45'33	1°31'27		14054 Dec 02 03:21	0°♋	
minimum elong	14054 Jan 15 17:37	7°♌53'56	1°32'15	asc. node	14054 Dec 14 06:50	17°♋52'04	
max. Earth dist.	14054 Jan 18 20:35	14°♌31'46	1.33382 AU		14054 Dec 20 15:34	0°♌	
evening rise	14054 Jan 23 13:17	24°♌05'21		morning set	14054 Dec 24 05:49	7°♌32'10	
	14054 Jan 26 14:41	0°♌					
desc. node	14054 Jan 29 01:59	4°♌35'03		superior conj	14054 Dec 31 00:20	22°♌23'21	1°37'23
	14054 Feb 13 20:59	0°♍		minimum elong	14054 Dec 31 00:50	22°♌26'07	1°38'24
evening max el	14054 Feb 27 00:53	15°♍48'35	27°17'37	max. Earth dist.	14055 Jan 01 21:34	26°♌31'02	1.32129 AU
retrograde	14054 Mar 12 14:13	23°♍17'02			14055 Jan 03 12:12	0°♌	
evening set	14054 Mar 19 07:03	20°♍46'21		evening rise	14055 Jan 07 07:40	8°♌00'34	
min. Earth dist.	14054 Mar 23 03:55	17°♍10'49	0.64885 AU	desc. node	14055 Jan 15 22:39	24°♌34'06	
asc. node	14054 Mar 25 06:40	14°♍52'03			14055 Jan 19 01:43	0°♌	
inferior conj	14054 Mar 25 14:07	14°♍31'32	0°05'57	evening max el	14055 Feb 09 12:17	28°♌53'10	27°34'16
minimum elong	14054 Mar 25 13:57	14°♍32'00	0°05'43		14055 Feb 10 17:08	0°♍	
transit middle	14054 Mar 25 13:57	14°♍32'00	0°05'43	retrograde	14055 Feb 23 08:46	6°♍19'19	
transit begin	14054 Mar 25 11:06	14°♍39'50		evening set	14055 Mar 02 05:49	3°♍57'16	
transit end	14054 Mar 25 16:47	14°♍24'11		min. Earth dist.	14055 Mar 06 00:01	0°♍49'50	0.62926 AU
morning rise	14054 Mar 31 22:40	9°♍04'29			14055 Mar 06 20:42	30°♍♋	
direct	14054 Apr 03 14:20	8°♍27'39		inferior conj	14055 Mar 08 20:47	28°♍01'08	-1°04'26
morning max el	14054 Apr 09 22:18	11°♍44'24	17°55'03	minimum elong	14055 Mar 08 22:55	27°♍55'52	1°03'24
	14054 Apr 22 18:05	0°♎		asc. node	14055 Mar 12 04:08	24°♍59'33	
desc. node	14054 Apr 27 04:18	7°♎18'51		morning rise	14055 Mar 15 18:41	22°♍50'00	
morning set	14054 Apr 27 12:32	7°♎52'57		direct	14055 Mar 18 02:30	22°♍24'28	
	14054 May 11 02:41	0°♏		morning max el	14055 Mar 24 16:05	25°♍45'08	17°46'17
					14055 Mar 28 06:53	0°♍	
superior conj	14054 May 11 12:31	0°♏39'03	-1°37'04	morning set	14055 Apr 09 19:41	20°♍25'01	
minimum elong	14054 May 11 03:35	0°♏03'33	1°37'00	desc. node	14055 Apr 14 00:54	27°♍43'13	

	14055 Apr 15 08:47	0°♄		superior conj	14056 Apr 02 10:08	22°♑41'08	-0°20'04
				minimum elong	14056 Apr 02 08:21	22°♑33'24	0°20'06
superior conj	14055 Apr 21 23:18	11°♄06'48 -0°59'33			14056 Apr 06 16:41	0°♄	
minimum elong	14055 Apr 21 17:25	10°♄42'30 0°59'19		max. Earth dist.	14056 Apr 09 21:14	5°♄18'39	1.42769 AU
max. Earth dist.	14055 Apr 28 07:29	21°♄24'56 1.44431 AU		evening rise	14056 Apr 15 22:01	15°♄02'09	
	14055 May 03 18:05	0°♂			14056 Apr 25 16:19	0°♂	
evening rise	14055 May 06 23:38	5°♂00'11			14056 May 18 07:33	0°♄	
	14055 May 23 19:23	0°♄		evening max el	14056 May 18 09:50	0°♄05'43	22°07'55
evening max el	14055 Jun 05 15:03	16°♄15'05 20°52'27		asc. node	14056 May 24 22:22	5°♄00'12	
asc. node	14055 Jun 08 01:16	18°♄27'28		retrograde	14056 May 27 22:05	5°♄40'35	
retrograde	14055 Jun 14 00:17	21°♄06'26		evening set	14056 Jun 01 14:51	3°♄43'35	
evening set	14055 Jun 18 06:00	19°♄25'24			14056 Jun 04 23:51	30°♂♂	
inferior conj	14055 Jun 23 11:55	13°♄15'55 3°10'59		inferior conj	14056 Jun 06 21:22	27°♂♂24'17	3°02'00
minimum elong	14055 Jun 23 11:36	13°♄16'58 3°09'55		minimum elong	14056 Jun 06 20:10	27°♂♂28'27	3°00'49
min. Earth dist.	14055 Jun 24 00:09	12°♄33'29 0.68581 AU		min. Earth dist.	14056 Jun 06 20:28	27°♂♂27'24	0.68963 AU
morning rise	14055 Jun 28 16:56	6°♄56'13		morning rise	14056 Jun 12 01:18	21°♂♂10'49	
direct	14055 Jul 04 00:03	4°♄36'57		direct	14056 Jun 16 19:49	19°♂♂09'27	
desc. node	14055 Jul 11 01:03	7°♄41'39		morning max el	14056 Jun 26 05:26	24°♂♂40'09	22°05'30
morning max el	14055 Jul 14 16:51	11°♄00'11 23°34'00		desc. node	14056 Jun 26 22:16	25°♂♂23'11	
	14055 Jul 29 19:54	0°♂			14056 Jun 30 23:48	0°♄	
	14055 Aug 18 04:53	0°♂			14056 Jul 22 05:48	0°♂	
morning set	14055 Aug 18 15:19	0°♂43'56		morning set	14056 Jul 29 03:30	10°♂♂51'03	
max. Earth dist.	14055 Aug 22 14:08	7°♂30'35 1.39149 AU		max. Earth dist.	14056 Aug 03 14:54	19°♂♂48'50	1.41466 AU
					14056 Aug 09 14:15	0°♂	
superior conj	14055 Aug 30 05:14	21°♂18'02 -0°43'26		superior conj	14056 Aug 11 09:43	3°♂♂10'43	-1°18'38
minimum elong	14055 Aug 30 08:24	21°♂32'48 0°43'09		minimum elong	14056 Aug 11 15:43	3°♂♂37'15	1°18'22
	14055 Sep 03 19:07	0°♂		asc. node	14056 Aug 20 22:47	20°♂♂32'36	
asc. node	14055 Sep 04 02:15	0°♂34'23		evening rise	14056 Aug 21 22:24	22°♂♂22'11	
evening rise	14055 Sep 08 10:36	9°♂01'09			14056 Aug 26 01:47	0°♂	
	14055 Sep 20 06:31	0°♂		evening max el	14056 Sep 06 21:45	17°♂♂51'05	18°14'19
evening max el	14055 Sep 24 14:17	5°♂17'59 18°45'51		retrograde	14056 Sep 14 03:52	21°♂♂32'24	
retrograde	14055 Oct 02 23:21	9°♂30'54		evening set	14056 Sep 16 07:26	21°♂♂13'37	
evening set	14055 Oct 04 20:57	9°♂18'42		desc. node	14056 Sep 22 18:52	17°♂♂15'59	
desc. node	14055 Oct 06 21:20	8°♂40'53		inferior conj	14056 Sep 23 16:27	16°♂♂30'23	-0°16'57
inferior conj	14055 Oct 13 00:19	4°♂56'43 -1°56'51		minimum elong	14056 Sep 23 15:51	16°♂♂31'40	0°16'30
minimum elong	14055 Oct 12 19:29	5°♂05'33 1°54'25		min. Earth dist.	14056 Sep 26 23:32	13°♂♂42'51	0.58990 AU
min. Earth dist.	14055 Oct 16 02:08	2°♂42'38 0.56900 AU		morning rise	14056 Sep 30 20:51	10°♂♂58'53	
morning rise	14055 Oct 20 14:42	0°♂00'20		direct	14056 Oct 07 06:25	9°♂♂07'56	
	14055 Oct 20 15:00	30°♂♂		morning max el	14056 Oct 21 13:46	16°♂♂51'13	27°33'01
direct	14055 Oct 26 11:40	28°♂♂36'31			14056 Nov 01 10:30	0°♂	
	14055 Nov 01 09:59	0°♂		asc. node	14056 Nov 17 00:41	26°♂♂21'59	
morning max el	14055 Nov 09 17:08	5°♂59'59 26°29'24			14056 Nov 18 20:26	0°♂	
	14055 Nov 27 08:04	0°♂		morning set	14056 Nov 21 23:38	6°♂♂29'44	
asc. node	14055 Dec 01 03:49	6°♂54'35					
morning set	14055 Dec 08 16:18	22°♂♂07'24		superior conj	14056 Nov 28 22:50	21°♂♂46'31	1°31'10
	14055 Dec 12 06:47	0°♂		minimum elong	14056 Nov 28 21:21	21°♂♂38'11	1°32'04
superior conj	14055 Dec 15 11:15	7°♂05'53 1°37'14		max. Earth dist.	14056 Nov 28 12:09	20°♂♂46'48	1.31151 AU
minimum elong	14055 Dec 15 10:41	7°♂02'43 1°38'16			14056 Dec 02 15:23	0°♂	
max. Earth dist.	14055 Dec 16 03:51	8°♂38'21 1.31379 AU		evening rise	14056 Dec 05 16:19	6°♂♂37'53	
evening rise	14055 Dec 22 09:28	22°♂♂13'43			14056 Dec 17 17:56	0°♂	
	14055 Dec 26 04:22	0°♂		desc. node	14056 Dec 19 16:18	3°♂♂12'41	
desc. node	14056 Jan 02 19:25	14°♂♂09'55		evening max el	14057 Jan 03 20:01	22°♂♂54'00	26°27'43
	14056 Jan 13 02:01	0°♂			14057 Jan 17 05:39	0°♂	
evening max el	14056 Jan 22 19:34	11°♂♂18'40 27°18'26		retrograde	14057 Jan 17 19:07	0°♂♂00'46	
retrograde	14056 Feb 05 19:01	18°♂♂36'33			14057 Jan 18 08:33	30°♂♂	
evening set	14056 Feb 12 14:42	16°♂♂31'23		evening set	14057 Jan 24 05:53	28°♂♂19'44	
min. Earth dist.	14056 Feb 16 10:06	13°♂♂44'41 0.60772 AU		min. Earth dist.	14057 Jan 28 09:40	25°♂♂42'50	0.58597 AU
inferior conj	14056 Feb 19 13:38	11°♂♂01'29 -2°24'59		inferior conj	14057 Jan 31 12:57	23°♂♂21'40	-3°50'07
minimum elong	14056 Feb 19 18:52	10°♂♂50'08 2°22'29		minimum elong	14057 Jan 31 21:08	23°♂♂06'16	3°46'42
morning rise	14056 Feb 27 02:13	6°♂♂08'59		morning rise	14057 Feb 08 15:26	18°♂♂50'19	
asc. node	14056 Feb 27 01:36	6°♂♂09'25		direct	14057 Feb 10 15:57	18°♂♂36'13	
direct	14056 Feb 29 04:28	5°♂♂51'00		asc. node	14057 Feb 12 23:04	18°♂♂55'18	
morning max el	14056 Mar 07 07:55	9°♂♂26'04 17°55'43		morning max el	14057 Feb 18 18:04	22°♂♂35'45	18°24'51
	14056 Mar 20 19:19	0°♂			14057 Feb 24 13:23	0°♂	
morning set	14056 Mar 22 22:01	3°♂♂50'41		morning set	14057 Mar 06 13:52	17°♂♂52'18	
desc. node	14056 Mar 30 21:27	18°♂♂15'00			14057 Mar 12 22:54	0°♂	

superior conj	14057 Mar 15 18:36	5° $\Upsilon$ 14'11	0°15'57	superior conj	14058 Feb 26 20:16	18° $\text{X}$ 33'51	0°45'55
minimum elong	14057 Mar 15 19:44	5° $\Upsilon$ 19'23	0°15'46	minimum elong	14058 Feb 26 22:46	18° $\text{X}$ 45'55	0°45'50
behind sun begin	14057 Mar 15 18:42	5° $\Upsilon$ 14'38		desc. node	14058 Mar 04 14:27	29° $\text{X}$ 24'13	
behind sun end	14057 Mar 15 20:46	5° $\Upsilon$ 24'08			14058 Mar 04 22:18	0° $\Upsilon$	
desc. node	14057 Mar 17 17:58	8° $\Upsilon$ 49'47		max. Earth dist.	14058 Mar 05 13:22	1° $\Upsilon$ 08'22	1.38429 AU
max. Earth dist.	14057 Mar 23 06:46	18° $\Upsilon$ 34'20	1.40692 AU	evening rise	14058 Mar 09 06:58	7° $\Upsilon$ 45'30	
evening rise	14057 Mar 27 15:58	25° $\Upsilon$ 56'51			14058 Mar 23 01:21	0° $\text{S}$	
	14057 Mar 30 03:34	0° $\text{S}$		evening max el	14058 Apr 13 14:38	27° $\text{S}$ 50'40	24°48'20
	14057 Apr 19 09:28	0° $\Pi$			14058 Apr 15 22:11	0° $\Pi$	
evening max el	14057 May 01 01:04	13° $\Pi$ 57'52	23°28'42	retrograde	14058 Apr 25 08:57	4° $\Pi$ 42'24	
retrograde	14057 May 11 17:21	20° $\Pi$ 14'39		asc. node	14058 Apr 28 16:56	3° $\Pi$ 54'16	
asc. node	14057 May 11 19:36	20° $\Pi$ 14'37		evening set	14058 May 01 00:55	2° $\Pi$ 19'32	
evening set	14057 May 16 21:41	18° $\Pi$ 03'20			14058 May 03 07:53	30° $\text{R}$ $\text{S}$	
min. Earth dist.	14057 May 21 17:11	12° $\Pi$ 23'51	0.68863 AU	min. Earth dist.	14058 May 05 12:12	27° $\text{S}$ 16'29	0.68296 AU
inferior conj	14057 May 22 06:53	11° $\Pi$ 36'43	2°42'43	inferior conj	14058 May 06 14:34	25° $\text{S}$ 49'04	2°13'06
minimum elong	14057 May 22 05:02	11° $\Pi$ 43'05	2°41'23	minimum elong	14058 May 06 12:25	25° $\text{S}$ 56'13	2°11'42
morning rise	14057 May 27 12:20	5° $\Pi$ 30'56		morning rise	14058 May 12 00:10	19° $\text{S}$ 52'05	
direct	14057 May 31 18:18	3° $\Pi$ 49'52		direct	14058 May 15 18:04	18° $\text{S}$ 31'38	
morning max el	14057 Jun 08 23:25	8° $\Pi$ 30'55	20°44'46	morning max el	14058 May 23 00:43	22° $\text{S}$ 33'00	19°36'40
desc. node	14057 Jun 13 19:22	13° $\Pi$ 58'37			14058 May 29 07:48	0° $\Pi$	
	14057 Jun 25 10:42	0° $\text{S}$		desc. node	14058 May 31 16:20	3° $\Pi$ 13'03	
morning set	14057 Jul 08 16:37	19° $\text{S}$ 59'21		greatest brilliancy	14058 Jun 04 16:23	8° $\Pi$ 57'20	-0.6m
	14057 Jul 15 01:10	0° $\Omega$		morning set	14058 Jun 17 18:38	28° $\Pi$ 42'39	
max. Earth dist.	14057 Jul 16 22:43	3° $\Omega$ 02'54	1.43475 AU		14058 Jun 18 14:46	0° $\text{S}$	
				max. Earth dist.	14058 Jun 29 12:44	16° $\text{S}$ 59'46	1.44950 AU
superior conj	14057 Jul 23 16:13	14° $\Omega$ 06'21	-1°49'39	superior conj	14058 Jul 03 22:58	24° $\text{S}$ 02'09	-2°09'48
minimum elong	14057 Jul 23 23:34	14° $\Omega$ 37'09	1°49'49	minimum elong	14058 Jul 04 03:25	24° $\text{S}$ 19'57	2°10'39
	14057 Aug 01 22:28	0° $\text{R}$			14058 Jul 07 15:42	0° $\Omega$	
evening rise	14057 Aug 04 19:26	5° $\text{R}$ 03'32		evening rise	14058 Jul 17 20:29	16° $\Omega$ 51'51	
asc. node	14057 Aug 07 19:24	10° $\text{R}$ 20'37		asc. node	14058 Jul 25 16:04	29° $\Omega$ 53'04	
	14057 Aug 20 13:16	0° $\text{S}$			14058 Jul 25 17:47	0° $\text{R}$	
evening max el	14057 Aug 21 10:39	0° $\text{S}$ 55'45	18°02'34	evening max el	14058 Aug 05 01:08	14° $\text{R}$ 21'46	18°09'32
retrograde	14057 Aug 28 00:54	4° $\text{S}$ 19'53		retrograde	14058 Aug 11 09:46	17° $\text{R}$ 42'39	
evening set	14057 Aug 30 12:17	3° $\text{S}$ 50'50		evening set	14058 Aug 14 05:31	17° $\text{R}$ 00'27	
	14057 Sep 04 22:25	30° $\text{R}$ $\text{R}$		inferior conj	14058 Aug 20 07:58	11° $\text{R}$ 39'42	2°01'02
inferior conj	14057 Sep 06 04:21	28° $\text{R}$ 47'36	1°02'54	minimum elong	14058 Aug 20 10:25	11° $\text{R}$ 32'53	1°59'52
minimum elong	14057 Sep 06 06:07	28° $\text{R}$ 43'15	1°02'08	min. Earth dist.	14058 Aug 22 22:25	8° $\text{R}$ 47'24	0.63491 AU
min. Earth dist.	14057 Sep 09 06:03	25° $\text{R}$ 47'27	0.61275 AU	morning rise	14058 Aug 26 13:28	5° $\text{R}$ 24'17	
desc. node	14057 Sep 09 16:25	25° $\text{R}$ 23'26		desc. node	14058 Aug 27 13:58	4° $\text{R}$ 40'54	
morning rise	14057 Sep 12 21:12	22° $\text{R}$ 49'04		direct	14058 Sep 02 04:53	2° $\text{R}$ 52'32	
direct	14057 Sep 19 12:43	20° $\text{R}$ 34'16		morning max el	14058 Sep 16 02:54	10° $\text{R}$ 53'36	27°45'29
morning max el	14057 Oct 03 17:52	28° $\text{R}$ 30'45	27°58'22		14058 Oct 01 04:46	0° $\text{S}$	
	14057 Oct 05 04:44	0° $\text{S}$			14058 Oct 18 16:55	0° $\text{R}$	
	14057 Oct 26 07:20	0° $\text{R}$		morning set	14058 Oct 20 20:49	4° $\text{R}$ 16'26	
asc. node	14057 Nov 03 21:28	16° $\text{R}$ 07'11		asc. node	14058 Oct 21 18:09	6° $\text{R}$ 04'02	
morning set	14057 Nov 06 01:55	20° $\text{R}$ 34'48		max. Earth dist.	14058 Oct 25 19:29	14° $\text{R}$ 29'53	1.32294 AU
	14057 Nov 10 12:08	0° $\text{X}$					
max. Earth dist.	14057 Nov 11 18:44	2° $\text{X}$ 47'26	1.31455 AU	superior conj	14058 Oct 28 16:33	20° $\text{R}$ 41'15	1°01'38
superior conj	14057 Nov 13 09:16	6° $\text{X}$ 20'14	1°19'17	minimum elong	14058 Oct 28 14:16	20° $\text{R}$ 28'50	1°02'01
minimum elong	14057 Nov 13 07:09	6° $\text{X}$ 08'32	1°19'56		14058 Nov 01 22:48	0° $\text{X}$	
evening rise	14057 Nov 20 02:14	21° $\text{X}$ 08'11		evening rise	14058 Nov 04 13:18	5° $\text{X}$ 39'08	
	14057 Nov 24 07:37	0° $\text{S}$			14058 Nov 17 06:56	0° $\text{S}$	
desc. node	14057 Dec 06 13:19	21° $\text{S}$ 30'07		desc. node	14058 Nov 23 10:26	8° $\text{S}$ 45'05	
	14057 Dec 13 01:12	0° $\approx$		evening max el	14058 Nov 27 21:53	13° $\text{S}$ 42'06	23°26'09
evening max el	14057 Dec 16 11:56	3° $\approx$ 36'47	25°06'05	retrograde	14058 Dec 11 06:49	20° $\text{S}$ 21'00	
retrograde	14057 Dec 30 07:15	10° $\approx$ 31'59		evening set	14058 Dec 15 17:34	19° $\text{S}$ 38'01	
evening set	14058 Jan 04 23:22	9° $\approx$ 19'45		min. Earth dist.	14058 Dec 22 08:11	16° $\text{S}$ 30'11	0.55176 AU
min. Earth dist.	14058 Jan 09 23:55	6° $\approx$ 37'04	0.56638 AU	inferior conj	14058 Dec 23 22:30	15° $\text{S}$ 34'15	-5°53'45
inferior conj	14058 Jan 12 15:48	4° $\approx$ 53'04	-5°06'58	minimum elong	14058 Dec 24 01:53	15° $\text{S}$ 29'19	5°52'29
minimum elong	14058 Jan 13 00:24	4° $\approx$ 39'03	5°04'08	morning rise	14059 Jan 01 11:51	11° $\text{S}$ 42'16	
morning rise	14058 Jan 21 03:47	0° $\approx$ 43'43		direct	14059 Jan 04 06:20	11° $\text{S}$ 23'43	
direct	14058 Jan 23 08:53	0° $\approx$ 29'43		morning max el	14059 Jan 15 05:29	16° $\text{S}$ 38'51	20°29'43
asc. node	14058 Jan 30 20:29	3° $\approx$ 22'41		asc. node	14059 Jan 17 17:49	19° $\text{S}$ 19'24	
morning max el	14058 Feb 01 18:27	5° $\approx$ 03'08	19°15'43		14059 Jan 25 02:21	0° $\approx$	
	14058 Feb 17 11:13	0° $\text{X}$		morning set	14059 Feb 02 21:52	16° $\approx$ 55'47	
morning set	14058 Feb 18 14:52	2° $\text{X}$ 17'04			14059 Feb 09 05:42	0° $\text{X}$	

superior conj	14059 Feb 10 10:47	2° $\text{H}$ 28'07	1°08'58	superior conj	14060 Jan 25 10:24	16° $\approx$ 45'39	1°25'09
minimum elong	14059 Feb 10 13:27	2° $\text{H}$ 41'37	1°09'13	minimum elong	14060 Jan 25 12:30	16° $\approx$ 56'40	1°25'45
max. Earth dist.	14059 Feb 15 20:49	13° $\text{H}$ 10'31	1.36229 AU	max. Earth dist.	14060 Jan 29 09:55	25° $\approx$ 00'49	1.34307 AU
desc. node	14059 Feb 19 10:57	19° $\text{H}$ 54'56			14060 Jan 31 21:40	0° $\text{H}$	
evening rise	14059 Feb 19 16:48	20° $\text{H}$ 21'46		evening rise	14060 Feb 02 17:56	3° $\text{H}$ 35'39	
	14059 Feb 25 03:27	0° $\text{Y}$		desc. node	14060 Feb 06 07:29	10° $\text{H}$ 17'19	
	14059 Mar 17 01:04	0° $\text{B}$			14060 Feb 18 00:12	0° $\text{Y}$	
evening max el	14059 Mar 27 04:05	11° $\text{B}$ 41'47	25°59'46	evening max el	14060 Mar 08 17:48	25° $\text{Y}$ 23'54	26°55'35
retrograde	14059 Apr 08 19:56	18° $\text{B}$ 57'23			14060 Mar 14 06:52	0° $\text{B}$	
evening set	14059 Apr 14 22:52	16° $\text{B}$ 27'09		retrograde	14060 Mar 22 01:15	2° $\text{B}$ 50'49	
asc. node	14059 Apr 15 14:20	15° $\text{B}$ 53'22		evening set	14060 Mar 28 13:35	0° $\text{B}$ 18'41	
min. Earth dist.	14059 Apr 19 03:29	11° $\text{B}$ 59'28	0.67284 AU		14060 Mar 28 22:50	30° $\text{R}$ $\text{Y}$	
inferior conj	14059 Apr 20 18:27	9° $\text{B}$ 57'35	1°32'48	asc. node	14060 Apr 01 11:47	26° $\text{Y}$ 27'54	
minimum elong	14059 Apr 20 16:29	10° $\text{B}$ 03'42	1°31'33	min. Earth dist.	14060 Apr 01 12:56	26° $\text{Y}$ 24'37	0.65863 AU
morning rise	14059 Apr 26 10:51	4° $\text{B}$ 10'38		inferior conj	14060 Apr 03 16:14	23° $\text{Y}$ 56'15	0°41'05
direct	14059 Apr 29 17:35	3° $\text{B}$ 09'20		minimum elong	14060 Apr 03 15:10	23° $\text{Y}$ 59'21	0°40'21
morning max el	14059 May 06 09:18	6° $\text{B}$ 43'47	18°44'00	morning rise	14060 Apr 09 18:07	18° $\text{Y}$ 21'04	
desc. node	14059 May 18 13:09	22° $\text{B}$ 56'12		direct	14060 Apr 12 14:52	17° $\text{Y}$ 36'14	
	14059 May 23 03:27	0° $\text{II}$		morning max el	14060 Apr 18 23:28	20° $\text{Y}$ 56'17	18°07'57
morning set	14059 May 28 06:41	7° $\text{II}$ 59'39			14060 Apr 26 02:44	0° $\text{B}$	
	14059 Jun 11 09:21	0° $\text{E}$		desc. node	14060 May 04 09:51	12° $\text{B}$ 59'37	
max. Earth dist.	14059 Jun 12 06:44	1° $\text{E}$ 23'30	1.45751 AU	morning set	14060 May 07 20:11	18° $\text{B}$ 31'56	
					14060 May 14 23:31	0° $\text{II}$	
superior conj	14059 Jun 13 11:32	3° $\text{E}$ 16'03	-2°12'14	superior conj	14060 May 22 20:20	12° $\text{II}$ 26'22	-1°54'37
minimum elong	14059 Jun 13 08:35	3° $\text{E}$ 04'29	2°13'15	minimum elong	14060 May 22 11:45	11° $\text{II}$ 52'39	1°54'56
evening rise	14059 Jun 28 21:22	27° $\text{E}$ 38'31		max. Earth dist.	14060 May 25 02:33	15° $\text{II}$ 58'35	1.45813 AU
	14059 Jun 30 08:42	0° $\text{O}$			14060 Jun 03 02:56	0° $\text{E}$	
greatest brilliancy	14059 Jul 05 06:47	7° $\text{O}$ 52'09	-0.9m	evening rise	14060 Jun 07 22:43	7° $\text{E}$ 28'27	
asc. node	14059 Jul 12 12:50	19° $\text{O}$ 04'09		greatest brilliancy	14060 Jun 20 00:25	25° $\text{E}$ 59'10	-0.7m
evening max el	14059 Jul 19 14:09	28° $\text{O}$ 01'43	18°34'23		14060 Jun 22 17:38	0° $\text{O}$	
	14059 Jul 21 21:38	0° $\text{np}$		asc. node	14060 Jun 28 09:40	7° $\text{O}$ 45'48	
retrograde	14059 Jul 26 02:17	1° $\text{np}$ 32'35		evening max el	14060 Jul 01 23:13	11° $\text{O}$ 48'49	19°16'20
evening set	14059 Jul 29 06:49	0° $\text{np}$ 34'59		retrograde	14060 Jul 08 23:10	15° $\text{O}$ 42'16	
	14059 Jul 30 03:39	30° $\text{R}$ $\text{O}$		evening set	14060 Jul 12 13:02	14° $\text{O}$ 27'57	
inferior conj	14059 Aug 03 23:21	24° $\text{O}$ 58'53	2°39'45	inferior conj	14060 Jul 17 23:06	8° $\text{O}$ 37'55	3°02'15
minimum elong	14059 Aug 04 01:29	24° $\text{O}$ 52'25	2°38'36	minimum elong	14060 Jul 18 00:22	8° $\text{O}$ 33'44	3°01'13
min. Earth dist.	14059 Aug 06 00:02	22° $\text{O}$ 31'09	0.65448 AU	min. Earth dist.	14060 Jul 19 09:18	6° $\text{O}$ 46'32	0.67021 AU
morning rise	14059 Aug 09 19:02	18° $\text{O}$ 35'32		morning rise	14060 Jul 23 11:07	2° $\text{O}$ 13'09	
desc. node	14059 Aug 14 11:28	16° $\text{O}$ 07'13			14060 Jul 27 02:02	30° $\text{R}$ $\text{E}$	
direct	14059 Aug 16 05:21	15° $\text{O}$ 56'03		direct	14060 Jul 29 12:38	29° $\text{E}$ 35'32	
morning max el	14059 Aug 29 13:59	23° $\text{O}$ 48'52	26°59'50	desc. node	14060 Jul 31 08:54	29° $\text{E}$ 48'17	
	14059 Sep 04 02:55	0° $\text{np}$			14060 Aug 01 02:30	0° $\text{O}$	
	14059 Sep 24 13:39	0° $\text{A}$		morning max el	14060 Aug 11 00:55	7° $\text{O}$ 04'25	25°50'01
morning set	14059 Oct 04 05:30	17° $\text{A}$ 28'07			14060 Aug 28 20:58	0° $\text{np}$	
max. Earth dist.	14059 Oct 08 11:09	25° $\text{A}$ 49'48	1.33675 AU	morning set	14060 Sep 16 00:29	0° $\text{A}$ 01'30	
asc. node	14059 Oct 08 14:46	26° $\text{A}$ 08'06			14060 Sep 16 00:09	0° $\text{A}$	
	14059 Oct 10 12:04	0° $\text{ML}$		max. Earth dist.	14060 Sep 19 16:53	6° $\text{A}$ 55'06	1.35552 AU
superior conj	14059 Oct 12 18:30	4° $\text{ML}$ 44'01	0°38'20	asc. node	14060 Sep 24 11:20	16° $\text{A}$ 15'35	
minimum elong	14059 Oct 12 16:40	4° $\text{ML}$ 34'22	0°38'30	superior conj	14060 Sep 25 12:27	18° $\text{A}$ 22'08	0°09'46
evening rise	14059 Oct 19 23:41	20° $\text{ML}$ 06'14		minimum elong	14060 Sep 25 11:53	18° $\text{A}$ 19'12	0°09'53
	14059 Oct 24 19:12	0° $\text{A}$		behind sun begin	14060 Sep 25 06:59	17° $\text{A}$ 54'30	
evening max el	14059 Nov 09 10:32	23° $\text{A}$ 45'01	21°45'35	behind sun end	14060 Sep 25 16:46	18° $\text{A}$ 43'58	
desc. node	14059 Nov 10 07:40	24° $\text{A}$ 35'10			14060 Oct 01 04:11	0° $\text{ML}$	
retrograde	14059 Nov 21 19:44	29° $\text{A}$ 53'12		evening rise	14060 Oct 03 07:20	4° $\text{ML}$ 24'37	
evening set	14059 Nov 24 21:30	29° $\text{A}$ 31'56			14060 Oct 17 16:44	0° $\text{A}$	
inferior conj	14059 Dec 03 15:44	25° $\text{A}$ 38'50	-5°47'01	evening max el	14060 Oct 21 10:44	4° $\text{A}$ 20'52	20°19'07
minimum elong	14059 Dec 03 10:07	25° $\text{A}$ 46'44	5°45'20	desc. node	14060 Oct 27 05:00	8° $\text{A}$ 34'18	
min. Earth dist.	14059 Dec 03 14:16	25° $\text{A}$ 40'54	0.54499 AU	retrograde	14060 Nov 01 07:01	9° $\text{A}$ 44'30	
morning rise	14059 Dec 11 23:34	21° $\text{A}$ 51'04		evening set	14060 Nov 03 10:35	9° $\text{A}$ 32'46	
direct	14059 Dec 15 15:25	21° $\text{A}$ 21'44		inferior conj	14060 Nov 12 08:50	5° $\text{A}$ 36'43	-4°41'27
morning max el	14059 Dec 28 02:06	27° $\text{A}$ 20'33	22°05'08	minimum elong	14060 Nov 11 22:45	5° $\text{A}$ 51'33	4°37'49
	14059 Dec 30 15:31	0° $\text{B}$		min. Earth dist.	14060 Nov 13 21:12	4° $\text{A}$ 43'14	0.54762 AU
asc. node	14060 Jan 04 15:04	6° $\text{B}$ 27'30		morning rise	14060 Nov 20 10:16	1° $\text{A}$ 34'13	
	14060 Jan 17 13:10	0° $\approx$		direct	14060 Nov 25 01:18	0° $\text{A}$ 48'00	
morning set	14060 Jan 18 08:17	1° $\approx$ 40'28		morning max el	14060 Dec 08 12:58	7° $\text{A}$ 24'45	23°53'24

asc. node	14060 Dec 21 12:11	24°  30'33		asc. node	14061 Dec 08 09:12	13°  14'15	
	14060 Dec 24 15:23	0° 			14061 Dec 16 19:25	0° 	
morning set	14061 Jan 01 20:10	16°  25'42		morning set	14061 Dec 17 07:41	1°  05'45	
	14061 Jan 08 01:52	0° 					
superior conj	14061 Jan 08 16:16	1°  18'22	1°34'44	superior conj	14061 Dec 24 01:55	15°  58'37	1°38'03
minimum elong	14061 Jan 08 17:23	1°  24'29	1°35'37	minimum elong	14061 Dec 24 01:57	15°  58'50	1°39'05
max. Earth dist.	14061 Jan 11 06:58	6°  56'12	1.32797 AU	max. Earth dist.	14061 Dec 25 10:49	19°  00'26	1.31757 AU
evening rise	14061 Jan 16 06:58	17°  18'35			14061 Dec 30 13:07	0° 	
	14061 Jan 22 22:12	0° 		evening rise	14061 Dec 31 04:51	1°  22'06	
desc. node	14061 Jan 23 04:08	0°  26'51		desc. node	14062 Jan 10 00:52	20°  16'59	
	14061 Feb 11 10:04	0° 			14062 Jan 15 20:45	0° 	
evening max el	14061 Feb 19 06:50	8°  46'37	27°28'22	evening max el	14062 Feb 01 16:57	21°  36'17	27°31'38
retrograde	14061 Mar 04 23:49	16°  14'21		retrograde	14062 Feb 15 14:43	28°  58'29	
evening set	14061 Mar 11 18:54	13°  46'46		evening set	14062 Feb 22 12:09	26°  42'43	
min. Earth dist.	14061 Mar 15 14:29	10°  23'32	0.64088 AU	min. Earth dist.	14062 Feb 26 06:19	23°  45'18	0.62034 AU
inferior conj	14061 Mar 18 05:19	7°  38'55	-0°22'30	inferior conj	14062 Mar 01 06:34	20°  45'13	-1°37'32
minimum elong	14061 Mar 18 06:01	7°  37'06	0°22'15	minimum elong	14062 Mar 01 09:57	20°  49'19	1°35'53
asc. node	14061 Mar 19 09:15	6°  26'33		asc. node	14062 Mar 06 06:43	16°  54'16	
morning rise	14061 Mar 24 19:16	2°  17'57		morning rise	14062 Mar 08 10:37	15°  53'34	
direct	14061 Mar 27 07:25	1°  46'17		direct	14062 Mar 10 15:53	15°  31'34	
morning max el	14061 Apr 02 16:44	5°  03'25	17°49'04	morning max el	14062 Mar 17 10:06	18°  56'44	17°48'00
	14061 Apr 19 07:38	0° 			14062 Mar 25 12:31	0° 	
morning set	14061 Apr 19 13:30	0°  24'46		morning set	14062 Apr 02 05:36	13°  22'09	
desc. node	14061 Apr 21 06:28	3°  17'41		desc. node	14062 Apr 08 03:03	23°  45'44	
					14062 Apr 11 17:49	0° 	
superior conj	14061 May 02 18:24	22°  17'16	-1°21'50	superior conj	14062 Apr 13 15:27	3°  13'36	-0°42'37
minimum elong	14061 May 02 10:23	21°  44'57	1°21'38	minimum elong	14062 Apr 13 11:23	2°  56'24	0°42'30
	14061 May 07 14:17	0° 		max. Earth dist.	14062 Apr 20 14:54	14°  44'38	1.43789 AU
max. Earth dist.	14061 May 07 22:05	0°  30'52	1.45136 AU	evening rise	14062 Apr 28 01:11	26°  30'08	
evening rise	14061 May 18 10:38	16°  11'47			14062 Apr 30 07:34	0° 	
	14061 May 27 02:58	0° 			14062 May 21 00:51	0° 	
evening max el	14061 Jun 15 02:44	25°  38'17	20°13'38	evening max el	14062 May 29 00:23	9°  28'19	21°23'33
asc. node	14061 Jun 15 06:36	25°  47'55		asc. node	14062 Jun 02 03:40	12°  57'58	
	14061 Jun 21 21:07	0° 		retrograde	14062 Jun 06 20:36	14°  37'48	
retrograde	14061 Jun 22 21:54	0°  05'42		evening set	14062 Jun 11 07:03	12°  49'32	
	14061 Jun 23 22:10	30°  08'08		inferior conj	14062 Jun 16 12:54	6°  35'32	3°08'28
evening set	14061 Jun 26 21:44	28°  34'08		minimum elong	14062 Jun 16 12:12	6°  37'59	3°07'22
inferior conj	14061 Jul 02 04:23	22°  31'22	3°11'12	min. Earth dist.	14062 Jun 16 19:25	6°  12'51	0.68800 AU
minimum elong	14061 Jul 02 04:39	22°  30'27	3°10'11	morning rise	14062 Jun 21 17:10	0° 	
min. Earth dist.	14061 Jul 03 00:25	21°  23'04	0.68148 AU		14062 Jun 22 01:53	30°  08'11	
morning rise	14061 Jul 07 11:14	16°  09'16		direct	14062 Jun 26 18:55	28°  06'40	
direct	14061 Jul 13 01:28	13°  41'39			14062 Jul 02 01:46	0° 	
desc. node	14061 Jul 18 06:15	15°  22'54		desc. node	14062 Jul 05 03:31	2°  25'01	
morning max el	14061 Jul 24 11:15	20°  31'33	24°25'31	morning max el	14062 Jul 06 22:26	4°  07'32	22°55'58
	14061 Aug 01 14:30	0° 			14062 Jul 26 18:19	0° 	
	14061 Aug 22 01:27	0° 		morning set	14062 Aug 10 03:54	22°  30'06	
morning set	14061 Aug 29 01:23	11°  45'26		max. Earth dist.	14062 Aug 14 14:58	29°  09'44	1.40154 AU
max. Earth dist.	14061 Sep 01 16:06	18°  09'06	1.37789 AU		14062 Aug 14 15:02	0° 	
	14061 Sep 08 01:04	0° 					
superior conj	14061 Sep 08 19:04	1°  26'27	-0°23'10	superior conj	14062 Aug 22 10:21	13°  47'52	-0°58'30
minimum elong	14061 Sep 08 20:38	1°  34'02	0°22'58	minimum elong	14062 Aug 22 14:45	14°  47'59	0°58'12
asc. node	14061 Sep 11 07:51	6°  22'11		asc. node	14062 Aug 29 04:24	26°  43'38	
evening rise	14061 Sep 17 09:48	18°  27'10			14062 Aug 31 01:36	0° 	
	14061 Sep 23 09:02	0° 		evening rise	14062 Sep 01 04:05	2°  06'18	
evening max el	14061 Oct 04 01:08	15°  44'08	19°13'31	evening max el	14062 Sep 17 03:29	27°  53'50	18°29'53
retrograde	14061 Oct 13 06:03	20°  11'04			14062 Sep 19 14:54	0° 	
desc. node	14061 Oct 14 02:26	20°  18'50		retrograde	14062 Sep 24 23:55	1°  52'06	
evening set	14061 Oct 15 02:47	20°  10'31		evening set	14062 Sep 26 23:32	1°  37'38	
inferior conj	14061 Oct 23 15:29	15°  59'27	-2°59'30	desc. node	14062 Sep 30 23:56	29°  50'33	
minimum elong	14061 Oct 23 07:53	16°  12'07	2°56'01		14062 Sep 30 17:44	30°  08'11	
min. Earth dist.	14061 Oct 26 07:39	14°  12'36	0.55914 AU	inferior conj	14062 Oct 04 19:08	27°  06'21	-1°12'30
morning rise	14061 Oct 31 10:31	11°  25'02		minimum elong	14062 Oct 04 16:16	27°  11'56	1°10'58
direct	14061 Nov 05 21:39	10°  16'36		min. Earth dist.	14062 Oct 08 00:35	24°  35'50	0.57742 AU
morning max el	14061 Nov 19 23:08	17°  11'42	25°38'12	morning rise	14062 Oct 12 05:31	21°  54'05	
	14061 Nov 30 07:47	0° 		direct	14062 Oct 18 08:20	20°  18'58	
				morning max el	14062 Nov 01 15:33	27°  51'43	27°00'54



	14062 Nov 03 17:53	0°♍		direct	14063 Sep 30 08:24	1°♊12'39	
	14062 Nov 23 22:54	0°♊		morning max el	14063 Oct 14 15:40	9°♊03'33	27°48'42
asc. node	14062 Nov 25 06:09	2°♊28'10			14063 Oct 30 17:52	0°♍	
morning set	14062 Dec 01 17:05	15°♊36'10		asc. node	14063 Nov 12 03:00	22°♍03'56	
	14062 Dec 08 06:03	0°♊		morning set	14063 Nov 15 22:34	29°♍52'11	
					14063 Nov 16 00:04	0°♊	
superior conj	14062 Dec 08 13:22	0°♊40'49	1°35'22	max. Earth dist.	14063 Nov 22 02:24	13°♊15'19	1.31204 AU
minimum elong	14062 Dec 08 12:22	0°♊35'18	1°36'22				
max. Earth dist.	14062 Dec 08 18:30	1°♊09'33	1.31220 AU	superior conj	14063 Nov 23 00:43	15°♊19'34	1°26'50
evening rise	14062 Dec 15 09:03	15°♊40'15		minimum elong	14063 Nov 22 22:55	15°♊09'33	1°27'39
	14062 Dec 22 11:51	0°♊		evening rise	14063 Nov 29 17:26	0°♊07'44	
desc. node	14062 Dec 27 21:42	9°♊40'02			14063 Nov 29 16:00	0°♊	
	14063 Jan 11 08:05	0°♊		desc. node	14063 Dec 14 18:38	28°♊25'47	
evening max el	14063 Jan 14 21:26	3°♊40'32	27°00'54		14063 Dec 15 19:03	0°♊	
retrograde	14063 Jan 28 20:52	10°♊54'09		evening max el	14063 Dec 27 18:12	14°♊53'20	25°56'19
evening set	14063 Feb 04 14:01	8°♊58'03		retrograde	14064 Jan 10 16:39	21°♊56'18	
min. Earth dist.	14063 Feb 08 11:40	6°♊17'27	0.59839 AU	evening set	14064 Jan 16 20:38	20°♊27'05	
inferior conj	14063 Feb 11 16:23	3°♊41'22	-3°01'05	min. Earth dist.	14064 Jan 21 07:14	17°♊49'46	0.57716 AU
minimum elong	14063 Feb 11 22:59	3°♊27'53	2°58'04	inferior conj	14064 Jan 24 07:20	15°♊42'26	-4°24'48
	14063 Feb 16 21:06	30°♊		minimum elong	14064 Jan 24 16:12	15°♊26'44	4°21'25
morning rise	14063 Feb 19 11:12	28°♊58'00		morning rise	14064 Feb 01 14:42	11°♊20'45	
asc. node	14063 Feb 21 04:12	28°♊42'32		direct	14064 Feb 03 15:58	11°♊07'20	
direct	14063 Feb 21 12:09	28°♊42'07		asc. node	14064 Feb 08 01:39	12°♊12'58	
	14063 Feb 25 21:59	0°♊		morning max el	14064 Feb 12 06:44	15°♊20'25	18°43'41
morning max el	14063 Mar 01 00:05	2°♊26'01	18°05'39		14064 Feb 22 11:03	0°♊	
morning set	14063 Mar 16 14:17	27°♊04'48		morning set	14064 Feb 28 10:32	11°♊18'06	
	14063 Mar 18 03:55	0°♊					
desc. node	14063 Mar 25 23:35	14°♊19'13		superior conj	14064 Mar 08 04:28	28°♊09'59	0°29'26
				minimum elong	14064 Mar 08 06:21	28°♊18'50	0°29'17
superior conj	14063 Mar 26 12:03	15°♊14'48	-0°04'12		14064 Mar 09 03:59	0°♊	
minimum elong	14063 Mar 26 11:42	15°♊13'14	0°04'19	desc. node	14064 Mar 11 20:04	4°♊54'42	
behind sun begin	14063 Mar 26 04:12	14°♊39'50		max. Earth dist.	14064 Mar 15 10:14	11°♊19'09	1.39737 AU
behind sun end	14063 Mar 26 19:12	15°♊46'34		evening rise	14064 Mar 19 10:24	18°♊12'16	
max. Earth dist.	14063 Apr 03 02:47	28°♊23'02	1.41918 AU		14064 Mar 26 16:18	0°♊	
	14063 Apr 04 02:03	0°♊			14064 Apr 16 21:05	0°♊	
evening rise	14063 Apr 08 07:17	6°♊53'13		evening max el	14064 Apr 23 07:31	7°♊11'36	24°03'04
	14063 Apr 23 11:36	0°♊		retrograde	14064 May 04 11:35	13°♊44'54	
evening max el	14063 May 11 17:14	23°♊18'49	22°41'56	asc. node	14064 May 05 22:08	13°♊35'42	
asc. node	14063 May 20 00:51	28°♊59'40		evening set	14064 May 09 20:45	11°♊28'27	
retrograde	14063 May 21 17:37	29°♊12'44		min. Earth dist.	14064 May 14 12:35	6°♊04'14	0.68679 AU
evening set	14063 May 26 15:15	27°♊09'12		inferior conj	14064 May 15 07:38	4°♊59'30	2°31'27
inferior conj	14063 May 31 22:38	20°♊46'10	2°55'05	minimum elong	14064 May 15 05:36	5°♊06'24	2°30'04
minimum elong	14063 May 31 21:07	20°♊51'25	2°53'50		14064 May 19 09:42	30°♊	
min. Earth dist.	14063 May 31 16:12	21°♊08'33	0.68974 AU	morning rise	14064 May 20 14:30	28°♊57'03	
morning rise	14063 Jun 06 02:53	14°♊35'45		direct	14064 May 24 15:12	27°♊24'49	
direct	14063 Jun 10 15:54	12°♊43'05			14064 Jun 30 10:16	0°♊	
morning max el	14063 Jun 19 13:06	17°♊52'18	21°29'53	morning max el	14064 Jun 01 09:59	1°♊47'53	20°13'54
desc. node	14063 Jun 22 00:41	20°♊31'32		desc. node	14064 Jun 07 21:43	9°♊25'09	
	14063 Jun 29 12:56	0°♊			14064 Jun 22 05:58	0°♊	
	14063 Jul 19 20:30	0°♊		morning set	14064 Jun 29 11:38	11°♊01'02	
morning set	14063 Jul 21 05:36	2°♊10'12		max. Earth dist.	14064 Jul 09 04:13	26°♊12'14	1.44180 AU
max. Earth dist.	14063 Jul 27 18:13	12°♊40'36	1.42369 AU		14064 Jul 11 13:00	0°♊	
superior conj	14063 Aug 04 05:50	25°♊16'22	-1°32'41	superior conj	14064 Jul 15 02:06	5°♊45'54	-1°59'59
minimum elong	14063 Aug 04 12:44	25°♊46'12	1°32'31	minimum elong	14064 Jul 15 08:52	6°♊13'43	2°00'26
	14063 Aug 06 23:00	0°♊		evening rise	14064 Jul 27 23:18	27°♊31'15	
evening rise	14063 Aug 15 10:11	15°♊11'35			14064 Jul 29 09:44	0°♊	
asc. node	14063 Aug 16 00:59	16°♊18'51		asc. node	14064 Aug 01 21:37	6°♊00'41	
	14063 Aug 23 19:03	0°♊		evening max el	14064 Aug 14 03:41	23°♊55'46	18°03'21
evening max el	14063 Aug 31 13:40	10°♊41'01	18°07'00	retrograde	14064 Aug 20 14:18	27°♊16'35	
retrograde	14063 Sep 07 11:56	14°♊13'31		evening set	14064 Aug 23 05:14	26°♊42'15	
evening set	14063 Sep 09 18:34	13°♊50'55		inferior conj	14064 Aug 29 15:05	21°♊31'36	1°30'08
inferior conj	14063 Sep 16 20:04	8°♊59'09	0°19'36	minimum elong	14064 Aug 29 17:18	21°♊25'48	1°29'07
minimum elong	14063 Sep 16 20:43	8°♊57'42	0°19'25	min. Earth dist.	14064 Sep 01 12:39	18°♊32'12	0.62242 AU
desc. node	14063 Sep 17 21:28	8°♊01'04		desc. node	14064 Sep 03 19:01	16°♊26'58	
min. Earth dist.	14063 Sep 20 01:58	6°♊03'17	0.59948 AU	morning rise	14064 Sep 05 03:00	15°♊24'50	
morning rise	14063 Sep 23 19:35	3°♊14'39		direct	14064 Sep 11 19:23	13°♊01'24	

morning max el	14064 Sep 25 21:56	21° $\mathbb{M}$ 01'19	27°57'19	desc. node	14065 Aug 21 16:31	26° $\Omega$ 35'51	
	14064 Oct 03 16:56	0° $\mathfrak{L}$		direct	14065 Aug 25 15:10	25° $\Omega$ 40'44	
	14064 Oct 22 19:43	0° $\mathbb{M}$			14065 Sep 04 07:33	0° $\mathbb{M}$	
asc. node	14064 Oct 28 23:42	11° $\mathbb{M}$ 54'23		morning max el	14065 Sep 08 07:59	3° $\mathbb{M}$ 39'08	27°29'38
morning set	14064 Oct 29 21:57	13° $\mathbb{M}$ 47'29			14065 Sep 28 04:12	0° $\mathfrak{L}$	
max. Earth dist.	14064 Nov 04 06:42	25° $\mathbb{M}$ 07'43	1.31736 AU	morning set	14065 Oct 13 12:50	27° $\mathfrak{L}$ 17'05	
					14065 Oct 14 21:35	0° $\mathbb{M}$	
superior conj	14064 Nov 06 10:01	29° $\mathbb{M}$ 48'24	1°12'30	asc. node	14065 Oct 15 20:21	1° $\mathbb{M}$ 54'54	
minimum elong	14064 Nov 06 07:46	29° $\mathbb{M}$ 36'01	1°13'03	max. Earth dist.	14065 Oct 18 03:56	6° $\mathbb{M}$ 40'57	1.32819 AU
	14064 Nov 06 12:08	0° $\mathfrak{X}$					
evening rise	14064 Nov 13 04:01	14° $\mathfrak{X}$ 38'34		superior conj	14065 Oct 21 15:19	14° $\mathbb{M}$ 02'32	0°52'26
	14064 Nov 20 17:00	0° $\mathfrak{Z}$		minimum elong	14065 Oct 21 13:08	13° $\mathbb{M}$ 50'50	0°52'43
desc. node	14064 Nov 30 15:42	16° $\mathfrak{Z}$ 19'03		evening rise	14065 Oct 28 15:02	29° $\mathbb{M}$ 08'45	
evening max el	14064 Dec 08 07:06	25° $\mathfrak{Z}$ 17'48	24°25'04		14065 Oct 29 00:38	0° $\mathfrak{X}$	
	14064 Dec 14 11:30	0° $\approx$			14065 Nov 15 00:39	0° $\mathfrak{Z}$	
retrograde	14064 Dec 21 23:29	2° $\approx$ 06'52		desc. node	14065 Nov 17 12:52	3° $\mathfrak{Z}$ 00'52	
evening set	14064 Dec 27 04:01	1° $\approx$ 07'48		evening max el	14065 Nov 19 16:59	5° $\mathfrak{Z}$ 17'13	22°42'27
	14064 Dec 29 17:30	30° $\mathfrak{K}$ $\mathfrak{Z}$		retrograde	14065 Dec 02 17:15	11° $\mathfrak{Z}$ 44'26	
min. Earth dist.	14065 Jan 01 18:46	28° $\mathfrak{Z}$ 16'41	0.55932 AU	evening set	14065 Dec 06 13:53	11° $\mathfrak{Z}$ 11'56	
inferior conj	14065 Jan 04 01:20	26° $\mathfrak{Z}$ 52'21	-5°32'02	min. Earth dist.	14065 Dec 14 01:22	7° $\mathfrak{Z}$ 48'03	0.54783 AU
minimum elong	14065 Jan 04 08:29	26° $\mathfrak{Z}$ 41'16	5°29'53	inferior conj	14065 Dec 15 00:55	7° $\mathfrak{Z}$ 14'43	-5°58'23
morning rise	14065 Jan 12 14:55	22° $\mathfrak{Z}$ 50'58		minimum elong	14065 Dec 15 00:30	7° $\mathfrak{Z}$ 15'19	5°57'19
direct	14065 Jan 15 00:29	22° $\mathfrak{Z}$ 35'41		morning rise	14065 Dec 23 12:26	3° $\mathfrak{Z}$ 26'43	
asc. node	14065 Jan 24 23:02	27° $\mathfrak{Z}$ 20'10		direct	14065 Dec 26 15:37	3° $\mathfrak{Z}$ 04'12	
morning max el	14065 Jan 25 01:46	27° $\mathfrak{Z}$ 26'43	19°44'14	morning max el	14066 Jan 07 06:17	8° $\mathfrak{Z}$ 37'42	21°07'59
	14065 Jan 27 10:44	0° $\approx$		asc. node	14066 Jan 11 20:18	13° $\mathfrak{Z}$ 48'52	
morning set	14065 Feb 11 14:26	25° $\approx$ 49'56			14066 Jan 21 17:39	0° $\approx$	
	14065 Feb 13 15:47	0° $\mathfrak{K}$		morning set	14066 Jan 26 23:10	10° $\approx$ 32'00	
superior conj	14065 Feb 19 12:04	11° $\mathfrak{K}$ 45'36	0°56'31	superior conj	14066 Feb 03 06:50	25° $\approx$ 50'34	1°16'40
minimum elong	14065 Feb 19 14:45	11° $\mathfrak{K}$ 58'51	0°56'34	minimum elong	14066 Feb 03 09:19	26° $\approx$ 03'24	1°17'03
max. Earth dist.	14065 Feb 25 16:40	23° $\mathfrak{K}$ 37'54	1.37480 AU		14066 Feb 05 07:34	0° $\mathfrak{K}$	
desc. node	14065 Feb 26 16:33	25° $\mathfrak{K}$ 28'02		max. Earth dist.	14066 Feb 08 02:24	5° $\mathfrak{K}$ 33'57	1.35375 AU
evening rise	14065 Mar 01 09:50	0° $\mathbb{Y}$ 22'39		evening rise	14066 Feb 12 02:35	13° $\mathfrak{K}$ 15'46	
	14065 Mar 01 04:45	0° $\mathbb{Y}$		desc. node	14066 Feb 13 13:04	15° $\mathfrak{K}$ 55'39	
	14065 Mar 19 22:10	0° $\mathfrak{B}$			14066 Feb 21 14:59	0° $\mathbb{Y}$	
evening max el	14065 Apr 05 21:07	21° $\mathfrak{B}$ 05'06	25°20'09		14066 Mar 14 20:24	0° $\mathfrak{B}$	
retrograde	14065 Apr 18 01:14	28° $\mathfrak{B}$ 07'53		evening max el	14066 Mar 19 10:49	4° $\mathfrak{B}$ 53'49	26°25'48
asc. node	14065 Apr 22 19:30	26° $\mathfrak{B}$ 32'21		retrograde	14066 Apr 01 09:42	12° $\mathfrak{B}$ 14'49	
evening set	14065 Apr 23 21:55	25° $\mathfrak{B}$ 41'37		evening set	14066 Apr 07 17:01	9° $\mathfrak{B}$ 43'05	
min. Earth dist.	14065 Apr 28 06:20	20° $\mathfrak{B}$ 53'34	0.67924 AU	asc. node	14066 Apr 09 16:55	7° $\mathfrak{B}$ 51'37	
inferior conj	14065 Apr 29 13:58	19° $\mathfrak{B}$ 11'01	1°57'23	min. Earth dist.	14066 Apr 11 19:17	5° $\mathfrak{B}$ 30'06	0.66736 AU
minimum elong	14065 Apr 29 11:49	19° $\mathfrak{B}$ 17'58	1°56'00	inferior conj	14066 Apr 13 15:32	3° $\mathfrak{B}$ 16'00	1°12'18
morning rise	14065 May 05 02:06	13° $\mathfrak{B}$ 17'53		minimum elong	14066 Apr 13 13:51	3° $\mathfrak{B}$ 21'05	1°11'13
direct	14065 May 08 15:12	12° $\mathfrak{B}$ 05'39			14066 Apr 16 12:05	30° $\mathfrak{K}$ $\mathbb{Y}$	
morning max el	14065 May 15 14:24	15° $\mathfrak{B}$ 53'49	19°12'10	morning rise	14066 Apr 19 11:39	27° $\mathbb{Y}$ 33'53	
desc. node	14065 May 25 18:35	28° $\mathfrak{B}$ 52'53		direct	14066 Apr 22 14:06	26° $\mathbb{Y}$ 39'50	
	14065 May 26 13:00	0° $\mathbb{I}$			14066 Apr 28 23:03	0° $\mathfrak{B}$	
greatest brilliancy	14065 May 28 11:11	2° $\mathbb{I}$ 50'33	-0.7m	morning max el	14066 Apr 29 01:37	0° $\mathfrak{B}$ 06'12	18°26'34
morning set	14065 Jun 08 15:19	19° $\mathbb{I}$ 51'36		desc. node	14066 May 12 15:21	18° $\mathfrak{B}$ 45'28	
	14065 Jun 15 04:38	0° $\mathfrak{E}$		morning set	14066 May 19 13:10	29° $\mathfrak{B}$ 38'18	
max. Earth dist.	14065 Jun 21 20:25	10° $\mathfrak{E}$ 23'30	1.45386 AU		14066 May 19 18:40	0° $\mathbb{I}$	
superior conj	14065 Jun 24 23:55	15° $\mathfrak{E}$ 20'55	-2°13'17	superior conj	14066 Jun 04 08:38	24° $\mathbb{I}$ 27'10	-2°07'04
minimum elong	14065 Jun 25 01:32	15° $\mathfrak{E}$ 27'17	2°14'20	minimum elong	14066 Jun 04 02:37	24° $\mathbb{I}$ 03'41	2°07'50
	14065 Jul 04 03:33	0° $\Omega$		max. Earth dist.	14066 Jun 04 16:05	24° $\mathbb{I}$ 56'12	1.45874 AU
evening rise	14065 Jul 09 14:22	8° $\Omega$ 54'00			14066 Jun 07 21:56	0° $\mathfrak{E}$	
asc. node	14065 Jul 19 18:19	25° $\Omega$ 25'06		evening rise	14066 Jun 20 04:41	19° $\mathfrak{E}$ 14'59	
	14065 Jul 22 18:54	0° $\mathbb{M}$			14066 Jun 27 00:45	0° $\Omega$	
evening max el	14065 Jul 28 17:58	7° $\mathbb{M}$ 29'20	18°18'00	greatest brilliancy	14066 Jun 29 08:11	3° $\Omega$ 35'46	-0.8m
retrograde	14065 Aug 04 02:50	10° $\mathbb{M}$ 52'30		asc. node	14066 Jul 06 15:07	14° $\Omega$ 24'47	
evening set	14065 Aug 07 02:23	10° $\mathbb{M}$ 03'48		evening max el	14066 Jul 12 05:32	21° $\Omega$ 12'59	18°50'11
inferior conj	14065 Aug 13 00:09	4° $\mathbb{M}$ 36'16	2°19'36	retrograde	14066 Jul 18 21:39	24° $\Omega$ 51'59	
minimum elong	14065 Aug 13 02:34	4° $\mathbb{M}$ 29'18	2°18'27	evening set	14066 Jul 22 06:08	23° $\Omega$ 47'14	
min. Earth dist.	14065 Aug 15 08:52	1° $\mathbb{M}$ 52'55	0.64369 AU	inferior conj	14066 Jul 27 19:29	18° $\Omega$ 04'45	2°51'05
	14065 Aug 17 03:24	30° $\mathfrak{K}$ $\Omega$		minimum elong	14066 Jul 27 21:17	17° $\Omega$ 59'05	2°50'00
morning rise	14065 Aug 19 01:16	28° $\Omega$ 16'51		min. Earth dist.	14066 Jul 29 13:52	15° $\Omega$ 51'42	0.66169 AU

morning rise	14066 Aug 02 11:37	11° $\Omega$ 40'12		minimum elong	14067 Jul 11 22:48	1° $\Omega$ 48'22	3°06'33
direct	14066 Aug 08 18:26	9° $\Omega$ 00'47		min. Earth dist.	14067 Jul 13 02:01	0° $\Omega$ 17'37	0.67558 AU
desc. node	14066 Aug 08 14:00	9° $\Omega$ 00'55			14067 Jul 13 07:22	30° $\mathbb{R}$ $\mathfrak{S}$	
morning max el	14066 Aug 21 19:19	16° $\Omega$ 44'56	26°32'35	morning rise	14067 Jul 17 07:27	25° $\mathfrak{S}$ 26'55	
	14066 Sep 01 19:50	0° $\mathbb{M}$		direct	14067 Jul 23 04:14	22° $\mathfrak{S}$ 52'49	
	14066 Sep 21 01:26	0° $\underline{\Omega}$		desc. node	14067 Jul 26 11:25	23° $\mathfrak{S}$ 33'42	
morning set	14066 Sep 26 16:07	10° $\underline{\Omega}$ 13'18			14067 Aug 04 03:17	0° $\Omega$	
max. Earth dist.	14066 Sep 30 15:36	17° $\underline{\Omega}$ 54'17	1.34425 AU	morning max el	14067 Aug 04 06:13	0° $\Omega$ 07'24	25°15'12
asc. node	14066 Oct 02 16:55	22° $\underline{\Omega}$ 00'45			14067 Aug 26 17:04	0° $\mathbb{M}$	
				morning set	14067 Sep 09 03:58	22° $\mathbb{M}$ 27'13	
superior conj	14066 Oct 05 14:10	27° $\underline{\Omega}$ 55'16	0°26'49	max. Earth dist.	14067 Sep 12 17:53	28° $\mathbb{M}$ 59'40	1.36473 AU
minimum elong	14066 Oct 05 12:45	27° $\underline{\Omega}$ 47'59	0°26'56		14067 Sep 13 06:49	0° $\underline{\Omega}$	
	14066 Oct 06 14:08	0° $\mathbb{M}$					
evening rise	14066 Oct 13 00:30	13° $\mathbb{M}$ 32'48		superior conj	14067 Sep 19 03:42	11° $\underline{\Omega}$ 19'47	-0°03'48
	14066 Oct 21 08:59	0° $\mathfrak{J}$		minimum elong	14067 Sep 19 03:56	11° $\underline{\Omega}$ 20'54	0°03'40
evening max el	14066 Nov 01 09:30	15° $\mathfrak{J}$ 29'25	21°06'22	behind sun begin	14067 Sep 18 21:40	10° $\underline{\Omega}$ 49'53	
desc. node	14066 Nov 04 10:09	18° $\mathfrak{J}$ 06'42		behind sun end	14067 Sep 19 10:11	11° $\underline{\Omega}$ 51'59	
retrograde	14066 Nov 13 04:03	21° $\mathfrak{J}$ 20'23		asc. node	14067 Sep 19 13:28	12° $\underline{\Omega}$ 08'19	
evening set	14066 Nov 15 18:32	21° $\mathfrak{J}$ 04'25		evening rise	14067 Sep 27 06:17	27° $\underline{\Omega}$ 45'09	
inferior conj	14066 Nov 24 16:05	17° $\mathfrak{J}$ 11'18	-5°25'33		14067 Sep 28 08:53	0° $\mathbb{M}$	
minimum elong	14066 Nov 24 07:36	17° $\mathfrak{J}$ 23'18	5°23'00	evening max el	14067 Oct 14 15:43	26° $\mathbb{M}$ 24'31	19°48'27
min. Earth dist.	14066 Nov 25 07:07	16° $\mathfrak{J}$ 50'02	0.54493 AU		14067 Oct 19 07:21	0° $\mathfrak{J}$	
morning rise	14066 Dec 02 21:07	13° $\mathfrak{J}$ 20'02		desc. node	14067 Oct 22 07:33	1° $\mathfrak{J}$ 10'25	
direct	14066 Dec 06 22:50	12° $\mathfrak{J}$ 44'28		retrograde	14067 Oct 24 19:14	1° $\mathfrak{J}$ 28'08	
morning max el	14066 Dec 19 21:48	18° $\mathfrak{J}$ 59'51	22°50'39	evening set	14067 Oct 26 17:56	1° $\mathfrak{J}$ 17'49	
	14066 Dec 28 20:10	0° $\mathfrak{Z}$			14067 Oct 30 17:04	30° $\mathbb{R}$ $\mathbb{M}$	
asc. node	14066 Dec 29 17:28	1° $\mathfrak{Z}$ 21'43		inferior conj	14067 Nov 04 13:34	27° $\mathbb{M}$ 16'33	-4°00'41
morning set	14067 Jan 11 10:26	25° $\mathfrak{Z}$ 17'39		minimum elong	14067 Nov 04 03:55	27° $\mathbb{M}$ 31'27	3°56'45
	14067 Jan 13 15:11	0° $\approx$		min. Earth dist.	14067 Nov 06 15:28	25° $\mathbb{M}$ 59'29	0.55147 AU
				morning rise	14067 Nov 12 12:19	23° $\mathbb{M}$ 01'34	
superior conj	14067 Jan 18 09:25	10° $\approx$ 15'34	1°30'00	direct	14067 Nov 17 12:12	22° $\mathbb{M}$ 06'34	
minimum elong	14067 Jan 18 11:08	10° $\approx$ 24'42	1°30'44	morning max el	14067 Dec 01 07:26	28° $\mathbb{M}$ 58'09	24°39'42
max. Earth dist.	14067 Jan 21 18:50	17° $\approx$ 25'08	1.33602 AU		14067 Dec 02 08:44	0° $\mathfrak{J}$	
evening rise	14067 Jan 26 09:08	26° $\approx$ 42'41		asc. node	14067 Dec 16 14:33	19° $\mathfrak{J}$ 43'25	
	14067 Jan 28 01:50	0° $\mathfrak{H}$			14067 Dec 22 02:29	0° $\mathfrak{Z}$	
desc. node	14067 Jan 31 09:40	6° $\mathfrak{H}$ 13'19		morning set	14067 Dec 26 22:20	10° $\mathfrak{Z}$ 01'05	
	14067 Feb 14 23:01	0° $\mathbb{Y}$					
evening max el	14067 Mar 02 00:17	18° $\mathbb{Y}$ 29'00	27°12'43	superior conj	14068 Jan 02 17:08	24° $\mathfrak{Z}$ 52'19	1°36'53
retrograde	14067 Mar 15 12:18	25° $\mathbb{Y}$ 57'39		minimum elong	14068 Jan 02 17:49	24° $\mathfrak{Z}$ 56'00	1°37'52
evening set	14067 Mar 22 04:05	23° $\mathbb{Y}$ 26'14		max. Earth dist.	14068 Jan 04 18:45	29° $\mathfrak{Z}$ 22'57	1.32281 AU
min. Earth dist.	14067 Mar 26 01:29	19° $\mathbb{Y}$ 46'08	0.65147 AU		14068 Jan 05 01:36	0° $\approx$	
asc. node	14067 Mar 27 14:21	18° $\mathbb{Y}$ 04'08		evening rise	14068 Jan 10 02:13	10° $\approx$ 35'01	
inferior conj	14067 Mar 28 09:59	17° $\mathbb{Y}$ 09'10	0°15'36	desc. node	14068 Jan 18 06:21	26° $\approx$ 15'22	
minimum elong	14067 Mar 28 09:33	17° $\mathbb{Y}$ 10'23	0°15'14		14068 Jan 20 09:24	0° $\mathfrak{H}$	
transit middle	14067 Mar 28 09:33	17° $\mathbb{Y}$ 10'23	0°15'14		14068 Feb 10 20:25	0° $\mathbb{Y}$	
transit begin	14067 Mar 28 08:37	17° $\mathbb{Y}$ 12'59		evening max el	14068 Feb 12 12:09	1° $\mathbb{Y}$ 38'39	27°33'48
transit end	14067 Mar 28 10:28	17° $\mathbb{Y}$ 07'48		retrograde	14068 Feb 26 08:02	9° $\mathbb{Y}$ 05'44	
morning rise	14067 Apr 03 16:44	11° $\mathbb{Y}$ 40'02		evening set	14068 Mar 04 04:39	6° $\mathbb{Y}$ 42'03	
direct	14067 Apr 06 09:38	11° $\mathbb{Y}$ 01'16		min. Earth dist.	14068 Mar 07 23:07	3° $\mathbb{Y}$ 30'39	0.63230 AU
morning max el	14067 Apr 12 17:35	14° $\mathbb{Y}$ 18'34	17°57'52	inferior conj	14068 Mar 10 18:26	0° $\mathbb{Y}$ 42'29	-0°53'02
	14067 Apr 24 00:50	0° $\mathfrak{B}$		minimum elong	14068 Mar 10 20:09	0° $\mathbb{Y}$ 38'10	0°52'13
desc. node	14067 Apr 29 12:02	8° $\mathfrak{B}$ 56'14			14068 Mar 11 11:30	30° $\mathbb{R}$ $\mathfrak{H}$	
morning set	14067 Apr 30 14:56	10° $\mathfrak{B}$ 46'53		asc. node	14068 Mar 13 11:50	28° $\mathfrak{H}$ 07'07	
	14067 May 12 11:09	0° $\mathbb{I}$		morning rise	14068 Mar 17 14:12	25° $\mathfrak{H}$ 28'44	
				direct	14068 Mar 19 23:03	25° $\mathfrak{H}$ 01'45	
superior conj	14067 May 14 21:27	3° $\mathbb{I}$ 51'28	-1°42'05	morning max el	14068 Mar 26 11:20	28° $\mathfrak{H}$ 21'18	17°46'28
minimum elong	14067 May 14 12:25	3° $\mathbb{I}$ 15'42	1°42'06		14068 Mar 28 00:22	0° $\mathbb{Y}$	
max. Earth dist.	14067 May 18 12:15	9° $\mathbb{I}$ 33'14	1.45612 AU	morning set	14068 Apr 11 18:42	23° $\mathbb{Y}$ 09'31	
evening rise	14067 May 30 22:44	28° $\mathbb{I}$ 49'50		desc. node	14068 Apr 15 08:38	29° $\mathbb{Y}$ 19'06	
	14067 May 31 17:00	0° $\mathfrak{S}$			14068 Apr 15 18:12	0° $\mathfrak{B}$	
greatest brilliancy	14067 Jun 13 19:31	19° $\mathfrak{S}$ 48'19	-0.6m				
	14067 Jun 21 03:36	0° $\Omega$		superior conj	14068 Apr 24 04:47	14° $\mathfrak{B}$ 09'27	-1°05'31
asc. node	14067 Jun 23 12:01	2° $\Omega$ 51'27		minimum elong	14068 Apr 23 22:17	13° $\mathfrak{B}$ 42'46	1°05'18
evening max el	14067 Jun 25 12:19	5° $\Omega$ 01'35	19°38'49	max. Earth dist.	14068 Apr 30 06:19	23° $\mathfrak{B}$ 57'36	1.44635 AU
retrograde	14067 Jul 02 19:44	9° $\Omega$ 08'39			14068 May 04 02:06	0° $\mathbb{I}$	
evening set	14067 Jul 06 13:41	7° $\Omega$ 47'03		evening rise	14068 May 09 09:44	8° $\mathbb{I}$ 14'35	
inferior conj	14067 Jul 11 21:57	1° $\Omega$ 51'13	3°07'34		14068 May 23 23:09	0° $\mathfrak{S}$	

evening max el	14068 Jun 07 13:17	18° $\mathfrak{D}$ 51'40	20°42'00	retrograde	14069 May 30 16:47	8° $\mathfrak{D}$ 10'29	
asc. node	14068 Jun 09 09:02	20° $\mathfrak{D}$ 33'37		evening set	14069 Jun 04 07:55	6° $\mathfrak{D}$ 15'41	
retrograde	14068 Jun 15 18:44	23° $\mathfrak{D}$ 36'34		inferior conj	14069 Jun 09 14:12	29° $\mathfrak{I}$ 57'48	3°04'03
evening set	14068 Jun 19 22:53	21° $\mathfrak{D}$ 58'02		minimum elong	14069 Jun 09 13:07	0° $\mathfrak{D}$ 01'32	3°02'53
inferior conj	14068 Jun 25 04:55	15° $\mathfrak{D}$ 50'19	3°11'23	min. Earth dist.	14069 Jun 09 15:13	29° $\mathfrak{I}$ 54'14	0.68938 AU
minimum elong	14068 Jun 25 04:46	15° $\mathfrak{D}$ 50'52	3°10'20		14069 Jun 09 13:34	30° $\mathfrak{R}$ $\mathfrak{I}$	
min. Earth dist.	14068 Jun 25 19:12	15° $\mathfrak{D}$ 01'00	0.68487 AU	morning rise	14069 Jun 14 18:08	23° $\mathfrak{I}$ 43'25	
morning rise	14068 Jun 30 10:21	9° $\mathfrak{D}$ 29'53		direct	14069 Jun 19 14:34	21° $\mathfrak{I}$ 39'13	
direct	14068 Jul 05 19:22	7° $\mathfrak{D}$ 08'12		morning max el	14069 Jun 29 04:41	27° $\mathfrak{I}$ 17'31	22°18'23
desc. node	14068 Jul 12 08:44	9° $\mathfrak{D}$ 48'47		desc. node	14069 Jun 29 05:57	27° $\mathfrak{I}$ 20'42	
morning max el	14068 Jul 16 16:36	13° $\mathfrak{D}$ 38'38	23°47'21		14069 Jul 01 17:28	0° $\mathfrak{D}$	
	14068 Jul 29 22:43	0° $\mathfrak{Q}$			14069 Jul 23 12:28	0° $\mathfrak{Q}$	
	14068 Aug 18 13:43	0° $\mathfrak{P}$		morning set	14069 Aug 01 11:52	14° $\mathfrak{Q}$ 05'00	
morning set	14068 Aug 20 19:55	3° $\mathfrak{P}$ 47'52		max. Earth dist.	14069 Aug 06 16:00	22° $\mathfrak{Q}$ 36'16	1.41137 AU
max. Earth dist.	14068 Aug 24 15:38	10° $\mathfrak{P}$ 24'25	1.38796 AU		14069 Aug 10 24:00	0° $\mathfrak{P}$	
superior conj	14068 Sep 01 04:22	24° $\mathfrak{P}$ 07'42	-0°38'03	superior conj	14069 Aug 14 11:50	6° $\mathfrak{P}$ 08'32	-1°13'26
minimum elong	14068 Sep 01 07:06	24° $\mathfrak{P}$ 20'32	0°37'47	minimum elong	14069 Aug 14 17:27	6° $\mathfrak{P}$ 33'33	1°13'08
	14068 Sep 04 06:18	0° $\mathfrak{A}$		asc. node	14069 Aug 23 06:37	22° $\mathfrak{P}$ 13'51	
asc. node	14068 Sep 05 10:02	2° $\mathfrak{A}$ 14'04		evening rise	14069 Aug 24 19:21	25° $\mathfrak{P}$ 05'30	
evening rise	14068 Sep 10 05:42	11° $\mathfrak{A}$ 39'09			14069 Aug 27 10:35	0° $\mathfrak{A}$	
	14068 Sep 20 06:24	0° $\mathfrak{M}$		evening max el	14069 Sep 09 18:05	20° $\mathfrak{A}$ 37'04	18°17'40
evening max el	14068 Sep 26 11:48	8° $\mathfrak{M}$ 09'37	18°52'23	retrograde	14069 Sep 17 03:29	24° $\mathfrak{A}$ 22'19	
retrograde	14068 Oct 05 01:40	12° $\mathfrak{M}$ 28'16		evening set	14069 Sep 19 06:00	24° $\mathfrak{A}$ 04'44	
evening set	14068 Oct 06 22:51	12° $\mathfrak{M}$ 16'36		desc. node	14069 Sep 25 02:32	20° $\mathfrak{A}$ 44'23	
desc. node	14068 Oct 08 05:01	11° $\mathfrak{M}$ 56'33		inferior conj	14069 Sep 26 17:44	19° $\mathfrak{A}$ 24'28	-0°30'55
inferior conj	14068 Oct 15 04:48	7° $\mathfrak{M}$ 57'39	-2°13'11	minimum elong	14069 Sep 26 16:36	19° $\mathfrak{A}$ 26'50	0°30'13
minimum elong	14068 Oct 14 23:14	8° $\mathfrak{M}$ 07'34	2°10'25	min. Earth dist.	14069 Sep 30 00:43	16° $\mathfrak{A}$ 40'49	0.58660 AU
min. Earth dist.	14068 Oct 18 04:39	5° $\mathfrak{M}$ 50'12	0.56626 AU	morning rise	14069 Oct 03 23:45	13° $\mathfrak{A}$ 57'47	
morning rise	14068 Oct 22 20:29	3° $\mathfrak{M}$ 07'07		direct	14069 Oct 10 07:45	12° $\mathfrak{A}$ 11'00	
direct	14068 Oct 28 15:09	1° $\mathfrak{M}$ 47'16		morning max el	14069 Oct 24 15:11	19° $\mathfrak{A}$ 51'27	27°25'55
morning max el	14068 Nov 11 19:39	9° $\mathfrak{M}$ 06'43	26°16'59		14069 Nov 02 07:40	0° $\mathfrak{M}$	
	14068 Nov 27 13:31	0° $\mathfrak{X}$		asc. node	14069 Nov 19 08:26	28° $\mathfrak{M}$ 05'47	
asc. node	14068 Dec 02 11:33	8° $\mathfrak{X}$ 41'35			14069 Nov 20 07:38	0° $\mathfrak{X}$	
morning set	14068 Dec 10 09:10	24° $\mathfrak{X}$ 37'53		morning set	14069 Nov 24 17:06	9° $\mathfrak{X}$ 02'34	
	14068 Dec 12 20:22	0° $\mathfrak{Z}$		superior conj	14069 Dec 01 15:25	24° $\mathfrak{X}$ 15'53	1°32'27
superior conj	14068 Dec 17 03:49	9° $\mathfrak{Z}$ 34'40	1°37'38	minimum elong	14069 Dec 01 14:04	24° $\mathfrak{X}$ 08'15	1°33'24
minimum elong	14068 Dec 17 03:24	9° $\mathfrak{Z}$ 32'23	1°38'41	max. Earth dist.	14069 Dec 01 08:53	23° $\mathfrak{X}$ 39'18	1.31155 AU
max. Earth dist.	14068 Dec 18 00:32	11° $\mathfrak{Z}$ 29'56	1.31462 AU		14069 Dec 04 05:03	0° $\mathfrak{Z}$	
evening rise	14068 Dec 24 03:07	24° $\mathfrak{Z}$ 46'10		evening rise	14069 Dec 08 09:21	9° $\mathfrak{Z}$ 09'04	
	14068 Dec 26 15:55	0° $\mathfrak{A}$			14069 Dec 19 00:29	0° $\mathfrak{A}$	
desc. node	14069 Jan 04 03:08	15° $\mathfrak{A}$ 55'24		desc. node	14069 Dec 22 00:01	5° $\mathfrak{A}$ 04'02	
	14069 Jan 13 00:52	0° $\mathfrak{H}$		evening max el	14070 Jan 06 21:57	25° $\mathfrak{A}$ 54'08	26°37'21
evening max el	14069 Jan 24 20:21	14° $\mathfrak{H}$ 11'00	27°22'59		14070 Jan 12 00:04	0° $\mathfrak{H}$	
retrograde	14069 Feb 07 19:30	21° $\mathfrak{H}$ 29'52		retrograde	14070 Jan 20 21:03	3° $\mathfrak{H}$ 02'25	
evening set	14069 Feb 14 15:47	19° $\mathfrak{H}$ 21'51		evening set	14070 Jan 27 09:51	1° $\mathfrak{H}$ 17'18	
min. Earth dist.	14069 Feb 18 10:45	16° $\mathfrak{H}$ 32'35	0.61101 AU		14070 Jan 29 14:01	30° $\mathfrak{R}$ $\mathfrak{A}$	
inferior conj	14069 Feb 21 13:34	13° $\mathfrak{H}$ 47'42	-2°12'16	min. Earth dist.	14070 Jan 31 11:44	28° $\mathfrak{A}$ 39'57	0.58915 AU
minimum elong	14069 Feb 21 18:18	13° $\mathfrak{H}$ 37'13	2°10'00	inferior conj	14070 Feb 03 15:42	26° $\mathfrak{A}$ 14'30	-3°37'21
asc. node	14069 Feb 28 09:19	9° $\mathfrak{H}$ 04'11		minimum elong	14070 Feb 03 23:32	25° $\mathfrak{A}$ 59'27	3°34'00
morning rise	14069 Feb 28 23:55	8° $\mathfrak{H}$ 52'04		morning rise	14070 Feb 11 16:18	21° $\mathfrak{A}$ 39'58	
direct	14069 Mar 03 02:52	8° $\mathfrak{H}$ 33'08		direct	14070 Feb 13 16:49	21° $\mathfrak{A}$ 25'29	
morning max el	14069 Mar 10 03:38	12° $\mathfrak{H}$ 05'23	17°53'05	asc. node	14070 Feb 15 06:45	21° $\mathfrak{A}$ 34'43	
	14069 Mar 22 04:19	0° $\mathfrak{Y}$		morning max el	14070 Feb 21 14:53	25° $\mathfrak{A}$ 20'30	18°19'13
morning set	14069 Mar 25 18:33	6° $\mathfrak{Y}$ 28'09			14070 Feb 25 12:54	0° $\mathfrak{H}$	
desc. node	14069 Apr 02 05:11	19° $\mathfrak{Y}$ 49'48		morning set	14070 Mar 09 08:40	20° $\mathfrak{H}$ 25'28	
					14070 Mar 14 10:01	0° $\mathfrak{Y}$	
superior conj	14069 Apr 05 12:01	25° $\mathfrak{Y}$ 33'37	-0°25'56	superior conj	14070 Mar 18 17:32	7° $\mathfrak{Y}$ 58'59	0°10'50
minimum elong	14069 Apr 05 09:40	25° $\mathfrak{Y}$ 23'29	0°25'54	minimum elong	14070 Mar 18 18:20	8° $\mathfrak{Y}$ 02'35	0°10'40
	14069 Apr 08 02:22	0° $\mathfrak{B}$		behind sun begin	14070 Mar 18 12:49	7° $\mathfrak{Y}$ 37'29	
max. Earth dist.	14069 Apr 12 20:54	7° $\mathfrak{B}$ 56'51	1.43048 AU	behind sun end	14070 Mar 18 23:50	8° $\mathfrak{Y}$ 27'39	
evening rise	14069 Apr 19 05:42	18° $\mathfrak{B}$ 09'28		desc. node	14070 Mar 20 01:42	10° $\mathfrak{Y}$ 24'34	
	14069 Apr 26 22:41	0° $\mathfrak{I}$		max. Earth dist.	14070 Mar 26 07:13	21° $\mathfrak{Y}$ 19'36	1.41015 AU
	14069 May 18 20:03	0° $\mathfrak{D}$		evening rise	14070 Mar 30 20:28	28° $\mathfrak{Y}$ 55'59	
evening max el	14069 May 21 08:49	2° $\mathfrak{D}$ 42'25	21°56'14		14070 Mar 31 12:09	0° $\mathfrak{B}$	
asc. node	14069 May 27 06:09	7° $\mathfrak{D}$ 16'56					

	14070 Apr 20 11:19	0°♊				14071 Apr 16 03:11	0°♊	
evening max el	14070 May 04 00:23	16°♊34'21	23°16'34	evening max el	14071 Apr 16 13:58	0°♊26'57	24°36'49	
asc. node	14070 May 14 03:21	22°♊44'43		retrograde	14071 Apr 28 04:46	7°♊14'33		
retrograde	14070 May 14 12:32	22°♊45'22		asc. node	14071 May 01 00:39	6°♊39'38		
evening set	14070 May 19 15:09	20°♊35'52		evening set	14071 May 03 19:00	4°♊53'09		
inferior conj	14070 May 24 23:49	14°♊10'06	2°46'20		14071 May 08 02:44	30°♊		
minimum elong	14070 May 24 22:03	14°♊16'12	2°45'00	min. Earth dist.	14071 May 08 07:22	29°♊44'40	0.68406 AU	
min. Earth dist.	14070 May 24 11:58	14°♊51'01	0.68906 AU	inferior conj	14071 May 09 07:52	28°♊22'50	2°18'18	
morning rise	14070 May 30 04:53	8°♊03'12		minimum elong	14071 May 09 05:44	28°♊29'59	2°16'54	
direct	14070 Jun 03 12:39	6°♊19'08		morning rise	14071 May 14 16:40	22°♊24'25		
morning max el	14070 Jun 11 21:46	11°♊07'08	20°56'09	direct	14071 May 18 12:16	21°♊01'03		
desc. node	14070 Jun 16 03:02	15°♊49'13		morning max el	14071 May 25 21:55	25°♊07'46	19°45'52	
	14070 Jun 26 15:04	0°♋			14071 May 30 05:23	0°♊		
morning set	14070 Jul 12 04:01	23°♋21'19		desc. node	14071 Jun 02 23:58	4°♊58'32		
	14070 Jul 16 09:20	0°♌		greatest brilliancy	14071 Jun 07 19:45	11°♊50'10	-0.6m	
max. Earth dist.	14070 Jul 19 22:48	5°♌43'03	1.43205 AU		14071 Jun 19 21:50	0°♋		
				morning set	14071 Jun 21 06:22	2°♋04'46		
superior conj	14070 Jul 26 21:48	17°♌13'11	-1°45'29	max. Earth dist.	14071 Jul 02 11:39	19°♋33'22	1.44769 AU	
minimum elong	14070 Jul 27 05:10	17°♌44'15	1°45'32					
	14070 Aug 03 07:49	0°♍		superior conj	14071 Jul 07 07:54	27°♋17'21	-2°07'45	
evening rise	14070 Aug 07 18:56	7°♍53'58		minimum elong	14071 Jul 07 13:09	27°♋38'27	2°08'31	
asc. node	14070 Aug 10 03:14	12°♍04'05			14071 Jul 09 00:10	0°♌		
	14070 Aug 21 03:45	0°♎		evening rise	14071 Jul 20 23:14	19°♌50'53		
evening max el	14070 Aug 24 06:22	3°♎37'33	18°03'01		14071 Jul 26 23:53	0°♍		
retrograde	14070 Aug 30 22:24	7°♎03'30		asc. node	14071 Jul 27 23:53	1°♍39'27		
evening set	14070 Sep 02 08:29	6°♎36'16		evening max el	14071 Aug 07 20:48	17°♍01'05	18°07'20	
inferior conj	14070 Sep 09 02:54	1°♎35'49	0°52'12	retrograde	14071 Aug 14 05:43	20°♍21'38		
minimum elong	14070 Sep 09 04:26	1°♎32'08	0°51'33	evening set	14071 Aug 17 00:09	19°♍41'36		
	14070 Sep 10 18:23	30°♎		inferior conj	14071 Aug 23 04:25	14°♎23'28	1°53'27	
min. Earth dist.	14070 Sep 12 05:51	28°♎36'08	0.60935 AU	minimum elong	14071 Aug 23 06:52	14°♎16'49	1°52'21	
desc. node	14070 Sep 12 00:03	28°♎49'32		min. Earth dist.	14071 Aug 25 20:52	11°♎28'38	0.63174 AU	
morning rise	14070 Sep 15 21:29	25°♎40'30		morning rise	14071 Aug 29 11:33	8°♎09'54		
direct	14070 Sep 22 12:27	23°♎28'52		desc. node	14071 Aug 29 21:34	7°♎51'35		
	14070 Oct 05 07:04	0°♏		direct	14071 Sep 05 03:20	5°♎39'56		
morning max el	14070 Oct 06 18:23	1°♏24'12	27°57'06	morning max el	14071 Sep 19 02:50	13°♎41'24	27°49'37	
	14070 Oct 27 14:32	0°♐			14071 Oct 02 06:38	0°♏		
asc. node	14070 Nov 06 05:14	17°♐48'46			14071 Oct 20 03:46	0°♐		
morning set	14070 Nov 08 20:16	23°♐10'36		morning set	14071 Oct 23 16:26	6°♐56'35		
	14070 Nov 12 01:25	0°♑		asc. node	14071 Oct 24 01:56	7°♐44'36		
max. Earth dist.	14070 Nov 14 15:54	5°♑41'28	1.31373 AU	max. Earth dist.	14071 Oct 28 17:41	17°♐27'07	1.32129 AU	
superior conj	14070 Nov 16 02:07	8°♑50'56	1°21'27	superior conj	14071 Oct 31 10:01	23°♐14'42	1°04'41	
minimum elong	14070 Nov 16 00:05	8°♑39'36	1°22'09	minimum elong	14071 Oct 31 07:43	23°♐02'12	1°05'07	
evening rise	14070 Nov 22 18:54	23°♑38'36			14071 Nov 03 11:59	0°♑		
	14070 Nov 25 18:56	0°♒		evening rise	14071 Nov 07 05:55	8°♑10'07		
desc. node	14070 Dec 08 21:00	23°♒29'29			14071 Nov 18 10:13	0°♒		
	14070 Dec 13 13:51	0°♓		desc. node	14071 Nov 25 18:06	10°♒55'42		
evening max el	14070 Dec 19 14:58	6°♓44'00	25°19'47	evening max el	14071 Dec 01 01:28	16°♓53'56	23°41'36	
retrograde	14071 Jan 02 11:16	13°♓41'33		retrograde	14071 Dec 14 12:54	23°♓36'03		
evening set	14071 Jan 08 06:50	12°♓24'47		evening set	14071 Dec 19 04:23	22°♓49'07		
min. Earth dist.	14071 Jan 13 03:09	9°♓44'08	0.56900 AU	min. Earth dist.	14071 Dec 25 12:16	19°♓46'11	0.55346 AU	
inferior conj	14071 Jan 15 21:41	7°♓53'37	-4°56'44	inferior conj	14071 Dec 27 07:13	18°♓42'39	-5°49'42	
minimum elong	14071 Jan 16 06:31	7°♓38'55	4°53'42	minimum elong	14071 Dec 27 11:46	18°♓35'54	5°48'14	
morning rise	14071 Jan 24 08:45	3°♓41'21		morning rise	14072 Jan 04 20:55	14°♓48'32		
direct	14071 Jan 26 12:33	3°♓27'40		direct	14072 Jan 07 12:40	14°♓31'04		
asc. node	14071 Feb 02 04:10	5°♓47'32		morning max el	14072 Jan 18 06:17	19°♓40'03	20°17'10	
morning max el	14071 Feb 04 17:02	7°♓55'28	19°06'43	asc. node	14072 Jan 20 01:29	21°♓32'15		
	14071 Feb 18 21:54	0°♈			14072 Jan 26 06:11	0°♓		
morning set	14071 Feb 21 08:31	4°♈47'39		morning set	14072 Feb 05 14:48	19°♓25'11		
					14072 Feb 10 18:10	0°♈		
superior conj	14071 Mar 01 16:56	21°♈12'54	0°41'47					
minimum elong	14071 Mar 01 19:19	21°♈24'18	0°41'41	superior conj	14072 Feb 13 05:48	5°♈03'08	1°05'55	
	14071 Mar 06 09:09	0°♉		minimum elong	14072 Feb 13 08:30	5°♈16'42	1°06'04	
desc. node	14071 Mar 06 22:10	0°♉59'33		max. Earth dist.	14072 Feb 18 20:44	16°♈04'38	1.36546 AU	
max. Earth dist.	14071 Mar 08 13:49	3°♉58'56	1.38763 AU	desc. node	14072 Feb 21 18:41	21°♈31'28		
evening rise	14071 Mar 12 08:24	10°♉37'06		evening rise	14072 Feb 22 15:42	23°♈07'29		
	14071 Mar 24 07:22	0°♊			14072 Feb 26 12:42	0°♉		

	14072 Mar 17 00:57	0°♄		evening rise	14073 Feb 04 14:49	6°♄16'35	
evening max el	14072 Mar 29 03:25	14°♄18'55	25°49'55	desc. node	14073 Feb 07 15:15	11°♄55'36	
retrograde	14072 Apr 10 16:32	21°♄31'46			14073 Feb 18 06:00	0°♄	
evening set	14072 Apr 16 17:49	19°♄02'27		evening max el	14073 Mar 11 17:15	28°♄03'27	26°48'31
asc. node	14072 Apr 16 22:01	18°♄53'33			14073 Mar 13 19:52	0°♄	
min. Earth dist.	14072 Apr 20 23:23	14°♄29'25	0.67464 AU	retrograde	14073 Mar 24 22:39	5°♄28'59	
inferior conj	14072 Apr 22 12:26	12°♄32'19	1°39'38	evening set	14073 Mar 31 09:45	2°♄56'54	
minimum elong	14072 Apr 22 10:25	12°♄38'43	1°38'21		14073 Apr 03 11:44	30°♄	
morning rise	14072 Apr 28 03:38	6°♄43'37		asc. node	14073 Apr 03 19:26	29°♄38'44	
direct	14072 May 01 11:59	5°♄39'34		min. Earth dist.	14073 Apr 04 09:52	28°♄57'55	0.66103 AU
morning max el	14072 May 08 05:25	9°♄17'18	18°50'43	inferior conj	14073 Apr 06 11:18	26°♄33'04	0°49'43
desc. node	14072 May 19 20:49	24°♄37'51		minimum elong	14073 Apr 06 10:03	26°♄36'45	0°48'52
greatest brilliancy	14072 May 21 22:44	27°♄46'38	-0.8m	morning rise	14073 Apr 12 11:36	20°♄55'53	
	14072 May 23 09:37	0°♄		direct	14073 Apr 15 09:49	20°♄08'44	
morning set	14072 May 30 15:30	11°♄12'35		morning max el	14073 Apr 21 18:53	23°♄30'00	18°12'12
	14072 Jun 11 17:15	0°♄			14073 Apr 27 03:50	0°♄	
max. Earth dist.	14072 Jun 14 04:59	3°♄53'15	1.45679 AU	desc. node	14073 May 06 17:33	14°♄38'50	
				morning set	14073 May 11 00:53	21°♄33'07	
superior conj	14072 Jun 15 22:22	6°♄35'12	-2°13'11		14073 May 16 07:36	0°♄	
minimum elong	14072 Jun 15 20:37	6°♄28'19	2°14'13				
	14072 Jun 30 16:13	0°♄		superior conj	14073 May 26 06:37	15°♄43'14	-1°58'26
evening rise	14072 Jul 01 03:42	0°♄46'17		minimum elong	14073 May 25 22:29	15°♄11'24	1°58'52
asc. node	14072 Jul 13 20:37	20°♄54'10		max. Earth dist.	14073 May 28 00:56	18°♄28'39	1.45853 AU
	14072 Jul 20 18:46	0°♄			14073 Jun 04 10:30	0°♄	
evening max el	14072 Jul 21 10:13	0°♄39'34	18°29'40	evening rise	14073 Jun 11 08:13	10°♄43'48	
retrograde	14072 Jul 27 21:15	4°♄07'58		greatest brilliancy	14073 Jun 22 16:47	28°♄14'31	-0.7m
evening set	14072 Jul 31 00:28	3°♄12'45			14073 Jun 23 20:52	0°♄	
	14072 Aug 03 17:37	30°♄		asc. node	14073 Jun 30 17:26	9°♄41'03	
inferior conj	14072 Aug 05 18:16	27°♄38'56	2°34'55	evening max el	14073 Jul 04 20:03	14°♄26'18	19°09'05
minimum elong	14072 Aug 05 20:29	27°♄32'16	2°33'48	retrograde	14073 Jul 11 17:39	18°♄15'30	
min. Earth dist.	14072 Aug 07 21:05	25°♄06'41	0.65178 AU	evening set	14073 Jul 15 06:09	17°♄03'36	
morning rise	14072 Aug 11 15:17	21°♄16'26		inferior conj	14073 Jul 20 16:58	11°♄15'31	2°59'44
desc. node	14072 Aug 15 19:04	18°♄56'59		minimum elong	14073 Jul 20 18:23	11°♄10'55	2°58'41
direct	14072 Aug 18 02:43	18°♄37'25		min. Earth dist.	14073 Jul 22 05:17	9°♄18'21	0.66813 AU
morning max el	14072 Aug 31 13:37	26°♄32'14	27°08'24	morning rise	14073 Jul 26 05:59	4°♄50'47	
	14072 Sep 03 18:58	0°♄		direct	14073 Aug 01 08:58	2°♄12'28	
	14072 Sep 24 21:15	0°♄		desc. node	14073 Aug 02 16:31	2°♄18'55	
morning set	14072 Oct 06 02:49	20°♄13'17		morning max el	14073 Aug 14 00:38	9°♄45'29	26°01'38
asc. node	14072 Oct 09 22:33	27°♄48'05			14073 Aug 30 00:36	0°♄	
max. Earth dist.	14072 Oct 10 10:45	28°♄50'07	1.33435 AU		14073 Sep 17 10:16	0°♄	
	14072 Oct 11 00:25	0°♄		morning set	14073 Sep 19 00:04	2°♄52'55	
				max. Earth dist.	14073 Sep 22 18:01	9°♄57'16	1.35247 AU
superior conj	14072 Oct 14 12:55	7°♄20'53	0°42'15	asc. node	14073 Sep 26 19:08	17°♄55'27	
minimum elong	14072 Oct 14 10:58	7°♄10'34	0°42'26				
evening rise	14072 Oct 21 16:30	22°♄38'22		superior conj	14073 Sep 28 08:15	21°♄03'14	0°14'26
	14072 Oct 25 05:23	0°♄		minimum elong	14073 Sep 28 07:26	20°♄59'02	0°14'32
evening max el	14072 Nov 11 13:10	26°♄55'10	22°00'00	behind sun begin	14073 Sep 28 04:48	20°♄45'38	
desc. node	14072 Nov 11 15:20	27°♄00'30		behind sun end	14073 Sep 28 10:04	21°♄12'26	
	14072 Nov 15 04:50	0°♄			14073 Oct 02 16:16	0°♄	
retrograde	14072 Nov 24 02:43	3°♄08'35		evening rise	14073 Oct 06 00:43	6°♄58'36	
evening set	14072 Nov 27 09:08	2°♄44'50			14073 Oct 18 12:23	0°♄	
	14072 Dec 04 00:03	30°♄		evening max el	14073 Oct 24 11:14	7°♄24'16	20°30'42
inferior conj	14072 Dec 06 01:44	28°♄51'14	-5°52'00	desc. node	14073 Oct 29 12:40	11°♄18'06	
minimum elong	14072 Dec 05 21:22	28°♄57'21	5°50'35	retrograde	14073 Nov 04 13:20	12°♄55'03	
min. Earth dist.	14072 Dec 05 18:29	29°♄01'23	0.54545 AU	evening set	14073 Nov 06 19:19	12°♄42'28	
morning rise	14072 Dec 14 10:33	25°♄03'55		inferior conj	14073 Nov 15 17:50	8°♄47'31	-4°54'28
direct	14072 Dec 17 23:03	24°♄36'30		minimum elong	14073 Nov 15 07:54	9°♄01'56	4°51'03
	14072 Dec 29 16:20	0°♄		min. Earth dist.	14073 Nov 17 00:53	8°♄02'26	0.54668 AU
morning max el	14072 Dec 30 04:48	0°♄29'00	21°49'44	morning rise	14073 Nov 23 20:10	4°♄48'39	
asc. node	14073 Jan 05 22:44	8°♄30'36		direct	14073 Nov 28 07:55	4°♄05'21	
	14073 Jan 18 00:55	0°♄		morning max el	14073 Dec 11 16:32	10°♄36'30	23°37'04
morning set	14073 Jan 20 00:53	4°♄09'31		asc. node	14073 Dec 23 19:54	26°♄26'06	
					14073 Dec 25 22:13	0°♄	
superior conj	14073 Jan 27 04:17	19°♄17'47	1°23'07	morning set	14074 Jan 04 12:40	18°♄54'55	
minimum elong	14073 Jan 27 06:30	19°♄29'22	1°23'39		14074 Jan 09 15:19	0°♄	
max. Earth dist.	14073 Jan 31 08:54	27°♄56'01	1.34576 AU				
	14073 Feb 01 09:39	0°♄		superior conj	14074 Jan 11 09:22	3°♄48'28	1°33'40

minimum elong	14074 Jan 11 10:40	3° $\approx$ 55'27	1°34'32	morning set	14074 Dec 20 00:22	3° $\approx$ 36'19	
max. Earth dist.	14074 Jan 14 04:51	9° $\approx$ 50'16	1.32994 AU				
evening rise	14074 Jan 19 02:17	19° $\approx$ 55'23		superior conj	14074 Dec 26 18:37	18° $\approx$ 28'15	1°37'55
	14074 Jan 24 08:04	0° $\approx$		minimum elong	14074 Dec 26 18:49	18° $\approx$ 29'24	1°38'58
desc. node	14074 Jan 25 11:54	2° $\approx$ 07'20		max. Earth dist.	14074 Dec 28 07:50	21° $\approx$ 53'24	1.31875 AU
	14074 Feb 12 06:59	0° $\approx$			14075 Jan 01 01:53	0° $\approx$	
evening max el	14074 Feb 22 06:31	11° $\approx$ 29'53	27°25'11	evening rise	14075 Jan 02 23:00	3° $\approx$ 56'22	
retrograde	14074 Mar 07 22:15	18° $\approx$ 57'49		desc. node	14075 Jan 12 08:38	22° $\approx$ 01'04	
evening set	14074 Mar 14 16:38	16° $\approx$ 29'03			14075 Jan 17 01:35	0° $\approx$	
min. Earth dist.	14074 Mar 18 12:38	13° $\approx$ 01'38	0.64373 AU	evening max el	14075 Feb 04 17:08	24° $\approx$ 25'16	27°33'14
inferior conj	14074 Mar 21 01:53	10° $\approx$ 18'41	-0°12'04		14075 Feb 12 02:16	0° $\approx$	
minimum elong	14074 Mar 21 02:15	10° $\approx$ 17'43	0°12'00	retrograde	14075 Feb 18 14:26	1° $\approx$ 49'00	
transit middle	14074 Mar 21 02:15	10° $\approx$ 17'43	0°12'00		14075 Feb 24 17:20	30° $\approx$	
transit begin	14074 Mar 21 00:13	10° $\approx$ 23'10		evening set	14075 Feb 25 11:55	29° $\approx$ 30'49	
transit end	14074 Mar 21 04:18	10° $\approx$ 12'15		min. Earth dist.	14075 Mar 01 06:00	26° $\approx$ 30'08	0.62349 AU
asc. node	14074 Mar 21 16:55	9° $\approx$ 38'48		inferior conj	14075 Mar 04 05:09	23° $\approx$ 41'28	-1°25'28
morning rise	14074 Mar 27 13:54	4° $\approx$ 55'31		minimum elong	14075 Mar 04 08:04	23° $\approx$ 34'31	1°24'03
direct	14074 Mar 30 03:17	4° $\approx$ 22'04		asc. node	14075 Mar 08 14:24	19° $\approx$ 58'25	
morning max el	14074 Apr 05 11:55	7° $\approx$ 38'47	17°50'49	morning rise	14075 Mar 11 07:02	18° $\approx$ 35'14	
	14074 Apr 20 15:49	0° $\approx$		direct	14075 Mar 13 13:09	18° $\approx$ 12'04	
morning set	14074 Apr 22 14:21	3° $\approx$ 15'11		morning max el	14075 Mar 20 05:33	21° $\approx$ 35'20	17°47'02
desc. node	14074 Apr 23 14:13	4° $\approx$ 55'15			14075 Mar 26 16:36	0° $\approx$	
				morning set	14075 Apr 05 03:29	16° $\approx$ 04'25	
superior conj	14074 May 06 01:56	25° $\approx$ 26'22	-1°27'24	desc. node	14075 Apr 10 10:48	25° $\approx$ 22'15	
minimum elong	14074 May 05 17:30	24° $\approx$ 52'34	1°27'15		14075 Apr 13 03:15	0° $\approx$	
	14074 May 08 22:32	0° $\approx$					
max. Earth dist.	14074 May 10 21:00	3° $\approx$ 03'44	1.45282 AU	superior conj	14075 Apr 16 19:25	6° $\approx$ 13'09	-0°48'41
evening rise	14074 May 21 21:16	20° $\approx$ 09'02		minimum elong	14075 Apr 16 14:42	5° $\approx$ 53'23	0°48'30
	14074 May 28 08:49	0° $\approx$		max. Earth dist.	14075 Apr 23 14:14	17° $\approx$ 21'04	1.44027 AU
greatest brilliancy	14074 Jun 05 19:44	12° $\approx$ 32'10	-0.6m	evening rise	14075 May 01 10:28	29° $\approx$ 43'00	
asc. node	14074 Jun 17 14:23	27° $\approx$ 50'01			14075 May 01 14:52	0° $\approx$	
evening max el	14074 Jun 18 00:26	28° $\approx$ 15'36	20°04'10		14075 May 22 01:06	0° $\approx$	
	14074 Jun 19 21:53	0° $\approx$		evening max el	14075 May 31 22:54	12° $\approx$ 05'35	21°12'24
retrograde	14074 Jun 25 16:19	2° $\approx$ 37'24		asc. node	14075 Jun 04 11:26	15° $\approx$ 09'07	
evening set	14074 Jun 29 14:38	1° $\approx$ 08'21		retrograde	14075 Jun 09 15:12	17° $\approx$ 08'44	
	14074 Jun 30 21:53	30° $\approx$		evening set	14075 Jun 13 23:59	15° $\approx$ 22'57	
inferior conj	14074 Jul 04 21:36	25° $\approx$ 07'15	3°10'39	inferior conj	14075 Jun 19 05:49	9° $\approx$ 10'25	3°09'36
minimum elong	14074 Jul 04 22:01	25° $\approx$ 05'49	3°09'37	minimum elong	14075 Jun 19 05:15	9° $\approx$ 12'22	3°08'29
min. Earth dist.	14074 Jul 05 19:40	23° $\approx$ 52'24	0.68010 AU	min. Earth dist.	14075 Jun 19 14:18	8° $\approx$ 40'51	0.68737 AU
morning rise	14074 Jul 10 05:04	18° $\approx$ 44'32		morning rise	14075 Jun 24 10:18	2° $\approx$ 52'21	
direct	14074 Jul 15 21:01	16° $\approx$ 15'10		direct	14075 Jun 29 13:53	0° $\approx$ 37'55	
desc. node	14074 Jul 20 13:54	17° $\approx$ 38'06		desc. node	14075 Jul 07 11:11	4° $\approx$ 28'37	
morning max el	14074 Jul 27 11:10	23° $\approx$ 11'45	24°38'39	morning max el	14075 Jul 09 22:07	6° $\approx$ 46'45	23°09'09
	14074 Aug 02 11:36	0° $\approx$			14075 Jul 27 23:03	0° $\approx$	
	14074 Aug 23 08:56	0° $\approx$		morning set	14075 Aug 13 10:01	25° $\approx$ 38'45	
morning set	14074 Sep 01 03:57	14° $\approx$ 44'43			14075 Aug 16 00:14	0° $\approx$	
max. Earth dist.	14074 Sep 04 17:59	21° $\approx$ 08'33	1.37442 AU	max. Earth dist.	14075 Aug 17 16:13	2° $\approx$ 50'59	1.39806 AU
	14074 Sep 09 12:12	0° $\approx$					
				superior conj	14075 Aug 25 10:34	16° $\approx$ 40'54	-0°53'09
superior conj	14074 Sep 11 16:46	4° $\approx$ 12'47	-0°17'59	minimum elong	14075 Aug 25 14:32	16° $\approx$ 59'08	0°52'50
minimum elong	14074 Sep 11 17:57	4° $\approx$ 18'35	0°17'47	asc. node	14075 Aug 31 12:15	28° $\approx$ 05'33	
asc. node	14074 Sep 13 15:41	8° $\approx$ 02'21			14075 Sep 01 12:09	0° $\approx$	
evening rise	14074 Sep 20 04:08	21° $\approx$ 03'46		evening rise	14075 Sep 03 23:50	4° $\approx$ 46'41	
	14074 Sep 24 17:19	0° $\approx$			14075 Sep 19 07:46	0° $\approx$	
evening max el	14074 Oct 06 23:30	18° $\approx$ 39'49	19°21'52	evening max el	14075 Sep 20 00:18	0° $\approx$ 42'55	18°35'03
retrograde	14074 Oct 16 10:10	23° $\approx$ 23'39		retrograde	14075 Sep 28 01:01	4° $\approx$ 46'09	
desc. node	14074 Oct 16 10:06	23° $\approx$ 23'39		evening set	14075 Sep 29 23:47	4° $\approx$ 32'36	
evening set	14074 Oct 18 07:02	23° $\approx$ 13'20		desc. node	14075 Oct 03 07:35	3° $\approx$ 13'15	
inferior conj	14074 Oct 26 21:48	19° $\approx$ 04'54	-3°15'57	inferior conj	14075 Oct 07 22:08	0° $\approx$ 04'37	-1°27'59
minimum elong	14074 Oct 26 13:34	19° $\approx$ 18'23	3°12'14	minimum elong	14075 Oct 07 18:36	0° $\approx$ 11'22	1°26'08
min. Earth dist.	14074 Oct 29 10:39	17° $\approx$ 25'37	0.55690 AU		14075 Oct 08 00:33	30° $\approx$	
morning rise	14074 Nov 03 17:50	14° $\approx$ 35'47		min. Earth dist.	14075 Oct 11 02:37	27° $\approx$ 39'25	0.57434 AU
direct	14074 Nov 09 02:07	13° $\approx$ 31'06		morning rise	14075 Oct 15 09:56	24° $\approx$ 57'46	
morning max el	14074 Nov 23 02:23	20° $\approx$ 34'42	25°23'41	direct	14075 Oct 21 10:48	23° $\approx$ 26'34	
	14074 Dec 01 04:44	0° $\approx$			14075 Nov 03 17:36	0° $\approx$	
asc. node	14074 Dec 10 16:57	15° $\approx$ 04'29		morning max el	14075 Nov 04 17:37	0° $\approx$ 56'27	26°50'40
	14074 Dec 18 07:41	0° $\approx$			14075 Nov 25 07:21	0° $\approx$	

asc. node	14075 Nov 27 13:54	4°♊14'25		morning rise	14076 Sep 25 21:16	6°♏10'48	
morning set	14075 Dec 04 10:10	18°♊08'26		direct	14076 Oct 02 09:09	4°♏12'28	
	14075 Dec 09 19:46	0°♊		morning max el	14076 Oct 16 16:30	12°♏00'58	27°44'03
					14076 Oct 30 20:33	0°♏	
superior conj	14075 Dec 11 05:53	3°♊10'37	1°36'09	asc. node	14076 Nov 13 10:44	23°♏47'14	
minimum elong	14075 Dec 11 05:03	3°♊05'56	1°37'11		14076 Nov 16 12:17	0°♊	
max. Earth dist.	14075 Dec 11 15:02	4°♊01'44	1.31260 AU	morning set	14076 Nov 17 16:19	2°♊26'37	
evening rise	14075 Dec 18 02:22	18°♊12'41		max. Earth dist.	14076 Nov 23 23:05	16°♊08'15	1.31172 AU
	14075 Dec 23 21:42	0°♊					
desc. node	14075 Dec 30 05:27	11°♊28'54		superior conj	14076 Nov 24 17:20	17°♊50'03	1°28'31
	14076 Jan 11 20:48	0°♊		minimum elong	14076 Nov 24 15:39	17°♊40'35	1°29'22
evening max el	14076 Jan 17 22:35	6°♊36'58	27°07'48		14076 Nov 30 04:54	0°♊	
retrograde	14076 Jan 31 22:11	13°♊52'22		evening rise	14076 Dec 01 10:14	2°♊39'00	
evening set	14076 Feb 07 16:21	11°♊52'55			14076 Dec 15 21:07	0°♊	
min. Earth dist.	14076 Feb 11 13:00	9°♊10'26	0.60164 AU	desc. node	14076 Dec 16 02:22	0°♊20'52	
inferior conj	14076 Feb 14 17:30	6°♊31'24	-2°48'08	evening max el	14076 Dec 29 20:40	17°♊57'32	26°07'58
minimum elong	14076 Feb 14 23:38	6°♊18'37	2°45'18	retrograde	14077 Jan 12 19:30	25°♊01'51	
morning rise	14076 Feb 22 10:11	1°♊44'51		evening set	14077 Jan 19 01:59	23°♊28'28	
asc. node	14076 Feb 23 11:53	1°♊32'11		min. Earth dist.	14077 Jan 23 09:57	20°♊51'35	0.58017 AU
direct	14076 Feb 24 11:28	1°♊28'21		inferior conj	14077 Jan 26 11:23	18°♊39'07	-4°12'45
morning max el	14076 Mar 02 20:16	5°♊08'58	18°01'43	minimum elong	14077 Jan 26 20:05	18°♊23'23	4°09'18
morning set	14076 Mar 18 10:00	29°♊41'09		morning rise	14077 Feb 03 17:09	14°♊13'58	
	14076 Mar 18 14:05	0°♊		direct	14077 Feb 05 17:58	14°♊00'24	
desc. node	14076 Mar 27 07:19	15°♊55'00		asc. node	14077 Feb 09 09:18	14°♊46'18	
				morning max el	14077 Feb 14 04:11	18°♊08'39	18°36'36
superior conj	14076 Mar 28 12:38	18°♊04'56	-0°09'48		14077 Feb 22 17:44	0°♊	
minimum elong	14076 Mar 28 11:48	18°♊01'17	0°09'52	morning set	14077 Mar 02 04:45	13°♊50'21	
behind sun begin	14076 Mar 28 05:32	17°♊33'36			14077 Mar 10 15:07	0°♊	
behind sun end	14076 Mar 28 18:04	18°♊28'54					
	14076 Apr 04 11:09	0°♊		superior conj	14077 Mar 11 02:19	0°♊52'18	0°24'45
max. Earth dist.	14076 Apr 05 02:33	1°♊04'10	1.42224 AU	minimum elong	14077 Mar 11 03:58	0°♊59'58	0°24'34
evening rise	14076 Apr 10 13:40	9°♊58'07		desc. node	14077 Mar 14 03:49	6°♊30'10	
	14076 Apr 23 16:23	0°♊		max. Earth dist.	14077 Mar 18 10:37	14°♊06'43	1.40076 AU
evening max el	14076 May 13 16:21	25°♊56'02	22°29'56	evening rise	14077 Mar 22 13:32	21°♊08'28	
	14076 May 18 12:55	0°♊			14077 Mar 27 23:55	0°♊	
asc. node	14076 May 21 08:36	1°♊22'15			14077 Apr 17 18:35	0°♊	
retrograde	14076 May 23 12:33	1°♊43'26		evening max el	14077 Apr 26 06:55	9°♊48'23	23°51'08
	14076 May 27 23:45	30°♊		retrograde	14077 May 07 06:56	16°♊16'01	
evening set	14076 May 28 08:26	29°♊42'12		asc. node	14077 May 08 05:51	16°♊11'57	
inferior conj	14076 Jun 02 15:28	23°♊20'23	2°57'47	evening set	14077 May 12 14:24	14°♊01'21	
minimum elong	14076 Jun 02 14:04	23°♊25'16	2°56'33	min. Earth dist.	14077 May 17 07:30	8°♊31'46	0.68754 AU
min. Earth dist.	14076 Jun 02 10:59	23°♊36'01	0.68982 AU	inferior conj	14077 May 18 00:40	7°♊33'12	2°35'41
morning rise	14076 Jun 07 19:33	17°♊08'48		minimum elong	14077 May 17 22:42	7°♊39'56	2°34'19
direct	14076 Jun 12 10:29	15°♊13'03		morning rise	14077 May 23 06:58	1°♊29'29	
morning max el	14076 Jun 21 11:59	20°♊29'49	21°42'06		14077 May 26 08:37	30°♊	
desc. node	14076 Jun 23 08:19	22°♊26'28		direct	14077 May 27 09:31	29°♊54'07	
	14076 Jun 29 13:03	0°♊			14077 May 28 10:58	0°♊	
	14076 Jul 20 03:49	0°♊		morning max el	14077 Jun 04 07:45	4°♊23'14	20°24'22
morning set	14076 Jul 23 15:22	5°♊28'27		desc. node	14077 Jun 10 05:20	11°♊13'30	
max. Earth dist.	14076 Jul 29 18:28	15°♊23'49	1.42062 AU		14077 Jun 23 11:44	0°♊	
				morning set	14077 Jul 02 23:31	14°♊24'12	
superior conj	14076 Aug 06 09:19	28°♊18'23	-1°27'47	max. Earth dist.	14077 Jul 12 03:44	28°♊49'31	1.43946 AU
minimum elong	14076 Aug 06 15:57	28°♊47'15	1°27'35		14077 Jul 12 21:18	0°♊	
	14076 Aug 07 08:37	0°♊					
evening rise	14076 Aug 17 08:04	17°♊58'00		superior conj	14077 Jul 18 09:09	8°♊56'56	-1°56'34
asc. node	14076 Aug 17 08:50	18°♊01'33		minimum elong	14077 Jul 18 16:15	9°♊26'13	1°56'55
	14076 Aug 24 00:32	0°♊			14077 Jul 30 18:12	0°♊	
evening max el	14076 Sep 02 09:39	13°♊25'37	18°09'08	evening rise	14077 Jul 31 00:02	0°♊25'20	
retrograde	14076 Sep 09 10:25	17°♊00'51		asc. node	14077 Aug 04 05:27	7°♊45'39	
evening set	14076 Sep 11 15:57	16°♊39'40		evening max el	14077 Aug 16 23:21	26°♊37'04	18°02'40
inferior conj	14076 Sep 18 20:03	11°♊50'56	0°07'00	retrograde	14077 Aug 23 10:58	29°♊58'38	
minimum elong	14076 Sep 18 20:17	11°♊50'25	0°07'01	evening set	14077 Aug 26 00:41	29°♊26'11	
transit middle	14076 Sep 18 20:17	11°♊50'25	0°07'01	inferior conj	14077 Sep 01 12:38	24°♊18'04	1°20'48
transit begin	14076 Sep 18 17:14	11°♊57'11		minimum elong	14077 Sep 01 14:43	24°♊12'43	1°19'53
transit end	14076 Sep 18 23:20	11°♊43'37		min. Earth dist.	14077 Sep 04 11:44	21°♊18'04	0.61909 AU
desc. node	14076 Sep 19 05:04	11°♊30'48		desc. node	14077 Sep 06 02:35	19°♊48'09	
min. Earth dist.	14076 Sep 22 02:36	8°♊57'28	0.59611 AU	morning rise	14077 Sep 08 02:16	18°♊14'03	



direct	14077 Sep 14 18:31	15° $\cap$ 53'29		min. Earth dist.	14078 Aug 18 06:38	4° $\cap$ 31'53	0.64069 AU
morning max el	14077 Sep 28 21:59	23° $\cap$ 52'11	27°58'28	morning rise	14078 Aug 21 22:32	1° $\cap$ 00'25	
	14077 Oct 04 10:34	0° $\Omega$			14078 Aug 23 08:54	30° $\cap$ 0	
	14077 Oct 24 04:44	0° $\cap$			14078 Aug 24 00:05	29° $\cap$ 38'00	
asc. node	14077 Oct 31 07:29	13° $\cap$ 35'47		direct	14078 Aug 28 13:01	28° $\cap$ 25'43	
morning set	14077 Nov 01 16:44	16° $\cap$ 25'07			14078 Sep 03 04:10	0° $\cap$	
max. Earth dist.	14077 Nov 07 04:13	28° $\cap$ 03'18	1.31627 AU	morning max el	14078 Sep 11 07:46	6° $\cap$ 25'06	27°35'48
	14077 Nov 08 01:32	0° $\times$			14078 Sep 29 09:05	0° $\Omega$	
				morning set	14078 Oct 16 09:05	29° $\Omega$ 58'57	
superior conj	14077 Nov 09 03:04	2° $\times$ 20'29	1°15'04		14078 Oct 16 09:17	0° $\cap$	
minimum elong	14077 Nov 09 00:51	2° $\times$ 08'17	1°15'38	asc. node	14078 Oct 18 04:10	3° $\cap$ 35'10	
evening rise	14077 Nov 15 20:36	17° $\times$ 09'31		max. Earth dist.	14078 Oct 21 02:50	9° $\cap$ 40'08	1.32627 AU
	14077 Nov 22 02:01	0° $\Sigma$					
desc. node	14077 Dec 02 23:23	18° $\Sigma$ 22'46		superior conj	14078 Oct 24 09:06	16° $\cap$ 36'59	0°55'51
evening max el	14077 Dec 11 10:31	28° $\Sigma$ 27'45	24°39'43	minimum elong	14078 Oct 24 06:52	16° $\cap$ 24'57	0°56'09
	14077 Dec 13 03:23	0° $\approx$			14078 Oct 30 13:04	0° $\times$	
retrograde	14077 Dec 25 04:01	5° $\approx$ 18'54		evening rise	14078 Oct 31 07:41	1° $\times$ 40'04	
evening set	14077 Dec 30 12:51	4° $\approx$ 15'18			14078 Nov 15 18:39	0° $\Sigma$	
min. Earth dist.	14078 Jan 04 22:20	1° $\approx$ 27'32	0.56165 AU	desc. node	14078 Nov 19 20:32	5° $\Sigma$ 16'40	
inferior conj	14078 Jan 07 08:24	29° $\Sigma$ 56'14	-5°23'55	evening max el	14078 Nov 22 20:13	8° $\Sigma$ 28'11	22°57'37
minimum elong	14078 Jan 07 16:12	29° $\Sigma$ 43'57	5°21'31	retrograde	14078 Dec 05 23:44	14° $\Sigma$ 59'48	
	14078 Jan 07 06:01	30° $\cap$ $\Sigma$			14078 Dec 10 01:24	14° $\Sigma$ 23'47	
morning rise	14078 Jan 15 21:37	25° $\Sigma$ 52'09		min. Earth dist.	14078 Dec 17 05:21	11° $\Sigma$ 05'52	0.54902 AU
direct	14078 Jan 18 05:27	25° $\Sigma$ 37'24		inferior conj	14078 Dec 18 10:17	10° $\Sigma$ 24'33	-5°57'58
asc. node	14078 Jan 27 06:39	29° $\Sigma$ 39'11		minimum elong	14078 Dec 18 11:16	10° $\Sigma$ 23'09	5°56'54
	14078 Jan 27 15:46	0° $\approx$			14078 Dec 26 22:35	6° $\Sigma$ 35'33	
morning max el	14078 Jan 28 01:06	0° $\approx$ 22'10	19°33'49	morning rise	14078 Dec 29 22:36	6° $\Sigma$ 14'34	
morning set	14078 Feb 14 07:44	28° $\approx$ 20'02		morning max el	14079 Jan 10 07:54	11° $\Sigma$ 41'34	20°54'14
	14078 Feb 15 03:36	0° $\text{H}$			14079 Jan 14 03:57	15° $\Sigma$ 56'37	
				asc. node	14079 Jan 23 02:21	0° $\approx$	
superior conj	14078 Feb 22 07:56	14° $\text{H}$ 22'36	0°52'53	morning set	14079 Jan 29 15:54	13° $\approx$ 00'57	
minimum elong	14078 Feb 22 10:34	14° $\text{H}$ 35'32	0°52'51				
max. Earth dist.	14078 Feb 28 17:07	26° $\text{H}$ 31'03	1.37808 AU	superior conj	14079 Feb 06 01:17	28° $\approx$ 23'55	1°14'03
desc. node	14078 Mar 01 00:20	27° $\text{H}$ 04'08		minimum elong	14079 Feb 06 03:51	28° $\approx$ 37'04	1°14'22
	14078 Mar 02 15:05	0° $\Upsilon$			14079 Feb 06 20:04	0° $\text{H}$	
evening rise	14078 Mar 04 10:06	3° $\Upsilon$ 11'36		max. Earth dist.	14079 Feb 11 02:01	8° $\text{H}$ 28'54	1.35663 AU
	14078 Mar 21 02:16	0° $\text{B}$			14079 Feb 15 00:30	15° $\text{H}$ 58'47	
evening max el	14078 Apr 08 20:32	23° $\text{B}$ 42'10	25°09'14	desc. node	14079 Feb 15 20:52	17° $\text{H}$ 32'51	
	14078 Apr 17 12:24	0° $\text{II}$			14079 Feb 22 23:06	0° $\Upsilon$	
retrograde	14078 Apr 20 21:15	0° $\text{II}$ 41'09			14079 Mar 15 14:22	0° $\text{B}$	
	14078 Apr 24 00:28	30° $\cap$ $\text{B}$		evening max el	14079 Mar 22 10:08	7° $\text{B}$ 31'45	26°17'03
asc. node	14078 Apr 25 03:09	29° $\text{B}$ 24'25		retrograde	14079 Apr 04 06:38	14° $\text{B}$ 51'08	
evening set	14078 Apr 26 16:20	28° $\text{B}$ 15'59		evening set	14079 Apr 10 12:29	12° $\text{B}$ 19'43	
min. Earth dist.	14078 May 01 01:44	23° $\text{B}$ 22'44	0.68065 AU	asc. node	14079 Apr 12 00:32	10° $\text{B}$ 57'30	
inferior conj	14078 May 02 07:31	21° $\text{B}$ 45'22	2°03'14	min. Earth dist.	14079 Apr 14 15:31	8° $\text{B}$ 01'45	0.66936 AU
minimum elong	14078 May 02 05:22	21° $\text{B}$ 52'26	2°01'52	inferior conj	14079 Apr 16 09:57	5° $\text{B}$ 51'39	1°19'55
morning rise	14078 May 07 18:43	15° $\text{B}$ 50'54		minimum elong	14079 Apr 16 08:10	5° $\text{B}$ 57'09	1°18'46
direct	14078 May 11 09:31	14° $\text{B}$ 35'47		morning rise	14079 Apr 22 04:43	0° $\text{B}$ 07'54	
	14078 May 18 11:06	18° $\text{B}$ 28'10	19°20'25		14079 Apr 22 10:15	30° $\cap$ $\Upsilon$	
morning max el	14078 May 27 15:57	0° $\text{II}$		direct	14079 Apr 25 08:39	29° $\Upsilon$ 11'22	
	14078 May 28 02:15	0° $\text{II}$ 36'50			14079 Apr 28 09:14	0° $\text{B}$	
desc. node	14078 May 31 04:13	5° $\text{II}$ 06'27	-0.7m	morning max el	14079 May 01 21:29	2° $\text{B}$ 40'15	18°32'21
greatest brilliancy	14078 May 31 04:13	5° $\text{II}$ 06'27	-0.7m	desc. node	14079 May 14 23:04	20° $\text{B}$ 26'09	
	14078 Jun 12 02:12	23° $\text{II}$ 11'17			14079 May 21 01:55	0° $\text{II}$	
morning set	14078 Jun 16 12:08	0° $\text{B}$		morning set	14079 May 22 20:24	2° $\text{II}$ 46'58	
	14078 Jun 24 19:21	12° $\text{B}$ 56'43	1.45250 AU				
superior conj	14078 Jun 28 09:57	18° $\text{B}$ 38'50	-2°12'28	superior conj	14079 Jun 07 19:40	27° $\text{II}$ 46'45	-2°09'20
minimum elong	14078 Jun 28 12:39	18° $\text{B}$ 49'34	2°13'26	minimum elong	14079 Jun 07 14:40	27° $\text{II}$ 27'12	2°10'12
	14078 Jul 05 11:43	0° $\cap$			14079 Jun 07 14:35	27° $\text{II}$ 26'53	1.45849 AU
evening rise	14078 Jul 12 18:40	11° $\cap$ 57'18			14079 Jun 09 05:49	0° $\text{B}$	
asc. node	14078 Jul 22 02:09	27° $\cap$ 13'06		evening rise	14079 Jun 23 12:39	22° $\text{B}$ 27'02	
	14078 Jul 23 20:51	0° $\cap$			14079 Jun 28 07:05	0° $\cap$	
evening max el	14078 Jul 31 13:46	10° $\cap$ 08'11	18°14'39	greatest brilliancy	14079 Jul 01 19:52	5° $\cap$ 33'27	-0.8m
retrograde	14078 Aug 06 22:22	13° $\cap$ 30'18		asc. node	14079 Jul 08 22:55	16° $\cap$ 16'52	
evening set	14078 Aug 09 20:34	12° $\cap$ 43'53		evening max el	14079 Jul 15 01:53	23° $\cap$ 50'27	18°44'18
inferior conj	14078 Aug 15 19:55	7° $\cap$ 18'35	2°13'16	retrograde	14079 Jul 21 16:29	27° $\cap$ 26'25	
minimum elong	14078 Aug 15 22:21	7° $\cap$ 11'37	2°12'08	evening set	14079 Jul 24 23:33	26° $\cap$ 24'13	

inferior conj	14079 Jul 30 13:57	20° $\Omega$ 43'53	2°47'18	minimum elong	14080 Jul 13 16:32	4° $\Omega$ 24'24	3°04'53
minimum elong	14079 Jul 30 15:53	20° $\Omega$ 37'53	2°46'12	min. Earth dist.	14080 Jul 14 21:46	2° $\Omega$ 47'43	0.67381 AU
min. Earth dist.	14079 Aug 01 10:32	18° $\Omega$ 25'29	0.65925 AU		14080 Jul 17 03:58	30° $\mathcal{R}$ $\mathfrak{S}$	
morning rise	14079 Aug 05 07:17	14° $\Omega$ 19'32		morning rise	14080 Jul 19 01:52	28° $\mathfrak{S}$ 03'08	
desc. node	14079 Aug 10 21:35	11° $\Omega$ 42'00		direct	14080 Jul 25 00:20	25° $\mathfrak{S}$ 27'35	
direct	14079 Aug 11 15:20	11° $\Omega$ 39'59		desc. node	14080 Jul 27 19:02	25° $\mathfrak{S}$ 56'36	
morning max el	14079 Aug 24 19:10	19° $\Omega$ 27'39	26°42'33		14080 Aug 03 06:47	0° $\Omega$	
	14079 Sep 02 18:52	0° $\mathfrak{M}$		morning max el	14080 Aug 06 06:04	2° $\Omega$ 47'39	25°27'35
	14079 Sep 22 10:21	0° $\mathfrak{L}$			14080 Aug 26 22:54	0° $\mathfrak{M}$	
morning set	14079 Sep 29 14:21	13° $\mathfrak{L}$ 00'53		morning set	14080 Sep 11 04:48	25° $\mathfrak{M}$ 21'40	
max. Earth dist.	14079 Oct 03 15:57	20° $\mathfrak{L}$ 55'46	1.34150 AU		14080 Sep 13 17:35	0° $\mathfrak{L}$	
asc. node	14079 Oct 05 00:47	23° $\mathfrak{L}$ 40'38		max. Earth dist.	14080 Sep 14 19:14	1° $\mathfrak{L}$ 59'47	1.36141 AU
				asc. node	14080 Sep 20 21:21	13° $\mathfrak{L}$ 48'00	
superior conj	14079 Oct 08 09:07	0° $\mathfrak{M}$ 33'28	0°31'03				
minimum elong	14079 Oct 08 07:32	0° $\mathfrak{M}$ 25'15	0°31'12	superior conj	14080 Sep 21 00:17	14° $\mathfrak{L}$ 02'41	0°01'09
	14079 Oct 08 02:41	0° $\mathfrak{M}$		minimum elong	14080 Sep 21 00:12	14° $\mathfrak{L}$ 02'17	0°01'17
evening rise	14079 Oct 15 17:33	16° $\mathfrak{M}$ 05'24		behind sun begin	14080 Sep 20 17:55	13° $\mathfrak{L}$ 30'54	
	14079 Oct 22 15:57	0° $\mathfrak{J}$		behind sun end	14080 Sep 21 06:30	14° $\mathfrak{L}$ 33'43	
evening max el	14079 Nov 04 11:16	18° $\mathfrak{J}$ 36'50	21°19'47		14080 Sep 28 20:11	0° $\mathfrak{M}$	
desc. node	14079 Nov 06 17:48	20° $\mathfrak{J}$ 39'07		evening rise	14080 Sep 29 00:02	0° $\mathfrak{M}$ 19'42	
retrograde	14079 Nov 16 11:17	24° $\mathfrak{J}$ 34'14		evening max el	14080 Oct 16 15:21	29° $\mathfrak{M}$ 24'47	19°58'47
evening set	14079 Nov 19 05:23	24° $\mathfrak{J}$ 16'40			14080 Oct 17 05:53	0° $\mathfrak{J}$	
inferior conj	14079 Nov 28 01:59	20° $\mathfrak{J}$ 23'46	-5°34'27	desc. node	14080 Oct 23 15:10	4° $\mathfrak{J}$ 02'52	
minimum elong	14079 Nov 27 18:23	20° $\mathfrak{J}$ 34'28	5°32'12	retrograde	14080 Oct 27 00:46	4° $\mathfrak{J}$ 35'23	
min. Earth dist.	14079 Nov 28 11:15	20° $\mathfrak{J}$ 10'43	0.54473 AU	evening set	14080 Oct 29 00:51	4° $\mathfrak{J}$ 24'44	
morning rise	14079 Dec 06 07:59	16° $\mathfrak{J}$ 34'08		inferior conj	14080 Nov 06 21:40	0° $\mathfrak{J}$ 25'36	-4°15'49
direct	14079 Dec 10 06:10	16° $\mathfrak{J}$ 00'54		minimum elong	14080 Nov 06 11:43	0° $\mathfrak{J}$ 40'41	4°11'55
morning max el	14079 Dec 23 01:11	22° $\mathfrak{J}$ 10'42	22°34'31		14080 Nov 07 14:29	30° $\mathcal{R}$ $\mathfrak{M}$	
	14079 Dec 29 17:53	0° $\mathfrak{S}$		min. Earth dist.	14080 Nov 08 19:08	29° $\mathfrak{M}$ 16'40	0.54993 AU
asc. node	14080 Jan 01 01:11	3° $\mathfrak{S}$ 21'15		morning rise	14080 Nov 14 21:19	26° $\mathfrak{M}$ 15'16	
morning set	14080 Jan 14 02:57	27° $\mathfrak{S}$ 46'36		direct	14080 Nov 19 18:11	25° $\mathfrak{M}$ 23'24	
	14080 Jan 15 04:02	0° $\mathfrak{A}$			14080 Nov 30 23:22	0° $\mathfrak{J}$	
superior conj	14080 Jan 21 02:57	12° $\mathfrak{A}$ 46'47	1°28'23	morning max el	14080 Dec 03 11:02	2° $\mathfrak{J}$ 10'07	24°23'39
minimum elong	14080 Jan 21 04:48	12° $\mathfrak{A}$ 56'38	1°29'05	asc. node	14080 Dec 17 22:19	21° $\mathfrak{J}$ 36'29	
max. Earth dist.	14080 Jan 24 17:15	20° $\mathfrak{A}$ 19'30	1.33839 AU		14080 Dec 22 12:28	0° $\mathfrak{S}$	
evening rise	14080 Jan 29 05:17	29° $\mathfrak{A}$ 21'34		morning set	14080 Dec 28 14:53	12° $\mathfrak{S}$ 30'32	
	14080 Jan 29 13:11	0° $\mathfrak{H}$		superior conj	14081 Jan 04 10:04	27° $\mathfrak{S}$ 22'05	1°36'13
desc. node	14080 Feb 02 17:29	7° $\mathfrak{H}$ 52'23		minimum elong	14081 Jan 04 10:54	27° $\mathfrak{S}$ 26'40	1°37'11
	14080 Feb 16 02:17	0° $\mathfrak{Y}$			14081 Jan 05 15:02	0° $\mathfrak{A}$	
evening max el	14080 Mar 03 23:40	21° $\mathfrak{Y}$ 09'21	27°07'11	max. Earth dist.	14081 Jan 06 16:09	2° $\mathfrak{A}$ 15'54	1.32452 AU
retrograde	14080 Mar 17 10:16	28° $\mathfrak{Y}$ 37'50		evening rise	14081 Jan 11 21:01	13° $\mathfrak{A}$ 10'38	
evening set	14080 Mar 24 00:54	26° $\mathfrak{Y}$ 05'59		desc. node	14081 Jan 19 14:08	27° $\mathfrak{A}$ 56'58	
min. Earth dist.	14080 Mar 27 22:55	22° $\mathfrak{Y}$ 21'03	0.65406 AU		14081 Jan 20 17:45	0° $\mathfrak{H}$	
asc. node	14080 Mar 28 21:58	21° $\mathfrak{Y}$ 16'40			14081 Feb 10 07:13	0° $\mathfrak{Y}$	
inferior conj	14080 Mar 30 05:38	19° $\mathfrak{Y}$ 46'47	0°25'02	evening max el	14081 Feb 14 12:02	4° $\mathfrak{Y}$ 23'45	27°32'32
minimum elong	14080 Mar 30 04:57	19° $\mathfrak{Y}$ 48'43	0°24'30	retrograde	14081 Feb 28 07:04	11° $\mathfrak{Y}$ 51'15	
morning rise	14080 Apr 05 10:38	14° $\mathfrak{Y}$ 15'31		evening set	14081 Mar 07 03:11	9° $\mathfrak{Y}$ 26'08	
direct	14080 Apr 08 04:50	13° $\mathfrak{Y}$ 34'44		min. Earth dist.	14081 Mar 10 22:00	6° $\mathfrak{Y}$ 10'37	0.63535 AU
morning max el	14080 Apr 14 12:53	16° $\mathfrak{Y}$ 52'48	18°01'03	inferior conj	14081 Mar 13 15:47	3° $\mathfrak{Y}$ 23'24	-0°41'50
	14080 Apr 24 06:31	0° $\mathfrak{B}$		minimum elong	14081 Mar 13 17:07	3° $\mathfrak{Y}$ 20'00	0°41'15
desc. node	14080 Apr 30 19:49	10° $\mathfrak{B}$ 34'25		asc. node	14081 Mar 15 19:28	1° $\mathfrak{Y}$ 16'22	
morning set	14080 May 02 17:54	13° $\mathfrak{B}$ 42'45			14081 Mar 17 06:47	30° $\mathcal{R}$ $\mathfrak{H}$	
	14080 May 12 19:31	0° $\mathfrak{I}$		morning rise	14081 Mar 20 09:28	28° $\mathfrak{H}$ 07'00	
superior conj	14080 May 17 06:48	7° $\mathfrak{I}$ 05'21	-1°46'48	direct	14081 Mar 22 19:25	27° $\mathfrak{H}$ 38'28	
minimum elong	14080 May 16 21:47	6° $\mathfrak{I}$ 29'49	1°46'57		14081 Mar 28 05:26	0° $\mathfrak{Y}$	
max. Earth dist.	14080 May 20 10:31	12° $\mathfrak{I}$ 02'45	1.45699 AU	morning max el	14081 Mar 29 06:31	0° $\mathfrak{Y}$ 57'02	17°47'00
	14080 Jun 01 00:13	0° $\mathfrak{S}$		morning set	14081 Apr 14 18:09	25° $\mathfrak{Y}$ 55'15	
evening rise	14080 Jun 02 09:01	2° $\mathfrak{S}$ 06'18		desc. node	14081 Apr 17 03:24	0° $\mathfrak{B}$	
greatest brilliancy	14080 Jun 15 15:49	22° $\mathfrak{S}$ 17'14	-0.7m		14081 Apr 17 16:26	0° $\mathfrak{B}$ 55'36	
	14080 Jun 21 01:36	0° $\Omega$		superior conj	14081 Apr 27 10:45	17° $\mathfrak{B}$ 13'31	-1°11'26
asc. node	14080 Jun 24 19:47	4° $\Omega$ 48'58		minimum elong	14081 Apr 27 03:41	16° $\mathfrak{B}$ 44'37	1°11'12
evening max el	14080 Jun 27 09:30	7° $\Omega$ 38'26	19°30'38	max. Earth dist.	14081 May 03 05:05	26° $\mathfrak{B}$ 29'59	1.44823 AU
retrograde	14080 Jul 04 14:13	11° $\Omega$ 40'34			14081 May 05 10:14	0° $\mathfrak{I}$	
evening set	14080 Jul 08 06:41	10° $\Omega$ 21'34		evening rise	14081 May 12 20:00	11° $\mathfrak{I}$ 29'47	
inferior conj	14080 Jul 13 15:32	4° $\Omega$ 27'45	3°05'55		14081 May 25 03:41	0° $\mathfrak{S}$	

evening max el	14081 Jun 10 11:25	21°☿28'43	20°31'49	retrograde	14082 Jun 02 11:23	10°☿40'29	
asc. node	14081 Jun 11 16:45	22°☿38'44		evening set	14082 Jun 07 00:54	8°☿47'52	
retrograde	14081 Jun 18 13:07	26°☿07'13		inferior conj	14082 Jun 12 06:59	2°☿31'20	3°05'50
evening set	14081 Jun 22 15:46	24°☿31'08		minimum elong	14082 Jun 12 06:03	2°☿34'38	3°04'42
inferior conj	14081 Jun 27 21:58	18°☿25'14	3°11'33	min. Earth dist.	14082 Jun 12 09:55	2°☿21'08	0.68901 AU
minimum elong	14081 Jun 27 21:57	18°☿25'14	3°10'30		14082 Jun 14 03:08	30°☿II	
min. Earth dist.	14081 Jun 28 14:16	17°☿29'08	0.68379 AU	morning rise	14082 Jun 17 11:00	26°II16'05	
morning rise	14081 Jul 03 03:50	12°☿04'08		direct	14082 Jun 22 09:18	24°II09'09	
direct	14081 Jul 08 14:44	9°☿40'13		desc. node	14082 Jul 01 13:35	29°II19'31	
desc. node	14081 Jul 14 16:22	11°☿57'59		morning max el	14082 Jul 02 04:03	29°II55'13	22°31'26
morning max el	14081 Jul 19 16:22	16°☿17'34	24°00'45		14082 Jul 02 05:57	0°☿	
	14081 Jul 31 00:18	0°♊			14082 Jul 24 18:42	0°♊	
	14081 Aug 19 22:14	0°♊		morning set	14082 Aug 04 19:38	17°♊17'26	
morning set	14081 Aug 23 24:00	6°♊50'48		max. Earth dist.	14082 Aug 09 17:13	25°♊24'57	1.40801 AU
max. Earth dist.	14081 Aug 27 17:23	13°♊20'20	1.38444 AU		14082 Aug 12 09:39	0°♊	
superior conj	14081 Sep 04 03:09	26°♊56'43	-0°32'42	superior conj	14082 Aug 17 13:24	9°♊04'51	-1°08'08
minimum elong	14081 Sep 04 05:27	27°♊07'39	0°32'27	minimum elong	14082 Aug 17 18:36	9°♊28'12	1°07'50
	14081 Sep 05 17:31	0°♋		asc. node	14082 Aug 25 14:27	23°♊54'58	
asc. node	14081 Sep 07 17:55	3°♋54'17		evening rise	14082 Aug 27 15:56	27°♊47'49	
evening rise	14081 Sep 13 00:36	14°♋16'50			14082 Aug 28 20:02	0°♋	
	14081 Sep 21 09:50	0°♌		evening max el	14082 Sep 12 14:28	23°♋23'23	18°21'28
evening max el	14081 Sep 29 09:31	11°♌02'13	18°59'18	retrograde	14082 Sep 20 03:29	27°♋12'55	
retrograde	14081 Oct 08 04:24	15°♌26'54		evening set	14082 Sep 22 04:56	26°♋56'30	
evening set	14081 Oct 10 01:18	15°♌15'42		desc. node	14082 Sep 27 10:06	24°♋11'34	
desc. node	14081 Oct 10 12:36	15°♌09'30		inferior conj	14082 Sep 29 19:24	22°♋19'13	-0°45'21
inferior conj	14081 Oct 18 09:44	10°♌59'36	-2°29'36	minimum elong	14082 Sep 29 17:42	22°♋22'43	0°44'22
minimum elong	14081 Oct 18 03:26	11°♌10'35	2°26'33	min. Earth dist.	14082 Oct 03 02:03	19°♋39'50	0.58335 AU
min. Earth dist.	14081 Oct 21 07:14	8°♌59'07	0.56366 AU	morning rise	14082 Oct 07 02:59	16°♋57'28	
morning rise	14081 Oct 26 02:38	6°♌14'51		direct	14082 Oct 13 09:19	15°♋14'47	
direct	14081 Oct 31 18:53	4°♌59'02		morning max el	14082 Oct 27 16:45	22°♋52'29	27°18'00
morning max el	14081 Nov 14 22:21	12°♌14'19	26°03'58		14082 Nov 03 01:35	0°♌	
	14081 Nov 28 17:16	0°♍		asc. node	14082 Nov 21 16:15	29°♌50'13	
asc. node	14081 Dec 04 19:21	10°♍29'37			14082 Nov 21 18:16	0°♍	
morning set	14081 Dec 13 01:58	27°♍08'11		morning set	14082 Nov 27 10:27	11°♍34'52	
	14081 Dec 14 09:42	0°♎		superior conj	14082 Dec 04 07:57	26°♎44'54	1°33'37
superior conj	14081 Dec 19 20:24	12°♎03'24	1°37'53	minimum elong	14082 Dec 04 06:43	26°♎38'00	1°34'35
minimum elong	14081 Dec 19 20:09	12°♎02'01	1°38'57	max. Earth dist.	14082 Dec 04 05:32	26°♎31'18	1.31164 AU
max. Earth dist.	14081 Dec 20 21:19	14°♎21'51	1.31555 AU		14082 Dec 05 18:51	0°♎	
evening rise	14081 Dec 26 20:52	27°♎18'53		evening rise	14082 Dec 11 02:25	11°♎40'06	
	14081 Dec 28 03:55	0°♏			14082 Dec 20 08:11	0°♏	
desc. node	14082 Jan 06 10:52	17°♏40'25		desc. node	14082 Dec 24 07:43	6°♏54'28	
	14082 Jan 14 01:54	0°♐		evening max el	14083 Jan 09 23:39	28°♏53'07	26°46'22
evening max el	14082 Jan 27 21:00	17°♐02'20	27°26'46		14083 Jan 11 04:53	0°♐	
retrograde	14082 Feb 10 19:41	24°♐22'13		retrograde	14083 Jan 23 22:50	6°♐03'16	
evening set	14082 Feb 17 16:30	22°♐11'25		evening set	14083 Jan 30 13:25	4°♐14'09	
min. Earth dist.	14082 Feb 21 11:08	19°♐19'26	0.61429 AU	min. Earth dist.	14083 Feb 03 13:34	1°♐36'04	0.59235 AU
inferior conj	14082 Feb 24 13:08	16°♐33'11	-1°59'44		14083 Feb 05 15:00	30°♐R	
minimum elong	14082 Feb 24 17:23	16°♐23'36	1°57'40	inferior conj	14083 Feb 06 18:03	29°♐06'30	-3°24'30
asc. node	14082 Mar 02 16:58	12°♐01'32		minimum elong	14083 Feb 07 01:28	28°♐51'56	3°21'14
morning rise	14082 Mar 03 21:16	11°♐34'37		morning rise	14083 Feb 14 16:41	24°♐28'54	
direct	14082 Mar 06 00:58	11°♐14'40		direct	14083 Feb 16 17:17	24°♐14'00	
morning max el	14082 Mar 12 23:14	14°♐44'12	17°50'53	asc. node	14083 Feb 17 14:26	24°♐16'55	
	14082 Mar 23 12:26	0°♑		morning max el	14083 Feb 24 11:32	28°♐04'47	18°14'01
morning set	14082 Mar 28 15:21	9°♑06'34			14083 Feb 26 06:13	0°♑	
desc. node	14082 Apr 04 12:58	21°♑25'10		morning set	14083 Mar 12 03:40	22°♑59'15	
					14083 Mar 15 20:59	0°♑	
superior conj	14082 Apr 08 14:23	28°♑27'35	-0°31'50	superior conj	14083 Mar 21 16:53	10°♑45'01	0°05'36
minimum elong	14082 Apr 08 11:26	28°♑14'59	0°31'46	minimum elong	14083 Mar 21 17:18	10°♑46'54	0°05'26
	14082 Apr 09 12:03	0°♒		behind sun begin	14083 Mar 21 10:13	10°♑14'51	
max. Earth dist.	14082 Apr 15 20:34	10°♒34'48	1.43317 AU	behind sun end	14083 Mar 22 00:23	11°♑18'51	
evening rise	14082 Apr 22 13:47	21°♒18'02		desc. node	14083 Mar 22 09:28	11°♑59'40	
	14082 Apr 28 05:23	0°♓		max. Earth dist.	14083 Mar 29 07:30	24°♑03'40	1.41338 AU
	14082 May 19 13:46	0°♓			14083 Apr 01 20:59	0°♓	
evening max el	14082 May 24 07:39	5°♓19'04	21°44'38	evening rise	14083 Apr 03 01:28	1°♓56'22	
asc. node	14082 May 29 13:50	9°♓31'52					

	14083 Apr 21 14:16	0°♊				14084 Apr 15 15:50	0°♊	
evening max el	14083 May 06 23:35	19°♊10'21	23°04'22	evening max el	14084 Apr 18 13:19	3°♊02'46	24°25'06	
asc. node	14083 May 16 11:01	25°♊12'11		retrograde	14084 Apr 30 00:31	9°♊45'45		
retrograde	14083 May 17 07:36	25°♊15'30		asc. node	14084 May 02 08:19	9°♊22'00		
evening set	14083 May 22 08:30	23°♊07'58		evening set	14084 May 05 12:58	7°♊25'58		
inferior conj	14083 May 27 16:40	16°♊43'03	2°49'39	min. Earth dist.	14084 May 10 02:29	2°♊11'58	0.68513 AU	
minimum elong	14083 May 27 14:59	16°♊48'53	2°48'22	inferior conj	14084 May 11 01:06	0°♊55'58	2°23'13	
min. Earth dist.	14083 May 27 06:41	17°♊17'37	0.68943 AU	minimum elong	14084 May 10 23:00	1°♊03'03	2°21'50	
morning rise	14083 Jun 01 21:24	10°♊34'55			14084 May 11 17:50	30°♋		
direct	14083 Jun 06 06:58	8°♊47'55		morning rise	14084 May 16 09:10	24°♋56'05		
morning max el	14083 Jun 14 20:14	13°♊43'08	21°07'41	direct	14084 May 20 06:30	23°♋29'39		
desc. node	14083 Jun 18 10:40	17°♊40'23		morning max el	14084 May 27 19:15	27°♋41'58	19°55'20	
	14083 Jun 27 18:43	0°♋			14084 May 29 23:10	0°♊		
morning set	14083 Jul 15 14:57	26°♋41'33		desc. node	14084 Jun 04 07:40	6°♊44'12		
	14083 Jul 17 17:24	0°♌			14084 Jun 20 04:50	0°♋		
max. Earth dist.	14083 Jul 22 22:47	8°♌22'48	1.42925 AU	morning set	14084 Jun 23 18:11	5°♋26'22		
				max. Earth dist.	14084 Jul 04 10:32	22°♋06'22	1.44574 AU	
superior conj	14083 Jul 30 02:43	20°♌17'43	-1°41'05		14084 Jul 09 08:47	0°♌		
minimum elong	14083 Jul 30 10:00	20°♌48'39	1°41'04					
	14083 Aug 04 17:25	0°♍		superior conj	14084 Jul 09 16:20	0°♌30'35	-2°05'20	
evening rise	14083 Aug 10 17:53	10°♍42'23		minimum elong	14084 Jul 09 22:15	0°♌54'31	2°05'58	
asc. node	14083 Aug 12 11:01	13°♍46'35		evening rise	14084 Jul 23 01:23	22°♌47'35		
	14083 Aug 22 01:34	0°♎			14084 Jul 27 07:04	0°♍		
evening max el	14083 Aug 27 02:04	6°♎19'13	18°03'59	asc. node	14084 Jul 29 07:40	3°♍24'30		
retrograde	14083 Sep 02 20:06	9°♎47'16		evening max el	14084 Aug 09 16:27	19°♍40'11	18°05'35	
evening set	14083 Sep 05 04:56	9°♎21'46		retrograde	14084 Aug 16 01:49	23°♍00'34		
inferior conj	14083 Sep 12 01:46	4°♎24'16	0°40'59	evening set	14084 Aug 18 18:59	22°♍22'38		
minimum elong	14083 Sep 12 03:01	4°♎21'19	0°40'30	inferior conj	14084 Aug 25 01:08	17°♍07'09	1°45'29	
desc. node	14083 Sep 14 07:36	2°♎16'34		minimum elong	14084 Aug 25 03:31	17°♍00'45	1°44'24	
min. Earth dist.	14083 Sep 15 05:53	1°♎25'26	0.60591 AU	min. Earth dist.	14084 Aug 27 19:28	14°♍10'18	0.62850 AU	
	14083 Sep 16 21:51	30°♋♍		morning rise	14084 Aug 31 09:54	10°♍55'45		
morning rise	14083 Sep 18 22:04	28°♍32'24		desc. node	14084 Aug 31 05:07	11°♍04'43		
direct	14083 Sep 25 12:22	26°♍24'01		direct	14084 Sep 07 02:02	8°♍27'48		
	14083 Oct 04 18:53	0°♎		morning max el	14084 Sep 21 02:44	16°♍29'10	27°53'02	
morning max el	14083 Oct 09 18:57	4°♎18'05	27°54'59		14084 Oct 02 06:59	0°♎		
	14083 Oct 28 20:51	0°♏			14084 Oct 20 14:19	0°♍		
asc. node	14083 Nov 08 13:02	19°♏30'36		morning set	14084 Oct 25 11:49	9°♏35'27		
morning set	14083 Nov 11 14:27	25°♏45'39		asc. node	14084 Oct 25 09:45	9°♏24'54		
	14083 Nov 13 14:33	0°♐		max. Earth dist.	14084 Oct 30 15:39	20°♏23'04	1.31981 AU	
max. Earth dist.	14083 Nov 17 12:55	8°♐34'45	1.31300 AU					
				superior conj	14084 Nov 02 03:23	25°♏47'13	1°07'38	
superior conj	14083 Nov 18 18:54	11°♐21'09	1°23'31	minimum elong	14084 Nov 02 01:05	25°♏34'42	1°08'05	
minimum elong	14083 Nov 18 16:57	11°♐10'14	1°24'15		14084 Nov 04 01:26	0°♐		
evening rise	14083 Nov 25 11:35	26°♐08'45		evening rise	14084 Nov 08 22:31	10°♐40'27		
	14083 Nov 27 06:54	0°♑			14084 Nov 18 15:47	0°♑		
desc. node	14083 Dec 11 04:41	25°♑27'16		desc. node	14084 Nov 27 01:46	13°♑03'37		
	14083 Dec 14 07:54	0°♒		evening max el	14084 Dec 03 05:05	20°♑04'49	23°56'56	
evening max el	14083 Dec 22 17:53	9°♒50'20	25°33'06	retrograde	14084 Dec 16 18:35	26°♑49'34		
retrograde	14084 Jan 05 15:05	16°♒50'04		evening set	14084 Dec 21 14:42	25°♑58'32		
evening set	14084 Jan 11 13:49	15°♒28'51		min. Earth dist.	14084 Dec 27 16:19	23°♑00'01	0.55536 AU	
min. Earth dist.	14084 Jan 16 06:19	12°♒49'47	0.57173 AU	inferior conj	14084 Dec 29 15:32	21°♑49'09	-5°44'25	
inferior conj	14084 Jan 19 03:08	10°♒53'02	-4°45'51	minimum elong	14084 Dec 29 21:08	21°♑40'43	5°42'45	
minimum elong	14084 Jan 19 12:06	10°♒37'49	4°42'40	morning rise	14085 Jan 07 05:23	17°♑52'35		
morning rise	14084 Jan 27 13:05	6°♒37'38		direct	14085 Jan 09 18:41	17°♑36'02		
direct	14084 Jan 29 15:47	6°♒24'10		morning max el	14085 Jan 20 06:40	22°♑38'49	20°05'12	
asc. node	14084 Feb 04 11:51	8°♒14'27		asc. node	14085 Jan 21 09:11	23°♑45'54		
morning max el	14084 Feb 07 15:21	10°♒46'40	18°58'13		14085 Jan 26 07:07	0°♒		
	14084 Feb 20 07:54	0°♓		morning set	14085 Feb 07 07:51	21°♒53'55		
morning set	14084 Feb 24 02:20	7°♓18'23			14085 Feb 11 06:45	0°♓		
superior conj	14084 Mar 03 13:57	23°♓52'37	0°37'30	superior conj	14085 Feb 15 01:04	7°♓37'47	1°02'41	
minimum elong	14084 Mar 03 16:10	24°♓03'13	0°37'21	minimum elong	14085 Feb 15 03:46	7°♓51'20	1°02'48	
	14084 Mar 06 20:13	0°♔		max. Earth dist.	14085 Feb 20 20:48	18°♓57'33	1.36868 AU	
desc. node	14084 Mar 08 05:57	2°♔34'50		desc. node	14085 Feb 23 02:29	23°♓07'17		
max. Earth dist.	14084 Mar 10 14:17	6°♔48'25	1.39104 AU	evening rise	14085 Feb 24 14:59	25°♓53'17		
evening rise	14084 Mar 14 10:20	13°♔29'45			14085 Feb 26 22:30	0°♔		
	14084 Mar 24 14:05	0°♕			14085 Mar 18 02:36	0°♕		

evening max el	14085 Apr 01 02:50	16°♄55'20	25°39'48	desc. node	14086 Feb 09 23:04	13°♄32'49	
retrograde	14085 Apr 13 12:58	24°♄04'59			14086 Feb 19 12:45	0°♄	
asc. node	14085 Apr 19 05:40	21°♄51'02			14086 Mar 13 23:39	0°♄	
evening set	14085 Apr 19 12:39	21°♄36'43		evening max el	14086 Mar 14 16:44	0°♄42'07	26°41'03
min. Earth dist.	14085 Apr 23 19:13	16°♄58'22	0.67634 AU	retrograde	14086 Mar 27 19:58	8°♄06'08	
inferior conj	14085 Apr 25 06:21	15°♄06'14	1°46'15	evening set	14086 Apr 03 05:46	5°♄34'07	
minimum elong	14085 Apr 25 04:16	15°♄12'53	1°44'55	asc. node	14086 Apr 06 03:06	2°♄48'06	
morning rise	14085 Apr 30 20:25	9°♄15'54		min. Earth dist.	14086 Apr 07 06:38	1°♄30'18	0.66331 AU
direct	14085 May 04 06:24	8°♄09'02			14086 Apr 08 13:11	30°♄	
morning max el	14085 May 11 01:41	11°♄50'10	18°57'51	inferior conj	14086 Apr 09 06:15	29°♄09'04	0°58'07
desc. node	14085 May 22 04:33	26°♄19'36		minimum elong	14086 Apr 09 04:50	29°♄13'18	0°57'10
greatest brilliancy	14085 May 24 09:40	29°♄38'27	-0.7m	morning rise	14086 Apr 15 05:01	23°♄30'05	
	14085 May 24 15:22	0°♄		direct	14086 Apr 18 04:43	22°♄40'30	
morning set	14085 Jun 03 01:00	14°♄26'52		morning max el	14086 Apr 24 14:27	26°♄03'17	18°16'53
	14085 Jun 13 01:18	0°♄			14086 Apr 28 01:48	0°♄	
max. Earth dist.	14085 Jun 17 03:26	6°♄23'08	1.45592 AU	desc. node	14086 May 09 01:21	16°♄18'08	
				morning set	14086 May 14 06:19	24°♄35'57	
superior conj	14085 Jun 19 09:08	9°♄53'40	-2°13'39		14086 May 17 15:40	0°♄	
minimum elong	14085 Jun 19 08:36	9°♄51'34	2°14'43	superior conj	14086 May 29 17:15	19°♄00'38	-2°01'53
	14085 Jul 02 00:10	0°♄		minimum elong	14086 May 29 09:44	18°♄31'16	2°02'27
evening rise	14085 Jul 04 09:35	3°♄52'18		max. Earth dist.	14086 May 30 23:35	20°♄59'02	1.45879 AU
asc. node	14085 Jul 16 04:23	22°♄42'42			14086 Jun 05 18:23	0°♄	
	14085 Jul 21 08:40	0°♄		evening rise	14086 Jun 14 17:28	13°♄58'08	
evening max el	14085 Jul 24 06:16	3°♄17'04	18°25'17		14086 Jun 25 01:28	0°♄	
retrograde	14085 Jul 30 16:21	6°♄43'17		greatest brilliancy	14086 Jun 25 07:57	0°♄24'44	-0.8m
evening set	14085 Aug 02 18:17	5°♄50'23		asc. node	14086 Jul 03 01:12	11°♄34'30	
inferior conj	14085 Aug 08 13:24	0°♄18'48	2°29'46	evening max el	14086 Jul 07 16:47	17°♄03'04	19°02'07
minimum elong	14085 Aug 08 15:42	0°♄11'59	2°28'37	retrograde	14086 Jul 14 12:15	20°♄48'20	
	14085 Aug 08 19:44	30°♄		evening set	14086 Jul 17 23:21	19°♄38'54	
min. Earth dist.	14085 Aug 10 18:20	27°♄42'23	0.64901 AU	inferior conj	14086 Jul 23 11:00	13°♄52'44	2°56'54
morning rise	14085 Aug 14 11:50	23°♄57'18		minimum elong	14086 Jul 23 12:34	13°♄47'43	2°55'50
desc. node	14085 Aug 18 02:39	21°♄49'26		min. Earth dist.	14086 Jul 25 01:25	11°♄49'54	0.66600 AU
direct	14085 Aug 21 00:14	21°♄19'05		morning rise	14086 Jul 29 01:05	7°♄28'00	
morning max el	14085 Sep 03 13:15	29°♄15'21	27°16'23	direct	14086 Aug 04 05:28	4°♄49'12	
	14085 Sep 04 06:42	0°♄		desc. node	14086 Aug 05 00:08	4°♄51'28	
	14085 Sep 26 04:25	0°♄		morning max el	14086 Aug 17 00:26	12°♄26'12	26°12'47
morning set	14085 Oct 08 23:51	22°♄56'45			14086 Aug 31 03:32	0°♄	
asc. node	14085 Oct 12 06:23	29°♄27'28			14086 Sep 18 20:20	0°♄	
	14085 Oct 12 12:47	0°♄		morning set	14086 Sep 21 23:16	5°♄42'06	
max. Earth dist.	14085 Oct 13 10:11	1°♄49'30	1.33209 AU	max. Earth dist.	14086 Sep 25 19:00	12°♄58'28	1.34952 AU
				asc. node	14086 Sep 29 02:59	19°♄34'19	
superior conj	14085 Oct 17 07:10	9°♄56'24	0°46'01	superior conj	14086 Oct 01 03:48	23°♄42'21	0°18'57
minimum elong	14085 Oct 17 05:07	9°♄45'30	0°46'14	minimum elong	14086 Oct 01 02:44	23°♄36'57	0°19'05
evening rise	14085 Oct 24 09:18	25°♄09'31			14086 Oct 04 04:45	0°♄	
	14085 Oct 26 16:33	0°♄		evening rise	14086 Oct 08 18:00	9°♄31'05	
desc. node	14085 Nov 13 22:59	29°♄22'14			14086 Oct 19 12:59	0°♄	
evening max el	14085 Nov 14 16:00	0°♄04'53	22°14'38	evening max el	14086 Oct 27 12:01	10°♄27'28	20°42'47
	14085 Nov 14 14:01	0°♄		desc. node	14086 Oct 31 20:17	13°♄57'34	
retrograde	14085 Nov 27 09:30	6°♄23'13		retrograde	14086 Nov 07 19:57	16°♄05'28	
evening set	14085 Nov 30 20:51	5°♄56'38		evening set	14086 Nov 10 04:38	15°♄51'52	
inferior conj	14085 Dec 09 11:37	2°♄02'10	-5°55'35	inferior conj	14086 Nov 19 03:05	11°♄57'46	-5°06'30
minimum elong	14085 Dec 09 08:37	2°♄06'22	5°54'21	minimum elong	14086 Nov 18 17:30	12°♄11'32	5°03'21
min. Earth dist.	14085 Dec 08 22:38	2°♄20'22	0.54612 AU	min. Earth dist.	14086 Nov 20 04:37	11°♄21'05	0.54588 AU
	14085 Dec 13 06:40	30°♄		morning rise	14086 Nov 27 06:21	8°♄02'06	
morning rise	14085 Dec 17 21:26	28°♄14'54		direct	14086 Dec 01 14:41	7°♄21'37	
direct	14085 Dec 21 06:40	27°♄49'17		morning max el	14086 Dec 14 20:06	13°♄47'13	23°20'47
	14085 Dec 28 15:54	0°♄		asc. node	14086 Dec 26 03:39	28°♄21'58	
morning max el	14086 Jan 02 07:14	3°♄35'13	21°34'47		14086 Dec 27 03:31	0°♄	
asc. node	14086 Jan 08 06:28	10°♄34'03		morning set	14087 Jan 07 05:10	21°♄23'20	
	14086 Jan 19 12:15	0°♄			14087 Jan 11 04:50	0°♄	
morning set	14086 Jan 22 17:31	6°♄37'36		superior conj	14087 Jan 14 02:34	6°♄18'02	1°32'29
				minimum elong	14087 Jan 14 04:00	6°♄25'49	1°33'18
superior conj	14086 Jan 29 22:19	21°♄49'11	1°20'56	max. Earth dist.	14087 Jan 17 02:56	12°♄43'55	1.33197 AU
minimum elong	14086 Jan 30 00:38	22°♄01'16	1°21'25	evening rise	14087 Jan 21 21:45	22°♄31'52	
	14086 Feb 02 22:03	0°♄					
max. Earth dist.	14086 Feb 03 08:06	0°♄50'19	1.34847 AU				
evening rise	14086 Feb 07 11:58	8°♄57'02					

	14087 Jan 25 18:34	0° $\text{H}$		superior conj	14087 Dec 29 11:19	20° $\text{Z}$ 57'22	1°37'41
desc. node	14087 Jan 27 19:40	3° $\text{H}$ 46'45		minimum elong	14087 Dec 29 11:42	20° $\text{Z}$ 59'26	1°38'42
	14087 Feb 13 06:20	0° $\text{Y}$		max. Earth dist.	14087 Dec 31 04:53	24° $\text{Z}$ 45'42	1.32005 AU
evening max el	14087 Feb 25 06:06	14° $\text{Y}$ 11'47	27°21'25		14088 Jan 02 14:58	0° $\approx$	
retrograde	14087 Mar 10 20:33	21° $\text{Y}$ 40'03		evening rise	14088 Jan 05 17:15	6° $\approx$ 30'19	
evening set	14087 Mar 17 14:10	19° $\text{Y}$ 10'11		desc. node	14088 Jan 14 16:20	23° $\approx$ 43'45	
min. Earth dist.	14087 Mar 21 10:37	15° $\text{Y}$ 38'29	0.64650 AU		14088 Jan 18 07:43	0° $\text{H}$	
inferior conj	14087 Mar 23 22:15	12° $\text{Y}$ 57'23	-0°01'52	evening max el	14088 Feb 07 17:07	27° $\text{H}$ 12'24	27°34'04
minimum elong	14087 Mar 23 22:18	12° $\text{Y}$ 57'14	0°01'59		14088 Feb 10 21:40	0° $\text{Y}$	
transit middle	14087 Mar 23 22:18	12° $\text{Y}$ 57'14	0°01'59	retrograde	14088 Feb 21 14:01	4° $\text{Y}$ 37'34	
transit begin	14087 Mar 23 19:15	13° $\text{Y}$ 05'30		evening set	14088 Feb 28 11:20	2° $\text{Y}$ 17'12	
transit end	14087 Mar 24 01:21	12° $\text{Y}$ 48'59			14088 Mar 02 08:48	30° $\text{R}$ $\text{H}$	
asc. node	14087 Mar 24 00:35	12° $\text{Y}$ 51'02		min. Earth dist.	14088 Mar 03 05:26	29° $\text{H}$ 12'58	0.62665 AU
morning rise	14087 Mar 30 08:21	7° $\text{Y}$ 32'08		inferior conj	14088 Mar 06 03:22	26° $\text{H}$ 24'04	-1°13'39
direct	14087 Apr 01 22:58	6° $\text{Y}$ 56'52		minimum elong	14088 Mar 06 05:51	26° $\text{H}$ 18'03	1°12'27
morning max el	14087 Apr 08 07:09	10° $\text{Y}$ 13'27	17°52'58	asc. node	14088 Mar 09 22:04	23° $\text{H}$ 03'19	
	14087 Apr 21 23:40	0° $\text{B}$		morning rise	14088 Mar 13 03:05	21° $\text{H}$ 15'13	
morning set	14087 Apr 25 15:45	6° $\text{B}$ 06'34		direct	14088 Mar 15 10:07	20° $\text{H}$ 50'48	
desc. node	14087 Apr 25 22:01	6° $\text{B}$ 32'39		morning max el	14088 Mar 22 00:53	24° $\text{H}$ 12'30	17°46'26
					14088 Mar 26 18:11	0° $\text{Y}$	
superior conj	14087 May 09 10:02	28° $\text{B}$ 36'33	-1°32'51	morning set	14088 Apr 07 01:40	18° $\text{Y}$ 46'34	
minimum elong	14087 May 09 01:17	28° $\text{B}$ 01'40	1°32'44	desc. node	14088 Apr 11 18:37	26° $\text{Y}$ 58'15	
	14087 May 10 06:58	0° $\text{II}$			14088 Apr 13 12:51	0° $\text{B}$	
max. Earth dist.	14087 May 13 19:51	5° $\text{II}$ 35'37	1.45413 AU				
evening rise	14087 May 25 07:58	23° $\text{II}$ 26'05		superior conj	14088 Apr 18 23:51	9° $\text{B}$ 12'58	-0°54'42
	14087 May 29 15:15	0° $\text{E}$		minimum elong	14088 Apr 18 18:30	8° $\text{B}$ 50'41	0°54'31
greatest brilliancy	14087 Jun 09 01:29	15° $\text{E}$ 33'52	-0.6m	max. Earth dist.	14088 Apr 25 13:12	19° $\text{B}$ 54'55	1.44252 AU
asc. node	14087 Jun 19 22:08	29° $\text{E}$ 50'10			14088 May 01 22:36	0° $\text{II}$	
	14087 Jun 20 01:48	0° $\text{O}$		evening rise	14088 May 03 19:59	2° $\text{II}$ 55'37	
evening max el	14087 Jun 20 22:00	0° $\text{O}$ 52'12	19°54'56		14088 May 22 03:04	0° $\text{E}$	
retrograde	14087 Jun 28 10:47	5° $\text{O}$ 08'39		evening max el	14088 Jun 02 21:16	14° $\text{E}$ 42'00	21°01'31
evening set	14087 Jul 02 07:34	3° $\text{O}$ 42'10		asc. node	14088 Jun 05 19:09	17° $\text{E}$ 17'45	
	14087 Jul 05 21:18	30° $\text{R}$ $\text{E}$		retrograde	14088 Jun 11 09:44	19° $\text{E}$ 38'48	
inferior conj	14087 Jul 07 14:55	27° $\text{E}$ 42'48	3°09'45	evening set	14088 Jun 15 16:52	17° $\text{E}$ 55'33	
minimum elong	14087 Jul 07 15:30	27° $\text{E}$ 40'50	3°08'44	inferior conj	14088 Jun 20 22:42	11° $\text{E}$ 44'38	3°10'25
min. Earth dist.	14087 Jul 08 15:03	26° $\text{E}$ 21'23	0.67865 AU	minimum elong	14088 Jun 20 22:17	11° $\text{E}$ 46'05	3°09'21
morning rise	14087 Jul 12 23:03	21° $\text{E}$ 19'26		min. Earth dist.	14088 Jun 21 09:13	11° $\text{E}$ 08'06	0.68660 AU
direct	14087 Jul 18 16:41	18° $\text{E}$ 48'23		morning rise	14088 Jun 26 03:28	5° $\text{E}$ 25'36	
desc. node	14087 Jul 22 21:32	19° $\text{E}$ 54'38		direct	14088 Jul 01 08:55	3° $\text{E}$ 08'34	
morning max el	14087 Jul 30 11:07	25° $\text{E}$ 51'30	24°51'34	desc. node	14088 Jul 08 18:50	6° $\text{E}$ 32'57	
	14087 Aug 03 06:13	0° $\text{O}$		morning max el	14088 Jul 11 21:49	9° $\text{E}$ 25'15	23°22'28
	14087 Aug 24 16:12	0° $\text{M}$			14088 Jul 28 03:16	0° $\text{O}$	
morning set	14087 Sep 04 06:01	17° $\text{M}$ 41'52		morning set	14088 Aug 15 15:37	28° $\text{O}$ 45'32	
max. Earth dist.	14087 Sep 07 19:40	24° $\text{M}$ 07'05	1.37099 AU		14088 Aug 16 09:21	0° $\text{M}$	
	14087 Sep 10 23:27	0° $\text{U}$		max. Earth dist.	14088 Aug 19 17:33	5° $\text{M}$ 42'47	1.39454 AU
superior conj	14087 Sep 14 14:08	6° $\text{U}$ 57'15	-0°12'51	superior conj	14088 Aug 27 10:25	19° $\text{M}$ 32'30	-0°47'45
minimum elong	14087 Sep 14 14:58	7° $\text{U}$ 01'19	0°12'40	minimum elong	14088 Aug 27 13:56	19° $\text{M}$ 48'49	0°47'28
behind sun begin	14087 Sep 14 10:51	6° $\text{U}$ 41'11		asc. node	14088 Sep 01 20:04	29° $\text{M}$ 45'42	
behind sun end	14087 Sep 14 19:05	7° $\text{U}$ 21'30			14088 Sep 01 23:03	0° $\text{U}$	
asc. node	14087 Sep 15 23:32	9° $\text{U}$ 41'35		evening rise	14088 Sep 05 19:21	7° $\text{U}$ 25'56	
evening rise	14087 Sep 22 22:17	23° $\text{U}$ 38'59			14088 Sep 18 20:18	0° $\text{M}$	
	14087 Sep 26 02:52	0° $\text{M}$		evening max el	14088 Sep 21 21:20	3° $\text{M}$ 32'29	18°40'38
evening max el	14087 Oct 09 22:09	21° $\text{M}$ 35'44	19°30'44	retrograde	14088 Sep 30 02:28	7° $\text{M}$ 40'51	
desc. node	14087 Oct 18 17:39	26° $\text{M}$ 24'16		evening set	14088 Oct 02 00:32	7° $\text{M}$ 28'05	
retrograde	14087 Oct 19 14:43	26° $\text{M}$ 26'34		desc. node	14088 Oct 04 15:07	6° $\text{M}$ 33'12	
evening set	14087 Oct 21 11:54	26° $\text{M}$ 16'23		inferior conj	14088 Oct 10 01:36	3° $\text{M}$ 03'24	-1°43'52
inferior conj	14087 Oct 30 04:34	22° $\text{M}$ 10'35	-3°32'10	minimum elong	14088 Oct 09 21:21	3° $\text{M}$ 11'18	1°41'40
minimum elong	14087 Oct 29 19:44	22° $\text{M}$ 24'43	3°28'20	min. Earth dist.	14088 Oct 13 04:50	0° $\text{M}$ 43'57	0.57140 AU
min. Earth dist.	14087 Nov 01 13:51	20° $\text{M}$ 38'58	0.55479 AU		14088 Oct 14 06:06	30° $\text{R}$ $\text{U}$	
morning rise	14087 Nov 07 01:33	17° $\text{M}$ 46'39		morning rise	14088 Oct 17 14:47	28° $\text{U}$ 02'09	
direct	14087 Nov 12 06:54	16° $\text{M}$ 45'29		direct	14088 Oct 23 13:36	26° $\text{U}$ 34'53	
morning max el	14087 Nov 26 05:44	23° $\text{M}$ 45'09	25°08'41		14088 Nov 01 23:40	0° $\text{M}$	
	14087 Dec 01 21:38	0° $\text{J}$		morning max el	14088 Nov 06 19:48	4° $\text{M}$ 01'30	26°39'36
asc. node	14087 Dec 13 00:44	16° $\text{J}$ 55'00			14088 Nov 25 14:53	0° $\text{J}$	
	14087 Dec 19 19:33	0° $\text{Z}$		asc. node	14088 Nov 28 21:41	6° $\text{J}$ 00'44	
morning set	14087 Dec 22 16:58	6° $\text{Z}$ 06'01		morning set	14088 Dec 06 03:08	20° $\text{J}$ 39'36	

	14088 Dec 10 09:30	0°♄		morning max el	14089 Oct 19 17:29	14°♄58'58	27°38'28
					14089 Oct 31 21:33	0°♄	
superior conj	14088 Dec 12 22:24	5°♄39'38	1°36'49	asc. node	14089 Nov 15 18:33	25°♄30'35	
minimum elong	14088 Dec 12 21:42	5°♄35'47	1°37'50		14089 Nov 18 00:15	0°♄	
max. Earth dist.	14088 Dec 13 11:33	6°♄53'03	1.31315 AU	morning set	14089 Nov 20 09:56	4°♄59'53	
evening rise	14088 Dec 19 19:45	20°♄44'40					
	14088 Dec 24 08:20	0°♄		superior conj	14089 Nov 27 09:56	20°♄19'38	1°30'02
desc. node	14088 Dec 31 13:06	13°♄15'51		minimum elong	14089 Nov 27 08:21	20°♄10'47	1°30'56
	14089 Jan 11 14:25	0°♄		max. Earth dist.	14089 Nov 26 19:43	19°♄00'17	1.31156 AU
evening max el	14089 Jan 19 23:33	9°♄31'26	27°13'52		14089 Dec 01 18:12	0°♄	
retrograde	14089 Feb 02 23:10	16°♄48'17		evening rise	14089 Dec 04 03:05	5°♄09'44	
evening set	14089 Feb 09 18:10	14°♄45'42			14089 Dec 17 01:18	0°♄	
min. Earth dist.	14089 Feb 13 14:04	12°♄01'03	0.60492 AU	desc. node	14089 Dec 18 09:59	2°♄13'42	
inferior conj	14089 Feb 16 18:08	9°♄19'33	-2°35'16	evening max el	14090 Jan 01 22:55	20°♄59'50	26°18'54
minimum elong	14089 Feb 16 23:47	9°♄07'32	2°32'37	retrograde	14090 Jan 15 21:57	28°♄05'27	
morning rise	14089 Feb 24 08:38	4°♄29'46		evening set	14090 Jan 22 06:48	26°♄27'59	
asc. node	14089 Feb 24 19:32	4°♄23'06		min. Earth dist.	14090 Jan 26 12:26	23°♄51'12	0.58323 AU
direct	14089 Feb 26 10:22	4°♄12'32		inferior conj	14090 Jan 29 14:57	21°♄33'59	-4°00'22
morning max el	14089 Mar 05 16:14	7°♄50'05	17°58'16	minimum elong	14090 Jan 29 23:23	21°♄18'22	3°56'56
	14089 Mar 19 23:59	0°♄		morning rise	14090 Feb 06 19:00	17°♄05'28	
morning set	14089 Mar 21 05:57	2°♄17'19		direct	14090 Feb 08 19:34	16°♄51'39	
desc. node	14089 Mar 29 15:07	17°♄30'19		asc. node	14090 Feb 11 16:59	17°♄21'21	
				morning max el	14090 Feb 17 01:21	20°♄55'11	18°30'04
superior conj	14089 Mar 31 13:37	20°♄55'17	-0°15'27		14090 Feb 23 22:29	0°♄	
minimum elong	14089 Mar 31 12:16	20°♄49'24	0°15'31	morning set	14090 Mar 04 23:10	16°♄22'42	
behind sun begin	14089 Mar 31 10:21	20°♄41'03			14090 Mar 12 02:19	0°♄	
behind sun end	14089 Mar 31 14:10	20°♄57'45					
	14089 Apr 05 20:35	0°♄		superior conj	14090 Mar 14 00:31	3°♄35'12	0°19'54
max. Earth dist.	14089 Apr 08 02:12	3°♄43'32	1.42521 AU	minimum elong	14090 Mar 14 01:53	3°♄41'32	0°19'43
evening rise	14089 Apr 13 20:28	13°♄03'19		desc. node	14090 Mar 16 11:35	8°♄05'19	
	14089 Apr 24 21:57	0°♄		max. Earth dist.	14090 Mar 21 11:04	16°♄53'27	1.40408 AU
evening max el	14089 May 16 15:25	28°♄32'43	22°18'05	evening rise	14090 Mar 25 17:08	24°♄05'32	
	14089 May 18 03:58	0°♄			14090 Mar 29 07:57	0°♄	
asc. node	14089 May 23 16:16	3°♄42'11			14090 Apr 18 18:06	0°♄	
retrograde	14089 May 26 07:22	4°♄13'26		evening max el	14090 Apr 29 06:19	12°♄25'09	23°39'06
evening set	14089 May 31 01:33	2°♄14'28		retrograde	14090 May 10 02:11	18°♄46'58	
	14089 Jun 02 06:01	30°♄11		asc. node	14090 May 10 13:30	18°♄45'59	
inferior conj	14089 Jun 05 08:16	25°♄54'00	3°00'14	evening set	14090 May 15 08:00	16°♄34'04	
minimum elong	14089 Jun 05 06:59	25°♄58'29	2°59'02	min. Earth dist.	14090 May 20 02:22	10°♄59'10	0.68818 AU
min. Earth dist.	14089 Jun 05 05:44	26°♄02'52	0.68974 AU	inferior conj	14090 May 20 17:40	10°♄06'46	2°39'44
morning rise	14089 Jun 10 12:15	19°♄41'22		minimum elong	14090 May 20 15:45	10°♄13'18	2°38'23
direct	14089 Jun 15 05:07	17°♄42'33		morning rise	14090 May 25 23:29	4°♄01'55	
morning max el	14089 Jun 24 10:58	23°♄06'54	21°54'37	direct	14090 May 30 03:52	2°♄23'27	
desc. node	14089 Jun 25 16:00	24°♄22'08		morning max el	14090 Jun 07 05:43	6°♄58'49	20°35'11
	14089 Jun 30 11:22	0°♄		desc. node	14090 Jun 12 13:04	13°♄02'51	
	14089 Jul 21 10:58	0°♄			14090 Jun 24 17:03	0°♄	
morning set	14089 Jul 27 00:40	8°♄45'09		morning set	14090 Jul 06 11:18	17°♄47'05	
max. Earth dist.	14089 Aug 01 19:03	18°♄08'30	1.41746 AU		14090 Jul 14 05:35	0°♄	
	14089 Aug 08 18:18	0°♄		max. Earth dist.	14090 Jul 15 03:29	1°♄27'53	1.43700 AU
superior conj	14089 Aug 09 12:19	1°♄18'49	-1°22'46	superior conj	14090 Jul 21 15:42	12°♄06'24	-1°52'53
minimum elong	14089 Aug 09 18:37	1°♄46'28	1°22'31	minimum elong	14090 Jul 21 22:59	12°♄36'44	1°53'06
asc. node	14089 Aug 19 16:37	19°♄43'19			14090 Aug 01 03:03	0°♄	
evening rise	14089 Aug 20 05:35	20°♄43'07		evening rise	14090 Aug 03 00:18	3°♄18'00	
	14089 Aug 25 07:36	0°♄		asc. node	14090 Aug 06 13:13	9°♄29'39	
evening max el	14089 Sep 05 05:45	16°♄10'36	18°11'41	evening max el	14090 Aug 19 19:02	29°♄18'31	18°02'26
retrograde	14089 Sep 12 09:15	19°♄48'54			14090 Aug 20 12:40	0°♄	
evening set	14089 Sep 14 13:43	19°♄29'03		retrograde	14090 Aug 26 07:58	2°♄41'20	
inferior conj	14089 Sep 21 20:28	14°♄43'16	-0°06'07	evening set	14090 Aug 28 20:26	2°♄10'43	
minimum elong	14089 Sep 21 20:15	14°♄43'44	0°05'52		14090 Sep 01 07:35	30°♄11	
transit middle	14089 Sep 21 20:15	14°♄43'44	0°05'52	inferior conj	14090 Sep 04 10:34	27°♄05'09	1°11'01
transit begin	14089 Sep 21 17:04	14°♄50'39		minimum elong	14090 Sep 04 12:29	27°♄00'20	1°10'10
transit end	14089 Sep 21 23:26	14°♄36'47		min. Earth dist.	14090 Sep 07 11:05	24°♄04'58	0.61573 AU
desc. node	14089 Sep 21 12:38	15°♄00'16		desc. node	14090 Sep 08 10:11	23°♄11'22	
min. Earth dist.	14089 Sep 25 03:23	11°♄52'49	0.59280 AU	morning rise	14090 Sep 11 01:56	21°♄04'02	
morning rise	14089 Sep 28 23:24	9°♄07'44		direct	14090 Sep 17 17:51	18°♄46'29	
direct	14089 Oct 05 10:10	7°♄13'16		morning max el	14090 Oct 01 22:13	26°♄43'54	27°58'44

	14090 Oct 05 00:13	0°♄		desc. node	14091 Aug 26 07:45	2°♄42'53	
	14090 Oct 25 13:08	0°♍		direct	14091 Aug 31 11:04	1°♄11'18	
asc. node	14090 Nov 02 15:18	15°♍17'18		morning max el	14091 Sep 14 07:40	9°♄11'43	27°41'17
morning set	14090 Nov 04 11:22	19°♍01'57			14091 Sep 30 13:00	0°♄	
	14090 Nov 09 14:59	0°♅			14091 Oct 17 20:43	0°♍	
max. Earth dist.	14090 Nov 10 01:39	0°♅58'25	1.31529 AU	morning set	14091 Oct 19 05:08	2°♍40'15	
				asc. node	14091 Oct 20 11:58	5°♍15'28	
superior conj	14090 Nov 11 20:03	4°♅51'56	1°17'28	max. Earth dist.	14091 Oct 24 01:31	12°♍38'48	1.32442 AU
minimum elong	14090 Nov 11 17:54	4°♅39'59	1°18'06				
evening rise	14090 Nov 18 13:15	19°♅40'16		superior conj	14091 Oct 27 02:48	19°♍11'06	0°59'08
	14090 Nov 23 12:05	0°♄		minimum elong	14091 Oct 27 00:32	18°♍58'50	0°59'29
desc. node	14090 Dec 05 07:02	20°♄24'31			14091 Nov 01 01:53	0°♅	
	14090 Dec 12 23:07	0°♁		evening rise	14091 Nov 03 00:21	4°♅11'18	
evening max el	14090 Dec 14 13:53	1°♁36'52	24°54'06		14091 Nov 16 17:08	0°♄	
retrograde	14090 Dec 28 08:25	8°♁30'15		desc. node	14091 Nov 22 04:11	7°♄30'30	
evening set	14091 Jan 02 21:17	7°♁22'03		evening max el	14091 Nov 25 23:38	11°♄39'41	23°12'57
min. Earth dist.	14091 Jan 08 01:48	4°♁37'13	0.56408 AU	retrograde	14091 Dec 09 06:12	18°♄15'23	
inferior conj	14091 Jan 10 15:06	2°♁59'03	-5°14'57	evening set	14091 Dec 13 12:47	17°♄35'40	
minimum elong	14091 Jan 10 23:25	2°♁45'44	5°12'19	min. Earth dist.	14091 Dec 20 09:24	14°♄23'22	0.55039 AU
	14091 Jan 15 19:47	30°♅♄		inferior conj	14091 Dec 21 19:30	13°♄34'09	-5°56'17
morning rise	14091 Jan 19 03:46	28°♄52'14		minimum elong	14091 Dec 21 21:50	13°♄30'47	5°55'07
direct	14091 Jan 21 10:02	28°♄37'56		morning rise	14091 Dec 30 08:27	9°♄43'43	
	14091 Jan 26 15:33	0°♁		direct	14092 Jan 02 05:23	9°♄24'08	
asc. node	14091 Jan 29 14:23	2°♁00'27		morning max el	14092 Jan 13 09:18	14°♄44'47	20°40'54
morning max el	14091 Jan 31 00:12	3°♁16'36	19°23'55	asc. node	14092 Jan 16 11:43	18°♄06'33	
	14091 Feb 16 15:04	0°♄			14092 Jan 24 09:36	0°♁	
morning set	14091 Feb 17 01:11	0°♄50'27		morning set	14092 Feb 01 08:45	15°♁30'14	
					14092 Feb 08 08:36	0°♄	
superior conj	14091 Feb 25 04:07	17°♄00'30	0°49'01				
minimum elong	14091 Feb 25 06:41	17°♄12'59	0°48'59	superior conj	14092 Feb 08 19:59	0°♄58'06	1°11'15
desc. node	14091 Mar 03 08:06	28°♄39'56		minimum elong	14092 Feb 08 22:36	1°♄11'28	1°11'32
max. Earth dist.	14091 Mar 03 17:43	29°♄23'50	1.38140 AU	max. Earth dist.	14092 Feb 14 01:48	11°♄23'46	1.35963 AU
	14091 Mar 04 01:40	0°♂		evening rise	14092 Feb 17 22:48	18°♄42'56	
evening rise	14091 Mar 07 10:49	6°♂01'37		desc. node	14092 Feb 18 04:37	19°♄09'41	
	14091 Mar 22 07:11	0°♄			14092 Feb 24 07:44	0°♂	
evening max el	14091 Apr 11 19:56	26°♄19'01	24°58'02		14092 Mar 15 11:04	0°♄	
	14091 Apr 16 00:34	0°♂		evening max el	14092 Mar 24 09:25	10°♄09'18	26°07'52
retrograde	14091 Apr 23 17:13	3°♂14'07		retrograde	14092 Apr 06 03:28	17°♄26'50	
asc. node	14091 Apr 27 10:50	2°♂14'13		evening set	14092 Apr 12 07:47	14°♄55'58	
evening set	14091 Apr 29 10:39	0°♂50'08		asc. node	14092 Apr 13 08:14	14°♄01'28	
	14091 Apr 30 08:27	30°♅♄		min. Earth dist.	14092 Apr 16 11:38	10°♄32'49	0.67130 AU
min. Earth dist.	14091 May 03 21:02	25°♄51'39	0.68198 AU	inferior conj	14092 Apr 18 04:14	8°♄27'00	1°27'15
inferior conj	14091 May 05 01:00	24°♄19'33	2°08'54	minimum elong	14092 Apr 18 02:20	8°♄32'53	1°26'02
minimum elong	14091 May 04 22:51	24°♄26'41	2°07'30	morning rise	14092 Apr 23 21:42	2°♄41'32	
morning rise	14091 May 10 11:19	18°♄23'45		direct	14092 Apr 27 03:07	1°♄42'29	
direct	14091 May 14 03:47	17°♄05'46		morning max el	14092 May 03 17:27	5°♄14'14	18°38'26
morning max el	14091 May 21 08:00	21°♄02'46	19°28'59	desc. node	14092 May 16 06:51	22°♄07'32	
	14091 May 28 17:22	0°♂			14092 May 21 08:51	0°♂	
desc. node	14091 May 30 10:01	2°♂21'37		morning set	14092 May 25 04:12	5°♂57'12	
greatest brilliancy	14091 Jun 02 23:18	7°♂29'32	-0.7m	max. Earth dist.	14092 Jun 09 12:54	29°♂56'54	1.45805 AU
morning set	14091 Jun 15 13:27	26°♂31'54			14092 Jun 09 13:42	0°♄	
	14091 Jun 17 19:31	0°♄					
max. Earth dist.	14091 Jun 27 18:21	15°♄30'09	1.45100 AU	superior conj	14092 Jun 10 06:44	1°♄06'30	-2°11'07
				minimum elong	14092 Jun 10 02:49	0°♄51'14	2°12'04
superior conj	14091 Jul 01 19:37	21°♄55'41	-2°11'10	evening rise	14092 Jun 25 20:05	25°♄37'48	
minimum elong	14091 Jul 01 23:20	22°♄10'29	2°12'05		14092 Jun 28 13:55	0°♂	
	14091 Jul 06 20:03	0°♂		greatest brilliancy	14092 Jul 03 05:09	7°♂21'36	-0.9m
evening rise	14091 Jul 15 22:25	14°♂58'57		asc. node	14092 Jul 10 06:40	18°♂08'11	
asc. node	14091 Jul 24 09:54	29°♂00'02		evening max el	14092 Jul 16 22:08	26°♂28'10	18°38'50
	14091 Jul 25 00:52	0°♄			14092 Jul 22 23:40	0°♄	
evening max el	14091 Aug 03 09:32	12°♄46'57	18°11'43	retrograde	14092 Jul 23 11:22	0°♄01'20	
retrograde	14091 Aug 09 18:04	16°♄08'19			14092 Jul 23 23:01	30°♅♄	
evening set	14091 Aug 12 14:56	15°♄24'10		evening set	14092 Jul 26 17:03	29°♂01'40	
inferior conj	14091 Aug 18 15:55	10°♄01'16	2°06'35	inferior conj	14092 Aug 01 08:34	23°♂23'35	2°43'10
minimum elong	14091 Aug 18 18:23	9°♄54'21	2°05'25	minimum elong	14092 Aug 01 10:36	23°♂17'18	2°42'04
min. Earth dist.	14091 Aug 21 04:39	7°♄11'25	0.63762 AU	min. Earth dist.	14092 Aug 03 07:21	21°♂00'03	0.65670 AU
morning rise	14091 Aug 24 20:05	3°♄44'27		morning rise	14092 Aug 07 03:08	16°♂59'41	









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direct	14092 Aug 13 12:25	14°Ω20'05			14093 Jul 22 15:56	30°℞☿	
morning max el	14092 Aug 26 18:57	22°Ω10'50	26°52'06	direct	14093 Jul 27 20:31	28°☿03'34	
	14092 Sep 02 15:41	0°℞		desc. node	14093 Jul 30 02:41	28°☿22'42	
	14092 Sep 22 18:45	0°♊			14093 Aug 02 16:22	0°Ω	
morning set	14092 Oct 01 12:18	15°♊48'01		morning max el	14093 Aug 09 05:50	5°Ω28'31	25°39'45
max. Earth dist.	14092 Oct 05 16:02	23°♊57'03	1.33887 AU		14093 Aug 28 03:50	0°℞	
asc. node	14092 Oct 06 08:35	25°♊20'34		morning set	14093 Sep 14 05:10	28°℞15'26	
	14092 Oct 08 15:09	0°♋			14093 Sep 15 04:01	0°♊	
				max. Earth dist.	14093 Sep 17 20:31	5°♊01'09	1.35821 AU
superior conj	14092 Oct 10 03:54	3°♋11'30	0°35'10	asc. node	14093 Sep 23 05:08	15°♊27'59	
minimum elong	14092 Oct 10 02:10	3°♋02'27	0°35'20				
evening rise	14092 Oct 17 10:32	18°♋38'04		superior conj	14093 Sep 23 20:33	16°♊45'21	0°06'00
	14092 Oct 23 00:22	0°♌		minimum elong	14093 Sep 23 20:12	16°♊43'31	0°06'07
evening max el	14092 Nov 06 13:20	21°♌45'25	21°33'33	behind sun begin	14093 Sep 23 14:24	16°♊14'26	
desc. node	14092 Nov 08 01:26	23°♌09'03		behind sun end	14093 Sep 24 01:59	17°♊12'40	
retrograde	14092 Nov 18 18:26	27°♌48'46			14093 Sep 30 07:45	0°♋	
evening set	14092 Nov 21 16:33	27°♌29'18		evening rise	14093 Oct 01 17:37	2°♋54'21	
inferior conj	14092 Nov 30 11:57	23°♌36'25	-5°41'57		14093 Oct 17 09:52	0°♌	
minimum elong	14092 Nov 30 05:22	23°♌45'39	5°40'02	evening max el	14093 Oct 19 15:16	2°♌26'26	20°09'31
min. Earth dist.	14092 Nov 30 15:28	23°♌31'29	0.54479 AU	desc. node	14093 Oct 25 22:48	6°♌52'28	
morning rise	14092 Dec 08 18:56	19°♌47'55		retrograde	14093 Oct 30 06:30	7°♌44'00	
direct	14092 Dec 12 13:39	19°♌16'52		evening set	14093 Nov 01 08:21	7°♌32'50	
morning max el	14092 Dec 25 04:21	25°♌20'52	22°18'34	inferior conj	14093 Nov 10 06:04	3°♌35'32	-4°30'14
	14092 Dec 29 10:29	0°♍		minimum elong	14093 Nov 09 19:58	3°♌50'34	4°26'27
asc. node	14093 Jan 02 08:57	5°♍22'20		min. Earth dist.	14093 Nov 11 22:46	2°♌34'50	0.54861 AU
morning set	14093 Jan 15 19:28	0°♎15'27			14093 Nov 16 22:04	30°℞♋	
	14093 Jan 15 16:33	0°♎		morning rise	14093 Nov 18 06:38	29°♋29'32	
				direct	14093 Nov 23 00:27	28°♋40'43	
superior conj	14093 Jan 22 20:34	15°♎18'11	1°26'37		14093 Nov 28 22:54	0°♌	
minimum elong	14093 Jan 22 22:33	15°♎28'42	1°27'15	morning max el	14093 Dec 06 14:37	5°♌22'13	24°07'26
max. Earth dist.	14093 Jan 26 15:46	23°♎13'38	1.34088 AU	asc. node	14093 Dec 20 06:04	23°♌30'46	
	14093 Jan 30 00:49	0°♏			14093 Dec 23 21:22	0°♍	
evening rise	14093 Jan 31 01:39	2°♏01'01		morning set	14093 Dec 31 07:22	14°♍59'55	
desc. node	14093 Feb 04 01:11	9°♏30'49					
	14093 Feb 16 06:39	0°♐		superior conj	14094 Jan 07 02:59	29°♍51'58	1°35'26
evening max el	14093 Mar 06 23:03	23°♐49'19	27°01'10	minimum elong	14094 Jan 07 04:00	29°♍57'26	1°36'21
	14093 Mar 15 05:41	0°♑			14094 Jan 07 04:28	0°♎	
retrograde	14093 Mar 20 08:03	1°♑17'11		max. Earth dist.	14094 Jan 09 13:39	5°♎09'18	1.32632 AU
	14093 Mar 25 00:50	30°℞♐		evening rise	14094 Jan 14 15:55	15°♎46'41	
evening set	14093 Mar 26 21:28	28°♐45'08		desc. node	14094 Jan 21 21:50	29°♎38'09	
min. Earth dist.	14093 Mar 30 20:10	24°♐55'19	0.65655 AU		14094 Jan 22 02:41	0°♏	
asc. node	14093 Mar 31 05:42	24°♐28'31			14094 Feb 10 22:51	0°♐	
inferior conj	14093 Apr 02 01:04	22°♐24'04	0°34'07	evening max el	14094 Feb 17 11:50	7°♐08'32	27°30'39
minimum elong	14093 Apr 02 00:10	22°♐26'39	0°33'28	retrograde	14094 Mar 03 05:51	14°♐36'16	
morning rise	14093 Apr 08 04:22	16°♐50'41		evening set	14094 Mar 10 01:25	12°♐09'48	
direct	14093 Apr 10 23:55	16°♐07'46		min. Earth dist.	14094 Mar 13 20:38	8°♐50'11	0.63831 AU
morning max el	14093 Apr 17 08:11	19°♐26'48	18°04'34	inferior conj	14094 Mar 16 12:50	6°♐04'14	-0°30'58
	14093 Apr 25 10:48	0°♑		minimum elong	14094 Mar 16 13:49	6°♐01'43	0°30'33
desc. node	14093 May 03 03:33	12°♑13'08		asc. node	14094 Mar 18 03:11	4°♐27'06	
morning set	14093 May 05 21:25	16°♑40'29		morning rise	14094 Mar 23 04:29	0°♐45'19	
	14093 May 14 03:46	0°♒		direct	14094 Mar 25 15:35	0°♐15'08	
				morning max el	14094 Apr 01 01:39	3°♐32'52	17°47'57
superior conj	14093 May 20 16:28	10°♒20'31	-1°51'16	morning set	14094 Apr 17 18:01	28°♐42'57	
minimum elong	14093 May 20 07:38	9°♒45'46	1°51'29		14094 Apr 18 12:09	0°♑	
max. Earth dist.	14093 May 23 08:44	14°♒32'24	1.45766 AU	desc. node	14094 Apr 20 00:10	2°♑32'46	
	14093 Jun 02 07:30	0°☿					
evening rise	14093 Jun 05 19:02	5°☿22'43		superior conj	14094 Apr 30 17:13	20°♑19'39	-1°17'14
greatest brilliancy	14093 Jun 18 10:41	24°☿41'42	-0.7m	minimum elong	14094 Apr 30 09:36	19°♑48'46	1°17'02
	14093 Jun 22 02:01	0°Ω		max. Earth dist.	14094 May 06 03:57	29°♑03'14	1.44997 AU
asc. node	14093 Jun 27 03:31	6°Ω45'58			14094 May 06 18:19	0°♒	
evening max el	14093 Jun 30 06:33	10°Ω15'57	19°22'47	evening rise	14094 May 16 06:25	14°♒46'14	
retrograde	14093 Jul 07 08:38	14°Ω13'17			14094 May 26 08:40	0°☿	
evening set	14093 Jul 10 23:42	12°Ω56'50		evening max el	14094 Jun 13 09:23	24°☿06'18	20°21'51
inferior conj	14093 Jul 16 09:10	7°Ω05'04	3°03'55	asc. node	14094 Jun 14 00:30	24°☿43'14	
minimum elong	14093 Jul 16 10:20	7°Ω01'15	3°02'54	retrograde	14094 Jun 21 07:28	28°☿38'38	
min. Earth dist.	14093 Jul 17 17:33	5°Ω18'49	0.67192 AU	evening set	14094 Jun 25 08:36	27°☿04'59	

inferior conj	14094 Jun 30 15:01	21°☿00'47	3°11'24	min. Earth dist.	14095 Jun 15 04:39	4°☿48'54	0.68855 AU
minimum elong	14094 Jun 30 15:10	21°☿00'16	3°10'23		14095 Jun 18 23:03	30°☿II	
min. Earth dist.	14094 Jul 01 09:20	19°☿58'05	0.68264 AU	morning rise	14095 Jun 20 03:56	28°☿II49'36	
morning rise	14094 Jul 05 21:25	14°☿39'07		direct	14095 Jun 25 04:04	26°☿II40'02	
direct	14094 Jul 11 10:07	12°☿13'10			14095 Jul 02 08:37	0°☿	
desc. node	14094 Jul 17 00:00	14°☿09'44		desc. node	14095 Jul 03 21:14	1°☿20'36	
morning max el	14094 Jul 22 16:08	18°☿57'17	24°14'04	morning max el	14095 Jul 05 03:31	2°☿34'00	22°44'34
	14094 Aug 01 00:19	0°☿			14095 Jul 26 00:16	0°☿	
	14094 Aug 21 06:15	0°☿		morning set	14095 Aug 08 02:50	20°☿29'08	
morning set	14094 Aug 27 03:27	9°☿52'35		max. Earth dist.	14095 Aug 12 18:28	28°☿15'08	1.40459 AU
max. Earth dist.	14094 Aug 30 19:09	16°☿17'55	1.38097 AU		14095 Aug 13 19:02	0°☿	
superior conj	14094 Sep 07 01:28	29°☿45'02	-0°27'23	superior conj	14095 Aug 20 14:29	12°☿00'34	-1°02'50
minimum elong	14094 Sep 07 03:21	29°☿54'06	0°27'10	minimum elong	14095 Aug 20 19:15	12°☿22'10	1°02'30
	14094 Sep 07 04:35	0°☿		asc. node	14095 Aug 27 22:14	25°☿36'27	
asc. node	14094 Sep 10 01:41	5°☿34'33			14095 Aug 30 05:51	0°☿	
evening rise	14094 Sep 15 19:14	16°☿54'25		evening rise	14095 Aug 30 12:12	0°☿30'06	
	14094 Sep 22 15:31	0°☿		evening max el	14095 Sep 15 10:59	26°☿11'17	18°25'45
evening max el	14094 Oct 02 07:24	13°☿56'03	19°06'41		14095 Sep 21 23:34	0°☿	
retrograde	14094 Oct 11 07:33	18°☿27'09		retrograde	14095 Sep 23 03:55	0°☿05'27	
desc. node	14094 Oct 12 20:12	18°☿19'52			14095 Sep 24 08:36	30°☿☿	
evening set	14094 Oct 13 04:18	18°☿16'20		evening set	14095 Sep 25 04:19	29°☿50'08	
inferior conj	14094 Oct 21 15:05	14°☿02'58	-2°46'06	desc. node	14095 Sep 29 17:41	27°☿38'18	
minimum elong	14094 Oct 21 08:03	14°☿14'55	2°42'47	inferior conj	14095 Oct 02 21:32	25°☿16'01	-1°00'14
min. Earth dist.	14094 Oct 24 09:52	12°☿09'42	0.56118 AU	minimum elong	14095 Oct 02 19:13	25°☿20'40	0°58'56
morning rise	14094 Oct 29 09:08	9°☿23'52		min. Earth dist.	14095 Oct 06 03:40	22°☿41'14	0.58012 AU
direct	14094 Nov 03 22:46	8°☿12'00		morning rise	14095 Oct 10 06:38	19°☿59'21	
morning max el	14094 Nov 18 01:10	15°☿23'08	25°50'26	direct	14095 Oct 16 11:07	18°☿20'43	
	14094 Nov 29 18:48	0°☿		morning max el	14095 Oct 30 18:32	25°☿55'48	27°09'15
asc. node	14094 Dec 07 03:05	12°☿18'40			14095 Nov 03 14:32	0°☿	
morning set	14094 Dec 15 18:41	29°☿38'55			14095 Nov 23 03:58	0°☿	
	14094 Dec 15 22:36	0°☿		asc. node	14095 Nov 23 23:59	1°☿35'52	
				morning set	14095 Nov 30 03:43	14°☿08'03	
superior conj	14094 Dec 22 12:58	14°☿32'45	1°38'02	superior conj	14095 Dec 07 00:30	29°☿15'01	1°34'39
minimum elong	14094 Dec 22 12:52	14°☿32'16	1°39'04	minimum elong	14095 Dec 06 23:24	29°☿08'54	1°35'38
max. Earth dist.	14094 Dec 23 18:10	17°☿14'34	1.31655 AU	max. Earth dist.	14095 Dec 07 02:10	29°☿24'23	1.31184 AU
evening rise	14094 Dec 29 14:43	29°☿52'31			14095 Dec 07 08:33	0°☿	
	14094 Dec 29 16:09	0°☿		evening rise	14095 Dec 13 19:35	14°☿12'28	
desc. node	14095 Jan 08 18:33	19°☿25'28			14095 Dec 21 16:40	0°☿	
	14095 Jan 15 04:28	0°☿		desc. node	14095 Dec 26 15:23	8°☿44'50	
evening max el	14095 Jan 30 21:26	19°☿53'19	27°29'48		14096 Jan 11 04:10	0°☿	
retrograde	14095 Feb 13 19:39	27°☿14'28		evening max el	14096 Jan 13 01:07	1°☿51'44	26°54'34
evening set	14095 Feb 20 16:51	25°☿00'58		retrograde	14096 Jan 27 00:27	9°☿03'48	
min. Earth dist.	14095 Feb 24 11:13	22°☿06'09	0.61753 AU	evening set	14096 Feb 02 16:30	7°☿10'51	
inferior conj	14095 Feb 27 12:19	19°☿18'46	-1°47'20	min. Earth dist.	14096 Feb 06 15:11	4°☿31'35	0.59559 AU
minimum elong	14095 Feb 27 16:05	19°☿10'07	1°45'30	inferior conj	14096 Feb 09 19:56	1°☿58'17	-3°11'30
asc. node	14095 Mar 05 00:40	15°☿02'01		minimum elong	14096 Feb 10 02:55	1°☿44'17	3°08'23
morning rise	14095 Mar 06 18:15	14°☿17'26			14096 Feb 12 09:25	30°☿☿	
direct	14095 Mar 08 22:47	13°☿56'23		morning rise	14096 Feb 17 16:33	27°☿17'35	
morning max el	14095 Mar 15 18:45	17°☿23'25	17°49'09	direct	14096 Feb 19 17:17	27°☿02'11	
	14095 Mar 24 19:15	0°☿		asc. node	14096 Feb 19 22:07	27°☿02'20	
morning set	14095 Mar 31 12:30	11°☿46'51			14096 Feb 26 10:50	0°☿	
desc. node	14095 Apr 06 20:42	23°☿01'23		morning max el	14096 Feb 27 08:01	0°☿49'06	18°09'18
	14095 Apr 10 21:33	0°☿		morning set	14096 Mar 13 22:56	25°☿34'21	
superior conj	14095 Apr 11 17:17	1°☿24'03	-0°37'49		14096 Mar 16 07:39	0°☿	
minimum elong	14095 Apr 11 13:44	1°☿08'55	0°37'43	superior conj	14096 Mar 23 16:41	13°☿32'57	0°00'11
max. Earth dist.	14095 Apr 18 20:10	13°☿12'56	1.43576 AU	minimum elong	14096 Mar 23 16:41	13°☿32'57	0°00'03
evening rise	14095 Apr 25 22:18	24°☿28'42		behind sun begin	14096 Mar 23 09:19	12°☿59'59	
	14095 Apr 29 12:12	0°☿		behind sun end	14096 Mar 24 00:02	14°☿05'51	
	14095 May 20 10:36	0°☿		desc. node	14096 Mar 23 17:13	13°☿35'25	
evening max el	14095 May 27 06:21	7°☿56'24	21°33'10	max. Earth dist.	14096 Mar 31 07:36	26°☿46'55	1.41656 AU
asc. node	14095 May 31 21:35	11°☿45'59			14096 Apr 02 05:53	0°☿	
retrograde	14095 Jun 05 05:59	13°☿11'20		evening rise	14096 Apr 05 06:57	4°☿58'38	
evening set	14095 Jun 09 17:51	11°☿21'00			14096 Apr 21 17:56	0°☿	
inferior conj	14095 Jun 14 23:48	5°☿05'50	3°07'22	evening max el	14096 May 08 22:44	21°☿46'58	22°52'15
minimum elong	14095 Jun 14 22:59	5°☿08'39	3°06'15				

asc. node	14096 May 17 18:45	27° $\Pi$ 38'09		retrograde	14097 May 02 20:10	12° $\Pi$ 17'24	
retrograde	14096 May 19 02:39	27° $\Pi$ 46'08		asc. node	14097 May 04 16:02	12° $\Pi$ 02'39	
evening set	14096 May 24 01:48	25° $\Pi$ 40'41		evening set	14097 May 08 06:52	9° $\Pi$ 59'21	
inferior conj	14096 May 29 09:32	19° $\Pi$ 16'43	2°52'48	min. Earth dist.	14097 May 12 21:36	4° $\Pi$ 39'50	0.68605 AU
minimum elong	14096 May 29 07:56	19° $\Pi$ 22'14	2°51'31	inferior conj	14097 May 13 18:18	3° $\Pi$ 29'52	2°27'58
min. Earth dist.	14096 May 29 01:27	19° $\Pi$ 44'48	0.68966 AU	minimum elong	14097 May 13 16:14	3° $\Pi$ 36'51	2°26'34
morning rise	14096 Jun 03 13:59	13° $\Pi$ 07'21			14097 May 16 11:34	30° $\mathbb{R}$ 8	
direct	14096 Jun 08 01:23	11° $\Pi$ 17'20		morning rise	14097 May 19 01:42	27° $\mathbb{B}$ 28'33	
morning max el	14096 Jun 16 18:53	16° $\Pi$ 20'02	21°19'29	direct	14097 May 23 00:49	25° $\mathbb{B}$ 59'00	
desc. node	14096 Jun 19 18:23	19° $\Pi$ 33'23			14097 May 30 09:46	0° $\Pi$	
	14096 Jun 27 21:11	0° $\mathbb{E}$		morning max el	14097 May 30 16:47	0° $\Pi$ 17'05	20°05'10
morning set	14096 Jul 18 01:32	0° $\Omega$ 01'41		desc. node	14097 Jun 06 15:24	8° $\Pi$ 31'32	
	14096 Jul 18 01:06	0° $\Omega$			14097 Jun 21 11:20	0° $\mathbb{E}$	
max. Earth dist.	14096 Jul 24 22:51	11° $\Omega$ 04'08	1.42629 AU	morning set	14097 Jun 27 06:08	8° $\mathbb{E}$ 49'18	
				max. Earth dist.	14097 Jul 07 09:37	24° $\mathbb{E}$ 41'10	1.44366 AU
					14097 Jul 10 17:12	0° $\Omega$	
superior conj	14096 Aug 01 07:09	23° $\Omega$ 21'52	-1°36'31	superior conj	14097 Jul 13 00:21	3° $\Omega$ 43'41	-2°02'31
minimum elong	14096 Aug 01 14:16	23° $\Omega$ 52'20	1°36'24	minimum elong	14097 Jul 13 06:48	4° $\Omega$ 09'59	2°03'04
	14096 Aug 05 02:58	0° $\mathbb{P}$		evening rise	14097 Jul 26 03:03	25° $\Omega$ 43'51	
evening rise	14096 Aug 12 16:28	13° $\mathbb{P}$ 30'39			14097 Jul 28 14:46	0° $\mathbb{P}$	
asc. node	14096 Aug 13 18:49	15° $\mathbb{P}$ 29'36		asc. node	14097 Jul 31 15:28	5° $\mathbb{P}$ 09'50	
	14096 Aug 22 03:13	0° $\mathbb{A}$		evening max el	14097 Aug 12 12:10	22° $\mathbb{P}$ 20'39	18°04'15
evening max el	14096 Aug 28 21:54	9° $\mathbb{A}$ 02'42	18°05'24	retrograde	14097 Aug 18 22:08	25° $\mathbb{P}$ 41'09	
retrograde	14096 Sep 04 18:07	12° $\mathbb{A}$ 33'04		evening set	14097 Aug 21 14:04	25° $\mathbb{P}$ 05'12	
evening set	14096 Sep 07 01:44	12° $\mathbb{A}$ 09'10		inferior conj	14097 Aug 27 22:12	19° $\mathbb{P}$ 52'19	1°37'02
inferior conj	14096 Sep 14 01:04	7° $\mathbb{A}$ 14'46	0°29'17	minimum elong	14097 Aug 28 00:30	19° $\mathbb{P}$ 46'14	1°36'00
minimum elong	14096 Sep 14 02:00	7° $\mathbb{A}$ 12'37	0°28'57	min. Earth dist.	14097 Aug 30 18:18	16° $\mathbb{P}$ 53'57	0.62524 AU
desc. node	14096 Sep 15 15:14	5° $\mathbb{A}$ 45'52		desc. node	14097 Sep 02 12:47	14° $\mathbb{P}$ 21'26	
min. Earth dist.	14096 Sep 17 06:13	4° $\mathbb{A}$ 17'18	0.60245 AU	morning rise	14097 Sep 03 08:39	13° $\mathbb{P}$ 43'21	
morning rise	14096 Sep 20 23:05	1° $\mathbb{A}$ 26'43		direct	14097 Sep 10 00:59	11° $\mathbb{P}$ 17'42	
	14096 Sep 23 21:20	30° $\mathbb{R}$ 11		morning max el	14097 Sep 24 02:42	19° $\mathbb{P}$ 18'23	27°55'38
direct	14096 Sep 27 12:39	29° $\mathbb{P}$ 21'42			14097 Oct 03 05:07	0° $\mathbb{A}$	
	14096 Oct 01 07:06	0° $\mathbb{A}$		asc. node	14097 Oct 22 00:16	0° $\mathbb{M}$	
morning max el	14096 Oct 11 19:41	7° $\mathbb{A}$ 14'13	27°51'59	asc. node	14097 Oct 27 17:32	11° $\mathbb{M}$ 05'52	
	14096 Oct 29 01:47	0° $\mathbb{M}$		morning set	14097 Oct 28 07:01	12° $\mathbb{M}$ 14'17	
asc. node	14096 Nov 09 20:48	21° $\mathbb{M}$ 13'36		max. Earth dist.	14097 Nov 02 13:26	23° $\mathbb{M}$ 19'14	1.31846 AU
morning set	14096 Nov 13 08:31	28° $\mathbb{M}$ 21'26		superior conj	14097 Nov 04 20:39	28° $\mathbb{M}$ 20'04	1°10'25
	14096 Nov 14 03:14	0° $\mathbb{X}$		minimum elong	14097 Nov 04 18:22	28° $\mathbb{M}$ 07'36	1°10'55
max. Earth dist.	14096 Nov 19 09:51	11° $\mathbb{X}$ 28'49	1.31243 AU		14097 Nov 05 14:50	0° $\mathbb{X}$	
				evening rise	14097 Nov 11 15:07	13° $\mathbb{X}$ 11'27	
superior conj	14096 Nov 20 11:40	13° $\mathbb{X}$ 52'23	1°25'25		14097 Nov 19 22:52	0° $\mathbb{B}$	
minimum elong	14096 Nov 20 09:48	13° $\mathbb{X}$ 41'57	1°26'13	desc. node	14097 Nov 29 09:26	15° $\mathbb{B}$ 10'20	
evening rise	14096 Nov 27 04:20	28° $\mathbb{X}$ 40'10		evening max el	14097 Dec 06 08:43	23° $\mathbb{B}$ 16'02	24°12'05
	14096 Nov 27 19:12	0° $\mathbb{B}$			14097 Dec 18 19:53	0° $\mathbb{B}$	
desc. node	14096 Dec 12 12:21	27° $\mathbb{B}$ 24'37		retrograde	14097 Dec 19 23:52	0° $\mathbb{B}$ 03'05	
	14096 Dec 14 05:33	0° $\mathbb{B}$			14097 Dec 21 03:56	30° $\mathbb{R}$ 3	
evening max el	14096 Dec 24 20:39	12° $\mathbb{B}$ 56'38	25°45'50	evening set	14097 Dec 25 00:34	29° $\mathbb{B}$ 07'48	
retrograde	14097 Jan 07 18:37	19° $\mathbb{B}$ 58'13		min. Earth dist.	14097 Dec 30 20:16	26° $\mathbb{B}$ 13'21	0.55744 AU
evening set	14097 Jan 13 20:14	18° $\mathbb{B}$ 32'40		inferior conj	14098 Jan 01 23:28	24° $\mathbb{B}$ 55'17	-5°38'05
min. Earth dist.	14097 Jan 18 09:25	15° $\mathbb{B}$ 54'41	0.57459 AU	minimum elong	14098 Jan 02 06:00	24° $\mathbb{B}$ 45'19	5°36'09
inferior conj	14097 Jan 21 08:08	13° $\mathbb{B}$ 52'07	-4°34'27	morning rise	14098 Jan 10 13:17	20° $\mathbb{B}$ 56'08	
minimum elong	14097 Jan 21 17:05	13° $\mathbb{B}$ 36'34	4°31'08	direct	14098 Jan 13 00:29	20° $\mathbb{B}$ 40'20	
morning rise	14097 Jan 29 16:47	9° $\mathbb{B}$ 33'23		morning max el	14098 Jan 23 06:43	25° $\mathbb{B}$ 36'52	19°53'44
direct	14097 Jan 31 18:35	9° $\mathbb{B}$ 20'00		asc. node	14098 Jan 23 16:54	26° $\mathbb{B}$ 01'56	
asc. node	14097 Feb 05 19:33	10° $\mathbb{B}$ 44'13			14098 Jan 27 03:15	0° $\mathbb{B}$	
morning max el	14097 Feb 09 13:24	13° $\mathbb{B}$ 37'24	18°50'12	morning set	14098 Feb 10 01:00	24° $\mathbb{B}$ 23'26	
	14097 Feb 20 16:50	0° $\mathbb{X}$			14098 Feb 12 19:04	0° $\mathbb{X}$	
morning set	14097 Feb 25 20:19	9° $\mathbb{X}$ 50'06		superior conj	14098 Feb 17 20:32	10° $\mathbb{X}$ 13'33	0°59'18
				minimum elong	14098 Feb 17 23:14	10° $\mathbb{X}$ 26'58	0°59'22
superior conj	14097 Mar 06 11:17	26° $\mathbb{X}$ 33'42	0°33'03	max. Earth dist.	14098 Feb 23 21:01	21° $\mathbb{X}$ 50'57	1.37194 AU
minimum elong	14097 Mar 06 13:19	26° $\mathbb{X}$ 43'21	0°32'54	desc. node	14098 Feb 25 10:14	24° $\mathbb{X}$ 43'17	
	14097 Mar 08 07:16	0° $\mathbb{Y}$		evening rise	14098 Feb 27 14:37	28° $\mathbb{X}$ 40'33	
desc. node	14097 Mar 10 13:44	4° $\mathbb{Y}$ 10'30			14098 Feb 28 08:27	0° $\mathbb{Y}$	
max. Earth dist.	14097 Mar 13 14:39	9° $\mathbb{Y}$ 37'15	1.39445 AU		14098 Mar 19 05:15	0° $\mathbb{B}$	
evening rise	14097 Mar 17 12:43	16° $\mathbb{Y}$ 24'06					
	14097 Mar 25 21:06	0° $\mathbb{B}$					
	14097 Apr 16 08:45	0° $\Pi$					
evening max el	14097 Apr 21 12:44	5° $\Pi$ 39'26	24°13'20				

evening max el	14098 Apr 04 02:19	19°♄32'37	25°29'23		14099 Mar 14 10:48	0°♄	
retrograde	14098 Apr 16 09:17	26°♄38'41		evening max el	14099 Mar 17 16:10	3°♄20'47	26°33'02
asc. node	14098 Apr 21 13:24	24°♄47'03		retrograde	14099 Mar 30 17:04	10°♄43'11	
evening set	14098 Apr 22 07:22	24°♄11'30		evening set	14099 Apr 06 01:34	8°♄11'16	
min. Earth dist.	14098 Apr 26 14:54	19°♄27'56	0.67794 AU	asc. node	14099 Apr 08 10:48	5°♄56'16	
inferior conj	14098 Apr 28 00:09	17°♄40'53	1°52'37	min. Earth dist.	14099 Apr 10 03:10	4°♄02'34	0.66554 AU
minimum elong	14098 Apr 27 22:02	17°♄47'43	1°51'15	inferior conj	14099 Apr 12 00:59	1°♄45'05	1°06'11
morning rise	14098 May 03 13:09	11°♄49'00		minimum elong	14099 Apr 11 23:24	1°♄49'49	1°05'10
direct	14098 May 07 00:49	10°♄39'13			14099 Apr 13 12:39	30°♄	
morning max el	14098 May 13 22:07	14°♄24'00	19°05'23	morning rise	14099 Apr 17 22:17	26°♄04'24	
desc. node	14098 May 24 12:18	28°♄02'39		direct	14099 Apr 20 23:29	25°♄12'23	
	14098 May 25 20:06	0°♄		morning max el	14099 Apr 27 10:05	28°♄36'56	18°21'57
greatest brilliancy	14098 May 26 23:22	1°♄41'43	-0.7m		14099 Apr 28 18:02	0°♄	
morning set	14098 Jun 06 11:04	17°♄43'42		desc. node	14099 May 11 09:04	17°♄57'55	
	14098 Jun 14 09:07	0°♄		morning set	14099 May 17 12:21	27°♄40'52	
max. Earth dist.	14098 Jun 20 02:09	8°♄54'49	1.45490 AU		14099 May 18 23:26	0°♄	
superior conj	14098 Jun 22 19:44	13°♄12'35	-2°13'39	superior conj	14099 Jun 02 04:03	22°♄18'55	-2°04'55
minimum elong	14098 Jun 22 20:24	13°♄15'12	2°14'42	minimum elong	14099 Jun 01 21:19	21°♄52'36	2°05'36
	14098 Jul 03 08:09	0°♄		max. Earth dist.	14099 Jun 02 22:13	23°♄29'46	1.45889 AU
evening rise	14098 Jul 07 14:57	6°♄57'50			14099 Jun 07 02:16	0°♄	
asc. node	14098 Jul 18 12:11	24°♄31'15		evening rise	14099 Jun 18 02:17	17°♄11'48	
	14098 Jul 22 05:13	0°♄			14099 Jun 26 06:51	0°♄	
evening max el	14098 Jul 27 02:15	5°♄55'19	18°21'12	greatest brilliancy	14099 Jun 27 22:05	2°♄31'21	-0.8m
retrograde	14098 Aug 02 11:34	9°♄19'44		asc. node	14099 Jul 05 08:59	13°♄27'24	
evening set	14098 Aug 05 12:13	8°♄29'05		evening max el	14099 Jul 10 13:20	19°♄39'53	18°55'29
inferior conj	14098 Aug 11 08:45	2°♄59'40	2°24'11	retrograde	14099 Jul 17 06:53	23°♄21'34	
minimum elong	14098 Aug 11 11:06	2°♄52'45	2°23'02	evening set	14099 Jul 20 16:35	22°♄14'39	
min. Earth dist.	14098 Aug 13 15:43	0°♄19'25	0.64619 AU	inferior conj	14099 Jul 26 05:07	16°♄30'24	2°53'43
	14098 Aug 13 22:37	30°♄		minimum elong	14099 Jul 26 06:49	16°♄25'00	2°52'39
morning rise	14098 Aug 17 08:36	26°♄39'15		min. Earth dist.	14099 Jul 27 21:40	14°♄22'01	0.66377 AU
desc. node	14098 Aug 20 10:19	24°♄45'26		morning rise	14099 Jul 31 20:18	10°♄05'41	
direct	14098 Aug 23 21:51	24°♄02'05		direct	14099 Aug 07 02:01	7°♄26'32	
	14098 Sep 04 11:05	0°♄		desc. node	14099 Aug 07 07:47	7°♄26'45	
morning max el	14098 Sep 06 12:56	1°♄59'31	27°23'45	morning max el	14099 Aug 20 00:12	15°♄07'26	26°23'35
	14098 Sep 27 10:45	0°♄			14099 Sep 01 05:14	0°♄	
morning set	14098 Oct 11 20:35	25°♄39'43			14099 Sep 20 05:59	0°♄	
	14098 Oct 14 00:55	0°♄		morning set	14099 Sep 24 22:05	8°♄30'31	
asc. node	14098 Oct 14 14:11	1°♄07'04		max. Earth dist.	14099 Sep 28 19:44	15°♄59'35	1.34662 AU
max. Earth dist.	14098 Oct 16 09:27	4°♄48'57	1.32994 AU	asc. node	14099 Oct 01 10:46	21°♄13'08	
superior conj	14098 Oct 20 01:15	12°♄31'39	0°49'40	superior conj	14099 Oct 03 23:05	26°♄20'55	0°23'24
minimum elong	14098 Oct 19 23:08	12°♄20'16	0°49'55	minimum elong	14099 Oct 03 21:50	26°♄14'26	0°23'30
evening rise	14098 Oct 27 02:02	27°♄40'52			14099 Oct 05 17:19	0°♄	
	14098 Oct 28 04:15	0°♄		evening rise	14099 Oct 11 11:09	12°♄03'27	
	14098 Nov 14 18:33	0°♄			14099 Oct 20 16:39	0°♄	
desc. node	14098 Nov 16 06:38	1°♄41'59		evening max el	14099 Oct 30 13:05	13°♄31'57	20°55'20
evening max el	14098 Nov 17 19:02	3°♄15'29	22°29'32	desc. node	14099 Nov 03 03:55	16°♄34'20	
retrograde	14098 Nov 30 16:16	9°♄38'39		retrograde	14099 Nov 11 02:48	19°♄17'04	
evening set	14098 Dec 04 08:37	9°♄08'59		evening set	14099 Nov 13 14:30	19°♄02'17	
min. Earth dist.	14098 Dec 12 02:40	5°♄39'34	0.54694 AU	inferior conj	14099 Nov 22 12:32	15°♄08'50	-5°17'31
inferior conj	14098 Dec 12 21:23	5°♄13'13	-5°57'45	minimum elong	14099 Nov 22 03:29	15°♄21'43	5°14'41
minimum elong	14098 Dec 12 19:47	5°♄15'28	5°56'39	min. Earth dist.	14099 Nov 23 08:28	14°♄40'29	0.54523 AU
morning rise	14098 Dec 21 08:10	1°♄25'45		morning rise	14099 Nov 30 16:45	11°♄15'48	
direct	14098 Dec 24 14:07	1°♄01'50		direct	14099 Dec 04 21:31	10°♄38'02	
morning max el	14099 Jan 05 09:24	6°♄41'10	21°20'12	morning max el	14099 Dec 17 23:36	16°♄58'12	23°04'32
asc. node	14099 Jan 10 14:10	12°♄39'30		asc. node	14099 Dec 28 11:21	0°♄19'08	
	14099 Jan 20 22:37	0°♄			14099 Dec 28 06:31	0°♄	
morning set	14099 Jan 25 10:11	9°♄06'31		morning set	14100 Jan 09 21:38	23°♄52'11	
					14100 Jan 12 18:04	0°♄	
superior conj	14099 Feb 01 16:28	24°♄21'43	1°18'36	superior conj	14100 Jan 16 19:50	8°♄48'24	1°31'08
minimum elong	14099 Feb 01 18:53	24°♄34'15	1°19'01	minimum elong	14100 Jan 16 21:26	8°♄56'58	1°31'55
	14099 Feb 04 10:27	0°♄		max. Earth dist.	14100 Jan 20 01:06	15°♄38'11	1.33411 AU
max. Earth dist.	14099 Feb 06 07:33	3°♄45'56	1.35127 AU	evening rise	14100 Jan 24 17:25	25°♄09'19	
evening rise	14099 Feb 10 09:23	11°♄38'52			14100 Jan 27 05:24	0°♄	
desc. node	14099 Feb 12 06:46	15°♄10'01		desc. node	14100 Jan 30 03:21	5°♄25'50	
	14099 Feb 20 19:59	0°♄					

	14100 Feb 14 07:20	0°♿		minimum elong	14101 Jan 01 04:36	23°♿29'15	1°38'16
evening max el	14100 Feb 28 05:31	16°♿53'00	27°16'57	max. Earth dist.	14101 Jan 03 01:57	27°♿37'28	1.32148 AU
retrograde	14100 Mar 13 18:41	24°♿21'34			14101 Jan 04 04:16	0°♿	
evening set	14100 Mar 20 11:22	21°♿50'47		evening rise	14101 Jan 08 11:39	9°♿04'19	
min. Earth dist.	14100 Mar 24 08:18	18°♿14'37	0.64924 AU	desc. node	14101 Jan 17 00:02	25°♿25'33	
asc. node	14100 Mar 26 08:16	16°♿03'16			14101 Jan 19 14:52	0°♿	
inferior conj	14100 Mar 26 18:17	15°♿35'35	0°07'59	evening max el	14101 Feb 10 17:00	29°♿58'21	27°34'12
minimum elong	14100 Mar 26 18:04	15°♿36'13	0°07'44		14101 Feb 10 17:42	0°♿	
transit middle	14100 Mar 26 18:04	15°♿36'13	0°07'44	retrograde	14101 Feb 24 13:26	7°♿24'40	
transit begin	14100 Mar 26 15:24	15°♿43'34		evening set	14101 Mar 03 10:24	5°♿02'26	
transit end	14100 Mar 26 20:44	15°♿28'53		min. Earth dist.	14101 Mar 07 04:38	1°♿54'26	0.62974 AU
morning rise	14100 Apr 02 02:34	10°♿08'16			14101 Mar 09 03:22	30°♿	
direct	14100 Apr 04 18:25	9°♿31'09		inferior conj	14101 Mar 10 01:14	29°♿05'42	-1°02'04
morning max el	14100 Apr 11 02:22	12°♿47'55	17°55'25	minimum elong	14101 Mar 10 03:17	29°♿00'37	1°01'05
	14100 Apr 23 06:52	0°♿		asc. node	14101 Mar 13 05:44	26°♿09'25	
desc. node	14100 Apr 28 05:42	8°♿09'53		morning rise	14101 Mar 16 22:49	23°♿54'11	
morning set	14100 Apr 28 17:36	8°♿59'06		direct	14101 Mar 19 06:47	23°♿28'26	
	14100 May 11 15:25	0°♿		morning max el	14101 Mar 25 20:08	26°♿48'52	17°46'13
					14101 Mar 28 15:33	0°♿	
superior conj	14100 May 12 18:30	1°♿47'46	-1°38'02	morning set	14101 Apr 11 00:13	21°♿29'32	
minimum elong	14100 May 12 09:33	1°♿12'13	1°38'00	desc. node	14101 Apr 15 02:17	28°♿33'40	
max. Earth dist.	14100 May 16 18:19	8°♿05'59	1.45529 AU		14101 Apr 15 22:23	0°♿	
evening rise	14100 May 28 18:29	26°♿42'39					
	14100 May 30 22:02	0°♿		superior conj	14101 Apr 23 04:45	12°♿13'52	-1°00'42
greatest brilliancy	14100 Jun 12 01:59	18°♿17'12	-0.6m	minimum elong	14101 Apr 22 22:46	11°♿49'07	1°00'29
	14100 Jun 20 16:24	0°♿		max. Earth dist.	14101 Apr 29 12:00	22°♿27'39	1.44464 AU
asc. node	14100 Jun 22 05:54	1°♿49'14			14101 May 04 06:33	0°♿	
evening max el	14100 Jun 23 19:22	3°♿28'36	19°46'07	evening rise	14101 May 08 05:44	6°♿08'46	
retrograde	14100 Jul 01 05:13	7°♿39'57			14101 May 24 06:13	0°♿	
evening set	14100 Jul 05 00:28	6°♿16'05		evening max el	14101 Jun 06 19:32	17°♿18'22	20°50'57
inferior conj	14100 Jul 10 08:16	0°♿18'35	3°08'35	asc. node	14101 Jun 09 02:54	19°♿24'55	
minimum elong	14100 Jul 10 09:00	0°♿16'07	3°07'35	retrograde	14101 Jun 15 04:13	22°♿08'45	
	14100 Jul 10 13:48	30°♿		evening set	14101 Jun 19 09:44	20°♿28'03	
min. Earth dist.	14100 Jul 11 10:32	28°♿50'33	0.67704 AU	inferior conj	14101 Jun 24 15:38	14°♿18'51	3°11'03
morning rise	14100 Jul 15 17:08	23°♿54'38		minimum elong	14101 Jun 24 15:22	14°♿19'47	3°09'59
direct	14100 Jul 21 12:26	21°♿21'55		min. Earth dist.	14101 Jun 25 04:11	13°♿35'23	0.68570 AU
desc. node	14100 Jul 25 05:10	22°♿13'16		morning rise	14101 Jun 29 20:44	7°♿59'00	
morning max el	14100 Aug 02 11:01	28°♿31'23	25°04'22	direct	14101 Jul 05 04:06	5°♿39'26	
	14100 Aug 03 20:58	0°♿		desc. node	14101 Jul 12 02:27	8°♿38'40	
	14100 Aug 25 22:57	0°♿		morning max el	14101 Jul 15 21:31	12°♿03'41	23°35'50
morning set	14100 Sep 07 07:39	20°♿38'09			14101 Jul 30 06:37	0°♿	
max. Earth dist.	14100 Sep 10 21:17	27°♿06'28	1.36758 AU		14101 Aug 18 18:16	0°♿	
	14100 Sep 12 10:31	0°♿		morning set	14101 Aug 19 20:40	1°♿50'51	
				max. Earth dist.	14101 Aug 23 19:01	8°♿35'58	1.39102 AU
superior conj	14100 Sep 17 11:12	9°♿41'08	-0°07'47				
minimum elong	14100 Sep 17 11:41	9°♿43'33	0°07'37	superior conj	14101 Aug 31 09:51	22°♿23'04	-0°42'22
behind sun begin	14100 Sep 17 05:55	9°♿15'10		minimum elong	14101 Aug 31 12:56	22°♿37'28	0°42'05
behind sun end	14100 Sep 17 17:27	10°♿11'58			14101 Sep 04 10:07	0°♿	
asc. node	14100 Sep 18 07:19	11°♿20'40		asc. node	14101 Sep 05 03:52	1°♿25'36	
evening rise	14100 Sep 25 16:17	26°♿13'54		evening rise	14101 Sep 09 14:38	10°♿04'30	
	14100 Sep 27 13:13	0°♿			14101 Sep 20 17:03	0°♿	
evening max el	14100 Oct 12 21:05	24°♿32'57	19°40'04	evening max el	14101 Sep 25 18:38	6°♿23'09	18°46'43
desc. node	14100 Oct 21 01:18	29°♿21'41		retrograde	14101 Oct 04 04:21	10°♿36'53	
retrograde	14100 Oct 22 19:34	29°♿30'43		evening set	14101 Oct 06 01:53	10°♿24'45	
evening set	14100 Oct 24 17:25	29°♿20'31		desc. node	14101 Oct 07 22:47	9°♿50'37	
inferior conj	14100 Nov 02 11:46	25°♿17'15	-3°48'06	inferior conj	14101 Oct 14 05:37	6°♿03'12	-1°59'57
minimum elong	14100 Nov 02 02:27	25°♿31'53	3°44'10	minimum elong	14101 Oct 14 00:39	6°♿12'14	1°57'27
min. Earth dist.	14100 Nov 04 17:14	23°♿53'22	0.55290 AU	min. Earth dist.	14101 Oct 17 07:11	3°♿50'01	0.56861 AU
morning rise	14100 Nov 10 09:41	20°♿58'14		morning rise	14101 Oct 21 20:08	1°♿07'41	
direct	14100 Nov 15 12:06	20°♿00'26			14101 Oct 25 04:18	30°♿	
morning max el	14100 Nov 29 09:11	26°♿55'54	24°53'16	direct	14101 Oct 27 16:51	29°♿44'20	
	14100 Dec 02 08:31	0°♿			14101 Oct 30 05:48	0°♿	
asc. node	14100 Dec 15 08:26	18°♿45'44		morning max el	14101 Nov 10 22:10	7°♿07'14	26°27'46
	14100 Dec 21 06:51	0°♿			14101 Nov 27 21:17	0°♿	
morning set	14100 Dec 25 09:31	8°♿35'10		asc. node	14101 Dec 02 05:24	7°♿46'49	
				morning set	14101 Dec 09 20:03	23°♿09'59	
superior conj	14101 Jan 01 04:04	23°♿26'16	1°37'17		14101 Dec 12 23:13	0°♿	

superior conj	14101 Dec 16 14:56	8°  08'08	1°37'19
minimum elong	14101 Dec 16 14:24	8°  05'10	1°38'22
max. Earth dist.	14101 Dec 17 08:07	9°  43'54	1.31387 AU
evening rise	14101 Dec 23 13:17	23°  16'31	
	14101 Dec 26 19:40	0° 	
desc. node	14102 Jan 03 20:51	15°  01'49	
	14102 Jan 13 11:38	0° 