

superior conj	15600 Jan 22 20:28	16° \approx 42'54	1°35'37	morning max el	15600 Dec 01 11:00	0° \approx 02'53	26°32'47
minimum elong	15600 Jan 22 21:25	16° \approx 48'08	1°36'13	asc. node	15600 Dec 21 18:32	28° \approx 51'47	
max. Earth dist.	15600 Jan 24 17:54	20° \approx 52'00	1.32014 AU		15600 Dec 22 09:16	0° \approx	
	15600 Jan 29 00:29	0° \approx		morning set	15600 Dec 30 12:53	16° \approx 32'548	
evening rise	15600 Jan 30 04:05	2° \approx 22'44			15601 Jan 05 16:27	0° \approx	
desc. node	15600 Feb 06 08:47	16° \approx 21'47					
	15600 Feb 14 08:26	0° \approx		superior conj	15601 Jan 06 07:13	1° \approx 22'33	1°38'01
evening max el	15600 Mar 03 08:27	23° \approx 18'32	27°35'54	minimum elong	15601 Jan 06 07:06	1° \approx 21'55	1°38'48
	15600 Mar 13 01:36	0° \approx		max. Earth dist.	15601 Jan 07 00:00	2° \approx 56'16	1.31259 AU
retrograde	15600 Mar 17 06:04	0° \approx 47'34		evening rise	15601 Jan 13 05:37	16° \approx 32'49	
	15600 Mar 21 05:52	30° \approx 17'34			15601 Jan 19 22:38	0° \approx	
evening set	15600 Mar 24 01:49	28° \approx 17'38		desc. node	15601 Jan 23 05:27	6° \approx 01'01	
min. Earth dist.	15600 Mar 27 20:07	25° \approx 17'41	0.62848 AU		15601 Feb 08 08:27	0° \approx	
inferior conj	15600 Mar 30 17:52	22° \approx 17'34	-0°38'57	evening max el	15601 Feb 13 15:48	5° \approx 41'45	27°20'09
minimum elong	15600 Mar 30 19:10	22° \approx 17'23	0°38'40	retrograde	15601 Feb 27 16:01	13° \approx 01'42	
asc. node	15600 Apr 01 18:28	20° \approx 17'348		evening set	15601 Mar 06 10:03	10° \approx 59'12	
morning rise	15600 Apr 06 15:17	17° \approx 19'04		min. Earth dist.	15601 Mar 10 06:07	8° \approx 12'26	0.60642 AU
direct	15600 Apr 08 23:23	16° \approx 17'17		inferior conj	15601 Mar 13 10:26	5° \approx 28'00	-2°00'12
morning max el	15600 Apr 15 12:33	20° \approx 17'51	17°46'11	minimum elong	15601 Mar 13 14:51	5° \approx 18'25	1°58'25
	15600 Apr 22 21:32	0° \approx		asc. node	15601 Mar 19 15:53	1° \approx 04'17	
morning set	15600 May 01 16:19	14° \approx 51'49		morning rise	15601 Mar 20 23:00	0° \approx 36'12	
desc. node	15600 May 04 10:32	19° \approx 39'00		direct	15601 Mar 23 01:05	0° \approx 18'21	
	15600 May 10 11:57	0° \approx		morning max el	15601 Mar 30 04:20	3° \approx 52'50	17°56'07
				morning set	15601 Apr 14 18:28	28° \approx 16'45	
superior conj	15600 May 13 19:56	5° \approx 33'39	-1°10'36		15601 Apr 15 17:07	0° \approx	
minimum elong	15600 May 13 13:16	5° \approx 06'05	1°10'27	desc. node	15601 Apr 21 07:14	10° \approx 06'47	
max. Earth dist.	15600 May 20 04:25	15° \approx 53'05	1.44466 AU				
evening rise	15600 May 28 18:59	29° \approx 22'07		superior conj	15601 Apr 25 07:02	17° \approx 09'03	-0°32'08
	15600 May 29 04:51	0° \approx		minimum elong	15601 Apr 25 04:12	16° \approx 56'44	0°32'15
	15600 Jun 18 16:46	0° \approx			15601 May 02 21:21	0° \approx	
evening max el	15600 Jun 27 11:21	10° \approx 36'05	20°51'32	max. Earth dist.	15601 May 02 18:23	29° \approx 47'47	1.42774 AU
asc. node	15600 Jun 28 16:39	11° \approx 45'56		evening rise	15601 May 08 17:29	9° \approx 24'46	
retrograde	15600 Jul 05 20:02	15° \approx 25'01			15601 May 22 07:30	0° \approx	
evening set	15600 Jul 10 02:18	13° \approx 43'13		evening max el	15601 Jun 10 06:07	24° \approx 29'20	22°07'06
inferior conj	15600 Jul 15 07:59	7° \approx 34'28	3°09'05	asc. node	15601 Jun 15 13:36	28° \approx 46'18	
minimum elong	15600 Jul 15 08:09	7° \approx 33'53	3°08'21		15601 Jun 19 01:07	0° \approx	
min. Earth dist.	15600 Jul 15 20:36	6° \approx 50'44	0.68705 AU	retrograde	15601 Jun 19 17:54	0° \approx 02'21	
morning rise	15600 Jul 20 13:42	1° \approx 13'23			15601 Jun 20 10:24	30° \approx 13'23	
	15600 Jul 22 04:57	30° \approx 13'23		evening set	15601 Jun 24 11:29	28° \approx 03'52	
direct	15600 Jul 25 20:11	28° \approx 55'32		inferior conj	15601 Jun 29 17:36	21° \approx 45'19	3°05'26
	15600 Jul 29 19:38	0° \approx		minimum elong	15601 Jun 29 16:50	21° \approx 48'01	3°04'32
desc. node	15600 Jul 31 09:32	0° \approx 55'43		min. Earth dist.	15601 Jun 29 16:58	21° \approx 47'32	0.69093 AU
morning max el	15600 Aug 05 12:21	5° \approx 17'23	23°31'17	morning rise	15601 Jul 04 22:00	15° \approx 30'54	
	15600 Aug 24 14:37	0° \approx		direct	15601 Jul 09 16:08	13° \approx 30'26	
morning set	15600 Sep 09 08:16	24° \approx 45'50		desc. node	15601 Jul 18 06:49	18° \approx 14'45	
	15600 Sep 12 10:01	0° \approx		morning max el	15601 Jul 19 01:28	19° \approx 00'22	22°03'15
max. Earth dist.	15600 Sep 13 07:38	1° \approx 33'48	1.39292 AU		15601 Jul 28 06:19	0° \approx	
					15601 Aug 17 17:46	0° \approx	
superior conj	15600 Sep 21 00:21	15° \approx 26'27	-0°32'56	morning set	15601 Aug 20 20:17	4° \approx 55'28	
minimum elong	15600 Sep 21 02:46	15° \approx 37'43	0°32'22	max. Earth dist.	15601 Aug 26 09:51	14° \approx 00'36	1.41626 AU
asc. node	15600 Sep 24 17:58	22° \approx 30'08					
	15600 Sep 28 15:05	0° \approx		superior conj	15601 Sep 03 04:29	27° \approx 19'43	-1°09'25
evening rise	15600 Sep 30 05:55	3° \approx 08'41		minimum elong	15601 Sep 03 10:02	27° \approx 44'15	1°08'43
evening max el	15600 Oct 16 09:07	29° \approx 24'39	18°44'37		15601 Sep 04 16:40	0° \approx	
	15600 Oct 16 23:43	0° \approx		asc. node	15601 Sep 11 14:36	12° \approx 34'28	
retrograde	15600 Oct 24 17:40	3° \approx 37'45		evening rise	15601 Sep 13 17:57	16° \approx 32'10	
evening set	15600 Oct 26 15:28	3° \approx 25'21			15601 Sep 21 04:46	0° \approx	
desc. node	15600 Oct 27 06:13	3° \approx 16'18		evening max el	15601 Sep 29 16:36	11° \approx 57'38	18°13'08
	15600 Nov 02 10:34	30° \approx 16'18		retrograde	15601 Oct 06 22:48	15° \approx 40'02	
inferior conj	15600 Nov 03 18:29	29° \approx 02'21	-2°24'08	evening set	15601 Oct 09 01:46	15° \approx 21'34	
minimum elong	15600 Nov 03 12:36	29° \approx 13'08	2°21'06	desc. node	15601 Oct 14 03:31	12° \approx 31'30	
min. Earth dist.	15600 Nov 06 20:10	26° \approx 48'02	0.56958 AU	inferior conj	15601 Oct 16 11:07	10° \approx 37'01	-0°44'23
morning rise	15600 Nov 11 06:35	24° \approx 07'41		minimum elong	15601 Oct 16 09:31	10° \approx 40'27	0°43'13
direct	15600 Nov 17 06:16	22° \approx 40'38		min. Earth dist.	15601 Oct 19 17:23	7° \approx 50'29	0.59060 AU
	15600 Dec 01 09:48	0° \approx		morning rise	15601 Oct 23 13:53	5° \approx 06'42	

direct	15601 Oct 30 00:55	3° \mathbb{M} 13'26		morning rise	15602 Oct 05 15:30	16° \mathbb{A} 57'19	
morning max el	15601 Nov 13 07:53	10° \mathbb{M} 55'17	27°35'20	direct	15602 Oct 12 07:30	14° \mathbb{A} 41'18	
	15601 Nov 28 04:19	0° \mathbb{A}		morning max el	15602 Oct 26 12:19	22° \mathbb{A} 36'56	27°58'59
asc. node	15601 Dec 08 15:34	18° \mathbb{A} 13'26			15602 Nov 02 01:41	0° \mathbb{M}	
	15601 Dec 14 11:24	0° \mathbb{B}			15602 Nov 21 09:00	0° \mathbb{A}	
morning set	15601 Dec 14 20:07	0° \mathbb{B} 46'11		asc. node	15602 Nov 25 12:31	7° \mathbb{A} 55'10	
				morning set	15602 Nov 28 22:06	14° \mathbb{A} 48'14	
superior conj	15601 Dec 21 18:43	16° \mathbb{B} 01'09	1°34'25	max. Earth dist.	15602 Dec 04 13:53	26° \mathbb{A} 56'10	1.31353 AU
minimum elong	15601 Dec 21 17:35	15° \mathbb{B} 54'52	1°35'12		15602 Dec 05 23:09	0° \mathbb{B}	
max. Earth dist.	15601 Dec 21 08:01	15° \mathbb{B} 01'18	1.31032 AU				
	15601 Dec 28 02:09	0° \mathbb{A}		superior conj	15602 Dec 06 05:02	0° \mathbb{B} 32'39	1°24'49
evening rise	15601 Dec 28 12:13	0° \mathbb{A} 54'12		minimum elong	15602 Dec 06 03:07	0° \mathbb{B} 22'01	1°25'30
desc. node	15602 Jan 10 02:12	25° \mathbb{A} 10'28		evening rise	15602 Dec 12 21:51	15° \mathbb{B} 21'03	
	15602 Jan 13 01:40	0° \mathbb{H}			15602 Dec 20 01:32	0° \mathbb{A}	
evening max el	15602 Jan 26 16:09	17° \mathbb{H} 14'10	26°29'14	desc. node	15602 Dec 27 23:03	13° \mathbb{A} 38'11	
retrograde	15602 Feb 09 15:42	24° \mathbb{H} 22'47		evening max el	15603 Jan 08 07:50	27° \mathbb{A} 53'20	25°07'15
evening set	15602 Feb 16 00:51	22° \mathbb{H} 43'51			15603 Jan 10 17:18	0° \mathbb{H}	
min. Earth dist.	15602 Feb 20 05:36	20° \mathbb{H} 06'28	0.58431 AU	retrograde	15603 Jan 22 03:34	4° \mathbb{H} 49'14	
inferior conj	15602 Feb 23 09:10	17° \mathbb{H} 45'24	-3°29'11	evening set	15603 Jan 27 18:30	3° \mathbb{H} 38'10	
minimum elong	15602 Feb 23 17:01	17° \mathbb{H} 30'42	3°26'10	min. Earth dist.	15603 Feb 01 20:05	0° \mathbb{H} 54'35	0.56461 AU
morning rise	15602 Mar 03 12:29	13° \mathbb{H} 15'02			15603 Feb 03 05:56	30° \mathbb{R} \mathbb{A}	
direct	15602 Mar 05 11:56	13° \mathbb{H} 01'34		inferior conj	15603 Feb 04 11:06	29° \mathbb{A} 12'19	-4°53'40
asc. node	15602 Mar 06 13:16	13° \mathbb{H} 05'33		minimum elong	15603 Feb 04 20:21	28° \mathbb{A} 57'17	4°50'50
morning max el	15602 Mar 13 14:34	17° \mathbb{H} 01'49	18°25'44	morning rise	15603 Feb 13 00:46	25° \mathbb{A} 03'31	
	15602 Mar 22 18:52	0° \mathbb{Y}		direct	15603 Feb 15 03:44	24° \mathbb{A} 50'40	
morning set	15602 Mar 29 10:15	12° \mathbb{Y} 18'03		asc. node	15603 Feb 21 10:41	26° \mathbb{A} 51'59	
				morning max el	15603 Feb 24 15:02	29° \mathbb{A} 27'14	19°17'04
superior conj	15602 Apr 07 15:34	29° \mathbb{Y} 42'40	0°04'16		15603 Feb 25 04:06	0° \mathbb{H}	
minimum elong	15602 Apr 07 15:51	29° \mathbb{Y} 43'57	0°03'52	morning set	15603 Mar 13 11:18	26° \mathbb{H} 42'17	
behind sun begin	15602 Apr 07 08:49	29° \mathbb{Y} 11'37			15603 Mar 15 02:56	0° \mathbb{Y}	
behind sun end	15602 Apr 07 22:53	0° \mathbb{B} 16'12					
	15602 Apr 07 19:21	0° \mathbb{B}		superior conj	15603 Mar 21 17:08	13° \mathbb{Y} 01'35	0°35'37
desc. node	15602 Apr 08 03:53	0° \mathbb{B} 39'06		minimum elong	15603 Mar 21 19:09	13° \mathbb{Y} 11'24	0°35'10
max. Earth dist.	15602 Apr 15 03:49	13° \mathbb{B} 03'09	1.40670 AU	desc. node	15603 Mar 26 00:31	21° \mathbb{Y} 11'47	
evening rise	15602 Apr 19 11:51	20° \mathbb{B} 20'56		max. Earth dist.	15603 Mar 28 09:56	25° \mathbb{Y} 34'55	1.38383 AU
	15602 Apr 25 11:48	0° \mathbb{II}			15603 Mar 30 21:19	0° \mathbb{B}	
	15602 May 16 12:32	0° \mathbb{B}		evening rise	15603 Apr 01 03:19	2° \mathbb{B} 11'11	
evening max el	15602 May 23 21:07	8° \mathbb{B} 22'50	23°28'07		15603 Apr 18 16:14	0° \mathbb{II}	
asc. node	15602 Jun 02 10:38	14° \mathbb{B} 33'49		evening max el	15603 May 06 10:34	22° \mathbb{II} 16'57	24°48'15
retrograde	15602 Jun 03 13:23	14° \mathbb{B} 39'13		retrograde	15603 May 18 05:19	29° \mathbb{II} 09'33	
evening set	15602 Jun 08 18:34	12° \mathbb{B} 26'10		asc. node	15603 May 20 07:45	28° \mathbb{II} 50'50	
min. Earth dist.	15602 Jun 13 13:41	6° \mathbb{B} 46'57	0.68990 AU	evening set	15603 May 23 21:56	26° \mathbb{II} 45'20	
inferior conj	15602 Jun 14 03:20	5° \mathbb{B} 59'58	2°51'20	min. Earth dist.	15603 May 28 08:43	21° \mathbb{II} 42'58	0.68403 AU
minimum elong	15602 Jun 14 01:46	6° \mathbb{B} 05'20	2°50'13	inferior conj	15603 May 29 11:16	20° \mathbb{II} 14'51	2°26'45
morning rise	15602 Jun 19 08:57	29° \mathbb{II} 53'37		minimum elong	15603 May 29 09:12	20° \mathbb{II} 21'43	2°25'24
	15602 Jun 19 05:48	30° \mathbb{R} \mathbb{II}		morning rise	15603 Jun 03 20:42	14° \mathbb{II} 17'37	
direct	15602 Jun 23 14:48	28° \mathbb{II} 12'47		direct	15603 Jun 07 14:50	12° \mathbb{II} 56'42	
	15602 Jun 28 10:15	0° \mathbb{B}		morning max el	15603 Jun 14 21:20	16° \mathbb{II} 57'46	19°35'03
morning max el	15602 Jul 01 19:52	2° \mathbb{B} 53'39	20°42'50	desc. node	15603 Jun 22 01:12	25° \mathbb{II} 34'26	
desc. node	15602 Jul 05 04:03	6° \mathbb{B} 32'49			15603 Jun 25 05:16	0° \mathbb{B}	
	15602 Jul 22 02:39	0° \mathbb{Q}		greatest brilliancy	15603 Jun 27 14:24	3° \mathbb{B} 26'49	-0.6m
morning set	15602 Jul 31 10:09	14° \mathbb{Q} 09'31		morning set	15603 Jul 10 13:38	23° \mathbb{B} 00'25	
max. Earth dist.	15602 Aug 08 18:28	27° \mathbb{Q} 20'00	1.43627 AU		15603 Jul 15 02:31	0° \mathbb{Q}	
	15602 Aug 10 10:02	0° \mathbb{M}		max. Earth dist.	15603 Jul 22 08:46	11° \mathbb{Q} 20'15	1.45085 AU
superior conj	15602 Aug 15 10:28	8° \mathbb{M} 15'40	-1°43'01	superior conj	15603 Jul 26 17:03	18° \mathbb{Q} 13'59	-2°06'55
minimum elong	15602 Aug 15 18:10	8° \mathbb{M} 47'50	1°42'37	minimum elong	15603 Jul 26 22:54	18° \mathbb{Q} 37'21	2°07'17
evening rise	15602 Aug 27 15:16	29° \mathbb{M} 16'26			15603 Aug 02 23:25	0° \mathbb{M}	
	15602 Aug 28 01:10	0° \mathbb{A}		evening rise	15603 Aug 09 16:35	11° \mathbb{M} 08'22	
asc. node	15602 Aug 29 11:12	2° \mathbb{A} 29'47		asc. node	15603 Aug 16 07:51	22° \mathbb{M} 11'49	
evening max el	15602 Sep 13 05:38	25° \mathbb{A} 02'55	18°01'39		15603 Aug 21 05:48	0° \mathbb{A}	
retrograde	15602 Sep 19 20:11	28° \mathbb{A} 27'55		evening max el	15603 Aug 27 20:30	8° \mathbb{A} 31'23	18°08'50
evening set	15602 Sep 22 06:42	27° \mathbb{A} 59'38		retrograde	15603 Sep 03 05:13	11° \mathbb{A} 52'16	
inferior conj	15602 Sep 28 23:23	22° \mathbb{A} 55'25	0°38'05	evening set	15603 Sep 06 00:17	11° \mathbb{A} 10'52	
minimum elong	15602 Sep 29 00:32	22° \mathbb{A} 52'37	0°37'55	inferior conj	15603 Sep 12 03:20	5° \mathbb{A} 49'29	1°40'23
desc. node	15602 Oct 01 00:56	20° \mathbb{A} 52'47		minimum elong	15603 Sep 12 05:35	5° \mathbb{A} 43'14	1°39'40
min. Earth dist.	15602 Oct 02 00:20	19° \mathbb{A} 56'35	0.61348 AU	min. Earth dist.	15603 Sep 14 17:20	2° \mathbb{A} 58'20	0.63568 AU

desc. node	15603 Sep 17 22:23	29° \mathbb{M} 54'34		minimum elong	15604 Aug 25 21:10	19° \mathbb{M} 03'18	2°23'19
	15603 Sep 17 19:44	30° \mathbb{R} \mathbb{M}		min. Earth dist.	15604 Aug 27 19:23	16° \mathbb{M} 43'06	0.65533 AU
morning rise	15603 Sep 18 08:53	29° \mathbb{M} 33'53		morning rise	15604 Aug 31 15:09	12° \mathbb{M} 46'00	
direct	15603 Sep 25 00:04	27° \mathbb{M} 02'21		desc. node	15604 Sep 03 19:51	10° \mathbb{M} 46'34	
	15603 Oct 02 23:41	0° \mathbb{L}		direct	15604 Sep 07 00:43	10° \mathbb{M} 08'09	
morning max el	15603 Oct 08 21:27	5° \mathbb{L} 02'05	27°44'25	morning max el	15604 Sep 20 08:32	17° \mathbb{M} 58'49	26°57'40
	15603 Oct 27 19:28	0° \mathbb{M}			15604 Sep 30 11:23	0° \mathbb{L}	
asc. node	15603 Nov 12 09:23	27° \mathbb{M} 51'06			15604 Oct 19 17:58	0° \mathbb{M}	
morning set	15603 Nov 12 16:32	28° \mathbb{M} 26'53		morning set	15604 Oct 26 00:32	11° \mathbb{M} 34'59	
	15603 Nov 13 11:00	0° \mathbb{X}		asc. node	15604 Oct 29 06:10	17° \mathbb{M} 55'42	
max. Earth dist.	15603 Nov 17 13:45	8° \mathbb{X} 32'58	1.32238 AU	max. Earth dist.	15604 Oct 30 04:38	19° \mathbb{M} 48'36	1.33677 AU
superior conj	15603 Nov 20 12:17	14° \mathbb{X} 52'18	1°09'13	superior conj	15604 Nov 03 14:08	28° \mathbb{M} 53'49	0°47'34
minimum elong	15603 Nov 20 09:57	14° \mathbb{X} 39'40	1°09'42	minimum elong	15604 Nov 03 11:59	28° \mathbb{M} 42'29	0°47'54
evening rise	15603 Nov 27 08:44	29° \mathbb{X} 49'30			15604 Nov 04 02:40	0° \mathbb{X}	
	15603 Nov 27 10:41	0° \mathbb{Z}		evening rise	15604 Nov 10 18:57	14° \mathbb{X} 14'38	
	15603 Dec 13 23:32	0° \approx			15604 Nov 18 16:05	0° \mathbb{Z}	
desc. node	15603 Dec 14 20:00	1° \approx 09'17		desc. node	15604 Nov 30 17:03	17° \mathbb{Z} 23'54	
evening max el	15603 Dec 20 17:45	7° \approx 56'11	23°26'37	evening max el	15604 Dec 01 06:09	17° \mathbb{Z} 56'43	21°45'16
retrograde	15604 Jan 03 02:10	14° \approx 33'02		retrograde	15604 Dec 13 13:47	24° \mathbb{Z} 02'09	
evening set	15604 Jan 07 13:21	13° \approx 49'50		evening set	15604 Dec 16 17:44	23° \mathbb{Z} 39'38	
min. Earth dist.	15604 Jan 14 04:34	10° \approx 41'19	0.55038 AU	inferior conj	15604 Dec 25 09:23	19° \mathbb{Z} 48'47	-5°55'57
inferior conj	15604 Jan 15 16:49	9° \approx 48'33	-5°51'04	minimum elong	15604 Dec 25 05:15	19° \mathbb{Z} 54'34	5°54'46
minimum elong	15604 Jan 15 21:50	9° \approx 41'15	5°49'50	min. Earth dist.	15604 Dec 25 10:07	19° \mathbb{Z} 47'46	0.54422 AU
morning rise	15604 Jan 24 07:48	5° \approx 56'01		morning rise	15605 Jan 02 17:27	16° \mathbb{Z} 00'53	
direct	15604 Jan 27 00:24	5° \approx 38'28		direct	15605 Jan 06 09:27	15° \mathbb{Z} 31'27	
morning max el	15604 Feb 07 01:48	10° \approx 58'38	20°31'34	morning max el	15605 Jan 18 21:40	21° \mathbb{Z} 34'32	22°07'45
asc. node	15604 Feb 08 08:03	12° \approx 15'39		asc. node	15605 Jan 25 05:22	28° \mathbb{Z} 59'25	
	15604 Feb 20 01:33	0° \mathbb{H}			15605 Jan 25 22:34	0° \approx	
morning set	15604 Feb 25 18:21	11° \mathbb{H} 19'57		morning set	15605 Feb 09 04:53	26° \approx 04'01	
					15605 Feb 11 01:20	0° \mathbb{H}	
superior conj	15604 Mar 04 07:25	26° \mathbb{H} 53'40	1°00'44	superior conj	15605 Feb 16 06:50	11° \mathbb{H} 09'10	1°19'19
minimum elong	15604 Mar 04 09:59	27° \mathbb{H} 06'44	1°00'29	minimum elong	15605 Feb 16 09:08	11° \mathbb{H} 21'17	1°19'24
	15604 Mar 05 20:23	0° \mathbb{Y}		max. Earth dist.	15605 Feb 20 06:40	19° \mathbb{H} 26'23	1.34223 AU
max. Earth dist.	15604 Mar 09 17:17	7° \mathbb{Y} 35'39	1.36166 AU	evening rise	15605 Feb 24 14:39	28° \mathbb{H} 01'21	
desc. node	15604 Mar 11 21:06	11° \mathbb{Y} 41'14			15605 Feb 25 15:28	0° \mathbb{Y}	
evening rise	15604 Mar 13 13:25	14° \mathbb{Y} 47'51		desc. node	15605 Feb 26 17:41	2° \mathbb{Y} 03'34	
	15604 Mar 22 07:41	0° \mathbb{B}			15605 Mar 15 13:38	0° \mathbb{B}	
	15604 Apr 12 08:24	0° \mathbb{I}		evening max el	15605 Mar 31 14:06	19° \mathbb{B} 52'04	26°56'30
evening max el	15604 Apr 18 00:10	6° \mathbb{I} 09'08	26°00'15	retrograde	15605 Apr 13 22:02	27° \mathbb{B} 20'40	
retrograde	15604 Apr 30 16:35	13° \mathbb{I} 25'54		evening set	15605 Apr 20 10:20	24° \mathbb{B} 48'44	
asc. node	15604 May 06 04:59	11° \mathbb{I} 24'28		asc. node	15605 Apr 23 02:15	22° \mathbb{B} 20'42	
evening set	15604 May 06 19:49	10° \mathbb{I} 55'05		min. Earth dist.	15605 Apr 24 09:12	20° \mathbb{B} 56'11	0.65891 AU
min. Earth dist.	15604 May 10 23:56	6° \mathbb{I} 28'33	0.67359 AU	inferior conj	15605 Apr 26 13:20	18° \mathbb{B} 25'22	1°03'11
inferior conj	15604 May 12 15:22	4° \mathbb{I} 25'02	1°51'00	minimum elong	15605 Apr 26 11:47	18° \mathbb{B} 29'52	1°02'03
minimum elong	15604 May 12 13:13	4° \mathbb{I} 31'45	1°49'36	morning rise	15605 May 02 14:38	12° \mathbb{B} 50'46	
	15604 May 16 13:10	30° \mathbb{R} \mathbb{B}		direct	15605 May 05 12:05	12° \mathbb{B} 05'04	
morning rise	15604 May 18 07:20	28° \mathbb{B} 38'14		morning max el	15605 May 11 19:59	15° \mathbb{B} 23'24	18°07'10
direct	15604 May 21 14:38	27° \mathbb{B} 36'02			15605 May 22 14:39	0° \mathbb{I}	
	15604 May 26 23:10	0° \mathbb{I}		desc. node	15605 May 25 19:11	5° \mathbb{I} 04'02	
morning max el	15604 May 28 05:52	1° \mathbb{I} 09'24	18°42'44	morning set	15605 May 30 16:58	12° \mathbb{I} 58'48	
desc. node	15604 Jun 07 22:15	15° \mathbb{I} 07'38			15605 Jun 10 08:17	0° \mathbb{B}	
	15604 Jun 17 14:12	0° \mathbb{B}		superior conj	15605 Jun 14 15:40	6° \mathbb{B} 46'57	-2°00'48
morning set	15604 Jun 19 02:52	2° \mathbb{B} 22'52		minimum elong	15605 Jun 14 08:02	6° \mathbb{B} 17'01	2°01'11
max. Earth dist.	15604 Jul 04 03:16	25° \mathbb{B} 47'19	1.45867 AU	max. Earth dist.	15605 Jun 16 23:53	10° \mathbb{B} 26'54	1.45904 AU
superior conj	15604 Jul 05 05:55	27° \mathbb{B} 31'22	-2°13'54		15605 Jun 29 14:14	0° \mathbb{Q}	
minimum elong	15604 Jul 05 04:48	27° \mathbb{B} 26'58	2°14'43	evening rise	15605 Jun 30 18:38	1° \mathbb{Q} 49'44	
	15604 Jul 06 19:57	0° \mathbb{Q}		greatest brilliancy	15605 Jul 12 19:03	20° \mathbb{Q} 12'40	-0.7m
evening rise	15604 Jul 20 17:25	21° \mathbb{Q} 57'23			15605 Jul 19 15:47	0° \mathbb{M}	
	15604 Jul 25 18:19	0° \mathbb{M}		asc. node	15605 Jul 20 01:16	0° \mathbb{M} 31'11	
greatest brilliancy	15604 Jul 26 23:33	1° \mathbb{M} 56'13	-0.9m	evening max el	15605 Jul 24 19:14	6° \mathbb{M} 04'08	19°15'26
asc. node	15604 Aug 02 04:32	11° \mathbb{M} 34'30		retrograde	15605 Jul 31 18:44	9° \mathbb{M} 55'55	
evening max el	15604 Aug 10 09:53	22° \mathbb{M} 13'58	18°33'45	evening set	15605 Aug 04 08:38	8° \mathbb{M} 41'36	
retrograde	15604 Aug 16 21:46	25° \mathbb{M} 43'48		inferior conj	15605 Aug 09 18:49	2° \mathbb{M} 51'19	2°51'55
evening set	15604 Aug 20 02:00	24° \mathbb{M} 46'43		minimum elong	15605 Aug 09 20:27	2° \mathbb{M} 46'00	2°51'11
inferior conj	15604 Aug 25 18:55	19° \mathbb{M} 10'10	2°24'07				

min. Earth dist.	15605 Aug 11 05:04	0° \mathbb{M} 59'49	0.67123 AU	asc. node	15606 Jul 06 22:05	18° Ω 52'43	
	15605 Aug 11 23:58	30° \mathbb{R} Ω		evening max el	15606 Jul 07 22:52	19° Ω 56'51	20°12'36
morning rise	15605 Aug 15 07:37	26° Ω 25'07		retrograde	15606 Jul 15 17:39	24° Ω 22'31	
direct	15605 Aug 21 08:05	23° Ω 49'46		evening set	15606 Jul 19 17:48	22° Ω 50'30	
desc. node	15605 Aug 21 17:18	23° Ω 50'20		inferior conj	15606 Jul 25 00:18	16° Ω 47'54	3°06'15
	15605 Sep 01 12:31	0° \mathbb{M}		minimum elong	15606 Jul 25 01:02	16° Ω 45'24	3°05'33
morning max el	15605 Sep 02 19:45	1° \mathbb{M} 16'39	25°47'13	min. Earth dist.	15606 Jul 25 20:37	15° Ω 38'36	0.68262 AU
	15605 Sep 24 12:01	0° $\underline{\Omega}$		morning rise	15606 Jul 30 07:55	10° Ω 24'01	
morning set	15605 Oct 08 18:35	24° $\underline{\Omega}$ 04'30		direct	15606 Aug 04 21:10	7° Ω 58'25	
	15605 Oct 11 22:56	0° \mathbb{M}		desc. node	15606 Aug 08 14:41	8° Ω 52'42	
max. Earth dist.	15605 Oct 12 10:03	0° \mathbb{M} 52'53	1.35616 AU	morning max el	15606 Aug 16 06:39	14° Ω 47'28	24°22'38
asc. node	15605 Oct 16 02:53	8° \mathbb{M} 04'47			15606 Aug 28 17:38	0° \mathbb{M}	
					15606 Sep 17 09:14	0° $\underline{\Omega}$	
superior conj	15605 Oct 18 07:53	12° \mathbb{M} 30'11	0°20'06	morning set	15606 Sep 20 18:40	5° $\underline{\Omega}$ 46'58	
minimum elong	15605 Oct 18 06:44	12° \mathbb{M} 24'19	0°20'23	max. Earth dist.	15606 Sep 24 09:30	12° $\underline{\Omega}$ 10'01	1.37903 AU
evening rise	15605 Oct 26 02:30	28° \mathbb{M} 31'16					
	15605 Oct 26 19:45	0° \mathbb{M}		superior conj	15606 Oct 01 14:16	25° $\underline{\Omega}$ 33'59	-0°12'30
evening max el	15605 Nov 13 05:44	28° \mathbb{M} 28'50	20°18'08	minimum elong	15606 Oct 01 15:05	25° $\underline{\Omega}$ 37'58	0°12'03
	15605 Nov 14 21:16	0° \mathbb{Z}		behind sun begin	15606 Oct 01 10:30	25° $\underline{\Omega}$ 15'56	
desc. node	15605 Nov 17 14:11	1° \mathbb{Z} 57'15		behind sun end	15606 Oct 01 19:40	26° $\underline{\Omega}$ 00'03	
retrograde	15605 Nov 24 00:54	3° \mathbb{Z} 51'25		asc. node	15606 Oct 02 23:32	28° $\underline{\Omega}$ 14'57	
evening set	15605 Nov 26 06:13	3° \mathbb{Z} 38'49			15606 Oct 03 21:04	0° \mathbb{M}	
	15605 Dec 04 14:44	30° \mathbb{R} \mathbb{M}		evening rise	15606 Oct 10 05:01	12° \mathbb{M} 33'53	
inferior conj	15605 Dec 05 02:16	29° \mathbb{M} 42'59	-5°00'29		15606 Oct 19 12:47	0° \mathbb{M}	
minimum elong	15605 Dec 04 16:25	29° \mathbb{M} 57'31	4°57'12	evening max el	15606 Oct 26 19:49	9° \mathbb{M} 50'17	19°12'20
min. Earth dist.	15605 Dec 06 16:01	28° \mathbb{M} 47'17	0.54740 AU	desc. node	15606 Nov 04 11:24	14° \mathbb{M} 26'24	
morning rise	15605 Dec 13 02:03	25° \mathbb{M} 41'05		retrograde	15606 Nov 05 00:22	14° \mathbb{M} 27'19	
direct	15605 Dec 17 19:00	24° \mathbb{M} 53'18		evening set	15606 Nov 06 21:33	14° \mathbb{M} 16'31	
	15605 Dec 29 14:21	0° \mathbb{Z}		inferior conj	15606 Nov 15 09:19	10° \mathbb{M} 05'02	-3°25'02
morning max el	15605 Dec 31 07:39	1° \mathbb{Z} 32'28	23°56'56	minimum elong	15606 Nov 15 00:56	10° \mathbb{M} 19'08	3°21'14
asc. node	15606 Jan 12 02:38	16° \mathbb{Z} 44'45		min. Earth dist.	15606 Nov 18 01:59	8° \mathbb{M} 16'45	0.55938 AU
	15606 Jan 19 11:27	0° \approx		morning rise	15606 Nov 23 01:51	5° \mathbb{M} 31'28	
morning set	15606 Jan 24 16:48	10° \approx 47'42		direct	15606 Nov 28 15:37	4° \mathbb{M} 19'58	
				morning max el	15606 Dec 12 17:23	11° \mathbb{M} 28'47	25°41'58
superior conj	15606 Jan 31 12:27	25° \approx 39'05	1°31'27		15606 Dec 26 21:31	0° \mathbb{Z}	
minimum elong	15606 Jan 31 13:58	25° \approx 47'22	1°31'54	asc. node	15606 Dec 29 23:48	5° \mathbb{Z} 16'27	
	15606 Feb 02 12:43	0° \mathbb{X}		morning set	15607 Jan 09 04:18	25° \mathbb{Z} 26'03	
max. Earth dist.	15606 Feb 03 03:40	1° \mathbb{X} 20'02	1.32685 AU		15607 Jan 11 06:38	0° \approx	
evening rise	15606 Feb 08 03:29	11° \mathbb{X} 41'56		superior conj	15607 Jan 15 21:56	10° \approx 17'03	1°37'22
desc. node	15606 Feb 13 14:17	22° \mathbb{X} 13'38		minimum elong	15607 Jan 15 22:27	10° \approx 19'51	1°38'04
	15606 Feb 17 22:35	0° \mathbb{Y}		max. Earth dist.	15607 Jan 17 07:10	13° \approx 20'57	1.31627 AU
	15606 Mar 10 23:58	0° \mathbb{Z}		evening rise	15607 Jan 23 01:06	25° \approx 42'52	
evening max el	15606 Mar 14 03:01	3° \mathbb{Z} 13'08	27°29'42		15607 Jan 25 03:17	0° \mathbb{X}	
retrograde	15606 Mar 27 20:45	10° \mathbb{Z} 43'51		desc. node	15607 Jan 31 10:56	12° \mathbb{X} 06'08	
evening set	15606 Apr 03 15:12	8° \mathbb{Z} 17'17			15607 Feb 11 10:07	0° \mathbb{Y}	
min. Earth dist.	15606 Apr 07 10:25	4° \mathbb{Z} 55'27	0.64051 AU	evening max el	15607 Feb 24 12:55	16° \mathbb{Y} 00'17	27°33'16
asc. node	15606 Apr 09 23:36	2° \mathbb{Z} 15'22		retrograde	15607 Mar 10 11:53	23° \mathbb{Y} 26'13	
inferior conj	15606 Apr 10 02:27	2° \mathbb{Z} 07'53	0°02'15	evening set	15607 Mar 17 07:52	21° \mathbb{Y} 12'26	
minimum elong	15606 Apr 10 02:23	2° \mathbb{Z} 08'02	0°01'51	min. Earth dist.	15607 Mar 21 02:09	18° \mathbb{Y} 15'28	0.61932 AU
transit middle	15606 Apr 10 02:23	2° \mathbb{Z} 08'02	0°01'51	inferior conj	15607 Mar 24 03:32	15° \mathbb{Y} 24'55	-1°12'01
transit begin	15606 Apr 09 23:17	2° \mathbb{Z} 16'11		minimum elong	15607 Mar 24 06:02	15° \mathbb{Y} 19'04	1°11'08
transit end	15606 Apr 10 05:29	1° \mathbb{Z} 59'54		asc. node	15607 Mar 27 20:59	12° \mathbb{Y} 13'36	
	15606 Apr 12 04:55	30° \mathbb{R} \mathbb{Y}		morning rise	15607 Mar 31 07:19	10° \mathbb{Y} 22'20	
morning rise	15606 Apr 16 15:50	26° \mathbb{Y} 47'57		direct	15607 Apr 02 12:35	10° \mathbb{Y} 00'23	
direct	15606 Apr 19 04:31	26° \mathbb{Y} 15'48		morning max el	15607 Apr 09 06:35	13° \mathbb{Y} 24'39	17°48'06
morning max el	15606 Apr 25 13:13	29° \mathbb{Y} 31'16	17°48'48		15607 Apr 20 15:45	0° \mathbb{Z}	
	15606 Apr 26 00:44	0° \mathbb{Z}		morning set	15607 Apr 25 02:05	7° \mathbb{Z} 48'20	
morning set	15606 May 12 10:14	24° \mathbb{Z} 52'01		desc. node	15607 Apr 29 12:42	15° \mathbb{Z} 39'37	
desc. node	15606 May 12 15:59	25° \mathbb{Z} 16'19					
	15606 May 15 11:18	0° \mathbb{I}		superior conj	15607 May 06 12:15	27° \mathbb{Z} 41'20	-0°54'19
superior conj	15606 May 25 14:42	16° \mathbb{I} 42'41	-1°31'34	minimum elong	15607 May 06 07:11	27° \mathbb{Z} 20'00	0°54'15
minimum elong	15606 May 25 06:23	16° \mathbb{I} 09'07	1°31'28		15607 May 07 21:16	0° \mathbb{I}	
max. Earth dist.	15606 May 30 19:37	25° \mathbb{I} 01'00	1.45189 AU	max. Earth dist.	15607 May 13 11:50	9° \mathbb{I} 12'53	1.43810 AU
	15606 Jun 02 23:46	0° \mathbb{S}		evening rise	15607 May 20 20:26	20° \mathbb{I} 51'43	
evening rise	15606 Jun 10 06:10	11° \mathbb{S} 13'42			15607 May 26 19:48	0° \mathbb{S}	
	15606 Jun 22 18:09	0° Ω			15607 Jun 17 08:38	0° Ω	

evening max el	15607 Jun 20 20:28	3°Ω49'29	21°22'39		15608 May 19 06:09	0°☿	
asc. node	15607 Jun 23 18:58	6°Ω26'52		evening max el	15608 Jun 02 13:23	17°☿43'04	22°41'16
retrograde	15607 Jun 29 16:29	8°Ω57'25		asc. node	15608 Jun 09 15:58	22°☿58'48	
evening set	15607 Jul 04 03:28	7°Ω08'18		retrograde	15608 Jun 12 13:36	23°☿35'29	
inferior conj	15607 Jul 09 09:01	0°Ω54'53	3°08'52	evening set	15608 Jun 17 11:58	21°☿30'43	
minimum elong	15607 Jul 09 08:47	0°Ω55'43	3°08'04	inferior conj	15608 Jun 22 18:58	15°☿08'30	3°00'45
min. Earth dist.	15607 Jul 09 15:55	0°Ω30'50	0.68925 AU	minimum elong	15608 Jun 22 17:50	15°☿12'26	2°59'45
	15607 Jul 10 00:47	30°☿☿		min. Earth dist.	15608 Jun 22 12:50	15°☿29'49	0.69107 AU
morning rise	15607 Jul 14 13:52	24°☿36'16		morning rise	15608 Jun 27 23:33	8°☿57'06	
direct	15607 Jul 19 14:59	22°☿25'36		direct	15608 Jul 02 12:24	7°☿04'42	
desc. node	15607 Jul 26 12:00	25°☿28'37		morning max el	15608 Jul 11 09:15	12°☿13'25	21°27'39
morning max el	15607 Jul 29 18:16	28°☿26'12	22°53'17	desc. node	15608 Jul 12 09:15	13°☿15'07	
	15607 Jul 31 06:11	0°Ω			15608 Jul 25 10:38	0°Ω	
	15607 Aug 22 09:36	0°☿		morning set	15608 Aug 11 22:29	26°Ω16'19	
morning set	15607 Sep 01 20:36	16°☿32'13			15608 Aug 14 06:54	0°☿	
max. Earth dist.	15607 Sep 06 08:42	24°☿04'48	1.40303 AU	max. Earth dist.	15608 Aug 18 12:58	6°☿52'42	1.42533 AU
	15607 Sep 09 18:49	0°Ω					
superior conj	15607 Sep 14 05:11	7°Ω55'27	-0°48'27	superior conj	15608 Aug 26 00:20	19°☿25'25	-1°24'24
minimum elong	15607 Sep 14 08:56	8°Ω12'29	0°47'47	minimum elong	15608 Aug 26 07:05	19°☿54'27	1°23'45
asc. node	15607 Sep 19 20:09	18°Ω22'14		asc. node	15608 Sep 01 01:04	0°Ω	
evening rise	15607 Sep 23 23:25	26°Ω14'06		evening rise	15608 Sep 05 16:47	8°Ω23'17	
	15607 Sep 25 22:59	0°☿			15608 Sep 06 05:48	9°Ω22'16	
evening max el	15607 Oct 09 22:10	21°☿59'32	18°28'43	evening max el	15608 Sep 18 09:42	0°☿	
retrograde	15607 Oct 17 18:25	25°☿58'10		retrograde	15608 Sep 22 08:36	4°☿47'50	18°05'57
evening set	15607 Oct 19 17:47	25°☿43'48		evening set	15608 Sep 29 06:47	8°☿20'48	
desc. node	15607 Oct 22 08:43	24°☿44'06		desc. node	15608 Oct 01 12:51	7°☿58'35	
inferior conj	15607 Oct 27 13:26	21°☿11'52	-1°40'12	inferior conj	15608 Oct 08 06:04	3°☿25'34	
minimum elong	15607 Oct 27 09:29	21°☿19'36	1°37'59	minimum elong	15608 Oct 08 14:51	3°☿05'38	-0°06'55
min. Earth dist.	15607 Oct 30 18:40	18°☿41'16	0.57805 AU	transit middle	15608 Oct 08 14:38	3°☿06'08	0°06'27
morning rise	15607 Nov 03 21:43	16°☿01'03		transit begin	15608 Oct 08 11:33	3°☿13'07	
direct	15607 Nov 10 02:58	14°☿22'28		transit end	15608 Oct 08 17:42	2°☿59'08	
morning max el	15607 Nov 24 09:31	21°☿54'44	27°03'54	min. Earth dist.	15608 Oct 11 19:57	0°☿11'10	0.60034 AU
	15607 Dec 01 12:38	0°☿			15608 Oct 12 01:08	30°☿Ω	
asc. node	15607 Dec 16 20:53	24°☿22'01		morning rise	15608 Oct 15 13:10	27°Ω22'29	
	15607 Dec 19 18:47	0°☿		direct	15608 Oct 22 03:20	25°Ω18'26	
morning set	15607 Dec 24 13:36	9°☿53'39			15608 Nov 01 22:00	0°☿	
				morning max el	15608 Nov 05 09:37	3°☿07'06	27°50'09
superior conj	15607 Dec 31 09:14	24°☿56'33	1°37'13		15608 Nov 25 03:09	0°☿	
minimum elong	15607 Dec 31 08:41	24°☿53'26	1°38'02	asc. node	15608 Dec 02 17:53	13°☿52'40	
max. Earth dist.	15607 Dec 31 14:18	25°☿24'52	1.31088 AU	morning set	15608 Dec 07 18:50	24°☿06'15	
	15608 Jan 02 15:34	0°☿			15608 Dec 10 12:53	0°☿	
evening rise	15608 Jan 07 05:01	9°☿57'43		max. Earth dist.	15608 Dec 13 21:40	7°☿25'18	1.31097 AU
	15608 Jan 17 10:23	0°☿					
desc. node	15608 Jan 18 07:41	1°☿33'34		superior conj	15608 Dec 14 20:29	9°☿32'32	1°31'05
evening max el	15608 Feb 06 17:26	28°☿02'04	27°02'45	minimum elong	15608 Dec 14 18:59	9°☿24'12	1°31'50
	15608 Feb 08 22:17	0°☿		evening rise	15608 Dec 21 13:08	24°☿21'43	
retrograde	15608 Feb 20 18:07	5°☿18'21			15608 Dec 24 04:57	0°☿	
evening set	15608 Feb 27 09:12	3°☿25'06		desc. node	15609 Jan 04 04:30	20°☿26'30	
min. Earth dist.	15608 Mar 02 07:44	0°☿43'49	0.59683 AU		15609 Jan 10 14:44	0°☿	
	15608 Mar 03 05:47	30°☿☿		evening max el	15609 Jan 18 14:18	9°☿11'34	25°57'46
inferior conj	15608 Mar 05 12:57	28°☿06'59	-2°37'30	retrograde	15609 Feb 01 13:06	16°☿14'54	
minimum elong	15608 Mar 05 18:53	27°☿54'53	2°35'07	evening set	15609 Feb 07 15:25	14°☿47'55	
morning rise	15608 Mar 13 08:04	23°☿24'17		min. Earth dist.	15609 Feb 12 03:25	12°☿09'44	0.57537 AU
asc. node	15608 Mar 13 18:22	23°☿18'28		inferior conj	15609 Feb 15 03:05	10°☿03'45	-4°06'45
direct	15608 Mar 15 08:19	23°☿08'53		minimum elong	15609 Feb 15 11:59	9°☿48'03	4°03'34
morning max el	15608 Mar 22 20:35	26°☿53'15	18°06'12	morning rise	15609 Feb 23 11:36	5°☿42'25	
	15608 Mar 25 14:30	0°☿		direct	15609 Feb 25 11:27	5°☿29'45	
morning set	15608 Apr 07 10:41	21°☿30'42		asc. node	15609 Feb 28 15:47	6°☿03'45	
	15608 Apr 12 00:22	0°☿		morning max el	15609 Mar 06 03:08	9°☿44'50	18°44'49
desc. node	15608 Apr 15 09:24	6°☿09'56			15609 Mar 19 07:39	0°☿	
				morning set	15609 Mar 22 06:55	5°☿43'20	
superior conj	15608 Apr 17 09:01	9°☿43'21	-0°16'15				
minimum elong	15608 Apr 17 07:39	9°☿37'19	0°16'30	superior conj	15609 Mar 31 01:20	22°☿37'37	0°18'16
max. Earth dist.	15608 Apr 24 23:21	22°☿50'11	1.41914 AU	minimum elong	15609 Mar 31 02:32	22°☿43'12	0°17'49
	15608 Apr 29 07:52	0°☿		desc. node	15609 Apr 02 06:03	26°☿42'50	
evening rise	15608 Apr 30 02:54	1°☿16'43			15609 Apr 04 01:13	0°☿	

max. Earth dist.	15609 Apr 07 07:03	5°♄46'47	1.39705 AU	evening rise	15610 Mar 24 06:18	24°♄48'26	
evening rise	15609 Apr 11 06:29	12°♄37'08			15610 Mar 27 05:36	0°♄	
	15609 Apr 22 02:47	0°♄			15610 Apr 15 17:48	0°♄	
	15609 May 14 13:32	0°♄		evening max el	15610 Apr 28 17:12	15°♄32'27	25°20'14
evening max el	15609 May 16 03:41	1°♄38'01	24°02'46	retrograde	15610 May 10 21:31	22°♄36'03	
retrograde	15609 May 27 07:37	8°♄10'29		asc. node	15610 May 14 10:12	21°♄44'26	
asc. node	15609 May 27 13:03	8°♄10'15		evening set	15610 May 16 18:55	20°♄08'21	
evening set	15609 Jun 01 17:41	5°♄52'28		min. Earth dist.	15610 May 21 02:42	15°♄21'36	0.68023 AU
min. Earth dist.	15609 Jun 06 09:08	0°♄28'54	0.68804 AU	inferior conj	15610 May 22 10:44	13°♄37'41	2°12'59
	15609 Jun 06 17:39	30°♄		minimum elong	15610 May 22 08:35	13°♄44'42	2°11'36
inferior conj	15609 Jun 07 04:11	29°♄24'10	2°42'13	morning rise	15610 May 27 22:38	7°♄44'51	
minimum elong	15609 Jun 07 02:22	29°♄30'21	2°41'00	direct	15610 May 31 12:08	6°♄32'01	
morning rise	15609 Jun 12 11:06	23°♄21'26		morning max el	15610 Jun 07 11:01	10°♄19'15	19°10'48
direct	15609 Jun 16 11:58	21°♄48'53		desc. node	15610 Jun 16 03:32	21°♄09'34	
morning max el	15609 Jun 24 06:26	26°♄11'10	20°12'09	greatest brilliancy	15610 Jun 20 07:15	27°♄13'21	-0.7m
	15609 Jun 27 17:36	0°♄			15610 Jun 22 03:45	0°♄	
desc. node	15609 Jun 29 06:26	1°♄53'21		morning set	15610 Jul 01 11:00	14°♄12'38	
	15609 Jul 18 19:34	0°♄			15610 Jul 11 15:39	0°♄	
morning set	15609 Jul 22 05:47	5°♄14'29		max. Earth dist.	15610 Jul 14 17:18	4°♄47'49	1.45516 AU
max. Earth dist.	15609 Aug 01 00:20	20°♄31'53	1.44334 AU				
				superior conj	15610 Jul 17 18:02	9°♄33'50	-2°12'17
superior conj	15609 Aug 06 20:16	29°♄56'33	-1°54'47	minimum elong	15610 Jul 17 21:23	9°♄47'02	2°12'55
minimum elong	15609 Aug 07 03:51	0°♄27'34	1°54'41		15610 Jul 30 11:33	0°♄	
	15609 Aug 06 21:07	0°♄		evening rise	15610 Aug 01 10:31	3°♄11'56	
evening rise	15609 Aug 19 19:13	21°♄45'40		asc. node	15610 Aug 10 10:05	17°♄48'14	
asc. node	15609 Aug 23 13:26	28°♄13'36			15610 Aug 19 00:14	0°♄	
	15609 Aug 24 14:21	0°♄		evening max el	15610 Aug 20 13:25	1°♄39'32	18°17'14
evening max el	15609 Sep 05 22:54	18°♄04'22	18°02'30	retrograde	15610 Aug 26 22:24	5°♄02'43	
retrograde	15609 Sep 12 09:36	21°♄25'40		evening set	15610 Aug 29 21:19	4°♄14'49	
evening set	15609 Sep 14 23:50	20°♄52'00			15610 Sep 03 17:49	30°♄	
inferior conj	15609 Sep 21 10:16	15°♄40'04	1°06'56	inferior conj	15610 Sep 04 19:35	28°♄46'25	2°01'03
minimum elong	15609 Sep 21 12:03	15°♄35'26	1°06'28	minimum elong	15610 Sep 04 21:57	28°♄39'35	2°00'16
min. Earth dist.	15609 Sep 24 07:00	12°♄42'30	0.62320 AU	min. Earth dist.	15610 Sep 07 03:53	26°♄04'05	0.64445 AU
desc. node	15609 Sep 25 03:28	11°♄52'46		morning rise	15610 Sep 10 20:59	22°♄26'11	
morning rise	15609 Sep 27 21:50	9°♄33'38		desc. node	15610 Sep 12 00:55	21°♄35'27	
direct	15609 Oct 04 14:14	7°♄10'08		direct	15610 Sep 17 10:09	19°♄51'12	
morning max el	15609 Oct 18 16:15	15°♄07'55	27°57'12	morning max el	15610 Oct 01 02:40	27°♄48'27	27°28'05
	15609 Oct 30 19:43	0°♄			15610 Oct 03 04:55	0°♄	
	15609 Nov 17 17:38	0°♄			15610 Oct 24 13:39	0°♄	
asc. node	15609 Nov 19 14:50	3°♄41'25		morning set	15610 Nov 05 08:15	21°♄25'34	
morning set	15609 Nov 21 17:55	7°♄59'11		asc. node	15610 Nov 06 11:39	23°♄41'36	
max. Earth dist.	15609 Nov 27 01:34	19°♄14'13	1.31662 AU		15610 Nov 09 13:51	0°♄	
				max. Earth dist.	15610 Nov 09 22:08	0°♄43'02	1.32785 AU
superior conj	15609 Nov 29 05:46	24°♄00'02	1°18'57				
minimum elong	15609 Nov 29 03:37	23°♄48'11	1°19'33	superior conj	15610 Nov 13 10:57	8°♄12'23	1°00'46
	15609 Dec 01 22:53	0°♄		minimum elong	15610 Nov 13 08:37	7°♄59'49	1°01'10
evening rise	15609 Dec 05 23:34	8°♄50'25		evening rise	15610 Nov 20 10:23	23°♄18'02	
	15609 Dec 16 17:07	0°♄			15610 Nov 23 14:51	0°♄	
desc. node	15609 Dec 22 01:24	8°♄32'33		desc. node	15610 Dec 08 22:23	25°♄33'52	
evening max el	15609 Dec 31 03:06	19°♄33'10	24°25'47	evening max el	15610 Dec 12 12:36	29°♄29'17	22°42'30
retrograde	15610 Jan 13 18:52	26°♄21'16			15610 Dec 13 01:30	0°♄	
evening set	15610 Jan 18 23:14	25°♄22'25		retrograde	15610 Dec 25 12:06	5°♄54'59	
min. Earth dist.	15610 Jan 24 14:50	22°♄30'51	0.55772 AU	evening set	15610 Dec 29 10:00	5°♄21'34	
inferior conj	15610 Jan 26 20:06	21°♄08'58	-5°22'57	min. Earth dist.	15611 Jan 05 21:17	1°♄56'51	0.54664 AU
minimum elong	15610 Jan 27 04:24	20°♄56'12	5°20'44	inferior conj	15611 Jan 06 18:49	1°♄26'24	-6°00'39
morning rise	15610 Feb 04 11:33	17°♄07'58		minimum elong	15611 Jan 06 20:10	1°♄24'29	5°59'50
direct	15610 Feb 06 19:11	16°♄53'44			15611 Jan 09 09:24	30°♄	
asc. node	15610 Feb 15 13:10	20°♄33'28		morning rise	15611 Jan 15 07:35	27°♄38'13	
morning max el	15610 Feb 16 22:06	21°♄48'08	19°45'56	direct	15611 Jan 18 09:17	27°♄16'37	
	15610 Feb 23 10:15	0°♄			15611 Jan 26 12:39	0°♄	
morning set	15610 Mar 06 10:54	20°♄14'51		morning max el	15611 Jan 30 02:22	2°♄54'59	21°10'14
	15610 Mar 11 06:20	0°♄		asc. node	15611 Feb 02 10:32	6°♄33'15	
					15611 Feb 16 10:12	0°♄	
superior conj	15610 Mar 14 08:48	6°♄12'11	0°47'04	morning set	15611 Feb 18 19:40	4°♄55'53	
minimum elong	15610 Mar 14 11:12	6°♄23'58	0°46'40				
desc. node	15610 Mar 20 02:41	17°♄14'50		superior conj	15611 Feb 26 03:21	20°♄15'14	1°09'25
max. Earth dist.	15610 Mar 20 13:36	18°♄05'36	1.37421 AU	minimum elong	15611 Feb 26 05:53	20°♄28'20	1°09'17

	15611 Mar 02 23:09	0°♿		minimum elong	15612 Feb 10 07:43	4°♿48'33	1°25'29
max. Earth dist.	15611 Mar 02 23:01	29°♿59'21	1.35292 AU	max. Earth dist.	15612 Feb 13 15:14	11°♿48'18	1.33507 AU
evening rise	15611 Mar 06 23:12	7°♿41'14		evening rise	15612 Feb 18 05:42	21°♿07'01	
desc. node	15611 Mar 06 23:17	7°♿41'39		desc. node	15612 Feb 21 19:52	27°♿59'20	
	15611 Mar 19 22:20	0°♿			15612 Feb 22 21:58	0°♿	
evening max el	15611 Apr 11 06:46	29°♿20'57	26°26'28		15612 Mar 12 19:15	0°♿	
	15611 Apr 11 23:01	0°♿		evening max el	15612 Mar 23 20:17	12°♿55'22	27°13'55
retrograde	15611 Apr 24 06:25	6°♿44'30		retrograde	15612 Apr 06 09:22	20°♿26'55	
evening set	15611 Apr 30 13:55	4°♿12'07		evening set	15612 Apr 13 00:38	17°♿56'14	
asc. node	15611 May 01 07:26	3°♿34'26		min. Earth dist.	15612 Apr 16 21:36	14°♿17'16	0.65139 AU
min. Earth dist.	15611 May 04 15:30	0°♿00'40	0.66784 AU	asc. node	15612 Apr 17 04:44	13°♿57'52	
	15611 May 04 15:43	30°♿♿		inferior conj	15612 Apr 19 07:02	11°♿37'33	0°38'59
inferior conj	15611 May 06 12:30	27°♿44'07	1°32'16	minimum elong	15612 Apr 19 06:00	11°♿40'27	0°38'05
minimum elong	15611 May 06 10:31	27°♿50'09	1°30'55	morning rise	15612 Apr 25 13:10	6°♿09'00	
morning rise	15611 May 12 08:07	22°♿02'35		direct	15612 Apr 28 06:36	5°♿29'36	
direct	15611 May 15 11:04	21°♿07'50		morning max el	15612 May 04 14:03	8°♿45'39	17°57'15
morning max el	15611 May 21 22:15	24°♿33'11	18°25'35		15612 May 19 07:25	0°♿	
	15611 May 26 13:52	0°♿		desc. node	15612 May 19 21:24	0°♿57'26	
desc. node	15611 Jun 03 00:31	10°♿53'35		morning set	15612 May 22 11:37	5°♿13'17	
morning set	15611 Jun 11 09:45	24°♿03'55					
	15611 Jun 15 04:00	0°♿		superior conj	15612 Jun 05 17:11	28°♿14'07	-1°49'56
superior conj	15611 Jun 27 03:29	18°♿45'27	-2°10'44	minimum elong	15612 Jun 05 08:31	27°♿39'51	1°50'04
minimum elong	15611 Jun 26 23:05	18°♿28'15	2°11'27		15612 Jun 06 19:59	0°♿	
max. Earth dist.	15611 Jun 27 13:02	19°♿22'39	1.45971 AU	max. Earth dist.	15612 Jun 09 09:02	3°♿59'56	1.45678 AU
	15611 Jul 04 08:31	0°♿		evening rise	15612 Jun 21 18:21	23°♿10'55	
evening rise	15611 Jul 13 00:50	13°♿35'54			15612 Jun 26 05:22	0°♿	
greatest brilliancy	15611 Jul 22 03:37	27°♿51'40	-0.8m	greatest brilliancy	15612 Jul 05 15:05	14°♿06'47	-0.6m
	15611 Jul 23 13:02	0°♿		asc. node	15612 Jul 14 03:33	25°♿44'54	
asc. node	15611 Jul 28 06:47	7°♿01'30		evening max el	15612 Jul 17 08:22	29°♿18'31	19°38'00
evening max el	15611 Aug 04 01:19	15°♿26'27	18°49'24		15612 Jul 18 01:37	0°♿	
retrograde	15611 Aug 10 17:18	19°♿04'30		retrograde	15612 Jul 24 15:23	3°♿23'36	
evening set	15611 Aug 14 01:29	18°♿00'20		evening set	15612 Jul 28 09:28	2°♿02'00	
inferior conj	15611 Aug 19 15:08	12°♿17'39	2°37'40		15612 Jul 30 14:41	30°♿♿	
minimum elong	15611 Aug 19 17:10	12°♿11'13	2°36'54	inferior conj	15612 Aug 02 17:44	26°♿06'29	2°59'30
min. Earth dist.	15611 Aug 21 09:34	10°♿04'29	0.66257 AU	minimum elong	15612 Aug 02 19:01	26°♿02'15	2°58'47
morning rise	15611 Aug 25 07:56	5°♿51'38		min. Earth dist.	15612 Aug 03 22:06	24°♿32'01	0.67663 AU
desc. node	15611 Aug 29 22:20	3°♿24'14		morning rise	15612 Aug 08 04:02	19°♿40'39	
direct	15611 Aug 31 13:49	3°♿13'54		direct	15612 Aug 13 23:59	17°♿08'23	
morning max el	15611 Sep 13 14:14	10°♿57'04	26°30'03	desc. node	15612 Aug 15 19:45	17°♿21'22	
	15611 Sep 28 18:28	0°♿		morning max el	15612 Aug 26 01:12	24°♿21'24	25°12'19
	15611 Oct 17 02:59	0°♿			15612 Aug 31 03:01	0°♿	
morning set	15611 Oct 19 10:49	4°♿19'05		morning set	15612 Sep 21 04:24	0°♿	
max. Earth dist.	15611 Oct 23 08:54	11°♿52'35	1.34447 AU	max. Earth dist.	15612 Sep 30 21:46	16°♿30'18	
asc. node	15611 Oct 24 08:24	13°♿49'06			15612 Oct 04 10:41	22°♿57'09	1.36560 AU
				asc. node	15612 Oct 08 03:58	0°♿	
superior conj	15611 Oct 28 09:43	22°♿04'20	0°36'36		15612 Oct 10 05:06	3°♿59'26	
minimum elong	15611 Oct 28 07:52	21°♿54'46	0°36'53	superior conj	15612 Oct 10 23:05	5°♿28'16	0°06'50
	15611 Nov 01 04:28	0°♿		minimum elong	15612 Oct 10 22:39	5°♿26'04	0°07'11
evening rise	15611 Nov 04 19:44	7°♿40'28		behind sun begin	15612 Oct 10 16:51	4°♿57'25	
	15611 Nov 16 15:56	0°♿		behind sun end	15612 Oct 11 04:26	5°♿54'47	
evening max el	15611 Nov 24 04:47	9°♿39'32	21°05'49	evening rise	15612 Oct 19 01:27	21°♿51'58	
desc. node	15611 Nov 25 19:26	11°♿08'40			15612 Oct 23 03:07	0°♿	
retrograde	15611 Dec 05 22:19	15°♿28'19		evening max el	15612 Nov 05 10:41	20°♿32'39	19°47'24
evening set	15611 Dec 08 14:38	15°♿11'25		desc. node	15612 Nov 11 16:35	24°♿51'50	
inferior conj	15611 Dec 17 09:38	11°♿19'55	-5°39'10	retrograde	15612 Nov 15 13:01	25°♿34'58	
minimum elong	15611 Dec 17 02:11	11°♿30'29	5°37'08	evening set	15612 Nov 17 13:10	25°♿23'58	
min. Earth dist.	15611 Dec 18 02:48	10°♿55'35	0.54439 AU	inferior conj	15612 Nov 26 07:11	21°♿22'57	-4°23'00
morning rise	15611 Dec 25 13:58	7°♿28'14		minimum elong	15612 Nov 25 21:14	21°♿38'20	4°19'08
direct	15611 Dec 29 16:34	6°♿51'52		min. Earth dist.	15612 Nov 28 10:18	20°♿03'53	0.55156 AU
morning max el	15612 Jan 11 17:11	13°♿11'50	22°53'29	morning rise	15612 Dec 04 03:49	17°♿08'58	
asc. node	15612 Jan 20 07:49	23°♿45'09		direct	15612 Dec 09 06:29	16°♿11'20	
	15612 Jan 24 05:12	0°♿		morning max el	15612 Dec 23 01:48	23°♿04'27	24°43'14
morning set	15612 Feb 03 06:59	19°♿40'07			15612 Dec 29 05:51	0°♿	
	15612 Feb 08 02:05	0°♿		asc. node	15613 Jan 06 05:02	11°♿52'10	
superior conj	15612 Feb 10 05:43	4°♿37'47	1°25'14		15613 Jan 15 17:34	0°♿	
				morning set	15613 Jan 17 18:56	4°♿22'17	

superior conj	15613 Jan 24 13:15	19° \approx 12'18	1°34'42		15614 Jan 07 06:14	0° \approx	
minimum elong	15613 Jan 24 14:22	19° \approx 18'23	1°35'17				
max. Earth dist.	15613 Jan 26 15:10	23° \approx 44'57	1.32172 AU	superior conj	15614 Jan 08 23:45	3° \approx 51'42	1°38'01
	15613 Jan 29 13:16	0° \mathbb{H}		minimum elong	15614 Jan 08 23:48	3° \approx 51'59	1°38'48
evening rise	15613 Jan 31 22:39	4° \mathbb{H} 57'48		max. Earth dist.	15614 Jan 09 20:48	5° \approx 49'02	1.31336 AU
desc. node	15613 Feb 07 16:29	18° \mathbb{H} 03'09		evening rise	15614 Jan 15 23:15	19° \approx 05'46	
	15613 Feb 14 14:00	0° \mathbb{Y}			15614 Jan 21 08:47	0° \mathbb{H}	
evening max el	15613 Mar 06 08:23	26° \mathbb{Y} 04'42	27°35'20	desc. node	15614 Jan 25 13:10	7° \mathbb{H} 46'17	
	15613 Mar 11 00:06	0° \mathbb{B}			15614 Feb 09 00:59	0° \mathbb{Y}	
retrograde	15613 Mar 20 05:09	3° \mathbb{B} 34'12		evening max el	15614 Feb 16 16:33	8° \mathbb{Y} 34'43	27°24'41
evening set	15613 Mar 27 00:42	1° \mathbb{B} 12'28		retrograde	15614 Mar 02 16:25	15° \mathbb{Y} 56'06	
	15613 Mar 28 14:45	30° $\mathbb{R}\mathbb{Y}$		evening set	15614 Mar 09 11:12	13° \mathbb{Y} 50'28	
min. Earth dist.	15613 Mar 30 19:11	28° \mathbb{Y} 01'46	0.63167 AU	min. Earth dist.	15614 Mar 13 06:38	11° \mathbb{Y} 01'26	0.60981 AU
inferior conj	15613 Apr 02 15:31	25° \mathbb{Y} 11'10	-0°27'38	inferior conj	15614 Mar 16 10:25	8° \mathbb{Y} 14'55	-1°47'09
minimum elong	15613 Apr 02 16:24	25° \mathbb{Y} 08'55	0°27'33	minimum elong	15614 Mar 16 14:19	8° \mathbb{Y} 06'19	1°45'37
asc. node	15613 Apr 04 02:05	23° \mathbb{Y} 46'12		asc. node	15614 Mar 21 23:29	4° \mathbb{Y} 06'28	
morning rise	15613 Apr 09 10:46	19° \mathbb{Y} 58'00		morning rise	15614 Mar 23 20:42	3° \mathbb{Y} 20'13	
direct	15613 Apr 11 20:01	19° \mathbb{Y} 30'39		direct	15614 Mar 25 23:34	3° \mathbb{Y} 01'22	
morning max el	15613 Apr 18 07:43	22° \mathbb{Y} 48'48	17°46'16	morning max el	15614 Apr 02 00:03	6° \mathbb{Y} 32'44	17°53'25
	15613 Apr 24 00:30	0° \mathbb{B}			15614 Apr 17 02:56	0° \mathbb{B}	
morning set	15613 May 04 15:18	17° \mathbb{B} 36'17		morning set	15614 Apr 17 14:59	0° \mathbb{B} 54'33	
desc. node	15613 May 06 18:12	21° \mathbb{B} 15'29		desc. node	15614 Apr 23 14:55	11° \mathbb{B} 42'25	
	15613 May 11 21:19	0° \mathbb{II}					
superior conj	15613 May 17 01:15	8° \mathbb{II} 35'34	-1°16'17	superior conj	15614 Apr 28 08:54	20° \mathbb{B} 01'46	-0°37'57
minimum elong	15613 May 16 18:04	8° \mathbb{II} 06'03	1°16'08	minimum elong	15614 Apr 28 05:30	19° \mathbb{B} 47'06	0°38'00
max. Earth dist.	15613 May 23 03:22	18° \mathbb{II} 26'13	1.44677 AU	max. Earth dist.	15614 May 04 06:32	0° \mathbb{II}	
	15613 May 30 12:25	0° \mathbb{B}		evening rise	15614 May 05 18:11	2° \mathbb{II} 26'40	1.43061 AU
evening rise	15613 Jun 01 05:03	2° \mathbb{B} 36'18			15614 May 12 01:05	12° \mathbb{II} 31'54	
	15613 Jun 19 18:17	0° \mathbb{Q}		evening max el	15614 May 23 12:50	0° \mathbb{B}	
evening max el	15613 Jun 30 09:32	13° \mathbb{Q} 12'05	20°41'03		15614 Jun 13 05:00	27° \mathbb{B} 05'17	21°55'21
asc. node	15613 Jul 01 00:23	13° \mathbb{Q} 48'18		asc. node	15614 Jun 16 11:46	0° \mathbb{Q}	
retrograde	15613 Jul 08 14:21	17° \mathbb{Q} 54'33		retrograde	15614 Jun 17 21:20	0° \mathbb{Q} 58'14	
evening set	15613 Jul 12 19:04	16° \mathbb{Q} 15'13		evening set	15614 Jun 22 12:34	2° \mathbb{Q} 31'42	
inferior conj	15613 Jul 18 00:52	10° \mathbb{Q} 08'07	3°08'42		15614 Jun 27 04:28	0° \mathbb{Q} 35'28	
minimum elong	15613 Jul 18 01:12	10° \mathbb{Q} 07'00	3°07'57	inferior conj	15614 Jun 27 20:14	30° $\mathbb{R}\mathbb{B}$	
min. Earth dist.	15613 Jul 18 15:30	9° \mathbb{Q} 17'40	0.68609 AU	minimum elong	15614 Jul 02 10:21	24° \mathbb{B} 18'09	3°06'41
morning rise	15613 Jul 23 07:02	3° \mathbb{Q} 46'17		min. Earth dist.	15614 Jul 02 09:44	24° \mathbb{B} 20'22	3°05'49
direct	15613 Jul 28 15:19	1° \mathbb{Q} 26'16		morning rise	15614 Jul 02 11:38	24° \mathbb{B} 13'41	0.69065 AU
desc. node	15613 Aug 02 17:07	3° \mathbb{Q} 06'40		direct	15614 Jul 07 14:48	18° \mathbb{B} 02'42	
morning max el	15613 Aug 08 11:57	7° \mathbb{Q} 55'08	23°44'37	desc. node	15614 Jul 12 10:44	15° \mathbb{B} 59'35	
	15613 Aug 25 19:11	0° \mathbb{P}		morning max el	15614 Jul 20 14:25	20° \mathbb{B} 15'11	
morning set	15613 Sep 12 12:52	27° \mathbb{P} 49'24			15614 Jul 22 00:41	21° \mathbb{B} 37'23	22°16'03
	15613 Sep 13 19:31	0° \mathbb{L}			15614 Jul 29 05:47	0° \mathbb{Q}	
max. Earth dist.	15613 Sep 16 09:10	4° \mathbb{L} 27'21	1.38934 AU	morning set	15614 Aug 19 01:12	0° \mathbb{P}	
				max. Earth dist.	15614 Aug 24 04:34	8° \mathbb{P} 08'44	
superior conj	15613 Sep 23 23:28	18° \mathbb{L} 15'51	-0°27'29		15614 Aug 29 10:45	16° \mathbb{P} 46'59	1.41290 AU
minimum elong	15613 Sep 24 01:26	18° \mathbb{L} 25'08	0°26'56	superior conj	15614 Sep 06 06:34	0° \mathbb{L} 17'07	-1°03'57
asc. node	15613 Sep 27 01:45	24° \mathbb{L} 09'09		minimum elong	15614 Sep 06 11:40	0° \mathbb{L} 39'48	1°03'15
	15613 Sep 30 02:06	0° \mathbb{M}			15614 Sep 06 02:43	0° \mathbb{L}	
evening rise	15613 Oct 03 00:55	5° \mathbb{M} 46'18		asc. node	15614 Sep 13 22:23	14° \mathbb{L} 14'47	
	15613 Oct 17 05:40	0° \mathbb{J}		evening rise	15614 Sep 16 14:48	19° \mathbb{L} 15'04	
evening max el	15613 Oct 19 06:31	2° \mathbb{J} 15'49	18°51'04		15614 Sep 22 11:16	0° \mathbb{M}	
retrograde	15613 Oct 27 19:53	6° \mathbb{J} 34'46		evening max el	15614 Oct 02 12:50	14° \mathbb{M} 43'24	18°16'32
evening set	15613 Oct 29 17:21	6° \mathbb{J} 22'53		retrograde	15614 Oct 09 22:24	18° \mathbb{M} 29'45	
desc. node	15613 Oct 29 13:50	6° \mathbb{J} 24'37		evening set	15614 Oct 12 00:19	18° \mathbb{M} 12'31	
inferior conj	15613 Nov 06 22:47	2° \mathbb{J} 02'52	-2°40'04	desc. node	15614 Oct 16 11:10	15° \mathbb{M} 55'25	
minimum elong	15613 Nov 06 16:12	2° \mathbb{J} 14'39	2°36'48	inferior conj	15614 Oct 19 12:19	13° \mathbb{M} 31'05	-0°58'33
	15613 Nov 09 19:38	30° $\mathbb{R}\mathbb{M}$		minimum elong	15614 Oct 19 10:09	13° \mathbb{M} 35'38	0°57'08
min. Earth dist.	15613 Nov 09 22:34	29° \mathbb{M} 54'57	0.56676 AU	min. Earth dist.	15614 Oct 22 18:36	10° \mathbb{M} 48'07	0.58726 AU
morning rise	15613 Nov 14 12:05	27° \mathbb{M} 13'51		morning rise	15614 Oct 26 16:33	8° \mathbb{M} 05'32	
direct	15613 Nov 20 09:25	25° \mathbb{M} 50'57		direct	15614 Nov 02 02:12	6° \mathbb{M} 16'03	
	15613 Nov 30 21:11	0° \mathbb{J}		morning max el	15614 Nov 16 09:20	13° \mathbb{M} 55'38	27°28'25
morning max el	15613 Dec 04 13:31	3° \mathbb{J} 09'37	26°20'36		15614 Nov 29 06:07	0° \mathbb{J}	
	15613 Dec 23 17:22	0° \mathbb{B}		asc. node	15614 Dec 10 23:15	19° \mathbb{J} 57'56	
asc. node	15613 Dec 24 02:11	0° \mathbb{B} 39'59			15614 Dec 15 23:42	0° \mathbb{B}	
morning set	15614 Jan 02 05:43	18° \mathbb{B} 56'49		morning set	15614 Dec 17 13:35	3° \mathbb{B} 19'28	

superior conj	15614 Dec 24 11:16	18° S 30'48	1°35'21	max. Earth dist.	15615 Dec 07 11:04	29° S 50'41	1.31268 AU
minimum elong	15614 Dec 24 10:18	18° S 25'20	1°36'09		15615 Dec 07 12:45	0° S	
max. Earth dist.	15614 Dec 24 04:45	17° S 54'18	1.31030 AU				
	15614 Dec 29 15:16	0° \approx		superior conj	15615 Dec 08 21:54	3° S 03'51	1°26'41
evening rise	15614 Dec 31 05:14	3° \approx 25'40		minimum elong	15615 Dec 08 20:06	2° S 53'45	1°27'22
desc. node	15615 Jan 12 09:57	27° \approx 00'52		evening rise	15615 Dec 15 14:33	17° S 51'58	
	15615 Jan 14 05:03	0° H			15615 Dec 21 11:07	0° \approx	
evening max el	15615 Jan 29 17:56	20° H 14'26	26°38'55	desc. node	15615 Dec 30 06:48	15° \approx 35'45	
retrograde	15615 Feb 12 17:49	27° H 25'15			15616 Jan 10 09:56	0° H	
evening set	15615 Feb 19 04:51	25° H 42'19		evening max el	15616 Jan 11 10:53	1° H 01'07	25°21'03
min. Earth dist.	15615 Feb 23 07:36	23° H 04'28	0.58751 AU	retrograde	15616 Jan 25 07:45	7° H 59'20	
inferior conj	15615 Feb 26 11:59	20° H 38'44	-3°15'38	evening set	15616 Jan 31 01:52	6° H 44'09	
minimum elong	15615 Feb 26 19:23	20° H 24'35	3°12'44	min. Earth dist.	15616 Feb 04 23:25	4° H 02'27	0.56721 AU
morning rise	15615 Mar 06 13:19	16° H 05'15		inferior conj	15616 Feb 07 17:06	2° H 13'37	-4°42'04
direct	15615 Mar 08 12:47	15° H 51'26		minimum elong	15616 Feb 08 02:25	1° H 58'10	4°39'04
asc. node	15615 Mar 08 20:53	15° H 51'51			15616 Feb 11 06:34	30° R \approx	
morning max el	15615 Mar 16 11:23	19° H 47'05	18°20'01	morning rise	15616 Feb 16 05:43	28° \approx 01'44	
	15615 Mar 24 00:41	0° Y		direct	15616 Feb 18 07:30	27° \approx 49'07	
morning set	15615 Apr 01 05:02	14° Y 51'10		asc. node	15616 Feb 23 18:16	29° \approx 22'22	
	15615 Apr 09 06:16	0° B			15616 Feb 24 18:10	0° H	
desc. node	15615 Apr 10 11:36	2° B 14'20		morning max el	15616 Feb 27 13:36	2° H 20'02	19°08'01
				morning set	15616 Mar 15 04:57	29° H 13'00	
superior conj	15615 Apr 10 14:31	2° B 27'39	-0°01'01		15616 Mar 15 14:26	0° Y	
minimum elong	15615 Apr 10 14:25	2° B 27'08	0°01'23				
behind sun begin	15615 Apr 10 07:05	1° B 53'45		superior conj	15616 Mar 23 13:50	15° Y 40'55	0°31'14
behind sun end	15615 Apr 10 21:44	3° B 00'26		minimum elong	15616 Mar 23 15:41	15° Y 49'47	0°30'46
max. Earth dist.	15615 Apr 18 04:04	15° B 47'40	1.41000 AU	desc. node	15616 Mar 27 08:16	22° Y 47'41	
evening rise	15615 Apr 22 16:15	23° B 19'44		max. Earth dist.	15616 Mar 30 10:19	28° Y 25'21	1.38723 AU
	15615 Apr 26 19:38	0° II			15616 Mar 31 07:30	0° B	
	15615 May 17 11:21	0° E		evening rise	15616 Apr 03 04:44	5° B 03'01	
evening max el	15615 May 26 20:20	10° E 58'33	23°15'58		15616 Apr 18 20:48	0° II	
asc. node	15615 Jun 04 18:21	16° E 58'10		evening max el	15616 May 08 09:58	24° II 53'27	24°36'39
retrograde	15615 Jun 06 08:34	17° E 09'11			15616 May 14 17:26	0° E	
evening set	15615 Jun 11 11:59	14° E 58'08		retrograde	15616 May 20 01:07	1° E 41'19	
inferior conj	15615 Jun 16 20:13	8° E 32'47	2°54'09	asc. node	15616 May 21 15:26	1° E 30'28	
minimum elong	15615 Jun 16 18:45	8° E 37'48	2°53'04		15616 May 24 19:14	30° R II	
min. Earth dist.	15615 Jun 16 08:29	9° E 13'17	0.69034 AU	evening set	15616 May 25 16:00	29° II 18'39	
morning rise	15615 Jun 22 01:29	2° E 25'03		min. Earth dist.	15616 May 30 03:57	24° II 10'43	0.68522 AU
direct	15615 Jun 26 09:04	0° E 41'18		inferior conj	15616 May 31 04:32	22° II 48'32	2°31'10
morning max el	15615 Jul 04 18:10	5° E 29'17	20°54'03	minimum elong	15616 May 31 02:31	22° II 55'17	2°29'53
desc. node	15615 Jul 07 11:40	8° E 25'33		morning rise	15616 Jun 05 13:14	16° II 49'44	
	15615 Jul 23 08:15	0° Q		direct	15616 Jun 09 09:04	15° II 25'50	
morning set	15615 Aug 03 21:16	17° Q 29'52		morning max el	15616 Jun 16 18:29	19° II 32'08	19°44'10
	15615 Aug 11 18:35	0° P		desc. node	15616 Jun 23 08:49	27° II 21'44	
max. Earth dist.	15615 Aug 11 18:04	29° Q 57'54	1.43356 AU		15616 Jun 25 07:20	0° E	
				greatest brilliancy	15616 Jun 29 22:42	6° E 37'35	-0.6m
superior conj	15615 Aug 18 16:01	11° P 21'53	-1°38'22	morning set	15616 Jul 13 01:05	26° E 21'04	
minimum elong	15615 Aug 18 23:34	11° P 53'41	1°37'54		15616 Jul 15 10:00	0° Q	
	15615 Aug 29 10:13	0° Q		max. Earth dist.	15616 Jul 24 07:29	13° Q 52'40	1.44914 AU
evening rise	15615 Aug 30 14:38	2° Q 05'59					
asc. node	15615 Aug 31 19:01	4° Q 11'50		superior conj	15616 Jul 29 01:58	21° Q 28'36	-2°04'14
evening max el	15615 Sep 16 01:19	27° Q 44'35	18°02'11	minimum elong	15616 Jul 29 08:27	21° Q 54'40	2°04'28
	15615 Sep 18 20:37	0° P			15616 Aug 03 07:59	0° P	
retrograde	15615 Sep 22 17:36	1° P 11'19		evening rise	15616 Aug 11 19:14	14° P 06'23	
evening set	15615 Sep 25 02:53	0° P 44'47		asc. node	15616 Aug 17 15:39	23° P 56'16	
	15615 Sep 26 16:42	30° R Q			15616 Aug 21 09:00	0° Q	
inferior conj	15615 Oct 01 21:54	25° Q 43'29	0°26'51	evening max el	15616 Aug 29 16:07	11° Q 10'10	18°06'37
minimum elong	15615 Oct 01 22:44	25° Q 41'28	0°26'49	retrograde	15616 Sep 05 01:02	14° Q 30'38	
desc. node	15615 Oct 03 08:34	24° Q 19'08		evening set	15616 Sep 07 18:51	13° Q 51'19	
min. Earth dist.	15615 Oct 05 00:09	22° Q 45'03	0.61006 AU	inferior conj	15616 Sep 13 23:42	8° Q 32'25	1°32'08
morning rise	15615 Oct 08 15:36	19° Q 48'51		minimum elong	15616 Sep 14 01:52	8° Q 26'30	1°31'29
direct	15615 Oct 15 07:18	17° Q 35'38		min. Earth dist.	15616 Sep 16 15:36	5° Q 38'59	0.63254 AU
morning max el	15615 Oct 29 12:43	25° Q 30'03	27°57'55	desc. node	15616 Sep 19 05:58	3° Q 08'55	
	15615 Nov 02 16:52	0° P		morning rise	15616 Sep 20 06:47	2° Q 18'57	
	15615 Nov 22 17:57	0° S			15616 Sep 25 02:40	30° R P	
asc. node	15615 Nov 27 20:13	9° S 37'10		direct	15616 Sep 26 22:31	29° P 49'06	
morning set	15615 Dec 01 16:29	17° S 24'37			15616 Sep 28 19:37	0° Q	

morning max el	15616 Oct 10 21:12	7° Ω 48'42	27°48'46		15617 Oct 21 02:52	0° \mathbb{M}	
	15616 Oct 27 24:00	0° \mathbb{M}		morning set	15617 Oct 28 21:54	14° \mathbb{M} 20'09	
asc. node	15616 Nov 13 17:07	29° \mathbb{M} 31'23		asc. node	15617 Oct 31 13:56	19° \mathbb{M} 35'17	
	15616 Nov 13 22:51	0° \mathbb{A}		max. Earth dist.	15617 Nov 02 04:22	22° \mathbb{M} 49'26	1.33427 AU
morning set	15616 Nov 14 12:10	1° \mathbb{A} 06'59			15617 Nov 05 15:23	0° \mathbb{A}	
max. Earth dist.	15616 Nov 19 11:58	11° \mathbb{A} 30'15	1.32068 AU				
				superior conj	15617 Nov 06 08:30	1° \mathbb{A} 30'28	0°51'15
superior conj	15616 Nov 22 05:43	17° \mathbb{A} 25'40	1°12'00	minimum elong	15617 Nov 06 06:17	1° \mathbb{A} 18'40	0°51'35
minimum elong	15616 Nov 22 03:25	17° \mathbb{A} 13'08	1°12'30	evening rise	15617 Nov 13 11:45	16° \mathbb{A} 46'45	
	15616 Nov 27 23:22	0° \mathbb{B}			15617 Nov 19 23:50	0° \mathbb{B}	
evening rise	15616 Nov 29 01:19	2° \mathbb{B} 20'31		desc. node	15617 Dec 03 00:43	19° \mathbb{B} 44'34	
	15616 Dec 13 20:45	0° \approx		evening max el	15617 Dec 04 08:45	21° \mathbb{B} 06'52	21°59'47
desc. node	15616 Dec 16 03:43	3° \approx 16'41		retrograde	15617 Dec 16 20:48	27° \mathbb{B} 17'54	
evening max el	15616 Dec 22 21:24	11° \approx 08'16	23°42'10	evening set	15617 Dec 20 05:22	26° \mathbb{B} 52'50	
retrograde	15617 Jan 05 08:10	17° \approx 48'12		inferior conj	15617 Dec 28 19:23	23° \mathbb{B} 01'27	-5°59'14
evening set	15617 Jan 09 23:57	17° \approx 01'12		minimum elong	15617 Dec 28 16:39	23° \mathbb{B} 05'17	5°58'15
min. Earth dist.	15617 Jan 16 08:37	13° \approx 57'41	0.55201 AU	min. Earth dist.	15617 Dec 28 14:13	23° \mathbb{B} 08'39	0.54454 AU
inferior conj	15617 Jan 18 01:36	12° \approx 57'18	-5°45'14	morning rise	15618 Jan 06 04:46	19° \mathbb{B} 14'08	
minimum elong	15617 Jan 18 07:41	12° \approx 48'19	5°43'47	direct	15618 Jan 09 16:59	18° \mathbb{B} 46'56	
morning rise	15617 Jan 26 17:00	9° \approx 02'45		morning max el	15618 Jan 22 00:26	24° \mathbb{B} 43'36	21°52'17
direct	15617 Jan 29 06:55	8° \approx 46'15			15618 Jan 26 17:05	0° \approx	
morning max el	15617 Feb 09 02:31	13° \approx 59'55	20°19'01	asc. node	15618 Jan 27 12:59	1° \approx 05'31	
asc. node	15617 Feb 09 15:39	14° \approx 32'26		morning set	15618 Feb 11 21:24	28° \approx 33'11	
	15617 Feb 20 09:29	0° \mathbb{H}			15618 Feb 12 13:52	0° \mathbb{H}	
morning set	15617 Feb 27 11:15	13° \mathbb{H} 49'23					
				superior conj	15618 Feb 19 00:40	13° \mathbb{H} 41'24	1°16'54
superior conj	15617 Mar 07 02:26	29° \mathbb{H} 28'44	0°57'20	minimum elong	15618 Feb 19 03:03	13° \mathbb{H} 53'54	1°16'56
minimum elong	15617 Mar 07 04:59	29° \mathbb{H} 41'37	0°57'02	max. Earth dist.	15618 Feb 23 05:42	22° \mathbb{H} 22'06	1.34491 AU
	15617 Mar 07 08:38	0° \mathbb{Y}		evening rise	15618 Feb 27 11:26	0° \mathbb{Y} 42'06	
max. Earth dist.	15617 Mar 12 17:18	10° \mathbb{Y} 30'23	1.36483 AU		15618 Feb 27 02:39	0° \mathbb{Y}	
desc. node	15617 Mar 14 04:51	13° \mathbb{Y} 18'01		desc. node	15618 Mar 01 01:26	3° \mathbb{Y} 41'51	
evening rise	15617 Mar 16 12:16	17° \mathbb{Y} 33'33			15618 Mar 16 17:22	0° \mathbb{B}	
	15617 Mar 23 15:48	0° \mathbb{B}		evening max el	15618 Apr 03 13:27	22° \mathbb{B} 31'28	26°49'21
	15617 Apr 13 04:00	0° \mathbb{I}		retrograde	15618 Apr 16 19:18	29° \mathbb{B} 58'48	
evening max el	15617 Apr 20 23:34	8° \mathbb{I} 46'48	25°50'20	evening set	15618 Apr 23 06:29	27° \mathbb{B} 26'33	
retrograde	15617 May 03 13:02	16° \mathbb{I} 00'24		asc. node	15618 Apr 25 09:52	25° \mathbb{B} 29'26	
asc. node	15617 May 08 12:37	14° \mathbb{I} 20'15		min. Earth dist.	15618 Apr 27 06:01	23° \mathbb{B} 29'15	0.66139 AU
evening set	15617 May 09 14:47	13° \mathbb{I} 30'20		inferior conj	15618 Apr 29 08:20	21° \mathbb{B} 01'51	1°11'17
min. Earth dist.	15617 May 13 19:50	8° \mathbb{I} 58'33	0.67547 AU	minimum elong	15618 Apr 29 06:38	21° \mathbb{B} 06'50	1°10'04
inferior conj	15617 May 15 09:19	7° \mathbb{I} 00'00	1°57'11	morning rise	15618 May 05 08:04	15° \mathbb{B} 25'25	
minimum elong	15617 May 15 07:09	7° \mathbb{I} 06'52	1°55'48	direct	15618 May 08 06:57	14° \mathbb{B} 37'24	
morning rise	15617 May 21 00:08	1° \mathbb{I} 11'30		morning max el	15618 May 14 15:22	17° \mathbb{B} 57'00	18°11'23
direct	15617 May 24 09:02	0° \mathbb{I} 06'32			15618 May 23 19:24	0° \mathbb{I}	
morning max el	15617 May 31 01:58	3° \mathbb{I} 43'03	18°49'28	desc. node	15618 May 28 02:48	6° \mathbb{I} 44'10	
desc. node	15617 Jun 10 05:51	16° \mathbb{I} 50'55		morning set	15618 Jun 02 21:35	15° \mathbb{I} 59'44	
greatest brilliancy	15617 Jun 13 19:24	22° \mathbb{I} 12'19	-0.8m		15618 Jun 11 16:21	0° \mathbb{B}	
	15617 Jun 18 21:02	0° \mathbb{B}					
morning set	15617 Jun 22 11:40	5° \mathbb{B} 35'58		superior conj	15618 Jun 18 01:45	10° \mathbb{B} 03'04	-2°03'59
max. Earth dist.	15617 Jul 07 01:45	28° \mathbb{B} 17'58	1.45806 AU	minimum elong	15618 Jun 17 18:46	9° \mathbb{B} 35'45	2°04'28
	15617 Jul 08 03:52	0° \mathbb{Q}		max. Earth dist.	15618 Jun 19 22:21	12° \mathbb{B} 57'18	1.45948 AU
					15618 Jun 30 21:30	0° \mathbb{Q}	
superior conj	15617 Jul 08 16:45	0° \mathbb{Q} 50'21	-2°14'09	evening rise	15618 Jul 04 04:11	5° \mathbb{Q} 05'07	
minimum elong	15617 Jul 08 16:51	0° \mathbb{Q} 50'45	2°14'56	greatest brilliancy	15618 Jul 15 11:21	22° \mathbb{Q} 27'36	-0.7m
evening rise	15617 Jul 23 23:51	25° \mathbb{Q} 05'17			15618 Jul 20 15:06	0° \mathbb{M}	
	15617 Jul 27 01:11	0° \mathbb{M}		asc. node	15618 Jul 22 09:00	2° \mathbb{M} 23'46	
asc. node	15617 Aug 04 12:18	13° \mathbb{M} 22'25		evening max el	15618 Jul 27 15:56	8° \mathbb{M} 40'51	19°08'09
evening max el	15617 Aug 13 05:53	24° \mathbb{M} 51'18	18°28'54	retrograde	15618 Aug 03 13:13	12° \mathbb{M} 28'42	
retrograde	15617 Aug 19 16:40	28° \mathbb{M} 18'50		evening set	15618 Aug 07 01:38	11° \mathbb{M} 16'59	
evening set	15617 Aug 22 19:33	27° \mathbb{M} 24'08		inferior conj	15618 Aug 12 12:36	5° \mathbb{M} 28'32	2°48'36
inferior conj	15617 Aug 28 13:44	21° \mathbb{M} 49'38	2°18'32	minimum elong	15618 Aug 12 14:21	5° \mathbb{M} 22'52	2°47'52
minimum elong	15617 Aug 28 16:03	21° \mathbb{M} 42'42	2°17'45	min. Earth dist.	15618 Aug 14 00:56	3° \mathbb{M} 31'16	0.66913 AU
min. Earth dist.	15617 Aug 30 16:16	19° \mathbb{M} 18'18	0.65266 AU		15618 Aug 17 01:46	30° \mathbb{R} 0	
morning rise	15617 Sep 03 11:17	15° \mathbb{M} 26'22		morning rise	15618 Aug 18 02:23	29° \mathbb{Q} 02'14	
desc. node	15617 Sep 06 03:24	13° \mathbb{M} 41'49		direct	15618 Aug 24 04:17	26° \mathbb{Q} 26'09	
direct	15617 Sep 09 21:56	12° \mathbb{M} 49'02		desc. node	15618 Aug 24 00:49	26° \mathbb{Q} 26'14	
morning max el	15617 Sep 23 08:07	20° \mathbb{M} 41'34	27°06'22		15618 Sep 01 09:58	0° \mathbb{M}	
	15617 Oct 01 09:19	0° \mathbb{Q}		morning max el	15618 Sep 05 19:29	3° \mathbb{M} 57'36	25°58'51

	15618 Sep 25 17:25	0°♄		min. Earth dist.	15619 Jul 28 15:50	18°♄07'50	0.68119 AU
morning set	15618 Oct 11 18:16	26°♄56'08		morning rise	15619 Aug 02 01:41	12°♄59'11	
	15618 Oct 13 09:47	0°♄		direct	15619 Aug 07 16:39	10°♄31'43	
max. Earth dist.	15618 Oct 15 11:14	3°♄55'03	1.35301 AU	desc. node	15619 Aug 10 22:13	11°♄12'31	
asc. node	15618 Oct 18 10:39	9°♄44'06		morning max el	15619 Aug 19 06:29	17°♄27'38	24°35'44
					15619 Aug 29 18:19	0°♄	
superior conj	15618 Oct 21 03:38	15°♄11'00	0°24'37		15619 Sep 18 17:32	0°♄	
minimum elong	15618 Oct 21 02:16	15°♄04'00	0°24'54	morning set	15619 Sep 23 21:20	8°♄46'46	
	15618 Oct 28 07:17	0°♄		max. Earth dist.	15619 Sep 27 11:09	15°♄08'27	1.37553 AU
evening rise	15618 Oct 28 19:50	1°♄05'08					
	15618 Nov 14 19:21	0°♄		superior conj	15619 Oct 04 11:58	28°♄20'30	-0°07'18
evening max el	15618 Nov 16 06:11	1°♄32'08	20°29'49	minimum elong	15619 Oct 04 12:26	28°♄22'43	0°06'52
desc. node	15618 Nov 19 21:49	4°♄34'42		behind sun begin	15619 Oct 04 06:19	27°♄53'04	
retrograde	15618 Nov 27 07:19	7°♄01'54		behind sun end	15619 Oct 04 18:33	28°♄52'26	
evening set	15618 Nov 29 15:01	6°♄48'27		asc. node	15619 Oct 05 07:19	29°♄54'37	
inferior conj	15618 Dec 08 11:12	2°♄54'02	-5°12'12		15619 Oct 05 08:26	0°♄	
minimum elong	15618 Dec 08 01:43	3°♄07'51	5°09'12	evening rise	15619 Oct 12 23:19	15°♄10'30	
min. Earth dist.	15618 Dec 09 19:49	2°♄06'30	0.54631 AU		15619 Oct 20 17:20	0°♄	
	15618 Dec 13 18:40	30°♄		evening max el	15619 Oct 29 18:11	12°♄46'09	19°20'38
morning rise	15618 Dec 16 12:06	28°♄55'28		desc. node	15619 Nov 06 19:00	17°♄23'37	
direct	15618 Dec 21 01:23	28°♄10'55		retrograde	15619 Nov 08 04:17	17°♄29'33	
	15618 Dec 28 00:43	0°♄		evening set	15619 Nov 10 01:47	17°♄18'54	
morning max el	15619 Jan 03 11:23	4°♄45'18	23°40'31	inferior conj	15619 Nov 18 15:29	13°♄10'22	-3°40'41
asc. node	15619 Jan 14 10:16	18°♄42'27		minimum elong	15619 Nov 18 06:33	13°♄25'03	3°36'47
	15619 Jan 20 20:54	0°♄		min. Earth dist.	15619 Nov 21 05:08	11°♄29'17	0.55715 AU
morning set	15619 Jan 27 09:15	13°♄17'15		morning rise	15619 Nov 26 09:04	8°♄42'00	
				direct	15619 Dec 01 20:08	7°♄34'09	
superior conj	15619 Feb 03 05:32	28°♄09'43	1°30'00	morning max el	15619 Dec 15 20:37	14°♄39'22	25°27'24
minimum elong	15619 Feb 03 07:12	28°♄18'42	1°30'25		15619 Dec 28 00:01	0°♄	
	15619 Feb 04 01:56	0°♄		asc. node	15620 Jan 01 07:29	7°♄07'50	
max. Earth dist.	15619 Feb 06 01:30	4°♄14'21	1.32882 AU	morning set	15620 Jan 11 20:55	27°♄56'25	
evening rise	15619 Feb 10 22:44	14°♄19'00			15620 Jan 12 19:45	0°♄	
desc. node	15619 Feb 15 22:03	23°♄54'07					
	15619 Feb 19 07:00	0°♄		superior conj	15620 Jan 18 14:36	12°♄46'45	1°36'51
evening max el	15619 Mar 11 14:09	0°♄		minimum elong	15620 Jan 18 15:16	12°♄50'26	1°37'32
retrograde	15619 Mar 17 02:32	5°♄56'18	27°26'28	max. Earth dist.	15620 Jan 20 04:02	16°♄13'18	1.31748 AU
evening set	15619 Mar 30 19:10	13°♄27'35		evening rise	15620 Jan 25 19:13	28°♄17'09	
min. Earth dist.	15619 Apr 06 12:58	10°♄59'35			15620 Jan 26 15:12	0°♄	
asc. node	15619 Apr 10 08:31	7°♄33'36	0.64344 AU	desc. node	15620 Feb 02 18:42	13°♄49'29	
inferior conj	15619 Apr 12 07:12	5°♄29'50			15620 Feb 12 12:02	0°♄	
minimum elong	15619 Apr 12 22:58	4°♄47'32	0°12'25	evening max el	15620 Feb 27 13:01	18°♄49'15	27°34'56
transit middle	15619 Apr 12 22:37	4°♄48'28	0°11'50	retrograde	15620 Mar 12 11:41	26°♄16'42	
transit begin	15619 Apr 12 22:37	4°♄48'28	0°11'50	evening set	15620 Mar 19 07:41	24°♄00'34	
transit end	15619 Apr 12 20:32	4°♄54'02		min. Earth dist.	15620 Mar 23 01:50	21°♄00'18	0.62251 AU
	15619 Apr 13 00:41	4°♄42'55		inferior conj	15620 Mar 26 02:05	18°♄09'07	-0°59'55
	15619 Apr 18 07:44	30°♄		minimum elong	15620 Mar 26 04:08	18°♄04'14	0°59'17
morning rise	15619 Apr 19 10:24	29°♄25'25		asc. node	15620 Mar 29 04:35	15°♄23'03	
direct	15619 Apr 22 00:16	28°♄51'29		morning rise	15620 Apr 02 03:37	13°♄03'47	
	15619 Apr 25 16:39	0°♄		direct	15620 Apr 04 09:48	12°♄40'36	
morning max el	15619 Apr 28 08:23	2°♄06'40	17°50'26	morning max el	15620 Apr 11 01:59	16°♄03'02	17°47'05
desc. node	15619 May 14 23:40	26°♄54'38			15620 Apr 20 22:55	0°♄	
morning set	15619 May 15 11:00	27°♄42'10		morning set	15620 Apr 26 23:56	10°♄30'31	
	15619 May 16 19:53	0°♄		desc. node	15620 Apr 30 20:27	17°♄16'48	
					15620 May 08 06:28	0°♄	
superior conj	15619 May 28 22:03	19°♄51'15	-1°36'43				
minimum elong	15619 May 28 13:29	19°♄16'53	1°36'39	superior conj	15620 May 08 16:05	0°♄40'22	-1°00'10
max. Earth dist.	15619 Jun 02 18:17	27°♄33'02	1.45335 AU	minimum elong	15620 May 08 10:27	0°♄16'44	1°00'04
	15619 Jun 04 07:41	0°♄		max. Earth dist.	15620 May 15 10:55	11°♄48'27	1.44049 AU
evening rise	15619 Jun 13 16:46	14°♄30'48		evening rise	15620 May 23 05:37	24°♄04'20	
	15619 Jun 23 22:55	0°♄			15620 May 27 02:26	0°♄	
greatest brilliancy	15619 Jun 28 12:36	6°♄42'15	-0.6m		15620 Jun 17 03:48	0°♄	
asc. node	15619 Jul 09 05:48	20°♄51'40		evening max el	15620 Jun 22 18:59	6°♄26'38	21°11'34
evening max el	15619 Jul 10 20:29	22°♄33'45	20°03'10	asc. node	15620 Jun 25 02:40	8°♄34'00	
retrograde	15619 Jul 18 12:03	26°♄53'56		retrograde	15620 Jul 01 11:01	11°♄27'57	
evening set	15619 Jul 22 10:35	25°♄24'39		evening set	15620 Jul 05 20:19	9°♄41'24	
inferior conj	15619 Jul 27 17:27	19°♄23'46	3°04'51	inferior conj	15620 Jul 11 01:52	3°♄29'36	3°09'10
minimum elong	15619 Jul 27 18:20	19°♄20'47	3°04'08	minimum elong	15620 Jul 11 01:46	3°♄29'56	3°08'23

min. Earth dist.	15620 Jul 11 10:47	2°Ω58'34	0.68858 AU	minimum elong	15621 Jun 25 10:45	17°Ω45'50	3°01'41
	15620 Jul 13 16:05	30°RΩ		min. Earth dist.	15621 Jun 25 07:34	17°Ω56'56	0.69116 AU
morning rise	15620 Jul 16 06:58	27°Ω10'00		morning rise	15621 Jun 30 16:14	11°Ω29'49	
direct	15620 Jul 21 09:57	24°Ω56'42		direct	15621 Jul 05 06:57	9°Ω34'30	
desc. node	15620 Jul 27 19:35	27°Ω35'50		morning max el	15621 Jul 14 08:02	14°Ω50'27	21°39'50
	15620 Jul 30 15:12	0°Ω		desc. node	15621 Jul 14 16:53	15°Ω12'49	
morning max el	15620 Jul 31 17:47	1°Ω04'59	23°06'30		15621 Jul 26 13:23	0°Ω	
	15620 Aug 22 15:26	0°Π		morning set	15621 Aug 15 08:07	29°Ω33'36	
morning set	15620 Sep 04 02:47	19°Π41'08			15621 Aug 15 14:46	0°Π	
max. Earth dist.	15620 Sep 08 09:46	26°Π55'25	1.39953 AU	max. Earth dist.	15621 Aug 21 13:14	9°Π35'41	1.42226 AU
	15620 Sep 10 04:26	0°Ω					
superior conj	15620 Sep 16 05:30	10°Ω49'09	-0°42'54	superior conj	15621 Aug 29 03:51	22°Π27'15	-1°19'08
minimum elong	15620 Sep 16 08:46	11°Ω04'07	0°42'15	minimum elong	15621 Aug 29 10:13	22°Π54'51	1°18'29
asc. node	15620 Sep 21 03:58	20°Ω02'44		asc. node	15621 Sep 02 10:47	0°Ω	
evening rise	15620 Sep 25 19:09	28°Ω54'40		evening rise	15621 Sep 08 00:34	10°Ω04'48	
	15620 Sep 26 08:47	0°Π			15621 Sep 09 03:35	12°Ω08'09	
evening max el	15620 Oct 11 19:02	24°Π49'16	18°33'50	evening max el	15621 Sep 19 09:18	0°Π	
retrograde	15620 Oct 19 19:22	28°Π52'37		retrograde	15621 Sep 25 04:32	7°Π32'25	18°08'05
evening set	15620 Oct 21 18:05	28°Π39'02		evening set	15621 Oct 02 05:15	11°Π08'19	
desc. node	15620 Oct 23 16:17	28°Π00'43		desc. node	15621 Oct 04 10:14	10°Π47'28	
inferior conj	15620 Oct 29 16:22	24°Π10'19	-1°55'38	inferior conj	15621 Oct 10 13:39	6°Π52'43	
minimum elong	15620 Oct 29 11:44	24°Π19'10	1°53'07	minimum elong	15621 Oct 11 14:46	5°Π57'23	-0°19'55
min. Earth dist.	15620 Nov 01 20:41	21°Π44'59	0.57503 AU	min. Earth dist.	15621 Oct 11 14:06	5°Π58'54	0°19'12
morning rise	15620 Nov 06 02:00	19°Π05'05		morning rise	15621 Oct 14 20:27	3°Π05'20	0.59692 AU
direct	15620 Nov 12 05:30	17°Π30'24		direct	15621 Oct 18 14:40	0°Π18'38	
morning max el	15620 Nov 26 11:29	24°Π59'22	26°53'44		15621 Oct 19 03:28	30°RΩ	
	15620 Dec 01 02:59	0°Ω		morning max el	15621 Oct 25 03:56	28°Ω18'16	
asc. node	15620 Dec 18 04:37	26°Ω09'19			15621 Oct 31 11:20	0°Π	
	15620 Dec 20 05:03	0°Ω		morning set	15621 Nov 08 10:26	6°Π04'29	27°45'48
morning set	15620 Dec 26 06:41	12°Ω26'09			15621 Nov 26 08:38	0°Ω	
superior conj	15621 Jan 02 01:47	27°Ω26'42	1°37'38	asc. node	15621 Dec 05 01:38	15°Ω36'58	
minimum elong	15621 Jan 02 01:23	27°Ω24'29	1°38'26	morning set	15621 Dec 10 12:37	26°Ω41'21	
max. Earth dist.	15621 Jan 02 10:52	28°Ω17'32	1.31134 AU		15621 Dec 12 01:51	0°Ω	
	15621 Jan 03 05:12	0°Ω		max. Earth dist.	15621 Dec 16 18:34	10°Ω19'50	1.31064 AU
evening rise	15621 Jan 08 22:23	12°Ω30'45		superior conj	15621 Dec 17 13:07	12°Ω03'32	1°32'25
	15621 Jan 17 18:23	0°Ω		minimum elong	15621 Dec 17 11:45	11°Ω55'54	1°33'11
desc. node	15621 Jan 19 15:25	3°Ω21'21		evening rise	15621 Dec 24 06:00	26°Ω53'50	
	15621 Feb 07 18:24	0°Ω			15621 Dec 25 16:51	0°Ω	
evening max el	15621 Feb 08 18:40	0°Ω59'09	27°09'37	desc. node	15622 Jan 06 12:12	22°Ω20'13	
retrograde	15621 Feb 22 19:21	8°Ω16'52			15622 Jan 11 11:25	0°Ω	
evening set	15621 Mar 01 11:32	6°Ω20'21		evening max el	15622 Jan 21 16:48	12°Ω16'33	26°09'25
min. Earth dist.	15621 Mar 05 09:04	3°Ω37'20	0.60013 AU	retrograde	15622 Jan 21 16:48	12°Ω16'33	26°09'25
inferior conj	15621 Mar 08 14:07	0°Ω57'28	-2°24'04	evening set	15622 Feb 04 15:54	19°Ω21'34	
minimum elong	15621 Mar 08 19:31	0°Ω46'14	2°21'53	min. Earth dist.	15622 Feb 10 20:47	17°Ω50'24	
	15621 Mar 09 18:03	30°RΩ		inferior conj	15622 Feb 15 06:02	15°Ω12'49	0.57843 AU
morning rise	15621 Mar 16 06:58	26°Ω11'30		minimum elong	15622 Feb 18 07:17	13°Ω01'21	-3°53'35
asc. node	15621 Mar 16 02:00	26°Ω14'53		morning rise	15622 Feb 18 15:53	12°Ω45'53	3°50'25
direct	15621 Mar 18 07:44	25°Ω55'20		direct	15622 Feb 26 14:06	8°Ω36'47	
morning max el	15621 Mar 25 16:43	29°Ω36'08	18°02'16	asc. node	15622 Feb 28 13:41	8°Ω23'55	
	15621 Mar 26 02:14	0°Ω		morning max el	15622 Mar 02 23:25	8°Ω43'49	
morning set	15621 Apr 10 06:27	24°Ω07'25		morning set	15622 Mar 09 00:35	12°Ω33'37	18°37'41
	15621 Apr 13 10:48	0°Ω			15622 Mar 20 16:51	0°Ω	
desc. node	15621 Apr 17 17:11	7°Ω46'28		morning set	15622 Mar 25 01:10	8°Ω16'04	
superior conj	15621 Apr 20 09:35	12°Ω33'30	-0°21'52	superior conj	15622 Apr 02 23:14	25°Ω20'27	0°13'22
minimum elong	15621 Apr 20 07:43	12°Ω25'18	0°22'05	minimum elong	15622 Apr 03 00:08	25°Ω24'37	0°12'55
max. Earth dist.	15621 Apr 27 23:18	25°Ω32'12	1.42224 AU	behind sun begin	15622 Apr 02 20:00	25°Ω05'22	
	15621 Apr 30 16:22	0°Ω		behind sun end	15622 Apr 03 04:15	25°Ω43'49	
evening rise	15621 May 03 09:14	4°Ω21'37		desc. node	15622 Apr 04 13:49	28°Ω19'00	
	15621 May 20 09:25	0°Ω			15622 Apr 05 11:54	0°Ω	
evening max el	15621 Jun 05 12:34	20°Ω20'20	22°29'13	max. Earth dist.	15622 Apr 10 07:39	8°Ω35'30	1.40046 AU
asc. node	15621 Jun 11 23:38	25°Ω16'32		evening rise	15622 Apr 14 09:34	15°Ω33'23	
retrograde	15621 Jun 15 08:24	26°Ω05'50			15622 Apr 23 09:22	0°Ω	
evening set	15621 Jun 20 05:06	24°Ω03'16		evening max el	15622 May 15 04:26	0°Ω	
inferior conj	15621 Jun 25 11:45	17°Ω42'21	3°02'38	asc. node	15622 May 19 03:05	4°Ω14'46	23°50'41
				retrograde	15622 May 29 20:42	10°Ω41'19	
					15622 May 30 02:55	10°Ω41'36	

evening set	15622 Jun 04 11:19	8°☿25'13		min. Earth dist.	15623 May 23 22:04	17°♊50'00	0.68165 AU
min. Earth dist.	15622 Jun 09 04:01	2°☿56'14	0.68882 AU	inferior conj	15623 May 25 04:12	16°♊11'23	2°18'09
inferior conj	15622 Jun 09 21:10	1°☿57'39	2°45'42	minimum elong	15623 May 25 02:04	16°♊18'23	2°16'47
minimum elong	15622 Jun 09 19:27	2°☿03'34	2°44'31	morning rise	15623 May 30 15:11	10°♊17'05	
	15622 Jun 11 08:12	30°♋♊		direct	15623 Jun 03 06:17	9°♊01'29	
morning rise	15622 Jun 15 03:35	25°♊53'40		morning max el	15623 Jun 10 07:41	12°♊53'15	19°18'59
direct	15622 Jun 19 06:12	24°♊18'12		desc. node	15623 Jun 18 11:12	22°♊55'09	
morning max el	15622 Jun 27 04:12	28°♊46'38	20°22'36	greatest brilliancy	15623 Jun 23 00:15	29°♊28'52	-0.7m
	15622 Jun 28 08:41	0°☿			15623 Jun 23 08:39	0°☿	
desc. node	15622 Jul 01 14:05	3°☿44'06		morning set	15623 Jul 04 21:37	17°☿31'09	
	15622 Jul 20 02:01	0°♌			15623 Jul 12 23:22	0°♌	
morning set	15622 Jul 25 17:27	8°♌36'46		max. Earth dist.	15623 Jul 17 15:57	7°♌19'47	1.45379 AU
max. Earth dist.	15622 Aug 03 23:51	23°♌09'01	1.44100 AU				
	15622 Aug 08 05:38	0°♍		superior conj	15623 Jul 21 04:00	12°♌51'12	-2°10'46
				minimum elong	15623 Jul 21 08:21	13°♌08'25	2°11'19
superior conj	15622 Aug 10 03:20	3°♍07'14	-1°50'50		15623 Jul 31 19:34	0°♍	
minimum elong	15622 Aug 10 11:03	3°♍39'04	1°50'37	evening rise	15623 Aug 04 14:47	6°♍14'46	
evening rise	15622 Aug 22 19:53	24°♍39'21		asc. node	15623 Aug 12 17:48	19°♍34'22	
asc. node	15622 Aug 25 21:11	29°♍57'04			15623 Aug 19 17:01	0°♎	
	15622 Aug 25 21:51	0°♎		evening max el	15623 Aug 23 09:07	4°♎17'54	18°13'54
evening max el	15622 Sep 08 18:28	20°♎45'14	18°01'48	retrograde	15623 Aug 29 17:51	7°♎40'06	
retrograde	15622 Sep 15 06:19	24°♎07'35		evening set	15623 Sep 01 15:23	6°♎54'34	
evening set	15622 Sep 17 19:13	23°♎35'52		inferior conj	15623 Sep 07 15:15	1°♎28'32	1°54'01
inferior conj	15622 Sep 24 07:46	18°♎26'28	0°57'01	minimum elong	15623 Sep 07 17:35	1°♎21'51	1°53'15
minimum elong	15622 Sep 24 09:21	18°♎22'26	0°56'38		15623 Sep 08 22:08	30°♋♍	
desc. node	15622 Sep 27 11:02	15°♎15'59		min. Earth dist.	15623 Sep 10 01:35	28°♍42'46	0.64144 AU
min. Earth dist.	15622 Sep 27 06:01	15°♎28'10	0.61982 AU	morning rise	15623 Sep 13 18:04	25°♍09'39	
morning rise	15622 Sep 30 20:55	12°♎22'45		desc. node	15623 Sep 14 08:28	24°♍42'37	
direct	15622 Oct 07 13:16	10°♎01'47		direct	15623 Sep 20 07:59	22°♍35'42	
morning max el	15622 Oct 21 16:21	17°♎58'51	27°58'37		15623 Oct 03 12:35	0°♎	
	15622 Oct 31 18:39	0°♏		morning max el	15623 Oct 04 02:26	0°♎34'15	27°34'26
	15622 Nov 19 03:56	0°♏			15623 Oct 25 20:21	0°♏	
asc. node	15622 Nov 21 22:33	5°♏23'20		morning set	15623 Nov 08 04:34	24°♏08'12	
morning set	15622 Nov 24 12:45	10°♏37'30		asc. node	15623 Nov 08 19:23	25°♏21'58	
max. Earth dist.	15622 Nov 29 23:15	22°♏11'10	1.31544 AU		15623 Nov 11 02:11	0°♏	
				max. Earth dist.	15623 Nov 12 21:01	3°♏42'39	1.32581 AU
superior conj	15622 Dec 01 22:47	26°♏32'23	1°21'12				
minimum elong	15622 Dec 01 20:42	26°♏20'56	1°21'48	superior conj	15623 Nov 16 04:43	10°♏47'11	1°03'56
	15622 Dec 03 12:17	0°♐		minimum elong	15623 Nov 16 02:22	10°♏34'31	1°04'21
evening rise	15622 Dec 08 16:09	11°♐21'54		evening rise	15623 Nov 23 03:00	25°♏49'37	
	15622 Dec 17 23:21	0°♑			15623 Nov 25 02:10	0°♐	
desc. node	15622 Dec 24 09:03	10°♑34'08		desc. node	15623 Dec 11 06:00	27°♐46'22	
evening max el	15623 Jan 03 06:27	22°♑43'25	24°40'33		15623 Dec 13 02:42	0°♑	
retrograde	15623 Jan 16 23:39	29°♑34'19		evening max el	15623 Dec 15 15:50	2°♑40'51	22°57'50
evening set	15623 Jan 22 08:00	28°♑31'10		retrograde	15623 Dec 28 18:49	9°♑10'54	
min. Earth dist.	15623 Jan 27 18:20	25°♑42'48	0.56002 AU	evening set	15624 Jan 01 21:23	8°♑34'13	
inferior conj	15623 Jan 30 03:19	24°♑13'38	-5°13'14	min. Earth dist.	15624 Jan 09 01:24	5°♑15'32	0.54775 AU
minimum elong	15623 Jan 30 12:06	23°♑59'53	5°10'47	inferior conj	15624 Jan 10 04:17	4°♑37'10	-5°58'29
morning rise	15623 Feb 07 18:23	20°♑10'05		minimum elong	15624 Jan 10 07:01	4°♑33'16	5°57'35
direct	15623 Feb 10 00:10	19°♑56'26		morning rise	15624 Jan 18 18:00	0°♑47'47	
asc. node	15623 Feb 17 20:48	22°♑57'54		direct	15624 Jan 21 16:16	0°♑27'48	
morning max el	15623 Feb 19 21:29	24°♑44'21	19°35'22	morning max el	15624 Feb 02 04:04	5°♑59'56	20°56'19
	15623 Feb 24 08:36	0°♒		asc. node	15624 Feb 04 18:09	8°♑45'11	
morning set	15623 Mar 09 04:07	22°♒44'46			15624 Feb 17 20:55	0°♒	
	15623 Mar 12 18:24	0°♓		morning set	15624 Feb 21 12:19	7°♒24'47	
superior conj	15623 Mar 17 04:40	8°♓49'19	0°43'06	superior conj	15624 Feb 28 21:47	22°♒48'54	1°06'26
minimum elong	15623 Mar 17 06:57	9°♓00'30	0°42'40	minimum elong	15624 Feb 29 00:21	23°♒02'04	1°06'16
desc. node	15623 Mar 22 10:25	18°♓50'59			15624 Mar 03 11:08	0°♓	
max. Earth dist.	15623 Mar 23 13:54	20°♓58'05	1.37754 AU	max. Earth dist.	15624 Mar 04 22:27	2°♓53'48	1.35588 AU
evening rise	15623 Mar 27 06:28	27°♓36'56		desc. node	15624 Mar 08 07:01	9°♓18'53	
	15623 Mar 28 15:10	0°♈		evening rise	15624 Mar 08 21:03	10°♓24'24	
	15623 Apr 16 19:51	0°♈			15624 Mar 20 05:06	0°♈	
evening max el	15623 May 01 16:28	18°♈08'42	25°09'15		15624 Apr 11 07:22	0°♈	
retrograde	15623 May 13 17:31	25°♈08'46		evening max el	15624 Apr 13 06:01	1°♈58'42	26°17'40
asc. node	15623 May 16 17:50	24°♈30'48		retrograde	15624 Apr 26 03:20	9°♈20'22	
evening set	15623 May 19 13:18	22°♈42'06		evening set	15624 May 02 09:22	6°♈48'21	

asc. node	15624 May 02 15:03	6° Π 36'25		asc. node	15625 Apr 19 12:22	17° \mathcal{B} 10'27	
min. Earth dist.	15624 May 06 11:46	2° Π 31'41	0.66991 AU	min. Earth dist.	15625 Apr 19 19:04	16° \mathcal{B} 52'10	0.65408 AU
inferior conj	15624 May 08 06:50	0° Π 19'26	1°39'16	inferior conj	15625 Apr 22 02:39	14° \mathcal{B} 15'19	0°47'58
minimum elong	15624 May 08 04:47	0° Π 25'45	1°37'53	minimum elong	15625 Apr 22 01:25	14° \mathcal{B} 18'50	0°46'57
	15624 May 08 13:10	30° \mathcal{R} 8		morning rise	15625 Apr 28 07:02	8° \mathcal{B} 44'33	
morning rise	15624 May 14 01:07	24° \mathcal{B} 36'02		direct	15625 May 01 01:50	8° \mathcal{B} 03'01	
direct	15624 May 17 05:32	23° \mathcal{B} 38'45		morning max el	15625 May 07 09:18	11° \mathcal{B} 19'40	18°00'20
morning max el	15624 May 23 18:02	27° \mathcal{B} 06'46	18°31'16		15625 May 20 14:32	0° Π	
	15624 May 26 09:26	0° Π		desc. node	15625 May 22 05:06	2° Π 36'40	
desc. node	15624 Jun 04 08:12	12° Π 35'34		morning set	15625 May 25 14:33	8° Π 09'15	
morning set	15624 Jun 13 16:49	27° Π 11'50			15625 Jun 08 04:12	0° \mathcal{E}	
	15624 Jun 15 11:36	0° \mathcal{E}		superior conj	15625 Jun 09 02:19	1° \mathcal{E} 27'14	-1°54'07
superior conj	15624 Jun 29 14:22	22° \mathcal{E} 04'16	-2°12'17	minimum elong	15625 Jun 08 17:53	0° \mathcal{E} 54'00	1°54'19
minimum elong	15624 Jun 29 11:04	21° \mathcal{E} 51'26	2°13'03	max. Earth dist.	15625 Jun 12 07:21	6° \mathcal{E} 29'47	1.45773 AU
max. Earth dist.	15624 Jun 29 11:13	21° \mathcal{E} 52'01	1.45950 AU	evening rise	15625 Jun 25 04:40	26° \mathcal{E} 27'30	
	15624 Jul 04 16:18	0° \mathcal{Q}			15625 Jun 27 12:03	0° \mathcal{Q}	
evening rise	15624 Jul 15 08:46	16° \mathcal{Q} 47'30		greatest brilliancy	15625 Jul 08 11:05	16° \mathcal{Q} 34'23	-0.7m
greatest brilliancy	15624 Jul 23 15:18	29° \mathcal{Q} 49'12	-0.8m	asc. node	15625 Jul 16 11:16	27° \mathcal{Q} 39'36	
	15624 Jul 23 18:05	0° \mathcal{M}			15625 Jul 18 10:19	0° \mathcal{M}	
asc. node	15624 Jul 29 14:30	8° \mathcal{M} 51'17		evening max el	15625 Jul 20 05:31	1° \mathcal{M} 55'06	19°29'48
evening max el	15624 Aug 05 21:36	18° \mathcal{M} 03'33	18°43'32	retrograde	15625 Jul 27 09:44	5° \mathcal{M} 55'12	
retrograde	15624 Aug 12 12:01	21° \mathcal{M} 38'27		evening set	15625 Jul 31 02:21	4° \mathcal{M} 36'10	
evening set	15624 Aug 15 18:46	20° \mathcal{M} 36'51			15625 Aug 04 11:36	30° \mathcal{R} 8	
inferior conj	15624 Aug 21 09:30	14° \mathcal{M} 56'19	2°33'06	inferior conj	15625 Aug 05 11:14	28° \mathcal{Q} 42'33	2°57'00
minimum elong	15624 Aug 21 11:38	14° \mathcal{M} 49'42	2°32'19	minimum elong	15625 Aug 05 12:39	28° \mathcal{Q} 37'53	2°56'18
min. Earth dist.	15624 Aug 23 06:05	12° \mathcal{M} 38'00	0.66014 AU	min. Earth dist.	15625 Aug 06 17:41	27° \mathcal{Q} 01'56	0.67485 AU
morning rise	15624 Aug 27 03:28	8° \mathcal{M} 30'46		morning rise	15625 Aug 10 22:23	22° \mathcal{Q} 16'32	
desc. node	15624 Aug 31 05:54	6° \mathcal{M} 11'09		direct	15625 Aug 16 19:58	19° \mathcal{Q} 43'00	
direct	15624 Sep 02 10:43	5° \mathcal{M} 52'44		desc. node	15625 Aug 18 03:20	19° \mathcal{Q} 49'39	
morning max el	15624 Sep 15 13:53	13° \mathcal{M} 39'00	26°40'06	morning max el	15625 Aug 29 00:54	27° \mathcal{Q} 01'03	25°24'45
	15624 Sep 28 20:35	0° \mathcal{L}			15625 Aug 31 19:48	0° \mathcal{M}	
	15624 Oct 17 12:54	0° \mathcal{M}			15625 Sep 22 11:27	0° \mathcal{L}	
morning set	15624 Oct 21 09:06	7° \mathcal{M} 06'51		morning set	15625 Oct 03 22:41	19° \mathcal{L} 24'56	
max. Earth dist.	15624 Oct 25 09:07	14° \mathcal{M} 53'21	1.34167 AU	max. Earth dist.	15625 Oct 07 12:06	25° \mathcal{L} 57'29	1.36223 AU
asc. node	15624 Oct 25 16:09	15° \mathcal{M} 28'25			15625 Oct 09 15:16	0° \mathcal{M}	
				asc. node	15625 Oct 12 12:52	5° \mathcal{M} 38'36	
superior conj	15624 Oct 30 04:37	24° \mathcal{M} 42'29	0°40'39	superior conj	15625 Oct 13 19:40	8° \mathcal{M} 11'22	0°11'41
minimum elong	15624 Oct 30 02:39	24° \mathcal{M} 32'12	0°40'57	minimum elong	15625 Oct 13 18:56	8° \mathcal{M} 07'45	0°12'01
	15624 Nov 01 17:02	0° \mathcal{J}		behind sun begin	15625 Oct 13 14:41	7° \mathcal{M} 46'33	
evening rise	15624 Nov 06 12:42	10° \mathcal{J} 12'51		behind sun end	15625 Oct 13 23:11	8° \mathcal{M} 28'59	
	15624 Nov 16 18:12	0° \mathcal{Z}		evening rise	15625 Oct 21 19:10	24° \mathcal{M} 26'38	
evening max el	15624 Nov 26 06:33	12° \mathcal{Z} 47'00	21°19'16		15625 Oct 24 13:05	0° \mathcal{J}	
desc. node	15624 Nov 27 03:03	13° \mathcal{Z} 35'46		evening max el	15625 Nov 08 10:18	23° \mathcal{J} 33'03	19°57'43
retrograde	15624 Dec 08 05:19	18° \mathcal{Z} 41'47		desc. node	15625 Nov 14 00:12	27° \mathcal{J} 37'42	
evening set	15624 Dec 11 01:23	18° \mathcal{Z} 23'12		retrograde	15625 Nov 18 18:26	28° \mathcal{J} 42'20	
inferior conj	15624 Dec 19 19:25	14° \mathcal{Z} 32'17	-5°46'24	evening set	15625 Nov 20 20:10	28° \mathcal{J} 30'53	
minimum elong	15624 Dec 19 13:01	14° \mathcal{Z} 41'19	5°44'42	inferior conj	15625 Nov 29 15:09	24° \mathcal{J} 31'56	-4°36'59
min. Earth dist.	15624 Dec 20 06:57	14° \mathcal{Z} 16'03	0.54411 AU	minimum elong	15625 Nov 29 05:05	24° \mathcal{J} 47'13	4°33'17
morning rise	15624 Dec 28 01:02	10° \mathcal{Z} 42'17		min. Earth dist.	15625 Dec 01 13:53	23° \mathcal{J} 20'56	0.54993 AU
direct	15624 Dec 31 23:55	10° \mathcal{Z} 08'27		morning rise	15625 Dec 07 12:51	20° \mathcal{J} 22'33	
morning max el	15625 Jan 13 20:31	16° \mathcal{Z} 22'54	22°37'18	direct	15625 Dec 12 12:18	19° \mathcal{J} 28'25	
asc. node	15625 Jan 21 15:29	25° \mathcal{Z} 47'26		morning max el	15625 Dec 26 05:24	26° \mathcal{J} 16'41	24°27'13
	15625 Jan 24 09:08	0° \approx			15625 Dec 29 18:17	0° \mathcal{Z}	
morning set	15625 Feb 04 23:25	22° \approx 08'59		asc. node	15626 Jan 08 12:44	13° \mathcal{Z} 47'10	
	15625 Feb 08 15:15	0° \mathcal{H}			15626 Jan 17 05:09	0° \approx	
superior conj	15625 Feb 11 23:10	7° \mathcal{H} 09'02	1°23'14	morning set	15626 Jan 20 11:27	6° \approx 51'58	
minimum elong	15625 Feb 12 01:18	7° \mathcal{H} 20'21	1°23'26	superior conj	15626 Jan 27 06:09	21° \approx 42'16	1°33'39
max. Earth dist.	15625 Feb 15 13:36	14° \mathcal{H} 42'48	1.33747 AU	minimum elong	15626 Jan 27 07:24	21° \approx 49'09	1°34'11
evening rise	15625 Feb 20 01:47	23° \mathcal{H} 46'03		max. Earth dist.	15626 Jan 29 12:39	26° \approx 38'46	1.32342 AU
desc. node	15625 Feb 23 03:35	29° \mathcal{H} 38'12			15626 Jan 31 02:13	0° \mathcal{H}	
	15625 Feb 23 08:16	0° \mathcal{Y}		evening rise	15626 Feb 03 17:26	7° \mathcal{H} 33'39	
	15625 Mar 13 19:30	0° \mathcal{B}		desc. node	15626 Feb 10 00:14	19° \mathcal{H} 44'26	
evening max el	15625 Mar 26 19:42	15° \mathcal{B} 36'13	27°08'23		15626 Feb 15 20:29	0° \mathcal{Y}	
retrograde	15625 Apr 09 07:12	23° \mathcal{B} 07'03		evening max el	15626 Mar 09 08:15	28° \mathcal{Y} 50'10	27°34'00
evening set	15625 Apr 15 21:27	20° \mathcal{B} 35'52					

	15626 Mar 10 14:15	0°♄			15627 Feb 09 21:07	0°♅	
retrograde	15626 Mar 23 04:00	6°♄20'00		evening max el	15627 Feb 19 17:05	11°♅26'16	27°28'23
evening set	15626 Mar 29 23:15	3°♄56'29		retrograde	15627 Mar 05 16:35	18°♅49'12	
min. Earth dist.	15626 Apr 02 17:58	0°♄41'59	0.63484 AU	evening set	15627 Mar 12 11:59	16°♅40'34	
	15626 Apr 03 10:51	30°♅♂		min. Earth dist.	15627 Mar 16 06:54	13°♅49'00	0.61316 AU
inferior conj	15626 Apr 05 12:51	27°♅52'12	-0°16'38	inferior conj	15627 Mar 19 10:00	11°♅00'45	-1°34'22
minimum elong	15626 Apr 05 13:22	27°♅50'51	0°16'45	minimum elong	15627 Mar 19 13:23	10°♅53'07	1°33'04
asc. node	15626 Apr 06 09:43	26°♅59'28		asc. node	15627 Mar 24 07:07	7°♅10'27	
morning rise	15626 Apr 12 05:59	22°♅36'32		morning rise	15627 Mar 26 17:59	6°♅03'16	
direct	15626 Apr 14 16:26	22°♅07'31		direct	15627 Mar 28 21:41	5°♅43'23	
morning max el	15626 Apr 21 02:53	25°♅24'28	17°46'45	morning max el	15627 Apr 04 19:39	9°♅11'54	17°51'11
	15626 Apr 25 00:14	0°♄			15627 Apr 18 12:19	0°♄	
morning set	15626 May 07 14:42	20°♄21'59		morning set	15627 Apr 20 11:49	3°♄33'06	
desc. node	15626 May 09 01:56	22°♄52'42		desc. node	15627 Apr 25 22:42	13°♄18'33	
	15626 May 13 06:32	0°♂					
				superior conj	15627 May 01 11:15	22°♄55'53	-0°43'46
superior conj	15626 May 20 07:03	11°♂38'57	-1°21'51	minimum elong	15627 May 01 07:16	22°♄38'50	0°43'48
minimum elong	15626 May 19 23:25	11°♂07'45	1°21'42		15627 May 05 15:48	0°♂	
max. Earth dist.	15626 May 26 02:21	20°♂59'16	1.44872 AU	max. Earth dist.	15627 May 08 17:49	5°♂04'34	1.43332 AU
	15626 May 31 20:10	0°♄		evening rise	15627 May 15 09:06	15°♂40'16	
evening rise	15626 Jun 04 15:16	5°♄51'08			15627 May 24 18:39	0°♄	
	15626 Jun 20 21:04	0°♂		evening max el	15627 Jun 16 03:45	29°♄41'17	21°43'44
asc. node	15626 Jul 03 08:06	15°♂49'34			15627 Jun 16 11:19	0°♂	
evening max el	15626 Jul 03 07:35	15°♂48'17	20°30'53	asc. node	15627 Jun 20 05:00	3°♂08'36	
retrograde	15626 Jul 11 08:43	20°♂24'36		retrograde	15627 Jun 25 07:13	5°♂01'15	
evening set	15626 Jul 15 11:52	18°♂47'45		evening set	15627 Jun 29 21:24	3°♂07'24	
inferior conj	15626 Jul 20 17:52	12°♂42'12	3°08'00		15627 Jul 02 19:21	30°♅♄	
minimum elong	15626 Jul 20 18:20	12°♂40'36	3°07'18	inferior conj	15627 Jul 05 03:07	26°♄51'22	3°07'39
min. Earth dist.	15626 Jul 21 10:27	11°♂45'11	0.68497 AU	minimum elong	15627 Jul 05 02:38	26°♄53'05	3°06'50
morning rise	15626 Jul 26 00:29	6°♂19'41		min. Earth dist.	15627 Jul 05 06:20	26°♄40'07	0.69026 AU
direct	15626 Jul 31 10:31	3°♂57'40		morning rise	15627 Jul 10 07:40	20°♄34'47	
desc. node	15626 Aug 05 00:44	5°♂19'56		direct	15627 Jul 15 05:23	18°♄29'03	
morning max el	15626 Aug 11 11:40	10°♂33'38	23°57'59	desc. node	15627 Jul 22 22:05	22°♄17'23	
	15626 Aug 26 22:55	0°♄		morning max el	15627 Jul 25 00:01	24°♄14'52	22°29'00
	15626 Sep 15 04:44	0°♂			15627 Jul 30 02:59	0°♂	
morning set	15626 Sep 15 17:00	0°♂52'16			15627 Aug 20 08:17	0°♄	
max. Earth dist.	15626 Sep 19 10:57	7°♂23'08	1.38573 AU	morning set	15627 Aug 27 12:20	11°♄20'45	
				max. Earth dist.	15627 Sep 01 11:39	19°♄34'00	1.40949 AU
					15627 Sep 07 12:45	0°♂	
superior conj	15626 Sep 26 22:15	21°♂04'49	-0°22'03				
minimum elong	15626 Sep 26 23:48	21°♂12'09	0°21'32	superior conj	15627 Sep 09 08:11	3°♂13'13	-0°58'25
asc. node	15626 Sep 29 09:32	25°♂48'29		minimum elong	15627 Sep 09 12:48	3°♂33'56	0°57'44
	15626 Oct 01 13:16	0°♄		asc. node	15627 Sep 16 06:09	15°♂54'41	
evening rise	15626 Oct 05 19:48	8°♄24'05		evening rise	15627 Sep 19 11:21	21°♂57'05	
	15626 Oct 17 22:57	0°♄			15627 Sep 23 19:06	0°♄	
evening max el	15626 Oct 22 04:12	5°♄08'36	18°58'02				
retrograde	15626 Oct 30 22:40	9°♄33'44		evening max el	15627 Oct 05 09:12	17°♄29'46	18°20'21
desc. node	15626 Oct 31 21:27	9°♄30'47		retrograde	15627 Oct 12 22:21	21°♄20'15	
evening set	15626 Nov 01 19:54	9°♄22'18		evening set	15627 Oct 14 23:15	21°♄04'08	
inferior conj	15626 Nov 10 03:40	5°♄05'14	-2°56'07	desc. node	15627 Oct 18 18:45	19°♄17'30	
minimum elong	15626 Nov 09 20:24	5°♄17'57	2°52'38	inferior conj	15627 Oct 22 13:56	16°♄25'58	-1°13'09
min. Earth dist.	15626 Nov 13 01:12	3°♄04'01	0.56407 AU	minimum elong	15627 Oct 22 11:10	16°♄31'39	1°11'26
morning rise	15626 Nov 17 18:07	0°♄21'43		min. Earth dist.	15627 Oct 25 20:03	13°♄46'55	0.58398 AU
	15626 Nov 18 15:12	30°♅♄		morning rise	15627 Oct 29 19:36	11°♄05'22	
direct	15626 Nov 23 12:57	29°♄02'55		direct	15627 Nov 05 03:49	9°♄19'39	
	15626 Nov 28 11:16	0°♄		morning max el	15627 Nov 19 10:54	16°♄56'52	27°20'37
morning max el	15626 Dec 07 16:21	6°♄18'03	26°07'40		15627 Nov 30 05:52	0°♄	
	15626 Dec 25 00:16	0°♄		asc. node	15627 Dec 13 07:00	21°♄43'03	
asc. node	15626 Dec 26 09:54	2°♄29'21			15627 Dec 17 11:36	0°♄	
morning set	15627 Jan 04 22:33	21°♄27'54		morning set	15627 Dec 20 06:56	5°♄52'13	
	15627 Jan 08 19:56	0°♄					
				superior conj	15627 Dec 27 03:49	21°♄00'15	1°36'09
superior conj	15627 Jan 11 16:21	6°♄21'06	1°37'55	minimum elong	15627 Dec 27 02:59	20°♄55'37	1°36'57
minimum elong	15627 Jan 11 16:34	6°♄22'17	1°38'40	max. Earth dist.	15627 Dec 27 01:22	20°♄46'35	1.31039 AU
max. Earth dist.	15627 Jan 12 17:41	8°♄41'58	1.31428 AU		15627 Dec 31 04:41	0°♄	
evening rise	15627 Jan 18 17:03	21°♄39'09		evening rise	15628 Jan 02 22:20	5°♄57'02	
	15627 Jan 22 19:33	0°♄		desc. node	15628 Jan 14 17:37	28°♄49'50	
desc. node	15627 Jan 27 20:54	9°♄30'50			15628 Jan 15 10:07	0°♄	

evening max el	15628 Feb 01 19:31	23° H 13'19	26°47'55	superior conj	15628 Dec 10 14:41	5° Z 34'34	1°28'24
	15628 Feb 12 13:21	0° Y		minimum elong	15628 Dec 10 12:58	5° Z 25'04	1°29'07
retrograde	15628 Feb 15 19:47	0° Y 26'18		evening rise	15628 Dec 17 07:14	20° Z 22'44	
	15628 Feb 19 01:05	30° R H			15628 Dec 21 21:34	0° \approx	
evening set	15628 Feb 22 08:23	28° H 39'36		desc. node	15628 Dec 31 14:26	17° \approx 31'37	
min. Earth dist.	15628 Feb 26 09:25	26° H 00'52	0.59071 AU		15629 Jan 09 15:44	0° H	
inferior conj	15628 Feb 29 14:21	23° H 30'49	-3°02'02	evening max el	15629 Jan 13 13:53	4° H 08'21	25°34'29
minimum elong	15628 Feb 29 21:14	23° H 17'20	2°59'18	retrograde	15629 Jan 27 11:38	11° H 08'32	
morning rise	15628 Mar 08 13:35	18° H 54'13		evening set	15629 Feb 02 08:45	9° H 49'13	
asc. node	15628 Mar 10 04:32	18° H 40'25		min. Earth dist.	15629 Feb 07 02:39	7° H 09'03	0.56996 AU
direct	15628 Mar 10 13:11	18° H 39'56		inferior conj	15629 Feb 09 22:42	5° H 13'56	-4°29'51
morning max el	15628 Mar 18 08:01	22° H 31'25	18°14'48	minimum elong	15629 Feb 10 07:58	4° H 58'14	4°26'45
	15628 Mar 24 04:05	0° Y		morning rise	15629 Feb 18 10:03	0° H 58'44	
morning set	15628 Apr 03 00:01	17° Y 24'49		direct	15629 Feb 20 10:53	0° H 46'14	
	15628 Apr 09 17:10	0° Z		asc. node	15629 Feb 25 01:56	1° H 55'06	
desc. node	15628 Apr 11 19:21	3° Z 49'49		morning max el	15629 Mar 01 11:51	5° H 11'32	18°59'23
					15629 Mar 17 01:34	0° Y	
superior conj	15628 Apr 12 13:51	5° Z 13'35	-0°06'22	morning set	15629 Mar 17 22:42	1° Y 43'45	
minimum elong	15628 Apr 12 13:19	5° Z 11'12	0°06'43				
behind sun begin	15628 Apr 12 06:29	4° Z 40'17		superior conj	15629 Mar 26 10:48	18° Y 20'35	0°26'42
behind sun end	15628 Apr 12 20:09	5° Z 42'03		minimum elong	15629 Mar 26 12:26	18° Y 28'23	0°26'14
max. Earth dist.	15628 Apr 20 04:08	18° Z 30'55	1.41322 AU	desc. node	15629 Mar 29 15:58	24° Y 23'00	
evening rise	15628 Apr 24 21:08	26° Z 19'50			15629 Apr 01 17:58	0° Z	
	15628 Apr 27 03:45	0° II		max. Earth dist.	15629 Apr 02 10:45	1° Z 14'56	1.39068 AU
	15628 May 17 11:49	0° E		evening rise	15629 Apr 06 06:34	7° Z 55'30	
evening max el	15628 May 28 19:31	13° E 34'22	23°03'46		15629 Apr 20 02:11	0° II	
asc. node	15628 Jun 06 01:59	19° E 20'17		evening max el	15629 May 11 09:22	27° II 29'25	24°24'52
retrograde	15628 Jun 08 03:37	19° E 38'54			15629 May 14 02:48	0° E	
evening set	15628 Jun 13 05:16	17° E 29'58		retrograde	15629 May 22 20:44	4° E 12'06	
min. Earth dist.	15628 Jun 18 03:15	11° E 39'28	0.69069 AU	asc. node	15629 May 23 23:05	4° E 06'56	
inferior conj	15628 Jun 18 13:01	11° E 05'37	2°56'44	evening set	15629 May 28 09:53	1° E 51'02	
minimum elong	15628 Jun 18 11:40	11° E 10'15	2°55'42		15629 May 30 06:21	30° R II	
morning rise	15628 Jun 23 17:59	4° E 56'30		min. Earth dist.	15629 Jun 01 23:03	26° II 37'33	0.68633 AU
direct	15628 Jun 28 03:23	3° E 09'44		inferior conj	15629 Jun 02 21:41	25° II 21'26	2°35'23
morning max el	15628 Jul 06 16:33	8° E 04'57	21°05'33	minimum elong	15629 Jun 02 19:44	25° II 28'01	2°34'06
desc. node	15628 Jul 08 19:20	10° E 19'26		morning rise	15629 Jun 08 05:41	19° II 21'09	
	15628 Jul 23 13:20	0° O		direct	15629 Jun 12 03:17	17° II 54'12	
morning set	15628 Aug 06 08:01	20° O 49'08		morning max el	15629 Jun 19 15:42	22° II 05'53	19°53'35
	15628 Aug 12 03:03	0° P		desc. node	15629 Jun 25 16:29	29° II 09'24	
max. Earth dist.	15628 Aug 13 17:42	2° P 36'10	1.43079 AU		15629 Jun 26 07:49	0° E	
				morning set	15629 Jul 16 12:36	29° E 41'24	
superior conj	15628 Aug 20 21:00	14° P 26'25	-1°33'33		15629 Jul 16 17:27	0° O	
minimum elong	15628 Aug 21 04:20	14° P 57'30	1°33'00	max. Earth dist.	15629 Jul 27 06:20	16° O 25'20	1.44729 AU
	15628 Aug 29 19:39	0° E					
evening rise	15628 Sep 01 13:31	4° E 53'50		superior conj	15629 Aug 01 10:21	24° O 41'20	-2°01'11
asc. node	15628 Sep 02 02:44	5° E 52'53		minimum elong	15629 Aug 01 17:21	25° O 09'37	2°01'18
	15628 Sep 17 10:41	0° M			15629 Aug 04 16:42	0° P	
evening max el	15628 Sep 17 21:00	0° M 26'17	18°03'08	evening rise	15629 Aug 14 21:16	17° P 02'11	
retrograde	15628 Sep 24 15:10	3° M 54'57		asc. node	15629 Aug 19 23:20	25° P 39'14	
evening set	15628 Sep 26 23:16	3° M 30'01			15629 Aug 22 14:05	0° E	
	15628 Oct 02 06:29	30° R E		evening max el	15629 Sep 01 11:40	13° E 48'36	18°04'49
inferior conj	15628 Oct 03 20:42	28° E 31'41	0°15'10	retrograde	15629 Sep 07 20:59	17° E 08'58	
minimum elong	15628 Oct 03 21:11	28° E 30'31	0°15'19	evening set	15629 Sep 10 13:32	16° E 31'41	
transit middle	15628 Oct 03 21:11	28° E 30'31	0°15'19	inferior conj	15629 Sep 16 20:17	11° E 15'12	1°23'33
transit begin	15628 Oct 03 20:07	28° E 33'03		minimum elong	15629 Sep 16 22:20	11° E 09'41	1°22'56
transit end	15628 Oct 03 22:15	28° E 27'59		min. Earth dist.	15629 Sep 19 13:57	8° E 19'58	0.62934 AU
desc. node	15628 Oct 04 16:09	27° E 45'22		desc. node	15629 Sep 21 13:34	6° E 24'44	
min. Earth dist.	15628 Oct 07 00:08	25° E 34'08	0.60665 AU	morning rise	15629 Sep 23 04:56	5° E 04'05	
morning rise	15628 Oct 10 16:00	22° E 40'51		direct	15629 Sep 29 21:05	2° E 36'13	
direct	15628 Oct 17 07:18	20° E 30'36		morning max el	15629 Oct 13 20:56	10° E 35'20	27°52'27
morning max el	15628 Oct 31 13:10	28° E 23'24	27°56'02		15629 Oct 29 03:29	0° M	
	15628 Nov 02 02:59	0° M			15629 Nov 15 10:27	0° Z	
	15628 Nov 23 02:14	0° Z		asc. node	15629 Nov 16 00:50	1° Z 11'19	
asc. node	15628 Nov 29 03:58	11° Z 19'21		morning set	15629 Nov 17 07:33	3° Z 45'50	
morning set	15628 Dec 03 10:41	20° Z 00'10		max. Earth dist.	15629 Nov 22 10:00	14° Z 26'47	1.31911 AU
	15628 Dec 08 02:17	0° Z					
max. Earth dist.	15628 Dec 09 08:05	2° Z 44'33	1.31192 AU	superior conj	15629 Nov 24 23:00	19° Z 58'07	1°14'37

minimum elong	15629 Nov 24 20:45	19° ♁ 45'47	1°15'09	superior conj	15630 Nov 09 02:42	4° ♁ 05'41	0°54'47
	15629 Nov 29 12:26	0° ♁		minimum elong	15630 Nov 09 00:25	3° ♁ 53'32	0°55'09
evening rise	15629 Dec 01 17:53	4° ♁ 51'04		evening rise	15630 Nov 16 04:30	19° ♁ 17'56	
	15629 Dec 14 21:34	0° ♁			15630 Nov 21 09:03	0° ♁	
desc. node	15629 Dec 18 11:20	5° ♁ 21'40		desc. node	15630 Dec 05 08:20	22° ♁ 01'46	
evening max el	15629 Dec 26 01:04	14° ♁ 19'52	23°57'41	evening max el	15630 Dec 07 11:31	24° ♁ 16'20	22°14'29
retrograde	15630 Jan 08 13:48	21° ♁ 02'43			15630 Dec 16 10:02	0° ♁	
evening set	15630 Jan 13 10:10	20° ♁ 11'42		retrograde	15630 Dec 20 03:46	0° ♁ 32'45	
min. Earth dist.	15630 Jan 19 12:34	17° ♁ 12'48	0.55384 AU	evening set	15630 Dec 23 16:59	0° ♁ 04'55	
inferior conj	15630 Jan 21 10:04	16° ♁ 04'50	-5°38'18		15630 Dec 24 00:26	30° ♁	
minimum elong	15630 Jan 21 17:06	15° ♁ 54'20	5°36'34	inferior conj	15631 Jan 01 05:15	26° ♁ 12'35	-6°01'05
morning rise	15630 Jan 30 01:42	12° ♁ 08'09		minimum elong	15631 Jan 01 03:57	26° ♁ 14'24	6°00'13
direct	15630 Feb 01 13:12	11° ♁ 52'34		min. Earth dist.	15630 Dec 31 18:16	26° ♁ 27'58	0.54508 AU
asc. node	15630 Feb 11 23:20	16° ♁ 50'53		morning rise	15631 Jan 09 15:55	22° ♁ 25'24	
morning max el	15630 Feb 12 02:54	16° ♁ 59'29	20°06'54	direct	15631 Jan 13 00:23	22° ♁ 00'20	
	15630 Feb 21 15:49	0° ♁		morning max el	15631 Jan 25 02:57	27° ♁ 50'37	21°37'15
morning set	15630 Mar 02 04:15	16° ♁ 18'30			15631 Jan 27 05:00	0° ♁	
	15630 Mar 08 21:02	0° ♁		asc. node	15631 Jan 29 20:40	3° ♁ 12'09	
					15631 Feb 14 02:15	0° ♁	
superior conj	15630 Mar 09 21:39	2° ♁ 03'45	0°53'46	morning set	15631 Feb 14 13:59	1° ♁ 01'24	
minimum elong	15630 Mar 10 00:10	2° ♁ 16'20	0°53'27				
max. Earth dist.	15630 Mar 15 17:30	13° ♁ 24'23	1.36811 AU	superior conj	15631 Feb 21 18:41	16° ♁ 13'06	1°14'20
desc. node	15630 Mar 16 12:32	14° ♁ 53'44		minimum elong	15631 Feb 21 21:08	16° ♁ 25'53	1°14'19
evening rise	15630 Mar 19 11:28	20° ♁ 19'25		max. Earth dist.	15631 Feb 26 04:53	25° ♁ 16'41	1.34764 AU
	15630 Mar 25 00:33	0° ♁			15631 Feb 28 14:21	0° ♁	
	15630 Apr 14 02:17	0° ♁		evening rise	15631 Mar 02 08:31	3° ♁ 22'26	
evening max el	15630 Apr 23 22:58	11° ♁ 23'16	25°40'02	desc. node	15631 Mar 03 09:08	5° ♁ 18'31	
retrograde	15630 May 06 09:17	18° ♁ 33'24			15631 Mar 17 22:21	0° ♁	
asc. node	15630 May 10 20:17	17° ♁ 12'27		evening max el	15631 Apr 06 12:46	25° ♁ 09'27	26°41'45
evening set	15630 May 12 09:34	16° ♁ 04'06			15631 Apr 12 09:32	0° ♁	
min. Earth dist.	15630 May 16 15:34	11° ♁ 27'06	0.67725 AU	retrograde	15631 Apr 19 16:29	2° ♁ 35'34	
inferior conj	15630 May 18 03:07	9° ♁ 33'37	2°03'08	evening set	15631 Apr 26 02:29	0° ♁ 03'05	
minimum elong	15630 May 18 00:57	9° ♁ 40'34	2°01'43		15631 Apr 26 04:00	30° ♁	
morning rise	15630 May 23 16:51	3° ♁ 43'32		asc. node	15631 Apr 27 17:34	28° ♁ 35'34	
direct	15630 May 27 03:22	2° ♁ 35'48		min. Earth dist.	15631 Apr 30 02:41	26° ♁ 00'58	0.66375 AU
morning max el	15630 Jun 02 22:10	6° ♁ 15'42	18°56'35	inferior conj	15631 May 02 03:10	23° ♁ 37'08	1°19'05
desc. node	15630 Jun 12 13:32	18° ♁ 34'02		minimum elong	15631 May 02 01:21	23° ♁ 42'32	1°17'49
greatest brilliancy	15630 Jun 16 05:45	24° ♁ 02'01	-0.7m	morning rise	15631 May 08 01:25	17° ♁ 58'57	
	15630 Jun 20 03:41	0° ♁		direct	15631 May 11 01:43	17° ♁ 08'35	
morning set	15630 Jun 25 20:59	8° ♁ 49'40		morning max el	15631 May 17 10:54	20° ♁ 29'51	18°16'00
	15630 Jul 09 11:59	0° ♁			15631 May 24 22:56	0° ♁	
max. Earth dist.	15630 Jul 10 00:20	0° ♁ 48'15	1.45721 AU	desc. node	15631 May 30 10:30	8° ♁ 23'58	
				morning set	15631 Jun 06 02:52	19° ♁ 01'41	
superior conj	15630 Jul 12 03:23	4° ♁ 08'10	-2°13'54		15631 Jun 13 00:33	0° ♁	
minimum elong	15630 Jul 12 04:42	4° ♁ 13'18	2°14'40				
evening rise	15630 Jul 27 05:43	28° ♁ 11'09		superior conj	15631 Jun 21 12:09	13° ♁ 19'19	-2°06'47
	15630 Jul 28 08:38	0° ♁		minimum elong	15631 Jun 21 05:58	12° ♁ 55'10	2°07'20
asc. node	15630 Aug 06 20:00	15° ♁ 08'52		max. Earth dist.	15631 Jun 22 20:50	15° ♁ 26'48	1.45971 AU
evening max el	15630 Aug 16 01:47	27° ♁ 28'12	18°24'26		15631 Jul 02 05:12	0° ♁	
	15630 Aug 19 07:34	0° ♁		evening rise	15631 Jul 07 13:25	8° ♁ 18'58	
retrograde	15630 Aug 22 11:43	0° ♁ 53'53		greatest brilliancy	15631 Jul 18 02:52	24° ♁ 39'00	-0.8m
evening set	15630 Aug 25 13:13	0° ♁ 01'33			15631 Jul 21 16:55	0° ♁	
	15630 Aug 25 14:19	30° ♁		asc. node	15631 Jul 24 16:44	4° ♁ 14'43	
inferior conj	15630 Aug 31 08:46	24° ♁ 29'06	2°12'36	evening max el	15631 Jul 30 12:33	11° ♁ 16'58	19°01'15
minimum elong	15630 Aug 31 11:06	24° ♁ 22'09	2°11'48	retrograde	15631 Aug 06 07:49	15° ♁ 01'11	
min. Earth dist.	15630 Sep 02 13:18	21° ♁ 53'44	0.64988 AU	evening set	15631 Aug 09 18:44	13° ♁ 52'08	
morning rise	15630 Sep 06 07:38	18° ♁ 06'47		inferior conj	15631 Aug 15 06:34	8° ♁ 05'35	2°44'56
desc. node	15630 Sep 08 11:00	16° ♁ 39'26		minimum elong	15631 Aug 15 08:26	7° ♁ 59'36	2°44'12
direct	15630 Sep 12 19:14	15° ♁ 30'09		min. Earth dist.	15631 Aug 16 21:00	6° ♁ 02'38	0.66691 AU
morning max el	15630 Sep 26 07:43	23° ♁ 24'21	27°14'31	morning rise	15631 Aug 20 21:22	1° ♁ 39'14	
	15630 Oct 02 05:02	0° ♁			15631 Aug 23 06:25	30° ♁	
	15630 Oct 22 11:24	0° ♁		desc. node	15631 Aug 26 08:27	29° ♁ 04'16	
morning set	15630 Oct 31 18:58	17° ♁ 03'45		direct	15631 Aug 27 00:40	29° ♁ 02'31	
asc. node	15630 Nov 02 21:37	21° ♁ 13'54			15631 Aug 31 02:33	0° ♁	
max. Earth dist.	15630 Nov 05 03:58	25° ♁ 49'31	1.33194 AU	morning max el	15631 Sep 08 19:17	6° ♁ 38'24	26°10'07
	15630 Nov 07 04:13	0° ♁			15631 Sep 26 22:17	0° ♁	
				morning set	15631 Oct 14 17:36	29° ♁ 46'07	

	15631 Oct 14 20:35	0°♄			15632 Oct 05 20:00	0°♄	
max. Earth dist.	15631 Oct 18 12:16	6°♄56'34	1.34997 AU				
asc. node	15631 Oct 20 18:21	11°♄22'18		superior conj	15632 Oct 06 09:21	1°♄05'05	-0°02'10
				minimum elong	15632 Oct 06 09:29	1°♄05'40	0°01'47
superior conj	15631 Oct 23 23:11	17°♄50'21	0°29'01	behind sun begin	15632 Oct 06 02:54	0°♄33'35	
minimum elong	15631 Oct 23 21:37	17°♄42'21	0°29'18	behind sun end	15632 Oct 06 16:03	1°♄37'49	
	15631 Oct 29 19:23	0°♄		asc. node	15632 Oct 06 15:03	1°♄32'56	
evening rise	15631 Oct 31 13:06	3°♄37'53		evening rise	15632 Oct 14 17:26	17°♄45'34	
	15631 Nov 15 07:46	0°♄			15632 Oct 21 00:10	0°♄	
evening max el	15631 Nov 19 06:57	4°♄35'33	20°41'55	evening max el	15632 Oct 31 16:52	15°♄42'24	19°29'31
desc. node	15631 Nov 22 05:27	7°♄08'15		desc. node	15632 Nov 08 02:39	20°♄17'00	
retrograde	15631 Nov 30 13:59	10°♄12'13		retrograde	15632 Nov 10 08:36	20°♄32'16	
evening set	15631 Dec 03 00:22	9°♄57'45		evening set	15632 Nov 12 06:43	20°♄21'38	
inferior conj	15631 Dec 11 20:23	6°♄04'32	-5°22'47	inferior conj	15632 Nov 20 22:09	16°♄15'56	-3°56'04
minimum elong	15631 Dec 11 11:27	6°♄17'24	5°20'08	minimum elong	15632 Nov 20 12:46	16°♄31'02	3°52'08
min. Earth dist.	15631 Dec 12 23:44	5°♄25'06	0.54544 AU	min. Earth dist.	15632 Nov 23 08:28	14°♄42'17	0.55504 AU
morning rise	15631 Dec 19 22:26	2°♄08'47		morning rise	15632 Nov 28 16:46	11°♄52'43	
direct	15631 Dec 24 08:00	1°♄27'15		direct	15632 Dec 04 01:02	10°♄48'26	
morning max el	15632 Jan 06 15:06	7°♄56'50	23°24'08	morning max el	15632 Dec 17 23:56	17°♄49'46	25°12'21
asc. node	15632 Jan 16 17:57	20°♄40'16			15632 Dec 28 00:11	0°♄	
	15632 Jan 22 05:30	0°♄		asc. node	15633 Jan 02 15:09	8°♄59'19	
morning set	15632 Jan 30 01:42	15°♄45'41		morning set	15633 Jan 13 08:41	0°♄	
					15633 Jan 13 13:30	0°♄25'54	
superior conj	15632 Feb 05 22:45	0°♄39'39	1°28'26				
minimum elong	15632 Feb 06 00:32	0°♄49'19	1°28'46	superior conj	15633 Jan 20 07:19	15°♄15'55	1°36'13
	15632 Feb 05 15:24	0°♄		minimum elong	15633 Jan 20 08:08	15°♄20'28	1°36'51
max. Earth dist.	15632 Feb 08 23:26	7°♄07'33	1.33085 AU	max. Earth dist.	15633 Jan 22 01:00	19°♄05'12	1.31881 AU
evening rise	15632 Feb 13 18:13	16°♄55'38			15633 Jan 27 03:35	0°♄	
desc. node	15632 Feb 18 05:46	25°♄32'56		evening rise	15633 Jan 27 13:30	0°♄51'17	
	15632 Feb 20 16:16	0°♄		desc. node	15633 Feb 04 02:25	15°♄31'25	
	15632 Mar 11 08:24	0°♄			15633 Feb 12 15:42	0°♄	
evening max el	15632 Mar 19 02:00	8°♄38'07	27°22'42	evening max el	15633 Mar 01 13:05	21°♄36'56	27°35'50
retrograde	15632 Apr 01 17:32	16°♄09'56		retrograde	15633 Mar 15 11:19	29°♄05'29	
evening set	15632 Apr 08 10:34	13°♄40'45		evening set	15633 Mar 22 07:12	26°♄47'17	
min. Earth dist.	15632 Apr 12 06:31	10°♄10'25	0.64627 AU	min. Earth dist.	15633 Mar 26 01:22	23°♄43'31	0.62571 AU
asc. node	15632 Apr 13 14:54	8°♄43'35		inferior conj	15633 Mar 29 00:21	20°♄52'08	-0°48'07
inferior conj	15632 Apr 14 19:17	7°♄26'11	0°22'14	minimum elong	15633 Mar 29 01:58	20°♄48'12	0°47'40
minimum elong	15632 Apr 14 18:40	7°♄27'52	0°21'32	asc. node	15633 Mar 31 12:17	18°♄33'24	
morning rise	15632 Apr 21 04:49	2°♄01'50		morning rise	15633 Apr 04 23:38	15°♄44'02	
direct	15632 Apr 23 19:53	1°♄26'07		direct	15633 Apr 07 06:50	15°♄19'28	
morning max el	15632 Apr 30 03:38	4°♄41'20	17°52'28	morning max el	15633 Apr 13 21:19	18°♄40'17	17°46'25
desc. node	15632 May 16 07:22	28°♄32'26			15633 Apr 22 04:58	0°♄	
	15632 May 17 04:23	0°♄		morning set	15633 Apr 29 22:12	13°♄13'12	
morning set	15632 May 17 12:22	0°♄33'16		desc. node	15633 May 03 04:09	18°♄53'13	
					15633 May 09 15:52	0°♄	
superior conj	15632 May 31 05:58	23°♄00'40	-1°41'40				
minimum elong	15632 May 30 21:16	22°♄25'55	1°41'39	superior conj	15633 May 11 20:29	3°♄40'08	-1°05'59
max. Earth dist.	15632 Jun 04 16:48	0°♄03'35	1.45471 AU	minimum elong	15633 May 11 14:16	3°♄14'16	1°05'51
	15632 Jun 04 15:53	0°♄		max. Earth dist.	15633 May 18 09:57	14°♄22'45	1.44282 AU
evening rise	15632 Jun 16 03:26	17°♄47'21		evening rise	15633 May 26 15:12	27°♄17'23	
	15632 Jun 24 04:34	0°♄			15633 May 28 09:34	0°♄	
greatest brilliancy	15632 Jun 30 20:24	9°♄50'58	-0.6m		15633 Jun 18 02:09	0°♄	
asc. node	15632 Jul 10 13:33	22°♄48'38		evening max el	15633 Jun 25 17:26	9°♄03'03	21°00'39
evening max el	15632 Jul 12 18:00	25°♄09'43	19°54'03	asc. node	15633 Jun 27 10:25	10°♄39'00	
retrograde	15632 Jul 20 06:29	29°♄24'32		retrograde	15633 Jul 04 05:28	13°♄57'36	
evening set	15632 Jul 24 03:26	27°♄57'57		evening set	15633 Jul 08 13:08	12°♄13'37	
inferior conj	15632 Jul 29 10:44	21°♄58'54	3°03'07	inferior conj	15633 Jul 13 18:44	6°♄03'28	3°09'10
minimum elong	15632 Jul 29 11:45	21°♄55'27	3°02'26	minimum elong	15633 Jul 13 18:47	6°♄03'16	3°08'25
min. Earth dist.	15632 Jul 30 11:12	20°♄36'21	0.67970 AU	min. Earth dist.	15633 Jul 14 05:40	5°♄25'30	0.68785 AU
morning rise	15632 Aug 03 19:38	15°♄33'43			15633 Jul 18 16:41	30°♄	
direct	15632 Aug 09 12:20	13°♄04'27		morning rise	15633 Jul 19 00:09	29°♄42'59	
desc. node	15632 Aug 12 05:52	13°♄33'36		direct	15633 Jul 24 05:01	27°♄27'12	
morning max el	15632 Aug 21 06:19	20°♄06'47	24°48'38	desc. node	15633 Jul 30 03:13	29°♄43'50	
	15632 Aug 29 17:45	0°♄			15633 Aug 30 12:14	0°♄	
	15632 Sep 19 01:46	0°♄		morning max el	15633 Aug 03 17:20	3°♄42'50	23°19'44
morning set	15632 Sep 25 23:31	11°♄44'15			15633 Aug 23 20:59	0°♄	
max. Earth dist.	15632 Sep 29 12:37	18°♄05'53	1.37202 AU	morning set	15633 Sep 07 08:25	22°♄47'36	

max. Earth dist.	15633 Sep 11 10:58	29° \mathbb{M} 46'21	1.39597 AU		15634 Aug 16 22:35	0° \mathbb{M}	
	15633 Sep 11 14:07	0° \mathbb{L}		morning set	15634 Aug 18 17:18	2° \mathbb{M} 49'16	
				max. Earth dist.	15634 Aug 24 13:47	12° \mathbb{M} 19'45	1.41908 AU
superior conj	15633 Sep 19 05:24	13° \mathbb{L} 40'52	-0°37'21				
minimum elong	15633 Sep 19 08:11	13° \mathbb{L} 53'47	0°36'45	superior conj	15634 Sep 01 06:52	25° \mathbb{M} 27'17	-1°13'48
asc. node	15633 Sep 23 11:42	21° \mathbb{L} 41'57		minimum elong	15634 Sep 01 12:48	25° \mathbb{M} 53'15	1°13'06
	15633 Sep 27 19:13	0° \mathbb{M}			15634 Sep 03 20:40	0° \mathbb{L}	
evening rise	15633 Sep 28 14:36	1° \mathbb{M} 33'40		asc. node	15634 Sep 10 08:18	11° \mathbb{L} 45'27	
evening max el	15633 Oct 14 16:06	27° \mathbb{M} 39'17	18°39'27	evening rise	15634 Sep 12 01:00	14° \mathbb{L} 52'41	
	15633 Oct 17 11:17	0° \mathbb{J}			15634 Sep 20 12:27	0° \mathbb{M}	
retrograde	15633 Oct 22 20:44	1° \mathbb{J} 47'46		evening max el	15634 Sep 28 00:33	10° \mathbb{M} 17'03	18°10'37
evening set	15633 Oct 24 18:56	1° \mathbb{J} 34'50		retrograde	15634 Oct 05 04:05	13° \mathbb{M} 56'18	
desc. node	15633 Oct 25 23:55	1° \mathbb{J} 14'15		evening set	15634 Oct 07 07:59	13° \mathbb{M} 36'46	
	15633 Oct 28 15:36	30° \mathbb{R} \mathbb{M}		desc. node	15634 Oct 12 21:15	10° \mathbb{M} 18'35	
inferior conj	15633 Nov 01 19:47	27° \mathbb{M} 09'15	-2°11'21	inferior conj	15634 Oct 14 15:06	8° \mathbb{M} 49'37	-0°33'18
minimum elong	15633 Nov 01 14:28	27° \mathbb{M} 19'12	2°08'32	minimum elong	15634 Oct 14 13:55	8° \mathbb{M} 52'11	0°32'21
min. Earth dist.	15633 Nov 04 22:50	24° \mathbb{M} 49'41	0.57204 AU	min. Earth dist.	15634 Oct 17 21:08	6° \mathbb{M} 00'24	0.59351 AU
morning rise	15633 Nov 09 06:44	22° \mathbb{M} 09'44		morning rise	15634 Oct 21 16:31	3° \mathbb{M} 15'23	
direct	15633 Nov 15 08:17	20° \mathbb{M} 39'06		direct	15634 Oct 28 04:41	1° \mathbb{M} 18'48	
morning max el	15633 Nov 29 13:37	28° \mathbb{M} 04'30	26°42'49	morning max el	15634 Nov 11 11:26	9° \mathbb{M} 02'36	27°40'35
	15633 Dec 01 11:15	0° \mathbb{J}			15634 Nov 27 12:57	0° \mathbb{J}	
asc. node	15633 Dec 20 12:16	27° \mathbb{J} 56'30		asc. node	15634 Dec 07 09:17	17° \mathbb{J} 20'53	
	15633 Dec 21 14:38	0° \mathbb{Z}		morning set	15634 Dec 13 06:16	29° \mathbb{J} 15'32	
morning set	15633 Dec 28 23:38	14° \mathbb{Z} 57'43			15634 Dec 13 14:38	0° \mathbb{Z}	
				max. Earth dist.	15634 Dec 19 15:23	13° \mathbb{Z} 13'41	1.31042 AU
superior conj	15634 Jan 04 18:17	29° \mathbb{Z} 56'06	1°37'54				
minimum elong	15634 Jan 04 18:03	29° \mathbb{Z} 54'46	1°38'41	superior conj	15634 Dec 20 05:41	14° \mathbb{Z} 33'44	1°33'35
	15634 Jan 04 18:59	0° \mathbb{X}		minimum elong	15634 Dec 20 04:28	14° \mathbb{Z} 26'51	1°34'22
max. Earth dist.	15634 Jan 05 07:31	1° \mathbb{X} 10'01	1.31195 AU	evening rise	15634 Dec 26 22:52	29° \mathbb{Z} 52'26	
evening rise	15634 Jan 11 15:49	15° \mathbb{X} 03'25			15634 Dec 27 05:18	0° \mathbb{X}	
	15634 Jan 19 03:22	0° \mathbb{H}		desc. node	15635 Jan 08 19:52	24° \mathbb{X} 12'20	
desc. node	15634 Jan 21 23:07	5° \mathbb{H} 07'38			15635 Jan 12 11:13	0° \mathbb{H}	
	15634 Feb 08 01:33	0° \mathbb{Y}		evening max el	15635 Jan 24 18:59	15° \mathbb{H} 19'25	26°20'21
evening max el	15634 Feb 11 19:42	3° \mathbb{Y} 54'15	27°15'38	retrograde	15635 Feb 07 18:18	22° \mathbb{H} 26'18	
retrograde	15634 Feb 25 20:11	11° \mathbb{Y} 13'10		evening set	15635 Feb 14 01:35	20° \mathbb{H} 50'59	
evening set	15634 Mar 04 13:23	9° \mathbb{Y} 13'25		min. Earth dist.	15635 Feb 18 08:21	18° \mathbb{H} 13'36	0.58156 AU
min. Earth dist.	15634 Mar 08 10:05	6° \mathbb{Y} 28'27	0.60351 AU	inferior conj	15635 Feb 21 10:56	15° \mathbb{H} 56'54	-3°40'10
inferior conj	15634 Mar 11 14:49	3° \mathbb{Y} 45'59	-2°10'43	minimum elong	15635 Feb 21 19:09	15° \mathbb{H} 41'48	3°37'05
minimum elong	15634 Mar 11 19:40	3° \mathbb{Y} 35'40	2°08'46	morning rise	15635 Mar 01 15:56	11° \mathbb{H} 29'13	
	15634 Mar 16 17:00	30° \mathbb{R} \mathbb{H}		direct	15635 Mar 03 15:24	11° \mathbb{H} 16'03	
asc. node	15634 Mar 18 09:39	29° \mathbb{H} 12'40		asc. node	15635 Mar 05 07:02	11° \mathbb{H} 25'38	
morning rise	15634 Mar 19 05:21	28° \mathbb{H} 56'48		morning max el	15635 Mar 11 21:44	15° \mathbb{H} 20'33	18°31'05
direct	15634 Mar 21 06:47	28° \mathbb{H} 39'46			15635 Mar 22 01:07	0° \mathbb{Y}	
	15634 Mar 25 15:53	0° \mathbb{Y}		morning set	15635 Mar 27 19:32	10° \mathbb{Y} 48'26	
morning max el	15634 Mar 28 12:36	2° \mathbb{Y} 17'05	17°58'46				
morning set	15634 Apr 13 02:23	26° \mathbb{Y} 43'44		superior conj	15635 Apr 05 21:26	28° \mathbb{Y} 03'31	0°08'21
	15634 Apr 14 21:10	0° \mathbb{B}		minimum elong	15635 Apr 05 22:00	28° \mathbb{Y} 06'08	0°07'55
desc. node	15634 Apr 20 00:52	9° \mathbb{B} 21'56		behind sun begin	15635 Apr 05 15:47	27° \mathbb{Y} 37'21	
				behind sun end	15635 Apr 06 04:13	28° \mathbb{Y} 34'51	
superior conj	15634 Apr 23 10:32	15° \mathbb{B} 23'45	-0°27'33	desc. node	15635 Apr 06 21:30	29° \mathbb{Y} 54'20	
minimum elong	15634 Apr 23 08:09	15° \mathbb{B} 13'17	0°27'43		15635 Apr 06 22:45	0° \mathbb{B}	
max. Earth dist.	15634 Apr 30 23:12	28° \mathbb{B} 12'32	1.42526 AU	max. Earth dist.	15635 Apr 13 08:05	11° \mathbb{B} 22'21	1.40381 AU
	15634 May 02 01:18	0° \mathbb{I}		evening rise	15635 Apr 17 13:04	18° \mathbb{B} 30'02	
evening rise	15634 May 06 15:59	7° \mathbb{I} 26'39			15635 Apr 24 16:30	0° \mathbb{I}	
	15634 May 21 13:42	0° \mathbb{E}			15635 May 15 23:16	0° \mathbb{E}	
evening max el	15634 Jun 08 11:38	22° \mathbb{E} 56'39	22°17'15	evening max el	15635 May 22 02:22	6° \mathbb{E} 50'56	23°38'34
asc. node	15634 Jun 14 07:22	27° \mathbb{E} 31'45		asc. node	15635 Jun 01 04:23	13° \mathbb{E} 09'51	
retrograde	15634 Jun 18 03:06	28° \mathbb{E} 35'19		retrograde	15635 Jun 01 22:08	13° \mathbb{E} 12'13	
evening set	15634 Jun 22 22:08	26° \mathbb{E} 34'56		evening set	15635 Jun 07 04:50	10° \mathbb{E} 57'33	
inferior conj	15634 Jun 28 04:29	20° \mathbb{E} 15'18	3°04'17	min. Earth dist.	15635 Jun 11 22:48	5° \mathbb{E} 23'07	0.68944 AU
minimum elong	15634 Jun 28 03:36	20° \mathbb{E} 18'21	3°03'22	inferior conj	15635 Jun 12 14:05	4° \mathbb{E} 30'45	2°48'59
min. Earth dist.	15634 Jun 28 02:13	20° \mathbb{E} 23'13	0.69112 AU	minimum elong	15635 Jun 12 12:26	4° \mathbb{E} 36'22	2°47'50
morning rise	15634 Jul 03 08:54	14° \mathbb{E} 01'44			15635 Jun 16 03:40	30° \mathbb{R} \mathbb{I}	
direct	15634 Jul 08 01:28	12° \mathbb{E} 03'38		morning rise	15635 Jun 17 20:02	28° \mathbb{I} 25'30	
desc. node	15634 Jul 17 00:31	17° \mathbb{E} 11'06		direct	15635 Jun 22 00:24	26° \mathbb{I} 47'09	
morning max el	15634 Jul 17 06:56	17° \mathbb{E} 27'01	21°52'18		15635 Jun 28 14:56	0° \mathbb{E}	
	15634 Jul 27 15:12	0° \mathbb{Q}		morning max el	15635 Jun 30 02:09	1° \mathbb{E} 22'09	20°33'23

desc. node	15635 Jul 03 21:44	5°☿35'33			15636 Jun 23 12:39	0°☿	
	15635 Jul 21 08:11	0°♊		greatest brilliancy	15636 Jun 24 19:52	1°☿54'05	-0.7m
morning set	15635 Jul 29 05:02	11°♊58'43		morning set	15636 Jul 07 08:38	20°☿50'52	
max. Earth dist.	15635 Aug 06 23:26	25°♊46'33	1.43854 AU		15636 Jul 13 06:57	0°♊	
	15635 Aug 09 14:12	0°♋		max. Earth dist.	15636 Jul 19 14:38	9°♊52'08	1.45230 AU
superior conj	15635 Aug 13 09:53	6°♋16'24	-1°46'37	superior conj	15636 Jul 23 13:40	16°♊08'02	-2°08'48
minimum elong	15635 Aug 13 17:39	6°♋48'36	1°46'17	minimum elong	15636 Jul 23 18:54	16°♊28'50	2°09'16
evening rise	15635 Aug 25 20:06	27°♋31'35			15636 Aug 01 03:47	0°♋	
	15635 Aug 27 06:03	0°♌		evening rise	15636 Aug 06 18:30	9°♋16'11	
asc. node	15635 Aug 28 04:55	1°♌39'53		asc. node	15636 Aug 14 01:34	21°♋20'06	
evening max el	15635 Sep 11 14:01	23°♌26'05	18°01'30		15636 Aug 19 15:20	0°♌	
retrograde	15635 Sep 18 03:15	26°♌49'47		evening max el	15636 Aug 25 04:48	6°♌56'39	18°10'57
evening set	15635 Sep 20 14:50	26°♌19'59		retrograde	15636 Aug 31 13:27	10°♌18'01	
inferior conj	15635 Sep 27 05:35	21°♌13'16	0°46'39	evening set	15636 Sep 03 09:38	9°♌34'46	
minimum elong	15635 Sep 27 06:56	21°♌09'53	0°46'22	inferior conj	15636 Sep 09 11:12	4°♌11'14	1°46'31
desc. node	15635 Sep 29 18:39	18°♌40'19		minimum elong	15636 Sep 09 13:30	4°♌04'46	1°45'47
min. Earth dist.	15635 Sep 30 05:19	18°♌14'32	0.61645 AU	min. Earth dist.	15636 Sep 11 23:32	1°♌22'23	0.63840 AU
morning rise	15635 Oct 03 20:19	15°♌12'28			15636 Sep 13 07:04	30°♋♋	
direct	15635 Oct 10 12:31	12°♌54'06		morning rise	15636 Sep 15 15:29	27°♋53'58	
morning max el	15635 Oct 24 16:36	20°♌50'24	27°59'09	desc. node	15636 Sep 15 16:06	27°♋52'47	
	15635 Nov 01 15:22	0°♍		direct	15636 Sep 22 06:07	25°♋21'14	
	15635 Nov 20 13:47	0°♎			15636 Oct 02 10:29	0°♌	
asc. node	15635 Nov 24 06:14	7°♎04'54		morning max el	15636 Oct 06 02:14	3°♌20'36	27°40'03
morning set	15635 Nov 27 07:24	13°♎14'55			15636 Oct 26 02:19	0°♍	
max. Earth dist.	15635 Dec 02 20:44	25°♎07'01	1.31436 AU	morning set	15636 Nov 10 00:40	26°♍50'06	
				asc. node	15636 Nov 10 03:06	27°♍02'13	
superior conj	15635 Dec 04 15:43	29°♎04'00	1°23'17		15636 Nov 11 14:20	0°♎	
minimum elong	15635 Dec 04 13:44	28°♎52'59	1°23'56	max. Earth dist.	15636 Nov 14 19:39	6°♎41'19	1.32388 AU
	15635 Dec 05 01:49	0°♏					
evening rise	15635 Dec 11 08:45	13°♏52'51		superior conj	15636 Nov 17 22:23	13°♎21'39	1°06'57
	15635 Dec 19 07:04	0°♐		minimum elong	15636 Nov 17 20:03	13°♎08'58	1°07'24
desc. node	15635 Dec 26 16:43	12°♐34'05		evening rise	15636 Nov 24 19:38	28°♎21'08	
evening max el	15636 Jan 06 09:41	25°♐52'43	24°55'04		15636 Nov 25 14:06	0°♏	
	15636 Jan 11 14:05	0°♑		desc. node	15636 Dec 12 13:40	29°♏57'19	
retrograde	15636 Jan 20 04:19	2°♑46'24			15636 Dec 12 14:30	0°♐	
evening set	15636 Jan 25 16:18	1°♑39'00		evening max el	15636 Dec 17 19:19	5°♐53'14	23°13'23
	15636 Jan 29 01:16	30°♋♐		retrograde	15636 Dec 31 01:26	12°♐27'11	
min. Earth dist.	15636 Jan 30 21:45	28°♐53'23	0.56240 AU	evening set	15637 Jan 04 08:39	11°♐47'03	
inferior conj	15636 Feb 02 10:08	27°♐17'04	-5°02'49	min. Earth dist.	15637 Jan 11 05:37	8°♐34'03	0.54903 AU
minimum elong	15636 Feb 02 19:14	27°♐02'32	5°00'07	inferior conj	15637 Jan 12 13:38	7°♐47'54	-5°55'01
morning rise	15636 Feb 11 00:34	23°♐10'49		minimum elong	15637 Jan 12 17:41	7°♐42'05	5°53'56
direct	15636 Feb 13 04:42	22°♐57'39		morning rise	15637 Jan 21 04:08	3°♐56'57	
asc. node	15636 Feb 20 04:26	25°♐24'29		direct	15637 Jan 23 23:10	3°♐38'23	
morning max el	15636 Feb 22 20:35	27°♐39'25	19°25'20	morning max el	15637 Feb 04 05:30	9°♐04'13	20°42'48
	15636 Feb 25 00:44	0°♑		asc. node	15637 Feb 06 01:49	10°♐59'20	
morning set	15636 Mar 10 21:27	25°♑14'53			15637 Feb 18 06:44	0°♑	
	15636 Mar 13 06:18	0°♒		morning set	15637 Feb 23 05:06	9°♑54'17	
superior conj	15636 Mar 19 00:47	11°♒27'14	0°38'58	superior conj	15637 Mar 02 16:28	25°♑23'29	1°03'18
minimum elong	15636 Mar 19 02:56	11°♒37'42	0°38'32	minimum elong	15637 Mar 02 19:02	25°♑36'38	1°03'04
desc. node	15636 Mar 23 18:06	20°♒26'48			15637 Mar 04 23:13	0°♒	
max. Earth dist.	15636 Mar 25 14:13	23°♒49'56	1.38088 AU	max. Earth dist.	15637 Mar 07 22:08	5°♒48'45	1.35895 AU
evening rise	15636 Mar 29 07:02	0°♓26'32		desc. node	15637 Mar 10 14:41	10°♒55'57	
	15636 Mar 29 00:58	0°♓		evening rise	15637 Mar 11 19:19	13°♒08'54	
	15636 Apr 16 22:57	0°♔			15637 Mar 21 12:25	0°♓	
evening max el	15636 May 03 15:45	20°♔45'04	24°58'03		15637 Apr 11 21:21	0°♔	
retrograde	15636 May 15 13:29	27°♔41'19		evening max el	15637 Apr 16 05:20	4°♔36'33	26°08'25
asc. node	15636 May 18 01:32	27°♔14'57		retrograde	15637 Apr 29 00:06	11°♔55'48	
evening set	15636 May 21 07:34	25°♔15'52		asc. node	15637 May 04 22:45	9°♔36'19	
min. Earth dist.	15636 May 25 17:23	20°♔18'19	0.68296 AU	evening set	15637 May 05 04:39	9°♔24'21	
inferior conj	15636 May 26 21:36	18°♔45'13	2°23'05	min. Earth dist.	15637 May 09 07:57	5°♔02'22	0.67195 AU
minimum elong	15636 May 26 19:30	18°♔52'11	2°21'44	inferior conj	15637 May 11 01:03	2°♔54'44	1°45'58
morning rise	15636 Jun 01 07:44	12°♔49'22		minimum elong	15637 May 10 22:57	3°♔01'18	1°44'35
direct	15636 Jun 05 00:27	11°♔30'56			15637 May 13 11:55	30°♓♓	
morning max el	15636 Jun 12 04:33	15°♔27'37	19°27'30	morning rise	15637 May 16 18:04	27°♓09'27	
desc. node	15636 Jun 19 18:50	24°♔41'29		direct	15637 May 20 00:01	26°♓09'33	

morning max el	15637 May 26 13:56	29° ♄ 40'23	18°37'15			15638 May 21 20:54	0° ♄	
	15637 May 26 21:52	0° ♄		desc. node		15638 May 24 12:46	4° ♄ 16'20	
desc. node	15637 Jun 06 15:51	14° ♄ 18'00		morning set		15638 May 28 18:04	11° ♄ 07'04	
	15637 Jun 16 18:59	0° ♄				15638 Jun 09 12:23	0° ♄	
morning set	15637 Jun 17 00:28	0° ♄ 21'27						
max. Earth dist.	15637 Jul 02 09:23	24° ♄ 21'20	1.45915 AU	superior conj		15638 Jun 12 11:48	4° ♄ 41'33	-1°57'57
				minimum elong		15638 Jun 12 03:45	4° ♄ 09'54	1°58'15
superior conj	15637 Jul 03 01:15	25° ♄ 23'10	-2°13'23	max. Earth dist.		15638 Jun 15 05:45	8° ♄ 59'58	1.45849 AU
minimum elong	15637 Jul 02 23:08	25° ♄ 14'55	2°14'10	evening rise		15638 Jun 28 14:45	29° ♄ 43'54	
	15637 Jul 06 00:09	0° ♄				15638 Jun 28 18:56	0° ♄	
evening rise	15637 Jul 18 16:10	19° ♄ 57'44		greatest brilliancy		15638 Jul 11 05:36	18° ♄ 57'07	-0.7m
	15637 Jul 24 23:57	0° ♄		asc. node		15638 Jul 18 19:02	29° ♄ 33'52	
greatest brilliancy	15637 Jul 25 23:57	1° ♄ 34'35	-0.9m			15638 Jul 19 03:14	0° ♄	
asc. node	15637 Jul 31 22:16	10° ♄ 40'31		evening max el		15638 Jul 23 02:33	4° ♄ 32'09	19°21'58
evening max el	15637 Aug 08 17:48	20° ♄ 40'54	18°38'05	retrograde		15638 Jul 30 04:08	8° ♄ 27'37	
retrograde	15637 Aug 15 06:48	24° ♄ 12'57		evening set		15638 Aug 02 19:18	7° ♄ 11'06	
evening set	15637 Aug 18 12:10	23° ♄ 13'50		inferior conj		15638 Aug 08 04:51	1° ♄ 19'20	2°54'13
inferior conj	15637 Aug 24 04:03	17° ♄ 35'26	2°28'08	minimum elong		15638 Aug 08 06:23	1° ♄ 14'17	2°53'31
minimum elong	15637 Aug 24 06:15	17° ♄ 28'39	2°27'22			15638 Aug 09 05:00	30° ♄	
min. Earth dist.	15637 Aug 26 02:45	15° ♄ 12'17	0.65762 AU	min. Earth dist.		15638 Aug 09 13:21	29° ♄ 32'47	0.67292 AU
morning rise	15637 Aug 29 23:14	11° ♄ 10'34		morning rise		15638 Aug 13 16:53	24° ♄ 53'11	
desc. node	15637 Sep 02 13:33	9° ♄ 01'16		direct		15638 Aug 19 16:02	22° ♄ 18'39	
direct	15637 Sep 05 07:47	8° ♄ 32'31		desc. node		15638 Aug 20 10:58	22° ♄ 21'04	
morning max el	15637 Sep 18 13:28	16° ♄ 21'18	26°49'42	morning max el		15638 Sep 01 00:37	29° ♄ 41'33	25°37'00
	15637 Sep 29 21:16	0° ♄				15638 Sep 01 07:52	0° ♄	
	15637 Oct 18 22:25	0° ♄				15638 Sep 23 17:48	0° ♄	
morning set	15637 Oct 24 07:07	9° ♄ 54'06		morning set		15638 Oct 06 23:11	22° ♄ 19'03	
asc. node	15637 Oct 27 23:53	17° ♄ 07'54		max. Earth dist.		15638 Oct 10 13:36	28° ♄ 59'34	1.35895 AU
max. Earth dist.	15637 Oct 28 09:12	17° ♄ 54'30	1.33899 AU			15638 Oct 11 02:20	0° ♄	
				asc. node		15638 Oct 14 20:36	7° ♄ 17'59	
superior conj	15637 Nov 01 23:24	27° ♄ 20'35	0°44'35					
minimum elong	15637 Nov 01 21:19	27° ♄ 09'41	0°44'53	superior conj		15638 Oct 16 15:59	10° ♄ 54'15	0°16'27
	15637 Nov 03 05:40	0° ♄		minimum elong		15638 Oct 16 15:00	10° ♄ 49'20	0°16'45
evening rise	15637 Nov 09 05:40	12° ♄ 45'38		evening rise		15638 Oct 24 12:47	27° ♄ 01'36	
	15637 Nov 17 23:02	0° ♄				15638 Oct 25 23:41	0° ♄	
desc. node	15637 Nov 29 10:44	16° ♄ 00'59		evening max el		15638 Nov 11 10:14	26° ♄ 34'51	20°08'26
evening max el	15637 Nov 29 08:42	15° ♄ 56'00	21°33'07			15638 Nov 15 17:04	0° ♄	
retrograde	15637 Dec 11 12:20	21° ♄ 56'34		desc. node		15638 Nov 16 07:53	0° ♄ 20'58	
evening set	15637 Dec 14 12:34	21° ♄ 35'58		retrograde		15638 Nov 22 00:13	1° ♄ 51'11	
inferior conj	15637 Dec 23 05:23	17° ♄ 45'20	-5°52'14	evening set		15638 Nov 24 03:48	1° ♄ 39'09	
minimum elong	15637 Dec 23 00:10	17° ♄ 52'38	5°50'52			15638 Nov 28 20:51	30° ♄	
min. Earth dist.	15637 Dec 23 11:11	17° ♄ 37'12	0.54405 AU	inferior conj		15638 Dec 02 23:28	27° ♄ 41'58	-4°50'16
morning rise	15637 Dec 31 12:18	13° ♄ 56'39		minimum elong		15638 Dec 02 13:27	27° ♄ 56'56	4°46'46
direct	15638 Jan 04 07:29	13° ♄ 25'13		min. Earth dist.		15638 Dec 04 17:30	26° ♄ 39'10	0.54853 AU
morning max el	15638 Jan 16 23:44	19° ♄ 33'46	22°21'19	morning rise		15638 Dec 10 22:17	23° ♄ 36'48	
asc. node	15638 Jan 23 23:08	27° ♄ 51'23		direct		15638 Dec 15 18:20	22° ♄ 46'06	
	15638 Jan 25 10:17	0° ♄		morning max el		15638 Dec 29 09:06	29° ♄ 29'29	24°10'59
morning set	15638 Feb 07 15:56	24° ♄ 38'25				15638 Dec 29 21:45	0° ♄	
	15638 Feb 10 04:13	0° ♄		asc. node		15639 Jan 10 20:23	15° ♄ 43'12	
						15639 Jan 18 15:59	0° ♄	
superior conj	15638 Feb 14 16:50	9° ♄ 41'07	1°21'05	morning set		15639 Jan 23 03:56	9° ♄ 21'48	
minimum elong	15638 Feb 14 19:03	9° ♄ 52'54	1°21'13					
max. Earth dist.	15638 Feb 18 12:17	17° ♄ 38'15	1.33999 AU	superior conj		15639 Jan 29 23:06	24° ♄ 12'32	1°32'28
evening rise	15638 Feb 22 22:12	26° ♄ 26'12		minimum elong		15639 Jan 30 00:30	24° ♄ 20'13	1°32'57
	15638 Feb 24 18:54	0° ♄		max. Earth dist.		15639 Feb 01 10:16	29° ♄ 32'57	1.32523 AU
desc. node	15638 Feb 25 11:18	1° ♄ 16'58				15639 Feb 01 15:19	0° ♄	
	15638 Mar 14 21:16	0° ♄		evening rise		15639 Feb 06 12:22	10° ♄ 10'01	
evening max el	15638 Mar 29 19:11	18° ♄ 17'00	27°02'13	desc. node		15639 Feb 12 07:56	21° ♄ 25'23	
retrograde	15638 Apr 12 04:50	25° ♄ 46'41				15639 Feb 17 03:45	0° ♄	
evening set	15638 Apr 18 18:03	23° ♄ 15'05				15639 Mar 10 17:51	0° ♄	
asc. node	15638 Apr 21 20:04	20° ♄ 22'01		evening max el		15639 Mar 12 07:58	1° ♄ 34'59	27°31'59
min. Earth dist.	15638 Apr 22 16:20	19° ♄ 26'38	0.65673 AU	retrograde		15639 Mar 26 02:39	9° ♄ 05'15	
inferior conj	15638 Apr 24 22:04	16° ♄ 52'54	0°56'36	evening set		15639 Apr 01 21:31	6° ♄ 40'03	
minimum elong	15638 Apr 24 20:39	16° ♄ 56'59	0°55'31	min. Earth dist.		15639 Apr 05 16:30	3° ♄ 21'41	0.63791 AU
morning rise	15638 May 01 00:45	11° ♄ 20'01		inferior conj		15639 Apr 08 09:52	0° ♄ 32'58	-0°05'58
direct	15638 May 03 20:59	10° ♄ 36'14		minimum elong		15639 Apr 08 10:04	0° ♄ 32'28	0°06'15
morning max el	15638 May 10 04:35	13° ♄ 53'39	18°03'48	transit middle		15639 Apr 08 10:04	0° ♄ 32'28	0°06'15

transit begin	15639 Apr 08 07:10	0°♄39'58		minimum elong	15640 Mar 21 12:04	13°♄39'46	1°20'46
transit end	15639 Apr 08 12:57	0°♄24'59		asc. node	15640 Mar 25 14:45	10°♄16'58	
asc. node	15639 Apr 08 17:24	0°♄13'29		morning rise	15640 Mar 28 14:54	8°♄46'15	
	15639 Apr 08 22:39	30°♄♄		direct	15640 Mar 30 19:25	8°♄25'17	
morning rise	15639 Apr 15 00:58	25°♄14'57		morning max el	15640 Apr 06 15:10	11°♄51'21	17°49'23
direct	15639 Apr 17 12:36	24°♄44'16			15640 Apr 18 20:54	0°♄	
morning max el	15639 Apr 23 22:01	28°♄00'15	17°47'40	morning set	15640 Apr 22 08:57	6°♄13'22	
	15639 Apr 25 18:29	0°♄		desc. node	15640 Apr 27 06:20	14°♄55'10	
morning set	15639 May 10 14:34	23°♄09'33					
desc. node	15639 May 11 09:35	24°♄30'22		superior conj	15640 May 03 14:06	25°♄52'16	-0°49'38
	15639 May 14 15:29	0°♄		minimum elong	15640 May 03 09:32	25°♄32'51	0°49'36
					15640 May 06 00:55	0°♄	
superior conj	15639 May 23 13:23	14°♄44'29	-1°27'17	max. Earth dist.	15640 May 10 17:13	7°♄42'06	1.43593 AU
minimum elong	15639 May 23 05:20	14°♄11'51	1°27'09	evening rise	15640 May 17 17:33	18°♄50'41	
max. Earth dist.	15639 May 29 01:17	23°♄32'37	1.45048 AU		15640 May 25 00:42	0°♄	
	15639 Jun 02 03:55	0°♄			15640 Jun 15 22:21	0°♄	
evening rise	15639 Jun 08 01:39	9°♄07'12		evening max el	15640 Jun 18 02:21	2°♄17'54	21°32'15
	15639 Jun 22 00:38	0°♄		asc. node	15640 Jun 21 12:44	5°♄18'10	
asc. node	15639 Jul 05 15:50	17°♄50'22		retrograde	15640 Jun 27 01:46	7°♄31'23	
evening max el	15639 Jul 06 05:26	18°♄24'59	20°20'58	evening set	15640 Jul 01 14:15	5°♄40'01	
retrograde	15639 Jul 14 03:05	22°♄55'28			15640 Jul 06 09:54	30°♄♄	
evening set	15639 Jul 18 04:38	21°♄21'11		inferior conj	15640 Jul 06 19:51	29°♄25'21	3°08'25
inferior conj	15639 Jul 23 10:52	15°♄17'12	3°07'06	minimum elong	15640 Jul 06 19:30	29°♄26'34	3°07'36
minimum elong	15639 Jul 23 11:29	15°♄15'05	3°06'24	min. Earth dist.	15640 Jul 07 01:03	29°♄07'12	0.68980 AU
min. Earth dist.	15639 Jul 24 05:27	14°♄13'35	0.68373 AU	morning rise	15640 Jul 12 00:32	23°♄07'36	
morning rise	15639 Jul 28 18:01	8°♄53'57		direct	15640 Jul 17 00:03	20°♄59'14	
direct	15639 Aug 03 05:46	6°♄30'00		desc. node	15640 Jul 24 05:39	24°♄21'30	
desc. node	15639 Aug 07 08:21	7°♄35'52		morning max el	15640 Jul 26 23:21	26°♄53'00	22°41'58
morning max el	15639 Aug 14 11:26	13°♄13'05	24°11'18		15640 Jul 29 20:51	0°♄	
	15639 Aug 28 01:33	0°♄			15640 Aug 20 14:52	0°♄	
	15639 Sep 16 13:31	0°♄		morning set	15640 Aug 29 19:25	14°♄31'32	
morning set	15639 Sep 18 20:35	3°♄54'20		max. Earth dist.	15640 Sep 03 12:26	22°♄21'49	1.40605 AU
max. Earth dist.	15639 Sep 22 12:42	10°♄20'22	1.38213 AU		15640 Sep 07 22:35	0°♄	
superior conj	15639 Sep 29 20:36	23°♄53'08	-0°16'42	superior conj	15640 Sep 11 09:11	6°♄08'13	-0°52'54
minimum elong	15639 Sep 29 21:44	23°♄58'34	0°16'14	minimum elong	15640 Sep 11 13:19	6°♄26'55	0°52'13
asc. node	15639 Oct 01 17:15	27°♄28'03		asc. node	15640 Sep 17 13:52	17°♄34'50	
	15639 Oct 03 00:27	0°♄		evening rise	15640 Sep 21 07:29	24°♄38'23	
evening rise	15639 Oct 08 14:25	11°♄01'46			15640 Sep 24 03:46	0°♄	
	15639 Oct 18 22:05	0°♄		evening max el	15640 Oct 07 05:38	20°♄17'17	18°24'41
evening max el	15639 Oct 25 02:04	8°♄02'44	19°05'29	retrograde	15640 Oct 14 22:33	24°♄12'06	
retrograde	15639 Nov 03 01:53	12°♄34'11		evening set	15640 Oct 16 22:34	23°♄56'59	
desc. node	15639 Nov 03 05:07	12°♄34'08		desc. node	15640 Oct 20 02:24	22°♄37'36	
evening set	15639 Nov 04 23:01	12°♄23'08		inferior conj	15640 Oct 24 15:56	19°♄22'10	-1°27'59
inferior conj	15639 Nov 13 08:59	8°♄09'03	-3°12'07	minimum elong	15640 Oct 24 12:31	19°♄28'59	1°26'00
minimum elong	15639 Nov 13 01:05	8°♄22'34	3°08'26	min. Earth dist.	15640 Oct 27 21:41	16°♄47'27	0.58075 AU
min. Earth dist.	15639 Nov 16 03:59	6°♄14'43	0.56153 AU	morning rise	15640 Oct 31 22:59	14°♄06'46	
morning rise	15639 Nov 21 00:32	3°♄30'55		direct	15640 Nov 07 05:40	12°♄24'48	
direct	15639 Nov 26 16:44	2°♄16'03		morning max el	15640 Nov 21 12:33	19°♄59'30	27°12'01
morning max el	15639 Dec 10 19:19	9°♄27'44	25°54'05		15640 Nov 30 02:40	0°♄	
	15639 Dec 26 05:39	0°♄		asc. node	15640 Dec 14 14:36	23°♄28'56	
asc. node	15639 Dec 28 17:32	4°♄19'33			15640 Dec 17 22:48	0°♄	
morning set	15640 Jan 07 15:15	23°♄59'00		morning set	15640 Dec 22 00:08	8°♄25'20	
	15640 Jan 10 09:22	0°♄					
				superior conj	15640 Dec 28 20:18	23°♄30'26	1°36'48
superior conj	15640 Jan 14 08:55	8°♄50'51	1°37'40	minimum elong	15640 Dec 28 19:37	23°♄26'39	1°37'37
minimum elong	15640 Jan 14 09:18	8°♄52'57	1°38'23	max. Earth dist.	15640 Dec 28 21:55	23°♄39'29	1.31058 AU
max. Earth dist.	15640 Jan 15 14:29	11°♄34'50	1.31530 AU		15640 Dec 31 18:05	0°♄	
evening rise	15640 Jan 21 10:55	24°♄13'01		evening rise	15641 Jan 04 15:28	8°♄29'29	
	15640 Jan 24 06:45	0°♄			15641 Jan 15 16:19	0°♄	
desc. node	15640 Jan 30 04:37	11°♄15'18		desc. node	15641 Jan 16 01:21	0°♄39'13	
	15640 Feb 10 19:45	0°♄		evening max el	15641 Feb 03 20:58	26°♄12'17	26°56'14
evening max el	15640 Feb 22 17:24	14°♄17'11	27°31'23		15641 Feb 08 11:18	0°♄	
retrograde	15640 Mar 07 16:38	21°♄41'54		retrograde	15641 Feb 17 21:32	3°♄27'11	
evening set	15640 Mar 14 12:25	19°♄30'26		evening set	15641 Feb 24 11:30	1°♄36'54	
min. Earth dist.	15640 Mar 18 06:55	16°♄36'07	0.61644 AU		15641 Feb 27 00:56	30°♄♄	
inferior conj	15640 Mar 21 09:11	13°♄46'25	-1°21'49	min. Earth dist.	15641 Feb 28 11:05	28°♄56'56	0.59397 AU

inferior conj	15641 Mar 03 16:17	26° H 23'01	-2°48'25		15642 Jan 10 04:55	0° H	
minimum elong	15641 Mar 03 22:39	26° H 10'16	2°45'52	evening max el	15642 Jan 16 16:42	7° H 15'25	25°47'19
morning rise	15641 Mar 11 13:20	21° H 43'09		retrograde	15642 Jan 30 15:05	14° H 17'19	
asc. node	15641 Mar 12 12:09	21° H 32'25		evening set	15642 Feb 05 15:05	12° H 53'52	
direct	15641 Mar 13 13:12	21° H 28'18		min. Earth dist.	15642 Feb 10 05:42	10° H 14'53	0.57286 AU
morning max el	15641 Mar 21 04:26	25° H 15'54	18°09'59	inferior conj	15642 Feb 13 03:48	8° H 13'47	-4°17'14
	15641 Mar 25 03:35	0° Y		minimum elong	15642 Feb 13 12:54	7° H 58'01	4°14'04
morning set	15641 Apr 05 19:15	20° Y 00'02		morning rise	15642 Feb 21 13:42	3° H 55'15	
	15641 Apr 11 03:49	0° Z		direct	15642 Feb 23 13:54	3° H 42'43	
desc. node	15641 Apr 14 03:01	5° Z 25'50		asc. node	15642 Feb 27 09:32	4° H 30'44	
				morning max el	15642 Mar 04 09:48	8° H 02'26	18°51'15
superior conj	15641 Apr 15 13:35	8° Z 01'33	-0°11'51		15642 Mar 18 12:01	0° Y	
minimum elong	15641 Apr 15 12:37	7° Z 57'11	0°12'08	morning set	15642 Mar 20 16:37	4° Y 15'32	
behind sun begin	15641 Apr 15 07:37	7° Z 34'48					
behind sun end	15641 Apr 15 17:36	8° Z 19'32		superior conj	15642 Mar 29 08:05	21° Y 01'36	0°22'02
max. Earth dist.	15641 Apr 23 04:07	21° Z 14'05	1.41644 AU	minimum elong	15642 Mar 29 09:28	21° Y 08'13	0°21'34
evening rise	15641 Apr 28 02:33	29° Z 22'16		desc. node	15642 Mar 31 23:40	25° Y 58'49	
	15641 Apr 28 11:54	0° II			15642 Apr 03 04:29	0° Z	
	15641 May 18 13:24	0° E		max. Earth dist.	15642 Apr 05 11:12	4° Z 04'19	1.39416 AU
evening max el	15641 May 31 18:43	16° E 11'12	22°51'35	evening rise	15642 Apr 09 08:50	10° Z 49'37	
asc. node	15641 Jun 08 09:43	21° E 41'14			15642 Apr 21 08:02	0° II	
retrograde	15641 Jun 10 22:36	22° E 09'15			15642 May 14 06:23	0° E	
evening set	15641 Jun 15 22:28	20° E 02'32		evening max el	15642 May 14 08:47	0° E 05'59	24°13'00
inferior conj	15641 Jun 21 05:47	13° E 39'17	2°59'04	retrograde	15642 May 25 16:11	6° E 43'13	
minimum elong	15641 Jun 21 04:33	13° E 43'32	2°58'03	asc. node	15642 May 26 06:48	6° E 41'38	
min. Earth dist.	15641 Jun 20 21:59	14° E 06'24	0.69098 AU	evening set	15642 May 31 03:41	4° E 23'47	
morning rise	15641 Jun 26 10:32	7° E 28'52			15642 Jun 04 01:33	30° R II	
direct	15641 Jun 30 21:47	5° E 39'03		min. Earth dist.	15642 Jun 04 18:05	29° II 04'51	0.68732 AU
morning max el	15641 Jul 09 15:03	10° E 41'32	21°17'17	inferior conj	15642 Jun 05 14:46	27° II 54'53	2°39'18
desc. node	15641 Jul 11 02:54	12° E 14'55		minimum elong	15642 Jun 05 12:54	28° II 01'15	2°38'04
	15641 Jul 24 17:30	0° O		morning rise	15642 Jun 10 22:10	21° II 53'13	
morning set	15641 Aug 09 18:23	24° O 08'09		direct	15642 Jun 14 21:31	20° II 23'14	
	15641 Aug 13 11:12	0° P		morning max el	15642 Jun 22 13:07	24° II 40'30	20°03'25
max. Earth dist.	15641 Aug 16 17:27	5° P 16'05	1.42791 AU		15642 Jun 27 05:43	0° E	
				desc. node	15642 Jun 28 00:04	0° E 58'15	
superior conj	15641 Aug 24 01:27	17° P 30'25	-1°28'33		15642 Jul 18 00:27	0° O	
minimum elong	15641 Aug 24 08:29	18° P 00'29	1°27'57	morning set	15642 Jul 20 00:18	3° O 03'13	
	15641 Aug 31 05:08	0° A		max. Earth dist.	15642 Jul 30 05:28	19° O 00'11	1.44525 AU
evening rise	15641 Sep 04 11:58	7° A 41'16		superior conj	15642 Aug 04 18:22	27° O 54'07	-1°57'47
asc. node	15641 Sep 04 10:30	7° A 34'41		minimum elong	15642 Aug 05 01:44	28° O 24'08	1°57'47
	15641 Sep 17 22:54	0° M			15642 Aug 06 01:14	0° P	
evening max el	15641 Sep 20 16:44	3° M 09'24	18°04'30	evening rise	15642 Aug 17 22:51	19° P 57'56	
retrograde	15641 Sep 27 12:58	6° M 40'16		asc. node	15642 Aug 22 07:09	27° P 23'18	
evening set	15641 Sep 29 19:57	6° M 16'51			15642 Aug 23 20:14	0° A	
inferior conj	15641 Oct 06 19:50	1° M 21'27	0°03'04	evening max el	15642 Sep 04 07:15	16° A 28'36	18°03'22
minimum elong	15641 Oct 06 19:56	1° M 21'11	0°03'24	retrograde	15642 Sep 10 17:12	19° A 49'18	
transit middle	15641 Oct 06 19:56	1° M 21'11	0°03'24	evening set	15642 Sep 13 08:30	19° A 13'59	
transit begin	15641 Oct 06 16:42	1° M 28'42		inferior conj	15642 Sep 19 17:12	13° A 59'54	1°14'26
transit end	15641 Oct 06 23:11	1° M 13'39		minimum elong	15642 Sep 19 19:07	13° A 54'51	1°13'54
desc. node	15641 Oct 06 23:44	1° M 12'21		min. Earth dist.	15642 Sep 22 12:33	11° A 03'17	0.62607 AU
	15641 Oct 08 06:43	30° R A		desc. node	15642 Sep 23 21:09	9° A 44'05	
min. Earth dist.	15641 Oct 10 00:15	28° A 25'19	0.60320 AU	morning rise	15642 Sep 26 03:25	7° A 51'15	
morning rise	15641 Oct 13 16:44	25° A 34'42		direct	15642 Oct 02 19:47	5° A 25'38	
direct	15641 Oct 20 07:31	23° A 27'40		morning max el	15642 Oct 16 20:47	13° A 24'00	27°55'22
	15641 Nov 02 04:40	0° M			15642 Oct 30 05:21	0° M	
morning max el	15641 Nov 03 13:40	1° M 18'28	27°53'21		15642 Nov 16 21:32	0° Z	
	15641 Nov 24 09:26	0° Z		asc. node	15642 Nov 18 08:32	2° Z 52'14	
asc. node	15641 Dec 01 11:36	13° Z 02'24		morning set	15642 Nov 20 02:46	6° Z 25'01	
morning set	15641 Dec 06 04:43	22° Z 36'06		max. Earth dist.	15642 Nov 25 07:58	17° Z 24'05	1.31768 AU
	15641 Dec 09 15:31	0° Z					
max. Earth dist.	15641 Dec 12 05:01	5° Z 39'08	1.31131 AU	superior conj	15642 Nov 27 16:14	22° Z 31'04	1°17'07
				minimum elong	15642 Nov 27 14:02	22° Z 18'59	1°17'40
superior conj	15641 Dec 13 07:24	8° Z 05'59	1°29'58		15642 Dec 01 01:36	0° Z	
minimum elong	15641 Dec 13 05:48	7° Z 57'07	1°30'42	evening rise	15642 Dec 04 10:28	7° Z 22'29	
evening rise	15641 Dec 19 23:57	22° Z 54'34			15642 Dec 16 00:49	0° Z	
	15641 Dec 23 08:33	0° Z		desc. node	15642 Dec 20 19:03	7° Z 26'02	
desc. node	15642 Jan 02 22:09	19° Z 27'29					

evening max el	15642 Dec 29 04:40	17° \approx 31'30	24°12'58	evening max el	15643 Dec 10 14:29	27° \approx 26'51	22°29'26
retrograde	15643 Jan 11 19:06	24° \approx 17'11			15643 Dec 13 13:01	0° \approx	
evening set	15643 Jan 16 19:53	23° \approx 22'01		retrograde	15643 Dec 23 10:45	3° \approx 48'22	
min. Earth dist.	15643 Jan 22 16:20	20° \approx 27'16	0.55584 AU	evening set	15643 Dec 27 04:38	3° \approx 17'36	
inferior conj	15643 Jan 24 18:08	19° \approx 11'47	-5°30'16		15644 Jan 03 13:19	30° \approx 3	
minimum elong	15643 Jan 25 01:55	18° \approx 59'57	5°28'16	min. Earth dist.	15644 Jan 03 22:20	29° \approx 47'23	0.54580 AU
morning rise	15643 Feb 02 09:48	15° \approx 12'50		inferior conj	15644 Jan 04 15:01	29° \approx 23'54	-6°01'27
direct	15643 Feb 04 19:06	14° \approx 58'02		minimum elong	15644 Jan 04 15:11	29° \approx 23'40	6°00'40
asc. node	15643 Feb 14 06:56	19° \approx 11'33		morning rise	15644 Jan 13 02:53	25° \approx 36'24	
morning max el	15643 Feb 15 02:57	19° \approx 58'13	19°55'23	direct	15644 Jan 16 07:40	25° \approx 13'16	
	15643 Feb 22 19:50	0° \approx			15644 Jan 27 04:18	0° \approx	
morning set	15643 Mar 04 21:22	18° \approx 48'25		morning max el	15644 Jan 28 05:14	0° \approx 57'14	21°22'38
	15643 Mar 10 09:18	0° \approx		asc. node	15644 Feb 01 04:17	5° \approx 20'35	
					15644 Feb 15 14:03	0° \approx	
superior conj	15643 Mar 12 17:08	4° \approx 39'59	0°50'05	morning set	15644 Feb 17 06:37	3° \approx 30'15	
minimum elong	15643 Mar 12 19:35	4° \approx 52'09	0°49'42				
max. Earth dist.	15643 Mar 18 17:51	16° \approx 18'39	1.37138 AU	superior conj	15644 Feb 24 12:51	18° \approx 45'54	1°11'38
desc. node	15643 Mar 18 20:18	16° \approx 30'07		minimum elong	15644 Feb 24 15:22	18° \approx 58'53	1°11'33
evening rise	15643 Mar 22 11:02	23° \approx 06'37		max. Earth dist.	15644 Feb 29 04:13	28° \approx 11'47	1.35040 AU
	15643 Mar 26 09:34	0° \approx			15644 Mar 01 02:10	0° \approx	
	15643 Apr 15 02:09	0° \approx		evening rise	15644 Mar 04 05:52	6° \approx 04'07	
evening max el	15643 Apr 26 22:23	14° \approx 00'21	25°29'31	desc. node	15644 Mar 04 16:54	6° \approx 55'58	
retrograde	15643 May 09 05:30	21° \approx 07'00			15644 Mar 18 04:00	0° \approx	
asc. node	15643 May 13 03:58	20° \approx 03'17		evening max el	15644 Apr 08 12:04	27° \approx 47'51	26°33'44
evening set	15643 May 15 04:16	18° \approx 38'30			15644 Apr 10 21:31	0° \approx	
min. Earth dist.	15643 May 19 11:12	13° \approx 56'18	0.67891 AU	retrograde	15644 Apr 21 13:38	5° \approx 12'44	
inferior conj	15643 May 20 20:52	12° \approx 07'53	2°08'46	evening set	15644 Apr 27 22:20	2° \approx 40'11	
minimum elong	15643 May 20 18:42	12° \approx 14'55	2°07'23	asc. node	15644 Apr 29 01:13	1° \approx 41'16	
morning rise	15643 May 26 09:35	6° \approx 16'21			15644 Apr 30 16:47	30° \approx 8	
direct	15643 May 29 21:43	5° \approx 05'51		min. Earth dist.	15644 May 01 23:15	28° \approx 33'08	0.66600 AU
morning max el	15643 Jun 05 18:37	8° \approx 49'32	19°04'05	inferior conj	15644 May 03 21:53	26° \approx 13'04	1°26'36
desc. node	15643 Jun 14 21:10	20° \approx 18'16		minimum elong	15644 May 03 19:58	26° \approx 18'50	1°25'18
greatest brilliancy	15643 Jun 18 19:04	26° \approx 03'49	-0.7m	morning rise	15644 May 09 18:41	20° \approx 33'05	
	15643 Jun 21 09:39	0° \approx		direct	15644 May 12 20:25	19° \approx 40'23	
morning set	15643 Jun 29 06:51	12° \approx 05'53		morning max el	15644 May 19 06:35	23° \approx 03'41	18°20'59
	15643 Jul 10 19:52	0° \approx			15644 May 25 00:11	0° \approx	
max. Earth dist.	15643 Jul 12 23:06	3° \approx 02'01	1.45618 AU	desc. node	15644 May 31 18:09	10° \approx 04'50	
				morning set	15644 Jun 08 08:49	22° \approx 06'20	
superior conj	15643 Jul 15 13:53	7° \approx 02'33	-2°13'12		15644 Jun 13 08:28	0° \approx	
minimum elong	15643 Jul 15 16:21	7° \approx 03'15	2°13'54				
	15643 Jul 29 16:14	0° \approx		superior conj	15644 Jun 23 22:50	16° \approx 37'11	-2°09'09
evening rise	15643 Jul 30 11:05	1° \approx 16'39		minimum elong	15644 Jun 23 17:35	16° \approx 16'43	2°09'47
asc. node	15643 Aug 09 03:49	16° \approx 55'58		max. Earth dist.	15644 Jun 24 19:14	17° \approx 56'45	1.45981 AU
	15643 Aug 18 19:11	0° \approx			15644 Jul 02 12:53	0° \approx	
evening max el	15643 Aug 18 21:41	0° \approx 06'13	18°20'21	evening rise	15644 Jul 09 22:17	11° \approx 03'24	
retrograde	15643 Aug 25 06:59	3° \approx 30'25		greatest brilliancy	15644 Jul 19 17:21	26° \approx 04'08	-0.8m
evening set	15643 Aug 28 07:06	2° \approx 40'29			15644 Jul 21 20:10	0° \approx	
	15643 Aug 31 15:02	30° \approx 8		asc. node	15644 Jul 26 00:32	6° \approx 05'46	
inferior conj	15643 Sep 03 04:05	27° \approx 10'08	2°06'13	evening max el	15644 Aug 01 09:03	13° \approx 53'41	18°54'41
minimum elong	15643 Sep 03 06:26	27° \approx 03'14	2°05'27	retrograde	15644 Aug 08 02:30	17° \approx 34'28	
min. Earth dist.	15643 Sep 05 10:38	24° \approx 30'57	0.64702 AU	evening set	15644 Aug 11 11:56	16° \approx 28'05	
morning rise	15643 Sep 09 04:18	20° \approx 48'51		inferior conj	15644 Aug 17 00:42	10° \approx 43'34	2°40'56
desc. node	15643 Sep 10 18:35	19° \approx 41'11		minimum elong	15644 Aug 17 02:40	10° \approx 37'19	2°40'11
direct	15643 Sep 15 16:46	18° \approx 13'05		min. Earth dist.	15644 Aug 18 17:17	8° \approx 35'04	0.66464 AU
morning max el	15643 Sep 29 07:28	26° \approx 08'54	27°22'01	morning rise	15644 Aug 22 16:34	4° \approx 17'17	
	15643 Oct 02 21:18	0° \approx		desc. node	15644 Aug 27 16:01	1° \approx 45'42	
	15643 Oct 23 19:13	0° \approx		direct	15644 Aug 28 21:16	1° \approx 39'59	
morning set	15643 Nov 03 15:48	19° \approx 47'21		morning max el	15644 Sep 10 19:05	9° \approx 19'59	26°20'56
asc. node	15643 Nov 05 05:23	22° \approx 53'32			15644 Sep 27 02:12	0° \approx	
max. Earth dist.	15643 Nov 08 03:24	28° \approx 50'01	1.32971 AU		15644 Oct 15 07:01	0° \approx	
	15643 Nov 08 16:52	0° \approx		morning set	15644 Oct 16 16:34	2° \approx 35'36	
				max. Earth dist.	15644 Oct 20 12:59	9° \approx 57'53	1.34698 AU
superior conj	15643 Nov 11 20:46	6° \approx 41'03	0°58'12	asc. node	15644 Oct 22 02:09	13° \approx 01'22	
minimum elong	15643 Nov 11 18:27	6° \approx 28'38	0°58'34				
evening rise	15643 Nov 18 21:15	21° \approx 49'35		superior conj	15644 Oct 25 18:31	20° \approx 29'31	0°33'18
	15643 Nov 22 19:12	0° \approx		minimum elong	15644 Oct 25 16:47	20° \approx 20'36	0°33'35
desc. node	15643 Dec 07 16:02	24° \approx 17'33			15644 Oct 30 07:43	0° \approx	

evening rise	15644 Nov 02 06:17	6°♊10'46		behind sun begin	15645 Oct 08 23:50	3°♍16'40	
	15644 Nov 15 03:19	0°♊		behind sun end	15645 Oct 09 12:37	4°♍19'35	
evening max el	15644 Nov 21 08:07	7°♊40'52	20°54'34	evening rise	15645 Oct 17 11:22	20°♍20'22	
desc. node	15644 Nov 23 13:07	9°♊39'50			15645 Oct 22 08:28	0°♊	
retrograde	15644 Dec 02 20:54	13°♊24'10		evening max el	15645 Nov 03 15:52	18°♊40'12	19°38'55
evening set	15644 Dec 05 10:19	13°♊08'29		desc. node	15645 Nov 10 10:17	23°♊07'49	
inferior conj	15644 Dec 14 05:51	9°♊16'19	-5°32'21	retrograde	15645 Nov 13 13:15	23°♊36'42	
minimum elong	15644 Dec 13 21:40	9°♊28'01	5°30'02	evening set	15645 Nov 15 12:22	23°♊25'55	
min. Earth dist.	15644 Dec 15 03:50	8°♊44'56	0.54474 AU	inferior conj	15645 Nov 24 05:17	19°♊22'52	-4°11'07
morning rise	15644 Dec 22 09:06	5°♊22'56		minimum elong	15645 Nov 23 19:32	19°♊38'13	4°07'12
direct	15644 Dec 26 14:53	4°♊44'15		min. Earth dist.	15645 Nov 26 11:54	17°♊56'55	0.55308 AU
morning max el	15645 Jan 08 18:45	11°♊08'54	23°07'43	morning rise	15645 Dec 02 00:56	15°♊04'43	
asc. node	15645 Jan 18 01:34	22°♊39'49		direct	15645 Dec 07 06:17	14°♊03'59	
	15645 Jan 22 12:33	0°♊		morning max el	15645 Dec 21 03:22	21°♊01'04	24°56'53
morning set	15645 Jan 31 18:09	18°♊14'39			15645 Dec 28 20:57	0°♊	
	15645 Feb 06 04:44	0°♊		asc. node	15646 Jan 04 22:48	10°♊52'08	
					15646 Jan 14 21:08	0°♊	
superior conj	15645 Feb 07 16:03	3°♊10'28	1°26'41	morning set	15646 Jan 16 06:01	2°♊55'31	
minimum elong	15645 Feb 07 17:58	3°♊20'47	1°26'58				
max. Earth dist.	15645 Feb 10 21:28	10°♊01'27	1.33302 AU	superior conj	15646 Jan 23 00:03	17°♊45'25	1°35'25
evening rise	15645 Feb 15 13:54	19°♊33'29		minimum elong	15646 Jan 23 01:02	17°♊50'51	1°36'01
desc. node	15645 Feb 19 13:31	27°♊12'14		max. Earth dist.	15646 Jan 24 22:07	21°♊57'56	1.32030 AU
	15645 Feb 21 01:56	0°♊			15646 Jan 28 16:11	0°♊	
	15645 Mar 12 05:20	0°♊		evening rise	15646 Jan 30 07:55	3°♊26'08	
evening max el	15645 Mar 22 01:26	11°♊19'41	27°18'14	desc. node	15646 Feb 06 10:08	17°♊13'18	
retrograde	15645 Apr 04 15:44	18°♊51'37			15646 Feb 13 20:35	0°♊	
evening set	15645 Apr 11 07:51	16°♊21'32		evening max el	15646 Mar 04 13:04	24°♊23'47	27°35'55
min. Earth dist.	15645 Apr 15 04:18	12°♊46'38	0.64907 AU		15646 Mar 11 20:58	0°♊	
asc. node	15645 Apr 15 22:30	11°♊57'25		retrograde	15646 Mar 18 10:36	1°♊52'58	
inferior conj	15645 Apr 17 15:20	10°♊04'36	0°31'46		15646 Mar 24 13:33	30°♊	
minimum elong	15645 Apr 17 14:28	10°♊07'00	0°30'57	evening set	15646 Mar 25 06:18	29°♊32'49	
morning rise	15645 Apr 23 23:00	4°♊38'00		min. Earth dist.	15646 Mar 29 00:36	26°♊25'22	0.62893 AU
direct	15645 Apr 26 15:20	4°♊00'20		inferior conj	15646 Mar 31 22:12	23°♊34'13	-0°36'33
morning max el	15645 May 02 22:51	7°♊15'52	17°54'51	minimum elong	15646 Mar 31 23:24	23°♊31'14	0°36'20
desc. node	15645 May 18 15:03	0°♊10'47		asc. node	15646 Apr 02 19:51	21°♊44'52	
	15645 May 18 12:27	0°♊		morning rise	15646 Apr 07 19:17	18°♊23'20	
morning set	15645 May 20 14:16	3°♊26'04		direct	15646 Apr 10 03:34	17°♊57'19	
				morning max el	15646 Apr 16 16:30	21°♊16'38	17°46'10
superior conj	15645 Jun 03 14:20	26°♊11'30	-1°46'21		15646 Apr 23 09:16	0°♊	
minimum elong	15645 Jun 03 05:36	25°♊36'50	1°46'25	morning set	15646 May 02 20:48	15°♊56'38	
	15645 Jun 06 00:06	0°♊		desc. node	15646 May 05 11:50	20°♊29'45	
max. Earth dist.	15645 Jun 07 15:08	2°♊33'27	1.45594 AU		15646 May 11 01:16	0°♊	
evening rise	15645 Jun 19 14:01	21°♊04'04					
	15645 Jun 25 10:41	0°♊		superior conj	15646 May 15 01:19	6°♊40'52	-1°11'43
greatest brilliancy	15645 Jul 03 21:20	12°♊35'30	-0.6m	minimum elong	15646 May 14 18:33	6°♊12'55	1°11'34
asc. node	15645 Jul 12 21:18	24°♊44'46		max. Earth dist.	15646 May 21 08:54	16°♊56'15	1.44501 AU
evening max el	15645 Jul 15 15:21	27°♊45'45	19°45'14		15646 May 29 16:58	0°♊	
	15645 Jul 18 04:49	0°♊		evening rise	15646 May 30 01:00	0°♊30'54	
retrograde	15645 Jul 23 00:50	1°♊55'14			15646 Jun 19 02:36	0°♊	
evening set	15645 Jul 26 20:14	0°♊31'21		evening max el	15646 Jun 28 15:43	11°♊39'18	20°50'01
	15645 Jul 27 11:59	30°♊		asc. node	15646 Jun 29 18:07	12°♊42'32	
inferior conj	15645 Aug 01 04:02	24°♊34'12	3°01'10	retrograde	15646 Jul 06 23:49	16°♊27'13	
minimum elong	15645 Aug 01 05:12	24°♊30'18	3°00'28	evening set	15646 Jul 11 05:54	14°♊45'45	
min. Earth dist.	15645 Aug 02 06:37	23°♊05'07	0.67813 AU	inferior conj	15646 Jul 16 11:35	8°♊37'15	3°08'59
morning rise	15645 Aug 06 13:41	18°♊08'35		minimum elong	15646 Jul 16 11:47	8°♊36'33	3°08'15
direct	15645 Aug 12 08:07	15°♊37'38		min. Earth dist.	15646 Jul 17 00:30	7°♊52'31	0.68696 AU
desc. node	15645 Aug 14 13:26	15°♊56'56		morning rise	15646 Jul 21 17:23	2°♊16'01	
morning max el	15645 Aug 24 06:03	22°♊45'52	25°01'22		15646 Jul 26 07:56	30°♊	
	15645 Aug 30 15:11	0°♊		direct	15646 Jul 27 00:07	29°♊57'55	
	15645 Sep 20 09:37	0°♊			15646 Jul 27 16:33	0°♊	
morning set	15645 Sep 29 01:13	14°♊40'39		desc. node	15646 Aug 01 10:48	1°♊53'30	
max. Earth dist.	15645 Oct 02 14:00	21°♊04'04	1.36854 AU	morning max el	15646 Aug 06 16:53	6°♊20'43	23°33'06
	15645 Oct 07 07:29	0°♊			15646 Aug 25 01:54	0°♊	
asc. node	15645 Oct 08 22:50	3°♊11'43		morning set	15646 Sep 10 13:29	25°♊52'40	
					15646 Sep 12 23:39	0°♊	
superior conj	15645 Oct 09 06:26	3°♊49'07	0°02'54	max. Earth dist.	15646 Sep 14 12:25	2°♊39'06	1.39242 AU
minimum elong	15645 Oct 09 06:14	3°♊48'05	0°03'16				

superior conj	15646 Sep 22 04:51	16° Ω 31'29	-0°31'51	superior conj	15647 Sep 04 09:22	28° Π 25'43	-1°08'22
minimum elong	15646 Sep 22 07:11	16° Ω 42'22	0°31'16	minimum elong	15647 Sep 04 14:51	28° Π 49'55	1°07'40
asc. node	15646 Sep 25 19:28	23° Ω 21'15			15647 Sep 05 06:41	0° Ω	
	15646 Sep 29 06:00	0° Π		asc. node	15647 Sep 12 16:04	13° Ω 25'47	
evening rise	15646 Oct 01 09:49	4° Π 12'00		evening rise	15647 Sep 14 22:07	17° Ω 36'07	
	15646 Oct 17 01:42	0° \mathcal{A}			15647 Sep 21 17:56	0° Π	
evening max el	15646 Oct 17 13:20	0° \mathcal{A} 29'57	18°45'30	evening max el	15647 Sep 30 20:39	13° Π 01'52	18°13'35
retrograde	15646 Oct 25 22:33	4° \mathcal{A} 43'54		retrograde	15647 Oct 08 03:20	16° Π 44'51	
evening set	15646 Oct 27 20:19	4° \mathcal{A} 31'34		evening set	15647 Oct 10 06:07	16° Π 26'35	
desc. node	15646 Oct 28 07:32	4° \mathcal{A} 24'55		desc. node	15647 Oct 15 04:52	13° Π 43'05	
inferior conj	15646 Nov 04 23:40	0° \mathcal{A} 08'59	-2°27'09	inferior conj	15647 Oct 17 15:52	11° Π 42'25	-0°47'07
minimum elong	15646 Nov 04 17:39	0° \mathcal{A} 19'59	2°24'06	minimum elong	15647 Oct 17 14:09	11° Π 46'04	0°45'55
	15646 Nov 05 04:35	30° $\mathcal{R}\Pi$		min. Earth dist.	15647 Oct 20 22:06	8° Π 56'25	0.59016 AU
min. Earth dist.	15646 Nov 08 01:05	27° Π 55'35	0.56917 AU	morning rise	15647 Oct 24 18:47	6° Π 12'48	
morning rise	15646 Nov 12 11:53	25° Π 15'11		direct	15647 Oct 31 05:40	4° Π 20'00	
direct	15646 Nov 18 11:18	23° Π 48'40		morning max el	15647 Nov 14 12:39	12° Π 01'27	27°34'25
	15646 Dec 01 09:37	0° \mathcal{A}			15647 Nov 28 15:55	0° \mathcal{A}	
morning max el	15646 Dec 02 15:57	1° \mathcal{A} 10'23	26°31'08	asc. node	15647 Dec 09 16:59	19° \mathcal{A} 04'50	
asc. node	15646 Dec 22 19:56	29° \mathcal{A} 44'09			15647 Dec 15 03:12	0° \mathcal{B}	
	15646 Dec 22 23:23	0° \mathcal{B}		morning set	15647 Dec 15 23:48	1° \mathcal{B} 48'43	
morning set	15646 Dec 31 16:30	17° \mathcal{B} 28'34					
	15647 Jan 06 08:49	0° \approx		superior conj	15647 Dec 22 22:15	17° \mathcal{B} 03'06	1°34'38
				minimum elong	15647 Dec 22 21:09	16° \mathcal{B} 57'00	1°35'25
superior conj	15647 Jan 07 10:46	2° \approx 24'56	1°38'01	max. Earth dist.	15647 Dec 22 12:08	16° \mathcal{B} 06'30	1.31030 AU
minimum elong	15647 Jan 07 10:41	2° \approx 24'31	1°38'48		15647 Dec 28 18:16	0° \approx	
max. Earth dist.	15647 Jan 08 04:11	4° \approx 02'10	1.31268 AU	evening rise	15647 Dec 29 15:49	1° \approx 56'27	
evening rise	15647 Jan 14 09:20	17° \approx 35'49		desc. node	15648 Jan 11 03:36	26° \approx 03'14	
	15647 Jan 20 13:10	0° \mathcal{H}			15648 Jan 13 13:28	0° \mathcal{H}	
desc. node	15647 Jan 24 06:50	6° \mathcal{H} 53'07		evening max el	15648 Jan 27 21:00	18° \mathcal{H} 20'38	26°30'41
	15647 Feb 08 15:19	0° \mathcal{Y}		retrograde	15648 Feb 10 20:37	25° \mathcal{H} 29'40	
evening max el	15647 Feb 14 20:32	6° \mathcal{Y} 47'39	27°20'51	evening set	15648 Feb 17 06:00	23° \mathcal{H} 50'14	
retrograde	15647 Feb 28 20:42	14° \mathcal{Y} 07'50		min. Earth dist.	15648 Feb 21 10:29	21° \mathcal{H} 12'47	0.58469 AU
evening set	15647 Mar 07 14:48	12° \mathcal{Y} 04'56		inferior conj	15648 Feb 24 14:11	18° \mathcal{H} 51'04	-3°26'41
min. Earth dist.	15647 Mar 11 10:48	9° \mathcal{Y} 17'50	0.60688 AU	minimum elong	15648 Feb 24 21:57	18° \mathcal{H} 36'27	3°23'41
inferior conj	15647 Mar 14 15:04	6° \mathcal{Y} 33'05	-1°57'35	morning rise	15648 Mar 03 17:15	14° \mathcal{H} 20'19	
minimum elong	15647 Mar 14 19:23	6° \mathcal{Y} 23'42	1°55'52	direct	15648 Mar 05 16:40	14° \mathcal{H} 06'49	
asc. node	15647 Mar 20 17:14	2° \mathcal{Y} 12'23		asc. node	15648 Mar 06 14:39	14° \mathcal{H} 09'49	
morning rise	15647 Mar 22 03:18	1° \mathcal{Y} 40'52		morning max el	15648 Mar 13 18:44	18° \mathcal{H} 06'27	18°24'58
direct	15647 Mar 24 05:30	1° \mathcal{Y} 22'53			15648 Mar 22 08:03	0° \mathcal{Y}	
morning max el	15647 Mar 31 08:20	4° \mathcal{Y} 56'52	17°55'43	morning set	15648 Mar 29 14:08	13° \mathcal{Y} 21'06	
morning set	15647 Apr 15 22:35	29° \mathcal{Y} 20'24			15648 Apr 07 09:42	0° \mathcal{B}	
	15647 Apr 16 07:16	0° \mathcal{B}					
desc. node	15647 Apr 22 08:33	10° \mathcal{B} 57'15		superior conj	15648 Apr 07 20:03	0° \mathcal{B} 47'30	0°03'12
				minimum elong	15648 Apr 07 20:15	0° \mathcal{B} 48'27	0°02'47
superior conj	15647 Apr 26 11:54	18° \mathcal{B} 14'51	-0°33'19	behind sun begin	15648 Apr 07 13:06	0° \mathcal{B} 15'39	
minimum elong	15647 Apr 26 08:58	18° \mathcal{B} 02'05	0°33'25	behind sun end	15648 Apr 08 03:24	1° \mathcal{B} 21'11	
	15647 May 03 10:26	0° Π		desc. node	15648 Apr 08 05:14	1° \mathcal{B} 29'35	
max. Earth dist.	15647 May 03 23:00	0° Π 51'45	1.42816 AU	max. Earth dist.	15648 Apr 15 08:31	14° \mathcal{B} 08'08	1.40712 AU
evening rise	15647 May 09 23:07	10° Π 32'27		evening rise	15648 Apr 19 17:04	21° \mathcal{B} 27'44	
	15647 May 22 18:41	0° \mathcal{E}			15648 Apr 25 00:09	0° Π	
evening max el	15647 Jun 11 10:34	25° \mathcal{E} 32'39	22°05'25		15648 May 15 20:53	0° \mathcal{E}	
asc. node	15647 Jun 16 15:02	29° \mathcal{E} 45'02		evening max el	15648 May 24 01:39	9° \mathcal{E} 26'42	23°26'21
	15647 Jun 17 01:48	0° Ω		asc. node	15648 Jun 02 12:05	15° \mathcal{E} 35'50	
retrograde	15647 Jun 20 21:44	1° Ω 04'41		retrograde	15648 Jun 03 17:21	15° \mathcal{E} 42'17	
	15647 Jun 24 10:05	30° $\mathcal{R}\mathcal{E}$		evening set	15648 Jun 08 22:18	13° \mathcal{E} 29'29	
evening set	15647 Jun 25 15:07	29° \mathcal{E} 06'28		min. Earth dist.	15648 Jun 13 17:35	7° \mathcal{E} 49'28	0.68998 AU
inferior conj	15647 Jun 30 21:12	22° \mathcal{E} 48'07	3°05'43	inferior conj	15648 Jun 14 06:58	7° \mathcal{E} 03'24	2°51'58
minimum elong	15647 Jun 30 20:27	22° \mathcal{E} 50'41	3°04'50	minimum elong	15648 Jun 14 05:25	7° \mathcal{E} 08'42	2°50'52
min. Earth dist.	15647 Jun 30 20:50	22° \mathcal{E} 49'21	0.69093 AU	morning rise	15648 Jun 19 12:32	0° \mathcal{E} 56'51	
morning rise	15647 Jul 06 01:37	16° \mathcal{E} 33'31			15648 Jun 20 22:38	30° $\mathcal{R}\Pi$	
direct	15647 Jul 10 19:59	14° \mathcal{E} 32'42		direct	15648 Jun 23 18:38	29° Π 15'36	
desc. node	15647 Jul 19 08:06	19° \mathcal{E} 10'27			15648 Jun 26 19:03	0° \mathcal{E}	
morning max el	15647 Jul 20 05:58	20° \mathcal{E} 03'44	22°05'00	morning max el	15648 Jul 02 00:17	3° \mathcal{E} 57'29	20°44'25
	15647 Jul 28 15:42	0° Ω		desc. node	15648 Jul 05 05:19	7° \mathcal{E} 27'19	
	15647 Aug 18 06:10	0° Π			15648 Jul 21 14:06	0° Ω	
morning set	15647 Aug 22 02:00	6° Π 03'34		morning set	15648 Jul 31 16:22	15° Ω 19'27	
max. Earth dist.	15647 Aug 27 14:34	15° Π 05'04	1.41583 AU	max. Earth dist.	15648 Aug 08 23:04	28° Ω 23'56	1.43597 AU

	15648 Aug 09 22:52	0°♎		morning set	15649 Jul 10 19:54	24°♎10'28	
					15649 Jul 14 14:40	0°♏	
superior conj	15648 Aug 15 15:54	9°♎23'29 -1°42'08		max. Earth dist.	15649 Jul 22 13:14	12°♏23'27	1.45068 AU
minimum elong	15648 Aug 15 23:36	9°♎55'39 1°41'44					
evening rise	15648 Aug 27 19:51	0°♏21'52		superior conj	15649 Jul 26 22:58	19°♏23'04 -2°06'28	
	15648 Aug 27 14:53	0°♏		minimum elong	15649 Jul 27 04:56	19°♏46'59 2°06'46	
asc. node	15648 Aug 29 12:43	3°♏21'52			15649 Aug 02 12:21	0°♎	
evening max el	15648 Sep 13 09:38	26°♏06'45 18°01'38		evening rise	15649 Aug 09 21:39	12°♎15'09	
retrograde	15648 Sep 20 00:25	29°♏31'59		asc. node	15649 Aug 16 09:22	23°♎04'36	
evening set	15648 Sep 22 10:44	29°♏03'59			15649 Aug 20 17:09	0°♏	
inferior conj	15648 Sep 29 03:46	24°♏00'07 0°35'47		evening max el	15649 Aug 28 00:28	9°♏34'56 18°08'27	
minimum elong	15648 Sep 29 04:50	23°♏57'28 0°35'39		retrograde	15649 Sep 03 09:12	12°♏55'43	
desc. node	15648 Oct 01 02:14	22°♏05'19		evening set	15649 Sep 06 04:04	12°♏14'39	
min. Earth dist.	15648 Oct 02 04:54	21°♏01'20 0.61306 AU		inferior conj	15649 Sep 12 07:23	6°♏53'36 1°38'36	
morning rise	15648 Oct 05 20:05	18°♏02'30		minimum elong	15649 Sep 12 09:37	6°♏47'25 1°37'55	
direct	15648 Oct 12 12:04	15°♏46'49		min. Earth dist.	15649 Sep 14 21:40	4°♏02'08 0.63527 AU	
morning max el	15648 Oct 26 16:57	23°♏42'13 27°58'51		desc. node	15649 Sep 17 23:39	1°♏05'06	
	15648 Nov 01 09:13	0°♎		morning rise	15649 Sep 18 13:10	0°♏38'17	
	15648 Nov 20 23:13	0°♎			15649 Sep 19 10:38	30°♎	
asc. node	15648 Nov 25 13:58	8°♎46'17		direct	15649 Sep 25 04:27	28°♎06'59	
morning set	15648 Nov 29 01:56	15°♎51'17			15649 Oct 01 10:51	0°♏	
max. Earth dist.	15648 Dec 04 18:04	28°♎01'37 1.31337 AU		morning max el	15649 Oct 09 02:01	6°♏06'42 27°45'04	
	15648 Dec 05 15:31	0°♏			15649 Oct 27 07:32	0°♎	
				asc. node	15649 Nov 12 10:52	28°♎42'17	
superior conj	15648 Dec 06 08:38	1°♏34'55 1°25'15		morning set	15649 Nov 12 20:34	29°♎30'50	
minimum elong	15648 Dec 06 06:44	1°♏24'24 1°25'55			15649 Nov 13 02:22	0°♎	
evening rise	15648 Dec 13 01:25	16°♏23'18		max. Earth dist.	15649 Nov 17 18:05	9°♎39'01 1.32208 AU	
	15648 Dec 19 16:07	0°♏					
desc. node	15648 Dec 28 00:27	14°♏32'22		superior conj	15649 Nov 20 15:59	15°♎55'18 1°09'51	
evening max el	15649 Jan 08 12:53	29°♏01'01 25°09'17		minimum elong	15649 Nov 20 13:40	15°♎42'41 1°10'19	
	15649 Jan 09 14:31	0°♎			15649 Nov 27 02:38	0°♏	
retrograde	15649 Jan 22 08:50	5°♎57'18		evening rise	15649 Nov 27 12:18	0°♏52'07	
evening set	15649 Jan 28 00:10	4°♎45'42			15649 Dec 13 08:56	0°♏	
min. Earth dist.	15649 Feb 02 01:11	2°♎02'23 0.56490 AU		desc. node	15649 Dec 14 21:22	2°♏05'46	
inferior conj	15649 Feb 04 16:35	0°♎19'13 -4°51'39		evening max el	15649 Dec 20 22:56	9°♏05'04 23°28'55	
minimum elong	15649 Feb 05 01:51	0°♎04'06 4°48'47		retrograde	15650 Jan 03 07:43	15°♏42'22	
	15649 Feb 05 04:23	30°♎		evening set	15650 Jan 07 19:35	14°♏58'38	
morning rise	15649 Feb 13 06:09	26°♏10'01		min. Earth dist.	15650 Jan 14 09:50	11°♏50'54 0.55054 AU	
direct	15649 Feb 15 08:51	25°♏57'13		inferior conj	15650 Jan 15 22:44	10°♏57'06 -5°50'08	
asc. node	15649 Feb 21 12:04	27°♏52'59		minimum elong	15650 Jan 16 03:58	10°♏49'29 5°48'54	
	15649 Feb 24 05:28	0°♎		morning rise	15650 Jan 24 13:50	7°♏04'17	
morning max el	15649 Feb 24 19:28	0°♎33'07 19°15'49		direct	15650 Jan 27 05:57	6°♏46'57	
morning set	15649 Mar 13 15:01	27°♎45'04		morning max el	15650 Feb 07 06:36	12°♏06'20 20°29'46	
	15649 Mar 14 18:06	0°♎		asc. node	15650 Feb 08 09:27	13°♏14'19	
					15650 Feb 19 15:38	0°♎	
superior conj	15649 Mar 21 21:17	14°♎05'41 0°34'42		morning set	15650 Feb 25 21:59	12°♎23'01	
minimum elong	15649 Mar 21 23:16	14°♎15'18 0°34'14					
desc. node	15649 Mar 26 01:52	22°♎02'24		superior conj	15650 Mar 05 11:21	27°♎57'32 1°00'00	
max. Earth dist.	15649 Mar 28 14:39	26°♎40'50 1.38427 AU		minimum elong	15650 Mar 05 13:55	28°♎10'34 0°59'44	
	15649 Mar 30 11:10	0°♏			15650 Mar 06 11:36	0°♎	
evening rise	15649 Apr 01 08:07	3°♏17'03		max. Earth dist.	15650 Mar 10 21:57	8°♎42'29 1.36211 AU	
	15649 Apr 18 03:10	0°♎		desc. node	15650 Mar 12 22:29	12°♎32'20	
evening max el	15649 May 06 15:07	23°♎20'56 24°46'36		evening rise	15650 Mar 14 17:54	15°♎53'15	
	15649 May 16 13:39	0°♏			15650 Mar 22 20:29	0°♏	
retrograde	15649 May 18 09:23	0°♏12'54			15650 Apr 12 15:30	0°♎	
asc. node	15649 May 20 09:12	29°♎56'04		evening max el	15650 Apr 19 04:42	7°♎13'19 25°58'50	
	15649 May 20 03:21	30°♎		retrograde	15650 May 01 20:43	14°♎29'40	
evening set	15649 May 24 01:45	27°♎48'51		asc. node	15650 May 07 06:24	12°♎33'02	
min. Earth dist.	15649 May 28 12:41	22°♎45'43 0.68423 AU		evening set	15650 May 07 23:46	11°♎58'56	
inferior conj	15649 May 29 14:57	21°♎18'25 2°27'43		min. Earth dist.	15650 May 12 04:00	7°♎31'39 0.67390 AU	
minimum elong	15649 May 29 12:54	21°♎25'16 2°26'24		inferior conj	15650 May 13 19:09	5°♎28'50 1°52'23	
morning rise	15649 Jun 04 00:17	15°♎20'57		minimum elong	15650 May 13 17:00	5°♎35'35 1°50'59	
direct	15649 Jun 07 18:39	13°♎59'35		morning rise	15650 May 19 10:57	29°♎41'47	
morning max el	15649 Jun 15 01:35	18°♎01'25 19°36'19			15650 May 19 00:02	30°♎	
desc. node	15649 Jun 22 02:27	26°♎27'41		direct	15650 May 22 18:29	28°♎39'10	
	15649 Jun 24 15:44	0°♏			15650 May 26 17:08	0°♎	
greatest brilliancy	15649 Jun 27 19:24	4°♏32'33 -0.6m		morning max el	15650 May 29 09:56	2°♎12'55 18°43'37	

desc. node	15650 Jun 08 23:30	16° Π 00'03		morning set	15651 May 31 22:12	14° Π 06'05	
	15650 Jun 18 02:18	0° \mathfrak{E}			15651 Jun 10 20:40	0° \mathfrak{E}	
morning set	15650 Jun 20 08:43	3° \mathfrak{E} 31'53					
max. Earth dist.	15650 Jul 05 07:39	26° \mathfrak{E} 50'15	1.45862 AU	superior conj	15651 Jun 15 21:39	7° \mathfrak{E} 56'22	-2°01'26
				minimum elong	15651 Jun 15 14:08	7° \mathfrak{E} 26'53	2°01'51
superior conj	15650 Jul 06 12:04	28° \mathfrak{E} 41'10	-2°14'00	max. Earth dist.	15651 Jun 18 04:19	11° \mathfrak{E} 30'08	1.45908 AU
minimum elong	15650 Jul 06 11:10	28° \mathfrak{E} 37'40	2°14'47		15651 Jun 30 02:14	0° \mathcal{O}	
	15650 Jul 07 08:14	0° \mathcal{O}		evening rise	15651 Jul 02 00:37	2° \mathcal{O} 59'21	
evening rise	15650 Jul 21 23:01	23° \mathcal{O} 05'49		greatest brilliancy	15651 Jul 13 22:45	21° \mathcal{O} 14'21	-0.7m
	15650 Jul 26 06:39	0° \mathfrak{M}			15651 Jul 20 00:53	0° \mathfrak{M}	
greatest brilliancy	15650 Jul 27 21:38	2° \mathfrak{M} 35'20	-0.9m	asc. node	15651 Jul 21 02:44	1° \mathfrak{M} 26'22	
asc. node	15650 Aug 03 06:02	12° \mathfrak{M} 28'19		evening max el	15651 Jul 25 23:24	7° \mathfrak{M} 08'21	19°14'23
evening max el	15650 Aug 11 13:55	23° \mathfrak{M} 17'43	18°33'00	retrograde	15651 Aug 01 22:34	10° \mathfrak{M} 59'33	
retrograde	15650 Aug 18 01:38	26° \mathfrak{M} 47'11		evening set	15651 Aug 05 12:16	9° \mathfrak{M} 45'37	
evening set	15650 Aug 21 05:40	25° \mathfrak{M} 50'27		inferior conj	15651 Aug 10 22:33	3° \mathfrak{M} 55'37	2°51'09
inferior conj	15650 Aug 26 22:46	20° \mathfrak{M} 14'11	2°22'52	minimum elong	15651 Aug 11 00:12	3° \mathfrak{M} 50'13	2°50'25
minimum elong	15650 Aug 27 01:02	20° \mathfrak{M} 07'18	2°22'05	min. Earth dist.	15651 Aug 12 09:06	2° \mathfrak{M} 03'16	0.67091 AU
min. Earth dist.	15650 Aug 28 23:32	17° \mathfrak{M} 46'30	0.65497 AU		15651 Aug 14 01:03	30° \mathcal{R} \mathcal{O}	
morning rise	15650 Sep 01 19:12	13° \mathfrak{M} 50'08		morning rise	15651 Aug 16 11:30	27° \mathcal{O} 29'22	
desc. node	15650 Sep 04 21:05	11° \mathfrak{M} 53'47		direct	15651 Aug 22 12:09	24° \mathcal{O} 53'59	
direct	15650 Sep 08 04:55	11° \mathfrak{M} 12'23		desc. node	15651 Aug 22 18:30	24° \mathcal{O} 54'15	
morning max el	15650 Sep 21 13:03	19° \mathfrak{M} 03'15	26°58'54		15651 Sep 01 12:53	0° \mathfrak{M}	
	15650 Sep 30 20:29	0° \mathfrak{L}		morning max el	15651 Sep 04 00:20	2° \mathfrak{M} 21'33	25°48'54
	15650 Oct 20 07:40	0° \mathfrak{M}			15651 Sep 24 23:45	0° \mathfrak{L}	
morning set	15650 Oct 27 04:47	12° \mathfrak{M} 39'49		morning set	15651 Oct 09 23:10	25° \mathfrak{L} 10'50	
asc. node	15650 Oct 30 07:39	18° \mathfrak{M} 47'03			15651 Oct 12 13:25	0° \mathfrak{M}	
max. Earth dist.	15650 Oct 31 09:11	20° \mathfrak{M} 55'26	1.33642 AU	max. Earth dist.	15651 Oct 13 14:53	2° \mathfrak{M} 00'51	1.35575 AU
				asc. node	15651 Oct 17 04:22	8° \mathfrak{M} 56'40	
superior conj	15650 Nov 04 17:58	29° \mathfrak{M} 57'28	0°48'23				
minimum elong	15650 Nov 04 15:47	29° \mathfrak{M} 46'01	0°48'42	superior conj	15651 Oct 19 11:56	13° \mathfrak{M} 35'03	0°21'03
	15650 Nov 04 18:27	0° \mathcal{X}		minimum elong	15651 Oct 19 10:43	13° \mathfrak{M} 28'56	0°21'22
evening rise	15650 Nov 11 22:33	15° \mathcal{X} 17'35		evening rise	15651 Oct 27 06:11	29° \mathfrak{M} 35'02	
	15650 Nov 19 05:57	0° \mathfrak{Z}			15651 Oct 27 11:02	0° \mathcal{X}	
desc. node	15650 Dec 01 18:23	18° \mathfrak{Z} 22'56		evening max el	15651 Nov 14 10:24	29° \mathcal{X} 36'33	20°19'42
evening max el	15650 Dec 02 11:07	19° \mathfrak{Z} 05'02	21°47'17		15651 Nov 14 19:59	0° \mathfrak{Z}	
retrograde	15650 Dec 14 19:20	25° \mathfrak{Z} 11'12		desc. node	15651 Nov 18 15:29	3° \mathfrak{Z} 00'00	
evening set	15650 Dec 18 00:00	24° \mathfrak{Z} 48'18		retrograde	15651 Nov 25 06:21	5° \mathfrak{Z} 00'02	
inferior conj	15650 Dec 26 15:22	20° \mathfrak{Z} 57'28	-5°56'41	evening set	15651 Nov 27 12:03	4° \mathfrak{Z} 47'17	
minimum elong	15650 Dec 26 11:29	21° \mathfrak{Z} 02'54	5°55'33	inferior conj	15651 Dec 06 08:05	0° \mathfrak{Z} 51'38	-5°02'42
min. Earth dist.	15650 Dec 26 15:20	20° \mathfrak{Z} 57'32	0.54424 AU	minimum elong	15651 Dec 05 22:17	1° \mathfrak{Z} 06'04	4°59'27
morning rise	15651 Jan 03 23:39	17° \mathfrak{Z} 09'41			15651 Dec 07 19:06	30° \mathcal{R} \mathcal{X}	
direct	15651 Jan 07 15:06	16° \mathfrak{Z} 40'35		min. Earth dist.	15651 Dec 07 21:08	29° \mathcal{X} 57'02	0.54729 AU
morning max el	15651 Jan 20 02:42	22° \mathfrak{Z} 42'53	22°05'34	morning rise	15651 Dec 14 08:00	26° \mathcal{X} 50'12	
asc. node	15651 Jan 26 06:47	29° \mathfrak{Z} 55'39		direct	15651 Dec 19 00:31	26° \mathcal{X} 02'50	
	15651 Jan 26 08:02	0° \approx			15651 Dec 29 08:47	0° \mathfrak{Z}	
morning set	15651 Feb 10 08:27	27° \approx 06'46		morning max el	15652 Jan 01 12:47	2° \mathfrak{Z} 41'20	23°54'39
	15651 Feb 11 17:08	0° \mathfrak{H}		asc. node	15652 Jan 13 04:02	17° \mathfrak{Z} 39'22	
					15652 Jan 20 02:09	0° \approx	
superior conj	15651 Feb 17 10:34	12° \mathfrak{H} 12'20	1°18'47	morning set	15652 Jan 25 20:21	11° \approx 50'34	
minimum elong	15651 Feb 17 12:53	12° \mathfrak{H} 24'32	1°18'52				
max. Earth dist.	15651 Feb 21 11:08	20° \mathfrak{H} 32'53	1.34259 AU	superior conj	15652 Feb 01 16:05	26° \approx 42'04	1°31'08
evening rise	15651 Feb 25 18:48	29° \mathfrak{H} 05'43		minimum elong	15652 Feb 01 17:38	26° \approx 50'30	1°31'35
	15651 Feb 26 06:07	0° \mathfrak{Y}			15652 Feb 03 04:39	0° \mathfrak{H}	
desc. node	15651 Feb 27 19:05	2° \mathfrak{Y} 54'50		max. Earth dist.	15652 Feb 04 07:58	2° \mathfrak{H} 26'20	1.32711 AU
	15651 Mar 16 00:34	0° \mathfrak{B}		evening rise	15652 Feb 09 07:26	12° \mathfrak{H} 45'53	
evening max el	15651 Apr 01 18:37	20° \mathfrak{B} 56'23	26°55'33	desc. node	15652 Feb 14 15:41	23° \mathfrak{H} 05'23	
retrograde	15651 Apr 15 02:17	28° \mathfrak{B} 24'51			15652 Feb 18 11:57	0° \mathfrak{Y}	
evening set	15651 Apr 21 14:26	25° \mathfrak{B} 52'51			15652 Mar 10 05:08	0° \mathfrak{B}	
asc. node	15651 Apr 24 03:39	23° \mathfrak{B} 31'38		evening max el	15652 Mar 14 07:34	4° \mathfrak{B} 18'11	27°29'21
min. Earth dist.	15651 Apr 25 13:22	21° \mathfrak{B} 59'42	0.65927 AU	retrograde	15652 Mar 28 01:10	11° \mathfrak{B} 49'07	
inferior conj	15651 Apr 27 17:16	19° \mathfrak{B} 29'16	1°04'59	evening set	15652 Apr 03 19:31	9° \mathfrak{B} 22'22	
minimum elong	15651 Apr 27 15:42	19° \mathfrak{B} 33'53	1°03'49	min. Earth dist.	15652 Apr 07 14:46	6° \mathfrak{B} 00'00	0.64089 AU
morning rise	15651 May 03 18:20	13° \mathfrak{B} 54'27		inferior conj	15652 Apr 10 06:37	3° \mathfrak{B} 12'32	0°04'27
direct	15651 May 06 15:59	13° \mathfrak{B} 08'23		minimum elong	15652 Apr 10 06:29	3° \mathfrak{B} 12'52	0°03'59
morning max el	15651 May 12 23:57	16° \mathfrak{B} 26'51	18°07'43	transit middle	15652 Apr 10 06:29	3° \mathfrak{B} 12'52	0°03'59
	15651 May 23 02:30	0° \mathfrak{I}		transit begin	15652 Apr 10 03:28	3° \mathfrak{B} 20'49	
desc. node	15651 May 26 20:28	5° \mathfrak{I} 55'53		transit end	15652 Apr 10 09:30	3° \mathfrak{B} 04'55	

asc. node	15652 Apr 10 00:59	3°♄27'25		minimum elong	15653 Mar 24 10:26	16°♄25'10	1°08'41
	15652 Apr 13 13:25	30°♄♄		asc. node	15653 Mar 27 22:22	13°♄24'45	
morning rise	15652 Apr 16 19:42	27°♄52'21		morning rise	15653 Mar 31 11:28	11°♄27'54	
direct	15652 Apr 19 08:33	27°♄19'56		direct	15653 Apr 02 16:51	11°♄05'46	
	15652 Apr 25 01:59	0°♄		morning max el	15653 Apr 09 10:36	14°♄29'45	17°47'59
morning max el	15652 Apr 25 17:10	0°♄35'19	17°49'01		15653 Apr 20 04:49	0°♄	
morning set	15652 May 12 14:57	25°♄58'08		morning set	15653 Apr 25 06:27	8°♄54'02	
desc. node	15652 May 12 17:19	26°♄08'08		desc. node	15653 Apr 29 14:06	16°♄31'43	
	15652 May 15 00:21	0°♄					
				superior conj	15653 May 06 17:30	28°♄49'31	-0°55'30
superior conj	15652 May 25 20:20	17°♄51'22	-1°32'35	minimum elong	15653 May 06 12:20	28°♄27'44	0°55'26
minimum elong	15652 May 25 11:58	17°♄17'39	1°32'29		15653 May 07 10:16	0°♄	
max. Earth dist.	15652 May 31 00:06	26°♄04'49	1.45211 AU	max. Earth dist.	15653 May 13 16:26	10°♄17'50	1.43846 AU
	15652 Jun 02 11:57	0°♄		evening rise	15653 May 21 02:25	22°♄01'43	
evening rise	15652 Jun 10 12:16	12°♄23'37			15653 May 26 07:19	0°♄	
	15652 Jun 22 05:10	0°♄			15653 Jun 16 15:27	0°♄	
asc. node	15652 Jul 06 23:31	19°♄49'16		evening max el	15653 Jun 21 00:55	4°♄54'06	21°20'57
evening max el	15652 Jul 08 03:09	21°♄01'02	20°11'13	asc. node	15653 Jun 23 20:24	7°♄25'31	
retrograde	15652 Jul 15 21:28	25°♄25'53		retrograde	15653 Jun 29 20:19	10°♄00'58	
evening set	15652 Jul 19 21:23	23°♄54'16		evening set	15653 Jul 04 07:05	8°♄12'12	
inferior conj	15652 Jul 25 03:56	17°♄51'54	3°05'54	inferior conj	15653 Jul 09 12:37	1°♄59'03	3°08'53
minimum elong	15652 Jul 25 04:42	17°♄49'18	3°05'12	minimum elong	15653 Jul 09 12:25	1°♄59'45	3°08'06
min. Earth dist.	15652 Jul 26 00:33	16°♄41'38	0.68244 AU	min. Earth dist.	15653 Jul 09 19:50	1°♄33'55	0.68923 AU
morning rise	15652 Jul 30 11:39	11°♄27'54			15653 Jul 10 23:06	30°♄♄	
direct	15652 Aug 05 01:08	9°♄02'04		morning rise	15653 Jul 14 17:32	25°♄40'12	
desc. node	15652 Aug 08 15:54	9°♄53'10		direct	15653 Jul 19 18:54	23°♄29'12	
morning max el	15652 Aug 16 11:14	15°♄52'08	24°24'27	desc. node	15653 Jul 26 13:17	26°♄26'42	
	15652 Aug 28 03:18	0°♄		morning max el	15653 Jul 29 22:49	29°♄30'50	22°55'03
	15652 Sep 16 22:12	0°♄			15653 Jul 30 10:15	0°♄	
morning set	15652 Sep 20 23:37	6°♄54'09			15653 Aug 21 21:11	0°♄	
max. Earth dist.	15652 Sep 24 14:17	13°♄16'52	1.37856 AU	morning set	15653 Sep 02 02:01	17°♄40'37	
				max. Earth dist.	15653 Sep 06 13:20	25°♄10'20	1.40257 AU
					15653 Sep 09 08:26	0°♄	
superior conj	15652 Oct 01 18:32	26°♄39'23	-0°11'27				
minimum elong	15652 Oct 01 19:18	26°♄43'01	0°10'59	superior conj	15653 Sep 14 09:50	9°♄01'49	-0°47'21
behind sun begin	15652 Oct 01 14:16	26°♄18'47		minimum elong	15653 Sep 14 13:29	9°♄18'28	0°46'42
behind sun end	15652 Oct 02 00:20	27°♄07'17		asc. node	15653 Sep 19 21:38	19°♄14'26	
asc. node	15652 Oct 03 01:01	29°♄06'54		evening rise	15653 Sep 24 03:24	27°♄18'34	
	15652 Oct 03 11:55	0°♄			15653 Sep 25 13:19	0°♄	
evening rise	15652 Oct 10 08:48	13°♄37'51		evening max el	15653 Oct 10 02:18	23°♄05'20	18°29'26
	15652 Oct 19 01:08	0°♄		retrograde	15653 Oct 17 23:07	27°♄04'41	
evening max el	15652 Oct 27 00:09	10°♄56'54	19°13'28	evening set	15653 Oct 19 22:23	26°♄50'26	
desc. node	15652 Nov 04 12:40	15°♄33'18		desc. node	15653 Oct 22 09:58	25°♄55'12	
retrograde	15652 Nov 05 05:30	15°♄34'51		inferior conj	15653 Oct 27 18:25	22°♄18'58	-1°43'11
evening set	15652 Nov 07 02:42	15°♄24'04		minimum elong	15653 Oct 27 14:20	22°♄26'56	1°40'54
inferior conj	15652 Nov 15 14:44	11°♄13'00	-3°27'58	min. Earth dist.	15653 Oct 30 23:32	19°♄49'05	0.57759 AU
minimum elong	15652 Nov 15 06:15	11°♄27'13	3°24'09	morning rise	15653 Nov 04 02:50	17°♄09'01	
min. Earth dist.	15652 Nov 18 07:00	9°♄25'41	0.55907 AU	direct	15653 Nov 10 07:53	15°♄30'54	
morning rise	15652 Nov 23 07:21	6°♄40'12		morning max el	15653 Nov 24 14:22	23°♄02'45	27°02'36
direct	15652 Nov 28 20:48	5°♄29'08			15653 Nov 30 20:04	0°♄	
morning max el	15652 Dec 12 22:24	12°♄37'28	25°40'00		15653 Dec 16 22:20	25°♄15'25	
	15652 Dec 26 09:27	0°♄		asc. node	15653 Dec 19 09:32	0°♄	
asc. node	15652 Dec 30 01:13	6°♄10'13		morning set	15653 Dec 24 17:15	10°♄57'43	
morning set	15653 Jan 09 07:54	26°♄29'29					
	15653 Jan 10 22:39	0°♄		superior conj	15653 Dec 31 12:48	26°♄00'12	1°37'20
				minimum elong	15653 Dec 31 12:17	25°♄57'18	1°38'08
superior conj	15653 Jan 16 01:31	11°♄20'21	1°37'16	max. Earth dist.	15653 Dec 31 18:28	26°♄31'56	1.31090 AU
minimum elong	15653 Jan 16 02:04	11°♄23'21	1°37'58		15654 Jan 02 07:42	0°♄	
max. Earth dist.	15653 Jan 17 11:20	14°♄27'25	1.31640 AU	evening rise	15654 Jan 07 08:42	11°♄01'51	
evening rise	15653 Jan 23 04:54	26°♄46'53			15654 Jan 16 23:47	0°♄	
	15653 Jan 24 18:28	0°♄		desc. node	15654 Jan 18 09:02	2°♄27'07	
desc. node	15653 Jan 31 12:20	12°♄58'44		evening max el	15654 Feb 06 22:16	29°♄09'48	27°03'48
	15653 Feb 10 20:37	0°♄			15654 Feb 07 19:56	0°♄	
evening max el	15653 Feb 24 17:35	17°♄06'41	27°33'37	retrograde	15654 Feb 20 22:59	6°♄26'20	
retrograde	15653 Mar 10 16:34	24°♄33'01		evening set	15654 Feb 27 14:10	4°♄32'39	
evening set	15653 Mar 17 12:30	22°♄18'57		min. Earth dist.	15654 Mar 03 12:35	1°♄51'07	0.59729 AU
min. Earth dist.	15653 Mar 21 06:45	19°♄21'34	0.61972 AU		15654 Mar 05 19:23	30°♄♄	
inferior conj	15653 Mar 24 08:01	16°♄30'49	-1°09'31				

inferior conj	15654 Mar 06 17:48	29° H 13'48	-2°34'54	retrograde	15655 Feb 02 18:09	17° H 24'06	
minimum elong	15654 Mar 06 23:38	29° H 01'52	2°32'32	evening set	15655 Feb 08 20:50	15° H 56'34	
morning rise	15654 Mar 14 12:36	24° H 30'37		min. Earth dist.	15655 Feb 13 08:28	13° H 18'27	0.57581 AU
asc. node	15654 Mar 14 19:48	24° H 26'24		inferior conj	15655 Feb 16 08:22	11° H 11'40	-4°04'17
direct	15654 Mar 16 12:54	24° H 15'07		minimum elong	15655 Feb 16 17:13	10° H 56'01	4°01'07
morning max el	15654 Mar 24 00:41	27° H 58'57	18°05'36	morning rise	15655 Feb 24 16:41	6° H 49'51	
	15654 Mar 25 21:18	0° Y		direct	15655 Feb 26 16:28	6° H 37'11	
morning set	15654 Apr 08 14:43	22° Y 35'19		asc. node	15655 Mar 01 17:13	7° H 08'10	
	15654 Apr 12 14:30	0° Z		morning max el	15655 Mar 07 07:26	10° H 51'27	18°43'43
desc. node	15654 Apr 16 10:47	7° Z 01'40			15655 Mar 19 21:51	0° Y	
				morning set	15655 Mar 23 10:42	6° Y 47'19	
superior conj	15654 Apr 18 13:44	10° Z 49'55	-0°17'23	superior conj	15655 Apr 01 05:39	23° Y 43'03	0°17'15
minimum elong	15654 Apr 18 12:17	10° Z 43'27	0°17'38	minimum elong	15655 Apr 01 06:47	23° Y 48'20	0°16'48
max. Earth dist.	15654 Apr 26 03:59	23° Z 55'35	1.41961 AU	desc. node	15655 Apr 03 07:25	27° Y 34'26	
	15654 Apr 29 20:27	0° II			15655 Apr 04 15:13	0° Z	
evening rise	15654 May 01 08:25	2° II 25'12		max. Earth dist.	15655 Apr 08 11:43	6° Z 52'54	1.39757 AU
	15654 May 19 16:16	0° E		evening rise	15655 Apr 12 11:30	13° Z 44'21	
evening max el	15654 Jun 03 17:54	18° E 47'42	22°39'32		15655 Apr 22 14:26	0° II	
asc. node	15654 Jun 10 17:24	23° E 59'48			15655 May 14 18:14	0° E	
retrograde	15654 Jun 13 17:30	24° E 39'05		evening max el	15655 May 17 08:13	2° E 42'30	24°01'04
evening set	15654 Jun 18 15:39	22° E 34'35		retrograde	15655 May 28 11:34	9° E 14'09	
inferior conj	15654 Jun 23 22:35	16° E 12'35	3°01'08	asc. node	15655 May 28 14:29	9° E 14'06	
minimum elong	15654 Jun 23 21:29	16° E 16'25	3°00'10	evening set	15655 Jun 02 21:26	6° E 56'20	
min. Earth dist.	15654 Jun 23 16:44	16° E 32'55	0.69112 AU	min. Earth dist.	15655 Jun 07 13:03	1° E 32'00	0.68817 AU
morning rise	15654 Jun 29 03:09	10° E 01'00		inferior conj	15655 Jun 08 07:50	0° E 28'10	2°42'59
direct	15654 Jul 03 16:16	8° E 08'12		minimum elong	15655 Jun 08 06:02	0° E 34'17	2°41'47
morning max el	15654 Jul 12 13:43	13° E 17'57	21°29'19		15655 Jun 08 16:07	30° R II	
desc. node	15654 Jul 13 10:33	14° E 11'21		morning rise	15655 Jun 13 14:40	24° II 25'14	
	15654 Jul 25 20:56	0° O		direct	15655 Jun 17 15:47	22° II 52'17	
morning set	15654 Aug 13 04:27	27° O 26'18		morning max el	15655 Jun 25 10:44	27° II 15'23	20°13'35
	15654 Aug 14 19:15	0° P			15655 Jun 28 00:02	0° E	
max. Earth dist.	15654 Aug 19 17:35	7° P 57'44	1.42493 AU	desc. node	15655 Jun 30 07:45	2° E 48'07	
					15655 Jul 19 07:10	0° O	
superior conj	15654 Aug 27 05:28	20° P 33'19	-1°23'23	morning set	15655 Jul 23 12:01	6° O 25'18	
minimum elong	15654 Aug 27 12:09	21° P 02'07	1°22'45	max. Earth dist.	15655 Aug 02 04:54	21° O 36'29	1.44304 AU
	15654 Sep 01 14:49	0° A			15655 Aug 07 09:48	0° P	
asc. node	15654 Sep 06 18:16	9° A 15'58		superior conj	15655 Aug 08 01:54	1° P 05'48	-1°54'05
evening rise	15654 Sep 07 10:07	10° A 27'55		minimum elong	15655 Aug 08 09:31	1° P 37'02	1°53'56
	15654 Sep 18 19:34	0° M		evening rise	15655 Aug 20 23:59	22° P 52'37	
evening max el	15654 Sep 23 12:37	5° M 53'13	18°06'13	asc. node	15655 Aug 24 14:54	29° P 06'48	
retrograde	15654 Sep 30 11:09	9° M 26'37			15655 Aug 25 03:19	0° A	
evening set	15654 Oct 02 17:02	9° M 04'37		evening max el	15655 Sep 07 02:52	19° A 09'09	18°02'19
desc. node	15654 Oct 09 07:20	4° M 39'21		retrograde	15655 Sep 13 13:43	22° A 30'36	
inferior conj	15654 Oct 09 19:25	4° M 12'03	-0°09'32	evening set	15655 Sep 16 03:44	21° A 57'14	
minimum elong	15654 Oct 09 19:06	4° M 12'46	0°09'00	inferior conj	15655 Sep 22 14:29	16° A 45'36	1°04'54
transit middle	15654 Oct 09 19:06	4° M 12'46	0°09'00	minimum elong	15655 Sep 22 16:13	16° A 41'05	1°04'26
transit begin	15654 Oct 09 16:19	4° M 19'05		min. Earth dist.	15655 Sep 25 11:24	13° A 47'57	0.62277 AU
transit end	15654 Oct 09 21:53	4° M 06'26		desc. node	15655 Sep 26 04:45	13° A 05'46	
min. Earth dist.	15654 Oct 13 00:35	1° M 17'57	0.59984 AU	morning rise	15655 Sep 29 02:15	10° A 39'32	
	15654 Oct 14 14:25	30° R A		direct	15655 Oct 05 18:40	8° A 16'22	
morning rise	15654 Oct 16 17:55	28° A 29'35		morning max el	15655 Oct 19 20:49	16° A 13'57	27°57'26
direct	15654 Oct 23 08:01	26° A 26'01			15655 Oct 31 05:34	0° M	
	15654 Nov 01 15:14	0° M			15655 Nov 18 08:12	0° A	
morning max el	15654 Nov 06 14:19	4° M 14'21	27°49'41	asc. node	15655 Nov 20 16:17	4° A 33'38	
	15654 Nov 25 15:45	0° X		morning set	15655 Nov 22 21:48	9° A 03'34	
asc. node	15654 Dec 03 19:22	14° X 45'44		max. Earth dist.	15655 Nov 28 05:48	20° A 21'03	1.31643 AU
morning set	15654 Dec 08 22:36	25° X 10'51		superior conj	15655 Nov 30 09:22	25° A 03'31	1°19'28
	15654 Dec 11 04:43	0° Z		minimum elong	15655 Nov 30 07:14	24° A 51'46	1°20'02
max. Earth dist.	15654 Dec 15 01:53	8° Z 32'44	1.31088 AU		15655 Dec 02 14:59	0° Z	
				evening rise	15655 Dec 07 03:06	9° Z 53'47	
superior conj	15654 Dec 16 00:04	10° Z 36'29	1°31'24		15655 Dec 17 06:07	0° A	
minimum elong	15654 Dec 15 22:36	10° Z 28'18	1°32'09	desc. node	15655 Dec 23 02:42	9° A 28'20	
evening rise	15654 Dec 22 16:45	25° Z 25'52		evening max el	15656 Jan 01 08:10	20° A 42'09	24°27'55
	15654 Dec 24 20:16	0° A		retrograde	15656 Jan 15 00:09	27° A 30'40	
desc. node	15655 Jan 05 05:50	21° A 21'15					
	15655 Jan 10 23:25	0° H					
evening max el	15655 Jan 19 19:19	10° H 20'34	25°59'30				

evening set	15656 Jan 20 05:05	26° \approx 31'16		retrograde	15656 Dec 25 17:38	7° \approx 04'34	
min. Earth dist.	15656 Jan 25 19:56	23° \approx 40'10	0.55797 AU	evening set	15656 Dec 29 16:11	6° \approx 30'42	
inferior conj	15656 Jan 28 01:43	22° \approx 17'18	-5°21'17	min. Earth dist.	15657 Jan 06 02:27	3° \approx 06'50	0.54672 AU
minimum elong	15656 Jan 28 10:07	22° \approx 04'20	5°19'03	inferior conj	15657 Jan 07 00:40	2° \approx 35'23	-6°00'28
morning rise	15656 Feb 05 17:11	18° \approx 16'00		minimum elong	15657 Jan 07 02:17	2° \approx 33'06	5°59'38
direct	15656 Feb 08 00:28	18° \approx 01'53			15657 Jan 11 23:49	30° \approx 03'00	
asc. node	15656 Feb 16 14:36	21° \approx 34'17		morning rise	15657 Jan 15 13:37	28° \approx 47'03	
morning max el	15656 Feb 18 02:38	22° \approx 55'29	19°44'28	direct	15657 Jan 18 14:46	28° \approx 25'43	
	15656 Feb 23 20:44	0° \approx			15657 Jan 24 19:15	0° \approx	
morning set	15656 Mar 06 14:33	21° \approx 18'33		morning max el	15657 Jan 30 07:13	4° \approx 03'25	21°08'22
	15656 Mar 10 21:27	0° \approx		asc. node	15657 Feb 02 11:57	7° \approx 31'28	
					15657 Feb 16 01:10	0° \approx	
superior conj	15656 Mar 14 12:50	7° \approx 16'56	0°46'13	morning set	15657 Feb 18 23:15	5° \approx 59'31	
minimum elong	15656 Mar 14 15:11	7° \approx 28'36	0°45'49				
desc. node	15656 Mar 20 04:02	18° \approx 06'29		superior conj	15657 Feb 26 07:10	21° \approx 19'34	1°08'46
max. Earth dist.	15656 Mar 20 18:17	19° \approx 12'42	1.37465 AU	minimum elong	15657 Feb 26 09:43	21° \approx 32'41	1°08'38
evening rise	15656 Mar 24 10:55	25° \approx 54'46			15657 Mar 02 14:02	0° \approx	
	15656 Mar 26 18:53	0° \approx		max. Earth dist.	15657 Mar 03 03:35	1° \approx 06'53	1.35328 AU
	15656 Apr 15 03:23	0° \approx		evening rise	15657 Mar 07 03:29	8° \approx 46'57	
evening max el	15656 Apr 28 21:44	16° \approx 37'21	25°18'42	desc. node	15657 Mar 07 00:36	8° \approx 33'27	
retrograde	15656 May 11 01:36	23° \approx 40'30			15657 Mar 19 10:17	0° \approx	
asc. node	15656 May 14 11:38	22° \approx 52'02			15657 Apr 11 00:41	0° \approx	
evening set	15656 May 16 22:48	21° \approx 12'53		evening max el	15657 Apr 11 11:16	0° \approx 26'05	26°25'15
min. Earth dist.	15656 May 21 06:41	16° \approx 25'26	0.68045 AU	retrograde	15657 Apr 24 10:37	7° \approx 49'28	
inferior conj	15656 May 22 14:28	14° \approx 42'12	2°14'10	evening set	15657 Apr 30 17:56	5° \approx 17'06	
minimum elong	15656 May 22 12:19	14° \approx 49'13	2°12'47	asc. node	15657 May 01 08:51	4° \approx 45'11	
morning rise	15656 May 28 02:13	8° \approx 49'11		min. Earth dist.	15657 May 04 19:36	1° \approx 04'57	0.66817 AU
direct	15656 May 31 15:58	7° \approx 35'55			15657 May 05 17:06	30° \approx 03'00	
morning max el	15656 Jun 07 15:12	11° \approx 23'47	19°11'56	inferior conj	15657 May 06 16:21	28° \approx 48'55	1°33'51
desc. node	15656 Jun 16 04:51	22° \approx 03'34		minimum elong	15657 May 06 14:21	28° \approx 55'01	1°32'29
greatest brilliancy	15656 Jun 20 10:38	28° \approx 14'15	-0.7m	morning rise	15657 May 12 11:46	23° \approx 07'07	
	15656 Jun 21 14:57	0° \approx		direct	15657 May 15 14:56	22° \approx 12'00	
morning set	15656 Jul 01 17:09	15° \approx 23'29		morning max el	15657 May 22 02:17	25° \approx 37'40	18°26'20
	15656 Jul 11 03:38	0° \approx			15657 May 25 22:14	0° \approx	
max. Earth dist.	15656 Jul 14 21:50	5° \approx 52'18	1.45500 AU	desc. node	15657 Jun 03 01:50	11° \approx 46'44	
				morning set	15657 Jun 11 15:20	25° \approx 12'58	
superior conj	15656 Jul 18 00:06	10° \approx 44'27	-2°12'03		15657 Jun 14 16:07	0° \approx	
minimum elong	15656 Jul 18 03:39	10° \approx 58'27	2°12'39				
	15656 Jul 30 00:05	0° \approx		superior conj	15657 Jun 27 09:36	19° \approx 55'50	-2°11'04
evening rise	15656 Aug 01 15:51	4° \approx 20'41		minimum elong	15657 Jun 27 05:23	19° \approx 39'26	2°11'47
asc. node	15656 Aug 10 11:33	18° \approx 42'21		max. Earth dist.	15657 Jun 27 17:23	20° \approx 26'13	1.45975 AU
	15656 Aug 18 06:29	0° \approx			15657 Jul 03 20:34	0° \approx	
evening max el	15656 Aug 20 17:27	2° \approx 44'20	18°16'40	evening rise	15657 Jul 13 06:36	14° \approx 45'22	
retrograde	15656 Aug 27 02:22	6° \approx 07'20		greatest brilliancy	15657 Jul 22 06:31	28° \approx 50'39	-0.8m
evening set	15656 Aug 30 01:04	5° \approx 19'48			15657 Jul 23 00:31	0° \approx	
inferior conj	15656 Sep 04 23:35	29° \approx 51'43	1°59'31	asc. node	15657 Jul 28 08:14	7° \approx 56'10	
minimum elong	15656 Sep 05 01:56	29° \approx 44'54	1°58'44	evening max el	15657 Aug 04 05:23	16° \approx 30'42	18°48'32
	15656 Sep 04 20:43	30° \approx 08'00		retrograde	15657 Aug 10 21:09	20° \approx 08'16	
min. Earth dist.	15656 Sep 07 08:09	27° \approx 08'54	0.64407 AU	evening set	15657 Aug 14 05:08	19° \approx 04'30	
morning rise	15656 Sep 11 01:11	23° \approx 31'37		inferior conj	15657 Aug 19 18:56	13° \approx 22'06	2°36'38
desc. node	15656 Sep 12 02:10	22° \approx 45'50		minimum elong	15657 Aug 19 20:59	13° \approx 15'37	2°35'52
direct	15656 Sep 17 14:27	20° \approx 56'47		min. Earth dist.	15657 Aug 21 13:40	11° \approx 08'12	0.66225 AU
morning max el	15656 Oct 01 07:14	28° \approx 54'11	27°28'56	morning rise	15657 Aug 25 11:54	6° \approx 56'07	
	15656 Oct 02 08:54	0° \approx		desc. node	15657 Aug 29 23:36	4° \approx 30'16	
	15656 Oct 24 02:19	0° \approx		direct	15657 Aug 31 17:58	4° \approx 18'21	
morning set	15656 Nov 05 12:21	22° \approx 30'37		morning max el	15657 Sep 13 18:46	12° \approx 01'59	26°31'26
asc. node	15656 Nov 06 13:07	24° \approx 33'39			15657 Sep 28 04:56	0° \approx	
	15656 Nov 09 05:18	0° \approx			15657 Oct 16 16:59	0° \approx	
max. Earth dist.	15656 Nov 10 02:31	1° \approx 50'09	1.32757 AU	morning set	15657 Oct 19 15:11	5° \approx 24'52	
				max. Earth dist.	15657 Oct 23 13:28	12° \approx 59'48	1.34405 AU
superior conj	15656 Nov 13 14:41	9° \approx 16'18	1°01'27	asc. node	15657 Oct 24 09:52	14° \approx 41'02	
minimum elong	15656 Nov 13 12:20	9° \approx 03'43	1°01'52				
evening rise	15656 Nov 20 13:56	24° \approx 21'26		superior conj	15657 Oct 28 13:37	23° \approx 08'49	0°37'27
	15656 Nov 23 06:05	0° \approx		minimum elong	15657 Oct 28 11:44	22° \approx 59'06	0°37'46
desc. node	15656 Dec 08 23:40	26° \approx 31'41			15657 Oct 31 20:05	0° \approx	
	15656 Dec 12 02:11	0° \approx		evening rise	15657 Nov 04 23:20	8° \approx 44'05	
evening max el	15656 Dec 12 17:37	0° \approx 38'17	22°44'38		15657 Nov 16 03:18	0° \approx	

evening max el	15657 Nov 24 09:38	10° Z 48'15	21°07'43	evening rise	15658 Oct 20 05:09	22° M 55'49	
desc. node	15657 Nov 25 20:43	12° Z 09'42			15658 Oct 23 17:43	0° Z	
retrograde	15657 Dec 06 03:53	16° Z 37'51		evening max el	15658 Nov 06 15:13	21° Z 40'16	19°48'51
evening set	15657 Dec 08 20:47	16° Z 20'42		desc. node	15658 Nov 12 17:54	25° Z 56'41	
inferior conj	15657 Dec 17 15:35	12° Z 29'23	-5°40'37	retrograde	15658 Nov 16 18:20	26° Z 43'33	
minimum elong	15657 Dec 17 08:18	12° Z 39'42	5°38'40	evening set	15658 Nov 18 18:46	26° Z 32'27	
min. Earth dist.	15657 Dec 18 08:02	12° Z 06'06	0.54430 AU	inferior conj	15658 Nov 27 12:53	22° Z 31'44	-4°25'36
morning rise	15657 Dec 25 20:05	8° Z 37'58		minimum elong	15658 Nov 27 02:55	22° Z 47'08	4°21'47
direct	15657 Dec 29 22:09	8° Z 01'58		min. Earth dist.	15658 Nov 29 15:24	21° Z 13'47	0.55132 AU
morning max el	15658 Jan 11 22:17	14° Z 21'19	22°51'16	morning rise	15658 Dec 05 09:37	18° Z 18'27	
asc. node	15658 Jan 20 09:14	24° Z 41'35		direct	15658 Dec 10 11:55	17° Z 21'15	
	15658 Jan 23 17:40	0° \approx		morning max el	15658 Dec 24 06:54	24° Z 13'41	24°41'01
morning set	15658 Feb 03 10:33	20° \approx 43'55			15658 Dec 29 13:01	0° Z	
	15658 Feb 07 17:53	0° X		asc. node	15659 Jan 07 06:28	12° Z 46'52	
					15659 Jan 16 08:58	0° \approx	
superior conj	15658 Feb 10 09:25	5° X 41'55	1°24'48	morning set	15659 Jan 18 22:30	5° \approx 25'41	
minimum elong	15658 Feb 10 11:27	5° X 52'48	1°25'02				
max. Earth dist.	15658 Feb 13 19:38	12° X 55'50	1.33537 AU	superior conj	15659 Jan 25 16:52	20° \approx 15'42	1°34'30
evening rise	15658 Feb 18 09:47	22° X 12'19		minimum elong	15659 Jan 25 18:00	20° \approx 21'57	1°35'02
desc. node	15658 Feb 21 21:13	28° X 51'32		max. Earth dist.	15659 Jan 27 19:26	24° \approx 51'46	1.32195 AU
	15658 Feb 22 11:57	0° Y			15659 Jan 30 04:55	0° X	
	15658 Mar 13 04:24	0° B		evening rise	15659 Feb 02 02:32	6° X 02'05	
evening max el	15658 Mar 25 00:49	14° B 01'00	27°13'09	desc. node	15659 Feb 08 17:51	18° X 55'16	
retrograde	15658 Apr 07 13:43	21° B 32'30			15659 Feb 15 02:24	0° Y	
evening set	15658 Apr 14 04:49	19° B 01'45		evening max el	15659 Mar 07 12:59	27° Y 10'24	27°35'13
min. Earth dist.	15658 Apr 18 01:52	15° B 22'09	0.65181 AU		15659 Mar 10 17:59	0° B	
asc. node	15658 Apr 18 06:08	15° B 10'34		retrograde	15659 Mar 21 09:37	4° B 40'00	
inferior conj	15658 Apr 20 11:04	12° B 42'44	0°40'58	evening set	15659 Mar 28 05:06	2° B 18'03	
minimum elong	15658 Apr 20 09:59	12° B 45'47	0°40'02		15659 Mar 31 01:04	30° R Y	
morning rise	15658 Apr 26 16:56	7° B 13'52		min. Earth dist.	15659 Mar 31 23:38	29° Y 06'50	0.63211 AU
direct	15658 Apr 29 10:35	6° B 34'09		inferior conj	15659 Apr 03 19:46	26° Y 16'18	-0°25'20
morning max el	15658 May 05 18:00	9° B 50'12	17°57'37	minimum elong	15659 Apr 03 20:36	26° Y 14'14	0°25'18
	15658 May 19 19:53	0° II		asc. node	15659 Apr 05 03:30	24° Y 57'58	
desc. node	15658 May 20 22:44	1° II 50'00		morning rise	15659 Apr 10 14:42	21° Y 02'47	
morning set	15658 May 23 16:38	6° II 20'40		direct	15659 Apr 13 00:08	20° Y 35'11	
				morning max el	15659 Apr 19 11:39	23° Y 53'08	17°46'20
superior conj	15658 Jun 06 23:03	29° II 23'46	-1°50'46		15659 Apr 24 10:54	0° B	
minimum elong	15658 Jun 06 14:26	28° II 49'40	1°50'54	morning set	15659 May 05 19:50	18° B 42'03	
	15658 Jun 07 08:13	0° E		desc. node	15659 May 07 19:34	22° B 07'25	
max. Earth dist.	15658 Jun 10 13:23	5° E 03'28	1.45698 AU		15659 May 12 10:25	0° II	
evening rise	15658 Jun 23 00:25	24° E 20'59					
	15658 Jun 26 17:01	0° Q		superior conj	15659 May 18 06:41	9° II 43'51	-1°17'23
greatest brilliancy	15658 Jul 06 19:06	15° Q 09'44	-0.6m	minimum elong	15659 May 17 23:25	9° II 14'01	1°17'14
asc. node	15658 Jul 15 04:58	26° Q 40'36		max. Earth dist.	15659 May 24 07:54	19° II 30'27	1.44705 AU
	15658 Jul 18 03:35	0° P			15659 May 31 00:23	0° E	
evening max el	15658 Jul 18 12:34	0° P 22'41	19°36'49	evening rise	15659 Jun 02 11:06	3° E 46'11	
retrograde	15658 Jul 25 19:09	4° P 26'59			15659 Jun 20 04:20	0° Q	
evening set	15658 Jul 29 13:03	3° P 05'44		evening max el	15659 Jul 01 13:53	14° Q 16'32	20°39'35
	15658 Aug 01 16:35	30° R Q		asc. node	15659 Jul 02 01:49	14° Q 45'43	
inferior conj	15658 Aug 03 21:25	27° Q 10'30	2°58'54	retrograde	15659 Jul 09 18:10	18° Q 58'03	
minimum elong	15658 Aug 03 22:43	27° Q 06'10	2°58'12	evening set	15659 Jul 13 22:40	17° Q 19'03	
min. Earth dist.	15658 Aug 05 02:05	25° Q 35'07	0.67640 AU	inferior conj	15659 Jul 19 04:30	11° Q 12'10	3°08'29
morning rise	15658 Aug 09 07:51	20° Q 44'36		minimum elong	15659 Jul 19 04:51	11° Q 10'57	3°07'47
direct	15658 Aug 15 04:00	18° Q 12'11		min. Earth dist.	15659 Jul 19 19:24	10° Q 20'46	0.68595 AU
desc. node	15658 Aug 16 21:02	18° Q 23'36		morning rise	15659 Jul 24 10:44	4° Q 50'13	
morning max el	15658 Aug 27 05:44	25° Q 25'53	25°14'01	direct	15659 Jul 29 19:15	2° Q 29'58	
	15658 Aug 31 09:46	0° P		desc. node	15659 Aug 03 18:25	4° Q 06'10	
	15658 Sep 21 16:46	0° U		morning max el	15659 Aug 09 16:32	8° Q 59'49	23°46'30
morning set	15658 Oct 02 02:29	17° U 36'51			15659 Aug 26 05:52	0° P	
max. Earth dist.	15658 Oct 05 15:26	24° U 04'22	1.36511 AU	morning set	15659 Sep 13 18:03	28° P 57'17	
	15658 Oct 08 18:40	0° M			15659 Sep 14 08:48	0° U	
asc. node	15658 Oct 11 06:33	4° M 51'15		max. Earth dist.	15659 Sep 17 14:02	5° U 34'13	1.38886 AU
superior conj	15658 Oct 12 03:13	6° M 33'23	0°07'50	superior conj	15659 Sep 25 03:56	19° U 21'54	-0°26'22
minimum elong	15658 Oct 12 02:43	6° M 30'52	0°08'11	minimum elong	15659 Sep 25 05:49	19° U 30'47	0°25'50
behind sun begin	15658 Oct 11 21:09	6° M 03'19		asc. node	15659 Sep 28 03:12	25° U 01'08	
behind sun end	15658 Oct 12 08:16	6° M 58'29			15659 Sep 30 16:53	0° M	

evening rise	15659 Oct 04 04:50	6° \mathbb{M} 50'41		asc. node	15660 Sep 13 23:50	15° \mathbb{A} 06'33	
	15659 Oct 17 12:53	0° \mathbb{A}		evening rise	15660 Sep 16 18:55	20° \mathbb{A} 19'35	
evening max el	15659 Oct 20 10:48	3° \mathbb{A} 22'15	18°52'01		15660 Sep 22 00:50	0° \mathbb{M}	
retrograde	15659 Oct 29 00:52	7° \mathbb{A} 42'04		evening max el	15660 Oct 02 16:52	15° \mathbb{M} 48'13	18°17'00
evening set	15659 Oct 30 22:18	7° \mathbb{A} 30'14		retrograde	15660 Oct 10 02:57	19° \mathbb{M} 35'10	
desc. node	15659 Oct 30 15:08	7° \mathbb{A} 33'38		evening set	15660 Oct 12 04:41	19° \mathbb{M} 18'05	
inferior conj	15659 Nov 08 04:04	3° \mathbb{A} 10'36	-2°43'08	desc. node	15660 Oct 16 12:28	17° \mathbb{M} 07'07	
minimum elong	15659 Nov 07 21:21	3° \mathbb{A} 22'34	2°39'49	inferior conj	15660 Oct 19 17:05	14° \mathbb{M} 37'05	-1°01'23
min. Earth dist.	15659 Nov 11 03:30	1° \mathbb{A} 03'38	0.56641 AU	minimum elong	15660 Oct 19 14:48	14° \mathbb{M} 41'52	0°59'54
	15659 Nov 12 18:06	30° \mathbb{R} \mathbb{M}		min. Earth dist.	15660 Oct 22 23:21	11° \mathbb{M} 54'37	0.58681 AU
morning rise	15659 Nov 15 17:28	28° \mathbb{M} 22'24		morning rise	15660 Oct 26 21:28	9° \mathbb{M} 12'15	
direct	15659 Nov 21 14:32	26° \mathbb{M} 59'59		direct	15660 Nov 02 06:58	7° \mathbb{M} 23'13	
	15659 Nov 30 11:06	0° \mathbb{A}		morning max el	15660 Nov 16 14:06	15° \mathbb{M} 02'28	27°27'28
morning max el	15659 Dec 05 18:30	4° \mathbb{A} 18'03	26°18'50		15660 Nov 28 16:50	0° \mathbb{A}	
	15659 Dec 24 06:54	0° \mathbb{B}		asc. node	15660 Dec 11 00:43	20° \mathbb{A} 50'19	
asc. node	15659 Dec 25 03:38	1° \mathbb{B} 33'25			15660 Dec 15 15:12	0° \mathbb{B}	
morning set	15660 Jan 03 09:21	20° \mathbb{B} 00'10		morning set	15660 Dec 17 17:17	4° \mathbb{B} 22'53	
	15660 Jan 07 22:30	0° \mathbb{A}					
superior conj	15660 Jan 10 03:19	4° \mathbb{A} 54'44	1°38'02	superior conj	15660 Dec 24 14:50	19° \mathbb{B} 33'41	1°35'33
minimum elong	15660 Jan 10 03:24	4° \mathbb{A} 55'13	1°38'47	minimum elong	15660 Dec 24 13:53	19° \mathbb{B} 28'24	1°36'20
max. Earth dist.	15660 Jan 11 00:58	6° \mathbb{A} 55'22	1.31349 AU	max. Earth dist.	15660 Dec 24 08:54	19° \mathbb{B} 00'25	1.31024 AU
evening rise	15660 Jan 17 03:00	20° \mathbb{A} 09'25			15660 Dec 29 07:22	0° \mathbb{A}	
	15660 Jan 21 23:28	0° \mathbb{H}		evening rise	15660 Dec 31 08:53	4° \mathbb{A} 28'51	
desc. node	15660 Jan 26 14:31	8° \mathbb{H} 38'40		desc. node	15661 Jan 12 11:16	27° \mathbb{A} 54'01	
	15660 Feb 09 09:10	0° \mathbb{Y}			15661 Jan 13 17:18	0° \mathbb{H}	
evening max el	15660 Feb 17 21:14	9° \mathbb{Y} 40'57	27°25'17	evening max el	15661 Jan 29 22:50	21° \mathbb{H} 22'00	26°40'22
retrograde	15660 Mar 02 21:04	17° \mathbb{Y} 02'37		retrograde	15661 Feb 12 22:50	28° \mathbb{H} 33'14	
evening set	15660 Mar 09 15:55	14° \mathbb{Y} 56'37		evening set	15661 Feb 19 10:01	26° \mathbb{H} 49'49	
min. Earth dist.	15660 Mar 13 11:17	12° \mathbb{Y} 07'14	0.61023 AU	min. Earth dist.	15661 Feb 23 12:31	24° \mathbb{H} 11'53	0.58789 AU
inferior conj	15660 Mar 16 15:00	9° \mathbb{Y} 20'25	-1°44'37	inferior conj	15661 Feb 26 17:02	21° \mathbb{H} 45'27	-3°13'01
minimum elong	15660 Mar 16 18:48	9° \mathbb{Y} 12'01	1°43'08	minimum elong	15661 Feb 27 00:20	21° \mathbb{H} 31'26	3°10'09
asc. node	15660 Mar 22 00:55	5° \mathbb{Y} 15'33		morning rise	15661 Mar 06 18:05	17° \mathbb{H} 11'34	
morning rise	15660 Mar 24 00:56	4° \mathbb{Y} 25'22		direct	15661 Mar 08 17:31	16° \mathbb{H} 57'42	
direct	15660 Mar 26 03:56	4° \mathbb{Y} 06'22		asc. node	15661 Mar 08 22:21	16° \mathbb{H} 57'51	
morning max el	15660 Apr 02 04:02	7° \mathbb{Y} 37'17	17°53'07	morning max el	15661 Mar 16 15:35	20° \mathbb{H} 52'47	18°19'17
	15660 Apr 16 16:48	0° \mathbb{B}			15661 Mar 23 12:47	0° \mathbb{Y}	
morning set	15660 Apr 17 19:09	1° \mathbb{B} 59'06		morning set	15661 Apr 01 08:58	15° \mathbb{Y} 55'15	
desc. node	15660 Apr 23 16:17	12° \mathbb{B} 33'52			15661 Apr 08 20:29	0° \mathbb{B}	
superior conj	15660 Apr 28 13:51	21° \mathbb{B} 08'36	-0°39'06	superior conj	15661 Apr 10 19:05	3° \mathbb{B} 33'32	-0°02'08
minimum elong	15660 Apr 28 10:20	20° \mathbb{B} 53'28	0°39'10	minimum elong	15661 Apr 10 18:53	3° \mathbb{B} 32'40	0°02'30
	15660 May 03 19:30	0° \mathbb{I}		behind sun begin	15661 Apr 10 11:36	2° \mathbb{B} 59'27	
max. Earth dist.	15660 May 05 22:48	3° \mathbb{I} 31'26	1.43096 AU	behind sun end	15661 Apr 11 02:11	4° \mathbb{B} 05'48	
evening rise	15660 May 12 06:49	13° \mathbb{I} 40'42		desc. node	15661 Apr 10 12:57	3° \mathbb{B} 05'36	
	15660 May 22 24:00	0° \mathbb{B}		max. Earth dist.	15661 Apr 18 08:48	16° \mathbb{B} 53'29	1.41044 AU
evening max el	15660 Jun 13 09:27	28° \mathbb{B} 09'37	21°53'38	evening rise	15661 Apr 22 21:35	24° \mathbb{B} 27'34	
	15660 Jun 15 08:39	0° \mathbb{Q}			15661 Apr 26 07:57	0° \mathbb{I}	
asc. node	15660 Jun 17 22:45	1° \mathbb{Q} 57'38			15661 Apr 16 20:15	0° \mathbb{B}	
retrograde	15660 Jun 22 16:25	3° \mathbb{Q} 35'05		evening max el	15661 May 27 00:53	12° \mathbb{B} 02'59	23°14'09
evening set	15660 Jun 27 08:06	1° \mathbb{Q} 39'10		asc. node	15661 Jun 04 19:47	18° \mathbb{B} 00'11	
	15660 Jun 29 00:25	30° \mathbb{R} \mathbb{B}		retrograde	15661 Jun 06 12:31	18° \mathbb{B} 12'42	
inferior conj	15660 Jul 02 13:57	25° \mathbb{B} 22'03	3°06'52	evening set	15661 Jun 11 15:41	16° \mathbb{B} 01'54	
minimum elong	15660 Jul 02 13:21	25° \mathbb{B} 24'09	3°06'01	inferior conj	15661 Jun 16 23:49	9° \mathbb{B} 36'42	2°54'44
min. Earth dist.	15660 Jul 02 15:31	25° \mathbb{B} 16'35	0.69064 AU	minimum elong	15661 Jun 16 22:24	9° \mathbb{B} 41'37	2°53'40
morning rise	15660 Jul 07 18:26	19° \mathbb{B} 06'22		min. Earth dist.	15661 Jun 16 12:23	10° \mathbb{B} 16'14	0.69045 AU
direct	15660 Jul 12 14:36	17° \mathbb{B} 02'56		morning rise	15661 Jun 22 05:04	3° \mathbb{B} 28'44	
desc. node	15660 Jul 20 15:45	21° \mathbb{B} 12'20		direct	15661 Jun 26 12:55	1° \mathbb{B} 44'32	
morning max el	15660 Jul 22 05:12	22° \mathbb{B} 41'50	22°17'50	morning max el	15661 Jul 04 22:35	6° \mathbb{B} 33'34	20°55'38
	15660 Jul 28 14:04	0° \mathbb{Q}		desc. node	15661 Jul 07 12:59	9° \mathbb{B} 20'55	
	15660 Aug 18 13:14	0° \mathbb{P}			15661 Jul 22 19:24	0° \mathbb{Q}	
morning set	15660 Aug 24 10:14	9° \mathbb{P} 17'33		morning set	15661 Aug 04 03:23	18° \mathbb{Q} 39'53	
max. Earth dist.	15660 Aug 29 15:27	17° \mathbb{P} 52'14	1.41250 AU		15661 Aug 11 07:15	0° \mathbb{P}	
	15660 Sep 05 16:32	0° \mathbb{A}		max. Earth dist.	15661 Aug 11 22:39	1° \mathbb{P} 02'07	1.43326 AU
superior conj	15660 Sep 06 11:24	1° \mathbb{A} 23'42	-1°02'52	superior conj	15661 Aug 18 21:21	12° \mathbb{P} 29'44	-1°37'29
minimum elong	15660 Sep 06 16:25	1° \mathbb{A} 46'00	1°02'10	minimum elong	15661 Aug 19 04:53	13° \mathbb{P} 01'27	1°36'58
					15661 Aug 28 23:58	0° \mathbb{A}	

































































































































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asc. node	15661 Aug 31 20:27	5°♄03'51		minimum elong	15662 Jul 30 14:23	23°♄04'03	2°03'54
evening max el	15661 Sep 16 05:16	28°♄48'43	18°02'14		15662 Aug 03 20:52	0°♄	
	15661 Sep 17 12:42	0°♄		evening rise	15662 Aug 13 00:11	15°♄13'03	
retrograde	15661 Sep 22 21:48	2°♄15'41		asc. node	15662 Aug 18 17:05	24°♄48'47	
evening set	15661 Sep 25 06:53	1°♄49'24			15662 Aug 21 21:02	0°♄	
	15661 Sep 28 11:33	30°♄		evening max el	15662 Aug 30 20:05	12°♄14'06	18°06'19
inferior conj	15661 Oct 02 02:16	26°♄48'30	0°24'30	retrograde	15662 Sep 06 05:03	15°♄34'32	
minimum elong	15661 Oct 02 03:02	26°♄46'39	0°24'31	evening set	15662 Sep 08 22:39	14°♄55'33	
desc. node	15661 Oct 03 09:51	25°♄31'52		inferior conj	15662 Sep 15 03:48	9°♄36'57	1°30'20
min. Earth dist.	15661 Oct 05 04:42	23°♄50'10	0.60961 AU	minimum elong	15662 Sep 15 05:56	9°♄31'07	1°29'40
morning rise	15661 Oct 08 20:11	20°♄54'24		min. Earth dist.	15662 Sep 17 19:56	6°♄43'19	0.63210 AU
direct	15661 Oct 15 11:52	18°♄41'31		desc. node	15662 Sep 20 07:16	4°♄20'11	
morning max el	15661 Oct 29 17:21	26°♄35'42	27°57'44	morning rise	15662 Sep 21 11:06	3°♄23'51	
	15661 Nov 01 22:34	0°♄		direct	15662 Sep 28 02:55	0°♄54'16	
	15661 Nov 22 07:46	0°♄		morning max el	15662 Oct 12 01:44	8°♄53'43	27°49'20
asc. node	15661 Nov 27 21:41	10°♄28'49			15662 Oct 28 11:32	0°♄	
morning set	15661 Dec 01 20:18	18°♄28'08		asc. node	15662 Nov 14 18:32	0°♄22'36	
	15661 Dec 07 04:58	0°♄			15662 Nov 14 14:00	0°♄	
max. Earth dist.	15661 Dec 07 15:14	0°♄56'39	1.31250 AU	morning set	15662 Nov 15 16:09	2°♄11'04	
				max. Earth dist.	15662 Nov 20 16:17	12°♄36'39	1.32045 AU
superior conj	15661 Dec 09 01:29	4°♄06'38	1°27'04				
minimum elong	15661 Dec 08 23:42	3°♄56'40	1°27'46	superior conj	15662 Nov 23 09:23	18°♄28'48	1°12'35
evening rise	15661 Dec 15 18:06	18°♄54'46		minimum elong	15662 Nov 23 07:05	18°♄16'18	1°13'05
	15661 Dec 21 01:57	0°♄			15662 Nov 28 15:24	0°♄	
desc. node	15661 Dec 30 08:06	16°♄30'01		evening rise	15662 Nov 30 04:52	3°♄23'20	
	15662 Jan 09 12:38	0°♄			15662 Dec 14 07:36	0°♄	
evening max el	15662 Jan 11 15:58	2°♄09'34	25°23'06	desc. node	15662 Dec 17 05:00	4°♄12'36	
retrograde	15662 Jan 25 13:00	9°♄08'08		evening max el	15662 Dec 24 02:32	12°♄16'59	23°44'23
evening set	15662 Jan 31 07:31	7°♄52'23		retrograde	15663 Jan 06 13:35	18°♄57'15	
min. Earth dist.	15662 Feb 05 04:33	5°♄10'55	0.56755 AU	evening set	15663 Jan 11 06:02	18°♄09'42	
inferior conj	15662 Feb 07 22:36	3°♄21'12	-4°39'51	min. Earth dist.	15663 Jan 17 13:50	15°♄06'50	0.55224 AU
minimum elong	15662 Feb 08 07:55	3°♄05'40	4°36'51	inferior conj	15663 Jan 19 07:25	14°♄05'27	-5°44'09
	15662 Feb 13 18:12	30°♄		minimum elong	15663 Jan 19 13:41	13°♄56'10	5°42'38
morning rise	15662 Feb 16 11:05	29°♄08'50		morning rise	15663 Jan 27 22:55	10°♄10'36	
direct	15662 Feb 18 12:38	28°♄56'17		direct	15663 Jan 30 12:27	9°♄54'15	
	15662 Feb 23 00:46	0°♄		morning max el	15663 Feb 10 07:14	15°♄07'04	20°17'17
asc. node	15662 Feb 23 19:45	0°♄24'40		asc. node	15663 Feb 10 17:06	15°♄31'21	
morning max el	15662 Feb 27 18:02	3°♄26'26	19°06'44		15663 Feb 20 23:00	0°♄	
morning set	15662 Mar 16 08:40	0°♄16'11		morning set	15663 Feb 28 14:53	14°♄52'05	
	15662 Mar 16 05:24	0°♄			15663 Mar 07 23:58	0°♄	
superior conj	15662 Mar 24 18:02	16°♄45'22	0°30'16	superior conj	15663 Mar 08 06:22	0°♄32'17	0°56'34
minimum elong	15662 Mar 24 19:50	16°♄54'01	0°29'49	minimum elong	15663 Mar 08 08:55	0°♄45'06	0°56'16
desc. node	15662 Mar 28 09:34	23°♄38'18		max. Earth dist.	15663 Mar 13 21:56	11°♄36'33	1.36530 AU
max. Earth dist.	15662 Mar 31 15:01	29°♄31'18	1.38773 AU	desc. node	15663 Mar 15 06:09	14°♄08'26	
	15662 Mar 31 21:26	0°♄		evening rise	15663 Mar 17 16:46	18°♄38'35	
evening rise	15662 Apr 04 09:36	6°♄09'10			15663 Mar 24 04:55	0°♄	
	15662 Apr 19 08:02	0°♄			15663 Apr 13 12:16	0°♄	
evening max el	15662 May 09 14:29	25°♄57'12	24°34'59	evening max el	15663 Apr 22 04:06	9°♄50'26	25°48'53
	15662 May 14 07:00	0°♄		retrograde	15663 May 04 17:07	17°♄03'30	
retrograde	15662 May 21 05:08	2°♄44'22		asc. node	15663 May 09 14:05	15°♄27'37	
asc. node	15662 May 22 16:54	2°♄34'54		evening set	15663 May 10 18:41	14°♄33'31	
evening set	15662 May 26 19:47	0°♄21'53		min. Earth dist.	15663 May 14 23:52	10°♄01'01	0.67575 AU
	15662 May 27 05:34	30°♄		inferior conj	15663 May 16 13:04	8°♄03'09	1°58'32
min. Earth dist.	15662 May 31 07:54	25°♄13'09	0.68541 AU	minimum elong	15663 May 16 10:54	8°♄10'02	1°57'08
inferior conj	15662 Jun 01 08:12	23°♄51'50	2°32'08	morning rise	15663 May 22 03:43	2°♄14'25	
minimum elong	15662 Jun 01 06:12	23°♄58'33	2°30'50	direct	15663 May 25 12:52	1°♄09'02	
morning rise	15662 Jun 06 16:47	17°♄52'49		morning max el	15663 Jun 01 06:02	4°♄45'58	18°50'24
direct	15662 Jun 10 12:52	16°♄28'27		desc. node	15663 Jun 11 07:10	17°♄43'11	
morning max el	15662 Jun 17 22:42	20°♄35'31	19°45'26	greatest brilliancy	15663 Jun 14 21:36	23°♄07'20	-0.8m
desc. node	15662 Jun 24 10:07	28°♄15'14			15663 Jun 19 09:07	0°♄	
	15662 Jun 25 17:12	0°♄		morning set	15663 Jun 23 17:33	6°♄44'35	
morning set	15662 Jul 14 07:18	27°♄30'58		max. Earth dist.	15663 Jul 08 06:09	29°♄20'35	1.45794 AU
	15662 Jul 15 22:05	0°♄			15663 Jul 08 16:15	0°♄	
max. Earth dist.	15662 Jul 25 11:54	14°♄55'47	1.44890 AU				
				superior conj	15663 Jul 09 22:49	1°♄59'32	-2°14'08

minimum elong	15663 Jul 09 23:08	2°Ω00'49	2°14'56		15664 Jun 30 09:42	0°Ω	
evening rise	15663 Jul 25 05:20	26°Ω13'05		evening rise	15664 Jul 04 10:11	6°Ω14'19	
	15663 Jul 27 13:45	0°൬		greatest brilliancy	15664 Jul 15 14:44	23°Ω27'31	-0.7m
asc. node	15663 Aug 05 13:44	14°൬15'35			15664 Jul 20 01:23	0°൬	
evening max el	15663 Aug 14 09:55	25°൬54'54	18°28'15	asc. node	15664 Jul 22 10:28	3°൬18'02	
retrograde	15663 Aug 20 20:34	29°൬22'09		evening max el	15664 Jul 27 20:06	9°൬44'23	19°07'07
evening set	15663 Aug 23 23:14	28°൬27'48		retrograde	15664 Aug 03 17:05	13°൬31'40	
inferior conj	15663 Aug 29 17:38	22°൬53'34	2°17'13	evening set	15664 Aug 07 05:17	12°൬20'20	
minimum elong	15663 Aug 29 19:56	22°൬46'38	2°16'26	inferior conj	15664 Aug 12 16:22	6°൬32'08	2°47'44
min. Earth dist.	15663 Aug 31 20:25	20°൬21'41	0.65227 AU	minimum elong	15664 Aug 12 18:08	6°൬26'24	2°47'00
morning rise	15663 Sep 04 15:22	16°൬30'25		min. Earth dist.	15664 Aug 14 05:00	4°൬34'04	0.66884 AU
desc. node	15663 Sep 07 04:42	14°൬49'23		morning rise	15664 Aug 18 06:19	0°൬05'47	
direct	15663 Sep 11 02:07	13°൬53'14			15664 Aug 18 09:00	30°℞Ω	
morning max el	15663 Sep 24 12:37	21°൬45'57	27°07'31	direct	15664 Aug 24 08:23	27°Ω29'40	
	15663 Oct 01 17:37	0°Ω		desc. node	15664 Aug 24 02:08	27°Ω29'56	
	15663 Oct 21 16:24	0°ℳ			15664 Aug 31 03:16	0°൬	
morning set	15663 Oct 30 02:05	15°ℳ24'32		morning max el	15664 Sep 06 00:04	5°൬01'44	26°00'25
asc. node	15663 Nov 01 15:19	20°ℳ25'57			15664 Sep 25 05:05	0°Ω	
max. Earth dist.	15663 Nov 03 08:55	23°ℳ56'08	1.33398 AU	morning set	15664 Oct 11 22:46	28°Ω01'20	
	15663 Nov 06 07:10	0°♂			15664 Oct 13 00:20	0°ℳ	
				max. Earth dist.	15664 Oct 15 15:58	5°ℳ01'45	1.35260 AU
superior conj	15663 Nov 07 12:17	2°♂33'39	0°52'02	asc. node	15664 Oct 18 12:03	10°ℳ34'43	
minimum elong	15663 Nov 07 10:03	2°♂21'47	0°52'22				
evening rise	15663 Nov 14 15:19	17°♂49'18		superior conj	15664 Oct 21 07:38	16°ℳ14'45	0°25'33
	15663 Nov 20 14:19	0°♂		minimum elong	15664 Oct 21 06:13	16°ℳ07'32	0°25'50
desc. node	15663 Dec 04 02:01	20°♂42'27			15664 Oct 27 22:52	0°♂	
evening max el	15663 Dec 05 13:42	22°♂14'31	22°01'45	evening rise	15664 Oct 28 23:29	2°♂07'52	
retrograde	15663 Dec 18 02:17	28°♂26'10			15664 Nov 14 00:55	0°♂	
evening set	15663 Dec 21 11:32	28°♂00'42		evening max el	15664 Nov 16 10:52	2°♂39'08	20°31'29
inferior conj	15663 Dec 30 01:15	24°♂09'14	-5°59'41	desc. node	15664 Nov 19 23:08	5°♂36'03	
minimum elong	15663 Dec 29 22:46	24°♂12'42	5°58'45	retrograde	15664 Nov 27 12:49	8°♂09'49	
min. Earth dist.	15663 Dec 29 19:21	24°♂17'29	0.54461 AU	evening set	15664 Nov 29 20:56	7°♂56'12	
morning rise	15664 Jan 07 10:51	20°♂21'56		inferior conj	15664 Dec 08 17:02	4°♂01'57	-5°14'11
direct	15664 Jan 10 22:33	19°♂55'03		minimum elong	15664 Dec 08 07:38	4°♂15'38	5°11'16
morning max el	15664 Jan 23 05:23	25°♂50'56	21°50'15	min. Earth dist.	15664 Dec 10 00:58	3°♂15'30	0.54619 AU
	15664 Jan 27 00:32	0°≈		morning rise	15664 Dec 16 18:05	0°♂03'47	
asc. node	15664 Jan 28 14:24	2°≈01'22			15664 Dec 16 22:59	30°℞♂	
morning set	15664 Feb 13 00:58	29°≈35'22		direct	15664 Dec 21 06:51	29°♂19'38	
	15664 Feb 13 05:39	0°♂			15664 Dec 25 12:28	0°♂	
				morning max el	15665 Jan 03 16:30	5°♂53'23	23°38'15
superior conj	15664 Feb 20 04:26	14°♂44'06	1°16'22	asc. node	15665 Jan 14 11:40	19°♂36'37	
minimum elong	15664 Feb 20 06:49	14°♂56'39	1°16'22		15665 Jan 20 11:19	0°≈	
max. Earth dist.	15664 Feb 24 10:11	23°♂28'02	1.34523 AU	morning set	15665 Jan 27 12:47	14°≈19'29	
	15664 Feb 27 17:34	0°♀					
evening rise	15664 Feb 28 15:38	1°♀46'03		superior conj	15665 Feb 03 09:10	29°≈12'08	1°29'41
desc. node	15664 Mar 01 02:46	4°♀32'13		minimum elong	15665 Feb 03 10:52	29°≈21'16	1°30'03
	15664 Mar 16 04:50	0°♂			15665 Feb 03 18:01	0°♂	
evening max el	15664 Apr 03 17:59	23°♂35'32	26°48'23	max. Earth dist.	15665 Feb 06 05:48	5°♂20'03	1.32907 AU
	15664 Apr 12 11:09	0°♂		evening rise	15665 Feb 11 02:42	15°♂22'25	
retrograde	15664 Apr 16 23:33	1°♂02'48		desc. node	15665 Feb 15 23:22	24°♂44'48	
	15664 Apr 21 03:57	30°℞♂			15665 Feb 18 20:46	0°♀	
evening set	15664 Apr 23 10:35	28°♂30'29			15665 Mar 10 21:08	0°♂	
asc. node	15664 Apr 25 11:19	26°♂39'53		evening max el	15665 Mar 17 07:05	7°♂00'46	27°26'02
min. Earth dist.	15664 Apr 27 10:12	24°♂32'34	0.66171 AU	retrograde	15665 Mar 30 23:36	14°♂32'18	
inferior conj	15664 Apr 29 12:16	22°♂05'37	1°13'02	evening set	15665 Apr 06 17:17	12°♂04'09	
minimum elong	15664 Apr 29 10:33	22°♂10'41	1°11'48	min. Earth dist.	15665 Apr 10 12:52	8°♂37'36	0.64381 AU
morning rise	15664 May 05 11:46	16°♂28'57		asc. node	15665 Apr 12 08:40	6°♂41'17	
direct	15664 May 08 10:52	15°♂40'34		inferior conj	15665 Apr 13 03:07	5°♂51'41	0°14'30
morning max el	15664 May 14 19:24	19°♂00'22	18°12'02	minimum elong	15665 Apr 13 02:42	5°♂52'47	0°13'55
	15664 May 23 06:50	0°♂		transit middle	15665 Apr 13 02:42	5°♂52'47	0°13'55
desc. node	15664 May 28 04:08	7°♂35'54		transit begin	15665 Apr 13 01:11	5°♂56'51	
morning set	15664 Jun 03 02:59	17°♂07'16		transit end	15665 Apr 13 04:13	5°♂48'43	
	15664 Jun 11 04:50	0°♂		morning rise	15665 Apr 19 14:15	0°♂29'17	
					15665 Apr 21 04:57	30°℞♀	
superior conj	15664 Jun 18 07:52	11°♂12'28	-2°04'34	direct	15665 Apr 22 04:19	29°♀55'06	
minimum elong	15664 Jun 18 01:02	10°♂45'44	2°05'03		15665 Apr 23 03:41	0°♂	
max. Earth dist.	15664 Jun 20 02:52	14°♂00'25	1.45953 AU	morning max el	15665 Apr 28 12:22	3°♂10'14	17°50'44

desc. node	15665 May 15 00:59	27°♄45'43			15666 Apr 21 11:47	0°♄	
morning set	15665 May 15 15:51	28°♄48'04		morning set	15666 Apr 28 04:19	11°♄35'02	
	15665 May 16 09:02	0°♄		desc. node	15666 May 01 21:46	18°♄07'28	
					15666 May 08 19:46	0°♄	
superior conj	15665 May 29 03:50	20°♄59'41	-1°37'42	superior conj	15666 May 09 21:21	1°♄47'21	-1°01'19
minimum elong	15665 May 28 19:14	20°♄25'15	1°37'39	minimum elong	15666 May 09 15:36	1°♄23'17	1°01'13
max. Earth dist.	15665 Jun 02 22:46	28°♄36'07	1.45359 AU	max. Earth dist.	15666 May 16 15:26	12°♄51'49	1.44086 AU
	15665 Jun 03 20:06	0°♄		evening rise	15666 May 24 11:37	25°♄13'04	
evening rise	15665 Jun 13 22:56	15°♄40'10			15666 May 27 14:24	0°♄	
	15665 Jun 23 10:25	0°♄			15666 Jun 17 12:18	0°♄	
greatest brilliancy	15665 Jun 28 18:50	7°♄52'05	-0.6m	evening max el	15666 Jun 23 23:25	7°♄30'03	21°09'57
asc. node	15665 Jul 09 07:17	21°♄47'05		asc. node	15666 Jun 26 04:11	9°♄31'19	
evening max el	15665 Jul 11 00:46	23°♄36'57	20°01'48	retrograde	15666 Jul 02 14:51	12°♄30'19	
retrograde	15665 Jul 18 15:52	27°♄56'18		evening set	15666 Jul 06 23:56	10°♄44'07	
evening set	15665 Jul 22 14:11	26°♄27'23		inferior conj	15666 Jul 12 05:28	4°♄32'33	3°09'07
inferior conj	15665 Jul 27 21:07	20°♄26'46	3°04'24	minimum elong	15666 Jul 12 05:25	4°♄32'46	3°08'22
minimum elong	15665 Jul 27 22:02	20°♄23'41	3°03'43	min. Earth dist.	15666 Jul 12 14:41	4°♄00'29	0.68853 AU
min. Earth dist.	15665 Jul 28 19:49	19°♄09'49	0.68104 AU		15666 Jul 15 16:37	30°♄	
morning rise	15665 Aug 02 05:28	14°♄02'01		morning rise	15666 Jul 17 10:38	28°♄12'46	
direct	15665 Aug 07 20:39	11°♄34'21		direct	15666 Jul 22 13:53	25°♄59'09	
desc. node	15665 Aug 10 23:32	12°♄12'26		desc. node	15666 Jul 28 20:54	28°♄33'09	
morning max el	15665 Aug 19 11:04	18°♄31'09	24°37'28		15666 Jul 30 15:52	0°♄	
	15665 Aug 29 03:46	0°♄		morning max el	15666 Aug 01 22:20	2°♄08'28	23°08'17
	15665 Sep 18 06:38	0°♄			15666 Aug 23 03:07	0°♄	
morning set	15665 Sep 24 02:14	9°♄52'41		morning set	15666 Sep 05 08:10	20°♄48'19	
max. Earth dist.	15665 Sep 27 15:52	16°♄13'58	1.37501 AU	max. Earth dist.	15666 Sep 09 14:28	28°♄00'09	1.39905 AU
					15666 Sep 10 18:13	0°♄	
superior conj	15665 Oct 04 16:13	29°♄24'45	-0°06'15	superior conj	15666 Sep 17 10:07	11°♄54'24	-0°41'48
minimum elong	15665 Oct 04 16:36	29°♄26'38	0°05'50	minimum elong	15666 Sep 17 13:17	12°♄08'59	0°41'10
behind sun begin	15665 Oct 04 10:19	28°♄56'08		asc. node	15666 Sep 22 05:25	20°♄53'37	
behind sun end	15665 Oct 04 22:53	29°♄57'12		evening rise	15666 Sep 26 23:07	29°♄58'04	
	15665 Oct 04 23:28	0°♄			15666 Sep 26 23:31	0°♄	
asc. node	15665 Oct 05 08:45	0°♄45'15		evening max el	15666 Oct 12 23:12	25°♄54'15	18°34'36
evening rise	15665 Oct 13 03:04	16°♄13'21		retrograde	15666 Oct 21 00:07	29°♄58'20	
	15665 Oct 20 06:46	0°♄		evening set	15666 Oct 22 22:46	29°♄44'51	
evening max el	15665 Oct 29 22:36	13°♄52'17	19°21'57	desc. node	15666 Oct 24 17:38	29°♄10'13	
desc. node	15665 Nov 06 20:21	18°♄29'18		inferior conj	15666 Oct 30 21:25	25°♄16'35	-1°58'39
retrograde	15665 Nov 08 09:31	18°♄36'41		minimum elong	15666 Oct 30 16:39	25°♄25'39	1°56'05
evening set	15665 Nov 10 07:07	18°♄26'02		min. Earth dist.	15666 Nov 03 01:33	22°♄52'04	0.57458 AU
inferior conj	15665 Nov 18 21:03	14°♄17'58	-3°43'39	morning rise	15666 Nov 07 07:10	20°♄12'15	
minimum elong	15665 Nov 18 12:01	14°♄32'44	3°39'44	direct	15666 Nov 13 10:28	18°♄38'03	
min. Earth dist.	15665 Nov 21 10:14	12°♄37'54	0.55679 AU	morning max el	15666 Nov 27 16:21	26°♄06'32	26°52'20
morning rise	15665 Nov 26 14:42	9°♄50'25			15666 Dec 01 08:46	0°♄	
direct	15665 Dec 02 01:25	8°♄43'01		asc. node	15666 Dec 19 06:00	27°♄01'29	
morning max el	15665 Dec 16 01:42	15°♄47'47	25°25'20		15666 Dec 20 19:43	0°♄	
	15665 Dec 27 11:12	0°♄		morning set	15666 Dec 27 10:19	13°♄29'05	
asc. node	15666 Jan 01 08:53	8°♄01'07					
morning set	15666 Jan 12 00:31	28°♄59'22		superior conj	15667 Jan 03 05:20	28°♄29'14	1°37'42
	15666 Jan 12 11:45	0°♄		minimum elong	15667 Jan 03 04:58	28°♄27'13	1°38'30
superior conj	15666 Jan 18 18:12	13°♄49'37	1°36'44	max. Earth dist.	15667 Jan 03 15:02	29°♄23'32	1.31140 AU
minimum elong	15666 Jan 18 18:54	13°♄53'30	1°37'23		15667 Jan 03 21:34	0°♄	
max. Earth dist.	15666 Jan 20 08:17	17°♄19'40	1.31765 AU	evening rise	15667 Jan 10 02:04	13°♄33'48	
evening rise	15666 Jan 25 23:04	29°♄20'47			15667 Jan 18 08:24	0°♄	
	15666 Jan 26 06:39	0°♄		desc. node	15667 Jan 20 16:45	4°♄13'35	
desc. node	15666 Feb 02 20:03	14°♄41'08			15667 Feb 07 21:19	0°♄	
	15666 Feb 11 23:22	0°♄		evening max el	15667 Feb 09 23:25	2°♄05'23	27°10'32
evening max el	15666 Feb 27 17:41	19°♄54'48	27°35'05	retrograde	15667 Feb 24 00:06	9°♄23'17	
retrograde	15666 Mar 13 16:20	27°♄22'27		evening set	15667 Mar 02 16:24	7°♄26'23	
evening set	15666 Mar 20 12:16	25°♄06'03		min. Earth dist.	15667 Mar 06 13:51	4°♄43'04	0.60062 AU
min. Earth dist.	15666 Mar 24 06:26	22°♄05'17	0.62299 AU	inferior conj	15667 Mar 09 18:52	2°♄02'47	-2°21'24
inferior conj	15666 Mar 27 06:31	19°♄13'59	-0°57'28	minimum elong	15667 Mar 10 00:10	1°♄51'44	2°19'18
minimum elong	15666 Mar 27 08:29	19°♄09'18	0°56'52		15667 Mar 12 08:14	30°♄	
asc. node	15666 Mar 30 06:02	16°♄33'28		morning rise	15667 Mar 17 11:24	27°♄16'22	
morning rise	15666 Apr 03 07:43	14°♄08'15		asc. node	15667 Mar 17 03:26	27°♄21'59	
direct	15666 Apr 05 14:03	13°♄44'51		direct	15667 Mar 19 12:15	27°♄00'05	
morning max el	15666 Apr 12 05:58	17°♄07'01	17°46'56				

	15667 Mar 26 03:30	0°♿		morning max el	15668 Mar 09 04:48	13°♿38'47	18°36'44
morning max el	15667 Mar 26 20:45	0°♿40'19	18°01'43		15668 Mar 20 06:53	0°♿	
morning set	15667 Apr 11 10:27	25°♿10'44		morning set	15668 Mar 25 04:57	9°♿19'03	
	15667 Apr 14 01:07	0°♿					
desc. node	15667 Apr 18 18:28	8°♿36'43		superior conj	15668 Apr 03 03:34	26°♿24'59	0°12'19
				minimum elong	15668 Apr 03 04:23	26°♿28'49	0°11'53
superior conj	15667 Apr 21 14:18	13°♿38'50	-0°23'01	behind sun begin	15668 Apr 02 23:41	26°♿06'54	
minimum elong	15667 Apr 21 12:21	13°♿30'11	0°23'13	behind sun end	15668 Apr 03 09:06	26°♿50'43	
max. Earth dist.	15667 Apr 29 03:52	26°♿36'04	1.42268 AU	desc. node	15668 Apr 04 15:06	29°♿09'19	
	15667 May 01 05:20	0°♿			15668 Apr 05 02:09	0°♿	
evening rise	15667 May 04 14:45	5°♿28'55		max. Earth dist.	15668 Apr 10 12:19	9°♿40'42	1.40093 AU
	15667 May 20 20:11	0°♿		evening rise	15668 Apr 14 14:37	16°♿39'43	
evening max el	15667 Jun 06 17:04	21°♿23'52	22°27'32		15668 Apr 22 21:25	0°♿	
asc. node	15667 Jun 13 01:08	26°♿16'13			15668 May 14 11:07	0°♿	
retrograde	15667 Jun 16 12:17	27°♿08'24		evening max el	15668 May 19 07:35	5°♿18'26	23°48'58
evening set	15667 Jun 21 08:46	25°♿06'06		asc. node	15668 May 29 22:10	11°♿43'55	
inferior conj	15667 Jun 26 15:21	18°♿45'25	3°03'00	retrograde	15668 May 30 06:51	11°♿44'29	
minimum elong	15667 Jun 26 14:22	18°♿48'48	3°02'04	evening set	15668 Jun 04 15:02	9°♿28'17	
min. Earth dist.	15667 Jun 26 11:27	18°♿59'00	0.69116 AU	min. Earth dist.	15668 Jun 09 07:53	3°♿58'33	0.68894 AU
morning rise	15667 Jul 01 19:49	12°♿32'43		inferior conj	15668 Jun 10 00:47	3°♿00'51	2°46'27
direct	15667 Jul 06 10:47	10°♿37'01		minimum elong	15668 Jun 09 23:05	3°♿06'41	2°45'17
morning max el	15667 Jul 15 12:30	15°♿54'03	21°41'37		15668 Jun 12 07:39	30°♿♿	
desc. node	15667 Jul 15 18:10	16°♿08'19		morning rise	15668 Jun 15 07:08	26°♿56'41	
	15667 Jul 26 23:32	0°♿		direct	15668 Jun 19 10:00	25°♿20'48	
	15667 Aug 16 03:15	0°♿		morning max el	15668 Jun 27 08:31	29°♿50'09	20°24'04
morning set	15667 Aug 16 14:04	0°♿42'47			15668 Jun 27 12:29	0°♿	
max. Earth dist.	15667 Aug 22 17:58	10°♿40'22	1.42185 AU	desc. node	15668 Jul 01 15:21	4°♿38'09	
					15668 Jul 19 13:43	0°♿	
superior conj	15667 Aug 30 08:58	23°♿34'19	-1°18'07	morning set	15668 Jul 25 23:40	9°♿46'40	
minimum elong	15667 Aug 30 15:15	24°♿01'38	1°17'26	max. Earth dist.	15668 Aug 04 04:26	24°♿12'51	1.44071 AU
	15667 Sep 03 00:43	0°♿			15668 Aug 07 18:30	0°♿	
asc. node	15667 Sep 09 02:03	10°♿56'32					
evening rise	15667 Sep 10 07:54	13°♿12'58		superior conj	15668 Aug 10 08:52	4°♿15'19	-1°50'04
	15667 Sep 19 20:57	0°♿		minimum elong	15668 Aug 10 16:37	4°♿47'18	1°49'49
evening max el	15667 Sep 26 08:35	8°♿36'55	18°08'21	evening rise	15668 Aug 23 00:34	25°♿45'08	
retrograde	15667 Oct 03 09:40	12°♿13'16			15668 Aug 25 11:16	0°♿	
evening set	15667 Oct 05 14:29	11°♿52'37		asc. node	15668 Aug 25 22:39	0°♿49'17	
desc. node	15667 Oct 11 14:58	8°♿05'09		evening max el	15668 Sep 08 22:25	21°♿49'03	18°01'41
inferior conj	15667 Oct 12 19:23	7°♿02'54	-0°22'33	retrograde	15668 Sep 15 10:27	25°♿11'36	
minimum elong	15667 Oct 12 18:37	7°♿04'38	0°21'48	evening set	15668 Sep 17 23:09	24°♿40'10	
min. Earth dist.	15667 Oct 16 01:07	4°♿11'16	0.59648 AU	inferior conj	15668 Sep 24 12:01	19°♿31'06	0°54'53
morning rise	15667 Oct 19 19:28	1°♿24'50		minimum elong	15668 Sep 24 13:33	19°♿27'11	0°54'32
	15667 Oct 22 19:39	30°♿♿		min. Earth dist.	15668 Sep 27 10:28	16°♿32'45	0.61939 AU
direct	15667 Oct 26 08:38	29°♿24'54		desc. node	15668 Sep 27 12:21	16°♿28'10	
	15667 Oct 30 00:09	0°♿		morning rise	15668 Oct 01 01:23	13°♿27'46	
morning max el	15667 Nov 09 15:09	7°♿10'40	27°45'09	direct	15668 Oct 07 17:43	11°♿07'09	
	15667 Nov 26 21:04	0°♿		morning max el	15668 Oct 21 20:58	19°♿04'03	27°58'44
asc. node	15667 Dec 06 03:02	16°♿28'27			15668 Oct 31 03:59	0°♿	
morning set	15667 Dec 11 16:21	27°♿44'28			15668 Nov 18 18:29	0°♿	
	15667 Dec 12 17:50	0°♿		asc. node	15668 Nov 21 23:58	6°♿14'23	
max. Earth dist.	15667 Dec 17 22:43	11°♿25'35	1.31057 AU	morning set	15668 Nov 24 16:37	11°♿40'58	
				max. Earth dist.	15668 Nov 30 03:28	23°♿17'00	1.31523 AU
superior conj	15667 Dec 18 16:41	13°♿06'00	1°32'41				
minimum elong	15667 Dec 18 15:21	12°♿58'32	1°33'27	superior conj	15668 Dec 02 02:23	27°♿34'59	1°21'40
evening rise	15667 Dec 25 09:35	27°♿56'31		minimum elong	15668 Dec 02 00:20	27°♿23'37	1°22'17
	15667 Dec 26 08:38	0°♿			15668 Dec 03 04:35	0°♿	
desc. node	15668 Jan 07 13:32	23°♿13'25		evening rise	15668 Dec 08 19:42	12°♿24'24	
	15668 Jan 11 21:42	0°♿			15668 Dec 17 13:07	0°♿	
evening max el	15668 Jan 22 21:44	13°♿23'48	26°11'03	desc. node	15668 Dec 24 10:24	11°♿29'01	
retrograde	15668 Feb 05 20:53	20°♿29'07		evening max el	15669 Jan 03 11:33	23°♿51'49	24°42'44
evening set	15668 Feb 12 02:04	18°♿57'27			15669 Jan 12 20:45	0°♿	
min. Earth dist.	15668 Feb 16 10:59	16°♿19'54	0.57882 AU	retrograde	15669 Jan 17 05:01	0°♿43'13	
inferior conj	15668 Feb 19 12:27	14°♿07'40	-3°51'04		15669 Jan 21 14:33	30°♿♿	
minimum elong	15668 Feb 19 20:58	13°♿52'16	3°47'56	evening set	15669 Jan 22 13:51	29°♿39'29	
morning rise	15668 Feb 27 19:02	9°♿42'42		min. Earth dist.	15669 Jan 27 23:27	26°♿51'35	0.56025 AU
direct	15668 Feb 29 18:34	9°♿29'48		inferior conj	15669 Jan 30 08:56	25°♿21'25	-5°11'28
asc. node	15668 Mar 03 00:50	9°♿47'26		minimum elong	15669 Jan 30 17:48	25°♿07'30	5°08'58

morning rise	15669 Feb 07 23:58	21° \approx 17'32		minimum elong	15670 Jan 10 13:11	5° \approx 41'34	5°57'08
direct	15669 Feb 10 05:25	21° \approx 04'01		morning rise	15670 Jan 19 00:04	1° \approx 56'14	
asc. node	15669 Feb 17 22:12	23° \approx 58'40		direct	15670 Jan 21 21:48	1° \approx 36'30	
morning max el	15669 Feb 20 02:02	25° \approx 51'11	19°33'58	morning max el	15670 Feb 02 08:55	7° \approx 07'55	20°54'27
	15669 Feb 23 17:09	0° H		asc. node	15670 Feb 04 19:33	9° \approx 43'16	
morning set	15669 Mar 09 07:49	23° H 48'08			15670 Feb 17 11:41	0° H	
	15669 Mar 12 09:35	0° Y		morning set	15670 Feb 21 15:57	8° H 27'59	
superior conj	15669 Mar 17 08:46	9° Y 53'52	0°42'13	superior conj	15670 Mar 01 01:40	23° H 52'50	1°05'46
minimum elong	15669 Mar 17 11:01	10° Y 04'54	0°41'47	minimum elong	15670 Mar 01 04:14	24° H 06'00	1°05'34
desc. node	15669 Mar 22 11:43	19° Y 41'51			15670 Mar 04 02:14	0° Y	
max. Earth dist.	15669 Mar 23 18:41	22° Y 05'02	1.37799 AU	max. Earth dist.	15670 Mar 06 03:04	4° Y 00'43	1.35629 AU
evening rise	15669 Mar 27 11:11	28° Y 43'08		desc. node	15670 Mar 09 08:19	10° Y 09'54	
	15669 Mar 28 04:42	0° B		evening rise	15670 Mar 10 01:27	11° Y 29'45	
	15669 Apr 16 06:03	0° II			15670 Mar 20 17:30	0° B	
evening max el	15669 May 01 21:00	19° II 13'00	25°07'36		15670 Apr 11 11:57	0° II	
retrograde	15669 May 13 21:35	26° II 12'33		evening max el	15670 Apr 14 10:31	3° II 03'02	26°16'20
asc. node	15669 May 16 19:17	25° II 37'15		retrograde	15670 Apr 27 07:30	10° II 24'24	
evening set	15669 May 19 17:08	23° II 46'00		evening set	15670 May 03 13:20	7° II 52'27	
min. Earth dist.	15669 May 24 02:02	18° II 53'08	0.68192 AU	asc. node	15670 May 03 16:31	7° II 45'50	
inferior conj	15669 May 25 07:55	17° II 15'16	2°19'17	min. Earth dist.	15670 May 07 15:51	3° II 35'03	0.67026 AU
minimum elong	15669 May 25 05:47	17° II 22'16	2°17'55	inferior conj	15670 May 09 10:39	1° II 23'24	1°40'45
morning rise	15669 May 30 18:46	11° II 20'44		minimum elong	15670 May 09 08:35	1° II 29'46	1°39'23
direct	15669 Jun 03 10:06	10° II 04'44			15670 May 10 14:06	30° R B	
morning max el	15669 Jun 10 11:53	13° II 57'09	19°20'06	morning rise	15670 May 15 04:45	25° B 39'44	
desc. node	15669 Jun 18 12:27	23° II 48'26		direct	15670 May 18 09:24	24° B 42'04	
	15669 Jun 22 19:45	0° E		morning max el	15670 May 24 22:04	28° B 10'25	18°32'02
greatest brilliancy	15669 Jun 23 04:18	0° E 31'30	-0.7m		15670 May 26 15:39	0° II	
morning set	15669 Jul 05 03:45	18° E 41'02		desc. node	15670 Jun 05 09:28	13° II 27'55	
	15669 Jul 12 11:31	0° O		morning set	15670 Jun 14 22:27	28° II 20'17	
max. Earth dist.	15669 Jul 17 20:22	8° O 22'59	1.45367 AU		15670 Jun 15 23:51	0° E	
superior conj	15669 Jul 21 09:56	14° O 00'30	-2°10'26	superior conj	15670 Jun 30 20:27	23° E 13'53	-2°12'33
minimum elong	15669 Jul 21 14:27	14° O 18'25	2°10'58	minimum elong	15670 Jun 30 17:22	23° E 01'53	2°13'18
	15669 Jul 31 08:22	0° P		max. Earth dist.	15670 Jun 30 15:30	22° E 54'39	1.45950 AU
evening rise	15669 Aug 04 19:57	7° P 22'01			15670 Jul 05 04:33	0° O	
asc. node	15669 Aug 12 19:17	20° P 27'25		evening rise	15670 Jul 16 14:26	17° O 56'02	
	15669 Aug 19 02:12	0° A			15670 Jul 24 06:01	0° P	
evening max el	15669 Aug 23 13:06	5° A 21'35	18°13'26	greatest brilliancy	15670 Jul 24 17:55	0° P 46'27	-0.8m
retrograde	15669 Aug 29 21:49	8° A 43'39		asc. node	15670 Jul 30 15:59	9° P 45'21	
evening set	15669 Sep 01 19:08	7° A 58'28		evening max el	15670 Aug 07 01:39	19° P 07'14	18°42'45
inferior conj	15669 Sep 07 19:16	2° A 32'46	1°52'23	retrograde	15670 Aug 13 15:51	22° P 41'44	
minimum elong	15669 Sep 07 21:35	2° A 26'08	1°51'38	evening set	15670 Aug 16 22:24	21° P 40'30	
min. Earth dist.	15669 Sep 10 05:51	29° P 46'35	0.64104 AU	inferior conj	15670 Aug 22 13:18	16° P 00'17	2°31'58
	15669 Sep 10 01:00	30° R P		minimum elong	15670 Aug 22 15:27	15° P 53'37	2°31'13
morning rise	15669 Sep 13 22:17	26° P 14'05		min. Earth dist.	15670 Aug 24 10:11	13° P 41'15	0.65979 AU
desc. node	15669 Sep 14 09:47	25° P 52'21		morning rise	15670 Aug 28 07:27	9° P 34'49	
direct	15669 Sep 20 12:18	23° P 40'19		desc. node	15670 Sep 01 07:13	7° P 17'15	
	15669 Oct 02 13:52	0° A		direct	15670 Sep 03 14:52	6° P 56'49	
morning max el	15669 Oct 04 06:58	1° A 38'59	27°35'13	morning max el	15670 Sep 16 18:23	14° P 43'27	26°41'28
	15669 Oct 25 08:55	0° M			15670 Sep 29 06:39	0° A	
morning set	15669 Nov 08 08:37	25° M 12'24			15670 Oct 18 02:49	0° M	
asc. node	15669 Nov 08 20:48	26° M 13'01		morning set	15670 Oct 22 13:27	8° M 12'16	
	15669 Nov 10 17:40	0° X		max. Earth dist.	15670 Oct 26 13:43	16° M 00'36	1.34127 AU
max. Earth dist.	15669 Nov 13 01:22	4° X 48'55	1.32551 AU	asc. node	15670 Oct 26 17:34	16° M 19'48	
superior conj	15669 Nov 16 08:26	11° X 50'22	1°04'36	superior conj	15670 Oct 31 08:31	25° M 46'40	0°41'30
minimum elong	15669 Nov 16 06:05	11° X 37'41	1°05'01	minimum elong	15670 Oct 31 06:31	25° M 36'15	0°41'48
evening rise	15669 Nov 23 06:33	26° X 52'23			15670 Nov 02 08:44	0° X	
	15669 Nov 24 17:47	0° Z		evening rise	15670 Nov 07 16:19	11° X 16'15	
desc. node	15669 Dec 11 07:22	28° Z 43'34			15670 Nov 17 06:45	0° Z	
	15669 Dec 12 08:12	0° \approx		evening max el	15670 Nov 27 11:29	13° Z 55'39	21°21'14
evening max el	15669 Dec 15 20:57	3° \approx 49'38	23°00'05	desc. node	15670 Nov 28 04:25	14° Z 36'12	
retrograde	15669 Dec 29 00:22	10° \approx 20'15		retrograde	15670 Dec 09 10:53	19° Z 51'11	
evening set	15670 Jan 02 03:38	9° \approx 43'04		evening set	15670 Dec 12 07:38	19° Z 32'17	
min. Earth dist.	15670 Jan 09 06:39	6° \approx 25'12	0.54785 AU	inferior conj	15670 Dec 21 01:25	15° Z 41'29	-5°47'34
inferior conj	15670 Jan 10 10:12	5° \approx 45'50	-5°58'03	minimum elong	15670 Dec 20 19:13	15° Z 50'12	5°45'58

min. Earth dist.	15670 Dec 21 12:12	15°  26'18	0.54409 AU	inferior conj	15671 Nov 30 20:51	25°  40'15	-4°39'28
morning rise	15670 Dec 29 07:13	11°  51'39		minimum elong	15671 Nov 30 10:47	25°  55'30	4°35'48
direct	15671 Jan 02 05:37	11°  31'09		min. Earth dist.	15671 Dec 02 18:57	24°  30'22	0.54975 AU
morning max el	15671 Jan 15 01:38	17°  31'53	22°35'03	morning rise	15671 Dec 08 18:40	21°  31'31	
asc. node	15671 Jan 22 16:52	26°  43'29		direct	15671 Dec 13 17:42	20°  37'48	
	15671 Jan 24 20:46	0°  ≈		morning max el	15671 Dec 27 10:30	27°  25'25	24°25'01
morning set	15671 Feb 06 03:00	23°  ≈12'11			15671 Dec 29 22:54	0°  ≈	
	15671 Feb 09 07:08	0°  ✕		asc. node	15672 Jan 09 14:07	14°  34'27	
					15672 Jan 17 20:21	0°  ≈	
superior conj	15671 Feb 13 02:55	8°  ✕12'37	1°22'47	morning set	15672 Jan 21 15:01	7°  ≈55'01	
minimum elong	15671 Feb 13 05:04	8°  ✕24'02	1°22'57				
max. Earth dist.	15671 Feb 16 18:03	15°  ✕49'39	1.33781 AU	superior conj	15672 Jan 28 09:45	22°  ≈45'20	1°33'25
evening rise	15671 Feb 21 05:56	24°  ✕50'49		minimum elong	15672 Jan 28 11:03	22°  ≈52'24	1°33'55
	15671 Feb 23 22:36	0°  Υ		max. Earth dist.	15672 Jan 30 16:54	27°  ≈45'10	1.32363 AU
desc. node	15671 Feb 24 04:56	0°  Υ29'39			15672 Jan 31 18:02	0°  ✕	
	15671 Mar 14 05:32	0°  8		evening rise	15672 Feb 04 21:19	8°  ✕37'39	
evening max el	15671 Mar 28 00:16	16°  841'07	27°07'33	desc. node	15672 Feb 11 01:36	20°  ✕36'20	
retrograde	15671 Apr 10 11:31	24°  811'48			15672 Feb 16 09:18	0°  Υ	
evening set	15671 Apr 17 01:36	21°  840'34		evening max el	15672 Mar 09 12:51	29°  Υ55'48	27°33'52
asc. node	15671 Apr 20 13:49	18°  822'07			15672 Mar 09 14:36	0°  8	
min. Earth dist.	15671 Apr 20 23:18	17°  856'13	0.65447 AU	retrograde	15672 Mar 23 08:29	7°  825'51	
inferior conj	15671 Apr 23 06:39	15°  819'44	0°49'50	evening set	15672 Mar 30 03:40	5°  802'09	
minimum elong	15671 Apr 23 05:22	15°  823'23	0°48'49	min. Earth dist.	15672 Apr 02 22:25	1°  847'09	0.63522 AU
morning rise	15671 Apr 29 10:46	9°  848'41			15672 Apr 04 16:46	30°  RΥ	
direct	15671 May 02 05:47	9°  806'48		inferior conj	15672 Apr 05 17:06	28°  Υ57'26	-0°14'22
morning max el	15671 May 08 13:15	12°  823'32	18°00'48	minimum elong	15672 Apr 05 17:34	28°  Υ56'16	0°14'31
	15671 May 21 02:54	0°  II		transit middle	15672 Apr 05 17:34	28°  Υ56'16	0°14'31
desc. node	15671 May 23 06:23	3°  II28'38		transit begin	15672 Apr 05 16:15	28°  Υ59'38	
morning set	15671 May 26 19:39	9°  II16'26		transit end	15672 Apr 05 18:53	28°  Υ52'54	
	15671 Jun 08 16:34	0°  ☾		asc. node	15672 Apr 06 11:10	28°  Υ11'36	
				morning rise	15672 Apr 12 09:55	23°  Υ41'28	
superior conj	15671 Jun 10 08:14	2°  ☾36'40	-1°54'52	direct	15672 Apr 14 20:33	23°  Υ12'13	
minimum elong	15671 Jun 09 23:53	2°  ☾03'43	1°55'06	morning max el	15672 Apr 21 06:50	26°  Υ28'59	17°46'54
max. Earth dist.	15671 Jun 13 11:47	7°  ☾33'12	1.45786 AU		15672 Apr 24 08:46	0°  8	
evening rise	15671 Jun 26 10:43	27°  ☾37'18		morning set	15672 May 07 19:21	21°  828'21	
	15671 Jun 27 23:53	0°  Ω		desc. node	15672 May 09 03:13	23°  844'32	
greatest brilliancy	15671 Jul 09 14:55	17°  Ω36'27	-0.7m		15672 May 12 19:35	0°  II	
asc. node	15671 Jul 17 12:45	28°  Ω35'07					
	15671 Jul 18 16:29	0°  ൬		superior conj	15672 May 20 12:37	12°  II47'55	-1°22'56
evening max el	15671 Jul 21 09:43	2°  ൬59'11	19°28'39	minimum elong	15672 May 20 04:54	12°  II16'26	1°22'47
retrograde	15671 Jul 28 13:32	6°  ൬58'33		max. Earth dist.	15672 May 26 06:57	22°  II03'59	1.44896 AU
evening set	15671 Aug 01 05:57	5°  ൬39'53			15672 May 31 08:08	0°  ☾	
	15671 Aug 06 10:51	30°  RΩ		evening rise	15672 Jun 04 21:26	7°  ☾01'40	
inferior conj	15671 Aug 06 14:56	29°  Ω46'31	2°56'22		15672 Jun 20 07:27	0°  Ω	
minimum elong	15671 Aug 06 16:22	29°  Ω41'47	2°55'39	asc. node	15672 Jul 03 09:36	16°  Ω47'10	
min. Earth dist.	15671 Aug 07 21:40	28°  Ω05'03	0.67460 AU	evening max el	15672 Jul 03 11:56	16°  Ω53'01	20°29'22
morning rise	15671 Aug 12 02:13	23°  Ω20'27		retrograde	15672 Jul 11 12:32	21°  Ω28'25	
direct	15671 Aug 18 00:00	20°  Ω46'50		evening set	15672 Jul 15 15:28	19°  Ω51'54	
desc. node	15671 Aug 19 04:39	20°  Ω52'23		inferior conj	15672 Jul 20 21:29	13°  Ω46'36	3°07'46
morning max el	15671 Aug 30 05:27	28°  Ω05'33	25°26'26	minimum elong	15672 Jul 20 21:59	13°  Ω44'53	3°07'04
	15671 Sep 01 01:01	0°  ൬		min. Earth dist.	15672 Jul 21 14:22	12°  Ω48'36	0.68486 AU
	15671 Sep 22 23:37	0°  Ω		morning rise	15672 Jul 26 04:13	7°  Ω23'55	
morning set	15671 Oct 05 03:19	20°  Ω31'06		direct	15672 Jul 31 14:28	5°  Ω01'40	
max. Earth dist.	15671 Oct 08 16:52	27°  Ω04'41	1.36180 AU	desc. node	15672 Aug 05 02:00	6°  Ω20'05	
	15671 Oct 10 05:55	0°  ൬		morning max el	15672 Aug 11 16:15	11°  Ω38'34	23°59'47
asc. node	15671 Oct 13 14:17	6°  ൬30'04			15672 Aug 26 09:13	0°  ൬	
					15672 Sep 14 17:53	0°  Ω	
superior conj	15671 Oct 14 23:44	9°  ൬16'04	0°12'41	morning set	15672 Sep 15 22:04	1°  Ω59'46	
minimum elong	15671 Oct 14 22:57	9°  ൬12'11	0°13'00	max. Earth dist.	15672 Sep 19 15:44	8°  Ω29'47	1.38530 AU
behind sun begin	15671 Oct 14 19:11	8°  ൬53'22					
behind sun end	15671 Oct 15 02:43	9°  ൬31'01		superior conj	15672 Sep 27 02:36	22°  Ω10'26	-0°20'59
evening rise	15671 Oct 22 22:50	25°  ൬30'09		minimum elong	15672 Sep 27 04:04	22°  Ω17'23	0°20'28
	15671 Oct 25 04:01	0°  ✕		asc. node	15672 Sep 29 10:59	26°  Ω40'22	
evening max el	15671 Nov 09 14:51	24°  ✕40'19	19°59'10		15672 Oct 01 04:05	0°  ൬	
desc. node	15671 Nov 15 01:35	28°  ✕41'31		evening rise	15672 Oct 05 23:37	9°  ൬28'06	
retrograde	15671 Nov 19 23:47	29°  ✕50'30			15672 Oct 17 08:57	0°  ✕	
evening set	15671 Nov 22 01:48	29°  ✕38'58		evening max el	15672 Oct 22 08:26	6°  ✕14'42	18°59'00

retrograde	15672 Oct 31 03:38	10°♊40'43		evening set	15673 Oct 15 03:40	22°♎10'26	
desc. node	15672 Oct 31 22:48	10°♊38'38		desc. node	15673 Oct 18 20:04	20°♎29'19	
evening set	15672 Nov 02 00:51	10°♊29'20		inferior conj	15673 Oct 22 18:45	17°♎32'45	-1°15'59
inferior conj	15672 Nov 10 08:55	6°♊12'40	-2°59'05	minimum elong	15673 Oct 22 15:51	17°♎38'40	1°14'14
minimum elong	15672 Nov 10 01:32	6°♊25'33	2°55'34	min. Earth dist.	15673 Oct 26 00:49	14°♎54'17	0.58352 AU
min. Earth dist.	15672 Nov 13 06:08	4°♊12'21	0.56373 AU	morning rise	15673 Oct 30 00:32	12°♎12'56	
morning rise	15672 Nov 17 23:27	1°♊29'57		direct	15673 Nov 05 08:36	10°♎27'39	
direct	15672 Nov 23 17:58	0°♊11'37		morning max el	15673 Nov 19 15:42	18°♎04'36	27°19'34
morning max el	15672 Dec 07 21:17	7°♊26'17	26°05'54		15673 Nov 29 15:25	0°♊	
	15672 Dec 24 13:15	0°♊		asc. node	15673 Dec 13 08:21	22°♊35'55	
asc. node	15672 Dec 26 11:17	3°♊22'39			15673 Dec 17 02:43	0°♊	
morning set	15673 Jan 05 02:08	22°♊31'16		morning set	15673 Dec 20 10:36	6°♊56'25	
	15673 Jan 08 12:06	0°♊					
superior conj	15673 Jan 11 19:53	7°♋24'13	1°37'52	superior conj	15673 Dec 27 07:21	22°♊03'57	1°36'19
minimum elong	15673 Jan 11 20:08	7°♋25'36	1°38'37	minimum elong	15673 Dec 27 06:33	21°♊59'30	1°37'07
max. Earth dist.	15673 Jan 12 21:49	9°♋48'23	1.31436 AU	max. Earth dist.	15673 Dec 27 05:31	21°♊53'40	1.31035 AU
evening rise	15673 Jan 18 20:46	22°♋42'55			15673 Dec 30 20:41	0°♋	
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desc. node	15673 Jan 27 22:17	10°♋23'38		desc. node	15674 Jan 14 19:01	29°♋44'03	
	15673 Feb 09 06:16	0°♋			15674 Jan 14 22:44	0°♋	
evening max el	15673 Feb 19 21:46	12°♋32'56	27°28'58	evening max el	15674 Feb 02 00:23	24°♋21'34	26°49'15
retrograde	15673 Mar 05 21:18	19°♋56'17			15674 Feb 09 17:46	0°♋	
evening set	15673 Mar 12 16:43	17°♋47'16		retrograde	15674 Feb 16 00:43	1°♋34'56	
min. Earth dist.	15673 Mar 16 11:32	14°♋55'23	0.61356 AU		15674 Feb 22 04:04	30°♋	
inferior conj	15673 Mar 19 14:34	12°♋06'48	-1°31'49	evening set	15674 Feb 22 13:29	29°♋47'46	
minimum elong	15673 Mar 19 17:51	11°♋59'23	1°30'35	min. Earth dist.	15674 Feb 26 14:19	27°♋08'51	0.59115 AU
asc. node	15673 Mar 24 08:34	8°♋20'43		inferior conj	15674 Mar 01 19:20	24°♋38'11	-2°59'22
morning rise	15673 Mar 26 22:13	7°♋08'59		minimum elong	15674 Mar 02 02:07	24°♋24'51	2°56'41
direct	15673 Mar 29 02:02	6°♋48'57		morning rise	15674 Mar 09 18:16	20°♋01'07	
morning max el	15673 Apr 04 23:40	10°♋17'05	17°50'55	asc. node	15674 Mar 11 05:55	19°♋47'42	
	15673 Apr 18 01:52	0°♋		direct	15674 Mar 11 17:52	19°♋46'47	
morning set	15673 Apr 20 16:02	4°♋38'22		morning max el	15674 Mar 19 12:10	23°♋37'41	18°14'04
desc. node	15673 Apr 25 23:57	14°♋10'07			15674 Mar 24 14:43	0°♋	
				morning set	15674 Apr 04 03:58	18°♋29'28	
superior conj	15673 May 01 16:17	24°♋03'29	-0°44'58		15674 Apr 10 07:17	0°♋	
minimum elong	15673 May 01 12:12	23°♋45'59	0°44'58	desc. node	15674 Apr 12 20:39	4°♋84'28	
	15673 May 05 04:42	0°♋					
max. Earth dist.	15673 May 08 22:27	6°♋09'50	1.43369 AU	superior conj	15674 Apr 13 18:27	6°♋20'06	-0°07'30
evening rise	15673 May 15 14:55	16°♋49'47		minimum elong	15674 Apr 13 17:50	6°♋17'20	0°07'50
	15673 May 24 05:53	0°♋		behind sun begin	15674 Apr 13 11:15	5°♋47'35	
	15673 Jun 15 14:11	0°♋		behind sun end	15674 Apr 14 00:25	6°♋47'01	
evening max el	15673 Jun 16 08:12	0°♋46'01	21°42'01	max. Earth dist.	15674 Apr 21 08:47	19°♋36'46	1.41371 AU
asc. node	15673 Jun 20 06:32	4°♋08'10		evening rise	15674 Apr 26 02:31	27°♋28'14	
retrograde	15673 Jun 25 11:04	6°♋04'59			15674 Apr 27 16:05	0°♋	
evening set	15673 Jun 30 01:02	4°♋11'28			15674 May 17 21:10	0°♋	
	15673 Jul 03 18:36	30°♋		evening max el	15674 May 30 00:03	14°♋39'07	23°02'01
inferior conj	15673 Jul 05 06:42	27°♋55'37	3°07'48	asc. node	15674 Jun 07 03:30	20°♋22'16	
minimum elong	15673 Jul 05 06:15	27°♋57'13	3°06'58	retrograde	15674 Jun 09 07:32	20°♋42'43	
min. Earth dist.	15673 Jul 05 10:13	27°♋43'21	0.69026 AU	evening set	15674 Jun 14 08:57	18°♋34'03	
morning rise	15673 Jul 10 11:17	21°♋38'49		inferior conj	15674 Jun 19 16:37	12°♋09'52	2°57'15
direct	15673 Jul 15 09:15	19°♋32'45		minimum elong	15674 Jun 19 15:18	12°♋14'25	2°56'13
desc. node	15673 Jul 22 23:18	23°♋14'59		min. Earth dist.	15674 Jun 19 07:09	12°♋42'43	0.69077 AU
morning max el	15673 Jul 25 04:32	25°♋19'41	22°30'45	morning rise	15674 Jun 24 21:34	6°♋00'32	
	15673 Jul 29 10:01	0°♋		direct	15674 Jun 29 07:12	4°♋13'20	
	15673 Aug 19 20:04	0°♋		morning max el	15674 Jul 07 20:58	9°♋09'37	21°07'10
morning set	15673 Aug 27 17:53	12°♋29'44		desc. node	15674 Jul 09 20:32	11°♋15'11	
max. Earth dist.	15673 Sep 01 16:19	20°♋39'41	1.40906 AU		15674 Jul 24 00:05	0°♋	
	15673 Sep 07 02:24	0°♋		morning set	15674 Aug 07 14:05	21°♋59'39	
					15674 Aug 12 15:28	0°♋	
superior conj	15673 Sep 09 12:56	4°♋20'04	-0°57'21	max. Earth dist.	15674 Aug 14 22:15	3°♋41'04	1.43041 AU
minimum elong	15673 Sep 09 17:27	4°♋40'25	0°56'39				
asc. node	15673 Sep 16 07:38	16°♋47'07		superior conj	15674 Aug 22 02:16	15°♋34'54	-1°32'36
evening rise	15673 Sep 19 15:24	23°♋01'57		minimum elong	15674 Aug 22 09:34	16°♋05'51	1°32'02
	15673 Sep 23 08:55	0°♋			15674 Aug 30 09:16	0°♋	
evening max el	15673 Oct 05 13:14	18°♋35'18	18°20'54	evening rise	15674 Sep 02 17:57	6°♋00'01	
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

























































































































evening max el	15674 Sep 19 00:59	1° \mathbb{M} 31'34	18°03'16		15675 Aug 05 05:19	0° \mathbb{M}	
retrograde	15674 Sep 25 19:25	5° \mathbb{M} 00'32		evening rise	15675 Aug 16 02:12	18° \mathbb{M} 09'58	
evening set	15674 Sep 28 03:20	4° \mathbb{M} 35'51		asc. node	15675 Aug 21 00:52	26° \mathbb{M} 33'15	
	15674 Oct 04 15:44	30° \mathbb{R} \mathbb{A}			15675 Aug 23 02:23	0° \mathbb{A}	
inferior conj	15674 Oct 05 01:08	29° \mathbb{A} 37'55	0°12'43	evening max el	15675 Sep 02 15:41	14° \mathbb{A} 53'59	18°04'35
minimum elong	15674 Oct 05 01:33	29° \mathbb{A} 36'55	0°12'54	retrograde	15675 Sep 09 01:05	18° \mathbb{A} 14'24	
transit middle	15674 Oct 05 01:33	29° \mathbb{A} 36'55	0°12'54	evening set	15675 Sep 11 17:26	17° \mathbb{A} 37'25	
transit begin	15674 Oct 04 23:34	29° \mathbb{A} 41'37		inferior conj	15675 Sep 18 00:29	12° \mathbb{A} 21'16	1°21'34
transit end	15674 Oct 05 03:32	29° \mathbb{A} 32'14		minimum elong	15675 Sep 18 02:30	12° \mathbb{A} 15'50	1°20'59
desc. node	15674 Oct 05 17:25	28° \mathbb{A} 59'14		min. Earth dist.	15675 Sep 20 18:22	9° \mathbb{A} 25'52	0.62888 AU
min. Earth dist.	15674 Oct 08 04:41	26° \mathbb{A} 40'35	0.60618 AU	desc. node	15675 Sep 22 14:50	7° \mathbb{A} 38'02	
morning rise	15674 Oct 11 20:38	23° \mathbb{A} 47'41		morning rise	15675 Sep 24 09:21	6° \mathbb{A} 10'30	
direct	15674 Oct 18 11:55	21° \mathbb{A} 37'50		direct	15675 Oct 01 01:31	3° \mathbb{A} 42'58	
morning max el	15674 Nov 01 17:47	29° \mathbb{A} 30'17	27°55'43	morning max el	15675 Oct 15 01:31	11° \mathbb{A} 41'50	27°52'52
	15674 Nov 02 05:42	0° \mathbb{M}			15675 Oct 29 14:12	0° \mathbb{M}	
	15674 Nov 23 15:29	0° \mathbb{A}			15675 Nov 16 01:14	0° \mathbb{A}	
asc. node	15674 Nov 30 05:20	12° \mathbb{A} 11'43		asc. node	15675 Nov 17 02:15	2° \mathbb{A} 03'40	
morning set	15674 Dec 04 14:27	21° \mathbb{A} 04'32		morning set	15675 Nov 18 11:31	4° \mathbb{A} 50'54	
	15674 Dec 08 18:16	0° \mathbb{Z}		max. Earth dist.	15675 Nov 23 14:21	15° \mathbb{A} 34'20	1.31893 AU
max. Earth dist.	15674 Dec 10 12:13	3° \mathbb{Z} 51'23	1.31182 AU				
				superior conj	15675 Nov 26 02:40	21° \mathbb{A} 02'13	1°15'11
superior conj	15674 Dec 11 18:14	6° \mathbb{Z} 38'14	1°28'46	minimum elong	15675 Nov 26 00:26	20° \mathbb{A} 49'56	1°15'43
minimum elong	15674 Dec 11 16:34	6° \mathbb{Z} 28'52	1°29'28		15675 Nov 30 04:23	0° \mathbb{Z}	
evening rise	15674 Dec 18 10:47	21° \mathbb{Z} 26'27		evening rise	15675 Dec 02 21:27	5° \mathbb{Z} 54'54	
	15674 Dec 22 12:32	0° \mathbb{A}			15675 Dec 15 09:16	0° \mathbb{A}	
desc. node	15675 Jan 01 15:49	18° \mathbb{A} 26'41		desc. node	15675 Dec 19 12:42	6° \mathbb{A} 18'20	
	15675 Jan 09 21:27	0° \mathbb{H}		evening max el	15675 Dec 27 06:11	15° \mathbb{A} 29'09	23°59'47
evening max el	15675 Jan 14 18:51	5° \mathbb{H} 17'00	25°36'19	retrograde	15676 Jan 09 19:08	22° \mathbb{A} 12'16	
retrograde	15675 Jan 28 16:43	12° \mathbb{H} 17'27		evening set	15676 Jan 14 16:06	21° \mathbb{A} 20'41	
evening set	15675 Feb 03 14:13	10° \mathbb{H} 57'38		min. Earth dist.	15676 Jan 20 17:42	18° \mathbb{A} 22'20	0.55411 AU
min. Earth dist.	15675 Feb 08 07:41	8° \mathbb{H} 17'36	0.57033 AU	inferior conj	15676 Jan 22 15:46	17° \mathbb{A} 13'24	-5°36'57
inferior conj	15675 Feb 11 04:01	6° \mathbb{H} 21'41	-4°27'35	minimum elong	15676 Jan 22 22:56	17° \mathbb{A} 02'39	5°35'12
minimum elong	15675 Feb 11 13:16	6° \mathbb{H} 05'57	4°24'29	morning rise	15676 Jan 31 07:28	13° \mathbb{A} 16'23	
morning rise	15675 Feb 19 15:13	2° \mathbb{H} 06'01		direct	15676 Feb 02 18:36	13° \mathbb{A} 00'56	
direct	15675 Feb 21 15:55	1° \mathbb{H} 53'33		asc. node	15676 Feb 13 00:40	17° \mathbb{A} 50'37	
asc. node	15675 Feb 26 03:17	2° \mathbb{H} 58'08		morning max el	15676 Feb 13 07:31	18° \mathbb{A} 07'00	20°05'18
morning max el	15675 Mar 02 16:11	6° \mathbb{H} 18'08	18°58'14		15676 Feb 22 04:21	0° \mathbb{H}	
	15675 Mar 17 16:13	0° \mathbb{Y}		morning set	15676 Mar 02 07:52	17° \mathbb{H} 22'00	
morning set	15675 Mar 19 02:26	2° \mathbb{Y} 47'33			15676 Mar 08 12:13	0° \mathbb{Y}	
				superior conj	15676 Mar 10 01:37	3° \mathbb{Y} 08'12	0°53'00
superior conj	15675 Mar 27 15:01	19° \mathbb{Y} 25'43	0°25'45	minimum elong	15676 Mar 10 04:07	3° \mathbb{Y} 20'42	0°52'38
minimum elong	15675 Mar 27 16:36	19° \mathbb{Y} 33'17	0°25'15	max. Earth dist.	15676 Mar 15 22:09	14° \mathbb{Y} 31'26	1.36853 AU
desc. node	15675 Mar 30 17:18	25° \mathbb{Y} 14'29		desc. node	15676 Mar 16 13:55	15° \mathbb{Y} 45'22	
	15675 Apr 02 07:50	0° \mathbb{Z}		evening rise	15676 Mar 19 16:00	21° \mathbb{Y} 25'23	
max. Earth dist.	15675 Apr 03 15:22	2° \mathbb{Z} 21'06	1.39116 AU		15676 Mar 24 13:36	0° \mathbb{Z}	
evening rise	15675 Apr 07 11:27	9° \mathbb{Z} 02'24			15676 Apr 13 10:58	0° \mathbb{Z}	
	15675 Apr 20 13:28	0° \mathbb{H}		evening max el	15676 Apr 24 03:31	12° \mathbb{H} 28'10	25°38'37
evening max el	15675 May 12 13:54	28° \mathbb{H} 34'04	24°23'15	retrograde	15676 May 06 13:23	19° \mathbb{H} 37'51	
	15675 May 14 01:57	0° \mathbb{Z}		asc. node	15676 May 10 21:42	18° \mathbb{H} 20'50	
retrograde	15675 May 24 00:43	5° \mathbb{Z} 16'00		evening set	15676 May 12 13:28	17° \mathbb{H} 08'37	
asc. node	15675 May 25 00:32	5° \mathbb{Z} 11'48		min. Earth dist.	15676 May 16 19:36	12° \mathbb{H} 30'56	0.67750 AU
evening set	15675 May 29 13:40	2° \mathbb{Z} 55'08		inferior conj	15676 May 18 06:53	10° \mathbb{H} 38'07	2°04'24
	15675 Jun 01 07:55	30° \mathbb{R} \mathbb{H}		minimum elong	15676 May 18 04:43	10° \mathbb{H} 45'05	2°03'01
min. Earth dist.	15675 Jun 03 03:00	27° \mathbb{H} 40'54	0.68647 AU	morning rise	15676 May 23 20:28	4° \mathbb{H} 47'50	
inferior conj	15675 Jun 04 01:20	26° \mathbb{H} 25'40	2°36'16	direct	15676 May 27 07:14	3° \mathbb{H} 39'41	
minimum elong	15675 Jun 03 23:24	26° \mathbb{H} 32'11	2°35'01	morning max el	15676 Jun 03 02:19	7° \mathbb{H} 20'05	18°57'37
morning rise	15675 Jun 09 09:15	20° \mathbb{H} 25'11		desc. node	15676 Jun 12 14:48	19° \mathbb{H} 27'31	
direct	15675 Jun 13 07:07	18° \mathbb{H} 57'47		greatest brilliancy	15676 Jun 16 08:53	25° \mathbb{H} 01'53	-0.7m
morning max el	15675 Jun 20 19:58	23° \mathbb{H} 10'15	19°54'58		15676 Jun 19 15:17	0° \mathbb{Z}	
desc. node	15675 Jun 26 17:43	0° \mathbb{Z} 03'48		morning set	15676 Jun 26 03:00	9° \mathbb{Z} 59'57	
	15675 Jun 26 16:33	0° \mathbb{Z}			15676 Jul 09 00:03	0° \mathbb{Z}	
	15675 Jul 17 05:11	0° \mathbb{Z}		max. Earth dist.	15676 Jul 10 04:50	1° \mathbb{Z} 52'28	1.45710 AU
morning set	15675 Jul 17 18:55	0° \mathbb{Z} 52'39					
max. Earth dist.	15675 Jul 28 10:52	17° \mathbb{Z} 29'57	1.44699 AU	superior conj	15676 Jul 12 09:28	5° \mathbb{Z} 18'35	-2°13'50
				minimum elong	15676 Jul 12 11:00	5° \mathbb{Z} 24'36	2°14'33
superior conj	15675 Aug 02 16:09	25° \mathbb{Z} 51'23	-2°00'35	evening rise	15676 Jul 27 11:08	29° \mathbb{Z} 19'55	
minimum elong	15675 Aug 02 23:15	26° \mathbb{Z} 20'04	2°00'39				



































































































































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asc. node	15676 Aug 06 21:31	16°♎03'12		max. Earth dist.	15677 Jun 23 01:18	16°♊30'48	1.45980 AU
evening max el	15676 Aug 16 05:51	28°♎32'51	18°23'50		15677 Jul 01 17:12	0°♎	
	15676 Aug 17 21:04	0°♊		evening rise	15677 Jul 07 19:23	9°♎29'03	
retrograde	15676 Aug 22 15:40	1°♊58'18		greatest brilliancy	15677 Jul 18 06:05	25°♎39'06	-0.8m
evening set	15676 Aug 25 16:58	1°♊06'20			15677 Jul 21 03:39	0°♎	
	15676 Aug 27 07:13	30°♎		asc. node	15677 Jul 24 18:14	5°♎09'47	
inferior conj	15676 Aug 31 12:44	25°♎34'08	2°11'11	evening max el	15677 Jul 30 16:41	12°♎21'12	19°00'14
minimum elong	15676 Aug 31 15:04	25°♎27'11	2°10'25	retrograde	15677 Aug 06 11:41	16°♎04'52	
min. Earth dist.	15676 Sep 02 17:32	22°♎58'16	0.64949 AU	evening set	15677 Aug 09 22:23	14°♎56'12	
morning rise	15676 Sep 06 11:48	19°♎11'56		inferior conj	15677 Aug 15 10:21	9°♎09'55	2°44'02
desc. node	15676 Sep 08 12:16	17°♎48'42		minimum elong	15677 Aug 15 12:14	9°♎03'52	2°43'17
direct	15676 Sep 12 23:30	16°♎35'29		min. Earth dist.	15677 Aug 17 01:06	7°♎06'09	0.66664 AU
morning max el	15676 Sep 26 12:18	24°♎29'53	27°15'34	morning rise	15677 Aug 21 01:19	2°♎43'31	
	15676 Oct 01 11:56	0°♊		desc. node	15677 Aug 26 09:43	0°♎09'10	
	15676 Oct 22 00:29	0°♎		direct	15677 Aug 27 04:47	0°♎06'44	
morning set	15676 Oct 31 23:09	18°♎09'09		morning max el	15677 Sep 08 23:51	7°♎43'11	26°11'36
asc. node	15676 Nov 02 23:06	22°♎05'59			15677 Sep 26 09:27	0°♊	
max. Earth dist.	15676 Nov 05 08:29	26°♎57'09	1.33160 AU		15677 Oct 14 10:51	0°♎	
	15676 Nov 06 19:46	0°♊		morning set	15677 Oct 14 22:04	0°♎51'58	
				max. Earth dist.	15677 Oct 18 16:54	8°♎03'43	1.34950 AU
superior conj	15676 Nov 09 06:29	5°♊09'57	0°55'33	asc. node	15677 Oct 20 19:52	12°♎14'11	
minimum elong	15676 Nov 09 04:12	4°♊57'44	0°55'54				
evening rise	15676 Nov 16 08:05	20°♊21'38		superior conj	15677 Oct 24 03:09	18°♎54'50	0°29'56
	15676 Nov 20 23:44	0°♊		minimum elong	15677 Oct 24 01:33	18°♎46'38	0°30'13
desc. node	15676 Dec 05 09:42	23°♊00'47			15677 Oct 29 10:56	0°♊	
evening max el	15676 Dec 07 16:35	25°♊25'44	22°16'39	evening rise	15677 Oct 31 16:45	4°♊41'27	
	15676 Dec 13 18:42	0°♎			15677 Nov 14 16:13	0°♊	
retrograde	15676 Dec 20 09:23	1°♎42'50		evening max el	15677 Nov 19 11:44	5°♊43'59	20°43'46
evening set	15676 Dec 23 23:20	1°♎14'34		desc. node	15677 Nov 22 06:48	8°♊10'18	
	15676 Dec 27 10:32	30°♎		retrograde	15677 Nov 30 19:36	11°♊21'39	
inferior conj	15677 Jan 01 11:15	27°♊22'06	-6°01'18	evening set	15677 Dec 03 06:28	11°♊07'00	
minimum elong	15677 Jan 01 10:13	27°♊23'33	6°00'29	inferior conj	15677 Dec 12 02:20	7°♊14'00	-5°24'43
min. Earth dist.	15676 Dec 31 23:29	27°♊38'34	0.54514 AU	minimum elong	15677 Dec 11 17:31	7°♊26'41	5°22'07
morning rise	15677 Jan 09 22:07	23°♊34'53		min. Earth dist.	15677 Dec 13 04:58	6°♊35'40	0.54528 AU
direct	15677 Jan 13 06:01	23°♊10'07		morning rise	15677 Dec 20 04:32	3°♊18'37	
morning max el	15677 Jan 25 07:56	28°♊59'36	21°35'11	direct	15677 Dec 24 13:33	2°♊37'31	
	15677 Jan 26 08:13	0°♎		morning max el	15678 Jan 06 20:16	9°♊06'32	23°21'49
asc. node	15677 Jan 29 22:02	4°♎09'43		asc. node	15678 Jan 16 19:21	21°♊36'05	
	15677 Feb 13 17:35	0°♎			15678 Jan 21 19:06	0°♎	
morning set	15677 Feb 14 17:34	2°♎05'09		morning set	15678 Jan 30 05:16	16°♎49'23	
					15678 Feb 05 07:16	0°♎	
superior conj	15677 Feb 21 22:29	17°♎17'25	1°13'46				
minimum elong	15677 Feb 22 00:57	17°♎30'14	1°13'43	superior conj	15678 Feb 06 02:25	1°♎43'34	1°28'02
max. Earth dist.	15677 Feb 26 09:27	26°♎24'19	1.34800 AU	minimum elong	15678 Feb 06 04:15	1°♎53'22	1°28'22
	15677 Feb 28 05:06	0°♎		max. Earth dist.	15678 Feb 09 03:49	8°♎14'56	1.33115 AU
evening rise	15677 Mar 02 12:47	4°♎28'05		evening rise	15678 Feb 13 22:15	18°♎00'35	
desc. node	15677 Mar 03 10:32	6°♎10'34		desc. node	15678 Feb 18 07:08	26°♎25'03	
	15677 Mar 17 09:50	0°♎			15678 Feb 20 06:00	0°♎	
evening max el	15677 Apr 06 17:19	26°♎14'47	26°40'37		15678 Mar 11 16:16	0°♎	
	15677 Apr 11 00:56	0°♎		evening max el	15678 Mar 20 06:33	9°♎43'24	27°22'02
retrograde	15677 Apr 19 20:45	3°♎40'49		retrograde	15678 Apr 02 21:55	17°♎15'16	
evening set	15677 Apr 26 06:34	1°♎08'18		evening set	15678 Apr 09 14:48	14°♎45'58	
asc. node	15677 Apr 27 18:57	29°♎47'16		min. Earth dist.	15678 Apr 13 10:49	11°♎15'00	0.64671 AU
	15677 Apr 27 13:39	30°♎		asc. node	15678 Apr 14 16:17	9°♎55'54	
min. Earth dist.	15677 Apr 30 06:51	27°♎05'32	0.66410 AU	inferior conj	15678 Apr 15 23:22	8°♎30'59	0°24'18
inferior conj	15677 May 02 07:06	24°♎42'09	1°20'47	minimum elong	15678 Apr 15 22:42	8°♎32'49	0°23'34
minimum elong	15677 May 02 05:15	24°♎47'38	1°19'30	morning rise	15678 Apr 22 08:37	3°♎06'19	
morning rise	15677 May 08 05:07	19°♎03'44		direct	15678 Apr 24 23:53	2°♎30'18	
direct	15677 May 11 05:39	18°♎13'01		morning max el	15678 May 01 07:34	5°♎45'31	17°52'45
morning max el	15677 May 17 14:57	21°♎34'31	18°16'41	desc. node	15678 May 17 08:41	29°♎24'22	
	15677 May 24 09:18	0°♎			15678 May 17 17:15	0°♎	
desc. node	15677 May 30 11:48	9°♎16'55		morning set	15678 May 18 17:14	1°♎39'51	
morning set	15677 Jun 06 08:22	20°♎10'39					
	15677 Jun 12 12:44	0°♎		superior conj	15678 Jun 01 11:45	24°♎09'45	-1°42'35
				minimum elong	15678 Jun 01 03:02	23°♎35'00	1°42'35
superior conj	15677 Jun 21 18:19	14°♎29'57	-2°07'15		15678 Jun 05 04:10	0°♎	

max. Earth dist.	15678 Jun 05 21:11	1°☿06'57	1.45492 AU		15679 May 10 05:04	0°♊	
evening rise	15678 Jun 17 09:33	18°☿57'18					
	15678 Jun 24 16:03	0°♊		superior conj	15679 May 13 01:42	4°♊47'26	-1°07'07
greatest brilliancy	15678 Jul 02 01:23	10°♊57'10	-0.6m	minimum elong	15679 May 12 19:23	4°♊21'11	1°06'58
asc. node	15678 Jul 11 15:01	23°♊44'42		max. Earth dist.	15679 May 19 14:22	15°♊26'13	1.44315 AU
evening max el	15678 Jul 13 22:14	26°♊13'45	19°52'45	evening rise	15679 May 27 21:07	28°♊26'22	
	15678 Jul 19 03:08	0°♋			15679 May 28 21:29	0°☿	
retrograde	15678 Jul 21 10:17	0°♋27'44			15679 Jun 18 11:21	0°♊	
	15678 Jul 23 15:09	30°♋♊		evening max el	15679 Jun 26 21:47	10°♊06'55	20°59'08
evening set	15678 Jul 25 07:00	29°♊01'34		asc. node	15679 Jun 28 11:52	11°♊36'29	
inferior conj	15678 Jul 30 14:22	23°♊02'48	3°02'41	retrograde	15679 Jul 05 09:15	15°♊00'30	
minimum elong	15678 Jul 30 15:26	22°♊59'14	3°01'59	evening set	15679 Jul 09 16:43	13°♊16'51	
min. Earth dist.	15678 Jul 31 15:10	21°♊39'15	0.67950 AU	inferior conj	15679 Jul 14 22:18	7°♊06'58	3°09'07
morning rise	15678 Aug 04 23:25	16°♊37'29		minimum elong	15679 Jul 14 22:24	7°♊06'39	3°08'22
direct	15678 Aug 10 16:20	14°♊08'01		min. Earth dist.	15679 Jul 15 09:32	6°♊28'00	0.68774 AU
desc. node	15678 Aug 13 07:07	14°♊34'48		morning rise	15679 Jul 20 03:48	0°♊46'21	
morning max el	15678 Aug 22 10:53	21°♊11'13	24°50'24		15679 Jul 21 02:53	30°♋☿	
	15678 Aug 30 02:11	0°♋		direct	15679 Jul 25 08:55	28°☿30'16	
	15678 Sep 19 14:29	0°♌			15679 Jul 30 02:13	0°♊	
morning set	15678 Sep 27 04:23	12°♌51'06		desc. node	15679 Jul 31 04:28	0°♊42'05	
max. Earth dist.	15678 Sep 30 17:23	19°♌12'40	1.37151 AU	morning max el	15679 Aug 04 21:51	4°♊46'55	23°21'35
	15678 Oct 06 10:49	0°♍			15679 Aug 24 08:13	0°♋	
				morning set	15679 Sep 08 13:41	23°♋55'16	
superior conj	15678 Oct 07 13:36	2°♍10'20	-0°01'07		15679 Sep 12 03:38	0°♌	
minimum elong	15678 Oct 07 13:38	2°♍10'32	0°00'44	max. Earth dist.	15679 Sep 12 15:43	0°♌52'11	1.39553 AU
behind sun begin	15678 Oct 07 07:04	1°♍38'23					
behind sun end	15678 Oct 07 20:13	2°♍42'45		superior conj	15679 Sep 20 09:56	14°♌46'37	-0°36'16
asc. node	15678 Oct 07 16:34	2°♍24'53		minimum elong	15679 Sep 20 12:38	14°♌59'08	0°35'39
evening rise	15678 Oct 15 21:11	18°♍49'22		asc. node	15679 Sep 24 13:11	22°♌33'38	
	15678 Oct 21 14:04	0°♎			15679 Sep 28 09:57	0°♍	
evening max el	15678 Nov 01 21:20	16°♎49'34	19°30'51	evening rise	15679 Sep 29 18:32	2°♍37'35	
desc. node	15678 Nov 09 03:58	21°♎22'51		evening max el	15679 Oct 15 20:16	28°♍44'42	18°40'13
retrograde	15678 Nov 11 13:51	21°♎40'23			15679 Oct 17 04:52	0°♎	
evening set	15678 Nov 13 12:08	21°♎29'44		retrograde	15679 Oct 24 01:30	2°♎53'54	
inferior conj	15678 Nov 22 03:45	17°♎24'27	-3°58'56	evening set	15679 Oct 25 23:39	2°♎41'04	
minimum elong	15678 Nov 21 18:17	17°♎39'37	3°55'00	desc. node	15679 Oct 27 01:13	2°♎23'26	
min. Earth dist.	15678 Nov 24 13:34	15°♎51'52	0.55472 AU		15679 Oct 31 14:50	30°♋♍	
morning rise	15678 Nov 29 22:27	13°♎02'02		inferior conj	15679 Nov 03 00:51	28°♍15'51	-2°14'17
direct	15678 Dec 05 06:23	11°♎58'11		minimum elong	15679 Nov 02 19:24	28°♍26'00	2°11'27
morning max el	15678 Dec 19 05:03	18°♎59'00	25°10'15	min. Earth dist.	15679 Nov 06 03:41	25°♍57'06	0.57167 AU
	15678 Dec 28 10:03	0°♏		morning rise	15679 Nov 10 11:55	23°♍17'11	
asc. node	15679 Jan 03 16:35	9°♏53'39		direct	15679 Nov 16 13:16	21°♍47'01	
	15679 Jan 14 00:24	0°♐		morning max el	15679 Nov 30 18:28	29°♍11'49	26°41'18
morning set	15679 Jan 14 17:05	1°♐29'31			15679 Dec 01 14:02	0°♎	
				asc. node	15679 Dec 21 13:42	28°♎49'06	
superior conj	15679 Jan 21 10:55	16°♐19'25	1°36'02		15679 Dec 22 04:56	0°♏	
minimum elong	15679 Jan 21 11:46	16°♐24'10	1°36'40	morning set	15679 Dec 30 03:15	16°♏00'37	
max. Earth dist.	15679 Jan 23 05:16	20°♐12'14	1.31900 AU		15680 Jan 05 11:20	0°♐	
	15679 Jan 27 19:03	0°♑					
evening rise	15679 Jan 28 17:21	1°♑55'35		superior conj	15680 Jan 05 21:49	0°♐58'40	1°37'57
desc. node	15679 Feb 05 03:46	16°♑23'45		minimum elong	15680 Jan 05 21:37	0°♐57'32	1°38'43
	15679 Feb 13 03:24	0°♒		max. Earth dist.	15680 Jan 06 11:37	2°♐15'47	1.31199 AU
evening max el	15679 Mar 02 17:42	22°♒42'47	27°35'52	evening rise	15680 Jan 12 19:29	16°♐06'31	
	15679 Mar 14 15:08	0°♓			15680 Jan 19 17:40	0°♑	
retrograde	15679 Mar 16 15:51	0°♓11'27		desc. node	15680 Jan 23 00:29	6°♑00'11	
	15679 Mar 18 15:27	30°♋♒			15680 Feb 08 07:04	0°♒	
evening set	15679 Mar 23 11:41	27°♒53'00		evening max el	15680 Feb 13 00:27	5°♒00'47	27°16'33
min. Earth dist.	15679 Mar 27 05:53	24°♒48'42	0.62619 AU	retrograde	15680 Feb 27 00:57	12°♒20'00	
inferior conj	15679 Mar 30 04:42	21°♒57'15	-0°45'42	evening set	15680 Mar 04 18:14	10°♒19'54	
minimum elong	15679 Mar 30 06:13	21°♒53'32	0°45'19	min. Earth dist.	15680 Mar 08 14:50	7°♒34'40	0.60392 AU
asc. node	15679 Apr 01 13:39	19°♒44'34		inferior conj	15680 Mar 11 19:32	4°♒51'47	-2°08'07
morning rise	15679 Apr 06 03:40	16°♒48'45		minimum elong	15680 Mar 12 00:17	4°♒41'39	2°06'13
direct	15679 Apr 08 11:00	16°♒23'59		asc. node	15680 Mar 18 11:02	0°♒21'00	
morning max el	15679 Apr 15 01:14	19°♒44'30	17°46'18	morning rise	15680 Mar 19 09:44	0°♒02'12	
	15679 Apr 22 17:04	0°♓			15680 Mar 19 13:04	30°♋♑	
morning set	15679 May 01 02:33	14°♓18'05		direct	15680 Mar 21 11:16	29°♑45'02	
desc. node	15679 May 04 05:27	19°♓44'30			15680 Mar 23 08:41	0°♒	

morning max el	15680 Mar 28 16:38	3° Υ 21'52	17°58'19	superior conj	15681 Apr 06 01:53	29° Υ 08'50	0°07'17
morning set	15680 Apr 13 06:28	27° Υ 47'59		minimum elong	15681 Apr 06 02:23	29° Υ 11'05	0°06'51
	15680 Apr 14 11:15	0° B		behind sun begin	15681 Apr 05 19:53	28° Υ 41'06	
desc. node	15680 Apr 20 02:11	10° B 13'01		behind sun end	15681 Apr 06 08:52	29° Υ 41'00	
				desc. node	15681 Apr 06 22:51	0° B 45'15	
superior conj	15680 Apr 23 15:20	16° B 30'05	-0°28'44		15681 Apr 06 13:00	0° B	
minimum elong	15680 Apr 23 12:51	16° B 19'10	0°28'53	max. Earth dist.	15681 Apr 13 12:54	12° B 28'21	1.40428 AU
max. Earth dist.	15680 May 01 03:51	29° B 17'25	1.42567 AU	evening rise	15681 Apr 17 18:15	19° B 37'10	
	15680 May 01 14:10	0° II			15681 Apr 24 04:41	0° II	
evening rise	15680 May 06 21:35	8° II 34'58			15681 May 15 07:03	0° B	
	15680 May 21 00:32	0° B		evening max el	15681 May 22 06:54	7° B 54'50	23°36'45
evening max el	15680 Jun 08 16:07	24° B 00'49	22°15'31	asc. node	15681 Jun 01 05:49	14° B 12'10	
asc. node	15680 Jun 14 08:48	28° B 31'34		retrograde	15681 Jun 02 02:04	14° B 15'15	
retrograde	15680 Jun 18 06:57	29° B 38'27		evening set	15681 Jun 07 08:33	12° B 00'47	
evening set	15680 Jun 23 01:46	27° B 38'20		min. Earth dist.	15681 Jun 12 02:41	6° B 25'33	0.68961 AU
inferior conj	15680 Jun 28 08:04	21° B 18'54	3°04'34	inferior conj	15681 Jun 12 17:42	5° B 34'04	2°49'37
minimum elong	15680 Jun 28 07:13	21° B 21'51	3°03'41	minimum elong	15681 Jun 12 16:05	5° B 39'36	2°48'30
min. Earth dist.	15680 Jun 28 06:05	21° B 25'50	0.69114 AU		15681 Jun 17 08:47	30° R II	
morning rise	15680 Jul 03 12:30	15° B 05'10		morning rise	15681 Jun 17 23:36	29° II 28'36	
direct	15680 Jul 08 05:18	13° B 06'41		direct	15681 Jun 22 04:13	27° II 49'50	
desc. node	15680 Jul 17 01:44	18° B 07'14			15681 Jun 27 11:59	0° B	
morning max el	15680 Jul 17 11:24	18° B 31'06	21°54'02	morning max el	15681 Jun 30 06:30	2° B 25'46	20°34'50
	15680 Jul 27 00:43	0° Ω		desc. node	15681 Jul 03 22:58	6° B 29'44	
	15680 Aug 16 10:51	0° M			15681 Jul 20 19:46	0° Ω	
morning set	15680 Aug 18 23:05	3° M 58'16		morning set	15681 Jul 29 11:09	13° Ω 08'10	
max. Earth dist.	15680 Aug 24 18:30	13° M 24'48	1.41870 AU	max. Earth dist.	15681 Aug 07 03:56	26° Ω 49'57	1.43825 AU
					15681 Aug 09 03:04	0° M	
superior conj	15680 Sep 01 11:50	26° M 34'06	-1°12'45				
minimum elong	15680 Sep 01 17:41	26° M 59'46	1°12'03	superior conj	15681 Aug 13 15:18	7° M 23'56	-1°45'48
	15680 Sep 03 10:32	0° B		minimum elong	15681 Aug 13 23:04	7° M 56'11	1°45'26
asc. node	15680 Sep 10 09:47	12° B 37'22		evening rise	15681 Aug 26 00:40	28° M 36'50	
evening rise	15680 Sep 12 05:13	15° B 57'20			15681 Aug 26 19:40	0° B	
	15680 Sep 20 01:03	0° M		asc. node	15681 Aug 28 06:24	2° B 31'57	
evening max el	15680 Sep 28 04:33	11° M 21'32	18°10'57	evening max el	15681 Sep 11 17:58	24° B 29'48	18°01'30
retrograde	15680 Oct 05 08:31	15° M 01'19		retrograde	15681 Sep 18 07:25	27° B 53'43	
evening set	15680 Oct 07 12:15	14° M 41'58		evening set	15681 Sep 20 18:48	27° B 24'12	
desc. node	15680 Oct 12 22:32	11° M 30'43		inferior conj	15681 Sep 27 09:53	22° B 17'52	0°44'24
inferior conj	15680 Oct 14 19:45	9° M 55'09	-0°36'01	minimum elong	15681 Sep 27 11:11	22° B 14'38	0°44'11
minimum elong	15680 Oct 14 18:28	9° M 57'56	0°35'01	desc. node	15681 Sep 29 19:54	19° B 52'44	
min. Earth dist.	15680 Oct 18 01:48	7° M 06'23	0.59309 AU	min. Earth dist.	15681 Sep 30 09:47	19° B 19'10	0.61597 AU
morning rise	15680 Oct 21 21:20	4° M 21'34		morning rise	15681 Oct 04 00:49	16° B 17'32	
direct	15680 Oct 28 09:22	2° M 25'26		direct	15681 Oct 10 17:00	13° B 59'31	
morning max el	15680 Nov 11 16:09	10° M 08'48	27°39'47	morning max el	15681 Oct 24 21:12	21° B 55'44	27°59'12
	15680 Nov 27 00:51	0° A			15681 Oct 31 23:37	0° M	
asc. node	15680 Dec 07 10:43	18° A 12'34			15681 Nov 20 04:04	0° A	
morning set	15680 Dec 13 09:58	0° B 18'28		asc. node	15681 Nov 24 07:41	7° A 56'15	
	15680 Dec 13 06:29	0° B		morning set	15681 Nov 27 11:16	14° A 18'29	
				max. Earth dist.	15681 Dec 03 00:58	26° A 13'02	1.31417 AU
superior conj	15680 Dec 20 09:14	15° B 36'04	1°33'51				
minimum elong	15680 Dec 20 08:02	15° B 29'21	1°34'37	superior conj	15681 Dec 04 19:20	0° B 06'46	1°23'45
max. Earth dist.	15680 Dec 19 19:30	14° B 19'13	1.31034 AU	minimum elong	15681 Dec 04 17:22	29° A 55'51	1°24'23
	15680 Dec 26 21:16	0° \approx			15681 Dec 04 18:07	0° B	
evening rise	15680 Dec 27 02:28	0° \approx 28'03		evening rise	15681 Dec 11 12:20	14° B 55'33	
desc. node	15681 Jan 08 21:14	25° \approx 05'37			15681 Dec 18 21:20	0° \approx	
	15681 Jan 11 22:26	0° H		desc. node	15681 Dec 26 18:05	13° \approx 28'50	
evening max el	15681 Jan 24 23:56	16° H 26'47	26°21'59	evening max el	15682 Jan 06 14:48	27° \approx 01'06	24°57'11
retrograde	15681 Feb 07 23:19	23° H 34'05			15682 Jan 10 03:15	0° H	
evening set	15681 Feb 14 06:51	21° H 58'13		retrograde	15682 Jan 20 09:39	3° H 55'13	
min. Earth dist.	15681 Feb 18 13:17	19° H 20'54	0.58190 AU	evening set	15682 Jan 25 22:05	2° H 47'14	
inferior conj	15681 Feb 21 16:04	17° H 03'27	-3°37'40	min. Earth dist.	15682 Jan 31 02:54	0° H 01'56	0.56269 AU
minimum elong	15681 Feb 22 00:13	16° H 48'26	3°34'36		15682 Jan 31 04:09	30° R \approx	
morning rise	15681 Mar 01 20:48	12° H 35'22		inferior conj	15682 Feb 02 15:43	28° \approx 24'41	-5°00'49
direct	15681 Mar 03 20:13	12° H 22'11		minimum elong	15682 Feb 03 00:52	28° \approx 10'02	4°58'07
asc. node	15681 Mar 05 08:26	12° H 30'12		morning rise	15682 Feb 11 06:05	24° \approx 18'02	
morning max el	15681 Mar 12 01:58	16° H 26'01	18°30'15	direct	15682 Feb 13 09:57	24° \approx 04'58	
	15681 Mar 21 14:34	0° Υ		asc. node	15682 Feb 20 05:49	26° \approx 25'34	
morning set	15681 Mar 27 23:24	11° Υ 52'03		morning max el	15682 Feb 23 01:07	28° \approx 45'58	19°24'00

	15682 Feb 24 05:48	0° H		asc. node	15683 Feb 07 03:13	11° \approx 56'57	
morning set	15682 Mar 12 01:13	26° H 18'06			15683 Feb 18 21:16	0° H	
	15682 Mar 13 21:31	0° Y		morning set	15683 Feb 24 08:44	10° H 56'32	
superior conj	15682 Mar 20 04:59	12° Y 31'42	0°38'04	superior conj	15683 Mar 03 20:22	26° H 26'30	1°02'36
minimum elong	15682 Mar 20 07:05	12° Y 41'58	0°37'36	minimum elong	15683 Mar 03 22:56	26° H 39'38	1°02'21
desc. node	15682 Mar 24 19:30	21° Y 17'45			15683 Mar 05 14:34	0° Y	
max. Earth dist.	15682 Mar 26 18:59	24° Y 56'14	1.38136 AU	max. Earth dist.	15683 Mar 09 02:41	6° Y 54'22	1.35936 AU
	15682 Mar 29 14:46	0° B		desc. node	15683 Mar 11 16:07	11° Y 46'33	
evening rise	15682 Mar 30 11:51	1° B 32'38		evening rise	15683 Mar 12 23:43	14° Y 13'21	
	15682 Apr 17 09:41	0° II			15683 Mar 22 01:17	0° B	
evening max el	15682 May 04 20:18	21° II 48'53	24°56'22		15683 Apr 12 03:53	0° II	
retrograde	15682 May 16 17:32	28° II 44'31		evening max el	15683 Apr 17 09:53	5° II 40'15	26°07'09
asc. node	15682 May 19 02:56	28° II 20'25		retrograde	15683 Apr 30 04:18	12° II 59'11	
evening set	15682 May 22 11:24	26° II 19'14		evening set	15683 May 06 08:38	10° II 27'48	
min. Earth dist.	15682 May 26 21:22	21° II 20'52	0.68321 AU	asc. node	15683 May 06 00:09	10° II 44'54	
inferior conj	15682 May 28 01:18	19° II 48'36	2°24'07	min. Earth dist.	15683 May 10 12:02	6° II 05'07	0.67222 AU
minimum elong	15682 May 27 23:13	19° II 55'31	2°22'48	inferior conj	15683 May 12 04:53	3° II 58'06	1°47'26
morning rise	15682 Jun 02 11:19	13° II 52'28		minimum elong	15683 May 12 02:46	4° II 04'43	1°46'02
direct	15682 Jun 06 04:17	12° II 33'38			15683 May 15 16:06	30° R B	
morning max el	15682 Jun 13 08:46	16° II 30'59	19°28'40	morning rise	15683 May 17 21:42	28° B 12'36	
desc. node	15682 Jun 20 20:07	25° II 34'28		direct	15683 May 21 03:54	27° B 12'17	
	15682 Jun 23 23:30	0° B			15683 May 26 23:19	0° II	
greatest brilliancy	15682 Jun 26 00:26	2° B 57'58	-0.7m	morning max el	15683 May 27 18:01	0° II 43'31	18°38'09
morning set	15682 Jul 08 14:48	22° B 00'18		desc. node	15683 Jun 07 17:10	15° II 10'10	
	15682 Jul 13 19:13	0° Q			15683 Jun 17 07:16	0° B	
max. Earth dist.	15682 Jul 20 18:59	10° Q 54'34	1.45213 AU	morning set	15683 Jun 18 06:18	1° B 30'03	
				max. Earth dist.	15683 Jul 03 13:50	25° B 24'12	1.45909 AU
superior conj	15682 Jul 24 19:33	17° Q 16'40	-2°08'26				
minimum elong	15682 Jul 25 00:56	17° Q 38'06	2°08'49	superior conj	15683 Jul 04 07:25	26° B 32'47	-2°13'33
	15682 Aug 01 16:44	0° P		minimum elong	15683 Jul 04 05:32	26° B 25'26	2°14'20
evening rise	15682 Aug 07 23:34	10° P 22'40			15683 Jul 06 12:30	0° Q	
asc. node	15682 Aug 15 03:02	22° P 12'35		evening rise	15683 Jul 19 21:51	21° Q 06'05	
	15682 Aug 20 02:06	0° A			15683 Jul 25 12:14	0° P	
evening max el	15682 Aug 26 08:46	7° A 59'55	18°10'35	greatest brilliancy	15683 Jul 27 01:52	2° P 28'40	-0.9m
retrograde	15682 Sep 01 17:26	11° A 21'13		asc. node	15683 Aug 01 23:44	11° P 34'02	
evening set	15682 Sep 04 13:25	10° A 38'18		evening max el	15683 Aug 09 21:53	21° P 44'27	18°37'18
inferior conj	15682 Sep 10 15:14	5° A 15'06	1°44'51	retrograde	15683 Aug 16 10:40	25° P 16'03	
minimum elong	15682 Sep 10 17:31	5° A 08'41	1°44'07	evening set	15683 Aug 19 15:51	24° P 17'18	
min. Earth dist.	15682 Sep 13 03:50	2° A 25'53	0.63796 AU	inferior conj	15683 Aug 25 07:55	18° P 39'12	2°26'58
	15682 Sep 15 14:11	30° R P		minimum elong	15683 Aug 25 10:08	18° P 32'24	2°26'11
morning rise	15682 Sep 16 19:44	28° P 58'07		min. Earth dist.	15683 Aug 27 06:54	16° P 15'25	0.65727 AU
desc. node	15682 Sep 16 17:21	29° P 02'44		morning rise	15683 Aug 31 03:17	12° P 14'25	
direct	15682 Sep 23 10:26	26° P 25'34		desc. node	15683 Sep 03 14:47	10° P 07'49	
	15682 Oct 02 05:59	0° A		direct	15683 Sep 06 12:00	9° P 36'27	
morning max el	15682 Oct 07 06:45	4° A 24'59	27°40'48	morning max el	15683 Sep 19 18:01	17° P 25'28	26°50'58
	15682 Oct 26 14:37	0° M			15683 Sep 30 06:53	0° A	
morning set	15682 Nov 11 04:42	27° M 53'58			15683 Oct 19 12:18	0° M	
asc. node	15682 Nov 11 04:33	27° M 53'14		morning set	15683 Oct 25 11:23	10° M 58'36	
	15682 Nov 12 05:45	0° X		asc. node	15683 Oct 29 01:21	17° M 58'53	
max. Earth dist.	15682 Nov 16 00:01	7° X 47'32	1.32361 AU	max. Earth dist.	15683 Oct 29 13:46	19° M 01'03	1.33864 AU
superior conj	15682 Nov 19 02:05	14° X 24'30	1°07'36	superior conj	15683 Nov 03 03:14	28° M 23'51	0°45'23
minimum elong	15682 Nov 18 23:44	14° X 11'48	1°08'02	minimum elong	15683 Nov 03 01:07	28° M 12'49	0°45'42
evening rise	15682 Nov 25 23:11	29° X 23'34			15683 Nov 03 21:30	0° X	
	15682 Nov 26 05:58	0° Z		evening rise	15683 Nov 10 09:14	13° X 48'07	
	15682 Dec 12 22:50	0° \approx			15683 Nov 18 12:35	0° Z	
desc. node	15682 Dec 13 15:02	0° \approx 53'39		evening max el	15683 Nov 30 13:38	17° Z 03'43	21°35'05
evening max el	15682 Dec 19 00:26	7° \approx 01'28	23°15'35	desc. node	15683 Nov 30 12:03	16° Z 59'48	
retrograde	15683 Jan 01 06:55	13° \approx 35'48		retrograde	15683 Dec 12 17:52	23° Z 04'58	
evening set	15683 Jan 05 14:49	12° \approx 55'10		evening set	15683 Dec 15 18:47	22° Z 44'00	
min. Earth dist.	15683 Jan 12 10:51	9° \approx 42'53	0.54922 AU	inferior conj	15683 Dec 24 11:20	18° Z 53'23	-5°53'12
inferior conj	15683 Jan 13 19:30	8° \approx 55'44	-5°54'15	minimum elong	15683 Dec 24 06:21	19° Z 00'22	5°51'52
minimum elong	15683 Jan 13 23:46	8° \approx 49'35	5°53'11	min. Earth dist.	15683 Dec 24 16:22	18° Z 46'20	0.54408 AU
morning rise	15683 Jan 22 10:09	5° \approx 04'29		morning rise	15684 Jan 01 18:28	15° Z 04'49	
direct	15683 Jan 25 04:43	4° \approx 46'08		direct	15684 Jan 05 13:08	14° Z 33'43	
morning max el	15683 Feb 05 10:18	10° \approx 11'11	20°40'59	morning max el	15684 Jan 18 04:45	20° Z 41'27	22°19'06

asc. node	15684 Jan 25 00:33	28°  46'45		direct	15684 Dec 15 23:41	23°  54'35	
	15684 Jan 25 20:56	0° 			15684 Dec 28 22:05	0° 	
morning set	15684 Feb 08 19:29	25°  40'24		morning max el	15684 Dec 29 14:10	0°  37'23	24°08'48
	15684 Feb 10 20:13	0° 		asc. node	15685 Jan 10 21:49	16°  37'10	
					15685 Jan 18 07:00	0° 	
superior conj	15684 Feb 15 20:32	10°  43'29	1°20'36	morning set	15685 Jan 23 07:28	10°  24'10	
minimum elong	15684 Feb 15 22:47	10°  55'22	1°20'43				
max. Earth dist.	15684 Feb 19 16:42	18°  43'55	1.34033 AU	superior conj	15685 Jan 30 02:42	25°  14'58	1°32'11
evening rise	15684 Feb 24 02:18	27°  42'48		minimum elong	15685 Jan 30 04:08	25°  22'49	1°32'39
	15684 Feb 25 09:37	0° 			15685 Feb 01 07:18	0° 	
desc. node	15684 Feb 26 12:42	2°  07'38		max. Earth dist.	15685 Feb 01 14:33	0°  38'56	1.32544 AU
	15684 Mar 14 08:06	0° 		evening rise	15685 Feb 06 16:16	11°  13'27	
evening max el	15684 Mar 29 23:44	19°  20'59	27°01'24	desc. node	15685 Feb 12 09:18	22°  16'34	
retrograde	15684 Apr 12 09:08	26°  50'37			15685 Feb 16 17:02	0° 	
evening set	15684 Apr 18 22:12	24°  18'58			15685 Mar 09 21:48	0° 	
asc. node	15684 Apr 21 21:28	21°  32'56		evening max el	15685 Mar 12 12:34	2°  39'50	27°31'43
min. Earth dist.	15684 Apr 22 20:34	20°  29'54	0.65706 AU	retrograde	15685 Mar 26 07:08	10°  10'20	
inferior conj	15684 Apr 25 02:04	17°  56'34	0°58'28	evening set	15685 Apr 02 01:54	7°  44'55	
minimum elong	15684 Apr 25 00:36	18°  00'46	0°57'21	min. Earth dist.	15685 Apr 05 20:54	4°  26'02	0.63832 AU
morning rise	15684 May 01 04:29	12°  23'26		inferior conj	15685 Apr 08 14:05	1°  37'23	-0°03'43
direct	15684 May 04 00:56	11°  39'18		minimum elong	15685 Apr 08 14:13	1°  37'03	0°04'03
morning max el	15684 May 10 08:34	14°  56'51	18°04'22	transit middle	15685 Apr 08 14:13	1°  37'03	0°04'03
	15684 May 21 09:07	0° 		transit begin	15685 Apr 08 11:11	1°  44'57	
desc. node	15684 May 24 14:06	5°  11'07'57		transit end	15685 Apr 08 17:15	1°  29'11	
morning set	15684 May 28 23:18	12°  14'05		asc. node	15685 Apr 08 18:48	1°  25'10	
	15684 Jun 09 00:54	0° 			15685 Apr 10 04:29	30°  19'06	
				morning rise	15685 Apr 15 04:52	26°  19'06	
superior conj	15684 Jun 12 17:51	5°  50'47	-1°58'39	direct	15685 Apr 17 16:43	25°  19'56	
minimum elong	15684 Jun 12 09:53	5°  19'30	1°58'58	morning max el	15685 Apr 24 01:58	29°  19'56	17°47'50
max. Earth dist.	15684 Jun 15 10:17	10°  50'31	1.45859 AU		15685 Apr 24 23:51	0° 	
	15684 Jun 28 07:01	0° 		morning set	15685 May 10 19:16	24°  15'12	
evening rise	15684 Jun 28 20:53	0°  53'25		desc. node	15685 May 11 10:57	25°  21'45	
greatest brilliancy	15684 Jul 11 09:16	19°  57'58	-0.7m		15685 May 14 04:42	0° 	
	15684 Jul 18 11:43	0° 					
asc. node	15684 Jul 18 20:29	0°  28'27		superior conj	15685 May 23 19:02	15°  11'52'46	-1°28'21
evening max el	15684 Jul 23 06:45	5°  28'35'37	19°20'46	minimum elong	15685 May 23 10:56	15°  11'52'46	1°28'13
retrograde	15684 Jul 30 07:57	9°  28'30'23		max. Earth dist.	15685 May 29 05:50	24°  11'52'46	1.45074 AU
evening set	15684 Aug 02 22:54	8°  28'14'15			15685 Jun 01 16:13	0° 	
inferior conj	15684 Aug 08 08:34	2°  22'42	2°53'29	evening rise	15685 Jun 08 07:51	10°  52'16'53	
minimum elong	15684 Aug 08 10:08	2°  28'17'34	2°52'47		15685 Jun 21 11:39	0° 	
min. Earth dist.	15684 Aug 09 17:21	0°  28'35'20	0.67271 AU	asc. node	15685 Jul 05 17:17	18°  52'46'28	
	15684 Aug 10 04:21	30°  52'46'28		evening max el	15685 Jul 06 09:47	19°  52'46'28	20°19'27
morning rise	15684 Aug 13 20:45	25°  52'46'30		retrograde	15685 Jul 14 06:55	23°  52'46'12	
direct	15684 Aug 19 20:05	23°  52'21'53		evening set	15685 Jul 18 08:13	22°  52'24'17	
desc. node	15684 Aug 20 12:12	23°  52'23'38		inferior conj	15685 Jul 23 14:30	16°  52'20'31	3°06'46
	15684 Aug 31 10:56	0° 		minimum elong	15685 Jul 23 15:09	16°  52'18'18	3°06'05
morning max el	15684 Sep 01 05:10	0°  28'45'18	25°38'34	min. Earth dist.	15685 Jul 24 09:23	15°  52'15'55	0.68361 AU
	15684 Sep 23 05:58	0° 		morning rise	15685 Jul 28 21:45	9°  52'57'06	
morning set	15684 Oct 07 03:44	23°  52'23'57		direct	15685 Aug 03 09:44	7°  52'32'56	
	15684 Oct 10 17:06	0° 		desc. node	15685 Aug 07 09:36	8°  52'35'19	
max. Earth dist.	15684 Oct 10 18:15	0°  28'05'23	1.35853 AU	morning max el	15685 Aug 14 16:01	14°  52'16'58	24°13'05
asc. node	15684 Oct 14 22:05	8°  28'08'43			15685 Aug 27 11:45	0° 	
					15685 Sep 16 02:47	0° 	
superior conj	15684 Oct 16 19:59	11°  28'57'41	0°17'23	morning set	15685 Sep 19 01:36	5°  28'00'40	
minimum elong	15684 Oct 16 18:57	11°  28'52'30	0°17'42	max. Earth dist.	15685 Sep 22 17:28	11°  28'06'01	1.38167 AU
evening rise	15684 Oct 24 16:24	28°  28'03'55					
	15684 Oct 25 15:04	0° 		superior conj	15685 Sep 30 00:55	24°  28'05'39	-0°15'38
evening max el	15684 Nov 11 14:47	27°  28'41'07	20°09'59	minimum elong	15685 Sep 30 01:59	25°  28'02'43	0°15'10
	15684 Nov 14 06:13	0° 		behind sun begin	15685 Sep 29 23:35	24°  28'05'13	
desc. node	15684 Nov 16 09:09	1°  28'22'57		behind sun end	15685 Sep 30 04:23	25°  28'01'41	
retrograde	15684 Nov 22 05:37	2°  28'58'27		asc. node	15685 Oct 01 18:44	28°  28'01'90'2	
evening set	15684 Nov 24 09:30	2°  28'46'19			15685 Oct 02 15:30	0° 	
	15684 Dec 01 05:00	30°  28'46'19		evening rise	15685 Oct 08 18:13	12°  28'04'44	
inferior conj	15684 Dec 03 05:11	28°  28'49'24	-4°52'36		15685 Oct 18 09:57	0° 	
minimum elong	15684 Dec 02 19:11	29° 28'40'18	4°49'09	evening max el	15685 Oct 25 06:20	9° 28'08'00	19°06'31
min. Earth dist.	15684 Dec 04 22:34	27° 28'47'41	0.54831 AU	retrograde	15685 Nov 03 06:54	13° 28'40'23	
morning rise	15684 Dec 11 04:06	24° 28'44'50		desc. node	15685 Nov 03 06:21	13° 28'40'23	

evening set	15685 Nov 05 04:02	13°  29'22		inferior conj	15686 Oct 25 20:52	20°  28'40	-1°30'58
inferior conj	15685 Nov 13 14:17	9°  15'43	-3°15'03	minimum elong	15686 Oct 25 17:20	20°  35'43	1°28'55
minimum elong	15685 Nov 13 06:16	9°  29'23	3°11'22	min. Earth dist.	15686 Oct 29 02:32	17°  54'39	0.58032 AU
min. Earth dist.	15685 Nov 16 08:57	7°  22'17	0.56116 AU	morning rise	15686 Nov 02 04:04	15°  14'05	
morning rise	15685 Nov 21 05:55	4°  38'23		direct	15686 Nov 08 10:36	13°  32'35	
direct	15685 Nov 26 21:47	3°  23'59		morning max el	15686 Nov 22 17:24	21°  06'49	27°10'45
morning max el	15685 Dec 11 00:17	10°  35'18	25°52'16		15686 Nov 30 11:16	0° 	
	15685 Dec 25 18:12	0° 		asc. node	15686 Dec 15 16:04	24°  21'23	
asc. node	15685 Dec 28 18:59	5°  312'33			15686 Dec 18 13:53	0° 	
morning set	15686 Jan 07 18:50	25°  301'40		morning set	15686 Dec 23 03:47	9°  328'26	
	15686 Jan 10 01:34	0° 					
				superior conj	15686 Dec 29 23:51	24°  33'05	1°36'57
superior conj	15686 Jan 14 12:27	9°  53'17	1°37'36	minimum elong	15686 Dec 29 23:12	24°  329'30	1°37'44
minimum elong	15686 Jan 14 12:52	9°  55'35	1°38'18	max. Earth dist.	15686 Dec 30 02:02	24°  345'20	1.31061 AU
max. Earth dist.	15686 Jan 15 18:39	12°  40'46	1.31539 AU		15687 Jan 01 10:21	0° 	
evening rise	15686 Jan 21 14:39	25°  16'08		evening rise	15687 Jan 05 19:07	9°  32'31	
	15686 Jan 23 21:57	0° 			15687 Jan 16 05:42	0° 	
desc. node	15686 Jan 30 05:56	12°  06'57		desc. node	15687 Jan 17 02:39	1°  31'40	
	15686 Feb 10 06:00	0° 		evening max el	15687 Feb 05 01:44	27°  18'49	26°57'22
evening max el	15686 Feb 22 22:01	15°  022'42	27°31'47		15687 Feb 08 04:01	0° 	
retrograde	15686 Mar 08 21:15	22°  047'45		retrograde	15687 Feb 19 02:22	4°  034'02	
evening set	15686 Mar 15 17:02	20°  035'56		evening set	15687 Feb 25 16:27	2°  043'22	
min. Earth dist.	15686 Mar 19 11:30	17°  041'12	0.61691 AU	min. Earth dist.	15687 Mar 01 15:54	0°  03'08	0.59442 AU
inferior conj	15686 Mar 22 13:40	14°  051'15	-1°19'19		15687 Mar 01 17:32	30°  R 	
minimum elong	15686 Mar 22 16:28	14°  044'49	1°18'19	inferior conj	15687 Mar 04 21:08	27°  128'42	-2°45'49
asc. node	15686 Mar 26 16:10	11°  026'30		minimum elong	15687 Mar 05 03:24	27°  116'06	2°43'18
morning rise	15686 Mar 29 19:03	9°  050'42		morning rise	15687 Mar 12 17:53	22°  148'23	
direct	15686 Mar 31 23:42	9°  029'35		asc. node	15687 Mar 13 13:34	22°  138'42	
morning max el	15686 Apr 07 19:08	12°  055'17	17°49'08	direct	15687 Mar 14 17:47	22°  133'28	
	15686 Apr 19 10:26	0° 		morning max el	15687 Mar 22 08:31	26°  120'30	18°09'19
morning set	15686 Apr 23 13:10	7°  017'21			15687 Mar 25 12:35	0° 	
desc. node	15686 Apr 28 07:41	15°  045'57		morning set	15687 Apr 06 23:10	21°  03'18	
					15687 Apr 11 18:12	0° 	
superior conj	15686 May 04 19:09	26°  058'37	-0°50'48	desc. node	15687 Apr 15 04:22	6°  016'27	
minimum elong	15686 May 04 14:28	26°  038'45	0°50'46				
	15686 May 06 14:11	0° 		superior conj	15687 Apr 16 18:10	9°  006'40	-0°12'58
max. Earth dist.	15686 May 11 21:42	8°  045'28	1.43631 AU	minimum elong	15687 Apr 16 17:06	9°  001'53	0°13'15
evening rise	15686 May 18 23:20	19°  058'48		behind sun begin	15687 Apr 16 12:49	8°  042'40	
	15686 May 25 12:25	0° 		behind sun end	15687 Apr 16 21:24	9°  021'04	
	15686 Jun 16 04:27	0° 		max. Earth dist.	15687 Apr 24 08:38	22°  018'06	1.41690 AU
evening max el	15686 Jun 19 06:47	3°  021'23	21°30'39	evening rise	15687 Apr 29 07:53	0°  029'14	
asc. node	15686 Jun 22 14:10	6°  016'01			15687 Apr 29 00:40	0° 	
retrograde	15686 Jun 28 05:38	8°  033'56			15687 May 18 23:34	0° 	
evening set	15686 Jul 02 17:53	6°  042'55		evening max el	15687 Jun 01 23:12	17°  014'40	22°49'55
inferior conj	15686 Jul 07 23:27	0°  028'30	3°08'28	asc. node	15687 Jun 09 11:08	22°  041'29	
minimum elong	15686 Jul 07 23:08	0°  029'36	3°07'42	retrograde	15687 Jun 12 02:29	23°  011'47	
min. Earth dist.	15686 Jul 08 04:57	0°  009'19	0.68971 AU	evening set	15687 Jun 17 02:08	21°  005'21	
	15686 Jul 08 07:37	30°  R 		inferior conj	15687 Jun 22 09:23	14°  042'18	2°59'31
morning rise	15686 Jul 13 04:11	24°  010'34		minimum elong	15687 Jun 22 08:11	14°  046'27	2°58'32
direct	15686 Jul 18 03:56	22°  001'51		min. Earth dist.	15687 Jun 22 01:52	15°  008'24	0.69100 AU
desc. node	15686 Jul 25 06:56	25°  018'29		morning rise	15687 Jun 27 14:06	8°  031'42	
morning max el	15686 Jul 28 03:55	27°  056'51	22°43'50	direct	15687 Jul 02 01:36	6°  041'29	
	15686 Jul 30 02:37	0° 		morning max el	15687 Jul 10 19:28	11°  045'00	21°18'57
	15686 Aug 21 02:43	0° 		desc. node	15687 Jul 12 04:13	13°  010'03	
morning set	15686 Aug 31 01:00	15°  039'53			15687 Jul 25 04:15	0° 	
max. Earth dist.	15686 Sep 04 17:12	23°  027'11	1.40556 AU	morning set	15687 Aug 11 00:24	25°  017'34	
	15686 Sep 08 12:20	0° 			15687 Aug 13 23:47	0° 	
				max. Earth dist.	15687 Aug 17 22:04	6°  020'24	1.42750 AU
superior conj	15686 Sep 12 13:58	7°  014'30	-0°51'47				
minimum elong	15686 Sep 12 18:01	7°  032'49	0°51'07	superior conj	15687 Aug 25 06:39	18°  037'50	-1°27'35
asc. node	15686 Sep 18 15:21	18°  026'25		minimum elong	15687 Aug 25 13:38	19°  007'43	1°26'57
evening rise	15686 Sep 22 11:34	25°  042'43			15687 Aug 31 18:59	0° 	
	15686 Sep 24 18:03	0° 		asc. node	15687 Sep 05 11:57	8°  026'34	
evening max el	15686 Oct 08 09:46	21°  022'33	18°25'18	evening rise	15687 Sep 05 16:22	8°  046'29	
retrograde	15686 Oct 16 03:14	25°  017'59			15687 Sep 18 07:32	0° 	
evening set	15686 Oct 18 03:07	25°  003'01		evening max el	15687 Sep 21 20:46	4°  014'07	18°04'43
desc. node	15686 Oct 21 03:39	23°  014'48'43		retrograde	15687 Sep 28 17:20	7°  014'52'1	

evening set	15687 Oct 01 00:08	7°♍22'09		asc. node	15688 Aug 22 08:35	28°♍15'55	
inferior conj	15687 Oct 08 00:23	2°♍27'07	0°00'31		15688 Aug 23 09:08	0°♍	
minimum elong	15687 Oct 08 00:25	2°♍27'03	0°00'53	evening max el	15688 Sep 04 11:16	17°♍33'01	18°03'12
transit middle	15687 Oct 08 00:25	2°♍27'03	0°00'53	retrograde	15688 Sep 10 21:20	20°♍53'49	
transit begin	15687 Oct 07 21:06	2°♍34'42		evening set	15688 Sep 13 12:26	20°♍18'48	
transit end	15687 Oct 08 03:44	2°♍19'22		inferior conj	15688 Sep 19 21:27	15°♍05'02	1°12'27
desc. node	15687 Oct 08 01:02	2°♍25'35		minimum elong	15688 Sep 19 23:19	15°♍00'05	1°11'55
	15687 Oct 10 16:01	30°♋♍		min. Earth dist.	15688 Sep 22 16:59	12°♍08'19	0.62561 AU
min. Earth dist.	15687 Oct 11 04:53	29°♍31'20	0.60276 AU	desc. node	15688 Sep 23 22:28	10°♍56'35	
morning rise	15687 Oct 14 21:29	26°♍41'01		morning rise	15688 Sep 26 07:52	8°♍56'45	
direct	15687 Oct 21 12:13	24°♍34'25		direct	15688 Oct 03 00:15	6°♍31'30	
	15687 Nov 02 03:22	0°♍		morning max el	15688 Oct 17 01:24	14°♍29'42	27°55'41
morning max el	15687 Nov 04 18:20	2°♍24'42	27°52'49		15688 Oct 29 15:43	0°♍	
	15687 Nov 24 22:32	0°♌			15688 Nov 16 12:18	0°♌	
asc. node	15687 Dec 02 13:03	13°♌54'07		asc. node	15688 Nov 18 09:59	3°♌43'54	
morning set	15687 Dec 07 08:28	23°♌39'21		morning set	15688 Nov 20 06:43	7°♌29'14	
	15687 Dec 10 07:38	0°♌		max. Earth dist.	15688 Nov 25 12:17	18°♌30'49	1.31749 AU
max. Earth dist.	15687 Dec 13 09:10	6°♌44'51	1.31126 AU				
				superior conj	15688 Nov 27 19:54	23°♌34'25	1°17'39
superior conj	15687 Dec 14 10:58	9°♌08'34	1°30'19	minimum elong	15688 Nov 27 17:43	23°♌22'23	1°18'12
minimum elong	15687 Dec 14 09:24	8°♌59'51	1°31'02		15688 Nov 30 17:46	0°♌	
evening rise	15687 Dec 21 03:33	23°♌57'16		evening rise	15688 Dec 04 14:03	8°♌25'39	
	15687 Dec 24 00:00	0°♌			15688 Dec 15 13:30	0°♌	
desc. node	15688 Jan 03 23:29	20°♌20'59		desc. node	15688 Dec 20 20:23	8°♌21'35	
	15688 Jan 10 13:04	0°♋		evening max el	15688 Dec 29 09:49	18°♌40'19	24°15'06
evening max el	15688 Jan 17 21:41	8°♋22'54	25°49'04	retrograde	15689 Jan 12 00:27	25°♌26'21	
retrograde	15688 Jan 31 20:09	15°♋25'01		evening set	15689 Jan 17 01:50	24°♌30'35	
evening set	15688 Feb 06 20:27	14°♋01'06		min. Earth dist.	15689 Jan 22 21:30	21°♌36'21	0.55610 AU
min. Earth dist.	15688 Feb 11 10:42	11°♋22'13	0.57320 AU	inferior conj	15689 Jan 24 23:49	20°♌19'54	-5°28'45
inferior conj	15688 Feb 14 09:03	9°♋20'22	-4°14'52	minimum elong	15689 Jan 25 07:45	20°♌07'50	5°26'43
minimum elong	15688 Feb 14 18:07	9°♋04'37	4°11'44	morning rise	15689 Feb 02 15:31	16°♌20'37	
morning rise	15688 Feb 22 18:46	5°♋01'23		direct	15689 Feb 05 00:28	16°♌05'58	
direct	15688 Feb 24 18:50	4°♋48'52		asc. node	15689 Feb 14 08:23	20°♌11'35	
asc. node	15688 Feb 28 10:58	5°♋33'25		morning max el	15689 Feb 15 07:33	21°♌05'16	19°53'51
morning max el	15688 Mar 04 14:05	9°♋07'55	18°50'15		15689 Feb 22 07:20	0°♋	
	15688 Mar 18 02:35	0°♐		morning set	15689 Mar 05 01:01	19°♋51'40	
morning set	15688 Mar 20 20:24	5°♐18'44			15689 Mar 10 00:34	0°♐	
superior conj	15688 Mar 29 12:21	22°♐06'15	0°21'02	superior conj	15689 Mar 12 21:09	5°♐44'15	0°49'15
minimum elong	15688 Mar 29 13:42	22°♐12'36	0°20'34	minimum elong	15689 Mar 12 23:35	5°♐56'19	0°48'52
desc. node	15688 Apr 01 01:02	26°♐49'40		desc. node	15689 Mar 18 21:38	17°♐21'09	
	15688 Apr 02 18:36	0°♌		max. Earth dist.	15689 Mar 18 22:34	17°♐25'32	1.37182 AU
max. Earth dist.	15688 Apr 05 15:56	5°♌10'12	1.39460 AU	evening rise	15689 Mar 22 15:38	24°♐12'29	
evening rise	15688 Apr 09 13:48	11°♌56'07			15689 Mar 25 22:53	0°♌	
	15688 Apr 20 19:42	0°♍			15689 Apr 14 11:34	0°♍	
	15688 May 13 09:44	0°♍		evening max el	15689 Apr 27 02:54	15°♍04'45	25°27'58
evening max el	15688 May 14 13:21	1°♍10'14	24°11'18	retrograde	15689 May 09 09:34	22°♍10'58	
retrograde	15688 May 25 20:10	7°♍46'39		asc. node	15689 May 13 05:24	21°♍10'42	
asc. node	15688 May 26 08:13	7°♍45'34		evening set	15689 May 15 08:08	19°♍42'33	
evening set	15688 May 31 07:27	5°♍27'24		min. Earth dist.	15689 May 19 15:11	14°♍59'38	0.67918 AU
min. Earth dist.	15688 Jun 04 22:01	0°♍07'43	0.68747 AU	inferior conj	15689 May 21 00:36	13°♍11'56	2°10'00
	15688 Jun 05 00:18	30°♋♍		minimum elong	15689 May 20 22:25	13°♍18'57	2°08'37
inferior conj	15688 Jun 05 18:26	28°♍58'37	2°40'09	morning rise	15689 May 26 13:10	7°♍20'11	
minimum elong	15688 Jun 05 16:34	29°♍04'55	2°38'56	direct	15689 May 30 01:32	6°♍09'16	
morning rise	15688 Jun 11 01:44	22°♍56'46		morning max el	15689 Jun 05 22:45	9°♍53'30	19°05'09
direct	15688 Jun 15 01:22	21°♍26'21		desc. node	15689 Jun 14 22:29	21°♍11'38	
morning max el	15688 Jun 22 17:25	25°♍44'25	20°04'49	greatest brilliancy	15689 Jun 18 22:35	27°♍04'39	-0.7m
	15688 Jun 26 13:22	0°♍			15689 Jun 20 21:10	0°♍	
desc. node	15688 Jun 28 01:24	1°♍52'31		morning set	15689 Jun 29 12:55	13°♍15'45	
	15688 Jul 17 12:17	0°♌			15689 Jul 10 08:03	0°♌	
morning set	15688 Jul 20 06:35	4°♌13'39		max. Earth dist.	15689 Jul 13 03:32	4°♌23'33	1.45609 AU
max. Earth dist.	15688 Jul 30 10:03	20°♌04'17	1.44498 AU				
				superior conj	15689 Jul 15 19:55	8°♌36'15	-2°13'02
superior conj	15688 Aug 05 00:04	29°♌03'02	-1°57'08	minimum elong	15689 Jul 15 22:35	8°♌46'47	2°13'42
minimum elong	15688 Aug 05 07:30	29°♌33'21	1°57'04		15689 Jul 29 04:53	0°♍	
	15688 Aug 05 14:02	0°♍		evening rise	15689 Jul 30 16:24	2°♍24'30	
evening rise	15688 Aug 18 03:41	21°♍04'32		asc. node	15689 Aug 09 05:16	17°♍49'16	

	15689 Aug 17 22:55	0°♄				15690 Jul 03 01:00	0°♄	
evening max el	15689 Aug 19 01:40	1°♄10'01	18°19'48	evening rise		15690 Jul 11 04:05	12°♄42'00	
retrograde	15689 Aug 25 10:56	4°♄34'04		greatest brilliancy		15690 Jul 20 20:29	27°♄46'47	-0.8m
evening set	15689 Aug 28 10:49	3°♄44'30				15690 Jul 22 07:26	0°♄	
	15689 Sep 01 19:04	30°♄		asc. node		15690 Jul 27 01:58	7°♄00'15	
inferior conj	15689 Sep 03 08:01	28°♄14'26	2°04'48	evening max el		15690 Aug 02 13:07	14°♄57'38	18°53'46
minimum elong	15689 Sep 03 10:22	28°♄07'33	2°04'01	retrograde		15690 Aug 09 06:19	18°♄37'55	
min. Earth dist.	15689 Sep 05 14:51	25°♄34'44	0.64661 AU	evening set		15690 Aug 12 15:31	17°♄31'55	
morning rise	15689 Sep 09 08:27	21°♄53'19		inferior conj		15690 Aug 18 04:27	11°♄47'42	2°39'58
desc. node	15689 Sep 10 19:53	20°♄50'06		minimum elong		15690 Aug 18 06:26	11°♄41'24	2°39'13
direct	15689 Sep 15 21:00	19°♄17'42		min. Earth dist.		15690 Aug 19 21:20	9°♄38'24	0.66432 AU
morning max el	15689 Sep 29 12:01	27°♄13'48	27°23'04	morning rise		15690 Aug 23 20:29	5°♄21'25	
	15689 Oct 02 02:50	0°♄		desc. node		15690 Aug 28 17:19	2°♄50'56	
	15689 Oct 23 08:08	0°♄		direct		15690 Aug 30 01:21	2°♄44'06	
morning set	15689 Nov 03 19:58	20°♄52'28		morning max el		15690 Sep 11 23:36	10°♄24'38	26°22'25
asc. node	15689 Nov 05 06:50	23°♄45'12				15690 Sep 27 12:58	0°♄	
	15689 Nov 08 08:24	0°♄				15690 Oct 15 21:07	0°♄	
max. Earth dist.	15689 Nov 08 07:53	29°♄57'19	1.32933 AU	morning set		15690 Oct 17 20:59	3°♄41'23	
				max. Earth dist.		15690 Oct 21 17:37	11°♄05'18	1.34653 AU
superior conj	15689 Nov 12 00:33	7°♄45'03	0°58'55	asc. node		15690 Oct 23 03:34	13°♄52'58	
minimum elong	15689 Nov 11 22:13	7°♄32'35	0°59'18					
evening rise	15689 Nov 19 00:49	22°♄53'06		superior conj		15690 Oct 26 22:26	21°♄33'58	0°34'11
	15689 Nov 22 10:16	0°♄		minimum elong		15690 Oct 26 20:40	21°♄24'52	0°34'29
desc. node	15689 Dec 07 17:21	25°♄16'02				15690 Oct 30 23:18	0°♄	
evening max el	15689 Dec 10 19:36	28°♄36'25	22°31'42	evening rise		15690 Nov 03 09:53	7°♄14'19	
	15689 Dec 12 07:58	0°♄				15690 Nov 15 13:46	0°♄	
retrograde	15689 Dec 23 16:25	4°♄58'41		evening max el		15690 Nov 22 12:56	8°♄49'27	20°56'27
evening set	15689 Dec 27 11:02	4°♄27'27		desc. node		15690 Nov 24 14:26	10°♄41'21	
min. Earth dist.	15690 Jan 04 03:36	0°♄58'12	0.54588 AU	retrograde		15690 Dec 04 02:30	14°♄33'39	
inferior conj	15690 Jan 04 21:05	0°♄33'36	-6°01'28	evening set		15690 Dec 06 16:27	14°♄17'45	
minimum elong	15690 Jan 04 21:31	0°♄32'59	6°00'41	inferior conj		15690 Dec 15 11:50	10°♄25'48	-5°33'57
	15690 Jan 05 21:04	30°♄		minimum elong		15690 Dec 15 03:47	10°♄37'16	5°31'44
morning rise	15690 Jan 13 09:10	26°♄46'00		min. Earth dist.		15690 Dec 16 09:03	9°♄55'32	0.54464 AU
direct	15690 Jan 16 13:20	26°♄23'11		morning rise		15690 Dec 23 15:15	6°♄32'44	
	15690 Jan 25 23:41	0°♄		direct		15690 Dec 27 20:31	5°♄54'26	
morning max el	15690 Jan 28 10:14	2°♄06'21	21°20'32	morning max el		15691 Jan 09 23:54	12°♄18'28	23°05'23
asc. node	15690 Feb 01 05:44	6°♄18'48		asc. node		15691 Jan 19 03:01	23°♄35'58	
	15690 Feb 15 05:11	0°♄				15691 Jan 23 01:31	0°♄	
morning set	15690 Feb 17 10:12	4°♄33'55		morning set		15691 Feb 01 21:42	19°♄18'07	
						15691 Feb 06 20:36	0°♄	
superior conj	15690 Feb 24 16:41	19°♄50'11	1°11'01					
minimum elong	15690 Feb 24 19:12	20°♄03'12	1°10'55	superior conj		15691 Feb 08 19:43	4°♄14'13	1°26'17
max. Earth dist.	15690 Mar 01 08:48	29°♄19'13	1.35083 AU	minimum elong		15691 Feb 08 21:40	4°♄24'39	1°26'33
	15690 Mar 01 17:03	0°♄		max. Earth dist.		15691 Feb 12 01:50	11°♄08'32	1.33335 AU
evening rise	15690 Mar 05 10:11	7°♄09'42		evening rise		15691 Feb 16 17:56	20°♄38'18	
desc. node	15690 Mar 05 18:14	7°♄47'29		desc. node		15691 Feb 20 14:50	28°♄03'58	
	15690 Mar 18 15:53	0°♄				15691 Feb 21 15:55	0°♄	
evening max el	15690 Apr 09 16:34	28°♄52'34	26°32'29			15691 Mar 12 14:10	0°♄	
	15690 Apr 10 21:00	0°♄		evening max el		15691 Mar 23 05:57	12°♄24'50	27°17'34
retrograde	15690 Apr 22 17:50	6°♄17'14		retrograde		15691 Apr 05 20:06	19°♄56'47	
evening set	15690 Apr 29 02:21	3°♄44'42		evening set		15691 Apr 12 12:03	17°♄26'36	
asc. node	15690 Apr 30 02:39	2°♄51'42		min. Earth dist.		15691 Apr 16 08:35	13°♄51'03	0.64947 AU
	15690 May 02 19:28	30°♄		asc. node		15691 Apr 16 23:57	13°♄09'29	
min. Earth dist.	15690 May 03 03:20	29°♄36'56	0.66637 AU	inferior conj		15691 Apr 18 19:22	11°♄09'19	0°33'45
inferior conj	15690 May 05 01:44	27°♄17'22	1°28'13	minimum elong		15691 Apr 18 18:27	11°♄11'51	0°32'54
minimum elong	15690 May 04 23:48	27°♄23'13	1°26'54	morning rise		15691 Apr 25 02:46	5°♄42'24	
morning rise	15690 May 10 22:19	21°♄37'10		direct		15691 Apr 27 19:17	5°♄04'26	
direct	15690 May 14 00:16	20°♄44'06		morning max el		15691 May 04 02:46	8°♄20'00	17°55'11
morning max el	15690 May 20 10:35	24°♄07'40	18°21'40			15691 May 19 01:06	0°♄	
	15690 May 25 09:35	0°♄		desc. node		15691 May 19 16:21	1°♄02'56	
desc. node	15690 Jun 01 19:28	10°♄57'30		morning set		15691 May 21 19:10	4°♄32'55	
morning set	15690 Jun 09 14:18	23°♄14'46						
	15690 Jun 13 20:42	0°♄		superior conj		15691 Jun 04 20:07	27°♄20'51	-1°47'14
				minimum elong		15691 Jun 04 11:25	26°♄46'17	1°47'17
superior conj	15690 Jun 25 04:55	17°♄47'12	-2°09'33			15691 Jun 06 12:20	0°♄	
minimum elong	15690 Jun 24 23:51	17°♄27'27	2°10'12	max. Earth dist.		15691 Jun 08 19:29	3°♄37'01	1.45609 AU
max. Earth dist.	15690 Jun 25 23:34	18°♄59'57	1.45984 AU	evening rise		15691 Jun 20 20:06	22°♄14'13	

	15691 Jun 25 22:13	0°♎		superior conj	15692 May 15 06:40	7°♐49'12	-1°12'50
greatest brilliancy	15691 Jul 05 01:52	13°♎40'33	-0.6m	minimum elong	15692 May 14 23:48	7°♐20'55	1°12'42
asc. node	15691 Jul 13 22:44	25°♎41'01		max. Earth dist.	15692 May 21 13:24	18°♐00'43	1.44532 AU
evening max el	15691 Jul 16 19:35	28°♎50'19	19°44'01		15692 May 29 04:48	0°♐	
	15691 Jul 18 01:15	0°♐		evening rise	15692 May 30 07:01	1°♐40'57	
retrograde	15691 Jul 24 04:38	2°♐59'01			15692 Jun 18 12:14	0°♎	
evening set	15691 Jul 27 23:49	1°♐35'32		evening max el	15692 Jun 28 20:05	12°♎43'56	20°48'28
	15691 Jul 29 18:41	30°♐♎		asc. node	15692 Jun 29 19:34	13°♎40'27	
inferior conj	15691 Aug 02 07:41	25°♎38'39	3°00'35	retrograde	15692 Jul 07 03:36	17°♎30'51	
minimum elong	15691 Aug 02 08:53	25°♎34'40	2°59'55	evening set	15692 Jul 11 09:29	15°♎49'43	
min. Earth dist.	15691 Aug 03 10:35	24°♎08'40	0.67789 AU	inferior conj	15692 Jul 16 15:11	9°♎41'29	3°08'48
morning rise	15691 Aug 07 17:28	19°♎12'58		minimum elong	15692 Jul 16 15:25	9°♎40'39	3°08'06
direct	15691 Aug 13 12:07	16°♎41'50		min. Earth dist.	15692 Jul 17 04:24	8°♎55'45	0.68686 AU
desc. node	15691 Aug 15 14:42	16°♎59'14		morning rise	15692 Jul 21 21:04	3°♎20'05	
morning max el	15691 Aug 25 10:36	23°♎50'53	25°03'09	direct	15692 Jul 27 04:01	1°♎01'44	
	15691 Aug 30 22:30	0°♐		desc. node	15692 Aug 01 12:05	2°♎52'53	
	15691 Sep 20 21:59	0°♎		morning max el	15692 Aug 06 21:24	7°♎25'28	23°34'54
morning set	15691 Sep 30 06:00	15°♎47'45			15692 Aug 24 12:42	0°♐	
max. Earth dist.	15691 Oct 03 18:46	22°♎11'33	1.36809 AU	morning set	15692 Sep 10 18:40	27°♐00'37	
	15691 Oct 07 22:08	0°♐			15692 Sep 12 12:56	0°♎	
				max. Earth dist.	15692 Sep 14 17:09	3°♎45'35	1.39197 AU
superior conj	15691 Oct 10 10:36	4°♐54'35	0°03'56				
minimum elong	15691 Oct 10 10:20	4°♐53'15	0°04'18	superior conj	15692 Sep 22 09:19	17°♎37'35	-0°30'45
behind sun begin	15691 Oct 10 04:02	4°♐22'19		minimum elong	15692 Sep 22 11:33	17°♎48'04	0°30'11
behind sun end	15691 Oct 10 16:37	5°♐24'16		asc. node	15692 Sep 25 20:54	24°♎13'17	
asc. node	15691 Oct 10 00:15	4°♐03'42			15692 Sep 28 20:41	0°♐	
evening rise	15691 Oct 18 15:05	21°♐24'30		evening rise	15692 Oct 01 13:41	5°♐16'21	
	15691 Oct 22 22:46	0°♐			15692 Oct 16 06:03	0°♐	
evening max el	15691 Nov 04 20:21	19°♐47'41	19°40'15	evening max el	15692 Oct 17 17:31	1°♐36'03	18°46'21
desc. node	15691 Nov 11 11:34	24°♐13'07		retrograde	15692 Oct 26 03:23	5°♐50'49	
retrograde	15691 Nov 14 18:30	24°♐45'03		evening set	15692 Oct 28 01:06	5°♐38'33	
evening set	15691 Nov 16 17:49	24°♐34'13		desc. node	15692 Oct 28 08:49	5°♐34'10	
inferior conj	15691 Nov 25 10:53	20°♐31'30	-4°13'48	inferior conj	15692 Nov 05 04:47	1°♐16'22	-2°30'11
minimum elong	15691 Nov 25 01:05	20°♐46'52	4°09'55	minimum elong	15692 Nov 04 22:38	1°♐27'33	2°27'04
min. Earth dist.	15691 Nov 27 16:59	19°♐06'37	0.55285 AU		15692 Nov 06 22:31	30°♐♐	
morning rise	15691 Dec 03 06:38	16°♐14'04		min. Earth dist.	15692 Nov 08 05:57	29°♐03'49	0.56879 AU
direct	15691 Dec 08 11:39	15°♐13'45		morning rise	15692 Nov 12 17:06	26°♐23'23	
morning max el	15691 Dec 22 08:25	22°♐10'12	24°54'44	direct	15692 Nov 18 16:16	24°♐57'22	
	15691 Dec 29 05:20	0°♐			15692 Nov 30 06:40	0°♐	
asc. node	15692 Jan 06 00:13	11°♐46'42		morning max el	15692 Dec 02 20:49	2°♐18'35	26°29'35
	15692 Jan 15 12:39	0°♐		asc. node	15692 Dec 22 21:21	0°♐37'40	
morning set	15692 Jan 17 09:35	3°♐59'02			15692 Dec 22 13:06	0°♐	
				morning set	15692 Dec 31 20:08	18°♐32'28	
superior conj	15692 Jan 24 03:39	18°♐48'55	1°35'14		15693 Jan 06 01:00	0°♐	
minimum elong	15692 Jan 24 04:40	18°♐54'32	1°35'48				
max. Earth dist.	15692 Jan 26 02:20	23°♐04'43	1.32050 AU	superior conj	15693 Jan 07 14:20	3°♐28'33	1°38'03
	15692 Jan 29 07:45	0°♐		minimum elong	15693 Jan 07 14:18	3°♐28'20	1°38'49
evening rise	15692 Jan 31 11:46	4°♐30'30		max. Earth dist.	15693 Jan 08 08:22	5°♐09'08	1.31271 AU
desc. node	15692 Feb 07 11:28	18°♐05'33		evening rise	15693 Jan 14 13:03	18°♐40'03	
	15692 Feb 14 08:42	0°♐			15693 Jan 20 03:34	0°♐	
evening max el	15692 Mar 04 17:41	25°♐29'53	27°35'55	desc. node	15693 Jan 24 08:09	7°♐46'16	
	15692 Mar 10 05:44	0°♐			15693 Feb 07 22:21	0°♐	
retrograde	15692 Mar 18 15:08	2°♐59'14		evening max el	15693 Feb 15 01:20	7°♐55'17	27°21'38
evening set	15692 Mar 25 10:46	0°♐38'54		retrograde	15693 Mar 01 01:29	15°♐15'48	
	15692 Mar 26 08:17	30°♐♐		evening set	15693 Mar 07 19:39	13°♐12'30	
min. Earth dist.	15692 Mar 29 05:06	27°♐30'57	0.62935 AU	min. Earth dist.	15693 Mar 11 15:32	10°♐25'09	0.60730 AU
inferior conj	15692 Apr 01 02:32	24°♐39'47	-0°34'13	inferior conj	15693 Mar 14 19:47	7°♐40'00	-1°54'57
minimum elong	15692 Apr 01 03:39	24°♐36'59	0°34'02	minimum elong	15693 Mar 14 24:00	7°♐30'49	1°53'17
asc. node	15692 Apr 02 21:18	22°♐56'46		asc. node	15693 Mar 20 18:41	3°♐22'29	
morning rise	15692 Apr 07 23:18	19°♐28'33		morning rise	15693 Mar 22 07:41	2°♐47'24	
direct	15692 Apr 10 07:45	19°♐02'17		direct	15693 Mar 24 09:59	2°♐29'17	
morning max el	15692 Apr 16 20:26	22°♐21'21	17°46'09	morning max el	15693 Mar 31 12:25	6°♐02'48	17°55'21
	15692 Apr 22 20:20	0°♐			15693 Apr 15 21:03	0°♐	
morning set	15692 May 03 01:15	17°♐02'31		morning set	15693 Apr 16 02:47	0°♐26'02	
desc. node	15692 May 05 13:09	21°♐21'44		desc. node	15693 Apr 22 09:54	11°♐49'24	
	15692 May 10 14:20	0°♐					
				superior conj	15693 Apr 26 16:53	19°♐22'40	-0°34'30

minimum elong	15693 Apr 26 13:50	19°♄09'25	0°34'36	behind sun begin	15694 Apr 08 17:29	1°♄21'17	
	15693 May 02 23:12	0°♄		behind sun end	15694 Apr 09 07:55	2°♄27'25	
max. Earth dist.	15693 May 04 03:45	1°♄57'51	1.42860 AU	desc. node	15694 Apr 09 06:36	2°♄21'22	
evening rise	15693 May 10 04:53	11°♄42'10		max. Earth dist.	15694 Apr 16 13:14	15°♄14'23	1.40762 AU
	15693 May 22 05:33	0°♄		evening rise	15694 Apr 20 22:20	22°♄35'49	
evening max el	15693 Jun 11 15:04	26°♄37'35	22°03'38		15694 Apr 25 12:18	0°♄	
	15693 Jun 15 12:43	0°♄			15694 May 16 05:16	0°♄	
asc. node	15693 Jun 16 16:30	0°♄45'14		evening max el	15694 May 25 06:10	10°♄31'18	23°24'35
retrograde	15693 Jun 21 01:36	2°♄08'32		asc. node	15694 Jun 03 13:33	16°♄38'28	
evening set	15693 Jun 25 18:46	0°♄10'37		retrograde	15694 Jun 04 21:17	16°♄46'03	
	15693 Jun 25 23:41	30°♄		evening set	15694 Jun 10 02:01	14°♄33'29	
inferior conj	15693 Jul 01 00:48	23°♄52'26	3°05'56	inferior conj	15694 Jun 15 10:35	8°♄07'33	2°52'36
minimum elong	15693 Jul 01 00:05	23°♄54'54	3°05'04	minimum elong	15694 Jun 15 09:05	8°♄12'45	2°51'30
min. Earth dist.	15693 Jul 01 00:43	23°♄52'42	0.69098 AU	min. Earth dist.	15694 Jun 14 21:30	8°♄52'39	0.69011 AU
morning rise	15693 Jul 06 05:15	17°♄37'39		morning rise	15694 Jun 20 16:07	2°♄00'45	
direct	15693 Jul 10 23:52	15°♄36'29		direct	15694 Jun 24 22:27	0°♄19'06	
desc. node	15693 Jul 19 09:25	20°♄07'45		morning max el	15694 Jul 03 04:41	5°♄01'59	20°45'55
morning max el	15693 Jul 20 10:29	21°♄08'34	22°06'42	desc. node	15694 Jul 06 06:39	8°♄22'51	
	15693 Jul 28 00:22	0°♄			15694 Jul 22 01:17	0°♄	
	15693 Aug 17 18:10	0°♄		morning set	15694 Aug 01 22:29	16°♄29'51	
morning set	15693 Aug 22 07:41	7°♄12'51		max. Earth dist.	15694 Aug 10 03:33	29°♄28'18	1.43561 AU
max. Earth dist.	15693 Aug 27 19:14	16°♄10'37	1.41542 AU		15694 Aug 10 11:25	0°♄	
superior conj	15693 Sep 04 14:14	29°♄32'52	-1°07'19	superior conj	15694 Aug 16 21:16	10°♄31'55	-1°41'17
minimum elong	15693 Sep 04 19:38	29°♄56'44	1°06'36	minimum elong	15694 Aug 17 04:56	11°♄04'04	1°40'50
	15693 Sep 04 20:23	0°♄			15694 Aug 28 04:24	0°♄	
asc. node	15693 Sep 12 17:31	14°♄18'07		evening rise	15694 Aug 29 00:22	1°♄28'02	
evening rise	15693 Sep 15 02:15	18°♄41'13		asc. node	15694 Aug 30 14:09	4°♄14'39	
	15693 Sep 21 07:03	0°♄		evening max el	15694 Sep 14 13:36	27°♄11'45	18°01'43
evening max el	15693 Oct 01 00:40	14°♄07'16	18°14'02		15694 Sep 18 09:59	0°♄	
retrograde	15693 Oct 08 07:50	17°♄50'49		retrograde	15694 Sep 21 04:39	0°♄37'17	
evening set	15693 Oct 10 10:27	17°♄32'44		evening set	15694 Sep 23 14:45	0°♄09'33	
desc. node	15693 Oct 15 06:10	14°♄55'46			15694 Sep 24 00:13	30°♄	
inferior conj	15693 Oct 17 20:35	12°♄48'59	-0°49'54	inferior conj	15694 Sep 30 08:08	25°♄06'06	0°33'30
minimum elong	15693 Oct 17 18:45	12°♄52'52	0°48'39	minimum elong	15694 Sep 30 09:09	25°♄03'37	0°33'24
min. Earth dist.	15693 Oct 21 02:48	10°♄03'30	0.58968 AU	desc. node	15694 Oct 02 03:34	23°♄19'03	
morning rise	15693 Oct 24 23:39	7°♄20'05		min. Earth dist.	15694 Oct 03 09:26	22°♄07'24	0.61255 AU
direct	15693 Oct 31 10:24	5°♄27'44		morning rise	15694 Oct 07 00:39	19°♄09'00	
morning max el	15693 Nov 14 17:24	13°♄08'54	27°33'35	direct	15694 Oct 13 16:37	16°♄53'40	
	15693 Nov 28 02:53	0°♄		morning max el	15694 Oct 27 21:34	24°♄48'54	27°58'47
asc. node	15693 Dec 09 18:24	19°♄57'41			15694 Nov 01 15:40	0°♄	
	15693 Dec 14 18:39	0°♄			15694 Nov 21 12:58	0°♄	
morning set	15693 Dec 16 03:30	2°♄52'56		asc. node	15694 Nov 26 15:22	9°♄38'42	
max. Earth dist.	15693 Dec 22 16:18	17°♄13'32	1.31023 AU	morning set	15694 Nov 30 05:46	16°♄55'57	
				max. Earth dist.	15694 Dec 05 22:17	29°♄08'51	1.31322 AU
superior conj	15693 Dec 23 01:48	18°♄06'45	1°34'51		15694 Dec 06 07:34	0°♄	
minimum elong	15693 Dec 23 00:45	18°♄00'50	1°35'38	superior conj	15694 Dec 07 12:14	2°♄38'47	1°25'40
	15693 Dec 28 10:08	0°♄		minimum elong	15694 Dec 07 10:21	2°♄28'23	1°26'20
evening rise	15693 Dec 29 19:26	3°♄00'25		evening rise	15694 Dec 14 04:59	17°♄27'08	
desc. node	15694 Jan 11 04:55	26°♄57'17			15694 Dec 20 06:34	0°♄	
	15694 Jan 13 01:09	0°♄		desc. node	15694 Dec 29 01:46	15°♄27'44	
evening max el	15694 Jan 28 01:54	19°♄29'00	26°32'10	evening max el	15695 Jan 09 17:57	0°♄10'09	25°11'17
retrograde	15694 Feb 11 01:36	26°♄38'27			15695 Jan 09 13:42	0°♄	
evening set	15694 Feb 17 11:13	24°♄58'31		retrograde	15695 Jan 23 14:04	7°♄06'45	
min. Earth dist.	15694 Feb 21 15:26	22°♄20'59	0.58510 AU	evening set	15695 Jan 29 05:50	5°♄54'36	
inferior conj	15694 Feb 24 19:16	19°♄58'34	-3°24'03	min. Earth dist.	15695 Feb 03 06:17	3°♄11'30	0.56525 AU
minimum elong	15694 Feb 25 02:58	19°♄44'04	3°21'06	inferior conj	15695 Feb 05 22:03	1°♄27'26	-4°49'33
morning rise	15694 Mar 04 22:04	15°♄27'25		minimum elong	15695 Feb 06 07:22	1°♄12'13	4°46'40
direct	15694 Mar 06 21:27	15°♄13'54			15695 Feb 08 05:02	30°♄	
asc. node	15694 Mar 07 16:06	15°♄16'04		morning rise	15695 Feb 14 11:32	27°♄17'46	
morning max el	15694 Mar 14 22:57	19°♄12'51	18°24'10	direct	15695 Feb 16 14:01	27°♄05'02	
	15694 Mar 22 20:35	0°♄		asc. node	15695 Feb 22 13:30	28°♄55'22	
morning set	15694 Mar 30 18:03	14°♄25'40			15695 Feb 24 02:20	0°♄	
	15694 Apr 07 23:49	0°♄		morning max el	15695 Feb 25 23:54	1°♄40'11	19°14'31
superior conj	15694 Apr 09 00:35	1°♄53'50	0°02'05	morning set	15695 Mar 14 18:44	28°♄48'51	
minimum elong	15694 Apr 09 00:42	1°♄54'23	0°01'42		15695 Mar 15 09:02	0°♄	

superior conj	15695 Mar 23 01:27	15° Υ 10'45	0°33'46	morning set	15696 Feb 27 01:34	13° X 26'15	
minimum elong	15695 Mar 23 03:24	15° Υ 20'09	0°33'18				
desc. node	15695 Mar 27 03:11	22° Υ 53'46		superior conj	15696 Mar 05 15:14	29° X 01'39	0°59'17
max. Earth dist.	15695 Mar 29 19:18	27° Υ 47'17	1.38476 AU	minimum elong	15696 Mar 05 17:48	29° X 14'38	0°59'00
	15695 Mar 31 00:54	0° B			15696 Mar 06 02:47	0° Υ	
evening rise	15695 Apr 02 12:56	4° B 23'47		max. Earth dist.	15696 Mar 11 02:33	9° Υ 49'25	1.36250 AU
	15695 Apr 18 14:01	0° Π		desc. node	15696 Mar 12 23:46	13° Υ 23'32	
evening max el	15695 May 07 19:39	24° Π 25'32	24°44'58	evening rise	15696 Mar 14 22:19	16° Υ 58'53	
	15695 May 14 22:47	0° E			15696 Mar 22 09:17	0° B	
retrograde	15695 May 19 13:26	1° E 16'51			15696 Apr 11 22:49	0° Π	
asc. node	15695 May 21 10:41	1° E 01'46		evening max el	15696 Apr 19 09:16	8° Π 18'17	25°57'30
	15695 May 23 17:41	30° $\text{R}\Pi$		retrograde	15696 May 02 00:52	15° Π 34'16	
evening set	15695 May 25 05:34	28° Π 52'59		asc. node	15696 May 07 07:52	13° Π 42'15	
min. Earth dist.	15695 May 29 16:39	23° Π 49'05	0.68443 AU	evening set	15696 May 08 03:43	13° Π 03'37	
inferior conj	15695 May 30 18:38	22° Π 22'36	2°28'45	min. Earth dist.	15696 May 12 08:04	8° Π 35'37	0.67416 AU
minimum elong	15695 May 30 16:36	22° Π 29'25	2°27'26	inferior conj	15696 May 13 22:57	6° Π 33'29	1°53'47
morning rise	15695 Jun 05 03:51	16° Π 24'54		minimum elong	15696 May 13 20:48	6° Π 40'15	1°52'24
direct	15695 Jun 08 22:29	15° Π 03'06		morning rise	15696 May 19 14:33	0° Π 46'11	
morning max el	15695 Jun 16 05:48	19° Π 05'39	19°37'33		15696 May 21 05:02	30° RB	
desc. node	15695 Jun 23 03:47	27° Π 21'56		direct	15696 May 22 22:20	29° B 43'09	
	15695 Jun 25 01:47	0° E			15696 May 24 16:34	0° Π	
greatest brilliancy	15695 Jun 29 00:25	5° E 39'07	-0.6m	morning max el	15696 May 29 14:02	3° Π 17'21	18°44'36
morning set	15695 Jul 12 02:06	25° E 21'05		desc. node	15696 Jun 09 00:48	16° Π 53'28	
	15695 Jul 15 02:35	0° Ω		greatest brilliancy	15696 Jun 12 18:27	22° Π 32'50	-0.8m
max. Earth dist.	15695 Jul 23 17:41	13° Ω 27'22	1.45047 AU		15696 Jun 17 14:09	0° E	
				morning set	15696 Jun 20 14:40	4° E 42'07	
superior conj	15695 Jul 28 04:49	20° Ω 32'46	-2°05'58	max. Earth dist.	15696 Jul 05 12:12	27° E 54'33	1.45858 AU
minimum elong	15695 Jul 28 10:56	20° Ω 57'15	2°06'16				
	15695 Aug 03 01:04	0° M		superior conj	15696 Jul 06 18:18	29° E 52'06	-2°14'05
evening rise	15695 Aug 11 02:40	13° M 22'37		minimum elong	15696 Jul 06 17:38	29° E 49'30	2°14'51
asc. node	15695 Aug 17 10:48	23° M 57'52			15696 Jul 06 20:19	0° Ω	
	15695 Aug 21 04:36	0° Ω		evening rise	15696 Jul 22 04:41	24° Ω 15'16	
evening max el	15695 Aug 29 04:26	10° Ω 39'23	18°08'05		15696 Jul 25 18:52	0° M	
retrograde	15695 Sep 04 13:11	14° Ω 00'04		asc. node	15696 Aug 03 07:30	13° M 22'38	
evening set	15695 Sep 07 07:52	13° Ω 19'19		evening max el	15696 Aug 11 17:59	24° M 22'09	18°32'12
inferior conj	15695 Sep 13 11:27	7° Ω 58'36	1°36'53	retrograde	15696 Aug 18 05:31	27° M 51'12	
minimum elong	15695 Sep 13 13:40	7° Ω 52'29	1°36'11	evening set	15696 Aug 21 09:20	26° M 54'51	
min. Earth dist.	15695 Sep 16 01:59	5° Ω 06'49	0.63486 AU	inferior conj	15696 Aug 27 02:38	21° M 18'49	2°21'35
desc. node	15695 Sep 19 01:00	2° Ω 16'22		minimum elong	15696 Aug 27 04:54	21° M 11'55	2°20'49
morning rise	15695 Sep 19 17:27	1° Ω 43'35		min. Earth dist.	15696 Aug 29 03:40	18° M 50'34	0.65467 AU
	15695 Sep 22 14:45	30° RM		morning rise	15696 Sep 01 23:16	14° M 54'51	
direct	15695 Sep 26 08:48	29° M 12'30		desc. node	15696 Sep 04 22:24	13° M 01'38	
	15695 Sep 30 08:17	0° Ω		direct	15696 Sep 08 09:09	12° M 17'12	
morning max el	15695 Oct 10 06:32	7° Ω 12'08	27°45'39	morning max el	15696 Sep 21 17:34	20° M 08'12	27°00'02
	15695 Oct 27 19:12	0° M			15696 Sep 30 05:09	0° Ω	
asc. node	15695 Nov 13 12:15	29° M 33'50			15696 Oct 19 21:12	0° M	
	15695 Nov 13 17:29	0° X		morning set	15696 Oct 27 08:58	13° M 44'39	
morning set	15695 Nov 14 00:31	0° X 35'16		asc. node	15696 Oct 30 09:03	19° M 38'17	
max. Earth dist.	15695 Nov 18 22:22	10° X 45'43	1.32184 AU	max. Earth dist.	15696 Oct 31 13:37	22° M 02'04	1.33608 AU
					15696 Nov 04 10:08	0° X	
superior conj	15695 Nov 21 19:37	16° X 58'46	1°10'27				
minimum elong	15695 Nov 21 17:18	16° X 46'09	1°10'55	superior conj	15696 Nov 04 21:44	1° X 01'08	0°49'10
	15695 Nov 27 18:29	0° B		minimum elong	15696 Nov 04 19:33	0° X 49'35	0°49'28
evening rise	15695 Nov 28 15:48	1° B 55'13		evening rise	15696 Nov 12 02:05	16° X 20'32	
	15695 Dec 13 18:49	0° \approx			15696 Nov 18 19:59	0° B	
desc. node	15695 Dec 15 22:42	3° \approx 02'29		desc. node	15696 Dec 01 19:43	19° B 21'57	
evening max el	15695 Dec 22 04:01	10° \approx 14'00	23°31'07	evening max el	15696 Dec 02 16:01	20° B 13'20	21°49'18
retrograde	15696 Jan 04 13:07	16° \approx 51'40		retrograde	15696 Dec 15 00:50	26° B 20'15	
evening set	15696 Jan 09 01:38	16° \approx 07'23		evening set	15696 Dec 18 06:12	25° B 56'57	
min. Earth dist.	15696 Jan 15 14:59	13° \approx 00'20	0.55072 AU	inferior conj	15696 Dec 26 21:16	22° B 06'08	-5°57'23
inferior conj	15696 Jan 17 04:30	12° \approx 05'34	-5°49'15	minimum elong	15696 Dec 26 17:37	22° B 11'15	5°56'19
minimum elong	15696 Jan 17 09:56	11° \approx 57'38	5°47'58	min. Earth dist.	15696 Dec 26 20:29	22° B 07'15	0.54423 AU
morning rise	15696 Jan 25 19:43	8° \approx 12'27		morning rise	15697 Jan 04 05:45	18° B 18'27	
direct	15696 Jan 28 11:24	7° \approx 55'17		direct	15697 Jan 07 20:39	17° B 49'41	
morning max el	15696 Feb 08 11:17	13° \approx 13'53	20°28'03	morning max el	15697 Jan 20 07:39	23° B 51'13	22°03'29
asc. node	15696 Feb 09 10:51	14° \approx 13'16			15697 Jan 25 16:41	0° \approx	
	15696 Feb 20 05:24	0° X		asc. node	15697 Jan 26 08:10	0° \approx 52'14	

morning set	15697 Feb 10 11:59	28° \approx 09'51		morning max el	15698 Jan 01 17:55	3° \approx 50'25	23°52'25
	15697 Feb 11 08:48	0° \mathbb{H}		asc. node	15698 Jan 13 05:25	18° \approx 34'17	
					15698 Jan 19 16:37	0° \approx	
superior conj	15697 Feb 17 14:17	13° \mathbb{H} 15'51	1°18'17	morning set	15698 Jan 25 23:55	12° \approx 53'54	
minimum elong	15697 Feb 17 16:36	13° \mathbb{H} 28'07	1°18'19				
max. Earth dist.	15697 Feb 21 15:36	21° \mathbb{H} 39'53	1.34291 AU	superior conj	15698 Feb 01 19:43	27° \approx 45'30	1°30'50
evening rise	15697 Feb 25 22:55	0° \mathbb{Y} 10'31		minimum elong	15698 Feb 01 21:18	27° \approx 54'05	1°31'14
	15697 Feb 25 20:44	0° \mathbb{Y}			15698 Feb 02 20:32	0° \mathbb{H}	
desc. node	15697 Feb 27 20:21	3° \mathbb{Y} 46'03		max. Earth dist.	15698 Feb 04 12:19	3° \mathbb{H} 33'24	1.32734 AU
	15697 Mar 15 11:32	0° \mathbb{B}		evening rise	15698 Feb 09 11:22	13° \mathbb{H} 50'17	
evening max el	15697 Apr 01 23:08	22° \mathbb{B} 01'19	26°54'37	desc. node	15698 Feb 14 17:00	23° \mathbb{H} 57'05	
retrograde	15697 Apr 15 06:32	29° \mathbb{B} 29'42			15698 Feb 18 01:20	0° \mathbb{Y}	
evening set	15697 Apr 21 18:32	26° \mathbb{B} 57'39			15698 Mar 10 10:55	0° \mathbb{B}	
asc. node	15697 Apr 24 05:08	24° \mathbb{B} 43'01		evening max el	15698 Mar 15 12:07	5° \mathbb{B} 23'31	27°28'55
min. Earth dist.	15697 Apr 25 17:32	23° \mathbb{B} 03'52	0.65962 AU	retrograde	15698 Mar 29 05:35	12° \mathbb{B} 54'34	
inferior conj	15697 Apr 27 21:13	20° \mathbb{B} 33'51	1°06'43	evening set	15698 Apr 04 23:50	10° \mathbb{B} 27'36	
minimum elong	15697 Apr 27 19:36	20° \mathbb{B} 38'34	1°05'34	min. Earth dist.	15698 Apr 08 19:07	7° \mathbb{B} 04'40	0.64134 AU
morning rise	15697 May 03 22:01	14° \mathbb{B} 58'47		inferior conj	15698 Apr 11 10:46	4° \mathbb{B} 17'20	0°06'35
direct	15697 May 06 19:55	14° \mathbb{B} 12'21		minimum elong	15698 Apr 11 10:35	4° \mathbb{B} 17'49	0°06'06
morning max el	15697 May 13 03:55	17° \mathbb{B} 30'57	18°08'18	transit middle	15698 Apr 11 10:35	4° \mathbb{B} 17'49	0°06'06
	15697 May 22 14:04	0° \mathbb{II}		transit begin	15698 Apr 11 07:43	4° \mathbb{B} 25'25	
desc. node	15697 May 26 21:43	6° \mathbb{II} 48'06		transit end	15698 Apr 11 13:28	4° \mathbb{B} 10'14	
morning set	15697 Jun 01 03:30	15° \mathbb{II} 14'07		asc. node	15698 Apr 11 02:26	4° \mathbb{B} 39'26	
	15697 Jun 10 08:59	0° \mathbb{E}			15698 Apr 16 02:40	30° \mathbb{R} \mathbb{Y}	
				morning rise	15698 Apr 17 23:34	28° \mathbb{Y} 56'49	
superior conj	15697 Jun 16 03:43	9° \mathbb{E} 06'25	-2°02'05	direct	15698 Apr 20 12:36	28° \mathbb{Y} 24'08	
minimum elong	15697 Jun 15 20:20	8° \mathbb{E} 37'26	2°02'29		15698 Apr 24 21:55	0° \mathbb{B}	
max. Earth dist.	15697 Jun 18 08:47	12° \mathbb{E} 33'53	1.45919 AU	morning max el	15698 Apr 26 21:06	1° \mathbb{B} 39'24	17°49'11
	15697 Jun 29 14:12	0° \mathbb{Q}		morning set	15698 May 13 19:39	27° \mathbb{B} 04'03	
evening rise	15697 Jul 02 06:39	4° \mathbb{Q} 09'22		desc. node	15698 May 13 18:34	26° \mathbb{B} 59'30	
greatest brilliancy	15697 Jul 14 02:14	22° \mathbb{Q} 15'18	-0.7m		15698 May 15 13:25	0° \mathbb{II}	
	15697 Jul 19 10:26	0° \mathbb{P}					
asc. node	15697 Jul 21 04:14	2° \mathbb{P} 21'33		superior conj	15698 May 27 01:57	18° \mathbb{II} 59'49	-1°33'35
evening max el	15697 Jul 26 03:34	8° \mathbb{P} 12'25	19°13'16	minimum elong	15698 May 26 17:33	18° \mathbb{II} 25'58	1°33'29
retrograde	15697 Aug 02 02:23	12° \mathbb{P} 03'00		max. Earth dist.	15698 Jun 01 04:33	27° \mathbb{II} 08'15	1.45234 AU
evening set	15697 Aug 05 15:52	10° \mathbb{P} 49'26			15698 Jun 03 00:12	0° \mathbb{E}	
inferior conj	15697 Aug 11 02:16	4° \mathbb{P} 59'41	2°50'19	evening rise	15698 Jun 11 18:21	13° \mathbb{E} 33'13	
minimum elong	15697 Aug 11 03:57	4° \mathbb{P} 54'12	2°49'37		15698 Jun 22 16:20	0° \mathbb{Q}	
min. Earth dist.	15697 Aug 12 13:07	3° \mathbb{P} 06'30	0.67067 AU	asc. node	15698 Jul 08 01:02	20° \mathbb{Q} 45'38	
	15697 Aug 15 03:46	30° \mathbb{R} \mathbb{Q}		evening max el	15698 Jul 09 07:27	22° \mathbb{Q} 04'57	20°09'52
morning rise	15697 Aug 16 15:24	28° \mathbb{Q} 33'22		retrograde	15698 Jul 17 01:18	26° \mathbb{Q} 28'59	
direct	15697 Aug 22 16:12	25° \mathbb{Q} 57'56		evening set	15698 Jul 21 00:59	24° \mathbb{Q} 57'44	
desc. node	15697 Aug 22 19:48	25° \mathbb{Q} 58'01		inferior conj	15698 Jul 26 07:35	18° \mathbb{Q} 55'37	3°05'31
	15697 Aug 31 11:11	0° \mathbb{P}		minimum elong	15698 Jul 26 08:23	18° \mathbb{Q} 52'54	3°04'50
morning max el	15697 Sep 04 04:53	3° \mathbb{P} 26'04	25°50'28	min. Earth dist.	15698 Jul 27 04:30	17° \mathbb{Q} 44'23	0.68225 AU
	15697 Sep 24 11:27	0° \mathbb{A}		morning rise	15698 Jul 31 15:25	12° \mathbb{Q} 31'28	
morning set	15697 Oct 10 03:43	26° \mathbb{A} 16'37		direct	15698 Aug 06 05:06	10° \mathbb{Q} 05'25	
	15697 Oct 12 03:55	0° \mathbb{M}		desc. node	15698 Aug 09 17:11	10° \mathbb{Q} 53'28	
max. Earth dist.	15697 Oct 13 19:35	3° \mathbb{M} 07'48	1.35531 AU	morning max el	15698 Aug 17 15:50	16° \mathbb{Q} 56'30	24°26'16
asc. node	15697 Oct 17 05:47	9° \mathbb{M} 47'53			15698 Aug 28 12:51	0° \mathbb{P}	
					15698 Sep 17 11:10	0° \mathbb{A}	
superior conj	15697 Oct 19 15:57	14° \mathbb{M} 39'23	0°22'01	morning set	15698 Sep 22 04:37	8° \mathbb{A} 01'09	
minimum elong	15697 Oct 19 14:41	14° \mathbb{M} 33'02	0°22'18	max. Earth dist.	15698 Sep 25 19:08	14° \mathbb{A} 23'40	1.37808 AU
evening rise	15697 Oct 27 09:50	0° \mathbb{X} 38'19					
	15697 Oct 27 02:25	0° \mathbb{X}		superior conj	15698 Oct 02 22:52	27° \mathbb{A} 44'39	-0°10'22
	15697 Nov 13 21:54	0° \mathbb{B}		minimum elong	15698 Oct 02 23:33	27° \mathbb{A} 47'55	0°09'55
evening max el	15697 Nov 14 15:02	0° \mathbb{B} 44'01	20°21'20	behind sun begin	15698 Oct 02 18:08	27° \mathbb{A} 21'52	
desc. node	15697 Nov 18 16:49	4° \mathbb{B} 02'32		behind sun end	15698 Oct 03 04:57	28° \mathbb{A} 14'01	
retrograde	15697 Nov 25 11:50	6° \mathbb{B} 08'33		asc. node	15698 Oct 04 02:27	29° \mathbb{A} 58'16	
evening set	15697 Nov 27 17:54	5° \mathbb{B} 55'40			15698 Oct 04 02:48	0° \mathbb{M}	
inferior conj	15697 Dec 06 13:54	2° \mathbb{B} 00'17	-5°04'53	evening rise	15698 Oct 11 12:38	14° \mathbb{M} 41'39	
minimum elong	15697 Dec 06 04:10	2° \mathbb{B} 14'36	5°01'43		15698 Oct 19 13:56	0° \mathbb{X}	
min. Earth dist.	15697 Dec 08 02:17	1° \mathbb{B} 06'45	0.54708 AU	evening max el	15698 Oct 28 04:32	12° \mathbb{X} 03'21	19°14'35
	15697 Dec 10 01:31	30° \mathbb{R} \mathbb{X}		desc. node	15698 Nov 05 14:02	16° \mathbb{X} 39'50	
morning rise	15697 Dec 14 13:56	27° \mathbb{X} 59'22		retrograde	15698 Nov 06 10:38	16° \mathbb{X} 42'09	
direct	15697 Dec 19 05:57	27° \mathbb{X} 12'27		evening set	15698 Nov 08 07:54	16° \mathbb{X} 31'23	
	15697 Dec 27 21:55	0° \mathbb{B}		inferior conj	15698 Nov 16 20:12	12° \mathbb{X} 20'43	-3°30'55

minimum elong	15698 Nov 16 11:36	12° ♊ 35'04	3°27'05	min. Earth dist.	15699 Nov 01 04:26	20° ♍ 56'46	0.57722 AU
min. Earth dist.	15698 Nov 19 12:02	10° ♊ 34'24	0.55878 AU	morning rise	15699 Nov 05 08:01	18° ♍ 16'45	
morning rise	15698 Nov 24 12:54	7° ♊ 48'41		direct	15699 Nov 11 12:54	16° ♍ 39'06	
direct	15698 Nov 30 02:04	6° ♊ 38'02		morning max el	15699 Nov 25 19:15	24° ♍ 10'18	27°01'09
morning max el	15698 Dec 14 03:28	13° ♊ 45'52	25°37'59		15699 Dec 01 03:04	0° ♊	
	15698 Dec 26 21:10	0° ♊		asc. node	15699 Dec 17 23:43	26° ♊ 07'30	
asc. node	15698 Dec 31 02:36	7° ♊ 03'20			15699 Dec 20 00:22	0° ♊	
morning set	15699 Jan 10 11:29	27° ♊ 32'20		morning set	15699 Dec 25 20:55	12° ♊ 00'39	
	15699 Jan 11 14:43	0° ♊					
				superior conj	15700 Jan 01 16:22	27° ♊ 02'44	1°37'25
superior conj	15699 Jan 17 05:06	12° ♊ 23'02	1°37'10	minimum elong	15700 Jan 01 15:53	27° ♊ 00'02	1°38'13
minimum elong	15699 Jan 17 05:40	12° ♊ 26'14	1°37'50	max. Earth dist.	15700 Jan 01 22:35	27° ♊ 37'30	1.31098 AU
max. Earth dist.	15699 Jan 18 15:30	15° ♊ 33'20	1.31656 AU		15700 Jan 03 00:04	0° ♊	
evening rise	15699 Jan 24 08:41	27° ♊ 50'15		evening rise	15700 Jan 08 12:24	12° ♊ 04'48	
	15699 Jan 25 09:50	0° ♊			15700 Jan 17 13:39	0° ♊	
desc. node	15699 Feb 01 13:41	13° ♊ 50'30		desc. node	15700 Jan 19 10:25	3° ♊ 19'28	
	15699 Feb 11 07:35	0° ♊			15700 Feb 07 20:21	0° ♊	
evening max el	15699 Feb 25 22:11	18° ♊ 12'05	27°33'54	evening max el	15700 Feb 08 03:03	0° ♊ 16'00	27°04'48
retrograde	15699 Mar 11 21:10	25° ♊ 38'45		retrograde	15700 Feb 22 03:47	7° ♊ 32'46	
evening set	15699 Mar 18 17:04	23° ♊ 24'25		evening set	15700 Feb 28 19:04	5° ♊ 38'44	
min. Earth dist.	15699 Mar 22 11:19	20° ♊ 26'33	0.62015 AU	min. Earth dist.	15700 Mar 04 17:23	2° ♊ 56'55	0.59770 AU
inferior conj	15699 Mar 25 12:27	17° ♊ 35'38	-1°07'02	inferior conj	15700 Mar 07 22:35	0° ♊ 19'10	-2°32'15
minimum elong	15699 Mar 25 14:46	17° ♊ 30'11	1°06'16	minimum elong	15700 Mar 08 04:19	0° ♊ 07'24	2°29'58
asc. node	15699 Mar 28 23:47	14° ♊ 34'44			15700 Mar 08 07:56	30° ♊	
morning rise	15699 Apr 01 15:34	12° ♊ 32'21		morning rise	15700 Mar 15 17:04	25° ♊ 35'33	
direct	15699 Apr 03 21:05	12° ♊ 10'03		asc. node	15700 Mar 15 21:11	25° ♊ 33'02	
morning max el	15699 Apr 10 14:33	15° ♊ 33'44	17°47'49	direct	15700 Mar 17 17:25	25° ♊ 19'57	
	15699 Apr 20 17:56	0° ♊		morning max el	15700 Mar 25 04:45	29° ♊ 03'19	18°05'05
morning set	15699 Apr 26 10:44	9° ♊ 58'25			15700 Mar 26 02:43	0° ♊	
desc. node	15699 Apr 30 15:22	17° ♊ 22'28		morning set	15700 Apr 09 18:44	23° ♊ 38'53	
					15700 Apr 13 04:51	0° ♊	
superior conj	15699 May 07 22:37	29° ♊ 56'18	-0°56'39	desc. node	15700 Apr 17 12:05	7° ♊ 52'09	
minimum elong	15699 May 07 17:20	29° ♊ 34'04	0°56'35				
	15699 May 07 23:30	0° ♊		superior conj	15700 Apr 19 18:26	11° ♊ 55'27	-0°18'32
max. Earth dist.	15699 May 14 20:52	11° ♊ 21'16	1.43879 AU	minimum elong	15700 Apr 19 16:53	11° ♊ 48'33	0°18'46
evening rise	15699 May 22 08:15	23° ♊ 10'16		max. Earth dist.	15700 Apr 27 08:38	25° ♊ 00'08	1.42001 AU
	15699 May 26 19:06	0° ♊			15700 Apr 30 09:17	0° ♊	
	15699 Jun 16 23:04	0° ♊		evening rise	15700 May 02 13:53	3° ♊ 32'44	
evening max el	15699 Jun 22 05:20	5° ♊ 57'58	21°19'25		15700 May 20 02:45	0° ♊	
asc. node	15699 Jun 24 21:54	8° ♊ 23'34		evening max el	15700 Jun 04 22:25	19° ♊ 51'29	22°37'48
retrograde	15699 Jul 01 00:10	11° ♊ 03'55		asc. node	15700 Jun 11 18:53	24° ♊ 59'56	
evening set	15699 Jul 05 10:43	9° ♊ 15'29		retrograde	15700 Jun 14 21:22	25° ♊ 41'48	
inferior conj	15699 Jul 10 16:14	3° ♊ 02'35	3°08'56	evening set	15700 Jun 19 19:18	23° ♊ 37'36	
minimum elong	15699 Jul 10 16:04	3° ♊ 03'11	3°08'10	inferior conj	15700 Jun 25 02:10	17° ♊ 15'48	3°01'34
min. Earth dist.	15699 Jul 10 23:45	2° ♊ 36'24	0.68912 AU	minimum elong	15700 Jun 25 01:06	17° ♊ 19'32	3°00'36
	15699 Jul 12 21:56	30° ♊		min. Earth dist.	15700 Jun 24 20:37	17° ♊ 35'09	0.69117 AU
morning rise	15699 Jul 15 21:11	26° ♊ 43'34		morning rise	15700 Jun 30 06:44	11° ♊ 04'01	
direct	15699 Jul 20 22:48	24° ♊ 32'12		direct	15700 Jul 04 20:07	9° ♊ 10'48	
desc. node	15699 Jul 27 14:32	27° ♊ 24'19		morning max el	15700 Jul 13 18:09	14° ♊ 21'33	21°31'00
	15699 Jul 30 13:15	0° ♊		desc. node	15700 Jul 14 11:49	15° ♊ 06'39	
morning max el	15699 Jul 31 03:23	0° ♊ 35'00	22°56'57		15700 Jul 26 07:20	0° ♊	
	15699 Aug 22 08:46	0° ♊		morning set	15700 Aug 14 10:22	28° ♊ 35'16	
morning set	15699 Sep 03 07:33	18° ♊ 49'07			15700 Aug 15 07:47	0° ♊	
max. Earth dist.	15699 Sep 07 18:09	26° ♊ 16'17	1.40208 AU	max. Earth dist.	15700 Aug 20 22:12	9° ♊ 01'56	1.42454 AU
	15699 Sep 09 22:03	0° ♊					
				superior conj	15700 Aug 28 10:34	21° ♊ 40'10	-1°22'24
superior conj	15699 Sep 15 14:33	10° ♊ 08'18	-0°46'15	minimum elong	15700 Aug 28 17:11	22° ♊ 08'44	1°21'44
minimum elong	15699 Sep 15 18:07	10° ♊ 24'33	0°45'35		15700 Sep 02 04:45	0° ♊	
asc. node	15699 Sep 20 23:07	20° ♊ 06'14		asc. node	15700 Sep 07 19:45	10° ♊ 07'40	
evening rise	15699 Sep 25 07:28	28° ♊ 23'08		evening rise	15700 Sep 08 14:25	11° ♊ 32'29	
	15699 Sep 26 03:47	0° ♊			15700 Sep 19 06:23	0° ♊	
evening max el	15699 Oct 11 06:29	24° ♊ 11'04	18°30'07	evening max el	15700 Sep 24 16:38	6° ♊ 57'32	18°06'31
retrograde	15699 Oct 19 03:53	28° ♊ 11'04		retrograde	15700 Oct 01 15:32	10° ♊ 31'22	
evening set	15699 Oct 21 03:03	27° ♊ 56'56		evening set	15700 Oct 03 21:15	10° ♊ 09'34	
desc. node	15699 Oct 23 11:19	27° ♊ 06'01		desc. node	15700 Oct 10 08:40	5° ♊ 51'53	
inferior conj	15699 Oct 28 23:28	23° ♊ 25'52	-1°46'11	inferior conj	15700 Oct 10 24:00	5° ♊ 17'24	-0°12'07
minimum elong	15699 Oct 28 19:16	23° ♊ 34'03	1°43'51	minimum elong	15700 Oct 10 23:36	5° ♊ 18'18	0°11'33

transit middle	15700 Oct 10 23:36	5° \mathbb{M} 18'18	0°11'33	evening max el	15701 Sep 08 06:48	20° \mathbb{L} 12'33	18°02'12
transit begin	15700 Oct 10 21:15	5° \mathbb{M} 23'37		retrograde	15701 Sep 14 17:49	23° \mathbb{L} 34'09	
transit end	15700 Oct 11 01:57	5° \mathbb{M} 12'59		evening set	15701 Sep 17 07:37	23° \mathbb{L} 01'05	
min. Earth dist.	15700 Oct 14 05:14	2° \mathbb{M} 23'40	0.59936 AU	inferior conj	15701 Sep 23 18:41	17° \mathbb{L} 49'46	1°02'50
	15700 Oct 17 07:29	30° \mathbb{K} \mathbb{L}		minimum elong	15701 Sep 23 20:23	17° \mathbb{L} 45'23	1°02'24
morning rise	15700 Oct 17 22:42	29° \mathbb{L} 35'36		min. Earth dist.	15701 Sep 26 15:48	14° \mathbb{L} 52'03	0.62229 AU
direct	15700 Oct 24 12:42	27° \mathbb{L} 32'30		desc. node	15701 Sep 27 06:03	14° \mathbb{L} 17'21	
	15700 Nov 01 03:59	0° \mathbb{M}		morning rise	15701 Sep 30 06:40	11° \mathbb{L} 44'07	
morning max el	15700 Nov 07 19:02	5° \mathbb{M} 20'27	27°49'09	direct	15701 Oct 06 23:05	9° \mathbb{L} 21'16	
	15700 Nov 26 04:28	0° \mathbb{J}		morning max el	15701 Oct 21 01:23	17° \mathbb{L} 18'46	27°57'44
asc. node	15700 Dec 04 20:46	15° \mathbb{J} 37'12			15701 Oct 31 15:26	0° \mathbb{M}	
morning set	15700 Dec 10 02:23	26° \mathbb{J} 14'12			15701 Nov 18 22:52	0° \mathbb{J}	
	15700 Dec 11 20:45	0° \mathbb{Z}		asc. node	15701 Nov 21 17:41	5° \mathbb{J} 24'36	
max. Earth dist.	15700 Dec 16 06:05	9° \mathbb{Z} 38'48	1.31079 AU	morning set	15701 Nov 24 01:42	10° \mathbb{J} 07'09	
				max. Earth dist.	15701 Nov 29 10:05	21° \mathbb{J} 27'13	1.31619 AU
superior conj	15700 Dec 17 03:39	11° \mathbb{Z} 39'12	1°31'42				
minimum elong	15700 Dec 17 02:13	11° \mathbb{Z} 31'10	1°32'27	superior conj	15701 Dec 01 12:59	26° \mathbb{J} 06'14	1°19'58
evening rise	15700 Dec 23 20:22	26° \mathbb{Z} 28'46		minimum elong	15701 Dec 01 10:52	25° \mathbb{J} 54'33	1°20'33
	15700 Dec 25 11:56	0° \approx			15701 Dec 03 07:16	0° \mathbb{Z}	
desc. node	15701 Jan 06 07:13	22° \approx 14'55		evening rise	15701 Dec 08 06:39	10° \mathbb{Z} 56'25	
	15701 Jan 11 08:58	0° \mathbb{H}			15701 Dec 17 19:32	0° \approx	
evening max el	15701 Jan 21 00:21	11° \mathbb{H} 28'23	26°01'15	desc. node	15701 Dec 24 04:05	10° \approx 23'35	
retrograde	15701 Feb 03 23:14	18° \mathbb{H} 32'11		evening max el	15702 Jan 02 13:19	21° \approx 50'45	24°30'09
evening set	15701 Feb 10 02:14	17° \mathbb{H} 04'06		retrograde	15702 Jan 16 05:31	28° \approx 39'43	
min. Earth dist.	15701 Feb 14 13:31	14° \mathbb{H} 26'03	0.57619 AU	evening set	15702 Jan 21 11:02	27° \approx 39'41	
inferior conj	15701 Feb 17 13:39	12° \mathbb{H} 18'31	-4°01'49	min. Earth dist.	15702 Jan 27 01:06	24° \approx 49'06	0.55826 AU
minimum elong	15701 Feb 17 22:27	12° \mathbb{H} 02'53	3°58'40	inferior conj	15702 Jan 29 07:26	23° \approx 25'10	-5°19'36
morning rise	15701 Feb 25 21:45	7° \mathbb{H} 56'15		minimum elong	15702 Jan 29 15:57	23° \approx 12'01	5°17'19
direct	15701 Feb 27 21:27	7° \mathbb{H} 43'34		morning rise	15702 Feb 06 22:55	19° \approx 23'31	
asc. node	15701 Mar 02 18:36	8° \mathbb{H} 11'39		direct	15702 Feb 09 05:52	19° \approx 09'32	
morning max el	15701 Mar 08 11:44	11° \mathbb{H} 57'06	18°42'43	asc. node	15702 Feb 17 16:00	22° \approx 34'26	
	15701 Mar 20 12:06	0° \mathbb{Y}		morning max el	15702 Feb 19 07:14	24° \approx 02'13	19°42'53
morning set	15701 Mar 24 14:32	7° \mathbb{Y} 50'39			15702 Feb 24 06:45	0° \mathbb{H}	
				morning set	15702 Mar 08 18:12	22° \mathbb{H} 21'14	
superior conj	15701 Apr 02 10:01	24° \mathbb{Y} 47'54	0°16'13		15702 Mar 12 12:48	0° \mathbb{Y}	
minimum elong	15701 Apr 02 11:05	24° \mathbb{Y} 52'53	0°15'45				
behind sun begin	15701 Apr 02 10:05	24° \mathbb{Y} 48'12		superior conj	15702 Mar 16 16:52	8° \mathbb{Y} 20'39	0°45'22
behind sun end	15701 Apr 02 12:05	24° \mathbb{Y} 57'34		minimum elong	15702 Mar 16 19:13	8° \mathbb{Y} 32'10	0°44'57
desc. node	15701 Apr 04 08:44	28° \mathbb{Y} 25'01		desc. node	15702 Mar 22 05:21	18° \mathbb{Y} 56'46	
	15701 Apr 05 05:27	0° \mathbb{B}		max. Earth dist.	15702 Mar 22 22:57	20° \mathbb{Y} 18'35	1.37516 AU
max. Earth dist.	15701 Apr 09 16:31	7° \mathbb{B} 58'49	1.39805 AU	evening rise	15702 Mar 26 15:34	27° \mathbb{Y} 00'02	
evening rise	15701 Apr 13 16:35	14° \mathbb{B} 51'03			15702 Mar 28 08:33	0° \mathbb{B}	
	15701 Apr 23 02:22	0° \mathbb{I}			15702 Apr 16 13:35	0° \mathbb{I}	
	15701 May 14 23:56	0° \mathbb{E}		evening max el	15702 May 01 02:13	17° \mathbb{I} 40'35	25°17'06
evening max el	15701 May 18 12:46	3° \mathbb{E} 46'24	23°59'16	retrograde	15702 May 13 05:38	24° \mathbb{I} 43'14	
retrograde	15701 May 29 15:31	10° \mathbb{E} 17'12		asc. node	15702 May 16 13:05	23° \mathbb{I} 57'44	
asc. node	15701 May 29 15:56	10° \mathbb{E} 17'12		evening set	15702 May 19 02:37	22° \mathbb{I} 15'44	
evening set	15701 Jun 04 01:09	7° \mathbb{E} 59'33		min. Earth dist.	15702 May 23 10:38	17° \mathbb{I} 27'31	0.68071 AU
min. Earth dist.	15701 Jun 08 16:57	2° \mathbb{E} 34'28	0.68835 AU	inferior conj	15702 May 24 18:09	15° \mathbb{I} 45'01	2°15'17
inferior conj	15701 Jun 09 11:27	1° \mathbb{E} 31'31	2°43'47	minimum elong	15702 May 24 16:00	15° \mathbb{I} 52'03	2°13'56
minimum elong	15701 Jun 09 09:41	1° \mathbb{E} 37'34	2°42'35	morning rise	15702 May 30 05:46	9° \mathbb{I} 51'48	
	15701 Jun 10 14:38	30° \mathbb{K} \mathbb{I}		direct	15702 Jun 02 19:45	8° \mathbb{I} 38'09	
morning rise	15701 Jun 14 18:14	25° \mathbb{I} 28'22		morning max el	15702 Jun 09 19:19	12° \mathbb{I} 26'37	19°13'01
direct	15701 Jun 18 19:36	23° \mathbb{I} 54'59		desc. node	15702 Jun 18 06:05	22° \mathbb{I} 55'50	
morning max el	15701 Jun 26 15:02	28° \mathbb{I} 18'56	20°15'00	greatest brilliancy	15702 Jun 22 14:03	29° \mathbb{I} 13'44	-0.7m
	15701 Jun 28 05:45	0° \mathbb{E}			15702 Jun 23 02:28	0° \mathbb{E}	
desc. node	15701 Jul 01 09:00	3° \mathbb{E} 41'56		morning set	15702 Jul 03 23:12	16° \mathbb{E} 32'26	
	15701 Jul 19 19:00	0° \mathbb{Q}			15702 Jul 12 15:59	0° \mathbb{Q}	
morning set	15701 Jul 24 18:14	7° \mathbb{Q} 34'59		max. Earth dist.	15702 Jul 17 02:12	6° \mathbb{Q} 54'41	1.45484 AU
max. Earth dist.	15701 Aug 03 09:24	22° \mathbb{Q} 39'43	1.44279 AU				
	15701 Aug 07 22:43	0° \mathbb{P}		superior conj	15702 Jul 20 06:03	11° \mathbb{Q} 53'08	-2°11'48
				minimum elong	15702 Jul 20 09:47	12° \mathbb{Q} 07'54	2°12'23
superior conj	15701 Aug 09 07:28	2° \mathbb{P} 13'41	-1°53'21		15702 Jul 31 12:58	0° \mathbb{P}	
minimum elong	15701 Aug 09 15:08	2° \mathbb{P} 45'07	1°53'11	evening rise	15702 Aug 03 21:03	5° \mathbb{P} 27'31	
evening rise	15701 Aug 22 04:41	23° \mathbb{P} 58'06		asc. node	15702 Aug 12 13:02	19° \mathbb{P} 35'04	
asc. node	15701 Aug 25 16:22	29° \mathbb{P} 58'48			15702 Aug 19 14:27	0° \mathbb{L}	
	15701 Aug 25 16:39	0° \mathbb{L}		evening max el	15702 Aug 22 21:24	3° \mathbb{L} 47'28	18°16'10

retrograde	15702 Aug 29 06:17	7°♄10'21		greatest brilliancy	15703 Jul 24 09:34	29°♄49'00	-0.8m
evening set	15702 Sep 01 04:46	6°♄23'10			15703 Jul 24 12:24	0°♄	
inferior conj	15702 Sep 07 03:31	0°♄55'24	1°57'58	asc. node	15703 Jul 30 09:43	8°♄49'50	
minimum elong	15702 Sep 07 05:52	0°♄48'37	1°57'13	evening max el	15703 Aug 06 09:27	17°♄33'50	18°47'40
	15702 Sep 07 22:38	30°♄		retrograde	15703 Aug 13 00:59	21°♄10'56	
min. Earth dist.	15702 Sep 09 12:22	28°♄12'05	0.64364 AU	evening set	15703 Aug 16 08:44	20°♄07'33	
morning rise	15702 Sep 13 05:19	24°♄35'28		inferior conj	15703 Aug 21 22:42	14°♄25'28	2°35'35
desc. node	15702 Sep 14 03:27	23°♄54'36		minimum elong	15703 Aug 22 00:47	14°♄18'56	2°34'50
direct	15702 Sep 19 18:40	22°♄00'48		min. Earth dist.	15703 Aug 23 17:44	12°♄10'50	0.66193 AU
morning max el	15702 Oct 03 11:45	29°♄58'23	27°29'53	morning rise	15703 Aug 27 15:51	7°♄59'31	
	15702 Oct 03 12:24	0°♄		desc. node	15703 Sep 01 00:52	5°♄35'19	
	15702 Oct 25 15:08	0°♄		direct	15703 Sep 02 22:06	5°♄21'44	
morning set	15702 Nov 07 16:26	23°♄34'42		morning max el	15703 Sep 15 23:16	13°♄05'47	26°32'49
asc. node	15702 Nov 08 14:31	25°♄24'25			15703 Sep 29 15:30	0°♄	
	15702 Nov 10 20:53	0°♄			15703 Oct 18 07:09	0°♄	
max. Earth dist.	15702 Nov 12 06:58	2°♄56'35	1.32723 AU	morning set	15703 Oct 21 19:31	6°♄29'18	
				max. Earth dist.	15703 Oct 25 18:01	14°♄05'49	1.34368 AU
superior conj	15702 Nov 15 18:24	10°♄19'17	1°02'10	asc. node	15703 Oct 26 11:17	15°♄31'33	
minimum elong	15702 Nov 15 16:03	10°♄06'40	1°02'33				
evening rise	15702 Nov 22 17:28	25°♄23'58		superior conj	15703 Oct 30 17:28	24°♄11'57	0°38'20
	15702 Nov 24 21:36	0°♄		minimum elong	15703 Oct 30 15:34	24°♄02'04	0°38'37
desc. node	15702 Dec 11 01:02	27°♄28'58			15703 Nov 02 11:55	0°♄	
	15702 Dec 13 05:11	0°♄		evening rise	15703 Nov 07 02:55	9°♄46'19	
evening max el	15702 Dec 14 22:43	1°♄46'48	22°46'54		15703 Nov 17 15:27	0°♄	
retrograde	15702 Dec 27 23:14	8°♄13'43		evening max el	15703 Nov 26 14:25	11°♄55'21	21°09'33
evening set	15702 Dec 31 22:31	7°♄39'21		desc. node	15703 Nov 27 22:05	13°♄09'15	
min. Earth dist.	15703 Jan 08 07:41	4°♄16'23	0.54685 AU	retrograde	15703 Dec 08 09:24	17°♄45'42	
inferior conj	15703 Jan 09 06:39	3°♄43'49	-6°00'10	evening set	15703 Dec 11 02:51	17°♄28'18	
minimum elong	15703 Jan 09 08:31	3°♄41'11	5°59'21	inferior conj	15703 Dec 19 21:27	13°♄37'08	-5°42'00
	15703 Jan 17 11:55	30°♄		minimum elong	15703 Dec 19 14:21	13°♄47'10	5°40'07
morning rise	15703 Jan 17 19:48	29°♄55'19		min. Earth dist.	15703 Dec 20 13:11	13°♄14'52	0.54423 AU
direct	15703 Jan 20 20:23	29°♄34'15		morning rise	15703 Dec 28 02:07	9°♄45'57	
	15703 Jan 24 02:19	0°♄		direct	15704 Jan 01 03:41	9°♄10'17	
morning max el	15703 Feb 01 12:08	5°♄11'11	21°06'21	morning max el	15704 Jan 14 03:20	15°♄29'02	22°49'06
asc. node	15703 Feb 04 13:19	8°♄28'43		asc. node	15704 Jan 22 10:36	25°♄36'19	
	15703 Feb 17 16:14	0°♄			15704 Jan 25 06:09	0°♄	
morning set	15703 Feb 21 02:50	7°♄01'58		morning set	15704 Feb 05 14:07	21°♄46'11	
					15704 Feb 09 09:58	0°♄	
superior conj	15703 Feb 28 11:01	22°♄22'43	1°08'08				
minimum elong	15703 Feb 28 13:34	22°♄35'50	1°07'58	superior conj	15704 Feb 12 13:06	6°♄44'31	1°24'22
	15703 Mar 04 05:14	0°♄		minimum elong	15704 Feb 12 15:10	6°♄55'32	1°24'35
max. Earth dist.	15703 Mar 05 08:09	2°♄13'00	1.35373 AU	max. Earth dist.	15704 Feb 16 00:02	14°♄01'46	1.33565 AU
evening rise	15703 Mar 09 07:49	9°♄51'25		evening rise	15704 Feb 20 13:51	23°♄16'07	
desc. node	15703 Mar 09 01:57	9°♄23'54		desc. node	15704 Feb 23 22:34	29°♄42'20	
	15703 Mar 20 22:46	0°♄			15704 Feb 24 02:22	0°♄	
	15703 Apr 12 04:14	0°♄			15704 Mar 13 14:14	0°♄	
evening max el	15703 Apr 13 15:46	1°♄29'32	26°23'59	evening max el	15704 Mar 26 05:23	15°♄05'22	27°12'28
retrograde	15703 Apr 26 14:48	8°♄52'40		retrograde	15704 Apr 08 18:06	22°♄36'55	
evening set	15703 May 02 21:55	6°♄20'18		evening set	15704 Apr 15 09:03	20°♄06'07	
asc. node	15703 May 03 10:18	5°♄53'58		asc. node	15704 Apr 19 07:34	16°♄22'05	
min. Earth dist.	15703 May 06 23:41	2°♄07'26	0.66851 AU	min. Earth dist.	15704 Apr 19 06:10	16°♄25'53	0.65218 AU
inferior conj	15703 May 08 20:10	29°♄51'58	1°35'21	inferior conj	15704 Apr 21 15:08	13°♄46'47	0°42'55
minimum elong	15703 May 08 18:09	29°♄58'08	1°34'00	minimum elong	15704 Apr 21 14:00	13°♄49'58	0°41'58
	15703 May 08 17:33	30°♄		morning rise	15704 Apr 27 20:44	8°♄17'38	
morning rise	15703 May 14 15:23	24°♄09'54		direct	15704 Apr 30 14:36	7°♄37'35	
direct	15703 May 17 18:46	23°♄14'24		morning max el	15704 May 06 21:59	10°♄53'40	17°58'02
morning max el	15703 May 24 06:17	26°♄40'26	18°27'03		15704 May 20 08:33	0°♄	
	15703 May 27 06:17	0°♄		desc. node	15704 May 22 00:00	2°♄41'15	
desc. node	15703 Jun 05 03:05	12°♄38'08		morning set	15704 May 24 21:42	7°♄27'16	
morning set	15703 Jun 13 20:53	26°♄20'24			15704 Jun 07 20:43	0°♄	
	15703 Jun 16 04:35	0°♄					
superior conj	15703 Jun 29 15:40	21°♄04'45	-2°11'24	superior conj	15704 Jun 08 04:59	0°♄32'42	-1°51'35
minimum elong	15703 Jun 29 11:40	20°♄49'09	2°12'06	minimum elong	15704 Jun 07 20:25	29°♄58'48	1°51'44
max. Earth dist.	15703 Jun 29 21:44	21°♄28'22	1.45973 AU	max. Earth dist.	15704 Jun 11 17:49	6°♄06'24	1.45715 AU
	15703 Jul 05 08:58	0°♄		evening rise	15704 Jun 24 06:33	25°♄30'28	
evening rise	15703 Jul 15 12:20	15°♄53'31			15704 Jun 27 04:57	0°♄	
				greatest brilliancy	15704 Jul 07 23:13	16°♄12'14	-0.6m

asc. node	15704 Jul 16 06:29	27°♊35'44		max. Earth dist.	15705 May 25 12:30	20°♊34'13	1.44738 AU
	15704 Jul 18 07:56	0°♍			15705 May 31 12:34	0°♋	
evening max el	15704 Jul 19 16:48	1°♍26'10	19°35'34	evening rise	15705 Jun 03 17:11	4°♋55'29	
retrograde	15704 Jul 26 22:58	5°♍29'41			15705 Jun 20 14:48	0°♊	
evening set	15704 Jul 30 16:39	4°♍08'48		evening max el	15705 Jul 02 18:15	15°♊20'01	20°38'03
	15704 Aug 03 16:40	30°♋♊		asc. node	15705 Jul 03 03:20	15°♊42'19	
inferior conj	15704 Aug 05 01:06	28°♊13'51	2°58'17	retrograde	15705 Jul 10 21:59	20°♊00'32	
minimum elong	15704 Aug 05 02:26	28°♊09'25	2°57'36	evening set	15705 Jul 15 02:16	18°♊21'52	
min. Earth dist.	15704 Aug 06 06:05	26°♊37'34	0.67621 AU	inferior conj	15705 Jul 20 08:08	12°♊15'13	3°08'18
morning rise	15704 Aug 10 11:41	21°♊47'53		minimum elong	15705 Jul 20 08:31	12°♊13'53	3°07'35
direct	15704 Aug 16 08:03	19°♊15'20		min. Earth dist.	15705 Jul 20 23:19	11°♊22'52	0.68587 AU
desc. node	15704 Aug 17 22:17	19°♊25'16		morning rise	15705 Jul 25 14:27	5°♊53'07	
morning max el	15704 Aug 28 10:17	26°♊29'39	25°15'40	direct	15705 Jul 30 23:12	3°♊32'39	
	15704 Aug 31 16:15	0°♍		desc. node	15705 Aug 04 19:40	5°♊04'40	
	15704 Sep 22 05:17	0°♊		morning max el	15705 Aug 10 21:05	10°♊03'27	23°48'15
morning set	15704 Oct 03 07:09	18°♊42'15			15705 Aug 26 16:42	0°♍	
max. Earth dist.	15704 Oct 06 20:08	25°♊10'19	1.36469 AU	morning set	15705 Sep 14 23:09	0°♊03'54	
	15704 Oct 09 09:32	0°♌			15705 Sep 14 22:14	0°♊	
asc. node	15704 Oct 12 08:00	5°♌42'02		max. Earth dist.	15705 Sep 18 18:47	6°♊39'45	1.38838 AU
superior conj	15704 Oct 13 07:19	7°♌37'15	0°08'50	superior conj	15705 Sep 26 08:21	20°♊26'47	-0°25'19
minimum elong	15704 Oct 13 06:45	7°♌34'26	0°09'11	minimum elong	15705 Sep 26 10:09	20°♊35'17	0°24'45
behind sun begin	15704 Oct 13 01:27	7°♌08'10		asc. node	15705 Sep 29 04:42	25°♊52'21	
behind sun end	15704 Oct 13 12:03	8°♌00'46			15705 Oct 01 07:50	0°♌	
evening rise	15704 Oct 21 08:51	23°♌58'24		evening rise	15705 Oct 05 08:41	7°♌53'58	
	15704 Oct 24 08:40	0°♌			15705 Oct 17 21:36	0°♌	
evening max el	15704 Nov 07 19:42	22°♌46'17	19°50'12	evening max el	15705 Oct 21 15:02	4°♌27'45	18°52'59
desc. node	15704 Nov 13 19:14	26°♌59'52		retrograde	15705 Oct 30 05:49	8°♌48'28	
retrograde	15704 Nov 17 23:34	27°♌50'29		desc. node	15705 Oct 31 16:28	8°♌41'34	
evening set	15704 Nov 20 00:15	27°♌39'18		evening set	15705 Nov 01 03:14	8°♌36'42	
inferior conj	15704 Nov 28 18:28	23°♌38'53	-4°28'11	inferior conj	15705 Nov 09 09:18	4°♌17'29	-2°46'08
minimum elong	15704 Nov 28 08:28	23°♌54'16	4°24'23	minimum elong	15705 Nov 09 02:28	4°♌29'38	2°42'48
min. Earth dist.	15704 Nov 30 20:28	22°♌21'56	0.55109 AU	min. Earth dist.	15705 Nov 12 08:26	2°♌11'27	0.56600 AU
morning rise	15704 Dec 06 15:18	19°♌26'15			15705 Nov 15 22:15	30°♋♌	
direct	15704 Dec 11 17:13	18°♌29'28		morning rise	15705 Nov 16 22:48	29°♌30'07	
morning max el	15704 Dec 25 11:56	25°♌21'19	24°38'57	direct	15705 Nov 22 19:35	28°♌08'13	
	15704 Dec 29 19:46	0°♎			15705 Nov 29 17:49	0°♌	
asc. node	15705 Jan 08 07:51	13°♎40'09		morning max el	15705 Dec 06 23:28	5°♌25'51	26°17'09
	15705 Jan 17 00:28	0°♎			15705 Dec 24 20:18	0°♎	
morning set	15705 Jan 20 02:04	6°♎28'03		asc. node	15705 Dec 26 05:01	2°♎26'07	
				morning set	15706 Jan 04 12:58	21°♎03'17	
superior conj	15705 Jan 26 20:27	21°♎18'06	1°34'16		15706 Jan 08 14:46	0°♎	
minimum elong	15705 Jan 26 21:38	21°♎24'32	1°34'48	superior conj	15706 Jan 11 06:53	5°♎57'33	1°38'00
max. Earth dist.	15705 Jan 28 23:40	25°♎57'34	1.32210 AU	minimum elong	15706 Jan 11 07:00	5°♎58'15	1°38'45
	15705 Jan 30 20:48	0°♏		max. Earth dist.	15706 Jan 12 05:11	8°♎01'45	1.31356 AU
evening rise	15705 Feb 03 06:24	7°♏05'25		evening rise	15706 Jan 18 06:45	21°♎12'55	
desc. node	15705 Feb 09 19:13	19°♏46'43			15706 Jan 22 14:18	0°♏	
	15705 Feb 15 15:09	0°♏		desc. node	15706 Jan 27 15:56	9°♏31'13	
evening max el	15705 Mar 08 17:37	28°♏15'42	27°35'11		15706 Feb 09 17:49	0°♏	
	15705 Mar 10 15:15	0°♏		evening max el	15706 Feb 19 01:59	10°♏47'22	27°25'54
retrograde	15705 Mar 22 14:10	5°♏45'30		retrograde	15706 Mar 05 01:47	18°♏09'22	
evening set	15705 Mar 29 09:34	3°♏23'20		evening set	15706 Mar 11 20:41	16°♏02'59	
min. Earth dist.	15705 Apr 02 04:06	0°♏11'39	0.63252 AU	min. Earth dist.	15706 Mar 15 15:59	13°♏13'15	0.61068 AU
	15705 Apr 02 08:54	30°♋♏		inferior conj	15706 Mar 18 19:38	10°♏26'07	-1°41'59
inferior conj	15705 Apr 05 00:06	27°♏21'07	-0°22'59	minimum elong	15706 Mar 18 23:19	10°♏17'54	1°40'34
minimum elong	15705 Apr 05 00:50	27°♏19'14	0°23'00	asc. node	15706 Mar 24 02:17	6°♏25'05	
asc. node	15705 Apr 06 04:55	26°♏09'36		morning rise	15706 Mar 26 05:14	5°♏30'41	
morning rise	15705 Apr 11 18:42	22°♏07'16		direct	15706 Mar 28 08:21	5°♏11'33	
direct	15705 Apr 14 04:19	21°♏39'25		morning max el	15706 Apr 04 08:04	8°♏42'00	17°52'48
morning max el	15705 Apr 20 15:38	24°♏57'09	17°46'23		15706 Apr 18 06:39	0°♏	
	15705 Apr 24 20:50	0°♏		morning set	15706 Apr 19 23:21	3°♏03'37	
morning set	15705 May 07 00:25	19°♏47'26		desc. node	15706 Apr 25 17:37	13°♏24'56	
desc. node	15705 May 08 20:51	22°♏58'24					
	15705 May 12 23:42	0°♊		superior conj	15706 Apr 30 18:52	22°♏15'23	-0°40'18
superior conj	15705 May 19 12:10	10°♊51'40	-1°18'30	minimum elong	15706 Apr 30 15:14	21°♏59'48	0°40'21
minimum elong	15705 May 19 04:49	10°♊21'32	1°18'20		15706 May 05 08:35	0°♊	

max. Earth dist.	15706 May 08 03:27	4° Π 36'00	1.43139 AU	desc. node	15707 Apr 12 14:18	3° \mathcal{B} 56'33	
evening rise	15706 May 14 12:36	14° Π 49'20		max. Earth dist.	15707 Apr 20 13:24	17° \mathcal{B} 58'21	1.41087 AU
	15706 May 24 11:21	0° \mathcal{B}		evening rise	15707 Apr 25 02:51	25° \mathcal{B} 34'49	
evening max el	15706 Jun 15 13:55	29° \mathcal{B} 13'23	21°51'55		15707 Apr 27 20:26	0° Π	
	15706 Jun 16 09:03	0° Ω			15707 May 18 05:28	0° \mathcal{B}	
asc. node	15706 Jun 20 00:15	2° Ω 56'26		evening max el	15707 May 29 05:24	13° \mathcal{B} 07'07	23°12'25
retrograde	15706 Jun 24 20:17	4° Ω 37'52		asc. node	15707 Jun 06 21:14	19° \mathcal{B} 01'55	
evening set	15706 Jun 29 11:44	2° Ω 42'14		retrograde	15707 Jun 08 16:26	19° \mathcal{B} 16'00	
	15706 Jul 02 01:31	30° \mathcal{R} \mathcal{B}		evening set	15707 Jun 13 19:23	17° \mathcal{B} 05'28	
inferior conj	15706 Jul 04 17:33	26° \mathcal{B} 25'18	3°07'03	min. Earth dist.	15707 Jun 18 16:17	11° \mathcal{B} 19'00	0.69050 AU
minimum elong	15706 Jul 04 16:59	26° \mathcal{B} 27'17	3°06'13	inferior conj	15707 Jun 19 03:26	10° \mathcal{B} 40'26	2°55'18
min. Earth dist.	15706 Jul 04 19:24	26° \mathcal{B} 18'51	0.69065 AU	minimum elong	15707 Jun 19 02:02	10° \mathcal{B} 45'17	2°54'15
morning rise	15706 Jul 09 22:04	20° \mathcal{B} 09'26		morning rise	15707 Jun 24 08:38	4° \mathcal{B} 32'15	
direct	15706 Jul 14 18:28	18° \mathcal{B} 05'39		direct	15707 Jun 28 16:44	2° \mathcal{B} 47'39	
desc. node	15706 Jul 22 16:59	22° \mathcal{B} 08'45		morning max el	15707 Jul 07 03:00	7° \mathcal{B} 37'43	20°57'16
morning max el	15706 Jul 24 09:44	23° \mathcal{B} 45'40	22°19'33	desc. node	15707 Jul 09 14:14	10° \mathcal{B} 16'03	
	15706 Jul 29 22:08	0° Ω			15707 Jul 24 06:28	0° Ω	
	15706 Aug 20 01:20	0° \mathcal{M}		morning set	15707 Aug 06 09:33	19° Ω 50'09	
morning set	15706 Aug 26 15:51	10° \mathcal{M} 25'45			15707 Aug 12 19:50	0° \mathcal{M}	
max. Earth dist.	15706 Aug 31 20:06	18° \mathcal{M} 56'52	1.41205 AU	max. Earth dist.	15707 Aug 14 03:14	2° \mathcal{M} 06'37	1.43290 AU
	15706 Sep 07 06:23	0° \mathcal{L}					
superior conj	15706 Sep 08 16:13	2° \mathcal{L} 29'50	-1°01'49	superior conj	15707 Aug 21 02:43	13° \mathcal{M} 37'56	-1°36'33
minimum elong	15706 Sep 08 21:09	2° \mathcal{L} 51'48	1°01'06	minimum elong	15707 Aug 21 10:13	14° \mathcal{M} 09'33	1°36'02
asc. node	15706 Sep 16 01:20	15° \mathcal{L} 58'18			15707 Aug 30 13:39	0° \mathcal{L}	
evening rise	15706 Sep 18 23:02	21° \mathcal{L} 23'47		evening rise	15707 Sep 01 23:38	4° \mathcal{L} 17'14	
	15706 Sep 23 14:36	0° \mathcal{M}		asc. node	15707 Sep 02 21:58	5° \mathcal{L} 56'31	
evening max el	15706 Oct 04 20:56	16° \mathcal{M} 53'01	18°17'31		15707 Sep 18 11:57	0° \mathcal{M}	
retrograde	15706 Oct 12 07:32	20° \mathcal{M} 40'35		evening max el	15707 Sep 18 09:15	29° \mathcal{L} 53'21	18°02'18
evening set	15706 Oct 14 09:05	20° \mathcal{M} 23'42		retrograde	15707 Sep 25 02:02	3° \mathcal{M} 20'36	
desc. node	15706 Oct 18 13:47	18° \mathcal{M} 18'45		evening set	15707 Sep 27 10:56	2° \mathcal{M} 54'34	
inferior conj	15706 Oct 21 21:53	15° \mathcal{M} 43'09	-1°04'12		15707 Oct 02 00:04	30° \mathcal{R} \mathcal{L}	
minimum elong	15706 Oct 21 19:29	15° \mathcal{M} 48'09	1°02'41	inferior conj	15707 Oct 04 06:42	27° \mathcal{L} 54'04	0°22'05
min. Earth dist.	15706 Oct 25 04:06	13° \mathcal{M} 01'16	0.58635 AU	minimum elong	15707 Oct 04 07:23	27° \mathcal{L} 52'24	0°22'09
morning rise	15706 Oct 29 02:24	10° \mathcal{M} 19'04		desc. node	15707 Oct 05 11:07	26° \mathcal{L} 45'18	
direct	15706 Nov 04 11:45	8° \mathcal{M} 30'28		min. Earth dist.	15707 Oct 07 09:17	24° \mathcal{L} 55'53	0.60917 AU
morning max el	15706 Nov 18 18:52	16° \mathcal{M} 09'24	27°26'26	morning rise	15707 Oct 11 00:48	22° \mathcal{L} 00'32	
	15706 Nov 30 03:12	0° \mathcal{X}		direct	15707 Oct 17 16:28	19° \mathcal{L} 48'03	
asc. node	15706 Dec 13 02:06	21° \mathcal{X} 42'22		morning max el	15707 Oct 31 21:59	27° \mathcal{L} 41'55	27°57'28
	15706 Dec 17 06:36	0° \mathcal{Z}			15707 Nov 03 03:16	0° \mathcal{M}	
morning set	15706 Dec 19 20:57	5° \mathcal{Z} 26'05		asc. node	15707 Nov 23 21:23	0° \mathcal{X}	
				morning set	15707 Nov 29 23:06	11° \mathcal{X} 20'42	
superior conj	15706 Dec 26 18:21	20° \mathcal{Z} 36'20	1°35'44		15707 Dec 04 00:04	19° \mathcal{X} 31'52	
minimum elong	15706 Dec 26 17:27	20° \mathcal{Z} 31'14	1°36'31		15707 Dec 08 21:06	0° \mathcal{Z}	
max. Earth dist.	15706 Dec 26 13:00	20° \mathcal{Z} 06'21	1.31024 AU	max. Earth dist.	15707 Dec 09 19:23	2° \mathcal{Z} 02'52	1.31239 AU
	15706 Dec 30 23:30	0° \approx		superior conj	15707 Dec 11 05:03	5° \mathcal{Z} 09'37	1°27'28
evening rise	15707 Jan 02 12:29	5° \approx 31'49		minimum elong	15707 Dec 11 03:17	4° \mathcal{Z} 59'46	1°28'09
desc. node	15707 Jan 14 12:40	28° \approx 47'15		evening rise	15707 Dec 17 21:38	19° \mathcal{Z} 57'44	
	15707 Jan 15 05:52	0° \mathcal{H}			15707 Dec 22 16:53	0° \approx	
evening max el	15707 Feb 01 03:38	22° \mathcal{H} 28'48	26°41'39	desc. node	15708 Jan 01 09:28	17° \approx 24'33	
retrograde	15707 Feb 15 03:42	29° \mathcal{H} 40'25			15708 Jan 10 16:45	0° \mathcal{H}	
evening set	15707 Feb 21 15:04	27° \mathcal{H} 56'32		evening max el	15708 Jan 13 20:58	3° \mathcal{H} 17'38	25°25'01
min. Earth dist.	15707 Feb 25 17:21	25° \mathcal{H} 18'26	0.58830 AU	retrograde	15708 Jan 27 18:08	10° \mathcal{H} 16'26	
inferior conj	15707 Feb 28 21:57	22° \mathcal{H} 51'24	-3°10'27	evening set	15708 Feb 02 13:02	9° \mathcal{H} 00'10	
minimum elong	15707 Mar 01 05:10	22° \mathcal{H} 37'29	3°07'37	min. Earth dist.	15708 Feb 07 09:35	6° \mathcal{H} 18'53	0.56788 AU
morning rise	15707 Mar 08 22:43	18° \mathcal{H} 17'06		inferior conj	15708 Feb 10 03:56	4° \mathcal{H} 28'19	-4°37'41
direct	15707 Mar 10 22:10	18° \mathcal{H} 03'11		minimum elong	15708 Feb 10 13:16	4° \mathcal{H} 12'45	4°34'40
asc. node	15707 Mar 10 23:41	18° \mathcal{H} 03'12		morning rise	15708 Feb 18 16:17	0° \mathcal{H} 15'30	
morning max el	15707 Mar 18 19:42	21° \mathcal{H} 57'42	18°18'35	direct	15708 Feb 20 17:39	0° \mathcal{H} 02'59	
	15707 Mar 25 00:33	0° \mathcal{Y}		asc. node	15708 Feb 25 21:05	1° \mathcal{H} 26'35	
morning set	15707 Apr 03 12:51	16° \mathcal{Y} 58'43		morning max el	15708 Feb 29 22:21	4° \mathcal{H} 32'26	19°05'33
	15707 Apr 10 10:49	0° \mathcal{B}			15708 Mar 16 20:17	0° \mathcal{Y}	
				morning set	15708 Mar 17 12:22	1° \mathcal{Y} 19'18	
superior conj	15707 Apr 12 23:36	4° \mathcal{B} 38'51	-0°03'14				
minimum elong	15707 Apr 12 23:19	4° \mathcal{B} 37'37	0°03'36	superior conj	15708 Mar 25 22:10	17° \mathcal{Y} 49'52	0°29'21
behind sun begin	15707 Apr 12 16:06	4° \mathcal{B} 04'45		minimum elong	15708 Mar 25 23:56	17° \mathcal{Y} 58'17	0°28'51
behind sun end	15707 Apr 13 06:33	5° \mathcal{B} 10'24		desc. node	15708 Mar 29 10:55	24° \mathcal{Y} 29'27	

	15708 Apr 01 11:21	0°♄		desc. node	15709 Mar 16 07:31	15°♅00'10	
max. Earth dist.	15708 Apr 01 19:39	0°♄37'14	1.38816 AU	evening rise	15709 Mar 18 21:16	19°♅44'39	
evening rise	15708 Apr 05 14:24	7°♄15'27			15709 Mar 24 17:51	0°♄	
	15708 Apr 19 19:14	0°♄			15709 Apr 13 20:29	0°♄	
evening max el	15708 May 10 19:01	27°♄01'41	24°33'21	evening max el	15709 Apr 23 08:39	10°♄55'24	25°47'26
	15708 May 14 01:49	0°♄		retrograde	15709 May 05 21:14	18°♄08'02	
retrograde	15708 May 22 09:08	3°♄48'10		asc. node	15709 May 10 15:28	16°♄36'28	
asc. node	15708 May 23 18:19	3°♄40'02		evening set	15709 May 11 22:36	15°♄38'07	
evening set	15708 May 27 23:33	1°♄25'52		min. Earth dist.	15709 May 16 03:54	11°♄04'54	0.67603 AU
	15708 May 29 10:55	30°♄		inferior conj	15709 May 17 16:50	9°♄07'43	1°59'51
min. Earth dist.	15708 Jun 01 11:49	26°♄16'23	0.68557 AU	minimum elong	15709 May 17 14:40	9°♄14'38	1°58'28
inferior conj	15708 Jun 02 11:51	24°♄55'56	2°33'03	morning rise	15709 May 23 07:19	3°♄18'46	
minimum elong	15708 Jun 02 09:52	25°♄02'36	2°31'48	direct	15709 May 26 16:43	2°♄12'58	
morning rise	15708 Jun 07 20:19	18°♄56'41		morning max el	15709 Jun 02 10:07	5°♄50'20	18°51'24
direct	15708 Jun 11 16:41	17°♄31'52		desc. node	15709 Jun 12 08:25	18°♄36'35	
morning max el	15708 Jun 19 02:56	21°♄39'44	19°46'47	greatest brilliancy	15709 Jun 15 23:59	24°♄04'25	-0.8m
desc. node	15708 Jun 25 11:22	29°♄09'21			15709 Jun 19 20:49	0°♄	
	15708 Jun 26 02:33	0°♄		morning set	15709 Jun 24 23:31	7°♄54'48	
morning set	15708 Jul 15 13:36	28°♄41'50			15709 Jul 09 04:19	0°♄	
	15708 Jul 16 09:57	0°♄		max. Earth dist.	15709 Jul 09 10:37	0°♄24'36	1.45788 AU
max. Earth dist.	15708 Jul 26 16:27	16°♄00'02	1.44870 AU				
				superior conj	15709 Jul 11 04:57	3°♄10'10	-2°14'08
superior conj	15708 Jul 31 13:36	23°♄47'08	-2°03'09	minimum elong	15709 Jul 11 05:31	3°♄12'21	2°14'53
minimum elong	15708 Jul 31 20:19	24°♄14'09	2°03'19	evening rise	15709 Jul 26 10:51	27°♄22'06	
	15708 Aug 04 09:35	0°♄			15709 Jul 28 02:05	0°♄	
evening rise	15708 Aug 14 05:09	16°♄20'18		asc. node	15709 Aug 06 15:14	15°♄09'52	
asc. node	15708 Aug 19 18:35	25°♄42'06		evening max el	15709 Aug 15 13:57	26°♄59'19	18°27'32
	15708 Aug 22 09:10	0°♄			15709 Aug 19 19:45	0°♄	
evening max el	15708 Sep 01 00:03	13°♄18'23	18°05'59	retrograde	15709 Aug 22 00:28	0°♄26'16	
retrograde	15708 Sep 07 09:04	16°♄38'46			15709 Aug 24 04:19	30°♄	
evening set	15708 Sep 10 02:28	16°♄00'06		evening set	15709 Aug 25 02:56	29°♄32'17	
inferior conj	15708 Sep 16 07:54	10°♄41'48	1°28'27	inferior conj	15709 Aug 30 21:31	23°♄58'18	2°15'53
minimum elong	15708 Sep 16 10:01	10°♄36'03	1°27'50	minimum elong	15709 Aug 30 23:50	23°♄51'22	2°15'06
min. Earth dist.	15708 Sep 19 00:16	7°♄47'56	0.63171 AU	min. Earth dist.	15709 Sep 02 00:36	21°♄25'52	0.65193 AU
desc. node	15708 Sep 21 08:31	5°♄31'54		morning rise	15709 Sep 05 19:28	17°♄35'15	
morning rise	15708 Sep 22 15:26	4°♄29'01		desc. node	15709 Sep 08 05:56	15°♄57'57	
direct	15708 Sep 29 07:19	1°♄59'43		direct	15709 Sep 12 06:21	14°♄58'12	
morning max el	15708 Oct 13 06:16	9°♄59'02	27°49'49	morning max el	15709 Sep 25 17:09	22°♄51'03	27°08'37
	15708 Oct 28 22:49	0°♄			15709 Oct 02 01:18	0°♄	
	15708 Nov 15 05:01	0°♄		morning set	15709 Oct 22 05:40	0°♄	
asc. node	15708 Nov 15 20:00	1°♄14'23		asc. node	15709 Oct 31 06:17	16°♄29'40	
morning set	15708 Nov 16 20:06	3°♄15'17		max. Earth dist.	15709 Nov 02 16:48	21°♄17'52	
max. Earth dist.	15708 Nov 21 20:32	13°♄43'02	1.32019 AU		15709 Nov 04 13:25	25°♄03'17	1.33363 AU
					15709 Nov 06 22:47	0°♄	
superior conj	15708 Nov 24 13:01	19°♄32'08	1°13'10	superior conj	15709 Nov 08 16:05	3°♄37'40	0°52'47
minimum elong	15708 Nov 24 10:44	19°♄19'40	1°13'40	minimum elong	15709 Nov 08 13:50	3°♄25'42	0°53'08
	15708 Nov 29 07:24	0°♄		evening rise	15709 Nov 15 18:53	18°♄52'43	
evening rise	15708 Dec 01 08:23	4°♄26'22			15709 Nov 21 04:48	0°♄	
	15708 Dec 14 18:45	0°♄		desc. node	15709 Dec 05 03:21	21°♄34'12	
desc. node	15708 Dec 18 06:21	5°♄09'06		evening max el	15709 Dec 06 18:42	23°♄23'34	22°03'52
evening max el	15708 Dec 25 07:41	13°♄26'12	23°46'41	retrograde	15709 Dec 19 07:53	29°♄36'01	
retrograde	15709 Jan 07 19:01	20°♄06'55		evening set	15709 Dec 22 17:52	29°♄10'08	
evening set	15709 Jan 12 12:08	19°♄18'48		inferior conj	15709 Dec 31 07:15	25°♄18'38	-6°00'10
min. Earth dist.	15709 Jan 18 19:02	16°♄16'38	0.55242 AU	minimum elong	15709 Dec 31 05:02	25°♄21'45	5°59'16
inferior conj	15709 Jan 20 13:14	15°♄14'15	-5°42'58	min. Earth dist.	15709 Dec 31 00:34	25°♄27'59	0.54463 AU
minimum elong	15709 Jan 20 19:41	15°♄04'42	5°41'27	morning rise	15710 Jan 08 17:04	21°♄31'25	
morning rise	15709 Jan 29 04:50	11°♄19'07		direct	15710 Jan 12 04:11	21°♄04'52	
direct	15709 Jan 31 17:55	11°♄02'58		morning max el	15710 Jan 24 10:23	27°♄00'01	21°48'08
morning max el	15709 Feb 11 11:56	16°♄14'56	20°15'34		15710 Jan 27 06:22	0°♄	
asc. node	15709 Feb 11 18:28	16°♄30'57		asc. node	15710 Jan 29 15:49	2°♄58'49	
	15709 Feb 21 12:01	0°♄			15710 Feb 13 21:07	0°♄	
morning set	15709 Mar 01 18:30	15°♄55'42		morning set	15710 Feb 14 04:33	0°♄39'01	
	15709 Mar 08 15:08	0°♄					
superior conj	15709 Mar 09 10:18	1°♄36'46	0°55'49	superior conj	15710 Feb 21 08:12	15°♄48'14	1°15'47
minimum elong	15709 Mar 09 12:50	1°♄49'31	0°55'29	minimum elong	15710 Feb 21 10:37	16°♄00'51	1°15'47
max. Earth dist.	15709 Mar 15 02:37	12°♄43'57	1.36573 AU	max. Earth dist.	15710 Feb 25 14:44	24°♄35'38	1.34562 AU

	15710 Feb 28 08:16	0° Υ		superior conj	15711 Feb 05 12:52	0° X 16'01	1°29'19
evening rise	15710 Mar 01 19:51	2° Υ 51'26		minimum elong	15711 Feb 05 14:35	0° X 25'18	1°29'41
desc. node	15710 Mar 03 04:08	5° Υ 24'06		max. Earth dist.	15711 Feb 08 10:09	6° X 27'17	1.32935 AU
	15710 Mar 17 16:09	0° B		evening rise	15711 Feb 13 06:43	16° X 27'18	
evening max el	15710 Apr 05 22:30	24° B 40'28	26°47'17	desc. node	15711 Feb 18 00:45	25° X 37'01	
	15710 Apr 12 13:56	0° II			15711 Feb 20 10:23	0° Υ	
retrograde	15710 Apr 19 03:47	2° II 07'34			15711 Mar 12 04:17	0° B	
	15710 Apr 25 01:40	30° R B		evening max el	15711 Mar 19 11:36	8° B 06'12	27°25'30
evening set	15710 Apr 25 14:39	29° B 35'12		retrograde	15711 Apr 02 03:59	15° B 37'52	
asc. node	15710 Apr 27 12:43	27° B 51'06		evening set	15711 Apr 08 21:34	13° B 09'34	
min. Earth dist.	15710 Apr 29 14:20	25° B 36'38	0.66209 AU	min. Earth dist.	15711 Apr 12 17:12	9° B 42'25	0.64423 AU
inferior conj	15710 May 01 16:10	23° B 10'06	1°14'44	asc. node	15711 Apr 14 10:03	7° B 53'46	
minimum elong	15710 May 01 14:25	23° B 15'16	1°13'30	inferior conj	15711 Apr 15 07:14	6° B 56'40	0°16'37
morning rise	15710 May 07 15:27	17° B 33'12		minimum elong	15711 Apr 15 06:46	6° B 57'56	0°15'59
direct	15710 May 10 14:46	16° B 44'28		morning rise	15711 Apr 21 18:05	1° B 33'59	
morning max el	15710 May 16 23:22	20° B 04'27	18°12'38	direct	15711 Apr 24 08:19	0° B 59'32	
	15710 May 24 17:47	0° II		morning max el	15711 Apr 30 16:18	4° B 14'37	17°50'58
desc. node	15710 May 30 05:25	8° II 28'25		desc. node	15711 May 17 02:19	28° B 37'54	
morning set	15710 Jun 05 08:19	18° II 15'20		morning set	15711 May 17 20:37	29° B 54'34	
	15710 Jun 12 17:06	0° B			15711 May 17 21:55	0° II	
superior conj	15710 Jun 20 13:54	12° B 22'29	-2°05'06	superior conj	15711 May 31 09:29	22° II 08'41	-1°38'40
minimum elong	15710 Jun 20 07:12	11° B 56'19	2°05'36	minimum elong	15711 May 31 00:53	21° II 34'10	1°38'36
max. Earth dist.	15710 Jun 22 07:16	15° B 04'01	1.45957 AU	max. Earth dist.	15711 Jun 05 03:08	29° II 39'43	1.45378 AU
	15710 Jul 01 21:40	0° Q			15711 Jun 05 08:17	0° B	
evening rise	15710 Jul 06 16:06	7° Q 24'13		evening rise	15711 Jun 16 04:59	16° B 50'10	
greatest brilliancy	15710 Jul 17 18:16	24° Q 29'02	-0.7m		15711 Jun 24 21:40	0° Q	
	15710 Jul 21 11:40	0° P		greatest brilliancy	15711 Jul 01 01:14	9° Q 03'40	-0.6m
asc. node	15710 Jul 24 11:56	4° P 13'23		asc. node	15711 Jul 11 08:43	22° Q 43'38	
evening max el	15710 Jul 30 00:15	10° P 48'57	19°06'08	evening max el	15711 Jul 13 05:01	24° Q 41'25	20°00'32
retrograde	15710 Aug 05 20:56	14° P 35'42		retrograde	15711 Jul 20 19:42	29° Q 00'00	
evening set	15710 Aug 09 08:55	13° P 24'46		evening set	15711 Jul 24 17:47	27° Q 31'29	
inferior conj	15710 Aug 14 20:07	7° P 36'51	2°46'54	inferior conj	15711 Jul 30 00:46	21° Q 31'08	3°04'01
minimum elong	15710 Aug 14 21:55	7° P 31'02	2°46'10	minimum elong	15711 Jul 30 01:42	21° Q 27'57	3°03'19
min. Earth dist.	15710 Aug 16 09:03	5° P 37'57	0.66850 AU	min. Earth dist.	15711 Jul 30 23:46	20° Q 13'13	0.68081 AU
morning rise	15710 Aug 20 10:13	1° P 10'27		morning rise	15711 Aug 04 09:14	15° Q 06'17	
	15710 Aug 21 23:25	30° R Q		direct	15711 Aug 10 00:38	12° Q 38'23	
desc. node	15710 Aug 26 03:22	28° Q 34'52		desc. node	15711 Aug 13 00:48	13° Q 13'49	
direct	15710 Aug 26 12:28	28° Q 34'18		morning max el	15711 Aug 21 15:38	19° Q 36'10	24°39'19
	15710 Aug 31 12:50	0° P			15711 Aug 30 12:28	0° P	
morning max el	15710 Sep 08 04:39	6° P 07'04	26°02'02		15711 Sep 19 19:15	0° Q	
	15710 Sep 26 16:17	0° Q		morning set	15711 Sep 26 07:08	11° Q 00'16	
morning set	15710 Oct 14 03:20	29° Q 08'03		max. Earth dist.	15711 Sep 29 20:40	17° Q 21'31	1.37453 AU
	15710 Oct 14 14:33	0° M					
max. Earth dist.	15710 Oct 17 20:46	6° M 10'06	1.35217 AU	superior conj	15711 Oct 06 20:28	0° M 30'35	-0°05'12
asc. node	15710 Oct 20 13:33	11° M 27'05		minimum elong	15711 Oct 06 20:47	0° M 32'08	0°04'47
				behind sun begin	15711 Oct 06 14:22	0° M 00'57	
superior conj	15710 Oct 23 11:40	17° M 20'03	0°26'29	behind sun end	15711 Oct 07 03:13	1° M 03'22	
minimum elong	15710 Oct 23 10:12	17° M 12'36	0°26'47		15711 Oct 06 14:10	0° M	
	15710 Oct 29 14:16	0° X		asc. node	15711 Oct 07 10:14	1° M 37'34	
evening rise	15710 Oct 31 03:11	3° X 12'10		evening rise	15711 Oct 15 06:51	17° M 17'48	
	15710 Nov 15 07:27	0° B			15711 Oct 21 20:11	0° X	
evening max el	15710 Nov 18 15:37	3° B 47'43	20°33'09	evening max el	15711 Nov 01 03:00	14° X 59'35	19°23'08
desc. node	15710 Nov 22 00:27	6° B 38'45		desc. node	15711 Nov 08 21:39	19° X 35'51	
retrograde	15710 Nov 29 18:22	9° B 19'18		retrograde	15711 Nov 10 14:42	19° X 44'50	
evening set	15710 Dec 02 02:55	9° B 05'32		evening set	15711 Nov 12 12:24	19° X 34'11	
inferior conj	15710 Dec 10 22:56	5° B 11'28	-5°16'13	inferior conj	15711 Nov 21 02:33	15° X 26'28	-3°46'28
minimum elong	15710 Dec 10 13:38	5° B 25'00	5°13'21	minimum elong	15711 Nov 20 17:27	15° X 41'20	3°42'35
min. Earth dist.	15710 Dec 12 06:09	4° B 26'07	0.54608 AU	min. Earth dist.	15711 Nov 23 15:18	13° X 47'25	0.55654 AU
morning rise	15710 Dec 19 00:07	1° B 13'43		morning rise	15711 Nov 28 20:18	10° X 59'39	
direct	15710 Dec 23 12:25	0° B 29'58		direct	15711 Dec 04 06:42	9° X 52'39	
morning max el	15711 Jan 05 21:41	7° B 03'07	23°35'58	morning max el	15711 Dec 18 06:46	16° X 56'51	25°23'16
asc. node	15711 Jan 16 13:06	20° B 32'21			15711 Dec 28 21:48	0° B	
	15711 Jan 22 01:16	0° B		asc. node	15712 Jan 03 10:19	8° B 55'20	
morning set	15711 Jan 29 16:22	15° B 23'13		morning set	15712 Jan 14 04:06	0° B 02'53	
	15711 Feb 05 09:54	0° X			15712 Jan 14 03:34	0° B	

superior conj	15712 Jan 20 21:48	14° \approx 53'02	1°36'36	superior conj	15713 Jan 04 08:52	29° \approx 32'45	1°37'47
minimum elong	15712 Jan 20 22:32	14° \approx 57'07	1°37'14	minimum elong	15713 Jan 04 08:33	29° \approx 30'56	1°38'33
max. Earth dist.	15712 Jan 22 12:26	18° \approx 26'07	1.31780 AU		15713 Jan 04 13:44	0° \approx	
	15712 Jan 27 22:03	0° \approx		max. Earth dist.	15713 Jan 04 19:10	0° \approx 30'23	1.31144 AU
evening rise	15712 Jan 28 02:52	0° \approx 24'58		evening rise	15713 Jan 11 05:45	14° \approx 37'52	
desc. node	15712 Feb 04 21:26	15° \approx 33'43			15713 Jan 18 22:20	0° \approx	
	15712 Feb 13 10:44	0° \approx		desc. node	15713 Jan 21 18:07	5° \approx 07'00	
evening max el	15712 Feb 29 22:20	21° \approx 01'10	27°35'20		15713 Feb 08 00:58	0° \approx	
retrograde	15712 Mar 14 20:58	28° \approx 09'08		evening max el	15713 Feb 11 04:14	3° \approx 12'57	27°11'30
evening set	15712 Mar 21 16:50	26° \approx 12'32		retrograde	15713 Feb 25 04:54	10° \approx 31'06	
min. Earth dist.	15712 Mar 25 10:59	23° \approx 11'18	0.62338 AU	evening set	15713 Mar 03 21:18	8° \approx 33'48	
inferior conj	15712 Mar 28 10:57	20° \approx 19'53	-0°55'02	min. Earth dist.	15713 Mar 07 18:39	5° \approx 50'12	0.60105 AU
minimum elong	15712 Mar 28 12:49	20° \approx 15'24	0°54'29	inferior conj	15713 Mar 10 23:39	3° \approx 09'31	-2°18'49
asc. node	15712 Mar 31 07:26	17° \approx 45'07		minimum elong	15713 Mar 11 04:50	2° \approx 58'38	2°16'44
morning rise	15712 Apr 04 11:48	15° \approx 13'48			15713 Mar 15 03:17	30° \approx	
direct	15712 Apr 06 18:17	14° \approx 50'13		asc. node	15713 Mar 18 04:51	28° \approx 30'40	
morning max el	15712 Apr 13 09:57	18° \approx 12'09	17°46'51	morning rise	15713 Mar 18 15:50	28° \approx 22'38	
	15712 Apr 22 00:08	0° \approx		direct	15713 Mar 20 16:46	28° \approx 06'15	
morning set	15712 Apr 29 08:43	12° \approx 41'01			15713 Mar 25 22:58	0° \approx	
desc. node	15712 May 02 23:07	18° \approx 59'42		morning max el	15713 Mar 28 00:48	1° \approx 45'59	18°01'13
	15712 May 09 08:47	0° \approx		morning set	15713 Apr 12 14:30	26° \approx 15'42	
					15713 Apr 14 15:08	0° \approx	
superior conj	15712 May 11 02:38	2° \approx 55'47	-1°02'30	desc. node	15713 Apr 19 19:49	9° \approx 28'37	
minimum elong	15712 May 10 20:46	2° \approx 31'18	1°02'22				
max. Earth dist.	15712 May 17 19:59	13° \approx 56'49	1.44119 AU	superior conj	15713 Apr 22 19:05	14° \approx 45'51	-0°24'11
evening rise	15712 May 25 17:36	26° \approx 23'19		minimum elong	15713 Apr 22 17:01	14° \approx 36'45	0°24'22
	15712 May 28 02:00	0° \approx		max. Earth dist.	15713 Apr 30 08:34	27° \approx 41'57	1.42312 AU
	15712 Jun 17 20:41	0° \approx			15713 May 01 18:00	0° \approx	
evening max el	15712 Jun 25 03:50	8° \approx 34'58	21°08'20	evening rise	15713 May 05 20:20	6° \approx 37'57	
asc. node	15712 Jun 27 05:36	10° \approx 29'53			15713 May 21 06:40	0° \approx	
retrograde	15712 Jul 03 18:40	13° \approx 34'10		evening max el	15713 Jun 07 21:33	22° \approx 28'39	22°25'44
evening set	15712 Jul 08 03:32	11° \approx 48'19		asc. node	15713 Jun 14 02:34	27° \approx 16'54	
inferior conj	15712 Jul 13 09:04	5° \approx 37'01	3°09'05	retrograde	15713 Jun 17 16:07	28° \approx 12'06	
minimum elong	15712 Jul 13 09:03	5° \approx 37'06	3°08'20	evening set	15713 Jun 22 12:23	26° \approx 10'04	
min. Earth dist.	15712 Jul 13 18:36	5° \approx 03'54	0.68847 AU	inferior conj	15713 Jun 27 18:55	19° \approx 49'34	3°03'18
	15712 Jul 17 20:07	30° \approx		minimum elong	15713 Jun 27 17:59	19° \approx 52'51	3°02'24
morning rise	15712 Jul 18 14:18	29° \approx 17'03		min. Earth dist.	15713 Jun 27 15:18	20° \approx 02'11	0.69124 AU
direct	15712 Jul 23 17:48	27° \approx 03'06		morning rise	15713 Jul 02 23:24	13° \approx 36'42	
desc. node	15712 Jul 29 22:09	29° \approx 31'58		direct	15713 Jul 07 14:38	11° \approx 40'37	
	15712 Jul 30 13:02	0° \approx		morning max el	15713 Jul 16 16:57	16° \approx 58'38	21°43'16
morning max el	15712 Aug 03 02:53	3° \approx 13'25	23°10'06	desc. node	15713 Jul 16 19:26	17° \approx 04'52	
	15712 Aug 23 14:17	0° \approx			15713 Jul 27 09:13	0° \approx	
morning set	15712 Sep 06 13:30	21° \approx 56'51			15713 Aug 16 15:28	0° \approx	
max. Earth dist.	15712 Sep 10 19:10	29° \approx 06'27	1.39859 AU	morning set	15713 Aug 17 19:51	1° \approx 52'14	
	15712 Sep 11 07:35	0° \approx		max. Earth dist.	15713 Aug 23 22:32	11° \approx 45'18	1.42146 AU
superior conj	15712 Sep 18 14:41	13° \approx 00'58	-0°40'42	superior conj	15713 Aug 31 13:56	24° \approx 41'40	-1°17'06
minimum elong	15712 Sep 18 17:46	13° \approx 15'09	0°40'04	minimum elong	15713 Aug 31 20:09	25° \approx 08'43	1°16'24
asc. node	15712 Sep 23 06:52	21° \approx 45'59			15713 Sep 03 14:26	0° \approx	
	15712 Sep 27 14:00	0° \approx		asc. node	15713 Sep 10 03:30	11° \approx 49'00	
evening rise	15712 Sep 28 03:03	1° \approx 02'45		evening rise	15713 Sep 11 12:05	14° \approx 18'07	
evening max el	15712 Oct 14 03:21	27° \approx 00'29	18°35'23		15713 Sep 20 08:49	0° \approx	
	15712 Oct 18 00:52	0° \approx		evening max el	15713 Sep 27 12:33	9° \approx 42'04	18°08'42
retrograde	15712 Oct 22 04:52	1° \approx 05'18		retrograde	15713 Oct 04 14:03	13° \approx 18'57	
evening set	15712 Oct 24 03:27	0° \approx 51'54		evening set	15713 Oct 06 18:41	12° \approx 58'30	
desc. node	15712 Oct 25 18:55	0° \approx 20'53		desc. node	15713 Oct 12 16:13	9° \approx 18'20	
	15712 Oct 26 14:05	30° \approx		inferior conj	15713 Oct 13 23:58	8° \approx 09'11	-0°25'13
inferior conj	15712 Nov 01 02:28	26° \approx 12'40	-2°01'38	minimum elong	15713 Oct 13 23:06	8° \approx 11'06	0°24'24
minimum elong	15712 Oct 31 21:34	26° \approx 13'21	1°59'01	min. Earth dist.	15713 Oct 17 05:44	5° \approx 17'57	0.59596 AU
min. Earth dist.	15712 Nov 04 06:26	24° \approx 00'20	0.57416 AU	morning rise	15713 Oct 21 00:13	2° \approx 31'48	
morning rise	15712 Nov 08 12:21	21° \approx 20'34		direct	15713 Oct 27 13:16	0° \approx 32'21	
direct	15712 Nov 14 15:27	19° \approx 46'52		morning max el	15713 Nov 10 19:49	8° \approx 17'49	27°44'35
morning max el	15712 Nov 28 21:13	27° \approx 14'48	26°50'52		15713 Nov 27 09:00	0° \approx	
	15712 Dec 01 13:15	0° \approx		asc. node	15713 Dec 07 04:28	17° \approx 21'23	
asc. node	15712 Dec 20 07:26	27° \approx 54'57		morning set	15713 Dec 12 20:05	28° \approx 48'56	
	15712 Dec 21 10:02	0° \approx			15713 Dec 13 09:29	0° \approx	
morning set	15712 Dec 28 13:56	14° \approx 32'57		max. Earth dist.	15713 Dec 19 02:54	12° \approx 32'57	1.31047 AU

superior conj	15713 Dec 19 20:14	14° ♄ 09'52	1°32'59	superior conj	15714 Dec 04 05:58	28° ♄ 38'27	1°22'09
minimum elong	15713 Dec 19 18:56	14° ♄ 02'34	1°33'43	minimum elong	15714 Dec 04 03:56	28° ♄ 27'11	1°22'45
evening rise	15713 Dec 26 13:11	29° ♄ 00'38			15714 Dec 04 20:42	0° ♄	
	15713 Dec 27 00:14	0° \approx		evening rise	15714 Dec 10 23:13	13° ♄ 27'48	
desc. node	15714 Jan 08 14:52	24° \approx 08'08			15714 Dec 19 02:54	0° \approx	
	15714 Jan 12 08:00	0° ♄		desc. node	15714 Dec 26 11:43	12° \approx 24'34	
evening max el	15714 Jan 24 02:43	14° ♄ 32'46	26°12'44	evening max el	15715 Jan 05 16:37	25° \approx 00'46	24°44'50
retrograde	15714 Feb 07 01:54	21° ♄ 38'23			15715 Jan 12 09:14	0° ♄	
evening set	15714 Feb 13 07:25	20° ♄ 06'09		retrograde	15715 Jan 19 10:17	1° ♄ 52'33	
min. Earth dist.	15714 Feb 17 15:59	17° ♄ 28'38	0.57925 AU	evening set	15715 Jan 24 19:37	0° ♄ 48'14	
inferior conj	15714 Feb 20 17:40	15° ♄ 15'36	-3°48'31		15715 Jan 26 15:36	30° ♄	
minimum elong	15714 Feb 21 02:08	15° ♄ 00'16	3°45'24	min. Earth dist.	15715 Jan 30 04:32	28° \approx 00'43	0.56055 AU
morning rise	15714 Mar 01 00:01	10° ♄ 50'11		inferior conj	15715 Feb 01 14:30	26° \approx 29'33	-5°09'35
direct	15714 Mar 02 23:31	10° ♄ 37'16		minimum elong	15715 Feb 01 23:26	26° \approx 15'29	5°07'05
asc. node	15714 Mar 05 02:14	10° ♄ 52'42		morning rise	15715 Feb 10 05:31	22° \approx 25'18	
morning max el	15714 Mar 11 09:04	14° ♄ 45'27	18°35'44	direct	15715 Feb 12 10:40	22° \approx 11'53	
	15714 Mar 21 20:28	0° ♄		asc. node	15715 Feb 19 23:36	24° \approx 59'51	
morning set	15714 Mar 27 08:47	10° ♄ 23'23		morning max el	15715 Feb 22 06:32	26° \approx 58'14	19°32'33
					15715 Feb 25 00:28	0° ♄	
superior conj	15714 Apr 05 07:58	27° ♄ 30'52	0°11'17	morning set	15715 Mar 11 11:29	24° ♄ 51'32	
minimum elong	15714 Apr 05 08:43	27° ♄ 34'23	0°10'50		15715 Mar 14 00:44	0° ♄	
behind sun begin	15714 Apr 05 03:32	27° ♄ 10'12					
behind sun end	15714 Apr 05 13:55	27° ♄ 58'32		superior conj	15715 Mar 19 12:50	10° ♄ 58'25	0°41'21
desc. node	15714 Apr 06 16:28	0° ♄ 01'05		minimum elong	15715 Mar 19 15:03	11° ♄ 09'17	0°40'54
	15714 Apr 06 16:14	0° ♄		desc. node	15715 Mar 24 13:05	20° ♄ 33'15	
max. Earth dist.	15714 Apr 12 17:02	10° ♄ 47'05	1.40145 AU	max. Earth dist.	15715 Mar 25 23:19	23° ♄ 11'28	1.37846 AU
evening rise	15714 Apr 16 19:46	17° ♄ 47'25		evening rise	15715 Mar 29 15:52	29° ♄ 49'14	
	15714 Apr 24 09:20	0° ♄			15715 Mar 29 18:18	0° ♄	
	15714 May 15 18:02	0° ♄			15715 Apr 17 16:24	0° ♄	
evening max el	15714 May 21 12:07	6° ♄ 22'58	23°47'10	evening max el	15715 May 04 01:31	20° ♄ 17'22	25°06'03
asc. node	15714 May 31 23:36	12° ♄ 47'14		retrograde	15715 May 16 01:39	27° ♄ 16'25	
retrograde	15714 Jun 01 10:46	12° ♄ 48'10		asc. node	15715 May 18 20:43	26° ♄ 43'43	
evening set	15714 Jun 06 18:44	10° ♄ 32'10		evening set	15715 May 21 20:59	24° ♄ 49'59	
min. Earth dist.	15714 Jun 11 11:47	5° ♄ 01'39	0.68909 AU	min. Earth dist.	15715 May 26 06:01	19° ♄ 56'23	0.68211 AU
inferior conj	15714 Jun 12 04:24	4° ♄ 04'50	2°47'07	inferior conj	15715 May 27 11:37	18° ♄ 19'16	2°20'22
minimum elong	15714 Jun 12 02:42	4° ♄ 10'37	2°45'59	minimum elong	15715 May 27 09:30	18° ♄ 26'15	2°19'02
	15714 Jun 15 08:54	30° ♄		morning rise	15715 Jun 01 22:21	12° ♄ 24'31	
morning rise	15714 Jun 17 10:41	28° ♄ 00'28		direct	15715 Jun 05 13:55	11° ♄ 08'05	
direct	15714 Jun 21 13:48	26° ♄ 24'12		morning max el	15715 Jun 12 16:05	15° ♄ 01'13	19°21'17
	15714 Jun 28 13:57	0° ♄		desc. node	15715 Jun 20 13:45	24° ♄ 42'09	
morning max el	15714 Jun 29 12:50	0° ♄ 54'25	20°25'31		15715 Jun 24 06:39	0° ♄	
desc. node	15714 Jul 03 16:38	5° ♄ 33'03		greatest brilliancy	15715 Jun 25 08:04	1° ♄ 33'24	-0.7m
	15714 Jul 21 01:10	0° ♄		morning set	15715 Jul 07 09:57	19° ♄ 51'37	
morning set	15714 Jul 28 05:51	10° ♄ 57'12			15715 Jul 13 23:33	0° ♄	
max. Earth dist.	15714 Aug 06 08:56	25° ♄ 17'04	1.44041 AU	max. Earth dist.	15715 Jul 20 00:52	9° ♄ 27'03	1.45346 AU
	15714 Aug 09 07:09	0° ♄					
superior conj	15714 Aug 12 14:22	5° ♄ 24'02	-1°49'18	superior conj	15715 Jul 23 15:57	15° ♄ 10'39	-2°10'07
minimum elong	15714 Aug 12 22:09	5° ♄ 56'08	1°49'00	minimum elong	15715 Jul 23 20:39	15° ♄ 29'17	2°10'36
evening rise	15714 Aug 25 05:13	26° ♄ 51'32			15715 Aug 01 21:02	0° ♄	
	15714 Aug 27 00:34	0° ♄		evening rise	15715 Aug 07 01:10	8° ♄ 30'10	
asc. node	15714 Aug 28 00:07	1° ♄ 42'12		asc. node	15715 Aug 14 20:46	21° ♄ 21'09	
evening max el	15714 Sep 11 02:20	22° ♄ 53'33	18°01'35		15715 Aug 20 11:50	0° ♄	
retrograde	15714 Sep 17 14:34	26° ♄ 16'18		evening max el	15715 Aug 25 17:06	6° ♄ 26'10	18°12'58
evening set	15714 Sep 20 03:03	25° ♄ 45'10		retrograde	15715 Sep 01 01:48	9° ♄ 48'05	
inferior conj	15714 Sep 26 16:15	20° ♄ 36'27	0°52'44	evening set	15715 Sep 03 22:55	9° ♄ 03'16	
minimum elong	15714 Sep 26 17:44	20° ♄ 32'40	0°52'25	inferior conj	15715 Sep 09 23:17	3° ♄ 37'55	1°50'45
min. Earth dist.	15714 Sep 29 14:54	17° ♄ 38'03	0.61892 AU	minimum elong	15715 Sep 10 01:36	3° ♄ 31'19	1°50'01
desc. node	15714 Sep 29 13:36	17° ♄ 41'12		min. Earth dist.	15715 Sep 12 10:10	0° ♄ 51'19	0.64064 AU
morning rise	15714 Oct 03 05:49	14° ♄ 33'33			15715 Sep 13 05:15	30° ♄	
direct	15714 Oct 09 22:08	12° ♄ 13'15		morning rise	15715 Sep 16 02:32	27° ♄ 19'26	
morning max el	15714 Oct 24 01:32	20° ♄ 10'03	27°58'53	desc. node	15715 Sep 16 11:01	27° ♄ 03'16	
	15714 Nov 01 12:39	0° ♄		direct	15715 Sep 22 16:39	24° ♄ 45'51	
	15714 Nov 20 08:42	0° ♄			15715 Oct 03 13:01	0° ♄	
asc. node	15714 Nov 24 01:24	7° ♄ 06'32		morning max el	15715 Oct 06 11:33	2° ♄ 44'34	27°35'58
morning set	15714 Nov 26 20:28	12° ♄ 45'19			15715 Oct 26 21:12	0° ♄	
max. Earth dist.	15714 Dec 02 07:43	24° ♄ 23'56	1.31504 AU	morning set	15715 Nov 10 12:41	26° ♄ 17'07	
				asc. node	15715 Nov 10 22:16	27° ♄ 04'51	

	15715 Nov 12 09:00	0°♊		asc. node	15716 Oct 27 19:03	17°♍11'11	
max. Earth dist.	15715 Nov 15 05:45	5°♊55'48	1.32525 AU	max. Earth dist.	15716 Oct 27 18:14	17°♍07'06	1.34091 AU
superior conj	15715 Nov 18 12:08	12°♊53'59	1°05'15	superior conj	15716 Nov 01 12:22	26°♍50'23	0°42'19
minimum elong	15715 Nov 18 09:47	12°♊41'17	1°05'41	minimum elong	15716 Nov 01 10:21	26°♍39'49	0°42'38
evening rise	15715 Nov 25 10:06	27°♊55'30			15716 Nov 03 00:30	0°♊	
	15715 Nov 26 09:24	0°♊		evening rise	15716 Nov 08 19:54	12°♊19'08	
desc. node	15715 Dec 13 08:39	29°♊40'40			15716 Nov 17 19:45	0°♊	
	15715 Dec 13 14:46	0°♊		evening max el	15716 Nov 28 16:21	15°♊03'40	21°23'09
evening max el	15715 Dec 18 02:01	4°♊58'26	23°02'15	desc. node	15716 Nov 29 05:42	15°♊35'48	
retrograde	15715 Dec 31 05:53	11°♊29'30		retrograde	15716 Dec 10 16:25	20°♊59'58	
evening set	15716 Jan 04 09:48	10°♊51'51		evening set	15716 Dec 13 13:48	20°♊40'45	
min. Earth dist.	15716 Jan 11 11:51	7°♊34'44	0.54800 AU	inferior conj	15716 Dec 22 07:21	16°♊50'06	-5°48'46
inferior conj	15716 Jan 12 16:03	6°♊54'23	-5°57'32	minimum elong	15716 Dec 22 01:21	16°♊58'32	5°47'12
minimum elong	15716 Jan 12 19:16	6°♊49'46	5°56'36	min. Earth dist.	15716 Dec 22 17:25	16°♊35'57	0.54403 AU
morning rise	15716 Jan 21 06:06	3°♊04'32		morning rise	15716 Dec 30 13:19	13°♊00'29	
direct	15716 Jan 24 03:18	2°♊45'02		direct	15717 Jan 03 11:12	12°♊27'19	
morning max el	15716 Feb 04 13:44	8°♊15'43	20°52'36	morning max el	15717 Jan 16 06:40	18°♊40'24	22°32'54
asc. node	15716 Feb 06 20:58	10°♊41'24		asc. node	15717 Jan 23 18:18	27°♊39'30	
	15716 Feb 19 02:18	0°♊			15717 Jan 25 08:02	0°♊	
morning set	15716 Feb 23 19:32	9°♊31'00		morning set	15717 Feb 07 06:35	24°♊15'17	
					15717 Feb 09 23:01	0°♊	
superior conj	15716 Mar 02 05:31	24°♊56'36	1°05'05	superior conj	15717 Feb 14 06:39	9°♊16'07	1°22'18
minimum elong	15716 Mar 02 08:05	25°♊09'45	1°04'53	minimum elong	15717 Feb 14 08:49	9°♊27'38	1°22'27
	15716 Mar 04 17:22	0°♊		max. Earth dist.	15717 Feb 17 22:30	16°♊56'36	1.33810 AU
max. Earth dist.	15716 Mar 07 07:37	5°♊07'22	1.35668 AU	evening rise	15717 Feb 22 10:03	25°♊55'33	
desc. node	15716 Mar 10 09:41	11°♊01'13			15717 Feb 24 13:01	0°♊	
evening rise	15716 Mar 11 05:47	12°♊34'55		desc. node	15717 Feb 25 06:18	1°♊21'12	
	15716 Mar 21 06:01	0°♊			15717 Mar 14 15:47	0°♊	
	15716 Apr 11 17:14	0°♊		evening max el	15717 Mar 29 04:51	17°♊46'16	27°06'44
evening max el	15716 Apr 15 15:03	4°♊07'35	26°15'07	retrograde	15717 Apr 11 15:53	25°♊16'53	
retrograde	15716 Apr 28 11:42	11°♊28'45		evening set	15717 Apr 18 05:48	22°♊45'35	
evening set	15716 May 04 17:20	8°♊56'50		asc. node	15717 Apr 21 15:13	19°♊34'18	
asc. node	15716 May 04 17:56	8°♊55'36		min. Earth dist.	15717 Apr 22 03:34	19°♊00'37	0.65486 AU
min. Earth dist.	15716 May 08 19:58	4°♊38'43	0.67054 AU	inferior conj	15717 Apr 24 10:41	16°♊24'28	0°51'46
inferior conj	15716 May 10 14:31	2°♊27'39	1°42'16	minimum elong	15717 Apr 24 09:22	16°♊28'15	0°50'43
minimum elong	15716 May 10 12:26	2°♊34'05	1°40'54	morning rise	15717 Apr 30 14:32	10°♊53'07	
	15716 May 12 16:04	30°♊		direct	15717 May 03 09:48	10°♊10'53	
morning rise	15716 May 16 08:24	26°♊43'43		morning max el	15717 May 09 17:14	13°♊27'39	18°01'16
direct	15716 May 19 13:17	25°♊45'40			15717 May 21 15:10	0°♊	
morning max el	15716 May 26 02:09	29°♊14'23	18°32'51	desc. node	15717 May 24 07:45	4°♊20'55	
	15716 May 26 20:14	0°♊		morning set	15717 May 28 00:49	10°♊23'50	
desc. node	15716 Jun 06 10:48	14°♊20'46			15717 Jun 09 04:58	0°♊	
morning set	15716 Jun 16 04:11	29°♊29'19					
	15716 Jun 16 12:00	0°♊		superior conj	15717 Jun 11 14:14	3°♊46'13	-1°55'38
superior conj	15716 Jul 02 02:36	24°♊24'04	-2°12'46	minimum elong	15717 Jun 11 05:56	3°♊13'33	1°55'51
minimum elong	15716 Jul 01 23:44	24°♊12'55	2°13'32	max. Earth dist.	15717 Jun 14 16:15	8°♊36'39	1.45804 AU
max. Earth dist.	15716 Jul 01 19:56	23°♊58'04	1.45949 AU	evening rise	15717 Jun 27 16:50	28°♊47'07	
	15716 Jul 05 16:43	0°♊			15717 Jun 28 11:48	0°♊	
evening rise	15716 Jul 17 20:09	19°♊05'07		greatest brilliancy	15717 Jul 10 18:43	18°♊38'09	-0.7m
	15716 Jul 24 18:00	0°♊		asc. node	15717 Jul 18 14:12	29°♊30'05	
greatest brilliancy	15716 Jul 25 20:26	1°♊43'32	-0.8m		15717 Jul 18 23:45	0°♊	
asc. node	15716 Jul 31 17:27	10°♊39'32		evening max el	15717 Jul 22 13:56	4°♊02'57	19°27'28
evening max el	15716 Aug 08 05:45	20°♊11'18	18°41'56	retrograde	15717 Jul 29 17:21	8°♊01'32	
retrograde	15716 Aug 14 19:44	23°♊45'21		evening set	15717 Aug 02 09:34	6°♊43'13	
evening set	15716 Aug 18 02:05	22°♊44'29		inferior conj	15717 Aug 07 18:39	0°♊50'07	2°55'40
inferior conj	15716 Aug 23 17:10	17°♊04'32	2°30'51	minimum elong	15717 Aug 07 20:06	0°♊45'17	2°54'58
minimum elong	15716 Aug 23 19:19	16°♊57'50	2°30'05		15717 Aug 08 09:48	30°♊	
min. Earth dist.	15716 Aug 25 14:20	14°♊44'51	0.65949 AU	min. Earth dist.	15717 Aug 09 01:41	29°♊07'47	0.67439 AU
morning rise	15716 Aug 29 11:30	10°♊39'08		morning rise	15717 Aug 13 06:05	24°♊23'58	
desc. node	15716 Sep 02 08:29	8°♊23'49		direct	15717 Aug 19 04:04	21°♊50'16	
direct	15716 Sep 04 19:05	8°♊01'09		desc. node	15717 Aug 20 05:56	21°♊54'48	
morning max el	15716 Sep 17 22:55	15°♊48'03	26°42'43	morning max el	15717 Aug 31 09:59	29°♊09'34	25°28'03
	15716 Sep 29 16:30	0°♊			15717 Sep 01 05:35	0°♊	
	15716 Oct 18 16:42	0°♊			15717 Sep 23 11:50	0°♊	
morning set	15716 Oct 23 17:45	9°♊17'13		morning set	15717 Oct 06 07:57	21°♊36'44	

max. Earth dist.	15717 Oct 09 21:35	28°♄11'10	1.36135 AU	morning rise	15718 Jul 28 07:55	8°♄26'57	
	15717 Oct 10 20:38	0°♄		direct	15718 Aug 02 18:24	6°♄04'28	
asc. node	15717 Oct 14 15:46	7°♄21'13		desc. node	15718 Aug 07 03:19	7°♄19'13	
				morning max el	15718 Aug 13 20:49	12°♄42'24	24°01'39
superior conj	15717 Oct 16 03:49	10°♄20'17	0°13'39		15718 Aug 27 19:38	0°♄	
minimum elong	15717 Oct 16 02:59	10°♄16'07	0°13'59		15718 Sep 16 07:09	0°♄	
behind sun begin	15717 Oct 15 23:49	10°♄00'17		morning set	15718 Sep 18 03:10	3°♄06'41	
behind sun end	15717 Oct 16 06:09	10°♄31'57		max. Earth dist.	15718 Sep 21 20:33	9°♄35'56	1.38478 AU
evening rise	15717 Oct 24 02:32	26°♄33'10					
	15717 Oct 25 19:11	0°♄		superior conj	15718 Sep 29 07:01	23°♄15'35	-0°19'53
evening max el	15717 Nov 10 19:25	25°♄47'10	20°00'39	minimum elong	15718 Sep 29 08:23	23°♄22'10	0°19'23
desc. node	15717 Nov 16 02:51	29°♄44'41		asc. node	15718 Oct 01 12:26	27°♄31'33	
	15717 Nov 16 16:09	0°♄			15718 Oct 02 19:01	0°♄	
retrograde	15717 Nov 21 05:08	0°♄58'21		evening rise	15718 Oct 08 03:28	10°♄31'42	
evening set	15717 Nov 23 07:28	0°♄46'42			15718 Oct 18 19:47	0°♄	
	15717 Nov 26 00:36	30°♄♂		evening max el	15718 Oct 24 12:44	7°♄20'40	19°00'02
inferior conj	15717 Dec 02 02:33	26°♄48'16	-4°41'55	retrograde	15718 Nov 02 08:42	11°♄47'36	
minimum elong	15717 Dec 01 16:29	27°♄03'29	4°38'19	desc. node	15718 Nov 03 00:05	11°♄46'16	
min. Earth dist.	15717 Dec 04 00:02	25°♄39'29	0.54952 AU	evening set	15718 Nov 04 05:53	11°♄36'16	
morning rise	15717 Dec 10 00:28	22°♄40'11		inferior conj	15718 Nov 12 14:15	7°♄20'01	-3°02'08
direct	15717 Dec 14 23:06	21°♄46'54		minimum elong	15718 Nov 12 06:46	7°♄33'03	2°58'34
morning max el	15717 Dec 28 15:35	28°♄33'55	24°22'50	min. Earth dist.	15718 Nov 15 11:07	5°♄20'41	0.56337 AU
	15717 Dec 30 02:16	0°♄		morning rise	15718 Nov 20 04:54	2°♄38'07	
asc. node	15718 Jan 10 15:34	15°♄35'48		direct	15718 Nov 25 23:06	1°♄20'16	
	15718 Jan 18 11:29	0°♄		morning max el	15718 Dec 10 02:17	8°♄34'24	26°04'01
morning set	15718 Jan 22 18:34	8°♄57'52			15718 Dec 26 02:08	0°♄	
				asc. node	15718 Dec 28 12:44	4°♄15'49	
superior conj	15718 Jan 29 13:22	23°♄48'11	1°33'10	morning set	15719 Jan 07 05:43	23°♄34'04	
minimum elong	15718 Jan 29 14:41	23°♄55'26	1°33'39		15719 Jan 10 04:20	0°♄	
max. Earth dist.	15718 Jan 31 21:13	28°♄51'38	1.32386 AU				
	15718 Feb 01 09:56	0°♄		superior conj	15719 Jan 13 23:26	8°♄26'44	1°37'50
evening rise	15718 Feb 06 01:13	9°♄41'28		minimum elong	15719 Jan 13 23:43	8°♄28'20	1°38'33
desc. node	15718 Feb 12 02:55	21°♄27'44		max. Earth dist.	15719 Jan 15 01:58	10°♄54'16	1.31451 AU
	15718 Feb 16 22:20	0°♄		evening rise	15719 Jan 21 00:31	23°♄46'03	
	15718 Mar 10 16:40	0°♄			15719 Jan 24 01:31	0°♄	
evening max el	15718 Mar 11 17:25	1°♄00'52	27°33'37	desc. node	15719 Jan 29 23:34	11°♄15'12	
retrograde	15718 Mar 25 12:55	8°♄31'01			15719 Feb 10 16:05	0°♄	
evening set	15718 Apr 01 08:02	6°♄07'05		evening max el	15719 Feb 22 02:23	13°♄38'16	27°29'24
min. Earth dist.	15718 Apr 05 02:49	2°♄51'33	0.63567 AU	retrograde	15719 Mar 08 01:53	21°♄01'55	
inferior conj	15718 Apr 07 21:19	0°♄01'55	-0°12'07	evening set	15719 Mar 14 21:19	18°♄52'34	
minimum elong	15718 Apr 07 21:42	0°♄00'55	0°12'19	min. Earth dist.	15719 Mar 18 16:06	16°♄00'17	0.61402 AU
transit middle	15718 Apr 07 21:42	0°♄00'55	0°12'19	inferior conj	15719 Mar 21 19:03	13°♄11'26	-1°29'20
transit begin	15718 Apr 07 19:41	0°♄06'05		minimum elong	15719 Mar 21 22:14	13°♄04'12	1°28'08
transit end	15718 Apr 07 23:43	29°♄55'46		asc. node	15719 Mar 26 09:58	9°♄29'34	
	15718 Apr 07 22:04	30°♄♂		morning rise	15719 Mar 29 02:22	8°♄13'16	
asc. node	15718 Apr 08 12:34	29°♄23'04		direct	15719 Mar 31 06:18	7°♄53'04	
morning rise	15718 Apr 14 13:50	24°♄45'37		morning max el	15719 Apr 07 03:36	11°♄20'49	17°50'40
direct	15718 Apr 17 00:39	24°♄16'07			15719 Apr 19 15:37	0°♄	
morning max el	15718 Apr 23 10:45	27°♄32'40	17°47'01	morning set	15719 Apr 22 20:11	5°♄42'07	
	15718 Apr 25 16:24	0°♄		desc. node	15719 Apr 28 01:18	15°♄00'49	
morning set	15718 May 09 23:56	22°♄33'37					
desc. node	15718 May 11 04:35	24°♄35'53		superior conj	15719 May 03 21:16	25°♄09'33	-0°46'07
	15718 May 14 08:51	0°♄		minimum elong	15719 May 03 17:03	24°♄51'36	0°46'07
					15719 May 06 17:57	0°♄	
superior conj	15718 May 22 18:07	13°♄55'40	-1°24'00	max. Earth dist.	15719 May 11 02:55	7°♄13'13	1.43405 AU
minimum elong	15718 May 22 10:20	13°♄23'57	1°23'51	evening rise	15719 May 17 20:38	17°♄57'41	
max. Earth dist.	15718 May 28 11:26	23°♄07'17	1.44924 AU		15719 May 25 17:30	0°♄	
	15718 Jun 01 20:25	0°♄			15719 Jun 16 18:53	0°♄	
evening rise	15718 Jun 07 03:29	8°♄10'48		evening max el	15719 Jun 18 12:35	1°♄49'19	21°40'23
	15718 Jun 21 18:16	0°♄		asc. node	15719 Jun 22 07:55	5°♄06'08	
asc. node	15718 Jul 05 11:01	17°♄43'20		retrograde	15719 Jun 27 14:52	7°♄07'21	
evening max el	15718 Jul 05 16:15	17°♄56'30	20°27'56	evening set	15719 Jul 02 04:37	5°♄14'10	
retrograde	15718 Jul 13 16:21	22°♄31'01			15719 Jul 06 16:36	30°♄♂	
evening set	15718 Jul 17 19:03	20°♄54'51		inferior conj	15719 Jul 07 10:16	28°♄58'32	3°07'55
inferior conj	15718 Jul 23 01:06	14°♄49'46	3°07'30	minimum elong	15719 Jul 07 09:50	29°♄00'02	3°07'08
minimum elong	15718 Jul 23 01:38	14°♄47'55	3°06'49	min. Earth dist.	15719 Jul 07 14:04	28°♄45'15	0.69020 AU
min. Earth dist.	15718 Jul 23 18:16	13°♄50'49	0.68470 AU	morning rise	15719 Jul 12 14:53	22°♄41'31	

direct	15719 Jul 17 13:04	20°☿35'07		min. Earth dist.	15720 Jun 20 11:01	13°☿45'02	0.69084 AU
desc. node	15719 Jul 25 00:38	24°☿11'38		morning rise	15720 Jun 26 01:07	7°☿03'36	
morning max el	15719 Jul 27 09:02	26°☿23'11	22°32'33	direct	15720 Jun 30 11:02	5°☿15'58	
	15719 Jul 30 16:53	0°♌		morning max el	15720 Jul 09 01:23	10°☿13'18	21°08'48
	15719 Aug 21 08:05	0°♍		desc. node	15720 Jul 10 21:51	12°☿10'17	
morning set	15719 Aug 29 23:26	13°♍37'32			15720 Jul 24 11:01	0°♌	
max. Earth dist.	15719 Sep 03 21:00	21°♍44'18	1.40862 AU	morning set	15720 Aug 08 20:09	23°♌09'02	
	15719 Sep 08 16:15	0°♎			15720 Aug 13 04:08	0°♍	
				max. Earth dist.	15720 Aug 16 02:51	4°♍45'02	1.43008 AU
superior conj	15719 Sep 11 17:39	5°♎25'43	-0°56'16	superior conj	15720 Aug 23 07:31	16°♍42'06	-1°31'40
minimum elong	15719 Sep 11 22:06	5°♎45'42	0°55'34	minimum elong	15720 Aug 23 14:46	17°♍12'53	1°31'04
asc. node	15719 Sep 18 09:02	17°♎38'03			15720 Aug 30 23:10	0°♎	
evening rise	15719 Sep 21 19:27	24°♎05'38		evening rise	15720 Sep 03 22:22	7°♎04'48	
	15719 Sep 24 23:07	0°♏		asc. node	15720 Sep 04 05:39	7°♎37'26	
evening max el	15719 Oct 07 17:18	19°♏39'41	18°21'28		15720 Sep 17 21:45	0°♏	
retrograde	15719 Oct 15 07:30	23°♏31'25		evening max el	15720 Sep 20 04:57	2°♏35'24	18°03'23
evening set	15719 Oct 17 08:06	23°♏15'36		retrograde	15720 Sep 26 23:40	6°♏04'38	
desc. node	15719 Oct 20 21:23	21°♏39'52		evening set	15720 Sep 29 07:25	5°♏40'10	
inferior conj	15719 Oct 24 23:35	18°♏38'22	-1°18'52	inferior conj	15720 Oct 06 05:34	0°♏42'36	0°10'18
minimum elong	15719 Oct 24 20:34	18°♏44'30	1°17'03	minimum elong	15720 Oct 06 05:55	0°♏41'48	0°10'31
min. Earth dist.	15719 Oct 28 05:36	16°♏00'29	0.58310 AU	transit middle	15720 Oct 06 05:55	0°♏41'48	0°10'31
morning rise	15719 Nov 01 05:31	13°♏19'17		transit begin	15720 Oct 06 03:24	0°♏47'42	
direct	15719 Nov 07 13:26	11°♏34'27		transit end	15720 Oct 06 08:25	0°♏35'53	
morning max el	15719 Nov 21 20:28	19°♏10'59	27°18'24	desc. node	15720 Oct 06 18:44	0°♏11'28	
	15719 Dec 01 00:58	0°♐			15720 Oct 06 23:34	30°♏♎	
asc. node	15719 Dec 15 09:48	23°♐27'39		min. Earth dist.	15720 Oct 09 09:15	27°♎45'29	0.60575 AU
	15719 Dec 18 18:02	0°♑		morning rise	15720 Oct 13 01:17	24°♎52'58	
morning set	15719 Dec 22 14:14	7°♑58'51		direct	15720 Oct 19 16:33	22°♎43'29	
					15720 Nov 02 07:46	0°♏	
superior conj	15719 Dec 29 10:52	23°♑05'54	1°36'28	morning max el	15720 Nov 02 22:25	0°♏35'35	27°55'22
minimum elong	15719 Dec 29 10:06	23°♑01'39	1°37'15		15720 Nov 24 04:57	0°♐	
max. Earth dist.	15719 Dec 29 09:35	22°♑58'47	1.31034 AU	asc. node	15720 Dec 01 06:46	13°♐20'48	
	15720 Jan 01 13:01	0°♑		morning set	15720 Dec 05 18:13	22°♐07'21	
evening rise	15720 Jan 05 05:34	8°♑03'26			15720 Dec 09 10:30	0°♑	
	15720 Jan 16 11:57	0°♒		max. Earth dist.	15720 Dec 11 16:21	4°♑56'37	1.31169 AU
desc. node	15720 Jan 16 20:18	0°♒36'07					
evening max el	15720 Feb 04 05:11	25°♒27'49	26°50'31	superior conj	15720 Dec 12 21:48	7°♑40'22	1°29'07
	15720 Feb 09 22:45	0°♓		minimum elong	15720 Dec 12 20:09	7°♑31'09	1°29'49
retrograde	15720 Feb 18 05:38	2°♓41'33		evening rise	15720 Dec 19 14:20	22°♑28'40	
evening set	15720 Feb 24 18:30	0°♓53'57			15720 Dec 23 03:55	0°♑	
	15720 Feb 26 07:13	30°♒♒		desc. node	15721 Jan 02 17:07	19°♑20'05	
min. Earth dist.	15720 Feb 28 19:08	28°♒14'52	0.59153 AU		15721 Jan 10 04:26	0°♒	
inferior conj	15720 Mar 03 00:13	25°♒43'38	-2°56'47	evening max el	15721 Jan 15 23:53	6°♒24'37	25°38'16
minimum elong	15720 Mar 03 06:55	25°♒30'25	2°54'08	retrograde	15721 Jan 29 21:53	13°♒25'21	
morning rise	15720 Mar 10 22:51	21°♒06'08		evening set	15721 Feb 04 19:45	12°♒05'00	
asc. node	15720 Mar 12 07:22	20°♒53'12		min. Earth dist.	15721 Feb 09 12:46	9°♒25'10	0.57066 AU
direct	15720 Mar 12 22:27	20°♒51'44		inferior conj	15721 Feb 12 09:23	7°♒28'25	-4°25'17
morning max el	15720 Mar 20 16:16	24°♒42'07	18°13'24	minimum elong	15721 Feb 12 18:38	7°♒12'40	4°22'11
	15720 Mar 25 01:05	0°♓		morning rise	15721 Feb 20 20:25	3°♒12'18	
morning set	15720 Apr 05 07:52	19°♓32'39		direct	15721 Feb 22 20:57	2°♒59'51	
	15720 Apr 10 21:41	0°♔		asc. node	15721 Feb 27 04:45	4°♒00'24	
desc. node	15720 Apr 13 21:58	5°♔31'53		morning max el	15721 Mar 03 20:32	7°♒23'42	18°57'05
					15721 Mar 18 07:00	0°♓	
superior conj	15720 Apr 14 23:00	7°♔25'11	-0°08'37	morning set	15721 Mar 20 06:11	3°♓50'23	
minimum elong	15720 Apr 14 22:18	7°♔22'01	0°08'57				
behind sun begin	15720 Apr 14 16:01	6°♔53'41		superior conj	15721 Mar 28 19:15	20°♓29'55	0°24'44
behind sun end	15720 Apr 15 04:35	7°♔50'17		minimum elong	15721 Mar 28 20:47	20°♓37'13	0°24'16
max. Earth dist.	15720 Apr 22 13:25	20°♔41'24	1.41412 AU	desc. node	15721 Mar 31 18:36	26°♓04'40	
evening rise	15720 Apr 27 07:51	28°♔35'19			15721 Apr 02 22:00	0°♔	
	15720 Apr 28 04:46	0°♕		max. Earth dist.	15721 Apr 04 20:06	3°♔26'42	1.39164 AU
	15720 May 18 07:01	0°☿		evening rise	15721 Apr 08 16:23	10°♔08'25	
evening max el	15720 May 31 04:33	15°☿42'53	23°00'15		15721 Apr 21 01:08	0°♕	
asc. node	15720 Jun 08 04:55	21°☿23'06		evening max el	15721 May 13 18:26	29°♕37'39	24°21'31
retrograde	15720 Jun 10 11:27	21°☿45'33			15721 May 14 03:33	0°☿	
evening set	15720 Jun 15 12:37	19°☿37'10		retrograde	15721 May 25 04:41	6°☿18'48	
inferior conj	15720 Jun 20 20:12	13°☿13'09	2°57'45	asc. node	15721 May 26 02:01	6°☿15'26	
minimum elong	15720 Jun 20 18:55	13°☿17'37	2°56'45				

evening set	15721 May 30 17:25	3°☿58'08		min. Earth dist.	15722 May 18 23:36	13°♂33'21	0.67779 AU
	15721 Jun 03 07:37	30°♂♂		inferior conj	15722 May 20 10:38	11°♂41'13	2°05'40
min. Earth dist.	15721 Jun 04 06:55	28°♂43'06	0.68667 AU	minimum elong	15722 May 20 08:28	11°♂48'12	2°04'16
inferior conj	15721 Jun 05 04:59	27°♂28'46	2°37'08	morning rise	15722 May 26 00:03	5°♂50'44	
minimum elong	15721 Jun 05 03:04	27°♂35'15	2°35'54	direct	15722 May 29 11:04	4°♂42'10	
morning rise	15721 Jun 10 12:48	21°♂28'04		morning max el	15722 Jun 05 06:25	8°♂23'03	18°58'36
direct	15721 Jun 14 10:55	20°♂00'13		desc. node	15722 Jun 14 16:06	20°♂19'47	
morning max el	15721 Jun 22 00:13	24°♂13'27	19°56'18	greatest brilliancy	15722 Jun 18 11:48	25°♂59'33	-0.7m
	15721 Jun 27 01:12	0°☿			15722 Jun 21 03:11	0°☿	
desc. node	15721 Jun 27 19:01	0°☿57'14		morning set	15722 Jun 28 08:58	11°☿08'44	
	15721 Jul 17 17:14	0°♂			15722 Jul 10 12:27	0°♂	
morning set	15721 Jul 19 01:09	2°♂02'18		max. Earth dist.	15722 Jul 12 09:16	2°♂55'02	1.45698 AU
max. Earth dist.	15721 Jul 29 15:19	18°♂32'55	1.44676 AU				
				superior conj	15722 Jul 14 15:31	6°♂27'35	-2°13'43
superior conj	15721 Aug 03 21:53	26°♂59'42	-1°59'59	minimum elong	15722 Jul 14 17:16	6°♂34'27	2°14'26
minimum elong	15721 Aug 04 05:04	27°♂28'46	2°00'00		15722 Jul 29 09:47	0°♂	
	15721 Aug 05 18:16	0°♂		evening rise	15722 Jul 29 16:32	0°♂27'21	
evening rise	15721 Aug 17 07:04	19°♂15'57		asc. node	15722 Aug 08 22:58	16°♂56'06	
asc. node	15721 Aug 22 02:18	27°♂25'15		evening max el	15722 Aug 18 09:52	29°♂36'15	18°23'15
	15721 Aug 23 15:12	0°♂			15722 Aug 18 19:44	0°♂	
evening max el	15721 Sep 03 19:38	15°♂57'26	18°04'20	retrograde	15722 Aug 24 19:36	3°♂01'30	
retrograde	15721 Sep 10 05:07	19°♂17'53		evening set	15722 Aug 27 20:41	2°♂09'53	
evening set	15721 Sep 12 21:17	18°♂41'13			15722 Aug 30 15:23	30°♂♂	
inferior conj	15721 Sep 19 04:37	13°♂25'21	1°19'40	inferior conj	15722 Sep 02 16:39	26°♂37'59	2°09'47
minimum elong	15721 Sep 19 06:36	13°♂20'01	1°19'06	minimum elong	15722 Sep 02 19:00	26°♂31'03	2°09'01
min. Earth dist.	15721 Sep 21 22:43	10°♂29'48	0.62844 AU	min. Earth dist.	15722 Sep 04 21:44	24°♂01'35	0.64907 AU
desc. node	15721 Sep 23 16:07	8°♂49'11		morning rise	15722 Sep 08 15:55	20°♂15'56	
morning rise	15721 Sep 25 13:41	7°♂14'58		desc. node	15722 Sep 10 13:35	18°♂56'48	
direct	15721 Oct 02 05:55	4°♂47'43		direct	15722 Sep 15 03:43	17°♂39'38	
morning max el	15721 Oct 16 06:03	12°♂46'26	27°53'20	morning max el	15722 Sep 28 16:51	25°♂34'16	27°16'40
	15721 Oct 30 01:09	0°♂			15722 Oct 02 18:37	0°♂	
	15721 Nov 16 16:14	0°♂			15722 Oct 23 13:41	0°♂	
asc. node	15721 Nov 18 03:41	2°♂54'28		morning set	15722 Nov 03 03:20	19°♂13'32	
morning set	15721 Nov 19 15:29	5°♂54'31		asc. node	15722 Nov 05 00:30	22°♂56'40	
max. Earth dist.	15721 Nov 24 18:39	16°♂40'18	1.31868 AU	max. Earth dist.	15722 Nov 07 13:02	28°♂03'56	1.33128 AU
					15722 Nov 08 11:28	0°♂	
superior conj	15721 Nov 27 06:21	22°♂04'58	1°15'44	superior conj	15722 Nov 11 10:17	6°♂13'11	0°56'17
minimum elong	15721 Nov 27 04:07	21°♂52'43	1°16'16	minimum elong	15722 Nov 11 07:58	6°♂00'54	0°56'38
	15721 Nov 30 20:37	0°♂		evening rise	15722 Nov 18 11:40	21°♂24'17	
evening rise	15721 Dec 04 01:01	6°♂57'25			15722 Nov 22 14:47	0°♂	
	15721 Dec 15 21:36	0°♂		desc. node	15722 Dec 07 11:02	23°♂58'25	
desc. node	15721 Dec 20 14:02	7°♂13'43		evening max el	15722 Dec 09 21:36	26°♂33'48	22°18'43
evening max el	15721 Dec 28 11:21	16°♂37'41	24°02'02		15722 Dec 14 01:52	0°♂	
retrograde	15722 Jan 11 00:33	23°♂21'13		retrograde	15722 Dec 22 14:58	2°♂51'31	
evening set	15722 Jan 15 22:10	22°♂29'04		evening set	15722 Dec 26 05:36	2°♂22'49	
min. Earth dist.	15722 Jan 21 22:55	19°♂31'21	0.55433 AU		15722 Dec 31 23:55	30°♂♂	
inferior conj	15722 Jan 23 21:34	18°♂21'23	-5°35'36	min. Earth dist.	15723 Jan 03 04:40	28°♂47'44	0.54524 AU
minimum elong	15722 Jan 24 04:54	18°♂10'23	5°33'48	inferior conj	15723 Jan 03 17:12	28°♂30'11	-6°01'28
morning rise	15722 Feb 01 13:21	14°♂24'05		minimum elong	15723 Jan 03 16:25	28°♂31'16	6°00'40
direct	15722 Feb 04 00:06	14°♂08'47		morning rise	15723 Jan 12 04:17	24°♂42'56	
asc. node	15722 Feb 14 02:07	18°♂49'59		direct	15723 Jan 15 11:37	24°♂18'27	
morning max el	15722 Feb 14 12:13	19°♂14'00	20°03'40		15723 Jan 27 09:54	0°♂	
	15722 Feb 22 16:41	0°♂		morning max el	15723 Jan 27 12:54	0°♂07'09	21°33'09
morning set	15722 Mar 04 11:33	18°♂24'50		asc. node	15723 Jan 31 23:28	5°♂06'08	
	15722 Mar 10 03:36	0°♂			15723 Feb 15 09:08	0°♂	
superior conj	15722 Mar 12 05:38	4°♂11'57	0°52'11	morning set	15723 Feb 16 21:10	3°♂07'26	
minimum elong	15722 Mar 12 08:07	4°♂24'20	0°51'49				
max. Earth dist.	15722 Mar 18 02:53	15°♂37'51	1.36901 AU	superior conj	15723 Feb 24 02:17	18°♂20'16	1°13'11
desc. node	15722 Mar 18 15:14	16°♂35'44		minimum elong	15723 Feb 24 04:46	18°♂33'07	1°13'06
evening rise	15722 Mar 21 20:35	22°♂30'39		max. Earth dist.	15723 Feb 28 13:58	27°♂30'17	1.34837 AU
	15722 Mar 26 03:00	0°♂			15723 Mar 01 20:12	0°♂	
	15722 Apr 14 20:17	0°♂		evening rise	15723 Mar 04 17:02	5°♂32'10	
evening max el	15722 Apr 26 08:04	13°♂31'47	25°37'04	desc. node	15723 Mar 05 11:52	7°♂00'56	
retrograde	15722 May 08 17:28	20°♂40'55			15723 Mar 18 21:50	0°♂	
asc. node	15722 May 12 23:11	19°♂27'37		evening max el	15723 Apr 08 21:49	27°♂18'33	26°39'34
evening set	15722 May 14 17:22	18°♂11'45			15723 Apr 11 21:12	0°♂	

retrograde	15723 Apr 22 00:59	4° Π 44'31		retrograde	15724 Apr 04 02:20	18° \mathcal{B} 19'52	
evening set	15723 Apr 28 10:38	2° Π 11'58		evening set	15724 Apr 10 19:04	15° \mathcal{B} 50'27	
asc. node	15723 Apr 29 20:25	0° Π 57'05		min. Earth dist.	15724 Apr 14 15:07	12° \mathcal{B} 18'54	0.64706 AU
	15723 Apr 30 19:02	30° \mathcal{R} 8		asc. node	15724 Apr 15 17:45	11° \mathcal{B} 07'24	
min. Earth dist.	15723 May 02 10:59	28° \mathcal{B} 08'33	0.66442 AU	inferior conj	15724 Apr 17 03:28	9° \mathcal{B} 35'06	0°26'19
inferior conj	15723 May 04 11:00	25° \mathcal{B} 45'38	1°22'26	minimum elong	15724 Apr 17 02:44	9° \mathcal{B} 37'05	0°25'35
minimum elong	15723 May 04 09:08	25° \mathcal{B} 51'12	1°21'09	morning rise	15724 Apr 23 12:25	4° \mathcal{B} 10'10	
morning rise	15723 May 10 08:48	20° \mathcal{B} 06'59		direct	15724 Apr 26 03:53	3° \mathcal{B} 33'51	
direct	15723 May 13 09:32	19° \mathcal{B} 15'56		morning max el	15724 May 02 11:31	6° \mathcal{B} 49'05	17°53'06
morning max el	15723 May 19 18:58	22° \mathcal{B} 37'40	18°17'21	desc. node	15724 May 18 09:59	0° Π 15'46	
	15723 May 25 19:41	0° Π			15724 May 18 06:12	0° Π	
desc. node	15723 Jun 01 13:06	10° Π 08'36		morning set	15724 May 19 22:08	2° Π 46'05	
morning set	15723 Jun 08 13:49	21° Π 18'08					
	15723 Jun 14 01:13	0° \mathcal{E}		superior conj	15724 Jun 02 17:33	25° Π 18'31	-1°43'31
superior conj	15723 Jun 24 00:24	15° \mathcal{E} 39'14	-2°07'45	minimum elong	15724 Jun 02 08:51	24° Π 43'48	1°43'31
minimum elong	15723 Jun 23 18:34	15° \mathcal{E} 16'25	2°08'19		15724 Jun 05 16:34	0° \mathcal{E}	
max. Earth dist.	15723 Jun 25 05:42	17° \mathcal{E} 33'31	1.45980 AU	max. Earth dist.	15724 Jun 07 01:38	2° \mathcal{E} 10'07	1.45511 AU
	15723 Jul 03 05:28	0° \mathcal{Q}		evening rise	15724 Jun 18 15:41	20° \mathcal{E} 06'54	
evening rise	15723 Jul 10 01:16	10° \mathcal{Q} 37'58			15724 Jun 25 03:41	0° \mathcal{Q}	
greatest brilliancy	15723 Jul 20 09:24	26° \mathcal{Q} 38'53	-0.8m	greatest brilliancy	15724 Jul 03 06:15	12° \mathcal{Q} 02'26	-0.6m
	15723 Jul 22 14:46	0° \mathcal{P}		asc. node	15724 Jul 12 16:29	24° \mathcal{Q} 40'12	
asc. node	15723 Jul 26 19:42	6° \mathcal{P} 04'00		evening max el	15724 Jul 15 02:29	27° \mathcal{Q} 17'19	19°51'26
evening max el	15723 Aug 01 20:49	13° \mathcal{P} 24'52	18°59'18		15724 Jul 18 07:50	0° \mathcal{P}	
retrograde	15723 Aug 08 15:33	17° \mathcal{P} 08'03		retrograde	15724 Jul 22 14:04	1° \mathcal{P} 30'28	
evening set	15723 Aug 12 02:02	15° \mathcal{P} 59'47		evening set	15724 Jul 26 10:35	0° \mathcal{P} 04'40	
inferior conj	15723 Aug 17 14:08	10° \mathcal{P} 13'48	2°43'04		15724 Jul 26 13:04	30° \mathcal{R} 8	
minimum elong	15723 Aug 17 16:02	10° \mathcal{P} 07'42	2°42'21	inferior conj	15724 Jul 31 18:01	24° \mathcal{Q} 06'11	3°02'08
min. Earth dist.	15723 Aug 19 05:11	8° \mathcal{P} 09'15	0.66630 AU	minimum elong	15724 Jul 31 19:06	24° \mathcal{Q} 02'32	3°01'28
morning rise	15723 Aug 23 05:16	3° \mathcal{P} 47'23		min. Earth dist.	15724 Aug 01 19:07	22° \mathcal{Q} 41'40	0.67933 AU
desc. node	15723 Aug 28 11:00	1° \mathcal{P} 13'48		morning rise	15724 Aug 06 03:11	17° \mathcal{Q} 40'46	
direct	15723 Aug 29 08:55	1° \mathcal{P} 10'35		direct	15724 Aug 11 20:20	15° \mathcal{Q} 11'06	
morning max el	15723 Sep 11 04:26	8° \mathcal{P} 47'40	26°13'09	desc. node	15724 Aug 14 08:25	15° \mathcal{Q} 35'40	
	15723 Sep 27 20:33	0° \mathcal{L}		morning max el	15724 Aug 23 15:25	22° \mathcal{Q} 15'05	24°52'07
	15723 Oct 16 01:07	0° \mathcal{M}			15724 Aug 30 10:26	0° \mathcal{P}	
morning set	15723 Oct 17 02:32	1° \mathcal{M} 57'30		morning set	15724 Sep 20 03:13	0° \mathcal{L}	
max. Earth dist.	15723 Oct 20 21:38	9° \mathcal{M} 10'58	1.34910 AU	max. Earth dist.	15724 Sep 28 09:10	13° \mathcal{L} 57'07	
asc. node	15723 Oct 22 21:15	13° \mathcal{M} 05'09			15724 Oct 01 22:03	20° \mathcal{L} 18'40	1.37103 AU
					15724 Oct 07 01:41	0° \mathcal{M}	
superior conj	15723 Oct 26 07:07	19° \mathcal{M} 58'56	0°30'51	superior conj	15724 Oct 08 17:45	3° \mathcal{M} 14'43	-0°00'04
minimum elong	15723 Oct 26 05:28	19° \mathcal{M} 50'31	0°31'08	minimum elong	15724 Oct 08 17:44	3° \mathcal{M} 14'37	0°00'18
	15723 Oct 31 02:35	0° \mathcal{X}		behind sun begin	15724 Oct 08 11:10	2° \mathcal{M} 42'31	
evening rise	15723 Nov 02 20:23	5° \mathcal{X} 44'35		behind sun end	15724 Oct 09 00:18	3° \mathcal{M} 46'47	
	15723 Nov 16 01:45	0° \mathcal{Z}		asc. node	15724 Oct 08 17:58	3° \mathcal{M} 15'44	
evening max el	15723 Nov 21 16:30	6° \mathcal{Z} 51'35	20°45'30	evening rise	15724 Oct 17 00:53	19° \mathcal{M} 52'25	
desc. node	15723 Nov 24 08:07	9° \mathcal{Z} 11'22			15724 Oct 22 04:16	0° \mathcal{X}	
retrograde	15723 Dec 03 01:08	12° \mathcal{Z} 30'05		evening max el	15724 Nov 03 01:46	17° \mathcal{X} 56'04	19°32'11
evening set	15723 Dec 05 12:29	12° \mathcal{Z} 15'13		desc. node	15724 Nov 10 05:16	22° \mathcal{X} 27'55	
inferior conj	15723 Dec 14 08:15	8° \mathcal{Z} 22'23	-5°26'27	retrograde	15724 Nov 12 19:04	22° \mathcal{X} 47'51	
minimum elong	15723 Dec 13 23:33	8° \mathcal{Z} 34'52	5°23'56	evening set	15724 Nov 14 17:32	22° \mathcal{X} 37'09	
min. Earth dist.	15723 Dec 15 10:10	7° \mathcal{Z} 45'06	0.54522 AU	inferior conj	15724 Nov 23 09:19	18° \mathcal{X} 32'18	-4°01'46
morning rise	15723 Dec 22 10:36	4° \mathcal{Z} 27'17		minimum elong	15724 Nov 22 23:47	18° \mathcal{X} 47'31	3°57'51
direct	15723 Dec 26 19:06	3° \mathcal{Z} 46'33		min. Earth dist.	15724 Nov 25 18:39	17° \mathcal{X} 00'45	0.55442 AU
morning max el	15724 Jan 09 01:24	10° \mathcal{Z} 14'54	23°19'30	morning rise	15724 Dec 01 04:06	14° \mathcal{X} 10'39	
asc. node	15724 Jan 18 20:44	22° \mathcal{Z} 30'41		direct	15724 Dec 06 11:41	13° \mathcal{X} 07'15	
	15724 Jan 23 08:44	0° \approx		morning max el	15724 Dec 20 10:06	20° \mathcal{X} 07'33	25°08'08
morning set	15724 Feb 01 08:48	17° \approx 51'41			15724 Dec 28 19:33	0° \mathcal{Z}	
	15724 Feb 06 23:21	0° \mathcal{H}		asc. node	15725 Jan 04 17:57	10° \mathcal{Z} 47'21	
					15725 Jan 14 16:07	0° \approx	
superior conj	15724 Feb 08 06:05	2° \mathcal{H} 46'07	1°27'41	morning set	15725 Jan 15 20:39	2° \approx 32'35	
minimum elong	15724 Feb 08 07:55	2° \mathcal{H} 56'04	1°27'58				
max. Earth dist.	15724 Feb 11 08:06	9° \mathcal{H} 20'32	1.33144 AU	superior conj	15725 Jan 22 14:30	17° \approx 22'27	1°35'53
evening rise	15724 Feb 16 02:14	19° \mathcal{H} 04'10		minimum elong	15725 Jan 22 15:24	17° \approx 27'24	1°36'29
desc. node	15724 Feb 20 08:28	27° \mathcal{H} 15'50		max. Earth dist.	15725 Jan 24 09:30	21° \approx 18'43	1.31918 AU
	15724 Feb 21 20:07	0° \mathcal{Y}			15725 Jan 28 10:39	0° \mathcal{H}	
	15724 Mar 12 00:50	0° \mathcal{B}		evening rise	15725 Jan 29 21:11	2° \mathcal{H} 59'30	
evening max el	15724 Mar 21 11:05	10° \mathcal{B} 47'48	27°21'31	desc. node	15725 Feb 06 05:06	17° \mathcal{H} 15'36	

	15725 Feb 13 15:23	0°♿		max. Earth dist.	15726 Jan 07 15:48	3°♿22'35	1.31204 AU
evening max el	15725 Mar 03 22:22	23°♿48'39	27°35'57	evening rise	15726 Jan 13 23:10	17°♿10'19	
	15725 Mar 12 10:41	0°♿			15726 Jan 20 07:58	0°♿	
retrograde	15725 Mar 17 20:27	1°♿17'29		desc. node	15726 Jan 24 01:47	6°♿52'54	
	15725 Mar 22 22:56	30°♿			15726 Feb 08 13:14	0°♿	
evening set	15725 Mar 24 16:13	28°♿58'48		evening max el	15726 Feb 14 05:12	6°♿07'40	27°17'20
min. Earth dist.	15725 Mar 28 10:26	25°♿53'59	0.62664 AU	retrograde	15726 Feb 28 05:39	13°♿27'06	
inferior conj	15725 Mar 31 09:04	23°♿02'30	-0°43'17	evening set	15726 Mar 06 23:03	11°♿26'36	
minimum elong	15725 Mar 31 10:31	22°♿58'58	0°42'57	min. Earth dist.	15726 Mar 10 19:34	8°♿41'03	0.60442 AU
asc. node	15725 Apr 02 15:05	20°♿55'55		inferior conj	15726 Mar 14 00:13	5°♿57'46	-2°05'28
morning rise	15725 Apr 07 07:42	17°♿53'36		minimum elong	15726 Mar 14 04:53	5°♿47'49	2°03'38
direct	15725 Apr 09 15:13	17°♿28'37		asc. node	15726 Mar 20 12:28	1°♿29'34	
morning max el	15725 Apr 16 05:12	20°♿48'54	17°46'16	morning rise	15726 Mar 21 14:07	1°♿07'45	
	15725 Apr 23 04:51	0°♿		direct	15726 Mar 23 15:45	0°♿50'27	
morning set	15725 May 02 07:01	15°♿23'31		morning max el	15726 Mar 30 20:40	4°♿26'43	17°57'50
desc. node	15725 May 05 06:46	20°♿35'53		morning set	15726 Apr 15 10:31	28°♿52'08	
	15725 May 10 18:17	0°♿			15726 Apr 16 01:20	0°♿	
				desc. node	15726 Apr 22 03:28	11°♿03'57	
superior conj	15725 May 14 07:05	5°♿55'23	-1°08'15				
minimum elong	15725 May 14 00:40	5°♿28'44	1°08'07	superior conj	15726 Apr 25 20:09	17°♿36'18	-0°29'54
max. Earth dist.	15725 May 20 18:57	16°♿30'27	1.44350 AU	minimum elong	15726 Apr 25 17:33	17°♿24'55	0°30'02
evening rise	15725 May 29 03:12	29°♿36'04			15726 May 03 03:08	0°♿	
	15725 May 29 09:25	0°♿		max. Earth dist.	15726 May 03 08:24	0°♿21'46	1.42612 AU
	15725 Jun 18 20:48	0°♿		evening rise	15726 May 09 03:10	9°♿43'05	
evening max el	15725 Jun 28 02:11	11°♿10'56	20°57'30		15726 May 22 11:31	0°♿	
asc. node	15725 Jun 29 13:20	12°♿33'58		evening max el	15726 Jun 10 20:35	25°♿04'45	22°13'49
retrograde	15725 Jul 06 13:03	16°♿03'25		asc. node	15726 Jun 16 10:17	29°♿31'13	
evening set	15725 Jul 10 20:18	14°♿20'07			15726 Jun 17 09:43	0°♿	
inferior conj	15725 Jul 16 01:54	8°♿10'28	3°08'59	retrograde	15726 Jun 20 10:47	0°♿41'26	
minimum elong	15725 Jul 16 02:01	8°♿10'02	3°08'16		15726 Jun 23 06:55	30°♿	
min. Earth dist.	15725 Jul 16 13:25	7°♿30'30	0.68769 AU	evening set	15726 Jun 25 05:24	28°♿41'34	
morning rise	15725 Jul 21 07:28	1°♿49'41		inferior conj	15726 Jun 30 11:38	22°♿22'23	3°04'52
	15725 Jul 24 04:20	30°♿		minimum elong	15726 Jun 30 10:50	22°♿25'12	3°03'59
direct	15725 Jul 26 12:50	29°♿33'19		min. Earth dist.	15726 Jun 30 09:56	22°♿28'18	0.69114 AU
	15725 Jul 29 00:45	0°♿		morning rise	15726 Jul 05 16:05	16°♿08'27	
desc. node	15725 Aug 01 05:46	1°♿40'24		direct	15726 Jul 10 09:08	14°♿09'37	
morning max el	15725 Aug 06 02:23	5°♿50'54	23°23'22	desc. node	15726 Jul 19 03:03	19°♿03'34	
	15725 Aug 24 19:25	0°♿		morning max el	15726 Jul 19 15:52	19°♿35'08	21°55'48
morning set	15725 Sep 09 18:56	25°♿02'31			15726 Jul 28 10:00	0°♿	
	15725 Sep 12 17:09	0°♿			15726 Aug 17 23:03	0°♿	
max. Earth dist.	15725 Sep 13 20:23	1°♿57'26	1.39506 AU	morning set	15726 Aug 21 04:54	5°♿07'30	
				max. Earth dist.	15726 Aug 26 23:11	14°♿29'53	1.41826 AU
superior conj	15725 Sep 21 14:26	15°♿52'01	-0°35'10				
minimum elong	15725 Sep 21 17:02	16°♿04'08	0°34'34	superior conj	15726 Sep 03 16:49	27°♿41'14	-1°11'43
asc. node	15725 Sep 25 14:36	23°♿24'54		minimum elong	15726 Sep 03 22:35	28°♿06'35	1°10'59
	15725 Sep 29 00:43	0°♿			15726 Sep 05 00:19	0°♿	
evening rise	15725 Sep 30 22:25	3°♿41'12		asc. node	15726 Sep 12 11:14	13°♿29'25	
evening max el	15725 Oct 17 00:25	29°♿50'08	18°41'04	evening rise	15726 Sep 14 09:26	17°♿02'19	
	15725 Oct 17 04:23	0°♿			15726 Sep 21 13:50	0°♿	
retrograde	15725 Oct 25 06:19	4°♿00'09		evening max el	15726 Sep 30 08:35	12°♿26'37	18°11'20
evening set	15725 Oct 27 04:22	3°♿47'24		retrograde	15726 Oct 07 13:00	16°♿06'58	
desc. node	15725 Oct 28 02:32	3°♿32'37		evening set	15726 Oct 09 16:32	15°♿47'49	
	15725 Nov 03 09:39	30°♿		desc. node	15726 Oct 14 23:51	12°♿43'25	
inferior conj	15725 Nov 04 05:55	29°♿22'37	-2°17'20	inferior conj	15726 Oct 17 00:25	11°♿01'25	-0°38'44
minimum elong	15725 Nov 04 00:21	29°♿32'59	2°14'26	minimum elong	15726 Oct 16 23:02	11°♿04'25	0°37'41
min. Earth dist.	15725 Nov 07 08:32	27°♿04'45	0.57121 AU	min. Earth dist.	15726 Oct 20 06:30	8°♿13'07	0.59261 AU
morning rise	15725 Nov 11 17:06	24°♿24'52		morning rise	15726 Oct 24 02:11	5°♿28'33	
direct	15725 Nov 17 18:13	22°♿55'13		direct	15726 Oct 30 14:04	3°♿32'53	
	15725 Dec 01 15:08	0°♿		morning max el	15726 Nov 13 20:53	11°♿15'55	27°39'02
morning max el	15725 Dec 01 23:20	0°♿19'35	26°39'50		15726 Nov 28 12:18	0°♿	
asc. node	15725 Dec 22 15:05	29°♿42'05		asc. node	15726 Dec 09 12:07	19°♿05'00	
	15725 Dec 22 18:57	0°♿			15726 Dec 14 22:04	0°♿	
morning set	15725 Dec 31 06:52	17°♿04'09		morning set	15726 Dec 15 13:41	1°♿22'26	
	15726 Jan 06 03:34	0°♿		max. Earth dist.	15726 Dec 21 23:41	15°♿26'02	1.31028 AU
superior conj	15726 Jan 07 01:21	2°♿01'51	1°37'59	superior conj	15726 Dec 22 12:47	16°♿39'24	1°34'04
minimum elong	15726 Jan 07 01:11	2°♿00'56	1°38'45	minimum elong	15726 Dec 22 11:37	16°♿32'52	1°34'51

	15726 Dec 28 13:06	0°♊		superior conj	15727 Dec 06 22:56	1°♊09'53	1°24'10
evening rise	15726 Dec 29 06:04	1°♊31'40		minimum elong	15727 Dec 06 20:59	0°♊59'05	1°24'49
desc. node	15727 Jan 10 22:33	25°♊59'28		evening rise	15727 Dec 13 15:52	15°♊58'37	
	15727 Jan 13 09:45	0°♋			15727 Dec 20 11:40	0°♊	
evening max el	15727 Jan 27 04:50	17°♋34'49	26°23'30	desc. node	15727 Dec 28 19:26	14°♊23'56	
retrograde	15727 Feb 10 04:18	24°♋42'27		evening max el	15728 Jan 08 19:52	28°♊09'44	24°59'16
evening set	15727 Feb 16 12:06	23°♋06'04			15728 Jan 10 21:19	0°♋	
min. Earth dist.	15727 Feb 20 18:13	20°♋28'43	0.58234 AU	retrograde	15728 Jan 22 14:56	5°♋04'18	
inferior conj	15727 Feb 23 21:11	18°♋10'30	-3°35'04	evening set	15728 Jan 28 03:48	3°♋55'46	
minimum elong	15727 Feb 24 05:15	17°♋55'35	3°32'02	min. Earth dist.	15728 Feb 02 08:00	1°♋10'49	0.56295 AU
morning rise	15727 Mar 04 01:41	13°♋42'00			15728 Feb 04 04:17	30°♋	
direct	15727 Mar 06 01:03	13°♋28'48		inferior conj	15728 Feb 04 21:13	29°♋32'39	-4°58'53
asc. node	15727 Mar 07 09:51	13°♋35'23		minimum elong	15728 Feb 05 06:25	29°♋17'53	4°56'09
morning max el	15727 Mar 14 06:10	17°♋31'54	18°29'19	morning rise	15728 Feb 13 11:32	25°♋25'37	
	15727 Mar 23 03:41	0°♌		direct	15728 Feb 15 15:05	25°♋12'39	
morning set	15727 Mar 30 03:13	12°♌55'46		asc. node	15728 Feb 22 07:14	27°♋27'19	
				morning max el	15728 Feb 25 05:35	29°♋52'57	19°22'42
superior conj	15727 Apr 08 06:17	0°♌14'10	0°06'12		15728 Feb 25 08:28	0°♋	
minimum elong	15727 Apr 08 06:42	0°♌16'05	0°05'47	morning set	15728 Mar 13 04:55	27°♋21'52	
behind sun begin	15727 Apr 07 24:00	29°♌45'08			15728 Mar 14 12:32	0°♌	
behind sun end	15727 Apr 08 13:24	0°♌46'58					
	15727 Apr 08 03:13	0°♌		superior conj	15728 Mar 21 09:07	13°♌36'44	0°37'09
desc. node	15727 Apr 09 00:08	1°♌36'11		minimum elong	15728 Mar 21 11:11	13°♌46'50	0°36'41
max. Earth dist.	15727 Apr 15 17:32	13°♌33'50	1.40477 AU	desc. node	15728 Mar 25 20:47	22°♌09'03	
evening rise	15727 Apr 19 23:23	20°♌44'15		max. Earth dist.	15728 Mar 27 23:43	26°♌03'17	1.38180 AU
	15727 Apr 25 16:52	0°♍			15728 Mar 30 04:25	0°♌	
	15727 May 16 15:07	0°♍		evening rise	15728 Mar 31 16:37	2°♌39'22	
evening max el	15727 May 24 11:24	8°♍58'57	23°35'03		15728 Apr 17 20:18	0°♍	
asc. node	15727 Jun 03 07:19	15°♍14'40		evening max el	15728 May 06 00:50	22°♍53'44	24°54'44
retrograde	15727 Jun 04 06:01	15°♍18'33		retrograde	15728 May 17 21:36	29°♍48'50	
evening set	15727 Jun 09 12:16	13°♍04'18		asc. node	15728 May 20 04:26	29°♍26'50	
inferior conj	15727 Jun 14 21:19	6°♍37'41	2°50'18	evening set	15728 May 23 15:15	27°♍23'41	
minimum elong	15727 Jun 14 19:43	6°♍43'09	2°49'11	min. Earth dist.	15728 May 28 01:21	22°♍24'33	0.68343 AU
min. Earth dist.	15727 Jun 14 06:35	7°♍28'17	0.68970 AU	inferior conj	15728 May 29 05:01	20°♍53'05	2°25'11
morning rise	15727 Jun 20 03:10	0°♍32'03		minimum elong	15728 May 29 02:56	20°♍59'59	2°23'52
	15727 Jun 20 20:53	30°♎♍		morning rise	15728 Jun 03 14:55	14°♍56'43	
direct	15727 Jun 24 08:01	28°♍52'53		direct	15728 Jun 07 08:06	13°♍37'26	
	15727 Jun 28 01:39	0°♎		morning max el	15728 Jun 14 13:00	17°♍35'31	19°29'52
morning max el	15727 Jul 02 10:51	3°♎29'48	20°36'21	desc. node	15728 Jun 21 21:23	26°♍28'34	
desc. node	15727 Jul 06 00:16	7°♎24'38			15728 Jun 24 09:52	0°♎	
	15727 Jul 22 07:07	0°♏		greatest brilliancy	15728 Jun 27 04:57	4°♎02'56	-0.6m
morning set	15727 Jul 31 17:19	14°♏18'32		morning set	15728 Jul 09 21:01	23°♎11'07	
max. Earth dist.	15727 Aug 09 08:33	27°♏54'30	1.43791 AU		15728 Jul 14 07:08	0°♏	
	15727 Aug 10 15:42	0°♐		max. Earth dist.	15728 Jul 21 23:27	11°♏58'38	1.45197 AU
superior conj	15727 Aug 15 20:45	8°♐32'26	-1°44'58	superior conj	15728 Jul 26 01:29	18°♏26'43	-2°08'00
minimum elong	15727 Aug 16 04:31	9°♐04'44	1°44'35	minimum elong	15728 Jul 26 07:01	18°♏48'46	2°08'23
evening rise	15727 Aug 28 05:17	29°♐43'05			15728 Aug 02 05:24	0°♐	
	15727 Aug 28 09:08	0°♑		evening rise	15728 Aug 09 04:42	11°♐30'34	
asc. node	15727 Aug 30 07:52	3°♑24'38		asc. node	15728 Aug 16 04:32	23°♐06'14	
evening max el	15727 Sep 13 21:56	25°♑34'26	18°01'27		15728 Aug 20 12:59	0°♑	
retrograde	15727 Sep 20 11:36	28°♑58'35		evening max el	15728 Aug 27 12:47	9°♑04'29	18°10'09
evening set	15727 Sep 22 22:47	28°♑29'20		retrograde	15728 Sep 02 21:27	12°♑25'39	
inferior conj	15727 Sep 29 14:13	23°♑23'22	0°42'12	evening set	15728 Sep 05 17:13	11°♑43'05	
minimum elong	15727 Sep 29 15:27	23°♑20'17	0°41'59	inferior conj	15728 Sep 11 19:18	6°♑20'11	1°43'07
desc. node	15727 Oct 01 21:15	21°♑05'53		minimum elong	15728 Sep 11 21:34	6°♑13'50	1°42'25
min. Earth dist.	15727 Oct 02 14:18	20°♑24'41	0.61554 AU	min. Earth dist.	15728 Sep 14 08:09	3°♑30'39	0.63758 AU
morning rise	15727 Oct 06 05:21	17°♑23'28		desc. node	15728 Sep 17 18:41	0°♑13'54	
direct	15727 Oct 12 21:32	15°♑05'47		morning rise	15728 Sep 18 00:00	0°♑03'28	
morning max el	15727 Oct 27 01:50	23°♑01'49	27°59'09		15728 Sep 18 01:49	30°♎♑	
	15727 Nov 02 07:12	0°♒		direct	15728 Sep 24 14:49	27°♑31'07	
	15727 Nov 21 18:07	0°♓			15728 Oct 01 20:27	0°♑	
asc. node	15727 Nov 26 09:05	8°♓47'56		morning max el	15728 Oct 08 11:18	5°♑30'30	27°41'26
morning set	15727 Nov 29 15:06	15°♓22'26			15728 Oct 27 02:32	0°♒	
max. Earth dist.	15727 Dec 05 05:09	27°♓19'19	1.31400 AU	morning set	15728 Nov 12 08:43	28°♒58'35	
	15727 Dec 06 10:18	0°♔		asc. node	15728 Nov 12 05:58	28°♒44'49	
					15728 Nov 12 20:58	0°♓	

max. Earth dist.	15728 Nov 17 04:19	8°♊54'06	1.32334 AU	max. Earth dist.	15729 Oct 30 18:20	20°♍08'34	1.33824 AU
superior conj	15728 Nov 20 05:47	15°♊28'08	1°08'14	superior conj	15729 Nov 04 07:05	29°♍28'19	0°46'13
minimum elong	15728 Nov 20 03:27	15°♊15'27	1°08'40	minimum elong	15729 Nov 04 04:57	29°♍17'09	0°46'31
	15728 Nov 26 21:46	0°♊			15729 Nov 04 13:06	0°♊	
evening rise	15728 Nov 27 02:45	0°♊26'48		evening rise	15729 Nov 11 12:50	14°♊51'49	
	15728 Dec 13 07:39	0°♊			15729 Nov 19 02:08	0°♊	
desc. node	15728 Dec 14 16:23	1°♋50'47		desc. node	15729 Dec 01 13:25	18°♊00'06	
evening max el	15728 Dec 20 05:32	8°♋10'32	23°17'47	evening max el	15729 Dec 01 18:35	18°♊12'54	21°37'07
retrograde	15729 Jan 02 12:23	14°♋45'21		retrograde	15729 Dec 13 23:28	24°♊14'55	
evening set	15729 Jan 06 20:57	14°♋04'13		evening set	15729 Dec 17 01:04	23°♊53'37	
min. Earth dist.	15729 Jan 13 16:04	10°♋52'41	0.54934 AU	inferior conj	15729 Dec 25 17:20	20°♊03'03	-5°54'05
inferior conj	15729 Jan 15 01:20	10°♋04'35	-5°53'33	minimum elong	15729 Dec 25 12:35	20°♊09'42	5°52'50
minimum elong	15729 Jan 15 05:49	9°♋58'06	5°52'27	min. Earth dist.	15729 Dec 25 21:35	19°♊57'06	0.54405 AU
morning rise	15729 Jan 23 16:06	6°♋13'06		morning rise	15730 Jan 03 00:40	16°♊14'38	
direct	15729 Jan 26 10:12	5°♋54'57		direct	15730 Jan 06 18:48	15°♊43'53	
morning max el	15729 Feb 06 15:04	11°♋19'19	20°39'14	morning max el	15730 Jan 19 09:49	21°♊50'53	22°16'55
asc. node	15729 Feb 08 04:36	12°♋55'54		asc. node	15730 Jan 26 01:55	29°♊43'41	
	15729 Feb 19 11:19	0°♋			15730 Jan 26 06:33	0°♋	
morning set	15729 Feb 25 12:21	12°♋00'17		morning set	15730 Feb 09 23:03	26°♋44'18	
					15730 Feb 11 11:52	0°♋	
superior conj	15729 Mar 05 00:16	27°♋31'04	1°01'53	superior conj	15730 Feb 17 00:17	11°♋47'47	1°20'06
minimum elong	15729 Mar 05 02:50	27°♋44'10	1°01'38	minimum elong	15730 Feb 17 02:33	11°♋59'45	1°20'11
	15729 Mar 06 05:40	0°♌			15730 Feb 20 21:12	19°♋51'44	1.34067 AU
max. Earth dist.	15729 Mar 10 07:19	8°♌01'55	1.35976 AU	max. Earth dist.	15730 Feb 25 06:28	28°♋35'20	
desc. node	15729 Mar 12 17:24	12°♌38'06		evening rise	15730 Feb 26 00:04	0°♌	
evening rise	15729 Mar 14 04:09	15°♌19'27			15730 Feb 27 14:01	2°♌59'41	
	15729 Mar 22 13:52	0°♌		desc. node	15730 Mar 15 18:41	0°♌	
	15729 Apr 12 10:25	0°♌			15730 Mar 15 18:41	0°♌	
evening max el	15729 Apr 18 14:25	6°♌45'24	26°05'46	evening max el	15730 Apr 01 04:17	20°♌26'31	27°00'27
retrograde	15729 May 01 08:28	14°♌03'57		retrograde	15730 Apr 14 13:24	27°♌55'59	
asc. node	15729 May 07 01:38	11°♌54'35		evening set	15730 Apr 21 02:19	25°♌24'15	
evening set	15729 May 07 12:35	11°♌32'40		asc. node	15730 Apr 23 22:53	22°♌45'03	
min. Earth dist.	15729 May 11 16:07	7°♌09'15	0.67255 AU	min. Earth dist.	15730 Apr 25 00:45	21°♌34'33	0.65746 AU
inferior conj	15729 May 13 08:42	5°♌02'52	1°48'50	inferior conj	15730 Apr 27 06:01	19°♌01'37	1°00'16
minimum elong	15729 May 13 06:34	5°♌09'31	1°47'28	minimum elong	15730 Apr 27 04:31	19°♌05'56	0°59'09
	15729 May 18 00:59	30°♌♊		morning rise	15730 May 03 08:11	13°♌28'13	
morning rise	15729 May 19 01:19	29°♌17'06		direct	15730 May 06 04:52	12°♌43'44	
direct	15729 May 22 07:46	28°♌16'22		morning max el	15730 May 12 12:31	16°♌01'21	18°04'52
	15729 May 26 19:33	0°♌			15730 May 22 20:51	0°♌	
morning max el	15729 May 28 22:05	1°♌47'57	18°38'59	desc. node	15730 May 26 15:21	6°♌00'28	
desc. node	15729 Jun 08 18:25	16°♌03'19		morning set	15730 May 31 04:29	13°♌22'04	
	15729 Jun 17 19:13	0°♌			15730 Jun 10 13:09	0°♌	
morning set	15729 Jun 19 12:04	2°♌39'34		superior conj	15730 Jun 14 23:48	7°♌00'47	-1°59'20
max. Earth dist.	15729 Jul 04 18:11	26°♌27'39	1.45910 AU	minimum elong	15730 Jun 14 15:57	6°♌29'56	1°59'40
				max. Earth dist.	15730 Jun 17 14:42	11°♌07'06	1.45874 AU
superior conj	15729 Jul 05 13:31	27°♌43'05	-2°13'42		15730 Jun 29 18:51	0°♍	
minimum elong	15729 Jul 05 11:52	27°♌36'36	2°14'27	evening rise	15730 Jul 01 02:52	2°♍03'30	
	15729 Jul 07 00:36	0°♍		greatest brilliancy	15730 Jul 13 12:45	20°♍59'11	-0.7m
evening rise	15729 Jul 21 03:26	22°♍15'02			15730 Jul 19 20:26	0°♍	
	15729 Jul 26 00:20	0°♍			15730 Jul 20 21:58	1°♍24'01	
greatest brilliancy	15729 Jul 28 03:30	3°♍22'33	-0.9m	asc. node	15730 Jul 25 10:53	6°♍39'53	19°19'41
asc. node	15729 Aug 03 01:14	12°♍28'28		evening max el	15730 Aug 01 11:44	10°♍33'59	
evening max el	15729 Aug 11 01:56	22°♍48'40	18°36'33	retrograde	15730 Aug 05 02:29	9°♍18'13	
retrograde	15729 Aug 17 14:31	26°♍19'52		evening set	15730 Aug 10 12:14	3°♍26'55	2°52'45
evening set	15729 Aug 20 19:30	25°♍21'28		inferior conj	15730 Aug 10 13:50	3°♍21'42	2°52'03
inferior conj	15729 Aug 26 11:45	19°♍43'40	2°25'45	minimum elong	15730 Aug 11 21:19	1°♍38'42	0.67244 AU
minimum elong	15729 Aug 26 13:58	19°♍36'50	2°25'00	min. Earth dist.	15730 Aug 13 04:44	30°♍♌	
min. Earth dist.	15729 Aug 28 11:02	17°♍19'13	0.65692 AU		15730 Aug 16 00:35	27°♍00'39	
morning rise	15729 Sep 01 07:19	13°♍18'58		morning rise	15730 Aug 22 00:07	24°♍25'59	
desc. node	15729 Sep 04 16:06	11°♍15'04		direct	15730 Aug 22 13:30	24°♍27'12	
direct	15729 Sep 07 16:10	10°♍41'05		desc. node	15730 Sep 01 12:09	0°♍	
morning max el	15729 Sep 20 22:31	18°♍30'22	26°52'15		15730 Sep 03 09:41	1°♍50'04	25°40'13
	15729 Sep 30 15:57	0°♍		morning max el	15730 Sep 24 17:42	0°♍	
	15729 Oct 20 01:52	0°♍			15730 Sep 24 17:42	0°♍	
morning set	15729 Oct 26 15:40	12°♍04'14		morning set	15730 Oct 09 08:17	24°♍30'18	
asc. node	15729 Oct 30 02:46	18°♍50'37			15730 Oct 12 07:31	0°♍	

max. Earth dist.	15730 Oct 12 22:58	1°♍12'59	1.35808 AU	morning max el	15731 Aug 16 20:35	15°♊22'07	24°14'54
asc. node	15730 Oct 16 23:29	9°♍00'29			15731 Aug 28 21:22	0°♎	
					15731 Sep 17 15:38	0°♊	
superior conj	15730 Oct 18 24:00	13°♍02'38	0°18'22	morning set	15731 Sep 21 06:35	6°♊08'21	
minimum elong	15730 Oct 18 22:55	12°♍57'12	0°18'40	max. Earth dist.	15731 Sep 24 22:16	12°♊33'14	1.38122 AU
evening rise	15730 Oct 26 20:03	29°♍07'47					
	15730 Oct 27 06:13	0°♊		superior conj	15731 Oct 02 05:14	26°♊03'30	-0°14'34
evening max el	15730 Nov 13 19:23	28°♊49'06	20°11'34	minimum elong	15731 Oct 02 06:12	26°♊08'12	0°14'05
	15730 Nov 15 01:34	0°♊		behind sun begin	15731 Oct 02 02:48	25°♊51'55	
desc. node	15730 Nov 18 10:32	2°♊26'36		behind sun end	15731 Oct 02 09:36	26°♊24'29	
retrograde	15730 Nov 24 11:03	4°♊07'25		asc. node	15731 Oct 03 20:10	29°♊11'10	
evening set	15730 Nov 26 15:17	3°♊55'09			15731 Oct 04 06:13	0°♍	
inferior conj	15730 Dec 05 10:57	29°♊58'26	-4°54'55	evening rise	15731 Oct 10 22:01	13°♍09'04	
minimum elong	15730 Dec 05 01:00	0°♊13'15	4°51'31		15731 Oct 19 21:58	0°♊	
	15730 Dec 05 09:54	30°♋♊		evening max el	15731 Oct 27 10:37	10°♊14'45	19°07'36
min. Earth dist.	15730 Dec 07 03:40	28°♊57'51	0.54814 AU	retrograde	15731 Nov 05 11:57	14°♊48'02	
morning rise	15730 Dec 13 09:59	25°♊54'25		desc. node	15731 Nov 05 07:43	14°♊47'56	
direct	15730 Dec 18 05:08	25°♊04'36		evening set	15731 Nov 07 09:07	14°♊37'03	
	15730 Dec 29 19:11	0°♊		inferior conj	15731 Nov 15 19:39	10°♊23'48	-3°18'01
morning max el	15730 Dec 31 19:16	1°♊46'43	24°06'32	minimum elong	15731 Nov 15 11:32	10°♊37'36	3°14'18
asc. node	15731 Jan 12 23:10	17°♊32'04		min. Earth dist.	15731 Nov 18 13:57	8°♊31'18	0.56085 AU
	15731 Jan 19 21:39	0°♋		morning rise	15731 Nov 23 11:22	5°♊47'13	
morning set	15731 Jan 25 11:00	11°♋27'33		direct	15731 Nov 29 02:55	4°♊33'16	
				morning max el	15731 Dec 13 05:17	11°♊44'05	25°50'20
superior conj	15731 Feb 01 06:18	26°♋18'25	1°31'55		15731 Dec 27 06:15	0°♊	
minimum elong	15731 Feb 01 07:46	26°♋26'25	1°32'21	asc. node	15731 Dec 30 20:21	6°♊06'08	
	15731 Feb 02 23:08	0°♋		morning set	15732 Jan 09 22:23	26°♊05'05	
max. Earth dist.	15731 Feb 03 18:49	1°♋45'46	1.32569 AU		15732 Jan 11 17:35	0°♋	
evening rise	15731 Feb 08 20:09	12°♋17'50		superior conj	15732 Jan 16 16:00	10°♋56'31	1°37'31
desc. node	15731 Feb 14 10:39	23°♋08'45		minimum elong	15732 Jan 16 16:27	10°♋59'01	1°38'12
	15731 Feb 18 06:14	0°♌		max. Earth dist.	15732 Jan 17 22:47	13°♋47'11	1.31552 AU
	15731 Mar 11 02:21	0°♌		evening rise	15732 Jan 23 18:23	26°♋20'02	
evening max el	15731 Mar 14 17:06	3°♌45'23	27°31'26		15732 Jan 25 13:06	0°♋	
retrograde	15731 Mar 28 11:32	11°♌16'06		desc. node	15732 Feb 01 07:19	12°♋59'39	
evening set	15731 Apr 04 06:14	8°♌50'30			15732 Feb 11 16:23	0°♌	
min. Earth dist.	15731 Apr 08 01:15	5°♌31'06	0.63871 AU	evening max el	15732 Feb 25 02:39	16°♌28'59	27°32'12
inferior conj	15731 Apr 10 18:15	2°♌42'32	-0°01'32	retrograde	15732 Mar 10 01:54	23°♌54'23	
minimum elong	15731 Apr 10 18:19	2°♌42'23	0°01'54	evening set	15732 Mar 16 21:40	21°♌42'15	
transit middle	15731 Apr 10 18:19	2°♌42'23	0°01'54	min. Earth dist.	15732 Mar 20 16:04	18°♌47'07	0.61730 AU
transit begin	15731 Apr 10 15:12	2°♌50'30		inferior conj	15732 Mar 23 18:08	15°♌56'56	-1°16'49
transit end	15731 Apr 10 21:25	2°♌34'17		minimum elong	15732 Mar 23 20:50	15°♌50'42	1°15'52
asc. node	15731 Apr 10 20:12	2°♌37'28		asc. node	15732 Mar 27 17:34	12°♌37'00	
	15731 Apr 13 12:15	30°♋♌		morning rise	15732 Mar 30 23:11	10°♌56'02	
morning rise	15731 Apr 17 08:44	27°♌23'59		direct	15732 Apr 02 03:57	10°♌34'45	
direct	15731 Apr 19 20:45	26°♌52'46		morning max el	15732 Apr 08 23:06	14°♌00'10	17°48'58
morning max el	15731 Apr 26 05:53	0°♌08'29	17°48'03		15732 Apr 19 23:37	0°♌	
	15731 Apr 26 02:21	0°♌		morning set	15732 Apr 24 17:26	8°♌22'40	
morning set	15731 May 12 23:56	25°♌21'43		desc. node	15732 Apr 29 08:58	16°♌37'36	
desc. node	15731 May 13 12:12	26°♌13'45					
	15731 May 15 17:40	0°♍		superior conj	15732 May 06 00:16	28°♌06'23	-0°51'59
superior conj	15731 May 26 00:38	17°♍01'55	-1°29'23	minimum elong	15732 May 05 19:28	27°♌46'03	0°51'55
minimum elong	15731 May 25 16:28	16°♍28'53	1°29'15		15732 May 07 03:11	0°♍	
max. Earth dist.	15731 May 31 10:20	25°♍40'36	1.45096 AU	max. Earth dist.	15732 May 13 02:17	9°♍50'30	1.43663 AU
	15731 Jun 03 04:15	0°♎		evening rise	15732 May 20 05:12	21°♍08'30	
evening rise	15731 Jun 10 13:58	11°♎27'27			15732 May 25 23:52	0°♎	
	15731 Jun 22 22:25	0°♏			15732 Jun 16 10:51	0°♏	
asc. node	15731 Jul 07 18:46	19°♏43'53		evening max el	15732 Jun 20 11:13	4°♏26'14	21°28'59
evening max el	15731 Jul 08 14:04	20°♏33'24	20°18'01	asc. node	15732 Jun 23 15:40	7°♏15'16	
retrograde	15731 Jul 16 10:43	25°♏02'09		retrograde	15732 Jun 29 09:28	9°♏37'46	
evening set	15731 Jul 20 11:48	23°♏28'36		evening set	15732 Jul 03 21:29	7°♏47'07	
inferior conj	15731 Jul 25 18:07	17°♏25'05	3°06'27	inferior conj	15732 Jul 09 03:02	1°♏32'55	3°08'33
minimum elong	15731 Jul 25 18:48	17°♏22'45	3°05'46	minimum elong	15732 Jul 09 02:45	1°♏33'54	3°07'47
min. Earth dist.	15731 Jul 26 13:18	16°♏19'30	0.68346 AU	min. Earth dist.	15732 Jul 09 08:49	1°♏12'42	0.68968 AU
morning rise	15731 Jul 31 01:28	11°♏01'30			15732 Jul 10 05:48	30°♋♎	
direct	15731 Aug 05 13:40	8°♏37'07		morning rise	15732 Jul 14 07:48	25°♎14'46	
desc. node	15731 Aug 09 10:51	9°♏36'08		direct	15732 Jul 19 07:49	23°♎05'42	

desc. node	15732 Jul 26 08:10	26°☿16'37		morning rise	15733 Jun 28 17:42	9°☿35'50	
morning max el	15732 Jul 29 08:27	29°☿01'48	22°45'37	direct	15733 Jul 03 05:28	7°☿45'11	
	15732 Jul 30 07:02	0°♊		morning max el	15733 Jul 11 23:55	12°☿49'44	21°20'36
	15732 Aug 21 14:15	0°♊		desc. node	15733 Jul 13 05:27	14°☿06'08	
morning set	15732 Sep 01 06:28	16°♊48'39			15733 Jul 25 14:36	0°♊	
max. Earth dist.	15732 Sep 05 21:53	24°♊33'04	1.40515 AU	morning set	15733 Aug 12 06:25	26°♊27'47	
	15732 Sep 09 01:53	0°♋			15733 Aug 14 12:07	0°♊	
				max. Earth dist.	15733 Aug 19 02:40	7°♊25'22	1.42714 AU
superior conj	15732 Sep 13 18:39	8°♋21'07	-0°50'43				
minimum elong	15732 Sep 13 22:36	8°♋39'03	0°50'01	superior conj	15733 Aug 26 11:51	19°♊45'55	-1°26'36
asc. node	15732 Sep 19 16:49	19°♋18'42		minimum elong	15733 Aug 26 18:47	20°♊15'36	1°25'57
evening rise	15732 Sep 23 15:35	26°♋47'21			15733 Sep 01 08:41	0°♋	
	15732 Sep 25 08:17	0°♌		evening rise	15733 Sep 06 20:44	9°♋52'12	
evening max el	15732 Oct 09 13:50	22°♌28'01	18°25'53	asc. node	15733 Sep 06 13:27	9°♋19'21	
retrograde	15732 Oct 17 07:49	26°♌24'04			15733 Sep 18 17:01	0°♌	
evening set	15732 Oct 19 07:36	26°♌09'13		evening max el	15733 Sep 23 00:46	5°♌19'06	18°04'53
desc. node	15732 Oct 22 04:58	24°♌59'39		retrograde	15733 Sep 29 21:38	8°♌50'41	
inferior conj	15732 Oct 27 01:44	21°♌35'20	-1°33'50	evening set	15733 Oct 02 04:16	8°♌27'42	
minimum elong	15732 Oct 26 22:05	21°♌42'37	1°31'45	inferior conj	15733 Oct 09 04:53	3°♌33'01	-0°02'00
min. Earth dist.	15732 Oct 30 07:20	19°♌01'57	0.57990 AU	minimum elong	15733 Oct 09 04:49	3°♌33'08	0°01'36
morning rise	15732 Nov 03 09:04	16°♌21'33		transit middle	15733 Oct 09 04:49	3°♌33'08	0°01'36
direct	15732 Nov 09 15:28	14°♌40'29		transit begin	15733 Oct 09 01:31	3°♌40'46	
morning max el	15732 Nov 23 22:12	22°♌14'22	27°09'33	transit end	15733 Oct 09 08:08	3°♌25'30	
	15732 Nov 30 19:12	0°♍		desc. node	15733 Oct 09 02:20	3°♌38'53	
asc. node	15732 Dec 16 17:27	25°♍14'07		min. Earth dist.	15733 Oct 12 09:29	0°♌37'32	0.60232 AU
	15732 Dec 19 04:44	0°♎			15733 Oct 13 02:55	30°♌♋	
morning set	15732 Dec 24 07:27	10°♎32'15		morning rise	15733 Oct 16 02:11	27°♋47'33	
				direct	15733 Oct 22 16:52	25°♋41'22	
superior conj	15732 Dec 31 03:24	25°♎36'29	1°37'04		15733 Nov 01 23:17	0°♎	
minimum elong	15732 Dec 31 02:47	25°♎33'05	1°37'51	morning max el	15733 Nov 05 22:59	3°♎31'15	27°52'24
max. Earth dist.	15732 Dec 31 06:09	25°♎51'56	1.31059 AU		15733 Nov 25 11:21	0°♏	
	15733 Jan 02 02:31	0°♏		asc. node	15733 Dec 03 14:28	14°♏46'18	
evening rise	15733 Jan 06 22:46	10°♏36'20		morning set	15733 Dec 08 12:14	24°♏43'19	
	15733 Jan 16 19:04	0°♐			15733 Dec 10 23:34	0°♎	
desc. node	15733 Jan 18 04:03	2°♐25'21		max. Earth dist.	15733 Dec 14 13:19	7°♎51'22	1.31115 AU
evening max el	15733 Feb 06 06:35	28°♐26'40	26°58'36				
	15733 Feb 07 23:50	0°♑		superior conj	15733 Dec 15 14:32	10°♎11'54	1°30'38
retrograde	15733 Feb 20 07:16	5°♑42'14		minimum elong	15733 Dec 15 13:00	10°♎03'20	1°31'21
evening set	15733 Feb 26 21:30	3°♑51'08		evening rise	15733 Dec 22 07:07	25°♎00'44	
min. Earth dist.	15733 Mar 02 20:47	1°♑10'41	0.59483 AU		15733 Dec 24 15:24	0°♏	
	15733 Mar 04 08:29	30°♑♐		desc. node	15734 Jan 05 00:51	21°♏15'31	
inferior conj	15733 Mar 06 02:03	28°♐35'43	-2°43'08		15734 Jan 10 21:32	0°♐	
minimum elong	15733 Mar 06 08:13	28°♐23'17	2°40'41	evening max el	15734 Jan 19 02:41	9°♐31'26	25°50'54
morning rise	15733 Mar 13 22:28	23°♐54'56		retrograde	15734 Feb 02 01:16	16°♐33'50	
asc. node	15733 Mar 14 14:57	23°♐46'28		evening set	15734 Feb 08 01:55	15°♐09'23	
direct	15733 Mar 15 22:25	23°♐39'57		min. Earth dist.	15734 Feb 12 15:44	12°♐30'38	0.57358 AU
morning max el	15733 Mar 23 12:40	27°♐26'26	18°08'42	inferior conj	15734 Feb 15 14:22	10°♐27'59	-4°12'30
	15733 Mar 25 20:03	0°♑		minimum elong	15734 Feb 15 23:24	10°♐12'14	4°09'21
morning set	15733 Apr 08 03:11	22°♑08'04		morning rise	15734 Feb 23 23:54	6°♐08'32	
	15733 Apr 12 08:21	0°♒		direct	15734 Feb 25 23:53	5°♐56'01	
desc. node	15733 Apr 16 05:41	7°♒08'06		asc. node	15734 Mar 01 12:22	6°♐37'06	
				morning max el	15734 Mar 06 18:25	10°♐14'19	18°49'09
superior conj	15733 Apr 17 22:52	10°♒13'23	-0°14'07		15734 Mar 19 16:56	0°♑	
minimum elong	15733 Apr 17 21:42	10°♒08'11	0°14'23	morning set	15734 Mar 23 00:11	6°♑22'27	
behind sun begin	15733 Apr 17 18:22	9°♒53'16					
behind sun end	15733 Apr 18 01:02	10°♒23'04		superior conj	15734 Mar 31 16:38	23°♑11'20	0°20'03
max. Earth dist.	15733 Apr 25 13:20	23°♒24'00	1.41735 AU	minimum elong	15734 Mar 31 17:55	23°♑17'23	0°19'34
	15733 Apr 29 13:12	0°♓		desc. node	15734 Apr 03 02:22	27°♑40'47	
evening rise	15733 Apr 30 13:22	1°♓37'55			15734 Apr 04 08:42	0°♒	
	15733 May 19 09:33	0°♓		max. Earth dist.	15734 Apr 07 20:37	6°♒16'12	1.39510 AU
evening max el	15733 Jun 03 03:44	18°♓19'33	22°48'08	evening rise	15734 Apr 11 18:47	13°♒02'54	
asc. node	15733 Jun 10 12:38	23°♓43'02			15734 Apr 22 07:24	0°♓	
retrograde	15733 Jun 13 06:24	24°♓15'39			15734 May 14 14:08	0°♓	
evening set	15733 Jun 18 05:50	22°♓09'29		evening max el	15734 May 16 17:54	2°♓14'25	24°09'37
min. Earth dist.	15733 Jun 23 05:47	16°♓11'45	0.69108 AU	retrograde	15734 May 28 00:08	8°♓50'00	
inferior conj	15733 Jun 23 13:00	15°♓46'39	2°59'58	asc. node	15734 May 28 09:42	8°♓49'20	
minimum elong	15733 Jun 23 11:50	15°♓50'42	2°59'00	evening set	15734 Jun 02 11:13	6°♓30'56	

min. Earth dist.	15734 Jun 07 01:57	1°☿10'30	0.68762 AU	inferior conj	15735 May 23 04:19	14°♊15'27	2°11'11
inferior conj	15734 Jun 07 22:05	0°☿02'17	2°40'58	minimum elong	15735 May 23 02:09	14°♊22'29	2°09'49
minimum elong	15734 Jun 07 20:14	0°☿08'32	2°39'46	morning rise	15735 May 28 16:44	8°♊23'30	
	15734 Jun 07 22:45	30°♊		direct	15735 Jun 01 05:21	7°♊12'11	
morning rise	15734 Jun 13 05:19	24°♊00'15		morning max el	15735 Jun 08 02:53	10°♊56'58	19°06'12
direct	15734 Jun 17 05:11	22°♊29'24		desc. node	15735 Jun 16 23:45	22°♊04'28	
morning max el	15734 Jun 24 21:42	26°♊48'16	20°06'12	greatest brilliancy	15735 Jun 21 01:51	28°♊04'12	-0.7m
	15734 Jun 27 20:17	0°☿			15735 Jun 22 08:42	0°☿	
desc. node	15734 Jun 30 02:39	2°☿46'37		morning set	15735 Jul 01 18:56	14°☿25'14	
	15734 Jul 19 00:00	0°♊			15735 Jul 11 20:16	0°♊	
morning set	15734 Jul 22 12:49	5°♊24'08		max. Earth dist.	15735 Jul 15 07:59	5°♊26'52	1.45592 AU
max. Earth dist.	15734 Aug 01 14:34	21°♊08'22	1.44467 AU				
				superior conj	15735 Jul 18 01:54	9°♊45'43	-2°12'51
superior conj	15734 Aug 07 05:44	0°♊12'08	-1°56'27	minimum elong	15735 Jul 18 04:47	9°♊57'03	2°13'30
minimum elong	15734 Aug 07 13:14	0°♊42'43	1°56'22		15735 Jul 30 17:32	0°♊	
	15734 Aug 07 02:45	0°♊		evening rise	15735 Aug 01 21:42	3°♊32'16	
evening rise	15734 Aug 20 08:30	22°♊11'23		asc. node	15735 Aug 11 06:45	18°♊42'47	
asc. node	15734 Aug 24 10:06	29°♊09'09			15735 Aug 19 04:39	0°♊	
	15734 Aug 24 22:03	0°♊		evening max el	15735 Aug 21 05:41	2°♊14'04	18°19'16
evening max el	15734 Sep 06 15:15	18°♊37'46	18°03'02	retrograde	15735 Aug 27 14:53	5°♊37'56	
retrograde	15734 Sep 13 01:27	21°♊58'42		evening set	15735 Aug 30 14:33	4°♊48'44	
evening set	15734 Sep 15 16:21	21°♊23'59			15735 Sep 04 21:51	30°♊	
inferior conj	15734 Sep 22 01:40	16°♊10'33	1°10'23	inferior conj	15735 Sep 05 11:59	29°♊18'59	2°03'18
minimum elong	15734 Sep 22 03:30	16°♊05'42	1°09'54	minimum elong	15735 Sep 05 14:20	29°♊12'07	2°02'32
min. Earth dist.	15734 Sep 24 21:24	13°♊13'43	0.62514 AU	min. Earth dist.	15735 Sep 07 19:05	26°♊38'48	0.64618 AU
desc. node	15734 Sep 25 23:44	12°♊09'34		morning rise	15735 Sep 11 12:36	22°♊58'00	
morning rise	15734 Sep 28 12:18	10°♊02'39		desc. node	15735 Sep 12 21:09	21°♊59'27	
direct	15734 Oct 05 04:41	7°♊37'44		direct	15735 Sep 18 01:15	20°♊22'33	
morning max el	15734 Oct 19 06:00	15°♊35'46	27°56'01	morning max el	15735 Oct 01 16:34	28°♊18'51	27°24'02
	15734 Oct 31 01:43	0°♊			15735 Oct 03 07:32	0°♊	
	15734 Nov 18 02:54	0°♊			15735 Oct 24 20:57	0°♊	
asc. node	15734 Nov 20 11:24	4°♊35'51		morning set	15735 Nov 06 00:04	21°♊57'06	
morning set	15734 Nov 22 10:38	8°♊33'45		asc. node	15735 Nov 07 08:15	24°♊36'35	
max. Earth dist.	15734 Nov 27 16:37	19°♊37'58	1.31732 AU		15735 Nov 09 23:55	0°♊	
				max. Earth dist.	15735 Nov 10 12:20	1°♊04'18	1.32905 AU
superior conj	15734 Nov 29 23:32	24°♊38'00	1°18'11				
minimum elong	15734 Nov 29 21:22	24°♊26'02	1°18'44	superior conj	15735 Nov 14 04:17	8°♊48'33	0°59'38
	15734 Dec 02 09:53	0°♊		minimum elong	15735 Nov 14 01:57	8°♊36'02	1°00'00
evening rise	15734 Dec 06 17:38	9°♊29'04		evening rise	15735 Nov 21 04:22	23°♊56'05	
	15734 Dec 17 02:25	0°♊			15735 Nov 24 01:32	0°♊	
desc. node	15734 Dec 22 21:44	9°♊17'28		desc. node	15735 Dec 09 18:42	26°♊13'44	
evening max el	15734 Dec 31 14:56	19°♊49'12	24°17'12	evening max el	15735 Dec 13 00:37	29°♊44'50	22°33'48
retrograde	15735 Jan 14 05:46	26°♊35'32			15735 Dec 13 06:55	0°♊	
evening set	15735 Jan 19 07:44	25°♊39'10		retrograde	15735 Dec 25 21:56	6°♊07'40	
min. Earth dist.	15735 Jan 25 02:37	22°♊45'25	0.55639 AU	evening set	15735 Dec 29 17:15	5°♊35'58	
inferior conj	15735 Jan 27 05:29	21°♊27'59	-5°27'11	min. Earth dist.	15736 Jan 06 08:47	2°♊07'33	0.54600 AU
minimum elong	15735 Jan 27 13:32	21°♊15'43	5°25'08	inferior conj	15736 Jan 07 02:58	1°♊41'56	-6°01'22
morning rise	15735 Feb 04 21:14	17°♊28'22		minimum elong	15736 Jan 07 03:39	1°♊40'58	6°00'36
direct	15735 Feb 07 05:50	17°♊13'50			15736 Jan 10 05:46	30°♊	
asc. node	15735 Feb 16 09:44	21°♊11'31		morning rise	15736 Jan 15 15:14	27°♊54'11	
morning max el	15735 Feb 17 12:08	22°♊12'15	19°52'18	direct	15736 Jan 18 18:51	27°♊31'40	
	15735 Feb 23 18:19	0°♊			15736 Jan 26 13:58	0°♊	
morning set	15735 Mar 07 04:40	20°♊54'44		morning max el	15736 Jan 30 15:06	3°♊14'03	21°18'35
	15735 Mar 11 15:51	0°♊		asc. node	15736 Feb 03 07:04	7°♊15'46	
					15736 Feb 16 20:23	0°♊	
superior conj	15735 Mar 15 01:10	6°♊48'17	0°48'26	morning set	15736 Feb 19 13:46	5°♊36'35	
minimum elong	15735 Mar 15 03:34	7°♊00'14	0°48'02				
desc. node	15735 Mar 20 23:00	18°♊12'09		superior conj	15736 Feb 26 20:29	20°♊53'31	1°10'24
max. Earth dist.	15735 Mar 21 03:14	18°♊31'58	1.37228 AU	minimum elong	15736 Feb 26 23:00	21°♊06'34	1°10'17
evening rise	15735 Mar 24 20:13	25°♊18'01			15736 Mar 02 08:08	0°♊	
	15735 Mar 27 12:21	0°♊		max. Earth dist.	15736 Mar 02 13:17	0°♊25'31	1.35120 AU
	15735 Apr 15 21:19	0°♊		evening rise	15736 Mar 06 14:27	8°♊14'22	
evening max el	15735 Apr 29 07:25	16°♊08'44	25°26'28	desc. node	15736 Mar 06 19:36	8°♊38'33	
retrograde	15735 May 11 13:38	23°♊14'27			15736 Mar 19 04:03	0°♊	
asc. node	15735 May 15 06:50	22°♊17'31			15736 Apr 10 22:21	0°♊	
evening set	15735 May 17 12:00	20°♊46'05		evening max el	15736 Apr 10 21:04	29°♊56'53	26°31'21
min. Earth dist.	15735 May 21 19:10	16°♊02'28	0.67941 AU	retrograde	15736 Apr 23 22:03	7°♊21'30	

evening set	15736 Apr 30 06:22	4° Π 48'58		evening set	15737 Apr 13 16:15	18° \mathcal{B} 31'05	
asc. node	15736 May 01 04:03	4° Π 02'00		min. Earth dist.	15737 Apr 17 12:51	14° \mathcal{B} 54'55	0.64987 AU
min. Earth dist.	15736 May 04 07:27	0° Π 40'32	0.66666 AU	asc. node	15737 Apr 18 01:20	14° \mathcal{B} 21'07	
	15736 May 04 21:03	30° \mathcal{R} 8		inferior conj	15737 Apr 19 23:24	12° \mathcal{B} 13'27	0°35'44
inferior conj	15736 May 06 05:36	28° \mathcal{B} 21'28	1°29'49	minimum elong	15737 Apr 19 22:26	12° \mathcal{B} 16'08	0°34'52
minimum elong	15736 May 06 03:38	28° \mathcal{B} 27'23	1°28'30	morning rise	15737 Apr 26 06:31	6° \mathcal{B} 46'13	
morning rise	15736 May 12 01:58	22° \mathcal{B} 41'01		direct	15737 Apr 28 23:15	6° \mathcal{B} 07'56	
direct	15736 May 15 04:08	21° \mathcal{B} 47'35		morning max el	15737 May 05 06:42	9° \mathcal{B} 23'33	17°55'34
morning max el	15736 May 21 14:37	25° \mathcal{B} 11'28	18°22'26		15737 May 19 13:53	0° Π	
	15736 May 25 18:30	0° Π		desc. node	15737 May 20 17:38	1° Π 54'20	
desc. node	15736 Jun 02 20:45	11° Π 49'47		morning set	15737 May 23 00:08	5° Π 39'19	
morning set	15736 Jun 10 19:54	24° Π 23'16					
	15736 Jun 14 09:01	0° \mathcal{E}		superior conj	15737 Jun 06 01:59	28° Π 29'39	-1°48'05
superior conj	15736 Jun 26 11:05	18° \mathcal{E} 57'14	-2°09'56	minimum elong	15737 Jun 05 17:18	27° Π 55'11	1°48'10
minimum elong	15736 Jun 26 06:13	18° \mathcal{E} 38'16	2°10'36		15737 Jun 07 00:48	0° \mathcal{E}	
max. Earth dist.	15736 Jun 27 04:00	20° \mathcal{E} 03'07	1.45988 AU	max. Earth dist.	15737 Jun 09 23:54	4° \mathcal{E} 39'57	1.45629 AU
	15736 Jul 03 13:12	0° \mathcal{Q}		evening rise	15737 Jun 22 02:12	23° \mathcal{E} 23'37	
evening rise	15736 Jul 12 09:58	13° \mathcal{Q} 51'14			15737 Jun 26 10:02	0° \mathcal{Q}	
greatest brilliancy	15736 Jul 21 23:33	28° \mathcal{Q} 45'46	-0.8m	greatest brilliancy	15737 Jul 06 06:04	14° \mathcal{Q} 43'17	-0.6m
	15736 Jul 22 18:57	0° \mathcal{M}		asc. node	15737 Jul 15 00:13	26° \mathcal{Q} 36'09	
asc. node	15736 Jul 28 03:27	7° \mathcal{M} 54'31		evening max el	15737 Jul 17 23:48	29° \mathcal{Q} 53'38	19°42'45
evening max el	15736 Aug 03 17:13	16° \mathcal{M} 01'16	18°52'49		15737 Jul 18 02:22	0° \mathcal{M}	
retrograde	15736 Aug 10 10:09	19° \mathcal{M} 41'03		retrograde	15737 Jul 25 08:25	4° \mathcal{M} 01'29	
evening set	15736 Aug 13 19:09	18° \mathcal{M} 35'26		evening set	15737 Jul 29 03:23	2° \mathcal{M} 38'23	
inferior conj	15736 Aug 19 08:14	12° \mathcal{M} 51'30	2°38'58		15737 Jul 31 21:08	30° \mathcal{R} 8	
minimum elong	15736 Aug 19 10:14	12° \mathcal{M} 45'09	2°38'14	inferior conj	15737 Aug 03 11:20	26° \mathcal{Q} 41'47	3°00'04
min. Earth dist.	15736 Aug 21 01:26	10° \mathcal{M} 41'24	0.66403 AU	minimum elong	15737 Aug 03 12:34	26° \mathcal{Q} 37'41	2°59'23
morning rise	15736 Aug 25 00:26	6° \mathcal{M} 25'12		min. Earth dist.	15737 Aug 04 14:32	25° \mathcal{Q} 10'51	0.67770 AU
desc. node	15736 Aug 29 18:34	3° \mathcal{M} 55'57		morning rise	15737 Aug 08 21:15	20° \mathcal{Q} 15'59	
direct	15736 Aug 31 05:29	3° \mathcal{M} 47'50		direct	15737 Aug 14 16:09	17° \mathcal{Q} 44'42	
morning max el	15736 Sep 13 04:08	11° \mathcal{M} 28'49	26°23'50	desc. node	15737 Aug 16 15:57	18° \mathcal{Q} 00'15	
	15736 Sep 27 23:43	0° \mathcal{L}		morning max el	15737 Aug 26 15:08	24° \mathcal{Q} 54'28	25°04'52
	15736 Oct 16 11:17	0° \mathcal{M}			15737 Aug 31 05:49	0° \mathcal{M}	
morning set	15736 Oct 19 01:21	4° \mathcal{M} 46'23		morning set	15737 Sep 21 10:36	0° \mathcal{L}	
max. Earth dist.	15736 Oct 22 22:12	12° \mathcal{M} 11'46	1.34611 AU	max. Earth dist.	15737 Oct 01 10:45	16° \mathcal{L} 53'27	
asc. node	15736 Oct 24 05:01	14° \mathcal{M} 44'04			15737 Oct 04 23:27	23° \mathcal{L} 17'26	1.36758 AU
					15737 Oct 08 12:59	0° \mathcal{M}	
superior conj	15736 Oct 28 02:19	22° \mathcal{M} 37'36	0°35'04	asc. node	15737 Oct 11 01:44	4° \mathcal{M} 54'43	
minimum elong	15736 Oct 28 00:31	22° \mathcal{M} 28'19	0°35'21				
	15736 Oct 31 15:02	0° \mathcal{J}		superior conj	15737 Oct 11 14:45	5° \mathcal{M} 58'46	0°04'56
evening rise	15736 Nov 04 13:28	8° \mathcal{J} 17'02		minimum elong	15737 Oct 11 14:24	5° \mathcal{M} 57'06	0°05'18
	15736 Nov 16 01:01	0° \mathcal{B}		behind sun begin	15737 Oct 11 08:15	5° \mathcal{M} 26'47	
evening max el	15736 Nov 23 17:42	9° \mathcal{B} 57'05	20°58'19	behind sun end	15737 Oct 11 20:34	6° \mathcal{M} 27'30	
desc. node	15736 Nov 25 15:45	11° \mathcal{B} 41'51		evening rise	15737 Oct 19 18:47	22° \mathcal{M} 27'20	
retrograde	15736 Dec 05 08:02	15° \mathcal{B} 42'08			15737 Oct 23 13:27	0° \mathcal{J}	
evening set	15736 Dec 07 22:31	15° \mathcal{B} 26'00		evening max el	15737 Nov 06 00:51	20° \mathcal{J} 54'19	19°41'42
inferior conj	15736 Dec 16 17:44	11° \mathcal{B} 34'13	-5°35'35	desc. node	15737 Nov 12 12:54	25° \mathcal{J} 17'32	
minimum elong	15736 Dec 16 09:51	11° \mathcal{B} 45'28	5°33'25	retrograde	15737 Nov 15 23:49	25° \mathcal{J} 52'42	
min. Earth dist.	15736 Dec 17 14:14	11° \mathcal{B} 05'01	0.54454 AU	evening set	15737 Nov 17 23:21	25° \mathcal{J} 41'48	
morning rise	15736 Dec 24 21:18	7° \mathcal{B} 41'26		inferior conj	15737 Nov 26 16:32	21° \mathcal{J} 39'28	-4°16'33
direct	15736 Dec 29 02:04	7° \mathcal{B} 03'30		minimum elong	15737 Nov 26 06:42	21° \mathcal{J} 54'52	4°12'41
morning max el	15737 Jan 11 04:59	13° \mathcal{B} 26'57	23°03'07	min. Earth dist.	15737 Nov 28 22:05	20° \mathcal{J} 15'43	0.55253 AU
asc. node	15737 Jan 20 04:22	24° \mathcal{B} 31'03		morning rise	15737 Dec 04 12:23	17° \mathcal{J} 22'50	
	15737 Jan 23 14:23	0° \approx		direct	15737 Dec 09 17:01	16° \mathcal{J} 22'58	
morning set	15737 Feb 03 01:13	20° \approx 20'45		morning max el	15737 Dec 23 13:32	23° \mathcal{J} 18'52	24°52'35
	15737 Feb 07 12:36	0° \mathcal{H}			15737 Dec 29 13:13	0° \mathcal{B}	
superior conj	15737 Feb 09 23:22	5° \mathcal{H} 17'09	1°25'52	asc. node	15738 Jan 07 01:36	12° \mathcal{B} 40'34	
minimum elong	15737 Feb 10 01:20	5° \mathcal{H} 27'43	1°26'07		15738 Jan 16 04:11	0° \approx	
max. Earth dist.	15737 Feb 13 06:11	12° \mathcal{H} 14'49	1.33365 AU	morning set	15738 Jan 18 13:09	5° \approx 02'06	
evening rise	15737 Feb 17 21:57	21° \mathcal{H} 42'21					
desc. node	15737 Feb 21 16:11	28° \mathcal{H} 55'13		superior conj	15738 Jan 25 07:15	19° \approx 51'56	1°35'02
	15737 Feb 22 06:08	0° \mathcal{Y}		minimum elong	15738 Jan 25 08:18	19° \approx 57'44	1°35'35
	15737 Mar 12 23:29	0° \mathcal{B}		max. Earth dist.	15738 Jan 27 06:38	24° \approx 11'27	1.32070 AU
evening max el	15737 Mar 24 10:29	13° \mathcal{B} 29'23	27°16'53		15738 Jan 29 23:30	0° \mathcal{H}	
retrograde	15737 Apr 07 00:27	21° \mathcal{B} 01'21		evening rise	15738 Feb 01 15:38	5° \mathcal{H} 34'25	
				desc. node	15738 Feb 08 12:50	18° \mathcal{H} 57'26	
					15738 Feb 14 21:09	0° \mathcal{Y}	

evening max el	15738 Mar 06 22:18	26° Υ 35'16	27°35'50	desc. node	15739 Jan 26 09:33	8° X 38'21	
	15738 Mar 10 21:29	0° B			15739 Feb 09 06:26	0° Υ	
retrograde	15738 Mar 20 19:38	4° B 04'41		evening max el	15739 Feb 17 06:02	9° Υ 01'00	27°22'20
evening set	15738 Mar 27 15:14	1° B 44'08		retrograde	15739 Mar 03 06:10	16° Υ 21'48	
	15738 Mar 29 20:39	30° R Υ		evening set	15739 Mar 10 00:25	14° Υ 18'08	
min. Earth dist.	15738 Mar 31 09:37	28° Υ 35'37	0.62985 AU	min. Earth dist.	15739 Mar 13 20:13	11° Υ 30'28	0.60776 AU
inferior conj	15738 Apr 03 06:51	25° Υ 44'28	-0°31'50	inferior conj	15739 Mar 17 00:25	8° Υ 44'57	-1°52'21
minimum elong	15738 Apr 03 07:54	25° Υ 41'52	0°31'42	minimum elong	15739 Mar 17 04:32	8° Υ 35'57	1°50'45
asc. node	15738 Apr 04 22:41	24° Υ 08'01		asc. node	15739 Mar 22 20:03	4° Υ 30'45	
morning rise	15738 Apr 10 03:17	20° Υ 32'51		morning rise	15739 Mar 24 11:59	3° Υ 51'59	
direct	15738 Apr 12 11:55	20° Υ 06'21		direct	15739 Mar 26 14:24	3° Υ 33'43	
morning max el	15738 Apr 19 00:22	23° Υ 25'07	17°46'06	morning max el	15739 Apr 02 16:25	7° Υ 06'45	17°54'57
	15738 Apr 24 07:11	0° B			15739 Apr 17 11:09	0° B	
morning set	15738 May 05 05:43	18° B 07'15		morning set	15739 Apr 18 06:53	1° B 29'36	
desc. node	15738 May 07 14:27	22° B 12'34		desc. node	15739 Apr 24 11:13	12° B 39'54	
	15738 May 12 03:41	0° II					
superior conj	15738 May 17 12:01	8° II 56'22	-1°13'58	superior conj	15739 Apr 28 21:45	20° B 28'24	-0°35'40
minimum elong	15738 May 17 05:04	8° II 27'44	1°13'47	minimum elong	15739 Apr 28 18:35	20° B 14'43	0°35'45
max. Earth dist.	15738 May 23 17:51	19° II 03'45	1.44566 AU	max. Earth dist.	15739 May 04 12:23	0° II	
	15738 May 30 16:59	0° B		evening rise	15739 May 06 08:20	3° II 01'40	1.42899 AU
evening rise	15738 Jun 01 13:02	2° B 49'43			15739 May 12 10:32	12° II 49'50	
	15738 Jun 19 22:27	0° Ω		evening max el	15739 May 23 16:54	0° B	
evening max el	15738 Jul 01 00:26	13° Ω 47'15	20°46'58		15739 Jun 13 19:33	27° B 41'05	22°01'57
asc. node	15738 Jul 01 21:03	14° Ω 37'03			15739 Jun 16 08:10	0° Ω	
retrograde	15738 Jul 09 07:24	18° Ω 33'12		asc. node	15739 Jun 18 17:58	1° Ω 44'02	
evening set	15738 Jul 13 13:04	16° Ω 52'23		retrograde	15739 Jun 23 05:28	3° Ω 11'05	
inferior conj	15738 Jul 18 18:47	10° Ω 44'23	3°08'40	evening set	15739 Jun 27 22:24	1° Ω 13'27	
minimum elong	15738 Jul 18 19:03	10° Ω 43'27	3°07'58		15739 Jun 29 05:11	30° R B	
min. Earth dist.	15738 Jul 19 08:17	9° Ω 57'41	0.68675 AU	inferior conj	15739 Jul 03 04:23	24° B 55'28	3°06'09
morning rise	15738 Jul 24 00:44	4° Ω 22'52		minimum elong	15739 Jul 03 03:43	24° B 57'49	3°05'19
direct	15738 Jul 29 07:56	2° Ω 04'14		min. Earth dist.	15739 Jul 03 04:36	24° B 54'44	0.69094 AU
desc. node	15738 Aug 03 13:19	3° Ω 50'57		morning rise	15739 Jul 08 08:51	18° B 40'30	
morning max el	15738 Aug 09 01:57	8° Ω 28'56	23°36'45	direct	15739 Jul 13 03:43	16° B 39'00	
	15738 Aug 25 23:44	0° M		desc. node	15739 Jul 21 10:38	21° B 03'43	
morning set	15738 Sep 12 23:52	28° M 07'26		morning max el	15739 Jul 22 15:00	22° B 12'14	22°08'31
	15738 Sep 14 02:26	0° B			15739 Jul 29 09:03	0° Ω	
max. Earth dist.	15738 Sep 16 21:55	4° B 50'55	1.39149 AU	morning set	15739 Aug 19 06:22	0° M	
				max. Earth dist.	15739 Aug 24 13:28	8° M 21'28	
superior conj	15738 Sep 24 13:48	18° B 42'35	-0°29'40		15739 Aug 30 00:02	17° M 15'38	1.41499 AU
minimum elong	15738 Sep 24 15:57	18° B 52'41	0°29'06		15739 Sep 06 10:16	0° B	
asc. node	15738 Sep 27 22:23	25° B 04'24		superior conj	15739 Sep 06 19:11	0° B 39'20	-1°06'14
	15738 Sep 30 11:37	0° M		minimum elong	15739 Sep 07 00:30	1° B 02'52	1°05'31
evening rise	15738 Oct 03 17:35	6° M 19'39		asc. node	15739 Sep 14 19:02	15° B 09'48	
	15738 Oct 17 12:42	0° B		evening rise	15739 Sep 17 06:28	19° B 45'36	
evening max el	15738 Oct 19 21:44	2° B 41'16	18°47'14		15739 Sep 22 20:35	0° M	
retrograde	15738 Oct 28 08:17	6° B 56'52		evening max el	15739 Oct 03 04:44	15° M 11'45	18°14'25
evening set	15738 Oct 30 05:57	6° B 44'40		retrograde	15739 Oct 10 12:21	18° M 55'52	
desc. node	15738 Oct 30 10:08	6° B 42'23		evening set	15739 Oct 12 14:49	18° M 37'57	
inferior conj	15738 Nov 07 09:58	2° B 22'52	-2°33'09	desc. node	15739 Oct 17 07:26	16° M 07'30	
minimum elong	15738 Nov 07 03:42	2° B 34'14	2°30'01	inferior conj	15739 Oct 20 01:20	13° M 54'36	-0°52'43
min. Earth dist.	15738 Nov 10 10:52	0° B 11'12	0.56840 AU	minimum elong	15739 Oct 19 23:24	13° M 58'42	0°51'24
	15738 Nov 10 17:20	30° R M		min. Earth dist.	15739 Oct 23 07:33	11° M 09'36	0.58926 AU
morning rise	15738 Nov 14 22:23	27° M 30'45		morning rise	15739 Oct 27 04:34	8° M 26'22	
direct	15738 Nov 20 21:18	26° M 05'12		direct	15739 Nov 02 15:10	6° M 34'28	
	15738 Dec 01 00:54	0° B		morning max el	15739 Nov 16 22:11	14° M 15'14	27°32'39
morning max el	15738 Dec 05 01:45	3° B 25'52	26°27'58		15739 Nov 29 13:56	0° B	
	15738 Dec 24 02:53	0° B		asc. node	15739 Dec 11 19:51	20° B 49'15	
asc. node	15738 Dec 24 22:46	1° B 30'02			15739 Dec 16 10:19	0° B	
morning set	15739 Jan 02 23:45	19° B 35'04		morning set	15739 Dec 18 07:13	3° B 55'39	
	15739 Jan 07 17:24	0° \approx					
superior conj	15739 Jan 09 17:53	4° \approx 30'50	1°38'04	superior conj	15739 Dec 25 05:22	19° B 08'52	1°35'05
minimum elong	15739 Jan 09 17:53	4° \approx 30'48	1°38'48	minimum elong	15739 Dec 25 04:21	19° B 03'07	1°35'50
max. Earth dist.	15739 Jan 10 12:31	6° \approx 14'49	1.31280 AU	max. Earth dist.	15739 Dec 24 20:26	18° B 18'52	1.31019 AU
evening rise	15739 Jan 16 16:46	19° \approx 42'55			15739 Dec 30 02:21	0° \approx	
	15739 Jan 21 18:21	0° X		evening rise	15739 Dec 31 23:04	4° \approx 02'49	
				desc. node	15740 Jan 13 06:18	27° \approx 50'00	

















































































































	15740 Jan 14 13:29	0°♄				15740 Dec 20 21:27	0°♁	
evening max el	15740 Jan 30 06:47	20°♄35'39	26°33'37	desc. node		15740 Dec 30 03:07	16°♁21'50	
retrograde	15740 Feb 13 06:33	27°♄45'29				15741 Jan 09 15:25	0°♄	
evening set	15740 Feb 19 16:22	26°♄05'03		evening max el		15741 Jan 10 23:02	1°♄18'07	25°13'22
min. Earth dist.	15740 Feb 23 20:19	23°♄27'28	0.58547 AU	retrograde		15741 Jan 24 19:20	8°♄15'09	
inferior conj	15740 Feb 27 00:17	21°♄04'22	-3°21'30	evening set		15741 Jan 30 11:31	7°♄02'28	
minimum elong	15740 Feb 27 07:54	20°♄49'58	3°18'34	min. Earth dist.		15741 Feb 04 11:26	4°♄19'39	0.56552 AU
morning rise	15740 Mar 06 02:49	16°♄32'48		inferior conj		15741 Feb 07 03:34	2°♄34'41	-4°47'26
direct	15740 Mar 08 02:10	16°♄19'15		minimum elong		15741 Feb 07 12:54	2°♄19'23	4°44'32
asc. node	15740 Mar 08 17:28	16°♄20'43				15741 Feb 11 09:51	30°♁	
morning max el	15740 Mar 16 03:08	20°♄17'36	18°23'24	morning rise		15741 Feb 15 16:56	28°♁24'37	
	15740 Mar 23 09:06	0°♄		direct		15741 Feb 17 19:10	28°♁11'58	
morning set	15740 Mar 31 21:55	15°♄28'45		asc. node		15741 Feb 23 14:53	29°♁56'54	
	15740 Apr 08 14:14	0°♄				15741 Feb 23 16:55	0°♄	
				morning max el		15741 Feb 27 04:22	2°♄46'24	19°13'16
superior conj	15740 Apr 10 05:03	2°♄58'42	0°01'00	morning set		15741 Mar 15 22:29	29°♄52'00	
minimum elong	15740 Apr 10 05:06	2°♄58'53	0°00'36			15741 Mar 16 00:05	0°♄	
behind sun begin	15740 Apr 09 21:51	2°♄25'39						
behind sun end	15740 Apr 10 12:21	3°♄32'02		superior conj		15741 Mar 24 05:39	16°♄15'12	0°32'50
desc. node	15740 Apr 10 07:55	3°♄11'48		minimum elong		15741 Mar 24 07:33	16°♄24'24	0°32'21
max. Earth dist.	15740 Apr 17 17:57	16°♄19'26	1.40806 AU	desc. node		15741 Mar 28 04:34	23°♄44'40	
evening rise	15740 Apr 22 03:34	23°♄42'33		max. Earth dist.		15741 Mar 31 00:03	28°♄53'29	1.38522 AU
	15740 Apr 26 00:49	0°♄				15741 Mar 31 14:51	0°♄	
	15740 May 16 14:16	0°♄		evening rise		15741 Apr 03 17:47	5°♄30'00	
evening max el	15740 May 26 10:41	11°♄34'50	23°22'49			15741 Apr 19 01:12	0°♄	
asc. node	15740 Jun 04 14:58	17°♄39'56		evening max el		15741 May 09 00:12	25°♄29'25	24°43'14
retrograde	15740 Jun 06 01:13	17°♄48'45				15741 May 14 08:37	0°♄	
evening set	15740 Jun 11 05:43	15°♄36'26		retrograde		15741 May 20 17:27	2°♄20'01	
min. Earth dist.	15740 Jun 16 01:23	9°♄54'48	0.69022 AU	asc. node		15741 May 22 12:03	2°♄06'40	
inferior conj	15740 Jun 16 14:12	9°♄10'37	2°53'10	evening set		15741 May 26 09:22	29°♄56'21	
minimum elong	15740 Jun 16 12:43	9°♄15'45	2°52'07			15741 May 26 07:39	30°♄	
morning rise	15740 Jun 21 19:41	3°♄03'36		min. Earth dist.		15741 May 30 20:36	24°♄51'39	0.68467 AU
direct	15740 Jun 26 02:16	1°♄21'32		inferior conj		15741 May 31 22:19	23°♄26'01	2°29'43
morning max el	15740 Jul 04 09:04	6°♄05'26	20°47'26	minimum elong		15741 May 31 20:17	23°♄32'48	2°28'25
desc. node	15740 Jul 07 07:53	9°♄17'07		morning rise		15741 Jun 06 07:25	17°♄28'04	
	15740 Jul 22 12:41	0°♄		direct		15741 Jun 10 02:18	16°♄05'50	
morning set	15740 Aug 03 04:36	17°♄39'09		morning max el		15741 Jun 17 10:01	20°♄09'04	19°38'45
	15740 Aug 11 00:13	0°♄		desc. node		15741 Jun 24 05:03	28°♄15'10	
max. Earth dist.	15740 Aug 11 08:06	0°♄31'47	1.43531 AU			15741 Jun 25 11:50	0°♄	
				greatest brilliancy		15741 Jun 30 06:07	6°♄47'13	-0.6m
superior conj	15740 Aug 18 02:37	11°♄39'12	-1°40'25	morning set		15741 Jul 13 08:16	26°♄30'36	
minimum elong	15740 Aug 18 10:17	12°♄11'17	1°39'56			15741 Jul 15 14:44	0°♄	
	15740 Aug 28 18:12	0°♄		max. Earth dist.		15741 Jul 24 22:02	14°♄29'54	1.45031 AU
evening rise	15740 Aug 30 04:53	2°♄33'00						
asc. node	15740 Aug 31 15:39	5°♄06'28		superior conj		15741 Jul 29 10:36	21°♄41'13	-2°05'30
evening max el	15740 Sep 15 17:33	28°♄15'21	18°01'45	minimum elong		15741 Jul 29 16:51	22°♄06'13	2°05'44
	15740 Sep 17 18:20	0°♄				15741 Aug 03 14:00	0°♄	
retrograde	15740 Sep 22 08:51	1°♄41'06		evening rise		15741 Aug 12 07:38	14°♄28'47	
evening set	15740 Sep 24 18:46	1°♄13'39		asc. node		15741 Aug 18 12:16	24°♄50'09	
	15740 Sep 27 02:14	30°♄				15741 Aug 21 16:35	0°♄	
inferior conj	15740 Oct 01 12:30	26°♄10'35	0°31'09	evening max el		15741 Aug 30 08:23	11°♄42'36	18°07'45
minimum elong	15740 Oct 01 13:27	26°♄08'16	0°31'06	retrograde		15741 Sep 05 17:10	15°♄03'14	
desc. node	15740 Oct 03 04:49	24°♄31'26		evening set		15741 Sep 08 11:38	14°♄22'48	
min. Earth dist.	15740 Oct 04 13:58	23°♄11'59	0.61211 AU	inferior conj		15741 Sep 14 15:30	9°♄02'24	1°35'06
morning rise	15740 Oct 08 05:13	20°♄14'00		minimum elong		15741 Sep 14 17:42	8°♄56'22	1°34'26
direct	15740 Oct 14 21:10	17°♄59'00		min. Earth dist.		15741 Sep 17 06:18	6°♄10'21	0.63444 AU
morning max el	15740 Oct 29 02:12	25°♄54'04	27°58'40	desc. node		15741 Sep 20 02:13	3°♄26'48	
	15740 Nov 01 22:00	0°♄		morning rise		15741 Sep 20 21:43	2°♄47'43	
	15740 Nov 22 02:57	0°♄		direct		15741 Sep 27 13:09	0°♄16'53	
asc. node	15740 Nov 27 16:51	10°♄29'53		morning max el		15741 Oct 11 11:02	8°♄16'25	27°46'16
morning set	15740 Dec 01 09:36	17°♄59'04				15741 Oct 28 06:57	0°♄	
	15740 Dec 06 23:53	0°♄				15741 Nov 14 08:43	0°♄	
max. Earth dist.	15740 Dec 07 02:28	0°♄14'15	1.31304 AU	asc. node		15741 Nov 14 13:43	0°♄24'54	
				morning set		15741 Nov 15 04:30	1°♄38'56	
superior conj	15740 Dec 08 15:50	3°♄41'09	1°26'06	max. Earth dist.		15741 Nov 20 02:41	11°♄51'40	1.32156 AU
minimum elong	15740 Dec 08 13:59	3°♄30'52	1°26'45					
evening rise	15740 Dec 15 08:33	18°♄29'27		superior conj		15741 Nov 22 23:17	18°♄01'29	1°11'03

minimum elong	15741 Nov 22 20:58	17° ♄ 48'54	1°11'32	evening rise	15742 Nov 14 05:39	17° ♄ 23'20	
	15741 Nov 28 10:33	0° ♄			15742 Nov 20 10:18	0° ♄	
evening rise	15741 Nov 29 19:20	2° ♄ 57'38		desc. node	15742 Dec 03 21:01	20° ♄ 20'39	
	15741 Dec 14 05:25	0° ♄		evening max el	15742 Dec 04 21:01	21° ♄ 21'39	21°51'22
desc. node	15741 Dec 17 00:02	3° ♄ 58'28		retrograde	15742 Dec 17 06:24	27° ♄ 29'16	
evening max el	15741 Dec 23 09:10	11° ♄ 22'30	23°33'23	evening set	15742 Dec 20 12:30	27° ♄ 05'34	
retrograde	15742 Jan 05 18:36	18° ♄ 00'33		inferior conj	15742 Dec 29 03:15	23° ♄ 14'42	-5°58'03
evening set	15742 Jan 10 07:47	17° ♄ 15'45		minimum elong	15742 Dec 28 23:51	23° ♄ 19'27	5°57'01
min. Earth dist.	15742 Jan 16 20:12	14° ♄ 09'24	0.55091 AU	min. Earth dist.	15742 Dec 29 01:40	23° ♄ 16'56	0.54429 AU
inferior conj	15742 Jan 18 10:21	13° ♄ 13'37	-5°48'15	morning rise	15743 Jan 06 11:57	19° ♄ 27'05	
minimum elong	15742 Jan 18 15:59	13° ♄ 05'22	5°46'56	direct	15743 Jan 10 02:18	18° ♄ 58'38	
morning rise	15742 Jan 27 01:41	9° ♄ 20'13		morning max el	15743 Jan 22 12:39	24° ♄ 59'18	22°01'18
direct	15742 Jan 29 16:56	9° ♄ 03'13			15743 Jan 27 00:38	0° ♄	
morning max el	15742 Feb 09 16:02	14° ♄ 21'02	20°26'17	asc. node	15743 Jan 28 09:35	1° ♄ 48'25	
asc. node	15742 Feb 10 12:15	15° ♄ 11'42		morning set	15743 Feb 12 15:32	29° ♄ 12'21	
	15742 Feb 20 19:05	0° ♄			15743 Feb 13 00:34	0° ♄	
morning set	15742 Feb 28 05:11	14° ♄ 28'53		superior conj	15743 Feb 19 18:01	14° ♄ 18'46	1°17'44
superior conj	15742 Mar 07 19:09	0° ♄ 05'07	0°58'32	minimum elong	15743 Feb 19 20:22	14° ♄ 31'07	1°17'47
minimum elong	15742 Mar 07 21:43	0° ♄ 18'03	0°58'14	max. Earth dist.	15743 Feb 23 20:04	22° ♄ 46'06	1.34329 AU
	15742 Mar 07 18:09	0° ♄			15743 Feb 27 11:36	0° ♄	
max. Earth dist.	15742 Mar 13 07:11	10° ♄ 55'42	1.36295 AU	evening rise	15743 Feb 28 03:06	1° ♄ 14'41	
desc. node	15742 Mar 15 01:09	14° ♄ 14'18		desc. node	15743 Mar 01 21:45	4° ♄ 37'00	
evening rise	15742 Mar 17 02:47	18° ♄ 03'51			15743 Mar 16 22:56	0° ♄	
	15742 Mar 23 22:22	0° ♄		evening max el	15743 Apr 04 03:39	23° ♄ 05'22	26°53'39
	15742 Apr 13 06:52	0° ♄			15743 Apr 14 04:04	0° ♄	
evening max el	15742 Apr 21 13:47	9° ♄ 22'04	25°56'04	retrograde	15743 Apr 17 10:45	0° ♄ 33'39	
retrograde	15742 May 04 04:59	16° ♄ 37'35			15743 Apr 20 13:09	30° ♄	
asc. node	15742 May 09 09:15	14° ♄ 50'12		evening set	15743 Apr 23 22:36	28° ♄ 01'33	
evening set	15742 May 10 07:37	14° ♄ 07'00		asc. node	15743 Apr 26 06:31	25° ♄ 53'38	
min. Earth dist.	15742 May 14 12:06	9° ♄ 38'18	0.67446 AU	min. Earth dist.	15743 Apr 27 21:42	24° ♄ 07'08	0.65996 AU
inferior conj	15742 May 16 02:42	7° ♄ 36'49	1°55'10	inferior conj	15743 Apr 30 01:08	21° ♄ 37'33	1°08'31
minimum elong	15742 May 16 00:33	7° ♄ 43'38	1°53'46	minimum elong	15743 Apr 29 23:29	21° ♄ 42'21	1°07'19
morning rise	15742 May 21 18:08	1° ♄ 49'18		morning rise	15743 May 06 01:42	16° ♄ 02'14	
direct	15742 May 25 02:10	0° ♄ 45'50		direct	15743 May 08 23:48	15° ♄ 15'27	
morning max el	15742 May 31 18:04	4° ♄ 20'27	18°45'30	morning max el	15743 May 15 07:52	18° ♄ 34'12	18°08'54
desc. node	15742 Jun 11 02:06	17° ♄ 45'47			15743 May 24 01:37	0° ♄	
greatest brilliancy	15742 Jun 14 19:30	23° ♄ 23'34	-0.8m	desc. node	15743 May 28 23:03	7° ♄ 40'00	
	15742 Jun 19 02:16	0° ♄		morning set	15743 Jun 03 08:47	16° ♄ 21'22	
morning set	15742 Jun 22 20:30	5° ♄ 50'41			15743 Jun 11 21:28	0° ♄	
max. Earth dist.	15742 Jul 07 16:35	28° ♄ 57'12	1.45852 AU	superior conj	15743 Jun 18 09:46	10° ♄ 15'44	-2°02'41
	15742 Jul 08 08:40	0° ♄		minimum elong	15743 Jun 18 02:29	9° ♄ 47'14	2°03'06
superior conj	15742 Jul 09 00:22	1° ♄ 01'19	-2°14'08	max. Earth dist.	15743 Jun 20 13:14	13° ♄ 36'57	1.45926 AU
minimum elong	15742 Jul 08 23:56	0° ♄ 59'38	2°14'54		15743 Jul 01 02:19	0° ♄	
evening rise	15742 Jul 24 10:11	25° ♄ 23'04		evening rise	15743 Jul 04 12:40	5° ♄ 18'43	
	15742 Jul 27 07:21	0° ♄		greatest brilliancy	15743 Jul 16 05:43	23° ♄ 15'44	-0.7m
asc. node	15742 Aug 05 08:56	14° ♄ 15'48			15743 Jul 20 20:27	0° ♄	
evening max el	15742 Aug 13 22:00	25° ♄ 25'31	18°31'30	asc. node	15743 Jul 23 05:39	3° ♄ 16'00	
retrograde	15742 Aug 20 09:22	28° ♄ 54'14		evening max el	15743 Jul 28 07:42	9° ♄ 16'00	19°12'11
evening set	15742 Aug 23 12:59	27° ♄ 58'14		retrograde	15743 Aug 04 06:12	13° ♄ 05'59	
inferior conj	15742 Aug 29 06:28	22° ♄ 22'29	2°20'21	evening set	15743 Aug 07 19:27	11° ♄ 52'48	
minimum elong	15742 Aug 29 08:45	22° ♄ 15'35	2°19'34	inferior conj	15743 Aug 13 05:58	6° ♄ 03'17	2°49'33
min. Earth dist.	15742 Aug 31 07:48	19° ♄ 53'39	0.65429 AU	minimum elong	15743 Aug 13 07:41	5° ♄ 57'44	2°48'50
morning rise	15742 Sep 04 03:18	15° ♄ 58'38		min. Earth dist.	15743 Aug 14 17:07	4° ♄ 09'18	0.67041 AU
desc. node	15742 Sep 06 23:38	14° ♄ 08'43			15743 Aug 18 09:01	30° ♄	
direct	15742 Sep 10 13:18	13° ♄ 21'08		morning rise	15743 Aug 18 19:15	29° ♄ 36'55	
morning max el	15742 Sep 23 22:04	21° ♄ 12'23	27°01'15	direct	15743 Aug 24 20:15	27° ♄ 01'26	
	15742 Oct 01 13:39	0° ♄		desc. node	15743 Aug 24 21:04	27° ♄ 01'26	
	15742 Oct 21 10:44	0° ♄			15743 Sep 01 06:28	0° ♄	
morning set	15742 Oct 29 13:11	14° ♄ 49'15		morning max el	15743 Sep 06 09:25	4° ♄ 30'09	25°52'02
asc. node	15742 Nov 01 10:30	20° ♄ 29'29			15743 Sep 25 23:07	0° ♄	
max. Earth dist.	15742 Nov 02 18:10	23° ♄ 08'54	1.33572 AU	morning set	15743 Oct 12 08:12	27° ♄ 21'49	
	15742 Nov 06 01:51	0° ♄			15743 Oct 13 18:25	0° ♄	
superior conj	15742 Nov 07 01:32	2° ♄ 04'36	0°49'57	max. Earth dist.	15743 Oct 16 00:15	4° ♄ 14'19	1.35490 AU
minimum elong	15742 Nov 06 23:20	1° ♄ 52'57	0°50'16	asc. node	15743 Oct 19 07:14	10° ♄ 38'54	

superior conj	15743 Oct 21 19:54	15° \mathbb{M} 43'07	0°22'56	morning set	15744 Sep 23 09:32	9° \mathbb{Q} 07'49	
minimum elong	15743 Oct 21 18:36	15° \mathbb{M} 36'31	0°23'14	max. Earth dist.	15744 Sep 26 23:53	15° \mathbb{Q} 30'00	1.37765 AU
	15743 Oct 28 17:56	0° \mathbb{X}					
evening rise	15743 Oct 29 13:27	1° \mathbb{X} 41'01		superior conj	15744 Oct 04 03:08	28° \mathbb{Q} 49'32	-0°09'19
	15743 Nov 15 02:16	0° \mathbb{Z}		minimum elong	15744 Oct 04 03:44	28° \mathbb{Q} 52'26	0°08'52
evening max el	15743 Nov 16 19:37	1° \mathbb{Z} 50'47	20°22'55	behind sun begin	15744 Oct 03 22:01	28° \mathbb{Q} 24'53	
desc. node	15743 Nov 20 18:06	5° \mathbb{Z} 04'09		behind sun end	15744 Oct 04 09:26	29° \mathbb{Q} 20'01	
retrograde	15743 Nov 27 17:14	7° \mathbb{Z} 16'18			15744 Oct 04 17:42	0° \mathbb{M}	
evening set	15743 Nov 29 23:41	7° \mathbb{Z} 03'17		asc. node	15744 Oct 05 03:55	0° \mathbb{M} 49'39	
inferior conj	15743 Dec 08 19:38	3° \mathbb{Z} 08'07	-5°07'00	evening rise	15744 Oct 12 16:24	15° \mathbb{M} 45'00	
minimum elong	15743 Dec 08 09:58	3° \mathbb{Z} 22'19	5°03'54		15744 Oct 20 03:07	0° \mathbb{X}	
min. Earth dist.	15743 Dec 10 07:22	2° \mathbb{Z} 15'39	0.54693 AU	evening max el	15744 Oct 29 08:50	13° \mathbb{X} 09'16	19°15'41
	15743 Dec 14 13:57	30° \mathbb{R} \mathbb{X}		desc. node	15744 Nov 06 15:19	17° \mathbb{X} 45'42	
morning rise	15743 Dec 16 19:48	29° \mathbb{X} 07'40		retrograde	15744 Nov 07 15:41	17° \mathbb{X} 48'55	
direct	15743 Dec 21 11:19	28° \mathbb{X} 21'11		evening set	15744 Nov 09 13:01	17° \mathbb{X} 38'10	
	15743 Dec 28 02:34	0° \mathbb{Z}		inferior conj	15744 Nov 18 01:34	13° \mathbb{X} 27'57	-3°33'46
morning max el	15744 Jan 03 22:59	4° \mathbb{Z} 58'35	23°50'13	minimum elong	15744 Nov 17 16:53	13° \mathbb{X} 42'24	3°29'56
asc. node	15744 Jan 15 06:51	19° \mathbb{Z} 28'42		min. Earth dist.	15744 Nov 20 17:02	11° \mathbb{X} 42'33	0.55846 AU
	15744 Jan 21 07:03	0° \approx		morning rise	15744 Nov 25 18:21	8° \mathbb{X} 56'40	
morning set	15744 Jan 28 03:27	13° \approx 56'27		direct	15744 Dec 01 07:13	7° \mathbb{X} 46'28	
				morning max el	15744 Dec 15 08:28	14° \mathbb{X} 53'55	25°36'05
					15744 Dec 27 08:34	0° \mathbb{Z}	
superior conj	15744 Feb 03 23:20	28° \approx 48'12	1°30'31	asc. node	15745 Jan 01 04:03	7° \mathbb{Z} 56'51	
minimum elong	15744 Feb 04 00:57	28° \approx 56'56	1°30'54	morning set	15745 Jan 11 15:03	28° \mathbb{Z} 35'18	
	15744 Feb 04 12:34	0° \mathbb{X}			15745 Jan 12 06:43	0° \approx	
max. Earth dist.	15744 Feb 06 16:35	4° \mathbb{X} 39'23	1.32756 AU				
evening rise	15744 Feb 11 15:18	14° \mathbb{X} 53'58					
desc. node	15744 Feb 16 18:22	24° \mathbb{X} 48'26		superior conj	15745 Jan 18 08:39	13° \approx 25'52	1°37'04
	15744 Feb 19 14:59	0° \mathbb{Y}		minimum elong	15745 Jan 18 09:15	13° \approx 29'16	1°37'43
	15744 Mar 10 17:29	0° \mathbb{B}		max. Earth dist.	15745 Jan 19 19:40	16° \approx 39'31	1.31666 AU
evening max el	15744 Mar 16 16:41	6° \mathbb{B} 28'30	27°28'35	evening rise	15745 Jan 25 12:26	28° \approx 53'49	
retrograde	15744 Mar 30 10:03	13° \mathbb{B} 59'49			15745 Jan 26 01:14	0° \mathbb{X}	
evening set	15744 Apr 06 04:11	11° \mathbb{B} 32'40		desc. node	15745 Feb 02 15:01	14° \mathbb{X} 42'34	
min. Earth dist.	15744 Apr 09 23:29	8° \mathbb{B} 09'13	0.64170 AU		15745 Feb 11 18:41	0° \mathbb{Y}	
asc. node	15744 Apr 12 03:51	5° \mathbb{B} 51'28		evening max el	15745 Feb 27 02:50	19° \mathbb{Y} 18'10	27°34'15
inferior conj	15744 Apr 12 14:57	5° \mathbb{B} 21'59	0°08'45	retrograde	15745 Mar 13 01:49	26° \mathbb{Y} 45'11	
minimum elong	15744 Apr 12 14:42	5° \mathbb{B} 22'38	0°08'14	evening set	15745 Mar 19 21:42	24° \mathbb{Y} 30'33	
transit middle	15744 Apr 12 14:42	5° \mathbb{B} 22'38	0°08'14	min. Earth dist.	15745 Mar 23 15:55	21° \mathbb{Y} 32'15	0.62058 AU
transit begin	15744 Apr 12 12:02	5° \mathbb{B} 29'42		inferior conj	15745 Mar 26 16:55	18° \mathbb{Y} 41'09	-1°04'35
transit end	15744 Apr 12 17:22	5° \mathbb{B} 15'35		minimum elong	15745 Mar 26 19:09	18° \mathbb{Y} 35'54	1°03'51
morning rise	15744 Apr 19 03:26	0° \mathbb{B} 01'13		asc. node	15745 Mar 30 01:14	15° \mathbb{Y} 45'32	
	15744 Apr 19 04:35	30° \mathbb{R} \mathbb{Y}		morning rise	15745 Apr 02 19:42	13° \mathbb{Y} 37'29	
direct	15744 Apr 21 16:40	29° \mathbb{Y} 28'16		direct	15745 Apr 05 01:21	13° \mathbb{Y} 15'01	
	15744 Apr 24 04:38	0° \mathbb{B}		morning max el	15745 Apr 11 18:33	16° \mathbb{Y} 38'24	17°47'39
morning max el	15744 Apr 28 01:04	2° \mathbb{B} 43'29	17°49'28		15745 Apr 21 06:46	0° \mathbb{B}	
desc. node	15744 May 14 19:55	27° \mathbb{B} 51'21		morning set	15745 Apr 27 15:04	11° \mathbb{B} 03'31	
morning set	15744 May 15 00:27	28° \mathbb{B} 10'29		desc. node	15745 May 01 16:42	18° \mathbb{B} 13'56	
	15744 May 16 02:28	0° \mathbb{I}			15745 May 08 12:39	0° \mathbb{I}	
superior conj	15744 May 28 07:42	20° \mathbb{I} 08'55	-1°34'37	superior conj	15745 May 09 03:48	1° \mathbb{I} 03'48	-0°57'50
minimum elong	15744 May 27 23:16	19° \mathbb{I} 34'56	1°34'30	minimum elong	15745 May 08 22:25	0° \mathbb{I} 41'10	0°57'44
max. Earth dist.	15744 Jun 02 09:06	28° \mathbb{I} 12'20	1.45255 AU	max. Earth dist.	15745 May 16 01:25	12° \mathbb{I} 25'36	1.43914 AU
	15744 Jun 03 12:27	0° \mathbb{G}		evening rise	15745 May 23 14:10	24° \mathbb{I} 19'35	
evening rise	15744 Jun 13 00:34	14° \mathbb{G} 43'34			15745 May 27 06:49	0° \mathbb{G}	
	15744 Jun 23 03:32	0° \mathbb{Q}			15745 Jun 17 07:03	0° \mathbb{Q}	
asc. node	15744 Jul 09 02:28	21° \mathbb{Q} 42'04		evening max el	15745 Jun 23 09:46	7° \mathbb{Q} 02'15	21°17'48
evening max el	15744 Jul 10 11:46	23° \mathbb{Q} 09'14	20°08'25	asc. node	15745 Jun 25 23:22	9° \mathbb{Q} 21'50	
retrograde	15744 Jul 18 05:08	27° \mathbb{Q} 32'23		retrograde	15745 Jul 02 04:02	12° \mathbb{Q} 07'13	
evening set	15744 Jul 22 04:35	26° \mathbb{Q} 01'32		evening set	15745 Jul 06 14:21	10° \mathbb{Q} 19'07	
inferior conj	15744 Jul 27 11:14	19° \mathbb{Q} 59'40	3°05'07	inferior conj	15745 Jul 11 19:52	4° \mathbb{Q} 06'28	3°08'54
minimum elong	15744 Jul 27 12:04	19° \mathbb{Q} 56'50	3°04'27	minimum elong	15745 Jul 11 19:43	4° \mathbb{Q} 06'56	3°08'10
min. Earth dist.	15744 Jul 28 08:27	18° \mathbb{Q} 47'26	0.68211 AU	min. Earth dist.	15745 Jul 12 03:40	3° \mathbb{Q} 39'16	0.68906 AU
morning rise	15744 Aug 01 19:11	13° \mathbb{Q} 35'20			15745 Jul 14 22:05	30° \mathbb{R} \mathbb{G}	
direct	15744 Aug 07 09:05	11° \mathbb{Q} 09'05		morning rise	15745 Jul 17 00:51	27° \mathbb{G} 47'17	
desc. node	15744 Aug 10 18:28	11° \mathbb{Q} 54'08		direct	15745 Jul 22 02:43	25° \mathbb{G} 35'34	
morning max el	15744 Aug 18 20:25	18° \mathbb{Q} 01'04	24°28'02	desc. node	15745 Jul 28 15:49	28° \mathbb{G} 22'19	
	15744 Aug 28 22:08	0° \mathbb{P}			15745 Jul 30 14:25	0° \mathbb{Q}	
	15744 Sep 18 00:04	0° \mathbb{Q}		morning max el	15745 Aug 01 07:56	1° \mathbb{Q} 39'28	22°58'45

	15745 Aug 22 20:13	0° \mathbb{M}		morning set	15746 Aug 15 16:18	29° Ω 45'08	
morning set	15745 Sep 04 12:59	19° \mathbb{M} 57'30			15746 Aug 15 20:04	0° \mathbb{M}	
max. Earth dist.	15745 Sep 08 22:51	27° \mathbb{M} 21'58	1.40162 AU	max. Earth dist.	15746 Aug 22 02:50	10° \mathbb{M} 07'02	1.42411 AU
	15745 Sep 10 11:34	0° Ω					
superior conj	15745 Sep 16 19:13	11° Ω 14'41	-0°45'08	superior conj	15746 Aug 29 15:41	22° \mathbb{M} 48'03	-1°21'23
minimum elong	15745 Sep 16 22:41	11° Ω 30'32	0°44'29	minimum elong	15746 Aug 29 22:15	23° \mathbb{M} 16'22	1°20'42
asc. node	15745 Sep 22 00:35	20° Ω 58'11		asc. node	15746 Sep 02 18:26	0° Ω	
evening rise	15745 Sep 26 11:28	29° Ω 27'36		evening rise	15746 Sep 08 21:12	11° Ω 00'12	
	15745 Sep 26 18:15	0° \mathbb{M}			15746 Sep 09 18:45	12° Ω 38'10	
evening max el	15745 Oct 12 10:37	25° \mathbb{M} 16'47	18°30'47	evening max el	15746 Sep 19 17:31	0° \mathbb{M}	
retrograde	15745 Oct 20 08:34	29° \mathbb{M} 17'26		retrograde	15746 Sep 25 20:40	8° \mathbb{M} 02'56	18°06'46
evening set	15745 Oct 22 07:39	29° \mathbb{M} 03'25		evening set	15746 Oct 02 19:55	11° \mathbb{M} 37'13	
desc. node	15745 Oct 24 12:35	28° \mathbb{M} 16'41		desc. node	15746 Oct 05 01:28	11° \mathbb{M} 15'37	
inferior conj	15745 Oct 30 04:26	24° \mathbb{M} 32'49	-1°49'10	inferior conj	15746 Oct 11 09:56	7° \mathbb{M} 05'32	
minimum elong	15745 Oct 30 00:06	24° \mathbb{M} 41'13	1°46'47	minimum elong	15746 Oct 12 04:35	6° \mathbb{M} 23'49	-0°14'46
min. Earth dist.	15745 Nov 02 09:17	22° \mathbb{M} 04'27	0.57680 AU	transit middle	15746 Oct 12 04:05	6° \mathbb{M} 24'56	0°14'08
morning rise	15745 Nov 06 13:08	19° \mathbb{M} 24'33		transit begin	15746 Oct 12 04:05	6° \mathbb{M} 24'56	0°14'08
direct	15745 Nov 12 17:51	17° \mathbb{M} 47'21		transit end	15746 Oct 12 02:27	6° \mathbb{M} 28'37	
morning max el	15745 Nov 27 00:05	25° \mathbb{M} 18'05	26°59'49	min. Earth dist.	15746 Oct 12 05:44	6° \mathbb{M} 21'14	
	15745 Dec 01 09:12	0° \mathbb{X}		morning set	15746 Oct 15 09:52	3° \mathbb{M} 30'29	0.59890 AU
asc. node	15745 Dec 19 01:10	27° \mathbb{X} 00'34		morning rise	15746 Oct 19 03:27	0° \mathbb{M} 42'41	
	15745 Dec 20 14:56	0° \mathbb{Z}			15746 Oct 20 10:02	30° \mathbb{R} Ω	
morning set	15745 Dec 27 00:34	13° \mathbb{Z} 04'23		direct	15746 Oct 25 17:22	28° Ω 40'03	
					15746 Oct 31 06:30	0° \mathbb{M}	
superior conj	15746 Jan 02 19:55	28° \mathbb{Z} 06'05	1°37'32	morning max el	15746 Nov 08 23:42	6° \mathbb{M} 27'31	27°48'32
minimum elong	15746 Jan 02 19:29	28° \mathbb{Z} 03'34	1°38'18		15746 Nov 26 16:45	0° \mathbb{X}	
max. Earth dist.	15746 Jan 03 02:43	28° \mathbb{Z} 44'05	1.31100 AU	asc. node	15746 Dec 05 22:11	16° \mathbb{X} 29'41	
	15746 Jan 03 16:17	0° \approx		morning set	15746 Dec 11 06:06	27° \mathbb{X} 18'09	
evening rise	15746 Jan 09 16:04	13° \approx 08'38		max. Earth dist.	15746 Dec 12 12:33	0° \mathbb{Z}	
	15746 Jan 18 03:25	0° \mathbb{X}			15746 Dec 17 10:14	10° \mathbb{Z} 45'25	1.31076 AU
desc. node	15746 Jan 20 11:45	4° \mathbb{X} 12'40		superior conj	15746 Dec 18 07:12	12° \mathbb{Z} 42'30	1°32'01
	15746 Feb 07 21:57	0° \mathbb{Y}		minimum elong	15746 Dec 18 05:47	12° \mathbb{Z} 34'38	1°32'44
evening max el	15746 Feb 09 07:51	1° \mathbb{Y} 23'27	27°05'51	evening rise	15746 Dec 24 23:57	27° \mathbb{Z} 32'14	
retrograde	15746 Feb 23 08:38	8° \mathbb{Y} 40'30			15746 Dec 26 03:32	0° \approx	
evening set	15746 Mar 02 00:02	6° \mathbb{Y} 46'06		desc. node	15747 Jan 07 08:31	23° \approx 08'56	
min. Earth dist.	15746 Mar 05 22:12	4° \mathbb{Y} 04'02	0.59816 AU		15747 Jan 11 18:49	0° \mathbb{X}	
inferior conj	15746 Mar 09 03:25	1° \mathbb{Y} 25'47	-2°29'37	evening max el	15747 Jan 22 05:16	12° \mathbb{X} 36'18	26°02'51
minimum elong	15746 Mar 09 09:03	1° \mathbb{Y} 14'12	2°27'22	retrograde	15747 Feb 05 04:12	19° \mathbb{X} 40'19	
	15746 Mar 10 22:07	30° \mathbb{R} \mathbb{X}		evening set	15747 Feb 11 07:30	18° \mathbb{X} 11'44	
morning rise	15746 Mar 16 21:35	26° \mathbb{X} 41'43		min. Earth dist.	15747 Feb 15 18:26	15° \mathbb{X} 33'44	0.57658 AU
asc. node	15746 Mar 16 22:37	26° \mathbb{X} 41'04		inferior conj	15747 Feb 18 18:47	13° \mathbb{X} 25'29	-3°59'22
direct	15746 Mar 18 22:01	26° \mathbb{X} 26'01		minimum elong	15747 Feb 19 03:33	13° \mathbb{X} 09'54	3°56'14
	15746 Mar 26 05:12	0° \mathbb{Y}		morning rise	15747 Feb 27 02:41	9° \mathbb{X} 02'47	
morning max el	15746 Mar 26 08:50	0° \mathbb{Y} 08'50	18°04'29	direct	15747 Mar 01 02:17	8° \mathbb{X} 50'06	
morning set	15746 Apr 10 22:44	24° \mathbb{Y} 43'17		asc. node	15747 Mar 03 19:59	9° \mathbb{X} 15'31	
	15746 Apr 13 19:01	0° \mathbb{Z}		morning max el	15747 Mar 09 15:57	13° \mathbb{X} 02'56	18°41'46
desc. node	15746 Apr 18 13:26	8° \mathbb{Z} 43'37			15747 Mar 21 02:04	0° \mathbb{Y}	
				morning set	15747 Mar 25 18:18	8° \mathbb{Y} 54'21	
superior conj	15746 Apr 20 23:08	13° \mathbb{Z} 01'47	-0°19'41				
minimum elong	15746 Apr 20 21:29	12° \mathbb{Z} 54'27	0°19'55	superior conj	15747 Apr 03 14:19	25° \mathbb{Y} 53'07	0°15'12
max. Earth dist.	15746 Apr 28 13:13	26° \mathbb{Z} 05'10	1.42049 AU	minimum elong	15747 Apr 03 15:19	25° \mathbb{Y} 57'48	0°14'44
	15746 Apr 30 22:01	0° \mathbb{I}		behind sun begin	15747 Apr 03 12:40	25° \mathbb{Y} 45'24	
evening rise	15746 May 03 19:22	4° \mathbb{I} 40'59		behind sun end	15747 Apr 03 17:58	26° \mathbb{Y} 10'12	
	15746 May 20 13:12	0° \mathbb{E}		desc. node	15747 Apr 05 10:06	29° \mathbb{Y} 16'25	
evening max el	15746 Jun 06 02:55	20° \mathbb{E} 55'50	22°36'05		15747 Apr 05 19:34	0° \mathbb{Z}	
asc. node	15746 Jun 12 20:20	26° \mathbb{E} 00'32		max. Earth dist.	15747 Apr 10 21:12	9° \mathbb{Z} 04'56	1.39850 AU
retrograde	15746 Jun 16 01:15	26° \mathbb{E} 45'07		evening rise	15747 Apr 14 21:36	15° \mathbb{Z} 58'04	
evening set	15746 Jun 20 22:59	24° \mathbb{E} 41'11			15747 Apr 23 14:13	0° \mathbb{I}	
inferior conj	15746 Jun 26 05:47	18° \mathbb{E} 19'36	3°01'55		15747 May 15 06:02	0° \mathbb{E}	
minimum elong	15746 Jun 26 04:44	18° \mathbb{E} 23'14	3°01'00	evening max el	15747 May 19 17:18	4° \mathbb{E} 50'59	23°57'35
min. Earth dist.	15746 Jun 26 00:31	18° \mathbb{E} 37'57	0.69120 AU	retrograde	15747 May 30 19:28	11° \mathbb{E} 20'59	
morning rise	15746 Jul 01 10:20	12° \mathbb{E} 07'38		asc. node	15747 May 30 17:21	11° \mathbb{E} 20'57	
direct	15746 Jul 05 23:58	10° \mathbb{E} 14'02		evening set	15747 Jun 05 04:54	9° \mathbb{E} 03'31	
morning max el	15746 Jul 14 22:35	15° \mathbb{E} 25'48	21°32'41	min. Earth dist.	15747 Jun 09 20:51	3° \mathbb{E} 37'41	0.68847 AU
desc. node	15746 Jul 15 13:06	16° \mathbb{E} 02'43		inferior conj	15747 Jun 10 15:05	2° \mathbb{E} 35'36	2°44'32
	15746 Jul 26 17:22	0° Ω		minimum elong	15747 Jun 10 13:20	2° \mathbb{E} 41'35	2°43'23

	15747 Jun 12 14:03	30° $\mathbb{R}\mathbb{II}$		direct	15748 Jun 02 23:32	9° $\mathbb{II}42'01$	
morning rise	15747 Jun 15 21:47	26° $\mathbb{II}32'18$		morning max el	15748 Jun 09 23:28	13° $\mathbb{II}31'08$	19°14'11
direct	15747 Jun 19 23:25	24° $\mathbb{II}58'30$		desc. node	15748 Jun 18 07:25	23° $\mathbb{II}49'58$	
morning max el	15747 Jun 27 19:21	29° $\mathbb{II}23'20$	20°16'29		15748 Jun 22 13:29	0° \mathbb{S}	
	15747 Jun 28 09:53	0° \mathbb{S}		greatest brilliancy	15748 Jun 22 17:53	0° $\mathbb{S}16'19$	-0.7m
desc. node	15747 Jul 02 10:19	4° $\mathbb{S}36'53$		morning set	15748 Jul 04 05:20	17° $\mathbb{S}43'09$	
	15747 Jul 20 06:30	0° \mathbb{Q}			15748 Jul 12 03:57	0° \mathbb{Q}	
morning set	15747 Jul 26 00:31	8° $\mathbb{Q}46'05$		max. Earth dist.	15748 Jul 17 06:39	7° $\mathbb{Q}58'46$	1.45471 AU
max. Earth dist.	15747 Aug 04 14:01	23° $\mathbb{Q}44'38$	1.44246 AU				
	15747 Aug 08 11:18	0° \mathbb{P}		superior conj	15748 Jul 20 12:03	13° $\mathbb{Q}03'25$	-2°11'31
				minimum elong	15748 Jul 20 15:58	13° $\mathbb{Q}18'56$	2°12'05
superior conj	15747 Aug 10 13:06	3° $\mathbb{P}23'08$	-1°52'37		15748 Jul 31 01:31	0° \mathbb{P}	
minimum elong	15747 Aug 10 20:48	3° $\mathbb{P}54'46$	1°52'24	evening rise	15748 Aug 04 02:17	6° $\mathbb{P}35'47$	
evening rise	15747 Aug 23 09:26	25° $\mathbb{P}05'16$		asc. node	15748 Aug 12 14:27	20° $\mathbb{P}28'48$	
	15747 Aug 26 05:43	0° \mathbb{A}			15748 Aug 18 22:59	0° \mathbb{A}	
asc. node	15747 Aug 26 17:49	0° $\mathbb{A}52'08$		evening max el	15748 Aug 23 01:23	4° $\mathbb{A}51'56$	18°15'41
evening max el	15747 Sep 09 10:48	21° $\mathbb{A}17'48$	18°02'05	retrograde	15748 Aug 29 10:15	8° $\mathbb{A}14'41$	
retrograde	15747 Sep 15 21:59	24° $\mathbb{A}39'35$		evening set	15748 Sep 01 08:31	7° $\mathbb{A}27'52$	
evening set	15747 Sep 18 11:34	24° $\mathbb{A}06'49$		inferior conj	15748 Sep 07 07:30	2° $\mathbb{A}00'24$	1°56'26
inferior conj	15747 Sep 24 22:57	18° $\mathbb{A}55'51$	1°00'43	minimum elong	15748 Sep 07 09:50	1° $\mathbb{A}53'40$	1°55'41
minimum elong	15747 Sep 25 00:37	18° $\mathbb{A}51'34$	1°00'18		15748 Sep 09 01:15	30° $\mathbb{R}\mathbb{P}$	
min. Earth dist.	15747 Sep 27 20:16	15° $\mathbb{A}58'05$	0.62182 AU	min. Earth dist.	15748 Sep 09 16:38	29° $\mathbb{P}16'38$	0.64324 AU
desc. node	15747 Sep 28 07:19	15° $\mathbb{A}31'08$		morning rise	15748 Sep 13 09:31	25° $\mathbb{P}40'40$	
morning rise	15747 Oct 01 11:09	12° $\mathbb{A}50'35$		desc. node	15748 Sep 14 04:44	25° $\mathbb{P}04'53$	
direct	15747 Oct 08 03:34	10° $\mathbb{A}28'07$		direct	15748 Sep 19 22:58	23° $\mathbb{P}06'09$	
morning max el	15747 Oct 22 06:01	18° $\mathbb{A}25'27$	27°57'55		15748 Oct 02 14:11	0° \mathbb{A}	
	15747 Nov 01 00:32	0° \mathbb{L}		morning max el	15748 Oct 03 16:19	1° $\mathbb{A}03'55$	27°30'46
	15747 Nov 19 13:09	0° \mathbb{J}			15748 Oct 25 03:32	0° \mathbb{L}	
asc. node	15747 Nov 22 19:07	6° $\mathbb{J}17'00$		morning set	15748 Nov 07 20:32	24° $\mathbb{L}39'58$	
morning set	15747 Nov 25 05:35	11° $\mathbb{J}11'54$		asc. node	15748 Nov 08 15:58	26° $\mathbb{L}16'33$	
max. Earth dist.	15747 Nov 30 14:22	22° $\mathbb{J}34'33$	1.31604 AU		15748 Nov 10 12:10	0° \mathbb{J}	
				max. Earth dist.	15748 Nov 12 11:22	4° $\mathbb{J}04'02$	1.32689 AU
superior conj	15747 Dec 02 16:36	27° $\mathbb{J}10'05$	1°20'27				
minimum elong	15747 Dec 02 14:30	26° $\mathbb{J}58'29$	1°21'02	superior conj	15748 Nov 15 22:07	11° $\mathbb{J}23'27$	1°02'50
	15747 Dec 03 23:20	0° \mathbb{Z}		minimum elong	15748 Nov 15 19:46	11° $\mathbb{J}10'48$	1°03'15
evening rise	15747 Dec 09 10:12	12° $\mathbb{Z}00'06$		evening rise	15748 Nov 22 21:01	26° $\mathbb{J}27'40$	
	15747 Dec 18 09:00	0° \mathbb{X}			15748 Nov 24 12:58	0° \mathbb{Z}	
desc. node	15747 Dec 25 05:22	11° $\mathbb{X}19'17$		desc. node	15748 Dec 11 02:19	28° $\mathbb{Z}27'10$	
evening max el	15748 Jan 03 18:22	22° $\mathbb{X}59'41$	24°32'11		15748 Dec 12 09:21	0° \mathbb{X}	
retrograde	15748 Jan 17 10:44	29° $\mathbb{X}48'58$		evening max el	15748 Dec 15 03:49	2° $\mathbb{X}56'34$	22°49'10
evening set	15748 Jan 22 16:48	28° $\mathbb{X}48'20$		retrograde	15748 Dec 28 04:51	9° $\mathbb{X}24'07$	
min. Earth dist.	15748 Jan 28 06:11	25° $\mathbb{X}58'08$	0.55856 AU	evening set	15749 Jan 01 04:50	8° $\mathbb{X}49'16$	
inferior conj	15748 Jan 30 12:59	24° $\mathbb{X}33'17$	-5°17'52	min. Earth dist.	15749 Jan 08 12:56	5° $\mathbb{X}27'11$	0.54695 AU
minimum elong	15748 Jan 30 21:35	24° $\mathbb{X}19'56$	5°15'33	inferior conj	15749 Jan 09 12:38	4° $\mathbb{X}53'32$	-5°59'53
morning rise	15748 Feb 08 04:28	20° $\mathbb{X}31'16$		minimum elong	15749 Jan 09 14:45	4° $\mathbb{X}50'32$	5°59'03
direct	15748 Feb 10 11:06	20° $\mathbb{X}17'24$		morning rise	15749 Jan 18 01:57	1° $\mathbb{X}04'52$	
asc. node	15748 Feb 18 17:23	23° $\mathbb{X}35'11$		direct	15749 Jan 21 02:00	0° $\mathbb{X}44'05$	
morning max el	15748 Feb 20 11:44	25° $\mathbb{X}09'15$	19°41'27	morning max el	15749 Feb 01 17:02	6° $\mathbb{X}20'15$	21°04'21
	15748 Feb 24 15:44	0° \mathbb{H}		asc. node	15749 Feb 04 14:44	9° $\mathbb{X}27'32$	
morning set	15748 Mar 08 21:50	23° $\mathbb{H}24'41$			15749 Feb 17 06:54	0° \mathbb{H}	
	15748 Mar 12 03:57	0° \mathbb{Y}		morning set	15749 Feb 21 06:25	8° $\mathbb{H}05'52$	
superior conj	15748 Mar 16 20:53	9° $\mathbb{Y}25'13$	0°44'31	superior conj	15749 Feb 28 14:51	23° $\mathbb{H}27'19$	1°07'28
minimum elong	15748 Mar 16 23:11	9° $\mathbb{Y}36'36$	0°44'06	minimum elong	15749 Feb 28 17:24	23° $\mathbb{H}40'27$	1°07'18
desc. node	15748 Mar 22 06:41	19° $\mathbb{Y}48'17$			15749 Mar 03 20:11	0° \mathbb{Y}	
max. Earth dist.	15748 Mar 23 03:35	21° $\mathbb{Y}25'18$	1.37558 AU	max. Earth dist.	15749 Mar 05 12:42	3° $\mathbb{Y}20'37$	1.35414 AU
evening rise	15748 Mar 26 20:10	28° $\mathbb{Y}06'11$		desc. node	15749 Mar 09 03:17	10° $\mathbb{Y}15'51$	
	15748 Mar 27 22:01	0° \mathbb{B}		evening rise	15749 Mar 09 12:10	10° $\mathbb{Y}57'25$	
	15748 Apr 15 23:34	0° \mathbb{II}			15749 Mar 20 10:58	0° \mathbb{B}	
evening max el	15748 May 01 06:42	18° $\mathbb{II}45'21$	25°15'34		15749 Apr 11 08:06	0° \mathbb{II}	
retrograde	15748 May 13 09:41	25° $\mathbb{II}47'36$		evening max el	15749 Apr 13 20:17	2° $\mathbb{II}34'44$	26°22'42
asc. node	15748 May 16 14:29	25° $\mathbb{II}05'03$		retrograde	15749 Apr 26 19:00	9° $\mathbb{II}57'37$	
evening set	15748 May 19 06:27	23° $\mathbb{II}20'12$		evening set	15749 May 03 01:54	7° $\mathbb{II}25'19$	
min. Earth dist.	15748 May 23 14:35	18° $\mathbb{II}31'16$	0.68092 AU	asc. node	15749 May 03 11:42	7° $\mathbb{II}04'36$	
inferior conj	15748 May 24 21:51	16° $\mathbb{II}49'30$	2°16'28	min. Earth dist.	15749 May 07 03:46	3° $\mathbb{II}11'43$	0.66884 AU
minimum elong	15748 May 24 19:42	16° $\mathbb{II}56'31$	2°15'06	inferior conj	15749 May 08 24:00	0° $\mathbb{II}56'49$	1°36'55
morning rise	15748 May 30 09:20	10° $\mathbb{II}56'04$		minimum elong	15749 May 08 21:58	1° $\mathbb{II}03'02$	1°35'33

	15749 May 09 18:44	30° 	morning rise	15750 Apr 29 00:28	9° 	22'04"
morning rise	15749 May 14 19:01	25° 	direct	15750 May 01 18:32	8° 	41'42"
direct	15749 May 17 22:37	24° 	morning max el	15750 May 08 01:54	11° 	57'49" 17°58'25"
morning max el	15749 May 24 10:19	27° 		15750 May 20 20:55	0° 	
	15749 May 26 12:45	0° 	desc. node	15750 May 23 01:20	3° 	33'40"
desc. node	15749 Jun 05 04:25	13° 	morning set	15750 May 26 02:42	8° 	34'23"
morning set	15749 Jun 14 02:31	27° 		15750 Jun 08 09:00	0° 	
	15749 Jun 15 16:39	0° 				
			superior conj	15750 Jun 09 10:50	1° 	42'10" -1°52'23"
superior conj	15749 Jun 29 21:48	22° 	minimum elong	15750 Jun 09 02:18	1° 	08'29" 1°52'32"
minimum elong	15749 Jun 29 18:01	22° 	max. Earth dist.	15750 Jun 12 22:10	7° 	09'51" 1.45730 AU
max. Earth dist.	15749 Jun 30 02:06	22° 	evening rise	15750 Jun 25 12:36	26° 	40'32"
	15749 Jul 04 20:59	0° 		15750 Jun 27 16:39	0° 	
evening rise	15749 Jul 15 18:06	17° 	greatest brilliancy	15750 Jul 09 03:20	17° 	15'42" -0.7m
	15749 Jul 24 00:03	0° 	asc. node	15750 Jul 17 07:55	28° 	31'36"
greatest brilliancy	15749 Jul 24 12:20	0° 		15750 Jul 18 13:23	0° 	
asc. node	15749 Jul 30 11:09	9° 	evening max el	15750 Jul 20 21:01	2° 	30'38" 19°34'24"
evening max el	15749 Aug 06 13:31	18° 	retrograde	15750 Jul 28 02:46	6° 	33'25"
retrograde	15749 Aug 13 04:49	22° 	evening set	15750 Jul 31 20:14	5° 	12'54"
evening set	15749 Aug 16 12:22	21° 		15750 Aug 05 16:09	30° 	
inferior conj	15749 Aug 22 02:29	15° 	inferior conj	15750 Aug 06 04:47	29° 	18'13" 2°57'39"
minimum elong	15749 Aug 22 04:35	15° 	minimum elong	15750 Aug 06 06:08	29° 	13'42" 2°56'59"
min. Earth dist.	15749 Aug 23 21:50	13° 	min. Earth dist.	15750 Aug 07 10:03	27° 	14'04" 0.67595 AU
morning rise	15749 Aug 27 19:50	9° 	morning rise	15750 Aug 11 15:30	22° 	15'21'12"
desc. node	15749 Sep 01 02:10	6° 	direct	15750 Aug 17 12:04	20° 	19'32"
direct	15749 Sep 03 02:15	6° 	desc. node	15750 Aug 18 23:36	20° 	28'07"
morning max el	15749 Sep 16 03:48	14° 	morning max el	15750 Aug 29 14:49	27° 	13'43'35" 25°17'26"
	15749 Sep 29 01:33	0° 		15750 Aug 31 21:41	0° 	
	15749 Oct 17 20:59	0° 		15750 Sep 22 17:22	0° 	
morning set	15749 Oct 21 23:52	7° 	morning set	15750 Oct 04 11:54	19° 	49'17"
max. Earth dist.	15749 Oct 25 22:34	15° 	max. Earth dist.	15750 Oct 08 00:55	26° 	17'57" 1.36423 AU
asc. node	15749 Oct 26 12:44	16° 		15750 Oct 10 00:03	0° 	
			asc. node	15750 Oct 13 09:27	6° 	34'04"
superior conj	15749 Oct 30 21:22	25° 				
minimum elong	15749 Oct 30 19:25	25° 	superior conj	15750 Oct 14 11:29	8° 	42'46" 0°09'51"
	15749 Nov 02 03:31	0° 	minimum elong	15750 Oct 14 10:51	8° 	39'40" 0°10'11"
evening rise	15749 Nov 07 06:30	10° 	behind sun begin	15750 Oct 14 05:52	8° 	14'55"
	15749 Nov 17 03:39	0° 	behind sun end	15750 Oct 14 15:51	9° 	14'04'28"
evening max el	15749 Nov 26 19:19	13° 	evening rise	15750 Oct 22 12:35	25° 	11'02'39"
desc. node	15749 Nov 27 23:23	14° 		15750 Oct 24 23:27	0° 	
retrograde	15749 Dec 08 15:03	18° 	evening max el	15750 Nov 09 00:16	23° 	54'14" 19°51'38"
evening set	15749 Dec 11 09:05	18° 	desc. node	15750 Nov 14 20:32	28° 	54'04'43"
inferior conj	15749 Dec 20 03:28	14° 	retrograde	15750 Nov 19 04:56	28° 	59'22"
minimum elong	15749 Dec 19 20:33	14° 	evening set	15750 Nov 21 05:53	28° 	54'48'06"
min. Earth dist.	15749 Dec 20 18:25	14° 	inferior conj	15750 Nov 30 00:11	24° 	54'47'59" -4°30'46"
morning rise	15749 Dec 28 08:19	10° 	minimum elong	15750 Nov 29 14:10	25° 	54'03'22" 4°27'01"
direct	15750 Jan 01 09:22	10° 	min. Earth dist.	15750 Dec 02 01:35	23° 	54'32'09" 0.55086 AU
morning max el	15750 Jan 14 08:28	16° 	morning rise	15750 Dec 07 21:07	20° 	54'36'04"
asc. node	15750 Jan 22 12:03	26° 	direct	15750 Dec 12 22:39	19° 	54'39'43"
	15750 Jan 24 17:51	0° 	morning max el	15750 Dec 26 17:03	26° 	54'30'53" 24°36'44"
morning set	15750 Feb 05 17:40	22° 		15750 Dec 30 01:00	0° 	
	15750 Feb 09 01:44	0° 	asc. node	15751 Jan 09 09:18	14° 	35'16"
				15751 Jan 17 15:37	0° 	
superior conj	15750 Feb 12 16:49	7° 	morning set	15751 Jan 21 05:40	7° 	54'31'52"
minimum elong	15750 Feb 12 18:54	7° 				
max. Earth dist.	15750 Feb 16 04:28	15° 	superior conj	15751 Jan 28 00:05	22° 	54'21'52" 1°34'02"
evening rise	15750 Feb 20 17:57	24° 	minimum elong	15751 Jan 28 01:18	22° 	54'28'30" 1°34'33"
desc. node	15750 Feb 23 23:53	0° 	max. Earth dist.	15751 Jan 30 03:58	27° 	54'04'47" 1.32233 AU
	15750 Feb 23 16:34	0° 		15751 Jan 31 12:32	0° 	
	15750 Mar 14 00:01	0°	evening rise	15751 Feb 04 10:18	8°	54'10'05"
evening max el	15750 Mar 27 09:54	16°	desc. node	15751 Feb 10 20:32	20°	54'38'51"
retrograde	15750 Apr 09 22:24	23°		15751 Feb 16 03:49	0°	
evening set	15750 Apr 16 13:12	21°	evening max el	15751 Mar 09 22:12	29°	54'21'34" 27°34'59"
asc. node	15750 Apr 20 09:01	17°		15751 Mar 10 14:30	0°	
min. Earth dist.	15750 Apr 20 10:25	17°	retrograde	15751 Mar 23 18:37	6°	54'51'25"
inferior conj	15750 Apr 22 19:08	14°	evening set	15751 Mar 30 13:59	4°	54'29'03"
minimum elong	15750 Apr 22 17:58	14°	min. Earth dist.	15751 Apr 03 08:32	1°	54'16'50" 0.63298 AU

	15751 Apr 04 15:28	30° Υ		min. Earth dist.	15752 Mar 15 20:38	14° Υ 19'43	0.61109 AU
inferior conj	15751 Apr 06 04:21	28° Υ 26'19	-0°20'44	inferior conj	15752 Mar 19 00:14	11° Υ 32'14	-1°39'26
minimum elong	15751 Apr 06 05:01	28° Υ 24'38	0°20'46	minimum elong	15752 Mar 19 03:50	11° Υ 24'13	1°38'04
asc. node	15751 Apr 07 06:22	27° Υ 21'29		asc. node	15752 Mar 24 03:45	7° Υ 35'01	
morning rise	15751 Apr 12 22:39	23° Υ 12'08		morning rise	15752 Mar 26 09:30	6° Υ 36'26	
direct	15751 Apr 15 08:27	22° Υ 44'02		direct	15752 Mar 28 12:44	6° Υ 17'09	
morning max el	15751 Apr 21 19:33	26° Υ 01'30	17°46'25	morning max el	15752 Apr 04 12:06	9° Υ 47'12	17°52'30
	15751 Apr 25 05:48	0° ♄			15752 Apr 17 20:18	0° ♄	
morning set	15751 May 08 04:54	20° ♄ 53'04		morning set	15752 Apr 20 03:33	4° ♄ 08'43	
desc. node	15751 May 09 22:10	23° ♄ 50'14		desc. node	15752 Apr 25 18:55	14° ♄ 16'33	
	15751 May 13 12:50	0° ♅					
superior conj	15751 May 20 17:33	11° ♅ 59'43	-1°19'34	superior conj	15752 Apr 30 23:50	23° ♄ 22'44	-0°41'29
minimum elong	15751 May 20 10:07	11° ♅ 29'17	1°19'24	minimum elong	15752 Apr 30 20:06	23° ♄ 06'41	0°41'31
max. Earth dist.	15751 May 26 16:55	21° ♅ 38'02	1.44766 AU	max. Earth dist.	15752 May 04 21:32	0° ♅	
	15751 Jun 01 00:36	0° ♄		evening rise	15752 May 08 08:08	5° ♅ 41'23	1.43178 AU
evening rise	15751 Jun 04 23:11	6° ♄ 05'05			15752 May 14 18:21	15° ♅ 58'33	
	15751 Jun 21 01:11	0° ♄			15752 May 23 22:34	0° ♄	
evening max el	15751 Jul 03 22:35	16° ♄ 24'16	20°36'37	evening max el	15752 Jun 15 11:15	0° ♄	
asc. node	15751 Jul 04 04:46	16° ♄ 39'33		asc. node	15752 Jun 15 18:22	0° ♄ 17'54	21°50'12
retrograde	15751 Jul 12 01:46	21° ♄ 03'54		retrograde	15752 Jun 20 01:41	3° ♄ 55'51	
evening set	15751 Jul 16 05:51	19° ♄ 25'34		retrograde	15752 Jun 25 00:07	5° ♄ 41'22	
inferior conj	15751 Jul 21 11:43	13° ♄ 19'10	3°08'04	evening set	15752 Jun 29 15:21	3° ♄ 46'03	
minimum elong	15751 Jul 21 12:08	13° ♄ 17'42	3°07'23		15752 Jul 03 01:07	30° ♄	
min. Earth dist.	15751 Jul 22 03:12	12° ♄ 25'50	0.68572 AU	inferior conj	15752 Jul 04 21:08	27° ♄ 29'18	3°07'13
morning rise	15751 Jul 26 18:08	6° ♄ 56'55		minimum elong	15752 Jul 04 20:36	27° ♄ 31'10	3°06'24
direct	15751 Aug 01 03:06	4° ♄ 36'13		min. Earth dist.	15752 Jul 04 23:16	27° ♄ 21'51	0.69066 AU
desc. node	15751 Aug 05 20:59	6° ♄ 04'19		morning rise	15752 Jul 10 01:41	21° ♄ 13'13	
morning max el	15751 Aug 12 01:37	11° ♄ 08'00	23°50'06	direct	15752 Jul 14 22:19	19° ♄ 09'05	
	15751 Aug 27 03:05	0° ♄		desc. node	15752 Jul 22 18:17	23° ♄ 06'07	
	15751 Sep 15 11:23	0° ♄		morning max el	15752 Jul 24 14:14	24° ♄ 50'13	22°21'18
morning set	15751 Sep 16 04:16	1° ♄ 11'33			15752 Jul 29 05:30	0° ♄	
max. Earth dist.	15751 Sep 19 23:37	7° ♄ 46'33	1.38792 AU	morning set	15752 Aug 19 13:11	0° ♄	
				max. Earth dist.	15752 Aug 26 21:26	11° ♄ 34'32	
superior conj	15751 Sep 27 12:46	21° ♄ 32'36	-0°24'12		15752 Sep 01 00:47	20° ♄ 02'18	1.41163 AU
minimum elong	15751 Sep 27 14:29	21° ♄ 40'43	0°23'41		15752 Sep 06 20:03	0° ♄	
asc. node	15751 Sep 30 06:06	26° ♄ 44'04		superior conj	15752 Sep 08 21:00	3° ♄ 36'29	-1°00'44
	15751 Oct 01 22:36	0° ♄		minimum elong	15752 Sep 09 01:50	3° ♄ 58'05	1°00'01
evening rise	15751 Oct 06 12:32	8° ♄ 58'08		asc. node	15752 Sep 16 02:44	16° ♄ 50'08	
	15751 Oct 18 07:06	0° ♄		evening rise	15752 Sep 19 03:07	22° ♄ 28'26	
evening max el	15751 Oct 22 19:15	5° ♄ 33'47	18°53'52		15752 Sep 23 04:24	0° ♄	
retrograde	15751 Oct 31 10:43	9° ♄ 55'21		evening max el	15752 Oct 05 00:58	17° ♄ 58'08	18°18'01
desc. node	15751 Nov 01 17:47	9° ♄ 49'49		retrograde	15752 Oct 12 12:03	21° ♄ 46'16	
evening set	15751 Nov 02 08:07	9° ♄ 43'39		evening set	15752 Oct 14 13:28	21° ♄ 29'32	
inferior conj	15751 Nov 10 14:30	5° ♄ 24'48	-2°49'08	desc. node	15752 Oct 18 15:05	19° ♄ 30'27	
minimum elong	15751 Nov 10 07:32	5° ♄ 37'08	2°45'44	inferior conj	15752 Oct 22 02:38	16° ♄ 49'25	-1°07'02
min. Earth dist.	15751 Nov 13 13:21	3° ♄ 19'37	0.56566 AU	minimum elong	15752 Oct 22 00:07	16° ♄ 54'38	1°05'27
morning rise	15751 Nov 18 04:05	0° ♄ 38'12		min. Earth dist.	15752 Oct 25 08:49	14° ♄ 08'05	0.58592 AU
	15751 Nov 19 18:47	30° ♄		morning rise	15752 Oct 29 07:19	11° ♄ 26'03	
direct	15751 Nov 24 00:36	29° ♄ 16'47		direct	15752 Nov 04 16:32	9° ♄ 37'53	
	15751 Nov 28 07:04	0° ♄		morning max el	15752 Nov 18 23:38	17° ♄ 16'28	27°25'25
morning max el	15751 Dec 08 04:24	6° ♄ 33'55	26°15'28		15752 Nov 29 13:10	0° ♄	
	15751 Dec 25 09:27	0° ♄		asc. node	15752 Dec 13 03:30	22° ♄ 34'43	
asc. node	15751 Dec 27 06:27	3° ♄ 19'28			15752 Dec 16 21:53	0° ♄	
morning set	15752 Jan 05 16:35	22° ♄ 06'40		morning set	15752 Dec 20 00:37	6° ♄ 29'32	
	15752 Jan 09 06:59	0° ♄					
superior conj	15752 Jan 12 10:26	7° ♄ 00'37	1°38'00	superior conj	15752 Dec 26 21:54	21° ♄ 39'17	1°35'55
minimum elong	15752 Jan 12 10:36	7° ♄ 01'31	1°38'43	minimum elong	15752 Dec 26 21:01	21° ♄ 34'22	1°36'42
max. Earth dist.	15752 Jan 13 09:20	9° ♄ 08'06	1.31361 AU	max. Earth dist.	15752 Dec 26 17:06	21° ♄ 12'28	1.31019 AU
evening rise	15752 Jan 19 10:28	22° ♄ 16'36			15752 Dec 30 15:38	0° ♄	
	15752 Jan 23 05:09	0° ♄		evening rise	15753 Jan 02 16:06	6° ♄ 35'06	
desc. node	15752 Jan 28 17:14	10° ♄ 23'40		desc. node	15753 Jan 14 13:58	29° ♄ 40'30	
	15752 Feb 10 02:47	0° ♄			15753 Jan 14 18:33	0° ♄	
evening max el	15752 Feb 20 06:41	11° ♄ 54'06	27°26'35	evening max el	15753 Feb 01 08:29	23° ♄ 36'25	26°43'05
retrograde	15752 Mar 05 06:29	19° ♄ 16'29			15753 Feb 10 21:22	0° ♄	
evening set	15752 Mar 12 01:26	17° ♄ 09'44		retrograde	15753 Feb 15 08:40	0° ♄ 48'30	
					15753 Feb 19 18:09	30° ♄	

evening set	15753 Feb 21 20:12	29° H 04'10		evening max el	15754 Jan 14 02:01	4° H 26'14	25°26'59
min. Earth dist.	15753 Feb 25 22:15	26° H 25'56	0.58868 AU	retrograde	15754 Jan 27 23:20	11° H 25'20	
inferior conj	15753 Mar 01 02:57	23° H 58'15	-3°07'49	evening set	15754 Feb 02 18:37	10° H 08'32	
minimum elong	15753 Mar 01 10:05	23° H 44'28	3°05'02	min. Earth dist.	15754 Feb 07 14:41	7° H 27'26	0.56824 AU
morning rise	15753 Mar 09 03:25	19° H 23'33		inferior conj	15754 Feb 10 09:21	5° H 36'00	-4°35'26
direct	15753 Mar 11 02:52	19° H 09'35		minimum elong	15754 Feb 10 18:41	5° H 20'23	4°32'24
asc. node	15753 Mar 11 01:09	19° H 09'36		morning rise	15754 Feb 18 21:34	1° H 22'42	
morning max el	15753 Mar 18 23:52	23° H 03'31	18°17'51	direct	15754 Feb 20 22:45	1° H 10'14	
	15753 Mar 24 11:37	0° Y		asc. node	15754 Feb 25 22:30	2° H 29'10	
morning set	15753 Apr 03 16:47	18° Y 02'59		morning max el	15754 Mar 02 02:45	5° H 38'57	19°04'21
	15753 Apr 10 01:03	0° B			15754 Mar 17 11:05	0° Y	
desc. node	15753 Apr 12 15:35	4° B 47'44		morning set	15754 Mar 18 16:07	2° Y 22'51	
superior conj	15753 Apr 13 04:10	5° B 44'59	-0°04'22	superior conj	15754 Mar 27 02:24	18° Y 54'45	0°28'22
minimum elong	15753 Apr 13 03:48	5° B 43'19	0°04'42	minimum elong	15754 Mar 27 04:07	19° Y 02'56	0°27'53
behind sun begin	15753 Apr 12 20:41	5° B 10'59		desc. node	15754 Mar 30 12:13	25° Y 20'21	
behind sun end	15753 Apr 13 10:55	6° B 15'34			15754 Apr 02 01:20	0° B	
max. Earth dist.	15753 Apr 20 18:06	19° B 04'10	1.41134 AU	max. Earth dist.	15754 Apr 03 00:21	1° B 43'25	1.38867 AU
evening rise	15753 Apr 25 08:11	26° B 42'46		evening rise	15754 Apr 06 19:19	8° B 22'06	
	15753 Apr 27 08:52	0° II			15754 Apr 20 06:38	0° II	
	15753 May 17 14:49	0° B		evening max el	15754 May 11 23:34	28° II 05'47	24°31'38
evening max el	15753 May 29 09:53	14° B 11'17	23°10'36		15754 May 14 00:12	0° B	
asc. node	15753 Jun 06 22:42	20° B 03'33		retrograde	15754 May 23 13:07	4° B 51'27	
retrograde	15753 Jun 08 20:19	20° B 19'14		asc. node	15754 May 24 19:47	4° B 44'30	
evening set	15753 Jun 13 23:03	18° B 08'58		evening set	15754 May 29 03:19	2° B 29'20	
inferior conj	15753 Jun 19 07:01	11° B 44'04	2°55'50		15754 May 31 13:07	30° R II	
minimum elong	15753 Jun 19 05:39	11° B 48'50	2°54'48	min. Earth dist.	15754 Jun 02 15:45	27° II 19'04	0.68578 AU
min. Earth dist.	15753 Jun 18 20:10	12° B 21'40	0.69064 AU	inferior conj	15754 Jun 03 15:30	25° II 59'28	2°34'00
morning rise	15753 Jun 24 12:11	5° B 35'39		minimum elong	15754 Jun 03 13:31	26° II 06'06	2°32'44
direct	15753 Jun 28 20:32	3° B 50'37		morning rise	15754 Jun 08 23:52	20° II 00'00	
morning max el	15753 Jul 07 07:22	8° B 41'40	20°58'46	direct	15754 Jun 12 20:30	18° II 34'44	
desc. node	15753 Jul 09 15:31	11° B 11'15		morning max el	15754 Jun 20 07:10	22° II 43'19	19°48'03
	15753 Jul 23 17:28	0° Q			15754 Jun 26 11:44	0° B	
morning set	15753 Aug 06 15:32	20° Q 59'36		desc. node	15754 Jun 26 12:40	0° B 03'05	
	15753 Aug 12 08:24	0° M		morning set	15754 Jul 16 19:46	29° B 51'39	
max. Earth dist.	15753 Aug 14 07:38	3° M 10'11	1.43256 AU		15754 Jul 16 21:57	0° Q	
superior conj	15753 Aug 21 07:55	14° M 45'21	-1°35'40	max. Earth dist.	15754 Jul 27 20:51	17° Q 03'07	1.44848 AU
minimum elong	15753 Aug 21 15:23	15° M 16'53	1°35'06	superior conj	15754 Aug 01 19:20	24° Q 55'46	-2°02'36
	15753 Aug 30 03:22	0° A		minimum elong	15754 Aug 02 02:09	25° Q 23'14	2°02'44
evening rise	15753 Sep 02 04:01	5° A 22'25			15754 Aug 04 22:26	0° M	
asc. node	15753 Sep 02 23:22	6° A 48'31		evening rise	15754 Aug 15 10:02	17° M 26'37	
	15753 Sep 17 15:10	0° M		asc. node	15754 Aug 20 20:00	26° M 34'33	
evening max el	15753 Sep 18 13:11	0° M 57'39	18°02'27		15754 Aug 22 21:37	0° A	
retrograde	15753 Sep 25 06:15	4° M 25'13		evening max el	15754 Sep 02 03:59	14° A 22'08	18°05'43
evening set	15753 Sep 27 14:58	3° M 59'26		retrograde	15754 Sep 08 13:03	17° A 42'29	
	15753 Oct 03 09:24	30° R A		evening set	15754 Sep 11 06:15	17° A 04'07	
inferior conj	15753 Oct 04 11:04	28° A 59'20	0°19'45	inferior conj	15754 Sep 17 11:58	11° A 46'10	1°26'39
minimum elong	15753 Oct 04 11:42	28° A 57'50	0°19'49	minimum elong	15754 Sep 17 14:04	11° A 40'30	1°26'02
desc. node	15753 Oct 05 12:26	27° A 58'10		min. Earth dist.	15754 Sep 20 04:35	8° A 52'04	0.63125 AU
min. Earth dist.	15753 Oct 07 13:48	26° A 01'18	0.60867 AU	desc. node	15754 Sep 22 09:50	6° A 42'56	
morning rise	15753 Oct 11 05:23	23° A 06'24		morning rise	15754 Sep 23 19:43	5° A 33'43	
direct	15753 Oct 17 21:00	20° A 54'16		direct	15754 Sep 30 11:39	3° A 04'42	
morning max el	15753 Nov 01 02:34	28° A 47'54	27°57'17	morning max el	15754 Oct 14 10:46	11° A 03'54	27°50'22
	15753 Nov 02 07:01	0° M			15754 Oct 29 09:57	0° M	
	15753 Nov 23 10:49	0° A			15754 Nov 15 20:00	0° A	
asc. node	15753 Nov 30 00:28	12° A 12'25		asc. node	15754 Nov 16 21:21	2° A 05'23	
morning set	15753 Dec 04 03:51	20° A 35'48		morning set	15754 Nov 18 00:01	4° A 19'12	
	15753 Dec 08 13:10	0° B		max. Earth dist.	15754 Nov 23 00:50	14° A 49'28	1.31996 AU
max. Earth dist.	15753 Dec 09 23:33	3° B 09'21	1.31225 AU	superior conj	15754 Nov 25 16:39	20° A 35'08	1°13'44
superior conj	15753 Dec 11 08:37	6° B 12'50	1°27'51	minimum elong	15754 Nov 25 14:22	20° A 22'42	1°14'14
minimum elong	15753 Dec 11 06:52	6° B 03'07	1°28'32		15754 Nov 29 23:29	0° B	
evening rise	15753 Dec 18 01:12	21° B 01'00		evening rise	15754 Dec 02 11:54	5° B 29'05	
	15753 Dec 22 07:54	0° B			15754 Dec 15 06:27	0° B	
desc. node	15754 Jan 01 10:48	18° B 19'10		desc. node	15754 Dec 19 07:42	6° B 05'01	
	15754 Jan 09 21:52	0° H		evening max el	15754 Dec 26 12:47	14° B 34'40	23°48'51

retrograde	15755 Jan 09 00:20	21° \approx 15'40		15755 Dec 16 05:00	0° \approx	
evening set	15755 Jan 13 18:07	20° \approx 26'58		15755 Dec 20 13:25	0° \approx 44'40	
min. Earth dist.	15755 Jan 20 00:10	17° \approx 25'25	0.55267 AU	evening set	15755 Dec 24 00:06	0° \approx 18'21
inferior conj	15755 Jan 21 18:57	16° \approx 22'02	-5°41'47		15755 Dec 25 02:03	30° \approx 3
minimum elong	15755 Jan 22 01:35	16° \approx 12'13	5°40'13	min. Earth dist.	15756 Jan 01 05:44	26° \approx 37'11 0.54469 AU
morning rise	15755 Jan 30 10:39	12° \approx 26'34		inferior conj	15756 Jan 01 13:11	26° \approx 26'46 -6°00'32
direct	15755 Feb 01 23:20	12° \approx 10'34		minimum elong	15756 Jan 01 11:13	26° \approx 29'32 5°59'41
morning max el	15755 Feb 12 16:34	17° \approx 21'40	20°13'55	morning rise	15756 Jan 09 23:13	22° \approx 39'33
asc. node	15755 Feb 12 19:51	17° \approx 29'40		direct	15756 Jan 13 09:46	22° \approx 13'19
	15755 Feb 22 00:56	0° \approx		morning max el	15756 Jan 25 15:20	28° \approx 07'39 21°46'03
morning set	15755 Mar 02 22:06	16° \approx 58'16			15756 Jan 27 11:14	0° \approx
	15755 Mar 09 06:31	0° \approx		asc. node	15756 Jan 30 17:12	3° \approx 54'59
					15756 Feb 14 12:44	0° \approx
superior conj	15755 Mar 10 14:14	2° \approx 40'13	0°55'03	morning set	15756 Feb 15 08:05	1° \approx 41'18
minimum elong	15755 Mar 10 16:46	2° \approx 52'53	0°54'42			
max. Earth dist.	15755 Mar 16 07:14	13° \approx 50'01	1.36616 AU	superior conj	15756 Feb 22 11:56	16° \approx 51'00 1°15'15
desc. node	15755 Mar 17 08:50	15° \approx 50'39		minimum elong	15756 Feb 22 14:22	17° \approx 03'40 1°15'13
evening rise	15755 Mar 20 01:45	20° \approx 49'38		max. Earth dist.	15756 Feb 26 19:11	25° \approx 41'35 1.34596 AU
	15755 Mar 25 07:08	0° \approx			15756 Feb 28 23:17	0° \approx
	15755 Apr 14 05:19	0° \approx		evening rise	15756 Mar 02 00:01	3° \approx 55'27
evening max el	15755 Apr 24 13:11	11° \approx 59'26	25°46'03	desc. node	15756 Mar 03 05:27	6° \approx 14'37
retrograde	15755 May 07 01:20	19° \approx 11'39			15756 Mar 17 03:55	0° \approx
asc. node	15755 May 11 16:57	17° \approx 44'10		evening max el	15756 Apr 06 03:02	25° \approx 44'33 26°46'18
evening set	15755 May 13 02:31	16° \approx 41'48			15756 Apr 11 03:19	0° \approx
min. Earth dist.	15755 May 17 07:56	12° \approx 07'54	0.67627 AU	retrograde	15756 Apr 19 08:03	3° \approx 11'38
inferior conj	15755 May 18 20:36	10° \approx 11'24	2°01'11	evening set	15756 Apr 25 18:45	0° \approx 39'12
minimum elong	15755 May 18 18:26	10° \approx 18'20	1°59'48		15756 Apr 26 13:21	30° \approx 8
morning rise	15755 May 24 10:55	4° \approx 22'15		asc. node	15756 Apr 27 14:12	29° \approx 01'28
direct	15755 May 27 20:33	3° \approx 16'01		min. Earth dist.	15756 Apr 29 18:30	26° \approx 40'02 0.66240 AU
morning max el	15755 Jun 03 14:14	6° \approx 53'53	18°52'26	inferior conj	15756 May 01 20:06	24° \approx 13'54 1°16'26
desc. node	15755 Jun 13 09:44	19° \approx 29'20		minimum elong	15756 May 01 18:20	24° \approx 19'09 1°15'11
greatest brilliancy	15755 Jun 17 02:36	25° \approx 01'31	-0.8m	morning rise	15756 May 07 19:08	18° \approx 36'48
	15755 Jun 20 08:42	0° \approx		direct	15756 May 10 18:41	17° \approx 47'43
morning set	15755 Jun 26 05:33	9° \approx 04'25		morning max el	15756 May 17 03:23	21° \approx 07'54 18°13'18
	15755 Jul 09 16:34	0° \approx			15756 May 24 04:39	0° \approx
max. Earth dist.	15755 Jul 10 15:08	1° \approx 28'08	1.45778 AU	desc. node	15756 May 30 06:42	9° \approx 20'11
				morning set	15756 Jun 05 13:45	19° \approx 23'07
superior conj	15755 Jul 12 11:08	4° \approx 20'11	-2°14'06		15756 Jun 12 05:33	0° \approx
minimum elong	15755 Jul 12 11:55	4° \approx 23'16	2°14'51			
evening rise	15755 Jul 27 16:24	28° \approx 30'33		superior conj	15756 Jun 20 20:02	13° \approx 32'10 -2°05'40
	15755 Jul 28 14:37	0° \approx		minimum elong	15756 Jun 20 13:30	13° \approx 06'38 2°06'09
asc. node	15755 Aug 07 16:42	16° \approx 03'25		max. Earth dist.	15756 Jun 22 11:47	16° \approx 07'20 1.45964 AU
evening max el	15755 Aug 16 18:00	28° \approx 03'11	18°26'50		15756 Jul 01 09:52	0° \approx
	15755 Aug 19 01:12	0° \approx		evening rise	15756 Jul 06 22:08	8° \approx 33'40
retrograde	15755 Aug 23 04:22	1° \approx 29'50		greatest brilliancy	15756 Jul 17 21:40	25° \approx 29'06 -0.7m
evening set	15755 Aug 26 06:38	0° \approx 36'12			15756 Jul 20 22:27	0° \approx
	15755 Aug 27 04:52	30° \approx		asc. node	15756 Jul 24 13:27	5° \approx 07'50
inferior conj	15755 Sep 01 01:26	25° \approx 02'29	2°14'30	evening max el	15756 Jul 30 04:24	11° \approx 52'31 19°05'04
minimum elong	15755 Sep 01 03:45	24° \approx 55'32	2°13'45	retrograde	15756 Aug 06 00:47	15° \approx 38'41
min. Earth dist.	15755 Sep 03 04:47	22° \approx 29'31	0.65157 AU	evening set	15756 Aug 09 12:32	14° \approx 28'09
morning rise	15755 Sep 06 23:34	18° \approx 39'33		inferior conj	15756 Aug 14 23:53	8° \approx 40'29 2°45'58
desc. node	15755 Sep 09 07:15	17° \approx 05'59		minimum elong	15756 Aug 15 01:43	8° \approx 34'36 2°45'16
direct	15755 Sep 13 10:35	16° \approx 02'37		min. Earth dist.	15756 Aug 16 13:07	6° \approx 40'45 0.66826 AU
morning max el	15755 Sep 26 21:42	23° \approx 55'36	27°09'43	morning rise	15756 Aug 20 14:09	2° \approx 14'00
	15755 Oct 02 08:43	0° \approx			15756 Aug 24 08:07	30° \approx 8
	15755 Oct 22 18:59	0° \approx		desc. node	15756 Aug 26 04:41	29° \approx 38'46
morning set	15755 Nov 01 10:27	17° \approx 34'02		direct	15756 Aug 26 16:34	29° \approx 37'49
asc. node	15755 Nov 03 18:12	22° \approx 08'38			15756 Aug 29 04:00	0° \approx
max. Earth dist.	15755 Nov 05 17:54	26° \approx 09'46	1.33331 AU	morning max el	15756 Sep 08 09:14	7° \approx 11'06 26°03'31
	15755 Nov 07 14:29	0° \approx			15756 Sep 26 03:44	0° \approx
superior conj	15755 Nov 09 19:51	4° \approx 40'50	0°53'33	morning set	15756 Oct 14 07:48	0° \approx 12'53
minimum elong	15755 Nov 09 17:35	4° \approx 28'48	0°53'53		15756 Oct 14 05:00	0° \approx
evening rise	15755 Nov 16 22:26	19° \approx 55'15		max. Earth dist.	15756 Oct 18 01:25	7° \approx 16'14 1.35175 AU
	15755 Nov 21 19:36	0° \approx		asc. node	15756 Oct 20 14:59	12° \approx 17'38
desc. node	15755 Dec 06 04:42	22° \approx 39'35				
evening max el	15755 Dec 07 23:40	24° \approx 31'32	22°05'56	superior conj	15756 Oct 23 15:37	18° \approx 23'27 0°27'25
				minimum elong	15756 Oct 23 14:07	18° \approx 15'48 0°27'42

	15756 Oct 29 05:57	0°♊		behind sun begin	15757 Oct 06 18:28	1°♎04'30	
evening rise	15756 Oct 31 06:48	4°♊14'35		behind sun end	15757 Oct 07 07:30	2°♎07'55	
	15756 Nov 14 15:38	0°♊		asc. node	15757 Oct 07 11:41	2°♎28'21	
evening max el	15756 Nov 18 20:17	4°♊54'34	20°34'52	evening rise	15757 Oct 15 10:38	18°♎20'45	
desc. node	15756 Nov 22 01:47	7°♊39'48			15757 Oct 21 10:10	0°♊	
retrograde	15756 Nov 29 23:53	10°♊27'10		evening max el	15757 Nov 01 07:24	16°♊05'28	19°24'20
evening set	15756 Dec 02 08:51	10°♊13'14		desc. node	15757 Nov 08 22:59	20°♊40'52	
inferior conj	15756 Dec 11 04:46	6°♊19'26	-5°18'11	retrograde	15757 Nov 10 19:51	20°♊51'35	
minimum elong	15756 Dec 10 19:34	6°♊32'47	5°15'24	evening set	15757 Nov 12 17:40	20°♊40'55	
min. Earth dist.	15756 Dec 12 11:19	5°♊35'08	0.54589 AU	inferior conj	15757 Nov 21 08:01	16°♊33'38	-3°49'22
morning rise	15756 Dec 19 06:05	2°♊22'06		minimum elong	15757 Nov 20 22:50	16°♊48'35	3°45'27
direct	15756 Dec 23 17:52	1°♊38'47		min. Earth dist.	15757 Nov 23 20:21	14°♊55'34	0.55623 AU
morning max el	15757 Jan 06 02:48	8°♊11'27	23°33'45	morning rise	15757 Nov 29 01:51	12°♊07'35	
asc. node	15757 Jan 16 14:29	21°♊26'49		direct	15757 Dec 04 11:57	11°♊01'01	
	15757 Jan 21 15:13	0°♊		morning max el	15757 Dec 18 11:47	18°♊04'44	25°21'15
morning set	15757 Jan 29 19:56	16°♊25'52			15757 Dec 28 08:15	0°♊	
	15757 Feb 05 01:57	0°♊		asc. node	15758 Jan 03 11:41	9°♊48'19	
					15758 Jan 13 19:29	0°♊	
superior conj	15757 Feb 05 16:31	1°♊18'53	1°28'59	morning set	15758 Jan 14 07:40	1°♊05'27	
minimum elong	15757 Feb 05 18:15	1°♊28'19	1°29'18				
max. Earth dist.	15757 Feb 08 14:31	7°♊33'43	1.32959 AU	superior conj	15758 Jan 21 01:22	15°♊55'30	1°36'27
evening rise	15757 Feb 13 10:42	17°♊31'11		minimum elong	15758 Jan 21 02:08	15°♊59'46	1°37'04
desc. node	15757 Feb 18 02:05	26°♊28'07		max. Earth dist.	15758 Jan 22 16:38	19°♊31'57	1.31796 AU
	15757 Feb 20 00:17	0°♊			15758 Jan 27 13:41	0°♊	
	15757 Mar 11 12:09	0°♊		evening rise	15758 Jan 28 06:40	1°♊28'12	
evening max el	15757 Mar 19 16:11	9°♊11'00	27°25'01	desc. node	15758 Feb 04 22:44	16°♊25'03	
retrograde	15757 Apr 02 08:26	16°♊42'50			15758 Feb 12 22:33	0°♊	
evening set	15757 Apr 09 01:53	14°♊14'21		evening max el	15758 Mar 02 02:55	22°♊06'16	27°35'29
min. Earth dist.	15757 Apr 12 21:33	10°♊46'37	0.64466 AU	retrograde	15758 Mar 16 01:31	29°♊34'27	
asc. node	15757 Apr 14 11:30	9°♊05'35		evening set	15758 Mar 22 21:21	27°♊17'36	
inferior conj	15757 Apr 15 11:23	8°♊01'03	0°18'43	min. Earth dist.	15758 Mar 26 15:31	24°♊15'52	0.62385 AU
minimum elong	15757 Apr 15 10:51	8°♊02'28	0°18'04	inferior conj	15758 Mar 29 15:19	21°♊24'20	-0°52'36
morning rise	15757 Apr 21 21:57	2°♊38'02		minimum elong	15758 Mar 29 17:06	21°♊20'03	0°52'06
direct	15757 Apr 24 12:22	2°♊03'19		asc. node	15758 Apr 01 08:51	18°♊55'17	
morning max el	15757 Apr 30 20:16	5°♊18'21	17°51'13	morning rise	15758 Apr 05 15:51	16°♊17'52	
desc. node	15757 May 17 03:35	29°♊29'03		direct	15758 Apr 07 22:29	15°♊54'04	
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morning set	15757 May 18 01:28	1°♊00'32			15758 Apr 22 12:35	0°♊	
				morning set	15758 Apr 30 13:02	13°♊45'06	
superior conj	15757 May 31 15:16	23°♊17'13	-1°39'37	desc. node	15758 May 04 00:23	19°♊50'04	
minimum elong	15757 May 31 06:38	22°♊42'40	1°39'34		15758 May 09 22:11	0°♊	
	15757 Jun 04 20:44	0°♊					
max. Earth dist.	15757 Jun 05 07:37	0°♊42'53	1.45402 AU	superior conj	15758 May 12 07:49	4°♊02'15	-1°03'37
evening rise	15757 Jun 16 11:10	17°♊59'42		minimum elong	15758 May 12 01:51	3°♊37'21	1°03'30
	15757 Jun 24 09:14	0°♊		max. Earth dist.	15758 May 19 00:22	14°♊59'30	1.44154 AU
greatest brilliancy	15757 Jul 01 07:13	10°♊12'45	-0.6m	evening rise	15758 May 26 23:28	27°♊31'29	
asc. node	15757 Jul 11 10:15	23°♊39'20			15758 May 28 14:05	0°♊	
evening max el	15757 Jul 13 09:19	25°♊44'56	19°59'10		15758 Jun 18 05:54	0°♊	
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retrograde	15757 Jul 20 23:32	0°♊02'41		asc. node	15758 Jun 28 07:05	11°♊26'57	
	15757 Jul 21 16:10	30°♊00'00		retrograde	15758 Jul 04 22:29	14°♊36'27	
evening set	15757 Jul 24 21:24	28°♊34'33		evening set	15758 Jul 09 07:08	12°♊50'56	
inferior conj	15757 Jul 30 04:26	22°♊34'28	3°03'31	inferior conj	15758 Jul 14 12:40	6°♊39'55	3°09'03
minimum elong	15757 Jul 30 05:25	22°♊31'10	3°02'52	minimum elong	15758 Jul 14 12:41	6°♊39'53	3°08'19
min. Earth dist.	15757 Jul 31 03:44	21°♊15'35	0.68064 AU	min. Earth dist.	15758 Jul 14 22:30	6°♊05'45	0.68835 AU
morning rise	15757 Aug 04 13:01	16°♊09'28		morning rise	15758 Jul 19 17:57	0°♊19'48	
direct	15757 Aug 10 04:39	13°♊41'21			15758 Jul 20 03:17	30°♊00'00	
desc. node	15757 Aug 13 02:05	14°♊14'11		direct	15758 Jul 24 21:42	28°♊05'33	
morning max el	15757 Aug 21 20:14	20°♊40'02	24°41'03		15758 Jul 30 06:18	0°♊	
	15757 Aug 29 21:16	0°♊		desc. node	15758 Jul 30 23:26	0°♊29'26	
	15757 Sep 19 08:09	0°♊		morning max el	15758 Aug 04 07:25	4°♊16'57	23°12'00
morning set	15757 Sep 26 12:02	12°♊06'21			15758 Aug 24 01:42	0°♊	
max. Earth dist.	15757 Sep 30 01:25	18°♊27'19	1.37406 AU	morning set	15758 Sep 07 18:55	23°♊04'35	
	15757 Oct 06 05:08	0°♊			15758 Sep 11 21:11	0°♊	
				max. Earth dist.	15758 Sep 11 23:57	0°♊11'57	1.39808 AU
superior conj	15757 Oct 07 00:44	1°♊35'00	-0°04'08				
minimum elong	15757 Oct 07 00:59	1°♊36'11	0°03'44	superior conj	15758 Sep 19 19:20	14°♊06'47	-0°39'35











































































































































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asc. node	15758 Sep 24 08:20	22° Ω 37'18		minimum elong	15759 Sep 02 01:05	26° η 14'55	1°15'22
	15758 Sep 28 04:44	0° \mathbb{M}			15759 Sep 04 04:21	0° Ω	
evening rise	15758 Sep 29 07:04	2° \mathbb{M} 06'43		asc. node	15759 Sep 11 04:56	12° Ω 40'23	
evening max el	15758 Oct 15 07:33	28° \mathbb{M} 05'56	18°36'08	evening rise	15759 Sep 12 16:19	15° Ω 22'27	
	15758 Oct 17 11:46	0° \mathcal{A}			15759 Sep 20 21:17	0° \mathbb{M}	
retrograde	15758 Oct 23 09:40	2° \mathcal{A} 11'30		evening max el	15759 Sep 28 16:35	10° \mathbb{M} 46'25	18°09'03
evening set	15758 Oct 25 08:10	1° \mathcal{A} 58'11		retrograde	15759 Oct 05 18:29	14° \mathbb{M} 23'49	
desc. node	15758 Oct 26 20:14	1° \mathcal{A} 30'38		evening set	15759 Oct 07 22:57	14° \mathbb{M} 03'33	
	15758 Oct 29 19:04	30° $\mathbb{R}\mathbb{M}$		desc. node	15759 Oct 13 17:34	10° \mathbb{M} 30'32	
inferior conj	15758 Nov 02 07:33	27° \mathbb{M} 30'44	-2°04'41	inferior conj	15759 Oct 15 04:37	9° \mathbb{M} 14'37	-0°27'52
minimum elong	15758 Nov 02 02:32	27° \mathbb{M} 40'14	2°02'00	minimum elong	15759 Oct 15 03:39	9° \mathbb{M} 16'45	0°27'02
min. Earth dist.	15758 Nov 05 11:20	25° \mathbb{M} 07'52	0.57377 AU	min. Earth dist.	15759 Oct 18 10:24	6° \mathbb{M} 23'51	0.59551 AU
morning rise	15758 Nov 09 17:34	22° \mathbb{M} 28'08		morning rise	15759 Oct 22 05:03	3° \mathbb{M} 37'54	
direct	15758 Nov 15 20:28	20° \mathbb{M} 54'54		direct	15759 Oct 28 17:59	1° \mathbb{M} 38'57	
morning max el	15758 Nov 30 02:06	28° \mathbb{M} 22'12	26°49'20	morning max el	15759 Nov 12 00:33	9° \mathbb{M} 24'00	27°43'50
	15758 Dec 01 16:59	0° \mathcal{A}			15759 Nov 27 21:02	0° \mathcal{A}	
asc. node	15758 Dec 21 08:49	28° \mathcal{A} 47'04		asc. node	15759 Dec 08 05:50	18° \mathcal{A} 12'41	
	15758 Dec 22 00:26	0° \mathcal{B}		morning set	15759 Dec 13 23:48	29° \mathcal{A} 51'47	
morning set	15758 Dec 29 17:34	15° \mathcal{B} 35'42			15759 Dec 14 01:21	0° \mathcal{B}	
	15759 Jan 05 06:08	0° \approx					
				superior conj	15759 Dec 20 23:47	15° \mathcal{B} 12'06	1°33'14
superior conj	15759 Jan 05 12:25	0° \approx 35'06	1°37'50	minimum elong	15759 Dec 20 22:30	15° \mathcal{B} 04'58	1°33'59
minimum elong	15759 Jan 05 12:08	0° \approx 33'29	1°38'36	max. Earth dist.	15759 Dec 20 07:02	13° \mathcal{B} 38'30	1.31042 AU
max. Earth dist.	15759 Jan 05 23:18	1° \approx 35'58	1.31153 AU	evening rise	15759 Dec 27 16:46	0° \approx 03'07	
evening rise	15759 Jan 12 09:26	15° \approx 40'42			15759 Dec 27 16:12	0° \approx	
	15759 Jan 19 12:41	0° \mathcal{H}		desc. node	15760 Jan 09 16:14	25° \approx 01'13	
desc. node	15759 Jan 22 19:27	5° \mathcal{H} 58'57			15760 Jan 12 19:06	0° \mathcal{H}	
	15759 Feb 08 06:09	0° \mathcal{Y}		evening max el	15760 Jan 25 07:39	15° \mathcal{H} 39'47	26°14'20
evening max el	15759 Feb 12 08:58	4° \mathcal{Y} 18'51	27°12'22	retrograde	15760 Feb 08 06:51	22° \mathcal{H} 45'43	
retrograde	15759 Feb 26 09:38	11° \mathcal{Y} 37'11		evening set	15760 Feb 14 12:41	21° \mathcal{H} 12'57	
evening set	15759 Mar 05 02:07	9° \mathcal{Y} 39'31		min. Earth dist.	15760 Feb 18 20:56	18° \mathcal{H} 35'27	0.57962 AU
min. Earth dist.	15759 Mar 08 23:22	6° \mathcal{Y} 55'38	0.60149 AU	inferior conj	15760 Feb 21 22:48	16° \mathcal{H} 21'43	-3°46'01
inferior conj	15759 Mar 12 04:20	4° \mathcal{Y} 14'33	-2°16'10	minimum elong	15760 Feb 22 07:12	16° \mathcal{H} 06'27	3°42'55
minimum elong	15759 Mar 12 09:26	4° \mathcal{Y} 03'51	2°14'09	morning rise	15760 Mar 01 04:55	11° \mathcal{H} 55'54	
	15759 Mar 18 07:26	30° $\mathbb{R}\mathcal{H}$		direct	15760 Mar 03 04:20	11° \mathcal{H} 42'57	
asc. node	15759 Mar 19 06:13	29° \mathcal{H} 37'44		asc. node	15760 Mar 05 03:36	11° \mathcal{H} 56'24	
morning rise	15759 Mar 19 20:12	29° \mathcal{H} 27'13		morning max el	15760 Mar 11 13:17	15° \mathcal{H} 50'26	18°34'52
direct	15759 Mar 21 21:14	29° \mathcal{H} 10'43			15760 Mar 21 10:07	0° \mathcal{Y}	
	15759 Mar 25 08:09	0° \mathcal{Y}		morning set	15760 Mar 27 12:36	11° \mathcal{Y} 26'27	
morning max el	15759 Mar 29 04:49	2° \mathcal{Y} 49'57	18°00'44				
morning set	15759 Apr 13 18:31	27° \mathcal{Y} 18'57		superior conj	15760 Apr 05 12:21	28° \mathcal{Y} 35'36	0°10'13
	15759 Apr 15 05:28	0° \mathcal{B}		minimum elong	15760 Apr 05 13:02	28° \mathcal{Y} 38'47	0°09'47
desc. node	15759 Apr 20 21:05	10° \mathcal{B} 18'46		behind sun begin	15760 Apr 05 07:26	28° \mathcal{Y} 12'44	
				behind sun end	15760 Apr 05 18:38	29° \mathcal{Y} 04'48	
superior conj	15759 Apr 23 23:48	15° \mathcal{B} 51'06	-0°25'20		15760 Apr 06 06:35	0° \mathcal{B}	
minimum elong	15759 Apr 23 21:38	15° \mathcal{B} 41'33	0°25'31	desc. node	15760 Apr 06 17:45	0° \mathcal{B} 51'25	
max. Earth dist.	15759 May 01 13:08	28° \mathcal{B} 45'49	1.42354 AU	max. Earth dist.	15760 Apr 12 21:48	11° \mathcal{B} 52'37	1.40189 AU
	15759 May 02 07:04	0° \mathbb{I}		evening rise	15760 Apr 17 00:52	18° \mathcal{B} 54'02	
evening rise	15759 May 07 01:49	7° \mathbb{I} 45'06			15760 Apr 23 21:33	0° \mathbb{I}	
	15759 May 21 17:40	0° \mathcal{E}			15760 May 15 01:37	0° \mathcal{E}	
evening max el	15759 Jun 09 02:01	23° \mathcal{E} 31'54	22°24'03	evening max el	15760 May 21 16:38	7° \mathcal{E} 26'48	23°45'24
asc. node	15759 Jun 15 04:01	28° \mathcal{E} 16'06		asc. node	15760 Jun 01 01:03	13° \mathcal{E} 49'49	
retrograde	15759 Jun 18 19:57	29° \mathcal{E} 14'20		retrograde	15760 Jun 01 14:42	13° \mathcal{E} 51'12	
evening set	15759 Jun 23 16:00	27° \mathcal{E} 12'34		evening set	15760 Jun 06 22:27	11° \mathcal{E} 35'24	
inferior conj	15759 Jun 28 22:29	20° \mathcal{E} 52'17	3°03'40	min. Earth dist.	15760 Jun 11 15:40	6° \mathcal{E} 04'06	0.68923 AU
minimum elong	15759 Jun 28 21:34	20° \mathcal{E} 55'28	3°02'46	inferior conj	15760 Jun 12 08:00	5° \mathcal{E} 08'11	2°47'51
min. Earth dist.	15759 Jun 28 19:08	21° \mathcal{E} 03'56	0.69124 AU	minimum elong	15760 Jun 12 06:20	5° \mathcal{E} 13'54	2°46'44
morning rise	15759 Jul 04 02:58	14° \mathcal{E} 39'14			15760 Jun 16 12:35	30° $\mathbb{R}\mathbb{I}$	
direct	15759 Jul 08 18:27	12° \mathcal{E} 42'47		morning rise	15760 Jun 17 14:14	29° \mathbb{I} 03'37	
desc. node	15759 Jul 17 20:42	18° \mathcal{E} 00'12		direct	15760 Jun 21 17:36	27° \mathbb{I} 26'56	
morning max el	15759 Jul 17 21:23	18° \mathcal{E} 01'52	21°45'00		15760 Jun 27 12:40	0° \mathcal{E}	
	15759 Jul 27 19:04	0° \mathcal{Q}		morning max el	15760 Jun 29 17:10	1° \mathcal{E} 58'05	20°27'01
	15759 Aug 17 03:53	0° \mathbb{M}		desc. node	15760 Jul 03 17:53	6° \mathcal{E} 27'13	
morning set	15759 Aug 19 01:41	3° \mathbb{M} 00'48			15760 Jul 20 12:47	0° \mathcal{Q}	
max. Earth dist.	15759 Aug 25 03:14	12° \mathbb{M} 49'45	1.42103 AU	morning set	15760 Jul 28 12:03	12° \mathcal{Q} 06'57	
				max. Earth dist.	15760 Aug 06 13:28	26° \mathcal{Q} 20'36	1.44014 AU

	15760 Aug 08 19:59	0°♍		max. Earth dist.	15761 Jul 20 05:15	10°♌29'45	1.45332 AU
superior conj	15760 Aug 12 19:52	6°♍31'51	-1°48'30	superior conj	15761 Jul 23 21:52	16°♌19'35	-2°09'46
minimum elong	15760 Aug 13 03:39	7°♍04'02	1°48'11	minimum elong	15761 Jul 24 02:44	16°♌38'53	2°10'13
evening rise	15760 Aug 25 09:50	27°♍56'59			15761 Aug 01 09:54	0°♍	
	15760 Aug 26 14:06	0°♌		evening rise	15761 Aug 07 06:18	9°♍37'00	
asc. node	15760 Aug 28 01:34	2°♌34'08		asc. node	15761 Aug 14 22:15	22°♍13'56	
evening max el	15760 Sep 11 06:17	23°♌57'11	18°01'32		15761 Aug 19 22:18	0°♌	
retrograde	15760 Sep 17 18:44	27°♌20'09		evening max el	15761 Aug 25 21:04	7°♌29'30	18°12'31
evening set	15760 Sep 20 07:00	26°♌49'19		retrograde	15761 Sep 01 05:45	10°♌51'18	
inferior conj	15760 Sep 26 20:32	21°♌40'56	0°50'35	evening set	15761 Sep 04 02:38	10°♌06'50	
minimum elong	15760 Sep 26 21:58	21°♌37'18	0°50'17	inferior conj	15761 Sep 10 03:17	4°♌41'49	1°49'06
desc. node	15760 Sep 29 14:56	18°♌53'17		minimum elong	15761 Sep 10 05:35	4°♌35'16	1°48'24
min. Earth dist.	15760 Sep 29 19:22	18°♌42'32	0.61846 AU	min. Earth dist.	15761 Sep 12 14:26	1°♌54'46	0.64022 AU
morning rise	15760 Oct 03 10:18	15°♌38'29			15761 Sep 14 10:44	30°♌	
direct	15760 Oct 10 02:38	13°♌18'31		morning rise	15761 Sep 16 06:43	28°♌23'34	
morning max el	15760 Oct 24 06:08	21°♌15'12	27°59'00	desc. node	15761 Sep 16 12:19	28°♌12'49	
	15760 Oct 31 21:13	0°♌		direct	15761 Sep 22 20:55	25°♌50'09	
	15760 Nov 19 23:02	0°♌			15761 Oct 02 10:15	0°♌	
asc. node	15760 Nov 24 02:47	7°♌57'30		morning max el	15761 Oct 06 16:05	3°♌49'02	27°36'49
morning set	15760 Nov 27 00:20	13°♌48'46			15761 Oct 26 09:31	0°♌	
max. Earth dist.	15760 Dec 02 11:56	25°♌29'51	1.31484 AU	morning set	15761 Nov 10 16:46	27°♌21'26	
				asc. node	15761 Nov 10 23:40	27°♌55'50	
superior conj	15760 Dec 04 09:35	29°♌41'04	1°22'37		15761 Nov 12 00:23	0°♌	
minimum elong	15760 Dec 04 07:34	29°♌29'53	1°23'13	max. Earth dist.	15761 Nov 15 10:10	7°♌02'22	1.32491 AU
	15760 Dec 04 13:00	0°♌					
evening rise	15760 Dec 11 02:47	14°♌30'21		superior conj	15761 Nov 18 15:52	13°♌57'17	1°05'56
	15760 Dec 18 17:06	0°♌		minimum elong	15761 Nov 18 13:31	13°♌44'34	1°06'20
desc. node	15760 Dec 26 13:06	13°♌19'28		evening rise	15761 Nov 25 13:40	28°♌58'22	
evening max el	15761 Jan 05 21:44	26°♌09'06	24°47'00		15761 Nov 26 01:10	0°♌	
	15761 Jan 10 16:02	0°♌			15761 Dec 12 22:19	0°♌	
retrograde	15761 Jan 19 15:37	3°♌01'21		desc. node	15761 Dec 13 10:03	0°♌38'01	
evening set	15761 Jan 25 01:28	1°♌56'27		evening max el	15761 Dec 18 07:11	6°♌07'35	23°04'34
	15761 Jan 28 23:55	30°♌		retrograde	15761 Dec 31 11:32	12°♌39'13	
min. Earth dist.	15761 Jan 30 09:41	29°♌09'19	0.56083 AU	evening set	15762 Jan 04 16:08	12°♌01'04	
inferior conj	15761 Feb 01 20:07	27°♌37'09	-5°07'45	min. Earth dist.	15762 Jan 11 17:08	8°♌44'49	0.54813 AU
minimum elong	15761 Feb 02 05:07	27°♌22'57	5°05'11	inferior conj	15762 Jan 12 22:04	8°♌03'22	-5°56'57
morning rise	15761 Feb 10 11:06	23°♌32'33		minimum elong	15762 Jan 13 01:31	7°♌58'25	5°56'01
direct	15761 Feb 12 15:57	23°♌19'14		morning rise	15762 Jan 21 12:16	4°♌13'18	
asc. node	15761 Feb 20 01:00	26°♌00'36		direct	15762 Jan 24 08:56	3°♌54'03	
morning max el	15761 Feb 22 11:04	28°♌04'47	19°31'08	morning max el	15762 Feb 04 18:38	9°♌23'59	20°50'39
	15761 Feb 24 06:33	0°♌		asc. node	15762 Feb 06 22:21	11°♌39'42	
morning set	15761 Mar 11 15:10	25°♌54'30			15762 Feb 18 16:45	0°♌	
	15761 Mar 13 15:58	0°♌		morning set	15762 Feb 23 23:10	10°♌34'11	
superior conj	15761 Mar 19 16:56	12°♌02'34	0°40'27	superior conj	15762 Mar 03 09:26	26°♌00'32	1°04'24
minimum elong	15761 Mar 19 19:07	12°♌13'16	0°40'00	minimum elong	15762 Mar 03 12:00	26°♌13'41	1°04'10
desc. node	15761 Mar 24 14:23	21°♌23'44			15762 Mar 05 08:36	0°♌	
max. Earth dist.	15761 Mar 26 04:01	24°♌17'36	1.37893 AU	max. Earth dist.	15762 Mar 08 12:15	6°♌14'17	1.35714 AU
	15761 Mar 29 08:06	0°♌		desc. node	15762 Mar 11 11:02	11°♌52'13	
evening rise	15761 Mar 29 20:35	0°♌55'01		evening rise	15762 Mar 12 10:13	13°♌40'16	
	15761 Apr 17 03:04	0°♌			15762 Mar 21 18:43	0°♌	
evening max el	15761 May 04 06:02	21°♌21'08	25°04'24		15762 Apr 11 23:19	0°♌	
retrograde	15761 May 16 05:41	28°♌19'38		evening max el	15762 Apr 16 19:35	5°♌11'42	26°13'45
asc. node	15761 May 18 22:11	27°♌49'23		retrograde	15762 Apr 29 15:52	12°♌32'29	
evening set	15761 May 22 00:48	25°♌53'21		evening set	15762 May 05 21:18	10°♌00'37	
min. Earth dist.	15761 May 26 09:58	20°♌58'58	0.68235 AU	asc. node	15762 May 05 19:24	10°♌04'32	
inferior conj	15761 May 27 15:18	19°♌22'38	2°21'26	min. Earth dist.	15762 May 10 00:03	5°♌41'46	0.67089 AU
minimum elong	15761 May 27 13:11	19°♌29'35	2°20'07	inferior conj	15762 May 11 18:19	3°♌31'19	1°43'42
morning rise	15761 Jun 02 01:54	13°♌27'39		minimum elong	15762 May 11 16:14	3°♌37'48	1°42'21
direct	15761 Jun 05 17:43	12°♌10'48			15762 May 14 19:29	30°♌	
morning max el	15761 Jun 12 20:15	16°♌04'36	19°22'26	morning rise	15762 May 17 12:01	27°♌47'07	
desc. node	15761 Jun 20 15:00	25°♌35'01		direct	15762 May 20 17:08	26°♌48'39	
	15761 Jun 23 17:35	0°♌			15762 May 26 22:44	0°♌	
greatest brilliancy	15761 Jun 25 12:04	2°♌35'27	-0.7m	morning max el	15762 May 27 06:10	0°♌17'45	18°33'38
morning set	15761 Jul 07 16:05	21°♌01'09		desc. node	15762 Jun 07 12:02	15°♌12'48	
	15761 Jul 13 11:45	0°♌		morning set	15762 Jun 17 09:51	0°♌37'36	

	15762 Jun 17 00:16	0°☿		superior conj	15763 Jun 12 20:10	4°☿55'38	-1°56'22
				minimum elong	15763 Jun 12 11:58	4°☿23'18	1°56'37
superior conj	15762 Jul 03 08:42	25°☿33'32 -2°13'00		max. Earth dist.	15763 Jun 15 20:40	9°☿40'00	1.45815 AU
minimum elong	15762 Jul 03 06:03	25°☿23'14 2°13'44		evening rise	15763 Jun 28 22:54	29°☿56'59	
max. Earth dist.	15762 Jul 03 00:16	25°☿00'42 1.45947 AU			15763 Jun 28 23:41	0°♌	
	15762 Jul 06 05:01	0°♌		greatest brilliancy	15763 Jul 11 22:38	19°♌40'37	-0.7m
evening rise	15762 Jul 19 01:49	20°♌13'31			15763 Jul 19 07:40	0°♍	
	15762 Jul 25 06:08	0°♍		asc. node	15763 Jul 19 15:43	0°♍25'40	
greatest brilliancy	15762 Jul 26 23:00	2°♍40'21 -0.8m		evening max el	15763 Jul 23 18:09	5°♍07'06	19°26'19
asc. node	15762 Aug 01 18:57	11°♍33'27		retrograde	15763 Jul 30 21:09	9°♍05'00	
evening max el	15762 Aug 09 09:48	21°♍14'52 18°41'08		evening set	15763 Aug 03 13:10	7°♍47'03	
retrograde	15762 Aug 15 23:35	24°♍48'28		inferior conj	15763 Aug 08 22:20	1°♍54'13	2°54'58
evening set	15762 Aug 19 05:43	23°♍47'59		minimum elong	15763 Aug 08 23:50	1°♍49'18	2°54'17
inferior conj	15762 Aug 24 20:58	18°♍08'20 2°29'41		min. Earth dist.	15763 Aug 10 05:40	0°♍11'02	0.67414 AU
minimum elong	15762 Aug 24 23:08	18°♍01'36 2°28'57			15763 Aug 10 09:04	30°♍♌	
min. Earth dist.	15762 Aug 26 18:26	15°♍47'59 0.65914 AU		morning rise	15763 Aug 14 09:56	25°♌28'01	
morning rise	15762 Aug 30 15:29	11°♍43'01		direct	15763 Aug 20 08:06	22°♌54'14	
desc. node	15762 Sep 03 09:45	9°♍30'00		desc. node	15763 Aug 21 07:09	22°♌57'50	
direct	15762 Sep 05 23:15	9°♍05'04			15763 Sep 01 08:54	0°♎	
morning max el	15762 Sep 19 03:25	16°♎52'18 26°44'04		morning max el	15763 Sep 01 14:32	0°♎14'09	25°29'44
	15762 Sep 30 02:10	0°♏			15763 Sep 23 23:47	0°♏	
	15762 Oct 19 06:31	0°♎		morning set	15763 Oct 07 12:34	22°♏42'52	
morning set	15762 Oct 24 22:03	10°♎22'09		max. Earth dist.	15763 Oct 11 02:21	29°♏18'22	1.36093 AU
asc. node	15762 Oct 28 20:28	18°♎02'14			15763 Oct 11 11:11	0°♎	
max. Earth dist.	15762 Oct 28 22:47	18°♎13'47 1.34053 AU		asc. node	15763 Oct 15 17:13	8°♎12'46	
superior conj	15762 Nov 02 16:14	27°♎54'06 0°43'11		superior conj	15763 Oct 17 07:53	11°♎24'55	0°14'38
minimum elong	15762 Nov 02 14:11	27°♎43'23 0°43'27		minimum elong	15763 Oct 17 07:00	11°♎20'28	0°14'58
	15762 Nov 03 16:14	0°♐		behind sun begin	15763 Oct 17 04:38	11°♎08'39	
evening rise	15762 Nov 09 23:30	13°♐22'02		behind sun end	15763 Oct 17 09:22	11°♎32'18	
	15762 Nov 18 09:03	0°♑		evening rise	15763 Oct 25 06:12	27°♎36'36	
evening max el	15762 Nov 29 21:15	16°♑11'46 21°25'06			15763 Oct 26 10:19	0°♐	
desc. node	15762 Nov 30 07:06	16°♑35'36		evening max el	15763 Nov 11 23:57	26°♐54'12	20°02'05
retrograde	15762 Dec 11 21:58	22°♑08'48			15763 Nov 15 18:35	0°♑	
evening set	15762 Dec 14 19:59	21°♑49'17		desc. node	15763 Nov 17 04:12	0°♑47'58	
inferior conj	15762 Dec 23 13:18	17°♑58'43 -5°49'50		retrograde	15763 Nov 22 10:27	2°♑06'19	
minimum elong	15762 Dec 23 07:31	18°♑06'51 5°48'21		evening set	15763 Nov 24 13:05	1°♑54'33	
min. Earth dist.	15762 Dec 23 22:38	17°♑45'38 0.54401 AU			15763 Nov 29 17:52	30°♑♐	
morning rise	15762 Dec 31 19:29	14°♑09'17		inferior conj	15763 Dec 03 08:13	27°♐56'22	-4°44'21
direct	15763 Jan 04 16:49	13°♑36'28		minimum elong	15763 Dec 02 22:10	28°♐11'32	4°40'46
morning max el	15763 Jan 17 11:44	19°♑48'50 22°30'42		min. Earth dist.	15763 Dec 05 05:06	26°♐48'38	0.54934 AU
asc. node	15763 Jan 24 19:40	28°♑35'13		morning rise	15763 Dec 11 06:15	23°♐48'51	
	15763 Jan 25 18:51	0°♒		direct	15763 Dec 16 04:28	22°♐56'01	
morning set	15763 Feb 08 10:09	25°♒18'06		morning max el	15763 Dec 29 20:39	29°♐42'23	24°20'39
	15763 Feb 10 14:56	0°♓			15763 Dec 30 03:59	0°♑	
				asc. node	15764 Jan 11 16:55	16°♑29'52	
superior conj	15763 Feb 15 10:22	10°♓19'16 1°21'51			15764 Jan 19 02:28	0°♒	
minimum elong	15763 Feb 15 12:33	10°♓30'53 1°21'57		morning set	15764 Jan 23 22:07	10°♒00'44	
max. Earth dist.	15763 Feb 19 02:55	18°♓03'04 1.33843 AU					
evening rise	15763 Feb 23 14:09	26°♓59'54		superior conj	15764 Jan 30 16:58	24°♒51'07	1°32'54
	15763 Feb 25 03:36	0°♔		minimum elong	15764 Jan 30 18:19	24°♒58'32	1°33'22
desc. node	15763 Feb 26 07:40	2°♔12'28		max. Earth dist.	15764 Feb 02 01:28	29°♒57'56	1.32406 AU
	15763 Mar 15 02:21	0°♕			15764 Feb 02 01:51	0°♓	
evening max el	15763 Mar 30 09:24	18°♕50'55 27°05'57		evening rise	15764 Feb 07 05:06	10°♓45'20	
retrograde	15763 Apr 12 20:11	26°♕21'28		desc. node	15764 Feb 13 04:19	22°♓19'39	
evening set	15763 Apr 19 09:59	23°♕50'08			15764 Feb 17 11:28	0°♔	
asc. node	15763 Apr 22 16:40	20°♕45'51			15764 Mar 09 19:49	0°♕	
min. Earth dist.	15763 Apr 23 07:50	20°♕04'33 0.65522 AU		evening max el	15764 Mar 11 22:01	2°♕06'23	27°33'27
inferior conj	15763 Apr 25 14:42	17°♕28'46 0°53'38		retrograde	15764 Mar 25 17:24	9°♕36'44	
minimum elong	15763 Apr 25 13:20	17°♕32'40 0°52'34		evening set	15764 Apr 01 12:26	7°♕12'35	
morning rise	15763 May 01 18:17	11°♕57'08		min. Earth dist.	15764 Apr 05 07:13	3°♕56'36	0.63606 AU
direct	15763 May 04 13:46	11°♕14'34		inferior conj	15764 Apr 08 01:34	1°♕07'00	-0°09'51
morning max el	15763 May 10 21:12	14°♕31'23 18°01'43		minimum elong	15764 Apr 08 01:53	1°♕06'11	0°10'06
	15763 May 22 03:20	0°♖		transit middle	15764 Apr 08 01:53	1°♕06'11	0°10'06
desc. node	15763 May 25 08:59	5°♖12'37		transit begin	15764 Apr 07 23:26	1°♕12'29	
morning set	15763 May 29 05:57	11°♖31'00		transit end	15764 Apr 08 04:19	0°♕59'55	
	15763 Jun 09 17:21	0°☿		asc. node	15764 Apr 08 13:59	0°♕35'16	

	15764 Apr 09 04:01	30° Υ	direct	15765 Mar 31 10:39	8° Υ 58'49	
morning rise	15764 Apr 14 17:46	25° Υ 50'25	morning max el	15765 Apr 07 07:38	12° Υ 26'11	17°50'26
direct	15764 Apr 17 04:46	25° Υ 20'39		15765 Apr 19 04:58	0° \mathcal{B}	
morning max el	15764 Apr 23 14:42	28° Υ 37'03	17°47'08	morning set	15765 Apr 23 00:28	6° \mathcal{B} 47'37
	15764 Apr 24 22:21	0° \mathcal{B}		desc. node	15765 Apr 28 02:38	15° \mathcal{B} 52'44
morning set	15764 May 10 04:33	23° \mathcal{B} 39'41				
desc. node	15764 May 11 05:50	25° \mathcal{B} 27'31		superior conj	15765 May 04 02:22	26° \mathcal{B} 17'26 -0°47'19
	15764 May 13 21:57	0° Π		minimum elong	15765 May 03 22:03	25° \mathcal{B} 59'01 0°47'18
					15765 May 06 06:57	0° Π
superior conj	15764 May 22 23:39	15° Π 04'15	-1°25'04	max. Earth dist.	15765 May 11 07:34	8° Π 18'27 1.43446 AU
minimum elong	15764 May 22 15:48	14° Π 32'17	1°24'55	evening rise	15765 May 18 02:30	19° Π 07'23
max. Earth dist.	15764 May 28 16:00	24° Π 11'38	1.44951 AU		15765 May 25 04:53	0° \mathcal{O}
	15764 Jun 01 08:31	0° \mathcal{O}			15765 Jun 16 00:12	0° Ω
evening rise	15764 Jun 07 09:35	9° \mathcal{O} 20'50		evening max el	15765 Jun 18 17:01	2° Ω 53'51 21°38'40
	15764 Jun 21 05:00	0° Ω		asc. node	15765 Jun 22 09:23	6° Ω 05'16
asc. node	15764 Jul 05 12:31	18° Ω 40'23		retrograde	15765 Jun 27 18:43	8° Ω 10'52
evening max el	15764 Jul 05 20:34	19° Ω 00'42	20°26'27	evening set	15765 Jul 02 08:13	6° Ω 18'01
retrograde	15764 Jul 13 20:08	23° Ω 34'17		inferior conj	15765 Jul 07 13:51	0° Ω 02'36 3°08'02
evening set	15764 Jul 17 22:37	21° Ω 58'29		minimum elong	15765 Jul 07 13:28	0° Ω 03'57 3°07'15
inferior conj	15764 Jul 23 04:42	15° Ω 53'36	3°07'14	min. Earth dist.	15765 Jul 07 17:57	29° \mathcal{O} 48'16 0.69021 AU
minimum elong	15764 Jul 23 05:17	15° Ω 51'39	3°06'33		15765 Jul 07 14:36	30° \mathcal{R} \mathcal{O}
min. Earth dist.	15764 Jul 23 22:10	14° Ω 53'42	0.68459 AU	morning rise	15765 Jul 12 18:31	23° \mathcal{O} 45'21
morning rise	15764 Jul 28 11:37	9° Ω 30'39		direct	15765 Jul 17 16:56	21° \mathcal{O} 38'36
direct	15764 Aug 02 22:20	7° Ω 07'57		desc. node	15765 Jul 25 01:51	25° \mathcal{O} 09'09
desc. node	15764 Aug 07 04:31	8° Ω 18'58		morning max el	15765 Jul 27 13:33	27° \mathcal{O} 27'47 22°34'17
morning max el	15764 Aug 14 01:22	13° Ω 46'50	24°03'24		15765 Jul 29 22:44	0° Ω
	15764 Aug 27 05:42	0° \mathcal{P}			15765 Aug 20 19:46	0° \mathcal{P}
	15764 Sep 15 20:12	0° \mathcal{A}		morning set	15765 Aug 30 04:56	14° \mathcal{P} 46'08
morning set	15764 Sep 18 08:09	4° \mathcal{A} 13'42		max. Earth dist.	15765 Sep 04 01:35	22° \mathcal{P} 49'31 1.40817 AU
max. Earth dist.	15764 Sep 22 01:18	10° \mathcal{A} 42'17	1.38432 AU		15765 Sep 08 05:51	0° \mathcal{A}
superior conj	15764 Sep 29 11:19	24° \mathcal{A} 20'51	-0°18'50	superior conj	15765 Sep 11 22:22	6° \mathcal{A} 32'14 -0°55'12
minimum elong	15764 Sep 29 12:37	24° \mathcal{A} 27'03	0°18'19	minimum elong	15765 Sep 12 02:43	6° \mathcal{A} 51'50 0°54'29
asc. node	15764 Oct 01 13:54	28° \mathcal{A} 23'22		asc. node	15765 Sep 18 10:31	18° \mathcal{A} 30'22
	15764 Oct 02 09:50	0° \mathcal{M}		evening rise	15765 Sep 21 23:29	25° \mathcal{A} 10'13
evening rise	15764 Oct 08 07:16	11° \mathcal{M} 35'27			15765 Sep 24 13:12	0° \mathcal{M}
	15764 Oct 18 07:09	0° \mathcal{J}		evening max el	15765 Oct 07 21:21	20° \mathcal{M} 45'08 18°22'03
evening max el	15764 Oct 24 16:58	8° \mathcal{J} 26'42	19°01'03	retrograde	15765 Oct 15 12:05	24° \mathcal{M} 37'31
retrograde	15764 Nov 02 13:40	12° \mathcal{J} 54'32		evening set	15765 Oct 17 12:33	24° \mathcal{M} 21'51
desc. node	15764 Nov 03 01:22	12° \mathcal{J} 53'45		desc. node	15765 Oct 20 22:39	22° \mathcal{M} 51'28
evening set	15764 Nov 04 10:51	12° \mathcal{J} 43'15		inferior conj	15765 Oct 25 04:24	19° \mathcal{M} 45'04 -1°21'44
inferior conj	15764 Nov 12 19:30	8° \mathcal{J} 27'25	-3°05'06	minimum elong	15765 Oct 25 01:16	19° \mathcal{M} 51'26 1°19'53
minimum elong	15764 Nov 12 11:54	8° \mathcal{J} 40'37	3°01'31	min. Earth dist.	15765 Oct 28 10:22	17° \mathcal{M} 07'49 0.58264 AU
min. Earth dist.	15764 Nov 15 16:01	6° \mathcal{J} 29'00	0.56300 AU	morning rise	15765 Nov 01 10:29	14° \mathcal{M} 26'48
morning rise	15764 Nov 20 10:13	3° \mathcal{J} 46'18		direct	15765 Nov 07 18:14	12° \mathcal{M} 42'24
direct	15764 Nov 26 04:09	2° \mathcal{J} 28'55		morning max el	15765 Nov 22 01:14	20° \mathcal{M} 18'34 27°17'17
morning max el	15764 Dec 10 07:14	9° \mathcal{J} 42'40	26°02'16		15765 Nov 30 09:42	0° \mathcal{J}
	15764 Dec 25 14:38	0° \mathcal{Z}		asc. node	15765 Dec 15 11:11	24° \mathcal{J} 20'31
asc. node	15764 Dec 28 14:05	5° \mathcal{Z} 09'06			15765 Dec 18 08:58	0° \mathcal{Z}
morning set	15765 Jan 07 09:18	24° \mathcal{Z} 37'35		morning set	15765 Dec 22 17:53	9° \mathcal{Z} 02'44
	15765 Jan 09 20:25	0° \approx				
				superior conj	15765 Dec 29 14:23	24° \mathcal{Z} 09'19 1°36'37
superior conj	15765 Jan 14 02:59	9° \approx 30'02	1°37'47	minimum elong	15765 Dec 29 13:40	24° \mathcal{Z} 05'15 1°37'24
minimum elong	15765 Jan 14 03:18	9° \approx 31'50	1°38'29	max. Earth dist.	15765 Dec 29 13:41	24° \mathcal{Z} 05'26 1.31034 AU
max. Earth dist.	15765 Jan 15 06:08	12° \approx 00'57	1.31458 AU		15766 Jan 01 05:08	0° \approx
evening rise	15765 Jan 21 04:15	24° \approx 50'03		evening rise	15766 Jan 05 09:11	9° \approx 07'13
	15765 Jan 23 16:33	0° \mathcal{H}			15766 Jan 16 01:03	0° \mathcal{H}
desc. node	15765 Jan 30 00:58	12° \mathcal{H} 08'10		desc. node	15766 Jan 16 21:41	1° \mathcal{H} 29'52
	15765 Feb 10 01:55	0° Υ		evening max el	15766 Feb 04 09:58	26° \mathcal{H} 35'22 26°51'43
evening max el	15765 Feb 22 07:04	14° Υ 45'05	27°29'56		15766 Feb 08 11:22	0° Υ
retrograde	15765 Mar 08 06:34	22° Υ 09'10		retrograde	15766 Feb 18 10:29	3° Υ 49'26
evening set	15765 Mar 15 02:02	19° Υ 59'29		evening set	15766 Feb 24 23:30	2° Υ 01'25
min. Earth dist.	15765 Mar 18 20:45	17° Υ 06'49	0.61445 AU		15766 Feb 28 03:32	30° \mathcal{R} \mathcal{H}
inferior conj	15765 Mar 21 23:36	14° Υ 17'41	-1°26'43	min. Earth dist.	15766 Feb 28 23:58	29° \mathcal{H} 22'07 0.59197 AU
minimum elong	15765 Mar 22 02:42	14° Υ 10'39	1°25'36	inferior conj	15766 Mar 04 05:05	26° \mathcal{H} 50'19 -2°54'11
asc. node	15765 Mar 26 11:19	10° Υ 40'22		minimum elong	15766 Mar 04 11:42	26° \mathcal{H} 37'15 2°51'34
morning rise	15765 Mar 29 06:36	9° Υ 19'10		morning rise	15766 Mar 12 03:25	22° \mathcal{H} 12'22

asc. node	15766 Mar 13 08:42	22° H 00'05		evening set	15767 Feb 06 01:11	13° H 13'19	
direct	15766 Mar 14 03:04	21° H 57'54		min. Earth dist.	15767 Feb 10 17:48	10° H 33'36	0.57105 AU
morning max el	15766 Mar 21 20:22	25° H 47'46	18°12'45	inferior conj	15767 Feb 13 14:41	8° H 36'02	-4°22'59
	15766 Mar 25 10:17	0° Y		minimum elong	15767 Feb 13 23:54	8° H 20'17	4°19'52
morning set	15766 Apr 06 11:49	20° Y 36'56		morning rise	15767 Feb 22 01:33	4° H 19'26	
	15766 Apr 11 11:55	0° B		direct	15767 Feb 24 01:57	4° H 07'00	
desc. node	15766 Apr 14 23:19	6° B 23'28		asc. node	15767 Feb 28 06:07	5° H 03'33	
				morning max el	15767 Mar 05 00:50	8° H 30'05	18°55'57
superior conj	15766 Apr 16 03:36	8° B 31'23	-0°09'44		15767 Mar 18 21:30	0° Y	
minimum elong	15766 Apr 16 02:49	8° B 27'47	0°10'04	morning set	15767 Mar 21 09:55	4° Y 54'02	
behind sun begin	15766 Apr 15 20:54	8° B 01'11					
behind sun end	15766 Apr 16 08:43	8° B 54'20		superior conj	15767 Mar 29 23:28	21° Y 34'58	0°23'47
max. Earth dist.	15766 Apr 23 18:00	21° B 46'41	1.41458 AU	minimum elong	15767 Mar 30 00:57	21° Y 42'00	0°23'18
evening rise	15766 Apr 28 13:12	29° B 43'23		desc. node	15767 Apr 01 19:58	26° Y 56'13	
	15766 Apr 28 17:18	0° II			15767 Apr 03 12:00	0° B	
	15766 May 18 16:48	0° E		max. Earth dist.	15767 Apr 06 00:45	4° B 32'53	1.39211 AU
evening max el	15766 Jun 01 09:03	16° E 47'23	22°58'31	evening rise	15767 Apr 09 21:16	11° B 15'14	
asc. node	15766 Jun 09 06:21	22° E 24'36			15767 Apr 21 12:38	0° II	
retrograde	15766 Jun 11 15:21	22° E 49'05			15767 May 14 06:09	0° E	
evening set	15766 Jun 16 16:17	20° E 41'00		evening max el	15767 May 14 22:58	0° E 42'20	24°19'53
inferior conj	15766 Jun 21 23:48	14° E 17'11	2°58'15	retrograde	15767 May 26 08:40	7° E 22'44	
minimum elong	15766 Jun 21 22:33	14° E 21'33	2°57'16	asc. node	15767 May 27 03:26	7° E 20'07	
min. Earth dist.	15766 Jun 21 14:54	14° E 48'04	0.69090 AU	evening set	15767 May 31 21:12	5° E 02'14	
morning rise	15766 Jun 27 04:42	8° E 07'26			15767 Jun 05 06:49	30° R II	
direct	15766 Jul 01 14:52	6° E 19'22		min. Earth dist.	15767 Jun 05 10:51	29° II 46'29	0.68681 AU
morning max el	15766 Jul 10 05:47	11° E 17'44	21°10'25	inferior conj	15767 Jun 06 08:38	28° II 33'00	2°38'00
desc. node	15766 Jul 11 23:07	13° E 06'05		minimum elong	15767 Jun 06 06:44	28° II 39'26	2°36'47
	15766 Jul 24 21:36	0° O		morning rise	15767 Jun 11 16:22	22° II 32'07	
morning set	15766 Aug 10 02:10	24° O 19'14		direct	15767 Jun 15 14:44	21° II 03'49	
	15766 Aug 13 16:30	0° np		morning max el	15767 Jun 23 04:29	25° II 17'52	19°57'41
max. Earth dist.	15766 Aug 17 07:24	5° np 49'46	1.42969 AU		15767 Jun 27 08:58	0° E	
				desc. node	15767 Jun 28 20:18	1° E 51'51	
superior conj	15766 Aug 24 12:44	17° np 50'16	-1°30'42		15767 Jul 18 04:54	0° O	
minimum elong	15766 Aug 24 19:56	18° np 20'54	1°30'06	morning set	15767 Jul 20 07:25	3° O 13'22	
	15766 Aug 31 12:48	0° A		max. Earth dist.	15767 Jul 30 19:54	19° O 37'36	1.44652 AU
evening rise	15766 Sep 05 02:45	8° A 10'39					
asc. node	15766 Sep 05 07:09	8° A 30'22		superior conj	15767 Aug 05 03:38	28° O 09'23	-1°59'20
	15766 Sep 18 05:34	0° M		minimum elong	15767 Aug 05 10:53	28° O 38'47	1°59'21
evening max el	15766 Sep 21 08:56	3° M 40'37	18°03'34		15767 Aug 06 06:53	0° np	
retrograde	15766 Sep 28 03:57	7° M 10'11		evening rise	15767 Aug 18 11:56	20° np 23'17	
evening set	15766 Sep 30 11:31	6° M 45'57		asc. node	15767 Aug 23 03:47	28° np 18'43	
inferior conj	15766 Oct 07 10:03	1° M 48'48	0°07'48		15767 Aug 24 03:51	0° A	
minimum elong	15766 Oct 07 10:19	1° M 48'11	0°08'04	evening max el	15767 Sep 04 23:37	17° A 02'13	18°04'04
transit middle	15766 Oct 07 10:19	1° M 48'11	0°08'04	retrograde	15767 Sep 11 09:11	20° A 22'42	
transit begin	15766 Oct 07 07:27	1° M 54'53		evening set	15767 Sep 14 01:08	19° A 46'20	
transit end	15766 Oct 07 13:10	1° M 41'27		inferior conj	15767 Sep 20 08:46	14° A 30'45	1°17'43
desc. node	15766 Oct 07 20:01	1° M 25'19		minimum elong	15767 Sep 20 10:44	14° A 25'32	1°17'10
	15766 Oct 09 08:10	30° R A		min. Earth dist.	15767 Sep 23 03:05	11° A 35'05	0.62803 AU
min. Earth dist.	15766 Oct 10 13:51	28° A 51'56	0.60526 AU	desc. node	15767 Sep 24 17:25	10° A 01'44	
morning rise	15766 Oct 14 05:57	25° A 59'47		morning rise	15767 Sep 26 18:04	8° A 20'43	
direct	15766 Oct 20 21:10	23° A 50'44		direct	15767 Oct 03 10:20	5° A 53'48	
	15766 Nov 02 07:31	0° M		morning max el	15767 Oct 17 10:37	13° A 52'19	27°53'41
morning max el	15766 Nov 04 03:04	1° M 42'29	27°55'01		15767 Oct 30 11:33	0° M	
	15766 Nov 24 17:54	0° X			15767 Nov 17 06:56	0° X	
asc. node	15766 Dec 02 08:12	13° X 55'25		asc. node	15767 Nov 19 05:08	3° X 46'33	
morning set	15766 Dec 06 21:58	23° X 11'43		morning set	15767 Nov 20 19:23	6° X 58'56	
	15766 Dec 10 02:24	0° B		max. Earth dist.	15767 Nov 25 22:53	17° X 47'02	1.31847 AU
max. Earth dist.	15766 Dec 12 20:32	6° B 03'40	1.31159 AU				
				superior conj	15767 Nov 28 09:57	23° X 08'30	1°16'18
superior conj	15766 Dec 14 01:22	8° B 44'02	1°29'28	minimum elong	15767 Nov 28 07:44	22° X 56'18	1°16'48
minimum elong	15766 Dec 13 23:44	8° B 34'57	1°30'10		15767 Dec 01 12:40	0° B	
evening rise	15766 Dec 20 17:54	23° B 32'25		evening rise	15767 Dec 05 04:32	8° B 00'44	
	15766 Dec 23 19:07	0° A			15767 Dec 16 10:01	0° A	
desc. node	15767 Jan 03 18:29	20° A 15'00		desc. node	15767 Dec 21 15:23	8° A 10'04	
	15767 Jan 10 11:47	0° H		evening max el	15767 Dec 29 16:27	17° A 46'52	24°04'15
evening max el	15767 Jan 17 04:54	7° H 33'18	25°40'06	retrograde	15768 Jan 12 05:52	24° A 30'49	
retrograde	15767 Jan 31 02:58	14° H 34'12		evening set	15768 Jan 17 04:08	23° A 38'05	

min. Earth dist.	15768 Jan 23 04:03	20°  40'56	0.55454 AU	evening set	15768 Dec 26 11:50	3°  31'59	
inferior conj	15768 Jan 25 03:17	19°  30'00	-5°34'12		15769 Jan 03 08:19	30°  R 	
minimum elong	15768 Jan 25 10:45	19°  18'45	5°32'23	inferior conj	15769 Jan 03 23:06	29°  39'16	-6°01'39
morning rise	15768 Feb 02 19:07	15°  32'24		minimum elong	15769 Jan 03 22:35	29°  39'59	6°00'52
direct	15768 Feb 05 05:30	15°  17'15		min. Earth dist.	15769 Jan 03 09:50	29°  35'52	0.54526 AU
asc. node	15768 Feb 15 03:30	19°  50'07		morning rise	15769 Jan 12 10:24	25°  35'20'1	
morning max el	15768 Feb 15 16:50	20°  21'36	20°02'05	direct	15769 Jan 15 17:10	25°  32'7'51	
	15768 Feb 23 04:19	0°  X			15769 Jan 26 08:16	0°  X	
morning set	15768 Mar 04 15:10	19°  X28'32		morning max el	15769 Jan 27 17:49	1°  15'52	21°31'10
	15768 Mar 09 18:47	0°  Y		asc. node	15769 Feb 01 00:52	6°  X03'50	
					15769 Feb 15 00:18	0°  X	
superior conj	15768 Mar 12 09:36	5°  Y16'35	0°51'24	morning set	15769 Feb 17 00:43	4°  X11'03	
minimum elong	15768 Mar 12 12:04	5°  Y28'53	0°51'01				
max. Earth dist.	15768 Mar 18 07:33	16°  Y45'09	1.36943 AU	superior conj	15769 Feb 24 06:04	19°  X24'28	1°12'34
desc. node	15768 Mar 18 16:36	17°  Y27'31		minimum elong	15769 Feb 24 08:33	19°  X37'22	1°12'30
evening rise	15768 Mar 22 01:07	23°  Y36'53		max. Earth dist.	15769 Feb 28 18:31	28°  X37'52	1.34872 AU
	15768 Mar 25 16:12	0°  B			15769 Mar 01 11:04	0°  Y	
	15768 Apr 14 05:25	0°  II		evening rise	15769 Mar 04 21:15	6°  Y37'39	
evening max el	15768 Apr 26 12:37	14°  II36'57	25°35'37	desc. node	15769 Mar 05 13:12	7°  Y52'48	
retrograde	15768 May 08 21:35	21°  II45'41			15769 Mar 18 09:36	0°  B	
asc. node	15768 May 13 00:36	20°  II36'10		evening max el	15769 Apr 09 02:19	28°  B23'39	26°38'26
evening set	15768 May 14 21:17	19°  II16'35			15769 Apr 10 19:31	0°  II	
min. Earth dist.	15768 May 19 03:37	14°  II37'30	0.67803 AU	retrograde	15769 Apr 22 05:12	5°  II49'28	
inferior conj	15768 May 20 14:24	12°  II46'03	2°06'54	evening set	15769 Apr 28 14:40	3°  II16'52	
minimum elong	15768 May 20 12:13	12°  II53'03	2°05'32	asc. node	15769 Apr 29 21:50	2°  II08'10	
morning rise	15768 May 26 03:39	6°  II55'22			15769 May 01 22:41	30°  R  B	
direct	15768 May 29 14:55	5°  II46'23		min. Earth dist.	15769 May 02 15:06	29°  B12'47	0.66477 AU
morning max el	15768 Jun 05 10:34	9°  II27'48	18°59'41	inferior conj	15769 May 04 14:52	26°  B50'20	1°24'04
desc. node	15768 Jun 14 17:23	21°  II13'41		minimum elong	15769 May 04 12:59	26°  B55'58	1°22'47
greatest brilliancy	15768 Jun 18 14:42	26°  II58'50	-0.7m	morning rise	15769 May 10 12:27	21°  B11'26	
	15768 Jun 20 14:35	0°  C		direct	15769 May 13 13:24	20°  B20'01	
morning set	15768 Jun 28 15:04	12°  C19'40		morning max el	15769 May 19 22:58	23°  B42'01	18°18'01
	15768 Jul 10 00:25	0°  Q			15769 May 25 05:15	0°  II	
max. Earth dist.	15768 Jul 12 13:49	3°  Q59'42	1.45689 AU	desc. node	15769 Jun 01 14:22	11°  II01'21	
				morning set	15769 Jun 08 19:16	22°  II26'45	
superior conj	15768 Jul 14 21:41	7°  Q38'37	-2°13'37		15769 Jun 13 13:25	0°  C	
minimum elong	15768 Jul 14 23:39	7°  Q46'22	2°14'17				
	15768 Jul 28 22:10	0°  R 		superior conj	15769 Jun 24 06:29	16°  C49'34	-2°08'12
evening rise	15768 Jul 29 22:02	1°  R36'38		minimum elong	15769 Jun 24 00:50	16°  C27'27	2°08'47
asc. node	15768 Aug 09 00:28	17°  R50'30		max. Earth dist.	15769 Jun 25 10:06	18°  C37'15	1.45985 AU
	15768 Aug 17 21:53	0°  Q			15769 Jul 02 17:28	0°  Q	
evening max el	15768 Aug 18 13:54	0°  Q40'58	18°22'33	evening rise	15769 Jul 10 07:09	11°  Q47'50	
retrograde	15768 Aug 24 23:32	4°  Q05'58		greatest brilliancy	15769 Jul 20 12:43	27°  Q39'35	-0.8m
evening set	15768 Aug 28 00:24	3°  Q14'44			15769 Jul 22 01:49	0°  R 	
	15768 Aug 31 20:33	30°  R 		asc. node	15769 Jul 26 21:11	6°  R59'09	
inferior conj	15768 Sep 02 20:36	27°  R43'05	2°08'21	evening max el	15769 Aug 02 00:55	14°  R29'18	18°58'21
minimum elong	15768 Sep 02 22:56	27°  R36'10	2°07'35	retrograde	15769 Aug 08 19:24	18°  R11'58	
min. Earth dist.	15768 Sep 05 01:57	25°  R06'09	0.64874 AU	evening set	15769 Aug 12 05:39	17°  R04'07	
morning rise	15768 Sep 08 20:04	21°  R21'08		inferior conj	15769 Aug 17 17:54	11°  R18'24	2°42'08
desc. node	15768 Sep 10 14:50	20°  R06'19		minimum elong	15769 Aug 17 19:49	11°  R12'14	2°41'25
direct	15768 Sep 15 07:58	18°  R44'58		min. Earth dist.	15769 Aug 19 09:15	9°  R13'03	0.66599 AU
morning max el	15768 Sep 28 21:23	26°  R39'43	27°17'38	morning rise	15769 Aug 23 09:12	4°  R51'58	
	15768 Oct 02 00:21	0°  Q		desc. node	15769 Aug 28 12:14	2°  R19'14	
	15768 Oct 23 02:34	0°  R 		direct	15769 Aug 29 13:01	2°  R15'07	
morning set	15768 Nov 03 07:28	20°  R18'33		morning max el	15769 Sep 11 09:01	9°  R52'50	26°14'39
asc. node	15768 Nov 05 01:59	23°  R48'37			15769 Sep 27 07:18	0°  Q	
max. Earth dist.	15768 Nov 07 17:28	29°  R10'57	1.33097 AU		15769 Oct 15 15:10	0°  R 	
	15768 Nov 08 02:58	0°  X 		morning set	15769 Oct 17 07:01	3°  R03'44	
				max. Earth dist.	15769 Oct 21 02:19	10°  R18'39	1.34867 AU
superior conj	15768 Nov 11 14:02	7°  X17'02	0°57'01	asc. node	15769 Oct 22 22:45	13°  R57'16	
minimum elong	15768 Nov 11 11:43	7°  X04'42	0°57'22				
evening rise	15768 Nov 18 15:13	22°  X27'35		superior conj	15769 Oct 26 11:05	21°  R03'46	0°31'45
	15768 Nov 22 05:48	0°  C		minimum elong	15769 Oct 26 09:25	20°  R55'10	0°32'02
desc. node	15768 Dec 07 12:22	24°  C56'50			15769 Oct 30 18:07	0°  X 	
evening max el	15768 Dec 10 02:35	27°  C42'38	22°20'49	evening rise	15769 Nov 03 00:02	6°  X48'27	
	15768 Dec 12 16:57	0°  X 			15769 Nov 15 11:46	0°  C	
retrograde	15768 Dec 22 20:31	4°  X01'07		evening max el	15769 Nov 21 21:16	8°  C00'06	20°47'16

desc. node	15769 Nov 24 09:26	10° S 13'13		15770 Oct 22 18:29	0° A	
retrograde	15769 Dec 03 06:43	13° S 39'29	evening max el	15770 Nov 04 06:13	19° A 03'27	19°33'28
evening set	15769 Dec 05 18:31	13° S 24'26	desc. node	15770 Nov 11 06:35	23° A 33'38	
inferior conj	15769 Dec 14 14:09	9° S 31'48 -5°28'15	retrograde	15770 Nov 14 00:17	23° A 56'06	
minimum elong	15769 Dec 14 05:35	9° S 44'06 5°25'48	evening set	15770 Nov 15 22:56	23° A 45'22	
min. Earth dist.	15769 Dec 15 15:22	8° S 55'36 0.54509 AU	inferior conj	15770 Nov 24 14:54	19° A 40'51 -4°04'30	
morning rise	15769 Dec 22 16:39	5° S 37'04	minimum elong	15770 Nov 24 05:19	19° A 56'08 4°00'36	
direct	15769 Dec 27 00:39	4° S 56'43	min. Earth dist.	15770 Nov 26 23:45	18° A 10'22 0.55420 AU	
morning max el	15770 Jan 09 06:32	11° S 24'31 23°17'14	morning rise	15770 Dec 02 09:47	15° A 19'55	
asc. node	15770 Jan 18 22:09	23° S 26'40	direct	15770 Dec 07 17:02	14° A 16'57	
	15770 Jan 22 21:50	0° \approx	morning max el	15770 Dec 21 15:10	21° A 16'33 25°05'56	
morning set	15770 Feb 01 12:22	18° \approx 55'25		15770 Dec 29 04:25	0° S	
	15770 Feb 06 15:13	0° H	asc. node	15771 Jan 05 19:21	11° S 41'29	
				15771 Jan 15 07:43	0° \approx	
superior conj	15770 Feb 08 09:45	3° H 50'05 1°27'17	morning set	15771 Jan 17 00:11	3° \approx 35'42	
minimum elong	15770 Feb 08 11:37	4° H 00'10 1°27'34				
max. Earth dist.	15770 Feb 11 12:28	10° H 27'57 1.33173 AU	superior conj	15771 Jan 23 18:04	18° \approx 25'31 1°35'43	
evening rise	15770 Feb 16 06:15	20° H 09'11	minimum elong	15771 Jan 23 19:00	18° \approx 30'40 1°36'17	
desc. node	15770 Feb 20 09:50	28° H 08'02	max. Earth dist.	15771 Jan 25 13:38	22° \approx 24'52 1.31939 AU	
	15770 Feb 21 10:01	0° Y		15771 Jan 29 02:18	0° H	
	15770 Mar 12 09:24	0° B	evening rise	15771 Jan 31 00:59	4° H 03'21	
evening max el	15770 Mar 22 15:35	11° B 53'13 27°20'54	desc. node	15771 Feb 07 06:29	18° H 07'47	
retrograde	15770 Apr 05 06:41	19° B 25'21		15771 Feb 14 03:32	0° Y	
evening set	15770 Apr 11 23:17	16° B 55'49	evening max el	15771 Mar 05 02:57	24° Y 54'17 27°36'02	
min. Earth dist.	15770 Apr 15 19:25	13° B 23'37 0.64749 AU		15771 Mar 11 13:44	0° B	
asc. node	15770 Apr 16 19:07	12° B 19'54	retrograde	15771 Mar 19 00:59	2° B 23'19	
inferior conj	15770 Apr 18 07:32	10° B 40'02 0°28'23	evening set	15771 Mar 25 20:40	0° B 04'27	
minimum elong	15770 Apr 18 06:45	10° B 42'11 0°27'35		15771 Mar 25 23:17	30° R Y	
morning rise	15770 Apr 24 16:12	5° B 14'47	min. Earth dist.	15771 Mar 29 14:54	26° Y 59'08 0.62704 AU	
direct	15770 Apr 27 07:51	4° B 38'12	inferior conj	15771 Apr 01 13:23	24° Y 07'37 -0°40'54	
morning max el	15770 May 03 15:26	7° B 53'23 17°53'22	minimum elong	15771 Apr 01 14:45	24° Y 04'17 0°40'37	
	15770 May 18 18:55	0° II	asc. node	15771 Apr 03 16:27	22° Y 07'14	
desc. node	15770 May 19 11:16	1° II 07'50	morning rise	15771 Apr 08 11:40	18° Y 58'21	
morning set	15770 May 21 02:58	3° II 52'43	direct	15771 Apr 10 19:21	18° Y 33'09	
			morning max el	15771 Apr 17 09:07	21° Y 53'13 17°46'15	
superior conj	15770 Jun 03 23:16	26° II 27'33 -1°44'25		15771 Apr 23 16:13	0° B	
minimum elong	15770 Jun 03 14:33	25° II 52'52 1°44'24	morning set	15771 May 03 11:26	16° B 28'54	
	15770 Jun 06 04:50	0° S	desc. node	15771 May 06 08:06	21° B 27'35	
max. Earth dist.	15770 Jun 08 05:55	3° S 13'20 1.45530 AU		15771 May 11 07:27	0° II	
evening rise	15770 Jun 19 21:43	21° S 16'44				
	15770 Jun 25 15:12	0° Ω	superior conj	15771 May 15 12:22	7° II 03'14 -1°09'24	
greatest brilliancy	15770 Jul 04 11:06	13° Ω 08'22 -0.6m	minimum elong	15771 May 15 05:51	6° II 36'12 1°09'14	
asc. node	15770 Jul 13 17:55	25° Ω 36'18	max. Earth dist.	15771 May 21 23:25	17° II 34'34 1.44379 AU	
evening max el	15770 Jul 16 06:42	28° Ω 21'32 19°50'14		15771 May 29 21:18	0° S	
	15770 Jul 18 01:46	0° M	evening rise	15771 May 30 09:09	0° S 45'39	
retrograde	15770 Jul 23 17:52	2° M 33'55		15771 Jun 19 06:21	0° Ω	
evening set	15770 Jul 27 14:09	1° M 08'30	evening max el	15771 Jun 29 06:34	12° Ω 15'22 20°55'59	
	15770 Jul 28 21:59	30° R Ω	asc. node	15771 Jun 30 14:45	13° Ω 31'46	
inferior conj	15770 Aug 01 21:40	25° Ω 10'18 3°01'40	retrograde	15771 Jul 07 16:51	17° Ω 06'50	
minimum elong	15770 Aug 01 22:47	25° Ω 06'33 3°01'00	evening set	15771 Jul 11 23:52	15° Ω 23'52	
min. Earth dist.	15770 Aug 02 23:05	23° Ω 44'50 0.67908 AU	inferior conj	15771 Jul 17 05:29	9° Ω 14'28 3°08'53	
morning rise	15770 Aug 07 06:57	18° Ω 44'48	minimum elong	15771 Jul 17 05:38	9° Ω 13'56 3°08'11	
direct	15770 Aug 13 00:18	16° Ω 14'56	min. Earth dist.	15771 Jul 17 17:18	8° Ω 33'30 0.68757 AU	
desc. node	15770 Aug 15 09:38	16° Ω 37'19	morning rise	15771 Jul 22 11:07	2° Ω 53'33	
morning max el	15770 Aug 24 19:58	23° Ω 19'48 24°53'56	direct	15771 Jul 27 16:44	0° Ω 36'53	
	15770 Aug 30 18:02	0° M	desc. node	15771 Aug 02 07:00	2° Ω 39'13	
	15770 Sep 20 15:37	0° $\underline{\Omega}$	morning max el	15771 Aug 07 06:55	6° Ω 55'28 23°25'15	
morning set	15770 Sep 29 14:00	15° $\underline{\Omega}$ 04'18		15771 Aug 25 06:17	0° M	
max. Earth dist.	15770 Oct 03 02:50	21° $\underline{\Omega}$ 26'07 1.37055 AU	morning set	15771 Sep 11 00:13	26° M 10'46	
	15770 Oct 07 16:19	0° M		15771 Sep 13 06:25	0° $\underline{\Omega}$	
			max. Earth dist.	15771 Sep 15 01:12	3° $\underline{\Omega}$ 04'07 1.39457 AU	
superior conj	15770 Oct 09 21:57	4° M 20'15 0°00'58				
minimum elong	15770 Oct 09 21:52	4° M 19'50 0°01'22	superior conj	15771 Sep 22 18:57	16° $\underline{\Omega}$ 58'21 -0°34'04	
behind sun begin	15770 Oct 09 15:20	3° M 47'49	minimum elong	15771 Sep 22 21:29	17° $\underline{\Omega}$ 10'05 0°33'28	
behind sun end	15770 Oct 10 04:25	4° M 51'56	asc. node	15771 Sep 26 16:04	24° $\underline{\Omega}$ 17'06	
asc. node	15770 Oct 09 19:24	4° M 07'45		15771 Sep 29 15:21	0° M	
evening rise	15770 Oct 18 04:38	20° M 56'37	evening rise	15771 Oct 02 02:20	4° M 45'44	

	15771 Oct 17 07:10	0°♊		evening rise	15772 Sep 14 13:35	18°♊06'52	
evening max el	15771 Oct 18 04:38	0°♊56'28	18°41'55		15772 Sep 21 02:55	0°♊	
retrograde	15771 Oct 26 11:10	5°♊07'16		evening max el	15772 Sep 30 12:35	13°♊31'21	18°11'45
evening set	15771 Oct 28 09:12	4°♊54'35		retrograde	15772 Oct 07 17:28	17°♊12'16	
desc. node	15771 Oct 29 03:49	4°♊42'34		evening set	15772 Oct 09 20:50	16°♊53'19	
inferior conj	15771 Nov 05 11:05	0°♊30'11	-2°20'21	desc. node	15772 Oct 15 01:07	13°♊55'49	
minimum elong	15771 Nov 05 05:23	0°♊40'45	2°17'25	inferior conj	15772 Oct 17 05:05	12°♊07'19	-0°41'30
	15771 Nov 06 03:19	30°♊♊		minimum elong	15772 Oct 17 03:36	12°♊10'32	0°40'23
min. Earth dist.	15771 Nov 08 13:27	28°♊13'13	0.57085 AU	min. Earth dist.	15772 Oct 20 11:11	9°♊19'29	0.59211 AU
morning rise	15771 Nov 12 22:23	25°♊33'16		morning rise	15772 Oct 24 07:01	6°♊35'09	
direct	15771 Nov 18 23:17	24°♊04'07		direct	15772 Oct 30 18:46	4°♊39'58	
	15771 Dec 01 14:07	0°♊		morning max el	15772 Nov 14 01:37	12°♊22'43	27°38'19
morning max el	15771 Dec 03 04:16	1°♊27'52	26°38'10		15772 Nov 27 23:34	0°♊	
	15771 Dec 23 08:49	0°♊		asc. node	15772 Dec 09 13:34	19°♊57'26	
asc. node	15771 Dec 23 16:30	0°♊35'12			15772 Dec 14 13:38	0°♊	
morning set	15772 Jan 01 10:28	18°♊07'29		morning set	15772 Dec 15 17:26	2°♊26'15	
	15772 Jan 06 19:50	0°♊		max. Earth dist.	15772 Dec 22 03:52	16°♊32'42	1.31020 AU
superior conj	15772 Jan 08 04:54	3°♊04'50	1°38'02	superior conj	15772 Dec 22 16:22	17°♊42'38	1°34'20
minimum elong	15772 Jan 08 04:46	3°♊04'07	1°38'46	minimum elong	15772 Dec 22 15:14	17°♊36'17	1°35'05
max. Earth dist.	15772 Jan 08 19:57	4°♊28'53	1.31215 AU		15772 Dec 28 05:04	0°♊	
evening rise	15772 Jan 15 02:53	18°♊13'53		evening rise	15772 Dec 29 09:42	2°♊35'11	
	15772 Jan 20 22:29	0°♊		desc. node	15773 Jan 10 23:55	26°♊53'20	
desc. node	15772 Jan 25 03:10	7°♊45'38			15773 Jan 12 21:24	0°♊	
	15772 Feb 08 20:13	0°♊		evening max el	15773 Jan 27 09:48	18°♊42'54	26°25'04
evening max el	15772 Feb 15 09:57	7°♊14'12	27°18'06	retrograde	15773 Feb 10 09:20	25°♊50'56	
retrograde	15772 Feb 29 10:21	14°♊33'50		evening set	15773 Feb 16 17:23	24°♊14'01	
evening set	15772 Mar 07 03:50	12°♊32'57		min. Earth dist.	15773 Feb 20 23:12	21°♊36'38	0.58276 AU
min. Earth dist.	15772 Mar 11 00:17	9°♊47'05	0.60485 AU	inferior conj	15773 Feb 24 02:21	19°♊17'40	-3°32'28
inferior conj	15772 Mar 14 04:53	7°♊03'29	-2°02'54	minimum elong	15773 Feb 24 10:20	19°♊02'50	3°29'27
minimum elong	15772 Mar 14 09:26	6°♊53'43	2°01'06	morning rise	15773 Mar 04 06:36	14°♊48'45	
asc. node	15772 Mar 20 13:50	2°♊38'01		direct	15773 Mar 06 05:56	14°♊35'31	
morning rise	15772 Mar 21 18:26	2°♊13'03		asc. node	15773 Mar 07 11:15	14°♊40'47	
direct	15772 Mar 23 20:11	1°♊55'38		morning max el	15773 Mar 14 10:26	18°♊37'54	18°28'26
morning max el	15772 Mar 31 00:40	5°♊31'25	17°57'27		15773 Mar 22 16:31	0°♊	
morning set	15772 Apr 15 14:37	29°♊56'33		morning set	15773 Mar 30 07:07	13°♊59'44	
	15772 Apr 15 15:22	0°♊			15773 Apr 07 17:30	0°♊	
desc. node	15772 Apr 22 04:50	11°♊55'22		superior conj	15773 Apr 08 10:46	1°♊19'48	0°05'08
superior conj	15772 Apr 26 01:00	18°♊42'52	-0°31'03	minimum elong	15773 Apr 08 11:07	1°♊21'23	0°04'42
minimum elong	15772 Apr 25 22:17	18°♊31'03	0°31'11	behind sun begin	15773 Apr 08 04:14	0°♊49'38	
	15772 May 02 16:05	0°♊		behind sun end	15773 Apr 08 18:00	1°♊53'03	
max. Earth dist.	15772 May 03 13:05	1°♊26'58	1.42651 AU	desc. node	15773 Apr 09 01:31	2°♊27'33	
evening rise	15772 May 09 08:49	10°♊51'41		max. Earth dist.	15773 Apr 15 22:17	14°♊39'39	1.40527 AU
	15772 May 21 22:30	0°♊		evening rise	15773 Apr 20 04:37	21°♊51'44	
evening max el	15772 Jun 11 01:03	26°♊09'03	22°12'03		15773 Apr 25 05:10	0°♊	
	15772 Jun 15 15:10	0°♊			15773 May 15 23:31	0°♊	
asc. node	15772 Jun 16 11:42	0°♊31'01		evening max el	15773 May 24 15:56	10°♊03'03	23°33'13
retrograde	15772 Jun 20 14:38	1°♊44'42		asc. node	15773 Jun 03 08:43	16°♊17'02	
evening set	15772 Jun 25 09:01	29°♊45'07		retrograde	15773 Jun 04 09:57	16°♊21'48	
	15772 Jun 25 01:47	30°♊♊		evening set	15773 Jun 09 15:58	14°♊07'47	
inferior conj	15772 Jun 30 15:13	23°♊26'06	3°05'07	min. Earth dist.	15773 Jun 14 10:28	8°♊30'57	0.68984 AU
minimum elong	15772 Jun 30 14:26	23°♊28'49	3°04'16	inferior conj	15773 Jun 15 00:55	7°♊41'18	2°50'55
min. Earth dist.	15772 Jun 30 13:47	23°♊31'04	0.69118 AU	minimum elong	15773 Jun 14 23:22	7°♊46'41	2°49'50
morning rise	15772 Jul 05 19:41	17°♊12'00		morning rise	15773 Jun 20 06:44	1°♊35'25	
direct	15772 Jul 10 12:59	15°♊12'48			15773 Jun 23 14:48	30°♊♊	
desc. node	15772 Jul 19 04:18	20°♊00'02		direct	15773 Jun 24 11:50	29°♊55'52	
morning max el	15772 Jul 19 20:21	20°♊39'22	21°57'32		15773 Jun 25 09:16	0°♊	
	15772 Jul 27 19:00	0°♊		morning max el	15773 Jul 02 15:13	4°♊33'44	20°37'51
	15772 Aug 17 11:12	0°♊		desc. node	15773 Jul 06 01:33	8°♊19'21	
morning set	15772 Aug 21 10:38	6°♊16'21			15773 Jul 21 18:31	0°♊	
max. Earth dist.	15772 Aug 27 03:49	15°♊34'39	1.41786 AU	morning set	15773 Jul 31 23:29	15°♊28'24	
				max. Earth dist.	15773 Aug 09 13:03	28°♊58'08	1.43761 AU
superior conj	15772 Sep 03 21:43	28°♊47'55	-1°10'40		15773 Aug 10 04:25	0°♊	
minimum elong	15772 Sep 04 03:25	29°♊12'57	1°09'56	superior conj	15773 Aug 16 02:11	9°♊40'17	-1°44'08
	15772 Sep 04 14:06	0°♊		minimum elong	15773 Aug 16 09:57	10°♊12'36	1°43'43
asc. node	15772 Sep 12 12:42	14°♊21'22					

	15773 Aug 27 22:46	0°♄		max. Earth dist.	15774 Jul 23 03:52	13°♄01'33	1.45175 AU
evening rise	15773 Aug 28 09:51	0°♄48'34					
asc. node	15773 Aug 30 09:20	4°♄16'46		superior conj	15774 Jul 27 07:23	19°♄35'41	-2°07'35
evening max el	15773 Sep 14 01:52	26°♄38'17	18°01'26	minimum elong	15774 Jul 27 13:04	19°♄58'21	2°07'55
	15773 Sep 19 22:02	0°♄			15774 Aug 02 18:16	0°♄	
retrograde	15773 Sep 20 15:46	0°♄02'41		evening rise	15774 Aug 10 09:47	12°♄37'26	
	15773 Sep 21 09:33	30°♄		asc. node	15774 Aug 17 05:59	23°♄58'56	
evening set	15773 Sep 23 02:44	29°♄33'42			15774 Aug 21 00:25	0°♄	
inferior conj	15773 Sep 29 18:30	24°♄28'07	0°39'57	evening max el	15774 Aug 28 16:45	10°♄08'14	18°09'46
minimum elong	15773 Sep 29 19:41	24°♄25'11	0°39'47	retrograde	15774 Sep 04 01:25	13°♄29'18	
desc. node	15773 Oct 01 22:30	22°♄18'28		evening set	15774 Sep 06 20:59	12°♄47'04	
min. Earth dist.	15773 Oct 02 18:48	21°♄29'24	0.61505 AU	inferior conj	15774 Sep 12 23:20	7°♄24'31	1°41'24
morning rise	15773 Oct 06 09:50	18°♄28'42		minimum elong	15774 Sep 13 01:35	7°♄18'14	1°40'43
direct	15773 Oct 13 02:00	16°♄11'20		min. Earth dist.	15774 Sep 15 12:27	4°♄34'38	0.63714 AU
morning max el	15773 Oct 27 06:26	24°♄07'16	27°59'14	desc. node	15774 Sep 18 19:55	1°♄24'31	
	15773 Nov 01 14:24	0°♄		morning rise	15774 Sep 19 04:15	1°♄08'04	
	15773 Nov 21 08:08	0°♄			15774 Sep 20 20:37	30°♄	
asc. node	15773 Nov 26 10:32	9°♄39'40		direct	15774 Sep 25 19:10	28°♄35'55	
morning set	15773 Nov 29 18:57	16°♄26'16			15774 Oct 01 03:20	0°♄	
max. Earth dist.	15773 Dec 05 09:24	28°♄25'46	1.31379 AU	morning max el	15774 Oct 09 15:51	6°♄35'19	27°42'10
	15773 Dec 06 02:30	0°♄			15774 Oct 27 14:26	0°♄	
				asc. node	15774 Nov 13 07:25	29°♄36'08	
superior conj	15773 Dec 07 02:32	2°♄12'55	1°24'38	morning set	15774 Nov 13 12:45	0°♄02'43	
minimum elong	15773 Dec 07 00:36	2°♄02'13	1°25'15		15774 Nov 13 12:12	0°♄	
evening rise	15773 Dec 13 19:26	17°♄01'36		max. Earth dist.	15774 Nov 18 08:40	10°♄00'29	1.32307 AU
	15773 Dec 20 02:11	0°♄					
desc. node	15773 Dec 28 20:45	15°♄18'47		superior conj	15774 Nov 21 09:28	16°♄31'15	1°08'51
evening max el	15774 Jan 09 00:59	29°♄18'28	25°01'24	minimum elong	15774 Nov 21 07:08	16°♄18'34	1°09'18
	15774 Jan 09 18:50	0°♄			15774 Nov 27 13:42	0°♄	
retrograde	15774 Jan 22 20:16	6°♄13'25		evening rise	15774 Nov 28 06:17	1°♄29'29	
evening set	15774 Jan 28 09:36	5°♄04'19			15774 Dec 13 17:17	0°♄	
min. Earth dist.	15774 Feb 02 13:09	2°♄19'43	0.56328 AU	desc. node	15774 Dec 15 17:40	2°♄47'06	
inferior conj	15774 Feb 05 02:49	0°♄40'32	-4°56'48	evening max el	15774 Dec 21 10:40	9°♄19'12	23°20'02
minimum elong	15774 Feb 05 12:04	0°♄25'39	4°54'04	retrograde	15775 Jan 03 17:53	15°♄54'24	
	15774 Feb 06 04:10	30°♄		evening set	15775 Jan 08 03:07	15°♄12'44	
morning rise	15774 Feb 13 17:04	26°♄33'05		min. Earth dist.	15775 Jan 14 21:18	12°♄01'56	0.54952 AU
direct	15774 Feb 15 20:21	26°♄20'12		inferior conj	15775 Jan 16 07:13	11°♄12'50	-5°52'45
asc. node	15774 Feb 22 08:40	28°♄28'55		minimum elong	15775 Jan 16 11:55	11°♄06'01	5°51'37
	15774 Feb 24 08:11	0°♄		morning rise	15775 Jan 24 22:08	7°♄21'03	
morning max el	15774 Feb 25 10:07	0°♄59'42	19°21'17	direct	15775 Jan 27 15:44	7°♄03'07	
morning set	15774 Mar 14 08:38	28°♄24'55		morning max el	15775 Feb 07 19:51	12°♄26'39	20°37'23
	15774 Mar 15 03:40	0°♄		asc. node	15775 Feb 09 06:02	13°♄54'09	
					15775 Feb 20 01:22	0°♄	
superior conj	15774 Mar 22 13:15	14°♄40'59	0°36'14	morning set	15775 Feb 26 15:57	13°♄02'50	
minimum elong	15774 Mar 22 15:17	14°♄50'53	0°35'46				
desc. node	15774 Mar 26 22:09	22°♄59'53		superior conj	15775 Mar 06 04:09	28°♄34'24	1°01'10
max. Earth dist.	15774 Mar 29 04:24	27°♄09'12	1.38232 AU	minimum elong	15775 Mar 06 06:43	28°♄47'27	1°00'54
	15774 Mar 30 18:21	0°♄			15775 Mar 06 21:02	0°♄	
evening rise	15774 Apr 01 21:24	3°♄45'12		max. Earth dist.	15775 Mar 11 11:54	9°♄08'02	1.36021 AU
	15774 Apr 18 07:21	0°♄		desc. node	15775 Mar 13 18:46	13°♄28'46	
evening max el	15774 May 07 05:22	23°♄57'20	24°53'06	evening rise	15775 Mar 15 08:34	16°♄24'13	
	15774 May 15 07:24	0°♄			15775 Mar 23 02:53	0°♄	
retrograde	15774 May 19 01:39	0°♄51'48			15775 Apr 12 17:55	0°♄	
asc. node	15774 May 21 05:51	0°♄31'51		evening max el	15775 Apr 19 18:56	7°♄49'03	26°04'26
	15774 May 22 12:51	30°♄		retrograde	15775 May 02 12:36	15°♄07'13	
evening set	15774 May 24 19:04	28°♄26'49		asc. node	15775 May 08 03:03	13°♄02'47	
min. Earth dist.	15774 May 29 05:19	23°♄26'54	0.68365 AU	evening set	15775 May 08 16:32	12°♄36'00	
inferior conj	15774 May 30 08:43	21°♄56'14	2°26'12	min. Earth dist.	15775 May 12 20:11	8°♄11'52	0.67285 AU
minimum elong	15774 May 30 06:38	22°♄03'07	2°24'53	inferior conj	15775 May 14 12:30	6°♄06'08	1°50'16
morning rise	15774 Jun 04 18:29	15°♄59'39		minimum elong	15775 May 14 10:22	6°♄12'49	1°48'53
direct	15774 Jun 08 11:55	14°♄39'56		morning rise	15775 May 20 04:56	0°♄20'06	
morning max el	15774 Jun 15 17:11	18°♄38'45	19°31'03		15775 May 20 19:11	30°♄	
desc. node	15774 Jun 22 22:42	27°♄21'43		direct	15775 May 23 11:37	29°♄18'58	
	15774 Jun 24 20:19	0°♄			15775 May 26 06:08	0°♄	
greatest brilliancy	15774 Jun 28 09:12	5°♄05'46	-0.6m	morning max el	15775 May 30 02:07	2°♄50'55	18°39'50
morning set	15774 Jul 11 03:10	24°♄20'44		desc. node	15775 Jun 09 19:45	16°♄55'29	
	15774 Jul 14 19:17	0°♄			15775 Jun 18 07:27	0°♄	

morning set	15775 Jun 20 17:49	3°☿47'48		superior conj	15776 Jun 15 05:51	8°☿10'03	-2°00'01
max. Earth dist.	15775 Jul 05 22:33	27°☿30'07	1.45905 AU	minimum elong	15776 Jun 14 22:06	7°☿39'38	2°00'21
				max. Earth dist.	15776 Jun 17 19:13	12°☿10'16	1.45888 AU
superior conj	15775 Jul 06 19:36	28°☿52'17	-2°13'49		15776 Jun 29 06:58	0°☿	
minimum elong	15775 Jul 06 18:10	28°☿46'41	2°14'35	evening rise	15776 Jul 01 08:57	3°☿12'53	
	15775 Jul 07 12:57	0°☿		greatest brilliancy	15776 Jul 13 16:20	21°☿59'43	-0.7m
evening rise	15775 Jul 22 09:02	23°☿23'03			15776 Jul 19 05:58	0°☿	
	15775 Jul 26 12:44	0°☿		asc. node	15776 Jul 20 23:23	2°☿18'18	
greatest brilliancy	15775 Jul 29 05:07	4°☿15'18	-0.9m	evening max el	15776 Jul 25 15:04	7°☿43'12	19°18'31
asc. node	15775 Aug 04 02:40	13°☿21'40		retrograde	15776 Aug 01 15:32	11°☿36'36	
evening max el	15775 Aug 12 05:59	23°☿51'59	18°35'47	evening set	15776 Aug 05 06:04	10°☿21'13	
retrograde	15775 Aug 18 18:22	27°☿22'48		inferior conj	15776 Aug 10 15:57	4°☿30'09	2°51'59
evening set	15775 Aug 21 23:09	26°☿24'45		minimum elong	15776 Aug 10 17:34	4°☿24'51	2°51'18
inferior conj	15775 Aug 27 15:34	20°☿47'13	2°24'33	min. Earth dist.	15776 Aug 12 01:20	2°☿41'06	0.67222 AU
minimum elong	15775 Aug 27 17:49	20°☿40'22	2°23'47		15776 Aug 14 06:11	30°☿☿	
min. Earth dist.	15775 Aug 29 15:08	18°☿22'10	0.65659 AU	morning rise	15776 Aug 16 04:27	28°☿03'49	
morning rise	15775 Sep 02 11:20	14°☿22'38		direct	15776 Aug 22 04:09	25°☿29'06	
desc. node	15775 Sep 05 17:21	12°☿21'35		desc. node	15776 Aug 22 14:46	25°☿29'51	
direct	15775 Sep 08 20:20	11°☿44'49			15776 Aug 31 11:58	0°☿	
morning max el	15775 Sep 22 02:59	19°☿34'16	26°53'28	morning max el	15776 Sep 03 14:13	2°☿53'45	25°41'46
	15775 Oct 01 01:01	0°☿			15776 Sep 24 05:38	0°☿	
	15775 Oct 20 15:35	0°☿		morning set	15776 Oct 09 12:49	25°☿35'10	
morning set	15775 Oct 27 19:52	13°☿08'20			15776 Oct 11 22:10	0°☿	
asc. node	15775 Oct 31 04:13	19°☿41'18		max. Earth dist.	15776 Oct 13 03:40	2°☿19'02	1.35766 AU
max. Earth dist.	15775 Oct 31 22:48	21°☿14'29	1.33791 AU	asc. node	15776 Oct 17 00:55	9°☿51'02	
superior conj	15775 Nov 05 10:52	0°☿31'13	0°47'00	superior conj	15776 Oct 19 04:00	14°☿06'04	0°19'19
minimum elong	15775 Nov 05 08:43	0°☿19'56	0°47'19	minimum elong	15776 Oct 19 02:52	14°☿00'22	0°19'37
	15775 Nov 05 04:55	0°☿		evening rise	15776 Oct 26 23:41	0°☿10'06	
evening rise	15775 Nov 12 16:22	15°☿53'58			15776 Oct 26 21:43	0°☿	
	15775 Nov 19 16:15	0°☿		evening max el	15776 Nov 13 23:57	29°☿55'18	20°13'05
desc. node	15775 Dec 02 14:41	18°☿58'20			15776 Nov 14 01:50	0°☿	
evening max el	15775 Dec 02 23:27	19°☿20'09	21°39'03	desc. node	15776 Nov 18 11:47	3°☿28'14	
retrograde	15775 Dec 15 04:54	25°☿22'54		retrograde	15776 Nov 24 16:24	5°☿14'34	
evening set	15775 Dec 18 07:12	25°☿01'14		evening set	15776 Nov 26 20:58	5°☿02'12	
inferior conj	15775 Dec 26 23:12	21°☿10'45	-5°54'59	inferior conj	15776 Dec 05 16:38	1°☿05'43	-4°57'09
minimum elong	15775 Dec 26 18:40	21°☿17'05	5°53'46	minimum elong	15776 Dec 05 06:43	1°☿20'26	4°53'50
min. Earth dist.	15775 Dec 27 02:44	21°☿05'48	0.54403 AU	min. Earth dist.	15776 Dec 07 08:42	0°☿06'11	0.54794 AU
morning rise	15776 Jan 04 06:43	17°☿22'28			15776 Dec 07 12:55	30°☿☿	
direct	15776 Jan 08 00:20	16°☿52'03		morning rise	15776 Dec 13 15:47	27°☿02'14	
morning max el	15776 Jan 20 14:46	22°☿58'21	22°14'52	direct	15776 Dec 18 10:29	26°☿12'50	
	15776 Jan 26 15:57	0°☿			15776 Dec 28 13:26	0°☿	
asc. node	15776 Jan 27 03:20	0°☿39'14		morning max el	15777 Jan 01 00:19	2°☿54'24	24°04'24
morning set	15776 Feb 11 02:36	27°☿46'35		asc. node	15777 Jan 13 00:35	18°☿25'58	
	15776 Feb 12 03:45	0°☿			15777 Jan 19 12:24	0°☿	
				morning set	15777 Jan 25 14:32	12°☿29'49	
superior conj	15776 Feb 18 04:00	12°☿50'31	1°19'36				
minimum elong	15776 Feb 18 06:17	13°☿02'34	1°19'40	superior conj	15777 Feb 01 09:53	27°☿20'46	1°31'38
max. Earth dist.	15776 Feb 22 01:39	20°☿57'52	1.34096 AU	minimum elong	15777 Feb 01 11:23	27°☿28'56	1°32'02
evening rise	15776 Feb 26 10:35	29°☿39'20			15777 Feb 02 15:13	0°☿	
	15776 Feb 26 14:52	0°☿		max. Earth dist.	15777 Feb 03 23:07	2°☿51'41	1.32587 AU
desc. node	15776 Feb 28 15:21	3°☿50'23		evening rise	15777 Feb 09 00:03	13°☿21'10	
	15776 Mar 15 05:49	0°☿		desc. node	15777 Feb 14 11:58	23°☿59'37	
evening max el	15776 Apr 01 08:50	21°☿30'55	26°59'35		15777 Feb 17 19:47	0°☿	
retrograde	15776 Apr 14 17:42	29°☿00'18			15777 Mar 10 08:00	0°☿	
evening set	15776 Apr 21 06:28	26°☿28'30		evening max el	15777 Mar 14 21:39	4°☿50'07	27°31'08
asc. node	15776 Apr 24 00:17	23°☿56'16		retrograde	15777 Mar 28 15:58	12°☿21'03	
min. Earth dist.	15776 Apr 25 04:58	22°☿38'13	0.65782 AU	evening set	15777 Apr 04 10:34	9°☿55'14	
inferior conj	15776 Apr 27 10:00	20°☿05'39	1°02'08	min. Earth dist.	15777 Apr 08 05:37	6°☿35'18	0.63912 AU
minimum elong	15776 Apr 27 08:28	20°☿10'05	1°00'59	inferior conj	15777 Apr 10 22:26	3°☿46'50	0°00'39
morning rise	15776 May 03 11:55	14°☿31'59		minimum elong	15777 Apr 10 22:26	3°☿46'51	0°00'16
direct	15776 May 06 08:49	13°☿47'09		transit middle	15777 Apr 10 22:26	3°☿46'51	0°00'16
morning max el	15776 May 12 16:31	17°☿04'52	18°05'25	transit begin	15777 Apr 10 19:18	3°☿55'02	
	15776 May 22 08:44	0°☿		transit end	15777 Apr 11 01:33	3°☿38'41	
desc. node	15776 May 26 16:41	6°☿52'18		asc. node	15777 Apr 10 21:37	3°☿48'59	
morning set	15776 May 31 09:45	14°☿29'17			15777 Apr 14 23:04	30°☿☿	
	15776 Jun 10 01:40	0°☿		morning rise	15777 Apr 17 12:37	28°☿27'59	

direct	15777 Apr 20 00:49	27° Υ 56'30		direct	15778 Apr 03 08:13	11° Υ 39'00	
	15777 Apr 25 01:12	0° B		morning max el	15778 Apr 10 03:04	15° Υ 04'05	17°48'46
morning max el	15777 Apr 26 09:49	1° B 12'05	17°48'14		15778 Apr 20 12:54	0° B	
morning set	15777 May 13 04:38	26° B 27'11		morning set	15778 Apr 25 21:42	9° B 26'50	
desc. node	15777 May 13 13:32	27° B 04'54		desc. node	15778 Apr 30 10:18	17° B 28'22	
	15777 May 15 06:56	0° II					
superior conj	15777 May 26 06:15	18° II 09'51	-1°30'26	superior conj	15778 May 07 05:22	29° B 12'56	-0°53'09
minimum elong	15777 May 25 22:02	17° II 36'39	1°30'17	minimum elong	15778 May 07 00:28	28° B 52'10	0°53'05
max. Earth dist.	15777 May 31 14:50	26° II 43'44	1.45124 AU		15778 May 07 16:31	0° II	
	15777 Jun 02 16:40	0° B		max. Earth dist.	15778 May 14 06:47	10° II 53'52	1.43701 AU
evening rise	15777 Jun 10 20:05	12° B 36'32		evening rise	15778 May 21 11:03	22° II 16'50	
	15777 Jun 22 09:41	0° Ω			15778 May 26 11:43	0° B	
asc. node	15777 Jul 07 20:11	20° Ω 39'24		evening max el	15778 Jun 16 18:22	0° Ω	
evening max el	15777 Jul 08 18:21	21° Ω 36'29	20°16'36		15778 Jun 21 15:38	5° Ω 29'33	21°27'21
retrograde	15777 Jul 16 14:31	26° Ω 04'22		asc. node	15778 Jun 24 17:05	8° Ω 12'48	
evening set	15777 Jul 20 15:23	24° Ω 31'12		retrograde	15778 Jun 30 13:18	10° Ω 40'06	
inferior conj	15777 Jul 25 21:44	18° Ω 27'55	3°06'06	evening set	15778 Jul 05 01:05	8° Ω 49'47	
minimum elong	15777 Jul 25 22:27	18° Ω 25'27	3°05'27	inferior conj	15778 Jul 10 06:38	2° Ω 35'49	3°08'35
min. Earth dist.	15777 Jul 26 17:13	17° Ω 21'21	0.68332 AU	minimum elong	15778 Jul 10 06:23	2° Ω 36'41	3°07'51
morning rise	15777 Jul 31 05:12	12° Ω 04'10		min. Earth dist.	15778 Jul 10 12:43	2° Ω 14'34	0.68963 AU
direct	15777 Aug 05 17:37	9° Ω 39'35			15778 Jul 12 04:05	30° R B	
desc. node	15777 Aug 09 12:09	10° Ω 35'22		morning rise	15778 Jul 15 11:27	26° B 17'28	
morning max el	15777 Aug 17 01:09	16° Ω 25'35	24°16'40	direct	15778 Jul 20 11:43	24° B 08'04	
	15777 Aug 28 07:16	0° np		desc. node	15778 Jul 27 09:30	27° B 13'32	
	15777 Sep 17 04:47	0° $\underline{\text{A}}$			15778 Jul 30 10:53	0° Ω	
morning set	15777 Sep 21 11:33	7° $\underline{\text{A}}$ 14'25		morning max el	15778 Jul 30 12:59	0° Ω 05'15	22°47'24
max. Earth dist.	15777 Sep 25 02:59	13° $\underline{\text{A}}$ 38'40	1.38072 AU		15778 Aug 22 02:03	0° np	
				morning set	15778 Sep 02 11:56	17° np 56'08	
superior conj	15777 Oct 02 09:31	27° $\underline{\text{A}}$ 07'50	-0°13'30	max. Earth dist.	15778 Sep 07 02:34	25° np 37'42	1.40469 AU
minimum elong	15777 Oct 02 10:26	27° $\underline{\text{A}}$ 12'11	0°13'02		15778 Sep 09 15:38	0° $\underline{\text{A}}$	
behind sun begin	15777 Oct 02 06:20	26° $\underline{\text{A}}$ 52'32		superior conj	15778 Sep 14 23:19	9° $\underline{\text{A}}$ 26'35	-0°49'37
behind sun end	15777 Oct 02 14:32	27° $\underline{\text{A}}$ 31'51		minimum elong	15778 Sep 15 03:11	9° $\underline{\text{A}}$ 44'08	0°48'56
asc. node	15777 Oct 03 21:36	0° ml 01'49		asc. node	15778 Sep 20 18:15	20° $\underline{\text{A}}$ 09'35	
	15777 Oct 03 21:13	0° ml		evening rise	15778 Sep 24 19:36	27° $\underline{\text{A}}$ 50'55	
evening rise	15777 Oct 11 01:48	14° ml 11'59			15778 Sep 25 22:50	0° ml	
	15777 Oct 19 10:43	0° A		evening max el	15778 Oct 10 17:57	23° ml 32'43	18°26'32
evening max el	15777 Oct 27 14:57	11° A 20'24	19°08'44	retrograde	15778 Oct 18 12:29	27° ml 29'26	
desc. node	15777 Nov 05 09:00	15° A 54'15		evening set	15778 Oct 20 12:09	27° ml 14'42	
retrograde	15777 Nov 05 17:04	15° A 54'37		desc. node	15778 Oct 23 06:18	26° ml 09'48	
evening set	15777 Nov 07 14:15	15° A 43'40		inferior conj	15778 Oct 28 06:41	22° ml 41'16	-1°36'47
inferior conj	15777 Nov 16 01:02	11° A 30'51	-3°21'00	minimum elong	15778 Oct 28 02:54	22° ml 48'46	1°34'38
minimum elong	15777 Nov 15 16:49	11° A 44'48	3°17'16	min. Earth dist.	15778 Oct 31 12:10	20° ml 08'35	0.57948 AU
min. Earth dist.	15777 Nov 18 18:58	9° A 39'21	0.56049 AU	morning rise	15778 Nov 04 14:09	17° ml 28'19	
morning rise	15777 Nov 23 16:51	6° A 55'05		direct	15778 Nov 10 20:21	15° ml 47'43	
direct	15777 Nov 29 08:05	5° A 41'35		morning max el	15778 Nov 25 03:01	23° ml 21'07	27°08'15
morning max el	15777 Dec 13 10:18	12° A 51'57	25°48'25		15778 Dec 01 02:50	0° A	
	15777 Dec 26 18:14	0° B		asc. node	15778 Dec 17 18:52	26° A 05'59	
asc. node	15777 Dec 30 21:46	6° B 59'06			15778 Dec 19 19:40	0° B	
morning set	15778 Jan 10 01:58	27° B 07'45		morning set	15778 Dec 25 11:04	11° B 34'46	
	15778 Jan 11 09:43	0° \approx					
superior conj	15778 Jan 16 19:33	11° \approx 58'59	1°37'27	superior conj	15779 Jan 01 06:55	26° B 38'33	1°37'12
minimum elong	15778 Jan 16 20:03	12° \approx 01'41	1°38'06	minimum elong	15779 Jan 01 06:21	26° B 35'21	1°37'57
max. Earth dist.	15778 Jan 18 02:58	14° \approx 53'01	1.31565 AU	max. Earth dist.	15779 Jan 01 10:15	26° B 57'13	1.31063 AU
evening rise	15778 Jan 23 22:09	27° \approx 23'11			15779 Jan 02 18:55	0° \approx	
	15778 Jan 25 04:31	0° H		evening rise	15779 Jan 08 02:24	11° \approx 38'49	
desc. node	15778 Feb 01 08:38	13° H 51'11			15779 Jan 17 08:55	0° H	
	15778 Feb 11 03:15	0° Υ		desc. node	15779 Jan 19 05:23	3° H 17'23	
evening max el	15778 Feb 25 07:17	17° Υ 34'24	27°32'34	evening max el	15779 Feb 07 11:21	29° H 32'39	26°59'41
retrograde	15778 Mar 11 06:32	25° Υ 00'09			15779 Feb 07 23:01	0° Υ	
evening set	15778 Mar 18 02:17	22° Υ 47'42		retrograde	15779 Feb 21 12:06	6° Υ 48'29	
min. Earth dist.	15778 Mar 21 20:39	19° Υ 52'08	0.61775 AU	evening set	15779 Feb 28 02:25	4° Υ 57'00	
inferior conj	15778 Mar 24 22:36	17° Υ 01'44	-1°14'20	min. Earth dist.	15779 Mar 04 01:35	2° Υ 16'18	0.59524 AU
minimum elong	15778 Mar 25 01:13	16° Υ 55'41	1°13'25		15779 Mar 06 21:24	30° R H	
asc. node	15778 Mar 28 18:59	13° Υ 46'41		inferior conj	15779 Mar 07 06:50	29° H 40'51	-2°40'33
morning rise	15778 Apr 01 03:19	12° Υ 00'28		minimum elong	15779 Mar 07 12:55	29° H 28'35	2°38'08
				morning rise	15779 Mar 15 02:57	24° H 59'38	

asc. node	15779 Mar 15 16:23	24° K 52'26		evening set	15780 Feb 09 07:16	16° K 16'23	
direct	15779 Mar 17 02:56	24° K 44'33		min. Earth dist.	15780 Feb 13 20:44	13° K 37'44	0.57394 AU
morning max el	15779 Mar 24 16:43	28° K 30'34	18°08'08	inferior conj	15780 Feb 16 19:36	11° K 34'19	-4°10'05
	15779 Mar 26 02:28	0° Y		minimum elong	15780 Feb 17 04:36	11° K 18'36	4°06'58
morning set	15779 Apr 09 07:09	23° Y 11'14		morning rise	15780 Feb 25 04:56	7° K 14'26	
	15779 Apr 12 22:47	0° B		direct	15780 Feb 27 04:49	7° K 01'55	
desc. node	15779 Apr 17 07:02	7° B 58'33		asc. node	15780 Mar 01 13:47	7° K 39'46	
				morning max el	15780 Mar 06 22:40	11° K 19'29	18°48'07
superior conj	15779 Apr 19 03:30	11° B 18'33	-0°15'14		15780 Mar 19 07:19	0° Y	
minimum elong	15779 Apr 19 02:15	11° B 12'55	0°15'31	morning set	15780 Mar 23 03:56	7° Y 25'16	
behind sun begin	15779 Apr 19 00:27	11° B 04'53					
behind sun end	15779 Apr 19 04:02	11° B 20'56		superior conj	15780 Mar 31 20:53	24° Y 15'37	0°19'02
max. Earth dist.	15779 Apr 26 17:57	24° B 28'19	1.41774 AU	minimum elong	15780 Mar 31 22:07	24° Y 21'23	0°18'34
	15779 Apr 30 02:05	0° II		desc. node	15780 Apr 03 03:40	28° Y 31'12	
evening rise	15779 May 01 18:47	2° II 45'06			15780 Apr 03 22:58	0° B	
	15779 May 19 19:58	0° E		max. Earth dist.	15780 Apr 08 01:18	7° B 21'36	1.39554 AU
evening max el	15779 Jun 04 08:16	19° E 23'25	22°46'26	evening rise	15780 Apr 11 23:44	14° B 09'03	
asc. node	15779 Jun 11 14:04	24° E 43'28			15780 Apr 21 19:20	0° II	
retrograde	15779 Jun 14 10:19	25° E 18'33			15780 May 13 19:27	0° E	
evening set	15779 Jun 19 09:30	23° E 12'40		evening max el	15780 May 16 22:26	3° E 18'22	24°07'56
inferior conj	15779 Jun 24 16:36	16° E 50'02	3°00'24	retrograde	15780 May 28 04:06	9° E 53'13	
minimum elong	15779 Jun 24 15:28	16° E 53'59	2°59'27	asc. node	15780 May 28 11:09	9° E 52'51	
min. Earth dist.	15779 Jun 24 09:40	17° E 14'08	0.69110 AU	evening set	15780 Jun 02 14:58	7° E 34'19	
morning rise	15779 Jun 29 21:17	10° E 39'02		min. Earth dist.	15780 Jun 07 05:51	2° E 13'09	0.68775 AU
direct	15779 Jul 04 09:19	8° E 47'57		inferior conj	15780 Jun 08 01:43	1° E 05'49	2°41'47
morning max el	15779 Jul 13 04:22	13° E 53'34	21°22'20	minimum elong	15780 Jun 07 23:53	1° E 12'00	2°40'36
desc. node	15779 Jul 14 06:46	15° E 01'37			15780 Jun 08 21:14	30° K II	
	15779 Jul 26 01:02	0° O		morning rise	15780 Jun 13 08:51	25° II 03'35	
morning set	15779 Aug 13 12:28	27° O 37'23		direct	15780 Jun 17 08:59	23° II 32'18	
	15779 Aug 15 00:36	0° O		morning max el	15780 Jun 25 01:59	27° II 52'00	20°07'39
max. Earth dist.	15779 Aug 20 07:23	8° O 30'00	1.42678 AU		15780 Jun 27 02:23	0° E	
				desc. node	15780 Jun 30 03:56	3° E 40'44	
superior conj	15779 Aug 27 17:04	20° O 53'21	-1°25'36		15780 Jul 18 11:46	0° O	
minimum elong	15779 Aug 27 23:56	21° O 22'48	1°24'56	morning set	15780 Jul 22 19:07	6° O 34'31	
	15779 Sep 01 22:33	0° E		max. Earth dist.	15780 Aug 01 19:09	22° O 12'16	1.44442 AU
asc. node	15779 Sep 07 14:54	10° E 11'03			15780 Aug 06 15:33	0° O	
evening rise	15779 Sep 08 01:08	10° E 57'15					
	15779 Sep 19 03:28	0° M		superior conj	15780 Aug 07 11:26	1° O 20'53	-1°55'46
evening max el	15779 Sep 24 04:47	6° M 23'27	18°05'03	minimum elong	15780 Aug 07 18:59	1° O 51'44	1°55'37
retrograde	15779 Oct 01 01:58	9° M 55'21		evening rise	15780 Aug 20 13:18	23° O 17'42	
evening set	15779 Oct 03 08:25	9° M 32'35		asc. node	15780 Aug 24 11:32	0° E 01'29	
inferior conj	15779 Oct 10 09:25	4° M 38'16	-0°04'33		15780 Aug 24 11:11	0° E	
minimum elong	15779 Oct 10 09:16	4° M 38'36	0°04'06	evening max el	15780 Sep 06 19:12	19° E 41'38	18°02'48
transit middle	15779 Oct 10 09:16	4° M 38'36	0°04'06	retrograde	15780 Sep 13 05:32	23° E 02'40	
transit begin	15779 Oct 10 06:03	4° M 46'00		evening set	15780 Sep 15 20:13	22° E 28'15	
transit end	15779 Oct 10 12:30	4° M 31'11		inferior conj	15780 Sep 22 05:51	17° E 15'07	1°08'23
desc. node	15779 Oct 10 03:38	4° M 51'31		minimum elong	15780 Sep 22 07:39	17° E 10'24	1°07'55
min. Earth dist.	15779 Oct 13 14:06	1° M 43'07	0.60190 AU	min. Earth dist.	15780 Sep 25 01:48	14° E 18'11	0.62472 AU
	15779 Oct 15 16:27	30° K E		desc. node	15780 Sep 26 01:01	13° E 21'31	
morning rise	15779 Oct 17 06:55	28° E 53'27		morning rise	15780 Sep 28 16:42	11° E 07'36	
direct	15779 Oct 23 21:33	26° E 47'42		direct	15780 Oct 05 09:06	8° E 43'01	
	15779 Nov 01 15:49	0° M		morning max el	15780 Oct 19 10:34	16° E 40'51	27°56'19
morning max el	15779 Nov 07 03:39	4° M 37'08	27°51'52		15780 Oct 30 11:41	0° M	
	15779 Nov 26 00:11	0° K			15780 Nov 17 17:33	0° K	
asc. node	15779 Dec 04 15:54	15° K 37'41		asc. node	15780 Nov 20 12:51	5° K 27'03	
morning set	15779 Dec 09 15:59	25° K 46'17		morning set	15780 Nov 22 14:33	9° K 37'27	
	15779 Dec 11 15:38	0° B		max. Earth dist.	15780 Nov 27 20:53	20° K 44'01	1.31709 AU
max. Earth dist.	15779 Dec 15 17:27	8° B 56'51	1.31107 AU				
				superior conj	15780 Nov 30 03:10	25° K 40'49	1°18'41
superior conj	15779 Dec 16 18:06	11° B 14'13	1°30'57	minimum elong	15780 Nov 30 01:01	25° K 28'55	1°19'15
minimum elong	15779 Dec 16 16:35	11° B 05'48	1°31'40		15780 Dec 02 02:08	0° B	
evening rise	15779 Dec 23 10:42	26° B 03'11		evening rise	15780 Dec 06 21:10	10° B 31'44	
	15779 Dec 25 07:05	0° E			15780 Dec 16 15:42	0° E	
desc. node	15780 Jan 06 02:10	22° E 08'45		desc. node	15780 Dec 22 23:02	10° E 12'42	
	15780 Jan 11 06:53	0° K		evening max el	15780 Dec 31 20:03	20° E 57'48	24°19'25
evening max el	15780 Jan 20 07:39	10° K 38'43	25°52'39	retrograde	15781 Jan 14 11:08	27° E 44'37	
retrograde	15780 Feb 03 06:17	17° K 41'21		evening set	15781 Jan 19 13:41	26° E 47'41	

min. Earth dist.	15781 Jan 25 07:46	23° \approx 54'31	0.55662 AU	evening set	15781 Dec 29 23:31	6° \approx 44'55	
inferior conj	15781 Jan 27 11:12	22° \approx 36'02	-5°25'37	min. Earth dist.	15782 Jan 06 13:59	3° \approx 17'25	0.54610 AU
minimum elong	15781 Jan 27 19:22	22° \approx 23'33	5°23'31	inferior conj	15782 Jan 07 08:55	2° \approx 50'43	-6°01'16
morning rise	15781 Feb 05 02:59	18° \approx 36'09		minimum elong	15782 Jan 07 09:52	2° \approx 49'23	6°00'30
direct	15781 Feb 07 11:13	18° \approx 21'46			15782 Jan 12 22:56	30° \approx 3	
asc. node	15781 Feb 16 11:10	22° \approx 11'44		morning rise	15782 Jan 15 21:23	29° \approx 02'52	
morning max el	15781 Feb 17 16:45	23° \approx 19'22	19°50'44	direct	15782 Jan 19 00:25	28° \approx 40'37	
	15781 Feb 23 04:38	0° \approx			15782 Jan 24 17:25	0° \approx	
morning set	15781 Mar 07 08:19	21° \approx 57'55		morning max el	15782 Jan 30 20:01	4° \approx 22'17	21°16'34
	15781 Mar 11 07:08	0° \approx		asc. node	15782 Feb 03 08:30	8° \approx 13'26	
					15782 Feb 16 11:25	0° \approx	
superior conj	15781 Mar 15 05:10	7° \approx 52'29	0°47'36	morning set	15782 Feb 19 17:20	6° \approx 39'34	
minimum elong	15781 Mar 15 07:33	8° \approx 04'18	0°47'11				
desc. node	15781 Mar 21 00:17	19° \approx 02'59		superior conj	15782 Feb 27 00:18	21° \approx 57'08	1°09'46
max. Earth dist.	15781 Mar 21 07:57	19° \approx 38'43	1.37274 AU	minimum elong	15782 Feb 27 02:49	22° \approx 10'12	1°09'38
evening rise	15781 Mar 25 00:49	26° \approx 23'45			15782 Mar 02 23:14	0° \approx	
	15781 Mar 27 01:52	0° \approx		max. Earth dist.	15782 Mar 03 17:50	1° \approx 32'15	1.35161 AU
	15781 Apr 15 07:13	0° \approx		evening rise	15782 Mar 07 18:43	9° \approx 19'17	
evening max el	15781 Apr 29 11:56	17° \approx 12'51	25°24'54	desc. node	15782 Mar 07 20:54	9° \approx 29'28	
retrograde	15781 May 11 17:41	24° \approx 18'04			15782 Mar 19 16:20	0° \approx	
asc. node	15781 May 15 08:17	23° \approx 24'24			15782 Apr 11 01:05	0° \approx	
evening set	15781 May 17 15:51	21° \approx 49'47		evening max el	15782 Apr 12 01:32	1° \approx 00'57	26°30'09
min. Earth dist.	15781 May 21 23:08	17° \approx 05'27	0.67968 AU	retrograde	15782 Apr 25 02:13	8° \approx 25'24	
inferior conj	15781 May 23 08:02	15° \approx 19'08	2°12'23	evening set	15782 May 01 10:21	5° \approx 52'51	
minimum elong	15781 May 23 05:52	15° \approx 26'09	2°11'01	asc. node	15782 May 02 05:29	5° \approx 11'38	
morning rise	15781 May 28 20:18	9° \approx 26'59		min. Earth dist.	15782 May 05 11:32	1° \approx 43'44	0.66701 AU
direct	15781 Jun 01 09:09	8° \approx 15'15			15782 May 06 21:57	30° \approx 8	
morning max el	15781 Jun 08 07:00	12° \approx 00'37	19°07'16	inferior conj	15782 May 07 09:25	29° \approx 25'11	1°31'24
desc. node	15781 Jun 17 01:02	22° \approx 57'31		minimum elong	15782 May 07 07:26	29° \approx 31'10	1°30'04
greatest brilliancy	15781 Jun 21 05:05	29° \approx 03'48	-0.7m	morning rise	15782 May 13 05:35	23° \approx 8'44'28	
	15781 Jun 21 20:07	0° \approx		direct	15782 May 16 07:58	22° \approx 50'42	
morning set	15781 Jul 02 00:58	15° \approx 34'54		morning max el	15782 May 22 18:35	26° \approx 14'53	18°23'07
	15781 Jul 11 08:26	0° \approx			15782 May 26 02:43	0° \approx	
max. Earth dist.	15781 Jul 15 12:25	6° \approx 30'10	1.45579 AU	desc. node	15782 Jun 03 22:02	12° \approx 42'00	
				morning set	15782 Jun 12 01:22	25° \approx 31'08	
superior conj	15781 Jul 18 07:55	10° \approx 55'17	-2°12'39		15782 Jun 14 21:20	0° \approx	
minimum elong	15781 Jul 18 11:00	11° \approx 07'26	2°13'16				
	15781 Jul 30 06:12	0° \approx		superior conj	15782 Jun 27 17:06	20° \approx 06'43	-2°10'19
evening rise	15781 Aug 02 03:00	4° \approx 40'03		minimum elong	15782 Jun 27 12:26	19° \approx 48'29	2°10'58
asc. node	15781 Aug 11 08:11	19° \approx 36'02		max. Earth dist.	15782 Jun 28 08:16	21° \approx 05'47	1.45986 AU
	15781 Aug 18 11:51	0° \approx			15782 Jul 04 01:23	0° \approx	
evening max el	15781 Aug 21 09:40	3° \approx 17'55	18°18'44	evening rise	15782 Jul 13 15:42	15° \approx 00'08	
retrograde	15781 Aug 27 18:49	6° \approx 41'37		greatest brilliancy	15782 Jul 23 02:44	29° \approx 45'33	-0.8m
evening set	15781 Aug 30 18:16	5° \approx 52'47			15782 Jul 23 06:30	0° \approx	
inferior conj	15781 Sep 05 15:55	0° \approx 23'20	2°01'48	asc. node	15782 Jul 29 04:52	8° \approx 48'55	
minimum elong	15781 Sep 05 18:16	0° \approx 16'30	2°01'03	evening max el	15782 Aug 04 21:18	17° \approx 05'20	18°52'00
	15781 Sep 05 23:55	30° \approx 8		retrograde	15782 Aug 11 14:00	20° \approx 44'42	
min. Earth dist.	15781 Sep 07 23:18	27° \approx 42'39	0.64578 AU	evening set	15782 Aug 14 22:47	19° \approx 39'29	
morning rise	15781 Sep 11 16:45	24° \approx 02'30		inferior conj	15782 Aug 20 12:00	13° \approx 55'52	2°37'57
desc. node	15781 Sep 12 22:26	23° \approx 08'38		minimum elong	15782 Aug 20 14:02	13° \approx 49'27	2°37'14
direct	15781 Sep 18 05:30	21° \approx 27'13		min. Earth dist.	15782 Aug 22 05:31	11° \approx 45'00	0.66364 AU
morning max el	15781 Oct 01 21:07	29° \approx 23'44	27°25'00	morning rise	15782 Aug 26 04:23	7° \approx 29'36	
	15781 Oct 02 11:23	0° \approx		desc. node	15782 Aug 30 19:51	5° \approx 01'42	
	15781 Oct 24 09:39	0° \approx		direct	15782 Sep 01 09:35	4° \approx 52'12	
morning set	15781 Nov 06 04:11	23° \approx 01'45		morning max el	15782 Sep 14 08:41	12° \approx 33'47	26°25'22
asc. node	15781 Nov 07 09:39	25° \approx 27'51			15782 Sep 28 10:03	0° \approx	
	15781 Nov 09 15:23	0° \approx			15782 Oct 17 01:09	0° \approx	
max. Earth dist.	15781 Nov 10 16:48	2° \approx 11'13	1.32873 AU	morning set	15782 Oct 20 05:47	5° \approx 52'33	
				max. Earth dist.	15782 Oct 24 02:53	13° \approx 19'42	1.34570 AU
superior conj	15781 Nov 14 08:01	9° \approx 52'05	1°00'20	asc. node	15782 Oct 25 06:24	15° \approx 35'46	
minimum elong	15781 Nov 14 05:41	9° \approx 39'31	1°00'43				
evening rise	15781 Nov 21 07:56	24° \approx 59'06		superior conj	15782 Oct 29 06:15	23° \approx 42'24	0°35'58
	15781 Nov 23 16:54	0° \approx		minimum elong	15782 Oct 29 04:26	23° \approx 32'56	0°36'15
desc. node	15781 Dec 09 20:01	27° \approx 11'26			15782 Nov 01 06:36	0° \approx	
	15781 Dec 12 08:18	0° \approx		evening rise	15782 Nov 05 17:06	9° \approx 20'56	
evening max el	15781 Dec 13 05:41	0° \approx 53'36	22°35'58		15782 Nov 16 12:33	0° \approx	
retrograde	15781 Dec 26 03:32	7° \approx 17'04		evening max el	15782 Nov 24 22:33	11° \approx 05'48	21°00'09

desc. node	15782 Nov 26 17:04	12° ♄ 43'08		15783 Oct 24 04:05	0° ♄	
retrograde	15782 Dec 06 13:36	16° ♄ 51'37	evening max el	15783 Nov 07 05:19	22° ♄ 01'36	19°43'05
evening set	15782 Dec 09 04:40	16° ♄ 35'14	desc. node	15783 Nov 13 14:14	26° ♄ 22'26	
inferior conj	15782 Dec 17 23:42	12° ♄ 43'35 -5°37'04	retrograde	15783 Nov 17 05:03	27° ♄ 00'54	
minimum elong	15782 Dec 17 15:59	12° ♄ 54'34 5°35'00	evening set	15783 Nov 19 04:51	26° ♄ 49'56	
min. Earth dist.	15782 Dec 18 19:29	12° ♄ 15'26 0.54452 AU	inferior conj	15783 Nov 27 22:10	22° ♄ 47'57 -4°19'13	
morning rise	15782 Dec 26 03:27	8° ♄ 51'01	minimum elong	15783 Nov 27 12:17	23° ♄ 03'22 4°15'23	
direct	15782 Dec 30 07:42	8° ♄ 13'26	min. Earth dist.	15783 Nov 30 03:09	21° ♄ 25'15 0.55229 AU	
morning max el	15783 Jan 12 10:07	14° ♄ 36'09 23°00'46	morning rise	15783 Dec 05 18:06	18° ♄ 32'00	
asc. node	15783 Jan 21 05:47	25° ♄ 26'53	direct	15783 Dec 10 22:23	17° ♄ 32'35	
	15783 Jan 24 02:49	0° ♄	morning max el	15783 Dec 24 18:36	24° ♄ 27'52 24°50'25	
morning set	15783 Feb 04 04:46	21° ♄ 23'50		15783 Dec 29 20:12	0° ♄	
	15783 Feb 08 04:33	0° ♄	asc. node	15784 Jan 08 03:00	13° ♄ 34'57	
				15784 Jan 16 19:32	0° ♄	
superior conj	15783 Feb 11 03:03	6° ♄ 20'33 1°25'28	morning set	15784 Jan 19 16:43	6° ♄ 05'29	
minimum elong	15783 Feb 11 05:03	6° ♄ 31'14 1°25'40				
max. Earth dist.	15783 Feb 14 10:31	13° ♄ 21'14 1.33400 AU	superior conj	15784 Jan 26 10:51	20° ♄ 55'19 1°34'50	
evening rise	15783 Feb 19 02:00	22° ♄ 46'50	minimum elong	15784 Jan 26 11:56	21° ♄ 01'18 1°35'22	
desc. node	15783 Feb 22 17:30	29° ♄ 46'32	max. Earth dist.	15784 Jan 28 10:53	25° ♄ 18'10 1.32090 AU	
	15783 Feb 22 20:24	0° ♄		15784 Jan 30 15:13	0° ♄	
	15783 Mar 13 09:03	0° ♄	evening rise	15784 Feb 02 19:31	6° ♄ 38'42	
evening max el	15783 Mar 25 14:59	14° ♄ 34'09 27°16'11	desc. node	15784 Feb 09 14:10	19° ♄ 49'28	
retrograde	15783 Apr 08 04:48	22° ♄ 06'07		15784 Feb 15 09:40	0° ♄	
evening set	15783 Apr 14 20:26	19° ♄ 35'48	evening max el	15784 Mar 07 02:56	27° ♄ 41'20 27°35'49	
min. Earth dist.	15783 Apr 18 17:06	15° ♄ 59'00 0.65025 AU		15784 Mar 09 16:48	0° ♄	
asc. node	15783 Apr 19 02:47	15° ♄ 32'49	retrograde	15784 Mar 21 00:10	5° ♄ 10'55	
inferior conj	15783 Apr 21 03:26	13° ♄ 17'50 0°37'41	evening set	15784 Mar 27 19:42	2° ♄ 50'09	
minimum elong	15783 Apr 21 02:25	13° ♄ 20'39 0°36'48		15784 Mar 31 06:09	30° ♄	
morning rise	15783 Apr 27 10:16	7° ♄ 50'19	min. Earth dist.	15784 Mar 31 14:06	29° ♄ 41'09 0.63026 AU	
direct	15783 Apr 30 03:12	7° ♄ 11'43	inferior conj	15784 Apr 03 11:10	26° ♄ 50'01 -0°29'31	
morning max el	15783 May 06 10:37	10° ♄ 27'22 17°55'56	minimum elong	15784 Apr 03 12:08	26° ♄ 47'37 0°29'25	
	15783 May 20 02:30	0° ♄	asc. node	15784 Apr 05 00:08	25° ♄ 20'03	
desc. node	15783 May 21 18:57	2° ♄ 46'17	morning rise	15784 Apr 10 07:17	21° ♄ 38'03	
morning set	15783 May 24 05:04	6° ♄ 46'00	direct	15784 Apr 12 16:05	21° ♄ 11'19	
			morning max el	15784 Apr 19 04:20	24° ♄ 29'53 17°46'10	
superior conj	15783 Jun 07 07:47	29° ♄ 38'43 -1°48'56		15784 Apr 23 17:12	0° ♄	
minimum elong	15783 Jun 06 23:08	29° ♄ 04'23 1°49'01	morning set	15784 May 05 10:16	19° ♄ 13'27	
	15783 Jun 07 13:09	0° ♄	desc. node	15784 May 07 15:46	23° ♄ 04'34	
max. Earth dist.	15783 Jun 11 04:15	5° ♄ 43'07 1.45645 AU		15784 May 11 16:47	0° ♄	
evening rise	15783 Jun 23 08:15	24° ♄ 33'21				
	15783 Jun 26 21:44	0° ♄	superior conj	15784 May 17 17:28	10° ♄ 05'06 -1°15'05	
greatest brilliancy	15783 Jul 07 10:25	15° ♄ 47'17 -0.6m	minimum elong	15784 May 17 10:26	9° ♄ 36'07 1°14'55	
asc. node	15783 Jul 16 01:38	27° ♄ 31'50	max. Earth dist.	15784 May 23 22:29	20° ♄ 08'41 1.44597 AU	
	15783 Jul 18 05:38	0° ♄		15784 May 30 04:54	0° ♄	
evening max el	15783 Jul 19 04:00	0° ♄ 57'41 19°41'33	evening rise	15784 Jun 01 19:08	4° ♄ 00'08	
retrograde	15783 Jul 26 12:11	5° ♄ 04'45		15784 Jun 19 08:29	0° ♄	
evening set	15783 Jul 30 06:57	3° ♄ 42'00	evening max el	15784 Jul 01 04:49	14° ♄ 51'55 20°45'23	
	15783 Aug 02 21:51	30° ♄	asc. node	15784 Jul 01 22:30	15° ♄ 34'50	
inferior conj	15783 Aug 04 14:59	27° ♄ 45'43 2°59'29	retrograde	15784 Jul 09 11:12	19° ♄ 36'49	
minimum elong	15783 Aug 04 16:14	27° ♄ 41'31 2°58'49	evening set	15784 Jul 13 16:39	17° ♄ 56'20	
min. Earth dist.	15783 Aug 05 18:29	26° ♄ 13'51 0.67747 AU	inferior conj	15784 Jul 18 22:23	11° ♄ 48'34 3°08'29	
morning rise	15783 Aug 10 01:02	21° ♄ 19'51	minimum elong	15784 Jul 18 22:41	11° ♄ 47'31 3°07'48	
direct	15783 Aug 15 20:08	18° ♄ 48'24	min. Earth dist.	15784 Jul 19 12:11	11° ♄ 00'54 0.68669 AU	
desc. node	15783 Aug 17 17:16	19° ♄ 02'17	morning rise	15784 Jul 24 04:26	5° ♄ 26'54	
morning max el	15783 Aug 27 19:39	25° ♄ 58'55 25°06'36	direct	15784 Jul 29 11:52	3° ♄ 08'01	
	15783 Aug 31 12:19	0° ♄	desc. node	15784 Aug 03 14:39	4° ♄ 50'28	
	15783 Sep 21 22:53	0° ♄	morning max el	15784 Aug 09 06:30	9° ♄ 33'39 23°38'32	
morning set	15783 Oct 02 15:28	18° ♄ 00'03		15784 Aug 25 10:19	0° ♄	
max. Earth dist.	15783 Oct 06 04:12	24° ♄ 24'36 1.36712 AU	morning set	15784 Sep 13 05:01	29° ♄ 15'07	
	15783 Oct 09 03:35	0° ♄		15784 Sep 13 15:38	0° ♄	
asc. node	15783 Oct 12 03:07	5° ♄ 46'15	max. Earth dist.	15784 Sep 17 02:38	5° ♄ 57'08 1.39103 AU	
superior conj	15783 Oct 12 18:52	7° ♄ 03'49 0°05'58	superior conj	15784 Sep 24 18:14	19° ♄ 48'25 -0°28'35	
minimum elong	15783 Oct 12 18:28	7° ♄ 01'51 0°06'19	minimum elong	15784 Sep 24 20:18	19° ♄ 58'08 0°28'01	
behind sun begin	15783 Oct 12 12:29	6° ♄ 32'19	asc. node	15784 Sep 27 23:47	25° ♄ 56'09	
behind sun end	15783 Oct 13 00:27	7° ♄ 31'27		15784 Sep 30 02:20	0° ♄	
evening rise	15783 Oct 20 22:28	23° ♄ 31'05	evening rise	15784 Oct 03 21:26	7° ♄ 23'47	

	15784 Oct 16 20:28	0°♊		evening rise	15785 Sep 17 10:35	20°♊50'37	
evening max el	15784 Oct 20 01:56	3°♊47'25	18°48'09		15785 Sep 22 10:03	0°♊	
retrograde	15784 Oct 28 13:10	8°♊03'53		evening max el	15785 Oct 03 08:45	16°♊17'09	18°14'53
evening set	15784 Oct 30 10:48	7°♊51'46		retrograde	15785 Oct 10 16:52	20°♊01'53	
desc. node	15784 Oct 30 11:29	7°♊51'24		evening set	15785 Oct 12 19:09	19°♊44'10	
inferior conj	15784 Nov 07 15:08	3°♊30'21	-2°36'12	desc. node	15785 Oct 17 08:47	17°♊19'58	
minimum elong	15784 Nov 07 08:44	3°♊41'56	2°33'00	inferior conj	15785 Oct 20 06:03	15°♊01'16	-0°55'29
min. Earth dist.	15784 Nov 10 15:45	1°♊19'36	0.56797 AU	minimum elong	15785 Oct 20 04:01	15°♊05'35	0°54'08
	15784 Nov 12 16:06	30°♋♊		min. Earth dist.	15785 Oct 23 12:17	12°♊16'45	0.58876 AU
morning rise	15784 Nov 15 03:39	28°♊39'06		morning rise	15785 Oct 27 09:26	9°♊33'46	
direct	15784 Nov 21 02:18	27°♊14'04		direct	15785 Nov 02 19:53	7°♊42'19	
	15784 Nov 29 13:35	0°♊		morning max el	15785 Nov 17 02:57	15°♊22'50	27°31'49
morning max el	15784 Dec 05 06:40	4°♊34'16	26°26'22		15785 Nov 29 00:16	0°♊	
	15784 Dec 23 16:12	0°♋		asc. node	15785 Dec 11 21:13	21°♊42'08	
asc. node	15784 Dec 25 00:09	2°♋23'36			15785 Dec 16 01:33	0°♋	
morning set	15785 Jan 03 03:22	20°♋39'01		morning set	15785 Dec 18 10:56	5°♋00'08	
	15785 Jan 07 09:31	0°♌					
superior conj	15785 Jan 09 21:26	5°♌34'28	1°38'04	superior conj	15785 Dec 25 08:55	20°♋12'45	1°35'17
minimum elong	15785 Jan 09 21:28	5°♌34'39	1°38'48	minimum elong	15785 Dec 25 07:56	20°♋07'12	1°36'02
max. Earth dist.	15785 Jan 10 16:43	7°♌22'00	1.31285 AU	max. Earth dist.	15785 Dec 25 00:37	19°♋26'16	1.31012 AU
evening rise	15785 Jan 16 20:29	20°♌47'12			15785 Dec 29 18:17	0°♌	
	15785 Jan 21 08:58	0°♋		evening rise	15786 Jan 01 02:41	5°♌07'02	
desc. node	15785 Jan 26 10:52	9°♋31'27		desc. node	15786 Jan 13 07:38	28°♌44'22	
	15785 Feb 08 14:34	0°♎			15786 Jan 14 01:37	0°♋	
evening max el	15785 Feb 17 10:47	10°♎08'22	27°23'03	evening max el	15786 Jan 30 11:41	21°♋44'16	26°35'06
retrograde	15785 Mar 03 10:54	17°♎29'29		retrograde	15786 Feb 13 11:33	28°♋54'30	
evening set	15785 Mar 10 05:13	15°♎25'25		evening set	15786 Feb 19 21:35	27°♋13'32	
min. Earth dist.	15785 Mar 14 00:56	12°♎37'26	0.60823 AU	min. Earth dist.	15786 Feb 24 01:14	24°♋35'53	0.58592 AU
inferior conj	15785 Mar 17 05:06	9°♎51'33	-1°49'44	inferior conj	15786 Feb 27 05:22	22°♋12'02	-3°18'50
minimum elong	15785 Mar 17 09:07	9°♎42'45	1°48'11	minimum elong	15786 Feb 27 12:54	21°♋57'45	3°15'57
asc. node	15785 Mar 22 21:32	5°♎40'42		morning rise	15786 Mar 07 07:38	17°♋40'01	
morning rise	15785 Mar 24 16:20	4°♎58'11		direct	15786 Mar 09 06:58	17°♋26'26	
direct	15785 Mar 26 18:52	4°♎39'47		asc. node	15786 Mar 09 18:54	17°♋27'20	
morning max el	15785 Apr 02 20:28	8°♎12'19	17°54'33	morning max el	15786 Mar 17 07:20	21°♋24'07	18°22'32
	15785 Apr 17 00:54	0°♏			15786 Mar 23 20:49	0°♎	
morning set	15785 Apr 18 11:01	2°♏34'44		morning set	15786 Apr 02 01:48	16°♎33'13	
desc. node	15785 Apr 24 12:30	13°♏31'30			15786 Apr 09 04:25	0°♏	
superior conj	15785 Apr 29 02:41	21°♏35'42	-0°36'51	superior conj	15786 Apr 11 09:33	4°♏04'52	-0°00'08
minimum elong	15785 Apr 28 23:24	21°♏21'33	0°36'55	minimum elong	15786 Apr 11 09:31	4°♏04'43	0°00'30
	15785 May 04 01:18	0°♐		behind sun begin	15786 Apr 11 02:14	3°♏31'26	
max. Earth dist.	15785 May 06 12:58	4°♐06'58	1.42943 AU	behind sun end	15786 Apr 11 16:47	4°♏37'55	
evening rise	15785 May 12 16:15	13°♐59'01		desc. node	15786 Apr 11 09:11	4°♏03'12	
	15785 May 23 04:00	0°♑		max. Earth dist.	15786 Apr 18 22:36	17°♏25'24	1.40857 AU
evening max el	15785 Jun 14 00:00	28°♑45'37	22°00'13	evening rise	15786 Apr 23 08:49	24°♏50'32	
	15785 Jun 15 07:03	0°♒			15786 Apr 26 13:07	0°♐	
asc. node	15785 Jun 18 19:28	2°♒43'52		evening max el	15786 May 16 23:13	0°♑	
retrograde	15785 Jun 23 09:19	4°♒14'39			15786 May 27 15:11	12°♑39'20	23°21'03
evening set	15785 Jun 28 02:02	2°♒17'18		asc. node	15786 Jun 05 16:29	18°♑42'15	
	15785 Jun 30 07:28	30°♓♑		retrograde	15786 Jun 07 05:09	18°♑52'22	
inferior conj	15785 Jul 03 07:59	25°♑59'31	3°06'22	evening set	15786 Jun 12 09:24	16°♑40'17	
minimum elong	15785 Jul 03 07:20	26°♑01'45	3°05'32	min. Earth dist.	15786 Jun 17 05:16	10°♑57'50	0.69033 AU
min. Earth dist.	15785 Jul 03 08:28	25°♑57'48	0.69097 AU	inferior conj	15786 Jun 17 17:48	10°♑14'36	2°53'46
morning rise	15785 Jul 08 12:28	19°♑44'21		minimum elong	15786 Jun 17 16:21	10°♑19'38	2°52'43
direct	15785 Jul 13 07:33	17°♑42'31		morning rise	15786 Jun 22 23:15	4°♑07'22	
desc. node	15785 Jul 21 11:56	22°♑00'56		direct	15786 Jun 27 06:04	2°♑24'53	
morning max el	15785 Jul 22 19:29	23°♑16'50	22°10'13	morning max el	15786 Jul 05 13:26	7°♑09'48	20°48'57
	15785 Jul 28 17:04	0°♓		desc. node	15786 Jul 08 09:09	10°♑12'31	
	15785 Aug 18 18:16	0°♐			15786 Jul 22 23:41	0°♓	
morning set	15785 Aug 24 19:08	9°♐30'38		morning set	15786 Aug 04 10:41	18°♓49'32	
max. Earth dist.	15785 Aug 30 04:38	18°♐20'53	1.41455 AU		15786 Aug 11 12:41	0°♐	
	15785 Sep 05 23:54	0°♑		max. Earth dist.	15786 Aug 12 12:38	1°♐36'23	1.43495 AU
superior conj	15785 Sep 07 00:02	1°♑46'23	-1°05'11	superior conj	15786 Aug 19 07:58	12°♐47'41	-1°39'32
minimum elong	15785 Sep 07 05:16	2°♑09'34	1°04'27	minimum elong	15786 Aug 19 15:37	13°♐19'44	1°39'02
asc. node	15785 Sep 14 20:28	16°♑02'01			15786 Aug 29 07:44	0°♑	
				evening rise	15786 Aug 31 09:24	3°♑39'13	

asc. node	15786 Sep 01 17:06	5°♄59'19		superior conj	15787 Jul 30 16:29	22°♄51'21	-2°04'59
evening max el	15786 Sep 16 21:30	29°♄20'16	18°01'46	minimum elong	15787 Jul 30 22:51	23°♄16'52	2°05'12
	15786 Sep 17 14:17	0°♄			15787 Aug 04 02:35	0°♄	
retrograde	15786 Sep 23 13:02	2°♄46'15		evening rise	15787 Aug 13 12:40	15°♄36'41	
evening set	15786 Sep 25 22:45	2°♄19'04		asc. node	15787 Aug 19 13:45	25°♄43'58	
	15786 Sep 29 17:18	30°♄			15787 Aug 22 04:26	0°♄	
inferior conj	15786 Oct 02 16:50	27°♄16'24	0°28'53	evening max el	15787 Aug 31 12:22	12°♄47'29	18°07'23
minimum elong	15786 Oct 02 17:43	27°♄14'15	0°28'50	retrograde	15787 Sep 06 21:10	16°♄08'04	
desc. node	15786 Oct 04 06:08	25°♄44'51		evening set	15787 Sep 09 15:27	15°♄27'57	
min. Earth dist.	15786 Oct 05 18:28	24°♄17'52	0.61165 AU	inferior conj	15787 Sep 15 19:35	10°♄07'52	1°33'16
morning rise	15786 Oct 09 09:45	21°♄20'20		minimum elong	15787 Sep 15 21:46	10°♄01'54	1°32'38
direct	15786 Oct 16 01:41	19°♄05'41		min. Earth dist.	15787 Sep 18 10:37	7°♄15'34	0.63404 AU
morning max el	15786 Oct 30 06:48	27°♄00'32	27°58'33	desc. node	15787 Sep 21 03:31	4°♄38'51	
	15786 Nov 02 03:06	0°♄		morning rise	15787 Sep 22 02:01	3°♄53'30	
	15786 Nov 22 16:28	0°♄		direct	15787 Sep 28 17:32	1°♄22'54	
asc. node	15786 Nov 28 18:11	11°♄21'54		morning max el	15787 Oct 12 15:33	9°♄22'16	27°46'48
morning set	15786 Dec 02 13:23	19°♄03'22			15787 Oct 28 18:10	0°♄	
	15786 Dec 07 15:54	0°♄			15787 Nov 14 23:38	0°♄	
max. Earth dist.	15786 Dec 08 06:37	1°♄20'59	1.31290 AU	asc. node	15787 Nov 15 15:05	1°♄16'39	
				morning set	15787 Nov 16 08:27	2°♄43'37	
superior conj	15786 Dec 09 19:24	4°♄44'40	1°26'29	max. Earth dist.	15787 Nov 21 06:57	12°♄58'27	1.32134 AU
minimum elong	15786 Dec 09 17:34	4°♄34'30	1°27'09				
evening rise	15786 Dec 16 12:04	19°♄32'56		superior conj	15787 Nov 24 02:56	19°♄05'12	1°11'39
	15786 Dec 21 12:12	0°♄		minimum elong	15787 Nov 24 00:37	18°♄52'38	1°12'07
desc. node	15786 Dec 31 04:27	17°♄17'02			15787 Nov 29 02:27	0°♄	
	15787 Jan 09 18:19	0°♄		evening rise	15787 Nov 30 22:51	4°♄00'58	
evening max el	15787 Jan 12 04:02	2°♄26'54	25°15'21		15787 Dec 14 16:17	0°♄	
retrograde	15787 Jan 26 00:31	9°♄24'16		desc. node	15787 Dec 18 01:22	4°♄55'15	
evening set	15787 Jan 31 17:06	8°♄11'03		evening max el	15787 Dec 24 14:13	12°♄31'30	23°35'33
min. Earth dist.	15787 Feb 05 16:30	5°♄28'27	0.56584 AU	retrograde	15788 Jan 06 23:57	19°♄09'55	
inferior conj	15787 Feb 08 08:58	3°♄42'37	-4°45'19	evening set	15788 Jan 11 13:47	18°♄24'36	
minimum elong	15787 Feb 08 18:19	3°♄27'15	4°42'24	min. Earth dist.	15788 Jan 18 01:21	15°♄18'55	0.55108 AU
	15787 Feb 15 05:14	30°♄		inferior conj	15788 Jan 19 16:05	14°♄22'11	-5°47'16
morning rise	15787 Feb 16 22:14	29°♄32'07		minimum elong	15788 Jan 19 21:54	14°♄13'39	5°45'55
direct	15787 Feb 19 00:14	29°♄19'32		morning rise	15788 Jan 28 07:31	10°♄28'30	
	15787 Feb 22 15:18	0°♄		direct	15788 Jan 30 22:21	10°♄11'40	
asc. node	15787 Feb 24 16:15	0°♄59'18		morning max el	15788 Feb 10 20:42	15°♄28'43	20°24'37
morning max el	15787 Feb 28 08:45	3°♄53'15	19°12'02	asc. node	15788 Feb 11 13:36	16°♄10'53	
	15787 Mar 16 14:55	0°♄			15788 Feb 21 08:16	0°♄	
morning set	15787 Mar 17 02:10	0°♄55'47		morning set	15788 Feb 29 08:47	15°♄32'23	
					15788 Mar 07 09:20	0°♄	
superior conj	15787 Mar 25 09:47	17°♄20'18	0°31'54				
minimum elong	15787 Mar 25 11:39	17°♄29'17	0°31'24	superior conj	15788 Mar 07 23:03	1°♄09'27	0°57'49
desc. node	15787 Mar 29 05:51	24°♄36'02		minimum elong	15788 Mar 08 01:36	1°♄22'20	0°57'29
max. Earth dist.	15787 Apr 01 04:42	0°♄00'08	1.38569 AU	max. Earth dist.	15788 Mar 13 11:47	12°♄02'51	1.36334 AU
	15787 Apr 01 04:40	0°♄		desc. node	15788 Mar 15 02:27	15°♄05'45	
evening rise	15787 Apr 04 22:35	6°♄36'47		evening rise	15788 Mar 17 07:13	19°♄09'44	
	15787 Apr 19 12:15	0°♄			15788 Mar 23 11:18	0°♄	
evening max el	15787 May 10 04:43	26°♄34'12	24°41'37		15788 Apr 12 14:53	0°♄	
	15787 May 14 01:20	0°♄		evening max el	15788 Apr 21 18:19	10°♄27'06	25°54'42
retrograde	15787 May 21 21:28	3°♄24'10		retrograde	15788 May 04 09:06	17°♄42'12	
asc. node	15787 May 23 13:33	3°♄12'21		asc. node	15788 May 09 10:42	15°♄59'16	
evening set	15787 May 27 13:09	1°♄00'40		evening set	15788 May 10 11:33	15°♄11'41	
	15787 May 28 14:57	30°♄		min. Earth dist.	15788 May 14 16:08	10°♄42'19	0.67474 AU
min. Earth dist.	15787 Jun 01 00:33	25°♄55'11	0.68485 AU	inferior conj	15788 May 16 06:29	8°♄41'27	1°56'31
inferior conj	15787 Jun 02 01:59	24°♄30'25	2°30'41	minimum elong	15788 May 16 04:19	8°♄48'18	1°55'08
minimum elong	15787 Jun 01 23:58	24°♄37'10	2°29'25	morning rise	15788 May 21 21:44	2°♄53'42	
morning rise	15787 Jun 07 10:59	18°♄32'14		direct	15788 May 25 06:01	1°♄49'49	
direct	15787 Jun 11 06:07	17°♄09'33		morning max el	15788 May 31 22:09	5°♄24'50	18°46'26
morning max el	15787 Jun 18 14:15	21°♄13'33	19°40'02	desc. node	15788 Jun 11 03:20	18°♄39'04	
desc. node	15787 Jun 25 06:18	29°♄09'28		greatest brilliancy	15788 Jun 14 21:12	24°♄18'00	-0.8m
	15787 Jun 25 21:17	0°♄			15788 Jun 18 14:02	0°♄	
greatest brilliancy	15787 Jul 01 11:46	7°♄56'20	-0.6m	morning set	15788 Jun 23 02:22	7°♄00'36	
morning set	15787 Jul 14 14:31	27°♄41'39			15788 Jul 07 20:44	0°♄	
	15787 Jul 16 02:32	0°♄		max. Earth dist.	15788 Jul 07 21:01	0°♄01'05	1.45849 AU
max. Earth dist.	15787 Jul 26 02:30	15°♄34'13	1.45009 AU				
				superior conj	15788 Jul 09 06:27	2°♄11'44	-2°14'11

minimum elong	15788 Jul 09 06:15	2°Ω10'55	2°14'55		15789 Jun 30 14:16	0°Ω	
evening rise	15788 Jul 24 15:42	26°Ω31'58		evening rise	15789 Jul 04 18:39	6°Ω28'41	
	15788 Jul 26 19:38	0°൬		greatest brilliancy	15789 Jul 16 09:00	24°Ω16'05	-0.7m
asc. node	15788 Aug 05 10:25	15°൬10'07			15789 Jul 20 06:37	0°൬	
evening max el	15788 Aug 14 02:02	26°൬29'49	18°30'48	asc. node	15789 Jul 23 07:08	4°൬11'10	
retrograde	15788 Aug 20 13:14	29°൬58'10		evening max el	15789 Jul 28 11:50	10°൬20'05	19°11'08
evening set	15788 Aug 23 16:39	29°൬02'31		retrograde	15789 Aug 04 10:01	14°൬09'27	
inferior conj	15788 Aug 29 10:20	23°൬27'03	2°19'01	evening set	15789 Aug 07 23:04	12°൬56'39	
minimum elong	15788 Aug 29 12:38	23°൬20'07	2°18'16	inferior conj	15789 Aug 13 09:42	7°൬07'22	2°48'42
min. Earth dist.	15788 Aug 31 11:57	20°൬57'38	0.65395 AU	minimum elong	15789 Aug 13 11:26	7°൬01'43	2°48'01
morning rise	15788 Sep 04 07:23	17°൬03'17		min. Earth dist.	15789 Aug 14 21:08	5°൬12'34	0.67015 AU
desc. node	15788 Sep 07 00:56	15°൬16'44		morning rise	15789 Aug 18 23:09	0°൬40'56	
direct	15788 Sep 10 17:30	14°൬25'55			15789 Aug 19 19:20	30°℞Ω	
morning max el	15788 Sep 24 02:35	22°൬17'20	27°02'24	desc. node	15789 Aug 24 22:21	28°Ω05'26	
	15788 Sep 30 21:34	0°Ω		direct	15789 Aug 25 00:19	28°Ω05'24	
	15788 Oct 21 00:00	0°ℳ			15789 Aug 30 20:21	0°൬	
morning set	15788 Oct 29 17:23	15°ℳ54'25		morning max el	15789 Sep 06 13:58	5°൬34'44	25°53'35
asc. node	15788 Nov 01 11:55	21°ℳ21'02			15789 Sep 25 10:32	0°Ω	
max. Earth dist.	15788 Nov 02 22:41	24°ℳ16'06	1.33536 AU	morning set	15789 Oct 12 12:43	28°Ω27'39	
	15788 Nov 05 17:26	0°♂			15789 Oct 13 08:44	0°ℳ	
				max. Earth dist.	15789 Oct 16 04:56	5°ℳ21'26	1.35445 AU
superior conj	15788 Nov 07 05:20	3°♂08'38	0°50'44	asc. node	15789 Oct 19 08:40	11°ℳ30'24	
minimum elong	15788 Nov 07 03:06	2°♂56'53	0°51'03				
evening rise	15788 Nov 14 09:12	18°♂26'42		superior conj	15789 Oct 21 23:54	16°ℳ47'36	0°23'53
	15788 Nov 20 00:40	0°♂		minimum elong	15789 Oct 21 22:33	16°ℳ40'46	0°24'10
desc. node	15788 Dec 03 22:22	21°♂20'02			15789 Oct 28 09:22	0°♂	
evening max el	15788 Dec 05 01:59	22°♂30'34	21°53'27	evening rise	15789 Oct 29 17:06	2°♂44'31	
retrograde	15788 Dec 17 11:59	28°♂38'56			15789 Nov 14 08:02	0°♂	
evening set	15788 Dec 20 18:46	28°♂14'52		evening max el	15789 Nov 17 00:18	2°♂58'43	20°24'37
inferior conj	15788 Dec 29 09:13	24°♂23'59	-5°58'39	desc. node	15789 Nov 20 19:29	6°♂06'50	
minimum elong	15788 Dec 29 06:04	24°♂28'23	5°57'40	retrograde	15789 Nov 27 22:46	8°♂25'13	
min. Earth dist.	15788 Dec 29 06:50	24°♂27'18	0.54428 AU	evening set	15789 Nov 30 05:36	8°♂12'04	
morning rise	15789 Jan 06 18:07	20°♂36'28		inferior conj	15789 Dec 09 01:30	4°♂17'06	-5°09'09
direct	15789 Jan 10 07:56	20°♂08'22		minimum elong	15789 Dec 08 15:54	4°♂31'10	5°06'06
morning max el	15789 Jan 22 17:40	26°♂08'19	21°59'13	min. Earth dist.	15789 Dec 10 12:32	3°♂25'45	0.54675 AU
	15789 Jan 26 07:16	0°≈		morning rise	15789 Dec 17 01:47	0°♂17'08	
asc. node	15789 Jan 28 10:56	2°≈45'25			15789 Dec 18 01:18	30°℞♂	
morning set	15789 Feb 12 19:07	0°♂16'05		direct	15789 Dec 21 16:47	29°♂31'04	
	15789 Feb 12 16:03	0°♂			15789 Dec 25 06:48	0°♂	
				morning max el	15790 Jan 04 04:07	6°♂07'52	23°47'56
superior conj	15789 Feb 19 21:47	15°♂22'58	1°17'13	asc. node	15790 Jan 15 08:13	20°♂23'45	
minimum elong	15789 Feb 20 00:08	15°♂35'24	1°17'13		15790 Jan 20 21:09	0°≈	
max. Earth dist.	15789 Feb 24 00:37	23°♂53'54	1.34362 AU	morning set	15790 Jan 28 07:00	14°≈59'48	
	15789 Feb 27 02:18	0°♀					
evening rise	15789 Feb 28 07:17	2°♀20'11		superior conj	15790 Feb 04 02:58	29°≈51'40	1°30'12
desc. node	15789 Mar 01 23:04	5°♀28'53		minimum elong	15790 Feb 04 04:37	0°♂00'34	1°30'33
	15789 Mar 16 10:08	0°♂			15790 Feb 04 04:30	0°♂	
evening max el	15789 Apr 04 08:13	24°♂10'49	26°52'37	max. Earth dist.	15790 Feb 06 20:55	5°♂46'18	1.32784 AU
	15789 Apr 11 20:38	0°♂		evening rise	15790 Feb 11 19:16	15°♂58'25	
retrograde	15789 Apr 17 15:01	1°♂38'59		desc. node	15790 Feb 16 19:43	25°♂40'16	
	15789 Apr 22 21:01	30°℞♂			15790 Feb 19 04:39	0°♀	
evening set	15789 Apr 24 02:43	29°♂06'47			15790 Mar 11 00:29	0°♂	
asc. node	15789 Apr 26 07:56	27°♂05'34		evening max el	15790 Mar 17 21:12	7°♂33'39	27°28'06
min. Earth dist.	15789 Apr 28 01:53	25°♂11'44	0.66035 AU	retrograde	15790 Mar 31 14:26	15°♂05'09	
inferior conj	15789 Apr 30 05:04	22°♂42'34	1°10'16	evening set	15790 Apr 07 08:28	12°♂37'50	
minimum elong	15789 Apr 30 03:24	22°♂47'29	1°09'04	min. Earth dist.	15790 Apr 11 03:49	9°♂13'48	0.64212 AU
morning rise	15789 May 06 05:24	17°♂07'00		asc. node	15790 Apr 13 05:15	7°♂03'32	
direct	15789 May 09 03:44	16°♂19'52		inferior conj	15790 Apr 13 19:04	6°♂26'42	0°10'52
morning max el	15789 May 15 11:52	19°♂38'44	18°09'29	minimum elong	15790 Apr 13 18:46	6°♂27'31	0°10'20
	15789 May 23 12:39	0°♂		transit middle	15790 Apr 13 18:46	6°♂27'31	0°10'20
desc. node	15789 May 29 00:19	8°♂32'36		transit begin	15790 Apr 13 16:24	6°♂33'49	
morning set	15789 Jun 03 14:07	17°♂29'42		transit end	15790 Apr 13 21:08	6°♂21'14	
	15789 Jun 11 09:44	0°♂		morning rise	15790 Apr 20 07:16	1°♂05'39	
				direct	15790 Apr 22 20:41	0°♂32'26	
superior conj	15789 Jun 18 15:49	11°♂25'54	-2°03'17	morning max el	15790 Apr 29 04:59	3°♂47'34	17°49'42
minimum elong	15789 Jun 18 08:40	10°♂57'57	2°03'43	desc. node	15790 May 15 21:12	28°♂43'02	
max. Earth dist.	15789 Jun 20 17:42	14°♂40'53	1.45939 AU	morning set	15790 May 16 05:12	29°♂16'41	

	15790 May 16 15:30	0°♄			15791 May 09 01:54	0°♄	
superior conj	15790 May 29 13:22	21°♄17'41	-1°35'36	superior conj	15791 May 10 08:57	2°♄10'56	-0°58'59
minimum elong	15790 May 29 04:54	20°♄43'35	1°35'30	minimum elong	15791 May 10 03:28	1°♄47'51	0°58'52
max. Earth dist.	15790 Jun 03 13:31	29°♄15'50	1.45277 AU	max. Earth dist.	15791 May 17 05:54	13°♄29'26	1.43946 AU
	15790 Jun 04 00:43	0°♄		evening rise	15791 May 24 20:03	25°♄28'34	
evening rise	15790 Jun 14 06:41	15°♄53'27			15791 May 27 18:39	0°♄	
	15790 Jun 23 14:48	0°♄			15791 Jun 17 15:29	0°♄	
asc. node	15790 Jul 10 03:57	22°♄38'28		evening max el	15791 Jun 24 14:10	8°♄06'19	21°16'12
evening max el	15790 Jul 11 16:02	24°♄13'17	20°07'04	asc. node	15791 Jun 27 00:50	10°♄19'53	
retrograde	15790 Jul 19 08:56	28°♄35'38		retrograde	15791 Jul 03 07:51	13°♄10'16	
evening set	15790 Jul 23 08:10	27°♄05'09		evening set	15791 Jul 07 17:56	11°♄22'31	
inferior conj	15790 Jul 28 14:52	21°♄03'34	3°04'45	inferior conj	15791 Jul 12 23:26	5°♄10'07	3°08'56
minimum elong	15790 Jul 28 15:44	21°♄00'37	3°04'05	minimum elong	15791 Jul 12 23:20	5°♄10'28	3°08'11
min. Earth dist.	15790 Jul 29 12:24	19°♄50'20	0.68191 AU	min. Earth dist.	15791 Jul 13 07:32	4°♄41'53	0.68899 AU
morning rise	15790 Aug 02 22:55	14°♄39'04			15791 Jul 17 00:06	30°♄	
direct	15790 Aug 08 13:03	12°♄12'36		morning rise	15791 Jul 18 04:29	28°♄50'45	
desc. node	15790 Aug 11 19:45	12°♄54'47		direct	15791 Jul 23 06:37	26°♄38'42	
morning max el	15790 Aug 20 01:00	19°♄05'32	24°29'51	desc. node	15791 Jul 29 17:05	29°♄20'12	
	15790 Aug 29 07:09	0°♄			15791 Jul 30 13:16	0°♄	
	15790 Sep 18 12:50	0°♄		morning max el	15791 Aug 02 12:28	2°♄43'41	23°00'35
morning set	15790 Sep 24 14:29	10°♄14'55			15791 Aug 23 07:38	0°♄	
max. Earth dist.	15790 Sep 28 04:41	16°♄36'45	1.37715 AU	morning set	15791 Sep 05 18:23	21°♄05'26	
				max. Earth dist.	15791 Sep 10 03:35	28°♄27'30	1.40119 AU
					15791 Sep 11 01:07	0°♄	
superior conj	15790 Oct 05 07:25	29°♄54'52	-0°08'15				
minimum elong	15790 Oct 05 07:57	29°♄57'25	0°07'49	superior conj	15791 Sep 17 23:50	12°♄20'33	-0°44'03
behind sun begin	15790 Oct 05 01:59	29°♄28'37		minimum elong	15791 Sep 18 03:13	12°♄36'00	0°43'23
behind sun end	15790 Oct 05 13:55	0°♄26'17		asc. node	15791 Sep 23 02:02	21°♄49'43	
	15790 Oct 05 08:29	0°♄			15791 Sep 27 08:51	0°♄	
asc. node	15790 Oct 06 05:23	1°♄41'20		evening rise	15791 Sep 27 15:27	0°♄31'31	
evening rise	15790 Oct 13 20:12	16°♄48'55		evening max el	15791 Oct 13 14:44	26°♄21'49	18°31'27
	15790 Oct 20 16:29	0°♄			15791 Oct 19 02:04	0°♄	
evening max el	15790 Oct 30 13:13	14°♄16'00	19°16'52	retrograde	15791 Oct 21 13:13	0°♄23'07	
desc. node	15790 Nov 07 16:40	18°♄52'17		evening set	15791 Oct 23 12:13	0°♄09'11	
retrograde	15790 Nov 08 20:51	18°♄56'35			15791 Oct 24 02:04	30°♄	
evening set	15790 Nov 10 18:16	18°♄45'50		desc. node	15791 Oct 25 13:56	29°♄26'22	
inferior conj	15790 Nov 19 07:03	14°♄36'02	-3°36'44	inferior conj	15791 Oct 31 09:23	25°♄39'00	-1°52'04
minimum elong	15790 Nov 18 22:16	14°♄50'37	3°32'52	minimum elong	15791 Oct 31 04:56	25°♄47'37	1°49'38
min. Earth dist.	15790 Nov 21 22:07	12°♄51'38	0.55815 AU	min. Earth dist.	15791 Nov 03 14:06	23°♄11'22	0.57640 AU
morning rise	15790 Nov 26 23:55	10°♄05'31		morning rise	15791 Nov 07 18:13	20°♄31'34	
direct	15790 Dec 02 12:28	8°♄55'46		direct	15791 Nov 13 22:47	18°♄54'49	
morning max el	15790 Dec 16 13:32	16°♄02'41	25°34'02	morning max el	15791 Nov 28 04:55	26°♄25'04	26°58'29
	15790 Dec 27 19:30	0°♄			15791 Dec 01 14:47	0°♄	
asc. node	15791 Jan 02 05:26	8°♄50'26		asc. node	15791 Dec 20 02:33	27°♄52'44	
morning set	15791 Jan 12 18:38	29°♄38'29			15791 Dec 21 05:31	0°♄	
	15791 Jan 12 22:37	0°♄		morning set	15791 Dec 28 04:12	14°♄07'16	
superior conj	15791 Jan 19 12:13	14°♄28'54	1°36'56	superior conj	15792 Jan 03 23:27	29°♄08'35	1°37'37
minimum elong	15791 Jan 19 12:52	14°♄32'30	1°37'35	minimum elong	15792 Jan 03 23:02	29°♄06'16	1°38'23
max. Earth dist.	15791 Jan 20 23:51	17°♄45'48	1.31683 AU		15792 Jan 04 08:38	0°♄	
evening rise	15791 Jan 26 16:14	29°♄57'33		max. Earth dist.	15792 Jan 04 06:49	29°♄49'47	1.31101 AU
	15791 Jan 26 16:43	0°♄		evening rise	15792 Jan 10 19:42	14°♄11'35	
desc. node	15791 Feb 03 16:23	15°♄34'39			15792 Jan 18 17:31	0°♄	
	15791 Feb 12 06:06	0°♄		desc. node	15792 Jan 21 13:07	5°♄05'17	
evening max el	15791 Feb 28 07:27	20°♄23'47	27°34'29		15792 Feb 08 01:11	0°♄	
retrograde	15791 Mar 14 06:25	27°♄51'01		evening max el	15792 Feb 10 12:38	2°♄30'10	27°06'57
evening set	15791 Mar 21 02:15	25°♄36'07		retrograde	15792 Feb 24 13:27	9°♄47'32	
min. Earth dist.	15791 Mar 24 20:27	22°♄37'20	0.62101 AU	evening set	15792 Mar 02 04:58	7°♄52'44	
inferior conj	15791 Mar 27 21:19	19°♄46'07	-1°02'07	min. Earth dist.	15792 Mar 06 03:02	5°♄10'26	0.59856 AU
minimum elong	15791 Mar 27 23:28	19°♄41'03	1°01'27	inferior conj	15792 Mar 09 08:14	2°♄31'43	-2°26'58
asc. node	15791 Mar 31 02:37	16°♄55'51		minimum elong	15792 Mar 09 13:46	2°♄20'18	2°24'46
morning rise	15791 Apr 03 23:46	14°♄42'03			15792 Mar 12 14:35	30°♄	
direct	15791 Apr 06 05:34	14°♄19'24		morning rise	15792 Mar 17 02:04	27°♄47'13	
morning max el	15791 Apr 12 22:29	17°♄42'31	17°47'30	asc. node	15792 Mar 17 00:01	27°♄48'34	
	15791 Apr 21 19:28	0°♄		direct	15792 Mar 19 02:33	27°♄31'25	
morning set	15791 Apr 28 19:22	12°♄08'12			15792 Mar 25 04:00	0°♄	
desc. node	15791 May 02 17:59	19°♄05'01					

morning max el	15792 Mar 26 12:54	1° Υ 13'42	18°03'56		15793 Mar 20 15:58	0° Υ	
morning set	15792 Apr 11 02:45	25° Υ 47'19		morning set	15793 Mar 25 22:06	9° Υ 57'40	
	15792 Apr 13 09:15	0° \mathcal{B}					
desc. node	15792 Apr 18 14:42	9° \mathcal{B} 34'29		superior conj	15793 Apr 03 18:39	26° Υ 57'54	0°14'10
				minimum elong	15793 Apr 03 19:35	27° Υ 02'17	0°13'42
superior conj	15792 Apr 21 03:51	14° \mathcal{B} 07'50	-0°20'51	behind sun begin	15793 Apr 03 16:01	26° Υ 45'34	
minimum elong	15792 Apr 21 02:06	14° \mathcal{B} 00'03	0°21'03	behind sun end	15793 Apr 03 23:09	27° Υ 18'58	
max. Earth dist.	15792 Apr 28 17:53	27° \mathcal{B} 10'14	1.42091 AU	desc. node	15793 Apr 05 11:22	0° \mathcal{B} 06'55	
	15792 Apr 30 10:52	0° Π			15793 Apr 05 09:52	0° \mathcal{B}	
evening rise	15792 May 04 00:52	5° Π 49'04		max. Earth dist.	15793 Apr 11 01:57	10° \mathcal{B} 10'40	1.39899 AU
	15792 May 19 23:49	0° \mathcal{E}		evening rise	15793 Apr 15 02:38	17° \mathcal{B} 04'38	
evening max el	15792 Jun 06 07:26	22° \mathcal{E} 00'05	22°34'19		15793 Apr 23 02:19	0° Π	
asc. node	15792 Jun 12 21:48	27° \mathcal{E} 01'00			15793 May 14 12:59	0° \mathcal{E}	
retrograde	15792 Jun 16 05:07	27° \mathcal{E} 48'22		evening max el	15793 May 19 21:49	5° \mathcal{E} 54'40	23°55'49
evening set	15792 Jun 21 02:37	25° \mathcal{E} 44'41		retrograde	15793 May 30 23:24	12° \mathcal{E} 23'49	
inferior conj	15792 Jun 26 09:22	19° \mathcal{E} 23'20	3°02'18	asc. node	15793 May 30 18:50	12° \mathcal{E} 23'40	
minimum elong	15792 Jun 26 08:21	19° \mathcal{E} 26'51	3°01'24	evening set	15793 Jun 05 08:36	10° \mathcal{E} 06'32	
min. Earth dist.	15792 Jun 26 04:23	19° \mathcal{E} 40'40	0.69126 AU	min. Earth dist.	15793 Jun 10 00:44	4° \mathcal{E} 39'56	0.68863 AU
morning rise	15792 Jul 01 13:55	13° \mathcal{E} 11'10		inferior conj	15793 Jun 10 18:42	3° \mathcal{E} 38'43	2°45'16
direct	15792 Jul 06 03:48	11° \mathcal{E} 17'09		minimum elong	15793 Jun 10 16:57	3° \mathcal{E} 44'38	2°44'07
morning max el	15792 Jul 15 03:02	16° \mathcal{E} 29'56	21°34'23		15793 Jun 13 14:22	30° \mathcal{R} Π	
desc. node	15792 Jul 15 14:20	16° \mathcal{E} 58'33		morning rise	15793 Jun 16 01:19	27° Π 35'14	
	15792 Jul 26 03:19	0° \mathcal{Q}		direct	15793 Jun 20 03:12	26° Π 01'01	
	15792 Aug 15 08:24	0° \mathcal{P}			15793 Jun 27 12:37	0° \mathcal{E}	
morning set	15792 Aug 15 22:13	0° \mathcal{P} 54'27		morning max el	15793 Jun 27 23:38	0° \mathcal{E} 26'43	20°17'53
max. Earth dist.	15792 Aug 22 07:28	11° \mathcal{P} 11'38	1.42376 AU	desc. node	15793 Jul 02 11:31	5° \mathcal{E} 30'35	
					15793 Jul 19 18:12	0° \mathcal{Q}	
superior conj	15792 Aug 29 20:46	23° \mathcal{P} 55'10	-1°20'22	morning set	15793 Jul 26 06:42	9° \mathcal{Q} 55'47	
minimum elong	15792 Aug 30 03:15	24° \mathcal{P} 23'13	1°19'40	max. Earth dist.	15793 Aug 04 18:31	24° \mathcal{Q} 48'03	1.44217 AU
	15792 Sep 02 08:15	0° \mathcal{L}			15793 Aug 08 00:07	0° \mathcal{P}	
asc. node	15792 Sep 08 22:40	11° \mathcal{L} 52'05					
evening rise	15792 Sep 09 23:01	13° \mathcal{L} 42'56		superior conj	15793 Aug 10 18:38	4° \mathcal{P} 31'11	-1°51'52
	15792 Sep 19 05:20	0° \mathcal{M}		minimum elong	15793 Aug 11 02:23	5° \mathcal{P} 02'59	1°51'38
evening max el	15792 Sep 26 00:38	9° \mathcal{M} 07'09	18°06'59	evening rise	15793 Aug 23 14:07	26° \mathcal{P} 11'02	
retrograde	15792 Oct 03 00:14	12° \mathcal{M} 41'51			15793 Aug 25 19:05	0° \mathcal{L}	
evening set	15792 Oct 05 05:37	12° \mathcal{M} 20'27		asc. node	15793 Aug 26 19:18	1° \mathcal{L} 44'27	
desc. node	15792 Oct 11 11:14	8° \mathcal{M} 17'41		evening max el	15793 Sep 09 14:44	22° \mathcal{L} 21'37	18°01'58
inferior conj	15792 Oct 12 09:06	7° \mathcal{M} 28'58	-0°17'20	retrograde	15793 Sep 16 02:06	25° \mathcal{L} 43'35	
minimum elong	15792 Oct 12 08:31	7° \mathcal{M} 30'17	0°16'40	evening set	15793 Sep 18 15:28	25° \mathcal{L} 11'07	
min. Earth dist.	15792 Oct 15 14:28	4° \mathcal{M} 36'00	0.59848 AU	inferior conj	15793 Sep 25 03:10	20° \mathcal{L} 00'29	0°58'35
morning rise	15792 Oct 19 08:10	1° \mathcal{M} 48'29		minimum elong	15793 Sep 25 04:47	19° \mathcal{L} 56'20	0°58'13
	15792 Oct 23 16:58	30° \mathcal{R} \mathcal{L}		min. Earth dist.	15793 Sep 28 00:41	17° \mathcal{L} 02'39	0.62135 AU
direct	15792 Oct 25 22:00	29° \mathcal{L} 46'17		desc. node	15793 Sep 28 08:35	16° \mathcal{L} 43'22	
	15792 Oct 28 04:06	0° \mathcal{M}		morning rise	15793 Oct 01 15:35	13° \mathcal{L} 55'37	
morning max el	15792 Nov 09 04:20	7° \mathcal{M} 33'16	27°47'57	direct	15793 Oct 08 07:59	11° \mathcal{L} 33'29	
	15792 Nov 26 05:06	0° \mathcal{J}		morning max el	15793 Oct 22 10:36	19° \mathcal{L} 30'42	27°58'08
asc. node	15792 Dec 05 23:34	17° \mathcal{J} 21'02			15793 Oct 31 09:39	0° \mathcal{M}	
morning set	15792 Dec 11 09:49	28° \mathcal{J} 21'06			15793 Nov 19 03:34	0° \mathcal{J}	
	15792 Dec 12 04:28	0° \mathcal{Z}		asc. node	15793 Nov 22 20:30	7° \mathcal{J} 08'06	
max. Earth dist.	15792 Dec 17 14:20	11° \mathcal{Z} 50'54	1.31065 AU	morning set	15793 Nov 25 09:28	12° \mathcal{J} 15'34	
				max. Earth dist.	15793 Nov 30 18:38	23° \mathcal{J} 40'48	1.31585 AU
superior conj	15792 Dec 18 10:44	13° \mathcal{Z} 44'50	1°32'18				
minimum elong	15792 Dec 18 09:21	13° \mathcal{Z} 37'07	1°33'01	superior conj	15793 Dec 02 20:13	28° \mathcal{J} 12'52	1°20'58
evening rise	15792 Dec 25 03:30	28° \mathcal{Z} 34'47		minimum elong	15793 Dec 02 18:08	28° \mathcal{J} 01'21	1°21'32
	15792 Dec 25 19:22	0° \approx			15793 Dec 03 15:36	0° \mathcal{Z}	
desc. node	15793 Jan 07 09:54	24° \approx 02'30		evening rise	15793 Dec 09 13:45	13° \mathcal{Z} 02'48	
	15793 Jan 11 05:15	0° \mathcal{H}			15793 Dec 17 22:52	0° \approx	
evening max el	15793 Jan 22 10:15	13° \mathcal{H} 43'58	26°04'39	desc. node	15793 Dec 25 06:45	12° \approx 14'24	
retrograde	15793 Feb 05 09:15	20° \mathcal{H} 48'21		evening max el	15794 Jan 03 23:29	24° \approx 08'04	24°34'20
evening set	15793 Feb 11 12:53	19° \mathcal{H} 19'15			15794 Jan 12 15:18	0° \mathcal{H}	
min. Earth dist.	15793 Feb 15 23:25	16° \mathcal{H} 41'22	0.57693 AU	retrograde	15794 Jan 17 16:05	0° \mathcal{H} 57'45	
inferior conj	15793 Feb 19 00:02	14° \mathcal{H} 32'18	-3°56'56	evening set	15794 Jan 22 22:39	29° \approx 56'31	
minimum elong	15793 Feb 19 08:44	14° \mathcal{H} 16'46	3°53'47		15794 Jan 22 18:54	30° \mathcal{R} \approx	
morning rise	15793 Feb 27 07:42	10° \mathcal{H} 09'11		min. Earth dist.	15794 Jan 28 11:18	27° \approx 06'46	0.55884 AU
direct	15793 Mar 01 07:15	9° \mathcal{H} 56'30		inferior conj	15794 Jan 30 18:37	25° \approx 40'54	-5°16'07
asc. node	15793 Mar 03 21:23	10° \mathcal{H} 19'18		minimum elong	15794 Jan 31 03:19	25° \approx 27'24	5°13'46
morning max el	15793 Mar 09 20:14	14° \mathcal{H} 08'36	18°40'46	morning rise	15794 Feb 08 10:06	21° \approx 38'31	

direct	15794 Feb 10 16:24	21° \approx 24'47		morning rise	15795 Jan 19 07:59	2° \approx 12'18	
asc. node	15794 Feb 18 18:44	24° \approx 35'21		direct	15795 Jan 22 07:30	1° \approx 51'47	
morning max el	15794 Feb 20 16:17	26° \approx 15'48	19°40'00	morning max el	15795 Feb 02 21:52	7° \approx 27'11	21°02'28
	15794 Feb 23 23:56	0° H		asc. node	15795 Feb 05 16:04	10° \approx 24'18	
morning set	15794 Mar 10 01:31	24° H 27'32			15795 Feb 17 21:47	0° H	
	15794 Mar 12 19:16	0° Y		morning set	15795 Feb 22 09:59	9° H 07'56	
superior conj	15794 Mar 18 00:57	10° Y 29'10	0°43'40	superior conj	15795 Mar 01 18:41	24° H 30'07	1°06'50
minimum elong	15794 Mar 18 03:14	10° Y 40'24	0°43'13	minimum elong	15795 Mar 01 21:14	24° H 43'15	1°06'37
desc. node	15794 Mar 23 08:02	20° Y 38'49			15795 Mar 04 11:33	0° Y	
max. Earth dist.	15794 Mar 24 08:19	22° Y 31'31	1.37606 AU	max. Earth dist.	15795 Mar 06 17:11	4° Y 26'02	1.35452 AU
evening rise	15794 Mar 28 00:51	29° Y 11'40		desc. node	15795 Mar 10 04:40	11° Y 06'19	
	15794 Mar 28 11:48	0° B		evening rise	15795 Mar 10 16:29	12° Y 01'34	
	15794 Apr 16 10:04	0° II			15795 Mar 20 23:42	0° B	
evening max el	15794 May 02 11:13	19° II 48'49	25°13'58		15795 Apr 11 13:21	0° II	
retrograde	15794 May 14 13:43	26° II 50'32		evening max el	15795 Apr 15 00:47	3° II 38'24	26°21'33
asc. node	15794 May 17 15:56	26° II 10'46		retrograde	15795 Apr 27 23:13	11° II 01'10	
evening set	15794 May 20 10:17	24° II 23'13		evening set	15795 May 04 05:54	8° II 28'54	
min. Earth dist.	15794 May 24 18:33	19° II 33'32	0.68118 AU	asc. node	15795 May 04 13:07	8° II 13'47	
inferior conj	15794 May 26 01:32	17° II 52'30	2°17'33	min. Earth dist.	15795 May 08 07:53	4° II 14'37	0.66911 AU
minimum elong	15794 May 25 23:24	17° II 59'30	2°16'14	inferior conj	15795 May 10 03:51	2° II 00'16	1°38'26
morning rise	15794 May 31 12:53	11° II 58'50		minimum elong	15795 May 10 01:48	2° II 06'33	1°37'05
direct	15794 Jun 04 03:20	10° II 44'23			15795 May 11 20:08	30° R B	
morning max el	15794 Jun 11 03:37	14° II 34'07	19°15'16	morning rise	15795 May 15 22:39	26° B 17'42	
desc. node	15794 Jun 19 08:38	24° II 42'20		direct	15795 May 19 02:30	25° B 21'26	
	15794 Jun 23 00:45	0° E		morning max el	15795 May 25 14:22	28° B 48'10	18°28'40
greatest brilliancy	15794 Jun 23 21:36	1° E 17'01	-0.7m		15795 May 26 18:19	0° II	
morning set	15794 Jul 05 11:23	18° E 52'10		desc. node	15795 Jun 06 05:41	14° II 23'22	
	15794 Jul 12 16:15	0° O		morning set	15795 Jun 15 08:13	28° II 38'01	
max. Earth dist.	15794 Jul 18 11:01	9° O 01'14	1.45453 AU		15795 Jun 16 05:02	0° E	
superior conj	15794 Jul 21 17:59	14° O 12'08	-2°11'15	superior conj	15795 Jul 01 03:59	23° E 25'02	-2°12'00
minimum elong	15794 Jul 21 22:05	14° O 28'24	2°11'46	minimum elong	15795 Jul 01 00:25	23° E 11'05	2°12'42
	15794 Jul 31 14:23	0° P		max. Earth dist.	15795 Jul 01 06:30	23° E 34'51	1.45974 AU
evening rise	15794 Aug 05 07:28	7° P 42'40			15795 Jul 05 09:19	0° O	
asc. node	15794 Aug 13 15:57	21° P 21'39		evening rise	15795 Jul 16 23:53	18° O 11'49	
	15794 Aug 19 08:34	0° A			15795 Jul 24 12:04	0° P	
evening max el	15794 Aug 24 05:21	5° A 55'22	18°15'14	greatest brilliancy	15795 Jul 25 15:09	1° P 45'22	-0.8m
retrograde	15794 Aug 30 14:12	9° A 18'00		asc. node	15795 Jul 31 12:39	10° P 38'21	
evening set	15794 Sep 02 12:15	8° A 31'34		evening max el	15795 Aug 07 17:37	19° P 41'42	18°45'57
inferior conj	15794 Sep 08 11:29	3° A 04'27	1°54'50	retrograde	15795 Aug 14 08:41	23° P 17'50	
minimum elong	15794 Sep 08 13:49	2° A 57'44	1°54'06	evening set	15795 Aug 17 16:01	22° P 15'12	
min. Earth dist.	15794 Sep 10 20:53	0° A 20'14	0.64279 AU	inferior conj	15795 Aug 23 06:19	16° P 33'43	2°33'25
	15794 Sep 11 04:14	30° R P		minimum elong	15795 Aug 23 08:26	16° P 27'07	2°32'41
morning rise	15794 Sep 14 13:42	26° P 44'54		min. Earth dist.	15795 Aug 25 01:59	14° P 17'36	0.66129 AU
desc. node	15794 Sep 15 06:00	26° P 14'20		morning rise	15795 Aug 28 23:51	10° P 07'51	
direct	15794 Sep 21 03:15	24° P 10'34		desc. node	15795 Sep 02 03:25	7° P 47'20	
	15794 Oct 02 14:47	0° A		direct	15795 Sep 04 06:26	7° P 30'05	
morning max el	15794 Oct 04 20:51	2° A 08'31	27°31'39	morning max el	15795 Sep 17 08:20	15° P 14'52	26°35'33
	15794 Oct 25 16:01	0° M			15795 Sep 29 11:38	0° A	
morning set	15794 Nov 09 00:36	25° M 44'04			15795 Oct 18 10:56	0° M	
asc. node	15794 Nov 09 17:22	27° M 07'23		morning set	15795 Oct 23 04:12	8° M 39'53	
	15794 Nov 11 03:37	0° J		max. Earth dist.	15795 Oct 27 03:11	16° M 19'44	1.34286 AU
max. Earth dist.	15794 Nov 13 15:48	5° J 10'29	1.32662 AU	asc. node	15795 Oct 27 14:10	17° M 14'19	
superior conj	15794 Nov 17 01:50	12° J 26'27	1°03'32	superior conj	15795 Nov 01 01:14	26° M 19'57	0°40'03
minimum elong	15794 Nov 16 23:29	12° J 13'46	1°03'55	minimum elong	15795 Oct 31 23:16	26° M 09'45	0°40'20
evening rise	15794 Nov 24 00:34	27° J 30'10			15795 Nov 02 19:18	0° J	
	15794 Nov 25 04:40	0° B		evening rise	15795 Nov 08 10:06	11° J 52'36	
desc. node	15794 Dec 12 03:42	29° B 24'02			15795 Nov 17 16:32	0° B	
	15794 Dec 12 15:23	0° \approx		evening max el	15795 Nov 28 00:10	14° B 12'01	21°13'26
evening max el	15794 Dec 16 08:52	4° \approx 04'31	22°51'16	desc. node	15795 Nov 29 00:44	15° B 10'05	
retrograde	15794 Dec 29 10:18	10° \approx 32'32		retrograde	15795 Dec 09 20:33	20° B 03'57	
evening set	15795 Jan 02 10:59	9° \approx 57'12		evening set	15795 Dec 12 15:14	19° B 45'59	
min. Earth dist.	15795 Jan 09 18:08	6° \approx 35'51	0.54712 AU	inferior conj	15795 Dec 21 09:25	15° B 55'05	-5°44'41
inferior conj	15795 Jan 10 18:29	6° \approx 01'14	-5°59'27	minimum elong	15795 Dec 21 02:41	16° B 04'35	5°42'57
minimum elong	15795 Jan 10 20:51	5° \approx 57'53	5°58'39	min. Earth dist.	15795 Dec 21 23:38	15° B 35'01	0.54412 AU

morning rise	15795 Dec 29 14:27	12° ☿ 04'23			15796 Nov 21 00:24	30° ☿ 27'	
direct	15796 Jan 02 15:00	11° ☿ 29'24		inferior conj	15796 Nov 30 05:53	25° ☿ 55'43	-4°33'22
morning max el	15796 Jan 15 13:32	17° ☿ 46'47	22°44'32	minimum elong	15796 Nov 29 19:51	26° ☿ 11'05	4°29'39
asc. node	15796 Jan 23 13:24	27° ☿ 28'02		min. Earth dist.	15796 Dec 02 06:40	24° ☿ 41'01	0.55058 AU
	15796 Jan 25 05:34	0° \approx		morning rise	15796 Dec 08 02:55	21° ☿ 44'32	
morning set	15796 Feb 06 21:12	23° \approx 52'04		direct	15796 Dec 13 04:02	20° ☿ 48'39	
	15796 Feb 09 17:48	0° ☿		morning max el	15796 Dec 26 22:09	27° ☿ 39'14	24°34'33
					15796 Dec 29 05:29	0° ☿	
superior conj	15796 Feb 13 20:29	8° ☿ 51'05	1°23'29	asc. node	15797 Jan 09 10:40	15° ☿ 29'03	
minimum elong	15796 Feb 13 22:35	9° ☿ 02'19	1°23'39		15797 Jan 17 06:49	0° \approx	
max. Earth dist.	15796 Feb 17 08:49	16° ☿ 15'02	1.33633 AU	morning set	15797 Jan 21 09:13	8° \approx 34'38	
evening rise	15796 Feb 21 22:00	25° ☿ 25'00					
	15796 Feb 24 07:11	0° ☿		superior conj	15797 Jan 28 03:41	23° \approx 24'39	1°33'48
desc. node	15796 Feb 25 01:17	1° ☿ 25'07		minimum elong	15797 Jan 28 04:56	23° \approx 31'27	1°34'17
	15796 Mar 13 10:27	0° ☿		max. Earth dist.	15797 Jan 30 08:17	28° \approx 11'17	1.32254 AU
evening max el	15796 Mar 27 14:28	17° ☿ 14'49	27°10'56		15797 Jan 31 04:27	0° ☿	
retrograde	15796 Apr 10 02:45	24° ☿ 46'12		evening rise	15797 Feb 04 14:12	9° ☿ 13'49	
evening set	15796 Apr 16 17:24	22° ☿ 15'17		desc. node	15797 Feb 10 21:56	21° ☿ 30'34	
asc. node	15796 Apr 20 10:25	18° ☿ 45'23			15797 Feb 15 16:51	0° ☿	
min. Earth dist.	15796 Apr 20 14:41	18° ☿ 33'46	0.65295 AU		15797 Mar 09 15:48	0° ☿	
inferior conj	15796 Apr 22 23:10	15° ☿ 55'22	0°46'45	evening max el	15797 Mar 10 02:50	0° ☿ 26'46	27°34'49
minimum elong	15796 Apr 22 21:57	15° ☿ 58'48	0°45'46	retrograde	15797 Mar 23 23:07	7° ☿ 56'45	
morning rise	15796 Apr 29 04:13	10° ☿ 25'35		evening set	15797 Mar 30 18:25	5° ☿ 34'09	
direct	15796 May 01 22:31	9° ☿ 44'53		min. Earth dist.	15797 Apr 03 13:01	2° ☿ 21'25	0.63344 AU
morning max el	15796 May 08 05:53	13° ☿ 01'06	17°58'54		15797 Apr 05 21:13	30° ☿ 17'	
	15796 May 20 09:27	0° ☿		inferior conj	15797 Apr 06 08:38	29° ☿ 30'56	-0°18'23
desc. node	15796 May 23 02:37	4° ☿ 24'57		minimum elong	15797 Apr 06 09:14	29° ☿ 29'27	0°18'29
morning set	15796 May 26 07:49	9° ☿ 41'01		asc. node	15797 Apr 07 07:44	28° ☿ 33'07	
	15796 Jun 07 21:33	0° ☿		morning rise	15797 Apr 13 02:37	24° ☿ 16'25	
				direct	15797 Apr 15 12:36	23° ☿ 48'03	
superior conj	15796 Jun 09 16:47	2° ☿ 51'07	-1°53'11	morning max el	15797 Apr 21 23:30	27° ☿ 05'17	17°46'28
minimum elong	15796 Jun 09 08:19	2° ☿ 17'40	1°53'20		15797 Apr 24 13:59	0° ☿	
max. Earth dist.	15796 Jun 13 02:41	8° ☿ 13'02	1.45745 AU	morning set	15797 May 08 09:29	21° ☿ 58'15	
evening rise	15796 Jun 25 18:44	27° ☿ 49'58		desc. node	15797 May 09 23:29	24° ☿ 41'18	
	15796 Jun 27 04:39	0° ☿			15797 May 13 02:10	0° ☿	
greatest brilliancy	15796 Jul 09 07:13	18° ☿ 17'15	-0.7m				
asc. node	15796 Jul 17 09:25	29° ☿ 26'27		superior conj	15797 May 20 23:02	13° ☿ 07'26	-1°20'40
	15796 Jul 17 20:21	0° ☿		minimum elong	15797 May 20 15:32	12° ☿ 36'42	1°20'29
evening max el	15796 Jul 21 01:14	3° ☿ 33'58	19°33'10	max. Earth dist.	15797 May 26 21:27	22° ☿ 41'25	1.44797 AU
retrograde	15796 Jul 28 06:34	7° ☿ 35'55			15797 May 31 12:53	0° ☿	
evening set	15796 Jul 31 23:50	6° ☿ 15'47		evening rise	15797 Jun 05 05:18	7° ☿ 14'21	
inferior conj	15796 Aug 06 08:28	0° ☿ 21'21	2°57'01		15797 Jun 20 11:56	0° ☿	
minimum elong	15796 Aug 06 09:51	0° ☿ 16'44	2°56'21	evening max el	15797 Jul 04 02:56	17° ☿ 27'45	20°35'05
	15796 Aug 06 14:53	30° ☿ 22'		asc. node	15797 Jul 04 06:15	17° ☿ 35'58	
min. Earth dist.	15796 Aug 07 14:02	28° ☿ 43'19	0.67577 AU	retrograde	15797 Jul 12 05:34	22° ☿ 06'26	
morning rise	15796 Aug 11 19:20	23° ☿ 55'15		evening set	15797 Jul 16 09:26	20° ☿ 28'25	
direct	15796 Aug 17 16:08	21° ☿ 22'29		inferior conj	15797 Jul 21 15:20	14° ☿ 22'15	3°07'50
desc. node	15796 Aug 19 00:50	21° ☿ 29'45		minimum elong	15797 Jul 21 15:47	14° ☿ 20'40	3°07'10
morning max el	15796 Aug 29 19:22	28° ☿ 38'08	25°19'04	min. Earth dist.	15797 Jul 22 07:06	13° ☿ 27'57	0.68562 AU
	15796 Aug 31 02:51	0° ☿		morning rise	15797 Jul 26 21:50	7° ☿ 59'51	
	15796 Sep 22 05:43	0° ☿		direct	15797 Aug 01 07:01	5° ☿ 38'54	
morning set	15796 Oct 04 16:33	20° ☿ 54'29		desc. node	15797 Aug 05 22:12	7° ☿ 03'00	
max. Earth dist.	15796 Oct 08 05:35	27° ☿ 23'43	1.36376 AU	morning max el	15797 Aug 12 06:10	12° ☿ 11'39	23°51'54
	15796 Oct 09 14:50	0° ☿			15797 Aug 26 13:38	0° ☿	
asc. node	15796 Oct 13 10:56	7° ☿ 24'54			15797 Sep 15 00:42	0° ☿	
				morning set	15797 Sep 16 09:24	2° ☿ 18'09	
superior conj	15796 Oct 14 15:33	9° ☿ 46'31	0°10'50	max. Earth dist.	15797 Sep 20 04:21	8° ☿ 51'53	1.38744 AU
minimum elong	15796 Oct 14 14:52	9° ☿ 43'08	0°11'11				
behind sun begin	15796 Oct 14 10:15	9° ☿ 20'08		superior conj	15797 Sep 27 17:10	22° ☿ 37'23	-0°23'08
behind sun end	15796 Oct 14 19:30	10° ☿ 06'10		minimum elong	15797 Sep 27 18:49	22° ☿ 45'07	0°22'35
evening rise	15796 Oct 22 16:14	26° ☿ 05'11		asc. node	15797 Sep 30 07:37	27° ☿ 35'14	
	15796 Oct 24 14:35	0° ☿			15797 Oct 01 13:34	0° ☿	
evening max el	15796 Nov 09 04:48	25° ☿ 00'42	19°53'09	evening rise	15797 Oct 06 16:23	10° ☿ 01'18	
desc. node	15796 Nov 14 21:51	29° ☿ 08'02			15797 Oct 17 17:39	0° ☿	
	15796 Nov 17 20:54	0° ☿		evening max el	15797 Oct 22 23:28	6° ☿ 39'05	18°54'50
retrograde	15796 Nov 19 10:18	0° ☿ 06'51		retrograde	15797 Oct 31 15:41	11° ☿ 01'35	
evening set	15796 Nov 21 11:30	29° ☿ 55'30		desc. node	15797 Nov 01 19:04	10° ☿ 57'17	

evening set	15797 Nov 02 13:02	10° ♁ 49'56		inferior conj	15798 Oct 23 07:26	17° ♁ 55'29	-1°09'54
inferior conj	15797 Nov 10 19:43	6° ♁ 31'31	-2°52'07	minimum elong	15798 Oct 23 04:49	18° ♁ 00'56	1°08'16
minimum elong	15797 Nov 10 12:39	6° ♁ 44'01	2°48'42	min. Earth dist.	15798 Oct 26 13:36	15° ♁ 14'42	0.58548 AU
min. Earth dist.	15797 Nov 13 18:17	4° ♁ 27'15	0.56525 AU	morning rise	15798 Oct 30 12:16	12° ♁ 32'51	
morning rise	15797 Nov 18 09:24	1° ♁ 45'46		direct	15798 Nov 05 21:21	10° ♁ 45'09	
direct	15797 Nov 24 05:36	0° ♁ 24'52		morning max el	15798 Nov 20 04:26	18° ♁ 23'23	27°24'22
morning max el	15797 Dec 08 09:20	7° ♁ 41'34	26°13'45		15798 Nov 29 22:50	0° ♁	
	15797 Dec 24 22:27	0° ♁		asc. node	15798 Dec 14 04:56	23° ♁ 26'53	
asc. node	15797 Dec 27 07:51	4° ♁ 12'16			15798 Dec 17 13:08	0° ♁	
morning set	15798 Jan 05 20:10	23° ♁ 09'33		morning set	15798 Dec 21 04:17	7° ♁ 32'40	
	15798 Jan 08 23:13	0° ♁					
				superior conj	15798 Dec 28 01:25	22° ♁ 34'51	1°36'06
superior conj	15798 Jan 12 13:59	8° ♁ 03'13	1°37'58	minimum elong	15798 Dec 28 00:35	22° ♁ 37'08	1°36'51
minimum elong	15798 Jan 12 14:10	8° ♁ 04'19	1°38'40	max. Earth dist.	15798 Dec 27 21:14	22° ♁ 18'20	1.31018 AU
max. Earth dist.	15798 Jan 13 13:30	10° ♁ 14'13	1.31371 AU		15798 Dec 31 07:52	0° ♁	
evening rise	15798 Jan 19 14:11	23° ♁ 19'49		evening rise	15799 Jan 03 19:42	7° ♁ 37'59	
	15798 Jan 22 20:13	0° ♁			15799 Jan 15 07:33	0° ♁	
desc. node	15798 Jan 28 18:36	11° ♁ 15'49		desc. node	15799 Jan 15 15:19	0° ♁ 33'22	
	15798 Feb 09 12:21	0° ♁		evening max el	15799 Feb 02 13:17	24° ♁ 43'10	26°44'22
evening max el	15798 Feb 20 11:21	12° ♁ 59'51	27°27'06		15799 Feb 09 14:04	0° ♁	
retrograde	15798 Mar 06 11:07	20° ♁ 22'31		retrograde	15799 Feb 16 13:32	1° ♁ 55'37	
evening set	15798 Mar 13 06:07	18° ♁ 15'23		evening set	15799 Feb 23 01:14	0° ♁ 10'49	
min. Earth dist.	15798 Mar 17 01:15	15° ♁ 25'00	0.61158 AU		15799 Feb 23 09:18	30° ♁	
inferior conj	15798 Mar 20 04:47	12° ♁ 37'11	-1°36'51	min. Earth dist.	15799 Feb 27 03:05	27° ♁ 32'26	0.58911 AU
minimum elong	15798 Mar 20 08:17	12° ♁ 29'22	1°35'32	inferior conj	15799 Mar 02 07:52	25° ♁ 04'07	-3°05'14
asc. node	15798 Mar 25 05:06	8° ♁ 44'01		minimum elong	15799 Mar 02 14:54	24° ♁ 50'29	3°02'29
morning rise	15798 Mar 27 13:44	7° ♁ 41'02		morning rise	15799 Mar 10 08:04	20° ♁ 28'59	
direct	15798 Mar 29 17:05	7° ♁ 21'36		direct	15799 Mar 12 07:29	20° ♁ 14'59	
morning max el	15798 Apr 05 16:04	10° ♁ 51'11	17°52'08	asc. node	15799 Mar 12 02:29	20° ♁ 15'08	
	15798 Apr 18 10:07	0° ♁		morning max el	15799 Mar 20 03:59	24° ♁ 08'20	18°17'06
morning set	15798 Apr 21 07:40	5° ♁ 12'24			15799 Mar 24 22:16	0° ♁	
desc. node	15798 Apr 26 20:14	15° ♁ 07'12		morning set	15799 Apr 04 20:38	19° ♁ 06'09	
					15799 Apr 10 15:28	0° ♁	
superior conj	15798 May 02 04:45	24° ♁ 28'39	-0°42'39	desc. node	15799 Apr 13 16:55	5° ♁ 38'28	
minimum elong	15798 May 02 00:55	24° ♁ 12'08	0°42'40				
	15798 May 05 10:49	0° ♁		superior conj	15799 Apr 14 08:39	6° ♁ 49'55	-0°05'27
max. Earth dist.	15798 May 09 12:37	6° ♁ 44'47	1.43218 AU	minimum elong	15799 Apr 14 08:12	6° ♁ 47'54	0°05'48
evening rise	15798 May 16 00:01	17° ♁ 06'17		behind sun begin	15799 Apr 14 01:14	6° ♁ 16'18	
	15798 May 24 10:11	0° ♁		behind sun end	15799 Apr 14 15:10	7° ♁ 19'25	
	15798 Jun 15 15:24	0° ♁		max. Earth dist.	15799 Apr 21 22:40	20° ♁ 08'40	1.41180 AU
evening max el	15798 Jun 16 22:47	1° ♁ 21'14	21°48'34	evening rise	15799 Apr 26 13:24	27° ♁ 49'34	
asc. node	15798 Jun 21 03:08	4° ♁ 54'05			15799 Apr 27 21:32	0° ♁	
retrograde	15798 Jun 26 03:57	6° ♁ 43'46			15799 May 18 00:34	0° ♁	
evening set	15798 Jun 30 18:57	4° ♁ 48'46		evening max el	15799 May 30 14:20	15° ♁ 14'48	23°08'55
	15798 Jul 04 23:24	30° ♁		asc. node	15799 Jun 08 00:05	21° ♁ 04'28	
inferior conj	15798 Jul 06 00:42	28° ♁ 32'13	3°07'22	retrograde	15799 Jun 10 00:12	21° ♁ 21'54	
minimum elong	15798 Jul 06 00:12	28° ♁ 33'58	3°06'35	evening set	15799 Jun 15 02:42	19° ♁ 11'54	
min. Earth dist.	15798 Jul 06 03:07	28° ♁ 23'45	0.69059 AU	inferior conj	15799 Jun 20 10:36	12° ♁ 47'10	2°56'21
morning rise	15798 Jul 11 05:16	22° ♁ 15'57		minimum elong	15799 Jun 20 09:15	12° ♁ 51'50	2°55'22
direct	15798 Jul 16 02:09	20° ♁ 11'30		min. Earth dist.	15799 Jun 20 00:01	13° ♁ 23'47	0.69070 AU
desc. node	15798 Jul 23 19:32	24° ♁ 02'27		morning rise	15799 Jun 25 15:43	6° ♁ 38'31	
morning max el	15798 Jul 25 18:44	25° ♁ 53'49	22°23'07	direct	15799 Jun 30 00:19	4° ♁ 53'04	
	15798 Jul 29 12:38	0° ♁		morning max el	15799 Jul 08 11:44	9° ♁ 45'12	21°00'22
	15798 Aug 20 01:10	0° ♁		desc. node	15799 Jul 10 16:46	12° ♁ 06'01	
morning set	15798 Aug 28 03:07	12° ♁ 43'00			15799 Jul 24 04:27	0° ♁	
max. Earth dist.	15798 Sep 02 05:31	21° ♁ 07'23	1.41116 AU	morning set	15799 Aug 07 21:34	22° ♁ 09'05	
	15798 Sep 07 09:49	0° ♁			15799 Aug 12 20:59	0° ♁	
				max. Earth dist.	15799 Aug 15 12:11	4° ♁ 14'09	1.43219 AU
superior conj	15798 Sep 10 01:50	4° ♁ 42'50	-0°59'39				
minimum elong	15798 Sep 10 06:36	5° ♁ 04'04	0°58'56	superior conj	15799 Aug 22 13:11	15° ♁ 52'50	-1°34'44
asc. node	15798 Sep 17 04:15	17° ♁ 41'54		minimum elong	15799 Aug 22 20:37	16° ♁ 24'14	1°34'10
evening rise	15798 Sep 20 07:15	23° ♁ 32'46			15799 Aug 30 17:08	0° ♁	
	15798 Sep 23 18:25	0° ♁		evening rise	15799 Sep 03 08:27	6° ♁ 27'37	
evening max el	15798 Oct 06 05:02	19° ♁ 02'58	18°18'30	asc. node	15799 Sep 04 00:50	7° ♁ 40'36	
retrograde	15798 Oct 13 16:37	22° ♁ 51'43			15799 Sep 17 20:52	0° ♁	
evening set	15798 Oct 15 17:53	22° ♁ 35'09		evening max el	15799 Sep 19 17:10	2° ♁ 01'53	18°02'33
desc. node	15798 Oct 19 16:20	20° ♁ 41'58		retrograde	15799 Sep 26 10:30	5° ♁ 29'43	

evening set	15799 Sep 28 19:02	5° \mathbb{M} 04'11		retrograde	15800 Sep 09 17:04	18° \mathbb{A} 46'29	
inferior conj	15799 Oct 05 15:29	0° \mathbb{M} 04'27	0°17'19	evening set	15800 Sep 12 10:05	18° \mathbb{A} 08'25	
minimum elong	15799 Oct 05 16:02	0° \mathbb{M} 03'08	0°17'27	inferior conj	15800 Sep 18 16:06	12° \mathbb{A} 50'45	1°24'45
	15799 Oct 05 17:21	30° \mathbb{R} \mathbb{A}		minimum elong	15800 Sep 18 18:09	12° \mathbb{A} 45'10	1°24'10
desc. node	15799 Oct 06 13:41	29° \mathbb{A} 11'03		min. Earth dist.	15800 Sep 21 08:56	9° \mathbb{A} 56'27	0.63084 AU
min. Earth dist.	15799 Oct 08 18:21	27° \mathbb{A} 06'38	0.60824 AU	desc. node	15800 Sep 23 11:05	7° \mathbb{A} 54'33	
morning rise	15799 Oct 12 10:00	24° \mathbb{A} 12'05		morning rise	15800 Sep 25 00:03	6° \mathbb{A} 38'39	
direct	15799 Oct 19 01:37	22° \mathbb{A} 00'19		direct	15800 Oct 01 16:02	4° \mathbb{A} 09'55	
	15799 Nov 02 09:46	0° \mathbb{M}		morning max el	15800 Oct 15 15:17	12° \mathbb{A} 08'55	27°50'49
morning max el	15799 Nov 02 07:11	29° \mathbb{A} 53'37	27°57'00		15800 Oct 29 20:52	0° \mathbb{M}	
	15799 Nov 24 00:14	0° \mathbb{A}			15800 Nov 16 10:54	0° \mathbb{A}	
asc. node	15799 Dec 01 01:55	13° \mathbb{A} 04'02		asc. node	15800 Nov 17 22:49	2° \mathbb{A} 56'54	
morning set	15799 Dec 05 07:38	21° \mathbb{A} 39'06		morning set	15800 Nov 19 03:58	5° \mathbb{A} 23'10	
	15799 Dec 09 05:19	0° \mathbb{B}		max. Earth dist.	15800 Nov 24 05:07	15° \mathbb{A} 55'42	1.31972 AU
max. Earth dist.	15799 Dec 11 03:40	4° \mathbb{B} 14'55	1.31211 AU				
				superior conj	15800 Nov 26 20:18	21° \mathbb{A} 38'13	1°14'19
superior conj	15799 Dec 12 12:11	7° \mathbb{B} 15'25	1°28'14	minimum elong	15800 Nov 26 18:02	21° \mathbb{A} 25'49	1°14'48
minimum elong	15799 Dec 12 10:27	7° \mathbb{B} 05'51	1°28'54		15800 Nov 30 15:36	0° \mathbb{B}	
evening rise	15799 Dec 19 04:45	22° \mathbb{B} 03'37		evening rise	15800 Dec 03 15:27	6° \mathbb{B} 31'56	
	15799 Dec 22 23:08	0° \mathbb{A}			15800 Dec 15 18:29	0° \mathbb{A}	
desc. node	15800 Jan 02 12:08	19° \mathbb{A} 13'14		desc. node	15800 Dec 20 09:02	7° \mathbb{A} 01'01	
	15800 Jan 10 04:07	0° \mathbb{H}		evening max el	15800 Dec 27 17:55	15° \mathbb{A} 43'30	23°51'05
evening max el	15800 Jan 15 07:02	5° \mathbb{H} 34'15	25°28'57	retrograde	15801 Jan 10 05:46	22° \mathbb{A} 24'54	
retrograde	15800 Jan 29 04:30	12° \mathbb{H} 33'42		evening set	15801 Jan 15 00:10	21° \mathbb{A} 35'40	
evening set	15800 Feb 04 00:09	11° \mathbb{H} 16'25		min. Earth dist.	15801 Jan 21 05:20	18° \mathbb{A} 34'45	0.55285 AU
min. Earth dist.	15800 Feb 08 19:45	8° \mathbb{H} 35'32	0.56853 AU	inferior conj	15801 Jan 23 00:43	17° \mathbb{A} 30'23	-5°40'34
inferior conj	15800 Feb 11 14:44	6° \mathbb{H} 43'16	-4°33'13	minimum elong	15801 Jan 23 07:31	17° \mathbb{A} 20'17	5°38'58
minimum elong	15800 Feb 12 00:04	6° \mathbb{H} 27'36	4°30'11	morning rise	15801 Jan 31 16:30	13° \mathbb{A} 34'39	
morning rise	15800 Feb 20 02:48	2° \mathbb{H} 29'33		direct	15801 Feb 03 04:47	13° \mathbb{A} 18'48	
direct	15800 Feb 22 03:48	2° \mathbb{H} 17'07		asc. node	15801 Feb 13 21:16	18° \mathbb{A} 29'10	
asc. node	15800 Feb 26 23:53	3° \mathbb{H} 31'31		morning max el	15801 Feb 13 21:15	18° \mathbb{A} 29'07	20°12'18
morning max el	15800 Mar 03 07:07	6° \mathbb{H} 45'10	19°03'12		15801 Feb 22 13:20	0° \mathbb{H}	
	15800 Mar 18 01:48	0° \mathbb{Y}		morning set	15801 Mar 04 01:45	18° \mathbb{H} 01'40	
morning set	15800 Mar 19 19:52	3° \mathbb{Y} 26'20			15801 Mar 09 21:48	0° \mathbb{Y}	
superior conj	15800 Mar 28 06:37	19° \mathbb{Y} 59'35	0°27'24	superior conj	15801 Mar 11 18:13	3° \mathbb{Y} 44'33	0°54'16
minimum elong	15800 Mar 28 08:17	20° \mathbb{Y} 07'32	0°26'54	minimum elong	15801 Mar 11 20:43	3° \mathbb{Y} 57'09	0°53'55
desc. node	15800 Mar 31 13:34	26° \mathbb{Y} 11'32		max. Earth dist.	15801 Mar 17 11:58	14° \mathbb{Y} 57'18	1.36660 AU
	15800 Apr 02 15:22	0° \mathbb{B}		desc. node	15801 Mar 18 10:12	16° \mathbb{Y} 42'00	
max. Earth dist.	15800 Apr 04 05:04	2° \mathbb{B} 49'45	1.38913 AU	evening rise	15801 Mar 21 06:17	21° \mathbb{Y} 55'32	
evening rise	15800 Apr 08 00:12	9° \mathbb{B} 28'46			15801 Mar 25 20:20	0° \mathbb{B}	
	15800 Apr 20 18:04	0° \mathbb{I}			15801 Apr 14 14:14	0° \mathbb{I}	
evening max el	15800 May 13 04:06	29° \mathbb{I} 10'11	24°29'55	evening max el	15801 Apr 25 17:44	13° \mathbb{I} 04'01	25°44'32
	15800 May 14 00:40	0° \mathbb{E}		retrograde	15801 May 08 05:25	20° \mathbb{I} 15'43	
retrograde	15800 May 24 17:07	5° \mathbb{E} 55'05		asc. node	15801 May 12 18:20	18° \mathbb{I} 52'18	
asc. node	15800 May 25 21:10	5° \mathbb{E} 49'17		evening set	15801 May 14 06:25	17° \mathbb{I} 45'56	
evening set	15800 May 30 07:06	3° \mathbb{E} 33'11		min. Earth dist.	15801 May 18 11:56	13° \mathbb{I} 11'20	0.67659 AU
	15800 Jun 02 13:41	30° \mathbb{R} \mathbb{I}		inferior conj	15801 May 20 00:21	11° \mathbb{I} 15'31	2°02'28
min. Earth dist.	15800 Jun 03 19:42	28° \mathbb{I} 22'08	0.68599 AU	minimum elong	15801 May 19 22:11	11° \mathbb{I} 22'28	2°01'06
inferior conj	15800 Jun 04 19:09	27° \mathbb{I} 03'25	2°34'53	morning rise	15801 May 25 14:30	5° \mathbb{I} 26'08	
minimum elong	15800 Jun 04 17:12	27° \mathbb{I} 09'59	2°33'40	direct	15801 May 29 00:24	4° \mathbb{I} 19'30	
morning rise	15800 Jun 10 03:27	21° \mathbb{I} 03'43		morning max el	15801 Jun 04 18:20	7° \mathbb{I} 57'48	18°53'23
direct	15800 Jun 14 00:19	19° \mathbb{I} 38'00		desc. node	15801 Jun 14 11:01	20° \mathbb{I} 22'26	
morning max el	15800 Jun 21 11:24	23° \mathbb{I} 47'18	19°49'20	greatest brilliancy	15801 Jun 18 05:36	26° \mathbb{I} 00'22	-0.8m
	15800 Jun 26 20:23	0° \mathbb{E}			15801 Jun 20 20:26	0° \mathbb{E}	
desc. node	15800 Jun 27 13:56	0° \mathbb{E} 57'05		morning set	15801 Jun 27 11:27	10° \mathbb{E} 13'52	
	15800 Jul 17 09:50	0° \mathbb{Q}			15801 Jul 10 04:46	0° \mathbb{Q}	
morning set	15800 Jul 18 01:59	1° \mathbb{Q} 01'55		max. Earth dist.	15801 Jul 11 19:34	2° \mathbb{Q} 31'28	1.45773 AU
max. Earth dist.	15800 Jul 29 01:17	18° \mathbb{Q} 06'41	1.44829 AU				
				superior conj	15801 Jul 13 17:10	5° \mathbb{Q} 29'54	-2°14'04
superior conj	15800 Aug 03 01:05	26° \mathbb{Q} 04'46	-2°02'02	minimum elong	15801 Jul 13 18:11	5° \mathbb{Q} 33'52	2°14'47
minimum elong	15800 Aug 03 08:00	26° \mathbb{Q} 32'38	2°02'07	evening rise	15801 Jul 28 21:48	29° \mathbb{Q} 38'38	
	15800 Aug 05 11:11	0° \mathbb{P}			15801 Jul 29 03:07	0° \mathbb{P}	
evening rise	15800 Aug 16 14:56	18° \mathbb{P} 33'16		asc. node	15801 Aug 08 18:09	16° \mathbb{P} 56'58	
asc. node	15800 Aug 21 21:28	27° \mathbb{P} 27'19		evening max el	15801 Aug 17 22:00	29° \mathbb{P} 07'00	18°26'12
	15800 Aug 23 10:10	0° \mathbb{A}			15801 Aug 18 20:45	0° \mathbb{A}	
evening max el	15800 Sep 03 07:57	15° \mathbb{A} 26'07	18°05'26	retrograde	15801 Aug 24 08:15	2° \mathbb{A} 33'24	

evening set	15801 Aug 27 10:18	1° Ω 40'07			15802 Jul 22 09:15	0° Π	
	15801 Aug 29 15:38	30° \mathbb{R} Π		asc. node	15802 Jul 26 14:52	6° Π 02'37	
inferior conj	15801 Sep 02 05:19	26° Π 06'41	2°13'11	evening max el	15802 Aug 01 08:30	12° Π 56'33	19°04'04
minimum elong	15801 Sep 02 07:38	25° Π 59'44	2°12'25	retrograde	15802 Aug 08 04:36	16° Π 42'12	
min. Earth dist.	15801 Sep 04 08:56	23° Π 33'10	0.65118 AU	evening set	15802 Aug 11 16:08	15° Π 32'03	
morning rise	15801 Sep 08 03:39	19° Π 43'52		inferior conj	15802 Aug 17 03:36	9° Π 44'39	2°45'07
desc. node	15801 Sep 10 08:31	18° Π 14'10		minimum elong	15802 Aug 17 05:27	9° Π 38'42	2°44'24
direct	15801 Sep 14 14:46	17° Π 07'06		min. Earth dist.	15802 Aug 18 17:09	7° Π 44'07	0.66796 AU
morning max el	15801 Sep 28 02:13	25° Π 00'22	27°10'52	morning rise	15802 Aug 22 18:03	3° Π 18'08	
	15801 Oct 02 15:33	0° Ω		desc. node	15802 Aug 28 05:57	0° Π 43'21	
	15801 Oct 23 08:03	0° \mathbb{L}		direct	15802 Aug 28 20:38	0° Π 41'54	
morning set	15801 Nov 02 14:39	18° \mathbb{L} 39'09		morning max el	15802 Sep 10 13:46	8° Π 15'49	26°05'03
asc. node	15801 Nov 04 19:40	23° \mathbb{L} 00'20			15802 Sep 27 14:46	0° Ω	
max. Earth dist.	15801 Nov 06 22:25	27° \mathbb{L} 17'05	1.33294 AU		15802 Oct 15 19:09	0° \mathbb{L}	
	15801 Nov 08 06:01	0° \mathbb{X}		morning set	15802 Oct 16 12:15	1° \mathbb{L} 18'46	
				max. Earth dist.	15802 Oct 20 06:05	8° \mathbb{L} 23'35	1.35132 AU
superior conj	15801 Nov 10 23:39	5° \mathbb{X} 44'52	0°54'19	asc. node	15802 Oct 22 16:25	13° \mathbb{L} 09'18	
minimum elong	15801 Nov 10 21:22	5° \mathbb{X} 32'45	0°54'39				
evening rise	15801 Nov 18 02:01	20° \mathbb{X} 58'43		superior conj	15802 Oct 25 19:34	19° \mathbb{L} 27'54	0°28'20
	15801 Nov 22 10:24	0° \mathbb{Z}		minimum elong	15802 Oct 25 18:01	19° \mathbb{L} 20'02	0°28'37
desc. node	15801 Dec 07 06:02	23° \mathbb{Z} 38'31			15802 Oct 30 21:27	0° \mathbb{X}	
evening max el	15801 Dec 09 04:44	25° \mathbb{Z} 40'44	22°08'05	evening rise	15802 Nov 02 10:25	5° \mathbb{X} 18'05	
	15801 Dec 14 20:04	0° \approx			15802 Nov 16 00:28	0° \mathbb{Z}	
retrograde	15801 Dec 21 19:03	1° \approx 54'36		evening max el	15802 Nov 21 00:59	6° \mathbb{Z} 02'31	20°36'35
evening set	15801 Dec 25 06:27	1° \approx 27'51		desc. node	15802 Nov 24 03:07	8° \mathbb{Z} 41'45	
	15801 Dec 29 06:19	30° \mathbb{R} \mathbb{Z}		retrograde	15802 Dec 02 05:22	11° \mathbb{Z} 36'03	
inferior conj	15802 Jan 02 19:13	27° \mathbb{Z} 36'10	-6°00'55	evening set	15802 Dec 04 14:47	11° \mathbb{Z} 21'57	
minimum elong	15802 Jan 02 17:29	27° \mathbb{Z} 38'34	6°00'05	inferior conj	15802 Dec 13 10:37	7° \mathbb{Z} 28'20	-5°20'05
min. Earth dist.	15802 Jan 02 10:58	27° \mathbb{Z} 47'42	0.54473 AU	minimum elong	15802 Dec 13 01:31	7° \mathbb{Z} 41'32	5°17'22
morning rise	15802 Jan 11 05:27	23° \mathbb{Z} 48'57		min. Earth dist.	15802 Dec 14 16:28	6° \mathbb{Z} 45'06	0.54577 AU
direct	15802 Jan 14 15:25	23° \mathbb{Z} 23'03		morning rise	15802 Dec 21 12:04	3° \mathbb{Z} 31'22	
morning max el	15802 Jan 26 20:21	29° \mathbb{Z} 16'34	21°43'57	direct	15802 Dec 25 23:21	2° \mathbb{Z} 48'27	
	15802 Jan 27 14:00	0° \approx		morning max el	15803 Jan 08 07:55	9° \mathbb{Z} 20'32	23°31'28
asc. node	15802 Jan 31 18:37	4° \approx 52'25		asc. node	15803 Jan 18 15:54	22° \mathbb{Z} 22'11	
	15802 Feb 15 04:06	0° \mathbb{X}			15803 Jan 23 04:48	0° \approx	
morning set	15802 Feb 16 11:41	2° \mathbb{X} 44'50		morning set	15803 Jan 31 23:28	17° \approx 28'59	
					15803 Feb 06 17:55	0° \mathbb{X}	
superior conj	15802 Feb 23 15:45	17° \mathbb{X} 55'03	1°14'40				
minimum elong	15802 Feb 23 18:11	18° \mathbb{X} 07'46	1°14'37	superior conj	15803 Feb 07 20:08	2° \mathbb{X} 22'11	1°28'38
max. Earth dist.	15802 Feb 27 23:45	26° \mathbb{X} 48'59	1.34634 AU	minimum elong	15803 Feb 07 21:55	2° \mathbb{X} 31'46	1°28'56
	15802 Mar 01 14:10	0° Υ		max. Earth dist.	15803 Feb 10 18:47	8° \mathbb{X} 40'09	1.32985 AU
evening rise	15802 Mar 04 04:16	5° Υ 00'47		evening rise	15803 Feb 15 14:39	18° \mathbb{X} 35'28	
desc. node	15802 Mar 05 06:50	7° Υ 06'20		desc. node	15803 Feb 20 03:28	27° \mathbb{X} 19'58	
	15802 Mar 18 15:36	0° \mathbb{Z}			15803 Feb 21 14:12	0° Υ	
evening max el	15802 Apr 08 07:33	26° \mathbb{Z} 49'23	26°45'12		15803 Mar 12 20:17	0° \mathbb{Z}	
	15802 Apr 11 21:22	0° \mathbb{I}		evening max el	15803 Mar 21 20:42	10° \mathbb{Z} 16'14	27°24'34
retrograde	15802 Apr 21 12:16	4° \mathbb{I} 16'22		retrograde	15803 Apr 04 12:51	17° \mathbb{Z} 48'17	
evening set	15802 Apr 27 22:48	1° \mathbb{I} 43'54		evening set	15803 Apr 11 06:10	15° \mathbb{Z} 19'40	
asc. node	15802 Apr 29 15:36	0° \mathbb{I} 12'35		min. Earth dist.	15803 Apr 15 01:52	11° \mathbb{Z} 51'23	0.64501 AU
	15802 Apr 29 20:40	30° \mathbb{R} \mathbb{Z}		asc. node	15803 Apr 16 12:55	10° \mathbb{Z} 17'58	
min. Earth dist.	15802 May 01 22:38	27° \mathbb{Z} 44'04	0.66277 AU	inferior conj	15803 Apr 17 15:29	9° \mathbb{Z} 05'58	0°20'48
inferior conj	15802 May 03 24:00	25° \mathbb{Z} 18'23	1°18'08	minimum elong	15803 Apr 17 14:54	9° \mathbb{Z} 07'32	0°20'07
minimum elong	15802 May 03 22:12	25° \mathbb{Z} 23'44	1°16'53	morning rise	15803 Apr 24 01:45	3° \mathbb{Z} 42'41	
morning rise	15802 May 09 22:49	19° \mathbb{Z} 41'03		direct	15803 Apr 26 16:21	3° \mathbb{Z} 07'41	
direct	15802 May 12 22:34	18° \mathbb{Z} 51'37		morning max el	15803 May 03 00:12	6° \mathbb{Z} 22'44	17°51'32
morning max el	15802 May 19 07:22	22° \mathbb{Z} 11'59	18°13'55		15803 May 18 23:47	0° \mathbb{I}	
	15802 May 25 14:58	0° \mathbb{I}		desc. node	15803 May 19 04:54	0° \mathbb{I} 21'22	
desc. node	15802 Jun 01 08:01	10° \mathbb{I} 12'48		morning set	15803 May 20 06:18	2° \mathbb{I} 07'29	
morning set	15802 Jun 07 19:08	20° \mathbb{I} 31'17					
	15802 Jun 13 17:51	0° \mathbb{E}		superior conj	15803 Jun 02 21:01	24° \mathbb{I} 26'50	-1°40'35
				minimum elong	15803 Jun 02 12:23	23° \mathbb{I} 52'15	1°40'31
superior conj	15802 Jun 23 02:06	14° \mathbb{E} 42'10	-2°06'10		15803 Jun 06 08:54	0° \mathbb{E}	
minimum elong	15802 Jun 22 19:43	14° \mathbb{E} 17'15	2°06'41	max. Earth dist.	15803 Jun 07 12:05	1° \mathbb{E} 47'09	1.45418 AU
max. Earth dist.	15802 Jun 24 16:10	17° \mathbb{E} 10'45	1.45971 AU	evening rise	15803 Jun 18 17:20	19° \mathbb{E} 10'26	
	15802 Jul 02 21:54	0° Ω			15803 Jun 25 20:32	0° Ω	
evening rise	15802 Jul 09 04:03	9° Ω 43'21		greatest brilliancy	15803 Jul 03 12:56	11° Ω 22'13	-0.6m
greatest brilliancy	15802 Jul 20 00:59	26° Ω 29'30	-0.7m	asc. node	15803 Jul 13 11:40	24° Ω 36'04	

evening max el	15803 Jul 15 13:35	26° Ω 49'46	19°57'48	evening rise	15804 May 28 05:27	28° Π 41'35	
	15803 Jul 19 12:07	0° \mathbb{M}			15804 May 29 01:48	0° \mathfrak{C}	
retrograde	15803 Jul 23 03:20	1° \mathbb{M} 06'39			15804 Jun 18 14:55	0° Ω	
	15803 Jul 26 13:01	30° \mathbb{R} Ω		evening max el	15804 Jun 27 12:37	10° Ω 43'08	21°05'12
evening set	15803 Jul 27 00:58	29° Ω 38'55		asc. node	15804 Jun 29 08:32	12° Ω 25'28	
inferior conj	15803 Aug 01 08:05	23° Ω 39'07	3°03'03	retrograde	15804 Jul 06 02:18	15° Ω 40'20	
minimum elong	15803 Aug 01 09:05	23° Ω 35'43	3°02'24	evening set	15804 Jul 10 10:43	13° Ω 55'10	
min. Earth dist.	15803 Aug 02 07:41	22° Ω 19'16	0.68046 AU	inferior conj	15804 Jul 15 16:15	7° Ω 44'24	3°08'56
morning rise	15803 Aug 06 16:47	17° Ω 13'59		minimum elong	15804 Jul 15 16:18	7° Ω 44'14	3°08'14
direct	15803 Aug 12 08:38	14° Ω 45'41		min. Earth dist.	15804 Jul 16 02:22	7° Ω 09'14	0.68830 AU
desc. node	15803 Aug 15 03:19	15° Ω 15'59		morning rise	15804 Jul 20 21:36	1° Ω 24'08	
morning max el	15803 Aug 24 00:48	21° Ω 45'12	24°42'49		15804 Jul 22 20:50	30° \mathbb{R} \mathfrak{C}	
	15803 Aug 31 05:20	0° \mathbb{M}		direct	15804 Jul 26 01:36	29° \mathfrak{C} 09'32	
	15803 Sep 20 20:37	0° \mathfrak{L}			15804 Jul 29 12:43	0° Ω	
morning set	15803 Sep 28 16:53	13° \mathfrak{L} 13'33		desc. node	15804 Aug 01 00:40	1° Ω 28'26	
max. Earth dist.	15803 Oct 02 06:10	19° \mathfrak{L} 34'33	1.37363 AU	morning max el	15804 Aug 05 11:56	5° Ω 21'56	23°13'48
	15803 Oct 07 19:47	0° \mathbb{M}			15804 Aug 24 12:40	0° \mathbb{M}	
				morning set	15804 Sep 09 00:13	24° \mathbb{M} 13'00	
superior conj	15803 Oct 09 04:56	2° \mathbb{M} 40'27	-0°03'06		15804 Sep 12 10:26	0° \mathfrak{L}	
minimum elong	15803 Oct 09 05:07	2° \mathbb{M} 41'18	0°02'41	max. Earth dist.	15804 Sep 13 04:38	1° \mathfrak{L} 18'08	1.39766 AU
behind sun begin	15803 Oct 08 22:32	2° \mathbb{M} 09'18					
behind sun end	15803 Oct 09 11:41	3° \mathbb{M} 13'22		superior conj	15804 Sep 20 23:53	15° \mathfrak{L} 13'15	-0°38'29
asc. node	15803 Oct 09 13:07	3° \mathbb{M} 20'20		minimum elong	15804 Sep 21 02:47	15° \mathfrak{L} 26'38	0°37'51
evening rise	15803 Oct 17 14:22	19° \mathbb{M} 24'44		asc. node	15804 Sep 25 09:47	23° \mathfrak{L} 29'36	
	15803 Oct 23 00:04	0° \mathfrak{J}			15804 Sep 28 19:16	0° \mathbb{M}	
evening max el	15803 Nov 03 11:45	17° \mathfrak{J} 12'20	19°25'32	evening rise	15804 Sep 30 10:59	3° \mathbb{M} 11'19	
desc. node	15803 Nov 11 00:15	21° \mathfrak{J} 46'43		evening max el	15804 Oct 16 11:40	29° \mathbb{M} 11'55	18°36'51
retrograde	15803 Nov 13 00:58	21° \mathfrak{J} 59'18			15804 Oct 17 07:51	0° \mathfrak{J}	
evening set	15803 Nov 14 22:54	21° \mathfrak{J} 48'37		retrograde	15804 Oct 24 14:23	3° \mathfrak{J} 18'10	
inferior conj	15803 Nov 23 13:29	17° \mathfrak{J} 41'45	-3°52'07	evening set	15804 Oct 26 12:48	3° \mathfrak{J} 04'57	
minimum elong	15803 Nov 23 04:13	17° \mathfrak{J} 56'47	3°48'14	desc. node	15804 Oct 27 21:28	2° \mathfrak{J} 40'43	
min. Earth dist.	15803 Nov 26 01:22	16° \mathfrak{J} 04'40	0.55596 AU		15804 Nov 01 15:59	30° \mathbb{R} \mathbb{M}	
morning rise	15803 Dec 01 07:24	13° \mathfrak{J} 16'27		inferior conj	15804 Nov 03 12:32	28° \mathbb{M} 37'55	-2°07'39
direct	15803 Dec 06 17:12	12° \mathfrak{J} 10'17		minimum elong	15804 Nov 03 07:24	28° \mathbb{M} 47'38	2°04'56
morning max el	15803 Dec 20 16:48	19° \mathfrak{J} 13'29	25°19'12	min. Earth dist.	15804 Nov 06 16:09	26° \mathbb{M} 15'50	0.57338 AU
	15803 Dec 29 18:00	0° \mathfrak{Z}		morning rise	15804 Nov 10 22:41	23° \mathbb{M} 36'11	
asc. node	15804 Jan 05 13:07	10° \mathfrak{Z} 42'28		direct	15804 Nov 17 01:23	22° \mathbb{M} 03'26	
	15804 Jan 15 11:10	0° \approx		morning max el	15804 Dec 01 06:55	29° \mathbb{M} 30'13	26°47'55
morning set	15804 Jan 16 11:12	2° \approx 08'45			15804 Dec 01 19:06	0° \mathfrak{J}	
				asc. node	15804 Dec 22 10:14	29° \mathfrak{J} 40'32	
superior conj	15804 Jan 23 04:54	16° \approx 58'43	1°36'19		15804 Dec 22 14:25	0° \mathfrak{Z}	
minimum elong	15804 Jan 23 05:42	17° \approx 03'11	1°36'54	morning set	15804 Dec 30 21:11	16° \mathfrak{Z} 39'37	
max. Earth dist.	15804 Jan 24 20:47	20° \approx 38'25	1.31811 AU		15805 Jan 05 22:18	0° \approx	
	15804 Jan 29 05:13	0° \mathfrak{H}					
evening rise	15804 Jan 30 10:26	2° \mathfrak{H} 32'12		superior conj	15805 Jan 06 15:57	1° \approx 38'42	1°37'55
desc. node	15804 Feb 07 00:06	17° \mathfrak{H} 17'29		minimum elong	15805 Jan 06 15:42	1° \approx 37'17	1°38'39
	15804 Feb 14 10:21	0° \mathbb{Y}		max. Earth dist.	15805 Jan 07 03:25	2° \approx 42'51	1.31155 AU
evening max el	15804 Mar 03 07:32	23° \mathbb{Y} 12'30	27°35'43	evening rise	15805 Jan 13 13:06	16° \approx 44'52	
	15804 Mar 13 08:31	0° \mathfrak{B}			15805 Jan 20 02:51	0° \mathfrak{H}	
retrograde	15804 Mar 17 06:07	0° \mathfrak{B} 40'57		desc. node	15805 Jan 23 20:47	6° \mathfrak{H} 52'25	
	15804 Mar 20 23:54	30° \mathbb{R} \mathbb{Y}			15805 Feb 08 11:37	0° \mathbb{Y}	
evening set	15804 Mar 24 01:54	28° \mathbb{Y} 23'51		evening max el	15805 Feb 13 13:45	5° \mathbb{Y} 26'37	27°13'20
min. Earth dist.	15804 Mar 27 20:04	25° \mathbb{Y} 21'39	0.62425 AU	retrograde	15805 Feb 27 14:26	12° \mathbb{Y} 45'14	
inferior conj	15804 Mar 30 19:43	22° \mathbb{Y} 30'01	-0°50'12	evening set	15805 Mar 06 07:01	10° \mathbb{Y} 47'11	
minimum elong	15804 Mar 30 21:25	22° \mathbb{Y} 25'56	0°49'44	min. Earth dist.	15805 Mar 10 04:08	8° \mathbb{Y} 03'03	0.60193 AU
asc. node	15804 Apr 02 10:16	20° \mathbb{Y} 06'48		inferior conj	15805 Mar 13 09:07	5° \mathbb{Y} 21'31	-2°13'32
morning rise	15804 Apr 06 19:54	17° \mathbb{Y} 23'11		minimum elong	15805 Mar 13 14:06	5° \mathbb{Y} 11'00	2°11'33
direct	15804 Apr 09 02:40	16° \mathbb{Y} 59'12		asc. node	15805 Mar 20 07:37	0° \mathbb{Y} 46'57	
morning max el	15804 Apr 15 17:49	20° \mathbb{Y} 20'34	17°46'38	morning rise	15805 Mar 21 00:39	0° \mathbb{Y} 33'45	
	15804 Apr 23 00:24	0° \mathfrak{B}		direct	15805 Mar 23 01:46	0° \mathbb{Y} 17'07	
morning set	15804 May 01 17:25	14° \mathfrak{B} 50'51		morning max el	15805 Mar 30 08:53	3° \mathbb{Y} 55'50	18°00'14
desc. node	15804 May 05 01:42	20° \mathfrak{B} 42'07		morning set	15805 Apr 14 22:35	28° \mathbb{Y} 24'05	
	15804 May 10 11:16	0° \mathbb{I}			15805 Apr 15 19:25	0° \mathfrak{B}	
				desc. node	15805 Apr 21 22:27	11° \mathfrak{B} 10'50	
superior conj	15804 May 13 13:03	5° \mathbb{I} 10'29	-1°04'47				
minimum elong	15804 May 13 07:00	4° \mathbb{I} 45'12	1°04'38	superior conj	15805 Apr 25 04:37	16° \mathfrak{B} 58'15	-0°26'30
max. Earth dist.	15804 May 20 04:55	16° \mathbb{I} 04'24	1.44185 AU	minimum elong	15805 Apr 25 02:20	16° \mathfrak{B} 48'15	0°26'40

max. Earth dist.	15805 May 02 17:47	29°♄51'30	1.42399 AU		15806 Apr 07 20:46	0°♄	
	15805 May 02 19:50	0°♄		desc. node	15806 Apr 08 19:07	1°♄43'04	
evening rise	15805 May 08 07:25	8°♄54'12		max. Earth dist.	15806 Apr 15 02:29	12°♄58'46	1.40237 AU
	15805 May 22 04:22	0°♄		evening rise	15806 Apr 19 05:58	20°♄01'27	
evening max el	15805 Jun 10 06:31	24°♄36'47	22°22'18		15806 Apr 25 09:39	0°♄	
asc. node	15805 Jun 16 05:27	29°♄16'45			15806 May 16 09:23	0°♄	
	15805 Jun 17 23:55	0°♄		evening max el	15806 May 23 21:09	8°♄31'19	23°43'42
retrograde	15805 Jun 19 23:48	0°♄18'09		asc. node	15806 Jun 03 02:28	14°♄52'57	
	15805 Jun 21 21:29	30°♄		retrograde	15806 Jun 03 18:39	14°♄54'54	
evening set	15805 Jun 24 19:39	28°♄16'40		evening set	15806 Jun 09 02:10	12°♄39'16	
inferior conj	15805 Jun 30 02:04	21°♄56'35	3°03'57	inferior conj	15806 Jun 14 11:38	6°♄12'12	2°48'33
minimum elong	15805 Jun 30 01:11	21°♄59'39	3°03'05	minimum elong	15806 Jun 14 09:59	6°♄17'49	2°47'27
min. Earth dist.	15805 Jun 29 23:01	22°♄07'14	0.69128 AU	min. Earth dist.	15806 Jun 13 19:33	7°♄07'13	0.68933 AU
morning rise	15805 Jul 05 06:34	15°♄43'21		morning rise	15806 Jun 19 17:48	0°♄07'26	
direct	15805 Jul 09 22:17	13°♄46'32			15806 Jun 19 21:40	30°♄	
desc. node	15805 Jul 18 21:58	18°♄57'01		direct	15806 Jun 23 21:24	28°♄30'20	
morning max el	15805 Jul 19 01:50	19°♄06'39	21°46'43		15806 Jun 28 05:35	0°♄	
	15805 Jul 28 04:16	0°♄		morning max el	15806 Jul 01 21:31	3°♄02'28	20°28'31
	15805 Aug 17 15:54	0°♄		desc. node	15806 Jul 05 19:13	7°♄22'24	
morning set	15805 Aug 20 07:32	4°♄10'46			15806 Jul 22 00:06	0°♄	
max. Earth dist.	15805 Aug 26 07:53	13°♄55'21	1.42061 AU	morning set	15806 Jul 30 18:16	13°♄17'52	
				max. Earth dist.	15806 Aug 08 18:03	27°♄25'27	1.43977 AU
					15806 Aug 10 08:29	0°♄	
superior conj	15805 Sep 02 23:58	26°♄56'02	-1°15'02	superior conj	15806 Aug 15 01:23	7°♄41'01	-1°47'43
minimum elong	15805 Sep 03 06:02	27°♄22'30	1°14'18	minimum elong	15806 Aug 15 09:11	8°♄13'18	1°47'21
	15805 Sep 04 17:56	0°♄		evening rise	15806 Aug 27 14:30	29°♄03'55	
asc. node	15805 Sep 12 06:24	13°♄33'09			15806 Aug 28 03:22	0°♄	
evening rise	15805 Sep 13 20:34	16°♄28'08		asc. node	15806 Aug 30 03:01	3°♄27'25	
	15805 Sep 21 09:45	0°♄		evening max el	15806 Sep 13 10:17	25°♄02'36	18°01'32
evening max el	15805 Sep 29 20:35	11°♄51'58	18°09'22	retrograde	15806 Sep 19 22:57	28°♄25'49	
retrograde	15805 Oct 06 22:54	15°♄29'53		evening set	15806 Sep 22 11:00	27°♄55'17	
evening set	15805 Oct 09 03:12	15°♄09'49		inferior conj	15806 Sep 29 00:52	22°♄47'17	0°48'22
desc. node	15805 Oct 14 18:48	11°♄44'02		minimum elong	15806 Sep 29 02:15	22°♄43'47	0°48'05
inferior conj	15805 Oct 16 09:14	10°♄21'16	-0°30'36	desc. node	15806 Oct 01 16:12	20°♄07'34	
minimum elong	15805 Oct 16 08:10	10°♄23'37	0°29'41	min. Earth dist.	15806 Oct 01 23:52	19°♄48'53	0.61796 AU
min. Earth dist.	15805 Oct 19 15:03	7°♄30'55	0.59504 AU	morning rise	15806 Oct 05 14:50	16°♄45'16	
morning rise	15805 Oct 23 09:50	4°♄45'13		direct	15806 Oct 12 07:09	14°♄25'40	
direct	15805 Oct 29 22:38	2°♄46'45		morning max el	15806 Oct 26 10:48	22°♄22'13	27°59'04
morning max el	15805 Nov 13 05:15	10°♄31'24	27°43'09		15806 Nov 02 04:48	0°♄	
	15805 Nov 28 08:29	0°♄			15806 Nov 21 12:56	0°♄	
asc. node	15805 Dec 09 07:16	19°♄05'37		asc. node	15806 Nov 26 04:14	8°♄50'13	
	15805 Dec 14 16:53	0°♄		morning set	15806 Nov 29 04:12	14°♄53'43	
morning set	15805 Dec 15 03:31	0°♄56'05		max. Earth dist.	15806 Dec 04 16:13	26°♄37'26	1.31471 AU
max. Earth dist.	15805 Dec 21 11:12	14°♄45'35	1.31038 AU		15806 Dec 06 05:02	0°♄	
				superior conj	15806 Dec 06 13:12	0°♄45'08	1°23'04
superior conj	15805 Dec 22 03:19	16°♄15'44	1°33'30	minimum elong	15806 Dec 06 11:12	0°♄34'03	1°23'41
minimum elong	15805 Dec 22 02:05	16°♄08'47	1°34'14	evening rise	15806 Dec 13 06:22	15°♄34'18	
	15805 Dec 28 07:58	0°♄			15806 Dec 20 07:13	0°♄	
evening rise	15805 Dec 28 20:22	1°♄07'01		desc. node	15806 Dec 28 14:23	14°♄15'00	
desc. node	15806 Jan 10 17:32	25°♄55'24		evening max el	15807 Jan 08 02:47	27°♄18'10	24°49'00
	15806 Jan 13 06:10	0°♄			15807 Jan 11 06:10	0°♄	
evening max el	15806 Jan 26 12:33	16°♄48'07	26°15'54	retrograde	15807 Jan 21 20:51	4°♄10'44	
retrograde	15806 Feb 09 11:49	23°♄54'21		evening set	15807 Jan 27 07:11	3°♄05'15	
evening set	15806 Feb 15 17:55	22°♄21'03		min. Earth dist.	15807 Feb 01 14:48	0°♄18'24	0.56118 AU
min. Earth dist.	15806 Feb 20 01:50	19°♄43'34	0.58003 AU		15807 Feb 02 02:36	30°♄	
inferior conj	15806 Feb 23 03:55	17°♄29'06	-3°43'29	inferior conj	15807 Feb 04 01:39	28°♄45'19	-5°05'48
minimum elong	15806 Feb 23 12:15	17°♄13'55	3°40'24	minimum elong	15807 Feb 04 10:43	28°♄30'58	5°03'14
morning rise	15806 Mar 03 09:48	13°♄02'51		morning rise	15807 Feb 12 16:36	24°♄40'18	
direct	15806 Mar 05 09:11	12°♄49'54		direct	15807 Feb 14 21:09	24°♄27'05	
asc. node	15806 Mar 07 05:00	13°♄01'29		asc. node	15807 Feb 22 02:24	27°♄02'04	
morning max el	15806 Mar 13 17:30	16°♄56'40	18°33'57	morning max el	15807 Feb 24 15:33	29°♄11'48	19°29'44
	15806 Mar 22 23:18	0°♄			15807 Feb 25 10:36	0°♄	
morning set	15806 Mar 29 16:26	12°♄30'34		morning set	15807 Mar 13 18:50	26°♄57'58	
					15807 Mar 15 07:04	0°♄	
superior conj	15806 Apr 07 16:44	29°♄41'18	0°09'10				
minimum elong	15806 Apr 07 17:21	29°♄44'09	0°08'43				
behind sun begin	15806 Apr 07 11:24	29°♄16'29					
behind sun end	15806 Apr 07 23:18	0°♄11'44					

superior conj	15807 Mar 21 21:00	13° Υ 07'13	0°39'34	superior conj	15808 Mar 04 13:18	27° Υ 04'45	1°03'42
minimum elong	15807 Mar 21 23:10	13° Υ 17'45	0°39'07	minimum elong	15808 Mar 04 15:52	27° Υ 17'52	1°03'28
desc. node	15807 Mar 26 15:45	22° Υ 15'11			15808 Mar 05 23:46	0° Υ	
max. Earth dist.	15807 Mar 28 08:38	25° Υ 23'58	1.37939 AU	max. Earth dist.	15808 Mar 09 16:49	7° Υ 21'19	1.35755 AU
	15807 Mar 30 21:50	0° Υ		desc. node	15808 Mar 12 12:22	12° Υ 43'43	
evening rise	15807 Apr 01 01:16	2° Υ 01'15		evening rise	15808 Mar 13 14:36	14° Υ 45'57	
	15807 Apr 18 13:41	0° Υ			15808 Mar 22 07:23	0° Υ	
evening max el	15807 May 06 10:31	22° Υ 25'36	25°02'51		15808 Apr 12 05:42	0° Υ	
retrograde	15807 May 18 09:44	29° Υ 23'38		evening max el	15808 Apr 18 00:08	6° Υ 16'40	26°12'27
asc. node	15807 May 20 23:36	28° Υ 55'48		retrograde	15808 Apr 30 20:05	13° Υ 37'09	
evening set	15807 May 24 04:38	26° Υ 57'29		asc. node	15808 May 06 20:49	11° Υ 14'29	
min. Earth dist.	15807 May 28 13:56	22° Υ 02'21	0.68254 AU	evening set	15808 May 07 01:17	11° Υ 05'22	
inferior conj	15807 May 29 19:00	20° Υ 26'46	2°22'33	min. Earth dist.	15808 May 11 04:08	6° Υ 45'48	0.67118 AU
minimum elong	15807 May 29 16:54	20° Υ 33'43	2°21'13	inferior conj	15808 May 12 22:09	4° Υ 35'58	1°45'13
morning rise	15807 Jun 04 05:29	14° Υ 31'33		minimum elong	15808 May 12 20:03	4° Υ 42'30	1°43'50
direct	15807 Jun 07 21:31	13° Υ 14'19			15808 May 17 02:31	30° Υ	
morning max el	15807 Jun 15 00:26	17° Υ 08'48	19°23'38	morning rise	15808 May 18 15:39	28° Υ 51'30	
desc. node	15807 Jun 22 16:21	26° Υ 29'07		direct	15808 May 21 21:00	27° Υ 52'38	
	15807 Jun 25 04:07	0° Υ			15808 May 26 21:10	0° Υ	
greatest brilliancy	15807 Jun 27 16:15	3° Υ 38'56	-0.7m	morning max el	15808 May 28 10:15	1° Υ 22'07	18°34'30
morning set	15807 Jul 09 22:14	22° Υ 11'39		desc. node	15808 Jun 08 13:23	16° Υ 06'11	
	15807 Jul 14 23:43	0° Υ			15808 Jun 17 12:18	0° Υ	
max. Earth dist.	15807 Jul 22 09:40	11° Υ 33'31	1.45312 AU	morning set	15808 Jun 18 15:39	1° Υ 47'14	
				max. Earth dist.	15808 Jul 04 04:44	26° Υ 04'35	1.45948 AU
superior conj	15807 Jul 26 03:48	17° Υ 29'28	-2°09'24	superior conj	15808 Jul 04 14:54	26° Υ 44'13	-2°13'12
minimum elong	15807 Jul 26 08:50	17° Υ 49'27	2°09'49	minimum elong	15808 Jul 04 12:29	26° Υ 34'47	2°13'56
	15807 Aug 02 22:31	0° Υ			15808 Jul 06 17:06	0° Υ	
evening rise	15807 Aug 09 11:27	10° Υ 44'50		evening rise	15808 Jul 20 07:34	21° Υ 22'57	
asc. node	15807 Aug 16 23:40	23° Υ 07'22			15808 Jul 25 18:10	0° Υ	
	15807 Aug 21 08:56	0° Υ		greatest brilliancy	15808 Jul 28 01:18	3° Υ 36'52	-0.8m
evening max el	15807 Aug 28 01:03	8° Υ 34'01	18°12'06	asc. node	15808 Aug 02 20:23	12° Υ 27'39	
retrograde	15807 Sep 03 09:45	11° Υ 55'44		evening max el	15808 Aug 10 13:53	22° Υ 19'04	18°40'16
evening set	15807 Sep 06 06:26	11° Υ 11'37		retrograde	15808 Aug 17 03:26	25° Υ 52'09	
inferior conj	15807 Sep 12 07:19	5° Υ 46'55	1°47'29	evening set	15808 Aug 20 09:22	24° Υ 52'02	
minimum elong	15807 Sep 12 09:37	5° Υ 40'25	1°46'46	inferior conj	15808 Aug 26 00:47	19° Υ 12'41	2°28'33
min. Earth dist.	15807 Sep 14 18:45	2° Υ 59'29	0.63980 AU	minimum elong	15808 Aug 26 02:58	19° Υ 05'55	2°27'48
	15807 Sep 17 19:42	30° Υ		min. Earth dist.	15808 Aug 27 22:33	16° Υ 51'38	0.65884 AU
morning rise	15807 Sep 18 10:59	29° Υ 28'55		morning rise	15808 Aug 31 19:30	12° Υ 47'24	
desc. node	15807 Sep 18 13:38	29° Υ 23'47		desc. node	15808 Sep 04 11:04	10° Υ 36'48	
direct	15807 Sep 25 01:16	26° Υ 55'40		direct	15808 Sep 07 03:26	10° Υ 09'30	
	15807 Oct 03 03:29	0° Υ		morning max el	15808 Sep 20 07:57	17° Υ 56'59	26°45'20
morning max el	15807 Oct 08 20:38	4° Υ 54'35	27°37'34		15808 Sep 30 11:28	0° Υ	
	15807 Oct 27 21:27	0° Υ			15808 Oct 19 20:10	0° Υ	
morning set	15807 Nov 12 20:48	28° Υ 26'21		morning set	15808 Oct 26 02:20	11° Υ 27'19	
asc. node	15807 Nov 13 01:06	28° Υ 47'46		asc. node	15808 Oct 29 21:54	18° Υ 53'38	
	15807 Nov 13 15:31	0° Υ		max. Earth dist.	15808 Oct 30 03:18	19° Υ 20'36	1.34012 AU
max. Earth dist.	15807 Nov 17 14:32	8° Υ 09'31	1.32462 AU				
superior conj	15807 Nov 20 19:33	15° Υ 01'08	1°06'34	superior conj	15808 Nov 03 20:04	28° Υ 58'03	0°44'00
minimum elong	15807 Nov 20 17:12	14° Υ 48'25	1°07'00	minimum elong	15808 Nov 03 18:00	28° Υ 47'12	0°44'17
evening rise	15807 Nov 27 17:12	0° Υ			15808 Nov 04 07:54	0° Υ	
	15807 Nov 27 16:52	0° Υ		evening rise	15808 Nov 11 03:04	14° Υ 25'10	
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desc. node	15807 Dec 15 11:20	1° Υ 35'22		evening max el	15808 Dec 01 02:09	17° Υ 20'21	21°27'07
evening max el	15807 Dec 20 12:17	7° Υ 16'53	23°06'48	desc. node	15808 Dec 01 08:23	17° Υ 35'29	
retrograde	15808 Jan 02 17:03	13° Υ 49'00		retrograde	15808 Dec 13 03:34	23° Υ 18'10	
evening set	15808 Jan 06 22:20	13° Υ 10'21		evening set	15808 Dec 16 02:13	22° Υ 58'20	
min. Earth dist.	15808 Jan 13 22:21	9° Υ 54'53	0.54828 AU	inferior conj	15808 Dec 24 19:17	19° Υ 07'53	-5°50'57
inferior conj	15808 Jan 15 03:57	9° Υ 12'25	-5°56'23	minimum elong	15808 Dec 24 13:42	19° Υ 15'43	5°49'32
minimum elong	15808 Jan 15 07:39	9° Υ 07'07	5°55'24	min. Earth dist.	15808 Dec 25 03:49	18° Υ 55'55	0.54394 AU
morning rise	15808 Jan 23 18:19	5° Υ 22'06		morning rise	15809 Jan 02 01:38	15° Υ 18'41	
direct	15808 Jan 26 14:30	5° Υ 03'04		direct	15809 Jan 05 22:27	14° Υ 46'12	
morning max el	15808 Feb 06 23:28	10° Υ 32'15	20°48'46	morning max el	15809 Jan 18 16:47	20° Υ 57'52	22°28'29
asc. node	15808 Feb 08 23:47	12° Υ 38'28		asc. node	15809 Jan 25 21:06	29° Υ 31'52	
	15808 Feb 20 06:56	0° Υ			15809 Jan 26 04:56	0° Υ	
morning set	15808 Feb 26 02:45	11° Υ 37'36		morning set	15809 Feb 09 13:41	26° Υ 21'29	
					15809 Feb 11 06:40	0° Υ	

































































































































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minimum elong	15809 Feb 16 16:16	11° H 34'45	1°21'27		15810 Jan 19 17:13	0° \approx	
max. Earth dist.	15809 Feb 20 07:24	19° H 10'29	1.33878 AU	morning set	15810 Jan 25 01:40	11° \approx 04'10	
evening rise	15809 Feb 24 18:16	28° H 04'54					
	15809 Feb 25 18:07	0° Y		superior conj	15810 Jan 31 20:34	25° \approx 54'32	1°32'38
desc. node	15809 Feb 27 08:57	3° Y 03'56		minimum elong	15810 Jan 31 21:57	26° \approx 02'08	1°33'04
	15809 Mar 15 12:59	0° B			15810 Feb 02 17:43	0° H	
evening max el	15809 Mar 31 13:55	19° B 55'54	27°05'02	max. Earth dist.	15810 Feb 03 05:47	1° H 05'01	1.32429 AU
retrograde	15809 Apr 14 00:27	27° B 26'18		evening rise	15810 Feb 08 09:00	11° H 49'42	
evening set	15809 Apr 20 14:06	24° B 54'53		desc. node	15810 Feb 14 05:35	23° H 11'19	
asc. node	15809 Apr 23 18:06	21° B 57'28			15810 Feb 18 00:40	0° Y	
min. Earth dist.	15809 Apr 24 12:02	21° B 08'38	0.65565 AU		15810 Mar 10 24:00	0° B	
inferior conj	15809 Apr 26 18:40	18° B 33'15	0°55'29	evening max el	15810 Mar 14 02:34	3° B 11'46	27°33'08
minimum elong	15809 Apr 26 17:16	18° B 37'16	0°54'24	retrograde	15810 Mar 27 21:49	10° B 42'13	
morning rise	15809 May 02 22:00	13° B 01'19		evening set	15810 Apr 03 16:47	8° B 17'50	
direct	15809 May 05 17:42	12° B 18'25		min. Earth dist.	15810 Apr 07 11:36	5° B 01'19	0.63654 AU
morning max el	15809 May 12 01:08	15° B 35'17	18°02'11	inferior conj	15810 Apr 10 05:46	2° B 11'45	-0°07'39
	15809 May 22 15:21	0° II		minimum elong	15810 Apr 10 06:01	2° B 11'07	0°07'54
desc. node	15809 May 26 10:18	6° II 04'46		transit middle	15810 Apr 10 06:01	2° B 11'07	0°07'54
morning set	15809 May 30 11:03	12° II 38'11		transit begin	15810 Apr 10 03:16	2° B 18'11	
	15809 Jun 10 05:46	0° E		transit end	15810 Apr 10 08:45	2° B 04'05	
				asc. node	15810 Apr 10 15:25	1° B 47'00	
superior conj	15809 Jun 14 02:06	6° E 04'58	-1°57'06		15810 Apr 12 11:01	30° R Y	
minimum elong	15809 Jun 13 17:58	5° E 32'58	1°57'20	morning rise	15810 Apr 16 21:40	26° Y 54'52	
max. Earth dist.	15809 Jun 17 01:03	10° E 43'12	1.45831 AU	direct	15810 Apr 19 08:51	26° Y 24'50	
	15809 Jun 29 11:37	0° O		morning max el	15810 Apr 25 18:36	29° Y 41'00	17°47'12
evening rise	15809 Jun 30 04:56	1° O 06'38			15810 Apr 26 02:17	0° B	
greatest brilliancy	15809 Jul 13 02:21	20° O 42'07	-0.7m	morning set	15810 May 12 09:06	24° B 45'03	
	15809 Jul 19 16:15	0° P		desc. node	15810 May 13 07:07	26° B 18'51	
asc. node	15809 Jul 20 17:08	1° P 20'40			15810 May 15 11:10	0° II	
evening max el	15809 Jul 24 22:18	6° P 10'54	19°25'10				
retrograde	15809 Aug 01 00:56	10° P 08'06		superior conj	15810 May 25 05:06	16° II 12'04	-1°26'07
evening set	15809 Aug 04 16:44	8° P 50'30		minimum elong	15810 May 24 21:11	15° II 39'52	1°25'57
inferior conj	15809 Aug 10 02:01	2° P 57'55	2°54'15	max. Earth dist.	15810 May 30 20:24	25° II 14'47	1.44980 AU
minimum elong	15809 Aug 10 03:32	2° P 52'54	2°53'35		15810 Jun 02 20:48	0° E	
min. Earth dist.	15809 Aug 11 09:38	1° P 13'53	0.67390 AU	evening rise	15810 Jun 09 15:36	10° E 30'00	
	15809 Aug 12 08:46	30° R O			15810 Jun 22 15:59	0° O	
morning rise	15809 Aug 15 13:45	26° O 31'40		asc. node	15810 Jul 07 13:56	19° O 36'37	
direct	15809 Aug 21 12:07	23° O 57'47		evening max el	15810 Jul 08 00:50	20° O 04'15	20°25'03
desc. node	15809 Aug 22 08:27	24° O 00'36		retrograde	15810 Jul 15 23:55	24° O 36'59	
	15809 Sep 01 11:06	0° P		evening set	15810 Jul 20 02:11	23° O 01'32	
morning max el	15809 Sep 02 19:03	1° P 18'20	25°31'25	inferior conj	15810 Jul 25 08:18	16° O 56'53	3°06'55
	15809 Sep 24 11:42	0° A		minimum elong	15810 Jul 25 08:54	16° O 54'49	3°06'16
morning set	15809 Oct 08 17:13	23° A 48'52		min. Earth dist.	15810 Jul 26 02:03	15° O 56'00	0.68442 AU
	15809 Oct 12 01:42	0° M		morning rise	15810 Jul 30 15:18	10° O 33'46	
max. Earth dist.	15809 Oct 12 07:03	0° M 25'06	1.36045 AU	direct	15810 Aug 05 02:13	8° O 10'52	
asc. node	15809 Oct 16 18:38	9° M 03'59		desc. node	15810 Aug 09 05:49	9° O 18'25	
				morning max el	15810 Aug 16 05:54	14° O 50'46	24°05'15
superior conj	15809 Oct 18 11:58	12° M 29'27	0°15'38		15810 Aug 28 15:43	0° P	
minimum elong	15809 Oct 18 11:01	12° M 24'44	0°15'56		15810 Sep 17 09:17	0° A	
behind sun begin	15809 Oct 18 10:03	12° M 19'55		morning set	15810 Sep 20 13:12	5° A 20'35	
behind sun end	15809 Oct 18 11:59	12° M 29'34		max. Earth dist.	15810 Sep 24 06:07	11° A 48'36	1.38384 AU
evening rise	15809 Oct 26 09:52	28° M 39'58					
	15809 Oct 27 01:31	0° X		superior conj	15810 Oct 01 15:40	25° A 25'56	-0°17'44
evening max el	15809 Nov 13 04:32	28° X 01'37	20°03'38	minimum elong	15810 Oct 01 16:54	25° A 31'45	0°17'15
	15809 Nov 15 09:25	0° Z		asc. node	15810 Oct 03 15:17	29° A 14'24	
desc. node	15809 Nov 18 05:30	1° Z 51'26			15810 Oct 04 00:42	0° M	
retrograde	15809 Nov 23 15:52	3° Z 14'46		evening rise	15810 Oct 10 11:05	12° M 38'58	
evening set	15809 Nov 25 18:49	3° Z 02'55			15810 Oct 19 19:07	0° X	
	15809 Dec 03 01:02	30° R X		evening max el	15810 Oct 26 21:13	9° X 32'28	19°02'03
inferior conj	15809 Dec 04 13:58	29° X 05'01	-4°46'46	retrograde	15810 Nov 04 18:39	14° X 01'11	
minimum elong	15809 Dec 04 03:56	29° X 20'07	4°43'15	desc. node	15810 Nov 05 02:42	14° X 00'49	
min. Earth dist.	15809 Dec 06 10:14	27° X 58'24	0.54909 AU	evening set	15810 Nov 06 15:51	13° X 49'56	
morning rise	15809 Dec 12 12:07	24° X 58'10		inferior conj	15810 Nov 15 00:48	9° X 34'30	-3°08'04
direct	15809 Dec 17 09:52	24° X 05'47		minimum elong	15810 Nov 14 17:05	9° X 47'51	3°04'27
	15809 Dec 30 03:25	0° Z		min. Earth dist.	15810 Nov 17 20:59	7° X 36'59	0.56266 AU
morning max el	15809 Dec 31 01:46	0° Z 51'33	24°18'25	morning rise	15810 Nov 22 15:36	4° X 54'08	

direct	15810 Nov 28 09:14	3° ♊ 37'13		morning max el	15811 Nov 24 06:02	21° ♍ 25'18	27°16'05
morning max el	15810 Dec 12 12:13	10° ♊ 50'30	26°00'26		15811 Dec 01 18:16	0° ♊	
	15810 Dec 27 03:02	0° ♊		asc. node	15811 Dec 17 12:34	25° ♊ 12'15	
asc. node	15810 Dec 30 15:29	6° ♊ 01'59			15811 Dec 20 00:03	0° ♊	
morning set	15811 Jan 09 12:52	25° ♊ 40'17		morning set	15811 Dec 24 21:32	10° ♊ 05'25	
	15811 Jan 11 12:35	0° ♊					
superior conj	15811 Jan 16 06:31	10° ♊ 32'28	1°37'44	superior conj	15811 Dec 31 17:56	25° ♊ 11'33	1°36'46
minimum elong	15811 Jan 16 06:52	10° ♊ 34'28	1°38'24	minimum elong	15811 Dec 31 17:14	25° ♊ 07'40	1°37'32
max. Earth dist.	15811 Jan 17 10:17	13° ♊ 06'40	1.31468 AU	max. Earth dist.	15811 Dec 31 17:46	25° ♊ 10'39	1.31034 AU
evening rise	15811 Jan 23 07:58	25° ♊ 53'07			15812 Jan 02 21:30	0° ♊	
	15811 Jan 25 07:50	0° ♊		evening rise	15812 Jan 07 12:49	10° ♊ 09'47	
desc. node	15811 Feb 01 02:16	12° ♊ 59'51			15812 Jan 17 14:37	0° ♊	
	15811 Feb 11 12:20	0° ♊		desc. node	15812 Jan 18 23:01	2° ♊ 22'10	
evening max el	15811 Feb 24 11:42	15° ♊ 50'44	27°30'26	evening max el	15812 Feb 06 14:46	27° ♊ 41'50	26°52'59
retrograde	15811 Mar 10 11:12	23° ♊ 15'11			15812 Feb 09 05:31	0° ♊	
evening set	15811 Mar 17 06:40	21° ♊ 05'08		retrograde	15812 Feb 20 15:22	4° ♊ 56'19	
min. Earth dist.	15811 Mar 21 01:20	18° ♊ 12'07	0.61486 AU	evening set	15812 Feb 27 04:31	3° ♊ 07'54	
inferior conj	15811 Mar 24 04:07	15° ♊ 22'42	-1°24'13	min. Earth dist.	15812 Mar 02 04:49	0° ♊ 28'24	0.59234 AU
minimum elong	15811 Mar 24 07:06	15° ♊ 15'52	1°23'08		15812 Mar 02 19:35	30° ♊	
asc. node	15811 Mar 28 12:45	11° ♊ 49'49		inferior conj	15812 Mar 05 09:58	27° ♊ 56'02	-2°51'32
morning rise	15811 Mar 31 10:46	10° ♊ 23'50		minimum elong	15812 Mar 05 16:30	27° ♊ 43'07	2°48'59
direct	15811 Apr 02 14:55	10° ♊ 03'20		morning rise	15812 Mar 13 08:00	23° ♊ 17'41	
morning max el	15811 Apr 09 11:35	13° ♊ 30'20	17°50'11	asc. node	15812 Mar 14 10:08	23° ♊ 06'09	
	15811 Apr 20 18:25	0° ♊		direct	15812 Mar 15 07:40	23° ♊ 03'09	
morning set	15811 Apr 25 04:39	7° ♊ 51'52		morning max el	15812 Mar 23 00:29	26° ♊ 52'29	18°12'08
desc. node	15811 Apr 30 03:54	16° ♊ 43'32			15812 Mar 25 18:43	0° ♊	
				morning set	15812 Apr 07 15:47	21° ♊ 40'32	
superior conj	15811 May 06 07:23	27° ♊ 24'02	-0°48'29		15812 Apr 12 02:20	0° ♊	
minimum elong	15811 May 06 02:57	27° ♊ 05'10	0°48'28	desc. node	15812 Apr 16 00:37	7° ♊ 14'00	
	15811 May 07 20:11	0° ♊					
max. Earth dist.	15811 May 13 12:07	9° ♊ 22'31	1.43482 AU	superior conj	15812 Apr 17 08:13	9° ♊ 36'52	-0°10'53
evening rise	15811 May 20 08:16	20° ♊ 15'51		minimum elong	15812 Apr 17 07:20	9° ♊ 32'52	0°11'11
	15811 May 26 16:33	0° ♊		behind sun begin	15812 Apr 17 01:54	9° ♊ 08'24	
	15811 Jun 17 06:35	0° ♊		behind sun end	15812 Apr 17 12:46	9° ♊ 57'18	
evening max el	15811 Jun 20 21:26	3° ♊ 57'38	21°37'01	max. Earth dist.	15812 Apr 24 22:40	22° ♊ 51'35	1.41501 AU
asc. node	15811 Jun 24 10:50	7° ♊ 03'36			15812 Apr 29 06:05	0° ♊	
retrograde	15811 Jun 29 22:33	9° ♊ 13'43		evening rise	15812 Apr 29 18:36	0° ♊ 50'50	
evening set	15811 Jul 04 11:49	7° ♊ 21'11			15812 May 19 02:57	0° ♊	
inferior conj	15811 Jul 09 17:26	1° ♊ 05'58	3°08'07	evening max el	15812 Jun 02 13:33	17° ♊ 51'10	22°56'44
minimum elong	15811 Jul 09 17:04	1° ♊ 07'13	3°07'22	asc. node	15812 Jun 10 07:49	23° ♊ 25'18	
min. Earth dist.	15811 Jul 09 21:49	0° ♊ 50'39	0.69016 AU	retrograde	15812 Jun 12 19:14	23° ♊ 51'53	
	15811 Jul 10 12:23	30° ♊		evening set	15812 Jun 17 19:57	21° ♊ 44'05	
morning rise	15811 Jul 14 22:07	24° ♊ 48'32		inferior conj	15812 Jun 23 03:24	15° ♊ 20'26	2°58'43
direct	15811 Jul 19 20:48	22° ♊ 41'26		minimum elong	15812 Jun 23 02:10	15° ♊ 24'42	2°57'45
desc. node	15811 Jul 27 03:08	26° ♊ 06'16		min. Earth dist.	15812 Jun 22 18:47	15° ♊ 50'19	0.69100 AU
morning max el	15811 Jul 29 18:05	28° ♊ 31'47	22°36'05	morning rise	15812 Jun 28 08:16	9° ♊ 10'27	
	15811 Jul 31 03:57	0° ♊		direct	15812 Jul 02 18:42	7° ♊ 21'59	
	15811 Aug 22 07:31	0° ♊		morning max el	15812 Jul 11 10:11	12° ♊ 21'18	21°12'01
morning set	15811 Sep 01 10:29	15° ♊ 54'22		desc. node	15812 Jul 13 00:24	14° ♊ 01'07	
max. Earth dist.	15811 Sep 06 06:19	23° ♊ 54'48	1.40774 AU		15812 Jul 25 08:19	0° ♊	
	15811 Sep 09 19:31	0° ♊		morning set	15812 Aug 11 08:08	25° ♊ 28'11	
					15812 Aug 14 05:05	0° ♊	
superior conj	15811 Sep 14 03:06	7° ♊ 38'22	-0°54'06	max. Earth dist.	15812 Aug 18 11:53	6° ♊ 53'13	1.42936 AU
minimum elong	15811 Sep 14 07:22	7° ♊ 57'34	0°53'23				
asc. node	15811 Sep 20 11:56	19° ♊ 21'40		superior conj	15812 Aug 25 17:55	18° ♊ 57'08	-1°29'46
evening rise	15811 Sep 24 03:33	26° ♊ 14'23		minimum elong	15812 Aug 26 01:04	19° ♊ 27'35	1°29'07
	15811 Sep 26 03:29	0° ♊			15812 Sep 01 02:41	0° ♊	
evening max el	15811 Oct 10 01:26	21° ♊ 50'01	18°22'37	evening rise	15812 Sep 06 07:07	9° ♊ 15'13	
retrograde	15811 Oct 17 16:41	25° ♊ 42'58		asc. node	15812 Sep 06 08:35	9° ♊ 21'48	
evening set	15811 Oct 19 17:02	25° ♊ 27'27			15812 Sep 18 14:51	0° ♊	
desc. node	15811 Oct 22 23:58	24° ♊ 02'15		evening max el	15812 Sep 22 12:54	4° ♊ 44'28	18°03'44
inferior conj	15811 Oct 27 09:16	20° ♊ 51'05	-1°24'39	retrograde	15812 Sep 29 08:13	8° ♊ 14'24	
minimum elong	15811 Oct 27 06:01	20° ♊ 57'40	1°22'44	evening set	15812 Oct 01 15:37	7° ♊ 50'23	
min. Earth dist.	15811 Oct 30 15:10	18° ♊ 14'28	0.58225 AU	inferior conj	15812 Oct 08 14:30	2° ♊ 53'36	0°05'21
morning rise	15811 Nov 03 15:30	15° ♊ 33'34		minimum elong	15812 Oct 08 14:41	2° ♊ 53'09	0°05'39
direct	15811 Nov 09 23:08	13° ♊ 49'35		transit middle	15812 Oct 08 14:41	2° ♊ 53'09	0°05'39
				transit begin	15812 Oct 08 11:35	3° ♊ 00'24	

transit end	15812 Oct 08 17:47	2° \mathbb{M} 45'54		inferior conj	15813 Sep 21 12:54	15° \mathbb{A} 34'40	1°15'48
desc. node	15812 Oct 08 21:19	2° \mathbb{M} 37'35		minimum elong	15813 Sep 21 14:50	15° \mathbb{A} 29'32	1°15'16
	15812 Oct 11 17:05	30° \mathbb{R} \mathbb{A}		min. Earth dist.	15813 Sep 24 07:27	12° \mathbb{A} 38'49	0.62757 AU
min. Earth dist.	15812 Oct 11 18:26	29° \mathbb{A} 56'59	0.60480 AU	desc. node	15813 Sep 25 18:44	11° \mathbb{A} 12'43	
morning rise	15812 Oct 15 10:36	27° \mathbb{A} 05'14		morning rise	15813 Sep 27 22:25	9° \mathbb{A} 24'59	
direct	15812 Oct 22 01:46	24° \mathbb{A} 56'34		direct	15813 Oct 04 14:42	6° \mathbb{A} 58'24	
	15812 Nov 02 05:45	0° \mathbb{M}		morning max el	15813 Oct 18 15:09	14° \mathbb{A} 56'49	27°54'08
morning max el	15812 Nov 05 07:41	2° \mathbb{M} 47'57	27°54'40		15813 Oct 30 22:01	0° \mathbb{M}	
	15812 Nov 25 07:00	0° \mathbb{A}			15813 Nov 17 21:44	0° \mathbb{A}	
asc. node	15812 Dec 03 09:36	14° \mathbb{A} 46'34		asc. node	15813 Nov 20 06:31	4° \mathbb{A} 37'16	
morning set	15812 Dec 08 01:46	24° \mathbb{A} 14'52		morning set	15813 Nov 21 23:18	8° \mathbb{A} 02'24	
	15812 Dec 10 18:30	0° \mathbb{B}		max. Earth dist.	15813 Nov 27 03:12	18° \mathbb{A} 53'06	1.31823 AU
max. Earth dist.	15812 Dec 14 00:42	7° \mathbb{B} 09'19	1.31147 AU				
				superior conj	15813 Nov 29 13:35	24° \mathbb{A} 11'06	1°16'49
superior conj	15812 Dec 15 04:57	9° \mathbb{B} 46'32	1°29'49	minimum elong	15813 Nov 29 11:23	23° \mathbb{A} 58'57	1°17'21
minimum elong	15812 Dec 15 03:21	9° \mathbb{B} 37'36	1°30'31		15813 Dec 02 04:55	0° \mathbb{B}	
evening rise	15812 Dec 21 21:30	24° \mathbb{B} 35'02		evening rise	15813 Dec 06 08:04	9° \mathbb{B} 03'09	
	15812 Dec 24 10:39	0° \mathbb{A}			15813 Dec 16 22:58	0° \mathbb{A}	
desc. node	15813 Jan 04 19:49	21° \mathbb{A} 08'39		desc. node	15813 Dec 22 16:44	9° \mathbb{A} 05'17	
	15813 Jan 10 20:07	0° \mathbb{H}		evening max el	15813 Dec 30 21:36	18° \mathbb{A} 55'09	24°06'27
evening max el	15813 Jan 18 09:57	8° \mathbb{H} 41'11	25°42'00	retrograde	15814 Jan 13 11:13	25° \mathbb{A} 39'26	
retrograde	15813 Feb 01 08:09	15° \mathbb{H} 42'22		evening set	15814 Jan 18 10:07	24° \mathbb{A} 46'05	
evening set	15813 Feb 07 06:42	14° \mathbb{H} 20'59		min. Earth dist.	15814 Jan 24 09:13	21° \mathbb{A} 49'31	0.55481 AU
min. Earth dist.	15813 Feb 11 22:52	11° \mathbb{H} 41'24	0.57138 AU	inferior conj	15814 Jan 26 09:01	20° \mathbb{A} 37'34	-5°32'47
inferior conj	15813 Feb 14 20:03	9° \mathbb{H} 43'02	-4°20'36	minimum elong	15814 Jan 26 16:38	20° \mathbb{A} 26'05	5°30'55
minimum elong	15813 Feb 15 05:15	9° \mathbb{H} 27'16	4°17'30	morning rise	15814 Feb 04 00:55	16° \mathbb{A} 39'38	
morning rise	15813 Feb 23 06:44	5° \mathbb{H} 25'57		direct	15814 Feb 06 10:55	16° \mathbb{A} 24'38	
direct	15813 Feb 25 07:00	5° \mathbb{H} 13'32		asc. node	15814 Feb 16 04:55	20° \mathbb{A} 49'14	
asc. node	15813 Mar 01 07:32	6° \mathbb{H} 06'14		morning max el	15814 Feb 16 21:28	21° \mathbb{A} 28'04	20°00'28
morning max el	15813 Mar 06 05:12	9° \mathbb{H} 35'56	18°54'52		15814 Feb 23 15:47	0° \mathbb{H}	
	15813 Mar 19 12:04	0° \mathbb{Y}		morning set	15814 Mar 06 18:49	20° \mathbb{H} 30'53	
morning set	15813 Mar 22 13:44	5° \mathbb{Y} 57'18			15814 Mar 11 10:15	0° \mathbb{Y}	
superior conj	15813 Mar 31 03:46	22° \mathbb{Y} 39'38	0°22'46	superior conj	15814 Mar 14 13:35	6° \mathbb{Y} 19'51	0°50'36
minimum elong	15813 Mar 31 05:12	22° \mathbb{Y} 46'25	0°22'17	minimum elong	15814 Mar 14 16:02	6° \mathbb{Y} 32'03	0°50'12
desc. node	15813 Apr 02 21:17	27° \mathbb{Y} 46'45		max. Earth dist.	15814 Mar 20 12:13	17° \mathbb{Y} 50'56	1.36989 AU
	15813 Apr 04 02:15	0° \mathbb{B}		desc. node	15814 Mar 20 17:55	18° \mathbb{Y} 17'37	
max. Earth dist.	15813 Apr 07 05:32	5° \mathbb{B} 38'53	1.39260 AU	evening rise	15814 Mar 24 05:40	24° \mathbb{Y} 41'40	
evening rise	15813 Apr 11 02:17	12° \mathbb{B} 21'43			15814 Mar 27 05:50	0° \mathbb{B}	
	15813 Apr 22 00:28	0° \mathbb{II}			15814 Apr 15 15:16	0° \mathbb{II}	
	15813 May 14 10:16	0° \mathbb{E}		evening max el	15814 Apr 28 17:07	15° \mathbb{II} 40'19	25°34'08
evening max el	15813 May 16 03:32	1° \mathbb{E} 46'08	24°18'06	retrograde	15814 May 11 01:39	22° \mathbb{II} 48'37	
retrograde	15813 May 27 12:39	8° \mathbb{E} 25'39		asc. node	15814 May 15 02:03	21° \mathbb{II} 42'39	
asc. node	15813 May 28 04:53	8° \mathbb{E} 23'42		evening set	15814 May 17 01:09	20° \mathbb{II} 19'35	
evening set	15813 Jun 02 00:57	6° \mathbb{E} 05'21		min. Earth dist.	15814 May 21 07:37	15° \mathbb{II} 39'48	0.67828 AU
min. Earth dist.	15813 Jun 06 14:46	0° \mathbb{E} 48'49	0.68702 AU	inferior conj	15814 May 22 18:08	13° \mathbb{II} 49'03	2°08'10
	15813 Jun 07 05:15	30° \mathbb{R} \mathbb{II}		minimum elong	15814 May 22 15:57	13° \mathbb{II} 56'03	2°06'47
inferior conj	15813 Jun 07 12:17	29° \mathbb{II} 36'14	2°38'53	morning rise	15814 May 28 07:14	7° \mathbb{II} 58'10	
minimum elong	15813 Jun 07 10:24	29° \mathbb{II} 42'36	2°37'40	direct	15814 May 31 18:43	6° \mathbb{II} 48'47	
morning rise	15813 Jun 12 19:56	23° \mathbb{II} 35'07		morning max el	15814 Jun 07 14:40	10° \mathbb{II} 30'43	19°00'44
direct	15813 Jun 16 18:34	22° \mathbb{II} 06'23		desc. node	15814 Jun 16 18:41	22° \mathbb{II} 06'02	
morning max el	15813 Jun 24 08:45	26° \mathbb{II} 21'10	19°59'00	greatest brilliancy	15814 Jun 20 17:44	27° \mathbb{II} 57'02	-0.7m
	15813 Jun 27 16:26	0° \mathbb{E}			15814 Jun 22 02:19	0° \mathbb{E}	
desc. node	15813 Jun 29 21:36	2° \mathbb{E} 45'24		morning set	15814 Jun 30 21:04	13° \mathbb{E} 28'37	
	15813 Jul 18 16:53	0° \mathbb{Q}			15814 Jul 11 12:46	0° \mathbb{Q}	
morning set	15813 Jul 21 13:37	4° \mathbb{Q} 22'47		max. Earth dist.	15814 Jul 14 18:15	5° \mathbb{Q} 02'24	1.45676 AU
max. Earth dist.	15813 Aug 01 00:22	20° \mathbb{Q} 40'29	1.44630 AU				
				superior conj	15814 Jul 17 03:44	8° \mathbb{Q} 47'43	-2°13'28
superior conj	15813 Aug 06 09:17	29° \mathbb{Q} 17'21	-1°58'42	minimum elong	15814 Jul 17 05:55	8° \mathbb{Q} 56'18	2°14'09
minimum elong	15813 Aug 06 16:37	29° \mathbb{Q} 47'05	1°58'40		15814 Jul 30 10:54	0° \mathbb{H}	
	15813 Aug 06 19:48	0° \mathbb{H}		evening rise	15814 Aug 01 03:24	2° \mathbb{H} 44'02	
evening rise	15813 Aug 19 16:44	21° \mathbb{H} 28'53		asc. node	15814 Aug 11 01:55	18° \mathbb{H} 43'19	
asc. node	15813 Aug 24 05:14	29° \mathbb{H} 10'34			15814 Aug 19 02:59	0° \mathbb{A}	
	15813 Aug 24 16:56	0° \mathbb{A}		evening max el	15814 Aug 20 17:54	1° \mathbb{A} 44'17	18°21'58
evening max el	15813 Sep 06 03:33	18° \mathbb{A} 05'27	18°03'51	retrograde	15814 Aug 27 03:27	5° \mathbb{A} 09'06	
retrograde	15813 Sep 12 13:13	21° \mathbb{A} 25'59		evening set	15814 Aug 30 04:06	4° \mathbb{A} 18'14	
evening set	15813 Sep 15 04:58	20° \mathbb{A} 49'55			15814 Sep 03 23:21	30° \mathbb{R} \mathbb{H}	

inferior conj	15814 Sep 05 00:30	28° \mathbb{M} 46'52	2°06'54	evening max el	15815 Aug 04 05:01	15° \mathbb{M} 32'34	18°57'21
minimum elong	15814 Sep 05 02:51	28° \mathbb{M} 39'57	2°06'09	retrograde	15815 Aug 10 23:13	19° \mathbb{M} 14'42	
min. Earth dist.	15814 Sep 07 06:09	26° \mathbb{M} 09'26	0.64833 AU	evening set	15815 Aug 14 09:14	18° \mathbb{M} 07'14	
morning rise	15814 Sep 11 00:11	22° \mathbb{M} 25'03		inferior conj	15815 Aug 19 21:38	12° \mathbb{M} 21'49	2°41'09
desc. node	15814 Sep 12 16:08	21° \mathbb{M} 14'32		minimum elong	15815 Aug 19 23:35	12° \mathbb{M} 15'36	2°40'27
direct	15814 Sep 17 12:12	19° \mathbb{M} 49'02		min. Earth dist.	15815 Aug 21 13:18	10° \mathbb{M} 15'40	0.66571 AU
morning max el	15814 Oct 01 01:55	27° \mathbb{M} 44'00	27°18'41	morning rise	15815 Aug 25 13:06	5° \mathbb{M} 55'20	
	15814 Oct 03 05:45	0° \mathbb{L}		desc. node	15815 Aug 30 13:32	3° \mathbb{M} 23'33	
	15814 Oct 24 15:32	0° \mathbb{M}		direct	15815 Aug 31 17:06	3° \mathbb{M} 18'28	
morning set	15814 Nov 05 11:36	21° \mathbb{M} 22'46		morning max el	15815 Sep 13 13:31	10° \mathbb{M} 56'39	26°16'05
asc. node	15814 Nov 07 03:21	24° \mathbb{M} 39'17			15815 Sep 28 18:13	0° \mathbb{L}	
	15814 Nov 09 18:34	0° \mathbb{X}			15815 Oct 17 05:24	0° \mathbb{M}	
max. Earth dist.	15814 Nov 09 21:57	0° \mathbb{X} 17'31	1.33064 AU	morning set	15815 Oct 19 11:23	4° \mathbb{M} 08'13	
				max. Earth dist.	15815 Oct 23 06:53	11° \mathbb{M} 24'35	1.34829 AU
				asc. node	15815 Oct 25 00:07	14° \mathbb{M} 47'34	
superior conj	15814 Nov 13 17:46	8° \mathbb{X} 20'06	0°57'45				
minimum elong	15814 Nov 13 15:27	8° \mathbb{X} 07'41	0°58'06				
evening rise	15814 Nov 20 18:46	23° \mathbb{X} 30'07		superior conj	15815 Oct 28 14:58	22° \mathbb{M} 06'51	0°32'39
	15814 Nov 23 21:05	0° \mathbb{Z}		minimum elong	15815 Oct 28 13:15	21° \mathbb{M} 58'03	0°32'55
desc. node	15814 Dec 09 13:42	25° \mathbb{Z} 54'24			15815 Nov 01 09:53	0° \mathbb{X}	
evening max el	15814 Dec 12 07:37	28° \mathbb{Z} 50'47	22°22'58	evening rise	15815 Nov 05 03:35	7° \mathbb{X} 50'35	
	15814 Dec 13 13:23	0° \mathbb{Z}			15815 Nov 16 22:50	0° \mathbb{Z}	
retrograde	15814 Dec 25 02:04	5° \mathbb{Z} 09'56		evening max el	15815 Nov 24 01:57	9° \mathbb{Z} 06'49	20°49'01
evening set	15814 Dec 28 18:07	4° \mathbb{Z} 40'21		desc. node	15815 Nov 26 10:45	11° \mathbb{Z} 13'21	
min. Earth dist.	15815 Jan 05 15:02	1° \mathbb{Z} 07'09	0.54538 AU	retrograde	15815 Dec 05 12:11	14° \mathbb{Z} 47'04	
inferior conj	15815 Jan 06 05:04	0° \mathbb{Z} 47'28	-6°01'43	evening set	15815 Dec 08 00:27	14° \mathbb{Z} 31'50	
minimum elong	15815 Jan 06 04:49	0° \mathbb{Z} 47'49	6°00'58	inferior conj	15815 Dec 16 19:57	10° \mathbb{Z} 39'26	-5°29'55
	15815 Jan 07 15:09	30° \mathbb{K} \mathbb{Z}		minimum elong	15815 Dec 16 11:32	10° \mathbb{Z} 51'30	5°27'34
morning rise	15815 Jan 14 16:35	27° \mathbb{Z} 00'06		min. Earth dist.	15815 Dec 17 20:29	10° \mathbb{Z} 04'16	0.54497 AU
direct	15815 Jan 17 22:46	26° \mathbb{Z} 36'15		morning rise	15815 Dec 24 22:37	6° \mathbb{Z} 45'03	
	15815 Jan 27 03:13	0° \mathbb{Z}		direct	15815 Dec 29 06:07	6° \mathbb{Z} 05'04	
morning max el	15815 Jan 29 22:45	2° \mathbb{Z} 23'26	21°29'04	morning max el	15816 Jan 11 11:36	12° \mathbb{Z} 32'23	23°15'02
asc. node	15815 Feb 03 02:15	7° \mathbb{Z} 00'21		asc. node	15816 Jan 20 23:31	24° \mathbb{Z} 21'08	
	15815 Feb 16 15:39	0° \mathbb{X}			15816 Jan 24 10:58	0° \mathbb{Z}	
morning set	15815 Feb 19 04:16	5° \mathbb{X} 13'08		morning set	15816 Feb 03 15:53	19° \mathbb{Z} 57'39	
					15816 Feb 08 07:18	0° \mathbb{X}	
superior conj	15815 Feb 26 09:50	20° \mathbb{X} 27'07	1°12'00				
minimum elong	15815 Feb 26 12:19	20° \mathbb{X} 40'02	1°11'53	superior conj	15816 Feb 10 13:23	4° \mathbb{X} 52'36	1°26'55
max. Earth dist.	15815 Mar 02 22:58	29° \mathbb{X} 43'27	1.34912 AU	minimum elong	15816 Feb 10 15:17	5° \mathbb{X} 02'49	1°27'09
	15815 Mar 03 02:18	0° \mathbb{Y}		max. Earth dist.	15816 Feb 13 16:47	11° \mathbb{X} 33'50	1.33198 AU
evening rise	15815 Mar 07 01:28	7° \mathbb{Y} 41'33		evening rise	15816 Feb 18 10:14	21° \mathbb{X} 12'47	
desc. node	15815 Mar 07 14:31	8° \mathbb{Y} 42'59		desc. node	15816 Feb 22 11:08	28° \mathbb{X} 58'45	
	15815 Mar 19 21:56	0° \mathbb{X}			15816 Feb 23 00:18	0° \mathbb{Y}	
evening max el	15815 Apr 11 06:49	29° \mathbb{X} 27'08	26°37'20		15816 Mar 12 18:39	0° \mathbb{X}	
	15815 Apr 11 20:28	0° \mathbb{I}		evening max el	15816 Mar 23 20:07	12° \mathbb{X} 57'41	27°20'20
retrograde	15815 Apr 24 09:24	6° \mathbb{I} 52'52		retrograde	15816 Apr 06 11:05	20° \mathbb{X} 29'57	
evening set	15815 Apr 30 18:42	4° \mathbb{I} 20'15		evening set	15816 Apr 13 03:32	18° \mathbb{X} 00'17	
asc. node	15815 May 01 23:18	3° \mathbb{I} 17'32		min. Earth dist.	15816 Apr 16 23:43	14° \mathbb{X} 27'29	0.64787 AU
min. Earth dist.	15815 May 04 19:12	0° \mathbb{I} 15'31	0.66507 AU	asc. node	15816 Apr 17 20:34	13° \mathbb{X} 31'26	
	15815 May 05 00:29	30° \mathbb{K} \mathbb{X}		inferior conj	15816 Apr 19 11:37	11° \mathbb{X} 44'10	0°30'23
inferior conj	15815 May 06 18:44	27° \mathbb{X} 53'31	1°25'41	minimum elong	15816 Apr 19 10:47	11° \mathbb{X} 46'27	0°29'35
minimum elong	15815 May 06 16:49	27° \mathbb{X} 59'15	1°24'23	morning rise	15816 Apr 25 20:00	6° \mathbb{X} 18'35	
morning rise	15815 May 12 16:05	22° \mathbb{X} 14'25		direct	15816 Apr 28 11:50	5° \mathbb{X} 41'42	
direct	15815 May 15 17:15	21° \mathbb{X} 22'38		morning max el	15816 May 04 19:23	8° \mathbb{X} 56'56	17°53'43
morning max el	15815 May 22 02:57	24° \mathbb{X} 44'55	18°18'44		15816 May 19 07:48	0° \mathbb{I}	
	15815 May 26 14:41	0° \mathbb{I}		desc. node	15816 May 20 12:32	1° \mathbb{I} 59'05	
desc. node	15815 Jun 03 15:39	11° \mathbb{I} 52'54		morning set	15816 May 22 07:54	4° \mathbb{I} 59'02	
morning set	15815 Jun 11 00:44	23° \mathbb{I} 34'15					
	15815 Jun 15 01:55	0° \mathbb{O}		superior conj	15816 Jun 05 05:07	27° \mathbb{I} 36'25	-1°45'19
				minimum elong	15816 Jun 04 20:25	27° \mathbb{I} 01'48	1°45'19
superior conj	15815 Jun 26 12:36	17° \mathbb{O} 58'51	-2°08'39		15816 Jun 06 17:18	0° \mathbb{O}	
minimum elong	15815 Jun 26 07:07	17° \mathbb{O} 37'27	2°09'14	max. Earth dist.	15816 Jun 09 10:23	4° \mathbb{O} 16'33	1.45549 AU
max. Earth dist.	15815 Jun 27 14:32	19° \mathbb{O} 39'58	1.45986 AU	evening rise	15816 Jun 21 03:54	22° \mathbb{O} 26'28	
	15815 Jul 04 05:46	0° \mathbb{O}			15816 Jun 26 02:56	0° \mathbb{O}	
evening rise	15815 Jul 12 13:03	12° \mathbb{O} 56'41		greatest brilliancy	15816 Jul 05 15:51	14° \mathbb{O} 13'16	-0.6m
greatest brilliancy	15815 Jul 22 16:01	28° \mathbb{O} 39'09	-0.8m	asc. node	15816 Jul 14 19:25	26° \mathbb{O} 31'50	
	15815 Jul 23 13:18	0° \mathbb{M}		evening max el	15816 Jul 17 10:58	29° \mathbb{O} 25'12	19°48'54
asc. node	15815 Jul 28 22:38	7° \mathbb{M} 53'03			15816 Jul 18 01:20	0° \mathbb{M}	

retrograde	15816 Jul 24 21:41	3°♎36'44			15817 Jun 19 16:23	0°♏	
evening set	15816 Jul 28 17:45	2°♎11'43		evening max el	15817 Jun 30 10:56	13°♏18'56	20°54'29
	15816 Jul 31 01:43	30°♎♏		asc. node	15817 Jul 01 16:15	14°♏28'49	
inferior conj	15816 Aug 03 01:19	26°♏13'48	3°01'06	retrograde	15817 Jul 08 20:39	18°♏09'24	
minimum elong	15816 Aug 03 02:28	26°♏09'56	3°00'27	evening set	15817 Jul 13 03:29	16°♏26'46	
min. Earth dist.	15816 Aug 04 03:02	24°♏47'23	0.67891 AU	inferior conj	15817 Jul 18 09:06	10°♏17'39	3°08'46
morning rise	15816 Aug 08 10:44	19°♏48'10		minimum elong	15817 Jul 18 09:17	10°♏16'59	3°08'05
direct	15816 Aug 14 04:20	17°♏18'06		min. Earth dist.	15817 Jul 18 21:13	9°♏35'40	0.68746 AU
desc. node	15816 Aug 16 10:55	17°♏38'26		morning rise	15817 Jul 23 14:48	3°♏56'35	
morning max el	15816 Aug 26 00:31	24°♏23'45	24°55'39	direct	15817 Jul 28 20:39	1°♏39'39	
	15816 Aug 31 01:30	0°♎		desc. node	15817 Aug 03 08:16	3°♏37'24	
	15816 Sep 21 04:13	0°♏		morning max el	15817 Aug 08 11:27	7°♏59'15	23°27'06
morning set	15816 Sep 30 18:46	16°♏10'07			15817 Aug 25 17:16	0°♎	
max. Earth dist.	15816 Oct 04 07:31	22°♏31'55	1.37011 AU	morning set	15817 Sep 12 05:30	27°♎18'18	
	15816 Oct 08 07:09	0°♎			15817 Sep 13 19:49	0°♏	
asc. node	15816 Oct 10 20:49	4°♎58'26		max. Earth dist.	15817 Sep 16 05:59	4°♏09'53	1.39407 AU
superior conj	15816 Oct 11 02:08	5°♎24'27	0°02'01	superior conj	15817 Sep 23 23:30	18°♏04'03	-0°32'58
minimum elong	15816 Oct 11 01:58	5°♎23'40	0°02'23	minimum elong	15817 Sep 24 01:57	18°♏15'22	0°32'21
behind sun begin	15816 Oct 10 19:29	4°♎51'52		asc. node	15817 Sep 27 17:30	25°♏08'27	
behind sun end	15816 Oct 11 08:28	5°♎55'34			15817 Sep 30 06:08	0°♎	
evening rise	15816 Oct 19 08:21	21°♎59'22		evening rise	15817 Oct 03 06:17	5°♎49'39	
	15816 Oct 23 09:06	0°♎			15817 Oct 17 12:34	0°♎	
evening max el	15816 Nov 05 10:37	20°♎09'20	19°34'44	evening max el	15817 Oct 19 08:51	2°♎02'10	18°42'45
desc. node	15816 Nov 12 07:54	24°♎37'44		retrograde	15817 Oct 27 16:02	6°♎13'48	
retrograde	15816 Nov 15 05:27	25°♎02'51		evening set	15817 Oct 29 14:00	6°♎01'11	
evening set	15816 Nov 17 04:15	24°♎52'04		desc. node	15817 Oct 30 05:09	5°♎51'45	
inferior conj	15816 Nov 25 20:23	20°♎47'57	-4°07'15	inferior conj	15817 Nov 06 16:14	1°♎37'12	-2°23'24
minimum elong	15816 Nov 25 10:44	21°♎03'16	4°03'21	minimum elong	15817 Nov 06 10:24	1°♎47'58	2°20'25
min. Earth dist.	15816 Nov 28 04:46	19°♎18'27	0.55391 AU		15817 Nov 08 20:46	30°♎♎	
morning rise	15816 Dec 03 15:22	16°♎27'47		min. Earth dist.	15817 Nov 09 18:22	29°♎21'07	0.57044 AU
direct	15816 Dec 08 22:17	15°♎25'13		morning rise	15817 Nov 14 03:39	26°♎41'09	
morning max el	15816 Dec 22 20:10	22°♎24'19	25°03'55	direct	15817 Nov 20 04:18	25°♎12'31	
	15816 Dec 29 12:56	0°♎			15817 Dec 01 10:43	0°♎	
asc. node	15817 Jan 06 20:43	12°♎34'45		morning max el	15817 Dec 04 09:11	2°♎35'42	26°36'35
	15817 Jan 15 23:21	0°♎			15817 Dec 23 22:34	0°♎	
morning set	15817 Jan 18 03:44	4°♎38'18		asc. node	15817 Dec 24 17:51	1°♎27'49	
				morning set	15818 Jan 02 14:06	19°♎10'42	
superior conj	15817 Jan 24 21:37	19°♎28'05	1°35'32		15818 Jan 07 12:08	0°♎	
minimum elong	15817 Jan 24 22:35	19°♎33'25	1°36'05	superior conj	15818 Jan 09 08:27	4°♎07'43	1°38'03
max. Earth dist.	15817 Jan 26 17:50	23°♎30'51	1.31953 AU	minimum elong	15818 Jan 09 08:22	4°♎07'12	1°38'47
	15817 Jan 29 18:04	0°♎		max. Earth dist.	15818 Jan 10 00:07	5°♎35'12	1.31223 AU
evening rise	15817 Feb 01 04:48	5°♎06'47		evening rise	15818 Jan 16 06:36	19°♎17'20	
desc. node	15817 Feb 08 07:46	18°♎59'10			15818 Jan 21 13:08	0°♎	
	15817 Feb 14 15:58	0°♎		desc. node	15818 Jan 26 04:30	8°♎38'04	
evening max el	15817 Mar 06 07:32	25°♎59'41	27°36'07		15818 Feb 09 03:47	0°♎	
	15817 Mar 11 02:19	0°♎		evening max el	15818 Feb 16 14:42	8°♎20'43	27°18'52
retrograde	15817 Mar 20 05:31	3°♎28'55		retrograde	15818 Mar 02 15:05	15°♎40'35	
evening set	15817 Mar 27 01:10	1°♎09'50		evening set	15818 Mar 09 08:38	13°♎39'19	
	15817 Mar 28 14:43	30°♎♎		min. Earth dist.	15818 Mar 13 04:59	10°♎53'10	0.60532 AU
min. Earth dist.	15817 Mar 30 19:25	28°♎04'01	0.62750 AU	inferior conj	15818 Mar 16 09:34	8°♎09'11	-2°00'14
inferior conj	15817 Apr 02 17:44	25°♎12'26	-0°38'32	minimum elong	15818 Mar 16 14:01	7°♎59'37	1°58'31
minimum elong	15817 Apr 02 19:01	25°♎09'18	0°38'17	asc. node	15818 Mar 22 15:15	3°♎46'36	
asc. node	15817 Apr 04 17:53	23°♎18'16		morning rise	15818 Mar 23 22:47	3°♎18'20	
morning rise	15817 Apr 09 15:42	20°♎02'49		direct	15818 Mar 26 00:38	3°♎00'47	
direct	15817 Apr 11 23:33	19°♎37'23		morning max el	15818 Apr 02 04:42	6°♎36'04	17°57'00
morning max el	15817 Apr 18 13:04	22°♎57'09	17°46'11		15818 Apr 17 05:26	0°♎	
	15817 Apr 24 03:17	0°♎		morning set	15818 Apr 17 18:42	1°♎00'37	
morning set	15817 May 04 15:51	17°♎33'44		desc. node	15818 Apr 24 06:06	12°♎46'03	
desc. node	15817 May 07 09:21	22°♎18'18					
	15817 May 11 20:49	0°♎		superior conj	15818 Apr 28 05:50	19°♎48'59	-0°32'14
superior conj	15817 May 16 17:40	8°♎10'25	-1°10'31	minimum elong	15818 Apr 28 03:01	19°♎36'42	0°32'20
minimum elong	15817 May 16 11:03	7°♎43'01	1°10'22		15818 May 04 05:11	0°♎	
max. Earth dist.	15817 May 23 03:52	18°♎37'48	1.44414 AU	max. Earth dist.	15818 May 05 17:42	2°♎31'21	1.42696 AU
	15817 May 30 09:26	0°♎		evening rise	15818 May 11 14:25	11°♎59'38	
evening rise	15817 May 31 15:07	1°♎54'29			15818 May 23 09:43	0°♎	

evening max el	15818 Jun 13 05:31	27°  12'43	22°10'23		15819 Apr 26 17:32	0° 	
	15818 Jun 16 08:10	0° 			15819 May 17 08:10	0° 	
asc. node	15818 Jun 18 13:11	1°  30'13		evening max el	15819 May 26 20:27	11°  07'18	23°31'28
retrograde	15818 Jun 22 18:29	2°  47'22		asc. node	15819 Jun 05 10:12	17°  09'32	
evening set	15818 Jun 27 12:40	0°  48'02		retrograde	15819 Jun 06 13:53	17°  02'51'17	
	15818 Jun 28 09:29	30° 		evening set	15819 Jun 11 19:41	15°  01'29	
inferior conj	15818 Jul 02 18:48	24°  29'12	3°05'24	min. Earth dist.	15819 Jun 16 14:22	9°  03'51	0.68993 AU
minimum elong	15818 Jul 02 18:03	24°  31'49	3°04'33	inferior conj	15819 Jun 17 04:33	8°  04'50'08	2°51'35
min. Earth dist.	15818 Jul 02 17:39	24°  33'13	0.69117 AU	minimum elong	15819 Jun 17 03:00	8°  05'26	2°50'31
morning rise	15818 Jul 07 23:17	18°  01'45'27		morning rise	15819 Jun 22 10:18	2°  03'39'02	
direct	15818 Jul 12 16:49	16°  01'52'24		direct	15819 Jun 26 15:38	0°  05'59'04	
desc. node	15818 Jul 21 05:35	20°  05'6'04		morning max el	15819 Jul 04 19:36	5°  03'7'57	20°39'24
morning max el	15818 Jul 22 00:50	21°  04'3'04	21°59'16	desc. node	15819 Jul 08 02:48	9°  01'4'17	
	15818 Jul 29 03:49	0° 			15819 Jul 23 05:45	0° 	
	15818 Aug 18 23:20	0° 		morning set	15819 Aug 03 05:41	16°  01'38'51	
morning set	15818 Aug 23 16:25	7°  02'5'12		max. Earth dist.	15819 Aug 11 17:36	0°  02'2'28	1.43728 AU
max. Earth dist.	15818 Aug 29 08:33	16°  03'9'45	1.41739 AU		15819 Aug 11 17:00	0° 	
superior conj	15818 Sep 06 02:40	29°  05'4'45	-1°09'37	superior conj	15819 Aug 18 07:38	10°  04'48'45	-1°43'17
minimum elong	15818 Sep 06 08:17	0°  19'2'27	1°08'52	minimum elong	15819 Aug 18 15:24	11°  02'21'05	1°42'50
	15818 Sep 06 03:52	0° 			15819 Aug 29 12:18	0° 	
asc. node	15818 Sep 14 14:09	15°  01'13'14		evening rise	15819 Aug 30 14:27	1°  01'54'43	
evening rise	15818 Sep 16 17:48	19°  01'11'40		asc. node	15819 Sep 01 10:49	5°  01'09'28	
	15818 Sep 22 16:12	0° 		evening max el	15819 Sep 16 05:51	27°  01'42'56	18°01'27
evening max el	15818 Oct 02 16:39	14°  03'36'28	18°12'11		15819 Sep 19 02:24	0° 	
retrograde	15818 Oct 09 22:00	18°  03'17'58		retrograde	15819 Sep 22 20:00	1°  03'07'35	
evening set	15818 Oct 12 01:12	17°  03'59'12		evening set	15819 Sep 25 06:45	0°  03'38'54	
desc. node	15818 Oct 17 02:29	15°  03'08'23			15819 Sep 26 15:07	30° 	
inferior conj	15818 Oct 19 09:50	13°  03'13'37	-0°44'14	inferior conj	15819 Oct 01 22:52	25°  01'33'42	0°37'41
minimum elong	15818 Oct 19 08:15	13°  03'17'03	0°43'06	minimum elong	15819 Oct 01 23:59	25°  01'30'55	0°37'32
min. Earth dist.	15818 Oct 22 15:54	10°  03'26'19	0.59164 AU	desc. node	15819 Oct 03 23:50	23°  01'31'49	
morning rise	15818 Oct 26 11:55	7°  03'42'08		min. Earth dist.	15819 Oct 04 23:20	22°  01'35'02	0.61459 AU
direct	15818 Nov 01 23:32	5°  03'47'26		morning rise	15819 Oct 08 14:24	19°  01'34'46	
morning max el	15818 Nov 16 06:24	13°  03'29'48	27°37'26	direct	15819 Oct 15 06:34	17°  01'17'44	
	15818 Nov 29 10:33	0° 		morning max el	15819 Oct 29 11:04	25°  01'13'29	27°59'11
asc. node	15818 Dec 11 14:55	20°  01'49'20			15819 Nov 02 20:48	0° 	
	15818 Dec 16 05:09	0° 			15819 Nov 22 21:54	0° 	
morning set	15818 Dec 17 21:07	3°  02'29'41		asc. node	15819 Nov 28 11:55	10°  01'31'23	
				morning set	15819 Dec 01 22:48	17°  01'30'24	
superior conj	15818 Dec 24 19:55	18°  03'45'27	1°34'33	max. Earth dist.	15819 Dec 07 13:37	29°  01'32'20	1.31363 AU
minimum elong	15818 Dec 24 18:49	18°  03'39'16	1°35'18		15819 Dec 07 18:38	0° 	
max. Earth dist.	15818 Dec 24 08:01	17°  03'38'53	1.31020 AU				
	15818 Dec 29 21:08	0° 		superior conj	15819 Dec 09 06:08	3°  01'16'13	1°25'03
evening rise	15818 Dec 31 13:19	3°  01'38'16		minimum elong	15819 Dec 09 04:13	3°  01'05'37	1°25'41
desc. node	15819 Jan 13 01:18	27°  01'46'45		evening rise	15819 Dec 15 22:59	18°  01'04'50	
	15819 Jan 14 09:28	0° 			15819 Dec 21 16:50	0° 	
evening max el	15819 Jan 29 14:40	19°  01'50'03	26°26'30	desc. node	15819 Dec 30 22:08	16°  01'13'54	
retrograde	15819 Feb 12 14:14	26°  01'58'25			15820 Jan 10 18:50	0° 	
evening set	15819 Feb 18 22:32	25°  01'51'00		evening max el	15820 Jan 11 06:01	0°  01'26'59	25°03'25
min. Earth dist.	15819 Feb 23 04:05	22°  01'43'33	0.58316 AU	retrograde	15820 Jan 25 01:30	7°  01'22'19	
inferior conj	15819 Feb 26 07:22	20°  01'23'56	-3°29'55	evening set	15820 Jan 30 15:16	6°  01'12'40	
minimum elong	15819 Feb 26 15:17	20°  01'09'12	3°26'56	min. Earth dist.	15820 Feb 04 18:14	3°  01'28'19	0.56359 AU
morning rise	15819 Mar 06 11:22	15°  01'54'37		inferior conj	15820 Feb 07 08:18	1°  01'48'14	-4°54'48
direct	15819 Mar 08 10:40	15°  01'41'21		minimum elong	15820 Feb 07 17:35	1°  01'33'15	4°52'01
asc. node	15819 Mar 09 12:37	15°  01'45'30			15820 Feb 10 06:05	30° 	
morning max el	15819 Mar 16 14:35	19°  01'43'06	18°27'38	morning rise	15820 Feb 15 22:27	27°  01'40'22	
	15819 Mar 24 05:06	0° 		direct	15820 Feb 18 01:30	27°  01'27'34	
morning set	15819 Apr 01 10:58	15°  01'03'13		asc. node	15820 Feb 24 10:01	29°  01'30'30	
	15819 Apr 09 07:51	0° 			15820 Feb 25 03:10	0° 	
superior conj	15819 Apr 10 15:13	2°  01'25'05	0°04'03	morning max el	15820 Feb 27 14:33	2°  01'06'19	19°19'59
minimum elong	15819 Apr 10 15:29	2°  01'26'17	0°03'38	morning set	15820 Mar 15 12:18	29°  01'28'16	
behind sun begin	15819 Apr 10 08:27	1°  01'53'56			15820 Mar 15 18:40	0° 	
behind sun end	15819 Apr 10 22:30	2°  01'58'33		superior conj	15820 Mar 23 17:21	15°  01'45'37	0°35'20
desc. node	15819 Apr 11 02:49	3°  01'18'20		minimum elong	15820 Mar 23 19:21	15°  01'55'20	0°34'51
max. Earth dist.	15819 Apr 18 02:58	15°  01'45'10	1.40570 AU	desc. node	15820 Mar 27 23:27	23°  01'50'57	
evening rise	15819 Apr 22 09:48	22°  01'58'53		max. Earth dist.	15820 Mar 30 09:02	28°  01'15'29	1.38277 AU

	15820 Mar 31 08:12	0°♄			15821 Mar 07 12:10	0°♅	
evening rise	15820 Apr 03 02:09	4°♄51'32		max. Earth dist.	15821 Mar 12 16:35	10°♅15'50	1.36066 AU
	15820 Apr 18 18:19	0°♄		desc. node	15821 Mar 14 20:05	14°♅20'32	
evening max el	15820 May 08 09:52	25°♄01'50	24°51'28	evening rise	15821 Mar 16 13:00	17°♅30'25	
	15820 May 14 11:16	0°♄			15821 Mar 23 15:42	0°♄	
retrograde	15820 May 20 05:41	1°♄55'42			15821 Apr 13 01:24	0°♄	
asc. node	15820 May 22 07:18	1°♄37'41		evening max el	15821 Apr 20 23:28	8°♄54'01	26°03'00
	15820 May 25 08:36	30°♄		retrograde	15821 May 03 16:43	16°♄11'44	
evening set	15820 May 25 22:51	29°♄30'54		asc. node	15821 May 09 04:28	14°♄12'05	
min. Earth dist.	15820 May 30 09:15	24°♄30'14	0.68385 AU	evening set	15821 May 09 20:27	13°♄40'35	
inferior conj	15820 May 31 12:22	23°♄00'23	2°27'12	min. Earth dist.	15821 May 14 00:14	9°♄15'42	0.67319 AU
minimum elong	15820 May 31 10:18	23°♄07'13	2°25'55	inferior conj	15821 May 15 16:16	7°♄10'38	1°51'39
morning rise	15820 Jun 05 22:01	17°♄03'33		minimum elong	15821 May 15 14:07	7°♄17'22	1°50'17
direct	15820 Jun 09 15:43	15°♄43'24		morning rise	15821 May 21 08:32	1°♄24'21	
morning max el	15820 Jun 16 21:23	19°♄42'57	19°32'17	direct	15821 May 24 15:27	0°♄22'48	
desc. node	15820 Jun 23 23:56	28°♄15'34		morning max el	15821 May 31 06:09	3°♄55'08	18°40'41
	15820 Jun 25 06:18	0°♄		desc. node	15821 Jun 10 20:58	17°♄48'30	
greatest brilliancy	15820 Jun 29 13:52	6°♄11'03	-0.6m		15821 Jun 18 19:21	0°♄	
morning set	15820 Jul 12 09:22	25°♄31'15		morning set	15821 Jun 21 23:35	4°♄57'17	
	15820 Jul 15 07:14	0°♄		max. Earth dist.	15821 Jul 07 02:55	28°♄33'41	1.45904 AU
max. Earth dist.	15820 Jul 24 08:17	14°♄05'14	1.45160 AU				
				superior conj	15821 Jul 08 01:42	0°♄02'35	-2°13'57
superior conj	15820 Jul 28 13:16	20°♄45'18	-2°07'08	minimum elong	15821 Jul 08 00:30	29°♄57'52	2°14'41
minimum elong	15820 Jul 28 19:05	21°♄08'32	2°07'26		15821 Jul 08 01:03	0°♄	
	15820 Aug 03 06:57	0°♄		evening rise	15821 Jul 23 14:37	24°♄32'01	
evening rise	15820 Aug 11 14:50	13°♄44'46			15821 Jul 27 00:55	0°♄	
asc. node	15820 Aug 18 07:29	24°♄52'16		greatest brilliancy	15821 Jul 30 06:04	5°♄06'27	-0.9m
	15820 Aug 21 12:00	0°♄		asc. node	15821 Aug 05 04:09	14°♄16'02	
evening max el	15820 Aug 29 20:42	11°♄12'17	18°09'22	evening max el	15821 Aug 13 10:00	24°♄56'09	18°35'01
retrograde	15820 Sep 05 05:22	14°♄33'15		retrograde	15821 Aug 19 22:12	28°♄26'33	
evening set	15820 Sep 08 00:44	13°♄51'21		evening set	15821 Aug 23 02:46	27°♄28'52	
inferior conj	15820 Sep 14 03:21	8°♄29'08	1°39'40	inferior conj	15821 Aug 28 19:23	21°♄51'36	2°23'18
minimum elong	15820 Sep 14 05:35	8°♄22'55	1°39'00	minimum elong	15821 Aug 28 21:38	21°♄44'44	2°22'34
min. Earth dist.	15820 Sep 16 16:45	5°♄38'53	0.63673 AU	min. Earth dist.	15821 Aug 30 19:14	19°♄25'57	0.65626 AU
desc. node	15820 Sep 19 21:12	2°♄35'20		morning rise	15821 Sep 03 15:20	15°♄27'07	
morning rise	15820 Sep 20 08:29	2°♄12'58		desc. node	15821 Sep 06 18:36	13°♄29'02	
	15820 Sep 24 14:24	30°♄		direct	15821 Sep 10 00:30	12°♄49'23	
direct	15820 Sep 26 23:29	29°♄41'02		morning max el	15821 Sep 23 07:29	20°♄39'05	26°54'42
	15820 Sep 29 10:48	0°♄			15821 Oct 01 09:29	0°♄	
morning max el	15820 Oct 10 20:23	7°♄40'28	27°42'52		15821 Oct 21 04:58	0°♄	
	15820 Oct 28 02:03	0°♄		morning set	15821 Oct 29 00:07	14°♄13'41	
asc. node	15820 Nov 14 08:50	0°♄27'45		asc. node	15821 Nov 01 05:38	20°♄32'59	
	15820 Nov 14 03:15	0°♄		max. Earth dist.	15821 Nov 02 03:18	22°♄21'39	1.33751 AU
morning set	15820 Nov 14 16:46	1°♄07'27			15821 Nov 05 20:29	0°♄	
max. Earth dist.	15820 Nov 19 13:00	11°♄07'23	1.32274 AU				
				superior conj	15821 Nov 06 14:41	1°♄35'26	0°47'50
superior conj	15820 Nov 22 13:09	17°♄35'00	1°09'29	minimum elong	15821 Nov 06 12:31	1°♄24'02	0°48'07
minimum elong	15820 Nov 22 10:49	17°♄22'20	1°09'55	evening rise	15821 Nov 13 19:56	16°♄57'29	
	15820 Nov 28 05:33	0°♄			15821 Nov 20 06:16	0°♄	
evening rise	15820 Nov 29 09:49	2°♄32'51		desc. node	15821 Dec 03 16:03	19°♄58'22	
	15820 Dec 14 03:14	0°♄		evening max el	15821 Dec 04 04:25	20°♄29'18	21°41'08
desc. node	15820 Dec 16 19:03	3°♄44'36		retrograde	15821 Dec 16 10:31	26°♄32'50	
evening max el	15820 Dec 22 15:50	10°♄28'59	23°22'23	evening set	15821 Dec 19 13:30	26°♄10'48	
retrograde	15821 Jan 04 23:28	17°♄04'41		inferior conj	15821 Dec 28 05:12	22°♄20'22	-5°55'47
evening set	15821 Jan 09 09:23	16°♄22'30		minimum elong	15821 Dec 28 00:55	22°♄26'22	5°54'39
min. Earth dist.	15821 Jan 16 02:33	13°♄12'31	0.54966 AU	min. Earth dist.	15821 Dec 28 07:57	22°♄16'32	0.54401 AU
inferior conj	15821 Jan 17 13:10	12°♄22'20	-5°51'53	morning rise	15822 Jan 05 12:57	18°♄32'15	
minimum elong	15821 Jan 17 18:05	12°♄15'12	5°50'45	direct	15822 Jan 09 05:59	18°♄02'11	
morning rise	15821 Jan 26 04:13	8°♄30'18		morning max el	15822 Jan 21 19:49	24°♄07'42	22°12'39
direct	15821 Jan 28 21:19	8°♄12'34			15822 Jan 27 00:08	0°♄	
morning max el	15821 Feb 09 00:40	13°♄35'20	20°35'31	asc. node	15822 Jan 28 04:41	1°♄36'12	
asc. node	15821 Feb 10 07:23	14°♄53'32		morning set	15822 Feb 12 06:10	28°♄50'17	
	15821 Feb 20 14:54	0°♄			15822 Feb 12 19:20	0°♄	
morning set	15821 Feb 27 19:33	14°♄06'43					
				superior conj	15822 Feb 19 07:44	13°♄54'35	1°19'05
superior conj	15821 Mar 07 08:04	29°♄39'06	1°00'27	minimum elong	15822 Feb 19 10:01	14°♄06'43	1°19'07
minimum elong	15821 Mar 07 10:37	29°♄52'07	1°00'09	max. Earth dist.	15822 Feb 23 06:08	22°♄05'24	1.34133 AU

	15822 Feb 27 05:30	0°♿		superior conj	15823 Feb 03 13:32	28°≈24'28	1°31'19
evening rise	15822 Feb 27 14:44	0°♿44'38		minimum elong	15823 Feb 03 15:04	28°≈32'49	1°31'43
desc. node	15822 Mar 01 16:42	4°♿42'20			15823 Feb 04 07:06	0°♿	
	15822 Mar 16 16:51	0°♿		max. Earth dist.	15823 Feb 06 03:25	3°♿58'47	1.32612 AU
evening max el	15822 Apr 03 13:21	22°♿35'59	26°58'36	evening rise	15823 Feb 11 04:00	14°♿25'50	
	15822 Apr 15 15:26	0°♿		desc. node	15823 Feb 16 13:21	24°♿51'57	
retrograde	15822 Apr 16 21:56	0°♿05'13			15823 Feb 19 09:14	0°♿	
	15822 Apr 18 03:46	30°♿♿			15823 Mar 11 14:00	0°♿	
evening set	15822 Apr 23 10:33	27°♿33'22		evening max el	15823 Mar 17 02:12	5°♿55'50	27°30'47
asc. node	15822 Apr 26 01:42	25°♿07'53		retrograde	15823 Mar 30 20:23	13°♿26'55	
min. Earth dist.	15822 Apr 27 09:08	23°♿42'26	0.65822 AU	evening set	15823 Apr 06 14:54	11°♿00'53	
inferior conj	15822 Apr 29 13:56	21°♿10'16	1°03'54	min. Earth dist.	15823 Apr 10 09:58	7°♿40'26	0.63954 AU
minimum elong	15822 Apr 29 12:22	21°♿14'48	1°02'45	asc. node	15823 Apr 12 23:00	5°♿01'31	
morning rise	15822 May 05 15:37	15°♿36'20		inferior conj	15823 Apr 13 02:37	4°♿52'03	0°02'51
direct	15822 May 08 12:44	14°♿51'10		minimum elong	15823 Apr 13 02:32	4°♿52'15	0°02'25
morning max el	15822 May 14 20:26	18°♿08'57	18°05'55	transit middle	15823 Apr 13 02:32	4°♿52'15	0°02'25
	15822 May 23 20:11	0°♿		transit begin	15823 Apr 12 23:27	5°♿00'21	
desc. node	15822 May 28 17:55	7°♿44'35		transit end	15823 Apr 13 05:38	4°♿44'10	
morning set	15822 Jun 02 14:54	15°♿36'56			15823 Apr 18 18:11	30°♿♿	
	15822 Jun 11 13:58	0°♿		morning rise	15823 Apr 19 16:29	29°♿32'55	
				direct	15823 Apr 22 04:53	29°♿01'11	
superior conj	15822 Jun 17 11:47	9°♿19'49	-2°00'40		15823 Apr 25 15:09	0°♿	
minimum elong	15822 Jun 17 04:09	8°♿49'50	2°01'00	morning max el	15823 Apr 28 13:45	2°♿16'38	17°48'25
max. Earth dist.	15822 Jun 19 23:34	13°♿13'48	1.45897 AU	morning set	15823 May 15 09:18	27°♿33'36	
	15822 Jun 30 18:50	0°♿		desc. node	15823 May 15 14:49	27°♿56'56	
evening rise	15822 Jul 03 14:55	4°♿22'51			15823 May 16 19:55	0°♿	
greatest brilliancy	15822 Jul 15 20:02	23°♿01'49	-0.7m				
	15822 Jul 20 15:31	0°♿		superior conj	15823 May 28 11:49	19°♿18'48	-1°31'26
asc. node	15822 Jul 23 00:52	3°♿13'57		minimum elong	15823 May 28 03:34	18°♿45'26	1°31'18
evening max el	15822 Jul 27 19:13	8°♿47'39	19°17'27	max. Earth dist.	15823 Jun 02 19:19	27°♿48'01	1.45147 AU
retrograde	15822 Aug 03 19:20	12°♿40'28			15823 Jun 04 04:48	0°♿	
evening set	15822 Aug 07 09:40	11°♿25'26		evening rise	15823 Jun 13 02:10	13°♿46'46	
inferior conj	15822 Aug 12 19:38	5°♿34'38	2°51'13		15823 Jun 23 20:41	0°♿	
minimum elong	15822 Aug 12 21:17	5°♿29'16	2°50'32	asc. node	15823 Jul 09 21:40	21°♿36'26	
min. Earth dist.	15822 Aug 14 05:19	3°♿44'46	0.67193 AU	evening max el	15823 Jul 10 22:38	22°♿41'00	20°15'13
	15822 Aug 17 10:14	30°♿♿		retrograde	15823 Jul 18 18:19	27°♿08'02	
morning rise	15822 Aug 18 08:17	29°♿08'15		evening set	15823 Jul 22 18:57	25°♿35'15	
direct	15822 Aug 24 08:10	26°♿33'29		inferior conj	15823 Jul 28 01:21	19°♿32'12	3°05'47
desc. node	15822 Aug 24 15:59	26°♿33'54		minimum elong	15823 Jul 28 02:06	19°♿29'37	3°05'07
	15822 Sep 01 08:29	0°♿		min. Earth dist.	15823 Jul 28 21:07	18°♿24'40	0.68315 AU
morning max el	15822 Sep 05 18:45	3°♿58'47	25°43'27	morning rise	15823 Aug 02 08:55	13°♿08'18	
	15822 Sep 25 17:03	0°♿		direct	15823 Aug 07 21:33	10°♿43'30	
morning set	15822 Oct 11 17:24	26°♿41'48		desc. node	15823 Aug 11 13:23	11°♿36'05	
	15822 Oct 13 12:25	0°♿		morning max el	15823 Aug 19 05:43	17°♿30'29	24°18'28
max. Earth dist.	15822 Oct 15 08:26	3°♿27'02	1.35723 AU		15823 Aug 29 16:31	0°♿	
asc. node	15822 Oct 19 02:22	10°♿43'09			15823 Sep 18 17:31	0°♿	
				morning set	15823 Sep 23 16:30	8°♿21'48	
superior conj	15822 Oct 21 08:02	15°♿11'14	0°20'17	max. Earth dist.	15823 Sep 27 07:46	14°♿45'43	1.38027 AU
minimum elong	15822 Oct 21 06:52	15°♿05'18	0°20'35				
	15822 Oct 28 12:57	0°♿		superior conj	15823 Oct 04 13:48	28°♿13'27	-0°12'27
evening rise	15822 Oct 29 03:21	1°♿14'12		minimum elong	15823 Oct 04 14:38	28°♿17'26	0°11'58
	15822 Nov 15 04:15	0°♿		behind sun begin	15823 Oct 04 09:59	27°♿55'08	
evening max el	15822 Nov 16 04:34	1°♿03'21	20°14'39	behind sun end	15823 Oct 04 19:17	28°♿39'46	
desc. node	15822 Nov 20 13:08	4°♿31'38			15823 Oct 05 11:56	0°♿	
retrograde	15822 Nov 26 21:49	6°♿23'37		asc. node	15823 Oct 05 23:04	0°♿53'55	
evening set	15822 Nov 29 02:46	6°♿11'06		evening rise	15823 Oct 13 05:35	15°♿16'06	
inferior conj	15822 Dec 07 22:25	2°♿14'50	-4°59'27		15823 Oct 20 23:33	0°♿	
minimum elong	15822 Dec 07 12:33	2°♿29'29	4°56'09	evening max el	15823 Oct 29 19:13	12°♿26'56	19°09'47
min. Earth dist.	15822 Dec 09 13:50	1°♿16'23	0.54778 AU	desc. node	15823 Nov 07 10:19	17°♿01'13	
	15822 Dec 11 19:57	30°♿♿		retrograde	15823 Nov 07 22:06	17°♿01'59	
morning rise	15822 Dec 15 21:41	28°♿11'52		evening set	15823 Nov 09 19:18	16°♿51'04	
direct	15822 Dec 20 15:56	27°♿22'55		inferior conj	15823 Nov 18 06:22	12°♿38'40	-3°23'54
	15822 Dec 29 01:14	0°♿		minimum elong	15823 Nov 17 22:02	12°♿52'45	3°20'09
morning max el	15823 Jan 03 05:27	4°♿03'52	24°02'09	min. Earth dist.	15823 Nov 20 23:55	10°♿48'05	0.56018 AU
asc. node	15823 Jan 15 01:57	19°♿21'03		morning rise	15823 Nov 25 22:15	8°♿03'39	
	15823 Jan 21 02:43	0°♿		direct	15823 Dec 01 13:13	6°♿50'34	
morning set	15823 Jan 27 18:06	13°♿33'28		morning max el	15823 Dec 15 15:17	14°♿00'33	25°46'34

	15823 Dec 28 05:41	0°♄		asc. node	15824 Dec 18 20:16	26°♄58'57	
asc. node	15824 Jan 01 23:09	7°♄52'47			15824 Dec 20 10:15	0°♄	
morning set	15824 Jan 12 05:34	28°♄11'23		morning set	15824 Dec 26 14:43	12°♄38'33	
	15824 Jan 13 01:38	0°♄					
				superior conj	15825 Jan 02 10:27	27°♄41'57	1°37'18
superior conj	15824 Jan 18 23:08	13°♄02'27	1°37'20	minimum elong	15825 Jan 02 09:55	27°♄38'57	1°38'04
minimum elong	15824 Jan 18 23:39	13°♄05'21	1°38'00	max. Earth dist.	15825 Jan 02 14:21	28°♄03'45	1.31062 AU
max. Earth dist.	15824 Jan 20 07:07	15°♄59'40	1.31574 AU		15825 Jan 03 11:07	0°♄	
evening rise	15824 Jan 26 01:56	28°♄27'21		evening rise	15825 Jan 09 06:02	12°♄42'40	
	15824 Jan 26 19:48	0°♄			15825 Jan 17 22:36	0°♄	
desc. node	15824 Feb 03 10:02	14°♄44'04		desc. node	15825 Jan 20 06:45	4°♄11'01	
	15824 Feb 12 14:06	0°♄			15825 Feb 07 23:27	0°♄	
evening max el	15824 Feb 27 11:57	18°♄41'14	27°33'01	evening max el	15825 Feb 08 16:11	0°♄40'27	27°00'52
retrograde	15824 Mar 12 11:14	26°♄07'26		retrograde	15825 Feb 22 17:00	7°♄56'37	
evening set	15824 Mar 19 06:57	23°♄54'41		evening set	15825 Mar 01 07:26	6°♄04'45	
min. Earth dist.	15824 Mar 23 01:17	20°♄58'42	0.61814 AU	min. Earth dist.	15825 Mar 05 06:26	3°♄23'50	0.59565 AU
inferior conj	15824 Mar 26 03:08	18°♄08'04	-1°11'47	inferior conj	15825 Mar 08 11:43	0°♄47'52	-2°37'55
minimum elong	15824 Mar 26 05:38	18°♄02'14	1°10'56	minimum elong	15825 Mar 08 17:42	0°♄35'45	2°35'32
asc. node	15824 Mar 29 20:22	14°♄58'10			15825 Mar 09 11:34	30°♄	
morning rise	15824 Apr 02 07:30	13°♄06'28		morning rise	15825 Mar 16 07:31	26°♄06'11	
direct	15824 Apr 04 12:31	12°♄44'50		asc. node	15825 Mar 16 17:46	26°♄00'28	
morning max el	15824 Apr 11 07:05	16°♄09'37	17°48'37	direct	15825 Mar 18 07:33	25°♄51'02	
	15824 Apr 21 01:41	0°♄		morning max el	15825 Mar 25 20:50	29°♄36'32	18°07'33
morning set	15824 Apr 27 02:03	10°♄32'48			15825 Mar 26 06:12	0°♄	
desc. node	15824 May 01 11:37	18°♄20'30		morning set	15825 Apr 10 11:10	24°♄16'08	
					15825 Apr 13 12:56	0°♄	
superior conj	15824 May 08 10:34	0°♄21'20	-0°54'21	desc. node	15825 Apr 18 08:21	8°♄50'17	
minimum elong	15824 May 08 05:33	0°♄00'07	0°54'15				
	15824 May 08 05:32	0°♄		superior conj	15825 Apr 20 08:13	12°♄25'22	-0°16'24
max. Earth dist.	15824 May 15 11:24	11°♄59'14	1.43738 AU	minimum elong	15825 Apr 20 06:51	12°♄19'18	0°16'39
evening rise	15824 May 22 17:00	23°♄27'02		max. Earth dist.	15825 Apr 27 22:37	25°♄34'13	1.41821 AU
	15824 May 26 23:14	0°♄			15825 Apr 30 14:44	0°♄	
	15824 Jun 17 01:52	0°♄		evening rise	15825 May 03 00:16	3°♄53'52	
evening max el	15824 Jun 22 20:04	6°♄34'27	21°25'40		15825 May 20 06:14	0°♄	
asc. node	15824 Jun 25 18:33	9°♄11'53		evening max el	15825 Jun 05 12:47	20°♄28'09	22°44'38
retrograde	15824 Jul 01 17:09	11°♄43'59		asc. node	15825 Jun 12 15:32	25°♄44'37	
evening set	15824 Jul 06 04:42	9°♄54'00		retrograde	15825 Jun 15 14:11	26°♄22'11	
inferior conj	15824 Jul 11 10:14	3°♄40'16	3°08'39	evening set	15825 Jun 20 13:10	24°♄16'36	
minimum elong	15824 Jul 11 10:01	3°♄41'01	3°07'54	inferior conj	15825 Jun 25 20:12	17°♄54'09	3°00'48
min. Earth dist.	15824 Jul 11 16:37	3°♄17'58	0.68962 AU	minimum elong	15825 Jun 25 19:05	17°♄58'01	2°59'53
	15824 Jul 14 03:50	30°♄		min. Earth dist.	15825 Jun 25 13:33	18°♄17'16	0.69120 AU
morning rise	15824 Jul 16 15:06	27°♄21'42		morning rise	15825 Jul 01 00:53	11°♄42'57	
direct	15824 Jul 21 15:37	25°♄11'57		direct	15825 Jul 05 13:11	9°♄51'28	
desc. node	15824 Jul 28 10:44	28°♄11'49		morning max el	15825 Jul 14 08:48	14°♄58'03	21°23'55
	15824 Jul 30 12:39	0°♄		desc. node	15825 Jul 15 08:00	15°♄57'40	
morning max el	15824 Jul 31 17:31	1°♄10'11	22°49'09		15825 Jul 26 11:08	0°♄	
	15824 Aug 22 13:24	0°♄		morning set	15825 Aug 14 18:22	28°♄47'05	
morning set	15824 Sep 03 17:22	19°♄04'43			15825 Aug 15 12:52	0°♄	
max. Earth dist.	15824 Sep 08 07:11	26°♄43'19	1.40426 AU	max. Earth dist.	15825 Aug 21 11:54	9°♄34'39	1.42640 AU
	15824 Sep 10 05:03	0°♄					
				superior conj	15825 Aug 28 22:10	22°♄01'01	-1°24'37
superior conj	15824 Sep 16 03:58	10°♄33'07	-0°48'32	minimum elong	15825 Aug 29 04:58	22°♄30'15	1°23'56
minimum elong	15824 Sep 16 07:44	10°♄50'16	0°47'50		15825 Sep 02 12:12	0°♄	
asc. node	15824 Sep 21 19:43	21°♄01'55		asc. node	15825 Sep 08 16:22	11°♄03'39	
evening rise	15824 Sep 25 23:35	28°♄55'31		evening rise	15825 Sep 09 05:25	12°♄02'38	
	15824 Sep 26 13:10	0°♄			15825 Sep 19 14:19	0°♄	
evening max el	15824 Oct 11 22:02	24°♄38'23	18°27'11	evening max el	15825 Sep 25 08:45	7°♄28'30	18°05'18
retrograde	15824 Oct 19 17:07	28°♄35'45		retrograde	15825 Oct 02 06:16	11°♄00'49	
evening set	15824 Oct 21 16:41	28°♄21'08		evening set	15825 Oct 04 12:33	10°♄38'16	
desc. node	15824 Oct 24 07:36	27°♄20'46		desc. node	15825 Oct 11 04:55	6°♄04'53	
inferior conj	15824 Oct 29 11:34	23°♄48'08	-1°39'41	inferior conj	15825 Oct 11 13:55	5°♄44'20	-0°07'06
minimum elong	15824 Oct 29 07:40	23°♄55'51	1°37'29	minimum elong	15825 Oct 11 13:41	5°♄44'51	0°06'36
min. Earth dist.	15824 Nov 01 16:59	21°♄16'07	0.57906 AU	transit middle	15825 Oct 11 13:41	5°♄44'51	0°06'36
morning rise	15824 Nov 05 19:11	18°♄36'00		transit begin	15825 Oct 11 10:39	5°♄51'50	
direct	15824 Nov 12 01:14	16°♄55'50		transit end	15825 Oct 11 16:44	5°♄37'52	
morning max el	15824 Nov 26 07:48	24°♄28'46	27°07'00	min. Earth dist.	15825 Oct 14 18:41	2°♄49'30	0.60140 AU
	15824 Dec 01 09:28	0°♄		morning rise	15825 Oct 18 11:36	0°♄00'10	

	15825 Oct 18 11:43	30° \mathbb{R} \mathbb{A}		morning rise	15826 Sep 30 21:04	12° \mathbb{A} 13'06	
direct	15825 Oct 25 02:10	27° \mathbb{A} 54'53		direct	15826 Oct 07 13:29	9° \mathbb{A} 48'51	
	15825 Nov 01 01:43	0° \mathbb{M}		morning max el	15826 Oct 21 15:06	17° \mathbb{A} 46'31	27°56'36
morning max el	15825 Nov 08 08:17	5° \mathbb{M} 43'57	27°51'26		15826 Oct 31 21:08	0° \mathbb{M}	
	15825 Nov 26 12:32	0° \mathbb{A}			15826 Nov 19 07:58	0° \mathbb{A}	
asc. node	15825 Dec 05 17:18	16° \mathbb{A} 30'12		asc. node	15826 Nov 22 14:14	6° \mathbb{A} 18'48	
morning set	15825 Dec 10 19:43	26° \mathbb{A} 50'33		morning set	15826 Nov 24 18:24	10° \mathbb{A} 41'33	
	15825 Dec 12 07:23	0° \mathbb{B}		max. Earth dist.	15826 Nov 30 01:06	21° \mathbb{A} 50'38	1.31691 AU
max. Earth dist.	15825 Dec 16 21:37	10° \mathbb{B} 03'55	1.31098 AU				
				superior conj	15826 Dec 02 06:44	26° \mathbb{A} 44'01	1°19'13
superior conj	15825 Dec 17 21:38	12° \mathbb{B} 17'50	1°31'17	minimum elong	15826 Dec 02 04:36	26° \mathbb{A} 32'12	1°19'44
minimum elong	15825 Dec 17 20:09	12° \mathbb{B} 09'34	1°31'58		15826 Dec 03 18:15	0° \mathbb{B}	
evening rise	15825 Dec 24 14:16	27° \mathbb{B} 06'58		evening rise	15826 Dec 09 00:40	11° \mathbb{B} 34'46	
	15825 Dec 25 22:35	0° \mathbb{A}			15826 Dec 18 05:07	0° \mathbb{A}	
desc. node	15826 Jan 07 03:33	23° \mathbb{A} 03'33		desc. node	15826 Dec 25 00:24	11° \mathbb{A} 08'26	
	15826 Jan 11 16:19	0° \mathbb{H}		evening max el	15827 Jan 03 01:05	22° \mathbb{A} 06'21	24°21'32
evening max el	15826 Jan 21 12:40	11° \mathbb{H} 47'28	25°54'26	retrograde	15827 Jan 16 16:21	28° \mathbb{A} 53'33	
retrograde	15826 Feb 04 11:20	18° \mathbb{H} 50'18		evening set	15827 Jan 21 19:29	27° \mathbb{A} 56'02	
evening set	15826 Feb 10 12:40	17° \mathbb{H} 24'48		min. Earth dist.	15827 Jan 27 12:49	25° \mathbb{A} 03'19	0.55689 AU
min. Earth dist.	15826 Feb 15 01:45	14° \mathbb{H} 46'13	0.57434 AU	inferior conj	15827 Jan 29 16:47	23° \mathbb{A} 43'52	-5°24'00
inferior conj	15826 Feb 18 00:52	12° \mathbb{H} 42'02	-4°07'41	minimum elong	15827 Jan 30 01:04	23° \mathbb{A} 31'12	5°21'53
minimum elong	15826 Feb 18 09:49	12° \mathbb{H} 26'20	4°04'32	morning rise	15827 Feb 07 08:35	19° \mathbb{A} 43'39	
morning rise	15826 Feb 26 10:00	8° \mathbb{H} 21'40		direct	15827 Feb 09 16:30	19° \mathbb{A} 29'23	
direct	15826 Feb 28 09:47	8° \mathbb{H} 09'09		asc. node	15827 Feb 18 12:30	23° \mathbb{A} 11'45	
asc. node	15826 Mar 03 15:09	8° \mathbb{H} 43'48		morning max el	15827 Feb 19 21:16	24° \mathbb{A} 26'08	19°49'15
morning max el	15826 Mar 09 02:57	12° \mathbb{H} 25'56	18°47'03		15827 Feb 24 14:11	0° \mathbb{H}	
	15826 Mar 20 21:20	0° \mathbb{Y}		morning set	15827 Mar 09 11:55	23° \mathbb{H} 00'58	
morning set	15826 Mar 25 07:43	8° \mathbb{Y} 29'13			15827 Mar 12 22:23	0° \mathbb{Y}	
superior conj	15826 Apr 03 01:12	25° \mathbb{Y} 21'02	0°18'02	superior conj	15827 Mar 17 09:08	8° \mathbb{Y} 56'34	0°46'47
minimum elong	15826 Apr 03 02:21	25° \mathbb{Y} 26'31	0°17'33	minimum elong	15827 Mar 17 11:30	9° \mathbb{Y} 08'16	0°46'21
desc. node	15826 Apr 05 05:01	29° \mathbb{Y} 22'43		desc. node	15827 Mar 23 01:39	19° \mathbb{Y} 54'15	
	15826 Apr 05 13:06	0° \mathbb{B}		max. Earth dist.	15827 Mar 23 12:33	20° \mathbb{Y} 45'03	1.37316 AU
max. Earth dist.	15826 Apr 10 06:02	8° \mathbb{B} 28'04	1.39603 AU	evening rise	15827 Mar 27 05:22	27° \mathbb{Y} 29'25	
evening rise	15826 Apr 14 04:44	15° \mathbb{B} 16'16			15827 Mar 28 15:26	0° \mathbb{B}	
	15826 Apr 23 07:09	0° \mathbb{I}			15827 Apr 16 17:14	0° \mathbb{I}	
	15826 May 15 01:16	0° \mathbb{E}		evening max el	15827 May 01 16:27	18° \mathbb{I} 17'21	25°23'26
evening max el	15826 May 19 02:58	4° \mathbb{E} 22'54	24°06'12	retrograde	15827 May 13 21:46	25° \mathbb{I} 22'12	
retrograde	15826 May 30 08:02	10° \mathbb{E} 56'55		asc. node	15827 May 17 09:41	24° \mathbb{I} 31'45	
asc. node	15826 May 30 12:35	10° \mathbb{E} 56'46		evening set	15827 May 19 19:43	22° \mathbb{I} 54'00	
evening set	15826 Jun 04 18:42	8° \mathbb{E} 38'11		min. Earth dist.	15827 May 24 03:07	18° \mathbb{I} 08'58	0.67987 AU
min. Earth dist.	15826 Jun 09 09:45	3° \mathbb{E} 16'15	0.68792 AU	inferior conj	15827 May 25 11:44	16° \mathbb{I} 23'21	2°13'33
inferior conj	15826 Jun 10 05:20	2° \mathbb{E} 09'48	2°42'33	minimum elong	15827 May 25 09:35	16° \mathbb{I} 30'22	2°12'13
minimum elong	15826 Jun 10 03:32	2° \mathbb{E} 15'56	2°41'23	morning rise	15827 May 30 23:52	10° \mathbb{I} 31'01	
	15826 Jun 11 20:21	30° \mathbb{R} \mathbb{I}		direct	15827 Jun 03 12:58	9° \mathbb{I} 18'53	
morning rise	15826 Jun 15 12:24	26° \mathbb{I} 07'23		morning max el	15827 Jun 10 11:09	13° \mathbb{I} 04'51	19°08'26
direct	15826 Jun 19 12:47	24° \mathbb{I} 35'40		desc. node	15827 Jun 19 02:17	23° \mathbb{I} 51'06	
morning max el	15826 Jun 27 06:16	28° \mathbb{I} 56'12	20°09'03		15827 Jun 23 07:17	0° \mathbb{E}	
	15826 Jun 28 07:10	0° \mathbb{E}		greatest brilliancy	15827 Jun 23 08:18	0° \mathbb{E} 03'49	-0.7m
desc. node	15826 Jul 02 05:12	4° \mathbb{E} 35'15		morning set	15827 Jul 04 07:09	16° \mathbb{E} 45'40	
	15826 Jul 19 23:21	0° \mathbb{Q}			15827 Jul 12 20:27	0° \mathbb{Q}	
morning set	15826 Jul 25 01:19	7° \mathbb{Q} 45'05		max. Earth dist.	15827 Jul 17 16:57	7° \mathbb{Q} 34'27	1.45564 AU
max. Earth dist.	15826 Aug 03 23:40	23° \mathbb{Q} 16'27	1.44415 AU				
	15826 Aug 08 04:11	0° \mathbb{M}		superior conj	15827 Jul 20 14:03	12° \mathbb{Q} 05'54	-2°12'27
				minimum elong	15827 Jul 20 17:20	12° \mathbb{Q} 18'53	2°13'01
superior conj	15826 Aug 09 17:03	2° \mathbb{M} 29'53	-1°55'03		15827 Jul 31 18:44	0° \mathbb{M}	
minimum elong	15826 Aug 10 00:40	3° \mathbb{M} 00'58	1°54'54	evening rise	15827 Aug 04 08:23	5° \mathbb{M} 48'46	
evening rise	15826 Aug 22 18:03	24° \mathbb{M} 24'22		asc. node	15827 Aug 13 09:40	20° \mathbb{M} 30'01	
	15826 Aug 26 00:16	0° \mathbb{A}			15827 Aug 19 19:57	0° \mathbb{A}	
asc. node	15826 Aug 26 13:01	0° \mathbb{A} 54'31		evening max el	15827 Aug 23 13:40	4° \mathbb{A} 22'22	18°18'06
evening max el	15826 Sep 08 23:08	20° \mathbb{A} 46'02	18°02'37	retrograde	15827 Aug 29 22:45	7° \mathbb{A} 45'52	
retrograde	15826 Sep 15 09:36	24° \mathbb{A} 07'11		evening set	15827 Sep 01 21:59	6° \mathbb{A} 57'24	
evening set	15826 Sep 18 00:04	23° \mathbb{A} 33'05		inferior conj	15827 Sep 07 19:53	1° \mathbb{A} 28'14	2°00'15
inferior conj	15826 Sep 24 10:00	18° \mathbb{A} 20'15	1°06'21	minimum elong	15827 Sep 07 22:13	1° \mathbb{A} 21'25	1°59'31
minimum elong	15826 Sep 24 11:46	18° \mathbb{A} 15'38	1°05'55		15827 Sep 09 02:07	30° \mathbb{R} \mathbb{M}	
min. Earth dist.	15826 Sep 27 06:09	15° \mathbb{A} 23'14	0.62428 AU	min. Earth dist.	15827 Sep 10 03:33	28° \mathbb{M} 47'04	0.64542 AU
desc. node	15826 Sep 28 02:17	14° \mathbb{A} 34'01		morning rise	15827 Sep 13 20:55	25° \mathbb{M} 07'32	

desc. node	15827 Sep 14 23:40	24° \mathbb{M} 18'35		minimum elong	15828 Aug 21 17:51	14° \mathbb{M} 53'35	2°36'12
direct	15827 Sep 20 09:46	22° \mathbb{M} 32'23		min. Earth dist.	15828 Aug 23 09:37	12° \mathbb{M} 48'25	0.66336 AU
	15827 Oct 03 13:59	0° \mathbb{L}		morning rise	15828 Aug 27 08:22	8° \mathbb{M} 33'46	
morning max el	15827 Oct 04 01:39	0° \mathbb{L} 28'59	27°25'52	desc. node	15828 Aug 31 21:05	6° \mathbb{M} 07'24	
	15827 Oct 25 22:11	0° \mathbb{M}		direct	15828 Sep 02 13:45	5° \mathbb{M} 56'21	
morning set	15827 Nov 08 08:15	24° \mathbb{M} 06'15		morning max el	15828 Sep 15 13:14	13° \mathbb{M} 38'22	26°26'45
asc. node	15827 Nov 09 11:06	26° \mathbb{M} 19'21			15828 Sep 28 20:20	0° \mathbb{L}	
	15827 Nov 11 06:48	0° \mathbb{X}			15828 Oct 17 15:07	0° \mathbb{M}	
max. Earth dist.	15827 Nov 12 21:12	3° \mathbb{X} 17'52	1.32844 AU	morning set	15828 Oct 21 10:10	6° \mathbb{M} 57'44	
				max. Earth dist.	15828 Oct 25 07:27	14° \mathbb{M} 26'17	1.34530 AU
superior conj	15827 Nov 16 11:43	10° \mathbb{X} 55'25	1°01'02	asc. node	15828 Oct 26 07:54	16° \mathbb{M} 27'10	
minimum elong	15827 Nov 16 09:22	10° \mathbb{X} 42'49	1°01'24				
evening rise	15827 Nov 23 11:26	26° \mathbb{X} 01'54		superior conj	15828 Oct 30 10:09	24° \mathbb{M} 46'15	0°36'50
	15827 Nov 25 08:22	0° \mathbb{Z}		minimum elong	15828 Oct 30 08:18	24° \mathbb{M} 36'37	0°37'07
desc. node	15827 Dec 11 21:20	28° \mathbb{Z} 08'55			15828 Nov 01 22:18	0° \mathbb{X}	
	15827 Dec 13 11:42	0° \mathbb{W}		evening rise	15828 Nov 06 20:42	10° \mathbb{X} 23'51	
evening max el	15827 Dec 15 10:39	2° \mathbb{W} 01'53	22°38'05		15828 Nov 17 00:44	0° \mathbb{Z}	
retrograde	15827 Dec 28 09:01	8° \mathbb{W} 25'59		evening max el	15828 Nov 26 03:21	12° \mathbb{Z} 13'37	21°02'00
evening set	15828 Jan 01 05:41	7° \mathbb{W} 53'23		desc. node	15828 Nov 27 18:22	13° \mathbb{Z} 43'33	
min. Earth dist.	15828 Jan 08 19:07	4° \mathbb{W} 26'44	0.54618 AU	retrograde	15828 Dec 07 19:10	18° \mathbb{Z} 00'15	
inferior conj	15828 Jan 09 14:46	3° \mathbb{W} 59'01	-6°01'06	evening set	15828 Dec 10 10:45	17° \mathbb{Z} 43'39	
minimum elong	15828 Jan 09 15:58	3° \mathbb{W} 57'19	6°00'21	inferior conj	15828 Dec 19 05:37	13° \mathbb{Z} 52'12	-5°38'37
morning rise	15828 Jan 18 03:26	0° \mathbb{W} 11'02		minimum elong	15828 Dec 18 22:03	14° \mathbb{Z} 02'56	5°36'36
	15828 Jan 19 01:42	30° \mathbb{R} \mathbb{Z}		min. Earth dist.	15828 Dec 20 00:41	13° \mathbb{Z} 25'06	0.54441 AU
direct	15828 Jan 21 05:55	29° \mathbb{Z} 49'04		morning rise	15828 Dec 27 09:31	9° \mathbb{Z} 59'56	
	15828 Jan 23 09:05	0° \mathbb{W}		direct	15828 Dec 31 13:15	9° \mathbb{Z} 22'42	
morning max el	15828 Feb 02 00:51	5° \mathbb{W} 30'01	21°14'38	morning max el	15829 Jan 13 15:12	15° \mathbb{Z} 44'52	22°58'34
asc. node	15828 Feb 05 09:51	9° \mathbb{W} 10'42		asc. node	15829 Jan 22 07:09	26° \mathbb{Z} 22'23	
	15828 Feb 18 02:21	0° \mathbb{X}			15829 Jan 24 14:58	0° \mathbb{W}	
morning set	15828 Feb 21 20:52	7° \mathbb{X} 42'19		morning set	15829 Feb 05 08:19	22° \mathbb{W} 26'53	
					15829 Feb 08 20:29	0° \mathbb{X}	
superior conj	15828 Feb 29 04:03	23° \mathbb{X} 00'32	1°09'09				
minimum elong	15828 Feb 29 06:35	23° \mathbb{X} 13'37	1°08'59	superior conj	15829 Feb 12 06:44	7° \mathbb{X} 23'54	1°25'02
	15828 Mar 03 14:23	0° \mathbb{Y}		minimum elong	15829 Feb 12 08:45	7° \mathbb{X} 34'43	1°25'14
max. Earth dist.	15828 Mar 04 22:18	2° \mathbb{Y} 38'42	1.35196 AU	max. Earth dist.	15829 Feb 15 14:55	14° \mathbb{X} 28'07	1.33428 AU
evening rise	15828 Mar 08 22:57	10° \mathbb{Y} 23'59		evening rise	15829 Feb 20 06:03	23° \mathbb{X} 51'20	
desc. node	15828 Mar 08 22:15	10° \mathbb{Y} 20'43			15829 Feb 23 10:44	0° \mathbb{Y}	
	15828 Mar 20 04:42	0° \mathbb{Z}		desc. node	15829 Feb 23 18:53	0° \mathbb{Y} 38'14	
	15828 Apr 11 04:47	0° \mathbb{II}			15829 Mar 13 18:51	0° \mathbb{Z}	
evening max el	15828 Apr 13 06:01	2° \mathbb{II} 05'23	26°29'02	evening max el	15829 Mar 26 19:31	15° \mathbb{Z} 39'05	27°15'29
retrograde	15828 Apr 26 06:25	9° \mathbb{II} 29'43		retrograde	15829 Apr 09 09:09	23° \mathbb{Z} 11'03	
evening set	15828 May 02 14:22	6° \mathbb{II} 57'10		evening set	15829 Apr 16 00:39	20° \mathbb{Z} 40'39	
asc. node	15828 May 03 06:53	6° \mathbb{II} 21'47		min. Earth dist.	15829 Apr 19 21:23	17° \mathbb{Z} 03'12	0.65067 AU
min. Earth dist.	15828 May 06 15:37	2° \mathbb{II} 47'22	0.66730 AU	asc. node	15829 Apr 20 04:09	16° \mathbb{Z} 44'54	
inferior conj	15828 May 08 13:16	0° \mathbb{II} 29'20	1°32'57	inferior conj	15829 Apr 22 07:29	14° \mathbb{Z} 22'19	0°39'42
minimum elong	15828 May 08 11:16	0° \mathbb{II} 35'23	1°31'38	minimum elong	15829 Apr 22 06:25	14° \mathbb{Z} 25'17	0°38'46
	15828 May 08 22:58	30° \mathbb{R} \mathbb{Z}		morning rise	15829 Apr 28 14:03	8° \mathbb{Z} 54'28	
morning rise	15828 May 14 09:13	24° \mathbb{Z} 48'22		direct	15829 Apr 01 07:12	8° \mathbb{Z} 15'34	
direct	15828 May 17 11:48	23° \mathbb{Z} 54'13		morning max el	15829 May 07 14:34	11° \mathbb{Z} 31'12	17°56'17
morning max el	15828 May 23 22:37	27° \mathbb{Z} 18'46	18°23'54		15829 May 20 15:05	0° \mathbb{II}	
	15828 May 26 09:54	0° \mathbb{II}		desc. node	15829 May 22 20:14	3° \mathbb{II} 38'00	
desc. node	15828 Jun 04 23:18	13° \mathbb{II} 34'26		morning set	15829 May 25 10:02	7° \mathbb{II} 52'36	
morning set	15828 Jun 13 06:57	26° \mathbb{II} 39'48			15829 Jun 08 01:36	0° \mathbb{Z}	
	15828 Jun 15 09:36	0° \mathbb{Z}					
superior conj	15828 Jun 28 23:16	21° \mathbb{Z} 16'56	-2°10'41	superior conj	15829 Jun 08 13:37	0° \mathbb{Z} 47'39	-1°49'46
minimum elong	15828 Jun 28 18:47	20° \mathbb{Z} 59'29	2°11'20	minimum elong	15829 Jun 08 05:00	0° \mathbb{Z} 13'29	1°49'51
max. Earth dist.	15828 Jun 29 12:43	22° \mathbb{Z} 09'22	1.45987 AU	max. Earth dist.	15829 Jun 12 08:36	6° \mathbb{Z} 46'02	1.45663 AU
	15828 Jul 04 13:31	0° \mathbb{Q}		evening rise	15829 Jun 24 14:20	25° \mathbb{Z} 42'56	
evening rise	15828 Jul 14 21:33	16° \mathbb{Q} 09'35			15829 Jun 27 09:34	0° \mathbb{Q}	
	15828 Jul 23 18:09	0° \mathbb{M}		greatest brilliancy	15829 Jul 08 14:45	16° \mathbb{Q} 50'52	-0.6m
greatest brilliancy	15828 Jul 24 05:46	0° \mathbb{M} 44'43	-0.8m	asc. node	15829 Jul 17 03:07	28° \mathbb{Q} 27'15	
asc. node	15828 Jul 30 06:22	9° \mathbb{M} 43'28			15829 Jul 18 10:42	0° \mathbb{M}	
evening max el	15828 Aug 06 01:24	18° \mathbb{M} 09'21	18°51'04	evening max el	15829 Jul 20 08:14	2° \mathbb{M} 01'31	19°40'21
retrograde	15828 Aug 12 17:52	21° \mathbb{M} 48'11		retrograde	15829 Jul 27 16:01	6° \mathbb{M} 07'49	
evening set	15828 Aug 16 02:25	20° \mathbb{M} 43'22		evening set	15829 Jul 31 10:34	4° \mathbb{M} 45'26	
inferior conj	15828 Aug 21 15:48	15° \mathbb{M} 00'02	2°36'55		15829 Aug 04 21:22	30° \mathbb{R} \mathbb{Q}	
				inferior conj	15829 Aug 05 18:41	28° \mathbb{Q} 49'25	2°58'54





























































































































































































minimum elong	15829 Aug 05 19:58	28°Ω45'07	2°58'15	evening set	15830 Jul 15 20:15	18°Ω59'15	
min. Earth dist.	15829 Aug 06 22:29	27°Ω16'38	0.67724 AU	inferior conj	15830 Jul 21 01:59	12°Ω51'45	3°08'19
morning rise	15829 Aug 11 04:52	22°Ω23'29		minimum elong	15830 Jul 21 02:20	12°Ω50'33	3°07'39
direct	15829 Aug 17 00:11	19°Ω51'53		min. Earth dist.	15830 Jul 21 16:04	12°Ω03'05	0.68652 AU
desc. node	15829 Aug 18 18:30	20°Ω04'06		morning rise	15830 Jul 26 08:07	6°Ω29'56	
morning max el	15829 Aug 29 00:13	27°Ω03'07	25°08'21	direct	15830 Jul 31 15:47	4°Ω10'48	
	15829 Aug 31 18:21	0°♐		desc. node	15830 Aug 05 15:53	5°Ω49'00	
	15829 Sep 22 11:10	0°♑		morning max el	15830 Aug 11 11:04	10°Ω37'30	23°40'27
morning set	15829 Oct 03 20:15	19°♒06'24			15830 Aug 26 20:59	0°♐	
max. Earth dist.	15829 Oct 07 08:58	25°♒31'22	1.36664 AU	morning set	15830 Sep 15 10:17	0°♒22'40	
	15829 Oct 09 18:15	0°♓			15830 Sep 15 04:54	0°♑	
asc. node	15829 Oct 13 04:37	6°♓37'47		max. Earth dist.	15830 Sep 19 07:32	7°♒03'37	1.39051 AU
superior conj	15829 Oct 13 23:03	8°♓08'37	0°06'59	superior conj	15830 Sep 26 22:45	20°♒54'10	-0°27'28
minimum elong	15829 Oct 13 22:36	8°♓06'21	0°07'20	minimum elong	15830 Sep 27 00:44	21°♒03'28	0°26'54
behind sun begin	15829 Oct 13 16:48	7°♓37'47		asc. node	15830 Sep 30 01:17	26°♒47'49	
behind sun end	15829 Oct 14 04:23	8°♓34'59			15830 Oct 01 17:09	0°♓	
evening rise	15829 Oct 22 02:13	24°♓34'35		evening rise	15830 Oct 06 01:22	8°♓27'49	
	15829 Oct 24 18:56	0°♊			15830 Oct 18 05:30	0°♊	
evening max el	15829 Nov 08 09:51	23°♊08'35	19°44'27	evening max el	15830 Oct 22 06:13	4°♊53'27	18°49'04
desc. node	15829 Nov 14 15:31	27°♊26'48		retrograde	15830 Oct 30 18:08	9°♊10'47	
retrograde	15829 Nov 18 10:22	28°♊08'49		evening set	15830 Nov 01 15:44	8°♊58'44	
evening set	15829 Nov 20 10:23	27°♊57'46		desc. node	15830 Nov 01 12:45	9°♊00'14	
inferior conj	15829 Nov 29 03:50	23°♊56'05	-4°21'52	inferior conj	15830 Nov 09 20:24	4°♊37'43	-2°39'15
minimum elong	15829 Nov 28 17:55	24°♊11'31	4°18'04	minimum elong	15830 Nov 09 13:53	4°♊49'29	2°36'02
min. Earth dist.	15829 Dec 01 08:16	22°♊34'29	0.55206 AU	min. Earth dist.	15830 Nov 12 20:43	2°♊27'55	0.56761 AU
morning rise	15829 Dec 06 23:52	19°♊40'51			15830 Nov 16 22:23	30°♋♓	
direct	15829 Dec 12 03:47	18°♊41'52		morning rise	15830 Nov 17 09:02	29°♓47'17	
morning max el	15829 Dec 25 23:42	25°♊36'27	24°48'12	direct	15830 Nov 23 07:25	28°♓22'46	
	15829 Dec 30 02:30	0°♋			15830 Nov 29 17:47	0°♊	
asc. node	15830 Jan 09 04:24	14°♋28'52		morning max el	15830 Dec 07 11:39	5°♊42'22	26°24'35
	15830 Jan 17 10:54	0°♌			15830 Dec 25 05:31	0°♋	
morning set	15830 Jan 20 20:16	7°♌08'13		asc. node	15830 Dec 27 01:36	3°♋16'29	
superior conj	15830 Jan 27 14:26	21°♌58'02	1°34'37	morning set	15831 Jan 05 06:59	21°♋41'52	
minimum elong	15830 Jan 27 15:34	22°♌04'12	1°35'08		15831 Jan 09 01:51	0°♌	
max. Earth dist.	15830 Jan 29 15:07	26°♌24'13	1.32113 AU	superior conj	15831 Jan 12 01:00	6°♌36'56	1°38'04
	15830 Jan 31 07:07	0°♍		minimum elong	15831 Jan 12 01:04	6°♌37'20	1°38'46
evening rise	15830 Feb 03 23:22	7°♍42'16		max. Earth dist.	15831 Jan 12 20:53	8°♌27'52	1.31299 AU
desc. node	15830 Feb 10 15:32	20°♍41'05		evening rise	15831 Jan 19 00:13	21°♌50'16	
	15830 Feb 15 22:31	0°♎			15831 Jan 22 23:58	0°♍	
evening max el	15830 Mar 09 07:31	28°♎46'20	27°35'43	desc. node	15831 Jan 28 12:13	10°♍23'21	
	15830 Mar 10 15:17	0°♏			15831 Feb 09 23:37	0°♎	
retrograde	15830 Mar 23 04:39	6°♏15'59		evening max el	15831 Feb 19 15:28	11°♎13'52	27°23'38
evening set	15830 Mar 30 00:07	3°♏55'00		retrograde	15831 Mar 05 15:31	18°♎35'12	
min. Earth dist.	15830 Apr 02 18:33	0°♏45'30	0.63071 AU	evening set	15831 Mar 12 09:54	16°♎30'47	
	15830 Apr 03 13:14	30°♐♎		min. Earth dist.	15831 Mar 16 05:34	13°♎42'26	0.60867 AU
inferior conj	15830 Apr 05 15:26	27°♐54'23	-0°27'10	inferior conj	15831 Mar 19 09:39	10°♎56'15	-1°47'12
minimum elong	15830 Apr 05 16:19	27°♐52'10	0°27'08	minimum elong	15831 Mar 19 13:34	10°♎47'39	1°45'41
asc. node	15830 Apr 07 01:29	26°♐31'06		asc. node	15831 Mar 24 22:53	6°♎48'55	
morning rise	15830 Apr 12 11:14	22°♐42'03		morning rise	15831 Mar 26 20:34	6°♎02'31	
direct	15830 Apr 14 20:13	22°♐15'05		direct	15831 Mar 28 23:13	5°♎43'58	
morning max el	15830 Apr 21 08:14	25°♐33'25	17°46'10	morning max el	15831 Apr 05 00:25	9°♎16'02	17°54'13
	15830 Apr 25 02:48	0°♑			15831 Apr 18 14:54	0°♏	
morning set	15830 May 07 14:43	20°♑18'11		morning set	15831 Apr 20 15:08	3°♏38'18	
desc. node	15830 May 09 17:06	23°♑55'37		desc. node	15831 Apr 26 13:52	14°♏22'12	
	15830 May 13 06:11	0°♒		superior conj	15831 May 01 07:33	22°♏41'29	-0°38'00
superior conj	15830 May 19 22:49	11°♒12'14	-1°16'11	minimum elong	15831 May 01 04:10	22°♏26'52	0°38'04
minimum elong	15830 May 19 15:42	10°♒42'56	1°16'00		15831 May 05 14:34	0°♒	
max. Earth dist.	15830 May 26 02:55	21°♒11'46	1.44626 AU	max. Earth dist.	15831 May 08 17:33	5°♒10'51	1.42980 AU
	15830 May 31 17:09	0°♓		evening rise	15831 May 14 21:53	15°♒06'42	
evening rise	15830 Jun 04 01:07	5°♓08'52			15831 May 24 15:29	0°♓	
	15830 Jun 20 18:59	0°♑		evening max el	15831 Jun 16 04:25	29°♓49'01	21°58'32
evening max el	15830 Jul 03 09:10	15°♑55'27	20°43'56		15831 Jun 16 08:51	0°♑	
asc. node	15830 Jul 03 23:56	16°♑31'25		asc. node	15831 Jun 20 20:51	3°♑42'21	
retrograde	15830 Jul 11 15:00	20°♑39'24		retrograde	15831 Jun 25 13:08	5°♑17'05	

evening set	15831 Jun 30 05:38	3°Ω20'01		evening max el	15832 May 28 19:41	13° Ω 43'01	23°19'15
	15831 Jul 03 07:17	30° κ Ω		asc. node	15832 Jun 06 17:51	19° Ω 43'38	
inferior conj	15831 Jul 05 11:32	27° Ω 02'26	3°06'34	retrograde	15832 Jun 08 09:03	19° Ω 55'11	
minimum elong	15831 Jul 05 10:55	27° Ω 04'33	3°05'46	evening set	15832 Jun 13 13:04	17° Ω 43'21	
min. Earth dist.	15831 Jul 05 12:18	26° Ω 59'44	0.69094 AU	inferior conj	15832 Jun 18 21:23	11° Ω 17'49	2°54'20
morning rise	15831 Jul 10 16:03	20° Ω 47'04		minimum elong	15832 Jun 18 19:57	11° Ω 22'46	2°53'19
direct	15831 Jul 15 11:23	18° Ω 44'53		min. Earth dist.	15832 Jun 18 09:08	12° Ω 00'05	0.69044 AU
desc. node	15831 Jul 23 13:13	22° Ω 57'04		morning rise	15832 Jun 24 02:47	5° Ω 10'20	
morning max el	15831 Jul 24 23:58	24° Ω 20'20	22°12'01	direct	15832 Jun 28 09:52	3° Ω 27'27	
	15831 Jul 30 01:00	0°Ω		morning max el	15832 Jul 06 17:48	8° Ω 13'22	20°50'31
	15831 Aug 20 06:21	0° η		desc. node	15832 Jul 09 10:26	11° Ω 07'10	
morning set	15831 Aug 27 00:48	10° η 38'48			15832 Jul 23 10:52	0°Ω	
max. Earth dist.	15831 Sep 01 09:19	19° η 25'24	1.41411 AU	morning set	15832 Aug 05 16:47	19°Ω58'52	
	15831 Sep 07 13:44	0° Ω			15832 Aug 12 01:22	0° η	
				max. Earth dist.	15832 Aug 13 17:07	2° η 39'44	1.43465 AU
superior conj	15831 Sep 09 04:52	2° Ω 52'23	-1°04'07				
minimum elong	15831 Sep 09 10:01	3° Ω 15'13	1°03'23	superior conj	15832 Aug 20 13:17	13° η 54'54	-1°38'39
asc. node	15831 Sep 16 21:55	16° Ω 53'19		minimum elong	15832 Aug 20 20:54	14° η 26'52	1°38'07
evening rise	15831 Sep 19 14:42	21° Ω 54'35			15832 Aug 29 21:32	0° Ω	
	15831 Sep 23 23:54	0° η		evening rise	15832 Sep 01 13:52	4° Ω 44'01	
evening max el	15831 Oct 05 12:47	17° η 21'33	18°15'23	asc. node	15832 Sep 02 18:32	6° Ω 50'49	
retrograde	15831 Oct 12 21:25	21° η 06'53			15832 Sep 17 16:04	0° η	
evening set	15831 Oct 14 23:32	20° η 49'21		evening max el	15832 Sep 18 01:25	0° η 23'45	18°01'49
desc. node	15831 Oct 19 10:03	18° η 31'29		retrograde	15832 Sep 24 17:12	3° η 50'00	
inferior conj	15831 Oct 22 10:48	16° η 06'53	-0°58'18	evening set	15832 Sep 27 02:44	3° η 23'04	
minimum elong	15831 Oct 22 08:39	16° η 11'25	0°56'54		15832 Oct 02 03:12	30° κ Ω	
min. Earth dist.	15831 Oct 25 17:01	13° η 22'54	0.58830 AU	inferior conj	15832 Oct 03 21:10	28° Ω 20'48	0°26'33
morning rise	15831 Oct 29 14:21	10° η 40'07		minimum elong	15832 Oct 03 21:59	28° Ω 18'48	0°26'33
direct	15831 Nov 05 00:40	8° η 49'07		desc. node	15832 Oct 05 07:23	26° Ω 57'01	
morning max el	15831 Nov 19 07:43	16° η 29'19	27°30'53	min. Earth dist.	15832 Oct 06 22:59	25° Ω 22'20	0.61119 AU
	15831 Nov 30 10:37	0° ♄		morning rise	15832 Oct 10 14:17	22° Ω 25'15	
asc. node	15831 Dec 13 22:40	22° ♄ 34'05		direct	15832 Oct 17 06:12	20° Ω 10'56	
	15831 Dec 17 16:58	0° ♅		morning max el	15832 Oct 31 11:23	28° Ω 05'35	27°58'26
morning set	15831 Dec 20 14:37	6° ♅ 03'07			15832 Nov 02 07:50	0° η	
max. Earth dist.	15831 Dec 27 04:45	20° ♅ 31'59	1.31007 AU		15832 Nov 23 06:10	0° ♄	
				asc. node	15832 Nov 29 19:38	12° ♄ 13'09	
superior conj	15831 Dec 27 12:28	21° ♅ 15'11	1°35'29	morning set	15832 Dec 03 17:11	20° ♄ 06'31	
minimum elong	15831 Dec 27 11:30	21° ♅ 09'48	1°36'14		15832 Dec 08 08:07	0° ♅	
	15831 Dec 31 10:31	0° ≈		max. Earth dist.	15832 Dec 09 10:47	2° ♅ 26'38	1.31270 AU
evening rise	15832 Jan 03 06:18	6° ≈ 09'45					
desc. node	15832 Jan 15 08:58	29° ≈ 37'10		superior conj	15832 Dec 10 22:58	5° ♅ 47'03	1°26'54
	15832 Jan 15 14:21	0° ♄		minimum elong	15832 Dec 10 21:09	5° ♅ 37'01	1°27'32
evening max el	15832 Feb 01 16:33	22° ♄ 51'14	26°36'32	evening rise	15832 Dec 17 15:37	20° ♅ 35'21	
	15832 Feb 14 19:34	0° ♄			15832 Dec 22 03:19	0° ≈	
retrograde	15832 Feb 15 16:31	0° ♄ 01'53		desc. node	15833 Jan 01 05:46	18° ≈ 11'06	
	15832 Feb 16 13:25	30° κ ♄			15833 Jan 09 22:50	0° ♄	
evening set	15832 Feb 22 02:45	28° ♄ 20'25		evening max el	15833 Jan 13 09:07	3° ♄ 35'05	25°17'28
min. Earth dist.	15832 Feb 26 06:08	25° ♄ 42'41	0.58632 AU	retrograde	15833 Jan 27 05:48	10° ♄ 32'49	
inferior conj	15832 Feb 29 10:24	23° ♄ 18'08	-3°16'15	evening set	15833 Feb 01 22:47	9° ♄ 19'03	
minimum elong	15832 Feb 29 17:51	23° ♄ 03'58	3°13'22	min. Earth dist.	15833 Feb 06 21:37	6° ♄ 36'46	0.56616 AU
morning rise	15832 Mar 08 12:24	18° ♄ 45'43		inferior conj	15833 Feb 09 14:29	4° ♄ 49'58	-4°43'07
direct	15832 Mar 10 11:42	18° ♄ 32'05		minimum elong	15833 Feb 09 23:51	4° ♄ 34'32	4°40'11
asc. node	15832 Mar 10 20:17	18° ♄ 32'33		morning rise	15833 Feb 18 03:37	0° ♄ 39'01	
morning max el	15832 Mar 18 11:30	22° ♄ 29'08	18°21'44	direct	15833 Feb 20 05:24	0° ♄ 26'30	
	15832 Mar 24 08:22	0° ♄		asc. node	15833 Feb 25 17:41	2° ♄ 01'09	
morning set	15832 Apr 03 05:41	17° ♄ 36'30		morning max el	15833 Mar 01 13:12	4° ♄ 59'27	19°10'43
	15832 Apr 09 18:51	0° ♄			15833 Mar 17 05:53	0° ♄	
desc. node	15832 Apr 12 10:32	4° ♄ 53'55		morning set	15833 Mar 18 05:53	1° ♄ 58'38	
superior conj	15832 Apr 12 14:03	5° ♄ 10'01	-0°01'14	superior conj	15833 Mar 26 13:57	18° ♄ 24'26	0°30'56
minimum elong	15832 Apr 12 13:55	5° ♄ 09'25	0°01'37	minimum elong	15833 Mar 26 15:46	18° ♄ 33'11	0°30'27
behind sun begin	15832 Apr 12 06:39	4° ♄ 36'10		desc. node	15833 Mar 30 07:10	25° ♄ 26'32	
behind sun end	15832 Apr 12 21:12	5° ♄ 42'36			15833 Apr 01 18:48	0° ♄	
max. Earth dist.	15832 Apr 20 03:16	18° ♄ 30'20	1.40902 AU	max. Earth dist.	15833 Apr 02 09:24	1° ♄ 05'52	1.38621 AU
evening rise	15832 Apr 24 14:04	25° ♄ 57'31		evening rise	15833 Apr 06 03:25	7° ♄ 42'38	
	15832 Apr 27 01:44	0° ♄			15833 Apr 19 23:46	0° ♄	
	15832 May 17 08:38	0° ♄		evening max el	15833 May 11 09:13	27° ♄ 37'34	24°39'54

	15833 May 13 22:49	0°☿		evening max el	15834 Apr 23 22:50	11°☿30'41	25°53'14
retrograde	15833 May 23 01:27	4°☿26'46		retrograde	15834 May 06 13:11	18°☿45'15	
asc. node	15833 May 24 14:57	4°☿16'25		asc. node	15834 May 11 12:07	17°☿06'43	
evening set	15833 May 28 16:55	2°☿03'27		evening set	15834 May 12 15:27	16°☿14'50	
	15833 May 30 17:56	30°☿☿		min. Earth dist.	15834 May 16 20:09	11°☿44'43	0.67507 AU
min. Earth dist.	15833 Jun 02 04:28	26°☿57'10	0.68508 AU	inferior conj	15834 May 18 10:15	9°☿44'33	1°57'51
inferior conj	15833 Jun 03 05:37	25°☿33'16	2°31'37	minimum elong	15834 May 18 08:05	9°☿51'25	1°56'28
minimum elong	15833 Jun 03 03:37	25°☿39'58	2°30'22	morning rise	15834 May 24 01:20	3°☿56'33	
morning rise	15833 Jun 08 14:30	19°☿34'50		direct	15834 May 27 09:51	2°☿52'16	
direct	15833 Jun 12 09:53	18°☿11'42		morning max el	15834 Jun 03 02:12	6°☿27'39	18°47'19
morning max el	15833 Jun 19 18:25	22°☿16'27	19°41'16	desc. node	15834 Jun 13 04:39	19°☿31'11	
desc. node	15833 Jun 26 07:34	0°☿02'28		greatest brilliancy	15834 Jun 16 23:03	25°☿11'32	-0.8m
	15833 Jun 26 06:50	0°☿			15834 Jun 20 02:07	0°☿	
greatest brilliancy	15833 Jul 02 17:43	9°☿05'08	-0.6m	morning set	15834 Jun 25 08:11	8°☿08'51	
morning set	15833 Jul 15 20:40	28°☿50'52			15834 Jul 09 09:08	0°☿	
	15833 Jul 16 14:40	0°☿		max. Earth dist.	15834 Jul 10 01:21	1°☿03'16	1.45841 AU
max. Earth dist.	15833 Jul 27 06:53	16°☿36'45	1.44987 AU				
				superior conj	15834 Jul 11 12:30	3°☿20'37	-2°14'12
superior conj	15833 Jul 31 22:15	23°☿59'38	-2°04'29	minimum elong	15834 Jul 11 12:31	3°☿20'42	2°14'56
minimum elong	15833 Aug 01 04:44	24°☿25'39	2°04'39	evening rise	15834 Jul 26 21:11	27°☿39'29	
	15833 Aug 04 15:31	0°☿			15834 Jul 28 08:14	0°☿	
evening rise	15833 Aug 14 17:36	16°☿42'44		asc. node	15834 Aug 07 11:51	16°☿03'01	
asc. node	15833 Aug 20 15:11	26°☿36'01		evening max el	15834 Aug 16 06:03	27°☿33'00	18°30'07
	15833 Aug 22 16:51	0°☿			15834 Aug 19 07:56	0°☿	
evening max el	15833 Sep 01 16:18	13°☿50'44	18°07'04	retrograde	15834 Aug 22 17:06	1°☿01'04	
retrograde	15833 Sep 08 01:08	17°☿11'15		evening set	15834 Aug 25 20:19	0°☿05'46	
evening set	15833 Sep 10 19:12	16°☿31'28			15834 Aug 26 00:10	30°☿☿	
inferior conj	15833 Sep 16 23:37	11°☿11'43	1°31'30	inferior conj	15834 Aug 31 14:11	24°☿30'34	2°17'45
minimum elong	15833 Sep 17 01:46	11°☿05'49	1°30'52	minimum elong	15834 Aug 31 16:29	22°☿23'38	2°17'00
min. Earth dist.	15833 Sep 19 14:54	8°☿19'08	0.63359 AU	min. Earth dist.	15834 Sep 02 16:04	22°☿00'36	0.65357 AU
desc. node	15833 Sep 22 04:46	5°☿49'20		morning rise	15834 Sep 06 11:25	18°☿06'56	
morning rise	15833 Sep 23 06:16	4°☿57'40		desc. node	15834 Sep 09 02:11	16°☿23'50	
direct	15833 Sep 29 21:52	2°☿27'18		direct	15834 Sep 12 21:39	15°☿29'40	
morning max el	15833 Oct 13 20:03	10°☿26'38	27°47'27	morning max el	15834 Sep 26 07:03	23°☿21'17	27°03'35
	15833 Oct 29 05:31	0°☿			15834 Oct 02 05:21	0°☿	
	15833 Nov 15 14:42	0°☿			15834 Oct 22 13:23	0°☿	
asc. node	15833 Nov 16 16:31	2°☿07'37		morning set	15834 Oct 31 21:35	16°☿58'37	
morning set	15833 Nov 17 12:27	3°☿47'24		asc. node	15834 Nov 03 13:20	22°☿11'42	
max. Earth dist.	15833 Nov 22 11:16	14°☿04'32	1.32106 AU	max. Earth dist.	15834 Nov 05 03:11	25°☿22'25	1.33503 AU
					15834 Nov 07 09:09	0°☿	
superior conj	15833 Nov 25 06:36	20°☿08'05	1°12'15				
minimum elong	15833 Nov 25 04:18	19°☿55'32	1°12'43	superior conj	15834 Nov 09 09:06	4°☿11'40	0°51'30
	15833 Nov 29 18:34	0°☿		minimum elong	15834 Nov 09 06:52	3°☿59'49	0°51'49
evening rise	15833 Dec 02 02:24	5°☿03'32		evening rise	15834 Nov 16 12:45	19°☿29'04	
	15833 Dec 15 03:45	0°☿			15834 Nov 21 15:26	0°☿	
desc. node	15833 Dec 19 02:40	5°☿51'12		desc. node	15834 Dec 05 23:40	22°☿17'59	
evening max el	15833 Dec 25 19:24	13°☿40'17	23°37'51	evening max el	15834 Dec 07 06:54	23°☿38'10	21°55'26
retrograde	15834 Jan 08 05:26	20°☿19'06		retrograde	15834 Dec 19 17:28	29°☿47'15	
evening set	15834 Jan 12 19:57	19°☿33'13		evening set	15834 Dec 23 00:58	29°☿22'46	
min. Earth dist.	15834 Jan 19 06:35	16°☿28'15	0.55129 AU	inferior conj	15834 Dec 31 15:07	25°☿31'51	-5°59'13
inferior conj	15834 Jan 20 21:58	15°☿30'29	-5°46'10	minimum elong	15834 Dec 31 12:12	25°☿35'55	5°58'17
minimum elong	15834 Jan 21 03:58	15°☿21'39	5°44'48	min. Earth dist.	15834 Dec 31 12:00	25°☿36'13	0.54431 AU
morning rise	15834 Jan 29 13:31	11°☿36'31		morning rise	15835 Jan 09 00:14	21°☿44'24	
direct	15834 Feb 01 03:54	11°☿19'53		direct	15835 Jan 12 13:29	21°☿16'38	
morning max el	15834 Feb 12 01:27	16°☿36'03	20°22'50	morning max el	15835 Jan 24 22:38	27°☿15'50	21°57'10
asc. node	15834 Feb 12 15:02	17°☿09'42			15835 Jan 27 13:12	0°☿	
	15834 Feb 21 21:21	0°☿		asc. node	15835 Jan 30 12:20	3°☿41'19	
morning set	15834 Mar 02 12:25	16°☿35'09			15835 Feb 14 07:45	0°☿	
	15834 Mar 09 00:46	0°☿		morning set	15835 Feb 14 22:41	1°☿18'23	
superior conj	15834 Mar 10 03:00	2°☿13'03	0°57'02	superior conj	15835 Feb 22 01:32	16°☿25'45	1°16'40
minimum elong	15834 Mar 10 05:32	2°☿25'52	0°56'42	minimum elong	15835 Feb 22 03:55	16°☿38'14	1°16'39
max. Earth dist.	15834 Mar 15 16:28	13°☿09'16	1.36383 AU	max. Earth dist.	15835 Feb 26 05:06	24°☿59'56	1.34395 AU
desc. node	15834 Mar 17 03:48	15°☿56'22			15835 Feb 28 17:20	0°☿	
evening rise	15834 Mar 19 11:43	20°☿14'50		evening rise	15835 Mar 02 11:28	3°☿24'12	
	15834 Mar 25 00:36	0°☿		desc. node	15835 Mar 04 00:26	6°☿19'31	
	15834 Apr 13 23:41	0°☿			15835 Mar 17 21:52	0°☿	

evening max el	15835 Apr 06 12:45	25°♄14'58	26°51'40	desc. node	15836 Feb 18 21:04	26°♄31'21	
	15835 Apr 12 06:26	0°♄			15836 Feb 20 18:35	0°♄	
retrograde	15835 Apr 19 19:18	2°♄43'03			15836 Mar 11 08:08	0°♄	
evening set	15835 Apr 26 06:50	0°♄10'48		evening max el	15836 Mar 19 01:46	8°♄38'31	27°27'45
	15835 Apr 26 12:12	30°♄		retrograde	15836 Apr 01 18:53	16°♄10'18	
asc. node	15835 Apr 28 09:21	28°♄16'12		evening set	15836 Apr 08 12:49	13°♄42'48	
min. Earth dist.	15835 Apr 30 06:04	26°♄15'10	0.66069 AU	min. Earth dist.	15836 Apr 12 08:11	10°♄18'15	0.64249 AU
inferior conj	15835 May 02 09:02	23°♄46'23	1°12'03	asc. node	15836 Apr 14 06:41	8°♄15'31	
minimum elong	15835 May 02 07:19	23°♄51'24	1°10'49	inferior conj	15836 Apr 14 23:15	7°♄31'16	0°13'01
morning rise	15835 May 08 09:07	18°♄10'36		minimum elong	15836 Apr 14 22:53	7°♄32'15	0°12'27
direct	15835 May 11 07:41	17°♄23'07		transit middle	15836 Apr 14 22:53	7°♄32'15	0°12'27
morning max el	15835 May 17 15:53	20°♄42'09	18°10'05	transit begin	15836 Apr 14 20:56	7°♄37'26	
	15835 May 24 23:43	0°♄		transit end	15836 Apr 15 00:50	7°♄27'04	
desc. node	15835 May 31 01:38	9°♄24'25		morning rise	15836 Apr 21 11:09	2°♄09'56	
morning set	15835 Jun 05 19:28	18°♄37'07		direct	15836 Apr 24 00:44	1°♄36'28	
	15835 Jun 12 22:14	0°♄		morning max el	15836 Apr 30 08:58	4°♄51'32	17°49'57
				desc. node	15836 May 16 22:32	29°♄34'35	
superior conj	15835 Jun 20 21:53	12°♄35'16	-2°03'53	morning set	15836 May 17 10:00	0°♄22'48	
minimum elong	15835 Jun 20 14:53	12°♄07'52	2°04'18		15836 May 17 04:35	0°♄	
max. Earth dist.	15835 Jun 22 22:12	15°♄44'03	1.45946 AU				
	15835 Jul 02 02:26	0°♄		superior conj	15836 May 30 19:05	22°♄26'21	-1°36'36
evening rise	15835 Jul 07 00:39	7°♄38'01		minimum elong	15836 May 30 10:35	21°♄52'10	1°36'29
greatest brilliancy	15835 Jul 18 12:31	25°♄16'32	-0.7m		15836 Jun 04 13:06	0°♄	
	15835 Jul 21 17:14	0°♄		max. Earth dist.	15836 Jun 04 18:02	0°♄19'27	1.45302 AU
asc. node	15835 Jul 25 08:35	5°♄05'32		evening rise	15836 Jun 15 12:51	17°♄03'10	
evening max el	15835 Jul 30 16:00	11°♄23'41	19°10'04		15836 Jun 24 02:14	0°♄	
retrograde	15835 Aug 06 13:52	15°♄12'28		greatest brilliancy	15836 Jun 30 02:42	8°♄52'08	-0.6m
evening set	15835 Aug 10 02:41	14°♄00'03		asc. node	15836 Jul 11 05:24	23°♄34'14	
inferior conj	15835 Aug 15 13:27	8°♄11'01	2°47'51	evening max el	15836 Jul 12 20:19	25°♄16'53	20°05'40
minimum elong	15835 Aug 15 15:12	8°♄05'19	2°47'10	retrograde	15836 Jul 20 12:45	29°♄38'23	
min. Earth dist.	15835 Aug 17 01:11	6°♄15'24	0.66987 AU	evening set	15836 Jul 24 11:46	28°♄08'18	
morning rise	15835 Aug 21 03:03	1°♄44'31		inferior conj	15836 Jul 29 18:31	22°♄06'56	3°04'17
	15835 Aug 23 16:03	30°♄		minimum elong	15836 Jul 29 19:25	22°♄03'54	3°03'39
desc. node	15835 Aug 26 23:37	29°♄09'07		min. Earth dist.	15836 Jul 30 16:21	20°♄52'44	0.68178 AU
direct	15835 Aug 27 04:24	29°♄08'58		morning rise	15836 Aug 04 02:41	15°♄42'18	
	15835 Aug 30 23:34	0°♄		direct	15836 Aug 09 17:02	13°♄15'37	
morning max el	15835 Sep 08 18:32	6°♄38'55	25°55'08	desc. node	15836 Aug 12 21:01	13°♄55'00	
	15835 Sep 26 21:56	0°♄		morning max el	15836 Aug 21 05:34	20°♄09'27	24°31'34
morning set	15835 Oct 14 17:13	29°♄32'53			15836 Aug 29 16:04	0°♄	
	15835 Oct 14 23:07	0°♄			15836 Sep 19 01:40	0°♄	
max. Earth dist.	15835 Oct 18 09:40	6°♄28'10	1.35404 AU	morning set	15836 Sep 25 19:21	11°♄21'04	
asc. node	15835 Oct 21 10:06	12°♄21'15		max. Earth dist.	15836 Sep 29 09:20	17°♄42'25	1.37667 AU
					15836 Oct 05 23:21	0°♄	
superior conj	15835 Oct 24 03:53	17°♄51'22	0°24'49				
minimum elong	15835 Oct 24 02:29	17°♄44'18	0°25'06	superior conj	15836 Oct 06 11:39	0°♄59'20	-0°07'12
	15835 Oct 30 00:58	0°♄		minimum elong	15836 Oct 06 12:06	1°♄01'33	0°06'46
evening rise	15835 Oct 31 20:44	3°♄47'15		behind sun begin	15836 Oct 06 05:56	0°♄31'43	
	15835 Nov 15 15:27	0°♄		behind sun end	15836 Oct 06 18:16	1°♄31'26	
evening max el	15835 Nov 19 04:56	4°♄05'29	20°26'13	asc. node	15836 Oct 07 06:48	2°♄32'20	
desc. node	15835 Nov 22 20:46	7°♄08'09		evening rise	15836 Oct 14 23:56	17°♄51'59	
retrograde	15835 Nov 30 04:12	9°♄32'54			15836 Oct 21 06:14	0°♄	
evening set	15835 Dec 02 11:25	9°♄19'36		evening max el	15836 Oct 31 17:34	15°♄22'04	19°18'05
inferior conj	15835 Dec 11 07:15	5°♄24'50	-5°11'10	desc. node	15836 Nov 08 17:56	19°♄58'01	
minimum elong	15835 Dec 10 21:44	5°♄38'46	5°08'12	retrograde	15836 Nov 10 01:59	20°♄03'34	
min. Earth dist.	15835 Dec 12 17:37	4°♄34'32	0.54661 AU	evening set	15836 Nov 11 23:28	19°♄52'50	
morning rise	15835 Dec 19 07:40	1°♄25'18		inferior conj	15836 Nov 20 12:29	15°♄43'28	-3°39'37
direct	15835 Dec 23 22:13	0°♄39'38		minimum elong	15836 Nov 20 03:37	15°♄58'08	3°35'46
morning max el	15836 Jan 06 09:12	7°♄15'53	23°45'45	min. Earth dist.	15836 Nov 23 03:08	14°♄00'02	0.55781 AU
asc. node	15836 Jan 17 09:37	21°♄18'01		morning rise	15836 Nov 28 05:26	11°♄13'45	
	15836 Jan 22 11:15	0°♄		direct	15836 Dec 03 17:39	10°♄04'24	
morning set	15836 Jan 30 10:33	16°♄02'11		morning max el	15836 Dec 17 18:32	17°♄10'53	25°32'04
	15836 Feb 05 20:37	0°♄			15836 Dec 28 06:07	0°♄	
				asc. node	15837 Jan 03 06:50	9°♄43'54	
superior conj	15836 Feb 06 06:36	0°♄54'13	1°29'53	morning set	15837 Jan 13 22:12	0°♄41'33	
minimum elong	15836 Feb 06 08:16	1°♄03'16	1°30'12		15837 Jan 13 14:29	0°♄	
max. Earth dist.	15836 Feb 09 01:12	6°♄52'12	1.32805 AU				
evening rise	15836 Feb 13 23:12	17°♄01'58		superior conj	15837 Jan 20 15:47	15°♄31'52	1°36'50

minimum elong	15837 Jan 20 16:29	15° \approx 35'40	1°37'26	superior conj	15838 Jan 05 02:58	0° \approx 11'29	1°37'43
max. Earth dist.	15837 Jan 22 04:02	18° \approx 52'04	1.31696 AU	minimum elong	15838 Jan 05 02:35	0° \approx 09'22	1°38'26
	15837 Jan 27 08:15	0° \mathbb{H}			15838 Jan 05 00:55	0° \approx	
evening rise	15837 Jan 27 20:02	1° \mathbb{H} 01'17		max. Earth dist.	15838 Jan 05 10:56	0° \approx 56'05	1.31106 AU
desc. node	15837 Feb 04 17:43	16° \mathbb{H} 26'41		evening rise	15838 Jan 11 23:21	15° \approx 15'00	
	15837 Feb 12 17:41	0° \mathbb{Y}			15838 Jan 19 07:40	0° \mathbb{H}	
evening max el	15837 Mar 01 12:06	21° \mathbb{Y} 29'51	27°34'46	desc. node	15838 Jan 22 14:25	5° \mathbb{H} 57'56	
retrograde	15837 Mar 15 11:05	28° \mathbb{Y} 57'24			15838 Feb 08 05:29	0° \mathbb{Y}	
evening set	15837 Mar 22 06:51	26° \mathbb{Y} 42'14		evening max el	15838 Feb 11 17:23	3° \mathbb{Y} 36'54	27°07'54
min. Earth dist.	15837 Mar 26 01:02	23° \mathbb{Y} 43'01	0.62145 AU	retrograde	15838 Feb 25 18:11	10° \mathbb{Y} 54'27	
inferior conj	15837 Mar 29 01:46	20° \mathbb{Y} 51'37	-0°59'39	evening set	15838 Mar 04 09:49	8° \mathbb{Y} 59'16	
minimum elong	15837 Mar 29 03:49	20° \mathbb{Y} 46'45	0°59'01	min. Earth dist.	15838 Mar 08 07:46	6° \mathbb{Y} 16'41	0.59901 AU
asc. node	15837 Apr 01 04:01	18° \mathbb{Y} 06'55		inferior conj	15838 Mar 11 12:57	3° \mathbb{Y} 37'33	-2°24'21
morning rise	15837 Apr 05 03:53	15° \mathbb{Y} 47'11		minimum elong	15838 Mar 11 18:23	3° \mathbb{Y} 26'18	2°22'12
direct	15837 Apr 07 09:49	15° \mathbb{Y} 24'19			15838 Mar 16 13:01	30° \mathbb{R} \mathbb{H}	
morning max el	15837 Apr 14 02:28	18° \mathbb{Y} 47'11	17°47'22	morning rise	15838 Mar 19 06:28	28° \mathbb{H} 52'34	
	15837 Apr 22 07:52	0° \mathbb{B}		asc. node	15838 Mar 19 01:24	28° \mathbb{H} 56'00	
morning set	15837 Apr 29 23:44	13° \mathbb{B} 13'25		direct	15838 Mar 21 07:02	28° \mathbb{H} 36'40	
desc. node	15837 May 03 19:21	19° \mathbb{B} 56'33			15838 Mar 25 19:41	0° \mathbb{Y}	
	15837 May 09 15:09	0° \mathbb{I}		morning max el	15838 Mar 28 16:55	2° \mathbb{Y} 18'26	18°03'25
				morning set	15838 Apr 13 06:44	26° \mathbb{Y} 51'16	
superior conj	15837 May 11 14:12	3° \mathbb{I} 18'36	-1°00'09		15838 Apr 14 23:29	0° \mathbb{B}	
minimum elong	15837 May 11 08:36	2° \mathbb{I} 55'06	1°00'02	desc. node	15838 Apr 20 16:03	10° \mathbb{B} 25'38	
max. Earth dist.	15837 May 18 10:27	14° \mathbb{I} 33'38	1.43985 AU				
evening rise	15837 May 26 02:02	26° \mathbb{I} 38'01		superior conj	15838 Apr 23 08:33	15° \mathbb{B} 13'48	-0°21'59
	15837 May 28 06:30	0° \mathbb{E}		minimum elong	15838 Apr 23 06:41	15° \mathbb{B} 05'35	0°22'12
	15837 Jun 18 00:17	0° \mathbb{Q}		max. Earth dist.	15838 Apr 30 22:28	28° \mathbb{B} 14'59	1.42133 AU
evening max el	15837 Jun 25 18:35	9° \mathbb{Q} 10'18	21°14'32		15838 May 01 23:47	0° \mathbb{I}	
asc. node	15837 Jun 28 02:16	11° \mathbb{Q} 17'40		evening rise	15838 May 06 06:21	6° \mathbb{I} 57'02	
retrograde	15837 Jul 04 11:40	14° \mathbb{Q} 13'09			15838 May 21 10:32	0° \mathbb{E}	
evening set	15837 Jul 08 21:32	12° \mathbb{Q} 25'47		evening max el	15838 Jun 08 11:55	23° \mathbb{E} 04'19	22°32'36
inferior conj	15837 Jul 14 03:02	6° \mathbb{Q} 13'38	3°08'52	asc. node	15838 Jun 14 23:12	28° \mathbb{E} 01'18	
minimum elong	15837 Jul 14 02:58	6° \mathbb{Q} 13'52	3°08'10	retrograde	15838 Jun 18 08:58	28° \mathbb{E} 51'35	
min. Earth dist.	15837 Jul 14 11:26	5° \mathbb{Q} 44'21	0.68897 AU	evening set	15838 Jun 23 06:15	26° \mathbb{E} 48'11	
morning rise	15837 Jul 19 08:09	29° \mathbb{E} 54'04		inferior conj	15838 Jun 28 12:56	20° \mathbb{E} 27'03	3°02'40
	15837 Jul 19 05:28	30° \mathbb{R} \mathbb{E}		minimum elong	15838 Jun 28 11:57	20° \mathbb{E} 30'28	3°01'47
direct	15837 Jul 24 10:31	27° \mathbb{E} 41'41		min. Earth dist.	15838 Jun 28 08:14	20° \mathbb{E} 43'24	0.69128 AU
	15837 Jul 30 08:28	0° \mathbb{Q}		morning rise	15838 Jul 03 17:29	14° \mathbb{E} 14'43	
desc. node	15837 Jul 30 18:22	0° \mathbb{Q} 18'01		direct	15838 Jul 08 07:38	12° \mathbb{E} 20'19	
morning max el	15837 Aug 03 16:59	3° \mathbb{Q} 47'39	23°02'20	morning max el	15838 Jul 17 07:29	17° \mathbb{E} 34'10	21°36'08
	15837 Aug 23 19:00	0° \mathbb{P}		desc. node	15838 Jul 17 15:39	17° \mathbb{E} 54'47	
morning set	15837 Sep 06 23:44	22° \mathbb{P} 13'03			15838 Jul 27 13:00	0° \mathbb{Q}	
max. Earth dist.	15837 Sep 11 08:12	29° \mathbb{P} 32'29	1.40073 AU		15838 Aug 16 20:36	0° \mathbb{P}	
	15837 Sep 11 14:37	0° \mathbb{L}		morning set	15838 Aug 18 04:09	2° \mathbb{P} 04'13	
				max. Earth dist.	15838 Aug 24 12:10	12° \mathbb{P} 16'49	1.42335 AU
superior conj	15837 Sep 19 04:25	13° \mathbb{L} 26'15	-0°42'57				
minimum elong	15837 Sep 19 07:43	13° \mathbb{L} 41'19	0°42'17	superior conj	15838 Sep 01 01:52	25° \mathbb{P} 02'50	-1°19'21
asc. node	15837 Sep 24 03:28	22° \mathbb{L} 41'07		minimum elong	15838 Sep 01 08:17	25° \mathbb{P} 30'36	1°18'37
	15837 Sep 27 23:28	0° \mathbb{M}			15838 Sep 03 21:56	0° \mathbb{L}	
evening rise	15837 Sep 28 19:23	1° \mathbb{M} 35'22		asc. node	15838 Sep 11 00:05	12° \mathbb{L} 44'17	
evening max el	15837 Oct 14 18:51	27° \mathbb{M} 27'07	18°32'11	evening rise	15838 Sep 12 03:19	14° \mathbb{L} 48'19	
	15837 Oct 17 22:04	0° \mathbb{J}			15838 Sep 20 17:24	0° \mathbb{M}	
retrograde	15837 Oct 22 17:55	1° \mathbb{J} 29'08		evening max el	15838 Sep 28 04:38	10° \mathbb{M} 12'14	18°07'15
evening set	15837 Oct 24 16:50	1° \mathbb{J} 15'19		retrograde	15838 Oct 05 04:37	13° \mathbb{M} 47'22	
desc. node	15837 Oct 26 15:12	0° \mathbb{J} 36'23		evening set	15838 Oct 07 09:49	13° \mathbb{M} 26'11	
	15837 Oct 27 20:52	30° \mathbb{R} \mathbb{M}		desc. node	15838 Oct 13 12:31	9° \mathbb{M} 30'52	
inferior conj	15837 Nov 01 14:21	26° \mathbb{M} 45'36	-1°55'04	inferior conj	15838 Oct 14 13:41	8° \mathbb{M} 35'06	-0°19'58
minimum elong	15837 Nov 01 09:46	26° \mathbb{M} 54'26	1°52'34	minimum elong	15838 Oct 14 13:01	8° \mathbb{M} 36'37	0°19'15
min. Earth dist.	15837 Nov 04 18:56	24° \mathbb{M} 18'43	0.57596 AU	min. Earth dist.	15838 Oct 17 19:05	5° \mathbb{M} 42'31	0.59802 AU
morning rise	15837 Nov 08 23:18	21° \mathbb{M} 39'01		morning rise	15838 Oct 21 12:56	2° \mathbb{M} 55'17	
direct	15837 Nov 15 03:40	20° \mathbb{M} 02'46		direct	15838 Oct 28 02:41	0° \mathbb{M} 53'34	
morning max el	15837 Nov 29 09:43	27° \mathbb{M} 32'33	26°57'07	morning max el	15838 Nov 11 09:01	8° \mathbb{M} 40'08	27°47'20
	15837 Dec 01 19:12	0° \mathbb{J}			15838 Nov 27 17:01	0° \mathbb{J}	
asc. node	15837 Dec 21 03:57	28° \mathbb{J} 45'29		asc. node	15838 Dec 08 00:59	18° \mathbb{J} 13'26	
	15837 Dec 21 19:50	0° \mathbb{Z}		morning set	15838 Dec 13 13:31	29° \mathbb{J} 24'53	
morning set	15837 Dec 29 07:48	15° \mathbb{Z} 10'34			15838 Dec 13 20:10	0° \mathbb{Z}	
				max. Earth dist.	15838 Dec 19 18:28	12° \mathbb{Z} 57'25	1.31059 AU

























































































































superior conj	15838 Dec 20 14:15	14°  47'59	1°32'34	superior conj	15839 Dec 04 23:48	29°  16'03	1°21'25
minimum elong	15838 Dec 20 12:54	14°  40'26	1°33'18	minimum elong	15839 Dec 04 21:44	29°  04'37	1°22'00
evening rise	15838 Dec 27 07:04	29°  38'07			15839 Dec 05 07:45	0°  3	
	15838 Dec 27 11:07	0°  ≈		evening rise	15839 Dec 11 17:16	14°  30'53	
desc. node	15839 Jan 09 11:10	24°  ≈56'16			15839 Dec 19 12:48	0°  ≈	
	15839 Jan 12 15:54	0°  ✕		desc. node	15839 Dec 27 08:02	13°  ≈09'46	
evening max el	15839 Jan 24 15:08	14°  ✕51'49	26°06'17	evening max el	15840 Jan 06 04:33	25°  ≈16'57	24°36'31
retrograde	15839 Feb 07 14:11	21°  ✕56'27			15840 Jan 12 09:27	0°  ✕	
evening set	15839 Feb 13 18:08	20°  ✕26'48		retrograde	15840 Jan 19 21:24	2°  ✕07'08	
min. Earth dist.	15839 Feb 18 04:21	17°  ✕48'57	0.57734 AU	evening set	15840 Jan 25 04:30	1°  ✕05'20	
inferior conj	15839 Feb 21 05:10	15°  ✕39'08	-3°54'25		15840 Jan 27 15:03	30°   R≈	
minimum elong	15839 Feb 21 13:49	15°  ✕23'39	3°51'19	min. Earth dist.	15840 Jan 30 16:23	28°  ≈16'03	0.55908 AU
morning rise	15839 Mar 01 12:37	11°  ✕15'36		inferior conj	15840 Feb 02 00:14	26°  ≈49'11	-5°14'22
direct	15839 Mar 03 12:07	11°  ✕02'53		minimum elong	15840 Feb 02 09:01	26°  ≈35'30	5°11'59
asc. node	15839 Mar 05 22:48	11°  ✕23'16		morning rise	15840 Feb 10 15:42	22°  ≈46'30	
morning max el	15839 Mar 12 00:25	15°  ✕14'13	18°39'47	direct	15840 Feb 12 21:39	22°  ≈32'52	
	15839 Mar 22 05:36	0°   Y		asc. node	15840 Feb 20 20:10	25°  ≈36'35	
morning set	15839 Mar 28 01:51	11°   Y01'03		morning max el	15840 Feb 22 20:49	27°  ≈23'07	19°38'33
					15840 Feb 25 06:38	0°  ✕	
superior conj	15839 Apr 05 22:55	28°   Y02'49	0°13'08	morning set	15840 Mar 11 05:10	25°  ✕31'15	
minimum elong	15839 Apr 05 23:48	28°   Y06'53	0°12'41		15840 Mar 13 10:22	0°   Y	
behind sun begin	15839 Apr 05 19:33	27°   Y47'02					
behind sun end	15839 Apr 06 04:03	28°   Y26'43		superior conj	15840 Mar 19 05:00	11°   Y34'01	0°42'47
	15839 Apr 07 00:08	0°  8		minimum elong	15840 Mar 19 07:15	11°   Y45'06	0°42'20
desc. node	15839 Apr 07 12:41	0°  857'58		desc. node	15840 Mar 24 09:19	21°   Y30'13	
max. Earth dist.	15839 Apr 13 06:34	11°  816'16	1.39943 AU	max. Earth dist.	15840 Mar 25 13:00	23°   Y38'40	1.37650 AU
evening rise	15839 Apr 17 07:37	18°  811'23		evening rise	15840 Mar 29 05:29	0°  818'07	
	15839 Apr 24 14:23	0°  II			15840 Mar 29 01:24	0°  8	
	15839 May 15 20:10	0°  ☿			15840 Apr 16 20:23	0°  II	
evening max el	15839 May 22 02:19	6°  ☿59'03	23°54'09	evening max el	15840 May 03 15:44	20°  II53'45	25°12'24
asc. node	15839 Jun 01 20:14	13°  ☿27'06		retrograde	15840 May 15 17:48	27°  II54'59	
retrograde	15839 Jun 02 03:19	13°  ☿27'29		asc. node	15840 May 18 17:22	27°  II17'59	
evening set	15839 Jun 07 12:19	11°  ☿10'22		evening set	15840 May 21 14:08	25°  II27'47	
min. Earth dist.	15839 Jun 12 04:36	5°  ☿43'02	0.68873 AU	min. Earth dist.	15840 May 25 22:31	20°  II37'21	0.68140 AU
inferior conj	15839 Jun 12 22:18	4°  ☿42'42	2°46'02	inferior conj	15840 May 27 05:15	18°  II57'03	2°18'43
minimum elong	15839 Jun 12 20:35	4°  ☿48'33	2°44'54	minimum elong	15840 May 27 03:07	19°  II04'03	2°17'23
	15839 Jun 16 17:09	30°   R II		morning rise	15840 Jun 01 16:28	13°  II03'11	
morning rise	15839 Jun 18 04:52	28°  II39'02		direct	15840 Jun 05 07:09	11°  II48'19	
direct	15839 Jun 22 06:59	27°  II04'24		morning max el	15840 Jun 12 07:48	15°  II38'43	19°16'25
	15839 Jun 28 12:24	0°  ☿		desc. node	15840 Jun 20 09:57	25°  II36'30	
morning max el	15839 Jun 30 03:56	1°  ☿31'02	20°19'24		15840 Jun 23 11:29	0°  ☿	
desc. node	15839 Jul 04 12:50	6°  ☿25'37		greatest brilliancy	15840 Jun 25 01:11	2°  ☿18'42	-0.7m
	15839 Jul 21 05:37	0°  Ω		morning set	15840 Jul 06 17:33	20°  ☿03'05	
morning set	15839 Jul 28 12:58	11°  Ω06'43			15840 Jul 13 04:09	0°  Ω	
max. Earth dist.	15839 Aug 06 23:07	25°  Ω52'48	1.44188 AU	max. Earth dist.	15840 Jul 19 15:31	10°  Ω05'38	1.45438 AU
	15839 Aug 09 12:41	0°                             		superior conj	15840 Jul 23 00:01	15°  Ω22'40	-2°10'56
superior conj	15839 Aug 13 00:14	5°                             	-1°51'07	minimum elong	15840 Jul 23 04:19	15°  Ω39'41	2°11'26
minimum elong	15839 Aug 13 08:00	6°                           					

	15840 Nov 11 18:51	0°♄		max. Earth dist.	15841 Oct 28 07:50	17°♄27'48	1.34246 AU
max. Earth dist.	15840 Nov 14 20:10	6°♄17'27	1.32633 AU	asc. node	15841 Oct 28 15:35	18°♄06'21	
superior conj	15840 Nov 18 05:33	13°♄30'18	1°04'12	superior conj	15841 Nov 02 05:10	27°♄25'02	0°40'55
minimum elong	15840 Nov 18 03:12	13°♄17'36	1°04'36	minimum elong	15841 Nov 02 03:11	27°♄14'40	0°41'12
evening rise	15840 Nov 25 04:07	28°♄33'33			15841 Nov 03 10:49	0°♄	
	15840 Nov 25 20:18	0°♄		evening rise	15841 Nov 09 13:45	12°♄56'49	
	15840 Dec 12 22:09	0°♄			15841 Nov 18 05:25	0°♄	
desc. node	15840 Dec 13 05:00	0°♄21'40		evening max el	15841 Nov 29 05:05	15°♄21'17	21°15'20
evening max el	15840 Dec 17 13:57	5°♄13'46	22°53'29	desc. node	15841 Nov 30 02:04	16°♄11'10	
retrograde	15840 Dec 30 15:54	11°♄42'22		retrograde	15841 Dec 11 02:08	21°♄13'58	
evening set	15841 Jan 03 17:13	11°♄06'35		evening set	15841 Dec 13 21:27	20°♄55'43	
min. Earth dist.	15841 Jan 10 23:21	7°♄46'05	0.54720 AU	inferior conj	15841 Dec 22 15:25	17°♄04'57	-5°45'55
inferior conj	15841 Jan 12 00:24	7°♄10'27	-5°59'07	minimum elong	15841 Dec 22 08:53	17°♄14'10	5°44'16
minimum elong	15841 Jan 12 03:00	7°♄06'45	5°58'17	min. Earth dist.	15841 Dec 23 04:54	16°♄45'56	0.54410 AU
morning rise	15841 Jan 20 14:04	3°♄21'21		morning rise	15841 Dec 30 20:38	13°♄14'26	
direct	15841 Jan 23 13:01	3°♄01'05		direct	15842 Jan 03 20:40	12°♄39'49	
morning max el	15841 Feb 04 02:44	8°♄35'48	21°00'34	morning max el	15842 Jan 16 18:39	18°♄56'29	22°42'15
asc. node	15841 Feb 06 17:31	11°♄23'02		asc. node	15842 Jan 24 14:50	28°♄24'48	
	15841 Feb 18 12:12	0°♄			15842 Jan 25 16:25	0°♄	
morning set	15841 Feb 23 13:35	10°♄11'41		morning set	15842 Feb 08 00:47	24°♄55'52	
					15842 Feb 10 09:34	0°♄	
superior conj	15841 Mar 02 22:32	25°♄34'36	1°06'09	superior conj	15842 Feb 15 00:13	9°♄55'14	1°23'02
minimum elong	15841 Mar 03 01:06	25°♄47'44	1°05'56	minimum elong	15842 Feb 15 02:20	10°♄06'34	1°23'09
	15841 Mar 05 02:38	0°♄		max. Earth dist.	15842 Feb 18 13:14	17°♄22'25	1.33667 AU
max. Earth dist.	15841 Mar 07 21:48	5°♄33'41	1.35492 AU	evening rise	15842 Feb 23 02:07	26°♄30'18	
desc. node	15841 Mar 11 05:56	11°♄57'52			15842 Feb 24 21:35	0°♄	
evening rise	15841 Mar 11 20:49	13°♄07'26		desc. node	15842 Feb 26 02:35	2°♄16'56	
	15841 Mar 21 12:10	0°♄			15842 Mar 14 20:42	0°♄	
	15841 Apr 11 18:49	0°♄		evening max el	15842 Mar 29 19:00	18°♄20'12	27°10'07
evening max el	15841 Apr 16 05:17	4°♄43'20	26°20'15	retrograde	15842 Apr 12 07:04	25°♄51'29	
retrograde	15841 Apr 29 03:22	12°♄05'50		evening set	15842 Apr 18 21:33	23°♄20'30	
evening set	15841 May 05 09:53	9°♄33'36		asc. node	15842 Apr 22 11:51	19°♄57'31	
asc. node	15841 May 05 14:35	9°♄23'49		min. Earth dist.	15842 Apr 22 18:55	19°♄38'20	0.65336 AU
min. Earth dist.	15841 May 09 11:58	5°♄18'34	0.66946 AU	inferior conj	15842 Apr 25 03:10	17°♄00'17	0°48'38
inferior conj	15841 May 11 07:40	3°♄04'48	1°39'57	minimum elong	15842 Apr 25 01:54	17°♄03'51	0°47'38
minimum elong	15841 May 11 05:36	3°♄11'09	1°38'36	morning rise	15842 May 01 07:57	11°♄30'12	
	15841 May 13 23:15	30°♄		direct	15842 May 04 02:28	10°♄49'09	
morning rise	15841 May 17 02:16	27°♄21'57		morning max el	15842 May 10 09:48	14°♄05'24	17°59'18
direct	15841 May 20 06:20	26°♄25'18			15842 May 21 21:36	0°♄	
	15841 May 26 21:31	0°♄		desc. node	15842 May 25 03:55	5°♄17'21	
morning max el	15841 May 26 18:23	29°♄52'22	18°29'24	morning set	15842 May 28 12:50	10°♄48'21	
desc. node	15841 Jun 07 06:58	15°♄16'23			15842 Jun 09 09:51	0°♄	
morning set	15841 Jun 16 13:49	29°♄46'57					
	15841 Jun 16 17:08	0°♄		superior conj	15842 Jun 11 22:38	4°♄00'39	-1°53'58
superior conj	15841 Jul 02 10:04	24°♄35'18	-2°12'16	minimum elong	15842 Jun 11 14:14	3°♄27'28	1°54'07
minimum elong	15841 Jul 02 06:42	24°♄22'09	2°12'58	max. Earth dist.	15842 Jun 15 07:01	9°♄16'29	1.45760 AU
max. Earth dist.	15841 Jul 02 10:48	24°♄38'08	1.45973 AU	evening rise	15842 Jun 28 00:44	28°♄59'56	
	15841 Jul 05 21:22	0°♄			15842 Jun 28 16:23	0°♄	
evening rise	15841 Jul 18 05:35	19°♄21'11		greatest brilliancy	15842 Jul 11 11:13	19°♄20'22	-0.7m
	15841 Jul 24 23:53	0°♄		asc. node	15842 Jul 19 10:51	0°♄22'13	
greatest brilliancy	15841 Jul 26 18:00	2°♄44'15	-0.8m		15842 Jul 19 03:46	0°♄	
asc. node	15841 Aug 01 14:05	11°♄33'03		evening max el	15842 Jul 23 05:25	4°♄38'22	19°32'03
evening max el	15841 Aug 08 21:42	20°♄46'15	18°45'09	retrograde	15842 Jul 30 10:21	8°♄39'35	
retrograde	15841 Aug 15 12:33	24°♄21'57		evening set	15842 Aug 03 03:25	7°♄19'48	
evening set	15841 Aug 18 19:41	23°♄19'42		inferior conj	15842 Aug 08 12:08	1°♄25'40	2°56'22
inferior conj	15841 Aug 24 10:08	17°♄38'32	2°32'19	minimum elong	15842 Aug 08 13:33	1°♄20'57	2°55'43
minimum elong	15841 Aug 24 12:16	17°♄31'53	2°31'35		15842 Aug 09 13:58	30°♄	
min. Earth dist.	15841 Aug 26 06:06	15°♄21'43	0.66092 AU	min. Earth dist.	15842 Aug 09 18:00	29°♄46'44	0.67549 AU
morning rise	15841 Aug 30 03:50	11°♄12'44		morning rise	15842 Aug 13 23:08	24°♄59'31	
desc. node	15841 Sep 03 04:44	8°♄54'13		direct	15842 Aug 19 20:07	22°♄26'38	
direct	15841 Sep 05 10:35	8°♄34'58		desc. node	15842 Aug 21 02:09	22°♄32'46	
morning max el	15841 Sep 18 12:53	16°♄20'12	26°36'59	morning max el	15842 Aug 31 23:54	29°♄43'00	25°20'50
	15841 Sep 29 21:07	0°♄			15842 Sep 01 06:34	0°♄	
	15841 Oct 19 00:31	0°♄			15842 Sep 23 17:33	0°♄	
morning set	15841 Oct 24 08:36	9°♄46'15		morning set	15842 Oct 06 21:15	22°♄01'30	

max. Earth dist.	15842 Oct 10 10:24	28° Ω 31'45	1.36328 AU	morning max el	15843 Aug 14 10:44	13° Ω 16'38	23°53'45
	15842 Oct 11 05:12	0° \mathbb{M}			15843 Aug 27 23:38	0° \mathbb{M}	
asc. node	15842 Oct 15 12:18	8° \mathbb{M} 16'45			15843 Sep 16 13:38	0° Ω	
				morning set	15843 Sep 18 14:29	3° Ω 26'01	
superior conj	15842 Oct 16 19:40	10° \mathbb{M} 52'01	0°11'51	max. Earth dist.	15843 Sep 22 09:08	9° Ω 58'51	1.38697 AU
minimum elong	15842 Oct 16 18:56	10° \mathbb{M} 48'20	0°12'10				
behind sun begin	15842 Oct 16 14:43	10° \mathbb{M} 27'26		superior conj	15843 Sep 29 21:32	23° Ω 43'25	-0°22'02
behind sun end	15842 Oct 16 23:08	11° \mathbb{M} 09'17		minimum elong	15843 Sep 29 23:06	23° Ω 50'46	0°21'31
evening rise	15842 Oct 24 19:56	27° \mathbb{M} 09'26		asc. node	15843 Oct 02 08:59	28° Ω 27'09	
	15842 Oct 26 05:30	0° \mathbb{A}			15843 Oct 03 04:13	0° \mathbb{M}	
evening max el	15842 Nov 11 09:21	26° \mathbb{A} 08'40	19°54'35	evening rise	15843 Oct 08 20:12	11° \mathbb{M} 05'43	
desc. node	15842 Nov 16 23:13	0° \mathbb{B} 12'42			15843 Oct 19 04:31	0° \mathbb{A}	
	15842 Nov 16 12:33	0° \mathbb{B}		evening max el	15843 Oct 25 03:43	7° \mathbb{A} 45'43	18°55'50
retrograde	15842 Nov 21 15:38	1° \mathbb{B} 15'45		retrograde	15843 Nov 02 20:39	12° \mathbb{A} 09'05	
evening set	15842 Nov 23 17:08	1° \mathbb{B} 04'19		desc. node	15843 Nov 03 20:24	12° \mathbb{A} 05'52	
	15842 Nov 27 03:18	30° \mathbb{R} \mathbb{A}		evening set	15843 Nov 04 17:59	11° \mathbb{A} 57'30	
inferior conj	15842 Dec 02 11:36	27° \mathbb{A} 04'47	-4°35'52	inferior conj	15843 Nov 13 00:59	7° \mathbb{A} 39'28	-2°55'09
minimum elong	15842 Dec 02 01:34	27° \mathbb{A} 20'07	4°32'12	minimum elong	15843 Nov 12 17:47	7° \mathbb{A} 52'09	2°51'42
min. Earth dist.	15842 Dec 04 11:46	25° \mathbb{A} 51'12	0.55040 AU	min. Earth dist.	15843 Nov 15 23:12	5° \mathbb{A} 36'10	0.56489 AU
morning rise	15842 Dec 10 08:45	22° \mathbb{A} 54'13		morning rise	15843 Nov 20 14:46	2° \mathbb{A} 54'32	
direct	15842 Dec 15 09:28	21° \mathbb{A} 58'48		direct	15843 Nov 26 10:41	1° \mathbb{A} 34'07	
morning max el	15842 Dec 29 03:16	28° \mathbb{A} 48'40	24°32'16	morning max el	15843 Dec 10 14:17	8° \mathbb{A} 50'18	26°11'57
	15842 Dec 30 08:12	0° \mathbb{B}			15843 Dec 26 11:00	0° \mathbb{B}	
asc. node	15843 Jan 11 12:04	16° \mathbb{B} 23'52		asc. node	15843 Dec 29 09:13	5° \mathbb{B} 05'51	
	15843 Jan 18 21:45	0° \approx		morning set	15844 Jan 07 23:44	24° \mathbb{B} 13'14	
morning set	15843 Jan 23 12:46	9° \approx 38'02			15844 Jan 10 15:16	0° \approx	
superior conj	15843 Jan 30 07:17	24° \approx 28'03	1°33'34	superior conj	15844 Jan 14 17:30	9° \approx 06'37	1°37'56
minimum elong	15843 Jan 30 08:33	24° \approx 35'02	1°34'01	minimum elong	15844 Jan 14 17:44	9° \approx 07'56	1°38'37
max. Earth dist.	15843 Feb 01 12:31	29° \approx 18'01	1.32279 AU	max. Earth dist.	15844 Jan 15 17:39	11° \approx 21'00	1.31382 AU
	15843 Feb 01 20:17	0° \mathbb{H}		evening rise	15844 Jan 21 17:54	24° \approx 23'52	
evening rise	15843 Feb 06 18:04	10° \mathbb{H} 18'08			15844 Jan 24 11:13	0° \mathbb{H}	
desc. node	15843 Feb 12 23:15	22° \mathbb{H} 22'35		desc. node	15844 Jan 30 19:55	12° \mathbb{H} 08'37	
	15843 Feb 17 05:51	0° \mathbb{Y}			15844 Feb 10 22:01	0° \mathbb{Y}	
	15843 Mar 10 18:12	0° \mathbb{B}		evening max el	15844 Feb 22 16:01	14° \mathbb{Y} 06'33	27°27'40
evening max el	15843 Mar 12 07:25	1° \mathbb{B} 32'34	27°34'41	retrograde	15844 Mar 07 15:47	21° \mathbb{Y} 29'36	
retrograde	15843 Mar 26 03:34	9° \mathbb{B} 02'42		evening set	15844 Mar 14 10:49	19° \mathbb{Y} 22'06	
evening set	15843 Apr 01 22:48	6° \mathbb{B} 39'53		min. Earth dist.	15844 Mar 18 05:52	16° \mathbb{Y} 31'22	0.61201 AU
min. Earth dist.	15843 Apr 05 17:25	3° \mathbb{B} 26'39	0.63384 AU	inferior conj	15844 Mar 21 09:21	13° \mathbb{Y} 43'14	-1°34'18
inferior conj	15843 Apr 08 12:52	0° \mathbb{B} 36'15	-0°16'09	minimum elong	15844 Mar 21 12:45	13° \mathbb{Y} 35'37	1°33'02
minimum elong	15843 Apr 08 13:23	0° \mathbb{B} 34'56	0°16'17	asc. node	15844 Mar 26 06:33	9° \mathbb{Y} 54'05	
asc. node	15843 Apr 09 09:11	29° \mathbb{Y} 45'11		morning rise	15844 Mar 28 17:57	8° \mathbb{Y} 46'44	
	15843 Apr 09 03:14	30° \mathbb{R} \mathbb{Y}		direct	15844 Mar 30 21:25	8° \mathbb{Y} 27'09	
morning rise	15843 Apr 15 06:31	25° \mathbb{Y} 21'25		morning max el	15844 Apr 06 20:03	11° \mathbb{Y} 56'19	17°51'50
direct	15843 Apr 17 16:42	24° \mathbb{Y} 52'49			15844 Apr 18 23:35	0° \mathbb{B}	
morning max el	15843 Apr 24 03:24	28° \mathbb{Y} 09'52	17°46'35	morning set	15844 Apr 22 11:50	6° \mathbb{B} 17'30	
	15843 Apr 25 20:32	0° \mathbb{B}		desc. node	15844 Apr 27 21:30	15° \mathbb{B} 58'46	
morning set	15843 May 10 14:02	23° \mathbb{B} 04'31					
desc. node	15843 May 12 00:45	25° \mathbb{B} 33'19		superior conj	15844 May 03 09:44	25° \mathbb{B} 36'04	-0°43'49
	15843 May 14 15:14	0° \mathbb{H}		minimum elong	15844 May 03 05:47	25° \mathbb{B} 19'07	0°43'50
					15844 May 05 23:50	0° \mathbb{H}	
superior conj	15843 May 23 04:30	14° \mathbb{H} 16'15	-1°21'45	max. Earth dist.	15844 May 10 17:12	7° \mathbb{H} 49'54	1.43256 AU
minimum elong	15843 May 22 20:55	13° \mathbb{H} 45'15	1°21'34	evening rise	15844 May 17 05:47	18° \mathbb{H} 15'38	
max. Earth dist.	15843 May 29 02:00	23° \mathbb{H} 46'12	1.44822 AU		15844 May 24 21:31	0° \mathbb{B}	
	15843 Jun 02 00:53	0° \mathbb{B}			15844 Jun 15 20:13	0° Ω	
evening rise	15843 Jun 07 11:22	8° \mathbb{B} 24'46		evening max el	15844 Jun 18 03:12	2° Ω 25'50	21°46'50
	15843 Jun 21 22:25	0° Ω		asc. node	15844 Jun 22 04:36	5° Ω 53'34	
asc. node	15843 Jul 06 07:41	18° Ω 33'35		retrograde	15844 Jun 27 07:46	7° Ω 47'24	
evening max el	15843 Jul 06 07:15	18° Ω 32'30	20°33'35	evening set	15844 Jul 01 22:33	5° Ω 52'43	
retrograde	15843 Jul 14 09:21	23° Ω 10'15			15844 Jul 06 21:29	30° \mathbb{R} \mathbb{B}	
evening set	15843 Jul 18 13:00	21° Ω 32'35		inferior conj	15844 Jul 07 04:15	29° \mathbb{B} 36'22	3°07'30
inferior conj	15843 Jul 23 18:55	15° Ω 26'37	3°07'35	minimum elong	15844 Jul 07 03:47	29° \mathbb{B} 38'00	3°06'44
minimum elong	15843 Jul 23 19:25	15° Ω 24'56	3°06'56	min. Earth dist.	15844 Jul 07 06:58	29° \mathbb{B} 26'54	0.69060 AU
min. Earth dist.	15843 Jul 24 10:59	14° Ω 31'22	0.68549 AU	morning rise	15844 Jul 12 08:51	23° \mathbb{B} 19'52	
morning rise	15843 Jul 29 01:31	9° Ω 04'05		direct	15844 Jul 17 05:58	21° \mathbb{B} 15'05	
direct	15843 Aug 03 10:56	6° Ω 42'54		desc. node	15844 Jul 24 20:47	25° \mathbb{B} 00'02	
desc. node	15843 Aug 07 23:30	8° Ω 03'11		morning max el	15844 Jul 26 23:14	26° \mathbb{B} 58'30	22°24'52

































































































































	15844 Jul 29 18:46	0°♊		morning max el	15845 Jul 09 16:06	10°♊49'25	21°01'55
	15844 Aug 20 12:50	0°♎		desc. node	15845 Jul 11 18:02	13°♊01'31	
morning set	15844 Aug 29 08:40	13°♎51'50			15845 Jul 24 15:10	0°♊	
max. Earth dist.	15844 Sep 03 10:06	22°♎12'36	1.41073 AU	morning set	15845 Aug 09 03:36	23°♊18'59	
	15844 Sep 07 23:21	0°♊		max. Earth dist.	15845 Aug 13 09:25	0°♎	
					15845 Aug 16 16:41	5°♎18'22	1.43184 AU
superior conj	15844 Sep 11 06:35	5°♊49'31	-0°58'35				
minimum elong	15844 Sep 11 11:15	6°♊10'23	0°57'51	superior conj	15845 Aug 23 18:26	17°♎00'43	-1°33'49
asc. node	15844 Sep 18 05:39	18°♊33'55		minimum elong	15845 Aug 24 01:50	17°♎32'00	1°33'12
evening rise	15844 Sep 21 11:17	24°♊37'26			15845 Aug 31 06:48	0°♊	
	15844 Sep 24 08:22	0°♎		evening rise	15845 Sep 04 12:52	7°♊33'09	
evening max el	15844 Oct 07 09:02	20°♎08'16	18°19'03	asc. node	15845 Sep 05 02:17	8°♊32'59	
retrograde	15844 Oct 14 21:09	23°♎57'39			15845 Sep 18 04:06	0°♎	
evening set	15844 Oct 16 22:15	23°♎41'16		evening max el	15845 Sep 20 21:06	3°♎06'27	18°02'40
desc. node	15844 Oct 20 17:39	21°♎53'41		retrograde	15845 Sep 27 14:41	6°♎34'34	
inferior conj	15844 Oct 24 12:12	19°♎02'04	-1°12'44	evening set	15845 Sep 29 23:03	6°♎09'15	
minimum elong	15844 Oct 24 09:27	19°♎07'43	1°11'03	inferior conj	15845 Oct 06 19:51	1°♎09'56	0°14'57
min. Earth dist.	15844 Oct 27 18:21	16°♎21'48	0.58499 AU	minimum elong	15845 Oct 06 20:20	1°♎08'47	0°15'06
morning rise	15844 Oct 31 17:10	13°♎40'12		transit middle	15845 Oct 06 20:20	1°♎08'47	0°15'06
direct	15844 Nov 07 02:05	11°♎52'55		transit begin	15845 Oct 06 19:09	1°♎11'36	
morning max el	15844 Nov 21 09:11	19°♎30'53	27°23'24	transit end	15845 Oct 06 21:31	1°♎05'58	
	15844 Nov 30 07:52	0°♊		desc. node	15845 Oct 07 15:00	0°♎24'03	
asc. node	15844 Dec 15 06:17	24°♊19'36			15845 Oct 08 01:01	30°♎♊	
	15844 Dec 18 04:05	0°♊		min. Earth dist.	15845 Oct 09 22:52	28°♊12'16	0.60775 AU
morning set	15844 Dec 22 07:57	8°♊36'51		morning rise	15845 Oct 13 14:33	25°♊18'09	
				direct	15845 Oct 20 06:10	23°♊06'44	
superior conj	15844 Dec 29 04:58	23°♊45'32	1°36'16		15845 Nov 02 10:55	0°♎	
minimum elong	15844 Dec 29 04:09	23°♊40'59	1°37'01	morning max el	15845 Nov 03 11:47	0°♎59'48	27°56'49
max. Earth dist.	15844 Dec 29 01:22	23°♊25'25	1.31012 AU		15845 Nov 24 13:20	0°♊	
	15844 Dec 31 23:57	0°♎		asc. node	15845 Dec 02 03:17	13°♊55'55	
evening rise	15845 Jan 04 23:20	8°♎42'01		morning set	15845 Dec 06 11:25	22°♊43'11	
	15845 Jan 15 20:31	0°♊			15845 Dec 09 21:16	0°♊	
desc. node	15845 Jan 16 16:39	1°♊27'22		max. Earth dist.	15845 Dec 12 07:50	5°♊21'34	1.31196 AU
evening max el	15845 Feb 03 18:10	25°♊51'27	26°45'44				
	15845 Feb 08 21:06	0°♎		superior conj	15845 Dec 13 15:44	8°♊18'48	1°28'36
retrograde	15845 Feb 17 18:31	3°♎04'16		minimum elong	15845 Dec 13 14:03	8°♊09'21	1°29'16
evening set	15845 Feb 24 06:23	1°♎18'59		evening rise	15845 Dec 20 08:17	23°♊07'02	
	15845 Feb 26 11:06	30°♎♊			15845 Dec 23 14:21	0°♎	
min. Earth dist.	15845 Feb 28 07:59	28°♊40'28	0.58955 AU	desc. node	15846 Jan 03 13:28	20°♎08'01	
inferior conj	15845 Mar 03 12:53	26°♊11'29	-3°02'31		15846 Jan 10 10:59	0°♊	
minimum elong	15845 Mar 03 19:49	25°♊57'59	2°59'49	evening max el	15846 Jan 16 12:04	6°♊42'58	25°30'55
morning rise	15845 Mar 11 12:47	21°♊35'53		retrograde	15846 Jan 30 09:40	13°♊42'42	
asc. node	15845 Mar 13 03:54	21°♊22'16		evening set	15846 Feb 05 05:42	12°♊24'52	
direct	15845 Mar 13 12:12	21°♊21'50		min. Earth dist.	15846 Feb 10 00:50	9°♊44'09	0.56890 AU
morning max el	15845 Mar 21 08:09	25°♊14'34	18°16'20	inferior conj	15846 Feb 12 20:08	7°♊51'02	-4°30'55
	15845 Mar 25 07:49	0°♎		minimum elong	15846 Feb 13 05:27	7°♊35'20	4°27'53
morning set	15845 Apr 06 00:34	20°♎10'39		morning rise	15846 Feb 21 08:03	3°♊36'50	
	15845 Apr 11 05:42	0°♊		direct	15846 Feb 23 08:53	3°♊24'26	
desc. node	15845 Apr 14 18:13	6°♊29'54		asc. node	15846 Feb 28 01:16	4°♊34'24	
				morning max el	15846 Mar 04 11:30	7°♊51'42	19°01'59
superior conj	15845 Apr 15 13:14	7°♊56'17	-0°06'35		15846 Mar 18 16:26	0°♎	
minimum elong	15845 Apr 15 12:42	7°♊53'50	0°06'55	morning set	15846 Mar 20 23:36	4°♎29'50	
behind sun begin	15845 Apr 15 05:56	7°♊23'13					
behind sun end	15845 Apr 15 19:27	8°♊24'24		superior conj	15846 Mar 29 10:49	21°♎04'25	0°26'26
max. Earth dist.	15845 Apr 23 03:20	21°♊14'28	1.41231 AU	minimum elong	15846 Mar 29 12:26	21°♎12'06	0°25'56
evening rise	15845 Apr 27 18:46	28°♊57'46		desc. node	15846 Apr 01 14:53	27°♎02'29	
	15845 Apr 28 10:04	0°♎			15846 Apr 03 05:28	0°♊	
	15845 May 18 10:16	0°♊		max. Earth dist.	15846 Apr 05 09:44	3°♊55'47	1.38964 AU
evening max el	15845 May 31 18:51	16°♊19'13	23°07'06	evening rise	15846 Apr 09 05:05	10°♊35'17	
asc. node	15845 Jun 09 01:35	22°♊06'07			15846 Apr 21 05:39	0°♎	
retrograde	15845 Jun 11 04:07	22°♊25'19			15846 May 14 02:53	0°♊	
evening set	15845 Jun 16 06:22	20°♊15'36		evening max el	15846 May 14 08:37	0°♊14'17	24°28'16
min. Earth dist.	15845 Jun 21 03:53	14°♊26'40	0.69081 AU	retrograde	15846 May 25 21:06	6°♊58'26	
inferior conj	15845 Jun 21 14:11	13°♊51'02	2°56'53	asc. node	15846 May 26 22:38	6°♊53'37	
minimum elong	15845 Jun 21 12:51	13°♊55'36	2°55'53	evening set	15846 May 31 10:52	4°♊36'43	
morning rise	15845 Jun 26 19:17	7°♊42'09			15846 Jun 04 13:03	30°♎♎	
direct	15845 Jul 01 04:08	5°♊56'17		min. Earth dist.	15846 Jun 04 23:38	29°♎24'53	0.68617 AU

inferior conj	15846 Jun 05 22:49	28° Π 07'04	2°35'48	morning rise	15847 May 26 18:07	6° Π 29'44	
minimum elong	15846 Jun 05 20:52	28° Π 13'35	2°34'35	direct	15847 May 30 04:15	5° Π 22'41	
morning rise	15846 Jun 11 07:00	22° Π 07'08		morning max el	15847 Jun 05 22:26	9° Π 01'27	18°54'22
direct	15846 Jun 15 04:08	20° Π 40'59		desc. node	15847 Jun 15 12:18	21° Π 15'13	
morning max el	15846 Jun 22 15:38	24° Π 51'03	19°50'39	greatest brilliancy	15847 Jun 19 08:17	26° Π 57'50	-0.8m
	15846 Jun 27 04:36	0° \mathfrak{D}			15847 Jun 21 08:10	0° \mathfrak{D}	
desc. node	15846 Jun 28 15:12	1° \mathfrak{D} 50'59		morning set	15847 Jun 28 17:24	11° \mathfrak{D} 23'15	
	15846 Jul 17 21:41	0° \mathcal{O}			15847 Jul 10 16:59	0° \mathcal{O}	
morning set	15846 Jul 19 08:12	2° \mathcal{O} 12'15		max. Earth dist.	15847 Jul 13 00:03	3° \mathcal{O} 34'53	1.45764 AU
max. Earth dist.	15846 Jul 30 05:45	19° \mathcal{O} 10'22	1.44802 AU				
				superior conj	15847 Jul 14 23:14	6° \mathcal{O} 39'33	-2°14'00
superior conj	15846 Aug 04 06:51	27° \mathcal{O} 14'00	-2°01'26	minimum elong	15847 Jul 15 00:28	6° \mathcal{O} 44'23	2°14'42
minimum elong	15846 Aug 04 13:52	27° \mathcal{O} 42'18	2°01'30		15847 Jul 29 15:39	0° \mathfrak{M}	
	15846 Aug 05 23:53	0° \mathfrak{M}		evening rise	15847 Jul 30 03:15	0° \mathfrak{M} 46'45	
evening rise	15846 Aug 17 19:51	19° \mathfrak{M} 40'17		asc. node	15847 Aug 09 19:38	17° \mathfrak{M} 50'30	
asc. node	15846 Aug 22 22:57	28° \mathfrak{M} 20'25			15847 Aug 18 21:42	0° \mathfrak{L}	
	15846 Aug 23 22:47	0° \mathfrak{L}		evening max el	15847 Aug 19 02:02	0° \mathfrak{L} 10'48	18°25'33
evening max el	15846 Sep 04 11:56	16° \mathfrak{L} 30'37	18°05'11	retrograde	15847 Aug 25 12:10	3° \mathfrak{L} 36'56	
retrograde	15846 Sep 10 21:07	19° \mathfrak{L} 51'00		evening set	15847 Aug 28 14:00	2° \mathfrak{L} 44'01	
evening set	15846 Sep 13 13:57	19° \mathfrak{L} 13'14			15847 Aug 31 21:33	30° \mathfrak{R} \mathfrak{M}	
inferior conj	15846 Sep 19 20:14	13° \mathfrak{L} 55'53	1°22'51	inferior conj	15847 Sep 03 09:13	27° \mathfrak{M} 10'50	2°11'46
minimum elong	15846 Sep 19 22:16	13° \mathfrak{L} 50'24	1°22'17	minimum elong	15847 Sep 03 11:33	27° \mathfrak{M} 03'54	2°11'02
min. Earth dist.	15846 Sep 22 13:17	11° \mathfrak{L} 01'25	0.63039 AU	min. Earth dist.	15847 Sep 05 13:07	24° \mathfrak{M} 36'47	0.65082 AU
desc. node	15846 Sep 24 12:24	9° \mathfrak{L} 06'41		morning rise	15847 Sep 09 07:46	20° \mathfrak{M} 48'07	
morning rise	15846 Sep 26 04:24	7° \mathfrak{L} 44'09		desc. node	15847 Sep 11 09:49	19° \mathfrak{M} 22'23	
direct	15846 Oct 02 20:27	5° \mathfrak{L} 15'42		direct	15847 Sep 15 18:59	18° \mathfrak{M} 11'31	
morning max el	15846 Oct 16 19:50	13° \mathfrak{L} 14'30	27°51'19	morning max el	15847 Sep 29 06:44	26° \mathfrak{M} 04'55	27°11'54
	15846 Oct 30 07:25	0° \mathfrak{M}			15847 Oct 02 21:53	0° \mathfrak{L}	
	15846 Nov 17 01:38	0° \mathfrak{X}			15847 Oct 23 21:07	0° \mathfrak{M}	
asc. node	15846 Nov 19 00:13	3° \mathfrak{X} 48'26		morning set	15847 Nov 03 18:47	19° \mathfrak{M} 43'29	
morning set	15846 Nov 20 07:56	6° \mathfrak{X} 27'37		asc. node	15847 Nov 05 21:04	23° \mathfrak{M} 51'14	
max. Earth dist.	15846 Nov 25 09:26	17° \mathfrak{X} 02'33	1.31950 AU	max. Earth dist.	15847 Nov 08 02:53	28° \mathfrak{M} 23'34	1.33262 AU
					15847 Nov 08 21:38	0° \mathfrak{X}	
superior conj	15846 Nov 27 23:57	22° \mathfrak{X} 41'42	1°14'52				
minimum elong	15846 Nov 27 21:42	22° \mathfrak{X} 29'22	1°15'22	superior conj	15847 Nov 12 03:24	6° \mathfrak{X} 48'03	0°55'03
	15846 Dec 01 07:41	0° \mathfrak{Z}		minimum elong	15847 Nov 12 01:06	6° \mathfrak{X} 35'51	0°55'23
evening rise	15846 Dec 04 19:00	7° \mathfrak{Z} 35'09		evening rise	15847 Nov 19 05:34	22° \mathfrak{X} 01'19	
	15846 Dec 16 06:48	0° \mathfrak{A}			15847 Nov 23 01:28	0° \mathfrak{Z}	
desc. node	15846 Dec 21 10:22	7° \mathfrak{A} 57'10		desc. node	15847 Dec 08 07:22	24° \mathfrak{Z} 36'30	
evening max el	15846 Dec 28 23:03	16° \mathfrak{A} 52'25	23°53'16	evening max el	15847 Dec 10 09:42	26° \mathfrak{Z} 48'48	22°10'10
retrograde	15847 Jan 11 11:07	23° \mathfrak{A} 34'10			15847 Dec 14 05:12	0° \mathfrak{A}	
evening set	15847 Jan 16 06:11	22° \mathfrak{A} 44'21		retrograde	15847 Dec 23 00:36	3° \mathfrak{A} 03'22	
min. Earth dist.	15847 Jan 22 10:30	19° \mathfrak{A} 44'03	0.55308 AU	evening set	15847 Dec 26 12:41	2° \mathfrak{A} 36'13	
inferior conj	15847 Jan 24 06:29	18° \mathfrak{A} 38'41	-5°39'19		15848 Jan 01 18:21	30° \mathfrak{R} \mathfrak{Z}	
minimum elong	15847 Jan 24 13:26	18° \mathfrak{A} 28'20	5°37'40	min. Earth dist.	15848 Jan 03 16:06	28° \mathfrak{Z} 57'02	0.54475 AU
morning rise	15847 Feb 01 22:20	14° \mathfrak{A} 42'38		inferior conj	15848 Jan 04 01:06	28° \mathfrak{Z} 44'26	-6°01'13
direct	15847 Feb 04 10:16	14° \mathfrak{A} 26'56		minimum elong	15848 Jan 03 23:39	28° \mathfrak{Z} 46'29	6°00'26
asc. node	15847 Feb 14 22:38	19° \mathfrak{A} 28'31		morning rise	15848 Jan 12 11:33	24° \mathfrak{Z} 57'15	
morning max el	15847 Feb 15 01:54	19° \mathfrak{A} 36'23	20°10'38	direct	15848 Jan 15 20:58	24° \mathfrak{Z} 31'40	
	15847 Feb 23 01:22	0° \mathfrak{H}			15848 Jan 27 14:52	0° \mathfrak{A}	
morning set	15847 Mar 05 05:23	19° \mathfrak{H} 04'44		morning max el	15848 Jan 28 01:17	0° \mathfrak{A} 24'29	21°41'58
	15847 Mar 10 13:10	0° \mathfrak{Y}		asc. node	15848 Feb 01 19:58	5° \mathfrak{A} 48'57	
					15848 Feb 15 19:29	0° \mathfrak{H}	
superior conj	15847 Mar 12 22:10	4° \mathfrak{Y} 48'29	0°53'30	morning set	15848 Feb 17 15:15	3° \mathfrak{H} 47'44	
minimum elong	15847 Mar 13 00:40	5° \mathfrak{Y} 00'59	0°53'07				
max. Earth dist.	15847 Mar 18 16:36	16° \mathfrak{Y} 03'49	1.36704 AU	superior conj	15848 Feb 24 19:32	18° \mathfrak{H} 58'30	1°14'06
desc. node	15847 Mar 19 11:31	17° \mathfrak{Y} 32'51		minimum elong	15848 Feb 24 21:58	19° \mathfrak{H} 11'16	1°14'01
evening rise	15847 Mar 22 10:48	23° \mathfrak{Y} 00'58		max. Earth dist.	15848 Feb 29 04:18	27° \mathfrak{H} 55'54	1.34666 AU
	15847 Mar 26 09:43	0° \mathfrak{B}			15848 Mar 01 05:12	0° \mathfrak{Y}	
	15847 Apr 14 23:32	0° \mathfrak{I}		evening rise	15848 Mar 04 08:29	6° \mathfrak{Y} 05'33	
evening max el	15847 Apr 26 22:16	14° \mathfrak{I} 08'15	25°43'07	desc. node	15848 Mar 05 08:09	7° \mathfrak{Y} 57'22	
retrograde	15847 May 09 09:32	21° \mathfrak{I} 19'29			15848 Mar 18 03:31	0° \mathfrak{B}	
asc. node	15847 May 13 19:48	20° \mathfrak{I} 00'00		evening max el	15848 Apr 08 12:05	27° \mathfrak{B} 54'06	26°44'08
evening set	15847 May 15 10:20	18° \mathfrak{I} 49'46			15848 Apr 10 18:45	0° \mathfrak{I}	
min. Earth dist.	15847 May 19 15:58	14° \mathfrak{I} 14'29	0.67685 AU	retrograde	15848 Apr 21 16:31	5° \mathfrak{I} 21'00	
inferior conj	15847 May 21 04:08	12° \mathfrak{I} 19'19	2°03'45	evening set	15848 Apr 28 02:54	2° \mathfrak{I} 48'27	
minimum elong	15847 May 21 01:57	12° \mathfrak{I} 26'17	2°02'23	asc. node	15848 Apr 29 17:02	1° \mathfrak{I} 23'32	

	15848 May 01 01:14	30° 		asc. node	15849 Apr 16 14:19	11° 	29°41'	
min. Earth dist.	15848 May 02 02:48	28°  47'59"	0.66311 AU	inferior conj	15849 Apr 17 19:35	10° 	10°15'	0°22'52"
inferior conj	15848 May 04 03:55	26°  22'45"	1°19'49"	minimum elong	15849 Apr 17 18:56	10° 	11°59'	0°22'09"
minimum elong	15848 May 04 02:06	26°  28'11"	1°18'34"	morning rise	15849 Apr 24 05:33	4° 	46°40'	
morning rise	15848 May 10 02:30	20°  45'10"		direct	15849 Apr 26 20:21	4° 	11°23'	
direct	15848 May 13 02:30	19°  55'22"		morning max el	15849 May 03 04:08	7° 	26°24'	17°51'49"
morning max el	15848 May 19 11:24	23°  15'58"	18°14'35"		15849 May 18 12:47	0° 		
	15848 May 25 00:56	0° 		desc. node	15849 May 19 06:10	1° 	12°32'	
desc. node	15848 Jun 01 09:17	11°  12'04'57"		morning set	15849 May 20 11:08	3° 	13°29'	
morning set	15848 Jun 08 00:35	21°  13'39'24"						
	15848 Jun 13 06:14	0° 		superior conj	15849 Jun 03 02:46	25° 	13°51'17"	-1°41'31"
				minimum elong	15849 Jun 02 18:07	25° 	10°0'42"	1°41'28"
superior conj	15848 Jun 23 08:14	15°  52'02"	-2°06'41"		15849 Jun 05 21:22	0° 		
minimum elong	15848 Jun 23 02:01	15°  52'7'45"	2°07'12"	max. Earth dist.	15849 Jun 07 16:27	2° 	49°53'	1.45442 AU
max. Earth dist.	15848 Jun 24 20:39	18°  51'4'10"	1.45981 AU	evening rise	15849 Jun 18 23:27	20° 	19°44'	
	15848 Jul 02 10:04	0° 			15849 Jun 25 08:13	0° 		
evening rise	15848 Jul 09 10:02	10°  52'47"		greatest brilliancy	15849 Jul 03 18:09	12° 	28°30'	-0.6m
greatest brilliancy	15848 Jul 20 04:14	27°  52'9'05"	-0.8m	asc. node	15849 Jul 13 13:08	25° 	31°26'	
	15848 Jul 21 20:23	0° 		evening max el	15849 Jul 15 17:49	27° 	53°00'	19°56'29"
asc. node	15848 Jul 26 16:22	6°  57'00"			15849 Jul 18 03:03	0° 		
evening max el	15848 Aug 01 12:37	14°  50'0'03"	19°03'01"	retrograde	15849 Jul 23 07:07	2° 	59°0'03"	
retrograde	15848 Aug 08 08:26	17°  54'5'07"		evening set	15849 Jul 27 04:32	0° 	41°43'	
evening set	15848 Aug 11 19:44	16°  53'35'23"			15849 Jul 28 00:42	30° 		
inferior conj	15848 Aug 17 07:21	10°  54'8'13"	2°44'11"	inferior conj	15849 Aug 01 11:42	24° 	42°12'	3°02'35"
minimum elong	15848 Aug 17 09:14	10°  54'42'12"	2°43'30"	minimum elong	15849 Aug 01 12:45	24° 	38°41'	3°01'57"
min. Earth dist.	15848 Aug 18 21:12	8°  54'46'53"	0.66772 AU	min. Earth dist.	15849 Aug 02 11:38	23° 	21°26'	0.68028 AU
morning rise	15848 Aug 22 21:58	4°  54'21'39"		morning rise	15849 Aug 06 20:32	18° 	16°56'	
desc. node	15848 Aug 28 07:14	1°  54'47'26"		direct	15849 Aug 12 12:36	15° 	48°25'	
direct	15848 Aug 29 00:44	1°  54'45'22"		desc. node	15849 Aug 15 04:36	16° 	16°22'	
morning max el	15848 Sep 10 18:19	9°  54'19'50"	26°06'30"	morning max el	15849 Aug 24 05:21	22° 	48°48'	24°44'35"
	15848 Sep 27 01:52	0° 			15849 Aug 30 13:29	0° 		
	15848 Oct 15 09:25	0° 			15849 Sep 20 09:20	0° 		
morning set	15848 Oct 16 16:42	2°  54'23'41"		morning set	15849 Sep 28 21:43	14° 	49°33'	
max. Earth dist.	15848 Oct 20 10:41	9°  54'29'44"	1.35089 AU	max. Earth dist.	15849 Oct 02 10:52	20° 	40°22'	1.37313 AU
asc. node	15848 Oct 22 17:50	14°  54'00'02"			15849 Oct 07 10:37	0° 		
superior conj	15848 Oct 25 23:30	20°  54'31'26"	0°29'15"	superior conj	15849 Oct 09 09:08	3° 	44°46'	-0°02'03"
minimum elong	15848 Oct 25 21:55	20°  54'23'22"	0°29'31"	minimum elong	15849 Oct 09 09:15	3° 	45°19'	0°01'39"
	15848 Oct 30 13:09	0° 		behind sun begin	15849 Oct 09 02:38	3° 	13°08'	
evening rise	15848 Nov 02 14:01	6°  54'20'39"		behind sun end	15849 Oct 09 15:51	4° 	17°35'	
	15848 Nov 15 10:22	0° 		asc. node	15849 Oct 09 14:33	4° 	11°12'	
evening max el	15848 Nov 21 05:40	7°  54'09'36"	20°38'18"	evening rise	15849 Oct 17 18:06	20° 	27°42'	
desc. node	15848 Nov 24 04:27	9°  54'42'44"			15849 Oct 22 14:23	0° 		
retrograde	15848 Dec 02 10:53	12°  54'44'04"		evening max el	15849 Nov 03 16:10	18° 	18°34'	19°26'49"
evening set	15848 Dec 04 20:42	12°  54'29'47"		desc. node	15849 Nov 11 01:36	22° 	15°51'53"	
inferior conj	15848 Dec 13 16:26	8°  54'36'24"	-5°21'59"	retrograde	15849 Nov 13 06:09	23° 	10°6'29"	
minimum elong	15848 Dec 13 07:26	8°  54'49'24"	5°19'21"	evening set	15849 Nov 15 04:14	22° 	15°55'46"	
min. Earth dist.	15848 Dec 14 21:36	7°  54'54'12"	0.54561 AU	inferior conj	15849 Nov 23 19:01	18° 	14°9'20"	-3°55'00"
morning rise	15848 Dec 21 18:01	4°  54'39'48"		minimum elong	15849 Nov 23 09:41	19° 	14°04'27"	3°51'06"
direct	15848 Dec 26 04:46	3°  54'57'18"		min. Earth dist.	15849 Nov 26 06:27	17° 	13°17'	0.55565 AU
morning max el	15849 Jan 08 13:00	10°  54'28'51"	23°29'15"	morning rise	15849 Dec 01 13:01	14° 	14°24'49"	
asc. node	15849 Jan 18 17:15	23°  54'16'45"		direct	15849 Dec 06 22:29	13° 	19°07'	
	15849 Jan 22 18:15	0° 		morning max el	15849 Dec 20 21:52	20° 	12°14'47"	25°17'06"
morning set	15849 Feb 01 03:00	18°  54'31'40"			15849 Dec 29 03:26	0° 		
	15849 Feb 06 09:58	0° 		asc. node	15850 Jan 05 14:28	11° 	35°43'	
					15850 Jan 15 02:54	0° 		
superior conj	15849 Feb 07 23:46	3°  54'25'05"	1°28'16"	morning set	15850 Jan 16 14:45	3° 	11°27'	
minimum elong	15849 Feb 08 01:34	3°  54'34'49"	1°28'33"					
max. Earth dist.	15849 Feb 10 23:07	9°  54'46'28"	1.33010 AU	superior conj	15850 Jan 23 08:27	18° 	01°19'	1°36'09"
evening rise	15849 Feb 15 18:37	19°  54'39'24"		minimum elong	15850 Jan 23 09:18	18° 	05°59'	1°36'44"
desc. node	15849 Feb 20 04:46	28°  54'11'05"		max. Earth dist.	15850 Jan 25 00:58	21° 	44°24'	1.31829 AU
	15849 Feb 21 04:18	0° 			15850 Jan 28 20:57	0° 		
	15849 Mar 12 04:56	0° 		evening rise	15850 Jan 30 14:14	3° 	35°35'	
evening max el	15849 Mar 22 01:13	11° 54'20'56"	27°24'01"	desc. node	15850 Feb 07 01:26	18°	10°0'00"	
retrograde	15849 Apr 04 17:14	18° 54'53'09"			15850 Feb 13 22:34	0°		
evening set	15849 Apr 11 10:25	16° 54'24'23"		evening max el	15850 Mar 04 12:08	24°	17°39'	27°35'50"
min. Earth dist.	15849 Apr 15 06:10	12° 54'55'29"	0.64543 AU		15850 Mar 12 01:10	0°		

retrograde	15850 Mar 18 10:39	1°♄46'16		evening max el	15851 Feb 14 18:29	6°♃32'21	27°14'14
	15850 Mar 24 10:37	30°♃♂		retrograde	15851 Feb 28 19:08	13°♃51'14	
evening set	15850 Mar 25 06:23	29°♃28'55		evening set	15851 Mar 07 11:49	11°♃52'48	
min. Earth dist.	15850 Mar 29 00:34	26°♃26'12	0.62471 AU	min. Earth dist.	15851 Mar 11 08:52	9°♃08'23	0.60235 AU
inferior conj	15850 Apr 01 00:03	23°♃34'30	-0°47'47	inferior conj	15851 Mar 14 13:48	6°♃26'28	-2°10'54
minimum elong	15850 Apr 01 01:40	23°♃30'37	0°47'22	minimum elong	15851 Mar 14 18:41	6°♃16'08	2°09'00
asc. node	15850 Apr 03 11:39	21°♃17'12		asc. node	15851 Mar 21 09:00	1°♃54'15	
morning rise	15850 Apr 07 23:54	18°♃27'15		morning rise	15851 Mar 22 05:00	1°♃38'18	
direct	15850 Apr 10 06:50	18°♃03'04		direct	15851 Mar 24 06:13	1°♃21'32	
morning max el	15850 Apr 16 21:44	21°♃24'10	17°46'33	morning max el	15851 Mar 31 12:52	4°♃59'44	17°59'47
	15850 Apr 23 12:10	0°♄		morning set	15851 Apr 16 02:37	29°♃27'31	
morning set	15850 May 02 21:45	15°♄55'13			15851 Apr 16 09:40	0°♄	
desc. node	15850 May 06 02:57	21°♄32'39		desc. node	15851 Apr 22 23:42	12°♄01'06	
	15850 May 11 00:42	0°♄					
superior conj	15850 May 14 18:17	6°♄17'18	-1°05'55	superior conj	15851 Apr 26 09:22	18°♄03'47	-0°27'40
minimum elong	15850 May 14 12:07	5°♄51'36	1°05'46	minimum elong	15851 Apr 26 06:59	17°♄53'20	0°27'49
max. Earth dist.	15850 May 21 09:23	17°♄07'34	1.44219 AU	max. Earth dist.	15851 May 03 08:58	0°♄	
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	15850 May 29 13:55	0°♄			15851 May 09 12:57	10°♄01'48	
	15850 Jun 19 00:37	0°♄		evening max el	15851 May 22 15:28	0°♄	
evening max el	15850 Jun 28 16:59	11°♄46'29	21°03'39		15851 Jun 11 11:00	25°♄40'35	22°20'35
asc. node	15850 Jun 30 09:59	13°♄22'29			15851 Jun 16 19:05	0°♄	
retrograde	15850 Jul 07 06:05	16°♄42'38		asc. node	15851 Jun 17 06:55	0°♄16'22	
evening set	15850 Jul 11 14:17	14°♄57'49		retrograde	15851 Jun 21 03:39	1°♄20'59	
inferior conj	15850 Jul 16 19:49	8°♄47'18	3°08'54		15851 Jun 25 02:32	30°♃♄	
minimum elong	15850 Jul 16 19:54	8°♄47'01	3°08'12	evening set	15851 Jun 25 23:17	29°♄19'45	
min. Earth dist.	15850 Jul 17 06:14	8°♄11'07	0.68820 AU	inferior conj	15851 Jul 01 05:39	22°♄59'54	3°04'16
morning rise	15850 Jul 22 01:14	2°♄26'53		minimum elong	15851 Jul 01 04:48	23°♄02'52	3°03'25
direct	15850 Jul 27 05:30	0°♄11'59		min. Earth dist.	15851 Jul 01 02:53	23°♄09'33	0.69128 AU
desc. node	15850 Aug 02 01:56	2°♄26'01		morning rise	15851 Jul 06 10:09	16°♄46'29	
morning max el	15850 Aug 06 16:27	6°♄25'24	23°15'38	direct	15851 Jul 11 02:07	14°♄49'17	
	15850 Aug 24 23:53	0°♄		desc. node	15851 Jul 19 23:11	19°♄52'48	
morning set	15850 Sep 10 05:30	25°♄20'04		morning max el	15851 Jul 20 06:19	20°♄10'28	21°48'30
	15850 Sep 12 23:57	0°♄			15851 Jul 28 13:31	0°♄	
max. Earth dist.	15850 Sep 14 09:22	2°♄23'19	1.39720 AU		15851 Aug 18 04:09	0°♄	
				morning set	15851 Aug 21 13:24	5°♄19'45	
superior conj	15850 Sep 22 04:25	16°♄18'24	-0°37'24	max. Earth dist.	15851 Aug 27 12:37	15°♄00'08	1.42023 AU
minimum elong	15850 Sep 22 07:14	16°♄31'23	0°36'45				
asc. node	15850 Sep 26 11:12	24°♄20'28		superior conj	15851 Sep 04 05:00	28°♄02'48	-1°13'59
	15850 Sep 29 10:05	0°♄		minimum elong	15851 Sep 04 10:59	28°♄28'57	1°13'14
evening rise	15850 Oct 01 14:54	4°♄14'37			15851 Sep 05 07:46	0°♄	
	15850 Oct 17 09:14	0°♄		asc. node	15851 Sep 13 07:52	14°♄24'43	
evening max el	15850 Oct 17 15:49	0°♄16'46	18°37'37	evening rise	15851 Sep 15 00:49	17°♄32'38	
retrograde	15850 Oct 25 19:08	4°♄23'44			15851 Sep 21 22:47	0°♄	
evening set	15850 Oct 27 17:29	4°♄10'36		evening max el	15851 Oct 01 00:36	12°♄56'10	18°09'39
desc. node	15850 Oct 28 22:51	3°♄49'27		retrograde	15851 Oct 08 03:19	16°♄34'33	
	15850 Nov 04 09:03	30°♃♄		evening set	15851 Oct 10 07:26	16°♄14'42	
inferior conj	15850 Nov 04 17:35	29°♄43'58	-2°10'35	desc. node	15851 Oct 15 20:08	12°♄55'50	
minimum elong	15850 Nov 04 12:19	29°♄53'53	2°07'50	inferior conj	15851 Oct 17 13:52	11°♄26'29	-0°33'15
min. Earth dist.	15850 Nov 07 20:59	27°♄22'44	0.57299 AU	minimum elong	15851 Oct 17 12:42	11°♄29'03	0°32'19
morning rise	15850 Nov 12 03:51	24°♄43'05		min. Earth dist.	15851 Oct 20 19:43	8°♄36'34	0.59463 AU
direct	15850 Nov 18 06:22	23°♄10'49		morning rise	15851 Oct 24 14:39	5°♄51'06	
	15850 Dec 01 20:08	0°♄		direct	15851 Oct 31 03:20	3°♄53'04	
morning max el	15850 Dec 02 11:46	0°♄37'03	26°46'24	morning max el	15851 Nov 14 09:57	11°♄37'16	27°42'23
asc. node	15850 Dec 23 11:35	0°♄32'18			15851 Nov 28 20:08	0°♄	
	15850 Dec 23 04:34	0°♄		asc. node	15851 Dec 10 08:38	19°♄56'41	
morning set	15851 Jan 01 00:46	17°♄41'54			15851 Dec 15 08:40	0°♄	
	15851 Jan 06 14:44	0°♄		morning set	15851 Dec 16 07:13	1°♄58'40	
				max. Earth dist.	15851 Dec 22 15:19	15°♄50'45	1.31031 AU
superior conj	15851 Jan 07 19:27	2°♄40'38	1°37'57				
minimum elong	15851 Jan 07 19:14	2°♄39'24	1°38'41	superior conj	15851 Dec 23 06:52	17°♄17'43	1°33'45
max. Earth dist.	15851 Jan 08 07:31	3°♄48'03	1.31161 AU	minimum elong	15851 Dec 23 05:39	17°♄10'55	1°34'28
evening rise	15851 Jan 14 16:44	17°♄47'19			15851 Dec 29 00:06	0°♄	
	15851 Jan 20 17:30	0°♄		evening rise	15851 Dec 29 23:57	2°♄09'14	
desc. node	15851 Jan 24 22:09	7°♄44'23		desc. node	15852 Jan 11 18:56	26°♄48'24	
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				evening max el	15852 Jan 27 17:28	17°♄55'00	26°17'31



















































































































retrograde	15852 Feb 10 16:49	25° H 01'38		evening max el	15853 Jan 08 07:54	28° \approx 26'26	24°51'08
evening set	15852 Feb 16 23:11	23° H 27'49			15853 Jan 10 01:25	0° H	
min. Earth dist.	15852 Feb 21 06:46	20° H 50'23	0.58039 AU	retrograde	15853 Jan 22 02:13	5° H 19'27	
inferior conj	15852 Feb 24 09:02	18° H 35'08	-3°40'58	evening set	15853 Jan 27 13:00	4° H 13'25	
minimum elong	15852 Feb 24 17:19	18° H 20'01	3°37'55	min. Earth dist.	15853 Feb 01 19:57	1° H 26'57	0.56144 AU
morning rise	15852 Mar 03 14:41	14° H 08'31		inferior conj	15853 Feb 04 07:16	29° \approx 52'55	-5°03'53
direct	15852 Mar 05 14:01	13° H 55'32		minimum elong	15853 Feb 04 16:23	29° \approx 38'26	5°01'16
asc. node	15852 Mar 07 06:23	14° H 05'23			15853 Feb 04 02:49	30° R \approx	
morning max el	15852 Mar 13 21:43	18° H 01'37	18°33'04	morning rise	15853 Feb 12 22:10	25° \approx 47'31	
	15852 Mar 22 12:29	0° Y		direct	15853 Feb 15 02:24	25° \approx 34'25	
morning set	15852 Mar 29 20:15	13° Y 33'33		asc. node	15853 Feb 22 03:46	28° \approx 02'58	
	15852 Apr 07 11:14	0° B			15853 Feb 24 12:25	0° H	
				morning max el	15853 Feb 24 20:06	0° H 18'23	19°28'21
superior conj	15852 Apr 07 21:07	0° B 45'52	0°08'06	morning set	15853 Mar 13 22:33	28° H 01'02	
minimum elong	15852 Apr 07 21:40	0° B 48'24	0°07'40		15853 Mar 14 22:16	0° Y	
behind sun begin	15852 Apr 07 15:25	0° B 19'24					
behind sun end	15852 Apr 08 03:55	1° B 17'20		superior conj	15853 Mar 22 01:09	14° Y 11'30	0°38'41
desc. node	15852 Apr 08 20:24	2° B 33'19		minimum elong	15853 Mar 22 03:16	14° Y 21'51	0°38'11
max. Earth dist.	15852 Apr 15 07:13	14° B 04'00	1.40282 AU	desc. node	15853 Mar 26 17:05	23° Y 05'52	
evening rise	15852 Apr 19 11:04	21° B 07'53		max. Earth dist.	15853 Mar 28 13:24	26° Y 30'22	1.37988 AU
	15852 Apr 24 22:04	0° II			15853 Mar 30 11:47	0° B	
	15852 May 15 17:47	0° E		evening rise	15853 Apr 01 06:02	3° B 07'08	
evening max el	15852 May 24 01:40	9° E 34'57	23°41'57		15853 Apr 18 00:40	0° II	
asc. node	15852 Jun 03 03:57	15° E 55'08		evening max el	15853 May 06 15:03	23° II 29'18	25°01'11
retrograde	15852 Jun 03 22:36	15° E 57'45			15853 May 15 21:32	0° E	
evening set	15852 Jun 09 05:54	13° E 42'19		retrograde	15853 May 18 13:47	0° E 26'44	
min. Earth dist.	15852 Jun 13 23:26	8° E 09'29	0.68945 AU	asc. node	15853 May 21 01:02	0° E 01'12	
inferior conj	15852 Jun 14 15:15	7° E 15'20	2°49'13		15853 May 21 02:22	30° R II	
minimum elong	15852 Jun 14 13:38	7° E 20'54	2°48'08	evening set	15853 May 24 08:28	28° II 00'43	
morning rise	15852 Jun 19 21:21	1° E 10'24		min. Earth dist.	15853 May 28 17:54	23° II 04'48	0.68279 AU
	15852 Jun 21 20:07	30° R II		inferior conj	15853 May 29 22:42	21° II 30'02	2°23'34
direct	15852 Jun 24 01:13	29° II 32'53		minimum elong	15853 May 29 20:36	21° II 36'57	2°22'17
	15852 Jun 26 08:55	0° E		morning rise	15853 Jun 04 09:03	15° II 34'33	
morning max el	15852 Jul 02 01:52	4° E 05'58	20°30'01	direct	15853 Jun 08 01:20	14° II 16'53	
desc. node	15852 Jul 05 20:25	8° E 16'21		morning max el	15853 Jun 15 04:37	18° II 12'04	19°24'46
	15852 Jul 21 11:37	0° Q		desc. node	15853 Jun 22 17:34	27° II 21'50	
morning set	15852 Jul 31 00:29	14° Q 27'37			15853 Jun 24 14:44	0° E	
max. Earth dist.	15852 Aug 08 22:37	28° Q 29'04	1.43947 AU	greatest brilliancy	15853 Jun 27 20:28	4° E 41'39	-0.7m
	15852 Aug 09 21:16	0° P		morning set	15853 Jul 10 04:22	23° E 21'03	
					15853 Jul 14 11:55	0° Q	
superior conj	15852 Aug 15 06:54	8° P 48'54	-1°46'53	max. Earth dist.	15853 Jul 22 14:01	12° Q 36'06	1.45294 AU
minimum elong	15852 Aug 15 14:43	9° P 21'15	1°46'30				
evening rise	15852 Aug 27 19:09	0° A 09'26		superior conj	15853 Jul 26 09:43	18° Q 38'17	-2°09'02
	15852 Aug 27 16:59	0° A		minimum elong	15853 Jul 26 14:54	18° Q 58'55	2°09'24
asc. node	15852 Aug 30 04:31	4° A 19'33			15853 Aug 02 11:23	0° P	
evening max el	15852 Sep 13 14:14	26° A 06'17	18°01'27	evening rise	15853 Aug 09 16:33	11° P 51'37	
retrograde	15852 Sep 20 03:06	29° A 29'42		asc. node	15853 Aug 17 01:10	24° P 00'12	
evening set	15852 Sep 22 14:57	28° A 59'28			15853 Aug 20 20:11	0° A	
inferior conj	15852 Sep 29 05:09	23° A 51'50	0°46'08	evening max el	15853 Aug 28 05:02	9° A 37'34	18°11'43
minimum elong	15852 Sep 29 06:29	23° A 48'29	0°45'55	retrograde	15853 Sep 03 13:44	12° A 59'12	
desc. node	15852 Oct 01 17:28	21° A 19'53		evening set	15853 Sep 06 10:12	12° A 15'25	
min. Earth dist.	15852 Oct 02 04:21	20° A 53'24	0.61751 AU	inferior conj	15853 Sep 12 11:21	6° A 51'05	1°45'46
morning rise	15852 Oct 05 19:20	17° A 50'15		minimum elong	15853 Sep 12 13:37	6° A 44'38	1°45'05
direct	15852 Oct 12 11:38	15° A 30'59		min. Earth dist.	15853 Sep 14 23:02	4° A 03'16	0.63935 AU
morning max el	15852 Oct 26 15:25	23° A 27'25	27°59'09	morning rise	15853 Sep 18 15:12	0° A 33'20	
	15852 Nov 01 12:27	0° M		desc. node	15853 Sep 18 14:53	0° A 33'58	
	15852 Nov 21 03:04	0° J			15853 Sep 19 09:21	30° R P	
asc. node	15852 Nov 26 05:38	9° J 41'11		direct	15853 Sep 25 05:36	28° P 00'15	
morning set	15852 Nov 29 08:05	15° J 57'09			15853 Oct 01 15:36	0° A	
max. Earth dist.	15852 Dec 04 20:28	27° J 43'17	1.31451 AU	morning max el	15853 Oct 09 01:10	5° A 59'17	27°38'23
	15852 Dec 05 21:20	0° Z			15853 Oct 27 09:25	0° M	
				morning set	15853 Nov 13 00:52	29° M 30'36	
superior conj	15852 Dec 06 16:50	1° Z 47'43	1°23'32	asc. node	15853 Nov 13 02:31	29° M 38'52	
minimum elong	15852 Dec 06 14:51	1° Z 36'44	1°24'08		15853 Nov 13 06:45	0° J	
evening rise	15852 Dec 13 09:56	16° Z 36'49		max. Earth dist.	15853 Nov 17 18:56	9° J 16'02	1.32434 AU
	15852 Dec 19 21:47	0° \approx					
desc. node	15852 Dec 28 15:47	15° \approx 09'45		superior conj	15853 Nov 20 23:16	16° J 04'20	1°07'14

minimum elong	15853 Nov 20 20:55	15°  51'38	1°07'39	minimum elong	15854 Nov 04 21:49	29°  51'03	0°45'07
	15853 Nov 27 08:47	0° 			15854 Nov 04 23:32	0° 	
evening rise	15853 Nov 27 20:46	1°  04'34		evening rise	15854 Nov 12 06:39	15°  28'22	
	15853 Dec 13 15:47	0° 			15854 Nov 19 12:20	0° 	
desc. node	15853 Dec 15 12:43	2°  32'09		desc. node	15854 Dec 02 09:43	18°  35'12	
evening max el	15853 Dec 20 17:24	8°  25'26	23°09'00	evening max el	15854 Dec 02 07:05	18°  328'46	21°29'05
retrograde	15854 Jan 02 22:33	14°  57'59		retrograde	15854 Dec 14 09:06	24°  327'17	
evening set	15854 Jan 07 04:32	14°  18'49		evening set	15854 Dec 17 08:28	24°  307'06	
min. Earth dist.	15854 Jan 14 03:36	11°  04'06	0.54847 AU	inferior conj	15854 Dec 26 01:16	20°  316'41	-5°51'57
inferior conj	15854 Jan 15 09:51	10°  20'39	-5°55'40	minimum elong	15854 Dec 25 19:55	20°  324'11	5°50'35
minimum elong	15854 Jan 15 13:46	10°  15'00	5°54'42	min. Earth dist.	15854 Dec 26 09:02	20°  305'48	0.54397 AU
morning rise	15854 Jan 24 00:23	6°  30'03		morning rise	15855 Jan 03 07:51	16°  327'36	
direct	15854 Jan 26 20:04	6°  11'15		direct	15855 Jan 07 04:09	15°  355'28	
morning max el	15854 Feb 07 04:17	11°  39'38	20°46'53	morning max el	15855 Jan 19 21:50	22°  306'18	22°26'12
asc. node	15854 Feb 09 01:08	13°  36'13		asc. node	15855 Jan 26 22:27	0°  27'32	
	15854 Feb 19 21:07	0° 			15855 Jan 26 14:37	0° 	
morning set	15854 Feb 26 06:21	12°  40'06		morning set	15855 Feb 10 17:13	27°  23'58	
					15855 Feb 11 22:32	0° 	
superior conj	15854 Mar 05 17:10	28°  407'59	1°03'01	superior conj	15855 Feb 17 17:46	12°  425'54	1°20'52
minimum elong	15854 Mar 05 19:44	28°  421'05	1°02'44	minimum elong	15855 Feb 17 19:59	12°  437'42	1°20'57
	15854 Mar 06 15:10	0° 		max. Earth dist.	15855 Feb 21 11:47	20°  416'31	1.33914 AU
max. Earth dist.	15854 Mar 10 21:21	8°  07'12	1.35798 AU	evening rise	15855 Feb 25 22:22	29°  408'57	
desc. node	15854 Mar 13 13:44	13°  07'34'25			15855 Feb 26 08:55	0° 	
evening rise	15854 Mar 14 18:58	15°  07'50'36		desc. node	15855 Feb 28 10:21	3°  07'55'02	
	15854 Mar 22 20:23	0° 			15855 Mar 16 00:03	0° 	
	15854 Apr 12 12:57	0° 		evening max el	15855 Apr 01 18:27	21°  400'10	27°04'12
evening max el	15854 Apr 19 04:37	7°  420'24	26°11'10	retrograde	15855 Apr 15 04:43	28°  430'28	
retrograde	15854 May 02 00:14	14°  40'34		evening set	15855 Apr 21 18:13	25°  459'00	
asc. node	15854 May 07 22:13	12°  423'05		asc. node	15855 Apr 24 19:28	23°  408'36	
evening set	15854 May 08 05:15	12°  408'52		min. Earth dist.	15855 Apr 25 16:14	22°  412'08	0.65599 AU
min. Earth dist.	15854 May 12 08:12	7°  448'35	0.67149 AU	inferior conj	15855 Apr 27 22:38	19°  437'09	0°57'20
inferior conj	15854 May 14 01:57	5°  439'22	1°46'39	minimum elong	15855 Apr 27 21:11	19°  441'17	0°56'14
minimum elong	15854 May 13 23:50	5°  445'56	1°45'17	morning rise	15855 May 04 01:42	14°  404'57	
morning rise	15854 May 19 19:15	29°  454'39		direct	15855 May 06 21:36	13°  421'42	
	15854 May 19 15:48	30°  488'8		morning max el	15855 May 13 05:04	16°  438'41	18°02'42
direct	15854 May 23 00:51	28°  455'23			15855 May 23 03:18	0° 	
	15854 May 26 12:57	0° 		desc. node	15855 May 27 11:35	6°  42'56'29	
morning max el	15854 May 29 14:16	2°  425'14	18°35'19	morning set	15855 May 31 16:13	13°  445'14	
desc. node	15854 Jun 09 14:38	16°  458'10			15855 Jun 10 18:15	0° 	
	15854 Jun 18 00:32	0° 		superior conj	15855 Jun 15 08:04	7°  414'15	-1°57'48
morning set	15854 Jun 19 21:21	2°  455'29		minimum elong	15855 Jun 15 00:01	6°  442'36	1°58'04
superior conj	15854 Jul 05 20:59	27°  453'34	-2°13'24	max. Earth dist.	15855 Jun 18 05:33	11°  446'37	1.45842 AU
minimum elong	15854 Jul 05 18:48	27°  445'01	2°14'07		15855 Jun 29 23:37	0° 	
max. Earth dist.	15854 Jul 05 09:02	27°  407'00	1.45943 AU	evening rise	15855 Jul 01 11:00	2°  416'15	
	15854 Jul 07 05:24	0° 		greatest brilliancy	15855 Jul 14 06:01	21°  443'17	-0.7m
evening rise	15854 Jul 21 13:11	22°  431'12			15855 Jul 20 01:23	0° 	
	15854 Jul 26 06:25	0° 		asc. node	15855 Jul 21 18:35	2°  415'36	
greatest brilliancy	15854 Jul 29 03:39	4°  432'52	-0.8m	evening max el	15855 Jul 26 02:28	7°  414'34	19°23'59
asc. node	15854 Aug 03 21:51	13°  421'27		retrograde	15855 Aug 02 04:42	11°  411'02	
evening max el	15854 Aug 11 17:56	23°  422'44	18°39'32	evening set	15855 Aug 05 20:18	9°  453'49	
retrograde	15854 Aug 18 07:17	26°  455'26		inferior conj	15855 Aug 11 05:40	4°  401'28	2°53'34
evening set	15854 Aug 21 13:01	25°  455'41		minimum elong	15855 Aug 11 07:13	3°  456'23	2°52'53
inferior conj	15854 Aug 27 04:37	20°  416'38	2°27'22	min. Earth dist.	15855 Aug 12 13:35	2°  416'36	0.67367 AU
minimum elong	15854 Aug 27 06:49	20°  409'51	2°26'38		15855 Aug 14 09:30	30°  488'8	
min. Earth dist.	15854 Aug 29 02:41	17°  454'55	0.65845 AU	morning rise	15855 Aug 16 17:34	27°  443'51'0	
morning rise	15854 Sep 01 23:31	13°  451'28		direct	15855 Aug 22 16:08	25°  4401'13	
desc. node	15854 Sep 05 12:17	11°  443'28		desc. node	15855 Aug 23 09:41	25°  4403'19	
direct	15854 Sep 08 07:36	11°  4413'37			15855 Sep 01 11:43	0° 	
morning max el	15854 Sep 21 12:27	19°  4401'25	26°46'42	morning max el	15855 Sep 03 23:34	2°  4422'23	25°33'03
	15854 Sep 30 20:31	0° 			15855 Sep 24 23:31	0° 	
	15854 Oct 20 09:44	0° 		morning set	15855 Oct 09 21:46	24°  4454'23	
morning set	15854 Oct 27 06:38	12°  4432'34			15855 Oct 12 16:12	0° 	
asc. node	15854 Oct 30 23:20	19°  4445'02		max. Earth dist.	15855 Oct 13 11:43	1°  4431'34	1.36001 AU
max. Earth dist.	15854 Oct 31 07:56	20°  4427'58	1.33974 AU	asc. node	15855 Oct 17 20:04	9°  4455'12	
superior conj	15854 Nov 04 23:55	0°  4402'02	0°44'50				

superior conj	15855 Oct 19 15:58	13° \mathbb{M} 33'31	0°16'35	morning set	15856 Sep 20 18:12	6° \mathbb{A} 27'24	
minimum elong	15855 Oct 19 14:58	13° \mathbb{M} 28'33	0°16'54	max. Earth dist.	15856 Sep 24 10:48	12° \mathbb{A} 54'28	1.38339 AU
evening rise	15855 Oct 27 13:29	29° \mathbb{M} 42'54					
	15855 Oct 27 16:49	0° \mathbb{A}		superior conj	15856 Oct 01 19:59	26° \mathbb{A} 30'55	-0°16'41
evening max el	15855 Nov 14 09:05	29° \mathbb{A} 08'35	20°05'12	minimum elong	15856 Oct 01 21:07	26° \mathbb{A} 36'23	0°16'11
	15855 Nov 15 06:34	0° \mathbb{B}		asc. node	15856 Oct 03 16:45	0° \mathbb{M} 05'55	
desc. node	15855 Nov 19 06:48	2° \mathbb{B} 54'22			15856 Oct 03 15:32	0° \mathbb{M}	
retrograde	15855 Nov 24 21:15	4° \mathbb{B} 22'45		evening rise	15856 Oct 10 14:52	13° \mathbb{M} 42'25	
evening set	15855 Nov 27 00:30	4° \mathbb{B} 10'47			15856 Oct 19 07:29	0° \mathbb{A}	
inferior conj	15855 Dec 05 19:41	0° \mathbb{B} 13'09	-4°49'12	evening max el	15856 Oct 27 01:27	10° \mathbb{A} 38'16	19°03'06
minimum elong	15855 Dec 05 09:40	0° \mathbb{B} 28'12	4°45'43	retrograde	15856 Nov 04 23:39	15° \mathbb{A} 07'55	
	15855 Dec 06 04:24	30° \mathbb{R} \mathbb{A}		desc. node	15856 Nov 05 03:59	15° \mathbb{A} 07'49	
min. Earth dist.	15855 Dec 07 15:17	29° \mathbb{A} 07'40	0.54886 AU	evening set	15856 Nov 06 20:50	14° \mathbb{A} 56'44	
morning rise	15855 Dec 13 17:56	26° \mathbb{A} 06'56		inferior conj	15856 Nov 15 06:04	10° \mathbb{A} 41'44	-3°11'00
direct	15855 Dec 18 15:15	25° \mathbb{A} 15'00		minimum elong	15856 Nov 14 22:14	10° \mathbb{A} 55'14	3°07'23
	15855 Dec 30 00:16	0° \mathbb{B}		min. Earth dist.	15856 Nov 18 01:56	8° \mathbb{A} 45'08	0.56227 AU
morning max el	15856 Jan 01 06:51	2° \mathbb{B} 00'10	24°16'13	morning rise	15856 Nov 22 20:57	6° \mathbb{A} 02'11	
asc. node	15856 Jan 13 19:41	18° \mathbb{B} 19'05		direct	15856 Nov 28 14:15	4° \mathbb{A} 45'45	
	15856 Jan 20 07:52	0° \mathbb{A}		morning max el	15856 Dec 12 17:10	11° \mathbb{A} 58'41	25°58'40
morning set	15856 Jan 26 05:13	12° \mathbb{A} 07'11			15856 Dec 26 15:02	0° \mathbb{B}	
				asc. node	15856 Dec 30 16:53	6° \mathbb{B} 55'27	
superior conj	15856 Feb 02 00:10	26° \mathbb{A} 57'37	1°32'21	morning set	15857 Jan 09 16:27	26° \mathbb{B} 43'45	
minimum elong	15856 Feb 02 01:35	27° \mathbb{A} 05'23	1°32'47		15857 Jan 11 04:35	0° \mathbb{A}	
	15856 Feb 03 09:40	0° \mathbb{H}					
max. Earth dist.	15856 Feb 04 10:05	2° \mathbb{H} 11'42	1.32451 AU	superior conj	15857 Jan 16 10:03	11° \mathbb{A} 35'42	1°37'39
evening rise	15856 Feb 09 12:54	12° \mathbb{H} 53'46		minimum elong	15857 Jan 16 10:27	11° \mathbb{A} 37'54	1°38'19
desc. node	15856 Feb 15 06:58	24° \mathbb{H} 03'15		max. Earth dist.	15857 Jan 17 14:27	14° \mathbb{A} 13'24	1.31475 AU
	15856 Feb 18 14:03	0° \mathbb{Y}		evening rise	15857 Jan 23 11:42	26° \mathbb{A} 57'01	
	15856 Mar 10 05:02	0° \mathbb{B}			15857 Jan 24 23:03	0° \mathbb{H}	
evening max el	15856 Mar 14 07:10	4° \mathbb{B} 17'14	27°32'53	desc. node	15857 Feb 01 03:37	13° \mathbb{H} 52'33	
retrograde	15856 Mar 28 02:17	11° \mathbb{B} 47'53			15857 Feb 10 22:49	0° \mathbb{Y}	
evening set	15856 Apr 03 21:10	9° \mathbb{B} 23'18		evening max el	15857 Feb 24 16:22	16° \mathbb{Y} 57'17	27°30'54
min. Earth dist.	15856 Apr 07 16:00	6° \mathbb{B} 06'15	0.63696 AU	retrograde	15857 Mar 10 15:53	24° \mathbb{Y} 22'06	
inferior conj	15856 Apr 10 09:59	3° \mathbb{B} 16'46	-0°05'22	evening set	15857 Mar 17 11:21	22° \mathbb{Y} 11'41	
minimum elong	15856 Apr 10 10:10	3° \mathbb{B} 16'19	0°05'41	min. Earth dist.	15857 Mar 21 05:57	19° \mathbb{Y} 18'17	0.61534 AU
transit middle	15856 Apr 10 10:10	3° \mathbb{B} 16'19	0°05'41	inferior conj	15857 Mar 24 08:39	16° \mathbb{Y} 28'34	-1°21'40
transit begin	15856 Apr 10 07:13	3° \mathbb{B} 23'55		minimum elong	15857 Mar 24 11:33	16° \mathbb{Y} 21'57	1°20'38
transit end	15856 Apr 10 13:06	3° \mathbb{B} 08'44		asc. node	15857 Mar 28 14:08	13° \mathbb{Y} 00'24	
asc. node	15856 Apr 10 16:46	2° \mathbb{B} 59'18		morning rise	15857 Mar 31 14:58	11° \mathbb{Y} 29'20	
	15856 Apr 13 20:40	30° \mathbb{R} \mathbb{Y}		direct	15857 Apr 02 19:15	11° \mathbb{Y} 08'40	
morning rise	15856 Apr 17 01:34	27° \mathbb{Y} 59'35		morning max el	15857 Apr 09 15:35	14° \mathbb{Y} 35'18	17°49'54
direct	15856 Apr 19 12:57	27° \mathbb{Y} 29'18			15857 Apr 20 07:37	0° \mathbb{B}	
	15856 Apr 25 02:50	0° \mathbb{B}		morning set	15857 Apr 25 08:53	8° \mathbb{B} 56'46	
morning max el	15856 Apr 25 22:33	0° \mathbb{B} 45'18	17°47'22	desc. node	15857 Apr 30 05:13	17° \mathbb{B} 35'00	
morning set	15856 May 12 13:47	25° \mathbb{B} 51'13					
desc. node	15856 May 13 08:26	27° \mathbb{B} 10'38		superior conj	15857 May 06 12:26	28° \mathbb{B} 31'15	-0°49'40
	15856 May 15 00:18	0° \mathbb{H}		minimum elong	15857 May 06 07:54	28° \mathbb{B} 11'56	0°49'37
					15857 May 07 09:21	0° \mathbb{H}	
superior conj	15856 May 25 10:43	17° \mathbb{H} 20'50	-1°27'11	max. Earth dist.	15857 May 13 16:38	10° \mathbb{H} 26'49	1.43523 AU
minimum elong	15856 May 25 02:44	16° \mathbb{H} 48'25	1°27'01	evening rise	15857 May 20 14:05	21° \mathbb{H} 24'49	
max. Earth dist.	15856 May 31 00:57	26° \mathbb{H} 18'57	1.45008 AU		15857 May 26 04:11	0° \mathbb{B}	
	15856 Jun 02 09:01	0° \mathbb{B}			15857 Jun 16 13:32	0° \mathbb{B}	
evening rise	15856 Jun 09 21:47	11° \mathbb{B} 40'14		evening max el	15857 Jun 21 01:52	5° \mathbb{B} 01'44	21°35'22
	15856 Jun 22 02:56	0° \mathbb{B}		asc. node	15857 Jun 24 12:17	8° \mathbb{B} 02'10	
asc. node	15856 Jul 07 15:23	20° \mathbb{B} 33'21		retrograde	15857 Jun 30 02:24	10° \mathbb{B} 16'50	
evening max el	15856 Jul 08 05:10	21° \mathbb{B} 08'23	20°23'31	evening set	15857 Jul 04 15:26	8° \mathbb{B} 24'39	
retrograde	15856 Jul 16 03:43	25° \mathbb{B} 40'13		inferior conj	15857 Jul 09 21:01	2° \mathbb{B} 09'40	3°08'12
evening set	15856 Jul 20 05:45	24° \mathbb{B} 05'08		minimum elong	15857 Jul 09 20:41	2° \mathbb{B} 10'48	3°07'28
inferior conj	15856 Jul 25 11:54	18° \mathbb{B} 00'43	3°06'38	min. Earth dist.	15857 Jul 10 01:42	1° \mathbb{B} 53'19	0.69012 AU
minimum elong	15856 Jul 25 12:32	17° \mathbb{B} 58'32	3°05'59		15857 Jul 11 10:37	30° \mathbb{R} \mathbb{B}	
min. Earth dist.	15856 Jul 26 05:57	16° \mathbb{B} 58'50	0.68432 AU	morning rise	15857 Jul 15 01:45	25° \mathbb{B} 52'02	
morning rise	15856 Jul 30 19:01	11° \mathbb{B} 37'25		direct	15857 Jul 20 00:40	23° \mathbb{B} 44'36	
direct	15856 Aug 05 06:09	9° \mathbb{B} 14'18		desc. node	15857 Jul 27 04:23	27° \mathbb{B} 03'41	
desc. node	15856 Aug 09 07:03	10° \mathbb{B} 18'19		morning max el	15857 Jul 29 22:36	29° \mathbb{B} 36'06	22°37'52
morning max el	15856 Aug 16 10:27	15° \mathbb{B} 55'07	24°07'01		15857 Jul 30 08:01	0° \mathbb{B}	
	15856 Aug 28 01:28	0° \mathbb{H}			15857 Aug 21 19:07	0° \mathbb{H}	
	15856 Sep 16 22:15	0° \mathbb{A}		morning set	15857 Sep 01 16:02	17° \mathbb{H} 03'01	

max. Earth dist.	15857 Sep 06 11:01	25° \mathbb{M} 00'19	1.40727 AU	morning set	15858 Aug 12 14:08	26° \mathcal{Q} 38'08	
	15857 Sep 09 09:02	0° \mathfrak{A}			15858 Aug 14 17:24	0° \mathbb{M}	
				max. Earth dist.	15858 Aug 19 16:28	7° \mathbb{M} 57'58	1.42897 AU
superior conj	15857 Sep 14 07:51	8° \mathfrak{A} 44'56	-0°53'00	superior conj	15858 Aug 26 23:07	20° \mathbb{M} 05'08	-1°28'47
minimum elong	15857 Sep 14 12:02	9° \mathfrak{A} 03'46	0°52'18	minimum elong	15858 Aug 27 06:13	20° \mathbb{M} 35'24	1°28'08
asc. node	15857 Sep 20 13:25	20° \mathfrak{A} 13'47			15858 Sep 01 16:19	0° \mathfrak{A}	
evening rise	15857 Sep 24 07:36	27° \mathfrak{A} 19'00		evening rise	15858 Sep 07 11:31	10° \mathfrak{A} 20'57	
	15857 Sep 25 17:44	0° \mathbb{M}		asc. node	15858 Sep 07 10:03	10° \mathfrak{A} 14'26	
evening max el	15857 Oct 10 05:31	22° \mathbb{M} 55'32	18°23'12		15858 Sep 19 00:41	0° \mathbb{M}	
retrograde	15857 Oct 17 21:17	26° \mathbb{M} 49'06		evening max el	15858 Sep 23 16:54	5° \mathbb{M} 49'31	18°03'54
evening set	15857 Oct 19 21:31	26° \mathbb{M} 33'43		retrograde	15858 Sep 30 12:31	9° \mathbb{M} 19'47	
desc. node	15857 Oct 23 01:15	25° \mathbb{M} 13'39		evening set	15858 Oct 02 19:44	8° \mathbb{M} 56'00	
inferior conj	15857 Oct 27 14:08	21° \mathbb{M} 57'52	-1°27'32	inferior conj	15858 Oct 09 18:59	3° \mathbb{M} 59'34	0°02'51
minimum elong	15857 Oct 27 10:46	22° \mathbb{M} 04'40	1°25'35	minimum elong	15858 Oct 09 19:05	3° \mathbb{M} 59'19	0°03'12
min. Earth dist.	15857 Oct 30 19:59	19° \mathbb{M} 21'51	0.58179 AU	transit middle	15858 Oct 09 19:05	3° \mathbb{M} 59'19	0°03'12
morning rise	15857 Nov 03 20:30	16° \mathbb{M} 41'09		transit begin	15858 Oct 09 15:51	4° \mathbb{M} 06'53	
direct	15857 Nov 10 03:59	14° \mathbb{M} 57'37		transit end	15858 Oct 09 22:20	3° \mathbb{M} 51'44	
morning max el	15857 Nov 24 10:51	22° \mathbb{M} 33'00	27°14'56	desc. node	15858 Oct 09 22:36	3° \mathbb{M} 51'05	
	15857 Dec 01 01:59	0° \mathfrak{A}		min. Earth dist.	15858 Oct 12 23:00	1° \mathbb{M} 03'15	0.60437 AU
asc. node	15857 Dec 17 13:59	26° \mathfrak{A} 05'10			15858 Oct 14 04:29	30° \mathbb{R} \mathfrak{A}	
	15857 Dec 19 14:48	0° \mathfrak{B}		morning rise	15858 Oct 16 15:17	28° \mathfrak{A} 11'50	
morning set	15857 Dec 25 01:12	11° \mathfrak{B} 09'21		direct	15858 Oct 23 06:24	26° \mathfrak{A} 03'34	
					15858 Nov 02 00:35	0° \mathbb{M}	
superior conj	15857 Dec 31 21:28	26° \mathfrak{B} 15'01	1°36'55	morning max el	15858 Nov 06 12:18	3° \mathbb{M} 54'31	27°54'15
minimum elong	15857 Dec 31 20:49	26° \mathfrak{B} 11'20	1°37'39		15858 Nov 25 19:41	0° \mathfrak{A}	
max. Earth dist.	15857 Dec 31 21:55	26° \mathfrak{B} 17'28	1.31033 AU	asc. node	15858 Dec 04 11:01	15° \mathfrak{A} 38'46	
	15858 Jan 02 13:40	0° \approx		morning set	15858 Dec 09 05:30	25° \mathfrak{A} 18'43	
evening rise	15858 Jan 07 16:27	11° \approx 13'39			15858 Dec 11 10:24	0° \mathfrak{B}	
	15858 Jan 17 04:06	0° \mathfrak{H}		max. Earth dist.	15858 Dec 15 04:48	8° \mathfrak{B} 15'33	1.31138 AU
desc. node	15858 Jan 19 00:22	3° \mathfrak{H} 15'49					
evening max el	15858 Feb 06 19:36	28° \mathfrak{H} 49'35	26°54'13	superior conj	15858 Dec 16 08:30	10° \mathfrak{B} 49'43	1°30'10
	15858 Feb 08 02:20	0° \mathbb{Y}		minimum elong	15858 Dec 16 06:55	10° \mathfrak{B} 40'55	1°30'50
retrograde	15858 Feb 20 20:16	6° \mathbb{Y} 04'23		evening rise	15858 Dec 23 01:03	25° \mathfrak{B} 38'17	
evening set	15858 Feb 27 09:34	4° \mathbb{Y} 15'32			15858 Dec 25 02:08	0° \approx	
min. Earth dist.	15858 Mar 03 09:41	1° \mathbb{Y} 35'49	0.59279 AU	desc. node	15859 Jan 05 21:11	22° \approx 03'04	
	15858 Mar 05 10:23	30° \mathbb{R} \mathfrak{H}			15859 Jan 11 04:50	0° \mathfrak{H}	
inferior conj	15858 Mar 06 14:54	29° \mathfrak{H} 02'53	-2°48'54	evening max el	15859 Jan 19 14:55	9° \mathfrak{H} 49'25	25°43'49
minimum elong	15858 Mar 06 21:19	28° \mathfrak{H} 50'07	2°46'22	retrograde	15859 Feb 02 13:12	16° \mathfrak{H} 50'53	
morning rise	15858 Mar 14 12:37	24° \mathfrak{H} 24'03		evening set	15859 Feb 08 12:06	15° \mathfrak{H} 29'01	
asc. node	15858 Mar 15 11:31	24° \mathfrak{H} 13'27		min. Earth dist.	15859 Feb 13 03:53	12° \mathfrak{H} 49'34	0.57172 AU
direct	15858 Mar 16 12:18	24° \mathfrak{H} 09'28		inferior conj	15859 Feb 16 01:19	10° \mathfrak{H} 50'25	-4°18'17
morning max el	15858 Mar 24 04:36	27° \mathfrak{H} 58'13	18°11'26	minimum elong	15859 Feb 16 10:29	10° \mathfrak{H} 34'39	4°15'11
	15858 Mar 26 01:30	0° \mathbb{Y}		morning rise	15859 Feb 24 11:50	6° \mathfrak{H} 32'55	
morning set	15858 Apr 08 19:43	22° \mathbb{Y} 44'45		direct	15859 Feb 26 11:59	6° \mathfrak{H} 20'31	
	15858 Apr 12 16:35	0° \mathfrak{B}		asc. node	15859 Mar 02 08:54	7° \mathfrak{H} 09'30	
desc. node	15858 Apr 17 01:57	8° \mathfrak{B} 05'28		morning max el	15859 Mar 07 09:30	10° \mathfrak{H} 42'14	18°53'49
					15859 Mar 20 02:20	0° \mathbb{Y}	
superior conj	15858 Apr 18 12:49	10° \mathfrak{B} 42'57	-0°12'00	morning set	15859 Mar 23 17:29	7° \mathbb{Y} 01'10	
minimum elong	15858 Apr 18 11:50	10° \mathfrak{B} 38'33	0°12'18				
behind sun begin	15858 Apr 18 06:58	10° \mathfrak{B} 16'40		superior conj	15859 Apr 01 08:01	23° \mathbb{Y} 44'54	0°21'47
behind sun end	15858 Apr 18 16:42	11° \mathfrak{B} 00'23		minimum elong	15859 Apr 01 09:23	23° \mathbb{Y} 51'25	0°21'17
max. Earth dist.	15858 Apr 26 03:16	23° \mathfrak{B} 56'50	1.41550 AU	desc. node	15859 Apr 03 22:38	28° \mathbb{Y} 38'19	
	15858 Apr 29 18:46	0° \mathbb{I}			15859 Apr 04 16:21	0° \mathfrak{B}	
evening rise	15858 Apr 30 23:58	1° \mathbb{I} 58'47		max. Earth dist.	15859 Apr 08 10:14	6° \mathfrak{B} 45'23	1.39304 AU
	15858 May 19 13:07	0° \mathfrak{B}		evening rise	15859 Apr 12 07:13	13° \mathfrak{B} 28'49	
evening max el	15858 Jun 03 18:03	18° \mathfrak{B} 55'26	22°55'01		15859 Apr 22 12:08	0° \mathbb{I}	
asc. node	15858 Jun 11 09:15	24° \mathfrak{B} 26'25			15859 May 14 14:52	0° \mathfrak{B}	
retrograde	15858 Jun 13 23:08	24° \mathfrak{B} 55'12		evening max el	15859 May 17 08:06	2° \mathfrak{B} 51'04	24°16'26
evening set	15858 Jun 18 23:38	22° \mathfrak{B} 47'40		retrograde	15859 May 28 16:38	9° \mathfrak{B} 29'48	
inferior conj	15858 Jun 24 07:00	16° \mathfrak{B} 24'13	2°59'09	asc. node	15859 May 29 06:18	9° \mathfrak{B} 28'25	
minimum elong	15858 Jun 24 05:48	16° \mathfrak{B} 28'23	2°58'13	evening set	15859 Jun 03 04:44	7° \mathfrak{B} 09'41	
min. Earth dist.	15858 Jun 23 22:41	16° \mathfrak{B} 53'06	0.69107 AU	min. Earth dist.	15859 Jun 07 18:42	1° \mathfrak{B} 52'25	0.68717 AU
morning rise	15858 Jun 29 11:51	10° \mathfrak{B} 14'02		inferior conj	15859 Jun 08 15:57	0° \mathfrak{B} 40'41	2°39'41
direct	15858 Jul 03 22:32	8° \mathfrak{B} 25'08		minimum elong	15859 Jun 08 14:05	0° \mathfrak{B} 47'00	2°38'31
morning max el	15858 Jul 12 14:36	13° \mathfrak{B} 25'30	21°13'37		15859 Jun 09 04:01	30° \mathbb{R} \mathbb{I}	
desc. node	15858 Jul 14 01:40	14° \mathfrak{B} 56'46		morning rise	15859 Jun 13 23:30	24° \mathbb{I} 39'23	
	15858 Jul 25 18:42	0° \mathcal{Q}					

direct	15859 Jun 17 22:24	23° Π 10'12		desc. node	15860 Jun 16 19:57	22° Π 59'46	
morning max el	15859 Jun 25 13:02	27° Π 25'46	20°00'24	greatest brilliancy	15860 Jun 20 21:05	28° Π 57'50	-0.7m
	15859 Jun 27 22:40	0° \mathfrak{S}			15860 Jun 21 13:37	0° \mathfrak{S}	
desc. node	15859 Jun 30 22:51	3° \mathfrak{S} 40'10		morning set	15860 Jul 01 03:05	14° \mathfrak{S} 38'57	
	15859 Jul 19 04:27	0° Ω			15860 Jul 11 00:46	0° Ω	
morning set	15859 Jul 22 19:54	5° Ω 33'59		max. Earth dist.	15860 Jul 14 22:43	6° Ω 06'30	1.45668 AU
max. Earth dist.	15859 Aug 02 04:55	21° Ω 45'11	1.44605 AU				
	15859 Aug 07 08:21	0° \mathfrak{M}		superior conj	15860 Jul 17 09:45	9° Ω 57'58	-2°13'20
superior conj	15859 Aug 07 15:02	0° \mathfrak{M} 27'07	-1°58'03	minimum elong	15860 Jul 17 12:09	10° Ω 07'24	2°13'58
minimum elong	15859 Aug 07 22:26	0° \mathfrak{M} 57'10	1°57'58		15860 Jul 29 23:21	0° \mathfrak{M}	
evening rise	15859 Aug 20 21:36	22° \mathfrak{M} 36'18		evening rise	15860 Aug 01 08:44	3° \mathfrak{M} 52'29	
asc. node	15859 Aug 25 06:43	0° \mathfrak{L} 04'04		asc. node	15860 Aug 11 03:22	19° \mathfrak{M} 37'15	
	15859 Aug 25 05:45	0° \mathfrak{L}			15860 Aug 18 09:22	0° \mathfrak{L}	
evening max el	15859 Sep 07 07:32	19° \mathfrak{L} 10'22	18°03'36	evening max el	15860 Aug 20 21:52	2° \mathfrak{L} 48'34	18°21'23
retrograde	15859 Sep 13 17:18	22° \mathfrak{L} 30'58		retrograde	15860 Aug 27 07:21	6° \mathfrak{L} 13'10	
evening set	15859 Sep 16 08:51	21° \mathfrak{L} 55'12		evening set	15860 Aug 30 07:47	5° \mathfrak{L} 22'40	
inferior conj	15859 Sep 22 17:05	16° \mathfrak{L} 40'14	1°13'47	inferior conj	15860 Sep 05 04:25	29° \mathfrak{M} 51'35	2°05'28
minimum elong	15859 Sep 22 18:59	16° \mathfrak{L} 35'13	1°13'18	minimum elong	15860 Sep 05 06:45	29° \mathfrak{M} 44'41	2°04'44
min. Earth dist.	15859 Sep 25 11:50	13° \mathfrak{L} 44'16	0.62716 AU		15860 Sep 05 01:33	30° \mathfrak{R} \mathfrak{M}	
desc. node	15859 Sep 26 19:59	12° \mathfrak{L} 25'41		min. Earth dist.	15860 Sep 07 10:20	27° \mathfrak{M} 13'38	0.64795 AU
morning rise	15859 Sep 29 02:49	10° \mathfrak{L} 30'55		morning rise	15860 Sep 11 04:17	23° \mathfrak{M} 29'54	
direct	15859 Oct 05 19:07	8° \mathfrak{L} 04'39		desc. node	15860 Sep 12 17:22	22° \mathfrak{M} 23'52	
morning max el	15859 Oct 19 19:42	16° \mathfrak{L} 02'50	27°54'26	direct	15860 Sep 17 16:25	20° \mathfrak{M} 54'02	
	15859 Oct 31 07:51	0° \mathfrak{M}		morning max el	15860 Oct 01 06:27	28° \mathfrak{M} 49'15	27°19'42
	15859 Nov 18 12:14	0° \mathfrak{J}			15860 Oct 02 09:57	0° \mathfrak{L}	
asc. node	15859 Nov 21 07:58	5° \mathfrak{J} 29'21			15860 Oct 24 04:09	0° \mathfrak{M}	
morning set	15859 Nov 23 03:13	9° \mathfrak{J} 06'49		morning set	15860 Nov 05 15:43	22° \mathfrak{M} 27'58	
max. Earth dist.	15859 Nov 28 07:28	19° \mathfrak{J} 59'54	1.31805 AU	asc. node	15860 Nov 07 04:49	25° \mathfrak{M} 31'21	
					15860 Nov 09 09:55	0° \mathfrak{J}	
superior conj	15859 Nov 30 17:13	25° \mathfrak{J} 14'36	1°17'22	max. Earth dist.	15860 Nov 10 02:24	1° \mathfrak{J} 24'52	1.33029 AU
minimum elong	15859 Nov 30 15:01	25° \mathfrak{J} 02'32	1°17'53				
	15859 Dec 02 21:01	0° \mathfrak{Z}		superior conj	15860 Nov 13 21:31	9° \mathfrak{J} 24'11	0°58'28
evening rise	15859 Dec 07 11:36	10° \mathfrak{Z} 06'27		minimum elong	15860 Nov 13 19:11	9° \mathfrak{J} 11'44	0°58'49
	15859 Dec 17 12:00	0° \approx		evening rise	15860 Nov 20 22:18	24° \mathfrak{J} 33'41	
desc. node	15859 Dec 23 18:03	10° \approx 01'14			15860 Nov 23 12:16	0° \mathfrak{Z}	
evening max el	15860 Jan 01 02:39	20° \approx 03'59	24°08'34	desc. node	15860 Dec 09 15:00	26° \mathfrak{Z} 53'00	
retrograde	15860 Jan 14 16:31	26° \approx 48'39		evening max el	15860 Dec 12 12:39	0° \approx 00'09	22°25'09
evening set	15860 Jan 19 15:59	25° \approx 54'44			15860 Dec 12 12:35	0° \approx	
min. Earth dist.	15860 Jan 25 14:17	22° \approx 58'43	0.55502 AU	retrograde	15860 Dec 25 07:40	6° \approx 20'01	
inferior conj	15860 Jan 27 14:38	21° \approx 45'48	-5°31'19	evening set	15860 Dec 29 00:25	5° \approx 49'58	
minimum elong	15860 Jan 27 22:24	21° \approx 34'05	5°29'26	inferior conj	15861 Jan 06 11:01	1° \approx 56'58	-6°01'47
morning rise	15860 Feb 05 06:35	17° \approx 47'35		minimum elong	15861 Jan 06 11:02	1° \approx 56'57	6°01'03
direct	15860 Feb 07 16:14	17° \approx 32'43		min. Earth dist.	15861 Jan 05 20:14	2° \approx 17'43	0.54543 AU
asc. node	15860 Feb 17 06:17	21° \approx 49'19			15861 Jan 10 02:00	30° \mathfrak{R} \mathfrak{Z}	
morning max el	15860 Feb 18 02:01	22° \approx 35'22	19°58'58	morning rise	15861 Jan 14 22:45	28° \mathfrak{Z} 09'32	
	15860 Feb 24 02:21	0° \mathfrak{H}		direct	15861 Jan 18 04:20	27° \mathfrak{Z} 46'01	
morning set	15860 Mar 06 22:26	21° \mathfrak{H} 34'30			15861 Jan 25 15:02	0° \approx	
	15860 Mar 11 01:28	0° \mathfrak{Y}		morning max el	15861 Jan 30 03:41	3° \approx 32'26	21°27'03
				asc. node	15861 Feb 03 03:38	7° \approx 58'24	
superior conj	15860 Mar 14 17:33	7° \mathfrak{Y} 24'29	0°49'47		15861 Feb 16 06:35	0° \mathfrak{H}	
minimum elong	15860 Mar 14 19:58	7° \mathfrak{Y} 36'34	0°49'23	morning set	15861 Feb 19 07:49	6° \mathfrak{H} 16'58	
max. Earth dist.	15860 Mar 20 16:54	18° \mathfrak{Y} 58'19	1.37029 AU				
desc. node	15860 Mar 20 19:16	19° \mathfrak{Y} 09'19		superior conj	15861 Feb 26 13:37	21° \mathfrak{H} 31'32	1°11'22
evening rise	15860 Mar 24 10:12	25° \mathfrak{Y} 47'51		minimum elong	15861 Feb 26 16:07	21° \mathfrak{H} 44'30	1°11'15
	15860 Mar 26 19:12	0° \mathfrak{B}			15861 Mar 02 17:15	0° \mathfrak{Y}	
	15860 Apr 15 00:51	0° Π		max. Earth dist.	15861 Mar 03 03:31	0° \mathfrak{Y} 51'09	1.34950 AU
evening max el	15860 Apr 28 21:38	16° Π 45'19	25°32'38	evening rise	15861 Mar 07 05:43	8° \mathfrak{Y} 47'18	
retrograde	15860 May 11 05:42	23° Π 53'10		desc. node	15861 Mar 07 15:52	9° \mathfrak{Y} 35'06	
asc. node	15860 May 15 03:26	22° Π 50'45			15861 Mar 19 09:57	0° \mathfrak{B}	
evening set	15860 May 17 05:01	21° Π 24'11			15861 Apr 10 22:11	0° Π	
min. Earth dist.	15860 May 21 11:35	16° Π 43'42	0.67854 AU	evening max el	15861 Apr 11 11:17	0° Π 32'20	26°36'10
inferior conj	15860 May 22 21:51	14° Π 53'39	2°09'22	retrograde	15861 Apr 24 13:36	7° Π 57'58	
minimum elong	15860 May 22 19:40	15° Π 00'39	2°08'01	evening set	15861 Apr 30 22:42	5° Π 25'19	
morning rise	15860 May 28 10:48	9° Π 02'33		asc. node	15861 May 02 00:39	4° Π 28'46	
direct	15860 May 31 22:32	7° Π 52'45		min. Earth dist.	15861 May 04 23:18	1° Π 19'54	0.66543 AU
morning max el	15860 Jun 07 18:47	11° Π 35'14	19°01'47		15861 May 06 02:07	30° \mathfrak{R} \mathfrak{B}	
				inferior conj	15861 May 06 22:34	28° \mathfrak{B} 58'23	1°27'19

minimum elong	15861 May 06 20:39	29°  04'11	1°26'01	morning rise	15862 Apr 26 23:44	7°  23'02	
morning rise	15861 May 12 19:42	23°  19'02		direct	15862 Apr 29 15:47	6°  45'50	
direct	15861 May 15 21:07	22°  26'54		morning max el	15862 May 05 23:17	10°  01'08	17°54'04
morning max el	15861 May 22 06:56	25°  49'26	18°19'25		15862 May 19 20:23	0°  II	
	15861 May 25 22:58	0°  II		desc. node	15862 May 21 13:52	2°  II51'29	
desc. node	15861 Jun 03 16:57	12°  II46'01		morning set	15862 May 23 12:47	6°  II05'58	
morning set	15861 Jun 11 06:12	24°  II43'05					
	15861 Jun 14 14:04	0°  ☿		superior conj	15862 Jun 06 10:54	28°  II45'54	-1°46'12
				minimum elong	15862 Jun 06 02:12	28°  II11'20	1°46'12
superior conj	15861 Jun 26 18:41	19°  ☿09'18	-2°09'04		15862 Jun 07 05:33	0°  ☿	
minimum elong	15861 Jun 26 13:22	18°  ☿48'37	2°09'40	max. Earth dist.	15862 Jun 10 14:45	5°  ☿20'18	1.45564 AU
max. Earth dist.	15861 Jun 27 18:52	20°  ☿43'35	1.45992 AU	evening rise	15862 Jun 22 09:59	23°  ☿36'49	
	15861 Jul 03 17:46	0°  Ω			15862 Jun 26 14:28	0°  Ω	
evening rise	15861 Jul 12 18:52	14°  Ω06'28		greatest brilliancy	15862 Jul 06 20:31	15°  Ω18'52	-0.6m
greatest brilliancy	15861 Jul 22 19:06	29°  Ω39'00	-0.8m	asc. node	15862 Jul 15 20:49	27°  Ω28'06	
	15861 Jul 23 00:36	0°  ♍			15862 Jul 18 03:26	0°  ♍	
asc. node	15861 Jul 29 00:03	8°  ♍47'54		evening max el	15862 Jul 18 15:11	0°  ♍29'49	19°47'38
evening max el	15861 Aug 04 09:04	16°  ♍36'49	18°56'25	retrograde	15862 Jul 26 01:28	4°  ♍40'32	
retrograde	15861 Aug 11 03:01	20°  ♍18'27		evening set	15862 Jul 29 21:18	3°  ♍15'54	
evening set	15861 Aug 14 12:50	19°  ♍11'23			15862 Aug 02 03:12	30°  ♍♌	
inferior conj	15861 Aug 20 01:22	13°  ♍26'15	2°40'13	inferior conj	15862 Aug 04 04:58	27°  ♌18'15	3°00'35
minimum elong	15861 Aug 20 03:20	13°  ♍19'58	2°39'30	minimum elong	15862 Aug 04 06:08	27°  ♌14'18	2°59'56
min. Earth dist.	15861 Aug 21 17:21	11°  ♍19'17	0.66540 AU	min. Earth dist.	15862 Aug 05 06:59	25°  ♌50'54	0.67869 AU
morning rise	15861 Aug 25 17:01	6°  ♍59'44		morning rise	15862 Aug 09 14:30	20°  ♌52'33	
desc. node	15861 Aug 30 14:47	4°  ♍29'01		direct	15862 Aug 15 08:20	18°  ♌22'18	
direct	15861 Aug 31 21:11	4°  ♍22'49		desc. node	15862 Aug 17 12:10	18°  ♌40'39	
morning max el	15861 Sep 13 18:02	12°  ♍01'32	26°17'34	morning max el	15862 Aug 27 05:04	25°  ♌28'45	24°57'26
	15861 Sep 28 04:37	0°  ♌			15862 Aug 31 08:05	0°  ♍	
	15861 Oct 16 19:16	0°  ♌			15862 Sep 21 16:25	0°  ♌	
morning set	15861 Oct 19 15:47	5°  ♌14'14		morning set	15862 Oct 01 23:34	17°  ♌17'16	
max. Earth dist.	15861 Oct 23 11:30	12°  ♌32'08	1.34784 AU	max. Earth dist.	15862 Oct 05 12:18	23°  ♌39'25	1.36965 AU
asc. node	15861 Oct 25 01:34	15°  ♌39'36			15862 Oct 08 21:40	0°  ♌	
				asc. node	15862 Oct 11 22:17	5°  ♌50'38	
superior conj	15861 Oct 28 18:52	23°  ♌11'32	0°33'32	superior conj	15862 Oct 12 06:18	6°  ♌29'57	0°03'02
minimum elong	15861 Oct 28 17:07	23°  ♌02'32	0°33'49	minimum elong	15862 Oct 12 06:05	6°  ♌28'53	0°03'25
	15861 Nov 01 01:24	0°  ♌		behind sun begin	15862 Oct 11 23:40	5°  ♌57'26	
evening rise	15861 Nov 05 07:11	8°  ♌54'22		behind sun end	15862 Oct 12 12:29	7°  ♌00'24	
	15861 Nov 16 10:01	0°  ☿		evening rise	15862 Oct 20 12:04	23°  ♌03'30	
evening max el	15861 Nov 24 06:44	10°  ☿15'30	20°50'52		15862 Oct 23 23:35	0°  ☿	
desc. node	15861 Nov 26 12:03	12°  ☿15'07		evening max el	15862 Nov 06 15:04	21°  ☿16'48	19°36'03
retrograde	15861 Dec 05 17:44	15°  ☿56'39		desc. node	15862 Nov 13 09:11	25°  ☿43'13	
evening set	15861 Dec 08 06:32	15°  ☿41'12		retrograde	15862 Nov 16 10:40	26°  ☿11'11	
inferior conj	15861 Dec 17 01:54	11°  ☿49'00	-5°31'38	evening set	15862 Nov 18 09:41	26°  ☿00'22	
minimum elong	15861 Dec 16 17:36	12°  ☿00'51	5°29'20	inferior conj	15862 Nov 27 01:59	21°  ☿56'35	-4°09'57
min. Earth dist.	15861 Dec 18 01:41	11°  ☿14'55	0.54487 AU	minimum elong	15862 Nov 26 16:17	22°  ☿11'57	4°06'05
morning rise	15861 Dec 25 04:42	7°  ☿54'54		min. Earth dist.	15862 Nov 29 09:50	20°  ☿28'10	0.55367 AU
direct	15861 Dec 29 11:42	7°  ☿15'19		morning rise	15862 Dec 04 21:03	17°  ☿37'09	
morning max el	15862 Jan 11 16:43	13°  ☿42'00	23°12'41	direct	15862 Dec 10 03:39	16°  ☿35'01	
asc. node	15862 Jan 21 00:55	25°  ☿17'14		morning max el	15862 Dec 24 01:14	23°  ☿33'29	25°01'45
	15862 Jan 23 23:29	0°  ☿			15862 Dec 29 20:26	0°  ☿	
morning set	15862 Feb 03 19:24	21°  ☿01'05		asc. node	15863 Jan 07 22:09	13°  ☿29'17	
	15862 Feb 07 23:11	0°  ☿			15863 Jan 16 14:44	0°  ☿	
superior conj	15862 Feb 10 17:01	5°  ☿56'19	1°26'30	morning set	15863 Jan 19 07:17	5°  ☿41'42	
minimum elong	15862 Feb 10 18:56	6°  ☿06'39	1°26'44				
max. Earth dist.	15862 Feb 13 21:05	12°  ☿40'45	1.33231 AU	superior conj	15863 Jan 26 01:12	20°  ☿31'26	1°35'21
evening rise	15862 Feb 18 14:13	22°  ☿17'31		minimum elong	15863 Jan 26 02:12	20°  ☿36'57	1°35'53
desc. node	15862 Feb 22 12:29	29°  ☿50'48		max. Earth dist.	15863 Jan 27 22:03	24°  ☿37'32	1.31975 AU
	15862 Feb 22 14:28	0°  ☿			15863 Jan 30 09:47	0°  ☿	
	15862 Mar 13 03:57	0°  ☿		evening rise	15863 Feb 02 08:37	6°  ☿10'58	
evening max el	15862 Mar 25 00:37	14° ☿02'51	27°19'42	desc. node	15863 Feb 09 09:08	19° ☿51'28	
retrograde	15862 Apr 07 15:26	21° ☿35'09			15863 Feb 15 04:26	0° ☿	
evening set	15862 Apr 14 07:44	19° ☿05'24		evening max el	15863 Mar 07 12:08	27° ☿05'28	27°36'08
min. Earth dist.	15862 Apr 18 03:59	15° ☿31'59	0.64826 AU		15863 Mar 10 19:45	0° ☿	
asc. node	15862 Apr 18 21:56	14° ☿43'40		retrograde	15863 Mar 21 10:00	4° ☿34'49	
inferior conj	15862 Apr 20 15:38	12° ☿48'54	0°32'24	evening set	15863 Mar 28 05:37	2° ☿15'31	
minimum elong	15862 Apr 20 14:45	12° ☿51'20	0°31'34		15863 Mar 31 01:50	30° ☿☿	

min. Earth dist.	15863 Mar 31 23:54	29° Υ 09'11	0.62792 AU	min. Earth dist.	15864 Mar 13 09:43	12° Υ 00'01	0.60574 AU
inferior conj	15863 Apr 03 22:02	26° Υ 17'37	-0°36'11	inferior conj	15864 Mar 16 14:17	9° Υ 15'37	-1°57'38
minimum elong	15863 Apr 03 23:14	26° Υ 14'40	0°35'59	minimum elong	15864 Mar 16 18:38	9° Υ 06'14	1°55'56
asc. node	15863 Apr 05 19:17	24° Υ 29'44		asc. node	15864 Mar 22 16:40	4° Υ 56'05	
morning rise	15863 Apr 10 19:40	21° Υ 07'37		morning rise	15864 Mar 24 03:10	4° Υ 24'23	
direct	15863 Apr 13 03:42	20° Υ 41'58		direct	15864 Mar 26 05:08	4° Υ 06'41	
morning max el	15863 Apr 19 16:58	24° Υ 01'29	17°46'10	morning max el	15864 Apr 02 08:45	7° Υ 41'29	17°56'35
	15863 Apr 24 13:40	0° \mathcal{B}			15864 Apr 16 19:17	0° \mathcal{B}	
morning set	15863 May 05 20:16	18° \mathcal{B} 39'13		morning set	15864 Apr 17 22:50	2° \mathcal{B} 05'35	
desc. node	15863 May 08 10:41	23° \mathcal{B} 10'14		desc. node	15864 Apr 24 07:27	13° \mathcal{B} 37'51	
	15863 May 12 10:01	0° Π					
superior conj	15863 May 17 22:58	9° Π 18'24	-1°11'39	superior conj	15864 Apr 28 10:43	20° \mathcal{B} 56'04	-0°33'24
minimum elong	15863 May 17 16:15	8° Π 50'39	1°11'28	minimum elong	15864 Apr 28 07:47	20° \mathcal{B} 43'20	0°33'31
max. Earth dist.	15863 May 24 08:22	19° Π 42'06	1.44442 AU	max. Earth dist.	15864 May 03 18:09	0° Π	
	15863 May 30 21:22	0° \mathcal{E}			15864 May 05 22:23	3° Π 36'50	1.42737 AU
evening rise	15863 Jun 01 21:06	3° \mathcal{E} 04'18		evening rise	15864 May 11 20:05	13° Π 08'41	
	15863 Jun 20 02:17	0° \mathcal{Q}			15864 May 22 20:47	0° \mathcal{E}	
evening max el	15863 Jul 01 15:19	14° \mathcal{Q} 23'34	20°52'56	evening max el	15864 Jun 13 10:01	28° \mathcal{E} 17'25	22°08'38
asc. node	15863 Jul 02 17:40	15° \mathcal{Q} 26'41		asc. node	15864 Jun 15 05:36	0° \mathcal{Q}	
retrograde	15863 Jul 10 00:27	19° \mathcal{Q} 13'04		retrograde	15864 Jun 18 14:36	2° \mathcal{Q} 30'13	
evening set	15863 Jul 14 07:04	17° \mathcal{Q} 30'46		evening set	15864 Jun 22 22:21	3° \mathcal{Q} 51'02	
inferior conj	15863 Jul 19 12:41	11° \mathcal{Q} 21'55	3°08'37	inferior conj	15864 Jun 27 16:19	1° \mathcal{Q} 52'00	
minimum elong	15863 Jul 19 12:54	11° \mathcal{Q} 21'07	3°07'57	minimum elong	15864 Jun 29 13:00	30° \mathcal{R} \mathcal{E}	
min. Earth dist.	15863 Jul 20 01:05	10° \mathcal{Q} 38'56	0.68736 AU	inferior conj	15864 Jul 02 22:24	25° \mathcal{E} 33'22	3°05'37
morning rise	15863 Jul 24 18:28	5° \mathcal{Q} 00'42		minimum elong	15864 Jul 02 21:41	25° \mathcal{E} 35'51	3°04'48
direct	15863 Jul 30 00:34	2° \mathcal{Q} 43'28		min. Earth dist.	15864 Jul 02 21:32	25° \mathcal{E} 36'23	0.69119 AU
desc. node	15863 Aug 04 09:32	4° \mathcal{Q} 36'43		morning rise	15864 Jul 08 02:54	19° \mathcal{E} 18'54	
morning max el	15863 Aug 09 15:59	9° \mathcal{Q} 04'02	23°28'58	direct	15864 Jul 12 20:41	17° \mathcal{E} 19'01	
	15863 Aug 26 03:53	0° \mathcal{M}		desc. node	15864 Jul 21 06:52	21° \mathcal{E} 53'07	
morning set	15863 Sep 13 10:45	28° \mathcal{M} 26'22		morning max el	15864 Jul 22 05:20	22° \mathcal{E} 47'46	22°01'01
	15863 Sep 14 08:58	0° \mathcal{A}			15864 Jul 28 12:02	0° \mathcal{Q}	
max. Earth dist.	15863 Sep 17 10:44	5° \mathcal{A} 16'19	1.39364 AU		15864 Aug 18 11:15	0° \mathcal{M}	
				morning set	15864 Aug 23 22:11	8° \mathcal{M} 34'40	
superior conj	15863 Sep 25 04:00	19° \mathcal{A} 10'10	-0°31'51	max. Earth dist.	15864 Aug 29 13:16	17° \mathcal{M} 45'17	1.41699 AU
minimum elong	15863 Sep 25 06:21	19° \mathcal{A} 21'06	0°31'15		15864 Sep 05 17:29	0° \mathcal{A}	
asc. node	15863 Sep 28 18:57	26° \mathcal{A} 00'27		superior conj	15864 Sep 06 07:37	1° \mathcal{A} 02'01	-1°08'32
	15863 Sep 30 20:48	0° \mathcal{M}		minimum elong	15864 Sep 06 13:09	1° \mathcal{A} 26'24	1°07'48
evening rise	15863 Oct 04 10:11	6° \mathcal{M} 53'57		asc. node	15864 Sep 14 15:36	16° \mathcal{A} 05'26	
	15863 Oct 17 19:36	0° \mathcal{J}		evening rise	15864 Sep 16 21:59	20° \mathcal{A} 16'47	
evening max el	15863 Oct 20 13:00	3° \mathcal{J} 08'01	18°43'32		15864 Sep 22 05:35	0° \mathcal{M}	
retrograde	15863 Oct 28 20:49	7° \mathcal{J} 20'24		evening max el	15864 Oct 02 20:40	15° \mathcal{M} 41'33	18°12'33
evening set	15863 Oct 30 18:44	7° \mathcal{J} 07'52		retrograde	15864 Oct 10 02:27	19° \mathcal{M} 23'36	
desc. node	15863 Oct 31 06:25	7° \mathcal{J} 00'51		evening set	15864 Oct 12 05:29	19° \mathcal{M} 05'01	
inferior conj	15863 Nov 07 21:19	2° \mathcal{J} 44'15	-2°26'22	desc. node	15864 Oct 17 03:44	16° \mathcal{M} 20'53	
minimum elong	15863 Nov 07 15:21	2° \mathcal{J} 55'13	2°23'21	inferior conj	15864 Oct 19 14:30	14° \mathcal{M} 19'49	-0°47'01
min. Earth dist.	15863 Nov 10 23:13	0° \mathcal{J} 28'59	0.57007 AU	minimum elong	15864 Oct 19 12:49	14° \mathcal{M} 23'28	0°45'49
	15863 Nov 11 15:55	30° \mathcal{R} \mathcal{M}		min. Earth dist.	15864 Oct 22 20:36	11° \mathcal{M} 32'57	0.59120 AU
morning rise	15863 Nov 15 08:51	27° \mathcal{M} 49'03		morning rise	15864 Oct 26 16:45	8° \mathcal{M} 49'00	
direct	15863 Nov 21 09:16	26° \mathcal{M} 20'53		direct	15864 Nov 02 04:14	6° \mathcal{M} 54'45	
	15863 Dec 01 03:42	0° \mathcal{J}		morning max el	15864 Nov 16 11:08	14° \mathcal{M} 36'45	27°36'37
morning max el	15863 Dec 05 14:03	3° \mathcal{J} 43'31	26°35'04		15864 Nov 28 21:14	0° \mathcal{J}	
	15863 Dec 24 12:04	0° \mathcal{Z}		asc. node	15864 Dec 11 16:22	21° \mathcal{J} 41'50	
asc. node	15863 Dec 25 19:18	2° \mathcal{Z} 21'08			15864 Dec 15 20:33	0° \mathcal{Z}	
morning set	15864 Jan 03 17:44	20° \mathcal{Z} 14'14		morning set	15864 Dec 18 00:50	4° \mathcal{Z} 33'20	
	15864 Jan 08 04:22	0° \approx					
superior conj	15864 Jan 10 12:00	5° \approx 10'55	1°38'05	superior conj	15864 Dec 24 23:27	19° \mathcal{Z} 48'30	1°34'47
minimum elong	15864 Jan 10 11:57	5° \approx 10'37	1°38'47	minimum elong	15864 Dec 24 22:23	19° \mathcal{Z} 42'30	1°35'31
max. Earth dist.	15864 Jan 11 04:16	6° \approx 41'41	1.31226 AU	max. Earth dist.	15864 Dec 24 12:10	18° \mathcal{Z} 45'17	1.31013 AU
evening rise	15864 Jan 17 10:18	20° \approx 21'08			15864 Dec 29 13:11	0° \approx	
	15864 Jan 22 03:48	0° \mathcal{H}		evening rise	15864 Dec 31 16:55	4° \approx 41'38	
desc. node	15864 Jan 27 05:50	9° \mathcal{H} 30'57		desc. node	15865 Jan 13 02:36	28° \approx 40'17	
	15864 Feb 09 11:44	0° Υ			15865 Jan 13 21:40	0° \mathcal{H}	
evening max el	15864 Feb 17 19:28	9° Υ 27'52	27°19'43	evening max el	15865 Jan 29 19:35	20° \mathcal{H} 58'00	26°28'04
retrograde	15864 Mar 02 19:51	16° Υ 48'05		retrograde	15865 Feb 12 19:14	28° \mathcal{H} 06'47	
evening set	15864 Mar 09 13:29	14° Υ 46'26		evening set	15865 Feb 19 03:46	26° \mathcal{H} 28'50	
				min. Earth dist.	15865 Feb 23 09:00	23° \mathcal{H} 51'24	0.58355 AU

inferior conj	15865 Feb 26 12:29	21° H 31'01	-3°27'19	evening set	15866 Jan 30 20:56	7° H 21'05	
minimum elong	15865 Feb 26 20:19	21° H 16'23	3°24'22	min. Earth dist.	15866 Feb 04 23:22	4° H 36'58	0.56394 AU
morning rise	15865 Mar 06 16:13	17° H 01'18		inferior conj	15866 Feb 07 13:48	2° H 55'58	-4°52'42
direct	15865 Mar 08 15:28	16° H 48'01		minimum elong	15866 Feb 07 23:07	2° H 40'53	4°49'54
asc. node	15865 Mar 09 14:04	16° H 51'10			15866 Feb 12 14:47	30° R \approx	
morning max el	15865 Mar 16 18:49	20° H 49'05	18°26'47	morning rise	15866 Feb 16 03:52	28° \approx 47'39	
	15865 Mar 23 17:11	0° Y		direct	15866 Feb 18 06:40	28° \approx 34'56	
morning set	15865 Apr 01 14:50	16° Y 07'12			15866 Feb 23 13:34	0° H	
	15865 Apr 08 22:10	0° B		asc. node	15866 Feb 24 11:26	0° H 32'15	
				morning max el	15866 Feb 27 19:00	3° H 12'54	19°18'39
superior conj	15865 Apr 10 19:40	3° B 30'42	0°02'58		15866 Mar 16 09:40	0° Y	
minimum elong	15865 Apr 10 19:52	3° B 31'33	0°02'33	morning set	15866 Mar 16 16:00	0° Y 31'29	
behind sun begin	15865 Apr 10 12:44	2° B 58'46					
behind sun end	15865 Apr 11 02:59	4° B 04'16		superior conj	15866 Mar 24 21:30	16° Y 50'05	0°34'24
desc. node	15865 Apr 11 04:09	4° B 09'36		minimum elong	15866 Mar 24 23:27	16° Y 59'35	0°33'55
max. Earth dist.	15865 Apr 18 07:41	16° B 51'04	1.40620 AU	desc. node	15866 Mar 29 00:48	24° Y 41'52	
evening rise	15865 Apr 22 14:59	24° B 06'15		max. Earth dist.	15866 Mar 31 13:41	29° Y 21'26	1.38326 AU
	15865 Apr 26 05:57	0° II			15866 Mar 31 22:12	0° B	
	15865 May 16 17:07	0° E		evening rise	15866 Apr 04 06:55	5° B 57'38	
evening max el	15865 May 27 00:57	12° E 11'17	23°29'43		15866 Apr 19 05:33	0° II	
asc. node	15865 Jun 05 11:37	18° E 21'35		evening max el	15866 May 09 14:22	26° II 05'39	24°49'49
retrograde	15865 Jun 06 17:49	18° E 28'25			15866 May 14 02:05	0° E	
evening set	15865 Jun 11 23:23	16° E 14'50		retrograde	15866 May 21 09:41	2° E 58'53	
inferior conj	15865 Jun 17 08:09	9° E 48'36	2°52'10	asc. node	15866 May 23 08:43	2° E 42'41	
minimum elong	15865 Jun 17 06:38	9° E 53'49	2°51'08	evening set	15866 May 27 02:38	0° E 34'14	
min. Earth dist.	15865 Jun 16 18:15	10° E 36'24	0.69006 AU		15866 May 27 17:44	30° R II	
morning rise	15865 Jun 22 13:52	3° E 42'17		min. Earth dist.	15866 May 31 13:11	25° II 32'46	0.68407 AU
direct	15865 Jun 26 19:26	2° E 01'55		inferior conj	15866 Jun 01 16:02	24° II 03'44	2°28'13
morning max el	15865 Jul 04 23:57	6° E 41'48	20°40'53	minimum elong	15866 Jun 01 13:59	24° II 10'33	2°26'56
desc. node	15865 Jul 08 04:06	10° E 09'07		morning rise	15866 Jun 07 01:34	18° II 06'40	
	15865 Jul 22 16:57	0° Q		direct	15866 Jun 10 19:30	16° II 46'05	
morning set	15865 Aug 03 11:48	17° Q 48'48		morning max el	15866 Jun 18 01:34	20° II 46'19	19°33'29
	15865 Aug 11 05:33	0° P		desc. node	15866 Jun 25 01:15	29° II 09'01	
max. Earth dist.	15865 Aug 11 22:06	1° P 06'26	1.43691 AU		15866 Jun 25 16:13	0° E	
				greatest brilliancy	15866 Jun 30 18:41	7° E 16'08	-0.6m
superior conj	15865 Aug 18 13:02	11° P 56'52	-1°42'26	morning set	15866 Jul 13 15:30	26° E 40'52	
minimum elong	15865 Aug 18 20:47	12° P 29'12	1°41'57		15866 Jul 15 19:18	0° Q	
	15865 Aug 29 01:50	0° E		max. Earth dist.	15866 Jul 25 12:36	15° Q 07'58	1.45137 AU
evening rise	15865 Aug 30 18:59	3° E 00'36					
asc. node	15865 Sep 01 12:14	6° E 01'51		superior conj	15866 Jul 29 19:05	21° Q 54'09	-2°06'41
evening max el	15865 Sep 16 09:49	28° E 47'36	18°01'30	minimum elong	15866 Jul 30 01:03	22° Q 17'58	2°06'57
	15865 Sep 17 17:49	0° M			15866 Aug 03 19:44	0° P	
retrograde	15865 Sep 23 00:12	2° M 12'30		evening rise	15866 Aug 12 19:50	14° P 51'30	
evening set	15865 Sep 25 10:46	1° M 44'06		asc. node	15866 Aug 19 08:52	25° P 44'50	
	15865 Sep 28 10:12	30° R E			15866 Aug 21 23:54	0° E	
inferior conj	15865 Oct 02 03:13	26° E 39'19	0°35'23	evening max el	15866 Aug 31 00:39	12° E 16'08	18°09'02
minimum elong	15865 Oct 02 04:16	26° E 36'42	0°35'16	retrograde	15866 Sep 06 09:21	15° E 37'04	
desc. node	15865 Oct 04 01:05	24° E 45'21		evening set	15866 Sep 09 04:31	14° E 55'29	
min. Earth dist.	15865 Oct 05 03:51	23° E 40'43	0.61408 AU	inferior conj	15866 Sep 15 07:24	9° E 33'36	1°37'58
morning rise	15865 Oct 08 18:57	20° E 40'53		minimum elong	15866 Sep 15 09:37	9° E 27'27	1°37'17
direct	15865 Oct 15 11:06	18° E 24'12		min. Earth dist.	15866 Sep 17 21:03	6° E 43'03	0.63628 AU
morning max el	15865 Oct 29 15:42	26° E 19'49	27°59'09	desc. node	15866 Sep 20 22:29	3° E 46'10	
	15865 Nov 02 02:27	0° M		morning rise	15866 Sep 21 12:44	3° E 17'46	
	15865 Nov 22 11:31	0° A		direct	15866 Sep 28 03:49	0° E 46'02	
asc. node	15865 Nov 28 13:20	11° A 23'27		morning max el	15866 Oct 12 00:52	8° E 45'25	27°43'34
morning set	15865 Dec 02 02:38	18° A 34'40			15866 Oct 28 13:30	0° M	
	15865 Dec 07 10:42	0° B			15866 Nov 14 18:16	0° A	
max. Earth dist.	15865 Dec 07 17:50	0° B 39'11	1.31349 AU	asc. node	15866 Nov 15 10:12	1° A 19'02	
				morning set	15866 Nov 15 20:45	2° A 11'42	
superior conj	15865 Dec 09 09:44	4° B 19'39	1°25'29	max. Earth dist.	15866 Nov 20 17:21	12° A 14'02	1.32250 AU
minimum elong	15865 Dec 09 07:51	4° B 09'11	1°26'06				
evening rise	15865 Dec 16 02:34	19° B 08'13		superior conj	15866 Nov 23 16:48	18° A 38'13	1°10'06
	15865 Dec 21 07:36	0° \approx		minimum elong	15866 Nov 23 14:28	18° A 25'34	1°10'33
desc. node	15865 Dec 30 23:26	17° \approx 08'44			15866 Nov 28 21:31	0° B	
	15866 Jan 09 20:43	0° H		evening rise	15866 Nov 30 13:20	3° B 35'42	
evening max el	15866 Jan 11 11:05	1° H 35'38	25°05'26		15866 Dec 14 13:56	0° \approx	
retrograde	15866 Jan 25 06:43	8° H 31'17		desc. node	15866 Dec 17 20:20	4° \approx 40'50	

evening max el	15866 Dec 23 20:55	11° \approx 37'27	23°24'33	evening set	15867 Dec 20 19:44	27° \approx 19'08	
retrograde	15867 Jan 06 04:52	18° \approx 13'28		inferior conj	15867 Dec 29 11:09	23° \approx 28'42	-5°56'34
evening set	15867 Jan 10 15:26	17° \approx 30'46		minimum elong	15867 Dec 29 07:06	23° \approx 34'22	5°55'28
min. Earth dist.	15867 Jan 17 07:42	14° \approx 21'27	0.54988 AU	min. Earth dist.	15867 Dec 29 13:06	23° \approx 25'58	0.54401 AU
inferior conj	15867 Jan 18 18:56	13° \approx 30'18	-5°51'00	morning rise	15868 Jan 06 19:06	19° \approx 34'04	
minimum elong	15867 Jan 19 00:04	13° \approx 22'51	5°49'50	direct	15868 Jan 10 11:36	19° \approx 31'05	
morning rise	15867 Jan 27 10:08	9° \approx 37'57		morning max el	15868 Jan 23 00:48	25° \approx 15'41	22°10'29
direct	15867 Jan 30 02:49	9° \approx 20'24			15868 Jan 27 07:47	0° \approx	
morning max el	15867 Feb 10 05:23	14° \approx 42'21	20°33'45	asc. node	15868 Jan 29 06:05	2° \approx 32'14	
asc. node	15867 Feb 11 08:46	15° \approx 51'46		morning set	15868 Feb 13 09:41	29° \approx 52'44	
	15867 Feb 21 04:27	0° \approx			15868 Feb 13 11:04	0° \approx	
morning set	15867 Feb 28 23:07	15° \approx 09'10					
				superior conj	15868 Feb 20 11:25	14° \approx 57'27	1°18'34
superior conj	15867 Mar 08 11:56	0° \approx 42'23	0°59'43	minimum elong	15868 Feb 20 13:44	15° \approx 09'40	1°18'35
minimum elong	15867 Mar 08 14:29	0° \approx 55'22	0°59'25	max. Earth dist.	15868 Feb 24 10:35	23° \approx 11'46	1.34167 AU
	15867 Mar 08 03:36	0° \approx			15868 Feb 27 20:26	0° \approx	
max. Earth dist.	15867 Mar 13 21:06	11° \approx 21'43	1.36108 AU	evening rise	15868 Feb 28 18:51	1° \approx 48'45	
desc. node	15867 Mar 15 21:25	15° \approx 11'08		desc. node	15868 Mar 01 18:00	5° \approx 33'01	
evening rise	15867 Mar 17 17:24	18° \approx 35'12			15868 Mar 16 04:19	0° \approx	
	15867 Mar 24 04:52	0° \approx		evening max el	15868 Apr 03 17:52	23° \approx 40'13	26°57'41
	15867 Apr 13 09:35	0° \approx			15868 Apr 12 07:01	0° \approx	
evening max el	15867 Apr 22 03:59	9° \approx 15'06	26°01'42	retrograde	15868 Apr 17 02:11	1° \approx 09'22	
retrograde	15867 May 04 20:52	17° \approx 15'26			15868 Apr 21 12:39	30° \approx 37'27	
asc. node	15867 May 10 05:53	15° \approx 20'32		evening set	15868 Apr 23 14:39	28° \approx 37'27	
evening set	15867 May 11 00:23	14° \approx 44'22		asc. node	15868 Apr 26 03:08	26° \approx 18'39	
min. Earth dist.	15867 May 15 04:16	10° \approx 18'48	0.67344 AU	min. Earth dist.	15868 Apr 27 13:19	24° \approx 45'52	0.65858 AU
inferior conj	15867 May 16 20:03	8° \approx 14'23	1°53'05	inferior conj	15868 Apr 29 17:52	22° \approx 14'08	1°05'42
minimum elong	15867 May 16 17:54	8° \approx 21'08	1°51'42	minimum elong	15868 Apr 29 16:16	22° \approx 18'46	1°04'32
morning rise	15867 May 22 12:07	2° \approx 27'51		morning rise	15868 May 05 19:18	16° \approx 39'57	
direct	15867 May 25 19:17	1° \approx 25'53		direct	15868 May 08 16:39	15° \approx 54'25	
morning max el	15867 Jun 01 10:13	4° \approx 58'39	18°41'39	morning max el	15868 May 15 00:24	19° \approx 12'19	18°06'30
desc. node	15867 Jun 11 22:17	18° \approx 41'13			15868 May 23 07:39	0° \approx	
	15867 Jun 19 07:23	0° \approx		desc. node	15868 May 28 19:14	8° \approx 36'19	
morning set	15867 Jun 23 05:28	6° \approx 06'29		morning set	15868 Jun 02 20:10	16° \approx 44'09	
max. Earth dist.	15867 Jul 08 07:24	29° \approx 37'02	1.45899 AU		15868 Jun 11 02:30	0° \approx	
	15867 Jul 08 13:18	0° \approx					
				superior conj	15868 Jun 17 17:49	10° \approx 29'04	-2°01'20
superior conj	15867 Jul 09 07:53	1° \approx 12'34	-2°14'02	minimum elong	15868 Jun 17 10:18	9° \approx 59'32	2°01'39
minimum elong	15867 Jul 09 06:55	1° \approx 08'45	2°14'46	max. Earth dist.	15868 Jun 20 04:03	14° \approx 16'54	1.45909 AU
evening rise	15867 Jul 24 20:15	25° \approx 40'35			15868 Jun 30 06:58	0° \approx	
	15867 Jul 27 13:18	0° \approx		evening rise	15868 Jul 03 20:57	5° \approx 32'10	
greatest brilliancy	15867 Jul 31 06:27	5° \approx 54'41	-0.9m	greatest brilliancy	15868 Jul 15 23:28	24° \approx 01'52	-0.7m
asc. node	15867 Aug 06 05:34	15° \approx 09'28			15868 Jul 20 01:43	0° \approx	
evening max el	15867 Aug 14 14:03	25° \approx 59'50	18°34'14	asc. node	15868 Jul 23 02:18	4° \approx 08'15	
retrograde	15867 Aug 21 02:03	29° \approx 29'48		evening max el	15868 Jul 27 23:22	9° \approx 50'58	19°16'19
evening set	15867 Aug 24 06:25	28° \approx 32'29		retrograde	15868 Aug 03 23:09	13° \approx 43'07	
inferior conj	15867 Aug 29 23:13	22° \approx 55'30	2°22'05	evening set	15868 Aug 07 13:15	12° \approx 28'28	
minimum elong	15867 Aug 30 01:29	22° \approx 48'36	2°21'20	inferior conj	15868 Aug 12 23:21	6° \approx 37'54	2°50'25
min. Earth dist.	15867 Aug 31 23:21	20° \approx 29'14	0.65592 AU	minimum elong	15868 Aug 13 01:01	6° \approx 32'26	2°49'45
morning rise	15867 Sep 04 19:23	16° \approx 31'05		min. Earth dist.	15868 Aug 14 09:19	4° \approx 47'12	0.67170 AU
desc. node	15867 Sep 07 19:54	14° \approx 36'04		morning rise	15868 Aug 18 12:09	0° \approx 11'27	
direct	15867 Sep 11 04:41	13° \approx 53'28			15868 Aug 18 17:29	30° \approx 36'36	
morning max el	15867 Sep 24 12:00	21° \approx 43'21	26°55'56	direct	15868 Aug 24 12:13	27° \approx 36'47	
	15867 Oct 01 17:48	0° \approx		desc. node	15868 Aug 24 17:18	27° \approx 36'47	
	15867 Oct 21 18:25	0° \approx			15868 Aug 31 01:39	0° \approx	
morning set	15867 Oct 30 04:20	15° \approx 18'11		morning max el	15868 Sep 05 23:17	5° \approx 02'30	25°45'02
asc. node	15867 Nov 02 07:01	21° \approx 23'46			15868 Sep 25 04:43	0° \approx	
max. Earth dist.	15867 Nov 03 07:49	23° \approx 28'08	1.33715 AU	morning set	15868 Oct 11 21:57	27° \approx 46'52	
	15867 Nov 06 12:10	0° \approx			15868 Oct 13 02:55	0° \approx	
				max. Earth dist.	15868 Oct 15 13:06	4° \approx 33'04	1.35676 AU
superior conj	15867 Nov 07 18:28	2° \approx 38'44	0°48'37	asc. node	15868 Oct 19 03:47	11° \approx 33'42	
minimum elong	15867 Nov 07 16:17	2° \approx 27'14	0°48'55				
evening rise	15867 Nov 14 23:28	18° \approx 00'02		superior conj	15868 Oct 21 12:03	16° \approx 14'52	0°21'14
	15867 Nov 20 20:42	0° \approx		minimum elong	15868 Oct 21 10:49	16° \approx 08'41	0°21'32
desc. node	15867 Dec 04 17:20	20° \approx 57'01			15868 Oct 28 04:30	0° \approx	
evening max el	15867 Dec 05 09:20	21° \approx 37'17	21°43'10	evening rise	15868 Oct 29 06:59	2° \approx 16'46	
retrograde	15867 Dec 17 16:03	27° \approx 41'32			15868 Nov 14 09:12	0° \approx	

evening max el	15868 Nov 16 09:11	2° Z 10'15	20°16'19		15869 Oct 05 02:52	0° M	
desc. node	15868 Nov 20 14:26	5° Z 33'42		asc. node	15869 Oct 06 00:29	1° M 44'33	
retrograde	15868 Nov 27 03:19	7° Z 31'36		evening rise	15869 Oct 13 09:23	16° M 19'07	
evening set	15868 Nov 29 08:36	7° Z 18'58			15869 Oct 20 12:57	0° Z	
inferior conj	15868 Dec 08 04:14	3° Z 22'59	-5°01'40	evening max el	15869 Oct 29 23:33	13° Z 32'36	19°10'54
minimum elong	15868 Dec 07 18:25	3° Z 37'31	4°58'28	desc. node	15869 Nov 07 11:38	18° Z 07'13	
min. Earth dist.	15868 Dec 09 18:59	2° Z 25'38	0.54754 AU	retrograde	15869 Nov 08 03:11	18° Z 08'33	
	15868 Dec 14 10:18	30° R Z		evening set	15869 Nov 10 00:27	17° Z 57'39	
morning rise	15868 Dec 16 03:37	29° Z 20'35		inferior conj	15869 Nov 18 11:46	13° Z 45'42	-3°26'52
direct	15868 Dec 20 21:20	28° Z 32'06		minimum elong	15869 Nov 18 03:20	13° Z 59'55	3°23'05
	15868 Dec 27 03:27	0° Z		min. Earth dist.	15869 Nov 21 04:57	11° Z 56'04	0.55983 AU
morning max el	15869 Jan 03 10:35	5° Z 12'32	23°59'54	morning rise	15869 Nov 26 03:44	9° Z 11'28	
asc. node	15869 Jan 15 03:21	20° Z 15'33		direct	15869 Dec 01 18:23	7° Z 58'51	
	15869 Jan 20 17:00	0° \approx		morning max el	15869 Dec 15 20:19	15° Z 08'25	25°44'38
morning set	15869 Jan 27 21:40	14° \approx 36'23			15869 Dec 27 17:02	0° Z	
				asc. node	15870 Jan 02 00:33	8° Z 45'41	
superior conj	15869 Feb 03 17:10	29° \approx 27'30	1°31'02	morning set	15870 Jan 12 09:09	29° Z 14'01	
minimum elong	15869 Feb 03 18:43	29° \approx 36'00	1°31'23		15870 Jan 12 17:40	0° \approx	
	15869 Feb 03 23:08	0° H					
max. Earth dist.	15869 Feb 06 07:46	5° H 05'28	1.32636 AU	superior conj	15870 Jan 19 02:42	14° \approx 04'54	1°37'15
evening rise	15869 Feb 11 07:57	15° H 29'51		minimum elong	15870 Jan 19 03:15	14° \approx 08'00	1°37'52
desc. node	15869 Feb 16 14:39	25° H 43'13		max. Earth dist.	15870 Jan 20 11:19	17° \approx 05'33	1.31588 AU
	15869 Feb 18 22:58	0° Y		evening rise	15870 Jan 26 05:42	29° \approx 30'29	
	15869 Mar 10 20:52	0° B			15870 Jan 26 11:23	0° H	
evening max el	15869 Mar 17 06:47	7° B 00'48	27°30'22	desc. node	15870 Feb 03 11:20	15° H 35'28	
retrograde	15869 Mar 31 00:50	14° B 32'02			15870 Feb 12 01:31	0° Y	
evening set	15869 Apr 06 19:15	12° B 05'47		evening max el	15870 Feb 27 16:35	19° Y 46'30	27°33'19
min. Earth dist.	15869 Apr 10 14:21	8° B 44'48	0.64001 AU	retrograde	15870 Mar 13 15:51	27° Y 12'58	
inferior conj	15869 Apr 13 06:49	5° B 56'29	0°05'02	evening set	15870 Mar 20 11:32	24° Y 59'55	
minimum elong	15869 Apr 13 06:40	5° B 56'51	0°04'34	min. Earth dist.	15870 Mar 24 05:51	22° Y 03'29	0.61861 AU
transit middle	15869 Apr 13 06:40	5° B 56'51	0°04'34	inferior conj	15870 Mar 27 07:35	19° Y 12'39	-1°09'18
transit begin	15869 Apr 13 03:41	6° B 04'42		minimum elong	15870 Mar 27 10:00	19° Y 07'01	1°08'30
transit end	15869 Apr 13 09:40	5° B 49'00		asc. node	15870 Mar 30 21:47	16° Y 07'50	
asc. node	15869 Apr 13 00:26	6° B 13'15		morning rise	15870 Apr 03 11:37	14° Y 10'39	
morning rise	15869 Apr 19 20:23	0° B 37'03		direct	15870 Apr 05 16:46	13° Y 48'52	
direct	15869 Apr 22 08:58	0° B 05'02		morning max el	15870 Apr 12 11:03	17° Y 13'19	17°48'23
morning max el	15869 Apr 28 17:42	3° B 20'20	17°48'33		15870 Apr 21 14:39	0° B	
morning set	15869 May 15 13:59	28° B 39'00		morning set	15870 Apr 28 06:17	11° B 36'43	
desc. node	15869 May 15 16:07	28° B 48'03		desc. node	15870 May 02 12:56	19° B 11'00	
	15869 May 16 09:09	0° II			15870 May 08 18:58	0° II	
superior conj	15869 May 28 17:26	20° II 26'43	-1°32'28	superior conj	15870 May 09 15:39	1° II 27'36	-0°55'29
minimum elong	15869 May 28 09:08	19° II 53'12	1°32'19	minimum elong	15870 May 09 10:32	1° II 05'57	0°55'25
max. Earth dist.	15869 Jun 02 23:45	28° II 50'53	1.45175 AU	max. Earth dist.	15870 May 16 15:52	13° II 02'21	1.43774 AU
	15869 Jun 03 17:16	0° E		evening rise	15870 May 23 22:49	24° II 35'06	
evening rise	15869 Jun 13 08:16	14° E 55'53			15870 May 27 11:14	0° E	
	15869 Jun 23 08:06	0° O			15870 Jun 17 10:19	0° O	
asc. node	15869 Jul 09 23:07	22° O 32'02		evening max el	15870 Jun 24 00:28	7° O 37'44	21°24'05
evening max el	15869 Jul 11 02:56	23° O 44'14	20°13'49	asc. node	15870 Jun 26 20:00	10° O 09'18	
retrograde	15869 Jul 18 22:08	28° O 10'25		retrograde	15870 Jul 02 20:59	12° O 46'18	
evening set	15869 Jul 22 22:33	26° O 38'00		evening set	15870 Jul 07 08:18	10° O 56'40	
inferior conj	15869 Jul 28 04:59	20° O 35'11	3°05'22	inferior conj	15870 Jul 12 13:49	4° O 43'11	3°08'39
minimum elong	15869 Jul 28 05:46	20° O 32'30	3°04'45	minimum elong	15870 Jul 12 13:38	4° O 43'48	3°07'57
min. Earth dist.	15869 Jul 29 01:04	19° O 26'40	0.68299 AU	min. Earth dist.	15870 Jul 12 20:30	4° O 19'50	0.68954 AU
morning rise	15869 Aug 02 12:39	14° O 11'07			15870 Jul 16 04:41	30° R E	
direct	15869 Aug 08 01:30	11° O 46'06		morning rise	15870 Jul 17 18:44	28° E 24'26	
desc. node	15869 Aug 11 14:41	12° O 35'37		direct	15870 Jul 22 19:30	26° E 14'19	
morning max el	15869 Aug 19 10:17	18° O 34'03	24°20'15	desc. node	15870 Jul 29 12:02	29° E 08'53	
	15869 Aug 29 01:56	0° P			15870 Jul 30 12:56	0° O	
	15869 Sep 18 06:30	0° A		morning max el	15870 Aug 01 22:04	2° O 13'44	22°51'00
morning set	15869 Sep 23 21:29	9° A 28'01			15870 Aug 23 01:00	0° P	
max. Earth dist.	15869 Sep 27 12:32	15° A 51'25	1.37978 AU	morning set	15870 Sep 04 22:53	20° P 12'36	
				max. Earth dist.	15870 Sep 09 11:56	27° P 48'28	1.40378 AU
					15870 Sep 10 18:40	0° A	
superior conj	15869 Oct 04 18:07	29° A 17'56	-0°11'22				
minimum elong	15869 Oct 04 18:53	29° A 21'33	0°10'54	superior conj	15870 Sep 17 08:41	11° A 39'00	-0°47'26
behind sun begin	15869 Oct 04 13:47	28° A 57'05		minimum elong	15870 Sep 17 12:22	11° A 55'44	0°46'44
behind sun end	15869 Oct 04 23:58	29° A 46'02					

asc. node	15870 Sep 22 21:10	21° Ω 53'03		asc. node	15871 Sep 09 17:47	11° Ω 54'55	
evening rise	15870 Sep 27 03:39	29° Ω 59'28		evening rise	15871 Sep 10 09:43	13° Ω 07'01	
	15870 Sep 27 03:45	0° \mathbb{M}			15871 Sep 20 01:58	0° \mathbb{M}	
evening max el	15870 Oct 13 02:11	25° \mathbb{M} 43'24	18°27'49	evening max el	15871 Sep 26 12:44	8° \mathbb{M} 32'25	18°05'32
retrograde	15870 Oct 20 21:48	29° \mathbb{M} 41'22		retrograde	15871 Oct 03 10:34	12° \mathbb{M} 05'08	
evening set	15870 Oct 22 21:16	29° \mathbb{M} 26'53		evening set	15871 Oct 05 16:42	11° \mathbb{M} 42'46	
desc. node	15870 Oct 25 08:54	28° \mathbb{M} 30'59		desc. node	15871 Oct 12 06:14	7° \mathbb{M} 16'56	
inferior conj	15870 Oct 30 16:32	24° \mathbb{M} 54'19	-1°42'41	inferior conj	15871 Oct 12 18:26	6° \mathbb{M} 49'12	-0°09'38
minimum elong	15870 Oct 30 12:30	25° \mathbb{M} 02'15	1°40'25	minimum elong	15871 Oct 12 18:07	6° \mathbb{M} 49'55	0°09'06
min. Earth dist.	15870 Nov 02 21:49	22° \mathbb{M} 23'02	0.57866 AU	transit middle	15871 Oct 12 18:07	6° \mathbb{M} 49'55	0°09'06
morning rise	15870 Nov 07 00:17	19° \mathbb{M} 43'00		transit begin	15871 Oct 12 15:21	6° \mathbb{M} 56'13	
direct	15870 Nov 13 06:11	18° \mathbb{M} 03'16		transit end	15871 Oct 12 20:52	6° \mathbb{M} 43'36	
morning max el	15870 Nov 27 12:38	25° \mathbb{M} 35'41	27°05'41	min. Earth dist.	15871 Oct 15 23:17	3° \mathbb{M} 54'42	0.60096 AU
	15870 Dec 01 15:42	0° \mathbb{M}		morning rise	15871 Oct 19 16:18	1° \mathbb{M} 05'41	
asc. node	15870 Dec 19 21:41	27° \mathbb{M} 50'51			15871 Oct 21 17:46	30° \mathbb{R} Ω	
	15870 Dec 21 00:56	0° \mathbb{Z}		direct	15871 Oct 26 06:47	29° Ω 00'49	
morning set	15870 Dec 27 18:22	13° \mathbb{Z} 41'14			15871 Oct 31 00:22	0° \mathbb{M}	
				morning max el	15871 Nov 09 12:55	6° \mathbb{M} 49'27	27°50'56
superior conj	15871 Jan 03 14:00	28° \mathbb{Z} 44'12	1°37'25		15871 Nov 27 01:02	0° \mathbb{M}	
minimum elong	15871 Jan 03 13:30	28° \mathbb{Z} 41'24	1°38'09	asc. node	15871 Dec 06 18:42	17° \mathbb{Z} 21'21	
max. Earth dist.	15871 Jan 03 18:27	29° \mathbb{Z} 09'05	1.31066 AU	morning set	15871 Dec 11 23:27	27° \mathbb{Z} 53'23	
	15871 Jan 04 03:32	0° \approx			15871 Dec 12 23:21	0° \mathbb{Z}	
evening rise	15871 Jan 10 09:42	13° \approx 45'19		max. Earth dist.	15871 Dec 18 01:45	11° \mathbb{Z} 09'15	1.31087 AU
	15871 Jan 18 12:45	0° \mathbb{H}					
desc. node	15871 Jan 21 08:03	5° \mathbb{H} 02'59		superior conj	15871 Dec 19 01:11	13° \mathbb{Z} 20'01	1°31'34
	15871 Feb 08 02:03	0° \mathbb{Y}		minimum elong	15871 Dec 18 23:44	13° \mathbb{Z} 11'55	1°32'17
evening max el	15871 Feb 09 20:56	1° \mathbb{Y} 46'34	27°01'56	evening rise	15871 Dec 25 17:50	28° \mathbb{Z} 09'20	
retrograde	15871 Feb 23 21:47	9° \mathbb{Y} 03'01			15871 Dec 26 14:26	0° \approx	
evening set	15871 Mar 02 12:20	7° \mathbb{Y} 10'47		desc. node	15872 Jan 08 04:51	23° \approx 56'41	
min. Earth dist.	15871 Mar 06 11:13	4° \mathbb{Y} 29'37	0.59607 AU		15872 Jan 12 02:34	0° \mathbb{H}	
inferior conj	15871 Mar 09 16:31	1° \mathbb{Y} 53'09	-2°35'16	evening max el	15872 Jan 22 17:39	12° \mathbb{H} 54'58	25°56'16
minimum elong	15871 Mar 09 22:23	1° \mathbb{Y} 41'12	2°32'57	retrograde	15872 Feb 05 16:25	19° \mathbb{H} 58'09	
	15871 Mar 12 02:23	30° \mathbb{R} \mathbb{H}		evening set	15872 Feb 11 18:05	18° \mathbb{H} 32'07	
morning rise	15871 Mar 17 11:59	27° \mathbb{H} 11'03		min. Earth dist.	15872 Feb 16 06:45	15° \mathbb{H} 53'41	0.57467 AU
asc. node	15871 Mar 17 19:10	27° \mathbb{H} 06'53		inferior conj	15872 Feb 19 06:07	13° \mathbb{H} 48'42	-4°05'14
direct	15871 Mar 19 12:05	26° \mathbb{H} 55'47		minimum elong	15872 Feb 19 15:02	13° \mathbb{H} 33'02	4°02'06
	15871 Mar 26 07:28	0° \mathbb{Y}		morning rise	15872 Feb 27 15:03	9° \mathbb{H} 27'55	
morning max el	15871 Mar 27 00:53	0° \mathbb{Y} 40'46	18°06'58	direct	15872 Feb 29 14:44	9° \mathbb{H} 15'24	
morning set	15871 Apr 11 15:07	25° \mathbb{Y} 19'21		asc. node	15872 Mar 03 16:34	9° \mathbb{H} 47'03	
	15871 Apr 14 03:21	0° \mathbb{B}		morning max el	15872 Mar 09 07:14	13° \mathbb{H} 31'30	18°46'03
desc. node	15871 Apr 19 09:39	9° \mathbb{B} 40'35			15872 Mar 20 11:21	0° \mathbb{Y}	
				morning set	15872 Mar 25 11:31	9° \mathbb{Y} 32'32	
superior conj	15871 Apr 21 12:51	13° \mathbb{B} 30'31	-0°17'32				
minimum elong	15871 Apr 21 11:23	13° \mathbb{B} 24'01	0°17'47	superior conj	15872 Apr 03 05:31	26° \mathbb{Y} 25'51	0°16'59
max. Earth dist.	15871 Apr 29 03:11	26° \mathbb{B} 38'19	1.41864 AU	minimum elong	15872 Apr 03 06:37	26° \mathbb{Y} 31'02	0°16'31
	15871 May 01 03:45	0° \mathbb{I}		desc. node	15872 Apr 05 06:18	0° \mathbb{B} 13'15	
evening rise	15871 May 04 05:41	5° \mathbb{I} 00'58			15872 Apr 05 03:26	0° \mathbb{B}	
	15871 May 20 16:58	0° \mathbb{E}		max. Earth dist.	15872 Apr 10 10:50	9° \mathbb{B} 34'11	1.39650 AU
evening max el	15871 Jun 06 17:15	21° \mathbb{E} 31'35	22°42'55	evening rise	15872 Apr 14 09:46	16° \mathbb{B} 22'57	
asc. node	15871 Jun 13 16:57	26° \mathbb{E} 44'30			15872 Apr 22 19:13	0° \mathbb{I}	
retrograde	15871 Jun 16 18:02	27° \mathbb{E} 24'38			15872 May 14 07:52	0° \mathbb{E}	
evening set	15871 Jun 21 16:48	25° \mathbb{E} 19'19		evening max el	15872 May 19 07:30	5° \mathbb{E} 26'55	24°04'24
inferior conj	15871 Jun 26 23:46	18° \mathbb{E} 57'06	3°01'14	retrograde	15872 May 30 11:58	12° \mathbb{E} 00'03	
minimum elong	15871 Jun 26 22:41	19° \mathbb{E} 00'51	3°00'19	asc. node	15872 May 30 14:00	12° \mathbb{E} 00'01	
min. Earth dist.	15871 Jun 26 17:25	19° \mathbb{E} 19'13	0.69125 AU	evening set	15872 Jun 04 22:26	9° \mathbb{E} 41'30	
morning rise	15871 Jul 02 04:27	12° \mathbb{E} 45'42		min. Earth dist.	15872 Jun 09 13:38	4° \mathbb{E} 18'49	0.68812 AU
direct	15871 Jul 06 17:00	10° \mathbb{E} 53'49		inferior conj	15872 Jun 10 08:58	3° \mathbb{E} 13'13	2°43'22
morning max el	15871 Jul 15 13:12	16° \mathbb{E} 01'22	21°25'35	minimum elong	15872 Jun 10 07:10	3° \mathbb{E} 19'17	2°42'12
desc. node	15871 Jul 16 09:18	16° \mathbb{E} 52'51			15872 Jun 12 20:18	30° \mathbb{R} \mathbb{I}	
	15871 Jul 26 21:21	0° \mathbb{Q}		morning rise	15872 Jun 15 15:58	27° \mathbb{I} 10'36	
morning set	15871 Aug 16 00:16	29° \mathbb{Q} 55'50		direct	15872 Jun 19 16:36	25° \mathbb{I} 38'28	
	15871 Aug 16 01:20	0° \mathbb{M}			15872 Jun 27 10:37	0° \mathbb{E}	
max. Earth dist.	15871 Aug 22 16:29	10° \mathbb{M} 38'32	1.42603 AU	morning max el	15872 Jun 27 10:33	29° \mathbb{I} 59'49	20°10'26
				desc. node	15872 Jul 02 06:29	5° \mathbb{E} 29'16	
superior conj	15871 Aug 30 03:16	23° \mathbb{M} 07'41	-1°23'38		15872 Jul 19 11:05	0° \mathbb{Q}	
minimum elong	15871 Aug 30 10:00	23° \mathbb{M} 36'40	1°22'55	morning set	15872 Jul 25 07:30	8° \mathbb{Q} 54'46	
	15871 Sep 03 02:04	0° Ω		max. Earth dist.	15872 Aug 04 04:10	24° \mathbb{Q} 19'51	1.44393 AU

	15872 Aug 07 16:59	0°♎		max. Earth dist.	15873 Jul 17 21:18	8°♊37'08	1.45552 AU
superior conj	15872 Aug 09 22:37	3°♎37'51	-1°54'21	superior conj	15873 Jul 20 20:00	13°♊14'57	-2°12'12
minimum elong	15872 Aug 10 06:16	4°♎09'10	1°54'09	minimum elong	15873 Jul 20 23:30	13°♊28'43	2°12'46
evening rise	15872 Aug 22 22:45	25°♎29'57			15873 Jul 31 07:29	0°♎	
	15872 Aug 25 13:35	0°♏		evening rise	15873 Aug 04 13:37	6°♎55'57	
asc. node	15872 Aug 26 14:24	1°♏46'21		asc. node	15873 Aug 13 11:05	21°♎22'46	
evening max el	15872 Sep 09 03:03	21°♏49'27	18°02'28		15873 Aug 19 05:08	0°♏	
retrograde	15872 Sep 15 13:39	25°♏10'44		evening max el	15873 Aug 23 17:37	5°♏25'43	18°17'35
evening set	15872 Sep 18 03:56	24°♏36'55		retrograde	15873 Aug 30 02:39	8°♏49'04	
inferior conj	15872 Sep 24 14:10	19°♏24'24	1°04'21	evening set	15873 Sep 02 01:39	8°♏00'59	
minimum elong	15872 Sep 24 15:54	19°♏19'54	1°03'55	inferior conj	15873 Sep 07 23:48	2°♏32'09	1°58'45
min. Earth dist.	15872 Sep 27 10:31	16°♏27'17	0.62383 AU	minimum elong	15873 Sep 08 02:08	2°♏25'21	1°58'01
desc. node	15872 Sep 28 03:36	15°♏45'29			15873 Sep 10 04:22	30°♎♎	
morning rise	15872 Oct 01 01:27	13°♏17'37		min. Earth dist.	15873 Sep 10 07:45	29°♎50'28	0.64501 AU
direct	15872 Oct 07 17:52	10°♏53'42		morning rise	15873 Sep 14 01:02	26°♎11'36	
morning max el	15872 Oct 21 19:38	18°♏51'16	27°56'53	desc. node	15873 Sep 15 00:59	25°♎27'26	
	15872 Oct 31 06:32	0°♎		direct	15873 Sep 20 13:59	23°♎36'37	
	15872 Nov 18 22:27	0°♏			15873 Oct 02 15:30	0°♏	
asc. node	15872 Nov 22 15:37	7°♏09'38		morning max el	15873 Oct 04 06:10	1°♏33'27	27°26'51
morning set	15872 Nov 24 22:16	11°♏44'55			15873 Oct 25 10:41	0°♎	
max. Earth dist.	15872 Nov 30 05:20	22°♏56'29	1.31668 AU	morning set	15873 Nov 08 12:20	25°♎10'41	
				asc. node	15873 Nov 09 12:27	27°♎10'15	
superior conj	15872 Dec 02 10:20	27°♏46'32	1°19'42		15873 Nov 10 22:10	0°♏	
minimum elong	15872 Dec 02 08:12	27°♏34'48	1°20'15	max. Earth dist.	15873 Nov 13 01:37	4°♏24'34	1.32811 AU
	15872 Dec 03 10:31	0°♏					
evening rise	15872 Dec 09 04:11	12°♏37'11		superior conj	15873 Nov 16 15:26	11°♏58'44	1°01'44
	15872 Dec 17 18:54	0°♎		minimum elong	15873 Nov 16 13:05	11°♏46'06	1°02'06
desc. node	15872 Dec 25 01:43	12°♎03'25		evening rise	15873 Nov 23 14:59	27°♏04'46	
evening max el	15873 Jan 03 06:12	23°♎14'45	24°23'46		15873 Nov 24 23:56	0°♏	
	15873 Jan 15 21:04	0°♏		desc. node	15873 Dec 11 22:41	29°♏06'33	
retrograde	15873 Jan 16 21:42	0°♏02'24			15873 Dec 12 16:34	0°♎	
	15873 Jan 17 22:24	30°♎♎		evening max el	15873 Dec 15 15:43	3°♎10'41	22°40'19
evening set	15873 Jan 22 01:24	29°♎04'15		retrograde	15873 Dec 28 14:36	9°♎35'25	
min. Earth dist.	15873 Jan 27 17:57	26°♎12'04	0.55713 AU	evening set	15874 Jan 01 11:59	9°♎02'21	
inferior conj	15873 Jan 29 22:27	24°♎51'36	-5°22'24	min. Earth dist.	15874 Jan 09 00:21	5°♎36'34	0.54630 AU
minimum elong	15873 Jan 30 06:51	24°♎38'44	5°20'13	inferior conj	15874 Jan 09 20:44	5°♎07'46	-6°00'54
morning rise	15873 Feb 07 14:17	20°♎51'04		minimum elong	15874 Jan 09 22:11	5°♎05'43	6°00'09
direct	15873 Feb 09 21:49	20°♎36'56		morning rise	15874 Jan 18 09:36	1°♎19'38	
asc. node	15873 Feb 18 13:56	24°♎11'50		direct	15874 Jan 21 11:32	0°♎57'57	
morning max el	15873 Feb 20 01:50	25°♎32'50	19°47'45	morning max el	15874 Feb 02 05:46	6°♎38'07	21°12'37
	15873 Feb 23 22:57	0°♏		asc. node	15874 Feb 05 11:15	10°♎08'17	
morning set	15873 Mar 09 15:34	24°♏03'54			15874 Feb 17 17:09	0°♏	
	15873 Mar 12 13:43	0°♎		morning set	15874 Feb 22 00:26	8°♏45'08	
superior conj	15873 Mar 17 13:10	10°♎00'33	0°45'56	superior conj	15874 Mar 01 07:53	24°♏04'03	1°08'31
minimum elong	15873 Mar 17 15:30	10°♎12'07	0°45'30	minimum elong	15874 Mar 01 10:25	24°♏17'07	1°08'19
desc. node	15873 Mar 23 02:55	20°♎44'41			15874 Mar 04 05:38	0°♎	
max. Earth dist.	15873 Mar 23 17:16	21°♎51'34	1.37363 AU	max. Earth dist.	15874 Mar 06 02:49	3°♎45'04	1.35238 AU
evening rise	15873 Mar 27 09:59	28°♎34'59		desc. node	15874 Mar 09 23:33	11°♎11'24	
	15873 Mar 28 05:11	0°♏		evening rise	15874 Mar 10 03:15	11°♎28'48	
	15873 Apr 16 03:36	0°♎			15874 Mar 20 17:17	0°♏	
evening max el	15873 May 01 20:56	19°♎21'07	25°21'50		15874 Apr 11 09:31	0°♎	
retrograde	15873 May 14 01:47	26°♎25'29		evening max el	15874 Apr 14 10:31	3°♎09'26	26°27'48
asc. node	15873 May 17 11:08	25°♎38'04		retrograde	15874 Apr 27 10:37	10°♎33'36	
evening set	15873 May 19 23:32	23°♎57'24		evening set	15874 May 03 18:21	8°♎01'03	
min. Earth dist.	15873 May 24 07:04	19°♎11'36	0.68015 AU	asc. node	15874 May 04 08:21	7°♎31'16	
inferior conj	15873 May 25 15:26	17°♎26'43	2°14'43	min. Earth dist.	15874 May 07 19:43	3°♎50'34	0.66762 AU
minimum elong	15873 May 25 13:16	17°♎33'44	2°13'23	inferior conj	15874 May 09 17:05	1°♎33'03	1°34'30
morning rise	15873 May 31 03:25	11°♎34'10		minimum elong	15874 May 09 15:05	1°♎39'11	1°33'11
direct	15873 Jun 03 16:44	10°♎21'38			15874 May 11 00:16	30°♎♏	
morning max el	15873 Jun 10 15:16	14°♎08'12	19°09'30	morning rise	15874 May 15 12:50	25°♏51'51	
desc. node	15873 Jun 19 03:34	24°♎43'55		direct	15874 May 18 15:39	24°♏57'19	
	15873 Jun 22 18:33	0°♏		morning max el	15874 May 25 02:37	28°♏22'12	18°24'39
greatest brilliancy	15873 Jun 23 11:52	1°♏04'19	-0.7m		15874 May 26 15:59	0°♎	
morning set	15873 Jul 04 13:10	17°♏54'57		desc. node	15874 Jun 06 00:34	14°♎26'36	
	15873 Jul 12 08:41	0°♊		morning set	15874 Jun 14 12:31	27°♎47'59	

	15874 Jun 15 21:56	0°☿		superior conj	15875 Jun 09 19:33	1°☿57'17	-1°50'37
				minimum elong	15875 Jun 09 10:58	1°☿23'17	1°50'42
superior conj	15874 Jun 30 05:23	22°☿26'40	-2°11'02	max. Earth dist.	15875 Jun 13 13:06	7°☿49'56	1.45676 AU
minimum elong	15874 Jun 30 01:06	22°☿10'00	2°11'40	evening rise	15875 Jun 25 20:31	26°☿53'20	
max. Earth dist.	15874 Jun 30 17:05	23°☿12'15	1.45988 AU		15875 Jun 27 21:17	0°♊	
	15874 Jul 05 01:44	0°♊		greatest brilliancy	15875 Jul 09 19:01	17°♊54'44	-0.6m
evening rise	15874 Jul 16 03:21	17°♊18'34		asc. node	15875 Jul 18 04:36	29°♊23'15	
	15874 Jul 24 05:59	0°♋			15875 Jul 18 16:48	0°♋	
greatest brilliancy	15874 Jul 25 08:49	1°♋43'44	-0.8m	evening max el	15875 Jul 21 12:30	3°♋05'58	19°39'05
asc. node	15874 Jul 31 07:48	10°♋37'33		retrograde	15875 Jul 28 19:50	7°♋11'28	
evening max el	15874 Aug 07 05:28	19°♋13'03	18°50'09	evening set	15875 Aug 01 14:10	5°♋49'28	
retrograde	15874 Aug 13 21:40	22°♋51'22		inferior conj	15875 Aug 06 22:22	29°♋53'43	2°58'15
evening set	15874 Aug 17 06:01	21°♋46'57		minimum elong	15875 Aug 06 23:41	29°♋49'20	2°57'37
inferior conj	15874 Aug 22 19:34	16°♋03'56	2°35'52		15875 Aug 06 20:29	30°♋♊	
minimum elong	15874 Aug 22 21:37	15°♋57'26	2°35'09	min. Earth dist.	15875 Aug 08 02:28	28°♋20'03	0.67704 AU
min. Earth dist.	15874 Aug 24 13:41	13°♋51'34	0.66305 AU	morning rise	15875 Aug 12 08:41	23°♋27'43	
morning rise	15874 Aug 28 12:18	9°♋37'41		direct	15875 Aug 18 04:14	20°♋55'58	
desc. node	15874 Sep 01 22:24	7°♋12'52		desc. node	15875 Aug 19 19:47	21°♋06'39	
direct	15874 Sep 03 17:52	7°♋00'16		morning max el	15875 Aug 30 04:46	28°♋07'52	25°10'03
morning max el	15874 Sep 16 17:45	14°♋42'43	26°28'09		15875 Aug 31 23:29	0°♌	
	15874 Sep 29 06:25	0°♌			15875 Sep 22 23:16	0°♌	
	15874 Oct 18 04:59	0°♍		morning set	15875 Oct 05 00:57	20°♌12'45	
morning set	15874 Oct 22 14:30	8°♍02'46		max. Earth dist.	15875 Oct 08 13:41	26°♌38'10	1.36624 AU
max. Earth dist.	15874 Oct 26 12:02	15°♍32'58	1.34493 AU		15875 Oct 10 08:49	0°♍	
asc. node	15874 Oct 27 09:15	17°♍17'58		asc. node	15875 Oct 14 06:00	7°♍29'03	
superior conj	15874 Oct 31 14:01	25°♍49'56	0°37'43	superior conj	15875 Oct 15 03:10	9°♍13'23	0°08'00
minimum elong	15874 Oct 31 12:08	25°♍40'08	0°37'58	minimum elong	15875 Oct 15 02:39	9°♍10'49	0°08'20
	15874 Nov 02 13:59	0°♎		behind sun begin	15875 Oct 14 21:06	8°♍43'23	
evening rise	15874 Nov 08 00:16	11°♎26'37		behind sun end	15875 Oct 15 08:12	9°♍38'19	
	15874 Nov 17 13:19	0°♏		evening rise	15875 Oct 23 05:55	25°♍38'00	
evening max el	15874 Nov 27 08:07	13°♏21'12	21°03'49		15875 Oct 25 09:52	0°♎	
desc. node	15874 Nov 28 19:44	14°♏43'47		evening max el	15875 Nov 09 14:18	24°♎15'16	19°45'46
retrograde	15874 Dec 09 00:40	19°♏08'36		desc. node	15875 Nov 15 16:53	28°♎30'49	
evening set	15874 Dec 11 16:47	18°♏51'46		retrograde	15875 Nov 19 15:35	29°♎16'21	
inferior conj	15874 Dec 20 11:29	15°♏00'29	-5°40'00	evening set	15875 Nov 21 15:50	29°♎05'15	
minimum elong	15874 Dec 20 04:05	15°♏10'58	5°38'05	inferior conj	15875 Nov 30 09:23	25°♎03'53	-4°24'27
min. Earth dist.	15874 Dec 21 05:50	14°♏34'25	0.54435 AU	minimum elong	15875 Nov 29 23:26	25°♎19'19	4°20'40
morning rise	15874 Dec 28 15:34	11°♏08'28		min. Earth dist.	15875 Dec 02 13:18	23°♎43'18	0.55184 AU
direct	15875 Jan 01 18:49	10°♏31'36		morning rise	15875 Dec 08 05:32	20°♎49'21	
morning max el	15875 Jan 14 20:15	16°♏53'09	22°56'21	direct	15875 Dec 13 09:05	19°♎50'48	
asc. node	15875 Jan 23 08:32	27°♏17'36		morning max el	15875 Dec 27 04:43	26°♎44'45	24°46'06
	15875 Jan 25 02:49	0°♐			15875 Dec 30 07:48	0°♏	
morning set	15875 Feb 06 11:51	23°♐29'28		asc. node	15876 Jan 10 05:46	15°♏22'46	
	15875 Feb 09 12:29	0°♑			15876 Jan 18 02:07	0°♐	
				morning set	15876 Jan 21 23:49	8°♐11'08	
superior conj	15875 Feb 13 10:24	8°♑26'48	1°24'38	superior conj	15876 Jan 28 18:00	23°♐00'57	1°34'24
minimum elong	15875 Feb 13 12:26	8°♑37'44	1°24'47	minimum elong	15876 Jan 28 19:09	23°♐07'18	1°34'53
max. Earth dist.	15875 Feb 16 19:15	15°♑34'14	1.33456 AU	max. Earth dist.	15876 Jan 30 19:19	27°♐30'29	1.32129 AU
evening rise	15875 Feb 21 10:04	24°♑55'21			15876 Jan 31 22:59	0°♒	
	15875 Feb 24 01:14	0°♓		evening rise	15876 Feb 05 03:12	8°♒46'05	
desc. node	15875 Feb 24 20:12	1°♓29'16		desc. node	15876 Feb 11 16:52	21°♒32'56	
	15875 Mar 14 05:00	0°♈			15876 Feb 16 11:24	0°♓	
evening max el	15875 Mar 28 00:04	16°♈43'50	27°14'53	evening max el	15876 Mar 09 12:08	29°♓52'07	27°35'44
retrograde	15875 Apr 10 13:31	24°♈15'53			15876 Mar 09 15:26	0°♈	
evening set	15875 Apr 17 04:52	21°♈45'24		retrograde	15876 Mar 23 09:10	7°♈21'59	
min. Earth dist.	15875 Apr 21 01:41	18°♈07'19	0.65100 AU	evening set	15876 Mar 30 04:35	5°♈00'47	
asc. node	15875 Apr 21 05:37	17°♈56'39		min. Earth dist.	15876 Apr 02 23:01	1°♈50'49	0.63111 AU
inferior conj	15875 Apr 23 11:32	15°♈26'46	0°41'37		15876 Apr 04 19:47	30°♈♓	
minimum elong	15875 Apr 23 10:25	15°♈29'51	0°40'42	inferior conj	15876 Apr 05 19:46	28°♓59'40	-0°24'52
morning rise	15875 Apr 29 17:49	9°♈58'37		minimum elong	15876 Apr 05 20:34	28°♓57'39	0°24'51
direct	15875 May 02 11:10	9°♈19'24		asc. node	15876 Apr 07 02:57	27°♓42'59	
morning max el	15875 May 08 18:31	12°♈35'07	17°56'43	morning rise	15876 Apr 12 15:13	23°♓47'01	
	15875 May 21 03:32	0°♉		direct	15876 Apr 15 00:24	23°♓19'48	
desc. node	15875 May 23 21:30	4°♉29'50		morning max el	15876 Apr 21 12:11	26°♓37'53	17°46'12
morning set	15875 May 26 15:05	8°♉59'44			15876 Apr 24 11:15	0°♊	
	15875 Jun 08 13:58	0°♊					

morning set	15876 May 07 19:14	21°♄23'58		morning set	15877 Apr 20 19:16	4°♄43'20	
desc. node	15876 May 09 18:21	24°♄47'05		desc. node	15877 Apr 26 15:08	15°♄13'43	
	15876 May 12 19:22	0°♄					
superior conj	15876 May 20 04:13	12°♄20'29	-1°17'17	superior conj	15877 May 01 12:29	23°♄48'41	-0°39'11
minimum elong	15876 May 19 21:00	11°♄50'51	1°17'06	minimum elong	15877 May 01 08:59	23°♄33'37	0°39'14
max. Earth dist.	15876 May 26 07:27	22°♄16'05	1.44655 AU	max. Earth dist.	15877 May 05 03:36	0°♄	
	15876 May 31 05:12	0°♄		evening rise	15877 May 08 22:11	6°♄16'02	1.43024 AU
evening rise	15876 Jun 04 07:09	6°♄18'47			15877 May 15 03:35	16°♄15'44	
	15876 Jun 20 05:22	0°♄			15877 May 24 02:46	0°♄	
evening max el	15876 Jul 03 13:33	16°♄59'55	20°42'25	evening max el	15877 Jun 15 11:59	0°♄	
asc. node	15876 Jul 04 01:27	17°♄29'03		asc. node	15877 Jun 16 08:52	0°♄53'23	21°56'50
retrograde	15876 Jul 11 18:49	21°♄42'55		retrograde	15877 Jun 20 22:21	4°♄41'52	
evening set	15876 Jul 15 23:51	20°♄03'06		retrograde	15877 Jun 25 16:59	6°♄20'28	
inferior conj	15876 Jul 21 05:36	13°♄55'50	3°08'06	evening set	15877 Jun 30 09:15	4°♄23'41	
minimum elong	15876 Jul 21 05:59	13°♄54'32	3°07'27		15877 Jul 04 06:11	30°♄	
min. Earth dist.	15876 Jul 21 19:59	13°♄06'12	0.68642 AU	inferior conj	15877 Jul 05 15:06	28°♄06'16	3°06'46
morning rise	15876 Jul 26 11:49	7°♄33'53		minimum elong	15877 Jul 05 14:32	28°♄08'17	3°05'58
direct	15876 Jul 31 19:42	5°♄14'31		min. Earth dist.	15877 Jul 05 16:10	28°♄02'35	0.69093 AU
desc. node	15876 Aug 05 17:08	6°♄48'30		morning rise	15877 Jul 10 19:39	21°♄50'44	
morning max el	15876 Aug 11 15:37	11°♄42'10	23°42'16	direct	15877 Jul 15 15:13	19°♄48'12	
	15876 Aug 26 07:17	0°♄		desc. node	15877 Jul 23 14:27	23°♄54'07	
	15876 Sep 14 17:57	0°♄		morning max el	15877 Jul 25 04:28	25°♄24'48	22°13'46
morning set	15876 Sep 15 15:27	1°♄30'32			15877 Jul 29 08:08	0°♄	
max. Earth dist.	15876 Sep 19 12:19	8°♄10'13	1.39004 AU	morning set	15877 Aug 19 18:07	0°♄	
				max. Earth dist.	15877 Aug 27 06:29	11°♄48'02	
superior conj	15876 Sep 27 03:12	22°♄00'12	-0°26'23		15877 Sep 01 13:59	20°♄31'00	1.41364 AU
minimum elong	15876 Sep 27 05:06	22°♄09'07	0°25'48		15877 Sep 07 03:15	0°♄	
asc. node	15876 Sep 30 02:43	27°♄39'43		superior conj	15877 Sep 09 09:44	3°♄59'35	-1°03'03
	15876 Oct 01 07:50	0°♄		minimum elong	15877 Sep 09 14:47	4°♄22'04	1°02'17
evening rise	15876 Oct 06 05:15	9°♄32'09		asc. node	15877 Sep 16 23:22	17°♄45'47	
	15876 Oct 17 15:20	0°♄		evening rise	15877 Sep 19 18:50	22°♄59'47	
evening max el	15876 Oct 22 10:25	5°♄59'40	18°49'57		15877 Sep 23 13:37	0°♄	
retrograde	15876 Oct 30 23:01	10°♄17'53		evening max el	15877 Sep 23 13:37	0°♄	
evening set	15876 Nov 01 20:35	10°♄05'53		retrograde	15877 Oct 05 16:50	18°♄27'17	18°15'52
desc. node	15876 Nov 01 14:04	10°♄09'02		retrograde	15877 Oct 13 01:57	22°♄13'14	
inferior conj	15876 Nov 10 01:35	5°♄45'17	-2°42'16	evening set	15877 Oct 15 03:54	21°♄55'53	
minimum elong	15876 Nov 09 18:56	5°♄57'14	2°39'00	desc. node	15877 Oct 19 11:21	19°♄44'10	
min. Earth dist.	15876 Nov 13 01:37	3°♄36'21	0.56724 AU	inferior conj	15877 Oct 22 15:34	17°♄13'51	-1°01'07
morning rise	15876 Nov 17 14:18	0°♄55'40		minimum elong	15877 Oct 22 13:18	17°♄18'37	0°59'40
	15876 Nov 20 02:29	30°♄		min. Earth dist.	15877 Oct 25 21:44	14°♄30'27	0.58783 AU
direct	15876 Nov 23 12:25	29°♄31'41		morning rise	15877 Oct 29 19:15	11°♄47'50	
	15876 Nov 26 22:55	0°♄		direct	15877 Nov 05 05:25	9°♄57'18	
morning max el	15876 Dec 07 16:35	6°♄50'47	26°22'55	morning max el	15877 Nov 19 12:29	17°♄37'10	27°29'54
	15876 Dec 24 18:27	0°♄			15877 Nov 29 20:13	0°♄	
asc. node	15876 Dec 27 02:55	4°♄09'44		asc. node	15877 Dec 13 24:00	23°♄26'46	
morning set	15877 Jan 05 10:35	22°♄45'36			15877 Dec 17 08:01	0°♄	
	15877 Jan 08 17:57	0°♄		morning set	15877 Dec 20 18:17	7°♄07'13	
superior conj	15877 Jan 12 04:32	7°♄40'23	1°38'03	superior conj	15877 Dec 27 15:59	22°♄18'43	1°35'40
minimum elong	15877 Jan 12 04:39	7°♄40'59	1°38'44	minimum elong	15877 Dec 27 15:04	22°♄13'32	1°36'25
max. Earth dist.	15877 Jan 13 01:03	9°♄34'46	1.31306 AU	max. Earth dist.	15877 Dec 27 08:53	21°♄38'53	1.31009 AU
evening rise	15877 Jan 19 03:56	22°♄54'21			15877 Dec 31 02:34	0°♄	
	15877 Jan 22 14:50	0°♄		evening rise	15878 Jan 03 09:54	7°♄13'35	
desc. node	15877 Jan 28 13:34	11°♄16'23		desc. node	15878 Jan 15 10:19	0°♄31'03	
	15877 Feb 09 08:41	0°♄			15878 Jan 15 03:03	0°♄	
evening max el	15877 Feb 19 20:11	12°♄20'59	27°24'19	evening max el	15878 Feb 01 21:20	23°♄58'48	26°37'49
retrograde	15877 Mar 05 20:13	19°♄42'39			15878 Feb 10 11:51	0°♄	
evening set	15877 Mar 12 14:40	17°♄37'50		retrograde	15878 Feb 15 21:22	1°♄09'48	
min. Earth dist.	15877 Mar 16 10:15	14°♄49'11	0.60913 AU		15878 Feb 21 04:41	30°♄	
inferior conj	15877 Mar 19 14:17	12°♄02'38	-1°44'33	evening set	15878 Feb 22 07:47	29°♄27'53	
minimum elong	15877 Mar 19 18:06	11°♄54'14	1°43'06	min. Earth dist.	15878 Feb 26 10:59	26°♄49'58	0.58676 AU
asc. node	15877 Mar 25 00:17	7°♄58'58		inferior conj	15878 Mar 01 15:20	24°♄24'49	-3°13'37
morning rise	15877 Mar 27 00:52	7°♄08'31		minimum elong	15878 Mar 01 22:42	24°♄10'46	3°10'48
direct	15877 Mar 29 03:37	6°♄49'50		morning rise	15878 Mar 09 17:03	19°♄51'59	
morning max el	15877 Apr 05 04:27	10°♄21'26	17°53'51	direct	15878 Mar 11 16:20	19°♄38'19	
	15877 Apr 18 04:32	0°♄		asc. node	15878 Mar 11 21:38	19°♄38'29	
				morning max el	15878 Mar 19 15:37	23°♄34'45	18°20'59

	15878 Mar 24 19:08	0°♿		asc. node	15879 Feb 26 19:01	3°♿03'42	
morning set	15878 Apr 04 09:32	18°♿40'29		morning max el	15879 Mar 02 17:34	6°♿06'14	19°09'27
	15878 Apr 10 09:09	0°♿			15879 Mar 17 20:34	0°♿	
desc. node	15878 Apr 13 11:50	5°♿45'16		morning set	15879 Mar 19 09:33	3°♿02'15	
superior conj	15878 Apr 13 18:31	6°♿15'46	-0°02'20	superior conj	15879 Mar 27 18:04	19°♿29'21	0°30'01
minimum elong	15878 Apr 13 18:19	6°♿14'50	0°02'42	minimum elong	15879 Mar 27 19:51	19°♿37'53	0°29'30
behind sun begin	15878 Apr 13 11:04	5°♿41'47		desc. node	15879 Mar 31 08:28	26°♿17'54	
behind sun end	15878 Apr 14 01:33	6°♿47'49			15879 Apr 02 08:46	0°♿	
max. Earth dist.	15878 Apr 21 07:50	19°♿35'46	1.40947 AU	max. Earth dist.	15879 Apr 03 13:58	2°♿12'01	1.38667 AU
evening rise	15878 Apr 25 19:16	27°♿05'07		evening rise	15879 Apr 07 08:11	8°♿49'16	
	15878 Apr 27 14:13	0°♿			15879 Apr 20 11:05	0°♿	
	15878 May 17 18:01	0°♿		evening max el	15879 May 12 13:43	28°♿42'17	24°38'18
evening max el	15878 May 30 00:08	14°♿47'25	23°17'33		15879 May 13 22:13	0°♿	
asc. node	15878 Jun 07 19:19	20°♿45'46		retrograde	15879 May 24 05:26	5°♿30'49	
retrograde	15878 Jun 09 12:56	20°♿58'46		asc. node	15879 May 25 16:23	5°♿21'51	
evening set	15878 Jun 14 16:44	18°♿47'12		evening set	15879 May 29 20:40	3°♿07'42	
min. Earth dist.	15878 Jun 19 13:01	13°♿03'07	0.69050 AU		15879 Jun 01 19:18	30°♿	
inferior conj	15878 Jun 20 00:58	12°♿21'49	2°54'56	min. Earth dist.	15879 Jun 03 08:23	28°♿00'40	0.68524 AU
minimum elong	15878 Jun 19 23:33	12°♿26'41	2°53'55	inferior conj	15879 Jun 04 09:15	26°♿37'36	2°32'34
morning rise	15878 Jun 25 06:20	6°♿14'06		minimum elong	15879 Jun 04 07:16	26°♿44'16	2°31'20
direct	15878 Jun 29 13:38	4°♿30'48		morning rise	15879 Jun 09 18:02	20°♿38'57	
morning max el	15878 Jul 07 22:09	9°♿17'46	20°52'07	direct	15879 Jun 13 13:41	19°♿15'23	
desc. node	15878 Jul 10 11:41	12°♿02'39		morning max el	15879 Jun 20 22:38	23°♿20'53	19°42'35
	15878 Jul 23 21:41	0°♿			15879 Jun 26 15:33	0°♿	
morning set	15878 Aug 06 22:55	21°♿09'31		desc. node	15879 Jun 27 08:50	0°♿56'54	
	15878 Aug 12 13:43	0°♿		greatest brilliancy	15879 Jul 04 00:44	10°♿19'10	-0.6m
max. Earth dist.	15878 Aug 14 21:37	3°♿44'22	1.43424 AU	morning set	15879 Jul 17 02:53	0°♿01'49	
					15879 Jul 17 02:25	0°♿	
superior conj	15878 Aug 21 18:38	15°♿03'36	-1°37'45	max. Earth dist.	15879 Jul 28 11:21	17°♿41'03	1.44967 AU
minimum elong	15878 Aug 22 02:14	15°♿35'31	1°37'11				
	15878 Aug 30 11:00	0°♿		superior conj	15879 Aug 02 04:04	25°♿09'28	-2°03'57
evening rise	15878 Sep 02 18:22	5°♿50'27		minimum elong	15879 Aug 02 10:40	25°♿35'59	2°04'05
asc. node	15878 Sep 03 20:00	7°♿44'00			15879 Aug 05 04:04	0°♿	
	15878 Sep 17 20:11	0°♿		evening rise	15879 Aug 15 22:33	17°♿50'15	
evening max el	15878 Sep 19 05:25	1°♿29'13	18°01'56	asc. node	15879 Aug 21 16:39	27°♿29'35	
retrograde	15878 Sep 25 21:27	4°♿55'47			15879 Aug 23 05:06	0°♿	
evening set	15878 Sep 28 06:47	4°♿29'07		evening max el	15879 Sep 02 20:16	14°♿55'24	18°06'45
	15878 Oct 04 12:00	30°♿		retrograde	15879 Sep 09 05:08	18°♿15'52	
inferior conj	15878 Oct 05 01:35	29°♿27'15	0°24'10	evening set	15879 Sep 11 23:01	17°♿36'23	
minimum elong	15878 Oct 05 02:20	29°♿25'26	0°24'12	inferior conj	15879 Sep 18 03:43	12°♿16'56	1°29'39
desc. node	15878 Oct 06 08:41	28°♿11'19		minimum elong	15879 Sep 18 05:50	12°♿11'08	1°29'03
min. Earth dist.	15878 Oct 08 03:33	26°♿28'56	0.61068 AU	min. Earth dist.	15879 Sep 20 19:14	9°♿24'06	0.63317 AU
morning rise	15878 Oct 11 18:54	23°♿32'17		desc. node	15879 Sep 23 06:05	7°♿01'14	
direct	15878 Oct 18 10:48	21°♿18'21		morning rise	15879 Sep 24 10:34	6°♿03'12	
morning max el	15878 Nov 01 16:02	29°♿12'44	27°58'16	direct	15879 Oct 01 02:15	3°♿33'07	
	15878 Nov 02 10:50	0°♿		morning max el	15879 Oct 15 00:35	11°♿32'20	27°48'01
	15878 Nov 23 19:18	0°♿			15879 Oct 29 16:20	0°♿	
asc. node	15878 Nov 30 21:00	13°♿05'42			15879 Nov 16 05:27	0°♿	
morning set	15878 Dec 04 20:59	21°♿11'20		asc. node	15879 Nov 17 17:55	2°♿59'36	
	15878 Dec 09 00:00	0°♿		morning set	15879 Nov 18 16:25	4°♿52'16	
max. Earth dist.	15878 Dec 10 14:59	3°♿34'04	1.31260 AU	max. Earth dist.	15879 Nov 23 15:34	15°♿11'43	1.32078 AU
superior conj	15878 Dec 12 02:32	6°♿51'05	1°27'17	superior conj	15879 Nov 26 10:14	21°♿12'00	1°12'51
minimum elong	15878 Dec 12 00:45	6°♿41'10	1°27'56	minimum elong	15879 Nov 26 07:57	20°♿59'29	1°13'18
evening rise	15878 Dec 18 19:10	21°♿39'21			15879 Nov 30 10:30	0°♿	
	15878 Dec 22 18:16	0°♿		evening rise	15879 Dec 03 05:55	6°♿07'08	
desc. node	15879 Jan 02 07:07	19°♿06'29			15879 Dec 15 15:21	0°♿	
	15879 Jan 10 04:05	0°♿		desc. node	15879 Dec 20 04:02	6°♿48'24	
evening max el	15879 Jan 14 14:08	4°♿44'04	25°19'22	evening max el	15879 Dec 27 00:34	14°♿50'08	23°40'10
retrograde	15879 Jan 28 10:57	11°♿42'00		retrograde	15880 Jan 09 10:54	21°♿29'23	
evening set	15879 Feb 03 04:20	10°♿27'44		evening set	15880 Jan 14 02:05	20°♿42'56	
min. Earth dist.	15879 Feb 08 02:40	7°♿45'36	0.56654 AU	min. Earth dist.	15880 Jan 20 11:48	17°♿38'42	0.55147 AU
inferior conj	15879 Feb 10 19:52	5°♿57'56	-4°40'57	inferior conj	15880 Jan 22 03:49	16°♿39'53	-5°45'04
minimum elong	15879 Feb 11 05:14	5°♿42'26	4°37'59	minimum elong	15880 Jan 22 10:01	16°♿30'46	5°43'40
morning rise	15879 Feb 19 08:54	1°♿46'30		morning rise	15880 Jan 30 19:29	12°♿45'38	
direct	15879 Feb 21 10:29	1°♿34'02		direct	15880 Feb 02 09:25	12°♿29'11	

morning max el	15880 Feb 13 06:10	17° \approx 44'30	20°21'04	morning rise	15881 Jan 09 06:28	22° \approx 54'15	
asc. node	15880 Feb 13 16:23	18° \approx 09'40		direct	15881 Jan 12 19:07	22° \approx 26'50	
	15880 Feb 22 09:45	0° \approx		morning max el	15881 Jan 25 03:39	28° \approx 25'17	21°55'02
morning set	15880 Mar 02 16:01	17° \approx 39'10			15881 Jan 26 17:04	0° \approx	
	15880 Mar 08 15:56	0° \approx		asc. node	15881 Jan 30 13:43	4° \approx 38'54	
					15881 Feb 13 23:04	0° \approx	
superior conj	15880 Mar 10 06:56	3° \approx 17'56	0°56'17	morning set	15881 Feb 15 02:16	2° \approx 22'25	
minimum elong	15880 Mar 10 09:27	3° \approx 30'41	0°55'55				
max. Earth dist.	15880 Mar 15 21:09	14° \approx 17'08	1.36428 AU	superior conj	15881 Feb 22 05:19	17° \approx 30'14	1°16'07
desc. node	15880 Mar 17 05:07	16° \approx 48'14		minimum elong	15881 Feb 22 07:42	17° \approx 42'47	1°16'04
evening rise	15880 Mar 19 16:13	21° \approx 21'17		max. Earth dist.	15881 Feb 26 09:40	26° \approx 08'01	1.34432 AU
	15880 Mar 24 13:40	0° \approx			15881 Feb 28 08:08	0° \approx	
	15880 Apr 13 08:18	0° \approx		evening rise	15881 Mar 02 15:40	4° \approx 29'57	
evening max el	15880 Apr 24 03:23	12° \approx 35'56	25°51'46	desc. node	15881 Mar 04 01:45	7° \approx 11'32	
retrograde	15880 May 06 17:17	19° \approx 50'02			15881 Mar 17 09:24	0° \approx	
asc. node	15880 May 11 13:32	18° \approx 15'47		evening max el	15881 Apr 06 17:16	26° \approx 20'13	26°50'33
evening set	15880 May 12 19:22	17° \approx 19'41			15881 Apr 10 22:14	0° \approx	
min. Earth dist.	15880 May 17 00:12	12° \approx 48'51	0.67537 AU	retrograde	15881 Apr 19 23:31	3° \approx 48'08	
inferior conj	15880 May 18 14:01	10° \approx 49'23	1°59'10	evening set	15881 Apr 26 10:54	1° \approx 15'49	
minimum elong	15880 May 18 11:50	10° \approx 56'16	1°57'49		15881 Apr 27 21:35	30° \approx 8	
morning rise	15880 May 24 04:56	5° \approx 01'09		asc. node	15881 Apr 28 10:47	29° \approx 27'42	
direct	15880 May 27 13:42	3° \approx 56'26		min. Earth dist.	15881 Apr 30 10:13	27° \approx 19'31	0.66111 AU
morning max el	15880 Jun 03 06:17	7° \approx 32'16	18°48'17	inferior conj	15881 May 02 12:56	24° \approx 51'09	1°13'44
desc. node	15880 Jun 13 05:54	20° \approx 24'46		minimum elong	15881 May 02 11:12	24° \approx 56'15	1°12'31
greatest brilliancy	15880 Jun 17 01:15	26° \approx 08'04	-0.8m	morning rise	15881 May 08 12:48	19° \approx 15'07	
	15880 Jun 19 13:45	0° \approx		direct	15881 May 11 11:36	18° \approx 27'17	
morning set	15880 Jun 25 14:06	9° \approx 19'07		morning max el	15881 May 17 19:50	21° \approx 46'27	18°10'37
	15880 Jul 08 21:08	0° \approx			15881 May 24 10:11	0° \approx	
max. Earth dist.	15880 Jul 10 05:49	2° \approx 07'31	1.45838 AU	desc. node	15881 May 31 02:53	10° \approx 16'52	
				morning set	15881 Jun 06 00:44	19° \approx 45'07	
					15881 Jun 12 10:31	0° \approx	
superior conj	15880 Jul 11 18:38	4° \approx 31'22	-2°14'13				
minimum elong	15880 Jul 11 18:53	4° \approx 32'21	2°14'56	superior conj	15881 Jun 21 03:53	13° \approx 45'11	-2°04'27
evening rise	15880 Jul 27 02:43	28° \approx 08'41		minimum elong	15881 Jun 20 21:01	13° \approx 18'21	2°04'53
	15880 Jul 27 20:30	0° \approx		max. Earth dist.	15881 Jun 23 02:33	16° \approx 47'28	1.45956 AU
asc. node	15880 Aug 07 13:20	16° \approx 57'25			15881 Jul 01 14:25	0° \approx	
evening max el	15880 Aug 16 10:05	28° \approx 37'28	18°29'23	evening rise	15881 Jul 07 06:35	8° \approx 47'49	
	15880 Aug 17 22:54	0° \approx		greatest brilliancy	15881 Jul 18 16:02	26° \approx 17'51	-0.7m
retrograde	15880 Aug 22 20:59	2° \approx 05'12			15881 Jul 21 03:51	0° \approx	
evening set	15880 Aug 25 23:59	1° \approx 10'15		asc. node	15881 Jul 25 10:04	6° \approx 00'46	
	15880 Aug 27 15:09	30° \approx 8		evening max el	15881 Jul 30 20:07	12° \approx 27'54	19°09'02
inferior conj	15880 Aug 31 18:04	25° \approx 35'16	2°16'25	retrograde	15881 Aug 06 17:41	16° \approx 16'08	
minimum elong	15880 Aug 31 20:22	25° \approx 28'20	2°15'41	evening set	15881 Aug 10 06:17	15° \approx 04'07	
min. Earth dist.	15880 Sep 02 20:13	23° \approx 04'45	0.65324 AU	inferior conj	15881 Aug 15 17:10	9° \approx 15'20	2°47'01
morning rise	15880 Sep 06 15:29	19° \approx 11'44		minimum elong	15881 Aug 15 18:57	9° \approx 09'34	2°46'20
desc. node	15880 Sep 09 03:29	17° \approx 32'12		min. Earth dist.	15881 Aug 17 05:12	7° \approx 18'53	0.66957 AU
direct	15880 Sep 13 01:52	16° \approx 34'35		morning rise	15881 Aug 21 06:55	2° \approx 48'47	
morning max el	15880 Sep 26 11:34	24° \approx 26'22	27°04'43	direct	15881 Aug 27 08:26	0° \approx 13'11	
	15880 Oct 01 12:20	0° \approx		desc. node	15881 Aug 27 00:53	0° \approx 13'34	
	15880 Oct 22 02:26	0° \approx		morning max el	15881 Sep 08 23:05	7° \approx 43'48	25°56'45
morning set	15880 Nov 01 01:47	18° \approx 03'53			15881 Sep 26 08:59	0° \approx	
asc. node	15880 Nov 03 14:46	23° \approx 03'27		morning set	15881 Oct 14 21:47	0° \approx 39'14	
max. Earth dist.	15880 Nov 05 07:39	26° \approx 29'31	1.33465 AU		15881 Oct 14 13:14	0° \approx	
	15880 Nov 07 00:38	0° \approx		max. Earth dist.	15881 Oct 18 14:24	7° \approx 35'52	1.35358 AU
				asc. node	15881 Oct 21 11:33	13° \approx 13'07	
superior conj	15880 Nov 09 12:54	5° \approx 15'48	0°52'17				
minimum elong	15880 Nov 09 10:39	5° \approx 03'52	0°52'35	superior conj	15881 Oct 24 07:54	18° \approx 56'18	0°25'46
evening rise	15880 Nov 16 16:19	20° \approx 32'36		minimum elong	15881 Oct 24 06:28	18° \approx 49'01	0°26'03
	15880 Nov 21 06:06	0° \approx			15881 Oct 29 16:23	0° \approx	
desc. node	15880 Dec 06 01:02	23° \approx 31'730		evening rise	15881 Nov 01 00:24	4° \approx 51'10	
evening max el	15880 Dec 07 11:55	24° \approx 47'29	21°57'36		15881 Nov 14 23:36	0° \approx	
	15880 Dec 15 01:12	0° \approx		evening max el	15881 Nov 19 09:38	5° \approx 13'45	20°27'53
retrograde	15880 Dec 19 23:06	0° \approx 57'23		desc. node	15881 Nov 22 22:08	8° \approx 10'53	
evening set	15880 Dec 23 07:18	0° \approx 32'30		retrograde	15881 Nov 30 09:43	10° \approx 42'11	
	15880 Dec 25 02:43	30° \approx 8		evening set	15881 Dec 02 17:21	10° \approx 28'43	
inferior conj	15880 Dec 31 21:08	26° \approx 34'136	-5°59'45	inferior conj	15881 Dec 11 13:07	6° \approx 34'12	-5°13'17
minimum elong	15880 Dec 31 18:29	26° \approx 34'518	5°58'52	minimum elong	15881 Dec 11 03:41	6° \approx 34'00	5°10'22
min. Earth dist.	15880 Dec 31 17:13	26° \approx 34'704	0.54428 AU				

min. Earth dist.	15881 Dec 12 22:48	5°♄44'58	0.54643 AU	desc. node	15882 Nov 09 19:17	21°♄04'04	
morning rise	15881 Dec 19 13:39	2°♄35'06		retrograde	15882 Nov 11 07:05	21°♄10'58	
direct	15881 Dec 24 03:43	1°♄49'53		evening set	15882 Nov 13 04:39	21°♄00'13	
morning max el	15882 Jan 06 14:23	8°♄25'36	23°43'29	inferior conj	15882 Nov 21 17:54	16°♄51'15	-3°42'27
asc. node	15882 Jan 17 11:00	22°♄13'32		minimum elong	15882 Nov 21 08:56	17°♄06'01	3°38'36
	15882 Jan 22 00:51	0°♄		min. Earth dist.	15882 Nov 24 08:09	15°♄08'47	0.55753 AU
morning set	15882 Jan 30 14:08	17°♄06'02		morning rise	15882 Nov 29 10:56	12°♄22'16	
	15882 Feb 05 12:31	0°♄		direct	15882 Dec 04 22:53	11°♄13'19	
				morning max el	15882 Dec 18 23:32	18°♄19'17	25°30'06
superior conj	15882 Feb 06 10:16	1°♄58'11	1°29'31		15882 Dec 28 16:16	0°♄	
minimum elong	15882 Feb 06 11:58	2°♄07'24	1°29'50	asc. node	15883 Jan 04 08:12	10°♄37'22	
max. Earth dist.	15882 Feb 09 05:34	7°♄59'40	1.32831 AU		15883 Jan 14 06:15	0°♄	
evening rise	15882 Feb 14 03:11	18°♄06'54		morning set	15883 Jan 15 01:46	1°♄44'39	
desc. node	15882 Feb 18 22:25	27°♄23'32					
	15882 Feb 20 08:22	0°♄		superior conj	15883 Jan 21 19:21	16°♄34'51	1°36'42
	15882 Mar 11 15:58	0°♄		minimum elong	15883 Jan 21 20:04	16°♄38'50	1°37'17
evening max el	15882 Mar 20 06:18	9°♄44'05	27°27'15	max. Earth dist.	15883 Jan 23 08:10	19°♄58'09	1.31708 AU
retrograde	15882 Apr 02 23:17	17°♄15'59			15883 Jan 27 23:51	0°♄	
evening set	15882 Apr 09 17:06	14°♄48'17		evening rise	15883 Jan 28 23:48	2°♄04'59	
min. Earth dist.	15882 Apr 13 12:30	11°♄23'09	0.64295 AU	desc. node	15883 Feb 05 19:06	17°♄18'58	
asc. node	15882 Apr 15 08:05	9°♄28'00			15883 Feb 13 05:28	0°♄	
inferior conj	15882 Apr 16 03:23	8°♄36'18	0°15'08	evening max el	15883 Mar 02 16:43	22°♄35'53	27°35'06
minimum elong	15882 Apr 16 02:57	8°♄37'27	0°14'32		15883 Mar 15 11:34	0°♄	
transit middle	15882 Apr 16 02:57	8°♄37'27	0°14'32	retrograde	15883 Mar 16 15:41	0°♄03'48	
transit begin	15882 Apr 16 01:39	8°♄40'54			15883 Mar 17 19:27	30°♄	
transit end	15882 Apr 16 04:14	8°♄34'01		evening set	15883 Mar 23 11:25	27°♄48'23	
morning rise	15882 Apr 22 14:59	3°♄14'40		min. Earth dist.	15883 Mar 27 05:35	24°♄48'42	0.62184 AU
direct	15882 Apr 25 04:45	2°♄40'56		inferior conj	15883 Mar 30 06:12	21°♄57'09	-0°57'10
morning max el	15882 May 01 12:53	5°♄55'54	17°50'08	minimum elong	15883 Mar 30 08:09	21°♄52'29	0°56'36
desc. node	15882 May 17 23:47	0°♄		asc. node	15883 Apr 02 05:24	19°♄18'06	
	15882 May 17 17:30	0°♄		morning rise	15883 Apr 06 07:57	16°♄52'22	
morning set	15882 May 18 14:43	1°♄29'05		direct	15883 Apr 08 14:02	16°♄29'19	
				morning max el	15883 Apr 15 06:26	19°♄51'54	17°47'16
superior conj	15882 Jun 01 00:42	23°♄35'05	-1°37'33		15883 Apr 22 19:55	0°♄	
minimum elong	15882 May 31 16:10	23°♄00'49	1°37'27	morning set	15883 May 01 04:04	14°♄18'49	
	15882 Jun 05 01:23	0°♄		desc. node	15883 May 04 20:36	20°♄48'04	
max. Earth dist.	15882 Jun 05 22:24	1°♄22'58	1.45325 AU		15883 May 10 04:20	0°♄	
evening rise	15882 Jun 16 18:53	18°♄12'56					
	15882 Jun 24 13:36	0°♄		superior conj	15883 May 12 19:24	4°♄26'26	-1°01'19
greatest brilliancy	15882 Jul 01 12:25	10°♄15'22	-0.6m	minimum elong	15883 May 12 13:42	4°♄02'30	1°01'11
asc. node	15882 Jul 12 06:51	24°♄30'34		max. Earth dist.	15883 May 19 14:57	15°♄38'07	1.44018 AU
evening max el	15882 Jul 14 00:33	26°♄20'55	20°04'21	evening rise	15883 May 27 07:57	27°♄47'40	
	15882 Jul 18 20:09	0°♄			15883 May 28 18:17	0°♄	
retrograde	15882 Jul 21 16:32	0°♄41'36			15883 Jun 18 09:15	0°♄	
	15882 Jul 24 09:19	30°♄41'36		evening max el	15883 Jun 26 22:58	10°♄14'45	21°12'55
evening set	15882 Jul 25 15:19	29°♄11'55		asc. node	15883 Jun 29 03:43	12°♄15'58	
inferior conj	15882 Jul 30 22:07	23°♄10'50	3°03'54	retrograde	15883 Jul 05 15:28	15°♄16'34	
minimum elong	15882 Jul 30 23:03	23°♄07'40	3°03'15	evening set	15883 Jul 10 01:06	13°♄29'32	
min. Earth dist.	15882 Jul 31 20:16	21°♄55'39	0.68158 AU	inferior conj	15883 Jul 15 06:36	7°♄17'38	3°08'51
morning rise	15882 Aug 05 06:24	16°♄46'03		minimum elong	15883 Jul 15 06:34	7°♄17'45	3°08'09
direct	15882 Aug 10 20:58	14°♄19'09		min. Earth dist.	15883 Jul 15 15:19	6°♄47'19	0.68892 AU
desc. node	15882 Aug 13 22:16	14°♄55'50		morning rise	15883 Jul 20 11:47	0°♄57'53	
morning max el	15882 Aug 22 10:06	21°♄13'58	24°33'21		15883 Jul 21 17:47	30°♄	
	15882 Aug 30 00:27	0°♄		direct	15883 Jul 25 14:24	28°♄45'11	
	15882 Sep 19 14:13	0°♄			15883 Jul 29 20:20	0°♄	
morning set	15882 Sep 27 00:14	12°♄28'03		desc. node	15883 Jul 31 19:35	1°♄16'18	
max. Earth dist.	15882 Sep 30 14:06	18°♄49'19	1.37621 AU	morning max el	15883 Aug 04 21:30	4°♄52'09	23°04'08
	15882 Oct 06 14:01	0°♄			15883 Aug 24 06:07	0°♄	
				morning set	15883 Sep 08 05:04	23°♄21'08	
superior conj	15882 Oct 07 15:53	2°♄04'37	-0°06'09		15883 Sep 12 03:57	0°♄	
minimum elong	15882 Oct 07 16:16	2°♄06'28	0°05'43	max. Earth dist.	15883 Sep 12 12:51	0°♄38'09	1.40030 AU
behind sun begin	15882 Oct 07 09:56	1°♄35'48					
behind sun end	15882 Oct 07 22:36	2°♄37'12		superior conj	15883 Sep 20 08:59	14°♄32'19	-0°41'52
asc. node	15882 Oct 08 08:15	3°♄24'03		minimum elong	15883 Sep 20 12:11	14°♄46'59	0°41'11
evening rise	15882 Oct 16 03:42	18°♄55'49		asc. node	15883 Sep 25 04:54	23°♄33'00	
	15882 Oct 21 20:05	0°♄			15883 Sep 28 14:02	0°♄	
evening max el	15882 Nov 01 21:54	16°♄28'39	19°19'14	evening rise	15883 Sep 29 23:19	2°♄39'32	

evening max el	15883 Oct 15 22:57	28° \mathbb{M} 32'35	18°32'53	evening rise	15884 Sep 12 07:31	15° \mathbb{A} 52'50	
	15883 Oct 17 13:31	0° \mathbb{A}			15884 Sep 20 05:54	0° \mathbb{M}	
retrograde	15883 Oct 23 22:36	2° \mathbb{A} 35'16		evening max el	15884 Sep 28 08:36	11° \mathbb{M} 16'36	18°07'34
evening set	15883 Oct 25 21:26	2° \mathbb{A} 21'32		retrograde	15884 Oct 05 08:56	14° \mathbb{M} 52'13	
desc. node	15883 Oct 27 16:30	1° \mathbb{A} 46'18		evening set	15884 Oct 07 13:59	14° \mathbb{M} 31'14	
	15883 Oct 30 21:15	30° $\mathbb{R}\mathbb{M}$		desc. node	15884 Oct 13 13:47	10° \mathbb{M} 43'13	
inferior conj	15883 Nov 02 19:19	27° \mathbb{M} 52'12	-1°57'59	inferior conj	15884 Oct 14 18:13	9° \mathbb{M} 40'31	-0°22'35
minimum elong	15883 Nov 02 14:37	28° \mathbb{M} 01'14	1°55'27	minimum elong	15884 Oct 14 17:27	9° \mathbb{M} 42'15	0°21'49
min. Earth dist.	15883 Nov 05 23:45	25° \mathbb{M} 26'05	0.57559 AU	min. Earth dist.	15884 Oct 17 23:41	6° \mathbb{M} 48'20	0.59754 AU
morning rise	15883 Nov 10 04:24	22° \mathbb{M} 46'28		morning rise	15884 Oct 21 17:39	4° \mathbb{M} 01'22	
direct	15883 Nov 16 08:36	21° \mathbb{M} 10'38		direct	15884 Oct 28 07:17	2° \mathbb{M} 00'08	
morning max el	15883 Nov 30 14:30	28° \mathbb{M} 39'49	26°55'42	morning max el	15884 Nov 11 13:40	9° \mathbb{M} 46'23	27°46'46
	15883 Dec 01 22:35	0° \mathbb{A}			15884 Nov 27 04:49	0° \mathbb{A}	
asc. node	15883 Dec 22 05:19	29° \mathbb{A} 37'52		asc. node	15884 Dec 08 02:22	19° \mathbb{A} 05'16	
	15883 Dec 22 10:04	0° \mathbb{B}			15884 Dec 13 11:51	0° \mathbb{B}	
morning set	15883 Dec 30 11:24	16° \mathbb{B} 13'34		morning set	15884 Dec 13 17:14	0° \mathbb{B} 28'23	
	15884 Jan 05 17:14	0° \mathbb{A}		max. Earth dist.	15884 Dec 19 22:37	14° \mathbb{B} 03'44	1.31050 AU
superior conj	15884 Jan 06 06:29	1° \mathbb{A} 14'09	1°37'47	superior conj	15884 Dec 20 17:48	15° \mathbb{B} 50'53	1°32'52
minimum elong	15884 Jan 06 06:08	1° \mathbb{A} 12'14	1°38'31	minimum elong	15884 Dec 20 16:29	15° \mathbb{B} 43'29	1°33'34
max. Earth dist.	15884 Jan 06 15:00	2° \mathbb{A} 01'49	1.31109 AU	evening rise	15884 Dec 27 10:39	0° \mathbb{A} 41'17	
evening rise	15884 Jan 13 02:59	16° \mathbb{A} 18'10			15884 Dec 27 03:00	0° \mathbb{A}	
	15884 Jan 19 21:59	0° \mathbb{H}		desc. node	15885 Jan 09 12:34	25° \mathbb{A} 50'19	
desc. node	15884 Jan 23 15:48	6° \mathbb{H} 50'47			15885 Jan 12 02:57	0° \mathbb{H}	
	15884 Feb 08 10:44	0° \mathbb{Y}		evening max el	15885 Jan 24 20:08	15° \mathbb{H} 59'53	26°08'00
evening max el	15884 Feb 12 22:10	4° \mathbb{Y} 43'48	27°08'58	retrograde	15885 Feb 07 19:12	23° \mathbb{H} 04'50	
retrograde	15884 Feb 26 23:01	12° \mathbb{Y} 01'40		evening set	15885 Feb 13 23:29	21° \mathbb{H} 34'38	
evening set	15884 Mar 04 14:43	10° \mathbb{Y} 06'05		min. Earth dist.	15885 Feb 18 09:21	18° \mathbb{H} 56'50	0.57772 AU
min. Earth dist.	15884 Mar 08 12:32	7° \mathbb{Y} 23'16	0.59939 AU	inferior conj	15885 Feb 21 10:22	16° \mathbb{H} 46'15	-3°51'55
inferior conj	15884 Mar 11 17:44	4° \mathbb{Y} 43'41	-2°21'43	minimum elong	15885 Feb 21 18:58	16° \mathbb{H} 30'50	3°48'49
minimum elong	15884 Mar 11 23:03	4° \mathbb{Y} 32'37	2°19'37	morning rise	15885 Mar 01 17:36	12° \mathbb{H} 22'16	
morning rise	15884 Mar 19 10:54	29° \mathbb{H} 58'17		direct	15885 Mar 03 17:02	12° \mathbb{H} 09'32	
asc. node	15884 Mar 19 02:46	0° \mathbb{Y} 03'58		asc. node	15885 Mar 06 00:08	12° \mathbb{H} 27'33	
	15884 Mar 19 08:18	30° $\mathbb{R}\mathbb{H}$		morning max el	15885 Mar 12 04:41	16° \mathbb{H} 20'07	18°38'51
direct	15884 Mar 21 11:32	29° \mathbb{H} 42'15			15885 Mar 21 19:02	0° \mathbb{Y}	
	15884 Mar 23 13:44	0° \mathbb{Y}		morning set	15885 Mar 28 05:42	12° \mathbb{Y} 04'50	
morning max el	15884 Mar 28 20:59	3° \mathbb{Y} 23'34	18°02'56	superior conj	15885 Apr 06 03:20	29° \mathbb{Y} 08'11	0°12'05
morning set	15884 Apr 13 10:47	27° \mathbb{Y} 55'44		minimum elong	15885 Apr 06 04:08	29° \mathbb{Y} 11'56	0°11'37
	15884 Apr 14 13:38	0° \mathbb{B}		behind sun begin	15885 Apr 05 23:19	28° \mathbb{Y} 49'28	
desc. node	15884 Apr 20 17:20	11° \mathbb{B} 16'51		behind sun end	15885 Apr 06 08:57	29° \mathbb{Y} 34'22	
					15885 Apr 06 14:27	0° \mathbb{B}	
superior conj	15884 Apr 23 13:18	16° \mathbb{B} 20'17	-0°23'10	desc. node	15885 Apr 07 14:03	1° \mathbb{B} 49'08	
minimum elong	15884 Apr 23 11:21	16° \mathbb{B} 11'37	0°23'21	max. Earth dist.	15885 Apr 13 11:22	12° \mathbb{B} 22'30	1.39992 AU
max. Earth dist.	15884 May 01 03:11	29° \mathbb{B} 20'28	1.42176 AU	evening rise	15885 Apr 17 12:45	19° \mathbb{B} 18'35	
	15884 May 01 12:41	0° \mathbb{H}			15885 Apr 24 02:35	0° \mathbb{H}	
evening rise	15884 May 06 11:54	8° \mathbb{H} 05'32			15885 May 15 03:53	0° \mathbb{B}	
	15884 May 20 21:19	0° \mathbb{B}		evening max el	15885 May 22 06:51	8° \mathbb{B} 03'10	23°52'20
evening max el	15884 Jun 08 16:25	24° \mathbb{B} 08'37	22°30'48	asc. node	15885 Jun 01 21:40	14° \mathbb{B} 30'03	
asc. node	15884 Jun 15 00:39	29° \mathbb{B} 01'35		retrograde	15885 Jun 02 07:15	14° \mathbb{B} 30'44	
retrograde	15884 Jun 18 12:48	29° \mathbb{B} 54'46		evening set	15885 Jun 07 16:03	12° \mathbb{B} 13'48	
evening set	15884 Jun 23 09:53	27° \mathbb{B} 51'39		min. Earth dist.	15885 Jun 12 08:30	6° \mathbb{B} 45'41	0.68890 AU
inferior conj	15884 Jun 28 16:30	21° \mathbb{B} 30'42	3°03'00	inferior conj	15885 Jun 13 01:55	5° \mathbb{B} 46'15	2°46'43
minimum elong	15884 Jun 28 15:33	21° \mathbb{B} 34'00	3°02'08	minimum elong	15885 Jun 13 00:13	5° \mathbb{B} 52'02	2°45'38
min. Earth dist.	15884 Jun 28 12:05	21° \mathbb{B} 46'05	0.69137 AU		15885 Jun 17 23:43	30° $\mathbb{R}\mathbb{H}$	
morning rise	15884 Jul 03 21:04	15° \mathbb{B} 18'10		morning rise	15885 Jun 18 08:25	29° \mathbb{H} 42'22	
direct	15884 Jul 08 11:28	13° \mathbb{B} 23'23		direct	15885 Jun 22 10:47	28° \mathbb{H} 07'19	
morning max el	15884 Jul 17 11:54	18° \mathbb{B} 38'12	21°37'45		15885 Jun 27 08:09	0° \mathbb{B}	
desc. node	15884 Jul 17 16:51	18° \mathbb{B} 50'38		morning max el	15885 Jun 30 08:16	2° \mathbb{B} 34'49	20°20'50
	15884 Jul 26 22:33	0° \mathbb{Q}		desc. node	15885 Jul 04 14:04	7° \mathbb{B} 19'48	
	15884 Aug 16 08:50	0° \mathbb{H}			15885 Jul 20 17:10	0° \mathbb{Q}	
morning set	15884 Aug 18 09:56	3° \mathbb{H} 13'05		morning set	15885 Jul 28 19:09	12° \mathbb{Q} 16'36	
max. Earth dist.	15884 Aug 24 16:43	13° \mathbb{H} 21'08	1.42299 AU	max. Earth dist.	15885 Aug 07 03:37	26° \mathbb{Q} 56'18	1.44161 AU
					15885 Aug 09 01:24	0° \mathbb{H}	
superior conj	15884 Sep 01 06:51	26° \mathbb{H} 09'35	-1°18'20	superior conj	15885 Aug 13 05:45	6° \mathbb{H} 48'23	-1°50'20
minimum elong	15884 Sep 01 13:12	26° \mathbb{H} 37'06	1°17'36	minimum elong	15885 Aug 13 13:33	7° \mathbb{H} 20'28	1°50'02
	15884 Sep 03 11:41	0° \mathbb{A}					
asc. node	15884 Sep 11 01:34	13° \mathbb{A} 36'15					

































































































































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	15885 Aug 26 21:46	0° \mathbb{L}		evening rise	15886 Aug 07 18:00	9° \mathbb{M} 58'46
asc. node	15885 Aug 28 22:12	3° \mathbb{L} 29'34		asc. node	15886 Aug 15 18:52	23° \mathbb{M} 08'37
evening max el	15885 Sep 11 22:36	24° \mathbb{L} 29'55	18°01'42		15886 Aug 20 04:58	0° \mathbb{L}
retrograde	15885 Sep 18 10:19	27° \mathbb{L} 52'15		evening max el	15886 Aug 26 13:22	8° \mathbb{L} 03'54 18°14'12
evening set	15885 Sep 20 23:16	27° \mathbb{L} 20'24		retrograde	15886 Sep 01 22:08	11° \mathbb{L} 26'13
inferior conj	15885 Sep 27 11:37	22° \mathbb{L} 10'25	0°54'22	evening set	15886 Sep 04 19:45	10° \mathbb{L} 40'30
minimum elong	15885 Sep 27 13:08	22° \mathbb{L} 06'32	0°54'03	inferior conj	15886 Sep 10 19:30	5° \mathbb{L} 14'01 1°51'36
desc. node	15885 Sep 30 11:09	19° \mathbb{L} 08'30		minimum elong	15886 Sep 10 21:48	5° \mathbb{L} 07'24 1°50'54
min. Earth dist.	15885 Sep 30 09:31	19° \mathbb{L} 12'28	0.62046 AU	min. Earth dist.	15886 Sep 13 05:28	2° \mathbb{L} 28'55 0.64202 AU
morning rise	15885 Oct 04 00:27	16° \mathbb{L} 06'22			15886 Sep 15 15:40	30° \mathbb{R} \mathbb{M}
direct	15885 Oct 10 16:51	13° \mathbb{L} 44'53		morning rise	15886 Sep 16 22:08	28° \mathbb{M} 54'51
morning max el	15885 Oct 24 19:44	21° \mathbb{L} 41'48	27°58'28	desc. node	15886 Sep 17 08:33	28° \mathbb{M} 35'01
	15885 Nov 01 02:30	0° \mathbb{M}		direct	15886 Sep 23 11:53	26° \mathbb{M} 20'50
	15885 Nov 20 07:57	0° \mathbb{J}			15886 Oct 02 08:37	0° \mathbb{L}
asc. node	15885 Nov 24 23:19	8° \mathbb{J} 51'16		morning max el	15886 Oct 07 05:59	4° \mathbb{L} 18'58 27°33'16
morning set	15885 Nov 27 17:09	14° \mathbb{J} 23'18			15886 Oct 26 16:21	0° \mathbb{M}
max. Earth dist.	15885 Dec 03 03:05	25° \mathbb{J} 53'29	1.31545 AU	morning set	15886 Nov 11 08:44	27° \mathbb{M} 53'07
	15885 Dec 04 23:58	0° \mathbb{Z}		asc. node	15886 Nov 11 20:14	28° \mathbb{M} 50'17
					15886 Nov 12 10:10	0° \mathbb{J}
superior conj	15885 Dec 05 03:23	0° \mathbb{Z} 18'51	1°21'55	max. Earth dist.	15886 Nov 16 00:35	7° \mathbb{J} 23'52 1.32606 AU
minimum elong	15885 Dec 05 01:20	0° \mathbb{Z} 07'30	1°22'28			
evening rise	15885 Dec 11 20:47	15° \mathbb{Z} 08'35		superior conj	15886 Nov 19 09:15	14° \mathbb{J} 33'18 1°04'52
	15885 Dec 19 03:03	0° \mathbb{A}		minimum elong	15886 Nov 19 06:54	14° \mathbb{J} 20'36 1°05'15
desc. node	15885 Dec 27 09:25	14° \mathbb{A} 04'52		evening rise	15886 Nov 26 07:39	29° \mathbb{J} 36'04
evening max el	15886 Jan 06 09:36	26° \mathbb{A} 25'10	24°38'37		15886 Nov 26 12:07	0° \mathbb{Z}
	15886 Jan 10 18:23	0° \mathbb{H}			15886 Dec 13 06:07	0° \mathbb{A}
retrograde	15886 Jan 20 02:39	3° \mathbb{H} 15'45		desc. node	15886 Dec 14 06:21	1° \mathbb{A} 18'27
evening set	15886 Jan 25 10:17	2° \mathbb{H} 13'22		evening max el	15886 Dec 18 19:01	6° \mathbb{A} 22'00 22°55'39
	15886 Jan 29 21:50	30° \mathbb{R} \mathbb{A}		retrograde	15886 Dec 31 21:25	12° \mathbb{A} 51'05
min. Earth dist.	15886 Jan 30 21:30	29° \mathbb{A} 24'27	0.55939 AU	evening set	15887 Jan 04 23:25	12° \mathbb{A} 14'49
inferior conj	15886 Feb 02 05:49	27° \mathbb{A} 56'36	-5°12'32	min. Earth dist.	15887 Jan 12 04:33	8° \mathbb{A} 55'08 0.54736 AU
minimum elong	15886 Feb 02 14:40	27° \mathbb{A} 42'46	5°10'07	inferior conj	15887 Jan 13 06:18	8° \mathbb{A} 18'27 -5°58'37
morning rise	15886 Feb 10 21:16	23° \mathbb{A} 53'32		minimum elong	15887 Jan 13 09:08	8° \mathbb{A} 14'24 5°57'47
direct	15886 Feb 13 02:56	23° \mathbb{A} 40'01		morning rise	15887 Jan 21 20:09	4° \mathbb{A} 29'08
asc. node	15886 Feb 20 21:31	26° \mathbb{A} 36'47		direct	15887 Jan 24 18:34	4° \mathbb{A} 09'07
morning max el	15886 Feb 23 01:20	28° \mathbb{A} 29'25	19°37'06	morning max el	15887 Feb 05 07:34	9° \mathbb{A} 43'04 20°58'38
	15886 Feb 24 12:07	0° \mathbb{H}		asc. node	15887 Feb 07 18:53	12° \mathbb{A} 20'18
morning set	15886 Mar 12 08:49	26° \mathbb{H} 33'50			15887 Feb 19 02:43	0° \mathbb{H}
	15886 Mar 14 01:41	0° \mathbb{Y}		morning set	15887 Feb 24 17:08	11° \mathbb{H} 13'50
superior conj	15886 Mar 20 09:03	12° \mathbb{Y} 37'44	0°41'56	superior conj	15887 Mar 04 02:21	26° \mathbb{H} 37'28 1°05'29
minimum elong	15886 Mar 20 11:16	12° \mathbb{Y} 48'39	0°41'28	minimum elong	15887 Mar 04 04:54	26° \mathbb{H} 50'36 1°05'15
desc. node	15886 Mar 25 10:42	22° \mathbb{Y} 20'55			15887 Mar 05 18:03	0° \mathbb{Y}
max. Earth dist.	15886 Mar 26 17:37	24° \mathbb{Y} 44'13	1.37695 AU	max. Earth dist.	15887 Mar 09 02:17	6° \mathbb{Y} 39'21 1.35533 AU
	15886 Mar 29 15:20	0° \mathbb{Z}		desc. node	15887 Mar 12 07:20	12° \mathbb{Y} 48'30
evening rise	15886 Mar 30 10:08	1° \mathbb{Z} 23'23		evening rise	15887 Mar 13 01:07	14° \mathbb{Y} 11'40
	15886 Apr 17 07:12	0° \mathbb{I}			15887 Mar 22 01:06	0° \mathbb{Z}
evening max el	15886 May 04 20:15	21° \mathbb{I} 57'27	25°10'53		15887 Apr 12 01:21	0° \mathbb{I}
retrograde	15886 May 16 21:52	28° \mathbb{I} 58'15		evening max el	15887 Apr 17 09:48	5° \mathbb{I} 47'04 26°19'05
asc. node	15886 May 19 18:46	28° \mathbb{I} 23'56		retrograde	15887 Apr 30 07:35	13° \mathbb{I} 09'22
evening set	15886 May 22 17:59	26° \mathbb{I} 31'09		evening set	15887 May 06 13:54	10° \mathbb{I} 37'09
min. Earth dist.	15886 May 27 02:30	21° \mathbb{I} 40'00	0.68158 AU	asc. node	15887 May 06 15:59	10° \mathbb{I} 32'50
inferior conj	15886 May 28 08:58	20° \mathbb{I} 00'26	2°19'49	min. Earth dist.	15887 May 10 16:05	6° \mathbb{I} 21'26 0.66972 AU
minimum elong	15886 May 28 06:50	20° \mathbb{I} 07'25	2°18'30	inferior conj	15887 May 12 11:31	4° \mathbb{I} 08'16 1°41'27
morning rise	15886 Jun 02 20:02	14° \mathbb{I} 06'21		minimum elong	15887 May 12 09:26	4° \mathbb{I} 14'39 1°40'06
direct	15886 Jun 06 10:57	12° \mathbb{I} 51'04			15887 May 16 04:27	30° \mathbb{R} \mathbb{Z}
morning max el	15886 Jun 13 11:59	16° \mathbb{I} 42'10	19°17'37	morning rise	15887 May 18 05:54	28° \mathbb{Z} 25'08
desc. node	15886 Jun 21 11:13	26° \mathbb{I} 29'29		direct	15887 May 21 10:12	27° \mathbb{Z} 28'06
	15886 Jun 23 22:21	0° \mathbb{E}			15887 May 26 22:08	0° \mathbb{I}
greatest brilliancy	15886 Jun 26 04:46	3° \mathbb{E} 19'20	-0.7m	morning max el	15887 May 27 22:26	0° \mathbb{I} 55'35 18°30'14
morning set	15886 Jul 07 23:45	21° \mathbb{E} 13'05		desc. node	15887 Jun 08 08:15	16° \mathbb{I} 08'25
	15886 Jul 13 16:19	0° \mathbb{O}			15887 Jun 17 05:27	0° \mathbb{E}
max. Earth dist.	15886 Jul 20 20:00	11° \mathbb{O} 08'56	1.45419 AU	morning set	15887 Jun 17 19:31	0° \mathbb{E} 55'20
superior conj	15886 Jul 24 06:04	16° \mathbb{O} 32'16	-2°10'38	superior conj	15887 Jul 03 16:15	25° \mathbb{E} 45'04 -2°12'32
minimum elong	15886 Jul 24 10:32	16° \mathbb{O} 50'01	2°11'05	minimum elong	15887 Jul 03 13:06	25° \mathbb{E} 32'47 2°13'13

max. Earth dist.	15887 Jul 03 15:16	25° \mathfrak{D} 41'14	1.45970 AU	evening rise	15888 Jun 28 06:53	0° \mathcal{O} 09'30	
	15887 Jul 06 09:39	0° \mathcal{O}			15888 Jun 28 04:24	0° \mathcal{O}	
evening rise	15887 Jul 19 11:23	20° \mathcal{O} 30'02		greatest brilliancy	15888 Jul 11 15:17	20° \mathcal{O} 22'40	-0.7m
	15887 Jul 25 12:01	0° \mathfrak{M}			15888 Jul 18 12:10	0° \mathfrak{M}	
greatest brilliancy	15887 Jul 27 20:47	3° \mathfrak{M} 41'54	-0.8m	asc. node	15888 Jul 19 12:19	1° \mathfrak{M} 17'04	
asc. node	15887 Aug 02 15:34	12° \mathfrak{M} 26'53		evening max el	15888 Jul 23 09:39	5° \mathfrak{M} 41'56	19°30'50
evening max el	15887 Aug 10 01:49	21° \mathfrak{M} 49'53	18°44'16	retrograde	15888 Jul 30 14:10	9° \mathfrak{M} 42'24	
retrograde	15887 Aug 16 16:25	25° \mathfrak{M} 25'05		evening set	15888 Aug 03 07:01	8° \mathfrak{M} 22'59	
evening set	15887 Aug 19 23:19	24° \mathfrak{M} 23'13		inferior conj	15888 Aug 08 15:50	2° \mathfrak{M} 29'06	2°55'42
inferior conj	15887 Aug 25 13:57	18° \mathfrak{M} 42'20	2°31'11	minimum elong	15888 Aug 08 17:17	2° \mathfrak{M} 24'18	2°55'03
minimum elong	15887 Aug 25 16:06	18° \mathfrak{M} 35'39	2°30'28	min. Earth dist.	15888 Aug 09 22:00	0° \mathfrak{M} 49'18	0.67527 AU
min. Earth dist.	15887 Aug 27 10:12	16° \mathfrak{M} 24'49	0.66063 AU		15888 Aug 10 13:13	30° \mathcal{R} \mathcal{O}	
morning rise	15887 Aug 31 07:51	12° \mathfrak{M} 16'34		morning rise	15888 Aug 14 02:59	26° \mathcal{O} 02'53	
desc. node	15887 Sep 04 05:58	10° \mathfrak{M} 00'14		direct	15888 Aug 20 00:10	23° \mathcal{O} 29'53	
direct	15887 Sep 06 14:48	9° \mathfrak{M} 38'49		desc. node	15888 Aug 21 03:22	23° \mathcal{O} 34'56	
morning max el	15887 Sep 19 17:25	17° \mathfrak{M} 24'19	26°38'16		15888 Aug 31 09:35	0° \mathfrak{M}	
	15887 Sep 30 06:44	0° \mathfrak{L}		morning max el	15888 Sep 01 04:26	0° \mathfrak{M} 46'51	25°22'30
	15887 Oct 19 14:20	0° \mathfrak{M}			15888 Sep 23 05:37	0° \mathfrak{L}	
morning set	15887 Oct 25 12:54	10° \mathfrak{M} 50'37		morning set	15888 Oct 07 01:55	23° \mathfrak{L} 07'01	
max. Earth dist.	15887 Oct 29 12:20	18° \mathfrak{M} 33'41	1.34211 AU	max. Earth dist.	15888 Oct 10 15:08	29° \mathfrak{L} 37'57	1.36285 AU
asc. node	15887 Oct 29 17:03	18° \mathfrak{M} 57'08			15888 Oct 10 19:50	0° \mathfrak{M}	
				asc. node	15888 Oct 15 13:47	9° \mathfrak{M} 07'42	
superior conj	15887 Nov 03 09:01	28° \mathfrak{M} 28'06	0°41'45				
minimum elong	15887 Nov 03 07:00	28° \mathfrak{M} 17'36	0°42'02	superior conj	15888 Oct 16 23:46	11° \mathfrak{M} 56'01	0°12'50
	15887 Nov 04 02:36	0° \mathfrak{J}		minimum elong	15888 Oct 16 22:58	11° \mathfrak{M} 52'03	0°13'10
evening rise	15887 Nov 10 17:18	13° \mathfrak{J} 59'02		behind sun begin	15888 Oct 16 19:17	11° \mathfrak{M} 33'41	
	15887 Nov 18 18:59	0° \mathfrak{Z}		behind sun end	15888 Oct 17 02:40	12° \mathfrak{M} 10'27	
evening max el	15887 Nov 30 09:54	16° \mathfrak{Z} 28'31	21°17'13	evening rise	15888 Oct 24 23:37	28° \mathfrak{M} 12'10	
desc. node	15887 Dec 01 03:22	17° \mathfrak{Z} 10'16			15888 Oct 25 20:48	0° \mathfrak{J}	
retrograde	15887 Dec 12 07:39	22° \mathfrak{Z} 21'58		evening max el	15888 Nov 11 13:52	27° \mathfrak{J} 14'58	19°56'00
evening set	15887 Dec 15 03:33	22° \mathfrak{Z} 03'26			15888 Nov 14 20:09	0° \mathfrak{Z}	
inferior conj	15887 Dec 23 21:18	18° \mathfrak{Z} 12'49	-5°47'11	desc. node	15888 Nov 17 00:28	1° \mathfrak{Z} 15'29	
minimum elong	15887 Dec 23 14:58	18° \mathfrak{Z} 21'45	5°45'34	retrograde	15888 Nov 21 20:55	2° \mathfrak{Z} 22'59	
min. Earth dist.	15887 Dec 24 10:04	17° \mathfrak{Z} 54'50	0.54403 AU	evening set	15888 Nov 23 22:42	2° \mathfrak{Z} 11'28	
morning rise	15888 Jan 01 02:42	14° \mathfrak{Z} 22'33			15888 Nov 29 15:36	30° \mathcal{R} \mathfrak{J}	
direct	15888 Jan 05 02:12	13° \mathfrak{Z} 48'18		inferior conj	15888 Dec 02 17:14	28° \mathfrak{J} 12'13	-4°38'22
morning max el	15888 Jan 17 23:40	20° \mathfrak{Z} 04'20	22°40'05	minimum elong	15888 Dec 02 07:11	28° \mathfrak{J} 27'32	4°34'44
asc. node	15888 Jan 25 16:12	29° \mathfrak{Z} 19'59		min. Earth dist.	15888 Dec 04 16:49	26° \mathfrak{J} 59'42	0.55017 AU
	15888 Jan 26 03:09	0° \mathfrak{A}		morning rise	15888 Dec 10 14:29	24° \mathfrak{J} 02'19	
morning set	15888 Feb 09 04:19	25° \mathfrak{A} 58'16		direct	15888 Dec 15 14:48	23° \mathfrak{J} 07'20	
	15888 Feb 11 01:32	0° \mathfrak{H}			15888 Dec 29 09:44	0° \mathfrak{Z}	
				morning max el	15888 Dec 29 08:19	29° \mathfrak{J} 56'36	24°30'07
superior conj	15888 Feb 16 03:54	10° \mathfrak{H} 57'59	1°22'34	asc. node	15889 Jan 11 13:27	17° \mathfrak{Z} 17'35	
minimum elong	15888 Feb 16 06:02	11° \mathfrak{H} 09'26	1°22'41		15889 Jan 18 12:44	0° \mathfrak{A}	
max. Earth dist.	15888 Feb 19 17:39	18° \mathfrak{H} 28'40	1.33696 AU	morning set	15889 Jan 23 16:18	10° \mathfrak{A} 40'28	
evening rise	15888 Feb 24 06:11	27° \mathfrak{H} 34'16					
	15888 Feb 25 12:18	0° \mathfrak{Y}		superior conj	15889 Jan 30 10:51	25° \mathfrak{A} 30'30	1°33'18
desc. node	15888 Feb 27 03:57	0° \mathfrak{Y} 07'59		minimum elong	15889 Jan 30 12:10	25° \mathfrak{A} 37'39	1°33'45
	15888 Mar 14 07:28	0° \mathfrak{X}		max. Earth dist.	15889 Feb 01 16:46	0° \mathfrak{H} 24'00	1.32298 AU
evening max el	15888 Mar 29 23:33	19° \mathfrak{X} 24'40	27°09'22		15889 Feb 01 12:20	0° \mathfrak{H}	
retrograde	15888 Apr 12 11:23	26° \mathfrak{X} 55'54		evening rise	15889 Feb 06 21:55	11° \mathfrak{H} 21'30	
evening set	15888 Apr 19 01:45	24° \mathfrak{X} 24'52		desc. node	15889 Feb 13 00:34	23° \mathfrak{H} 13'49	
asc. node	15888 Apr 22 13:14	21° \mathfrak{X} 09'07			15889 Feb 16 19:12	0° \mathfrak{Y}	
min. Earth dist.	15888 Apr 22 23:11	20° \mathfrak{X} 42'04	0.65375 AU		15889 Mar 09 22:04	0° \mathfrak{X}	
inferior conj	15888 Apr 25 07:12	18° \mathfrak{X} 04'21	0°50'35	evening max el	15889 Mar 12 11:59	2° \mathfrak{X} 37'25	27°34'29
minimum elong	15888 Apr 25 05:53	18° \mathfrak{X} 08'03	0°49'33	retrograde	15889 Mar 26 08:00	10° \mathfrak{X} 07'41	
morning rise	15888 May 01 11:42	12° \mathfrak{X} 33'59		evening set	15889 Apr 02 03:10	7° \mathfrak{X} 44'38	
direct	15888 May 04 06:27	11° \mathfrak{X} 52'36		min. Earth dist.	15889 Apr 05 21:49	4° \mathfrak{X} 30'55	0.63430 AU
morning max el	15888 May 10 13:46	15° \mathfrak{X} 08'52	17°59'44	inferior conj	15889 Apr 08 17:06	1° \mathfrak{X} 40'32	-0°13'51
	15888 May 21 09:51	0° \mathfrak{I}		minimum elong	15889 Apr 08 17:32	1° \mathfrak{X} 39'24	0°14'02
desc. node	15888 May 25 05:13	6° \mathfrak{I} 08'55		transit middle	15889 Apr 08 17:32	1° \mathfrak{X} 39'24	0°14'02
morning set	15888 May 28 17:56	11° \mathfrak{I} 55'07		transit begin	15889 Apr 08 16:02	1° \mathfrak{X} 43'16	
	15888 Jun 08 22:25	0° \mathfrak{G}		transit end	15889 Apr 08 19:03	1° \mathfrak{X} 35'33	
				asc. node	15889 Apr 09 10:32	0° \mathfrak{X} 56'31	
superior conj	15888 Jun 12 04:36	5° \mathfrak{G} 09'42	-1°54'43		15889 Apr 10 09:39	30° \mathcal{R} \mathfrak{Y}	
minimum elong	15888 Jun 11 20:15	4° \mathfrak{G} 36'47	1°54'54	morning rise	15889 Apr 15 10:26	26° \mathfrak{Y} 25'22	
max. Earth dist.	15888 Jun 15 11:28	10° \mathfrak{G} 19'28	1.45775 AU	direct	15889 Apr 17 20:48	25° \mathfrak{Y} 56'31	

morning max el	15889 Apr 24 07:19	29° Υ 13'21	17°46'39	morning set	15890 Apr 23 15:58	7° δ 21'12	
	15889 Apr 25 01:40	0° δ		desc. node	15890 Apr 28 22:50	16° δ 49'25	
morning set	15889 May 10 18:35	24° δ 09'22					
desc. node	15889 May 12 02:04	26° δ 24'12		superior conj	15890 May 04 14:41	26° δ 42'02	-0°44'59
	15889 May 14 04:38	0° Π		minimum elong	15890 May 04 10:37	26° δ 24'38	0°44'59
					15890 May 06 13:12	0° Π	
superior conj	15889 May 23 09:57	15° Π 23'31	-1°22'50	max. Earth dist.	15890 May 11 21:43	8° Π 53'23	1.43295 AU
minimum elong	15889 May 23 02:17	14° Π 52'15	1°22'38	evening rise	15890 May 18 11:28	19° Π 23'24	
max. Earth dist.	15889 May 29 06:27	24° Π 49'05	1.44853 AU		15890 May 25 09:15	0° ϕ	
	15889 Jun 01 13:17	0° ϕ			15890 Jun 16 02:25	0° Ω	
evening rise	15889 Jun 07 17:23	9° ϕ 33'26		evening max el	15890 Jun 19 07:34	3° Ω 28'58	21°45'12
	15889 Jun 21 09:27	0° Ω		asc. node	15890 Jun 23 05:59	6° Ω 51'25	
asc. node	15889 Jul 06 09:06	19° Ω 29'31		retrograde	15890 Jun 28 11:35	8° Ω 49'36	
evening max el	15889 Jul 06 11:34	19° Ω 35'40	20°32'10	evening set	15890 Jul 03 02:07	6° Ω 55'14	
retrograde	15889 Jul 14 13:09	24° Ω 12'31		inferior conj	15890 Jul 08 07:48	0° Ω 39'05	3°07'38
evening set	15889 Jul 18 16:35	22° Ω 35'12		minimum elong	15890 Jul 08 07:22	0° Ω 40'37	3°06'53
inferior conj	15889 Jul 23 22:31	16° Ω 29'28	3°07'21	min. Earth dist.	15890 Jul 08 10:49	0° Ω 28'36	0.69055 AU
minimum elong	15889 Jul 23 23:02	16° Ω 27'40	3°06'42		15890 Jul 08 19:01	30° κ ϕ	
min. Earth dist.	15889 Jul 24 14:52	15° Ω 33'15	0.68532 AU	morning rise	15890 Jul 13 12:26	24° ϕ 22'24	
morning rise	15889 Jul 29 05:12	10° Ω 06'48		direct	15890 Jul 18 09:47	22° ϕ 17'16	
direct	15889 Aug 03 14:51	7° Ω 45'24		desc. node	15890 Jul 25 22:04	25° ϕ 56'23	
desc. node	15889 Aug 08 00:44	9° Ω 01'54		morning max el	15890 Jul 28 03:43	28° ϕ 01'51	22°26'40
morning max el	15889 Aug 14 15:17	14° Ω 20'12	23°55'38		15890 Jul 30 00:36	0° Ω	
	15889 Aug 27 09:50	0° Π			15890 Aug 21 00:43	0° Π	
	15889 Sep 16 02:46	0° $\underline{\Omega}$		morning set	15890 Aug 30 14:15	14° Π 59'46	
morning set	15889 Sep 18 19:37	4° $\underline{\Omega}$ 32'59		max. Earth dist.	15890 Sep 04 14:46	23° Π 17'12	1.41025 AU
max. Earth dist.	15889 Sep 22 13:59	11° $\underline{\Omega}$ 05'01	1.38643 AU		15890 Sep 08 13:04	0° $\underline{\Omega}$	
superior conj	15889 Sep 30 01:58	24° $\underline{\Omega}$ 48'36	-0°20'57	superior conj	15890 Sep 12 11:21	6° $\underline{\Omega}$ 55'23	-0°57'29
minimum elong	15889 Sep 30 03:26	24° $\underline{\Omega}$ 55'34	0°20'25	minimum elong	15890 Sep 12 15:55	7° $\underline{\Omega}$ 15'53	0°56'46
asc. node	15889 Oct 02 10:27	29° $\underline{\Omega}$ 18'24		asc. node	15890 Sep 19 07:05	19° $\underline{\Omega}$ 25'09	
	15889 Oct 02 19:04	0° \mathbb{M}		evening rise	15890 Sep 22 15:21	25° $\underline{\Omega}$ 41'22	
evening rise	15889 Oct 09 00:04	12° \mathbb{M} 09'18			15890 Sep 24 22:37	0° \mathbb{M}	
	15889 Oct 18 16:12	0° \mathbb{M}		evening max el	15890 Oct 08 13:07	21° \mathbb{M} 13'03	18°19'38
evening max el	15889 Oct 25 08:00	8° \mathbb{M} 51'36	18°56'51	retrograde	15890 Oct 16 01:46	25° \mathbb{M} 03'04	
retrograde	15889 Nov 03 01:41	13° \mathbb{M} 15'54		evening set	15890 Oct 18 02:44	24° \mathbb{M} 46'50	
desc. node	15889 Nov 03 21:40	13° \mathbb{M} 13'37		desc. node	15890 Oct 21 18:57	23° \mathbb{M} 04'55	
evening set	15889 Nov 04 23:00	13° \mathbb{M} 04'22		inferior conj	15890 Oct 25 17:03	20° \mathbb{M} 08'05	-1°15'37
inferior conj	15889 Nov 13 06:18	8° \mathbb{M} 46'45	-2°58'10	minimum elong	15890 Oct 25 14:11	20° \mathbb{M} 13'58	1°13'53
minimum elong	15889 Nov 12 22:59	8° \mathbb{M} 59'36	2°54'42	min. Earth dist.	15890 Oct 28 23:09	17° \mathbb{M} 28'28	0.58454 AU
min. Earth dist.	15889 Nov 16 04:10	6° \mathbb{M} 44'25	0.56452 AU	morning rise	15890 Nov 01 22:10	14° \mathbb{M} 47'00	
morning rise	15889 Nov 20 20:11	4° \mathbb{M} 02'38		direct	15890 Nov 08 06:56	13° \mathbb{M} 00'10	
direct	15889 Nov 26 15:48	2° \mathbb{M} 42'43		morning max el	15890 Nov 22 13:59	20° \mathbb{M} 37'43	27°22'15
morning max el	15889 Dec 10 19:18	9° \mathbb{M} 58'25	26°10'06		15890 Nov 30 16:43	0° \mathbb{M}	
	15889 Dec 25 23:31	0° \mathbb{Z}		asc. node	15890 Dec 16 07:42	25° \mathbb{M} 11'35	
asc. node	15889 Dec 29 10:37	5° \mathbb{Z} 58'47			15890 Dec 18 19:09	0° \mathbb{Z}	
morning set	15890 Jan 08 03:19	25° \mathbb{Z} 16'02		morning set	15890 Dec 23 11:36	9° \mathbb{Z} 39'39	
	15890 Jan 10 07:27	0° \approx					
superior conj	15890 Jan 14 21:03	10° \approx 09'06	1°37'53	superior conj	15890 Dec 30 08:29	24° \mathbb{Z} 47'50	1°36'27
minimum elong	15890 Jan 14 21:19	10° \approx 10'36	1°38'33	minimum elong	15890 Dec 30 07:43	24° \mathbb{Z} 43'29	1°37'10
max. Earth dist.	15890 Jan 15 21:49	12° \approx 26'56	1.31396 AU	max. Earth dist.	15890 Dec 30 05:28	24° \mathbb{Z} 30'54	1.31014 AU
evening rise	15890 Jan 21 21:38	25° \approx 26'59			15891 Jan 01 16:17	0° \approx	
	15890 Jan 24 02:30	0° \mathbb{H}		evening rise	15891 Jan 06 02:56	9° \approx 44'39	
desc. node	15890 Jan 30 21:15	13° \mathbb{H} 00'21			15891 Jan 16 09:59	0° \mathbb{H}	
	15890 Feb 10 08:20	0° Υ		desc. node	15891 Jan 17 18:00	2° \mathbb{H} 19'54	
evening max el	15890 Feb 22 20:38	15° Υ 11'59	27°28'08	evening max el	15891 Feb 04 22:57	26° \mathbb{H} 57'51	26°47'00
retrograde	15890 Mar 08 20:23	22° Υ 35'19			15891 Feb 08 12:16	0° Υ	
evening set	15890 Mar 15 15:27	20° Υ 27'28		retrograde	15891 Feb 18 23:24	4° Υ 11'02	
min. Earth dist.	15890 Mar 19 10:28	17° Υ 36'21	0.61248 AU	evening set	15891 Feb 25 11:24	2° Υ 25'20	
inferior conj	15890 Mar 22 13:51	14° Υ 47'57	-1°31'47		15891 Mar 01 05:37	30° κ \mathbb{H}	
minimum elong	15890 Mar 22 17:09	14° Υ 40'31	1°30'33	min. Earth dist.	15891 Mar 01 12:49	29° \mathbb{H} 46'37	0.58996 AU
asc. node	15890 Mar 27 07:54	11° Υ 03'00		inferior conj	15891 Mar 04 17:46	27° \mathbb{H} 17'03	-2°59'56
morning rise	15890 Mar 29 22:08	9° Υ 51'05		minimum elong	15891 Mar 05 00:38	27° \mathbb{H} 03'41	2°57'16
direct	15890 Apr 01 01:43	9° Υ 31'22		morning rise	15891 Mar 12 17:23	22° \mathbb{H} 41'02	
morning max el	15890 Apr 07 24:00	13° Υ 00'06	17°51'33	asc. node	15891 Mar 14 05:16	22° \mathbb{H} 27'46	
	15890 Apr 19 13:13	0° δ		direct	15891 Mar 14 16:48	22° \mathbb{H} 26'54	
				morning max el	15891 Mar 22 12:15	26° \mathbb{H} 19'07	18°15'39

	15891 Mar 25 16:50	0°♿		minimum elong	15892 Feb 14 10:49	8°♿42'23	4°25'35
morning set	15891 Apr 07 04:28	21°♿13'50		morning rise	15892 Feb 22 13:17	4°♿43'26	
	15891 Apr 11 20:10	0°♿		direct	15892 Feb 24 13:56	4°♿31'04	
desc. node	15891 Apr 15 19:33	7°♿20'32		asc. node	15892 Feb 29 02:41	5°♿36'47	
				morning max el	15892 Mar 04 15:51	8°♿57'37	19°00'48
superior conj	15891 Apr 16 17:46	9°♿01'22	-0°07'41		15892 Mar 18 07:03	0°♿	
minimum elong	15891 Apr 16 17:08	8°♿58'32	0°08'01	morning set	15892 Mar 21 03:19	5°♿32'54	
behind sun begin	15891 Apr 16 10:38	8°♿29'06					
behind sun end	15891 Apr 16 23:38	9°♿27'54		superior conj	15892 Mar 29 15:02	22°♿08'51	0°25'27
max. Earth dist.	15891 Apr 24 07:55	22°♿19'01	1.41272 AU	minimum elong	15892 Mar 29 16:36	22°♿16'17	0°24'58
	15891 Apr 28 22:52	0°♿		desc. node	15892 Apr 01 16:13	27°♿53'15	
evening rise	15891 Apr 29 00:04	0°♿04'50			15892 Apr 02 19:42	0°♿	
	15891 May 18 20:19	0°♿		max. Earth dist.	15892 Apr 05 14:27	5°♿01'43	1.39012 AU
evening max el	15891 Jun 01 23:21	17°♿23'06	23°05'21	evening rise	15892 Apr 09 09:58	11°♿41'30	
asc. node	15891 Jun 10 02:58	23°♿07'10			15892 Apr 20 17:25	0°♿	
retrograde	15891 Jun 12 08:01	23°♿28'19			15892 May 13 06:26	0°♿	
evening set	15891 Jun 17 10:02	21°♿18'52		evening max el	15892 May 14 13:09	1°♿18'12	24°26'33
inferior conj	15891 Jun 22 17:46	14°♿54'29	2°57'22	retrograde	15892 May 26 01:04	8°♿01'35	
minimum elong	15891 Jun 22 16:28	14°♿58'58	2°56'25	asc. node	15892 May 27 00:04	7°♿57'40	
min. Earth dist.	15891 Jun 22 07:46	15°♿29'08	0.69087 AU	evening set	15892 May 31 14:37	5°♿40'02	
morning rise	15891 Jun 27 22:50	8°♿45'23		min. Earth dist.	15892 Jun 05 03:33	0°♿27'27	0.68637 AU
direct	15891 Jul 02 07:57	6°♿59'05			15892 Jun 05 11:44	30°♿♿	
morning max el	15891 Jul 10 20:30	11°♿53'16	21°03'33	inferior conj	15892 Jun 06 02:27	29°♿10'30	2°36'39
desc. node	15891 Jul 12 19:18	13°♿56'40		minimum elong	15892 Jun 06 00:31	29°♿16'58	2°35'28
	15891 Jul 25 01:53	0°♿		morning rise	15892 Jun 11 10:33	23°♿10'21	
morning set	15891 Aug 10 09:41	24°♿28'40		direct	15892 Jun 15 07:56	21°♿43'46	
	15891 Aug 13 21:54	0°♿		morning max el	15892 Jun 22 19:52	25°♿54'35	19°51'58
max. Earth dist.	15891 Aug 17 21:15	6°♿22'27	1.43151 AU		15892 Jun 26 12:18	0°♿	
				desc. node	15892 Jun 28 16:29	2°♿44'43	
superior conj	15891 Aug 24 23:43	18°♿08'16	-1°32'52		15892 Jul 17 09:35	0°♿	
minimum elong	15891 Aug 25 07:05	18°♿39'24	1°32'14	morning set	15892 Jul 19 14:25	3°♿22'11	
	15891 Aug 31 20:33	0°♿		max. Earth dist.	15892 Jul 30 10:13	20°♿13'43	1.44782 AU
evening rise	15891 Sep 05 17:19	8°♿38'19					
asc. node	15891 Sep 06 03:44	9°♿24'48		superior conj	15892 Aug 04 12:36	28°♿22'41	-2°00'51
	15891 Sep 18 12:45	0°♿		minimum elong	15892 Aug 04 19:42	28°♿51'22	2°00'51
evening max el	15891 Sep 22 01:05	4°♿10'37	18°02'46		15892 Aug 05 12:40	0°♿	
retrograde	15891 Sep 28 18:57	7°♿39'01		evening rise	15892 Aug 18 00:43	20°♿46'36	
evening set	15891 Oct 01 03:07	7°♿13'57		asc. node	15892 Aug 23 00:24	29°♿12'49	
inferior conj	15891 Oct 08 00:18	2°♿15'01	0°12'30		15892 Aug 23 11:39	0°♿	
minimum elong	15891 Oct 08 00:42	2°♿14'03	0°12'42	evening max el	15892 Sep 04 15:52	17°♿34'16	18°04'53
transit middle	15891 Oct 08 00:42	2°♿14'03	0°12'42	retrograde	15892 Sep 11 01:08	20°♿54'39	
transit begin	15891 Oct 07 22:40	2°♿18'53		evening set	15892 Sep 13 17:45	20°♿17'12	
transit end	15891 Oct 08 02:44	2°♿09'12		inferior conj	15892 Sep 20 00:19	15°♿00'10	1°20'58
desc. node	15891 Oct 08 16:17	1°♿36'51		minimum elong	15892 Sep 20 02:20	14°♿54'46	1°20'25
	15891 Oct 10 09:00	30°♿♿		min. Earth dist.	15892 Sep 22 17:37	12°♿05'29	0.62996 AU
min. Earth dist.	15891 Oct 11 03:27	29°♿17'31	0.60731 AU	desc. node	15892 Sep 24 13:39	10°♿17'59	
morning rise	15891 Oct 14 19:12	26°♿23'49		morning rise	15892 Sep 26 08:43	8°♿48'46	
direct	15891 Oct 21 10:47	24°♿12'47		direct	15892 Oct 03 00:49	6°♿20'37	
	15891 Nov 02 10:32	0°♿		morning max el	15892 Oct 17 00:22	14°♿19'20	27°51'50
morning max el	15891 Nov 04 16:25	2°♿05'31	27°56'31		15892 Oct 29 17:55	0°♿	
	15891 Nov 25 02:28	0°♿			15892 Nov 16 16:24	0°♿	
asc. node	15891 Dec 03 04:43	14°♿47'26		asc. node	15892 Nov 19 01:40	4°♿39'46	
morning set	15891 Dec 07 15:12	23°♿46'30		morning set	15892 Nov 20 11:54	7°♿31'40	
	15891 Dec 10 13:21	0°♿		max. Earth dist.	15892 Nov 25 13:44	18°♿08'53	1.31922 AU
max. Earth dist.	15891 Dec 13 12:00	6°♿27'22	1.31183 AU				
				superior conj	15892 Nov 28 03:37	23°♿44'53	1°15'27
superior conj	15891 Dec 14 19:19	9°♿21'24	1°28'59	minimum elong	15892 Nov 28 01:23	23°♿32'35	1°15'56
minimum elong	15891 Dec 14 17:39	9°♿12'06	1°29'37		15892 Nov 30 23:50	0°♿	
evening rise	15891 Dec 21 11:51	24°♿09'42		evening rise	15892 Dec 04 22:33	8°♿38'05	
	15891 Dec 24 05:50	0°♿			15892 Dec 15 19:27	0°♿	
desc. node	15892 Jan 04 14:49	21°♿01'57		desc. node	15892 Dec 21 11:42	8°♿53'11	
	15892 Jan 10 18:51	0°♿		evening max el	15892 Dec 29 04:14	18°♿01'35	23°55'35
evening max el	15892 Jan 17 17:07	7°♿50'58	25°32'51	retrograde	15893 Jan 11 16:34	24°♿43'47	
retrograde	15892 Jan 31 14:50	14°♿50'57		evening set	15893 Jan 16 12:17	23°♿53'24	
evening set	15892 Feb 06 11:14	13°♿32'36		min. Earth dist.	15893 Jan 22 15:44	20°♿53'47	0.55328 AU
min. Earth dist.	15892 Feb 11 05:54	10°♿52'05	0.56924 AU	inferior conj	15893 Jan 24 12:19	19°♿47'23	-5°37'57
inferior conj	15892 Feb 14 01:31	8°♿58'07	-4°28'37	minimum elong	15893 Jan 24 19:27	19°♿36'45	5°36'18

morning rise	15893 Feb 02 04:16	15° \approx 51'04		min. Earth dist.	15894 Jan 03 21:18	0° \approx 07'06	0.54481 AU
direct	15893 Feb 04 15:47	15° \approx 35'32			15894 Jan 04 02:23	30° \approx 00'	
asc. node	15893 Feb 15 00:03	20° \approx 28'23		morning rise	15894 Jan 12 17:46	26° \approx 06'13	
morning max el	15893 Feb 15 06:37	20° \approx 44'06	20°08'56	direct	15894 Jan 16 02:35	25° \approx 34'05	
	15893 Feb 22 12:52	0° \approx			15894 Jan 26 12:33	0° \approx	
morning set	15893 Mar 05 09:02	20° \approx 08'10		morning max el	15894 Jan 28 06:16	1° \approx 33'01	21°39'52
	15893 Mar 10 04:29	0° \approx		asc. node	15894 Feb 01 21:23	6° \approx 46'10	
					15894 Feb 15 10:44	0° \approx	
superior conj	15893 Mar 13 02:09	5° \approx 52'48	0°52'41	morning set	15894 Feb 17 18:50	4° \approx 50'49	
minimum elong	15893 Mar 13 04:38	6° \approx 05'13	0°52'18				
max. Earth dist.	15893 Mar 18 21:19	17° \approx 10'57	1.36752 AU	superior conj	15894 Feb 24 23:18	20° \approx 02'06	1°13'31
desc. node	15893 Mar 19 12:52	18° \approx 24'05		minimum elong	15894 Feb 25 01:45	20° \approx 14'54	1°13'25
evening rise	15893 Mar 22 15:21	24° \approx 06'49		max. Earth dist.	15894 Mar 01 08:48	29° \approx 02'41	1.34705 AU
	15893 Mar 25 23:08	0° \approx			15894 Mar 01 20:17	0° \approx	
	15893 Apr 14 09:02	0° \approx		evening rise	15894 Mar 05 12:42	7° \approx 10'21	
evening max el	15893 Apr 27 02:48	15° \approx 12'27	25°41'34	desc. node	15894 Mar 06 09:30	8° \approx 48'39	
retrograde	15893 May 09 13:35	22° \approx 23'10			15894 Mar 18 15:35	0° \approx	
asc. node	15893 May 13 21:13	21° \approx 07'33		evening max el	15894 Apr 09 16:35	28° \approx 58'31	26°43'03
evening set	15893 May 15 14:12	19° \approx 53'31			15894 Apr 10 18:28	0° \approx	
min. Earth dist.	15893 May 19 19:58	15° \approx 17'30	0.67717 AU	retrograde	15894 Apr 22 20:44	6° \approx 25'17	
inferior conj	15893 May 21 07:52	13° \approx 23'02	2°05'01	evening set	15894 Apr 29 06:56	3° \approx 52'42	
minimum elong	15893 May 21 05:41	13° \approx 30'01	2°03'40	asc. node	15894 Apr 30 18:26	2° \approx 34'04	
morning rise	15893 May 26 21:42	7° \approx 33'14			15894 May 03 04:00	30° \approx 00'	
direct	15893 May 30 08:04	6° \approx 25'47		min. Earth dist.	15894 May 03 06:55	29° \approx 51'36	0.66346 AU
morning max el	15893 Jun 06 02:31	10° \approx 04'58	18°55'19	inferior conj	15894 May 05 07:48	27° \approx 26'48	1°21'31
desc. node	15893 Jun 15 13:35	22° \approx 08'04		minimum elong	15894 May 05 05:57	27° \approx 32'19	1°20'14
greatest brilliancy	15893 Jun 19 11:07	27° \approx 55'52	-0.7m	morning rise	15894 May 11 06:10	21° \approx 48'59	
	15893 Jun 20 19:50	0° \approx		direct	15894 May 14 06:22	20° \approx 58'51	
morning set	15893 Jun 28 23:18	12° \approx 32'25		morning max el	15894 May 20 15:22	24° \approx 19'40	18°15'12
	15893 Jul 10 05:12	0° \approx			15894 May 25 10:25	0° \approx	
max. Earth dist.	15893 Jul 13 04:24	4° \approx 37'49	1.45755 AU	desc. node	15894 Jun 02 10:35	11° \approx 57'17	
				morning set	15894 Jun 09 05:56	22° \approx 47'13	
superior conj	15893 Jul 15 05:16	7° \approx 49'01	-2°13'56		15894 Jun 13 18:35	0° \approx	
minimum elong	15893 Jul 15 06:43	7° \approx 54'43	2°14'36				
	15893 Jul 29 04:13	0° \approx		superior conj	15894 Jun 24 14:14	17° \approx 01'40	-2°07'11
evening rise	15893 Jul 30 08:39	1° \approx 54'39		minimum elong	15894 Jun 24 08:11	16° \approx 38'02	2°07'42
asc. node	15893 Aug 09 21:04	18° \approx 43'50		max. Earth dist.	15894 Jun 26 01:01	19° \approx 17'24	1.45983 AU
	15893 Aug 18 01:37	0° \approx			15894 Jul 02 22:09	0° \approx	
evening max el	15893 Aug 19 06:01	1° \approx 14'30	18°24'56	evening rise	15894 Jul 10 15:53	12° \approx 02'10	
retrograde	15893 Aug 25 16:03	4° \approx 40'26		greatest brilliancy	15894 Jul 21 07:38	28° \approx 29'47	-0.8m
evening set	15893 Aug 28 17:41	3° \approx 47'52			15894 Jul 22 07:32	0° \approx	
	15893 Sep 02 00:59	30° \approx 00'		asc. node	15894 Jul 27 17:46	7° \approx 51'40	
inferior conj	15893 Sep 03 13:06	28° \approx 14'58	2°10'25	evening max el	15894 Aug 02 16:43	15° \approx 04'09	19°02'03
minimum elong	15893 Sep 03 15:26	28° \approx 08'02	2°09'40	retrograde	15894 Aug 09 12:16	18° \approx 48'42	
min. Earth dist.	15893 Sep 05 17:16	25° \approx 40'22	0.65042 AU	evening set	15894 Aug 12 23:20	17° \approx 39'22	
morning rise	15893 Sep 09 11:50	21° \approx 52'23		inferior conj	15894 Aug 18 11:05	11° \approx 52'30	2°43'16
desc. node	15893 Sep 11 11:04	20° \approx 30'42		minimum elong	15894 Aug 18 12:59	11° \approx 46'25	2°42'35
direct	15893 Sep 15 23:09	19° \approx 15'54		min. Earth dist.	15894 Aug 20 01:13	9° \approx 50'21	0.66739 AU
morning max el	15893 Sep 29 11:14	27° \approx 09'33	27°13'02	morning rise	15894 Aug 24 01:51	5° \approx 25'54	
	15893 Oct 02 03:31	0° \approx		desc. node	15894 Aug 29 08:28	2° \approx 52'22	
	15893 Oct 23 10:00	0° \approx		direct	15894 Aug 30 04:47	2° \approx 49'35	
morning set	15893 Nov 03 22:58	20° \approx 48'21		morning max el	15894 Sep 11 22:51	10° \approx 24'42	26°08'04
asc. node	15893 Nov 05 22:30	24° \approx 42'37			15894 Sep 27 12:32	0° \approx	
max. Earth dist.	15893 Nov 08 07:24	29° \approx 30'41	1.33227 AU		15894 Oct 15 23:24	0° \approx	
	15893 Nov 08 13:07	0° \approx		morning set	15894 Oct 17 21:09	3° \approx 29'39	
superior conj	15893 Nov 12 07:10	7° \approx 51'47	0°55'48	max. Earth dist.	15894 Oct 21 15:23	10° \approx 37'22	1.35049 AU
minimum elong	15893 Nov 12 04:52	7° \approx 39'30	0°56'08	asc. node	15894 Oct 23 19:16	14° \approx 51'44	
evening rise	15893 Nov 19 09:07	23° \approx 04'28					
	15893 Nov 22 16:35	0° \approx		superior conj	15894 Oct 27 03:26	21° \approx 35'59	0°30'09
desc. node	15893 Dec 08 08:41	25° \approx 34'52		minimum elong	15894 Oct 27 01:49	21° \approx 27'42	0°30'26
evening max el	15893 Dec 10 14:42	27° \approx 57'33	22°12'17		15894 Oct 31 04:40	0° \approx	
	15893 Dec 12 21:35	0° \approx		evening rise	15894 Nov 03 17:38	7° \approx 24'14	
retrograde	15893 Dec 23 06:11	4° \approx 12'52			15894 Nov 15 20:43	0° \approx	
evening set	15893 Dec 26 18:59	3° \approx 45'17		evening max el	15894 Nov 22 10:22	8° \approx 17'33	20°40'00
inferior conj	15894 Jan 04 07:05	29° \approx 53'25	-6°01'30	desc. node	15894 Nov 25 05:43	10° \approx 34'19	
minimum elong	15894 Jan 04 05:53	29° \approx 55'05	6°00'43	retrograde	15894 Dec 03 16:22	13° \approx 52'52	
				evening set	15894 Dec 06 02:39	13° \approx 38'25	

inferior conj	15894 Dec 14 22:17	9°  45'12	-5°23'48	retrograde	15895 Nov 14 11:17	24°  14'06	
minimum elong	15894 Dec 14 13:23	9°  58'02	5°21'14	evening set	15895 Nov 16 09:30	24°  03'23	
min. Earth dist.	15894 Dec 16 02:45	9°  04'04	0.54552 AU	inferior conj	15895 Nov 25 00:28	19°  57'20	-3°57'46
morning rise	15894 Dec 23 00:00	5°  48'57		minimum elong	15895 Nov 24 15:04	20°  12'30	3°53'53
direct	15894 Dec 27 10:17	5°  06'49		min. Earth dist.	15895 Nov 27 11:28	18°  22'16	0.55536 AU
morning max el	15895 Jan 09 18:06	11°  37'47	23°26'59	morning rise	15895 Dec 02 18:34	15°  33'34	
asc. node	15895 Jan 19 18:40	24°  12'05		direct	15895 Dec 08 03:42	14°  28'17	
	15895 Jan 23 07:21	0° 		morning max el	15895 Dec 22 02:51	21°  30'26	25°15'05
morning set	15895 Feb 02 06:31	19°  34'42			15895 Dec 29 12:07	0° 	
	15895 Feb 07 01:57	0° 		asc. node	15896 Jan 06 15:52	12°  29'55	
					15896 Jan 15 18:24	0° 	
superior conj	15895 Feb 09 03:25	4°  28'21	1°27'54	morning set	15896 Jan 17 18:18	4°  14'55	
minimum elong	15895 Feb 09 05:14	4°  38'13	1°28'09				
max. Earth dist.	15895 Feb 12 03:24	10°  52'56	1.33037 AU	superior conj	15896 Jan 24 12:01	19°  04'45	1°36'00
evening rise	15895 Feb 16 22:35	20°  43'41		minimum elong	15896 Jan 24 12:54	19°  09'37	1°36'33
desc. node	15895 Feb 21 06:07	29°  42'42		max. Earth dist.	15896 Jan 26 05:08	22°  51'03	1.31843 AU
	15895 Feb 21 18:26	0° 			15896 Jan 29 12:35	0° 	
	15895 Mar 12 13:51	0° 		evening rise	15896 Jan 31 18:02	4°  39'52	
evening max el	15895 Mar 23 05:43	12°  26'00	27°23'31	desc. node	15896 Feb 08 02:45	19°  41'23	
retrograde	15895 Apr 05 21:37	19°  58'24			15896 Feb 14 10:44	0° 	
evening set	15895 Apr 12 14:40	17°  29'30		evening max el	15896 Mar 04 16:46	25°  42'12	27°36'01
min. Earth dist.	15895 Apr 16 10:28	14°  00'01	0.64580 AU		15896 Mar 10 08:36	0° 	
asc. node	15895 Apr 17 15:43	12°  41'54		retrograde	15896 Mar 18 15:16	2°  53'04	
inferior conj	15895 Apr 18 23:40	11°  15'00	0°24'56	evening set	15896 Mar 25 10:56	0°  35'31	
minimum elong	15895 Apr 18 22:58	11°  16'52	0°24'11		15896 Mar 26 07:05	30°  49'00	
morning rise	15895 Apr 25 09:21	5°  51'07		min. Earth dist.	15896 Mar 29 05:07	27°  32'19	0.62512 AU
direct	15895 Apr 28 00:20	5°  15'33		inferior conj	15896 Apr 01 04:27	24°  40'32	-0°45'21
morning max el	15895 May 04 08:03	8°  30'34	17°52'07	minimum elong	15896 Apr 01 05:58	24°  36'51	0°44'59
	15895 May 19 01:34	0° 		asc. node	15896 Apr 03 13:02	22°  29'19	
desc. node	15895 May 20 07:29	2°  44'41		morning rise	15896 Apr 08 03:57	19°  32'55	
morning set	15895 May 21 15:58	4°  20'07		direct	15896 Apr 10 11:03	19°  08'30	
				morning max el	15896 Apr 17 01:42	22°  29'23	17°46'31
superior conj	15895 Jun 04 08:30	26°  44'27	-1°42'27		15896 Apr 22 23:10	0° 	
minimum elong	15895 Jun 03 23:50	26°  09'51	1°42'24	morning set	15896 May 03 02:13	17°  01'25	
	15895 Jun 06 09:40	0° 		desc. node	15896 May 06 04:18	22°  24'58	
max. Earth dist.	15895 Jun 08 20:51	3°  53'36	1.45461 AU		15896 May 10 13:50	0° 	
evening rise	15895 Jun 20 05:32	21°  52'50					
	15895 Jun 25 19:42	0° 		superior conj	15896 May 14 23:38	7°  25'58	-1°07'05
greatest brilliancy	15895 Jul 04 23:20	13°  35'39	-0.6m	minimum elong	15896 May 14 17:22	6°  59'52	1°06'55
asc. node	15895 Jul 14 14:33	26°  27'30		max. Earth dist.	15896 May 21 13:57	18°  21'34	1.44254 AU
evening max el	15895 Jul 16 22:02	28°  57'11	19°55'10		15896 May 29 01:44	0° 	
	15895 Jul 18 00:33	0° 		evening rise	15896 May 29 17:25	1°  50'33	
retrograde	15895 Jul 24 10:54	3°  42'26			15896 Jun 18 10:10	0° 	
evening set	15895 Jul 28 08:05	1°  45'29		evening max el	15896 Jun 28 21:23	12°  51'13	21°02'01
	15895 Jul 30 06:06	30°  48'00		asc. node	15896 Jun 30 11:23	14°  20'35	
inferior conj	15895 Aug 02 15:19	25°  46'14	3°02'05	retrograde	15896 Jul 07 09:52	17°  46'16	
minimum elong	15895 Aug 02 16:24	25°  42'37	3°01'27	evening set	15896 Jul 11 17:52	16°  40'14	
min. Earth dist.	15895 Aug 03 15:33	24°  24'26	0.68011 AU	inferior conj	15896 Jul 16 23:24	9°  51'32	3°08'46
morning rise	15895 Aug 08 00:16	19°  20'51		minimum elong	15896 Jul 16 23:31	9°  51'08	3°08'06
direct	15895 Aug 13 16:34	16°  52'07		min. Earth dist.	15896 Jul 17 10:07	9°  14'20	0.68817 AU
desc. node	15895 Aug 16 05:52	17°  21'48		morning rise	15896 Jul 22 04:54	3°  30'56	
morning max el	15895 Aug 25 09:51	23°  53'20	24°46'18	direct	15896 Jul 27 09:25	1°  15'45	
	15895 Aug 30 20:54	0° 		desc. node	15896 Aug 02 03:14	3°  25'01	
	15895 Sep 20 21:42	0° 		morning max el	15896 Aug 06 20:58	7°  30'05	23°17'24
morning set	15895 Sep 30 02:29	15°  26'12			15896 Aug 24 10:42	0° 	
max. Earth dist.	15895 Oct 03 15:31	21°  46'53	1.37267 AU	morning set	15896 Sep 10 10:45	26°  48'02	
	15895 Oct 08 01:14	0° 			15896 Sep 12 13:09	0° 	
superior conj	15895 Oct 10 13:18	4°  49'49	-0°01'00	max. Earth dist.	15896 Sep 14 14:02	3°  29'12	1.39675 AU
minimum elong	15895 Oct 10 13:20	4°  49'59	0°00'37				
behind sun begin	15895 Oct 10 06:43	4°  17'45		superior conj	15896 Sep 22 08:55	17°  24'28	-0°36'18
behind sun end	15895 Oct 10 19:56	5°  22'17		minimum elong	15896 Sep 22 11:38	17°  23'03	0°35'40
asc. node	15895 Oct 10 15:58	5°  42'54		asc. node	15896 Sep 26 12:37	25°  42'22	
evening rise	15895 Oct 18 21:47	21°  31'19			15896 Sep 29 00:40	0° 	
	15895 Oct 23 04:42	0° 		evening rise	15896 Oct 01 18:47	5°  48'51	
evening max el	15895 Nov 04 20:31	19°  25'19	19°28'04		15896 Oct 16 13:10	0° 	
desc. node	15895 Nov 12 02:51	23°  57'18		evening max el	15896 Oct 17 19:57	1°  22'39	18°38'25
				retrograde	15896 Oct 25 23:52	5°  30'24	

evening set	15896 Oct 27 22:10	5°♊17'21		retrograde	15897 Oct 08 07:46	17°♍40'35	
desc. node	15896 Oct 29 00:06	4°♊59'14		evening set	15897 Oct 10 11:43	17°♍20'55	
inferior conj	15896 Nov 04 22:37	0°♊51'09 -2°13'36		desc. node	15897 Oct 15 21:26	14°♍09'03	
minimum elong	15896 Nov 04 17:13	1°♊01'16 2°10'47		inferior conj	15897 Oct 17 18:31	12°♍33'06 -0°35'58	
	15896 Nov 06 01:42	30°♋♌		minimum elong	15897 Oct 17 17:15	12°♍35'53 0°34'59	
min. Earth dist.	15896 Nov 08 01:49	28°♍30'43 0.57257 AU		min. Earth dist.	15897 Oct 21 00:22	9°♍43'40 0.59413 AU	
morning rise	15896 Nov 12 08:59	25°♍51'07		morning rise	15897 Oct 24 19:27	6°♍58'25	
direct	15896 Nov 18 11:17	24°♍19'22		direct	15897 Oct 31 08:02	5°♍00'53	
	15896 Nov 30 18:36	0°♊		morning max el	15897 Nov 14 14:40	12°♍44'45 27°41'41	
morning max el	15896 Dec 02 16:36	1°♊45'06 26°44'58			15897 Nov 28 07:04	0°♊	
	15896 Dec 22 18:15	0°♊		asc. node	15897 Dec 10 10:03	20°♊49'42	
asc. node	15896 Dec 23 13:00	1°♊25'49			15897 Dec 15 00:01	0°♊	
morning set	15897 Jan 01 04:22	18°♊45'45		morning set	15897 Dec 16 10:56	3°♊03'04	
	15897 Jan 06 06:54	0°♋					
superior conj	15897 Jan 07 22:58	3°♋44'07 1°38'01		superior conj	15897 Dec 23 10:24	18°♊21'30 1°34'00	
minimum elong	15897 Jan 07 22:47	3°♋43'06 1°38'43		minimum elong	15897 Dec 23 09:13	18°♊14'53 1°34'43	
max. Earth dist.	15897 Jan 08 11:39	4°♋55'01 1.31166 AU		max. Earth dist.	15897 Dec 22 19:29	16°♊58'03 1.31025 AU	
evening rise	15897 Jan 14 20:24	18°♋51'24			15897 Dec 28 15:58	0°♋	
	15897 Jan 20 07:57	0°♋		evening rise	15897 Dec 30 03:33	3°♋13'17	
desc. node	15897 Jan 24 23:26	8°♋37'28		desc. node	15898 Jan 11 20:13	27°♋42'38	
	15897 Feb 08 01:24	0°♌			15898 Jan 13 05:36	0°♋	
evening max el	15897 Feb 14 23:14	7°♌39'48 27°15'07		evening max el	15898 Jan 27 22:23	19°♋03'27 26°19'04	
retrograde	15897 Feb 28 23:52	14°♌58'56		retrograde	15898 Feb 10 21:47	26°♋10'24	
evening set	15897 Mar 07 16:40	13°♌00'06		evening set	15898 Feb 17 04:25	24°♋36'03	
min. Earth dist.	15897 Mar 11 13:36	10°♌15'24 0.60280 AU		min. Earth dist.	15898 Feb 21 11:42	21°♋58'35 0.58083 AU	
inferior conj	15897 Mar 14 18:31	7°♌33'05 -2°08'18		inferior conj	15898 Feb 24 14:10	19°♋42'36 -3°38'23	
minimum elong	15897 Mar 14 23:18	7°♌22'57 2°06'25		minimum elong	15898 Feb 24 22:22	19°♋27'34 3°35'21	
asc. node	15897 Mar 21 10:25	3°♌03'19		morning rise	15898 Mar 04 19:34	15°♋15'32	
morning rise	15897 Mar 22 09:23	2°♌44'29		direct	15898 Mar 06 18:52	15°♋02'32	
direct	15897 Mar 24 10:42	2°♌27'36		asc. node	15898 Mar 08 07:49	15°♋10'48	
morning max el	15897 Mar 31 16:55	6°♌05'17 17°59'19		morning max el	15898 Mar 15 01:55	19°♋07'52 18°32'08	
	15897 Apr 15 23:37	0°♌			15898 Mar 23 01:04	0°♌	
morning set	15897 Apr 16 06:42	0°♌32'29		morning set	15898 Mar 31 00:04	14°♌37'38	
desc. node	15897 Apr 23 01:03	12°♌52'55			15898 Apr 08 01:29	0°♌	
superior conj	15897 Apr 26 14:11	19°♌10'48 -0°28'50		superior conj	15898 Apr 09 01:30	1°♌51'38 0°07'03	
minimum elong	15897 Apr 26 11:42	18°♌59'54 0°28'59		minimum elong	15898 Apr 09 01:59	1°♌53'48 0°06'37	
	15897 May 02 21:54	0°♍		behind sun begin	15898 Apr 08 19:28	1°♌23'41	
max. Earth dist.	15897 May 04 03:04	2°♍01'16 1.42482 AU		behind sun end	15898 Apr 09 08:29	2°♌23'51	
evening rise	15897 May 09 18:34	11°♍10'45		desc. node	15898 Apr 09 21:44	3°♌24'51	
	15897 May 22 02:24	0°♍		max. Earth dist.	15898 Apr 16 11:51	15°♌09'59 1.40330 AU	
evening max el	15897 Jun 11 15:29	26°♍45'15 22°18'50		evening rise	15898 Apr 20 16:11	22°♌15'24	
	15897 Jun 15 08:27	0°♎			15898 Apr 25 10:19	0°♍	
asc. node	15897 Jun 17 08:20	1°♎16'38			15898 May 16 02:09	0°♍	
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evening set	15897 Jun 26 02:56	0°♎23'39		asc. node	15898 Jun 04 05:23	16°♍58'15	
	15897 Jun 26 13:33	30°♎♏		retrograde	15898 Jun 05 02:32	17°♍01'36	
inferior conj	15897 Jul 01 09:14	24°♏04'00 3°04'33		evening set	15898 Jun 10 09:37	14°♏46'23	
minimum elong	15897 Jul 01 08:25	24°♏06'51 3°03'43		min. Earth dist.	15898 Jun 15 03:20	9°♏12'46 0.68956 AU	
min. Earth dist.	15897 Jul 01 06:45	24°♏12'40 0.69132 AU		inferior conj	15898 Jun 15 18:52	8°♏19'31 2°49'54	
morning rise	15897 Jul 06 13:45	17°♏50'25		minimum elong	15898 Jun 15 17:16	8°♏25'00 2°48'50	
direct	15897 Jul 11 05:58	15°♏52'51		morning rise	15898 Jun 21 00:55	2°♏14'23	
desc. node	15897 Jul 20 00:31	20°♏49'45		direct	15898 Jun 25 05:00	0°♏36'28	
morning max el	15897 Jul 20 10:47	21°♏15'05 21°50'13		morning max el	15898 Jul 03 06:12	5°♏10'31 20°31'31	
	15897 Jul 27 22:14	0°♎		desc. node	15898 Jul 06 21:45	9°♏11'50	
	15897 Aug 17 16:06	0°♏			15898 Jul 21 22:46	0°♎	
morning set	15897 Aug 21 19:12	6°♏29'22		morning set	15898 Aug 01 06:41	15°♎38'31	
max. Earth dist.	15897 Aug 27 17:16	16°♏05'29 1.41981 AU		max. Earth dist.	15898 Aug 10 03:11	29°♎33'52 1.43915 AU	
					15898 Aug 10 09:42	0°♏	
superior conj	15897 Sep 04 09:58	29°♏10'19 -1°12'56		superior conj	15898 Aug 16 12:24	9°♏57'55 -1°46'04	
minimum elong	15897 Sep 04 15:53	29°♏36'10 1°12'11		minimum elong	15898 Aug 16 20:13	10°♏30'20 1°45'39	
	15897 Sep 04 21:20	0°♐			15898 Aug 28 06:20	0°♐	
asc. node	15897 Sep 13 09:16	15°♐17'05		evening rise	15898 Aug 28 23:47	1°♐16'09	
evening rise	15897 Sep 15 05:01	18°♐38'01		asc. node	15898 Aug 31 05:55	5°♐12'25	
	15897 Sep 21 11:47	0°♑		evening max el	15898 Sep 14 18:12	27°♐11'11 18°01'22	
evening max el	15897 Oct 01 04:36	14°♑01'39 18°10'02			15898 Sep 18 15:30	0°♑	



























































































































retrograde	15898 Sep 21 07:15	0° \mathbb{M} 34'49		evening rise	15899 Aug 10 21:46	13° \mathbb{M} 00'11	
evening set	15898 Sep 23 18:54	0° \mathbb{M} 04'52		asc. node	15899 Aug 18 02:36	24° \mathbb{M} 54'02	
	15898 Sep 23 23:38	30° \mathbb{R} $\underline{\mathbb{A}}$			15899 Aug 21 07:25	0° $\underline{\mathbb{A}}$	
inferior conj	15898 Sep 30 09:26	24° $\underline{\mathbb{A}}$ 57'35	0°43'58	evening max el	15899 Aug 29 09:02	10° $\underline{\mathbb{A}}$ 42'29	18°11'13
minimum elong	15898 Sep 30 10:43	24° $\underline{\mathbb{A}}$ 54'23	0°43'45	retrograde	15899 Sep 04 17:42	14° $\underline{\mathbb{A}}$ 03'56	
desc. node	15898 Oct 02 18:48	22° $\underline{\mathbb{A}}$ 33'16		evening set	15899 Sep 07 13:58	13° $\underline{\mathbb{A}}$ 20'30	
min. Earth dist.	15898 Oct 03 08:50	21° $\underline{\mathbb{A}}$ 59'08	0.61707 AU	inferior conj	15899 Sep 13 15:23	7° $\underline{\mathbb{A}}$ 56'29	1°44'05
morning rise	15898 Oct 06 23:49	18° $\underline{\mathbb{A}}$ 56'26		minimum elong	15899 Sep 13 17:39	7° $\underline{\mathbb{A}}$ 50'06	1°43'24
direct	15898 Oct 13 16:07	16° $\underline{\mathbb{A}}$ 37'29		min. Earth dist.	15899 Sep 16 03:20	5° $\underline{\mathbb{A}}$ 08'18	0.63899 AU
morning max el	15898 Oct 27 20:00	24° $\underline{\mathbb{A}}$ 33'44	27°59'10	morning rise	15899 Sep 19 19:28	1° $\underline{\mathbb{A}}$ 38'58	
	15898 Nov 01 19:08	0° \mathbb{M}		desc. node	15899 Sep 19 16:11	1° $\underline{\mathbb{A}}$ 45'23	
	15898 Nov 21 16:48	0° \mathbb{X}			15899 Sep 22 11:06	30° \mathbb{R} \mathbb{M}	
asc. node	15898 Nov 27 07:02	10° \mathbb{X} 33'15		direct	15899 Sep 26 09:58	29° \mathbb{M} 06'04	
morning set	15898 Nov 30 11:54	17° \mathbb{X} 01'24			15899 Sep 30 15:10	0° $\underline{\mathbb{A}}$	
max. Earth dist.	15898 Dec 06 00:39	28° \mathbb{X} 49'59	1.31434 AU	morning max el	15899 Oct 10 05:43	7° $\underline{\mathbb{A}}$ 05'04	27°39'03
	15898 Dec 06 13:24	0° \mathbb{Z}			15899 Oct 27 21:00	0° \mathbb{M}	
					15899 Nov 13 21:47	0° \mathbb{X}	
superior conj	15898 Dec 07 20:23	2° \mathbb{Z} 51'06	1°23'58	morning set	15899 Nov 14 04:53	0° \mathbb{X} 35'21	
minimum elong	15898 Dec 07 18:26	2° \mathbb{Z} 40'14	1°24'34	asc. node	15899 Nov 14 03:55	0° \mathbb{X} 30'33	
evening rise	15898 Dec 14 13:27	17° \mathbb{Z} 40'08		max. Earth dist.	15899 Nov 18 23:13	10° \mathbb{X} 22'44	1.32408 AU
	15898 Dec 20 12:18	0° \approx					
desc. node	15898 Dec 29 17:05	16° \approx 05'01		superior conj	15899 Nov 22 02:57	17° \mathbb{X} 08'02	1°07'52
evening max el	15899 Jan 09 12:55	29° \approx 35'12	24°53'13	minimum elong	15899 Nov 22 00:36	16° \mathbb{X} 55'19	1°08'17
	15899 Jan 09 23:28	0° \mathbb{H}			15899 Nov 28 00:37	0° \mathbb{Z}	
retrograde	15899 Jan 23 07:28	6° \mathbb{H} 28'39		evening rise	15899 Nov 29 00:17	2° \mathbb{Z} 07'46	
evening set	15899 Jan 28 18:42	5° \mathbb{H} 22'04			15899 Dec 14 01:27	0° \approx	
min. Earth dist.	15899 Feb 03 01:00	2° \mathbb{H} 35'56	0.56173 AU	desc. node	15899 Dec 16 14:01	3° \approx 29'12	
inferior conj	15899 Feb 05 12:46	1° \mathbb{H} 00'57	-5°01'56	evening max el	15899 Dec 21 22:27	9° \approx 34'25	23°11'10
minimum elong	15899 Feb 05 21:56	0° \mathbb{H} 46'20	4°59'18	retrograde	15900 Jan 04 04:01	16° \approx 07'25	
	15899 Feb 07 03:37	30° \mathbb{R} \approx		evening set	15900 Jan 08 10:38	15° \approx 27'46	
morning rise	15899 Feb 14 03:36	26° \approx 55'11		min. Earth dist.	15900 Jan 15 08:46	12° \approx 13'49	0.54858 AU
direct	15899 Feb 16 07:33	26° \approx 42'10		inferior conj	15900 Jan 16 15:39	11° \approx 29'23	-5°55'02
asc. node	15899 Feb 23 05:11	29° \approx 04'41		minimum elong	15900 Jan 16 19:48	11° \approx 23'25	5°54'02
	15899 Feb 24 10:26	0° \mathbb{H}		morning rise	15900 Jan 25 06:20	7° \approx 38'33	
morning max el	15899 Feb 26 00:33	1° \mathbb{H} 25'24	19°27'00	direct	15900 Jan 28 01:30	7° \approx 19'59	
morning set	15899 Mar 15 02:12	29° \mathbb{H} 04'39		morning max el	15900 Feb 08 09:02	12° \approx 47'39	20°45'06
	15899 Mar 15 13:15	0° \mathbb{Y}		asc. node	15900 Feb 10 02:32	14° \approx 35'03	
					15900 Feb 20 10:51	0° \mathbb{H}	
superior conj	15899 Mar 23 05:12	15° \mathbb{Y} 16'20	0°37'46	morning set	15900 Feb 27 09:54	13° \mathbb{H} 43'35	
minimum elong	15899 Mar 23 07:17	15° \mathbb{Y} 26'30	0°37'17				
desc. node	15899 Mar 27 18:23	23° \mathbb{Y} 57'16		superior conj	15900 Mar 06 21:00	29° \mathbb{H} 12'16	1°02'19
max. Earth dist.	15899 Mar 29 18:02	27° \mathbb{Y} 37'05	1.38031 AU	minimum elong	15900 Mar 06 23:34	29° \mathbb{H} 25'20	1°02'01
	15899 Mar 31 01:35	0° \mathbb{Z}			15900 Mar 07 06:22	0° \mathbb{Y}	
evening rise	15899 Apr 02 10:43	4° \mathbb{Z} 13'36		max. Earth dist.	15900 Mar 12 01:55	9° \mathbb{Y} 34'32	1.35836 AU
	15899 Apr 18 11:30	0° \mathbb{I}		desc. node	15900 Mar 14 15:00	14° \mathbb{Y} 25'49	
evening max el	15899 May 07 19:34	24° \mathbb{I} 34'14	24°59'38	evening rise	15900 Mar 15 23:19	16° \mathbb{Y} 56'19	
	15899 May 14 15:31	0° \mathbb{S}			15900 Mar 23 09:12	0° \mathbb{Z}	
retrograde	15899 May 19 17:51	1° \mathbb{S} 31'10			15900 Apr 12 20:14	0° \mathbb{I}	
asc. node	15899 May 22 02:29	1° \mathbb{S} 07'49		evening max el	15900 Apr 20 09:07	8° \mathbb{I} 25'20	26°09'52
	15899 May 24 07:54	30° \mathbb{R} \mathbb{I}		retrograde	15900 May 03 04:22	15° \mathbb{I} 45'11	
evening set	15899 May 25 12:18	29° \mathbb{I} 05'17		asc. node	15900 May 08 23:40	13° \mathbb{I} 32'39	
min. Earth dist.	15899 May 29 21:52	24° \mathbb{I} 08'37	0.68297 AU	evening set	15900 May 09 09:11	13° \mathbb{I} 13'32	
inferior conj	15899 May 31 02:23	22° \mathbb{I} 34'38	2°24'39	min. Earth dist.	15900 May 13 12:16	8° \mathbb{I} 52'31	0.67179 AU
minimum elong	15899 May 31 00:18	22° \mathbb{I} 41'32	2°23'22	inferior conj	15900 May 15 05:44	6° \mathbb{I} 43'56	1°48'05
morning rise	15899 Jun 05 12:37	16° \mathbb{I} 38'56		minimum elong	15900 May 15 03:37	6° \mathbb{I} 50'33	1°46'44
direct	15899 Jun 09 05:08	15° \mathbb{I} 20'50		morning rise	15900 May 20 22:51	0° \mathbb{I} 58'57	
morning max el	15899 Jun 16 08:50	19° \mathbb{I} 16'46	19°26'01		15900 May 23 20:04	30° \mathbb{R} \mathbb{Z}	
desc. node	15899 Jun 23 18:52	28° \mathbb{I} 16'18		direct	15900 May 24 04:41	29° \mathbb{Z} 59'17	
	15899 Jun 25 00:44	0° \mathbb{S}			15900 May 24 13:20	0° \mathbb{I}	
greatest brilliancy	15899 Jun 29 00:26	5° \mathbb{S} 44'50	-0.7m	morning max el	15900 May 30 18:18	3° \mathbb{I} 29'29	18°36'10
morning set	15899 Jul 11 10:38	24° \mathbb{S} 32'22		desc. node	15900 Jun 10 15:54	17° \mathbb{I} 51'21	
	15899 Jul 14 23:43	0° \mathbb{Q}			15900 Jun 18 12:29	0° \mathbb{S}	
max. Earth dist.	15899 Jul 23 18:34	13° \mathbb{Q} 40'47	1.45276 AU	morning set	15900 Jun 21 03:04	4° \mathbb{S} 04'55	
				max. Earth dist.	15900 Jul 06 13:23	28° \mathbb{S} 10'34	1.45941 AU
superior conj	15899 Jul 27 15:44	19° \mathbb{Q} 49'01	-2°08'37				
minimum elong	15899 Jul 27 21:06	20° \mathbb{Q} 10'19	2°08'58	superior conj	15900 Jul 07 03:06	29° \mathbb{S} 04'02	-2°13'34
	15899 Aug 02 23:53	0° \mathbb{M}		minimum elong	15900 Jul 07 01:08	28° \mathbb{S} 56'21	2°14'16

	15900 Jul 07 17:27	0°♎		evening rise	15901 Jul 02 16:58	3°♎25'58	
evening rise	15900 Jul 22 18:50	23°♎40'29		greatest brilliancy	15901 Jul 15 09:40	22°♎44'53	-0.7m
	15900 Jul 26 18:30	0°♐			15901 Jul 20 10:49	0°♐	
greatest brilliancy	15900 Jul 30 05:45	5°♐28'45	-0.9m	asc. node	15901 Jul 22 20:01	3°♐10'49	
asc. node	15900 Aug 04 23:17	14°♐15'52		evening max el	15901 Jul 27 06:37	8°♐18'38	19°22'55
evening max el	15900 Aug 12 21:59	24°♐27'10	18°38'45	retrograde	15901 Aug 03 08:29	12°♐14'26	
retrograde	15900 Aug 19 11:08	27°♐59'27		evening set	15901 Aug 06 23:53	10°♐57'35	
evening set	15900 Aug 22 16:40	27°♐00'04		inferior conj	15901 Aug 12 09:21	5°♐05'29	2°52'48
inferior conj	15900 Aug 28 08:26	21°♐21'18	2°26'10	minimum elong	15901 Aug 12 10:56	5°♐00'19	2°52'10
minimum elong	15900 Aug 28 10:39	21°♐14'29	2°25'27	min. Earth dist.	15901 Aug 13 17:34	3°♐19'46	0.67338 AU
min. Earth dist.	15900 Aug 30 06:48	18°♐58'57	0.65811 AU		15901 Aug 16 12:09	30°♐	
morning rise	15900 Sep 03 03:32	14°♐56'13		morning rise	15901 Aug 17 21:23	28°♐39'07	
desc. node	15900 Sep 06 13:34	12°♐50'53		direct	15901 Aug 23 20:08	26°♐05'07	
direct	15900 Sep 09 11:46	12°♐18'26		desc. node	15901 Aug 24 10:59	26°♐06'37	
morning max el	15900 Sep 22 16:58	20°♐06'30	26°48'00		15901 Sep 01 09:52	0°♐	
	15900 Oct 01 05:05	0°♑		morning max el	15901 Sep 05 04:06	3°♐26'59	25°34'45
	15900 Oct 20 23:05	0°♒			15901 Sep 25 11:04	0°♑	
morning set	15900 Oct 28 10:56	13°♒38'15		morning set	15901 Oct 11 02:24	26°♑00'52	
asc. node	15900 Nov 01 00:44	20°♒36'41			15901 Oct 13 06:29	0°♒	
max. Earth dist.	15900 Nov 01 12:29	21°♒35'24	1.33936 AU	max. Earth dist.	15901 Oct 14 16:31	2°♒39'23	1.35953 AU
	15900 Nov 05 15:03	0°♓		asc. node	15901 Oct 18 21:27	10°♒46'45	
superior conj	15900 Nov 06 03:46	1°♓06'29	0°45'40	superior conj	15901 Oct 20 20:02	14°♒38'34	0°17'35
minimum elong	15900 Nov 06 01:39	0°♓55'23	0°45'57	minimum elong	15901 Oct 20 18:59	14°♒33'20	0°17'53
evening rise	15900 Nov 13 10:14	16°♓32'02			15901 Oct 28 08:03	0°♓	
	15900 Nov 20 02:15	0°♔		evening rise	15901 Oct 28 17:10	0°♓46'50	
desc. node	15900 Dec 03 11:01	19°♔35'17			15901 Nov 15 07:09	0°♔	
evening max el	15900 Dec 03 12:00	19°♔37'42	21°31'04	evening max el	15901 Nov 15 13:42	0°♔16'33	20°06'45
retrograde	15900 Dec 15 14:39	25°♔36'58		desc. node	15901 Nov 20 08:08	3°♔58'05	
evening set	15900 Dec 18 14:41	25°♔16'26		retrograde	15901 Nov 26 02:41	5°♔31'41	
inferior conj	15900 Dec 27 07:14	21°♔26'08	-5°52'55	evening set	15901 Nov 28 06:17	5°♔19'36	
minimum elong	15900 Dec 27 02:06	21°♔33'19	5°51'38	inferior conj	15901 Dec 07 01:29	1°♔22'11	-4°51'33
min. Earth dist.	15900 Dec 27 14:14	21°♔16'19	0.54393 AU	minimum elong	15901 Dec 06 15:30	1°♔37'10	4°48'08
morning rise	15901 Jan 04 14:01	17°♔37'13		min. Earth dist.	15901 Dec 08 20:24	0°♔17'51	0.54869 AU
direct	15901 Jan 08 09:47	17°♔05'26			15901 Dec 09 08:32	30°♒♓	
morning max el	15901 Jan 21 02:53	23°♔15'33	22°24'00	morning rise	15901 Dec 14 23:51	27°♓16'32	
	15901 Jan 26 23:21	0°♕		direct	15901 Dec 19 20:44	26°♓25'04	
asc. node	15901 Jan 27 23:50	1°♕24'19			15901 Dec 29 16:54	0°♔	
morning set	15901 Feb 11 20:46	28°♕27'36		morning max el	15902 Jan 02 11:59	3°♔09'32	24°13'54
	15901 Feb 12 14:10	0°♖		asc. node	15902 Jan 14 21:04	19°♔13'54	
					15902 Jan 20 22:19	0°♕	
superior conj	15901 Feb 18 21:28	13°♖29'56	1°20'23	morning set	15902 Jan 27 08:45	13°♕10'23	
minimum elong	15901 Feb 18 23:43	13°♖41'49	1°20'25				
max. Earth dist.	15901 Feb 22 16:14	21°♖24'01	1.33947 AU	superior conj	15902 Feb 03 03:46	28°♕00'50	1°32'05
	15901 Feb 26 23:33	0°♗		minimum elong	15902 Feb 03 05:13	28°♕08'45	1°32'28
evening rise	15901 Feb 27 02:29	0°♗14'12			15902 Feb 04 01:38	0°♖	
desc. node	15901 Mar 01 11:38	4°♗46'45		max. Earth dist.	15902 Feb 05 14:21	3°♖18'20	1.32478 AU
	15901 Mar 16 11:01	0°♘		evening rise	15902 Feb 10 16:48	13°♖57'54	
evening max el	15901 Apr 02 22:59	22°♘05'29	27°03'17	desc. node	15902 Feb 16 08:17	24°♖54'52	
retrograde	15901 Apr 16 08:59	29°♘35'37			15902 Feb 19 03:35	0°♗	
evening set	15901 Apr 22 22:20	27°♘04'05			15902 Mar 11 10:53	0°♘	
asc. node	15901 Apr 25 20:53	24°♘20'30		evening max el	15902 Mar 16 11:42	5°♘22'22	27°32'34
min. Earth dist.	15901 Apr 26 20:26	23°♘16'35	0.65641 AU	retrograde	15902 Mar 30 06:40	12°♘53'10	
inferior conj	15901 Apr 29 02:35	20°♘41'58	0°59'10	evening set	15902 Apr 06 01:29	10°♘28'22	
minimum elong	15901 Apr 29 01:06	20°♘46'13	0°58'04	min. Earth dist.	15902 Apr 09 20:21	7°♘10'48	0.63738 AU
morning rise	15901 May 05 05:24	15°♘09'29		inferior conj	15902 Apr 12 14:09	4°♘21'25	-0°03'12
direct	15901 May 08 01:33	14°♘25'52		minimum elong	15902 Apr 12 14:15	4°♘21'08	0°03'32
morning max el	15901 May 14 09:00	17°♘42'54	18°03'10	transit middle	15902 Apr 12 14:15	4°♘21'08	0°03'32
	15901 May 23 14:54	0°♙		transit begin	15902 Apr 12 11:11	4°♘29'05	
desc. node	15901 May 28 12:50	7°♙48'48		transit end	15902 Apr 12 17:19	4°♘13'13	
morning set	15901 Jun 01 21:19	14°♙52'44		asc. node	15902 Apr 12 18:11	4°♘10'59	
	15901 Jun 11 06:36	0°♚			15902 Apr 17 11:23	30°♒♗	
superior conj	15901 Jun 16 13:58	8°♚23'46	-1°58'31	morning rise	15902 Apr 19 05:25	29°♗03'56	
minimum elong	15901 Jun 16 06:01	7°♚52'31	1°58'46	direct	15902 Apr 21 16:59	28°♗33'24	
max. Earth dist.	15901 Jun 19 09:54	12°♚49'59	1.45857 AU		15902 Apr 25 21:33	0°♘	
	15901 Jun 30 11:30	0°♛		morning max el	15902 Apr 28 02:27	1°♘49'15	17°47'32
				morning set	15902 May 14 18:23	26°♘56'59	

desc. node	15902 May 15 09:43	28°♄02'12		desc. node	15903 May 02 06:30	18°♄26'01	
	15902 May 16 13:27	0°♄					
superior conj	15902 May 27 16:14	18°♄29'10	-1°28'13	superior conj	15903 May 08 17:29	29°♄38'06	-0°50'49
minimum elong	15902 May 27 08:12	17°♄56'32	1°28'04	minimum elong	15903 May 08 12:50	29°♄18'20	0°50'46
max. Earth dist.	15902 Jun 02 05:26	27°♄22'46	1.45031 AU	max. Earth dist.	15903 May 08 22:38	0°♄	
	15902 Jun 03 21:16	0°♄		evening rise	15903 May 15 21:09	11°♄30'51	1.43556 AU
evening rise	15902 Jun 12 03:50	12°♄49'56			15903 May 22 19:53	22°♄33'35	
	15902 Jun 23 13:58	0°♄			15903 May 27 15:54	0°♄	
asc. node	15902 Jul 09 16:49	21°♄30'01		evening max el	15903 Jun 17 21:03	0°♄	
evening max el	15902 Jul 10 09:27	22°♄12'27	20°22'07	asc. node	15903 Jun 23 06:16	6°♄05'45	21°33'42
retrograde	15902 Jul 18 07:30	26°♄43'26		retrograde	15903 Jun 26 13:44	9°♄00'37	
evening set	15902 Jul 22 09:19	25°♄08'43		evening set	15903 Jul 02 06:13	11°♄19'53	
inferior conj	15902 Jul 27 15:30	19°♄04'32	3°06'18	inferior conj	15903 Jul 06 19:01	9°♄28'02	
minimum elong	15902 Jul 27 16:10	19°♄02'13	3°05'41	minimum elong	15903 Jul 12 00:35	3°♄13'17	3°08'17
min. Earth dist.	15902 Jul 28 09:51	18°♄01'41	0.68414 AU	min. Earth dist.	15903 Jul 12 00:18	3°♄14'17	3°07'34
morning rise	15902 Aug 01 22:42	12°♄41'05			15903 Jul 12 05:34	2°♄55'53	0.69008 AU
direct	15902 Aug 07 10:04	10°♄17'44			15903 Jul 14 09:35	30°♄	
desc. node	15902 Aug 11 08:21	11°♄18'25		morning rise	15903 Jul 17 05:21	26°♄55'25	
morning max el	15902 Aug 18 15:01	16°♄59'36	24°08'53	direct	15903 Jul 22 04:31	24°♄47'38	
	15902 Aug 29 10:56	0°♄		desc. node	15903 Jul 29 05:41	28°♄01'08	
	15902 Sep 18 11:03	0°♄			15903 Jul 31 10:48	0°♄	
morning set	15902 Sep 22 23:15	7°♄34'53		morning max el	15903 Aug 01 03:07	0°♄40'14	22°39'41
max. Earth dist.	15902 Sep 26 15:37	14°♄01'21	1.38288 AU		15903 Aug 23 06:41	0°♄	
				morning set	15903 Sep 03 21:32	18°♄11'09	
superior conj	15902 Oct 04 00:20	27°♄36'37	-0°15'35	max. Earth dist.	15903 Sep 08 15:39	26°♄05'17	1.40684 AU
minimum elong	15902 Oct 04 01:24	27°♄41'41	0°15'06		15903 Sep 10 22:36	0°♄	
behind sun begin	15902 Oct 03 22:54	27°♄29'47		superior conj	15903 Sep 16 12:33	9°♄50'56	-0°51'56
behind sun end	15902 Oct 04 03:53	27°♄53'35		minimum elong	15903 Sep 16 16:38	10°♄09'22	0°51'12
	15902 Oct 05 06:14	0°♄		asc. node	15903 Sep 22 14:50	21°♄05'09	
asc. node	15902 Oct 05 18:09	0°♄57'31		evening rise	15903 Sep 26 11:37	28°♄22'59	
evening rise	15902 Oct 12 18:41	14°♄46'36			15903 Sep 27 08:09	0°♄	
	15902 Oct 20 20:08	0°♄		evening max el	15903 Oct 12 09:34	24°♄00'24	18°23'48
evening max el	15902 Oct 29 05:47	11°♄45'00	19°04'12	retrograde	15903 Oct 20 01:53	27°♄54'37	
retrograde	15902 Nov 07 04:46	16°♄15'33		evening set	15903 Oct 22 02:00	27°♄39'22	
desc. node	15902 Nov 07 05:19	16°♄15'33		desc. node	15903 Oct 25 02:35	26°♄24'11	
evening set	15902 Nov 09 01:58	16°♄04'24		inferior conj	15903 Oct 29 19:00	23°♄03'58	-1°30'26
inferior conj	15902 Nov 17 11:28	11°♄49'49	-3°14'04	minimum elong	15903 Oct 29 15:30	23°♄11'00	1°28'25
minimum elong	15902 Nov 17 03:32	12°♄03'28	3°10'24	min. Earth dist.	15903 Nov 02 00:47	20°♄28'34	0.58134 AU
min. Earth dist.	15902 Nov 20 06:57	9°♄54'13	0.56194 AU	morning rise	15903 Nov 06 01:30	17°♄48'04	
morning rise	15902 Nov 25 02:27	7°♄11'04		direct	15903 Nov 12 08:49	16°♄04'58	
direct	15902 Nov 30 19:27	5°♄55'05		morning max el	15903 Nov 26 15:39	23°♄40'00	27°13'48
morning max el	15902 Dec 14 22:13	13°♄07'29	25°56'42		15903 Dec 02 09:19	0°♄	
	15902 Dec 28 02:42	0°♄		asc. node	15903 Dec 19 15:23	26°♄57'23	
asc. node	15903 Jan 01 18:16	7°♄48'52			15903 Dec 21 05:33	0°♄	
morning set	15903 Jan 11 20:02	27°♄47'01		morning set	15903 Dec 27 04:53	12°♄12'43	
	15903 Jan 12 20:35	0°♄					
superior conj	15903 Jan 18 13:37	12°♄38'44	1°37'35	superior conj	15904 Jan 03 01:02	27°♄17'56	1°37'03
minimum elong	15903 Jan 18 14:03	12°♄41'09	1°38'13	minimum elong	15904 Jan 03 00:25	27°♄14'27	1°37'47
max. Earth dist.	15903 Jan 19 18:37	15°♄19'43	1.31493 AU	max. Earth dist.	15904 Jan 03 02:03	27°♄23'40	1.31029 AU
evening rise	15903 Jan 25 15:28	28°♄00'42			15904 Jan 04 05:59	0°♄	
	15903 Jan 26 14:27	0°♄		evening rise	15904 Jan 09 20:07	12°♄16'58	
desc. node	15903 Feb 03 04:57	14°♄44'36			15904 Jan 18 17:52	0°♄	
	15903 Feb 12 09:45	0°♄		desc. node	15904 Jan 21 01:42	4°♄08'45	
evening max el	15903 Feb 26 21:00	18°♄03'02	27°31'17	evening max el	15904 Feb 09 00:28	29°♄56'59	26°55'28
retrograde	15903 Mar 12 20:30	25°♄28'09			15904 Feb 09 01:45	0°♄	
evening set	15903 Mar 19 15:58	23°♄17'25		retrograde	15904 Feb 23 01:13	7°♄12'07	
min. Earth dist.	15903 Mar 23 10:32	20°♄23'35	0.61577 AU	evening set	15904 Feb 29 14:38	5°♄22'50	
inferior conj	15903 Mar 26 13:07	17°♄33'38	-1°19'10	min. Earth dist.	15904 Mar 04 14:35	2°♄42'56	0.59322 AU
minimum elong	15903 Mar 26 15:55	17°♄27'12	1°18'11	inferior conj	15904 Mar 07 19:51	0°♄09'24	-2°46'11
asc. node	15903 Mar 30 15:33	14°♄10'06		minimum elong	15904 Mar 08 02:10	29°♄56'48	2°43'43
morning rise	15903 Apr 02 19:06	12°♄34'02			15904 Mar 08 00:34	30°♄	
direct	15903 Apr 04 23:31	12°♄13'13		morning rise	15904 Mar 15 17:15	25°♄30'07	
morning max el	15903 Apr 11 19:32	15°♄39'30	17°49'41	asc. node	15904 Mar 16 12:56	25°♄20'34	
	15903 Apr 21 20:47	0°♄		direct	15904 Mar 17 16:57	25°♄15'27	
morning set	15903 Apr 27 13:06	10°♄01'13		morning max el	15904 Mar 25 08:45	29°♄03'38	18°10'45
					15904 Mar 26 06:36	0°♄	

morning set	15904 Apr 09 23:41	23° Υ 48'48		morning rise	15905 Feb 25 17:02	7° X 39'48	
	15904 Apr 13 06:56	0° B		direct	15905 Feb 27 17:03	7° X 27'25	
desc. node	15904 Apr 18 03:14	8° B 56'21		asc. node	15905 Mar 03 10:19	8° X 12'46	
				morning max el	15905 Mar 08 13:51	11° X 48'19	18°52'38
superior conj	15904 Apr 19 17:29	11° B 48'55	-0°13'09		15905 Mar 20 16:36	0° Υ	
minimum elong	15904 Apr 19 16:24	11° B 44'06	0°13'26	morning set	15905 Mar 24 21:15	8° Υ 04'24	
behind sun begin	15904 Apr 19 12:16	11° B 25'33					
behind sun end	15904 Apr 19 20:32	12° B 02'37		superior conj	15905 Apr 02 12:17	24° Υ 49'30	0°20'46
max. Earth dist.	15904 Apr 27 07:57	25° B 02'05	1.41597 AU	minimum elong	15905 Apr 02 13:36	24° Υ 55'44	0°20'17
	15904 Apr 30 07:36	0° II		desc. node	15905 Apr 04 23:54	29° Υ 28'42	
evening rise	15904 May 02 05:24	3° II 06'42			15905 Apr 05 06:41	0° B	
	15904 May 19 23:30	0° B		max. Earth dist.	15905 Apr 09 14:57	7° B 51'10	1.39357 AU
evening max el	15904 Jun 04 22:35	19° B 59'31	22°53'13	evening rise	15905 Apr 13 12:10	14° B 35'09	
asc. node	15904 Jun 12 10:43	25° B 27'10			15905 Apr 23 00:09	0° II	
retrograde	15904 Jun 15 03:02	25° B 58'15			15905 May 14 20:42	0° B	
evening set	15904 Jun 20 03:17	23° B 50'59		evening max el	15905 May 18 12:37	3° B 54'34	24°14'41
inferior conj	15904 Jun 25 10:35	17° B 27'44	2°59'38	retrograde	15905 May 29 20:33	10° B 32'27	
minimum elong	15904 Jun 25 09:25	17° B 31'48	2°58'42	asc. node	15905 May 30 07:47	10° B 31'31	
min. Earth dist.	15904 Jun 25 02:34	17° B 55'36	0.69116 AU	evening set	15905 Jun 04 08:27	8° B 12'31	
morning rise	15904 Jun 30 15:25	11° B 17'19		min. Earth dist.	15905 Jun 08 22:37	2° B 54'28	0.68737 AU
direct	15904 Jul 05 02:22	9° B 28'00		inferior conj	15905 Jun 09 19:34	1° B 43'38	2°40'31
morning max el	15904 Jul 13 19:00	14° B 29'22	21°15'14	minimum elong	15905 Jun 09 17:43	1° B 49'53	2°39'21
desc. node	15904 Jul 15 02:56	15° B 52'11			15905 Jun 11 02:38	30° R II	
	15904 Jul 26 05:04	0° Ω		morning rise	15905 Jun 15 03:03	25° II 42'07	
morning set	15904 Aug 13 20:07	27° Ω 47'26		direct	15905 Jun 19 02:11	24° II 12'31	
	15904 Aug 15 05:50	0° II		morning max el	15905 Jun 26 17:15	28° II 28'50	20°01'43
max. Earth dist.	15904 Aug 20 21:02	9° II 01'59	1.42864 AU		15905 Jun 28 04:21	0° B	
				desc. node	15905 Jul 02 00:06	4° B 33'34	
superior conj	15904 Aug 28 04:18	21° II 12'17	-1°27'49		15905 Jul 19 16:19	0° Ω	
minimum elong	15904 Aug 28 11:21	21° II 42'21	1°27'08	morning set	15905 Jul 24 02:03	6° Ω 43'24	
	15904 Sep 02 06:07	0° B		max. Earth dist.	15905 Aug 03 09:20	22° Ω 48'04	1.44578 AU
asc. node	15904 Sep 08 11:29	11° B 06'02			15905 Aug 07 21:10	0° II	
evening rise	15904 Sep 08 15:52	11° B 25'43					
	15904 Sep 19 11:26	0° II		superior conj	15905 Aug 08 20:40	1° II 35'12	-1°57'23
evening max el	15904 Sep 24 20:51	6° II 53'30	18°04'03	minimum elong	15905 Aug 09 04:08	2° II 05'34	1°57'17
retrograde	15904 Oct 01 16:45	10° II 24'03		evening rise	15905 Aug 22 02:23	23° II 42'08	
evening set	15904 Oct 03 23:48	10° II 00'29			15905 Aug 25 18:56	0° B	
inferior conj	15904 Oct 10 23:25	5° II 04'26	0°00'24	asc. node	15905 Aug 26 08:09	0° B 56'09	
minimum elong	15904 Oct 10 23:26	5° II 04'22	0°00'46	evening max el	15905 Sep 08 11:28	20° B 13'57	18°03'24
transit middle	15904 Oct 10 23:26	5° II 04'22	0°00'46	retrograde	15905 Sep 14 21:20	23° B 34'41	
transit begin	15904 Oct 10 20:08	5° II 12'04		evening set	15905 Sep 17 12:41	22° B 59'12	
transit end	15904 Oct 11 02:44	4° II 56'39		inferior conj	15905 Sep 23 21:13	17° B 44'33	1°11'49
desc. node	15904 Oct 10 23:55	5° II 03'15		minimum elong	15905 Sep 23 23:04	17° B 39'38	1°11'20
min. Earth dist.	15904 Oct 14 03:33	2° II 08'21	0.60391 AU	min. Earth dist.	15905 Sep 26 16:10	14° B 48'27	0.62669 AU
	15904 Oct 16 18:47	30° R B		desc. node	15905 Sep 27 21:17	13° B 37'12	
morning rise	15904 Oct 17 19:54	29° B 17'18		morning rise	15905 Sep 30 07:09	11° B 35'36	
direct	15904 Oct 24 11:01	27° B 09'26		direct	15905 Oct 06 23:29	9° B 09'39	
	15904 Nov 01 15:42	0° II		morning max el	15905 Oct 21 00:13	17° B 07'41	27°54'52
morning max el	15904 Nov 07 16:55	5° II 00'03	27°53'55		15905 Oct 31 17:40	0° II	
	15904 Nov 26 08:24	0° X			15905 Nov 19 02:48	0° X	
asc. node	15904 Dec 05 12:23	16° X 30'04		asc. node	15905 Nov 22 09:19	6° X 20'13	
morning set	15904 Dec 10 09:16	26° X 22'01		morning set	15905 Nov 24 07:07	10° X 10'33	
	15904 Dec 12 02:21	0° B		max. Earth dist.	15905 Nov 29 11:45	21° X 06'09	1.31782 AU
max. Earth dist.	15904 Dec 16 08:57	9° B 21'26	1.31123 AU				
				superior conj	15905 Dec 01 20:50	26° X 17'26	1°17'54
superior conj	15904 Dec 17 12:03	11° B 52'22	1°30'29	minimum elong	15905 Dec 01 18:39	26° X 05'25	1°18'25
minimum elong	15904 Dec 17 10:30	11° B 43'43	1°31'10		15905 Dec 03 13:14	0° B	
evening rise	15904 Dec 24 04:36	26° B 41'04		evening rise	15905 Dec 08 15:08	11° B 09'06	
	15904 Dec 25 17:47	0° \approx			15905 Dec 18 01:24	0° \approx	
desc. node	15905 Jan 06 22:31	22° \approx 56'59		desc. node	15905 Dec 24 19:23	10° \approx 56'37	
	15905 Jan 11 14:11	0° X		evening max el	15906 Jan 02 07:47	21° \approx 12'30	24°10'46
evening max el	15905 Jan 20 19:58	10° X 57'39	25°45'46	retrograde	15906 Jan 15 21:52	27° \approx 57'34	
retrograde	15905 Feb 03 18:21	17° X 59'27		evening set	15906 Jan 20 21:57	27° \approx 03'04	
evening set	15905 Feb 09 17:38	16° X 37'01		min. Earth dist.	15906 Jan 26 19:25	24° \approx 07'36	0.55528 AU
min. Earth dist.	15905 Feb 14 08:58	13° X 57'45	0.57208 AU	inferior conj	15906 Jan 28 20:22	22° \approx 53'39	-5°29'50
inferior conj	15905 Feb 17 06:43	11° X 57'45	-4°15'52	minimum elong	15906 Jan 29 04:15	22° \approx 41'42	5°27'53
minimum elong	15905 Feb 17 15:51	11° X 42'00	4°12'46	morning rise	15906 Feb 06 12:22	18° \approx 55'07	

direct	15906 Feb 08 21:39	18° \approx 40'23		15907 Jan 14 21:04	30° \approx 30	
asc. node	15906 Feb 18 07:40	22° \approx 48'53		morning rise	15907 Jan 17 04:46	29° \approx 16'55
morning max el	15906 Feb 19 06:39	23° \approx 42'10	19°57'21	direct	15907 Jan 20 09:48	28° \approx 53'40
	15906 Feb 24 12:28	0° \approx			15907 Jan 25 15:40	0° \approx
morning set	15906 Mar 09 02:04	22° \approx 37'12		morning max el	15907 Feb 01 08:32	4° \approx 39'24 21°25'08
	15906 Mar 12 16:53	0° \approx		asc. node	15907 Feb 05 04:58	8° \approx 54'35
					15907 Feb 17 21:45	0° \approx
superior conj	15906 Mar 16 21:33	8° \approx 28'08	0°48'58	morning set	15907 Feb 21 11:22	7° \approx 19'03
minimum elong	15906 Mar 16 23:57	8° \approx 40'06	0°48'32			
desc. node	15906 Mar 22 20:33	19° \approx 59'36		superior conj	15907 Feb 28 17:24	22° \approx 34'17 1°10'47
max. Earth dist.	15906 Mar 22 21:35	20° \approx 04'26	1.37077 AU	minimum elong	15907 Feb 28 19:54	22° \approx 47'16 1°10'37
evening rise	15906 Mar 26 14:47	26° \approx 53'00			15907 Mar 04 08:34	0° \approx
	15906 Mar 28 08:57	0° \approx		max. Earth dist.	15907 Mar 05 08:00	1° \approx 57'00 1.34984 AU
	15906 Apr 16 11:03	0° \approx		evening rise	15907 Mar 09 09:57	9° \approx 51'21
evening max el	15906 May 01 02:08	17° \approx 48'48	25°31'06	desc. node	15907 Mar 09 17:11	10° \approx 25'24
retrograde	15906 May 13 09:45	24° \approx 56'07			15907 Mar 20 22:29	0° \approx
asc. node	15906 May 17 04:54	23° \approx 57'03			15907 Apr 12 01:39	0° \approx
evening set	15906 May 19 08:52	22° \approx 27'13		evening max el	15907 Apr 13 15:47	1° \approx 36'11 26°35'04
min. Earth dist.	15906 May 23 15:33	17° \approx 46'01	0.67882 AU	retrograde	15907 Apr 26 17:49	9° \approx 01'46
inferior conj	15906 May 25 01:34	15° \approx 56'38	2°10'34	evening set	15907 May 03 02:44	6° \approx 29'06
minimum elong	15906 May 24 23:23	16° \approx 03'39	2°09'14	asc. node	15907 May 04 02:05	5° \approx 38'29
morning rise	15906 May 30 14:22	10° \approx 05'21		min. Earth dist.	15907 May 07 03:25	2° \approx 23'02 0.66573 AU
direct	15906 Jun 03 02:21	8° \approx 55'08		inferior conj	15907 May 09 02:27	0° \approx 02'00 1°28'55
morning max el	15906 Jun 09 22:53	12° \approx 38'08	19°02'47	minimum elong	15907 May 09 00:30	0° \approx 07'52 1°27'38
desc. node	15906 Jun 18 21:11	23° \approx 51'59			15907 May 09 03:07	30° \approx 30
greatest brilliancy	15906 Jun 23 00:09	29° \approx 56'05	-0.7m	morning rise	15907 May 14 23:22	24° \approx 22'23
	15906 Jun 23 01:11	0° \approx		direct	15907 May 18 00:58	23° \approx 29'54
morning set	15906 Jul 03 09:02	15° \approx 47'40		morning max el	15907 May 24 10:57	26° \approx 52'45 18°20'09
	15906 Jul 12 13:06	0° \approx			15907 May 27 06:48	0° \approx
max. Earth dist.	15906 Jul 17 03:07	7° \approx 09'01	1.45655 AU	desc. node	15907 Jun 05 18:12	13° \approx 37'41
				morning set	15907 Jun 13 11:44	25° \approx 50'57
					15907 Jun 16 02:31	0° \approx
superior conj	15906 Jul 19 15:44	11° \approx 06'44	-2°13'10			
minimum elong	15906 Jul 19 18:20	11° \approx 16'59	2°13'47	superior conj	15907 Jun 29 00:49	20° \approx 18'46 -2°09'30
	15906 Jul 31 12:07	0° \approx		minimum elong	15907 Jun 28 19:42	19° \approx 58'50 2°10'04
evening rise	15906 Aug 03 14:02	4° \approx 59'36		max. Earth dist.	15907 Jun 29 23:18	21° \approx 46'26 1.45996 AU
asc. node	15906 Aug 13 04:49	20° \approx 30'00			15907 Jul 05 06:03	0° \approx
	15906 Aug 19 17:20	0° \approx		evening rise	15907 Jul 15 00:45	15° \approx 15'18
evening max el	15906 Aug 23 01:51	3° \approx 51'44	18°20'48		15907 Jul 24 12:20	0° \approx
retrograde	15906 Aug 29 11:15	7° \approx 16'08		greatest brilliancy	15907 Jul 24 22:12	0° \approx 37'46 -0.8m
evening set	15906 Sep 01 11:27	6° \approx 26'01		asc. node	15907 Jul 31 01:32	9° \approx 41'48
inferior conj	15906 Sep 07 08:19	0° \approx 55'13	2°04'00	evening max el	15907 Aug 06 13:10	17° \approx 40'03 18°55'27
minimum elong	15906 Sep 07 10:39	0° \approx 48'20	2°03'16	retrograde	15907 Aug 13 06:51	21° \approx 21'09
	15906 Sep 08 03:02	30° \approx 30		evening set	15907 Aug 16 16:26	20° \approx 14'29
min. Earth dist.	15906 Sep 09 14:30	28° \approx 16'45	0.64755 AU	inferior conj	15907 Aug 22 05:08	14° \approx 29'38 2°39'11
morning rise	15906 Sep 13 08:23	24° \approx 33'39		minimum elong	15907 Aug 22 07:07	14° \approx 23'18 2°38'30
desc. node	15906 Sep 14 18:40	23° \approx 32'05		min. Earth dist.	15907 Aug 23 21:24	12° \approx 21'54 0.66513 AU
direct	15906 Sep 19 20:36	21° \approx 57'57		morning rise	15907 Aug 27 20:57	8° \approx 03'06
morning max el	15906 Oct 03 10:57	29° \approx 53'22	27°20'41	desc. node	15907 Sep 01 16:04	5° \approx 33'33
	15906 Oct 03 13:35	0° \approx		direct	15907 Sep 03 01:18	5° \approx 26'09
	15906 Oct 25 16:54	0° \approx		morning max el	15907 Sep 15 22:34	13° \approx 05'21 26°18'58
morning set	15906 Nov 07 19:48	23° \approx 31'43			15907 Sep 29 15:10	0° \approx
asc. node	15906 Nov 09 06:10	26° \approx 21'37			15907 Oct 18 09:21	0° \approx
	15906 Nov 11 01:27	0° \approx		morning set	15907 Oct 21 20:08	6° \approx 18'42
max. Earth dist.	15906 Nov 12 06:50	2° \approx 30'55	1.33000 AU	max. Earth dist.	15907 Oct 25 16:03	13° \approx 37'59 1.34745 AU
				asc. node	15907 Oct 27 02:57	16° \approx 29'56
superior conj	15906 Nov 16 01:12	10° \approx 26'48	0°59'11	superior conj	15907 Oct 30 22:44	24° \approx 14'36 0°34'26
minimum elong	15906 Nov 15 22:52	10° \approx 14'17	0°59'31	minimum elong	15907 Oct 30 20:58	24° \approx 05'26 0°34'41
evening rise	15906 Nov 23 01:49	25° \approx 35'45			15907 Nov 02 17:11	0° \approx
	15906 Nov 25 03:50	0° \approx		evening rise	15907 Nov 07 10:45	9° \approx 56'30
desc. node	15906 Dec 11 16:21	27° \approx 49'58			15907 Nov 17 22:06	0° \approx
	15906 Dec 13 14:53	0° \approx		evening max el	15907 Nov 26 11:26	11° \approx 22'14 20°52'38
evening max el	15906 Dec 14 17:35	1° \approx 07'35	22°27'13	desc. node	15907 Nov 28 13:24	13° \approx 15'02
retrograde	15906 Dec 27 13:09	7° \approx 28'03		retrograde	15907 Dec 07 23:12	17° \approx 04'12
evening set	15906 Dec 31 06:33	6° \approx 57'35		evening set	15907 Dec 10 12:30	16° \approx 48'32
min. Earth dist.	15907 Jan 08 01:21	3° \approx 26'12	0.54551 AU	inferior conj	15907 Dec 19 07:42	12° \approx 56'30 -5°33'14
inferior conj	15907 Jan 08 16:51	3° \approx 04'26	-6°01'46			
minimum elong	15907 Jan 08 17:06	3° \approx 04'04	6°01'03			

minimum elong	15907 Dec 18 23:33	13°  08'08	5°31'01	evening set	15908 Nov 19 15:08	27°  07'28	
min. Earth dist.	15907 Dec 20 06:50	12°  23'25	0.54477 AU	inferior conj	15908 Nov 28 07:34	23°  04'06	-4°12'43
morning rise	15907 Dec 27 10:40	9°  02'41		minimum elong	15908 Nov 27 21:49	23°  19'30	4°08'52
direct	15907 Dec 31 17:08	8°  23'28		min. Earth dist.	15908 Nov 30 14:54	21°  36'45	0.55337 AU
morning max el	15908 Jan 13 21:45	14°  34'34	23°10'30	morning rise	15908 Dec 06 02:44	18°  45'25	
asc. node	15908 Jan 23 02:15	26°  11'29		direct	15908 Dec 11 08:58	17°  43'45	
	15908 Jan 25 12:03	0°  ≈		morning max el	15908 Dec 25 06:18	24°  41'40	24°59'38
morning set	15908 Feb 05 22:55	22°  ≈03'08			15908 Dec 30 03:28	0°  ≈	
	15908 Feb 09 15:18	0°  ✕		asc. node	15909 Jan 08 23:29	14°  ≈22'35	
					15909 Jan 17 06:10	0°  ≈	
superior conj	15908 Feb 12 20:39	6°  ✕58'39	1°26'07	morning set	15909 Jan 20 10:50	6°  ≈44'20	
minimum elong	15908 Feb 12 22:36	7°  ✕09'08	1°26'19				
max. Earth dist.	15908 Feb 16 01:23	13°  ✕46'18	1.33255 AU	superior conj	15909 Jan 27 04:46	21°  ≈34'03	1°35'09
evening rise	15908 Feb 20 18:12	23°  ✕20'58		minimum elong	15909 Jan 27 05:48	21°  ≈39'45	1°35'40
	15908 Feb 24 04:58	0°  Υ		max. Earth dist.	15909 Jan 29 02:17	25°  ≈43'39	1.31993 AU
desc. node	15908 Feb 24 13:49	0°  Υ41'27			15909 Jan 31 01:42	0°  ✕	
	15908 Mar 13 13:50	0°  ♄		evening rise	15909 Feb 03 12:28	7°  ✕14'27	
evening max el	15908 Mar 26 05:08	15°  ♄07'12	27°19'09	desc. node	15909 Feb 10 10:30	20°  ✕43'02	
retrograde	15908 Apr 08 19:50	22°  ♄39'39			15909 Feb 15 17:14	0°  Υ	
evening set	15908 Apr 15 11:58	20°  ♄09'49		evening max el	15909 Mar 08 16:46	28°  Υ10'48	27°36'09
min. Earth dist.	15908 Apr 19 08:16	16°  ♄35'48	0.64863 AU		15909 Mar 10 16:45	0°  ♄	
asc. node	15908 Apr 19 23:21	15°  ♄55'10		retrograde	15909 Mar 22 14:33	5°  ♄40'17	
inferior conj	15908 Apr 21 19:42	13°  ♄52'58	0°34'23	evening set	15909 Mar 29 10:06	3°  ♄20'45	
minimum elong	15908 Apr 21 18:46	13°  ♄55'32	0°33'33	min. Earth dist.	15909 Apr 02 04:24	0°  ♄13'55	0.62838 AU
morning rise	15908 Apr 28 03:31	8°  ♄26'48			15909 Apr 02 10:16	30°  ♄Υ	
direct	15908 Apr 30 19:46	7°  ♄49'17		inferior conj	15909 Apr 05 02:22	27°  Υ22'19	-0°33'48
morning max el	15908 May 07 03:14	11°  ♄04'36	17°54'26	minimum elong	15909 Apr 05 03:29	27°  Υ19'34	0°33'39
	15908 May 20 09:10	0°  ♄		asc. node	15909 Apr 06 20:40	25°  Υ40'53	
desc. node	15908 May 22 15:06	3°  ♄42'34		morning rise	15909 Apr 11 23:40	22°  Υ11'56	
morning set	15908 May 24 17:45	7°  ♄12'15		direct	15909 Apr 14 07:52	21°  Υ46'03	
				morning max el	15909 Apr 20 20:54	25°  Υ05'19	17°46'09
superior conj	15908 Jun 07 16:45	29°  ♄54'34	-1°47'05		15909 Apr 24 23:34	0°  ♄	
minimum elong	15908 Jun 07 08:05	29°  ♄20'06	1°47'06	morning set	15909 May 07 00:44	19°  ♄44'08	
	15908 Jun 07 18:07	0°  ♄		desc. node	15909 May 09 11:58	24°  ♄01'01	
max. Earth dist.	15908 Jun 11 19:11	6°  ♄23'10	1.45586 AU		15909 May 12 23:26	0°  ♄	
evening rise	15908 Jun 23 16:07	24°  ♄46'09					
	15908 Jun 27 02:21	0°  ♄		superior conj	15909 May 19 04:20	10°  ♄25'48	-1°12'46
greatest brilliancy	15908 Jul 08 00:52	16°  ♄22'02	-0.6m	minimum elong	15909 May 18 21:32	9°  ♄57'41	1°12'35
asc. node	15908 Jul 16 22:19	28°  ♄23'10		max. Earth dist.	15909 May 25 12:54	20°  ♄45'39	1.44477 AU
	15908 Jul 18 08:01	0°  ♄			15909 May 31 09:36	0°  ♄	
evening max el	15908 Jul 19 19:25	1°  ♄33'00	19°46'21	evening rise	15909 Jun 03 03:09	4°  ♄13'22	
retrograde	15908 Jul 27 05:15	5°  ♄42'53			15909 Jun 20 12:41	0°  ♄	
evening set	15908 Jul 31 00:53	4°  ♄18'38		evening max el	15909 Jul 02 19:42	15°  ♄27'02	20°51'22
	15908 Aug 04 02:48	30°  ♄♄		asc. node	15909 Jul 03 19:10	16°  ♄23'29	
inferior conj	15908 Aug 05 08:37	28°  ♄21'16	3°00'01	retrograde	15909 Jul 11 04:15	20°  ♄15'29	
minimum elong	15908 Aug 05 09:50	28°  ♄17'12	2°59'23	evening set	15909 Jul 15 10:39	18°  ♄33'31	
min. Earth dist.	15908 Aug 06 10:57	26°  ♄52'58	0.67852 AU	inferior conj	15909 Jul 20 16:17	12°  ♄24'53	3°08'28
morning rise	15908 Aug 10 18:18	21°  ♄55'27		minimum elong	15909 Jul 20 16:33	12°  ♄23'59	3°07'49
direct	15908 Aug 16 12:21	19°  ♄25'03		min. Earth dist.	15909 Jul 21 04:58	11°  ♄40'57	0.68728 AU
desc. node	15908 Aug 18 13:26	19°  ♄41'31		morning rise	15909 Jul 25 22:09	6°  ♄03'32	
morning max el	15908 Aug 28 09:36	26°  ♄32'12	24°59'07	direct	15909 Jul 31 04:29	3°  ♄46'03	
	15908 Aug 31 14:39	0°  ♄		desc. node	15909 Aug 05 10:48	5°  ♄34'49	
	15908 Sep 22 04:53	0°  ♄		morning max el	15909 Aug 10 20:32	10°  ♄07'35	23°30'45
morning set	15908 Oct 03 04:19	18°  ♄22'46			15909 Aug 26 14:42	0°  ♄	
max. Earth dist.	15908 Oct 06 16:58	24°  ♄45'02	1.36917 AU	morning set	15909 Sep 14 15:57	29°  ♄33'09	
	15908 Oct 09 12:26	0°  ♄			15909 Sep 14 22:20	0°  ♄	
asc. node	15908 Oct 12 23:42	6°  ♄41'15		max. Earth dist.	15909 Sep 18 15:28	6°  ♄21'30	1.39317 AU
superior conj	15908 Oct 13 10:26	7°  ♄33'53	0°04'04	superior conj	15909 Sep 26 08:29	20°  ♄15'10	-0°30'46
minimum elong	15908 Oct 13 10:09	7°  ♄32'31	0°04'26	minimum elong	15909 Sep 26 10:45	20°  ♄25'42	0°30'10
behind sun begin	15908 Oct 13 03:51	7°  ♄01'34		asc. node	15909 Sep 29 20:24	26°  ♄51'26	
behind sun end	15908 Oct 13 16:27	8°  ♄03'32			15909 Oct 01 11:40	0°  ♄	
evening rise	15908 Oct 21 15:46	24°  ♄06'08		evening rise	15909 Oct 05 14:04	7°  ♄57'13	
	15908 Oct 24 14:28	0°  ♄			15909 Oct 18 04:11	0°  ♄	
evening max el	15908 Nov 07 19:32	22° ♄23'00	19°37'26	evening max el	15909 Oct 21 17:12	4° ♄13'10	18°44'24
desc. node	15908 Nov 14 10:32	26° ♄47'26		retrograde	15909 Oct 30 01:40	8° ♄26'22	
retrograde	15908 Nov 17 15:54	27° ♄18'22		evening set	15909 Oct 31 23:32	8° ♄13'55	

desc. node	15909 Nov 01 07:46	8°♊09'08		evening set	15910 Oct 14 09:48	20°♍10'31	
inferior conj	15909 Nov 09 02:27	3°♊50'42	-2°29'21	desc. node	15910 Oct 19 05:02	17°♍32'54	
minimum elong	15909 Nov 08 20:21	4°♊01'52	2°26'18	inferior conj	15910 Oct 21 19:13	15°♍25'43	-0°49'46
min. Earth dist.	15909 Nov 12 04:05	1°♊36'20	0.56967 AU	minimum elong	15910 Oct 21 17:25	15°♍29'36	0°48'31
	15909 Nov 14 14:48	30°♌		min. Earth dist.	15910 Oct 25 01:19	12°♍39'21	0.59078 AU
morning rise	15909 Nov 16 14:05	28°♍56'22		morning rise	15910 Oct 28 21:38	9°♍55'37	
direct	15909 Nov 22 14:15	27°♍28'43		direct	15910 Nov 04 08:58	8°♍01'48	
	15909 Nov 30 15:34	0°♊		morning max el	15910 Nov 18 15:53	15°♍43'26	27°35'43
morning max el	15909 Dec 06 18:56	4°♊50'50	26°33'28		15910 Nov 30 07:42	0°♊	
	15909 Dec 25 01:32	0°♊		asc. node	15910 Dec 13 17:45	22°♊33'35	
asc. node	15909 Dec 26 20:39	3°♊13'21			15910 Dec 17 11:57	0°♊	
morning set	15910 Jan 04 21:19	21°♊16'52		morning set	15910 Dec 20 04:31	5°♊36'28	
	15910 Jan 08 20:41	0°♌		max. Earth dist.	15910 Dec 26 16:17	19°♊51'04	1.31009 AU
superior conj	15910 Jan 11 15:31	6°♌13'13	1°38'05	superior conj	15910 Dec 27 02:59	20°♊51'00	1°35'00
minimum elong	15910 Jan 11 15:30	6°♌13'06	1°38'47	minimum elong	15910 Dec 27 01:57	20°♊45'10	1°35'43
max. Earth dist.	15910 Jan 12 08:24	7°♌47'26	1.31236 AU		15910 Dec 31 05:23	0°♌	
evening rise	15910 Jan 18 13:58	21°♌24'00		evening rise	15911 Jan 02 20:30	5°♌44'24	
	15910 Jan 22 18:46	0°♌		desc. node	15911 Jan 15 03:58	29°♌33'28	
desc. node	15910 Jan 28 07:13	10°♌23'04			15911 Jan 15 10:15	0°♌	
	15910 Feb 09 20:31	0°♍		evening max el	15911 Feb 01 00:25	22°♌04'55	26°29'31
evening max el	15910 Feb 19 00:09	10°♍33'33	27°20'25	retrograde	15911 Feb 15 00:09	29°♌14'05	
retrograde	15910 Mar 05 00:30	17°♍54'01		evening set	15911 Feb 21 08:54	27°♌35'37	
evening set	15910 Mar 11 18:13	15°♍51'59		min. Earth dist.	15911 Feb 25 13:51	24°♌58'08	0.58395 AU
min. Earth dist.	15910 Mar 15 14:23	13°♍05'15	0.60619 AU	inferior conj	15911 Feb 28 17:29	22°♌37'02	-3°24'45
inferior conj	15910 Mar 18 18:54	10°♍20'30	-1°55'01	minimum elong	15911 Mar 01 01:15	22°♌22'31	3°21'49
minimum elong	15910 Mar 18 23:08	10°♍11'19	1°53'24	morning rise	15911 Mar 08 20:58	18°♌06'54	
asc. node	15910 Mar 24 18:02	6°♍04'06		direct	15911 Mar 10 20:11	17°♌53'35	
morning rise	15910 Mar 26 07:27	5°♍28'53		asc. node	15911 Mar 11 15:25	17°♌55'52	
direct	15910 Mar 28 09:31	5°♍11'03		morning max el	15911 Mar 18 22:57	21°♌54'00	18°25'57
morning max el	15910 Apr 04 12:43	8°♍45'21	17°56'12		15911 Mar 25 04:59	0°♍	
	15910 Apr 18 09:20	0°♌		morning set	15911 Apr 03 18:38	17°♍10'17	
morning set	15910 Apr 20 02:53	3°♌09'08			15911 Apr 10 12:37	0°♌	
desc. node	15910 Apr 26 08:45	14°♌28'18		superior conj	15911 Apr 13 00:04	4°♌35'30	0°01'53
superior conj	15910 Apr 30 15:32	22°♌01'49	-0°34'34	minimum elong	15911 Apr 13 00:10	4°♌36'00	0°01'28
minimum elong	15910 Apr 30 12:30	21°♌48'37	0°34'39	behind sun begin	15911 Apr 12 16:59	4°♌02'57	
	15910 May 05 07:25	0°♌		behind sun end	15911 Apr 13 07:22	5°♌08'57	
max. Earth dist.	15910 May 08 02:56	4°♌40'47	1.42775 AU	desc. node	15911 Apr 13 05:28	5°♌00'18	
evening rise	15910 May 14 01:41	14°♌16'24		max. Earth dist.	15911 Apr 20 12:17	17°♌55'57	1.40662 AU
	15910 May 24 08:11	0°♍		evening rise	15911 Apr 24 20:06	25°♌12'52	
evening max el	15910 Jun 15 14:29	29°♍21'10	22°06'57		15911 Apr 27 18:32	0°♌	
	15910 Jun 16 06:21	0°♌			15911 May 18 02:22	0°♍	
asc. node	15910 Jun 20 16:05	3°♌29'24		evening max el	15911 May 29 05:26	13°♍15'11	23°28'01
retrograde	15910 Jun 25 02:12	4°♌53'53		asc. node	15911 Jun 07 13:04	19°♍23'33	
evening set	15910 Jun 29 19:56	2°♌55'07		retrograde	15911 Jun 08 21:44	19°♍31'33	
	15910 Jul 02 13:39	30°♌		evening set	15911 Jun 14 03:04	17°♍18'12	
inferior conj	15910 Jul 05 01:58	26°♍36'42	3°05'53	inferior conj	15911 Jun 19 11:44	10°♍52'07	2°52'48
minimum elong	15910 Jul 05 01:18	26°♍39'04	3°05'05	minimum elong	15911 Jun 19 10:14	10°♍57'15	2°51'47
min. Earth dist.	15910 Jul 05 01:24	26°♍38'43	0.69115 AU	min. Earth dist.	15911 Jun 18 22:07	11°♍38'59	0.69012 AU
morning rise	15910 Jul 10 06:29	20°♍22'03		morning rise	15911 Jun 24 17:24	4°♍45'36	
direct	15910 Jul 15 00:30	18°♍21'49		direct	15911 Jun 28 23:13	3°♍04'49	
desc. node	15910 Jul 23 08:06	22°♍49'23		morning max el	15911 Jul 07 04:18	7°♍45'45	20°42'29
morning max el	15910 Jul 24 09:50	23°♍51'42	22°02'51	desc. node	15911 Jul 10 05:19	11°♍03'52	
	15910 Jul 29 20:03	0°♌			15911 Jul 24 04:03	0°♌	
	15910 Aug 19 23:15	0°♍		morning set	15911 Aug 05 17:59	18°♌59'04	
morning set	15910 Aug 26 04:00	9°♍43'45			15911 Aug 12 18:05	0°♍	
max. Earth dist.	15910 Aug 31 18:01	18°♍50'27	1.41656 AU	max. Earth dist.	15911 Aug 14 02:43	2°♍10'51	1.43659 AU
	15910 Sep 07 07:11	0°♌		superior conj	15911 Aug 20 18:28	13°♍05'08	-1°41'33
superior conj	15910 Sep 08 12:35	2°♌08'55	-1°07'28	minimum elong	15911 Aug 21 02:12	13°♍37'27	1°41'03
minimum elong	15910 Sep 08 18:02	2°♌32'57	1°06'42		15911 Aug 30 15:25	0°♌	
asc. node	15910 Sep 16 17:05	16°♌57'21		evening rise	15911 Sep 01 23:33	4°♌06'28	
evening rise	15910 Sep 19 02:12	21°♌21'32		asc. node	15911 Sep 03 13:43	6°♌54'20	
	15910 Sep 23 19:15	0°♍		evening max el	15911 Sep 18 13:46	29°♌51'50	18°01'28
evening max el	15910 Oct 05 00:42	16°♍46'18	18°12'54		15911 Sep 18 17:05	0°♍	
retrograde	15910 Oct 12 06:57	20°♍28'54		retrograde	15911 Sep 25 04:22	3°♍16'57	

































































































































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	15911 Oct 01 22:01	30° \mathbb{R} \mathbb{A}			15912 Aug 22 11:56	0° \mathbb{A}	
inferior conj	15911 Oct 04 07:32	27° \mathbb{A} 44'25	0°33'05	evening max el	15912 Sep 01 04:37	13° \mathbb{A} 20'21	18°08'41
minimum elong	15911 Oct 04 08:32	27° \mathbb{A} 41'58	0°33'00	retrograde	15912 Sep 07 13:20	16° \mathbb{A} 41'13	
desc. node	15911 Oct 06 02:22	25° \mathbb{A} 58'14		evening set	15912 Sep 10 08:17	15° \mathbb{A} 59'57	
min. Earth dist.	15911 Oct 07 08:21	24° \mathbb{A} 45'52	0.61366 AU	inferior conj	15912 Sep 16 11:27	10° \mathbb{A} 38'25	1°36'09
morning rise	15911 Oct 10 23:29	21° \mathbb{A} 46'28		minimum elong	15912 Sep 16 13:39	10° \mathbb{A} 32'19	1°35'31
direct	15911 Oct 17 15:38	19° \mathbb{A} 30'08		min. Earth dist.	15912 Sep 19 01:21	7° \mathbb{A} 47'33	0.63586 AU
morning max el	15911 Oct 31 20:19	27° \mathbb{A} 25'32	27°59'03	desc. node	15912 Sep 21 23:44	4° \mathbb{A} 57'31	
	15911 Nov 03 07:32	0° \mathbb{M}		morning rise	15912 Sep 22 17:00	4° \mathbb{A} 22'52	
	15911 Nov 24 01:09	0° \mathbb{A}		direct	15912 Sep 29 08:10	1° \mathbb{A} 51'21	
asc. node	15911 Nov 30 14:44	12° \mathbb{A} 14'53		morning max el	15912 Oct 13 05:23	9° \mathbb{A} 50'40	27°44'12
morning set	15911 Dec 04 06:27	19° \mathbb{A} 38'14			15912 Oct 29 00:44	0° \mathbb{M}	
	15911 Dec 09 02:51	0° \mathbb{B}			15912 Nov 15 09:12	0° \mathbb{A}	
max. Earth dist.	15911 Dec 09 21:59	1° \mathbb{B} 45'02	1.31332 AU	asc. node	15912 Nov 16 11:37	2° \mathbb{A} 10'36	
				morning set	15912 Nov 17 00:44	3° \mathbb{A} 16'10	
superior conj	15911 Dec 11 13:18	5° \mathbb{B} 22'25	1°25'54	max. Earth dist.	15912 Nov 21 21:39	13° \mathbb{A} 20'39	1.32224 AU
minimum elong	15911 Dec 11 11:26	5° \mathbb{B} 12'03	1°26'31				
evening rise	15911 Dec 18 06:05	20° \mathbb{B} 10'56		superior conj	15912 Nov 24 20:29	19° \mathbb{A} 41'44	1°10'44
	15911 Dec 22 22:35	0° \mathbb{A}		minimum elong	15912 Nov 24 18:09	19° \mathbb{A} 29'06	1°11'09
desc. node	15912 Jan 02 00:47	18° \mathbb{A} 03'25			15912 Nov 29 13:30	0° \mathbb{B}	
	15912 Jan 11 00:13	0° \mathbb{H}		evening rise	15912 Dec 01 16:53	4° \mathbb{B} 38'52	
evening max el	15912 Jan 13 16:08	2° \mathbb{H} 44'02	25°07'32		15912 Dec 15 01:01	0° \mathbb{A}	
retrograde	15912 Jan 27 12:00	9° \mathbb{H} 40'06		desc. node	15912 Dec 18 21:41	5° \mathbb{A} 37'41	
evening set	15912 Feb 02 02:37	8° \mathbb{H} 29'23		evening max el	15912 Dec 25 02:02	12° \mathbb{A} 46'36	23°26'47
min. Earth dist.	15912 Feb 07 04:27	5° \mathbb{H} 45'35	0.56421 AU	retrograde	15913 Jan 07 10:20	19° \mathbb{A} 23'03	
inferior conj	15912 Feb 09 19:18	4° \mathbb{H} 03'41	-4°50'38	evening set	15913 Jan 11 21:35	18° \mathbb{A} 39'50	
minimum elong	15912 Feb 10 04:38	3° \mathbb{H} 48'30	4°47'49	min. Earth dist.	15913 Jan 18 12:56	15° \mathbb{A} 31'15	0.55005 AU
	15912 Feb 17 23:53	30° \mathbb{R} \mathbb{A}		inferior conj	15913 Jan 20 00:48	14° \mathbb{A} 39'06	-5°50'04
morning rise	15912 Feb 18 09:17	29° \mathbb{A} 54'58		minimum elong	15913 Jan 20 06:07	14° \mathbb{A} 31'21	5°48'53
direct	15912 Feb 20 11:48	29° \mathbb{A} 42'20		morning rise	15913 Jan 28 16:07	10° \mathbb{A} 46'30	
	15912 Feb 22 22:01	0° \mathbb{H}		direct	15913 Jan 31 08:20	10° \mathbb{A} 29'09	
asc. node	15912 Feb 26 12:46	1° \mathbb{H} 34'06		morning max el	15913 Feb 11 10:08	15° \mathbb{A} 50'19	20°31'57
morning max el	15912 Feb 29 23:26	4° \mathbb{H} 19'36	19°17'21	asc. node	15913 Feb 12 10:07	16° \mathbb{A} 50'47	
	15912 Mar 17 00:34	0° \mathbb{Y}			15913 Feb 21 17:32	0° \mathbb{H}	
morning set	15912 Mar 17 19:41	1° \mathbb{Y} 34'57		morning set	15913 Mar 02 02:44	16° \mathbb{H} 12'35	
					15913 Mar 08 18:54	0° \mathbb{Y}	
superior conj	15912 Mar 26 01:37	17° \mathbb{Y} 54'49	0°33'29				
minimum elong	15912 Mar 26 03:32	18° \mathbb{Y} 04'07	0°32'58	superior conj	15913 Mar 09 15:50	1° \mathbb{Y} 46'36	0°58'59
desc. node	15912 Mar 30 02:06	25° \mathbb{Y} 33'01		minimum elong	15913 Mar 09 18:23	1° \mathbb{Y} 59'32	0°58'39
	15912 Apr 01 12:11	0° \mathbb{B}		max. Earth dist.	15913 Mar 15 01:44	12° \mathbb{Y} 28'49	1.36152 AU
max. Earth dist.	15912 Apr 01 18:23	0° \mathbb{B} 28'04	1.38373 AU	desc. node	15913 Mar 16 22:44	16° \mathbb{Y} 02'29	
evening rise	15912 Apr 05 11:41	7° \mathbb{B} 04'05		evening rise	15913 Mar 18 21:50	19° \mathbb{Y} 40'55	
	15912 Apr 19 16:48	0° \mathbb{H}			15913 Mar 24 17:58	0° \mathbb{B}	
evening max el	15912 May 10 18:52	27° \mathbb{H} 09'59	24°48'10		15913 Apr 13 17:57	0° \mathbb{H}	
	15912 May 13 21:36	0° \mathbb{B}		evening max el	15913 Apr 23 08:29	11° \mathbb{H} 02'33	26°00'16
retrograde	15912 May 22 13:41	4° \mathbb{B} 02'35		retrograde	15913 May 06 00:58	18° \mathbb{H} 19'25	
asc. node	15912 May 24 10:07	3° \mathbb{B} 48'08		asc. node	15913 May 11 07:16	16° \mathbb{H} 29'08	
evening set	15912 May 28 06:26	1° \mathbb{B} 38'06		evening set	15913 May 12 04:17	15° \mathbb{H} 48'26	
	15912 May 29 22:28	30° \mathbb{R} \mathbb{H}		min. Earth dist.	15913 May 16 08:18	11° \mathbb{H} 22'08	0.67378 AU
min. Earth dist.	15912 Jun 01 17:08	26° \mathbb{H} 35'50	0.68429 AU	inferior conj	15913 May 17 23:48	9° \mathbb{H} 18'23	1°54'25
inferior conj	15912 Jun 02 19:41	25° \mathbb{H} 07'40	2°29'11	minimum elong	15913 May 17 21:38	9° \mathbb{H} 25'09	1°53'04
minimum elong	15912 Jun 02 17:39	25° \mathbb{H} 14'27	2°27'56	morning rise	15913 May 23 15:42	3° \mathbb{H} 31'36	
morning rise	15912 Jun 08 05:06	19° \mathbb{H} 10'20		direct	15913 May 26 23:07	2° \mathbb{H} 29'13	
direct	15912 Jun 11 23:17	17° \mathbb{H} 49'19		morning max el	15913 Jun 02 14:15	6° \mathbb{H} 02'20	18°42'30
morning max el	15912 Jun 19 05:45	21° \mathbb{H} 50'17	19°34'42	desc. node	15913 Jun 12 23:31	19° \mathbb{H} 33'54	
desc. node	15912 Jun 26 02:27	0° \mathbb{B} 02'41			15913 Jun 19 19:19	0° \mathbb{B}	
	15912 Jun 26 01:39	0° \mathbb{B}		morning set	15913 Jun 24 11:13	7° \mathbb{B} 15'26	
greatest brilliancy	15912 Jul 01 23:37	8° \mathbb{B} 22'09	-0.6m		15913 Jul 09 01:27	0° \mathbb{Q}	
morning set	15912 Jul 14 21:41	27° \mathbb{B} 51'11		max. Earth dist.	15913 Jul 09 11:42	0° \mathbb{Q} 39'58	1.45893 AU
	15912 Jul 16 07:12	0° \mathbb{Q}					
max. Earth dist.	15912 Jul 26 17:00	16° \mathbb{Q} 11'28	1.45118 AU	superior conj	15913 Jul 10 13:55	2° \mathbb{Q} 22'16	-2°14'08
				minimum elong	15913 Jul 10 13:10	2° \mathbb{Q} 19'21	2°14'50
superior conj	15912 Jul 31 00:56	23° \mathbb{Q} 03'37	-2°06'13	evening rise	15913 Jul 26 01:45	26° \mathbb{Q} 49'00	
minimum elong	15912 Jul 31 07:02	23° \mathbb{Q} 27'59	2°06'27		15913 Jul 28 01:36	0° \mathbb{M}	
	15912 Aug 04 08:24	0° \mathbb{M}		greatest brilliancy	15913 Aug 01 06:16	6° \mathbb{M} 41'10	-0.9m
evening rise	15912 Aug 14 00:51	15° \mathbb{M} 58'45		asc. node	15913 Aug 07 07:01	16° \mathbb{M} 03'33	

evening max el	15913 Aug 15 18:04	27° \mathbb{M} 03'59	18°33'35	greatest brilliancy	15914 Jul 18 02:58	25° Ω 02'57	-0.7m
	15913 Aug 19 18:11	0° $\underline{\Omega}$			15914 Jul 21 11:58	0° \mathbb{M}	
retrograde	15913 Aug 22 05:55	0° $\underline{\Omega}$ 33'38		asc. node	15914 Jul 25 03:45	5° \mathbb{M} 03'25	
	15913 Aug 24 16:22	30° \mathbb{R} \mathbb{M}		evening max el	15914 Jul 30 03:29	10° \mathbb{M} 55'04	19°15'16
evening set	15913 Aug 25 10:04	29° \mathbb{M} 36'40		retrograde	15914 Aug 06 02:56	14° \mathbb{M} 46'37	
inferior conj	15913 Aug 31 03:04	23° \mathbb{M} 59'59	2°20'49	evening set	15914 Aug 09 16:49	13° \mathbb{M} 32'21	
minimum elong	15913 Aug 31 05:20	23° \mathbb{M} 53'04	2°20'06	inferior conj	15914 Aug 15 03:02	7° \mathbb{M} 42'01	2°49'40
min. Earth dist.	15913 Sep 02 03:29	21° \mathbb{M} 33'06	0.65550 AU	minimum elong	15914 Aug 15 04:44	7° \mathbb{M} 36'29	2°49'00
morning rise	15913 Sep 05 23:24	17° \mathbb{M} 35'41		min. Earth dist.	15914 Aug 16 13:17	5° \mathbb{M} 50'30	0.67140 AU
desc. node	15913 Sep 08 21:08	15° \mathbb{M} 43'53		morning rise	15914 Aug 20 16:00	1° \mathbb{M} 15'32	
direct	15913 Sep 12 08:50	14° \mathbb{M} 58'11			15914 Aug 22 08:12	30° \mathbb{R} Ω	
morning max el	15913 Sep 25 16:30	22° \mathbb{M} 48'23	26°57'15	direct	15914 Aug 26 16:14	28° Ω 40'38	
	15913 Oct 02 01:28	0° $\underline{\Omega}$		desc. node	15914 Aug 26 18:33	28° Ω 40'40	
	15913 Oct 22 07:32	0° \mathbb{M}			15914 Aug 31 10:48	0° \mathbb{M}	
morning set	15913 Oct 31 08:36	16° \mathbb{M} 24'00		morning max el	15914 Sep 08 03:49	6° \mathbb{M} 07'13	25°46'41
asc. node	15913 Nov 03 08:27	22° \mathbb{M} 15'45			15914 Sep 26 15:57	0° $\underline{\Omega}$	
max. Earth dist.	15913 Nov 04 12:26	24° \mathbb{M} 36'14	1.33678 AU	morning set	15914 Oct 14 02:29	28° $\underline{\Omega}$ 53'08	
	15913 Nov 07 03:37	0° \mathbb{X}			15914 Oct 14 17:04	0° \mathbb{M}	
				max. Earth dist.	15914 Oct 17 17:49	5° \mathbb{M} 40'42	1.35631 AU
superior conj	15913 Nov 08 22:19	3° \mathbb{X} 43'22	0°49'26	asc. node	15914 Oct 21 05:12	12° \mathbb{M} 25'30	
minimum elong	15913 Nov 08 20:06	3° \mathbb{X} 31'46	0°49'44				
evening rise	15913 Nov 16 03:04	19° \mathbb{X} 03'59		superior conj	15914 Oct 23 16:02	17° \mathbb{M} 19'41	0°22'11
	15913 Nov 21 11:05	0° \mathbb{Z}		minimum elong	15914 Oct 23 14:46	17° \mathbb{M} 13'15	0°22'29
desc. node	15913 Dec 05 18:41	21° \mathbb{Z} 56'58			15914 Oct 29 19:51	0° \mathbb{X}	
evening max el	15913 Dec 06 14:21	22° \mathbb{Z} 46'40	21°45'13	evening rise	15914 Oct 31 10:37	3° \mathbb{X} 20'32	
retrograde	15913 Dec 18 21:39	28° \mathbb{Z} 51'38			15914 Nov 15 15:23	0° \mathbb{Z}	
evening set	15913 Dec 22 02:03	28° \mathbb{Z} 28'51		evening max el	15914 Nov 18 13:49	3° \mathbb{Z} 18'12	20°17'56
inferior conj	15913 Dec 30 17:11	24° \mathbb{Z} 38'22	-5°57'16	desc. node	15914 Nov 22 15:47	6° \mathbb{Z} 36'44	
minimum elong	15913 Dec 30 13:23	24° \mathbb{Z} 43'41	5°56'14	retrograde	15914 Nov 29 08:47	8° \mathbb{Z} 40'32	
min. Earth dist.	15913 Dec 30 18:19	24° \mathbb{Z} 36'46	0.54407 AU	evening set	15914 Dec 01 14:26	8° \mathbb{Z} 27'46	
morning rise	15914 Jan 08 01:22	20° \mathbb{Z} 50'27		inferior conj	15914 Dec 10 10:02	4° \mathbb{Z} 32'00	-5°03'53
direct	15914 Jan 11 17:19	20° \mathbb{Z} 21'04		minimum elong	15914 Dec 10 00:16	4° \mathbb{Z} 46'25	5°00'44
morning max el	15914 Jan 24 05:52	26° \mathbb{Z} 24'57	22°08'15	min. Earth dist.	15914 Dec 12 00:06	3° \mathbb{Z} 35'46	0.54738 AU
	15914 Jan 27 14:05	0° \approx		morning rise	15914 Dec 18 09:32	0° \mathbb{Z} 30'06	
asc. node	15914 Jan 30 07:27	3° \approx 29'09			15914 Dec 20 06:14	30° \mathbb{R} \mathbb{X}	
	15914 Feb 14 02:35	0° \mathbb{X}		direct	15914 Dec 23 02:48	29° \mathbb{X} 42'02	
morning set	15914 Feb 14 13:15	0° \mathbb{X} 56'11			15914 Dec 25 22:32	0° \mathbb{Z}	
				morning max el	15915 Jan 05 15:42	6° \mathbb{Z} 21'51	23°57'38
superior conj	15914 Feb 21 15:11	16° \mathbb{X} 01'20	1°18'02	asc. node	15915 Jan 17 04:43	21° \mathbb{Z} 10'38	
minimum elong	15914 Feb 21 17:31	16° \mathbb{X} 13'37	1°18'02		15915 Jan 22 06:58	0° \approx	
max. Earth dist.	15914 Feb 25 15:04	24° \mathbb{X} 18'55	1.34207 AU	morning set	15915 Jan 30 01:13	15° \approx 39'49	
	15914 Feb 28 11:17	0° \mathbb{Y}					
evening rise	15914 Mar 01 23:02	2° \mathbb{Y} 53'51		superior conj	15915 Feb 05 20:47	0° \mathbb{X} 31'03	1°30'42
desc. node	15914 Mar 03 19:23	6° \mathbb{Y} 24'45		minimum elong	15915 Feb 05 22:23	0° \mathbb{X} 39'42	1°31'03
	15914 Mar 17 15:47	0° \mathbb{Z}			15915 Feb 05 15:05	0° \mathbb{X}	
evening max el	15914 Apr 05 22:24	24° \mathbb{Z} 45'05	26°56'41	max. Earth dist.	15915 Feb 08 12:04	6° \mathbb{X} 12'21	1.32661 AU
	15914 Apr 12 11:02	0° \mathbb{I}		evening rise	15915 Feb 13 11:53	16° \mathbb{X} 34'21	
retrograde	15914 Apr 19 06:24	2° \mathbb{I} 14'04		desc. node	15915 Feb 18 16:03	26° \mathbb{X} 35'24	
	15914 Apr 25 09:21	30° \mathbb{R} \mathbb{Z}			15915 Feb 20 12:41	0° \mathbb{Y}	
evening set	15914 Apr 25 18:44	29° \mathbb{Z} 42'05			15915 Mar 12 04:02	0° \mathbb{Z}	
asc. node	15914 Apr 28 04:31	27° \mathbb{Z} 30'01		evening max el	15915 Mar 19 11:20	8° \mathbb{Z} 06'24	27°30'01
min. Earth dist.	15914 Apr 29 17:29	25° \mathbb{Z} 49'53	0.65895 AU	retrograde	15915 Apr 02 05:16	15° \mathbb{Z} 37'53	
inferior conj	15914 May 01 21:47	23° \mathbb{Z} 18'34	1°07'27	evening set	15915 Apr 08 23:36	13° \mathbb{Z} 11'28	
minimum elong	15914 May 01 20:09	23° \mathbb{Z} 23'19	1°06'17	min. Earth dist.	15915 Apr 12 18:43	9° \mathbb{Z} 49'56	0.64039 AU
morning rise	15914 May 07 22:59	17° \mathbb{Z} 44'08		inferior conj	15915 Apr 15 10:59	7° \mathbb{Z} 01'44	0°07'13
direct	15914 May 10 20:33	16° \mathbb{Z} 58'15		minimum elong	15915 Apr 15 10:47	7° \mathbb{Z} 02'16	0°06'42
morning max el	15914 May 17 04:21	20° \mathbb{Z} 16'17	18°07'03	transit middle	15915 Apr 15 10:47	7° \mathbb{Z} 02'16	0°06'42
	15914 May 24 18:42	0° \mathbb{I}		transit begin	15915 Apr 15 07:57	7° \mathbb{Z} 09'43	
desc. node	15914 May 30 20:31	9° \mathbb{I} 28'38		transit end	15915 Apr 15 13:37	6° \mathbb{Z} 54'50	
morning set	15914 Jun 05 01:24	17° \mathbb{I} 51'51		asc. node	15915 Apr 15 01:50	7° \mathbb{Z} 25'53	
	15914 Jun 12 14:51	0° \mathbb{E}		morning rise	15915 Apr 22 00:15	1° \mathbb{Z} 42'02	
				direct	15915 Apr 24 13:01	1° \mathbb{Z} 09'47	
superior conj	15914 Jun 19 23:48	11° \mathbb{E} 38'46	-2°01'57	morning max el	15915 Apr 30 21:39	4° \mathbb{Z} 24'59	17°48'47
minimum elong	15914 Jun 19 16:23	11° \mathbb{E} 09'43	2°02'18	morning set	15915 May 17 18:44	29° \mathbb{Z} 45'50	
max. Earth dist.	15914 Jun 22 08:28	15° \mathbb{E} 20'28	1.45918 AU	desc. node	15915 May 17 17:25	29° \mathbb{Z} 40'16	
	15914 Jul 01 18:56	0° Ω			15915 May 17 22:05	0° \mathbb{I}	
evening rise	15914 Jul 06 02:55	6° Ω 41'56					

superior conj	15915 May 30 23:07	21° Π 36'12	-1°33'29	superior conj	15916 May 10 20:48	2° Π 35'38	-0°56'40
minimum elong	15915 May 30 14:46	21° Π 02'31	1°33'20	minimum elong	15916 May 10 15:34	2° Π 13'32	0°56'33
max. Earth dist.	15915 Jun 05 04:16	29° Π 55'26	1.45196 AU	max. Earth dist.	15916 May 17 20:25	14° Π 07'20	1.43813 AU
	15915 Jun 05 05:26	0° \mathfrak{E}		evening rise	15916 May 25 04:42	25° Π 44'57	
evening rise	15915 Jun 15 14:27	16° \mathfrak{E} 06'40			15916 May 27 22:53	0° \mathfrak{E}	
	15915 Jun 24 19:12	0° Ω			15916 Jun 17 18:43	0° Ω	
asc. node	15915 Jul 12 00:35	23° Ω 29'07		evening max el	15916 Jun 25 04:53	8° Ω 42'25	21°22'25
evening max el	15915 Jul 13 07:13	24° Ω 48'58	20°12'21	asc. node	15916 Jun 27 21:28	11° Ω 08'04	
retrograde	15915 Jul 21 01:56	29° Ω 14'17		retrograde	15916 Jul 04 00:48	13° Ω 49'55	
evening set	15915 Jul 25 02:07	27° Ω 42'16		evening set	15916 Jul 08 11:54	12° Ω 00'40	
inferior conj	15915 Jul 30 08:36	21° Ω 39'41	3°05'01	inferior conj	15916 Jul 13 17:23	5° Ω 47'24	3°08'39
minimum elong	15915 Jul 30 09:25	21° Ω 36'54	3°04'23	minimum elong	15916 Jul 13 17:15	5° Ω 47'55	3°07'57
min. Earth dist.	15915 Jul 31 04:59	20° Ω 30'11	0.68285 AU	min. Earth dist.	15916 Jul 14 00:23	5° Ω 23'02	0.68952 AU
morning rise	15915 Aug 04 16:23	15° Ω 15'27			15916 Jul 18 08:43	30° \mathfrak{R} \mathfrak{E}	
direct	15915 Aug 10 05:27	12° Ω 50'13		morning rise	15916 Jul 18 22:22	29° \mathfrak{E} 28'28	
desc. node	15915 Aug 13 15:55	13° Ω 36'41		direct	15916 Jul 23 23:22	27° \mathfrak{E} 18'01	
morning max el	15915 Aug 21 14:51	19° Ω 39'05	24°22'01		15916 Jul 30 09:31	0° Ω	
	15915 Aug 30 10:40	0° \mathfrak{M}		desc. node	15916 Jul 30 13:14	0° Ω 07'07	
	15915 Sep 19 19:05	0° \mathfrak{L}		morning max el	15916 Aug 03 02:34	3° Ω 18'29	22°52'45
morning set	15915 Sep 26 02:25	10° \mathfrak{L} 35'20			15916 Aug 23 12:11	0° \mathfrak{M}	
max. Earth dist.	15915 Sep 29 17:15	16° \mathfrak{L} 58'08	1.37932 AU	morning set	15916 Sep 06 04:16	21° \mathfrak{M} 21'07	
				max. Earth dist.	15916 Sep 10 16:33	28° \mathfrak{M} 54'07	1.40334 AU
					15916 Sep 11 07:58	0° \mathfrak{L}	
superior conj	15915 Oct 06 22:23	0° \mathfrak{M} 23'26	-0°10'19	superior conj	15916 Sep 18 13:18	12° \mathfrak{L} 45'30	-0°46'20
minimum elong	15915 Oct 06 23:03	0° \mathfrak{M} 26'41	0°09'51	minimum elong	15916 Sep 18 16:54	13° \mathfrak{L} 01'52	0°45'38
behind sun begin	15915 Oct 06 17:36	0° \mathfrak{M} 00'27		asc. node	15916 Sep 23 22:38	22° \mathfrak{L} 45'21	
behind sun end	15915 Oct 07 04:31	0° \mathfrak{M} 52'58			15916 Sep 27 18:09	0° \mathfrak{M}	
	15915 Oct 06 17:30	0° \mathfrak{M}		evening rise	15916 Sep 28 07:36	1° \mathfrak{M} 04'03	
asc. node	15915 Oct 08 01:56	2° \mathfrak{M} 36'34		evening max el	15916 Oct 14 06:15	26° \mathfrak{M} 49'09	18°28'29
evening rise	15915 Oct 15 13:08	17° \mathfrak{M} 23'07			15916 Oct 18 14:12	0° \mathfrak{L}	
	15915 Oct 22 02:21	0° \mathfrak{L}		retrograde	15916 Oct 22 02:24	0° \mathfrak{L} 47'47	
evening max el	15915 Nov 01 03:51	14° \mathfrak{L} 39'14	19°12'02	evening set	15916 Oct 24 01:47	0° \mathfrak{L} 33'25	
desc. node	15915 Nov 09 12:57	19° \mathfrak{L} 14'04			15916 Oct 25 18:04	30° \mathfrak{R} \mathfrak{M}	
retrograde	15915 Nov 10 08:15	19° \mathfrak{L} 16'07		desc. node	15916 Oct 26 10:10	29° \mathfrak{M} 41'47	
evening set	15915 Nov 12 05:34	19° \mathfrak{L} 05'14		inferior conj	15916 Oct 31 21:25	26° \mathfrak{M} 01'19	-1°45'34
inferior conj	15915 Nov 20 17:08	14° \mathfrak{L} 53'43	-3°29'45	minimum elong	15916 Oct 31 17:16	26° \mathfrak{M} 09'28	1°43'17
minimum elong	15915 Nov 20 08:36	15° \mathfrak{L} 08'03	3°25'58	min. Earth dist.	15916 Nov 04 02:36	23° \mathfrak{M} 30'42	0.57820 AU
min. Earth dist.	15915 Nov 23 09:58	13° \mathfrak{L} 05'01	0.55948 AU	morning rise	15916 Nov 08 05:17	20° \mathfrak{M} 50'50	
morning rise	15915 Nov 28 09:11	10° \mathfrak{L} 20'16		direct	15916 Nov 14 11:03	19° \mathfrak{M} 11'34	
direct	15915 Dec 03 23:31	9° \mathfrak{L} 08'05		morning max el	15916 Nov 28 17:26	26° \mathfrak{M} 43'37	27°04'28
morning max el	15915 Dec 18 01:19	16° \mathfrak{L} 17'14	25°42'44		15916 Dec 01 20:39	0° \mathfrak{L}	
	15915 Dec 29 03:45	0° \mathfrak{Z}		asc. node	15916 Dec 20 23:03	28° \mathfrak{L} 44'06	
asc. node	15916 Jan 04 01:56	9° \mathfrak{Z} 39'40			15916 Dec 21 15:10	0° \mathfrak{Z}	
	15916 Jan 14 09:25	0° \approx		morning set	15916 Dec 28 22:00	14° \mathfrak{Z} 45'27	
morning set	15916 Jan 14 12:43	0° \approx 17'44					
superior conj	15916 Jan 21 06:15	15° \approx 08'29	1°37'09	superior conj	15917 Jan 04 17:32	29° \mathfrak{Z} 48'02	1°37'32
minimum elong	15916 Jan 21 06:50	15° \approx 11'46	1°37'45	minimum elong	15917 Jan 04 17:04	29° \mathfrak{Z} 45'25	1°38'14
max. Earth dist.	15916 Jan 22 15:29	18° \approx 12'28	1.31598 AU		15917 Jan 04 19:40	0° \approx	
evening rise	15916 Jan 28 09:27	0° \mathfrak{H} 34'47		max. Earth dist.	15917 Jan 04 22:35	0° \approx 16'18	1.31064 AU
	15916 Jan 28 02:47	0° \mathfrak{H}		evening rise	15917 Jan 11 13:20	14° \approx 49'37	
desc. node	15916 Feb 05 12:43	16° \mathfrak{H} 28'27			15917 Jan 19 02:39	0° \mathfrak{H}	
	15916 Feb 13 12:50	0° \mathfrak{Y}		desc. node	15917 Jan 22 09:26	5° \mathfrak{H} 57'00	
evening max el	15916 Feb 29 21:15	20° \mathfrak{Y} 53'19	27°33'42		15917 Feb 08 05:12	0° \mathfrak{Y}	
retrograde	15916 Mar 14 20:32	28° \mathfrak{Y} 20'08		evening max el	15917 Feb 11 01:46	2° \mathfrak{Y} 54'46	27°03'06
evening set	15916 Mar 21 16:11	26° \mathfrak{Y} 06'46		retrograde	15917 Feb 25 02:40	10° \mathfrak{Y} 11'32	
min. Earth dist.	15916 Mar 25 10:28	23° \mathfrak{Y} 09'56	0.61905 AU	evening set	15917 Mar 03 17:20	8° \mathfrak{Y} 18'52	
inferior conj	15916 Mar 28 12:05	20° \mathfrak{Y} 18'52	-1°06'48	min. Earth dist.	15917 Mar 07 16:04	5° \mathfrak{Y} 37'29	0.59652 AU
minimum elong	15916 Mar 28 14:24	20° \mathfrak{Y} 13'26	1°06'03	inferior conj	15917 Mar 10 21:23	3° \mathfrak{Y} 00'29	-2°32'34
asc. node	15916 Mar 31 23:11	17° \mathfrak{Y} 19'20		minimum elong	15917 Mar 11 03:10	2° \mathfrak{Y} 48'42	2°30'18
morning rise	15916 Apr 04 15:47	15° \mathfrak{Y} 16'29			15917 Mar 14 22:21	30° \mathfrak{R} \mathfrak{H}	
direct	15916 Apr 06 21:03	14° \mathfrak{Y} 54'31		morning rise	15917 Mar 18 16:32	28° \mathfrak{H} 17'54	
morning max el	15916 Apr 13 15:02	18° \mathfrak{Y} 18'40	17°48'10	asc. node	15917 Mar 18 20:32	28° \mathfrak{H} 15'30	
	15916 Apr 22 03:03	0° \mathfrak{Z}		direct	15917 Mar 20 16:41	28° \mathfrak{H} 02'33	
morning set	15916 Apr 29 10:35	12° \mathfrak{Z} 42'20			15917 Mar 26 02:45	0° \mathfrak{Y}	
desc. node	15916 May 03 14:13	20° \mathfrak{Z} 02'56		morning max el	15917 Mar 28 04:59	1° \mathfrak{Y} 46'57	18°06'20
	15916 May 09 08:05	0° Π		morning set	15917 Apr 12 19:07	26° \mathfrak{Y} 24'19	

	15917 Apr 14 17:27	0°♄	morning set	15918 Mar 27 15:16	10°♑36'29	
desc. node	15917 Apr 20 10:58	10°♄32'33				
superior conj	15917 Apr 22 17:32	14°♄37'24 -0°18'41	superior conj	15918 Apr 05 09:47	27°♑31'15 0°15'59	
minimum elong	15917 Apr 22 15:59	14°♄30'29 0°18'56	minimum elong	15918 Apr 05 10:50	27°♑36'09 0°15'29	
max. Earth dist.	15917 Apr 30 07:50	27°♄44'08 1.41914 AU	behind sun begin	15918 Apr 05 09:14	27°♑28'37	
	15917 May 01 16:29	0°♄	behind sun end	15918 Apr 05 12:26	27°♑43'41	
evening rise	15917 May 05 11:10	6°♄09'47	desc. node	15918 Apr 06 17:38	0°♄	
	15917 May 21 03:28	0°♄	max. Earth dist.	15918 Apr 07 07:40	1°♄04'56	
evening max el	15917 Jun 07 21:45	22°♄36'15 22°41'07	evening rise	15918 Apr 12 15:29	10°♄40'27 1.39697 AU	
asc. node	15917 Jun 14 18:24	27°♄45'28		15918 Apr 16 14:45	17°♄30'08	
retrograde	15917 Jun 17 21:53	28°♄28'14		15918 Apr 24 07:11	0°♄	
evening set	15917 Jun 22 20:26	26°♄23'12	evening max el	15918 May 15 14:44	0°♄	
inferior conj	15917 Jun 28 03:21	20°♄01'11 3°01'34		15918 May 21 12:01	6°♄31'35 24°02'43	
minimum elong	15917 Jun 28 02:18	20°♄04'50 3°00'42	retrograde	15918 Jun 01 15:55	13°♄03'55	
min. Earth dist.	15917 Jun 27 21:17	20°♄22'17 0.69134 AU	asc. node	15918 Jun 01 15:23	13°♄03'55	
morning rise	15917 Jul 03 08:01	13°♄49'35	evening set	15918 Jun 07 02:09	10°♄45'33	
direct	15917 Jul 07 20:49	11°♄57'17	min. Earth dist.	15918 Jun 11 17:32	5°♄22'07 0.68825 AU	
morning max el	15917 Jul 16 17:35	17°♄05'51 21°27'12	inferior conj	15918 Jun 12 12:35	4°♄17'24 2°44'06	
desc. node	15917 Jul 17 10:31	17°♄49'00	minimum elong	15918 Jun 12 10:49	4°♄23'23 2°42'59	
	15917 Jul 27 07:04	0°♄		15918 Jun 15 22:16	30°♄	
	15917 Aug 16 13:27	0°♄	morning rise	15918 Jun 17 19:31	28°♄14'36	
morning set	15917 Aug 17 06:09	1°♄05'40	direct	15918 Jun 21 20:24	26°♄42'03	
max. Earth dist.	15917 Aug 23 21:02	11°♄43'21 1.42564 AU		15918 Jun 28 11:31	0°♄	
			morning max el	15918 Jun 29 14:50	1°♄04'14 20°11'52	
superior conj	15917 Aug 31 08:21	24°♄15'31 -1°22'37	desc. node	15918 Jul 04 07:44	6°♄24'06	
minimum elong	15917 Aug 31 15:02	24°♄44'17 1°21'54		15918 Jul 20 22:30	0°♄	
	15917 Sep 03 15:38	0°♄	morning set	15918 Jul 27 13:45	10°♄05'46	
asc. node	15917 Sep 10 19:15	12°♄47'40	max. Earth dist.	15918 Aug 06 08:44	25°♄24'34 1.44363 AU	
evening rise	15917 Sep 11 14:00	14°♄12'36		15918 Aug 09 05:28	0°♄	
	15917 Sep 20 13:43	0°♄	superior conj	15918 Aug 12 04:15	4°♄47'17 -1°53'38	
evening max el	15917 Sep 27 16:41	9°♄37'34 18°05'45	minimum elong	15918 Aug 12 11:57	5°♄18'49 1°53'23	
retrograde	15917 Oct 04 14:52	13°♄10'42	evening rise	15918 Aug 25 03:31	26°♄37'05	
evening set	15917 Oct 06 20:49	12°♄48'33		15918 Aug 27 02:40	0°♄	
desc. node	15917 Oct 13 07:28	8°♄30'17	asc. node	15918 Aug 28 15:53	2°♄39'48	
inferior conj	15917 Oct 13 22:54	7°♄55'20 -0°12'13	evening max el	15918 Sep 11 07:01	22°♄54'27 18°02'18	
minimum elong	15917 Oct 13 22:30	7°♄56'15 0°11'37	retrograde	15918 Sep 17 17:46	26°♄15'54	
transit middle	15917 Oct 13 22:30	7°♄56'15 0°11'37	evening set	15918 Sep 20 07:50	25°♄42'23	
transit begin	15917 Oct 13 20:11	8°♄01'33	inferior conj	15918 Sep 26 18:24	20°♄30'11 1°02'14	
transit end	15917 Oct 14 00:50	7°♄50'57	minimum elong	15918 Sep 26 20:04	20°♄25'49 1°01'50	
min. Earth dist.	15917 Oct 17 03:50	5°♄01'11 0.60049 AU	min. Earth dist.	15918 Sep 29 14:56	17°♄32'59 0.62338 AU	
morning rise	15917 Oct 20 20:58	2°♄12'29	desc. node	15918 Sep 30 04:49	16°♄58'59	
direct	15917 Oct 27 11:23	0°♄08'03	morning rise	15918 Oct 03 05:52	14°♄23'47	
morning max el	15917 Nov 10 17:31	7°♄56'16 27°50'27	direct	15918 Oct 09 22:18	12°♄00'13	
	15917 Nov 27 12:59	0°♄	morning max el	15918 Oct 24 00:13	19°♄57'35 27°57'06	
asc. node	15917 Dec 07 20:05	18°♄13'53		15918 Nov 01 15:10	0°♄	
morning set	15917 Dec 13 03:10	28°♄57'31		15918 Nov 20 12:34	0°♄	
	15917 Dec 13 14:59	0°♄	asc. node	15918 Nov 24 17:03	8°♄01'55	
max. Earth dist.	15917 Dec 19 05:52	12°♄16'01 1.31078 AU	morning set	15918 Nov 27 02:08	12°♄49'25	
			max. Earth dist.	15918 Dec 02 09:35	24°♄03'31 1.31651 AU	
superior conj	15917 Dec 20 04:43	14°♄23'31 1°31'54				
minimum elong	15917 Dec 20 03:17	14°♄15'34 1°32'34	superior conj	15918 Dec 04 13:56	28°♄50'07 1°20'13	
evening rise	15917 Dec 26 21:23	29°♄13'00	minimum elong	15918 Dec 04 11:49	28°♄38'28 1°20'45	
	15917 Dec 27 06:06	0°♄		15918 Dec 05 02:36	0°♄	
desc. node	15918 Jan 09 06:11	24°♄51'16	evening rise	15918 Dec 11 07:42	13°♄40'37	
	15918 Jan 12 12:53	0°♄		15918 Dec 19 08:42	0°♄	
evening max el	15918 Jan 23 22:35	14°♄03'25 25°57'59	desc. node	15918 Dec 27 03:02	12°♄59'09	
retrograde	15918 Feb 06 21:24	21°♄06'51	evening max el	15919 Jan 05 11:15	24°♄23'35 24°25'51	
evening set	15918 Feb 12 23:24	19°♄40'18		15919 Jan 13 12:16	0°♄	
min. Earth dist.	15918 Feb 17 11:42	17°♄01'57 0.57505 AU	retrograde	15919 Jan 19 02:57	1°♄11'36	
inferior conj	15918 Feb 20 11:19	14°♄56'11 -4°02'47	evening set	15919 Jan 24 07:12	0°♄12'52	
minimum elong	15918 Feb 20 20:11	14°♄40'33 3°59'40		15919 Jan 24 20:38	30°♄	
morning rise	15918 Feb 28 20:02	10°♄34'58	min. Earth dist.	15919 Jan 29 23:01	27°♄21'07 0.55739 AU	
direct	15918 Mar 02 19:39	10°♄22'26	inferior conj	15919 Feb 01 04:02	25°♄59'42 -5°20'42	
asc. node	15918 Mar 05 17:53	10°♄51'10	minimum elong	15919 Feb 01 12:31	25°♄46'38 5°18'31	
morning max el	15918 Mar 11 11:28	14°♄37'48 18°45'03	morning rise	15919 Feb 09 19:52	21°♄58'49	
	15918 Mar 22 01:01	0°♄	direct	15919 Feb 12 03:04	21°♄44'48	

asc. node	15919 Feb 20 15:16	25° \approx 12'21		direct	15920 Jan 23 17:02	2° \approx 06'59	
morning max el	15919 Feb 22 06:21	26° \approx 39'53	19°46'18	morning max el	15920 Feb 04 10:38	7° \approx 46'28	21°10'42
	15919 Feb 25 06:28	0° X		asc. node	15920 Feb 07 12:38	11° \approx 06'18	
morning set	15919 Mar 11 19:11	25° X 07'20			15920 Feb 19 07:42	0° X	
	15919 Mar 14 04:54	0° Y		morning set	15920 Feb 24 04:01	9° X 48'37	
superior conj	15919 Mar 19 17:09	11° Y 05'04	0°45'06	superior conj	15920 Mar 02 11:43	25° X 08'14	1°07'51
minimum elong	15919 Mar 19 19:28	11° Y 16'29	0°44'38	minimum elong	15920 Mar 02 14:15	25° X 21'19	1°07'40
desc. node	15919 Mar 25 04:17	21° Y 36'17			15920 Mar 04 20:47	0° Y	
max. Earth dist.	15919 Mar 25 21:55	22° Y 58'25	1.37404 AU	max. Earth dist.	15920 Mar 07 07:22	4° Y 52'21	1.35274 AU
evening rise	15919 Mar 29 14:34	29° Y 41'02		evening rise	15920 Mar 11 07:34	12° Y 34'23	
	15919 Mar 29 18:50	0° Z		desc. node	15920 Mar 11 00:55	12° Y 03'13	
	15919 Apr 17 13:54	0° II			15920 Mar 21 05:47	0° Z	
evening max el	15919 May 04 01:26	20° II 25'50	25°20'20		15920 Apr 11 14:40	0° II	
retrograde	15919 May 16 05:51	27° II 29'46		evening max el	15920 Apr 15 15:02	4° II 14'31	26°26'36
asc. node	15919 May 19 12:30	26° II 45'24		retrograde	15920 Apr 28 14:50	11° II 38'32	
evening set	15919 May 22 03:23	25° II 01'45		evening set	15920 May 04 22:23	9° II 06'01	
min. Earth dist.	15919 May 26 11:02	20° II 15'15	0.68036 AU	asc. node	15920 May 05 09:42	8° II 42'04	
inferior conj	15919 May 27 19:08	18° II 31'05	2°15'53	min. Earth dist.	15920 May 08 23:50	4° II 54'49	0.66794 AU
minimum elong	15919 May 27 16:59	18° II 38'05	2°14'34	inferior conj	15920 May 10 20:57	2° II 37'50	1°36'06
morning rise	15919 Jun 02 06:59	12° II 38'18		minimum elong	15920 May 10 18:55	2° II 44'01	1°34'45
direct	15919 Jun 05 20:33	11° II 25'22			15920 May 13 03:00	30° R Z	
morning max el	15919 Jun 12 19:26	15° II 12'34	19°10'37	morning rise	15920 May 16 16:28	26° Z 56'22	
desc. node	15919 Jun 21 04:51	25° II 37'44		direct	15920 May 19 19:32	26° Z 01'27	
	15919 Jun 24 05:27	0° E		morning max el	15920 May 26 06:39	29° Z 26'39	18°25'25
greatest brilliancy	15919 Jun 25 15:29	2° E 05'56	-0.7m		15920 May 26 20:01	0° II	
morning set	15919 Jul 06 19:16	19° E 05'25		desc. node	15920 Jun 07 01:54	15° II 19'45	
	15919 Jul 13 20:39	0° O		morning set	15920 Jun 15 18:09	28° II 57'10	
max. Earth dist.	15919 Jul 20 01:48	9° O 41'15	1.45540 AU		15920 Jun 16 10:04	0° E	
superior conj	15919 Jul 23 02:01	14° O 25'07	-2°11'58	superior conj	15920 Jul 01 11:33	23° E 37'12	-2°11'21
minimum elong	15919 Jul 23 05:42	14° O 39'39	2°12'29	minimum elong	15920 Jul 01 07:29	23° E 21'21	2°12'00
	15919 Aug 01 20:00	0° P		max. Earth dist.	15920 Jul 01 21:28	24° E 15'51	1.45993 AU
evening rise	15919 Aug 06 18:53	8° P 04'11			15920 Jul 05 13:49	0° O	
asc. node	15919 Aug 15 12:32	22° P 16'30		evening rise	15920 Jul 17 09:10	18° O 28'09	
	15919 Aug 20 14:44	0° A			15920 Jul 24 17:46	0° P	
evening max el	15919 Aug 25 21:36	6° A 30'01	18°17'03	greatest brilliancy	15920 Jul 26 11:41	2° P 42'24	-0.8m
retrograde	15919 Sep 01 06:36	9° A 53'12		asc. node	15920 Aug 01 09:14	11° P 31'59	
evening set	15919 Sep 04 05:23	9° A 05'29		evening max el	15920 Aug 08 09:33	20° P 17'07	18°49'15
inferior conj	15919 Sep 10 03:47	3° A 36'56	1°57'12	retrograde	15920 Aug 15 01:31	23° P 54'56	
minimum elong	15919 Sep 10 06:06	3° A 30'10	1°56'29	evening set	15920 Aug 18 09:38	22° P 50'53	
min. Earth dist.	15919 Sep 12 11:59	0° A 54'49	0.64464 AU	inferior conj	15920 Aug 23 23:21	17° P 08'10	2°34'49
	15919 Sep 13 07:58	30° R P		minimum elong	15920 Aug 24 01:26	17° P 01'37	2°34'06
morning rise	15919 Sep 16 05:13	27° P 16'34		min. Earth dist.	15920 Aug 25 17:47	14° P 55'01	0.66277 AU
desc. node	15919 Sep 17 02:14	26° P 37'30		morning rise	15920 Aug 29 16:17	10° P 41'55	
direct	15919 Sep 22 18:17	24° P 41'43		desc. node	15920 Sep 02 23:39	8° P 18'49	
	15919 Oct 03 14:59	0° A		direct	15920 Sep 04 22:01	8° P 04'29	
morning max el	15919 Oct 06 10:43	2° A 38'43	27°27'42	morning max el	15920 Sep 17 22:16	15° P 47'17	26°29'29
	15919 Oct 26 22:55	0° M			15920 Sep 29 16:14	0° A	
morning set	15919 Nov 10 16:24	26° M 15'22			15920 Oct 18 18:44	0° M	
asc. node	15919 Nov 11 13:55	28° M 02'04		morning set	15920 Oct 23 18:51	9° M 08'03	
	15919 Nov 12 13:25	0° X		max. Earth dist.	15920 Oct 27 16:35	16° M 39'43	1.34452 AU
max. Earth dist.	15919 Nov 15 06:00	5° X 31'21	1.32780 AU	asc. node	15920 Oct 28 10:43	18° M 09'32	
superior conj	15919 Nov 18 19:08	13° X 02'20	1°02'25	superior conj	15920 Nov 01 17:54	26° M 53'55	0°38'34
minimum elong	15919 Nov 18 16:46	12° X 49'40	1°02'48	minimum elong	15920 Nov 01 15:59	26° M 43'58	0°38'51
evening rise	15919 Nov 25 18:30	28° X 07'53			15920 Nov 03 05:37	0° X	
	15919 Nov 26 15:32	0° Z		evening rise	15920 Nov 09 03:51	12° X 29'45	
desc. node	15919 Dec 13 23:59	0° \approx 04'12			15920 Nov 18 02:12	0° Z	
	15919 Dec 13 22:37	0° \approx		evening max el	15920 Nov 28 12:57	14° Z 29'25	21°05'43
evening max el	15919 Dec 17 20:46	4° \approx 19'36	22°42'31	desc. node	15920 Nov 29 21:02	15° Z 44'16	
retrograde	15919 Dec 30 20:09	10° \approx 44'57		retrograde	15920 Dec 10 06:12	20° Z 17'39	
evening set	15920 Jan 03 18:13	10° \approx 11'25		evening set	15920 Dec 12 22:55	20° Z 00'33	
min. Earth dist.	15920 Jan 11 05:34	6° \approx 46'30	0.54637 AU	inferior conj	15920 Dec 21 17:25	16° Z 09'28	-5°41'28
inferior conj	15920 Jan 12 02:38	6° \approx 16'41	-6°00'41	minimum elong	15920 Dec 21 10:12	16° Z 19'42	5°39'36
minimum elong	15920 Jan 12 04:21	6° \approx 14'16	5°59'56	min. Earth dist.	15920 Dec 22 11:02	15° Z 44'28	0.54426 AU
morning rise	15920 Jan 20 15:41	2° \approx 28'23		morning rise	15920 Dec 29 21:40	12° Z 17'43	

direct	15921 Jan 03 00:25	11°  41'13		inferior conj	15921 Dec 01 15:03	26°  12'12	-4°27'03
morning max el	15921 Jan 16 01:21	18°  02'09	22°54'05	minimum elong	15921 Dec 01 05:05	26°  27'39	4°23'18
asc. node	15921 Jan 24 09:57	28°  13'37		min. Earth dist.	15921 Dec 03 18:23	24°  52'45	0.55160 AU
	15921 Jan 25 14:05	0°  ≈		morning rise	15921 Dec 09 11:19	21°  58'24	
morning set	15921 Feb 07 15:23	24°  ≈32'37		direct	15921 Dec 14 14:29	21°  00'18	
	15921 Feb 10 04:22	0°  ✕		morning max el	15921 Dec 28 09:49	27°  53'37	24°43'53
					15921 Dec 30 11:49	0°  ✕	
superior conj	15921 Feb 14 14:04	9°  ✕30'17	1°24'10	asc. node	15922 Jan 11 07:12	16°  ✕17'10	
minimum elong	15921 Feb 14 16:08	9°  ✕41'19	1°24'20		15922 Jan 18 17:11	0°  ≈	
max. Earth dist.	15921 Feb 17 23:37	16°  ✕41'06	1.33488 AU	morning set	15922 Jan 23 03:21	9°  ≈14'08	
evening rise	15921 Feb 22 14:07	25°  ✕59'59					
	15921 Feb 24 15:44	0°  Υ		superior conj	15922 Jan 29 21:35	24°  ≈03'53	1°34'10
desc. node	15921 Feb 25 21:33	2°  Υ20'53		minimum elong	15922 Jan 29 22:46	24°  ≈10'25	1°34'38
	15921 Mar 14 15:18	0°  ✕		max. Earth dist.	15922 Jan 31 23:34	28°  ≈36'57	1.32153 AU
evening max el	15921 Mar 29 04:36	17°  ✕48'48	27°14'08		15922 Feb 01 14:55	0°  ✕	
retrograde	15921 Apr 11 17:51	25°  ✕20'46		evening rise	15922 Feb 06 07:03	9°  ✕49'55	
evening set	15921 Apr 18 09:02	22°  ✕50'12		desc. node	15922 Feb 12 18:12	22°  ✕24'33	
min. Earth dist.	15921 Apr 22 05:56	19°  ✕11'29	0.65141 AU		15922 Feb 17 00:30	0°  Υ	
asc. node	15921 Apr 22 07:00	19°  ✕08'36			15922 Mar 10 17:22	0°  ✕	
inferior conj	15921 Apr 24 15:32	16°  ✕31'15	0°43'35	evening max el	15922 Mar 11 16:41	0°  ✕57'14	27°35'36
minimum elong	15921 Apr 24 14:23	16°  ✕34'28	0°42'37	retrograde	15922 Mar 25 13:36	8°  ✕27'10	
morning rise	15921 Apr 30 21:32	11°  ✕02'47		evening set	15922 Apr 01 08:58	6°  ✕05'45	
direct	15921 May 03 15:07	10°  ✕23'13		min. Earth dist.	15922 Apr 05 03:26	2°  ✕55'15	0.63156 AU
morning max el	15921 May 09 22:27	13°  ✕38'59	17°57'07	inferior conj	15922 Apr 07 23:59	0°  ✕04'09	-0°22'35
	15921 May 21 15:54	0°  Π		minimum elong	15922 Apr 08 00:43	0°  ✕02'19	0°22'36
desc. node	15921 May 24 22:50	5°  Π21'55			15922 Apr 08 01:39	30°  ✕Υ	
morning set	15921 May 27 20:05	10°  Π06'37		asc. node	15922 Apr 09 04:20	28°  ✕Υ54'08	
	15921 Jun 09 02:25	0°  ☿		morning rise	15922 Apr 14 19:08	24°  ✕Υ51'08	
				direct	15922 Apr 17 04:29	24°  ✕Υ23'41	
superior conj	15921 Jun 11 01:25	3°  ☿06'31	-1°51'26	morning max el	15922 Apr 23 16:04	27°  ✕Υ41'30	17°46'14
minimum elong	15921 Jun 10 16:53	2°  ☿32'42	1°51'31		15922 Apr 25 18:44	0°  ✕	
max. Earth dist.	15921 Jun 14 17:30	8°  ☿53'14	1.45693 AU	morning set	15922 May 09 23:41	22°  ✕28'54	
evening rise	15921 Jun 27 02:36	28°  ☿03'10		desc. node	15922 May 11 19:40	25°  ✕38'22	
	15921 Jun 28 09:07	0°  Ω			15922 May 14 08:43	0°  Π	
greatest brilliancy	15921 Jul 10 23:07	18°  Ω57'43	-0.6m				
	15921 Jul 18 23:58	0°  ♍		superior conj	15922 May 22 09:33	13°  Π27'54	-1°18'23
asc. node	15921 Jul 19 06:00	0°  ♍18'35		minimum elong	15922 May 22 02:16	12°  Π57'59	1°18'11
evening max el	15921 Jul 22 16:42	4°  ♍09'54	19°37'52	max. Earth dist.	15922 May 28 11:53	23°  Π19'24	1.44682 AU
retrograde	15921 Jul 29 23:37	8°  ♍14'35			15922 Jun 01 17:27	0°  ☿	
evening set	15921 Aug 02 17:44	6°  ♍52'58		evening rise	15922 Jun 06 13:08	7°  ☿27'52	
inferior conj	15921 Aug 08 02:01	0°  ♍57'30	2°57'40		15922 Jun 21 16:02	0°  Ω	
minimum elong	15921 Aug 08 03:22	0°  ♍53'01	2°57'02	evening max el	15922 Jul 05 17:52	18°  Ω03'41	20°40'57
	15921 Aug 08 19:15	30°  ✕Ω		asc. node	15922 Jul 06 02:50	18°  Ω25'44	
min. Earth dist.	15921 Aug 09 06:26	29°  Ω22'55	0.67681 AU	retrograde	15922 Jul 13 22:35	22°  Ω45'46	
morning rise	15921 Aug 13 12:29	24°  Ω31'25		evening set	15922 Jul 18 03:24	21°  Ω06'16	
direct	15921 Aug 19 08:15	21°  Ω59'33		inferior conj	15922 Jul 23 09:10	14°  Ω59'15	3°07'54
desc. node	15921 Aug 20 21:04	22°  Ω08'48		minimum elong	15922 Jul 23 09:35	14°  Ω57'50	3°07'16
morning max el	15921 Aug 31 09:19	29°  Ω12'09	25°11'47	min. Earth dist.	15922 Jul 23 23:50	14°  Ω08'39	0.68627 AU
	15921 Sep 01 03:55	0°  ♍		morning rise	15922 Jul 28 15:28	8°  Ω37'10	
	15921 Sep 23 11:20	0°  ♎		direct	15922 Aug 02 23:35	6°  Ω17'32	
morning set	15921 Oct 06 05:42	21°  ♎19'06		desc. node	15922 Aug 07 18:25	7°  Ω47'31	
max. Earth dist.	15921 Oct 09 18:27	27°  ♎45'03	1.36577 AU	morning max el	15922 Aug 13 20:08	12°  Ω46'11	23°44'09
	15921 Oct 10 23:20	0°  ♍			15922 Aug 27 17:36	0°  ♍	
asc. node	15921 Oct 15 07:28	8°  ♍20'33			15922 Sep 16 07:05	0°  ♎	
				morning set	15922 Sep 17 20:36	2°  ♎37'43	
superior conj	15921 Oct 16 07:19	10°  ♍18'11	0°09'00	max. Earth dist.	15922 Sep 21 17:07	9°  ♎16'17	1.38959 AU
minimum elong	15921 Oct 16 06:44	10°  ♍15'19	0°09'21				
behind sun begin	15921 Oct 16 01:28	9°  ♍49'13		superior conj	15922 Sep 29 07:38	23°  ♎05'29	-0°25'16
behind sun end	15921 Oct 16 12:01	10°  ♍41'28		minimum elong	15922 Sep 29 09:27	23°  ♎14'01	0°24'43
evening rise	15921 Oct 24 09:38	26°  ♍41'30		asc. node	15922 Oct 02 04:07	28°  ♎30'54	
	15921 Oct 26 00:52	0°  ✕			15922 Oct 02 22:38	0°  ♍	
evening max el	15921 Nov 10 18:50	25°  ✕22'25	19°47'10	evening rise	15922 Oct 08 09:06	10°  ♍35'44	
desc. node	15921 Nov 16 18:09	29°  ✕35'03			15922 Oct 19 02:06	0°  ✕	
	15921 Nov 17 23:10	0°  ✕		evening max el	15922 Oct 24 14:36	7°  ✕05'02	18°50'49
retrograde	15921 Nov 20 20:54	0°  ✕24'26		retrograde	15922 Nov 02 03:54	11°  ✕24'04	
evening set	15921 Nov 22 21:23	0°  ✕13'15		desc. node	15922 Nov 03 15:22	11°  ✕16'46	
	15921 Nov 23 21:11	30°  ✕✕		evening set	15922 Nov 04 01:25	11°  ✕12'08	

inferior conj	15922 Nov 12 06:44	6° ♊ 51'54	-2°45'13	minimum elong	15923 Oct 24 17:56	18° ♍ 24'34	1°02'26
minimum elong	15922 Nov 11 23:58	7° ♊ 04'01	2°41'55	min. Earth dist.	15923 Oct 28 02:28	15° ♍ 36'41	0.58743 AU
min. Earth dist.	15922 Nov 15 06:30	4° ♊ 43'50	0.56690 AU	morning rise	15923 Nov 01 00:09	12° ♍ 54'14	
morning rise	15922 Nov 19 19:35	2° ♊ 03'04		direct	15923 Nov 07 10:12	11° ♍ 04'08	
direct	15922 Nov 25 17:24	0° ♊ 39'34		morning max el	15923 Nov 21 17:14	18° ♍ 43'36	27°28'52
morning max el	15922 Dec 09 21:29	7° ♊ 58'08	26°21'13		15923 Dec 01 05:51	0° ♊	
	15922 Dec 26 07:24	0° ♊		asc. node	15923 Dec 16 01:25	24° ♊ 18'30	
asc. node	15922 Dec 29 04:21	5° ♋ 02'25			15923 Dec 18 23:16	0° ♋	
morning set	15923 Jan 07 14:09	23° ♋ 48'07		morning set	15923 Dec 22 21:56	8° ♋ 09'53	
	15923 Jan 10 10:13	0° ♌					
				superior conj	15923 Dec 29 19:30	23° ♋ 20'50	1°35'53
superior conj	15923 Jan 14 08:03	8° ♌ 42'35	1°38'03	minimum elong	15923 Dec 29 18:37	23° ♋ 15'49	1°36'35
minimum elong	15923 Jan 14 08:11	8° ♌ 43'23	1°38'42	max. Earth dist.	15923 Dec 29 12:57	22° ♋ 44'08	1.31005 AU
max. Earth dist.	15923 Jan 15 05:09	10° ♌ 40'14	1.31314 AU		15924 Jan 01 18:54	0° ♌	
evening rise	15923 Jan 21 07:36	23° ♌ 57'09		evening rise	15924 Jan 05 13:29	8° ♌ 16'00	
	15923 Jan 24 06:01	0° ♍			15924 Jan 16 16:16	0° ♍	
desc. node	15923 Jan 30 14:53	12° ♍ 08'12		desc. node	15924 Jan 17 11:37	1° ♍ 23'33	
	15923 Feb 10 18:28	0° ♎		evening max el	15924 Feb 04 02:11	25° ♍ 05'32	26°39'16
evening max el	15923 Feb 22 00:51	13° ♎ 26'43	27°25'00		15924 Feb 10 11:07	0° ♎	
retrograde	15923 Mar 08 00:53	20° ♎ 48'45		retrograde	15924 Feb 18 02:19	2° ♎ 16'59	
evening set	15923 Mar 14 19:23	18° ♎ 43'33		evening set	15924 Feb 24 12:54	0° ♎ 34'35	
min. Earth dist.	15923 Mar 18 14:52	15° ♎ 54'37	0.60954 AU		15924 Feb 25 13:58	30° ♏	
inferior conj	15923 Mar 21 18:52	13° ♎ 07'42	-1°42'01	min. Earth dist.	15924 Feb 28 15:50	27° ♏ 56'36	0.58713 AU
minimum elong	15923 Mar 21 22:35	12° ♎ 59'30	1°40'37	inferior conj	15924 Mar 02 20:19	25° ♏ 30'46	-3°11'02
asc. node	15923 Mar 27 01:41	9° ♎ 07'46		minimum elong	15924 Mar 03 03:36	25° ♏ 16'51	3°08'14
morning rise	15923 Mar 29 05:07	8° ♎ 13'15		morning rise	15924 Mar 10 21:45	20° ♏ 57'32	
direct	15923 Mar 31 07:59	7° ♎ 54'24		direct	15924 Mar 12 21:01	20° ♏ 43'50	
morning max el	15923 Apr 07 08:25	11° ♎ 25'34	17°53'31	asc. node	15924 Mar 12 23:03	20° ♏ 43'52	
	15923 Apr 19 18:17	0° ♏		morning max el	15924 Mar 20 19:46	24° ♏ 39'41	18°20'14
morning set	15923 Apr 22 23:23	5° ♏ 47'18			15924 Mar 25 05:25	0° ♏	
desc. node	15923 Apr 28 16:26	16° ♏ 04'36		morning set	15924 Apr 05 13:24	19° ♏ 43'44	
					15924 Apr 10 23:38	0° ♏	
superior conj	15923 May 03 17:21	24° ♏ 54'54	-0°40'21				
minimum elong	15923 May 03 13:45	24° ♏ 39'23	0°40'23	superior conj	15924 Apr 14 23:00	7° ♏ 20'47	-0°03'26
	15923 May 06 16:51	0° ♐		minimum elong	15924 Apr 14 22:43	7° ♏ 19'29	0°03'48
max. Earth dist.	15923 May 11 02:45	7° ♐ 20'17	1.43059 AU	behind sun begin	15924 Apr 14 15:33	6° ♏ 46'49	
evening rise	15923 May 17 09:14	17° ♐ 23'55		behind sun end	15924 Apr 15 05:53	7° ♏ 52'05	
	15923 May 25 14:16	0° ♑		desc. node	15924 Apr 14 13:08	6° ♏ 35'48	
	15923 Jun 16 16:34	0° ♑		max. Earth dist.	15924 Apr 22 12:31	20° ♏ 40'46	1.40994 AU
evening max el	15923 Jun 18 13:19	1° ♑ 57'23	21°55'10	evening rise	15924 Apr 27 00:30	28° ♏ 12'00	
asc. node	15923 Jun 22 23:45	5° ♑ 40'47			15924 Apr 28 02:58	0° ♐	
retrograde	15923 Jun 27 20:50	7° ♑ 23'31			15924 May 18 03:52	0° ♑	
evening set	15923 Jul 02 12:52	5° ♑ 27'03		evening max el	15924 May 31 04:37	15° ♑ 50'52	23°15'47
	15923 Jul 07 04:16	30° ♒		asc. node	15924 Jun 08 20:44	21° ♑ 46'45	
inferior conj	15923 Jul 07 18:40	29° ♑ 09'49	3°06'55	retrograde	15924 Jun 10 16:50	22° ♑ 01'20	
minimum elong	15923 Jul 07 18:08	29° ♑ 11'43	3°06'10	evening set	15924 Jun 15 20:24	19° ♑ 50'01	
min. Earth dist.	15923 Jul 07 20:01	29° ♑ 05'09	0.69089 AU	min. Earth dist.	15924 Jun 20 16:52	14° ♑ 05'06	0.69061 AU
morning rise	15923 Jul 12 23:14	22° ♑ 54'05		inferior conj	15924 Jun 21 04:32	13° ♑ 24'46	2°55'26
direct	15923 Jul 17 19:03	20° ♑ 51'13		minimum elong	15924 Jun 21 03:09	13° ♑ 29'33	2°54'28
desc. node	15923 Jul 25 15:42	24° ♑ 50'57		morning rise	15924 Jun 26 09:52	7° ♑ 16'49	
morning max el	15923 Jul 27 08:58	26° ♑ 28'58	22°15'35	direct	15924 Jun 30 17:25	5° ♑ 33'06	
	15923 Jul 30 14:47	0° ♒		morning max el	15924 Jul 09 02:30	10° ♑ 21'06	20°53'39
	15923 Aug 21 05:56	0° ♒		desc. node	15924 Jul 11 12:56	12° ♑ 57'10	
morning set	15923 Aug 29 12:10	12° ♒ 56'51			15924 Jul 24 08:42	0° ♒	
max. Earth dist.	15923 Sep 03 18:45	21° ♒ 36'22	1.41322 AU	morning set	15924 Aug 08 04:57	22° ♒ 18'44	
	15923 Sep 08 16:53	0° ♓			15924 Aug 13 02:18	0° ♓	
				max. Earth dist.	15924 Aug 16 02:06	4° ♓ 47'44	1.43389 AU
superior conj	15923 Sep 11 14:35	5° ♓ 06'09	-1°01'57				
minimum elong	15923 Sep 11 19:34	5° ♓ 28'16	1°01'12	superior conj	15924 Aug 22 23:56	16° ♓ 10'52	-1°36'51
asc. node	15923 Sep 19 00:46	18° ♓ 37'16		minimum elong	15924 Aug 23 07:30	16° ♓ 42'41	1°36'15
evening rise	15923 Sep 21 22:57	24° ♓ 04'14			15924 Aug 31 00:45	0° ♓	
	15923 Sep 25 03:37	0° ♔		evening rise	15924 Sep 03 22:48	6° ♓ 55'26	
evening max el	15923 Oct 07 20:51	19° ♔ 31'54	18°16'18	asc. node	15924 Sep 04 21:25	8° ♓ 35'40	
retrograde	15923 Oct 15 06:27	23° ♔ 18'23			15924 Sep 18 02:50	0° ♔	
evening set	15923 Oct 17 08:15	23° ♔ 01'12		evening max el	15924 Sep 20 09:21	2° ♔ 33'10	18°02'02
desc. node	15923 Oct 21 12:37	20° ♔ 55'32		retrograde	15924 Sep 27 01:40	6° ♔ 00'01	
inferior conj	15923 Oct 24 20:18	18° ♔ 19'35	-1°03'57	evening set	15924 Sep 29 10:49	5° ♔ 33'36	

inferior conj	15924 Oct 06 05:57	0° \mathbb{M} 32'08	0°21'47	retrograde	15925 Sep 10 09:08	19° $\underline{\mathbf{a}}$ 19'21	
minimum elong	15924 Oct 06 06:38	0° \mathbb{M} 30'29	0°21'51	evening set	15925 Sep 13 02:50	18° $\underline{\mathbf{a}}$ 40'11	
	15924 Oct 06 19:11	30° \mathbb{R} $\underline{\mathbf{a}}$		inferior conj	15925 Sep 19 07:48	13° $\underline{\mathbf{a}}$ 21'05	1°27'50
desc. node	15924 Oct 07 09:56	29° $\underline{\mathbf{a}}$ 24'02		minimum elong	15925 Sep 19 09:54	13° $\underline{\mathbf{a}}$ 15'21	1°27'14
min. Earth dist.	15924 Oct 09 08:04	27° $\underline{\mathbf{a}}$ 33'58	0.61020 AU	min. Earth dist.	15925 Sep 21 23:34	10° $\underline{\mathbf{a}}$ 28'00	0.63268 AU
morning rise	15924 Oct 12 23:28	24° $\underline{\mathbf{a}}$ 37'44		desc. node	15925 Sep 24 07:20	8° $\underline{\mathbf{a}}$ 12'14	
direct	15924 Oct 19 15:22	22° $\underline{\mathbf{a}}$ 24'08		morning rise	15925 Sep 25 14:52	7° $\underline{\mathbf{a}}$ 07'43	
	15924 Nov 02 13:10	0° \mathbb{M}		direct	15925 Oct 02 06:36	4° $\underline{\mathbf{a}}$ 37'53	
morning max el	15924 Nov 02 20:38	0° \mathbb{M} 18'18	27°58'06	morning max el	15925 Oct 16 05:06	12° $\underline{\mathbf{a}}$ 37'02	27°48'40
	15924 Nov 24 08:37	0° \mathbb{A}			15925 Oct 30 03:11	0° \mathbb{M}	
asc. node	15924 Dec 01 22:24	13° \mathbb{A} 57'02			15925 Nov 16 20:18	0° \mathbb{A}	
morning set	15924 Dec 06 00:48	22° \mathbb{A} 14'46		asc. node	15925 Nov 18 19:19	3° \mathbb{A} 50'40	
	15924 Dec 09 16:07	0° \mathbb{B}		morning set	15925 Nov 19 20:24	5° \mathbb{A} 56'17	
max. Earth dist.	15924 Dec 11 19:10	4° \mathbb{B} 39'56	1.31246 AU	max. Earth dist.	15925 Nov 24 19:56	16° \mathbb{A} 18'20	1.32054 AU
superior conj	15924 Dec 13 06:08	7° \mathbb{B} 53'47	1°27'42	superior conj	15925 Nov 27 13:55	22° \mathbb{A} 15'03	1°13'26
minimum elong	15924 Dec 13 04:22	7° \mathbb{B} 44'00	1°28'19	minimum elong	15925 Nov 27 11:37	22° \mathbb{A} 02'35	1°13'54
evening rise	15924 Dec 19 22:45	22° \mathbb{B} 42'03			15925 Dec 01 02:39	0° \mathbb{B}	
	15924 Dec 23 09:36	0° \approx		evening rise	15925 Dec 04 09:28	7° \mathbb{B} 09'54	
desc. node	15925 Jan 03 08:26	20° \approx 00'28			15925 Dec 16 03:35	0° \approx	
	15925 Jan 10 10:38	0° \mathbb{H}		desc. node	15925 Dec 21 05:21	7° \approx 44'08	
evening max el	15925 Jan 15 19:11	5° \mathbb{H} 52'04	25°21'20	evening max el	15925 Dec 28 05:42	15° \approx 58'36	23°42'21
retrograde	15925 Jan 29 16:09	12° \mathbb{H} 50'20		retrograde	15926 Jan 10 16:18	22° \approx 38'07	
evening set	15925 Feb 04 09:56	11° \mathbb{H} 35'32		evening set	15926 Jan 15 08:09	21° \approx 51'07	
min. Earth dist.	15925 Feb 09 07:47	8° \mathbb{H} 53'36	0.56688 AU	min. Earth dist.	15926 Jan 21 16:58	18° \approx 47'30	0.55174 AU
inferior conj	15925 Feb 12 01:18	7° \mathbb{H} 05'05	-4°38'41	inferior conj	15926 Jan 23 09:37	17° \approx 47'40	-5°43'53
minimum elong	15925 Feb 12 10:41	6° \mathbb{H} 49'32	4°35'44	minimum elong	15926 Jan 23 16:00	17° \approx 38'16	5°42'27
morning rise	15925 Feb 20 14:12	2° \mathbb{H} 53'12		morning rise	15926 Feb 01 01:24	13° \approx 53'04	
direct	15925 Feb 22 15:36	2° \mathbb{H} 40'47		direct	15926 Feb 03 14:57	13° \approx 36'46	
asc. node	15925 Feb 27 20:25	4° \mathbb{H} 05'36		morning max el	15926 Feb 14 10:52	18° \approx 51'13	20°19'20
morning max el	15925 Mar 03 21:58	7° \mathbb{H} 12'15	19°08'13	asc. node	15926 Feb 14 17:47	19° \approx 08'09	
	15925 Mar 18 11:24	0° \mathbb{Y}			15926 Feb 22 22:12	0° \mathbb{H}	
morning set	15925 Mar 20 13:18	4° \mathbb{Y} 05'14		morning set	15926 Mar 04 19:38	18° \mathbb{H} 41'23	
					15926 Mar 10 07:29	0° \mathbb{Y}	
superior conj	15925 Mar 28 22:17	20° \mathbb{Y} 33'39	0°29'02	superior conj	15926 Mar 12 10:52	4° \mathbb{Y} 21'01	0°55'31
minimum elong	15925 Mar 29 00:01	20° \mathbb{Y} 41'57	0°28'32	minimum elong	15926 Mar 12 13:22	4° \mathbb{Y} 33'41	0°55'09
desc. node	15925 Apr 01 09:49	27° \mathbb{Y} 08'27		max. Earth dist.	15926 Mar 18 01:44	15° \mathbb{Y} 22'41	1.36473 AU
	15925 Apr 02 23:02	0° \mathbb{B}		desc. node	15926 Mar 19 06:28	17° \mathbb{Y} 38'28	
max. Earth dist.	15925 Apr 04 18:40	3° \mathbb{B} 17'42	1.38718 AU	evening rise	15926 Mar 21 20:41	22° \mathbb{Y} 25'50	
evening rise	15925 Apr 08 13:04	9° \mathbb{B} 55'17			15926 Mar 26 03:14	0° \mathbb{B}	
	15925 Apr 20 22:49	0° \mathbb{I}			15926 Apr 14 17:42	0° \mathbb{I}	
evening max el	15925 May 13 18:14	29° \mathbb{I} 45'44	24°36'35	evening max el	15926 Apr 26 07:55	13° \mathbb{I} 39'27	25°50'23
	15925 May 14 00:03	0° \mathbb{E}		retrograde	15926 May 08 21:24	20° \mathbb{I} 53'07	
retrograde	15925 May 25 09:25	6° \mathbb{E} 33'29		asc. node	15926 May 13 14:57	19° \mathbb{I} 23'04	
asc. node	15925 May 26 17:48	6° \mathbb{E} 25'46		evening set	15926 May 14 23:17	18° \mathbb{I} 22'50	
evening set	15925 May 31 00:26	4° \mathbb{E} 10'33		min. Earth dist.	15926 May 19 04:13	13° \mathbb{I} 51'19	0.67563 AU
	15925 Jun 03 18:52	30° \mathbb{R} \mathbb{I}		inferior conj	15926 May 20 17:47	11° \mathbb{I} 52'31	2°00'31
min. Earth dist.	15925 Jun 04 12:19	29° \mathbb{I} 02'42	0.68547 AU	minimum elong	15926 May 20 15:36	11° \mathbb{I} 59'26	1°59'09
inferior conj	15925 Jun 05 12:54	27° \mathbb{I} 40'32	2°33'30	morning rise	15926 May 26 08:31	6° \mathbb{I} 04'05	
minimum elong	15925 Jun 05 10:55	27° \mathbb{I} 47'09	2°32'16	direct	15926 May 29 17:32	4° \mathbb{I} 58'57	
morning rise	15925 Jun 10 21:35	21° \mathbb{I} 41'38		morning max el	15926 Jun 05 10:23	8° \mathbb{I} 35'15	18°49'16
direct	15925 Jun 14 17:29	20° \mathbb{I} 17'37		desc. node	15926 Jun 15 07:14	21° \mathbb{I} 17'06	
morning max el	15925 Jun 22 02:50	24° \mathbb{I} 23'48	19°43'49	greatest brilliancy	15926 Jun 19 03:35	27° \mathbb{I} 03'35	-0.8m
	15925 Jun 27 00:16	0° \mathbb{E}			15926 Jun 21 01:42	0° \mathbb{E}	
desc. node	15925 Jun 28 10:08	1° \mathbb{E} 50'01		morning set	15926 Jun 27 20:02	10° \mathbb{E} 27'54	
greatest brilliancy	15925 Jul 05 10:25	11° \mathbb{E} 41'31	-0.6m		15926 Jul 10 09:29	0° \mathbb{I}	
	15925 Jul 17 14:31	0° \mathbb{I}		max. Earth dist.	15926 Jul 12 10:18	3° \mathbb{I} 10'23	1.45828 AU
morning set	15925 Jul 18 09:02	1° \mathbb{I} 10'58					
max. Earth dist.	15925 Jul 29 15:41	18° \mathbb{I} 43'18	1.44943 AU				
superior conj	15925 Aug 03 09:48	26° \mathbb{I} 17'37	-2°03'25	superior conj	15926 Jul 14 00:45	5° \mathbb{I} 40'39	-2°14'12
minimum elong	15925 Aug 03 16:31	26° \mathbb{I} 44'36	2°03'31	minimum elong	15926 Jul 14 01:14	5° \mathbb{I} 42'32	2°14'55
	15925 Aug 05 16:57	0° \mathbb{M}		evening rise	15926 Jul 29 08:14	29° \mathbb{I} 56'30	
evening rise	15925 Aug 17 03:27	18° \mathbb{M} 56'10			15926 Jul 29 09:06	0° \mathbb{M}	
asc. node	15925 Aug 22 18:03	28° \mathbb{M} 21'37		asc. node	15926 Aug 09 14:45	17° \mathbb{M} 50'24	
	15925 Aug 23 17:48	0° $\underline{\mathbf{a}}$		evening max el	15926 Aug 18 14:07	29° \mathbb{M} 40'54	18°28'43
evening max el	15925 Sep 04 00:13	15° $\underline{\mathbf{a}}$ 58'53	18°06'31	retrograde	15926 Aug 18 22:00	0° $\underline{\mathbf{a}}$	
					15926 Aug 25 00:52	3° $\underline{\mathbf{a}}$ 08'20	

evening set	15926 Aug 28 03:40	2°♄13'45			15927 Jul 22 14:55	0°♊	
	15926 Aug 30 22:27	30°♊		asc. node	15927 Jul 27 11:30	6°♊54'48	
inferior conj	15926 Sep 02 21:57	26°♊39'04	2°15'06	evening max el	15927 Aug 02 00:15	13°♊31'09	19°07'56
minimum elong	15926 Sep 03 00:15	26°♊32'07	2°14'22	retrograde	15927 Aug 08 21:30	17°♊18'48	
min. Earth dist.	15926 Sep 05 00:23	24°♊07'58	0.65284 AU	evening set	15927 Aug 12 09:52	16°♊07'11	
morning rise	15926 Sep 08 19:34	20°♊15'39		inferior conj	15927 Aug 17 20:53	10°♊18'39	2°46'08
desc. node	15926 Sep 11 04:45	18°♊39'48		minimum elong	15927 Aug 17 22:41	10°♊12'48	2°45'28
direct	15926 Sep 15 06:04	17°♊38'38		min. Earth dist.	15927 Aug 19 09:13	8°♊21'22	0.66933 AU
morning max el	15926 Sep 28 16:07	25°♊30'40	27°05'56	morning rise	15927 Aug 23 10:48	3°♊52'02	
	15926 Oct 02 19:05	0°♄		desc. node	15927 Aug 29 02:10	1°♊17'05	
	15926 Oct 23 15:33	0°♌		direct	15927 Aug 29 12:30	1°♊16'22	
morning set	15926 Nov 03 05:59	19°♌08'25		morning max el	15927 Sep 11 03:37	8°♊47'32	25°58'15
asc. node	15926 Nov 05 16:10	23°♌54'18			15927 Sep 27 20:11	0°♄	
max. Earth dist.	15926 Nov 07 12:13	27°♌36'21	1.33430 AU		15927 Oct 16 03:31	0°♌	
	15926 Nov 08 16:13	0°♌		morning set	15927 Oct 17 02:14	1°♌44'01	
				max. Earth dist.	15927 Oct 20 19:00	8°♌41'46	1.35314 AU
superior conj	15926 Nov 11 16:41	6°♌19'09	0°53'03	asc. node	15927 Oct 23 12:57	14°♌03'36	
minimum elong	15926 Nov 11 14:25	6°♌07'08	0°53'22				
evening rise	15926 Nov 18 19:53	21°♌35'18		superior conj	15927 Oct 26 11:50	19°♌59'39	0°26'41
	15926 Nov 22 21:06	0°♄		minimum elong	15927 Oct 26 10:21	19°♌52'08	0°26'58
desc. node	15926 Dec 08 02:20	24°♄15'40			15927 Oct 31 08:03	0°♌	
evening max el	15926 Dec 09 16:55	25°♄55'43	21°59'41	evening rise	15927 Nov 03 03:59	5°♌53'32	
	15926 Dec 14 22:00	0°♄			15927 Nov 16 09:01	0°♄	
retrograde	15926 Dec 22 04:42	2°♄06'18		evening max el	15927 Nov 21 14:17	6°♄20'38	20°29'37
evening set	15926 Dec 25 13:37	1°♄41'00		desc. node	15927 Nov 24 23:24	9°♄12'03	
	15926 Dec 30 01:34	30°♄		retrograde	15927 Dec 02 15:13	11°♄50'06	
inferior conj	15927 Jan 03 03:08	27°♄49'59	-6°00'13	evening set	15927 Dec 04 23:15	11°♄36'30	
minimum elong	15927 Jan 03 00:44	27°♄53'20	5°59'22	inferior conj	15927 Dec 13 18:57	7°♄42'15	-5°15'18
min. Earth dist.	15927 Jan 02 22:24	27°♄56'35	0.54436 AU	minimum elong	15927 Dec 13 09:35	7°♄55'54	5°12'28
morning rise	15927 Jan 11 12:41	24°♄02'38		min. Earth dist.	15927 Dec 15 03:57	6°♄54'06	0.54622 AU
direct	15927 Jan 15 00:46	23°♄35'33		morning rise	15927 Dec 21 19:36	3°♄43'37	
morning max el	15927 Jan 27 08:38	29°♄33'07	21°52'51	direct	15927 Dec 26 09:08	2°♄58'51	
	15927 Jan 27 19:41	0°♄		morning max el	15928 Jan 08 19:30	9°♄34'05	23°41'15
asc. node	15927 Feb 01 15:07	5°♄35'06		asc. node	15928 Jan 19 12:24	23°♄08'11	
	15927 Feb 15 14:36	0°♌			15928 Jan 23 14:26	0°♄	
morning set	15927 Feb 17 05:48	3°♌24'36		morning set	15928 Feb 01 17:40	18°♄08'48	
					15928 Feb 07 04:35	0°♌	
superior conj	15927 Feb 24 09:03	18°♌32'53	1°15'34				
minimum elong	15927 Feb 24 11:27	18°♌45'29	1°15'30	superior conj	15928 Feb 08 13:54	3°♌01'09	1°29'11
max. Earth dist.	15927 Feb 28 14:08	27°♌13'54	1.34471 AU	minimum elong	15928 Feb 08 15:37	3°♌10'30	1°29'28
	15927 Mar 01 23:20	0°♊		max. Earth dist.	15928 Feb 11 09:55	9°♌06'09	1.32855 AU
evening rise	15927 Mar 04 19:51	5°♊33'50		evening rise	15928 Feb 16 07:09	19°♌10'53	
desc. node	15927 Mar 06 03:06	8°♊01'58		desc. node	15928 Feb 20 23:43	28°♌14'43	
	15927 Mar 18 21:30	0°♌			15928 Feb 21 22:28	0°♊	
evening max el	15927 Apr 08 21:47	27°♌23'58	26°49'34		15928 Mar 12 00:26	0°♌	
	15927 Apr 11 18:42	0°♌		evening max el	15928 Mar 21 10:52	10°♌49'01	27°26'46
retrograde	15927 Apr 22 03:45	4°♌51'49		retrograde	15928 Apr 04 03:43	18°♌21'05	
evening set	15927 Apr 28 14:59	2°♌19'27		evening set	15928 Apr 10 21:25	15°♌53'12	
asc. node	15927 Apr 30 12:13	0°♌37'48		min. Earth dist.	15928 Apr 14 16:51	12°♌27'31	0.64338 AU
	15927 May 01 02:59	30°♌		asc. node	15928 Apr 16 09:30	10°♌39'57	
min. Earth dist.	15927 May 02 14:22	28°♌22'32	0.66143 AU	inferior conj	15928 Apr 17 07:32	9°♌40'47	0°17'16
inferior conj	15927 May 04 16:51	25°♌54'36	1°15'28	minimum elong	15928 Apr 17 07:02	9°♌42'06	0°16'38
minimum elong	15927 May 04 15:05	25°♌59'48	1°14'14	morning rise	15928 Apr 23 18:50	4°♌18'51	
morning rise	15927 May 10 16:29	20°♌18'21		direct	15928 Apr 26 08:48	3°♌44'50	
direct	15927 May 13 15:29	19°♌30'10		morning max el	15928 May 02 16:50	6°♌59'45	17°50'22
morning max el	15927 May 19 23:49	22°♌49'31	18°11'16		15928 May 18 06:33	0°♌	
	15927 May 25 20:35	0°♌		desc. node	15928 May 19 01:06	1°♌17'50	
desc. node	15927 Jun 02 04:12	11°♌08'33		morning set	15928 May 19 19:31	2°♌35'04	
morning set	15927 Jun 08 06:05	20°♌52'23					
	15927 Jun 13 23:04	0°♌		superior conj	15928 Jun 02 06:26	24°♌43'38	-1°38'32
				minimum elong	15928 Jun 01 21:53	24°♌09'19	1°38'26
superior conj	15927 Jun 23 09:57	14°♌54'26	-2°05'01		15928 Jun 05 13:51	0°♌	
minimum elong	15927 Jun 23 03:14	14°♌28'10	2°05'26	max. Earth dist.	15928 Jun 07 02:52	2°♌26'09	1.45350 AU
max. Earth dist.	15927 Jun 25 07:01	17°♌50'27	1.45963 AU	evening rise	15928 Jun 18 01:03	19°♌22'33	
	15927 Jul 03 02:39	0°♌			15928 Jun 25 01:12	0°♌	
evening rise	15927 Jul 09 12:35	9°♌56'58		greatest brilliancy	15928 Jul 02 20:11	11°♌30'58	-0.6m
greatest brilliancy	15927 Jul 20 19:27	27°♌17'46	-0.7m	asc. node	15928 Jul 13 08:18	25°♌26'06	

evening max el	15928 Jul 15 04:49	27° Ω 24'24	20°02'57	evening rise	15929 May 28 13:50	28° Π 56'12	
	15928 Jul 18 05:24	0° \mathfrak{M}			15929 May 29 06:22	0° \mathfrak{C}	
retrograde	15928 Jul 22 20:20	1° \mathfrak{M} 44'12			15929 Jun 18 18:45	0° Ω	
evening set	15928 Jul 26 18:53	0° \mathfrak{M} 14'55		evening max el	15929 Jun 28 03:20	11° Ω 18'09	21°11'22
	15928 Jul 27 02:28	30° $\mathfrak{R}\Omega$		asc. node	15929 Jun 30 05:08	13° Ω 13'09	
inferior conj	15928 Aug 01 01:45	24° Ω 14'06	3°03'25	retrograde	15929 Jul 06 19:15	16° Ω 18'59	
minimum elong	15928 Aug 01 02:43	24° Ω 10'50	3°02'48	evening set	15929 Jul 11 04:40	14° Ω 32'18	
min. Earth dist.	15928 Aug 02 00:12	22° Ω 57'56	0.68144 AU	inferior conj	15929 Jul 16 10:10	8° Ω 20'39	3°08'47
morning rise	15928 Aug 06 10:09	17° Ω 49'09		minimum elong	15929 Jul 16 10:10	8° Ω 20'39	3°08'07
direct	15928 Aug 12 00:56	15° Ω 22'03		min. Earth dist.	15929 Jul 16 19:11	7° Ω 49'18	0.68883 AU
desc. node	15928 Aug 14 23:33	15° Ω 56'09		morning rise	15929 Jul 21 15:24	2° Ω 00'46	
morning max el	15928 Aug 23 14:39	22° Ω 17'45	24°35'05		15929 Jul 25 04:00	30° $\mathfrak{R}\mathfrak{C}$	
	15928 Aug 30 08:44	0° \mathfrak{M}		direct	15929 Jul 26 18:17	29° \mathfrak{C} 47'44	
	15928 Sep 20 02:56	0° \mathfrak{L}			15929 Jul 28 10:06	0° Ω	
morning set	15928 Sep 28 05:06	13° \mathfrak{L} 34'04		desc. node	15929 Aug 01 20:53	2° Ω 13'56	
max. Earth dist.	15928 Oct 01 18:47	19° \mathfrak{L} 54'54	1.37574 AU	morning max el	15929 Aug 06 02:00	5° Ω 55'47	23°05'58
	15928 Oct 07 04:51	0° \mathfrak{M}			15929 Aug 24 17:18	0° \mathfrak{M}	
				morning set	15929 Sep 09 10:26	24° \mathfrak{M} 28'49	
superior conj	15928 Oct 08 20:06	3° \mathfrak{M} 08'54	-0°05'06		15929 Sep 12 17:21	0° \mathfrak{L}	
minimum elong	15928 Oct 08 20:25	3° \mathfrak{M} 10'26	0°04'41	max. Earth dist.	15929 Sep 13 17:33	1° \mathfrak{L} 43'25	1.39981 AU
behind sun begin	15928 Oct 08 13:57	2° \mathfrak{M} 39'07					
behind sun end	15928 Oct 09 02:53	3° \mathfrak{M} 41'48		superior conj	15929 Sep 21 13:36	15° \mathfrak{L} 38'08	-0°40'45
asc. node	15928 Oct 09 09:39	4° \mathfrak{M} 14'46		minimum elong	15929 Sep 21 16:43	15° \mathfrak{L} 52'23	0°40'05
evening rise	15928 Oct 17 07:26	19° \mathfrak{M} 58'40		asc. node	15929 Sep 26 06:19	24° \mathfrak{L} 24'14	
	15928 Oct 22 10:18	0° \mathfrak{X}			15929 Sep 29 04:42	0° \mathfrak{M}	
evening max el	15928 Nov 03 02:14	17° \mathfrak{X} 34'24	19°20'25	evening rise	15929 Oct 01 03:17	3° \mathfrak{M} 43'29	
desc. node	15928 Nov 10 20:33	22° \mathfrak{X} 09'11		evening max el	15929 Oct 17 03:06	29° \mathfrak{M} 37'59	18°33'37
retrograde	15928 Nov 12 12:10	22° \mathfrak{X} 17'37			15929 Oct 17 12:05	0° \mathfrak{X}	
evening set	15928 Nov 14 09:50	22° \mathfrak{X} 06'53		retrograde	15929 Oct 25 03:19	3° \mathfrak{X} 41'22	
inferior conj	15928 Nov 22 23:18	17° \mathfrak{X} 58'23	-3°45'19	evening set	15929 Oct 27 02:05	3° \mathfrak{X} 27'45	
minimum elong	15928 Nov 22 14:15	18° \mathfrak{X} 13'15	3°41'28	desc. node	15929 Oct 28 17:48	2° \mathfrak{X} 56'07	
min. Earth dist.	15928 Nov 25 13:09	16° \mathfrak{X} 16'52	0.55718 AU		15929 Nov 02 15:52	30° $\mathfrak{R}\mathfrak{M}$	
morning rise	15928 Nov 30 16:25	13° \mathfrak{X} 30'12		inferior conj	15929 Nov 04 00:19	28° \mathfrak{M} 58'50	-2°01'00
direct	15928 Dec 06 04:03	12° \mathfrak{X} 21'42		minimum elong	15929 Nov 03 19:29	29° \mathfrak{M} 08'05	1°58'25
morning max el	15928 Dec 20 04:32	19° \mathfrak{X} 27'17	25°28'10	min. Earth dist.	15929 Nov 07 04:35	26° \mathfrak{M} 33'31	0.57516 AU
	15928 Dec 29 02:03	0° \mathfrak{Z}		morning rise	15929 Nov 11 09:32	23° \mathfrak{M} 53'59	
asc. node	15929 Jan 05 09:35	11° \mathfrak{Z} 30'45		direct	15929 Nov 17 13:32	22° \mathfrak{M} 18'38	
	15929 Jan 14 21:58	0° \mathfrak{A}		morning max el	15929 Dec 01 19:21	29° \mathfrak{M} 47'17	26°54'17
morning set	15929 Jan 16 05:19	2° \mathfrak{A} 47'34			15929 Dec 02 00:34	0° \mathfrak{X}	
				asc. node	15929 Dec 23 06:42	0° \mathfrak{Z} 30'29	
superior conj	15929 Jan 22 22:53	17° \mathfrak{A} 37'39	1°36'34		15929 Dec 23 00:07	0° \mathfrak{Z}	
minimum elong	15929 Jan 22 23:39	17° \mathfrak{A} 41'50	1°37'08	morning set	15929 Dec 31 15:01	17° \mathfrak{Z} 16'48	
max. Earth dist.	15929 Jan 24 12:21	21° \mathfrak{A} 04'27	1.31720 AU		15930 Jan 06 09:32	0° \mathfrak{A}	
	15929 Jan 28 15:31	0° \mathfrak{H}					
evening rise	15929 Jan 30 03:34	3° \mathfrak{H} 08'34		superior conj	15930 Jan 07 10:00	2° \mathfrak{A} 17'00	1°37'51
desc. node	15929 Feb 06 20:22	18° \mathfrak{H} 10'34		minimum elong	15930 Jan 07 09:42	2° \mathfrak{A} 15'17	1°38'34
	15929 Feb 13 17:31	0° \mathfrak{Y}		max. Earth dist.	15930 Jan 07 19:07	3° \mathfrak{A} 07'58	1.31113 AU
evening max el	15929 Mar 03 21:19	23° \mathfrak{Y} 41'33	27°35'18	evening rise	15930 Jan 14 06:39	17° \mathfrak{A} 21'31	
	15929 Mar 12 16:45	0° \mathfrak{B}			15930 Jan 20 12:26	0° \mathfrak{H}	
retrograde	15929 Mar 17 20:15	1° \mathfrak{B} 09'42		desc. node	15930 Jan 24 17:04	7° \mathfrak{H} 43'11	
	15929 Mar 22 17:36	30° $\mathfrak{R}\mathfrak{Y}$			15930 Feb 08 16:49	0° \mathfrak{Y}	
evening set	15929 Mar 24 15:58	28° \mathfrak{Y} 54'00		evening max el	15930 Feb 14 02:55	5° \mathfrak{Y} 50'29	27°09'55
min. Earth dist.	15929 Mar 28 10:08	25° \mathfrak{Y} 53'50	0.62233 AU	retrograde	15930 Feb 28 03:45	13° \mathfrak{Y} 08'35	
inferior conj	15929 Mar 31 10:35	23° \mathfrak{Y} 02'08	-0°54'44	evening set	15930 Mar 06 19:34	11° \mathfrak{Y} 12'38	
minimum elong	15929 Mar 31 12:28	22° \mathfrak{Y} 57'41	0°54'12	min. Earth dist.	15930 Mar 10 17:17	8° \mathfrak{Y} 29'33	0.59986 AU
asc. node	15929 Apr 03 06:49	20° \mathfrak{Y} 28'43		inferior conj	15930 Mar 13 22:28	5° \mathfrak{Y} 49'31	-2°19'04
morning rise	15929 Apr 07 12:01	17° \mathfrak{Y} 56'57		minimum elong	15930 Mar 14 03:42	5° \mathfrak{Y} 38'37	2°17'01
direct	15929 Apr 09 18:15	17° \mathfrak{Y} 33'43		asc. node	15930 Mar 21 04:10	1° \mathfrak{Y} 11'42	
morning max el	15929 Apr 16 10:22	20° \mathfrak{Y} 55'59	17°47'05	morning rise	15930 Mar 21 15:19	1° \mathfrak{Y} 03'39	
	15929 Apr 23 07:48	0° \mathfrak{B}		direct	15930 Mar 23 16:02	0° \mathfrak{Y} 47'31	
morning set	15929 May 02 08:22	15° \mathfrak{B} 23'17		morning max el	15930 Mar 31 01:00	4° \mathfrak{Y} 28'16	18°02'23
desc. node	15929 May 05 21:54	21° \mathfrak{B} 38'57		morning set	15930 Apr 15 14:46	28° \mathfrak{Y} 59'33	
	15929 May 10 17:45	0° \mathfrak{II}			15930 Apr 16 03:51	0° \mathfrak{B}	
				desc. node	15930 Apr 22 18:37	12° \mathfrak{B} 07'35	
superior conj	15929 May 14 00:33	5° \mathfrak{II} 33'16	-1°02'27				
minimum elong	15929 May 13 18:45	5° \mathfrak{II} 08'56	1°02'19	superior conj	15930 Apr 25 17:59	17° \mathfrak{B} 26'02	-0°24'18
max. Earth dist.	15929 May 20 19:23	16° \mathfrak{II} 41'23	1.44057 AU	minimum elong	15930 Apr 25 15:56	17° \mathfrak{B} 16'56	0°24'29

	15930 May 03 01:45	0°♂			15931 Apr 08 04:48	0°♂	
max. Earth dist.	15930 May 03 07:43	0°♂24'50	1.42222 AU	desc. node	15931 Apr 09 15:19	2°♂40'02	
evening rise	15930 May 08 17:22	9°♂13'11		max. Earth dist.	15931 Apr 15 16:07	13°♂28'43	1.40036 AU
	15930 May 22 08:20	0°♂		evening rise	15931 Apr 19 17:50	20°♂25'43	
evening max el	15930 Jun 10 20:52	25°♂12'20	22°29'06		15931 Apr 25 14:48	0°♂	
asc. node	15930 Jun 17 02:04	0°♂01'17			15931 May 16 11:51	0°♂	
	15930 Jun 17 01:02	0°♂		evening max el	15931 May 24 11:23	9°♂07'39	23°50'35
retrograde	15930 Jun 20 16:37	0°♂57'28		asc. node	15931 Jun 03 23:06	15°♂33'20	
	15930 Jun 24 01:12	30°♂♂		retrograde	15931 Jun 04 11:12	15°♂34'25	
evening set	15930 Jun 25 13:30	28°♂54'37		evening set	15931 Jun 09 19:46	13°♂17'40	
inferior conj	15930 Jun 30 20:04	22°♂33'53	3°03'20	min. Earth dist.	15931 Jun 14 12:23	7°♂48'48	0.68904 AU
minimum elong	15930 Jun 30 19:09	22°♂37'05	3°02'30	inferior conj	15931 Jun 15 05:32	6°♂50'14	2°47'28
min. Earth dist.	15930 Jun 30 15:56	22°♂48'17	0.69139 AU	minimum elong	15931 Jun 15 03:52	6°♂55'57	2°46'22
morning rise	15930 Jul 06 00:38	16°♂21'11		morning rise	15931 Jun 20 11:59	0°♂46'10	
direct	15930 Jul 10 15:17	14°♂26'02			15931 Jun 21 15:28	30°♂♂	
morning max el	15930 Jul 19 16:19	19°♂41'51	21°39'27	direct	15931 Jun 24 14:36	29°♂10'42	
desc. node	15930 Jul 19 18:10	19°♂46'29			15931 Jun 27 18:20	0°♂	
	15930 Jul 28 07:55	0°♂		morning max el	15931 Jul 02 12:36	3°♂39'07	20°22'19
	15930 Aug 17 21:02	0°♂		desc. node	15931 Jul 06 15:22	8°♂14'41	
morning set	15930 Aug 20 15:46	4°♂22'04			15931 Jul 22 04:32	0°♂	
max. Earth dist.	15930 Aug 26 21:21	14°♂25'47	1.42258 AU	morning set	15931 Jul 31 01:21	13°♂27'05	
				max. Earth dist.	15931 Aug 09 08:12	28°♂00'45	1.44134 AU
					15931 Aug 10 13:58	0°♂	
superior conj	15930 Sep 03 11:52	27°♂16'32	-1°17'19				
minimum elong	15930 Sep 03 18:08	27°♂43'46	1°16'33				
	15930 Sep 05 01:23	0°♂		superior conj	15931 Aug 15 11:17	7°♂57'01	-1°49'34
asc. node	15930 Sep 13 02:56	14°♂27'51		minimum elong	15931 Aug 15 19:06	8°♂29'14	1°49'13
evening rise	15930 Sep 14 11:45	16°♂57'38		evening rise	15931 Aug 28 04:10	29°♂29'47	
	15930 Sep 21 18:40	0°♂			15931 Aug 28 11:08	0°♂	
evening max el	15930 Sep 30 12:36	12°♂21'16	18°07'52	asc. node	15931 Aug 30 23:36	4°♂22'03	
retrograde	15930 Oct 07 13:20	15°♂57'22		evening max el	15931 Sep 14 02:33	25°♂34'16	18°01'36
evening set	15930 Oct 09 18:12	15°♂36'34		retrograde	15931 Sep 20 14:28	28°♂56'46	
desc. node	15930 Oct 15 15:07	11°♂55'42		evening set	15931 Sep 23 03:12	28°♂25'13	
inferior conj	15930 Oct 16 22:49	10°♂46'13	-0°25'12	inferior conj	15931 Sep 29 15:53	23°♂15'34	0°52'15
minimum elong	15930 Oct 16 21:57	10°♂48'09	0°24'25	minimum elong	15931 Sep 29 17:21	23°♂11'49	0°51'56
min. Earth dist.	15930 Oct 20 04:18	7°♂54'27	0.59710 AU	min. Earth dist.	15931 Oct 02 13:58	20°♂17'35	0.62003 AU
morning rise	15930 Oct 23 22:25	5°♂07'43		desc. node	15931 Oct 02 12:29	20°♂21'13	
direct	15930 Oct 30 11:56	3°♂06'57		morning rise	15931 Oct 06 04:55	17°♂11'54	
morning max el	15930 Nov 13 18:20	10°♂52'45	27°46'05	direct	15931 Oct 12 21:19	14°♂50'46	
	15930 Nov 28 16:24	0°♂		morning max el	15931 Oct 27 00:20	22°♂47'33	27°58'34
asc. node	15930 Dec 10 03:44	19°♂56'59			15931 Nov 02 10:14	0°♂	
	15930 Dec 15 03:31	0°♂			15931 Nov 21 21:57	0°♂	
morning set	15930 Dec 15 20:56	1°♂31'36		asc. node	15931 Nov 27 00:42	9°♂42'43	
max. Earth dist.	15930 Dec 22 02:44	15°♂09'34	1.31044 AU	morning set	15931 Nov 29 21:01	15°♂27'11	
				max. Earth dist.	15931 Dec 05 07:17	26°♂59'45	1.31527 AU
					15931 Dec 06 16:09	0°♂	
superior conj	15930 Dec 22 21:19	16°♂53'27	1°33'08				
minimum elong	15930 Dec 22 20:02	16°♂46'14	1°33'50				
	15930 Dec 28 19:00	0°♂		superior conj	15931 Dec 07 06:59	1°♂21'53	1°22'23
evening rise	15930 Dec 29 14:13	1°♂44'06		minimum elong	15931 Dec 07 04:57	1°♂10'38	1°22'57
desc. node	15931 Jan 11 13:52	26°♂43'41		evening rise	15931 Dec 14 00:20	16°♂11'31	
	15931 Jan 13 14:25	0°♂			15931 Dec 20 17:25	0°♂	
evening max el	15931 Jan 27 01:03	17°♂07'25	26°09'40	desc. node	15931 Dec 29 10:44	14°♂59'58	
retrograde	15931 Feb 10 00:12	24°♂12'43		evening max el	15932 Jan 08 14:40	27°♂33'43	24°40'44
evening set	15931 Feb 16 04:45	22°♂42'00			15932 Jan 11 09:59	0°♂	
min. Earth dist.	15931 Feb 20 14:15	20°♂04'17	0.57807 AU	retrograde	15932 Jan 22 07:56	4°♂24'46	
inferior conj	15931 Feb 23 15:31	17°♂52'57	-3°49'24	evening set	15932 Jan 27 16:04	3°♂21'48	
minimum elong	15931 Feb 24 00:03	17°♂37'36	3°46'20	min. Earth dist.	15932 Feb 02 02:36	0°♂33'17	0.55963 AU
morning rise	15931 Mar 03 22:30	13°♂28'35			15932 Feb 03 00:04	30°♂♂	
direct	15931 Mar 05 21:52	13°♂15'50		inferior conj	15932 Feb 04 11:23	29°♂04'30	-5°10'45
asc. node	15931 Mar 08 01:33	13°♂31'44		minimum elong	15932 Feb 04 20:19	28°♂50'31	5°08'18
morning max el	15931 Mar 14 08:54	17°♂25'45	18°37'57	morning rise	15932 Feb 13 02:48	25°♂01'06	
	15931 Mar 23 08:12	0°♂		direct	15932 Feb 15 08:07	24°♂47'42	
morning set	15931 Mar 30 09:30	13°♂08'31		asc. node	15932 Feb 22 22:56	27°♂37'52	
				morning max el	15932 Feb 25 05:50	29°♂36'21	19°35'44
superior conj	15931 Apr 08 07:41	0°♂13'28	0°11'02		15932 Feb 25 15:22	0°♂	
minimum elong	15931 Apr 08 08:25	0°♂16'54	0°10'35	morning set	15932 Mar 13 12:29	27°♂37'23	
behind sun begin	15931 Apr 08 03:09	29°♂52'18			15932 Mar 14 16:48	0°♂	
behind sun end	15931 Apr 08 13:42	0°♂41'27					

superior conj	15932 Mar 21 13:07	13° Υ 42'29	0°41'03	morning set	15933 Feb 25 20:44	12° X 17'33	
minimum elong	15932 Mar 21 15:19	13° Υ 53'14	0°40'35				
desc. node	15932 Mar 26 11:58	23° Υ 11'59		superior conj	15933 Mar 05 06:13	27° X 41'56	1°04'49
max. Earth dist.	15932 Mar 27 22:20	25° Υ 51'15	1.37738 AU	minimum elong	15933 Mar 05 08:46	27° X 55'02	1°04'33
	15932 Mar 30 05:08	0° B			15933 Mar 06 09:14	0° Υ	
evening rise	15932 Mar 31 14:49	2° B 29'47		max. Earth dist.	15933 Mar 10 06:51	7° Υ 46'44	1.35575 AU
	15932 Apr 17 17:54	0° Π		desc. node	15933 Mar 13 08:37	13° Υ 40'01	
evening max el	15932 May 06 00:45	23° Π 02'03	25°09'15	evening rise	15933 Mar 14 05:29	15° Υ 17'31	
	15932 May 17 07:08	0° G			15933 Mar 22 13:50	0° B	
retrograde	15932 May 18 01:54	0° G 02'22			15933 Apr 12 07:59	0° Π	
	15932 May 18 20:21	30° $\text{R}\Pi$		evening max el	15933 Apr 18 14:19	6° Π 52'01	26°17'46
asc. node	15932 May 20 20:14	29° Π 30'34		retrograde	15933 May 01 11:46	14° Π 14'00	
evening set	15932 May 23 21:49	27° Π 35'24		evening set	15933 May 07 17:51	11° Π 41'51	
min. Earth dist.	15932 May 28 06:27	22° Π 43'29	0.68184 AU	asc. node	15933 May 07 17:26	11° Π 42'43	
inferior conj	15932 May 29 12:39	21° Π 04'41	2°20'55	min. Earth dist.	15933 May 11 20:09	7° Π 25'24	0.67006 AU
minimum elong	15932 May 29 10:31	21° Π 11'39	2°19'37	inferior conj	15933 May 13 15:19	5° Π 12'49	1°42'56
morning rise	15932 Jun 03 23:36	15° Π 10'22		minimum elong	15933 May 13 13:13	5° Π 19'16	1°41'35
direct	15932 Jun 07 14:45	13° Π 54'40			15933 May 18 15:06	30° RB	
morning max el	15932 Jun 14 16:09	17° Π 46'24	19°18'45	morning rise	15933 May 19 09:30	29° B 29'26	
desc. node	15932 Jun 22 12:29	27° Π 23'16		direct	15933 May 22 14:02	28° B 32'00	
	15932 Jun 24 08:51	0° G			15933 May 26 16:49	0° Π	
greatest brilliancy	15932 Jun 27 08:51	4° G 22'28	-0.7m	morning max el	15933 May 29 02:27	1° Π 59'50	18°31'01
morning set	15932 Jul 09 05:52	22° G 23'19		desc. node	15933 Jun 09 09:31	17° Π 01'26	
	15932 Jul 14 04:18	0° Ω			15933 Jun 17 17:30	0° G	
max. Earth dist.	15932 Jul 22 00:21	12° Ω 12'19	1.45407 AU	morning set	15933 Jun 19 01:10	2° G 04'30	
superior conj	15932 Jul 25 12:00	17° Ω 41'57	-2°10'18	superior conj	15933 Jul 04 22:22	26° G 55'26	-2°12'47
minimum elong	15932 Jul 25 16:39	18° Ω 00'24	2°10'44	minimum elong	15933 Jul 04 19:26	26° G 43'59	2°13'27
	15932 Aug 02 04:16	0° H		max. Earth dist.	15933 Jul 04 19:36	26° G 44'40	1.45971 AU
evening rise	15932 Aug 08 23:09	11° H 06'22			15933 Jul 06 21:43	0° Ω	
asc. node	15932 Aug 16 20:18	24° H 01'54		evening rise	15933 Jul 20 17:05	21° Ω 39'18	
	15932 Aug 20 15:50	0° A			15933 Jul 25 23:59	0° H	
evening max el	15932 Aug 27 17:18	9° A 07'52	18°13'44	greatest brilliancy	15933 Jul 28 23:23	4° H 39'42	-0.8m
retrograde	15932 Sep 03 02:04	12° A 30'04		asc. node	15933 Aug 03 17:00	13° H 21'20	
evening set	15932 Sep 05 23:28	11° A 44'42		evening max el	15933 Aug 11 05:50	22° H 54'03	18°43'26
inferior conj	15932 Sep 11 23:28	6° A 18'34	1°50'00	retrograde	15933 Aug 17 20:13	26° H 28'46	
minimum elong	15932 Sep 12 01:46	6° A 11'59	1°49'19	evening set	15933 Aug 21 02:55	25° H 27'17	
min. Earth dist.	15932 Sep 14 09:43	3° A 33'01	0.64161 AU	inferior conj	15933 Aug 26 17:43	19° H 46'42	2°30'03
morning rise	15932 Sep 18 02:19	29° H 59'36		minimum elong	15933 Aug 26 19:53	19° H 39'59	2°29'21
desc. node	15932 Sep 18 09:52	29° H 45'06		min. Earth dist.	15933 Aug 28 14:17	17° H 28'29	0.66030 AU
	15932 Sep 18 02:07	30° RH		morning rise	15933 Sep 01 11:48	13° H 21'00	
direct	15932 Sep 24 16:09	27° H 25'45		desc. node	15933 Sep 05 07:16	11° H 06'51	
	15932 Oct 01 23:56	0° A		direct	15933 Sep 07 18:55	10° H 43'16	
morning max el	15932 Oct 08 10:30	5° A 24'02	27°34'07	morning max el	15933 Sep 20 21:54	18° H 29'08	26°39'37
	15932 Oct 27 04:15	0° M			15933 Sep 30 15:47	0° A	
morning set	15932 Nov 12 12:49	28° M 58'02			15933 Oct 20 03:48	0° M	
asc. node	15932 Nov 12 21:37	29° M 41'47		morning set	15933 Oct 26 17:12	11° M 56'12	
	15932 Nov 13 01:16	0° X		max. Earth dist.	15933 Oct 30 16:53	19° M 41'04	1.34170 AU
max. Earth dist.	15932 Nov 17 04:58	8° X 30'56	1.32572 AU	asc. node	15933 Oct 30 18:24	19° M 48'38	
superior conj	15932 Nov 20 12:58	15° X 37'09	1°05'32	superior conj	15933 Nov 04 12:51	29° M 32'27	0°42'36
minimum elong	15932 Nov 20 10:36	15° X 24'26	1°05'55	minimum elong	15933 Nov 04 10:48	29° M 21'48	0°42'52
evening rise	15932 Nov 27 11:12	0° Z 39'29			15933 Nov 04 18:08	0° X	
	15932 Nov 27 03:51	0° Z		evening rise	15933 Nov 11 20:52	15° X 02'32	
	15932 Dec 13 14:35	0° \approx			15933 Nov 19 08:31	0° Z	
desc. node	15932 Dec 15 07:42	2° \approx 16'16		evening max el	15933 Dec 01 14:46	17° Z 37'17	21°19'11
evening max el	15932 Dec 20 00:08	7° \approx 31'31	22°57'56	desc. node	15933 Dec 02 04:44	18° Z 10'51	
retrograde	15933 Jan 02 03:00	14° \approx 01'11		retrograde	15933 Dec 13 13:13	23° Z 31'30	
evening set	15933 Jan 06 05:42	13° \approx 24'26		evening set	15933 Dec 16 09:44	23° Z 12'40	
min. Earth dist.	15933 Jan 13 09:48	10° \approx 05'36	0.54747 AU	inferior conj	15933 Dec 25 03:15	19° Z 22'10	-5°48'18
inferior conj	15933 Jan 14 12:15	9° \approx 27'52	-5°58'08	minimum elong	15933 Dec 24 21:07	19° Z 30'49	5°46'47
minimum elong	15933 Jan 14 15:20	9° \approx 23'28	5°57'18	min. Earth dist.	15933 Dec 25 15:15	19° Z 05'17	0.54399 AU
morning rise	15933 Jan 23 02:17	5° \approx 38'21		morning rise	15934 Jan 02 08:52	15° Z 32'08	
direct	15933 Jan 26 00:10	5° \approx 18'35		direct	15934 Jan 06 07:50	14° Z 58'12	
morning max el	15933 Feb 06 12:27	10° \approx 51'48	20°56'42	morning max el	15934 Jan 19 04:44	21° Z 13'31	22°37'49
asc. node	15933 Feb 08 20:16	13° \approx 19'06		asc. node	15934 Jan 26 17:34	0° \approx 16'22	
	15933 Feb 19 16:45	0° X			15934 Jan 26 13:00	0° \approx	

morning set	15934 Feb 10 07:50	27° \approx 01'32		direct	15934 Dec 17 20:09	24° \times 17'06	
	15934 Feb 11 17:17	0° H			15934 Dec 30 08:38	0° Z	
superior conj	15934 Feb 17 07:33	12° H 01'35	1°22'07	morning max el	15934 Dec 31 13:22	1° Z 05'42	24°27'55
minimum elong	15934 Feb 17 09:43	12° H 13'07	1°22'11	asc. node	15935 Jan 13 14:48	18° Z 12'14	
max. Earth dist.	15934 Feb 20 22:01	19° H 35'34	1.33730 AU	morning set	15935 Jan 20 03:22	0° \approx	
evening rise	15934 Feb 25 10:13	28° H 39'01			15935 Jan 25 19:49	11° \approx 43'51	
	15934 Feb 26 02:54	0° Y		superior conj	15935 Feb 01 14:25	26° \approx 33'53	1°33'04
desc. node	15934 Feb 28 05:16	3° Y 59'37		minimum elong	15935 Feb 01 15:46	26° \approx 41'13	1°33'28
	15934 Mar 15 18:15	0° B			15935 Feb 03 04:13	0° H	
evening max el	15934 Apr 01 04:03	20° B 29'43	27°08'36	max. Earth dist.	15935 Feb 03 20:59	1° H 30'45	1.32320 AU
retrograde	15934 Apr 14 15:40	28° B 00'55		evening rise	15935 Feb 09 01:46	12° H 25'48	
evening set	15934 Apr 21 05:53	25° B 29'49		desc. node	15935 Feb 15 01:54	24° H 05'59	
asc. node	15934 Apr 24 14:40	22° B 20'56			15935 Feb 18 08:28	0° Y	
min. Earth dist.	15934 Apr 25 03:25	21° B 46'23	0.65410 AU		15935 Mar 11 02:32	0° B	
inferior conj	15934 Apr 27 11:10	19° B 09'03	0°52'26	evening max el	15935 Mar 14 16:32	3° B 43'11	27°34'20
minimum elong	15934 Apr 27 09:49	19° B 12'52	0°51'24	retrograde	15935 Mar 28 12:27	11° B 13'37	
morning rise	15934 May 03 15:24	13° B 38'24		evening set	15935 Apr 04 07:33	8° B 50'21	
direct	15934 May 06 10:21	12° B 56'41		min. Earth dist.	15935 Apr 08 02:12	5° B 36'09	0.63470 AU
morning max el	15934 May 12 17:40	16° B 13'01	18°00'12	inferior conj	15935 Apr 10 21:19	2° B 45'48	-0°11'37
	15934 May 22 21:43	0° II		minimum elong	15935 Apr 10 21:42	2° B 44'51	0°11'50
desc. node	15934 May 27 06:27	7° II 01'15		transit middle	15935 Apr 10 21:42	2° B 44'51	0°11'50
morning set	15934 May 30 23:00	13° II 02'43		transit begin	15935 Apr 10 19:34	2° B 50'17	
	15934 Jun 10 10:42	0° E		transit end	15935 Apr 10 23:49	2° B 39'26	
				asc. node	15935 Apr 11 11:58	2° B 08'41	
superior conj	15934 Jun 14 10:30	6° E 19'41	-1°55'30		15935 Apr 13 18:20	30° R Y	
minimum elong	15934 Jun 14 02:14	5° E 47'04	1°55'40	morning rise	15935 Apr 17 14:20	27° Y 30'21	
max. Earth dist.	15934 Jun 17 15:53	11° E 23'32	1.45786 AU	direct	15935 Apr 20 00:53	27° Y 01'14	
	15934 Jun 29 16:07	0° O			15935 Apr 26 03:43	0° B	
evening rise	15934 Jun 30 12:57	1° O 20'05		morning max el	15935 Apr 26 11:13	0° B 17'52	17°46'45
greatest brilliancy	15934 Jul 13 19:11	21° O 25'47	-0.7m	morning set	15935 May 12 23:07	25° B 15'32	
	15934 Jul 19 20:42	0° P		desc. node	15935 May 14 03:18	27° B 16'07	
asc. node	15934 Jul 21 13:46	2° P 13'12			15935 May 15 17:42	0° II	
evening max el	15934 Jul 25 13:51	6° P 46'45	19°29'38				
retrograde	15934 Aug 01 17:57	10° P 46'29		superior conj	15935 May 25 15:24	16° II 32'15	-1°23'53
evening set	15934 Aug 05 10:35	9° P 27'26		minimum elong	15935 May 25 07:40	16° II 00'43	1°23'42
inferior conj	15934 Aug 10 19:30	3° P 33'48	2°54'59	max. Earth dist.	15935 May 31 10:58	25° II 53'39	1.44877 AU
minimum elong	15934 Aug 10 20:58	3° P 28'55	2°54'22		15935 Jun 03 01:22	0° E	
min. Earth dist.	15934 Aug 12 01:57	1° P 53'09	0.67503 AU	evening rise	15935 Jun 09 23:27	10° E 43'48	
	15934 Aug 13 13:41	30° R O			15935 Jun 22 20:09	0° O	
morning rise	15934 Aug 16 06:47	27° O 07'32		asc. node	15935 Jul 08 10:35	20° O 27'10	
direct	15934 Aug 22 04:11	24° O 34'27		evening max el	15935 Jul 08 15:53	20° O 40'30	20°30'40
desc. node	15934 Aug 23 04:38	24° O 38'31		retrograde	15935 Jul 16 16:56	25° O 16'28	
	15934 Sep 01 10:33	0° P		evening set	15935 Jul 20 20:09	23° O 39'30	
morning max el	15934 Sep 03 08:58	1° P 52'03	25°24'13	inferior conj	15935 Jul 26 02:07	17° O 34'00	3°07'04
	15934 Sep 24 17:11	0° E		minimum elong	15935 Jul 26 02:40	17° O 32'05	3°06'26
morning set	15934 Oct 09 06:33	24° E 13'50		min. Earth dist.	15935 Jul 26 18:45	16° O 36'48	0.68519 AU
	15934 Oct 12 10:06	0° M		morning rise	15935 Jul 31 08:53	11° O 11'10	
max. Earth dist.	15934 Oct 12 19:51	0° M 45'38	1.36243 AU	direct	15935 Aug 05 18:44	8° O 49'33	
asc. node	15934 Oct 17 15:09	9° M 59'34		desc. node	15935 Aug 10 01:59	10° O 02'20	
				morning max el	15935 Aug 16 19:49	15° O 25'19	23°57'27
superior conj	15934 Oct 19 03:50	13° M 01'17	0°13'51		15935 Aug 28 19:26	0° P	
minimum elong	15934 Oct 19 02:59	12° M 57'03	0°14'09		15935 Sep 17 15:31	0° E	
behind sun begin	15934 Oct 18 23:55	12° M 41'48		morning set	15935 Sep 21 00:41	5° E 40'52	
behind sun end	15934 Oct 19 06:02	13° M 12'18		max. Earth dist.	15935 Sep 24 18:46	12° E 12'03	1.38600 AU
evening rise	15934 Oct 27 03:17	29° M 16'12					
	15934 Oct 27 11:52	0° X		superior conj	15935 Oct 02 06:20	25° E 54'37	-0°19'52
evening max el	15934 Nov 13 18:22	28° X 22'35	19°57'26	minimum elong	15935 Oct 02 07:43	26° E 01'12	0°19'20
	15934 Nov 15 12:57	0° Z		asc. node	15935 Oct 04 11:51	0° M 10'26	
desc. node	15934 Nov 19 01:48	2° Z 19'33			15935 Oct 04 09:41	0° M	
retrograde	15934 Nov 24 02:14	3° Z 31'32		evening rise	15935 Oct 11 03:53	13° M 13'41	
evening set	15934 Nov 26 04:18	3° Z 19'55			15935 Oct 20 04:10	0° X	
	15934 Dec 03 21:02	30° R X		evening max el	15935 Oct 27 12:11	9° X 57'57	18°57'46
inferior conj	15934 Dec 04 22:53	29° X 20'55	-4°40'49	retrograde	15935 Nov 05 06:35	14° X 23'07	
minimum elong	15934 Dec 04 12:50	29° X 36'11	4°37'13	desc. node	15935 Nov 05 22:58	14° X 21'35	
min. Earth dist.	15934 Dec 06 21:53	28° X 09'28	0.54998 AU	evening set	15935 Nov 07 03:53	14° X 11'38	
morning rise	15934 Dec 12 20:15	25° X 11'39		inferior conj	15935 Nov 15 11:30	9° X 54'26	-3°01'09

minimum elong	15935 Nov 15 04:04	10° ♊ 07'27	2°57'38	min. Earth dist.	15936 Oct 30 03:55	18° ♍ 36'04	0.58410 AU
min. Earth dist.	15935 Nov 18 09:05	7° ♊ 52'57	0.56417 AU	morning rise	15936 Nov 03 03:07	15° ♍ 54'47	
morning rise	15935 Nov 23 01:28	5° ♊ 11'05		direct	15936 Nov 09 11:46	14° ♍ 08'23	
direct	15935 Nov 28 20:48	3° ♊ 51'39		morning max el	15936 Nov 23 18:46	21° ♍ 45'34	27°21'10
morning max el	15935 Dec 13 00:14	11° ♊ 06'55	26°08'22		15936 Dec 01 00:44	0° ♊	
	15935 Dec 27 11:34	0° ♊		asc. node	15936 Dec 17 09:03	26° ♊ 04'26	
asc. node	15935 Dec 31 11:57	6° ♊ 52'17			15936 Dec 19 09:53	0° ♊	
morning set	15936 Jan 10 06:55	26° ♊ 19'49		morning set	15936 Dec 24 15:16	10° ♊ 43'45	
	15936 Jan 11 23:25	0° ♋					
				superior conj	15936 Dec 31 12:01	25° ♊ 51'26	1°36'35
superior conj	15936 Jan 17 00:35	11° ♋ 12'38	1°37'50	minimum elong	15936 Dec 31 11:17	25° ♊ 47'17	1°37'19
minimum elong	15936 Jan 17 00:54	11° ♋ 14'21	1°38'29	max. Earth dist.	15936 Dec 31 09:34	25° ♊ 37'44	1.31013 AU
max. Earth dist.	15936 Jan 18 01:58	13° ♋ 33'50	1.31402 AU		15937 Jan 02 08:26	0° ♋	
evening rise	15936 Jan 24 01:21	26° ♋ 31'11		evening rise	15937 Jan 07 06:34	10° ♋ 48'36	
	15936 Jan 25 17:39	0° ♋			15937 Jan 16 23:22	0° ♋	
desc. node	15936 Feb 01 22:35	13° ♋ 53'23		desc. node	15937 Jan 18 19:20	3° ♋ 13'40	
	15936 Feb 11 18:35	0° ♌		evening max el	15937 Feb 06 03:46	28° ♋ 05'42	26°48'17
evening max el	15936 Feb 25 01:20	16° ♌ 19'10	27°28'45		15937 Feb 08 06:56	0° ♌	
retrograde	15936 Mar 10 01:05	23° ♌ 42'55		retrograde	15937 Feb 20 04:17	5° ♌ 19'17	
evening set	15936 Mar 16 20:11	21° ♌ 34'41		evening set	15937 Feb 26 16:27	3° ♌ 33'08	
min. Earth dist.	15936 Mar 20 15:06	18° ♌ 43'15	0.61290 AU	min. Earth dist.	15937 Mar 02 17:41	0° ♌ 54'14	0.59038 AU
inferior conj	15936 Mar 23 18:26	15° ♌ 54'30	-1°29'10		15937 Mar 03 21:58	30° ♌	
minimum elong	15936 Mar 23 21:39	15° ♌ 47'17	1°28'00	inferior conj	15937 Mar 05 22:42	28° ♌ 24'04	-2°57'16
asc. node	15936 Mar 28 09:17	12° ♌ 13'56		minimum elong	15937 Mar 06 05:28	28° ♌ 10'51	2°54'39
morning rise	15936 Mar 31 02:23	10° ♌ 57'16		morning rise	15937 Mar 13 22:01	23° ♌ 47'37	
direct	15936 Apr 02 06:04	10° ♌ 37'24		asc. node	15937 Mar 15 06:40	23° ♌ 34'51	
morning max el	15936 Apr 09 04:01	14° ♌ 05'44	17°51'16	direct	15937 Mar 15 21:27	23° ♌ 33'27	
	15936 Apr 20 02:23	0° ♍		morning max el	15937 Mar 23 16:23	27° ♌ 25'04	18°14'57
morning set	15936 Apr 24 20:12	8° ♍ 26'49			15937 Mar 26 00:16	0° ♌	
desc. node	15936 Apr 30 00:06	17° ♍ 41'20		morning set	15937 Apr 08 08:24	22° ♌ 18'18	
					15937 Apr 12 10:27	0° ♍	
superior conj	15936 May 05 19:43	27° ♍ 49'57	-0°46'11	desc. node	15937 Apr 16 20:50	8° ♍ 11'58	
minimum elong	15936 May 05 15:33	27° ♍ 32'05	0°46'09				
	15936 May 07 02:15	0° ♎		superior conj	15937 Apr 17 22:21	10° ♍ 07'38	-0°08'49
max. Earth dist.	15936 May 13 02:21	9° ♎ 58'53	1.43335 AU	minimum elong	15937 Apr 17 21:38	10° ♍ 04'25	0°09'08
evening rise	15936 May 19 17:17	20° ♎ 33'08		behind sun begin	15937 Apr 17 15:27	9° ♍ 36'27	
	15936 May 25 20:41	0° ♎		behind sun end	15937 Apr 18 03:49	10° ♍ 32'20	
	15936 Jun 16 08:49	0° ♏		max. Earth dist.	15937 Apr 25 12:32	23° ♍ 24'35	1.41320 AU
evening max el	15936 Jun 20 12:01	4° ♏ 33'48	21°43'30		15937 Apr 29 11:31	0° ♎	
asc. node	15936 Jun 24 07:28	7° ♏ 50'55		evening rise	15937 Apr 30 05:23	1° ♎ 12'56	
retrograde	15936 Jun 29 15:26	9° ♏ 53'26			15937 May 19 06:20	0° ♎	
evening set	15936 Jul 04 05:45	7° ♏ 59'24		evening max el	15937 Jun 03 03:50	18° ♎ 27'31	23°03'38
inferior conj	15936 Jul 09 11:23	1° ♏ 43'28	3°07'46	asc. node	15937 Jun 11 04:26	24° ♎ 08'42	
minimum elong	15936 Jul 09 11:00	1° ♏ 44'51	3°07'02	retrograde	15937 Jun 13 11:55	24° ♎ 31'47	
min. Earth dist.	15936 Jul 09 14:41	1° ♏ 31'57	0.69054 AU	evening set	15937 Jun 18 13:42	22° ♎ 22'37	
	15936 Jul 10 17:15	30° ♏		inferior conj	15937 Jun 23 21:22	15° ♎ 58'24	2°57'54
morning rise	15936 Jul 14 16:04	25° ♎ 26'33		minimum elong	15937 Jun 23 20:06	16° ♎ 02'47	2°56'57
direct	15936 Jul 19 13:39	23° ♎ 21'04		min. Earth dist.	15937 Jun 23 11:40	16° ♎ 32'03	0.69095 AU
desc. node	15936 Jul 26 23:18	26° ♎ 54'16		morning rise	15937 Jun 29 02:24	9° ♎ 49'05	
morning max el	15936 Jul 29 08:15	29° ♎ 06'50	22°28'26	direct	15937 Jul 03 11:46	8° ♎ 02'22	
	15936 Jul 30 04:57	0° ♏		morning max el	15937 Jul 12 00:54	12° ♎ 57'33	21°05'08
	15936 Aug 21 12:11	0° ♐		desc. node	15937 Jul 13 20:34	14° ♎ 52'19	
morning set	15936 Aug 31 19:50	16° ♐ 09'03			15937 Jul 25 12:20	0° ♏	
max. Earth dist.	15936 Sep 05 19:27	24° ♐ 23'09	1.40980 AU	morning set	15937 Aug 11 15:43	25° ♏ 38'48	
	15936 Sep 09 02:26	0° ♑			15937 Aug 14 10:11	0° ♐	
				max. Earth dist.	15937 Aug 19 01:44	7° ♐ 26'52	1.43110 AU
superior conj	15936 Sep 13 16:07	8° ♑ 02'32	-0°56'25				
minimum elong	15936 Sep 13 20:37	8° ♑ 22'39	0°55'39	superior conj	15937 Aug 26 04:58	19° ♐ 16'29	-1°31'55
asc. node	15936 Sep 20 08:31	20° ♑ 17'36		minimum elong	15937 Aug 26 12:17	19° ♐ 47'29	1°31'16
evening rise	15936 Sep 23 19:25	26° ♑ 46'32			15937 Sep 01 10:05	0° ♑	
	15936 Sep 25 12:41	0° ♒		evening rise	15937 Sep 06 21:43	9° ♑ 44'16	
evening max el	15936 Oct 09 17:10	22° ♒ 18'51	18°20'11	asc. node	15937 Sep 07 05:11	10° ♑ 17'37	
retrograde	15936 Oct 17 06:20	26° ♒ 09'28			15937 Sep 18 22:03	0° ♒	
evening set	15936 Oct 19 07:09	25° ♒ 53'23		evening max el	15937 Sep 23 05:04	5° ♒ 16'00	18°02'59
desc. node	15936 Oct 22 20:15	24° ♒ 16'55		retrograde	15937 Sep 29 23:15	8° ♒ 44'47	
inferior conj	15936 Oct 26 21:52	21° ♒ 15'06	-1°18'29	evening set	15937 Oct 02 07:14	8° ♒ 19'57	
minimum elong	15936 Oct 26 18:53	21° ♒ 21'13	1°16'43	inferior conj	15937 Oct 09 04:46	3° ♒ 21'24	0°10'03

minimum elong	15937 Oct 09 05:06	3° \mathbb{M} 20'37	0°10'16	evening max el	15938 Sep 06 19:50	18° \mathbb{A} 38'44	18°04'38
transit middle	15937 Oct 09 05:06	3° \mathbb{M} 20'37	0°10'16	retrograde	15938 Sep 13 05:10	21° \mathbb{A} 59'08	
transit begin	15937 Oct 09 02:34	3° \mathbb{M} 26'38		evening set	15938 Sep 15 21:35	21° \mathbb{A} 21'59	
transit end	15937 Oct 09 07:38	3° \mathbb{M} 14'36		inferior conj	15938 Sep 22 04:27	16° \mathbb{A} 05'15	1°19'03
desc. node	15937 Oct 09 17:36	2° \mathbb{M} 50'53		minimum elong	15938 Sep 22 06:25	15° \mathbb{A} 59'57	1°18'31
min. Earth dist.	15937 Oct 12 08:03	0° \mathbb{M} 24'10	0.60680 AU	min. Earth dist.	15938 Sep 24 21:57	13° \mathbb{A} 10'25	0.62952 AU
	15937 Oct 12 18:53	30° \mathbb{R} \mathbb{A}		desc. node	15938 Sep 26 14:58	11° \mathbb{A} 30'04	
morning rise	15937 Oct 15 23:52	27° \mathbb{A} 30'51		morning rise	15938 Sep 28 13:03	9° \mathbb{A} 54'12	
direct	15937 Oct 22 15:24	25° \mathbb{A} 20'14		direct	15938 Oct 05 05:12	7° \mathbb{A} 26'23	
	15937 Nov 02 07:11	0° \mathbb{M}		morning max el	15938 Oct 19 04:54	15° \mathbb{A} 24'57	27°52'18
morning max el	15937 Nov 05 21:04	3° \mathbb{M} 12'37	27°56'13		15938 Oct 31 03:57	0° \mathbb{M}	
	15937 Nov 25 15:05	0° \mathbb{A}			15938 Nov 18 06:55	0° \mathbb{A}	
asc. node	15937 Dec 04 06:05	15° \mathbb{A} 39'55		asc. node	15938 Nov 21 03:01	5° \mathbb{A} 31'22	
morning set	15937 Dec 08 18:59	24° \mathbb{A} 51'11		morning set	15938 Nov 22 15:49	8° \mathbb{A} 36'02	
	15937 Dec 11 05:08	0° \mathbb{B}		max. Earth dist.	15938 Nov 27 18:01	19° \mathbb{A} 15'46	1.31901 AU
max. Earth dist.	15937 Dec 14 16:12	7° \mathbb{B} 34'45	1.31174 AU				
				superior conj	15938 Nov 30 07:14	24° \mathbb{A} 48'20	1°16'00
superior conj	15937 Dec 15 22:54	10° \mathbb{B} 25'21	1°29'19	minimum elong	15938 Nov 30 05:00	24° \mathbb{A} 36'05	1°16'29
minimum elong	15937 Dec 15 21:15	10° \mathbb{B} 16'11	1°29'59		15938 Dec 02 15:54	0° \mathbb{B}	
evening rise	15937 Dec 22 15:27	25° \mathbb{B} 13'43		evening rise	15938 Dec 07 02:04	9° \mathbb{B} 41'17	
	15937 Dec 24 21:10	0° \approx			15938 Dec 17 08:20	0° \approx	
desc. node	15938 Jan 05 16:10	21° \approx 56'59		desc. node	15938 Dec 23 13:04	9° \approx 49'26	
	15938 Jan 11 03:02	0° \mathbb{H}		evening max el	15938 Dec 31 09:20	19° \approx 10'34	23°57'46
evening max el	15938 Jan 18 22:08	8° \mathbb{H} 59'51	25°34'41	retrograde	15939 Jan 13 21:54	25° \approx 53'07	
retrograde	15938 Feb 01 19:57	16° \mathbb{H} 00'00		evening set	15939 Jan 18 18:15	25° \approx 02'08	
evening set	15938 Feb 07 16:44	14° \mathbb{H} 41'07		min. Earth dist.	15939 Jan 24 20:51	22° \approx 03'07	0.55353 AU
min. Earth dist.	15938 Feb 12 10:57	12° \mathbb{H} 00'43	0.56964 AU	inferior conj	15939 Jan 26 18:02	20° \approx 55'43	-5°36'37
inferior conj	15938 Feb 15 06:52	10° \mathbb{H} 05'55	-4°26'19	minimum elong	15939 Jan 27 01:19	20° \approx 44'50	5°34'55
minimum elong	15938 Feb 15 16:10	9° \mathbb{H} 50'11	4°23'15	morning rise	15939 Feb 04 10:03	16° \approx 59'04	
morning rise	15938 Feb 23 18:29	5° \mathbb{H} 50'44		direct	15939 Feb 06 21:10	16° \approx 43'41	
direct	15938 Feb 25 19:00	5° \mathbb{H} 38'24		asc. node	15939 Feb 17 01:24	21° \approx 27'59	
asc. node	15938 Mar 02 04:03	6° \mathbb{H} 39'55		morning max el	15939 Feb 17 11:13	21° \approx 51'22	20°07'18
morning max el	15938 Mar 06 20:11	10° \mathbb{H} 04'10	18°59'37		15939 Feb 23 23:50	0° \mathbb{H}	
	15938 Mar 19 21:25	0° \mathbb{Y}		morning set	15939 Mar 07 12:37	21° \mathbb{H} 11'19	
morning set	15938 Mar 23 07:03	6° \mathbb{Y} 36'31			15939 Mar 11 19:48	0° \mathbb{Y}	
				superior conj	15939 Mar 15 06:05	6° \mathbb{Y} 56'53	0°51'55
superior conj	15938 Mar 31 19:14	23° \mathbb{Y} 13'48	0°24'29	minimum elong	15939 Mar 15 08:33	7° \mathbb{Y} 09'12	0°51'30
minimum elong	15938 Mar 31 20:45	23° \mathbb{Y} 21'00	0°23'59	max. Earth dist.	15939 Mar 21 01:57	18° \mathbb{Y} 17'43	1.36795 AU
desc. node	15938 Apr 03 17:31	28° \mathbb{Y} 44'23		desc. node	15939 Mar 21 14:10	19° \mathbb{Y} 15'09	
	15938 Apr 04 09:53	0° \mathbb{B}		evening rise	15939 Mar 24 19:51	25° \mathbb{Y} 12'27	
max. Earth dist.	15938 Apr 07 19:05	6° \mathbb{B} 07'46	1.39061 AU		15939 Mar 27 12:38	0° \mathbb{B}	
evening rise	15938 Apr 11 14:51	12° \mathbb{B} 48'12			15939 Apr 15 18:42	0° \mathbb{B}	
	15938 Apr 22 05:10	0° \mathbb{B}		evening max el	15939 Apr 29 07:19	16° \mathbb{B} 16'58	25°40'08
	15938 May 14 10:47	0° \mathbb{E}		retrograde	15939 May 11 17:40	23° \mathbb{B} 27'16	
evening max el	15938 May 16 17:41	2° \mathbb{E} 22'38	24°24'54	asc. node	15939 May 15 22:39	22° \mathbb{B} 15'23	
retrograde	15938 May 28 05:03	9° \mathbb{E} 05'13		evening set	15939 May 17 18:05	20° \mathbb{B} 57'41	
asc. node	15938 May 29 01:31	9° \mathbb{E} 02'07		min. Earth dist.	15939 May 21 23:58	16° \mathbb{B} 20'58	0.67741 AU
evening set	15938 Jun 02 18:23	6° \mathbb{E} 43'51		inferior conj	15939 May 23 11:36	14° \mathbb{B} 27'13	2°06'16
min. Earth dist.	15938 Jun 07 07:28	1° \mathbb{E} 30'31	0.68653 AU	minimum elong	15939 May 23 09:25	14° \mathbb{B} 34'11	2°04'56
inferior conj	15938 Jun 08 06:06	0° \mathbb{E} 14'25	2°37'32	morning rise	15939 May 29 01:16	8° \mathbb{B} 37'12	
minimum elong	15938 Jun 08 04:11	0° \mathbb{E} 20'51	2°36'21	direct	15939 Jun 01 11:53	7° \mathbb{B} 29'19	
	15938 Jun 08 10:23	30° \mathbb{R} \mathbb{B}		morning max el	15939 Jun 08 06:37	11° \mathbb{B} 09'02	18°56'23
morning rise	15938 Jun 13 14:06	24° \mathbb{B} 14'05		desc. node	15939 Jun 17 14:49	23° \mathbb{B} 01'16	
direct	15938 Jun 17 11:44	22° \mathbb{B} 47'02		greatest brilliancy	15939 Jun 21 13:58	28° \mathbb{B} 54'25	-0.7m
morning max el	15938 Jun 25 00:06	26° \mathbb{B} 58'37	19°53'18		15939 Jun 22 07:18	0° \mathbb{E}	
	15938 Jun 27 19:05	0° \mathbb{E}		morning set	15939 Jul 01 05:20	13° \mathbb{E} 42'33	
desc. node	15938 Jun 30 17:45	3° \mathbb{E} 38'57			15939 Jul 11 17:17	0° \mathbb{B}	
	15938 Jul 18 21:17	0° \mathbb{Q}		max. Earth dist.	15939 Jul 15 08:56	5° \mathbb{Q} 41'50	1.45747 AU
morning set	15938 Jul 21 20:38	4° \mathbb{Q} 32'41					
max. Earth dist.	15938 Aug 01 14:43	21° \mathbb{Q} 17'44	1.44757 AU	superior conj	15939 Jul 17 11:24	8° \mathbb{Q} 59'22	-2°13'50
				minimum elong	15939 Jul 17 13:04	9° \mathbb{Q} 05'57	2°14'29
superior conj	15938 Aug 06 18:19	29° \mathbb{Q} 31'55	-2°00'14		15939 Jul 30 16:41	0° \mathbb{B}	
minimum elong	15938 Aug 07 01:31	0° \mathbb{B} 00'59	2°00'13	evening rise	15939 Aug 01 14:08	3° \mathbb{B} 03'18	
	15938 Aug 07 01:16	0° \mathbb{B}		asc. node	15939 Aug 11 22:33	19° \mathbb{B} 37'40	
evening rise	15938 Aug 20 05:35	21° \mathbb{B} 53'33			15939 Aug 19 07:22	0° \mathbb{A}	
asc. node	15938 Aug 25 01:51	0° \mathbb{A} 05'53		evening max el	15939 Aug 21 10:01	2° \mathbb{A} 18'34	18°24'14
	15938 Aug 25 00:27	0° \mathbb{A}					

retrograde	15939 Aug 27 19:57	5° Ω 44'12		greatest brilliancy	15940 Jul 22 10:57	29° Ω 29'50	-0.8m
evening set	15939 Aug 30 21:21	4° Ω 52'01			15940 Jul 22 18:55	0° Π	
	15939 Sep 05 03:13	30° \mathbb{R} Π		asc. node	15940 Jul 28 19:16	8° Π 46'07	
inferior conj	15939 Sep 05 16:59	29° Π 19'21	2°08'59	evening max el	15940 Aug 03 20:48	16° Π 07'43	19°01'04
minimum elong	15939 Sep 05 19:19	29° Π 12'25	2°08'16	retrograde	15940 Aug 10 16:04	19° Π 51'44	
min. Earth dist.	15939 Sep 07 21:26	26° Π 44'13	0.65009 AU	evening set	15940 Aug 14 02:55	18° Π 42'48	
morning rise	15939 Sep 11 15:55	22° Π 56'52		inferior conj	15940 Aug 19 14:48	12° Π 56'12	2°42'20
desc. node	15939 Sep 13 12:21	21° Π 39'19		minimum elong	15940 Aug 19 16:43	12° Π 50'04	2°41'40
direct	15939 Sep 18 03:22	20° Π 20'30		min. Earth dist.	15940 Aug 21 05:15	10° Π 53'14	0.66709 AU
morning max el	15939 Oct 01 15:45	28° Π 14'17	27°14'04	morning rise	15940 Aug 25 05:44	6° Π 29'32	
	15939 Oct 03 08:23	0° Ω		desc. node	15940 Aug 30 09:43	3° Π 56'47	
	15939 Oct 24 22:46	0° \mathbb{L}		direct	15940 Aug 31 08:51	3° Π 53'11	
morning set	15939 Nov 06 03:05	21° \mathbb{L} 52'54		morning max el	15940 Sep 13 03:22	11° Π 28'53	26°09'34
asc. node	15939 Nov 07 23:53	25° \mathbb{L} 33'45			15940 Sep 27 23:14	0° Ω	
	15939 Nov 10 04:34	0° \mathbb{A}			15940 Oct 16 13:26	0° \mathbb{L}	
max. Earth dist.	15939 Nov 10 11:49	0° \mathbb{A} 37'12	1.33193 AU	morning set	15940 Oct 19 01:36	4° \mathbb{L} 35'01	
				max. Earth dist.	15940 Oct 22 20:00	11° \mathbb{L} 44'03	1.35003 AU
superior conj	15939 Nov 14 10:54	8° \mathbb{A} 55'09	0°56'33	asc. node	15940 Oct 24 20:41	15° \mathbb{L} 42'48	
minimum elong	15939 Nov 14 08:35	8° \mathbb{A} 42'49	0°56'52				
evening rise	15939 Nov 21 12:38	24° \mathbb{A} 07'16		superior conj	15940 Oct 28 07:23	22° \mathbb{L} 39'56	0°31'04
	15939 Nov 24 07:50	0° \mathbb{B}		minimum elong	15940 Oct 28 05:43	22° \mathbb{L} 31'27	0°31'20
desc. node	15939 Dec 10 10:01	26° \mathbb{B} 33'03			15940 Oct 31 20:17	0° \mathbb{A}	
evening max el	15939 Dec 12 19:39	29° \mathbb{B} 05'56	22°14'24	evening rise	15940 Nov 04 21:14	8° \mathbb{A} 27'13	
	15939 Dec 13 18:38	0° \approx			15940 Nov 16 07:47	0° \mathbb{B}	
retrograde	15939 Dec 25 11:43	5° \approx 22'01		evening max el	15940 Nov 23 15:05	9° \mathbb{B} 25'16	20°41'48
evening set	15939 Dec 29 01:12	4° \approx 54'00		desc. node	15940 Nov 26 07:04	11° \mathbb{B} 45'42	
min. Earth dist.	15940 Jan 06 02:27	1° \approx 16'48	0.54483 AU	retrograde	15940 Dec 04 21:55	15° \mathbb{B} 01'33	
inferior conj	15940 Jan 06 13:00	1° \approx 02'04	-6°01'42	evening set	15940 Dec 07 08:39	14° \mathbb{B} 46'55	
minimum elong	15940 Jan 06 12:03	1° \approx 03'23	6°00'58	inferior conj	15940 Dec 16 04:10	10° \mathbb{B} 53'57	-5°25'40
	15940 Jan 08 09:52	30° \mathbb{R} \mathbb{B}		minimum elong	15940 Dec 15 19:24	11° \mathbb{B} 06'36	5°23'10
morning rise	15940 Jan 14 23:52	27° \mathbb{B} 14'52		min. Earth dist.	15940 Dec 17 07:55	10° \mathbb{B} 13'55	0.54534 AU
direct	15940 Jan 18 08:06	26° \mathbb{B} 49'57		morning rise	15940 Dec 24 06:02	6° \mathbb{B} 58'07	
	15940 Jan 27 05:58	0° \approx		direct	15940 Dec 28 15:48	6° \mathbb{B} 16'23	
morning max el	15940 Jan 30 11:11	2° \approx 41'16	21°37'50	morning max el	15941 Jan 10 23:14	12° \mathbb{B} 46'53	23°24'43
asc. node	15940 Feb 03 22:43	7° \approx 43'10		asc. node	15941 Jan 20 19:59	25° \mathbb{B} 07'13	
	15940 Feb 17 01:51	0° \mathbb{H}			15941 Jan 23 20:09	0° \approx	
morning set	15940 Feb 19 22:21	5° \mathbb{H} 53'52		morning set	15941 Feb 03 10:04	20° \approx 37'54	
					15941 Feb 07 17:54	0° \mathbb{H}	
superior conj	15940 Feb 27 03:02	21° \mathbb{H} 05'42	1°12'56				
minimum elong	15940 Feb 27 05:30	21° \mathbb{H} 18'33	1°12'48	superior conj	15941 Feb 10 07:03	5° \mathbb{H} 31'47	1°27'31
	15940 Mar 02 11:23	0° \mathbb{Y}		minimum elong	15941 Feb 10 08:55	5° \mathbb{H} 41'47	1°27'45
max. Earth dist.	15940 Mar 02 13:18	0° \mathbb{Y} 09'38	1.34741 AU	max. Earth dist.	15941 Feb 13 07:46	11° \mathbb{H} 59'57	1.33065 AU
evening rise	15940 Mar 06 16:53	8° \mathbb{Y} 15'14		evening rise	15941 Feb 18 02:35	21° \mathbb{H} 48'10	
desc. node	15940 Mar 07 10:47	9° \mathbb{Y} 39'51		desc. node	15941 Feb 22 07:27	29° \mathbb{H} 54'22	
	15940 Mar 19 03:44	0° \mathbb{B}			15941 Feb 22 08:39	0° \mathbb{Y}	
	15940 Apr 10 19:49	0° \mathbb{I}			15941 Mar 12 23:05	0° \mathbb{B}	
evening max el	15940 Apr 10 21:03	0° \mathbb{I} 03'00	26°41'56	evening max el	15941 Mar 24 10:14	13° \mathbb{B} 30'59	27°22'55
retrograde	15940 Apr 24 00:55	7° \mathbb{I} 29'40		retrograde	15941 Apr 07 01:59	21° \mathbb{B} 03'26	
evening set	15940 Apr 30 10:58	4° \mathbb{I} 57'01		evening set	15941 Apr 13 18:54	18° \mathbb{B} 34'23	
asc. node	15940 May 01 19:51	3° \mathbb{I} 44'31		min. Earth dist.	15941 Apr 17 14:46	15° \mathbb{B} 04'17	0.64626 AU
min. Earth dist.	15940 May 04 11:00	0° \mathbb{I} 55'16	0.66383 AU	asc. node	15941 Apr 18 17:05	13° \mathbb{B} 53'54	
	15940 May 05 05:48	30° \mathbb{R} \mathbb{B}		inferior conj	15941 Apr 20 03:44	12° \mathbb{B} 19'27	0°26'59
inferior conj	15940 May 06 11:40	28° \mathbb{B} 30'54	1°23'07	minimum elong	15941 Apr 20 02:59	12° \mathbb{B} 21'29	0°26'13
minimum elong	15940 May 06 09:47	28° \mathbb{B} 36'29	1°21'52	morning rise	15941 Apr 26 13:09	6° \mathbb{B} 55'14	
morning rise	15940 May 12 09:48	22° \mathbb{B} 52'51		direct	15941 Apr 29 04:19	6° \mathbb{B} 19'24	
direct	15940 May 15 10:13	22° \mathbb{B} 02'21		morning max el	15941 May 05 11:58	9° \mathbb{B} 34'22	17°52'21
morning max el	15940 May 21 19:20	25° \mathbb{B} 23'23	18°15'50		15941 May 19 14:24	0° \mathbb{I}	
	15940 May 25 19:16	0° \mathbb{I}		desc. node	15941 May 21 08:43	2° \mathbb{I} 55'57	
desc. node	15940 Jun 03 11:48	12° \mathbb{I} 49'15		morning set	15941 May 22 20:45	5° \mathbb{I} 26'03	
morning set	15940 Jun 10 11:19	23° \mathbb{I} 55'04					
	15940 Jun 14 06:58	0° \mathbb{E}		superior conj	15941 Jun 05 14:11	27° \mathbb{I} 52'47	-1°43'21
				minimum elong	15941 Jun 05 05:31	27° \mathbb{I} 18'13	1°43'18
superior conj	15940 Jun 25 20:17	18° \mathbb{E} 11'15	-2°07'40		15941 Jun 06 22:09	0° \mathbb{E}	
minimum elong	15940 Jun 25 14:24	17° \mathbb{E} 48'18	2°08'10	max. Earth dist.	15941 Jun 10 01:10	4° \mathbb{E} 56'19	1.45485 AU
max. Earth dist.	15940 Jun 27 05:23	20° \mathbb{E} 20'21	1.45991 AU	evening rise	15941 Jun 21 11:34	22° \mathbb{E} 38'58	
	15940 Jul 03 10:19	0° Ω			15941 Jun 26 07:26	0° Ω	
evening rise	15940 Jul 11 21:46	13° Ω 11'20		greatest brilliancy	15941 Jul 06 04:21	14° Ω 41'23	-0.6m

asc. node	15941 Jul 15 16:01	27°♄22'55		max. Earth dist.	15942 May 23 18:23	19°♄15'47	1.44286 AU
evening max el	15941 Jul 18 02:14	0°♄00'30	19°53'55		15942 May 30 13:54	0°♄	
	15941 Jul 18 02:02	0°♄		evening rise	15942 May 31 23:20	2°♄09'15	
retrograde	15941 Jul 25 14:40	4°♄14'57			15942 Jun 19 20:13	0°♄	
evening set	15941 Jul 29 11:38	2°♄48'23		evening max el	15942 Jul 01 01:45	13°♄54'47	21°00'29
	15941 Aug 01 07:56	30°♄♄		asc. node	15942 Jul 02 12:51	15°♄17'43	
inferior conj	15941 Aug 03 18:57	26°♄49'24	3°01'35	retrograde	15942 Jul 09 13:39	18°♄48'50	
minimum elong	15941 Aug 03 20:03	26°♄45'40	3°00'58	evening set	15942 Jul 13 21:26	17°♄04'42	
min. Earth dist.	15941 Aug 04 19:29	25°♄26'38	0.67990 AU	inferior conj	15942 Jul 19 02:59	10°♄54'42	3°08'41
morning rise	15941 Aug 09 04:01	20°♄23'55		minimum elong	15942 Jul 19 03:08	10°♄54'11	3°08'02
direct	15941 Aug 14 20:32	17°♄54'59		min. Earth dist.	15942 Jul 19 14:00	10°♄16'29	0.68806 AU
desc. node	15941 Aug 17 07:05	18°♄18'26		morning rise	15942 Jul 24 08:33	4°♄33'57	
morning max el	15941 Aug 26 14:23	24°♄57'04	24°48'03	direct	15942 Jul 29 13:18	2°♄18'28	
	15941 Aug 31 04:09	0°♄		desc. node	15942 Aug 04 04:26	4°♄22'56	
	15941 Sep 21 10:11	0°♄		morning max el	15942 Aug 09 01:29	8°♄33'48	23°19'15
morning set	15941 Oct 01 07:18	16°♄32'18			15942 Aug 25 21:36	0°♄	
max. Earth dist.	15941 Oct 04 20:14	22°♄53'01	1.37219 AU	morning set	15942 Sep 12 16:03	27°♄35'29	
	15941 Oct 08 15:56	0°♄			15942 Sep 14 02:29	0°♄	
				max. Earth dist.	15942 Sep 16 18:48	4°♄34'50	1.39628 AU
superior conj	15941 Oct 11 17:29	5°♄54'17	0°00'02				
minimum elong	15941 Oct 11 17:27	5°♄54'08	0°00'26	superior conj	15942 Sep 24 13:28	18°♄30'01	-0°35'12
behind sun begin	15941 Oct 11 10:51	5°♄21'57		minimum elong	15942 Sep 24 16:06	18°♄42'12	0°34'33
behind sun end	15941 Oct 12 00:03	6°♄26'24		asc. node	15942 Sep 28 14:05	26°♄03'48	
asc. node	15941 Oct 11 17:24	5°♄53'52			15942 Sep 30 15:26	0°♄	
evening rise	15941 Oct 20 01:31	22°♄34'27		evening rise	15942 Oct 03 22:43	6°♄22'35	
	15941 Oct 23 19:18	0°♄			15942 Oct 17 19:26	0°♄	
evening max el	15941 Nov 06 00:56	20°♄31'38	19°29'20	evening max el	15942 Oct 20 00:08	2°♄28'00	18°39'12
desc. node	15941 Nov 13 04:12	25°♄02'11		retrograde	15942 Oct 28 04:40	6°♄36'30	
retrograde	15941 Nov 15 16:27	25°♄21'17		evening set	15942 Oct 30 02:55	6°♄23'31	
evening set	15941 Nov 17 14:50	25°♄10'31		desc. node	15942 Oct 31 01:25	6°♄08'17	
inferior conj	15941 Nov 26 05:59	21°♄04'51	-4°00'33	inferior conj	15942 Nov 07 03:42	1°♄57'40	-2°16'35
minimum elong	15941 Nov 25 20:31	21°♄20'05	3°56'41	minimum elong	15942 Nov 06 22:11	2°♄08'00	2°13'44
min. Earth dist.	15941 Nov 28 16:30	19°♄30'49	0.55508 AU		15942 Nov 09 18:36	30°♄♄	
morning rise	15941 Dec 04 00:10	16°♄41'50		min. Earth dist.	15942 Nov 10 06:42	29°♄38'05	0.57220 AU
direct	15941 Dec 09 08:59	15°♄36'57		morning rise	15942 Nov 14 14:12	26°♄58'29	
morning max el	15941 Dec 23 07:53	22°♄38'33	25°13'00	direct	15942 Nov 20 16:17	25°♄27'12	
	15941 Dec 29 20:24	0°♄			15942 Dec 01 14:48	0°♄	
asc. node	15942 Jan 07 17:12	13°♄23'04		morning max el	15942 Dec 04 21:28	2°♄52'17	26°43'24
	15942 Jan 16 09:59	0°♄			15942 Dec 24 08:01	0°♄	
morning set	15942 Jan 18 21:51	5°♄17'28		asc. node	15942 Dec 25 14:22	2°♄17'52	
				morning set	15943 Jan 03 07:59	19°♄48'19	
					15943 Jan 07 23:18	0°♄	
superior conj	15942 Jan 25 15:35	20°♄07'14	1°35'50				
minimum elong	15942 Jan 25 16:30	20°♄12'17	1°36'22	superior conj	15943 Jan 10 02:31	4°♄46'21	1°38'02
max. Earth dist.	15942 Jan 27 09:18	23°♄56'47	1.31861 AU	minimum elong	15943 Jan 10 02:22	4°♄45'32	1°38'45
	15942 Jan 30 04:27	0°♄		max. Earth dist.	15943 Jan 10 15:46	6°♄00'26	1.31173 AU
evening rise	15942 Feb 01 21:50	5°♄43'08		evening rise	15943 Jan 17 00:06	19°♄54'10	
desc. node	15942 Feb 09 04:08	19°♄53'03			15943 Jan 21 22:49	0°♄	
	15942 Feb 14 23:20	0°♄		desc. node	15943 Jan 27 00:51	9°♄29'37	
evening max el	15942 Mar 06 21:21	26°♄29'16	27°36'07		15943 Feb 09 09:24	0°♄	
	15942 Mar 10 23:54	0°♄		evening max el	15943 Feb 17 03:59	8°♄45'45	27°15'58
retrograde	15942 Mar 20 19:47	3°♄58'21		retrograde	15943 Mar 03 04:37	16°♄05'07	
evening set	15942 Mar 27 15:24	1°♄40'35		evening set	15943 Mar 09 21:28	14°♄05'55	
	15942 Mar 29 20:16	30°♄♄		min. Earth dist.	15943 Mar 13 18:19	11°♄20'57	0.60322 AU
min. Earth dist.	15942 Mar 31 09:36	28°♄36'53	0.62555 AU	inferior conj	15943 Mar 16 23:12	8°♄38'15	-2°05'40
inferior conj	15942 Apr 03 08:46	25°♄45'02	-0°42'55	minimum elong	15943 Mar 17 03:53	8°♄28'17	2°03'51
minimum elong	15942 Apr 03 10:13	25°♄41'32	0°42'37	asc. node	15943 Mar 23 11:46	4°♄11'07	
asc. node	15942 Apr 05 14:24	23°♄39'59		morning rise	15943 Mar 24 13:44	3°♄49'14	
morning rise	15942 Apr 10 07:57	20°♄37'03		direct	15943 Mar 26 15:08	3°♄32'13	
direct	15942 Apr 12 15:13	20°♄12'26		morning max el	15943 Apr 02 20:56	7°♄09'26	17°58'55
morning max el	15942 Apr 19 05:37	23°♄33'01	17°46'26		15943 Apr 17 13:47	0°♄	
	15942 Apr 24 10:01	0°♄		morning set	15943 Apr 18 10:46	1°♄36'13	
morning set	15942 May 05 06:35	18°♄05'56		desc. node	15943 Apr 25 02:21	13°♄43'31	
desc. node	15942 May 08 05:35	23°♄15'43					
	15942 May 12 03:16	0°♄		superior conj	15943 Apr 28 19:00	20°♄16'38	-0°30'00
superior conj	15942 May 17 04:51	8°♄32'53	-1°08'13	minimum elong	15943 Apr 28 16:24	20°♄05'18	0°30'08
minimum elong	15942 May 16 22:30	8°♄06'25	1°08'02		15943 May 04 11:07	0°♄	

max. Earth dist.	15943 May 06 07:44	3° Π 05'49	1.42522 AU	desc. node	15944 Apr 10 23:04	4° \mathcal{B} 15'37	
evening rise	15943 May 12 00:09	12° Π 18'34		max. Earth dist.	15944 Apr 17 16:39	16° \mathcal{B} 15'44	1.40376 AU
	15943 May 23 13:41	0° \mathfrak{E}		evening rise	15944 Apr 21 21:23	23° \mathcal{B} 22'25	
evening max el	15943 Jun 13 19:58	27° \mathfrak{E} 48'55	22°17'05		15944 Apr 25 22:51	0° Π	
	15943 Jun 16 04:44	0° Ω			15944 May 16 11:05	0° \mathfrak{E}	
asc. node	15943 Jun 19 09:47	2° Ω 15'52		evening max el	15944 May 26 10:42	11° \mathfrak{E} 43'21	23°38'23
retrograde	15943 Jun 23 11:21	3° Ω 27'14		asc. node	15944 Jun 05 06:47	18° \mathfrak{E} 00'20	
evening set	15943 Jun 28 06:33	1° Ω 26'32		retrograde	15944 Jun 06 06:27	18° \mathfrak{E} 04'31	
	15943 Jun 29 18:03	30° \mathcal{R} \mathfrak{E}		evening set	15944 Jun 11 13:19	15° \mathfrak{E} 49'31	
inferior conj	15943 Jul 03 12:48	25° \mathfrak{E} 07'05	3°04'50	inferior conj	15944 Jun 16 22:28	9° \mathfrak{E} 22'47	2°50'32
minimum elong	15943 Jul 03 12:01	25° \mathfrak{E} 09'49	3°04'01	minimum elong	15944 Jun 16 20:54	9° \mathfrak{E} 28'10	2°49'30
min. Earth dist.	15943 Jul 03 10:36	25° \mathfrak{E} 14'48	0.69135 AU	min. Earth dist.	15944 Jun 16 07:13	10° \mathfrak{E} 15'05	0.68972 AU
morning rise	15943 Jul 08 17:20	18° \mathfrak{E} 53'19		morning rise	15944 Jun 22 04:28	3° \mathfrak{E} 17'23	
direct	15943 Jul 13 09:49	16° \mathfrak{E} 55'24		direct	15944 Jun 26 08:48	1° \mathfrak{E} 39'05	
desc. node	15943 Jul 22 01:45	21° \mathfrak{E} 45'28		morning max el	15944 Jul 04 10:33	6° \mathfrak{E} 14'04	20°32'59
morning max el	15943 Jul 22 15:15	22° \mathfrak{E} 18'40	21°51'55	desc. node	15944 Jul 07 22:59	10° \mathfrak{E} 06'00	
	15943 Jul 29 06:58	0° Ω			15944 Jul 22 10:10	0° Ω	
	15943 Aug 19 04:17	0° \mathcal{M}		morning set	15944 Aug 02 12:49	16° Ω 47'53	
morning set	15943 Aug 24 00:57	7° \mathcal{M} 37'41			15944 Aug 10 22:25	0° \mathcal{M}	
max. Earth dist.	15943 Aug 29 21:56	17° \mathcal{M} 09'48	1.41943 AU	max. Earth dist.	15944 Aug 11 07:39	0° \mathcal{M} 36'59	1.43888 AU
	15943 Sep 06 11:08	0° \mathfrak{L}					
superior conj	15943 Sep 06 14:54	0° \mathfrak{L} 16'28	-1°11'54	superior conj	15944 Aug 17 17:49	11° \mathcal{M} 05'17	-1°45'14
minimum elong	15943 Sep 06 20:44	0° \mathfrak{L} 42'00	1°11'08	minimum elong	15944 Aug 18 01:38	11° \mathcal{M} 37'44	1°44'48
asc. node	15943 Sep 15 10:45	16° \mathfrak{L} 08'30			15944 Aug 28 20:00	0° \mathfrak{L}	
evening rise	15943 Sep 17 09:11	19° \mathfrak{L} 41'59		evening rise	15944 Aug 30 04:20	2° \mathfrak{L} 21'08	
	15943 Sep 23 01:16	0° \mathcal{M}		asc. node	15944 Sep 01 07:24	6° \mathfrak{L} 04'10	
evening max el	15943 Oct 03 08:36	15° \mathcal{M} 05'36	18°10'24	evening max el	15944 Sep 15 22:06	28° \mathfrak{L} 14'27	18°01'20
retrograde	15943 Oct 10 12:11	18° \mathcal{M} 45'04			15944 Sep 17 23:27	0° \mathcal{M}	
evening set	15943 Oct 12 15:57	18° \mathcal{M} 25'36		retrograde	15944 Sep 22 11:23	1° \mathcal{M} 38'19	
desc. node	15943 Oct 17 22:42	15° \mathcal{M} 20'37		evening set	15944 Sep 24 22:49	1° \mathcal{M} 08'39	
inferior conj	15943 Oct 19 23:09	13° \mathcal{M} 38'11	-0°38'40		15944 Sep 27 01:28	30° \mathcal{R} \mathfrak{L}	
minimum elong	15943 Oct 19 21:46	13° \mathcal{M} 41'10	0°37'37	inferior conj	15944 Oct 01 13:41	26° \mathfrak{L} 01'45	0°41'44
min. Earth dist.	15943 Oct 23 05:01	10° \mathcal{M} 49'10	0.59368 AU	minimum elong	15944 Oct 01 14:55	25° \mathfrak{L} 58'41	0°41'34
morning rise	15943 Oct 27 00:15	8° \mathcal{M} 04'10		desc. node	15944 Oct 03 20:03	23° \mathfrak{L} 45'11	
direct	15943 Nov 02 12:42	6° \mathcal{M} 07'05		min. Earth dist.	15944 Oct 04 13:17	23° \mathfrak{L} 03'16	0.61661 AU
morning max el	15943 Nov 16 19:23	13° \mathcal{M} 50'38	27°40'59	morning rise	15944 Oct 08 04:16	20° \mathfrak{L} 01'03	
	15943 Nov 29 18:09	0° \mathcal{X}		direct	15944 Oct 14 20:35	17° \mathfrak{L} 42'25	
asc. node	15943 Dec 12 11:28	21° \mathcal{X} 41'06		morning max el	15944 Oct 29 00:34	25° \mathfrak{L} 38'33	27°59'14
	15943 Dec 16 15:36	0° \mathfrak{Z}			15944 Nov 02 01:40	0° \mathcal{M}	
morning set	15943 Dec 18 14:39	4° \mathfrak{Z} 05'54		asc. node	15944 Nov 22 06:42	0° \mathcal{X}	
max. Earth dist.	15943 Dec 24 23:38	18° \mathfrak{Z} 03'35	1.31017 AU	morning set	15944 Nov 28 08:27	11° \mathcal{X} 24'17	
				max. Earth dist.	15944 Dec 01 15:43	18° \mathcal{X} 04'35	
superior conj	15943 Dec 25 13:57	19° \mathfrak{Z} 23'44	1°34'15		15944 Dec 07 04:50	29° \mathcal{X} 55'40	1.31413 AU
minimum elong	15943 Dec 25 12:48	19° \mathfrak{Z} 17'17	1°34'57		15944 Dec 07 05:38	0° \mathfrak{Z}	
	15943 Dec 30 08:10	0° \mathfrak{A}		superior conj	15944 Dec 08 23:58	3° \mathfrak{Z} 53'28	1°24'25
evening rise	15944 Jan 01 07:09	4° \mathfrak{A} 15'48		minimum elong	15944 Dec 08 22:01	3° \mathfrak{Z} 42'42	1°25'00
desc. node	15944 Jan 13 21:36	28° \mathfrak{A} 35'47		evening rise	15944 Dec 15 16:58	18° \mathfrak{Z} 42'27	
	15944 Jan 14 17:53	0° \mathcal{H}			15944 Dec 21 03:10	0° \mathfrak{A}	
evening max el	15944 Jan 30 03:19	20° \mathcal{H} 10'42	26°20'42	desc. node	15944 Dec 30 18:26	16° \mathfrak{A} 59'30	
retrograde	15944 Feb 13 02:47	27° \mathcal{H} 18'04			15945 Jan 10 00:14	0° \mathcal{H}	
evening set	15944 Feb 19 09:42	25° \mathcal{H} 43'11		evening max el	15945 Jan 10 18:00	0° \mathcal{H} 43'15	24°55'22
min. Earth dist.	15944 Feb 23 16:39	23° \mathcal{H} 05'44	0.58119 AU	retrograde	15945 Jan 24 12:45	7° \mathcal{H} 37'08	
inferior conj	15944 Feb 26 19:18	20° \mathcal{H} 49'00	-3°35'50	evening set	15945 Jan 30 00:27	6° \mathcal{H} 29'59	
minimum elong	15944 Feb 27 03:26	20° \mathcal{H} 34'04	3°32'49	min. Earth dist.	15945 Feb 04 06:07	3° \mathcal{H} 44'12	0.56202 AU
morning rise	15944 Mar 06 00:28	16° \mathcal{H} 21'33		inferior conj	15945 Feb 06 18:20	2° \mathcal{H} 08'13	-4°59'57
direct	15944 Mar 07 23:42	16° \mathcal{H} 08'32		minimum elong	15945 Feb 07 03:33	1° \mathcal{H} 53'30	4°57'17
asc. node	15944 Mar 09 09:10	16° \mathcal{H} 15'20			15945 Feb 10 07:18	30° \mathcal{R} \mathfrak{A}	
morning max el	15944 Mar 16 06:09	20° \mathcal{H} 13'11	18°31'17	morning rise	15945 Feb 15 09:06	28° \mathfrak{A} 02'04	
	15944 Mar 23 13:31	0° \mathcal{Y}		direct	15945 Feb 17 12:47	27° \mathfrak{A} 49'08	
morning set	15944 Apr 01 03:56	15° \mathcal{Y} 41'05		asc. node	15945 Feb 24 06:33	0° \mathcal{H} 05'31	
	15944 Apr 08 15:58	0° \mathcal{B}			15945 Feb 24 03:17	0° \mathcal{H}	
superior conj	15944 Apr 10 05:58	2° \mathcal{B} 56'46	0°05'58	morning max el	15945 Feb 27 05:02	2° \mathcal{H} 31'35	19°25'36
minimum elong	15944 Apr 10 06:22	2° \mathcal{B} 58'36	0°05'32	morning set	15945 Mar 16 05:53	0° \mathcal{Y} 07'17	
behind sun begin	15944 Apr 09 23:39	2° \mathcal{B} 27'31			15945 Mar 16 04:25	0° \mathcal{Y}	
behind sun end	15944 Apr 10 13:04	3° \mathcal{B} 29'35		superior conj	15945 Mar 24 09:18	16° \mathcal{Y} 20'10	0°36'52

minimum elong	15945 Mar 24 11:21	16° Υ 30'09	0°36'22	superior conj	15946 Mar 08 00:51	0° Υ 15'16	1°01'36
desc. node	15945 Mar 28 19:44	24° Υ 47'44		minimum elong	15946 Mar 08 03:24	0° Υ 28'19	1°01'18
max. Earth dist.	15945 Mar 30 22:41	28° Υ 42'39	1.38079 AU	max. Earth dist.	15946 Mar 13 06:27	10° Υ 40'20	1.35881 AU
	15945 Mar 31 15:43	0° \mathcal{B}		desc. node	15946 Mar 15 16:21	15° Υ 16'21	
evening rise	15945 Apr 03 15:26	5° \mathcal{B} 19'03		evening rise	15946 Mar 17 03:41	18° Υ 00'46	
	15945 Apr 18 22:50	0° Π			15946 Mar 23 22:28	0° \mathcal{B}	
evening max el	15945 May 09 00:04	25° Π 37'38	24°58'00		15946 Apr 13 04:24	0° Π	
	15945 May 14 03:27	0° \mathfrak{D}		evening max el	15946 Apr 21 13:37	9° Π 28'51	26°08'34
retrograde	15945 May 20 21:52	2° \mathfrak{D} 33'59		retrograde	15946 May 04 08:30	16° Π 48'20	
asc. node	15945 May 23 03:53	2° \mathfrak{D} 12'46		asc. node	15946 May 10 01:03	14° Π 40'46	
evening set	15945 May 26 16:06	0° \mathfrak{D} 08'16		evening set	15946 May 10 13:07	14° Π 16'44	
	15945 May 26 19:53	30° $\mathcal{R}\Pi$		min. Earth dist.	15946 May 14 16:19	9° Π 55'00	0.67208 AU
min. Earth dist.	15945 May 31 01:48	25° Π 10'50	0.68320 AU	inferior conj	15946 May 16 09:31	7° Π 47'04	1°49'30
inferior conj	15945 Jun 01 06:03	23° Π 37'38	2°25'39	minimum elong	15946 May 16 07:22	7° Π 53'43	1°48'09
minimum elong	15945 Jun 01 03:58	23° Π 44'31	2°24'24	morning rise	15946 May 22 02:25	2° Π 01'49	
morning rise	15945 Jun 06 16:09	17° Π 41'43		direct	15946 May 25 08:29	1° Π 01'45	
direct	15945 Jun 10 08:55	16° Π 23'11		morning max el	15946 May 31 22:18	4° Π 32'22	18°37'02
morning max el	15945 Jun 17 12:59	20° Π 19'50	19°27'11	desc. node	15946 Jun 11 17:10	18° Π 43'19	
desc. node	15945 Jun 24 20:07	29° Π 09'06			15946 Jun 19 00:41	0° \mathfrak{D}	
	15945 Jun 25 10:54	0° \mathfrak{D}		morning set	15946 Jun 22 08:48	5° \mathfrak{D} 13'12	
greatest brilliancy	15945 Jun 30 04:31	6° \mathfrak{D} 47'00	-0.7m	max. Earth dist.	15946 Jul 07 17:48	29° \mathfrak{D} 13'16	1.45936 AU
morning set	15945 Jul 12 16:46	25° \mathfrak{D} 41'44					
	15945 Jul 15 11:53	0° Ω		superior conj	15946 Jul 08 09:13	0° Ω 13'25	-2°13'43
max. Earth dist.	15945 Jul 24 22:55	14° Ω 43'20	1.45258 AU	minimum elong	15946 Jul 08 07:29	0° Ω 06'38	2°14'25
					15946 Jul 08 05:47	0° Ω	
superior conj	15945 Jul 28 21:37	20° Ω 57'44	-2°08'13	evening rise	15946 Jul 24 00:29	24° Ω 48'46	
minimum elong	15945 Jul 29 03:08	21° Ω 19'39	2°08'32		15946 Jul 27 06:52	0° \mathfrak{H}	
	15945 Aug 03 12:43	0° \mathfrak{H}		greatest brilliancy	15946 Jul 31 07:50	6° \mathfrak{H} 23'34	-0.9m
evening rise	15945 Aug 12 02:50	14° \mathfrak{H} 06'45		asc. node	15946 Aug 06 00:44	15° \mathfrak{H} 09'16	
asc. node	15945 Aug 19 04:03	25° \mathfrak{H} 46'30		evening max el	15946 Aug 14 02:01	25° \mathfrak{H} 30'34	18°37'56
	15945 Aug 21 19:15	0° \mathfrak{L}		retrograde	15946 Aug 20 14:58	29° \mathfrak{H} 02'25	
evening max el	15945 Aug 30 12:58	11° \mathfrak{L} 45'46	18°10'48	evening set	15946 Aug 23 20:16	28° \mathfrak{H} 03'24	
retrograde	15945 Sep 05 21:38	15° \mathfrak{L} 07'08		inferior conj	15946 Aug 29 12:14	22° \mathfrak{H} 24'55	2°24'59
evening set	15945 Sep 08 17:41	14° \mathfrak{L} 24'02		minimum elong	15946 Aug 29 14:27	22° \mathfrak{H} 18'04	2°24'15
inferior conj	15945 Sep 14 19:22	9° \mathfrak{L} 00'22	1°42'23	min. Earth dist.	15946 Aug 31 10:52	20° \mathfrak{H} 01'56	0.65779 AU
minimum elong	15945 Sep 14 21:37	8° \mathfrak{L} 54'02	1°41'43	morning rise	15946 Sep 04 07:31	15° \mathfrak{H} 59'55	
min. Earth dist.	15945 Sep 17 07:36	6° \mathfrak{L} 11'47	0.63856 AU	desc. node	15946 Sep 07 14:48	13° \mathfrak{H} 57'23	
morning rise	15945 Sep 20 23:39	2° \mathfrak{L} 43'07		direct	15946 Sep 10 15:56	13° \mathfrak{H} 22'12	
desc. node	15945 Sep 20 17:25	2° \mathfrak{L} 55'25		morning max el	15946 Sep 23 21:26	21° \mathfrak{H} 10'29	26°49'15
direct	15945 Sep 27 14:15	0° \mathfrak{L} 10'25			15946 Oct 01 13:38	0° \mathfrak{L}	
morning max el	15945 Oct 11 10:13	8° \mathfrak{L} 09'27	27°39'48		15946 Oct 21 12:36	0° \mathfrak{M}	
	15945 Oct 28 08:41	0° \mathfrak{M}		morning set	15946 Oct 29 15:09	14° \mathfrak{M} 42'26	
	15945 Nov 14 12:53	0° \mathcal{X}		asc. node	15946 Nov 02 02:09	21° \mathfrak{M} 27'22	
morning set	15945 Nov 15 08:53	1° \mathcal{X} 39'13		max. Earth dist.	15946 Nov 02 16:57	22° \mathfrak{M} 41'21	1.33904 AU
asc. node	15945 Nov 15 05:20	1° \mathcal{X} 21'32			15946 Nov 06 06:46	0° \mathcal{X}	
max. Earth dist.	15945 Nov 20 03:34	11° \mathcal{X} 28'57	1.32380 AU				
				superior conj	15946 Nov 07 07:33	2° \mathcal{X} 09'27	0°46'28
superior conj	15945 Nov 23 06:36	18° \mathcal{X} 10'52	1°08'30	minimum elong	15946 Nov 07 05:25	1° \mathcal{X} 58'14	0°46'45
minimum elong	15945 Nov 23 04:15	17° \mathcal{X} 58'10	1°08'54	evening rise	15946 Nov 14 13:45	17° \mathcal{X} 34'12	
	15945 Nov 28 16:37	0° \mathfrak{Z}			15946 Nov 20 16:39	0° \mathfrak{Z}	
evening rise	15945 Nov 30 03:48	3° \mathfrak{Z} 10'13		evening max el	15946 Dec 04 16:50	20° \mathfrak{Z} 44'55	21°32'58
	15945 Dec 14 11:53	0° \approx		desc. node	15946 Dec 04 12:19	20° \mathfrak{Z} 33'46	
desc. node	15945 Dec 17 15:20	4° \approx 25'36		retrograde	15946 Dec 16 20:06	26° \mathfrak{Z} 44'54	
evening max el	15945 Dec 23 03:34	10° \approx 42'52	23°13'26	evening set	15946 Dec 19 20:47	26° \mathfrak{Z} 24'03	
retrograde	15946 Jan 05 09:31	17° \approx 16'18		inferior conj	15946 Dec 28 13:05	22° \mathfrak{Z} 33'49	-5°53'50
evening set	15946 Jan 09 16:49	16° \approx 36'08		minimum elong	15946 Dec 28 08:10	22° \mathfrak{Z} 40'41	5°52'37
min. Earth dist.	15946 Jan 16 13:58	13° \approx 22'58	0.54877 AU	min. Earth dist.	15946 Dec 28 19:22	22° \mathfrak{Z} 25'01	0.54392 AU
inferior conj	15946 Jan 17 21:32	12° \approx 37'29	-5°54'15	morning rise	15947 Jan 05 20:04	18° \mathfrak{Z} 45'05	
minimum elong	15946 Jan 18 01:54	12° \approx 31'11	5°53'15	direct	15947 Jan 09 15:17	18° \mathfrak{Z} 13'39	
morning rise	15946 Jan 26 12:22	8° \approx 46'22		morning max el	15947 Jan 22 07:50	24° \mathfrak{Z} 23'02	22°21'54
direct	15946 Jan 29 07:02	8° \approx 28'00			15947 Jan 27 07:42	0° \approx	
morning max el	15946 Feb 09 13:49	13° \approx 54'51	20°43'12	asc. node	15947 Jan 29 01:11	2° \approx 19'39	
asc. node	15946 Feb 11 03:53	15° \approx 32'53		morning set	15947 Feb 13 00:17	29° \approx 29'47	
	15946 Feb 21 00:34	0° \mathcal{H}			15947 Feb 13 05:59	0° \mathcal{H}	
morning set	15946 Feb 28 13:28	14° \mathcal{H} 45'49					
	15946 Mar 07 21:51	0° Υ		superior conj	15947 Feb 20 01:09	14° \mathcal{H} 32'30	1°19'53
				minimum elong	15947 Feb 20 03:24	14° \mathcal{H} 44'29	1°19'55

max. Earth dist.	15947 Feb 23 20:38	22° H 29'56	1.33978 AU	morning set	15948 Jan 28 12:16	14° \approx 12'51	
	15947 Feb 27 14:31	0° Y					
evening rise	15947 Feb 28 06:33	1° Y 18'00		superior conj	15948 Feb 04 07:21	29° \approx 03'23	1°31'47
desc. node	15947 Mar 02 12:59	5° Y 37'36		minimum elong	15948 Feb 04 08:50	29° \approx 11'28	1°32'10
	15947 Mar 16 22:27	0° B			15948 Feb 04 17:44	0° H	
evening max el	15947 Apr 04 03:30	23° B 09'44	27°02'29	max. Earth dist.	15948 Feb 06 18:36	4° H 24'20	1.32496 AU
	15947 Apr 13 22:40	0° II		evening rise	15948 Feb 11 20:40	15° H 01'25	
retrograde	15947 Apr 17 13:16	0° II 39'50		desc. node	15948 Feb 17 09:38	25° H 46'16	
	15947 Apr 20 22:51	30° R B			15948 Feb 19 17:18	0° Y	
evening set	15947 Apr 24 02:29	28° B 08'14			15948 Mar 10 17:25	0° B	
asc. node	15947 Apr 26 22:16	25° B 31'38		evening max el	15948 Mar 16 16:15	6° B 27'28	27°32'20
min. Earth dist.	15947 Apr 28 00:38	24° B 20'08	0.65674 AU	retrograde	15948 Mar 30 11:07	13° B 58'29	
inferior conj	15947 Apr 30 06:33	21° B 45'54	1°01'01	evening set	15948 Apr 06 05:51	11° B 33'28	
minimum elong	15947 Apr 30 05:02	21° B 50'15	0°59'53	min. Earth dist.	15948 Apr 10 00:44	8° B 15'24	0.63779 AU
morning rise	15947 May 06 09:07	16° B 13'09		inferior conj	15948 Apr 12 18:22	5° B 26'04	-0°00'57
direct	15947 May 09 05:29	15° B 29'12		minimum elong	15948 Apr 12 18:24	5° B 25'58	0°01'20
morning max el	15947 May 15 12:58	18° B 46'19	18°03'43	transit middle	15948 Apr 12 18:24	5° B 25'58	0°01'20
	15947 May 24 02:30	0° II		transit begin	15948 Apr 12 15:16	5° B 34'06	
desc. node	15947 May 29 14:08	8° II 40'30		transit end	15948 Apr 12 21:32	5° B 17'52	
morning set	15947 Jun 03 02:32	15° II 59'57		asc. node	15948 Apr 12 19:34	5° B 22'56	
	15947 Jun 11 19:08	0° E		morning rise	15948 Apr 19 09:20	0° B 08'18	
					15948 Apr 19 18:06	30° R Y	
superior conj	15947 Jun 17 20:00	9° E 33'14	-1°59'13	direct	15948 Apr 21 21:05	29° Y 37'30	
minimum elong	15947 Jun 17 12:08	9° E 02'21	1°59'28		15948 Apr 23 23:53	0° B	
max. Earth dist.	15947 Jun 20 14:23	13° E 53'20	1.45866 AU	morning max el	15948 Apr 28 06:24	2° B 53'12	17°47'41
	15947 Jun 30 23:33	0° Q		morning set	15948 May 14 23:03	28° B 02'39	
evening rise	15947 Jul 03 23:05	4° Q 35'47		desc. node	15948 May 15 11:01	28° B 53'32	
greatest brilliancy	15947 Jul 16 13:27	23° Q 46'35	-0.7m		15948 May 16 02:40	0° II	
	15947 Jul 20 20:42	0° P					
asc. node	15947 Jul 23 21:28	4° P 05'44		superior conj	15948 May 27 21:48	19° II 37'18	-1°29'17
evening max el	15947 Jul 28 10:49	9° P 22'31	19°21'44	minimum elong	15948 May 27 13:42	19° II 04'29	1°29'05
retrograde	15947 Aug 04 12:18	13° P 17'39		max. Earth dist.	15948 Jun 02 09:56	28° II 26'21	1.45058 AU
evening set	15947 Aug 08 03:29	12° P 01'10			15948 Jun 03 09:39	0° E	
inferior conj	15947 Aug 13 13:04	6° P 09'20	2°52'04	evening rise	15948 Jun 12 09:55	13° E 59'21	
minimum elong	15947 Aug 13 14:40	6° P 04'04	2°51'25		15948 Jun 23 01:12	0° Q	
min. Earth dist.	15947 Aug 14 21:34	4° P 22'46	0.67315 AU	asc. node	15948 Jul 09 18:17	22° Q 26'13	
	15947 Aug 18 17:39	30° R Q		evening max el	15948 Jul 10 13:45	23° Q 16'09	20°20'43
morning rise	15947 Aug 19 01:15	29° Q 42'54		retrograde	15948 Jul 18 11:20	27° Q 46'16	
direct	15947 Aug 25 00:11	27° Q 08'49		evening set	15948 Jul 22 12:55	26° Q 11'56	
desc. node	15947 Aug 25 12:12	27° Q 09'48		inferior conj	15948 Jul 27 19:08	20° Q 07'58	3°05'58
	15947 Sep 01 04:52	0° P		minimum elong	15948 Jul 27 19:50	20° Q 05'33	3°05'22
morning max el	15947 Sep 06 08:39	4° P 31'15	25°36'22	min. Earth dist.	15948 Jul 28 13:47	19° Q 04'09	0.68398 AU
	15947 Sep 25 22:39	0° A		morning rise	15948 Aug 02 02:26	13° Q 44'22	
morning set	15947 Oct 12 06:59	27° A 06'24		direct	15948 Aug 07 14:01	11° Q 20'49	
	15947 Oct 13 20:53	0° M		desc. node	15948 Aug 11 09:35	12° Q 18'07	
max. Earth dist.	15947 Oct 15 21:15	3° M 46'01	1.35913 AU	morning max el	15948 Aug 18 19:36	18° Q 03'44	24°10'42
asc. node	15947 Oct 19 22:54	11° M 37'47			15948 Aug 28 20:19	0° P	
					15948 Sep 17 23:53	0° A	
superior conj	15947 Oct 22 00:04	15° M 42'34	0°18'33	morning set	15948 Sep 23 04:17	8° A 41'53	
minimum elong	15947 Oct 21 22:58	15° M 37'04	0°18'51	max. Earth dist.	15948 Sep 26 20:26	15° A 07'47	1.38237 AU
	15947 Oct 28 23:30	0° X					
evening rise	15947 Oct 29 20:49	1° X 49'39		superior conj	15948 Oct 04 04:41	28° A 41'52	-0°14'31
	15947 Nov 15 10:50	0° B		minimum elong	15948 Oct 04 05:40	28° A 46'33	0°14'01
evening max el	15947 Nov 16 18:13	1° B 22'59	20°08'12	behind sun begin	15948 Oct 04 02:12	28° A 29'57	
desc. node	15947 Nov 21 09:25	5° B 00'11		behind sun end	15948 Oct 04 09:09	29° A 03'11	
retrograde	15947 Nov 27 08:00	6° B 39'04			15948 Oct 04 21:00	0° M	
evening set	15947 Nov 29 11:54	6° B 26'53		asc. node	15948 Oct 05 19:37	1° M 49'02	
inferior conj	15947 Dec 08 07:08	2° B 29'43	-4°53'50	evening rise	15948 Oct 12 22:31	15° M 50'20	
minimum elong	15947 Dec 07 21:10	2° B 44'37	4°50'28		15948 Oct 20 09:12	0° X	
min. Earth dist.	15947 Dec 10 01:27	1° B 26'24	0.54851 AU	evening max el	15948 Oct 29 10:06	12° X 51'16	19°05'17
	15947 Dec 12 14:50	30° R X		retrograde	15948 Nov 07 09:51	17° X 22'44	
morning rise	15947 Dec 16 05:37	28° X 24'36		desc. node	15948 Nov 07 06:36	17° X 22'41	
direct	15947 Dec 21 02:03	27° X 33'35		evening set	15948 Nov 09 07:03	17° X 11'38	
	15947 Dec 29 04:16	0° B		inferior conj	15948 Nov 17 16:51	12° X 57'29	-3°17'01
morning max el	15948 Jan 03 17:02	4° B 17'30	24°11'45	minimum elong	15948 Nov 17 08:48	13° X 11'17	3°13'21
asc. node	15948 Jan 15 22:27	20° B 07'50		min. Earth dist.	15948 Nov 20 11:57	11° X 02'51	0.56158 AU
	15948 Jan 21 12:45	0° \approx		morning rise	15948 Nov 25 07:55	8° X 19'32	

direct	15948 Dec 01 00:37	7° ♊ 04'01		morning max el	15949 Nov 26 20:27	24° ♍ 47'45	27°12'32
morning max el	15948 Dec 15 03:15	14° ♊ 16'01	25°54'47		15949 Dec 01 15:45	0° ♊	
	15948 Dec 27 14:06	0° ♊		asc. node	15949 Dec 19 16:46	27° ♊ 50'10	
asc. node	15949 Jan 01 19:39	8° ♊ 42'15			15949 Dec 20 20:05	0° ♊	
morning set	15949 Jan 11 23:37	28° ♊ 50'17		morning set	15949 Dec 27 08:31	13° ♊ 16'17	
	15949 Jan 12 12:31	0° ♊					
superior conj	15949 Jan 18 17:11	13° ♋ 41'48	1°37'31	superior conj	15950 Jan 03 04:33	28° ♊ 21'02	1°37'11
minimum elong	15949 Jan 18 17:39	13° ♋ 44'24	1°38'07	minimum elong	15950 Jan 03 03:58	28° ♊ 17'45	1°37'53
max. Earth dist.	15949 Jan 19 22:48	16° ♋ 26'10	1.31505 AU	max. Earth dist.	15950 Jan 03 06:10	28° ♊ 30'02	1.31036 AU
evening rise	15949 Jan 25 19:14	29° ♋ 04'27			15950 Jan 03 22:14	0° ♋	
	15949 Jan 26 05:54	0° ♋		evening rise	15950 Jan 09 23:45	13° ♋ 20'27	
desc. node	15949 Feb 03 06:20	15° ♋ 36'57			15950 Jan 18 07:46	0° ♋	
	15949 Feb 11 20:53	0° ♋		desc. node	15950 Jan 21 03:03	5° ♋ 01'49	
evening max el	15949 Feb 27 01:38	19° ♋ 09'09	27°31'41		15950 Feb 08 03:06	0° ♋	
retrograde	15949 Mar 13 01:08	26° ♋ 34'39		evening max el	15950 Feb 09 05:13	1° ♋ 03'48	26°56'32
evening set	15949 Mar 19 20:37	24° ♋ 23'36		retrograde	15950 Feb 23 06:02	8° ♋ 19'10	
min. Earth dist.	15949 Mar 23 15:08	21° ♋ 29'20	0.61623 AU	evening set	15950 Mar 01 19:33	6° ♋ 29'31	
inferior conj	15949 Mar 26 17:37	18° ♋ 39'09	-1°16'38	min. Earth dist.	15950 Mar 05 19:22	3° ♋ 49'21	0.59367 AU
minimum elong	15949 Mar 26 20:20	18° ♋ 32'55	1°15'42	inferior conj	15950 Mar 09 00:39	1° ♋ 15'20	-2°43'35
asc. node	15949 Mar 30 16:55	15° ♋ 20'32		minimum elong	15950 Mar 09 06:52	1° ♋ 02'53	2°41'09
morning rise	15949 Apr 02 23:16	13° ♋ 39'11			15950 Mar 10 15:03	30° ♋	
direct	15949 Apr 05 03:48	13° ♋ 18'13		morning rise	15950 Mar 16 21:45	26° ♋ 35'35	
morning max el	15949 Apr 11 23:31	16° ♋ 44'08	17°49'27	asc. node	15950 Mar 17 14:17	26° ♋ 27'12	
	15949 Apr 21 09:42	0° ♋		direct	15950 Mar 18 21:30	26° ♋ 20'50	
morning set	15949 Apr 27 17:21	11° ♋ 05'58			15950 Mar 26 09:17	0° ♋	
desc. node	15949 May 02 07:51	19° ♋ 17'23		morning max el	15950 Mar 26 12:48	0° ♋ 08'31	18°10'08
	15949 May 08 11:56	0° ♋		morning set	15950 Apr 11 03:37	24° ♋ 52'33	
					15950 Apr 13 21:17	0° ♋	
superior conj	15949 May 08 22:34	0° ♌ 45'12	-0°52'00	desc. node	15950 Apr 19 04:36	9° ♋ 47'33	
minimum elong	15949 May 08 17:49	0° ♌ 24'59	0°51'56				
max. Earth dist.	15949 May 16 01:40	12° ♌ 34'59	1.43597 AU	superior conj	15950 Apr 20 22:04	12° ♋ 54'35	-0°14'16
evening rise	15949 May 23 01:42	23° ♌ 42'25		minimum elong	15950 Apr 20 20:53	12° ♋ 49'20	0°14'33
	15949 May 27 03:42	0° ♌		behind sun begin	15950 Apr 20 17:45	12° ♋ 35'15	
	15949 Jun 17 05:05	0° ♌		behind sun end	15950 Apr 21 00:02	13° ♋ 03'25	
evening max el	15949 Jun 23 10:41	7° ♌ 09'33	21°32'05	max. Earth dist.	15950 Apr 28 12:29	26° ♋ 06'48	1.41639 AU
asc. node	15949 Jun 26 15:10	9° ♌ 58'43			15950 Apr 30 20:28	0° ♌	
retrograde	15949 Jul 02 10:03	12° ♌ 22'42		evening rise	15950 May 03 10:45	4° ♌ 14'21	
evening set	15949 Jul 06 22:38	10° ♌ 31'11			15950 May 20 09:57	0° ♌	
inferior conj	15949 Jul 12 04:10	4° ♌ 16'40	3°08'19	evening max el	15950 Jun 06 03:04	21° ♋ 03'50	22°51'30
minimum elong	15949 Jul 12 03:55	4° ♌ 17'33	3°07'38	asc. node	15950 Jun 13 12:07	26° ♋ 28'07	
min. Earth dist.	15949 Jul 12 09:27	3° ♌ 58'13	0.69003 AU	retrograde	15950 Jun 16 06:55	27° ♋ 01'35	
	15949 Jul 15 09:51	30° ♋		evening set	15950 Jun 21 06:56	24° ♋ 54'38	
morning rise	15949 Jul 17 08:59	27° ♋ 58'35		inferior conj	15950 Jun 26 14:10	18° ♋ 31'34	3°00'02
direct	15949 Jul 22 08:23	25° ♋ 50'27		minimum elong	15950 Jun 26 13:01	18° ♋ 35'33	2°59'09
desc. node	15949 Jul 29 06:56	28° ♋ 58'22		min. Earth dist.	15950 Jun 26 06:26	18° ♋ 58'27	0.69119 AU
	15949 Jul 30 11:52	0° ♌		morning rise	15950 Jul 01 18:59	12° ♋ 20'58	
morning max el	15949 Aug 01 07:38	1° ♌ 44'11	22°41'27	direct	15950 Jul 06 06:12	10° ♋ 31'14	
	15949 Aug 22 18:11	0° ♌		morning max el	15950 Jul 14 23:25	15° ♋ 33'39	21°16'56
morning set	15949 Sep 04 03:03	19° ♌ 19'26		desc. node	15950 Jul 16 04:12	16° ♋ 48'02	
max. Earth dist.	15949 Sep 08 20:17	27° ♌ 10'20	1.40634 AU		15950 Jul 26 15:08	0° ♌	
	15949 Sep 10 12:03	0° ♌		morning set	15950 Aug 15 02:09	28° ♌ 57'33	
					15950 Aug 15 18:03	0° ♌	
superior conj	15949 Sep 16 17:16	10° ♍ 57'15	-0°50'49	max. Earth dist.	15950 Aug 22 01:38	10° ♌ 06'52	1.42824 AU
minimum elong	15949 Sep 16 21:15	11° ♍ 15'19	0°50'06				
asc. node	15949 Sep 22 16:17	21° ♍ 57'01		superior conj	15950 Aug 29 09:31	22° ♌ 20'21	-1°26'50
evening rise	15949 Sep 26 15:39	29° ♍ 27'26		minimum elong	15950 Aug 29 16:31	22° ♌ 50'13	1°26'08
	15949 Sep 26 22:32	0° ♍			15950 Sep 02 19:42	0° ♍	
evening max el	15949 Oct 12 13:42	25° ♌ 06'02	18°24'28	evening rise	15950 Sep 09 20:14	12° ♍ 31'26	
retrograde	15949 Oct 20 06:34	29° ♌ 00'55		asc. node	15950 Sep 09 12:57	11° ♍ 58'36	
evening set	15949 Oct 22 06:33	28° ♌ 45'49			15950 Sep 19 22:31	0° ♍	
desc. node	15949 Oct 25 03:52	27° ♌ 35'34		evening max el	15950 Sep 26 00:51	7° ♌ 58'37	18°04'15
inferior conj	15949 Oct 29 23:55	24° ♌ 10'53	-1°33'23	retrograde	15950 Oct 02 21:04	11° ♌ 29'33	
minimum elong	15949 Oct 29 20:18	24° ♌ 18'08	1°31'19	evening set	15950 Oct 05 03:56	11° ♌ 06'12	
min. Earth dist.	15949 Nov 02 05:37	21° ♌ 36'11	0.58088 AU	inferior conj	15950 Oct 12 03:55	6° ♌ 10'31	-0°02'10
morning rise	15949 Nov 06 06:34	18° ♌ 55'49		minimum elong	15950 Oct 12 03:51	6° ♌ 10'40	0°01'44
direct	15949 Nov 12 13:43	17° ♌ 13'11		transit middle	15950 Oct 12 03:51	6° ♌ 10'40	0°01'44
				transit begin	15950 Oct 12 00:34	6° ♌ 18'18	

transit end	15950 Oct 12 07:09	6°♄03'00		inferior conj	15951 Sep 25 01:21	18°♄49'36	1°09'50
desc. node	15950 Oct 12 01:10	6°♄16'54		minimum elong	15951 Sep 25 03:10	18°♄44'48	1°09'23
min. Earth dist.	15950 Oct 15 08:10	3°♄14'44	0.60344 AU	min. Earth dist.	15951 Sep 27 20:31	15°♄53'22	0.62627 AU
morning rise	15950 Oct 19 00:36	0°♄24'03		desc. node	15951 Sep 28 22:31	14°♄49'36	
	15950 Oct 19 16:30	30°♄16'38		morning rise	15951 Oct 01 11:30	12°♄41'01	
direct	15950 Oct 25 15:39	28°♄16'38		direct	15951 Oct 08 03:52	10°♄15'23	
	15950 Oct 31 22:47	0°♄		morning max el	15951 Oct 22 04:46	18°♄13'16	27°55'14
morning max el	15950 Nov 08 21:34	6°♄06'50	27°53'30		15951 Nov 01 02:59	0°♄	
	15950 Nov 26 20:41	0°♄			15951 Nov 19 17:07	0°♄	
asc. node	15950 Dec 06 13:49	17°♄22'31		asc. node	15951 Nov 23 10:46	7°♄12'14	
morning set	15950 Dec 11 13:01	27°♄26'07		morning set	15951 Nov 25 11:01	11°♄14'57	
	15950 Dec 12 18:06	0°♄		max. Earth dist.	15951 Nov 30 15:59	22°♄12'53	1.31756 AU
max. Earth dist.	15950 Dec 17 13:07	10°♄28'13	1.31114 AU				
				superior conj	15951 Dec 03 00:26	27°♄20'57	1°18'25
superior conj	15950 Dec 18 15:36	12°♄55'46	1°30'50	minimum elong	15951 Dec 02 22:16	27°♄09'01	1°18'56
minimum elong	15950 Dec 18 14:05	12°♄47'16	1°31'29		15951 Dec 04 05:19	0°♄	
evening rise	15950 Dec 25 08:10	27°♄44'35		evening rise	15951 Dec 09 18:39	12°♄12'27	
	15950 Dec 26 09:24	0°♄			15951 Dec 18 14:51	0°♄	
desc. node	15951 Jan 07 23:50	23°♄51'19		desc. node	15951 Dec 25 20:41	11°♄52'43	
	15951 Jan 11 23:53	0°♄		evening max el	15952 Jan 03 12:55	22°♄22'01	24°13'04
evening max el	15951 Jan 22 00:56	12°♄06'00	25°47'32	retrograde	15952 Jan 17 03:15	29°♄07'35	
retrograde	15951 Feb 04 23:23	19°♄07'59		evening set	15952 Jan 22 03:57	28°♄12'30	
evening set	15951 Feb 10 23:01	17°♄45'01		min. Earth dist.	15952 Jan 28 00:35	25°♄17'39	0.55549 AU
min. Earth dist.	15951 Feb 15 13:57	15°♄05'51	0.57248 AU	inferior conj	15952 Jan 30 02:07	24°♄02'39	-5°28'16
inferior conj	15951 Feb 18 11:58	13°♄05'04	-4°13'28	minimum elong	15952 Jan 30 10:08	23°♄50'29	5°26'18
minimum elong	15951 Feb 18 21:04	12°♄49'20	4°10'22	morning rise	15952 Feb 07 18:10	20°♄03'51	
morning rise	15951 Feb 26 22:06	8°♄46'38		direct	15952 Feb 10 03:03	19°♄49'16	
direct	15951 Feb 28 22:00	8°♄34'15		asc. node	15952 Feb 19 09:03	23°♄49'48	
asc. node	15951 Mar 04 11:41	9°♄16'10		morning max el	15952 Feb 20 11:16	24°♄50'11	19°55'45
morning max el	15951 Mar 09 18:06	12°♄54'23	18°51'32		15952 Feb 24 21:24	0°♄	
	15951 Mar 21 06:36	0°♄		morning set	15952 Mar 09 05:42	23°♄41'12	
morning set	15951 Mar 26 00:57	9°♄07'52			15952 Mar 12 08:01	0°♄	
				superior conj	15952 Mar 17 01:32	9°♄33'08	0°48'08
superior conj	15951 Apr 03 16:29	25°♄54'24	0°19'47	minimum elong	15952 Mar 17 03:55	9°♄44'59	0°47'42
minimum elong	15951 Apr 03 17:45	26°♄00'21	0°19'17	desc. node	15952 Mar 22 21:53	20°♄51'28	
	15951 Apr 05 20:55	0°♄		max. Earth dist.	15952 Mar 23 02:18	21°♄12'08	1.37124 AU
desc. node	15951 Apr 06 01:15	0°♄20'02		evening rise	15952 Mar 26 19:21	27°♄59'34	
max. Earth dist.	15951 Apr 10 19:36	8°♄57'14	1.39404 AU		15952 Mar 27 22:26	0°♄	
evening rise	15951 Apr 14 17:04	15°♄41'52			15952 Apr 15 21:02	0°♄	
	15951 Apr 23 12:04	0°♄		evening max el	15952 May 01 06:38	18°♄53'42	25°29'31
	15951 May 15 02:49	0°♄		retrograde	15952 May 13 13:48	26°♄00'33	
evening max el	15951 May 19 17:07	4°♄59'04	24°13'00	asc. node	15952 May 17 06:16	25°♄04'52	
retrograde	15951 May 31 00:29	11°♄36'12		evening set	15952 May 19 12:43	23°♄31'44	
asc. node	15951 May 31 09:09	11°♄35'38		min. Earth dist.	15952 May 23 19:31	18°♄49'48	0.67912 AU
evening set	15951 Jun 05 12:10	9°♄16'26		inferior conj	15952 May 25 05:16	17°♄01'06	2°11'47
min. Earth dist.	15951 Jun 10 02:29	3°♄57'39	0.68752 AU	minimum elong	15952 May 25 03:05	17°♄08'07	2°10'27
inferior conj	15951 Jun 10 23:10	2°♄47'42	2°41'19	morning rise	15952 May 30 17:56	11°♄09'37	
minimum elong	15951 Jun 10 21:20	2°♄53'53	2°40'11	direct	15952 Jun 03 06:08	9°♄59'01	
	15951 Jun 13 02:22	30°♄16'38		morning max el	15952 Jun 10 02:59	13°♄42'31	19°03'48
morning rise	15951 Jun 16 06:34	26°♄45'59		desc. node	15952 Jun 18 22:28	24°♄45'49	
direct	15951 Jun 20 05:57	25°♄15'58			15952 Jun 22 12:17	0°♄	
morning max el	15951 Jun 27 21:30	29°♄33'07	20°03'09	greatest brilliancy	15952 Jun 23 03:20	0°♄56'17	-0.7m
	15951 Jun 28 08:14	0°♄		morning set	15952 Jul 03 15:01	16°♄57'55	
desc. node	15951 Jul 03 01:23	5°♄28'15			15952 Jul 12 01:04	0°♄	
	15951 Jul 20 03:51	0°♄		max. Earth dist.	15952 Jul 17 07:30	8°♄12'51	1.45645 AU
morning set	15951 Jul 25 08:18	7°♄54'15					
max. Earth dist.	15951 Aug 04 13:53	23°♄52'34	1.44555 AU	superior conj	15952 Jul 19 21:44	12°♄16'57	-2°12'59
	15951 Aug 08 09:42	0°♄		minimum elong	15952 Jul 20 00:33	12°♄28'02	2°13'34
superior conj	15951 Aug 10 02:20	2°♄44'30	-1°56'43		15952 Jul 31 00:34	0°♄	
minimum elong	15951 Aug 10 09:52	3°♄15'09	1°56'34	evening rise	15952 Aug 03 19:21	6°♄08'03	
evening rise	15951 Aug 23 07:10	24°♄49'01		asc. node	15952 Aug 13 06:13	21°♄23'46	
	15951 Aug 26 07:57	0°♄			15952 Aug 19 01:51	0°♄	
asc. node	15951 Aug 27 09:34	1°♄49'08		evening max el	15952 Aug 23 05:48	4°♄56'02	18°20'13
evening max el	15951 Sep 09 15:24	21°♄18'21	18°03'10	retrograde	15952 Aug 29 15:09	8°♄20'15	
retrograde	15951 Sep 16 01:22	24°♄39'08		evening set	15952 Sep 01 15:08	7°♄30'29	
evening set	15951 Sep 18 16:31	24°♄03'58		inferior conj	15952 Sep 07 12:13	1°♄59'59	2°02'32

minimum elong	15952 Sep 07 14:33	1°♄53'07	2°01'49	evening set	15953 Aug 16 20:02	21°♎18'46	
	15952 Sep 09 05:06	30°♎♎		inferior conj	15953 Aug 22 08:53	15°♎34'13	2°38'13
min. Earth dist.	15952 Sep 09 18:41	29°♎21'00	0.64718 AU	minimum elong	15953 Aug 22 10:53	15°♎27'50	2°37'32
morning rise	15952 Sep 13 12:29	25°♎38'32		min. Earth dist.	15953 Aug 24 01:27	13°♎25'42	0.66479 AU
desc. node	15952 Sep 14 19:55	24°♎41'37		morning rise	15953 Aug 28 00:52	9°♎07'42	
direct	15952 Sep 20 00:48	23°♎02'59		desc. node	15953 Sep 01 17:19	6°♎39'26	
	15952 Oct 02 15:35	0°♄		direct	15953 Sep 03 05:23	6°♎30'43	
morning max el	15952 Oct 03 15:27	0°♄58'34	27°21'40	morning max el	15953 Sep 16 03:05	14°♎10'30	26°20'28
	15952 Oct 25 05:16	0°♎			15953 Sep 29 01:06	0°♄	
morning set	15952 Nov 07 23:54	24°♎36'48			15953 Oct 17 23:00	0°♎	
asc. node	15952 Nov 09 07:36	27°♎13'32		morning set	15953 Oct 22 00:34	7°♎24'58	
	15952 Nov 10 16:42	0°♄		max. Earth dist.	15953 Oct 25 20:43	14°♎45'52	1.34704 AU
max. Earth dist.	15952 Nov 12 11:15	3°♄38'07	1.32965 AU	asc. node	15953 Oct 27 04:23	17°♎22'00	
superior conj	15952 Nov 16 04:56	11°♄30'46	0°59'53	superior conj	15953 Oct 31 02:40	25°♎19'31	0°35'19
minimum elong	15952 Nov 16 02:35	11°♄18'12	1°00'14	minimum elong	15953 Oct 31 00:51	25°♎10'10	0°35'35
evening rise	15952 Nov 23 05:21	26°♄39'14			15953 Nov 02 08:40	0°♄	
	15952 Nov 24 19:13	0°♄		evening rise	15953 Nov 07 14:23	11°♄00'30	
desc. node	15952 Dec 11 17:38	28°♄48'20			15953 Nov 17 10:14	0°♄	
	15952 Dec 12 18:23	0°♄		evening max el	15953 Nov 26 16:14	12°♄31'00	20°54'26
evening max el	15952 Dec 14 22:38	2°♄16'59	22°29'26	desc. node	15953 Nov 28 14:41	14°♄16'33	
retrograde	15952 Dec 27 18:46	8°♄38'12		retrograde	15953 Dec 08 04:45	18°♄13'45	
evening set	15952 Dec 31 12:52	8°♄07'18		evening set	15953 Dec 10 18:34	17°♄57'53	
inferior conj	15953 Jan 08 22:49	4°♄14'00	-6°01'47	inferior conj	15953 Dec 19 13:37	14°♄06'01	-5°34'50
minimum elong	15953 Jan 08 23:21	4°♄13'16	6°01'04	minimum elong	15953 Dec 19 05:37	14°♄17'25	5°32'42
min. Earth dist.	15953 Jan 08 06:33	4°♄36'53	0.54555 AU	min. Earth dist.	15953 Dec 20 12:01	13°♄34'00	0.54469 AU
morning rise	15953 Jan 17 10:57	0°♄26'26		morning rise	15953 Dec 27 16:44	10°♄12'29	
direct	15953 Jan 20 15:23	0°♄03'30		direct	15953 Dec 31 22:43	9°♄33'37	
morning max el	15953 Feb 01 13:29	5°♄48'32	21°23'06	morning max el	15954 Jan 14 02:51	15°♄59'07	23°08'15
asc. node	15953 Feb 05 06:23	9°♄52'58		asc. node	15954 Jan 23 03:41	27°♄07'45	
	15953 Feb 17 12:26	0°♄			15954 Jan 24 23:53	0°♄	
morning set	15953 Feb 21 14:57	8°♄22'54		morning set	15954 Feb 06 02:29	23°♄06'48	
					15954 Feb 09 07:09	0°♄	
superior conj	15953 Feb 28 21:12	23°♄38'46	1°10'08	superior conj	15954 Feb 13 00:20	8°♄02'36	1°25'42
minimum elong	15953 Feb 28 23:42	23°♄51'46	1°09'58	minimum elong	15954 Feb 13 02:19	8°♄13'12	1°25'53
	15953 Mar 03 23:38	0°♄		max. Earth dist.	15954 Feb 16 05:45	14°♄53'30	1.33286 AU
max. Earth dist.	15953 Mar 05 12:34	3°♄04'45	1.35024 AU	evening rise	15954 Feb 20 22:15	24°♄26'00	
evening rise	15953 Mar 09 14:13	10°♄57'07			15954 Feb 23 19:18	0°♄	
desc. node	15953 Mar 09 18:30	11°♄17'17		desc. node	15954 Feb 24 15:09	1°♄33'25	
	15953 Mar 20 10:47	0°♄			15954 Mar 13 23:40	0°♄	
	15953 Apr 11 05:39	0°♄		evening max el	15954 Mar 27 09:38	16°♄12'33	27°18'29
evening max el	15953 Apr 13 20:16	2°♄41'08	26°33'51	retrograde	15954 Apr 10 00:10	23°♄45'01	
retrograde	15953 Apr 26 22:00	10°♄06'31		evening set	15954 Apr 16 16:10	21°♄15'05	
evening set	15953 May 03 06:44	7°♄33'50		min. Earth dist.	15954 Apr 20 12:32	17°♄40'25	0.64903 AU
asc. node	15953 May 04 03:28	6°♄49'08		asc. node	15954 Apr 21 00:45	17°♄07'32	
min. Earth dist.	15953 May 07 07:30	3°♄27'04	0.66611 AU	inferior conj	15954 Apr 22 23:44	14°♄57'52	0°36'24
inferior conj	15953 May 09 06:17	1°♄06'32	1°30'32	minimum elong	15954 Apr 22 22:45	15°♄00'35	0°35'31
minimum elong	15953 May 09 04:19	1°♄12'29	1°29'13	morning rise	15954 Apr 29 07:17	9°♄31'23	
	15953 May 10 04:37	30°♄♄		direct	15954 May 01 23:44	8°♄53'35	
morning rise	15953 May 15 02:59	25°♄26'39		morning max el	15954 May 08 07:09	12°♄08'53	17°54'46
direct	15953 May 18 04:49	24°♄33'49			15954 May 20 21:37	0°♄	
morning max el	15953 May 24 14:56	27°♄56'57	18°20'48	desc. node	15954 May 23 16:27	4°♄35'01	
	15953 May 26 13:11	0°♄		morning set	15954 May 25 22:38	8°♄19'10	
desc. node	15953 Jun 05 19:30	14°♄30'38			15954 Jun 08 06:26	0°♄	
morning set	15953 Jun 13 17:10	26°♄59'22		superior conj	15954 Jun 08 22:30	1°♄03'51	-1°47'57
	15953 Jun 15 14:43	0°♄		minimum elong	15954 Jun 08 13:51	0°♄29'30	1°47'57
superior conj	15953 Jun 29 06:50	21°♄28'49	-2°09'53	max. Earth dist.	15954 Jun 12 23:30	7°♄26'38	1.45603 AU
minimum elong	15953 Jun 29 01:54	21°♄09'36	2°10'28	evening rise	15954 Jun 24 22:10	25°♄56'11	
max. Earth dist.	15953 Jun 30 03:37	22°♄49'48	1.45999 AU		15954 Jun 27 13:59	0°♄	
	15953 Jul 04 18:05	0°♄		greatest brilliancy	15954 Jul 09 05:22	17°♄26'50	-0.6m
evening rise	15953 Jul 15 06:32	16°♄24'47		asc. node	15954 Jul 17 23:42	29°♄19'04	
	15953 Jul 23 23:52	0°♄			15954 Jul 18 13:34	0°♄	
greatest brilliancy	15953 Jul 25 01:26	1°♄38'08	-0.8m	evening max el	15954 Jul 20 23:37	2°♄37'19	19°45'08
asc. node	15953 Jul 31 02:56	10°♄36'32		retrograde	15954 Jul 28 09:01	6°♄46'25	
evening max el	15953 Aug 06 17:14	18°♄44'24	18°54'34	evening set	15954 Aug 01 04:26	5°♄22'33	
retrograde	15953 Aug 13 10:40	22°♄25'01					

	15954 Aug 06 01:56	30° κ 8 Ω		asc. node	15955 Jul 04 20:34	17° Ω 21'23	
inferior conj	15954 Aug 06 12:15	29° Ω 25'29 2°59'27		retrograde	15955 Jul 12 08:03	21° Ω 19'18	
minimum elong	15954 Aug 06 13:30	29° Ω 21'18 2°58'50		evening set	15955 Jul 16 14:14	19° Ω 37'40	
min. Earth dist.	15954 Aug 07 14:53	27° Ω 56'15 0.67830 AU		inferior conj	15955 Jul 21 19:53	13° Ω 29'16 3°08'17	
morning rise	15954 Aug 11 22:04	22° Ω 59'35		minimum elong	15955 Jul 21 20:10	13° Ω 28'15 3°07'39	
direct	15954 Aug 17 16:19	20° Ω 29'01		min. Earth dist.	15955 Jul 22 08:51	12° Ω 44'21 0.68721 AU	
desc. node	15954 Aug 19 14:44	20° Ω 43'45		morning rise	15955 Jul 27 01:50	7° Ω 07'46	
morning max el	15954 Aug 29 14:06	27° Ω 36'54 25°00'50		direct	15955 Aug 01 08:24	4° Ω 50'01	
	15954 Aug 31 20:06	0° η		desc. node	15955 Aug 06 12:06	6° Ω 34'26	
	15954 Sep 22 16:55	0° $\underline{\Omega}$		morning max el	15955 Aug 12 01:04	11° Ω 12'29 23°32'32	
morning set	15954 Oct 04 09:02	19° $\underline{\Omega}$ 29'34			15955 Aug 27 01:00		
max. Earth dist.	15954 Oct 07 21:41	25° $\underline{\Omega}$ 52'11 1.36873 AU			15955 Sep 15 11:20	0° $\underline{\Omega}$	
	15954 Oct 10 02:52	0° \mathbb{M}		morning set	15955 Sep 15 21:07	0° $\underline{\Omega}$ 41'05	
asc. node	15954 Oct 14 01:06	7° \mathbb{M} 33'02		max. Earth dist.	15955 Sep 19 20:14	7° $\underline{\Omega}$ 28'04 1.39273 AU	
superior conj	15954 Oct 14 14:34	8° \mathbb{M} 39'08 0°05'05		superior conj	15955 Sep 27 12:56	21° $\underline{\Omega}$ 21'13 -0°29'40	
minimum elong	15954 Oct 14 14:13	8° \mathbb{M} 37'25 0°05'27		minimum elong	15955 Sep 27 15:06	21° $\underline{\Omega}$ 31'21 0°29'05	
behind sun begin	15954 Oct 14 08:03	8° \mathbb{M} 07'07		asc. node	15955 Sep 30 21:48	27° $\underline{\Omega}$ 43'20	
behind sun end	15954 Oct 14 20:23	9° \mathbb{M} 07'47			15955 Oct 02 02:17	0° \mathbb{M}	
evening rise	15954 Oct 22 19:27	25° \mathbb{M} 10'01		evening rise	15955 Oct 06 17:55	9° \mathbb{M} 01'31	
	15954 Oct 25 05:13	0° \mathcal{A}			15955 Oct 18 13:30	0° \mathcal{A}	
evening max el	15954 Nov 08 23:57	23° \mathcal{A} 30'07 19°38'43		evening max el	15955 Oct 22 21:21	5° \mathcal{A} 19'13 18°45'15	
desc. node	15954 Nov 15 11:50	27° \mathcal{A} 52'17		retrograde	15955 Oct 31 06:29	9° \mathcal{A} 33'13	
retrograde	15954 Nov 18 21:04	28° \mathcal{A} 26'19		evening set	15955 Nov 02 04:18	9° \mathcal{A} 20'50	
evening set	15954 Nov 20 20:31	28° \mathcal{A} 15'23		desc. node	15955 Nov 02 09:03	9° \mathcal{A} 18'11	
inferior conj	15954 Nov 29 13:06	24° \mathcal{A} 12'19 -4°15'20		inferior conj	15955 Nov 10 07:33	4° \mathcal{A} 58'01 -2°32'21	
minimum elong	15954 Nov 29 03:18	24° \mathcal{A} 27'45 4°11'30		minimum elong	15955 Nov 10 01:20	5° \mathcal{A} 09'22 2°29'14	
min. Earth dist.	15954 Dec 01 19:56	22° \mathcal{A} 45'59 0.55315 AU		min. Earth dist.	15955 Nov 13 08:56	2° \mathcal{A} 44'30 0.56930 AU	
morning rise	15954 Dec 07 08:21	19° \mathcal{A} 54'20		morning rise	15955 Nov 17 19:18	0° \mathcal{A} 04'28	
direct	15954 Dec 12 14:15	18° \mathcal{A} 53'04			15955 Nov 17 23:07	30° \mathcal{R} \mathbb{M}	
morning max el	15954 Dec 26 11:19	25° \mathcal{A} 50'22 24°57'33		direct	15955 Nov 23 19:14	28° \mathbb{M} 37'20	
	15954 Dec 30 09:24	0° \mathcal{B}			15955 Nov 29 16:54	0° \mathcal{A}	
asc. node	15955 Jan 10 00:54	15° \mathcal{B} 16'59		morning max el	15955 Dec 07 23:48	5° \mathcal{A} 58'54 26°31'51	
	15955 Jan 17 21:22	0° \approx			15955 Dec 25 14:36	0° \mathcal{B}	
morning set	15955 Jan 21 14:24	7° \approx 47'39		asc. node	15955 Dec 27 22:04	4° \mathcal{B} 06'45	
				morning set	15956 Jan 06 00:53	22° \mathcal{B} 20'18	
superior conj	15955 Jan 28 08:21	22° \approx 37'20 1°34'58			15956 Jan 09 12:50	0° \approx	
minimum elong	15955 Jan 28 09:25	22° \approx 43'13 1°35'27					
max. Earth dist.	15955 Jan 30 06:28	26° \approx 50'06 1.32009 AU		superior conj	15956 Jan 12 19:02	7° \approx 16'20 1°38'06	
	15955 Jan 31 17:31	0° \mathcal{H}		minimum elong	15956 Jan 12 19:03	7° \approx 16'25 1°38'46	
evening rise	15955 Feb 04 16:17	8° \mathcal{H} 18'36		max. Earth dist.	15956 Jan 13 12:31	8° \approx 53'54 1.31242 AU	
desc. node	15955 Feb 11 11:49	21° \mathcal{H} 35'10		evening rise	15956 Jan 19 17:39	22° \approx 27'45	
	15955 Feb 16 06:00	0° Υ			15956 Jan 23 09:39	0° \mathcal{H}	
evening max el	15955 Mar 09 21:23	29° Υ 17'01 27°36'15		desc. node	15956 Jan 29 08:31	11° \mathcal{H} 15'47	
	15955 Mar 10 15:40	0° \mathcal{B}			15956 Feb 10 05:25	0° Υ	
retrograde	15955 Mar 23 19:06	6° \mathcal{B} 46'43		evening max el	15956 Feb 20 04:52	11° Υ 40'34 27°21'13	
evening set	15955 Mar 30 14:35	4° \mathcal{B} 26'57		retrograde	15956 Mar 05 05:12	19° Υ 01'22	
min. Earth dist.	15955 Apr 03 08:54	1° \mathcal{B} 19'40 0.62876 AU		evening set	15956 Mar 11 23:00	16° Υ 58'56	
	15955 Apr 04 17:41	30° \mathcal{R} Υ		min. Earth dist.	15956 Mar 15 19:04	14° Υ 11'55 0.60660 AU	
inferior conj	15955 Apr 06 06:42	28° Υ 28'02 -0°31'27		inferior conj	15956 Mar 18 23:33	11° Υ 26'48 -1°52'28	
minimum elong	15955 Apr 06 07:44	28° Υ 25'29 0°31'20		minimum elong	15956 Mar 19 03:41	11° Υ 17'48 1°50'52	
asc. node	15955 Apr 07 22:06	26° Υ 53'05		asc. node	15956 Mar 24 19:28	7° Υ 13'37	
morning rise	15955 Apr 13 03:40	23° Υ 17'18		morning rise	15956 Mar 26 11:45	6° Υ 34'48	
direct	15955 Apr 15 12:03	22° Υ 51'11		direct	15956 Mar 28 13:57	6° Υ 16'50	
morning max el	15955 Apr 22 00:51	26° Υ 10'14 17°46'11		morning max el	15956 Apr 04 16:44	9° Υ 50'39 17°55'50	
	15955 Apr 25 08:20	0° \mathcal{B}			15956 Apr 17 23:03	0° \mathcal{B}	
morning set	15955 May 08 05:14	20° \mathcal{B} 50'23		morning set	15956 Apr 20 07:01	4° \mathcal{B} 14'10	
desc. node	15955 May 10 13:17	24° \mathcal{B} 53'17		desc. node	15956 Apr 26 10:03	15° \mathcal{B} 20'01	
	15955 May 13 12:34	0° \mathbb{I}					
superior conj	15955 May 20 09:43	11° \mathbb{I} 34'30 -1°13'54		superior conj	15956 Apr 30 20:25	23° \mathcal{B} 09'00 -0°35'45	
minimum elong	15955 May 20 02:50	11° \mathbb{I} 06'03 1°13'43		minimum elong	15956 Apr 30 17:17	22° \mathcal{B} 55'21 0°35'49	
max. Earth dist.	15955 May 26 17:29	21° \mathbb{I} 50'39 1.44506 AU			15956 May 04 20:27	0° \mathbb{I}	
	15955 May 31 21:32	0° \mathcal{B}		max. Earth dist.	15956 May 08 07:38	5° \mathbb{I} 46'25 1.42816 AU	
evening rise	15955 Jun 04 09:12	5° \mathcal{B} 23'47		evening rise	15956 May 14 07:21	15° \mathbb{I} 25'31	
	15955 Jun 20 22:51	0° Ω			15956 May 23 19:24	0° \mathcal{B}	
evening max el	15955 Jul 04 00:04	16° Ω 31'53 20°49'48		evening max el	15956 Jun 15 08:45	0° Ω	
					15956 Jun 15 18:55	0° Ω 25'40 22°05'11	

asc. node	15956 Jun 20 17:30	4°♌29'07		15957 Apr 27 07:03	0°♊	
retrograde	15956 Jun 25 06:01	5°♌57'21		15957 May 17 11:41	0°♊	
evening set	15956 Jun 29 23:32	3°♌58'51		evening max el	15957 May 29 09:55	14°♊19'28 23°26'14
	15956 Jul 03 12:57	30°♌		asc. node	15957 Jun 07 14:30	20°♊25'44
inferior conj	15956 Jul 05 05:32	27°♊40'36	3°06'03	retrograde	15957 Jun 09 01:38	20°♊34'58
minimum elong	15956 Jul 05 04:53	27°♊42'52	3°05'18	evening set	15957 Jun 14 06:44	18°♊21'51
min. Earth dist.	15956 Jul 05 05:14	27°♊41'39	0.69120 AU	min. Earth dist.	15957 Jun 19 01:58	12°♊41'49 0.69023 AU
morning rise	15956 Jul 10 10:04	21°♊25'46		inferior conj	15957 Jun 19 15:18	11°♊55'53 2°53'23
direct	15956 Jul 15 04:19	19°♊25'11		minimum elong	15957 Jun 19 13:51	12°♊00'56 2°52'23
desc. node	15956 Jul 23 09:23	23°♊46'26		morning rise	15957 Jun 24 20:56	5°♊49'07
morning max el	15956 Jul 24 14:17	24°♊56'08	22°04'32	direct	15957 Jun 29 02:59	4°♊07'56
	15956 Jul 29 03:26	0°♌		morning max el	15957 Jul 07 08:38	8°♊49'51 20°44'00
	15956 Aug 19 11:03	0°♍		desc. node	15957 Jul 10 06:36	11°♊59'06
morning set	15956 Aug 26 09:38	10°♍52'37			15957 Jul 23 15:01	0°♌
max. Earth dist.	15956 Aug 31 22:35	19°♍55'24	1.41614 AU	morning set	15957 Aug 06 00:05	20°♌09'09
	15956 Sep 06 20:43	0°♎			15957 Aug 12 06:31	0°♍
				max. Earth dist.	15957 Aug 14 07:10	3°♍14'47 1.43625 AU
superior conj	15956 Sep 08 17:24	3°♎15'40	-1°06'25			
minimum elong	15956 Sep 08 22:47	3°♎39'22	1°05'39	superior conj	15957 Aug 20 23:49	14°♍13'16 -1°40'42
asc. node	15956 Sep 16 18:28	17°♎49'16		minimum elong	15957 Aug 21 07:32	14°♍45'32 1°40'09
evening rise	15956 Sep 19 06:17	22°♎26'14			15957 Aug 30 04:57	0°♎
	15956 Sep 23 08:55	0°♍		evening rise	15957 Sep 02 04:03	5°♎12'16
evening max el	15956 Oct 05 04:41	17°♍51'20	18°13'22	asc. node	15957 Sep 03 15:06	7°♎46'39
retrograde	15956 Oct 12 11:25	21°♍34'31			15957 Sep 17 20:09	0°♍
evening set	15956 Oct 14 14:05	21°♍16'19		evening max el	15957 Sep 18 17:41	0°♍56'15 18°01'29
desc. node	15956 Oct 19 06:19	18°♍45'07		retrograde	15957 Sep 25 08:30	4°♍21'37
inferior conj	15956 Oct 21 23:52	16°♍31'57	-0°52'32	evening set	15957 Sep 27 18:40	3°♍53'45
minimum elong	15956 Oct 21 21:58	16°♍36'03	0°51'14		15957 Oct 03 06:48	30°♌
min. Earth dist.	15956 Oct 25 05:59	13°♍46'04	0.59029 AU	inferior conj	15957 Oct 04 11:50	28°♎49'45 0°30'49
morning rise	15956 Oct 29 02:26	11°♍02'34		minimum elong	15957 Oct 04 12:46	28°♎47'27 0°30'46
direct	15956 Nov 04 13:39	9°♍09'12		desc. node	15957 Oct 06 03:39	27°♎11'14
morning max el	15956 Nov 18 20:35	16°♍50'33	27°34'54	min. Earth dist.	15957 Oct 07 12:49	25°♎51'14 0.61319 AU
	15956 Nov 29 17:39	0°♏		morning rise	15957 Oct 11 03:58	22°♎52'18
asc. node	15956 Dec 13 19:07	23°♏26'14		direct	15957 Oct 17 20:06	20°♎36'18
	15956 Dec 17 03:04	0°♏		morning max el	15957 Nov 01 00:53	28°♎31'31 27°58'59
morning set	15956 Dec 20 08:11	6°♏40'25			15957 Nov 02 11:32	0°♍
					15957 Nov 23 14:30	0°♏
superior conj	15956 Dec 27 06:30	21°♏54'23	1°35'13	asc. node	15957 Nov 30 16:05	13°♏06'41
minimum elong	15956 Dec 27 05:29	21°♏48'45	1°35'55	morning set	15957 Dec 04 10:13	20°♏42'12
max. Earth dist.	15956 Dec 26 20:24	20°♏57'52	1.31004 AU		15957 Dec 08 18:51	0°♏
	15956 Dec 30 21:27	0°♏		max. Earth dist.	15957 Dec 10 02:09	2°♏51'36 1.31317 AU
evening rise	15957 Jan 03 00:05	6°♏48'05				
	15957 Jan 14 22:51	0°♏		superior conj	15957 Dec 11 16:50	6°♏25'35 1°26'19
desc. node	15957 Jan 15 05:16	0°♏27'18		minimum elong	15957 Dec 11 14:59	6°♏15'21 1°26'55
evening max el	15957 Feb 01 05:16	23°♏12'56	26°30'59	evening rise	15957 Dec 18 09:35	21°♏14'04
	15957 Feb 12 03:59	0°♏			15957 Dec 22 13:37	0°♏
retrograde	15957 Feb 15 05:05	0°♏22'29		desc. node	15958 Jan 02 02:05	18°♏58'10
	15957 Feb 18 05:28	30°♌			15958 Jan 10 04:53	0°♏
evening set	15957 Feb 21 14:04	28°♏43'31		evening max el	15958 Jan 13 21:07	3°♏52'25 25°09'31
min. Earth dist.	15957 Feb 25 18:44	26°♏05'56	0.58437 AU	retrograde	15958 Jan 27 17:10	10°♏48'46
inferior conj	15957 Feb 28 22:32	23°♏44'07	-3°22'07	evening set	15958 Feb 02 08:11	9°♏37'31
minimum elong	15957 Mar 01 06:12	23°♏29'42	3°19'14	min. Earth dist.	15958 Feb 07 09:29	6°♏53'57 0.56456 AU
morning rise	15957 Mar 09 01:44	19°♏13'34		inferior conj	15958 Feb 10 00:42	5°♏11'08 -4°48'30
direct	15957 Mar 11 00:56	19°♏00'13		minimum elong	15958 Feb 10 10:04	4°♏55'52 4°45'40
asc. node	15957 Mar 11 16:49	19°♏01'46		morning rise	15958 Feb 18 14:36	1°♏01'58
morning max el	15957 Mar 19 03:07	22°♏59'57	18°25'07	direct	15958 Feb 20 16:53	0°♏49'23
	15957 Mar 24 16:02	0°♏		asc. node	15958 Feb 26 14:10	2°♏35'51
morning set	15957 Apr 03 22:29	18°♏14'20		morning max el	15958 Mar 02 03:49	5°♏25'54 19°16'03
	15957 Apr 10 02:57	0°♏			15958 Mar 17 15:27	0°♏
				morning set	15958 Mar 18 23:20	2°♏37'56
superior conj	15957 Apr 13 04:32	5°♏41'19	0°00'47			
minimum elong	15957 Apr 13 04:33	5°♏41'26	0°00'23	superior conj	15958 Mar 27 05:42	18°♏59'05 0°32'33
behind sun begin	15957 Apr 12 21:20	5°♏08'18		minimum elong	15958 Mar 27 07:35	19°♏08'10 0°32'03
behind sun end	15957 Apr 13 11:46	6°♏14'29		desc. node	15958 Mar 31 03:24	26°♏23'52
desc. node	15957 Apr 13 06:45	5°♏51'33			15958 Apr 02 02:18	0°♏
max. Earth dist.	15957 Apr 20 16:56	19°♏01'40	1.40710 AU	max. Earth dist.	15958 Apr 02 22:57	1°♏33'44 1.38419 AU
evening rise	15957 Apr 25 01:18	26°♏20'30		evening rise	15958 Apr 06 16:25	8°♏09'59

	15958 Apr 20 04:15	0°♂			15959 Mar 25 07:17	0°♂	
evening max el	15958 May 11 23:23	28°♂14'08	24°46'36		15959 Apr 14 02:44	0°♂	
	15958 May 13 20:17	0°♂		evening max el	15959 Apr 24 12:59	12°♂06'40	25°58'58
retrograde	15958 May 23 17:42	5°♂06'08		retrograde	15959 May 07 05:04	19°♂23'10	
asc. node	15958 May 25 11:33	4°♂53'19		asc. node	15959 May 12 08:43	17°♂37'24	
evening set	15958 May 29 10:13	2°♂41'49		evening set	15959 May 13 08:13	16°♂52'15	
	15958 Jun 01 00:29	30°♂♂		min. Earth dist.	15959 May 17 12:20	12°♂25'15	0.67403 AU
min. Earth dist.	15958 Jun 02 21:04	27°♂38'48	0.68443 AU	inferior conj	15959 May 19 03:34	10°♂22'09	1°55'49
inferior conj	15958 Jun 03 23:20	26°♂11'28	2°30'11	minimum elong	15959 May 19 01:24	10°♂28'58	1°54'27
minimum elong	15958 Jun 03 21:19	26°♂18'13	2°28'57	morning rise	15959 May 24 19:17	4°♂35'09	
morning rise	15958 Jun 09 08:38	20°♂13'54		direct	15959 May 28 02:57	3°♂32'21	
direct	15958 Jun 13 03:04	18°♂52'26		morning max el	15959 Jun 03 18:18	7°♂05'53	18°43'26
morning max el	15958 Jun 20 09:57	22°♂54'12	19°36'01	desc. node	15959 Jun 14 00:49	20°♂26'40	
	15958 Jun 26 10:45	0°♂		greatest brilliancy	15959 Jun 18 14:27	27°♂22'34	-0.8m
desc. node	15958 Jun 27 03:45	0°♂56'39			15959 Jun 20 07:14	0°♂	
greatest brilliancy	15958 Jul 03 04:21	9°♂27'28	-0.6m	morning set	15959 Jun 25 17:04	8°♂24'40	
morning set	15958 Jul 16 03:57	29°♂01'56			15959 Jul 09 13:39	0°♂	
	15958 Jul 16 19:05	0°♂		max. Earth dist.	15959 Jul 10 16:09	1°♂43'22	1.45886 AU
max. Earth dist.	15958 Jul 27 21:31	17°♂15'32	1.45095 AU				
				superior conj	15959 Jul 11 20:03	3°♂32'16	-2°14'11
superior conj	15958 Aug 01 06:52	24°♂13'33	-2°05'44	minimum elong	15959 Jul 11 19:32	3°♂30'14	2°14'54
minimum elong	15958 Aug 01 13:06	24°♂38'29	2°05'55	evening rise	15959 Jul 27 07:21	27°♂57'41	
	15958 Aug 04 21:00	0°♂			15959 Jul 28 13:59	0°♂	
evening rise	15958 Aug 15 05:56	17°♂06'26		asc. node	15959 Aug 08 08:27	16°♂57'15	
asc. node	15958 Aug 21 11:46	27°♂31'18		evening max el	15959 Aug 16 22:08	28°♂07'59	18°32'50
	15958 Aug 23 00:06	0°♂			15959 Aug 19 02:23	0°♂	
evening max el	15958 Sep 02 08:36	14°♂24'52	18°08'17	retrograde	15959 Aug 23 09:48	1°♂37'17	
retrograde	15958 Sep 08 17:19	17°♂45'36		evening set	15959 Aug 26 13:46	0°♂40'40	
evening set	15958 Sep 11 12:04	17°♂04'40			15959 Aug 27 13:46	30°♂♂	
inferior conj	15958 Sep 17 15:31	11°♂43'27	1°34'23	inferior conj	15959 Sep 01 06:57	25°♂04'13	2°19'31
minimum elong	15958 Sep 17 17:41	11°♂37'26	1°33'45	minimum elong	15959 Sep 01 09:13	24°♂57'18	2°18'49
min. Earth dist.	15958 Sep 20 05:40	8°♂52'18	0.63546 AU	min. Earth dist.	15959 Sep 03 07:38	22°♂36'46	0.65517 AU
desc. node	15958 Sep 23 01:01	6°♂09'05		morning rise	15959 Sep 07 03:29	18°♂40'02	
morning rise	15958 Sep 23 21:17	5°♂28'11		desc. node	15959 Sep 09 22:26	16°♂51'32	
direct	15958 Sep 30 12:34	2°♂56'54		direct	15959 Sep 13 13:03	16°♂02'37	
morning max el	15958 Oct 14 09:56	10°♂56'05	27°44'48	morning max el	15959 Sep 26 21:01	23°♂52'56	26°58'25
	15958 Oct 29 11:45	0°♂			15959 Oct 02 08:52	0°♂	
	15958 Nov 16 00:03	0°♂		morning set	15959 Oct 22 20:44	0°♂	
asc. node	15958 Nov 17 13:00	3°♂01'56		asc. node	15959 Nov 01 12:50	17°♂28'41	
morning set	15958 Nov 18 04:43	4°♂20'26		max. Earth dist.	15959 Nov 04 09:51	23°♂06'42	
max. Earth dist.	15958 Nov 23 01:56	14°♂27'06	1.32201 AU		15959 Nov 05 16:56	25°♂42'49	1.33643 AU
					15959 Nov 07 19:12	0°♂	
superior conj	15958 Nov 26 00:07	20°♂44'59	1°11'19				
minimum elong	15958 Nov 25 21:48	20°♂32'23	1°11'45	superior conj	15959 Nov 10 02:07	4°♂46'52	0°50'13
	15958 Nov 30 05:32	0°♂		minimum elong	15959 Nov 09 23:54	4°♂35'09	0°50'31
evening rise	15958 Dec 02 20:23	5°♂41'42		evening rise	15959 Nov 17 06:38	20°♂06'47	
	15958 Dec 15 12:35	0°♂			15959 Nov 22 01:50	0°♂	
desc. node	15958 Dec 19 22:59	6°♂33'54		desc. node	15959 Dec 06 19:59	22°♂55'36	
evening max el	15958 Dec 26 07:06	13°♂55'09	23°28'58	evening max el	15959 Dec 07 19:17	23°♂54'48	21°47'14
retrograde	15959 Jan 08 15:42	20°♂31'57			15959 Dec 19 15:55	0°♂	
evening set	15959 Jan 13 03:37	19°♂48'12		retrograde	15959 Dec 20 03:12	0°♂00'31	
min. Earth dist.	15959 Jan 19 18:05	16°♂40'19	0.55025 AU		15959 Dec 20 14:32	30°♂♂	
inferior conj	15959 Jan 21 06:34	15°♂47'11	-5°49'07	evening set	15959 Dec 23 08:17	29°♂37'21	
minimum elong	15959 Jan 21 12:06	15°♂39'07	5°47'54	inferior conj	15959 Dec 31 23:07	25°♂46'55	-5°57'58
morning rise	15959 Jan 29 22:01	11°♂54'18		minimum elong	15959 Dec 31 19:34	25°♂51'54	5°56'59
direct	15959 Feb 01 13:47	11°♂37'08		min. Earth dist.	15959 Dec 31 23:30	25°♂46'23	0.54405 AU
morning max el	15959 Feb 12 14:49	16°♂57'28	20°30'11	morning rise	15960 Jan 09 07:31	21°♂59'07	
asc. node	15959 Feb 13 11:31	17°♂49'22		direct	15960 Jan 12 22:54	21°♂30'05	
	15959 Feb 22 06:24	0°♂		morning max el	15960 Jan 25 10:52	27°♂33'15	22°06'08
morning set	15959 Mar 03 06:17	17°♂15'14			15960 Jan 27 19:23	0°♂	
	15959 Mar 09 10:19	0°♂		asc. node	15960 Jan 31 08:50	4°♂25'31	
					15960 Feb 14 18:08	0°♂	
superior conj	15959 Mar 10 19:41	2°♂50'03	0°58'15	morning set	15960 Feb 15 16:49	1°♂59'09	
minimum elong	15959 Mar 10 22:13	3°♂02'55	0°57'55				
max. Earth dist.	15959 Mar 16 06:16	13°♂35'01	1.36194 AU	superior conj	15960 Feb 22 18:55	17°♂04'46	1°17'31
desc. node	15959 Mar 18 00:02	16°♂53'11		minimum elong	15960 Feb 22 21:16	17°♂17'07	1°17'29
evening rise	15959 Mar 20 02:13	20°♂45'50		max. Earth dist.	15960 Feb 26 19:35	25°♂25'54	1.34239 AU

	15960 Feb 29 02:17	0°♿		superior conj	15961 Feb 06 00:25	1°♿33'54	1°30'23
evening rise	15960 Mar 02 03:12	3°♿58'33		minimum elong	15961 Feb 06 02:02	1°♿42'43	1°30'42
desc. node	15960 Mar 03 20:41	7°♿15'48		max. Earth dist.	15961 Feb 08 16:23	7°♿18'43	1.32688 AU
	15960 Mar 17 03:28	0°♿		evening rise	15961 Feb 13 15:49	17°♿38'11	
evening max el	15960 Apr 06 02:56	25°♿49'49	26°55'42	desc. node	15961 Feb 18 17:20	27°♿26'24	
	15960 Apr 11 00:31	0°♿			15961 Feb 20 02:41	0°♿	
retrograde	15960 Apr 19 10:40	3°♿18'40			15961 Mar 11 11:58	0°♿	
evening set	15960 Apr 25 22:51	0°♿46'36		evening max el	15961 Mar 19 15:51	9°♿11'00	27°29'34
	15960 Apr 26 21:03	30°♿♿		retrograde	15961 Apr 02 09:38	16°♿42'38	
asc. node	15960 Apr 28 05:56	28°♿41'13		evening set	15961 Apr 09 03:53	14°♿16'01	
min. Earth dist.	15960 Apr 29 21:40	26°♿53'47	0.65935 AU	min. Earth dist.	15961 Apr 12 23:02	10°♿53'55	0.64084 AU
inferior conj	15960 May 02 01:45	24°♿22'51	1°09'15	asc. node	15961 Apr 15 03:14	8°♿37'14	
minimum elong	15960 May 02 00:05	24°♿27'42	1°08'04	inferior conj	15961 Apr 15 15:07	8°♿05'51	0°09'20
morning rise	15960 May 08 02:42	18°♿48'10		minimum elong	15961 Apr 15 14:51	8°♿06'33	0°08'49
direct	15960 May 11 00:30	18°♿01'55		transit middle	15961 Apr 15 14:51	8°♿06'33	0°08'49
morning max el	15960 May 17 08:20	21°♿20'04	18°07'35	transit begin	15961 Apr 15 12:15	8°♿13'24	
	15960 May 24 05:32	0°♿		transit end	15961 Apr 15 17:26	7°♿59'42	
desc. node	15960 May 30 21:49	10°♿20'37		morning rise	15961 Apr 22 04:05	2°♿45'51	
morning set	15960 Jun 05 06:40	18°♿59'15		direct	15961 Apr 24 17:02	2°♿13'20	
	15960 Jun 12 03:21	0°♿		morning max el	15961 May 01 01:33	5°♿28'26	17°48'58
					15961 May 17 11:18	0°♿	
superior conj	15960 Jun 20 05:49	12°♿48'07	-2°02'34	morning set	15961 May 17 23:24	0°♿51'08	
minimum elong	15960 Jun 19 22:32	12°♿19'34	2°02'55	desc. node	15961 May 17 18:42	0°♿31'17	
max. Earth dist.	15960 Jun 22 12:54	16°♿23'35	1.45930 AU				
	15960 Jul 01 07:03	0°♿		superior conj	15961 May 31 04:42	22°♿43'59	-1°34'28
evening rise	15960 Jul 06 08:55	7°♿51'17		minimum elong	15961 May 30 20:19	22°♿10'12	1°34'20
greatest brilliancy	15960 Jul 18 06:32	26°♿03'42	-0.7m		15961 Jun 04 17:57	0°♿	
	15960 Jul 20 22:38	0°♿		max. Earth dist.	15961 Jun 05 08:40	0°♿58'08	1.45222 AU
asc. node	15960 Jul 25 05:12	5°♿57'53		evening rise	15961 Jun 15 20:30	17°♿15'33	
evening max el	15960 Jul 30 07:40	11°♿58'41	19°14'12		15961 Jun 24 06:44	0°♿	
retrograde	15960 Aug 06 06:46	15°♿49'37		asc. node	15961 Jul 12 02:00	24°♿24'34	
evening set	15960 Aug 09 20:27	14°♿35'43		evening max el	15961 Jul 13 11:28	25°♿52'06	20°11'01
inferior conj	15960 Aug 15 06:46	8°♿45'37	2°48'49		15961 Jul 19 10:59	0°♿	
minimum elong	15960 Aug 15 08:29	8°♿40'01	2°48'10	retrograde	15961 Jul 21 05:43	0°♿16'37	
min. Earth dist.	15960 Aug 16 17:19	6°♿53'17	0.67113 AU		15961 Jul 22 22:59	30°♿♿	
morning rise	15960 Aug 20 19:53	2°♿19'04		evening set	15961 Jul 25 05:40	28°♿44'58	
	15960 Aug 24 20:52	30°♿♿		inferior conj	15961 Jul 30 12:13	22°♿42'40	3°04'37
direct	15960 Aug 26 20:18	29°♿44'08		minimum elong	15961 Jul 30 13:04	22°♿39'45	3°04'01
desc. node	15960 Aug 26 19:51	29°♿44'08		min. Earth dist.	15961 Jul 31 08:54	21°♿32'09	0.68265 AU
	15960 Aug 28 21:53	0°♿		morning rise	15961 Aug 04 20:06	16°♿18'16	
morning max el	15960 Sep 08 08:23	7°♿11'21	25°48'17	direct	15961 Aug 10 09:23	13°♿52'49	
	15960 Sep 26 03:16	0°♿		desc. node	15961 Aug 13 17:14	14°♿36'27	
morning set	15960 Oct 14 07:04	29°♿58'43		morning max el	15961 Aug 21 19:24	20°♿42'44	24°23'53
	15960 Oct 14 07:21	0°♿			15961 Aug 29 19:29	0°♿	
max. Earth dist.	15960 Oct 17 22:35	6°♿47'37	1.35585 AU		15961 Sep 19 07:51	0°♿	
asc. node	15960 Oct 21 06:37	13°♿16'24		morning set	15961 Sep 26 07:25	11°♿41'59	
				max. Earth dist.	15961 Sep 29 22:02	18°♿04'17	1.37878 AU
					15961 Oct 06 08:17	0°♿	
superior conj	15960 Oct 23 20:05	18°♿23'51	0°23'09				
minimum elong	15960 Oct 23 18:45	18°♿17'11	0°23'26				
	15960 Oct 29 11:23	0°♿		superior conj	15961 Oct 07 02:42	1°♿28'22	-0°09'14
evening rise	15960 Oct 31 14:17	4°♿23'38		minimum elong	15961 Oct 07 03:18	1°♿31'15	0°08'47
	15960 Nov 14 23:07	0°♿		behind sun begin	15961 Oct 06 21:32	1°♿03'30	
evening max el	15960 Nov 18 18:29	4°♿25'31	20°19'34	behind sun end	15961 Oct 07 09:04	1°♿59'03	
desc. node	15960 Nov 22 17:05	7°♿38'52		asc. node	15961 Oct 08 03:20	3°♿27'30	
retrograde	15960 Nov 29 14:16	9°♿48'49		evening rise	15961 Oct 15 16:57	18°♿26'36	
evening set	15960 Dec 01 20:18	9°♿35'55			15961 Oct 21 16:09	0°♿	
inferior conj	15960 Dec 10 15:51	5°♿40'22	-5°06'03	evening max el	15961 Nov 01 08:14	15°♿45'39	19°13'15
minimum elong	15960 Dec 10 06:09	5°♿54'41	5°02'59	desc. node	15961 Nov 09 14:16	20°♿20'31	
min. Earth dist.	15960 Dec 12 05:14	4°♿45'15	0.54720 AU	retrograde	15961 Nov 10 13:26	20°♿23'28	
morning rise	15960 Dec 18 15:29	1°♿38'58		evening set	15961 Nov 12 10:48	20°♿12'36	
direct	15960 Dec 23 08:16	0°♿51'21		inferior conj	15961 Nov 20 22:37	16°♿01'31	-3°32'46
morning max el	15961 Jan 05 20:51	7°♿30'34	23°55'21	minimum elong	15961 Nov 20 14:00	16°♿15'58	3°28'58
asc. node	15961 Jan 17 06:07	22°♿05'11		min. Earth dist.	15961 Nov 23 15:02	14°♿13'50	0.55914 AU
	15961 Jan 21 20:53	0°♿		morning rise	15961 Nov 28 14:45	11°♿28'51	
morning set	15961 Jan 30 04:46	16°♿42'35		direct	15961 Dec 04 04:46	10°♿17'07	
	15961 Feb 05 07:11	0°♿		morning max el	15961 Dec 18 06:23	17°♿25'45	25°40'41
					15961 Dec 28 14:13	0°♿	

asc. node	15962 Jan 04 03:19	10°♄32'55			15962 Dec 02 01:05	0°♄	
	15962 Jan 14 01:17	0°♄		asc. node	15962 Dec 22 00:25	29°♄35'52	
morning set	15962 Jan 14 16:17	1°♄20'35			15962 Dec 22 05:34	0°♄	
				morning set	15962 Dec 30 01:37	15°♄48'02	
superior conj	15962 Jan 21 09:48	16°♄11'09	1°37'02				
minimum elong	15962 Jan 21 10:26	16°♄14'39	1°37'37	superior conj	15963 Jan 05 21:03	0°♄50'12	1°37'37
max. Earth dist.	15962 Jan 22 19:39	19°♄18'25	1.31617 AU	minimum elong	15963 Jan 05 20:37	0°♄47'48	1°38'19
	15962 Jan 27 18:28	0°♄			15963 Jan 05 12:05	0°♄	
evening rise	15962 Jan 28 13:14	1°♄38'07		max. Earth dist.	15963 Jan 06 02:41	1°♄21'45	1.31065 AU
desc. node	15962 Feb 05 14:00	17°♄19'48		evening rise	15963 Jan 12 16:58	15°♄52'15	
	15962 Feb 13 00:43	0°♄			15963 Jan 19 17:03	0°♄	
evening max el	15962 Mar 02 01:49	21°♄58'23	27°33'56	desc. node	15963 Jan 23 10:44	6°♄49'03	
retrograde	15962 Mar 16 01:05	29°♄25'26			15963 Feb 08 10:04	0°♄	
evening set	15962 Mar 22 20:43	27°♄11'48		evening max el	15963 Feb 12 06:33	4°♄01'07	27°04'12
min. Earth dist.	15962 Mar 26 14:59	24°♄14'29	0.61952 AU	retrograde	15963 Feb 26 07:29	11°♄18'08	
inferior conj	15962 Mar 29 16:28	21°♄23'15	-1°04'21	evening set	15963 Mar 04 22:16	9°♄25'04	
minimum elong	15962 Mar 29 18:42	21°♄18'01	1°03'38	min. Earth dist.	15963 Mar 08 20:52	6°♄43'27	0.59695 AU
asc. node	15962 Apr 02 00:35	18°♄28'55		inferior conj	15963 Mar 12 02:12	4°♄05'58	-2°29'54
morning rise	15962 Apr 05 19:50	16°♄20'29		minimum elong	15963 Mar 12 07:52	3°♄54'21	2°27'42
direct	15962 Apr 08 01:15	15°♄58'20			15963 Mar 18 02:57	30°♄	
morning max el	15962 Apr 14 18:57	19°♄22'11	17°47'59	morning rise	15963 Mar 19 21:01	29°♄22'55	
	15962 Apr 22 15:32	0°♄		asc. node	15963 Mar 19 21:57	29°♄22'20	
morning set	15962 Apr 30 14:49	13°♄46'14		direct	15963 Mar 21 21:13	29°♄07'28	
desc. node	15962 May 04 15:29	20°♄53'21			15963 Mar 25 12:07	0°♄	
	15962 May 09 21:35	0°♄		morning max el	15963 Mar 29 09:02	2°♄51'20	18°05'44
				morning set	15963 Apr 13 23:04	27°♄27'42	
superior conj	15962 May 12 01:53	3°♄41'54	-0°57'48		15963 Apr 15 07:49	0°♄	
minimum elong	15962 May 11 20:32	3°♄19'23	0°57'42	desc. node	15963 Apr 21 12:13	11°♄22'47	
max. Earth dist.	15962 May 19 00:49	15°♄10'17	1.43847 AU				
evening rise	15962 May 26 10:31	26°♄53'03		superior conj	15963 Apr 23 22:11	15°♄42'46	-0°19'51
	15962 May 28 10:58	0°♄		minimum elong	15963 Apr 23 20:32	15°♄35'25	0°20'04
	15962 Jun 18 03:50	0°♄		max. Earth dist.	15963 May 01 12:27	28°♄48'37	1.41957 AU
evening max el	15962 Jun 26 09:14	9°♄45'36	21°20'49		15963 May 02 05:35	0°♄	
asc. node	15962 Jun 28 22:53	12°♄05'18		evening rise	15963 May 06 16:36	7°♄17'11	
retrograde	15962 Jul 05 04:34	14°♄52'06			15963 May 21 14:23	0°♄	
evening set	15962 Jul 09 15:26	13°♄03'11		evening max el	15963 Jun 09 02:14	23°♄39'55	22°39'21
inferior conj	15962 Jul 14 20:56	6°♄50'11	3°08'40	asc. node	15963 Jun 15 19:50	28°♄45'23	
minimum elong	15962 Jul 14 20:49	6°♄50'35	3°07'59	retrograde	15963 Jun 19 01:44	29°♄30'52	
min. Earth dist.	15962 Jul 15 04:13	6°♄24'46	0.68945 AU	evening set	15963 Jun 24 00:03	27°♄26'07	
morning rise	15962 Jul 20 01:57	0°♄31'04		inferior conj	15963 Jun 29 06:54	21°♄04'18	3°01'58
	15962 Jul 20 17:04	30°♄		minimum elong	15963 Jun 29 05:53	21°♄07'51	3°01'06
direct	15962 Jul 25 03:13	28°♄20'17		min. Earth dist.	15963 Jun 29 01:07	21°♄24'25	0.69140 AU
	15962 Jul 30 01:35	0°♄		morning rise	15963 Jul 04 11:33	14°♄52'31	
desc. node	15962 Jul 31 14:33	1°♄04'15		direct	15963 Jul 09 00:37	12°♄59'49	
morning max el	15962 Aug 04 07:02	4°♄21'48	22°54'34	morning max el	15963 Jul 17 22:00	18°♄09'24	21°28'53
	15962 Aug 23 23:36	0°♄		desc. node	15963 Jul 18 11:47	18°♄44'24	
morning set	15962 Sep 07 09:40	22°♄28'26			15963 Jul 27 16:51	0°♄	
	15962 Sep 11 21:29	0°♄			15963 Aug 17 01:47	0°♄	
max. Earth dist.	15962 Sep 11 21:11	29°♄58'44	1.40288 AU	morning set	15963 Aug 18 12:03	2°♄14'29	
				max. Earth dist.	15963 Aug 25 01:39	12°♄47'27	1.42530 AU
superior conj	15962 Sep 19 17:55	13°♄50'47	-0°45'14				
minimum elong	15962 Sep 19 21:25	14°♄06'45	0°44'32	superior conj	15963 Sep 01 13:26	25°♄22'10	-1°21'37
asc. node	15962 Sep 24 24:00	23°♄36'03		minimum elong	15963 Sep 01 20:03	25°♄50'40	1°20'52
	15962 Sep 28 08:50	0°♄			15963 Sep 04 05:26	0°♄	
evening rise	15962 Sep 29 11:33	2°♄07'25		asc. node	15963 Sep 11 20:39	13°♄38'49	
evening max el	15962 Oct 15 10:20	27°♄53'48	18°29'10	evening rise	15963 Sep 12 18:16	15°♄16'54	
	15962 Oct 17 21:33	0°♄			15963 Sep 21 02:09	0°♄	
retrograde	15962 Oct 23 07:04	1°♄53'07		evening max el	15963 Sep 28 20:38	10°♄41'20	18°05'58
evening set	15962 Oct 25 06:21	1°♄38'51		retrograde	15963 Oct 05 19:09	14°♄14'50	
desc. node	15962 Oct 27 11:31	0°♄51'18		evening set	15963 Oct 08 00:56	13°♄52'53	
	15962 Oct 29 01:33	30°♄		desc. node	15963 Oct 14 08:48	9°♄41'55	
inferior conj	15962 Nov 02 02:21	27°♄07'12	-1°48'31	inferior conj	15963 Oct 15 03:24	9°♄00'02	-0°14'44
minimum elong	15962 Nov 01 22:04	27°♄15'34	1°46'10	minimum elong	15963 Oct 15 02:54	9°♄01'08	0°14'07
min. Earth dist.	15962 Nov 05 07:26	24°♄37'18	0.57778 AU	transit middle	15963 Oct 15 02:54	9°♄01'08	0°14'07
morning rise	15962 Nov 09 10:22	21°♄57'33		transit begin	15963 Oct 15 01:16	9°♄04'51	
direct	15962 Nov 15 15:57	20°♄18'45		transit end	15963 Oct 15 04:32	8°♄57'25	
morning max el	15962 Nov 29 22:14	27°♄50'19	27°03'09	min. Earth dist.	15963 Oct 18 08:23	6°♄06'12	0.60006 AU

morning rise	15963 Oct 22 01:38	3° \mathbb{M} 17'48		desc. node	15964 Sep 30 06:08	18° \mathbb{L} 10'26	
direct	15963 Oct 28 16:00	1° \mathbb{M} 13'49		morning rise	15964 Oct 03 10:14	15° \mathbb{L} 28'16	
morning max el	15963 Nov 11 22:09	9° \mathbb{M} 01'38	27°49'57	direct	15964 Oct 10 02:40	13° \mathbb{L} 05'00	
	15963 Nov 28 01:05	0° \mathbb{J}		morning max el	15964 Oct 24 04:45	21° \mathbb{L} 02'17	27°57'24
asc. node	15963 Dec 08 21:26	19° \mathbb{J} 04'47			15964 Oct 31 23:50	0° \mathbb{M}	
morning set	15963 Dec 14 06:53	0° \mathbb{Z} 00'15			15964 Nov 20 02:51	0° \mathbb{J}	
	15963 Dec 14 06:50	0° \mathbb{Z}		asc. node	15964 Nov 24 18:23	8° \mathbb{J} 52'33	
max. Earth dist.	15963 Dec 20 09:58	13° \mathbb{Z} 21'20	1.31066 AU	morning set	15964 Nov 27 06:02	13° \mathbb{J} 52'56	
				max. Earth dist.	15964 Dec 02 13:51	25° \mathbb{J} 09'30	1.31627 AU
superior conj	15963 Dec 21 08:14	15° \mathbb{Z} 25'38	1°32'11	superior conj	15964 Dec 04 17:33	29° \mathbb{J} 52'46	1°20'42
minimum elong	15963 Dec 21 06:51	15° \mathbb{Z} 17'50	1°32'52	minimum elong	15964 Dec 04 15:27	29° \mathbb{J} 41'11	1°21'14
	15963 Dec 27 22:05	0° \approx			15964 Dec 04 18:52	0° \mathbb{Z}	
evening rise	15963 Dec 28 00:55	0° \approx 15'19		evening rise	15964 Dec 11 11:15	14° \mathbb{Z} 43'10	
desc. node	15964 Jan 10 07:32	25° \approx 44'32			15964 Dec 18 22:54	0° \approx	
	15964 Jan 12 23:54	0° \mathbb{H}		desc. node	15964 Dec 27 04:24	13° \approx 54'18	
evening max el	15964 Jan 25 03:34	15° \mathbb{H} 10'58	25°59'50	evening max el	15965 Jan 05 16:23	25° \approx 32'07	24°28'04
retrograde	15964 Feb 08 02:28	22° \mathbb{H} 14'46			15965 Jan 11 10:51	0° \mathbb{H}	
evening set	15964 Feb 14 04:49	20° \mathbb{H} 47'42		retrograde	15965 Jan 19 08:20	2° \mathbb{H} 20'38	
min. Earth dist.	15964 Feb 18 16:42	18° \mathbb{H} 09'28	0.57540 AU	evening set	15965 Jan 24 13:08	1° \mathbb{H} 21'19	
inferior conj	15964 Feb 21 16:35	16° \mathbb{H} 02'53	-4°00'18		15965 Jan 27 13:07	30° \mathbb{R} \approx	
minimum elong	15964 Feb 22 01:24	15° \mathbb{H} 47'17	3°57'12	min. Earth dist.	15965 Jan 30 04:10	28° \approx 30'04	0.55764 AU
morning rise	15964 Mar 01 01:06	11° \mathbb{H} 41'15		inferior conj	15965 Feb 01 09:44	27° \approx 07'37	-5°19'00
direct	15964 Mar 03 00:38	11° \mathbb{H} 28'43		minimum elong	15965 Feb 01 18:19	26° \approx 54'22	5°16'46
asc. node	15964 Mar 05 19:18	11° \mathbb{H} 54'41		morning rise	15965 Feb 10 01:34	23° \approx 06'25	
morning max el	15964 Mar 11 15:45	15° \mathbb{H} 43'18	18°44'01	direct	15965 Feb 12 08:26	22° \approx 52'32	
	15964 Mar 21 14:40	0° \mathbb{Y}		asc. node	15965 Feb 20 16:38	26° \approx 12'41	
morning set	15964 Mar 27 19:03	11° \mathbb{Y} 39'36		morning max el	15965 Feb 22 10:57	27° \approx 46'47	19°44'48
					15965 Feb 24 12:49	0° \mathbb{H}	
superior conj	15964 Apr 05 14:06	28° \mathbb{Y} 35'50	0°14'56	morning set	15965 Mar 11 22:53	26° \mathbb{H} 10'23	
minimum elong	15964 Apr 05 15:05	28° \mathbb{Y} 40'25	0°14'28		15965 Mar 13 20:12	0° \mathbb{Y}	
behind sun begin	15964 Apr 05 12:10	28° \mathbb{Y} 26'46		superior conj	15965 Mar 19 21:14	12° \mathbb{Y} 09'12	0°44'14
behind sun end	15964 Apr 05 17:59	28° \mathbb{Y} 54'03		minimum elong	15965 Mar 19 23:31	12° \mathbb{Y} 20'29	0°43'45
	15964 Apr 06 08:06	0° \mathbb{B}		desc. node	15965 Mar 25 05:35	22° \mathbb{Y} 26'45	
desc. node	15964 Apr 07 08:54	1° \mathbb{B} 55'05		max. Earth dist.	15965 Mar 26 02:40	24° \mathbb{Y} 04'55	1.37453 AU
max. Earth dist.	15964 Apr 12 20:14	11° \mathbb{B} 46'07	1.39747 AU		15965 Mar 29 08:45	0° \mathbb{B}	
evening rise	15964 Apr 16 19:47	18° \mathbb{B} 36'31		evening rise	15965 Mar 29 19:14	0° \mathbb{B} 46'42	
	15964 Apr 23 19:29	0° \mathbb{I}			15965 Apr 17 00:38	0° \mathbb{I}	
	15964 May 14 22:25	0° \mathbb{E}		evening max el	15965 May 04 05:57	21° \mathbb{I} 29'30	25°18'42
evening max el	15964 May 21 16:31	7° \mathbb{E} 35'02	24°00'55	retrograde	15965 May 16 09:54	28° \mathbb{I} 32'52	
retrograde	15964 Jun 01 19:49	14° \mathbb{E} 06'31		asc. node	15965 May 19 13:58	27° \mathbb{I} 51'20	
asc. node	15964 Jun 01 16:52	14° \mathbb{E} 06'28		evening set	15965 May 22 07:14	26° \mathbb{I} 04'56	
evening set	15964 Jun 07 05:51	11° \mathbb{E} 48'20		min. Earth dist.	15965 May 26 15:00	21° \mathbb{I} 17'42	0.68065 AU
min. Earth dist.	15964 Jun 11 21:24	6° \mathbb{E} 24'07	0.68844 AU	inferior conj	15965 May 27 22:51	19° \mathbb{I} 34'14	2°17'00
inferior conj	15964 Jun 12 16:10	5° \mathbb{E} 20'17	2°44'51	minimum elong	15965 May 27 20:42	19° \mathbb{I} 41'14	2°15'42
minimum elong	15964 Jun 12 14:26	5° \mathbb{E} 26'14	2°43'45	morning rise	15965 Jun 02 10:34	13° \mathbb{I} 41'15	
	15964 Jun 17 02:50	30° \mathbb{R} \mathbb{I}		direct	15965 Jun 06 00:21	12° \mathbb{I} 27'54	
morning rise	15964 Jun 17 23:02	29° \mathbb{I} 17'17		morning max el	15965 Jun 12 23:34	16° \mathbb{I} 15'40	19°11'40
direct	15964 Jun 22 00:10	27° \mathbb{I} 44'20		desc. node	15965 Jun 21 06:05	26° \mathbb{I} 30'12	
	15964 Jun 27 09:29	0° \mathbb{E}			15965 Jun 23 16:31	0° \mathbb{E}	
morning max el	15964 Jun 29 19:05	2° \mathbb{E} 07'20	20°13'15	greatest brilliancy	15965 Jun 25 19:00	3° \mathbb{E} 06'03	-0.7m
desc. node	15964 Jul 04 08:57	7° \mathbb{E} 17'39		morning set	15965 Jul 07 01:17	20° \mathbb{E} 14'20	
	15964 Jul 20 10:12	0° \mathbb{Q}			15965 Jul 13 08:55	0° \mathbb{Q}	
morning set	15964 Jul 27 19:53	11° \mathbb{Q} 15'03		max. Earth dist.	15965 Jul 20 06:09	10° \mathbb{Q} 43'41	1.45525 AU
max. Earth dist.	15964 Aug 06 13:11	26° \mathbb{Q} 27'29	1.44336 AU	superior conj	15965 Jul 23 07:57	15° \mathbb{Q} 33'48	-2°11'42
	15964 Aug 08 18:16	0° \mathbb{P}		minimum elong	15965 Jul 23 11:49	15° \mathbb{Q} 49'06	2°12'11
superior conj	15964 Aug 12 09:47	5° \mathbb{P} 54'58	-1°52'54		15965 Aug 01 08:48	0° \mathbb{P}	
minimum elong	15964 Aug 12 17:32	6° \mathbb{P} 26'42	1°52'37	evening rise	15965 Aug 07 00:06	9° \mathbb{P} 11'02	
evening rise	15964 Aug 25 08:12	27° \mathbb{P} 42'29		asc. node	15965 Aug 15 14:00	23° \mathbb{P} 09'10	
	15964 Aug 26 16:08	0° \mathbb{L}			15965 Aug 20 01:09	0° \mathbb{L}	
asc. node	15964 Aug 28 17:19	3° \mathbb{L} 31'35		evening max el	15965 Aug 26 01:33	7° \mathbb{L} 33'15	18°16'34
evening max el	15964 Sep 11 10:55	23° \mathbb{L} 57'44	18°02'08	retrograde	15965 Sep 01 10:31	10° \mathbb{L} 56'17	
retrograde	15964 Sep 17 21:50	27° \mathbb{L} 19'22		evening set	15965 Sep 04 09:06	10° \mathbb{L} 08'57	
evening set	15964 Sep 20 11:41	26° \mathbb{L} 46'09		inferior conj	15965 Sep 10 07:43	4° \mathbb{L} 40'43	1°55'38
inferior conj	15964 Sep 26 22:33	21° \mathbb{L} 34'16	1°00'11	minimum elong	15965 Sep 10 10:02	4° \mathbb{L} 34'00	1°54'57
minimum elong	15964 Sep 27 00:11	21° \mathbb{L} 30'01	0°59'49				
min. Earth dist.	15964 Sep 29 19:19	18° \mathbb{L} 36'58	0.62293 AU				

min. Earth dist.	15965 Sep 12 16:12	1°♌58'08	0.64421 AU	inferior conj	15966 Aug 25 03:09	18°♍12'03	2°33'42
	15965 Sep 14 12:50	30°♍		minimum elong	15966 Aug 25 05:15	18°♍05'28	2°33'01
morning rise	15965 Sep 16 09:21	28°♍20'31		min. Earth dist.	15966 Aug 26 21:53	15°♍58'12	0.66244 AU
desc. node	15965 Sep 17 03:32	27°♍46'28		morning rise	15966 Aug 30 20:15	11°♍45'52	
direct	15965 Sep 22 22:31	25°♍45'51		desc. node	15966 Sep 04 00:55	9°♍24'35	
	15965 Oct 02 12:33	0°♌		direct	15966 Sep 06 02:10	9°♍08'24	
morning max el	15965 Oct 06 15:14	3°♌43'04	27°28'37	morning max el	15966 Sep 19 02:47	16°♍51'37	26°30'52
	15965 Oct 26 11:11	0°♌			15966 Sep 30 01:52	0°♌	
morning set	15965 Nov 10 20:29	27°♌19'26			15966 Oct 19 08:27	0°♌	
asc. node	15965 Nov 11 15:16	28°♌52'37		morning set	15966 Oct 24 23:11	10°♌13'04	
	15965 Nov 12 04:44	0°♌		max. Earth dist.	15966 Oct 28 21:10	17°♌46'24	1.34415 AU
max. Earth dist.	15965 Nov 15 10:25	6°♌37'42	1.32750 AU	asc. node	15966 Oct 29 12:06	19°♌00'25	
superior conj	15965 Nov 18 22:51	14°♌05'18	1°03'07	superior conj	15966 Nov 02 21:46	27°♌57'36	0°39'26
minimum elong	15965 Nov 18 20:29	13°♌52'36	1°03'28	minimum elong	15966 Nov 02 19:49	27°♌47'29	0°39'42
evening rise	15965 Nov 25 22:03	29°♌10'20			15966 Nov 03 21:17	0°♌	
	15965 Nov 26 07:20	0°♌		evening rise	15966 Nov 10 07:26	13°♌32'34	
	15965 Dec 13 05:58	0°♌			15966 Nov 18 15:29	0°♌	
desc. node	15965 Dec 14 01:21	1°♌01'16		evening max el	15966 Nov 29 17:44	15°♌37'01	21°07'32
evening max el	15965 Dec 18 01:48	5°♌27'43	22°44'39	desc. node	15966 Nov 30 22:23	16°♌44'14	
retrograde	15965 Dec 31 01:41	11°♌53'37		retrograde	15966 Dec 11 11:41	21°♌25'59	
evening set	15966 Jan 04 00:25	11°♌19'38		evening set	15966 Dec 14 04:59	21°♌08'37	
min. Earth dist.	15966 Jan 11 10:44	7°♌55'32	0.54650 AU	inferior conj	15966 Dec 22 23:17	17°♌17'39	-5°42'47
inferior conj	15966 Jan 12 08:31	7°♌24'42	-6°00'21	minimum elong	15966 Dec 22 16:15	17°♌27'37	5°41'00
minimum elong	15966 Jan 12 10:28	7°♌21'56	5°59'37	min. Earth dist.	15966 Dec 23 16:13	16°♌53'40	0.54422 AU
morning rise	15966 Jan 20 21:45	3°♌36'13		morning rise	15966 Dec 31 03:44	13°♌26'07	
direct	15966 Jan 23 22:33	3°♌15'06		direct	15967 Jan 04 05:58	12°♌49'58	
morning max el	15966 Feb 04 15:30	8°♌53'51	21°08'47	morning max el	15967 Jan 17 06:23	19°♌10'13	22°51'52
asc. node	15966 Feb 07 13:59	12°♌03'22		asc. node	15967 Jan 25 11:17	29°♌08'36	
	15966 Feb 18 22:18	0°♌			15967 Jan 26 01:06	0°♌	
morning set	15966 Feb 24 07:36	10°♌51'02		morning set	15967 Feb 08 18:54	25°♌35'00	
					15967 Feb 10 20:21	0°♌	
superior conj	15966 Mar 03 15:33	26°♌11'21	1°07'14	superior conj	15967 Feb 15 17:44	10°♌33'01	1°23'45
minimum elong	15966 Mar 03 18:05	26°♌24'27	1°06'59	minimum elong	15967 Feb 15 19:49	10°♌44'10	1°23'52
	15966 Mar 05 12:12	0°♌		max. Earth dist.	15967 Feb 19 03:56	17°♌46'56	1.33517 AU
max. Earth dist.	15966 Mar 08 11:53	5°♌58'21	1.35312 AU	evening rise	15967 Feb 23 18:09	27°♌03'52	
evening rise	15966 Mar 12 11:52	13°♌38'50			15967 Feb 25 06:27	0°♌	
desc. node	15966 Mar 12 02:15	12°♌53'45		desc. node	15967 Feb 26 22:54	3°♌11'53	
	15966 Mar 21 18:40	0°♌			15967 Mar 15 01:58	0°♌	
	15966 Apr 11 20:51	0°♌		evening max el	15967 Mar 30 09:08	18°♌53'25	27°13'29
evening max el	15966 Apr 16 19:32	5°♌18'26	26°25'26	retrograde	15967 Apr 12 22:13	26°♌25'25	
retrograde	15966 Apr 29 19:03	12°♌42'19		evening set	15967 Apr 19 13:15	23°♌54'49	
evening set	15966 May 06 02:24	10°♌09'49		asc. node	15967 Apr 23 08:25	20°♌20'18	
asc. node	15966 May 06 11:09	9°♌51'25		min. Earth dist.	15967 Apr 23 10:12	20°♌15'29	0.65176 AU
min. Earth dist.	15966 May 10 03:57	5°♌57'55	0.66824 AU	inferior conj	15967 Apr 25 19:35	17°♌35'34	0°45'31
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minimum elong	15966 May 11 22:46	3°♌47'44	1°36'18	morning rise	15967 May 02 01:18	12°♌06'49	
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direct	15966 May 20 23:23	27°♌04'29			15967 May 22 04:11	0°♌	
	15966 May 26 21:55	0°♌		desc. node	15967 May 26 00:05	6°♌13'33	
morning max el	15966 May 27 10:41	0°♌30'02	18°26'11	morning set	15967 May 29 01:08	11°♌13'33	
desc. node	15966 Jun 08 03:08	16°♌11'40			15967 Jun 09 14:53	0°♌	
morning set	15966 Jun 16 23:45	0°♌05'19		superior conj	15967 Jun 12 07:19	4°♌15'47	-1°52'15
	15966 Jun 16 22:25	0°♌		minimum elong	15967 Jun 11 22:50	3°♌42'12	1°52'21
superior conj	15966 Jul 02 17:40	24°♌46'49	-2°11'41	max. Earth dist.	15967 Jun 15 21:58	9°♌56'43	1.45709 AU
minimum elong	15966 Jul 02 13:49	24°♌31'46	2°12'19	evening rise	15967 Jun 28 08:44	29°♌13'01	
max. Earth dist.	15966 Jul 03 01:51	25°♌18'39	1.45992 AU		15967 Jun 28 20:59	0°♌	
	15966 Jul 06 02:03	0°♌		greatest brilliancy	15967 Jul 12 03:11	20°♌00'24	-0.6m
evening rise	15966 Jul 18 14:57	19°♌36'57			15967 Jul 19 07:56	0°♌	
	15966 Jul 25 05:46	0°♌		asc. node	15967 Jul 20 07:30	1°♌13'59	
greatest brilliancy	15966 Jul 27 14:36	3°♌40'46	-0.8m	evening max el	15967 Jul 23 20:55	5°♌13'42	19°36'36
asc. node	15966 Aug 02 10:43	12°♌26'04		retrograde	15967 Jul 31 03:23	9°♌17'33	
evening max el	15966 Aug 09 13:38	21°♌20'47	18°48'23	evening set	15967 Aug 03 21:18	7°♌56'19	
retrograde	15966 Aug 16 05:22	24°♌58'08		inferior conj	15967 Aug 09 05:41	2°♌01'06	2°57'00
evening set	15966 Aug 19 13:16	23°♌54'29					






































































































































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min. Earth dist.	15967 Aug 10 10:23	0° $\mathring{\text{M}}$ 25'38	0.67663 AU	asc. node	15968 Jul 06 04:19	19° $\mathring{\text{O}}$ 22'55	
	15967 Aug 10 18:12	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$		retrograde	15968 Jul 14 02:22	23° $\mathring{\text{O}}$ 48'56	
morning rise	15967 Aug 14 16:17	25° $\mathring{\text{O}}$ 34'57		evening set	15968 Jul 18 06:58	22° $\mathring{\text{O}}$ 09'47	
direct	15967 Aug 20 12:15	23° $\mathring{\text{O}}$ 02'57		inferior conj	15968 Jul 23 12:46	16° $\mathring{\text{O}}$ 02'59	3°07'40
desc. node	15967 Aug 21 22:18	23° $\mathring{\text{O}}$ 10'52		minimum elong	15968 Jul 23 13:12	16° $\mathring{\text{O}}$ 01'26	3°07'03
	15967 Sep 01 07:23	0° $\mathring{\text{M}}$		min. Earth dist.	15968 Jul 24 03:43	15° $\mathring{\text{O}}$ 11'25	0.68620 AU
morning max el	15967 Sep 01 13:49	0° $\mathring{\text{M}}$ 16'09	25°13'25	morning rise	15968 Jul 28 19:09	9° $\mathring{\text{O}}$ 40'44	
	15967 Sep 23 23:20	0° $\mathring{\text{A}}$		direct	15968 Aug 03 03:30	7° $\mathring{\text{O}}$ 20'52	
morning set	15967 Oct 07 10:20	22° $\mathring{\text{A}}$ 24'46		desc. node	15968 Aug 07 19:39	8° $\mathring{\text{O}}$ 46'50	
max. Earth dist.	15967 Oct 10 23:06	28° $\mathring{\text{A}}$ 51'15	1.36532 AU	morning max el	15968 Aug 14 00:40	13° $\mathring{\text{O}}$ 50'27	23°45'55
	15967 Oct 11 13:51	0° $\mathring{\text{M}}$			15968 Aug 27 03:42	0° $\mathring{\text{M}}$	
asc. node	15967 Oct 16 08:52	9° $\mathring{\text{M}}$ 11'37			15968 Sep 15 20:06	0° $\mathring{\text{A}}$	
				morning set	15968 Sep 18 01:41	3° $\mathring{\text{A}}$ 44'47	
superior conj	15967 Oct 17 11:22	11° $\mathring{\text{M}}$ 22'21	0°10'00	max. Earth dist.	15968 Sep 21 21:48	10° $\mathring{\text{A}}$ 22'02	1.38913 AU
minimum elong	15967 Oct 17 10:44	11° $\mathring{\text{M}}$ 19'12	0°10'20				
behind sun begin	15967 Oct 17 05:47	10° $\mathring{\text{M}}$ 54'38		superior conj	15968 Sep 29 12:00	24° $\mathring{\text{A}}$ 10'44	-0°24'12
behind sun end	15967 Oct 17 15:42	11° $\mathring{\text{M}}$ 43'49		minimum elong	15968 Sep 29 13:44	24° $\mathring{\text{A}}$ 18'52	0°23'38
evening rise	15967 Oct 25 13:16	27° $\mathring{\text{M}}$ 44'25		asc. node	15968 Oct 02 05:34	29° $\mathring{\text{A}}$ 22'25	
	15967 Oct 26 16:00	0° $\mathring{\text{A}}$			15968 Oct 02 13:23	0° $\mathring{\text{M}}$	
evening max el	15967 Nov 11 23:17	26° $\mathring{\text{A}}$ 29'00	19°48'35	evening rise	15968 Oct 08 12:55	11° $\mathring{\text{M}}$ 39'20	
	15967 Nov 16 11:39	0° $\mathring{\text{B}}$			15968 Oct 18 13:25	0° $\mathring{\text{A}}$	
desc. node	15967 Nov 17 19:29	0° $\mathring{\text{B}}$ 38'45		evening max el	15968 Oct 24 18:46	8° $\mathring{\text{A}}$ 10'43	18°51'45
retrograde	15967 Nov 22 02:08	1° $\mathring{\text{B}}$ 32'00		retrograde	15968 Nov 02 08:47	12° $\mathring{\text{A}}$ 30'37	
evening set	15967 Nov 24 02:53	1° $\mathring{\text{B}}$ 20'44		desc. node	15968 Nov 03 16:40	12° $\mathring{\text{A}}$ 24'44	
	15967 Nov 28 03:12	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		evening set	15968 Nov 04 06:16	12° $\mathring{\text{A}}$ 18'45	
inferior conj	15967 Dec 02 20:38	27° $\mathring{\text{A}}$ 20'01	-4°29'40	inferior conj	15968 Nov 12 11:53	7° $\mathring{\text{A}}$ 58'56	-2°48'12
minimum elong	15967 Dec 02 10:39	27° $\mathring{\text{A}}$ 35'27	4°25'56	minimum elong	15968 Nov 12 05:00	8° $\mathring{\text{A}}$ 11'15	2°44'52
min. Earth dist.	15967 Dec 04 23:25	26° $\mathring{\text{A}}$ 01'38	0.55134 AU	min. Earth dist.	15968 Nov 15 11:21	5° $\mathring{\text{A}}$ 51'47	0.56648 AU
morning rise	15967 Dec 10 17:00	23° $\mathring{\text{A}}$ 06'55		morning rise	15968 Nov 20 00:49	3° $\mathring{\text{A}}$ 10'58	
direct	15967 Dec 15 19:47	22° $\mathring{\text{A}}$ 09'16		direct	15968 Nov 25 22:22	1° $\mathring{\text{A}}$ 47'58	
morning max el	15967 Dec 29 14:50	29° $\mathring{\text{A}}$ 02'01	24°41'45	morning max el	15968 Dec 10 02:22	9° $\mathring{\text{A}}$ 06'07	26°19'34
	15967 Dec 30 14:30	0° $\mathring{\text{B}}$			15968 Dec 25 19:55	0° $\mathring{\text{B}}$	
asc. node	15968 Jan 12 08:31	17° $\mathring{\text{B}}$ 11'02		asc. node	15968 Dec 29 05:41	5° $\mathring{\text{B}}$ 55'30	
	15968 Jan 19 08:07	0° $\mathring{\approx}$		morning set	15969 Jan 07 17:42	24° $\mathring{\text{B}}$ 51'28	
morning set	15968 Jan 24 06:53	10° $\mathring{\approx}$ 17'08			15969 Jan 10 02:18	0° $\mathring{\approx}$	
superior conj	15968 Jan 31 01:09	25° $\mathring{\approx}$ 06'54	1°33'57	superior conj	15969 Jan 14 11:33	9° $\mathring{\approx}$ 45'38	1°38'00
minimum elong	15968 Jan 31 02:22	25° $\mathring{\approx}$ 13'37	1°34'23	minimum elong	15969 Jan 14 11:43	9° $\mathring{\approx}$ 46'38	1°38'40
max. Earth dist.	15968 Feb 02 03:48	29° $\mathring{\approx}$ 43'30	1.32171 AU	max. Earth dist.	15969 Jan 15 09:17	11° $\mathring{\approx}$ 46'48	1.31322 AU
	15968 Feb 02 06:51	0° $\mathring{\text{H}}$		evening rise	15969 Jan 21 11:16	25° $\mathring{\approx}$ 00'50	
evening rise	15968 Feb 07 10:53	10° $\mathring{\text{H}}$ 53'52			15969 Jan 23 21:08	0° $\mathring{\text{H}}$	
desc. node	15968 Feb 13 19:33	23° $\mathring{\text{H}}$ 16'31		desc. node	15969 Jan 30 16:13	13° $\mathring{\text{H}}$ 00'52	
	15968 Feb 17 13:40	0° $\mathring{\text{Y}}$			15969 Feb 10 04:22	0° $\mathring{\text{Y}}$	
	15968 Mar 09 20:20	0° $\mathring{\text{B}}$		evening max el	15969 Feb 22 05:29	14° $\mathring{\text{Y}}$ 33'06	27°25'36
evening max el	15968 Mar 11 21:19	2° $\mathring{\text{B}}$ 03'05	27°35'32	retrograde	15969 Mar 08 05:30	21° $\mathring{\text{Y}}$ 55'29	
retrograde	15968 Mar 25 18:06	9° $\mathring{\text{B}}$ 33'12		evening set	15969 Mar 15 00:04	19° $\mathring{\text{Y}}$ 49'54	
evening set	15968 Mar 01 13:25	7° $\mathring{\text{B}}$ 11'33		min. Earth dist.	15969 Mar 18 19:28	17° $\mathring{\text{Y}}$ 00'37	0.61001 AU
min. Earth dist.	15968 Apr 05 07:54	4° $\mathring{\text{B}}$ 00'34	0.63199 AU	inferior conj	15969 Mar 21 23:25	14° $\mathring{\text{Y}}$ 13'22	-1°39'25
inferior conj	15968 Apr 08 04:17	1° $\mathring{\text{B}}$ 09'30	-0°20'14	minimum elong	15969 Mar 22 03:02	14° $\mathring{\text{Y}}$ 05'21	1°38'05
minimum elong	15968 Apr 08 04:56	1° $\mathring{\text{B}}$ 07'51	0°20'18	asc. node	15969 Mar 27 03:02	10° $\mathring{\text{Y}}$ 17'18	
asc. node	15968 Apr 09 05:42	0° $\mathring{\text{B}}$ 06'24		morning rise	15969 Mar 29 09:19	9° $\mathring{\text{Y}}$ 18'33	
	15968 Apr 09 08:21	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$		direct	15969 Mar 31 12:19	8° $\mathring{\text{Y}}$ 59'33	
morning rise	15968 Apr 14 23:05	25° $\mathring{\text{Y}}$ 56'09		morning max el	15969 Apr 07 12:22	12° $\mathring{\text{Y}}$ 30'16	17°53'11
direct	15968 Apr 17 08:38	25° $\mathring{\text{Y}}$ 28'26			15969 Apr 19 07:50	0° $\mathring{\text{B}}$	
morning max el	15968 Apr 23 20:01	28° $\mathring{\text{Y}}$ 46'03	17°46'19	morning set	15969 Apr 23 03:30	6° $\mathring{\text{B}}$ 51'49	
	15968 Apr 25 00:24	0° $\mathring{\text{B}}$		desc. node	15969 Apr 28 17:43	16° $\mathring{\text{B}}$ 55'49	
morning set	15968 May 10 04:16	23° $\mathring{\text{B}}$ 34'57					
desc. node	15968 May 11 20:57	26° $\mathring{\text{B}}$ 30'03		superior conj	15969 May 03 22:16	26° $\mathring{\text{B}}$ 01'40	-0°41'32
	15968 May 13 21:55	0° $\mathring{\text{H}}$		minimum elong	15969 May 03 18:34	25° $\mathring{\text{B}}$ 45'41	0°41'32
					15969 May 06 06:03	0° $\mathring{\text{H}}$	
superior conj	15968 May 22 15:03	14° $\mathring{\text{H}}$ 36'29	-1°19'29	max. Earth dist.	15969 May 11 07:16	8° $\mathring{\text{H}}$ 24'43	1.43099 AU
minimum elong	15968 May 22 07:41	14° $\mathring{\text{H}}$ 06'15	1°19'17	evening rise	15969 May 17 14:55	18° $\mathring{\text{H}}$ 32'33	
max. Earth dist.	15968 May 28 16:30	24° $\mathring{\text{H}}$ 23'58	1.44715 AU		15969 May 25 01:45	0° $\mathring{\text{B}}$	
	15968 Jun 01 05:36	0° $\mathring{\text{B}}$			15969 Jun 15 22:01	0° $\mathring{\text{O}}$	
evening rise	15968 Jun 06 19:17	8° $\mathring{\text{B}}$ 38'03		evening max el	15969 Jun 18 17:44	3° $\mathring{\text{O}}$ 01'33	21°53'29
	15968 Jun 21 02:43	0° $\mathring{\text{O}}$		asc. node	15969 Jun 23 01:12	6° $\mathring{\text{O}}$ 39'58	

retrograde	15969 Jun 28 00:39	8°♌26'45			15970 May 18 13:39	0°♊	
evening set	15969 Jul 02 16:27	6°♌30'36		evening max el	15970 Jun 01 09:05	16°♊55'15	23°14'07
inferior conj	15969 Jul 07 22:14	0°♌13'35	3°07'07	asc. node	15970 Jun 09 22:10	22°♊48'38	
minimum elong	15969 Jul 07 21:43	0°♌15'22	3°06'21	retrograde	15970 Jun 11 20:45	23°♊04'53	
min. Earth dist.	15969 Jul 07 23:52	0°♌07'54	0.69086 AU	evening set	15970 Jun 17 00:04	20°♊53'49	
	15969 Jul 08 02:07	30°♋		inferior conj	15970 Jun 22 08:07	14°♊28'45	2°56'00
morning rise	15969 Jul 13 02:49	23°♊57'39		minimum elong	15970 Jun 22 06:46	14°♊33'26	2°55'02
direct	15969 Jul 17 22:51	21°♊54'27		min. Earth dist.	15970 Jun 21 20:44	15°♊08'08	0.69065 AU
desc. node	15969 Jul 25 16:57	25°♊48'06		morning rise	15970 Jun 27 13:24	8°♊20'37	
morning max el	15969 Jul 27 13:28	27°♊33'22	22°17'23	direct	15970 Jul 01 21:13	6°♊36'28	
	15969 Jul 29 20:38	0°♌		morning max el	15970 Jul 10 06:53	11°♊25'33	20°55'16
	15969 Aug 20 17:36	0°♎		desc. node	15970 Jul 12 14:11	13°♊52'46	
morning set	15969 Aug 29 17:51	14°♎05'59			15970 Jul 24 19:18	0°♌	
max. Earth dist.	15969 Sep 03 23:25	22°♎41'48	1.41277 AU	morning set	15970 Aug 09 11:05	23°♌29'22	
	15969 Sep 08 06:22	0°♏			15970 Aug 13 14:34	0°♎	
				max. Earth dist.	15970 Aug 17 06:42	5°♎52'49	1.43353 AU
superior conj	15969 Sep 11 19:25	6°♏13'08	-1°00'52	superior conj	15970 Aug 24 05:17	17°♎19'30	-1°35'54
minimum elong	15969 Sep 12 00:19	6°♏34'53	1°00'06	minimum elong	15970 Aug 24 12:49	17°♎51'13	1°35'19
asc. node	15969 Sep 19 02:13	19°♏29'31			15970 Aug 31 14:14	0°♏	
evening rise	15969 Sep 22 03:04	25°♏09'11		evening rise	15970 Sep 05 03:19	8°♏01'42	
	15969 Sep 24 17:34	0°♎		asc. node	15970 Sep 05 22:52	9°♏28'32	
evening max el	15969 Oct 08 00:53	20°♎37'17	18°16'47		15970 Sep 18 10:36	0°♎	
retrograde	15969 Oct 15 10:59	24°♎24'24		evening max el	15970 Sep 21 13:20	3°♎38'13	18°02'05
evening set	15969 Oct 17 12:37	24°♎07'24		retrograde	15970 Sep 28 05:53	7°♎05'17	
desc. node	15969 Oct 21 13:55	22°♎07'37		evening set	15970 Sep 30 14:50	6°♎39'07	
inferior conj	15969 Oct 25 01:04	19°♎26'14	-1°06'46	inferior conj	15970 Oct 07 10:21	1°♎38'03	0°19'25
minimum elong	15969 Oct 24 22:34	19°♎31'26	1°05'13	minimum elong	15970 Oct 07 10:57	1°♎36'34	0°19'31
min. Earth dist.	15969 Oct 28 07:13	16°♎43'51	0.58696 AU	desc. node	15970 Oct 08 11:15	0°♎37'35	
morning rise	15969 Nov 01 05:04	14°♎01'38			15970 Oct 09 02:46	30°♋	
direct	15969 Nov 07 14:56	12°♎11'58		min. Earth dist.	15970 Oct 10 12:37	28°♏40'02	0.60979 AU
morning max el	15969 Nov 21 22:00	19°♎51'07	27°27'52	morning rise	15970 Oct 14 04:04	25°♏44'11	
	15969 Nov 30 14:45	0°♎		direct	15970 Oct 20 19:58	23°♏30'57	
asc. node	15969 Dec 16 02:47	25°♎11'08			15970 Nov 02 13:38	0°♎	
	15969 Dec 18 14:10	0°♏		morning max el	15970 Nov 04 01:15	1°♎24'46	27°57'49
morning set	15969 Dec 23 01:35	9°♏13'45			15970 Nov 24 21:38	0°♎	
superior conj	15969 Dec 29 23:01	24°♏24'08	1°36'02	asc. node	15970 Dec 02 23:47	14°♎48'57	
minimum elong	15969 Dec 29 22:09	24°♏19'19	1°36'45	morning set	15970 Dec 07 04:33	23°♎18'39	
max. Earth dist.	15969 Dec 29 17:04	23°♏50'49	1.31003 AU		15970 Dec 10 08:03	0°♏	
	15970 Jan 01 11:03	0°♏		max. Earth dist.	15970 Dec 12 23:16	5°♏46'06	1.31234 AU
evening rise	15970 Jan 05 17:04	9°♏19'37		superior conj	15970 Dec 14 09:40	8°♏56'55	1°28'04
	15970 Jan 16 05:24	0°♎		minimum elong	15970 Dec 14 07:56	8°♏47'16	1°28'41
desc. node	15970 Jan 17 12:58	2°♎17'17		evening rise	15970 Dec 21 02:16	23°♏45'11	
evening max el	15970 Feb 04 06:58	26°♎13'05	26°40'36		15970 Dec 24 00:55	0°♏	
	15970 Feb 08 21:12	0°♎		desc. node	15971 Jan 04 09:48	20°♏55'17	
retrograde	15970 Feb 18 07:12	3°♎24'52			15971 Jan 10 17:49	0°♎	
evening set	15970 Feb 24 17:57	1°♎41'59		evening max el	15971 Jan 17 00:10	7°♎00'32	25°23'19
	15970 Feb 27 13:09	30°♋		retrograde	15971 Jan 30 21:18	13°♎59'08	
min. Earth dist.	15970 Feb 28 20:40	29°♎03'52	0.58757 AU	evening set	15971 Feb 05 15:28	12°♎43'49	
inferior conj	15970 Mar 04 01:15	26°♎37'23	-3°08'25	min. Earth dist.	15971 Feb 10 12:49	10°♎02'07	0.56718 AU
minimum elong	15970 Mar 04 08:26	26°♎23'35	3°05'40	inferior conj	15971 Feb 13 06:41	8°♎12'46	-4°36'31
morning rise	15970 Mar 12 02:25	22°♎03'41		minimum elong	15971 Feb 13 16:04	7°♎57'10	4°33'33
direct	15970 Mar 14 01:40	21°♎49'56		morning rise	15971 Feb 21 19:27	4°♎00'27	
asc. node	15970 Mar 14 00:24	21°♎49'57		direct	15971 Feb 23 20:38	3°♎48'05	
morning max el	15970 Mar 21 23:52	25°♎45'11	18°19'26	asc. node	15971 Feb 28 21:46	5°♎08'13	
	15970 Mar 25 14:40	0°♎		morning max el	15971 Mar 05 02:19	8°♎18'51	19°07'02
morning set	15970 Apr 06 17:13	20°♎47'29			15971 Mar 19 01:56	0°♎	
	15970 Apr 11 13:59	0°♏		morning set	15971 Mar 21 16:59	5°♎08'57	
desc. node	15970 Apr 15 14:25	7°♏26'57		superior conj	15971 Mar 30 02:26	21°♎38'41	0°28'06
superior conj	15970 Apr 16 03:27	8°♏26'21	-0°04'32	minimum elong	15971 Mar 30 04:07	21°♎46'46	0°27'35
minimum elong	15970 Apr 16 03:04	8°♏24'38	0°04'53	desc. node	15971 Apr 02 11:07	27°♎59'53	
behind sun begin	15970 Apr 15 20:01	7°♏52'31			15971 Apr 03 13:06	0°♏	
behind sun end	15970 Apr 16 10:07	8°♏56'41		max. Earth dist.	15971 Apr 05 23:20	4°♏24'21	1.38762 AU
max. Earth dist.	15970 Apr 23 17:03	21°♏45'53	1.41038 AU	evening rise	15971 Apr 09 17:52	11°♏02'05	
evening rise	15970 Apr 28 05:41	29°♏19'22			15971 Apr 21 10:20	0°♏	
	15970 Apr 28 15:37	0°♏					

	15971 May 14 02:41	0°☿		evening max el	15972 Apr 26 12:26	14°II44'25	25°48'55
evening max el	15971 May 14 22:46	0°☿50'35	24°34'57	retrograde	15972 May 09 01:28	21°II57'35	
retrograde	15971 May 26 13:25	7°☿37'40		asc. node	15972 May 13 16:22	20°II31'37	
asc. node	15971 May 27 19:14	7°☿31'08		evening set	15972 May 15 03:10	19°II27'22	
evening set	15971 Jun 01 04:13	5°☿14'55		min. Earth dist.	15972 May 19 08:13	14°II55'09	0.67594 AU
min. Earth dist.	15971 Jun 05 16:16	0°☿06'18	0.68564 AU	inferior conj	15972 May 20 21:31	12°II57'01	2°01'47
	15971 Jun 05 18:09	30°☿II		minimum elong	15972 May 20 19:20	13°II03'56	2°00'27
inferior conj	15971 Jun 06 16:34	28°II44'59	2°34'24	morning rise	15972 May 26 12:06	7°II08'20	
minimum elong	15971 Jun 06 14:36	28°II51'34	2°33'13	direct	15972 May 29 21:22	6°II02'47	
morning rise	15971 Jun 12 01:08	22°II45'53		morning max el	15972 Jun 05 14:26	9°II39'30	18°50'11
direct	15971 Jun 15 21:17	21°II21'25		desc. node	15972 Jun 15 08:27	22°II10'22	
morning max el	15971 Jun 23 07:03	25°II28'22	19°45'08	greatest brilliancy	15972 Jun 19 06:09	28°II01'17	-0.8m
	15971 Jun 27 07:56	0°☿			15972 Jun 20 13:16	0°☿	
desc. node	15971 Jun 29 11:21	2°☿44'29		morning set	15972 Jun 28 01:53	11°☿37'38	
	15971 Jul 18 02:10	0°♊			15972 Jul 09 21:31	0°♊	
morning set	15971 Jul 19 15:18	2°♊22'12		max. Earth dist.	15972 Jul 12 14:39	4°♊14'00	1.45821 AU
max. Earth dist.	15971 Jul 30 20:11	19°♊47'51	1.44922 AU				
				superior conj	15972 Jul 14 06:47	6°♊50'48	-2°14'12
superior conj	15971 Aug 04 15:39	27°♊27'46	-2°02'51	minimum elong	15972 Jul 14 07:29	6°♊53'34	2°14'52
minimum elong	15971 Aug 04 22:28	27°♊55'11	2°02'55		15972 Jul 28 21:26	0°♊	
	15971 Aug 06 05:26	0°♊		evening rise	15972 Jul 29 13:40	1°♊05'11	
evening rise	15971 Aug 18 08:26	20°♊04'02		asc. node	15972 Aug 09 16:14	18°♊44'42	
asc. node	15971 Aug 23 19:33	29°♊15'21			15972 Aug 18 00:25	0°♊	
	15971 Aug 24 06:17	0°♊		evening max el	15972 Aug 18 18:07	0°♊45'24	18°28'06
evening max el	15971 Sep 05 04:12	17°♊03'49	18°06'11	retrograde	15972 Aug 25 04:45	4°♊12'34	
retrograde	15971 Sep 11 13:10	20°♊24'16		evening set	15972 Aug 28 07:21	3°♊18'21	
evening set	15971 Sep 14 06:40	19°♊45'24			15972 Sep 01 02:56	30°☿♊	
inferior conj	15971 Sep 20 11:55	14°♊26'35	1°25'57	inferior conj	15972 Sep 03 01:49	27°♊43'57	2°13'44
minimum elong	15971 Sep 20 14:00	14°♊20'56	1°25'22	minimum elong	15972 Sep 03 04:08	27°♊37'00	2°13'02
min. Earth dist.	15971 Sep 23 03:55	11°♊33'18	0.63230 AU	min. Earth dist.	15972 Sep 05 04:32	25°♊12'17	0.65243 AU
desc. node	15971 Sep 25 08:37	9°♊24'40		morning rise	15972 Sep 08 23:38	21°♊20'39	
morning rise	15971 Sep 26 19:12	8°♊13'33		desc. node	15972 Sep 11 06:01	19°♊48'37	
direct	15971 Oct 03 11:01	5°♊43'59		direct	15972 Sep 15 10:14	18°♊43'47	
morning max el	15971 Oct 17 09:38	13°♊42'54	27°49'08	morning max el	15972 Sep 28 20:39	26°♊36'06	27°07'08
	15971 Oct 30 13:33	0°♊			15972 Oct 02 00:49	0°♊	
	15971 Nov 17 10:54	0°♊			15972 Oct 23 04:16	0°♊	
asc. node	15971 Nov 19 20:43	4°♊42'30		morning set	15972 Nov 03 10:14	20°♊14'20	
morning set	15971 Nov 21 00:21	7°♊00'53		asc. node	15972 Nov 05 17:36	24°♊46'28	
max. Earth dist.	15971 Nov 26 00:12	17°♊25'04	1.32033 AU	max. Earth dist.	15972 Nov 07 16:48	28°♊44'34	1.33393 AU
					15972 Nov 08 07:32	0°♊	
superior conj	15971 Nov 28 17:34	23°♊18'44	1°14'01				
minimum elong	15971 Nov 28 15:17	23°♊06'18	1°14'28	superior conj	15972 Nov 11 20:31	7°♊23'54	0°53'50
	15971 Dec 01 18:41	0°♊		minimum elong	15972 Nov 11 18:14	7°♊11'48	0°54'08
evening rise	15971 Dec 05 13:01	8°♊13'16		evening rise	15972 Nov 18 23:29	22°♊39'25	
	15971 Dec 16 16:00	0°♊			15972 Nov 22 11:59	0°♊	
desc. node	15971 Dec 22 06:43	8°♊40'44		desc. node	15972 Dec 08 03:42	25°♊15'19	
evening max el	15971 Dec 29 10:47	17°♊07'41	23°44'31	evening max el	15972 Dec 09 21:57	27°♊05'23	22°01'47
retrograde	15972 Jan 11 21:39	23°♊47'36			15972 Dec 13 08:08	0°♊	
evening set	15972 Jan 16 14:09	23°♊00'04		retrograde	15972 Dec 22 10:19	3°♊16'41	
min. Earth dist.	15972 Jan 22 22:07	19°♊57'06	0.55190 AU	evening set	15972 Dec 25 19:56	2°♊50'58	
inferior conj	15972 Jan 24 15:21	18°♊56'19	-5°42'44		15973 Jan 01 13:43	30°☿♊	
minimum elong	15972 Jan 24 21:54	18°♊46'38	5°41'16	inferior conj	15973 Jan 03 09:09	28°♊59'52	-6°00'37
morning rise	15972 Feb 02 07:13	15°♊01'28		minimum elong	15973 Jan 03 07:00	29°♊02'51	5°59'49
direct	15972 Feb 04 20:22	14°♊45'20		min. Earth dist.	15973 Jan 03 03:37	29°♊07'35	0.54440 AU
morning max el	15972 Feb 15 15:32	19°♊59'01	20°17'42	morning rise	15973 Jan 11 18:56	25°♊12'34	
asc. node	15972 Feb 15 19:08	20°♊07'48		direct	15973 Jan 15 06:26	24°♊45'48	
	15972 Feb 23 09:52	0°♊			15973 Jan 26 19:20	0°♊	
morning set	15972 Mar 04 23:15	19°♊45'08		morning max el	15973 Jan 27 13:40	0°♊42'34	21°50'42
	15972 Mar 09 22:44	0°♊		asc. node	15973 Feb 01 16:28	6°♊32'42	
					15973 Feb 15 05:46	0°♊	
superior conj	15972 Mar 12 14:47	5°♊25'38	0°54'45	morning set	15973 Feb 17 09:22	4°♊28'29	
minimum elong	15972 Mar 12 17:17	5°♊38'14	0°54'22				
max. Earth dist.	15972 Mar 18 06:24	16°♊30'13	1.36515 AU	superior conj	15973 Feb 24 12:49	19°♊37'15	1°15'00
desc. node	15972 Mar 19 07:47	18°♊30'08		minimum elong	15973 Feb 24 15:14	19°♊49'55	1°14'54
evening rise	15972 Mar 22 01:09	23°♊31'59		max. Earth dist.	15973 Feb 28 18:39	28°♊21'39	1.34509 AU
	15972 Mar 25 16:31	0°♊			15973 Mar 01 14:16	0°♊	
	15972 Apr 14 02:53	0°♊		evening rise	15973 Mar 05 00:03	6°♊39'27	

desc. node	15973 Mar 06 04:26	8°Υ54'01		desc. node	15974 Feb 21 01:05	29°✕06'49	
	15973 Mar 18 09:20	0°♄			15974 Feb 21 12:32	0°Υ	
evening max el	15973 Apr 09 02:16	28°♄29'10	26°48'29		15974 Mar 12 09:07	0°♄	
	15973 Apr 10 17:05	0°♄		evening max el	15974 Mar 22 15:20	11°♄54'10	27°26'17
retrograde	15973 Apr 22 07:56	5°♄56'52		retrograde	15974 Apr 05 08:05	19°♄26'26	
evening set	15973 Apr 28 19:01	3°♄24'26		evening set	15974 Apr 12 01:39	16°♄58'24	
asc. node	15973 Apr 30 13:35	1°♄49'13		min. Earth dist.	15974 Apr 15 21:08	13°♄32'07	0.64376 AU
	15973 May 02 06:48	30°♄		asc. node	15974 Apr 17 10:51	11°♄52'10	
min. Earth dist.	15973 May 02 18:29	29°♄26'52	0.66181 AU	inferior conj	15974 Apr 18 11:36	10°♄45'35	0°19'21
inferior conj	15973 May 04 20:44	26°♄59'22	1°17'09	minimum elong	15974 Apr 18 11:03	10°♄47'02	0°18'41
minimum elong	15973 May 04 18:56	27°♄04'40	1°15'55	morning rise	15974 Apr 24 22:36	5°♄23'22	
morning rise	15973 May 10 20:08	21°♄22'52		direct	15974 Apr 27 12:46	4°♄49'04	
direct	15973 May 13 19:21	20°♄34'20		morning max el	15974 May 03 20:43	8°♄03'58	17°50'38
morning max el	15973 May 20 03:46	23°♄53'51	18°11'51		15974 May 18 19:21	0°♄	
	15973 May 25 06:10	0°♄		desc. node	15974 May 20 02:22	2°♄09'54	
desc. node	15973 Jun 02 05:27	12°♄01'10		morning set	15974 May 21 00:15	3°♄41'41	
morning set	15973 Jun 08 11:22	22°♄00'33					
	15973 Jun 13 11:20	0°♄		superior conj	15974 Jun 03 12:06	25°♄52'52	-1°39'29
superior conj	15973 Jun 23 15:56	16°♄04'22	-2°05'33	minimum elong	15974 Jun 03 03:32	25°♄18'28	1°39'23
minimum elong	15973 Jun 23 09:22	15°♄38'42	2°05'59		15974 Jun 06 02:06	0°♄	
max. Earth dist.	15973 Jun 25 11:23	18°♄54'02	1.45972 AU	max. Earth dist.	15974 Jun 08 07:14	3°♄30'01	1.45368 AU
	15973 Jul 02 14:37	0°♄		evening rise	15974 Jun 19 07:08	20°♄32'54	
evening rise	15973 Jul 09 18:27	11°♄06'38			15974 Jun 25 12:33	0°♄	
greatest brilliancy	15973 Jul 20 22:45	28°♄18'22	-0.7m	greatest brilliancy	15974 Jul 04 02:57	12°♄44'06	-0.6m
	15973 Jul 22 01:52	0°♄		asc. node	15974 Jul 14 09:44	26°♄22'46	
asc. node	15973 Jul 27 12:57	7°♄49'53		evening max el	15974 Jul 16 09:02	28°♄28'56	20°01'36
evening max el	15973 Aug 02 04:19	14°♄35'17	19°06'58		15974 Jul 18 00:26	0°♄	
retrograde	15973 Aug 09 01:17	18°♄22'24		retrograde	15974 Jul 24 00:05	2°♄47'55	
evening set	15973 Aug 12 13:26	17°♄11'10		evening set	15974 Jul 27 22:25	1°♄19'01	
inferior conj	15973 Aug 18 00:34	11°♄22'54	2°45'17		15974 Jul 29 09:59	30°♄	
minimum elong	15973 Aug 18 02:24	11°♄16'59	2°44'37	inferior conj	15974 Aug 02 05:21	25°♄18'28	3°02'59
min. Earth dist.	15973 Aug 19 13:12	9°♄24'48	0.66901 AU	minimum elong	15974 Aug 02 06:20	25°♄15'06	3°02'22
morning rise	15973 Aug 23 14:39	4°♄56'15		min. Earth dist.	15974 Aug 03 04:06	24°♄01'19	0.68125 AU
desc. node	15973 Aug 29 03:24	2°♄21'41		morning rise	15974 Aug 07 13:51	18°♄53'23	
direct	15973 Aug 29 16:31	2°♄20'31		direct	15974 Aug 13 04:52	16°♄26'03	
morning max el	15973 Sep 11 08:08	9°♄52'25	25°59'53	desc. node	15974 Aug 16 00:45	16°♄57'36	
	15973 Sep 27 06:52	0°♄		morning max el	15974 Aug 24 19:10	23°♄22'39	24°36'53
	15973 Oct 15 17:25	0°♄			15974 Aug 30 16:16	0°♄	
morning set	15973 Oct 17 06:43	2°♄50'26		morning set	15974 Sep 20 15:14	0°♄	
max. Earth dist.	15973 Oct 20 23:42	9°♄49'42	1.35267 AU	max. Earth dist.	15974 Sep 29 09:58	14°♄41'22	
asc. node	15973 Oct 23 14:22	14°♄55'38			15974 Oct 02 23:31	21°♄02'01	1.37526 AU
					15974 Oct 07 19:21	0°♄	
superior conj	15973 Oct 26 15:48	21°♄04'38	0°27'37	superior conj	15974 Oct 10 00:19	4°♄14'28	-0°04'04
minimum elong	15973 Oct 26 14:16	20°♄56'55	0°27'54	minimum elong	15974 Oct 10 00:33	4°♄15'38	0°03'38
	15973 Oct 30 23:27	0°♄		behind sun begin	15974 Oct 09 17:59	3°♄43'51	
evening rise	15973 Nov 03 07:36	6°♄57'34		behind sun end	15974 Oct 10 07:06	4°♄47'30	
	15973 Nov 15 18:48	0°♄		asc. node	15974 Oct 10 11:06	5°♄06'54	
evening max el	15973 Nov 21 18:59	7°♄29'12	20°31'21	evening rise	15974 Oct 18 11:09	21°♄02'46	
desc. node	15973 Nov 25 00:45	10°♄14'46			15974 Oct 23 00:25	0°♄	
retrograde	15973 Dec 02 20:46	12°♄59'36		evening max el	15974 Nov 04 06:35	18°♄41'33	19°21'39
evening set	15973 Dec 05 05:13	12°♄45'50		desc. node	15974 Nov 11 21:52	23°♄15'34	
inferior conj	15973 Dec 14 00:50	8°♄51'46	-5°17'18	retrograde	15974 Nov 13 17:18	23°♄25'40	
minimum elong	15973 Dec 13 15:34	9°♄05'15	5°14'32	evening set	15974 Nov 15 15:06	23°♄14'55	
min. Earth dist.	15973 Dec 15 09:07	8°♄04'45	0.54611 AU	inferior conj	15974 Nov 24 04:47	19°♄06'50	-3°48'10
morning rise	15973 Dec 22 01:38	4°♄53'32		minimum elong	15974 Nov 23 19:40	19°♄21'48	3°44'19
direct	15973 Dec 26 14:39	4°♄09'10		min. Earth dist.	15974 Nov 26 18:12	17°♄26'20	0.55688 AU
morning max el	15974 Jan 09 00:38	10°♄43'45	23°38'53	morning rise	15974 Dec 01 21:59	14°♄39'25	
asc. node	15974 Jan 19 13:45	24°♄03'41		direct	15974 Dec 07 09:18	13°♄31'22	
	15974 Jan 23 03:33	0°♄		morning max el	15974 Dec 21 09:34	20°♄36'25	25°26'04
morning set	15974 Feb 01 21:11	19°♄12'12			15974 Dec 29 11:04	0°♄	
	15974 Feb 06 20:31	0°♄		asc. node	15975 Jan 06 10:57	12°♄24'51	
					15975 Jan 15 13:29	0°♄	
superior conj	15974 Feb 08 17:30	4°♄04'43	1°28'50	morning set	15975 Jan 17 08:51	3°♄51'05	
minimum elong	15974 Feb 08 19:16	4°♄14'12	1°29'05				
max. Earth dist.	15974 Feb 11 14:10	10°♄12'54	1.32886 AU	superior conj	15975 Jan 24 02:26	18°♄41'05	1°36'25
evening rise	15974 Feb 16 11:05	20°♄15'24		minimum elong	15975 Jan 24 03:14	18°♄45'27	1°36'58

max. Earth dist.	15975 Jan 25 16:31	22° \approx 11'09	1.31738 AU	superior conj	15976 Jan 08 13:32	3° \approx 20'24	1°37'55
	15975 Jan 29 07:10	0° \mathbb{H}		minimum elong	15976 Jan 08 13:16	3° \approx 18'53	1°38'37
evening rise	15975 Jan 31 07:21	4° \mathbb{H} 12'45		max. Earth dist.	15976 Jan 08 23:15	4° \approx 14'44	1.31113 AU
desc. node	15975 Feb 07 21:45	19° \mathbb{H} 03'13		evening rise	15976 Jan 15 10:19	18° \approx 25'28	
	15975 Feb 14 05:39	0° \mathbb{Y}			15976 Jan 21 02:53	0° \mathbb{H}	
evening max el	15975 Mar 05 01:56	24° \mathbb{Y} 47'42	27°35'30	desc. node	15976 Jan 25 18:27	8° \mathbb{H} 36'38	
	15975 Mar 11 17:34	0° \mathbb{B}			15976 Feb 08 23:23	0° \mathbb{Y}	
retrograde	15975 Mar 19 00:50	2° \mathbb{B} 16'04		evening max el	15976 Feb 15 07:44	6° \mathbb{Y} 58'09	27°10'57
evening set	15975 Mar 25 20:29	0° \mathbb{B} 00'07		retrograde	15976 Feb 29 08:34	14° \mathbb{Y} 16'32	
	15975 Mar 25 20:34	30° \mathbb{R} \mathbb{Y}		evening set	15976 Mar 07 00:31	12° \mathbb{Y} 20'11	
min. Earth dist.	15975 Mar 29 14:40	26° \mathbb{Y} 59'27	0.62276 AU	min. Earth dist.	15976 Mar 10 22:07	9° \mathbb{Y} 36'51	0.60030 AU
inferior conj	15975 Apr 01 14:58	24° \mathbb{Y} 07'39	-0°52'17	inferior conj	15976 Mar 14 03:17	6° \mathbb{Y} 56'21	-2°16'23
minimum elong	15975 Apr 01 16:45	24° \mathbb{Y} 03'24	0°51'49	minimum elong	15976 Mar 14 08:24	6° \mathbb{Y} 45'39	2°14'22
asc. node	15975 Apr 04 08:11	21° \mathbb{Y} 40'03		asc. node	15976 Mar 21 05:31	2° \mathbb{Y} 20'42	
morning rise	15975 Apr 08 16:04	19° \mathbb{Y} 02'04		morning rise	15976 Mar 21 19:48	2° \mathbb{Y} 10'03	
direct	15975 Apr 10 22:26	18° \mathbb{Y} 38'38		direct	15976 Mar 23 20:37	1° \mathbb{Y} 53'48	
morning max el	15975 Apr 17 14:17	22° \mathbb{Y} 00'38	17°46'58	morning max el	15976 Mar 31 05:05	5° \mathbb{Y} 33'59	18°01'51
	15975 Apr 23 19:08	0° \mathbb{B}		morning set	15976 Apr 15 18:50	0° \mathbb{B} 04'24	
morning set	15975 May 03 12:41	16° \mathbb{B} 28'39			15976 Apr 15 17:52	0° \mathbb{B}	
desc. node	15975 May 06 23:11	22° \mathbb{B} 30'41		desc. node	15976 Apr 22 19:58	12° \mathbb{B} 59'22	
	15975 May 11 06:59	0° \mathbb{I}					
superior conj	15975 May 15 05:45	6° \mathbb{I} 41'05	-1°03'37	superior conj	15976 Apr 25 22:47	18° \mathbb{B} 32'54	-0°25'28
minimum elong	15975 May 14 23:50	6° \mathbb{I} 16'20	1°03'27	minimum elong	15976 Apr 25 20:37	18° \mathbb{B} 23'21	0°25'39
max. Earth dist.	15975 May 21 23:53	17° \mathbb{I} 45'52	1.44089 AU	max. Earth dist.	15976 May 02 14:43	0° \mathbb{I}	
evening rise	15975 May 29 19:45	0° \mathbb{E} 05'53		evening rise	15976 May 03 12:24	1° \mathbb{I} 30'24	1.42269 AU
	15975 May 29 18:14	0° \mathbb{E}			15976 May 08 22:58	10° \mathbb{I} 21'59	
	15975 Jun 19 04:11	0° \mathbb{O}			15976 May 21 19:15	0° \mathbb{E}	
evening max el	15975 Jun 29 07:43	12° \mathbb{O} 22'42	21°09'45	evening max el	15976 Jun 11 01:22	26° \mathbb{E} 16'47	22°27'18
asc. node	15975 Jul 01 06:35	14° \mathbb{O} 11'24		asc. node	15976 Jun 15 10:08	0° \mathbb{O}	
retrograde	15975 Jul 07 23:03	17° \mathbb{O} 22'28		retrograde	15976 Jun 17 03:29	1° \mathbb{O} 01'32	
evening set	15975 Jul 12 08:14	15° \mathbb{O} 36'08		evening set	15976 Jun 20 20:28	2° \mathbb{O} 00'50	
inferior conj	15975 Jul 17 13:43	9° \mathbb{O} 24'45	3°08'44		15976 Jun 25 17:07	29° \mathbb{E} 58'15	
minimum elong	15975 Jul 17 13:46	9° \mathbb{O} 24'37	3°08'04		15976 Jun 25 16:18	30° \mathbb{R} \mathbb{E}	
min. Earth dist.	15975 Jul 17 23:01	8° \mathbb{O} 52'23	0.68878 AU	inferior conj	15976 Jun 30 23:38	23° \mathbb{E} 37'43	3°03'38
morning rise	15975 Jul 22 19:02	3° \mathbb{O} 04'41		minimum elong	15976 Jun 30 22:45	23° \mathbb{E} 40'49	3°02'49
direct	15975 Jul 27 22:10	0° \mathbb{O} 51'19		min. Earth dist.	15976 Jun 30 19:48	23° \mathbb{E} 51'06	0.69146 AU
desc. node	15975 Aug 02 22:05	3° \mathbb{O} 12'28		morning rise	15976 Jul 06 04:12	17° \mathbb{E} 24'49	
morning max el	15975 Aug 07 06:30	7° \mathbb{O} 00'23	23°07'46	direct	15976 Jul 10 19:06	15° \mathbb{E} 29'17	
	15975 Aug 25 04:10	0° \mathbb{P}		desc. node	15976 Jul 19 19:23	20° \mathbb{E} 42'43	
morning set	15975 Sep 10 15:44	25° \mathbb{P} 36'53		morning max el	15976 Jul 19 20:45	20° \mathbb{E} 46'06	21°41'07
	15975 Sep 13 06:33	0° \mathbb{A}			15976 Jul 27 16:53	0° \mathbb{O}	
max. Earth dist.	15975 Sep 14 22:13	2° \mathbb{A} 49'10	1.39938 AU	morning set	15976 Aug 17 09:05	0° \mathbb{P}	
				max. Earth dist.	15976 Aug 20 21:35	5° \mathbb{P} 31'20	
superior conj	15975 Sep 22 18:09	16° \mathbb{A} 44'12	-0°39'40		15976 Aug 27 01:57	15° \mathbb{P} 30'27	1.42219 AU
minimum elong	15975 Sep 22 21:10	16° \mathbb{A} 58'04	0°38'59	superior conj	15976 Sep 03 16:52	28° \mathbb{P} 23'42	-1°16'16
asc. node	15975 Sep 27 07:46	25° \mathbb{A} 16'16		minimum elong	15976 Sep 03 23:05	28° \mathbb{P} 50'38	1°15'31
	15975 Sep 29 19:16	0° \mathbb{M}			15976 Sep 04 15:00	0° \mathbb{A}	
evening rise	15975 Oct 02 07:12	4° \mathbb{M} 47'39		asc. node	15976 Sep 13 04:25	15° \mathbb{A} 20'05	
	15975 Oct 17 14:28	0° \mathbb{A}		evening rise	15976 Sep 14 15:59	18° \mathbb{A} 02'33	
evening max el	15975 Oct 18 07:11	0° \mathbb{A} 43'31	18°34'20		15976 Sep 21 07:37	0° \mathbb{M}	
retrograde	15975 Oct 26 07:59	4° \mathbb{A} 47'36		evening max el	15976 Sep 30 16:34	13° \mathbb{M} 25'55	18°08'09
evening set	15975 Oct 28 06:40	4° \mathbb{A} 34'04		retrograde	15976 Oct 07 17:41	17° \mathbb{M} 02'30	
desc. node	15975 Oct 29 19:03	4° \mathbb{A} 05'53		evening set	15976 Oct 09 22:23	16° \mathbb{M} 41'55	
inferior conj	15975 Nov 05 05:16	0° \mathbb{A} 05'35	-2°03'55	desc. node	15976 Oct 15 16:21	13° \mathbb{M} 08'14	
minimum elong	15975 Nov 05 00:18	0° \mathbb{A} 15'03	2°01'18	inferior conj	15976 Oct 17 03:22	11° \mathbb{M} 51'55	-0°27'52
	15975 Nov 05 08:11	30° \mathbb{R} \mathbb{M}		minimum elong	15976 Oct 17 02:24	11° \mathbb{M} 54'03	0°27'00
min. Earth dist.	15975 Nov 08 09:23	27° \mathbb{M} 41'01	0.57474 AU	min. Earth dist.	15976 Oct 20 08:54	9° \mathbb{M} 00'31	0.59662 AU
morning rise	15975 Nov 12 14:36	25° \mathbb{M} 01'35		morning rise	15976 Oct 24 03:08	6° \mathbb{M} 14'05	
direct	15975 Nov 18 18:26	23° \mathbb{M} 26'43		direct	15976 Oct 30 16:33	4° \mathbb{M} 13'44	
	15975 Dec 02 00:47	0° \mathbb{A}		morning max el	15976 Nov 13 22:59	11° \mathbb{M} 59'10	27°45'32
morning max el	15975 Dec 03 00:09	0° \mathbb{A} 54'56	26°52'58		15976 Nov 28 03:41	0° \mathbb{A}	
	15975 Dec 23 13:56	0° \mathbb{B}		asc. node	15976 Dec 10 05:09	20° \mathbb{A} 49'14	
asc. node	15975 Dec 24 08:05	1° \mathbb{B} 23'30			15976 Dec 14 19:01	0° \mathbb{B}	
morning set	15976 Jan 01 18:39	18° \mathbb{B} 20'33		morning set	15976 Dec 16 00:39	2° \mathbb{B} 35'22	
	15976 Jan 07 01:44	0° \mathbb{A}		max. Earth dist.	15976 Dec 22 06:53	16° \mathbb{B} 16'04	1.31033 AU

superior conj	15976 Dec 23 00:52	17°  56'35	1°33'25		15977 Dec 06 08:16	0° 	
minimum elong	15976 Dec 22 23:36	17°  49'32	1°34'05				
	15976 Dec 28 10:57	0° 		superior conj	15977 Dec 07 10:35	2°  25'03	1°22'51
evening rise	15976 Dec 29 17:47	2°  47'29		minimum elong	15977 Dec 07 08:34	2°  13'54	1°23'24
desc. node	15977 Jan 11 15:13	27°  37'45		evening rise	15977 Dec 14 03:53	17°  14'36	
	15977 Jan 13 02:02	0° 			15977 Dec 20 07:57	0° 	
evening max el	15977 Jan 27 06:00	18°  15'39	26°11'22	desc. node	15977 Dec 29 12:04	15°  55'04	
retrograde	15977 Feb 10 05:14	25°  21'19		evening max el	15978 Jan 08 19:45	28°  42'17	24°42'50
evening set	15977 Feb 16 10:05	23°  50'04			15978 Jan 10 05:51	0° 	
min. Earth dist.	15977 Feb 20 19:13	21°  12'25	0.57847 AU	retrograde	15978 Jan 22 13:14	5°  33'42	
inferior conj	15977 Feb 23 20:43	19°  00'15	-3°46'52	evening set	15978 Jan 27 21:51	4°  30'09	
minimum elong	15977 Feb 24 05:11	18°  44'58	3°43'48	min. Earth dist.	15978 Feb 02 07:42	1°  42'00	0.55993 AU
morning rise	15977 Mar 04 03:29	14°  35'29		inferior conj	15978 Feb 04 16:57	0°  12'15	-5°08'51
direct	15977 Mar 06 02:48	14°  22'43		minimum elong	15978 Feb 05 01:58	29°  58'07	5°06'23
asc. node	15977 Mar 08 02:54	14°  36'32			15978 Feb 05 00:45	30°  R 	
morning max el	15977 Mar 14 13:10	18°  31'53	18°36'58	morning rise	15978 Feb 13 08:21	26°  08'27	
	15977 Mar 22 21:03	0° 		direct	15978 Feb 15 13:22	25°  55'10	
morning set	15977 Mar 30 13:20	14°  07'18		asc. node	15978 Feb 23 00:17	28°  38'41	
	15977 Apr 07 19:11	0° 			15978 Feb 24 16:00	0° 	
superior conj	15977 Apr 08 12:04	1°  18'47	0°09'59	morning max el	15978 Feb 25 10:21	0°  42'59	19°34'19
minimum elong	15977 Apr 08 12:44	1°  21'52	0°09'31	morning set	15978 Mar 14 16:09	28°  40'22	
behind sun begin	15977 Apr 08 07:03	0°  55'28			15978 Mar 15 07:59	0° 	
behind sun end	15977 Apr 08 18:24	1°  48'14		superior conj	15978 Mar 22 17:11	14°  07'37	0°40'10
desc. node	15977 Apr 09 16:41	3°  31'18		minimum elong	15978 Mar 22 19:21	14°  07'12	0°39'41
max. Earth dist.	15977 Apr 15 20:50	14°  34'35	1.40087 AU	desc. node	15978 Mar 27 13:21	24°  02'58	
evening rise	15977 Apr 19 22:55	21°  32'44		max. Earth dist.	15978 Mar 29 03:00	26°  07'22	1.37786 AU
	15977 Apr 25 03:10	0° 			15978 Mar 30 19:08	0° 	
	15977 May 15 20:16	0° 		evening rise	15978 Apr 01 19:30	3°  35'28	
evening max el	15977 May 24 15:54	10°  11'37	23°48'50		15978 Apr 18 04:56	0° 	
asc. node	15977 Jun 04 00:31	16°  35'57		evening max el	15978 May 07 05:15	24°  05'51	25°07'41
retrograde	15977 Jun 04 15:08	16°  37'33			15978 May 14 22:43	0° 	
evening set	15977 Jun 09 23:29	14°  20'59		retrograde	15978 May 19 05:57	1°  05'40	
min. Earth dist.	15977 Jun 14 16:16	8°  51'20	0.68919 AU	asc. node	15978 May 21 21:37	0°  36'20	
inferior conj	15977 Jun 15 09:09	7°  53'39	2°48'08		15978 May 23 04:17	30°  R 	
minimum elong	15977 Jun 15 07:30	7°  59'17	2°47'05	evening set	15978 May 25 01:39	28°  13'49	
morning rise	15977 Jun 20 15:32	1°  49'23		min. Earth dist.	15978 May 29 10:25	23°  14'08	0.68206 AU
direct	15977 Jun 24 18:24	0°  31'32		inferior conj	15978 May 30 16:21	22°  10'06	2°21'59
morning max el	15977 Jul 02 16:55	4°  42'51	20°23'44	minimum elong	15978 May 30 14:14	22°  11'02	2°20'42
desc. node	15977 Jul 06 16:38	9°  09'05		morning rise	15978 Jun 05 03:10	16°  13'32	
	15977 Jul 21 15:55	0° 		direct	15978 Jun 08 18:32	14°  15'26	
morning set	15977 Jul 31 07:31	14°  03'70		morning max el	15978 Jun 15 20:19	18°  14'51	19°19'52
max. Earth dist.	15977 Aug 09 12:43	29°  04'33	1.44101 AU	desc. node	15978 Jun 23 13:47	28°  16'25	
	15977 Aug 10 02:34	0° 			15978 Jun 24 19:19	0° 	
superior conj	15977 Aug 15 16:47	9°  05'18	-1°48'47	greatest brilliancy	15978 Jun 28 12:44	5°  24'14	-0.7m
minimum elong	15977 Aug 16 00:38	9°  37'38	1°48'24	morning set	15978 Jul 10 11:57	23°  32'51	
evening rise	15977 Aug 28 08:48	0°  35'49			15978 Jul 14 16:25	0° 	
	15977 Aug 28 00:33	0° 		max. Earth dist.	15978 Jul 23 04:46	13°  15'21	1.45390 AU
asc. node	15977 Aug 31 01:04	5°  14'37		superior conj	15978 Jul 26 17:54	18°  15'02	-2°09'58
evening max el	15977 Sep 14 06:30	26°  38'35	18°01'32	minimum elong	15978 Jul 26 22:44	19°  10'11	2°10'21
	15977 Sep 20 06:19	0° 			15978 Aug 02 17:00	0° 	
retrograde	15977 Sep 20 18:36	0°  10'19		evening rise	15978 Aug 10 04:18	12°  13'29	
	15977 Sep 21 06:54	30°  R 		asc. node	15978 Aug 17 21:44	24°  15'42	
evening set	15977 Sep 23 07:08	29°  30'03			15978 Aug 21 03:09	0° 	
inferior conj	15977 Sep 29 20:09	24°  20'46	0°50'03	evening max el	15978 Aug 28 21:16	10°  11'28	18°13'17
minimum elong	15977 Sep 29 21:33	24°  17'09	0°49'47	retrograde	15978 Sep 04 06:01	13°  13'32	
desc. node	15977 Oct 02 13:43	21°  13'41		evening set	15978 Sep 07 03:12	12°  14'32	
min. Earth dist.	15977 Oct 02 18:25	21°  12'44	0.61954 AU	inferior conj	15978 Sep 13 03:27	7°  12'42	1°48'23
morning rise	15977 Oct 06 09:22	18°  17'31		minimum elong	15978 Sep 13 05:44	7°  16'10	1°47'41
direct	15977 Oct 13 01:46	15°  56'43		min. Earth dist.	15978 Sep 15 13:57	4°  36'45	0.64122 AU
morning max el	15977 Oct 27 04:56	23°  53'23	27°58'43	morning rise	15978 Sep 19 06:30	1°  03'58	
	15977 Nov 01 17:25	0° 		desc. node	15978 Sep 19 11:07	0°  55'03	
	15977 Nov 21 11:49	0° 			15978 Sep 20 19:20	30°  R 	
asc. node	15977 Nov 27 02:08	10°  34'33		direct	15978 Sep 25 20:27	28°  13'16	
morning set	15977 Nov 30 00:52	16°  31'15			15978 Oct 01 08:08	0° 	
max. Earth dist.	15977 Dec 05 11:33	28°  06'26	1.31510 AU	morning max el	15978 Oct 09 14:59	6°  28'36	27°34'53

	15978 Oct 27 16:07	0°♌			15979 Oct 01 00:51	0°♎		
morning set	15978 Nov 13 16:48	0°♌01'52			15979 Oct 20 17:25	0°♌		
asc. node	15978 Nov 13 23:02	0°♌32'49		morning set	15979 Oct 27 21:27	13°♌00'30		
	15978 Nov 13 16:26	0°♌		asc. node	15979 Oct 31 19:51	20°♌39'24		
max. Earth dist.	15978 Nov 18 09:16	9°♌36'49	1.32545 AU	max. Earth dist.	15979 Oct 31 21:22	20°♌46'59	1.34133 AU	
					15979 Nov 05 09:51	0°♌		
superior conj	15978 Nov 21 16:37	16°♌39'55	1°06'11					
minimum elong	15978 Nov 21 14:16	16°♌27'11	1°06'34	superior conj	15979 Nov 05 16:39	0°♌35'29	0°43'25	
	15978 Nov 27 19:48	0°♌		minimum elong	15979 Nov 05 14:35	0°♌24'42	0°43'41	
evening rise	15978 Nov 28 14:42	1°♌41'46		evening rise	15979 Nov 13 00:24	16°♌04'44		
	15978 Dec 14 00:05	0°♌			15979 Nov 19 22:34	0°♌		
desc. node	15978 Dec 16 08:59	3°♌12'39		evening max el	15979 Dec 02 19:35	18°♌44'34	21°21'05	
evening max el	15978 Dec 21 05:08	8°♌39'28	23°00'06	desc. node	15979 Dec 03 06:00	19°♌09'46		
retrograde	15979 Jan 03 08:26	15°♌09'38		retrograde	15979 Dec 14 18:39	24°♌39'31		
evening set	15979 Jan 07 11:48	14°♌32'24		evening set	15979 Dec 17 15:49	24°♌20'23		
min. Earth dist.	15979 Jan 14 14:58	11°♌14'19	0.54759 AU	inferior conj	15979 Dec 26 09:06	20°♌30'01	-5°49'28	
inferior conj	15979 Jan 15 18:03	10°♌35'38	-5°57'37	minimum elong	15979 Dec 26 03:10	20°♌38'22	5°48'00	
minimum elong	15979 Jan 15 21:22	10°♌30'53	5°56'45	min. Earth dist.	15979 Dec 26 20:22	20°♌14'10	0.54393 AU	
morning rise	15979 Jan 24 08:14	6°♌45'53		morning rise	15980 Jan 03 14:54	16°♌40'10		
direct	15979 Jan 27 05:36	6°♌26'21		direct	15980 Jan 07 13:23	16°♌06'36		
morning max el	15979 Feb 07 17:12	11°♌58'52	20°54'53	morning max el	15980 Jan 20 09:43	22°♌21'15	22°35'40	
asc. node	15979 Feb 09 21:38	14°♌16'35			15980 Jan 26 22:34	0°♌		
	15979 Feb 20 06:49	0°♌		asc. node	15980 Jan 27 18:57	1°♌11'42		
morning set	15979 Feb 27 00:18	13°♌20'03		morning set	15980 Feb 11 11:20	28°♌03'48		
					15980 Feb 12 09:09	0°♌		
superior conj	15979 Mar 06 10:03	28°♌45'12	1°04'07					
minimum elong	15979 Mar 06 12:36	28°♌58'18	1°03'51	superior conj	15980 Feb 18 11:12	13°♌04'15	1°21'38	
	15979 Mar 07 00:40	0°♌		minimum elong	15980 Feb 18 13:24	13°♌15'53	1°21'42	
max. Earth dist.	15979 Mar 11 11:23	8°♌52'53	1.35611 AU	max. Earth dist.	15980 Feb 22 02:23	20°♌41'41	1.33759 AU	
desc. node	15979 Mar 14 09:59	14°♌30'54		evening rise	15980 Feb 26 14:16	29°♌42'54		
evening rise	15979 Mar 15 09:49	16°♌22'15			15980 Feb 26 17:47	0°♌		
	15979 Mar 23 02:52	0°♌		desc. node	15980 Feb 29 06:35	4°♌50'27		
	15979 Apr 12 15:21	0°♌			15980 Mar 15 05:25	0°♌		
evening max el	15979 Apr 19 18:50	7°♌56'16	26°16'31	evening max el	15980 Apr 01 08:34	21°♌34'07	27°07'49	
retrograde	15979 May 02 15:57	15°♌18'01		retrograde	15980 Apr 14 19:57	29°♌05'14		
evening set	15979 May 08 21:50	12°♌45'55		evening set	15980 Apr 21 10:01	26°♌34'03		
asc. node	15979 May 08 18:48	12°♌52'08		asc. node	15980 Apr 24 16:02	23°♌32'13		
min. Earth dist.	15979 May 13 00:13	8°♌28'47	0.67035 AU	min. Earth dist.	15980 Apr 25 07:37	22°♌50'00	0.65448 AU	
inferior conj	15979 May 14 19:08	6°♌16'46	1°44'26	inferior conj	15980 Apr 27 15:08	20°♌13'02	0°54'19	
minimum elong	15979 May 14 17:02	6°♌23'16	1°43'05	minimum elong	15980 Apr 27 13:45	20°♌16'58	0°53'16	
morning rise	15979 May 20 13:07	0°♌33'08		morning rise	15980 May 03 19:06	14°♌42'04		
	15979 May 21 15:44	30°♌		direct	15980 May 06 14:17	14°♌00'01		
direct	15979 May 23 17:54	29°♌35'17		morning max el	15980 May 12 21:36	17°♌16'25	18°00'42	
	15979 May 25 21:12	0°♌			15980 May 22 09:39	0°♌		
morning max el	15979 May 30 06:30	3°♌03'29	18°31'52	desc. node	15980 May 27 07:45	7°♌52'52		
desc. node	15979 Jun 10 10:49	17°♌53'57		morning set	15980 May 31 04:07	14°♌09'29		
	15979 Jun 18 05:41	0°♌			15980 Jun 09 23:17	0°♌		
morning set	15979 Jun 20 06:55	3°♌13'17						
				superior conj	15980 Jun 14 16:27	7°♌28'37	-1°56'14	
superior conj	15979 Jul 06 04:33	28°♌05'22	-2°13'00	minimum elong	15980 Jun 14 08:15	6°♌56'18	1°56'25	
minimum elong	15979 Jul 06 01:50	27°♌54'48	2°13'40	max. Earth dist.	15980 Jun 17 20:20	12°♌26'30	1.45804 AU	
max. Earth dist.	15979 Jul 06 00:01	27°♌47'41	1.45973 AU		15980 Jun 29 04:11	0°♌		
	15979 Jul 07 09:57	0°♌		evening rise	15980 Jun 30 19:01	2°♌29'20		
evening rise	15979 Jul 21 22:50	22°♌48'05		greatest brilliancy	15980 Jul 13 22:50	22°♌26'29	-0.7m	
	15979 Jul 26 12:12	0°♌			15980 Jul 19 06:08	0°♌		
greatest brilliancy	15979 Jul 30 01:52	5°♌36'15	-0.8m	asc. node	15980 Jul 21 15:11	3°♌07'37		
asc. node	15979 Aug 04 18:26	14°♌14'56		evening max el	15980 Jul 25 18:00	7°♌49'55	19°28'27	
evening max el	15979 Aug 12 09:54	23°♌57'30	18°42'33	retrograde	15980 Aug 01 21:43	11°♌48'53		
retrograde	15979 Aug 19 00:02	27°♌31'43		evening set	15980 Aug 05 14:08	10°♌30'13		
evening set	15979 Aug 22 06:32	26°♌30'36		inferior conj	15980 Aug 10 23:09	4°♌36'50	2°54'18	
inferior conj	15979 Aug 27 21:31	20°♌50'18	2°28'55	minimum elong	15980 Aug 11 00:39	4°♌31'52	2°53'41	
minimum elong	15979 Aug 27 23:41	20°♌43'33	2°28'13	min. Earth dist.	15980 Aug 12 05:54	2°♌55'20	0.67482 AU	
min. Earth dist.	15979 Aug 29 18:22	18°♌31'23	0.66002 AU		15980 Aug 14 15:00	30°♌		
morning rise	15979 Sep 02 15:47	14°♌24'39		morning rise	15980 Aug 16 10:36	28°♌10'30		
desc. node	15979 Sep 06 08:30	12°♌12'53		direct	15980 Aug 22 08:12	25°♌37'20		
direct	15979 Sep 08 23:05	11°♌46'57		desc. node	15980 Aug 23 05:53	25°♌40'32		
morning max el	15979 Sep 22 02:23	19°♌33'02	26°40'53		15980 Aug 31 10:19	0°♌		

morning max el	15980 Sep 03 13:29	2° \mathbb{M} 55'35	25°25'52	inferior conj	15981 Jul 26 05:42	18° Ω 36'56	3°06'46
	15980 Sep 24 05:04	0° $\underline{\mathbf{a}}$		minimum elong	15981 Jul 26 06:17	18° Ω 34'54	3°06'10
morning set	15980 Oct 09 11:10	25° $\underline{\mathbf{a}}$ 19'01		min. Earth dist.	15981 Jul 26 22:38	17° Ω 38'45	0.68505 AU
	15980 Oct 12 00:37	0° \mathbb{M}		morning rise	15981 Jul 31 12:34	12° Ω 13'57	
max. Earth dist.	15980 Oct 13 00:32	1° \mathbb{M} 51'35	1.36196 AU	direct	15981 Aug 05 22:39	9° Ω 52'06	
asc. node	15980 Oct 17 16:36	10° \mathbb{M} 50'16		desc. node	15981 Aug 10 03:15	11° Ω 01'18	
				morning max el	15981 Aug 17 00:22	16° Ω 28'50	23°59'16
superior conj	15980 Oct 19 07:52	14° \mathbb{M} 05'02	0°14'49		15981 Aug 28 05:17	0° \mathbb{M}	
minimum elong	15980 Oct 19 06:58	14° \mathbb{M} 00'31	0°15'08		15981 Sep 17 04:33	0° $\underline{\mathbf{a}}$	
behind sun begin	15980 Oct 19 04:46	13° \mathbb{M} 49'33		morning set	15981 Sep 21 05:45	6° $\underline{\mathbf{a}}$ 47'18	
behind sun end	15980 Oct 19 09:10	14° \mathbb{M} 11'30		max. Earth dist.	15981 Sep 24 23:32	13° $\underline{\mathbf{a}}$ 17'37	1.38552 AU
evening rise	15980 Oct 27 06:55	0° \mathbb{X} 18'46					
	15980 Oct 27 03:15	0° \mathbb{X}		superior conj	15981 Oct 02 10:41	26° $\underline{\mathbf{a}}$ 59'13	-0°18'46
evening max el	15980 Nov 13 22:54	29° \mathbb{X} 29'07	19°58'57	minimum elong	15981 Oct 02 12:00	27° $\underline{\mathbf{a}}$ 05'26	0°18'15
	15980 Nov 14 11:35	0° \mathbb{Z}			15981 Oct 04 00:34	0° \mathbb{M}	
desc. node	15980 Nov 19 03:05	3° \mathbb{Z} 22'20		asc. node	15981 Oct 04 13:17	1° \mathbb{M} 01'11	
retrograde	15980 Nov 24 07:36	4° \mathbb{Z} 39'05		evening rise	15981 Oct 11 07:42	14° \mathbb{M} 16'45	
evening set	15980 Nov 26 09:57	4° \mathbb{Z} 27'22			15981 Oct 19 16:51	0° \mathbb{X}	
inferior conj	15980 Dec 05 04:35	0° \mathbb{Z} 28'39	-4°43'15	evening max el	15981 Oct 27 16:26	11° \mathbb{X} 03'12	18°58'46
minimum elong	15980 Dec 04 18:32	0° \mathbb{Z} 43'53	4°39'43	retrograde	15981 Nov 05 11:34	15° \mathbb{X} 29'15	
	15980 Dec 05 23:24	30° \mathbb{R} \mathbb{X}		desc. node	15981 Nov 06 00:16	15° \mathbb{X} 28'20	
min. Earth dist.	15980 Dec 07 02:57	29° \mathbb{X} 18'21	0.54973 AU	evening set	15981 Nov 07 08:52	15° \mathbb{X} 17'49	
morning rise	15980 Dec 13 02:04	26° \mathbb{X} 20'04		inferior conj	15981 Nov 15 16:46	11° \mathbb{X} 01'02	-3°04'05
direct	15980 Dec 18 01:31	25° \mathbb{X} 25'59		minimum elong	15981 Nov 15 09:13	11° \mathbb{X} 14'12	3°00'34
	15980 Dec 29 05:04	0° \mathbb{Z}		min. Earth dist.	15981 Nov 18 14:02	9° \mathbb{X} 00'29	0.56382 AU
morning max el	15980 Dec 31 18:26	2° \mathbb{Z} 13'59	24°25'42	morning rise	15981 Nov 23 06:50	6° \mathbb{X} 18'28	
asc. node	15981 Jan 13 16:11	19° \mathbb{Z} 06'15		direct	15981 Nov 29 01:50	4° \mathbb{X} 59'31	
	15981 Jan 19 18:02	0° \approx		morning max el	15981 Dec 13 05:11	12° \mathbb{X} 14'19	26°06'33
morning set	15981 Jan 25 23:20	12° \approx 46'23			15981 Dec 26 23:40	0° \mathbb{Z}	
				asc. node	15981 Dec 31 13:22	7° \mathbb{Z} 44'49	
superior conj	15981 Feb 01 18:00	27° \approx 36'25	1°32'48	morning set	15982 Jan 10 10:28	27° \mathbb{Z} 22'04	
minimum elong	15981 Feb 01 19:22	27° \approx 43'55	1°33'11		15982 Jan 11 15:35	0° \approx	
	15981 Feb 02 20:17	0° \mathbb{X}					
max. Earth dist.	15981 Feb 04 01:15	2° \mathbb{X} 36'56	1.32342 AU	superior conj	15982 Jan 17 04:06	12° \approx 14'37	1°37'48
evening rise	15981 Feb 09 05:37	13° \mathbb{X} 29'17		minimum elong	15982 Jan 17 04:27	12° \approx 16'32	1°38'24
desc. node	15981 Feb 15 03:14	24° \mathbb{X} 57'13		max. Earth dist.	15982 Jan 18 06:05	14° \approx 39'07	1.31414 AU
	15981 Feb 17 22:04	0° \mathbb{Y}		evening rise	15982 Jan 24 05:03	27° \approx 33'47	
	15981 Mar 10 08:10	0° \mathbb{B}			15982 Jan 25 09:10	0° \mathbb{X}	
evening max el	15981 Mar 14 21:05	4° \mathbb{B} 47'56	27°34'07	desc. node	15982 Feb 01 23:56	14° \mathbb{X} 44'49	
retrograde	15981 Mar 28 16:51	12° \mathbb{B} 18'31			15982 Feb 11 05:35	0° \mathbb{Y}	
evening set	15981 Apr 04 11:54	9° \mathbb{B} 55'01		evening max el	15982 Feb 25 05:57	17° \mathbb{Y} 24'13	27°29'15
min. Earth dist.	15981 Apr 08 06:35	6° \mathbb{B} 40'17	0.63515 AU	retrograde	15982 Mar 11 05:42	24° \mathbb{Y} 48'18	
inferior conj	15981 Apr 11 01:31	3° \mathbb{B} 50'00	-0°09'22	evening set	15982 Mar 18 00:48	22° \mathbb{Y} 39'43	
minimum elong	15981 Apr 11 01:49	3° \mathbb{B} 49'14	0°09'37	min. Earth dist.	15982 Mar 21 19:40	19° \mathbb{Y} 47'55	0.61333 AU
transit middle	15981 Apr 11 01:49	3° \mathbb{B} 49'14	0°09'37	inferior conj	15982 Mar 24 22:56	16° \mathbb{Y} 58'52	-1°26'40
transit begin	15981 Apr 10 23:18	3° \mathbb{B} 55'42		minimum elong	15982 Mar 25 02:02	16° \mathbb{Y} 51'51	1°25'33
transit end	15981 Apr 11 04:21	3° \mathbb{B} 42'46		asc. node	15982 Mar 29 10:40	13° \mathbb{Y} 22'41	
asc. node	15981 Apr 11 13:20	3° \mathbb{B} 19'56		morning rise	15982 Apr 01 06:32	12° \mathbb{Y} 01'18	
	15981 Apr 15 06:15	30° \mathbb{R} \mathbb{Y}		direct	15982 Apr 03 10:21	11° \mathbb{Y} 41'16	
morning rise	15981 Apr 17 18:13	28° \mathbb{Y} 34'13		morning max el	15982 Apr 10 07:57	15° \mathbb{Y} 09'14	17°51'00
direct	15981 Apr 20 04:58	28° \mathbb{Y} 04'51			15982 Apr 20 15:48	0° \mathbb{B}	
	15981 Apr 25 01:47	0° \mathbb{B}		morning set	15982 Apr 26 00:21	9° \mathbb{B} 30'22	
morning max el	15981 Apr 26 15:07	1° \mathbb{B} 21'16	17°46'51	desc. node	15982 May 01 01:26	18° \mathbb{B} 31'51	
morning set	15981 May 13 03:40	26° \mathbb{B} 20'31					
desc. node	15981 May 14 04:37	28° \mathbb{B} 07'07		superior conj	15982 May 07 00:40	28° \mathbb{B} 55'52	-0°47'20
	15981 May 15 07:04	0° \mathbb{I}		minimum elong	15982 May 06 20:23	28° \mathbb{B} 37'33	0°47'18
					15982 May 07 15:43	0° \mathbb{I}	
superior conj	15981 May 25 20:52	17° \mathbb{I} 39'44	-1°24'58	max. Earth dist.	15982 May 14 06:51	11° \mathbb{I} 02'20	1.43368 AU
minimum elong	15981 May 25 13:04	17° \mathbb{I} 07'58	1°24'45	evening rise	15982 May 20 22:59	21° \mathbb{I} 40'59	
max. Earth dist.	15981 May 31 15:25	26° \mathbb{I} 56'41	1.44905 AU		15982 May 26 08:32	0° \mathbb{B}	
	15981 Jun 02 13:48	0° \mathbb{B}			15982 Jun 16 16:14	0° Ω	
evening rise	15981 Jun 10 05:30	11° \mathbb{B} 52'46		evening max el	15982 Jun 21 16:27	5° Ω 37'25	21°41'53
	15981 Jun 22 07:19	0° Ω		asc. node	15982 Jun 25 08:52	8° Ω 49'04	
asc. node	15981 Jul 08 11:59	21° Ω 23'03		retrograde	15982 Jun 30 19:17	10° Ω 56'08	
evening max el	15981 Jul 08 20:11	21° Ω 43'44	20°29'13	evening set	15982 Jul 05 09:22	9° Ω 02'26	
retrograde	15981 Jul 16 20:43	26° Ω 18'49		inferior conj	15982 Jul 10 14:58	2° Ω 46'43	3°07'51
evening set	15981 Jul 20 23:42	24° Ω 42'12		minimum elong	15982 Jul 10 14:36	2° Ω 47'59	3°07'09

min. Earth dist.	15982 Jul 10 18:34	2°Ω34'11	0.69045 AU	evening set	15983 Jun 19 17:22	23°Ω25'33	
	15982 Jul 12 15:46	30°κΩ		min. Earth dist.	15983 Jun 24 15:32	17°Ω34'11	0.69100 AU
morning rise	15982 Jul 15 19:40	26°Ω29'36		inferior conj	15983 Jun 25 00:57	17°Ω01'33	2°58'21
direct	15982 Jul 20 17:30	24°Ω23'46		minimum elong	15983 Jun 24 23:43	17°Ω05'50	2°57'26
desc. node	15982 Jul 28 00:34	27°Ω51'09		morning rise	15983 Jun 30 05:58	10°Ω52'00	
	15982 Jul 30 08:29	0°Ω		direct	15983 Jul 04 15:35	9°Ω04'51	
morning max el	15982 Jul 30 12:47	0°Ω10'44	22°30'19	morning max el	15983 Jul 13 05:18	14°Ω01'07	21°06'47
	15982 Aug 21 23:50	0°η		desc. node	15983 Jul 14 21:50	15°Ω47'18	
morning set	15982 Sep 02 01:30	17°η17'34			15983 Jul 25 22:51	0°Ω	
max. Earth dist.	15982 Sep 07 00:15	25°η28'34	1.40937 AU	morning set	15983 Aug 12 21:47	26°Ω48'16	
	15982 Sep 09 16:00	0°Ω			15983 Aug 14 22:38	0°η	
				max. Earth dist.	15983 Aug 20 06:19	8°η30'52	1.43075 AU
superior conj	15982 Sep 14 20:57	9°Ω08'53	-0°55'17				
minimum elong	15982 Sep 15 01:21	9°Ω28'36	0°54'33	superior conj	15983 Aug 27 10:14	20°η23'52	-1°30'58
asc. node	15982 Sep 21 09:58	21°Ω08'57		minimum elong	15983 Aug 27 17:30	20°η54'41	1°30'17
evening rise	15982 Sep 24 23:33	27°Ω50'49			15983 Sep 01 23:50	0°Ω	
	15982 Sep 26 03:03	0°η		evening rise	15983 Sep 08 02:09	10°Ω49'17	
evening max el	15982 Oct 10 21:16	23°η23'37	18°20'40	asc. node	15983 Sep 08 06:37	11°Ω09'17	
retrograde	15982 Oct 18 10:54	27°η14'46			15983 Sep 19 08:26	0°η	
evening set	15982 Oct 20 11:36	26°η58'50		evening max el	15983 Sep 24 09:03	6°η20'06	18°03'06
desc. node	15982 Oct 23 21:31	25°η27'47		retrograde	15983 Oct 01 03:30	9°η49'10	
inferior conj	15982 Oct 28 02:43	22°η21'00	-1°21'24	evening set	15983 Oct 03 11:19	9°η24'34	
minimum elong	15982 Oct 27 23:37	22°η27'20	1°19'33	inferior conj	15983 Oct 10 09:13	4°η26'24	0°07'33
min. Earth dist.	15982 Oct 31 08:43	19°η42'33	0.58372 AU	minimum elong	15983 Oct 10 09:28	4°η25'48	0°07'50
morning rise	15982 Nov 04 08:07	17°η01'24		transit middle	15983 Oct 10 09:28	4°η25'48	0°07'50
direct	15982 Nov 10 16:39	15°η15'27		transit begin	15983 Oct 10 06:35	4°η32'35	
morning max el	15982 Nov 24 23:35	22°η52'12	27°19'58	transit end	15983 Oct 10 12:21	4°η18'59	
	15982 Dec 01 08:37	0°χ		desc. node	15983 Oct 10 18:51	4°η03'33	
asc. node	15982 Dec 18 10:29	26°χ56'07		min. Earth dist.	15983 Oct 13 12:37	1°η29'23	0.60637 AU
	15982 Dec 20 00:48	0°Ω			15983 Oct 15 06:30	30°κΩ	
morning set	15982 Dec 25 18:55	11°Ω46'17		morning rise	15983 Oct 17 04:31	28°Ω36'28	
				direct	15983 Oct 23 20:02	26°Ω26'13	
superior conj	15983 Jan 01 15:33	26°Ω53'28	1°36'45		15983 Nov 02 01:16	0°η	
minimum elong	15983 Jan 01 14:51	26°Ω49'30	1°37'26	morning max el	15983 Nov 07 01:42	4°η18'13	27°55'53
max. Earth dist.	15983 Jan 01 13:40	26°Ω42'51	1.31014 AU		15983 Nov 26 03:54	0°χ	
	15983 Jan 03 00:52	0°≈		asc. node	15983 Dec 05 07:31	16°χ31'16	
evening rise	15983 Jan 08 10:11	11°≈50'58		morning set	15983 Dec 09 22:47	25°χ54'21	
	15983 Jan 17 13:16	0°κ			15983 Dec 11 21:08	0°Ω	
desc. node	15983 Jan 19 20:40	4°κ05'49		max. Earth dist.	15983 Dec 15 20:21	8°Ω40'15	1.31162 AU
evening max el	15983 Feb 07 08:33	29°κ11'55	26°49'32				
	15983 Feb 08 05:18	0°Υ		superior conj	15983 Dec 17 02:29	11°Ω27'50	1°29'41
retrograde	15983 Feb 21 09:10	6°Υ25'52		minimum elong	15983 Dec 17 00:52	11°Ω18'49	1°30'19
evening set	15983 Feb 27 21:28	4°Υ39'18		evening rise	15983 Dec 23 19:01	26°Ω16'16	
min. Earth dist.	15983 Mar 03 22:31	2°Υ00'13	0.59077 AU		15983 Dec 25 12:52	0°≈	
	15983 Mar 06 12:09	30°κκ		desc. node	15984 Jan 06 17:28	22°≈50'32	
inferior conj	15983 Mar 07 03:36	29°κ29'28	-2°54'40		15984 Jan 11 12:10	0°κ	
minimum elong	15983 Mar 07 10:16	29°κ16'24	2°52'05	evening max el	15984 Jan 20 03:10	10°κ07'39	25°36'36
morning rise	15983 Mar 15 02:36	24°κ52'36		retrograde	15984 Feb 03 01:07	17°κ08'09	
asc. node	15983 Mar 16 08:03	24°κ40'27		evening set	15984 Feb 08 22:15	15°κ48'47	
direct	15983 Mar 17 02:03	24°κ38'22		min. Earth dist.	15984 Feb 13 16:02	13°κ08'34	0.56996 AU
morning max el	15983 Mar 24 20:29	28°κ29'27	18°14'17	inferior conj	15984 Feb 16 12:15	11°κ12'57	-4°23'57
	15983 Mar 26 06:39	0°Υ		minimum elong	15984 Feb 16 21:31	10°κ57'12	4°20'54
morning set	15983 Apr 09 12:18	23°Υ21'19		morning rise	15984 Feb 24 23:41	6°κ57'21	
	15983 Apr 13 00:59	0°Ω		direct	15984 Feb 27 00:04	6°κ45'02	
desc. node	15983 Apr 17 22:10	9°Ω02'25		asc. node	15984 Mar 02 05:26	7°κ42'32	
				morning max el	15984 Mar 07 00:33	11°κ10'06	18°58'29
superior conj	15983 Apr 19 02:53	11°Ω12'32	-0°09'55		15984 Mar 19 11:48	0°Υ	
minimum elong	15983 Apr 19 02:04	11°Ω08'54	0°10'15	morning set	15984 Mar 23 10:49	7°Υ39'44	
behind sun begin	15983 Apr 18 20:17	10°Ω42'42					
behind sun end	15983 Apr 19 07:52	11°Ω35'02		superior conj	15984 Mar 31 23:29	24°Υ18'23	0°23'29
max. Earth dist.	15983 Apr 26 17:08	24°Ω29'00	1.41362 AU	minimum elong	15984 Apr 01 00:56	24°Υ25'19	0°22'59
	15983 Apr 30 00:30	0°Π		desc. node	15984 Apr 03 18:52	29°Υ35'09	
evening rise	15983 May 01 10:40	2°Π19'44			15984 Apr 04 00:13	0°Ω	
	15983 May 19 16:46	0°Ω		max. Earth dist.	15984 Apr 07 23:49	7°Ω13'46	1.39109 AU
evening max el	15983 Jun 04 08:19	19°Ω31'06	23°01'55	evening rise	15984 Apr 11 19:47	13°Ω54'35	
asc. node	15983 Jun 12 05:51	25°Ω09'17			15984 Apr 21 17:08	0°Π	
retrograde	15983 Jun 14 15:49	25°Ω34'28			15984 May 13 16:11	0°Ω	

evening max el	15984 May 16 22:13	3°☿26'28	24°23'09	retrograde	15985 May 11 21:42	24°♊30'29	
retrograde	15984 May 28 09:00	10°☿08'11		asc. node	15985 May 16 00:02	23°♊22'15	
asc. node	15984 May 29 02:54	10°☿05'49		evening set	15985 May 17 21:56	22°♊00'57	
evening set	15984 Jun 02 22:07	7°☿47'02		min. Earth dist.	15985 May 22 03:55	17°♊23'33	0.67769 AU
min. Earth dist.	15984 Jun 07 11:23	2°☿32'54	0.68674 AU	inferior conj	15985 May 23 15:18	15°♊30'28	2°07'32
inferior conj	15984 Jun 08 09:43	1°☿17'41	2°38'24	minimum elong	15985 May 23 13:07	15°♊37'28	2°06'11
minimum elong	15984 Jun 08 07:50	1°☿24'03	2°37'14	morning rise	15985 May 29 04:49	9°♊40'15	
	15984 Jun 09 08:59	30°♈♊		direct	15985 Jun 01 15:40	8°♊31'58	
morning rise	15984 Jun 13 17:38	25°♊17'07		morning max el	15985 Jun 08 10:41	12°♊12'11	18°57'22
direct	15984 Jun 17 15:32	23°♊49'39		desc. node	15985 Jun 17 16:08	23°♊53'57	
morning max el	15984 Jun 25 04:19	28°♊01'56	19°54'36	greatest brilliancy	15985 Jun 21 16:59	29°♊52'51	-0.7m
	15984 Jun 27 01:10	0°☿			15985 Jun 21 18:52	0°☿	
desc. node	15984 Jun 30 19:02	4°☿32'36		morning set	15985 Jul 01 11:14	14°☿51'27	
	15984 Jul 18 09:09	0°♊			15985 Jul 11 05:32	0°♊	
morning set	15984 Jul 22 02:48	5°♊42'18		max. Earth dist.	15985 Jul 15 13:18	6°♊44'36	1.45734 AU
max. Earth dist.	15984 Aug 01 19:07	22°♊20'41	1.44732 AU				
	15984 Aug 06 14:02	0°♎		superior conj	15985 Jul 17 17:22	10°♊08'29	-2°13'43
superior conj	15984 Aug 07 00:00	0°♎40'15	-1°59'37	minimum elong	15985 Jul 17 19:16	10°♊15'55	2°14'21
minimum elong	15984 Aug 07 07:17	1°♎09'41	1°59'33		15985 Jul 30 05:17	0°♎	
evening rise	15984 Aug 20 10:24	22°♎59'35		evening rise	15985 Aug 01 19:27	4°♎10'50	
	15984 Aug 24 13:30	0°♎		asc. node	15985 Aug 11 23:55	20°♎30'37	
asc. node	15984 Aug 25 03:15	0°♎58'02			15985 Aug 18 14:37	0°♎	
evening max el	15984 Sep 06 23:47	19°♎42'27	18°04'26	evening max el	15985 Aug 21 13:59	3°♎22'09	18°23'40
retrograde	15984 Sep 13 09:11	23°♎02'56		retrograde	15985 Aug 27 23:50	6°♎47'36	
evening set	15984 Sep 16 01:25	22°♎26'05		evening set	15985 Aug 31 01:01	5°♎55'47	
inferior conj	15984 Sep 22 08:35	17°♎09'40	1°17'07	inferior conj	15985 Sep 05 20:52	0°♎23'24	2°07'36
minimum elong	15984 Sep 22 10:31	17°♎04'28	1°16'36	minimum elong	15985 Sep 05 23:12	0°♎16'29	2°06'53
min. Earth dist.	15984 Sep 25 02:18	14°♎14'40	0.62904 AU		15985 Sep 06 04:44	30°♈♎	
desc. node	15984 Sep 26 16:13	12°♎41'44		min. Earth dist.	15985 Sep 08 01:35	27°♎47'45	0.64964 AU
morning rise	15984 Sep 28 17:23	10°♎59'00		morning rise	15985 Sep 11 19:59	24°♎01'04	
direct	15984 Oct 05 09:33	8°♎31'29		desc. node	15985 Sep 13 13:36	22°♎47'46	
morning max el	15984 Oct 19 09:26	16°♎29'55	27°52'47	direct	15985 Sep 18 07:33	21°♎24'52	
	15984 Oct 30 13:52	0°♎		morning max el	15985 Oct 01 20:16	29°♎18'59	27°15'13
	15984 Nov 17 21:27	0°♏			15985 Oct 02 12:22	0°♎	
asc. node	15984 Nov 21 04:26	6°♏22'41			15985 Oct 24 11:22	0°♎	
morning set	15984 Nov 22 19:45	9°♏40'03		morning set	15985 Nov 06 07:14	22°♎57'52	
max. Earth dist.	15984 Nov 27 22:21	20°♏22'23	1.31878 AU	asc. node	15985 Nov 08 01:16	26°♎25'06	
					15985 Nov 09 19:54	0°♏	
superior conj	15984 Nov 30 10:52	25°♏51'26	1°16'33	max. Earth dist.	15985 Nov 10 16:21	1°♏44'39	1.33157 AU
minimum elong	15984 Nov 30 08:39	25°♏39'15	1°17'02				
	15984 Dec 02 08:04	0°♐		superior conj	15985 Nov 14 14:39	9°♏58'58	0°57'17
evening rise	15984 Dec 07 05:37	10°♐44'11		minimum elong	15985 Nov 14 12:19	9°♏46'34	0°57'37
	15984 Dec 16 21:35	0°♐		evening rise	15985 Nov 21 16:11	25°♏10'32	
desc. node	15984 Dec 23 14:21	10°♐44'58			15985 Nov 23 23:08	0°♐	
evening max el	15984 Dec 31 14:28	20°♐19'18	23°59'57	desc. node	15985 Dec 10 11:18	27°♐31'18	
retrograde	15985 Jan 14 03:16	27°♐02'11			15985 Dec 12 18:39	0°♐	
evening set	15985 Jan 19 00:15	26°♐10'38		evening max el	15985 Dec 13 00:42	0°♐14'54	22°16'34
min. Earth dist.	15985 Jan 25 02:00	23°♐12'13	0.55379 AU	retrograde	15985 Dec 25 17:19	6°♐31'38	
inferior conj	15985 Jan 26 23:48	22°♐03'46	-5°35'13	evening set	15985 Dec 29 07:32	6°♐03'10	
minimum elong	15985 Jan 27 07:14	21°♐52'39	5°33'28	inferior conj	15986 Jan 06 18:59	2°♐11'03	-6°01'52
morning rise	15985 Feb 04 15:54	18°♐06'49		minimum elong	15986 Jan 06 18:19	2°♐12'00	6°01'09
direct	15985 Feb 07 02:38	17°♐51'35		min. Earth dist.	15986 Jan 06 07:39	2°♐26'56	0.54495 AU
asc. node	15985 Feb 17 02:48	22°♐27'29			15986 Jan 10 21:43	30°♈♐	
morning max el	15985 Feb 17 15:52	22°♐58'22	20°05'38	morning rise	15986 Jan 15 06:06	28°♐23'46	
	15985 Feb 23 10:17	0°♑		direct	15986 Jan 18 13:44	27°♐59'10	
morning set	15985 Mar 07 16:14	22°♑14'04			15986 Jan 25 16:11	0°♐	
	15985 Mar 11 11:14	0°♑		morning max el	15986 Jan 30 16:08	3°♐49'36	21°35'40
superior conj	15985 Mar 15 10:02	8°♑00'33	0°51'06	asc. node	15986 Feb 04 00:08	8°♐40'22	
minimum elong	15985 Mar 15 12:29	8°♑12'46	0°50'41		15986 Feb 16 16:56	0°♑	
max. Earth dist.	15985 Mar 21 06:37	19°♑23'58	1.36843 AU	morning set	15986 Feb 20 01:53	6°♑56'33	
desc. node	15985 Mar 21 15:30	20°♑05'44					
evening rise	15985 Mar 25 00:22	26°♑17'36		superior conj	15986 Feb 27 06:48	22°♑08'56	1°12'20
	15985 Mar 27 02:20	0°♒		minimum elong	15986 Feb 27 09:16	22°♑21'49	1°12'12
	15985 Apr 15 04:46	0°♒			15986 Mar 03 02:38	0°♑	
evening max el	15985 Apr 29 11:48	17°♒20'40	25°38'37	max. Earth dist.	15986 Mar 03 17:45	1°♑15'52	1.34784 AU
				evening rise	15986 Mar 07 21:06	9°♑19'43	
				desc. node	15986 Mar 08 12:06	10°♑30'36	

	15986 Mar 19 16:10	0°♄		desc. node	15987 Feb 23 08:45	0°♄45'41	
	15986 Apr 10 22:43	0°♄			15987 Mar 13 08:39	0°♄	
evening max el	15986 Apr 12 01:30	1°♄06'49	26°40'49	evening max el	15987 Mar 25 14:46	14°♄36'00	27°22'22
retrograde	15986 Apr 25 05:05	8°♄33'24		retrograde	15987 Apr 08 06:23	22°♄08'35	
evening set	15986 May 01 14:57	6°♄00'45		evening set	15987 Apr 14 23:09	19°♄39'25	
asc. node	15986 May 02 21:15	4°♄54'18		min. Earth dist.	15987 Apr 18 19:03	16°♄08'43	0.64664 AU
min. Earth dist.	15986 May 05 15:05	1°♄58'19	0.66416 AU	asc. node	15987 Apr 19 18:31	15°♄05'57	
	15986 May 07 06:56	30°♄8		inferior conj	15987 Apr 21 07:49	13°♄24'07	0°29'01
inferior conj	15986 May 07 15:30	29°♄34'26	1°24'46	minimum elong	15987 Apr 21 07:01	13°♄26'18	0°28'14
minimum elong	15986 May 07 13:35	29°♄40'06	1°23'29	morning rise	15987 Apr 27 16:56	7°♄59'36	
morning rise	15986 May 13 13:24	23°♄56'10		direct	15987 Apr 30 08:18	7°♄23'27	
direct	15986 May 16 14:02	23°♄05'19		morning max el	15987 May 06 15:54	10°♄38'28	17°52'40
morning max el	15986 May 22 23:16	26°♄26'37	18°16'31		15987 May 20 03:06	0°♄	
	15986 May 26 03:28	0°♄		desc. node	15987 May 22 10:02	3°♄47'56	
desc. node	15986 Jun 04 13:07	13°♄41'22		morning set	15987 May 24 01:38	6°♄32'47	
morning set	15986 Jun 11 16:41	25°♄02'40					
	15986 Jun 14 19:23	0°♄		superior conj	15987 Jun 06 19:59	29°♄02'04	-1°44'17
superior conj	15986 Jun 27 02:19	19°♄20'40	-2°08'07	minimum elong	15987 Jun 06 11:20	28°♄27'32	1°44'13
minimum elong	15986 Jun 26 20:36	18°♄58'22	2°08'38		15987 Jun 07 10:32	0°♄	
max. Earth dist.	15986 Jun 28 09:44	21°♄23'13	1.45993 AU	max. Earth dist.	15987 Jun 11 05:37	6°♄00'02	1.45504 AU
	15986 Jul 03 22:30	0°♄		evening rise	15987 Jun 22 17:44	23°♄49'13	
evening rise	15986 Jul 13 03:37	14°♄20'23			15987 Jun 26 19:03	0°♄	
	15986 Jul 23 06:25	0°♄		greatest brilliancy	15987 Jul 07 09:22	15°♄47'52	-0.6m
greatest brilliancy	15986 Jul 23 14:13	0°♄29'39	-0.8m	asc. node	15987 Jul 16 17:26	28°♄18'52	
asc. node	15986 Jul 29 20:38	9°♄40'12			15987 Jul 18 05:28	0°♄	
evening max el	15986 Aug 05 00:51	17°♄11'14	19°00'05	evening max el	15987 Jul 19 06:29	1°♄04'43	19°52'34
retrograde	15986 Aug 11 19:51	20°♄54'45		retrograde	15987 Jul 26 18:27	5°♄18'18	
evening set	15986 Aug 15 06:29	19°♄46'12		evening set	15987 Jul 30 15:12	3°♄52'08	
inferior conj	15986 Aug 20 18:30	13°♄59'53	2°41'24		15987 Aug 03 08:15	30°♄	
minimum elong	15986 Aug 20 20:26	13°♄53'41	2°40'44	inferior conj	15987 Aug 04 22:35	27°♄53'26	3°01'03
min. Earth dist.	15986 Aug 22 09:15	11°♄56'06	0.66680 AU	minimum elong	15987 Aug 04 23:43	27°♄49'36	3°00'27
morning rise	15986 Aug 26 09:36	7°♄33'11		min. Earth dist.	15987 Aug 05 23:25	26°♄29'43	0.67973 AU
desc. node	15986 Aug 31 11:01	5°♄01'17		morning rise	15987 Aug 10 07:46	21°♄27'49	
direct	15986 Sep 01 12:53	4°♄56'47		direct	15987 Aug 16 00:32	18°♄58'41	
morning max el	15986 Sep 14 07:51	12°♄33'02	26°11'04	desc. node	15987 Aug 18 08:24	19°♄20'04	
	15986 Sep 28 09:42	0°♄		morning max el	15987 Aug 27 18:55	26°♄01'34	24°49'46
	15986 Oct 17 03:22	0°♄			15987 Aug 31 10:39	0°♄	
morning set	15986 Oct 20 05:59	5°♄40'13		morning set	15987 Sep 21 22:26	0°♄	
max. Earth dist.	15986 Oct 24 00:35	12°♄50'39	1.34961 AU	max. Earth dist.	15987 Oct 02 12:05	17°♄38'45	
asc. node	15986 Oct 25 22:03	16°♄33'45			15987 Oct 06 00:55	23°♄59'23	1.37174 AU
					15987 Oct 09 06:30	0°♄	
superior conj	15986 Oct 29 11:15	23°♄43'44	0°31'58	superior conj	15987 Oct 12 21:38	6°♄59'02	0°01'05
minimum elong	15986 Oct 29 09:33	23°♄35'03	0°32'14	minimum elong	15987 Oct 12 21:33	6°♄58'36	0°01'28
	15986 Nov 01 11:53	0°♄		behind sun begin	15987 Oct 12 14:58	6°♄26'30	
evening rise	15986 Nov 06 00:47	9°♄30'04		behind sun end	15987 Oct 13 04:07	7°♄30'46	
	15986 Nov 16 19:23	0°♄		asc. node	15987 Oct 12 18:46	6°♄45'01	
evening max el	15986 Nov 24 19:45	10°♄32'45	20°43'34	evening rise	15987 Oct 21 05:12	23°♄37'48	
desc. node	15986 Nov 27 08:21	12°♄46'39			15987 Oct 24 09:57	0°♄	
retrograde	15986 Dec 06 03:23	16°♄09'57		evening max el	15987 Nov 07 05:18	21°♄38'08	19°30'36
evening set	15986 Dec 08 14:35	15°♄55'08		desc. node	15987 Nov 14 05:30	26°♄07'06	
inferior conj	15986 Dec 17 09:59	12°♄02'24	-5°27'25	retrograde	15987 Nov 16 21:34	26°♄28'39	
minimum elong	15986 Dec 17 01:21	12°♄14'51	5°25'00	evening set	15987 Nov 18 20:08	26°♄17'52	
min. Earth dist.	15986 Dec 18 13:04	11°♄23'24	0.54521 AU	inferior conj	15987 Nov 27 11:27	22°♄12'37	-4°03'17
morning rise	15986 Dec 25 12:00	8°♄06'55		minimum elong	15987 Nov 27 01:55	22°♄27'54	3°59'26
direct	15986 Dec 29 21:14	7°♄25'36		min. Earth dist.	15987 Nov 29 21:31	20°♄39'35	0.55478 AU
morning max el	15987 Jan 12 04:18	13°♄55'33	23°22'29	morning rise	15987 Dec 05 05:43	17°♄50'22	
asc. node	15987 Jan 21 21:23	26°♄02'29		direct	15987 Dec 10 14:14	16°♄45'55	
	15987 Jan 24 08:42	0°♄		morning max el	15987 Dec 24 12:53	23°♄47'02	25°11'00
morning set	15987 Feb 04 13:35	21°♄40'48			15987 Dec 30 03:51	0°♄	
	15987 Feb 08 09:54	0°♄		asc. node	15988 Jan 08 18:36	14°♄17'09	
					15988 Jan 17 01:19	0°♄	
superior conj	15987 Feb 11 10:41	6°♄34'58	1°27'08	morning set	15988 Jan 20 01:24	6°♄20'47	
minimum elong	15987 Feb 11 12:34	6°♄45'06	1°27'20				
max. Earth dist.	15987 Feb 14 12:04	13°♄06'24	1.33092 AU	superior conj	15988 Jan 26 19:08	21°♄10'30	1°35'40
evening rise	15987 Feb 19 06:33	22°♄52'24		minimum elong	15988 Jan 26 20:05	21°♄15'44	1°36'10
	15987 Feb 22 23:00	0°♄		max. Earth dist.	15988 Jan 28 13:31	25°♄03'32	1.31874 AU

	15988 Jan 30 20:13	0° H		minimum elong	15989 Jan 10 05:57	5° \approx 49'17	1°38'45
evening rise	15988 Feb 03 01:38	6° H 47'15		max. Earth dist.	15989 Jan 10 19:55	7° \approx 07'24	1.31176 AU
desc. node	15988 Feb 10 05:24	20° H 45'06		evening rise	15989 Jan 17 03:47	20° \approx 58'17	
	15988 Feb 15 11:52	0° Y			15989 Jan 21 13:31	0° H	
evening max el	15988 Mar 07 01:58	27° Y 35'30	27°36'16	desc. node	15989 Jan 27 02:09	10° H 22'44	
	15988 Mar 09 18:44	0° B			15989 Feb 08 17:29	0° Y	
retrograde	15988 Mar 21 00:21	5° B 04'48		evening max el	15989 Feb 17 08:45	9° Y 53'11	27°16'49
evening set	15988 Mar 27 19:56	2° B 46'47		retrograde	15989 Mar 03 09:21	17° Y 12'50	
	15988 Mar 31 06:38	30° R Y		evening set	15989 Mar 10 02:19	15° Y 13'14	
min. Earth dist.	15988 Mar 31 14:09	29° Y 42'37	0.62601 AU	min. Earth dist.	15989 Mar 13 23:03	12° Y 28'01	0.60369 AU
inferior conj	15988 Apr 03 13:09	26° Y 50'41	-0°40'33	inferior conj	15989 Mar 17 03:55	9° Y 44'52	-2°03'00
minimum elong	15988 Apr 03 14:31	26° Y 47'23	0°40'16	minimum elong	15989 Mar 17 08:30	9° Y 35'06	2°01'14
asc. node	15988 Apr 05 15:51	24° Y 51'45		asc. node	15989 Mar 23 13:12	5° Y 20'29	
morning rise	15988 Apr 10 12:00	21° Y 42'20		morning rise	15989 Mar 24 18:07	4° Y 55'26	
direct	15988 Apr 12 19:26	21° Y 17'29		direct	15989 Mar 26 19:38	4° Y 38'17	
morning max el	15988 Apr 19 09:34	24° Y 37'47	17°46'20	morning max el	15989 Apr 03 00:58	8° Y 14'57	17°58'25
	15988 Apr 23 20:01	0° B			15989 Apr 17 03:38	0° B	
morning set	15988 May 05 10:59	19° B 11'27		morning set	15989 Apr 18 14:50	2° B 41'01	
desc. node	15988 May 08 06:52	24° B 07'21		desc. node	15989 Apr 25 03:39	14° B 35'03	
	15988 May 11 16:32	0° II					
superior conj	15988 May 17 10:08	9° II 40'46	-1°09'20	superior conj	15989 Apr 28 23:48	21° B 23'28	-0°31'10
minimum elong	15988 May 17 03:40	9° II 13'55	1°09'10	minimum elong	15989 Apr 28 21:06	21° B 11'40	0°31'17
max. Earth dist.	15988 May 23 22:53	20° II 19'59	1.44324 AU	max. Earth dist.	15989 May 04 00:10	0° II	
	15988 May 30 01:56	0° E		evening rise	15989 May 06 12:21	4° II 11'00	1.42569 AU
evening rise	15988 Jun 01 05:18	3° E 18'48			15989 May 12 05:45	13° II 27'15	
	15988 Jun 19 06:17	0° O		evening max el	15989 May 23 00:50	0° E	
evening max el	15988 Jul 01 06:07	14° O 58'54	20°58'55		15989 Jun 14 00:26	28° E 53'13	22°15'22
asc. node	15988 Jul 02 14:18	16° O 15'17		asc. node	15989 Jun 15 04:10	0° O	
retrograde	15988 Jul 09 17:27	19° O 51'56		retrograde	15989 Jun 19 11:14	3° O 15'43	
evening set	15988 Jul 14 01:01	18° O 08'08		evening set	15989 Jun 23 15:11	4° O 30'30	
inferior conj	15988 Jul 19 06:35	11° O 58'23	3°08'31		15989 Jun 28 10:10	2° O 30'05	
minimum elong	15988 Jul 19 06:46	11° O 57'45	3°07'54	inferior conj	15989 Jun 30 19:41	30° R E	
min. Earth dist.	15988 Jul 19 17:53	11° O 19'11	0.68800 AU	minimum elong	15989 Jul 03 16:23	26° E 10'48	3°05'04
morning rise	15988 Jul 24 12:13	5° O 37'30		min. Earth dist.	15989 Jul 03 15:38	26° E 13'25	3°04'17
direct	15988 Jul 29 17:12	3° O 21'44		morning rise	15989 Jul 03 14:27	26° E 17'33	0.69139 AU
desc. node	15988 Aug 04 05:44	5° O 21'39		direct	15989 Jul 08 20:55	19° E 56'51	
morning max el	15988 Aug 09 06:00	9° O 38'03	23°21'02	desc. node	15989 Jul 13 13:38	17° E 58'36	
	15988 Aug 25 08:15	0° M		morning max el	15989 Jul 22 03:02	22° E 42'09	
morning set	15988 Sep 12 21:18	28° M 43'15			15989 Jul 22 19:41	23° E 22'54	21°53'35
	15988 Sep 13 15:37	0° A			15989 Jul 28 15:03	0° O	
max. Earth dist.	15988 Sep 16 23:28	5° A 40'35	1.39580 AU	morning set	15989 Aug 18 16:10	0° M	
				max. Earth dist.	15989 Aug 24 06:42	8° M 46'54	
superior conj	15988 Sep 24 17:59	19° A 35'58	-0°34'06		15989 Aug 30 02:33	18° M 14'58	1.41899 AU
minimum elong	15988 Sep 24 20:32	19° A 47'46	0°33'28		15989 Sep 06 00:39	0° A	
asc. node	15988 Sep 28 15:29	26° A 55'26		superior conj	15989 Sep 06 19:50	1° A 23'42	-1°10'51
	15988 Sep 30 06:04	0° M		minimum elong	15989 Sep 07 01:35	1° A 48'55	1°10'04
evening rise	15988 Oct 04 02:37	7° M 26'46		asc. node	15989 Sep 15 12:09	17° A 00'39	
	15988 Oct 17 03:01	0° J		evening rise	15989 Sep 17 13:23	20° A 47'10	
evening max el	15988 Oct 20 04:17	3° J 33'53	18°40'01		15989 Sep 22 14:39	0° M	
retrograde	15988 Oct 28 09:27	7° J 43'10		evening max el	15989 Oct 03 12:36	16° M 10'53	18°10'46
evening set	15988 Oct 30 07:38	7° J 30'16		retrograde	15989 Oct 10 16:37	19° M 50'55	
desc. node	15988 Oct 31 02:44	7° J 17'46		evening set	15989 Oct 12 20:13	19° M 31'38	
inferior conj	15988 Nov 07 08:45	3° J 04'50	-2°19'35	desc. node	15989 Oct 18 00:01	16° M 33'22	
minimum elong	15988 Nov 07 03:06	3° J 15'22	2°16'41	inferior conj	15989 Oct 20 03:47	14° M 44'36	-0°41'22
min. Earth dist.	15988 Nov 10 11:33	0° J 46'04	0.57177 AU	minimum elong	15989 Oct 20 02:18	14° M 47'49	0°40'17
	15988 Nov 11 14:03	30° R M		min. Earth dist.	15989 Oct 23 09:40	11° M 56'03	0.59321 AU
morning rise	15988 Nov 14 19:22	28° M 06'31		morning rise	15989 Oct 27 05:02	9° M 11'16	
direct	15988 Nov 20 21:13	26° M 35'44		direct	15989 Nov 02 17:21	7° M 14'39	
	15988 Nov 30 06:42	0° J		morning max el	15989 Nov 17 00:04	14° M 57'50	27°40'12
morning max el	15988 Dec 05 02:19	4° J 00'19	26°41'57		15989 Nov 29 04:35	0° J	
	15988 Dec 23 21:21	0° B		asc. node	15989 Dec 12 12:49	22° J 33'31	
asc. node	15988 Dec 25 15:44	3° B 11'08			15989 Dec 16 06:51	0° B	
morning set	15989 Jan 03 11:36	20° B 52'11		morning set	15989 Dec 18 18:19	5° B 09'50	
	15989 Jan 07 15:27	0° \approx		max. Earth dist.	15989 Dec 25 03:45	19° B 10'16	1.31013 AU
superior conj	15989 Jan 10 06:03	5° \approx 49'54	1°38'05	superior conj	15989 Dec 25 17:28	20° B 27'01	1°34'29

minimum elong	15989 Dec 25 16:21	20° Z 20'45	1°35'10	superior conj	15990 Dec 10 03:31	4° Z 56'58	1°24'51
	15989 Dec 30 00:11	0° \approx		minimum elong	15990 Dec 10 01:36	4° Z 46'18	1°25'26
evening rise	15990 Jan 01 10:43	5° \approx 19'22		evening rise	15990 Dec 16 20:29	19° Z 45'51	
desc. node	15990 Jan 13 22:55	29° \approx 29'39			15990 Dec 21 17:58	0° \approx	
	15990 Jan 14 06:09	0° H		desc. node	15990 Dec 31 19:45	17° \approx 54'41	
evening max el	15990 Jan 30 08:11	21° H 18'34	26°22'13		15991 Jan 10 02:28	0° H	
retrograde	15990 Feb 13 07:42	28° H 26'18		evening max el	15991 Jan 11 22:59	1° H 51'52	24°57'22
evening set	15990 Feb 19 14:51	26° H 50'53		retrograde	15991 Jan 25 17:55	8° H 46'07	
min. Earth dist.	15990 Feb 23 21:30	24° H 13'25	0.58158 AU	evening set	15991 Jan 31 06:04	7° H 38'26	
inferior conj	15990 Feb 27 00:20	21° H 55'59	-3°33'15	min. Earth dist.	15991 Feb 05 11:09	4° H 52'55	0.56231 AU
minimum elong	15990 Feb 27 08:24	21° H 41'08	3°30'16	inferior conj	15991 Feb 07 23:45	3° H 16'04	-4°57'59
morning rise	15990 Mar 07 05:15	17° H 28'07		minimum elong	15991 Feb 08 09:01	3° H 01'13	4°55'18
direct	15990 Mar 09 04:26	17° H 15'04			15991 Feb 13 20:47	30° R \approx	
asc. node	15990 Mar 10 10:33	17° H 20'35		morning rise	15991 Feb 16 14:28	29° \approx 09'30	
morning max el	15990 Mar 17 10:18	21° H 19'03	18°30'27	direct	15991 Feb 18 17:52	28° \approx 56'40	
	15990 Mar 24 01:20	0° Y			15991 Feb 23 08:23	0° H	
morning set	15990 Apr 02 07:45	16° Y 45'07		asc. node	15991 Feb 25 07:55	1° H 07'14	
	15990 Apr 09 06:17	0° Z		morning max el	15991 Feb 28 09:26	3° H 38'23	19°24'20
					15991 Mar 16 19:18	0° Y	
superior conj	15990 Apr 11 10:21	4° Z 02'27	0°04'54	morning set	15991 Mar 17 09:31	1° Y 10'54	
minimum elong	15990 Apr 11 10:40	4° Z 03'58	0°04'28				
behind sun begin	15990 Apr 11 03:48	3° Z 32'09		superior conj	15991 Mar 25 13:22	17° Y 25'02	0°35'58
behind sun end	15990 Apr 11 17:33	4° Z 35'41		minimum elong	15991 Mar 25 15:22	17° Y 34'50	0°35'28
desc. node	15990 Apr 12 00:22	5° Z 07'00		desc. node	15991 Mar 29 21:00	25° Y 39'07	
max. Earth dist.	15990 Apr 18 21:20	17° Z 21'52	1.40421 AU	max. Earth dist.	15991 Apr 01 03:17	29° Y 49'18	1.38121 AU
evening rise	15990 Apr 23 02:30	24° Z 29'56			15991 Apr 01 05:38	0° Z	
	15990 Apr 26 11:13	0° II		evening rise	15991 Apr 04 20:07	6° Z 25'35	
	15990 May 16 19:58	0° E			15991 Apr 19 09:55	0° II	
evening max el	15990 May 27 15:11	12° E 48'02	23°36'40	evening max el	15991 May 10 04:32	26° II 42'27	24°56'24
asc. node	15990 Jun 06 08:14	19° E 03'19			15991 May 13 20:54	0° E	
retrograde	15990 Jun 07 10:23	19° E 08'25		retrograde	15991 May 22 01:53	3° E 38'17	
evening set	15990 Jun 12 17:01	16° E 53'37		asc. node	15991 May 24 05:18	3° E 19'02	
min. Earth dist.	15990 Jun 17 11:05	11° E 18'25	0.68981 AU	evening set	15991 May 27 19:52	1° E 12'44	
inferior conj	15990 Jun 18 02:04	10° E 27'01	2°51'12		15991 May 29 02:28	30° R II	
minimum elong	15990 Jun 18 00:31	10° E 32'20	2°50'10	min. Earth dist.	15991 Jun 01 05:44	26° II 14'31	0.68339 AU
morning rise	15990 Jun 23 08:01	4° E 21'25		inferior conj	15991 Jun 02 09:42	24° II 42'08	2°26'43
direct	15990 Jun 27 12:36	2° E 42'43		minimum elong	15991 Jun 02 07:38	24° II 48'59	2°25'27
morning max el	15990 Jul 05 14:54	7° E 18'42	20°34'31	morning rise	15991 Jun 07 19:41	18° II 45'57	
desc. node	15990 Jul 09 00:16	11° E 01'30		direct	15991 Jun 11 12:41	17° II 27'00	
	15990 Jul 22 21:09	0° O		morning max el	15991 Jun 18 17:09	21° II 24'21	19°28'24
morning set	15990 Aug 03 19:00	17° O 58'47		desc. node	15991 Jun 25 21:23	0° E 03'26	
	15990 Aug 11 10:46	0° P			15991 Jun 25 20:22	0° E	
max. Earth dist.	15990 Aug 12 12:14	1° P 41'54	1.43855 AU	greatest brilliancy	15991 Jul 01 09:05	7° E 52'17	-0.7m
				morning set	15991 Jul 13 22:55	26° E 52'32	
superior conj	15990 Aug 18 23:17	12° P 14'18	-1°44'24		15991 Jul 15 23:41	0° O	
minimum elong	15990 Aug 19 07:06	12° P 46'47	1°43'55	max. Earth dist.	15991 Jul 26 03:18	15° O 47'18	1.45242 AU
	15990 Aug 29 09:21	0° E					
evening rise	15990 Aug 31 08:57	3° E 27'50		superior conj	15991 Jul 30 03:30	22° O 07'43	-2°07'47
asc. node	15990 Sep 02 08:49	6° E 57'12		minimum elong	15991 Jul 30 09:09	22° O 30'15	2°08'04
evening max el	15990 Sep 17 02:03	29° E 19'31	18°01'17		15991 Aug 04 01:13	0° P	
	15990 Sep 17 19:11	0° M		evening rise	15991 Aug 13 07:54	15° P 14'30	
retrograde	15990 Sep 23 15:33	2° M 43'34		asc. node	15991 Aug 20 05:28	26° P 40'00	
evening set	15990 Sep 26 02:46	2° M 14'12			15991 Aug 22 07:02	0° E	
	15990 Sep 29 16:15	30° R E		evening max el	15991 Aug 31 16:54	12° E 50'09	18°10'24
inferior conj	15990 Oct 02 18:00	27° E 07'41	0°39'31	retrograde	15991 Sep 07 01:34	16° E 11'24	
minimum elong	15990 Oct 02 19:09	27° E 04'46	0°39'21	evening set	15991 Sep 09 21:25	15° E 28'38	
desc. node	15990 Oct 04 21:21	24° E 58'52		inferior conj	15991 Sep 15 23:22	10° E 05'18	1°40'41
min. Earth dist.	15990 Oct 05 17:45	24° E 09'15	0.61617 AU	minimum elong	15991 Sep 16 01:36	9° E 59'01	1°40'02
morning rise	15990 Oct 09 08:47	21° E 07'27		min. Earth dist.	15991 Sep 18 11:52	7° E 16'21	0.63817 AU
direct	15990 Oct 16 01:05	18° E 49'08		desc. node	15991 Sep 21 18:43	4° E 06'28	
morning max el	15990 Oct 30 05:11	26° E 45'07	27°59'12	morning rise	15991 Sep 22 03:52	3° E 48'18	
	15990 Nov 02 06:56	0° M		direct	15991 Sep 28 18:33	1° E 15'48	
	15990 Nov 22 20:09	0° J		morning max el	15991 Oct 12 14:43	9° E 14'49	27°40'30
asc. node	15990 Nov 29 09:48	12° J 16'20			15991 Oct 28 19:55	0° M	
morning set	15990 Dec 02 19:32	19° J 08'55			15991 Nov 15 03:43	0° J	
	15990 Dec 07 21:37	0° Z		asc. node	15991 Nov 16 06:42	2° J 13'17	
max. Earth dist.	15990 Dec 08 09:00	1° Z 02'23	1.31400 AU	morning set	15991 Nov 16 12:52	2° J 44'01	

max. Earth dist.	15991 Nov 21 07:52	12° ♁ 35'53	1.32349 AU	max. Earth dist.	15992 Nov 02 21:27	23° ♁ 48'35	1.33864 AU
					15992 Nov 05 22:13	0° ♁	
superior conj	15991 Nov 24 10:15	19° ♁ 14'40	1°09'07	superior conj	15992 Nov 07 11:21	3° ♁ 13'41	0°47'17
minimum elong	15991 Nov 24 07:55	19° ♁ 01'59	1°09'32	minimum elong	15992 Nov 07 09:12	3° ♁ 02'20	0°47'33
	15991 Nov 29 08:29	0° ♁		evening rise	15992 Nov 14 17:18	18° ♁ 37'42	
evening rise	15991 Dec 01 07:18	4° ♁ 13'38			15992 Nov 20 06:57	0° ♁	
	15991 Dec 14 22:32	0° ♁		desc. node	15992 Dec 04 13:40	21° ♁ 33'51	
desc. node	15991 Dec 18 16:39	5° ♁ 22'59		evening max el	15992 Dec 04 21:46	21° ♁ 54'00	21°35'02
evening max el	15991 Dec 24 08:39	11° ♁ 52'23	23°15'43	retrograde	15992 Dec 17 01:42	27° ♁ 54'46	
retrograde	15992 Jan 06 15:01	18° ♁ 26'19		evening set	15992 Dec 20 03:03	27° ♁ 33'34	
evening set	15992 Jan 10 22:59	17° ♁ 45'40		inferior conj	15992 Dec 28 19:04	23° ♁ 43'23	-5°54'43
min. Earth dist.	15992 Jan 17 19:10	14° ♁ 33'17	0.54890 AU	minimum elong	15992 Dec 28 14:23	23° ♁ 49'56	5°53'34
inferior conj	15992 Jan 19 03:24	13° ♁ 46'46	-5°53'31	min. Earth dist.	15992 Dec 29 00:32	23° ♁ 35'44	0.54389 AU
minimum elong	15992 Jan 19 08:00	13° ♁ 40'09	5°52'29	morning rise	15993 Jan 06 02:16	19° ♁ 54'49	
morning rise	15992 Jan 27 18:23	9° ♁ 55'26		direct	15993 Jan 09 20:56	19° ♁ 23'44	
direct	15992 Jan 30 12:34	9° ♁ 37'16		morning max el	15993 Jan 22 12:53	25° ♁ 32'21	22°19'39
morning max el	15992 Feb 10 18:35	15° ♁ 03'23	20°41'22		15993 Jan 26 14:42	0° ♁	
asc. node	15992 Feb 12 05:15	16° ♁ 32'12		asc. node	15993 Jan 29 02:34	3° ♁ 16'39	
	15992 Feb 21 13:41	0° ♁			15993 Feb 12 21:30	0° ♁	
morning set	15992 Feb 29 17:02	15° ♁ 49'41		morning set	15993 Feb 13 03:49	0° ♁ 33'20	
	15992 Mar 07 13:04	0° ♁					
superior conj	15992 Mar 08 04:43	1° ♁ 19'57	1°00'54	superior conj	15993 Feb 20 04:51	15° ♁ 36'25	1°19'23
minimum elong	15992 Mar 08 07:16	1° ♁ 32'57	1°00'34	minimum elong	15993 Feb 20 07:07	15° ♁ 48'29	1°19'23
max. Earth dist.	15992 Mar 13 11:03	11° ♁ 48'00	1.35922 AU	max. Earth dist.	15993 Feb 24 01:06	23° ♁ 37'24	1.34015 AU
desc. node	15992 Mar 15 17:38	16° ♁ 08'06			15993 Feb 27 05:19	0° ♁	
evening rise	15992 Mar 17 08:04	19° ♁ 06'56		evening rise	15993 Feb 28 10:40	2° ♁ 23'09	
	15992 Mar 23 11:25	0° ♁		desc. node	15993 Mar 02 14:16	6° ♁ 29'15	
	15992 Apr 12 12:22	0° ♁			15993 Mar 16 09:49	0° ♁	
evening max el	15992 Apr 21 18:08	10° ♁ 34'10	26°07'12	evening max el	15993 Apr 04 08:00	24° ♁ 14'46	27°01'33
retrograde	15992 May 04 12:38	17° ♁ 53'14			15993 Apr 11 17:45	0° ♁	
asc. node	15992 May 10 02:28	15° ♁ 50'31		retrograde	15993 Apr 17 17:29	1° ♁ 44'43	
evening set	15992 May 10 17:03	15° ♁ 21'43			15993 Apr 23 04:21	30° ♁	
min. Earth dist.	15992 May 14 20:21	10° ♁ 59'15	0.67240 AU	evening set	15993 Apr 24 06:34	29° ♁ 13'03	
inferior conj	15992 May 16 13:17	8° ♁ 51'58	1°50'56	asc. node	15993 Apr 26 23:42	26° ♁ 43'08	
minimum elong	15992 May 16 11:08	8° ♁ 58'39	1°49'35	min. Earth dist.	15993 Apr 28 04:49	25° ♁ 24'17	0.65713 AU
morning rise	15992 May 22 06:01	3° ♁ 06'27		inferior conj	15993 Apr 30 10:29	22° ♁ 50'28	1°02'47
direct	15992 May 25 12:19	2° ♁ 05'56		minimum elong	15993 Apr 30 08:56	22° ♁ 54'56	1°01'40
morning max el	15992 Jun 01 02:20	5° ♁ 36'57	18°37'54	morning rise	15993 May 06 12:47	17° ♁ 17'28	
desc. node	15992 Jun 11 18:25	19° ♁ 36'48		direct	15993 May 09 09:22	16° ♁ 33'10	
	15992 Jun 18 12:30	0° ♁		morning max el	15993 May 15 16:52	19° ♁ 50'21	18°04'14
morning set	15992 Jun 22 14:34	6° ♁ 23'00			15993 May 23 13:39	0° ♁	
	15992 Jul 07 17:46	0° ♁		desc. node	15993 May 29 15:23	9° ♁ 32'53	
max. Earth dist.	15992 Jul 07 22:11	0° ♁ 17'11	1.45936 AU	morning set	15993 Jun 03 07:41	17° ♁ 07'36	
					15993 Jun 11 07:28	0° ♁	
superior conj	15992 Jul 08 15:20	1° ♁ 24'05	-2°13'51	superior conj	15993 Jun 18 01:56	10° ♁ 43'03	-1°59'53
minimum elong	15992 Jul 08 13:49	1° ♁ 18'10	2°14'33	minimum elong	15993 Jun 17 18:11	10° ♁ 12'36	2°00'09
evening rise	15992 Jul 24 06:06	25° ♁ 58'03		max. Earth dist.	15993 Jun 20 18:46	14° ♁ 57'00	1.45877 AU
	15992 Jul 26 18:59	0° ♁			15993 Jun 30 11:25	0° ♁	
greatest brilliancy	15992 Jul 31 09:27	7° ♁ 17'35	-0.9m	evening rise	15993 Jul 04 05:06	5° ♁ 45'55	
asc. node	15992 Aug 06 02:09	16° ♁ 03'39		greatest brilliancy	15993 Jul 16 17:06	24° ♁ 48'29	-0.7m
evening max el	15992 Aug 14 06:02	26° ♁ 34'53	18°37'09		15993 Jul 20 06:42	0° ♁	
	15992 Aug 19 17:15	0° ♁		asc. node	15993 Jul 23 22:55	5° ♁ 01'14	
retrograde	15992 Aug 20 18:46	0° ♁ 06'17		evening max el	15993 Jul 28 14:58	10° ♁ 26'54	19°20'37
	15992 Aug 21 20:02	30° ♁		retrograde	15993 Aug 04 16:06	14° ♁ 21'23	
evening set	15992 Aug 23 23:53	29° ♁ 07'38		evening set	15993 Aug 08 07:03	13° ♁ 05'16	
inferior conj	15992 Aug 29 16:02	23° ♁ 29'25	2°23'45	inferior conj	15993 Aug 13 16:44	7° ♁ 13'40	2°51'18
minimum elong	15992 Aug 29 18:16	23° ♁ 22'33	2°23'03	minimum elong	15993 Aug 13 18:22	7° ♁ 08'20	2°50'40
min. Earth dist.	15992 Aug 31 14:58	21° ♁ 05'48	0.65747 AU	min. Earth dist.	15993 Aug 15 01:32	5° ♁ 26'18	0.67287 AU
morning rise	15992 Sep 04 11:31	17° ♁ 04'30		morning rise	15993 Aug 19 05:04	0° ♁ 47'12	
desc. node	15992 Sep 07 16:06	15° ♁ 04'48			15993 Aug 20 04:31	30° ♁	
direct	15992 Sep 10 20:05	14° ♁ 26'52		direct	15993 Aug 25 04:12	28° ♁ 13'03	
morning max el	15992 Sep 24 01:55	22° ♁ 15'22	26°50'30	desc. node	15993 Aug 25 13:29	28° ♁ 13'38	
	15992 Sep 30 21:31	0° ♁			15993 Aug 30 17:58	0° ♁	
	15992 Oct 21 01:46	0° ♁		morning max el	15993 Sep 06 13:10	5° ♁ 36'07	25°38'03
morning set	15992 Oct 29 19:23	15° ♁ 47'49			15993 Sep 25 09:54	0° ♁	
asc. node	15992 Nov 02 03:31	22° ♁ 18'56					

morning set	15993 Oct 12 11:35	28° Ω 12'56		morning max el	15994 Aug 20 00:09	19° Ω 08'27	24°12'33
	15993 Oct 13 11:01	0° \mathbb{M}			15994 Aug 29 05:15	0° \mathbb{M}	
max. Earth dist.	15993 Oct 16 02:00	4° \mathbb{M} 53'39	1.35868 AU		15994 Sep 18 12:31	0° Ω	
asc. node	15993 Oct 20 00:17	12° \mathbb{M} 29'28		morning set	15994 Sep 24 09:18	9° Ω 49'16	
				max. Earth dist.	15994 Sep 28 01:15	16° Ω 14'44	1.38192 AU
superior conj	15993 Oct 22 04:07	16° \mathbb{M} 47'38	0°19'32				
minimum elong	15993 Oct 22 02:58	16° \mathbb{M} 41'52	0°19'49	superior conj	15994 Oct 05 09:00	29° Ω 47'23	-0°13'25
	15993 Oct 28 14:48	0° \mathbb{A}		minimum elong	15994 Oct 05 09:55	29° Ω 51'43	0°12'57
evening rise	15993 Oct 30 00:29	2° \mathbb{A} 53'35		behind sun begin	15994 Oct 05 05:45	29° Ω 31'46	
	15993 Nov 14 15:59	0° \mathbb{B}		behind sun end	15994 Oct 05 14:05	0° \mathbb{M} 11'41	
evening max el	15993 Nov 16 22:50	2° \mathbb{B} 30'53	20°09'45		15994 Oct 05 11:39	0° \mathbb{M}	
desc. node	15993 Nov 21 10:46	6° \mathbb{B} 03'36		asc. node	15994 Oct 06 21:00	2° \mathbb{M} 40'33	
retrograde	15993 Nov 27 13:26	7° \mathbb{B} 47'58		evening rise	15994 Oct 14 02:19	16° \mathbb{M} 54'17	
evening set	15993 Nov 29 17:40	7° \mathbb{B} 35'39			15994 Oct 20 22:31	0° \mathbb{A}	
inferior conj	15993 Dec 08 12:54	3° \mathbb{B} 38'43	-4°56'08	evening max el	15994 Oct 30 14:21	13° \mathbb{A} 57'25	19°06'17
minimum elong	15993 Dec 08 02:59	3° \mathbb{B} 53'32	4°52'50	desc. node	15994 Nov 08 07:57	18° \mathbb{A} 29'27	
min. Earth dist.	15993 Dec 10 06:35	2° \mathbb{B} 36'30	0.54832 AU	retrograde	15994 Nov 08 14:49	18° \mathbb{A} 29'43	
	15993 Dec 15 07:50	30° \mathbb{R} \mathbb{A}		evening set	15994 Nov 10 12:04	18° \mathbb{A} 18'38	
morning rise	15993 Dec 16 11:31	29° \mathbb{A} 34'10		inferior conj	15994 Nov 18 22:08	14° \mathbb{A} 04'54	-3°19'56
direct	15993 Dec 21 07:28	28° \mathbb{A} 43'36		minimum elong	15994 Nov 18 13:59	14° \mathbb{A} 18'50	3°16'15
	15993 Dec 27 03:17	0° \mathbb{B}		min. Earth dist.	15994 Nov 21 16:55	12° \mathbb{A} 11'08	0.56128 AU
morning max el	15994 Jan 03 22:09	5° \mathbb{B} 26'53	24°09'28	morning rise	15994 Nov 26 13:17	9° \mathbb{A} 27'40	
asc. node	15994 Jan 15 23:49	21° \mathbb{B} 02'52		direct	15994 Dec 02 05:42	8° \mathbb{A} 12'36	
	15994 Jan 21 02:49	0° \approx		morning max el	15994 Dec 16 08:13	15° \mathbb{A} 24'10	25°52'57
morning set	15994 Jan 28 15:49	15° \approx 16'19			15994 Dec 28 01:12	0° \mathbb{B}	
				asc. node	15995 Jan 02 21:01	9° \mathbb{B} 35'26	
superior conj	15994 Feb 04 10:58	0° \mathbb{H} 06'53	1°31'30	morning set	15995 Jan 13 03:12	29° \mathbb{B} 53'25	
minimum elong	15994 Feb 04 12:29	0° \mathbb{H} 15'08	1°31'50		15995 Jan 13 04:26	0° \approx	
	15994 Feb 04 09:42	0° \mathbb{H}					
max. Earth dist.	15994 Feb 06 22:53	5° \mathbb{H} 31'15	1.32523 AU	superior conj	15995 Jan 19 20:44	14° \approx 44'43	1°37'25
evening rise	15994 Feb 12 00:35	16° \mathbb{H} 05'50		minimum elong	15995 Jan 19 21:14	14° \approx 47'32	1°38'01
desc. node	15994 Feb 17 10:56	26° \mathbb{H} 38'06		max. Earth dist.	15995 Jan 21 02:57	17° \approx 32'19	1.31514 AU
	15994 Feb 19 07:01	0° \mathbb{Y}		evening rise	15995 Jan 26 22:58	0° \mathbb{H} 08'02	
	15994 Mar 11 00:25	0° \mathbb{B}			15995 Jan 26 21:26	0° \mathbb{H}	
evening max el	15994 Mar 17 20:47	7° \mathbb{B} 32'46	27°32'00	desc. node	15995 Feb 04 07:39	16° \mathbb{H} 29'09	
retrograde	15994 Mar 31 15:31	15° \mathbb{B} 03'55			15995 Feb 12 08:15	0° \mathbb{Y}	
evening set	15994 Apr 07 10:10	12° \mathbb{B} 38'41		evening max el	15995 Feb 28 06:17	20° \mathbb{Y} 15'25	27°32'10
min. Earth dist.	15994 Apr 11 05:04	9° \mathbb{B} 20'06	0.63822 AU	retrograde	15995 Mar 14 05:48	27° \mathbb{Y} 41'19	
inferior conj	15994 Apr 13 22:31	6° \mathbb{B} 30'50	0°01'12	evening set	15995 Mar 21 01:16	25° \mathbb{Y} 29'56	
minimum elong	15994 Apr 13 22:29	6° \mathbb{B} 30'54	0°00'48	min. Earth dist.	15995 Mar 24 19:44	22° \mathbb{Y} 35'18	0.61664 AU
transit middle	15994 Apr 13 22:29	6° \mathbb{B} 30'54	0°00'48	inferior conj	15995 Mar 27 22:08	19° \mathbb{Y} 44'50	-1°14'06
transit begin	15994 Apr 13 19:22	6° \mathbb{B} 39'03		minimum elong	15995 Mar 28 00:45	19° \mathbb{Y} 38'49	1°13'13
transit end	15994 Apr 14 01:37	6° \mathbb{B} 22'46		asc. node	15995 Mar 31 18:20	16° \mathbb{Y} 31'09	
asc. node	15994 Apr 13 21:00	6° \mathbb{B} 34'46		morning rise	15995 Apr 04 03:27	14° \mathbb{Y} 44'31	
morning rise	15994 Apr 20 13:11	1° \mathbb{B} 12'47		direct	15995 Apr 06 08:06	14° \mathbb{Y} 23'23	
direct	15994 Apr 23 01:08	0° \mathbb{B} 41'43		morning max el	15995 Apr 13 03:31	17° \mathbb{Y} 48'58	17°49'13
morning max el	15994 Apr 29 10:17	3° \mathbb{B} 57'16	17°47'49		15995 Apr 21 22:21	0° \mathbb{B}	
morning set	15994 May 16 03:38	29° \mathbb{B} 08'29		morning set	15995 Apr 28 21:36	12° \mathbb{B} 11'00	
desc. node	15994 May 16 12:16	29° \mathbb{B} 45'08		desc. node	15995 May 03 09:05	20° \mathbb{B} 08'40	
	15994 May 16 15:47	0° \mathbb{I}			15995 May 09 01:11	0° \mathbb{I}	
superior conj	15994 May 29 03:18	20° \mathbb{I} 45'41	-1°30'17	superior conj	15995 May 10 03:38	1° \mathbb{I} 52'35	-0°53'10
minimum elong	15994 May 28 19:09	20° \mathbb{I} 12'41	1°30'07	minimum elong	15995 May 09 22:46	1° \mathbb{I} 31'56	0°53'05
max. Earth dist.	15994 Jun 03 14:21	29° \mathbb{I} 30'03	1.45080 AU	max. Earth dist.	15995 May 17 06:14	13° \mathbb{I} 39'39	1.43632 AU
	15994 Jun 03 21:56	0° \mathbb{B}		evening rise	15995 May 24 07:32	24° \mathbb{I} 51'40	
evening rise	15994 Jun 13 15:58	15° \mathbb{B} 09'10			15995 May 27 15:27	0° \mathbb{B}	
	15994 Jun 23 12:20	0° Ω			15995 Jun 17 13:22	0° Ω	
asc. node	15994 Jul 10 19:44	23° Ω 23'02		evening max el	15995 Jun 24 15:06	8° Ω 13'57	21°30'26
evening max el	15994 Jul 11 18:03	24° Ω 20'28	20°19'18	asc. node	15995 Jun 27 16:38	10° Ω 57'24	
retrograde	15994 Jul 19 15:07	28° Ω 49'45		retrograde	15995 Jul 03 13:53	13° Ω 26'07	
evening set	15994 Jul 23 16:29	27° Ω 15'47		evening set	15995 Jul 08 02:14	11° Ω 34'57	
inferior conj	15994 Jul 28 22:44	21° Ω 12'04	3°05'38	inferior conj	15995 Jul 13 07:45	5° Ω 20'39	3°08'23
minimum elong	15994 Jul 28 23:28	21° Ω 09'32	3°05'02	minimum elong	15995 Jul 13 07:32	5° Ω 21'25	3°07'42
min. Earth dist.	15994 Jul 29 17:40	20° Ω 07'16	0.68380 AU	min. Earth dist.	15995 Jul 13 13:20	5° Ω 01'10	0.68999 AU
morning rise	15994 Aug 03 06:08	14° Ω 48'18			15995 Jul 17 12:31	30° \mathbb{R} \mathbb{B}	
direct	15994 Aug 08 17:55	12° Ω 24'32		morning rise	15995 Jul 18 12:36	29° \mathbb{B} 02'23	
desc. node	15994 Aug 12 10:52	13° Ω 18'40		direct	15995 Jul 23 12:15	26° \mathbb{B} 53'53	

desc. node	15995 Jul 30 08:11	29°☾56'16		minimum elong	15996 Jun 26 16:37	19°☾38'46	2°59'35
	15995 Jul 30 10:03	0°♊		min. Earth dist.	15996 Jun 26 10:17	20°☾00'45	0.69130 AU
morning max el	15995 Aug 02 12:09	2°♊48'45	22°43'16	morning rise	15996 Jul 01 22:32	13°☾24'04	
	15995 Aug 23 05:28	0°♊		direct	15996 Jul 06 10:00	11°☾33'55	
morning set	15995 Sep 05 08:33	20°♊28'03		morning max el	15996 Jul 15 03:47	16°☾37'17	21°18'30
max. Earth dist.	15995 Sep 10 00:58	28°♊16'00	1.40590 AU	desc. node	15996 Jul 16 05:25	17°☾43'19	
	15995 Sep 11 01:24	0°♊			15996 Jul 26 01:10	0°♊	
				morning set	15996 Aug 15 08:02	0°♊06'38	
					15996 Aug 15 06:21	0°♊	
superior conj	15995 Sep 17 21:58	12°♊03'45	-0°49'44	max. Earth dist.	15996 Aug 22 06:05	11°♊10'38	1.42785 AU
minimum elong	15995 Sep 18 01:52	12°♊21'24	0°48'59				
asc. node	15995 Sep 23 17:42	22°♊48'47					
evening rise	15995 Sep 27 19:40	0°♊31'56		superior conj	15996 Aug 29 14:37	23°♊27'28	-1°25'52
	15995 Sep 27 12:56	0°♊		minimum elong	15996 Aug 29 21:33	23°♊57'07	1°25'08
evening max el	15995 Oct 13 17:46	26°♊11'22	18°25'03		15996 Sep 02 09:23	0°♊	
	15995 Oct 20 03:27	0°♊		asc. node	15996 Sep 09 14:22	12°♊50'31	
retrograde	15995 Oct 21 11:09	0°♊06'49		evening rise	15996 Sep 10 00:31	13°♊36'18	
	15995 Oct 22 19:18	30°♊			15996 Sep 19 10:10	0°♊	
evening set	15995 Oct 23 11:02	29°♊51'50		evening max el	15996 Sep 26 04:48	9°♊03'10	18°04'30
desc. node	15995 Oct 26 05:11	28°♊46'12		retrograde	15996 Oct 03 01:21	12°♊34'31	
inferior conj	15995 Oct 31 04:47	25°♊17'20	-1°36'17	evening set	15996 Oct 05 08:03	12°♊11'23	
minimum elong	15995 Oct 31 01:03	25°♊24'48	1°34'10	inferior conj	15996 Oct 12 08:23	7°♊16'05	-0°04'41
min. Earth dist.	15995 Nov 03 10:24	22°♊43'17	0.58049 AU	minimum elong	15996 Oct 12 08:15	7°♊16'25	0°04'13
morning rise	15995 Nov 07 11:34	20°♊03'03		transit middle	15996 Oct 12 08:15	7°♊16'25	0°04'13
direct	15995 Nov 13 18:36	18°♊20'49		transit begin	15996 Oct 12 05:03	7°♊23'50	
morning max el	15995 Nov 28 01:14	25°♊54'54	27°11'18	transit end	15996 Oct 12 11:27	7°♊08'59	
	15995 Dec 01 21:36	0°♊		desc. node	15996 Oct 12 02:28	7°♊29'46	
asc. node	15995 Dec 20 18:07	28°♊42'18		min. Earth dist.	15996 Oct 15 12:44	4°♊20'36	0.60293 AU
	15995 Dec 21 10:33	0°♊		morning rise	15996 Oct 19 05:15	1°♊30'17	
morning set	15995 Dec 28 12:08	14°♊19'26			15996 Oct 22 06:40	30°♊	
				direct	15996 Oct 25 20:14	29°♊23'17	
superior conj	15996 Jan 04 08:05	29°♊23'47	1°37'17		15996 Oct 29 12:47	0°♊	
minimum elong	15996 Jan 04 07:31	29°♊20'41	1°38'00	morning max el	15996 Nov 09 02:10	7°♊13'07	27°53'07
max. Earth dist.	15996 Jan 04 10:13	29°♊35'48	1.31035 AU		15996 Nov 26 08:51	0°♊	
	15996 Jan 04 14:33	0°♊		asc. node	15996 Dec 06 15:08	18°♊14'11	
evening rise	15996 Jan 11 03:22	14°♊23'36		morning set	15996 Dec 11 16:46	28°♊29'56	
	15996 Jan 18 21:51	0°♊			15996 Dec 12 09:50	0°♊	
desc. node	15996 Jan 22 04:24	5°♊54'43		max. Earth dist.	15996 Dec 17 17:18	11°♊34'48	1.31105 AU
	15996 Feb 08 05:51	0°♊					
evening max el	15996 Feb 10 10:01	2°♊10'55	26°57'46	superior conj	15996 Dec 18 19:09	13°♊58'55	1°31'09
retrograde	15996 Feb 24 10:55	9°♊26'42		minimum elong	15996 Dec 18 17:40	13°♊50'34	1°31'48
evening set	15996 Mar 02 00:34	7°♊36'38		evening rise	15996 Dec 25 11:44	28°♊47'53	
min. Earth dist.	15996 Mar 06 00:12	4°♊56'18	0.59406 AU		15996 Dec 26 01:08	0°♊	
inferior conj	15996 Mar 09 05:32	2°♊21'43	-2°40'54	desc. node	15997 Jan 08 01:11	24°♊45'33	
minimum elong	15996 Mar 09 11:39	2°♊09'25	2°38'32		15997 Jan 11 10:06	0°♊	
	15996 Mar 12 08:22	30°♊		evening max el	15997 Jan 22 05:57	13°♊14'15	25°49'20
morning rise	15996 Mar 17 02:19	27°♊41'32		retrograde	15997 Feb 05 04:28	20°♊16'26	
asc. node	15996 Mar 17 15:42	27°♊34'27		evening set	15997 Feb 11 04:26	18°♊52'56	
direct	15996 Mar 19 02:06	27°♊26'42		min. Earth dist.	15997 Feb 15 18:58	16°♊13'52	0.57287 AU
	15996 Mar 25 07:59	0°♊		inferior conj	15997 Feb 18 17:15	14°♊12'16	-4°11'02
morning max el	15996 Mar 26 16:54	1°♊13'51	18°09'30	minimum elong	15997 Feb 19 02:19	13°♊56'32	4°07'56
morning set	15996 Apr 11 07:35	25°♊56'41		morning rise	15997 Feb 27 03:12	9°♊53'21	
	15996 Apr 13 11:35	0°♊		direct	15997 Mar 01 03:01	9°♊40'58	
desc. node	15996 Apr 19 05:50	10°♊38'24		asc. node	15997 Mar 04 13:01	10°♊19'30	
				morning max el	15997 Mar 09 22:24	14°♊00'20	18°50'27
superior conj	15996 Apr 21 02:42	14°♊00'36	-0°15'26		15997 Mar 20 20:30	0°♊	
minimum elong	15996 Apr 21 01:26	13°♊54'56	0°15'41	morning set	15997 Mar 26 04:43	10°♊11'14	
behind sun begin	15996 Apr 21 00:02	13°♊48'40					
behind sun end	15996 Apr 21 02:50	14°♊01'11		superior conj	15997 Apr 03 20:46	26°♊59'12	0°18'46
max. Earth dist.	15996 Apr 28 17:08	27°♊12'01	1.41687 AU	minimum elong	15997 Apr 03 21:58	27°♊04'52	0°18'17
	15996 Apr 30 09:23	0°♊			15997 Apr 05 11:19	0°♊	
evening rise	15996 May 03 16:10	5°♊22'16		desc. node	15997 Apr 06 02:32	1°♊10'41	
	15996 May 19 20:34	0°♊		max. Earth dist.	15997 Apr 11 00:19	10°♊03'06	1.39454 AU
evening max el	15996 Jun 06 07:32	22°♊07'44	22°49'43	evening rise	15997 Apr 14 22:03	16°♊48'26	
asc. node	15996 Jun 13 13:35	27°♊28'35			15997 Apr 23 00:13	0°♊	
retrograde	15996 Jun 16 10:45	28°♊04'26			15997 May 14 09:44	0°♊	
evening set	15996 Jun 21 10:34	25°♊57'45		evening max el	15997 May 19 21:38	6°♊02'53	24°11'14
inferior conj	15996 Jun 26 17:43	19°♊34'53	3°00'28	retrograde	15997 May 31 04:24	12°♊39'07	

asc. node	15997 May 31 10:36	12°♄38'50		retrograde	15998 May 14 17:51	27°♄03'48	
evening set	15997 Jun 05 15:53	10°♄19'31		asc. node	15998 May 18 07:42	26°♄11'19	
min. Earth dist.	15997 Jun 10 06:21	4°♄59'59	0.68772 AU	evening set	15998 May 20 16:34	24°♄35'03	
inferior conj	15997 Jun 11 02:46	3°♄50'53	2°42'07	min. Earth dist.	15998 May 24 23:29	19°♄52'25	0.67932 AU
minimum elong	15997 Jun 11 00:57	3°♄57'01	2°40'59	inferior conj	15998 May 26 08:58	18°♄04'26	2°12'57
	15997 Jun 14 03:15	30°♄		minimum elong	15998 May 26 06:48	18°♄11'27	2°11'39
morning rise	15997 Jun 16 10:06	27°♄48'59		morning rise	15998 May 31 21:29	12°♄12'45	
direct	15997 Jun 20 09:44	26°♄18'31		direct	15998 Jun 04 09:56	11°♄01'45	
	15997 Jun 27 10:33	0°♄		morning max el	15998 Jun 11 07:06	14°♄45'51	19°04'56
morning max el	15997 Jun 28 01:44	0°♄36'27	20°04'29	desc. node	15998 Jun 19 23:43	25°♄38'27	
desc. node	15997 Jul 03 02:36	6°♄21'53			15998 Jun 22 23:32	0°♄	
	15997 Jul 19 15:35	0°♄		greatest brilliancy	15998 Jun 24 06:35	1°♄55'38	-0.7m
morning set	15997 Jul 25 14:26	9°♄03'46		morning set	15998 Jul 04 21:08	18°♄07'35	
max. Earth dist.	15997 Aug 04 18:19	24°♄55'39	1.44528 AU		15998 Jul 12 13:16	0°♄	
	15997 Aug 07 22:26	0°♄		max. Earth dist.	15998 Jul 18 12:00	9°♄16'07	1.45632 AU
superior conj	15997 Aug 10 07:55	3°♄52'33	-1°56'02	superior conj	15998 Jul 21 03:50	13°♄26'34	-2°12'48
minimum elong	15997 Aug 10 15:31	4°♄23'28	1°55'51	minimum elong	15998 Jul 21 06:51	13°♄38'28	2°13'21
evening rise	15997 Aug 23 11:54	25°♄54'47			15998 Jul 31 13:14	0°♄	
	15997 Aug 25 21:12	0°♄		evening rise	15998 Aug 05 00:43	7°♄15'50	
asc. node	15997 Aug 27 11:01	2°♄41'22		asc. node	15998 Aug 14 07:42	22°♄16'57	
evening max el	15997 Sep 09 19:18	22°♄22'01	18°03'01		15998 Aug 19 11:19	0°♄	
retrograde	15997 Sep 16 05:25	25°♄42'56		evening max el	15998 Aug 24 09:47	5°♄59'35	18°19'36
evening set	15997 Sep 18 20:21	25°♄08'04		retrograde	15998 Aug 30 19:04	9°♄23'37	
inferior conj	15997 Sep 25 05:29	19°♄54'02	1°07'50	evening set	15998 Sep 02 18:50	8°♄34'14	
minimum elong	15997 Sep 25 07:16	19°♄49'21	1°07'24	inferior conj	15998 Sep 08 16:09	3°♄04'00	2°01'00
min. Earth dist.	15997 Sep 28 00:51	16°♄57'41	0.62578 AU	minimum elong	15998 Sep 08 18:29	2°♄57'10	2°00'19
desc. node	15997 Sep 28 23:49	16°♄01'18		min. Earth dist.	15998 Sep 10 22:53	0°♄24'31	0.64680 AU
morning rise	15997 Oct 01 15:50	13°♄45'50			15998 Sep 11 07:37	30°♄	
direct	15997 Oct 08 08:13	11°♄20'32		morning rise	15998 Sep 14 16:37	26°♄42'43	
morning max el	15997 Oct 22 09:17	19°♄18'20	27°55'38	desc. node	15998 Sep 15 21:11	25°♄50'32	
	15997 Oct 31 12:06	0°♄		direct	15998 Sep 21 05:03	24°♄07'17	
	15997 Nov 19 07:25	0°♄			15998 Oct 02 16:24	0°♄	
asc. node	15997 Nov 23 12:05	8°♄03'15		morning max el	15998 Oct 04 19:59	2°♄03'03	27°22'38
morning set	15997 Nov 25 14:54	12°♄18'47			15998 Oct 25 17:43	0°♄	
max. Earth dist.	15997 Nov 30 20:16	23°♄19'24	1.31736 AU	morning set	15998 Nov 09 04:00	25°♄40'54	
superior conj	15997 Dec 03 04:02	28°♄23'53	1°18'57	asc. node	15998 Nov 10 08:59	28°♄04'14	
minimum elong	15997 Dec 03 01:52	28°♄12'00	1°19'27		15998 Nov 11 08:04	0°♄	
	15997 Dec 03 21:29	0°♄		max. Earth dist.	15998 Nov 13 15:40	4°♄44'23	1.32933 AU
evening rise	15997 Dec 09 22:09	13°♄15'12		superior conj	15998 Nov 17 08:38	12°♄33'41	1°00'37
	15997 Dec 18 04:41	0°♄		minimum elong	15998 Nov 17 06:17	12°♄21'05	1°00'56
desc. node	15997 Dec 25 22:03	12°♄48'10		evening rise	15998 Nov 24 08:52	27°♄41'37	
evening max el	15998 Jan 03 17:59	23°♄30'21	24°15'12		15998 Nov 25 10:53	0°♄	
	15998 Jan 14 16:24	0°♄		desc. node	15998 Dec 12 19:00	29°♄45'40	
retrograde	15998 Jan 17 08:30	0°♄16'15			15998 Dec 12 23:47	0°♄	
	15998 Jan 20 01:15	30°♄		evening max el	15998 Dec 16 03:38	3°♄25'02	22°31'36
evening set	15998 Jan 22 09:49	29°♄20'32		retrograde	15998 Dec 29 00:18	9°♄46'55	
min. Earth dist.	15998 Jan 28 05:40	26°♄26'10	0.55579 AU	evening set	15999 Jan 01 19:06	9°♄15'33	
inferior conj	15998 Jan 30 07:45	25°♄10'11	-5°26'42	min. Earth dist.	15999 Jan 09 11:44	5°♄46'02	0.54564 AU
minimum elong	15998 Jan 30 15:53	24°♄57'49	5°24'41	inferior conj	15999 Jan 10 04:44	5°♄22'06	-6°01'39
morning rise	15998 Feb 07 23:50	21°♄11'00		minimum elong	15999 Jan 10 05:31	5°♄21'00	6°00'58
direct	15998 Feb 10 08:22	20°♄56'34		morning rise	15999 Jan 18 17:04	1°♄34'24	
asc. node	15998 Feb 19 10:22	24°♄49'10		direct	15999 Jan 21 20:56	1°♄11'46	
morning max el	15998 Feb 20 15:48	25°♄56'32	19°54'12	morning max el	15999 Feb 02 18:22	6°♄56'03	21°21'06
	15998 Feb 24 05:49	0°♄		asc. node	15999 Feb 06 07:42	10°♄49'39	
morning set	15998 Mar 10 09:18	24°♄43'38			15999 Feb 18 03:15	0°♄	
	15998 Mar 12 23:26	0°♄		morning set	15999 Feb 22 18:29	9°♄25'11	
superior conj	15998 Mar 18 05:30	10°♄36'33	0°47'20	superior conj	15999 Mar 02 00:58	24°♄41'40	1°09'32
minimum elong	15998 Mar 18 07:51	10°♄48'17	0°46'52	minimum elong	15999 Mar 02 03:29	24°♄54'41	1°09'19
desc. node	15998 Mar 23 23:12	21°♄41'49			15999 Mar 04 15:01	0°♄	
max. Earth dist.	15998 Mar 24 06:54	22°♄17'50	1.37169 AU	max. Earth dist.	15999 Mar 06 17:02	4°♄10'37	1.35061 AU
evening rise	15998 Mar 27 23:54	29°♄04'31		evening rise	15999 Mar 10 18:27	12°♄01'18	
	15998 Mar 28 12:21	0°♄		desc. node	15999 Mar 10 19:50	12°♄07'50	
	15998 Apr 16 07:35	0°♄			15999 Mar 20 23:33	0°♄	
evening max el	15998 May 02 11:08	19°♄57'21	25°28'02		15999 Apr 11 10:53	0°♄	

evening max el	15999 Apr 15 00:45	3° Π 44'57	26°32'43	evening max el	16000 Mar 27 14:12	17° \mathcal{B} 17'16	27°17'49
retrograde	15999 Apr 28 02:12	11° Π 10'13		retrograde	16000 Apr 10 04:33	24° \mathcal{B} 49'46	
evening set	15999 May 04 10:46	8° Π 37'32		evening set	16000 Apr 16 20:25	22° \mathcal{B} 19'43	
asc. node	15999 May 05 04:54	7° Π 58'40		min. Earth dist.	16000 Apr 20 16:51	18° \mathcal{B} 44'25	0.64946 AU
min. Earth dist.	15999 May 08 11:36	4° Π 30'06	0.66641 AU	asc. node	16000 Apr 21 02:08	18° \mathcal{B} 19'25	
inferior conj	15999 May 10 10:09	2° Π 10'03	1°32'05	inferior conj	16000 Apr 23 03:50	16° \mathcal{B} 02'08	0°38'24
minimum elong	15999 May 10 08:09	2° Π 16'04	1°30'48	minimum elong	16000 Apr 23 02:47	16° \mathcal{B} 05'00	0°37'30
	15999 May 12 06:34	30° \mathcal{R} 8		morning rise	16000 Apr 29 11:05	10° \mathcal{B} 35'19	
morning rise	15999 May 16 06:38	26° \mathcal{B} 29'56		direct	16000 May 02 03:44	9° \mathcal{B} 57'12	
direct	15999 May 19 08:41	25° \mathcal{B} 36'44		morning max el	16000 May 08 11:07	13° \mathcal{B} 12'31	17°55'05
morning max el	15999 May 25 18:57	29° \mathcal{B} 00'11	18°21'32		16000 May 20 10:12	0° Π	
	15999 May 26 18:25	0° Π		desc. node	16000 May 23 17:42	5° Π 26'14	
desc. node	15999 Jun 06 20:44	15° Π 22'18		morning set	16000 May 26 03:35	9° Π 25'25	
morning set	15999 Jun 14 22:42	28° Π 07'15			16000 Jun 07 19:02	0° \mathcal{E}	
	15999 Jun 16 03:09	0° \mathcal{E}		superior conj	16000 Jun 09 04:20	2° \mathcal{E} 12'28	-1°48'47
superior conj	15999 Jun 30 12:58	22° \mathcal{E} 38'18	-2°10'16	minimum elong	16000 Jun 08 19:43	1° \mathcal{E} 38'16	1°48'49
minimum elong	15999 Jun 30 08:14	22° \mathcal{E} 19'52	2°10'51	max. Earth dist.	16000 Jun 13 03:55	8° \mathcal{E} 29'28	1.45625 AU
max. Earth dist.	15999 Jul 01 08:02	23° \mathcal{E} 52'38	1.46002 AU	evening rise	16000 Jun 25 04:17	27° \mathcal{E} 05'30	
	15999 Jul 05 06:22	0° \mathcal{Q}			16000 Jun 27 01:56	0° \mathcal{Q}	
evening rise	15999 Jul 16 12:24	17° \mathcal{Q} 33'38		greatest brilliancy	16000 Jul 09 09:46	18° \mathcal{Q} 30'11	-0.6m
	15999 Jul 24 11:46	0° \mathcal{M}			16000 Jul 17 20:32	0° \mathcal{M}	
greatest brilliancy	15999 Jul 26 04:33	2° \mathcal{M} 37'00	-0.8m	asc. node	16000 Jul 18 01:12	0° \mathcal{M} 14'07	
asc. node	15999 Aug 01 04:26	11° \mathcal{M} 30'29		evening max el	16000 Jul 21 03:51	3° \mathcal{M} 40'35	19°43'51
evening max el	15999 Aug 07 21:20	19° \mathcal{M} 47'42	18°53'36	retrograde	16000 Jul 28 12:49	7° \mathcal{M} 48'52	
retrograde	15999 Aug 14 14:30	23° \mathcal{M} 27'47		evening set	16000 Aug 01 08:02	6° \mathcal{M} 25'22	
evening set	15999 Aug 17 23:39	22° \mathcal{M} 21'55		inferior conj	16000 Aug 06 15:55	0° \mathcal{M} 28'33	2°58'52
inferior conj	15999 Aug 23 12:39	16° \mathcal{M} 37'40	2°37'10	minimum elong	16000 Aug 06 17:12	0° \mathcal{M} 24'17	2°58'15
minimum elong	15999 Aug 23 14:41	16° \mathcal{M} 31'13	2°36'30		16000 Aug 07 00:26	30° \mathcal{R} 8	
min. Earth dist.	15999 Aug 25 05:32	14° \mathcal{M} 28'22	0.66452 AU	min. Earth dist.	16000 Aug 07 18:51	28° \mathcal{Q} 58'25	0.67812 AU
morning rise	15999 Aug 29 04:49	10° \mathcal{M} 11'06		morning rise	16000 Aug 12 01:52	24° \mathcal{Q} 02'35	
desc. node	15999 Sep 02 18:34	7° \mathcal{M} 44'16		direct	16000 Aug 17 20:21	21° \mathcal{Q} 31'50	
direct	15999 Sep 04 09:31	7° \mathcal{M} 34'06		desc. node	16000 Aug 19 15:58	21° \mathcal{Q} 44'52	
morning max el	15999 Sep 17 07:37	15° \mathcal{M} 14'19	26°21'50	morning max el	16000 Aug 29 18:38	28° \mathcal{Q} 40'27	25°02'32
	15999 Sep 29 11:15	0° \mathcal{L}			16000 Aug 31 01:14	0° \mathcal{M}	
	15999 Oct 18 12:56	0° \mathcal{M}			16000 Sep 22 05:11	0° \mathcal{L}	
morning set	15999 Oct 23 04:56	8° \mathcal{M} 29'28		morning set	16000 Oct 04 13:47	20° \mathcal{L} 35'04	
max. Earth dist.	15999 Oct 27 01:16	15° \mathcal{M} 51'43	1.34662 AU	max. Earth dist.	16000 Oct 08 02:21	26° \mathcal{L} 57'48	1.36827 AU
asc. node	15999 Oct 28 05:49	18° \mathcal{M} 12'31			16000 Oct 09 17:32	0° \mathcal{M}	
				asc. node	16000 Oct 14 02:34	8° \mathcal{M} 23'45	
superior conj	15999 Nov 01 06:33	26° \mathcal{M} 22'40	0°36'11	superior conj	16000 Oct 14 18:43	9° \mathcal{M} 43'05	0°06'06
minimum elong	15999 Nov 01 04:43	26° \mathcal{M} 13'08	0°36'27	minimum elong	16000 Oct 14 18:19	9° \mathcal{M} 41'04	0°06'28
	15999 Nov 03 00:25	0° \mathcal{X}		behind sun begin	16000 Oct 14 12:19	9° \mathcal{M} 11'35	
evening rise	15999 Nov 08 17:57	12° \mathcal{X} 02'43		behind sun end	16000 Oct 15 00:18	10° \mathcal{M} 10'37	
	15999 Nov 17 23:05	0° \mathcal{Z}		evening rise	16000 Oct 22 23:10	26° \mathcal{M} 12'39	
evening max el	15999 Nov 27 21:00	13° \mathcal{Z} 38'11	20°56'18		16000 Oct 24 20:19	0° \mathcal{X}	
desc. node	15999 Nov 29 16:02	15° \mathcal{Z} 16'37		evening max el	16000 Nov 09 04:24	24° \mathcal{X} 36'09	19°40'03
retrograde	15999 Dec 09 10:18	19° \mathcal{Z} 21'50		desc. node	16000 Nov 15 13:09	28° \mathcal{X} 55'59	
evening set	15999 Dec 12 00:38	19° \mathcal{Z} 05'45		retrograde	16000 Nov 19 02:18	29° \mathcal{X} 33'16	
inferior conj	15999 Dec 20 19:31	15° \mathcal{Z} 14'07	-5°36'26	evening set	16000 Nov 21 01:56	29° \mathcal{X} 22'16	
minimum elong	15999 Dec 20 11:40	15° \mathcal{Z} 25'17	5°34'22	inferior conj	16000 Nov 29 18:39	25° \mathcal{X} 19'34	-4°18'01
min. Earth dist.	15999 Dec 21 17:13	14° \mathcal{Z} 43'09	0.54454 AU	minimum elong	16000 Nov 29 08:48	25° \mathcal{X} 35'01	4°14'13
morning rise	15999 Dec 28 22:48	11° \mathcal{Z} 20'57		min. Earth dist.	16000 Dec 02 00:59	23° \mathcal{X} 54'17	0.55287 AU
direct	16000 Jan 02 04:16	10° \mathcal{Z} 42'27		morning rise	16000 Dec 07 14:00	21° \mathcal{X} 02'20	
morning max el	16000 Jan 15 07:58	17° \mathcal{Z} 07'27	23°06'02	direct	16000 Dec 12 19:32	20° \mathcal{X} 01'31	
asc. node	16000 Jan 24 05:00	28° \mathcal{Z} 02'36		morning max el	16000 Dec 26 16:20	26° \mathcal{X} 58'14	24°55'27
	16000 Jan 25 11:35	0° \approx			16000 Dec 29 14:37	0° \mathcal{Z}	
morning set	16000 Feb 07 06:02	24° \approx 09'29		asc. node	16001 Jan 10 02:15	16° \mathcal{Z} 10'15	
	16000 Feb 09 23:10	0° \mathcal{H}			16001 Jan 17 12:36	0° \approx	
superior conj	16000 Feb 14 04:01	9° \mathcal{H} 05'35	1°25'17	morning set	16001 Jan 21 17:57	8° \approx 50'07	
minimum elong	16000 Feb 14 06:00	9° \mathcal{H} 16'18	1°25'26	superior conj	16001 Jan 28 11:55	23° \approx 39'47	1°34'45
max. Earth dist.	16000 Feb 17 10:09	16° \mathcal{H} 00'04	1.33313 AU	minimum elong	16001 Jan 28 13:01	23° \approx 45'51	1°35'13
evening rise	16000 Feb 22 02:17	25° \mathcal{H} 30'07		max. Earth dist.	16001 Jan 30 10:41	27° \approx 56'01	1.32028 AU
	16000 Feb 24 09:54	0° \mathcal{Y}			16001 Jan 31 09:32	0° \mathcal{H}	
desc. node	16000 Feb 25 16:30	2° \mathcal{Y} 24'40		evening rise	16001 Feb 04 20:07	9° \mathcal{H} 21'56	
	16000 Mar 13 09:59	0° \mathcal{B}					

desc. node	16001 Feb 11 13:11	22° K 26'35		evening rise	16002 Jan 19 21:20	23° \approx 30'34	
	16001 Feb 15 19:09	0° Y			16002 Jan 23 00:50	0° K	
	16001 Mar 09 16:54	0° B		desc. node	16002 Jan 29 09:52	12° K 07'41	
evening max el	16001 Mar 10 01:58	0° B 21'56	27°36'12		16002 Feb 09 15:03	0° Y	
retrograde	16001 Mar 23 23:34	7° B 51'45		evening max el	16002 Feb 20 09:32	12° Y 46'10	27°21'54
evening set	16001 Mar 30 19:01	5° B 31'47		retrograde	16002 Mar 06 09:50	20° Y 07'13	
min. Earth dist.	16001 Apr 03 13:21	2° B 23'59	0.62923 AU	evening set	16002 Mar 13 03:42	18° Y 04'24	
	16001 Apr 05 23:52	30° K Y		min. Earth dist.	16002 Mar 16 23:41	15° Y 17'05	0.60705 AU
inferior conj	16001 Apr 06 10:59	29° Y 32'20	-0°29'04	inferior conj	16002 Mar 20 04:07	12° Y 31'37	-1°49'51
minimum elong	16001 Apr 06 11:56	29° Y 29'58	0°29'01	minimum elong	16002 Mar 20 08:10	12° Y 22'49	1°48'19
asc. node	16001 Apr 07 23:26	28° Y 04'01		asc. node	16002 Mar 25 20:47	8° Y 21'51	
morning rise	16001 Apr 13 07:38	24° Y 21'14		morning rise	16002 Mar 27 16:00	7° Y 39'15	
direct	16001 Apr 15 16:11	23° Y 54'53		direct	16002 Mar 29 18:18	7° Y 21'08	
morning max el	16001 Apr 22 04:46	27° Y 13'39	17°46'09	morning max el	16002 Apr 05 20:41	10° Y 54'29	17°55'27
	16001 Apr 24 16:29	0° B			16002 Apr 18 12:57	0° B	
morning set	16001 May 08 09:40	21° B 54'50		morning set	16002 Apr 21 11:04	5° B 17'39	
desc. node	16001 May 10 14:34	25° B 43'53		desc. node	16002 Apr 27 11:20	16° B 10'27	
	16001 May 13 02:05	0° II					
superior conj	16001 May 20 15:01	12° II 41'20	-1°15'00	superior conj	16002 May 02 01:14	24° B 14'38	-0°36'55
minimum elong	16001 May 20 08:03	12° II 12'32	1°14'48	minimum elong	16002 May 01 21:59	24° B 00'32	0°36'58
max. Earth dist.	16001 May 26 21:54	22° II 53'25	1.44539 AU	max. Earth dist.	16002 May 05 09:50	0° II	
	16001 May 31 09:55	0° B		evening rise	16002 May 09 12:12	6° II 50'15	1.42856 AU
evening rise	16001 Jun 04 15:09	6° B 32'14			16002 May 15 12:56	16° II 33'01	
	16001 Jun 20 09:35	0° B			16002 May 24 07:00	0° B	
evening max el	16001 Jul 04 04:24	17° B 35'01	20°48'19	evening max el	16002 Jun 15 13:00	0° B	
asc. node	16001 Jul 04 22:01	18° B 17'44		asc. node	16002 Jun 16 23:20	1° B 28'58	22°03'31
retrograde	16001 Jul 12 11:48	22° B 21'28		retrograde	16002 Jun 21 18:54	5° B 27'37	
evening set	16001 Jul 16 17:47	20° B 40'10		evening set	16002 Jun 26 09:49	6° B 59'41	
inferior conj	16001 Jul 21 23:27	14° B 32'02	3°08'08		16002 Jul 01 03:07	5° B 01'29	
minimum elong	16001 Jul 21 23:47	14° B 30'53	3°07'30	inferior conj	16002 Jul 05 11:02	30° R B	
min. Earth dist.	16001 Jul 22 12:44	13° B 46'07	0.68708 AU	minimum elong	16002 Jul 06 09:04	28° B 43'25	3°06'18
morning rise	16001 Jul 27 05:29	8° B 10'23		min. Earth dist.	16002 Jul 06 08:27	28° B 45'34	3°05'32
direct	16001 Aug 01 12:17	5° B 52'23		morning rise	16002 Jul 06 09:03	28° B 43'30	0.69117 AU
desc. node	16001 Aug 06 13:19	7° B 32'32		direct	16002 Jul 11 13:37	22° B 28'25	
morning max el	16001 Aug 12 05:34	12° B 15'50	23°34'24	desc. node	16002 Jul 16 08:08	20° B 27'29	
	16001 Aug 26 11:32	0° B		morning max el	16002 Jul 24 10:37	24° B 42'25	
	16001 Sep 15 00:32	0° B			16002 Jul 25 18:44	25° B 59'34	22°06'18
morning set	16001 Sep 16 02:21	1° B 48'07			16002 Jul 29 10:36	0° B	
max. Earth dist.	16001 Sep 20 01:01	8° B 33'39	1.39223 AU	morning set	16002 Aug 19 23:01	0° B	
				max. Earth dist.	16002 Aug 27 15:18	12° B 00'48	
superior conj	16001 Sep 27 17:26	22° B 26'26	-0°28'34		16002 Sep 02 03:17	21° B 00'03	1.41572 AU
minimum elong	16001 Sep 27 19:31	22° B 36'10	0°27'58		16002 Sep 07 10:24	0° B	
asc. node	16001 Sep 30 23:16	28° B 34'31		superior conj	16002 Sep 09 22:15	4° B 21'43	-1°05'21
	16001 Oct 01 17:06	0° B		minimum elong	16002 Sep 10 03:32	4° B 45'04	1°04'34
evening rise	16001 Oct 06 21:49	10° B 05'00		asc. node	16002 Sep 17 19:54	18° B 40'36	
	16001 Oct 17 23:55	0° B		evening rise	16002 Sep 20 10:24	23° B 30'14	
evening max el	16001 Oct 23 01:34	6° B 24'32	18°46'06		16002 Sep 23 22:53	0° B	
retrograde	16001 Oct 31 11:21	10° B 39'23		evening max el	16002 Oct 06 08:41	18° B 55'36	18°13'48
evening set	16001 Nov 02 09:08	10° B 27'04		retrograde	16002 Oct 13 15:53	22° B 39'21	
desc. node	16001 Nov 02 10:21	10° B 26'25		evening set	16002 Oct 15 18:23	22° B 21'20	
inferior conj	16001 Nov 10 12:42	6° B 04'39	-2°35'20	desc. node	16002 Oct 20 07:37	19° B 56'26	
minimum elong	16001 Nov 10 06:22	6° B 16'11	2°32'12	inferior conj	16002 Oct 23 04:34	17° B 37'22	-0°55'17
min. Earth dist.	16001 Nov 13 13:50	3° B 52'01	0.56892 AU	minimum elong	16002 Oct 23 02:33	17° B 41'41	0°53'56
morning rise	16001 Nov 18 00:33	1° B 11'55		min. Earth dist.	16002 Oct 26 10:39	14° B 52'00	0.58986 AU
	16001 Nov 21 13:29	30° R B		morning rise	16002 Oct 30 07:18	12° B 08'40	
direct	16001 Nov 24 00:13	29° B 45'18		direct	16002 Nov 05 18:23	10° B 15'45	
	16001 Nov 26 11:20	0° B		morning max el	16002 Nov 20 01:19	17° B 56'45	27°33'58
morning max el	16001 Dec 08 04:43	7° B 06'19	26°30'11		16002 Nov 30 03:33	0° B	
	16001 Dec 25 03:39	0° B		asc. node	16002 Dec 14 20:30	24° B 17'43	
asc. node	16001 Dec 27 23:26	4° B 59'03			16002 Dec 17 18:21	0° B	
morning set	16002 Jan 06 04:28	23° B 22'54		morning set	16002 Dec 21 11:49	7° B 43'00	
	16002 Jan 09 05:08	0° \approx					
superior conj	16002 Jan 12 22:34	8° \approx 18'34	1°38'05	superior conj	16002 Dec 28 10:00	22° B 56'23	1°35'25
minimum elong	16002 Jan 12 22:37	8° \approx 18'52	1°38'46	minimum elong	16002 Dec 28 09:01	22° B 50'56	1°36'07
max. Earth dist.	16002 Jan 13 16:39	9° \approx 59'30	1.31251 AU	max. Earth dist.	16002 Dec 28 00:28	22° B 03'03	1.31000 AU
					16002 Dec 31 13:46	0° \approx	

evening rise	16003 Jan 04 03:39	7° \approx 50'23		superior conj	16003 Dec 12 20:23	7° \approx 27'57	1°26'44
	16003 Jan 15 11:58	0° H		minimum elong	16003 Dec 12 18:33	7° \approx 17'50	1°27'19
desc. node	16003 Jan 16 06:37	1° H 20'03		evening rise	16003 Dec 19 13:06	22° \approx 16'25	
evening max el	16003 Feb 02 10:05	24° H 19'33	26°32'28		16003 Dec 23 04:55	0° \approx	
	16003 Feb 10 06:30	0° Y		desc. node	16004 Jan 03 03:26	19° \approx 52'26	
retrograde	16003 Feb 16 09:59	1° Y 29'35			16004 Jan 10 10:49	0° H	
	16003 Feb 22 11:12	30° R H		evening max el	16004 Jan 15 02:08	5° H 00'20	25°11'34
evening set	16003 Feb 22 19:11	29° H 50'07		retrograde	16004 Jan 28 22:23	11° H 57'05	
min. Earth dist.	16003 Feb 26 23:36	27° H 12'29	0.58473 AU	evening set	16004 Feb 03 13:49	10° H 45'19	
inferior conj	16003 Mar 02 03:31	24° H 50'00	-3°19'34	min. Earth dist.	16004 Feb 08 14:33	8° H 02'01	0.56485 AU
minimum elong	16003 Mar 02 11:07	24° H 35'41	3°16'42	inferior conj	16004 Feb 11 06:09	6° H 18'18	-4°46'25
morning rise	16003 Mar 10 06:27	20° H 19'04		minimum elong	16004 Feb 11 15:32	6° H 02'57	4°43'33
direct	16003 Mar 12 05:37	20° H 05'41		morning rise	16004 Feb 19 19:56	2° H 08'43	
asc. node	16003 Mar 12 18:09	20° H 06'40		direct	16004 Feb 21 22:00	1° H 56'12	
morning max el	16003 Mar 20 07:15	24° H 04'49	18°24'22	asc. node	16004 Feb 27 15:32	3° H 37'26	
	16003 Mar 25 02:41	0° Y		morning max el	16004 Mar 02 08:13	6° H 32'01	19°14'48
morning set	16003 Apr 05 02:20	19° Y 17'36			16004 Mar 17 06:17	0° Y	
	16003 Apr 10 17:27	0° Z		morning set	16004 Mar 19 03:02	3° Y 40'58	
superior conj	16003 Apr 14 08:58	6° Z 46'23	-0°00'20	superior conj	16004 Mar 27 09:50	20° Y 03'24	0°31'37
minimum elong	16003 Apr 14 08:55	6° Z 46'09	0°00'43	minimum elong	16004 Mar 27 11:41	20° Y 12'17	0°31'06
behind sun begin	16003 Apr 14 01:41	6° Z 12'57		desc. node	16004 Mar 31 04:43	27° Y 14'39	
behind sun end	16003 Apr 14 16:09	7° Z 19'15			16004 Apr 01 16:31	0° Z	
desc. node	16003 Apr 14 08:03	6° Z 42'07		max. Earth dist.	16004 Apr 03 03:38	2° Z 39'45	1.38465 AU
max. Earth dist.	16003 Apr 21 21:37	20° Z 06'56	1.40753 AU	evening rise	16004 Apr 06 21:12	9° Z 16'03	
evening rise	16003 Apr 26 06:30	27° Z 27'30			16004 Apr 19 15:50	0° II	
	16003 Apr 27 19:46	0° II		evening max el	16004 May 12 03:53	29° II 18'04	24°44'54
	16003 May 17 21:20	0° E			16004 May 12 21:09	0° E	
evening max el	16003 May 30 14:23	15° E 23'18	23°24'27	retrograde	16004 May 23 21:42	6° E 09'21	
asc. node	16003 Jun 08 15:53	21° E 27'22		asc. node	16004 May 25 12:58	5° E 58'04	
retrograde	16003 Jun 10 05:31	21° E 37'58		evening set	16004 May 29 13:58	3° E 45'14	
evening set	16003 Jun 15 10:24	19° E 25'06			16004 Jun 02 00:46	30° R II	
min. Earth dist.	16003 Jun 20 05:50	13° E 44'15	0.69035 AU	min. Earth dist.	16004 Jun 03 00:59	28° II 41'25	0.68466 AU
inferior conj	16003 Jun 20 18:53	12° E 59'16	2°53'58	inferior conj	16004 Jun 04 02:58	27° II 14'56	2°31'06
minimum elong	16003 Jun 20 17:26	13° E 04'14	2°52'59	minimum elong	16004 Jun 04 00:57	27° II 21'38	2°29'54
morning rise	16003 Jun 26 00:27	6° E 52'16		morning rise	16004 Jun 09 12:10	21° II 17'08	
direct	16003 Jun 30 06:45	5° E 10'41		direct	16004 Jun 13 06:51	19° II 55'13	
morning max el	16003 Jul 08 12:59	9° E 53'35	20°45'32	morning max el	16004 Jun 20 14:08	23° II 57'42	19°37'14
desc. node	16003 Jul 11 07:49	12° E 53'46			16004 Jun 25 19:32	0° E	
	16003 Jul 24 02:01	0° O		desc. node	16004 Jun 27 04:58	1° E 50'02	
morning set	16003 Aug 07 06:10	21° O 18'39		greatest brilliancy	16004 Jul 03 09:40	10° E 34'30	-0.6m
	16003 Aug 12 19:03	0° P		morning set	16004 Jul 16 10:06	0° O 11'39	
max. Earth dist.	16003 Aug 15 11:37	4° P 18'18	1.43596 AU		16004 Jul 16 07:03	0° O	
superior conj	16003 Aug 22 05:08	15° P 20'42	-1°39'48	max. Earth dist.	16004 Jul 28 01:52	18° O 18'25	1.45077 AU
minimum elong	16003 Aug 22 12:50	15° P 52'55	1°39'15	superior conj	16004 Aug 01 12:40	25° O 22'20	-2°05'14
	16003 Aug 30 18:37	0° E		minimum elong	16004 Aug 01 19:01	25° O 47'47	2°05'23
evening rise	16003 Sep 03 08:31	6° E 17'20			16004 Aug 04 09:44	0° P	
asc. node	16003 Sep 04 16:33	8° E 38'31		evening rise	16004 Aug 15 10:53	18° P 12'56	
	16003 Sep 18 01:54	0° M		asc. node	16004 Aug 21 13:13	28° P 23'57	
evening max el	16003 Sep 19 21:35	1° M 59'56	18°01'31		16004 Aug 22 12:35	0° E	
retrograde	16003 Sep 26 12:40	5° M 25'32		evening max el	16004 Sep 02 12:31	15° E 28'25	18°07'57
evening set	16003 Sep 28 22:38	4° M 57'57		retrograde	16004 Sep 08 21:16	18° E 49'06	
inferior conj	16003 Oct 05 16:08	29° E 54'19	0°28'31	evening set	16004 Sep 11 15:49	18° E 08'29	
minimum elong	16003 Oct 05 17:01	29° E 52'10	0°28'30	inferior conj	16004 Sep 17 19:32	12° E 47'36	1°32'35
	16003 Oct 05 13:49	30° R E		minimum elong	16004 Sep 17 21:41	12° E 41'40	1°31'59
desc. node	16003 Oct 07 04:55	28° E 23'32		min. Earth dist.	16004 Sep 20 09:57	9° E 56'09	0.63502 AU
min. Earth dist.	16003 Oct 08 17:18	26° E 55'53	0.61275 AU	desc. node	16004 Sep 23 02:16	7° E 19'49	
morning rise	16003 Oct 12 08:29	23° E 57'23		morning rise	16004 Sep 24 01:31	6° E 32'40	
direct	16003 Oct 19 00:37	21° E 41'42		direct	16004 Sep 30 16:52	4° E 01'37	
morning max el	16003 Nov 02 05:26	29° E 36'41	27°58'52	morning max el	16004 Oct 14 14:25	12° E 00'47	27°45'28
	16003 Nov 02 14:47	0° M			16004 Oct 28 22:40	0° M	
	16003 Nov 24 03:55	0° Z			16004 Nov 15 14:51	0° Z	
asc. node	16003 Dec 01 17:29	13° Z 57'52		asc. node	16004 Nov 17 14:25	3° Z 53'16	
morning set	16003 Dec 05 14:00	21° Z 45'19		morning set	16004 Nov 18 08:42	5° Z 24'41	
	16003 Dec 09 10:58	0° Z		max. Earth dist.	16004 Nov 23 06:16	15° Z 33'43	1.32172 AU
max. Earth dist.	16003 Dec 11 06:17	3° Z 57'05	1.31300 AU				

superior conj	16004 Nov 26 03:47	21° ♄ 48'17	1°11'56	superior conj	16005 Nov 10 05:54	5° ♄ 50'33	0°51'00
minimum elong	16004 Nov 26 01:28	21° ♄ 35'43	1°12'21	minimum elong	16005 Nov 10 03:39	5° ♄ 38'44	0°51'17
	16004 Nov 29 21:35	0° ♄		evening rise	16005 Nov 17 10:11	21° ♄ 09'46	
evening rise	16004 Dec 02 23:55	6° ♄ 44'41			16005 Nov 21 16:40	0° ♄	
	16004 Dec 15 00:30	0° ♄		desc. node	16005 Dec 06 21:20	23° ♄ 54'31	
desc. node	16004 Dec 20 00:21	7° ♄ 30'34		evening max el	16005 Dec 08 00:12	25° ♄ 03'07	21°49'15
evening max el	16004 Dec 26 12:16	15° ♄ 04'20	23°31'16		16005 Dec 14 23:26	0° ♄	
retrograde	16005 Jan 08 21:12	21° ♄ 41'33		retrograde	16005 Dec 20 08:42	1° ♄ 09'33	
evening set	16005 Jan 13 09:47	20° ♄ 57'16		evening set	16005 Dec 23 14:29	0° ♄ 46'00	
min. Earth dist.	16005 Jan 19 23:18	17° ♄ 50'07	0.55044 AU		16005 Dec 26 01:13	30° ♄	
inferior conj	16005 Jan 21 12:26	16° ♄ 55'56	-5°48'04	inferior conj	16006 Jan 01 05:03	26° ♄ 55'33	-5°58'34
minimum elong	16005 Jan 21 18:10	16° ♄ 47'34	5°46'50	minimum elong	16006 Jan 01 01:44	27° ♄ 00'11	5°57'38
morning rise	16005 Jan 30 04:02	13° ♄ 02'45		min. Earth dist.	16006 Jan 01 04:40	26° ♄ 56'05	0.54408 AU
direct	16005 Feb 01 19:20	12° ♄ 45'47		morning rise	16006 Jan 09 13:40	23° ♄ 07'51	
morning max el	16005 Feb 12 19:35	18° ♄ 05'16	20°28'23	direct	16006 Jan 13 04:29	22° ♄ 39'09	
asc. node	16005 Feb 13 12:52	18° ♄ 48'25		morning max el	16006 Jan 25 15:51	28° ♄ 41'31	22°04'00
	16005 Feb 21 18:51	0° ♄			16006 Jan 26 23:10	0° ♄	
morning set	16005 Mar 03 09:54	18° ♄ 18'23		asc. node	16006 Jan 31 10:12	5° ♄ 21'54	
	16005 Mar 09 01:43	0° ♄			16006 Feb 14 09:37	0° ♄	
				morning set	16006 Feb 15 20:21	3° ♄ 01'57	
superior conj	16005 Mar 10 23:36	3° ♄ 54'02	0°57'30				
minimum elong	16005 Mar 11 02:08	4° ♄ 06'51	0°57'09	superior conj	16006 Feb 22 22:38	18° ♄ 07'58	1°16'59
max. Earth dist.	16005 Mar 16 10:55	14° ♄ 41'51	1.36241 AU	minimum elong	16006 Feb 23 00:59	18° ♄ 20'24	1°16'55
desc. node	16005 Mar 18 01:24	17° ♄ 44'22		max. Earth dist.	16006 Feb 27 00:00	26° ♄ 32'20	1.34274 AU
evening rise	16005 Mar 20 06:40	21° ♄ 51'19			16006 Feb 28 17:21	0° ♄	
	16005 Mar 24 20:39	0° ♄		evening rise	16006 Mar 03 07:19	5° ♄ 02'57	
	16005 Apr 13 11:48	0° ♄		desc. node	16006 Mar 04 22:04	8° ♄ 07'10	
evening max el	16005 Apr 24 17:31	13° ♄ 10'54	25°57'32		16006 Mar 17 15:20	0° ♄	
retrograde	16005 May 07 09:10	20° ♄ 26'57		evening max el	16006 Apr 07 07:26	26° ♄ 54'20	26°54'48
asc. node	16005 May 12 10:07	18° ♄ 45'37			16006 Apr 10 18:57	0° ♄	
evening set	16005 May 13 12:07	17° ♄ 56'06		retrograde	16006 Apr 20 14:55	4° ♄ 23'09	
min. Earth dist.	16005 May 17 16:22	13° ♄ 28'22	0.67434 AU	evening set	16006 Apr 27 02:57	1° ♄ 51'01	
inferior conj	16005 May 19 07:20	11° ♄ 25'57	1°57'08	asc. node	16006 Apr 29 07:20	29° ♄ 52'17	
minimum elong	16005 May 19 05:09	11° ♄ 32'48	1°55'48		16006 Apr 29 04:17	30° ♄	
morning rise	16005 May 24 22:52	5° ♄ 38'43		min. Earth dist.	16006 May 01 01:50	27° ♄ 57'36	0.65967 AU
direct	16005 May 28 06:46	4° ♄ 35'30		inferior conj	16006 May 03 05:41	25° ♄ 27'03	1°11'00
morning max el	16005 Jun 03 22:21	8° ♄ 09'27	18°44'21	minimum elong	16006 May 03 03:59	25° ♄ 32'00	1°09'48
desc. node	16005 Jun 14 02:04	21° ♄ 19'19		morning rise	16006 May 09 06:23	19° ♄ 52'09	
greatest brilliancy	16005 Jun 18 02:53	27° ♄ 25'20	-0.8m	direct	16006 May 12 04:24	19° ♄ 05'34	
	16005 Jun 19 19:05	0° ♄		morning max el	16006 May 18 12:17	22° ♄ 23'52	18°08'10
morning set	16005 Jun 25 22:53	9° ♄ 33'45			16006 May 24 15:56	0° ♄	
	16005 Jul 09 01:50	0° ♄		desc. node	16006 May 31 23:05	11° ♄ 12'51	
max. Earth dist.	16005 Jul 10 20:33	2° ♄ 46'33	1.45881 AU	morning set	16006 Jun 06 11:56	20° ♄ 07'07	
					16006 Jun 12 15:43	0° ♄	
superior conj	16005 Jul 12 02:09	4° ♄ 42'05	-2°14'15				
minimum elong	16005 Jul 12 01:52	4° ♄ 40'58	2°14'55	superior conj	16006 Jun 21 11:50	13° ♄ 58'07	-2°03'11
evening rise	16005 Jul 27 12:54	29° ♄ 06'08		minimum elong	16006 Jun 21 04:41	13° ♄ 30'05	2°03'32
	16005 Jul 28 02:22	0° ♄		max. Earth dist.	16006 Jun 23 17:22	17° ♄ 27'23	1.45934 AU
asc. node	16005 Aug 08 09:55	17° ♄ 51'00			16006 Jul 01 19:01	0° ♄	
evening max el	16005 Aug 17 02:08	29° ♄ 11'48	18°32'06	evening rise	16006 Jul 07 14:57	9° ♄ 01'29	
	16005 Aug 17 22:41	0° ♄		greatest brilliancy	16006 Jul 19 10:12	27° ♄ 05'36	-0.7m
retrograde	16005 Aug 23 13:39	2° ♄ 40'46			16006 Jul 21 09:15	0° ♄	
evening set	16005 Aug 26 17:23	1° ♄ 44'30		asc. node	16006 Jul 26 06:40	6° ♄ 53'16	
	16005 Aug 28 23:23	30° ♄		evening max el	16006 Jul 31 11:49	13° ♄ 03'11	19°13'06
inferior conj	16005 Sep 01 10:46	26° ♄ 08'20	2°18'16	retrograde	16006 Aug 07 10:36	16° ♄ 53'33	
minimum elong	16005 Sep 01 13:03	26° ♄ 01'24	2°17'33	evening set	16006 Aug 11 00:03	15° ♄ 40'03	
min. Earth dist.	16005 Sep 03 11:44	23° ♄ 40'19	0.65481 AU	inferior conj	16006 Aug 16 10:29	9° ♄ 50'13	2°47'59
morning rise	16005 Sep 07 07:30	19° ♄ 44'15		minimum elong	16006 Aug 16 12:14	9° ♄ 44'32	2°47'21
desc. node	16005 Sep 09 23:40	17° ♄ 59'10		min. Earth dist.	16006 Aug 17 21:20	7° ♄ 57'02	0.67085 AU
direct	16005 Sep 13 17:12	17° ♄ 06'58		morning rise	16006 Aug 21 23:45	3° ♄ 23'36	
morning max el	16005 Sep 27 01:30	24° ♄ 57'30	26°59'39	desc. node	16006 Aug 27 21:03	0° ♄ 48'40	
	16005 Oct 01 15:45	0° ♄		direct	16006 Aug 28 00:21	0° ♄ 48'36	
	16005 Oct 22 09:46	0° ♄		morning max el	16006 Sep 09 12:57	8° ♄ 16'26	25°49'54
morning set	16005 Nov 01 17:02	18° ♄ 33'33			16006 Sep 26 14:11	0° ♄	
asc. node	16005 Nov 04 11:16	23° ♄ 58'01			16006 Oct 14 21:22	0° ♄	
max. Earth dist.	16005 Nov 05 21:26	26° ♄ 49'42	1.33608 AU	morning set	16006 Oct 15 11:36	1° ♄ 04'56	
	16005 Nov 07 10:42	0° ♄		max. Earth dist.	16006 Oct 19 03:19	7° ♄ 55'15	1.35546 AU

asc. node	16006 Oct 22 08:03	14°♍08'09		morning set	16007 Sep 27 12:20	12°♌49'20	
				max. Earth dist.	16007 Oct 01 02:46	19°♌11'16	1.37831 AU
superior conj	16006 Oct 25 00:04	19°♍28'33	0°24'05		16007 Oct 06 22:49	0°♍	
minimum elong	16006 Oct 24 22:42	19°♍21'38	0°24'23				
	16006 Oct 30 02:48	0°♌		superior conj	16007 Oct 08 06:57	2°♍33'56	-0°08'11
evening rise	16006 Nov 01 17:55	5°♌27'15		minimum elong	16007 Oct 08 07:29	2°♍36'29	0°07'43
	16006 Nov 15 07:44	0°♌		behind sun begin	16007 Oct 08 01:27	2°♍07'29	
evening max el	16006 Nov 19 23:04	5°♌32'58	20°21'06	behind sun end	16007 Oct 08 13:30	3°♍05'32	
desc. node	16006 Nov 23 18:24	8°♌41'07		asc. node	16007 Oct 09 04:47	4°♍19'33	
retrograde	16006 Nov 30 19:39	10°♌57'12		evening rise	16007 Oct 16 20:42	19°♍30'42	
evening set	16006 Dec 03 02:03	10°♌44'10			16007 Oct 22 06:00	0°♌	
inferior conj	16006 Dec 11 21:35	6°♌48'50	-5°08'09	evening max el	16007 Nov 02 12:32	16°♌52'25	19°14'22
minimum elong	16006 Dec 11 11:57	7°♌03'02	5°05'08	desc. node	16007 Nov 10 15:31	21°♌27'06	
min. Earth dist.	16006 Dec 13 10:19	5°♌54'45	0.54706 AU	retrograde	16007 Nov 11 18:30	21°♌31'05	
morning rise	16006 Dec 19 21:21	2°♌47'53		evening set	16007 Nov 13 15:55	21°♌20'14	
direct	16006 Dec 24 13:40	2°♌00'41		inferior conj	16007 Nov 22 03:59	17°♌09'35	-3°35'37
morning max el	16007 Jan 07 01:56	8°♌39'22	23°53'08	minimum elong	16007 Nov 21 19:16	17°♌24'09	3°31'50
asc. node	16007 Jan 18 07:28	22°♌59'57		min. Earth dist.	16007 Nov 24 20:01	15°♌22'52	0.55883 AU
	16007 Jan 22 10:30	0°♌		morning rise	16007 Nov 29 20:13	12°♌37'43	
morning set	16007 Jan 31 08:17	17°♌45'36		direct	16007 Dec 05 09:56	11°♌26'24	
	16007 Feb 05 23:11	0°♌		morning max el	16007 Dec 19 11:22	18°♌34'36	25°38'44
					16007 Dec 29 00:05	0°♌	
superior conj	16007 Feb 07 04:00	2°♌37'03	1°30'03	asc. node	16008 Jan 05 04:41	11°♌26'53	
minimum elong	16007 Feb 07 05:39	2°♌46'01	1°30'21		16008 Jan 14 16:54	0°♌	
max. Earth dist.	16007 Feb 09 20:38	8°♌25'11	1.32709 AU	morning set	16008 Jan 15 19:50	2°♌24'14	
evening rise	16007 Feb 14 19:43	18°♌42'17					
desc. node	16007 Feb 19 18:43	28°♌18'22		superior conj	16008 Jan 22 13:21	17°♌14'41	1°36'55
	16007 Feb 20 16:41	0°♌		minimum elong	16008 Jan 22 14:01	17°♌18'23	1°37'29
	16007 Mar 11 20:06	0°♌		max. Earth dist.	16008 Jan 23 23:48	20°♌25'12	1.31629 AU
evening max el	16007 Mar 20 20:23	10°♌16'24	27°29'15		16008 Jan 28 10:01	0°♌	
retrograde	16007 Apr 03 14:04	17°♌48'17		evening rise	16008 Jan 29 17:00	2°♌42'23	
evening set	16007 Apr 10 08:13	15°♌21'28		desc. node	16008 Feb 06 15:22	18°♌12'40	
min. Earth dist.	16007 Apr 14 03:23	11°♌58'51	0.64122 AU		16008 Feb 13 12:29	0°♌	
asc. node	16007 Apr 16 04:37	9°♌49'43		evening max el	16008 Mar 02 06:27	23°♌05'05	27°34'16
inferior conj	16007 Apr 16 19:16	9°♌10'52	0°11'30		16008 Mar 12 18:03	0°♌	
minimum elong	16007 Apr 16 18:57	9°♌11'44	0°10'56	retrograde	16008 Mar 16 05:43	0°♌32'31	
transit middle	16007 Apr 16 18:57	9°♌11'44	0°10'56		16008 Mar 19 14:33	30°♌	
transit begin	16007 Apr 16 16:41	9°♌17'44		evening set	16008 Mar 23 01:19	28°♌18'36	
transit end	16007 Apr 16 21:13	9°♌05'45		min. Earth dist.	16008 Mar 26 19:34	25°♌20'49	0.61995 AU
morning rise	16007 Apr 23 07:56	3°♌50'35		inferior conj	16008 Mar 29 20:55	22°♌29'24	-1°01'50
direct	16007 Apr 25 21:04	3°♌17'49		minimum elong	16008 Mar 29 23:03	22°♌24'22	1°01'11
morning max el	16007 May 02 05:30	6°♌32'50	17°49'10	asc. node	16008 Apr 02 01:55	19°♌40'38	
	16007 May 18 00:14	0°♌		morning rise	16008 Apr 05 23:56	17°♌26'17	
desc. node	16007 May 18 19:59	1°♌23'19		direct	16008 Apr 08 05:30	17°♌03'57	
morning set	16007 May 19 04:07	1°♌57'35		morning max el	16008 Apr 14 22:55	20°♌27'29	17°47'50
					16008 Apr 22 03:20	0°♌	
superior conj	16007 Jun 01 10:19	23°♌52'59	-1°35'28	morning set	16008 Apr 30 19:08	14°♌51'58	
minimum elong	16007 Jun 01 01:54	23°♌19'05	1°35'19	desc. node	16008 May 04 16:50	21°♌45'33	
	16007 Jun 05 06:13	0°♌			16008 May 09 10:46	0°♌	
max. Earth dist.	16007 Jun 06 13:08	2°♌02'18	1.45243 AU				
evening rise	16007 Jun 17 02:36	18°♌25'48		superior conj	16008 May 12 07:04	4°♌50'02	-0°58'59
	16007 Jun 24 18:01	0°♌		minimum elong	16008 May 12 01:37	4°♌27'06	0°58'51
asc. node	16007 Jul 13 03:27	25°♌21'17		max. Earth dist.	16008 May 19 05:20	16°♌15'05	1.43886 AU
evening max el	16007 Jul 14 15:45	26°♌56'36	20°09'38	evening rise	16008 May 26 16:26	28°♌02'56	
	16007 Jul 18 08:42	0°♌			16008 May 27 22:44	0°♌	
retrograde	16007 Jul 22 09:32	1°♌20'16			16008 Jun 17 12:50	0°♌	
evening set	16007 Jul 26 09:15	29°♌49'01		evening max el	16008 Jun 26 13:37	10°♌50'08	21°19'10
	16007 Jul 26 03:21	30°♌		asc. node	16008 Jun 29 00:17	13°♌03'43	
inferior conj	16007 Jul 31 15:50	23°♌46'57	3°04'12	retrograde	16008 Jul 05 08:22	15°♌55'36	
minimum elong	16007 Jul 31 16:43	23°♌43'57	3°03'37	evening set	16008 Jul 09 19:01	14°♌07'02	
min. Earth dist.	16007 Aug 01 12:49	22°♌35'30	0.68249 AU	inferior conj	16008 Jul 15 00:30	7°♌54'17	3°08'38
morning rise	16007 Aug 05 23:49	17°♌22'26		minimum elong	16008 Jul 15 00:25	7°♌54'33	3°07'59
direct	16007 Aug 11 13:20	14°♌56'45		min. Earth dist.	16008 Jul 15 08:06	7°♌27'48	0.68941 AU
desc. node	16007 Aug 14 18:26	15°♌37'29		morning rise	16008 Jul 20 05:35	1°♌34'57	
morning max el	16007 Aug 22 23:58	21°♌47'39	24°25'39		16008 Jul 22 14:21	30°♌	
	16007 Aug 30 03:36	0°♌		direct	16008 Jul 25 07:05	29°♌23'50	
	16007 Sep 19 20:15	0°♌			16008 Jul 28 04:18	0°♌	

desc. node	16008 Jul 31 15:46	2°Ω02'33		direct	16009 Jul 09 04:26	14°♄03'16	
morning max el	16008 Aug 04 11:32	5°Ω26'25	22°56'21	morning max el	16009 Jul 18 02:24	19°♄13'51	21°30'35
	16008 Aug 23 10:36	0°♍		desc. node	16009 Jul 18 13:04	19°♄40'49	
morning set	16008 Sep 07 15:04	23°♍37'00			16009 Jul 27 02:08	0°Ω	
	16008 Sep 11 10:40	0°♄			16009 Aug 16 13:47	0°♍	
max. Earth dist.	16008 Sep 12 01:47	1°♄04'25	1.40239 AU	morning set	16009 Aug 18 17:58	3°♍24'31	
				max. Earth dist.	16009 Aug 25 06:14	13°♍52'39	1.42487 AU
superior conj	16008 Sep 19 22:32	14°♄57'26	-0°44'08	superior conj	16009 Sep 01 18:31	26°♍30'10	-1°20'36
minimum elong	16008 Sep 20 01:57	15°♄13'00	0°43'26	minimum elong	16009 Sep 02 01:04	26°♍58'25	1°19'51
asc. node	16008 Sep 25 01:27	24°♄28'26			16009 Sep 03 18:54	0°♄	
	16008 Sep 27 23:15	0°♍		asc. node	16009 Sep 11 22:05	14°♄31'36	
evening rise	16008 Sep 29 15:31	3°♍12'10		evening rise	16009 Sep 12 22:33	16°♄22'40	
evening max el	16008 Oct 15 14:26	28°♍59'57	18°29'54		16009 Sep 20 14:30	0°♍	
	16008 Oct 16 16:02	0°♊		evening max el	16009 Sep 29 00:38	11°♍46'59	18°06'16
retrograde	16008 Oct 23 11:45	2°♊59'58		retrograde	16009 Oct 05 23:31	15°♍20'57	
evening set	16008 Oct 25 10:56	2°♊45'49		evening set	16009 Oct 08 05:08	14°♍59'13	
desc. node	16008 Oct 27 12:44	2°♊02'23		desc. node	16009 Oct 14 10:02	10°♍55'55	
	16008 Oct 30 23:10	30°♋♍		inferior conj	16009 Oct 15 07:58	10°♍06'46	-0°17'24
inferior conj	16008 Nov 02 07:18	28°♍14'37	-1°51'30	minimum elong	16009 Oct 15 07:23	10°♍08'05	0°16'43
minimum elong	16008 Nov 02 02:54	28°♍23'12	1°49'06	min. Earth dist.	16009 Oct 18 13:01	7°♍13'20	0.59954 AU
min. Earth dist.	16008 Nov 05 12:15	25°♍45'29	0.57733 AU	morning rise	16009 Oct 22 06:23	4°♍25'13	
morning rise	16008 Nov 09 15:26	23°♍05'52		direct	16009 Oct 28 20:39	2°♍21'44	
direct	16008 Nov 15 20:50	21°♍27'31		morning max el	16009 Nov 12 02:50	10°♍09'11	27°49'25
morning max el	16008 Nov 30 03:01	28°♍58'35	27°01'48		16009 Nov 27 12:28	0°♊	
	16008 Dec 01 03:45	0°♊		asc. node	16009 Dec 08 22:51	19°♊57'57	
	16008 Dec 21 19:29	0°♄			16009 Dec 13 22:15	0°♄	
asc. node	16008 Dec 22 01:48	0°♄29'23		morning set	16009 Dec 14 10:37	1°♄04'54	
morning set	16008 Dec 30 05:13	16°♄52'09		max. Earth dist.	16009 Dec 20 14:10	14°♄28'55	1.31060 AU
	16009 Jan 05 04:13	0°♋					
superior conj	16009 Jan 06 00:33	1°♋53'55	1°37'43	superior conj	16009 Dec 21 11:47	16°♄29'36	1°32'29
minimum elong	16009 Jan 06 00:10	1°♋51'43	1°38'24	minimum elong	16009 Dec 21 10:25	16°♄21'58	1°33'08
max. Earth dist.	16009 Jan 06 06:47	2°♋28'47	1.31071 AU		16009 Dec 27 13:50	0°♋	
evening rise	16009 Jan 12 20:36	16°♋56'26		evening rise	16009 Dec 28 04:30	1°♋19'29	
	16009 Jan 19 07:17	0°♋		desc. node	16010 Jan 10 08:49	26°♋39'07	
desc. node	16009 Jan 23 12:03	7°♋42'33			16010 Jan 12 10:53	0°♋	
	16009 Feb 07 15:24	0°♎		evening max el	16010 Jan 25 08:31	16°♋19'40	26°01'29
evening max el	16009 Feb 12 11:18	5°♎08'35	27°05'10	retrograde	16010 Feb 08 07:26	23°♋23'39	
retrograde	16009 Feb 26 12:14	12°♎25'47		evening set	16010 Feb 14 10:07	21°♋56'01	
evening set	16009 Mar 05 03:08	10°♎32'21		min. Earth dist.	16010 Feb 18 21:40	19°♋17'50	0.57584 AU
min. Earth dist.	16009 Mar 09 01:37	7°♎50'27	0.59742 AU	inferior conj	16010 Feb 21 21:46	17°♋10'28	-3°57'48
inferior conj	16009 Mar 12 06:56	5°♎12'30	-2°27'17	minimum elong	16010 Feb 22 06:32	16°♋54'56	3°54'43
minimum elong	16009 Mar 12 12:31	5°♎01'04	2°25'06	morning rise	16010 Mar 02 06:05	12°♋48'21	
asc. node	16009 Mar 19 23:17	0°♎30'23		direct	16010 Mar 04 05:32	12°♋35'48	
morning rise	16009 Mar 20 01:26	0°♎28'59		asc. node	16010 Mar 06 20:40	12°♋59'09	
direct	16009 Mar 22 01:43	0°♎13'26		morning max el	16010 Mar 12 19:58	16°♋49'35	18°42'58
morning max el	16009 Mar 29 13:03	3°♎56'47	18°05'11		16010 Mar 22 03:51	0°♎	
morning set	16009 Apr 14 03:03	28°♎32'12		morning set	16010 Mar 28 22:47	12°♎43'22	
	16009 Apr 14 21:57	0°♏					
desc. node	16009 Apr 21 13:34	12°♏14'34		superior conj	16010 Apr 06 18:22	29°♎41'06	0°13'55
				minimum elong	16010 Apr 06 19:16	29°♎45'23	0°13'27
superior conj	16009 Apr 24 02:51	16°♏49'13	-0°20'59	behind sun begin	16010 Apr 06 15:32	29°♎27'52	
minimum elong	16009 Apr 24 01:06	16°♏41'26	0°21'12	behind sun end	16010 Apr 06 23:01	0°♏02'53	
max. Earth dist.	16009 May 01 17:01	29°♏53'50	1.42002 AU		16010 Apr 06 22:24	0°♏	
	16009 May 01 18:30	0°♐		desc. node	16010 Apr 08 10:15	2°♏46'40	
evening rise	16009 May 06 22:03	8°♐25'33		max. Earth dist.	16010 Apr 14 00:52	12°♏52'07	1.39796 AU
	16009 May 21 01:07	0°♑		evening rise	16010 Apr 18 00:44	19°♏43'33	
evening max el	16009 Jun 09 06:42	24°♑44'30	22°37'39		16010 Apr 24 07:39	0°♐	
asc. node	16009 Jun 15 21:12	29°♑46'03			16010 May 15 06:09	0°♑	
	16009 Jun 16 10:19	0°Ω		evening max el	16010 May 22 21:01	8°♑39'34	23°59'15
retrograde	16009 Jun 19 05:34	0°Ω34'24		retrograde	16010 Jun 02 23:44	15°♑10'19	
	16009 Jun 21 20:32	30°♑♑		asc. node	16010 Jun 02 18:14	15°♑10'05	
evening set	16009 Jun 24 03:40	28°♑29'55		evening set	16010 Jun 08 09:34	12°♑52'17	
inferior conj	16009 Jun 29 10:27	22°♑08'19	3°02'19	min. Earth dist.	16010 Jun 13 01:16	7°♑27'20	0.68855 AU
minimum elong	16009 Jun 29 09:28	22°♑11'45	3°01'29	inferior conj	16010 Jun 13 19:46	6°♑24'23	2°45'35
min. Earth dist.	16009 Jun 29 04:58	22°♑27'26	0.69143 AU	minimum elong	16010 Jun 13 18:03	6°♑30'15	2°44'31
morning rise	16009 Jul 04 15:07	15°♑56'21		morning rise	16010 Jun 19 02:34	0°♑21'12	

	16010 Jun 19 14:15	30° $\mathbb{R}\mathbb{I}$		morning rise	16011 Jun 03 14:07	14° $\mathbb{I}\mathbb{I}45'35$	
direct	16010 Jun 23 03:56	28° $\mathbb{I}\mathbb{I}47'50$		direct	16011 Jun 07 04:10	13° $\mathbb{I}\mathbb{I}31'50$	
	16010 Jun 27 00:10	0° \mathbb{S}		morning max el	16011 Jun 14 03:43	17° $\mathbb{I}\mathbb{I}20'14$	19°12'47
morning max el	16010 Jun 30 23:22	3° $\mathbb{S}11'44$	20°14'43	desc. node	16011 Jun 22 07:23	27° $\mathbb{I}\mathbb{I}24'22$	
desc. node	16010 Jul 05 10:16	8° $\mathbb{S}12'44$			16011 Jun 24 03:03	0° \mathbb{S}	
	16010 Jul 20 21:30	0° \mathbb{Q}		greatest brilliancy	16011 Jun 26 22:30	4° $\mathbb{S}07'25$	-0.7m
morning set	16010 Jul 29 02:07	12° $\mathbb{Q}25'59$		morning set	16011 Jul 08 07:24	21° $\mathbb{S}25'07$	
max. Earth dist.	16010 Aug 07 17:45	27° $\mathbb{Q}32'15$	1.44308 AU		16011 Jul 13 20:48	0° \mathbb{Q}	
	16010 Aug 09 06:42	0° \mathbb{P}		max. Earth dist.	16011 Jul 21 10:37	11° $\mathbb{Q}47'54$	1.45512 AU
superior conj	16010 Aug 13 15:22	7° $\mathbb{P}04'12$	-1°52'09	superior conj	16011 Jul 24 13:59	16° $\mathbb{Q}44'16$	-2°11'25
minimum elong	16010 Aug 13 23:09	7° $\mathbb{P}36'06$	1°51'51	minimum elong	16011 Jul 24 18:03	17° $\mathbb{Q}00'20$	2°11'53
evening rise	16010 Aug 26 12:55	28° $\mathbb{P}49'21$			16011 Aug 01 21:16	0° \mathbb{P}	
	16010 Aug 27 05:18	0° \mathbb{L}		evening rise	16011 Aug 08 05:23	10° $\mathbb{P}19'33$	
asc. node	16010 Aug 29 18:44	4° $\mathbb{L}24'37$		asc. node	16011 Aug 16 15:25	24° $\mathbb{P}02'56$	
evening max el	16010 Sep 12 14:52	25° $\mathbb{L}02'29$	18°01'59		16011 Aug 20 11:40	0° \mathbb{L}	
retrograde	16010 Sep 19 01:56	28° $\mathbb{L}24'15$		evening max el	16011 Aug 27 05:33	8° $\mathbb{L}37'44$	18°16'00
evening set	16010 Sep 21 15:34	27° $\mathbb{L}51'21$		retrograde	16011 Sep 02 14:28	12° $\mathbb{L}00'36$	
inferior conj	16010 Sep 28 02:46	22° $\mathbb{L}39'47$	0°58'06	evening set	16011 Sep 05 12:49	11° $\mathbb{L}13'37$	
minimum elong	16010 Sep 28 04:21	22° $\mathbb{L}35'39$	0°57'45	inferior conj	16011 Sep 11 11:41	5° $\mathbb{L}45'42$	1°54'05
min. Earth dist.	16010 Sep 30 23:43	19° $\mathbb{L}42'25$	0.62249 AU	minimum elong	16011 Sep 11 14:00	5° $\mathbb{L}39'00$	1°53'23
desc. node	16010 Oct 01 07:24	19° $\mathbb{L}23'32$		min. Earth dist.	16011 Sep 13 20:27	3° $\mathbb{L}02'37$	0.64385 AU
morning rise	16010 Oct 04 14:39	16° $\mathbb{L}34'10$			16011 Sep 16 20:59	30° $\mathbb{R}\mathbb{P}$	
direct	16010 Oct 11 07:06	14° $\mathbb{L}11'13$		morning rise	16011 Sep 17 13:31	29° $\mathbb{P}25'39$	
morning max el	16010 Oct 25 09:19	22° $\mathbb{L}08'20$	27°57'37	desc. node	16011 Sep 18 04:48	28° $\mathbb{P}56'48$	
	16010 Nov 01 07:42	0° \mathbb{M}		direct	16011 Sep 24 02:47	26° $\mathbb{P}51'06$	
	16010 Nov 20 16:46	0° \mathbb{J}			16011 Oct 02 06:18	0° \mathbb{L}	
asc. node	16010 Nov 25 19:49	9° $\mathbb{J}44'48$		morning max el	16011 Oct 07 19:45	4° $\mathbb{L}48'24$	27°29'27
morning set	16010 Nov 28 09:53	14° $\mathbb{J}57'22$			16011 Oct 26 23:06	0° \mathbb{M}	
max. Earth dist.	16010 Dec 03 18:04	26° $\mathbb{J}16'22$	1.31606 AU	morning set	16011 Nov 12 00:33	28° $\mathbb{M}24'16$	
	16010 Dec 05 10:54	0° \mathbb{Z}		asc. node	16011 Nov 12 16:43	29° $\mathbb{M}44'25$	
superior conj	16010 Dec 05 21:08	0° $\mathbb{Z}56'19$	1°21'12	max. Earth dist.	16011 Nov 12 19:51	0° \mathbb{J}	
minimum elong	16010 Dec 05 19:03	0° $\mathbb{Z}44'49$	1°21'43		16011 Nov 16 14:47	7° $\mathbb{J}44'31$	1.32718 AU
evening rise	16010 Dec 12 14:46	15° $\mathbb{Z}46'36$		superior conj	16011 Nov 20 02:33	15° $\mathbb{J}09'01$	1°03'47
	16010 Dec 19 13:03	0° \mathbb{X}		minimum elong	16011 Nov 20 00:11	14° $\mathbb{J}56'18$	1°04'09
desc. node	16010 Dec 28 05:42	14° $\mathbb{X}50'05$			16011 Nov 26 23:03	0° \mathbb{Z}	
evening max el	16011 Jan 06 21:27	26° $\mathbb{X}41'21$	24°30'16	evening rise	16011 Nov 27 01:35	0° $\mathbb{Z}13'35$	
	16011 Jan 10 20:56	0° \mathbb{H}			16011 Dec 13 13:56	0° \mathbb{X}	
retrograde	16011 Jan 20 13:39	3° $\mathbb{H}30'22$		desc. node	16011 Dec 15 02:38	1° $\mathbb{X}58'54$	
evening set	16011 Jan 25 19:00	2° $\mathbb{H}30'28$		evening max el	16011 Dec 19 06:51	6° $\mathbb{X}36'50$	22°46'52
	16011 Jan 30 19:45	30° $\mathbb{R}\mathbb{X}$		retrograde	16012 Jan 01 07:16	13° $\mathbb{X}03'23$	
min. Earth dist.	16011 Jan 31 09:17	29° $\mathbb{X}39'42$	0.55789 AU	evening set	16012 Jan 05 06:39	12° $\mathbb{X}28'57$	
inferior conj	16011 Feb 02 15:22	28° $\mathbb{X}16'14$	-5°17'14	min. Earth dist.	16012 Jan 12 15:56	9° $\mathbb{X}05'45$	0.54655 AU
minimum elong	16011 Feb 03 00:03	28° $\mathbb{X}02'48$	5°14'59	inferior conj	16012 Jan 13 14:25	8° $\mathbb{X}33'53$	-6°00'04
morning rise	16011 Feb 11 07:13	24° $\mathbb{X}14'43$		minimum elong	16012 Jan 13 16:38	8° $\mathbb{X}30'45$	5°59'19
direct	16011 Feb 13 13:44	24° $\mathbb{X}00'58$		morning rise	16012 Jan 22 03:50	4° $\mathbb{X}45'16$	
asc. node	16011 Feb 21 18:02	27° $\mathbb{X}14'00$		direct	16012 Jan 25 04:05	4° $\mathbb{X}24'25$	
morning max el	16011 Feb 23 15:30	28° $\mathbb{X}54'24$	19°43'18	morning max el	16012 Feb 05 20:22	10° $\mathbb{X}02'31$	21°06'53
	16011 Feb 24 17:09	0° \mathbb{H}		asc. node	16012 Feb 08 15:24	13° $\mathbb{X}01'57$	
morning set	16011 Mar 13 02:31	27° $\mathbb{H}14'14$			16012 Feb 19 12:26	0° \mathbb{H}	
	16011 Mar 14 11:17	0° \mathbb{Y}		morning set	16012 Feb 25 11:10	11° $\mathbb{H}54'45$	
superior conj	16011 Mar 21 01:15	13° $\mathbb{Y}14'09$	0°43'22	superior conj	16012 Mar 03 19:22	27° $\mathbb{H}15'48$	1°06'32
minimum elong	16011 Mar 21 03:31	13° $\mathbb{Y}25'17$	0°42'53	minimum elong	16012 Mar 03 21:55	27° $\mathbb{H}28'53$	1°06'18
desc. node	16011 Mar 26 06:55	23° $\mathbb{Y}18'31$			16012 Mar 05 03:23	0° \mathbb{Y}	
max. Earth dist.	16011 Mar 27 07:20	25° $\mathbb{Y}12'09$	1.37498 AU	max. Earth dist.	16012 Mar 08 16:29	7° $\mathbb{Y}06'02$	1.35351 AU
	16011 Mar 29 22:29	0° \mathbb{B}		desc. node	16012 Mar 12 03:34	13° $\mathbb{Y}45'29$	
evening rise	16011 Mar 30 23:52	1° $\mathbb{B}53'14$		evening rise	16012 Mar 12 16:10	14° $\mathbb{Y}44'38$	
	16011 Apr 17 11:12	0° \mathbb{I}			16012 Mar 21 07:21	0° \mathbb{B}	
evening max el	16011 May 05 10:28	22° $\mathbb{I}34'25$	25°17'08		16012 Apr 11 03:13	0° \mathbb{I}	
retrograde	16011 May 17 13:58	29° $\mathbb{I}37'20$		evening max el	16012 Apr 17 00:01	6° $\mathbb{I}23'24$	26°24'09
asc. node	16011 May 20 15:22	28° $\mathbb{I}58'39$		retrograde	16012 Apr 29 23:13	13° $\mathbb{I}47'00$	
evening set	16011 May 23 11:05	27° $\mathbb{I}09'30$		evening set	16012 May 06 06:22	11° $\mathbb{I}14'31$	
min. Earth dist.	16011 May 27 18:58	22° $\mathbb{I}21'31$	0.68089 AU	asc. node	16012 May 06 12:33	11° $\mathbb{I}01'37$	
inferior conj	16011 May 29 02:33	20° $\mathbb{I}38'47$	2°18'08	min. Earth dist.	16012 May 10 08:01	7° $\mathbb{I}01'54$	0.66861 AU
minimum elong	16011 May 29 00:24	20° $\mathbb{I}45'46$	2°16'51	inferior conj	16012 May 12 04:38	4° $\mathbb{I}46'02$	1°39'09

minimum elong	16012 May 12 02:34	4° Π 52'20	1°37'49	minimum elong	16013 Apr 25 22:20	18° \mathcal{B} 43'46	0°46'27
	16012 May 16 15:45	30° \mathcal{R} 8		morning rise	16013 May 02 05:02	13° \mathcal{B} 11'13	
morning rise	16012 May 17 23:44	29° \mathcal{B} 04'00		direct	16013 May 04 23:02	12° \mathcal{B} 31'00	
direct	16012 May 21 03:14	28° \mathcal{B} 08'21		morning max el	16013 May 11 06:18	15° \mathcal{B} 46'48	17°57'54
	16012 May 25 19:10	0° Π			16013 May 21 16:14	0° Π	
morning max el	16012 May 27 14:42	1° Π 34'13	18°26'53	desc. node	16013 May 26 01:22	7° Π 05'45	
desc. node	16012 Jun 08 04:26	17° Π 04'39		morning set	16013 May 29 06:05	12° Π 20'25	
	16012 Jun 16 10:32	0° \mathcal{E}			16013 Jun 09 03:19	0° \mathcal{E}	
morning set	16012 Jun 17 05:18	1° \mathcal{E} 13'59					
				superior conj	16013 Jun 12 13:06	5° \mathcal{E} 24'52	-1°53'02
superior conj	16012 Jul 02 23:44	25° \mathcal{E} 56'49	-2°11'58	minimum elong	16013 Jun 12 04:40	4° \mathcal{E} 51'29	1°53'08
minimum elong	16012 Jul 02 20:04	25° \mathcal{E} 42'35	2°12'36	max. Earth dist.	16013 Jun 16 02:15	10° \mathcal{E} 59'45	1.45728 AU
max. Earth dist.	16012 Jul 03 06:08	26° \mathcal{E} 21'48	1.45995 AU		16013 Jun 28 08:49	0° \mathcal{Q}	
	16012 Jul 05 14:09	0° \mathcal{Q}		evening rise	16013 Jun 28 14:43	0° \mathcal{Q} 22'36	
evening rise	16012 Jul 18 20:40	20° \mathcal{Q} 46'04		greatest brilliancy	16013 Jul 12 07:12	21° \mathcal{Q} 03'09	-0.6m
	16012 Jul 24 17:41	0° \mathcal{P}			16013 Jul 18 16:25	0° \mathcal{P}	
greatest brilliancy	16012 Jul 27 17:32	4° \mathcal{P} 39'42	-0.8m	asc. node	16013 Jul 20 08:53	2° \mathcal{P} 09'10	
asc. node	16012 Aug 02 12:08	13° \mathcal{P} 20'22		evening max el	16013 Jul 24 01:04	6° \mathcal{P} 17'30	19°35'27
evening max el	16012 Aug 09 17:41	22° \mathcal{P} 24'50	18°47'32	retrograde	16013 Jul 31 07:08	10° \mathcal{P} 20'37	
retrograde	16012 Aug 16 09:11	26° \mathcal{P} 01'42		evening set	16013 Aug 04 00:50	8° \mathcal{P} 59'43	
evening set	16012 Aug 19 16:53	24° \mathcal{P} 58'26		inferior conj	16013 Aug 09 09:19	3° \mathcal{P} 04'47	2°56'22
inferior conj	16012 Aug 25 06:55	19° \mathcal{P} 16'18	2°32'39	minimum elong	16013 Aug 09 10:43	3° \mathcal{P} 00'07	2°55'46
minimum elong	16012 Aug 25 09:02	19° \mathcal{P} 09'40	2°31'57	min. Earth dist.	16013 Aug 10 14:19	1° \mathcal{P} 28'26	0.67639 AU
min. Earth dist.	16012 Aug 27 01:57	17° \mathcal{P} 01'44	0.66211 AU		16013 Aug 11 17:47	30° \mathcal{R} 8	
morning rise	16012 Aug 31 00:12	12° \mathcal{P} 50'09		morning rise	16013 Aug 14 20:03	26° \mathcal{Q} 38'34	
desc. node	16012 Sep 04 02:11	10° \mathcal{P} 30'48		direct	16013 Aug 20 16:13	24° \mathcal{Q} 06'27	
direct	16012 Sep 06 06:18	10° \mathcal{P} 12'41		desc. node	16013 Aug 21 23:34	24° \mathcal{Q} 13'11	
morning max el	16012 Sep 19 07:18	17° \mathcal{P} 56'21	26°32'17		16013 Aug 31 09:30	0° \mathcal{P}	
	16012 Sep 29 11:05	0° \mathcal{A}		morning max el	16013 Sep 01 18:17	1° \mathcal{P} 20'20	25°15'09
	16012 Oct 18 21:57	0° \mathcal{M}			16013 Sep 23 11:07	0° \mathcal{A}	
morning set	16012 Oct 25 03:33	11° \mathcal{M} 18'46		morning set	16013 Oct 07 14:59	23° \mathcal{A} 31'01	
max. Earth dist.	16012 Oct 29 01:44	18° \mathcal{M} 53'35	1.34372 AU	max. Earth dist.	16013 Oct 11 03:50	29° \mathcal{A} 58'15	1.36486 AU
asc. node	16012 Oct 29 13:32	19° \mathcal{M} 52'04			16013 Oct 11 04:12	0° \mathcal{M}	
				asc. node	16013 Oct 16 10:15	10° \mathcal{M} 02'57	
superior conj	16012 Nov 03 01:40	29° \mathcal{M} 02'01	0°40'17				
minimum elong	16012 Nov 02 23:41	28° \mathcal{M} 51'45	0°40'34	superior conj	16013 Oct 17 15:27	12° \mathcal{M} 27'07	0°11'01
	16012 Nov 03 12:49	0° \mathcal{X}		minimum elong	16013 Oct 17 14:46	12° \mathcal{M} 23'40	0°11'20
evening rise	16012 Nov 10 11:02	14° \mathcal{X} 36'05		behind sun begin	16013 Oct 17 10:10	12° \mathcal{M} 00'55	
	16012 Nov 18 04:54	0° \mathcal{Z}		behind sun end	16013 Oct 17 19:21	12° \mathcal{M} 46'27	
evening max el	16012 Nov 29 22:35	16° \mathcal{Z} 45'39	21°09'27	evening rise	16013 Oct 25 16:56	28° \mathcal{M} 47'56	
desc. node	16012 Nov 30 23:40	17° \mathcal{Z} 44'53			16013 Oct 26 07:07	0° \mathcal{X}	
retrograde	16012 Dec 11 17:15	22° \mathcal{Z} 35'25		evening max el	16013 Nov 12 03:46	27° \mathcal{X} 36'04	19°49'59
evening set	16012 Dec 14 11:08	22° \mathcal{Z} 17'47			16013 Nov 14 22:17	0° \mathcal{Z}	
inferior conj	16012 Dec 23 05:14	18° \mathcal{Z} 27'00	-5°44'08	desc. node	16013 Nov 17 20:47	1° \mathcal{Z} 42'41	
minimum elong	16012 Dec 22 22:22	18° \mathcal{Z} 36'42	5°42'25	retrograde	16013 Nov 22 07:23	2° \mathcal{Z} 39'59	
min. Earth dist.	16012 Dec 23 21:25	18° \mathcal{Z} 04'05	0.54413 AU	evening set	16013 Nov 24 08:25	2° \mathcal{Z} 28'38	
morning rise	16012 Dec 31 09:51	14° \mathcal{Z} 35'44			16013 Nov 30 12:51	30° \mathcal{R} 8	
direct	16013 Jan 04 11:33	13° \mathcal{Z} 59'56		inferior conj	16013 Dec 03 02:15	28° \mathcal{X} 28'11	-4°32'08
morning max el	16013 Jan 17 11:28	20° \mathcal{Z} 19'34	22°49'38	minimum elong	16013 Dec 02 16:15	28° \mathcal{X} 43'36	4°28'28
	16013 Jan 25 11:18	0° \mathcal{A}		min. Earth dist.	16013 Dec 05 04:28	27° \mathcal{X} 10'51	0.55113 AU
asc. node	16013 Jan 25 12:41	0° \mathcal{A} 05'03		morning rise	16013 Dec 10 22:43	24° \mathcal{X} 15'43	
morning set	16013 Feb 08 22:28	26° \mathcal{A} 38'37		direct	16013 Dec 16 01:07	23° \mathcal{X} 18'31	
	16013 Feb 10 12:06	0° \mathcal{X}			16013 Dec 29 15:24	0° \mathcal{Z}	
				morning max el	16013 Dec 29 19:53	0° \mathcal{Z} 10'35	24°39'34
superior conj	16013 Feb 15 21:25	11° \mathcal{X} 36'56	1°23'17	asc. node	16014 Jan 12 09:55	18° \mathcal{Z} 05'16	
minimum elong	16013 Feb 15 23:31	11° \mathcal{X} 48'11	1°23'23		16014 Jan 18 22:56	0° \mathcal{A}	
max. Earth dist.	16013 Feb 19 08:21	18° \mathcal{X} 54'19	1.33549 AU	morning set	16014 Jan 24 10:24	11° \mathcal{A} 19'58	
evening rise	16013 Feb 23 22:13	28° \mathcal{X} 08'56					
	16013 Feb 24 21:02	0° \mathcal{Y}		superior conj	16014 Jan 31 04:43	26° \mathcal{A} 09'44	1°33'43
desc. node	16013 Feb 27 00:12	4° \mathcal{Y} 03'43		minimum elong	16014 Jan 31 05:58	26° \mathcal{A} 16'37	1°34'08
	16013 Mar 14 12:37	0° \mathcal{B}			16014 Feb 01 22:51	0° \mathcal{X}	
evening max el	16013 Mar 30 13:38	19° \mathcal{B} 58'37	27°12'42	max. Earth dist.	16014 Feb 02 07:59	0° \mathcal{X} 49'36	1.32191 AU
retrograde	16013 Apr 13 02:30	27° \mathcal{B} 30'33		evening rise	16014 Feb 07 14:43	11° \mathcal{X} 57'35	
evening set	16013 Apr 19 17:24	24° \mathcal{B} 59'52		desc. node	16014 Feb 13 20:52	24° \mathcal{X} 08'10	
asc. node	16013 Apr 23 09:48	21° \mathcal{B} 32'25			16014 Feb 17 03:01	0° \mathcal{Y}	
min. Earth dist.	16013 Apr 23 14:26	21° \mathcal{B} 19'53	0.65219 AU		16014 Mar 10 00:29	0° \mathcal{B}	
inferior conj	16013 Apr 25 23:34	18° \mathcal{B} 40'18	0°47'27	evening max el	16014 Mar 13 01:52	3° \mathcal{B} 08'26	27°35'28

retrograde	16014 Mar 26 22:33	10°♄38'42		evening set	16015 Mar 16 04:45	20°♄55'51	
evening set	16014 Apr 02 17:48	8°♄16'50		min. Earth dist.	16015 Mar 20 00:05	18°♄06'14	0.61040 AU
min. Earth dist.	16014 Apr 06 12:18	5°♄05'22	0.63239 AU	inferior conj	16015 Mar 23 03:58	15°♄18'40	-1°36'53
inferior conj	16014 Apr 09 08:30	2°♄14'19	-0°17'57	minimum elong	16015 Mar 23 07:29	15°♄10'51	1°35'35
minimum elong	16014 Apr 09 09:05	2°♄12'52	0°18'04	asc. node	16015 Mar 28 04:27	11°♄26'31	
asc. node	16014 Apr 10 07:06	1°♄18'02		morning rise	16015 Mar 30 13:32	10°♄23'30	
	16014 Apr 11 16:06	30°♄		direct	16015 Apr 01 16:39	10°♄04'22	
morning rise	16014 Apr 16 02:59	27°♄00'39		morning max el	16015 Apr 08 16:20	13°♄34'40	17°52'55
direct	16014 Apr 18 12:43	26°♄32'42			16015 Apr 19 21:19	0°♄	
morning max el	16014 Apr 24 23:54	29°♄50'07	17°46'23	morning set	16015 Apr 24 07:39	7°♄56'18	
	16014 Apr 25 03:56	0°♄		desc. node	16015 Apr 29 19:01	17°♄47'01	
morning set	16014 May 11 08:46	24°♄40'31					
desc. node	16014 May 12 22:15	27°♄21'40		superior conj	16015 May 05 03:13	27°♄08'27	-0°42'42
	16014 May 14 11:10	0°♄		minimum elong	16015 May 04 23:24	26°♄52'01	0°42'42
					16015 May 06 19:20	0°♄	
superior conj	16014 May 23 20:27	15°♄44'32	-1°20'35	max. Earth dist.	16015 May 12 11:55	9°♄29'31	1.43136 AU
minimum elong	16014 May 23 13:00	15°♄14'01	1°20'22	evening rise	16015 May 18 20:39	19°♄41'17	
max. Earth dist.	16014 May 29 21:00	25°♄28'02	1.44741 AU		16015 May 25 13:21	0°♄	
	16014 Jun 01 17:48	0°♄			16015 Jun 16 04:20	0°♄	
evening rise	16014 Jun 08 01:18	9°♄47'43		evening max el	16015 Jun 19 22:09	4°♄05'34	21°51'44
	16014 Jun 21 13:29	0°♄		asc. node	16015 Jun 24 02:36	7°♄38'47	
evening max el	16014 Jul 07 02:32	20°♄12'01	20°37'52	retrograde	16015 Jun 29 04:28	9°♄29'47	
asc. node	16014 Jul 07 05:42	20°♄19'51		evening set	16015 Jul 03 20:02	7°♄33'56	
retrograde	16014 Jul 15 06:08	24°♄52'08		inferior conj	16015 Jul 09 01:47	1°♄17'07	3°07'13
evening set	16014 Jul 19 10:31	23°♄13'20		minimum elong	16015 Jul 09 01:18	1°♄18'46	3°06'31
inferior conj	16014 Jul 24 16:20	17°♄06'44	3°07'24	min. Earth dist.	16015 Jul 09 03:42	1°♄10'25	0.69088 AU
minimum elong	16014 Jul 24 16:49	17°♄05'05	3°06'49		16015 Jul 09 23:58	30°♄	
min. Earth dist.	16014 Jul 25 07:35	16°♄14'13	0.68607 AU	morning rise	16015 Jul 14 06:24	25°♄00'57	
morning rise	16014 Jul 29 22:49	10°♄44'21		direct	16015 Jul 19 02:41	22°♄57'24	
direct	16014 Aug 04 07:23	8°♄24'16		desc. node	16015 Jul 26 18:14	26°♄45'03	
desc. node	16014 Aug 08 20:55	9°♄46'19		morning max el	16015 Jul 28 17:57	28°♄37'25	22°19'07
morning max el	16014 Aug 15 05:12	14°♄54'49	23°47'45		16015 Jul 30 01:44	0°♄	
	16014 Aug 27 13:35	0°♄			16015 Aug 21 05:18	0°♄	
	16014 Sep 16 08:59	0°♄		morning set	16015 Aug 30 23:24	15°♄14'08	
morning set	16014 Sep 19 06:47	4°♄52'07		max. Earth dist.	16015 Sep 05 04:00	23°♄46'21	1.41237 AU
max. Earth dist.	16014 Sep 23 02:36	11°♄28'32	1.38867 AU		16015 Sep 08 19:55	0°♄	
superior conj	16014 Sep 30 16:23	25°♄16'13	-0°23'06	superior conj	16015 Sep 13 00:10	7°♄19'07	-0°59'48
minimum elong	16014 Sep 30 18:02	25°♄23'59	0°22'33	minimum elong	16015 Sep 13 04:58	7°♄40'30	0°59'02
asc. node	16014 Oct 03 06:57	0°♄13'50		asc. node	16015 Sep 20 03:37	20°♄20'48	
	16014 Oct 03 04:04	0°♄		evening rise	16015 Sep 23 07:07	26°♄13'09	
evening rise	16014 Oct 09 16:44	12°♄43'11			16015 Sep 25 07:46	0°♄	
	16014 Oct 19 01:15	0°♄		evening max el	16015 Oct 09 04:52	21°♄41'45	18°17'17
evening max el	16014 Oct 25 22:59	9°♄16'33	18°52'41	retrograde	16015 Oct 16 15:29	25°♄29'27	
retrograde	16014 Nov 03 13:41	13°♄37'18		evening set	16015 Oct 18 16:58	25°♄12'37	
desc. node	16014 Nov 04 17:57	13°♄32'41		desc. node	16015 Oct 22 15:11	23°♄18'38	
evening set	16014 Nov 05 11:09	13°♄25'29		inferior conj	16015 Oct 26 05:47	20°♄31'54	-1°09'36
inferior conj	16014 Nov 13 17:05	9°♄06'03	-2°51'12	minimum elong	16015 Oct 26 03:11	20°♄37'20	1°07'59
minimum elong	16014 Nov 13 10:05	9°♄18'32	2°47'49	min. Earth dist.	16015 Oct 29 11:55	17°♄50'03	0.58651 AU
min. Earth dist.	16014 Nov 16 16:15	6°♄59'49	0.56615 AU	morning rise	16015 Nov 02 09:56	15°♄08'03	
morning rise	16014 Nov 21 06:07	4°♄18'50		direct	16015 Nov 08 19:41	13°♄18'48	
direct	16014 Nov 27 03:25	2°♄56'19		morning max el	16015 Nov 23 02:43	20°♄57'39	27°26'55
morning max el	16014 Dec 11 07:17	10°♄13'56	26°17'49		16015 Nov 30 23:26	0°♄	
	16014 Dec 26 08:18	0°♄		asc. node	16015 Dec 17 04:10	26°♄03'09	
asc. node	16014 Dec 30 07:04	6°♄48'22			16015 Dec 19 05:08	0°♄	
morning set	16015 Jan 08 21:15	25°♄54'15		morning set	16015 Dec 24 05:15	10°♄16'53	
	16015 Jan 10 18:26	0°♄					
				superior conj	16015 Dec 31 02:32	25°♄26'46	1°36'14
superior conj	16015 Jan 15 15:03	10°♄48'06	1°38'00	minimum elong	16015 Dec 31 01:43	25°♄22'08	1°36'55
minimum elong	16015 Jan 15 15:16	10°♄49'18	1°38'37	max. Earth dist.	16015 Dec 30 21:10	24°♄56'40	1.30998 AU
max. Earth dist.	16015 Jan 16 13:23	12°♄52'32	1.31332 AU		16016 Jan 02 03:21	0°♄	
evening rise	16015 Jan 22 14:58	26°♄03'56		evening rise	16016 Jan 06 20:41	10°♄22'35	
	16015 Jan 24 12:28	0°♄			16016 Jan 16 18:54	0°♄	
desc. node	16015 Jan 31 17:33	13°♄52'50		desc. node	16016 Jan 18 14:17	3°♄10'11	
	16015 Feb 10 14:47	0°♄		evening max el	16016 Feb 05 11:49	27°♄20'18	26°42'00
evening max el	16015 Feb 23 10:09	15°♄39'04	27°26'14		16016 Feb 08 13:29	0°♄	
retrograde	16015 Mar 09 10:09	23°♄01'48		retrograde	16016 Feb 19 12:09	4°♄32'32	

evening set	16016 Feb 25 23:05	2° Υ 49'11			16017 Jan 10 01:52	0° H		
min. Earth dist.	16016 Mar 01 01:33	0° Υ 10'56	0.58796 AU	evening max el	16017 Jan 17 05:12	8° H 08'32	25°25'17	
	16016 Mar 01 07:26	30° R H		retrograde	16017 Jan 31 02:29	15° H 07'24		
inferior conj	16016 Mar 04 06:15	27° H 43'46	-3°05'45	evening set	16017 Feb 05 21:02	13° H 51'33		
minimum elong	16016 Mar 04 13:20	27° H 30'07	3°03'03	min. Earth dist.	16017 Feb 10 17:54	11° H 10'03	0.56754 AU	
morning rise	16016 Mar 12 07:07	23° H 09'40		inferior conj	16017 Feb 13 12:06	9° H 19'49	-4°34'13	
direct	16016 Mar 14 06:22	22° H 55'52		minimum elong	16017 Feb 13 21:28	9° H 04'10	4°31'15	
asc. node	16016 Mar 14 01:48	22° H 55'59		morning rise	16017 Feb 22 00:44	5° H 07'00		
morning max el	16016 Mar 22 04:02	26° H 50'31	18°18'44	direct	16017 Feb 24 01:44	4° H 54'40		
	16016 Mar 24 22:58	0° Υ		asc. node	16017 Feb 28 23:12	6° H 10'16		
morning set	16016 Apr 06 21:10	21° Υ 51'19		morning max el	16017 Mar 05 06:42	9° H 24'40	19°05'47	
	16016 Apr 11 04:27	0° B			16017 Mar 18 16:35	0° Υ		
desc. node	16016 Apr 15 15:45	8° B 17'56		morning set	16017 Mar 21 20:42	6° Υ 11'37		
superior conj	16016 Apr 16 08:01	9° B 32'00	-0°05'39	superior conj	16017 Mar 30 06:36	22° Υ 42'39	0°27'07	
minimum elong	16016 Apr 16 07:34	9° B 29'55	0°06'00	minimum elong	16017 Mar 30 08:14	22° Υ 50'29	0°26'37	
behind sun begin	16016 Apr 16 00:40	8° B 58'35		desc. node	16017 Apr 02 12:26	28° Υ 50'11		
behind sun end	16016 Apr 16 14:27	10° B 01'11			16017 Apr 03 03:30	0° B		
max. Earth dist.	16016 Apr 23 21:44	22° B 51'12	1.41084 AU	max. Earth dist.	16017 Apr 06 03:59	5° B 29'37	1.38811 AU	
evening rise	16016 Apr 28 11:01	0° II 26'57		evening rise	16017 Apr 09 22:42	12° B 07'44		
	16016 Apr 28 04:26	0° II			16017 Apr 20 22:17	0° II		
	16016 May 17 23:45	0° E			16017 May 13 06:57	0° E		
evening max el	16016 Jun 01 13:36	17° E 59'13	23°12'17	evening max el	16017 May 15 03:17	1° E 54'07	24°33'20	
asc. node	16016 Jun 09 23:35	23° E 49'53		retrograde	16017 May 26 17:25	8° E 40'29		
retrograde	16016 Jun 12 00:39	24° E 07'54		asc. node	16017 May 27 20:40	8° E 35'01		
evening set	16016 Jun 17 03:45	21° E 57'07		evening set	16017 Jun 01 08:00	6° E 17'54		
inferior conj	16016 Jun 22 11:42	15° E 32'12	2°56'31	min. Earth dist.	16017 Jun 05 20:12	1° E 08'31	0.68580 AU	
minimum elong	16016 Jun 22 10:23	15° E 36'47	2°55'35	inferior conj	16017 Jun 06 20:13	29° II 48'05	2°35'20	
min. Earth dist.	16016 Jun 22 00:37	16° E 10'35	0.69077 AU	minimum elong	16017 Jun 06 18:16	29° II 54'37	2°34'09	
morning rise	16016 Jun 27 16:58	9° E 23'48			16017 Jun 06 16:40	30° R II		
direct	16016 Jul 02 01:02	7° E 39'14		morning rise	16017 Jun 12 04:41	23° II 48'45		
morning max el	16016 Jul 10 11:16	12° E 29'18	20°56'49	direct	16017 Jun 16 01:05	22° II 23'51		
desc. node	16016 Jul 12 15:29	14° E 47'51		morning max el	16017 Jun 23 11:17	26° II 31'35	19°46'27	
	16016 Jul 24 06:01	0° Q			16017 Jun 26 15:21	0° E		
morning set	16016 Aug 09 17:08	24° Q 38'45		desc. node	16017 Jun 29 12:40	3° E 37'59		
	16016 Aug 13 03:03	0° P			16017 Jul 17 14:06	0° Q		
max. Earth dist.	16016 Aug 17 11:11	6° P 56'18	1.43321 AU	morning set	16017 Jul 19 21:32	3° Q 32'05		
				max. Earth dist.	16017 Jul 31 00:41	20° Q 51'09	1.44897 AU	
superior conj	16016 Aug 24 10:33	18° P 26'47	-1°35'00	superior conj	16017 Aug 04 21:28	28° Q 36'37	-2°02'17	
minimum elong	16016 Aug 24 18:03	18° P 58'23	1°34'21	minimum elong	16017 Aug 05 04:24	29° Q 04'30	2°02'18	
	16016 Aug 31 03:58	0° A			16017 Aug 05 18:10	0° P		
evening rise	16016 Sep 05 07:44	9° A 06'35		evening rise	16017 Aug 18 13:23	21° P 10'35		
asc. node	16016 Sep 06 00:16	10° A 20'04		asc. node	16017 Aug 23 20:57	0° A 07'38		
	16016 Sep 17 19:47	0° M			16017 Aug 23 19:07	0° A		
evening max el	16016 Sep 21 17:15	4° M 41'58	18°02'10	evening max el	16017 Sep 05 08:10	18° A 07'38	18°05'52	
retrograde	16016 Sep 28 10:03	8° M 09'20		retrograde	16017 Sep 11 17:11	21° A 28'02		
evening set	16016 Sep 30 18:50	7° M 43'23		evening set	16017 Sep 14 10:28	20° A 49'30		
inferior conj	16016 Oct 07 14:42	2° M 42'43	0°17'03	inferior conj	16017 Sep 20 16:01	15° A 31'00	1°24'05	
minimum elong	16016 Oct 07 15:14	2° M 41'24	0°17'11	minimum elong	16017 Sep 20 18:03	15° A 25'26	1°23'31	
desc. node	16016 Oct 08 12:32	1° M 49'54		min. Earth dist.	16017 Sep 23 08:14	12° A 37'31	0.63186 AU	
	16016 Oct 10 10:33	30° R A		desc. node	16017 Sep 25 09:55	10° A 36'00		
min. Earth dist.	16016 Oct 10 17:08	29° A 44'49	0.60932 AU	morning rise	16017 Sep 26 23:31	9° A 18'18		
morning rise	16016 Oct 14 08:37	26° A 49'26		direct	16017 Oct 03 15:24	6° A 49'02		
direct	16016 Oct 21 00:29	24° A 36'33		morning max el	16017 Oct 17 14:11	14° A 47'48	27°49'39	
	16016 Nov 01 12:38	0° M			16017 Oct 29 23:54	0° M		
morning max el	16016 Nov 04 05:50	2° M 30'07	27°57'40		16017 Nov 17 01:36	0° A		
	16016 Nov 24 10:39	0° J		asc. node	16017 Nov 19 22:07	5° J 33'26		
asc. node	16016 Dec 03 01:11	15° J 40'19		morning set	16017 Nov 21 04:18	8° J 04'38		
morning set	16016 Dec 07 08:20	24° J 21'59		max. Earth dist.	16017 Nov 26 04:30	18° J 31'12	1.32011 AU	
	16016 Dec 10 00:03	0° Z						
max. Earth dist.	16016 Dec 13 03:26	6° Z 52'03	1.31218 AU	superior conj	16017 Nov 28 21:12	24° J 21'32	1°14'34	
superior conj	16016 Dec 14 13:13	9° Z 59'31	1°28'26	minimum elong	16017 Nov 28 18:56	24° J 09'09	1°15'02	
minimum elong	16016 Dec 14 11:30	9° Z 50'00	1°29'04		16017 Dec 01 10:52	0° Z		
evening rise	16016 Dec 21 05:48	24° Z 47'50		evening rise	16017 Dec 05 16:32	9° Z 15'46		
	16016 Dec 23 16:26	0° \approx			16017 Dec 16 04:54	0° \approx		
desc. node	16017 Jan 04 11:06	21° \approx 49'12		desc. node	16017 Dec 22 08:00	9° \approx 36'08		

evening max el	16017 Dec 29 15:53	18° \approx 15'56	23°46'42	evening max el	16018 Dec 11 02:50	28° \approx 12'37	22°03'46
retrograde	16018 Jan 12 03:00	24° \approx 56'11			16018 Dec 13 02:20	0° \approx	
evening set	16018 Jan 16 20:09	24° \approx 08'05		retrograde	16018 Dec 23 15:46	4° \approx 24'39	
min. Earth dist.	16018 Jan 23 03:17	21° \approx 05'46	0.55215 AU	evening set	16018 Dec 27 02:04	3° \approx 58'32	
inferior conj	16018 Jan 24 21:07	20° \approx 03'59	-5°41'31	inferior conj	16019 Jan 04 14:59	0° \approx 07'23	-6°01'00
minimum elong	16018 Jan 25 03:50	19° \approx 54'01	5°40'00	minimum elong	16019 Jan 04 13:06	0° \approx 10'02	6°00'14
morning rise	16018 Feb 02 13:06	16° \approx 08'49		min. Earth dist.	16019 Jan 04 08:43	0° \approx 16'08	0.54443 AU
direct	16018 Feb 05 01:50	15° \approx 52'51			16019 Jan 04 20:16	30° \approx 8'3	
asc. node	16018 Feb 15 20:33	21° \approx 06'29		morning rise	16019 Jan 13 00:59	26° \approx 3'20'08	
morning max el	16018 Feb 15 20:11	21° \approx 05'36	20°15'57	direct	16019 Jan 16 11:55	25° \approx 3'53'43	
	16018 Feb 22 21:22	0° \approx			16019 Jan 26 16:39	0° \approx	
morning set	16018 Mar 06 02:49	20° \approx 47'15		morning max el	16019 Jan 28 18:34	1° \approx 49'47	21°48'41
	16018 Mar 10 14:17	0° \approx		asc. node	16019 Feb 02 17:50	7° \approx 28'38	
					16019 Feb 15 21:07	0° \approx	
superior conj	16018 Mar 13 18:40	6° \approx 28'35	0°53'59	morning set	16019 Feb 18 12:53	5° \approx 30'35	
minimum elong	16018 Mar 13 21:10	6° \approx 41'06	0°53'35				
max. Earth dist.	16018 Mar 19 10:57	17° \approx 35'43	1.36561 AU	superior conj	16019 Feb 25 16:32	20° \approx 39'53	1°14'26
desc. node	16018 Mar 20 09:05	19° \approx 20'12		minimum elong	16019 Feb 25 18:57	20° \approx 52'35	1°14'19
evening rise	16018 Mar 23 05:35	24° \approx 36'24		max. Earth dist.	16019 Mar 01 23:06	29° \approx 27'35	1.34541 AU
	16018 Mar 26 06:15	0° \approx			16019 Mar 02 05:34	0° \approx	
	16018 Apr 14 12:48	0° \approx		evening rise	16019 Mar 06 04:12	7° \approx 43'20	
evening max el	16018 Apr 27 16:55	15° \approx 47'42	25°47'33	desc. node	16019 Mar 07 05:43	9° \approx 44'18	
retrograde	16018 May 10 05:32	23° \approx 00'27			16019 Mar 18 21:39	0° \approx	
asc. node	16018 May 14 17:49	21° \approx 38'27		evening max el	16019 Apr 10 06:46	29° \approx 33'05	26°47'29
evening set	16018 May 16 07:03	20° \approx 30'17			16019 Apr 10 17:57	0° \approx	
min. Earth dist.	16018 May 20 12:13	15° \approx 57'23	0.67618 AU	retrograde	16019 Apr 23 12:10	7° \approx 00'43	
inferior conj	16018 May 22 01:15	13° \approx 59'55	2°03'06	evening set	16019 Apr 29 23:05	4° \approx 28'12	
minimum elong	16018 May 21 23:04	14° \approx 06'52	2°01'45	asc. node	16019 May 01 15:00	2° \approx 59'18	
morning rise	16018 May 27 15:40	8° \approx 11'02		min. Earth dist.	16019 May 03 22:37	0° \approx 30'00	0.66215 AU
direct	16018 May 31 01:10	7° \approx 05'05			16019 May 04 08:58	30° \approx 8'8	
morning max el	16018 Jun 06 18:29	10° \approx 42'15	18°51'11	inferior conj	16019 May 06 00:38	28° \approx 02'56	1°18'51
desc. node	16018 Jun 16 09:45	23° \approx 02'37		minimum elong	16019 May 05 22:48	28° \approx 08'19	1°17'37
greatest brilliancy	16018 Jun 20 08:13	28° \approx 55'47	-0.8m	morning rise	16019 May 11 23:48	22° \approx 26'12	
	16018 Jun 21 01:05	0° \approx		direct	16019 May 14 23:14	21° \approx 37'19	
morning set	16018 Jun 29 07:47	12° \approx 46'19		morning max el	16019 May 21 07:45	24° \approx 57'02	18°12'30
	16018 Jul 10 09:51	0° \approx			16019 May 25 15:31	0° \approx	
max. Earth dist.	16018 Jul 13 19:06	5° \approx 16'49	1.45809 AU	desc. node	16019 Jun 03 06:44	12° \approx 52'49	
				morning set	16019 Jun 09 16:44	23° \approx 07'51	
superior conj	16018 Jul 15 12:51	8° \approx 00'03	-2°14'09		16019 Jun 13 23:53	0° \approx	
minimum elong	16018 Jul 15 13:47	8° \approx 03'41	2°14'49				
	16018 Jul 29 10:02	0° \approx		superior conj	16019 Jun 24 21:59	17° \approx 13'34	-2°06'05
evening rise	16018 Jul 30 19:09	2° \approx 13'01		minimum elong	16019 Jun 24 15:35	16° \approx 48'30	2°06'31
asc. node	16018 Aug 10 17:39	19° \approx 37'37		max. Earth dist.	16019 Jun 26 15:50	19° \approx 56'54	1.45977 AU
	16018 Aug 18 05:35	0° \approx			16019 Jul 03 02:52	0° \approx	
evening max el	16018 Aug 19 22:09	1° \approx 48'48	18°27'24	evening rise	16019 Jul 11 00:25	12° \approx 15'39	
retrograde	16018 Aug 26 08:38	5° \approx 15'43		greatest brilliancy	16019 Jul 22 02:13	29° \approx 18'34	-0.7m
evening set	16018 Aug 29 11:01	4° \approx 21'50			16019 Jul 22 13:14	0° \approx	
	16018 Sep 03 05:15	30° \approx 8'8		asc. node	16019 Jul 28 14:22	8° \approx 43'53	
inferior conj	16018 Sep 04 05:42	28° \approx 47'42	2°12'23	evening max el	16019 Aug 03 08:27	15° \approx 38'41	19°05'56
minimum elong	16018 Sep 04 08:00	28° \approx 40'45	2°11'40	retrograde	16019 Aug 10 05:07	19° \approx 25'13	
min. Earth dist.	16018 Sep 06 08:41	26° \approx 15'30	0.65208 AU	evening set	16019 Aug 13 17:02	18° \approx 14'23	
morning rise	16018 Sep 10 03:42	22° \approx 24'30		inferior conj	16019 Aug 19 04:18	12° \approx 26'23	2°44'22
desc. node	16018 Sep 12 07:18	20° \approx 56'19		minimum elong	16019 Aug 19 06:09	12° \approx 20'24	2°43'43
direct	16018 Sep 16 14:25	19° \approx 47'45		min. Earth dist.	16019 Aug 20 17:14	10° \approx 27'28	0.66872 AU
morning max el	16018 Sep 30 01:08	27° \approx 40'12	27°08'13	morning rise	16019 Aug 24 18:33	5° \approx 59'40	
	16018 Oct 02 06:17	0° \approx		desc. node	16019 Aug 30 04:42	3° \approx 25'37	
	16018 Oct 23 17:12	0° \approx		direct	16019 Aug 30 20:35	3° \approx 23'54	
morning set	16018 Nov 04 14:22	21° \approx 18'13		morning max el	16019 Sep 12 12:41	10° \approx 56'24	26°01'25
asc. node	16018 Nov 06 18:57	25° \approx 36'47			16019 Sep 27 17:42	0° \approx	
	16018 Nov 08 23:06	0° \approx			16019 Oct 16 07:31	0° \approx	
max. Earth dist.	16018 Nov 08 21:15	29° \approx 50'32	1.33363 AU	morning set	16019 Oct 18 11:12	3° \approx 55'29	
				max. Earth dist.	16019 Oct 22 04:23	10° \approx 56'09	1.35226 AU
superior conj	16018 Nov 13 00:15	8° \approx 26'35	0°54'35	asc. node	16019 Oct 24 15:44	15° \approx 46'05	
minimum elong	16018 Nov 12 21:57	8° \approx 14'24	0°54'53				
evening rise	16018 Nov 20 03:00	23° \approx 41'29		superior conj	16019 Oct 27 19:45	22° \approx 08'14	0°28'33
	16018 Nov 23 03:19	0° \approx		minimum elong	16019 Oct 27 18:11	22° \approx 00'17	0°28'49
desc. node	16018 Dec 09 04:58	26° \approx 12'37			16019 Oct 31 15:07	0° \approx	

evening rise	16019 Nov 04 11:13	8°♄00'07		behind sun end	16020 Oct 10 11:19	5°♄51'58	
	16019 Nov 16 05:40	0°♄		asc. node	16020 Oct 10 12:27	5°♄57'30	
evening max el	16019 Nov 22 23:37	8°♄35'58	20°33'00	evening rise	16020 Oct 18 14:53	22°♄05'52	
desc. node	16019 Nov 26 02:02	11°♄15'35			16020 Oct 22 14:55	0°♄	
retrograde	16019 Dec 04 02:12	14°♄07'16		evening max el	16020 Nov 04 11:00	19°♄47'56	19°22'57
evening set	16019 Dec 06 11:04	13°♄53'20		desc. node	16020 Nov 11 23:11	24°♄21'02	
inferior conj	16019 Dec 15 06:36	9°♄59'29	-5°19'12	retrograde	16020 Nov 13 22:30	24°♄33'00	
minimum elong	16019 Dec 14 21:26	10°♄12'48	5°16'31	evening set	16020 Nov 15 20:25	24°♄22'14	
min. Earth dist.	16019 Dec 16 14:13	9°♄13'31	0.54597 AU	inferior conj	16020 Nov 24 10:19	20°♄14'35	-3°51'04
morning rise	16019 Dec 23 07:33	6°♄01'39		minimum elong	16020 Nov 24 01:07	20°♄29'37	3°47'13
direct	16019 Dec 27 20:04	5°♄17'41		min. Earth dist.	16020 Nov 26 23:17	18°♄35'08	0.55656 AU
morning max el	16020 Jan 10 05:42	11°♄51'45	23°36'39	morning rise	16020 Dec 02 03:36	15°♄47'58	
asc. node	16020 Jan 20 15:06	24°♄57'58		direct	16020 Dec 07 14:34	14°♄40'22	
	16020 Jan 23 16:42	0°♄		morning max el	16020 Dec 21 14:38	21°♄44'53	25°23'58
morning set	16020 Feb 03 00:41	20°♄14'27			16020 Dec 28 19:43	0°♄	
	16020 Feb 07 12:38	0°♄		asc. node	16021 Jan 06 12:18	13°♄18'12	
					16021 Jan 15 05:04	0°♄	
superior conj	16020 Feb 09 21:06	5°♄07'11	1°28'29	morning set	16021 Jan 17 12:24	4°♄53'53	
minimum elong	16020 Feb 09 22:53	5°♄16'49	1°28'42				
max. Earth dist.	16020 Feb 12 18:27	11°♄18'45	1.32910 AU	superior conj	16021 Jan 24 06:00	19°♄43'48	1°36'16
evening rise	16020 Feb 17 15:01	21°♄18'53		minimum elong	16021 Jan 24 06:49	19°♄48'22	1°36'47
desc. node	16020 Feb 22 02:21	29°♄57'25		max. Earth dist.	16021 Jan 25 20:41	23°♄17'12	1.31758 AU
	16020 Feb 22 02:54	0°♄			16021 Jan 28 23:00	0°♄	
	16020 Mar 11 18:25	0°♄		evening rise	16021 Jan 31 11:08	5°♄16'14	
evening max el	16020 Mar 22 19:49	12°♄58'32	27°25'48	desc. node	16021 Feb 07 23:02	19°♄54'38	
retrograde	16020 Apr 05 12:26	20°♄30'59			16021 Feb 13 18:10	0°♄	
evening set	16020 Apr 12 05:53	18°♄02'48		evening max el	16021 Mar 05 06:31	25°♄52'55	27°35'37
min. Earth dist.	16020 Apr 16 01:25	14°♄35'56	0.64418 AU		16021 Mar 10 05:25	0°♄	
asc. node	16020 Apr 17 12:16	13°♄03'29		retrograde	16021 Mar 19 05:24	3°♄21'27	
inferior conj	16020 Apr 18 15:40	11°♄49'33	0°21'24	evening set	16021 Mar 26 00:59	1°♄05'16	
minimum elong	16020 Apr 18 15:04	11°♄51'11	0°20'44		16021 Mar 27 13:03	30°♄	
morning rise	16020 Apr 25 02:24	6°♄27'02		min. Earth dist.	16021 Mar 29 19:10	28°♄04'06	0.62324 AU
direct	16020 Apr 27 16:44	5°♄52'29		inferior conj	16021 Apr 01 19:19	25°♄12'12	-0°49'53
morning max el	16020 May 04 00:38	9°♄07'19	17°50'54	minimum elong	16021 Apr 01 21:01	25°♄08'09	0°49'26
	16020 May 18 08:23	0°♄		asc. node	16021 Apr 04 09:35	22°♄50'22	
desc. node	16020 May 20 03:37	3°♄00'49		morning rise	16021 Apr 08 20:05	20°♄06'14	
morning set	16020 May 21 05:02	4°♄47'11		direct	16021 Apr 11 02:37	19°♄42'36	
				morning max el	16021 Apr 17 18:12	23°♄04'19	17°46'50
superior conj	16020 Jun 03 17:46	27°♄00'46	-1°40'26		16021 Apr 23 06:15	0°♄	
minimum elong	16020 Jun 03 09:11	26°♄26'22	1°40'20	morning set	16021 May 03 17:00	17°♄32'58	
	16020 Jun 05 14:42	0°♄		desc. node	16021 May 07 00:26	23°♄21'15	
max. Earth dist.	16020 Jun 08 11:35	4°♄32'26	1.45393 AU		16021 May 10 20:30	0°♄	
evening rise	16020 Jun 19 13:11	21°♄41'41					
	16020 Jun 25 00:20	0°♄		superior conj	16021 May 15 10:55	7°♄47'46	-1°04'44
greatest brilliancy	16020 Jul 04 08:52	13°♄52'42	-0.6m	minimum elong	16021 May 15 04:55	7°♄22'38	1°04'35
asc. node	16020 Jul 14 11:09	27°♄17'47		max. Earth dist.	16021 May 22 04:18	18°♄48'55	1.44126 AU
evening max el	16020 Jul 16 13:15	29°♄31'50	20°00'19		16021 May 29 06:26	0°♄	
	16020 Jul 17 00:48	0°♄		evening rise	16021 May 30 01:38	1°♄14'18	
retrograde	16020 Jul 24 03:51	3°♄50'03			16021 Jun 18 14:11	0°♄	
evening set	16020 Jul 28 01:58	2°♄21'31		evening max el	16021 Jun 29 12:04	13°♄25'54	21°08'11
	16020 Jul 30 12:40	30°♄		asc. node	16021 Jul 01 08:01	15°♄08'18	
inferior conj	16020 Aug 02 08:58	26°♄21'15	3°02'30	retrograde	16021 Jul 08 02:49	18°♄24'37	
minimum elong	16020 Aug 02 09:59	26°♄17'46	3°01'55	evening set	16021 Jul 12 11:47	16°♄38'38	
min. Earth dist.	16020 Aug 03 08:02	25°♄03'07	0.68104 AU	inferior conj	16021 Jul 17 17:17	10°♄27'29	3°08'39
morning rise	16020 Aug 07 17:35	19°♄56'03		minimum elong	16021 Jul 17 17:21	10°♄27'14	3°08'01
direct	16020 Aug 13 08:48	17°♄28'29		min. Earth dist.	16021 Jul 18 02:53	9°♄54'06	0.68870 AU
desc. node	16020 Aug 16 02:03	17°♄57'41		morning rise	16021 Jul 22 22:39	4°♄07'15	
morning max el	16020 Aug 24 23:42	24°♄26'02	24°38'41	direct	16021 Jul 28 02:02	1°♄53'35	
	16020 Aug 29 23:52	0°♄		desc. node	16021 Aug 02 23:23	4°♄09'56	
	16020 Sep 20 03:46	0°♄		morning max el	16021 Aug 07 10:58	8°♄03'39	23°09'35
morning set	16020 Sep 29 14:51	15°♄47'30			16021 Aug 24 15:14	0°♄	
max. Earth dist.	16020 Oct 03 04:13	22°♄07'48	1.37472 AU	morning set	16021 Sep 10 21:03	26°♄44'03	
	16020 Oct 07 10:03	0°♄			16021 Sep 12 19:54	0°♄	
				max. Earth dist.	16021 Sep 15 02:53	3°♄54'06	1.39887 AU
superior conj	16020 Oct 10 04:32	5°♄18'58	-0°02'59				
minimum elong	16020 Oct 10 04:42	5°♄19'47	0°02'35	superior conj	16021 Sep 22 22:42	17°♄49'30	-0°38'33
behind sun begin	16020 Oct 09 22:05	4°♄47'40		minimum elong	16021 Sep 23 01:37	18°♄02'58	0°37'54

asc. node	16021 Sep 27 09:09	26°♄07'05		minimum elong	16022 Sep 05 04:03	29°♎57'23	1°14'27
	16021 Sep 29 10:00	0°♍			16022 Sep 05 04:39	0°♄	
evening rise	16021 Oct 02 11:07	5°♍51'08		asc. node	16022 Sep 14 05:51	16°♄11'45	
	16021 Oct 16 19:36	0°♊		evening rise	16022 Sep 15 20:15	19°♄07'21	
evening max el	16021 Oct 18 11:20	1°♊48'45	18°35'09		16022 Sep 21 20:52	0°♍	
retrograde	16021 Oct 26 12:45	5°♊53'37		evening max el	16022 Oct 01 20:34	14°♍30'28	18°08'27
evening set	16021 Oct 28 11:22	5°♊40'10		retrograde	16022 Oct 08 22:05	18°♍07'30	
desc. node	16021 Oct 29 20:25	5°♊15'17		evening set	16022 Oct 11 02:36	17°♍47'07	
inferior conj	16021 Nov 05 10:19	1°♊12'07	-2°06'55	desc. node	16022 Oct 16 17:42	14°♍20'27	
minimum elong	16021 Nov 05 05:14	1°♊21'48	2°04'15	inferior conj	16022 Oct 18 07:58	12°♍57'29	-0°30'30
	16021 Nov 06 24:00	30°♋♍		minimum elong	16022 Oct 18 06:54	12°♍59'51	0°29'37
min. Earth dist.	16021 Nov 08 14:15	28°♍48'24	0.57430 AU	min. Earth dist.	16022 Oct 21 13:32	10°♍06'31	0.59618 AU
morning rise	16021 Nov 12 19:47	26°♍09'00		morning rise	16022 Oct 25 07:55	7°♍20'19	
direct	16021 Nov 18 23:24	24°♍34'39		direct	16022 Oct 31 21:15	5°♍20'26	
	16021 Nov 30 23:02	0°♊		morning max el	16022 Nov 15 03:41	13°♍05'29	27°44'53
morning max el	16021 Dec 03 05:00	2°♊02'19	26°51'29		16022 Nov 28 14:48	0°♊	
	16021 Dec 23 03:42	0°♊		asc. node	16022 Dec 11 06:31	21°♊40'47	
asc. node	16021 Dec 24 09:26	2°♊15'44			16022 Dec 15 10:32	0°♊	
morning set	16022 Jan 01 22:15	19°♊23'28		morning set	16022 Dec 17 04:23	3°♊38'38	
	16022 Jan 06 18:04	0°♋		max. Earth dist.	16022 Dec 23 11:02	17°♊22'01	1.31026 AU
superior conj	16022 Jan 08 17:04	4°♋22'55	1°37'59	superior conj	16022 Dec 24 04:25	18°♊59'14	1°33'40
minimum elong	16022 Jan 08 16:50	4°♋21'37	1°38'39	minimum elong	16022 Dec 24 03:11	18°♊52'21	1°34'20
max. Earth dist.	16022 Jan 09 03:23	5°♋20'42	1.31122 AU		16022 Dec 29 03:04	0°♋	
evening rise	16022 Jan 15 13:58	19°♋28'31		evening rise	16022 Dec 30 21:22	3°♋50'21	
	16022 Jan 20 17:39	0°♌		desc. node	16023 Jan 12 16:34	28°♋31'11	
desc. node	16022 Jan 25 19:46	9°♌28'50			16023 Jan 13 14:05	0°♌	
	16022 Feb 08 06:58	0°♍		evening max el	16023 Jan 28 10:55	19°♌23'11	26°13'01
evening max el	16022 Feb 15 12:28	8°♍04'20	27°11'49	retrograde	16023 Feb 11 10:12	26°♌29'12	
retrograde	16022 Mar 01 13:17	15°♍22'54		evening set	16023 Feb 17 15:22	24°♌57'25	
evening set	16022 Mar 08 05:20	13°♍26'10		min. Earth dist.	16023 Feb 22 00:09	22°♌19'49	0.57885 AU
min. Earth dist.	16022 Mar 12 02:50	10°♍42'32	0.60077 AU	inferior conj	16023 Feb 25 01:52	20°♌06'53	-3°44'18
inferior conj	16022 Mar 15 07:59	8°♍01'39	-2°13'44	minimum elong	16023 Feb 25 10:16	19°♌51'40	3°41'16
minimum elong	16022 Mar 15 13:00	7°♍51'07	2°11'47	morning rise	16023 Mar 05 08:24	15°♌41'43	
asc. node	16022 Mar 22 06:56	3°♍28'08		direct	16023 Mar 07 07:40	15°♌28'55	
morning rise	16022 Mar 23 00:10	3°♍14'54		asc. node	16023 Mar 09 04:18	15°♌40'51	
direct	16022 Mar 25 01:04	2°♍58'32		morning max el	16023 Mar 15 17:22	19°♌37'21	18°36'02
morning max el	16022 Apr 01 09:05	6°♍38'11	18°01'20		16023 Mar 23 09:38	0°♍	
	16022 Apr 16 08:05	0°♌		morning set	16023 Mar 31 17:07	15°♍15'39	
morning set	16022 Apr 16 22:49	1°♌07'54			16023 Apr 08 09:39	0°♌	
desc. node	16022 Apr 23 21:13	13°♌49'45		superior conj	16023 Apr 09 16:24	2°♌23'43	0°08'55
superior conj	16022 Apr 27 03:30	19°♌38'28	-0°26'38	minimum elong	16023 Apr 09 17:00	2°♌26'29	0°08'29
minimum elong	16022 Apr 27 01:14	19°♌28'28	0°26'47	behind sun begin	16023 Apr 09 11:00	1°♌58'34	
	16022 May 03 03:58	0°♍		behind sun end	16023 Apr 09 23:00	2°♌54'20	
max. Earth dist.	16022 May 04 17:00	2°♍34'43	1.42310 AU	desc. node	16023 Apr 10 17:56	4°♌21'52	
evening rise	16022 May 10 04:28	11°♍29'35		max. Earth dist.	16023 Apr 17 01:31	15°♌40'12	1.40134 AU
	16022 May 22 06:29	0°♎		evening rise	16023 Apr 21 03:59	22°♌39'30	
evening max el	16022 Jun 12 05:51	27°♎20'38	22°25'35		16023 Apr 25 15:38	0°♍	
	16022 Jun 15 04:16	0°♏			16023 May 16 04:59	0°♎	
asc. node	16022 Jun 18 04:58	2°♏01'16		evening max el	16023 May 25 20:23	11°♎15'34	23°47'04
retrograde	16022 Jun 22 00:18	3°♏03'43		asc. node	16023 Jun 05 01:59	17°♎38'32	
evening set	16022 Jun 26 20:45	1°♏01'23		retrograde	16023 Jun 05 19:03	17°♎40'42	
	16022 Jun 27 22:43	30°♋♎		evening set	16023 Jun 11 03:11	15°♎24'21	
inferior conj	16022 Jul 02 03:12	24°♎41'05	3°03'57	min. Earth dist.	16023 Jun 15 20:08	9°♎53'55	0.68932 AU
minimum elong	16022 Jul 02 02:20	24°♎44'04	3°03'09	inferior conj	16023 Jun 16 12:45	8°♎57'08	2°48'49
min. Earth dist.	16022 Jul 01 23:38	24°♎53'30	0.69147 AU	minimum elong	16023 Jun 16 11:07	9°♎02'42	2°47'47
morning rise	16022 Jul 07 07:46	18°♎28'01		morning rise	16023 Jun 21 19:04	2°♎52'40	
direct	16022 Jul 11 22:56	16°♎32'06		direct	16023 Jun 25 22:10	1°♎16'26	
desc. node	16022 Jul 20 20:39	21°♎38'42		morning max el	16023 Jul 03 21:13	5°♎46'39	20°25'12
morning max el	16022 Jul 21 01:12	21°♎50'00	21°42'53	desc. node	16023 Jul 07 17:52	10°♎03'32	
	16022 Jul 28 01:40	0°♏			16023 Jul 22 03:14	0°♏	
	16022 Aug 17 21:10	0°♎		morning set	16023 Aug 01 13:41	15°♏47'04	
morning set	16022 Aug 22 03:28	6°♎40'31		max. Earth dist.	16023 Aug 10 17:13	0°♎08'21	1.44074 AU
max. Earth dist.	16022 Aug 28 06:39	16°♎35'20	1.42180 AU		16023 Aug 10 15:08	0°♎	
superior conj	16022 Sep 04 21:55	29°♎30'44	-1°15'14	superior conj	16023 Aug 16 22:17	10°♎13'30	-1°47'59

minimum elong	16023 Aug 17 06:09	10° \mathbb{M} 45'55	1°47'34		16024 Jul 14 04:24	0° \mathcal{Q}	
	16023 Aug 28 14:01	0° $\underline{\mathcal{A}}$		max. Earth dist.	16024 Jul 23 09:07	14° \mathcal{Q} 18'31	1.45376 AU
evening rise	16023 Aug 29 13:27	1° $\underline{\mathcal{A}}$ 41'40					
asc. node	16023 Sep 01 02:31	6° $\underline{\mathcal{A}}$ 06'53		superior conj	16024 Jul 26 23:47	20° \mathcal{Q} 00'21	-2°09'36
evening max el	16023 Sep 15 10:25	27° $\underline{\mathcal{A}}$ 42'26	18°01'25	minimum elong	16024 Jul 27 04:47	20° \mathcal{Q} 20'09	2°09'57
	16023 Sep 18 07:26	0° \mathbb{M}			16024 Aug 02 05:38	0° \mathbb{M}	
retrograde	16023 Sep 21 22:43	1° \mathbb{M} 05'22		evening rise	16024 Aug 10 09:25	13° \mathbb{M} 20'45	
evening set	16023 Sep 24 11:02	0° \mathbb{M} 34'24		asc. node	16024 Aug 17 23:11	25° \mathbb{M} 47'50	
	16023 Sep 25 15:05	30° $\mathcal{R}\underline{\mathcal{A}}$			16024 Aug 20 14:39	0° $\underline{\mathcal{A}}$	
inferior conj	16023 Oct 01 00:22	25° $\underline{\mathcal{A}}$ 25'28	0°47'55	evening max el	16024 Aug 29 01:12	11° $\underline{\mathcal{A}}$ 15'18	18°12'50
minimum elong	16023 Oct 01 01:44	25° $\underline{\mathcal{A}}$ 22'00	0°47'40	retrograde	16024 Sep 04 09:56	14° $\underline{\mathcal{A}}$ 37'13	
desc. node	16023 Oct 03 15:02	22° $\underline{\mathcal{A}}$ 46'30		evening set	16024 Sep 07 06:54	13° $\underline{\mathcal{A}}$ 52'34	
min. Earth dist.	16023 Oct 03 22:51	22° $\underline{\mathcal{A}}$ 27'22	0.61910 AU	inferior conj	16024 Sep 13 07:24	8° $\underline{\mathcal{A}}$ 27'05	1°46'43
morning rise	16023 Oct 07 13:47	19° $\underline{\mathcal{A}}$ 22'39		minimum elong	16024 Sep 13 09:41	8° $\underline{\mathcal{A}}$ 20'37	1°46'03
direct	16023 Oct 14 06:11	17° $\underline{\mathcal{A}}$ 02'08		min. Earth dist.	16024 Sep 15 18:11	5° $\underline{\mathcal{A}}$ 40'43	0.64081 AU
morning max el	16023 Oct 28 09:31	24° $\underline{\mathcal{A}}$ 58'43	27°58'53	morning rise	16024 Sep 19 10:39	2° $\underline{\mathcal{A}}$ 08'35	
	16023 Nov 02 00:10	0° \mathbb{M}		desc. node	16024 Sep 19 12:24	2° $\underline{\mathcal{A}}$ 05'12	
	16023 Nov 22 01:38	0° \mathcal{A}			16024 Sep 23 08:01	30° $\mathcal{R}\mathbb{M}$	
asc. node	16023 Nov 28 03:31	11° \mathcal{A} 25'48		direct	16024 Sep 26 00:43	29° \mathbb{M} 35'03	
morning set	16023 Dec 01 04:45	17° \mathcal{A} 35'08			16024 Sep 28 20:24	0° $\underline{\mathcal{A}}$	
max. Earth dist.	16023 Dec 06 15:46	29° \mathcal{A} 12'41	1.31485 AU	morning max el	16024 Oct 09 19:29	7° $\underline{\mathcal{A}}$ 33'31	27°35'42
	16023 Dec 07 00:25	0° \mathcal{Z}			16024 Oct 27 03:42	0° \mathbb{M}	
					16024 Nov 13 07:25	0° \mathcal{A}	
superior conj	16023 Dec 08 14:11	3° \mathcal{Z} 28'04	1°23'18	morning set	16024 Nov 13 20:50	1° \mathcal{A} 06'25	
minimum elong	16023 Dec 08 12:11	3° \mathcal{Z} 17'01	1°23'52	asc. node	16024 Nov 14 00:23	1° \mathcal{A} 24'05	
evening rise	16023 Dec 15 07:25	18° \mathcal{Z} 17'33		max. Earth dist.	16024 Nov 18 13:36	10° \mathcal{A} 43'33	1.32514 AU
	16023 Dec 20 22:38	0° \approx					
desc. node	16023 Dec 30 13:25	16° \approx 50'22		superior conj	16024 Nov 21 20:18	17° \mathcal{A} 43'27	1°06'51
evening max el	16024 Jan 10 00:52	29° \approx 51'15	24°45'04	minimum elong	16024 Nov 21 17:57	17° \mathcal{A} 30'43	1°07'13
	16024 Jan 10 04:33	0° \mathcal{H}			16024 Nov 27 11:40	0° \mathcal{Z}	
retrograde	16024 Jan 23 18:37	6° \mathcal{H} 43'12		evening rise	16024 Nov 28 18:13	2° \mathcal{Z} 44'52	
evening set	16024 Jan 29 03:42	5° \mathcal{H} 39'06			16024 Dec 13 09:58	0° \approx	
min. Earth dist.	16024 Feb 03 12:50	2° \mathcal{H} 51'24	0.56017 AU	desc. node	16024 Dec 16 10:20	4° \approx 10'03	
inferior conj	16024 Feb 05 22:36	1° \mathcal{H} 20'37	-5°06'57	evening max el	16024 Dec 21 10:14	9° \approx 48'38	23°02'21
minimum elong	16024 Feb 06 07:41	1° \mathcal{H} 06'20	5°04'27	retrograde	16025 Jan 03 13:59	16° \approx 19'19	
	16024 Feb 08 03:04	30° $\mathcal{R}\approx$		evening set	16025 Jan 07 18:01	15° \approx 41'36	
morning rise	16024 Feb 14 13:58	27° \approx 16'30		min. Earth dist.	16025 Jan 14 20:10	12° \approx 24'22	0.54771 AU
direct	16024 Feb 16 18:39	27° \approx 03'19		inferior conj	16025 Jan 15 23:57	11° \approx 44'39	-5°57'02
asc. node	16024 Feb 24 01:40	29° \approx 40'16		minimum elong	16025 Jan 16 03:30	11° \approx 39'33	5°56'10
	16024 Feb 24 12:15	0° \mathcal{H}		morning rise	16025 Jan 24 14:19	7° \approx 54'40	
morning max el	16024 Feb 26 14:54	1° \mathcal{H} 50'23	19°32'53	direct	16025 Jan 27 11:08	7° \approx 35'23	
morning set	16024 Mar 14 19:50	29° \mathcal{H} 44'07		morning max el	16025 Feb 07 22:02	13° \approx 07'09	20°52'59
	16024 Mar 14 23:00	0° \mathcal{Y}		asc. node	16025 Feb 09 22:59	15° \approx 15'08	
					16025 Feb 19 20:28	0° \mathcal{H}	
superior conj	16024 Mar 22 21:16	15° \mathcal{Y} 51'32	0°39'16	morning set	16025 Feb 27 03:52	14° \mathcal{H} 23'24	
minimum elong	16024 Mar 22 23:24	16° \mathcal{Y} 01'57	0°38'46				
desc. node	16024 Mar 27 14:37	24° \mathcal{Y} 54'09		superior conj	16025 Mar 06 13:54	29° \mathcal{H} 49'18	1°03'27
max. Earth dist.	16024 Mar 29 07:45	28° \mathcal{Y} 04'32	1.37834 AU	minimum elong	16025 Mar 06 16:27	0° \mathcal{Y} 02'22	1°03'08
	16024 Mar 30 09:04	0° \mathcal{B}			16025 Mar 06 15:59	0° \mathcal{Y}	
evening rise	16024 Apr 02 00:12	4° \mathcal{B} 41'59		max. Earth dist.	16025 Mar 11 15:57	9° \mathcal{Y} 59'57	1.35654 AU
	16024 Apr 17 15:56	0° \mathbb{I}		desc. node	16025 Mar 14 11:16	15° \mathcal{Y} 22'09	
evening max el	16024 May 07 09:46	25° \mathbb{I} 10'15	25°06'00	evening rise	16025 Mar 15 14:09	17° \mathcal{Y} 27'44	
	16024 May 13 05:31	0° \mathcal{E}			16025 Mar 22 15:52	0° \mathcal{B}	
retrograde	16024 May 19 09:59	2° \mathcal{E} 09'28			16025 Apr 11 23:00	0° \mathbb{I}	
asc. node	16024 May 21 23:04	1° \mathcal{E} 42'28		evening max el	16025 Apr 19 23:18	9° \mathbb{I} 00'42	26°15'13
	16024 May 24 21:10	30° $\mathcal{R}\mathbb{I}$		retrograde	16025 May 02 20:05	16° \mathbb{I} 22'08	
evening set	16024 May 25 05:27	29° \mathbb{I} 42'45		asc. node	16025 May 08 20:13	14° \mathbb{I} 01'22	
min. Earth dist.	16024 May 29 14:22	24° \mathbb{I} 49'18	0.68234 AU	evening set	16025 May 09 01:46	13° \mathbb{I} 50'06	
inferior conj	16024 May 30 20:01	23° \mathbb{I} 12'02	2°23'03	min. Earth dist.	16025 May 13 04:17	9° \mathbb{I} 32'14	0.67068 AU
minimum elong	16024 May 30 17:55	23° \mathbb{I} 18'57	2°21'47	inferior conj	16025 May 14 22:55	7° \mathbb{I} 20'51	1°45'52
morning rise	16024 Jun 05 06:43	17° \mathbb{I} 17'13		minimum elong	16025 May 14 20:48	7° \mathbb{I} 27'23	1°44'32
direct	16024 Jun 08 22:20	16° \mathbb{I} 00'43		morning rise	16025 May 20 16:43	1° \mathbb{I} 36'56	
morning max el	16024 Jun 16 00:28	19° \mathbb{I} 53'47	19°20'57	direct	16025 May 23 21:42	0° \mathbb{I} 38'42	
desc. node	16024 Jun 23 15:00	29° \mathbb{I} 09'52		morning max el	16025 May 30 10:29	4° \mathbb{I} 07'15	18°32'38
	16024 Jun 24 05:25	0° \mathcal{E}		desc. node	16025 Jun 10 12:03	18° \mathbb{I} 46'34	
greatest brilliancy	16024 Jun 28 16:44	6° \mathcal{E} 26'51	-0.7m		16025 Jun 17 17:45	0° \mathcal{E}	
morning set	16024 Jul 10 18:00	24° \mathcal{E} 42'41		morning set	16025 Jun 20 12:30	4° \mathcal{E} 21'55	

superior conj	16025 Jul 06 10:34	29° \mathfrak{D} 15'10	-2°13'13	superior conj	16026 Jun 15 22:20	8° \mathfrak{D} 38'16	-1°56'58
minimum elong	16025 Jul 06 08:05	29° \mathfrak{D} 05'27	2°13'52	minimum elong	16026 Jun 15 14:13	8° \mathfrak{D} 06'17	1°57'09
max. Earth dist.	16025 Jul 06 04:16	28° \mathfrak{D} 50'37	1.45971 AU	max. Earth dist.	16026 Jun 19 00:45	13° \mathfrak{D} 30'14	1.45816 AU
	16025 Jul 06 22:04	0° \mathfrak{Q}			16026 Jun 29 16:01	0° \mathfrak{Q}	
evening rise	16025 Jul 22 04:26	23° \mathfrak{Q} 56'53		evening rise	16026 Jul 02 01:02	3° \mathfrak{Q} 39'24	
	16025 Jul 26 00:18	0° \mathfrak{P}		greatest brilliancy	16026 Jul 15 02:36	23° \mathfrak{Q} 28'41	-0.7m
greatest brilliancy	16025 Jul 30 04:22	6° \mathfrak{P} 33'30	-0.8m		16026 Jul 19 15:39	0° \mathfrak{P}	
asc. node	16025 Aug 04 19:52	15° \mathfrak{P} 09'12		asc. node	16026 Jul 22 16:37	4° \mathfrak{P} 03'10	
evening max el	16025 Aug 12 13:55	25° \mathfrak{P} 01'34	18°41'46	evening max el	16026 Jul 26 22:09	8° \mathfrak{P} 54'09	19°27'17
retrograde	16025 Aug 19 03:51	28° \mathfrak{P} 35'23		retrograde	16026 Aug 03 01:28	12° \mathfrak{P} 52'23	
evening set	16025 Aug 22 10:08	27° \mathfrak{P} 34'38		evening set	16026 Aug 06 17:41	11° \mathfrak{P} 34'05	
inferior conj	16025 Aug 28 01:17	21° \mathfrak{P} 54'37	2°27'44	inferior conj	16026 Aug 12 02:47	5° \mathfrak{P} 40'57	2°53'36
minimum elong	16025 Aug 28 03:28	21° \mathfrak{P} 47'51	2°27'03	minimum elong	16026 Aug 12 04:19	5° \mathfrak{P} 35'54	2°52'59
min. Earth dist.	16025 Aug 29 22:26	19° \mathfrak{P} 35'03	0.65966 AU	min. Earth dist.	16026 Aug 13 09:50	3° \mathfrak{P} 58'37	0.67459 AU
morning rise	16025 Sep 02 19:45	15° \mathfrak{P} 29'05			16026 Aug 16 18:59	30° \mathfrak{R} \mathfrak{Q}	
desc. node	16025 Sep 06 09:46	13° \mathfrak{P} 19'46		morning rise	16026 Aug 17 14:23	29° \mathfrak{Q} 14'33	
direct	16025 Sep 09 03:11	12° \mathfrak{P} 51'25		direct	16026 Aug 23 12:10	26° \mathfrak{Q} 41'19	
morning max el	16025 Sep 22 06:51	20° \mathfrak{P} 37'50	26°42'14	desc. node	16026 Aug 24 07:09	26° \mathfrak{Q} 43'46	
	16025 Sep 30 09:16	0° \mathfrak{L}			16026 Aug 31 06:49	0° \mathfrak{P}	
	16025 Oct 20 06:41	0° \mathfrak{M}		morning max el	16026 Sep 04 17:58	4° \mathfrak{P} 00'11	25°27'30
morning set	16025 Oct 28 01:43	14° \mathfrak{M} 06'06			16026 Sep 24 16:30	0° \mathfrak{L}	
asc. node	16025 Oct 31 21:12	21° \mathfrak{M} 30'58		morning set	16026 Oct 10 15:44	26° \mathfrak{L} 25'08	
max. Earth dist.	16025 Nov 01 01:55	21° \mathfrak{M} 54'27	1.34096 AU		16026 Oct 12 14:49	0° \mathfrak{M}	
	16025 Nov 05 01:18	0° \mathfrak{X}		max. Earth dist.	16026 Oct 14 05:14	2° \mathfrak{M} 58'47	1.36154 AU
				asc. node	16026 Oct 18 17:58	11° \mathfrak{M} 41'47	
superior conj	16025 Nov 05 20:29	1° \mathfrak{X} 39'51	0°44'16	superior conj	16026 Oct 20 11:53	15° \mathfrak{M} 09'41	0°15'48
minimum elong	16025 Nov 05 18:24	1° \mathfrak{X} 28'56	0°44'31	minimum elong	16026 Oct 20 10:55	15° \mathfrak{M} 04'55	0°16'06
evening rise	16025 Nov 13 03:58	17° \mathfrak{X} 08'19		behind sun begin	16026 Oct 20 10:34	15° \mathfrak{M} 03'10	
	16025 Nov 19 12:35	0° \mathfrak{Z}		behind sun end	16026 Oct 20 11:16	15° \mathfrak{M} 06'39	
evening max el	16025 Dec 03 00:27	19° \mathfrak{Z} 53'16	21°23'01		16026 Oct 27 18:29	0° \mathfrak{X}	
desc. node	16025 Dec 03 07:20	20° \mathfrak{Z} 10'01		evening rise	16026 Oct 28 10:32	1° \mathfrak{X} 22'15	
retrograde	16025 Dec 15 00:09	25° \mathfrak{Z} 48'56			16026 Nov 14 13:14	0° \mathfrak{Z}	
evening set	16025 Dec 17 21:58	25° \mathfrak{Z} 29'28		evening max el	16026 Nov 15 03:23	0° \mathfrak{Z} 36'17	20°00'24
inferior conj	16025 Dec 26 15:02	21° \mathfrak{Z} 39'11	-5°50'31	desc. node	16026 Nov 20 04:25	4° \mathfrak{Z} 25'45	
minimum elong	16025 Dec 26 09:18	21° \mathfrak{Z} 47'14	5°49'08	retrograde	16026 Nov 25 12:52	5° \mathfrak{Z} 47'13	
min. Earth dist.	16025 Dec 27 01:33	21° \mathfrak{Z} 24'23	0.54392 AU	evening set	16026 Nov 27 15:31	5° \mathfrak{Z} 35'24	
morning rise	16026 Jan 03 21:02	17° \mathfrak{Z} 49'30		inferior conj	16026 Dec 06 10:12	1° \mathfrak{Z} 36'57	-4°45'40
direct	16026 Jan 07 18:59	17° \mathfrak{Z} 16'16		minimum elong	16026 Dec 06 00:10	1° \mathfrak{Z} 52'08	4°42'10
morning max el	16026 Jan 20 14:44	23° \mathfrak{Z} 30'11	22°33'27	min. Earth dist.	16026 Dec 08 07:57	0° \mathfrak{Z} 27'42	0.54953 AU
	16026 Jan 26 07:08	0° \mathfrak{A}			16026 Dec 09 02:44	30° \mathfrak{R} \mathfrak{X}	
asc. node	16026 Jan 27 20:17	2° \mathfrak{A} 07'54		morning rise	16026 Dec 14 07:47	27° \mathfrak{X} 28'58	
morning set	16026 Feb 11 14:52	29° \mathfrak{A} 07'02		direct	16026 Dec 19 06:50	26° \mathfrak{X} 35'20	
	16026 Feb 12 00:50	0° \mathfrak{H}			16026 Dec 28 21:07	0° \mathfrak{Z}	
superior conj	16026 Feb 18 14:54	14° \mathfrak{H} 07'51	1°21'10	morning max el	16027 Jan 01 23:28	3° \mathfrak{Z} 22'45	24°23'33
minimum elong	16026 Feb 18 17:06	14° \mathfrak{H} 19'35	1°21'12	asc. node	16027 Jan 14 17:31	20° \mathfrak{Z} 00'43	
max. Earth dist.	16026 Feb 22 06:46	21° \mathfrak{H} 48'29	1.33793 AU		16027 Jan 20 08:23	0° \mathfrak{A}	
	16026 Feb 26 08:35	0° \mathfrak{Y}		morning set	16027 Jan 27 02:52	13° \mathfrak{A} 49'41	
evening rise	16026 Feb 26 18:21	0° \mathfrak{Y} 47'41		superior conj	16027 Feb 02 21:35	28° \mathfrak{A} 39'47	1°32'32
desc. node	16026 Mar 01 07:55	5° \mathfrak{Y} 42'03		minimum elong	16027 Feb 02 22:59	28° \mathfrak{A} 47'27	1°32'54
	16026 Mar 15 16:35	0° \mathfrak{B}			16027 Feb 03 12:15	0° \mathfrak{H}	
evening max el	16026 Apr 02 13:05	22° \mathfrak{B} 39'09	27°07'00	max. Earth dist.	16027 Feb 05 05:30	3° \mathfrak{H} 43'43	1.32361 AU
	16026 Apr 14 05:06	0° \mathfrak{I}		evening rise	16027 Feb 10 09:30	14° \mathfrak{H} 33'36	
retrograde	16026 Apr 16 00:14	0° \mathfrak{I} 10'09		desc. node	16027 Feb 16 04:34	25° \mathfrak{H} 49'23	
	16026 Apr 17 18:04	30° \mathfrak{R} \mathfrak{B}			16027 Feb 18 11:36	0° \mathfrak{Y}	
evening set	16026 Apr 22 14:08	27° \mathfrak{B} 38'54			16027 Mar 10 14:06	0° \mathfrak{B}	
asc. node	16026 Apr 25 17:26	24° \mathfrak{B} 43'59		evening max el	16027 Mar 16 01:40	5° \mathfrak{B} 54'00	27°33'58
min. Earth dist.	16026 Apr 26 11:48	23° \mathfrak{B} 54'15	0.65485 AU	retrograde	16027 Mar 29 21:19	13° \mathfrak{B} 24'49	
inferior conj	16026 Apr 28 19:05	21° \mathfrak{B} 17'37	0°56'10	evening set	16027 Apr 05 16:18	11° \mathfrak{B} 01'06	
minimum elong	16026 Apr 28 17:40	21° \mathfrak{B} 21'41	0°55'06	min. Earth dist.	16027 Apr 09 11:00	7° \mathfrak{B} 45'53	0.63553 AU
morning rise	16026 May 04 22:48	15° \mathfrak{B} 46'24		inferior conj	16027 Apr 12 05:45	4° \mathfrak{B} 55'39	-0°07'06
direct	16026 May 07 18:12	15° \mathfrak{B} 03'59		minimum elong	16027 Apr 12 05:59	4° \mathfrak{B} 55'03	0°07'23
morning max el	16026 May 14 01:31	18° \mathfrak{B} 20'28	18°01'10	transit middle	16027 Apr 12 05:59	4° \mathfrak{B} 55'03	0°07'23
	16026 May 22 21:12	0° \mathfrak{I}		transit begin	16027 Apr 12 03:11	5° \mathfrak{B} 02'15	
desc. node	16026 May 28 09:00	8° \mathfrak{I} 45'05		transit end	16027 Apr 12 08:47	4° \mathfrak{B} 47'53	
morning set	16026 Jun 01 09:11	15° \mathfrak{I} 16'56		asc. node	16027 Apr 12 14:44	4° \mathfrak{B} 32'43	
	16026 Jun 10 11:40	0° \mathfrak{D}					

	16027 Apr 18 04:06	30° Υ	direct	16028 Apr 03 14:40	12° Υ 47'01	
morning rise	16027 Apr 18 22:08	29° Υ 39'35	morning max el	16028 Apr 10 11:57	16° Υ 14'36	17°50'45
direct	16027 Apr 21 09:04	29° Υ 09'57		16028 Apr 20 04:41	0° \mathcal{B}	
	16027 Apr 24 13:24	0° \mathcal{B}	morning set	16028 Apr 26 04:35	10° \mathcal{B} 35'50	
morning max el	16027 Apr 27 19:04	2° \mathcal{B} 26'13	desc. node	16028 May 01 02:41	19° \mathcal{B} 23'36	
morning set	16027 May 14 08:20	27° \mathcal{B} 27'19				
desc. node	16027 May 15 05:53	28° \mathcal{B} 59'20	superior conj	16028 May 07 05:43	0° Π 03'39	-0°48'32
	16027 May 15 20:06	0° Π	minimum elong	16028 May 07 01:20	29° \mathcal{B} 44'53	0°48'28
				16028 May 07 04:52	0° Π	
superior conj	16027 May 27 02:27	18° Π 49'07	max. Earth dist.	16028 May 14 11:26	12° Π 07'29	1.43407 AU
minimum elong	16027 May 26 18:36	18° Π 17'06	evening rise	16028 May 21 04:48	22° Π 50'36	
max. Earth dist.	16027 Jun 01 20:02	28° Π 01'47		16028 May 25 20:06	0° \mathcal{E}	
	16027 Jun 03 01:55	0° \mathcal{E}		16028 Jun 15 23:46	0° Ω	
evening rise	16027 Jun 11 11:40	13° \mathcal{E} 03'36	evening max el	16028 Jun 21 20:53	6° Ω 42'05	21°40'11
	16027 Jun 22 18:11	0° Ω	asc. node	16028 Jun 25 10:21	9° Ω 48'19	
asc. node	16027 Jul 09 13:27	22° Ω 20'29	retrograde	16028 Jun 30 23:07	11° Ω 59'48	
evening max el	16027 Jul 10 00:30	22° Ω 48'30	evening set	16028 Jul 05 12:58	10° Ω 06'26	
retrograde	16027 Jul 18 00:30	27° Ω 22'38	inferior conj	16028 Jul 10 18:33	3° Ω 50'55	3°07'57
evening set	16027 Jul 22 03:16	25° Ω 46'23	minimum elong	16028 Jul 10 18:13	3° Ω 52'05	3°07'15
inferior conj	16027 Jul 27 09:18	19° Ω 41'19	min. Earth dist.	16028 Jul 10 22:26	3° Ω 37'21	0.69045 AU
minimum elong	16027 Jul 27 09:56	19° Ω 39'10		16028 Jul 13 15:40	30° \mathcal{R} \mathcal{E}	
min. Earth dist.	16027 Jul 28 02:32	18° Ω 42'11	morning rise	16028 Jul 15 23:17	27° \mathcal{E} 33'35	
morning rise	16027 Aug 01 16:17	13° Ω 18'10	direct	16028 Jul 20 21:21	25° \mathcal{E} 27'25	
direct	16027 Aug 07 02:35	10° Ω 56'06	desc. node	16028 Jul 28 01:48	28° \mathcal{E} 49'00	
desc. node	16027 Aug 11 04:30	12° Ω 01'46		16028 Jul 29 10:03	0° Ω	
morning max el	16027 Aug 18 04:55	17° Ω 33'47	morning max el	16028 Jul 30 17:17	1° Ω 15'29	22°32'03
	16027 Aug 28 14:32	0° \mathcal{H}		16028 Aug 21 11:10	0° \mathcal{H}	
	16027 Sep 17 17:13	0° \mathcal{A}	morning set	16028 Sep 02 07:02	18° \mathcal{H} 26'27	
morning set	16027 Sep 22 10:45	7° \mathcal{A} 54'40	max. Earth dist.	16028 Sep 07 04:51	26° \mathcal{H} 33'59	1.40892 AU
max. Earth dist.	16027 Sep 26 04:14	14° \mathcal{A} 24'06		16028 Sep 09 05:19	0° \mathcal{A}	
superior conj	16027 Oct 03 15:00	28° \mathcal{A} 04'46	superior conj	16028 Sep 15 01:40	10° \mathcal{A} 15'40	-0°54'13
minimum elong	16027 Oct 03 16:13	28° \mathcal{A} 10'35	minimum elong	16028 Sep 15 05:59	10° \mathcal{A} 35'00	0°53'27
	16027 Oct 04 15:10	0° \mathcal{M}	asc. node	16028 Sep 21 11:24	22° \mathcal{A} 01'14	
asc. node	16027 Oct 05 14:41	1° \mathcal{M} 53'01	evening rise	16028 Sep 25 03:34	28° \mathcal{A} 55'37	
evening rise	16027 Oct 12 11:29	15° \mathcal{M} 20'42		16028 Sep 25 17:15	0° \mathcal{M}	
	16027 Oct 20 05:38	0° \mathcal{X}	evening max el	16028 Oct 11 01:18	24° \mathcal{M} 29'14	18°21'14
evening max el	16027 Oct 28 20:38	12° \mathcal{X} 09'24	retrograde	16028 Oct 18 15:28	28° \mathcal{M} 21'02	
retrograde	16027 Nov 06 16:32	16° \mathcal{X} 36'20	evening set	16028 Oct 20 16:02	28° \mathcal{M} 05'15	
desc. node	16027 Nov 07 01:36	16° \mathcal{X} 35'52	desc. node	16028 Oct 23 22:51	26° \mathcal{M} 39'20	
evening set	16027 Nov 08 13:48	16° \mathcal{X} 24'57	inferior conj	16028 Oct 28 07:32	23° \mathcal{M} 27'53	-1°24'14
inferior conj	16027 Nov 16 21:59	12° \mathcal{X} 08'35	minimum elong	16028 Oct 28 04:18	23° \mathcal{M} 34'27	1°22'21
minimum elong	16027 Nov 16 14:20	12° \mathcal{X} 21'54	min. Earth dist.	16028 Oct 31 13:29	20° \mathcal{M} 50'01	0.58325 AU
min. Earth dist.	16027 Nov 19 18:56	10° \mathcal{X} 08'56	morning rise	16028 Nov 04 13:04	18° \mathcal{M} 09'06	
morning rise	16027 Nov 24 12:08	7° \mathcal{X} 26'49	direct	16028 Nov 10 21:26	16° \mathcal{M} 23'35	
direct	16027 Nov 30 06:52	6° \mathcal{X} 08'19	morning max el	16028 Nov 25 04:20	24° \mathcal{M} 00'00	27°18'53
morning max el	16027 Dec 14 10:06	13° \mathcal{X} 22'43		16028 Nov 30 15:27	0° \mathcal{X}	
	16027 Dec 27 11:10	0° \mathcal{Z}	asc. node	16028 Dec 18 11:49	27° \mathcal{X} 49'04	
asc. node	16028 Jan 01 14:42	8° \mathcal{Z} 38'20		16028 Dec 19 15:16	0° \mathcal{Z}	
morning set	16028 Jan 11 14:01	28° \mathcal{Z} 25'40	morning set	16028 Dec 25 22:34	12° \mathcal{Z} 50'28	
	16028 Jan 12 07:27	0° \approx				
			superior conj	16029 Jan 01 19:04	27° \mathcal{Z} 57'10	1°36'53
superior conj	16028 Jan 18 07:37	13° \approx 17'59	minimum elong	16029 Jan 01 18:24	27° \mathcal{Z} 53'24	1°37'35
minimum elong	16028 Jan 18 08:00	13° \approx 20'06	max. Earth dist.	16029 Jan 01 17:47	27° \mathcal{Z} 49'57	1.31012 AU
max. Earth dist.	16028 Jan 19 10:13	15° \approx 45'50		16029 Jan 02 17:00	0° \approx	
evening rise	16028 Jan 25 08:45	28° \approx 37'49	evening rise	16029 Jan 08 13:48	12° \approx 55'02	
	16028 Jan 26 00:30	0° \mathcal{H}		16029 Jan 17 02:56	0° \mathcal{H}	
desc. node	16028 Feb 03 01:16	15° \mathcal{H} 37'44	desc. node	16029 Jan 19 22:02	4° \mathcal{H} 59'50	
	16028 Feb 11 16:26	0° Υ		16029 Feb 07 05:04	0° Υ	
evening max el	16028 Feb 26 10:36	18° Υ 31'03	evening max el	16029 Feb 07 13:23	0° Υ 19'56	26°50'48
retrograde	16028 Mar 11 10:22	25° Υ 55'34	retrograde	16029 Feb 21 14:04	7° Υ 34'11	
evening set	16028 Mar 18 05:30	23° Υ 46'38	evening set	16029 Feb 28 02:30	5° Υ 47'10	
min. Earth dist.	16028 Mar 22 00:17	20° Υ 54'28	min. Earth dist.	16029 Mar 04 03:22	3° Υ 07'54	0.59123 AU
inferior conj	16028 Mar 25 03:28	18° Υ 05'07	inferior conj	16029 Mar 07 08:31	0° Υ 36'33	-2°52'00
minimum elong	16028 Mar 25 06:29	17° Υ 58'18	minimum elong	16029 Mar 07 15:05	0° Υ 23'37	2°49'27
asc. node	16028 Mar 29 12:05	14° Υ 33'28		16029 Mar 08 03:11	30° \mathcal{R} \mathcal{H}	
morning rise	16028 Apr 01 10:44	13° Υ 07'12	morning rise	16029 Mar 15 07:13	25° \mathcal{H} 59'11	

asc. node	16029 Mar 16 09:25	25° K 47'48		evening set	16030 Feb 09 03:39	16° K 56'52	
direct	16029 Mar 17 06:41	25° K 44'53		min. Earth dist.	16030 Feb 13 21:01	14° K 16'47	0.57032 AU
morning max el	16029 Mar 25 00:35	29° K 35'24	18°13'33	inferior conj	16030 Feb 16 17:30	12° K 20'23	-4°21'38
	16029 Mar 25 10:24	0° Y		minimum elong	16030 Feb 17 02:45	12° K 04'37	4°18'35
morning set	16029 Apr 09 16:12	24° Y 25'44		morning rise	16030 Feb 25 04:47	8° K 04'20	
	16029 Apr 12 15:15	0° B		direct	16030 Feb 27 05:02	7° K 52'02	
desc. node	16029 Apr 17 23:27	9° B 53'53		asc. node	16030 Mar 03 06:46	8° K 45'38	
				morning max el	16030 Mar 08 04:49	12° K 16'20	18°57'21
superior conj	16029 Apr 19 07:26	12° B 18'48	-0°11'03		16030 Mar 20 01:52	0° Y	
minimum elong	16029 Apr 19 06:33	12° B 14'46	0°11'21	morning set	16030 Mar 24 14:30	8° Y 43'19	
behind sun begin	16029 Apr 19 01:13	11° B 50'44					
behind sun end	16029 Apr 19 11:52	12° B 38'46		superior conj	16030 Apr 02 03:39	25° Y 23'20	0°22'31
max. Earth dist.	16029 Apr 26 21:44	25° B 34'33	1.41409 AU	minimum elong	16030 Apr 02 05:03	25° Y 30'00	0°22'00
	16029 Apr 29 13:15	0° II		desc. node	16030 Apr 04 20:10	0° B 26'27	
evening rise	16029 May 01 16:00	3° II 27'54			16030 Apr 04 14:28	0° B	
	16029 May 19 03:02	0° E		max. Earth dist.	16030 Apr 09 04:26	8° B 19'56	1.39154 AU
evening max el	16029 Jun 04 12:50	20° E 35'46	23°00'11	evening rise	16030 Apr 13 00:37	15° B 01'18	
asc. node	16029 Jun 12 07:20	26° E 10'52			16030 Apr 22 05:00	0° II	
retrograde	16029 Jun 14 19:43	26° E 38'11			16030 May 13 21:57	0° E	
evening set	16029 Jun 19 21:02	24° E 29'32		evening max el	16030 May 18 02:44	4° E 31'11	24°21'32
inferior conj	16029 Jun 25 04:32	18° E 05'42	2°58'49	retrograde	16030 May 29 12:58	11° E 12'11	
minimum elong	16029 Jun 25 03:20	18° E 09'54	2°57'56	asc. node	16030 May 30 04:20	11° E 10'27	
min. Earth dist.	16029 Jun 24 19:25	18° E 37'22	0.69107 AU	evening set	16030 Jun 04 01:53	8° E 51'12	
morning rise	16029 Jun 30 09:31	11° E 55'57		min. Earth dist.	16030 Jun 08 15:18	3° E 36'20	0.68686 AU
direct	16029 Jul 04 19:24	10° E 08'22		inferior conj	16030 Jun 09 13:21	2° E 22'00	2°39'14
morning max el	16029 Jul 13 09:41	15° E 05'40	21°08'24	minimum elong	16030 Jun 09 11:29	2° E 28'19	2°38'06
desc. node	16029 Jul 14 23:04	16° E 43'13			16030 Jun 11 08:31	30° K II	
	16029 Jul 25 08:56	0° O		morning rise	16030 Jun 14 21:10	26° II 21'14	
morning set	16029 Aug 13 03:48	27° O 58'37		direct	16030 Jun 18 19:20	24° II 53'19	
	16029 Aug 14 10:46	0° P		morning max el	16030 Jun 26 08:34	29° II 06'26	19°56'02
max. Earth dist.	16029 Aug 20 10:53	9° P 35'50	1.43037 AU		16030 Jun 27 05:37	0° E	
				desc. node	16030 Jul 01 20:15	5° E 27'11	
superior conj	16029 Aug 27 15:29	21° P 32'14	-1°30'00		16030 Jul 18 20:38	0° O	
minimum elong	16029 Aug 27 22:42	22° P 02'54	1°29'18	morning set	16030 Jul 23 09:07	6° O 53'43	
	16029 Sep 01 13:20	0° A		max. Earth dist.	16030 Aug 02 23:40	23° O 25'31	1.44706 AU
evening rise	16029 Sep 08 06:33	11° A 55'19			16030 Aug 07 02:27	0° P	
asc. node	16029 Sep 08 08:04	12° A 02'07					
	16029 Sep 18 19:09	0° M		superior conj	16030 Aug 08 05:48	1° P 50'23	-1°58'58
evening max el	16029 Sep 24 13:01	7° M 25'14	18°03'12	minimum elong	16030 Aug 08 13:10	2° P 20'10	1°58'52
retrograde	16029 Oct 01 07:44	10° M 54'34		evening rise	16030 Aug 21 15:20	24° P 07'21	
evening set	16029 Oct 03 15:22	10° M 30'11			16030 Aug 25 02:19	0° A	
inferior conj	16029 Oct 10 13:37	5° M 32'24	0°05'08	asc. node	16030 Aug 26 04:44	1° A 51'46	
minimum elong	16029 Oct 10 13:48	5° M 31'59	0°05'26	evening max el	16030 Sep 08 03:45	20° A 47'31	18°04'08
transit middle	16029 Oct 10 13:48	5° M 31'59	0°05'26	retrograde	16030 Sep 14 13:15	24° A 08'02	
transit begin	16029 Oct 10 10:42	5° M 39'17		evening set	16030 Sep 17 05:16	23° A 31'29	
transit end	16029 Oct 10 16:54	5° M 24'40		inferior conj	16030 Sep 23 12:43	18° A 15'22	1°15'07
desc. node	16029 Oct 10 20:09	5° M 16'59		minimum elong	16030 Sep 23 14:38	18° A 10'15	1°14'38
min. Earth dist.	16029 Oct 13 17:09	2° M 35'38	0.60592 AU	min. Earth dist.	16030 Sep 26 06:39	15° A 20'13	0.62864 AU
	16029 Oct 16 22:54	30° K A		desc. node	16030 Sep 27 17:29	13° A 54'42	
morning rise	16029 Oct 17 09:07	29° A 43'04		morning rise	16030 Sep 29 21:45	12° A 05'02	
direct	16029 Oct 24 00:37	27° A 33'13		direct	16030 Oct 06 13:58	9° A 37'48	
	16029 Oct 31 13:44	0° M		morning max el	16030 Oct 20 13:58	17° A 35'57	27°53'08
morning max el	16029 Nov 07 06:17	5° M 24'50	27°55'32		16030 Oct 30 23:14	0° M	
	16029 Nov 25 16:16	0° X			16030 Nov 18 11:45	0° X	
asc. node	16029 Dec 05 08:51	17° X 23'20		asc. node	16030 Nov 22 05:49	7° X 14'28	
morning set	16029 Dec 10 02:30	26° X 58'21		morning set	16030 Nov 23 23:39	10° X 44'28	
	16029 Dec 11 12:52	0° B		max. Earth dist.	16030 Nov 29 02:35	21° X 29'05	1.31859 AU
max. Earth dist.	16029 Dec 16 00:27	9° B 46'45	1.31153 AU				
				superior conj	16030 Dec 01 14:29	26° X 54'55	1°17'06
superior conj	16029 Dec 17 06:00	12° B 31'09	1°30'02	minimum elong	16030 Dec 01 12:16	26° X 42'47	1°17'34
minimum elong	16029 Dec 17 04:24	12° B 22'16	1°30'39		16030 Dec 03 00:09	0° B	
evening rise	16029 Dec 23 22:32	27° B 19'37		evening rise	16030 Dec 08 09:07	11° B 47'24	
	16029 Dec 25 04:26	0° A			16030 Dec 17 10:58	0° A	
desc. node	16030 Jan 06 18:50	23° A 45'16		desc. node	16030 Dec 24 15:42	11° A 41'03	
	16030 Jan 10 21:33	0° K		evening max el	16031 Jan 01 19:29	21° A 27'59	24°02'04
evening max el	16030 Jan 20 08:06	11° K 16'00	25°38'27	retrograde	16031 Jan 15 08:32	28° A 11'14	
retrograde	16030 Feb 03 06:09	18° K 16'45		evening set	16031 Jan 20 06:07	27° A 19'08	

min. Earth dist.	16031 Jan 26 07:04	24° \approx 21'17	0.55400 AU	evening set	16031 Dec 30 13:48	7° \approx 12'27	
inferior conj	16031 Jan 28 05:25	23° \approx 11'52	-5°33'48	min. Earth dist.	16032 Jan 07 12:50	3° \approx 37'10	0.54500 AU
minimum elong	16031 Jan 28 12:59	23° \approx 00'31	5°32'02	inferior conj	16032 Jan 08 00:56	3° \approx 20'13	-6°01'58
morning rise	16031 Feb 05 21:35	19° \approx 14'39		minimum elong	16032 Jan 08 00:31	3° \approx 20'47	6°01'17
direct	16031 Feb 08 07:57	18° \approx 59'34			16032 Jan 14 22:52	30° \approx 00'	
asc. node	16031 Feb 18 04:07	23° \approx 27'11		morning rise	16032 Jan 16 12:15	29° \approx 32'54	
morning max el	16031 Feb 18 20:25	24° \approx 05'32	20°04'05	direct	16032 Jan 19 19:19	29° \approx 08'36	
	16031 Feb 23 19:53	0° \approx			16032 Jan 24 10:39	0° \approx	
morning set	16031 Mar 08 19:49	23° \approx 17'22		morning max el	16032 Jan 31 21:04	4° \approx 58'18	21°33'38
	16031 Mar 12 02:30	0° \approx		asc. node	16032 Feb 05 01:26	9° \approx 37'46	
					16032 Feb 17 07:45	0° \approx	
superior conj	16031 Mar 16 13:57	9° \approx 04'48	0°50'19	morning set	16032 Feb 21 05:26	8° \approx 00'02	
minimum elong	16031 Mar 16 16:22	9° \approx 16'54	0°49'52				
max. Earth dist.	16031 Mar 22 11:13	20° \approx 30'54	1.36883 AU	superior conj	16032 Feb 28 10:34	23° \approx 13'00	1°11'44
desc. node	16031 Mar 22 16:48	20° \approx 57'07		minimum elong	16032 Feb 28 13:03	23° \approx 25'55	1°11'34
evening rise	16031 Mar 26 04:50	27° \approx 23'21			16032 Mar 02 17:46	0° \approx	
	16031 Mar 27 15:56	0° \approx		max. Earth dist.	16032 Mar 03 22:17	2° \approx 23'16	1.34820 AU
	16031 Apr 15 14:45	0° \approx		evening rise	16032 Mar 08 01:19	10° \approx 25'05	
evening max el	16031 Apr 30 16:17	18° \approx 25'20	25°37'10	desc. node	16032 Mar 08 13:28	11° \approx 22'24	
retrograde	16031 May 13 01:45	25° \approx 34'41			16032 Mar 19 04:30	0° \approx	
asc. node	16031 May 17 01:26	24° \approx 30'02			16032 Apr 10 02:17	0° \approx	
evening set	16031 May 19 01:47	23° \approx 05'13		evening max el	16032 Apr 12 05:59	2° \approx 11'47	26°39'40
min. Earth dist.	16031 May 23 07:53	18° \approx 27'08	0.67794 AU	retrograde	16032 Apr 25 09:17	9° \approx 38'15	
inferior conj	16031 May 24 19:00	16° \approx 34'42	2°08'44	evening set	16032 May 01 18:59	7° \approx 05'33	
minimum elong	16031 May 24 16:50	16° \approx 41'42	2°07'25	asc. node	16032 May 02 22:36	6° \approx 05'18	
morning rise	16031 May 30 08:22	10° \approx 44'18		min. Earth dist.	16032 May 05 19:12	3° \approx 02'26	0.66452 AU
direct	16031 Jun 02 19:28	9° \approx 35'36		inferior conj	16032 May 07 19:21	0° \approx 39'01	1°26'24
morning max el	16031 Jun 09 14:46	13° \approx 16'20	18°58'24	minimum elong	16032 May 07 17:26	0° \approx 44'46	1°25'07
desc. node	16031 Jun 18 17:20	24° \approx 47'14			16032 May 08 08:29	30° \approx 00'	
	16031 Jun 22 06:07	0° \approx		morning rise	16032 May 13 17:03	25° \approx 00'29	
greatest brilliancy	16031 Jun 22 19:58	0° \approx 52'03	-0.7m	direct	16032 May 16 17:54	24° \approx 09'18	
morning set	16031 Jul 02 17:12	16° \approx 01'31		morning max el	16032 May 23 03:16	27° \approx 30'49	18°17'10
	16031 Jul 11 17:32	0° \approx			16032 May 25 10:25	0° \approx	
max. Earth dist.	16031 Jul 16 17:45	7° \approx 48'30	1.45724 AU	desc. node	16032 Jun 04 14:22	14° \approx 33'55	
				morning set	16032 Jun 11 22:07	26° \approx 10'59	
superior conj	16031 Jul 18 23:25	11° \approx 18'40	-2°13'37		16032 Jun 14 07:40	0° \approx	
minimum elong	16031 Jul 19 01:31	11° \approx 26'58	2°14'12				
	16031 Jul 30 17:42	0° \approx		superior conj	16032 Jun 27 08:22	20° \approx 30'37	-2°08'34
evening rise	16031 Aug 03 00:50	5° \approx 19'22		minimum elong	16032 Jun 27 02:50	20° \approx 09'02	2°09'05
asc. node	16031 Aug 13 01:24	21° \approx 24'39		max. Earth dist.	16032 Jun 28 14:05	22° \approx 26'30	1.46001 AU
	16031 Aug 18 22:42	0° \approx			16032 Jul 03 10:35	0° \approx	
evening max el	16031 Aug 22 17:59	4° \approx 26'31	18°23'04	evening rise	16032 Jul 13 09:27	15° \approx 29'46	
retrograde	16031 Aug 29 03:45	7° \approx 51'45			16032 Jul 22 17:57	0° \approx	
evening set	16031 Sep 01 04:43	7° \approx 00'18		greatest brilliancy	16032 Jul 23 17:21	1° \approx 29'16	-0.8m
inferior conj	16031 Sep 07 00:47	1° \approx 28'13	2°06'08	asc. node	16032 Jul 29 22:05	10° \approx 34'49	
minimum elong	16031 Sep 07 03:07	1° \approx 21'18	2°05'26	evening max el	16032 Aug 05 04:56	18° \approx 15'06	18°59'10
	16031 Sep 08 06:29	30° \approx 00'		retrograde	16032 Aug 11 23:40	21° \approx 58'07	
min. Earth dist.	16031 Sep 09 05:46	28° \approx 52'01	0.64925 AU	evening set	16032 Aug 15 10:05	20° \approx 49'58	
morning rise	16031 Sep 13 00:06	25° \approx 05'59		inferior conj	16032 Aug 20 22:15	15° \approx 03'55	2°40'27
desc. node	16031 Sep 14 14:51	23° \approx 57'08		minimum elong	16032 Aug 21 00:12	14° \approx 57'40	2°39'47
direct	16031 Sep 19 11:46	22° \approx 29'56		min. Earth dist.	16032 Aug 22 13:18	12° \approx 59'21	0.66648 AU
	16031 Oct 02 15:04	0° \approx		morning rise	16032 Aug 26 13:30	8° \approx 37'13	
morning max el	16031 Oct 03 00:48	0° \approx 24'16	27°16'16	desc. node	16032 Aug 31 12:14	6° \approx 06'18	
	16031 Oct 24 23:46	0° \approx		direct	16032 Sep 01 16:58	6° \approx 00'45	
morning set	16031 Nov 07 11:23	24° \approx 03'00		morning max el	16032 Sep 14 12:24	13° \approx 37'36	26°12'35
asc. node	16031 Nov 09 02:41	27° \approx 16'51			16032 Sep 27 19:54	0° \approx	
	16031 Nov 10 11:09	0° \approx			16032 Oct 16 17:08	0° \approx	
max. Earth dist.	16031 Nov 11 20:50	2° \approx 52'03	1.33124 AU	morning set	16032 Oct 20 10:25	6° \approx 46'01	
				max. Earth dist.	16032 Oct 24 05:14	13° \approx 57'55	1.34915 AU
superior conj	16031 Nov 15 18:24	11° \approx 02'57	0°58'02	asc. node	16032 Oct 25 23:29	17° \approx 25'23	
minimum elong	16031 Nov 15 16:04	10° \approx 50'29	0°58'20				
evening rise	16031 Nov 22 19:44	26° \approx 13'57		superior conj	16032 Oct 29 15:11	24° \approx 48'09	0°32'52
	16031 Nov 24 14:30	0° \approx		minimum elong	16032 Oct 29 13:27	24° \approx 39'17	0°33'08
desc. node	16031 Dec 11 12:38	28° \approx 29'48			16032 Nov 01 03:25	0° \approx	
	16031 Dec 12 20:54	0° \approx		evening rise	16032 Nov 06 04:24	10° \approx 33'35	
evening max el	16031 Dec 14 05:42	1° \approx 23'55	22°18'42		16032 Nov 16 07:21	0° \approx	
retrograde	16031 Dec 26 22:54	7° \approx 41'20		evening max el	16032 Nov 25 00:32	11° \approx 41'07	20°45'24

desc. node	16032 Nov 27 09:41	13°♄48'18		16033 Oct 24 00:41	0°♄	
retrograde	16032 Dec 06 08:58	17°♄19'13	evening max el	16033 Nov 07 09:46	22°♄45'12	19°31'57
evening set	16032 Dec 08 20:40	17°♄04'11	desc. node	16033 Nov 14 06:48	27°♄12'26	
inferior conj	16032 Dec 17 15:56	13°♄11'39 -5°29'12	retrograde	16033 Nov 17 02:49	27°♄36'39	
minimum elong	16032 Dec 17 07:25	13°♄23'53 5°26'51	evening set	16033 Nov 19 01:34	27°♄25'49	
min. Earth dist.	16032 Dec 18 18:17	12°♄33'45 0.54510 AU	inferior conj	16033 Nov 27 17:04	23°♄20'56 -4°06'05	
morning rise	16032 Dec 25 18:07	9°♄16'28	minimum elong	16033 Nov 27 07:28	23°♄36'17 4°02'15	
direct	16032 Dec 30 02:48	8°♄35'32	min. Earth dist.	16033 Nov 30 02:37	21°♄48'59 0.55450 AU	
morning max el	16033 Jan 12 09:27	15°♄04'51 23°20'07	morning rise	16033 Dec 05 11:25	18°♄59'27	
asc. node	16033 Jan 21 22:44	26°♄57'55	direct	16033 Dec 10 19:35	17°♄55'28	
	16033 Jan 23 20:50	0°♄	morning max el	16033 Dec 24 17:59	24°♄55'58 25°08'49	
morning set	16033 Feb 04 17:06	22°♄43'53		16033 Dec 29 10:29	0°♄	
	16033 Feb 08 01:51	0°♄	asc. node	16034 Jan 08 19:59	15°♄11'06	
				16034 Jan 16 16:37	0°♄	
superior conj	16033 Feb 11 14:20	7°♄38'17 1°26'44	morning set	16034 Jan 20 04:58	7°♄23'51	
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evening rise	16033 Feb 19 10:33	23°♄56'44	minimum elong	16034 Jan 26 23:42	22°♄18'54 1°35'58	
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evening max el	16033 Mar 25 19:15	15°♄40'38 27°21'43	desc. node	16034 Feb 10 06:47	21°♄36'58	
retrograde	16033 Apr 08 10:43	23°♄13'16		16034 Feb 15 00:46	0°♄	
evening set	16033 Apr 15 03:20	20°♄44'00	evening max el	16034 Mar 08 06:34	28°♄40'45 27°36'16	
min. Earth dist.	16033 Apr 18 23:19	17°♄12'40 0.64705 AU		16034 Mar 09 16:52	0°♄	
asc. node	16033 Apr 19 19:52	16°♄17'39	retrograde	16034 Mar 22 04:51	6°♄10'05	
inferior conj	16033 Apr 21 11:50	14°♄28'18 0°31'02	evening set	16034 Mar 29 00:23	3°♄51'50	
minimum elong	16033 Apr 21 10:59	14°♄30'38 0°30'14	min. Earth dist.	16034 Apr 01 18:37	0°♄47'08 0.62647 AU	
morning rise	16033 Apr 27 20:40	9°♄03'29		16034 Apr 02 14:27	30°♄	
direct	16033 Apr 30 12:14	8°♄27'03	inferior conj	16034 Apr 04 17:27	27°♄55'11 -0°38'10	
morning max el	16033 May 06 19:48	11°♄42'03 17°52'59	minimum elong	16034 Apr 04 18:44	27°♄52'05 0°37'57	
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desc. node	16033 May 22 11:19	4°♄39'32	morning rise	16034 Apr 11 15:59	22°♄46'25	
morning set	16033 May 24 06:28	7°♄38'58	direct	16034 Apr 13 23:34	22°♄21'22	
	16033 Jun 06 23:01	0°♄	morning max el	16034 Apr 20 13:28	25°♄41'24 17°46'17	
				16034 Apr 24 05:31	0°♄	
superior conj	16033 Jun 07 01:43	0°♄10'44 -1°45'09	morning set	16034 May 06 15:20	20°♄16'01	
minimum elong	16033 Jun 06 17:04	29°♄36'15 1°45'07	desc. node	16034 May 09 08:10	24°♄58'20	
max. Earth dist.	16033 Jun 11 09:57	7°♄02'57 1.45522 AU		16034 May 12 06:00	0°♄	
evening rise	16033 Jun 22 23:48	24°♄58'45				
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greatest brilliancy	16033 Jul 07 14:14	16°♄53'25 -0.6m	minimum elong	16034 May 18 08:49	10°♄20'34 1°10'16	
asc. node	16033 Jul 16 18:52	29°♄14'27	max. Earth dist.	16034 May 25 03:20	21°♄23'21 1.44353 AU	
	16033 Jul 17 10:37	0°♄		16034 May 30 14:09	0°♄	
evening max el	16033 Jul 19 10:42	2°♄08'27 19°51'18	evening rise	16034 Jun 02 11:13	4°♄27'37	
retrograde	16033 Jul 26 22:13	6°♄21'13		16034 Jun 19 16:38	0°♄	
evening set	16033 Jul 30 18:45	4°♄55'25	evening max el	16034 Jul 02 10:28	16°♄02'38 20°57'23	
	16033 Aug 04 07:23	30°♄	asc. node	16034 Jul 03 15:43	17°♄12'22	
inferior conj	16033 Aug 05 02:12	28°♄57'01 3°00'33	retrograde	16034 Jul 10 21:13	20°♄54'41	
minimum elong	16033 Aug 05 03:22	28°♄53'05 2°59'57	evening set	16034 Jul 15 04:34	19°♄11'13	
min. Earth dist.	16033 Aug 06 03:21	27°♄32'19 0.67951 AU	inferior conj	16034 Jul 20 10:08	13°♄01'43 3°08'26	
morning rise	16033 Aug 10 11:31	22°♄31'18	minimum elong	16034 Jul 20 10:21	13°♄00'57 3°07'48	
direct	16033 Aug 16 04:30	20°♄01'59	min. Earth dist.	16034 Jul 20 21:43	12°♄21'32 0.68789 AU	
desc. node	16033 Aug 18 09:37	20°♄21'20	morning rise	16034 Jul 25 15:51	6°♄40'41	
morning max el	16033 Aug 27 23:26	27°♄05'41 24°51'34	direct	16034 Jul 30 21:05	4°♄24'38	
	16033 Aug 30 16:39	0°♄	desc. node	16034 Aug 05 06:58	6°♄19'59	
	16033 Sep 21 10:37	0°♄	morning max el	16034 Aug 10 10:30	10°♄41'57 23°22'53	
morning set	16033 Oct 02 16:55	18°♄45'23		16034 Aug 25 18:52	0°♄	
max. Earth dist.	16033 Oct 06 05:40	25°♄06'07 1.37124 AU	morning set	16034 Sep 14 02:33	29°♄50'34	
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asc. node	16033 Oct 12 20:14	7°♄36'38	max. Earth dist.	16034 Sep 18 04:14	6°♄46'12 1.39536 AU	
superior conj	16033 Oct 13 01:51	8°♄04'06 0°02'08	superior conj	16034 Sep 25 22:29	20°♄41'21 -0°33'00	
minimum elong	16033 Oct 13 01:41	8°♄03'17 0°02'31	minimum elong	16034 Sep 26 00:56	20°♄52'45 0°32'22	
behind sun begin	16033 Oct 12 19:10	7°♄31'25	asc. node	16034 Sep 29 16:56	27°♄46'44	
behind sun end	16033 Oct 13 08:12	8°♄35'13		16034 Sep 30 20:48	0°♄	
evening rise	16033 Oct 21 08:57	24°♄41'26	evening rise	16034 Oct 05 06:31	8°♄30'18	




























































































































	16034 Oct 17 12:01	0°♊		evening rise	16035 Sep 18 17:32	21°♊51'16	
evening max el	16034 Oct 21 08:26	4°♊38'59	18°40'48		16035 Sep 23 04:24	0°♊	
retrograde	16034 Oct 29 14:13	8°♊49'00		evening max el	16035 Oct 04 16:33	17°♊14'51	18°11'06
evening set	16034 Oct 31 12:20	8°♊36'12		retrograde	16035 Oct 11 21:00	20°♊55'24	
desc. node	16034 Nov 01 04:01	8°♊26'16		evening set	16035 Oct 14 00:26	20°♊36'19	
inferior conj	16034 Nov 08 13:48	4°♊11'10	-2°22'31	desc. node	16035 Oct 19 01:16	17°♊44'41	
minimum elong	16034 Nov 08 08:02	4°♊21'54	2°19'35	inferior conj	16035 Oct 21 08:22	15°♊49'39	-0°44'04
min. Earth dist.	16034 Nov 11 16:23	1°♊53'13	0.57138 AU	minimum elong	16035 Oct 21 06:47	15°♊53'04	0°42'56
	16034 Nov 14 13:45	30°♋♊		min. Earth dist.	16035 Oct 24 14:18	13°♊01'30	0.59278 AU
morning rise	16034 Nov 16 00:32	29°♊13'41		morning rise	16035 Oct 28 09:47	10°♊16'58	
direct	16034 Nov 22 02:11	27°♊43'23		direct	16035 Nov 03 21:59	8°♊20'47	
	16034 Nov 29 17:05	0°♊		morning max el	16035 Nov 18 04:44	16°♊03'37	27°39'28
morning max el	16034 Dec 06 07:10	5°♊07'29	26°40'28		16035 Nov 29 15:05	0°♊	
	16034 Dec 24 10:43	0°♋		asc. node	16035 Dec 13 14:13	23°♊25'01	
asc. node	16034 Dec 26 17:09	4°♋03'37			16035 Dec 16 22:14	0°♋	
morning set	16035 Jan 04 15:13	21°♋55'00		morning set	16035 Dec 19 22:00	6°♋12'35	
	16035 Jan 08 07:45	0°♌					
superior conj	16035 Jan 11 09:35	6°♌52'21	1°38'06	superior conj	16035 Dec 26 20:59	21°♋29'11	1°34'43
minimum elong	16035 Jan 11 09:31	6°♌51'57	1°38'46	minimum elong	16035 Dec 26 19:54	21°♋23'05	1°35'23
max. Earth dist.	16035 Jan 12 00:03	8°♌13'13	1.31180 AU	max. Earth dist.	16035 Dec 26 07:51	20°♋15'41	1.31003 AU
evening rise	16035 Jan 18 07:27	22°♌01'19			16035 Dec 30 16:27	0°♌	
	16035 Jan 22 04:31	0°♋		evening rise	16036 Jan 02 14:16	6°♌21'49	
desc. node	16035 Jan 28 03:30	11°♋15'04			16036 Jan 14 18:53	0°♋	
	16035 Feb 09 02:21	0°♌		desc. node	16036 Jan 15 00:16	0°♋22'43	
evening max el	16035 Feb 18 13:29	10°♌59'35	27°17'42	evening max el	16036 Jan 31 13:05	22°♋25'51	26°23'51
retrograde	16035 Mar 04 14:06	18°♌19'33		retrograde	16036 Feb 14 12:42	29°♋34'02	
evening set	16035 Mar 11 07:10	16°♌19'33		evening set	16036 Feb 20 20:07	27°♋58'05	
min. Earth dist.	16035 Mar 15 03:47	13°♌34'04	0.60412 AU	min. Earth dist.	16036 Feb 25 02:25	25°♋20'40	0.58195 AU
inferior conj	16035 Mar 18 08:38	10°♌50'30	-2°00'22	inferior conj	16036 Feb 28 05:28	23°♋02'26	-3°30'41
minimum elong	16035 Mar 18 13:07	10°♌40'56	1°58'39	minimum elong	16036 Feb 28 13:27	22°♋47'41	3°27'43
asc. node	16035 Mar 24 14:34	6°♌29'03		morning rise	16036 Mar 07 10:07	18°♋34'11	
morning rise	16035 Mar 25 22:30	6°♌00'41		direct	16036 Mar 09 09:16	18°♋21'07	
direct	16035 Mar 28 00:08	5°♌43'24		asc. node	16036 Mar 10 11:56	18°♋25'27	
morning max el	16035 Apr 04 04:59	9°♌19'31	17°57'58	morning max el	16036 Mar 17 14:31	22°♋24'24	18°29'34
	16035 Apr 17 17:36	0°♍			16036 Mar 23 12:52	0°♌	
morning set	16035 Apr 19 18:54	3°♍45'02		morning set	16036 Apr 02 11:35	17°♌48'23	
desc. node	16035 Apr 26 04:57	15°♍25'56			16036 Apr 08 20:49	0°♍	
				superior conj	16036 Apr 11 14:46	5°♍07'24	0°03'49
superior conj	16035 Apr 30 04:36	22°♍29'33	-0°32'20	minimum elong	16036 Apr 11 15:00	5°♍08'31	0°03'24
minimum elong	16035 Apr 30 01:48	22°♍17'18	0°32'26	behind sun begin	16036 Apr 11 08:00	4°♍36'08	
	16035 May 04 13:26	0°♎		behind sun end	16036 Apr 11 22:01	5°♍40'48	
max. Earth dist.	16035 May 07 16:59	5°♎15'37	1.42611 AU	desc. node	16036 Apr 12 01:40	5°♍57'35	
evening rise	16035 May 13 11:20	14°♎35'18		max. Earth dist.	16036 Apr 19 02:02	18°♍27'12	1.40470 AU
	16035 May 23 12:13	0°♏		evening rise	16036 Apr 23 07:38	25°♍36'36	
evening max el	16035 Jun 15 04:53	29°♏56'58	22°13'36		16036 Apr 25 23:56	0°♎	
	16035 Jun 15 06:06	0°♏			16036 May 16 05:26	0°♏	
asc. node	16035 Jun 20 12:39	4°♏14'54		evening max el	16036 May 27 19:40	13°♏51'20	23°34'52
retrograde	16035 Jun 24 19:00	5°♏33'15		asc. node	16036 Jun 06 09:38	20°♏04'43	
evening set	16035 Jun 29 13:46	3°♏33'06		retrograde	16036 Jun 07 14:16	20°♏10'50	
	16035 Jul 02 19:17	30°♋♏		evening set	16036 Jun 12 20:40	17°♏56'16	
inferior conj	16035 Jul 04 19:56	27°♏14'01	3°05'19	min. Earth dist.	16036 Jun 17 14:56	12°♏20'15	0.68997 AU
minimum elong	16035 Jul 04 19:13	27°♏16'32	3°04'33	inferior conj	16036 Jun 18 05:38	11°♏29'44	2°51'46
min. Earth dist.	16035 Jul 04 18:17	27°♏19'47	0.69142 AU	minimum elong	16036 Jun 18 04:07	11°♏34'58	2°50'47
morning rise	16035 Jul 10 00:29	20°♏59'53		morning rise	16036 Jun 23 11:32	5°♏23'56	
direct	16035 Jul 14 17:26	19°♏01'16		direct	16036 Jun 27 16:21	3°♏44'50	
desc. node	16035 Jul 23 04:15	23°♏38'11		morning max el	16036 Jul 05 19:12	8°♏21'45	20°35'57
morning max el	16035 Jul 24 00:07	24°♏26'37	21°55'19	desc. node	16036 Jul 09 01:28	11°♏55'25	
	16035 Jul 28 22:54	0°♏			16036 Jul 22 08:26	0°♏	
	16035 Aug 19 04:10	0°♐		morning set	16036 Aug 04 01:03	19°♏07'45	
morning set	16035 Aug 25 12:25	9°♐55'22			16036 Aug 10 23:25	0°♐	
max. Earth dist.	16035 Aug 31 07:11	19°♐19'22	1.41861 AU	max. Earth dist.	16036 Aug 12 16:39	2°♐44'50	1.43822 AU
	16035 Sep 06 14:20	0°♑					
superior conj	16035 Sep 08 00:44	2°♑29'59	-1°09'47	superior conj	16036 Aug 19 04:38	13°♐21'28	-1°43'34
minimum elong	16035 Sep 08 06:25	2°♑54'52	1°09'01	minimum elong	16036 Aug 19 12:27	13°♐53'58	1°43'03
asc. node	16035 Sep 16 13:36	17°♑52'03			16036 Aug 28 23:01	0°♑	
				evening rise	16036 Aug 31 13:27	4°♑32'45	

































































































































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	16036 Sep 16 20:52	0°♌		evening rise	16037 Aug 13 12:54	16°♏20'41	
evening max el	16036 Sep 17 05:57	0°♌23'01	18°01'17	asc. node	16037 Aug 20 06:54	27°♏32'10	
retrograde	16036 Sep 23 19:40	3°♌47'19			16037 Aug 21 19:20	0°♌	
evening set	16036 Sep 26 06:42	3°♌18'13		evening max el	16037 Aug 31 20:49	13°♌53'17	18°10'02
	16036 Oct 01 01:38	30°♋♌		retrograde	16037 Sep 07 05:30	17°♌14'28	
inferior conj	16036 Oct 02 22:15	28°♌12'06	0°37'15	evening set	16037 Sep 10 01:09	16°♌32'02	
minimum elong	16036 Oct 02 23:21	28°♌09'21	0°37'08	inferior conj	16037 Sep 16 03:21	11°♌09'01	1°38'59
desc. node	16036 Oct 04 22:35	26°♌11'05		minimum elong	16037 Sep 16 05:34	11°♌02'48	1°38'20
min. Earth dist.	16036 Oct 05 22:12	25°♌13'40	0.61568 AU	min. Earth dist.	16037 Sep 18 16:07	8°♌19'45	0.63773 AU
morning rise	16036 Oct 09 13:13	22°♌12'20		desc. node	16037 Sep 21 19:57	5°♌16'30	
direct	16036 Oct 16 05:32	19°♌54'22		morning rise	16037 Sep 22 08:04	4°♌52'20	
morning max el	16036 Oct 30 09:44	27°♌50'14	27°59'15	direct	16037 Sep 28 22:51	2°♌20'01	
	16036 Nov 01 11:51	0°♌		morning max el	16037 Oct 12 19:11	10°♌19'01	27°41'13
	16036 Nov 22 09:43	0°♌			16037 Oct 28 07:14	0°♌	
asc. node	16036 Nov 29 11:11	13°♌07'30			16037 Nov 14 18:43	0°♌	
morning set	16036 Dec 02 23:21	20°♌12'20		asc. node	16037 Nov 16 08:05	3°♌03'58	
	16036 Dec 07 13:45	0°♌		morning set	16037 Nov 16 16:50	3°♌47'34	
max. Earth dist.	16036 Dec 08 13:12	2°♌08'20	1.31381 AU	max. Earth dist.	16037 Nov 21 12:09	13°♌41'39	1.32325 AU
superior conj	16036 Dec 10 07:05	5°♌59'33	1°25'18	superior conj	16037 Nov 24 13:53	20°♌17'12	1°09'45
minimum elong	16036 Dec 10 05:11	5°♌49'01	1°25'51	minimum elong	16037 Nov 24 11:33	20°♌04'31	1°10'09
evening rise	16036 Dec 17 00:01	20°♌48'23			16037 Nov 29 00:36	0°♌	
	16036 Dec 21 09:04	0°♌		evening rise	16037 Dec 01 10:48	5°♌15'45	
desc. node	16036 Dec 31 21:05	18°♌49'10			16037 Dec 14 10:02	0°♌	
	16037 Jan 09 06:25	0°♌		desc. node	16037 Dec 18 17:58	6°♌18'47	
evening max el	16037 Jan 12 04:03	3°♌00'04	24°59'28	evening max el	16037 Dec 24 13:41	13°♌00'07	23°17'51
retrograde	16037 Jan 25 23:13	9°♌54'42		retrograde	16038 Jan 06 20:23	19°♌34'26	
evening set	16037 Jan 31 11:47	8°♌46'28		evening set	16038 Jan 11 05:01	18°♌53'16	
min. Earth dist.	16037 Feb 05 16:16	6°♌01'17	0.56262 AU	min. Earth dist.	16038 Jan 18 00:19	15°♌41'34	0.54908 AU
inferior conj	16037 Feb 08 05:17	4°♌23'27	-4°55'54	inferior conj	16038 Jan 19 09:09	14°♌54'07	-5°52'40
minimum elong	16037 Feb 08 14:36	4°♌08'31	4°53'12	minimum elong	16038 Jan 19 13:58	14°♌47'10	5°51'37
morning rise	16037 Feb 16 19:55	0°♌16'28		morning rise	16038 Jan 28 00:17	11°♌02'30	
direct	16037 Feb 18 23:04	0°♌03'44		direct	16038 Jan 30 18:01	10°♌44'32	
asc. node	16037 Feb 25 09:16	2°♌08'25		morning max el	16038 Feb 10 23:17	16°♌09'53	20°39'37
morning max el	16037 Feb 28 13:54	4°♌44'40	19°22'58	asc. node	16038 Feb 12 06:36	17°♌29'41	
	16037 Mar 16 10:20	0°♌			16038 Feb 21 02:55	0°♌	
morning set	16037 Mar 17 13:12	2°♌13'42		morning set	16038 Mar 01 20:37	16°♌51'44	
					16038 Mar 08 04:39	0°♌	
superior conj	16037 Mar 25 17:29	18°♌29'05	0°35'03	superior conj	16038 Mar 09 08:34	2°♌22'49	1°00'11
minimum elong	16037 Mar 25 19:28	18°♌38'41	0°34'32	minimum elong	16038 Mar 09 11:07	2°♌35'46	0°59'50
desc. node	16037 Mar 29 22:21	26°♌29'42		max. Earth dist.	16038 Mar 14 15:34	12°♌53'29	1.35962 AU
	16037 Mar 31 19:53	0°♌		desc. node	16038 Mar 16 19:01	16°♌58'33	
max. Earth dist.	16037 Apr 01 07:58	0°♌55'07	1.38171 AU	evening rise	16038 Mar 18 12:26	20°♌11'16	
evening rise	16037 Apr 05 00:53	7°♌31'15			16038 Mar 24 00:53	0°♌	
	16037 Apr 18 21:29	0°♌			16038 Apr 12 21:11	0°♌	
evening max el	16037 May 10 09:02	27°♌45'47	24°54'44	evening max el	16038 Apr 22 22:39	11°♌37'49	26°05'55
	16037 May 12 18:49	0°♌		retrograde	16038 May 05 16:47	18°♌56'34	
retrograde	16037 May 22 05:52	4°♌40'59		asc. node	16038 May 11 03:50	16°♌58'45	
asc. node	16037 May 24 06:42	4°♌23'37		evening set	16038 May 11 20:59	16°♌25'08	
evening set	16037 May 27 23:39	2°♌15'34		min. Earth dist.	16038 May 16 00:24	12°♌01'58	0.67266 AU
	16037 May 30 05:09	30°♋♌		inferior conj	16038 May 17 17:04	9°♌55'18	1°52'21
min. Earth dist.	16037 Jun 01 09:40	27°♌16'33	0.68363 AU	minimum elong	16038 May 17 14:55	10°♌02'02	1°51'00
inferior conj	16037 Jun 02 13:21	25°♌45'00	2°27'41	morning rise	16038 May 23 09:37	4°♌09'34	
minimum elong	16037 Jun 02 11:18	25°♌51'49	2°26'27	direct	16038 May 26 16:10	3°♌08'39	
morning rise	16037 Jun 07 23:13	19°♌48'33		morning max el	16038 Jun 02 06:24	6°♌40'03	18°38'49
direct	16037 Jun 11 16:27	18°♌29'11		desc. node	16038 Jun 12 19:43	20°♌29'00	
morning max el	16037 Jun 18 21:19	22°♌27'13	19°29'33		16038 Jun 19 00:37	0°♌	
	16037 Jun 25 05:58	0°♌		morning set	16038 Jun 23 20:23	7°♌31'37	
desc. node	16037 Jun 25 22:38	0°♌56'11			16038 Jul 08 06:06	0°♌	
greatest brilliancy	16037 Jul 01 13:38	8°♌55'57	-0.6m	max. Earth dist.	16038 Jul 09 02:37	1°♌19'59	1.45932 AU
morning set	16037 Jul 14 04:59	28°♌01'28					
	16037 Jul 15 11:51	0°♌		superior conj	16038 Jul 09 21:29	2°♌33'35	-2°13'59
max. Earth dist.	16037 Jul 26 07:37	16°♌49'28	1.45223 AU	minimum elong	16038 Jul 09 20:12	2°♌28'35	2°14'39
				evening rise	16038 Jul 25 11:44	27°♌06'17	
superior conj	16037 Jul 30 09:18	23°♌15'59	-2°07'22		16038 Jul 27 07:25	0°♏	
minimum elong	16037 Jul 30 15:06	23°♌39'06	2°07'36				

greatest brilliancy	16038 Aug 01 10:59	8° \cap 10'11	-0.9m			16039 Jun 30 23:34	0° Ω	
asc. node	16038 Aug 07 03:36	16° \cap 56'56		evening rise		16039 Jul 05 11:10	6° Ω 55'19	
evening max el	16038 Aug 15 10:05	27° \cap 38'17	18°36'22	greatest brilliancy		16039 Jul 17 20:35	25° Ω 48'38	-0.7m
	16038 Aug 18 07:59	0° $\underline{\Omega}$				16039 Jul 20 17:15	0° \cap	
retrograde	16038 Aug 21 22:37	1° $\underline{\Omega}$ 09'16		asc. node		16039 Jul 25 00:21	5° \cap 55'34	
evening set	16038 Aug 25 03:32	0° $\underline{\Omega}$ 10'58		evening max el		16039 Jul 29 19:08	11° \cap 30'14	19°19'28
	16038 Aug 25 10:31	30° \cap		retrograde		16039 Aug 05 19:54	15° \cap 24'02	
inferior conj	16038 Aug 30 19:52	24° \cap 33'02	2°22'32	evening set		16039 Aug 09 10:38	14° \cap 08'18	
minimum elong	16038 Aug 30 22:06	24° \cap 26'09	2°21'50	inferior conj		16039 Aug 14 20:26	8° \cap 16'54	2°50'31
min. Earth dist.	16038 Sep 01 19:05	22° \cap 08'47	0.65713 AU	minimum elong		16039 Aug 14 22:05	8° \cap 11'30	2°49'54
morning rise	16038 Sep 05 15:33	18° \cap 08'12		min. Earth dist.		16039 Aug 16 05:31	6° \cap 28'43	0.67266 AU
desc. node	16038 Sep 08 17:20	16° \cap 11'33		morning rise		16039 Aug 20 08:56	1° \cap 50'22	
direct	16038 Sep 12 00:15	15° \cap 30'39				16039 Aug 23 02:40	30° \cap	
morning max el	16038 Sep 25 06:25	23° \cap 19'20	26°51'44	direct		16039 Aug 26 08:15	29° Ω 16'09	
	16038 Oct 01 05:19	0° $\underline{\Omega}$		desc. node		16039 Aug 26 14:44	29° Ω 16'26	
	16038 Oct 21 15:04	0° \cap				16039 Aug 29 19:43	0° \cap	
morning set	16038 Oct 30 23:36	16° \cap 52'04		morning max el		16039 Sep 07 17:43	6° \cap 39'50	25°39'37
asc. node	16038 Nov 03 04:57	23° \cap 09'38				16039 Sep 25 21:20	0° $\underline{\Omega}$	
max. Earth dist.	16038 Nov 04 01:58	24° \cap 54'50	1.33830 AU	morning set		16039 Oct 13 16:08	29° $\underline{\Omega}$ 17'54	
	16038 Nov 06 13:51	0° \times				16039 Oct 14 01:22	0° \cap	
				max. Earth dist.		16039 Oct 17 06:39	5° \cap 59'37	1.35823 AU
superior conj	16038 Nov 08 15:09	4° \times 16'42	0°48'05	asc. node		16039 Oct 21 01:44	13° \cap 20'12	
minimum elong	16038 Nov 08 12:58	4° \times 05'14	0°48'21					
evening rise	16038 Nov 15 20:50	19° \times 39'58		superior conj		16039 Oct 23 08:06	17° \cap 51'10	0°20'28
	16038 Nov 20 21:42	0° $\underline{\Omega}$		minimum elong		16039 Oct 23 06:54	17° \cap 45'09	0°20'46
						16039 Oct 29 06:21	0° \times	
desc. node	16038 Dec 05 14:58	22° $\underline{\Omega}$ 32'11		evening rise		16039 Oct 31 04:06	3° \times 56'03	
evening max el	16038 Dec 06 02:38	23° $\underline{\Omega}$ 01'23	21°36'59			16039 Nov 14 23:02	0° $\underline{\Omega}$	
retrograde	16038 Dec 18 07:10	29° $\underline{\Omega}$ 02'51		evening max el		16039 Nov 18 03:24	3° $\underline{\Omega}$ 37'31	20°11'22
evening set	16038 Dec 21 09:12	28° $\underline{\Omega}$ 41'18		desc. node		16039 Nov 22 12:02	7° $\underline{\Omega}$ 05'35	
inferior conj	16038 Dec 30 00:57	24° $\underline{\Omega}$ 51'08	-5°55'34	retrograde		16039 Nov 28 18:51	8° $\underline{\Omega}$ 55'38	
minimum elong	16038 Dec 29 20:30	24° $\underline{\Omega}$ 57'21	5°54'27	evening set		16039 Nov 30 23:26	8° $\underline{\Omega}$ 43'12	
min. Earth dist.	16038 Dec 30 05:40	24° $\underline{\Omega}$ 44'32	0.54390 AU	inferior conj		16039 Dec 09 18:39	4° $\underline{\Omega}$ 46'32	-4°58'25
morning rise	16039 Jan 07 08:22	21° $\underline{\Omega}$ 02'42		minimum elong		16039 Dec 09 08:46	5° $\underline{\Omega}$ 01'16	4°55'10
direct	16039 Jan 11 02:30	20° $\underline{\Omega}$ 31'57		min. Earth dist.		16039 Dec 11 11:40	3° $\underline{\Omega}$ 45'26	0.54809 AU
morning max el	16039 Jan 23 17:51	26° $\underline{\Omega}$ 39'48	22°17'31	morning rise		16039 Dec 17 17:23	0° $\underline{\Omega}$ 42'35	
	16039 Jan 26 21:08	0° \approx				16039 Dec 20 16:41	30° \cap	
asc. node	16039 Jan 30 03:56	4° \approx 12'01		direct		16039 Dec 22 12:51	29° \times 52'28	
	16039 Feb 13 13:14	0° \times				16039 Dec 24 08:42	0° $\underline{\Omega}$	
morning set	16039 Feb 14 07:20	1° \times 35'21		morning max el		16040 Jan 05 03:15	6° $\underline{\Omega}$ 35'12	24°07'16
				asc. node		16040 Jan 17 01:12	21° $\underline{\Omega}$ 57'06	
superior conj	16039 Feb 21 08:32	16° \times 38'52	1°18'52			16040 Jan 21 16:51	0° \approx	
minimum elong	16039 Feb 21 10:49	16° \times 51'01	1°18'51	morning set		16040 Jan 29 19:21	16° \approx 18'58	
max. Earth dist.	16039 Feb 25 05:30	24° \times 43'11	1.34046 AU			16040 Feb 05 01:49	0° \times	
	16039 Feb 27 20:28	0° \cap						
evening rise	16039 Mar 01 14:45	3° \cap 26'49		superior conj		16040 Feb 05 14:34	1° \times 09'37	1°31'12
desc. node	16039 Mar 03 15:38	7° \cap 19'56		minimum elong		16040 Feb 05 16:06	1° \times 18'02	1°31'31
	16039 Mar 16 21:38	0° \times		max. Earth dist.		16040 Feb 08 03:11	6° \times 37'34	1.32545 AU
evening max el	16039 Apr 05 12:32	25° \times 18'58	27°00'43	evening rise		16040 Feb 13 04:29	17° \times 09'33	
	16039 Apr 11 04:03	0° \cap		desc. node		16040 Feb 18 12:18	27° \times 29'30	
retrograde	16039 Apr 18 21:46	2° \cap 48'52				16040 Feb 19 21:00	0° \cap	
evening set	16039 Apr 25 10:42	0° \cap 17'07				16040 Mar 10 08:03	0° \times	
	16039 Apr 25 19:14	30° \cap		evening max el		16040 Mar 18 01:20	8° \times 37'45	27°31'41
asc. node	16039 Apr 28 01:05	27° \times 54'07		retrograde		16040 Mar 31 19:58	16° \times 09'09	
min. Earth dist.	16039 Apr 29 09:00	26° \times 27'47	0.65747 AU	evening set		16040 Apr 07 14:32	13° \times 43'42	
inferior conj	16039 May 01 14:27	23° \times 54'21	1°04'38	min. Earth dist.		16040 Apr 11 09:27	10° \times 24'35	0.63865 AU
minimum elong	16039 May 01 12:51	23° \times 58'56	1°03'29	asc. node		16040 Apr 13 22:22	7° \times 46'44	
morning rise	16039 May 07 16:29	18° \times 21'05		inferior conj		16040 Apr 14 02:43	7° \times 35'24	0°03'26
direct	16039 May 10 13:18	17° \times 36'26		minimum elong		16040 Apr 14 02:37	7° \times 35'38	0°02'59
morning max el	16039 May 16 20:51	20° \times 53'46	18°04'48	transit middle		16040 Apr 14 02:37	7° \times 35'38	0°02'59
	16039 May 24 00:45	0° \cap		transit begin		16040 Apr 13 23:32	7° \times 43'40	
desc. node	16039 May 30 16:42	10° \cap 24'36		transit end		16040 Apr 14 05:42	7° \times 27'37	
morning set	16039 Jun 04 12:56	18° \cap 14'47		morning rise		16040 Apr 20 17:04	2° \times 17'04	
	16039 Jun 11 20:03	0° $\underline{\Omega}$		direct		16040 Apr 23 05:12	1° \times 45'44	
				morning max el		16040 Apr 29 14:13	5° \times 01'08	17°48'00
superior conj	16039 Jun 19 07:58	11° $\underline{\Omega}$ 52'18	-2°00'33	morning set		16040 May 16 08:20	0° \cap 14'14	
minimum elong	16039 Jun 19 00:19	11° $\underline{\Omega}$ 22'16	2°00'49			16040 May 16 04:58	0° \cap	
max. Earth dist.	16039 Jun 21 23:18	16° $\underline{\Omega}$ 00'20	1.45890 AU					

desc. node	16040 May 16 13:37	0° Π 36'38		16041 May 08 14:38	0° Π	
superior conj	16040 May 29 08:56	21° Π 54'02	-1°31'20	superior conj	16041 May 10 08:40	2° Π 59'03 -0°54'19
minimum elong	16040 May 29 00:44	21° Π 20'51	1°31'08	minimum elong	16041 May 10 03:42	2° Π 37'58 0°54'14
	16040 Jun 03 10:23	0° \mathfrak{D}		max. Earth dist.	16041 May 17 10:41	14° Π 43'07 1.43667 AU
max. Earth dist.	16040 Jun 03 18:51	0° \mathfrak{D} 33'32	1.45108 AU	evening rise	16041 May 24 13:18	26° Π 00'00
evening rise	16040 Jun 13 22:08	16° \mathfrak{D} 18'50			16041 May 27 03:25	0° \mathfrak{D}
	16040 Jun 22 23:44	0° Ω			16041 Jun 16 22:10	0° Ω
asc. node	16040 Jul 10 21:10	24° Ω 18'56		evening max el	16041 Jun 24 19:30	9° Ω 17'42 21°28'50
evening max el	16040 Jul 11 22:20	25° Ω 24'01	20°17'50	asc. node	16041 Jun 27 18:01	11° Ω 55'16
retrograde	16040 Jul 19 18:55	29° Ω 52'25		retrograde	16041 Jul 03 17:42	14° Ω 28'54
evening set	16040 Jul 23 20:03	28° Ω 18'50		evening set	16041 Jul 08 05:49	12° Ω 38'05
inferior conj	16040 Jul 29 02:21	22° Ω 15'21	3°05'15	inferior conj	16041 Jul 13 11:19	6° Ω 24'03 3°08'24
minimum elong	16040 Jul 29 03:07	22° Ω 12'42	3°04'40	minimum elong	16041 Jul 13 11:07	6° Ω 24'42 3°07'45
min. Earth dist.	16040 Jul 29 21:36	21° Ω 09'33	0.68368 AU	min. Earth dist.	16041 Jul 13 17:11	6° Ω 03'31 0.68990 AU
morning rise	16040 Aug 03 09:52	15° Ω 51'24		morning rise	16041 Jul 18 16:13	0° Ω 05'35
direct	16040 Aug 08 21:52	13° Ω 27'25			16041 Jul 18 18:48	30° \mathfrak{R} \mathfrak{D}
desc. node	16040 Aug 12 12:07	14° Ω 18'24		direct	16041 Jul 23 16:06	27° \mathfrak{D} 56'45
morning max el	16040 Aug 20 04:43	20° Ω 12'16	24°14'18		16041 Jul 29 04:17	0° Ω
	16040 Aug 28 14:11	0° \mathfrak{M}		desc. node	16041 Jul 30 09:27	0° Ω 53'44
	16040 Sep 18 01:17	0° \mathfrak{L}		morning max el	16041 Aug 02 16:40	3° Ω 52'48 22°45'08
morning set	16040 Sep 24 14:16	10° \mathfrak{L} 55'37			16041 Aug 22 16:46	0° \mathfrak{M}
max. Earth dist.	16040 Sep 28 05:57	17° \mathfrak{L} 20'14	1.38144 AU	morning set	16041 Sep 05 14:06	21° \mathfrak{M} 36'32
	16040 Oct 05 02:26	0° \mathfrak{M}		max. Earth dist.	16041 Sep 10 05:42	29° \mathfrak{M} 21'34 1.40544 AU
					16041 Sep 10 14:45	0° \mathfrak{L}
superior conj	16040 Oct 05 13:19	0° \mathfrak{M} 51'57	-0°12'22	superior conj	16041 Sep 18 02:42	13° \mathfrak{L} 10'10 -0°48'36
minimum elong	16040 Oct 05 14:08	0° \mathfrak{M} 55'55	0°11'53	minimum elong	16041 Sep 18 06:31	13° \mathfrak{L} 27'25 0°47'53
behind sun begin	16040 Oct 05 09:25	0° \mathfrak{M} 33'22		asc. node	16041 Sep 23 19:08	23° \mathfrak{L} 40'26
behind sun end	16040 Oct 05 18:51	1° \mathfrak{M} 18'30			16041 Sep 27 03:25	0° \mathfrak{M}
asc. node	16040 Oct 06 22:28	3° \mathfrak{M} 31'33		evening rise	16041 Sep 27 23:43	1° \mathfrak{M} 36'21
evening rise	16040 Oct 14 06:06	17° \mathfrak{M} 57'22		evening max el	16041 Oct 13 21:52	27° \mathfrak{M} 16'41 18°25'39
	16040 Oct 20 12:14	0° \mathfrak{J}			16041 Oct 17 08:45	0° \mathfrak{J}
evening max el	16040 Oct 30 18:37	15° \mathfrak{J} 03'02	19°07'22	retrograde	16041 Oct 21 15:46	1° \mathfrak{J} 12'45
desc. node	16040 Nov 08 09:12	19° \mathfrak{J} 35'38		evening set	16041 Oct 23 15:32	0° \mathfrak{J} 57'54
retrograde	16040 Nov 08 19:51	19° \mathfrak{J} 36'16		desc. node	16041 Oct 26 06:26	29° \mathfrak{M} 56'55
evening set	16040 Nov 10 17:07	19° \mathfrak{J} 25'13			16041 Oct 26 04:02	30° \mathfrak{R} \mathfrak{M}
inferior conj	16040 Nov 19 03:27	15° \mathfrak{J} 11'56	-3°22'51	inferior conj	16041 Oct 31 09:41	26° \mathfrak{M} 23'51 -1°39'14
minimum elong	16040 Nov 18 19:12	15° \mathfrak{J} 26'00	3°19'09	minimum elong	16041 Oct 31 05:49	26° \mathfrak{M} 31'33 1°37'04
min. Earth dist.	16040 Nov 21 21:54	13° \mathfrak{J} 19'06	0.56090 AU	min. Earth dist.	16041 Nov 03 15:13	23° \mathfrak{M} 50'29 0.58008 AU
morning rise	16040 Nov 26 18:42	10° \mathfrak{J} 35'31		morning rise	16041 Nov 07 16:37	21° \mathfrak{M} 10'23
direct	16040 Dec 02 10:46	9° \mathfrak{J} 20'55		direct	16041 Nov 13 23:30	19° \mathfrak{M} 28'37
morning max el	16040 Dec 16 13:11	16° \mathfrak{J} 32'05	25°51'04	morning max el	16041 Nov 28 06:03	27° \mathfrak{M} 02'15 27°10'02
	16040 Dec 27 11:58	0° \mathfrak{Z}			16041 Dec 01 02:32	0° \mathfrak{J}
asc. node	16041 Jan 02 22:25	10° \mathfrak{Z} 28'39		asc. node	16041 Dec 20 19:32	29° \mathfrak{J} 34'51
	16041 Jan 12 20:17	0° \approx			16041 Dec 21 00:53	0° \mathfrak{Z}
morning set	16041 Jan 13 06:45	0° \approx 56'14		morning set	16041 Dec 28 15:45	15° \mathfrak{Z} 22'36
superior conj	16041 Jan 20 00:15	15° \approx 47'20	1°37'20	superior conj	16042 Jan 04 11:35	0° \approx 26'28 1°37'25
minimum elong	16041 Jan 20 00:47	15° \approx 50'21	1°37'54	minimum elong	16042 Jan 04 11:04	0° \approx 23'35 1°38'05
max. Earth dist.	16041 Jan 21 07:05	18° \approx 38'20	1.31527 AU		16042 Jan 04 06:51	0° \approx
	16041 Jan 26 13:04	0° \mathfrak{H}		max. Earth dist.	16042 Jan 04 14:18	0° \approx 41'44 1.31038 AU
evening rise	16041 Jan 27 02:41	1° \mathfrak{H} 11'19		evening rise	16042 Jan 11 06:59	15° \approx 26'42
desc. node	16041 Feb 04 08:58	17° \mathfrak{H} 20'57			16042 Jan 18 12:06	0° \mathfrak{H}
	16041 Feb 11 19:58	0° \mathfrak{Y}		desc. node	16042 Jan 22 05:41	6° \mathfrak{H} 47'16
evening max el	16041 Feb 28 10:52	21° \mathfrak{Y} 20'52	27°32'31		16042 Feb 07 09:54	0° \mathfrak{Y}
retrograde	16041 Mar 14 10:24	28° \mathfrak{Y} 47'03		evening max el	16042 Feb 10 14:45	3° \mathfrak{Y} 17'33 26°58'53
evening set	16041 Mar 21 05:50	26° \mathfrak{Y} 35'21		retrograde	16042 Feb 24 15:41	10° \mathfrak{Y} 33'34
min. Earth dist.	16041 Mar 25 00:17	23° \mathfrak{Y} 40'17	0.61711 AU	evening set	16042 Mar 03 05:28	8° \mathfrak{Y} 43'07
inferior conj	16041 Mar 28 02:34	20° \mathfrak{Y} 49'36	-1°11'37	min. Earth dist.	16042 Mar 07 04:58	6° \mathfrak{Y} 02'32 0.59450 AU
minimum elong	16041 Mar 28 05:05	20° \mathfrak{Y} 43'47	1°10'47	inferior conj	16042 Mar 10 10:19	3° \mathfrak{Y} 27'26 -2°38'18
asc. node	16041 Mar 31 19:42	17° \mathfrak{Y} 40'55		minimum elong	16042 Mar 10 16:20	3° \mathfrak{Y} 15'18 2°35'57
morning rise	16041 Apr 04 07:32	15° \mathfrak{Y} 48'53			16042 Mar 15 07:00	30° \mathfrak{R} \mathfrak{H}
direct	16041 Apr 06 12:19	15° \mathfrak{Y} 27'36		morning rise	16042 Mar 18 06:47	28° \mathfrak{H} 46'48
morning max el	16041 Apr 13 07:26	18° \mathfrak{Y} 52'51	17°48'59	asc. node	16042 Mar 18 17:04	28° \mathfrak{H} 41'08
	16041 Apr 21 10:55	0° \mathfrak{B}		direct	16042 Mar 20 06:37	28° \mathfrak{H} 31'53
morning set	16041 Apr 29 01:47	13° \mathfrak{B} 15'05			16042 Mar 25 00:02	0° \mathfrak{Y}
desc. node	16041 May 03 10:25	20° \mathfrak{B} 59'37				

morning max el	16042 Mar 27 20:55	2° Υ 18'28	18°08'51	morning max el	16043 Mar 11 02:40	15° Υ 06'22	18°49'25
morning set	16042 Apr 12 11:28	27° Υ 00'03			16043 Mar 21 10:08	0° Υ	
	16042 Apr 14 01:57	0° \mathcal{B}		morning set	16043 Mar 27 08:28	11° Υ 14'54	
desc. node	16042 Apr 20 07:09	11° \mathcal{B} 29'15					
				superior conj	16043 Apr 05 01:01	28° Υ 04'19	0°17'45
superior conj	16042 Apr 22 07:14	15° \mathcal{B} 05'50	-0°16'32	minimum elong	16043 Apr 05 02:09	28° Υ 09'42	0°17'16
minimum elong	16042 Apr 22 05:52	14° \mathcal{B} 59'45	0°16'48		16043 Apr 06 01:39	0° \mathcal{B}	
max. Earth dist.	16042 Apr 29 21:38	28° \mathcal{B} 16'20	1.41729 AU	desc. node	16043 Apr 07 03:50	2° \mathcal{B} 01'54	
	16042 Apr 30 22:26	0° Π		max. Earth dist.	16043 Apr 12 05:02	11° \mathcal{B} 09'29	1.39500 AU
evening rise	16042 May 04 21:27	6° Π 29'26		evening rise	16043 Apr 16 03:00	17° \mathcal{B} 55'22	
	16042 May 20 07:21	0° \mathcal{E}			16043 Apr 23 12:19	0° Π	
evening max el	16042 Jun 07 11:59	23° \mathcal{E} 11'37	22°48'03		16043 May 14 16:53	0° \mathcal{E}	
asc. node	16042 Jun 14 14:57	28° \mathcal{E} 28'58		evening max el	16043 May 21 02:08	7° \mathcal{E} 07'21	24°09'31
retrograde	16042 Jun 17 14:36	29° \mathcal{E} 07'23		retrograde	16043 Jun 01 08:20	13° \mathcal{E} 42'46	
evening set	16042 Jun 22 14:11	27° \mathcal{E} 00'58		asc. node	16043 Jun 01 11:58	13° \mathcal{E} 42'40	
inferior conj	16042 Jun 27 21:16	20° \mathcal{E} 38'20	3°00'52	evening set	16043 Jun 06 19:36	11° \mathcal{E} 23'21	
minimum elong	16042 Jun 27 20:11	20° \mathcal{E} 42'06	3°00'01	min. Earth dist.	16043 Jun 11 10:14	6° \mathcal{E} 03'03	0.68788 AU
min. Earth dist.	16042 Jun 27 14:07	21° \mathcal{E} 03'12	0.69131 AU	inferior conj	16043 Jun 12 06:23	4° \mathcal{E} 54'50	2°42'54
morning rise	16042 Jul 03 02:03	14° \mathcal{E} 27'20		minimum elong	16043 Jun 12 04:35	5° \mathcal{E} 00'54	2°41'48
direct	16042 Jul 07 13:47	12° \mathcal{E} 36'46			16043 Jun 16 06:54	30° $\mathcal{R}\Pi$	
morning max el	16042 Jul 16 08:10	17° \mathcal{E} 41'13	21°20'13	morning rise	16043 Jun 17 13:38	28° Π 52'44	
desc. node	16042 Jul 17 06:42	18° \mathcal{E} 39'03		direct	16043 Jun 21 13:32	27° Π 21'51	
	16042 Jul 26 10:56	0° \mathcal{Q}			16043 Jun 27 09:39	0° \mathcal{E}	
	16042 Aug 15 18:31	0° \mathcal{P}		morning max el	16043 Jun 29 06:00	1° \mathcal{E} 40'36	20°05'52
morning set	16042 Aug 16 14:01	1° \mathcal{P} 16'26		desc. node	16043 Jul 04 03:53	7° \mathcal{E} 16'32	
max. Earth dist.	16042 Aug 23 10:43	12° \mathcal{P} 15'28	1.42747 AU		16043 Jul 20 03:03	0° \mathcal{Q}	
				morning set	16043 Jul 26 20:38	10° \mathcal{Q} 14'19	
superior conj	16042 Aug 30 19:47	24° \mathcal{P} 35'12	-1°24'51	max. Earth dist.	16043 Aug 05 22:50	25° \mathcal{Q} 59'52	1.44502 AU
minimum elong	16042 Aug 31 02:40	25° \mathcal{P} 04'38	1°24'07		16043 Aug 08 10:57	0° \mathcal{P}	
	16042 Sep 02 22:57	0° \mathcal{Q}					
asc. node	16042 Sep 10 15:45	13° \mathcal{Q} 42'33		superior conj	16043 Aug 11 13:33	5° \mathcal{P} 01'35	-1°55'21
evening rise	16042 Sep 11 04:52	14° \mathcal{Q} 41'43		minimum elong	16043 Aug 11 21:12	5° \mathcal{P} 32'45	1°55'07
	16042 Sep 19 22:11	0° \mathcal{M}		evening rise	16043 Aug 24 16:39	27° \mathcal{P} 01'30	
evening max el	16042 Sep 27 08:47	10° \mathcal{M} 07'55	18°04'40		16043 Aug 26 10:19	0° \mathcal{Q}	
retrograde	16042 Oct 04 05:38	13° \mathcal{M} 39'36		asc. node	16043 Aug 28 12:24	3° \mathcal{Q} 34'04	
evening set	16042 Oct 06 12:10	13° \mathcal{M} 16'41		evening max el	16043 Sep 10 23:15	23° \mathcal{Q} 26'32	18°02'50
desc. node	16042 Oct 13 03:44	8° \mathcal{M} 42'45		retrograde	16043 Sep 17 09:29	26° \mathcal{Q} 47'36	
inferior conj	16042 Oct 13 12:53	8° \mathcal{M} 21'44	-0°07'14	evening set	16043 Sep 20 00:14	26° \mathcal{Q} 13'01	
minimum elong	16042 Oct 13 12:39	8° \mathcal{M} 22'15	0°06'43	inferior conj	16043 Sep 26 09:41	20° \mathcal{Q} 59'18	1°05'49
transit middle	16042 Oct 13 12:39	8° \mathcal{M} 22'15	0°06'43	minimum elong	16043 Sep 26 11:25	20° \mathcal{Q} 54'43	1°05'23
transit begin	16042 Oct 13 09:37	8° \mathcal{M} 29'13		min. Earth dist.	16043 Sep 29 05:15	18° \mathcal{Q} 02'51	0.62534 AU
transit end	16042 Oct 13 15:40	8° \mathcal{M} 15'16		desc. node	16043 Sep 30 01:05	17° \mathcal{Q} 14'03	
min. Earth dist.	16042 Oct 16 17:18	5° \mathcal{M} 26'35	0.60252 AU	morning rise	16043 Oct 02 20:14	14° \mathcal{Q} 51'27	
morning rise	16042 Oct 20 09:56	2° \mathcal{M} 36'33		direct	16043 Oct 09 12:37	12° \mathcal{Q} 26'30	
direct	16042 Oct 27 00:53	0° \mathcal{M} 29'59		morning max el	16043 Oct 23 13:51	20° \mathcal{Q} 24'08	27°55'55
morning max el	16042 Nov 10 06:48	8° \mathcal{M} 19'19	27°52'36		16043 Oct 31 20:41	0° \mathcal{M}	
	16042 Nov 26 20:52	0° \mathcal{X}			16043 Nov 19 21:31	0° \mathcal{X}	
asc. node	16042 Dec 07 16:33	19° \mathcal{X} 06'02		asc. node	16043 Nov 24 13:29	8° \mathcal{X} 55'02	
morning set	16042 Dec 12 20:29	29° \mathcal{X} 33'17		morning set	16043 Nov 26 18:47	13° \mathcal{X} 23'04	
	16042 Dec 13 01:34	0° \mathcal{Z}		max. Earth dist.	16043 Dec 02 00:32	24° \mathcal{X} 26'11	1.31716 AU
max. Earth dist.	16042 Dec 18 21:23	12° \mathcal{Z} 40'32	1.31096 AU				
				superior conj	16043 Dec 04 07:39	29° \mathcal{X} 27'16	1°19'27
superior conj	16042 Dec 19 22:41	15° \mathcal{Z} 01'37	1°31'28	minimum elong	16043 Dec 04 05:30	29° \mathcal{X} 15'28	1°19'58
minimum elong	16042 Dec 19 21:13	14° \mathcal{Z} 53'25	1°32'06		16043 Dec 04 13:35	0° \mathcal{Z}	
evening rise	16042 Dec 26 15:16	29° \mathcal{Z} 50'43		evening rise	16043 Dec 11 01:42	14° \mathcal{Z} 18'28	
	16042 Dec 26 17:00	0° \approx			16043 Dec 18 18:38	0° \approx	
desc. node	16043 Jan 09 02:28	25° \approx 39'12		desc. node	16043 Dec 26 23:20	13° \approx 43'47	
	16043 Jan 11 20:46	0° \mathcal{H}		evening max el	16044 Jan 04 23:05	24° \approx 39'20	24°17'22
evening max el	16043 Jan 23 10:54	14° \mathcal{H} 22'09	25°51'10		16044 Jan 12 10:20	0° \mathcal{H}	
retrograde	16043 Feb 06 09:31	21° \mathcal{H} 24'41		retrograde	16044 Jan 18 13:51	1° \mathcal{H} 25'39	
evening set	16043 Feb 12 09:49	20° \mathcal{H} 00'42		evening set	16044 Jan 23 15:43	0° \mathcal{H} 29'22	
min. Earth dist.	16043 Feb 16 23:56	17° \mathcal{H} 21'48	0.57319 AU		16044 Jan 24 21:29	30° $\mathcal{R}\approx$	
inferior conj	16043 Feb 19 22:30	15° \mathcal{H} 19'23	-4°08'36	min. Earth dist.	16044 Jan 29 10:47	27° \approx 35'32	0.55602 AU
minimum elong	16043 Feb 20 07:31	15° \mathcal{H} 03'41	4°05'31	inferior conj	16044 Jan 31 13:25	26° \approx 18'32	-5°25'06
morning rise	16043 Feb 28 08:15	11° \mathcal{H} 00'05		minimum elong	16044 Jan 31 21:40	26° \approx 05'57	5°23'03
direct	16043 Mar 02 07:57	10° \mathcal{H} 47'42		morning rise	16044 Feb 09 05:32	22° \approx 19'03	
asc. node	16043 Mar 05 14:25	11° \mathcal{H} 23'04		direct	16044 Feb 11 13:42	22° \approx 04'45	

asc. node	16044 Feb 20 11:47	25°  49'48		direct	16045 Jan 22 02:34	2°  21'43	
morning max el	16044 Feb 21 20:23	27°  03'55	19°52'41	morning max el	16045 Feb 02 23:19	8°  05'10	21°19'01
	16044 Feb 24 12:48	0°  ✕		asc. node	16045 Feb 06 09:07	11°   48'07	
morning set	16044 Mar 10 12:56	25°  ✕47'13			16045 Feb 17 17:40	0°  ✕	
	16044 Mar 12 14:39	0°  Y		morning set	16045 Feb 22 22:04	10°  ✕28'52	
superior conj	16044 Mar 18 09:30	11°  Y41'11	0°46'28	superior conj	16045 Mar 02 04:48	25°  ✕46'00	1°08'53
minimum elong	16044 Mar 18 11:50	11°  Y52'47	0°46'01	minimum elong	16045 Mar 02 07:19	25°  ✕59'02	1°08'40
desc. node	16044 Mar 24 00:30	22°  Y33'06			16045 Mar 04 06:14	0°  Y	
max. Earth dist.	16044 Mar 24 11:37	23°  Y25'07	1.37213 AU	max. Earth dist.	16045 Mar 06 21:34	5°  Y17'52	1.35105 AU
evening rise	16044 Mar 28 04:29	0°  810'42		evening rise	16045 Mar 10 22:46	13°  Y06'55	
	16044 Mar 28 02:06	0°  8		desc. node	16045 Mar 10 21:09	12°  Y59'22	
	16044 Apr 15 18:01	0°  II			16045 Mar 20 12:10	0°  8	
evening max el	16044 May 02 15:37	21°  II01'52	25°26'27		16045 Apr 10 16:28	0°  II	
retrograde	16044 May 14 21:53	28°  II07'49		evening max el	16045 Apr 15 05:14	4°  II49'40	26°31'30
asc. node	16044 May 18 09:06	27°  II18'28		retrograde	16045 Apr 28 06:23	12°  II14'47	
evening set	16044 May 20 20:23	25°  II39'08		evening set	16045 May 04 14:45	9°  II42'06	
min. Earth dist.	16044 May 25 03:26	20°  II55'46	0.67961 AU	asc. node	16045 May 05 06:19	9°  II08'56	
inferior conj	16044 May 26 12:39	19°  II08'31	2°14'08	min. Earth dist.	16045 May 08 15:41	5°  II33'57	0.66675 AU
minimum elong	16044 May 26 10:29	19°  II15'31	2°12'50	inferior conj	16045 May 10 13:58	3°  II14'26	1°33'40
morning rise	16044 Jun 01 01:02	13°  II16'36		minimum elong	16045 May 10 11:57	3°  II20'31	1°32'21
direct	16044 Jun 04 13:43	12°  II05'11			16045 May 13 10:21	30°  R8	
morning max el	16044 Jun 11 11:13	15°  II49'51	19°05'58	morning rise	16045 May 16 10:14	27°  834'04	
desc. node	16044 Jun 20 01:00	26°  II31'59		direct	16045 May 19 12:30	26°  840'30	
	16044 Jun 22 10:28	0°  ☾			16045 May 25 21:10	0°  II	
greatest brilliancy	16044 Jun 24 10:09	2°  ☾56'48	-0.7m	morning max el	16045 May 25 22:55	0°  II04'14	18°22'15
morning set	16044 Jul 05 03:05	19°  ☾17'18		desc. node	16045 Jun 06 22:02	16°  II15'12	
	16044 Jul 12 01:18	0°  Ω		morning set	16045 Jun 15 04:12	29°  II15'49	
max. Earth dist.	16044 Jul 18 16:21	10°  Ω19'24	1.45620 AU		16045 Jun 15 15:21	0°  ☾	
superior conj	16044 Jul 21 09:46	14°  Ω36'10	-2°12'35	superior conj	16045 Jun 30 19:02	23°  ☾48'25	-2°10'38
minimum elong	16044 Jul 21 12:59	14°  Ω48'53	2°13'07	minimum elong	16045 Jun 30 14:29	23°  ☾30'43	2°11'13
	16044 Jul 31 01:45	0°  ൬		max. Earth dist.	16045 Jul 01 12:20	24°  ☾55'49	1.46004 AU
evening rise	16044 Aug 05 05:57	8°  ൬23'39			16045 Jul 04 18:26	0°  Ω	
asc. node	16044 Aug 14 09:05	23°  ൬10'19		evening rise	16045 Jul 16 18:10	18°  Ω43'01	
	16044 Aug 18 21:11	0°  ☾			16045 Jul 23 23:30	0°  ൬	
evening max el	16044 Aug 24 13:45	7°  ☾03'43	18°19'07	greatest brilliancy	16045 Jul 26 07:37	3°  ൬36'36	-0.8m
retrograde	16044 Aug 30 22:59	10°  ☾27'36		asc. node	16045 Aug 01 05:49	12°  ൬24'57	
evening set	16044 Sep 02 22:31	9°  ☾38'35		evening max el	16045 Aug 08 01:22	20°  ൬51'47	18°52'43
inferior conj	16044 Sep 08 20:04	4°  ☾08'40	1°59'32	retrograde	16045 Aug 14 18:18	24°  ൬31'24	
minimum elong	16044 Sep 08 22:24	4°  ☾01'52	1°58'50	evening set	16045 Aug 18 03:14	23°  ൬25'55	
min. Earth dist.	16044 Sep 11 03:05	1°  ☾28'42	0.64635 AU	inferior conj	16045 Aug 23 16:23	17°  ൬41'57	2°36'10
	16044 Sep 12 11:39	30°  R൬		minimum elong	16045 Aug 23 18:25	17°  ൬35'29	2°35'30
morning rise	16044 Sep 14 20:44	27°  ൬47'34		min. Earth dist.	16045 Aug 25 09:35	15°  ൬31'53	0.66418 AU
desc. node	16044 Sep 15 22:28	27°  ൬00'11		morning rise	16045 Aug 29 08:43	11°  ൬15'26	
direct	16044 Sep 21 09:16	25°  ൬12'17		desc. node	16045 Sep 02 19:53	8°  ൬50'03	
	16044 Oct 01 14:54	0°  ☾		direct	16045 Sep 04 13:35	8°  ൬38'23	
morning max el	16044 Oct 05 00:31	3°  ☾08'23	27°23'41	morning max el	16045 Sep 17 12:07	16°  ൬19'07	26°23'19
	16044 Oct 25 05:45	0°  ♌			16045 Sep 28 20:49	0°  ☾	
morning set	16044 Nov 09 08:09	26°  ♌46'27			16045 Oct 18 02:28	0°  ♌	
asc. node	16044 Nov 10 10:22	28°  ♌56'10		morning set	16045 Oct 23 09:18	9°  ♌35'25	
	16044 Nov 10 23:08	0°  ♌		max. Earth dist.	16045 Oct 27 05:52	16°  ♌59'18	1.34619 AU
max. Earth dist.	16044 Nov 13 20:10	5°  ♌52'16	1.32898 AU	asc. node	16045 Oct 28 07:10	19°  ♌04'09	
superior conj	16044 Nov 17 12:24	13°  ♌38'06	1°01'19	superior conj	16045 Nov 01 10:26	27°  ♌27'16	0°37'04
minimum elong	16044 Nov 17 10:02	13°  ♌25'28	1°01'39	minimum elong	16045 Nov 01 08:34	27°  ♌17'34	0°37'20
evening rise	16044 Nov 24 12:27	28°  ♌45'33			16045 Nov 02 15:53	0°  ♌	
	16044 Nov 25 02:24	0°  ☾		evening rise	16045 Nov 08 21:32	13°  ♌06'26	
	16044 Dec 12 05:56	0°  ≈			16045 Nov 17 11:57	0°  ☾	
desc. node	16044 Dec 12 20:18	0°  ≈44'13		evening max el	16045 Nov 28 01:47	14°  ☾46'51	20°58'10
evening max el	16044 Dec 16 08:45	4°  ≈34'52	22°33'49	desc. node	16045 Nov 29 17:21	16°  ☾17'55	
retrograde	16044 Dec 29 05:56	10°  ≈57'22		retrograde	16045 Dec 09 15:50	20°  ☾31'20	
evening set	16045 Jan 02 01:26	10°  ≈25'32		evening set	16045 Dec 12 06:43	20°  ☾15'01	
min. Earth dist.	16045 Jan 09 16:59	6°  ≈56'55	0.54576 AU	inferior conj	16045 Dec 21 01:26	16°  ☾23'35	-5°37'55
inferior conj	16045 Jan 10 10:45	6° ≈31'54	-6°01'32	minimum elong	16045 Dec 20 17:46	16° ☾34'30	5°35'56
minimum elong	16045 Jan 10 11:48	6° ≈30'26	6°00'50	min. Earth dist.	16045 Dec 21 22:25	15° ☾53'42	0.54447 AU
morning rise	16045 Jan 18 23:17	2° ≈44'02		morning rise	16045 Dec 29 04:54	12° ☾30'40	

direct	16046 Jan 02 09:52	11°  52'34		inferior conj	16046 Dec 01 00:12	26°  28'05	-4°20'37
morning max el	16046 Jan 15 13:04	18°  16'55	23°03'42	minimum elong	16046 Nov 30 14:20	26°  43'32	4°16'51
asc. node	16046 Jan 24 06:25	28°  58'49		min. Earth dist.	16046 Dec 03 06:01	25°  03'51	0.55262 AU
	16046 Jan 24 22:36	0°  ≈		morning rise	16046 Dec 08 19:40	22°  11'35	
morning set	16046 Feb 07 09:33	25°  ≈12'52		direct	16046 Dec 14 00:51	21°  11'12	
	16046 Feb 09 15:00	0°  ✕		morning max el	16046 Dec 27 21:22	28°  07'19	24°53'20
					16046 Dec 29 18:12	0°  ✕	
superior conj	16046 Feb 14 07:40	10°  ✕09'17	1°24'52	asc. node	16047 Jan 11 03:38	17°  ✕04'53	
minimum elong	16046 Feb 14 09:41	10°  ✕20'07	1°24'59		16047 Jan 18 03:29	0°  ≈	
max. Earth dist.	16046 Feb 17 14:28	17°  ✕06'55	1.33346 AU	morning set	16047 Jan 22 21:28	9°  ≈53'40	
evening rise	16046 Feb 22 06:18	26°  ✕34'53					
	16046 Feb 24 00:26	0°  Υ		superior conj	16047 Jan 29 15:28	24°  ≈43'17	1°34'33
desc. node	16046 Feb 25 17:49	3°  Υ16'24		minimum elong	16047 Jan 29 16:37	24°  ≈49'33	1°34'59
	16046 Mar 13 20:21	0°  ✕		max. Earth dist.	16047 Jan 31 14:53	29°  ≈02'59	1.32046 AU
evening max el	16046 Mar 28 18:44	18°  ✕22'33	27°17'11		16047 Feb 01 01:23	0°  ✕	
retrograde	16046 Apr 11 08:54	25°  ✕55'03		evening rise	16047 Feb 05 23:56	10°  ✕26'20	
evening set	16046 Apr 18 00:37	23°  ✕24'56		desc. node	16047 Feb 12 14:29	23°  ✕18'54	
min. Earth dist.	16046 Apr 21 21:07	19°  ✕49'00	0.64983 AU		16047 Feb 16 08:10	0°  Υ	
asc. node	16046 Apr 22 03:35	19°  ✕31'37			16047 Mar 09 19:01	0°  ✕	
inferior conj	16046 Apr 24 07:51	17°  ✕07'01	0°40'21	evening max el	16047 Mar 11 06:34	1°  ✕28'14	27°36'14
minimum elong	16046 Apr 24 06:47	17°  ✕10'01	0°39'27	retrograde	16047 Mar 25 04:05	8°  ✕58'14	
morning rise	16046 Apr 30 14:50	11°  ✕39'54		evening set	16047 Mar 31 23:29	6°  ✕38'02	
direct	16046 May 03 07:41	11°  ✕01'28		min. Earth dist.	16047 Apr 04 17:50	3°  ✕29'45	0.62966 AU
morning max el	16046 May 09 15:02	14°  ✕16'50	17°55'28	inferior conj	16047 Apr 07 15:18	0°  ✕38'05	-0°26'46
	16046 May 20 22:26	0°  ✕		minimum elong	16047 Apr 07 16:11	0°  ✕35'55	0°26'43
desc. node	16046 May 24 18:59	6°  ✕18'40			16047 Apr 08 06:44	30°  ✕Υ	
morning set	16046 May 27 08:32	10°  ✕32'44		asc. node	16047 Apr 09 00:53	29°  Υ16'19	
	16046 Jun 08 07:20	0°  ☾		morning rise	16047 Apr 14 11:37	25°  Υ26'38	
				direct	16047 Apr 16 20:21	25°  Υ00'03	
superior conj	16046 Jun 10 10:10	3°  ☾22'17	-1°49'39	morning max el	16047 Apr 23 08:41	28°  Υ18'33	17°46'08
minimum elong	16046 Jun 10 01:35	2°  ☾48'13	1°49'40		16047 Apr 24 22:47	0°  ✕	
max. Earth dist.	16046 Jun 14 08:21	9°  ☾33'35	1.45639 AU	morning set	16047 May 09 14:07	23°  ✕00'54	
evening rise	16046 Jun 26 10:24	28°  ☾16'08		desc. node	16047 May 11 15:50	26°  ✕35'56	
	16046 Jun 27 13:33	0°  ♌			16047 May 13 15:14	0°  ✕	
greatest brilliancy	16046 Jul 10 14:08	19°  ♌34'54	-0.6m				
	16046 Jul 18 03:48	0°  ♍		superior conj	16047 May 21 20:22	13°  ✕49'51	-1°16'07
asc. node	16046 Jul 19 02:37	1°  ♍10'23		minimum elong	16047 May 21 13:18	13°  ✕20'44	1°15'54
evening max el	16046 Jul 22 08:04	4°  ♍45'23	19°42'35	max. Earth dist.	16047 May 28 02:25	23°  ✕58'09	1.44571 AU
retrograde	16046 Jul 29 16:36	8°  ♍52'49			16047 May 31 21:56	0°  ☾	
evening set	16046 Aug 02 11:35	7°  ♍29'42		evening rise	16047 Jun 05 21:10	7°  ☾42'28	
inferior conj	16046 Aug 07 19:34	1°  ♍33'10	2°58'14		16047 Jun 20 20:02	0°  ♌	
minimum elong	16046 Aug 07 20:52	1°  ♍28'49	2°57'39	evening max el	16047 Jul 05 08:45	18°  ♌39'41	20°46'45
	16046 Aug 08 23:26	30°  ♍♌		asc. node	16047 Jul 05 23:27	19°  ♌15'32	
min. Earth dist.	16046 Aug 08 22:48	0°  ♍02'07	0.67791 AU	retrograde	16047 Jul 13 15:35	23°  ♌25'09	
morning rise	16046 Aug 13 05:38	25°  ♌07'06		evening set	16047 Jul 17 21:21	21°  ♌44'10	
direct	16046 Aug 19 00:21	22°  ♌36'13		inferior conj	16047 Jul 23 03:01	15°  ♌36'17	3°07'53
desc. node	16046 Aug 20 17:14	22°  ♌47'40		minimum elong	16047 Jul 23 03:23	15°  ♌35'00	3°07'18
morning max el	16046 Aug 30 23:10	29°  ♌45'32	25°04'15	min. Earth dist.	16047 Jul 23 16:35	14°  ♌49'23	0.68700 AU
	16046 Aug 31 04:51	0°  ♍		morning rise	16047 Jul 28 09:08	9°  ♌14'29	
	16046 Sep 22 16:57	0°  ♎		direct	16047 Aug 02 16:10	6°  ♌56'13	
morning set	16046 Oct 05 18:30	21°  ♎41'59		desc. node	16047 Aug 07 14:35	8°  ♌32'12	
max. Earth dist.	16046 Oct 09 07:04	28°  ♎05'08	1.36783 AU	morning max el	16047 Aug 13 10:04	13°  ♌20'37	23°36'12
	16046 Oct 10 07:49	0°  ♍			16047 Aug 26 21:32	0°  ♍	
asc. node	16046 Oct 15 03:56	9°  ♍15'31			16047 Sep 15 13:23	0°  ♎	
				morning set	16047 Sep 17 07:29	2°  ♎55'56	
superior conj	16046 Oct 15 22:50	10°  ♍48'22	0°07'07	max. Earth dist.	16047 Sep 21 05:41	9°  ♎39'54	1.39178 AU
minimum elong	16046 Oct 15 22:22	10°  ♍46'04	0°07'28				
behind sun begin	16046 Oct 15 16:35	10°  ♍17'34		superior conj	16047 Sep 28 21:50	23°  ♎32'24	-0°27'28
behind sun end	16046 Oct 16 04:09	11°  ♍14'38		minimum elong	16047 Sep 28 23:50	23°  ♎41'45	0°26'53
evening rise	16046 Oct 24 02:50	27°  ♍16'36		asc. node	16047 Oct 02 00:39	29°  ♎26'22	
	16046 Oct 25 11:12	0°  ✕			16047 Oct 02 07:40	0°  ♍	
evening max el	16046 Nov 10 08:50	25°  ✕43'29	19°41'23	evening rise	16047 Oct 08 01:39	11°  ♍09'15	
desc. node	16046 Nov 16 14:27	0°  ✕00'49			16047 Oct 18 10:44	0°  ✕	
	16046 Nov 16 13:34	0°  ✕		evening max el	16047 Oct 24 05:42	7°  ✕30'36	18°46'57
retrograde	16046 Nov 20 07:30	0°  ✕41'30		retrograde	16047 Nov 01 16:09	11°  ✕46'16	
evening set	16046 Nov 22 07:22	0°  ✕30'27		desc. node	16047 Nov 03 11:37	11°  ✕35'12	
	16046 Nov 24 05:49	30°  ♍✕		evening set	16047 Nov 03 13:53	11°  ✕34'02	

inferior conj	16047 Nov 11 17:47	7°♊12'00	-2°38'20	minimum elong	16048 Oct 23 07:06	18°♍48'23	0°56'40
minimum elong	16047 Nov 11 11:19	7°♊23'44	2°35'09	min. Earth dist.	16048 Oct 26 15:20	15°♍58'57	0.58938 AU
min. Earth dist.	16047 Nov 14 18:40	5°♊00'13	0.56852 AU	morning rise	16048 Oct 30 12:06	13°♍15'51	
morning rise	16047 Nov 19 05:44	2°♊20'08		direct	16048 Nov 05 23:02	11°♍23'23	
direct	16047 Nov 25 05:08	0°♊53'59		morning max el	16048 Nov 20 06:01	19°♍04'06	27°33'07
morning max el	16047 Dec 09 09:33	8°♊14'34	26°28'39		16048 Nov 29 12:41	0°♊	
	16047 Dec 25 16:12	0°♊		asc. node	16048 Dec 14 21:51	25°♊10'22	
asc. node	16047 Dec 29 00:46	5°♊52'35			16048 Dec 17 09:15	0°♊	
morning set	16048 Jan 07 08:04	24°♊26'52		morning set	16048 Dec 21 15:29	8°♊47'03	
	16048 Jan 09 21:08	0°♊		max. Earth dist.	16048 Dec 28 04:35	23°♊09'55	1.30995 AU
superior conj	16048 Jan 14 02:05	9°♋22'14	1°38'06	superior conj	16048 Dec 28 13:30	23°♊59'51	1°35'37
minimum elong	16048 Jan 14 02:10	9°♋22'44	1°38'44	minimum elong	16048 Dec 28 12:34	23°♊54'35	1°36'18
max. Earth dist.	16048 Jan 14 20:47	11°♋06'38	1.31255 AU		16048 Dec 31 05:52	0°♋	
evening rise	16048 Jan 21 01:01	24°♋34'52		evening rise	16049 Jan 04 07:13	8°♋54'09	
	16048 Jan 23 15:49	0°♋			16049 Jan 15 00:59	0°♋	
desc. node	16048 Jan 30 11:10	13°♋00'55		desc. node	16049 Jan 16 07:54	2°♋13'51	
	16048 Feb 10 00:34	0°♋		evening max el	16049 Feb 02 14:54	25°♋27'30	26°33'53
evening max el	16048 Feb 21 14:16	13°♋53'43	27°22'39		16049 Feb 08 09:17	0°♋	
retrograde	16048 Mar 06 14:34	21°♋15'08		retrograde	16049 Feb 16 14:53	2°♋37'55	
evening set	16048 Mar 13 08:30	19°♋11'55		evening set	16049 Feb 23 00:18	0°♋57'57	
min. Earth dist.	16048 Mar 17 04:22	16°♋24'19	0.60751 AU		16049 Feb 24 17:25	30°♋	
inferior conj	16048 Mar 20 08:47	13°♋38'25	-1°47'12	min. Earth dist.	16049 Feb 27 04:27	28°♋20'13	0.58516 AU
minimum elong	16048 Mar 20 12:44	13°♋29'50	1°45'43	inferior conj	16049 Mar 02 08:30	25°♋57'03	-3°16'55
asc. node	16048 Mar 25 22:11	9°♋32'13		minimum elong	16049 Mar 02 16:01	25°♋42'52	3°14'06
morning rise	16048 Mar 27 20:20	8°♋45'41		morning rise	16049 Mar 10 11:10	21°♋25'41	
direct	16048 Mar 29 22:45	8°♋27'25		direct	16049 Mar 12 10:18	21°♋12'16	
morning max el	16048 Apr 06 00:43	12°♋00'16	17°55'03	asc. node	16049 Mar 12 19:32	21°♋12'48	
	16048 Apr 18 02:25	0°♋		morning max el	16049 Mar 20 11:24	25°♋10'45	18°23'34
morning set	16048 Apr 21 15:12	6°♋23'00			16049 Mar 24 12:18	0°♋	
desc. node	16048 Apr 27 12:38	17°♋02'26		morning set	16049 Apr 05 06:11	20°♋21'44	
superior conj	16048 May 02 06:09	25°♋22'08	-0°38'05	desc. node	16049 Apr 10 07:49	0°♋	
minimum elong	16048 May 02 02:47	25°♋07'35	0°38'08		16049 Apr 14 09:20	7°♋33'29	
	16048 May 04 22:55	0°♋		superior conj	16049 Apr 14 13:26	7°♋52'17	-0°01'26
max. Earth dist.	16048 May 09 16:49	7°♋55'47	1.42901 AU	minimum elong	16049 Apr 14 13:18	7°♋51'38	0°01'49
evening rise	16048 May 15 18:38	17°♋42'22		behind sun begin	16049 Apr 14 06:04	7°♋18'30	
	16048 May 23 18:19	0°♋		behind sun end	16049 Apr 14 20:32	8°♋24'41	
	16048 Jun 14 17:54	0°♋		max. Earth dist.	16049 Apr 22 02:14	21°♋12'38	1.40801 AU
evening max el	16048 Jun 17 03:46	2°♋33'32	22°01'46	evening rise	16049 Apr 26 11:41	28°♋35'07	
asc. node	16048 Jun 21 20:20	6°♋27'18			16049 Apr 27 08:23	0°♋	
retrograde	16048 Jun 26 13:38	8°♋03'13			16049 May 17 07:01	0°♋	
evening set	16048 Jul 01 06:43	6°♋05'19		evening max el	16049 May 30 18:51	16°♋27'39	23°22'44
	16048 Jul 06 09:01	30°♋		asc. node	16049 Jun 08 17:18	22°♋29'28	
inferior conj	16048 Jul 06 12:37	29°♋47'26	3°06'28	retrograde	16049 Jun 10 09:26	22°♋41'30	
minimum elong	16048 Jul 06 12:02	29°♋49'27	3°05'44	evening set	16049 Jun 15 14:04	20°♋28'52	
min. Earth dist.	16048 Jul 06 12:53	29°♋46'31	0.69121 AU	inferior conj	16049 Jun 20 22:28	14°♋03'11	2°54'34
morning rise	16048 Jul 11 17:12	23°♋32'12		minimum elong	16049 Jun 20 21:03	14°♋08'03	2°53'35
direct	16048 Jul 16 11:56	21°♋30'57		min. Earth dist.	16049 Jun 20 09:42	14°♋47'13	0.69044 AU
desc. node	16048 Jul 24 11:53	25°♋39'39		morning rise	16049 Jun 26 04:00	7°♋55'58	
morning max el	16048 Jul 25 23:12	27°♋04'07	22°08'00	direct	16049 Jun 30 10:33	6°♋13'57	
	16048 Jul 28 16:44	0°♋		morning max el	16049 Jul 08 17:21	10°♋57'54	20°47'05
	16048 Aug 19 10:38	0°♋		desc. node	16049 Jul 11 09:08	13°♋49'17	
morning set	16048 Aug 27 20:57	13°♋09'54			16049 Jul 23 12:44	0°♋	
max. Earth dist.	16048 Sep 02 07:54	22°♋05'20	1.41528 AU	morning set	16049 Aug 07 12:16	22°♋29'05	
	16048 Sep 06 23:48	0°♋			16049 Aug 12 07:20	0°♋	
superior conj	16048 Sep 10 03:05	5°♋28'45	-1°04'17	max. Earth dist.	16049 Aug 15 16:08	5°♋22'49	1.43558 AU
minimum elong	16048 Sep 10 08:17	5°♋51'45	1°03'30	superior conj	16049 Aug 22 10:29	16°♋29'13	-1°38'55
asc. node	16048 Sep 17 21:18	19°♋32'45		minimum elong	16049 Aug 22 18:10	17°♋01'23	1°38'19
evening rise	16048 Sep 20 14:30	24°♋35'13			16049 Aug 30 08:04	0°♋	
	16048 Sep 23 12:43	0°♋		evening rise	16049 Sep 03 13:01	7°♋23'34	
evening max el	16048 Oct 06 12:40	20°♋00'53	18°14'14	asc. node	16049 Sep 04 17:57	9°♋31'12	
retrograde	16048 Oct 13 20:19	23°♋45'13			16049 Sep 17 08:56	0°♋	
evening set	16048 Oct 15 22:41	23°♋27'23		evening max el	16049 Sep 20 01:33	3°♋05'00	18°01'35
desc. node	16048 Oct 20 08:53	21°♋08'41		retrograde	16049 Sep 26 16:53	6°♋30'53	
inferior conj	16048 Oct 23 09:14	18°♋43'51	-0°58'04	evening set	16049 Sep 29 02:39	6°♋03'33	

































































































































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minimum elong	16049 Oct 05 21:19	0°♍58'20	0°26'12	evening set	16050 Sep 12 19:36	19°♊12'56	
	16049 Oct 06 21:00	30°♋♊		inferior conj	16050 Sep 18 23:36	13°♊52'21	1°30'49
desc. node	16049 Oct 07 06:13	29°♊37'19		minimum elong	16050 Sep 19 01:43	13°♊46'29	1°30'13
min. Earth dist.	16049 Oct 08 21:50	28°♊02'00	0.61227 AU	min. Earth dist.	16050 Sep 21 14:15	11°♊00'39	0.63463 AU
morning rise	16049 Oct 12 13:03	25°♊03'55		desc. node	16050 Sep 24 03:36	8°♊31'08	
direct	16049 Oct 19 05:11	22°♊48'35		morning rise	16050 Sep 25 05:48	7°♊37'43	
	16049 Nov 01 16:12	0°♍		direct	16050 Oct 01 21:13	5°♊06'55	
morning max el	16049 Nov 02 10:03	0°♍43'20	27°58'44	morning max el	16050 Oct 15 18:55	13°♊05'55	27°46'01
	16049 Nov 23 16:54	0°♊			16050 Oct 29 09:16	0°♍	
asc. node	16049 Dec 01 18:51	14°♊50'01			16050 Nov 16 05:32	0°♊	
morning set	16049 Dec 05 17:47	22°♊49'39		asc. node	16050 Nov 18 15:47	4°♊44'33	
	16049 Dec 09 02:51	0°♊		morning set	16050 Nov 19 12:38	6°♊28'48	
max. Earth dist.	16049 Dec 11 10:26	5°♊03'52	1.31289 AU	max. Earth dist.	16050 Nov 24 10:32	16°♊40'04	1.32147 AU
superior conj	16049 Dec 12 23:56	8°♊31'29	1°27'06	superior conj	16050 Nov 27 07:24	22°♊51'28	1°12'31
minimum elong	16049 Dec 12 22:08	8°♊21'29	1°27'43	minimum elong	16050 Nov 27 05:06	22°♊38'54	1°12'57
evening rise	16049 Dec 19 16:39	23°♊19'54			16050 Nov 30 13:39	0°♊	
	16049 Dec 22 20:08	0°♊		evening rise	16050 Dec 04 03:25	7°♊47'31	
desc. node	16050 Jan 03 04:44	20°♊47'15			16050 Dec 15 12:48	0°♊	
	16050 Jan 09 17:23	0°♋		desc. node	16050 Dec 21 01:39	8°♊26'50	
evening max el	16050 Jan 15 07:08	6°♋08'53	25°13'31	evening max el	16050 Dec 27 17:21	16°♊13'03	23°33'29
retrograde	16050 Jan 29 03:31	13°♋05'55		retrograde	16051 Jan 10 02:36	22°♊50'39	
evening set	16050 Feb 03 19:22	11°♋53'37		evening set	16051 Jan 14 15:50	22°♊05'51	
min. Earth dist.	16050 Feb 08 19:37	9°♋10'31	0.56519 AU	min. Earth dist.	16051 Jan 21 04:26	18°♊59'23	0.55060 AU
inferior conj	16050 Feb 11 11:32	7°♋25'56	-4°44'15	inferior conj	16051 Jan 22 18:12	18°♊04'13	-5°47'05
minimum elong	16050 Feb 11 20:57	7°♋10'31	4°41'22	minimum elong	16051 Jan 23 00:08	17°♊55'33	5°45'48
morning rise	16050 Feb 20 01:13	3°♋15'54		morning rise	16051 Jan 31 09:54	14°♊10'46	
direct	16050 Feb 22 03:04	3°♋03'26		direct	16051 Feb 03 00:47	13°♊53'58	
asc. node	16050 Feb 27 16:54	4°♋39'36		morning max el	16051 Feb 14 00:15	19°♊12'41	20°26'42
morning max el	16050 Mar 03 12:35	7°♋38'30	19°13'33	asc. node	16051 Feb 14 14:15	19°♊47'26	
	16050 Mar 17 20:57	0°♎			16051 Feb 22 06:52	0°♋	
morning set	16050 Mar 20 06:42	4°♎44'18		morning set	16051 Mar 04 13:29	19°♋21'33	
					16051 Mar 09 17:06	0°♎	
superior conj	16050 Mar 28 13:57	21°♎08'01	0°30'40	superior conj	16051 Mar 12 03:30	4°♎58'05	0°56'46
minimum elong	16050 Mar 28 15:45	21°♎16'40	0°30'10	minimum elong	16051 Mar 12 06:01	5°♎10'49	0°56'23
desc. node	16050 Apr 01 06:01	28°♎05'41		max. Earth dist.	16051 Mar 17 15:32	15°♎48'48	1.36280 AU
	16050 Apr 02 06:41	0°♏		desc. node	16051 Mar 19 02:41	18°♎35'25	
max. Earth dist.	16050 Apr 04 08:12	3°♏45'44	1.38512 AU	evening rise	16051 Mar 21 11:06	22°♎56'53	
evening rise	16050 Apr 08 01:57	10°♏22'21			16051 Mar 25 10:03	0°♏	
	16050 Apr 20 03:26	0°♐			16051 Apr 13 20:59	0°♐	
evening max el	16050 May 12 23:24	0°♏		evening max el	16051 Apr 25 22:03	14°♐15'42	25°56'09
retrograde	16050 May 13 08:22	0°♏22'22	24°43'18	retrograde	16051 May 08 13:17	21°♐31'18	
asc. node	16050 May 25 01:41	7°♏13'01		asc. node	16051 May 13 11:33	19°♐54'19	
evening set	16050 May 26 14:23	7°♏03'09		evening set	16051 May 14 16:03	19°♐00'31	
min. Earth dist.	16050 May 30 17:45	4°♏49'05		min. Earth dist.	16051 May 18 20:24	14°♐32'06	0.67462 AU
	16050 Jun 04 04:54	29°♐44'30	0.68484 AU	inferior conj	16051 May 20 11:06	12°♐30'21	1°58'30
inferior conj	16050 Jun 04 00:12	30°♋♐		minimum elong	16051 May 20 08:55	12°♐37'13	1°57'10
minimum elong	16050 Jun 05 06:37	28°♐18'51	2°32'06	morning rise	16051 May 26 02:27	6°♐42'51	
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morning max el	16050 Jun 14 10:39	20°♐58'29		desc. node	16051 Jun 15 03:21	22°♐12'32	
	16050 Jun 21 18:19	25°♐01'40	19°38'30	greatest brilliancy	16051 Jun 19 04:00	28°♐17'10	-0.8m
	16050 Jun 26 03:39	0°♏			16051 Jun 20 06:47	0°♏	
desc. node	16050 Jun 28 06:17	2°♏44'10		morning set	16051 Jun 27 04:48	10°♏43'29	
greatest brilliancy	16050 Jul 04 15:15	11°♏42'56	-0.6m		16051 Jul 09 13:57	0°♏	
	16050 Jul 16 18:52	0°♏		max. Earth dist.	16051 Jul 12 01:03	3°♏50'23	1.45879 AU
morning set	16050 Jul 17 16:16	1°♏21'59					
max. Earth dist.	16050 Jul 29 06:17	19°♏22'05	1.45057 AU	superior conj	16051 Jul 13 08:18	5°♏52'23	-2°14'16
				minimum elong	16051 Jul 13 08:14	5°♏52'09	2°14'56
superior conj	16050 Aug 02 18:28	26°♏31'42	-2°04'43	evening rise	16051 Jul 28 18:28	0°♐14'56	
minimum elong	16050 Aug 03 00:57	26°♏57'40	2°04'50		16051 Jul 28 14:44	0°♐	
	16050 Aug 04 22:19	0°♐		asc. node	16051 Aug 09 11:21	18°♐44'42	
evening rise	16050 Aug 16 15:51	19°♐20'04			16051 Aug 17 23:53	0°♏	
asc. node	16050 Aug 22 14:37	29°♐16'51		evening max el	16051 Aug 18 06:10	0°♏15'44	18°31'20
	16050 Aug 23 01:04	0°♏		retrograde	16051 Aug 24 17:30	3°♏44'18	
evening max el	16050 Sep 03 16:28	16°♏32'37	18°07'37				

evening set	16051 Aug 27 21:02	2°♄48'24			16052 Jul 20 20:15	0°♄	
	16051 Aug 31 04:36	30°♄		asc. node	16052 Jul 26 08:06	7°♄47'47	
inferior conj	16051 Sep 02 14:37	27°♄12'29	2°16'57	evening max el	16052 Jul 31 15:55	14°♄06'42	19°12'01
minimum elong	16051 Sep 02 16:54	27°♄05'33	2°16'15	retrograde	16052 Aug 07 14:23	17°♄56'28	
min. Earth dist.	16051 Sep 04 15:52	24°♄43'53	0.65449 AU	evening set	16052 Aug 11 03:37	16°♄43'22	
morning rise	16051 Sep 08 11:33	20°♄48'29		inferior conj	16052 Aug 16 14:10	10°♄53'46	2°47'08
desc. node	16051 Sep 11 01:00	19°♄06'50		minimum elong	16052 Aug 16 15:56	10°♄48'01	2°46'31
direct	16051 Sep 14 21:24	18°♄11'18		min. Earth dist.	16052 Aug 18 01:19	8°♄59'46	0.67058 AU
morning max el	16051 Sep 28 06:01	26°♄02'01	27°00'47	morning rise	16052 Aug 22 03:36	4°♄27'06	
	16051 Oct 01 22:07	0°♄		desc. node	16052 Aug 27 22:21	1°♄52'17	
	16051 Oct 22 22:44	0°♄		direct	16052 Aug 28 04:23	1°♄52'02	
morning set	16051 Nov 02 21:13	19°♄38'09		morning max el	16052 Sep 09 17:28	9°♄20'30	25°51'30
asc. node	16051 Nov 05 12:39	24°♄48'57			16052 Sep 26 01:10	0°♄	
max. Earth dist.	16051 Nov 07 01:54	27°♄56'13	1.33572 AU		16052 Oct 14 11:29	0°♄	
	16051 Nov 08 02:11	0°♄		morning set	16052 Oct 15 16:08	2°♄10'26	
				max. Earth dist.	16052 Oct 19 07:59	9°♄01'51	1.35500 AU
superior conj	16051 Nov 11 09:40	6°♄54'00	0°51'47	asc. node	16052 Oct 22 09:26	14°♄58'59	
minimum elong	16051 Nov 11 07:25	6°♄42'06	0°52'03				
evening rise	16051 Nov 18 13:43	22°♄12'33		superior conj	16052 Oct 25 04:03	20°♄32'35	0°25'03
	16051 Nov 22 07:41	0°♄		minimum elong	16052 Oct 25 02:39	20°♄25'27	0°25'19
desc. node	16051 Dec 07 22:39	24°♄53'11			16052 Oct 29 18:21	0°♄	
evening max el	16051 Dec 09 05:08	26°♄11'25	21°51'19	evening rise	16052 Nov 01 21:33	6°♄30'16	
	16051 Dec 13 23:55	0°♄			16052 Nov 14 17:20	0°♄	
retrograde	16051 Dec 21 14:16	2°♄18'38		evening max el	16052 Nov 20 03:42	6°♄40'18	20°22'46
evening set	16051 Dec 24 20:44	1°♄54'42		desc. node	16052 Nov 23 19:44	9°♄43'07	
	16051 Dec 29 20:53	30°♄		retrograde	16052 Dec 01 01:08	12°♄05'33	
inferior conj	16052 Jan 02 10:59	28°♄04'14	-5°59'10	evening set	16052 Dec 03 07:55	11°♄52'22	
minimum elong	16052 Jan 02 07:54	28°♄08'32	5°58'17	inferior conj	16052 Dec 12 03:24	7°♄57'19	-5°10'15
min. Earth dist.	16052 Jan 02 09:49	28°♄05'52	0.54406 AU	minimum elong	16052 Dec 11 17:50	8°♄11'22	5°07'19
morning rise	16052 Jan 10 19:49	24°♄16'38		min. Earth dist.	16052 Dec 13 15:28	7°♄04'19	0.54686 AU
direct	16052 Jan 14 10:03	23°♄48'17		morning rise	16052 Dec 20 03:18	3°♄56'51	
morning max el	16052 Jan 26 20:48	29°♄49'53	22°01'53	direct	16052 Dec 24 19:05	3°♄10'07	
	16052 Jan 27 01:01	0°♄		morning max el	16053 Jan 07 07:03	9°♄48'15	23°50'51
asc. node	16052 Feb 01 11:35	6°♄18'34		asc. node	16053 Jan 18 08:50	23°♄54'41	
	16052 Feb 15 00:58	0°♄			16053 Jan 21 23:54	0°♄	
morning set	16052 Feb 16 23:53	4°♄04'56		morning set	16053 Jan 31 11:48	18°♄48'30	
					16053 Feb 05 15:14	0°♄	
superior conj	16052 Feb 24 02:21	19°♄11'24	1°16'26				
minimum elong	16052 Feb 24 04:43	19°♄23'53	1°16'21	superior conj	16053 Feb 07 07:37	3°♄40'05	1°29'44
max. Earth dist.	16052 Feb 28 04:30	27°♄39'19	1.34308 AU	minimum elong	16053 Feb 07 09:17	3°♄49'11	1°29'59
	16052 Feb 29 08:26	0°♄		max. Earth dist.	16053 Feb 10 00:56	9°♄31'40	1.32736 AU
evening rise	16052 Mar 03 11:27	6°♄07'38		evening rise	16053 Feb 14 23:38	19°♄46'14	
desc. node	16052 Mar 04 23:19	8°♄58'07		desc. node	16053 Feb 19 19:59	29°♄09'32	
	16052 Mar 17 03:19	0°♄			16053 Feb 20 06:50	0°♄	
evening max el	16052 Apr 07 11:56	27°♄58'54	26°53'47		16053 Mar 11 04:47	0°♄	
	16052 Apr 09 16:29	0°♄		evening max el	16053 Mar 21 00:53	11°♄21'05	27°28'48
retrograde	16052 Apr 20 19:07	5°♄27'36		retrograde	16053 Apr 03 18:26	18°♄53'05	
evening set	16052 Apr 27 07:01	2°♄55'23		evening set	16053 Apr 10 12:28	16°♄26'03	
asc. node	16052 Apr 29 08:47	1°♄03'05		min. Earth dist.	16053 Apr 14 07:40	13°♄02'53	0.64166 AU
	16052 Apr 30 08:52	30°♄		asc. node	16053 Apr 16 06:02	11°♄01'05	
min. Earth dist.	16052 May 01 05:58	29°♄01'19	0.66005 AU	inferior conj	16053 Apr 16 23:22	10°♄15'00	0°13'35
inferior conj	16052 May 03 09:34	26°♄31'13	1°12'42	minimum elong	16053 Apr 16 22:59	10°♄16'02	0°13'01
minimum elong	16052 May 03 07:51	26°♄36'15	1°11'31	transit middle	16053 Apr 16 22:59	10°♄16'02	0°13'01
morning rise	16052 May 09 10:02	20°♄56'03		transit begin	16053 Apr 16 21:10	10°♄20'49	
direct	16052 May 12 08:17	20°♄09'07		transit end	16053 Apr 17 00:47	10°♄11'15	
morning max el	16052 May 18 16:14	23°♄27'32	18°08'45	morning rise	16053 Apr 23 11:44	4°♄54'26	
	16052 May 24 01:57	0°♄		direct	16053 Apr 26 01:03	4°♄21'23	
desc. node	16052 Jun 01 00:19	12°♄04'47		morning max el	16053 May 02 09:22	7°♄36'18	17°49'22
morning set	16052 Jun 06 17:12	21°♄14'37			16053 May 17 13:19	0°♄	
	16052 Jun 12 04:10	0°♄		desc. node	16053 May 18 21:12	2°♄14'17	
				morning set	16053 May 19 08:46	3°♄03'00	
superior conj	16052 Jun 21 17:51	15°♄07'34	-2°03'47				
minimum elong	16052 Jun 21 10:50	14°♄40'05	2°04'07	superior conj	16053 Jun 01 15:53	25°♄00'56	-1°36'26
max. Earth dist.	16052 Jun 23 21:46	18°♄30'29	1.45946 AU	minimum elong	16053 Jun 01 07:26	24°♄26'56	1°36'18
	16052 Jul 01 07:08	0°♄			16053 Jun 04 18:43	0°♄	
evening rise	16052 Jul 07 20:56	10°♄10'53		max. Earth dist.	16053 Jun 06 17:29	3°♄05'07	1.45265 AU
greatest brilliancy	16052 Jul 19 13:37	28°♄05'56	-0.7m	evening rise	16053 Jun 17 08:38	19°♄34'56	

	16053 Jun 24 05:35	0°♊		minimum elong	16054 May 13 06:36	5°♊33'16	0°59'59
asc. node	16053 Jul 13 04:53	26°♊17'02		max. Earth dist.	16054 May 20 09:47	17°♊18'31	1.43917 AU
evening max el	16053 Jul 14 19:58	28°♊00'02	20°08'17	evening rise	16054 May 27 22:15	29°♊11'24	
	16053 Jul 17 01:20	0°♋			16054 May 28 10:49	0°♋	
retrograde	16053 Jul 22 13:17	2°♋22'53			16054 Jun 17 22:22	0°♊	
evening set	16053 Jul 26 12:47	0°♋52'01		evening max el	16054 Jun 27 18:00	11°♊53'54	21°17'36
	16053 Jul 27 13:05	30°♋♊		asc. node	16054 Jun 30 01:45	14°♊01'26	
inferior conj	16053 Jul 31 19:25	24°♊50'13	3°03'47	retrograde	16054 Jul 06 12:11	16°♊58'24	
minimum elong	16053 Jul 31 20:20	24°♊47'06	3°03'12	evening set	16054 Jul 10 22:36	15°♊10'10	
min. Earth dist.	16053 Aug 01 16:43	23°♊37'46	0.68229 AU	inferior conj	16054 Jul 16 04:04	8°♊57'41	3°08'37
morning rise	16053 Aug 06 03:31	18°♊25'32		minimum elong	16054 Jul 16 04:01	8°♊57'49	3°07'59
direct	16053 Aug 11 17:14	15°♊59'39		min. Earth dist.	16054 Jul 16 11:57	8°♊30'10	0.68931 AU
desc. node	16053 Aug 14 19:42	16°♊37'41		morning rise	16054 Jul 21 09:12	2°♊38'11	
morning max el	16053 Aug 23 04:29	22°♊51'31	24°27'29	direct	16054 Jul 26 10:57	0°♊26'43	
	16053 Aug 29 11:39	0°♋		desc. node	16054 Aug 01 17:00	3°♊00'14	
	16053 Sep 19 08:48	0°♌		morning max el	16054 Aug 05 16:03	6°♊30'25	22°58'14
morning set	16053 Sep 27 17:14	13°♌55'47			16054 Aug 23 21:40	0°♋	
max. Earth dist.	16053 Oct 01 07:33	20°♌17'30	1.37784 AU	morning set	16054 Sep 08 20:30	24°♋45'02	
	16053 Oct 06 13:30	0°♍		max. Earth dist.	16054 Sep 11 23:57	0°♌	
					16054 Sep 13 06:33	2°♌10'03	1.40195 AU
superior conj	16053 Oct 08 11:12	3°♍38'37	-0°07'06				
minimum elong	16053 Oct 08 11:39	3°♍40'48	0°06'40	superior conj	16054 Sep 21 03:11	16°♌03'24	-0°43'01
behind sun begin	16053 Oct 08 05:26	3°♍10'48		minimum elong	16054 Sep 21 06:30	16°♌18'33	0°42'19
behind sun end	16053 Oct 08 17:53	4°♍10'52		asc. node	16054 Sep 26 02:50	25°♌19'41	
asc. node	16053 Oct 09 06:08	5°♍10'18			16054 Sep 28 13:52	0°♍	
evening rise	16053 Oct 17 00:27	20°♍33'53		evening rise	16054 Sep 30 19:30	4°♍16'11	
	16053 Oct 21 20:14	0°♎			16054 Oct 16 16:33	0°♎	
evening max el	16053 Nov 02 16:50	17°♎58'15	19°15'29	evening max el	16054 Oct 16 18:34	0°♎05'02	18°30'32
desc. node	16053 Nov 10 16:53	22°♎32'37		retrograde	16054 Oct 24 16:24	4°♎05'41	
retrograde	16053 Nov 11 23:32	22°♎37'44		evening set	16054 Oct 26 15:31	3°♎51'37	
evening set	16053 Nov 13 21:03	22°♎26'54		desc. node	16054 Oct 28 14:04	3°♎12'02	
inferior conj	16053 Nov 22 09:22	18°♎16'41	-3°38'29		16054 Nov 02 15:55	30°♎♍	
minimum elong	16053 Nov 22 00:34	18°♎31'21	3°34'41	inferior conj	16054 Nov 03 12:16	29°♍20'48	-1°54'26
min. Earth dist.	16053 Nov 25 01:00	16°♎30'55	0.55854 AU	minimum elong	16054 Nov 03 07:44	29°♍29'36	1°52'00
morning rise	16053 Nov 30 01:41	13°♎45'33		min. Earth dist.	16054 Nov 06 17:04	26°♍52'26	0.57698 AU
direct	16053 Dec 05 15:07	12°♎34'41		morning rise	16054 Nov 10 20:32	24°♍12'52	
morning max el	16053 Dec 19 16:22	19°♎42'24	25°36'44	direct	16054 Nov 17 01:47	22°♍34'58	
	16053 Dec 28 09:47	0°♏			16054 Dec 01 05:35	0°♎	
asc. node	16054 Jan 05 06:01	12°♏19'36		morning max el	16054 Dec 01 07:50	0°♎05'25	27°00'23
	16054 Jan 14 08:39	0°♐			16054 Dec 22 09:36	0°♏	
morning set	16054 Jan 15 23:22	3°♐26'36		asc. node	16054 Dec 23 03:07	1°♏20'57	
				morning set	16054 Dec 31 08:50	17°♏54'34	
					16055 Jan 05 20:38	0°♐	
superior conj	16054 Jan 22 16:52	18°♐16'53	1°36'48				
minimum elong	16054 Jan 22 17:34	18°♐20'47	1°37'20	superior conj	16055 Jan 07 04:04	2°♐55'58	1°37'47
max. Earth dist.	16054 Jan 24 03:54	21°♐30'38	1.31643 AU	minimum elong	16055 Jan 07 03:43	2°♐53'57	1°38'28
	16054 Jan 28 01:51	0°♑		max. Earth dist.	16055 Jan 07 10:50	3°♐33'50	1.31076 AU
evening rise	16054 Jan 29 20:43	3°♑45'18		evening rise	16055 Jan 14 00:15	17°♐58'57	
desc. node	16054 Feb 06 16:41	19°♑04'03			16055 Jan 19 21:59	0°♑	
	16054 Feb 13 00:47	0°♒		desc. node	16055 Jan 24 13:25	8°♑34'39	
evening max el	16054 Mar 03 11:02	24°♒10'13	27°34'36		16055 Feb 07 21:59	0°♒	
	16054 Mar 11 06:25	0°♓		evening max el	16055 Feb 13 16:03	6°♒14'42	27°06'14
retrograde	16054 Mar 17 10:17	1°♓37'57		retrograde	16055 Feb 27 17:02	13°♒32'14	
	16054 Mar 23 05:56	30°♓♒		evening set	16055 Mar 06 08:02	11°♒38'25	
evening set	16054 Mar 24 05:51	29°♒23'45		min. Earth dist.	16055 Mar 10 06:23	8°♒56'18	0.59781 AU
min. Earth dist.	16054 Mar 28 00:05	26°♒25'31	0.62037 AU	inferior conj	16055 Mar 13 11:43	6°♒17'53	-2°24'37
inferior conj	16054 Mar 31 01:19	23°♒33'57	-0°59'22	minimum elong	16055 Mar 13 17:11	6°♒06'38	2°22'30
minimum elong	16054 Mar 31 03:22	23°♒29'07	0°58'46	morning rise	16055 Mar 21 05:53	1°♒33'57	
asc. node	16054 Apr 03 03:19	20°♒50'36		asc. node	16055 Mar 21 00:39	1°♒37'27	
morning rise	16054 Apr 07 04:00	18°♒30'26		direct	16055 Mar 23 06:14	1°♒18'18	
direct	16054 Apr 09 09:41	18°♒07'56		morning max el	16055 Mar 30 17:06	5°♒01'08	18°04'39
morning max el	16054 Apr 16 02:50	21°♒31'10	17°47'40	morning set	16055 Apr 15 07:02	29°♒35'45	
	16054 Apr 22 15:07	0°♓			16055 Apr 15 12:16	0°♓	
morning set	16054 May 01 23:23	15°♓56'09		desc. node	16055 Apr 22 14:49	13°♓04'51	
desc. node	16054 May 05 18:03	22°♓36'00					
	16054 May 10 00:15	0°♈		superior conj	16055 Apr 25 07:32	17°♓54'43	-0°22'09
superior conj	16054 May 13 12:09	5°♈56'38	-1°00'08	minimum elong	16055 Apr 25 05:41	17°♓46'29	0°22'20

	16055 May 02 07:42	0°♂			16056 Apr 06 12:56	0°♂		
max. Earth dist.	16055 May 02 21:39	0°♂58'20	1.42045 AU	desc. node	16056 Apr 08 11:33	3°♂37'11		
evening rise	16055 May 08 03:30	9°♂33'01		max. Earth dist.	16056 Apr 14 05:40	13°♂58'01	1.39845 AU	
	16055 May 21 12:15	0°♂		evening rise	16056 Apr 18 05:50	20°♂50'14		
evening max el	16055 Jun 10 11:11	25°♂48'03	22°35'53		16056 Apr 23 20:07	0°♂		
	16055 Jun 15 13:11	0°♂			16056 May 14 14:32	0°♂		
asc. node	16055 Jun 16 22:41	0°♂45'44		evening max el	16056 May 23 01:32	9°♂43'13	23°57'26	
retrograde	16055 Jun 20 09:23	1°♂36'54		asc. node	16056 Jun 02 19:41	16°♂12'35		
	16055 Jun 24 17:46	30°♂♂		retrograde	16056 Jun 03 03:39	16°♂13'04		
evening set	16055 Jun 25 07:17	29°♂32'41		evening set	16056 Jun 08 13:16	13°♂55'13		
inferior conj	16055 Jun 30 14:01	23°♂11'17	3°02'41	min. Earth dist.	16056 Jun 13 05:09	8°♂29'29	0.68874 AU	
minimum elong	16055 Jun 30 13:03	23°♂14'37	3°01'52	inferior conj	16056 Jun 13 23:23	7°♂27'25	2°46'19	
min. Earth dist.	16055 Jun 30 08:48	23°♂29'25	0.69148 AU	minimum elong	16056 Jun 13 21:41	7°♂33'13	2°45'15	
morning rise	16055 Jul 05 18:40	16°♂59'07		morning rise	16056 Jun 19 06:07	1°♂24'01		
direct	16055 Jul 10 08:15	15°♂05'39			16056 Jun 21 23:49	30°♂♂		
morning max el	16055 Jul 19 06:48	20°♂17'13	21°32'15	direct	16056 Jun 23 07:45	29°♂50'14		
desc. node	16055 Jul 19 14:16	20°♂36'02			16056 Jun 24 16:35	0°♂		
	16055 Jul 27 11:29	0°♂		morning max el	16056 Jul 01 03:40	4°♂14'59	20°16'07	
	16055 Aug 17 02:02	0°♂		desc. node	16056 Jul 05 11:30	9°♂06'24		
morning set	16055 Aug 19 23:49	4°♂33'11			16056 Jul 20 09:07	0°♂		
max. Earth dist.	16055 Aug 26 10:48	14°♂56'33	1.42447 AU	morning set	16056 Jul 29 08:15	13°♂35'15		
				max. Earth dist.	16056 Aug 07 22:13	28°♂35'11	1.44280 AU	
					16056 Aug 08 19:26	0°♂		
superior conj	16055 Sep 02 23:34	27°♂36'48	-1°19'35					
minimum elong	16055 Sep 03 06:03	28°♂04'47	1°18'48					
	16055 Sep 04 08:37	0°♂		superior conj	16056 Aug 13 20:53	8°♂11'46	-1°51'24	
asc. node	16055 Sep 12 23:31	15°♂23'04		minimum elong	16056 Aug 14 04:42	8°♂43'50	1°51'04	
evening rise	16055 Sep 14 02:48	17°♂27'03		evening rise	16056 Aug 26 17:34	29°♂54'37		
	16055 Sep 21 03:27	0°♂			16056 Aug 26 18:49	0°♂		
evening max el	16055 Sep 30 04:37	12°♂51'08	18°06'34	asc. node	16056 Aug 29 20:11	5°♂16'29		
retrograde	16055 Oct 07 03:52	16°♂25'35		evening max el	16056 Sep 12 18:47	26°♂05'57	18°01'55	
evening set	16055 Oct 09 09:19	16°♂04'03		retrograde	16056 Sep 19 06:02	29°♂27'54		
desc. node	16055 Oct 15 11:20	12°♂08'06		evening set	16056 Sep 21 19:28	28°♂55'18		
inferior conj	16055 Oct 16 12:31	11°♂11'58	-0°20'00	inferior conj	16056 Sep 28 06:58	23°♂44'05	0°56'00	
minimum elong	16055 Oct 16 11:50	11°♂13'29	0°19'17	minimum elong	16056 Sep 28 08:31	23°♂40'05	0°55'41	
min. Earth dist.	16055 Oct 19 17:38	8°♂18'54	0.59907 AU	min. Earth dist.	16056 Oct 01 04:07	20°♂46'38	0.62197 AU	
morning rise	16055 Oct 23 11:07	5°♂31'05		desc. node	16056 Oct 01 08:42	20°♂35'23		
direct	16055 Oct 30 01:17	3°♂28'03		morning rise	16056 Oct 04 19:03	17°♂38'53		
morning max el	16055 Nov 13 07:29	11°♂15'07	27°48'53	direct	16056 Oct 11 11:30	15°♂16'17		
	16055 Nov 28 00:01	0°♂		morning max el	16056 Oct 25 13:54	23°♂13'23	27°57'56	
asc. node	16055 Dec 10 00:11	20°♂49'08			16056 Oct 31 15:25	0°♂		
	16055 Dec 14 13:54	0°♂			16056 Nov 20 06:46	0°♂		
morning set	16055 Dec 15 14:21	2°♂08'06		asc. node	16056 Nov 25 21:10	10°♂35'47		
max. Earth dist.	16055 Dec 21 18:20	15°♂34'51	1.31052 AU	morning set	16056 Nov 28 13:47	16°♂01'07		
				max. Earth dist.	16056 Dec 03 22:22	27°♂22'52	1.31585 AU	
					16056 Dec 05 03:06	0°♂		
superior conj	16055 Dec 22 15:21	17°♂32'11	1°32'46					
minimum elong	16055 Dec 22 14:01	17°♂24'42	1°33'25					
	16055 Dec 28 05:54	0°♂		superior conj	16056 Dec 06 00:44	1°♂59'10	1°21'41	
evening rise	16055 Dec 29 08:06	2°♂22'17		minimum elong	16056 Dec 05 22:40	1°♂47'46	1°22'12	
desc. node	16056 Jan 11 10:12	27°♂32'39		evening rise	16056 Dec 12 18:19	16°♂49'22		
	16056 Jan 12 22:32	0°♂			16056 Dec 19 03:34	0°♂		
evening max el	16056 Jan 26 13:31	17°♂27'20	26°03'12	desc. node	16056 Dec 28 07:04	15°♂45'13		
retrograde	16056 Feb 09 12:30	24°♂31'37		evening max el	16057 Jan 07 02:34	27°♂49'46	24°32'25	
evening set	16056 Feb 15 15:29	23°♂03'26			16057 Jan 09 13:47	0°♂		
min. Earth dist.	16056 Feb 20 02:39	20°♂25'21	0.57622 AU	retrograde	16057 Jan 20 18:58	4°♂39'10		
inferior conj	16056 Feb 23 03:01	18°♂17'12	-3°55'16	evening set	16057 Jan 26 00:52	3°♂38'40		
minimum elong	16056 Feb 23 11:44	18°♂01'42	3°52'11	min. Earth dist.	16057 Jan 31 14:25	0°♂48'19	0.55821 AU	
morning rise	16056 Mar 02 11:06	13°♂54'40			16057 Feb 01 21:47	30°♂♂		
direct	16056 Mar 04 10:29	13°♂42'06		inferior conj	16057 Feb 02 21:02	29°♂23'50	-5°15'27	
asc. node	16056 Mar 06 22:01	14°♂02'55		minimum elong	16057 Feb 03 05:48	29°♂10'14	5°13'08	
morning max el	16056 Mar 13 00:15	17°♂55'09	18°41'59	morning rise	16057 Feb 11 12:53	25°♂21'56		
	16056 Mar 21 17:00	0°♂		direct	16057 Feb 13 19:03	25°♂08'19		
morning set	16056 Mar 29 02:37	13°♂46'43		asc. node	16057 Feb 21 19:23	28°♂14'09		
					16057 Feb 23 19:43	0°♂		
superior conj	16056 Apr 06 22:45	0°♂45'59	0°12'52	morning max el	16057 Feb 23 20:04	0°♂00'49	19°41'46	
minimum elong	16056 Apr 06 23:35	0°♂49'57	0°12'23	morning set	16057 Mar 13 06:10	28°♂16'42		
behind sun begin	16056 Apr 06 19:12	0°♂29'24			16057 Mar 14 02:37	0°♂		
behind sun end	16056 Apr 07 03:59	1°♂10'29						

superior conj	16057 Mar 21 05:18	14°♿17'42	0°42'30	morning set	16058 Feb 25 14:43	12°♿57'04	
minimum elong	16057 Mar 21 07:31	14°♿28'41	0°42'01				
desc. node	16057 Mar 26 08:14	24°♿08'43		superior conj	16058 Mar 04 23:10	28°♿18'48	1°05'53
max. Earth dist.	16057 Mar 27 11:58	26°♿17'39	1.37548 AU	minimum elong	16058 Mar 05 01:43	28°♿31'53	1°05'37
	16057 Mar 29 12:38	0°♿			16058 Mar 05 18:53	0°♿	
evening rise	16057 Mar 31 04:30	2°♿58'19		max. Earth dist.	16058 Mar 09 20:57	8°♿11'48	1.35396 AU
	16057 Apr 16 22:20	0°♿		desc. node	16058 Mar 13 04:53	14°♿35'56	
evening max el	16057 May 05 14:57	23°♿37'41	25°15'34	evening rise	16058 Mar 13 20:28	15°♿48'59	
	16057 May 14 09:50	0°♿			16058 Mar 21 20:29	0°♿	
retrograde	16057 May 17 18:00	0°♿40'11			16058 Apr 11 10:34	0°♿	
asc. node	16057 May 20 16:48	0°♿04'10		evening max el	16058 Apr 18 04:31	7°♿26'58	26°22'55
	16057 May 20 20:41	30°♿♿		retrograde	16058 May 01 03:24	14°♿50'19	
evening set	16057 May 23 14:54	28°♿12'28		evening set	16058 May 07 10:21	12°♿17'53	
min. Earth dist.	16057 May 27 22:55	23°♿23'44	0.68111 AU	asc. node	16058 May 07 13:59	12°♿10'21	
inferior conj	16057 May 29 06:14	21°♿41'45	2°19'15	min. Earth dist.	16058 May 11 12:05	8°♿04'34	0.66891 AU
minimum elong	16057 May 29 04:06	21°♿48'43	2°17'58	inferior conj	16058 May 13 08:26	5°♿49'16	1°40'37
morning rise	16057 Jun 03 17:40	15°♿48'19		minimum elong	16058 May 13 06:21	5°♿55'37	1°39'19
direct	16057 Jun 07 07:56	14°♿34'11		morning rise	16058 May 19 03:20	0°♿06'59	
morning max el	16057 Jun 14 07:51	18°♿23'14	19°13'55		16058 May 19 08:14	30°♿♿	
desc. node	16057 Jun 22 08:38	28°♿16'53		direct	16058 May 22 07:03	29°♿10'56	
	16057 Jun 23 13:46	0°♿			16058 May 25 07:57	0°♿	
greatest brilliancy	16057 Jun 27 02:08	5°♿07'52	-0.7m	morning max el	16058 May 28 18:41	2°♿37'11	18°27'39
morning set	16057 Jul 08 13:29	22°♿34'19		desc. node	16058 Jun 09 05:40	17°♿56'23	
	16057 Jul 13 09:01	0°♿			16058 Jun 16 22:53	0°♿	
max. Earth dist.	16057 Jul 21 15:00	12°♿50'27	1.45496 AU	morning set	16058 Jun 18 10:53	2°♿21'53	
superior conj	16057 Jul 24 19:56	17°♿53'11	-2°11'08	superior conj	16058 Jul 04 05:50	27°♿06'11	-2°12'15
minimum elong	16057 Jul 25 00:12	18°♿09'59	2°11'33	minimum elong	16058 Jul 04 02:24	26°♿52'47	2°12'52
	16057 Aug 01 10:02	0°♿		max. Earth dist.	16058 Jul 04 10:31	27°♿24'27	1.45994 AU
evening rise	16057 Aug 08 10:35	11°♿26'32			16058 Jul 06 02:27	0°♿	
asc. node	16057 Aug 16 16:53	24°♿55'40		evening rise	16058 Jul 20 02:25	21°♿54'36	
	16057 Aug 19 22:50	0°♿			16058 Jul 25 05:52	0°♿	
evening max el	16057 Aug 27 09:30	9°♿41'04	18°15'31	greatest brilliancy	16058 Jul 28 20:26	5°♿37'46	-0.8m
retrograde	16057 Sep 02 18:23	13°♿03'48		asc. node	16058 Aug 03 13:36	14°♿14'04	
evening set	16057 Sep 05 16:31	12°♿17'11		evening max el	16058 Aug 10 21:44	23°♿28'07	18°46'38
inferior conj	16057 Sep 11 15:38	6°♿49'35	1°52'28	retrograde	16058 Aug 17 12:59	27°♿04'28	
minimum elong	16057 Sep 11 17:56	6°♿42'57	1°51'48	evening set	16058 Aug 20 20:28	26°♿01'36	
min. Earth dist.	16057 Sep 14 00:41	4°♿06'02	0.64342 AU	inferior conj	16058 Aug 26 10:40	20°♿19'45	2°31'31
morning rise	16057 Sep 17 17:41	0°♿29'45		minimum elong	16058 Aug 26 12:48	20°♿13'06	2°30'51
desc. node	16057 Sep 18 06:04	0°♿06'11		min. Earth dist.	16058 Aug 28 06:00	18°♿04'28	0.66182 AU
	16057 Sep 18 09:29	30°♿♿		morning rise	16058 Sep 01 04:08	13°♿53'38	
direct	16057 Sep 24 07:02	27°♿55'21		desc. node	16058 Sep 05 03:26	11°♿36'20	
	16057 Sep 30 19:17	0°♿		direct	16058 Sep 07 10:25	11°♿16'11	
morning max el	16057 Oct 08 00:16	5°♿52'50	27°30'24	morning max el	16058 Sep 20 11:46	19°♿00'10	26°33'37
	16057 Oct 26 11:03	0°♿			16058 Sep 29 20:18	0°♿	
morning set	16057 Nov 12 04:38	29°♿28'31			16058 Oct 19 11:34	0°♿	
	16057 Nov 12 10:59	0°♿		morning set	16058 Oct 26 07:49	12°♿23'06	
asc. node	16057 Nov 12 18:05	0°♿35'17		max. Earth dist.	16058 Oct 30 06:12	19°♿59'25	1.34334 AU
max. Earth dist.	16057 Nov 16 19:12	8°♿51'06	1.32685 AU	asc. node	16058 Oct 30 14:55	20°♿42'36	
superior conj	16057 Nov 20 06:15	16°♿12'08	1°04'29	superior conj	16058 Nov 04 05:28	0°♿05'05	0°41'09
minimum elong	16057 Nov 20 03:53	15°♿59'25	1°04'49	minimum elong	16058 Nov 04 03:28	29°♿54'39	0°41'24
	16057 Nov 26 14:55	0°♿			16058 Nov 04 04:30	0°♿	
evening rise	16057 Nov 27 05:06	1°♿16'14		evening rise	16058 Nov 11 14:33	15°♿38'16	
	16057 Dec 12 22:51	0°♿			16058 Nov 18 18:47	0°♿	
desc. node	16057 Dec 15 04:00	2°♿56'05		evening max el	16058 Dec 01 03:22	17°♿52'56	21°11'21
evening max el	16057 Dec 19 11:56	7°♿45'24	22°49'07	desc. node	16058 Dec 02 01:00	18°♿44'19	
retrograde	16058 Jan 01 12:49	14°♿12'31		retrograde	16058 Dec 12 22:45	23°♿43'30	
evening set	16058 Jan 05 12:55	13°♿37'36		evening set	16058 Dec 15 17:12	23°♿25'37	
min. Earth dist.	16058 Jan 12 21:09	10°♿15'16	0.54670 AU	inferior conj	16058 Dec 24 11:05	19°♿35'00	-5°45'26
inferior conj	16058 Jan 13 20:23	9°♿42'18	-5°59'38	minimum elong	16058 Dec 24 04:25	19°♿44'25	5°43'48
minimum elong	16058 Jan 13 22:50	9°♿38'49	5°58'54	min. Earth dist.	16058 Dec 25 02:33	19°♿13'09	0.54403 AU
morning rise	16058 Jan 22 10:00	5°♿53'29		morning rise	16059 Jan 01 15:53	15°♿44'02	
direct	16058 Jan 25 09:41	5°♿32'54		direct	16059 Jan 05 17:05	15°♿08'35	
morning max el	16058 Feb 06 01:15	11°♿10'11	21°04'51	morning max el	16059 Jan 18 16:29	21°♿27'38	22°47'27
asc. node	16058 Feb 08 16:43	13°♿59'20			16059 Jan 25 21:13	0°♿	
	16058 Feb 19 02:37	0°♿		asc. node	16059 Jan 26 14:00	1°♿00'13	

morning set	16059 Feb 10 01:59	27°  41'11	direct	16059 Dec 17 06:21	24°  27'01		
	16059 Feb 11 03:58	0° 		16059 Dec 29 14:18	0° 		
superior conj	16059 Feb 17 01:04	12°  39'53	1°22'50	morning max el	16059 Dec 31 00:52	1°  18'32	24°37'31
	minimum elong	16059 Feb 17 03:12	12°  51'15	1°22'54	asc. node	16060 Jan 13 11:14	18°  58'59
max. Earth dist.	16059 Feb 20 12:45	20°  00'48	1.33577 AU	morning set	16060 Jan 19 13:37	0° 	
evening rise	16059 Feb 25 02:15	29°  13'05			16060 Jan 25 13:56	12°  22'45	
desc. node	16059 Feb 25 11:52	0° 		superior conj	16060 Feb 01 08:16	27°  12'32	1°33'28
	16059 Feb 28 01:32	4°  54'50		minimum elong	16060 Feb 01 09:33	27°  19'36	1°33'52
	16059 Mar 14 23:40	0° 			16060 Feb 02 14:52	0° 	
evening max el	16059 Mar 31 18:10	21°  03'20	27°11'58	max. Earth dist.	16060 Feb 03 12:13	1°  55'59	1.32207 AU
retrograde	16059 Apr 14 06:50	28°  35'14		evening rise	16060 Feb 08 18:32	13°  01'19	
evening set	16059 Apr 20 21:35	26°  04'28		desc. node	16060 Feb 14 22:11	24°  59'52	
asc. node	16059 Apr 24 11:11	22°  44'11			16060 Feb 17 16:30	0° 	
min. Earth dist.	16059 Apr 24 18:42	22°  23'52	0.65259 AU		16060 Mar 09 05:29	0° 	
inferior conj	16059 Apr 27 03:36	19°  44'36	0°49'22	evening max el	16060 Mar 13 06:26	4°  13'53	27°35'21
minimum elong	16059 Apr 27 02:19	19°  48'13	0°48'22	retrograde	16060 Mar 27 03:00	11°  44'21	
morning rise	16059 May 03 08:47	14°  15'14		evening set	16060 Apr 02 22:12	9°  22'15	
direct	16059 May 06 03:00	13°  03'41		min. Earth dist.	16060 Apr 06 16:42	6°  10'19	0.63285 AU
morning max el	16059 May 12 10:15	16°  50'31	17°58'20	inferior conj	16060 Apr 09 12:46	3°  19'15	-0°15'38
	16059 May 22 04:14	0° 		minimum elong	16060 Apr 09 13:16	3°  17'58	0°15'47
desc. node	16059 May 27 02:37	7°  15'19		transit middle	16060 Apr 09 13:16	3°  17'58	0°15'47
morning set	16059 May 30 11:08	13°  12'16		transit begin	16060 Apr 09 12:47	3°  19'12	
	16059 Jun 09 15:52	0° 		transit end	16060 Apr 09 13:45	3°  16'45	
				asc. node	16060 Apr 10 08:27	2°  29'58	
superior conj	16059 Jun 13 19:01	6°  34'01	-1°53'49		16060 Apr 13 02:41	30°  05'15	
minimum elong	16059 Jun 13 10:39	6°  00'54	1°53'56	morning rise	16060 Apr 16 06:56	28°  05'15	
max. Earth dist.	16059 Jun 17 06:42	12°  03'00	1.45747 AU	direct	16060 Apr 18 16:51	27°  03'703	
	16059 Jun 28 20:47	0° 			16060 Apr 24 03:57	0° 	
evening rise	16059 Jun 29 20:51	1°  03'22'0		morning max el	16060 Apr 25 03:49	0°  54'12	17°46'25
greatest brilliancy	16059 Jul 13 11:11	22°  05'25	-0.7m	morning set	16060 May 11 13:17	25°  45'54	
	16059 Jul 19 01:30	0° 		desc. node	16060 May 12 23:29	28°  12'51	
asc. node	16059 Jul 21 10:21	3°  04'16			16060 May 14 00:29	0° 	
evening max el	16059 Jul 25 05:16	7°  21'06	19°34'11				
retrograde	16059 Aug 01 10:54	11°  23'25		superior conj	16060 May 24 01:52	16°  12'19	-1°21'39
evening set	16059 Aug 05 04:24	10°  02'55		minimum elong	16060 May 23 18:21	16°  21'31	1°21'26
inferior conj	16059 Aug 10 12:57	4°  08'14	2°55'43	max. Earth dist.	16060 May 30 01:28	26°  13'32	1.44775 AU
minimum elong	16059 Aug 10 14:23	4°  03'28	2°55'06		16060 Jun 01 06:09	0° 	
min. Earth dist.	16059 Aug 11 18:15	2°  31'01	0.67621 AU	evening rise	16060 Jun 08 07:19	10°  25'58	
	16059 Aug 13 18:26	30°  08'02			16060 Jun 21 00:29	0° 	
morning rise	16059 Aug 15 23:51	27°  04'15'6		asc. node	16060 Jul 07 07:09	21°  01'19	
direct	16059 Aug 21 20:14	25°  09'43		evening max el	16060 Jul 07 06:50	21°  01'53'2	20°36'23
desc. node	16059 Aug 23 00:48	25°  01'51'8		retrograde	16060 Jul 15 09:54	25°  02'54'4	
	16059 Aug 31 10:05	0° 		evening set	16060 Jul 19 14:05	24°  01'16	
morning max el	16059 Sep 02 22:48	2°  24'13	25°16'47	inferior conj	16060 Jul 24 19:55	18°  09'55	3°07'11
	16059 Sep 23 22:56	0° 		minimum elong	16060 Jul 24 20:26	18°  08'09	3°06'35
morning set	16059 Oct 08 19:37	24°  36'27		min. Earth dist.	16060 Jul 25 11:27	17°  01'6'25	0.68596 AU
	16059 Oct 11 18:39	0° 		morning rise	16060 Jul 30 02:29	11°  04'7'23	
max. Earth dist.	16059 Oct 12 08:27	1°  04'07	1.36443 AU	direct	16060 Aug 04 11:16	9°  02'7'04	
asc. node	16059 Oct 17 11:40	10°  05'3'48		desc. node	16060 Aug 08 22:09	10°  02'45'19	
				morning max el	16060 Aug 15 09:43	15°  02'58'37	23°49'33
superior conj	16059 Oct 18 19:31	13°  03'1'02	0°12'00		16060 Aug 26 23:25	0° 	
minimum elong	16059 Oct 18 18:46	13°  02'7'18	0°12'19		16060 Sep 15 21:55	0° 	
behind sun begin	16059 Oct 18 14:36	13°  06'41		morning set	16060 Sep 19 11:53	5°  05'9'07	
behind sun end	16059 Oct 18 22:55	13°  04'7'57		max. Earth dist.	16060 Sep 23 07:21	12°  03'4'26	1.38817 AU
evening rise	16059 Oct 26 20:34	29°  05'0'35					
	16059 Oct 26 22:25	0° 		superior conj	16060 Sep 30 20:47	26°  02'1'27	-0°22'01
evening max el	16059 Nov 13 08:12	28°  04'2'15	19°51'23	minimum elong	16060 Sep 30 22:21	26°  02'28'49	0°21'27
	16059 Nov 14 17:32	0° 			16060 Oct 02 18:47	0° 	
desc. node	16059 Nov 18 22:05	2°  34'5'40		asc. node	16060 Oct 03 08:23	1°  05'13	
retrograde	16059 Nov 23 12:37	3°  34'7'06		evening rise	16060 Oct 09 20:34	13°  04'46'49	
evening set	16059 Nov 25 13:53	3°  35'5'41			16060 Oct 18 13:33	0° 	
	16059 Dec 03 15:51	30°  08'3'37		evening max el	16060 Oct 26 03:11	10°  02'22'19	18°53'38
inferior conj	16059 Dec 04 07:48	29°  03'5'33	-4°34'40	retrograde	16060 Nov 03 18:36	14°  04'3'58	
minimum elong	16059 Dec 03 21:47	29°  05'0'56	4°31'02	desc. node	16060 Nov 04 19:16	14°  04'0'28	
min. Earth dist.	16059 Dec 06 09:28	28°  01'9'15	0.55086 AU	evening set	16060 Nov 05 16:03	14°  03'32'13	
morning rise	16059 Dec 12 04:22	25°  02'3'47		inferior conj	16060 Nov 13 22:18	10°  01'13'13	-2°54'10

minimum elong	16060 Nov 13 15:10	10° ♁ 25'52	2°50'47	min. Earth dist.	16061 Oct 29 16:40	18° ♁ 56'58	0.58608 AU
min. Earth dist.	16060 Nov 16 21:10	8° ♁ 07'52	0.56575 AU	morning rise	16061 Nov 02 14:52	16° ♁ 15'07	
morning rise	16060 Nov 21 11:25	5° ♁ 26'49		direct	16061 Nov 09 00:30	14° ♁ 26'19	
direct	16060 Nov 27 08:24	4° ♁ 04'48		morning max el	16061 Nov 23 07:29	22° ♁ 04'47	27°25'50
morning max el	16060 Dec 11 12:13	11° ♁ 21'59	26°16'06		16061 Nov 30 07:29	0° ♁	
	16060 Dec 25 20:22	0° ♁		asc. node	16061 Dec 17 05:31	26° ♁ 55'16	
asc. node	16060 Dec 30 08:24	7° ♁ 41'19			16061 Dec 18 19:55	0° ♁	
morning set	16061 Jan 09 00:50	26° ♁ 57'31		morning set	16061 Dec 24 08:52	11° ♁ 20'07	
	16061 Jan 10 10:28	0° ♁					
				superior conj	16061 Dec 31 06:02	26° ♁ 29'28	1°36'24
superior conj	16061 Jan 15 18:35	11° ♁ 51'04	1°37'57	minimum elong	16061 Dec 31 05:15	26° ♁ 25'02	1°37'04
minimum elong	16061 Jan 15 18:50	11° ♁ 52'29	1°38'34	max. Earth dist.	16061 Dec 31 01:14	26° ♁ 02'31	1.30999 AU
max. Earth dist.	16061 Jan 16 17:33	13° ♁ 59'00	1.31340 AU		16062 Jan 01 19:38	0° ♁	
evening rise	16061 Jan 22 18:40	27° ♁ 07'33		evening rise	16062 Jan 07 00:16	11° ♁ 25'36	
	16061 Jan 24 03:48	0° ♁			16062 Jan 16 08:33	0° ♁	
desc. node	16061 Jan 31 18:54	14° ♁ 45'25		desc. node	16062 Jan 18 15:40	4° ♁ 03'27	
	16061 Feb 10 01:21	0° ♁		evening max el	16062 Feb 05 16:36	28° ♁ 27'15	26°43'19
evening max el	16061 Feb 23 14:49	16° ♁ 45'27	27°26'50		16062 Feb 07 09:36	0° ♁	
retrograde	16061 Mar 09 14:48	24° ♁ 08'31		retrograde	16062 Feb 19 17:01	5° ♁ 39'55	
evening set	16061 Mar 16 09:27	22° ♁ 02'11		evening set	16062 Feb 26 04:07	3° ♁ 56'08	
min. Earth dist.	16061 Mar 20 04:42	19° ♁ 12'14	0.61086 AU	min. Earth dist.	16062 Mar 02 06:23	1° ♁ 17'43	0.58834 AU
inferior conj	16061 Mar 23 08:32	16° ♁ 24'19	-1°34'16		16062 Mar 03 23:10	30° ♁	
minimum elong	16061 Mar 23 11:57	16° ♁ 16'43	1°33'02	inferior conj	16062 Mar 05 11:09	28° ♁ 49'58	-3°03'10
asc. node	16061 Mar 28 05:47	12° ♁ 36'20		minimum elong	16062 Mar 05 18:09	28° ♁ 36'26	3°00'29
morning rise	16061 Mar 30 17:45	11° ♁ 28'47		morning rise	16062 Mar 13 11:43	24° ♁ 15'28	
direct	16061 Apr 01 20:59	11° ♁ 09'31		direct	16062 Mar 15 10:58	24° ♁ 01'37	
morning max el	16061 Apr 08 20:19	14° ♁ 39'22	17°52'35	asc. node	16062 Mar 15 03:08	24° ♁ 02'00	
	16061 Apr 19 10:38	0° ♁		morning max el	16062 Mar 23 08:07	27° ♁ 55'44	18°18'03
morning set	16061 Apr 24 11:47	9° ♁ 00'46			16062 Mar 25 05:54	0° ♁	
desc. node	16061 Apr 29 20:18	18° ♁ 38'09		morning set	16062 Apr 08 01:03	22° ♁ 55'11	
					16062 Apr 11 18:51	0° ♁	
superior conj	16061 May 05 08:09	28° ♁ 15'09	-0°43'53	desc. node	16062 Apr 16 17:04	9° ♁ 09'10	
minimum elong	16061 May 05 04:14	27° ♁ 58'16	0°43'51				
	16061 May 06 08:38	0° ♁		superior conj	16062 Apr 17 12:32	10° ♁ 37'47	-0°06'46
max. Earth dist.	16061 May 12 16:29	10° ♁ 33'56	1.43177 AU	minimum elong	16062 Apr 17 11:59	10° ♁ 35'18	0°07'06
evening rise	16061 May 19 02:20	20° ♁ 49'46		behind sun begin	16062 Apr 17 05:19	10° ♁ 04'57	
	16061 May 25 01:01	0° ♁		behind sun end	16062 Apr 17 18:40	11° ♁ 05'35	
	16061 Jun 15 11:20	0° ♁		max. Earth dist.	16062 Apr 25 02:22	23° ♁ 56'36	1.41126 AU
evening max el	16061 Jun 20 02:33	5° ♁ 09'24	21°50'05		16062 Apr 28 17:13	0° ♁	
asc. node	16061 Jun 24 04:02	8° ♁ 37'25		evening rise	16062 Apr 29 16:17	1° ♁ 34'39	
retrograde	16061 Jun 29 08:17	10° ♁ 32'39			16062 May 18 09:50	0° ♁	
evening set	16061 Jul 03 23:38	8° ♁ 37'07		evening max el	16062 Jun 02 18:06	19° ♁ 03'46	23°10'33
inferior conj	16061 Jul 09 05:21	2° ♁ 20'28	3°07'23	asc. node	16062 Jun 11 01:00	24° ♁ 51'42	
minimum elong	16061 Jul 09 04:54	2° ♁ 22'01	3°06'40	retrograde	16062 Jun 13 04:34	25° ♁ 11'35	
min. Earth dist.	16061 Jul 09 07:33	2° ♁ 12'48	0.69086 AU	evening set	16062 Jun 18 07:25	23° ♁ 01'04	
	16061 Jul 10 22:12	30° ♁		min. Earth dist.	16062 Jun 23 04:30	17° ♁ 13'44	0.69083 AU
morning rise	16061 Jul 14 10:00	26° ♁ 04'07		inferior conj	16062 Jun 23 15:18	16° ♁ 36'20	2°57'02
direct	16061 Jul 19 06:31	24° ♁ 00'14		minimum elong	16062 Jun 23 14:00	16° ♁ 40'50	2°56'07
desc. node	16061 Jul 26 19:28	27° ♁ 41'54		morning rise	16062 Jun 28 20:31	10° ♁ 27'42	
morning max el	16061 Jul 28 22:26	29° ♁ 41'25	22°20'51	direct	16062 Jul 03 04:50	8° ♁ 42'43	
	16061 Jul 29 05:47	0° ♁		morning max el	16062 Jul 11 15:40	13° ♁ 33'49	20°58'26
	16061 Aug 20 16:54	0° ♁		desc. node	16062 Jul 13 16:43	15° ♁ 43'29	
morning set	16061 Aug 31 04:59	16° ♁ 22'37			16062 Jul 24 16:23	0° ♁	
max. Earth dist.	16061 Sep 05 08:40	24° ♁ 51'31	1.41191 AU	morning set	16062 Aug 10 23:14	25° ♁ 49'08	
	16061 Sep 08 09:22	0° ♁			16062 Aug 13 15:17	0° ♁	
				max. Earth dist.	16062 Aug 18 15:44	8° ♁ 00'58	1.43288 AU
superior conj	16061 Sep 13 04:57	8° ♁ 25'34	-0°58'43				
minimum elong	16061 Sep 13 09:40	8° ♁ 46'35	0°57'56	superior conj	16062 Aug 25 15:52	19° ♁ 35'07	-1°34'03
asc. node	16061 Sep 20 05:04	21° ♁ 12'39		minimum elong	16062 Aug 25 23:19	20° ♁ 06'35	1°33'24
evening rise	16061 Sep 23 11:12	27° ♁ 17'39			16062 Aug 31 17:28	0° ♁	
	16061 Sep 24 21:57	0° ♁		evening rise	16062 Sep 06 12:12	10° ♁ 12'32	
evening max el	16061 Oct 09 08:56	22° ♁ 46'53	18°17'48	asc. node	16062 Sep 07 01:45	11° ♁ 12'47	
retrograde	16061 Oct 16 20:02	26° ♁ 35'10			16062 Sep 18 05:33	0° ♁	
evening set	16061 Oct 18 21:22	26° ♁ 18'29		evening max el	16062 Sep 22 21:13	5° ♁ 46'48	18°02'14
desc. node	16061 Oct 22 16:31	24° ♁ 30'12		retrograde	16062 Sep 29 14:17	9° ♁ 14'25	
inferior conj	16061 Oct 26 10:35	21° ♁ 38'14	-1°12'24	evening set	16062 Oct 01 22:53	8° ♁ 48'44	
minimum elong	16061 Oct 26 07:51	21° ♁ 43'53	1°10'45	inferior conj	16062 Oct 08 19:06	3° ♁ 48'25	0°14'38

minimum elong	16062 Oct 08 19:35	3° \mathbb{M} 47'17	0°14'48	evening max el	16063 Sep 06 12:06	19° \mathbb{A} 11'57	18°05'33
transit middle	16062 Oct 08 19:35	3° \mathbb{M} 47'17	0°14'48	retrograde	16063 Sep 12 21:10	22° \mathbb{A} 32'20	
transit begin	16062 Oct 08 18:15	3° \mathbb{M} 50'27		evening set	16063 Sep 15 14:15	21° \mathbb{A} 54'06	
transit end	16062 Oct 08 20:54	3° \mathbb{M} 44'07		inferior conj	16063 Sep 21 20:05	16° \mathbb{A} 35'54	1°22'11
desc. node	16062 Oct 09 13:49	3° \mathbb{M} 03'19		minimum elong	16063 Sep 21 22:06	16° \mathbb{A} 30'26	1°21'40
min. Earth dist.	16062 Oct 11 21:41	0° \mathbb{M} 50'42	0.60890 AU	min. Earth dist.	16063 Sep 24 12:32	13° \mathbb{A} 42'11	0.63144 AU
	16062 Oct 12 20:28	30° \mathbb{R} \mathbb{A}		desc. node	16063 Sep 26 11:09	11° \mathbb{A} 47'55	
morning rise	16062 Oct 15 13:13	27° \mathbb{A} 55'43		morning rise	16063 Sep 28 03:48	10° \mathbb{A} 23'32	
direct	16062 Oct 22 05:05	25° \mathbb{A} 43'12		direct	16063 Oct 04 19:45	7° \mathbb{A} 54'33	
	16062 Nov 01 08:38	0° \mathbb{M}		morning max el	16063 Oct 18 18:41	15° \mathbb{A} 53'13	27°50'11
morning max el	16062 Nov 05 10:26	3° \mathbb{M} 36'23	27°57'21		16063 Oct 30 09:49	0° \mathbb{M}	
	16062 Nov 24 23:21	0° \mathbb{A}			16063 Nov 17 16:01	0° \mathbb{A}	
asc. node	16062 Dec 04 02:34	16° \mathbb{A} 32'12		asc. node	16063 Nov 20 23:32	6° \mathbb{A} 25'21	
morning set	16062 Dec 08 12:06	25° \mathbb{A} 25'45		morning set	16063 Nov 22 08:14	9° \mathbb{A} 09'12	
	16062 Dec 10 15:55	0° \mathbb{B}		max. Earth dist.	16063 Nov 27 08:47	19° \mathbb{A} 38'08	1.31984 AU
max. Earth dist.	16062 Dec 14 07:33	7° \mathbb{B} 58'11	1.31207 AU				
				superior conj	16063 Nov 30 00:50	25° \mathbb{A} 25'12	1°15'09
superior conj	16062 Dec 15 16:46	11° \mathbb{B} 02'35	1°28'49	minimum elong	16063 Nov 29 22:34	25° \mathbb{A} 12'51	1°15'36
minimum elong	16062 Dec 15 15:05	10° \mathbb{B} 53'12	1°29'25		16063 Dec 02 02:54	0° \mathbb{B}	
evening rise	16062 Dec 22 09:20	25° \mathbb{B} 50'54		evening rise	16063 Dec 06 20:03	10° \mathbb{B} 19'10	
	16062 Dec 24 07:57	0° \approx			16063 Dec 16 17:50	0° \approx	
desc. node	16063 Jan 05 12:29	22° \approx 43'46		desc. node	16063 Dec 23 09:21	10° \approx 32'51	
	16063 Jan 10 10:27	0° \mathbb{H}		evening max el	16063 Dec 30 21:02	19° \approx 25'30	23°48'59
evening max el	16063 Jan 18 10:11	9° \mathbb{H} 16'43	25°27'11	retrograde	16064 Jan 13 08:26	26° \approx 06'10	
retrograde	16063 Feb 01 07:36	16° \mathbb{H} 15'52		evening set	16064 Jan 18 02:13	25° \approx 17'30	
evening set	16063 Feb 07 02:30	14° \mathbb{H} 59'32		min. Earth dist.	16064 Jan 24 08:27	22° \approx 15'52	0.55235 AU
min. Earth dist.	16063 Feb 11 22:54	12° \mathbb{H} 18'13	0.56785 AU	inferior conj	16064 Jan 26 02:55	21° \approx 13'03	-5°40'13
inferior conj	16063 Feb 14 17:25	10° \mathbb{H} 27'09	-4°32'01	minimum elong	16064 Jan 26 09:49	21° \approx 02'50	5°38'41
minimum elong	16063 Feb 15 02:47	10° \mathbb{H} 11'29	4°29'01	morning rise	16064 Feb 03 18:59	17° \approx 17'37	
morning rise	16063 Feb 23 05:54	6° \mathbb{H} 13'55		direct	16064 Feb 06 07:18	17° \approx 01'49	
direct	16063 Feb 25 06:44	6° \mathbb{H} 01'37		asc. node	16064 Feb 16 21:53	22° \approx 06'32	
asc. node	16063 Mar 02 00:31	7° \mathbb{H} 12'47		morning max el	16064 Feb 17 00:51	22° \approx 13'42	20°14'15
morning max el	16063 Mar 06 11:01	10° \mathbb{H} 30'56	19°04'39		16064 Feb 23 07:55	0° \mathbb{H}	
	16063 Mar 19 06:55	0° \mathbb{Y}		morning set	16064 Mar 06 06:25	21° \mathbb{H} 51'05	
morning set	16063 Mar 23 00:24	7° \mathbb{Y} 15'13			16064 Mar 10 05:32	0° \mathbb{Y}	
				superior conj	16064 Mar 13 22:36	7° \mathbb{Y} 33'18	0°53'12
superior conj	16063 Mar 31 10:46	23° \mathbb{Y} 47'37	0°26'10	minimum elong	16064 Mar 14 01:04	7° \mathbb{Y} 45'44	0°52'47
minimum elong	16063 Mar 31 12:21	23° \mathbb{Y} 55'13	0°25'39	max. Earth dist.	16064 Mar 19 15:38	18° \mathbb{Y} 43'22	1.36605 AU
desc. node	16063 Apr 03 13:46	29° \mathbb{Y} 41'35		desc. node	16064 Mar 20 10:26	20° \mathbb{Y} 12'03	
	16063 Apr 03 17:44	0° \mathbb{B}		evening rise	16064 Mar 23 10:04	25° \mathbb{Y} 42'39	
max. Earth dist.	16063 Apr 07 08:39	6° \mathbb{B} 36'09	1.38854 AU		16064 Mar 25 19:42	0° \mathbb{B}	
evening rise	16063 Apr 11 03:32	13° \mathbb{B} 14'32			16064 Apr 13 22:26	0° \mathbb{B}	
	16063 Apr 21 10:02	0° \mathbb{B}		evening max el	16064 Apr 27 21:26	16° \mathbb{B} 52'44	25°46'04
	16063 May 13 11:37	0° \mathbb{B}		retrograde	16064 May 10 09:35	24° \mathbb{B} 05'02	
evening max el	16063 May 16 07:49	2° \mathbb{B} 58'56	24°31'39	asc. node	16064 May 14 19:11	22° \mathbb{B} 46'58	
retrograde	16063 May 27 21:24	9° \mathbb{B} 44'32		evening set	16064 May 16 10:55	21° \mathbb{B} 34'55	
asc. node	16063 May 28 22:04	9° \mathbb{B} 40'04		min. Earth dist.	16064 May 20 16:13	17° \mathbb{B} 01'18	0.67647 AU
evening set	16063 Jun 02 11:45	7° \mathbb{B} 22'09		inferior conj	16064 May 22 04:58	15° \mathbb{B} 04'32	2°04'21
min. Earth dist.	16063 Jun 07 00:06	2° \mathbb{B} 12'01	0.68599 AU	minimum elong	16064 May 22 02:47	15° \mathbb{B} 11'29	2°03'02
inferior conj	16063 Jun 07 23:50	0° \mathbb{B} 52'26	2°36'12	morning rise	16064 May 27 19:13	9° \mathbb{B} 15'26	
minimum elong	16063 Jun 07 21:55	0° \mathbb{B} 58'55	2°35'03	direct	16064 May 31 04:58	8° \mathbb{B} 09'04	
	16063 Jun 08 15:33	30° \mathbb{R} \mathbb{B}		morning max el	16064 Jun 06 22:33	11° \mathbb{B} 46'41	18°52'10
morning rise	16063 Jun 13 08:13	24° \mathbb{B} 52'53		desc. node	16064 Jun 16 10:58	23° \mathbb{B} 56'10	
direct	16063 Jun 17 04:53	23° \mathbb{B} 27'31		greatest brilliancy	16064 Jun 20 10:49	29° \mathbb{B} 53'50	-0.8m
morning max el	16063 Jun 24 15:30	27° \mathbb{B} 36'00	19°47'47		16064 Jun 20 12:26	0° \mathbb{B}	
	16063 Jun 26 21:31	0° \mathbb{B}		morning set	16064 Jun 29 13:42	13° \mathbb{B} 56'31	
desc. node	16063 Jun 30 13:53	4° \mathbb{B} 32'23			16064 Jul 09 21:49	0° \mathbb{B}	
	16063 Jul 18 01:44	0° \mathbb{Q}		max. Earth dist.	16064 Jul 13 23:31	6° \mathbb{Q} 20'50	1.45803 AU
morning set	16063 Jul 21 03:46	4° \mathbb{Q} 42'53					
max. Earth dist.	16063 Aug 01 05:09	21° \mathbb{Q} 55'16	1.44878 AU	superior conj	16064 Jul 15 18:56	9° \mathbb{Q} 10'35	-2°14'07
				minimum elong	16064 Jul 15 20:06	9° \mathbb{Q} 15'07	2°14'44
superior conj	16063 Aug 06 03:14	29° \mathbb{Q} 46'10	-2°01'42		16064 Jul 28 22:21	0° \mathbb{B}	
minimum elong	16063 Aug 06 10:16	0° \mathbb{B} 14'26	2°01'41	evening rise	16064 Jul 31 00:36	3° \mathbb{B} 21'56	
	16063 Aug 06 06:41	0° \mathbb{B}		asc. node	16064 Aug 10 19:05	20° \mathbb{B} 31'48	
evening rise	16063 Aug 19 18:17	22° \mathbb{B} 17'43			16064 Aug 17 11:57	0° \mathbb{B}	
	16063 Aug 24 07:53	0° \mathbb{A}		evening max el	16064 Aug 20 02:07	2° \mathbb{A} 53'10	18°26'43
asc. node	16063 Aug 24 22:25	1° \mathbb{A} 00'54					

retrograde	16064 Aug 26 12:29	6°♄19'47		greatest brilliancy	16065 Jul 22 05:43	0°♄20'13	-0.7m
evening set	16064 Aug 29 14:39	5°♄26'17			16065 Jul 22 00:22	0°♄	
inferior conj	16064 Sep 04 09:32	29°♄52'23	2°11'01	asc. node	16065 Jul 28 15:48	9°♄39'13	
minimum elong	16064 Sep 04 11:51	29°♄45'27	2°10'19	evening max el	16065 Aug 03 12:33	16°♄43'20	19°04'56
	16064 Sep 04 06:59	30°♄		retrograde	16065 Aug 10 08:55	20°♄29'20	
min. Earth dist.	16064 Sep 06 12:47	27°♄19'39	0.65172 AU	evening set	16065 Aug 13 20:37	19°♄18'54	
morning rise	16064 Sep 10 07:45	23°♄29'18		inferior conj	16065 Aug 19 08:00	13°♄31'11	2°43'29
desc. node	16064 Sep 12 08:31	22°♄05'10		minimum elong	16065 Aug 19 09:53	13°♄25'08	2°42'50
direct	16064 Sep 16 18:35	20°♄52'41		min. Earth dist.	16065 Aug 20 21:14	11°♄31'27	0.66840 AU
morning max el	16064 Sep 30 05:37	28°♄45'20	27°09'21	morning rise	16065 Aug 24 22:24	7°♄04'25	
	16064 Oct 01 10:35	0°♄		desc. node	16065 Aug 30 05:53	4°♄30'59	
	16064 Oct 23 05:43	0°♄		direct	16065 Aug 31 00:37	4°♄28'36	
morning set	16064 Nov 04 18:30	22°♄23'29		morning max el	16065 Sep 12 17:12	12°♄01'44	26°03'01
asc. node	16064 Nov 06 20:23	26°♄28'43			16065 Sep 27 03:57	0°♄	
	16064 Nov 08 14:21	0°♄			16065 Oct 15 21:13	0°♄	
max. Earth dist.	16064 Nov 09 01:43	0°♄57'57	1.33328 AU	morning set	16065 Oct 18 15:40	5°♄01'59	
				max. Earth dist.	16065 Oct 22 09:06	12°♄04'15	1.35185 AU
superior conj	16064 Nov 13 03:59	9°♄30'43	0°55'20	asc. node	16065 Oct 24 17:10	16°♄38'17	
minimum elong	16064 Nov 13 01:40	9°♄18'28	0°55'38				
evening rise	16064 Nov 20 06:31	24°♄45'02		superior conj	16065 Oct 27 23:42	23°♄13'15	0°29'28
	16064 Nov 22 18:29	0°♄		minimum elong	16065 Oct 27 22:06	23°♄05'06	0°29'44
desc. node	16064 Dec 09 06:18	27°♄11'40			16065 Oct 31 06:31	0°♄	
evening max el	16064 Dec 11 07:48	29°♄21'48	22°05'54	evening rise	16065 Nov 04 14:50	9°♄04'08	
	16064 Dec 11 23:51	0°♄			16065 Nov 15 16:44	0°♄	
retrograde	16064 Dec 23 21:20	5°♄34'36		evening max el	16065 Nov 23 04:17	9°♄44'15	20°34'40
evening set	16064 Dec 27 08:21	5°♄08'04		desc. node	16065 Nov 26 03:19	12°♄17'44	
inferior conj	16065 Jan 04 20:57	1°♄16'51	-6°01'20	retrograde	16065 Dec 04 07:39	15°♄16'25	
minimum elong	16065 Jan 04 19:19	1°♄19'08	6°00'35	evening set	16065 Dec 06 16:57	15°♄02'19	
min. Earth dist.	16065 Jan 04 13:54	1°♄26'42	0.54448 AU	inferior conj	16065 Dec 15 12:25	11°♄08'41	-5°21'06
	16065 Jan 07 04:54	30°♄		minimum elong	16065 Dec 15 03:21	11°♄21'50	5°18'29
morning rise	16065 Jan 13 07:11	27°♄29'37		min. Earth dist.	16065 Dec 16 19:21	10°♄23'46	0.54586 AU
direct	16065 Jan 16 17:30	27°♄03'33		morning rise	16065 Dec 23 13:31	7°♄11'13	
	16065 Jan 25 08:24	0°♄		direct	16065 Dec 28 01:33	6°♄27'40	
morning max el	16065 Jan 28 23:31	2°♄58'49	21°46'32	morning max el	16066 Jan 10 10:48	13°♄01'10	23°34'22
asc. node	16065 Feb 02 19:12	8°♄26'10		asc. node	16066 Jan 20 16:28	25°♄53'32	
	16065 Feb 15 12:06	0°♄			16066 Jan 23 05:17	0°♄	
morning set	16065 Feb 18 16:24	6°♄34'00		morning set	16066 Feb 03 04:12	21°♄17'50	
					16066 Feb 07 04:34	0°♄	
superior conj	16065 Feb 25 20:15	21°♄43'47	1°13'51				
minimum elong	16065 Feb 25 22:41	21°♄56'31	1°13'43	superior conj	16066 Feb 10 00:43	6°♄10'45	1°28'06
	16065 Mar 01 20:40	0°♄		minimum elong	16066 Feb 10 02:32	6°♄20'32	1°28'19
max. Earth dist.	16065 Mar 02 03:33	0°♄34'40	1.34581 AU	max. Earth dist.	16066 Feb 12 22:43	12°♄25'36	1.32939 AU
evening rise	16065 Mar 06 08:20	8°♄48'25		evening rise	16066 Feb 17 18:57	22°♄23'26	
desc. node	16065 Mar 07 07:04	10°♄36'06			16066 Feb 21 17:09	0°♄	
	16065 Mar 18 09:51	0°♄		desc. node	16066 Feb 22 03:43	0°♄49'32	
	16065 Apr 09 19:55	0°♄			16066 Mar 12 03:45	0°♄	
evening max el	16065 Apr 10 11:13	0°♄37'46	26°46'26	evening max el	16066 Mar 24 00:18	14°♄03'45	27°25'18
retrograde	16065 Apr 23 16:21	8°♄05'19		retrograde	16066 Apr 06 16:48	21°♄36'19	
evening set	16065 Apr 30 03:05	5°♄32'45		evening set	16066 Apr 13 10:07	19°♄07'59	
asc. node	16065 May 01 16:22	4°♄10'09		min. Earth dist.	16066 Apr 17 05:42	15°♄40'31	0.64457 AU
min. Earth dist.	16065 May 04 02:42	1°♄33'55	0.66249 AU	asc. node	16066 Apr 18 13:37	14°♄15'45	
	16065 May 05 10:42	30°♄		inferior conj	16066 Apr 19 19:45	12°♄54'20	0°23'29
inferior conj	16065 May 06 04:28	29°♄07'16	1°20'31	minimum elong	16066 Apr 19 19:05	12°♄56'07	0°22'46
minimum elong	16065 May 06 02:38	29°♄12'44	1°19'16	morning rise	16066 Apr 26 06:11	7°♄31'30	
morning rise	16065 May 12 03:24	23°♄30'20		direct	16066 Apr 28 20:41	6°♄56'41	
direct	16065 May 15 03:04	22°♄41'06		morning max el	16066 May 05 04:31	10°♄11'30	17°51'09
morning max el	16065 May 21 11:40	26°♄01'02	18°13'07		16066 May 18 21:06	0°♄	
	16065 May 24 23:50	0°♄		desc. node	16066 May 21 04:55	3°♄53'01	
desc. node	16065 Jun 03 07:59	13°♄45'27		morning set	16066 May 22 09:46	5°♄53'40	
morning set	16065 Jun 09 22:02	24°♄16'02					
	16065 Jun 13 12:08	0°♄		superior conj	16066 Jun 04 23:24	28°♄09'49	-1°41'22
superior conj	16065 Jun 25 03:59	18°♄23'45	-2°06'35	minimum elong	16066 Jun 04 14:48	27°♄35'23	1°41'15
minimum elong	16065 Jun 24 21:44	17°♄59'18	2°07'02		16066 Jun 06 03:00	0°♄	
max. Earth dist.	16065 Jun 26 20:10	21°♄00'35	1.45979 AU	max. Earth dist.	16066 Jun 09 15:57	5°♄36'14	1.45409 AU
	16065 Jul 02 14:48	0°♄		evening rise	16066 Jun 20 19:14	22°♄51'51	
evening rise	16065 Jul 11 06:18	13°♄25'44			16066 Jun 25 11:47	0°♄	
				greatest brilliancy	16066 Jul 05 15:05	15°♄03'52	-0.6m

asc. node	16066 Jul 15 12:34	28°♊14'20		max. Earth dist.	16067 May 23 08:49	19°♊53'39	1.44161 AU
	16066 Jul 17 03:09	0°♎			16067 May 29 18:20	0°♎	
evening max el	16066 Jul 17 17:29	0°♎36'29	19°59'02	evening rise	16067 May 31 07:36	2°♎24'21	
retrograde	16066 Jul 25 07:39	4°♎53'53			16067 Jun 18 23:59	0°♊	
evening set	16066 Jul 29 05:32	3°♎25'46		evening max el	16067 Jun 30 16:27	14°♊30'35	21°06'35
	16066 Aug 01 13:41	30°♋♊		asc. node	16067 Jul 02 09:25	16°♊06'28	
inferior conj	16066 Aug 03 12:34	27°♊25'47	3°02'03	retrograde	16067 Jul 09 06:36	19°♊28'16	
minimum elong	16066 Aug 03 13:38	27°♊22'11	3°01'28	evening set	16067 Jul 13 15:22	17°♊42'37	
min. Earth dist.	16066 Aug 04 11:57	26°♊06'41	0.68083 AU	inferior conj	16067 Jul 18 20:52	11°♊31'44	3°08'34
morning rise	16066 Aug 08 21:19	21°♊00'27		minimum elong	16067 Jul 18 20:58	11°♊31'22	3°07'57
direct	16066 Aug 14 12:46	18°♊32'41		min. Earth dist.	16067 Jul 19 06:46	10°♊57'19	0.68864 AU
desc. node	16066 Aug 17 03:16	18°♊59'30		morning rise	16067 Jul 24 02:18	5°♊11'20	
morning max el	16066 Aug 26 04:14	25°♊31'09	24°40'30	direct	16067 Jul 29 05:55	2°♊57'21	
	16066 Aug 30 06:25	0°♎		desc. node	16067 Aug 04 00:38	5°♊08'51	
	16066 Sep 20 15:51	0°♊		morning max el	16067 Aug 08 15:29	9°♊08'24	23°11'23
morning set	16066 Sep 30 19:42	16°♊54'56			16067 Aug 25 01:48	0°♎	
max. Earth dist.	16066 Oct 04 08:58	23°♊15'12	1.37428 AU	morning set	16067 Sep 12 02:22	27°♎52'27	
	16066 Oct 08 00:26	0°♌			16067 Sep 13 08:55	0°♊	
				max. Earth dist.	16067 Sep 16 07:34	5°♊00'16	1.39841 AU
superior conj	16066 Oct 11 08:44	6°♌24'37	-0°01'57				
minimum elong	16066 Oct 11 08:51	6°♌25'08	0°01'32	superior conj	16067 Sep 24 03:15	18°♊55'59	-0°37'27
behind sun begin	16066 Oct 11 02:12	5°♌52'50		minimum elong	16067 Sep 24 06:05	19°♊09'02	0°36'47
behind sun end	16066 Oct 11 15:29	6°♌57'29		asc. node	16067 Sep 28 10:35	26°♊59'20	
asc. node	16066 Oct 11 13:53	6°♌49'41			16067 Sep 30 00:30	0°♌	
evening rise	16066 Oct 19 18:37	23°♌10'06		evening rise	16067 Oct 03 15:02	6°♌55'44	
	16066 Oct 23 05:20	0°♊			16067 Oct 17 02:15	0°♊	
evening max el	16066 Nov 05 15:21	20°♊54'57	19°24'07	evening max el	16067 Oct 19 15:28	2°♊54'52	18°35'55
desc. node	16066 Nov 13 00:27	25°♊26'52		retrograde	16067 Oct 27 17:29	7°♊00'28	
retrograde	16066 Nov 15 03:35	25°♊40'49		evening set	16067 Oct 29 16:02	6°♊47'06	
evening set	16066 Nov 17 01:38	25°♊30'02		desc. node	16067 Oct 30 21:40	6°♊25'27	
inferior conj	16066 Nov 25 15:44	21°♊22'46	-3°53'49	inferior conj	16067 Nov 06 15:21	2°♊19'27	-2°09'54
minimum elong	16066 Nov 25 06:27	21°♊37'53	3°49'59	minimum elong	16067 Nov 06 10:08	2°♊29'20	2°07'11
min. Earth dist.	16066 Nov 28 04:16	19°♊44'18	0.55630 AU		16067 Nov 09 17:11	30°♋♌	
morning rise	16066 Dec 03 09:07	16°♊56'54		min. Earth dist.	16067 Nov 09 19:05	29°♌56'31	0.57389 AU
direct	16066 Dec 08 19:49	15°♊49'41		morning rise	16067 Nov 14 00:55	27°♌17'10	
morning max el	16066 Dec 22 19:37	22°♊53'41	25°21'57	direct	16067 Nov 20 04:20	25°♌43'18	
	16066 Dec 29 03:34	0°♎			16067 Nov 30 18:00	0°♊	
asc. node	16067 Jan 07 13:41	14°♎12'20		morning max el	16067 Dec 04 09:50	3°♊10'23	26°50'02
	16067 Jan 15 20:25	0°♎			16067 Dec 23 17:07	0°♎	
morning set	16067 Jan 18 15:57	5°♎57'23		asc. node	16067 Dec 25 10:50	3°♎09'06	
				morning set	16068 Jan 03 01:51	20°♎27'12	
superior conj	16067 Jan 25 09:33	20°♎47'14	1°36'07		16068 Jan 07 10:13	0°♎	
minimum elong	16067 Jan 25 10:25	20°♎51'59	1°36'37				
max. Earth dist.	16067 Jan 27 00:50	24°♎23'46	1.31772 AU	superior conj	16068 Jan 09 20:35	5°♎26'19	1°38'02
	16067 Jan 29 14:45	0°♋		minimum elong	16068 Jan 09 20:23	5°♎25'13	1°38'41
evening rise	16067 Feb 01 14:55	6°♋20'27		max. Earth dist.	16068 Jan 10 07:30	6°♎27'24	1.31126 AU
desc. node	16067 Feb 09 00:24	20°♋47'13		evening rise	16068 Jan 16 17:38	20°♎32'28	
	16067 Feb 14 06:38	0°♎			16068 Jan 21 08:20	0°♋	
evening max el	16067 Mar 06 11:08	26°♎59'23	27°35'51	desc. node	16068 Jan 26 21:06	10°♋22'01	
	16067 Mar 09 21:58	0°♋			16068 Feb 08 14:48	0°♎	
retrograde	16067 Mar 20 09:59	4°♋28'13		evening max el	16068 Feb 16 17:14	9°♎11'41	27°12'45
evening set	16067 Mar 27 05:32	2°♋11'49		retrograde	16068 Mar 01 18:04	16°♎30'31	
	16067 Mar 30 01:32	30°♋♎		evening set	16068 Mar 08 10:12	14°♎33'23	
min. Earth dist.	16067 Mar 30 23:43	29°♎10'11	0.62365 AU	min. Earth dist.	16068 Mar 12 07:35	11°♎49'30	0.60121 AU
inferior conj	16067 Apr 02 23:43	26°♎18'11	-0°47'25	inferior conj	16068 Mar 15 12:43	9°♎08'11	-2°11'07
minimum elong	16067 Apr 03 01:20	26°♎14'19	0°47'02	minimum elong	16068 Mar 15 17:39	8°♎57'50	2°09'12
asc. node	16067 Apr 05 10:56	24°♎02'25		asc. node	16068 Mar 22 08:19	4°♎37'02	
morning rise	16067 Apr 10 00:09	21°♎11'51		morning rise	16068 Mar 23 04:35	4°♎21'00	
direct	16067 Apr 12 06:50	20°♎48'00		direct	16068 Mar 25 05:34	4°♎04'31	
morning max el	16067 Apr 18 22:10	24°♎09'26	17°46'45	morning max el	16068 Apr 01 13:08	7°♎43'39	18°00'51
	16067 Apr 23 16:28	0°♋			16068 Apr 15 22:02	0°♋	
morning set	16067 May 04 21:24	18°♋38'53		morning set	16068 Apr 17 02:53	2°♋12'41	
desc. node	16067 May 08 01:47	24°♋13'28		desc. node	16068 Apr 23 22:34	14°♋41'28	
	16067 May 11 09:43	0°♊					
superior conj	16067 May 16 16:11	8°♊56'04	-1°05'54	superior conj	16068 Apr 27 08:16	20°♋45'14	-0°27'47
minimum elong	16067 May 16 10:04	8°♊30'33	1°05'43	minimum elong	16068 Apr 27 05:54	20°♋34'48	0°27'56
					16068 May 02 17:02	0°♊	

max. Earth dist.	16068 May 04 21:40	3° Π 40'14	1.42356 AU	desc. node	16069 Apr 10 19:17	5° \mathcal{B} 13'14	
evening rise	16068 May 10 10:01	12° Π 38'15		max. Earth dist.	16069 Apr 17 06:11	16° \mathcal{B} 46'02	1.40184 AU
	16068 May 21 17:34	0° \mathcal{E}		evening rise	16069 Apr 21 09:04	23° \mathcal{B} 46'40	
evening max el	16068 Jun 12 10:19	28° \mathcal{E} 24'59	22°23'50		16069 Apr 25 04:07	0° Π	
	16068 Jun 14 02:27	0° Ω			16069 May 15 13:54	0° \mathcal{E}	
asc. node	16068 Jun 18 06:21	3° Ω 01'15		evening max el	16069 May 26 00:52	12° \mathcal{E} 19'42	23°45'19
retrograde	16068 Jun 22 04:08	4° Ω 06'59		asc. node	16069 Jun 05 03:23	18° \mathcal{E} 41'11	
evening set	16068 Jun 27 00:22	2° Ω 04'55		retrograde	16069 Jun 05 22:57	18° \mathcal{E} 44'02	
	16068 Jun 29 01:22	30° \mathcal{R} \mathcal{E}		evening set	16069 Jun 11 06:52	16° \mathcal{E} 27'52	
inferior conj	16068 Jul 02 06:46	25° \mathcal{E} 44'47	3°04'13	min. Earth dist.	16069 Jun 15 24:00	10° \mathcal{E} 56'39	0.68946 AU
minimum elong	16068 Jul 02 05:56	25° \mathcal{E} 47'40	3°03'27	inferior conj	16069 Jun 16 16:20	10° \mathcal{E} 00'46	2°49'28
min. Earth dist.	16068 Jul 02 03:29	25° \mathcal{E} 56'15	0.69153 AU	minimum elong	16069 Jun 16 14:44	10° \mathcal{E} 06'15	2°48'27
morning rise	16068 Jul 07 11:21	19° \mathcal{E} 31'33		morning rise	16069 Jun 21 22:36	3° \mathcal{E} 56'05	
direct	16068 Jul 12 02:45	17° \mathcal{E} 35'17		direct	16069 Jun 26 01:56	2° \mathcal{E} 19'27	
desc. node	16068 Jul 20 21:55	22° \mathcal{E} 35'07		morning max el	16069 Jul 04 01:31	6° \mathcal{E} 50'37	20°26'40
morning max el	16068 Jul 21 05:38	22° \mathcal{E} 54'11	21°44'33	desc. node	16069 Jul 07 19:08	10° \mathcal{E} 58'19	
	16068 Jul 27 10:00	0° Ω			16069 Jul 21 14:26	0° Ω	
	16068 Aug 17 09:05	0° \mathcal{M}		morning set	16069 Aug 01 19:50	16° Ω 57'13	
morning set	16068 Aug 22 09:14	7° \mathcal{M} 49'45			16069 Aug 10 03:36	0° \mathcal{M}	
max. Earth dist.	16068 Aug 28 11:14	17° \mathcal{M} 40'11	1.42136 AU	max. Earth dist.	16069 Aug 10 21:42	1° \mathcal{M} 12'16	1.44043 AU
	16068 Sep 04 18:09	0° \mathcal{L}					
				superior conj	16069 Aug 17 03:45	11° \mathcal{M} 21'51	-1°47'11
superior conj	16068 Sep 05 02:53	0° \mathcal{L} 37'57	-1°14'12	minimum elong	16069 Aug 17 11:37	11° \mathcal{M} 54'21	1°46'44
minimum elong	16068 Sep 05 08:56	1° \mathcal{L} 04'18	1°13'25		16069 Aug 28 03:26	0° \mathcal{L}	
asc. node	16068 Sep 14 07:16	17° \mathcal{L} 04'01		evening rise	16069 Aug 29 18:03	2° \mathcal{L} 47'43	
evening rise	16068 Sep 16 00:25	20° \mathcal{L} 12'26		asc. node	16069 Sep 01 03:56	6° \mathcal{L} 59'21	
	16068 Sep 21 10:07	0° \mathcal{M}		evening max el	16069 Sep 15 14:20	28° \mathcal{L} 46'43	18°01'21
evening max el	16068 Oct 02 00:34	15° \mathcal{M} 35'46	18°08'51		16069 Sep 16 22:47	0° \mathcal{M}	
retrograde	16068 Oct 09 02:30	19° \mathcal{M} 13'22		retrograde	16069 Sep 22 02:50	2° \mathcal{M} 09'52	
evening set	16068 Oct 11 06:51	18° \mathcal{M} 53'11		evening set	16069 Sep 24 14:56	1° \mathcal{M} 39'11	
desc. node	16068 Oct 16 18:57	15° \mathcal{M} 33'41			16069 Sep 27 09:34	30° \mathcal{R} \mathcal{L}	
inferior conj	16068 Oct 18 12:35	14° \mathcal{M} 03'58	-0°33'13	inferior conj	16069 Oct 01 04:35	26° \mathcal{L} 30'37	0°45'45
minimum elong	16068 Oct 18 11:26	14° \mathcal{M} 06'32	0°32'16	minimum elong	16069 Oct 01 05:54	26° \mathcal{L} 27'17	0°45'31
min. Earth dist.	16068 Oct 21 18:11	11° \mathcal{M} 13'25	0.59564 AU	desc. node	16069 Oct 03 16:17	23° \mathcal{L} 59'21	
morning rise	16068 Oct 25 12:41	8° \mathcal{M} 27'30		min. Earth dist.	16069 Oct 04 03:16	23° \mathcal{L} 32'29	0.61863 AU
direct	16068 Nov 01 01:54	6° \mathcal{M} 28'06		morning rise	16069 Oct 07 18:13	20° \mathcal{L} 28'14	
morning max el	16068 Nov 15 08:24	14° \mathcal{M} 12'52	27°44'16	direct	16069 Oct 14 10:37	18° \mathcal{L} 08'02	
	16068 Nov 28 01:21	0° \mathcal{X}		morning max el	16069 Oct 28 14:04	26° \mathcal{L} 04'31	27°59'01
asc. node	16068 Dec 11 07:54	22° \mathcal{X} 33'41			16069 Nov 01 06:06	0° \mathcal{M}	
	16068 Dec 15 01:45	0° \mathcal{Z}			16069 Nov 21 15:13	0° \mathcal{X}	
morning set	16068 Dec 17 08:06	4° \mathcal{Z} 43'04		asc. node	16069 Nov 28 04:53	12° \mathcal{X} 17'39	
max. Earth dist.	16068 Dec 23 15:14	18° \mathcal{Z} 29'27	1.31020 AU	morning set	16069 Dec 01 08:34	18° \mathcal{X} 39'11	
					16069 Dec 06 16:26	0° \mathcal{Z}	
superior conj	16068 Dec 24 07:57	20° \mathcal{Z} 03'01	1°33'56	max. Earth dist.	16069 Dec 06 19:58	0° \mathcal{Z} 19'16	1.31467 AU
minimum elong	16068 Dec 24 06:45	19° \mathcal{Z} 56'18	1°34'35				
	16068 Dec 28 19:01	0° \approx		superior conj	16069 Dec 08 17:44	4° \mathcal{Z} 31'15	1°23'46
evening rise	16068 Dec 31 00:58	4° \approx 54'23		minimum elong	16069 Dec 08 15:45	4° \mathcal{Z} 20'18	1°24'18
desc. node	16069 Jan 12 17:53	29° \approx 25'31		evening rise	16069 Dec 15 10:55	19° \mathcal{Z} 20'38	
	16069 Jan 13 02:10	0° \mathcal{H}			16069 Dec 20 13:24	0° \approx	
evening max el	16069 Jan 28 15:52	20° \mathcal{H} 31'40	26°14'36	desc. node	16069 Dec 30 14:43	17° \approx 45'28	
retrograde	16069 Feb 11 15:10	27° \mathcal{H} 37'58			16070 Jan 09 05:33	0° \mathcal{H}	
evening set	16069 Feb 17 20:38	26° \mathcal{H} 05'37		evening max el	16070 Jan 10 05:52	0° \mathcal{H} 59'46	24°47'09
min. Earth dist.	16069 Feb 22 05:06	23° \mathcal{H} 28'00	0.57930 AU	retrograde	16070 Jan 23 23:50	7° \mathcal{H} 52'07	
inferior conj	16069 Feb 25 07:02	21° \mathcal{H} 14'18	-3°41'44	evening set	16070 Jan 29 09:25	6° \mathcal{H} 47'28	
minimum elong	16069 Feb 25 15:22	20° \mathcal{H} 59'10	3°38'42	min. Earth dist.	16070 Feb 03 17:53	4° \mathcal{H} 00'06	0.56047 AU
morning rise	16069 Mar 05 13:20	16° \mathcal{H} 48'39		inferior conj	16070 Feb 06 04:07	2° \mathcal{H} 28'21	-5°05'00
direct	16069 Mar 07 12:32	16° \mathcal{H} 35'51		minimum elong	16070 Feb 06 13:15	2° \mathcal{H} 13'55	5°02'28
asc. node	16069 Mar 09 05:41	16° \mathcal{H} 46'00			16070 Feb 10 09:32	30° \mathcal{R} \approx	
morning max el	16069 Mar 15 21:35	20° \mathcal{H} 43'28	18°35'03	morning rise	16070 Feb 14 19:27	28° \approx 23'51	
	16069 Mar 22 21:41	0° \mathcal{Y}		direct	16070 Feb 16 23:51	28° \approx 10'46	
morning set	16069 Mar 31 20:54	16° \mathcal{Y} 19'28			16070 Feb 23 01:52	0° \mathcal{H}	
	16069 Apr 08 00:04	0° \mathcal{B}		asc. node	16070 Feb 24 03:01	0° \mathcal{H} 41'23	
				morning max el	16070 Feb 26 19:21	2° \mathcal{H} 57'01	19°31'28
superior conj	16069 Apr 09 20:46	3° \mathcal{B} 29'07	0°07'52	morning set	16070 Mar 15 23:27	0° \mathcal{Y} 47'09	
minimum elong	16069 Apr 09 21:17	3° \mathcal{B} 31'33	0°07'25		16070 Mar 15 14:03	0° \mathcal{Y}	
behind sun begin	16069 Apr 09 15:01	3° \mathcal{B} 02'22					
behind sun end	16069 Apr 10 03:34	4° \mathcal{B} 00'41		superior conj	16070 Mar 24 01:18	16° \mathcal{Y} 55'44	0°38'23

minimum elong	16070 Mar 24 03:24	17° Υ 05'59	0°37'53	superior conj	16071 Mar 07 17:42	0° Υ 52'53	1°02'44
desc. node	16070 Mar 28 15:57	25° Υ 45'12		minimum elong	16071 Mar 07 20:15	1° Υ 05'56	1°02'26
max. Earth dist.	16070 Mar 30 12:19	29° Υ 10'29	1.37879 AU	max. Earth dist.	16071 Mar 12 20:29	11° Υ 06'34	1.35693 AU
	16070 Mar 30 23:09	0° \mathcal{B}		desc. node	16071 Mar 15 12:34	16° Υ 13'11	
evening rise	16070 Apr 03 04:51	5° \mathcal{B} 47'47		evening rise	16071 Mar 16 18:28	18° Υ 32'44	
	16070 Apr 18 03:10	0° Π			16071 Mar 23 05:02	0° \mathcal{B}	
evening max el	16070 May 08 14:14	26° Π 14'23	25°04'27		16071 Apr 12 07:06	0° Π	
	16070 May 12 21:11	0° \mathcal{E}		evening max el	16071 Apr 21 03:47	10° Π 05'01	26°13'56
retrograde	16070 May 20 14:00	3° \mathcal{E} 13'06		retrograde	16071 May 04 00:13	17° Π 26'07	
asc. node	16070 May 23 00:27	2° \mathcal{E} 48'23		asc. node	16071 May 09 21:36	15° Π 10'27	
evening set	16070 May 26 09:15	0° \mathcal{E} 46'32		evening set	16071 May 10 05:43	14° Π 54'08	
	16070 May 27 05:31	30° $\mathcal{R}\Pi$		min. Earth dist.	16071 May 14 08:20	10° Π 35'31	0.67099 AU
min. Earth dist.	16070 May 30 18:18	25° Π 52'19	0.68252 AU	inferior conj	16071 May 16 02:42	8° Π 24'45	1°47'20
inferior conj	16070 May 31 23:40	24° Π 15'50	2°24'06	minimum elong	16071 May 16 00:35	8° Π 31'20	1°46'00
minimum elong	16070 May 31 21:35	24° Π 22'43	2°22'51	morning rise	16071 May 21 20:18	2° Π 40'34	
morning rise	16070 Jun 06 10:14	18° Π 20'47		direct	16071 May 25 01:32	1° Π 41'56	
direct	16070 Jun 10 02:06	17° Π 03'51		morning max el	16071 May 31 14:30	5° Π 10'51	18°33'27
morning max el	16070 Jun 17 04:37	20° Π 57'39	19°22'11	desc. node	16071 Jun 11 13:19	19° Π 39'07	
desc. node	16070 Jun 24 16:16	0° \mathcal{E} 03'32			16071 Jun 18 05:51	0° \mathcal{E}	
	16070 Jun 24 15:15	0° \mathcal{E}		morning set	16071 Jun 21 18:11	5° \mathcal{E} 30'32	
greatest brilliancy	16070 Jun 29 20:33	7° \mathcal{E} 28'49	-0.7m		16071 Jul 07 10:17	0° Ω	
morning set	16070 Jul 12 00:12	25° \mathcal{E} 53'06					
	16070 Jul 14 16:21	0° Ω		superior conj	16071 Jul 07 16:40	0° Ω 24'53	-2°13'24
max. Earth dist.	16070 Jul 24 13:35	15° Ω 22'16	1.45359 AU	minimum elong	16071 Jul 07 14:24	0° Ω 16'02	2°14'03
				max. Earth dist.	16071 Jul 07 08:39	29° \mathcal{E} 53'39	1.45972 AU
superior conj	16070 Jul 28 05:47	21° Ω 10'16	-2°09'14	evening rise	16071 Jul 23 10:06	25° Ω 05'28	
minimum elong	16070 Jul 28 10:57	21° Ω 30'46	2°09'32		16071 Jul 26 12:33	0° \mathcal{H}	
	16070 Aug 02 18:13	0° \mathcal{H}		greatest brilliancy	16071 Jul 31 06:43	7° \mathcal{H} 29'39	-0.8m
evening rise	16070 Aug 11 14:36	14° \mathcal{H} 28'34		asc. node	16071 Aug 05 21:17	16° \mathcal{H} 02'49	
asc. node	16070 Aug 19 00:36	26° \mathcal{H} 41'03		evening max el	16071 Aug 13 17:57	26° \mathcal{H} 05'08	18°40'57
	16070 Aug 21 02:22	0° \mathcal{A}		retrograde	16071 Aug 20 07:41	29° \mathcal{H} 38'29	
evening max el	16070 Aug 30 05:10	12° \mathcal{A} 19'24	18°12'19	evening set	16071 Aug 23 13:45	28° \mathcal{H} 38'07	
retrograde	16070 Sep 05 13:51	15° \mathcal{A} 41'09		inferior conj	16071 Aug 29 05:05	22° \mathcal{H} 58'23	2°26'35
evening set	16070 Sep 08 10:37	14° \mathcal{A} 56'51		minimum elong	16071 Aug 29 07:17	22° \mathcal{H} 51'34	2°25'54
inferior conj	16070 Sep 14 11:23	9° \mathcal{A} 31'42	1°45'04	min. Earth dist.	16071 Aug 31 02:31	20° \mathcal{H} 38'09	0.65935 AU
minimum elong	16070 Sep 14 13:39	9° \mathcal{A} 25'16	1°44'24	morning rise	16071 Sep 03 23:44	16° \mathcal{H} 32'54	
min. Earth dist.	16070 Sep 16 22:27	6° \mathcal{A} 44'54	0.64043 AU	desc. node	16071 Sep 07 11:00	14° \mathcal{H} 26'12	
morning rise	16070 Sep 20 14:51	3° \mathcal{A} 13'24		direct	16071 Sep 10 07:21	13° \mathcal{H} 55'17	
desc. node	16070 Sep 20 13:38	3° \mathcal{A} 15'47		morning max el	16071 Sep 23 11:20	21° \mathcal{H} 41'59	26°43'32
direct	16070 Sep 27 05:01	0° \mathcal{A} 40'02			16071 Sep 30 17:35	0° \mathcal{A}	
morning max el	16070 Oct 10 24:00	8° \mathcal{A} 38'29	27°36'26		16071 Oct 20 20:03	0° \mathcal{M}	
	16070 Oct 27 15:09	0° \mathcal{M}		morning set	16071 Oct 29 06:00	15° \mathcal{M} 10'48	
	16070 Nov 13 22:23	0° \mathcal{J}		asc. node	16071 Nov 01 22:38	22° \mathcal{M} 21'56	
morning set	16070 Nov 15 00:51	2° \mathcal{J} 10'37		max. Earth dist.	16071 Nov 02 06:24	23° \mathcal{M} 00'41	1.34057 AU
asc. node	16070 Nov 15 01:48	2° \mathcal{J} 15'22			16071 Nov 05 16:54	0° \mathcal{J}	
max. Earth dist.	16070 Nov 19 17:55	11° \mathcal{J} 49'49	1.32485 AU				
				superior conj	16071 Nov 07 00:19	2° \mathcal{J} 43'19	0°45'04
superior conj	16070 Nov 22 23:57	18° \mathcal{J} 46'33	1°07'29	minimum elong	16071 Nov 06 22:12	2° \mathcal{J} 32'17	0°45'21
minimum elong	16070 Nov 22 21:36	18° \mathcal{J} 33'49	1°07'52	evening rise	16071 Nov 14 07:31	18° \mathcal{J} 10'59	
	16070 Nov 28 03:38	0° \mathcal{Z}			16071 Nov 20 02:58	0° \mathcal{Z}	
evening rise	16070 Nov 29 21:42	3° \mathcal{Z} 47'30		evening max el	16071 Dec 04 05:19	21° \mathcal{Z} 01'16	21°25'00
	16070 Dec 13 20:30	0° \approx		desc. node	16071 Dec 04 08:36	21° \mathcal{Z} 09'17	
desc. node	16070 Dec 17 11:37	5° \approx 06'40		retrograde	16071 Dec 16 05:43	26° \mathcal{Z} 57'43	
evening max el	16070 Dec 22 15:16	10° \approx 57'06	23°04'34	evening set	16071 Dec 19 04:10	26° \mathcal{Z} 37'57	
retrograde	16071 Jan 04 19:28	17° \approx 28'17		inferior conj	16071 Dec 27 20:58	22° \mathcal{Z} 47'48	-5°51'36
evening set	16071 Jan 09 00:08	16° \approx 50'06		minimum elong	16071 Dec 27 15:28	22° \mathcal{Z} 55'32	5°50'17
min. Earth dist.	16071 Jan 16 01:20	13° \approx 33'39	0.54783 AU	min. Earth dist.	16071 Dec 28 06:44	22° \mathcal{Z} 34'05	0.54385 AU
inferior conj	16071 Jan 17 05:46	12° \approx 52'55	-5°56'25	morning rise	16072 Jan 05 03:10	18° \mathcal{Z} 58'21	
minimum elong	16071 Jan 17 09:34	12° \approx 47'29	5°55'32	direct	16072 Jan 09 00:34	18° \mathcal{Z} 25'29	
morning rise	16071 Jan 25 20:18	9° \approx 02'44		morning max el	16072 Jan 21 19:46	24° \mathcal{Z} 38'43	22°31'16
direct	16071 Jan 28 16:36	8° \approx 43'40			16072 Jan 26 15:00	0° \approx	
morning max el	16071 Feb 09 02:48	14° \approx 14'44	20°51'08	asc. node	16072 Jan 28 21:39	3° \approx 03'58	
asc. node	16071 Feb 11 00:21	16° \approx 13'16		morning set	16072 Feb 12 18:25	0° \mathcal{H} 10'04	
	16071 Feb 20 09:57	0° \mathcal{H}			16072 Feb 12 16:31	0° \mathcal{H}	
morning set	16071 Feb 28 07:25	15° \mathcal{H} 26'13					
	16071 Mar 07 07:23	0° Υ		superior conj	16072 Feb 19 18:36	15° \mathcal{H} 11'15	1°20'40
				minimum elong	16072 Feb 19 20:49	15° \mathcal{H} 23'04	1°20'41

max. Earth dist.	16072 Feb 23 11:13	22° H 55'29	1.33824 AU	morning set	16073 Jan 27 06:24	14° \approx 52'17	
	16072 Feb 26 23:30	0° Y					
evening rise	16072 Feb 27 22:26	1° Y 52'18		superior conj	16073 Feb 03 01:10	29° \approx 42'24	1°32'16
desc. node	16072 Mar 01 09:14	6° Y 33'23		minimum elong	16073 Feb 03 02:36	29° \approx 50'13	1°32'36
	16072 Mar 15 04:01	0° B			16073 Feb 03 04:23	0° H	
evening max el	16072 Apr 02 17:37	23° B 43'55	27°06'08	max. Earth dist.	16073 Feb 05 09:46	4° H 49'49	1.32385 AU
	16072 Apr 11 03:44	0° II		evening rise	16073 Feb 10 13:23	15° H 37'08	
retrograde	16072 Apr 16 04:30	1° II 14'48		desc. node	16073 Feb 16 05:54	26° H 40'31	
	16072 Apr 20 20:04	30° R B			16073 Feb 18 01:29	0° Y	
evening set	16072 Apr 22 18:17	28° B 43'29			16073 Mar 09 21:02	0° B	
asc. node	16072 Apr 25 18:48	25° B 55'35		evening max el	16073 Mar 16 06:13	6° B 58'41	27°33'41
min. Earth dist.	16072 Apr 26 16:01	24° B 58'11	0.65528 AU	retrograde	16073 Mar 30 01:44	14° B 29'38	
inferior conj	16072 Apr 28 23:04	22° B 21'55	0°58'04	evening set	16073 Apr 05 20:39	12° B 05'41	
minimum elong	16072 Apr 28 21:37	22° B 26'06	0°56'58	min. Earth dist.	16073 Apr 09 15:22	8° B 49'57	0.63598 AU
morning rise	16072 May 05 02:32	16° B 50'24		inferior conj	16073 Apr 12 09:56	5° B 59'47	-0°04'52
direct	16072 May 07 22:09	16° B 07'38		minimum elong	16073 Apr 12 10:06	5° B 59'22	0°05'11
morning max el	16072 May 14 05:28	19° B 24'07	18°01'36	transit middle	16073 Apr 12 10:06	5° B 59'22	0°05'11
	16072 May 22 08:40	0° II		transit begin	16073 Apr 12 07:07	6° B 07'03	
desc. node	16072 May 28 10:18	9° II 36'56		transit end	16073 Apr 12 13:05	5° B 51'43	
morning set	16072 Jun 01 14:17	16° II 23'45		asc. node	16073 Apr 12 16:06	5° B 43'59	
	16072 Jun 10 00:14	0° B		morning rise	16073 Apr 19 02:01	0° B 43'25	
				direct	16073 Apr 21 13:08	0° B 13'32	
superior conj	16072 Jun 16 04:14	9° B 47'09	-1°57'41	morning max el	16073 Apr 27 22:58	3° B 29'36	17°47'08
minimum elong	16072 Jun 15 20:12	9° B 15'32	1°57'52	morning set	16073 May 14 12:54	28° B 32'18	
max. Earth dist.	16072 Jun 19 05:06	14° B 32'59	1.45834 AU	desc. node	16073 May 15 07:13	29° B 50'26	
	16072 Jun 29 04:06	0° Q			16073 May 15 09:28	0° II	
evening rise	16072 Jul 02 07:03	4° Q 48'35					
greatest brilliancy	16072 Jul 15 06:19	24° Q 29'49	-0.7m	superior conj	16073 May 27 07:55	19° II 56'35	-1°27'05
	16072 Jul 19 01:44	0° P		minimum elong	16073 May 27 00:00	19° II 24'21	1°26'52
asc. node	16072 Jul 22 18:01	4° P 57'35		max. Earth dist.	16073 Jun 02 00:30	29° II 04'49	1.44959 AU
evening max el	16072 Jul 27 02:19	9° P 57'26	19°26'09		16073 Jun 02 14:26	0° B	
retrograde	16072 Aug 03 05:14	13° P 55'00		evening rise	16073 Jun 11 17:42	14° B 12'29	
evening set	16072 Aug 06 21:16	12° P 37'02			16073 Jun 22 05:30	0° Q	
inferior conj	16072 Aug 12 06:28	6° P 44'09	2°52'52	asc. node	16073 Jul 09 14:50	23° Q 16'18	
minimum elong	16072 Aug 12 08:01	6° P 39'01	2°52'16	evening max el	16073 Jul 10 04:48	23° Q 51'48	20°26'16
min. Earth dist.	16072 Aug 13 13:48	5° P 00'58	0.67435 AU	retrograde	16073 Jul 18 04:18	28° Q 25'04	
morning rise	16072 Aug 17 18:13	0° P 17'42		evening set	16073 Jul 22 06:50	26° Q 49'11	
	16072 Aug 18 02:30	30° R Q		inferior conj	16073 Jul 27 12:54	20° Q 44'21	3°06'10
direct	16072 Aug 23 16:11	27° Q 44'22		minimum elong	16073 Jul 27 13:33	20° Q 42'04	3°05'35
desc. node	16072 Aug 24 08:24	27° Q 46'10		min. Earth dist.	16073 Jul 28 06:25	19° Q 44'14	0.68478 AU
	16072 Aug 29 23:35	0° P		morning rise	16073 Aug 01 19:58	14° Q 21'02	
morning max el	16072 Sep 04 22:28	5° P 03'51	25°29'09	direct	16073 Aug 07 06:29	11° Q 58'45	
	16072 Sep 24 04:04	0° A		desc. node	16073 Aug 11 05:47	13° Q 01'01	
morning set	16072 Oct 10 20:21	27° A 30'36		morning max el	16073 Aug 18 09:28	18° Q 37'29	24°02'54
	16072 Oct 12 05:10	0° M			16073 Aug 27 23:53	0° P	
max. Earth dist.	16072 Oct 14 09:57	4° M 05'11	1.36107 AU		16073 Sep 17 06:03	0° A	
asc. node	16072 Oct 18 19:23	12° M 32'35		morning set	16073 Sep 22 15:49	9° A 01'26	
				max. Earth dist.	16073 Sep 26 09:05	15° A 30'17	1.38458 AU
superior conj	16072 Oct 20 15:56	16° M 13'43	0°16'46				
minimum elong	16072 Oct 20 14:56	16° M 08'40	0°17'05	superior conj	16073 Oct 03 19:23	29° A 09'45	-0°16'36
	16072 Oct 27 09:56	0° X		minimum elong	16073 Oct 03 20:31	29° A 15'12	0°16'06
evening rise	16072 Oct 28 14:12	2° X 25'08		behind sun begin	16073 Oct 03 19:57	29° A 12'30	
	16072 Nov 13 17:30	0° B		behind sun end	16073 Oct 03 21:05	29° A 17'54	
evening max el	16072 Nov 15 07:57	1° B 43'04	20°01'54		16073 Oct 04 05:56	0° M	
desc. node	16072 Nov 20 05:42	5° B 28'28		asc. node	16073 Oct 05 16:07	2° M 43'59	
retrograde	16072 Nov 25 18:13	6° B 54'59		evening rise	16073 Oct 12 15:20	16° M 24'10	
evening set	16072 Nov 27 21:12	6° B 43'03			16073 Oct 19 18:54	0° X	
inferior conj	16072 Dec 06 15:54	2° B 44'52	-4°48'01	evening max el	16073 Oct 29 00:56	13° X 15'11	19°00'47
minimum elong	16072 Dec 06 05:54	3° B 00'00	4°44'36	retrograde	16073 Nov 06 21:33	17° X 42'59	
min. Earth dist.	16072 Dec 08 13:03	1° B 36'42	0.54931 AU	desc. node	16073 Nov 07 02:53	17° X 42'49	
	16072 Dec 11 09:57	30° R X		evening set	16073 Nov 08 18:50	17° X 31'39	
morning rise	16072 Dec 14 13:37	28° X 37'29		inferior conj	16073 Nov 17 03:19	13° X 15'41	-3°10'02
direct	16072 Dec 19 12:13	27° X 44'19		minimum elong	16073 Nov 16 19:33	13° X 29'10	3°06'27
	16072 Dec 27 06:59	0° B		min. Earth dist.	16073 Nov 19 23:54	11° X 16'59	0.56312 AU
morning max el	16073 Jan 02 04:34	4° B 31'07	24°21'20	morning rise	16073 Nov 24 17:34	8° X 34'41	
asc. node	16073 Jan 14 18:55	20° B 54'50		direct	16073 Nov 30 12:00	7° X 16'39	
	16073 Jan 19 22:42	0° \approx		morning max el	16073 Dec 14 15:07	14° X 30'33	26°02'54

	16073 Dec 26 22:36	0°♁		asc. node	16074 Dec 19 13:14	28°♁40'45	
asc. node	16074 Jan 01 16:07	9°♁31'08			16074 Dec 20 05:57	0°♁	
morning set	16074 Jan 11 17:36	29°♁28'12		morning set	16074 Dec 27 02:12	13°♁52'57	
	16074 Jan 11 23:30	0°♁					
superior conj	16074 Jan 18 11:10	14°♁20'15	1°37'40	superior conj	16075 Jan 02 22:35	28°♁59'12	1°37'02
minimum elong	16074 Jan 18 11:35	14°♁22'34	1°38'15	minimum elong	16075 Jan 02 21:57	28°♁55'37	1°37'42
max. Earth dist.	16074 Jan 19 14:21	16°♁51'21	1.31436 AU	max. Earth dist.	16075 Jan 02 21:51	28°♁55'03	1.31009 AU
evening rise	16074 Jan 25 12:29	29°♁40'42		evening rise	16075 Jan 03 09:26	0°♁	
	16074 Jan 25 16:11	0°♁			16075 Jan 09 17:24	13°♁57'26	
desc. node	16074 Feb 03 02:35	16°♁29'04		desc. node	16075 Jan 17 17:07	0°♁	
	16074 Feb 11 03:56	0°♁			16075 Jan 20 23:19	5°♁51'53	
evening max el	16074 Feb 26 15:13	19°♁36'13	27°30'15	evening max el	16075 Feb 07 07:09	0°♁	
retrograde	16074 Mar 12 14:57	27°♁01'06		retrograde	16075 Feb 08 18:11	1°♁26'24	26°52'06
evening set	16074 Mar 19 10:06	24°♁51'49		evening set	16075 Feb 22 18:59	8°♁41'03	
min. Earth dist.	16074 Mar 23 04:52	21°♁59'15	0.61419 AU	min. Earth dist.	16075 Mar 01 07:33	6°♁53'39	
inferior conj	16074 Mar 26 07:57	19°♁09'38	-1°21'36	inferior conj	16075 Mar 05 08:12	4°♁14'13	0.59160 AU
minimum elong	16074 Mar 26 10:51	19°♁03'02	1°20'35	minimum elong	16075 Mar 08 13:25	1°♁42'16	-2°49'21
asc. node	16074 Mar 30 13:27	15°♁42'34			16075 Mar 08 19:53	1°♁29'30	2°46'51
morning rise	16074 Apr 02 14:52	14°♁11'22		morning rise	16075 Mar 10 18:57	30°♁	
direct	16074 Apr 04 18:55	13°♁51'02		direct	16075 Mar 16 11:49	27°♁04'29	
morning max el	16074 Apr 11 15:53	17°♁18'16	17°50'32	asc. node	16075 Mar 17 10:50	26°♁53'59	
	16074 Apr 20 17:42	0°♁		direct	16075 Mar 18 11:18	26°♁50'07	
morning set	16074 Apr 27 08:46	11°♁39'38		morning max el	16075 Mar 25 11:35	0°♁	
desc. node	16074 May 02 04:01	20°♁14'16		morning set	16075 Mar 26 04:42	0°♁40'07	18°12'55
	16074 May 07 18:23	0°♁			16075 Apr 10 20:08	25°♁29'14	
superior conj	16074 May 08 10:43	1°♁09'49	-0°49'41	desc. node	16075 Apr 13 05:43	0°♁	
minimum elong	16074 May 08 06:13	0°♁50'35	0°49'37		16075 Apr 19 00:45	10°♁44'28	
max. Earth dist.	16074 May 15 15:57	13°♁11'01	1.43443 AU	superior conj	16075 Apr 20 12:02	13°♁24'13	-0°12'11
evening rise	16074 May 22 10:33	23°♁58'38		minimum elong	16075 Apr 20 11:03	13°♁19'46	0°12'29
	16074 May 26 08:05	0°♁		behind sun begin	16075 Apr 20 06:19	12°♁58'26	
evening max el	16074 Jun 16 08:07	0°♁		behind sun end	16075 Apr 20 15:47	13°♁41'04	
asc. node	16074 Jun 23 01:16	7°♁45'24	21°38'32	max. Earth dist.	16075 Apr 28 02:23	26°♁39'26	1.41453 AU
retrograde	16074 Jun 26 11:43	10°♁46'01			16075 Apr 30 02:18	0°♁	
evening set	16074 Jul 02 02:55	13°♁02'10		evening rise	16075 Apr 30 02:18	0°♁	
inferior conj	16074 Jul 11 22:06	4°♁53'51	3°08'01		16075 May 02 21:23	4°♁35'19	
minimum elong	16074 Jul 11 21:48	4°♁54'53	3°07'21	evening max el	16075 May 19 13:41	0°♁	
min. Earth dist.	16074 Jul 12 02:17	4°♁39'15	0.69041 AU	asc. node	16075 Jun 05 17:20	21°♁39'32	22°58'22
	16074 Jul 15 16:55	30°♁		retrograde	16075 Jun 13 08:42	27°♁11'21	
morning rise	16074 Jul 17 02:53	28°♁36'18		evening set	16075 Jun 15 23:35	27°♁40'55	
direct	16074 Jul 22 01:11	26°♁29'47		inferior conj	16075 Jun 21 00:40	25°♁32'35	
desc. node	16074 Jul 29 03:07	29°♁45'50		minimum elong	16075 Jun 26 08:06	19°♁08'55	2°59'16
	16074 Jul 29 09:55	0°♁		min. Earth dist.	16075 Jun 26 06:55	19°♁13'01	2°58'24
morning max el	16074 Jul 31 21:46	2°♁18'57	22°33'50	morning rise	16075 Jun 25 23:16	19°♁39'35	0.69118 AU
	16074 Aug 21 22:45	0°♁		direct	16075 Jun 01 13:04	12°♁58'57	
morning set	16074 Sep 03 12:32	19°♁34'03		morning max el	16075 Jul 05 23:12	11°♁10'57	
max. Earth dist.	16074 Sep 08 09:28	27°♁38'21	1.40849 AU	desc. node	16075 Jul 14 14:04	16°♁09'13	21°09'59
	16074 Sep 09 18:51	0°♁			16075 Jul 16 00:21	17°♁38'24	
superior conj	16074 Sep 16 06:22	11°♁21'09	-0°53'07	morning set	16075 Jul 25 19:09	0°♁	
minimum elong	16074 Sep 16 10:35	11°♁40'06	0°52'22		16075 Aug 14 09:46	29°♁07'33	
asc. node	16074 Sep 22 12:47	22°♁52'00		max. Earth dist.	16075 Aug 14 23:10	0°♁	
evening rise	16074 Sep 26 07:35	29°♁59'07			16075 Aug 21 15:23	10°♁39'20	1.43006 AU
	16074 Sep 26 07:46	0°♁		superior conj	16075 Aug 28 20:38	22°♁39'01	-1°29'02
evening max el	16074 Oct 12 05:20	25°♁33'30	18°21'49	minimum elong	16075 Aug 29 03:48	23°♁09'29	1°28'19
retrograde	16074 Oct 19 20:02	29°♁25'54			16075 Sep 02 03:05	0°♁	
evening set	16074 Oct 21 20:28	29°♁10'16		evening rise	16075 Sep 09 10:53	12°♁59'41	
desc. node	16074 Oct 25 00:08	27°♁49'25		asc. node	16075 Sep 09 09:26	12°♁53'13	
inferior conj	16074 Oct 29 12:20	24°♁33'20	-1°27'08		16075 Sep 19 06:45	0°♁	
minimum elong	16074 Oct 29 09:00	24°♁40'07	1°25'11	evening max el	16075 Sep 25 16:55	8°♁28'45	18°03'21
min. Earth dist.	16074 Nov 01 18:15	21°♁56'05	0.58283 AU	retrograde	16075 Oct 02 11:55	11°♁58'24	
morning rise	16074 Nov 05 18:02	19°♁15'20		evening set	16075 Oct 04 19:23	11°♁34'15	
direct	16074 Nov 12 02:15	17°♁30'13		inferior conj	16075 Oct 11 18:01	6°♁36'50	0°02'41
morning max el	16074 Nov 26 09:06	25°♁06'14	27°17'45	minimum elong	16075 Oct 11 18:07	6°♁36'36	0°03'02
	16074 Nov 30 22:07	0°♁		transit middle	16075 Oct 11 18:07	6°♁36'36	0°03'02
				transit begin	16075 Oct 11 14:53	6°♁44'12	
				transit end	16075 Oct 11 21:21	6°♁28'59	
				desc. node	16075 Oct 11 21:26	6°♁28'48	

min. Earth dist.	16075 Oct 14 21:40	3° \mathbb{M} 40'16	0.60547 AU	min. Earth dist.	16076 Sep 26 10:57	16° $\underline{\mathbf{a}}$ 24'06	0.62819 AU
morning rise	16075 Oct 18 13:42	0° \mathbb{M} 48'06		desc. node	16076 Sep 27 18:45	15° $\underline{\mathbf{a}}$ 05'52	
	16075 Oct 19 22:50	30° \mathbb{R} $\underline{\mathbf{a}}$		morning rise	16076 Sep 30 02:02	13° $\underline{\mathbf{a}}$ 09'26	
direct	16075 Oct 25 05:10	28° $\underline{\mathbf{a}}$ 38'38		direct	16076 Oct 06 18:18	10° $\underline{\mathbf{a}}$ 42'32	
	16075 Oct 30 18:08	0° \mathbb{M}		morning max el	16076 Oct 20 18:28	18° $\underline{\mathbf{a}}$ 40'34	27°53'36
morning max el	16075 Nov 08 10:52	6° \mathbb{M} 29'55	27°55'13		16076 Oct 30 08:38	0° \mathbb{M}	
	16075 Nov 26 04:45	0° \mathbb{X}			16076 Nov 18 02:08	0° \mathbb{X}	
asc. node	16075 Dec 06 10:14	18° \mathbb{X} 14'23		asc. node	16076 Nov 22 07:09	8° \mathbb{X} 05'16	
morning set	16075 Dec 11 06:13	28° \mathbb{X} 01'10		morning set	16076 Nov 24 03:33	11° \mathbb{X} 48'05	
	16075 Dec 12 04:46	0° \mathbb{Z}		max. Earth dist.	16076 Nov 29 06:50	22° \mathbb{X} 35'10	1.31835 AU
max. Earth dist.	16075 Dec 17 04:34	10° \mathbb{Z} 52'09	1.31138 AU				
				superior conj	16076 Dec 01 18:05	27° \mathbb{X} 57'38	1°17'38
superior conj	16075 Dec 18 09:31	13° \mathbb{Z} 33'17	1°30'22	minimum elong	16076 Dec 01 15:53	27° \mathbb{X} 45'34	1°18'06
minimum elong	16075 Dec 18 07:57	13° \mathbb{Z} 24'33	1°30'59		16076 Dec 02 16:20	0° \mathbb{Z}	
evening rise	16075 Dec 25 02:03	28° \mathbb{Z} 21'54		evening rise	16076 Dec 08 12:37	12° \mathbb{Z} 49'56	
	16075 Dec 25 20:17	0° \approx			16076 Dec 17 00:44	0° \approx	
desc. node	16076 Jan 07 20:07	24° \approx 38'38		desc. node	16076 Dec 24 16:59	12° \approx 36'21	
	16076 Jan 11 07:40	0° \mathbb{H}		evening max el	16077 Jan 02 00:36	22° \approx 36'31	24°04'19
evening max el	16076 Jan 21 13:07	12° \mathbb{H} 23'44	25°40'24	retrograde	16077 Jan 15 13:52	29° \approx 20'12	
retrograde	16076 Feb 04 11:17	19° \mathbb{H} 24'46		evening set	16077 Jan 20 12:06	28° \approx 27'30	
evening set	16076 Feb 10 09:09	18° \mathbb{H} 04'20		min. Earth dist.	16077 Jan 26 12:13	25° \approx 30'15	0.55425 AU
min. Earth dist.	16076 Feb 15 02:03	15° \mathbb{H} 24'27	0.57066 AU	inferior conj	16077 Jan 28 11:10	24° \approx 19'48	-5°32'21
inferior conj	16076 Feb 17 22:51	13° \mathbb{H} 27'12	-4°19'15	minimum elong	16077 Jan 28 18:53	24° \approx 08'12	5°30'32
minimum elong	16076 Feb 18 08:05	13° \mathbb{H} 11'26	4°16'12	morning rise	16077 Feb 06 03:24	20° \approx 22'16	
morning rise	16076 Feb 26 09:58	9° \mathbb{H} 10'40		direct	16077 Feb 08 13:23	20° \approx 07'20	
direct	16076 Feb 28 10:03	8° \mathbb{H} 58'24		asc. node	16077 Feb 18 05:31	24° \approx 26'45	
asc. node	16076 Mar 03 08:12	9° \mathbb{H} 48'17		morning max el	16077 Feb 19 01:03	25° \approx 12'22	20°02'26
morning max el	16076 Mar 08 09:08	13° \mathbb{H} 21'56	18°56'12		16077 Feb 23 04:49	0° \mathbb{H}	
	16076 Mar 19 15:58	0° \mathbb{Y}		morning set	16077 Mar 08 23:26	24° \mathbb{H} 19'59	
morning set	16076 Mar 24 18:13	9° \mathbb{Y} 46'09			16077 Mar 11 17:56	0° \mathbb{Y}	
superior conj	16076 Apr 02 07:52	26° \mathbb{Y} 27'33	0°21'30	superior conj	16077 Mar 16 17:54	10° \mathbb{Y} 08'20	0°49'29
minimum elong	16076 Apr 02 09:13	26° \mathbb{Y} 33'57	0°21'01	minimum elong	16077 Mar 16 20:19	10° \mathbb{Y} 20'20	0°49'03
	16076 Apr 04 04:57	0° \mathbb{B}		max. Earth dist.	16077 Mar 22 15:52	21° \mathbb{Y} 36'57	1.36931 AU
desc. node	16076 Apr 04 21:25	1° \mathbb{B} 16'40		desc. node	16077 Mar 22 18:05	21° \mathbb{Y} 47'24	
max. Earth dist.	16076 Apr 09 09:09	9° \mathbb{B} 25'35	1.39204 AU	evening rise	16077 Mar 26 09:21	28° \mathbb{Y} 28'24	
evening rise	16076 Apr 13 05:31	16° \mathbb{B} 07'18			16077 Mar 27 05:50	0° \mathbb{B}	
	16076 Apr 21 17:13	0° \mathbb{I}			16077 Apr 15 01:15	0° \mathbb{I}	
	16076 May 13 04:41	0° \mathbb{E}		evening max el	16077 Apr 30 20:46	19° \mathbb{I} 28'49	25°35'40
evening max el	16076 May 18 07:14	5° \mathbb{E} 34'41	24°19'47	retrograde	16077 May 13 05:47	26° \mathbb{I} 37'44	
retrograde	16076 May 29 16:53	12° \mathbb{E} 14'52		asc. node	16077 May 17 02:52	25° \mathbb{I} 36'29	
asc. node	16076 May 30 05:45	12° \mathbb{E} 13'39		evening set	16077 May 19 05:38	24° \mathbb{I} 08'19	
evening set	16076 Jun 04 05:35	9° \mathbb{E} 54'03		min. Earth dist.	16077 May 23 11:51	19° \mathbb{I} 29'31	0.67821 AU
min. Earth dist.	16076 Jun 08 19:10	4° \mathbb{E} 38'25	0.68707 AU	inferior conj	16077 May 24 22:42	17° \mathbb{I} 37'48	2°09'57
inferior conj	16076 Jun 09 16:57	3° \mathbb{E} 24'58	2°40'04	minimum elong	16077 May 24 20:32	17° \mathbb{I} 44'47	2°08'39
minimum elong	16076 Jun 09 15:06	3° \mathbb{E} 31'15	2°38'57	morning rise	16077 May 30 11:55	11° \mathbb{I} 47'11	
	16076 Jun 12 08:45	30° \mathbb{R} \mathbb{I}		direct	16077 Jun 02 23:15	10° \mathbb{I} 38'05	
morning rise	16076 Jun 15 00:41	27° \mathbb{I} 24'01		morning max el	16077 Jun 09 18:50	14° \mathbb{I} 19'20	18°59'25
direct	16076 Jun 18 23:05	25° \mathbb{I} 55'40		desc. node	16077 Jun 18 18:36	25° \mathbb{I} 39'44	
	16076 Jun 26 08:52	0° \mathbb{E}			16077 Jun 21 17:31	0° \mathbb{E}	
morning max el	16076 Jun 26 12:47	0° \mathbb{E} 09'33	19°57'21	greatest brilliancy	16077 Jun 22 22:45	1° \mathbb{E} 49'31	-0.7m
desc. node	16076 Jul 01 21:31	6° \mathbb{E} 20'43		morning set	16077 Jul 02 23:09	17° \mathbb{E} 10'30	
	16076 Jul 18 08:27	0° \mathbb{Q}			16077 Jul 11 05:47	0° \mathbb{Q}	
morning set	16076 Jul 23 15:17	8° \mathbb{Q} 03'12		max. Earth dist.	16077 Jul 16 22:08	8° \mathbb{Q} 51'15	1.45711 AU
max. Earth dist.	16076 Aug 03 04:07	24° \mathbb{Q} 28'30	1.44682 AU				
	16076 Aug 06 15:12	0° \mathbb{P}		superior conj	16077 Jul 19 05:27	12° \mathbb{Q} 27'54	-2°13'28
				minimum elong	16077 Jul 19 07:46	12° \mathbb{Q} 37'02	2°14'02
superior conj	16076 Aug 08 11:28	2° \mathbb{P} 58'33	-1°58'19		16077 Jul 30 06:21	0° \mathbb{P}	
minimum elong	16076 Aug 08 18:54	3° \mathbb{P} 28'39	1°58'11	evening rise	16077 Aug 03 06:12	6° \mathbb{P} 27'00	
evening rise	16076 Aug 21 20:07	25° \mathbb{P} 13'10		asc. node	16077 Aug 13 02:47	22° \mathbb{P} 17'30	
	16076 Aug 24 15:32	0° $\underline{\mathbf{a}}$			16077 Aug 18 07:50	0° $\underline{\mathbf{a}}$	
asc. node	16076 Aug 26 06:06	2° $\underline{\mathbf{a}}$ 43'34		evening max el	16077 Aug 22 21:58	5° $\underline{\mathbf{a}}$ 29'58	18°22'26
evening max el	16076 Sep 08 07:39	21° $\underline{\mathbf{a}}$ 50'53	18°03'54	retrograde	16077 Aug 29 07:38	8° $\underline{\mathbf{a}}$ 55'00	
retrograde	16076 Sep 14 17:14	25° $\underline{\mathbf{a}}$ 11'28		evening set	16077 Sep 01 08:22	8° $\underline{\mathbf{a}}$ 03'55	
evening set	16076 Sep 17 09:03	24° $\underline{\mathbf{a}}$ 35'13		inferior conj	16077 Sep 07 04:39	2° $\underline{\mathbf{a}}$ 32'07	2°04'42
inferior conj	16076 Sep 23 16:48	19° $\underline{\mathbf{a}}$ 19'24	1°13'13	minimum elong	16077 Sep 07 06:59	2° $\underline{\mathbf{a}}$ 25'14	2°04'00
minimum elong	16076 Sep 23 18:40	19° $\underline{\mathbf{a}}$ 14'24	1°12'44		16077 Sep 09 08:20	30° \mathbb{R} \mathbb{P}	

min. Earth dist.	16077 Sep 09 09:55	29° \mathbb{M} 55'25	0.64887 AU	minimum elong	16078 Aug 22 03:59	16° \mathbb{M} 01'49	2°38'48
morning rise	16077 Sep 13 04:10	26° \mathbb{M} 10'01		min. Earth dist.	16078 Aug 23 17:22	14° \mathbb{M} 02'46	0.66618 AU
desc. node	16077 Sep 14 16:08	25° \mathbb{M} 05'33		morning rise	16078 Aug 27 17:27	9° \mathbb{M} 41'23	
direct	16077 Sep 19 15:56	23° \mathbb{M} 34'06		desc. node	16078 Sep 01 13:32	7° \mathbb{M} 11'36	
	16077 Oct 01 16:45	0° \mathbb{L}		direct	16078 Sep 02 21:05	7° \mathbb{M} 04'54	
morning max el	16077 Oct 03 05:18	1° \mathbb{L} 28'37	27°17'18	morning max el	16078 Sep 15 16:58	14° \mathbb{M} 42'18	26°14'04
	16077 Oct 24 12:13	0° \mathbb{M}			16078 Sep 28 05:55	0° \mathbb{L}	
morning set	16077 Nov 07 15:29	25° \mathbb{M} 07'08			16078 Oct 17 06:53	0° \mathbb{M}	
asc. node	16077 Nov 09 04:01	28° \mathbb{M} 07'20		morning set	16078 Oct 21 14:51	7° \mathbb{M} 51'27	
	16077 Nov 10 02:30	0° \mathbb{X}		max. Earth dist.	16078 Oct 25 09:53	15° \mathbb{M} 04'56	1.34878 AU
max. Earth dist.	16077 Nov 12 01:17	3° \mathbb{X} 58'24	1.33095 AU	asc. node	16078 Oct 27 00:50	18° \mathbb{M} 16'15	
superior conj	16077 Nov 15 22:06	12° \mathbb{X} 05'52	0°58'45	superior conj	16078 Oct 30 19:07	25° \mathbb{M} 52'09	0°33'47
minimum elong	16077 Nov 15 19:46	11° \mathbb{X} 53'22	0°59'03	minimum elong	16078 Oct 30 17:21	25° \mathbb{M} 43'05	0°34'02
evening rise	16077 Nov 22 23:15	27° \mathbb{X} 16'19			16078 Nov 01 19:01	0° \mathbb{X}	
	16077 Nov 24 06:07	0° \mathbb{Z}		evening rise	16078 Nov 07 08:01	11° \mathbb{X} 36'34	
desc. node	16077 Dec 11 13:57	29° \mathbb{Z} 27'03			16078 Nov 16 19:52	0° \mathbb{Z}	
	16077 Dec 12 01:20	0° \mathbb{X}		evening max el	16078 Nov 26 05:14	12° \mathbb{Z} 48'27	20°47'05
evening max el	16077 Dec 14 10:38	2° \mathbb{X} 31'37	22°20'45	desc. node	16078 Nov 28 11:00	14° \mathbb{Z} 48'53	
retrograde	16077 Dec 27 04:22	8° \mathbb{X} 49'42		retrograde	16078 Dec 07 14:26	18° \mathbb{Z} 27'19	
evening set	16077 Dec 30 19:57	8° \mathbb{X} 20'24		evening set	16078 Dec 10 02:36	18° \mathbb{Z} 12'06	
min. Earth dist.	16078 Jan 07 17:57	4° \mathbb{X} 46'00	0.54507 AU	inferior conj	16078 Dec 18 21:44	14° \mathbb{Z} 19'45	-5°30'49
inferior conj	16078 Jan 08 06:46	4° \mathbb{X} 28'01	-6°02'02	minimum elong	16078 Dec 18 13:22	14° \mathbb{Z} 31'46	5°28'34
minimum elong	16078 Jan 08 06:37	4° \mathbb{X} 28'15	6°01'22	min. Earth dist.	16078 Dec 19 23:25	13° \mathbb{Z} 42'51	0.54502 AU
morning rise	16078 Jan 16 18:19	0° \mathbb{X} 40'40		morning rise	16078 Dec 27 00:05	10° \mathbb{Z} 24'52	
direct	16078 Jan 20 00:48	0° \mathbb{X} 16'41		direct	16078 Dec 31 08:17	9° \mathbb{Z} 44'18	
morning max el	16078 Feb 01 01:57	6° \mathbb{X} 05'41	21°31'40	morning max el	16079 Jan 13 14:30	16° \mathbb{Z} 13'03	23°17'54
asc. node	16078 Feb 05 02:48	10° \mathbb{X} 34'19		asc. node	16079 Jan 23 00:05	27° \mathbb{Z} 52'42	
	16078 Feb 16 22:40	0° \mathbb{X}			16079 Jan 24 08:46	0° \mathbb{X}	
morning set	16078 Feb 21 08:58	9° \mathbb{X} 02'19		morning set	16079 Feb 05 20:37	23° \mathbb{X} 46'22	
					16079 Feb 08 17:54	0° \mathbb{X}	
superior conj	16078 Feb 28 14:19	24° \mathbb{X} 15'54	1°11'08	superior conj	16079 Feb 12 17:57	8° \mathbb{X} 41'03	1°26'21
minimum elong	16078 Feb 28 16:48	24° \mathbb{X} 28'50	1°10'56	minimum elong	16079 Feb 12 19:53	8° \mathbb{X} 51'26	1°26'30
	16078 Mar 03 09:10	0° \mathbb{Y}		max. Earth dist.	16079 Feb 15 20:39	15° \mathbb{X} 18'52	1.33150 AU
max. Earth dist.	16078 Mar 05 02:45	3° \mathbb{Y} 29'13	1.34854 AU	evening rise	16079 Feb 20 14:30	25° \mathbb{X} 00'34	
evening rise	16078 Mar 09 05:31	11° \mathbb{Y} 29'13			16079 Feb 23 04:03	0° \mathbb{Y}	
desc. node	16078 Mar 09 14:45	12° \mathbb{Y} 12'49		desc. node	16079 Feb 24 11:25	2° \mathbb{Y} 28'18	
	16078 Mar 19 17:13	0° \mathbb{Z}			16079 Mar 13 04:44	0° \mathbb{Z}	
	16078 Apr 10 07:06	0° \mathbb{II}		evening max el	16079 Mar 26 23:46	16° \mathbb{Z} 45'28	27°21'13
evening max el	16078 Apr 13 10:28	3° \mathbb{II} 15'46	26°38'38	retrograde	16079 Apr 09 15:07	24° \mathbb{Z} 18'18	
retrograde	16078 Apr 26 13:30	10° \mathbb{II} 42'10		evening set	16079 Apr 16 07:36	21° \mathbb{Z} 48'55	
evening set	16078 May 02 23:01	8° \mathbb{II} 09'26		min. Earth dist.	16079 Apr 20 03:37	18° \mathbb{Z} 16'59	0.64741 AU
asc. node	16078 May 04 00:03	7° \mathbb{II} 15'09		asc. node	16079 Apr 20 21:19	17° \mathbb{Z} 29'37	
min. Earth dist.	16078 May 06 23:18	4° \mathbb{II} 05'41	0.66482 AU	inferior conj	16079 Apr 22 15:56	15° \mathbb{Z} 32'51	0°33'03
inferior conj	16078 May 08 23:14	1° \mathbb{II} 42'44	1°28'01	minimum elong	16079 Apr 22 15:02	15° \mathbb{Z} 35'20	0°32'14
minimum elong	16078 May 08 21:17	1° \mathbb{II} 48'34	1°26'45	morning rise	16079 Apr 29 00:29	10° \mathbb{Z} 07'44	
	16078 May 10 10:18	30° \mathbb{R} \mathbb{Z}		direct	16079 May 01 16:14	9° \mathbb{Z} 31'00	
morning rise	16078 May 14 20:42	26° \mathbb{Z} 03'58		morning max el	16079 May 07 23:45	12° \mathbb{Z} 46'01	17°53'20
direct	16078 May 17 21:46	25° \mathbb{Z} 12'25			16079 May 20 04:23	0° \mathbb{II}	
morning max el	16078 May 24 07:16	28° \mathbb{Z} 34'15	18°17'53	desc. node	16079 May 23 12:35	5° \mathbb{II} 31'11	
	16078 May 25 16:17	0° \mathbb{II}		morning set	16079 May 25 11:23	8° \mathbb{II} 45'32	
desc. node	16078 Jun 05 15:38	15° \mathbb{II} 25'55			16079 Jun 07 11:30	0° \mathbb{Z}	
morning set	16078 Jun 13 03:35	27° \mathbb{II} 18'59		superior conj	16079 Jun 08 07:30	1° \mathbb{Z} 19'42	-1°46'03
	16078 Jun 14 20:04	0° \mathbb{Z}		minimum elong	16079 Jun 07 22:52	0° \mathbb{Z} 45'18	1°46'01
superior conj	16078 Jun 28 14:29	21° \mathbb{Z} 40'25	-2°09'01	max. Earth dist.	16079 Jun 12 14:22	8° \mathbb{Z} 06'20	1.45542 AU
minimum elong	16078 Jun 28 09:07	21° \mathbb{Z} 19'32	2°09'31	evening rise	16079 Jun 24 05:55	26° \mathbb{Z} 08'33	
max. Earth dist.	16078 Jun 29 18:32	23° \mathbb{Z} 29'46	1.46001 AU		16079 Jun 26 18:33	0° \mathbb{Z}	
	16078 Jul 03 22:45	0° \mathbb{Z}		greatest brilliancy	16079 Jul 08 18:57	17° \mathbb{Z} 58'25	-0.6m
evening rise	16078 Jul 14 15:22	16° \mathbb{Z} 39'12		asc. node	16079 Jul 17 20:19	0° \mathbb{M} 10'05	
	16078 Jul 23 05:36	0° \mathbb{M}			16079 Jul 17 16:55	0° \mathbb{M}	
greatest brilliancy	16078 Jul 24 20:41	2° \mathbb{M} 29'28	-0.8m	evening max el	16079 Jul 20 14:56	3° \mathbb{M} 12'19	19°50'02
asc. node	16078 Jul 30 23:31	11° \mathbb{M} 29'12		retrograde	16079 Jul 28 02:01	7° \mathbb{M} 24'16	
evening max el	16078 Aug 06 09:04	19° \mathbb{M} 19'07	18°58'11	evening set	16079 Jul 31 22:20	5° \mathbb{M} 58'52	
retrograde	16078 Aug 13 03:31	23° \mathbb{M} 01'36		inferior conj	16079 Aug 06 05:52	0° \mathbb{M} 00'44	2°59'58
evening set	16078 Aug 16 13:42	21° \mathbb{M} 53'52		minimum elong	16079 Aug 06 07:03	29° \mathbb{Z} 56'42	2°59'24
inferior conj	16078 Aug 22 02:01	16° \mathbb{M} 08'07	2°39'26				

	16079 Aug 06 06:04	30° κ 8 Ω		evening set	16080 Jul 15 08:08	20° Ω 14'32	
min. Earth dist.	16079 Aug 07 07:19	28° Ω 35'06	0.67932 AU	inferior conj	16080 Jul 20 13:42	14° Ω 05'17	3°08'15
morning rise	16079 Aug 11 15:18	23° Ω 34'56		minimum elong	16080 Jul 20 13:58	14° Ω 04'24	3°07'40
direct	16079 Aug 17 08:30	21° Ω 05'26		min. Earth dist.	16080 Jul 21 01:36	13° Ω 24'05	0.68782 AU
desc. node	16079 Aug 19 10:55	21° Ω 22'52		morning rise	16080 Jul 25 19:30	7° Ω 44'05	
morning max el	16079 Aug 29 03:59	28° Ω 09'55	24°53'18	direct	16080 Jul 31 00:58	5° Ω 27'46	
	16079 Aug 30 21:56	0° η		desc. node	16080 Aug 05 08:15	7° Ω 18'41	
	16079 Sep 21 22:43	0° $\underline{\Omega}$		morning max el	16080 Aug 10 15:00	11° Ω 46'01	23°24'41
morning set	16079 Oct 03 21:42	19° $\underline{\Omega}$ 51'53			16080 Aug 25 05:16	0° η	
max. Earth dist.	16079 Oct 07 10:21	26° $\underline{\Omega}$ 12'36	1.37075 AU		16080 Sep 13 17:50	0° $\underline{\Omega}$	
	16079 Oct 09 11:28	0° \mathbb{M}		morning set	16080 Sep 14 07:46	0° $\underline{\Omega}$ 58'10	
asc. node	16079 Oct 13 21:36	8° \mathbb{M} 27'52		max. Earth dist.	16080 Sep 18 08:55	7° $\underline{\Omega}$ 51'55	1.39485 AU
superior conj	16079 Oct 14 06:01	9° \mathbb{M} 08'58	0°03'11	superior conj	16080 Sep 26 02:59	21° $\underline{\Omega}$ 47'10	-0°31'54
minimum elong	16079 Oct 14 05:47	9° \mathbb{M} 07'51	0°03'33	minimum elong	16080 Sep 26 05:21	21° $\underline{\Omega}$ 58'10	0°31'16
behind sun begin	16079 Oct 13 23:21	8° \mathbb{M} 36'22		asc. node	16080 Sep 29 18:19	28° $\underline{\Omega}$ 38'17	
behind sun end	16079 Oct 14 12:13	9° \mathbb{M} 39'25			16080 Sep 30 11:26	0° \mathbb{M}	
evening rise	16079 Oct 22 12:39	25° \mathbb{M} 44'58		evening rise	16080 Oct 05 10:23	9° \mathbb{M} 34'23	
	16079 Oct 24 15:32	0° \mathcal{A}			16080 Oct 16 21:45	0° \mathcal{A}	
evening max el	16079 Nov 08 14:13	23° \mathcal{A} 52'08	19°33'17	evening max el	16080 Oct 21 12:36	5° \mathcal{A} 45'01	18°41'40
desc. node	16079 Nov 15 08:07	28° \mathcal{A} 17'31		retrograde	16080 Oct 29 19:02	9° \mathcal{A} 55'54	
retrograde	16079 Nov 18 08:02	28° \mathcal{A} 44'32		evening set	16080 Oct 31 17:07	9° \mathcal{A} 43'10	
evening set	16079 Nov 20 06:58	28° \mathcal{A} 33'38		desc. node	16080 Nov 01 05:20	9° \mathcal{A} 35'42	
inferior conj	16079 Nov 28 22:38	24° \mathcal{A} 29'10	-4°08'51	inferior conj	16080 Nov 08 18:55	5° \mathcal{A} 18'34	-2°25'34
minimum elong	16079 Nov 28 12:58	24° \mathcal{A} 44'33	4°05'01	minimum elong	16080 Nov 08 13:01	5° \mathcal{A} 29'30	2°22'35
min. Earth dist.	16079 Dec 01 07:42	22° \mathcal{A} 58'16	0.55422 AU	min. Earth dist.	16080 Nov 11 21:15	3° \mathcal{A} 01'32	0.57094 AU
morning rise	16079 Dec 06 17:05	20° \mathcal{A} 08'27		morning rise	16080 Nov 16 05:45	0° \mathcal{A} 21'59	
direct	16079 Dec 12 00:54	19° \mathcal{A} 04'54			16080 Nov 17 01:10	30° κ \mathbb{M}	
morning max el	16079 Dec 25 23:01	26° \mathcal{A} 04'49	25°06'41	direct	16080 Nov 22 07:09	28° \mathbb{M} 52'14	
	16079 Dec 29 16:10	0° \mathcal{B}			16080 Nov 27 14:46	0° \mathcal{A}	
asc. node	16080 Jan 09 21:19	16° \mathcal{B} 05'04		morning max el	16080 Dec 06 12:03	6° \mathcal{A} 15'50	26°38'53
	16080 Jan 17 07:45	0° \approx			16080 Dec 23 23:37	0° \mathcal{B}	
morning set	16080 Jan 21 08:30	8° \approx 27'07		asc. node	16080 Dec 26 18:29	4° \mathcal{B} 56'50	
				morning set	16081 Jan 04 18:48	22° \mathcal{B} 58'43	
					16081 Jan 07 23:50	0° \approx	
superior conj	16080 Jan 28 02:17	23° \approx 16'44	1°35'18				
minimum elong	16080 Jan 28 03:18	23° \approx 22'21	1°35'45	superior conj	16081 Jan 11 13:06	7° \approx 55'41	1°38'07
max. Earth dist.	16080 Jan 29 21:56	27° \approx 16'30	1.31916 AU	minimum elong	16081 Jan 11 13:04	7° \approx 55'29	1°38'46
	16080 Jan 31 04:00	0° \mathcal{H}		max. Earth dist.	16081 Jan 12 04:13	9° \approx 20'11	1.31191 AU
evening rise	16080 Feb 04 09:17	8° \mathcal{H} 55'09		evening rise	16081 Jan 18 11:08	23° \approx 05'15	
desc. node	16080 Feb 11 08:06	22° \mathcal{H} 29'00			16081 Jan 21 19:28	0° \mathcal{H}	
	16080 Feb 15 13:41	0° Υ		desc. node	16081 Jan 28 04:48	12° \mathcal{H} 07'51	
evening max el	16080 Mar 08 11:11	29° Υ 46'45	27°36'20		16081 Feb 08 11:29	0° Υ	
	16080 Mar 08 16:45	0° \mathcal{B}		evening max el	16081 Feb 18 18:10	12° Υ 06'15	27°18'24
retrograde	16080 Mar 22 09:24	7° \mathcal{B} 16'15		retrograde	16081 Mar 04 18:43	19° Υ 26'24	
evening set	16080 Mar 29 04:52	4° \mathcal{B} 57'47		evening set	16081 Mar 11 11:53	17° Υ 26'00	
min. Earth dist.	16080 Apr 01 23:07	1° \mathcal{B} 52'36	0.62692 AU	min. Earth dist.	16081 Mar 15 08:26	14° Υ 40'10	0.60461 AU
	16080 Apr 03 21:39	30° κ Υ		inferior conj	16081 Mar 18 13:15	11° Υ 56'16	-1°57'45
inferior conj	16080 Apr 04 21:48	29° Υ 00'36	-0°35'47	minimum elong	16081 Mar 18 17:37	11° Υ 46'53	1°56'05
minimum elong	16080 Apr 04 22:59	28° Υ 57'42	0°35'35	asc. node	16081 Mar 24 15:56	7° Υ 37'45	
asc. node	16080 Apr 06 18:36	27° Υ 14'17		morning rise	16081 Mar 26 02:47	7° Υ 06'01	
morning rise	16080 Apr 11 19:59	23° Υ 51'28		direct	16081 Mar 28 04:31	6° Υ 48'36	
direct	16080 Apr 14 03:45	23° Υ 26'10		morning max el	16081 Apr 04 08:57	10° Υ 24'12	17°57'31
morning max el	16080 Apr 20 17:24	26° Υ 45'58	17°46'15		16081 Apr 17 07:25	0° \mathcal{B}	
	16080 Apr 23 13:52	0° \mathcal{B}		morning set	16081 Apr 19 22:55	4° \mathcal{B} 49'12	
morning set	16080 May 06 19:47	21° \mathcal{B} 21'36		desc. node	16081 Apr 26 06:13	16° \mathcal{B} 17'02	
desc. node	16080 May 09 09:27	25° \mathcal{B} 49'53					
	16080 May 11 19:19	0° \mathbb{I}		superior conj	16081 Apr 30 09:22	23° \mathcal{B} 35'51	-0°33'30
				minimum elong	16081 Apr 30 06:28	23° \mathcal{B} 23'09	0°33'35
superior conj	16080 May 18 20:42	11° \mathbb{I} 55'47	-1°11'35		16081 May 04 02:39	0° \mathbb{I}	
minimum elong	16080 May 18 14:03	11° \mathbb{I} 28'12	1°11'23	max. Earth dist.	16081 May 07 21:31	6° \mathbb{I} 20'11	1.42652 AU
max. Earth dist.	16080 May 25 07:52	22° \mathbb{I} 27'35	1.44389 AU	evening rise	16081 May 13 16:53	15° \mathbb{I} 43'32	
	16080 May 30 02:17	0° \mathcal{E}			16081 May 22 23:34	0° \mathcal{E}	
evening rise	16080 Jun 02 17:15	5° \mathcal{E} 37'18			16081 Jun 14 09:25	0° Ω	
	16080 Jun 19 03:01	0° Ω		evening max el	16081 Jun 15 09:19	1° Ω 01'13	22°11'56
evening max el	16080 Jul 02 14:50	17° Ω 06'42	20°55'48	asc. node	16081 Jun 20 14:05	5° Ω 14'36	
asc. node	16080 Jul 03 17:10	18° Ω 09'45		retrograde	16081 Jun 24 22:49	6° Ω 36'34	
retrograde	16080 Jul 11 01:00	21° Ω 57'39					

evening set	16081 Jun 29 17:22	4°♎36'40		evening max el	16082 May 29 00:06	14°♏55'34	23°33'10
	16081 Jul 03 17:57	30°♎		asc. node	16082 Jun 07 11:04	21°♏07'07	
inferior conj	16081 Jul 04 23:28	28°♏17'48	3°05'34	retrograde	16082 Jun 08 18:09	21°♏14'19	
minimum elong	16081 Jul 04 22:47	28°♏20'12	3°04'49	evening set	16082 Jun 14 00:19	18°♏59'58	
min. Earth dist.	16081 Jul 04 22:06	28°♏22'35	0.69139 AU	inferior conj	16082 Jun 19 09:11	12°♏33'35	2°52'25
morning rise	16081 Jul 10 04:02	22°♏03'30		minimum elong	16082 Jun 19 07:41	12°♏38'44	2°51'26
direct	16081 Jul 14 21:14	20°♏04'31		min. Earth dist.	16082 Jun 18 18:45	13°♏23'10	0.69004 AU
desc. node	16081 Jul 23 05:32	24°♏35'04		morning rise	16082 Jun 24 15:02	6°♏27'34	
morning max el	16081 Jul 24 04:35	25°♏31'02	21°57'07	direct	16082 Jun 28 20:05	4°♏48'04	
	16081 Jul 28 06:02	0°♎		morning max el	16082 Jul 06 23:30	9°♏26'00	20°37'30
	16081 Aug 18 15:53	0°♎		desc. node	16082 Jul 10 02:44	12°♏50'43	
morning set	16081 Aug 25 18:14	11°♎05'00			16082 Jul 22 19:17	0°♎	
max. Earth dist.	16081 Aug 31 11:53	20°♎24'56	1.41816 AU	morning set	16082 Aug 05 07:11	20°♎18'18	
	16081 Sep 06 03:45	0°♏			16082 Aug 11 11:43	0°♎	
				max. Earth dist.	16082 Aug 13 21:10	3°♎49'24	1.43790 AU
superior conj	16081 Sep 08 05:42	3°♏37'29	-1°08'44	superior conj	16082 Aug 20 10:02	14°♎30'06	-1°42'42
minimum elong	16081 Sep 08 11:18	4°♏02'02	1°07'55	minimum elong	16082 Aug 20 17:51	15°♎02'36	1°42'10
asc. node	16081 Sep 16 15:00	18°♏44'22			16082 Aug 29 12:24	0°♏	
evening rise	16081 Sep 18 21:43	22°♏56'37		evening rise	16082 Sep 01 18:00	5°♏39'02	
	16081 Sep 22 18:02	0°♎		asc. node	16082 Sep 03 11:39	8°♏41'35	
evening max el	16081 Oct 04 20:34	18°♎20'20	18°11'29		16082 Sep 17 01:09	0°♎	
retrograde	16081 Oct 12 01:29	22°♎01'27		evening max el	16082 Sep 18 09:52	1°♎27'38	18°01'15
evening set	16081 Oct 14 04:43	21°♎42'34		retrograde	16082 Sep 24 23:48	4°♎52'10	
desc. node	16081 Oct 19 02:35	18°♎57'34		evening set	16082 Sep 27 10:37	4°♎23'20	
inferior conj	16081 Oct 21 13:02	16°♎56'19	-0°46'49		16082 Oct 03 09:20	30°♎	
minimum elong	16081 Oct 21 11:22	16°♎59'58	0°45'38	inferior conj	16082 Oct 04 02:31	29°♏17'35	0°35'02
min. Earth dist.	16081 Oct 24 18:59	14°♎08'40	0.59230 AU	minimum elong	16082 Oct 04 03:34	29°♏14'58	0°34'56
morning rise	16081 Oct 28 14:38	11°♎24'22		desc. node	16082 Oct 05 23:54	27°♏24'10	
direct	16081 Nov 04 02:41	9°♎28'38		min. Earth dist.	16082 Oct 07 02:39	26°♏19'09	0.61525 AU
morning max el	16081 Nov 18 09:28	17°♎11'08	27°38'40	morning rise	16082 Oct 10 17:42	23°♏18'16	
	16081 Nov 29 00:49	0°♎		direct	16082 Oct 17 10:00	21°♏00'36	
asc. node	16081 Dec 13 15:34	24°♎17'40		morning max el	16082 Oct 31 14:18	28°♏56'17	27°59'14
	16081 Dec 16 13:16	0°♏			16082 Nov 01 15:28	0°♎	
morning set	16081 Dec 20 01:41	7°♏16'44			16082 Nov 22 22:58	0°♎	
max. Earth dist.	16081 Dec 26 11:59	21°♏22'39	1.30999 AU	asc. node	16082 Nov 30 12:32	13°♎59'20	
				morning set	16082 Dec 04 03:09	21°♎16'29	
superior conj	16081 Dec 27 00:30	22°♏32'42	1°34'56		16082 Dec 08 05:42	0°♏	
minimum elong	16081 Dec 26 23:26	22°♏26'47	1°35'36	max. Earth dist.	16082 Dec 09 17:21	3°♏14'50	1.31361 AU
	16081 Dec 30 08:31	0°♏					
evening rise	16082 Jan 02 17:51	7°♏25'35		superior conj	16082 Dec 11 10:38	7°♏02'53	1°25'42
	16082 Jan 14 07:36	0°♎		minimum elong	16082 Dec 11 08:46	6°♏52'27	1°26'16
desc. node	16082 Jan 15 01:33	1°♎16'37		evening rise	16082 Dec 18 03:31	21°♏51'41	
evening max el	16082 Jan 31 17:54	23°♎33'42	26°25'18		16082 Dec 22 00:07	0°♏	
	16082 Feb 10 12:45	0°♎		desc. node	16083 Jan 01 22:24	19°♏44'27	
retrograde	16082 Feb 14 17:35	0°♎42'15			16083 Jan 09 11:14	0°♎	
	16082 Feb 18 21:20	30°♎		evening max el	16083 Jan 13 09:05	4°♎09'09	25°01'37
evening set	16082 Feb 21 01:15	29°♎05'48		retrograde	16083 Jan 27 04:30	11°♎04'15	
min. Earth dist.	16082 Feb 25 07:16	26°♎28'19	0.58240 AU	evening set	16083 Feb 01 17:30	9°♎55'29	
inferior conj	16082 Feb 28 10:29	24°♎09'20	-3°28'03	min. Earth dist.	16083 Feb 06 21:20	7°♎10'39	0.56289 AU
minimum elong	16082 Feb 28 18:24	23°♎54'41	3°25'08	inferior conj	16083 Feb 09 10:48	5°♎31'52	-4°53'52
morning rise	16082 Mar 08 14:54	19°♎40'41		minimum elong	16083 Feb 09 20:09	5°♎16'49	4°51'08
direct	16082 Mar 10 14:01	19°♎27'34		morning rise	16083 Feb 18 01:22	1°♎24'30	
asc. node	16082 Mar 11 13:18	19°♎30'53		direct	16083 Feb 20 04:13	1°♎11'50	
morning max el	16082 Mar 18 18:39	23°♎30'09	18°28'39	asc. node	16083 Feb 26 10:38	3°♎10'51	
	16082 Mar 23 23:38	0°♎		morning max el	16083 Mar 01 18:21	5°♎52'04	19°21'37
morning set	16082 Apr 03 15:20	18°♎52'01			16083 Mar 17 01:01	0°♎	
	16082 Apr 09 11:13	0°♏		morning set	16083 Mar 18 16:52	3°♎17'43	
superior conj	16082 Apr 12 19:06	6°♏12'41	0°02'44	superior conj	16083 Mar 26 21:35	19°♎34'22	0°34'07
minimum elong	16082 Apr 12 19:16	6°♏13'28	0°02'20	minimum elong	16083 Mar 26 23:31	19°♎43'45	0°33'36
behind sun begin	16082 Apr 12 12:10	5°♏40'43		desc. node	16083 Mar 30 23:36	27°♎21'13	
behind sun end	16082 Apr 13 02:22	6°♏46'08			16083 Apr 01 09:53	0°♏	
desc. node	16082 Apr 13 02:55	6°♏48'39		max. Earth dist.	16083 Apr 02 12:40	2°♏02'22	1.38219 AU
max. Earth dist.	16082 Apr 20 06:34	19°♏32'30	1.40517 AU	evening rise	16083 Apr 06 05:37	8°♏38'13	
evening rise	16082 Apr 24 12:41	26°♏43'40			16083 Apr 19 08:47	0°♎	
	16082 Apr 26 12:31	0°♎		evening max el	16083 May 11 13:32	28°♎50'42	24°53'04
	16082 May 16 14:50	0°♏					

	16083 May 12 18:25	0°☿		evening max el	16084 Apr 23 03:09	12°☿42'51	26°04'29
retrograde	16083 May 23 09:53	5°☿45'14		retrograde	16084 May 05 20:52	20°☿01'09	
asc. node	16083 May 25 08:08	5°☿29'39		asc. node	16084 May 11 05:16	18°☿07'55	
evening set	16083 May 29 03:26	3°☿19'59		evening set	16084 May 12 00:54	17°☿29'47	
	16083 Jun 01 06:25	30°☿☿		min. Earth dist.	16084 May 16 04:27	13°☿05'52	0.67302 AU
min. Earth dist.	16083 Jun 02 13:35	28°☿20'11	0.68387 AU	inferior conj	16084 May 17 20:50	10°☿59'52	1°53'42
inferior conj	16083 Jun 03 17:00	26°☿49'27	2°28'41	minimum elong	16084 May 17 18:41	11°☿06'38	1°52'23
minimum elong	16083 Jun 03 14:57	26°☿56'14	2°27'28	morning rise	16084 May 23 13:12	5°☿13'52	
morning rise	16083 Jun 09 02:45	20°☿52'45		direct	16084 May 26 20:00	4°☿12'33	
direct	16083 Jun 12 20:14	19°☿32'57		morning max el	16084 Jun 02 10:25	7°☿44'16	18°39'37
morning max el	16083 Jun 20 01:29	23°☿31'42	19°30'44	desc. node	16084 Jun 12 20:56	21°☿22'08	
	16083 Jun 25 14:41	0°☿			16084 Jun 18 12:23	0°☿	
desc. node	16083 Jun 26 23:52	1°☿50'27		morning set	16084 Jun 24 02:05	8°☿40'51	
greatest brilliancy	16083 Jul 02 18:10	10°☿01'07	-0.6m		16084 Jul 07 18:09	0°☿	
morning set	16083 Jul 15 11:07	29°☿12'06		max. Earth dist.	16084 Jul 09 06:53	2°☿23'14	1.45931 AU
	16083 Jul 15 23:36	0°☿					
max. Earth dist.	16083 Jul 27 12:00	17°☿53'25	1.45207 AU	superior conj	16084 Jul 10 03:30	3°☿43'38	-2°14'05
				minimum elong	16084 Jul 10 02:27	3°☿39'31	2°14'44
superior conj	16083 Jul 31 15:09	24°☿25'52	-2°06'54	evening rise	16084 Jul 25 17:16	28°☿15'06	
minimum elong	16083 Jul 31 21:06	24°☿49'35	2°07'07		16084 Jul 26 19:38	0°☿	
	16083 Aug 04 02:32	0°☿		greatest brilliancy	16084 Aug 01 12:21	9°☿03'03	-0.9m
evening rise	16083 Aug 14 17:56	17°☿28'23		asc. node	16084 Aug 07 05:02	17°☿51'12	
asc. node	16083 Aug 21 08:19	28°☿25'40		evening max el	16084 Aug 15 14:06	28°☿42'32	18°35'39
	16083 Aug 22 07:27	0°☿			16084 Aug 17 00:19	0°☿	
evening max el	16083 Sep 02 00:46	14°☿57'48	18°09'38	retrograde	16084 Aug 22 02:27	2°☿13'10	
retrograde	16083 Sep 08 09:27	18°☿18'51		evening set	16084 Aug 25 07:09	1°☿15'13	
evening set	16083 Sep 11 04:54	17°☿36'45			16084 Aug 26 23:41	30°☿☿	
inferior conj	16083 Sep 17 07:22	12°☿14'03	1°37'14	inferior conj	16084 Aug 30 23:40	25°☿37'34	2°21'17
minimum elong	16083 Sep 17 09:34	12°☿07'55	1°36'37	minimum elong	16084 Aug 31 01:55	25°☿30'40	2°20'36
min. Earth dist.	16083 Sep 19 20:23	9°☿24'28	0.63734 AU	min. Earth dist.	16084 Sep 01 23:10	23°☿12'42	0.65676 AU
desc. node	16083 Sep 22 21:15	6°☿27'48		morning rise	16084 Sep 05 19:32	19°☿12'51	
morning rise	16083 Sep 23 12:17	5°☿57'38		desc. node	16084 Sep 08 18:38	17°☿19'14	
direct	16083 Sep 30 03:11	3°☿25'30		direct	16084 Sep 12 04:23	16°☿35'22	
morning max el	16083 Oct 13 23:41	11°☿24'29	27°41'53	morning max el	16084 Sep 25 10:53	24°☿24'19	26°53'02
	16083 Oct 28 18:04	0°☿			16084 Sep 30 12:16	0°☿	
	16083 Nov 15 09:24	0°☿			16084 Oct 21 03:58	0°☿	
asc. node	16083 Nov 17 09:27	3°☿55'36		morning set	16084 Oct 31 03:52	17°☿57'51	
morning set	16083 Nov 17 20:50	4°☿52'21		asc. node	16084 Nov 03 06:18	24°☿01'22	
max. Earth dist.	16083 Nov 22 16:26	14°☿48'28	1.32296 AU	max. Earth dist.	16084 Nov 04 06:32	26°☿02'34	1.33791 AU
					16084 Nov 06 05:12	0°☿	
superior conj	16083 Nov 25 17:33	21°☿21'01	1°10'22				
minimum elong	16083 Nov 25 15:13	21°☿08'21	1°10'46	superior conj	16084 Nov 08 18:59	5°☿21'18	0°48'54
	16083 Nov 29 16:33	0°☿		minimum elong	16084 Nov 08 16:47	5°☿09'44	0°49'10
evening rise	16083 Dec 02 14:19	6°☿19'11		evening rise	16084 Nov 16 00:26	20°☿43'51	
	16083 Dec 14 21:35	0°☿			16084 Nov 20 12:19	0°☿	
desc. node	16083 Dec 19 19:19	7°☿16'07		desc. node	16084 Dec 05 16:20	23°☿32'18	
evening max el	16083 Dec 25 18:48	14°☿09'45	23°20'09	evening max el	16084 Dec 06 07:35	24°☿10'40	21°39'00
retrograde	16084 Jan 08 01:53	20°☿44'32			16084 Dec 16 04:57	0°☿	
evening set	16084 Jan 12 11:11	20°☿02'52		retrograde	16084 Dec 18 12:43	0°☿12'53	
min. Earth dist.	16084 Jan 19 05:32	16°☿51'57	0.54920 AU		16084 Dec 20 21:43	30°☿☿	
inferior conj	16084 Jan 20 15:02	16°☿03'30	-5°51'50	evening set	16084 Dec 21 15:27	29°☿50'58	
minimum elong	16084 Jan 20 20:03	15°☿56'14	5°50'46	inferior conj	16084 Dec 30 06:56	26°☿00'50	-5°56'20
morning rise	16084 Jan 29 06:18	12°☿11'39		minimum elong	16084 Dec 30 02:43	26°☿06'43	5°55'17
direct	16084 Jan 31 23:31	11°☿53'54		min. Earth dist.	16084 Dec 30 10:53	25°☿55'19	0.54389 AU
morning max el	16084 Feb 12 04:04	17°☿18'29	20°37'49	morning rise	16085 Jan 07 14:34	22°☿12'32	
asc. node	16084 Feb 13 07:58	18°☿29'15		direct	16085 Jan 11 08:09	21°☿42'08	
	16084 Feb 21 15:22	0°☿		morning max el	16085 Jan 23 22:53	27°☿49'14	22°15'22
morning set	16084 Mar 02 00:13	17°☿55'45			16085 Jan 26 01:43	0°☿	
	16084 Mar 07 19:55	0°☿		asc. node	16085 Jan 30 05:16	5°☿09'06	
					16085 Feb 13 04:36	0°☿	
superior conj	16084 Mar 09 12:28	3°☿27'38	0°59'27	morning set	16085 Feb 14 10:54	2°☿39'14	
minimum elong	16084 Mar 09 15:00	3°☿40'32	0°59'05				
max. Earth dist.	16084 Mar 14 20:13	14°☿01'24	1.36006 AU	superior conj	16085 Feb 21 12:17	17°☿43'09	1°18'21
desc. node	16084 Mar 16 20:17	17°☿50'13		minimum elong	16085 Feb 21 14:35	17°☿55'22	1°18'18
evening rise	16084 Mar 18 16:52	21°☿17'35		max. Earth dist.	16085 Feb 25 09:59	25°☿50'51	1.34081 AU
	16084 Mar 23 14:02	0°☿			16085 Feb 27 11:24	0°☿	
	16084 Apr 12 05:51	0°☿		evening rise	16085 Mar 01 18:54	4°☿32'18	

desc. node	16085 Mar 03 16:57	8°Υ11'50		desc. node	16086 Feb 18 13:38	28°Χ21'31	
	16085 Mar 16 09:16	0°Ϸ			16086 Feb 19 10:56	0°Υ	
evening max el	16085 Apr 05 17:04	26°Ϸ24'18	26°59'44		16086 Mar 10 15:55	0°Ϸ	
	16085 Apr 09 20:04	0°Π		evening max el	16086 Mar 19 05:53	9°Ϸ43'25	27°31'25
retrograde	16085 Apr 19 02:00	3°Π54'01		retrograde	16086 Apr 02 00:23	17°Ϸ15'05	
evening set	16085 Apr 25 14:47	1°Π22'11		evening set	16086 Apr 08 18:52	14°Ϸ49'25	
	16085 Apr 27 04:38	30°Ϸ8		min. Earth dist.	16086 Apr 12 13:48	11°Ϸ29'48	0.63902 AU
asc. node	16085 Apr 28 02:30	29°Ϸ05'51		asc. node	16086 Apr 14 23:46	8°Ϸ59'19	
min. Earth dist.	16085 Apr 29 13:10	27°Ϸ32'14	0.65788 AU	inferior conj	16086 Apr 15 06:53	8°Ϸ40'41	0°05'36
inferior conj	16085 May 01 18:23	24°Ϸ59'11	1°06'23	minimum elong	16086 Apr 15 06:44	8°Ϸ41'06	0°05'08
minimum elong	16085 May 01 16:45	25°Ϸ03'52	1°05'15	transit middle	16086 Apr 15 06:44	8°Ϸ41'06	0°05'08
morning rise	16085 May 07 20:11	19°Ϸ25'40		transit begin	16086 Apr 15 03:46	8°Ϸ48'51	
direct	16085 May 10 17:13	18°Ϸ40'39		transit end	16086 Apr 15 09:41	8°Ϸ33'22	
morning max el	16085 May 17 00:47	21°Ϸ58'03	18°05'17	morning rise	16086 Apr 21 20:56	3°Ϸ22'05	
	16085 May 23 11:15	0°Π		direct	16086 Apr 24 09:15	2°Ϸ50'30	
desc. node	16085 May 30 17:56	11°Π17'01		morning max el	16086 Apr 30 18:09	6°Ϸ05'48	17°48'12
morning set	16085 Jun 04 18:05	19°Π22'32			16086 May 16 17:55	0°Π	
	16085 Jun 11 08:24	0°Ϸ		morning set	16086 May 17 13:01	1°Π20'56	
				desc. node	16086 May 17 14:51	1°Π28'40	
superior conj	16085 Jun 19 13:53	13°Ϸ02'02	-2°01'12	superior conj	16086 May 30 14:32	23°Π03'18	-1°32'21
minimum elong	16085 Jun 19 06:21	12°Ϸ32'29	2°01'28	minimum elong	16086 May 30 06:18	22°Π29'58	1°32'10
max. Earth dist.	16085 Jun 22 03:41	17°Ϸ03'58	1.45902 AU		16086 Jun 03 22:36	0°Ϸ	
	16085 Jun 30 11:28	0°Ω		max. Earth dist.	16086 Jun 04 23:22	1°Ϸ38'08	1.45131 AU
evening rise	16085 Jul 05 17:07	8°Ω05'10		evening rise	16086 Jun 15 04:16	17°Ϸ29'26	
greatest brilliancy	16085 Jul 18 00:09	26°Ω50'12	-0.7m		16086 Jun 23 10:53	0°Ω	
	16085 Jul 20 03:45	0°Π		asc. node	16086 Jul 11 22:37	25°Ω16'00	
asc. node	16085 Jul 25 01:47	6°Π50'52		evening max el	16086 Jul 13 02:37	26°Ω28'39	20°16'23
evening max el	16085 Jul 29 23:15	12°Π34'24	19°18'23		16086 Jul 17 14:13	0°Π	
retrograde	16085 Aug 05 23:40	16°Π27'34		retrograde	16086 Jul 20 22:42	0°Π56'12	
evening set	16085 Aug 09 14:12	15°Π12'12			16086 Jul 24 02:07	30°ϷΩ	
inferior conj	16085 Aug 15 00:06	9°Π21'05	2°49'44	evening set	16086 Jul 24 23:36	29°Ω22'59	
minimum elong	16085 Aug 15 01:47	9°Π15'34	2°49'08	inferior conj	16086 Jul 30 05:57	23°Ω19'44	3°04'53
min. Earth dist.	16085 Aug 16 09:29	7°Π32'02	0.67238 AU	minimum elong	16086 Jul 30 06:45	23°Ω16'58	3°04'19
morning rise	16085 Aug 20 12:45	2°Π54'28		min. Earth dist.	16086 Jul 31 01:29	22°Ω12'58	0.68354 AU
direct	16085 Aug 26 12:14	0°Π20'12		morning rise	16086 Aug 04 13:34	16°Ω55'38	
desc. node	16085 Aug 26 16:01	0°Π20'18		direct	16086 Aug 10 01:48	14°Ω31'25	
morning max el	16085 Sep 07 22:13	7°Π44'33	25°41'15	desc. node	16086 Aug 13 13:21	15°Ω19'19	
	16085 Sep 25 08:19	0°Ω		morning max el	16086 Aug 21 09:16	21°Ω17'14	24°16'05
morning set	16085 Oct 13 20:40	0°Π24'10			16086 Aug 28 22:28	0°Π	
	16085 Oct 13 15:21	0°Π		morning set	16086 Sep 18 13:41	0°Ω	
max. Earth dist.	16085 Oct 17 11:23	7°Π07'16	1.35779 AU	max. Earth dist.	16086 Sep 25 19:12	12°Ω02'54	
asc. node	16085 Oct 21 03:06	14°Π11'44			16086 Sep 29 10:39	18°Ω26'58	1.38099 AU
					16086 Oct 05 16:57	0°Π	
superior conj	16085 Oct 23 12:06	18°Π55'59	0°21'27	superior conj	16086 Oct 06 17:33	1°Π57'25	-0°11'18
minimum elong	16085 Oct 23 10:51	18°Π49'44	0°21'43	minimum elong	16086 Oct 06 18:19	2°Π01'01	0°10'49
	16085 Oct 28 21:41	0°Ϸ		behind sun begin	16086 Oct 06 13:09	1°Π36'20	
evening rise	16085 Oct 31 07:44	4°Ϸ59'47		behind sun end	16086 Oct 06 23:28	2°Π25'44	
	16085 Nov 14 06:56	0°Ϸ		asc. node	16086 Oct 07 23:51	4°Π23'17	
evening max el	16085 Nov 18 07:59	4°Ϸ45'13	20°12'55	evening rise	16086 Oct 15 09:50	19°Π01'20	
desc. node	16085 Nov 22 13:25	8°Ϸ08'39			16086 Oct 21 01:58	0°Ϸ	
retrograde	16085 Nov 29 00:14	10°Ϸ04'16		evening max el	16086 Oct 31 22:52	16°Ϸ09'29	19°08'27
evening set	16085 Dec 01 05:09	9°Ϸ51'43		desc. node	16086 Nov 09 10:33	20°Ϸ42'25	
inferior conj	16085 Dec 10 00:22	5°Ϸ55'16	-5°00'37	retrograde	16086 Nov 10 00:52	20°Ϸ43'33	
minimum elong	16085 Dec 09 14:32	6°Ϸ09'53	4°57'26	evening set	16086 Nov 11 22:10	20°Ϸ32'32	
min. Earth dist.	16085 Dec 11 16:44	4°Ϸ55'14	0.54792 AU	inferior conj	16086 Nov 20 08:46	16°Ϸ19'40	-3°25'45
morning rise	16085 Dec 17 23:13	1°Ϸ51'48		minimum elong	16086 Nov 20 00:25	16°Ϸ33'52	3°22'02
direct	16085 Dec 22 18:15	1°Ϸ02'06		min. Earth dist.	16086 Nov 23 02:51	14°Ϸ27'46	0.56059 AU
morning max el	16086 Jan 05 08:20	7°Ϸ44'15	24°05'03	morning rise	16086 Nov 28 00:06	11°Ϸ44'01	
asc. node	16086 Jan 17 02:32	22°Ϸ51'52		direct	16086 Dec 03 15:53	10°Ϸ29'49	
	16086 Jan 21 06:32	0°≈		morning max el	16086 Dec 17 18:08	17°Ϸ40'30	25°49'09
morning set	16086 Jan 29 22:53	17°≈22'15			16086 Dec 27 22:13	0°Ϸ	
	16086 Feb 04 17:49	0°Χ		asc. node	16087 Jan 03 23:43	11°Ϸ22'00	
superior conj	16086 Feb 05 18:10	2°Χ12'59	1°30'54		16087 Jan 13 11:59	0°≈	
minimum elong	16086 Feb 05 19:44	2°Χ21'33	1°31'11	morning set	16087 Jan 14 10:17	1°≈59'26	
max. Earth dist.	16086 Feb 08 07:26	7°Χ44'16	1.32566 AU				
evening rise	16086 Feb 13 08:23	18°Χ13'51					

superior conj	16087 Jan 21 03:45	16° \approx 50'22	1°37'14		16088 Jan 04 23:04	0° \approx	
minimum elong	16087 Jan 21 04:20	16° \approx 53'35	1°37'47				
max. Earth dist.	16087 Jan 22 11:10	19° \approx 44'30	1.31538 AU	superior conj	16088 Jan 05 15:05	1° \approx 29'43	1°37'31
	16087 Jan 27 04:41	0° H		minimum elong	16088 Jan 05 14:36	1° \approx 27'01	1°38'11
evening rise	16087 Jan 28 06:24	2° H 15'01		max. Earth dist.	16088 Jan 05 18:24	1° \approx 48'18	1.31036 AU
desc. node	16087 Feb 05 10:19	18° H 13'27		evening rise	16088 Jan 12 10:35	16° \approx 30'24	
	16087 Feb 12 07:45	0° Y			16088 Jan 19 02:22	0° H	
evening max el	16087 Mar 01 15:29	22° Y 27'11	27°32'59	desc. node	16088 Jan 23 07:03	7° H 40'46	
retrograde	16087 Mar 15 15:03	29° Y 53'47			16088 Feb 07 14:41	0° Y	
evening set	16087 Mar 22 10:28	27° Y 41'46		evening max el	16088 Feb 11 19:34	4° Y 25'11	27°00'05
min. Earth dist.	16087 Mar 26 04:51	24° Y 46'18	0.61749 AU	retrograde	16088 Feb 25 20:32	11° Y 41'30	
inferior conj	16087 Mar 29 07:02	21° Y 55'23	-1°09'06	evening set	16088 Mar 03 10:27	9° Y 50'36	
minimum elong	16087 Mar 29 09:27	21° Y 49'46	1°08'20	min. Earth dist.	16088 Mar 07 09:48	7° Y 09'48	0.59493 AU
asc. node	16087 Apr 01 21:05	18° Y 51'50		inferior conj	16088 Mar 10 15:10	4° Y 34'10	-2°35'35
morning rise	16087 Apr 05 11:39	16° Y 54'19		minimum elong	16088 Mar 10 21:06	4° Y 22'12	2°33'18
direct	16087 Apr 07 16:34	16° Y 32'51		morning rise	16088 Mar 18 11:19	29° H 53'03	
morning max el	16087 Apr 14 11:23	19° Y 57'49	17°48'50		16088 Mar 18 01:05	30° R H	
	16087 Apr 21 22:58	0° B		asc. node	16088 Mar 18 18:24	29° H 48'59	
morning set	16087 Apr 30 06:03	14° B 20'29		direct	16088 Mar 20 11:12	29° H 38'02	
desc. node	16087 May 04 11:39	21° B 51'11			16088 Mar 22 19:54	0° Y	
	16087 May 09 03:54	0° II		morning max el	16088 Mar 28 01:00	3° Y 24'05	18°08'15
				morning set	16088 Apr 12 15:26	28° Y 04'32	
superior conj	16087 May 11 13:47	4° II 06'53	-0°55'31		16088 Apr 13 16:10	0° B	
minimum elong	16087 May 11 08:42	3° II 45'22	0°55'23	desc. node	16088 Apr 20 08:26	12° B 20'36	
max. Earth dist.	16087 May 18 15:14	15° II 48'02	1.43703 AU				
evening rise	16087 May 25 19:11	27° II 09'44		superior conj	16088 Apr 22 11:54	16° B 12'17	-0°17'42
	16087 May 27 15:11	0° B		minimum elong	16088 Apr 22 10:27	16° B 05'46	0°17'56
	16087 Jun 17 07:01	0° Q		max. Earth dist.	16088 Apr 30 02:18	29° B 21'56	1.41776 AU
evening max el	16087 Jun 25 23:54	10° Q 22'14	21°27'07		16088 Apr 30 11:23	0° II	
asc. node	16087 Jun 28 19:29	12° Q 53'59		evening rise	16088 May 05 02:55	7° II 37'51	
retrograde	16087 Jul 04 21:30	15° Q 32'22			16088 May 19 18:05	0° B	
evening set	16087 Jul 09 09:23	13° Q 41'55		evening max el	16088 Jun 07 16:30	24° B 16'06	22°46'15
inferior conj	16087 Jul 14 14:52	7° Q 28'06	3°08'25	asc. node	16088 Jun 14 16:25	29° B 29'49	
minimum elong	16087 Jul 14 14:42	7° Q 28'38	3°07'46		16088 Jun 16 05:15	0° Q	
min. Earth dist.	16087 Jul 14 21:02	7° Q 06'32	0.68990 AU	retrograde	16088 Jun 17 18:27	0° Q 10'48	
morning rise	16087 Jul 19 19:49	1° Q 09'25			16088 Jun 19 06:17	30° R B	
	16087 Jul 21 09:35	30° R B		evening set	16088 Jun 22 17:49	28° B 04'39	
direct	16087 Jul 24 19:57	29° B 00'15		min. Earth dist.	16088 Jun 27 17:58	22° B 06'05	0.69139 AU
	16087 Jul 28 13:40	0° Q		inferior conj	16088 Jun 28 00:50	21° B 42'13	3°01'16
desc. node	16087 Jul 31 10:39	1° Q 51'45		minimum elong	16088 Jun 27 23:47	21° B 45'53	3°00'26
morning max el	16087 Aug 03 21:09	4° Q 57'18	22°46'52	morning rise	16088 Jul 03 05:37	15° B 31'01	
	16087 Aug 23 03:51	0° M		direct	16088 Jul 07 17:36	13° B 40'02	
morning set	16087 Sep 06 19:29	22° M 44'43		morning max el	16088 Jul 16 12:34	18° B 45'28	21°21'51
	16087 Sep 11 03:59	0° B		desc. node	16088 Jul 17 07:54	19° B 34'55	
max. Earth dist.	16087 Sep 11 10:16	0° B 26'41	1.40501 AU		16088 Jul 25 20:26	0° Q	
					16088 Aug 15 06:37	0° M	
superior conj	16087 Sep 19 07:18	14° B 16'17	-0°47'32	morning set	16088 Aug 16 19:57	2° M 26'02	
minimum elong	16087 Sep 19 11:01	14° B 33'09	0°46'47	max. Earth dist.	16088 Aug 23 15:16	13° M 19'59	1.42711 AU
asc. node	16087 Sep 24 20:33	24° B 32'18					
	16087 Sep 27 17:51	0° M		superior conj	16088 Aug 31 00:55	25° M 42'44	-1°23'51
evening rise	16087 Sep 29 03:39	2° M 40'30		minimum elong	16088 Aug 31 07:44	26° M 11'56	1°23'06
evening max el	16087 Oct 15 01:53	28° M 21'54	18°26'17		16088 Sep 02 12:31	0° B	
	16087 Oct 16 21:57	0° A		asc. node	16088 Sep 10 17:13	14° B 34'49	
retrograde	16087 Oct 22 20:20	2° A 18'38		evening rise	16088 Sep 11 09:10	15° B 46'53	
evening set	16087 Oct 24 20:00	2° A 03'54			16088 Sep 19 10:31	0° M	
desc. node	16087 Oct 27 07:43	1° A 07'16		evening max el	16088 Sep 27 12:43	11° M 12'28	18°04'51
	16087 Oct 29 05:41	30° R M		retrograde	16088 Oct 04 09:53	14° M 44'31	
inferior conj	16087 Nov 01 14:31	27° M 30'19	-1°42'06	evening set	16088 Oct 06 16:15	14° M 21'49	
minimum elong	16087 Nov 01 10:31	27° M 38'13	1°39'54	desc. node	16088 Oct 13 05:00	9° M 55'25	
min. Earth dist.	16087 Nov 04 19:58	24° M 57'35	0.57963 AU	inferior conj	16088 Oct 13 17:19	9° M 27'14	-0°09'45
morning rise	16087 Nov 08 21:34	22° M 17'41		minimum elong	16088 Oct 13 17:00	9° M 27'57	0°09'12
direct	16087 Nov 15 04:18	20° M 36'22		transit middle	16088 Oct 13 17:00	9° M 27'57	0°09'12
morning max el	16087 Nov 29 10:47	28° M 09'36	27°08'50	transit begin	16088 Oct 13 14:16	9° M 34'15	
	16087 Dec 01 06:22	0° A		transit end	16088 Oct 13 19:44	9° M 21'39	
asc. node	16087 Dec 21 20:51	0° B 27'23		min. Earth dist.	16088 Oct 16 21:50	6° M 32'23	0.60205 AU
	16087 Dec 21 14:59	0° B		morning rise	16088 Oct 20 14:34	3° M 42'42	
morning set	16087 Dec 29 19:22	16° B 26'15		direct	16088 Oct 27 05:28	1° M 36'34	

morning max el	16088 Nov 10 11:24	9° \mathbb{M} 25'33	27°52'11		16089 Oct 31 04:54	0° \mathbb{M}	
	16088 Nov 26 08:37	0° \mathbb{A}			16089 Nov 19 11:34	0° \mathbb{A}	
asc. node	16088 Dec 07 17:53	19° \mathbb{A} 57'52		asc. node	16089 Nov 24 14:52	9° \mathbb{A} 46'30	
	16088 Dec 12 17:09	0° \mathbb{B}		morning set	16089 Nov 26 22:40	14° \mathbb{A} 27'05	
morning set	16088 Dec 13 00:11	0° \mathbb{B} 36'56		max. Earth dist.	16089 Dec 02 04:48	25° \mathbb{A} 32'42	1.31699 AU
max. Earth dist.	16088 Dec 19 01:30	13° \mathbb{B} 46'53	1.31086 AU				
				superior conj	16089 Dec 04 11:14	0° \mathbb{B} 30'20	1°19'58
superior conj	16088 Dec 20 02:12	16° \mathbb{B} 04'37	1°31'46	minimum elong	16089 Dec 04 09:07	0° \mathbb{B} 18'36	1°20'27
minimum elong	16088 Dec 20 00:45	15° \mathbb{B} 56'35	1°32'24		16089 Dec 04 05:44	0° \mathbb{B}	
	16088 Dec 26 08:51	0° \approx		evening rise	16089 Dec 11 05:13	15° \mathbb{B} 21'22	
evening rise	16088 Dec 26 18:48	0° \approx 53'53			16089 Dec 18 08:51	0° \approx	
desc. node	16089 Jan 09 03:49	26° \approx 33'25		desc. node	16089 Dec 27 00:41	14° \approx 39'08	
	16089 Jan 11 07:45	0° \mathbb{H}		evening max el	16090 Jan 05 04:08	25° \approx 47'39	24°19'28
evening max el	16089 Jan 23 15:50	15° \mathbb{H} 30'13	25°52'57		16090 Jan 10 12:22	0° \mathbb{H}	
retrograde	16089 Feb 06 14:30	22° \mathbb{H} 32'58		retrograde	16090 Jan 18 19:07	2° \mathbb{H} 34'22	
evening set	16089 Feb 12 15:10	21° \mathbb{H} 08'27		evening set	16090 Jan 23 21:33	1° \mathbb{H} 37'31	
min. Earth dist.	16089 Feb 17 04:55	18° \mathbb{H} 29'38	0.57360 AU		16090 Jan 27 10:57	30° \mathbb{R} \approx	
inferior conj	16089 Feb 20 03:43	16° \mathbb{H} 26'26	-4°06'10	min. Earth dist.	16090 Jan 29 15:51	28° \approx 44'09	0.55629 AU
minimum elong	16089 Feb 20 12:42	16° \mathbb{H} 10'46	4°03'05	inferior conj	16090 Jan 31 19:02	27° \approx 26'10	-5°23'27
morning rise	16089 Feb 28 13:17	12° \mathbb{H} 06'40		minimum elong	16090 Feb 01 03:24	27° \approx 13'23	5°21'22
direct	16089 Mar 02 12:55	11° \mathbb{H} 54'17		morning rise	16090 Feb 09 11:12	23° \approx 26'22	
asc. node	16089 Mar 05 15:44	12° \mathbb{H} 26'32		direct	16090 Feb 11 19:01	23° \approx 12'12	
morning max el	16089 Mar 11 06:55	16° \mathbb{H} 12'08	18°48'21	asc. node	16090 Feb 20 13:06	26° \approx 49'36	
	16089 Mar 20 23:37	0° \mathbb{Y}		morning max el	16090 Feb 22 00:56	28° \approx 10'30	19°51'09
morning set	16089 Mar 27 12:12	12° \mathbb{Y} 18'06			16090 Feb 23 18:35	0° \mathbb{H}	
				morning set	16090 Mar 11 16:33	26° \mathbb{H} 49'53	
superior conj	16089 Apr 05 05:15	29° \mathbb{Y} 08'55	0°16'45		16090 Mar 13 05:58	0° \mathbb{Y}	
minimum elong	16089 Apr 05 06:20	29° \mathbb{Y} 14'00	0°16'15				
	16089 Apr 05 16:07	0° \mathbb{B}		superior conj	16090 Mar 19 13:28	12° \mathbb{Y} 44'52	0°45'39
desc. node	16089 Apr 07 05:09	2° \mathbb{B} 52'42		minimum elong	16090 Mar 19 15:47	12° \mathbb{Y} 56'20	0°45'10
max. Earth dist.	16089 Apr 12 09:39	12° \mathbb{B} 14'55	1.39548 AU	desc. node	16090 Mar 25 01:50	23° \mathbb{Y} 23'50	
evening rise	16089 Apr 16 07:55	19° \mathbb{B} 01'42		max. Earth dist.	16090 Mar 25 16:14	24° \mathbb{Y} 31'04	1.37258 AU
	16089 Apr 23 00:37	0° \mathbb{I}			16090 Mar 28 16:05	0° \mathbb{B}	
	16089 May 14 00:37	0° \mathbb{E}		evening rise	16090 Mar 29 09:01	1° \mathbb{B} 15'52	
evening max el	16089 May 21 06:39	8° \mathbb{E} 11'20	24°07'52		16090 Apr 16 04:49	0° \mathbb{I}	
retrograde	16089 Jun 01 12:16	14° \mathbb{E} 46'00		evening max el	16090 May 03 20:07	22° \mathbb{I} 05'40	25°25'00
asc. node	16089 Jun 01 13:24	14° \mathbb{E} 46'00		retrograde	16090 May 16 01:56	29° \mathbb{I} 11'11	
evening set	16089 Jun 06 23:20	12° \mathbb{E} 26'45		asc. node	16090 May 19 10:30	28° \mathbb{I} 24'54	
min. Earth dist.	16089 Jun 11 14:08	7° \mathbb{E} 05'42	0.68799 AU	evening set	16090 May 22 00:15	26° \mathbb{I} 42'34	
inferior conj	16089 Jun 12 10:00	5° \mathbb{E} 58'22	2°43'41	min. Earth dist.	16090 May 26 07:24	21° \mathbb{I} 58'30	0.67982 AU
minimum elong	16089 Jun 12 08:13	6° \mathbb{E} 04'23	2°42'36	inferior conj	16090 May 27 16:22	20° \mathbb{I} 11'55	2°15'17
morning rise	16089 Jun 17 17:10	29° \mathbb{I} 56'05		minimum elong	16090 May 27 14:12	20° \mathbb{I} 18'55	2°14'00
	16089 Jun 17 15:08	30° \mathbb{R} \mathbb{I}		morning rise	16090 Jun 02 04:36	14° \mathbb{I} 19'49	
direct	16089 Jun 21 17:19	28° \mathbb{I} 24'47		direct	16090 Jun 05 17:31	13° \mathbb{I} 08'00	
	16089 Jun 26 03:50	0° \mathbb{E}		morning max el	16090 Jun 12 15:20	16° \mathbb{I} 53'17	19°07'04
morning max el	16089 Jun 29 10:16	2° \mathbb{E} 44'23	20°07'20	desc. node	16090 Jun 21 02:15	27° \mathbb{I} 24'48	
desc. node	16089 Jul 04 05:07	8° \mathbb{E} 10'40			16090 Jun 22 21:24	0° \mathbb{E}	
	16089 Jul 19 14:33	0° \mathbb{Q}		greatest brilliancy	16090 Jun 25 13:19	3° \mathbb{E} 55'58	-0.7m
morning set	16089 Jul 27 02:55	11° \mathbb{Q} 24'57		morning set	16090 Jul 06 09:09	20° \mathbb{E} 26'56	
max. Earth dist.	16089 Aug 06 03:24	27° \mathbb{Q} 04'05	1.44471 AU		16090 Jul 12 13:26	0° \mathbb{Q}	
	16089 Aug 07 23:28	0° \mathbb{P}		max. Earth dist.	16090 Jul 19 20:50	11° \mathbb{Q} 22'52	1.45603 AU
superior conj	16089 Aug 11 19:15	6° \mathbb{P} 10'46	-1°54'37	superior conj	16090 Jul 22 15:47	15° \mathbb{Q} 45'45	-2°12'22
minimum elong	16089 Aug 12 02:57	6° \mathbb{P} 42'10	1°54'22	minimum elong	16090 Jul 22 19:13	15° \mathbb{Q} 59'15	2°12'51
evening rise	16089 Aug 24 21:28	28° \mathbb{P} 08'20			16090 Jul 31 14:22	0° \mathbb{P}	
	16089 Aug 25 23:31	0° \mathbb{L}		evening rise	16090 Aug 06 11:17	9° \mathbb{P} 31'29	
asc. node	16089 Aug 28 13:53	4° \mathbb{L} 27'04		asc. node	16090 Aug 15 10:34	24° \mathbb{P} 03'39	
evening max el	16089 Sep 11 03:13	24° \mathbb{L} 31'03	18°02'38		16090 Aug 19 07:38	0° \mathbb{L}	
retrograde	16089 Sep 17 13:35	27° \mathbb{L} 52'14		evening max el	16090 Aug 25 17:46	8° \mathbb{L} 07'39	18°18'34
evening set	16089 Sep 20 04:07	27° \mathbb{L} 17'58		retrograde	16090 Sep 01 02:57	11° \mathbb{L} 31'22	
inferior conj	16089 Sep 26 13:52	22° \mathbb{L} 04'34	1°03'43	evening set	16090 Sep 04 02:16	10° \mathbb{L} 42'43	
minimum elong	16089 Sep 26 15:34	22° \mathbb{L} 00'06	1°03'20	inferior conj	16090 Sep 10 00:02	5° \mathbb{L} 13'07	1°57'58
min. Earth dist.	16089 Sep 29 09:39	19° \mathbb{L} 08'01	0.62490 AU	minimum elong	16090 Sep 10 02:22	5° \mathbb{L} 06'20	1°57'17
desc. node	16089 Sep 30 02:20	18° \mathbb{L} 26'55		min. Earth dist.	16090 Sep 12 07:20	2° \mathbb{L} 32'40	0.64597 AU
morning rise	16089 Oct 03 00:38	15° \mathbb{L} 57'06			16090 Sep 14 17:46	30° \mathbb{R} \mathbb{P}	
direct	16089 Oct 09 17:03	13° \mathbb{L} 32'27		morning rise	16090 Sep 16 00:55	28° \mathbb{P} 52'08	
morning max el	16089 Oct 23 18:25	21° \mathbb{L} 29'52	27°56'12	desc. node	16090 Sep 16 23:43	28° \mathbb{P} 09'46	

direct	16090 Sep 22 13:33	26° \cap 17'00		desc. node	16091 Sep 03 21:07	9° \cap 55'21	
	16090 Oct 01 10:54	0° $\underline{\cap}$		direct	16091 Sep 05 17:44	9° \cap 42'00	
morning max el	16090 Oct 06 05:04	4° $\underline{\cap}$ 13'14	27°24'35	morning max el	16091 Sep 18 16:39	17° \cap 23'11	26°24'44
	16090 Oct 25 17:51	0° \cap			16091 Sep 29 06:23	0° $\underline{\cap}$	
morning set	16090 Nov 10 12:14	27° \cap 50'40			16091 Oct 18 16:08	0° \cap	
asc. node	16090 Nov 11 11:46	29° \cap 47'09		morning set	16091 Oct 24 13:41	10° \cap 40'23	
	16090 Nov 11 14:21	0° \times		max. Earth dist.	16091 Oct 28 10:27	18° \cap 05'41	1.34577 AU
max. Earth dist.	16090 Nov 15 00:35	6° \times 58'40	1.32870 AU	asc. node	16091 Oct 29 08:36	19° \cap 55'05	
superior conj	16090 Nov 18 16:07	14° \times 41'11	1°02'01	superior conj	16091 Nov 02 14:20	28° \cap 30'53	0°37'57
minimum elong	16090 Nov 18 13:45	14° \times 28'31	1°02'21	minimum elong	16091 Nov 02 12:26	28° \cap 21'01	0°38'12
evening rise	16090 Nov 25 15:59	29° \times 48'06			16091 Nov 03 07:32	0° \times	
	16090 Nov 25 18:12	0° Z		evening rise	16091 Nov 10 01:08	14° \times 09'08	
	16090 Dec 12 13:34	0° \approx			16091 Nov 18 01:23	0° Z	
desc. node	16090 Dec 13 21:38	1° \approx 41'22		evening max el	16091 Nov 29 06:35	15° Z 54'28	21°00'01
evening max el	16090 Dec 17 13:45	5° \approx 42'57	22°35'56	desc. node	16091 Nov 30 18:40	17° Z 18'03	
retrograde	16090 Dec 30 11:28	12° \approx 06'04		retrograde	16091 Dec 10 21:22	21° Z 39'45	
evening set	16091 Jan 03 07:38	11° \approx 33'47		evening set	16091 Dec 13 12:48	21° Z 23'11	
min. Earth dist.	16091 Jan 10 22:10	8° \approx 06'02	0.54584 AU	inferior conj	16091 Dec 22 07:21	17° Z 31'56	-5°39'26
inferior conj	16091 Jan 11 16:37	7° \approx 40'00	-6°01'19	minimum elong	16091 Dec 21 23:50	17° Z 42'36	5°37'31
minimum elong	16091 Jan 11 17:55	7° \approx 38'10	6°00'39	min. Earth dist.	16091 Dec 23 03:37	17° Z 03'06	0.54438 AU
morning rise	16091 Jan 20 05:22	3° \approx 52'01		morning rise	16091 Dec 30 10:59	13° Z 39'18	
direct	16091 Jan 23 08:04	3° \approx 29'58		direct	16092 Jan 03 15:25	13° Z 01'34	
morning max el	16091 Feb 04 04:11	9° \approx 12'45	21°17'05	morning max el	16092 Jan 16 18:09	19° Z 25'17	23°01'26
asc. node	16091 Feb 07 10:26	12° \approx 45'07		asc. node	16092 Jan 25 07:45	29° Z 53'54	
	16091 Feb 18 08:07	0° X			16092 Jan 25 09:23	0° \approx	
morning set	16091 Feb 24 01:37	11° X 31'30		morning set	16092 Feb 08 13:04	26° \approx 15'22	
					16092 Feb 10 06:57	0° X	
superior conj	16091 Mar 03 08:36	26° X 49'21	1°08'15	superior conj	16092 Feb 15 11:19	11° X 12'06	1°24'25
minimum elong	16091 Mar 03 11:07	27° X 02'24	1°08'00	minimum elong	16092 Feb 15 13:21	11° X 23'03	1°24'32
	16091 Mar 04 21:39	0° Y		max. Earth dist.	16092 Feb 18 18:48	18° X 13'02	1.33377 AU
max. Earth dist.	16091 Mar 08 02:06	6° Y 24'23	1.35140 AU	evening rise	16092 Feb 23 10:19	27° X 38'50	
desc. node	16091 Mar 11 22:30	13° Y 50'22			16092 Feb 24 15:14	0° Y	
evening rise	16091 Mar 12 03:02	14° Y 11'38		desc. node	16092 Feb 26 19:09	4° Y 07'25	
	16091 Mar 21 01:04	0° Z			16092 Mar 13 07:11	0° Z	
	16091 Apr 10 22:50	0° \cap		evening max el	16092 Mar 28 23:13	19° Z 26'53	27°16'27
evening max el	16091 Apr 16 09:44	5° \cap 53'58	26°30'19	retrograde	16092 Apr 11 13:14	26° Z 59'22	
retrograde	16091 Apr 29 10:35	13° \cap 18'57		evening set	16092 Apr 18 04:46	24° Z 29'10	
evening set	16091 May 05 18:46	10° \cap 46'16		min. Earth dist.	16092 Apr 22 01:21	20° Z 52'37	0.65024 AU
asc. node	16091 May 06 07:40	10° \cap 18'57		asc. node	16092 Apr 22 04:55	20° Z 43'00	
min. Earth dist.	16091 May 09 19:48	6° \cap 37'25	0.66709 AU	inferior conj	16092 Apr 24 11:51	18° Z 10'56	0°42'19
inferior conj	16091 May 11 17:49	4° \cap 18'26	1°35'14	minimum elong	16092 Apr 24 10:44	18° Z 14'03	0°41'23
minimum elong	16091 May 11 15:48	4° \cap 24'34	1°33'56	morning rise	16092 Apr 30 18:33	12° Z 43'29	
	16091 May 15 16:56	30° R Z		direct	16092 May 03 11:38	12° Z 04'44	
morning rise	16091 May 17 13:53	28° Z 37'47		morning max el	16092 May 09 18:56	15° Z 20'07	17°55'50
direct	16091 May 20 16:22	27° Z 43'51			16092 May 20 10:48	0° \cap	
	16091 May 25 20:42	0° \cap		desc. node	16092 May 24 20:15	7° \cap 09'53	
morning max el	16091 May 27 02:57	1° \cap 07'53	18°22'59	morning set	16092 May 27 13:29	11° \cap 38'50	
desc. node	16091 Jun 07 23:18	17° \cap 07'21			16092 Jun 07 19:59	0° Z	
morning set	16091 Jun 16 09:46	0° Z 24'00		superior conj	16092 Jun 10 15:59	4° Z 30'42	-1°50'28
	16091 Jun 16 03:42	0° Z		minimum elong	16092 Jun 10 07:26	3° Z 56'48	1°50'30
superior conj	16091 Jul 02 01:09	24° Z 58'04	-2°10'59	max. Earth dist.	16092 Jun 14 12:41	10° Z 36'01	1.45660 AU
minimum elong	16091 Jul 01 20:49	24° Z 41'11	2°11'34	evening rise	16092 Jun 26 16:28	29° Z 25'10	
max. Earth dist.	16091 Jul 02 16:42	25° Z 58'38	1.46009 AU		16092 Jun 27 01:34	0° \cap	
	16091 Jul 05 06:40	0° \cap		greatest brilliancy	16092 Jul 10 18:19	20° \cap 37'25	-0.6m
evening rise	16091 Jul 17 24:00	19° \cap 51'53			16092 Jul 17 12:14	0° \cap	
	16091 Jul 24 11:30	0° \cap		asc. node	16092 Jul 19 04:02	2° \cap 05'03	
greatest brilliancy	16091 Jul 27 10:40	4° \cap 35'21	-0.8m	evening max el	16092 Jul 22 12:15	5° \cap 48'25	19°41'22
asc. node	16091 Aug 02 07:17	13° \cap 18'52		retrograde	16092 Jul 29 20:20	9° \cap 55'02	
evening max el	16091 Aug 09 05:28	21° \cap 55'15	18°51'48	evening set	16092 Aug 02 15:07	8° \cap 32'18	
retrograde	16091 Aug 15 22:09	25° \cap 34'22		inferior conj	16092 Aug 07 23:11	2° \cap 36'03	2°57'40
evening set	16091 Aug 19 06:52	24° \cap 29'16		minimum elong	16092 Aug 08 00:31	2° \cap 31'36	2°57'05
inferior conj	16091 Aug 24 20:10	18° \cap 45'36	2°35'07	min. Earth dist.	16092 Aug 09 02:43	1° \cap 04'04	0.67768 AU
minimum elong	16091 Aug 24 22:14	18° \cap 39'05	2°34'27		16092 Aug 09 22:21	30° R \cap	
min. Earth dist.	16091 Aug 26 13:40	16° \cap 34'46	0.66388 AU	morning rise	16092 Aug 13 09:23	26° \cap 09'55	
morning rise	16091 Aug 30 12:40	12° \cap 19'06					





direct	16092 Aug 19 04:19	23° Ω 38'52		inferior conj	16093 Jul 23 06:33	16° Ω 38'59	3°07'43
desc. node	16092 Aug 20 18:29	23° Ω 48'51		minimum elong	16093 Jul 23 06:57	16° Ω 37'37	3°07'08
	16092 Aug 30 07:57	0° \mathbb{M}		min. Earth dist.	16093 Jul 23 20:24	15° Ω 51'09	0.68688 AU
morning max el	16092 Aug 31 03:40	0° \mathbb{M} 48'55	25°06'01	morning rise	16093 Jul 28 12:45	10° Ω 17'04	
	16092 Sep 22 04:59	0° $\underline{\Omega}$		direct	16093 Aug 02 20:01	7° Ω 58'33	
morning set	16092 Oct 05 23:15	22° $\underline{\Omega}$ 47'47		desc. node	16093 Aug 07 15:48	9° Ω 30'26	
max. Earth dist.	16092 Oct 09 11:48	29° $\underline{\Omega}$ 11'17	1.36731 AU	morning max el	16093 Aug 13 14:34	14° Ω 23'57	23°38'03
	16092 Oct 09 22:19	0° \mathbb{M}			16093 Aug 26 07:46	0° \mathbb{M}	
asc. node	16092 Oct 15 05:22	10° \mathbb{M} 06'27			16093 Sep 15 02:29	0° $\underline{\Omega}$	
				morning set	16093 Sep 17 12:37	4° $\underline{\Omega}$ 02'33	
superior conj	16092 Oct 16 02:58	11° \mathbb{M} 52'40	0°08'08	max. Earth dist.	16093 Sep 21 10:26	10° $\underline{\Omega}$ 45'14	1.39130 AU
minimum elong	16092 Oct 16 02:26	11° \mathbb{M} 50'02	0°08'29				
behind sun begin	16092 Oct 15 20:54	11° \mathbb{M} 22'42		superior conj	16093 Sep 29 02:15	24° $\underline{\Omega}$ 37'11	-0°26'23
behind sun end	16092 Oct 16 07:59	12° \mathbb{M} 17'25		minimum elong	16093 Sep 29 04:10	24° $\underline{\Omega}$ 46'08	0°25'48
evening rise	16092 Oct 24 06:32	28° \mathbb{M} 19'33			16093 Oct 01 22:28	0° \mathbb{M}	
	16092 Oct 25 02:22	0° \mathbb{M}		asc. node	16093 Oct 02 02:03	0° \mathbb{M} 17'11	
evening max el	16092 Nov 10 13:20	26° \mathbb{M} 50'15	19°42'51	evening rise	16093 Oct 08 05:29	12° \mathbb{M} 12'20	
	16092 Nov 14 11:29	0° \mathbb{Z}			16093 Oct 17 22:27	0° \mathbb{M}	
desc. node	16092 Nov 16 15:45	1° \mathbb{Z} 04'57		evening max el	16093 Oct 24 09:52	8° \mathbb{M} 35'39	18°47'52
retrograde	16092 Nov 20 12:49	1° \mathbb{Z} 49'16		retrograde	16093 Nov 01 21:01	12° \mathbb{M} 52'10	
evening set	16092 Nov 22 12:55	1° \mathbb{Z} 38'08		evening set	16093 Nov 03 18:43	12° \mathbb{M} 40'00	
	16092 Nov 27 02:52	30° \mathbb{R}		desc. node	16093 Nov 03 12:56	12° \mathbb{M} 42'51	
inferior conj	16092 Dec 01 05:53	27° \mathbb{M} 36'08	-4°23'19	inferior conj	16093 Nov 11 22:56	8° \mathbb{M} 18'22	-2°41'16
minimum elong	16092 Nov 30 19:58	27° \mathbb{M} 51'37	4°19'35	minimum elong	16093 Nov 11 16:21	8° \mathbb{M} 30'17	2°38'04
min. Earth dist.	16092 Dec 03 11:06	26° \mathbb{M} 13'02	0.55233 AU	min. Earth dist.	16093 Nov 14 23:32	6° \mathbb{M} 07'29	0.56813 AU
morning rise	16092 Dec 09 01:26	23° \mathbb{M} 20'23		morning rise	16093 Nov 19 10:59	3° \mathbb{M} 27'20	
direct	16092 Dec 14 06:14	22° \mathbb{M} 20'29		direct	16093 Nov 25 10:08	2° \mathbb{M} 01'41	
morning max el	16092 Dec 28 02:28	29° \mathbb{M} 15'59	24°51'06	morning max el	16093 Dec 09 14:27	9° \mathbb{M} 21'46	26°27'00
	16092 Dec 28 20:33	0° \mathbb{Z}			16093 Dec 25 04:50	0° \mathbb{Z}	
asc. node	16093 Jan 11 04:59	17° \mathbb{Z} 58'43		asc. node	16093 Dec 29 02:08	6° \mathbb{Z} 44'52	
	16093 Jan 17 18:23	0° \approx		morning set	16094 Jan 07 11:37	25° \mathbb{Z} 29'16	
morning set	16093 Jan 23 01:00	10° \approx 56'25			16094 Jan 09 13:21	0° \approx	
superior conj	16093 Jan 29 19:02	25° \approx 45'59	1°34'19	superior conj	16094 Jan 14 05:35	10° \approx 24'18	1°38'05
minimum elong	16093 Jan 29 20:12	25° \approx 52'26	1°34'44	minimum elong	16094 Jan 14 05:42	10° \approx 25'01	1°38'42
	16093 Jan 31 17:26	0° \mathbb{H}		max. Earth dist.	16094 Jan 15 00:54	12° \approx 12'07	1.31263 AU
max. Earth dist.	16093 Jan 31 19:08	0° \mathbb{H} 09'17	1.32070 AU	evening rise	16094 Jan 21 04:40	25° \approx 37'32	
evening rise	16093 Feb 06 03:46	11° \mathbb{H} 29'54			16094 Jan 23 07:12	0° \mathbb{H}	
desc. node	16093 Feb 12 15:49	24° \mathbb{H} 10'21		desc. node	16094 Jan 30 12:31	13° \mathbb{H} 52'47	
	16093 Feb 15 21:35	0° \mathbb{Y}			16094 Feb 09 10:55	0° \mathbb{Y}	
	16093 Mar 08 22:48	0° \mathbb{B}		evening max el	16094 Feb 21 18:55	14° \mathbb{Y} 59'18	27°23'22
evening max el	16093 Mar 11 11:08	2° \mathbb{B} 33'05	27°36'06	retrograde	16094 Mar 07 19:13	22° \mathbb{Y} 21'04	
retrograde	16093 Mar 25 08:30	10° \mathbb{B} 03'07		evening set	16094 Mar 14 13:13	20° \mathbb{Y} 17'28	
evening set	16093 Apr 01 03:52	7° \mathbb{B} 42'40		min. Earth dist.	16094 Mar 18 09:00	17° \mathbb{Y} 29'34	0.60795 AU
min. Earth dist.	16093 Apr 04 22:15	4° \mathbb{B} 33'52	0.63014 AU	inferior conj	16094 Mar 21 13:23	14° \mathbb{Y} 43'18	-1°44'37
inferior conj	16093 Apr 07 19:32	1° \mathbb{B} 42'14	-0°24'25	minimum elong	16094 Mar 21 17:13	14° \mathbb{Y} 34'54	1°43'11
minimum elong	16093 Apr 07 20:20	1° \mathbb{B} 40'15	0°24'26	asc. node	16094 Mar 26 23:32	10° \mathbb{Y} 40'45	
asc. node	16093 Apr 09 02:13	0° \mathbb{B} 27'09		morning rise	16094 Mar 29 00:35	9° \mathbb{Y} 50'12	
	16093 Apr 09 13:45	30° \mathbb{R}		direct	16094 Mar 31 03:07	9° \mathbb{Y} 31'48	
morning rise	16093 Apr 14 15:32	26° \mathbb{Y} 30'25		morning max el	16094 Apr 07 04:40	13° \mathbb{Y} 04'10	17°54'40
direct	16093 Apr 17 00:26	26° \mathbb{Y} 03'35			16094 Apr 18 16:07	0° \mathbb{B}	
morning max el	16093 Apr 23 12:33	29° \mathbb{Y} 21'49	17°46'08	morning set	16094 Apr 22 19:16	7° \mathbb{B} 26'37	
	16093 Apr 24 03:40	0° \mathbb{B}		desc. node	16094 Apr 28 13:54	17° \mathbb{B} 52'54	
morning set	16093 May 09 18:31	24° \mathbb{B} 05'19					
desc. node	16093 May 11 17:06	27° \mathbb{B} 26'33		superior conj	16094 May 03 10:59	26° \mathbb{B} 27'58	-0°39'16
	16093 May 13 04:44	0° \mathbb{I}		minimum elong	16094 May 03 07:31	26° \mathbb{B} 12'57	0°39'17
					16094 May 05 12:21	0° \mathbb{I}	
superior conj	16093 May 22 01:40	14° \mathbb{I} 56'43	-1°17'13	max. Earth dist.	16094 May 10 21:22	8° \mathbb{I} 59'41	1.42939 AU
minimum elong	16093 May 21 18:31	14° \mathbb{I} 27'17	1°16'59	evening rise	16094 May 17 00:15	18° \mathbb{I} 50'10	
max. Earth dist.	16093 May 28 06:52	25° \mathbb{I} 01'05	1.44601 AU		16094 May 24 06:01	0° \mathbb{E}	
	16093 May 31 10:23	0° \mathbb{E}			16094 Jun 15 00:00	0° Ω	
evening rise	16093 Jun 06 03:07	8° \mathbb{E} 51'00		evening max el	16094 Jun 18 08:12	3° Ω 37'06	22°00'03
	16093 Jun 20 06:58	0° Ω		asc. node	16094 Jun 22 21:45	7° Ω 25'55	
evening max el	16093 Jul 05 13:02	19° Ω 42'48	20°45'15	retrograde	16094 Jun 27 17:27	9° Ω 05'51	
asc. node	16093 Jul 06 00:51	20° Ω 11'43		evening set	16094 Jul 02 10:18	7° Ω 08'15	
retrograde	16093 Jul 13 19:19	24° Ω 27'18		inferior conj	16094 Jul 07 16:10	0° Ω 50'34	3°06'38
evening set	16093 Jul 18 00:52	22° Ω 46'40		minimum elong	16094 Jul 07 15:37	0° Ω 52'29	3°05'56

min. Earth dist.	16094 Jul 07 16:43	0°Ω48'39	0.69119 AU	evening set	16095 Jun 16 17:44	21°☾31'48	
	16094 Jul 08 06:41	30°☾		min. Earth dist.	16095 Jun 21 13:33	15°☾49'20	0.69056 AU
morning rise	16094 Jul 12 20:46	24°☾35'09		inferior conj	16095 Jun 22 02:02	15°☾06'14	2°55'04
direct	16094 Jul 17 15:44	22°☾33'33		minimum elong	16095 Jun 22 00:39	15°☾11'02	2°54'09
desc. node	16094 Jul 25 13:05	26°☾35'58		morning rise	16095 Jun 27 07:32	8°☾58'47	
morning max el	16094 Jul 27 03:40	28°☾07'51	22°09'48	direct	16095 Jul 01 14:19	7°☾16'22	
	16094 Jul 28 22:22	0°Ω		morning max el	16095 Jul 09 21:41	12°☾01'20	20°48'35
	16094 Aug 19 22:25	0°☾		desc. node	16095 Jul 12 10:20	14°☾43'43	
morning set	16094 Aug 29 02:38	14°☾18'20			16095 Jul 23 23:35	0°Ω	
max. Earth dist.	16094 Sep 03 12:35	23°☾10'03	1.41488 AU	morning set	16095 Aug 08 18:19	23°Ω38'17	
	16094 Sep 07 13:23	0°☾			16095 Aug 12 19:50	0°☾	
				max. Earth dist.	16095 Aug 16 20:37	6°☾26'11	1.43527 AU
superior conj	16094 Sep 11 07:57	6°☾34'57	-1°03'11	superior conj	16095 Aug 23 15:48	17°☾36'28	-1°38'01
minimum elong	16094 Sep 11 13:03	6°☾57'36	1°02'24	minimum elong	16095 Aug 23 23:28	18°☾08'34	1°37'24
asc. node	16094 Sep 18 22:44	20°☾24'06			16095 Aug 30 21:46	0°☾	
evening rise	16094 Sep 21 18:38	25°☾39'19		evening rise	16095 Sep 04 17:30	8°☾28'29	
	16094 Sep 24 02:52	0°☾		asc. node	16095 Sep 05 19:25	10°☾22'57	
evening max el	16094 Oct 07 16:40	21°☾05'05	18°14'38		16095 Sep 17 17:37	0°☾	
retrograde	16094 Oct 15 00:48	24°☾49'58		evening max el	16095 Sep 21 05:28	4°☾08'38	18°01'37
evening set	16094 Oct 17 02:59	24°☾32'18		retrograde	16095 Sep 27 21:02	7°☾34'45	
desc. node	16094 Oct 21 10:09	22°☾19'43		evening set	16095 Sep 30 06:37	7°☾07'41	
inferior conj	16094 Oct 24 13:56	19°☾49'11	-1°00'50	inferior conj	16095 Oct 07 00:49	2°☾04'52	0°23'49
minimum elong	16094 Oct 24 11:41	19°☾53'56	0°59'23	minimum elong	16095 Oct 07 01:34	2°☾03'03	0°23'53
min. Earth dist.	16094 Oct 27 20:02	17°☾04'45	0.58897 AU	desc. node	16095 Oct 08 07:27	0°☾49'40	
morning rise	16094 Oct 31 16:57	14°☾21'52			16095 Oct 09 03:50	30°☾	
direct	16094 Nov 07 03:46	12°☾29'49		min. Earth dist.	16095 Oct 10 02:19	29°☾06'37	0.61182 AU
morning max el	16094 Nov 21 10:44	20°☾10'09	27°32'12	morning rise	16095 Oct 13 17:33	26°☾08'59	
	16094 Nov 29 21:49	0°☾		direct	16095 Oct 20 09:41	23°☾53'59	
asc. node	16094 Dec 15 23:14	26°☾01'46			16095 Nov 01 16:33	0°☾	
	16094 Dec 18 00:21	0°☾		morning max el	16095 Nov 03 14:38	1°☾48'33	27°58'39
morning set	16094 Dec 22 19:08	9°☾49'38			16095 Nov 24 06:01	0°☾	
superior conj	16094 Dec 29 17:01	25°☾01'53	1°35'50	asc. node	16095 Dec 02 20:15	15°☾41'12	
minimum elong	16094 Dec 29 16:07	24°☾56'47	1°36'29	morning set	16095 Dec 06 21:36	23°☾52'59	
max. Earth dist.	16094 Dec 29 08:40	24°☾15'07	1.30989 AU		16095 Dec 09 18:53	0°☾	
	16094 Dec 31 22:16	0°☾		max. Earth dist.	16095 Dec 12 14:37	6°☾09'35	1.31270 AU
evening rise	16095 Jan 05 10:48	9°☾56'29		superior conj	16095 Dec 14 03:32	9°☾34'05	1°27'32
	16095 Jan 15 14:31	0°☾		minimum elong	16095 Dec 14 01:45	9°☾24'13	1°28'06
desc. node	16095 Jan 17 09:17	3°☾06'35		evening rise	16095 Dec 20 20:12	24°☾22'30	
evening max el	16095 Feb 03 19:46	26°☾34'18	26°35'23		16095 Dec 23 11:38	0°☾	
	16095 Feb 07 22:02	0°☾		desc. node	16096 Jan 04 06:06	21°☾41'34	
retrograde	16095 Feb 17 19:52	3°☾45'10			16096 Jan 10 00:56	0°☾	
evening set	16095 Feb 24 05:27	2°☾04'43		evening max el	16096 Jan 16 12:13	7°☾17'10	25°15'36
	16095 Feb 27 14:48	30°☾		retrograde	16096 Jan 30 08:48	14°☾14'36	
min. Earth dist.	16095 Feb 28 09:19	29°☾26'57	0.58552 AU	evening set	16096 Feb 05 01:02	13°☾01'46	
inferior conj	16095 Mar 03 13:31	27°☾03'03	-3°14'19	min. Earth dist.	16096 Feb 10 00:44	10°☾18'57	0.56548 AU
minimum elong	16095 Mar 03 20:57	26°☾48'59	3°11'31	inferior conj	16096 Feb 12 17:02	8°☾33'28	-4°42'01
morning rise	16095 Mar 11 15:55	22°☾31'17		minimum elong	16096 Feb 13 02:27	8°☾18'00	4°39'09
direct	16095 Mar 13 15:01	22°☾17'50		morning rise	16096 Feb 21 06:36	4°☾23'00	
asc. node	16095 Mar 13 20:53	22°☾18'03		direct	16096 Feb 23 08:13	4°☾10'37	
morning max el	16095 Mar 21 15:33	26°☾15'44	18°22'47	asc. node	16096 Feb 28 18:15	5°☾41'39	
	16095 Mar 24 21:16	0°☾		morning max el	16096 Mar 03 17:02	8°☾44'56	19°12'18
morning set	16095 Apr 06 10:03	21°☾24'59			16096 Mar 17 11:36	0°☾	
	16095 Apr 10 22:23	0°☾		morning set	16096 Mar 20 10:27	5°☾47'38	
desc. node	16095 Apr 15 10:39	8°☾24'07		superior conj	16096 Mar 28 18:09	22°☾12'39	0°29'43
superior conj	16095 Apr 15 17:54	8°☾57'18	-0°02'32	minimum elong	16096 Mar 28 19:54	22°☾21'04	0°29'12
minimum elong	16095 Apr 15 17:41	8°☾56'17	0°02'55	desc. node	16096 Apr 01 07:23	28°☾56'40	
behind sun begin	16095 Apr 15 10:30	8°☾23'24			16096 Apr 01 21:01	0°☾	
behind sun end	16095 Apr 16 00:52	9°☾29'07		max. Earth dist.	16096 Apr 04 12:58	4°☾52'05	1.38561 AU
max. Earth dist.	16095 Apr 23 06:55	22°☾17'46	1.40847 AU	evening rise	16096 Apr 08 06:49	11°☾28'41	
evening rise	16095 Apr 27 16:54	29°☾42'01			16096 Apr 19 15:16	0°☾	
	16095 Apr 27 21:17	0°☾		evening max el	16096 May 12 03:03	0°☾	
	16095 May 17 17:06	0°☾		retrograde	16096 May 13 12:54	1°☾26'16	24°41'35
evening max el	16095 May 31 23:21	17°☾31'13	23°20'56	asc. node	16096 May 25 05:41	8°☾16'09	
asc. node	16095 Jun 09 18:43	23°☾30'36			16096 May 26 15:46	8°☾07'39	
retrograde	16095 Jun 11 13:20	23°☾44'10					

evening set	16096 May 30 21:31	5°☿52'24		evening set	16097 May 14 19:57	20°♊04'01	
min. Earth dist.	16096 Jun 04 08:51	0°☿47'00	0.68508 AU	min. Earth dist.	16097 May 19 00:25	15°♊34'55	0.67490 AU
	16096 Jun 04 22:59	30°♋♊		inferior conj	16097 May 20 14:51	13°♊33'49	1°59'50
inferior conj	16096 Jun 05 10:17	29°♊22'14	2°33'00	minimum elong	16097 May 20 12:40	13°♊40'42	1°58'30
minimum elong	16096 Jun 05 08:18	29°♊28'52	2°31'50	morning rise	16097 May 26 06:02	7°♊46'07	
morning rise	16096 Jun 10 19:16	23°♊23'57		direct	16097 May 29 14:26	6°♊42'03	
direct	16096 Jun 14 14:27	22°♊01'10		morning max el	16097 Jun 05 06:28	10°♊16'51	18°46'13
morning max el	16096 Jun 21 22:31	26°♊05'04	19°39'42	desc. node	16097 Jun 15 04:38	23°♊05'06	
	16096 Jun 25 11:21	0°☿		greatest brilliancy	16097 Jun 19 05:18	29°♊09'07	-0.8m
desc. node	16096 Jun 28 07:32	3°☿37'31			16097 Jun 19 18:35	0°☿	
greatest brilliancy	16096 Jul 04 21:23	12°☿52'46	-0.6m	morning set	16097 Jun 27 10:37	11°☿52'20	
	16096 Jul 16 06:50	0°♌			16097 Jul 09 02:11	0°♌	
morning set	16096 Jul 17 22:24	2°♌31'31		max. Earth dist.	16097 Jul 12 05:26	4°♌53'19	1.45870 AU
max. Earth dist.	16096 Jul 29 10:38	20°♌24'46	1.45038 AU				
				superior conj	16097 Jul 13 14:21	7°♌01'51	-2°14'17
superior conj	16096 Aug 03 00:14	27°♌40'17	-2°04'12	minimum elong	16097 Jul 13 14:31	7°♌02'32	2°14'56
minimum elong	16096 Aug 03 06:50	28°♌06'43	2°04'16		16097 Jul 28 03:12	0°♎	
	16096 Aug 04 11:02	0°♎		evening rise	16097 Jul 28 23:57	1°♎23'02	
evening rise	16096 Aug 16 20:48	20°♎26'24		asc. node	16097 Aug 09 12:46	19°♎38'08	
asc. node	16096 Aug 22 16:04	0°♎09'15			16097 Aug 17 03:56	0°♎	
	16096 Aug 22 13:50	0°♎		evening max el	16097 Aug 18 10:11	1°♎19'28	18°30'39
evening max el	16096 Sep 03 20:24	17°♎36'09	18°07'18	retrograde	16097 Aug 24 21:21	4°♎47'44	
retrograde	16096 Sep 10 05:13	20°♎56'44		evening set	16097 Aug 28 00:41	3°♎52'12	
evening set	16096 Sep 12 23:23	20°♎16'46			16097 Sep 01 07:30	30°♋♎	
inferior conj	16096 Sep 19 03:38	14°♎56'29	1°28'59	inferior conj	16097 Sep 02 18:28	28°♎16'33	2°15'39
minimum elong	16096 Sep 19 05:45	14°♎50'42	1°28'25	minimum elong	16097 Sep 02 20:45	28°♎09'37	2°14'57
min. Earth dist.	16096 Sep 21 18:32	12°♎04'32	0.63419 AU	min. Earth dist.	16097 Sep 04 19:59	25°♎47'23	0.65411 AU
desc. node	16096 Sep 24 04:49	9°♎42'06		morning rise	16097 Sep 08 15:35	21°♎52'40	
morning rise	16096 Sep 25 10:03	8°♎42'12		desc. node	16097 Sep 11 02:12	20°♎14'42	
direct	16096 Oct 02 01:33	6°♎11'39		direct	16097 Sep 15 01:32	19°♎15'37	
morning max el	16096 Oct 15 23:24	14°♎10'34	27°46'39	morning max el	16097 Sep 28 10:30	27°♎06'35	27°01'59
	16096 Oct 28 19:45	0°♏			16097 Oct 01 03:48	0°♎	
	16096 Nov 15 20:13	0°♏			16097 Oct 22 11:32	0°♏	
asc. node	16096 Nov 18 17:12	5°♏35'43		morning set	16097 Nov 03 01:24	20°♏42'59	
morning set	16096 Nov 19 16:36	7°♏32'45		asc. node	16097 Nov 05 14:03	25°♏40'17	
max. Earth dist.	16096 Nov 24 14:50	17°♏46'21	1.32122 AU	max. Earth dist.	16097 Nov 07 06:27	29°♏03'24	1.33539 AU
					16097 Nov 07 17:34	0°♏	
superior conj	16096 Nov 27 11:03	23°♏54'27	1°13'07	superior conj	16097 Nov 11 13:26	7°♏57'39	0°52'33
minimum elong	16096 Nov 27 08:46	23°♏41'57	1°13'32	minimum elong	16097 Nov 11 11:10	7°♏45'39	0°52'50
	16096 Nov 30 05:48	0°♐		evening rise	16097 Nov 18 17:16	23°♏15'33	
evening rise	16096 Dec 04 06:57	8°♐50'13			16097 Nov 21 22:48	0°♐	
	16096 Dec 15 01:29	0°♐		desc. node	16097 Dec 07 23:57	25°♐51'40	
desc. node	16096 Dec 21 02:59	9°♐22'49		evening max el	16097 Dec 09 10:04	27°♐19'40	21°53'19
evening max el	16096 Dec 27 22:27	17°♐21'33	23°35'40		16097 Dec 12 12:29	0°♐	
retrograde	16097 Jan 10 07:59	23°♐59'31		retrograde	16097 Dec 21 19:46	3°♐27'33	
evening set	16097 Jan 14 21:53	23°♐14'11		evening set	16097 Dec 25 02:56	3°♐03'13	
min. Earth dist.	16097 Jan 21 09:37	20°♐08'24	0.55081 AU		16098 Jan 01 06:48	30°♋♐	
inferior conj	16097 Jan 22 23:59	19°♐12'15	-5°45'57	inferior conj	16098 Jan 02 16:53	29°♐12'41	-5°59'42
minimum elong	16097 Jan 23 06:06	19°♐03'17	5°44'39	minimum elong	16098 Jan 02 14:04	29°♐16'37	5°58'51
morning rise	16097 Jan 31 15:49	15°♐18'30		min. Earth dist.	16098 Jan 02 14:57	29°♐15'24	0.54413 AU
direct	16097 Feb 03 06:17	15°♐01'53		morning rise	16098 Jan 11 01:57	25°♐25'08	
morning max el	16097 Feb 14 04:58	20°♐19'46	20°24'57	direct	16098 Jan 14 15:38	24°♐57'07	
asc. node	16097 Feb 14 15:37	20°♐46'04			16098 Jan 26 00:32	0°♐	
	16097 Feb 21 18:34	0°♑		morning max el	16098 Jan 27 01:46	0°♐57'54	21°59'45
morning set	16097 Mar 04 17:05	20°♑24'11		asc. node	16098 Feb 01 12:56	7°♐14'51	
	16097 Mar 09 08:37	0°♑			16098 Feb 14 16:18	0°♑	
superior conj	16097 Mar 12 07:24	6°♑01'32	0°56'00	morning set	16098 Feb 17 03:23	5°♑07'26	
minimum elong	16097 Mar 12 09:54	6°♑14'12	0°55'36	superior conj	16098 Feb 24 06:03	20°♑14'22	1°15'53
max. Earth dist.	16097 Mar 17 20:07	16°♑54'52	1.36324 AU	minimum elong	16098 Feb 24 08:26	20°♑26'54	1°15'48
desc. node	16097 Mar 19 04:03	19°♑26'16		max. Earth dist.	16098 Feb 28 08:55	28°♑45'30	1.34344 AU
evening rise	16097 Mar 21 15:32	24°♑01'48			16098 Feb 28 23:41	0°♑	
	16097 Mar 24 23:41	0°♒		evening rise	16098 Mar 04 15:34	7°♑11'49	
evening max el	16097 Apr 13 06:39	15°♒19'33	25°54'47	desc. node	16098 Mar 06 00:41	9°♑49'12	
retrograde	16097 May 08 17:23	22°♒34'44			16098 Mar 17 15:32	0°♒	
asc. node	16097 May 13 12:54	21°♒02'05		evening max el	16098 Apr 08 16:25	29°♒03'09	26°52'51

	16098 Apr 09 16:21	0°♊		evening max el	16099 Mar 22 05:23	12°♌26'24	27°28'25
retrograde	16098 Apr 21 23:20	6°♊31'48		retrograde	16099 Apr 04 22:51	19°♌58'41	
evening set	16098 Apr 28 11:05	3°♊59'31		evening set	16099 Apr 11 16:46	17°♌31'29	
asc. node	16098 Apr 30 10:08	2°♊13'49		min. Earth dist.	16099 Apr 15 11:59	14°♌07'46	0.64204 AU
	16098 May 02 11:48	30°♋♌		asc. node	16099 Apr 17 07:24	12°♌13'36	
min. Earth dist.	16098 May 02 10:06	0°♊04'51	0.66038 AU	inferior conj	16099 Apr 18 03:30	11°♌20'00	0°15'45
inferior conj	16098 May 04 13:28	27°♌35'10	1°14'27	minimum elong	16099 Apr 18 03:03	11°♌21'12	0°15'08
minimum elong	16098 May 04 11:43	27°♌40'18	1°13'15	transit middle	16099 Apr 18 03:03	11°♌21'12	0°15'08
morning rise	16098 May 10 13:41	21°♌59'46		transit begin	16099 Apr 18 02:02	11°♌23'52	
direct	16098 May 13 12:09	21°♌12'29		transit end	16099 Apr 18 04:03	11°♌18'32	
morning max el	16098 May 19 20:11	24°♌31'06	18°09'22	morning rise	16099 Apr 24 15:34	5°♌59'10	
	16098 May 24 11:28	0°♊		direct	16099 Apr 27 05:04	5°♌25'51	
desc. node	16098 Jun 02 01:38	12°♊56'59		morning max el	16099 May 03 13:18	8°♌40'43	17°49'38
morning set	16098 Jun 07 22:28	22°♊22'13			16099 May 18 02:11	0°♊	
	16098 Jun 12 16:37	0°♌		desc. node	16099 May 19 22:32	3°♊06'31	
				morning set	16099 May 20 13:33	4°♊09'42	
superior conj	16098 Jun 22 23:51	16°♌17'10	-2°04'21				
minimum elong	16098 Jun 22 16:58	15°♌50'13	2°04'43	superior conj	16099 Jun 02 21:36	26°♊10'15	-1°37'26
max. Earth dist.	16098 Jun 25 02:14	19°♌34'01	1.45952 AU	minimum elong	16099 Jun 02 13:08	25°♊36'10	1°37'17
	16098 Jul 01 19:12	0°♎			16099 Jun 05 07:03	0°♌	
evening rise	16098 Jul 09 02:54	11°♎20'29		max. Earth dist.	16099 Jun 07 21:58	4°♌09'12	1.45289 AU
greatest brilliancy	16098 Jul 20 17:02	29°♎06'30	-0.7m	evening rise	16099 Jun 18 14:49	20°♌45'26	
	16098 Jul 21 07:20	0°♏			16099 Jun 24 17:00	0°♎	
asc. node	16098 Jul 27 09:30	8°♏42'21		asc. node	16099 Jul 14 06:17	27°♎13'17	
evening max el	16098 Aug 01 20:02	15°♏10'31	19°10'56	evening max el	16099 Jul 16 00:14	29°♎04'16	20°06'51
retrograde	16098 Aug 08 18:10	18°♏59'41			16099 Jul 16 23:34	0°♏	
evening set	16098 Aug 12 07:10	17°♏46'58		retrograde	16099 Jul 23 17:04	3°♏26'15	
inferior conj	16098 Aug 17 17:51	11°♏57'36	2°46'18	evening set	16099 Jul 27 16:20	1°♏55'46	
minimum elong	16098 Aug 17 19:39	11°♏51'47	2°45'40		16099 Jul 29 17:31	30°♋♌	
min. Earth dist.	16098 Aug 19 05:17	10°♏02'48	0.67033 AU	inferior conj	16099 Aug 01 23:01	25°♎54'14	3°03'20
morning rise	16098 Aug 23 07:26	5°♏30'53		minimum elong	16099 Aug 01 23:58	25°♎51'00	3°02'46
desc. node	16098 Aug 28 23:35	2°♏56'18		min. Earth dist.	16099 Aug 02 20:37	24°♎40'47	0.68216 AU
direct	16098 Aug 29 08:24	2°♏55'46		morning rise	16099 Aug 07 07:14	19°♎29'22	
morning max el	16098 Sep 10 21:58	10°♏24'51	25°53'02	direct	16099 Aug 12 21:10	17°♎03'16	
	16098 Sep 26 11:55	0°♏		desc. node	16099 Aug 15 20:57	17°♎38'38	
	16098 Oct 15 01:27	0°♏		morning max el	16099 Aug 24 09:01	23°♎56'00	24°29'12
morning set	16098 Oct 16 20:34	3°♏15'51			16099 Aug 29 19:08	0°♏	
max. Earth dist.	16098 Oct 20 12:36	10°♏08'31	1.35458 AU		16099 Sep 19 21:09	0°♏	
asc. node	16098 Oct 23 10:50	15°♏50'14		morning set	16099 Sep 28 22:06	15°♏02'26	
				max. Earth dist.	16099 Oct 02 12:11	21°♏23'34	1.37738 AU
superior conj	16098 Oct 26 07:58	21°♏36'33	0°25'58		16099 Oct 07 04:03	0°♏	
minimum elong	16098 Oct 26 06:31	21°♏29'11	0°26'14				
	16098 Oct 30 09:52	0°♏		superior conj	16099 Oct 09 15:24	4°♏43'32	-0°06'03
evening rise	16098 Nov 03 01:07	7°♏33'13		minimum elong	16099 Oct 09 15:47	4°♏45'21	0°05'38
	16098 Nov 15 03:38	0°♏		behind sun begin	16099 Oct 09 09:24	4°♏14'32	
evening max el	16098 Nov 21 08:17	7°♏47'30	20°24'24	behind sun end	16099 Oct 09 22:10	5°♏16'14	
desc. node	16098 Nov 24 20:59	10°♏44'48		asc. node	16099 Oct 10 07:34	6°♏01'48	
retrograde	16098 Dec 02 06:33	13°♏13'43		evening rise	16099 Oct 18 04:10	21°♏37'19	
evening set	16098 Dec 04 13:42	13°♏00'24			16099 Oct 22 10:31	0°♏	
inferior conj	16098 Dec 13 09:08	9°♏05'35	-5°12'18	evening max el	16099 Nov 03 21:06	19°♏04'28	19°16'38
minimum elong	16098 Dec 12 23:39	9°♏19'30	5°09'25	desc. node	16099 Nov 11 18:07	23°♏38'24	
min. Earth dist.	16098 Dec 14 20:32	8°♏13'39	0.54669 AU	retrograde	16099 Nov 13 04:35	23°♏44'51	
morning rise	16098 Dec 21 09:10	5°♏05'34		evening set	16099 Nov 15 02:10	23°♏34'01	
direct	16098 Dec 26 00:26	4°♏19'16		inferior conj	16099 Nov 23 14:43	19°♏24'16	-3°41'19
morning max el	16099 Jan 08 12:06	10°♏56'53	23°48'38	minimum elong	16099 Nov 23 05:49	19°♏39'02	3°37'31
asc. node	16099 Jan 19 10:12	24°♏49'35		min. Earth dist.	16099 Nov 26 05:59	17°♏39'25	0.55819 AU
	16099 Jan 22 13:01	0°♏		morning rise	16099 Dec 01 07:07	14°♏53'55	
morning set	16099 Feb 01 15:18	19°♏51'28		direct	16099 Dec 06 20:13	13°♏43'30	
	16099 Feb 06 07:15	0°♏		morning max el	16099 Dec 20 21:19	20°♏50'49	25°34'48
					16099 Dec 28 18:44	0°♏	
superior conj	16099 Feb 08 11:12	4°♏43'12	1°29'23	asc. node	16100 Jan 06 07:24	13°♏13'35	
minimum elong	16099 Feb 08 12:54	4°♏52'28	1°29'38		16100 Jan 15 00:08	0°♏	
max. Earth dist.	16099 Feb 11 05:11	10°♏38'09	1.32759 AU	morning set	16100 Jan 17 02:53	4°♏29'55	
evening rise	16099 Feb 16 03:32	20°♏50'22					
desc. node	16099 Feb 20 21:19	0°♏		superior conj	16100 Jan 23 20:23	19°♏20'07	1°36'40
	16099 Feb 20 21:03	0°♏		minimum elong	16100 Jan 23 21:07	19°♏24'12	1°37'11
	16099 Mar 11 13:41	0°♏		max. Earth dist.	16100 Jan 25 08:02	22°♏37'14	1.31655 AU

	16100 Jan 28 17:32	0° H		minimum elong	16101 Jan 08 07:16	3° \approx 57'44	1°38'31
evening rise	16100 Jan 31 00:26	4° H 49'15		max. Earth dist.	16101 Jan 08 14:58	4° \approx 40'50	1.31080 AU
desc. node	16100 Feb 07 17:58	19° H 56'20		evening rise	16101 Jan 15 03:53	19° \approx 03'01	
	16100 Feb 13 13:01	0° Y			16101 Jan 20 12:29	0° H	
evening max el	16100 Mar 04 15:37	25° Y 16'25	27°34'52	desc. node	16101 Jan 25 14:42	9° H 27'55	
	16100 Mar 10 12:38	0° B			16101 Feb 08 04:49	0° Y	
retrograde	16100 Mar 18 14:53	2° B 44'24		evening max el	16101 Feb 14 20:48	7° Y 22'11	27°07'14
evening set	16100 Mar 25 10:24	0° B 29'56		retrograde	16101 Feb 28 21:47	14° Y 39'56	
	16100 Mar 26 03:55	30° R Y		evening set	16101 Mar 07 12:55	12° Y 45'43	
min. Earth dist.	16100 Mar 29 04:37	27° Y 31'15	0.62083 AU	min. Earth dist.	16101 Mar 11 11:10	10° Y 03'19	0.59829 AU
inferior conj	16100 Apr 01 05:42	24° Y 39'30	-0°56'56	inferior conj	16101 Mar 14 16:29	7° Y 24'27	-2°21'59
minimum elong	16100 Apr 01 07:40	24° Y 34'52	0°56'22	minimum elong	16101 Mar 14 21:51	7° Y 13'22	2°19'54
asc. node	16100 Apr 04 04:42	22° Y 01'43		morning rise	16101 Mar 22 10:20	2° Y 40'03	
morning rise	16100 Apr 08 08:03	19° Y 35'36		asc. node	16101 Mar 22 02:03	2° Y 45'48	
direct	16100 Apr 10 13:53	19° Y 12'54		direct	16101 Mar 24 10:46	2° Y 24'17	
morning max el	16100 Apr 17 06:45	22° Y 35'52	17°47'31	morning max el	16101 Mar 31 21:07	6° Y 06'31	18°04'03
	16100 Apr 23 02:14	0° B		morning set	16101 Apr 16 10:59	0° B 40'04	
morning set	16100 May 03 03:40	17° B 01'20			16101 Apr 16 02:20	0° B	
desc. node	16100 May 06 19:21	23° B 27'42		desc. node	16101 Apr 23 16:07	13° B 56'23	
	16100 May 10 13:35	0° II					
superior conj	16100 May 14 17:17	7° II 04'12	-1°01'17	superior conj	16101 Apr 26 12:11	19° B 00'57	-0°23'16
minimum elong	16100 May 14 11:38	6° II 40'26	1°01'07	minimum elong	16101 Apr 26 10:14	18° B 52'18	0°23'28
max. Earth dist.	16100 May 21 14:14	18° II 22'43	1.43954 AU	max. Earth dist.	16101 May 02 20:45	0° II	
	16100 May 28 22:45	0° B		evening rise	16101 May 04 02:11	2° II 03'19	1.42091 AU
evening rise	16100 May 29 04:07	0° B 20'46			16101 May 09 08:56	10° II 41'11	
	16100 Jun 18 07:55	0° Q		evening max el	16101 May 21 23:13	0° B	
evening max el	16100 Jun 28 22:23	12° Q 58'14	21°16'01		16101 Jun 11 15:39	26° B 52'31	22°34'13
asc. node	16100 Jul 01 03:08	14° Q 59'29		asc. node	16101 Jun 15 04:21	0° Q	
retrograde	16100 Jul 07 15:59	18° Q 01'42		retrograde	16101 Jun 18 00:05	1° Q 46'13	
evening set	16100 Jul 12 02:10	16° Q 13'49		evening set	16101 Jun 21 13:14	2° Q 40'23	
inferior conj	16100 Jul 17 07:38	10° Q 01'35	3°08'33		16101 Jun 26 10:56	0° Q 36'26	
minimum elong	16100 Jul 17 07:37	10° Q 01'37	3°07'57	inferior conj	16101 Jun 27 02:53	30° R B	
min. Earth dist.	16100 Jul 17 15:49	9° Q 33'03	0.68924 AU	minimum elong	16101 Jul 01 17:35	24° B 15'16	3°03'00
morning rise	16100 Jul 22 12:49	3° Q 41'56		min. Earth dist.	16101 Jul 01 16:40	24° B 18'29	3°02'13
direct	16100 Jul 27 14:50	1° Q 30'07		morning rise	16101 Jul 01 12:40	24° B 32'24	0.69149 AU
desc. node	16100 Aug 02 18:16	3° Q 58'38		direct	16101 Jul 06 22:14	18° B 02'56	
morning max el	16100 Aug 06 20:34	7° Q 34'54	23°00'03	morning max el	16101 Jul 11 12:03	16° B 09'04	
	16100 Aug 24 08:29	0° H		desc. node	16101 Jul 20 11:13	21° B 21'42	21°33'59
morning set	16100 Sep 10 01:54	25° H 53'31			16101 Jul 20 15:34	21° B 32'35	
	16100 Sep 12 13:03	0° A		morning set	16101 Jul 27 20:13	0° Q	
max. Earth dist.	16100 Sep 14 11:14	3° A 15'57	1.40147 AU	max. Earth dist.	16101 Aug 17 13:54	0° H	
					16101 Aug 21 05:44	5° H 43'17	
superior conj	16100 Sep 22 07:48	17° A 09'56	-0°41'54	superior conj	16101 Aug 27 15:28	16° H 02'04	1.42406 AU
minimum elong	16100 Sep 22 11:02	17° A 24'41	0°41'13	minimum elong			
asc. node	16100 Sep 27 04:15	26° A 11'41		asc. node	16101 Sep 04 04:40	28° H 44'52	-1°18'32
	16100 Sep 29 04:20	0° M		evening rise	16101 Sep 04 11:05	29° H 12'35	1°17'46
evening rise	16100 Oct 01 23:28	5° M 20'46			16101 Sep 04 22:02	0° A	
	16100 Oct 16 20:00	0° A		asc. node	16101 Sep 14 00:55	16° A 15'33	
evening max el	16100 Oct 17 22:40	1° A 11'00	18°31'15	evening rise	16101 Sep 15 07:06	18° A 32'53	
retrograde	16100 Oct 25 21:05	5° A 12'19			16101 Sep 21 16:20	0° M	
evening set	16100 Oct 27 20:06	4° A 58'22		evening max el	16101 Oct 01 08:37	13° M 56'36	18°06'48
desc. node	16100 Oct 29 15:20	4° A 22'34		retrograde	16101 Oct 08 08:14	17° M 31'29	
inferior conj	16100 Nov 04 17:13	0° A 28'00	-1°57'24	evening set	16101 Oct 10 13:31	17° M 10'10	
minimum elong	16100 Nov 04 12:34	0° A 37'02	1°54'55	desc. node	16101 Oct 16 12:38	13° M 21'31	
	16100 Nov 05 07:37	30° R M		inferior conj	16101 Oct 17 17:05	12° M 18'24	-0°22'37
min. Earth dist.	16100 Nov 07 21:53	28° M 00'23	0.57653 AU	minimum elong	16101 Oct 17 16:19	12° M 20'08	0°21'52
morning rise	16100 Nov 12 01:38	25° M 20'57		min. Earth dist.	16101 Oct 20 22:14	9° M 25'45	0.59864 AU
direct	16100 Nov 18 06:42	23° M 43'32		morning rise	16101 Oct 24 15:52	6° M 38'12	
	16100 Dec 01 05:09	0° A		direct	16101 Oct 31 05:57	4° M 35'36	
morning max el	16100 Dec 02 12:39	1° A 13'31	26°59'02	morning max el	16101 Nov 14 12:09	12° M 22'10	27°48'15
	16100 Dec 22 23:14	0° B			16101 Nov 28 11:03	0° A	
asc. node	16100 Dec 24 04:32	2° B 14'23		asc. node	16101 Dec 11 01:35	21° A 41'37	
morning set	16101 Jan 01 12:26	18° B 58'32		morning set	16101 Dec 15 05:17	0° B	
	16101 Jan 06 12:47	0° \approx		max. Earth dist.	16101 Dec 16 18:03	3° B 12'00	
					16101 Dec 22 22:26	16° B 41'18	1.31047 AU
superior conj	16101 Jan 08 07:35	3° \approx 59'32	1°37'52	superior conj	16101 Dec 23 18:52	18° B 35'25	1°33'03

minimum elong	16101 Dec 23 17:34	18°  28'07	1°33'41
	16101 Dec 28 21:52	0° 	
evening rise	16101 Dec 30 11:39	3°  25'43	
desc. node	16102 Jan 12 11:30	28°  26'40	
	16102 Jan 13 10:17	0° 