

retrograde	8600 Apr 30 15:12	19°♄25'27		opposition	8605 Dec 11 13:35	23°♄37'16	-1°11'45
opposition	8600 Jun 30 08:55	14°♄29'22	1°03'24	min. Earth dist.	8605 Dec 11 22:20	23°♄34'22	3.96218 AU
min. Earth dist.	8600 Jun 30 14:20	14°♄27'37	4.48508 AU	direct	8606 Feb 08 12:46	18°♄42'18	
direct	8600 Aug 31 14:43	9°♄27'37			8606 May 08 20:44	0°♄	
evening set	8601 Jan 04 02:14	26°♄39'37		evening set	8606 Jun 14 23:46	8°♄37'30	
max. Earth dist.	8601 Jan 16 04:32	29°♄14'38	6.49875 AU				
				conjunction	8606 Jun 28 04:13	11°♄50'25	-0°44'01
conjunction	8601 Jan 17 03:08	29°♄26'44	0°37'01	minimum elong	8606 Jun 28 04:14	11°♄50'26	0°44'13
minimum elong	8601 Jan 17 03:09	29°♄26'44	0°37'12	max. Earth dist.	8606 Jun 28 10:24	11°♄54'12	5.92143 AU
	8601 Jan 19 17:15	0°♄		morning rise	8606 Jul 11 10:47	15°♄04'41	
morning rise	8601 Jan 30 01:54	2°♄12'48			8606 Sep 18 13:22	0°♄	
	8601 Apr 09 01:11	15°♄		retrograde	8606 Nov 20 14:45	5°♄54'42	
retrograde	8601 May 30 08:24	18°♄47'31		min. Earth dist.	8607 Jan 18 09:24	0°♄59'19	3.90730 AU
	8601 Jul 21 14:47	15°♄		opposition	8607 Jan 19 01:32	0°♄53'53	-0°53'54
opposition	8601 Jul 30 07:31	13°♄53'46	0°40'37		8607 Jan 25 18:27	30°♄	
min. Earth dist.	8601 Jul 31 07:03	13°♄46'14	4.49145 AU	direct	8607 Mar 18 02:19	25°♄59'24	
direct	8601 Oct 01 00:13	8°♄52'11			8607 May 06 23:12	0°♄	
	8601 Dec 08 03:45	15°♄			8607 Jul 18 08:52	15°♄	
evening set	8602 Feb 03 07:04	26°♄07'16		evening set	8607 Jul 22 20:18	16°♄04'47	
max. Earth dist.	8602 Feb 14 08:40	28°♄30'39	6.46220 AU				
				conjunction	8607 Aug 05 07:45	19°♄21'08	-0°23'46
conjunction	8602 Feb 16 04:10	28°♄54'13	0°16'53	minimum elong	8607 Aug 05 07:46	19°♄21'09	0°23'55
minimum elong	8602 Feb 16 04:10	28°♄54'13	0°17'00	max. Earth dist.	8607 Aug 07 00:18	19°♄45'47	5.92062 AU
	8602 Feb 21 05:29	0°♄		morning rise	8607 Aug 18 21:51	22°♄38'46	
morning rise	8602 Feb 28 23:03	1°♄40'19			8607 Sep 19 11:07	0°♄	
retrograde	8602 Jun 30 00:42	18°♄33'10		retrograde	8607 Dec 28 13:23	13°♄18'26	
opposition	8602 Aug 30 00:54	13°♄40'26	0°06'54	opposition	8608 Feb 25 23:58	8°♄14'44	-0°13'47
min. Earth dist.	8602 Aug 31 13:06	13°♄28'53	4.41412 AU	min. Earth dist.	8608 Feb 24 13:01	8°♄26'36	3.96128 AU
direct	8602 Oct 31 13:16	8°♄39'41		direct	8608 Apr 23 23:23	3°♄18'40	
desc. node	8602 Nov 10 17:08	8°♄49'00		asc. node	8608 Jun 26 08:47	9°♄27'04	
evening set	8603 Mar 05 20:39	26°♄19'36		evening set	8608 Aug 28 18:31	22°♄58'05	
max. Earth dist.	8603 Mar 16 07:40	28°♄38'53	6.34894 AU				
				conjunction	8608 Sep 11 10:07	26°♄11'27	0°05'46
conjunction	8603 Mar 18 15:18	29°♄09'53	-0°08'22	minimum elong	8608 Sep 11 10:06	26°♄11'27	0°05'44
minimum elong	8603 Mar 18 15:18	29°♄09'53	0°08'21	behind sun begin	8608 Sep 11 02:06	26°♄06'44	
behind sun begin	8603 Mar 18 08:16	29°♄05'59		behind sun end	8608 Sep 11 18:07	26°♄16'10	
behind sun end	8603 Mar 18 22:20	29°♄13'47		max. Earth dist.	8608 Sep 13 21:03	26°♄46'17	6.02322 AU
	8603 Mar 22 09:14	0°♄		morning rise	8608 Sep 25 03:18	29°♄25'19	
morning rise	8603 Mar 31 08:48	1°♄59'49			8608 Sep 27 14:40	0°♄	
retrograde	8603 Aug 01 17:37	19°♄40'22		retrograde	8609 Feb 01 05:02	19°♄06'22	
opposition	8603 Oct 01 11:58	14°♄47'16	-0°30'32	min. Earth dist.	8609 Mar 31 06:36	14°♄14'51	4.10010 AU
min. Earth dist.	8603 Oct 03 03:57	14°♄34'26	4.27118 AU	opposition	8609 Apr 01 20:15	14°♄02'05	0°29'44
direct	8603 Dec 02 05:05	9°♄48'02		direct	8609 May 30 16:52	9°♄03'34	
evening set	8604 Apr 05 17:53	28°♄11'02		evening set	8609 Oct 04 05:36	27°♄55'26	
	8604 Apr 13 15:20	0°♄			8609 Oct 13 09:09	0°♄	
max. Earth dist.	8604 Apr 16 09:36	0°♄38'15	6.18710 AU				
				conjunction	8609 Oct 17 20:30	1°♄01'02	0°31'52
conjunction	8604 Apr 18 12:42	1°♄07'47	-0°32'08	minimum elong	8609 Oct 17 20:29	1°♄01'02	0°31'58
minimum elong	8604 Apr 18 12:41	1°♄07'47	0°32'15	max. Earth dist.	8609 Oct 20 03:28	1°♄32'18	6.18489 AU
morning rise	8604 May 01 07:15	4°♄04'46		morning rise	8609 Oct 31 11:23	4°♄06'20	
	8604 Jun 21 10:38	15°♄			8609 Dec 22 18:18	15°♄	
retrograde	8604 Sep 04 23:16	22°♄55'46		retrograde	8610 Mar 06 02:37	22°♄32'22	
opposition	8604 Nov 04 08:25	18°♄01'07	-1°01'07	min. Earth dist.	8610 May 03 22:23	17°♄39'57	4.26863 AU
min. Earth dist.	8604 Nov 05 14:14	17°♄51'25	4.10194 AU	opposition	8610 May 05 03:47	17°♄30'07	0°59'57
	8604 Nov 29 08:10	15°♄			8610 May 24 19:28	15°♄	
direct	8605 Jan 03 16:39	13°♄04'10		direct	8610 Jul 04 05:39	12°♄29'43	
	8605 Feb 07 17:43	15°♄			8610 Aug 14 01:28	15°♄	
	8605 Apr 29 22:21	0°♄			8610 Nov 04 22:57	0°♄	
evening set	8605 May 09 17:22	2°♄18'26		evening set	8610 Nov 07 11:16	0°♄32'52	
max. Earth dist.	8605 May 21 09:13	5°♄05'31	6.02505 AU				
				conjunction	8610 Nov 20 21:48	3°♄29'47	0°46'18
conjunction	8605 May 22 15:15	5°♄23'31	-0°46'29	minimum elong	8610 Nov 20 21:47	3°♄29'46	0°46'29
minimum elong	8605 May 22 15:14	5°♄23'30	0°46'40	max. Earth dist.	8610 Nov 22 05:01	3°♄46'56	6.34654 AU
morning rise	8605 Jun 04 14:27	8°♄29'34		morning rise	8610 Dec 04 07:17	6°♄25'52	
retrograde	8605 Oct 12 16:43	28°♄34'39		retrograde	8611 Apr 05 23:58	23°♄48'36	

opposition	8611 Jun 05 10:12	18° ♂ 49'39	1°10'11			8617 Apr 12 14:38	0° ♄	
min. Earth dist.	8611 Jun 04 22:48	18° ♂ 53'24	4.41120 AU	evening set		8617 May 14 14:15	7° ♄ 20'21	
direct	8611 Aug 05 19:37	13° ♂ 48'12						
	8611 Dec 03 16:05	0° ♄		conjunction		8617 May 27 12:53	10° ♄ 26'21	-0°47'14
evening set	8611 Dec 09 14:39	1° ♄ 15'49		minimum elong		8617 May 27 12:52	10° ♄ 26'21	0°47'25
				max. Earth dist.		8617 May 26 12:13	10° ♄ 11'33	6.01167 AU
conjunction	8611 Dec 22 20:00	4° ♄ 06'08	0°46'44	morning rise		8617 Jun 09 12:43	13° ♄ 33'20	
minimum elong	8611 Dec 22 20:01	4° ♄ 06'08	0°46'56			8617 Aug 29 08:09	0° ♄	
max. Earth dist.	8611 Dec 22 22:49	4° ♄ 07'38	6.45980 AU	retrograde		8617 Oct 17 23:54	3° ♄ 44'43	
morning rise	8612 Jan 04 23:17	6° ♄ 55'21				8617 Dec 07 12:01	30° ♄	
retrograde	8612 May 04 17:56	23° ♄ 39'52		opposition		8617 Dec 16 18:54	28° ♄ 46'57	-1°10'57
opposition	8612 Jul 04 12:58	18° ♄ 44'11	1°01'02	min. Earth dist.		8617 Dec 17 00:38	28° ♄ 45'03	3.95439 AU
min. Earth dist.	8612 Jul 04 20:23	18° ♄ 41'47	4.48896 AU	direct		8618 Feb 13 14:43	23° ♄ 52'12	
direct	8612 Sep 04 19:44	13° ♄ 42'28				8618 Apr 17 19:15	0° ♄	
	8613 Jan 04 01:33	0° ♄		evening set		8618 Jun 20 01:25	13° ♄ 48'40	
evening set	8613 Jan 08 08:09	0° ♄ 54'21						
max. Earth dist.	8613 Jan 20 07:20	3° ♄ 27'50	6.49676 AU	conjunction		8618 Jul 03 06:33	17° ♄ 02'02	-0°42'11
				minimum elong		8618 Jul 03 06:34	17° ♄ 02'03	0°42'22
conjunction	8613 Jan 21 08:31	3° ♄ 41'20	0°34'39	max. Earth dist.		8618 Jul 03 16:01	17° ♄ 07'49	5.91980 AU
minimum elong	8613 Jan 21 08:32	3° ♄ 41'21	0°34'50	morning rise		8618 Jul 16 14:15	20° ♄ 16'50	
morning rise	8613 Feb 03 06:36	6° ♄ 27'16				8618 Aug 27 18:36	0° ♄	
	8613 Mar 17 20:23	15° ♄		retrograde		8618 Nov 25 17:33	11° ♄ 06'56	
retrograde	8613 Jun 03 14:39	23° ♄ 03'21		min. Earth dist.		8619 Jan 23 09:57	6° ♄ 12'17	3.91223 AU
opposition	8613 Aug 03 13:32	18° ♄ 09'55	0°36'21	opposition		8619 Jan 24 05:33	6° ♄ 05'40	-0°49'23
min. Earth dist.	8613 Aug 04 15:20	18° ♄ 01'40	4.48382 AU	direct		8619 Mar 23 04:34	1° ♄ 11'04	
	8613 Aug 30 09:49	15° ♄				8619 Jul 01 11:44	15° ♄	
direct	8613 Oct 05 06:33	13° ♄ 08'33		evening set		8619 Jul 27 22:53	21° ♄ 13'36	
	8613 Nov 10 06:35	15° ♄						
	8614 Feb 05 12:18	0° ♄		conjunction		8619 Aug 10 11:07	24° ♄ 29'47	-0°20'03
evening set	8614 Feb 07 13:20	0° ♄ 26'23		minimum elong		8619 Aug 10 11:08	24° ♄ 29'48	0°20'10
max. Earth dist.	8614 Feb 18 11:12	2° ♄ 48'16	6.44956 AU	max. Earth dist.		8619 Aug 12 06:39	24° ♄ 56'11	5.93160 AU
				morning rise		8619 Aug 24 01:45	27° ♄ 47'07	
conjunction	8614 Feb 20 09:54	3° ♄ 13'39	0°13'29			8619 Sep 02 08:35	0° ♄	
minimum elong	8614 Feb 20 09:54	3° ♄ 13'39	0°13'35	retrograde		8620 Jan 02 11:56	18° ♄ 20'31	
behind sun begin	8614 Feb 20 05:28	3° ♄ 11'15		min. Earth dist.		8620 Feb 29 11:21	13° ♄ 28'27	3.97690 AU
behind sun end	8614 Feb 20 14:20	3° ♄ 16'03		opposition		8620 Mar 01 22:06	13° ♄ 16'37	-0°07'42
morning rise	8614 Mar 05 04:39	6° ♄ 00'10		direct		8620 Apr 29 00:33	8° ♄ 20'14	
retrograde	8614 Jul 04 12:56	22° ♄ 58'22		asc. node		8620 May 08 15:23	8° ♄ 29'50	
opposition	8614 Sep 03 11:59	18° ♄ 05'42	0°01'36	evening set		8620 Sep 02 17:43	27° ♄ 54'04	
min. Earth dist.	8614 Sep 05 01:01	17° ♄ 53'52	4.39739 AU			8620 Sep 11 16:15	0° ♄	
desc. node	8614 Sep 20 08:34	16° ♄ 00'29						
direct	8614 Nov 04 22:15	13° ♄ 05'12		conjunction		8620 Sep 16 09:34	1° ♄ 06'39	0°09'41
	8615 Mar 06 11:26	0° ♄		minimum elong		8620 Sep 16 09:33	1° ♄ 06'38	0°09'41
evening set	8615 Mar 10 06:10	0° ♄ 50'09		behind sun begin		8620 Sep 16 02:42	1° ♄ 02'38	
max. Earth dist.	8615 Mar 20 18:27	3° ♄ 10'44	6.32965 AU	behind sun end		8620 Sep 16 16:24	1° ♄ 10'39	
				max. Earth dist.		8620 Sep 18 21:26	1° ♄ 41'51	6.04196 AU
conjunction	8615 Mar 23 00:48	3° ♄ 41'09	-0°11'58	morning rise		8620 Sep 30 02:42	4° ♄ 19'36	
minimum elong	8615 Mar 23 00:48	3° ♄ 41'09	0°11'58	retrograde		8621 Feb 05 18:23	23° ♄ 51'30	
behind sun begin	8615 Mar 22 19:15	3° ♄ 38'03		min. Earth dist.		8621 Apr 04 21:10	19° ♄ 00'07	4.12013 AU
behind sun end	8615 Mar 23 06:21	3° ♄ 44'14		opposition		8621 Apr 06 10:38	18° ♄ 47'26	0°34'47
morning rise	8615 Apr 04 18:06	6° ♄ 31'49		direct		8621 Jun 04 09:16	13° ♄ 48'40	
retrograde	8615 Aug 06 11:49	24° ♄ 20'31				8621 Sep 27 10:00	0° ♄	
opposition	8615 Oct 06 05:51	19° ♄ 27'21	-0°35'31	evening set		8621 Oct 08 23:06	2° ♄ 34'44	
min. Earth dist.	8615 Oct 07 20:18	19° ♄ 15'00	4.25087 AU					
direct	8615 Dec 06 18:26	14° ♄ 28'33		conjunction		8621 Oct 22 13:28	5° ♄ 39'18	0°34'34
	8616 Mar 28 08:51	0° ♄		minimum elong		8621 Oct 22 13:27	5° ♄ 39'17	0°34'41
evening set	8616 Apr 10 09:00	2° ♄ 57'24		max. Earth dist.		8621 Oct 24 16:13	6° ♄ 08'02	6.20448 AU
max. Earth dist.	8616 Apr 21 02:44	5° ♄ 26'31	6.16745 AU	morning rise		8621 Nov 05 03:55	8° ♄ 43'30	
						8621 Dec 04 00:39	15° ♄	
conjunction	8616 Apr 23 03:48	5° ♄ 55'01	-0°34'53	retrograde		8622 Mar 10 09:52	27° ♄ 01'24	
minimum elong	8616 Apr 23 03:47	5° ♄ 55'00	0°35'01	min. Earth dist.		8622 May 08 09:15	22° ♄ 08'24	4.28630 AU
morning rise	8616 May 05 22:48	8° ♄ 52'59		opposition		8622 May 09 11:48	21° ♄ 59'32	1°02'31
	8616 Jun 02 03:55	15° ♄		direct		8622 Jul 08 18:18	16° ♄ 58'56	
retrograde	8616 Sep 10 01:29	27° ♄ 53'00				8622 Oct 19 15:40	0° ♄	
opposition	8616 Nov 09 09:29	22° ♄ 58'01	-1°04'01	evening set		8622 Nov 11 22:48	4° ♄ 57'49	
min. Earth dist.	8616 Nov 10 12:47	22° ♄ 49'07	4.08456 AU					
direct	8617 Jan 08 14:06	18° ♄ 01'25		conjunction		8622 Nov 25 08:53	7° ♄ 53'54	0°47'08

minimum elong	8622 Nov 25 08:52	7°♏53'54	0°47'20			8628 Oct 28 13:16	30°♎♎	
max. Earth dist.	8622 Nov 26 13:46	8°♏09'44	6.36116 AU	opposition		8628 Nov 14 09:45	27°♎52'38	-1°06'29
morning rise	8622 Dec 08 17:27	10°♏49'05		min. Earth dist.		8628 Nov 15 11:09	27°♎44'21	4.06434 AU
retrograde	8623 Apr 10 02:14	28°♏06'24		direct		8629 Jan 13 09:55	22°♎56'20	
opposition	8623 Jun 09 14:17	23°♏07'55	1°09'58			8629 Mar 23 19:29	0°♐	
min. Earth dist.	8623 Jun 09 04:23	23°♏11'09	4.42206 AU	evening set		8629 May 19 11:19	12°♐21'18	
direct	8623 Aug 10 01:54	18°♏06'25						
	8623 Nov 17 05:58	0°♑		conjunction		8629 Jun 01 10:32	15°♐28'23	-0°47'38
evening set	8623 Dec 13 21:53	5°♑31'54		minimum elong		8629 Jun 01 10:32	15°♐28'23	0°47'51
				max. Earth dist.		8629 May 31 12:26	15°♐15'04	5.99459 AU
conjunction	8623 Dec 27 02:28	8°♑21'41	0°45'42	morning rise		8629 Jun 14 11:29	18°♐36'36	
minimum elong	8623 Dec 27 02:28	8°♑21'41	0°45'54			8629 Aug 04 11:55	0°♑	
max. Earth dist.	8623 Dec 27 00:44	8°♑20'45	6.46623 AU	retrograde		8629 Oct 23 05:54	8°♑55'49	
morning rise	8624 Jan 09 05:06	11°♑10'24		opposition		8629 Dec 22 00:30	3°♑57'34	-1°09'37
retrograde	8624 May 08 21:55	27°♑52'54		min. Earth dist.		8629 Dec 22 02:17	3°♑56'58	3.94234 AU
opposition	8624 Jul 08 16:33	22°♑57'33	0°58'22			8630 Jan 25 19:43	30°♎♐	
min. Earth dist.	8624 Jul 09 03:10	22°♑54'07	4.49071 AU	direct		8630 Feb 18 16:10	29°♐02'54	
direct	8624 Sep 09 02:28	17°♑55'48				8630 Mar 14 11:14	0°♑	
	8624 Dec 18 18:51	0°♒		evening set		8630 Jun 25 04:45	19°♑02'38	
evening set	8625 Jan 12 12:59	5°♒07'46						
max. Earth dist.	8625 Jan 24 08:35	7°♒39'30	6.49362 AU	conjunction		8630 Jul 08 11:03	22°♑16'48	-0°39'59
				minimum elong		8630 Jul 08 11:05	22°♑16'49	0°40'11
conjunction	8625 Jan 25 12:49	7°♒54'38	0°32'07	max. Earth dist.		8630 Jul 09 02:16	22°♑26'07	5.91413 AU
minimum elong	8625 Jan 25 12:50	7°♒54'39	0°32'17	morning rise		8630 Jul 21 19:44	25°♑32'22	
morning rise	8625 Feb 07 10:22	10°♒40'30				8630 Aug 09 12:04	0°♒	
	8625 Feb 28 02:59	15°♒				8630 Nov 01 14:50	15°♒	
retrograde	8625 Jun 07 19:02	27°♒18'03		retrograde		8630 Dec 01 01:33	16°♒24'06	
opposition	8625 Aug 07 18:57	22°♒24'41	0°31'55			8630 Dec 30 09:02	15°♒♒	
min. Earth dist.	8625 Aug 08 21:45	22°♒16'06	4.47603 AU	opposition		8631 Jan 29 11:53	11°♒22'25	-0°44'25
direct	8625 Oct 09 11:14	17°♒23'20		min. Earth dist.		8631 Jan 28 14:35	11°♒29'37	3.91357 AU
	8626 Jan 20 08:54	0°♓		direct		8631 Mar 28 10:53	6°♒27'40	
evening set	8626 Feb 11 18:35	4°♓43'33				8631 Jun 12 01:54	15°♒	
max. Earth dist.	8626 Feb 22 15:57	7°♓05'32	6.43748 AU	evening set		8631 Aug 02 04:38	26°♒28'47	
conjunction	8626 Feb 24 14:49	7°♓31'06	0°10'03	conjunction		8631 Aug 15 17:42	29°♒44'58	-0°16'05
minimum elong	8626 Feb 24 14:49	7°♓31'06	0°10'09	minimum elong		8631 Aug 15 17:43	29°♒44'59	0°16'12
behind sun begin	8626 Feb 24 08:26	7°♓27'38				8631 Aug 16 18:35	0°♓	
behind sun end	8626 Feb 24 21:12	7°♓34'34		max. Earth dist.		8631 Aug 17 17:19	0°♓13'44	5.93977 AU
morning rise	8626 Mar 09 09:05	10°♓17'54		morning rise		8631 Aug 29 09:05	3°♓02'14	
retrograde	8626 Jul 08 22:53	27°♓20'57		retrograde		8632 Jan 07 13:11	23°♓30'05	
desc. node	8626 Jul 31 16:47	26°♓33'15		min. Earth dist.		8632 Mar 05 10:55	18°♓38'29	3.99100 AU
opposition	8626 Sep 07 21:51	22°♓28'15	-0°03'39	opposition		8632 Mar 06 23:26	18°♓26'04	-0°01'23
min. Earth dist.	8626 Sep 09 11:49	22°♓16'07	4.38143 AU	asc. node		8632 Mar 19 04:56	16°♓48'16	
direct	8626 Nov 09 06:37	17°♓27'55		direct		8632 May 04 02:26	13°♓29'26	
	8627 Feb 18 04:19	0°♓				8632 Aug 26 00:15	0°♓	
evening set	8627 Mar 14 14:25	5°♓17'24		evening set		8632 Sep 07 21:04	2°♓58'16	
max. Earth dist.	8627 Mar 25 01:04	7°♓37'45	6.31061 AU					
				conjunction		8632 Sep 21 12:53	6°♓10'01	0°13'40
conjunction	8627 Mar 27 08:46	8°♓09'03	-0°15'28	minimum elong		8632 Sep 21 12:52	6°♓10'00	0°13'41
minimum elong	8627 Mar 27 08:45	8°♓09'02	0°15'29	behind sun begin		8632 Sep 21 08:32	6°♓07'28	
behind sun begin	8627 Mar 27 06:20	8°♓07'42		behind sun end		8632 Sep 21 17:13	6°♓12'32	
behind sun end	8627 Mar 27 11:09	8°♓10'23		max. Earth dist.		8632 Sep 23 23:37	6°♓44'24	6.06056 AU
morning rise	8627 Apr 09 02:14	11°♓00'30		morning rise		8632 Oct 05 06:06	9°♓22'04	
retrograde	8627 Aug 11 05:32	28°♓57'23		retrograde		8633 Feb 10 10:35	28°♓44'39	
opposition	8627 Oct 10 22:36	24°♓03'55	-0°40'15	min. Earth dist.		8633 Apr 09 15:52	23°♓53'08	4.14135 AU
min. Earth dist.	8627 Oct 12 12:12	23°♓51'49	4.22970 AU	opposition		8633 Apr 11 04:21	23°♓40'47	0°39'47
direct	8627 Dec 11 07:47	19°♓05'19		direct		8633 Jun 09 07:12	18°♓41'46	
	8628 Mar 11 05:59	0°♔				8633 Sep 09 19:22	0°♔	
evening set	8628 Apr 14 22:36	7°♔40'23		evening set		8633 Oct 13 20:00	7°♔21'32	
max. Earth dist.	8628 Apr 25 19:57	10°♔12'15	6.14585 AU					
				conjunction		8633 Oct 27 10:06	10°♔24'58	0°37'09
conjunction	8628 Apr 27 17:51	10°♔39'01	-0°37'24	minimum elong		8633 Oct 27 10:05	10°♔24'57	0°37'17
minimum elong	8628 Apr 27 17:50	10°♔39'01	0°37'32	max. Earth dist.		8633 Oct 29 12:14	10°♔53'12	6.22691 AU
morning rise	8628 May 10 13:08	13°♔38'05		morning rise		8633 Nov 09 23:43	13°♔27'53	
	8628 May 16 10:54	15°♔				8633 Nov 16 21:40	15°♔	
	8628 Aug 03 05:13	0°♕				8634 Feb 10 18:06	0°♕	
retrograde	8628 Sep 15 03:27	2°♕47'55		retrograde		8634 Mar 14 19:00	1°♕36'24	

	8634 Apr 15 15:17	30°♍			8639 Jun 28 05:59	0°♄
opposition	8634 May 13 22:24	26°♍35'02	1°04'48	retrograde	8639 Aug 15 21:24	3°♄29'36
min. Earth dist.	8634 May 12 21:02	26°♍43'28	4.30821 AU		8639 Oct 04 12:16	30°♍
direct	8634 Jul 13 08:48	21°♍34'22		opposition	8639 Oct 15 13:05	28°♍35'59 -0°44'39
	8634 Oct 01 03:11	0°♌		min. Earth dist.	8639 Oct 17 02:58	28°♍23'47 4.20607 AU
evening set	8634 Nov 16 12:21	9°♌27'20		direct	8639 Dec 15 18:41	23°♍37'37
					8640 Feb 20 16:16	0°♄
conjunction	8634 Nov 29 21:31	12°♌22'18	0°47'46	evening set	8640 Apr 19 10:45	12°♄20'07
minimum elong	8634 Nov 29 21:30	12°♌22'18	0°47'57	max. Earth dist.	8640 Apr 30 08:25	14°♄53'05 6.12074 AU
max. Earth dist.	8634 Nov 30 21:45	12°♌35'31	6.38103 AU		8640 Apr 30 20:13	15°♄
morning rise	8634 Dec 13 05:23	15°♌16'21				
	8635 Mar 05 00:03	0°♈		conjunction	8640 May 02 06:15	15°♄19'58 -0°39'37
retrograde	8635 Apr 14 06:45	2°♈26'37		minimum elong	8640 May 02 06:14	15°♄19'57 0°39'46
	8635 May 24 13:09	30°♌♌		morning rise	8640 May 15 02:18	18°♄20'23
opposition	8635 Jun 13 19:48	27°♌28'35	1°09'24		8640 Jul 08 05:47	0°♈
min. Earth dist.	8635 Jun 13 12:56	27°♌30'50	4.43867 AU	retrograde	8640 Sep 20 04:16	7°♈41'43
direct	8635 Aug 14 12:14	22°♌27'01		opposition	8640 Nov 19 08:56	2°♈46'04 -1°08'30
	8635 Oct 29 16:07	0°♈		min. Earth dist.	8640 Nov 20 07:26	2°♈38'42 4.03983 AU
evening set	8635 Dec 18 04:57	9°♈48'21			8640 Dec 11 20:03	30°♌♄
				direct	8641 Jan 18 03:34	27°♄49'57
conjunction	8635 Dec 31 08:55	12°♈37'24	0°44'29		8641 Feb 24 00:06	0°♈
minimum elong	8635 Dec 31 08:55	12°♈37'24	0°44'41	evening set	8641 May 24 08:10	17°♈22'53
max. Earth dist.	8635 Dec 31 04:57	12°♈35'16	6.47848 AU			
morning rise	8636 Jan 13 10:35	15°♈25'19		conjunction	8641 Jun 06 08:27	20°♈31'24 -0°47'42
	8636 Apr 05 18:28	0°♌		minimum elong	8641 Jun 06 08:28	20°♈31'24 0°47'54
retrograde	8636 May 12 21:52	2°♌04'07		max. Earth dist.	8641 Jun 05 15:37	20°♈21'12 5.97312 AU
	8636 Jun 19 03:35	30°♌♄		morning rise	8641 Jun 19 10:21	23°♈41'04
opposition	8636 Jul 12 19:16	27°♄09'06	0°55'30		8641 Jul 16 09:07	0°♄
min. Earth dist.	8636 Jul 13 07:20	27°♄05'13	4.49791 AU	retrograde	8641 Oct 28 15:34	14°♄10'01
direct	8636 Sep 13 06:38	22°♄07'25		opposition	8641 Dec 27 07:04	9°♄11'18 -1°07'48
	8636 Nov 30 20:25	0°♌		min. Earth dist.	8641 Dec 27 06:30	9°♄11'29 3.92623 AU
evening set	8637 Jan 16 16:19	9°♌17'48		direct	8642 Feb 23 19:05	4°♄16'45
max. Earth dist.	8637 Jan 28 07:51	11°♌47'25	6.49517 AU	evening set	8642 Jun 30 09:51	24°♄21'18
conjunction	8637 Jan 29 15:24	12°♌04'21	0°29'30	conjunction	8642 Jul 13 17:18	27°♄36'29 -0°37'29
minimum elong	8637 Jan 29 15:25	12°♌04'22	0°29'40	minimum elong	8642 Jul 13 17:19	27°♄36'29 0°37'41
morning rise	8637 Feb 11 12:23	14°♌49'56		max. Earth dist.	8642 Jul 14 13:34	27°♄48'53 5.90505 AU
	8637 Feb 12 07:17	15°♌			8642 Jul 23 12:06	0°♌
	8637 May 11 18:27	0°♌		morning rise	8642 Jul 27 03:16	0°♌53'03
retrograde	8637 Jun 11 22:32	1°♌27'49			8642 Sep 29 12:40	15°♌
	8637 Jul 13 02:13	30°♌♌		retrograde	8642 Dec 06 10:48	21°♌47'17
opposition	8637 Aug 11 22:27	26°♌34'38	0°27'29	opposition	8643 Feb 03 19:55	16°♌45'09 -0°39'05
min. Earth dist.	8637 Aug 13 04:12	26°♌25'08	4.47161 AU	min. Earth dist.	8643 Feb 02 18:49	16°♌53'39 3.91289 AU
direct	8637 Oct 13 16:24	21°♌33'21			8643 Feb 17 01:57	15°♌♌
	8638 Jan 02 22:55	0°♌		direct	8643 Apr 02 16:41	11°♌50'14
evening set	8638 Feb 15 21:00	8°♌55'03			8643 May 16 16:42	15°♌
max. Earth dist.	8638 Feb 26 14:28	11°♌15'18	6.42714 AU		8643 Jul 30 19:58	0°♌
				evening set	8643 Aug 07 13:24	1°♌50'38
conjunction	8638 Feb 28 16:48	11°♌42'49	0°06'43			
minimum elong	8638 Feb 28 16:49	11°♌42'49	0°06'48	conjunction	8643 Aug 21 03:08	5°♌06'48 -0°11'58
behind sun begin	8638 Feb 28 09:23	11°♌38'47		minimum elong	8643 Aug 21 03:09	5°♌06'48 0°12'05
behind sun end	8638 Mar 01 00:15	11°♌46'52		behind sun begin	8643 Aug 20 21:30	5°♌03'25
morning rise	8638 Mar 13 10:53	14°♌29'56		behind sun end	8643 Aug 21 08:47	5°♌10'11
	8638 Jun 10 09:33	0°♍		max. Earth dist.	8643 Aug 23 05:18	5°♌37'03 5.94739 AU
desc. node	8638 Jun 12 21:46	0°♍13'59		morning rise	8643 Sep 03 19:17	8°♌23'58
retrograde	8638 Jul 13 06:08	1°♍37'48		retrograde	8644 Jan 12 15:18	28°♌45'55
	8638 Aug 15 05:42	30°♌♌		asc. node	8644 Jan 28 02:47	28°♌21'47
opposition	8638 Sep 12 05:18	26°♌45'00	-0°08'42	min. Earth dist.	8644 Mar 10 12:55	23°♌54'29 4.00582 AU
min. Earth dist.	8638 Sep 13 19:45	26°♌32'42	4.36557 AU	opposition	8644 Mar 12 02:43	23°♌41'36 0°04'58
direct	8638 Nov 13 11:37	21°♌44'46		direct	8644 May 09 08:02	18°♌44'33
	8639 Jan 31 12:23	0°♍			8644 Aug 07 16:01	0°♌
evening set	8639 Mar 18 19:48	9°♍39'04		evening set	8644 Sep 13 02:35	8°♌07'47
max. Earth dist.	8639 Mar 29 07:12	12°♍00'25	6.29030 AU			
				conjunction	8644 Sep 26 18:36	11°♌18'37 0°17'35
conjunction	8639 Mar 31 14:12	12°♍31'29	-0°18'46	minimum elong	8644 Sep 26 18:36	11°♌18'36 0°17'38
minimum elong	8639 Mar 31 14:11	12°♍31'29	0°18'49	max. Earth dist.	8644 Sep 29 07:20	11°♌53'59 6.08111 AU
morning rise	8639 Apr 13 07:35	15°♍23'45		morning rise	8644 Oct 10 11:27	14°♌29'33

	8644 Dec 27 23:33	0°♍		behind sun end	8650 Mar 05 06:30	16°♏07'15	
retrograde	8645 Feb 15 05:08	3°♍41'37		morning rise	8650 Mar 17 16:22	18°♏50'32	
	8645 Apr 05 17:23	30°♏♎		desc. node	8650 Apr 22 05:39	26°♏16'29	
min. Earth dist.	8645 Apr 14 11:46	28°♎49'59	4.16512 AU		8650 May 12 17:39	0°♏	
opposition	8645 Apr 15 23:38	28°♎37'53	0°44'29	retrograde	8650 Jul 17 19:44	6°♏05'02	
direct	8645 Jun 14 06:57	23°♎38'32		opposition	8650 Sep 16 17:30	1°♏12'15	-0°14'00
	8645 Aug 19 21:35	0°♍		min. Earth dist.	8650 Sep 18 09:44	0°♏59'23	4.34504 AU
evening set	8645 Oct 18 18:08	12°♍10'45			8650 Sep 26 05:27	30°♏♏	
	8645 Oct 31 08:35	15°♍		direct	8650 Nov 17 22:08	26°♏12'14	
					8651 Jan 08 10:06	0°♏	
conjunction	8645 Nov 01 07:29	15°♍12'49	0°39'30	evening set	8651 Mar 23 06:25	14°♏12'55	
minimum elong	8645 Nov 01 07:27	15°♍12'49	0°39'39	max. Earth dist.	8651 Apr 02 16:39	16°♏34'26	6.26632 AU
max. Earth dist.	8645 Nov 03 06:27	15°♍39'08	6.25147 AU				
morning rise	8645 Nov 14 20:29	18°♍14'21		conjunction	8651 Apr 05 00:47	17°♏06'18	-0°22'09
	8646 Jan 12 02:40	0°♏		minimum elong	8651 Apr 05 00:46	17°♏06'17	0°22'12
retrograde	8646 Mar 19 03:57	6°♏12'44		morning rise	8651 Apr 17 18:29	19°♏59'38	
min. Earth dist.	8646 May 17 10:24	1°♏19'25	4.33135 AU		8651 Jun 04 02:32	0°♏	
opposition	8646 May 18 09:39	1°♏11'41	1°06'39	retrograde	8651 Aug 20 18:53	8°♏15'55	
	8646 May 27 11:45	30°♏♍		opposition	8651 Oct 20 09:43	3°♏22'06	-0°49'02
direct	8646 Jul 18 01:00	26°♍10'45		min. Earth dist.	8651 Oct 21 21:38	3°♏10'29	4.18034 AU
	8646 Sep 07 14:17	0°♏			8651 Nov 18 02:32	30°♏♏	
evening set	8646 Nov 21 02:19	13°♏57'27		direct	8651 Dec 20 09:58	28°♏24'02	
					8652 Jan 21 13:02	0°♏	
conjunction	8646 Dec 04 10:49	16°♏51'18	0°48'05		8652 Apr 14 12:34	15°♏	
minimum elong	8646 Dec 04 10:49	16°♏51'18	0°48'17	evening set	8652 Apr 24 04:48	17°♏14'39	
max. Earth dist.	8646 Dec 05 08:16	17°♏02'58	6.40090 AU	max. Earth dist.	8652 May 05 07:12	19°♏51'14	6.09553 AU
morning rise	8646 Dec 17 17:35	19°♏44'09					
	8647 Feb 07 07:21	0°♏		conjunction	8652 May 07 00:54	20°♏15'49	-0°41'42
retrograde	8647 Apr 18 10:45	6°♏47'29		minimum elong	8652 May 07 00:53	20°♏15'49	0°41'52
opposition	8647 Jun 18 01:45	1°♏49'55	1°08'25	morning rise	8652 May 19 21:28	23°♏17'36	
min. Earth dist.	8647 Jun 17 21:18	1°♏51'22	4.45388 AU		8652 Jun 18 08:31	0°♏	
	8647 Jul 02 11:11	30°♏♏		retrograde	8652 Sep 25 13:33	12°♏50'31	
direct	8647 Aug 18 21:48	26°♏48'18		opposition	8652 Nov 24 14:38	7°♏54'34	-1°10'06
	8647 Oct 05 12:30	0°♏		min. Earth dist.	8652 Nov 25 11:10	7°♏47'50	4.01746 AU
evening set	8647 Dec 22 12:58	14°♏06'05		direct	8653 Jan 23 04:50	2°♏58'50	
				evening set	8653 May 29 11:05	22°♏38'44	
conjunction	8648 Jan 04 16:00	16°♏54'28	0°42'58				
minimum elong	8648 Jan 04 16:01	16°♏54'28	0°43'11	conjunction	8653 Jun 11 12:16	25°♏48'30	-0°47'23
max. Earth dist.	8648 Jan 04 06:26	16°♏49'20	6.48781 AU	minimum elong	8653 Jun 11 12:17	25°♏48'30	0°47'35
morning rise	8648 Jan 17 17:04	19°♏41'46		max. Earth dist.	8653 Jun 10 23:51	25°♏40'57	5.95592 AU
	8648 Mar 10 10:42	0°♏		morning rise	8653 Jun 24 15:22	28°♏59'30	
retrograde	8648 May 17 02:23	6°♏18'03			8653 Jun 28 19:51	0°♏	
opposition	8648 Jul 16 23:49	1°♏23'22	0°52'15	retrograde	8653 Nov 03 03:10	19°♏35'53	
min. Earth dist.	8648 Jul 17 15:29	1°♏18'19	4.50091 AU	opposition	8654 Jan 01 17:57	14°♏36'45	-1°05'17
	8648 Jul 27 22:24	30°♏♏		min. Earth dist.	8654 Jan 01 12:37	14°♏38'32	3.91662 AU
direct	8648 Sep 17 14:06	26°♏21'39		direct	8654 Mar 01 01:18	9°♏42'23	
	8648 Nov 07 22:36	0°♏		evening set	8654 Jul 05 19:03	29°♏49'09	
evening set	8649 Jan 20 21:17	13°♏31'52			8654 Jul 06 12:54	0°♏	
	8649 Jan 27 18:05	15°♏					
max. Earth dist.	8649 Feb 01 09:33	15°♏59'52	6.49156 AU	conjunction	8654 Jul 19 03:28	3°♏04'52	-0°34'34
				minimum elong	8654 Jul 19 03:30	3°♏04'53	0°34'45
conjunction	8649 Feb 02 19:57	16°♏18'21	0°26'39	max. Earth dist.	8654 Jul 20 04:35	3°♏20'14	5.90414 AU
minimum elong	8649 Feb 02 19:58	16°♏18'22	0°26'48	morning rise	8654 Aug 01 14:34	6°♏21'59	
morning rise	8649 Feb 15 16:18	19°♏03'51			8654 Sep 07 17:03	15°♏	
	8649 Apr 12 23:12	0°♏		retrograde	8654 Dec 11 19:57	27°♏14'58	
retrograde	8649 Jun 16 03:46	5°♏43'54		min. Earth dist.	8655 Feb 08 01:28	22°♏21'52	3.92086 AU
opposition	8649 Aug 16 04:57	0°♏50'50	0°22'43	opposition	8655 Feb 09 05:24	22°♏12'23	-0°33'17
min. Earth dist.	8649 Aug 17 11:46	0°♏40'59	4.46169 AU	direct	8655 Apr 08 02:46	17°♏17'14	
	8649 Aug 22 20:56	30°♏♏			8655 Jul 12 18:09	0°♏	
direct	8649 Oct 17 21:28	25°♏49'40		evening set	8655 Aug 12 22:31	7°♏13'33	
	8649 Dec 11 22:24	0°♏					
evening set	8650 Feb 20 03:08	13°♏14'42		conjunction	8655 Aug 26 12:59	10°♏29'14	-0°07'45
max. Earth dist.	8650 Mar 02 18:56	15°♏34'34	6.41154 AU	minimum elong	8655 Aug 26 12:59	10°♏29'14	0°07'50
				behind sun begin	8655 Aug 26 05:28	10°♏24'45	
conjunction	8650 Mar 04 22:33	16°♏02'54	0°03'09	behind sun end	8655 Aug 26 20:30	10°♏33'44	
minimum elong	8650 Mar 04 22:34	16°♏02'55	0°03'14	max. Earth dist.	8655 Aug 28 19:53	11°♏02'12	5.96349 AU
behind sun begin	8650 Mar 04 14:39	15°♏58'35		morning rise	8655 Sep 09 05:22	13°♏45'45	

	8655 Nov 27 20:00	0°♏	evening set	8662 Feb 24 09:38	17°♏36'43	
asc. node	8655 Dec 07 18:41	1°♏20'08	desc. node	8662 Mar 01 20:09	18°♏48'15	
retrograde	8656 Jan 17 16:48	3°♏58'27	max. Earth dist.	8662 Mar 06 23:46	19°♏56'17	6.39174 AU
	8656 Mar 09 01:11	30°♏♏				
min. Earth dist.	8656 Mar 15 14:21	29°♏07'04	4.02800 AU	conjunction	8662 Mar 09 04:59	20°♏25'38 -0°00'29
opposition	8656 Mar 17 04:33	28°♏54'05	0°11'12	minimum elong	8662 Mar 09 04:58	20°♏25'37 0°00'27
direct	8656 May 14 13:17	23°♏56'43		behind sun begin	8662 Mar 08 21:00	20°♏21'15
	8656 Jul 17 01:43	0°♏		behind sun end	8662 Mar 09 12:56	20°♏29'59
evening set	8656 Sep 18 05:57	13°♏11'59	morning rise	8662 Mar 21 22:37	23°♏13'58	
				8662 Apr 22 22:37	0°♏	
conjunction	8656 Oct 01 21:39	16°♏21'29	0°21'18	retrograde	8662 Jul 22 09:41	10°♏36'31
minimum elong	8656 Oct 01 21:38	16°♏21'29	0°21'20	opposition	8662 Sep 21 07:29	5°♏43'38 -0°19'15
max. Earth dist.	8656 Oct 04 09:21	16°♏56'02	6.10697 AU	min. Earth dist.	8662 Sep 22 22:53	5°♏31'01 4.32141 AU
morning rise	8656 Oct 15 14:15	19°♏31'04		direct	8662 Nov 22 07:33	0°♏43'51
	8656 Dec 03 13:37	0°♏		evening set	8663 Mar 27 18:47	18°♏51'45
retrograde	8657 Feb 19 18:14	8°♏31'12		max. Earth dist.	8663 Apr 07 07:03	21°♏15'14 6.24073 AU
min. Earth dist.	8657 Apr 19 04:23	3°♏39'34	4.19208 AU			
opposition	8657 Apr 20 15:28	3°♏27'44	0°48'43	conjunction	8663 Apr 09 13:13	21°♏46'10 -0°25'25
	8657 May 19 05:43	30°♏♏		minimum elong	8663 Apr 09 13:12	21°♏46'10 0°25'29
direct	8657 Jun 19 03:13	28°♏28'05		morning rise	8663 Apr 22 07:06	24°♏40'39
	8657 Jul 20 08:51	0°♏		8663 May 16 06:19	0°♏	
	8657 Oct 15 00:50	15°♏		retrograde	8663 Aug 25 21:05	13°♏07'52
evening set	8657 Oct 23 12:42	16°♏52'16		opposition	8663 Oct 25 08:52	8°♏13'50 -0°53'08
				min. Earth dist.	8663 Oct 26 19:58	8°♏02'29 4.15470 AU
conjunction	8657 Nov 06 01:28	19°♏52'58	0°41'30	direct	8663 Dec 25 05:16	3°♏16'06
minimum elong	8657 Nov 06 01:26	19°♏52'57	0°41'40		8664 Mar 28 00:43	15°♏
max. Earth dist.	8657 Nov 07 21:11	20°♏17'21	6.27734 AU	evening set	8664 Apr 29 01:09	22°♏14'28
morning rise	8657 Nov 19 13:30	22°♏53'00		max. Earth dist.	8664 May 10 07:01	24°♏53'55 6.07220 AU
	8657 Dec 23 02:02	0°♏				
retrograde	8658 Mar 23 11:32	10°♏41'28		conjunction	8664 May 11 21:45	25°♏16'53 -0°43'29
opposition	8658 May 22 17:45	5°♏40'56	1°08'01	minimum elong	8664 May 11 21:44	25°♏16'52 0°43'40
min. Earth dist.	8658 May 21 21:34	5°♏47'37	4.35400 AU	morning rise	8664 May 24 19:07	28°♏20'01
direct	8658 Jul 22 14:18	0°♏39'51		8664 May 31 21:29	0°♏	
evening set	8658 Nov 25 12:52	18°♏20'44		retrograde	8664 Sep 30 21:10	18°♏03'17
				opposition	8664 Nov 29 21:46	13°♏06'55 -1°11'08
conjunction	8658 Dec 08 20:31	21°♏13'34	0°48'07	min. Earth dist.	8664 Nov 30 13:52	13°♏01'37 3.99893 AU
minimum elong	8658 Dec 08 20:31	21°♏13'34	0°48'20	direct	8665 Jan 28 05:53	8°♏11'27
max. Earth dist.	8658 Dec 09 12:43	21°♏22'21	6.41856 AU	evening set	8665 Jun 03 15:05	27°♏56'31
morning rise	8658 Dec 22 02:33	24°♏05'25		8665 Jun 12 02:41	0°♏	
	8659 Jan 19 11:35	0°♏				
retrograde	8659 Apr 22 13:17	11°♏03'00		conjunction	8665 Jun 16 17:08	1°♏07'15 -0°46'40
opposition	8659 Jun 22 05:29	6°♏05'52	1°07'07	minimum elong	8665 Jun 16 17:08	1°♏07'15 0°46'53
min. Earth dist.	8659 Jun 22 04:07	6°♏06'19	4.46564 AU	max. Earth dist.	8665 Jun 16 10:14	1°♏03'03 5.94392 AU
direct	8659 Aug 23 04:30	1°♏04'08		morning rise	8665 Jun 29 21:17	4°♏19'18
evening set	8659 Dec 26 18:27	18°♏19'34		retrograde	8665 Nov 08 14:48	25°♏00'37
				opposition	8666 Jan 07 04:32	20°♏00'55 -1°02'10
conjunction	8660 Jan 08 20:58	21°♏07'30	0°41'16	min. Earth dist.	8666 Jan 06 19:44	20°♏03'52 3.91247 AU
minimum elong	8660 Jan 08 20:59	21°♏07'31	0°41'28	direct	8666 Mar 06 10:32	15°♏06'30
max. Earth dist.	8660 Jan 08 08:21	21°♏00'45	6.49292 AU	8666 Jun 19 05:25	0°♏	
morning rise	8660 Jan 21 21:09	23°♏54'20		evening set	8666 Jul 11 03:03	5°♏13'06
	8660 Feb 20 12:42	0°♏				
retrograde	8660 May 21 04:23	10°♏29'34		conjunction	8666 Jul 24 12:33	8°♏29'06 -0°31'24
opposition	8660 Jul 21 03:03	5°♏35'13	0°48'48	minimum elong	8666 Jul 24 12:34	8°♏29'07 0°31'33
min. Earth dist.	8660 Jul 21 20:57	5°♏29'28	4.49924 AU	max. Earth dist.	8666 Jul 25 20:06	8°♏48'22 5.90820 AU
direct	8660 Sep 21 18:01	0°♏33'33		morning rise	8666 Aug 07 00:26	11°♏46'24
	8661 Jan 12 00:49	15°♏		8666 Aug 20 11:35	15°♏	
evening set	8661 Jan 25 01:39	17°♏45'03		8666 Nov 06 14:58	0°♏	
max. Earth dist.	8661 Feb 05 08:48	20°♏10'41	6.48317 AU	retrograde	8666 Dec 17 03:27	2°♏35'50
				8667 Jan 26 15:09	30°♏♏	
conjunction	8661 Feb 06 23:41	20°♏31'37	0°23'41	min. Earth dist.	8667 Feb 13 06:31	27°♏43'00 3.93267 AU
minimum elong	8661 Feb 06 23:41	20°♏31'38	0°23'50	opposition	8667 Feb 14 12:20	27°♏32'53 -0°27'17
morning rise	8661 Feb 19 19:44	23°♏17'19		direct	8667 Apr 13 09:56	22°♏37'31
	8661 Mar 24 09:19	0°♏		8667 Jun 22 07:17	0°♏	
retrograde	8661 Jun 20 12:07	10°♏01'03		evening set	8667 Aug 18 05:19	12°♏28'37
opposition	8661 Aug 20 11:57	5°♏08'07	0°17'51			
min. Earth dist.	8661 Aug 21 21:33	4°♏57'24	4.44707 AU	conjunction	8667 Aug 31 20:02	15°♏43'36 -0°03'32
direct	8661 Oct 22 04:18	0°♏07'01		minimum elong	8667 Aug 31 20:04	15°♏43'36 0°03'35

behind sun begin	8667 Aug 31 11:44	15° \mathbb{M} 38'40		min. Earth dist.	8673 Aug 26 07:10	9° \mathbb{H} 19'23	4.43224 AU
behind sun end	8667 Sep 01 04:23	15° \mathbb{M} 48'33		direct	8673 Oct 26 10:57	4° \mathbb{H} 29'28	
max. Earth dist.	8667 Sep 03 04:07	16° \mathbb{M} 17'05	5.98148 AU	desc. node	8674 Jan 08 15:26	11° \mathbb{H} 44'28	
morning rise	8667 Sep 14 12:54	18° \mathbb{M} 59'23		evening set	8674 Feb 28 18:04	22° \mathbb{H} 03'50	
asc. node	8667 Oct 17 09:01	26° \mathbb{M} 29'07		max. Earth dist.	8674 Mar 11 06:56	24° \mathbb{H} 23'22	6.37326 AU
	8667 Nov 03 08:48	0° \mathbb{L}					
retrograde	8668 Jan 22 13:07	9° \mathbb{L} 02'23		conjunction	8674 Mar 13 13:00	24° \mathbb{H} 53'19	-0°04'11
min. Earth dist.	8668 Mar 20 11:53	4° \mathbb{L} 11'17	4.05020 AU	minimum elong	8674 Mar 13 13:00	24° \mathbb{H} 53'19	0°04'09
opposition	8668 Mar 22 02:58	3° \mathbb{L} 58'00	0°17'14	behind sun begin	8674 Mar 13 05:09	24° \mathbb{H} 49'00	
	8668 Apr 25 06:08	30° \mathbb{R} \mathbb{M}		behind sun end	8674 Mar 13 20:51	24° \mathbb{H} 57'39	
direct	8668 May 19 14:24	29° \mathbb{M} 00'17		morning rise	8674 Mar 26 06:38	27° \mathbb{H} 42'22	
	8668 Jun 13 03:43	0° \mathbb{L}			8674 Apr 05 18:25	0° \mathbb{Y}	
evening set	8668 Sep 23 06:28	18° \mathbb{L} 08'11		retrograde	8674 Jul 27 03:40	15° \mathbb{Y} 12'38	
				opposition	8674 Sep 25 23:19	10° \mathbb{Y} 19'44	-0°24'30
conjunction	8668 Oct 06 21:59	21° \mathbb{L} 16'29	0°24'49	min. Earth dist.	8674 Sep 27 15:09	10° \mathbb{Y} 06'58	4.30055 AU
minimum elong	8668 Oct 06 21:58	21° \mathbb{L} 16'28	0°24'53	direct	8674 Nov 26 20:57	5° \mathbb{Y} 20'15	
max. Earth dist.	8668 Oct 09 07:54	21° \mathbb{L} 49'49	6.13135 AU	evening set	8675 Apr 01 08:13	23° \mathbb{Y} 34'18	
morning rise	8668 Oct 20 14:04	24° \mathbb{L} 24'43		max. Earth dist.	8675 Apr 11 22:21	25° \mathbb{Y} 59'34	6.21938 AU
	8668 Nov 14 17:21	0° \mathbb{M}					
retrograde	8669 Feb 24 08:02	13° \mathbb{M} 14'10		conjunction	8675 Apr 14 02:49	26° \mathbb{Y} 29'39	-0°28'34
min. Earth dist.	8669 Apr 23 20:50	8° \mathbb{M} 22'00	4.21622 AU	minimum elong	8675 Apr 14 02:48	26° \mathbb{Y} 29'39	0°28'39
opposition	8669 Apr 25 05:21	8° \mathbb{M} 11'04	0°52'36	morning rise	8675 Apr 26 20:55	29° \mathbb{Y} 25'07	
direct	8669 Jun 23 22:26	3° \mathbb{M} 11'11			8675 Apr 29 10:07	0° \mathbb{B}	
	8669 Sep 27 22:39	15° \mathbb{M}			8675 Jul 16 23:01	15° \mathbb{B}	
evening set	8669 Oct 28 05:20	21° \mathbb{M} 28'36		retrograde	8675 Aug 30 20:50	18° \mathbb{B} 01'42	
					8675 Oct 15 11:15	15° \mathbb{R} \mathbb{B}	
conjunction	8669 Nov 10 17:28	24° \mathbb{M} 28'08	0°43'15	opposition	8675 Oct 30 08:20	13° \mathbb{B} 07'25	-0°56'53
minimum elong	8669 Nov 10 17:27	24° \mathbb{M} 28'07	0°43'25	min. Earth dist.	8675 Oct 31 16:19	12° \mathbb{B} 57'03	4.13475 AU
max. Earth dist.	8669 Nov 12 10:11	24° \mathbb{M} 50'42	6.29928 AU	direct	8675 Dec 29 23:01	8° \mathbb{B} 10'06	
morning rise	8669 Nov 24 04:45	27° \mathbb{M} 26'55			8676 Mar 07 19:53	15° \mathbb{B}	
	8669 Dec 05 21:52	0° \mathbb{Z}		evening set	8676 May 03 20:57	27° \mathbb{B} 14'04	
retrograde	8670 Mar 27 16:32	15° \mathbb{Z} 07'11		max. Earth dist.	8676 May 15 07:27	29° \mathbb{B} 56'52	6.05543 AU
min. Earth dist.	8670 May 26 06:38	10° \mathbb{Z} 13'12	4.37233 AU		8676 May 15 12:43	0° \mathbb{I}	
opposition	8670 May 27 00:56	10° \mathbb{Z} 07'08	1°09'03				
direct	8670 Jul 27 00:27	5° \mathbb{Z} 05'57		conjunction	8676 May 16 17:57	0° \mathbb{I} 17'24	-0°44'58
evening set	8670 Nov 29 23:04	22° \mathbb{Z} 42'36		minimum elong	8676 May 16 17:56	0° \mathbb{I} 17'23	0°45'08
				morning rise	8676 May 29 15:59	3° \mathbb{I} 21'34	
conjunction	8670 Dec 13 06:00	25° \mathbb{Z} 34'38	0°47'54	retrograde	8676 Oct 06 03:42	23° \mathbb{I} 12'44	
minimum elong	8670 Dec 13 06:00	25° \mathbb{Z} 34'38	0°48'07	opposition	8676 Dec 05 03:09	18° \mathbb{I} 15'54	-1°11'35
max. Earth dist.	8670 Dec 13 17:58	25° \mathbb{Z} 41'06	6.43204 AU	min. Earth dist.	8676 Dec 05 16:18	18° \mathbb{I} 11'34	3.98698 AU
morning rise	8670 Dec 26 11:09	28° \mathbb{Z} 25'37		direct	8677 Feb 02 08:36	13° \mathbb{I} 20'40	
	8671 Jan 02 20:10	0° \mathbb{B}			8677 May 26 13:46	0° \mathbb{E}	
retrograde	8671 Apr 26 17:22	15° \mathbb{B} 18'56		evening set	8677 Jun 08 16:24	3° \mathbb{E} 08'20	
opposition	8671 Jun 26 09:41	10° \mathbb{B} 22'19	1°05'28				
min. Earth dist.	8671 Jun 26 11:36	10° \mathbb{B} 21'42	4.47355 AU	conjunction	8677 Jun 21 19:26	6° \mathbb{E} 19'47	-0°45'36
direct	8671 Aug 27 11:47	5° \mathbb{B} 20'37		minimum elong	8677 Jun 21 19:27	6° \mathbb{E} 19'48	0°45'50
evening set	8671 Dec 31 00:48	22° \mathbb{B} 34'53		max. Earth dist.	8677 Jun 21 18:39	6° \mathbb{E} 19'19	5.93808 AU
max. Earth dist.	8672 Jan 12 08:47	25° \mathbb{B} 12'59	6.49465 AU	morning rise	8677 Jul 05 00:27	9° \mathbb{E} 32'32	
					8677 Nov 01 04:06	0° \mathbb{O}	
conjunction	8672 Jan 13 02:36	25° \mathbb{B} 22'31	0°39'20	retrograde	8677 Nov 13 22:03	0° \mathbb{O} 15'59	
minimum elong	8672 Jan 13 02:37	25° \mathbb{B} 22'31	0°39'32		8677 Nov 26 13:39	30° \mathbb{R} \mathbb{E}	
morning rise	8672 Jan 26 02:17	28° \mathbb{B} 09'05		opposition	8678 Jan 12 10:33	25° \mathbb{E} 15'50	-0°58'38
	8672 Feb 03 20:12	0° \mathbb{X}		min. Earth dist.	8678 Jan 11 22:55	25° \mathbb{E} 19'44	3.91366 AU
retrograde	8672 May 25 09:43	14° \mathbb{X} 44'26		direct	8678 Mar 11 14:31	20° \mathbb{E} 21'24	
opposition	8672 Jul 25 08:03	9° \mathbb{X} 50'24	0°45'03		8678 May 31 15:33	0° \mathbb{O}	
min. Earth dist.	8672 Jul 26 04:33	9° \mathbb{X} 43'49	4.49492 AU	evening set	8678 Jul 16 06:47	10° \mathbb{O} 26'06	
direct	8672 Sep 25 23:24	4° \mathbb{X} 48'48					
	8672 Dec 25 23:03	15° \mathbb{X}		conjunction	8678 Jul 29 16:56	13° \mathbb{O} 42'04	-0°28'05
evening set	8673 Jan 29 07:12	22° \mathbb{X} 02'18		minimum elong	8678 Jul 29 16:57	13° \mathbb{O} 42'05	0°28'15
max. Earth dist.	8673 Feb 09 12:56	24° \mathbb{X} 27'30	6.47320 AU	max. Earth dist.	8678 Jul 31 02:55	14° \mathbb{O} 02'46	5.91605 AU
					8678 Aug 04 00:55	15° \mathbb{O}	
conjunction	8673 Feb 11 04:57	24° \mathbb{X} 49'07	0°20'32	morning rise	8678 Aug 12 05:49	16° \mathbb{O} 59'23	
minimum elong	8673 Feb 11 04:57	24° \mathbb{X} 49'07	0°20'41		8678 Oct 10 01:43	0° \mathbb{M}	
morning rise	8673 Feb 24 00:25	27° \mathbb{X} 35'01		retrograde	8678 Dec 22 02:41	7° \mathbb{M} 43'48	
	8673 Mar 07 08:53	0° \mathbb{H}		min. Earth dist.	8679 Feb 18 05:13	2° \mathbb{M} 51'27	3.94633 AU
retrograde	8673 Jun 24 20:37	14° \mathbb{H} 23'03		opposition	8679 Feb 19 13:22	2° \mathbb{M} 40'32	-0°21'22
opposition	8673 Aug 24 20:57	9° \mathbb{H} 30'18	0°12'47		8679 Mar 12 10:56	30° \mathbb{R} \mathbb{O}	

direct	8679 Apr 18 11:35	27° Ω 44'51		max. Earth dist.	8685 Feb 13 14:01	28° \approx 40'47	6.46336 AU
	8679 May 25 10:29	0° \mathbb{M}					
evening set	8679 Aug 23 06:29	17° \mathbb{M} 30'30		conjunction	8685 Feb 15 09:21	29° \approx 04'16	0°17'19
asc. node	8679 Aug 28 21:14	18° \mathbb{M} 50'22		minimum elong	8685 Feb 15 09:22	29° \approx 04'17	0°17'26
					8685 Feb 19 16:13	0° \mathbb{H}	
conjunction	8679 Sep 05 21:37	20° \mathbb{M} 44'46	0°00'37	morning rise	8685 Feb 28 04:37	1° \mathbb{H} 50'26	
minimum elong	8679 Sep 05 21:38	20° \mathbb{M} 44'47	0°00'34	retrograde	8685 Jun 29 05:50	18° \mathbb{H} 42'29	
behind sun begin	8679 Sep 05 13:16	20° \mathbb{M} 39'50		opposition	8685 Aug 29 05:23	13° \mathbb{H} 49'42	0°07'40
behind sun end	8679 Sep 06 06:01	20° \mathbb{M} 49'45		min. Earth dist.	8685 Aug 30 16:48	13° \mathbb{H} 38'23	4.41818 AU
max. Earth dist.	8679 Sep 08 06:21	21° \mathbb{M} 18'31	5.99960 AU	direct	8685 Oct 30 18:04	8° \mathbb{H} 48'56	
morning rise	8679 Sep 19 14:35	23° \mathbb{M} 59'44		desc. node	8685 Nov 18 14:30	9° \mathbb{H} 20'50	
	8679 Oct 15 18:39	0° \mathbb{L}		evening set	8686 Mar 05 01:04	26° \mathbb{H} 27'24	
retrograde	8680 Jan 27 06:28	13° \mathbb{L} 53'36		max. Earth dist.	8686 Mar 15 14:21	28° \mathbb{H} 47'40	6.35575 AU
min. Earth dist.	8680 Mar 25 06:38	9° \mathbb{L} 02'02	4.07064 AU				
opposition	8680 Mar 26 20:14	8° \mathbb{L} 49'15	0°22'50	conjunction	8686 Mar 17 19:57	29° \mathbb{H} 17'29	-0°07'45
direct	8680 May 24 12:03	3° \mathbb{L} 51'13		minimum elong	8686 Mar 17 19:57	29° \mathbb{H} 17'29	0°07'44
evening set	8680 Sep 28 02:00	22° \mathbb{L} 52'39		behind sun begin	8686 Mar 17 12:45	29° \mathbb{H} 13'30	
				behind sun end	8686 Mar 18 03:09	29° \mathbb{H} 21'28	
conjunction	8680 Oct 11 17:21	25° \mathbb{L} 59'56	0°28'00		8686 Mar 21 00:21	0° \mathbb{Y}	
minimum elong	8680 Oct 11 17:20	25° \mathbb{L} 59'55	0°28'05	morning rise	8686 Mar 30 13:20	2° \mathbb{Y} 07'09	
max. Earth dist.	8680 Oct 14 02:12	26° \mathbb{L} 32'29	6.15233 AU	retrograde	8686 Jul 31 18:17	19° \mathbb{Y} 44'44	
morning rise	8680 Oct 25 08:59	29° \mathbb{L} 07'01		opposition	8686 Sep 30 13:56	14° \mathbb{Y} 51'41	-0°29'34
	8680 Oct 29 06:35	0° \mathbb{M}		min. Earth dist.	8686 Oct 02 04:54	14° \mathbb{Y} 39'11	4.28048 AU
	8681 Jan 17 02:30	15° \mathbb{M}		direct	8686 Dec 01 07:22	9° \mathbb{Y} 52'29	
retrograde	8681 Feb 28 15:49	17° \mathbb{M} 47'17		evening set	8687 Apr 05 20:14	28° \mathbb{Y} 12'23	
	8681 Apr 12 04:26	15° \mathbb{R} \mathbb{M}			8687 Apr 13 15:47	0° \mathbb{B}	
min. Earth dist.	8681 Apr 28 07:22	12° \mathbb{M} 55'09	4.23607 AU	max. Earth dist.	8687 Apr 16 11:15	0° \mathbb{B} 38'53	6.19802 AU
opposition	8681 Apr 29 14:57	12° \mathbb{M} 44'33	0°56'00				
direct	8681 Jun 28 10:42	7° \mathbb{M} 44'28		conjunction	8687 Apr 18 14:47	1° \mathbb{B} 08'37	-0°31'30
	8681 Sep 08 23:13	15° \mathbb{M}		minimum elong	8687 Apr 18 14:46	1° \mathbb{B} 08'36	0°31'37
evening set	8681 Nov 01 18:40	25° \mathbb{M} 56'48		morning rise	8687 May 01 09:17	4° \mathbb{B} 05'06	
					8687 Jun 21 15:42	15° \mathbb{B}	
conjunction	8681 Nov 15 06:09	28° \mathbb{M} 55'20	0°44'41	retrograde	8687 Sep 04 20:44	22° \mathbb{B} 51'22	
minimum elong	8681 Nov 15 06:08	28° \mathbb{M} 55'19	0°44'52	opposition	8687 Nov 04 06:31	17° \mathbb{B} 56'47	-1°00'14
max. Earth dist.	8681 Nov 16 18:02	29° \mathbb{M} 15'10	6.31658 AU	min. Earth dist.	8687 Nov 05 13:00	17° \mathbb{B} 46'52	4.11352 AU
	8681 Nov 20 03:09	0° \mathbb{J}			8687 Nov 28 14:09	15° \mathbb{R} \mathbb{B}	
morning rise	8681 Nov 28 16:46	1° \mathbb{J} 53'07		direct	8688 Jan 03 17:28	12° \mathbb{B} 59'43	
retrograde	8682 Mar 31 21:43	19° \mathbb{J} 26'51			8688 Feb 08 11:33	15° \mathbb{B}	
opposition	8682 May 31 05:56	14° \mathbb{J} 27'17	1°09'39		8688 Apr 29 10:36	0° \mathbb{I}	
min. Earth dist.	8682 May 30 15:03	14° \mathbb{J} 32'12	4.38602 AU	evening set	8688 May 08 15:45	2° \mathbb{I} 10'04	
direct	8682 Jul 31 09:51	9° \mathbb{J} 25'59		max. Earth dist.	8688 May 20 07:06	4° \mathbb{I} 56'24	6.03629 AU
evening set	8682 Dec 04 07:05	26° \mathbb{J} 59'42					
				conjunction	8688 May 21 13:29	5° \mathbb{I} 14'33	-0°46'06
conjunction	8682 Dec 17 13:27	29° \mathbb{J} 51'08	0°47'25	minimum elong	8688 May 21 13:29	5° \mathbb{I} 14'33	0°46'17
minimum elong	8682 Dec 17 13:28	29° \mathbb{J} 51'08	0°47'38	morning rise	8688 Jun 03 12:12	8° \mathbb{I} 19'55	
max. Earth dist.	8682 Dec 17 22:00	29° \mathbb{J} 55'45	6.44125 AU	retrograde	8688 Oct 11 10:17	28° \mathbb{I} 19'57	
	8682 Dec 18 05:53	0° \mathbb{Z}		opposition	8688 Dec 10 07:40	23° \mathbb{I} 22'46	-1°11'30
morning rise	8682 Dec 30 17:52	2° \mathbb{Z} 41'30		min. Earth dist.	8688 Dec 10 17:55	23° \mathbb{I} 19'23	3.97198 AU
retrograde	8683 Apr 30 19:14	19° \mathbb{Z} 31'49		direct	8689 Feb 07 08:39	18° \mathbb{I} 27'47	
opposition	8683 Jun 30 12:55	14° \mathbb{Z} 35'33	1°03'31		8689 May 08 22:10	0° \mathbb{E}	
min. Earth dist.	8683 Jun 30 16:29	14° \mathbb{Z} 34'23	4.47805 AU	evening set	8689 Jun 13 18:10	8° \mathbb{E} 19'45	
direct	8683 Aug 31 16:05	9° \mathbb{Z} 33'50					
evening set	8684 Jan 04 06:01	26° \mathbb{Z} 47'38		conjunction	8689 Jun 26 22:01	11° \mathbb{E} 32'05	-0°44'11
max. Earth dist.	8684 Jan 16 11:11	29° \mathbb{Z} 24'17	6.49426 AU	minimum elong	8689 Jun 26 22:02	11° \mathbb{E} 32'06	0°44'24
				max. Earth dist.	8689 Jun 27 00:29	11° \mathbb{E} 33'35	5.92855 AU
conjunction	8684 Jan 17 07:16	29° \mathbb{Z} 35'03	0°37'13	morning rise	8689 Jul 10 04:18	14° \mathbb{E} 45'50	
minimum elong	8684 Jan 17 07:17	29° \mathbb{Z} 35'03	0°37'25		8689 Sep 19 06:33	0° \mathbb{L}	
	8684 Jan 19 05:48	0° $\mathbb{\approx}$		retrograde	8689 Nov 19 04:35	5° \mathbb{L} 33'08	
morning rise	8684 Jan 30 06:14	2° $\mathbb{\approx}$ 21'23		opposition	8690 Jan 17 17:13	0° \mathbb{L} 32'30	-0°54'37
	8684 Apr 07 03:05	15° $\mathbb{\approx}$		min. Earth dist.	8690 Jan 17 01:52	0° \mathbb{L} 37'40	3.91083 AU
retrograde	8684 May 29 14:08	18° $\mathbb{\approx}$ 57'15			8690 Jan 21 18:02	30° \mathbb{R} \mathbb{E}	
	8684 Jul 22 02:45	15° \mathbb{R} $\mathbb{\approx}$		direct	8690 Mar 16 18:26	25° \mathbb{E} 38'00	
opposition	8684 Jul 29 12:31	14° $\mathbb{\approx}$ 03'28	0°41'05		8690 May 08 00:29	0° \mathbb{L}	
min. Earth dist.	8684 Jul 30 11:09	13° $\mathbb{\approx}$ 56'13	4.48971 AU		8690 Jul 18 13:24	15° \mathbb{L}	
direct	8684 Sep 30 04:53	9° $\mathbb{\approx}$ 01'57		evening set	8690 Jul 21 12:13	15° \mathbb{L} 42'45	
	8684 Dec 06 07:56	15° $\mathbb{\approx}$					
evening set	8685 Feb 02 12:12	26° $\mathbb{\approx}$ 17'18		conjunction	8690 Aug 03 23:24	18° \mathbb{L} 58'59	-0°24'30

minimum elong	8690 Aug 03 23:26	18°♎59'00	0°24'40	opposition	8696 Aug 02 15:43	18°♎13'53	0°37'03
max. Earth dist.	8690 Aug 05 14:04	19°♎22'30	5.92027 AU	min. Earth dist.	8696 Aug 03 15:55	18°♎06'09	4.48924 AU
morning rise	8690 Aug 17 13:01	22°♎16'27			8696 Aug 30 04:04	15°♎	
	8690 Sep 19 18:17	0°♎		direct	8696 Oct 04 08:19	13°♎12'23	
retrograde	8690 Dec 27 07:07	12°♎57'23			8696 Nov 08 17:50	15°♎	
min. Earth dist.	8691 Feb 23 07:50	8°♎05'00	3.95698 AU		8697 Feb 04 10:29	0°♎	
opposition	8691 Feb 24 16:37	7°♎53'51	-0°15'10	evening set	8697 Feb 06 14:46	0°♎28'04	
direct	8691 Apr 23 16:54	2°♎57'55		max. Earth dist.	8697 Feb 17 15:00	2°♎50'54	6.45726 AU
asc. node	8691 Jul 08 19:37	11°♎29'11					
evening set	8691 Aug 28 10:56	22°♎39'26		conjunction	8697 Feb 19 11:31	3°♎15'04	0°14'08
				minimum elong	8697 Feb 19 11:31	3°♎15'04	0°14'14
conjunction	8691 Sep 11 02:30	25°♎53'09	0°04'49	behind sun begin	8697 Feb 19 07:40	3°♎12'59	
minimum elong	8691 Sep 11 02:29	25°♎53'08	0°04'47	behind sun end	8697 Feb 19 15:22	3°♎17'09	
behind sun begin	8691 Sep 10 18:18	25°♎48'19		morning rise	8697 Mar 04 06:11	6°♎01'15	
behind sun end	8691 Sep 11 10:40	25°♎57'57		retrograde	8697 Jul 03 11:25	22°♎56'22	
max. Earth dist.	8691 Sep 13 13:21	26°♎27'59	6.01557 AU	opposition	8697 Sep 02 11:20	18°♎03'36	0°02'43
morning rise	8691 Sep 24 19:36	29°♎07'23		min. Earth dist.	8697 Sep 04 00:25	17°♎51'46	4.40652 AU
	8691 Sep 28 13:32	0°♎		desc. node	8697 Oct 01 03:31	14°♎43'22	
retrograde	8692 Feb 01 01:32	18°♎52'36		direct	8697 Nov 03 23:11	13°♎02'58	
min. Earth dist.	8692 Mar 30 01:52	14°♎01'25	4.09029 AU		8698 Mar 05 20:05	0°♎	
opposition	8692 Mar 31 16:11	13°♎48'25	0°28'26	evening set	8698 Mar 09 05:24	0°♎44'51	
direct	8692 May 29 09:47	8°♎50'07		max. Earth dist.	8698 Mar 19 15:43	3°♎04'04	6.33915 AU
evening set	8692 Oct 03 01:11	27°♎45'32					
	8692 Oct 12 21:29	0°♎		conjunction	8698 Mar 21 23:54	3°♎35'27	-0°11'08
conjunction	8692 Oct 16 16:05	0°♎51'41	0°31'06	minimum elong	8698 Mar 21 23:54	3°♎35'26	0°11'08
minimum elong	8692 Oct 16 16:04	0°♎51'40	0°31'12	behind sun begin	8698 Mar 21 17:55	3°♎32'07	
max. Earth dist.	8692 Oct 18 22:01	1°♎22'26	6.17398 AU	behind sun end	8698 Mar 22 05:52	3°♎38'46	
morning rise	8692 Oct 30 07:20	3°♎57'36		morning rise	8698 Apr 03 17:22	6°♎25'45	
	8692 Dec 22 05:29	15°♎		retrograde	8698 Aug 05 07:20	24°♎10'40	
retrograde	8693 Mar 05 03:38	22°♎28'24		opposition	8698 Oct 05 01:41	19°♎17'24	-0°34'16
min. Earth dist.	8693 May 02 22:22	17°♎35'53	4.25793 AU	min. Earth dist.	8698 Oct 06 16:57	19°♎04'46	4.25966 AU
opposition	8693 May 04 03:44	17°♎26'03	0°59'10	direct	8698 Dec 05 16:17	14°♎18'17	
	8693 May 23 04:59	15°♎			8699 Mar 29 03:51	0°♎	
direct	8693 Jul 03 04:26	12°♎25'46		evening set	8699 Apr 10 05:34	2°♎44'36	
	8693 Aug 13 11:22	15°♎		max. Earth dist.	8699 Apr 20 22:41	5°♎13'01	6.17466 AU
	8693 Nov 03 23:41	0°♎		conjunction	8699 Apr 23 00:32	5°♎41'54	-0°34'09
evening set	8693 Nov 06 10:26	0°♎32'06		minimum elong	8699 Apr 23 00:31	5°♎41'53	0°34'16
				morning rise	8699 May 05 19:16	8°♎39'30	
conjunction	8693 Nov 19 21:24	3°♎29'32	0°45'55		8699 Jun 03 02:40	15°♎	
minimum elong	8693 Nov 19 21:23	3°♎29'32	0°46'07	retrograde	8699 Sep 09 18:25	27°♎36'17	
max. Earth dist.	8693 Nov 21 07:48	3°♎48'28	6.33728 AU	opposition	8699 Nov 09 02:26	22°♎41'25	-1°03'08
morning rise	8693 Dec 03 07:02	6°♎26'07		min. Earth dist.	8699 Nov 10 07:40	22°♎31'55	4.08937 AU
retrograde	8694 Apr 05 02:03	23°♎52'03		direct	8700 Jan 08 08:24	17°♎44'37	
opposition	8694 Jun 04 12:49	18°♎52'57	1°09'56		8700 Apr 13 17:40	0°♎	
min. Earth dist.	8694 Jun 03 23:04	18°♎57'29	4.40432 AU	evening set	8700 May 14 09:12	7°♎02'41	
direct	8694 Aug 04 19:40	13°♎51'38		max. Earth dist.	8700 May 26 02:54	9°♎51'19	6.01341 AU
	8694 Dec 02 08:43	0°♎					
evening set	8694 Dec 08 16:28	1°♎20'42		conjunction	8700 May 27 07:31	10°♎08'29	-0°46'54
				minimum elong	8700 May 27 07:31	10°♎08'29	0°47'07
conjunction	8694 Dec 21 21:55	4°♎11'13	0°46'43	morning rise	8700 Jun 09 07:21	13°♎15'20	
minimum elong	8694 Dec 21 21:56	4°♎11'14	0°46'56		8700 Aug 31 07:18	0°♎	
max. Earth dist.	8694 Dec 22 02:02	4°♎13'26	6.45599 AU	retrograde	8700 Oct 17 15:34	3°♎25'56	
morning rise	8695 Jan 04 01:32	7°♎00'42			8700 Dec 04 18:03	30°♎	
retrograde	8695 May 04 22:33	23°♎46'10		opposition	8700 Dec 16 11:24	28°♎28'17	-1°10'56
opposition	8695 Jul 04 16:33	18°♎50'18	1°01'16	min. Earth dist.	8700 Dec 16 18:06	28°♎26'04	3.95265 AU
min. Earth dist.	8695 Jul 04 23:28	18°♎48'04	4.48836 AU	direct	8701 Feb 13 07:37	23°♎33'24	
direct	8695 Sep 05 00:01	13°♎48'34			8701 Apr 19 06:24	0°♎	
	8696 Jan 03 17:25	0°♎		evening set	8701 Jun 19 20:12	13°♎31'32	
evening set	8696 Jan 08 10:33	0°♎59'54					
max. Earth dist.	8696 Jan 20 11:32	3°♎34'13	6.49933 AU	conjunction	8701 Jul 03 01:20	16°♎45'05	-0°42'27
				minimum elong	8701 Jul 03 01:21	16°♎45'06	0°42'39
conjunction	8696 Jan 21 11:09	3°♎46'51	0°34'59	max. Earth dist.	8701 Jul 03 09:51	16°♎50'17	5.91494 AU
minimum elong	8696 Jan 21 11:10	3°♎46'52	0°35'11	morning rise	8701 Jul 16 08:42	20°♎00'01	
morning rise	8696 Feb 03 09:27	6°♎32'45			8701 Aug 28 19:17	0°♎	
	8696 Mar 16 12:17	15°♎		retrograde	8701 Nov 25 14:32	10°♎52'34	
retrograde	8696 Jun 02 15:45	23°♎07'33		min. Earth dist.	8702 Jan 23 07:09	5°♎57'23	3.90454 AU

opposition	8702 Jan 24 00:41	5°Ω51'28	-0°50'14	max. Earth dist.	8708 Jan 25 12:41	7°≈46'54	6.50015 AU
direct	8702 Mar 23 00:23	0°Ω56'53		morning rise	8708 Feb 08 13:57	10°≈47'19	
	8702 Jul 02 04:47	15°Ω			8708 Feb 28 17:53	15°≈	
evening set	8702 Jul 27 19:47	21°Ω03'00		retrograde	8708 Jun 07 21:48	27°≈22'43	
				opposition	8708 Aug 07 21:27	22°≈29'20	0°32'39
conjunction	8702 Aug 10 07:57	24°Ω19'38	-0°20'45	min. Earth dist.	8708 Aug 09 00:51	22°≈20'34	4.48358 AU
minimum elong	8702 Aug 10 07:58	24°Ω19'39	0°20'52	direct	8708 Oct 09 15:35	17°≈27'56	
max. Earth dist.	8702 Aug 12 03:20	24°Ω45'59	5.92196 AU		8709 Jan 20 05:08	0°✕	
morning rise	8702 Aug 23 22:33	27°Ω37'26		evening set	8709 Feb 11 20:19	4°✕45'47	
	8702 Sep 02 21:07	0°♐		max. Earth dist.	8709 Feb 22 16:24	7°✕06'49	6.44539 AU
retrograde	8703 Jan 02 12:04	18°♐15'12					
min. Earth dist.	8703 Mar 01 09:50	13°♐23'29	3.96650 AU	conjunction	8709 Feb 24 16:37	7°✕33'04	0°10'43
opposition	8703 Mar 02 21:24	13°♐11'24	-0°08'51	minimum elong	8709 Feb 24 16:37	7°✕33'04	0°10'48
direct	8703 Apr 29 21:32	8°♐15'09		behind sun begin	8709 Feb 24 10:31	7°✕29'46	
asc. node	8703 May 19 18:05	8°♐55'17		behind sun end	8709 Feb 24 22:44	7°✕36'22	
evening set	8703 Sep 03 17:47	27°♐52'47		morning rise	8709 Mar 09 11:03	10°✕19'37	
	8703 Sep 12 17:55	0°♑		retrograde	8709 Jul 08 21:54	27°✕19'57	
				desc. node	8709 Aug 12 02:32	25°✕35'16	
conjunction	8703 Sep 17 09:30	1°♑05'49	0°08'56	opposition	8709 Sep 07 21:29	22°✕27'11	-0°02'33
minimum elong	8703 Sep 17 09:29	1°♑05'49	0°08'56	min. Earth dist.	8709 Sep 09 11:11	22°✕15'08	4.38912 AU
behind sun begin	8703 Sep 17 02:21	1°♑01'37		direct	8709 Nov 09 06:43	17°✕26'42	
behind sun end	8703 Sep 17 16:37	1°♑10'00			8710 Feb 18 09:31	0°♒	
max. Earth dist.	8703 Sep 19 20:43	1°♑40'44	6.03177 AU	evening set	8710 Mar 14 14:10	5°♒14'03	
morning rise	8703 Oct 01 02:50	4°♑19'19		max. Earth dist.	8710 Mar 25 01:18	7°♒34'22	6.31746 AU
retrograde	8704 Feb 06 21:48	23°♑55'28					
min. Earth dist.	8704 Apr 05 00:03	19°♑04'08	4.11108 AU	conjunction	8710 Mar 27 08:42	8°♒05'28	-0°14'40
opposition	8704 Apr 06 14:00	18°♑51'16	0°33'49	minimum elong	8710 Mar 27 08:41	8°♒05'28	0°14'42
direct	8704 Jun 04 11:51	13°♑52'35		behind sun begin	8710 Mar 27 05:14	8°♒03'32	
	8704 Sep 27 01:41	0°♒		behind sun end	8710 Mar 27 12:09	8°♒07'24	
evening set	8704 Oct 09 01:49	2°♒41'10		morning rise	8710 Apr 09 02:02	10°♒56'37	
				retrograde	8710 Aug 11 02:32	28°♒50'53	
conjunction	8704 Oct 22 16:28	5°♒46'08	0°34'00	opposition	8710 Oct 10 19:37	23°♒57'31	-0°39'06
minimum elong	8704 Oct 22 16:27	5°♒46'07	0°34'07	min. Earth dist.	8710 Oct 12 10:53	23°♒44'53	4.23504 AU
max. Earth dist.	8704 Oct 24 22:27	6°♒16'44	6.19745 AU	direct	8710 Dec 11 06:16	18°♒58'45	
morning rise	8704 Nov 05 06:55	8°♒50'40			8711 Mar 12 18:28	0°♓	
	8704 Dec 03 12:45	15°♒		evening set	8711 Apr 15 21:07	7°♓32'43	
retrograde	8705 Mar 10 15:28	27°♒11'03		max. Earth dist.	8711 Apr 26 14:55	10°♓02'28	6.14903 AU
opposition	8705 May 09 17:23	22°♒09'03	1°01'54				
min. Earth dist.	8705 May 08 13:05	22°♒18'30	4.28162 AU	conjunction	8711 Apr 28 16:13	10°♓31'13	-0°36'44
direct	8705 Jul 08 22:17	17°♒08'34		minimum elong	8711 Apr 28 16:12	10°♓31'12	0°36'52
	8705 Oct 19 00:16	0°♓		morning rise	8711 May 11 11:38	13°♓30'09	
evening set	8705 Nov 12 03:13	5°♓08'12			8711 May 17 23:15	15°♓	
					8711 Aug 05 08:10	0°♐	
conjunction	8705 Nov 25 13:13	8°♓04'23	0°46'51	retrograde	8711 Sep 15 22:45	2°♐38'33	
minimum elong	8705 Nov 25 13:13	8°♓04'23	0°47'03		8711 Oct 28 00:48	30°♐♓	
max. Earth dist.	8705 Nov 26 18:37	8°♓20'30	6.35902 AU	opposition	8711 Nov 15 05:20	27°♓43'23	-1°05'46
morning rise	8705 Dec 08 22:08	10°♓59'44		min. Earth dist.	8711 Nov 16 07:29	27°♓34'50	4.06490 AU
retrograde	8706 Apr 10 08:39	28°♓17'41		direct	8712 Jan 14 06:05	22°♓46'53	
opposition	8706 Jun 09 20:26	23°♓19'01	1°09'45		8712 Mar 24 12:45	0°♐	
min. Earth dist.	8706 Jun 09 10:04	23°♓22'25	4.42241 AU	evening set	8712 May 19 09:19	12°♐12'41	
direct	8706 Aug 10 08:27	18°♓17'32		max. Earth dist.	8712 May 31 09:51	15°♐06'08	5.99260 AU
	8706 Nov 16 13:00	0°♑					
evening set	8706 Dec 14 02:05	5°♑42'11		conjunction	8712 Jun 01 08:37	15°♐19'51	-0°47'24
				minimum elong	8712 Jun 01 08:36	15°♐19'51	0°47'37
conjunction	8706 Dec 27 06:57	8°♑31'56	0°45'43	morning rise	8712 Jun 14 09:15	18°♐28'04	
minimum elong	8706 Dec 27 06:57	8°♑31'56	0°45'56		8712 Aug 05 01:58	0°♑	
max. Earth dist.	8706 Dec 27 08:13	8°♑32'37	6.46902 AU	retrograde	8712 Oct 23 04:32	8°♑48'08	
morning rise	8707 Jan 09 09:35	11°♑20'34		opposition	8712 Dec 21 21:23	3°♑50'04	-1°09'43
retrograde	8707 May 10 00:47	28°♑02'08		min. Earth dist.	8712 Dec 22 01:17	3°♑48'47	3.93795 AU
opposition	8707 Jul 09 21:18	23°♑06'39	0°58'38		8713 Jan 24 02:55	30°♐♐	
min. Earth dist.	8707 Jul 10 06:04	23°♑03'49	4.49557 AU	direct	8713 Feb 18 13:43	28°♐55'25	
direct	8707 Sep 10 06:16	18°♑04'57			8713 Mar 15 21:03	0°♑	
	8707 Dec 19 06:47	0°≈		evening set	8713 Jun 25 03:53	18°♑57'36	
evening set	8708 Jan 13 16:25	5°≈15'00					
				conjunction	8713 Jul 08 10:02	22°♑12'02	-0°40'16
conjunction	8708 Jan 26 16:15	8°≈01'40	0°32'28	minimum elong	8713 Jul 08 10:03	22°♑12'02	0°40'29
minimum elong	8708 Jan 26 16:16	8°≈01'40	0°32'39	max. Earth dist.	8713 Jul 08 23:45	22°♑20'25	5.90795 AU

morning rise	8713 Jul 21 18:41	25°☾27'52		morning rise	8719 Jan 13 15:03	15°☾34'39	
	8713 Aug 09 17:58	0°♌			8719 Apr 05 12:56	0°♍	
	8713 Nov 01 23:45	15°♌		retrograde	8719 May 14 03:57	2°♍13'33	
retrograde	8713 Dec 01 01:50	16°♌22'14			8719 Jun 21 20:12	30°♍☾	
	8713 Dec 30 01:05	15°♍♌		opposition	8719 Jul 14 00:25	27°☾18'25	0°55'46
opposition	8714 Jan 29 11:36	11°♌20'41	-0°45'12	min. Earth dist.	8719 Jul 14 13:01	27°☾14'21	4.49851 AU
min. Earth dist.	8714 Jan 28 13:43	11°♌28'05	3.90660 AU	direct	8719 Sep 14 12:23	22°☾16'39	
direct	8714 Mar 28 09:09	6°♌26'01			8719 Dec 01 03:57	0°♍	
	8714 Jun 12 03:22	15°♌		evening set	8720 Jan 17 20:36	9°♍26'44	
evening set	8714 Aug 02 05:51	26°♌29'59					
				conjunction	8720 Jan 30 20:03	12°♍13'21	0°29'50
conjunction	8714 Aug 15 18:41	29°♌46'25	-0°16'43	minimum elong	8720 Jan 30 20:04	12°♍13'22	0°30'00
minimum elong	8714 Aug 15 18:42	29°♌46'26	0°16'50	max. Earth dist.	8720 Jan 29 13:20	11°♍56'53	6.49611 AU
	8714 Aug 16 17:07	0°♍		morning rise	8720 Feb 12 17:08	14°♍58'57	
max. Earth dist.	8714 Aug 17 17:20	0°♍14'40	5.93275 AU		8720 Feb 12 19:05	15°♍	
morning rise	8714 Aug 29 10:01	3°♍03'58			8720 May 10 09:32	0°♎	
retrograde	8715 Jan 07 15:34	23°♍34'44		retrograde	8720 Jun 12 02:03	1°♎36'34	
min. Earth dist.	8715 Mar 06 13:31	18°♍43'09	3.98464 AU		8720 Jul 14 20:38	30°♎♍	
opposition	8715 Mar 08 02:20	18°♍30'36	-0°02'26	opposition	8720 Aug 12 02:46	26°♍43'19	0°28'09
asc. node	8715 Mar 29 12:27	15°♍46'17		min. Earth dist.	8720 Aug 13 07:26	26°♍34'09	4.47294 AU
direct	8715 May 05 05:09	13°♍33'59		direct	8720 Oct 13 19:32	21°♍42'00	
	8715 Aug 26 16:23	0°♎			8721 Jan 02 08:33	0°♎	
evening set	8715 Sep 08 23:40	3°♎04'32		evening set	8721 Feb 16 01:41	9°♎03'28	
				max. Earth dist.	8721 Feb 26 19:55	11°♎24'04	6.42887 AU
conjunction	8715 Sep 22 15:35	6°♎16'30	0°12'58				
minimum elong	8715 Sep 22 15:34	6°♎16'30	0°13'00	conjunction	8721 Feb 28 21:37	11°♎51'13	0°07'16
behind sun begin	8715 Sep 22 10:38	6°♎13'37		minimum elong	8721 Feb 28 21:38	11°♎51'14	0°07'21
behind sun end	8715 Sep 22 20:31	6°♎19'23		behind sun begin	8721 Feb 28 14:20	11°♎47'16	
max. Earth dist.	8715 Sep 25 04:57	6°♎52'29	6.05547 AU	behind sun end	8721 Mar 01 04:55	11°♎55'12	
morning rise	8715 Oct 06 08:35	9°♎28'44		morning rise	8721 Mar 13 15:48	14°♎38'20	
retrograde	8716 Feb 11 16:00	28°♎53'10			8721 Jun 09 06:12	0°♏	
min. Earth dist.	8716 Apr 09 20:03	24°♎01'44	4.13765 AU	desc. node	8721 Jun 22 08:10	1°♏04'26	
opposition	8716 Apr 11 09:19	23°♎49'07	0°38'50	retrograde	8721 Jul 13 10:47	1°♏45'29	
direct	8716 Jun 09 11:39	18°♎50'08			8721 Aug 16 17:56	30°♎♎	
	8716 Sep 09 06:17	0°♎		opposition	8721 Sep 12 09:01	26°♎52'45	-0°07'47
evening set	8716 Oct 13 23:32	7°♎30'14		min. Earth dist.	8721 Sep 14 00:30	26°♎40'08	4.36761 AU
				direct	8721 Nov 13 16:35	21°♎52'28	
conjunction	8716 Oct 27 13:29	10°♎33'43	0°36'36		8722 Jan 31 00:10	0°♏	
minimum elong	8716 Oct 27 13:28	10°♎33'43	0°36'43	evening set	8722 Mar 19 00:24	9°♏46'27	
max. Earth dist.	8716 Oct 29 15:55	11°♎02'08	6.22435 AU	max. Earth dist.	8722 Mar 29 10:21	12°♏06'57	6.29260 AU
morning rise	8716 Nov 10 03:21	13°♎36'48					
	8716 Nov 16 09:01	15°♎		conjunction	8722 Mar 31 18:51	12°♏38'50	-0°18'08
	8717 Feb 09 07:27	0°♏		minimum elong	8722 Mar 31 18:51	12°♏38'49	0°18'10
retrograde	8717 Mar 14 23:40	1°♏46'13		morning rise	8722 Apr 13 12:27	15°♏31'04	
	8717 Apr 17 12:04	30°♎♎			8722 Jun 27 15:06	0°♐	
min. Earth dist.	8717 May 13 01:57	26°♎53'14	4.30661 AU	retrograde	8722 Aug 15 23:28	3°♐35'45	
opposition	8717 May 14 03:55	26°♎44'35	1°04'10		8722 Oct 05 11:10	30°♎♏	
direct	8717 Jul 13 13:57	21°♎43'50		opposition	8722 Oct 15 15:41	28°♏42'12	-0°43'44
	8717 Sep 30 10:49	0°♏		min. Earth dist.	8722 Oct 17 05:00	28°♏30'10	4.20865 AU
evening set	8717 Nov 16 16:06	9°♏36'37		direct	8722 Dec 15 21:13	23°♏43'45	
					8723 Feb 20 05:58	0°♐	
conjunction	8717 Nov 30 01:30	12°♏31'39	0°47'28	evening set	8723 Apr 20 14:54	12°♐25'53	
minimum elong	8717 Nov 30 01:29	12°♏31'39	0°47'40		8723 May 01 14:46	15°♐	
max. Earth dist.	8717 Dec 01 03:50	12°♏46'02	6.38026 AU	max. Earth dist.	8723 May 01 13:34	14°♐59'18	6.12350 AU
morning rise	8717 Dec 13 09:19	15°♏25'45					
	8718 Mar 03 19:30	0°♐		conjunction	8723 May 03 10:31	15°♐25'39	-0°39'06
retrograde	8718 Apr 14 11:34	2°♐36'23		minimum elong	8723 May 03 10:29	15°♐25'38	0°39'14
	8718 May 26 05:02	30°♎♏		morning rise	8723 May 16 06:21	18°♐25'54	
opposition	8718 Jun 14 01:17	27°♏38'12	1°09'12		8723 Jul 08 22:53	0°♑	
min. Earth dist.	8718 Jun 13 17:31	27°♏40'45	4.43848 AU	retrograde	8723 Sep 21 07:33	7°♑45'42	
direct	8718 Aug 14 17:01	22°♏36'40		opposition	8723 Nov 20 10:43	2°♑50'13	-1°07'55
	8718 Oct 28 22:40	0°♐		min. Earth dist.	8723 Nov 21 10:42	2°♑42'22	4.04256 AU
evening set	8718 Dec 18 09:04	9°♐57'36			8723 Dec 13 13:31	30°♎♐	
				direct	8724 Jan 19 07:04	27°♐54'06	
conjunction	8718 Dec 31 13:01	12°♐46'39	0°44'30		8724 Feb 24 12:38	0°♑	
minimum elong	8718 Dec 31 13:01	12°♐46'39	0°44'44	evening set	8724 May 24 11:24	17°♑26'29	
max. Earth dist.	8718 Dec 31 08:17	12°♐44'07	6.47871 AU				

conjunction	8724 Jun 06 11:27	20° Π 34'48	-0°47'30	conjunction	8729 Dec 04 12:53	16° X 57'10	0°47'50
minimum elong	8724 Jun 06 11:27	20° Π 34'48	0°47'43	minimum elong	8729 Dec 04 12:52	16° X 57'10	0°48'02
max. Earth dist.	8724 Jun 05 17:04	20° Π 23'41	5.97560 AU	max. Earth dist.	8729 Dec 05 10:10	17° X 08'45	6.39722 AU
morning rise	8724 Jun 19 13:14	23° Π 44'18		morning rise	8729 Dec 17 20:00	19° X 50'17	
	8724 Jul 16 06:35	0° \mathfrak{C}			8730 Feb 06 18:30	0° \mathfrak{Z}	
retrograde	8724 Oct 28 15:22	14° \mathfrak{C} 11'47		retrograde	8730 Apr 18 15:19	6° \mathfrak{Z} 55'13	
opposition	8724 Dec 27 08:05	9° \mathfrak{C} 13'14	-1°07'51	opposition	8730 Jun 18 06:02	1° \mathfrak{Z} 57'30	1°08'19
min. Earth dist.	8724 Dec 27 07:00	9° \mathfrak{C} 13'35	3.92838 AU	min. Earth dist.	8730 Jun 18 01:12	1° \mathfrak{Z} 59'05	4.45024 AU
direct	8725 Feb 23 19:32	4° \mathfrak{C} 18'44			8730 Jul 03 16:34	30° \mathfrak{R} X	
evening set	8725 Jun 30 11:51	24° \mathfrak{C} 22'47		direct	8730 Aug 19 00:48	26° X 55'52	
					8730 Oct 04 14:38	0° \mathfrak{Z}	
conjunction	8725 Jul 13 18:57	27° \mathfrak{C} 37'44	-0°37'45	evening set	8730 Dec 22 16:10	14° \mathfrak{Z} 14'35	
minimum elong	8725 Jul 13 18:58	27° \mathfrak{C} 37'45	0°37'57				
max. Earth dist.	8725 Jul 14 13:51	27° \mathfrak{C} 49'19	5.90667 AU	conjunction	8731 Jan 04 19:37	17° \mathfrak{Z} 03'11	0°43'03
	8725 Jul 23 11:42	0° Ω		minimum elong	8731 Jan 04 19:38	17° \mathfrak{Z} 03'12	0°43'16
morning rise	8725 Jul 27 04:38	0° Ω 54'06		max. Earth dist.	8731 Jan 04 12:00	16° \mathfrak{Z} 59'06	6.48452 AU
	8725 Sep 29 12:09	15° Ω		morning rise	8731 Jan 17 20:47	19° \mathfrak{Z} 50'42	
retrograde	8725 Dec 06 11:02	21° Ω 47'43			8731 Mar 10 16:09	0° \approx	
opposition	8726 Feb 03 20:52	16° Ω 45'41	-0°39'48	retrograde	8731 May 18 07:03	6° \approx 28'13	
min. Earth dist.	8726 Feb 02 20:23	16° Ω 53'59	3.91360 AU	opposition	8731 Jul 18 04:41	1° \approx 33'28	0°52'35
	8726 Feb 17 04:47	15° \mathfrak{R} Ω		min. Earth dist.	8731 Jul 18 19:22	1° \approx 28'44	4.49817 AU
direct	8726 Apr 02 19:02	11° Ω 50'48			8731 Jul 30 12:14	30° \mathfrak{R} \mathfrak{Z}	
	8726 May 16 16:22	15° Ω		direct	8731 Sep 18 17:33	26° \mathfrak{Z} 31'47	
	8726 Jul 30 20:16	0° \mathfrak{M}			8731 Nov 07 19:18	0° \approx	
evening set	8726 Aug 07 14:09	1° \mathfrak{M} 50'59		evening set	8732 Jan 22 02:10	13° \approx 42'49	
					8732 Jan 28 02:27	15° \approx	
conjunction	8726 Aug 21 03:48	5° \mathfrak{M} 07'04	-0°12'36	max. Earth dist.	8732 Feb 02 13:52	16° \approx 10'37	6.48959 AU
minimum elong	8726 Aug 21 03:48	5° \mathfrak{M} 07'04	0°12'43				
behind sun begin	8726 Aug 20 22:35	5° \mathfrak{M} 03'56		conjunction	8732 Feb 04 00:55	16° \approx 29'27	0°27'00
behind sun end	8726 Aug 21 09:01	5° \mathfrak{M} 10'12		minimum elong	8732 Feb 04 00:56	16° \approx 29'28	0°27'09
max. Earth dist.	8726 Aug 23 07:06	5° \mathfrak{M} 38'00	5.94727 AU	morning rise	8732 Feb 16 21:40	19° \approx 15'09	
morning rise	8726 Sep 03 19:30	8° \mathfrak{M} 24'05			8732 Apr 12 00:18	0° \mathfrak{H}	
retrograde	8727 Jan 12 17:21	28° \mathfrak{M} 46'30		retrograde	8732 Jun 16 10:36	5° \mathfrak{H} 55'46	
asc. node	8727 Feb 06 13:51	27° \mathfrak{M} 44'56		opposition	8732 Aug 16 10:13	1° \mathfrak{H} 02'43	0°23'23
min. Earth dist.	8727 Mar 11 14:54	23° \mathfrak{M} 55'00	4.00486 AU	min. Earth dist.	8732 Aug 17 17:34	0° \mathfrak{H} 52'42	4.46072 AU
opposition	8727 Mar 13 04:18	23° \mathfrak{M} 42'17	0°03'54		8732 Aug 24 15:48	30° \mathfrak{R} \approx	
direct	8727 May 10 09:32	18° \mathfrak{M} 45'23		direct	8732 Oct 18 03:15	26° \approx 01'30	
	8727 Aug 08 15:08	0° \mathfrak{L}			8732 Dec 10 17:10	0° \mathfrak{H}	
evening set	8727 Sep 14 02:56	8° \mathfrak{L} 08'42		evening set	8733 Feb 20 08:54	13° \mathfrak{H} 26'59	
				max. Earth dist.	8733 Mar 03 01:33	15° \mathfrak{H} 47'16	6.41193 AU
conjunction	8727 Sep 27 18:40	11° \mathfrak{L} 19'31	0°16'51				
minimum elong	8727 Sep 27 18:39	11° \mathfrak{L} 19'31	0°16'54	conjunction	8733 Mar 05 04:40	16° \mathfrak{H} 15'18	0°03'42
max. Earth dist.	8727 Sep 30 06:53	11° \mathfrak{L} 54'36	6.07920 AU	minimum elong	8733 Mar 05 04:39	16° \mathfrak{H} 15'18	0°03'46
morning rise	8727 Oct 11 11:36	14° \mathfrak{L} 30'33		behind sun begin	8733 Mar 04 20:46	16° \mathfrak{H} 10'59	
	8727 Dec 28 19:04	0° \mathfrak{M}		behind sun end	8733 Mar 05 12:33	16° \mathfrak{H} 19'36	
retrograde	8728 Feb 16 06:15	3° \mathfrak{M} 43'57		morning rise	8733 Mar 17 22:35	19° \mathfrak{H} 02'58	
	8728 Apr 06 03:03	30° \mathfrak{R} \mathfrak{L}		desc. node	8733 May 01 04:41	28° \mathfrak{H} 07'50	
min. Earth dist.	8728 Apr 14 13:28	28° \mathfrak{L} 52'30	4.16254 AU		8733 May 11 18:35	0° \mathfrak{Y}	
opposition	8728 Apr 16 02:00	28° \mathfrak{L} 40'10	0°43'30	retrograde	8733 Jul 17 23:51	6° \mathfrak{Y} 17'01	
direct	8728 Jun 14 08:20	23° \mathfrak{L} 40'54		opposition	8733 Sep 16 22:27	1° \mathfrak{Y} 24'15	-0°13'08
	8728 Aug 19 16:43	0° \mathfrak{M}		min. Earth dist.	8733 Sep 18 13:07	1° \mathfrak{Y} 11'53	4.34728 AU
evening set	8728 Oct 18 18:56	12° \mathfrak{M} 13'40			8733 Sep 28 01:26	30° \mathfrak{R} \mathfrak{H}	
	8728 Oct 31 04:04	15° \mathfrak{M}		direct	8733 Nov 18 02:04	26° \mathfrak{H} 24'15	
					8734 Jan 07 04:42	0° \mathfrak{Y}	
conjunction	8728 Nov 01 08:25	15° \mathfrak{M} 15'54	0°38'56	evening set	8734 Mar 23 12:19	14° \mathfrak{Y} 24'20	
minimum elong	8728 Nov 01 08:23	15° \mathfrak{M} 15'53	0°39'05	max. Earth dist.	8734 Apr 03 00:15	16° \mathfrak{Y} 46'40	6.27058 AU
max. Earth dist.	8728 Nov 03 07:59	15° \mathfrak{M} 42'35	6.24843 AU				
morning rise	8728 Nov 14 21:24	18° \mathfrak{M} 17'35		conjunction	8734 Apr 05 06:45	17° \mathfrak{Y} 17'35	-0°21'33
	8729 Jan 11 18:37	0° X		minimum elong	8734 Apr 05 06:44	17° \mathfrak{Y} 17'34	0°21'37
retrograde	8729 Mar 19 08:33	6° X 17'35		morning rise	8734 Apr 18 00:25	20° \mathfrak{Y} 10'45	
opposition	8729 May 18 13:04	1° X 16'30	1°06'03		8734 Jun 03 10:15	0° \mathfrak{B}	
min. Earth dist.	8729 May 17 13:59	1° X 24'10	4.32795 AU	retrograde	8734 Aug 20 23:34	8° \mathfrak{B} 24'52	
	8729 May 28 05:59	30° \mathfrak{R} \mathfrak{M}		opposition	8734 Oct 20 13:23	3° \mathfrak{B} 31'08	-0°48'10
direct	8729 Jul 18 04:07	26° \mathfrak{M} 15'38		min. Earth dist.	8734 Oct 22 01:57	3° \mathfrak{B} 19'20	4.18665 AU
	8729 Sep 07 01:35	0° X			8734 Nov 19 21:45	30° \mathfrak{R} \mathfrak{Y}	
evening set	8729 Nov 21 04:18	14° X 03'06		direct	8734 Dec 20 15:39	28° \mathfrak{Y} 33'02	
					8735 Jan 20 04:27	0° \mathfrak{B}	

	8735 Apr 15 04:43	15°♄		conjunction	8740 Nov 05 23:15	19°♎47'34	0°40'57
evening set	8735 Apr 25 09:12	17°♄21'27		minimum elong	8740 Nov 05 23:14	19°♎47'33	0°41'07
max. Earth dist.	8735 May 06 10:48	19°♄57'17	6.10350 AU	max. Earth dist.	8740 Nov 07 19:49	20°♎12'27	6.26818 AU
				morning rise	8740 Nov 19 11:37	22°♎48'09	
conjunction	8735 May 08 05:09	20°♄22'14	-0°41'13		8740 Dec 23 07:59	0°♊	
minimum elong	8735 May 08 05:08	20°♄22'13	0°41'23	retrograde	8741 Mar 23 12:48	10°♊40'28	
morning rise	8735 May 21 01:38	23°♄23'36		opposition	8741 May 22 19:08	5°♊39'50	1°07'32
	8735 Jun 19 03:02	0°♈		min. Earth dist.	8741 May 21 21:46	5°♊46'56	4.34455 AU
retrograde	8735 Sep 26 11:56	12°♈52'25		direct	8741 Jul 22 12:51	0°♊38'51	
opposition	8735 Nov 25 15:16	7°♈56'31	-1°09'33	evening set	8741 Nov 25 13:42	18°♊22'36	
min. Earth dist.	8735 Nov 26 11:01	7°♈50'03	4.02668 AU				
direct	8736 Jan 24 06:03	3°♈00'42		conjunction	8741 Dec 08 21:40	21°♊15'55	0°47'55
evening set	8736 May 29 12:14	22°♈37'10		minimum elong	8741 Dec 08 21:40	21°♊15'55	0°48'09
				max. Earth dist.	8741 Dec 09 15:03	21°♊25'21	6.40968 AU
conjunction	8736 Jun 11 13:01	25°♈46'18	-0°47'16	morning rise	8741 Dec 22 03:58	24°♊08'14	
minimum elong	8736 Jun 11 13:01	25°♈46'18	0°47'29		8742 Jan 19 05:59	0°♈	
max. Earth dist.	8736 Jun 11 00:02	25°♈38'26	5.96536 AU	retrograde	8742 Apr 22 18:48	11°♈09'00	
morning rise	8736 Jun 24 15:40	28°♈56'40		opposition	8742 Jun 22 09:29	6°♈11'49	1°07'06
	8736 Jun 29 01:10	0°♉		min. Earth dist.	8742 Jun 22 07:37	6°♈12'25	4.45795 AU
retrograde	8736 Nov 02 23:39	19°♉28'36		direct	8742 Aug 23 07:20	1°♈10'12	
opposition	8737 Jan 01 15:28	14°♉29'30	-1°05'28	evening set	8742 Dec 26 22:05	18°♈27'44	
min. Earth dist.	8737 Jan 01 11:27	14°♉30'51	3.92498 AU				
direct	8737 Mar 01 01:52	9°♉35'00		conjunction	8743 Jan 09 00:49	21°♈16'00	0°41'24
evening set	8737 Jul 05 16:07	29°♉38'36		minimum elong	8743 Jan 09 00:50	21°♈16'01	0°41'36
	8737 Jul 07 03:20	0°♊		max. Earth dist.	8743 Jan 08 12:26	21°♈09'23	6.48700 AU
				morning rise	8743 Jan 22 01:28	24°♈03'13	
conjunction	8737 Jul 19 00:15	2°♊53'50	-0°35'00		8743 Feb 19 22:02	0°♈	
minimum elong	8737 Jul 19 00:17	2°♊53'51	0°35'12	retrograde	8743 May 22 10:56	10°♈40'18	
max. Earth dist.	8737 Jul 20 01:04	3°♊08'59	5.91047 AU	opposition	8743 Jul 22 08:26	5°♈45'51	0°49'11
morning rise	8737 Aug 01 10:46	6°♊10'24		min. Earth dist.	8743 Jul 23 01:29	5°♈40'22	4.49554 AU
	8737 Sep 08 11:49	15°♊		direct	8743 Sep 22 22:06	0°♈44'11	
retrograde	8737 Dec 11 15:35	27°♊00'58			8744 Jan 12 07:57	15°♈	
min. Earth dist.	8738 Feb 07 22:29	22°♊07'31	3.92433 AU	evening set	8744 Jan 26 06:56	17°♈56'38	
opposition	8738 Feb 09 00:57	21°♊58'33	-0°34'18	max. Earth dist.	8744 Feb 06 17:21	20°♈23'59	6.48210 AU
direct	8738 Apr 07 22:48	17°♊03'27					
	8738 Jul 13 15:50	0°♉		conjunction	8744 Feb 08 05:23	20°♈43'24	0°24'03
evening set	8738 Aug 12 17:24	6°♉58'44		minimum elong	8744 Feb 08 05:24	20°♈43'25	0°24'13
				morning rise	8744 Feb 21 01:30	23°♈29'12	
conjunction	8738 Aug 26 07:23	10°♉14'13	-0°08'35		8744 Mar 23 14:36	0°♉	
minimum elong	8738 Aug 26 07:23	10°♉14'13	0°08'40	retrograde	8744 Jun 20 16:44	10°♉12'57	
behind sun begin	8738 Aug 26 00:08	10°♉09'54		opposition	8744 Aug 20 17:12	5°♉20'01	0°18'32
behind sun end	8738 Aug 26 14:37	10°♉18'33		min. Earth dist.	8744 Aug 22 01:12	5°♉09'49	4.44878 AU
max. Earth dist.	8738 Aug 28 11:25	10°♉45'28	5.96350 AU	direct	8744 Oct 22 08:36	0°♉19'00	
morning rise	8738 Sep 08 23:40	13°♉30'39		evening set	8745 Feb 24 15:18	17°♉48'05	
	8738 Nov 29 07:06	0°♊		max. Earth dist.	8745 Mar 07 06:09	20°♉07'57	6.39616 AU
asc. node	8738 Dec 19 08:43	2°♊21'48					
retrograde	8739 Jan 17 11:32	3°♊44'20		conjunction	8745 Mar 09 10:36	20°♉36'51	0°00'05
	8739 Mar 08 02:52	30°♈♉		minimum elong	8745 Mar 09 10:36	20°♉36'50	0°00'07
min. Earth dist.	8739 Mar 16 10:21	28°♉53'02	4.02482 AU	behind sun begin	8745 Mar 09 02:48	20°♉32'35	
opposition	8739 Mar 18 00:32	28°♉40'02	0°09'53	behind sun end	8745 Mar 09 18:23	20°♉41'06	
direct	8739 May 15 08:13	23°♉42'47		desc. node	8745 Mar 10 14:03	20°♉51'58	
	8739 Jul 19 04:20	0°♊		morning rise	8745 Mar 22 04:26	23°♉25'04	
evening set	8739 Sep 19 00:59	12°♊59'24			8745 Apr 22 07:09	0°♉	
				retrograde	8745 Jul 22 14:27	10°♉45'40	
conjunction	8739 Oct 02 16:43	16°♊09'11	0°20'27	opposition	8745 Sep 21 11:22	5°♉52'50	-0°18'21
minimum elong	8739 Oct 02 16:42	16°♊09'10	0°20'30	min. Earth dist.	8745 Sep 23 03:01	5°♉40'08	4.32827 AU
max. Earth dist.	8739 Oct 05 03:30	16°♊43'16	6.10110 AU	direct	8745 Nov 22 13:15	0°♉53'01	
morning rise	8739 Oct 16 09:15	19°♊19'02		evening set	8746 Mar 27 22:49	18°♉58'38	
	8739 Dec 05 07:38	0°♎		max. Earth dist.	8746 Apr 07 11:22	21°♉21'59	6.24961 AU
retrograde	8740 Feb 20 18:36	8°♎22'33					
min. Earth dist.	8740 Apr 19 04:02	3°♎30'34	4.18421 AU	conjunction	8746 Apr 09 17:20	21°♉52'44	-0°24'48
opposition	8740 Apr 20 14:06	3°♎19'05	0°47'42	minimum elong	8746 Apr 09 17:19	21°♉52'44	0°24'52
	8740 May 17 16:29	30°♈♊		morning rise	8746 Apr 22 11:08	24°♉46'49	
direct	8740 Jun 19 01:24	28°♊19'33			8746 May 16 00:08	0°♈	
	8740 Jul 21 16:26	0°♎		retrograde	8746 Aug 25 19:55	13°♈10'06	
	8740 Oct 15 09:37	15°♎		opposition	8746 Oct 25 09:20	8°♈16'08	-0°52'13
evening set	8740 Oct 23 10:15	16°♎46'22		min. Earth dist.	8746 Oct 26 19:37	8°♈05'03	4.16509 AU

direct	8746 Dec 25 06:06	3°♄18'22		evening set	8752 Oct 28 04:29	21°♄27'02	
	8747 Mar 29 01:58	15°♄					
evening set	8747 Apr 30 02:14	22°♄13'16		conjunction	8752 Nov 10 16:46	24°♄27'03	0°42'46
max. Earth dist.	8747 May 11 07:22	24°♄51'55	6.08308 AU	minimum elong	8752 Nov 10 16:45	24°♄27'03	0°42'57
				max. Earth dist.	8752 Nov 12 09:38	24°♄49'47	6.28937 AU
conjunction	8747 May 12 22:33	25°♄15'06	-0°43'01	morning rise	8752 Nov 24 04:24	27°♄26'24	
minimum elong	8747 May 12 22:32	25°♄15'05	0°43'12		8752 Dec 05 21:53	0°♄	
morning rise	8747 May 25 19:39	28°♄17'38		retrograde	8753 Mar 27 21:03	15°♄10'22	
	8747 Jun 02 02:35	0°♄		min. Earth dist.	8753 May 26 09:18	10°♄16'20	4.36394 AU
retrograde	8747 Oct 01 17:16	17°♄56'03		opposition	8753 May 27 03:49	10°♄10'12	1°08'39
opposition	8747 Nov 30 18:30	12°♄59'46	-1°10'39	direct	8753 Jul 27 02:39	5°♄09'06	
min. Earth dist.	8747 Dec 01 12:06	12°♄53'58	4.00911 AU	evening set	8753 Nov 30 01:09	22°♄47'50	
direct	8748 Jan 29 05:44	8°♄04'11					
evening set	8748 Jun 03 12:05	27°♄45'45		conjunction	8753 Dec 13 08:24	25°♄40'12	0°47'47
	8748 Jun 12 17:48	0°♄		minimum elong	8753 Dec 13 08:24	25°♄40'13	0°48'01
				max. Earth dist.	8753 Dec 13 22:54	25°♄48'03	6.42610 AU
conjunction	8748 Jun 16 13:53	0°♄55'57	-0°46'39	morning rise	8753 Dec 26 13:49	28°♄31'33	
minimum elong	8748 Jun 16 13:54	0°♄55'57	0°46'52		8754 Jan 02 11:27	0°♄	
max. Earth dist.	8748 Jun 16 06:07	0°♄51'14	5.95244 AU	retrograde	8754 Apr 26 21:08	15°♄26'36	
morning rise	8748 Jun 29 17:32	4°♄07'23		opposition	8754 Jun 26 14:03	10°♄29'46	1°05'34
retrograde	8748 Nov 08 08:37	24°♄44'59		min. Earth dist.	8754 Jun 26 13:43	10°♄29'52	4.47065 AU
opposition	8749 Jan 06 22:21	19°♄45'29	-1°02'34	direct	8754 Aug 27 14:03	5°♄28'05	
min. Earth dist.	8749 Jan 06 15:10	19°♄47'53	3.91836 AU	evening set	8754 Dec 31 04:12	22°♄42'31	
direct	8749 Mar 06 05:24	14°♄51'03					
	8749 Jun 20 04:48	0°♄		conjunction	8755 Jan 13 06:14	25°♄30'12	0°39'34
evening set	8749 Jul 10 21:09	4°♄55'54		minimum elong	8755 Jan 13 06:15	25°♄30'12	0°39'46
				max. Earth dist.	8755 Jan 12 15:21	25°♄22'14	6.49519 AU
conjunction	8749 Jul 24 06:05	8°♄11'33	-0°31'57	morning rise	8755 Jan 26 06:02	28°♄16'47	
minimum elong	8749 Jul 24 06:07	8°♄11'34	0°32'08		8755 Feb 03 09:27	0°♄	
max. Earth dist.	8749 Jul 25 09:50	8°♄28'30	5.91063 AU	retrograde	8755 May 26 13:33	14°♄51'34	
morning rise	8749 Aug 06 17:46	11°♄28'36		opposition	8755 Jul 26 11:56	9°♄57'23	0°45'36
	8749 Aug 21 11:01	15°♄		min. Earth dist.	8755 Jul 27 07:25	9°♄51'08	4.49868 AU
	8749 Nov 08 21:01	0°♄		direct	8755 Sep 27 03:48	4°♄55'45	
retrograde	8749 Dec 16 19:10	2°♄17'39			8755 Dec 26 13:49	15°♄	
	8750 Jan 23 17:48	30°♄		evening set	8756 Jan 30 10:17	22°♄07'31	
min. Earth dist.	8750 Feb 13 00:21	27°♄24'48	3.93132 AU	max. Earth dist.	8756 Feb 10 15:55	24°♄32'28	6.47975 AU
opposition	8750 Feb 14 05:40	27°♄14'51	-0°28'29				
direct	8750 Apr 13 03:00	22°♄19'31		conjunction	8756 Feb 12 07:59	24°♄54'05	0°21'05
	8750 Jun 23 14:18	0°♄		minimum elong	8756 Feb 12 08:00	24°♄54'06	0°21'14
evening set	8750 Aug 17 22:43	12°♄11'40		morning rise	8756 Feb 25 03:44	27°♄39'48	
					8756 Mar 07 03:29	0°♄	
conjunction	8750 Aug 31 13:21	15°♄26'48	-0°04'26	retrograde	8756 Jun 24 22:01	14°♄25'11	
minimum elong	8750 Aug 31 13:21	15°♄26'49	0°04'29	opposition	8756 Aug 24 22:23	9°♄32'16	0°13'46
behind sun begin	8750 Aug 31 05:08	15°♄21'55		min. Earth dist.	8756 Aug 26 08:19	9°♄21'25	4.44093 AU
behind sun end	8750 Aug 31 21:34	15°♄31'42		direct	8756 Oct 26 13:35	4°♄31'14	
max. Earth dist.	8750 Sep 02 19:48	15°♄59'23	5.97667 AU	desc. node	8757 Jan 20 11:14	13°♄53'44	
morning rise	8750 Sep 14 05:55	18°♄42'44		evening set	8757 Feb 28 18:56	22°♄02'38	
asc. node	8750 Oct 29 10:30	28°♄48'47		max. Earth dist.	8757 Mar 11 08:56	24°♄22'24	6.38322 AU
	8750 Nov 04 09:37	0°♄					
retrograde	8751 Jan 22 10:37	8°♄48'50		conjunction	8757 Mar 13 14:04	24°♄51'45	-0°03'24
min. Earth dist.	8751 Mar 21 09:24	3°♄57'18	4.04247 AU	minimum elong	8757 Mar 13 14:03	24°♄51'45	0°03'22
opposition	8751 Mar 22 22:59	3°♄44'31	0°15'54	behind sun begin	8757 Mar 13 06:08	24°♄47'24	
	8751 Apr 23 09:26	30°♄		behind sun end	8757 Mar 13 21:59	24°♄56'06	
direct	8751 May 20 10:27	28°♄46'56		morning rise	8757 Mar 26 07:31	27°♄40'21	
	8751 Jun 16 14:08	0°♄			8757 Apr 05 23:44	0°♄	
evening set	8751 Sep 24 01:54	17°♄57'43		retrograde	8757 Jul 26 23:43	15°♄06'41	
				opposition	8757 Sep 25 21:02	10°♄13'43	-0°23'16
conjunction	8751 Oct 07 17:33	21°♄06'31	0°24'00	min. Earth dist.	8757 Sep 27 12:44	10°♄01'00	4.31086 AU
minimum elong	8751 Oct 07 17:31	21°♄06'30	0°24'04	direct	8757 Nov 26 19:24	5°♄14'05	
max. Earth dist.	8751 Oct 10 04:23	21°♄40'27	6.12161 AU	evening set	8758 Apr 01 06:21	23°♄24'55	
morning rise	8751 Oct 21 09:47	24°♄15'17		max. Earth dist.	8758 Apr 11 18:27	25°♄48'43	6.22882 AU
	8751 Nov 16 05:12	0°♄					
retrograde	8752 Feb 25 07:32	13°♄09'12		conjunction	8758 Apr 14 00:46	26°♄19'49	-0°27'46
min. Earth dist.	8752 Apr 23 18:58	8°♄17'27	4.20581 AU	minimum elong	8758 Apr 14 00:44	26°♄19'49	0°27'51
opposition	8752 Apr 25 04:54	8°♄06'02	0°51'41	morning rise	8758 Apr 26 18:52	29°♄14'51	
direct	8752 Jun 23 18:50	3°♄06'19			8758 Apr 30 02:18	0°♄	
	8752 Sep 28 02:38	15°♄			8758 Jul 18 13:14	15°♄	

retrograde	8758 Aug 30 15:15	17°♄47'37	opposition	8764 Apr 29 21:03	12°♄55'45	0°55'17
	8758 Oct 13 05:12	15°♄	min. Earth dist.	8764 Apr 28 12:59	13°♄06'32	4.22870 AU
opposition	8758 Oct 30 02:32	12°♄53'21 -0°55'49	direct	8764 Jun 28 16:15	7°♄55'43	
min. Earth dist.	8758 Oct 31 12:28	12°♄42'21 4.14213 AU		8764 Sep 08 00:40	15°♄	
direct	8758 Dec 29 19:48	7°♄55'45	evening set	8764 Nov 01 23:39	26°♄09'44	
	8759 Mar 10 00:56	15°♄				
evening set	8759 May 04 16:27	26°♄57'53	conjunction	8764 Nov 15 11:25	29°♄08'33	0°44'19
max. Earth dist.	8759 May 16 00:57	29°♄39'17 6.05997 AU	minimum elong	8764 Nov 15 11:25	29°♄08'32	0°44'29
			max. Earth dist.	8764 Nov 17 02:52	29°♄30'22	6.31193 AU
conjunction	8759 May 17 13:28	0°♄00'59 -0°44'28		8764 Nov 19 08:26	0°♄	
minimum elong	8759 May 17 13:27	0°♄00'59 0°44'40	morning rise	8764 Nov 28 22:05	2°♄06'35	
	8759 May 17 11:48	0°♄	retrograde	8765 Apr 01 03:47	19°♄41'43	
morning rise	8759 May 30 11:14	3°♄04'52	opposition	8765 May 31 13:09	14°♄41'59	1°09'20
retrograde	8759 Oct 06 20:19	22°♄54'00	min. Earth dist.	8765 May 30 19:56	14°♄47'39	4.38417 AU
opposition	8759 Dec 05 19:33	17°♄57'23 -1°11'16	direct	8765 Jul 31 15:04	9°♄40'47	
min. Earth dist.	8759 Dec 06 10:38	17°♄52'25 3.98811 AU	evening set	8765 Dec 04 12:56	27°♄14'16	
direct	8760 Feb 03 01:31	13°♄02'03				
	8760 May 27 14:52	0°♄	conjunction	8765 Dec 17 19:16	0°♄05'40	0°47'20
evening set	8760 Jun 08 11:08	2°♄50'25	minimum elong	8765 Dec 17 19:16	0°♄05'40	0°47'33
				8765 Dec 17 08:45	0°♄	
conjunction	8760 Jun 21 13:47	6°♄01'51 -0°45'42	max. Earth dist.	8765 Dec 18 04:46	0°♄10'48	6.44228 AU
minimum elong	8760 Jun 21 13:48	6°♄01'52 0°45'57	morning rise	8765 Dec 30 23:53	2°♄56'03	
max. Earth dist.	8760 Jun 21 08:54	5°♄58'53 5.93551 AU	retrograde	8766 May 01 02:38	19°♄45'52	
morning rise	8760 Jul 04 18:45	9°♄14'40	opposition	8766 Jun 30 19:42	14°♄49'28	1°03'36
retrograde	8760 Nov 13 15:37	29°♄59'36	min. Earth dist.	8766 Jun 30 23:05	14°♄48'22	4.48162 AU
opposition	8761 Jan 12 04:26	24°♄59'37 -0°59'17	direct	8766 Sep 01 00:02	9°♄47'46	
min. Earth dist.	8761 Jan 11 17:36	25°♄03'16 3.90748 AU	evening set	8767 Jan 04 11:01	26°♄59'49	
direct	8761 Mar 11 08:03	20°♄05'10				
	8761 Jun 01 15:05	0°♄	conjunction	8767 Jan 17 12:23	29°♄47'03	0°37'28
evening set	8761 Jul 16 02:44	10°♄13'14	minimum elong	8767 Jan 17 12:24	29°♄47'04	0°37'40
			max. Earth dist.	8767 Jan 16 17:26	29°♄36'55	6.50001 AU
conjunction	8761 Jul 29 12:56	13°♄29'37 -0°28'42		8767 Jan 18 12:35	0°♄	
minimum elong	8761 Jul 29 12:58	13°♄29'38 0°28'53	morning rise	8767 Jan 30 11:30	2°♄33'13	
max. Earth dist.	8761 Jul 30 22:28	13°♄50'06 5.90713 AU		8767 Apr 07 02:20	15°♄	
	8761 Aug 04 16:59	15°♄	retrograde	8767 May 30 17:26	19°♄07'07	
morning rise	8761 Aug 12 01:33	16°♄47'18		8767 Jul 24 14:17	15°♄	
	8761 Oct 10 18:49	0°♄	opposition	8767 Jul 30 17:01	14°♄13'10	0°41'39
retrograde	8761 Dec 22 02:54	7°♄36'11	min. Earth dist.	8767 Jul 31 14:26	14°♄06'18	4.49717 AU
min. Earth dist.	8762 Feb 18 04:44	2°♄43'28 3.93551 AU	direct	8767 Oct 01 09:00	9°♄11'35	
opposition	8762 Feb 19 11:28	2°♄33'02 -0°22'31		8767 Dec 06 13:58	15°♄	
	8762 Mar 11 06:28	30°♄	evening set	8768 Feb 03 15:35	26°♄24'23	
direct	8762 Apr 18 09:36	27°♄37'28	max. Earth dist.	8768 Feb 14 19:09	28°♄48'28	6.47200 AU
	8762 May 26 07:34	0°♄				
evening set	8762 Aug 23 05:45	17°♄27'29	conjunction	8768 Feb 16 12:54	29°♄11'03	0°17'52
			minimum elong	8768 Feb 16 12:55	29°♄11'04	0°18'00
conjunction	8762 Sep 05 20:55	20°♄42'20 -0°00'11		8768 Feb 20 07:23	0°♄	
minimum elong	8762 Sep 05 20:57	20°♄42'21 0°00'14	morning rise	8768 Feb 29 08:04	1°♄56'53	
behind sun begin	8762 Sep 05 12:37	20°♄37'24	retrograde	8768 Jun 29 06:38	18°♄45'54	
behind sun end	8762 Sep 06 05:17	20°♄47'18	opposition	8768 Aug 29 06:54	13°♄53'06	0°08'40
max. Earth dist.	8762 Sep 08 06:45	21°♄16'48 5.98802 AU	min. Earth dist.	8768 Aug 30 18:38	13°♄41'42	4.42725 AU
asc. node	8762 Sep 08 07:06	21°♄17'00	direct	8768 Oct 30 20:51	8°♄52'16	
morning rise	8762 Sep 19 13:57	23°♄57'53	desc. node	8768 Nov 29 21:17	10°♄11'35	
	8762 Oct 15 19:29	0°♄	evening set	8769 Mar 05 02:22	26°♄27'55	
retrograde	8763 Jan 27 09:41	13°♄56'43	max. Earth dist.	8769 Mar 15 13:23	28°♄46'42	6.36445 AU
min. Earth dist.	8763 Mar 26 07:39	9°♄05'42 4.05963 AU				
opposition	8763 Mar 27 22:54	8°♄52'22 0°21'47	conjunction	8769 Mar 17 21:06	29°♄17'38	-0°06'59
direct	8763 May 25 11:53	3°♄54'29	minimum elong	8769 Mar 17 21:07	29°♄17'38	0°06'58
evening set	8763 Sep 29 04:48	22°♄59'28	behind sun begin	8769 Mar 17 13:43	29°♄13'33	
			behind sun end	8769 Mar 18 04:30	29°♄21'43	
conjunction	8763 Oct 12 20:06	26°♄07'11 0°27'22		8769 Mar 21 01:25	0°♄	
minimum elong	8763 Oct 12 20:05	26°♄07'10 0°27'27	morning rise	8769 Mar 30 14:40	2°♄06'59	
max. Earth dist.	8763 Oct 15 05:10	26°♄39'57 6.14282 AU	retrograde	8769 Jul 31 16:53	19°♄41'22	
morning rise	8763 Oct 26 12:00	29°♄14'47	opposition	8769 Sep 30 12:22	14°♄48'16	-0°28'22
	8763 Oct 29 19:42	0°♄	min. Earth dist.	8769 Oct 02 04:19	14°♄35'26	4.28798 AU
	8764 Jan 16 21:30	15°♄	direct	8769 Dec 01 07:33	9°♄48'48	
retrograde	8764 Feb 29 22:35	17°♄58'40	evening set	8770 Apr 05 19:19	28°♄06'40	
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




















































































































max. Earth dist.	8770 Apr 16 09:41	0° $\mathbf{8}$ 32'32	6.20372 AU	minimum elong	8775 Oct 17 20:38	1° \mathbf{m} 02'30	0°30'37
				max. Earth dist.	8775 Oct 20 05:35	1° \mathbf{m} 35'00	6.16984 AU
conjunction	8770 Apr 18 14:04	1° $\mathbf{8}$ 02'42	-0°30'45	morning rise	8775 Oct 31 11:47	4° \mathbf{m} 08'35	
minimum elong	8770 Apr 18 14:03	1° $\mathbf{8}$ 02'41	0°30'52		8775 Dec 22 08:40	15° \mathbf{m}	
morning rise	8770 May 01 08:22	3° $\mathbf{8}$ 58'53		retrograde	8776 Mar 05 09:58	22° \mathbf{m} 40'46	
	8770 Jun 22 06:10	15° $\mathbf{8}$		min. Earth dist.	8776 May 03 03:43	17° \mathbf{m} 48'32	4.25538 AU
retrograde	8770 Sep 04 16:38	22° $\mathbf{8}$ 42'41		opposition	8776 May 04 10:30	17° \mathbf{m} 38'13	0°58'26
opposition	8770 Nov 04 02:32	17° $\mathbf{8}$ 48'12	-0°59'19		8776 May 25 06:03	15° \mathbf{R} \mathbf{m}	
min. Earth dist.	8770 Nov 05 10:42	17° $\mathbf{8}$ 37'45	4.11680 AU	direct	8776 Jul 03 10:00	12° \mathbf{m} 37'58	
	8770 Nov 27 01:24	15° \mathbf{R} $\mathbf{8}$			8776 Aug 11 23:13	15° \mathbf{m}	
direct	8771 Jan 03 14:20	12° $\mathbf{8}$ 50'58			8776 Nov 03 06:31	0° \mathbf{x}	
	8771 Feb 09 17:16	15° $\mathbf{8}$		evening set	8776 Nov 06 15:38	0° \mathbf{x} 44'17	
	8771 May 01 00:08	0° \mathbf{II}					
evening set	8771 May 09 13:55	2° \mathbf{II} 01'01		conjunction	8776 Nov 20 02:29	3° \mathbf{x} 41'45	0°45'32
max. Earth dist.	8771 May 21 01:24	4° \mathbf{II} 45'06	6.03664 AU	minimum elong	8776 Nov 20 02:28	3° \mathbf{x} 41'45	0°45'45
				max. Earth dist.	8776 Nov 21 12:33	4° \mathbf{x} 00'30	6.33597 AU
conjunction	8771 May 22 11:25	5° \mathbf{II} 05'26	-0°45'42	morning rise	8776 Dec 03 12:24	6° \mathbf{x} 38'27	
minimum elong	8771 May 22 11:25	5° \mathbf{II} 05'25	0°45'54	retrograde	8777 Apr 05 09:11	24° \mathbf{x} 04'53	
morning rise	8771 Jun 04 10:11	8° \mathbf{II} 10'45		opposition	8777 Jun 04 19:42	19° \mathbf{x} 05'35	1°09'35
retrograde	8771 Oct 12 06:12	28° \mathbf{II} 10'34		min. Earth dist.	8777 Jun 04 06:08	19° \mathbf{x} 10'03	4.40395 AU
opposition	8771 Dec 11 03:43	23° \mathbf{II} 13'31	-1°11'19	direct	8777 Aug 05 03:03	14° \mathbf{x} 04'12	
min. Earth dist.	8771 Dec 11 14:54	23° \mathbf{II} 09'49	3.96917 AU		8777 Dec 01 14:53	0° \mathbf{Z}	
direct	8772 Feb 08 05:08	18° \mathbf{II} 18'22		evening set	8777 Dec 08 21:38	1° \mathbf{Z} 32'52	
	8772 May 09 11:21	0° \mathbf{Z}					
evening set	8772 Jun 13 16:38	8° \mathbf{Z} 12'23		conjunction	8777 Dec 22 03:22	4° \mathbf{Z} 23'27	0°46'38
				minimum elong	8777 Dec 22 03:23	4° \mathbf{Z} 23'28	0°46'51
conjunction	8772 Jun 26 20:32	11° \mathbf{Z} 24'57	-0°44'20	max. Earth dist.	8777 Dec 22 09:36	4° \mathbf{Z} 26'48	6.45637 AU
minimum elong	8772 Jun 26 20:33	11° \mathbf{Z} 24'58	0°44'33	morning rise	8778 Jan 04 07:00	7° \mathbf{Z} 12'57	
max. Earth dist.	8772 Jun 26 22:37	11° \mathbf{Z} 26'13	5.92316 AU	retrograde	8778 May 05 03:26	23° \mathbf{Z} 58'28	
morning rise	8772 Jul 10 02:31	14° \mathbf{Z} 38'52		opposition	8778 Jul 04 22:53	19° \mathbf{Z} 02'28	1°01'22
	8772 Sep 19 17:56	0° \mathbf{Q}		min. Earth dist.	8778 Jul 05 04:26	19° \mathbf{Z} 00'41	4.48934 AU
retrograde	8772 Nov 19 05:23	5° \mathbf{Q} 28'41		direct	8778 Sep 05 04:53	14° \mathbf{Z} 00'46	
opposition	8773 Jan 17 16:09	0° \mathbf{Q} 28'12	-0°55'15		8779 Jan 03 00:21	0° $\mathbf{\approx}$	
min. Earth dist.	8773 Jan 17 02:28	0° \mathbf{Q} 32'48	3.90346 AU	evening set	8779 Jan 08 15:52	1° $\mathbf{\approx}$ 11'37	
	8773 Jan 21 04:04	30° \mathbf{R} \mathbf{Z}					
direct	8773 Mar 16 17:45	25° \mathbf{Z} 33'45		conjunction	8779 Jan 21 16:32	3° $\mathbf{\approx}$ 58'34	0°35'12
	8773 May 08 08:57	0° \mathbf{Q}		minimum elong	8779 Jan 21 16:33	3° $\mathbf{\approx}$ 58'34	0°35'24
	8773 Jul 18 15:53	15° \mathbf{Q}		max. Earth dist.	8779 Jan 20 17:02	3° $\mathbf{\approx}$ 45'59	6.50079 AU
evening set	8773 Jul 21 12:57	15° \mathbf{Q} 41'47		morning rise	8779 Feb 03 15:05	6° $\mathbf{\approx}$ 44'29	
					8779 Mar 16 16:37	15° $\mathbf{\approx}$	
conjunction	8773 Aug 04 00:01	18° \mathbf{Q} 58'23	-0°25'04	retrograde	8779 Jun 03 22:22	23° $\mathbf{\approx}$ 18'59	
minimum elong	8773 Aug 04 00:03	18° \mathbf{Q} 58'24	0°25'13	opposition	8779 Aug 03 21:23	18° $\mathbf{\approx}$ 25'19	0°37'34
max. Earth dist.	8773 Aug 05 14:32	19° \mathbf{Q} 21'51	5.91190 AU	min. Earth dist.	8779 Aug 04 22:16	18° $\mathbf{\approx}$ 17'21	4.49099 AU
morning rise	8773 Aug 17 13:39	22° \mathbf{Q} 16'14			8779 Sep 02 09:49	15° \mathbf{R} $\mathbf{\approx}$	
	8773 Sep 19 17:23	0° \mathbf{m}		direct	8779 Oct 05 14:54	13° $\mathbf{\approx}$ 23'48	
retrograde	8773 Dec 27 09:54	13° \mathbf{m} 00'41			8779 Nov 07 23:33	15° $\mathbf{\approx}$	
min. Earth dist.	8774 Feb 23 09:08	8° \mathbf{m} 08'44	3.94879 AU		8780 Feb 04 19:19	0° \mathbf{H}	
opposition	8774 Feb 24 19:05	7° \mathbf{m} 57'12	-0°16'10	evening set	8780 Feb 07 20:11	0° \mathbf{H} 39'04	
direct	8774 Apr 23 17:25	3° \mathbf{m} 01'20		max. Earth dist.	8780 Feb 18 19:24	3° \mathbf{H} 01'19	6.45917 AU
asc. node	8774 Jul 18 03:58	13° \mathbf{m} 25'54					
evening set	8774 Aug 28 14:06	22° \mathbf{m} 45'39		conjunction	8780 Feb 20 17:04	3° \mathbf{H} 26'05	0°14'36
				minimum elong	8780 Feb 20 17:05	3° \mathbf{H} 26'05	0°14'42
conjunction	8774 Sep 11 05:29	25° \mathbf{m} 59'38	0°04'08	behind sun begin	8780 Feb 20 13:44	3° \mathbf{H} 24'17	
minimum elong	8774 Sep 11 05:28	25° \mathbf{m} 59'37	0°04'06	behind sun end	8780 Feb 20 20:26	3° \mathbf{H} 27'53	
behind sun begin	8774 Sep 10 21:12	25° \mathbf{m} 54'45		morning rise	8780 Mar 04 12:00	6° \mathbf{H} 12'18	
behind sun end	8774 Sep 11 13:43	26° \mathbf{m} 04'30		retrograde	8780 Jul 03 16:16	23° \mathbf{H} 06'47	
max. Earth dist.	8774 Sep 13 15:58	26° \mathbf{m} 34'20	6.00828 AU	opposition	8780 Sep 02 15:59	18° \mathbf{H} 14'01	0°03'32
morning rise	8774 Sep 24 22:39	29° \mathbf{m} 14'12		min. Earth dist.	8780 Sep 04 04:32	18° \mathbf{H} 02'20	4.40862 AU
	8774 Sep 28 04:46	0° \mathbf{u}		desc. node	8780 Oct 10 03:05	14° \mathbf{H} 09'29	
retrograde	8775 Feb 01 06:43	19° \mathbf{u} 02'16		direct	8780 Nov 04 03:20	13° \mathbf{H} 13'20	
min. Earth dist.	8775 Mar 31 07:02	14° \mathbf{u} 11'01	4.08440 AU		8781 Mar 05 06:59	0° \mathbf{Y}	
opposition	8775 Apr 01 21:44	13° \mathbf{u} 57'52	0°27'27	evening set	8781 Mar 09 10:43	0° \mathbf{Y} 54'56	
direct	8775 May 30 15:18	8° \mathbf{u} 59'34		max. Earth dist.	8781 Mar 19 22:25	3° \mathbf{Y} 14'47	6.34142 AU
evening set	8775 Oct 04 05:34	27° \mathbf{u} 56'10					
	8775 Oct 13 07:07	0° \mathbf{m}		conjunction	8781 Mar 22 05:30	3° \mathbf{Y} 45'32	-0°10'32
				minimum elong	8781 Mar 22 05:29	3° \mathbf{Y} 45'31	0°10'31
conjunction	8775 Oct 17 20:40	1° \mathbf{m} 02'31	0°30'30	behind sun begin	8781 Mar 21 23:14	3° \mathbf{Y} 42'03	


































































































































behind sun end	8781 Mar 22 11:44	3° Υ 48'59	opposition	8787 Apr 06 17:46	18° Ω 57'09	0°32'50
morning rise	8781 Apr 03 22:53	6° Υ 35'45	direct	8787 Jun 04 15:04	13° Ω 58'36	
retrograde	8781 Aug 05 11:23	24° Υ 19'41		8787 Sep 26 16:50	0° \mathbb{M}	
opposition	8781 Oct 05 05:29	19° Υ 26'32 -0°33'21	evening set	8787 Oct 09 04:03	2° \mathbb{M} 47'21	
min. Earth dist.	8781 Oct 06 21:27	19° Υ 13'42 4.26210 AU				
direct	8781 Dec 05 20:36	14° Υ 27'27	conjunction	8787 Oct 22 18:32	5° \mathbb{M} 52'21	0°33'24
	8782 Mar 28 16:56	0° \mathcal{B}	minimum elong	8787 Oct 22 18:31	5° \mathbb{M} 52'20	0°33'31
evening set	8782 Apr 10 10:41	2° \mathcal{B} 53'25	max. Earth dist.	8787 Oct 24 23:53	6° \mathbb{M} 22'37	6.19511 AU
max. Earth dist.	8782 Apr 21 01:50	5° \mathcal{B} 20'41 6.17705 AU	morning rise	8787 Nov 05 09:13	8° \mathbb{M} 57'04	
				8787 Dec 03 02:28	15° \mathbb{M}	
conjunction	8782 Apr 23 05:32	5° \mathcal{B} 50'38 -0°33'34	retrograde	8788 Mar 09 19:20	27° \mathbb{M} 18'45	
minimum elong	8782 Apr 23 05:31	5° \mathcal{B} 50'38 0°33'42	opposition	8788 May 08 21:53	22° \mathbb{M} 16'36	1°01'12
morning rise	8782 May 06 00:28	8° \mathcal{B} 48'11	min. Earth dist.	8788 May 07 17:24	22° \mathbb{M} 26'08	4.27899 AU
	8782 Jun 02 16:01	15° \mathcal{B}	direct	8788 Jul 08 02:22	17° \mathbb{M} 16'07	
retrograde	8782 Sep 09 20:50	27° \mathcal{B} 43'45		8788 Oct 17 11:59	0° \mathcal{A}	
opposition	8782 Nov 09 05:16	22° \mathcal{B} 48'59 -1°02'26	evening set	8788 Nov 11 06:05	5° \mathcal{A} 16'10	
min. Earth dist.	8782 Nov 10 10:20	22° \mathcal{B} 39'31 4.09159 AU				
direct	8783 Jan 08 11:59	17° \mathcal{B} 52'06	conjunction	8788 Nov 24 16:23	8° \mathcal{A} 12'33	0°46'30
	8783 Apr 13 08:23	0° \mathbb{I}	minimum elong	8788 Nov 24 16:23	8° \mathcal{A} 12'33	0°46'43
evening set	8783 May 14 13:36	7° \mathbb{I} 09'56	max. Earth dist.	8788 Nov 25 23:30	8° \mathcal{A} 29'37	6.35630 AU
max. Earth dist.	8783 May 26 08:10	9° \mathbb{I} 58'58 6.01542 AU	morning rise	8788 Dec 08 01:18	11° \mathcal{A} 08'02	
			retrograde	8789 Apr 09 13:31	28° \mathcal{A} 27'14	
conjunction	8783 May 27 12:00	10° \mathbb{I} 15'40 -0°46'35	opposition	8789 Jun 09 01:36	23° \mathcal{A} 28'28	1°09'30
minimum elong	8783 May 27 11:59	10° \mathbb{I} 15'40 0°46'49	min. Earth dist.	8789 Jun 08 14:30	23° \mathcal{A} 32'07	4.41965 AU
morning rise	8783 Jun 09 11:30	13° \mathbb{I} 22'20	direct	8789 Aug 09 12:38	18° \mathcal{A} 27'01	
	8783 Aug 30 16:33	0° \mathcal{E}		8789 Nov 14 21:13	0° \mathcal{B}	
retrograde	8783 Oct 17 19:09	3° \mathcal{E} 31'45	evening set	8789 Dec 13 06:10	5° \mathcal{B} 52'11	
	8783 Dec 05 14:56	30° \mathcal{R} \mathbb{I}				
opposition	8783 Dec 16 13:49	28° \mathbb{I} 34'16 -1°10'46	conjunction	8789 Dec 26 11:02	8° \mathcal{B} 42'05	0°45'41
min. Earth dist.	8783 Dec 16 21:55	28° \mathbb{I} 31'35 3.95431 AU	minimum elong	8789 Dec 26 11:03	8° \mathcal{B} 42'05	0°45'55
direct	8784 Feb 13 11:16	23° \mathbb{I} 39'25	max. Earth dist.	8789 Dec 26 11:24	8° \mathcal{B} 42'16	6.46631 AU
	8784 Apr 17 20:53	0° \mathcal{E}	morning rise	8790 Jan 08 14:06	11° \mathcal{B} 30'56	
evening set	8784 Jun 18 23:46	13° \mathcal{E} 37'15	retrograde	8790 May 09 07:42	28° \mathcal{B} 13'34	
			opposition	8790 Jul 09 03:07	23° \mathcal{B} 17'57	0°58'49
conjunction	8784 Jul 02 04:35	16° \mathcal{E} 50'39 -0°42'33	min. Earth dist.	8790 Jul 09 12:20	23° \mathcal{B} 14'58	4.49309 AU
minimum elong	8784 Jul 02 04:36	16° \mathcal{E} 50'39 0°42'47	direct	8790 Sep 09 12:16	18° \mathcal{B} 16'11	
max. Earth dist.	8784 Jul 02 11:38	16° \mathcal{E} 54'58 5.91605 AU		8790 Dec 17 12:08	0° \approx	
morning rise	8784 Jul 15 11:49	20° \mathcal{E} 05'26	evening set	8791 Jan 12 21:29	5° \approx 26'50	
	8784 Aug 27 12:09	0° Ω				
retrograde	8784 Nov 24 15:56	10° Ω 57'19	conjunction	8791 Jan 25 21:44	8° \approx 13'42	0°32'44
min. Earth dist.	8785 Jan 22 08:50	6° Ω 02'28 3.90516 AU	minimum elong	8791 Jan 25 21:45	8° \approx 13'42	0°32'55
opposition	8785 Jan 23 02:59	5° Ω 56'21 -0°50'43	max. Earth dist.	8791 Jan 24 19:18	7° \approx 59'32	6.49810 AU
direct	8785 Mar 22 02:13	1° Ω 01'50	morning rise	8791 Feb 07 19:36	10° \approx 59'30	
	8785 Jun 30 23:10	15° Ω		8791 Feb 26 23:35	15° \approx	
evening set	8785 Jul 26 22:27	21° Ω 07'49	retrograde	8791 Jun 08 02:59	27° \approx 35'33	
			opposition	8791 Aug 08 03:15	22° \approx 42'04	0°33'12
conjunction	8785 Aug 09 10:18	24° Ω 24'19 -0°21'14	min. Earth dist.	8791 Aug 09 05:21	22° \approx 33'44	4.48221 AU
minimum elong	8785 Aug 09 10:19	24° Ω 24'19 0°21'23	direct	8791 Oct 09 19:53	17° \approx 40'39	
max. Earth dist.	8785 Aug 11 04:16	24° Ω 49'49 5.92195 AU		8792 Jan 19 09:22	0° \mathcal{H}	
morning rise	8785 Aug 23 00:41	27° Ω 42'00	evening set	8792 Feb 12 02:38	4° \mathcal{H} 59'02	
	8785 Sep 01 15:30	0° \mathbb{P}	max. Earth dist.	8792 Feb 22 23:52	7° \mathcal{H} 20'42	6.44494 AU
retrograde	8786 Jan 01 14:15	18° \mathbb{P} 20'03				
min. Earth dist.	8786 Feb 28 13:16	13° \mathbb{P} 28'10 3.96572 AU	conjunction	8792 Feb 24 23:06	7° \mathcal{H} 46'25	0°11'11
opposition	8786 Mar 02 00:17	13° \mathbb{P} 16'15 -0°09'48	minimum elong	8792 Feb 24 23:07	7° \mathcal{H} 46'25	0°11'17
direct	8786 Apr 29 01:12	8° \mathbb{P} 20'03	behind sun begin	8792 Feb 24 17:14	7° \mathcal{H} 43'14	
asc. node	8786 May 27 13:43	9° \mathbb{P} 41'50	behind sun end	8792 Feb 25 04:59	7° \mathcal{H} 49'36	
evening set	8786 Sep 02 19:46	27° \mathbb{P} 57'44	morning rise	8792 Mar 08 17:43	10° \mathcal{H} 33'03	
	8786 Sep 11 11:30	0° Ω	retrograde	8792 Jul 08 04:50	27° \mathcal{H} 33'20	
			desc. node	8792 Aug 19 13:50	24° \mathcal{H} 57'03	
conjunction	8786 Sep 16 11:29	1° Ω 10'47 0°08'16	opposition	8792 Sep 07 03:27	22° \mathcal{H} 40'38	-0°01'46
minimum elong	8786 Sep 16 11:28	1° Ω 10'47 0°08'15	min. Earth dist.	8792 Sep 08 17:45	22° \mathcal{H} 28'25	4.38980 AU
behind sun begin	8786 Sep 16 04:06	1° Ω 06'27	direct	8792 Nov 08 13:40	17° \mathcal{H} 40'10	
behind sun end	8786 Sep 16 18:50	1° Ω 15'07		8793 Feb 16 14:07	0° Υ	
max. Earth dist.	8786 Sep 19 00:16	1° Ω 46'39 6.03042 AU	evening set	8793 Mar 13 20:58	5° Υ 27'28	
morning rise	8786 Sep 30 04:30	4° Ω 24'15	max. Earth dist.	8793 Mar 24 07:27	7° Υ 47'24	6.31953 AU
retrograde	8787 Feb 06 01:46	24° Ω 01'22				
min. Earth dist.	8787 Apr 05 03:36	19° Ω 10'05 4.10926 AU	conjunction	8793 Mar 26 15:34	8° Υ 18'52	-0°14'06

minimum elong	8793 Mar 26 15:33	8°♈18'52 0°14'08	behind sun begin	8798 Sep 21 06:33	6°♏04'31	
behind sun begin	8793 Mar 26 11:32	8°♈16'37	behind sun end	8798 Sep 21 17:37	6°♏10'59	
behind sun end	8793 Mar 26 19:35	8°♈21'06	max. Earth dist.	8798 Sep 23 23:28	6°♏42'35	6.05216 AU
morning rise	8793 Apr 08 09:08	11°♈10'01	morning rise	8798 Oct 05 05:11	9°♏20'10	
retrograde	8793 Aug 10 07:04	29°♈03'06	retrograde	8799 Feb 10 14:26	28°♏46'58	
opposition	8793 Oct 10 00:47	24°♈09'45 -0°38'15	min. Earth dist.	8799 Apr 09 19:13	23°♏55'36	4.13203 AU
min. Earth dist.	8793 Oct 11 14:51	23°♈57'31 4.23884 AU	opposition	8799 Apr 11 08:34	23°♏42'58	0°37'44
direct	8793 Dec 10 11:24	19°♈10'59	direct	8799 Jun 09 09:30	18°♏44'06	
	8794 Mar 11 02:01	0°♏		8799 Sep 09 13:47	0°♏	
evening set	8794 Apr 15 03:17	7°♏43'49	evening set	8799 Oct 13 21:42	7°♏26'14	
max. Earth dist.	8794 Apr 25 23:03	10°♏14'28 6.15460 AU				
			conjunction	8799 Oct 27 11:53	10°♏30'08	0°35'58
conjunction	8794 Apr 27 22:29	10°♏42'05 -0°36'14	minimum elong	8799 Oct 27 11:51	10°♏30'07	0°36'06
minimum elong	8794 Apr 27 22:28	10°♏42'05 0°36'22	max. Earth dist.	8799 Oct 29 14:40	10°♏58'49	6.21713 AU
morning rise	8794 May 10 17:40	13°♏40'44	morning rise	8799 Nov 10 01:47	13°♏33'35	
	8794 May 16 11:08	15°♏		8799 Nov 16 13:03	15°♏	
	8794 Aug 03 09:13	0°♏		8800 Feb 09 09:21	0°♏	
retrograde	8794 Sep 15 02:53	2°♏46'15	retrograde	8800 Mar 14 03:15	1°♏46'29	
	8794 Oct 28 06:41	30°♏		8800 Apr 16 15:33	30°♏	
opposition	8794 Nov 14 08:39	27°♏51'11 -1°05'07	min. Earth dist.	8800 May 12 04:03	26°♏53'27	4.29849 AU
min. Earth dist.	8794 Nov 15 11:42	27°♏42'22 4.07202 AU	opposition	8800 May 13 05:48	26°♏44'52	1°03'32
direct	8795 Jan 13 11:30	22°♏54'40	direct	8800 Jul 12 14:53	21°♏44'16	
	8795 Mar 24 02:27	0°♏		8800 Sep 29 07:47	0°♏	
evening set	8795 May 19 13:22	12°♏17'54	evening set	8800 Nov 15 17:14	9°♏39'37	
			conjunction	8800 Nov 29 02:47	12°♏35'06	0°47'11
conjunction	8795 Jun 01 12:19	15°♏24'35 -0°47'09	minimum elong	8800 Nov 29 02:47	12°♏35'05	0°47'24
minimum elong	8795 Jun 01 12:19	15°♏24'35 0°47'23	max. Earth dist.	8800 Nov 30 05:07	12°♏49'29	6.37184 AU
max. Earth dist.	8795 May 31 12:15	15°♏10'06 6.00060 AU	morning rise	8800 Dec 12 11:04	15°♏29'41	
morning rise	8795 Jun 14 12:48	18°♏32'19		8801 Mar 02 01:36	0°♏	
	8795 Aug 04 23:38	0°♏	retrograde	8801 Apr 13 16:30	2°♏43'32	
retrograde	8795 Oct 23 02:47	8°♏48'20		8801 May 26 09:56	30°♏	
opposition	8795 Dec 21 21:47	3°♏50'21 -1°09'38	opposition	8801 Jun 13 05:29	27°♏45'16	1°09'04
min. Earth dist.	8795 Dec 22 01:07	3°♏49'15 3.94608 AU	min. Earth dist.	8801 Jun 12 21:05	27°♏48'01	4.43060 AU
	8796 Jan 24 05:43	30°♏	direct	8801 Aug 13 19:26	22°♏43'46	
direct	8796 Feb 18 14:34	28°♏55'39		8801 Oct 27 06:56	0°♏	
	8796 Mar 14 22:52	0°♏	evening set	8801 Dec 17 12:52	10°♏07'01	
evening set	8796 Jun 24 04:21	18°♏54'47				
			conjunction	8801 Dec 30 17:15	12°♏56'28	0°44'32
conjunction	8796 Jul 07 10:04	22°♏08'39 -0°40'30	minimum elong	8801 Dec 30 17:15	12°♏56'28	0°44'47
minimum elong	8796 Jul 07 10:06	22°♏08'40 0°40'43	max. Earth dist.	8801 Dec 30 15:02	12°♏55'17	6.47211 AU
max. Earth dist.	8796 Jul 07 22:27	22°♏16'13 5.91520 AU	morning rise	8802 Jan 12 19:24	15°♏44'49	
morning rise	8796 Jul 20 18:15	25°♏23'54		8802 Apr 02 23:58	0°♏	
	8796 Aug 09 00:56	0°♏	retrograde	8802 May 13 09:51	2°♏25'53	
	8796 Nov 02 03:24	15°♏		8802 Jun 22 23:50	30°♏	
retrograde	8796 Nov 29 22:54	16°♏15'16	opposition	8802 Jul 13 06:18	27°♏30'42	0°56'01
	8796 Dec 27 15:43	15°♏	min. Earth dist.	8802 Jul 13 17:24	27°♏27'07	4.49366 AU
opposition	8797 Jan 28 09:45	11°♏13'48 -0°45'55	direct	8802 Sep 13 16:36	22°♏29'02	
min. Earth dist.	8797 Jan 27 13:17	11°♏20'44 3.91177 AU		8802 Nov 29 03:22	0°♏	
direct	8797 Mar 27 09:33	6°♏19'07	evening set	8803 Jan 17 02:31	9°♏40'25	
	8797 Jun 11 17:20	15°♏	max. Earth dist.	8803 Jan 28 19:30	12°♏10'49	6.49338 AU
evening set	8797 Aug 01 03:20	26°♏21'18				
			conjunction	8803 Jan 30 02:04	12°♏27'13	0°30'08
conjunction	8797 Aug 14 15:57	29°♏37'29 -0°17'24	minimum elong	8803 Jan 30 02:05	12°♏27'14	0°30'18
minimum elong	8797 Aug 14 15:58	29°♏37'29 0°17'31		8803 Feb 10 23:05	15°♏	
	8797 Aug 16 05:10	0°♏	morning rise	8803 Feb 11 23:34	15°♏13'04	
max. Earth dist.	8797 Aug 16 14:26	0°♏05'37 5.93530 AU		8803 May 08 04:49	0°♏	
morning rise	8797 Aug 28 06:48	2°♏54'44	retrograde	8803 Jun 12 09:53	1°♏51'19	
retrograde	8798 Jan 06 13:47	23°♏25'12		8803 Jul 17 16:35	30°♏	
min. Earth dist.	8798 Mar 05 12:15	18°♏33'25 3.98430 AU	opposition	8803 Aug 12 09:15	26°♏58'03	0°28'43
opposition	8798 Mar 07 00:01	18°♏21'15 -0°03'38	min. Earth dist.	8803 Aug 13 13:55	26°♏48'53	4.47253 AU
asc. node	8798 Apr 08 05:03	14°♏32'49	direct	8803 Oct 14 02:37	21°♏56'42	
direct	8798 May 04 02:33	13°♏24'48		8804 Jan 01 06:03	0°♏	
	8798 Aug 26 04:49	0°♏	evening set	8804 Feb 16 08:20	9°♏18'12	
evening set	8798 Sep 07 20:30	2°♏55'44	max. Earth dist.	8804 Feb 27 04:00	11°♏39'29	6.43090 AU
			conjunction	8804 Feb 29 04:34	12°♏06'00	0°07'44
conjunction	8798 Sep 21 12:06	6°♏07'45 0°12'09				
minimum elong	8798 Sep 21 12:05	6°♏07'45 0°12'10				

minimum elong	8804 Feb 29 04:33	12° K 06'00	0°07'50	conjunction	8809 Aug 19 22:32	4° P 53'10	-0°13'23
behind sun begin	8804 Feb 28 21:23	12° K 02'06		minimum elong	8809 Aug 19 22:33	4° P 53'10	0°13'31
behind sun end	8804 Feb 29 11:44	12° K 09'54		behind sun begin	8809 Aug 19 17:58	4° P 50'25	
morning rise	8804 Mar 12 22:49	14° K 53'04		behind sun end	8809 Aug 20 03:08	4° P 55'56	
	8804 Jun 06 06:28	0° Y		max. Earth dist.	8809 Aug 21 22:33	5° P 22'08	5.94513 AU
desc. node	8804 Jun 29 15:40	1° Y 43'17		morning rise	8809 Sep 02 14:13	8° P 10'14	
retrograde	8804 Jul 12 14:53	1° Y 59'03		retrograde	8810 Jan 11 12:47	28° P 34'23	
	8804 Aug 18 05:47	30° K H		asc. node	8810 Feb 16 21:31	26° P 26'55	
opposition	8804 Sep 11 14:24	27° K 06'17	-0°07'00	min. Earth dist.	8810 Mar 10 11:28	23° P 42'55	3.99952 AU
min. Earth dist.	8804 Sep 13 04:11	26° K 54'13	4.37218 AU	opposition	8810 Mar 12 00:43	23° P 30'15	0°02'36
direct	8804 Nov 12 21:25	22° K 06'01		direct	8810 May 09 05:04	18° P 33'25	
	8805 Jan 29 01:58	0° Y			8810 Aug 08 07:37	0° L	
evening set	8805 Mar 18 06:25	9° Y 58'29		evening set	8810 Sep 12 23:05	7° L 58'56	
max. Earth dist.	8805 Mar 28 18:00	12° Y 19'41	6.29941 AU				
conjunction	8805 Mar 31 00:53	12° Y 50'37	-0°17'33	conjunction	8810 Sep 26 14:53	11° L 10'06	0°16'02
minimum elong	8805 Mar 31 00:52	12° Y 50'36	0°17'36	minimum elong	8810 Sep 26 14:52	11° L 10'06	0°16'04
morning rise	8805 Apr 12 18:23	15° Y 42'33		max. Earth dist.	8810 Sep 29 02:31	11° L 44'56	6.07140 AU
	8805 Jun 25 16:38	0° B		morning rise	8810 Oct 10 07:43	14° L 21'31	
retrograde	8805 Aug 15 03:12	3° B 44'10			8810 Dec 28 10:30	0° M	
	8805 Oct 05 17:11	30° K Y		retrograde	8811 Feb 15 07:58	3° M 38'52	
opposition	8805 Oct 14 18:52	28° Y 50'40	-0°42'51		8811 Apr 05 11:06	30° K L	
min. Earth dist.	8805 Oct 16 09:01	28° Y 38'23	4.21727 AU	min. Earth dist.	8811 Apr 14 14:04	28° L 47'10	4.15318 AU
direct	8805 Dec 15 02:49	23° Y 52'09		opposition	8811 Apr 16 01:51	28° L 35'05	0°42'28
	8806 Feb 18 16:49	0° B		direct	8811 Jun 14 07:34	23° L 35'57	
evening set	8806 Apr 19 18:29	12° B 31'20			8811 Aug 20 00:30	0° M	
	8806 Apr 30 09:34	15° B		evening set	8811 Oct 18 18:06	12° M 11'48	
max. Earth dist.	8806 Apr 30 15:42	15° B 03'35	6.13315 AU		8811 Oct 31 05:51	15° M	
conjunction	8806 May 02 13:57	15° B 30'38	-0°38'35	conjunction	8811 Nov 01 07:47	15° M 14'34	0°38'22
minimum elong	8806 May 02 13:56	15° B 30'37	0°38'44	minimum elong	8811 Nov 01 07:45	15° M 14'33	0°38'31
morning rise	8806 May 15 09:43	18° B 30'24		max. Earth dist.	8811 Nov 03 08:33	15° M 41'58	6.23851 AU
	8806 Jul 07 20:14	0° I		morning rise	8811 Nov 14 21:06	18° M 16'49	
retrograde	8806 Sep 20 04:45	7° I 45'41			8812 Jan 11 16:05	0° J	
opposition	8806 Nov 19 10:09	2° I 50'15	-1°07'18	retrograde	8812 Mar 18 11:20	6° J 20'49	
min. Earth dist.	8806 Nov 20 09:45	2° I 42'32	4.05251 AU	opposition	8812 May 17 16:04	1° J 19'37	1°05'32
	8806 Dec 12 13:34	30° K B		min. Earth dist.	8812 May 16 15:23	1° J 27'50	4.31871 AU
direct	8807 Jan 18 07:12	27° B 54'00			8812 May 27 18:42	30° K M	
	8807 Feb 23 15:27	0° I		direct	8812 Jul 17 04:19	26° M 18'51	
evening set	8807 May 24 11:33	17° I 22'59			8812 Sep 05 16:03	0° J	
conjunction	8807 Jun 06 11:16	20° I 30'43	-0°47'20	evening set	8812 Nov 20 06:49	14° J 08'58	
minimum elong	8807 Jun 06 11:16	20° I 30'43	0°47'33	conjunction	8812 Dec 03 15:41	17° J 03'27	0°47'37
max. Earth dist.	8807 Jun 05 16:01	20° I 19'05	5.98481 AU	minimum elong	8812 Dec 03 15:41	17° J 03'26	0°47'50
morning rise	8807 Jun 19 12:37	23° I 39'35		max. Earth dist.	8812 Dec 04 14:51	17° J 16'04	6.38980 AU
	8807 Jul 16 15:39	0° E		morning rise	8812 Dec 16 23:02	19° J 56'58	
retrograde	8807 Oct 28 11:12	14° E 02'53			8813 Feb 05 03:56	0° Z	
opposition	8807 Dec 27 04:28	9° E 04'25	-1°07'57	retrograde	8813 Apr 17 21:50	7° Z 04'22	
min. Earth dist.	8807 Dec 27 05:18	9° E 04'09	3.93564 AU	opposition	8813 Jun 17 11:25	2° Z 06'35	1°08'17
direct	8808 Feb 23 19:10	4° E 09'48		min. Earth dist.	8813 Jun 17 05:34	2° Z 08'29	4.44531 AU
evening set	8808 Jun 29 08:25	24° E 11'24			8813 Jul 04 04:04	30° K J	
conjunction	8808 Jul 12 15:15	27° E 25'57	-0°38'07	direct	8813 Aug 18 05:24	27° J 05'04	
minimum elong	8808 Jul 12 15:16	27° E 25'58	0°38'20		8813 Oct 02 12:06	0° Z	
max. Earth dist.	8808 Jul 13 09:18	27° E 36'59	5.91128 AU	evening set	8813 Dec 21 20:41	14° Z 24'40	
	8808 Jul 23 03:32	0° O		conjunction	8814 Jan 04 00:14	17° Z 13'26	0°43'10
morning rise	8808 Jul 26 00:26	0° O 41'53		minimum elong	8814 Jan 04 00:15	17° Z 13'26	0°43'24
	8808 Sep 29 12:56	15° O		max. Earth dist.	8814 Jan 03 17:38	17° Z 09'54	6.48264 AU
retrograde	8808 Dec 05 06:20	21° O 33'48		morning rise	8814 Jan 17 01:45	20° Z 01'07	
opposition	8809 Feb 02 15:57	16° O 31'56	-0°40'44		8814 Mar 08 20:22	0° A	
min. Earth dist.	8809 Feb 01 16:52	16° O 39'44	3.91501 AU	retrograde	8814 May 17 12:59	6° A 38'59	
	8809 Feb 14 04:42	15° K O		opposition	8814 Jul 17 10:21	1° A 44'04	0°52'59
direct	8809 Apr 01 14:11	11° O 37'05		min. Earth dist.	8814 Jul 17 23:45	1° A 39'45	4.49957 AU
	8809 May 17 04:25	15° O			8814 Jul 31 04:41	30° K Z	
	8809 Jul 30 14:47	0° P		direct	8814 Sep 17 22:35	26° Z 42'23	
evening set	8809 Aug 06 09:21	1° P 37'09			8814 Nov 05 15:33	0° A	
				evening set	8815 Jan 21 06:44	13° A 52'25	
					8815 Jan 26 13:21	15° A	

max. Earth dist.	8815 Feb 01 21:57	16° \approx 21'50	6.49431 AU	conjunction	8820 Jul 17 19:33	2° Ω 40'17	-0°35'30
				minimum elong	8820 Jul 17 19:35	2° Ω 40'18	0°35'41
conjunction	8815 Feb 03 05:48	16° \approx 38'57	0°27'26	max. Earth dist.	8820 Jul 18 16:45	2° Ω 53'15	5.90331 AU
minimum elong	8815 Feb 03 05:49	16° \approx 38'58	0°27'36	morning rise	8820 Jul 31 06:05	5° Ω 57'10	
morning rise	8815 Feb 16 02:31	19° \approx 24'29			8820 Sep 08 05:23	15° Ω	
	8815 Apr 11 08:39	0° \mathcal{H}		retrograde	8820 Dec 10 12:13	26° Ω 51'32	
retrograde	8815 Jun 16 12:45	6° \mathcal{H} 03'09		opposition	8821 Feb 07 21:50	21° Ω 49'15	-0°35'22
opposition	8815 Aug 16 13:54	1° \mathcal{H} 10'01	0°24'12	min. Earth dist.	8821 Feb 06 19:33	21° Ω 58'09	3.91420 AU
min. Earth dist.	8815 Aug 17 19:41	1° \mathcal{H} 00'30	4.46832 AU	direct	8821 Apr 06 18:14	16° Ω 54'13	
	8815 Aug 25 19:09	30° $\mathcal{R}\approx$			8821 Jul 13 01:04	0° \mathcal{M}	
direct	8815 Oct 18 06:54	26° \approx 08'48		evening set	8821 Aug 11 15:53	6° \mathcal{M} 53'59	
	8815 Dec 10 01:27	0° \mathcal{H}					
evening set	8816 Feb 20 12:04	13° \mathcal{H} 31'35		conjunction	8821 Aug 25 05:59	10° \mathcal{M} 10'05	-0°09'21
max. Earth dist.	8816 Mar 02 04:47	15° \mathcal{H} 51'37	6.42167 AU	minimum elong	8821 Aug 25 05:59	10° \mathcal{M} 10'05	0°09'26
				behind sun begin	8821 Aug 24 23:02	10° \mathcal{M} 05'55	
conjunction	8816 Mar 04 07:43	16° \mathcal{H} 19'30	0°04'24	behind sun end	8821 Aug 25 12:57	10° \mathcal{M} 14'16	
minimum elong	8816 Mar 04 07:42	16° \mathcal{H} 19'30	0°04'28	max. Earth dist.	8821 Aug 27 10:06	10° \mathcal{M} 41'28	5.95168 AU
behind sun begin	8816 Mar 03 23:53	16° \mathcal{H} 15'14		morning rise	8821 Sep 07 22:08	13° \mathcal{M} 27'04	
behind sun end	8816 Mar 04 15:32	16° \mathcal{H} 23'45			8821 Nov 28 05:57	0° $\underline{\Omega}$	
morning rise	8816 Mar 17 01:45	19° \mathcal{H} 06'48		asc. node	8821 Dec 28 18:45	3° $\underline{\Omega}$ 10'56	
	8816 May 10 16:36	0° \mathcal{Y}		retrograde	8822 Jan 16 15:44	3° $\underline{\Omega}$ 46'12	
desc. node	8816 May 11 18:35	0° \mathcal{Y} 10'53			8822 Mar 07 10:28	30° $\mathcal{R}\mathcal{M}$	
retrograde	8816 Jul 17 00:34	6° \mathcal{Y} 17'09		min. Earth dist.	8822 Mar 15 12:55	28° \mathcal{M} 54'43	4.01247 AU
opposition	8816 Sep 15 22:55	1° \mathcal{Y} 24'21	-0°11'58	opposition	8822 Mar 17 02:30	28° \mathcal{M} 41'55	0°08'45
min. Earth dist.	8816 Sep 17 14:31	1° \mathcal{Y} 11'41	4.35813 AU	direct	8822 May 14 09:39	23° \mathcal{M} 44'48	
	8816 Sep 27 02:04	30° $\mathcal{R}\mathcal{H}$			8822 Jul 17 21:53	0° $\underline{\Omega}$	
direct	8816 Nov 17 05:12	26° \mathcal{H} 24'11		evening set	8822 Sep 18 03:24	13° $\underline{\Omega}$ 05'42	
	8817 Jan 06 08:03	0° \mathcal{Y}					
evening set	8817 Mar 22 12:23	14° \mathcal{Y} 20'44		conjunction	8822 Oct 01 19:14	16° $\underline{\Omega}$ 16'04	0°19'46
max. Earth dist.	8817 Apr 01 23:10	16° \mathcal{Y} 42'03	6.28146 AU	minimum elong	8822 Oct 01 19:13	16° $\underline{\Omega}$ 16'03	0°19'48
				max. Earth dist.	8822 Oct 04 08:06	16° $\underline{\Omega}$ 51'26	6.08938 AU
conjunction	8817 Apr 04 06:51	17° \mathcal{Y} 13'32	-0°20'44	morning rise	8822 Oct 15 11:57	19° $\underline{\Omega}$ 26'32	
minimum elong	8817 Apr 04 06:50	17° \mathcal{Y} 13'32	0°20'48		8822 Dec 03 14:52	0° \mathcal{M}	
morning rise	8817 Apr 17 00:25	20° \mathcal{Y} 06'14		retrograde	8823 Feb 20 00:33	8° \mathcal{M} 34'34	
	8817 Jun 02 23:13	0° \mathcal{B}		min. Earth dist.	8823 Apr 19 07:54	3° \mathcal{M} 43'12	4.17428 AU
retrograde	8817 Aug 19 18:05	8° \mathcal{B} 16'02		opposition	8823 Apr 20 20:11	3° \mathcal{M} 30'57	0°46'52
opposition	8817 Oct 19 09:38	3° \mathcal{B} 22'19	-0°47'00		8823 May 19 23:19	30° $\mathcal{R}\underline{\Omega}$	
min. Earth dist.	8817 Oct 20 22:22	3° \mathcal{B} 10'28	4.19648 AU	direct	8823 Jun 19 04:32	28° $\underline{\Omega}$ 31'32	
	8817 Nov 17 04:00	30° $\mathcal{R}\mathcal{Y}$			8823 Jul 19 18:05	0° \mathcal{M}	
direct	8817 Dec 19 12:29	28° \mathcal{Y} 24'02			8823 Oct 14 12:50	15° \mathcal{M}	
	8818 Jan 20 17:20	0° \mathcal{B}		evening set	8823 Oct 23 15:49	17° \mathcal{M} 00'59	
	8818 Apr 14 21:57	15° \mathcal{B}					
evening set	8818 Apr 24 06:20	17° \mathcal{B} 09'39		conjunction	8823 Nov 06 04:53	20° \mathcal{M} 02'32	0°40'29
max. Earth dist.	8818 May 05 05:54	19° \mathcal{B} 44'01	6.11113 AU	minimum elong	8823 Nov 06 04:52	20° \mathcal{M} 02'31	0°40'40
				max. Earth dist.	8823 Nov 08 02:37	20° \mathcal{M} 28'07	6.26079 AU
conjunction	8818 May 07 02:07	20° \mathcal{B} 10'01	-0°40'35	morning rise	8823 Nov 19 17:29	23° \mathcal{M} 03'30	
minimum elong	8818 May 07 02:06	20° \mathcal{B} 10'00	0°40'46		8823 Dec 22 06:04	0° \mathcal{A}	
morning rise	8818 May 19 22:23	23° \mathcal{B} 10'58		retrograde	8824 Mar 22 22:19	10° \mathcal{A} 58'15	
	8818 Jun 19 00:19	0° \mathcal{I}		min. Earth dist.	8824 May 21 05:40	6° \mathcal{A} 04'41	4.33998 AU
retrograde	8818 Sep 25 06:00	12° \mathcal{I} 36'42		opposition	8824 May 22 03:36	5° \mathcal{A} 57'24	1°07'05
opposition	8818 Nov 24 08:41	7° \mathcal{I} 40'57	-1°08'57	direct	8824 Jul 21 21:11	0° \mathcal{A} 56'26	
min. Earth dist.	8818 Nov 25 07:08	7° \mathcal{I} 33'35	4.03095 AU	evening set	8824 Nov 24 20:49	18° \mathcal{A} 40'44	
direct	8819 Jan 23 01:51	2° \mathcal{I} 44'56					
evening set	8819 May 29 07:20	22° \mathcal{I} 20'51		conjunction	8824 Dec 08 04:57	21° \mathcal{A} 34'10	0°47'44
				minimum elong	8824 Dec 08 04:57	21° \mathcal{A} 34'09	0°47'59
conjunction	8819 Jun 11 08:02	25° \mathcal{I} 29'54	-0°47'10	max. Earth dist.	8824 Dec 09 01:03	21° \mathcal{A} 45'04	6.40815 AU
minimum elong	8819 Jun 11 08:02	25° \mathcal{I} 29'54	0°47'24	morning rise	8824 Dec 21 11:24	24° \mathcal{A} 26'35	
max. Earth dist.	8819 Jun 10 16:36	25° \mathcal{I} 20'33	5.96585 AU		8825 Jan 17 00:41	0° \mathcal{B}	
morning rise	8819 Jun 24 10:25	28° \mathcal{I} 40'08		retrograde	8825 Apr 22 02:03	11° \mathcal{B} 27'33	
	8819 Jun 29 23:30	0° \mathcal{E}		opposition	8825 Jun 21 17:57	6° \mathcal{B} 30'07	1°07'03
retrograde	8819 Nov 02 18:17	19° \mathcal{E} 12'06		min. Earth dist.	8825 Jun 21 13:59	6° \mathcal{B} 31'24	4.45940 AU
opposition	8820 Jan 01 09:00	14° \mathcal{E} 13'17	-1°05'50	direct	8825 Aug 22 14:16	1° \mathcal{B} 28'30	
min. Earth dist.	8820 Jan 01 06:42	14° \mathcal{E} 14'03	3.92152 AU	evening set	8825 Dec 26 05:01	18° \mathcal{B} 44'46	
direct	8820 Feb 28 19:04	9° \mathcal{E} 18'48					
evening set	8820 Jul 04 11:45	29° \mathcal{E} 24'49		conjunction	8826 Jan 08 07:51	21° \mathcal{B} 32'54	0°41'31
	8820 Jul 06 21:31	0° Ω		minimum elong	8826 Jan 08 07:52	21° \mathcal{B} 32'55	0°41'44
				max. Earth dist.	8826 Jan 07 21:55	21° \mathcal{B} 27'35	6.49135 AU

morning rise	8826 Jan 21 08:30	24°  19'56	evening set	8832 Jul 09 21:09	4°  52'37
	8826 Feb 17 19:57	0° 			
retrograde	8826 May 21 17:33	10°  55'23	conjunction	8832 Jul 23 06:12	8°  08'41 -0°32'25
opposition	8826 Jul 21 15:22	6°  00'48 0°49'33	minimum elong	8832 Jul 23 06:13	8°  08'42 0°32'36
min. Earth dist.	8826 Jul 22 07:45	5°  55'32 4.50226 AU	max. Earth dist.	8832 Jul 24 10:16	8°  25'52 5.90221 AU
direct	8826 Sep 22 05:53	0°  59'07	morning rise	8832 Aug 05 17:37	11°  02'04
	8827 Jan 10 12:49	15° 		8832 Aug 20 14:27	15° 
evening set	8827 Jan 25 12:25	18°  08'58		8832 Nov 07 19:37	0° 
max. Earth dist.	8827 Feb 05 22:15	20°  35'45 6.49058 AU	retrograde	8832 Dec 15 23:06	2°  00'19'07
				8833 Jan 23 01:10	30° 
conjunction	8827 Feb 07 10:48	20°  55'24 0°24'29	min. Earth dist.	8833 Feb 12 03:17	27°  02'00 3.92192 AU
minimum elong	8827 Feb 07 10:49	20°  55'24 0°24'39	opposition	8833 Feb 13 07:31	27°  01'6'25 -0°29'26
morning rise	8827 Feb 20 07:09	23°  40'55	direct	8833 Apr 12 04:50	22°  02'1'11
	8827 Mar 22 21:58	0° 		8833 Jun 22 09:54	0° 
retrograde	8827 Jun 20 20:40	10°  11'42	evening set	8833 Aug 17 01:44	12°  00'17'01
opposition	8827 Aug 20 21:13	5°  18'38 0°19'22			
min. Earth dist.	8827 Aug 22 05:16	5°  18'24 4.45836 AU	conjunction	8833 Aug 30 16:20	15°  00'32'36 -0°05'06
direct	8827 Oct 22 13:44	0°  12'26	minimum elong	8833 Aug 30 16:21	15°  00'32'36 0°05'10
evening set	8828 Feb 24 18:26	17°  11'53'24	behind sun begin	8833 Aug 30 08:13	15°  00'27'45
max. Earth dist.	8828 Mar 06 10:05	20°  13'19 6.40610 AU	behind sun end	8833 Aug 31 00:28	15°  00'37'27
			max. Earth dist.	8833 Sep 01 23:55	16°  00'05'54 5.96737 AU
conjunction	8828 Mar 08 13:55	20°  11'41'47 0°00'48	morning rise	8833 Sep 13 08:59	18°  00'18'49'00
minimum elong	8828 Mar 08 13:55	20°  11'41'47 0°00'51		8833 Nov 02 20:45	0° 
behind sun begin	8828 Mar 08 05:57	20°  11'37'26	asc. node	8833 Nov 06 18:36	0°  00'45'27
behind sun end	8828 Mar 08 21:54	20°  11'46'09	retrograde	8834 Jan 21 16:09	8°  00'58'51
desc. node	8828 Mar 20 17:10	23°  11'21'42	min. Earth dist.	8834 Mar 20 13:09	4°  00'07'52 4.03435 AU
morning rise	8828 Mar 21 07:36	23°  11'29'35	opposition	8834 Mar 22 04:32	3°  00'54'29 0°14'54
	8828 Apr 21 03:10	0° 		8834 Apr 24 14:05	30° 
retrograde	8828 Jul 21 13:15	10°  00'46'31	direct	8834 May 19 13:47	28°  00'17'57'01
opposition	8828 Sep 20 11:43	5°  00'53'38 -0°17'13		8834 Jun 13 18:22	0° 
min. Earth dist.	8828 Sep 22 03:22	5°  00'40'57 4.33786 AU	evening set	8834 Sep 23 07:18	18°  00'10'07
direct	8828 Nov 21 14:05	0°  00'53'40			
evening set	8829 Mar 26 23:33	18°  00'56'24	conjunction	8834 Oct 06 22:50	21°  00'19'10 0°23'22
max. Earth dist.	8829 Apr 06 10:06	21°  00'18'22 6.25790 AU	minimum elong	8834 Oct 06 22:49	21°  00'19'10 0°23'26
			max. Earth dist.	8834 Oct 09 09:52	21°  00'53'17 6.11523 AU
conjunction	8829 Apr 08 17:53	21°  00'50'07 -0°24'02	morning rise	8834 Oct 20 15:12	24°  00'28'15
minimum elong	8829 Apr 08 17:53	21°  00'50'06 0°24'05		8834 Nov 14 09:35	0° 
morning rise	8829 Apr 21 11:43	24°  00'43'50	retrograde	8835 Feb 24 15:45	13°  00'13'24'30
	8829 May 15 07:23	0° 	min. Earth dist.	8835 Apr 24 02:39	8°  00'13'32'38 4.20131 AU
retrograde	8829 Aug 24 17:48	13°  00'03'52	opposition	8835 Apr 25 12:49	8°  00'13'21'07 0°50'53
opposition	8829 Oct 24 06:45	8°  00'08'54 -0°51'10	direct	8835 Jun 24 02:50	3°  00'13'21'24
min. Earth dist.	8829 Oct 25 19:03	7°  00'08'58'09 4.17115 AU		8835 Sep 27 02:45	15° 
direct	8829 Dec 24 05:55	3°  00'08'11'51	evening set	8835 Oct 28 10:51	21°  00'13'42'44
	8830 Mar 28 14:43	15° 			
evening set	8830 Apr 29 00:52	22°  00'08'05'21	conjunction	8835 Nov 10 23:22	24°  00'13'42'55 0°42'19
max. Earth dist.	8830 May 10 03:59	24°  00'08'42'38 6.08632 AU	minimum elong	8835 Nov 10 23:21	24°  00'13'42'54 0°42'30
			max. Earth dist.	8835 Nov 12 19:09	25°  00'13'07'16 6.28678 AU
conjunction	8830 May 11 21:16	25°  00'08'07'02 -0°42'29	morning rise	8835 Nov 24 11:00	27°  00'13'42'24
minimum elong	8830 May 11 21:15	25°  00'08'07'01 0°42'40		8835 Dec 04 22:49	0° 
morning rise	8830 May 24 18:12	28°  00'08'09'22	retrograde	8836 Mar 27 04:05	15°  00'13'27'10
	8830 Jun 01 15:28	0° 	opposition	8836 May 26 12:02	10°  00'13'27'49 1°08'11
retrograde	8830 Sep 30 13:22	17°  00'12'46'16	min. Earth dist.	8836 May 25 15:46	10°  00'13'27'33'31 4.36291 AU
opposition	8830 Nov 29 14:30	12°  00'12'50'10 -1°10'12	direct	8836 Jul 26 08:59	5°  00'13'27'25'44
min. Earth dist.	8830 Nov 30 09:43	12°  00'12'43'51 4.00910 AU	evening set	8836 Nov 29 07:57	23°  00'13'27'04'10
direct	8831 Jan 28 01:55	7°  00'12'54'28			
evening set	8831 Jun 03 10:32	27°  00'12'37'06	conjunction	8836 Dec 12 15:11	25°  00'13'27'56'33 0°47'35
	8831 Jun 13 06:13	0° 	minimum elong	8836 Dec 12 15:11	25°  00'13'27'56'33 0°47'50
conjunction	8831 Jun 16 12:04	0°  00'12'47'22 -0°46'37	max. Earth dist.	8836 Dec 13 05:36	26°  00'13'27'04'21 6.42631 AU
minimum elong	8831 Jun 16 12:04	0°  00'12'47'22 0°46'51	morning rise	8836 Dec 25 20:49	28°  00'13'27'47'56
max. Earth dist.	8831 Jun 16 00:36	0°  00'12'40'23 5.94908 AU		8836 Dec 31 11:41	0° 
morning rise	8831 Jun 29 15:42	3°  00'12'58'55	retrograde	8837 Apr 26 06:11	15°  00'13'27'43'02
retrograde	8831 Nov 08 06:13	24°  00'12'38'12	opposition	8837 Jun 25 22:05	10°  00'13'27'46'06 1°05'30
opposition	8832 Jan 06 20:08	19°  00'12'38'51 -1°02'59	min. Earth dist.	8837 Jun 25 22:11	10°  00'13'27'46'04 4.47168 AU
min. Earth dist.	8832 Jan 06 13:42	19° 00'12'41'01 3.91191 AU	direct	8837 Aug 26 22:52	5° 00'13'27'44'26
direct	8832 Mar 05 03:04	14° 00'12'44'24	evening set	8837 Dec 30 10:43	22° 00'13'27'58'13
	8832 Jun 19 11:37	0°	conjunction	8838 Jan 12 12:56	25° 00'13'27'45'54 0°39'40

minimum elong	8838 Jan 12 12:57	25°  45'55	0°39'53	morning rise	8843 Jul 04 23:21	9°  23'45	
max. Earth dist.	8838 Jan 11 22:29	25°  38'10	6.49678 AU		8843 Nov 04 19:17	0°  0	
morning rise	8838 Jan 25 12:55	28°  32'30		retrograde	8843 Nov 13 20:17	0°  08'06	
	8838 Feb 01 10:26	0°  0			8843 Nov 22 20:02	30°  R 	
	8838 May 17 05:36	15°  0		opposition	8844 Jan 12 08:14	25°  08'14	-0°59'32
retrograde	8838 May 25 20:05	15°  06'57		min. Earth dist.	8844 Jan 11 22:39	25°  08'11'27	3.90774 AU
	8838 Jun 03 10:03	15°  R 		direct	8844 Mar 10 12:42	20°  08'13'49	
opposition	8838 Jul 25 18:56	10°  08'12'40	0°45'57		8844 May 31 02:59	0°  0	
min. Earth dist.	8838 Jul 26 13:33	10°  06'41	4.50071 AU	evening set	8844 Jul 15 07:07	10°  08'21'51	
direct	8838 Sep 26 09:33	5°  08'11'01					
	8838 Dec 24 12:44	15°  0		conjunction	8844 Jul 28 17:00	13°  08'38'08	-0°29'03
evening set	8839 Jan 29 16:41	22°  08'22'11		minimum elong	8844 Jul 28 17:02	13°  08'38'09	0°29'14
max. Earth dist.	8839 Feb 09 23:53	24°  08'47'51	6.48213 AU	max. Earth dist.	8844 Jul 30 01:45	13°  08'58'08	5.90679 AU
					8844 Aug 03 07:08	15°  0	
conjunction	8839 Feb 11 14:40	25°  08'46	0°21'28	morning rise	8844 Aug 11 05:31	16°  08'55'45	
minimum elong	8839 Feb 11 14:40	25°  08'46	0°21'36		8844 Oct 09 04:27	0°  0	
morning rise	8839 Feb 24 10:26	27°  08'54'25		retrograde	8844 Dec 21 06:28	7°  08'44'42	
	8839 Mar 06 06:41	0°  0		min. Earth dist.	8845 Feb 17 08:09	2°  08'52'19	3.93475 AU
retrograde	8839 Jun 25 04:09	14°  08'39'05		opposition	8845 Feb 18 15:42	2°  08'41'36	-0°23'16
opposition	8839 Aug 25 04:18	9°  08'46'12	0°14'27		8845 Mar 11 16:58	30°  R 	
min. Earth dist.	8839 Aug 26 14:27	9°  08'35'19	4.44348 AU	direct	8845 Apr 17 13:01	27°  08'46'05	
direct	8839 Oct 26 19:33	4°  08'45'12			8845 May 24 06:40	0°  0	
desc. node	8840 Jan 29 02:50	15°  08'45'18		evening set	8845 Aug 22 09:48	17°  08'36'14	
evening set	8840 Feb 29 01:20	22°  08'16'05					
max. Earth dist.	8840 Mar 10 13:38	24°  08'34'52	6.38575 AU	conjunction	8845 Sep 05 00:43	20°  08'51'02	-0°00'48
				minimum elong	8845 Sep 05 00:42	20°  08'51'01	0°00'51
conjunction	8840 Mar 12 20:26	25°  08'05'08	-0°02'51	behind sun begin	8845 Sep 04 16:18	20°  08'46'02	
minimum elong	8840 Mar 12 20:27	25°  08'05'09	0°02'49	behind sun end	8845 Sep 05 09:05	20°  08'56'00	
behind sun begin	8840 Mar 12 12:30	25°  08'00'47		max. Earth dist.	8845 Sep 07 09:15	21°  08'24'45	5.98681 AU
behind sun end	8840 Mar 13 04:24	25°  08'09'31		asc. node	8845 Sep 15 13:37	23°  08'21'35	
morning rise	8840 Mar 25 14:12	27°  08'53'45		morning rise	8845 Sep 18 17:35	24°  08'06'32	
	8840 Apr 04 05:43	0°  0			8845 Oct 14 07:14	0°  0	
retrograde	8840 Jul 26 06:00	15°  08'19'07		retrograde	8846 Jan 26 14:16	14°  08'06'09	
opposition	8840 Sep 25 02:03	10°  08'19'26'11	-0°22'23	min. Earth dist.	8846 Mar 25 13:19	9°  08'14'53	4.05800 AU
min. Earth dist.	8840 Sep 26 18:11	10°  08'13'19	4.31324 AU	opposition	8846 Mar 27 04:02	9°  08'01'43	0°20'51
direct	8840 Nov 26 01:04	5°  08'19'26'26		direct	8846 May 24 17:33	4°  08'03'51	
evening set	8841 Mar 31 12:14	23°  08'36'56		evening set	8846 Sep 28 08:35	23°  08'08'56	
max. Earth dist.	8841 Apr 11 00:59	26°  08'00'58	6.23105 AU				
				conjunction	8846 Oct 11 24:00	26°  08'16'44	0°26'45
conjunction	8841 Apr 13 06:55	26°  08'31'49	-0°27'11	minimum elong	8846 Oct 11 23:58	26°  08'16'43	0°26'52
minimum elong	8841 Apr 13 06:54	26°  08'31'49	0°27'16	max. Earth dist.	8846 Oct 14 10:57	26°  08'50'36	6.14097 AU
morning rise	8841 Apr 26 00:55	29°  08'26'46		morning rise	8846 Oct 25 15:42	29°  08'24'22	
	8841 Apr 28 11:23	0°  0			8846 Oct 28 06:26	0°  0	
	8841 Jul 16 07:08	15°  08			8847 Jan 14 17:53	15°  08	
retrograde	8841 Aug 29 19:05	17°  08'58'21		retrograde	8847 Mar 01 04:01	18°  08'09'16	
	8841 Oct 13 22:27	15°  R 			8847 Apr 15 15:49	15°  R 	
opposition	8841 Oct 29 06:37	13°  08'04'13	-0°55'02	min. Earth dist.	8847 Apr 28 18:00	13°  08'17'19	4.22677 AU
min. Earth dist.	8841 Oct 30 16:55	12°  08'53'07	4.14423 AU	opposition	8847 Apr 30 02:55	13°  08'06'15	0°54'31
direct	8841 Dec 28 23:48	8°  08'06'36		direct	8847 Jun 28 20:55	8°  08'06'18	
	8842 Mar 08 06:34	15°  08			8847 Sep 07 05:08	15°  08	
evening set	8842 May 03 22:12	27°  08'08'31		evening set	8847 Nov 02 04:00	26°  08'20'26	
max. Earth dist.	8842 May 15 04:43	29°  08'48'44	6.06171 AU				
	8842 May 15 23:40	0°  0		conjunction	8847 Nov 15 15:41	29°  08'19'19	0°43'53
conjunction	8842 May 16 19:02	0°  08'11'30	-0°44'04	minimum elong	8847 Nov 15 15:40	29°  08'19'19	0°44'05
minimum elong	8842 May 16 19:01	0°  08'11'30	0°44'15	max. Earth dist.	8847 Nov 17 06:10	29°  08'40'37	6.30985 AU
morning rise	8842 May 29 16:52	3°  08'15'18			8847 Nov 18 17:11	0°  0	
retrograde	8842 Oct 05 23:34	23°  08'03'20		morning rise	8847 Nov 29 02:39	2°  08'17'31	
opposition	8842 Dec 04 23:02	18°  08'06'49	-1°10'54	retrograde	8848 Mar 31 10:40	19°  08'53'43	
min. Earth dist.	8842 Dec 05 14:14	18°  08'01'48	3.98932 AU	opposition	8848 May 30 19:37	14°  08'53'48	1°08'56
direct	8843 Feb 02 06:07	13°  08'11'23		min. Earth dist.	8848 May 30 02:54	14°  08'59'19	4.38206 AU
	8843 May 27 04:10	0°  0		direct	8848 Jul 30 21:55	9°  08'52'33	
evening set	8843 Jun 08 16:06	2°  08'59'44		evening set	8848 Dec 03 17:58	27°  08'26'20	
					8848 Dec 15 15:26	0°  0	
conjunction	8843 Jun 21 18:46	6°  08'11'07	-0°45'39	conjunction	8848 Dec 17 00:38	0°  08'17'55	0°47'12
minimum elong	8843 Jun 21 18:47	6°  08'11'07	0°45'54	minimum elong	8848 Dec 17 00:38	0°  08'17'55	0°47'26
max. Earth dist.	8843 Jun 21 14:37	6°  08'08'35	5.93627 AU	max. Earth dist.	8848 Dec 17 11:59	0°  08'24'02	6.44023 AU

morning rise	8848 Dec 30 05:18	3°♂08'25		min. Earth dist.	8854 Dec 10 19:14	23°♂17'21	3.97611 AU
retrograde	8849 Apr 30 08:05	19°♂59'06		direct	8855 Feb 07 10:18	18°♂26'16	
opposition	8849 Jun 30 02:22	15°♂02'34	1°03'38		8855 May 09 03:53	0°♂	
min. Earth dist.	8849 Jun 30 04:31	15°♂01'52	4.47973 AU	evening set	8855 Jun 13 20:22	8°♂17'43	
direct	8849 Aug 31 05:04	10°♂00'53					
evening set	8850 Jan 03 17:05	27°♂13'20		conjunction	8855 Jun 26 23:48	11°♂29'47	-0°44'23
				minimum elong	8855 Jun 26 23:49	11°♂29'47	0°44'36
conjunction	8850 Jan 16 18:34	0°♂00'41	0°37'37	max. Earth dist.	8855 Jun 27 00:06	11°♂29'58	5.93004 AU
minimum elong	8850 Jan 16 18:34	0°♂00'41	0°37'50	morning rise	8855 Jul 10 05:32	14°♂43'13	
max. Earth dist.	8850 Jan 15 23:36	29°♂50'32	6.49842 AU		8855 Sep 19 14:12	0°♂	
	8850 Jan 16 17:17	0°♂		retrograde	8855 Nov 19 04:04	5°♂29'43	
morning rise	8850 Jan 29 17:57	2°♂47'00		opposition	8856 Jan 17 16:58	0°♂29'22	-0°55'40
	8850 Apr 04 17:55	15°♂		min. Earth dist.	8856 Jan 17 02:55	0°♂34'05	3.90947 AU
retrograde	8850 May 30 01:34	19°♂21'30			8856 Jan 21 08:35	30°♂	
	8850 Jul 25 18:21	15°♂		direct	8856 Mar 15 18:50	25°♂34'57	
opposition	8850 Jul 29 23:59	14°♂27'30	0°42'04		8856 May 07 09:06	0°♂	
min. Earth dist.	8850 Jul 30 22:02	14°♂20'26	4.49591 AU		8856 Jul 17 18:01	15°♂	
direct	8850 Sep 30 16:34	9°♂25'54		evening set	8856 Jul 20 13:33	15°♂40'49	
	8850 Dec 04 07:51	15°♂					
evening set	8851 Feb 02 22:30	26°♂39'08		conjunction	8856 Aug 03 00:13	18°♂57'01	-0°25'35
max. Earth dist.	8851 Feb 14 01:29	29°♂02'57	6.47115 AU	minimum elong	8856 Aug 03 00:14	18°♂57'01	0°25'45
				max. Earth dist.	8856 Aug 04 12:42	19°♂19'14	5.91620 AU
conjunction	8851 Feb 15 20:02	29°♂25'57	0°18'16	morning rise	8856 Aug 16 13:26	22°♂14'29	
minimum elong	8851 Feb 15 20:03	29°♂25'57	0°18'24		8856 Sep 18 21:02	0°♂	
	8851 Feb 18 11:02	0°♂		retrograde	8856 Dec 26 09:05	12°♂57'41	
morning rise	8851 Feb 28 15:31	2°♂11'54		min. Earth dist.	8857 Feb 22 10:22	8°♂05'20	3.95058 AU
retrograde	8851 Jun 29 13:49	19°♂01'09		opposition	8857 Feb 23 18:52	7°♂54'17	-0°17'12
opposition	8851 Aug 29 13:42	14°♂08'19	0°09'21	direct	8857 Apr 22 18:48	2°♂58'29	
min. Earth dist.	8851 Aug 31 00:39	13°♂57'09	4.42706 AU	asc. node	8857 Jul 27 04:18	15°♂31'14	
direct	8851 Oct 31 02:48	9°♂07'27		evening set	8857 Aug 27 12:59	22°♂42'20	
desc. node	8851 Dec 07 22:09	11°♂11'17					
evening set	8852 Mar 04 10:01	26°♂43'29		conjunction	8857 Sep 10 04:19	25°♂56'18	0°03'22
max. Earth dist.	8852 Mar 14 23:00	29°♂03'16	6.36520 AU	minimum elong	8857 Sep 10 04:18	25°♂56'17	0°03'20
				behind sun begin	8857 Sep 09 19:58	25°♂51'22	
conjunction	8852 Mar 17 05:04	29°♂33'17	-0°06'28	behind sun end	8857 Sep 10 12:38	26°♂01'13	
minimum elong	8852 Mar 17 05:03	29°♂33'17	0°06'27	max. Earth dist.	8857 Sep 12 15:11	26°♂31'14	6.00749 AU
behind sun begin	8852 Mar 16 21:33	29°♂29'08		morning rise	8857 Sep 23 21:09	29°♂10'49	
behind sun end	8852 Mar 17 12:34	29°♂37'25			8857 Sep 27 09:00	0°♂	
	8852 Mar 19 05:11	0°♂		retrograde	8858 Jan 31 07:42	19°♂00'09	
morning rise	8852 Mar 29 22:34	2°♂22'37		min. Earth dist.	8858 Mar 30 07:58	14°♂08'53	4.08125 AU
retrograde	8852 Jul 30 23:37	19°♂56'28		opposition	8858 Mar 31 22:19	13°♂55'52	0°26'21
opposition	8852 Sep 29 18:52	15°♂03'30	-0°27'34	direct	8858 May 29 14:50	8°♂57'46	
min. Earth dist.	8852 Oct 01 10:57	14°♂50'39	4.28999 AU	evening set	8858 Oct 03 05:06	27°♂55'33	
direct	8852 Nov 30 14:20	10°♂04'08			8858 Oct 12 07:20	0°♂	
evening set	8853 Apr 05 03:04	28°♂21'38					
	8853 Apr 12 06:54	0°♂		conjunction	8858 Oct 16 20:01	1°♂02'07	0°29'50
max. Earth dist.	8853 Apr 15 16:27	0°♂46'53	6.20709 AU	minimum elong	8858 Oct 16 20:00	1°♂02'07	0°29'57
				max. Earth dist.	8858 Oct 19 03:24	1°♂33'45	6.16455 AU
conjunction	8853 Apr 17 21:42	1°♂17'32	-0°30'14	morning rise	8858 Oct 30 11:25	4°♂08'32	
minimum elong	8853 Apr 17 21:41	1°♂17'32	0°30'21		8858 Dec 21 06:17	15°♂	
morning rise	8853 Apr 30 16:11	4°♂13'38		retrograde	8859 Mar 05 12:26	22°♂43'35	
	8853 Jun 20 07:19	15°♂		min. Earth dist.	8859 May 03 06:26	17°♂51'15	4.24873 AU
retrograde	8853 Sep 03 21:29	22°♂55'41		opposition	8859 May 04 13:05	17°♂40'58	0°57'42
opposition	8853 Nov 03 07:54	18°♂01'17	-0°58'37		8859 May 25 18:27	15°♂	
min. Earth dist.	8853 Nov 04 15:22	17°♂51'04	4.12162 AU	direct	8859 Jul 03 11:36	12°♂40'49	
	8853 Nov 28 09:17	15°♂			8859 Aug 11 13:12	15°♂	
direct	8854 Jan 02 20:44	13°♂04'01		evening set	8859 Nov 02 23:04	0°♂	
	8854 Feb 07 00:04	15°♂			8859 Nov 06 17:12	0°♂49'16	
	8854 Apr 29 10:25	0°♂					
evening set	8854 May 08 20:16	2°♂12'36		conjunction	8859 Nov 20 04:25	3°♂47'09	0°45'10
max. Earth dist.	8854 May 20 09:22	4°♂57'21	6.04276 AU	minimum elong	8859 Nov 20 04:24	3°♂47'09	0°45'22
				max. Earth dist.	8859 Nov 21 16:08	4°♂06'51	6.32871 AU
conjunction	8854 May 21 17:49	5°♂16'43	-0°45'22	morning rise	8859 Dec 03 14:26	6°♂44'14	
minimum elong	8854 May 21 17:48	5°♂16'42	0°45'34	retrograde	8860 Apr 04 14:16	24°♂13'39	
morning rise	8854 Jun 03 16:13	8°♂21'39		min. Earth dist.	8860 Jun 03 10:02	19°♂19'04	4.39667 AU
retrograde	8854 Oct 11 10:01	28°♂18'18		opposition	8860 Jun 04 00:27	19°♂14'20	1°09'19
opposition	8854 Dec 10 07:01	23°♂21'24	-1°11'02	direct	8860 Aug 04 06:14	14°♂13'03	

	8860 Nov 29 22:39	0°♂	conjunction	8866 May 26 14:42	10°♂18'17 -0°46'18
evening set	8860 Dec 08 02:00	1°♂43'50	minimum elong	8866 May 26 14:42	10°♂18'17 0°46'31
			morning rise	8866 Jun 08 14:04	13°♂24'25
conjunction	8860 Dec 21 07:50	4°♂34'46 0°46'34		8866 Aug 29 20:26	0°♂
minimum elong	8860 Dec 21 07:50	4°♂34'46 0°46'48	retrograde	8866 Oct 16 16:00	3°♂29'30
max. Earth dist.	8860 Dec 21 13:31	4°♂37'50 6.44964 AU		8866 Dec 04 07:13	30°♂♂
morning rise	8861 Jan 03 11:56	7°♂24'40	opposition	8866 Dec 15 12:54	28°♂32'06 -1°10'36
retrograde	8861 May 04 11:31	24°♂12'31	min. Earth dist.	8866 Dec 15 20:56	28°♂29'27 3.96237 AU
opposition	8861 Jul 04 05:36	19°♂16'25 1°01'30	direct	8867 Feb 12 11:03	23°♂37'08
min. Earth dist.	8861 Jul 04 11:10	19°♂14'37 4.48372 AU		8867 Apr 18 04:33	0°♂
direct	8861 Sep 04 11:22	14°♂14'43	evening set	8867 Jun 18 23:21	13°♂32'13
	8862 Jan 01 01:28	0°♂			
evening set	8862 Jan 07 22:08	1°♂27'01	conjunction	8867 Jul 02 03:47	16°♂45'06 -0°42'44
			minimum elong	8867 Jul 02 03:48	16°♂45'07 0°42'58
conjunction	8862 Jan 20 23:13	4°♂14'16 0°35'24	max. Earth dist.	8867 Jul 02 09:25	16°♂48'33 5.92228 AU
minimum elong	8862 Jan 20 23:14	4°♂14'16 0°35'37	morning rise	8867 Jul 15 10:31	19°♂59'22
max. Earth dist.	8862 Jan 20 01:45	4°♂02'46 6.49679 AU		8867 Aug 27 23:49	0°♂
morning rise	8862 Feb 02 21:56	7°♂00'26	retrograde	8867 Nov 24 12:50	10°♂48'44
	8862 Mar 14 12:09	15°♂	min. Earth dist.	8868 Jan 22 08:03	5°♂53'21 3.90859 AU
retrograde	8862 Jun 03 05:01	23°♂36'03	opposition	8868 Jan 23 00:20	5°♂47'52 -0°51'22
opposition	8862 Aug 03 04:48	18°♂42'16 0°38'01	direct	8868 Mar 21 01:47	0°♂53'17
min. Earth dist.	8862 Aug 04 03:48	18°♂34'54 4.48902 AU		8868 Jun 30 12:58	15°♂
	8862 Sep 04 21:13	15°♂	evening set	8868 Jul 25 19:34	20°♂58'16
direct	8862 Oct 04 20:46	13°♂40'46			
	8862 Nov 04 01:42	15°♂	conjunction	8868 Aug 08 07:14	24°♂14'37 -0°21'53
	8863 Feb 02 18:21	0°♂	minimum elong	8868 Aug 08 07:15	24°♂14'37 0°22'02
evening set	8863 Feb 07 03:52	0°♂56'28	max. Earth dist.	8868 Aug 10 00:41	24°♂39'48 5.92229 AU
max. Earth dist.	8863 Feb 18 04:52	3°♂19'39 6.45946 AU	morning rise	8868 Aug 21 21:13	27°♂32'08
				8868 Sep 01 04:39	0°♂
conjunction	8863 Feb 20 00:54	3°♂43'32 0°15'00	retrograde	8868 Dec 31 12:40	18°♂10'47
minimum elong	8863 Feb 20 00:55	3°♂43'33 0°15'06	min. Earth dist.	8869 Feb 27 11:57	13°♂18'42 3.96297 AU
behind sun begin	8863 Feb 19 22:05	3°♂42'01	opposition	8869 Feb 28 22:03	13°♂07'07 -0°10'58
behind sun end	8863 Feb 20 03:45	3°♂45'04	direct	8869 Apr 27 22:11	8°♂11'02
morning rise	8863 Mar 04 20:00	6°♂29'48	asc. node	8869 Jun 06 06:35	10°♂42'47
retrograde	8863 Jul 03 23:58	23°♂23'46	evening set	8869 Sep 01 17:14	27°♂50'02
opposition	8863 Sep 02 23:08	18°♂31'00 0°04'13		8869 Sep 10 21:35	0°♂
min. Earth dist.	8863 Sep 04 11:52	18°♂19'16 4.41118 AU			
desc. node	8863 Oct 17 22:04	13°♂58'08	conjunction	8869 Sep 15 08:39	1°♂03'17 0°07'27
direct	8863 Nov 04 11:51	13°♂30'17	minimum elong	8869 Sep 15 08:38	1°♂03'16 0°07'27
	8864 Mar 03 09:13	0°♂	behind sun begin	8869 Sep 15 01:01	0°♂58'47
evening set	8864 Mar 08 18:18	1°♂10'58	behind sun end	8869 Sep 15 16:15	1°♂07'45
max. Earth dist.	8864 Mar 19 05:37	3°♂30'29 6.34610 AU	max. Earth dist.	8869 Sep 17 19:11	1°♂37'52 6.02467 AU
			morning rise	8869 Sep 29 01:46	4°♂17'02
conjunction	8864 Mar 21 13:05	4°♂01'24 -0°10'00	retrograde	8870 Feb 05 01:22	23°♂57'22
minimum elong	8864 Mar 21 13:05	4°♂01'24 0°10'00	min. Earth dist.	8870 Apr 04 03:41	19°♂06'08 4.10138 AU
behind sun begin	8864 Mar 21 06:37	3°♂57'49	opposition	8870 Apr 05 17:55	18°♂53'10 0°31'44
behind sun end	8864 Mar 21 19:33	4°♂04'59	direct	8870 Jun 03 13:46	13°♂54'43
morning rise	8864 Apr 03 06:39	6°♂51'29		8870 Sep 25 19:00	0°♂
retrograde	8864 Aug 04 15:42	24°♂33'11	evening set	8870 Oct 08 03:36	2°♂46'17
opposition	8864 Oct 04 10:56	19°♂39'58 -0°32'32			
min. Earth dist.	8864 Oct 06 01:43	19°♂27'31 4.26877 AU	conjunction	8870 Oct 21 18:19	5°♂51'47 0°32'46
direct	8864 Dec 05 02:37	14°♂40'48	minimum elong	8870 Oct 21 18:17	5°♂51'46 0°32'53
	8865 Mar 27 02:27	0°♂	max. Earth dist.	8870 Oct 24 00:31	6°♂22'36 6.18605 AU
evening set	8865 Apr 09 16:31	3°♂04'27	morning rise	8870 Nov 04 09:00	8°♂56'57
max. Earth dist.	8865 Apr 20 09:24	5°♂32'24 6.18525 AU		8870 Dec 02 00:56	15°♂
			retrograde	8871 Mar 10 00:35	27°♂22'42
conjunction	8865 Apr 22 11:26	6°♂01'19 -0°33'03	min. Earth dist.	8871 May 07 20:46	22°♂30'08 4.26973 AU
minimum elong	8865 Apr 22 11:25	6°♂01'19 0°33'11	opposition	8871 May 09 01:26	22°♂20'33 1°00'33
morning rise	8865 May 05 06:05	8°♂58'26	direct	8871 Jul 08 04:43	17°♂20'15
	8865 Jun 01 03:54	15°♂		8871 Oct 17 02:31	0°♂
retrograde	8865 Sep 08 23:47	27°♂50'11	evening set	8871 Nov 11 08:56	5°♂23'08
opposition	8865 Nov 08 07:52	22°♂55'28 -1°01'43			
min. Earth dist.	8865 Nov 09 14:06	22°♂45'38 4.10069 AU	conjunction	8871 Nov 24 19:23	8°♂19'58 0°46'11
direct	8866 Jan 07 16:54	17°♂58'29	minimum elong	8871 Nov 24 19:23	8°♂19'58 0°46'25
	8866 Apr 12 03:56	0°♂	max. Earth dist.	8871 Nov 26 03:14	8°♂37'28 6.34777 AU
evening set	8866 May 13 16:40	7°♂13'06	morning rise	8871 Dec 08 04:45	11°♂15'59
max. Earth dist.	8866 May 25 08:46	10°♂00'21 6.02444 AU	retrograde	8872 Apr 08 20:03	28°♂38'21

opposition	8872 Jun 08 07:41	23° ♄ 39'29	1°09'19			8878 Mar 24 00:32	0° ♄	
min. Earth dist.	8872 Jun 07 19:25	23° ♄ 43'31	4.41288 AU	evening set		8878 May 18 09:46	12° ♄ 05'06	
direct	8872 Aug 08 17:00	18° ♄ 38'09		max. Earth dist.		8878 May 30 06:21	14° ♄ 55'43	6.00483 AU
	8872 Nov 13 01:14	0° ♄						
evening set	8872 Dec 12 11:32	6° ♄ 05'03		conjunction		8878 May 31 08:34	15° ♄ 11'29	-0°46'51
				minimum elong		8878 May 31 08:33	15° ♄ 11'29	0°47'06
conjunction	8872 Dec 25 16:46	8° ♄ 55'14	0°45'42	morning rise		8878 Jun 13 08:43	18° ♄ 18'54	
minimum elong	8872 Dec 25 16:46	8° ♄ 55'14	0°45'57			8878 Aug 05 00:01	0° ♄	
max. Earth dist.	8872 Dec 25 20:30	8° ♄ 57'14	6.46224 AU	retrograde		8878 Oct 21 21:21	8° ♄ 33'21	
morning rise	8873 Jan 07 19:53	11° ♄ 44'19		opposition		8878 Dec 20 15:32	3° ♄ 35'33	-1°09'40
retrograde	8873 May 08 14:20	28° ♄ 28'10		min. Earth dist.		8878 Dec 20 21:49	3° ♄ 33'28	3.94600 AU
opposition	8873 Jul 08 10:13	23° ♄ 32'30	0°59'03			8879 Jan 20 02:19	30° ♄	
min. Earth dist.	8873 Jul 08 17:26	23° ♄ 30'10	4.49214 AU	direct		8879 Feb 17 10:29	28° ♄ 40'43	
direct	8873 Sep 08 18:15	18° ♄ 30'53				8879 Mar 17 13:53	0° ♄	
	8873 Dec 15 12:53	0° ♄		evening set		8879 Jun 23 23:54	18° ♄ 40'57	
evening set	8874 Jan 12 03:52	5° ♄ 41'19						
max. Earth dist.	8874 Jan 24 02:28	8° ♄ 14'24	6.50052 AU	conjunction		8879 Jul 07 05:32	21° ♄ 54'57	-0°40'49
				minimum elong		8879 Jul 07 05:33	21° ♄ 54'58	0°41'03
conjunction	8874 Jan 25 04:05	8° ♄ 28'07	0°33'03	max. Earth dist.		8879 Jul 07 15:58	22° ♄ 01'20	5.91091 AU
minimum elong	8874 Jan 25 04:06	8° ♄ 28'07	0°33'14	morning rise		8879 Jul 20 13:28	25° ♄ 10'19	
morning rise	8874 Feb 07 02:16	11° ♄ 13'55				8879 Aug 09 18:51	0° ♄	
	8874 Feb 25 02:15	15° ♄				8879 Nov 04 05:16	15° ♄	
retrograde	8874 Jun 07 09:48	27° ♄ 48'55		retrograde		8879 Nov 29 20:20	16° ♄ 04'05	
opposition	8874 Aug 07 09:31	22° ♄ 55'23	0°33'51			8879 Dec 25 07:29	15° ♄	
min. Earth dist.	8874 Aug 08 11:19	22° ♄ 47'08	4.48780 AU	min. Earth dist.		8880 Jan 27 10:27	11° ♄ 09'21	3.90373 AU
direct	8874 Oct 09 03:27	17° ♄ 53'56		opposition		8880 Jan 28 05:42	11° ♄ 02'51	-0°46'49
	8875 Jan 17 15:20	0° ♄		direct		8880 Mar 26 04:13	6° ♄ 08'13	
evening set	8875 Feb 11 07:52	5° ♄ 10'11				8880 Jun 11 08:46	15° ♄	
max. Earth dist.	8875 Feb 22 06:39	7° ♄ 32'23	6.45332 AU	evening set		8880 Jul 31 01:11	26° ♄ 14'19	
conjunction	8875 Feb 24 04:32	7° ♄ 57'19	0°11'46	conjunction		8880 Aug 13 13:36	29° ♄ 30'58	-0°18'08
minimum elong	8875 Feb 24 04:33	7° ♄ 57'19	0°11'53	minimum elong		8880 Aug 13 13:37	29° ♄ 30'59	0°18'15
behind sun begin	8875 Feb 23 22:59	7° ♄ 54'18		max. Earth dist.		8880 Aug 15 09:14	29° ♄ 57'27	5.92431 AU
behind sun end	8875 Feb 24 10:06	8° ♄ 00'19				8880 Aug 15 13:26	0° ♄	
morning rise	8875 Mar 08 23:09	10° ♄ 43'39		morning rise		8880 Aug 27 04:37	2° ♄ 48'48	
retrograde	8875 Jul 08 05:48	27° ♄ 40'44		retrograde		8881 Jan 05 14:14	23° ♄ 24'30	
desc. node	8875 Aug 30 11:45	23° ♄ 47'10		min. Earth dist.		8881 Mar 04 12:30	18° ♄ 32'53	3.97160 AU
opposition	8875 Sep 07 06:32	22° ♄ 47'57	-0°00'44	opposition		8881 Mar 06 00:38	18° ♄ 20'35	-0°04'49
min. Earth dist.	8875 Sep 08 19:24	22° ♄ 36'11	4.40034 AU	asc. node		8881 Apr 17 13:29	13° ♄ 49'06	
direct	8875 Nov 08 17:02	17° ♄ 47'24		direct		8881 May 03 01:34	13° ♄ 24'10	
	8876 Feb 16 07:53	0° ♄				8881 Aug 25 00:16	0° ♄	
evening set	8876 Mar 12 23:42	5° ♄ 31'13		evening set		8881 Sep 06 22:17	2° ♄ 59'58	
max. Earth dist.	8876 Mar 23 10:55	7° ♄ 51'11	6.33119 AU					
				conjunction		8881 Sep 20 14:07	6° ♄ 12'40	0°11'24
conjunction	8876 Mar 25 18:14	8° ♄ 22'07	-0°13'20	minimum elong		8881 Sep 20 14:07	6° ♄ 12'40	0°11'26
minimum elong	8876 Mar 25 18:14	8° ♄ 22'07	0°13'21	behind sun begin		8881 Sep 20 08:07	6° ♄ 09'09	
behind sun begin	8876 Mar 25 13:34	8° ♄ 19'32		behind sun end		8881 Sep 20 20:06	6° ♄ 16'10	
behind sun end	8876 Mar 25 22:53	8° ♄ 24'43		max. Earth dist.		8881 Sep 23 02:30	6° ♄ 48'12	6.03919 AU
morning rise	8876 Apr 07 11:38	11° ♄ 12'45		morning rise		8881 Oct 04 07:12	9° ♄ 25'43	
retrograde	8876 Aug 09 06:07	29° ♄ 01'18		retrograde		8882 Feb 09 22:25	28° ♄ 57'50	
opposition	8876 Oct 08 23:54	24° ♄ 08'01	-0°37'04	min. Earth dist.		8882 Apr 09 00:51	24° ♄ 06'26	4.11995 AU
min. Earth dist.	8876 Oct 10 15:40	23° ♄ 55'14	4.25040 AU	opposition		8882 Apr 10 14:22	23° ♄ 53'43	0°36'49
direct	8876 Dec 09 13:38	19° ♄ 09'03		direct		8882 Jun 08 14:33	18° ♄ 54'57	
	8877 Mar 10 09:50	0° ♄				8882 Sep 07 17:29	0° ♄	
evening set	8877 Apr 14 02:30	7° ♄ 38'14		evening set		8882 Oct 13 03:23	7° ♄ 40'39	
max. Earth dist.	8877 Apr 24 19:11	10° ♄ 06'46	6.16478 AU					
				conjunction		8882 Oct 26 17:41	10° ♄ 45'03	0°35'26
conjunction	8877 Apr 26 21:33	10° ♄ 36'01	-0°35'31	minimum elong		8882 Oct 26 17:40	10° ♄ 45'02	0°35'35
minimum elong	8877 Apr 26 21:32	10° ♄ 36'00	0°35'39	max. Earth dist.		8882 Oct 28 22:47	11° ♄ 15'05	6.20689 AU
morning rise	8877 May 09 16:41	13° ♄ 34'10		morning rise		8882 Nov 09 07:54	13° ♄ 49'03	
	8877 May 15 21:49	15° ♄				8882 Nov 14 14:55	15° ♄	
	8877 Aug 03 14:38	0° ♄				8883 Feb 05 19:07	0° ♄	
retrograde	8877 Sep 13 20:17	2° ♄ 35'29		retrograde		8883 Apr 14 11:38	2° ♄ 05'24	
	8877 Oct 25 12:31	30° ♄				8883 Apr 20 00:49	30° ♄	
opposition	8877 Nov 13 03:40	27° ♄ 40'30	-1°04'16	min. Earth dist.		8883 May 12 10:46	27° ♄ 12'52	4.29091 AU
min. Earth dist.	8877 Nov 14 07:27	27° ♄ 31'26	4.07968 AU	opposition		8883 May 13 14:45	27° ♄ 03'31	1°02'58
direct	8878 Jan 12 07:13	22° ♄ 43'45		direct		8883 Jul 12 21:27	22° ♄ 02'56	

	8883 Sep 27 20:50	0°♏		min. Earth dist.	8888 Oct 15 08:24	28°♑36'20	4.22615 AU
evening set	8883 Nov 16 01:25	9°♏59'52		direct	8888 Dec 14 02:24	23°♑49'57	
					8889 Feb 18 00:25	0°♏	
conjunction	8883 Nov 29 11:10	12°♏55'35	0°46'54	evening set	8889 Apr 18 18:29	12°♏26'40	
minimum elong	8883 Nov 29 11:10	12°♏55'34	0°47'07		8889 Apr 29 17:58	15°♏	
max. Earth dist.	8883 Nov 30 15:54	13°♏11'18	6.36750 AU	max. Earth dist.	8889 Apr 29 14:01	14°♏57'42	6.13971 AU
morning rise	8883 Dec 12 19:34	15°♏50'23					
	8884 Feb 27 13:19	0°♏		conjunction	8889 May 01 13:51	15°♏25'38	-0°37'56
retrograde	8884 Apr 13 03:13	3°♏05'18		minimum elong	8889 May 01 13:50	15°♏25'38	0°38'06
	8884 May 28 20:58	30°♏♏		morning rise	8889 May 14 09:28	18°♏25'05	
opposition	8884 Jun 12 15:35	28°♏06'50	1°08'52		8889 Jul 07 09:36	0°♏	
min. Earth dist.	8884 Jun 12 06:06	28°♏09'57	4.42945 AU	retrograde	8889 Sep 19 02:38	7°♏37'47	
direct	8884 Aug 13 05:27	23°♏05'21		opposition	8889 Nov 18 07:03	2°♏42'28	-1°06'35
	8884 Oct 24 13:50	0°♏		min. Earth dist.	8889 Nov 19 09:20	2°♏33'52	4.05579 AU
evening set	8884 Dec 16 21:41	10°♏28'03			8889 Dec 10 05:38	30°♏♏	
				direct	8890 Jan 17 06:21	27°♏46'01	
conjunction	8884 Dec 30 02:04	13°♏17'27	0°44'32		8890 Feb 23 18:14	0°♏	
minimum elong	8884 Dec 30 02:05	13°♏17'27	0°44'47	evening set	8890 May 23 10:08	17°♏14'49	
max. Earth dist.	8884 Dec 30 00:50	13°♏16'47	6.47409 AU	max. Earth dist.	8890 Jun 04 11:55	20°♏09'18	5.98447 AU
morning rise	8885 Jan 12 04:30	16°♏05'47					
	8885 Mar 30 12:32	0°♏		conjunction	8890 Jun 05 09:50	20°♏22'33	-0°47'07
retrograde	8885 May 12 18:47	2°♏45'51		minimum elong	8890 Jun 05 09:50	20°♏22'33	0°47'21
	8885 Jun 25 06:53	30°♏♏		morning rise	8890 Jun 18 11:01	23°♏31'22	
opposition	8885 Jul 12 15:31	27°♏50'27	0°56'13		8890 Jul 16 04:26	0°♏	
min. Earth dist.	8885 Jul 13 01:32	27°♏47'13	4.49852 AU	retrograde	8890 Oct 27 09:04	13°♏54'58	
direct	8885 Sep 13 01:38	22°♏48'42		opposition	8890 Dec 26 01:33	8°♏56'47	-1°08'05
	8885 Nov 26 15:57	0°♏		min. Earth dist.	8890 Dec 26 03:48	8°♏56'02	3.93170 AU
evening set	8886 Jan 16 10:03	9°♏57'55		direct	8891 Feb 22 15:35	4°♏02'09	
max. Earth dist.	8886 Jan 28 06:06	12°♏29'38	6.50082 AU	evening set	8891 Jun 29 07:59	24°♏06'26	
conjunction	8886 Jan 29 09:50	12°♏44'29	0°30'26	conjunction	8891 Jul 12 14:34	27°♏21'16	-0°38'26
minimum elong	8886 Jan 29 09:51	12°♏44'30	0°30'36	minimum elong	8891 Jul 12 14:35	27°♏21'16	0°38'40
	8886 Feb 08 22:54	15°♏		max. Earth dist.	8891 Jul 13 05:22	27°♏30'20	5.90415 AU
morning rise	8886 Feb 11 07:14	15°♏30'01			8891 Jul 23 10:06	0°♏	
	8886 May 05 02:50	0°♏		morning rise	8891 Jul 25 23:46	0°♏37'32	
retrograde	8886 Jun 11 14:39	2°♏05'38			8891 Sep 29 17:40	15°♏	
	8886 Jul 19 07:05	30°♏♏		retrograde	8891 Dec 05 07:00	21°♏33'06	
opposition	8886 Aug 11 15:48	27°♏12'15	0°29'21	opposition	8892 Feb 02 16:32	16°♏31'23	-0°41'34
min. Earth dist.	8886 Aug 12 19:13	27°♏03'29	4.48193 AU	min. Earth dist.	8892 Feb 01 17:37	16°♏39'09	3.90560 AU
direct	8886 Oct 13 09:19	22°♏10'52			8892 Feb 14 03:42	15°♏♏	
	8886 Dec 30 07:50	0°♏		direct	8892 Mar 31 13:40	11°♏36'37	
evening set	8887 Feb 15 13:54	9°♏29'09			8892 May 16 04:11	15°♏	
max. Earth dist.	8887 Feb 26 09:05	11°♏49'51	6.44149 AU		8892 Jul 29 11:13	0°♏	
				evening set	8892 Aug 05 11:36	1°♏40'54	
conjunction	8887 Feb 28 10:00	12°♏16'30	0°08'20				
minimum elong	8887 Feb 28 10:00	12°♏16'30	0°08'25	conjunction	8892 Aug 19 00:57	4°♏57'27	-0°14'02
behind sun begin	8887 Feb 28 03:00	12°♏12'42		minimum elong	8892 Aug 19 00:57	4°♏57'28	0°14'09
behind sun end	8887 Feb 28 17:00	12°♏20'18		behind sun begin	8892 Aug 18 20:59	4°♏55'04	
morning rise	8887 Mar 13 04:23	15°♏03'11		behind sun end	8892 Aug 19 04:56	4°♏59'52	
	8887 Jun 05 08:07	0°♏		max. Earth dist.	8892 Aug 21 01:53	5°♏27'04	5.93485 AU
desc. node	8887 Jul 10 04:38	2°♏04'47		morning rise	8892 Sep 01 16:27	8°♏15'01	
retrograde	8887 Jul 12 18:14	2°♏05'24		retrograde	8893 Jan 10 19:58	28°♏43'49	
	8887 Aug 19 09:10	30°♏♏		asc. node	8893 Feb 25 01:00	25°♏32'52	
opposition	8887 Sep 11 17:25	27°♏12'36	-0°05'58	min. Earth dist.	8893 Mar 09 17:00	23°♏52'15	3.98950 AU
min. Earth dist.	8887 Sep 13 08:24	27°♏00'09	4.38306 AU	opposition	8893 Mar 11 05:52	23°♏39'42	0°01'36
direct	8887 Nov 13 03:02	22°♏12'09		direct	8893 May 08 09:46	18°♏43'01	
	8888 Jan 28 19:01	0°♏			8893 Aug 06 14:39	0°♏	
evening set	8888 Mar 17 09:00	10°♏01'14		evening set	8893 Sep 12 04:37	8°♏11'55	
max. Earth dist.	8888 Mar 27 19:14	12°♏21'18	6.30970 AU				
				conjunction	8893 Sep 25 20:26	11°♏23'32	0°15'22
conjunction	8888 Mar 30 03:33	12°♏52'57	-0°16'48	minimum elong	8893 Sep 25 20:25	11°♏23'31	0°15'25
minimum elong	8888 Mar 30 03:32	12°♏52'56	0°16'51	behind sun begin	8893 Sep 25 18:26	11°♏22'22	
morning rise	8888 Apr 11 20:59	15°♏44'26		behind sun end	8893 Sep 25 22:24	11°♏24'41	
	8888 Jun 24 20:29	0°♏		max. Earth dist.	8893 Sep 28 10:00	11°♏59'33	6.06255 AU
retrograde	8888 Aug 14 00:44	3°♏42'09		morning rise	8893 Oct 09 13:24	14°♏35'23	
	8888 Oct 04 10:07	30°♏♏			8893 Dec 25 19:15	0°♏	
opposition	8888 Oct 13 18:05	28°♏48'39	-0°41'44	retrograde	8894 Feb 14 15:43	3°♏56'03	

	8894 Apr 06 23:45	30° κ Ω			8899 May 09 10:37	0° Υ
min. Earth dist.	8894 Apr 13 20:11	29° Ω 04'56	4.14629 AU	desc. node	8899 May 19 23:45	1° Υ 42'33
opposition	8894 Apr 15 10:05	28° Ω 52'07	0°41'38	retrograde	8899 Jul 17 06:05	6° Υ 32'29
direct	8894 Jun 13 13:31	23° Ω 53'04		opposition	8899 Sep 16 05:02	1° Υ 39'42 -0°11'11
	8894 Aug 17 14:08	0° \mathbb{M}		min. Earth dist.	8899 Sep 17 20:17	1° Υ 27'10 4.36092 AU
evening set	8894 Oct 18 01:35	12° \mathbb{M} 30'29			8899 Sep 29 10:55	30° κ \mathbb{H}
	8894 Oct 29 03:49	15° \mathbb{M}		direct	8899 Nov 17 10:31	26° \mathbb{H} 39'29
					8900 Jan 04 17:13	0° Υ
conjunction	8894 Oct 31 15:14	15° \mathbb{M} 33'27	0°37'51	evening set	8900 Mar 22 19:33	14° Υ 35'29
minimum elong	8894 Oct 31 15:13	15° \mathbb{M} 33'26	0°38'02	max. Earth dist.	8900 Apr 02 05:23	16° Υ 56'12 6.28400 AU
max. Earth dist.	8894 Nov 02 16:53	16° \mathbb{M} 01'23	6.23388 AU			
morning rise	8894 Nov 14 04:41	18° \mathbb{M} 35'56		conjunction	8900 Apr 04 13:57	17° Υ 28'12 -0°20'10
	8895 Jan 09 01:46	0° \mathbb{J}		minimum elong	8900 Apr 04 13:57	17° Υ 28'11 0°20'14
retrograde	8895 Mar 18 21:55	6° \mathbb{J} 41'26		morning rise	8900 Apr 17 07:39	20° Υ 20'48
min. Earth dist.	8895 May 17 00:56	1° \mathbb{J} 48'17	4.31612 AU		8900 Jun 02 00:11	0° \mathcal{B}
opposition	8895 May 18 01:46	1° \mathbb{J} 40'01	1°04'58	retrograde	8900 Aug 20 00:40	8° \mathcal{B} 29'26
	8895 May 30 20:34	30° κ \mathbb{M}		opposition	8900 Oct 19 14:57	3° \mathcal{B} 35'46 -0°46'11
direct	8895 Jul 17 14:15	26° \mathbb{M} 39'15		min. Earth dist.	8900 Oct 21 04:51	3° \mathcal{B} 23'31 4.19856 AU
	8895 Sep 03 11:08	0° \mathbb{J}			8900 Nov 19 20:08	30° κ Υ
evening set	8895 Nov 20 14:52	14° \mathbb{J} 29'22		direct	8900 Dec 19 19:17	28° Υ 37'21
					8901 Jan 18 14:35	0° \mathcal{B}
conjunction	8895 Dec 03 23:53	17° \mathbb{J} 23'55	0°47'20		8901 Apr 14 05:49	15° \mathcal{B}
minimum elong	8895 Dec 03 23:53	17° \mathbb{J} 23'54	0°47'34	evening set	8901 Apr 24 12:58	17° \mathcal{B} 22'41
max. Earth dist.	8895 Dec 05 00:57	17° \mathbb{J} 37'34	6.38895 AU	max. Earth dist.	8901 May 05 12:00	19° \mathcal{B} 56'38 6.11275 AU
morning rise	8895 Dec 17 07:22	20° \mathbb{J} 17'31				
	8896 Feb 03 13:45	0° \mathcal{B}		conjunction	8901 May 07 08:53	20° \mathcal{B} 23'00 -0°40'07
retrograde	8896 Apr 17 06:08	7° \mathcal{B} 25'07		minimum elong	8901 May 07 08:52	20° \mathcal{B} 23'00 0°40'18
opposition	8896 Jun 16 20:47	2° \mathcal{B} 27'07	1°08'03	morning rise	8901 May 20 05:05	23° \mathcal{B} 23'52
min. Earth dist.	8896 Jun 16 13:33	2° \mathcal{B} 29'29	4.44581 AU		8901 Jun 18 07:26	0° \mathbb{H}
	8896 Jul 06 12:38	30° κ \mathbb{J}		retrograde	8901 Sep 25 10:05	12° \mathbb{H} 48'26
direct	8896 Aug 17 13:04	27° \mathbb{J} 25'34		opposition	8901 Nov 24 13:12	7° \mathbb{H} 52'48 -1°08'26
	8896 Sep 28 23:34	0° \mathcal{B}		min. Earth dist.	8901 Nov 25 11:51	7° \mathbb{H} 45'23 4.03215 AU
evening set	8896 Dec 21 04:44	14° \mathcal{B} 44'33		direct	8902 Jan 23 06:15	2° \mathbb{H} 56'44
				evening set	8902 May 29 13:43	22° \mathbb{H} 32'42
conjunction	8897 Jan 03 08:25	17° \mathcal{B} 33'17	0°43'09			
minimum elong	8897 Jan 03 08:25	17° \mathcal{B} 33'17	0°43'24	conjunction	8902 Jun 11 14:10	25° \mathbb{H} 41'39 -0°46'59
max. Earth dist.	8897 Jan 03 03:08	17° \mathcal{B} 30'27	6.48423 AU	minimum elong	8902 Jun 11 14:10	25° \mathbb{H} 41'39 0°47'13
morning rise	8897 Jan 16 09:59	20° \mathcal{B} 20'55		max. Earth dist.	8902 Jun 10 20:52	25° \mathbb{H} 31'09 5.96644 AU
	8897 Mar 06 07:03	0° \approx		morning rise	8902 Jun 24 16:30	28° \mathbb{H} 51'48
retrograde	8897 May 16 22:02	6° \approx 58'19			8902 Jun 29 10:07	0° \mathcal{D}
opposition	8897 Jul 16 18:59	2° \approx 03'21	0°53'09	retrograde	8902 Nov 02 22:10	19° \mathcal{D} 23'10
min. Earth dist.	8897 Jul 17 08:22	1° \approx 59'02	4.50183 AU	opposition	8903 Jan 01 13:37	14° \mathcal{D} 24'24 -1°05'52
	8897 Aug 02 06:02	30° κ \mathcal{B}		min. Earth dist.	8903 Jan 01 11:31	14° \mathcal{D} 25'06 3.92139 AU
direct	8897 Sep 17 07:29	27° \mathcal{B} 01'39		direct	8903 Mar 01 00:40	9° \mathcal{D} 29'50
	8897 Nov 02 10:08	0° \approx		evening set	8903 Jul 05 17:30	29° \mathcal{D} 36'09
evening set	8898 Jan 20 14:30	14° \approx 10'48			8903 Jul 07 08:40	0° Ω
	8898 Jan 24 10:45	15° \approx				
max. Earth dist.	8898 Feb 01 04:37	16° \approx 39'35	6.49694 AU	conjunction	8903 Jul 19 01:17	2° Ω 51'35 -0°35'42
				minimum elong	8903 Jul 19 01:18	2° Ω 51'36 0°35'54
conjunction	8898 Feb 02 13:35	16° \approx 57'16	0°27'42	max. Earth dist.	8903 Jul 19 23:27	3° Ω 05'09 5.90272 AU
minimum elong	8898 Feb 02 13:35	16° \approx 57'17	0°27'52	morning rise	8903 Aug 01 11:23	6° Ω 08'21
morning rise	8898 Feb 15 10:36	19° \approx 42'48			8903 Sep 08 13:51	15° Ω
	8898 Apr 08 21:53	0° \mathbb{H}		retrograde	8903 Dec 11 18:38	27° Ω 02'52
retrograde	8898 Jun 15 21:06	6° \mathbb{H} 20'39		min. Earth dist.	8904 Feb 08 02:10	22° Ω 09'11 3.91318 AU
opposition	8898 Aug 15 21:23	1° \mathbb{H} 27'26	0°24'45	opposition	8904 Feb 09 03:22	22° Ω 00'39 -0°35'56
min. Earth dist.	8898 Aug 17 03:25	1° \mathbb{H} 17'50	4.47113 AU	direct	8904 Apr 07 00:52	17° Ω 05'41
	8898 Aug 27 10:54	30° κ \approx			8904 Jul 12 10:01	0° \mathbb{H}
direct	8898 Oct 17 14:25	26° \approx 26'05		evening set	8904 Aug 11 21:31	7° \mathbb{H} 05'42
	8898 Dec 07 05:42	0° \mathbb{H}				
evening set	8899 Feb 19 19:25	13° \mathbb{H} 48'09		conjunction	8904 Aug 25 11:22	10° \mathbb{H} 21'45 -0°09'50
max. Earth dist.	8899 Mar 02 13:08	16° \mathbb{H} 08'34	6.42451 AU	minimum elong	8904 Aug 25 11:22	10° \mathbb{H} 21'45 0°09'56
				behind sun begin	8904 Aug 25 04:36	10° \mathbb{H} 17'42
conjunction	8899 Mar 04 15:22	16° \mathbb{H} 36'03	0°04'52	behind sun end	8904 Aug 25 18:08	10° \mathbb{H} 25'49
minimum elong	8899 Mar 04 15:23	16° \mathbb{H} 36'03	0°04'57	max. Earth dist.	8904 Aug 27 15:31	10° \mathbb{H} 53'10 5.95024 AU
behind sun begin	8899 Mar 04 07:37	16° \mathbb{H} 31'49		morning rise	8904 Sep 08 03:26	13° \mathbb{H} 38'45
behind sun end	8899 Mar 04 23:08	16° \mathbb{H} 40'16			8904 Nov 27 01:47	0° Ω
morning rise	8899 Mar 17 09:23	19° \mathbb{H} 23'16		asc. node	8905 Jan 05 08:30	3° Ω 45'13

retrograde	8905 Jan 16 21:03	3°♌58'29		conjunction	8911 Mar 09 22:23	20°♎59'54	0°01'16
	8905 Mar 09 05:58	30°♏♏		minimum elong	8911 Mar 09 22:24	20°♎59'55	0°01'19
min. Earth dist.	8905 Mar 15 18:03	29°♏07'22	4.01087 AU	behind sun begin	8911 Mar 09 14:25	20°♎55'33	
opposition	8905 Mar 17 08:44	28°♏54'13	0°07'54	behind sun end	8911 Mar 10 06:23	21°♎04'17	
direct	8905 May 14 14:41	23°♏57'09		morning rise	8911 Mar 22 16:25	23°♎47'49	
	8905 Jul 16 23:04	0°♌		desc. node	8911 Mar 29 10:31	25°♎16'00	
evening set	8905 Sep 18 09:02	13°♌18'19			8911 Apr 20 23:44	0°♏	
				retrograde	8911 Jul 22 22:26	11°♏04'36	
conjunction	8905 Oct 02 00:40	16°♌28'40	0°19'11	opposition	8911 Sep 21 19:20	6°♏11'48	-0°16'29
minimum elong	8905 Oct 02 00:39	16°♌28'40	0°19'14	min. Earth dist.	8911 Sep 23 11:05	5°♏59'04	4.33864 AU
max. Earth dist.	8905 Oct 04 12:30	17°♌03'29	6.08768 AU	direct	8911 Nov 22 21:57	1°♏11'49	
morning rise	8905 Oct 15 17:21	19°♌39'12		evening set	8912 Mar 27 08:13	19°♏14'45	
	8905 Dec 02 17:11	0°♏		max. Earth dist.	8912 Apr 06 20:07	21°♏37'23	6.25960 AU
retrograde	8906 Feb 20 07:56	8°♏48'13					
min. Earth dist.	8906 Apr 19 15:44	3°♏56'33	4.17252 AU	conjunction	8912 Apr 09 02:50	22°♏08'29	-0°23'31
opposition	8906 Apr 21 03:27	3°♏44'29	0°46'05	minimum elong	8912 Apr 09 02:49	22°♏08'29	0°23'35
	8906 May 22 18:12	30°♏♌		morning rise	8912 Apr 21 20:34	25°♏02'09	
direct	8906 Jun 19 12:21	28°♌45'06			8912 May 14 06:20	0°♎	
	8906 Jul 17 12:18	0°♏		retrograde	8912 Aug 25 00:30	13°♎21'12	
	8906 Oct 13 17:46	15°♏		opposition	8912 Oct 24 13:47	8°♎27'24	-0°50'27
evening set	8906 Oct 23 21:27	17°♏14'39		min. Earth dist.	8912 Oct 26 01:43	8°♎15'47	4.17415 AU
				direct	8912 Dec 24 12:29	3°♎29'27	
conjunction	8906 Nov 06 10:40	20°♏16'18	0°40'01		8913 Mar 27 14:32	15°♎	
minimum elong	8906 Nov 06 10:39	20°♏16'17	0°40'12	evening set	8913 Apr 29 09:09	22°♎22'12	
max. Earth dist.	8906 Nov 08 10:23	20°♏42'59	6.25908 AU	max. Earth dist.	8913 May 10 11:27	24°♎58'55	6.09052 AU
morning rise	8906 Nov 19 23:14	23°♏17'21					
	8906 Dec 21 08:06	0°♎		conjunction	8913 May 12 05:21	25°♎23'40	-0°42'05
retrograde	8907 Mar 24 04:52	11°♎13'00		minimum elong	8913 May 12 05:20	25°♎23'40	0°42'17
min. Earth dist.	8907 May 22 12:00	6°♎19'46	4.33841 AU	morning rise	8913 May 25 02:19	28°♎25'49	
opposition	8907 May 23 11:14	6°♎12'03	1°06'34		8913 May 31 19:26	0°♏	
direct	8907 Jul 23 02:55	1°♎11'09		retrograde	8913 Sep 30 18:20	18°♏00'33	
evening set	8907 Nov 26 03:11	18°♎55'35		opposition	8913 Nov 29 20:10	13°♏04'31	-1°09'46
				min. Earth dist.	8913 Nov 30 15:07	12°♏58'18	4.01432 AU
conjunction	8907 Dec 09 11:19	21°♎49'06	0°47'30	direct	8914 Jan 28 09:19	8°♏08'47	
minimum elong	8907 Dec 09 11:19	21°♎49'06	0°47'45	evening set	8914 Jun 03 16:52	27°♏49'36	
max. Earth dist.	8907 Dec 10 06:46	21°♎59'39	6.40672 AU		8914 Jun 12 16:19	0°♎	
morning rise	8907 Dec 22 18:01	24°♎41'39					
	8908 Jan 17 01:12	0°♎		conjunction	8914 Jun 16 18:19	0°♎59'31	-0°46'31
retrograde	8908 Apr 22 11:17	11°♎43'21		minimum elong	8914 Jun 16 18:19	0°♎59'31	0°46'46
opposition	8908 Jun 22 01:54	6°♎45'51	1°06'55	max. Earth dist.	8914 Jun 16 08:04	0°♎53'17	5.95495 AU
min. Earth dist.	8908 Jun 21 22:39	6°♎46'55	4.45808 AU	morning rise	8914 Jun 29 21:28	4°♎10'38	
direct	8908 Aug 22 22:49	1°♎44'14		retrograde	8914 Nov 08 10:12	24°♎46'55	
evening set	8908 Dec 26 11:58	19°♎00'45		opposition	8915 Jan 06 23:51	19°♎47'41	-1°03'08
				min. Earth dist.	8915 Jan 06 18:35	19°♎49'27	3.91779 AU
conjunction	8909 Jan 08 15:01	21°♎49'00	0°41'33	direct	8915 Mar 06 08:13	14°♎53'15	
minimum elong	8909 Jan 08 15:02	21°♎49'01	0°41'47		8915 Jun 20 03:22	0°♏	
max. Earth dist.	8909 Jan 08 05:28	21°♎43'53	6.49011 AU	evening set	8915 Jul 11 00:45	4°♏59'10	
morning rise	8909 Jan 21 15:53	24°♎36'11					
	8909 Feb 16 18:26	0°♏		conjunction	8915 Jul 24 09:17	8°♏14'47	-0°32'45
retrograde	8909 May 22 01:12	11°♏12'12		minimum elong	8915 Jul 24 09:19	8°♏14'48	0°32'57
opposition	8909 Jul 21 23:18	6°♏17'31	0°49'49	max. Earth dist.	8915 Jul 25 11:36	8°♏30'52	5.90715 AU
min. Earth dist.	8909 Jul 22 14:49	6°♏12'32	4.50125 AU	morning rise	8915 Aug 06 20:29	11°♏31'47	
direct	8909 Sep 22 12:12	1°♏15'50			8915 Aug 21 07:52	15°♏	
	8910 Jan 09 11:21	15°♏			8915 Nov 08 07:38	0°♏	
evening set	8910 Jan 25 20:01	18°♏26'03		retrograde	8915 Dec 16 23:47	2°♏22'45	
max. Earth dist.	8910 Feb 06 07:29	20°♏53'40	6.48992 AU		8916 Jan 24 16:10	30°♏♏	
				min. Earth dist.	8916 Feb 13 05:05	27°♏29'50	3.92531 AU
conjunction	8910 Feb 07 18:41	21°♏12'36	0°24'47	opposition	8916 Feb 14 09:37	27°♏20'10	-0°30'13
minimum elong	8910 Feb 07 18:42	21°♏12'37	0°24'57	direct	8916 Apr 12 06:48	22°♏24'59	
morning rise	8910 Feb 20 15:07	23°♏58'13			8916 Jun 22 05:19	0°♏	
	8910 Mar 21 18:37	0°♎		evening set	8916 Aug 17 03:06	12°♏19'34	
retrograde	8910 Jun 21 04:59	10°♎39'17					
opposition	8910 Aug 21 05:03	5°♎46'16	0°19'55	conjunction	8916 Aug 30 17:21	15°♏34'56	-0°05'45
min. Earth dist.	8910 Aug 22 13:08	5°♎36'01	4.45808 AU	minimum elong	8916 Aug 30 17:22	15°♏34'56	0°05'49
direct	8910 Oct 22 21:12	0°♎45'07		behind sun begin	8916 Aug 30 09:22	15°♏30'10	
evening set	8911 Feb 25 02:54	18°♎11'27		behind sun end	8916 Aug 31 01:22	15°♏39'43	
max. Earth dist.	8911 Mar 07 17:16	20°♎30'42	6.40626 AU	max. Earth dist.	8916 Sep 01 22:51	16°♏07'00	5.96866 AU

morning rise	8916 Sep 13 09:46	18° 17 51'10	direct	8922 Oct 27 03:21	5° 14 04'33	
	8916 Nov 02 17:03	0° 0	desc. node	8923 Feb 05 14:20	17° 14 30'47	
asc. node	8916 Nov 16 01:45	2° 0 29'43	evening set	8923 Mar 01 10:08	22° 14 35'06	
retrograde	8917 Jan 21 18:14	9° 0 01'19	max. Earth dist.	8923 Mar 12 01:01	24° 14 55'10	6.38862 AU
min. Earth dist.	8917 Mar 20 16:44	4° 0 09'54	4.03328 AU			
opposition	8917 Mar 22 06:42	3° 0 56'59	0°13'52	conjunction	8923 Mar 14 05:31	25° 14 24'09 -0°02'23
	8917 Apr 25 04:37	30° 18		minimum elong	8923 Mar 14 05:30	25° 14 24'08 0°02'21
direct	8917 May 19 16:37	28° 17 59'34		behind sun begin	8923 Mar 13 21:32	25° 14 19'46
	8917 Jun 13 07:23	0° 0		behind sun end	8923 Mar 14 13:28	25° 14 28'31
evening set	8917 Sep 23 08:11	18° 0 13'03		morning rise	8923 Mar 26 23:12	28° 14 12'37
					8923 Apr 04 04:05	0° 0
conjunction	8917 Oct 06 23:48	21° 0 22'16	0°22'41	retrograde	8923 Jul 27 12:56	15° 0 36'29
minimum elong	8917 Oct 06 23:47	21° 0 22'15	0°22'46	opposition	8923 Sep 26 09:28	10° 0 43'34 -0°21'38
max. Earth dist.	8917 Oct 09 11:46	21° 0 56'57	6.11203 AU	min. Earth dist.	8923 Sep 28 01:24	10° 0 30'47 4.31817 AU
morning rise	8917 Oct 20 16:00	24° 0 31'28		direct	8923 Nov 27 09:18	5° 0 43'51
	8917 Nov 14 03:53	0° 0		evening set	8924 Mar 31 20:13	23° 0 52'39
retrograde	8918 Feb 24 19:09	13° 0 29'45		max. Earth dist.	8924 Apr 11 07:59	26° 0 15'58 6.23766 AU
min. Earth dist.	8918 Apr 24 05:44	8° 0 38'02	4.19652 AU			
opposition	8918 Apr 25 16:20	8° 0 26'24	0°50'03	conjunction	8924 Apr 13 14:42	26° 0 47'14 -0°26'40
direct	8918 Jun 24 04:35	3° 0 26'49		minimum elong	8924 Apr 13 14:41	26° 0 47'13 0°26'46
	8918 Sep 26 16:42	15° 0		morning rise	8924 Apr 26 08:50	29° 0 41'55
evening set	8918 Oct 28 13:16	21° 0 49'38			8924 Apr 27 16:41	0° 0
					8924 Jul 14 21:41	15° 0
conjunction	8918 Nov 11 01:44	24° 0 50'05	0°41'52	retrograde	8924 Aug 29 23:21	18° 0 10'28
minimum elong	8918 Nov 11 01:43	24° 0 50'04	0°42'03		8924 Oct 15 19:50	15° 0
max. Earth dist.	8918 Nov 12 20:13	25° 0 13'44	6.28078 AU	opposition	8924 Oct 29 11:44	13° 0 16'19 -0°54'18
morning rise	8918 Nov 24 13:44	27° 0 49'56		min. Earth dist.	8924 Oct 30 21:37	13° 0 05'20 4.15207 AU
	8918 Dec 04 11:14	0° 0		direct	8924 Dec 29 06:34	8° 0 18'36
retrograde	8919 Mar 28 10:31	15° 0 37'25			8925 Mar 07 11:52	15° 0
opposition	8919 May 27 17:36	10° 0 36'57	1°07'47	evening set	8925 May 04 03:42	27° 0 17'47
min. Earth dist.	8919 May 26 21:51	10° 0 43'29	4.35639 AU	max. Earth dist.	8925 May 15 11:16	29° 0 58'16 6.07020 AU
direct	8919 Jul 27 14:20	5° 0 35'53			8925 May 15 14:12	0° 0
evening set	8919 Nov 30 12:30	23° 0 16'11				
				conjunction	8925 May 17 00:32	0° 0 20'22 -0°43'41
conjunction	8919 Dec 13 20:10	26° 0 37'08'57	0°47'26	minimum elong	8925 May 17 00:31	0° 0 20'22 0°43'53
minimum elong	8919 Dec 13 20:10	26° 0 37'08'57	0°47'41	morning rise	8925 May 29 21:59	3° 0 23'39
max. Earth dist.	8919 Dec 14 12:42	26° 0 37'17'54	6.41988 AU	retrograde	8925 Oct 06 01:48	23° 0 10'7'40
morning rise	8919 Dec 27 01:57	29° 0 37'00'41		opposition	8925 Dec 05 01:02	18° 0 11'16 -1°10'32
	8919 Dec 31 16:44	0° 0		min. Earth dist.	8925 Dec 05 17:39	18° 0 10'5'48 3.99764 AU
retrograde	8920 Apr 26 12:31	15° 0 35'8'06		direct	8926 Feb 02 10:04	13° 0 11'5'47
opposition	8920 Jun 26 05:15	11° 0 30'1'03	1°05'30		8926 May 27 03:32	0° 0
min. Earth dist.	8920 Jun 26 03:51	11° 0 30'1'30	4.46588 AU	evening set	8926 Jun 08 18:34	3° 0 01'14
direct	8920 Aug 27 03:57	5° 0 35'9'26				
evening set	8920 Dec 30 17:40	23° 0 31'4'45		conjunction	8926 Jun 21 20:46	6° 0 12'0'5 -0°45'39
				minimum elong	8926 Jun 21 20:47	6° 0 12'0'6 0°45'55
conjunction	8921 Jan 12 20:00	26° 0 30'2'41	0°39'47	max. Earth dist.	8926 Jun 21 13:56	6° 0 07'5'6 5.94341 AU
minimum elong	8921 Jan 12 20:01	26° 0 30'2'41	0°40'00	morning rise	8926 Jul 05 01:09	9° 0 24'1'5
max. Earth dist.	8921 Jan 12 06:05	25° 0 35'5'14	6.49216 AU		8926 Nov 06 09:09	0° 0
morning rise	8921 Jan 25 20:19	28° 0 34'9'34		retrograde	8926 Nov 13 17:42	0° 0 05'2'3
	8921 Jan 31 09:19	0° 0			8926 Nov 21 02:41	30° 0 18'0
	8921 May 09 16:08	15° 0		opposition	8927 Jan 12 07:40	25° 0 05'4'0 -0°59'53
retrograde	8921 May 26 05:47	15° 0 25'2'26		min. Earth dist.	8927 Jan 11 22:08	25° 0 08'5'1 3.91288 AU
	8921 Jun 11 16:51	15° 0 18'0		direct	8927 Mar 11 12:25	20° 0 11'1'3
opposition	8921 Jul 26 03:28	10° 0 31'0'4	0°46'17		8927 Jun 01 09:54	0° 0
min. Earth dist.	8921 Jul 26 22:09	10° 0 25'0'4	4.49759 AU	evening set	8927 Jul 16 06:42	10° 0 17'4'0
direct	8921 Sep 26 18:30	5° 0 29'2'26				
	8921 Dec 23 04:49	15° 0		conjunction	8927 Jul 29 16:14	13° 0 33'3'9 -0°29'32
evening set	8922 Jan 30 01:02	22° 0 41'1'7		minimum elong	8927 Jul 29 16:15	13° 0 33'4'0 0°29'44
max. Earth dist.	8922 Feb 10 08:40	25° 0 7'1'3	6.48082 AU	max. Earth dist.	8927 Jul 30 22:56	13° 0 52'2'4 5.90938 AU
					8927 Aug 04 13:43	15° 0
conjunction	8922 Feb 11 23:14	25° 0 28'0'0	0°21'47	morning rise	8927 Aug 12 04:19	16° 0 50'5'7
minimum elong	8922 Feb 11 23:15	25° 0 28'0'1	0°21'56		8927 Oct 10 13:58	0° 0
morning rise	8922 Feb 24 19:18	28° 0 13'4'9		retrograde	8927 Dec 22 05:30	7° 0 39'3'0
	8922 Mar 05 02:42	0° 0		min. Earth dist.	8928 Feb 18 09:04	2° 0 46'3'9 3.93427 AU
retrograde	8922 Jun 25 12:37	14° 0 38'3'6		opposition	8928 Feb 19 14:53	2° 0 36'3'1 -0°24'16
opposition	8922 Aug 25 12:46	10° 0 35'3'7	0°15'02		8928 Mar 10 22:35	30° 0 18'0
min. Earth dist.	8922 Aug 26 21:33	9° 0 35'5'8	4.44421 AU	direct	8928 Apr 17 13:40	27° 0 41'0'3

	8928 May 24 23:05	0°♈	conjunction	8934 Feb 16 03:27	29°♊42'56	0°18'44
evening set	8928 Aug 22 08:33	17°♈31'44	minimum elong	8934 Feb 16 03:28	29°♊42'56	0°18'52
				8934 Feb 17 11:05	0°♈	
conjunction	8928 Sep 04 23:25	20°♈46'38 -0°01'35	morning rise	8934 Feb 28 23:00	2°♈28'40	
minimum elong	8928 Sep 04 23:26	20°♈46'38 0°01'37	retrograde	8934 Jun 29 19:37	19°♈15'25	
behind sun begin	8928 Sep 04 15:01	20°♈41'39	opposition	8934 Aug 29 19:42	14°♈22'33	0°10'12
behind sun end	8928 Sep 05 07:50	20°♈51'38	min. Earth dist.	8934 Aug 31 06:42	14°♈11'23	4.43630 AU
max. Earth dist.	8928 Sep 07 08:10	21°♈20'31 5.98342 AU	direct	8934 Oct 31 11:01	9°♈21'38	
morning rise	8928 Sep 18 16:03	24°♈02'15	desc. node	8934 Dec 18 07:15	12°♈35'42	
asc. node	8928 Sep 25 20:06	25°♈43'30	evening set	8935 Mar 05 15:18	26°♈54'26	
	8928 Oct 14 12:43	0°♏	max. Earth dist.	8935 Mar 16 03:33	29°♈13'30	6.37641 AU
retrograde	8929 Jan 26 15:49	14°♏04'10				
min. Earth dist.	8929 Mar 25 14:24	9°♏12'56 4.05218 AU	conjunction	8935 Mar 18 10:17	29°♈43'47	-0°05'47
opposition	8929 Mar 27 04:51	8°♏59'52 0°19'44	minimum elong	8935 Mar 18 10:16	29°♈43'47	0°05'45
direct	8929 May 24 16:52	4°♏02'11	behind sun begin	8935 Mar 18 02:38	29°♈39'35	
evening set	8929 Sep 28 09:02	23°♏09'35	behind sun end	8935 Mar 18 17:54	29°♈47'59	
				8935 Mar 19 15:35	0°♐	
conjunction	8929 Oct 12 00:17	26°♏17'43 0°26'05	morning rise	8935 Mar 31 03:52	2°♐32'41	
minimum elong	8929 Oct 12 00:16	26°♏17'43 0°26'11	retrograde	8935 Jul 31 23:44	20°♐02'08	
max. Earth dist.	8929 Oct 14 09:41	26°♏50'45 6.13315 AU	opposition	8935 Sep 30 20:48	15°♐09'05	-0°26'27
morning rise	8929 Oct 25 16:18	29°♏25'50	min. Earth dist.	8935 Oct 02 12:21	14°♐56'24	4.30224 AU
	8929 Oct 28 04:20	0°♐	direct	8935 Dec 01 17:46	10°♐09'31	
	8930 Jan 14 07:14	15°♐	evening set	8936 Apr 05 04:51	28°♐22'58	
retrograde	8930 Mar 01 07:58	18°♐14'31		8936 Apr 12 06:54	0°♑	
	8930 Apr 16 12:32	15°♐	max. Earth dist.	8936 Apr 15 18:38	0°♑48'00	6.21917 AU
min. Earth dist.	8930 Apr 28 21:47	13°♐22'33 4.21796 AU				
opposition	8930 Apr 30 06:43	13°♐11'28 0°53'45	conjunction	8936 Apr 17 23:29	1°♑18'19	-0°29'30
direct	8930 Jun 28 23:21	8°♐11'39	minimum elong	8936 Apr 17 23:28	1°♑18'19	0°29'37
	8930 Sep 06 16:39	15°♐	morning rise	8936 Apr 30 17:37	4°♑13'48	
evening set	8930 Nov 02 07:04	26°♐28'41		8936 Jun 20 12:30	15°♑	
			retrograde	8936 Sep 03 19:01	22°♑50'53	
conjunction	8930 Nov 15 19:07	29°♐28'05 0°43'29	opposition	8936 Nov 03 05:33	17°♑56'33	-0°57'36
minimum elong	8930 Nov 15 19:06	29°♐28'05 0°43'42	min. Earth dist.	8936 Nov 04 15:14	17°♑45'37	4.13220 AU
max. Earth dist.	8930 Nov 17 11:49	29°♐50'39 6.30109 AU		8936 Nov 27 12:41	15°♑	
	8930 Nov 18 04:40	0°♑	direct	8937 Jan 02 21:07	12°♑59'03	
morning rise	8930 Nov 29 06:11	2°♑26'45		8937 Feb 07 19:29	15°♑	
retrograde	8931 Apr 01 17:45	20°♑06'28		8937 Apr 29 22:22	0°♒	
min. Earth dist.	8931 May 31 08:12	15°♑12'30 4.37426 AU	evening set	8937 May 08 18:29	2°♒04'20	
opposition	8931 Jun 01 02:14	15°♑06'33 1°08'37	max. Earth dist.	8937 May 20 03:21	4°♒46'20	6.05054 AU
direct	8931 Aug 01 02:45	10°♑05'30				
evening set	8931 Dec 05 00:09	27°♑41'32	conjunction	8937 May 21 15:44	5°♒07'59	-0°44'54
	8931 Dec 15 17:02	0°♓	minimum elong	8937 May 21 15:43	5°♒07'59	0°45'07
			morning rise	8937 Jun 03 14:04	8°♒12'30	
conjunction	8931 Dec 18 06:53	0°♓33'26 0°47'06	retrograde	8937 Oct 11 03:00	28°♒05'53	
minimum elong	8931 Dec 18 06:53	0°♓33'26 0°47'21	opposition	8937 Dec 10 01:33	23°♒09'04	-1°10'44
max. Earth dist.	8931 Dec 18 18:33	0°♓39'44 6.43425 AU	min. Earth dist.	8937 Dec 10 14:54	23°♒04'39	3.98005 AU
morning rise	8931 Dec 31 12:00	3°♓24'19	direct	8938 Feb 07 05:18	18°♒13'43	
retrograde	8932 Apr 30 17:30	20°♓17'01		8938 May 09 23:51	0°♓	
opposition	8932 Jun 30 10:42	15°♓20'25 1°03'43	evening set	8938 Jun 13 16:35	8°♓04'42	
min. Earth dist.	8932 Jun 30 12:17	15°♓19'54 4.47631 AU				
direct	8932 Aug 31 13:16	10°♓18'49	conjunction	8938 Jun 26 19:51	11°♓16'41	-0°44'30
evening set	8933 Jan 04 00:41	27°♓31'55	minimum elong	8938 Jun 26 19:52	11°♓16'41	0°44'44
	8933 Jan 15 14:16	0°♊	max. Earth dist.	8938 Jun 26 17:49	11°♓15'26	5.92970 AU
max. Earth dist.	8933 Jan 16 10:31	0°♊10'51 6.49815 AU	morning rise	8938 Jul 10 01:14	14°♓29'59	
				8938 Sep 20 16:52	0°♌	
conjunction	8933 Jan 17 02:30	0°♊19'23 0°37'48	retrograde	8938 Nov 19 00:37	5°♌17'10	
minimum elong	8933 Jan 17 02:31	0°♊19'24 0°38'02	opposition	8939 Jan 17 12:16	0°♌16'58	-0°56'20
morning rise	8933 Jan 30 01:57	3°♊05'46	min. Earth dist.	8939 Jan 17 00:53	0°♌20'48	3.90455 AU
	8933 Apr 02 23:21	15°♊		8939 Jan 19 14:46	30°♌	
retrograde	8933 May 30 08:21	19°♊40'08	direct	8939 Mar 16 15:34	25°♌22'28	
	8933 Jul 28 12:33	15°♌		8939 May 09 11:26	0°♍	
opposition	8933 Jul 30 08:07	14°♌46'02 0°42'32		8939 Jul 19 07:09	15°♍	
min. Earth dist.	8933 Jul 31 03:45	14°♌39'44 4.49903 AU	evening set	8939 Jul 21 10:33	15°♍31'09	
direct	8933 Sep 30 23:40	9°♌44'31				
	8933 Dec 02 16:18	15°♌	conjunction	8939 Aug 03 21:13	18°♌47'45	-0°26'13
evening set	8934 Feb 03 05:53	26°♌56'19	minimum elong	8939 Aug 03 21:14	18°♌47'46	0°26'24
max. Earth dist.	8934 Feb 14 10:59	29°♌21'04 6.47759 AU	max. Earth dist.	8939 Aug 05 08:44	19°♌09'26	5.90739 AU

morning rise	8939 Aug 17 10:18	22°♏05'37			8945 Sep 09 09:50	15°♏	
	8939 Sep 20 07:50	0°♏		direct	8945 Oct 05 07:35	14°♏00'37	
retrograde	8939 Dec 27 10:05	12°♏53'15			8945 Oct 31 08:14	15°♏	
min. Earth dist.	8940 Feb 23 10:10	8°♏00'52	3.93899 AU		8946 Feb 01 18:02	0°♏	
opposition	8940 Feb 24 18:12	7°♏49'59	-0°18'21	evening set	8946 Feb 07 11:37	1°♏13'25	
direct	8940 Apr 22 15:53	2°♏54'16		max. Earth dist.	8946 Feb 18 13:51	3°♏36'55	6.46943 AU
asc. node	8940 Aug 06 17:40	17°♏51'39					
evening set	8940 Aug 27 13:47	22°♏42'54		conjunction	8946 Feb 20 08:49	4°♏00'09	0°15'28
				minimum elong	8946 Feb 20 08:49	4°♏00'09	0°15'35
conjunction	8940 Sep 10 05:01	25°♏57'31	0°02'35	behind sun begin	8946 Feb 20 06:46	3°♏59'03	
minimum elong	8940 Sep 10 05:00	25°♏57'30	0°02'33	behind sun end	8946 Feb 20 10:52	4°♏01'15	
behind sun begin	8940 Sep 09 20:37	25°♏52'32		morning rise	8946 Mar 05 03:52	6°♏46'02	
behind sun end	8940 Sep 10 13:23	26°♏02'28		retrograde	8946 Jul 04 03:23	23°♏36'30	
max. Earth dist.	8940 Sep 12 14:19	26°♏31'37	5.99420 AU	opposition	8946 Sep 03 04:43	18°♏43'40	0°05'05
morning rise	8940 Sep 23 22:10	29°♏12'46		min. Earth dist.	8946 Sep 04 16:18	18°♏32'18	4.42245 AU
	8940 Sep 27 06:27	0°♏		desc. node	8946 Oct 27 19:31	13°♏48'36	
retrograde	8941 Jan 31 12:24	19°♏07'50		direct	8946 Nov 04 17:40	13°♏42'53	
min. Earth dist.	8941 Mar 30 11:49	14°♏16'43	4.06770 AU		8947 Mar 03 21:16	0°♏	
opposition	8941 Apr 01 02:51	14°♏03'27	0°25'19	evening set	8947 Mar 09 23:21	1°♏20'00	
direct	8941 May 29 17:37	9°♏05'23		max. Earth dist.	8947 Mar 20 11:01	3°♏39'20	6.35778 AU
evening set	8941 Oct 03 10:09	28°♏07'42					
	8941 Oct 11 14:41	0°♏		conjunction	8947 Mar 22 18:05	4°♏09'57	-0°09'19
				minimum elong	8947 Mar 22 18:05	4°♏09'57	0°09'19
conjunction	8941 Oct 17 01:24	1°♏14'55	0°29'13	behind sun begin	8947 Mar 22 11:22	4°♏06'14	
minimum elong	8941 Oct 17 01:22	1°♏14'54	0°29'20	behind sun end	8947 Mar 23 00:48	4°♏13'40	
max. Earth dist.	8941 Oct 19 11:01	1°♏47'56	6.15215 AU	morning rise	8947 Apr 04 11:32	6°♏59'33	
morning rise	8941 Oct 30 16:50	4°♏21'56		retrograde	8947 Aug 05 17:25	24°♏36'58	
	8941 Dec 20 02:38	15°♏		opposition	8947 Oct 05 12:38	19°♏43'51	-0°31'25
retrograde	8942 Mar 05 23:00	23°♏01'30		min. Earth dist.	8947 Oct 07 05:14	19°♏30'50	4.27978 AU
opposition	8942 May 04 22:01	17°♏58'45	0°57'01	direct	8947 Dec 06 07:16	14°♏44'32	
min. Earth dist.	8942 May 03 14:23	18°♏09'21	4.23837 AU		8948 Mar 27 02:44	0°♏	
	8942 May 28 19:52	15°♏		evening set	8948 Apr 09 18:22	3°♏04'54	
direct	8942 Jul 03 19:29	12°♏58'40		max. Earth dist.	8948 Apr 20 08:02	5°♏30'42	6.19460 AU
	8942 Aug 09 02:38	15°♏					
	8942 Nov 01 18:13	0°♏		conjunction	8948 Apr 22 13:08	6°♏01'20	-0°32'21
evening set	8942 Nov 07 01:42	1°♏09'44		minimum elong	8948 Apr 22 13:07	6°♏01'19	0°32'29
				morning rise	8948 May 05 07:46	8°♏58'01	
conjunction	8942 Nov 20 13:00	4°♏08'00	0°44'48		8948 Jun 01 07:46	15°♏	
minimum elong	8942 Nov 20 13:00	4°♏08'00	0°45'01	retrograde	8948 Sep 08 20:28	27°♏46'06	
max. Earth dist.	8942 Nov 22 02:23	4°♏28'39	6.32109 AU	opposition	8948 Nov 08 05:57	22°♏51'29	-1°00'49
morning rise	8942 Dec 03 23:25	7°♏05'31		min. Earth dist.	8948 Nov 09 12:50	22°♏41'26	4.10744 AU
retrograde	8943 Apr 06 01:08	24°♏37'11		direct	8949 Jan 07 15:35	17°♏54'18	
opposition	8943 Jun 05 11:27	19°♏37'36	1°08'59		8949 Apr 12 13:04	0°♏	
min. Earth dist.	8943 Jun 04 19:28	19°♏42'52	4.39222 AU	evening set	8949 May 13 16:07	7°♏07'26	
direct	8943 Aug 05 16:02	14°♏36'18		max. Earth dist.	8949 May 25 06:18	9°♏53'23	6.02789 AU
	8943 Nov 29 11:32	0°♏					
evening set	8943 Dec 09 11:59	2°♏07'39		conjunction	8949 May 26 14:05	10°♏12'24	-0°45'55
				minimum elong	8949 May 26 14:04	10°♏12'24	0°46'09
conjunction	8943 Dec 22 18:06	4°♏58'41	0°46'28	morning rise	8949 Jun 08 13:09	13°♏18'17	
minimum elong	8943 Dec 22 18:07	4°♏58'42	0°46'42		8949 Aug 30 15:13	0°♏	
max. Earth dist.	8943 Dec 23 03:21	5°♏03'40	6.44873 AU	retrograde	8949 Oct 16 14:19	3°♏22'11	
morning rise	8944 Jan 04 22:12	7°♏48'39			8949 Dec 03 05:04	30°♏	
retrograde	8944 May 04 21:34	24°♏36'23		opposition	8949 Dec 15 09:51	28°♏24'59	-1°10'26
opposition	8944 Jul 04 16:34	19°♏40'10	1°01'31	min. Earth dist.	8949 Dec 15 20:51	28°♏21'20	3.96179 AU
min. Earth dist.	8944 Jul 04 20:13	19°♏38'59	4.48608 AU	direct	8950 Feb 12 09:43	23°♏29'54	
direct	8944 Sep 04 21:52	14°♏38'31			8950 Apr 18 18:18	0°♏	
	8944 Dec 30 16:15	0°♏		evening set	8950 Jun 18 22:24	13°♏26'25	
evening set	8945 Jan 08 07:55	1°♏49'23					
max. Earth dist.	8945 Jan 20 11:52	4°♏25'10	6.50222 AU	conjunction	8950 Jul 02 02:47	16°♏39'30	-0°42'54
				minimum elong	8950 Jul 02 02:48	16°♏39'31	0°43'08
conjunction	8945 Jan 21 08:52	4°♏36'24	0°35'34	max. Earth dist.	8950 Jul 02 06:09	16°♏41'34	5.91780 AU
minimum elong	8945 Jan 21 08:53	4°♏36'25	0°35'47	morning rise	8950 Jul 15 09:22	19°♏53'56	
morning rise	8945 Feb 03 07:48	7°♏22'24			8950 Aug 28 07:18	0°♏	
	8945 Mar 13 00:08	15°♏		retrograde	8950 Nov 24 13:28	10°♏45'42	
retrograde	8945 Jun 03 14:26	23°♏56'01		opposition	8951 Jan 22 23:30	5°♏45'07	-0°52'01
opposition	8945 Aug 03 14:02	19°♏02'09	0°38'27	min. Earth dist.	8951 Jan 22 08:07	5°♏50'18	3.90083 AU
min. Earth dist.	8945 Aug 04 12:58	18°♏54'48	4.49700 AU	direct	8951 Mar 21 23:35	0°♏50'39	

	8951 Jul 01 13:40	15°♎			8957 Feb 23 18:47	15°♏
evening set	8951 Jul 26 20:54	20°♎59'33		retrograde	8957 Jun 07 17:30	28°♏09'00
				opposition	8957 Aug 07 18:16	23°♏15'22 0°34'14
conjunction	8951 Aug 09 08:21	24°♎16'21 -0°22'28		min. Earth dist.	8957 Aug 08 19:18	23°♏07'22 4.49097 AU
minimum elong	8951 Aug 09 08:22	24°♎16'21 0°22'37		direct	8957 Oct 09 11:35	18°♏13'53
max. Earth dist.	8951 Aug 10 23:19	24°♎40'05 5.91221 AU			8958 Jan 16 09:31	0°♐
morning rise	8951 Aug 22 22:27	27°♎34'24		evening set	8958 Feb 11 16:19	5°♐29'05
	8951 Sep 02 01:21	0°♐		max. Earth dist.	8958 Feb 22 14:17	7°♐50'45 6.45665 AU
retrograde	8952 Jan 01 16:01	18°♐17'52				
min. Earth dist.	8952 Feb 28 15:09	13°♐26'02 3.95191 AU		conjunction	8958 Feb 24 12:57	8°♐16'05 0°12'09
opposition	8952 Mar 01 01:44	13°♐14'16 -0°11'58		minimum elong	8958 Feb 24 12:58	8°♐16'05 0°12'16
direct	8952 Apr 28 00:28	8°♐18'18		behind sun begin	8958 Feb 24 07:38	8°♐13'13
asc. node	8952 Jun 15 11:04	12°♐03'25		behind sun end	8958 Feb 24 18:18	8°♐18'58
evening set	8952 Sep 01 22:03	28°♐01'33		morning rise	8958 Mar 09 07:49	11°♐02'22
	8952 Sep 10 06:30	0°♑		retrograde	8958 Jul 08 14:34	27°♐58'15
				opposition	8958 Sep 07 14:03	23°♐05'27 -0°00'03
conjunction	8952 Sep 15 13:40	1°♑15'21 0°06'47		desc. node	8958 Sep 07 03:11	23°♐08'55
minimum elong	8952 Sep 15 13:39	1°♑15'21 0°06'47		min. Earth dist.	8958 Sep 09 04:05	22°♐53'18 4.40353 AU
behind sun begin	8952 Sep 15 05:52	1°♑10'45		direct	8958 Nov 09 02:01	18°♐04'45
behind sun end	8952 Sep 15 21:27	1°♑19'57			8959 Feb 15 07:00	0°♑
max. Earth dist.	8952 Sep 18 01:44	1°♑50'56 6.01406 AU		evening set	8959 Mar 14 07:35	5°♑47'47
morning rise	8952 Sep 29 06:43	4°♑29'38		max. Earth dist.	8959 Mar 24 18:01	8°♑07'10 6.33406 AU
retrograde	8953 Feb 05 11:11	24°♑14'14				
min. Earth dist.	8953 Apr 04 11:22	19°♑23'01 4.09214 AU		conjunction	8959 Mar 27 02:20	8°♑38'38 -0°12'48
opposition	8953 Apr 06 01:53	19°♑09'57 0°30'50		minimum elong	8959 Mar 27 02:19	8°♑38'38 0°12'50
direct	8953 Jun 03 21:24	14°♑11'36		behind sun begin	8959 Mar 26 21:18	8°♑35'50
	8953 Sep 24 16:12	0°♒		behind sun end	8959 Mar 27 07:20	8°♑41'25
evening set	8953 Oct 08 11:23	3°♒05'44		morning rise	8959 Apr 08 19:47	11°♑29'10
				retrograde	8959 Aug 10 11:26	29°♑16'26
conjunction	8953 Oct 22 02:07	6°♒11'34 0°32'12		opposition	8959 Oct 10 06:03	24°♑23'08 -0°36'15
minimum elong	8953 Oct 22 02:05	6°♒11'33 0°32'20		min. Earth dist.	8959 Oct 11 21:18	24°♑10'31 4.25291 AU
max. Earth dist.	8953 Oct 24 10:18	6°♒43'33 6.17880 AU		direct	8959 Dec 10 19:04	19°♑24'05
morning rise	8953 Nov 04 17:01	9°♒17'07			8960 Mar 09 12:15	0°♒
	8953 Nov 30 17:38	15°♒		evening set	8960 Apr 14 10:03	7°♒52'51
retrograde	8954 Mar 10 09:55	27°♒45'13		max. Earth dist.	8960 Apr 25 02:38	10°♒21'15 6.16678 AU
min. Earth dist.	8954 May 08 04:58	22°♒53'04 4.26484 AU				
opposition	8954 May 09 11:36	22°♒42'48 0°59'54		conjunction	8960 Apr 27 05:06	10°♒50'33 -0°35'01
direct	8954 Jul 08 13:03	17°♒42'28		minimum elong	8960 Apr 27 05:05	10°♒50'32 0°35'09
	8954 Oct 15 15:15	0°♓		morning rise	8960 May 10 00:10	13°♓48'36
evening set	8954 Nov 11 17:57	5°♓46'01			8960 May 15 04:15	15°♓
					8960 Aug 02 00:46	0°♔
conjunction	8954 Nov 25 04:31	8°♓42'59 0°45'49		retrograde	8960 Sep 14 03:08	2°♔48'52
minimum elong	8954 Nov 25 04:30	8°♓42'59 0°46'04			8960 Oct 27 16:26	30°♔♂
max. Earth dist.	8954 Nov 26 14:08	9°♓01'28 6.34529 AU		opposition	8960 Nov 13 09:20	27°♔53'56 -1°03'38
morning rise	8954 Dec 08 13:55	11°♓39'06		min. Earth dist.	8960 Nov 14 14:39	27°♔44'23 4.08097 AU
retrograde	8955 Apr 10 07:20	29°♓02'03		direct	8961 Jan 12 14:32	22°♔57'05
opposition	8955 Jun 09 18:24	24°♓02'59 1°08'58			8961 Mar 23 02:21	0°♕
min. Earth dist.	8955 Jun 09 05:36	24°♓07'11 4.41231 AU		evening set	8961 May 18 16:51	12°♕18'26
direct	8955 Aug 10 03:48	19°♓01'35				
	8955 Nov 12 11:42	0°♖		conjunction	8961 May 31 15:39	15°♕24'48 -0°46'34
evening set	8955 Dec 13 20:50	6°♖27'55		minimum elong	8961 May 31 15:39	15°♕24'48 0°46'49
				max. Earth dist.	8961 May 30 12:18	15°♕08'21 6.00538 AU
conjunction	8955 Dec 27 02:05	9°♖18'04 0°45'35		morning rise	8961 Jun 13 15:44	18°♕32'09
minimum elong	8955 Dec 27 02:05	9°♖18'04 0°45'50			8961 Aug 04 04:02	0°♗
max. Earth dist.	8955 Dec 27 05:52	9°♖20'06 6.46310 AU		retrograde	8961 Oct 22 02:31	8°♗45'57
morning rise	8956 Jan 09 05:28	12°♖07'11		opposition	8961 Dec 20 20:57	3°♗48'18 -1°09'30
retrograde	8956 May 09 00:15	28°♖50'36		min. Earth dist.	8961 Dec 21 03:20	3°♗46'11 3.94593 AU
opposition	8956 Jul 08 20:11	23°♖54'44 0°59'04			8962 Jan 22 19:12	30°♕♔
min. Earth dist.	8956 Jul 09 03:00	23°♖52'31 4.49405 AU		direct	8962 Feb 17 15:33	28°♕53'28
direct	8956 Sep 09 03:40	18°♖52'59			8962 Mar 15 10:11	0°♘
	8956 Dec 14 01:58	0°♙		evening set	8962 Jun 24 06:53	18°♘54'09
evening set	8957 Jan 12 12:42	6°♙02'28				
				conjunction	8962 Jul 07 12:11	22°♘08'04 -0°40'53
conjunction	8957 Jan 25 13:11	8°♙49'13 0°33'11		minimum elong	8962 Jul 07 12:12	22°♘08'05 0°41'08
minimum elong	8957 Jan 25 13:12	8°♙49'14 0°33'24		max. Earth dist.	8962 Jul 07 20:49	22°♘13'21 5.91017 AU
max. Earth dist.	8957 Jan 24 13:27	8°♙36'31 6.50320 AU		morning rise	8962 Jul 20 20:01	25°♘23'24
morning rise	8957 Feb 07 11:19	11°♙34'55			8962 Aug 09 02:44	0°♚

	8962 Nov 01 21:07	15°♏	retrograde	8968 May 13 04:35	3°♏05'14	
retrograde	8962 Nov 30 01:39	16°♏17'24		8968 Jun 28 10:01	30°♏	
	8962 Dec 28 04:17	15°♏	opposition	8968 Jul 13 00:28	28°♏09'49	0°56'19
opposition	8963 Jan 28 11:55	11°♏16'13 -0°47'12	min. Earth dist.	8968 Jul 13 10:38	28°♏06'33	4.49801 AU
min. Earth dist.	8963 Jan 27 16:39	11°♏22'44 3.90236 AU	direct	8968 Sep 13 10:31	23°♏08'08	
direct	8963 Mar 27 10:54	6°♏21'36		8968 Nov 25 02:13	0°♏	
	8963 Jun 11 12:16	15°♏	evening set	8969 Jan 16 18:20	10°♏17'26	
evening set	8963 Aug 01 07:50	26°♏28'17				
			conjunction	8969 Jan 29 18:09	13°♏04'05	0°30'37
conjunction	8963 Aug 14 20:13	29°♏44'58 -0°18'31	minimum elong	8969 Jan 29 18:10	13°♏04'05	0°30'48
minimum elong	8963 Aug 14 20:14	29°♏44'59 0°18'39	max. Earth dist.	8969 Jan 28 13:19	12°♏48'38	6.50040 AU
	8963 Aug 15 20:58	0°♏		8969 Feb 07 18:40	15°♏	
max. Earth dist.	8963 Aug 16 17:04	0°♏12'13 5.92269 AU	morning rise	8969 Feb 11 15:54	15°♏49'44	
morning rise	8963 Aug 28 10:52	3°♏02'46		8969 May 02 11:59	0°♏	
retrograde	8964 Jan 06 22:41	23°♏39'19	retrograde	8969 Jun 12 00:32	2°♏25'39	
min. Earth dist.	8964 Mar 04 20:38	18°♏47'30 3.96981 AU		8969 Jul 22 18:39	30°♏	
opposition	8964 Mar 06 08:05	18°♏35'26 -0°05'32	opposition	8969 Aug 12 00:36	27°♏32'13	0°29'47
asc. node	8964 Apr 24 12:12	13°♏47'18	min. Earth dist.	8969 Aug 13 04:07	27°♏23'25	4.48166 AU
direct	8964 May 03 09:30	13°♏39'08	direct	8969 Oct 13 17:37	22°♏30'48	
	8964 Aug 24 04:27	0°♏		8969 Dec 28 18:44	0°♏	
evening set	8964 Sep 07 05:04	3°♏15'18	evening set	8970 Feb 15 22:39	9°♏49'21	
			max. Earth dist.	8970 Feb 26 19:14	12°♏10'44	6.44148 AU
conjunction	8964 Sep 20 20:44	6°♏28'02 0°10'52				
minimum elong	8964 Sep 20 20:43	6°♏28'02 0°10'54	conjunction	8970 Feb 28 19:06	12°♏36'49	0°08'43
behind sun begin	8964 Sep 20 14:26	6°♏24'21	minimum elong	8970 Feb 28 19:07	12°♏36'49	0°08'49
behind sun end	8964 Sep 21 03:00	6°♏31'43	behind sun begin	8970 Feb 28 12:14	12°♏33'06	
max. Earth dist.	8964 Sep 23 09:42	7°♏03'55 6.03728 AU	behind sun end	8970 Mar 01 01:59	12°♏40'33	
morning rise	8964 Oct 04 13:49	9°♏41'10	morning rise	8970 Mar 13 13:31	15°♏32'33	
retrograde	8965 Feb 10 05:28	29°♏14'16		8970 Jun 02 15:52	0°♏	
min. Earth dist.	8965 Apr 09 07:42	24°♏23'17 4.11817 AU	retrograde	8970 Jul 13 02:14	2°♏25'43	
opposition	8965 Apr 10 22:32	24°♏10'08 0°36'02	desc. node	8970 Jul 17 10:57	2°♏23'57	
direct	8965 Jun 08 21:13	19°♏11'27		8970 Aug 22 22:08	30°♏	
	8965 Sep 06 15:55	0°♏	opposition	8970 Sep 12 01:45	27°♏33'00	-0°05'18
evening set	8965 Oct 13 10:19	7°♏57'21	min. Earth dist.	8970 Sep 13 16:02	27°♏20'46	4.38346 AU
			direct	8970 Nov 13 10:00	22°♏32'34	
conjunction	8965 Oct 27 00:32	11°♏01'48 0°34'56		8971 Jan 27 06:10	0°♏	
minimum elong	8965 Oct 27 00:31	11°♏01'47 0°35'06	evening set	8971 Mar 18 18:27	10°♏21'56	
max. Earth dist.	8965 Oct 29 05:19	11°♏31'41 6.20534 AU	max. Earth dist.	8971 Mar 29 04:18	12°♏41'47	6.31058 AU
morning rise	8965 Nov 09 14:45	14°♏05'52				
	8965 Nov 13 15:34	15°♏	conjunction	8971 Mar 31 12:59	13°♏13'39	-0°16'18
	8966 Feb 03 12:18	0°♏	minimum elong	8971 Mar 31 12:58	13°♏13'39	0°16'22
retrograde	8966 Mar 14 21:24	2°♏23'13	morning rise	8971 Apr 13 06:37	16°♏05'10	
	8966 Apr 23 02:04	30°♏		8971 Jun 23 19:44	0°♏	
opposition	8966 May 13 23:41	27°♏21'15 1°02'23	retrograde	8971 Aug 15 10:42	4°♏02'23	
min. Earth dist.	8966 May 12 20:10	27°♏30'26 4.28956 AU		8971 Oct 08 10:54	30°♏	
direct	8966 Jul 13 06:44	22°♏20'44	opposition	8971 Oct 15 02:18	29°♏09'00	-0°41'01
	8966 Sep 26 12:34	0°♏	min. Earth dist.	8971 Oct 16 17:15	28°♏56'27	4.22764 AU
evening set	8966 Nov 16 08:33	10°♏17'39	direct	8971 Dec 15 11:41	24°♏10'17	
				8972 Feb 17 09:14	0°♏	
conjunction	8966 Nov 29 18:27	13°♏13'28 0°46'36	evening set	8972 Apr 19 03:44	12°♏46'49	
minimum elong	8966 Nov 29 18:26	13°♏13'28 0°46'49		8972 Apr 28 16:52	15°♏	
max. Earth dist.	8966 Dec 01 00:25	13°♏29'52 6.36634 AU	max. Earth dist.	8972 Apr 29 23:33	15°♏17'55	6.14210 AU
morning rise	8966 Dec 13 02:59	16°♏08'24				
	8967 Feb 25 12:43	0°♏	conjunction	8972 May 01 23:14	15°♏45'44	-0°37'30
retrograde	8967 Apr 14 11:13	3°♏24'02	minimum elong	8972 May 01 23:12	15°♏45'43	0°37'40
	8967 Jun 01 18:57	30°♏	morning rise	8972 May 14 18:46	18°♏45'04	
opposition	8967 Jun 14 00:27	28°♏25'28 1°08'36		8972 Jul 06 00:55	0°♏	
min. Earth dist.	8967 Jun 13 13:52	28°♏28'56 4.42852 AU	retrograde	8972 Sep 19 09:00	7°♏56'18	
direct	8967 Aug 14 12:18	23°♏24'00	opposition	8972 Nov 18 14:22	3°♏01'06	-1°06'03
	8967 Oct 24 01:10	0°♏	min. Earth dist.	8972 Nov 19 15:59	2°♏52'44	4.05936 AU
evening set	8967 Dec 18 05:24	10°♏46'48		8972 Dec 13 11:35	30°♏	
			direct	8973 Jan 17 13:14	28°♏04'42	
conjunction	8967 Dec 31 09:58	13°♏36'17 0°44'29		8973 Feb 21 07:33	0°♏	
minimum elong	8967 Dec 31 09:59	13°♏36'17 0°44'44	evening set	8973 May 23 18:35	17°♏32'21	
max. Earth dist.	8967 Dec 31 09:34	13°♏36'04 6.47345 AU				
morning rise	8968 Jan 13 12:31	16°♏24'42	conjunction	8973 Jun 05 17:59	20°♏39'47	-0°46'54
	8968 Mar 28 06:49	0°♏	minimum elong	8973 Jun 05 17:59	20°♏39'47	0°47'08

max. Earth dist.	8973 Jun 04 19:19	20° Π 26'06	5.98894 AU	conjunction	8978 Dec 04 05:07	17° X 36'47	0°47'05
morning rise	8973 Jun 18 19:03	23° Π 48'19		minimum elong	8978 Dec 04 05:07	17° X 36'47	0°47'20
	8973 Jul 15 06:59	0° E		max. Earth dist.	8978 Dec 05 05:30	17° X 50'05	6.38321 AU
retrograde	8973 Oct 27 13:56	14° E 09'28		morning rise	8978 Dec 17 12:57	20° X 30'44	
opposition	8973 Dec 26 07:22	9° E 11'18	-1°08'01		8979 Feb 02 11:56	0° Z	
min. Earth dist.	8973 Dec 26 09:39	9° E 10'32	3.93660 AU	retrograde	8979 Apr 18 15:37	7° Z 40'36	
direct	8974 Feb 22 23:18	4° E 16'36		opposition	8979 Jun 18 04:37	2° Z 42'31	1°07'56
evening set	8974 Jun 29 14:03	24° E 18'56		min. Earth dist.	8979 Jun 17 21:56	2° Z 44'42	4.44021 AU
					8979 Jul 10 03:26	30° R X	
conjunction	8974 Jul 12 20:29	27° E 33'24	-0°38'36	direct	8979 Aug 18 20:58	27° X 40'59	
minimum elong	8974 Jul 12 20:30	27° E 33'25	0°38'50		8979 Sep 27 22:32	0° Z	
max. Earth dist.	8974 Jul 13 12:14	27° E 43'03	5.90904 AU	evening set	8979 Dec 22 11:58	15° Z 01'31	
	8974 Jul 22 20:16	0° Ω					
morning rise	8974 Jul 26 05:09	0° Ω 49'13		conjunction	8980 Jan 04 15:57	17° Z 50'33	0°43'11
	8974 Sep 28 23:16	15° Ω		minimum elong	8980 Jan 04 15:58	17° Z 50'33	0°43'26
retrograde	8974 Dec 05 11:27	21° Ω 42'27		max. Earth dist.	8980 Jan 04 11:38	17° Z 48'14	6.47921 AU
opposition	8975 Feb 02 20:57	16° Ω 40'47	-0°42'07	morning rise	8980 Jan 17 17:48	20° Z 38'30	
min. Earth dist.	8975 Feb 01 23:19	16° Ω 48'06	3.90972 AU		8980 Mar 04 21:16	0° \approx	
	8975 Feb 15 13:34	15° R Ω		retrograde	8980 May 17 06:45	7° \approx 17'33	
direct	8975 Apr 01 19:33	11° Ω 46'02		opposition	8980 Jul 17 03:55	2° \approx 22'27	0°53'22
	8975 May 16 07:07	15° Ω		min. Earth dist.	8980 Jul 17 15:58	2° \approx 18'34	4.49791 AU
	8975 Jul 30 02:02	0° P			8980 Aug 05 09:24	30° R Z	
evening set	8975 Aug 06 15:19	1° P 48'32		direct	8980 Sep 17 14:30	27° Z 20'46	
					8980 Oct 31 01:14	0° \approx	
conjunction	8975 Aug 20 04:14	5° P 04'47	-0°14'33	evening set	8981 Jan 20 23:23	14° \approx 30'59	
minimum elong	8975 Aug 20 04:15	5° P 04'48	0°14'41		8981 Jan 23 05:52	15° \approx	
behind sun begin	8975 Aug 20 00:53	5° P 02'46					
behind sun end	8975 Aug 20 07:37	5° P 06'49		conjunction	8981 Feb 02 22:46	17° \approx 17'39	0°27'56
max. Earth dist.	8975 Aug 22 03:58	5° P 33'39	5.93743 AU	minimum elong	8981 Feb 02 22:47	17° \approx 17'39	0°28'07
morning rise	8975 Sep 02 19:34	8° P 22'06		max. Earth dist.	8981 Feb 01 15:51	17° \approx 01'03	6.49457 AU
retrograde	8976 Jan 11 22:22	28° P 50'11		morning rise	8981 Feb 15 19:53	20° \approx 03'20	
asc. node	8976 Mar 05 13:04	24° P 33'44			8981 Apr 07 06:02	0° H	
min. Earth dist.	8976 Mar 09 20:14	23° P 58'48	3.99027 AU	retrograde	8981 Jun 16 06:54	6° H 41'46	
opposition	8976 Mar 11 09:33	23° P 46'07	0°00'39	opposition	8981 Aug 16 06:49	1° H 48'32	0°25'14
direct	8976 May 08 12:45	18° P 49'27		min. Earth dist.	8981 Aug 17 12:18	1° H 39'07	4.47055 AU
	8976 Aug 06 05:54	0° $\underline{\text{A}}$			8981 Aug 30 18:15	30° R \approx	
evening set	8976 Sep 12 07:21	8° $\underline{\text{A}}$ 18'02		direct	8981 Oct 17 23:32	26° \approx 47'15	
					8981 Dec 04 21:14	0° H	
conjunction	8976 Sep 25 22:57	11° $\underline{\text{A}}$ 29'37	0°14'43	evening set	8982 Feb 20 05:08	14° H 09'25	
minimum elong	8976 Sep 25 22:56	11° $\underline{\text{A}}$ 29'36	0°14'46	max. Earth dist.	8982 Mar 02 22:25	16° H 29'35	6.42578 AU
behind sun begin	8976 Sep 25 19:48	11° $\underline{\text{A}}$ 27'47					
behind sun end	8976 Sep 26 02:04	11° $\underline{\text{A}}$ 31'26		conjunction	8982 Mar 05 01:08	16° H 57'20	0°05'16
max. Earth dist.	8976 Sep 28 10:34	12° $\underline{\text{A}}$ 04'32	6.06132 AU	minimum elong	8982 Mar 05 01:07	16° H 57'19	0°05'21
morning rise	8976 Oct 09 15:50	14° $\underline{\text{A}}$ 41'29		behind sun begin	8982 Mar 04 17:25	16° H 53'08	
	8976 Dec 25 03:11	0° M		behind sun end	8982 Mar 05 08:50	17° H 01'31	
retrograde	8977 Feb 14 20:43	4° M 03'25		morning rise	8982 Mar 17 19:29	19° H 44'36	
	8977 Apr 08 02:25	30° R $\underline{\text{A}}$			8982 May 07 19:55	0° Y	
min. Earth dist.	8977 Apr 14 01:58	29° $\underline{\text{A}}$ 11'51	4.14321 AU	desc. node	8982 May 27 03:41	3° Y 02'41	
opposition	8977 Apr 15 14:37	28° $\underline{\text{A}}$ 59'27	0°40'45	retrograde	8982 Jul 17 16:00	6° Y 53'03	
direct	8977 Jun 13 18:26	24° $\underline{\text{A}}$ 00'26		opposition	8982 Sep 16 13:54	2° Y 00'16	-0°10'30
	8977 Aug 16 23:33	0° M		min. Earth dist.	8982 Sep 18 04:48	1° Y 47'49	4.36407 AU
evening set	8977 Oct 18 04:50	12° M 38'48			8982 Oct 02 16:51	30° R H	
	8977 Oct 28 16:07	15° M		direct	8982 Nov 17 19:58	26° H 59'59	
					8983 Jan 02 10:29	0° Y	
conjunction	8977 Oct 31 18:41	15° M 42'00	0°37'21	evening set	8983 Mar 23 04:50	14° Y 55'03	
minimum elong	8977 Oct 31 18:39	15° M 41'59	0°37'32	max. Earth dist.	8983 Apr 02 16:23	17° Y 16'30	6.28893 AU
max. Earth dist.	8977 Nov 02 21:33	16° M 10'38	6.22933 AU				
morning rise	8977 Nov 14 08:08	18° M 44'43		conjunction	8983 Apr 04 23:29	17° Y 47'37	-0°19'41
	8978 Jan 08 07:10	0° X		minimum elong	8983 Apr 04 23:28	17° Y 47'37	0°19'45
retrograde	8978 Mar 19 03:18	6° X 52'27		morning rise	8983 Apr 17 17:02	20° Y 40'01	
min. Earth dist.	8978 May 17 05:55	1° X 59'35	4.31074 AU		8983 May 31 18:48	0° B	
opposition	8978 May 18 07:49	1° X 50'57	1°04'26	retrograde	8983 Aug 20 06:42	8° B 46'18	
	8978 Jun 01 14:00	30° R M		opposition	8983 Oct 19 21:57	3° B 52'43	-0°45'27
direct	8978 Jul 17 17:52	26° M 50'17		min. Earth dist.	8983 Oct 21 11:23	3° B 40'39	4.20515 AU
	8978 Sep 02 05:06	0° X			8983 Nov 23 12:29	30° R Y	
evening set	8978 Nov 20 20:01	14° X 41'56		direct	8983 Dec 20 02:22	28° Y 54'20	
					8984 Jan 15 15:46	0° B	

	8984 Apr 12 10:57	15°♄		conjunction	8989 Nov 05 14:02	20°♄25'42	0°39'32
evening set	8984 Apr 23 20:41	17°♄37'31		minimum elong	8989 Nov 05 14:00	20°♄25'42	0°39'44
max. Earth dist.	8984 May 04 18:44	20°♄10'42	6.12038 AU	max. Earth dist.	8989 Nov 07 12:39	20°♄51'50	6.25063 AU
				morning rise	8989 Nov 19 02:58	23°♄27'16	
conjunction	8984 May 06 16:20	20°♄37'27	-0°39'42		8989 Dec 19 14:48	0°♄	
minimum elong	8984 May 06 16:19	20°♄37'26	0°39'53	retrograde	8990 Mar 23 12:47	11°♄26'31	
morning rise	8984 May 19 12:31	23°♄37'57		opposition	8990 May 22 18:04	6°♄25'29	1°06'08
	8984 Jun 16 14:11	0°♄		min. Earth dist.	8990 May 21 19:03	6°♄33'09	4.33006 AU
retrograde	8984 Sep 24 13:37	12°♄59'03		direct	8990 Jul 22 09:07	1°♄24'42	
opposition	8984 Nov 23 17:35	8°♄03'27	-1°07'55	evening set	8990 Nov 25 09:18	19°♄11'37	
min. Earth dist.	8984 Nov 24 16:32	7°♄55'57	4.04009 AU				
direct	8985 Jan 22 12:53	3°♄07'18		conjunction	8990 Dec 08 17:52	22°♄05'34	0°47'19
evening set	8985 May 28 18:29	22°♄40'34		minimum elong	8990 Dec 08 17:52	22°♄05'34	0°47'34
				max. Earth dist.	8990 Dec 09 16:08	22°♄17'40	6.39945 AU
conjunction	8985 Jun 10 18:52	25°♄49'06	-0°46'50	morning rise	8990 Dec 22 00:43	24°♄58'32	
minimum elong	8985 Jun 10 18:52	25°♄49'06	0°47'05		8991 Jan 14 21:40	0°♄	
max. Earth dist.	8985 Jun 10 01:59	25°♄38'53	5.97401 AU	retrograde	8991 Apr 22 19:19	12°♄02'48	
morning rise	8985 Jun 23 20:44	28°♄58'44		opposition	8991 Jun 22 10:42	7°♄05'13	1°06'52
	8985 Jun 28 02:55	0°♄		min. Earth dist.	8991 Jun 22 05:23	7°♄06'57	4.45270 AU
retrograde	8985 Nov 02 00:15	19°♄26'37		direct	8991 Aug 23 05:27	2°♄03'45	
opposition	8985 Dec 31 15:20	14°♄28'02	-1°05'57	evening set	8991 Dec 26 20:30	19°♄21'35	
min. Earth dist.	8985 Dec 31 14:50	14°♄28'12	3.92773 AU				
direct	8986 Feb 28 03:51	9°♄33'29		conjunction	8992 Jan 08 23:39	22°♄10'01	0°41'39
evening set	8986 Jul 04 19:27	29°♄37'43		minimum elong	8992 Jan 08 23:40	22°♄10'02	0°41'53
	8986 Jul 06 08:05	0°♄		max. Earth dist.	8992 Jan 08 15:20	22°♄05'34	6.48744 AU
				morning rise	8992 Jan 22 00:49	24°♄57'24	
conjunction	8986 Jul 18 02:44	2°♄52'44	-0°36'00		8992 Feb 15 08:26	0°♄	
minimum elong	8986 Jul 18 02:45	2°♄52'45	0°36'13	retrograde	8992 May 21 11:44	11°♄34'05	
max. Earth dist.	8986 Jul 18 22:03	3°♄04'33	5.90696 AU	opposition	8992 Jul 21 09:01	6°♄39'22	0°50'07
morning rise	8986 Jul 31 12:38	6°♄09'10		min. Earth dist.	8992 Jul 21 24:00	6°♄34'33	4.50164 AU
	8986 Sep 07 14:11	15°♄		direct	8992 Sep 21 22:40	1°♄37'46	
retrograde	8986 Dec 10 17:36	27°♄02'10			8993 Jan 07 02:22	15°♄	
min. Earth dist.	8987 Feb 07 02:37	22°♄08'38	3.91486 AU	evening set	8993 Jan 25 04:57	18°♄47'19	
opposition	8987 Feb 08 03:47	22°♄00'07	-0°36'43	max. Earth dist.	8993 Feb 05 17:43	21°♄15'32	6.49361 AU
direct	8987 Apr 07 00:57	17°♄05'12					
	8987 Jul 12 11:49	0°♄		conjunction	8993 Feb 07 03:44	21°♄33'48	0°25'08
evening set	8987 Aug 11 21:49	7°♄04'59		minimum elong	8993 Feb 07 03:44	21°♄33'48	0°25'18
				morning rise	8993 Feb 20 00:20	24°♄19'19	
conjunction	8987 Aug 25 11:24	10°♄20'58	-0°10'30		8993 Mar 19 09:53	0°♄	
minimum elong	8987 Aug 25 11:25	10°♄20'58	0°10'36	retrograde	8993 Jun 20 12:26	10°♄58'48	
behind sun begin	8987 Aug 25 04:58	10°♄17'06		opposition	8993 Aug 20 13:21	6°♄05'38	0°20'36
behind sun end	8987 Aug 25 17:52	10°♄24'51		min. Earth dist.	8993 Aug 21 19:37	5°♄55'58	4.46503 AU
max. Earth dist.	8987 Aug 27 13:27	10°♄51'08	5.94920 AU	direct	8993 Oct 22 05:32	1°♄04'28	
morning rise	8987 Sep 08 03:14	13°♄37'56		evening set	8994 Feb 24 10:25	18°♄28'11	
	8987 Nov 27 01:48	0°♄		max. Earth dist.	8994 Mar 07 03:31	20°♄48'34	6.41607 AU
asc. node	8988 Jan 15 01:02	3°♄58'41					
retrograde	8988 Jan 16 23:13	3°♄59'04		conjunction	8994 Mar 09 06:06	21°♄16'18	0°01'53
	8988 Mar 08 09:22	30°♄		minimum elong	8994 Mar 09 06:05	21°♄16'17	0°01'55
min. Earth dist.	8988 Mar 14 21:08	29°♄07'30	4.00708 AU	behind sun begin	8994 Mar 08 22:06	21°♄11'56	
opposition	8988 Mar 16 10:14	28°♄54'53	0°06'50	behind sun end	8994 Mar 09 14:03	21°♄20'38	
direct	8988 May 13 16:46	23°♄57'53		morning rise	8994 Mar 21 23:56	24°♄03'46	
	8988 Jul 15 21:17	0°♄		desc. node	8994 Apr 07 08:55	27°♄34'59	
evening set	8988 Sep 17 09:56	13°♄20'41			8994 Apr 19 01:24	0°♄	
				retrograde	8994 Jul 22 01:54	11°♄16'38	
conjunction	8988 Oct 01 01:42	16°♄31'22	0°18'29	opposition	8994 Sep 21 00:12	6°♄23'47	-0°15'28
minimum elong	8988 Oct 01 01:41	16°♄31'21	0°18'32	min. Earth dist.	8994 Sep 22 15:53	6°♄11'06	4.35056 AU
max. Earth dist.	8988 Oct 03 14:24	17°♄06'44	6.08162 AU	direct	8994 Nov 22 04:41	1°♄23'43	
morning rise	8988 Oct 14 18:18	19°♄42'11		evening set	8995 Mar 27 12:47	19°♄22'31	
	8988 Dec 01 09:51	0°♄		max. Earth dist.	8995 Apr 06 22:53	21°♄43'46	6.27245 AU
retrograde	8989 Feb 19 12:07	8°♄54'22					
min. Earth dist.	8989 Apr 18 19:05	4°♄02'56	4.16493 AU	conjunction	8995 Apr 09 07:08	22°♄15'39	-0°22'48
opposition	8989 Apr 20 07:20	3°♄50'42	0°45'13	minimum elong	8995 Apr 09 07:07	22°♄15'39	0°22'52
	8989 May 23 03:13	30°♄		morning rise	8995 Apr 22 00:54	25°♄08'45	
direct	8989 Jun 18 13:55	28°♄51'30			8995 May 13 24:00	0°♄	
	8989 Jul 15 08:00	0°♄		retrograde	8995 Aug 24 23:31	13°♄22'34	
	8989 Oct 12 05:06	15°♄		opposition	8995 Oct 24 14:08	8°♄28'41	-0°49'22
evening set	8989 Oct 23 00:50	17°♄23'39		min. Earth dist.	8995 Oct 26 02:38	8°♄16'53	4.18660 AU

direct	8995 Dec 24 15:31	3°♄30'27		evening set	9001 Oct 28 21:09	22°♄08'40	
	8996 Mar 26 18:30	15°♄					
evening set	8996 Apr 28 09:28	22°♄19'03		conjunction	9001 Nov 11 09:59	25°♄09'41	0°41'25
max. Earth dist.	8996 May 09 11:09	24°♄54'57	6.10133 AU	minimum elong	9001 Nov 11 09:58	25°♄09'40	0°41'37
				max. Earth dist.	9001 Nov 13 07:50	25°♄35'17	6.27029 AU
conjunction	8996 May 11 05:38	25°♄19'59	-0°41'30	morning rise	9001 Nov 24 22:02	28°♄10'03	
minimum elong	8996 May 11 05:38	25°♄19'59	0°41'42		9001 Dec 03 06:10	0°♄	
morning rise	8996 May 24 02:10	28°♄21'30		retrograde	9002 Mar 28 21:54	16°♄00'59	
	8996 May 31 03:10	0°♄		min. Earth dist.	9002 May 27 07:02	11°♄07'33	4.34878 AU
retrograde	8996 Sep 29 14:49	17°♄51'38		opposition	9002 May 28 04:42	11°♄00'22	1°07'20
opposition	8996 Nov 28 16:28	12°♄55'43	-1°09'11	direct	9002 Jul 27 23:54	5°♄59'26	
min. Earth dist.	8996 Nov 29 13:55	12°♄48'41	4.02216 AU	evening set	9002 Nov 30 23:03	23°♄41'22	
direct	8997 Jan 27 07:36	7°♄59'46					
evening set	8997 Jun 02 14:14	27°♄38'25		conjunction	9002 Dec 14 06:42	26°♄34'21	0°47'14
	8997 Jun 12 08:12	0°♄		minimum elong	9002 Dec 14 06:42	26°♄34'21	0°47'30
				max. Earth dist.	9002 Dec 15 00:15	26°♄43'52	6.41559 AU
conjunction	8997 Jun 15 15:17	0°♄48'00	-0°46'26	morning rise	9002 Dec 27 12:52	29°♄26'22	
minimum elong	8997 Jun 15 15:17	0°♄48'00	0°46'41		9002 Dec 30 03:33	0°♄	
max. Earth dist.	8997 Jun 15 00:30	0°♄39'02	5.95877 AU	retrograde	9003 Apr 28 01:14	16°♄24'52	
morning rise	8997 Jun 28 18:19	3°♄58'50		opposition	9003 Jun 27 17:26	11°♄27'39	1°05'23
retrograde	8997 Nov 07 03:55	24°♄33'44		min. Earth dist.	9003 Jun 27 15:13	11°♄28'22	4.46501 AU
opposition	8998 Jan 05 18:42	19°♄34'40	-1°03'29	direct	9003 Aug 28 16:24	6°♄26'02	
min. Earth dist.	8998 Jan 05 14:33	19°♄36'03	3.91695 AU	evening set	9004 Jan 01 04:39	23°♄40'56	
direct	8998 Mar 05 02:57	14°♄40'06					
	8998 Jun 19 20:50	0°♄		conjunction	9004 Jan 14 07:15	26°♄28'50	0°39'50
evening set	8998 Jul 09 21:25	4°♄47'27		minimum elong	9004 Jan 14 07:16	26°♄28'51	0°40'04
				max. Earth dist.	9004 Jan 13 20:27	26°♄23'04	6.49474 AU
conjunction	8998 Jul 23 05:49	8°♄03'15	-0°33'15	morning rise	9004 Jan 27 07:32	29°♄15'38	
minimum elong	8998 Jul 23 05:51	8°♄03'15	0°33'27		9004 Jan 30 19:14	0°♄	
max. Earth dist.	8998 Jul 24 05:36	8°♄17'48	5.90185 AU		9004 May 03 06:14	15°♄	
morning rise	8998 Aug 05 16:42	11°♄20'23		retrograde	9004 May 26 14:58	15°♄50'21	
	8998 Aug 20 22:52	15°♄			9004 Jun 18 23:32	15°♄	
	8998 Nov 08 11:25	0°♄		opposition	9004 Jul 26 14:25	10°♄55'52	0°46'32
retrograde	8998 Dec 15 22:55	2°♄14'32		min. Earth dist.	9004 Jul 27 06:52	10°♄50'35	4.50334 AU
	8999 Jan 22 09:12	30°♄		direct	9004 Sep 27 04:50	5°♄54'19	
min. Earth dist.	8999 Feb 12 04:59	27°♄21'03	3.91596 AU		9004 Dec 21 12:06	15°♄	
opposition	8999 Feb 13 07:26	27°♄12'05	-0°31'17	evening set	9005 Jan 30 10:54	23°♄03'55	
direct	8999 Apr 12 05:00	22°♄16'55		max. Earth dist.	9005 Feb 10 20:04	25°♄30'25	6.48937 AU
	8999 Jun 22 17:05	0°♄					
evening set	8999 Aug 17 02:15	12°♄15'47		conjunction	9005 Feb 12 09:01	25°♄50'18	0°22'06
				minimum elong	9005 Feb 12 09:02	25°♄50'19	0°22'16
conjunction	8999 Aug 30 16:39	15°♄31'46	-0°06'32	morning rise	9005 Feb 25 05:07	28°♄35'48	
minimum elong	8999 Aug 30 16:40	15°♄31'47	0°06'36		9005 Mar 03 19:24	0°♄	
behind sun begin	8999 Aug 30 08:49	15°♄27'05		retrograde	9005 Jun 25 20:39	15°♄17'35	
behind sun end	8999 Aug 31 00:31	15°♄36'28		opposition	9005 Aug 25 21:02	10°♄24'36	0°15'43
max. Earth dist.	8999 Sep 01 22:31	16°♄04'09	5.95643 AU	min. Earth dist.	9005 Aug 27 06:09	10°♄14'02	4.45484 AU
morning rise	8999 Sep 13 09:02	18°♄48'37		direct	9005 Oct 27 13:54	5°♄23'31	
	8999 Nov 02 17:07	0°♄		desc. node	9006 Feb 15 02:16	19°♄41'52	
asc. node	8999 Nov 26 17:54	4°♄17'17		evening set	9006 Mar 01 17:19	22°♄50'32	
retrograde	9000 Jan 21 22:39	9°♄04'29		max. Earth dist.	9006 Mar 12 07:10	25°♄09'42	6.40048 AU
min. Earth dist.	9000 Mar 20 19:13	4°♄13'15	4.01965 AU				
opposition	9000 Mar 22 09:35	4°♄00'12	0°12'44	conjunction	9006 Mar 14 12:37	25°♄39'06	-0°01'46
	9000 Apr 25 23:27	30°♄		minimum elong	9006 Mar 14 12:37	25°♄39'06	0°01'44
direct	9000 May 19 16:57	29°♄02'56		behind sun begin	9006 Mar 14 04:38	25°♄34'44	
	9000 Jun 12 14:45	0°♄		behind sun end	9006 Mar 14 20:36	25°♄43'28	
evening set	9000 Sep 23 12:07	18°♄21'28		morning rise	9006 Mar 27 06:23	28°♄27'08	
					9006 Apr 03 08:53	0°♄	
conjunction	9000 Oct 07 03:43	21°♄31'21	0°22'00	retrograde	9006 Jul 27 15:20	15°♄46'44	
minimum elong	9000 Oct 07 03:42	21°♄31'20	0°22'05	opposition	9006 Sep 26 13:31	10°♄53'48	-0°20'37
max. Earth dist.	9000 Oct 09 15:08	22°♄05'49	6.09817 AU	min. Earth dist.	9006 Sep 28 05:09	10°♄41'06	4.33040 AU
morning rise	9000 Oct 20 20:18	24°♄41'19		direct	9006 Nov 27 14:35	5°♄53'56	
	9000 Nov 13 12:04	0°♄		evening set	9007 Apr 02 00:01	23°♄58'56	
retrograde	9001 Feb 25 03:31	13°♄45'04		max. Earth dist.	9007 Apr 12 12:02	26°♄21'58	6.24924 AU
min. Earth dist.	9001 Apr 24 12:51	8°♄53'28	4.18376 AU				
opposition	9001 Apr 26 00:10	8°♄41'33	0°49'16	conjunction	9007 Apr 14 18:32	26°♄53'02	-0°25'57
direct	9001 Jun 24 10:51	3°♄42'01		minimum elong	9007 Apr 14 18:31	26°♄53'01	0°26'03
	9001 Sep 25 13:13	15°♄		morning rise	9007 Apr 27 12:20	29°♄47'08	

	9007 Apr 28 11:03	0°♄		9012 Oct 27 03:29	0°♍	
	9007 Jul 15 17:34	15°♄		9013 Jan 12 02:14	15°♍	
retrograde	9007 Aug 30 23:03	18°♄11'12	retrograde	9013 Mar 01 19:15	18°♍36'03	
	9007 Oct 16 22:17	15°♄		9013 Apr 19 17:56	15°♍	
opposition	9007 Oct 30 11:42	13°♄17'11 -0°53'16	min. Earth dist.	9013 Apr 29 06:53	13°♍44'15	4.21056 AU
min. Earth dist.	9007 Oct 31 23:45	13°♄05'32 4.16191 AU	opposition	9013 Apr 30 16:48	13°♍32'51	0°53'01
direct	9007 Dec 30 09:09	8°♄19'18	direct	9013 Jun 29 08:57	8°♍33'03	
	9008 Mar 07 14:06	15°♄		9013 Sep 04 22:32	15°♍	
evening set	9008 May 04 04:22	27°♄15'39	evening set	9013 Nov 02 16:15	26°♍51'34	
max. Earth dist.	9008 May 15 07:46	29°♄53'27 6.07725 AU				
	9008 May 15 18:49	0°♅	conjunction	9013 Nov 16 04:17	29°♍51'10	0°43'03
			minimum elong	9013 Nov 16 04:16	29°♍51'10	0°43'16
conjunction	9008 May 17 00:55	0°♅17'49 -0°43'10		9013 Nov 16 20:11	0°♎	
minimum elong	9008 May 17 00:54	0°♅17'49 0°43'22	max. Earth dist.	9013 Nov 17 22:18	0°♎14'30	6.29610 AU
morning rise	9008 May 29 22:20	3°♅20'44	morning rise	9013 Nov 29 15:38	2°♎50'07	
retrograde	9008 Oct 05 21:49	23°♅01'57	retrograde	9014 Apr 02 04:26	20°♎31'11	
opposition	9008 Dec 04 22:15	18°♅05'39 -1°10'04	opposition	9014 Jun 01 13:30	15°♎30'57	1°08'09
min. Earth dist.	9008 Dec 05 15:57	17°♅59'50 4.00099 AU	min. Earth dist.	9014 May 31 18:13	15°♎37'19	4.37165 AU
direct	9009 Feb 02 07:48	13°♅09'58	direct	9014 Aug 01 13:13	10°♎29'47	
	9009 May 27 12:36	0°♆	evening set	9014 Dec 05 09:57	28°♎05'42	
evening set	9009 Jun 08 17:31	2°♆55'18		9014 Dec 14 06:15	0°♏	
conjunction	9009 Jun 21 19:39	6°♆06'07 -0°45'38	conjunction	9014 Dec 18 16:57	0°♏57'39	0°46'54
minimum elong	9009 Jun 21 19:40	6°♆06'07 0°45'54	minimum elong	9014 Dec 18 16:57	0°♏57'39	0°47'09
max. Earth dist.	9009 Jun 21 10:57	6°♆00'48 5.94276 AU	max. Earth dist.	9014 Dec 19 07:16	1°♏05'23	6.43388 AU
morning rise	9009 Jul 04 23:42	9°♆18'12	morning rise	9014 Dec 31 22:02	3°♏48'33	
	9009 Nov 12 15:03	0°♐	retrograde	9015 May 02 03:37	20°♏41'04	
retrograde	9009 Nov 13 17:09	0°♐00'07	opposition	9015 Jul 01 21:35	15°♏44'17	1°03'36
	9009 Nov 14 19:16	30°♐♄	min. Earth dist.	9015 Jul 01 21:58	15°♏44'09	4.47756 AU
opposition	9010 Jan 12 05:41	25°♏00'36 -1°00'19	direct	9015 Sep 01 23:43	10°♏42'37	
min. Earth dist.	9010 Jan 11 22:51	25°♏02'54 3.90798 AU	evening set	9016 Jan 05 10:28	27°♏54'45	
direct	9010 Mar 11 11:46	20°♏06'08		9016 Jan 15 05:27	0°♑	
	9010 Jun 01 16:23	0°♐				
evening set	9010 Jul 16 06:39	10°♐15'31	conjunction	9016 Jan 18 12:12	0°♑42'07	0°37'51
			minimum elong	9016 Jan 18 12:13	0°♑42'08	0°38'05
conjunction	9010 Jul 29 16:09	13°♐31'53 -0°30'01	max. Earth dist.	9016 Jan 17 19:33	0°♑33'13	6.50056 AU
minimum elong	9010 Jul 29 16:11	13°♐31'53 0°30'13	morning rise	9016 Jan 31 11:57	3°♑28'28	
max. Earth dist.	9010 Jul 30 21:45	13°♐49'59 5.90101 AU		9016 Mar 31 23:00	15°♑	
	9010 Aug 04 16:17	15°♐	retrograde	9016 May 30 18:57	20°♑01'57	
morning rise	9010 Aug 12 04:07	16°♐49'34	opposition	9016 Jul 30 18:05	15°♑07'44	0°42'46
	9010 Oct 10 12:29	0°♑		9016 Jul 31 18:10	15°♑	
retrograde	9010 Dec 22 08:58	7°♑42'18	min. Earth dist.	9016 Jul 31 14:18	15°♑01'14	4.50213 AU
min. Earth dist.	9011 Feb 18 11:03	2°♑49'35 3.92368 AU	direct	9016 Oct 01 10:39	10°♑06'05	
opposition	9011 Feb 19 16:46	2°♑39'30 -0°25'15		9016 Nov 30 17:33	15°♑	
	9011 Mar 12 10:40	30°♑♌	evening set	9017 Feb 03 14:51	27°♑16'43	
direct	9011 Apr 18 13:19	27°♑44'11	max. Earth dist.	9017 Feb 14 20:43	29°♑41'43	6.48106 AU
	9011 May 25 12:23	0°♑				
evening set	9011 Aug 23 11:59	17°♑39'17	conjunction	9017 Feb 16 12:40	0°♒03'15	0°19'01
			minimum elong	9017 Feb 16 12:41	0°♒03'16	0°19'09
conjunction	9011 Sep 06 02:45	20°♑54'45 -0°02'16		9017 Feb 16 06:38	0°♒	
minimum elong	9011 Sep 06 02:43	20°♑54'44 0°02'20	morning rise	9017 Mar 01 08:17	2°♒48'54	
behind sun begin	9011 Sep 05 18:20	20°♑49'44	retrograde	9017 Jun 30 02:36	19°♒34'28	
behind sun end	9011 Sep 06 11:07	20°♑59'44	opposition	9017 Aug 30 04:04	14°♒41'30	0°10'47
max. Earth dist.	9011 Sep 08 10:06	21°♑27'53 5.97186 AU	min. Earth dist.	9017 Aug 31 14:10	14°♒30'37	4.43994 AU
morning rise	9011 Sep 19 19:36	24°♑10'59	direct	9017 Oct 31 18:34	9°♒40'31	
asc. node	9011 Oct 06 06:42	28°♑02'05	desc. node	9017 Dec 25 15:54	13°♒50'59	
	9011 Oct 14 22:48	0°♓	evening set	9018 Mar 05 23:50	27°♒12'19	
retrograde	9012 Jan 27 22:12	14°♓17'52	max. Earth dist.	9018 Mar 16 12:31	29°♒31'29	6.37994 AU
min. Earth dist.	9012 Mar 25 20:12	9°♓26'50 4.04100 AU				
opposition	9012 Mar 27 11:26	9°♓13'29 0°18'46	conjunction	9018 Mar 18 18:54	0°♓01'34	-0°05'18
direct	9012 May 24 22:11	4°♓15'50	minimum elong	9018 Mar 18 18:54	0°♓01'34	0°05'17
evening set	9012 Sep 28 15:58	23°♓26'49	behind sun begin	9018 Mar 18 11:12	29°♒57'19	
			behind sun end	9018 Mar 19 02:37	0°♓05'48	
conjunction	9012 Oct 12 07:30	26°♓35'28 0°25'28		9018 Mar 18 16:01	0°♓	
minimum elong	9012 Oct 12 07:29	26°♓35'27 0°25'35	morning rise	9018 Mar 31 12:32	2°♓50'21	
max. Earth dist.	9012 Oct 14 19:23	27°♓10'00 6.12358 AU	retrograde	9018 Aug 01 07:44	20°♓18'26	
morning rise	9012 Oct 25 23:28	29°♓44'01	opposition	9018 Oct 01 03:51	15°♓25'27	-0°25'40

min. Earth dist.	9018 Oct 02 20:50	15° Υ 12'20	4.30535 AU	evening set	9024 Oct 03 18:01	28° Ω 26'49	
direct	9018 Dec 02 02:32	10° Υ 25'48			9024 Oct 10 12:59	0° \mathbb{M}	
evening set	9019 Apr 06 12:50	28° Υ 38'39					
	9019 Apr 12 11:31	0° \mathcal{B}		conjunction	9024 Oct 17 09:06	1° \mathbb{M} 34'05	0°28'43
max. Earth dist.	9019 Apr 17 00:26	1° \mathcal{B} 02'22	6.22163 AU	minimum elong	9024 Oct 17 09:05	1° \mathbb{M} 34'04	0°28'51
				max. Earth dist.	9024 Oct 19 19:22	2° \mathbb{M} 07'28	6.15031 AU
conjunction	9019 Apr 19 07:29	1° \mathcal{B} 33'55	-0°28'58	morning rise	9024 Oct 31 00:39	4° \mathbb{M} 41'12	
minimum elong	9019 Apr 19 07:28	1° \mathcal{B} 33'55	0°29'06		9024 Dec 18 16:37	15° \mathbb{M}	
morning rise	9019 May 02 01:46	4° \mathcal{B} 29'20		retrograde	9025 Mar 06 07:23	23° \mathbb{M} 21'44	
	9019 Jun 20 12:06	15° \mathcal{B}		min. Earth dist.	9025 May 03 22:38	18° \mathbb{M} 29'56	4.23691 AU
retrograde	9019 Sep 05 00:18	23° \mathcal{B} 05'17		opposition	9025 May 05 07:28	18° \mathbb{M} 18'54	0°56'22
opposition	9019 Nov 04 11:35	18° \mathcal{B} 10'59	-0°56'54		9025 Jun 01 12:03	15° $\mathcal{R}\mathbb{M}$	
min. Earth dist.	9019 Nov 05 20:53	18° \mathcal{B} 00'11	4.13394 AU	direct	9025 Jul 04 03:33	13° \mathbb{M} 18'53	
	9019 Dec 01 03:50	15° $\mathcal{R}\mathcal{B}$			9025 Aug 06 04:02	15° \mathbb{M}	
direct	9020 Jan 04 02:50	13° \mathcal{B} 13'25			9025 Oct 31 12:57	0° \mathcal{Z}	
	9020 Feb 06 19:40	15° \mathcal{B}		evening set	9025 Nov 07 09:42	1° \mathcal{Z} 30'01	
	9020 Apr 29 05:08	0° \mathbb{I}					
evening set	9020 May 09 01:59	2° \mathbb{I} 18'40		conjunction	9025 Nov 20 21:04	4° \mathcal{Z} 28'21	0°44'25
max. Earth dist.	9020 May 20 11:03	5° \mathbb{I} 00'43	6.05152 AU	minimum elong	9025 Nov 20 21:03	4° \mathcal{Z} 28'20	0°44'40
				max. Earth dist.	9025 Nov 22 11:12	4° \mathcal{Z} 49'25	6.32011 AU
conjunction	9020 May 21 23:16	5° \mathbb{I} 22'17	-0°44'32	morning rise	9025 Dec 04 07:28	7° \mathcal{Z} 25'55	
minimum elong	9020 May 21 23:16	5° \mathbb{I} 22'16	0°44'46	retrograde	9026 Apr 06 11:47	24° \mathcal{Z} 58'15	
morning rise	9020 Jun 03 21:25	8° \mathbb{I} 26'42		opposition	9026 Jun 05 21:15	19° \mathcal{Z} 58'36	1°08'37
retrograde	9020 Oct 11 10:23	28° \mathbb{I} 19'31		min. Earth dist.	9026 Jun 05 05:16	20° \mathcal{Z} 03'52	4.39161 AU
opposition	9020 Dec 10 07:31	23° \mathbb{I} 22'50	-1°10'24	direct	9026 Aug 06 01:48	14° \mathcal{Z} 57'22	
min. Earth dist.	9020 Dec 10 22:32	23° \mathbb{I} 17'53	3.98011 AU		9026 Nov 28 04:01	0° \mathcal{Z}	
direct	9021 Feb 07 12:38	18° \mathbb{I} 27'28		evening set	9026 Dec 09 20:17	2° \mathcal{Z} 28'33	
	9021 May 09 05:22	0° \mathcal{E}					
evening set	9021 Jun 13 23:56	8° \mathcal{E} 18'58		conjunction	9026 Dec 23 02:28	5° \mathcal{Z} 19'38	0°46'19
				minimum elong	9026 Dec 23 02:28	5° \mathcal{Z} 19'38	0°46'34
conjunction	9021 Jun 27 03:07	11° \mathcal{E} 30'56	-0°44'26	max. Earth dist.	9026 Dec 23 11:23	5° \mathcal{Z} 24'26	6.44833 AU
minimum elong	9021 Jun 27 03:08	11° \mathcal{E} 30'57	0°44'41	morning rise	9027 Jan 05 06:52	8° \mathcal{Z} 09'42	
max. Earth dist.	9021 Jun 27 00:08	11° \mathcal{E} 29'07	5.92890 AU	retrograde	9027 May 06 07:22	24° \mathcal{Z} 57'50	
morning rise	9021 Jul 10 08:22	14° \mathcal{E} 44'13		opposition	9027 Jul 06 02:08	20° \mathcal{Z} 01'28	1°01'30
	9021 Sep 19 12:50	0° \mathcal{Q}		min. Earth dist.	9027 Jul 06 05:37	20° \mathcal{Z} 00'21	4.48589 AU
retrograde	9021 Nov 19 07:16	5° \mathcal{Q} 31'33		direct	9027 Sep 06 06:23	14° \mathcal{Z} 59'46	
opposition	9022 Jan 17 18:40	0° \mathcal{Q} 31'33	-0°56'31		9027 Dec 30 08:17	0° \mathcal{A}	
min. Earth dist.	9022 Jan 17 07:10	0° \mathcal{Q} 35'24	3.90316 AU	evening set	9028 Jan 09 16:32	2° \mathcal{A} 10'34	
	9022 Jan 21 16:51	30° $\mathcal{R}\mathcal{E}$					
direct	9022 Mar 16 21:12	25° \mathcal{E} 37'07		conjunction	9028 Jan 22 17:49	4° \mathcal{A} 57'40	0°35'40
	9022 May 08 04:56	0° \mathcal{Q}		minimum elong	9028 Jan 22 17:50	4° \mathcal{A} 57'41	0°35'54
	9022 Jul 18 13:00	15° \mathcal{Q}		max. Earth dist.	9028 Jan 21 22:30	4° \mathcal{A} 47'20	6.50226 AU
evening set	9022 Jul 21 18:02	15° \mathcal{Q} 46'40		morning rise	9028 Feb 04 16:45	7° \mathcal{A} 43'42	
					9028 Mar 11 11:56	15° \mathcal{A}	
conjunction	9022 Aug 04 04:21	19° \mathcal{Q} 03'15	-0°26'29	retrograde	9028 Jun 03 22:57	24° \mathcal{A} 17'24	
minimum elong	9022 Aug 04 04:22	19° \mathcal{Q} 03'15	0°26'41	opposition	9028 Aug 03 23:12	19° \mathcal{A} 23'30	0°38'46
max. Earth dist.	9022 Aug 05 14:11	19° \mathcal{Q} 23'55	5.90548 AU	min. Earth dist.	9028 Aug 04 21:28	19° \mathcal{A} 16'22	4.49720 AU
morning rise	9022 Aug 17 17:21	22° \mathcal{Q} 21'08			9028 Sep 15 00:51	15° $\mathcal{R}\mathcal{A}$	
	9022 Sep 19 10:15	0° \mathbb{P}		direct	9028 Oct 05 15:47	14° \mathcal{A} 21'58	
retrograde	9022 Dec 27 16:32	13° \mathbb{P} 09'47			9028 Oct 26 10:09	15° \mathcal{A}	
min. Earth dist.	9023 Feb 23 17:34	8° \mathbb{P} 17'32	3.93676 AU		9029 Jan 31 10:47	0° \mathcal{H}	
opposition	9023 Feb 25 01:53	8° \mathbb{P} 06'32	-0°18'58	evening set	9029 Feb 07 20:44	1° \mathcal{H} 34'45	
direct	9023 Apr 23 23:30	3° \mathbb{P} 10'54		max. Earth dist.	9029 Feb 18 22:12	3° \mathcal{H} 57'50	6.46974 AU
asc. node	9023 Aug 14 09:57	19° \mathbb{P} 36'32					
evening set	9023 Aug 28 21:12	23° \mathbb{P} 00'16		conjunction	9029 Feb 20 17:56	4° \mathcal{H} 21'30	0°15'47
				minimum elong	9029 Feb 20 17:57	4° \mathcal{H} 21'31	0°15'55
conjunction	9023 Sep 11 12:27	26° \mathbb{P} 14'57	0°02'06	behind sun begin	9029 Feb 20 16:46	4° \mathcal{H} 20'52	
minimum elong	9023 Sep 11 12:27	26° \mathbb{P} 14'57	0°02'04	behind sun end	9029 Feb 20 19:08	4° \mathcal{H} 22'09	
behind sun begin	9023 Sep 11 04:03	26° \mathbb{P} 09'58		morning rise	9029 Mar 05 13:18	7° \mathcal{H} 07'28	
behind sun end	9023 Sep 11 20:51	26° \mathbb{P} 19'55		retrograde	9029 Jul 04 13:54	23° \mathcal{H} 57'50	
max. Earth dist.	9023 Sep 13 23:01	26° \mathbb{P} 49'50	5.99205 AU	opposition	9029 Sep 03 13:40	19° \mathcal{H} 05'00	0°05'40
morning rise	9023 Sep 25 05:20	29° \mathbb{P} 30'14		min. Earth dist.	9029 Sep 05 02:12	18° \mathcal{H} 53'20	4.42282 AU
	9023 Sep 27 07:52	0° \mathcal{A}		desc. node	9029 Nov 03 18:02	14° \mathcal{H} 04'18	
retrograde	9024 Feb 01 22:16	19° \mathcal{A} 26'29		direct	9029 Nov 05 03:34	14° \mathcal{H} 04'07	
min. Earth dist.	9024 Mar 30 21:00	14° \mathcal{A} 35'17	4.06571 AU		9030 Mar 02 15:25	0° \mathcal{Y}	
opposition	9024 Apr 01 11:47	14° \mathcal{A} 22'08	0°24'34	evening set	9030 Mar 10 08:46	1° \mathcal{Y} 41'22	
direct	9024 May 30 02:48	9° \mathcal{A} 24'11		max. Earth dist.	9030 Mar 20 20:11	4° \mathcal{Y} 00'31	6.35827 AU

conjunction	9030 Mar 23 03:47	4° Υ 31'25	-0°08'52	morning rise	9035 Sep 30 10:34	4° Ω 38'12	
minimum elong	9030 Mar 23 03:46	4° Υ 31'24	0°08'52	retrograde	9036 Feb 06 15:09	24° Ω 23'15	
behind sun begin	9030 Mar 22 20:54	4° Υ 27'36		min. Earth dist.	9036 Apr 04 15:58	19° Ω 32'14	4.09073 AU
behind sun end	9030 Mar 23 10:39	4° Υ 35'12		opposition	9036 Apr 06 07:04	19° Ω 18'59	0°29'56
morning rise	9030 Apr 04 21:20	7° Υ 21'02		direct	9036 Jun 04 01:16	14° Ω 20'41	
retrograde	9030 Aug 06 01:14	24° Υ 58'03			9036 Sep 24 03:22	0° \mathbb{M}	
opposition	9030 Oct 05 21:00	20° Υ 04'58	-0°30'43	evening set	9036 Oct 08 15:34	3° \mathbb{M} 15'17	
min. Earth dist.	9030 Oct 07 12:41	19° Υ 52'14	4.28065 AU				
direct	9030 Dec 06 14:27	15° Υ 05'37		conjunction	9036 Oct 22 06:15	6° \mathbb{M} 21'14	0°31'39
	9031 Mar 26 22:09	0° \mathcal{B}		minimum elong	9036 Oct 22 06:14	6° \mathbb{M} 21'13	0°31'47
evening set	9031 Apr 11 04:09	3° \mathcal{B} 26'05		max. Earth dist.	9036 Oct 24 13:13	6° \mathbb{M} 52'34	6.17585 AU
max. Earth dist.	9031 Apr 21 18:34	5° \mathcal{B} 52'16	6.19598 AU	morning rise	9036 Nov 04 21:11	9° \mathbb{M} 26'56	
					9036 Nov 30 02:42	15° \mathbb{M}	
conjunction	9031 Apr 23 22:58	6° \mathcal{B} 22'30	-0°31'53	retrograde	9037 Mar 10 17:45	27° \mathbb{M} 56'51	
minimum elong	9031 Apr 23 22:57	6° \mathcal{B} 22'29	0°32'02	opposition	9037 May 09 18:13	22° \mathbb{M} 54'25	0°59'16
morning rise	9031 May 06 17:34	9° \mathcal{B} 19'07		min. Earth dist.	9037 May 08 12:31	23° \mathbb{M} 04'22	4.26068 AU
	9031 Jun 01 02:31	15° \mathcal{B}		direct	9037 Jul 08 19:43	17° \mathbb{M} 54'10	
retrograde	9031 Sep 10 05:57	28° \mathcal{B} 06'19			9037 Oct 14 20:01	0° \mathcal{X}	
opposition	9031 Nov 09 14:09	23° \mathcal{B} 11'47	-1°00'13	evening set	9037 Nov 11 23:15	5° \mathcal{X} 58'57	
min. Earth dist.	9031 Nov 10 21:59	23° \mathcal{B} 01'26	4.10948 AU				
direct	9032 Jan 09 01:16	18° \mathcal{B} 14'35		conjunction	9037 Nov 25 10:02	8° \mathcal{X} 56'11	0°45'30
	9032 Apr 11 09:22	0° \mathbb{I}		minimum elong	9037 Nov 25 10:01	8° \mathcal{X} 56'11	0°45'45
evening set	9032 May 14 01:27	7° \mathbb{I} 27'10		max. Earth dist.	9037 Nov 26 20:31	9° \mathcal{X} 15'09	6.34030 AU
				morning rise	9037 Dec 08 19:38	11° \mathcal{X} 52'36	
conjunction	9032 May 26 23:24	10° \mathbb{I} 32'00	-0°45'37	retrograde	9038 Apr 10 14:48	29° \mathcal{X} 17'46	
minimum elong	9032 May 26 23:23	10° \mathbb{I} 32'00	0°45'52	opposition	9038 Jun 10 02:19	24° \mathcal{X} 18'36	1°08'43
max. Earth dist.	9032 May 25 15:13	10° \mathbb{I} 12'46	6.03074 AU	min. Earth dist.	9038 Jun 09 12:29	24° \mathcal{X} 23'09	4.40712 AU
morning rise	9032 Jun 08 22:24	13° \mathbb{I} 37'43		direct	9038 Aug 10 09:12	19° \mathcal{X} 17'16	
	9032 Aug 28 18:54	0° \mathcal{E}			9038 Nov 11 08:27	0° \mathcal{Z}	
retrograde	9032 Oct 16 20:15	3° \mathcal{E} 39'44		evening set	9038 Dec 14 04:09	6° \mathcal{Z} 45'08	
	9032 Dec 05 20:10	30° \mathcal{K} \mathbb{I}					
opposition	9032 Dec 15 17:00	28° \mathbb{I} 42'38	-1°10'11	conjunction	9038 Dec 27 09:39	9° \mathcal{Z} 35'35	0°45'31
min. Earth dist.	9032 Dec 16 03:22	28° \mathbb{I} 39'12	3.96552 AU	minimum elong	9038 Dec 27 09:40	9° \mathcal{Z} 35'35	0°45'47
direct	9033 Feb 12 16:56	23° \mathbb{I} 47'32		max. Earth dist.	9038 Dec 27 14:20	9° \mathcal{Z} 38'06	6.45824 AU
	9033 Apr 17 12:08	0° \mathcal{E}		morning rise	9039 Jan 09 13:14	12° \mathcal{Z} 24'58	
evening set	9033 Jun 19 06:26	13° \mathcal{E} 42'39		retrograde	9039 May 10 10:50	29° \mathcal{Z} 10'11	
				opposition	9039 Jul 10 05:25	24° \mathcal{Z} 14'19	0°59'10
conjunction	9033 Jul 02 10:27	16° \mathcal{E} 55'23	-0°42'55	min. Earth dist.	9039 Jul 10 12:10	24° \mathcal{Z} 12'08	4.48985 AU
minimum elong	9033 Jul 02 10:28	16° \mathcal{E} 55'24	0°43'10	direct	9039 Sep 10 12:27	19° \mathcal{Z} 12'39	
max. Earth dist.	9033 Jul 02 12:42	16° \mathcal{E} 56'45	5.92197 AU		9039 Dec 13 16:40	0° \approx	
morning rise	9033 Jul 15 16:50	20° \mathcal{E} 09'29		evening set	9040 Jan 13 21:50	6° \approx 23'22	
	9033 Aug 27 10:17	0° Ω					
retrograde	9033 Nov 24 17:55	10° Ω 59'01		conjunction	9040 Jan 26 22:27	9° \approx 10'20	0°33'22
opposition	9034 Jan 23 05:25	5° Ω 58'26	-0°52'20	minimum elong	9040 Jan 26 22:28	9° \approx 10'20	0°33'34
min. Earth dist.	9034 Jan 22 14:15	6° Ω 03'32	3.90479 AU	max. Earth dist.	9040 Jan 25 22:15	8° \approx 57'22	6.50001 AU
direct	9034 Mar 22 07:07	1° Ω 03'53		morning rise	9040 Feb 08 20:59	11° \approx 56'17	
	9034 Jun 30 22:39	15° Ω			9040 Feb 23 10:41	15° \approx	
evening set	9034 Jul 27 02:31	21° Ω 11'05		retrograde	9040 Jun 08 04:42	28° \approx 31'23	
				opposition	9040 Aug 08 04:18	23° \approx 37'42	0°34'37
conjunction	9034 Aug 09 13:49	24° Ω 27'35	-0°22'51	min. Earth dist.	9040 Aug 09 04:53	23° \approx 29'50	4.48914 AU
minimum elong	9034 Aug 09 13:50	24° Ω 27'36	0°23'01	direct	9040 Oct 09 20:51	18° \approx 36'13	
max. Earth dist.	9034 Aug 11 05:39	24° Ω 51'50	5.91552 AU		9041 Jan 14 21:31	0° \mathcal{H}	
morning rise	9034 Aug 23 03:24	27° Ω 45'16		evening set	9041 Feb 12 02:20	5° \mathcal{H} 52'00	
	9034 Sep 01 12:15	0° \mathbb{P}		max. Earth dist.	9041 Feb 23 02:40	8° \mathcal{H} 14'53	6.45650 AU
retrograde	9035 Jan 01 21:41	18° \mathbb{P} 27'29					
min. Earth dist.	9035 Feb 28 21:32	13° \mathbb{P} 35'16	3.95393 AU	conjunction	9041 Feb 24 23:20	8° \mathcal{H} 39'07	0°12'30
opposition	9035 Mar 02 06:55	13° \mathbb{P} 23'55	-0°12'46	minimum elong	9041 Feb 24 23:21	8° \mathcal{H} 39'08	0°12'37
direct	9035 Apr 29 06:42	8° \mathbb{P} 27'59		behind sun begin	9041 Feb 24 18:14	8° \mathcal{H} 36'22	
asc. node	9035 Jun 24 11:51	13° \mathbb{P} 24'43		behind sun end	9041 Feb 25 04:28	8° \mathcal{H} 41'54	
evening set	9035 Sep 03 02:13	28° \mathbb{P} 10'18		morning rise	9041 Mar 09 18:13	11° \mathcal{H} 25'27	
	9035 Sep 10 19:48	0° $\underline{\Omega}$		retrograde	9041 Jul 08 23:39	28° \mathcal{H} 21'11	
				opposition	9041 Sep 07 23:46	23° \mathcal{H} 28'25	0°00'33
conjunction	9035 Sep 16 17:32	1° $\underline{\Omega}$ 23'58	0°06'11	min. Earth dist.	9041 Sep 09 12:29	23° \mathcal{H} 16'41	4.40526 AU
minimum elong	9035 Sep 16 17:32	1° $\underline{\Omega}$ 23'58	0°06'10	desc. node	9041 Sep 13 22:17	22° \mathcal{H} 43'04	
behind sun begin	9035 Sep 16 09:36	1° $\underline{\Omega}$ 19'18		direct	9041 Nov 09 10:32	18° \mathcal{H} 27'47	
behind sun end	9035 Sep 17 01:28	1° $\underline{\Omega}$ 28'39			9042 Feb 13 20:34	0° Υ	
max. Earth dist.	9035 Sep 19 04:48	1° $\underline{\Omega}$ 59'03	6.01433 AU	evening set	9042 Mar 14 17:58	6° Υ 10'22	

max. Earth dist.	9042 Mar 25 04:37	8° Υ 29'48	6.33757 AU	conjunction	9047 Sep 21 22:01	6° Ω 31'35	0°10'11
				minimum elong	9047 Sep 21 22:01	6° Ω 31'34	0°10'12
conjunction	9042 Mar 27 12:40	9° Υ 01'07	-0°12'21	behind sun begin	9047 Sep 21 15:24	6° Ω 27'41	
minimum elong	9042 Mar 27 12:39	9° Υ 01'07	0°12'23	behind sun end	9047 Sep 22 04:38	6° Ω 35'27	
behind sun begin	9042 Mar 27 07:21	8° Υ 58'10		max. Earth dist.	9047 Sep 24 09:08	7° Ω 06'26	6.03314 AU
behind sun end	9042 Mar 27 17:57	9° Υ 04'03		morning rise	9047 Oct 05 15:02	9° Ω 44'53	
morning rise	9042 Apr 09 06:17	11° Υ 51'34		retrograde	9048 Feb 11 10:27	29° Ω 20'32	
retrograde	9042 Aug 10 21:18	29° Υ 37'12		min. Earth dist.	9048 Apr 09 12:52	24° Ω 29'05	4.11198 AU
opposition	9042 Oct 10 14:33	24° Υ 43'59	-0°35'33	opposition	9048 Apr 11 02:23	24° Ω 16'22	0°35'05
min. Earth dist.	9042 Oct 12 06:15	24° Υ 31'13	4.25800 AU	direct	9048 Jun 09 01:01	19° Ω 17'45	
direct	9042 Dec 11 05:10	19° Υ 44'53			9048 Sep 06 04:08	0° \mathbb{M}	
	9043 Mar 09 06:09	0° \mathcal{B}		evening set	9048 Oct 13 13:27	8° \mathbb{M} 05'50	
evening set	9043 Apr 15 19:08	8° \mathcal{B} 12'06					
max. Earth dist.	9043 Apr 26 11:52	10° \mathcal{B} 40'21	6.17316 AU	conjunction	9048 Oct 27 03:53	11° \mathbb{M} 10'41	0°34'23
				minimum elong	9048 Oct 27 03:51	11° \mathbb{M} 10'40	0°34'33
conjunction	9043 Apr 28 14:15	11° \mathcal{B} 09'33	-0°34'34	max. Earth dist.	9048 Oct 29 09:57	11° \mathbb{M} 41'20	6.19772 AU
minimum elong	9043 Apr 28 14:14	11° \mathcal{B} 09'32	0°34'43	morning rise	9048 Nov 09 18:10	14° \mathbb{M} 15'09	
morning rise	9043 May 11 09:11	14° \mathcal{B} 07'17			9048 Nov 13 02:11	15° \mathbb{M}	
	9043 May 15 04:47	15° \mathcal{B}			9049 Feb 02 00:49	0° \mathcal{A}	
	9043 Aug 01 04:30	0° \mathbb{I}		retrograde	9049 Mar 15 03:27	2° \mathcal{A} 35'48	
retrograde	9043 Sep 15 07:52	3° \mathbb{I} 04'31			9049 Apr 25 04:48	30° \mathbb{R} \mathbb{M}	
	9043 Oct 31 03:43	30° \mathbb{R} \mathcal{B}		min. Earth dist.	9049 May 13 01:20	27° \mathbb{M} 43'23	4.28140 AU
opposition	9043 Nov 14 15:28	28° \mathcal{B} 09'42	-1°03'02	opposition	9049 May 14 06:03	27° \mathbb{M} 33'48	1°01'48
min. Earth dist.	9043 Nov 15 20:15	28° \mathcal{B} 00'20	4.08834 AU	direct	9049 Jul 13 10:17	22° \mathbb{M} 33'24	
direct	9044 Jan 13 20:29	23° \mathcal{B} 12'52			9049 Sep 25 11:07	0° \mathcal{A}	
	9044 Mar 22 00:55	0° \mathbb{I}		evening set	9049 Nov 16 14:31	10° \mathcal{A} 32'49	
evening set	9044 May 18 23:39	12° \mathbb{I} 31'44					
				conjunction	9049 Nov 30 00:30	13° \mathcal{A} 29'02	0°46'19
conjunction	9044 May 31 22:07	15° \mathbb{I} 37'38	-0°46'19	minimum elong	9049 Nov 30 00:30	13° \mathcal{A} 29'01	0°46'33
minimum elong	9044 May 31 22:07	15° \mathbb{I} 37'38	0°46'34	max. Earth dist.	9049 Dec 01 06:15	13° \mathcal{A} 45'20	6.35845 AU
max. Earth dist.	9044 May 30 17:46	15° \mathbb{I} 20'37	6.01296 AU	morning rise	9049 Dec 13 09:23	16° \mathcal{A} 24'24	
morning rise	9044 Jun 13 22:01	18° \mathbb{I} 44'33			9050 Feb 23 14:48	0° \mathcal{B}	
	9044 Aug 03 11:28	0° \mathcal{E}		retrograde	9050 Apr 14 21:58	3° \mathcal{B} 42'58	
retrograde	9044 Oct 22 05:10	8° \mathcal{E} 54'52			9050 Jun 04 16:00	30° \mathbb{R} \mathcal{A}	
opposition	9044 Dec 21 00:27	3° \mathcal{E} 57'17	-1°09'22	opposition	9050 Jun 14 09:27	28° \mathcal{A} 44'19	1°08'26
min. Earth dist.	9044 Dec 21 07:35	3° \mathcal{E} 54'55	3.95281 AU	min. Earth dist.	9050 Jun 13 22:59	28° \mathcal{A} 47'45	4.42170 AU
	9045 Jan 24 19:49	30° \mathbb{R} \mathbb{I}		direct	9050 Aug 14 21:07	23° \mathcal{A} 42'57	
direct	9045 Feb 17 21:27	29° \mathbb{I} 02'21			9050 Oct 22 09:26	0° \mathcal{B}	
	9045 Mar 13 20:00	0° \mathcal{E}		evening set	9050 Dec 18 13:50	11° \mathcal{B} 07'32	
evening set	9045 Jun 24 10:39	19° \mathcal{E} 00'42					
				conjunction	9050 Dec 31 18:43	13° \mathcal{B} 57'21	0°44'28
conjunction	9045 Jul 07 15:48	22° \mathcal{E} 14'15	-0°41'02	minimum elong	9050 Dec 31 18:44	13° \mathcal{B} 57'21	0°44'44
minimum elong	9045 Jul 07 15:49	22° \mathcal{E} 14'15	0°41'17	max. Earth dist.	9050 Dec 31 20:18	13° \mathcal{B} 58'12	6.46851 AU
max. Earth dist.	9045 Jul 08 00:25	22° \mathcal{E} 19'31	5.91569 AU	morning rise	9051 Jan 13 21:31	16° \mathcal{B} 46'04	
morning rise	9045 Jul 20 23:05	25° \mathcal{E} 29'07			9051 Mar 26 19:34	0° \approx	
	9045 Aug 08 20:37	0° \mathcal{O}		retrograde	9051 May 14 14:12	3° \approx 28'05	
	9045 Nov 01 06:49	15° \mathcal{O}			9051 Jul 02 23:31	30° \mathbb{R} \mathcal{B}	
retrograde	9045 Nov 30 03:45	16° \mathcal{O} 20'46		opposition	9051 Jul 14 10:39	28° \mathcal{B} 32'33	0°56'30
	9045 Dec 28 20:48	15° \mathbb{R} \mathcal{O}		min. Earth dist.	9051 Jul 14 18:50	28° \mathcal{B} 29'54	4.49568 AU
opposition	9046 Jan 28 13:38	11° \mathcal{O} 19'45	-0°47'45	direct	9051 Sep 14 18:54	23° \mathcal{B} 30'56	
min. Earth dist.	9046 Jan 27 20:04	11° \mathcal{O} 25'40	3.90585 AU		9051 Nov 24 04:38	0° \approx	
direct	9046 Mar 27 13:32	6° \mathcal{O} 25'10		evening set	9052 Jan 18 04:11	10° \approx 40'32	
	9046 Jun 11 08:26	15° \mathcal{O}		max. Earth dist.	9052 Jan 30 02:17	13° \approx 13'19	6.50131 AU
evening set	9046 Aug 01 09:30	26° \mathcal{O} 30'49					
				conjunction	9052 Jan 31 04:12	13° \approx 27'13	0°30'52
conjunction	9046 Aug 14 21:27	29° \mathcal{O} 47'17	-0°19'04	minimum elong	9052 Jan 31 04:13	13° \approx 27'13	0°31'03
minimum elong	9046 Aug 14 21:28	29° \mathcal{O} 47'18	0°19'13		9052 Feb 07 09:25	15° \approx	
	9046 Aug 15 18:24	0° \mathbb{P}		morning rise	9052 Feb 13 01:59	16° \approx 12'52	
max. Earth dist.	9046 Aug 16 16:04	0° \mathbb{P} 13'09	5.92356 AU		9052 Apr 29 17:00	0° \mathcal{H}	
morning rise	9046 Aug 28 11:57	3° \mathbb{P} 04'56		retrograde	9052 Jun 12 10:10	2° \mathcal{H} 48'06	
retrograde	9047 Jan 06 23:30	23° \mathbb{P} 41'42			9052 Jul 26 12:31	30° \mathbb{R} \approx	
min. Earth dist.	9047 Mar 05 22:17	18° \mathbb{P} 50'02	3.96810 AU	opposition	9052 Aug 12 10:29	27° \approx 54'38	0°30'18
opposition	9047 Mar 07 09:52	18° \mathbb{P} 37'56	-0°06'33	min. Earth dist.	9052 Aug 13 12:52	27° \approx 46'12	4.48593 AU
direct	9047 May 04 10:27	13° \mathbb{P} 41'41		direct	9052 Oct 14 03:54	22° \approx 53'17	
asc. node	9047 May 04 18:54	13° \mathbb{P} 41'41			9052 Dec 27 02:03	0° \mathcal{H}	
	9047 Aug 25 00:17	0° \mathcal{O}		evening set	9053 Feb 16 07:59	10° \mathcal{H} 10'01	
evening set	9047 Sep 08 06:30	3° \mathcal{O} 18'43		max. Earth dist.	9053 Feb 27 04:42	12° \mathcal{H} 31'18	6.44897 AU

conjunction	9053 Mar 01 04:21	12° K 57'13	0°09'12			9058 Jul 30 13:11	0° M	
minimum elong	9053 Mar 01 04:20	12° K 57'12	0°09'18	evening set		9058 Aug 06 13:02	1° M 40'46	
behind sun begin	9053 Feb 28 21:38	12° K 53'35						
behind sun end	9053 Mar 01 11:03	13° K 00'50		conjunction		9058 Aug 20 01:55	4° M 57'27	-0°15'18
morning rise	9053 Mar 13 22:58	15° K 43'41		minimum elong		9058 Aug 20 01:55	4° M 57'27	0°15'26
	9053 May 31 11:38	0° Y		behind sun begin		9058 Aug 19 23:44	4° M 56'08	
retrograde	9053 Jul 13 09:40	2° Y 42'51		behind sun end		9058 Aug 20 04:06	4° M 58'46	
desc. node	9053 Jul 26 16:35	2° Y 26'18		max. Earth dist.		9058 Aug 21 23:30	5° M 25'06	5.92776 AU
	9053 Aug 25 18:11	30° K K		morning rise		9058 Sep 02 17:07	8° M 15'13	
opposition	9053 Sep 12 09:09	27° K 50'02	-0°04'26	retrograde		9059 Jan 12 01:03	28° M 48'28	
min. Earth dist.	9053 Sep 13 22:51	27° K 37'59	4.39374 AU	min. Earth dist.		9059 Mar 10 22:33	23° M 56'41	3.97771 AU
direct	9053 Nov 13 18:59	22° K 49'30		opposition		9059 Mar 12 10:20	23° M 44'30	-0°00'32
	9054 Jan 26 02:38	0° Y		asc. node		9059 Mar 17 05:13	23° M 05'30	
evening set	9054 Mar 19 01:09	10° Y 35'13		direct		9059 May 09 13:15	18° M 47'57	
max. Earth dist.	9054 Mar 29 12:33	12° Y 55'30	6.32290 AU			9059 Aug 07 04:13	0° L	
				evening set		9059 Sep 13 09:03	8° L 21'36	
conjunction	9054 Mar 31 19:47	13° Y 26'27	-0°15'39					
minimum elong	9054 Mar 31 19:47	13° Y 26'27	0°15'42	conjunction		9059 Sep 27 00:56	11° L 33'56	0°13'58
behind sun begin	9054 Mar 31 17:45	13° Y 25'19		minimum elong		9059 Sep 27 00:55	11° L 33'56	0°14'00
behind sun end	9054 Mar 31 21:48	13° Y 27'35		behind sun begin		9059 Sep 26 20:52	11° L 31'34	
morning rise	9054 Apr 13 13:10	16° Y 17'24		behind sun end		9059 Sep 27 04:58	11° L 36'18	
	9054 Jun 23 00:20	0° B		max. Earth dist.		9059 Sep 29 14:06	12° L 09'52	6.04731 AU
retrograde	9054 Aug 15 11:33	4° B 09'35		morning rise		9059 Oct 10 17:55	14° L 46'33	
	9054 Oct 09 12:23	30° K Y				9059 Dec 25 05:58	0° M	
opposition	9054 Oct 15 05:15	29° Y 16'10	-0°39'57	retrograde		9060 Feb 16 03:43	4° M 14'27	
min. Earth dist.	9054 Oct 16 20:08	29° Y 03'40	4.24101 AU			9060 Apr 09 17:38	30° K L	
direct	9054 Dec 15 15:55	24° Y 17'20		min. Earth dist.		9060 Apr 14 06:41	29° L 23'18	4.12922 AU
	9055 Feb 16 23:52	0° B		opposition		9060 Apr 15 20:33	29° L 10'29	0°39'48
evening set	9055 Apr 20 06:38	12° B 49'19		direct		9060 Jun 13 21:17	24° L 11'38	
	9055 Apr 29 16:05	15° B				9060 Aug 15 22:07	0° M	
max. Earth dist.	9055 May 01 00:21	15° B 18'47	6.15506 AU	evening set		9060 Oct 18 11:22	12° M 54'39	
						9060 Oct 27 17:46	15° M	
conjunction	9055 May 03 01:46	15° B 47'33	-0°36'51					
minimum elong	9055 May 03 01:44	15° B 47'32	0°37'02	conjunction		9060 Nov 01 01:15	15° M 58'29	0°36'48
morning rise	9055 May 15 21:10	18° B 46'14		minimum elong		9060 Nov 01 01:14	15° M 58'28	0°36'59
	9055 Jul 07 05:18	0° II		max. Earth dist.		9060 Nov 03 04:12	16° M 27'15	6.21651 AU
retrograde	9055 Sep 20 06:24	7° II 52'06		morning rise		9060 Nov 14 15:08	19° M 01'55	
opposition	9055 Nov 19 12:42	2° II 56'54	-1°05'14			9061 Jan 06 18:46	0° J	
min. Earth dist.	9055 Nov 20 15:53	2° II 48'01	4.07034 AU	retrograde		9061 Mar 19 14:46	7° J 14'17	
	9055 Dec 13 18:13	30° K B		opposition		9061 May 18 18:05	2° J 12'37	1°03'52
direct	9056 Jan 18 14:42	28° B 00'15		min. Earth dist.		9061 May 17 15:39	2° J 21'26	4.30006 AU
	9056 Feb 23 01:36	0° II				9061 Jun 04 23:29	30° K M	
evening set	9056 May 23 17:14	17° II 24'25		direct		9061 Jul 18 03:13	27° M 12'01	
						9061 Aug 30 14:13	0° J	
conjunction	9056 Jun 05 16:33	20° II 31'24	-0°46'38	evening set		9061 Nov 21 05:45	15° J 06'29	
minimum elong	9056 Jun 05 16:33	20° II 31'24	0°46'52					
max. Earth dist.	9056 Jun 04 16:26	20° II 16'52	5.99684 AU	conjunction		9061 Dec 04 15:15	18° J 01'46	0°46'47
morning rise	9056 Jun 18 17:09	23° II 39'23		minimum elong		9061 Dec 04 15:14	18° J 01'45	0°47'03
	9056 Jul 15 22:04	0° B		max. Earth dist.		9061 Dec 05 19:28	18° J 17'11	6.37555 AU
retrograde	9056 Oct 27 09:53	13° B 57'20		morning rise		9061 Dec 17 23:10	20° J 56'05	
opposition	9056 Dec 26 02:46	8° B 59'24	-1°08'01			9062 Jan 31 12:25	0° B	
min. Earth dist.	9056 Dec 26 07:42	8° B 57'45	3.94031 AU	retrograde		9062 Apr 19 02:50	8° B 08'15	
direct	9057 Feb 22 19:55	4° B 04'35		opposition		9062 Jun 18 16:52	3° B 10'00	1°07'42
evening set	9057 Jun 29 10:46	24° B 06'34		min. Earth dist.		9062 Jun 18 07:37	3° B 13'01	4.43592 AU
						9062 Jul 15 00:26	30° K J	
conjunction	9057 Jul 12 16:47	27° B 20'55	-0°38'55	direct		9062 Aug 19 07:17	28° J 08'34	
minimum elong	9057 Jul 12 16:49	27° B 20'56	0°39'10			9062 Sep 24 00:12	0° B	
max. Earth dist.	9057 Jul 13 03:54	27° B 27'44	5.90798 AU	evening set		9062 Dec 22 23:31	15° B 29'42	
	9057 Jul 23 13:02	0° L						
morning rise	9057 Jul 26 01:23	0° L 36'43		conjunction		9063 Jan 05 03:31	18° B 18'48	0°43'07
	9057 Sep 29 21:54	15° L		minimum elong		9063 Jan 05 03:32	18° B 18'48	0°43'23
retrograde	9057 Dec 05 07:05	21° L 31'09		max. Earth dist.		9063 Jan 05 00:43	18° B 17'18	6.47858 AU
opposition	9058 Feb 02 17:11	16° L 29'44	-0°43'01	morning rise		9063 Jan 18 05:36	21° L 06'51	
min. Earth dist.	9058 Feb 01 20:18	16° L 36'47	3.90395 AU			9063 Mar 03 17:09	0° B	
	9058 Feb 13 23:29	15° K L		retrograde		9063 May 18 19:30	7° B 45'44	
direct	9058 Apr 01 14:44	11° L 35'00		opposition		9063 Jul 18 16:09	2° B 50'32	0°53'28
	9058 May 17 10:11	15° L		min. Earth dist.		9063 Jul 19 03:39	2° B 46'50	4.50072 AU

	9063 Aug 11 04:28	30° κ 3		min. Earth dist.	9068 Dec 31 12:52	14° ϕ 20'31	3.92682 AU
direct	9063 Sep 19 03:47	27° ϕ 48'54		direct	9069 Feb 28 00:38	9° ϕ 26'01	
	9063 Oct 28 08:22	0° \approx		evening set	9069 Jul 04 18:14	29° ϕ 31'44	
evening set	9064 Jan 22 10:28	14° \approx 57'38			9069 Jul 06 16:39	0° Ω	
	9064 Jan 22 14:55	15° \approx					
max. Earth dist.	9064 Feb 03 04:12	17° \approx 28'11	6.50059 AU	conjunction	9069 Jul 18 01:27	2° Ω 46'56	-0°36'21
				minimum elong	9069 Jul 18 01:28	2° Ω 46'57	0°36'35
conjunction	9064 Feb 04 09:55	17° \approx 44'07	0°28'09	max. Earth dist.	9069 Jul 18 18:52	2° Ω 57'36	5.90189 AU
minimum elong	9064 Feb 04 09:56	17° \approx 44'07	0°28'20	morning rise	9069 Jul 31 11:03	6° Ω 03'31	
morning rise	9064 Feb 17 07:09	20° \approx 29'35			9069 Sep 07 21:32	15° Ω	
	9064 Apr 05 06:41	0° \mathcal{H}		retrograde	9069 Dec 10 18:59	26° Ω 59'28	
retrograde	9064 Jun 16 15:58	7° \mathcal{H} 05'47		min. Earth dist.	9070 Feb 07 04:23	22° Ω 05'24	3.90611 AU
opposition	9064 Aug 16 16:59	2° \mathcal{H} 12'26	0°25'43	opposition	9070 Feb 08 03:29	21° Ω 57'34	-0°37'36
min. Earth dist.	9064 Aug 17 20:49	2° \mathcal{H} 03'32	4.47940 AU	direct	9070 Apr 07 01:11	17° Ω 02'42	
	9064 Sep 03 14:35	30° κ \approx			9070 Jul 12 12:26	0° \mathfrak{M}	
direct	9064 Oct 18 09:47	27° \approx 11'08		evening set	9070 Aug 11 23:02	7° \mathfrak{M} 06'31	
	9064 Dec 02 03:23	0° \mathcal{H}					
evening set	9065 Feb 20 14:03	14° \mathcal{H} 30'08		conjunction	9070 Aug 25 12:42	10° \mathfrak{M} 23'04	-0°11'10
max. Earth dist.	9065 Mar 03 09:43	16° \mathcal{H} 51'13	6.43688 AU	minimum elong	9070 Aug 25 12:43	10° \mathfrak{M} 23'04	0°11'17
				behind sun begin	9070 Aug 25 06:36	10° \mathfrak{M} 19'23	
conjunction	9065 Mar 05 10:08	17° \mathcal{H} 17'38	0°05'46	behind sun end	9070 Aug 25 18:50	10° \mathfrak{M} 26'45	
minimum elong	9065 Mar 05 10:08	17° \mathcal{H} 17'38	0°05'50	max. Earth dist.	9070 Aug 27 15:09	10° \mathfrak{M} 53'33	5.93808 AU
behind sun begin	9065 Mar 05 02:31	17° \mathcal{H} 13'30		morning rise	9070 Sep 08 04:31	13° \mathfrak{M} 40'35	
behind sun end	9065 Mar 05 17:45	17° \mathcal{H} 21'46			9070 Nov 26 11:19	0° $\underline{\Omega}$	
morning rise	9065 Mar 18 04:18	20° \mathcal{H} 04'26		retrograde	9071 Jan 17 04:51	4° $\underline{\Omega}$ 06'52	
	9065 May 06 11:13	0° \mathcal{Y}		asc. node	9071 Jan 24 14:38	4° $\underline{\Omega}$ 01'18	
desc. node	9065 Jun 05 03:06	4° \mathcal{Y} 27'07			9071 Mar 10 13:24	30° κ \mathfrak{M}	
retrograde	9065 Jul 17 21:10	7° \mathcal{Y} 08'54		min. Earth dist.	9071 Mar 16 00:53	29° \mathfrak{M} 15'35	3.99519 AU
opposition	9065 Sep 16 20:20	2° \mathcal{Y} 16'05	-0°09'37	opposition	9071 Mar 17 14:43	29° \mathfrak{M} 02'43	0°05'47
min. Earth dist.	9065 Sep 18 11:20	2° \mathcal{Y} 03'38	4.37660 AU	direct	9071 May 14 18:42	24° \mathfrak{M} 05'52	
	9065 Oct 05 06:22	30° κ \mathcal{H}			9071 Jul 16 03:37	0° $\underline{\Omega}$	
direct	9065 Nov 18 04:11	27° \mathcal{H} 15'46		evening set	9071 Sep 18 15:15	13° $\underline{\Omega}$ 32'54	
	9065 Dec 31 16:30	0° \mathcal{Y}					
evening set	9066 Mar 23 10:39	15° \mathcal{Y} 06'42		conjunction	9071 Oct 02 06:57	16° $\underline{\Omega}$ 44'08	0°17'49
max. Earth dist.	9066 Apr 02 20:11	17° \mathcal{Y} 26'40	6.30178 AU	minimum elong	9071 Oct 02 06:56	16° $\underline{\Omega}$ 44'08	0°17'52
				max. Earth dist.	9071 Oct 04 19:21	17° $\underline{\Omega}$ 19'25	6.07014 AU
conjunction	9066 Apr 05 05:03	17° \mathcal{Y} 58'41	-0°19'00	morning rise	9071 Oct 15 23:54	19° $\underline{\Omega}$ 55'35	
minimum elong	9066 Apr 05 05:02	17° \mathcal{Y} 58'41	0°19'04		9071 Dec 01 08:24	0° \mathfrak{M}	
morning rise	9066 Apr 17 22:39	20° \mathcal{Y} 50'33		retrograde	9072 Feb 20 20:59	9° \mathfrak{M} 12'13	
	9066 May 31 05:51	0° \mathcal{B}		min. Earth dist.	9072 Apr 19 03:04	4° \mathfrak{M} 20'52	4.15496 AU
retrograde	9066 Aug 20 07:30	8° \mathcal{B} 51'56		opposition	9072 Apr 20 16:04	4° \mathfrak{M} 08'21	0°44'22
opposition	9066 Oct 19 23:51	3° \mathcal{B} 58'19	-0°44'23		9072 May 27 04:48	30° κ $\underline{\Omega}$	
min. Earth dist.	9066 Oct 21 14:03	3° \mathcal{B} 46'00	4.21720 AU	direct	9072 Jun 18 21:41	29° $\underline{\Omega}$ 09'09	
	9066 Nov 24 19:08	30° κ \mathcal{Y}			9072 Jul 11 19:50	0° \mathfrak{M}	
direct	9066 Dec 20 06:46	28° \mathcal{Y} 59'42			9072 Oct 11 00:57	15° \mathfrak{M}	
	9067 Jan 14 17:22	0° \mathcal{B}		evening set	9072 Oct 23 09:10	17° \mathfrak{M} 43'57	
	9067 Apr 13 09:35	15° \mathcal{B}					
evening set	9067 Apr 24 22:38	17° \mathcal{B} 39'04		conjunction	9072 Nov 05 22:39	20° \mathfrak{M} 46'25	0°39'02
max. Earth dist.	9067 May 05 19:59	20° \mathcal{B} 11'24	6.13061 AU	minimum elong	9072 Nov 05 22:38	20° \mathfrak{M} 46'24	0°39'14
				max. Earth dist.	9072 Nov 08 00:37	21° \mathfrak{M} 14'28	6.24304 AU
conjunction	9067 May 07 18:18	20° \mathcal{B} 38'31	-0°39'05	morning rise	9072 Nov 19 11:35	23° \mathfrak{M} 48'18	
minimum elong	9067 May 07 18:17	20° \mathcal{B} 38'30	0°39'17		9072 Dec 18 05:12	0° \mathcal{X}	
morning rise	9067 May 20 14:06	23° \mathcal{B} 38'26		retrograde	9073 Mar 23 23:41	11° \mathcal{X} 49'54	
	9067 Jun 17 16:28	0° \mathfrak{I}		min. Earth dist.	9073 May 22 04:20	6° \mathcal{X} 56'53	4.32504 AU
retrograde	9067 Sep 25 11:53	12° \mathfrak{I} 55'20		opposition	9073 May 23 05:05	6° \mathcal{X} 48'40	1°05'34
opposition	9067 Nov 24 15:48	7° \mathfrak{I} 59'52	-1°07'12	direct	9073 Jul 22 19:08	1° \mathcal{X} 47'53	
min. Earth dist.	9067 Nov 25 17:03	7° \mathfrak{I} 51'37	4.04742 AU	evening set	9073 Nov 25 19:13	19° \mathcal{X} 35'25	
direct	9068 Jan 23 12:53	3° \mathfrak{I} 03'31					
evening set	9068 May 28 17:42	22° \mathfrak{I} 34'51		conjunction	9073 Dec 09 03:43	22° \mathcal{X} 29'28	0°47'01
				minimum elong	9073 Dec 09 03:43	22° \mathcal{X} 29'28	0°47'18
conjunction	9068 Jun 10 17:44	25° \mathfrak{I} 43'05	-0°46'38	max. Earth dist.	9073 Dec 10 02:30	22° \mathcal{X} 41'51	6.39697 AU
minimum elong	9068 Jun 10 17:44	25° \mathfrak{I} 43'05	0°46'54	morning rise	9073 Dec 22 10:54	25° \mathcal{X} 22'36	
max. Earth dist.	9068 Jun 09 20:30	25° \mathfrak{I} 30'15	5.97752 AU		9074 Jan 13 08:31	0° \mathcal{B}	
morning rise	9068 Jun 23 19:33	28° \mathfrak{I} 52'29		retrograde	9074 Apr 23 06:58	12° \mathcal{B} 27'22	
	9068 Jun 28 12:13	0° ϕ		opposition	9074 Jun 22 22:07	7° \mathcal{B} 29'32	1°06'37
retrograde	9068 Nov 01 20:09	19° ϕ 19'10		min. Earth dist.	9074 Jun 22 16:29	7° \mathcal{B} 31'22	4.45239 AU
opposition	9068 Dec 31 12:17	14° ϕ 20'43	-1°06'05	direct	9074 Aug 23 17:16	2° \mathcal{B} 27'57	

evening set	9074 Dec 27 06:23	19° ♁ 45'09		retrograde	9080 Nov 07 11:07	24° ♁ 48'11	
				opposition	9081 Jan 06 00:48	19° ♁ 49'17	-1°03'31
conjunction	9075 Jan 09 09:50	22° ♁ 33'36	0°41'36	min. Earth dist.	9081 Jan 05 22:13	19° ♁ 50'09	3.91560 AU
minimum elong	9075 Jan 09 09:51	22° ♁ 33'36	0°41'50	direct	9081 Mar 05 10:23	14° ♁ 54'45	
max. Earth dist.	9075 Jan 09 03:47	22° ♁ 30'21	6.48892 AU		9081 Jun 19 01:42	0° ♁	
morning rise	9075 Jan 22 11:00	25° ♁ 20'56		evening set	9081 Jul 10 04:46	5° ♁ 03'03	
	9075 Feb 13 20:07	0° ♁					
retrograde	9075 May 22 20:34	11° ♁ 56'59		conjunction	9081 Jul 23 13:02	8° ♁ 18'53	-0°33'25
opposition	9075 Jul 22 19:20	7° ♁ 02'05	0°50'14	minimum elong	9081 Jul 23 13:04	8° ♁ 18'54	0°33'38
min. Earth dist.	9075 Jul 23 08:50	6° ♁ 57'44	4.50437 AU	max. Earth dist.	9081 Jul 24 12:37	8° ♁ 33'20	5.89974 AU
direct	9075 Sep 23 08:03	2° ♁ 00'27		morning rise	9081 Aug 05 23:47	11° ♁ 36'05	
	9076 Jan 06 17:06	15° ♁			9081 Aug 20 03:09	15° ♁	
evening set	9076 Jan 26 14:27	19° ♁ 08'53			9081 Nov 06 10:25	0° ♁	
max. Earth dist.	9076 Feb 07 03:39	21° ♁ 37'12	6.49718 AU	retrograde	9081 Dec 16 06:40	2° ♁ 31'06	
					9082 Jan 25 02:58	30° ♁	
conjunction	9076 Feb 08 13:15	21° ♁ 55'14	0°25'20	min. Earth dist.	9082 Feb 12 11:48	27° ♁ 37'55	3.91348 AU
minimum elong	9076 Feb 08 13:16	21° ♁ 55'15	0°25'31	opposition	9082 Feb 13 14:45	27° ♁ 28'47	-0°31'47
morning rise	9076 Feb 21 09:59	24° ♁ 40'40		direct	9082 Apr 12 11:17	22° ♁ 33'44	
	9076 Mar 18 01:12	0° ♁			9082 Jun 21 12:37	0° ♁	
retrograde	9076 Jun 20 22:04	11° ♁ 18'58		evening set	9082 Aug 17 09:57	12° ♁ 33'34	
opposition	9076 Aug 20 22:25	6° ♁ 25'48	0°21'04				
min. Earth dist.	9076 Aug 22 05:34	6° ♁ 15'51	4.46897 AU	conjunction	9082 Aug 31 00:02	15° ♁ 49'35	-0°06'57
direct	9076 Oct 22 16:04	1° ♁ 24'34		minimum elong	9082 Aug 31 00:03	15° ♁ 49'35	0°07'01
evening set	9077 Feb 24 19:07	18° ♁ 47'07		behind sun begin	9082 Aug 30 16:18	15° ♁ 44'57	
max. Earth dist.	9077 Mar 07 10:56	21° ♁ 06'41	6.42003 AU	behind sun end	9082 Aug 31 07:47	15° ♁ 54'14	
				max. Earth dist.	9082 Sep 02 04:28	16° ♁ 21'08	5.95376 AU
conjunction	9077 Mar 09 14:51	21° ♁ 35'07	0°02'18	morning rise	9082 Sep 13 16:25	19° ♁ 06'32	
minimum elong	9077 Mar 09 14:52	21° ♁ 35'07	0°02'21		9082 Nov 01 11:17	0° ♁	
behind sun begin	9077 Mar 09 06:53	21° ♁ 30'47		asc. node	9082 Dec 03 06:28	5° ♁ 32'07	
behind sun end	9077 Mar 09 22:50	21° ♁ 39'28		retrograde	9083 Jan 22 06:04	9° ♁ 23'43	
morning rise	9077 Mar 22 08:56	24° ♁ 22'31		min. Earth dist.	9083 Mar 21 03:36	4° ♁ 32'35	4.01704 AU
desc. node	9077 Apr 14 17:00	29° ♁ 20'34		opposition	9083 Mar 22 18:19	4° ♁ 19'24	0°12'01
	9077 Apr 17 22:05	0° ♁			9083 Apr 30 19:46	30° ♁	
retrograde	9077 Jul 22 08:45	11° ♁ 34'01		direct	9083 May 20 01:33	29° ♁ 22'11	
opposition	9077 Sep 21 07:32	6° ♁ 41'08	-0°14'44		9083 Jun 08 10:18	0° ♁	
min. Earth dist.	9077 Sep 22 22:57	6° ♁ 28'32	4.35427 AU	evening set	9083 Sep 23 20:07	18° ♁ 41'19	
direct	9077 Nov 22 11:54	1° ♁ 40'59					
evening set	9078 Mar 27 20:45	19° ♁ 39'01		conjunction	9083 Oct 07 11:49	21° ♁ 51'19	0°21'30
max. Earth dist.	9078 Apr 07 07:40	22° ♁ 00'33	6.27567 AU	minimum elong	9083 Oct 07 11:48	21° ♁ 51'18	0°21'36
				max. Earth dist.	9083 Oct 10 00:51	22° ♁ 26'44	6.09598 AU
conjunction	9078 Apr 09 15:19	22° ♁ 32'04	-0°22'16	morning rise	9083 Oct 21 04:12	25° ♁ 01'20	
minimum elong	9078 Apr 09 15:18	22° ♁ 32'04	0°22'21		9083 Nov 12 06:56	0° ♁	
morning rise	9078 Apr 22 08:58	25° ♁ 25'02		retrograde	9084 Feb 25 13:50	14° ♁ 06'06	
	9078 May 13 02:11	0° ♁		min. Earth dist.	9084 Apr 23 22:17	9° ♁ 14'32	4.18203 AU
retrograde	9078 Aug 25 06:11	13° ♁ 37'30		opposition	9084 Apr 25 09:51	9° ♁ 02'33	0°48'35
opposition	9078 Oct 24 20:17	8° ♁ 43'47	-0°48'36	direct	9084 Jun 23 20:45	4° ♁ 03'07	
min. Earth dist.	9078 Oct 26 10:10	8° ♁ 31'34	4.18910 AU		9084 Sep 23 04:04	15° ♁	
direct	9078 Dec 24 22:55	3° ♁ 45'32		evening set	9084 Oct 28 05:36	22° ♁ 29'50	
	9079 Mar 26 21:35	15° ♁					
evening set	9079 Apr 29 17:01	22° ♁ 33'51		conjunction	9084 Nov 10 18:19	25° ♁ 30'53	0°41'00
max. Earth dist.	9079 May 10 16:02	25° ♁ 08'12	6.10289 AU	minimum elong	9084 Nov 10 18:18	25° ♁ 30'52	0°41'13
				max. Earth dist.	9084 Nov 12 16:13	25° ♁ 56'30	6.26895 AU
conjunction	9079 May 12 13:02	25° ♁ 34'42	-0°41'04	morning rise	9084 Nov 24 06:35	28° ♁ 31'21	
minimum elong	9079 May 12 13:02	25° ♁ 34'41	0°41'16		9084 Nov 30 23:34	0° ♁	
morning rise	9079 May 25 09:42	28° ♁ 36'10		retrograde	9085 Mar 28 07:17	16° ♁ 22'58	
	9079 May 31 09:24	0° ♁		opposition	9085 May 27 14:43	11° ♁ 22'11	1°06'52
retrograde	9079 Sep 30 19:45	18° ♁ 05'31		min. Earth dist.	9085 May 26 16:28	11° ♁ 29'34	4.34796 AU
opposition	9079 Nov 29 22:03	13° ♁ 09'42	-1°08'42	direct	9085 Jul 27 09:17	6° ♁ 21'13	
min. Earth dist.	9079 Nov 30 19:22	13° ♁ 02'42	4.02269 AU	evening set	9085 Nov 30 07:30	24° ♁ 02'56	
direct	9080 Jan 28 13:15	8° ♁ 13'42					
evening set	9080 Jun 02 21:26	27° ♁ 52'50		conjunction	9085 Dec 13 15:24	26° ♁ 55'59	0°47'00
	9080 Jun 11 15:42	0° ♁		minimum elong	9085 Dec 13 15:24	26° ♁ 55'59	0°47'17
				max. Earth dist.	9085 Dec 14 10:46	27° ♁ 06'29	6.41533 AU
conjunction	9080 Jun 15 22:32	1° ♁ 02'25	-0°46'15	morning rise	9085 Dec 26 21:32	29° ♁ 48'01	
minimum elong	9080 Jun 15 22:32	1° ♁ 02'26	0°46'32		9085 Dec 27 19:50	0° ♁	
max. Earth dist.	9080 Jun 15 08:00	0° ♁ 53'36	5.95839 AU	retrograde	9086 Apr 27 10:41	16° ♁ 46'46	
morning rise	9080 Jun 29 01:18	4° ♁ 13'12		opposition	9086 Jun 27 03:17	11° ♁ 49'27	1°05'14

min. Earth dist.	9086 Jun 27 00:19	11° ♁ 50'25	4.46515 AU	evening set	9092 Jun 08 02:17	3° ♁ 13'02	
direct	9086 Aug 28 01:40	6° ♁ 47'51					
evening set	9086 Dec 31 13:35	24° ♁ 02'24		conjunction	9092 Jun 21 04:16	6° ♁ 23'39	-0°45'32
				minimum elong	9092 Jun 21 04:16	6° ♁ 23'40	0°45'49
conjunction	9087 Jan 13 16:09	26° ♁ 50'19	0°39'51	max. Earth dist.	9092 Jun 20 18:58	6° ♁ 18'00	5.94569 AU
minimum elong	9087 Jan 13 16:10	26° ♁ 50'19	0°40'06	morning rise	9092 Jul 04 08:10	9° ♁ 35'31	
max. Earth dist.	9087 Jan 13 04:14	26° ♁ 43'56	6.49512 AU		9092 Oct 31 09:40	0° ♁	
morning rise	9087 Jan 26 16:46	29° ♁ 37'11		retrograde	9092 Nov 12 23:08	0° ♁ 15'34	
	9087 Jan 28 11:47	0° ♁			9092 Nov 25 12:04	30° ♁	
	9087 Apr 28 23:46	15° ♁		opposition	9093 Jan 11 12:25	25° ♁ 16'09	-1°00'26
retrograde	9087 May 27 01:26	16° ♁ 11'50		min. Earth dist.	9093 Jan 11 05:05	25° ♁ 18'36	3.91139 AU
	9087 Jun 24 00:52	15° ♁		direct	9093 Mar 10 18:23	20° ♁ 21'42	
opposition	9087 Jul 26 23:54	11° ♁ 17'15	0°46'44		9093 May 30 19:18	0° ♁	
min. Earth dist.	9087 Jul 27 17:08	11° ♁ 11'43	4.50385 AU	evening set	9093 Jul 15 13:48	10° ♁ 29'43	
direct	9087 Sep 27 14:59	6° ♁ 15'34					
	9087 Dec 19 23:05	15° ♁		conjunction	9093 Jul 28 22:52	13° ♁ 45'45	-0°30'17
evening set	9088 Jan 30 19:54	23° ♁ 24'57		minimum elong	9093 Jul 28 22:54	13° ♁ 45'46	0°30'30
max. Earth dist.	9088 Feb 11 05:55	25° ♁ 51'49	6.48994 AU	max. Earth dist.	9093 Jul 30 02:55	14° ♁ 02'54	5.90428 AU
					9093 Aug 03 00:21	15° ♁	
conjunction	9088 Feb 12 18:20	26° ♁ 11'24	0°22'22	morning rise	9093 Aug 11 10:37	17° ♁ 03'08	
minimum elong	9088 Feb 12 18:21	26° ♁ 11'25	0°22'32		9093 Oct 08 15:31	0° ♁	
morning rise	9088 Feb 25 14:30	28° ♁ 56'55		retrograde	9093 Dec 21 13:15	7° ♁ 54'24	
	9088 Mar 01 12:56	0° ♁		opposition	9094 Feb 18 22:40	2° ♁ 51'36	-0°25'53
retrograde	9088 Jun 25 04:24	15° ♁ 38'28		min. Earth dist.	9094 Feb 17 17:13	3° ♁ 01'36	3.92618 AU
opposition	9088 Aug 25 05:56	10° ♁ 45'23	0°16'13		9094 Mar 13 12:36	30° ♁	
min. Earth dist.	9088 Aug 26 14:05	10° ♁ 35'07	4.45552 AU	direct	9094 Apr 17 20:15	27° ♁ 56'16	
direct	9088 Oct 26 21:37	5° ♁ 44'14			9094 May 23 01:03	0° ♁	
desc. node	9089 Feb 21 01:57	21° ♁ 26'56		evening set	9094 Aug 22 17:07	17° ♁ 50'16	
evening set	9089 Mar 01 02:39	23° ♁ 11'12					
max. Earth dist.	9089 Mar 11 17:08	25° ♁ 30'39	6.40121 AU	conjunction	9094 Sep 05 07:46	21° ♁ 05'35	-0°02'49
				minimum elong	9094 Sep 05 07:46	21° ♁ 05'34	0°02'53
conjunction	9089 Mar 13 22:04	25° ♁ 59'47	-0°01'20	behind sun begin	9094 Sep 04 23:24	21° ♁ 00'35	
minimum elong	9089 Mar 13 22:06	25° ♁ 59'47	0°01'18	behind sun end	9094 Sep 05 16:08	21° ♁ 10'33	
behind sun begin	9089 Mar 13 14:07	25° ♁ 55'25		max. Earth dist.	9094 Sep 07 15:45	21° ♁ 39'06	5.97329 AU
behind sun end	9089 Mar 14 06:04	26° ♁ 04'09		morning rise	9094 Sep 19 00:13	24° ♁ 21'36	
morning rise	9089 Mar 26 15:58	28° ♁ 47'51		asc. node	9094 Oct 13 02:58	29° ♁ 56'53	
	9089 Apr 01 04:23	0° ♁			9094 Oct 13 08:31	0° ♁	
retrograde	9089 Jul 27 01:01	16° ♁ 07'01		retrograde	9095 Jan 27 04:45	14° ♁ 28'27	
opposition	9089 Sep 25 22:02	11° ♁ 14'07	-0°19'56	min. Earth dist.	9095 Mar 26 02:54	9° ♁ 37'10	4.04100 AU
min. Earth dist.	9089 Sep 27 14:49	11° ♁ 01'05	4.33116 AU	opposition	9095 Mar 27 17:18	9° ♁ 24'07	0°17'53
direct	9089 Nov 27 00:27	6° ♁ 14'11		direct	9095 May 25 04:20	4° ♁ 26'35	
evening set	9090 Apr 01 09:40	24° ♁ 19'18		evening set	9095 Sep 28 20:36	23° ♁ 37'28	
max. Earth dist.	9090 Apr 11 20:03	26° ♁ 41'24	6.25005 AU				
				conjunction	9095 Oct 12 11:57	26° ♁ 46'08	0°24'53
conjunction	9090 Apr 14 04:14	27° ♁ 13'25	-0°25'29	minimum elong	9095 Oct 12 11:56	26° ♁ 46'08	0°25'00
minimum elong	9090 Apr 14 04:13	27° ♁ 13'24	0°25'36	max. Earth dist.	9095 Oct 14 23:12	27° ♁ 20'19	6.12194 AU
morning rise	9090 Apr 26 22:14	0° ♁ 07'32		morning rise	9095 Oct 26 04:02	29° ♁ 54'48	
	9090 Apr 26 08:56	0° ♁			9095 Oct 26 13:08	0° ♁	
	9090 Jul 12 15:09	15° ♁			9096 Jan 10 22:11	15° ♁	
retrograde	9090 Aug 30 06:31	18° ♁ 30'56		retrograde	9096 Mar 01 00:49	18° ♁ 48'11	
	9090 Oct 18 23:15	15° ♁			9096 Apr 20 14:05	15° ♁	
opposition	9090 Oct 29 19:42	13° ♁ 36'58	-0°52'37	opposition	9096 Apr 29 23:16	13° ♁ 44'58	0°52'17
min. Earth dist.	9090 Oct 31 06:55	13° ♁ 25'34	4.16306 AU	min. Earth dist.	9096 Apr 28 12:48	13° ♁ 56'34	4.20760 AU
direct	9090 Dec 29 16:38	8° ♁ 39'02		direct	9096 Jun 28 13:55	8° ♁ 45'17	
	9091 Mar 06 02:11	15° ♁			9096 Sep 02 22:19	15° ♁	
evening set	9091 May 04 13:59	27° ♁ 35'24		evening set	9096 Nov 01 21:36	27° ♁ 04'45	
	9091 May 14 19:13	0° ♁					
max. Earth dist.	9091 May 15 18:30	0° ♁ 13'47	6.07896 AU	conjunction	9096 Nov 15 09:46	0° ♁ 04'34	0°42'39
				minimum elong	9096 Nov 15 09:45	0° ♁ 04'34	0°42'53
conjunction	9091 May 17 10:35	0° ♁ 37'31	-0°42'48		9096 Nov 15 01:32	0° ♁	
minimum elong	9091 May 17 10:35	0° ♁ 37'31	0°43'01	max. Earth dist.	9096 Nov 17 03:51	0° ♁ 27'58	6.29220 AU
morning rise	9091 May 30 07:48	3° ♁ 40'19		morning rise	9096 Nov 28 21:09	3° ♁ 03'43	
retrograde	9091 Oct 06 06:43	23° ♁ 20'21		retrograde	9097 Apr 01 13:45	20° ♁ 46'48	
opposition	9091 Dec 05 06:04	18° ♁ 24'10	-1°09'41	opposition	9097 May 31 21:26	15° ♁ 46'36	1°07'47
min. Earth dist.	9091 Dec 06 00:49	18° ♁ 18'00	4.00337 AU	min. Earth dist.	9097 May 31 02:26	15° ♁ 52'53	4.36719 AU
direct	9092 Feb 02 17:09	13° ♁ 28'29		direct	9097 Jul 31 20:39	10° ♁ 45'33	
	9092 May 25 15:08	0° ♁		evening set	9097 Dec 04 16:53	28° ♁ 22'47	

	9097 Dec 12 05:16	0°♄	
conjunction	9097 Dec 18 00:00	1°♄15'00	0°46'45
minimum elong	9097 Dec 18 00:01	1°♄15'00	0°47'01
max. Earth dist.	9097 Dec 18 14:04	1°♄22'36	6.42919 AU
morning rise	9097 Dec 31 05:29	4°♄06'14	
retrograde	9098 May 01 13:20	21°♄00'41	
opposition	9098 Jul 01 06:41	16°♄03'50	1°03'35
min. Earth dist.	9098 Jul 01 06:41	16°♄03'50	4.47316 AU
direct	9098 Sep 01 07:07	11°♄02'12	
evening set	9099 Jan 04 19:06	28°♄15'40	
	9099 Jan 12 22:55	0°♄	
conjunction	9099 Jan 17 21:15	1°♄03'19	0°37'57
minimum elong	9099 Jan 17 21:16	1°♄03'20	0°38'12
max. Earth dist.	9099 Jan 17 06:43	0°♄55'32	6.49694 AU
morning rise	9099 Jan 30 21:04	3°♄49'53	
	9099 Mar 29 23:45	15°♄	
retrograde	9099 May 31 04:35	20°♄24'37	
opposition	9099 Jul 31 03:59	15°♄30'24	0°43'04
min. Earth dist.	9099 Jul 31 23:07	15°♄24'16	4.49958 AU
	9099 Aug 04 02:57	15°♄	
direct	9099 Oct 01 19:14	10°♄28'52	
	9099 Nov 28 12:13	15°♄	
evening set	9100 Feb 04 00:58	27°♄40'17	
	9100 Feb 14 20:54	0°♄	
max. Earth dist.	9100 Feb 15 06:43	0°♄05'17	6.47987 AU
conjunction	9100 Feb 16 22:48	0°♄26'55	0°19'19
minimum elong	9100 Feb 16 22:49	0°♄26'55	0°19'27
morning rise	9100 Mar 01 18:44	3°♄12'42	
retrograde	9100 Jun 30 14:18	19°♄58'34	
opposition	9100 Aug 30 14:19	15°♄05'38	0°11'19
min. Earth dist.	9100 Sep 01 00:42	14°♄54'39	4.44027 AU
direct	9100 Nov 01 05:41	10°♄04'39	
desc. node	9101 Jan 01 10:02	15°♄11'16	
evening set	9101 Mar 06 10:17	27°♄36'23	
max. Earth dist.	9101 Mar 16 23:41	29°♄55'51	6.38193 AU
	9101 Mar 17 07:11	0°♄	
conjunction	9101 Mar 19 05:37	0°♄25'39	-0°04'53
minimum elong	9101 Mar 19 05:36	0°♄25'38	0°04'51
behind sun begin	9101 Mar 18 21:49	0°♄21'22	
behind sun end	9101 Mar 19 13:22	0°♄29'55	
morning rise	9101 Mar 31 23:18	3°♄14'24	
retrograde	9101 Aug 01 15:51	20°♄41'26	
opposition	9101 Oct 01 13:01	15°♄48'28	-0°24'59
min. Earth dist.	9101 Oct 03 04:32	15°♄35'48	4.30910 AU
direct	9101 Dec 02 10:51	10°♄48'49	