

retrograde	600 Feb 08 j 05:42	2°♄56'35		retrograde	606 Apr 17 j 16:37	10°♄28'49	
	600 Apr 12 j 21:25	30°♄♂		opposition	606 Jun 27 j 16:38	7°♄09'53	0°12'31
opposition	600 Apr 17 j 13:36	29°♄39'05	2°41'02	min. Earth dist.	606 Jun 27 j 22:42	7°♄08'46	9.03199 AU
min. Earth dist.	600 Apr 17 j 15:01	29°♄38'49	8.98977 AU	direct	606 Sep 06 j 00:52	3°♄51'58	
direct	600 Jun 27 j 20:34	26°♄17'15		desc. node	606 Nov 14 j 18:38	7°♄35'11	
	600 Sep 06 j 17:58	0°♄		evening set	606 Dec 14 j 23:02	10°♄51'00	
evening set	600 Oct 09 j 06:39	3°♄29'06					
				conjunction	606 Dec 31 j 14:31	12°♄48'38	0°-3'-29
conjunction	600 Oct 25 j 23:09	5°♄26'27	2°06'44	minimum elong	606 Dec 31 j 14:31	12°♄48'38	0°03'30
minimum elong	600 Oct 25 j 23:11	5°♄26'28	2°06'44	behind sun begin	606 Dec 31 j 07:35	12°♄46'36	
max. Earth dist.	600 Oct 25 j 20:28	5°♄25'40	11.02330 AU	behind sun end	606 Dec 31 j 21:26	12°♄50'39	
morning rise	600 Nov 11 j 12:43	7°♄22'58		max. Earth dist.	606 Dec 31 j 08:01	12°♄46'44	10.99844 AU
retrograde	601 Feb 18 j 21:18	14°♄19'34		morning rise	607 Jan 17 j 07:44	14°♄46'50	
opposition	601 Apr 29 j 15:39	11°♄02'26	2°27'18	retrograde	607 Apr 29 j 22:23	21°♄57'30	
min. Earth dist.	601 Apr 29 j 18:34	11°♄01'53	9.05456 AU	opposition	607 Jul 09 j 22:13	18°♄37'30	0°-21'-18
direct	601 Jul 10 j 01:08	7°♄41'40		min. Earth dist.	607 Jul 10 j 03:38	18°♄36'29	8.95939 AU
evening set	601 Oct 20 j 17:51	14°♄47'56		direct	607 Sep 17 j 19:25	15°♄19'27	
	601 Oct 22 j 11:47	15°♄		evening set	607 Dec 26 j 12:02	22°♄21'40	
conjunction	601 Nov 06 j 08:40	16°♄44'14	1°53'16	conjunction	608 Jan 12 j 04:50	24°♄20'41	0°-31'-3
minimum elong	601 Nov 06 j 08:42	16°♄44'15	1°53'16	minimum elong	608 Jan 12 j 04:49	24°♄20'40	0°31'05
max. Earth dist.	601 Nov 06 j 04:32	16°♄43'01	11.07758 AU	max. Earth dist.	608 Jan 11 j 22:11	24°♄18'42	10.91615 AU
morning rise	601 Nov 22 j 21:21	18°♄39'56		morning rise	608 Jan 29 j 00:08	26°♄20'30	
retrograde	602 Mar 02 j 11:22	25°♄34'56			608 Mar 02 j 19:26	0°≈	
opposition	602 May 11 j 15:43	22°♄17'54	2°08'04	retrograde	608 May 11 j 11:57	3°≈38'45	
min. Earth dist.	602 May 11 j 19:07	22°♄17'17	9.09739 AU	opposition	608 Jul 21 j 08:05	0°≈17'31	0°-54'-55
direct	602 Jul 22 j 00:41	18°♄58'07		min. Earth dist.	608 Jul 21 j 13:29	0°≈16'30	8.86803 AU
evening set	602 Nov 01 j 00:40	26°♄00'00			608 Jul 25 j 05:40	30°♄♂	
				direct	608 Sep 28 j 17:13	26°♄59'04	
conjunction	602 Nov 17 j 14:41	27°♄55'45	1°35'34		608 Nov 29 j 00:50	0°≈	
minimum elong	602 Nov 17 j 14:44	27°♄55'45	1°35'33	evening set	609 Jan 06 j 07:18	4°≈06'00	
max. Earth dist.	602 Nov 17 j 10:18	27°♄54'27	11.10913 AU				
morning rise	602 Dec 04 j 03:07	29°♄51'06		conjunction	609 Jan 23 j 01:37	6°≈06'42	0°-57'-51
	602 Dec 05 j 10:15	0°♄♂		minimum elong	609 Jan 23 j 01:35	6°≈06'41	0°57'53
retrograde	603 Mar 14 j 03:51	6°♄46'06		max. Earth dist.	609 Jan 22 j 18:23	6°≈04'31	10.81647 AU
opposition	603 May 23 j 14:46	3°♄28'56	1°44'06	morning rise	609 Feb 08 j 23:23	8°≈08'27	
min. Earth dist.	603 May 23 j 18:31	3°♄28'15	9.11675 AU		609 Apr 27 j 07:48	15°≈	
direct	603 Aug 02 j 21:25	0°♄09'57		retrograde	609 May 24 j 06:57	15°≈35'29	
evening set	603 Nov 12 j 05:21	7°♄08'51			609 Jun 20 j 11:48	15°♄≈	
				opposition	609 Aug 02 j 23:03	12°≈12'54	-1°-26'-59
conjunction	603 Nov 28 j 19:04	9°♄04'28	1°14'16	min. Earth dist.	609 Aug 03 j 04:43	12°≈11'49	8.76102 AU
minimum elong	603 Nov 28 j 19:06	9°♄04'29	1°14'17	direct	609 Oct 10 j 18:24	8°≈53'46	
max. Earth dist.	603 Nov 28 j 13:59	9°♄02'59	11.11683 AU		610 Jan 08 j 22:58	15°≈	
morning rise	603 Dec 15 j 07:58	10°♄59'56		evening set	610 Jan 18 j 10:20	16°≈06'54	
retrograde	604 Mar 24 j 21:06	17°♄56'28					
opposition	604 Jun 03 j 13:45	14°♄38'58	1°16'15	conjunction	610 Feb 04 j 06:43	18°≈09'36	-1°-22'-42
min. Earth dist.	604 Jun 03 j 18:47	14°♄38'03	9.11203 AU	minimum elong	610 Feb 04 j 06:40	18°≈09'35	1°22'43
direct	604 Aug 13 j 13:43	11°♄20'35		max. Earth dist.	610 Feb 03 j 23:38	18°≈07'26	10.70277 AU
evening set	604 Nov 22 j 09:33	18°♄17'59		morning rise	610 Feb 21 j 07:11	20°≈13'34	
				retrograde	610 Jun 06 j 09:23	27°≈50'22	
conjunction	604 Dec 08 j 23:19	20°♄13'53	0°50'08	opposition	610 Aug 15 j 19:39	24°≈26'16	-1°-56'00
minimum elong	604 Dec 08 j 23:21	20°♄13'54	0°50'09	min. Earth dist.	610 Aug 16 j 01:10	24°≈25'13	8.64202 AU
max. Earth dist.	604 Dec 08 j 16:36	20°♄11'55	11.10046 AU	direct	610 Oct 23 j 03:03	21°≈06'14	
morning rise	604 Dec 25 j 13:21	22°♄09'54		evening set	611 Jan 30 j 22:24	28°≈26'55	
retrograde	605 Apr 05 j 16:06	29°♄09'34			611 Feb 12 j 14:09	0°♄	
opposition	605 Jun 15 j 14:05	25°♄51'29	0°45'24				
min. Earth dist.	605 Jun 15 j 20:10	25°♄50'22	9.08345 AU	conjunction	611 Feb 16 j 21:28	0°♄31'58	-1°-44'-19
direct	605 Aug 25 j 06:48	22°♄33'26		minimum elong	611 Feb 16 j 21:25	0°♄31'58	1°44'20
evening set	605 Dec 03 j 14:46	29°♄30'53		max. Earth dist.	611 Feb 16 j 15:35	0°♄30'09	10.57902 AU
	605 Dec 07 j 19:18	0°♄		morning rise	611 Mar 06 j 00:53	2°♄38'25	
				retrograde	611 Jun 19 j 21:49	10°♄25'36	
conjunction	605 Dec 20 j 05:09	1°♄27'28	0°23'58	opposition	611 Aug 28 j 22:32	7°♄00'01	-2°-20'-24
minimum elong	605 Dec 20 j 05:09	1°♄27'28	0°23'58	min. Earth dist.	611 Aug 29 j 02:50	6°♄59'10	8.51561 AU
max. Earth dist.	605 Dec 19 j 21:56	1°♄25'21	11.06057 AU	direct	611 Nov 04 j 17:41	3°♄38'55	
morning rise	606 Jan 05 j 20:40	3°♄24'24		evening set	612 Feb 12 j 20:47	11°♄08'15	

conjunction	612 Feb 29 j 22:57	13°♄15'54	-2°-1'-26	min. Earth dist.	617 Nov 18 j 10:18	29°♄19'31	7.97842 AU
minimum elong	612 Feb 29 j 22:54	13°♄15'54	2°01'27	direct	618 Jan 23 j 23:52	25°♄49'58	
max. Earth dist.	612 Feb 29 j 18:25	13°♄14'29	10.45085 AU		618 Apr 03 j 23:53	0°♄	
morning rise	612 Mar 18 j 05:38	15°♄25'02		evening set	618 May 08 j 05:20	4°♄05'21	
retrograde	612 Jul 02 j 19:26	23°♄22'37					
opposition	612 Sep 10 j 07:55	19°♄55'36	-2°-38'-33	conjunction	618 May 26 j 08:22	6°♄27'01	-1°-18'-40
min. Earth dist.	612 Sep 10 j 10:41	19°♄55'03	8.38832 AU	minimum elong	618 May 26 j 08:25	6°♄27'02	1°18'40
direct	612 Nov 16 j 13:58	16°♄33'18		max. Earth dist.	618 May 26 j 15:01	6°♄29'12	9.97321 AU
evening set	613 Feb 25 j 06:06	24°♄11'57		morning rise	618 Jun 13 j 12:34	8°♄49'06	
				retrograde	618 Sep 27 j 03:24	17°♄10'39	
conjunction	613 Mar 14 j 11:51	26°♄22'22	-2°-12'-48	opposition	618 Dec 02 j 22:34	13°♄40'47	-1°-20'-1
minimum elong	613 Mar 14 j 11:50	26°♄22'22	2°12'48	min. Earth dist.	618 Dec 02 j 16:53	13°♄41'58	7.97728 AU
max. Earth dist.	613 Mar 14 j 08:35	26°♄21'20	10.32553 AU	direct	619 Feb 07 j 13:40	10°♄11'20	
morning rise	613 Mar 31 j 22:20	28°♄34'19		evening set	619 May 23 j 11:53	18°♄28'34	
	613 Apr 12 j 15:05	0°♄					
retrograde	613 Jul 16 j 23:24	6°♄41'34		conjunction	619 Jun 10 j 16:51	20°♄50'31	0°-48'-23
opposition	613 Sep 23 j 23:53	3°♄13'15	-2°-48'-52	minimum elong	619 Jun 10 j 16:53	20°♄50'32	0°48'24
min. Earth dist.	613 Sep 24 j 01:13	3°♄12'59	8.26752 AU	max. Earth dist.	619 Jun 11 j 00:54	20°♄53'09	9.98835 AU
	613 Nov 16 j 03:00	30°♄		morning rise	619 Jun 28 j 21:35	23°♄12'24	
direct	613 Nov 29 j 19:43	29°♄49'36			619 Sep 01 j 08:24	0°♄	
	613 Dec 13 j 11:30	0°♄		retrograde	619 Oct 11 j 15:00	1°♄28'22	
evening set	614 Mar 11 j 02:24	7°♄37'42			619 Nov 21 j 08:09	30°♄	
				opposition	619 Dec 17 j 05:06	27°♄59'21	0°-40'-7
conjunction	614 Mar 28 j 12:18	9°♄50'57	-2°-17'-15	min. Earth dist.	619 Dec 16 j 22:42	28°♄00'41	8.00756 AU
minimum elong	614 Mar 28 j 12:18	9°♄50'57	2°17'16	direct	620 Feb 22 j 04:16	24°♄29'27	
max. Earth dist.	614 Mar 28 j 10:15	9°♄50'18	10.21038 AU		620 May 15 j 01:43	0°♄	
morning rise	614 Apr 15 j 02:57	12°♄05'44		evening set	620 Jun 06 j 17:06	2°♄46'07	
retrograde	614 Jul 31 j 09:41	20°♄21'06					
opposition	614 Oct 07 j 21:44	16°♄51'45	-2°-50'-5	conjunction	620 Jun 24 j 22:14	5°♄07'20	0°-15'-20
min. Earth dist.	614 Oct 07 j 22:04	16°♄51'41	8.16021 AU	minimum elong	620 Jun 24 j 22:15	5°♄07'21	0°15'21
direct	614 Dec 13 j 09:54	13°♄26'42		behind sun begin	620 Jun 24 j 20:34	5°♄06'48	
evening set	615 Mar 25 j 09:18	21°♄23'46		behind sun end	620 Jun 24 j 23:55	5°♄07'53	
				max. Earth dist.	620 Jun 25 j 06:51	5°♄10'08	10.03403 AU
conjunction	615 Apr 11 j 23:46	23°♄39'48	-2°-14'-3	morning rise	620 Jul 13 j 01:49	7°♄28'04	
minimum elong	615 Apr 11 j 23:48	23°♄39'48	2°14'03	retrograde	620 Oct 24 j 20:58	15°♄36'25	
max. Earth dist.	615 Apr 11 j 23:35	23°♄39'44	10.11219 AU	asc. node	620 Dec 14 j 12:39	13°♄25'02	
morning rise	615 Apr 29 j 18:38	25°♄57'13		opposition	620 Dec 30 j 08:25	12°♄08'34	0°01'45
	615 Jun 02 j 23:54	0°♄		min. Earth dist.	620 Dec 30 j 01:57	12°♄09'54	8.06717 AU
retrograde	615 Aug 15 j 00:36	4°♄18'29		direct	621 Mar 07 j 18:27	8°♄38'30	
opposition	615 Oct 22 j 00:19	0°♄48'25	-2°-41'-23	evening set	621 Jun 21 j 18:24	16°♄52'26	
min. Earth dist.	615 Oct 21 j 23:26	0°♄48'36	8.07285 AU				
	615 Oct 31 j 22:39	30°♄		conjunction	621 Jul 09 j 21:51	19°♄11'59	0°18'17
direct	615 Dec 27 j 07:39	27°♄22'00		minimum elong	621 Jul 09 j 21:50	19°♄11'59	0°18'17
	616 Feb 19 j 17:58	0°♄		max. Earth dist.	621 Jul 10 j 06:11	19°♄14'40	10.10709 AU
evening set	616 Apr 08 j 01:25	5°♄26'59		morning rise	621 Jul 27 j 22:39	21°♄30'40	
				retrograde	621 Nov 07 j 18:38	29°♄29'59	
conjunction	616 Apr 25 j 20:37	7°♄45'29	-2°-2'-51	opposition	622 Jan 13 j 07:04	26°♄03'33	0°42'47
minimum elong	616 Apr 25 j 20:40	7°♄45'30	2°02'52	min. Earth dist.	622 Jan 13 j 01:01	26°♄04'47	8.15217 AU
max. Earth dist.	616 Apr 25 j 22:44	7°♄46'11	10.03705 AU	direct	622 Mar 22 j 06:58	22°♄33'43	
morning rise	616 May 13 j 19:26	10°♄05'10			622 Jun 30 j 18:17	0°♄	
	616 Jun 25 j 03:46	15°♄		evening set	622 Jul 06 j 12:55	0°♄42'58	
retrograde	616 Aug 28 j 18:23	18°♄29'34					
opposition	616 Nov 04 j 06:31	14°♄59'09	-2°-22'-45	conjunction	622 Jul 24 j 13:07	3°♄00'05	0°50'14
min. Earth dist.	616 Nov 04 j 04:00	14°♄59'40	8.01095 AU	minimum elong	622 Jul 24 j 13:04	3°♄00'04	0°50'13
	616 Nov 04 j 02:25	15°♄		max. Earth dist.	622 Jul 24 j 20:33	3°♄02'27	10.20280 AU
direct	617 Jan 09 j 13:01	11°♄31'31		morning rise	622 Aug 11 j 09:46	5°♄16'03	
	617 Mar 13 j 17:46	15°♄		retrograde	622 Nov 21 j 07:02	13°♄05'41	
evening set	617 Apr 23 j 00:47	19°♄42'43		opposition	623 Jan 27 j 00:23	9°♄40'47	1°20'26
				min. Earth dist.	623 Jan 26 j 18:36	9°♄41'57	8.25723 AU
conjunction	617 May 11 j 00:23	22°♄03'11	-1°-44'-3	direct	623 Apr 05 j 14:59	6°♄11'34	
minimum elong	617 May 11 j 00:27	22°♄03'13	1°44'03	evening set	623 Jul 20 j 22:21	14°♄14'31	
max. Earth dist.	617 May 11 j 04:56	22°♄04'41	9.98976 AU		623 Jul 27 j 00:38	15°♄	
morning rise	617 May 29 j 02:30	24°♄24'29					
	617 Jul 17 j 08:33	0°♄		conjunction	623 Aug 07 j 18:08	16°♄28'40	1°18'43
retrograde	617 Sep 12 j 11:53	2°♄48'59		minimum elong	623 Aug 07 j 18:05	16°♄28'39	1°18'43
	617 Nov 10 j 06:01	30°♄		max. Earth dist.	623 Aug 08 j 00:43	16°♄30'45	10.31538 AU
opposition	617 Nov 18 j 14:33	29°♄18'38	-1°-55'-2	morning rise	623 Aug 25 j 09:43	18°♄41'28	

retrograde	623 Dec 04 j 11:37	26°♁21'23		min. Earth dist.	630 Apr 24 j 09:55	5°♍56'35	9.03369 AU
opposition	624 Feb 09 j 11:40	22°♁58'03	1°52'43	direct	630 Jul 04 j 17:16	2°♍36'06	
min. Earth dist.	624 Feb 09 j 05:53	22°♁59'13	8.37613 AU	evening set	630 Oct 15 j 18:42	9°♍45'04	
direct	624 Apr 18 j 16:23	19°♁29'46					
evening set	624 Aug 02 j 21:35	27°♁25'15		conjunction	630 Nov 01 j 10:22	11°♍41'50	2°00'03
				minimum elong	630 Nov 01 j 10:24	11°♍41'50	2°00'02
conjunction	624 Aug 20 j 12:24	29°♁36'14	1°42'24	max. Earth dist.	630 Nov 01 j 07:43	11°♍41'03	11.06188 AU
minimum elong	624 Aug 20 j 12:21	29°♁36'13	1°42'24	morning rise	630 Nov 17 j 23:13	13°♍37'51	
max. Earth dist.	624 Aug 20 j 18:29	29°♁38'07	10.43844 AU		630 Nov 30 j 02:39	15°♍	
	624 Aug 23 j 16:36	0°♎		retrograde	631 Feb 25 j 12:13	20°♍33'35	
morning rise	624 Sep 06 j 22:29	1°♎45'44		opposition	631 May 06 j 10:05	17°♍17'01	2°17'34
retrograde	624 Dec 16 j 09:43	9°♎16'14		min. Earth dist.	631 May 06 j 13:27	17°♍16'24	9.08675 AU
opposition	625 Feb 21 j 16:35	5°♎54'26	2°18'16		631 Jun 09 j 14:57	15°♎	
min. Earth dist.	625 Feb 21 j 11:19	5°♎55'29	8.50230 AU	direct	631 Jul 16 j 17:37	13°♍57'16	
direct	625 May 02 j 09:30	2°♎27'18			631 Aug 22 j 05:20	15°♍	
evening set	625 Aug 16 j 09:58	10°♎14'38		evening set	631 Oct 27 j 03:56	21°♍01'17	
conjunction	625 Sep 02 j 19:37	12°♎22'25	2°00'23	conjunction	631 Nov 12 j 18:15	22°♍57'15	1°44'15
minimum elong	625 Sep 02 j 19:34	12°♎22'24	2°00'23	minimum elong	631 Nov 12 j 18:17	22°♍57'16	1°44'14
max. Earth dist.	625 Sep 03 j 00:59	12°♎24'04	10.56540 AU	max. Earth dist.	631 Nov 12 j 13:07	22°♍55'45	11.10287 AU
morning rise	625 Sep 20 j 00:15	14°♎28'42		morning rise	631 Nov 29 j 06:43	24°♍52'44	
retrograde	625 Dec 28 j 23:00	21°♎50'29			632 Jan 20 j 15:19	0°♏	
opposition	626 Mar 06 j 15:40	18°♎30'08	2°36'21	retrograde	632 Mar 08 j 03:07	1°♏47'44	
min. Earth dist.	626 Mar 06 j 11:39	18°♎30'55	8.62922 AU		632 Apr 26 j 11:08	30°♎	
direct	626 May 15 j 20:20	15°♎04'18		opposition	632 May 17 j 09:55	28°♍31'07	1°55'44
evening set	626 Aug 29 j 11:18	22°♎43'09		min. Earth dist.	632 May 17 j 15:08	28°♍30'10	9.11493 AU
				direct	632 Jul 27 j 16:47	25°♍12'08	
conjunction	626 Sep 15 j 15:55	24°♎47'55	2°12'13		632 Oct 17 j 08:11	0°♏	
minimum elong	626 Sep 15 j 15:54	24°♎47'54	2°12'13	evening set	632 Nov 06 j 10:02	2°♏12'36	
max. Earth dist.	626 Sep 15 j 19:57	24°♎49'08	10.69002 AU				
morning rise	626 Oct 02 j 15:40	26°♎51'14		conjunction	632 Nov 22 j 23:42	4°♏08'16	1°24'32
	626 Oct 30 j 16:24	0°♏		minimum elong	632 Nov 22 j 23:45	4°♏08'16	1°24'32
retrograde	627 Jan 10 j 05:51	4°♏05'16		max. Earth dist.	632 Nov 22 j 16:53	4°♏06'16	11.11875 AU
opposition	627 Mar 19 j 09:05	0°♏46'12	2°46'44	morning rise	632 Dec 09 j 12:26	6°♏03'40	
min. Earth dist.	627 Mar 19 j 06:56	0°♏46'37	8.75093 AU	retrograde	633 Mar 19 j 19:05	12°♏59'33	
	627 Mar 29 j 12:18	30°♎		opposition	633 May 29 j 09:15	9°♏42'33	1°29'35
direct	627 May 28 j 23:47	27°♎21'43		min. Earth dist.	633 May 29 j 15:06	9°♏41'28	9.11784 AU
	627 Jul 26 j 09:44	0°♏		direct	633 Aug 08 j 12:23	6°♏24'06	
evening set	627 Sep 11 j 02:12	4°♏52'11		evening set	633 Nov 17 j 14:39	13°♏22'25	
conjunction	627 Sep 28 j 02:17	6°♏54'15	2°17'49	conjunction	633 Dec 04 j 04:25	15°♏18'12	1°01'38
minimum elong	627 Sep 28 j 02:16	6°♏54'15	2°17'50	minimum elong	633 Dec 04 j 04:27	15°♏18'13	1°01'38
max. Earth dist.	627 Sep 28 j 03:56	6°♏54'45	10.80676 AU	max. Earth dist.	633 Dec 03 j 21:33	15°♏16'12	11.10957 AU
morning rise	627 Oct 14 j 22:03	8°♏55'02		morning rise	633 Dec 20 j 17:50	17°♏13'58	
retrograde	628 Jan 22 j 06:36	16°♏02'25		retrograde	634 Mar 31 j 14:16	24°♏12'20	
opposition	628 Mar 30 j 21:08	12°♏44'23	2°49'32	opposition	634 Jun 10 j 09:20	20°♏54'39	1°00'01
min. Earth dist.	628 Mar 30 j 20:21	12°♏44'32	8.86207 AU	min. Earth dist.	634 Jun 10 j 15:15	20°♏53'34	9.09597 AU
direct	628 Jun 09 j 19:17	9°♏21'14		direct	634 Aug 20 j 06:27	17°♏36'30	
evening set	628 Sep 22 j 07:28	16°♏43'43		evening set	634 Nov 28 j 19:30	24°♏34'07	
conjunction	628 Oct 09 j 03:54	18°♏43'32	2°17'23	conjunction	634 Dec 15 j 09:43	26°♏30'27	0°36'18
minimum elong	628 Oct 09 j 03:54	18°♏43'32	2°17'23	minimum elong	634 Dec 15 j 09:44	26°♏30'27	0°36'18
max. Earth dist.	628 Oct 09 j 03:41	18°♏43'28	10.91058 AU	max. Earth dist.	634 Dec 15 j 02:19	26°♏28'16	11.07600 AU
morning rise	628 Oct 25 j 20:33	20°♏42'14		morning rise	635 Jan 01 j 00:24	28°♏26'59	
retrograde	629 Feb 02 j 02:10	27°♏44'17			635 Jan 14 j 19:36	0°♐	
opposition	629 Apr 12 j 04:41	24°♏27'00	2°45'12	retrograde	635 Apr 12 j 13:28	5°♐29'22	
min. Earth dist.	629 Apr 12 j 04:47	24°♏26'59	8.95771 AU	opposition	635 Jun 22 j 11:06	2°♐10'45	0°27'57
direct	629 Jun 22 j 10:03	21°♏05'07		min. Earth dist.	635 Jun 22 j 17:42	2°♐09'32	9.05037 AU
evening set	629 Oct 04 j 04:25	28°♏20'21			635 Jul 24 j 18:35	30°♎	
	629 Oct 18 j 07:58	0°♐		direct	635 Aug 31 j 23:17	28°♏52'37	
					635 Oct 08 j 05:39	0°♐	
conjunction	629 Oct 20 j 22:05	0°♐18'23	2°11'17	evening set	635 Dec 10 j 02:36	5°♐51'07	
minimum elong	629 Oct 20 j 22:06	0°♐18'24	2°11'17				
max. Earth dist.	629 Oct 20 j 20:53	0°♐18'02	10.99688 AU	conjunction	635 Dec 26 j 17:31	7°♐48'20	0°09'23
morning rise	629 Nov 06 j 12:21	2°♐15'28		minimum elong	635 Dec 26 j 17:31	7°♐48'20	0°09'23
retrograde	630 Feb 13 j 20:53	9°♐13'36		behind sun begin	635 Dec 26 j 11:39	7°♐46'37	
opposition	630 Apr 24 j 08:39	5°♐56'49	2°34'19	behind sun end	635 Dec 26 j 23:24	7°♐50'03	

max. Earth dist.	635 Dec 26 j 08:53	7°☾45'47	11.01940 AU	morning rise	642 Mar 25 j 23:45	22°☾44'41	
morning rise	636 Jan 12 j 09:59	9°☾46'01			642 Jun 10 j 01:46	0°♃	
retrograde	636 Apr 23 j 15:08	16°☾53'56		retrograde	642 Jul 10 j 18:24	0°♃48'14	
desc. node	636 May 02 j 08:20	16°☾50'17			642 Aug 10 j 17:10	30°♁	
opposition	636 Jul 03 j 15:22	13°☾34'10	0°-5'-35	opposition	642 Sep 18 j 02:31	27°☾19'57	-2°-45'-18
min. Earth dist.	636 Jul 03 j 22:50	13°☾32'47	8.98279 AU	min. Earth dist.	642 Sep 18 j 04:37	27°☾19'32	8.30576 AU
direct	636 Sep 11 j 17:29	10°☾15'47		direct	642 Nov 24 j 04:08	23°☾56'25	
evening set	636 Dec 20 j 13:23	17°☾16'49			643 Feb 19 j 08:53	0°♃	
				evening set	643 Mar 05 j 02:21	1°♃40'49	
conjunction	637 Jan 06 j 05:28	19°☾15'16	0°-18'-19				
minimum elong	637 Jan 06 j 05:27	19°☾15'16	0°18'20	conjunction	643 Mar 22 j 10:26	3°♃52'57	-2°-16'-9
max. Earth dist.	637 Jan 05 j 20:50	19°☾12'43	10.94185 AU	minimum elong	643 Mar 22 j 10:26	3°♃52'57	2°16'09
morning rise	637 Jan 22 j 23:56	21°☾14'27		max. Earth dist.	643 Mar 22 j 09:17	3°♃52'35	10.24731 AU
retrograde	637 May 06 j 00:10	28°☾29'26		morning rise	643 Apr 08 j 23:09	6°♃06'37	
opposition	637 Jul 15 j 23:28	25°☾08'19	0°-39'-29	retrograde	643 Jul 25 j 02:52	14°♃19'06	
min. Earth dist.	637 Jul 16 j 06:32	25°☾06'59	8.89571 AU	opposition	643 Oct 01 j 22:03	10°♃49'48	-2°-50'-47
direct	637 Sep 23 j 15:28	21°☾49'29		min. Earth dist.	643 Oct 01 j 22:00	10°♃49'48	8.19503 AU
evening set	638 Jan 01 j 05:28	28°☾54'34		direct	643 Dec 07 j 14:08	7°♃25'06	
	638 Jan 10 j 09:31	0°♁		evening set	644 Mar 18 j 04:42	15°♃18'42	
conjunction	638 Jan 17 j 23:11	0°♁54'38	0°-45'-38	conjunction	644 Apr 04 j 17:12	17°♃33'38	-2°-16'-29
minimum elong	638 Jan 17 j 23:10	0°♁54'37	0°45'40	minimum elong	644 Apr 04 j 17:13	17°♃33'39	2°16'30
max. Earth dist.	638 Jan 17 j 15:41	0°♁52'22	10.84609 AU	max. Earth dist.	644 Apr 04 j 18:24	17°♃34'02	10.14420 AU
morning rise	638 Feb 03 j 19:49	2°♁55'38		morning rise	644 Apr 22 j 10:00	19°♃50'01	
retrograde	638 May 18 j 16:52	10°♁19'01		retrograde	644 Aug 07 j 17:36	28°♃09'33	
opposition	638 Jul 28 j 12:09	6°♁56'25	-1°-12'-29	opposition	644 Oct 14 j 23:04	24°♃39'34	-2°-46'-36
min. Earth dist.	638 Jul 28 j 18:06	6°♁55'17	8.79225 AU	min. Earth dist.	644 Oct 14 j 21:00	24°♃39'59	8.10159 AU
direct	638 Oct 05 j 15:17	3°♁36'57		direct	644 Dec 20 j 07:27	21°♃13'43	
evening set	639 Jan 13 j 04:53	10°♁47'39		evening set	645 Apr 01 j 17:13	29°♃15'45	
					645 Apr 07 j 11:05	0°♁	
conjunction	639 Jan 30 j 00:30	12°♁49'38	-1°-11'-34	conjunction	645 Apr 19 j 10:21	1°♁33'18	-2°-8'-54
minimum elong	639 Jan 30 j 00:27	12°♁49'37	1°11'34	minimum elong	645 Apr 19 j 10:24	1°♁33'19	2°08'55
max. Earth dist.	639 Jan 29 j 17:45	12°♁47'34	10.73566 AU	max. Earth dist.	645 Apr 19 j 13:31	1°♁34'20	10.06179 AU
morning rise	639 Feb 15 j 23:37	14°♁52'44		morning rise	645 May 07 j 07:19	3°♁52'08	
	639 Feb 17 j 00:03	15°♁		retrograde	645 Aug 22 j 12:18	12°♁16'06	
retrograde	639 May 31 j 17:03	22°♁25'35		opposition	645 Oct 29 j 04:21	8°♁45'48	-2°-32'-22
opposition	639 Aug 10 j 06:08	19°♁01'28	-1°-43'-9	min. Earth dist.	645 Oct 29 j 00:54	8°♁46'31	8.03150 AU
min. Earth dist.	639 Aug 10 j 11:06	19°♁00'31	8.67634 AU	direct	646 Jan 03 j 09:18	5°♁18'52	
direct	639 Oct 17 j 20:07	15°♁41'11		evening set	646 Apr 16 j 14:16	13°♁27'57	
evening set	640 Jan 25 j 12:54	22°♁58'55			646 Apr 28 j 10:09	15°♁	
conjunction	640 Feb 11 j 10:42	25°♁03'06	-1°-34'-51	conjunction	646 May 04 j 11:54	15°♁47'42	-1°-53'-24
minimum elong	640 Feb 11 j 10:39	25°♁03'05	1°34'52	minimum elong	646 May 04 j 11:58	15°♁47'43	1°53'26
max. Earth dist.	640 Feb 11 j 04:00	25°♁01'02	10.61498 AU	max. Earth dist.	646 May 04 j 16:46	15°♁49'17	10.00548 AU
morning rise	640 Feb 28 j 12:45	27°♁08'36		morning rise	646 May 22 j 12:36	18°♁08'26	
	640 Mar 24 j 09:36	0°♁		retrograde	646 Sep 06 j 07:08	26°♁33'48	
retrograde	640 Jun 13 j 01:59	4°♁51'38		opposition	646 Nov 12 j 12:24	23°♁03'37	-2°-8'-32
opposition	640 Aug 22 j 06:25	1°♁26'01	-2°-9'-56	min. Earth dist.	646 Nov 12 j 07:56	23°♁04'33	7.98945 AU
min. Earth dist.	640 Aug 22 j 10:55	1°♁25'09	8.55278 AU	direct	647 Jan 17 j 18:29	19°♁35'45	
	640 Sep 10 j 08:55	30°♁		evening set	647 May 01 j 17:30	27°♁49'55	
direct	640 Oct 29 j 06:41	28°♁04'45			647 May 18 j 08:53	0°♁	
	640 Dec 15 j 11:41	0°♁		conjunction	647 May 19 j 18:55	0°♁11'10	-1°-30'-47
evening set	641 Feb 06 j 06:30	5°♁30'42		minimum elong	647 May 19 j 18:59	0°♁11'11	1°30'47
conjunction	641 Feb 23 j 07:03	7°♁37'19	-1°-54'-14	max. Earth dist.	647 May 20 j 01:12	0°♁13'14	9.97902 AU
minimum elong	641 Feb 23 j 07:01	7°♁37'18	1°54'15	morning rise	647 Jun 06 j 22:22	2°♁33'03	
max. Earth dist.	641 Feb 23 j 01:22	7°♁35'33	10.48930 AU	retrograde	647 Sep 21 j 00:01	10°♁56'40	
morning rise	641 Mar 12 j 12:23	9°♁45'26		opposition	647 Nov 26 j 21:18	7°♁26'59	-1°-36'-28
retrograde	641 Jun 26 j 18:35	17°♁38'56		min. Earth dist.	647 Nov 26 j 16:02	7°♁28'04	7.97827 AU
opposition	641 Sep 04 j 13:17	14°♁11'54	-2°-31'-12	direct	648 Feb 01 j 07:56	3°♁58'20	
min. Earth dist.	641 Sep 04 j 16:54	14°♁11'12	8.42718 AU	evening set	648 May 16 j 00:02	12°♁15'15	
direct	641 Nov 11 j 00:42	10°♁49'32					
evening set	642 Feb 19 j 10:51	18°♁24'31		conjunction	648 Jun 03 j 04:05	14°♁37'09	-1°-2'-26
conjunction	642 Mar 08 j 14:53	20°♁33'50	-2°-8'-24	minimum elong	648 Jun 03 j 04:08	14°♁37'10	1°02'26
minimum elong	642 Mar 08 j 14:51	20°♁33'49	2°08'25	max. Earth dist.	648 Jun 03 j 11:32	14°♁39'36	9.98410 AU
max. Earth dist.	642 Mar 08 j 11:10	20°♁32'39	10.36458 AU	morning rise	648 Jun 21 j 08:53	16°♁59'15	

retrograde	648 Oct 04 j 13:34	25°♄18'12		conjunction	654 Aug 28 j 09:12	7°♄01'50	1°53'09
opposition	648 Dec 10 j 05:10	21°♄49'18	0°-58'-23	minimum elong	654 Aug 28 j 09:09	7°♄01'49	1°53'08
min. Earth dist.	648 Dec 09 j 23:04	21°♄50'34	7.99850 AU	max. Earth dist.	654 Aug 28 j 13:02	7°♄03'01	10.50519 AU
direct	649 Feb 14 j 23:33	18°♄20'08		morning rise	654 Sep 14 j 16:22	9°♄09'38	
evening set	649 May 31 j 06:37	26°♄37'19		retrograde	654 Dec 23 j 20:04	16°♄35'40	
				opposition	655 Mar 01 j 08:37	13°♄14'46	2°29'18
conjunction	649 Jun 18 j 11:46	28°♄58'55	0°-30'-19	min. Earth dist.	655 Mar 01 j 05:30	13°♄15'22	8.56738 AU
minimum elong	649 Jun 18 j 11:48	28°♄58'55	0°30'20	direct	655 May 10 j 08:25	9°♄48'17	
max. Earth dist.	649 Jun 18 j 20:01	29°♄01'36	10.01972 AU	evening set	655 Aug 24 j 03:56	17°♄31'25	
	649 Jun 26 j 07:18	0°♄					
morning rise	649 Jul 06 j 16:13	1°♄20'13		conjunction	655 Sep 10 j 10:43	19°♄37'36	2°07'45
retrograde	649 Oct 18 j 21:57	9°♄32'10		minimum elong	655 Sep 10 j 10:41	19°♄37'36	2°07'45
opposition	649 Dec 24 j 10:17	6°♄04'19	0°-17'-2	max. Earth dist.	655 Sep 10 j 13:19	19°♄38'24	10.62740 AU
min. Earth dist.	649 Dec 24 j 03:37	6°♄05'41	8.04776 AU	morning rise	655 Sep 27 j 12:49	21°♄42'21	
direct	650 Mar 01 j 15:09	2°♄34'52		retrograde	656 Jan 05 j 06:03	29°♄00'13	
asc. node	650 May 27 j 05:53	8°♄28'54		opposition	656 Mar 13 j 04:49	25°♄40'25	2°43'09
evening set	650 Jun 15 j 10:23	10°♄50'08		min. Earth dist.	656 Mar 13 j 02:09	25°♄40'56	8.68804 AU
				direct	656 May 22 j 16:17	22°♄15'05	
conjunction	650 Jul 03 j 14:47	13°♄10'27	0°03'23	evening set	656 Sep 04 j 23:45	29°♄49'44	
minimum elong	650 Jul 03 j 14:46	13°♄10'27	0°03'23		656 Sep 06 j 10:19	0°♄	
behind sun begin	650 Jul 03 j 07:28	13°♄08'06		conjunction	656 Sep 22 j 01:59	1°♄53'07	2°16'08
behind sun end	650 Jul 03 j 22:05	13°♄12'47		minimum elong	656 Sep 22 j 01:58	1°♄53'07	2°16'08
max. Earth dist.	650 Jul 03 j 23:05	13°♄13'07	10.08215 AU	max. Earth dist.	656 Sep 22 j 03:56	1°♄53'43	10.74447 AU
morning rise	650 Jul 21 j 17:02	15°♄30'03		morning rise	656 Oct 08 j 23:32	3°♄55'08	
retrograde	650 Nov 01 j 23:45	23°♄33'29		retrograde	657 Jan 16 j 10:27	11°♄05'48	
opposition	651 Jan 07 j 11:17	20°♄06'56	0°24'42	opposition	657 Mar 25 j 19:21	7°♄46'58	2°49'18
min. Earth dist.	651 Jan 07 j 04:38	20°♄08'18	8.12164 AU	min. Earth dist.	657 Mar 25 j 17:52	7°♄47'15	8.80077 AU
direct	651 Mar 16 j 04:54	16°♄37'34		direct	657 Jun 04 j 15:06	4°♄22'50	
evening set	651 Jun 30 j 08:28	24°♄49'02		evening set	657 Sep 17 j 09:31	11°♄49'17	
conjunction	651 Jul 18 j 10:23	27°♄07'16	0°36'16	conjunction	657 Oct 04 j 07:45	13°♄50'13	2°18'20
minimum elong	651 Jul 18 j 10:21	27°♄07'15	0°36'15	minimum elong	657 Oct 04 j 07:45	13°♄50'13	2°18'20
max. Earth dist.	651 Jul 18 j 18:20	27°♄09'49	10.16668 AU	max. Earth dist.	657 Oct 04 j 08:35	13°♄50'28	10.85123 AU
morning rise	651 Aug 05 j 08:56	29°♄24'27		morning rise	657 Oct 21 j 01:38	15°♄49'56	
	651 Aug 10 j 02:59	0°♄		retrograde	658 Jan 28 j 08:31	22°♄54'40	
retrograde	651 Nov 15 j 17:17	7°♄18'37		opposition	658 Apr 07 j 05:14	19°♄36'36	2°48'04
opposition	652 Jan 21 j 07:25	3°♄53'30	1°04'09	min. Earth dist.	658 Apr 07 j 05:29	19°♄36'33	8.90092 AU
min. Earth dist.	652 Jan 21 j 01:15	3°♄54'46	8.21564 AU	direct	658 Jun 17 j 07:29	16°♄13'37	
direct	652 Mar 29 j 14:22	0°♄24'31		evening set	658 Sep 29 j 10:13	23°♄32'28	
evening set	652 Jul 13 j 22:35	8°♄30'33					
conjunction	652 Jul 31 j 20:37	10°♄46'06	1°06'31	conjunction	658 Oct 16 j 05:06	25°♄31'25	2°14'40
minimum elong	652 Jul 31 j 20:34	10°♄46'05	1°06'30	minimum elong	658 Oct 16 j 05:07	25°♄31'25	2°14'41
max. Earth dist.	652 Aug 01 j 03:52	10°♄48'24	10.26889 AU	max. Earth dist.	658 Oct 16 j 03:59	25°♄31'05	10.94350 AU
morning rise	652 Aug 18 j 14:27	13°♄00'21		morning rise	658 Nov 01 j 20:24	27°♄29'19	
	652 Sep 04 j 02:49	15°♄			658 Nov 24 j 10:39	0°♄	
retrograde	652 Nov 28 j 03:04	20°♄44'56		retrograde	659 Feb 09 j 02:53	4°♄29'28	
opposition	653 Feb 02 j 21:57	17°♄21'18	1°39'04	opposition	659 Apr 19 j 11:00	1°♄11'57	2°39'59
min. Earth dist.	653 Feb 02 j 16:57	17°♄22'18	8.32508 AU	min. Earth dist.	659 Apr 19 j 12:46	1°♄11'37	8.98465 AU
	653 Mar 07 j 06:58	15°♄			659 May 05 j 21:02	30°♄	
direct	653 Apr 12 j 18:24	13°♄52'57		direct	659 Jun 29 j 17:58	27°♄50'07	
	653 May 19 j 01:29	15°♄			659 Aug 21 j 19:31	0°♄	
evening set	653 Jul 28 j 03:19	21°♄52'12		evening set	659 Oct 11 j 03:27	5°♄02'14	
conjunction	653 Aug 14 j 20:29	24°♄04'41	1°32'31	conjunction	659 Oct 27 j 19:54	6°♄59'40	2°05'37
minimum elong	653 Aug 14 j 20:26	24°♄04'40	1°32'30	minimum elong	659 Oct 27 j 19:56	6°♄59'41	2°05'37
max. Earth dist.	653 Aug 15 j 02:06	24°♄06'27	10.38366 AU	max. Earth dist.	659 Oct 27 j 17:01	6°♄58'49	11.01791 AU
morning rise	653 Sep 01 j 09:00	26°♄15'43		morning rise	659 Nov 13 j 09:33	8°♄56'17	
	653 Oct 04 j 02:26	0°♄			660 Jan 19 j 00:22	15°♄	
retrograde	653 Dec 11 j 04:26	3°♄50'45		retrograde	660 Feb 20 j 18:08	15°♄53'18	
opposition	654 Feb 16 j 06:19	0°♄28'33	2°07'48		660 Mar 25 j 05:58	15°♄	
min. Earth dist.	654 Feb 16 j 02:30	0°♄29'19	8.44436 AU	opposition	660 Apr 30 j 13:19	12°♄36'05	2°25'42
	654 Feb 22 j 06:55	30°♄		min. Earth dist.	660 Apr 30 j 15:39	12°♄35'39	9.04889 AU
direct	654 Apr 26 j 16:09	27°♄01'03		direct	660 Jul 10 j 22:36	9°♄15'19	
	654 Jun 27 j 00:01	0°♄			660 Oct 09 j 12:06	15°♄	
evening set	654 Aug 10 j 21:20	4°♄52'32		evening set	660 Oct 21 j 14:47	16°♄21'50	

conjunction	660 Nov 07 j 05:45	18°♌18'14	1°51'44	conjunction	667 Jan 13 j 03:14	25°♁58'48	0°-33'-36
minimum elong	660 Nov 07 j 05:47	18°♌18'15	1°51'43	minimum elong	667 Jan 13 j 03:13	25°♁58'48	0°33'38
max. Earth dist.	660 Nov 07 j 02:26	18°♌17'15	11.07170 AU	max. Earth dist.	667 Jan 12 j 20:19	25°♁56'44	10.91157 AU
morning rise	660 Nov 23 j 18:26	20°♌14'02		morning rise	667 Jan 29 j 22:46	27°♁58'44	
retrograde	661 Mar 03 j 10:45	27°♌09'27			667 Feb 16 j 18:58	0°≈	
opposition	661 May 12 j 13:39	23°♌52'21	2°05'58	retrograde	667 May 13 j 11:00	5°≈17'19	
min. Earth dist.	661 May 12 j 16:28	23°♌51'49	9.09128 AU	opposition	667 Jul 23 j 07:35	1°≈56'01	0°-57'-57
direct	661 Jul 22 j 23:07	20°♌32'33		min. Earth dist.	667 Jul 23 j 13:12	1°≈54'57	8.86396 AU
evening set	661 Nov 01 j 21:54	27°♌34'39			667 Aug 19 j 20:37	30°R♁	
				direct	667 Sep 30 j 14:55	28°♁37'31	
conjunction	661 Nov 18 j 12:00	29°♌30'31	1°33'39		667 Nov 10 j 05:42	0°≈	
minimum elong	661 Nov 18 j 12:02	29°♌30'32	1°33'38	evening set	668 Jan 08 j 06:03	5°≈44'38	
max. Earth dist.	661 Nov 18 j 08:04	29°♌29'22	11.10291 AU				
	661 Nov 22 j 16:35	0°♌		conjunction	668 Jan 25 j 00:27	7°≈45'23	-1°00'-13
morning rise	661 Dec 05 j 00:27	1°♌25'58		minimum elong	668 Jan 25 j 00:25	7°≈45'22	1°00'15
retrograde	662 Mar 15 j 02:04	8°♌21'21		max. Earth dist.	668 Jan 24 j 17:32	7°≈43'18	10.81300 AU
opposition	662 May 24 j 13:04	5°♌04'08	1°41'35	morning rise	668 Feb 10 j 22:22	9°≈47'12	
min. Earth dist.	662 May 24 j 17:01	5°♌03'25	9.11044 AU		668 Apr 01 j 18:10	15°≈	
direct	662 Aug 03 j 17:38	1°♌45'08		retrograde	668 May 25 j 05:15	17°≈14'32	
evening set	662 Nov 13 j 02:51	8°♌44'15			668 Jul 19 j 15:14	15°R≈	
				opposition	668 Aug 03 j 22:30	13°≈51'51	-1°-29'-43
conjunction	662 Nov 29 j 16:31	10°♌39'58	1°12'03	min. Earth dist.	668 Aug 04 j 03:58	13°≈50'49	8.75830 AU
minimum elong	662 Nov 29 j 16:33	10°♌39'59	1°12'04	direct	668 Oct 11 j 18:40	10°≈32'41	
max. Earth dist.	662 Nov 29 j 10:55	10°♌38'20	11.11057 AU		668 Dec 26 j 01:10	15°≈	
morning rise	662 Dec 16 j 05:37	12°♌35'33		evening set	669 Jan 19 j 09:19	17°≈45'58	
retrograde	663 Mar 26 j 18:30	19°♌32'30					
opposition	663 Jun 05 j 12:27	16°♌14'55	1°13'24	conjunction	669 Feb 05 j 05:52	19°≈48'43	-1°-24'-46
min. Earth dist.	663 Jun 05 j 17:46	16°♌13'56	9.10584 AU	minimum elong	669 Feb 05 j 05:50	19°≈48'43	1°24'47
direct	663 Aug 15 j 12:01	12°♌56'28		max. Earth dist.	669 Feb 05 j 00:06	19°≈46'58	10.70081 AU
evening set	663 Nov 24 j 07:08	19°♌54'06		morning rise	669 Feb 22 j 06:20	21°≈52'43	
				retrograde	669 Jun 07 j 09:38	29°≈29'42	
conjunction	663 Dec 10 j 21:00	21°♌50'06	0°47'42	opposition	669 Aug 16 j 19:07	26°≈05'33	-1°-58'-19
minimum elong	663 Dec 10 j 21:02	21°♌50'07	0°47'42	min. Earth dist.	669 Aug 16 j 23:35	26°≈04'41	8.64108 AU
max. Earth dist.	663 Dec 10 j 14:30	21°♌48'12	11.09440 AU	direct	669 Oct 24 j 02:38	22°≈45'31	
morning rise	663 Dec 27 j 11:14	23°♌46'14		evening set	670 Jan 31 j 21:33	0°♋06'11	
	664 Mar 06 j 14:48	0°♁			670 Jan 31 j 01:05	0°♋	
retrograde	664 Apr 06 j 15:13	0°♁46'19					
	664 May 08 j 05:04	30°R♌		conjunction	670 Feb 17 j 20:43	2°♋11'15	-1°-45'-59
opposition	664 Jun 16 j 12:54	27°♌28'07	0°42'19	minimum elong	670 Feb 17 j 20:40	2°♋11'14	1°45'59
min. Earth dist.	664 Jun 16 j 18:24	27°♌27'07	9.07751 AU	max. Earth dist.	670 Feb 17 j 15:47	2°♋09'43	10.57897 AU
direct	664 Aug 26 j 05:50	24°♌10'02		morning rise	670 Mar 07 j 00:07	4°♋17'42	
	664 Nov 24 j 13:49	0°♁		retrograde	670 Jun 20 j 22:27	12°♋04'54	
evening set	664 Dec 04 j 12:36	1°♁07'41		opposition	670 Aug 29 j 21:55	8°♋39'15	-2°-22'-9
				min. Earth dist.	670 Aug 30 j 01:20	8°♋38'36	8.51656 AU
conjunction	664 Dec 21 j 03:11	3°♁04'22	0°21'23	direct	670 Nov 05 j 15:40	5°♋18'10	
minimum elong	664 Dec 21 j 03:12	3°♁04'22	0°21'23	evening set	671 Feb 13 j 20:09	12°♋47'26	
max. Earth dist.	664 Dec 20 j 21:02	3°♁02'34	11.05477 AU				
morning rise	665 Jan 06 j 18:44	5°♁01'24		conjunction	671 Mar 02 j 22:19	14°♋55'03	-2°-2'-36
retrograde	665 Apr 18 j 15:29	12°♁06'14		minimum elong	671 Mar 02 j 22:17	14°♋55'02	2°02'36
opposition	665 Jun 28 j 15:34	8°♁47'11	0°09'19	max. Earth dist.	671 Mar 02 j 17:39	14°♋53'35	10.45256 AU
min. Earth dist.	665 Jun 28 j 20:39	8°♁46'14	9.02639 AU	morning rise	671 Mar 20 j 05:09	17°♋04'10	
direct	665 Sep 06 j 23:08	5°♁29'13		retrograde	671 Jul 04 j 18:30	25°♋01'36	
desc. node	665 Oct 11 j 00:20	6°♁26'09		opposition	671 Sep 12 j 07:07	21°♋34'35	-2°-39'-37
evening set	665 Dec 15 j 21:12	12°♁28'28		min. Earth dist.	671 Sep 12 j 09:50	21°♋34'03	8.39075 AU
				direct	671 Nov 18 j 13:10	18°♋12'16	
conjunction	666 Jan 01 j 12:45	14°♁26'11	0°-6'-6	evening set	672 Feb 27 j 05:30	25°♋50'49	
minimum elong	666 Jan 01 j 12:45	14°♁26'11	0°06'07				
behind sun begin	666 Jan 01 j 06:07	14°♁24'14		conjunction	672 Mar 15 j 11:16	28°♋01'12	-2°-13'-22
behind sun end	666 Jan 01 j 19:23	14°♁28'08		minimum elong	672 Mar 15 j 11:15	28°♋01'12	2°13'22
max. Earth dist.	666 Jan 01 j 06:40	14°♁24'24	10.99309 AU	max. Earth dist.	672 Mar 15 j 07:20	27°♋59'57	10.32852 AU
morning rise	666 Jan 18 j 06:03	16°♁24'28			672 Mar 31 j 03:46	0°♎	
retrograde	666 Apr 30 j 22:45	23°♁35'31		morning rise	672 Apr 01 j 21:58	0°♎13'08	
opposition	666 Jul 10 j 21:30	20°♁15'26	0°-24'-29	retrograde	672 Jul 17 j 22:24	8°♎20'05	
min. Earth dist.	666 Jul 11 j 02:37	20°♁14'29	8.95437 AU	opposition	672 Sep 24 j 22:53	4°♎51'50	-2°-49'-11
direct	666 Sep 18 j 18:08	16°♁57'20		min. Earth dist.	672 Sep 25 j 00:47	4°♎51'27	8.27099 AU
evening set	666 Dec 27 j 10:28	23°♁59'44		direct	672 Nov 30 j 18:40	1°♎28'11	
				evening set	673 Mar 12 j 01:37	9°♎16'06	

conjunction	673 Mar 29 j 11:39	11°♃29'20	-2°-17'-12	min. Earth dist.	678 Dec 17 j 20:41	29°♃34'40	8.01262 AU
minimum elong	673 Mar 29 j 11:40	11°♃29'20	2°17'13	direct	679 Feb 23 j 01:35	26°♃03'38	
max. Earth dist.	673 Mar 29 j 09:26	11°♃28'37	10.21429 AU		679 May 02 j 17:46	0°♃	
morning rise	673 Apr 16 j 02:29	13°♃44'05		evening set	679 Jun 08 j 15:02	4°♃20'04	
retrograde	673 Aug 01 j 08:30	21°♃59'06					
opposition	673 Oct 08 j 20:29	18°♃29'48	-2°-49'-36	conjunction	679 Jun 26 j 19:58	6°♃41'11	0°-12'-52
min. Earth dist.	673 Oct 08 j 21:13	18°♃29'40	8.16448 AU	minimum elong	679 Jun 26 j 19:59	6°♃41'11	0°12'53
direct	673 Dec 14 j 08:49	15°♃04'47		behind sun begin	679 Jun 26 j 15:36	6°♃39'47	
evening set	674 Mar 26 j 08:22	23°♃01'37		behind sun end	679 Jun 27 j 00:22	6°♃42'36	
				max. Earth dist.	679 Jun 27 j 03:22	6°♃43'34	10.03882 AU
conjunction	674 Apr 12 j 23:07	25°♃17'37	-2°-13'-22	morning rise	679 Jul 14 j 23:31	9°♃01'49	
minimum elong	674 Apr 12 j 23:09	25°♃17'38	2°13'23	retrograde	679 Oct 26 j 17:37	17°♃09'41	
max. Earth dist.	674 Apr 12 j 23:21	25°♃17'42	10.11681 AU	asc. node	679 Nov 18 j 16:32	16°♃40'17	
morning rise	674 Apr 30 j 18:06	27°♃35'00		opposition	680 Jan 01 j 05:11	13°♃41'57	0°04'49
	674 May 20 j 10:52	0°♃		min. Earth dist.	679 Dec 31 j 23:32	13°♃43'07	8.07167 AU
retrograde	674 Aug 15 j 22:59	5°♃55'49		direct	680 Mar 08 j 16:58	10°♃11'55	
opposition	674 Oct 22 j 22:43	2°♃25'49	-2°-40'-8	evening set	680 Jun 22 j 15:53	18°♃25'39	
min. Earth dist.	674 Oct 22 j 21:42	2°♃26'02	8.07772 AU				
	674 Nov 24 j 22:40	30°♃		conjunction	680 Jul 10 j 19:08	20°♃45'05	0°20'41
direct	674 Dec 28 j 07:09	28°♃59'28		minimum elong	680 Jul 10 j 19:07	20°♃45'04	0°20'40
	675 Jan 30 j 05:51	0°♃		max. Earth dist.	680 Jul 11 j 02:23	20°♃47'24	10.11117 AU
evening set	675 Apr 10 j 00:22	7°♃04'10		morning rise	680 Jul 28 j 19:50	23°♃03'39	
					680 Oct 05 j 20:16	0°♃	
conjunction	675 Apr 27 j 19:52	9°♃22'38	-2°-1'-35	retrograde	680 Nov 08 j 13:36	1°♃02'37	
minimum elong	675 Apr 27 j 19:56	9°♃22'39	2°01'36		680 Dec 12 j 16:01	30°♃	
max. Earth dist.	675 Apr 27 j 22:36	9°♃23'32	10.04213 AU	opposition	681 Jan 14 j 03:33	27°♃36'15	0°45'40
morning rise	675 May 15 j 18:45	11°♃42'14		min. Earth dist.	681 Jan 13 j 21:46	27°♃37'26	8.15586 AU
	675 Jun 11 j 22:30	15°♃		direct	681 Mar 23 j 04:53	24°♃06'27	
retrograde	675 Aug 30 j 15:57	20°♃06'08			681 Jun 18 j 18:21	0°♃	
opposition	675 Nov 06 j 04:33	16°♃35'49	-2°-20'-49	evening set	681 Jul 07 j 09:58	2°♃15'31	
min. Earth dist.	675 Nov 06 j 01:38	16°♃36'25	8.01615 AU				
	675 Nov 26 j 07:03	15°♃		conjunction	681 Jul 25 j 10:01	4°♃32'32	0°52'26
direct	676 Jan 11 j 11:54	13°♃08'15		minimum elong	681 Jul 25 j 09:58	4°♃32'31	0°52'25
	676 Feb 25 j 18:26	15°♃		max. Earth dist.	681 Jul 25 j 16:55	4°♃34'44	10.20593 AU
evening set	676 Apr 23 j 23:33	21°♃19'08		morning rise	681 Aug 12 j 06:30	6°♃48'22	
				retrograde	681 Nov 22 j 03:02	14°♃37'47	
conjunction	676 May 11 j 23:20	23°♃39'34	-1°-42'-17	opposition	682 Jan 27 j 20:37	11°♃12'54	1°23'00
minimum elong	676 May 11 j 23:24	23°♃39'35	1°42'18	min. Earth dist.	682 Jan 27 j 14:33	11°♃14'08	8.25979 AU
max. Earth dist.	676 May 12 j 04:19	23°♃41'12	9.99507 AU	direct	682 Apr 06 j 11:34	7°♃43'42	
morning rise	676 May 30 j 01:25	26°♃00'46			682 Jul 15 j 11:16	15°♃	
	676 Jul 02 j 08:15	0°♃		evening set	682 Jul 21 j 19:11	15°♃46'31	
retrograde	676 Sep 13 j 09:41	4°♃24'44					
opposition	676 Nov 19 j 12:16	0°♃54'29	-1°-52'-34	conjunction	682 Aug 08 j 14:51	18°♃00'36	1°20'37
min. Earth dist.	676 Nov 19 j 07:46	0°♃55'25	7.98376 AU	minimum elong	682 Aug 08 j 14:48	18°♃00'35	1°20'37
	676 Nov 30 j 13:58	30°♃		max. Earth dist.	682 Aug 08 j 21:36	18°♃02'44	10.31726 AU
direct	677 Jan 24 j 21:09	27°♃25'53		morning rise	682 Aug 26 j 06:07	20°♃13'18	
	677 Mar 19 j 17:14	0°♃		retrograde	682 Dec 05 j 08:34	27°♃53'05	
evening set	677 May 09 j 03:47	5°♃40'55		opposition	683 Feb 10 j 07:47	24°♃29'44	1°54'50
				min. Earth dist.	683 Feb 10 j 01:57	24°♃30'54	8.37734 AU
conjunction	677 May 27 j 06:53	8°♃02'33	-1°-16'-31	direct	683 Apr 20 j 12:01	21°♃01'27	
minimum elong	677 May 27 j 06:57	8°♃02'34	1°16'32	evening set	683 Aug 04 j 18:11	28°♃56'52	
max. Earth dist.	677 May 27 j 13:28	8°♃04'42	9.97860 AU		683 Aug 13 j 07:09	0°♃	
morning rise	677 Jun 14 j 11:05	10°♃24'32					
retrograde	677 Sep 28 j 01:46	18°♃45'32		conjunction	683 Aug 22 j 08:50	1°♃07'47	1°43'55
opposition	677 Dec 03 j 19:59	15°♃15'47	-1°-17'-9	minimum elong	683 Aug 22 j 08:46	1°♃07'46	1°43'54
min. Earth dist.	677 Dec 03 j 14:39	15°♃16'53	7.98261 AU	max. Earth dist.	683 Aug 22 j 15:13	1°♃09'46	10.43891 AU
direct	678 Feb 08 j 10:21	11°♃46'23		morning rise	683 Sep 08 j 18:33	3°♃17'13	
evening set	678 May 24 j 10:04	20°♃03'19		retrograde	683 Dec 18 j 05:30	10°♃47'41	
				opposition	684 Feb 23 j 12:50	7°♃25'53	2°19'52
conjunction	678 Jun 11 j 14:59	22°♃25'11	0°-46'00	min. Earth dist.	684 Feb 23 j 08:07	7°♃26'48	8.50213 AU
minimum elong	678 Jun 11 j 15:01	22°♃25'12	0°46'01	direct	684 May 03 j 06:02	3°♃58'42	
max. Earth dist.	678 Jun 11 j 22:15	22°♃27'33	9.99360 AU	evening set	684 Aug 17 j 06:17	11°♃46'02	
morning rise	678 Jun 29 j 19:44	24°♃46'59					
	678 Aug 14 j 08:33	0°♃		conjunction	684 Sep 03 j 15:42	13°♃53'46	2°01'27
retrograde	678 Oct 12 j 13:11	3°♃02'25		minimum elong	684 Sep 03 j 15:39	13°♃53'46	2°01'27
	678 Dec 12 j 18:15	30°♃		max. Earth dist.	684 Sep 03 j 20:42	13°♃55'19	10.56447 AU
opposition	678 Dec 18 j 02:11	29°♃33'31	0°-37'-4	morning rise	684 Sep 20 j 20:08	16°♃00'02	

retrograde	684 Dec 29 j 19:24	23° \mathbb{M} 21'53		opposition	691 May 19 j 07:56	0° \mathbb{Z} 05'28	1°53'25
opposition	685 Mar 07 j 11:57	20° \mathbb{M} 01'31	2°37'23	min. Earth dist.	691 May 19 j 12:28	0° \mathbb{Z} 04'38	9.11003 AU
min. Earth dist.	685 Mar 07 j 08:50	20° \mathbb{M} 02'08	8.62768 AU		691 May 20 j 13:44	30° \mathbb{R} \mathbb{L}	
direct	685 May 16 j 16:26	16° \mathbb{M} 35'37		direct	691 Jul 29 j 14:18	26° \mathbb{M} 46'29	
evening set	685 Aug 30 j 07:35	24° \mathbb{M} 14'34		evening set	691 Oct 03 j 04:10	0° \mathbb{Z}	
					691 Nov 08 j 07:01	3° \mathbb{Z} 47'05	
conjunction	685 Sep 16 j 11:56	26° \mathbb{M} 19'19	2°12'48	conjunction	691 Nov 24 j 20:53	5° \mathbb{Z} 42'50	1°22'28
minimum elong	685 Sep 16 j 11:54	26° \mathbb{M} 19'18	2°12'48	minimum elong	691 Nov 24 j 20:55	5° \mathbb{Z} 42'51	1°22'28
max. Earth dist.	685 Sep 16 j 14:51	26° \mathbb{M} 20'12	10.68773 AU	max. Earth dist.	691 Nov 24 j 15:07	5° \mathbb{Z} 41'09	11.11401 AU
morning rise	685 Oct 03 j 11:38	28° \mathbb{M} 22'39		morning rise	691 Dec 11 j 09:38	7° \mathbb{Z} 38'20	
	685 Oct 17 j 10:13	0° \mathbb{Z}		retrograde	692 Mar 20 j 17:36	14° \mathbb{Z} 34'35	
retrograde	686 Jan 11 j 01:35	5° \mathbb{Z} 36'49		opposition	692 May 30 j 07:28	11° \mathbb{Z} 17'31	1°26'54
opposition	686 Mar 20 j 05:24	2° \mathbb{Z} 17'43	2°47'09	min. Earth dist.	692 May 30 j 12:26	11° \mathbb{Z} 16'36	9.11314 AU
min. Earth dist.	686 Mar 20 j 03:31	2° \mathbb{Z} 18'04	8.74804 AU	direct	692 Aug 09 j 10:30	7° \mathbb{Z} 59'06	
	686 Apr 22 j 04:41	30° \mathbb{R} \mathbb{M}		evening set	692 Nov 18 j 12:01	14° \mathbb{Z} 57'35	
direct	686 May 29 j 19:56	28° \mathbb{M} 53'11					
	686 Jul 06 j 01:21	0° \mathbb{Z}		conjunction	692 Dec 05 j 01:53	16° \mathbb{Z} 53'28	0°59'18
evening set	686 Sep 11 j 22:24	6° \mathbb{Z} 23'48		minimum elong	692 Dec 05 j 01:55	16° \mathbb{Z} 53'29	0°59'19
				max. Earth dist.	692 Dec 04 j 19:30	16° \mathbb{Z} 51'36	11.10495 AU
conjunction	686 Sep 28 j 22:21	8° \mathbb{Z} 25'53	2°17'54	morning rise	692 Dec 21 j 15:23	18° \mathbb{Z} 49'19	
minimum elong	686 Sep 28 j 22:21	8° \mathbb{Z} 25'53	2°17'55	retrograde	693 Apr 01 j 13:53	25° \mathbb{Z} 48'03	
max. Earth dist.	686 Sep 28 j 23:30	8° \mathbb{Z} 26'14	10.80321 AU	opposition	693 Jun 11 j 07:55	22° \mathbb{Z} 30'21	0°57'03
morning rise	686 Oct 15 j 18:05	10° \mathbb{Z} 26'42		min. Earth dist.	693 Jun 11 j 13:51	22° \mathbb{Z} 29'15	9.09140 AU
retrograde	687 Jan 23 j 01:59	17° \mathbb{Z} 34'22		direct	693 Aug 21 j 03:53	19° \mathbb{Z} 12'14	
opposition	687 Apr 01 j 17:45	14° \mathbb{Z} 16'15	2°49'21	evening set	693 Nov 29 j 17:16	26° \mathbb{Z} 1'003	
min. Earth dist.	687 Apr 01 j 16:26	14° \mathbb{Z} 16'30	8.85792 AU				
direct	687 Jun 11 j 17:08	10° \mathbb{Z} 53'05		conjunction	693 Dec 16 j 07:27	28° \mathbb{Z} 06'27	0°33'47
evening set	687 Sep 24 j 03:34	18° \mathbb{Z} 15'45		minimum elong	693 Dec 16 j 07:28	28° \mathbb{Z} 06'27	0°33'48
				max. Earth dist.	693 Dec 15 j 23:38	28° \mathbb{Z} 04'09	11.07158 AU
conjunction	687 Oct 11 j 00:02	20° \mathbb{Z} 15'37	2°16'58	morning rise	694 Jan 01 j 22:20	0° \mathbb{Z} 03'06	
minimum elong	687 Oct 11 j 00:03	20° \mathbb{Z} 15'37	2°16'58		694 Jan 01 j 11:35	0° \mathbb{Z}	
max. Earth dist.	687 Oct 11 j 00:28	20° \mathbb{Z} 15'45	10.90595 AU	retrograde	694 Apr 13 j 11:06	7° \mathbb{Z} 05'52	
morning rise	687 Oct 27 j 16:34	22° \mathbb{Z} 14'21		opposition	694 Jun 23 j 10:04	3° \mathbb{Z} 47'15	0°24'48
retrograde	688 Feb 04 j 00:38	29° \mathbb{Z} 16'46		min. Earth dist.	694 Jun 23 j 16:59	3° \mathbb{Z} 45'58	9.04608 AU
opposition	688 Apr 13 j 01:38	25° \mathbb{Z} 59'25	2°44'25	direct	694 Sep 01 j 21:02	0° \mathbb{Z} 29'08	
min. Earth dist.	688 Apr 13 j 01:21	25° \mathbb{Z} 59'28	8.95263 AU	evening set	694 Dec 11 j 00:39	7° \mathbb{Z} 27'53	
direct	688 Jun 23 j 06:28	22° \mathbb{Z} 37'32					
evening set	688 Oct 05 j 00:45	29° \mathbb{Z} 52'58		conjunction	694 Dec 27 j 15:38	9° \mathbb{Z} 25'10	0°06'47
	688 Oct 06 j 01:01	0° \mathbb{M}		minimum elong	694 Dec 27 j 15:39	9° \mathbb{Z} 25'10	0°06'47
conjunction	688 Oct 21 j 18:27	1° \mathbb{M} 51'05	2°10'24	behind sun begin	694 Dec 27 j 09:08	9° \mathbb{Z} 23'16	
minimum elong	688 Oct 21 j 18:29	1° \mathbb{M} 51'06	2°10'23	behind sun end	694 Dec 27 j 22:09	9° \mathbb{Z} 27'05	
max. Earth dist.	688 Oct 21 j 17:45	1° \mathbb{M} 50'52	10.99156 AU	max. Earth dist.	694 Dec 27 j 07:16	9° \mathbb{Z} 22'43	11.01534 AU
morning rise	688 Nov 07 j 08:41	3° \mathbb{M} 48'15		morning rise	695 Jan 13 j 08:17	11° \mathbb{Z} 22'57	
retrograde	689 Feb 14 j 17:38	10° \mathbb{M} 46'44		desc. node	695 Mar 29 j 13:19	17° \mathbb{Z} 55'54	
opposition	689 Apr 25 j 05:57	7° \mathbb{M} 29'54	2°32'58	retrograde	695 Apr 25 j 14:37	18° \mathbb{Z} 31'18	
min. Earth dist.	689 Apr 25 j 07:35	7° \mathbb{M} 29'35	9.02823 AU	opposition	695 Jul 05 j 14:37	15° \mathbb{Z} 11'30	0°-8'-47
direct	689 Jul 05 j 12:44	4° \mathbb{M} 09'09		min. Earth dist.	695 Jul 05 j 21:42	15° \mathbb{Z} 10'12	8.97895 AU
evening set	689 Oct 16 j 15:20	11° \mathbb{M} 18'21		direct	695 Sep 13 j 17:08	11° \mathbb{Z} 53'09	
				evening set	695 Dec 22 j 11:45	18° \mathbb{Z} 54'24	
conjunction	689 Nov 02 j 06:55	13° \mathbb{M} 15'11	1°58'43				
minimum elong	689 Nov 02 j 06:57	13° \mathbb{M} 15'12	1°58'42	conjunction	696 Jan 08 j 04:03	20° \mathbb{Z} 52'57	0°-20'-54
max. Earth dist.	689 Nov 02 j 03:51	13° \mathbb{M} 14'17	11.05649 AU	minimum elong	696 Jan 08 j 04:02	20° \mathbb{Z} 52'57	0°20'56
	689 Nov 17 j 04:49	15° \mathbb{M}		max. Earth dist.	696 Jan 07 j 20:31	20° \mathbb{Z} 50'43	10.93822 AU
morning rise	689 Nov 18 j 19:55	15° \mathbb{M} 11'18		morning rise	696 Jan 24 j 22:32	22° \mathbb{Z} 52'13	
retrograde	690 Feb 26 j 09:14	22° \mathbb{M} 07'24			696 Apr 24 j 13:49	0° \mathbb{Z}	
opposition	690 May 07 j 07:47	18° \mathbb{M} 50'47	2°15'43	retrograde	696 May 07 j 00:15	0° \mathbb{Z} 07'36	
min. Earth dist.	690 May 07 j 11:21	18° \mathbb{M} 50'07	9.08149 AU		696 May 19 j 12:23	30° \mathbb{R} \mathbb{Z}	
direct	690 Jul 17 j 15:49	15° \mathbb{M} 31'00		opposition	696 Jul 16 j 22:51	26° \mathbb{Z} 46'26	0°-42'-37
evening set	690 Oct 28 j 00:44	22° \mathbb{M} 35'12		min. Earth dist.	696 Jul 17 j 04:58	26° \mathbb{Z} 45'18	8.89238 AU
				direct	696 Sep 24 j 13:52	23° \mathbb{Z} 27'40	
conjunction	690 Nov 13 j 15:03	24° \mathbb{M} 31'15	1°42'31		696 Dec 28 j 11:35	0° \mathbb{Z}	
minimum elong	690 Nov 13 j 15:05	24° \mathbb{M} 31'15	1°42'30	evening set	697 Jan 02 j 04:18	0° \mathbb{Z} 32'58	
max. Earth dist.	690 Nov 13 j 09:59	24° \mathbb{M} 29'45	11.09785 AU				
morning rise	690 Nov 30 j 03:40	26° \mathbb{M} 26'49		conjunction	697 Jan 18 j 22:05	2° \mathbb{Z} 33'05	0°-48'-6
	691 Jan 02 j 16:38	0° \mathbb{Z}		minimum elong	697 Jan 18 j 22:03	2° \mathbb{Z} 33'05	0°48'08
retrograde	691 Mar 10 j 00:28	3° \mathbb{Z} 22'10		max. Earth dist.	697 Jan 18 j 15:04	2° \mathbb{Z} 30'59	10.84302 AU

morning rise	697 Feb 04 j 18:45	4°≈34'09		morning rise	703 Apr 24 j 09:49	21°Υ29'01	
retrograde	697 May 19 j 17:10	11°≈57'53		retrograde	703 Aug 09 j 16:59	29°Υ48'05	
opposition	697 Jul 29 j 11:46	8°≈35'16	-1°-15'-24	opposition	703 Oct 16 j 21:43	26°Υ18'06	-2°-45'-44
min. Earth dist.	697 Jul 29 j 17:13	8°≈34'14	8.78959 AU	min. Earth dist.	703 Oct 16 j 20:03	26°Υ18'26	8.10496 AU
direct	697 Oct 06 j 14:17	5°≈15'50		direct	703 Dec 22 j 06:41	22°Υ52'11	
evening set	698 Jan 14 j 04:04	12°≈26'44		evening set	704 Mar 26 j 13:21	0°♄	
					704 Apr 02 j 16:29	0°♄53'58	
conjunction	698 Jan 30 j 23:37	14°≈28'45	-1°-13'-47	conjunction	704 Apr 20 j 09:41	3°♄11'28	-2°-7'-55
minimum elong	698 Jan 30 j 23:35	14°≈28'44	1°13'48	minimum elong	704 Apr 20 j 09:44	3°♄11'29	2°07'56
max. Earth dist.	698 Jan 30 j 16:31	14°≈26'35	10.73344 AU	max. Earth dist.	704 Apr 20 j 11:53	3°♄12'11	10.06550 AU
	698 Feb 04 j 06:19	15°≈		morning rise	704 May 08 j 06:51	5°♄30'15	
morning rise	698 Feb 16 j 22:55	16°≈31'55		retrograde	704 Aug 23 j 09:50	13°♄53'39	
retrograde	698 Jun 01 j 17:45	24°≈05'01		opposition	704 Oct 30 j 02:37	10°♄23'23	-2°-30'-46
opposition	698 Aug 11 j 06:00	20°≈40'55	-1°-45'-42	min. Earth dist.	704 Oct 29 j 23:53	10°♄23'57	8.03540 AU
min. Earth dist.	698 Aug 11 j 11:13	20°≈39'55	8.67466 AU	direct	705 Jan 04 j 08:45	6°♄56'23	
direct	698 Oct 18 j 18:34	17°≈20'38		evening set	705 Apr 16 j 21:02	15°♄	
evening set	699 Jan 26 j 12:16	24°≈38'31			705 Apr 17 j 13:01	15°♄05'07	
conjunction	699 Feb 12 j 10:07	26°≈42'42	-1°-36'-44	conjunction	705 May 05 j 10:46	17°♄24'49	-1°-51'-53
minimum elong	699 Feb 12 j 10:05	26°≈42'41	1°36'44	minimum elong	705 May 05 j 10:50	17°♄24'50	1°51'54
max. Earth dist.	699 Feb 12 j 03:27	26°≈40'39	10.61384 AU	max. Earth dist.	705 May 05 j 14:56	17°♄26'11	10.00960 AU
morning rise	699 Mar 01 j 12:22	28°≈48'15		morning rise	705 May 23 j 11:40	19°♄45'30	
	699 Mar 11 j 13:59	0°♄		retrograde	705 Sep 07 j 03:54	28°♄10'16	
retrograde	699 Jun 15 j 01:11	6°♄31'27		opposition	705 Nov 13 j 10:11	24°♄40'06	-2°-6'-20
opposition	699 Aug 24 j 06:17	3°♄05'50	-2°-11'-59	min. Earth dist.	705 Nov 13 j 06:15	24°♄40'55	7.99361 AU
min. Earth dist.	699 Aug 24 j 11:00	3°♄04'55	8.55223 AU	direct	706 Jan 18 j 16:46	21°♄12'10	
	699 Oct 14 j 04:46	30°♄		evening set	706 May 02 j 15:54	29°♄25'58	
direct	699 Oct 31 j 06:14	29°≈44'33			706 May 07 j 01:26	0°♄	
evening set	699 Nov 17 j 04:51	0°♄		conjunction	706 May 20 j 17:31	1°♄47'11	-1°-28'-50
	700 Feb 08 j 06:05	7°♄10'35		minimum elong	706 May 20 j 17:35	1°♄47'13	1°28'50
conjunction	700 Feb 25 j 06:49	9°♄17'14	-1°-55'-39	max. Earth dist.	706 May 20 j 23:31	1°♄49'10	9.98328 AU
minimum elong	700 Feb 25 j 06:47	9°♄17'13	1°55'39	morning rise	706 Jun 07 j 21:04	4°♄09'00	
max. Earth dist.	700 Feb 25 j 01:57	9°♄15'43	10.48924 AU	retrograde	706 Sep 21 j 21:10	12°♄32'01	
morning rise	700 Mar 13 j 12:10	11°♄25'20		opposition	706 Nov 27 j 18:33	9°♄02'21	-1°-33'-49
retrograde	700 Jun 27 j 17:04	19°♄18'53		min. Earth dist.	706 Nov 27 j 13:20	9°♄03'26	7.98246 AU
opposition	700 Sep 05 j 12:53	15°♄51'50	-2°-32'-36	direct	707 Feb 02 j 05:50	5°♄33'41	
min. Earth dist.	700 Sep 05 j 16:05	15°♄51'12	8.42775 AU	evening set	707 May 17 j 22:06	13°♄50'16	
direct	700 Nov 12 j 01:43	12°♄29'28		conjunction	707 Jun 05 j 02:20	16°♄12'08	-1°00'-10
evening set	701 Feb 20 j 10:31	20°♄04'25		minimum elong	707 Jun 05 j 02:23	16°♄12'09	1°00'11
conjunction	701 Mar 09 j 14:43	22°♄13'45	-2°-9'-16	max. Earth dist.	707 Jun 05 j 10:04	16°♄14'40	9.98830 AU
minimum elong	701 Mar 09 j 14:41	22°♄13'44	2°09'16	morning rise	707 Jun 23 j 07:05	18°♄34'08	
max. Earth dist.	701 Mar 09 j 11:57	22°♄12'52	10.36562 AU	retrograde	707 Oct 06 j 10:45	26°♄52'33	
morning rise	701 Mar 26 j 23:34	24°♄24'35		opposition	707 Dec 12 j 02:06	23°♄23'41	0°-55'-27
	701 May 17 j 19:06	0°♄		min. Earth dist.	707 Dec 11 j 19:32	23°♄25'02	8.00264 AU
retrograde	701 Jul 11 j 18:51	2°♄28'03		direct	708 Feb 16 j 21:16	19°♄54'31	
	701 Sep 06 j 06:56	30°♄		evening set	708 Jun 01 j 04:18	28°♄11'25	
opposition	701 Sep 19 j 01:56	28°♄59'43	-2°-45'-59		708 Jun 15 j 04:29	0°♄	
min. Earth dist.	701 Sep 19 j 03:14	28°♄59'28	8.30742 AU	conjunction	708 Jun 19 j 09:32	0°♄32'56	0°-27'-55
direct	701 Nov 25 j 02:48	25°♄36'11		minimum elong	708 Jun 19 j 09:33	0°♄32'56	0°27'56
evening set	702 Feb 05 j 18:29	0°♄		max. Earth dist.	708 Jun 19 j 18:28	0°♄35'50	10.02397 AU
	702 Mar 06 j 01:56	3°♄20'26		morning rise	708 Jul 07 j 13:47	2°♄54'09	
conjunction	702 Mar 23 j 10:08	5°♄32'34	-2°-16'-24	retrograde	708 Oct 19 j 18:44	11°♄05'37	
minimum elong	702 Mar 23 j 10:08	5°♄32'34	2°16'24	opposition	708 Dec 25 j 06:57	7°♄37'49	0°-14'-1
max. Earth dist.	702 Mar 23 j 09:16	5°♄32'17	10.24943 AU	min. Earth dist.	708 Dec 24 j 23:55	7°♄39'16	8.05218 AU
morning rise	702 Apr 09 j 22:56	7°♄46'13		direct	709 Mar 02 j 12:39	4°♄08'23	
retrograde	702 Jul 26 j 03:32	15°♄58'25		asc. node	709 Apr 30 j 22:14	7°♄08'20	
opposition	702 Oct 02 j 21:09	12°♄29'06	-2°-50'-41	evening set	709 Jun 16 j 07:46	12°♄23'20	
min. Earth dist.	702 Oct 02 j 20:43	12°♄29'11	8.19765 AU	conjunction	709 Jul 04 j 12:07	14°♄43'32	0°05'47
direct	702 Dec 08 j 12:20	9°♄04'21		minimum elong	709 Jul 04 j 12:06	14°♄43'32	0°05'46
evening set	703 Mar 20 j 04:16	16°♄57'46		behind sun begin	709 Jul 04 j 05:05	14°♄41'17	
conjunction	703 Apr 06 j 16:50	19°♄12'40	-2°-16'-7	behind sun end	709 Jul 04 j 19:08	14°♄45'47	
minimum elong	703 Apr 06 j 16:51	19°♄12'40	2°16'08	max. Earth dist.	709 Jul 04 j 20:57	14°♄46'23	10.08689 AU
max. Earth dist.	703 Apr 06 j 17:24	19°♄12'51	10.14724 AU				

morning rise	709 Jul 22 j 14:09	17°♄03'01		max. Earth dist.	715 Sep 23 j 23:50	3°♄24'17	10.74190 AU
retrograde	709 Nov 02 j 19:49	25°♄05'57		morning rise	715 Oct 10 j 19:15	5°♄25'44	
opposition	710 Jan 08 j 07:40	21°♄39'26	0°27'37	retrograde	716 Jan 18 j 06:33	12°♄36'44	
min. Earth dist.	710 Jan 08 j 01:15	21°♄40'45	8.12664 AU	opposition	716 Mar 26 j 15:48	9°♄17'57	2°49'20
direct	710 Mar 17 j 01:11	18°♄10'03		min. Earth dist.	716 Mar 26 j 15:11	9°♄18'04	8.79737 AU
evening set	710 Jul 01 j 05:31	26°♄21'10		direct	716 Jun 05 j 11:03	5°♄53'51	
				evening set	716 Sep 18 j 05:43	13°♄20'36	
conjunction	710 Jul 19 j 07:14	28°♄39'16	0°38'31				
minimum elong	710 Jul 19 j 07:12	28°♄39'15	0°38'30	conjunction	716 Oct 05 j 03:47	15°♄21'36	2°18'06
max. Earth dist.	710 Jul 19 j 14:55	28°♄41'43	10.17176 AU	minimum elong	716 Oct 05 j 03:47	15°♄21'36	2°18'07
	710 Jul 29 j 19:33	0°♄		max. Earth dist.	716 Oct 05 j 03:40	15°♄21'34	10.84694 AU
morning rise	710 Aug 06 j 05:34	0°♄56'18		morning rise	716 Oct 21 j 21:43	17°♄21'24	
retrograde	710 Nov 16 j 13:52	8°♄49'57		retrograde	717 Jan 29 j 05:34	24°♄26'33	
opposition	711 Jan 22 j 03:32	5°♄24'54	1°06'48	opposition	717 Apr 08 j 02:02	21°♄08'30	2°47'30
min. Earth dist.	711 Jan 21 j 22:15	5°♄25'59	8.22058 AU	min. Earth dist.	717 Apr 08 j 02:52	21°♄08'21	8.89587 AU
direct	711 Mar 31 j 10:12	1°♄55'54		direct	717 Jun 18 j 04:03	17°♄45'34	
evening set	711 Jul 15 j 19:11	10°♄01'37		evening set	717 Sep 30 j 06:41	25°♄04'47	
conjunction	711 Aug 02 j 16:53	12°♄17'02	1°08'30	conjunction	717 Oct 17 j 01:30	27°♄03'49	2°13'57
minimum elong	711 Aug 02 j 16:50	12°♄17'01	1°08'29	minimum elong	717 Oct 17 j 01:31	27°♄03'49	2°13'57
max. Earth dist.	711 Aug 02 j 23:01	12°♄18'59	10.27335 AU	max. Earth dist.	717 Oct 16 j 23:42	27°♄03'17	10.93767 AU
morning rise	711 Aug 20 j 10:32	14°♄31'09		morning rise	717 Nov 02 j 16:54	29°♄01'50	
	711 Aug 24 j 08:00	15°♄			717 Nov 11 j 03:18	0°♄	
retrograde	711 Nov 29 j 22:38	22°♄15'21		retrograde	718 Feb 09 j 23:17	6°♄02'30	
opposition	712 Feb 04 j 17:49	18°♄51'47	1°41'19	opposition	718 Apr 20 j 08:13	2°♄44'57	2°38'50
min. Earth dist.	712 Feb 04 j 13:34	18°♄52'38	8.32901 AU	min. Earth dist.	718 Apr 20 j 09:39	2°♄44'41	8.97809 AU
direct	712 Apr 13 j 14:55	15°♄23'26			718 Jun 02 j 14:19	30°♄	
evening set	712 Jul 28 j 23:30	23°♄22'30		direct	718 Jun 30 j 15:01	29°♄23'08	
					718 Jul 28 j 08:27	0°♄	
conjunction	712 Aug 15 j 16:21	25°♄34'52	1°34'08	evening set	718 Oct 12 j 00:09	6°♄35'40	
minimum elong	712 Aug 15 j 16:18	25°♄34'51	1°34'07				
max. Earth dist.	712 Aug 15 j 20:47	25°♄36'15	10.38679 AU	conjunction	718 Oct 28 j 16:43	8°♄33'12	2°04'26
morning rise	712 Sep 02 j 04:45	27°♄45'49		minimum elong	718 Oct 28 j 16:45	8°♄33'13	2°04'26
	712 Sep 21 j 01:07	0°♄		max. Earth dist.	718 Oct 28 j 14:22	8°♄32'31	11.01072 AU
retrograde	712 Dec 11 j 22:33	5°♄20'42		morning rise	718 Nov 14 j 06:21	10°♄29'56	
opposition	713 Feb 17 j 02:00	1°♄58'33	2°09'33		718 Dec 28 j 03:30	15°♄	
min. Earth dist.	713 Feb 16 j 22:15	1°♄59'17	8.44669 AU	retrograde	719 Feb 21 j 17:03	17°♄27'33	
	713 Mar 15 j 17:03	30°♄			719 Apr 21 j 04:05	15°♄	
direct	713 Apr 27 j 13:40	28°♄31'04		opposition	719 May 02 j 11:09	14°♄10'16	2°24'00
	713 Jun 08 j 21:36	0°♄		min. Earth dist.	719 May 02 j 12:57	14°♄09'56	9.04108 AU
evening set	713 Aug 11 j 17:15	6°♄22'31		direct	719 Jul 12 j 20:39	10°♄49'31	
					719 Sep 26 j 09:34	15°♄	
conjunction	713 Aug 29 j 04:58	8°♄31'44	1°54'21	evening set	719 Oct 23 j 11:46	17°♄56'24	
minimum elong	713 Aug 29 j 04:55	8°♄31'43	1°54'20				
max. Earth dist.	713 Aug 29 j 08:24	8°♄32'48	10.50654 AU	conjunction	719 Nov 09 j 02:51	19°♄52'57	1°50'07
morning rise	713 Sep 15 j 11:57	10°♄39'29		minimum elong	719 Nov 09 j 02:53	19°♄52'58	1°50'06
retrograde	713 Dec 24 j 16:10	18°♄05'34		max. Earth dist.	719 Nov 09 j 00:02	19°♄52'08	11.06343 AU
opposition	714 Mar 02 j 04:19	14°♄44'41	2°30'31	morning rise	719 Nov 25 j 15:34	21°♄48'53	
min. Earth dist.	714 Mar 02 j 01:00	14°♄45'20	8.56776 AU	retrograde	720 Mar 04 j 09:21	28°♄44'54	
direct	714 May 11 j 04:25	11°♄18'17		opposition	720 May 13 j 12:03	25°♄27'43	2°03'47
evening set	714 Aug 24 j 23:51	19°♄01'29		min. Earth dist.	720 May 13 j 15:07	25°♄27'09	9.08258 AU
				direct	720 Jul 23 j 19:13	22°♄07'54	
conjunction	714 Sep 11 j 06:34	21°♄07'40	2°08'30	evening set	720 Nov 02 j 19:25	29°♄10'25	
minimum elong	714 Sep 11 j 06:32	21°♄07'40	2°08'30		720 Nov 09 j 22:42	0°♄	
max. Earth dist.	714 Sep 11 j 09:26	21°♄08'33	10.62676 AU				
morning rise	714 Sep 28 j 08:22	23°♄12'23		conjunction	720 Nov 19 j 09:30	1°♄06'24	1°31'39
	714 Dec 13 j 03:24	0°♄		minimum elong	720 Nov 19 j 09:32	1°♄06'25	1°31'39
retrograde	715 Jan 06 j 02:55	0°♄30'26		max. Earth dist.	720 Nov 19 j 05:03	1°♄05'06	11.09392 AU
	715 Jan 30 j 08:04	30°♄		morning rise	720 Dec 05 j 22:10	3°♄02'02	
opposition	715 Mar 15 j 00:50	27°♄10'42	2°43'47	retrograde	721 Mar 16 j 00:12	9°♄58'01	
min. Earth dist.	715 Mar 14 j 22:25	27°♄11'10	8.68643 AU	opposition	721 May 25 j 11:54	6°♄40'42	1°38'58
direct	715 May 24 j 11:01	23°♄45'27		min. Earth dist.	721 May 25 j 16:18	6°♄39'53	9.10120 AU
	715 Aug 26 j 07:59	0°♄		direct	721 Aug 04 j 16:12	3°♄21'37	
evening set	715 Sep 06 j 19:46	1°♄20'17		evening set	721 Nov 14 j 00:44	10°♄21'11	
conjunction	715 Sep 23 j 21:53	3°♄23'42	2°16'23	conjunction	721 Nov 30 j 14:27	12°♄17'02	1°09'45
minimum elong	715 Sep 23 j 21:52	3°♄23'41	2°16'24	minimum elong	721 Nov 30 j 14:30	12°♄17'03	1°09'45

max. Earth dist.	721 Nov 30 j 08:44	12° ♄ 15'22	11.10122 AU	conjunction	728 Feb 07 j 06:36	21° ♄ 31'36	-1°-26'-55
morning rise	721 Dec 17 j 03:45	14° ♄ 12'47		minimum elong	728 Feb 07 j 06:33	21° ♄ 31'35	1°26'56
retrograde	722 Mar 27 j 18:04	21° ♄ 10'21		max. Earth dist.	728 Feb 07 j 01:50	21° ♄ 30'09	10.69602 AU
opposition	722 Jun 06 j 11:47	17° ♄ 52'38	1°10'26	morning rise	728 Feb 24 j 07:07	23° ♄ 35'41	
min. Earth dist.	722 Jun 06 j 16:37	17° ♄ 51'45	9.09638 AU		728 Apr 30 j 18:01	0° ♄	
direct	722 Aug 16 j 11:25	14° ♄ 34'07		retrograde	728 Jun 08 j 11:32	1° ♄ 13'00	
evening set	722 Nov 25 j 05:21	21° ♄ 32'08			728 Jul 17 j 19:13	30° ♄	
				opposition	728 Aug 17 j 20:16	27° ♄ 48'45	-2°00'-43
conjunction	722 Dec 11 j 19:25	23° ♄ 28'17	0°45'09	min. Earth dist.	728 Aug 17 j 23:42	27° ♄ 48'06	8.63746 AU
minimum elong	722 Dec 11 j 19:27	23° ♄ 28'18	0°45'10	direct	728 Oct 25 j 02:31	24° ♄ 28'42	
max. Earth dist.	722 Dec 11 j 13:57	23° ♄ 26'41	11.08495 AU		729 Jan 17 j 10:18	0° ♄	
morning rise	722 Dec 28 j 09:42	25° ♄ 24'34		evening set	729 Feb 01 j 22:31	1° ♄ 49'34	
	723 Feb 11 j 15:33	0° ♄					
retrograde	723 Apr 08 j 14:36	2° ♄ 25'18		conjunction	729 Feb 18 j 21:40	3° ♄ 54'40	-1°-47'-42
	723 Jun 06 j 08:38	30° ♄		minimum elong	729 Feb 18 j 21:37	3° ♄ 54'39	1°47'42
opposition	723 Jun 18 j 12:39	29° ♄ 06'56	0°39'07	max. Earth dist.	729 Feb 18 j 16:55	3° ♄ 53'11	10.57653 AU
min. Earth dist.	723 Jun 18 j 17:10	29° ♄ 06'06	9.06811 AU	morning rise	729 Mar 08 j 01:14	6° ♄ 01'09	
direct	723 Aug 28 j 04:38	25° ♄ 48'47		retrograde	729 Jun 21 j 23:40	13° ♄ 48'30	
	723 Nov 11 j 00:18	0° ♄		opposition	729 Aug 30 j 23:12	10° ♄ 22'48	-2°-23'-57
evening set	723 Dec 06 j 11:23	2° ♄ 46'49		min. Earth dist.	729 Aug 31 j 02:19	10° ♄ 22'12	8.51548 AU
				direct	729 Nov 06 j 16:44	7° ♄ 01'41	
conjunction	723 Dec 23 j 02:06	4° ♄ 43'39	0°18'42	evening set	730 Feb 14 j 21:16	14° ♄ 30'58	
minimum elong	723 Dec 23 j 02:07	4° ♄ 43'39	0°18'42				
max. Earth dist.	723 Dec 22 j 20:32	4° ♄ 42'01	11.04551 AU	conjunction	730 Mar 03 j 23:28	16° ♄ 38'36	-2°-3'-46
morning rise	724 Jan 08 j 17:45	6° ♄ 40'49		minimum elong	730 Mar 03 j 23:26	16° ♄ 38'35	2°03'46
retrograde	724 Apr 19 j 17:04	13° ♄ 46'14		max. Earth dist.	730 Mar 03 j 18:47	16° ♄ 37'08	10.45272 AU
opposition	724 Jun 29 j 15:38	10° ♄ 27'03	0°06'00	morning rise	730 Mar 21 j 06:32	18° ♄ 47'45	
min. Earth dist.	724 Jun 29 j 20:24	10° ♄ 26'10	9.01736 AU	retrograde	730 Jul 05 j 20:10	26° ♄ 45'06	
desc. node	724 Sep 04 j 18:09	7° ♄ 09'30		opposition	730 Sep 13 j 08:20	23° ♄ 18'04	-2°-40'-41
direct	724 Sep 07 j 22:30	7° ♄ 09'00		min. Earth dist.	730 Sep 13 j 11:16	23° ♄ 17'30	8.39207 AU
evening set	724 Dec 16 j 20:31	14° ♄ 08'38		direct	730 Nov 19 j 13:49	19° ♄ 55'44	
				evening set	731 Feb 28 j 06:41	27° ♄ 34'12	
conjunction	725 Jan 02 j 12:04	16° ♄ 06'28	0°-8'-49				
minimum elong	725 Jan 02 j 12:04	16° ♄ 06'28	0°08'50	conjunction	731 Mar 17 j 12:38	29° ♄ 44'35	-2°-13'-55
behind sun begin	725 Jan 02 j 06:01	16° ♄ 04'42		minimum elong	731 Mar 17 j 12:37	29° ♄ 44'34	2°13'55
behind sun end	725 Jan 02 j 18:07	16° ♄ 08'15		max. Earth dist.	731 Mar 17 j 09:04	29° ♄ 43'27	10.33079 AU
max. Earth dist.	725 Jan 02 j 05:37	16° ♄ 04'34	10.98438 AU		731 Mar 19 j 13:15	0° ♄	
morning rise	725 Jan 19 j 05:36	18° ♄ 04'55		morning rise	731 Apr 03 j 23:30	1° ♄ 56'30	
retrograde	725 May 01 j 22:41	25° ♄ 16'30		retrograde	731 Jul 19 j 23:12	10° ♄ 03'13	
opposition	725 Jul 11 j 22:01	21° ♄ 56'17	0°-27'-49	opposition	731 Sep 26 j 23:49	6° ♄ 35'00	-2°-49'-26
min. Earth dist.	725 Jul 12 j 03:24	21° ♄ 55'17	8.94607 AU	min. Earth dist.	731 Sep 27 j 01:48	6° ♄ 34'36	8.27412 AU
direct	725 Sep 19 j 16:48	18° ♄ 38'05		direct	731 Dec 02 j 20:06	3° ♄ 11'21	
evening set	725 Dec 28 j 10:08	25° ♄ 40'53		evening set	732 Mar 13 j 02:47	10° ♄ 59'08	
conjunction	726 Jan 14 j 02:58	27° ♄ 40'03	0°-36'-16	conjunction	732 Mar 30 j 13:04	13° ♄ 12'20	-2°-17'-5
minimum elong	726 Jan 14 j 02:57	27° ♄ 40'03	0°36'17	minimum elong	732 Mar 30 j 13:05	13° ♄ 12'20	2°17'06
max. Earth dist.	726 Jan 13 j 20:20	27° ♄ 38'04	10.90378 AU	max. Earth dist.	732 Mar 30 j 11:45	13° ♄ 11'54	10.21810 AU
morning rise	726 Jan 30 j 22:40	29° ♄ 40'06		morning rise	732 Apr 17 j 03:57	15° ♄ 27'02	
	726 Feb 02 j 18:52	0° ♄		retrograde	732 Aug 02 j 08:23	23° ♄ 41'41	
retrograde	726 May 14 j 10:31	6° ♄ 59'14		opposition	732 Oct 09 j 21:03	20° ♄ 12'28	-2°-49'00
opposition	726 Jul 24 j 08:26	3° ♄ 37'47	-1°-1'-8	min. Earth dist.	732 Oct 09 j 21:19	20° ♄ 12'24	8.16896 AU
min. Earth dist.	726 Jul 24 j 13:44	3° ♄ 36'47	8.85678 AU	direct	732 Dec 15 j 10:29	16° ♄ 47'30	
direct	726 Oct 01 j 16:19	0° ♄ 19'11		evening set	733 Mar 27 j 09:23	24° ♄ 44'05	
evening set	727 Jan 09 j 06:08	7° ♄ 26'39					
				conjunction	733 Apr 14 j 00:23	27° ♄ 00'03	-2°-12'-35
conjunction	727 Jan 26 j 00:45	9° ♄ 27'31	-1°-2'-41	minimum elong	733 Apr 14 j 00:25	27° ♄ 00'04	2°12'36
minimum elong	727 Jan 26 j 00:43	9° ♄ 27'31	1°02'43	max. Earth dist.	733 Apr 14 j 01:27	27° ♄ 00'24	10.12181 AU
max. Earth dist.	727 Jan 25 j 19:05	9° ♄ 25'48	10.80648 AU	morning rise	733 May 01 j 19:24	29° ♄ 17'21	
morning rise	727 Feb 11 j 22:43	11° ♄ 29'26			733 May 07 j 11:01	0° ♄	
	727 Mar 15 j 18:33	15° ♄		retrograde	733 Aug 16 j 22:57	7° ♄ 37'43	
retrograde	727 May 27 j 07:34	18° ♄ 57'14		opposition	733 Oct 23 j 22:56	4° ♄ 07'48	-2°-38'-44
opposition	727 Aug 05 j 23:29	15° ♄ 34'26	-1°-32'-35	min. Earth dist.	733 Oct 23 j 21:16	4° ♄ 08'09	8.08323 AU
min. Earth dist.	727 Aug 06 j 03:55	15° ♄ 33'35	8.75265 AU	direct	733 Dec 29 j 07:26	0° ♄ 41'32	
	727 Aug 13 j 13:58	15° ♄		evening set	734 Apr 11 j 01:13	8° ♄ 45'53	
direct	727 Oct 13 j 19:11	12° ♄ 15'13					
	727 Dec 10 j 13:53	15° ♄		conjunction	734 Apr 28 j 20:54	11° ♄ 04'19	-2°00'-11
evening set	728 Jan 21 j 09:53	19° ♄ 28'46		minimum elong	734 Apr 28 j 20:58	11° ♄ 04'20	2°00'13

max. Earth dist.	734 Apr 28 j 23:50	11°♄05'16	10.04807 AU	opposition	740 Jan 16 j 01:17	29°♄12'25	0°48'41
morning rise	734 May 16 j 19:51	13°♄23'52		min. Earth dist.	740 Jan 15 j 19:15	29°♄13'39	8.16098 AU
	734 May 29 j 15:09	15°♄		direct	740 Mar 24 j 02:41	25°♄42'40	
retrograde	734 Aug 31 j 16:44	21°♄47'10			740 Jun 05 j 06:42	0°♄	
opposition	734 Nov 07 j 04:21	18°♄16'58	-2°-18'-42	evening set	740 Jul 08 j 08:22	3°♄51'25	
min. Earth dist.	734 Nov 07 j 01:18	18°♄17'35	8.02239 AU				
	734 Dec 29 j 20:21	15°♄♄		conjunction	740 Jul 26 j 08:18	6°♄08'20	0°54'43
direct	735 Jan 12 j 10:34	14°♄49'28		minimum elong	740 Jul 26 j 08:16	6°♄08'19	0°54'43
	735 Jan 26 j 01:59	15°♄		max. Earth dist.	740 Jul 26 j 15:29	6°♄10'37	10.21043 AU
evening set	735 Apr 26 j 00:17	23°♄00'00		morning rise	740 Aug 13 j 04:28	8°♄24'02	
					740 Oct 17 j 08:43	15°♄	
conjunction	735 May 14 j 00:07	25°♄20'21	-1°-40'-21	retrograde	740 Nov 23 j 00:53	16°♄13'06	
minimum elong	735 May 14 j 00:11	25°♄20'23	1°40'22		740 Dec 30 j 05:05	15°♄♄	
max. Earth dist.	735 May 14 j 04:32	25°♄21'48	10.00159 AU	opposition	741 Jan 28 j 18:05	12°♄48'15	1°25'38
morning rise	735 Jun 01 j 02:17	27°♄41'29		min. Earth dist.	741 Jan 28 j 12:06	12°♄49'27	8.26363 AU
	735 Jun 19 j 16:25	0°♄		direct	741 Apr 07 j 09:25	9°♄19'03	
retrograde	735 Sep 15 j 10:40	6°♄04'46			741 Jul 02 j 22:27	15°♄	
opposition	735 Nov 21 j 11:37	2°♄34'40	-1°-49'-52	evening set	741 Jul 22 j 17:15	17°♄21'39	
min. Earth dist.	735 Nov 21 j 07:39	2°♄35'30	7.99043 AU				
	735 Dec 26 j 14:17	30°♄♄		conjunction	741 Aug 09 j 12:45	19°♄35'38	1°22'34
direct	736 Jan 26 j 20:40	29°♄06'08		minimum elong	741 Aug 09 j 12:42	19°♄35'37	1°22'34
	736 Feb 26 j 23:49	0°♄		max. Earth dist.	741 Aug 09 j 19:36	19°♄37'48	10.32033 AU
evening set	736 May 10 j 04:07	7°♄20'50		morning rise	741 Aug 27 j 03:41	21°♄48'13	
				retrograde	741 Dec 06 j 05:34	29°♄27'44	
conjunction	736 May 28 j 07:10	9°♄42'20	-1°-14'-12	opposition	742 Feb 11 j 05:06	26°♄04'26	1°57'00
minimum elong	736 May 28 j 07:14	9°♄42'21	1°14'13	min. Earth dist.	742 Feb 11 j 00:04	26°♄05'26	8.37968 AU
max. Earth dist.	736 May 28 j 12:39	9°♄44'08	9.98543 AU	direct	742 Apr 21 j 09:57	22°♄36'06	
morning rise	736 Jun 15 j 11:26	12°♄04'14			742 Aug 01 j 08:31	0°♄	
retrograde	736 Sep 29 j 01:02	20°♄24'32		evening set	742 Aug 05 j 15:59	0°♄31'24	
opposition	736 Dec 04 j 18:56	16°♄54'57	-1°-14'-4				
min. Earth dist.	736 Dec 04 j 14:30	16°♄55'52	7.98946 AU	conjunction	742 Aug 23 j 06:21	2°♄42'13	1°45'27
direct	737 Feb 09 j 10:37	13°♄25'36		minimum elong	742 Aug 23 j 06:17	2°♄42'12	1°45'26
evening set	737 May 25 j 09:53	21°♄42'10		max. Earth dist.	742 Aug 23 j 12:01	2°♄43'59	10.44037 AU
				morning rise	742 Sep 09 j 15:50	4°♄51'33	
conjunction	737 Jun 12 j 14:44	24°♄03'55	0°-43'-27	retrograde	742 Dec 19 j 02:58	12°♄21'54	
minimum elong	737 Jun 12 j 14:46	24°♄03'56	0°43'28	opposition	743 Feb 24 j 10:12	9°♄00'06	2°21'29
max. Earth dist.	737 Jun 12 j 20:47	24°♄05'53	10.00044 AU	min. Earth dist.	743 Feb 24 j 06:24	9°♄00'50	8.50284 AU
morning rise	737 Jun 30 j 19:32	26°♄25'36		direct	743 May 05 j 03:15	5°♄32'52	
	737 Jul 30 j 10:49	0°♄		evening set	743 Aug 19 j 03:43	13°♄20'08	
retrograde	737 Oct 13 j 10:40	4°♄40'22					
opposition	737 Dec 19 j 00:41	1°♄11'39	0°-33'-49	conjunction	743 Sep 05 j 12:48	15°♄27'49	2°02'30
min. Earth dist.	737 Dec 18 j 19:49	1°♄12'39	8.01930 AU	minimum elong	743 Sep 05 j 12:46	15°♄27'48	2°02'30
	738 Jan 02 j 17:31	30°♄♄		max. Earth dist.	743 Sep 05 j 16:38	15°♄28'59	10.56428 AU
direct	738 Feb 24 j 01:56	27°♄41'48		morning rise	743 Sep 22 j 17:08	17°♄34'00	
	738 Apr 16 j 10:07	0°♄		retrograde	743 Dec 31 j 15:37	24°♄55'52	
evening set	738 Jun 09 j 14:29	5°♄57'55		opposition	744 Mar 08 j 09:17	21°♄35'27	2°38'23
				min. Earth dist.	744 Mar 08 j 06:28	21°♄36'00	8.62676 AU
conjunction	738 Jun 27 j 19:21	8°♄18'53	0°-10'-16	direct	744 May 17 j 14:04	18°♄09'30	
minimum elong	738 Jun 27 j 19:22	8°♄18'54	0°10'17	evening set	744 Aug 31 j 04:46	25°♄48'27	
behind sun begin	738 Jun 27 j 13:36	8°♄17'02					
behind sun end	738 Jun 28 j 01:08	8°♄20'45		conjunction	744 Sep 17 j 08:57	27°♄53'11	2°13'20
max. Earth dist.	738 Jun 28 j 01:54	8°♄21'00	10.04527 AU	minimum elong	744 Sep 17 j 08:55	27°♄53'10	2°13'21
morning rise	738 Jul 15 j 22:50	10°♄39'23		max. Earth dist.	744 Sep 17 j 11:12	27°♄53'52	10.68596 AU
asc. node	738 Oct 21 j 08:32	18°♄44'26		morning rise	744 Oct 04 j 08:34	29°♄56'30	
retrograde	738 Oct 27 j 14:21	18°♄46'40			744 Oct 04 j 20:17	0°♄	
opposition	739 Jan 02 j 03:11	15°♄19'03	0°08'02	retrograde	745 Jan 11 j 21:51	7°♄10'49	
min. Earth dist.	739 Jan 01 j 21:39	15°♄20'11	8.07776 AU	opposition	745 Mar 21 j 02:41	3°♄51'37	2°47'31
direct	739 Mar 10 j 15:51	11°♄49'05		min. Earth dist.	745 Mar 21 j 00:24	3°♄52'04	8.74547 AU
evening set	739 Jun 24 j 14:52	20°♄02'29		direct	745 May 30 j 18:43	0°♄27'02	
				evening set	745 Sep 12 j 19:29	7°♄57'44	
conjunction	739 Jul 12 j 18:01	22°♄21'48	0°23'12				
minimum elong	739 Jul 12 j 18:00	22°♄21'47	0°23'12	conjunction	745 Sep 29 j 19:26	9°♄59'51	2°17'56
max. Earth dist.	739 Jul 13 j 01:02	22°♄24'03	10.11682 AU	minimum elong	745 Sep 29 j 19:26	9°♄59'51	2°17'56
morning rise	739 Jul 30 j 18:31	24°♄40'13		max. Earth dist.	745 Sep 29 j 21:00	10°♄00'19	10.79986 AU
	739 Sep 16 j 13:24	0°♄		morning rise	745 Oct 16 j 14:59	12°♄00'40	
retrograde	739 Nov 10 j 11:48	2°♄38'43		retrograde	746 Jan 24 j 00:45	19°♄08'34	
	740 Jan 06 j 06:21	30°♄♄		opposition	746 Apr 02 j 15:18	15°♄50'23	2°49'05

min. Earth dist.	746 Apr 02 j 13:51	15°♄50'39	8.85378 AU	min. Earth dist.	752 Jun 12 j 14:06	24°♄07'38	9.08580 AU
direct	746 Jun 12 j 14:29	12°♄27'11		direct	752 Aug 22 j 02:18	20°♄50'41	
evening set	746 Sep 25 j 00:44	19°♄49'58		evening set	752 Nov 30 j 16:05	27°♄48'49	
conjunction	746 Oct 11 j 21:10	21°♄49'54	2°16'29	conjunction	752 Dec 17 j 06:19	29°♄45'19	0°31'08
minimum elong	746 Oct 11 j 21:11	21°♄49'54	2°16'29	minimum elong	752 Dec 17 j 06:20	29°♄45'19	0°31'08
max. Earth dist.	746 Oct 11 j 21:57	21°♄50'08	10.90117 AU	max. Earth dist.	752 Dec 16 j 22:32	29°♄43'02	11.06605 AU
morning rise	746 Oct 28 j 13:34	23°♄48'42			752 Dec 19 j 08:09	0°♄	
	747 Jan 04 j 00:47	0°♄		morning rise	753 Jan 02 j 21:24	1°♄42'05	
retrograde	747 Feb 04 j 21:51	0°♄51'24		retrograde	753 Apr 14 j 11:44	8°♄45'22	
	747 Mar 09 j 09:32	30°♄		opposition	753 Jun 24 j 10:14	5°♄26'43	0°21'30
opposition	747 Apr 14 j 23:38	27°♄33'59	2°43'33	min. Earth dist.	753 Jun 24 j 16:51	5°♄25'30	9.04062 AU
min. Earth dist.	747 Apr 14 j 23:51	27°♄33'57	8.94729 AU	direct	753 Sep 02 j 21:43	2°♄08'39	
direct	747 Jun 25 j 02:44	24°♄12'04		evening set	753 Dec 11 j 23:49	9°♄07'42	
	747 Sep 24 j 00:44	0°♄					
evening set	747 Oct 06 j 22:06	1°♄27'43		conjunction	753 Dec 28 j 15:00	11°♄05'06	0°04'03
				minimum elong	753 Dec 28 j 15:00	11°♄05'06	0°04'03
conjunction	747 Oct 23 j 15:42	3°♄25'54	2°09'25	behind sun begin	753 Dec 28 j 08:07	11°♄03'05	
minimum elong	747 Oct 23 j 15:44	3°♄25'54	2°09'24	behind sun end	753 Dec 28 j 21:53	11°♄07'07	
max. Earth dist.	747 Oct 23 j 14:30	3°♄25'32	10.98582 AU	max. Earth dist.	753 Dec 28 j 07:39	11°♄02'57	11.00996 AU
morning rise	747 Nov 09 j 06:02	5°♄23'10		morning rise	754 Jan 14 j 07:40	13°♄03'00	
retrograde	748 Feb 16 j 15:29	12°♄22'02		desc. node	754 Feb 21 j 02:37	17°♄02'17	
opposition	748 Apr 26 j 04:15	9°♄05'08	2°31'30	retrograde	754 Apr 26 j 15:29	20°♄11'54	
min. Earth dist.	748 Apr 26 j 06:19	9°♄04'44	9.02220 AU	opposition	754 Jul 06 j 15:13	16°♄52'04	0°-12'-9
direct	748 Jul 06 j 11:17	5°♄44'20		min. Earth dist.	754 Jul 06 j 21:17	16°♄50'57	8.97371 AU
evening set	748 Oct 17 j 12:54	12°♄53'48		direct	754 Sep 14 j 16:29	13°♄33'47	
				evening set	754 Dec 23 j 11:23	20°♄35'20	
conjunction	748 Nov 03 j 04:28	14°♄50'44	1°57'16				
minimum elong	748 Nov 03 j 04:30	14°♄50'44	1°57'15	conjunction	755 Jan 09 j 03:48	22°♄33'59	0°-23'-37
max. Earth dist.	748 Nov 03 j 01:06	14°♄49'44	11.05034 AU	minimum elong	755 Jan 09 j 03:47	22°♄33'59	0°23'39
	748 Nov 04 j 11:56	15°♄		max. Earth dist.	755 Jan 08 j 20:55	22°♄31'56	10.93311 AU
morning rise	748 Nov 19 j 17:38	16°♄46'57		morning rise	755 Jan 25 j 22:23	24°♄33'22	
retrograde	749 Feb 27 j 07:23	23°♄43'28			755 Mar 21 j 22:11	0°♄	
opposition	749 May 08 j 06:23	20°♄26'45	2°13'42	retrograde	755 May 09 j 02:00	1°♄49'17	
min. Earth dist.	749 May 08 j 09:24	20°♄26'12	9.07529 AU		755 Jun 27 j 17:00	30°♄	
direct	749 Jul 18 j 14:16	17°♄06'58		opposition	755 Jul 18 j 23:49	28°♄28'06	0°-45'-53
evening set	749 Oct 28 j 22:31	24°♄11'24		min. Earth dist.	755 Jul 19 j 05:25	28°♄27'04	8.88750 AU
				direct	755 Sep 26 j 13:59	25°♄09'22	
conjunction	749 Nov 14 j 12:58	26°♄07'33	1°40'40		755 Dec 15 j 07:55	0°♄	
minimum elong	749 Nov 14 j 13:01	26°♄07'34	1°40'39	evening set	756 Jan 04 j 04:32	2°♄14'59	
max. Earth dist.	749 Nov 14 j 08:51	26°♄06'20	11.09177 AU				
morning rise	749 Dec 01 j 01:37	28°♄03'13		conjunction	756 Jan 20 j 22:18	4°♄15'12	0°-50'-41
	749 Dec 18 j 13:46	0°♄		minimum elong	756 Jan 20 j 22:16	4°♄15'11	0°50'43
retrograde	750 Mar 10 j 23:55	4°♄59'01		max. Earth dist.	756 Jan 20 j 14:56	4°♄12'59	10.83839 AU
opposition	750 May 20 j 06:57	1°♄42'13	1°50'57	morning rise	756 Feb 06 j 19:10	6°♄16'22	
min. Earth dist.	750 May 20 j 10:37	1°♄41'33	9.10401 AU	retrograde	756 May 20 j 19:28	13°♄40'34	
	750 Jun 13 j 15:58	30°♄		opposition	756 Jul 30 j 12:58	10°♄17'57	-1°-18'-25
direct	750 Jul 30 j 13:32	28°♄23'14		min. Earth dist.	756 Jul 30 j 18:40	10°♄16'52	8.78530 AU
	750 Sep 13 j 23:47	0°♄		direct	756 Oct 07 j 13:47	6°♄58'32	
evening set	750 Nov 09 j 05:07	5°♄24'03		evening set	757 Jan 15 j 04:42	14°♄09'45	
					757 Jan 22 j 04:03	15°♄	
conjunction	750 Nov 25 j 19:05	7°♄19'54	1°20'16				
minimum elong	750 Nov 25 j 19:07	7°♄19'55	1°20'17	conjunction	757 Feb 01 j 00:17	16°♄11'49	-1°-16'-6
max. Earth dist.	750 Nov 25 j 14:07	7°♄18'27	11.10816 AU	minimum elong	757 Feb 01 j 00:15	16°♄11'48	1°16'08
morning rise	750 Dec 12 j 07:53	9°♄15'30		max. Earth dist.	757 Jan 31 j 17:08	16°♄09'39	10.72951 AU
retrograde	751 Mar 22 j 17:53	16°♄12'11		morning rise	757 Feb 17 j 23:46	18°♄15'05	
opposition	751 Jun 01 j 06:58	12°♄55'04	1°24'03	retrograde	757 Jun 02 j 18:00	25°♄48'36	
min. Earth dist.	751 Jun 01 j 11:49	12°♄54'11	9.10736 AU	opposition	757 Aug 12 j 07:29	22°♄24'28	-1°-48'-20
direct	751 Aug 11 j 08:21	9°♄36'40		min. Earth dist.	757 Aug 12 j 12:49	22°♄23'27	8.67118 AU
evening set	751 Nov 20 j 10:26	16°♄35'22		direct	757 Oct 19 j 19:48	19°♄04'11	
				evening set	758 Jan 27 j 13:10	26°♄22'20	
conjunction	751 Dec 07 j 00:18	18°♄31'21	0°56'50				
minimum elong	751 Dec 07 j 00:20	18°♄31'22	0°56'51	conjunction	758 Feb 13 j 11:11	28°♄26'36	-1°-38'-40
max. Earth dist.	751 Dec 06 j 17:33	18°♄29'22	11.09928 AU	minimum elong	758 Feb 13 j 11:08	28°♄26'35	1°38'40
morning rise	751 Dec 23 j 14:02	20°♄27'21		max. Earth dist.	758 Feb 13 j 05:29	28°♄24'50	10.61079 AU
retrograde	752 Apr 02 j 12:23	27°♄26'32			758 Feb 26 j 03:17	0°♄	
opposition	752 Jun 12 j 07:46	24°♄08'48	0°53'55	morning rise	758 Mar 02 j 13:29	0°♄32'11	

retrograde	758 Jun 16 j 02:28	8°♄15'44		max. Earth dist.	764 May 06 j 16:42	19°♄09'09	10.01268 AU
opposition	758 Aug 25 j 07:49	4°♄50'04	-2°-14'-5	morning rise	764 May 24 j 13:10	21°♄28'19	
min. Earth dist.	758 Aug 25 j 11:57	4°♄49'16	8.54975 AU	retrograde	764 Sep 08 j 04:03	29°♄52'31	
direct	758 Nov 01 j 08:30	1°♄28'47		opposition	764 Nov 14 j 10:16	26°♄22'20	-2°-3'-52
evening set	759 Feb 09 j 07:25	8°♄54'59		min. Earth dist.	764 Nov 14 j 06:03	26°♄23'12	7.99693 AU
				direct	765 Jan 19 j 18:09	22°♄54'19	
conjunction	759 Feb 26 j 08:21	11°♄01'42	-1°-57'-5		765 Apr 24 j 18:35	0°♄	
minimum elong	759 Feb 26 j 08:19	11°♄01'41	1°57'05	evening set	765 May 03 j 16:43	1°♄07'48	
max. Earth dist.	759 Feb 26 j 04:25	11°♄00'28	10.48722 AU				
morning rise	759 Mar 15 j 13:44	13°♄09'52		conjunction	765 May 21 j 18:35	3°♄28'59	-1°-26'-39
retrograde	759 Jun 29 j 20:10	21°♄03'34		minimum elong	765 May 21 j 18:39	3°♄29'00	1°26'40
opposition	759 Sep 07 j 14:16	17°♄36'28	-2°-34'-2	max. Earth dist.	765 May 22 j 01:12	3°♄31'09	9.98687 AU
min. Earth dist.	759 Sep 07 j 16:39	17°♄36'00	8.42635 AU	morning rise	765 Jun 08 j 22:09	5°♄50'44	
direct	759 Nov 14 j 02:01	14°♄14'05		retrograde	765 Sep 22 j 20:33	14°♄13'09	
evening set	760 Feb 22 j 12:08	21°♄49'09		opposition	765 Nov 28 j 18:11	10°♄43'29	-1°-30'-51
				min. Earth dist.	765 Nov 28 j 12:32	10°♄44'39	7.98619 AU
conjunction	760 Mar 10 j 16:26	23°♄58'30	-2°-10'-7	direct	766 Feb 03 j 06:28	7°♄14'46	
minimum elong	760 Mar 10 j 16:25	23°♄58'30	2°10'07	evening set	766 May 18 j 22:41	15°♄31'03	
max. Earth dist.	760 Mar 10 j 13:47	23°♄57'40	10.36471 AU				
morning rise	760 Mar 28 j 01:24	26°♄09'23		conjunction	766 Jun 06 j 03:04	17°♄52'51	0°-57'-40
	760 Apr 30 j 09:30	0°♄		minimum elong	766 Jun 06 j 03:07	17°♄52'52	0°57'42
retrograde	760 Jul 12 j 21:23	4°♄12'50		max. Earth dist.	766 Jun 06 j 11:13	17°♄55'31	9.99222 AU
opposition	760 Sep 20 j 03:18	0°♄44'29	-2°-46'-37	morning rise	766 Jun 24 j 07:44	20°♄14'46	
min. Earth dist.	760 Sep 20 j 04:16	0°♄44'17	8.30711 AU	retrograde	766 Oct 07 j 09:57	28°♄32'36	
	760 Sep 29 j 12:13	30°♄		opposition	766 Dec 13 j 01:23	25°♄03'46	0°-52'-12
direct	760 Nov 26 j 03:21	27°♄20'53		min. Earth dist.	766 Dec 12 j 18:49	25°♄05'08	8.00663 AU
	761 Jan 20 j 07:19	0°♄		direct	767 Feb 17 j 20:44	21°♄34'35	
evening set	761 Mar 07 j 03:35	5°♄05'10		evening set	767 Jun 03 j 04:40	29°♄51'13	
					767 Jun 04 j 08:10	0°♄	
conjunction	761 Mar 24 j 11:50	7°♄17'18	-2°-16'-36	conjunction	767 Jun 21 j 09:50	2°♄12'39	0°-25'-15
minimum elong	761 Mar 24 j 11:50	7°♄17'18	2°16'36	minimum elong	767 Jun 21 j 09:51	2°♄12'39	0°25'17
max. Earth dist.	761 Mar 24 j 10:23	7°♄16'51	10.24970 AU	max. Earth dist.	767 Jun 21 j 18:45	2°♄15'32	10.02814 AU
morning rise	761 Apr 11 j 00:52	9°♄30'58		morning rise	767 Jul 09 j 13:56	4°♄33'44	
retrograde	761 Jul 27 j 04:33	17°♄43'01		retrograde	767 Oct 21 j 18:12	12°♄44'41	
opposition	761 Oct 03 j 22:23	14°♄13'39	-2°-50'-30	opposition	767 Dec 27 j 06:01	9°♄16'58	0°-10'-40
min. Earth dist.	761 Oct 03 j 22:17	14°♄13'40	8.19849 AU	min. Earth dist.	767 Dec 26 j 23:27	9°♄18'19	8.05659 AU
direct	761 Dec 09 j 13:58	10°♄48'50		direct	768 Mar 03 j 11:17	5°♄47'32	
evening set	762 Mar 21 j 05:53	18°♄42'10		asc. node	768 Apr 01 j 20:17	6°♄34'13	
				evening set	768 Jun 17 j 07:46	14°♄02'13	
conjunction	762 Apr 07 j 18:36	20°♄57'05	-2°-15'-38				
minimum elong	762 Apr 07 j 18:37	20°♄57'05	2°15'39	conjunction	768 Jul 05 j 11:54	16°♄22'19	0°08'25
max. Earth dist.	762 Apr 07 j 18:32	20°♄57'04	10.14868 AU	minimum elong	768 Jul 05 j 11:53	16°♄22'19	0°08'24
morning rise	762 Apr 25 j 11:53	23°♄13'27		behind sun begin	768 Jul 05 j 05:28	16°♄20'15	
	762 Jun 29 j 12:58	0°♄		behind sun end	768 Jul 05 j 18:19	16°♄24'22	
retrograde	762 Aug 10 j 17:26	1°♄32'09		max. Earth dist.	768 Jul 05 j 20:17	16°♄25'00	10.09168 AU
	762 Sep 22 j 08:05	30°♄		morning rise	768 Jul 23 j 13:47	18°♄41'40	
opposition	762 Oct 17 j 22:38	28°♄02'09	-2°-44'-42	retrograde	768 Nov 03 j 19:18	26°♄44'04	
min. Earth dist.	762 Oct 17 j 21:36	28°♄02'21	8.10687 AU	opposition	769 Jan 09 j 06:27	23°♄17'39	0°30'50
direct	762 Dec 23 j 08:07	24°♄36'08		min. Earth dist.	769 Jan 09 j 00:38	23°♄18'50	8.13195 AU
	763 Mar 14 j 07:05	0°♄		direct	769 Mar 18 j 00:18	19°♄48'15	
evening set	763 Apr 04 j 17:58	2°♄37'44		evening set	769 Jul 02 j 05:06	27°♄59'03	
					769 Jul 18 j 01:31	0°♄	
conjunction	763 Apr 22 j 11:25	4°♄55'14	-2°-6'-47	conjunction	769 Jul 20 j 06:31	0°♄16'59	0°40'59
minimum elong	763 Apr 22 j 11:27	4°♄55'15	2°06'48	minimum elong	769 Jul 20 j 06:29	0°♄16'58	0°40'59
max. Earth dist.	763 Apr 22 j 13:28	4°♄55'54	10.06788 AU	max. Earth dist.	769 Jul 20 j 13:24	0°♄19'11	10.17750 AU
morning rise	763 May 10 j 08:48	7°♄14'00		morning rise	769 Aug 07 j 04:43	2°♄33'52	
	763 Jul 30 j 06:31	15°♄		retrograde	769 Nov 17 j 11:17	10°♄26'57	
retrograde	763 Aug 25 j 10:04	15°♄36'54		opposition	770 Jan 23 j 01:55	7°♄01'58	1°09'41
	763 Sep 20 j 14:54	15°♄		min. Earth dist.	770 Jan 22 j 21:01	7°♄02'58	8.22665 AU
opposition	763 Nov 01 j 03:08	12°♄06'37	-2°-28'-58	direct	770 Apr 01 j 10:32	3°♄32'58	
min. Earth dist.	763 Nov 01 j 00:37	12°♄07'08	8.03812 AU	evening set	770 Jul 16 j 18:18	11°♄38'20	
direct	764 Jan 06 j 09:45	8°♄39'31					
	764 Apr 04 j 04:58	15°♄		conjunction	770 Aug 03 j 15:41	13°♄53'33	1°10'40
evening set	764 Apr 18 j 14:10	16°♄48'00		minimum elong	770 Aug 03 j 15:38	13°♄53'32	1°10'39
				max. Earth dist.	770 Aug 03 j 21:01	13°♄55'14	10.27939 AU
conjunction	764 May 06 j 12:12	19°♄07'40	-1°-50'-11				
minimum elong	764 May 06 j 12:15	19°♄07'41	1°50'12				

	770 Aug 12 j 09:34	15°♈		retrograde	777 Feb 10 j 23:08	7°♌38'46	
morning rise	770 Aug 21 j 09:07	16°♈07'30		opposition	777 Apr 21 j 06:38	4°♌21'13	2°37'34
retrograde	770 Nov 30 j 19:09	23°♈51'13		min. Earth dist.	777 Apr 21 j 07:48	4°♌21'00	8.97289 AU
opposition	771 Feb 05 j 15:47	20°♈27'43	1°43'44	direct	777 Jul 01 j 14:02	0°♌59'27	
min. Earth dist.	771 Feb 05 j 11:23	20°♈28'36	8.33484 AU	evening set	777 Oct 12 j 22:02	8°♌12'14	
direct	771 Apr 15 j 14:37	16°♈59'25					
evening set	771 Jul 30 j 21:59	24°♈58'08		conjunction	777 Oct 29 j 14:41	10°♌09'54	2°03'09
				minimum elong	777 Oct 29 j 14:43	10°♌09'55	2°03'08
conjunction	771 Aug 17 j 14:36	27°♈10'21	1°35'54	max. Earth dist.	777 Oct 29 j 12:38	10°♌09'18	11.00455 AU
minimum elong	771 Aug 17 j 14:33	27°♈10'20	1°35'53	morning rise	777 Nov 15 j 04:16	12°♌06'44	
max. Earth dist.	771 Aug 17 j 18:55	27°♈11'43	10.39209 AU		777 Dec 11 j 14:00	15°♌	
morning rise	771 Sep 04 j 02:42	29°♈21'08		retrograde	778 Feb 22 j 16:28	19°♌04'49	
	771 Sep 09 j 10:18	0°♎		opposition	778 May 03 j 10:11	15°♌47'31	2°22'11
retrograde	771 Dec 13 j 20:31	6°♎55'44		min. Earth dist.	778 May 03 j 12:27	15°♌47'06	9.03389 AU
opposition	772 Feb 18 j 23:44	3°♎33'38	2°11'25		778 May 14 j 04:57	15°♌	
min. Earth dist.	772 Feb 18 j 19:42	3°♎34'25	8.45138 AU	direct	778 Jul 13 j 17:35	12°♌26'46	
direct	772 Apr 28 j 11:27	0°♎06'15			778 Sep 09 j 15:35	15°♌	
evening set	772 Aug 12 j 15:13	7°♎57'26		evening set	778 Oct 24 j 09:57	19°♌33'59	
conjunction	772 Aug 30 j 02:48	10°♎06'33	1°55'37	conjunction	778 Nov 10 j 01:01	21°♌30'39	1°48'23
minimum elong	772 Aug 30 j 02:45	10°♎06'32	1°55'37	minimum elong	778 Nov 10 j 01:03	21°♌30'40	1°48'23
max. Earth dist.	772 Aug 30 j 06:35	10°♎07'44	10.51041 AU	max. Earth dist.	778 Nov 09 j 21:33	21°♌29'38	11.05539 AU
morning rise	772 Sep 16 j 09:25	12°♎14'11		morning rise	778 Nov 26 j 13:53	23°♌26'45	
retrograde	772 Dec 25 j 14:19	19°♎40'06			779 Feb 12 j 15:24	0°♎	
opposition	773 Mar 03 j 01:57	16°♎19'19	2°31'47	retrograde	779 Mar 06 j 07:43	0°♎23'20	
min. Earth dist.	773 Mar 02 j 22:59	16°♎19'53	8.57076 AU		779 Mar 28 j 07:06	30°♌	
direct	773 May 12 j 01:13	12°♎52'59		opposition	779 May 15 j 11:38	27°♌06'05	2°01'27
evening set	773 Aug 25 j 21:40	20°♎36'06		min. Earth dist.	779 May 15 j 15:24	27°♌05'23	9.07371 AU
				direct	779 Jul 25 j 18:12	23°♌46'11	
conjunction	773 Sep 12 j 04:10	22°♎42'13	2°09'16		779 Oct 28 j 12:57	0°♎	
minimum elong	773 Sep 12 j 04:08	22°♎42'12	2°09'16	evening set	779 Nov 04 j 18:00	0°♎49'08	
max. Earth dist.	773 Sep 12 j 06:52	22°♎43'02	10.62875 AU				
morning rise	773 Sep 29 j 05:42	24°♎46'52		conjunction	779 Nov 21 j 08:07	2°♎45'15	1°29'32
	773 Nov 18 j 11:26	0°♏		minimum elong	779 Nov 21 j 08:10	2°♎45'16	1°29'32
retrograde	774 Jan 07 j 00:22	2°♏04'55		max. Earth dist.	779 Nov 21 j 03:07	2°♎43'47	11.08434 AU
	774 Feb 27 j 09:11	30°♌		morning rise	779 Dec 07 j 21:02	4°♎41'03	
opposition	774 Mar 15 j 22:33	28°♎45'17	2°44'24	retrograde	780 Mar 17 j 00:20	11°♎37'41	
min. Earth dist.	774 Mar 15 j 21:08	28°♎45'33	8.68748 AU	opposition	780 May 26 j 11:51	8°♎20'14	1°36'12
direct	774 May 25 j 08:52	25°♎20'05		min. Earth dist.	780 May 26 j 16:11	8°♎19'26	9.09090 AU
	774 Aug 12 j 20:08	0°♏		direct	780 Aug 05 j 16:08	5°♎01'04	
evening set	774 Sep 07 j 17:30	2°♏54'58		evening set	780 Nov 14 j 23:44	12°♎01'05	
conjunction	774 Sep 24 j 19:20	4°♏58'21	2°16'37	conjunction	780 Dec 01 j 13:40	13°♎57'07	1°07'19
minimum elong	774 Sep 24 j 19:19	4°♏58'21	2°16'38	minimum elong	780 Dec 01 j 13:42	13°♎57'08	1°07'19
max. Earth dist.	774 Sep 24 j 20:11	4°♏58'36	10.74188 AU	max. Earth dist.	780 Dec 01 j 08:32	13°♎55'36	11.09031 AU
morning rise	774 Oct 11 j 16:37	7°♏00'22		morning rise	780 Dec 18 j 03:04	15°♎53'02	
retrograde	775 Jan 19 j 04:25	14°♏11'32		retrograde	781 Mar 28 j 18:23	22°♎51'20	
opposition	775 Mar 28 j 13:46	10°♏52'49	2°49'18	opposition	781 Jun 07 j 12:16	19°♎33'26	1°07'19
min. Earth dist.	775 Mar 28 j 13:49	10°♏52'49	8.79640 AU	min. Earth dist.	781 Jun 07 j 16:21	19°♎32'41	9.08487 AU
direct	775 Jun 07 j 08:40	7°♏28'47		direct	781 Aug 17 j 11:10	16°♎14'50	
evening set	775 Sep 20 j 03:17	14°♏55'40		evening set	781 Nov 26 j 04:54	23°♎13'21	
conjunction	775 Oct 07 j 01:11	16°♏56'42	2°17'48	conjunction	781 Dec 12 j 19:08	25°♎09'41	0°42'29
minimum elong	775 Oct 07 j 01:11	16°♏56'42	2°17'49	minimum elong	781 Dec 12 j 19:10	25°♎09'42	0°42'29
max. Earth dist.	775 Oct 07 j 00:10	16°♏56'23	10.84491 AU	max. Earth dist.	781 Dec 12 j 14:12	25°♎08'14	11.07300 AU
morning rise	775 Oct 23 j 19:09	18°♏56'32		morning rise	781 Dec 29 j 09:30	27°♎06'08	
retrograde	776 Jan 31 j 02:28	26°♏01'59			782 Jan 25 j 01:21	0°♏	
opposition	776 Apr 09 j 00:11	22°♏43'57	2°46'50	retrograde	782 Apr 09 j 17:14	4°♏07'39	
min. Earth dist.	776 Apr 09 j 00:51	22°♏43'50	8.89280 AU	opposition	782 Jun 19 j 13:52	0°♏49'07	0°35'45
direct	776 Jun 19 j 02:16	19°♏21'05		min. Earth dist.	782 Jun 19 j 18:13	0°♏48'19	9.05579 AU
evening set	776 Oct 01 j 04:19	26°♏40'31		direct	782 Jun 30 j 19:26	30°♌	
				direct	782 Aug 29 j 05:15	27°♎30'51	
conjunction	776 Oct 17 j 23:12	28°♏39'37	2°13'09		782 Oct 24 j 14:17	0°♏	
minimum elong	776 Oct 17 j 23:13	28°♏39'37	2°13'09	evening set	782 Dec 07 j 11:37	4°♏29'25	
max. Earth dist.	776 Oct 17 j 21:33	28°♏39'07	10.93357 AU				
	776 Oct 29 j 05:57	0°♌		conjunction	782 Dec 24 j 02:23	6°♏26'26	0°15'52
morning rise	776 Nov 03 j 14:33	0°♌37'42		minimum elong	782 Dec 24 j 02:23	6°♏26'26	0°15'53

behind sun begin	782 Dec 24 j 00:49	6°♁25'58		direct	788 Nov 07 j 20:04	8°♁52'34	
behind sun end	782 Dec 24 j 03:58	6°♁26'53		evening set	789 Feb 16 j 01:34	16°♁22'19	
max. Earth dist.	782 Dec 23 j 20:26	6°♁24'41	11.03301 AU				
morning rise	783 Jan 09 j 18:18	8°♁23'49		conjunction	789 Mar 05 j 03:58	18°♁30'03	-2°-5'00
retrograde	783 Apr 21 j 18:12	15°♁30'01		minimum elong	789 Mar 05 j 03:56	18°♁30'02	2°05'00
opposition	783 Jul 01 j 17:28	12°♁10'39	0°02'30	max. Earth dist.	789 Mar 05 j 00:16	18°♁28'53	10.44781 AU
min. Earth dist.	783 Jul 01 j 22:38	12°♁09'42	9.00473 AU	morning rise	789 Mar 22 j 11:13	20°♁39'18	
desc. node	783 Jul 29 j 14:19	10°♁14'51		retrograde	789 Jul 07 j 00:15	28°♁37'00	
direct	783 Sep 09 j 21:59	8°♁52'27		opposition	789 Sep 14 j 12:59	25°♁09'55	-2°-41'-47
evening set	783 Dec 18 j 21:22	15°♁52'42		min. Earth dist.	789 Sep 14 j 15:27	25°♁09'26	8.38877 AU
				direct	789 Nov 20 j 18:50	21°♁47'32	
conjunction	784 Jan 04 j 13:02	17°♁50'43	0°-11'-41	evening set	790 Mar 01 j 11:20	29°♁26'16	
minimum elong	784 Jan 04 j 13:01	17°♁50'43	0°11'42		790 Mar 05 j 23:29	0°♁	
behind sun begin	784 Jan 04 j 08:01	17°♁49'14					
behind sun end	784 Jan 04 j 18:02	17°♁52'11		conjunction	790 Mar 18 j 17:36	1°♁36'44	-2°-14'-27
max. Earth dist.	784 Jan 04 j 06:29	17°♁48'47	10.97175 AU	minimum elong	790 Mar 18 j 17:35	1°♁36'43	2°14'27
morning rise	784 Jan 21 j 06:50	19°♁49'22		max. Earth dist.	790 Mar 18 j 15:25	1°♁36'02	10.32885 AU
retrograde	784 May 03 j 00:29	27°♁01'48		morning rise	790 Apr 05 j 04:35	3°♁48'43	
opposition	784 Jul 13 j 00:23	23°♁41'22	0°-31'-19	retrograde	790 Jul 21 j 03:24	11°♁55'34	
min. Earth dist.	784 Jul 13 j 05:43	23°♁40'22	8.93351 AU	opposition	790 Sep 28 j 04:26	8°♁27'19	-2°-49'-37
direct	784 Sep 20 j 19:25	20°♁23'01		min. Earth dist.	790 Sep 28 j 05:31	8°♁27'06	8.27360 AU
evening set	784 Dec 29 j 11:38	27°♁26'27		direct	790 Dec 04 j 01:06	5°♁03'42	
				evening set	791 Mar 15 j 07:52	12°♁51'33	
conjunction	785 Jan 15 j 04:41	29°♁25'49	0°-39'-4				
minimum elong	785 Jan 15 j 04:40	29°♁25'49	0°39'05	conjunction	791 Apr 01 j 18:26	15°♁04'50	-2°-16'-52
max. Earth dist.	785 Jan 14 j 23:05	29°♁24'09	10.89137 AU	minimum elong	791 Apr 01 j 18:26	15°♁04'50	2°16'53
	785 Jan 19 j 22:41	0°♁		max. Earth dist.	791 Apr 01 j 18:03	15°♁04'43	10.21874 AU
morning rise	785 Feb 01 j 00:29	1°♁26'03		morning rise	791 Apr 19 j 09:24	17°♁19'34	
retrograde	785 May 15 j 14:43	8°♁46'03		retrograde	791 Aug 04 j 14:02	25°♁34'06	
opposition	785 Jul 25 j 11:21	5°♁24'24	-1°-4'-29	opposition	791 Oct 12 j 01:26	22°♁04'55	-2°-48'-14
min. Earth dist.	785 Jul 25 j 15:42	5°♁23'35	8.84472 AU	min. Earth dist.	791 Oct 12 j 00:52	22°♁05'02	8.17082 AU
direct	785 Oct 02 j 18:46	2°♁05'42		direct	791 Dec 17 j 13:51	18°♁39'59	
evening set	786 Jan 10 j 08:22	9°♁13'46		evening set	792 Mar 28 j 14:35	26°♁36'32	
conjunction	786 Jan 27 j 03:09	11°♁14'49	-1°-5'-18	conjunction	792 Apr 15 j 05:45	28°♁52'31	-2°-11'-36
minimum elong	786 Jan 27 j 03:07	11°♁14'49	1°05'19	minimum elong	792 Apr 15 j 05:48	28°♁52'32	2°11'38
max. Earth dist.	786 Jan 26 j 22:27	11°♁13'24	10.79482 AU	max. Earth dist.	792 Apr 15 j 07:00	28°♁52'55	10.12477 AU
morning rise	786 Feb 13 j 01:14	13°♁16'56			792 Apr 23 j 22:33	0°♁	
	786 Feb 27 j 22:20	15°♁		morning rise	792 May 03 j 00:56	1°♁09'51	
retrograde	786 May 28 j 11:39	20°♁45'34		retrograde	792 Aug 18 j 04:55	9°♁29'50	
opposition	786 Aug 07 j 03:02	17°♁22'35	-1°-35'-38	opposition	792 Oct 25 j 03:10	6°♁00'01	-2°-37'-3
min. Earth dist.	786 Aug 07 j 06:31	17°♁21'55	8.74169 AU	min. Earth dist.	792 Oct 25 j 01:14	6°♁00'25	8.08727 AU
	786 Sep 11 j 00:15	15°♁		direct	792 Dec 30 j 10:48	2°♁33'48	
direct	786 Oct 14 j 21:05	14°♁03'17		evening set	793 Apr 12 j 06:15	10°♁37'59	
	786 Nov 17 j 00:59	15°♁					
evening set	787 Jan 22 j 12:55	21°♁17'27		conjunction	793 Apr 30 j 02:04	12°♁56'23	-1°-58'-31
				minimum elong	793 Apr 30 j 02:07	12°♁56'24	1°58'32
conjunction	787 Feb 08 j 09:42	23°♁20'28	-1°-29'-12	max. Earth dist.	793 Apr 30 j 04:32	12°♁57'11	10.05318 AU
minimum elong	787 Feb 08 j 09:40	23°♁20'27	1°29'12		793 May 15 j 23:32	15°♁	
max. Earth dist.	787 Feb 08 j 05:04	23°♁19'03	10.68583 AU	morning rise	793 May 18 j 01:15	15°♁15'54	
morning rise	787 Feb 25 j 10:29	25°♁24'43		retrograde	793 Sep 01 j 21:40	23°♁38'37	
	787 Apr 09 j 00:35	0°♁		opposition	793 Nov 08 j 08:15	20°♁08'33	-2°-16'-12
retrograde	787 Jun 10 j 16:33	3°♁02'47		min. Earth dist.	793 Nov 08 j 05:33	20°♁09'06	8.02842 AU
	787 Aug 15 j 07:55	30°♁		direct	794 Jan 13 j 15:20	16°♁41'07	
opposition	787 Aug 20 j 00:20	29°♁38'25	-2°-3'-16	evening set	794 Apr 27 j 05:09	24°♁51'21	
min. Earth dist.	787 Aug 20 j 03:29	29°♁37'49	8.62834 AU				
direct	787 Oct 27 j 05:25	26°♁18'16		conjunction	794 May 15 j 05:05	27°♁11'37	-1°-38'-5
	788 Jan 02 j 12:18	0°♁		minimum elong	794 May 15 j 05:09	27°♁11'39	1°38'06
evening set	788 Feb 04 j 02:17	3°♁39'44		max. Earth dist.	794 May 15 j 08:45	27°♁12'49	10.00857 AU
				morning rise	794 Jun 02 j 07:29	29°♁32'41	
conjunction	788 Feb 21 j 01:31	5°♁44'58	-1°-49'-31		794 Jun 05 j 21:13	0°♁	
minimum elong	788 Feb 21 j 01:28	5°♁44'57	1°49'31	retrograde	794 Sep 16 j 13:27	7°♁55'10	
max. Earth dist.	788 Feb 20 j 20:52	5°♁43'31	10.56862 AU	opposition	794 Nov 22 j 14:57	4°♁25'15	-1°-46'-43
morning rise	788 Mar 09 j 05:21	7°♁51'38		min. Earth dist.	794 Nov 22 j 11:34	4°♁25'58	7.99814 AU
retrograde	788 Jun 23 j 04:45	15°♁39'32		direct	795 Jan 28 j 01:24	0°♁56'47	
opposition	788 Sep 01 j 03:38	12°♁13'46	-2°-25'-51	evening set	795 May 12 j 08:35	9°♁11'02	
min. Earth dist.	788 Sep 01 j 06:45	12°♁13'10	8.50907 AU				

conjunction	795 May 30 j 11:42	11° Π 32'26	-1°-11'-30	retrograde	800 Dec 07 j 05:29	1° \mp 08'41	
minimum elong	795 May 30 j 11:45	11° Π 32'27	1°11'32		801 Jan 12 j 10:50	30° R Ω	
max. Earth dist.	795 May 30 j 16:33	11° Π 34'01	9.99387 AU	opposition	801 Feb 12 j 05:03	27° Ω 45'25	1°59'19
morning rise	795 Jun 17 j 16:03	13° Π 54'11		min. Earth dist.	801 Feb 12 j 01:03	27° Ω 46'13	8.38656 AU
retrograde	795 Oct 01 j 02:49	22° Π 13'36		direct	801 Apr 22 j 10:06	24° Ω 17'05	
opposition	795 Dec 06 j 21:44	18° Π 44'12	-1°-10'-31		801 Jul 19 j 01:33	0° \mp	
min. Earth dist.	795 Dec 06 j 17:32	18° Π 45'05	7.99842 AU	evening set	801 Aug 06 j 16:22	2° \mp 11'55	
direct	796 Feb 11 j 14:21	15° Π 14'56					
evening set	796 May 26 j 13:38	23° Π 30'56		conjunction	801 Aug 24 j 06:18	4° \mp 22'33	1°47'04
				minimum elong	801 Aug 24 j 06:15	4° \mp 22'32	1°47'04
conjunction	796 Jun 13 j 18:31	25° Π 52'32	0°-40'-31	max. Earth dist.	801 Aug 24 j 10:32	4° \mp 23'52	10.44624 AU
minimum elong	796 Jun 13 j 18:33	25° Π 52'32	0°40'32	morning rise	801 Sep 10 j 15:35	6° \mp 31'43	
max. Earth dist.	796 Jun 14 j 00:27	25° Π 54'28	10.00989 AU	retrograde	801 Dec 20 j 01:08	14° \mp 01'35	
morning rise	796 Jul 01 j 23:15	28° Π 14'01		opposition	802 Feb 25 j 09:44	10° \mp 39'48	2°23'09
	796 Jul 16 j 02:38	0° \mathfrak{S}		min. Earth dist.	802 Feb 25 j 06:22	10° \mp 40'27	8.50779 AU
retrograde	796 Oct 14 j 12:29	6° \mathfrak{S} 27'53		direct	802 May 06 j 04:09	7° \mp 12'33	
opposition	796 Dec 20 j 02:49	2° \mathfrak{S} 59'19	0°-30'-6	evening set	802 Aug 20 j 03:28	14° \mp 59'28	
min. Earth dist.	796 Dec 19 j 21:41	3° \mathfrak{S} 00'22	8.02901 AU				
	797 Feb 01 j 15:37	30° R Π		conjunction	802 Sep 06 j 12:15	17° \mp 06'59	2°03'35
direct	797 Feb 25 j 04:45	29° Π 29'34		minimum elong	802 Sep 06 j 12:13	17° \mp 06'58	2°03'35
	797 Mar 20 j 16:44	0° \mathfrak{S}		max. Earth dist.	802 Sep 06 j 15:17	17° \mp 07'55	10.56809 AU
evening set	797 Jun 10 j 17:37	7° \mathfrak{S} 45'01		morning rise	802 Sep 23 j 16:21	19° \mp 13'03	
				retrograde	803 Jan 01 j 13:41	26° \mp 34'39	
conjunction	797 Jun 28 j 22:29	10° \mathfrak{S} 05'49	0°-7'-18	opposition	803 Mar 10 j 08:35	23° \mp 14'12	2°39'23
minimum elong	797 Jun 28 j 22:30	10° \mathfrak{S} 05'49	0°07'20	min. Earth dist.	803 Mar 10 j 05:35	23° \mp 14'47	8.62949 AU
behind sun begin	797 Jun 28 j 15:47	10° \mathfrak{S} 03'40		direct	803 May 19 j 15:26	19° \mp 48'14	
behind sun end	797 Jun 29 j 05:13	10° \mathfrak{S} 07'59		evening set	803 Sep 02 j 03:58	27° \mp 26'55	
max. Earth dist.	797 Jun 29 j 05:20	10° \mathfrak{S} 08'01	10.05517 AU				
morning rise	797 Jul 17 j 01:45	12° \mathfrak{S} 26'05		conjunction	803 Sep 19 j 08:01	29° \mp 31'33	2°13'52
asc. node	797 Sep 19 j 02:48	19° \mathfrak{S} 07'09		minimum elong	803 Sep 19 j 08:00	29° \mp 31'33	2°13'53
retrograde	797 Oct 28 j 16:09	20° \mathfrak{S} 32'28		max. Earth dist.	803 Sep 19 j 10:25	29° \mp 32'17	10.68753 AU
opposition	798 Jan 03 j 04:37	17° \mathfrak{S} 04'59	0°11'40		803 Sep 23 j 05:24	0° \mathfrak{L}	
min. Earth dist.	798 Jan 02 j 22:47	17° \mathfrak{S} 06'11	8.08761 AU	morning rise	803 Oct 06 j 07:22	1° \mathfrak{L} 34'47	
direct	798 Mar 11 j 18:09	13° \mathfrak{S} 35'05		retrograde	804 Jan 13 j 21:55	8° \mathfrak{L} 49'00	
evening set	798 Jun 25 j 17:22	21° \mathfrak{S} 47'51		opposition	804 Mar 22 j 01:53	5° \mathfrak{L} 29'46	2°47'50
				min. Earth dist.	804 Mar 21 j 23:41	5° \mathfrak{L} 30'11	8.74589 AU
conjunction	798 Jul 13 j 20:24	24° \mathfrak{S} 06'57	0°26'02	direct	804 May 31 j 17:20	2° \mathfrak{L} 05'09	
minimum elong	798 Jul 13 j 20:23	24° \mathfrak{S} 06'57	0°26'01	evening set	804 Sep 13 j 18:25	9° \mathfrak{L} 35'43	
max. Earth dist.	798 Jul 14 j 03:45	24° \mathfrak{S} 09'19	10.12651 AU				
morning rise	798 Jul 31 j 20:31	26° \mathfrak{S} 25'08		conjunction	804 Sep 30 j 18:17	11° \mathfrak{L} 37'48	2°17'54
	798 Aug 31 j 02:27	0° Ω		minimum elong	804 Sep 30 j 18:16	11° \mathfrak{L} 37'48	2°17'54
retrograde	798 Nov 11 j 12:31	4° Ω 22'48		max. Earth dist.	804 Sep 30 j 19:55	11° \mathfrak{L} 38'18	10.79911 AU
opposition	799 Jan 17 j 02:13	0° Ω 56'37	0°52'01	morning rise	804 Oct 17 j 13:38	13° \mathfrak{L} 38'36	
min. Earth dist.	799 Jan 16 j 20:23	0° Ω 57'48	8.17033 AU	retrograde	805 Jan 24 j 23:29	20° \mathfrak{L} 46'32	
	799 Jan 28 j 19:12	30° R \mathfrak{S}		opposition	805 Apr 03 j 14:33	17° \mathfrak{L} 28'18	2°48'44
direct	799 Mar 26 j 04:48	27° \mathfrak{S} 26'55		min. Earth dist.	805 Apr 03 j 13:59	17° \mathfrak{L} 28'25	8.85190 AU
	799 May 20 j 08:47	0° Ω		direct	805 Jun 13 j 12:49	14° \mathfrak{L} 05'04	
evening set	799 Jul 10 j 10:07	5° Ω 35'04		evening set	805 Sep 25 j 23:38	21° \mathfrak{L} 27'54	
conjunction	799 Jul 28 j 09:46	7° Ω 51'44	0°57'15	conjunction	805 Oct 12 j 19:54	23° \mathfrak{L} 27'50	2°15'54
minimum elong	799 Jul 28 j 09:43	7° Ω 51'43	0°57'14	minimum elong	805 Oct 12 j 19:55	23° \mathfrak{L} 27'50	2°15'54
max. Earth dist.	799 Jul 28 j 16:52	7° Ω 53'59	10.21931 AU	max. Earth dist.	805 Oct 12 j 19:48	23° \mathfrak{L} 27'48	10.89816 AU
morning rise	799 Aug 15 j 05:30	10° Ω 07'11		morning rise	805 Oct 29 j 12:17	25° \mathfrak{L} 26'40	
	799 Sep 27 j 19:59	15° Ω			805 Dec 12 j 09:36	0° \mathfrak{M}	
retrograde	799 Nov 25 j 01:02	17° Ω 55'32		retrograde	806 Feb 05 j 20:53	2° \mathfrak{M} 29'36	
	800 Jan 24 j 17:27	15° R Ω			806 Apr 05 j 04:55	30° R \mathfrak{L}	
opposition	800 Jan 30 j 18:34	14° Ω 30'47	1°28'32	opposition	806 Apr 15 j 23:08	29° \mathfrak{L} 12'08	2°42'32
min. Earth dist.	800 Jan 30 j 13:26	14° Ω 31'49	8.27198 AU	min. Earth dist.	806 Apr 16 j 00:08	29° \mathfrak{L} 11'57	8.94327 AU
direct	800 Apr 08 j 10:08	11° Ω 01'36		direct	806 Jun 26 j 02:50	25° \mathfrak{L} 50'10	
	800 Jun 18 j 05:39	15° Ω			806 Sep 09 j 11:21	0° \mathfrak{M}	
evening set	800 Jul 23 j 18:17	19° Ω 03'38		evening set	806 Oct 07 j 21:00	3° \mathfrak{M} 05'59	
conjunction	800 Aug 10 j 13:23	21° Ω 17'24	1°24'42	conjunction	806 Oct 24 j 14:30	5° \mathfrak{M} 04'13	2°08'18
minimum elong	800 Aug 10 j 13:19	21° Ω 17'23	1°24'41	minimum elong	806 Oct 24 j 14:31	5° \mathfrak{M} 04'14	2°08'18
max. Earth dist.	800 Aug 10 j 19:21	21° Ω 19'17	10.32792 AU	max. Earth dist.	806 Oct 24 j 12:29	5° \mathfrak{M} 03'38	10.98087 AU
morning rise	800 Aug 28 j 04:00	23° Ω 29'46		morning rise	806 Nov 10 j 04:56	7° \mathfrak{M} 01'34	
	800 Nov 01 j 12:10	0° \mp		retrograde	807 Feb 17 j 14:30	14° \mathfrak{M} 00'49	

opposition	807 Apr 28 j 04:05	10°♄43'50	2°29'52	min. Earth dist.	813 Jul 07 j 23:32	18°♃37'16	8.96504 AU
min. Earth dist.	807 Apr 28 j 05:59	10°♄43'29	9.01642 AU	direct	813 Sep 15 j 18:26	15°♃20'02	
direct	807 Jul 08 j 10:37	7°♄23'03		evening set	813 Dec 24 j 13:18	22°♃22'07	
evening set	807 Oct 19 j 11:48	14°♄32'45					
	807 Oct 23 j 09:51	15°♄		conjunction	814 Jan 10 j 05:44	24°♃20'55	0°-26'-33
				minimum elong	814 Jan 10 j 05:43	24°♃20'55	0°26'35
conjunction	807 Nov 05 j 03:31	16°♄29'47	1°55'41	max. Earth dist.	814 Jan 09 j 22:34	24°♃18'47	10.92455 AU
minimum elong	807 Nov 05 j 03:33	16°♄29'48	1°55'40	morning rise	814 Jan 27 j 00:33	26°♃20'28	
max. Earth dist.	807 Nov 05 j 00:36	16°♄28'56	11.04388 AU		814 Mar 01 j 21:10	0°≈	
morning rise	807 Nov 21 j 16:44	18°♄26'08		retrograde	814 May 10 j 06:19	3°≈37'09	
retrograde	808 Feb 29 j 07:46	25°♄23'10		opposition	814 Jul 20 j 03:18	0°≈15'57	0°-49'-25
opposition	808 May 09 j 06:33	22°♄06'22	2°11'31	min. Earth dist.	814 Jul 20 j 09:07	0°≈14'52	8.87911 AU
min. Earth dist.	808 May 09 j 08:53	22°♄05'57	9.06821 AU		814 Jul 23 j 16:32	30°♃	
direct	808 Jul 19 j 14:35	18°♄46'35		direct	814 Sep 27 j 15:15	26°♃57'13	
evening set	808 Oct 29 j 21:48	25°♄51'21			814 Nov 28 j 10:07	0°≈	
				evening set	815 Jan 05 j 07:10	4°≈03'23	
conjunction	808 Nov 15 j 12:24	27°♄47'38	1°38'38				
minimum elong	808 Nov 15 j 12:27	27°♄47'38	1°38'38	conjunction	815 Jan 22 j 01:02	6°≈03'44	0°-53'-28
max. Earth dist.	808 Nov 15 j 08:58	27°♄46'37	11.08434 AU	minimum elong	815 Jan 22 j 01:00	6°≈03'43	0°53'30
morning rise	808 Dec 02 j 01:04	29°♄43'25		max. Earth dist.	815 Jan 21 j 17:36	6°≈01'29	10.83029 AU
	808 Dec 04 j 10:57	0°♃		morning rise	815 Feb 07 j 22:10	8°≈05'05	
retrograde	809 Mar 12 j 01:39	6°♃39'46			815 Apr 28 j 04:43	15°≈	
opposition	809 May 21 j 07:37	3°♃22'55	1°48'16	retrograde	815 May 22 j 22:04	15°≈30'00	
min. Earth dist.	809 May 21 j 11:15	3°♃22'15	9.09629 AU		815 Jun 16 j 22:22	15°≈	
direct	809 Jul 31 j 12:48	0°♃03'57		opposition	815 Aug 01 j 16:52	12°≈07'19	-1°-21'-42
evening set	809 Nov 10 j 04:50	7°♃05'06		min. Earth dist.	815 Aug 01 j 22:40	12°≈06'13	8.77756 AU
				direct	815 Oct 09 j 16:54	8°≈47'53	
conjunction	809 Nov 26 j 18:48	9°♃01'05	1°17'53		816 Jan 08 j 21:10	15°≈	
minimum elong	809 Nov 26 j 18:50	9°♃01'06	1°17'54	evening set	816 Jan 17 j 07:57	15°≈59'38	
max. Earth dist.	809 Nov 26 j 13:32	8°♃59'32	11.10031 AU				
morning rise	809 Dec 13 j 07:47	10°♃56'50		conjunction	816 Feb 03 j 03:46	18°≈01'52	-1°-18'-36
retrograde	810 Mar 23 j 18:04	17°♃54'06		minimum elong	816 Feb 03 j 03:44	18°≈01'51	1°18'37
opposition	810 Jun 02 j 08:16	14°♃36'56	1°20'58	max. Earth dist.	816 Feb 02 j 21:32	17°≈59'58	10.72215 AU
min. Earth dist.	810 Jun 02 j 13:31	14°♃35'58	9.09935 AU	morning rise	816 Feb 20 j 03:22	20°≈05'16	
direct	810 Aug 12 j 08:10	11°♃18'31		retrograde	816 Jun 03 j 23:07	27°≈39'28	
evening set	810 Nov 21 j 10:29	18°♃17'38		opposition	816 Aug 13 j 11:46	24°≈15'14	-1°-51'-11
				min. Earth dist.	816 Aug 13 j 16:25	24°≈14'21	8.66437 AU
conjunction	810 Dec 08 j 00:24	20°♃13'45	0°54'10	direct	816 Oct 21 j 00:26	20°≈54'57	
minimum elong	810 Dec 08 j 00:26	20°♃13'45	0°54'11	evening set	817 Jan 28 j 17:01	28°≈13'32	
max. Earth dist.	810 Dec 07 j 17:27	20°♃11'42	11.09117 AU		817 Feb 12 j 05:09	0°♃	
morning rise	810 Dec 24 j 14:23	22°♃09'54					
retrograde	811 Apr 04 j 14:22	29°♃09'46		conjunction	817 Feb 14 j 15:16	0°♃17'56	-1°-40'-45
opposition	811 Jun 14 j 09:30	25°♃51'58	0°50'32	minimum elong	817 Feb 14 j 15:13	0°♃17'55	1°40'45
min. Earth dist.	811 Jun 14 j 15:37	25°♃50'51	9.07751 AU	max. Earth dist.	817 Feb 14 j 10:39	0°♃16'31	10.60448 AU
direct	811 Aug 24 j 04:10	22°♃33'52		morning rise	817 Mar 03 j 17:36	2°♃23'39	
evening set	811 Dec 02 j 16:39	29°♃32'27		retrograde	817 Jun 17 j 08:49	10°♃07'45	
	811 Dec 06 j 15:46	0°♃		opposition	817 Aug 26 j 12:26	6°♃42'00	-2°-16'-20
conjunction	811 Dec 19 j 07:06	1°♃29'06	0°28'16	min. Earth dist.	817 Aug 26 j 15:34	6°♃41'24	8.54420 AU
minimum elong	811 Dec 19 j 07:07	1°♃29'06	0°28'16	direct	817 Nov 02 j 11:28	3°♃20'42	
max. Earth dist.	811 Dec 19 j 00:08	1°♃27'03	11.05762 AU	evening set	818 Feb 10 j 11:52	10°♃47'16	
morning rise	812 Jan 04 j 22:17	3°♃26'02					
retrograde	812 Apr 15 j 14:01	10°♃30'03		conjunction	818 Feb 27 j 12:56	12°♃54'04	-1°-58'-37
opposition	812 Jun 25 j 12:20	7°♃11'20	0°17'55	minimum elong	818 Feb 27 j 12:54	12°♃54'03	1°58'37
min. Earth dist.	812 Jun 25 j 18:05	7°♃10'16	9.03205 AU	max. Earth dist.	818 Feb 27 j 09:17	12°♃52'56	10.48238 AU
direct	812 Sep 03 j 22:31	3°♃53'18		morning rise	818 Mar 16 j 18:31	15°♃02'21	
evening set	812 Dec 13 j 01:03	10°♃52'52		retrograde	818 Jul 01 j 01:44	22°♃56'25	
				opposition	818 Sep 08 j 19:09	19°♃29'15	-2°-35'-32
conjunction	812 Dec 29 j 16:23	12°♃50'26	0°01'04	min. Earth dist.	818 Sep 08 j 21:07	19°♃28'51	8.42240 AU
minimum elong	812 Dec 29 j 16:24	12°♃50'26	0°01'04	direct	818 Nov 15 j 05:57	16°♃06'48	
behind sun begin	812 Dec 29 j 09:25	12°♃48'23		evening set	819 Feb 23 j 17:04	23°♃42'08	
behind sun end	812 Dec 29 j 23:22	12°♃52'28					
max. Earth dist.	812 Dec 29 j 09:43	12°♃48'28	11.00130 AU	conjunction	819 Mar 12 j 21:29	25°♃51'35	-2°-10'-59
desc. node	813 Jan 12 j 19:29	14°♃30'32		minimum elong	819 Mar 12 j 21:28	25°♃51'34	2°11'00
morning rise	813 Jan 15 j 09:08	14°♃48'29		max. Earth dist.	819 Mar 12 j 18:30	25°♃50'38	10.36162 AU
retrograde	813 Apr 27 j 19:45	21°♃58'09		morning rise	819 Mar 30 j 06:46	28°♃02'33	
opposition	813 Jul 07 j 18:01	18°♃38'17	0°-15'-46		819 Apr 15 j 12:52	0°♃	
				retrograde	819 Jul 15 j 02:13	6°♃06'08	

opposition	819 Sep 22 j 08:13	2°♃37'43	-2°-47'-16	minimum elong	825 Jun 07 j 07:12	19°♃41'46	0°54'52
min. Earth dist.	819 Sep 22 j 09:26	2°♃37'29	8.30495 AU	max. Earth dist.	825 Jun 07 j 14:51	19°♃44'15	9.99783 AU
	819 Oct 30 j 01:26	30°♃		morning rise	825 Jun 25 j 11:50	22°♃03'33	
direct	819 Nov 28 j 08:22	29°♃14'03			825 Sep 19 j 08:25	0°♃	
	819 Dec 27 j 06:39	0°♃		retrograde	825 Oct 08 j 13:36	0°♃20'37	
evening set	820 Mar 08 j 08:44	6°♃58'28			825 Oct 27 j 17:22	30°♃	
				opposition	825 Dec 14 j 03:56	26°♃51'51	0°-48'-32
conjunction	820 Mar 25 j 17:09	9°♃10'39	-2°-16'-44	min. Earth dist.	825 Dec 13 j 22:02	26°♃53'04	8.01248 AU
minimum elong	820 Mar 25 j 17:09	9°♃10'39	2°16'45	direct	826 Feb 18 j 23:33	23°♃22'36	
max. Earth dist.	820 Mar 25 j 15:36	9°♃10'10	10.24846 AU		826 May 22 j 03:31	0°♃	
morning rise	820 Apr 12 j 06:28	11°♃24'23		evening set	826 Jun 04 j 08:23	1°♃38'53	
retrograde	820 Jul 28 j 09:48	19°♃36'20					
opposition	820 Oct 05 j 03:13	16°♃06'56	-2°-50'-12	conjunction	826 Jun 22 j 13:24	4°♃00'10	0°-22'-17
min. Earth dist.	820 Oct 05 j 03:24	16°♃06'54	8.19820 AU	minimum elong	826 Jun 22 j 13:25	4°♃00'10	0°22'18
direct	820 Dec 10 j 18:35	12°♃42'01		max. Earth dist.	826 Jun 22 j 21:15	4°♃02'43	10.03424 AU
evening set	821 Mar 22 j 11:04	20°♃35'19		morning rise	826 Jul 10 j 17:27	6°♃21'08	
				retrograde	826 Oct 22 j 20:24	14°♃31'20	
conjunction	821 Apr 09 j 00:04	22°♃50'16	-2°-15'-1	opposition	826 Dec 28 j 08:04	11°♃03'44	0°-6'-57
minimum elong	821 Apr 09 j 00:06	22°♃50'16	2°15'02	min. Earth dist.	826 Dec 28 j 02:17	11°♃04'55	8.06289 AU
max. Earth dist.	821 Apr 09 j 00:32	22°♃50'25	10.14932 AU	asc. node	827 Mar 01 j 10:01	7°♃35'18	
morning rise	821 Apr 26 j 17:34	25°♃06'39		direct	827 Mar 05 j 14:49	7°♃34'18	
	821 Jun 08 j 10:19	0°♃		evening set	827 Jun 19 j 10:57	15°♃48'40	
retrograde	821 Aug 11 j 22:03	3°♃25'03					
	821 Oct 18 j 02:38	30°♃		conjunction	827 Jul 07 j 14:50	18°♃08'35	0°11'20
opposition	821 Oct 19 j 03:10	29°♃55'00	-2°-43'-27	minimum elong	827 Jul 07 j 14:49	18°♃08'34	0°11'20
min. Earth dist.	821 Oct 19 j 01:59	29°♃55'14	8.10840 AU	behind sun begin	827 Jul 07 j 09:32	18°♃06'53	
direct	821 Dec 24 j 13:27	26°♃28'53		behind sun end	827 Jul 07 j 20:06	18°♃10'16	
	822 Feb 26 j 06:49	0°♃		max. Earth dist.	827 Jul 07 j 22:13	18°♃10'57	10.09822 AU
evening set	822 Apr 05 j 23:05	4°♃30'19		morning rise	827 Jul 25 j 16:35	20°♃27'46	
				retrograde	827 Nov 05 j 19:36	28°♃29'32	
conjunction	822 Apr 23 j 16:54	6°♃47'49	-2°-5'-26	opposition	828 Jan 11 j 08:06	25°♃03'15	0°34'22
minimum elong	822 Apr 23 j 16:57	6°♃47'50	2°05'27	min. Earth dist.	828 Jan 11 j 02:26	25°♃04'24	8.13884 AU
max. Earth dist.	822 Apr 23 j 19:49	6°♃48'46	10.07023 AU	direct	828 Mar 19 j 04:08	21°♃33'55	
morning rise	822 May 11 j 14:25	9°♃06'34		evening set	828 Jul 03 j 07:36	29°♃44'18	
	822 Jul 03 j 16:43	15°♃			828 Jul 05 j 09:36	0°♃	
retrograde	822 Aug 26 j 13:49	17°♃28'57					
	822 Oct 20 j 16:36	15°♃		conjunction	828 Jul 21 j 08:47	2°♃02'03	0°43'43
opposition	822 Nov 02 j 07:12	13°♃58'37	-2°-26'-51	minimum elong	828 Jul 21 j 08:45	2°♃02'02	0°43'43
min. Earth dist.	822 Nov 02 j 04:09	13°♃59'14	8.04121 AU	max. Earth dist.	828 Jul 21 j 15:23	2°♃04'10	10.18477 AU
direct	823 Jan 07 j 15:12	10°♃31'27		morning rise	828 Aug 08 j 06:46	4°♃18'44	
	823 Mar 21 j 08:50	15°♃		retrograde	828 Nov 18 j 11:19	12°♃11'14	
evening set	823 Apr 20 j 19:09	18°♃39'37		opposition	829 Jan 24 j 03:05	8°♃46'21	1°12'52
				min. Earth dist.	829 Jan 23 j 21:44	8°♃47'25	8.23431 AU
conjunction	823 May 08 j 17:27	20°♃59'16	-1°-48'-11	direct	829 Apr 02 j 12:37	5°♃17'25	
minimum elong	823 May 08 j 17:31	20°♃59'17	1°48'13	evening set	829 Jul 17 j 20:13	13°♃22'16	
max. Earth dist.	823 May 08 j 22:37	21°♃00'57	10.01641 AU		829 Jul 30 j 19:42	15°♃	
morning rise	823 May 26 j 18:28	23°♃19'50					
	823 Jul 28 j 03:56	0°♃		conjunction	829 Aug 04 j 17:24	15°♃37'18	1°13'02
retrograde	823 Sep 10 j 07:08	1°♃43'22		minimum elong	829 Aug 04 j 17:21	15°♃37'17	1°13'01
	823 Oct 24 j 23:37	30°♃		max. Earth dist.	829 Aug 04 j 23:00	15°♃39'04	10.28723 AU
opposition	823 Nov 16 j 13:49	28°♃13'10	-2°-1'-1	morning rise	829 Aug 22 j 10:27	17°♃51'01	
min. Earth dist.	823 Nov 16 j 09:09	28°♃14'08	8.00122 AU	retrograde	829 Dec 01 j 20:18	25°♃34'09	
direct	824 Jan 21 j 22:10	24°♃45'06		opposition	830 Feb 06 j 16:28	22°♃10'43	1°46'23
	824 Apr 10 j 15:52	0°♃		min. Earth dist.	830 Feb 06 j 11:43	22°♃11'40	8.34261 AU
evening set	824 May 04 j 21:18	2°♃58'11		direct	830 Apr 16 j 15:23	18°♃42'29	
				evening set	830 Jul 31 j 23:16	26°♃40'43	
conjunction	824 May 22 j 23:18	5°♃19'18	-1°-24'-9				
minimum elong	824 May 22 j 23:22	5°♃19'19	1°24'10	conjunction	830 Aug 18 j 15:39	28°♃52'45	1°37'47
max. Earth dist.	824 May 23 j 06:05	5°♃21'31	9.99170 AU	minimum elong	830 Aug 18 j 15:35	28°♃52'44	1°37'47
morning rise	824 Jun 10 j 02:51	7°♃40'57		max. Earth dist.	830 Aug 18 j 20:23	28°♃54'14	10.39948 AU
retrograde	824 Sep 24 j 00:03	16°♃02'38			830 Aug 27 j 14:33	0°♃	
opposition	824 Nov 29 j 21:15	12°♃32'58	-1°-27'-29	morning rise	830 Sep 05 j 03:16	1°♃03'20	
min. Earth dist.	824 Nov 29 j 15:40	12°♃34'07	7.99141 AU	retrograde	830 Dec 14 j 20:50	8°♃37'26	
direct	825 Feb 04 j 08:55	9°♃04'11		opposition	831 Feb 20 j 00:12	5°♃15'26	2°13'26
evening set	825 May 20 j 02:47	17°♃20'02		min. Earth dist.	831 Feb 19 j 20:32	5°♃16'10	8.45819 AU
				direct	831 Apr 30 j 12:07	1°♃48'08	
conjunction	825 Jun 07 j 07:09	19°♃41'45	0°-54'-50	evening set	831 Aug 14 j 15:49	9°♃38'55	

conjunction	831 Sep 01 j 03:05	11° \mathring{M} 47'52	1°56'59	conjunction	837 Nov 11 j 01:12	23° \mathring{M} 13'17	1°46'28
minimum elong	831 Sep 01 j 03:02	11° \mathring{M} 47'52	1°56'59	minimum elong	837 Nov 11 j 01:14	23° \mathring{M} 13'18	1°46'28
max. Earth dist.	831 Sep 01 j 06:40	11° \mathring{M} 48'59	10.51639 AU	max. Earth dist.	837 Nov 10 j 20:51	23° \mathring{M} 12'00	11.04785 AU
morning rise	831 Sep 18 j 09:21	13° \mathring{M} 55'21		morning rise	837 Nov 27 j 14:15	25° \mathring{M} 09'30	
retrograde	831 Dec 27 j 13:56	21° \mathring{M} 20'59		retrograde	838 Jan 14 j 21:10	0° \mathring{Z}	
opposition	832 Mar 04 j 02:12	18° \mathring{M} 00'17	2°33'05	retrograde	838 Mar 07 j 09:19	2° \mathring{Z} 06'39	
min. Earth dist.	832 Mar 04 j 00:11	18° \mathring{M} 00'41	8.57591 AU	opposition	838 Apr 30 j 05:12	30° \mathring{R} \mathring{M}	
direct	832 May 13 j 02:05	14° \mathring{M} 34'02		opposition	838 May 16 j 13:12	28° \mathring{M} 49'18	1°58'52
evening set	832 Aug 26 j 21:53	22° \mathring{M} 16'54		min. Earth dist.	838 May 16 j 17:02	28° \mathring{M} 48'35	9.06513 AU
				direct	838 Jul 26 j 20:02	25° \mathring{M} 29'22	
conjunction	832 Sep 13 j 04:02	24° \mathring{M} 22'54	2°10'03	838 Oct 13 j 13:27	0° \mathring{Z}		
minimum elong	832 Sep 13 j 04:00	24° \mathring{M} 22'53	2°10'03	evening set	838 Nov 05 j 18:32	2° \mathring{Z} 32'40	
max. Earth dist.	832 Sep 13 j 05:35	24° \mathring{M} 23'22	10.63281 AU				
morning rise	832 Sep 30 j 05:24	26° \mathring{M} 27'27		conjunction	838 Nov 22 j 08:48	4° \mathring{Z} 28'57	1°27'13
	832 Oct 31 j 22:46	0° \mathring{Z}		minimum elong	838 Nov 22 j 08:51	4° \mathring{Z} 28'57	1°27'13
retrograde	833 Jan 08 j 00:20	3° \mathring{Z} 45'21		max. Earth dist.	838 Nov 22 j 04:09	4° \mathring{Z} 27'34	11.07487 AU
opposition	833 Mar 16 j 22:35	0° \mathring{Z} 25'49	2°45'00	morning rise	838 Dec 08 j 21:49	6° \mathring{Z} 24'54	
min. Earth dist.	833 Mar 16 j 21:56	0° \mathring{Z} 25'56	8.69052 AU	retrograde	839 Mar 19 j 02:00	13° \mathring{Z} 22'11	
	833 Mar 22 j 12:51	30° \mathring{R} \mathring{M}		opposition	839 May 28 j 13:53	10° \mathring{Z} 04'34	1°33'10
direct	833 May 26 j 08:30	27° \mathring{M} 00'41		min. Earth dist.	839 May 28 j 17:40	10° \mathring{Z} 03'53	9.08053 AU
	833 Jul 27 j 15:07	0° \mathring{Z}		direct	839 Aug 07 j 17:27	6° \mathring{Z} 45'20	
evening set	833 Sep 08 j 17:26	4° \mathring{Z} 35'28		evening set	839 Nov 17 j 00:43	13° \mathring{Z} 45'48	
conjunction	833 Sep 25 j 19:00	6° \mathring{Z} 38'47	2°16'49	conjunction	839 Dec 03 j 14:52	15° \mathring{Z} 42'00	1°04'39
minimum elong	833 Sep 25 j 19:00	6° \mathring{Z} 38'47	2°16'50	minimum elong	839 Dec 03 j 14:54	15° \mathring{Z} 42'01	1°04'40
max. Earth dist.	833 Sep 25 j 18:46	6° \mathring{Z} 38'43	10.74370 AU	max. Earth dist.	839 Dec 03 j 10:16	15° \mathring{Z} 40'39	11.07916 AU
morning rise	833 Oct 12 j 16:12	8° \mathring{Z} 40'47		morning rise	839 Dec 20 j 04:21	17° \mathring{Z} 38'06	
retrograde	834 Jan 20 j 03:06	15° \mathring{Z} 51'59		retrograde	840 Mar 29 j 22:27	24° \mathring{Z} 37'07	
opposition	834 Mar 29 j 13:52	12° \mathring{Z} 33'19	2°49'12	opposition	840 Jun 08 j 14:53	21° \mathring{Z} 19'04	1°03'55
min. Earth dist.	834 Mar 29 j 13:51	12° \mathring{Z} 33'20	8.79705 AU	min. Earth dist.	840 Jun 08 j 18:53	21° \mathring{Z} 18'19	9.07298 AU
direct	834 Jun 08 j 09:37	9° \mathring{Z} 09'22		direct	840 Aug 18 j 13:05	18° \mathring{Z} 00'21	
evening set	834 Sep 21 j 02:58	16° \mathring{Z} 36'15		evening set	840 Nov 27 j 06:33	24° \mathring{Z} 59'23	
conjunction	834 Oct 08 j 00:48	18° \mathring{Z} 37'16	2°17'26	conjunction	840 Dec 13 j 20:50	26° \mathring{Z} 55'55	0°39'34
minimum elong	834 Oct 08 j 00:48	18° \mathring{Z} 37'16	2°17'26	minimum elong	840 Dec 13 j 20:51	26° \mathring{Z} 55'55	0°39'35
max. Earth dist.	834 Oct 07 j 23:47	18° \mathring{Z} 36'57	10.84434 AU	max. Earth dist.	840 Dec 13 j 15:26	26° \mathring{Z} 54'19	11.06053 AU
morning rise	834 Oct 24 j 18:36	20° \mathring{Z} 37'06		morning rise	840 Dec 30 j 11:26	28° \mathring{Z} 52'35	
retrograde	835 Feb 01 j 03:24	27° \mathring{Z} 42'47			841 Jan 09 j 09:14	0° \mathring{Z}	
opposition	835 Apr 11 j 00:30	24° \mathring{Z} 24'46	2°46'03	retrograde	841 Apr 10 j 20:01	5° \mathring{Z} 54'52	
min. Earth dist.	835 Apr 11 j 00:56	24° \mathring{Z} 24'42	8.89098 AU	opposition	841 Jun 20 j 17:10	2° \mathring{Z} 36'09	0°32'05
direct	835 Jun 21 j 03:22	21° \mathring{Z} 01'59		min. Earth dist.	841 Jun 20 j 22:04	2° \mathring{Z} 35'15	9.04280 AU
evening set	835 Oct 03 j 04:02	28° \mathring{Z} 21'30			841 Jul 31 j 09:18	30° \mathring{R} \mathring{Z}	
	835 Oct 17 j 01:39	0° \mathring{M}		direct	841 Aug 30 j 06:26	29° \mathring{Z} 17'45	
					841 Sep 28 j 16:20	0° \mathring{Z}	
conjunction	835 Oct 19 j 22:57	0° \mathring{M} 20'39	2°12'13	evening set	841 Dec 08 j 13:52	6° \mathring{Z} 16'56	
minimum elong	835 Oct 19 j 22:58	0° \mathring{M} 20'39	2°12'13				
max. Earth dist.	835 Oct 19 j 21:34	0° \mathring{M} 20'14	10.93057 AU	conjunction	841 Dec 25 j 04:41	8° \mathring{Z} 14'07	0°12'49
morning rise	835 Nov 05 j 14:10	2° \mathring{M} 18'47		minimum elong	841 Dec 25 j 04:41	8° \mathring{Z} 14'07	0°12'50
retrograde	836 Feb 13 j 00:02	9° \mathring{M} 20'10		behind sun begin	841 Dec 25 j 00:15	8° \mathring{Z} 12'50	
opposition	836 Apr 22 j 07:14	6° \mathring{M} 02'37	2°36'07	behind sun end	841 Dec 25 j 09:07	8° \mathring{Z} 15'25	
min. Earth dist.	836 Apr 22 j 08:58	6° \mathring{M} 02'18	8.96867 AU	max. Earth dist.	841 Dec 24 j 22:25	8° \mathring{Z} 12'17	11.01967 AU
direct	836 Jul 02 j 12:26	2° \mathring{M} 40'53		morning rise	842 Jan 10 j 20:53	10° \mathring{Z} 11'44	
evening set	836 Oct 13 j 22:00	9° \mathring{M} 53'53		retrograde	842 Apr 22 j 21:39	17° \mathring{Z} 18'50	
				desc. node	842 Jun 18 j 11:24	15° \mathring{Z} 02'11	
conjunction	836 Oct 30 j 14:35	11° \mathring{M} 51'38	2°01'42	opposition	842 Jul 02 j 21:28	13° \mathring{Z} 59'15	0°-1'-16
minimum elong	836 Oct 30 j 14:37	11° \mathring{M} 51'38	2°01'41	min. Earth dist.	842 Jul 03 j 02:41	13° \mathring{Z} 58'17	8.99111 AU
max. Earth dist.	836 Oct 30 j 11:51	11° \mathring{M} 50'49	10.99918 AU	direct	842 Sep 11 j 02:03	10° \mathring{Z} 40'54	
morning rise	836 Nov 16 j 04:16	13° \mathring{M} 48'34		evening set	842 Dec 20 j 00:11	17° \mathring{Z} 41'48	
	836 Nov 26 j 15:15	15° \mathring{M}					
retrograde	837 Feb 23 j 16:37	20° \mathring{M} 47'05		conjunction	843 Jan 05 j 16:06	19° \mathring{Z} 40'02	0°-14'-46
opposition	837 May 04 j 11:14	17° \mathring{M} 29'45	2°20'08	minimum elong	843 Jan 05 j 16:06	19° \mathring{Z} 40'02	0°14'47
min. Earth dist.	837 May 04 j 14:26	17° \mathring{M} 29'09	9.02739 AU	behind sun begin	843 Jan 05 j 13:06	19° \mathring{Z} 39'09	
	837 Jun 11 j 12:59	15° \mathring{R} \mathring{M}		behind sun end	843 Jan 05 j 19:05	19° \mathring{Z} 40'55	
direct	837 Jul 14 j 18:22	14° \mathring{M} 08'58		max. Earth dist.	843 Jan 05 j 10:20	19° \mathring{Z} 38'20	10.95793 AU
	837 Aug 16 j 11:59	15° \mathring{M}		morning rise	843 Jan 22 j 10:04	21° \mathring{Z} 38'55	
evening set	837 Oct 25 j 10:12	21° \mathring{M} 16'31		retrograde	843 May 05 j 06:01	28° \mathring{Z} 52'18	
				opposition	843 Jul 15 j 04:56	25° \mathring{Z} 31'39	0°-35'-5

min. Earth dist.	843 Jul 15 j 09:28	25°☾30'48	8.91962 AU	opposition	849 Sep 29 j 11:59	10°♃27'18	-2°-49'-44
direct	843 Sep 22 j 23:02	22°☾13'10		min. Earth dist.	849 Sep 29 j 12:07	10°♃27'17	8.27047 AU
evening set	843 Dec 31 j 15:19	29°☾17'18		direct	849 Dec 05 j 06:49	7°♃03'39	
	844 Jan 06 j 15:46	0°♁		evening set	850 Mar 16 j 15:59	14°♃51'49	
conjunction	844 Jan 17 j 08:36	1°♁16'53	0°-42'-4	conjunction	850 Apr 03 j 02:48	17°♃05'11	-2°-16'-33
minimum elong	844 Jan 17 j 08:34	1°♁16'53	0°42'06	minimum elong	850 Apr 03 j 02:49	17°♃05'11	2°16'33
max. Earth dist.	844 Jan 17 j 03:49	1°♁15'27	10.87741 AU	max. Earth dist.	850 Apr 03 j 02:33	17°♃05'06	10.21700 AU
morning rise	844 Feb 03 j 04:30	3°♁17'20		morning rise	850 Apr 20 j 18:05	19°♃20'01	
retrograde	844 May 16 j 20:29	10°♁38'19		retrograde	850 Aug 05 j 23:11	27°♃34'32	
opposition	844 Jul 26 j 16:31	7°♁16'27	-1°-8'-4	opposition	850 Oct 13 j 08:58	24°♃05'24	-2°-47'-18
min. Earth dist.	844 Jul 26 j 20:06	7°♁15'47	8.83095 AU	min. Earth dist.	850 Oct 13 j 08:11	24°♃05'33	8.17040 AU
direct	844 Oct 03 j 22:26	3°♁57'38		direct	850 Dec 18 j 20:57	20°♃40'27	
evening set	845 Jan 11 j 12:56	11°♁06'29		evening set	851 Mar 30 j 23:00	28°♃37'10	
					851 Apr 10 j 17:46	0°♄	
conjunction	845 Jan 28 j 07:48	13°♁07'44	-1°-8'-5	conjunction	851 Apr 17 j 14:24	0°♄53'13	-2°-10'-27
minimum elong	845 Jan 28 j 07:46	13°♁07'44	1°08'06	minimum elong	851 Apr 17 j 14:26	0°♄53'14	2°10'28
max. Earth dist.	845 Jan 28 j 03:02	13°♁06'18	10.78131 AU	max. Earth dist.	851 Apr 17 j 15:07	0°♄53'27	10.12564 AU
	845 Feb 12 j 20:12	15°♁		morning rise	851 May 05 j 09:55	3°♄10'36	
morning rise	845 Feb 14 j 06:07	15°♁10'05		retrograde	851 Aug 20 j 12:36	11°♄30'19	
retrograde	845 May 29 j 18:50	22°♁39'42		opposition	851 Oct 27 j 10:37	8°♄00'37	-2°-35'-6
opposition	845 Aug 08 j 09:01	19°♁16'32	-1°-38'-52	min. Earth dist.	851 Oct 27 j 09:04	8°♄00'56	8.08932 AU
min. Earth dist.	845 Aug 08 j 12:23	19°♁15'54	8.72868 AU	direct	852 Jan 01 j 18:55	4°♄34'23	
direct	845 Oct 16 j 01:49	15°♁57'07		evening set	852 Apr 13 j 14:38	12°♄38'34	
evening set	846 Jan 23 j 18:17	23°♁12'03					
conjunction	846 Feb 09 j 15:10	25°♁15'16	-1°-31'-36	conjunction	852 May 01 j 10:40	14°♄56'59	-1°-56'-35
minimum elong	846 Feb 09 j 15:08	25°♁15'15	1°31'37	minimum elong	852 May 01 j 10:43	14°♄57'00	1°56'36
max. Earth dist.	846 Feb 09 j 10:28	25°♁13'50	10.67345 AU		852 May 01 j 19:55	15°♄	
morning rise	846 Feb 26 j 16:16	27°♁19'46		max. Earth dist.	852 May 01 j 12:44	14°♄57'40	10.05645 AU
	846 Mar 21 j 23:16	0°♅		morning rise	852 May 19 j 10:09	17°♄16'30	
retrograde	846 Jun 11 j 23:42	4°♅58'46		retrograde	852 Sep 03 j 04:15	25°♄38'45	
opposition	846 Aug 21 j 06:59	1°♅34'16	-2°-5'-58	opposition	852 Nov 09 j 15:27	22°♄08'49	-2°-13'-21
min. Earth dist.	846 Aug 21 j 10:13	1°♅33'39	8.61683 AU	min. Earth dist.	852 Nov 09 j 13:07	22°♄09'18	8.03278 AU
	846 Sep 11 j 12:58	30°♆		direct	853 Jan 14 j 23:19	18°♄41'24	
direct	846 Oct 28 j 10:24	28°♁14'00		evening set	853 Apr 28 j 13:24	26°♄51'25	
	846 Dec 12 j 19:38	0°♅					
evening set	847 Feb 05 j 08:34	5°♅36'14		conjunction	853 May 16 j 13:37	29°♄11'41	-1°-35'-31
				minimum elong	853 May 16 j 13:41	29°♄11'43	1°35'32
conjunction	847 Feb 22 j 08:03	7°♅41'40	-1°-51'-24	max. Earth dist.	853 May 16 j 17:19	29°♄12'54	10.01407 AU
minimum elong	847 Feb 22 j 08:01	7°♅41'40	1°51'25		853 May 22 j 17:34	0°♆	
max. Earth dist.	847 Feb 22 j 04:14	7°♅40'29	10.55809 AU	morning rise	853 Jun 03 j 16:13	1°♆32'42	
morning rise	847 Mar 11 j 12:08	9°♅48'32		retrograde	853 Sep 17 j 19:54	9°♆54'30	
retrograde	847 Jun 25 j 11:17	17°♅37'15		opposition	853 Nov 23 j 21:42	6°♆24'43	-1°-43'-10
opposition	847 Sep 03 j 10:39	14°♅11'23	-2°-27'-50	min. Earth dist.	853 Nov 23 j 18:15	6°♆25'26	8.00458 AU
min. Earth dist.	847 Sep 03 j 13:16	14°♅10'52	8.49987 AU	direct	854 Jan 29 j 08:33	2°♆56'18	
direct	847 Nov 10 j 03:19	10°♅50'07		evening set	854 May 13 j 16:36	11°♆10'11	
evening set	848 Feb 18 j 08:36	18°♅20'31					
conjunction	848 Mar 06 j 11:20	20°♅28'27	-2°-6'-14	conjunction	854 May 31 j 19:57	13°♆31'31	-1°-8'-27
minimum elong	848 Mar 06 j 11:18	20°♅28'26	2°06'15	minimum elong	854 May 31 j 20:01	13°♆31'32	1°08'29
max. Earth dist.	848 Mar 06 j 09:09	20°♅27'45	10.43997 AU	max. Earth dist.	854 Jun 01 j 01:14	13°♆33'14	10.00127 AU
morning rise	848 Mar 23 j 18:42	22°♅37'51		morning rise	854 Jun 19 j 00:20	15°♆53'09	
	848 Jun 11 j 17:16	0°♇		retrograde	854 Oct 02 j 09:31	24°♆11'44	
retrograde	848 Jul 08 j 08:03	0°♇36'09		opposition	854 Dec 08 j 03:59	20°♆42'28	-1°-6'-30
	848 Aug 04 j 03:39	30°♈		min. Earth dist.	854 Dec 07 j 23:20	20°♆43'26	8.00655 AU
opposition	848 Sep 15 j 20:23	27°♈08'58	-2°-42'-53	direct	855 Feb 12 j 21:44	17°♆13'16	
min. Earth dist.	848 Sep 15 j 21:41	27°♈08'43	8.38260 AU	evening set	855 May 28 j 21:12	25°♆28'46	
direct	848 Nov 22 j 02:06	23°♈46'34					
	849 Feb 19 j 01:37	0°♇		conjunction	855 Jun 16 j 02:10	27°♆50'13	0°-37'-13
evening set	849 Mar 02 j 18:56	1°♇25'43		minimum elong	855 Jun 16 j 02:12	27°♆50'13	0°37'14
				max. Earth dist.	855 Jun 16 j 08:47	27°♆52'22	10.01875 AU
conjunction	849 Mar 20 j 01:29	3°♇36'19	-2°-14'-56		855 Jul 02 j 18:37	0°♈	
minimum elong	849 Mar 20 j 01:29	3°♇36'19	2°14'57	morning rise	855 Jul 04 j 06:42	0°♈11'32	
max. Earth dist.	849 Mar 20 j 00:25	3°♇35'59	10.32417 AU	retrograde	855 Oct 16 j 18:12	8°♈24'29	
morning rise	849 Apr 06 j 12:39	5°♇48'27		opposition	855 Dec 22 j 08:31	4°♈56'02	0°-25'-54
retrograde	849 Jul 22 j 13:08	13°♇55'36		min. Earth dist.	855 Dec 22 j 02:57	4°♈57'11	8.03842 AU
				direct	856 Feb 27 j 11:41	1°♈26'22	

evening set	856 Jun 12 j 00:33	9°♄41'13		morning rise	861 Sep 24 j 18:40	20°♎59'46	
conjunction	856 Jun 30 j 05:21	12°♄01'49	0°-3'-58	retrograde	862 Jan 02 j 16:46	28°♎20'56	
minimum elong	856 Jun 30 j 05:21	12°♄01'49	0°04'00	opposition	862 Mar 11 j 11:02	25°♎00'29	2°40'26
behind sun begin	856 Jun 29 j 22:05	11°♄59'29		min. Earth dist.	862 Mar 11 j 08:10	25°♎01'02	8.63499 AU
behind sun end	856 Jun 30 j 12:36	12°♄04'09		direct	862 May 20 j 17:30	21°♎34'32	
max. Earth dist.	856 Jun 30 j 12:41	12°♄04'10	10.06507 AU	evening set	862 Sep 03 j 06:20	29°♎12'45	
morning rise	856 Jul 18 j 08:17	14°♄21'51			862 Sep 09 j 19:43	0°♄	
asc. node	856 Aug 13 j 13:33	17°♄31'37		conjunction	862 Sep 20 j 10:08	1°♄17'16	2°14'25
retrograde	856 Oct 29 j 20:57	22°♄27'17		minimum elong	862 Sep 20 j 10:07	1°♄17'15	2°14'26
opposition	857 Jan 04 j 09:43	18°♄59'57	0°15'46	max. Earth dist.	862 Sep 20 j 12:36	1°♄18'01	10.69193 AU
min. Earth dist.	857 Jan 04 j 04:05	19°♄01'06	8.09782 AU	morning rise	862 Oct 07 j 09:07	3°♄20'21	
direct	857 Mar 13 j 00:09	15°♄30'07		retrograde	863 Jan 14 j 23:19	10°♄34'18	
evening set	857 Jun 26 j 23:38	23°♄42'13		opposition	863 Mar 24 j 04:13	7°♄15'03	2°48'07
conjunction	857 Jul 15 j 02:24	26°♄01'04	0°29'13	min. Earth dist.	863 Mar 24 j 02:49	7°♄15'19	8.74923 AU
minimum elong	857 Jul 15 j 02:23	26°♄01'04	0°29'13	direct	863 Jun 02 j 19:36	3°♄50'26	
max. Earth dist.	857 Jul 15 j 09:32	26°♄03'21	10.13690 AU	evening set	863 Sep 15 j 20:13	11°♄20'41	
morning rise	857 Aug 02 j 02:11	28°♄18'59		conjunction	863 Oct 02 j 19:49	13°♄22'40	2°17'49
	857 Aug 15 j 18:30	0°♄		minimum elong	863 Oct 02 j 19:49	13°♄22'40	2°17'50
retrograde	857 Nov 12 j 16:55	6°♄15'43		max. Earth dist.	863 Oct 02 j 20:39	13°♄22'55	10.80126 AU
opposition	858 Jan 18 j 06:43	2°♄49'40	0°55'47	morning rise	863 Oct 19 j 15:03	15°♄23'24	
min. Earth dist.	858 Jan 18 j 01:42	2°♄50'42	8.18075 AU	retrograde	864 Jan 27 j 00:53	22°♄31'15	
	858 Feb 27 j 21:40	30°♄		opposition	864 Apr 04 j 16:44	19°♄13'00	2°48'15
direct	858 Mar 27 j 09:28	29°♄20'01		min. Earth dist.	864 Apr 04 j 17:01	19°♄12'57	8.85294 AU
	858 Apr 23 j 21:52	0°♄		direct	864 Jun 14 j 15:28	15°♄49'44	
evening set	858 Jul 11 j 15:39	7°♄27'29		evening set	864 Sep 27 j 01:09	23°♄12'25	
conjunction	858 Jul 29 j 14:51	9°♄43'53	1°00'06	conjunction	864 Oct 13 j 21:12	25°♄12'19	2°15'13
minimum elong	858 Jul 29 j 14:48	9°♄43'52	1°00'05	minimum elong	864 Oct 13 j 21:13	25°♄12'19	2°15'13
max. Earth dist.	858 Jul 29 j 21:00	9°♄45'51	10.22954 AU	max. Earth dist.	864 Oct 13 j 19:59	25°♄11'57	10.89797 AU
morning rise	858 Aug 16 j 10:15	11°♄59'04		morning rise	864 Oct 30 j 13:37	27°♄11'08	
	858 Sep 10 j 20:30	15°♄			864 Nov 24 j 22:51	0°♄	
retrograde	858 Nov 26 j 04:58	19°♄46'33		retrograde	865 Feb 06 j 21:47	4°♄14'08	
opposition	859 Jan 31 j 22:30	16°♄21'55	1°31'46	opposition	865 Apr 17 j 01:10	0°♄56'38	2°41'21
min. Earth dist.	859 Jan 31 j 18:10	16°♄22'47	8.28199 AU	min. Earth dist.	865 Apr 17 j 02:14	0°♄56'26	8.94189 AU
	859 Feb 18 j 07:58	15°♄			865 Apr 29 j 19:41	30°♄	
direct	859 Apr 10 j 15:00	12°♄52'46		direct	865 Jun 27 j 04:52	27°♄34'40	
	859 May 31 j 03:25	15°♄			865 Aug 22 j 10:06	0°♄	
evening set	859 Jul 25 j 22:53	20°♄54'08		evening set	865 Oct 08 j 22:17	4°♄50'28	
conjunction	859 Aug 12 j 17:30	23°♄07'38	1°27'04	conjunction	865 Oct 25 j 15:47	6°♄48'44	2°07'03
minimum elong	859 Aug 12 j 17:27	23°♄07'37	1°27'03	minimum elong	865 Oct 25 j 15:48	6°♄48'44	2°07'03
max. Earth dist.	859 Aug 12 j 22:20	23°♄09'09	10.33744 AU	max. Earth dist.	865 Oct 25 j 13:45	6°♄48'08	10.97832 AU
morning rise	859 Aug 30 j 07:49	25°♄19'45		morning rise	865 Nov 11 j 06:10	8°♄46'07	
	859 Oct 11 j 09:30	0°♄			866 Jan 19 j 12:25	15°♄	
retrograde	859 Dec 09 j 06:59	2°♄57'54		retrograde	866 Feb 18 j 16:54	15°♄45'38	
	860 Feb 09 j 01:12	30°♄			866 Mar 21 j 11:36	15°♄	
opposition	860 Feb 14 j 08:23	29°♄34'43	2°01'54	opposition	866 Apr 29 j 06:20	12°♄28'36	2°28'02
min. Earth dist.	860 Feb 14 j 04:38	29°♄35'28	8.39560 AU	min. Earth dist.	866 Apr 29 j 07:49	12°♄28'20	9.01269 AU
direct	860 Apr 23 j 15:40	26°♄06'24		direct	866 Jul 09 j 13:44	9°♄07'50	
	860 Jul 03 j 06:21	0°♄			866 Oct 09 j 02:45	15°♄	
evening set	860 Aug 07 j 20:02	4°♄00'36		evening set	866 Oct 20 j 12:59	16°♄17'38	
conjunction	860 Aug 25 j 09:38	6°♄11'00	1°48'53	conjunction	866 Nov 06 j 04:47	18°♄14'45	1°53'55
minimum elong	860 Aug 25 j 09:34	6°♄10'59	1°48'52	minimum elong	866 Nov 06 j 04:49	18°♄14'45	1°53'54
max. Earth dist.	860 Aug 25 j 13:14	6°♄12'07	10.45452 AU	max. Earth dist.	866 Nov 06 j 02:23	18°♄14'02	11.03914 AU
morning rise	860 Sep 11 j 18:35	8°♄19'56		morning rise	866 Nov 22 j 17:57	20°♄11'10	
retrograde	860 Dec 21 j 02:42	15°♄49'14		retrograde	867 Mar 02 j 11:14	27°♄08'36	
opposition	861 Feb 26 j 12:31	12°♄27'27	2°24'59	opposition	867 May 11 j 09:08	23°♄51'47	2°09'05
min. Earth dist.	861 Feb 26 j 08:56	12°♄28'09	8.51528 AU	min. Earth dist.	867 May 11 j 11:36	23°♄51'20	9.06249 AU
direct	861 May 07 j 08:48	9°♄00'13		direct	867 Jul 21 j 15:42	20°♄32'01	
evening set	861 Aug 21 j 06:27	16°♄46'34		evening set	867 Oct 31 j 23:16	27°♄36'59	
conjunction	861 Sep 07 j 15:00	18°♄53'54	2°04'47	conjunction	867 Nov 17 j 13:52	29°♄33'23	1°36'25
minimum elong	861 Sep 07 j 14:57	18°♄53'54	2°04'47	minimum elong	867 Nov 17 j 13:54	29°♄33'23	1°36'24
max. Earth dist.	861 Sep 07 j 18:10	18°♄54'53	10.57460 AU	max. Earth dist.	867 Nov 17 j 10:03	29°♄32'15	11.07787 AU

	867 Nov 21 j 08:22	0°♊		conjunction	874 Jan 23 j 06:14	7°♊58'37	0°-56'-27
morning rise	867 Dec 04 j 02:41	1°♊29'19		minimum elong	874 Jan 23 j 06:12	7°♊58'36	0°56'28
retrograde	868 Mar 13 j 03:12	8°♊26'09		max. Earth dist.	874 Jan 22 j 23:31	7°♊56'35	10.81857 AU
opposition	868 May 22 j 10:31	5°♊09'15	1°45'19	morning rise	874 Feb 09 j 03:32	10°♊00'09	
min. Earth dist.	868 May 22 j 14:47	5°♊08'28	9.08915 AU		874 Mar 29 j 09:11	15°♊	
direct	868 Aug 01 j 14:08	1°♊50'16		retrograde	874 May 24 j 05:34	17°♊26'06	
evening set	868 Nov 11 j 06:36	8°♊51'46			874 Jul 21 j 07:45	15°♊	
				opposition	874 Aug 02 j 23:23	14°♊03'18	-1°-25'-12
conjunction	868 Nov 27 j 20:34	10°♊47'52	1°15'17	min. Earth dist.	874 Aug 03 j 04:38	14°♊02'19	8.76589 AU
minimum elong	868 Nov 27 j 20:36	10°♊47'53	1°15'18	direct	874 Oct 10 j 23:31	10°♊43'49	
max. Earth dist.	868 Nov 27 j 14:47	10°♊46'10	11.09269 AU		874 Dec 23 j 13:19	15°♊	
morning rise	868 Dec 14 j 09:48	12°♊43'46		evening set	875 Jan 18 j 13:52	17°♊56'19	
retrograde	869 Mar 24 j 21:42	19°♊41'38					
opposition	869 Jun 03 j 11:37	16°♊24'24	1°17'37	conjunction	875 Feb 04 j 09:58	19°♊58'46	-1°-21'-16
min. Earth dist.	869 Jun 03 j 16:55	16°♊23'25	9.09119 AU	minimum elong	875 Feb 04 j 09:55	19°♊58'45	1°21'17
direct	869 Aug 13 j 11:55	13°♊05'58		max. Earth dist.	875 Feb 04 j 04:39	19°♊57'09	10.71053 AU
evening set	869 Nov 22 j 12:33	20°♊05'26		morning rise	875 Feb 21 j 09:41	22°♊02'23	
				retrograde	875 Jun 06 j 08:10	29°♊37'33	
conjunction	869 Dec 09 j 02:37	22°♊01'43	0°51'17	opposition	875 Aug 15 j 18:55	26°♊13'13	-1°-54'-14
minimum elong	869 Dec 09 j 02:39	22°♊01'43	0°51'17	min. Earth dist.	875 Aug 15 j 22:45	26°♊12'28	8.65308 AU
max. Earth dist.	869 Dec 08 j 20:15	21°♊59'50	11.08254 AU	direct	875 Oct 23 j 05:31	22°♊52'52	
morning rise	869 Dec 25 j 16:43	23°♊58'01			876 Jan 29 j 07:26	0°♋	
	870 Mar 01 j 20:46	0°♋		evening set	876 Jan 30 j 23:59	0°♋12'13	
retrograde	870 Apr 05 j 18:04	0°♋58'35					
	870 May 11 j 10:40	30°♋		conjunction	876 Feb 16 j 22:22	2°♋16'49	-1°-42'-57
opposition	870 Jun 15 j 13:22	27°♋40'41	0°46'52	minimum elong	876 Feb 16 j 22:19	2°♋16'48	1°42'57
min. Earth dist.	870 Jun 15 j 18:43	27°♋39'42	9.06831 AU	max. Earth dist.	876 Feb 16 j 17:54	2°♋15'26	10.59351 AU
direct	870 Aug 25 j 06:49	24°♋22'36		morning rise	876 Mar 05 j 00:56	4°♋22'45	
	870 Nov 21 j 18:28	0°♋		retrograde	876 Jun 18 j 17:25	12°♋07'43	
evening set	870 Dec 03 j 19:18	1°♋21'38		opposition	876 Aug 27 j 20:18	8°♋41'51	-2°-18'-44
				min. Earth dist.	876 Aug 27 j 23:04	8°♋41'19	8.53384 AU
conjunction	870 Dec 20 j 09:57	3°♋18'28	0°25'11	direct	876 Nov 03 j 18:12	5°♋20'28	
minimum elong	870 Dec 20 j 09:58	3°♋18'28	0°25'11	evening set	877 Feb 11 j 19:43	12°♋47'46	
max. Earth dist.	870 Dec 20 j 03:40	3°♋16'37	11.04790 AU				
morning rise	871 Jan 06 j 01:14	5°♋15'33		conjunction	877 Feb 28 j 20:54	14°♋54'46	-2°00'-13
retrograde	871 Apr 17 j 19:28	12°♋20'23		minimum elong	877 Feb 28 j 20:52	14°♋54'46	2°00'14
opposition	871 Jun 27 j 16:43	9°♋01'35	0°14'05	max. Earth dist.	877 Feb 28 j 16:55	14°♋53'32	10.47271 AU
min. Earth dist.	871 Jun 27 j 22:07	9°♋00'36	9.02181 AU	morning rise	877 Mar 18 j 02:50	17°♋03'15	
direct	871 Sep 06 j 02:06	5°♋43'33		retrograde	877 Jul 02 j 11:03	24°♋58'04	
desc. node	871 Dec 02 j 15:47	11°♋18'20		opposition	877 Sep 10 j 03:40	21°♋30'47	-2°-37'-6
evening set	871 Dec 15 j 04:29	12°♋43'41		min. Earth dist.	877 Sep 10 j 05:51	21°♋30'21	8.41362 AU
				direct	877 Nov 16 j 13:34	18°♋08'13	
conjunction	871 Dec 31 j 19:52	14°♋41'26	0°-2'-11	evening set	878 Feb 25 j 01:41	25°♋44'12	
minimum elong	871 Dec 31 j 19:52	14°♋41'26	0°02'12				
behind sun begin	871 Dec 31 j 12:54	14°♋39'24		conjunction	878 Mar 14 j 06:23	27°♋53'49	-2°-11'-52
behind sun end	872 Jan 01 j 02:51	14°♋43'29		minimum elong	878 Mar 14 j 06:21	27°♋53'49	2°11'52
max. Earth dist.	871 Dec 31 j 12:48	14°♋39'22	10.99059 AU	max. Earth dist.	878 Mar 14 j 03:35	27°♋52'56	10.35381 AU
morning rise	872 Jan 17 j 12:51	16°♋39'42			878 Mar 30 j 23:55	0°♌	
retrograde	872 Apr 29 j 01:41	23°♋50'14		morning rise	878 Mar 31 j 16:01	0°♌04'59	
opposition	872 Jul 08 j 23:06	20°♋30'19	0°-19'-40	retrograde	878 Jul 16 j 11:57	8°♌09'05	
min. Earth dist.	872 Jul 09 j 05:01	20°♋29'13	8.95392 AU	opposition	878 Sep 23 j 17:07	4°♌40'35	-2°-47'-52
direct	872 Sep 16 j 21:02	17°♋12'02		min. Earth dist.	878 Sep 23 j 18:27	4°♌40'19	8.29825 AU
evening set	872 Dec 25 j 17:29	24°♋14'48		direct	878 Nov 29 j 16:35	1°♌16'47	
				evening set	879 Mar 10 j 18:05	9°♌01'43	
conjunction	873 Jan 11 j 09:59	26°♋13'47	0°-29'-41				
minimum elong	873 Jan 11 j 09:57	26°♋13'47	0°29'43	conjunction	879 Mar 28 j 02:54	11°♌14'04	-2°-16'-47
max. Earth dist.	873 Jan 11 j 02:24	26°♋11'31	10.91314 AU	minimum elong	879 Mar 28 j 02:54	11°♌14'04	2°16'48
morning rise	873 Jan 28 j 05:03	28°♋13'33		max. Earth dist.	879 Mar 28 j 02:12	11°♌13'51	10.24287 AU
	873 Feb 12 j 18:56	0°♌		morning rise	879 Apr 14 j 16:28	13°♌27'57	
retrograde	873 May 11 j 11:13	5°♌31'11		retrograde	879 Jul 30 j 18:44	21°♌40'09	
opposition	873 Jul 21 j 09:09	2°♌09'54	0°-53'-12	opposition	879 Oct 07 j 12:13	18°♌10'39	-2°-49'-44
min. Earth dist.	873 Jul 21 j 15:14	2°♌08'46	8.86750 AU	min. Earth dist.	879 Oct 07 j 11:57	18°♌10'43	8.19387 AU
	873 Aug 21 j 20:52	30°♌		direct	879 Dec 13 j 04:27	14°♌45'38	
direct	873 Sep 28 j 20:16	28°♌51'08		evening set	880 Mar 23 j 20:50	22°♌39'16	
	873 Nov 04 j 20:52	0°♌					
evening set	874 Jan 06 j 12:08	5°♌58'03		conjunction	880 Apr 10 j 10:16	24°♌54'21	-2°-14'-12
				minimum elong	880 Apr 10 j 10:18	24°♌54'22	2°14'14

max. Earth dist.	880 Apr 10 j 11:53	24°♃54'52	10.14622 AU	asc. node	886 Jan 22 j 17:03	11°♄09'49	
morning rise	880 Apr 28 j 03:57	27°♃10'50		direct	886 Mar 06 j 23:03	9°♄33'03	
	880 May 21 j 10:05	0°♄		evening set	886 Jun 20 j 18:52	17°♄46'52	
retrograde	880 Aug 13 j 06:56	5°♄29'14					
opposition	880 Oct 20 j 12:12	1°♄59'05	-2°-41'-55	conjunction	886 Jul 08 j 22:36	20°♄06'34	0°14'44
min. Earth dist.	880 Oct 20 j 10:09	1°♄59'30	8.10666 AU	minimum elong	886 Jul 08 j 22:35	20°♄06'34	0°14'43
	880 Nov 15 j 09:57	30°♃		behind sun begin	886 Jul 08 j 19:53	20°♄05'42	
direct	880 Dec 25 j 22:48	28°♃32'54		behind sun end	886 Jul 09 j 01:18	20°♄07'26	
	881 Feb 03 j 18:06	0°♄		max. Earth dist.	886 Jul 09 j 05:53	20°♄08'55	10.10752 AU
evening set	881 Apr 07 j 09:03	6°♄34'25		morning rise	886 Jul 27 j 00:06	22°♄25'31	
					886 Oct 16 j 07:58	0°♄	
conjunction	881 Apr 25 j 03:14	8°♄52'01	-2°-3'-47	retrograde	886 Nov 07 j 01:04	0°♄26'25	
minimum elong	881 Apr 25 j 03:17	8°♄52'02	2°03'49		886 Nov 28 j 21:28	30°♃	
max. Earth dist.	881 Apr 25 j 06:57	8°♄53'14	10.06980 AU	opposition	887 Jan 12 j 14:05	27°♄00'14	0°38'27
morning rise	881 May 13 j 00:57	11°♄10'49		min. Earth dist.	887 Jan 12 j 07:55	27°♄01'30	8.14865 AU
	881 Jun 14 j 00:55	15°♄		direct	887 Mar 21 j 10:51	23°♄31'00	
retrograde	881 Aug 27 j 23:23	19°♄32'54			887 Jun 21 j 21:43	0°♄	
opposition	881 Nov 03 j 16:02	16°♄02'31	-2°-24'-19	evening set	887 Jul 05 j 14:37	1°♄40'45	
min. Earth dist.	881 Nov 03 j 12:22	16°♄03'16	8.04207 AU				
	881 Nov 16 j 12:22	15°♃		conjunction	887 Jul 23 j 15:34	3°♄58'16	0°46'50
direct	882 Jan 08 j 23:28	12°♄35'15		minimum elong	887 Jul 23 j 15:32	3°♄58'15	0°46'49
	882 Mar 01 j 23:04	15°♄		max. Earth dist.	887 Jul 23 j 22:50	4°♄00'35	10.19514 AU
evening set	882 Apr 22 j 05:15	20°♄43'20		morning rise	887 Aug 10 j 13:07	6°♄14'41	
				retrograde	887 Nov 20 j 17:07	14°♄06'20	
conjunction	882 May 10 j 03:48	23°♄03'01	-1°-45'-48	opposition	888 Jan 26 j 08:28	10°♄41'33	1°16'28
minimum elong	882 May 10 j 03:51	23°♄03'02	1°45'50	min. Earth dist.	888 Jan 26 j 02:37	10°♄42'44	8.24524 AU
max. Earth dist.	882 May 10 j 08:59	23°♄04'42	10.01856 AU	direct	888 Apr 03 j 18:32	7°♄12'44	
morning rise	882 May 28 j 05:00	25°♄23'35			888 Jul 16 j 19:48	15°♄	
	882 Jul 06 j 11:52	0°♄		evening set	888 Jul 19 j 02:22	15°♄16'51	
retrograde	882 Sep 11 j 16:54	3°♄46'30					
opposition	882 Nov 17 j 22:14	0°♄16'18	-1°-57'-39	conjunction	888 Aug 05 j 23:15	17°♄31'36	1°15'42
min. Earth dist.	882 Nov 17 j 17:37	0°♄17'15	8.00453 AU	minimum elong	888 Aug 05 j 23:12	17°♄31'35	1°15'42
	882 Nov 21 j 05:01	30°♃		max. Earth dist.	888 Aug 06 j 05:36	17°♄33'37	10.29870 AU
direct	883 Jan 23 j 06:13	26°♄48'08		morning rise	888 Aug 23 j 15:48	19°♄45'02	
	883 Mar 24 j 20:50	0°♄		retrograde	888 Dec 03 j 00:17	27°♄27'15	
evening set	883 May 07 j 07:08	5°♄00'59		opposition	889 Feb 07 j 21:09	24°♄03'57	1°49'20
				min. Earth dist.	889 Feb 07 j 16:35	24°♄04'52	8.35444 AU
conjunction	883 May 25 j 09:13	7°♄22'03	-1°-21'-11	direct	889 Apr 17 j 21:12	20°♄35'48	
minimum elong	883 May 25 j 09:17	7°♄22'04	1°21'13	evening set	889 Aug 02 j 04:29	28°♄33'13	
max. Earth dist.	883 May 25 j 15:26	7°♄24'05	9.99619 AU		889 Aug 13 j 20:39	0°♄	
morning rise	883 Jun 12 j 12:55	9°♄43'39					
retrograde	883 Sep 26 j 08:58	18°♄04'31		conjunction	889 Aug 19 j 20:27	0°♄44'57	1°39'54
opposition	883 Dec 02 j 05:13	14°♄34'54	-1°-23'-31	minimum elong	889 Aug 19 j 20:24	0°♄44'56	1°39'53
min. Earth dist.	883 Dec 02 j 00:06	14°♄35'58	7.99691 AU	max. Earth dist.	889 Aug 20 j 01:07	0°♄46'25	10.41131 AU
direct	884 Feb 06 j 18:11	11°♄06'03		morning rise	889 Sep 06 j 07:37	2°♄55'14	
evening set	884 May 21 j 11:59	19°♄21'31		retrograde	889 Dec 16 j 00:21	10°♄28'29	
				opposition	890 Feb 21 j 04:16	7°♄06'37	2°15'38
conjunction	884 Jun 08 j 16:21	21°♄43'06	0°-51'-31	min. Earth dist.	890 Feb 21 j 01:29	7°♄07'10	8.46979 AU
minimum elong	884 Jun 08 j 16:23	21°♄43'06	0°51'32	direct	890 May 01 j 16:49	3°♄39'23	
max. Earth dist.	884 Jun 08 j 23:15	21°♄45'21	10.00434 AU	evening set	890 Aug 15 j 20:03	11°♄29'24	
morning rise	884 Jun 26 j 21:06	24°♄04'47					
	884 Aug 19 j 05:25	0°♄		conjunction	890 Sep 02 j 06:47	13°♄38'05	1°58'28
retrograde	884 Oct 09 j 20:12	2°♄20'56		minimum elong	890 Sep 02 j 06:45	13°♄38'04	1°58'27
	884 Dec 01 j 13:49	30°♃		max. Earth dist.	890 Sep 02 j 09:19	13°♄38'52	10.52733 AU
opposition	884 Dec 15 j 11:15	28°♄52'16	0°-44'-15	morning rise	890 Sep 19 j 12:44	15°♄45'17	
min. Earth dist.	884 Dec 15 j 05:50	28°♄53'23	8.01981 AU	retrograde	890 Dec 28 j 16:43	23°♄10'13	
direct	885 Feb 20 j 08:51	25°♄23'00		opposition	891 Mar 06 j 05:42	19°♄49'39	2°34'29
	885 May 06 j 06:36	0°♄		min. Earth dist.	891 Mar 06 j 04:19	19°♄49'55	8.58612 AU
evening set	885 Jun 05 j 17:01	3°♄38'46		direct	891 May 15 j 05:55	16°♄23'30	
				evening set	891 Aug 29 j 01:10	24°♄05'41	
conjunction	885 Jun 23 j 21:57	5°♄59'54	0°-18'-49				
minimum elong	885 Jun 23 j 21:58	5°♄59'54	0°18'50	conjunction	891 Sep 15 j 06:56	26°♄11'28	2°10'52
max. Earth dist.	885 Jun 24 j 05:08	6°♄02'13	10.04234 AU	minimum elong	891 Sep 15 j 06:54	26°♄11'27	2°10'52
morning rise	885 Jul 12 j 01:57	8°♄20'40		max. Earth dist.	891 Sep 15 j 07:26	26°♄11'37	10.64194 AU
retrograde	885 Oct 24 j 01:39	16°♄29'57		morning rise	891 Oct 02 j 08:05	28°♄15'50	
opposition	885 Dec 29 j 14:38	13°♄02'27	0°-2'-38		891 Oct 17 j 04:55	0°♄	
min. Earth dist.	885 Dec 29 j 08:55	13°♄03'38	8.07161 AU	retrograde	892 Jan 10 j 01:09	5°♄33'15	

opposition	892 Mar 18 j 01:32	2°♄13'47	2°45'35	opposition	898 May 29 j 18:03	11°♂53'31	1°29'51
min. Earth dist.	892 Mar 18 j 00:54	2°♄13'55	8.69851 AU	min. Earth dist.	898 May 29 j 21:53	11°♂52'48	9.07037 AU
	892 Apr 18 j 17:12	30°♃♂		direct	898 Aug 08 j 21:12	8°♂34'14	
direct	892 May 27 j 13:15	28°♂48'46		evening set	898 Nov 18 j 03:36	15°♂35'06	
	892 Jul 04 j 21:12	0°♄					
evening set	892 Sep 09 j 20:01	6°♄23'03		conjunction	898 Dec 04 j 17:48	17°♂31'30	1°01'46
				minimum elong	898 Dec 04 j 17:50	17°♂31'30	1°01'47
conjunction	892 Sep 26 j 21:24	8°♄26'13	2°16'59	max. Earth dist.	898 Dec 04 j 12:43	17°♂30'00	11.06776 AU
minimum elong	892 Sep 26 j 21:24	8°♄26'12	2°17'00	morning rise	898 Dec 21 j 07:30	19°♂27'48	
max. Earth dist.	892 Sep 26 j 20:58	8°♄26'04	10.75033 AU	retrograde	899 Apr 01 j 02:38	26°♂27'35	
morning rise	892 Oct 13 j 18:21	10°♄28'03		opposition	899 Jun 10 j 19:39	23°♂09'24	1°00'14
retrograde	893 Jan 21 j 06:17	17°♄39'00		min. Earth dist.	899 Jun 11 j 00:24	23°♂08'31	9.06038 AU
opposition	893 Mar 30 j 16:35	14°♄20'24	2°49'00	direct	899 Aug 20 j 15:23	19°♂50'35	
min. Earth dist.	893 Mar 30 j 16:31	14°♄20'25	8.80222 AU	evening set	899 Nov 29 j 10:06	26°♂50'14	
direct	893 Jun 09 j 13:08	10°♄56'34					
evening set	893 Sep 22 j 05:11	18°♄23'05		conjunction	899 Dec 16 j 00:26	28°♂46'57	0°36'26
				minimum elong	899 Dec 16 j 00:27	28°♂46'57	0°36'26
conjunction	893 Oct 09 j 02:55	20°♄24'02	2°16'57	max. Earth dist.	899 Dec 15 j 18:13	28°♂45'07	11.04690 AU
minimum elong	893 Oct 09 j 02:55	20°♄24'02	2°16'58		899 Dec 26 j 08:36	0°♂	
max. Earth dist.	893 Oct 09 j 02:03	20°♄23'46	10.84800 AU	morning rise	900 Jan 01 j 15:19	0°♂43'51	
morning rise	893 Oct 25 j 20:27	22°♄23'46		retrograde	900 Apr 12 j 00:52	7°♂47'05	
retrograde	894 Feb 02 j 06:25	29°♄29'23		opposition	900 Jun 21 j 22:32	4°♂28'12	0°28'09
opposition	894 Apr 12 j 03:19	26°♄11'26	2°45'06	min. Earth dist.	900 Jun 22 j 03:50	4°♂27'13	9.02820 AU
min. Earth dist.	894 Apr 12 j 04:25	26°♄11'13	8.89307 AU	direct	900 Aug 31 j 11:37	1°♂09'39	
direct	894 Jun 22 j 04:46	22°♄48'43		evening set	900 Dec 09 j 18:05	8°♂09'35	
	894 Oct 03 j 02:26	0°♃					
evening set	894 Oct 04 j 06:05	0°♃08'03		conjunction	900 Dec 26 j 09:07	10°♂07'01	0°09'32
				minimum elong	900 Dec 26 j 09:07	10°♂07'01	0°09'32
conjunction	894 Oct 21 j 00:50	2°♃07'11	2°11'09	behind sun begin	900 Dec 26 j 03:17	10°♂05'19	
minimum elong	894 Oct 21 j 00:51	2°♃07'11	2°11'09	behind sun end	900 Dec 26 j 14:56	10°♂08'43	
max. Earth dist.	894 Oct 20 j 22:44	2°♃06'33	10.93110 AU	max. Earth dist.	900 Dec 26 j 03:11	10°♂05'17	11.00425 AU
morning rise	894 Nov 06 j 16:00	4°♃05'19		morning rise	901 Jan 12 j 01:28	12°♂04'52	
retrograde	895 Feb 14 j 01:43	11°♃06'49		retrograde	901 Apr 24 j 04:46	19°♂13'05	
opposition	895 Apr 24 j 10:14	7°♃49'18	2°34'29	desc. node	901 May 05 j 08:42	19°♂07'02	
min. Earth dist.	895 Apr 24 j 13:00	7°♃48'47	8.96766 AU	opposition	901 Jul 04 j 03:39	15°♂53'16	0°-5'-21
direct	895 Jul 04 j 15:23	4°♃27'36		min. Earth dist.	901 Jul 04 j 08:17	15°♂52'25	8.97496 AU
evening set	895 Oct 16 j 00:00	11°♃40'36		direct	901 Sep 12 j 07:32	12°♂34'48	
				evening set	901 Dec 21 j 05:13	19°♂36'32	
conjunction	895 Nov 01 j 16:29	13°♃38'22	2°00'05				
minimum elong	895 Nov 01 j 16:31	13°♃38'23	2°00'04	conjunction	902 Jan 06 j 21:23	21°♂35'02	0°-18'-5
max. Earth dist.	895 Nov 01 j 12:34	13°♃37'13	10.99660 AU	minimum elong	902 Jan 06 j 21:22	21°♂35'02	0°18'07
	895 Nov 13 j 04:59	15°♃		max. Earth dist.	902 Jan 06 j 16:21	21°♂33'32	10.94118 AU
morning rise	895 Nov 18 j 06:18	15°♃35'23		morning rise	902 Jan 23 j 15:28	23°♂34'11	
retrograde	896 Feb 25 j 19:31	22°♃34'11			902 Apr 04 j 19:00	0°♂	
opposition	896 May 05 j 14:24	19°♃16'50	2°17'51	retrograde	902 May 06 j 13:48	0°♂48'46	
min. Earth dist.	896 May 05 j 18:04	19°♃16'09	9.02321 AU		902 Jun 07 j 20:35	30°♃	
direct	896 Jul 15 j 21:34	15°♃56'03		opposition	902 Jul 16 j 11:58	27°♂27'54	0°-39'-8
evening set	896 Oct 26 j 12:19	23°♃03'45		min. Earth dist.	902 Jul 16 j 15:51	27°♂27'10	8.90245 AU
				direct	902 Sep 24 j 04:33	24°♂09'17	
conjunction	896 Nov 12 j 03:24	25°♃00'37	1°44'22		902 Dec 22 j 03:57	0°♂	
minimum elong	896 Nov 12 j 03:26	25°♃00'38	1°44'21	evening set	903 Jan 01 j 21:29	1°♂14'22	
max. Earth dist.	896 Nov 11 j 22:49	24°♃59'16	11.04213 AU				
morning rise	896 Nov 28 j 16:31	26°♃56'57		conjunction	903 Jan 18 j 14:54	3°♂14'14	0°-45'-17
	896 Dec 26 j 19:48	0°♂		minimum elong	903 Jan 18 j 14:52	3°♂14'14	0°45'19
retrograde	897 Mar 08 j 12:17	3°♂54'35		max. Earth dist.	903 Jan 18 j 09:57	3°♂12'45	10.85995 AU
opposition	897 May 17 j 16:42	0°♂37'08	1°56'02	morning rise	903 Feb 04 j 11:04	5°♂14'59	
min. Earth dist.	897 May 17 j 20:14	0°♂36'28	9.05782 AU	retrograde	903 May 19 j 05:56	12°♂37'12	
	897 May 26 j 03:06	30°♃♂		opposition	903 Jul 29 j 00:21	9°♂15'09	-1°-11'-55
direct	897 Jul 27 j 23:12	27°♃17'11		min. Earth dist.	903 Jul 29 j 04:01	9°♂14'27	8.81341 AU
	897 Sep 25 j 14:54	0°♂		direct	903 Oct 06 j 04:30	5°♂56'09	
evening set	897 Nov 06 j 20:57	4°♂20'47		evening set	904 Jan 13 j 20:10	13°♂06'03	
					904 Jan 29 j 14:10	15°♂	
conjunction	897 Nov 23 j 11:23	6°♂17'12	1°24'41				
minimum elong	897 Nov 23 j 11:26	6°♂17'13	1°24'41	conjunction	904 Jan 30 j 15:09	15°♂07'35	-1°-11'-3
max. Earth dist.	897 Nov 23 j 07:06	6°♂15'56	11.06613 AU	minimum elong	904 Jan 30 j 15:06	15°♂07'34	1°11'04
morning rise	897 Dec 10 j 00:25	8°♂13'17		max. Earth dist.	904 Jan 30 j 09:59	15°♂06'01	10.76383 AU
retrograde	898 Mar 20 j 07:31	15°♂11'15		morning rise	904 Feb 16 j 13:48	17°♂10'14	

retrograde	904 May 31 j 04:01	24°≈41'08		min. Earth dist.	910 Oct 28 j 20:50	10°♁12'26	8.08969 AU
opposition	904 Aug 09 j 17:49	21°≈17'47	-1°-42'-20	direct	911 Jan 03 j 06:40	6°♁45'53	
min. Earth dist.	904 Aug 09 j 21:26	21°≈17'06	8.71148 AU	evening set	911 Apr 16 j 03:34	14°♁50'08	
direct	904 Oct 17 j 08:33	17°≈58'12			911 Apr 17 j 10:32	15°♁	
evening set	905 Jan 25 j 02:30	25°≈14'14					
				conjunction	911 May 04 j 00:00	17°♁08'37	-1°-54'-20
conjunction	905 Feb 10 j 23:39	27°≈17'44	-1°-34'-10	minimum elong	911 May 04 j 00:04	17°♁08'38	1°54'21
minimum elong	905 Feb 10 j 23:36	27°≈17'43	1°34'11	max. Earth dist.	911 May 04 j 02:41	17°♁09'30	10.05848 AU
max. Earth dist.	905 Feb 10 j 19:35	27°≈16'29	10.65669 AU	morning rise	911 May 21 j 23:44	19°♁28'10	
morning rise	905 Feb 28 j 01:00	29°≈22'32		retrograde	911 Sep 05 j 16:15	27°♁49'56	
	905 Mar 05 j 06:38	0°♁		opposition	911 Nov 12 j 02:54	24°♁20'05	-2°-10'-2
retrograde	905 Jun 13 j 08:53	7°♁02'49		min. Earth dist.	911 Nov 12 j 00:09	24°♁20'39	8.03635 AU
opposition	905 Aug 22 j 16:38	3°♁38'07	-2°-8'-51	direct	912 Jan 17 j 11:26	20°♁52'41	
min. Earth dist.	905 Aug 22 j 19:25	3°♁37'35	8.60080 AU	evening set	912 Apr 30 j 02:16	29°♁02'33	
direct	905 Oct 29 j 20:07	0°♁17'44			912 May 07 j 12:43	0°♁	
evening set	906 Feb 06 j 17:55	7°♁41'02					
				conjunction	912 May 18 j 02:50	1°♁22'47	-1°-32'-32
conjunction	906 Feb 23 j 17:48	9°♁46'46	-1°-53'-24	minimum elong	912 May 18 j 02:54	1°♁22'49	1°32'34
minimum elong	906 Feb 23 j 17:45	9°♁46'46	1°53'25	max. Earth dist.	912 May 18 j 07:30	1°♁24'19	10.01919 AU
max. Earth dist.	906 Feb 23 j 15:21	9°♁46'01	10.54292 AU	morning rise	912 Jun 05 j 05:32	3°♁43'45	
morning rise	906 Mar 12 j 22:05	11°♁53'55		retrograde	912 Sep 19 j 07:22	12°♁04'49	
retrograde	906 Jun 26 j 23:25	19°♁43'48		opposition	912 Nov 25 j 08:47	8°♁35'09	-1°-39'-4
opposition	906 Sep 04 j 20:59	16°♁17'46	-2°-29'-55	min. Earth dist.	912 Nov 25 j 04:37	8°♁36'01	8.01109 AU
min. Earth dist.	906 Sep 04 j 22:27	16°♁17'29	8.48597 AU	direct	913 Jan 30 j 20:59	5°♁06'46	
direct	906 Nov 11 j 12:24	12°♁56'24		evening set	913 May 15 j 05:14	13°♁20'16	
evening set	907 Feb 19 j 19:09	20°♁27'47					
				conjunction	913 Jun 02 j 08:49	15°♁41'30	-1°-4'-58
conjunction	907 Mar 08 j 22:13	22°♁35'59	-2°-7'-32	minimum elong	913 Jun 02 j 08:52	15°♁41'31	1°05'00
minimum elong	907 Mar 08 j 22:11	22°♁35'59	2°07'32	max. Earth dist.	913 Jun 02 j 14:55	15°♁43'29	10.00915 AU
max. Earth dist.	907 Mar 08 j 21:05	22°♁35'38	10.42744 AU	morning rise	913 Jun 20 j 13:09	18°♁03'00	
morning rise	907 Mar 26 j 05:51	24°♁45'40		retrograde	913 Oct 03 j 19:54	26°♁20'37	
	907 May 13 j 10:10	0°♁		opposition	913 Dec 09 j 14:29	22°♁51'30	-1°-1'-55
retrograde	907 Jul 10 j 21:23	2°♁44'52		min. Earth dist.	913 Dec 09 j 09:25	22°♁52'33	8.01559 AU
	907 Sep 09 j 07:25	30°♁		direct	914 Feb 14 j 09:08	19°♁22'22	
opposition	907 Sep 18 j 07:21	29°♁17'35	-2°-44'00	evening set	914 May 30 j 09:27	27°♁37'18	
min. Earth dist.	907 Sep 18 j 07:34	29°♁17'32	8.37189 AU				
direct	907 Nov 24 j 11:02	25°♁55'05		conjunction	914 Jun 17 j 14:24	29°♁58'34	0°-33'-27
	908 Feb 02 j 10:48	0°♁		minimum elong	914 Jun 17 j 14:26	29°♁58'35	0°33'28
evening set	908 Mar 04 j 06:27	3°♁35'02			914 Jun 17 j 18:48	0°♁	
				max. Earth dist.	914 Jun 17 j 21:20	0°♁00'49	10.02888 AU
conjunction	908 Mar 21 j 13:15	5°♁45'51	-2°-15'-23	morning rise	914 Jul 05 j 18:44	2°♁19'39	
minimum elong	908 Mar 21 j 13:14	5°♁45'51	2°15'24	retrograde	914 Oct 18 j 04:17	10°♁31'31	
max. Earth dist.	908 Mar 21 j 12:34	5°♁45'38	10.31533 AU	opposition	914 Dec 23 j 18:23	7°♁03'15	0°-21'-9
morning rise	908 Apr 08 j 00:45	7°♁58'11		min. Earth dist.	914 Dec 23 j 13:00	7°♁04'22	8.04945 AU
retrograde	908 Jul 24 j 01:40	16°♁05'53		direct	915 Feb 28 j 21:39	3°♁33'38	
opposition	908 Sep 30 j 23:29	12°♁37'31	-2°-49'-45	evening set	915 Jun 14 j 12:03	11°♁47'47	
min. Earth dist.	908 Sep 30 j 23:11	12°♁37'34	8.26364 AU				
direct	908 Dec 06 j 17:55	9°♁13'47		conjunction	915 Jul 02 j 16:35	14°♁08'08	0°00'-7
evening set	909 Mar 18 j 04:11	17°♁02'29		minimum elong	915 Jul 02 j 16:35	14°♁08'08	0°00'09
				behind sun begin	915 Jul 02 j 09:20	14°♁05'49	
conjunction	909 Apr 04 j 15:17	19°♁16'01	-2°-16'-5	behind sun end	915 Jul 02 j 23:51	14°♁10'28	
minimum elong	909 Apr 04 j 15:18	19°♁16'01	2°16'05	max. Earth dist.	915 Jul 02 j 23:35	14°♁10'22	10.07691 AU
max. Earth dist.	909 Apr 04 j 15:04	19°♁15'57	10.21209 AU	asc. node	915 Jul 04 j 03:48	14°♁19'32	
morning rise	909 Apr 22 j 07:01	21°♁31'01		morning rise	915 Jul 20 j 19:16	16°♁27'53	
retrograde	909 Aug 07 j 11:01	29°♁45'43		retrograde	915 Nov 01 j 06:40	24°♁32'09	
opposition	909 Oct 14 j 20:42	26°♁16'34	-2°-46'-9	opposition	916 Jan 06 j 18:56	21°♁05'00	0°20'23
min. Earth dist.	909 Oct 14 j 20:00	26°♁16'42	8.16734 AU	min. Earth dist.	916 Jan 06 j 13:59	21°♁06'01	8.11031 AU
direct	909 Dec 20 j 08:41	22°♁51'33		direct	916 Mar 14 j 09:49	17°♁35'14	
	910 Mar 26 j 00:46	0°♁		evening set	916 Jun 28 j 10:09	25°♁46'33	
evening set	910 Apr 01 j 11:42	0°♁48'35					
				conjunction	916 Jul 16 j 12:32	28°♁05'06	0°32'47
conjunction	910 Apr 19 j 03:28	3°♁04'46	-2°-9'-3	minimum elong	916 Jul 16 j 12:31	28°♁05'05	0°32'47
minimum elong	910 Apr 19 j 03:31	3°♁04'46	2°09'05	max. Earth dist.	916 Jul 16 j 18:41	28°♁07'04	10.14980 AU
max. Earth dist.	910 Apr 19 j 04:21	3°♁05'03	10.12436 AU		916 Jul 31 j 12:02	0°♁	
morning rise	910 May 06 j 23:25	5°♁22'15		morning rise	916 Aug 03 j 12:02	0°♁22'42	
retrograde	910 Aug 22 j 00:47	13°♁41'48		retrograde	916 Nov 14 j 00:57	8°♁18'16	
opposition	910 Oct 28 j 22:19	10°♁12'08	-2°-32'-48	opposition	917 Jan 19 j 15:08	4°♁52'25	0°59'59

min. Earth dist.	917 Jan 19 j 10:45	4°♁53'18	8.19395 AU	retrograde	923 Jan 28 j 04:21	24°♁23'24	
direct	917 Mar 28 j 19:42	1°♁22'50		opposition	923 Apr 06 j 21:49	21°♁05'09	2°47'38
evening set	917 Jul 13 j 01:15	9°♁29'29		min. Earth dist.	923 Apr 06 j 22:17	21°♁05'04	8.85659 AU
				direct	923 Jun 16 j 20:53	17°♁41'56	
conjunction	917 Jul 30 j 23:59	11°♁45'33	1°03'16	evening set	923 Sep 29 j 05:17	25°♁04'15	
minimum elong	917 Jul 30 j 23:56	11°♁45'32	1°03'15				
max. Earth dist.	917 Jul 31 j 05:05	11°♁47'10	10.24273 AU	conjunction	923 Oct 16 j 01:14	27°♁04'05	2°14'23
morning rise	917 Aug 17 j 19:02	14°♁00'25		minimum elong	923 Oct 16 j 01:15	27°♁04'06	2°14'23
	917 Aug 25 j 20:51	15°♁		max. Earth dist.	923 Oct 15 j 23:43	27°♁03'38	10.90025 AU
retrograde	917 Nov 27 j 10:25	21°♁46'48		morning rise	923 Nov 01 j 17:32	29°♁02'52	
opposition	918 Feb 02 j 06:04	18°♁22'20	1°35'20		923 Nov 09 j 23:32	0°♁	
min. Earth dist.	918 Feb 02 j 01:54	18°♁23'10	8.29508 AU	retrograde	924 Feb 09 j 01:55	6°♁05'50	
	918 Mar 31 j 18:00	15°♁		opposition	924 Apr 18 j 05:59	2°♁48'18	2°39'57
direct	918 Apr 12 j 01:24	14°♁53'16		min. Earth dist.	924 Apr 18 j 06:47	2°♁48'09	8.94271 AU
	918 Apr 23 j 07:20	15°♁			924 Jun 01 j 17:25	30°♁	
evening set	918 Jul 27 j 07:22	22°♁53'48		direct	924 Jun 28 j 10:54	29°♁26'22	
					924 Jul 24 j 20:25	0°♁	
conjunction	918 Aug 14 j 01:33	25°♁06'57	1°29'40	evening set	924 Oct 10 j 02:05	6°♁41'58	
minimum elong	918 Aug 14 j 01:30	25°♁06'56	1°29'40				
max. Earth dist.	918 Aug 14 j 05:56	25°♁08'20	10.35013 AU	conjunction	924 Oct 26 j 19:37	8°♁40'15	2°05'37
morning rise	918 Aug 31 j 15:25	27°♁18'45		minimum elong	924 Oct 26 j 19:38	8°♁40'15	2°05'36
	918 Sep 23 j 10:37	0°♁		max. Earth dist.	924 Oct 26 j 17:55	8°♁39'44	10.97776 AU
retrograde	918 Dec 10 j 13:14	4°♁56'00		morning rise	924 Nov 12 j 09:53	10°♁37'37	
opposition	919 Feb 15 j 15:18	1°♁32'55	2°04'42		924 Dec 24 j 13:26	15°♁	
min. Earth dist.	919 Feb 15 j 11:16	1°♁33'43	8.40783 AU	retrograde	925 Feb 19 j 22:42	17°♁37'17	
	919 Mar 07 j 19:43	30°♁			925 Apr 21 j 11:44	15°♁	
direct	919 Apr 25 j 23:43	28°♁04'42		opposition	925 Apr 30 j 11:19	14°♁20'13	2°25'56
	919 Jun 13 j 08:34	0°♁		min. Earth dist.	925 Apr 30 j 13:03	14°♁19'54	9.01068 AU
evening set	919 Aug 10 j 03:18	5°♁58'02		direct	925 Jul 10 j 17:38	10°♁59'30	
					925 Sep 22 j 13:36	15°♁	
conjunction	919 Aug 27 j 16:33	8°♁08'09	1°50'50	evening set	925 Oct 21 j 16:46	18°♁09'15	
minimum elong	919 Aug 27 j 16:30	8°♁08'08	1°50'49				
max. Earth dist.	919 Aug 27 j 20:25	8°♁09'21	10.46602 AU	conjunction	925 Nov 07 j 08:30	20°♁06'25	1°51'55
morning rise	919 Sep 14 j 00:59	10°♁16'47		minimum elong	925 Nov 07 j 08:32	20°♁06'25	1°51'54
retrograde	919 Dec 23 j 09:07	17°♁45'19		max. Earth dist.	925 Nov 07 j 05:44	20°♁05'36	11.03586 AU
opposition	920 Feb 28 j 18:48	14°♁23'37	2°26'56	morning rise	925 Nov 23 j 21:42	22°♁02'54	
min. Earth dist.	920 Feb 28 j 15:21	14°♁24'18	8.52599 AU	retrograde	926 Mar 03 j 15:07	29°♁00'39	
direct	920 May 08 j 15:07	10°♁56'28		opposition	926 May 12 j 14:27	25°♁43'48	2°06'22
evening set	920 Aug 22 j 12:49	18°♁42'03		min. Earth dist.	926 May 12 j 17:42	25°♁43'11	9.05797 AU
				direct	926 Jul 22 j 19:40	22°♁24'02	
conjunction	920 Sep 08 j 21:01	20°♁49'09	2°06'02	evening set	926 Nov 02 j 03:09	29°♁29'09	
minimum elong	920 Sep 08 j 20:58	20°♁49'08	2°06'02		926 Nov 06 j 13:48	0°♁	
max. Earth dist.	920 Sep 09 j 00:13	20°♁50'08	10.58430 AU				
morning rise	920 Sep 26 j 00:13	22°♁54'47		conjunction	926 Nov 18 j 17:42	1°♁25'37	1°33'57
	920 Dec 17 j 23:30	0°♁		minimum elong	926 Nov 18 j 17:45	1°♁25'38	1°33'57
retrograde	921 Jan 03 j 21:25	0°♁15'18		max. Earth dist.	926 Nov 18 j 13:03	1°♁24'15	11.07234 AU
	921 Jan 20 j 21:22	30°♁		morning rise	926 Dec 05 j 06:45	3°♁21'40	
opposition	921 Mar 12 j 16:46	26°♁54'56	2°41'31	retrograde	927 Mar 15 j 08:33	10°♁18'59	
min. Earth dist.	921 Mar 12 j 14:47	26°♁55'19	8.64368 AU	opposition	927 May 24 j 16:03	7°♁02'02	1°42'04
direct	921 May 21 j 23:52	23°♁29'01		min. Earth dist.	927 May 24 j 20:32	7°♁01'13	9.08264 AU
	921 Aug 26 j 00:45	0°♁		direct	927 Aug 03 j 20:07	3°♁43'02	
evening set	921 Sep 04 j 11:53	1°♁06'38		evening set	927 Nov 13 j 10:43	10°♁44'47	
conjunction	921 Sep 21 j 15:17	3°♁10'56	2°14'57	conjunction	927 Nov 30 j 00:49	12°♁41'01	1°12'25
minimum elong	921 Sep 21 j 15:16	3°♁10'55	2°14'58	minimum elong	927 Nov 30 j 00:52	12°♁41'01	1°12'26
max. Earth dist.	921 Sep 21 j 16:51	3°♁11'24	10.69939 AU	max. Earth dist.	927 Nov 29 j 19:19	12°♁39'23	11.08542 AU
morning rise	921 Oct 08 j 13:59	5°♁13'51		morning rise	927 Dec 16 j 14:12	14°♁37'03	
retrograde	922 Jan 16 j 04:11	12°♁27'21		retrograde	928 Mar 26 j 03:03	21°♁35'30	
opposition	922 Mar 25 j 09:39	9°♁08'09	2°48'20	opposition	928 Jun 04 j 17:29	18°♁18'09	1°13'56
min. Earth dist.	922 Mar 25 j 09:09	9°♁08'15	8.75553 AU	min. Earth dist.	928 Jun 04 j 22:10	18°♁17'18	9.08317 AU
direct	922 Jun 04 j 01:35	5°♁43'35		direct	928 Aug 14 j 16:44	14°♁59'44	
evening set	922 Sep 17 j 00:57	13°♁13'19		evening set	928 Nov 23 j 17:04	21°♁59'31	
conjunction	922 Oct 04 j 00:12	15°♁15'10	2°17'39	conjunction	928 Dec 10 j 07:19	23°♁55'56	0°48'07
minimum elong	922 Oct 04 j 00:11	15°♁15'10	2°17'40	minimum elong	928 Dec 10 j 07:21	23°♁55'56	0°48'07
max. Earth dist.	922 Oct 03 j 23:52	15°♁15'05	10.80622 AU	max. Earth dist.	928 Dec 10 j 01:43	23°♁54'17	11.07390 AU
morning rise	922 Oct 20 j 19:19	17°♁15'48		morning rise	928 Dec 26 j 21:27	25°♁52'23	

	929 Feb 04 j 14:02	0°☾		evening set	935 Feb 01 j 09:38	2°♁17'20	
retrograde	929 Apr 07 j 01:28	2°♁53'39					
	929 Jun 11 j 07:01	30°♁		conjunction	935 Feb 18 j 08:08	4°♁22'09	-1°-45'-16
opposition	929 Jun 16 j 19:46	29°♁35'38	0°42'53	minimum elong	935 Feb 18 j 08:06	4°♁22'09	1°45'16
min. Earth dist.	929 Jun 17 j 00:41	29°♁34'44	9.05902 AU	max. Earth dist.	935 Feb 18 j 03:16	4°♁20'39	10.58119 AU
direct	929 Aug 26 j 12:45	26°♁17'32		morning rise	935 Mar 07 j 11:03	6°♁28'21	
	929 Nov 04 j 12:32	0°☾		retrograde	935 Jun 21 j 05:34	14°♁14'18	
evening set	929 Dec 05 j 00:24	3°♁16'59		opposition	935 Aug 30 j 06:59	10°♁48'20	-2°-21'-13
				min. Earth dist.	935 Aug 30 j 10:01	10°♁47'44	8.52201 AU
conjunction	929 Dec 21 j 15:06	5°♁13'58	0°21'50	direct	935 Nov 06 j 03:17	7°♁26'50	
minimum elong	929 Dec 21 j 15:07	5°♁13'58	0°21'50	evening set	936 Feb 14 j 06:21	14°♁55'01	
max. Earth dist.	929 Dec 21 j 08:40	5°♁12'05	11.03801 AU				
morning rise	930 Jan 07 j 06:35	7°♁11'15		conjunction	936 Mar 02 j 07:47	17°♁02'14	-2°-1'-52
retrograde	930 Apr 19 j 03:16	14°♁16'51		minimum elong	936 Mar 02 j 07:45	17°♁02'14	2°01'53
opposition	930 Jun 28 j 23:48	10°♁57'58	0°09'55	max. Earth dist.	936 Mar 02 j 03:56	17°♁01'02	10.46147 AU
min. Earth dist.	930 Jun 29 j 05:34	10°♁56'54	9.01133 AU	morning rise	936 Mar 19 j 14:02	19°♁10'58	
direct	930 Sep 07 j 07:02	7°♁39'53		retrograde	936 Jul 03 j 22:59	27°♁06'39	
desc. node	930 Oct 18 j 00:39	9°♁00'30		opposition	936 Sep 11 j 15:02	23°♁39'16	-2°-38'-42
evening set	930 Dec 16 j 10:13	14°♁40'34		min. Earth dist.	936 Sep 11 j 17:16	23°♁38'50	8.40319 AU
				direct	936 Nov 18 j 00:08	20°♁16'36	
conjunction	931 Jan 02 j 01:41	16°♁38'29	0°-5'-37	evening set	937 Feb 26 j 13:09	27°♁53'22	
minimum elong	931 Jan 02 j 01:40	16°♁38'29	0°05'38				
behind sun begin	931 Jan 01 j 18:57	16°♁36'31		conjunction	937 Mar 15 j 18:15	0°♁03'13	-2°-12'-43
behind sun end	931 Jan 02 j 08:23	16°♁40'27		minimum elong	937 Mar 15 j 18:14	0°♁03'13	2°12'43
max. Earth dist.	931 Jan 01 j 18:04	16°♁36'15	10.97958 AU		937 Mar 15 j 08:06	0°♁	
morning rise	931 Jan 18 j 18:58	18°♁36'58		max. Earth dist.	937 Mar 15 j 16:27	0°♁02'39	10.34424 AU
retrograde	931 May 01 j 07:59	25°♁48'24		morning rise	937 Apr 02 j 04:09	2°♁14'36	
opposition	931 Jul 11 j 06:46	22°♁28'22	0°-23'-51	retrograde	937 Jul 17 j 23:41	10°♁19'25	
min. Earth dist.	931 Jul 11 j 13:03	22°♁27'12	8.94241 AU	opposition	937 Sep 25 j 04:56	6°♁50'48	-2°-48'-23
direct	931 Sep 19 j 03:30	19°♁10'03		min. Earth dist.	937 Sep 25 j 05:41	6°♁50'39	8.28976 AU
evening set	931 Dec 28 j 00:01	26°♁13'30		direct	937 Dec 01 j 04:50	3°♁26'54	
				evening set	938 Mar 12 j 06:31	11°♁12'31	
conjunction	932 Jan 13 j 16:41	28°♁12'41	0°-33'-4				
minimum elong	932 Jan 13 j 16:40	28°♁12'41	0°33'06	conjunction	938 Mar 29 j 15:48	13°♁25'05	-2°-16'-44
max. Earth dist.	932 Jan 13 j 09:32	28°♁10'33	10.90115 AU	minimum elong	938 Mar 29 j 15:48	13°♁25'05	2°16'45
	932 Jan 28 j 16:50	0°♁		max. Earth dist.	938 Mar 29 j 16:09	13°♁25'12	10.23545 AU
morning rise	932 Jan 30 j 11:56	0°♁12'40		morning rise	938 Apr 16 j 05:36	15°♁39'09	
retrograde	932 May 12 j 20:41	7°♁31'20		retrograde	938 Aug 01 j 07:24	23°♁51'47	
opposition	932 Jul 22 j 17:28	4°♁09'55	0°-57'-16	opposition	938 Oct 09 j 00:12	20°♁22'13	-2°-49'-6
min. Earth dist.	932 Jul 22 j 23:07	4°♁08'52	8.85516 AU	min. Earth dist.	938 Oct 08 j 23:07	20°♁22'26	8.18772 AU
direct	932 Sep 30 j 04:22	0°♁51'06		direct	938 Dec 14 j 15:59	16°♁57'06	
evening set	933 Jan 07 j 19:34	7°♁58'46		evening set	939 Mar 26 j 09:57	24°♁51'15	
conjunction	933 Jan 24 j 13:54	9°♁59'34	0°-59'-37	conjunction	939 Apr 12 j 23:47	27°♁06'31	-2°-13'-13
minimum elong	933 Jan 24 j 13:52	9°♁59'33	0°59'39	minimum elong	939 Apr 12 j 23:49	27°♁06'31	2°13'14
max. Earth dist.	933 Jan 24 j 08:05	9°♁57'48	10.80591 AU	max. Earth dist.	939 Apr 13 j 01:57	27°♁07'13	10.14134 AU
morning rise	933 Feb 10 j 11:18	12°♁01'20		morning rise	939 Apr 30 j 17:45	29°♁23'09	
	933 Mar 09 j 01:20	15°♁			939 May 05 j 15:07	0°♁	
retrograde	933 May 25 j 16:07	19°♁28'21		retrograde	939 Aug 15 j 21:17	7°♁41'39	
opposition	933 Aug 04 j 08:33	16°♁05'26	-1°-28'-56	opposition	939 Oct 23 j 00:22	4°♁11'29	-2°-40'-7
min. Earth dist.	933 Aug 04 j 12:56	16°♁04'36	8.75316 AU	min. Earth dist.	939 Oct 22 j 21:46	4°♁12'00	8.10314 AU
	933 Aug 19 j 00:10	15°♁		direct	939 Dec 28 j 09:37	0°♁45'11	
direct	933 Oct 12 j 06:38	12°♁45'55		evening set	940 Apr 08 j 22:31	8°♁47'01	
	933 Dec 03 j 02:48	15°♁					
evening set	934 Jan 19 j 22:21	19°♁59'14		conjunction	940 Apr 26 j 17:01	11°♁04'45	-2°-1'-54
				minimum elong	940 Apr 26 j 17:04	11°♁04'46	2°01'55
conjunction	934 Feb 05 j 18:37	22°♁01'54	-1°-24'-6	max. Earth dist.	940 Apr 26 j 20:38	11°♁05'55	10.06771 AU
minimum elong	934 Feb 05 j 18:34	22°♁01'53	1°24'07	morning rise	940 May 14 j 15:05	13°♁23'40	
max. Earth dist.	934 Feb 05 j 13:24	22°♁00'18	10.69775 AU		940 May 27 j 11:49	15°♁	
morning rise	934 Feb 22 j 18:34	24°♁05'45		retrograde	940 Aug 29 j 13:19	21°♁45'32	
	934 Apr 22 j 17:38	0°♁		opposition	940 Nov 05 j 04:11	18°♁15'08	-2°-21'-25
retrograde	934 Jun 07 j 18:48	1°♁41'59		min. Earth dist.	940 Nov 05 j 00:36	18°♁15'53	8.04136 AU
	934 Jul 24 j 20:37	30°♁			940 Dec 26 j 19:39	15°♁	
opposition	934 Aug 17 j 04:55	28°♁17'32	-1°-57'-27	direct	941 Jan 10 j 11:40	14°♁47'46	
min. Earth dist.	934 Aug 17 j 08:28	28°♁16'50	8.64049 AU		941 Jan 25 j 04:00	15°♁	
direct	934 Oct 24 j 14:06	24°♁57'06		evening set	941 Apr 23 j 18:54	22°♁55'59	
	935 Jan 12 j 18:05	0°♁					

conjunction	941 May 11 j 17:43	25°♄15'43	-1°-43'-6	retrograde	946 Nov 22 j 01:25	16°♃10'41	
minimum elong	941 May 11 j 17:47	25°♄15'44	1°43'08		946 Dec 28 j 14:03	15°♃♃	
max. Earth dist.	941 May 11 j 22:17	25°♄17'12	10.01933 AU	opposition	947 Jan 27 j 17:29	12°♃46'04	1°20'26
morning rise	941 May 29 j 19:16	27°♄36'20		min. Earth dist.	947 Jan 27 j 11:50	12°♃47'13	8.25632 AU
	941 Jun 18 j 03:44	0°♂		direct	947 Apr 06 j 04:50	9°♃17'20	
retrograde	941 Sep 13 j 05:15	5°♂58'43			947 Jul 01 j 21:31	15°♃	
opposition	941 Nov 19 j 10:06	2°♂28'34	-1°-53'-51	evening set	947 Jul 21 j 12:22	17°♃20'43	
min. Earth dist.	941 Nov 19 j 06:00	2°♂29'25	8.00660 AU				
	941 Dec 22 j 18:54	30°♃♄		conjunction	947 Aug 08 j 08:46	19°♃35'10	1°18'39
direct	942 Jan 24 j 19:32	29°♄00'17		minimum elong	947 Aug 08 j 08:43	19°♃35'09	1°18'38
	942 Feb 26 j 14:37	0°♂		max. Earth dist.	947 Aug 08 j 15:11	19°♃37'12	10.31041 AU
evening set	942 May 08 j 20:42	7°♂13'04		morning rise	947 Aug 26 j 00:51	21°♃48'17	
				retrograde	947 Dec 05 j 08:23	29°♃29'34	
conjunction	942 May 26 j 22:59	9°♂34'07	-1°-17'-52	opposition	948 Feb 10 j 05:31	26°♃06'24	1°52'35
minimum elong	942 May 26 j 23:03	9°♂34'08	1°17'54	min. Earth dist.	948 Feb 10 j 01:27	26°♃07'13	8.36686 AU
max. Earth dist.	942 May 27 j 04:34	9°♂35'56	9.99963 AU	direct	948 Apr 19 j 05:53	22°♃38'20	
morning rise	942 Jun 14 j 02:55	11°♂55'40			948 Jul 29 j 18:35	0°♃	
retrograde	942 Sep 27 j 19:29	20°♂15'47		evening set	948 Aug 03 j 13:27	0°♃34'53	
opposition	942 Dec 03 j 16:41	16°♂46'14	-1°-19'-4				
min. Earth dist.	942 Dec 03 j 11:54	16°♂47'14	8.00150 AU	conjunction	948 Aug 21 j 04:51	2°♃46'18	1°42'13
direct	943 Feb 08 j 07:18	13°♂17'19		minimum elong	948 Aug 21 j 04:48	2°♃46'17	1°42'12
evening set	943 May 24 j 01:04	21°♂32'28		max. Earth dist.	948 Aug 21 j 08:52	2°♃47'33	10.42414 AU
				morning rise	948 Sep 07 j 15:38	4°♃56'15	
conjunction	943 Jun 11 j 05:31	23°♂53'58	0°-47'-47	retrograde	948 Dec 17 j 06:54	12°♃28'31	
minimum elong	943 Jun 11 j 05:34	23°♂53'59	0°47'49	opposition	949 Feb 22 j 11:51	9°♃06'46	2°18'01
max. Earth dist.	943 Jun 11 j 12:14	23°♂56'09	10.01011 AU	min. Earth dist.	949 Feb 22 j 09:26	9°♃07'14	8.48290 AU
morning rise	943 Jun 29 j 10:18	26°♂15'31		direct	949 May 03 j 01:37	5°♃39'36	
	943 Jul 30 j 14:51	0°♄		evening set	949 Aug 17 j 03:56	13°♃28'42	
retrograde	943 Oct 12 j 06:15	4°♄30'49					
opposition	943 Dec 17 j 22:09	1°♄02'12	0°-39'-28	conjunction	949 Sep 03 j 14:09	15°♃37'04	2°00'04
min. Earth dist.	943 Dec 17 j 16:33	1°♄03'22	8.02657 AU	minimum elong	949 Sep 03 j 14:06	15°♃37'03	2°00'04
	943 Dec 30 j 15:20	30°♃♂		max. Earth dist.	949 Sep 03 j 15:55	15°♃37'37	10.54022 AU
direct	944 Feb 22 j 20:34	27°♂32'54		morning rise	949 Sep 20 j 19:43	17°♃43'59	
	944 Apr 15 j 21:51	0°♄		retrograde	949 Dec 29 j 21:19	25°♃08'02	
evening set	944 Jun 07 j 05:26	5°♄48'12		opposition	950 Mar 07 j 12:34	21°♃47'33	2°35'59
				min. Earth dist.	950 Mar 07 j 10:59	21°♃47'52	8.59861 AU
conjunction	944 Jun 25 j 10:24	8°♄09'11	0°-14'-57	direct	950 May 16 j 15:12	18°♃21'30	
minimum elong	944 Jun 25 j 10:25	8°♄09'12	0°14'59	evening set	950 Aug 30 j 07:54	26°♃02'49	
behind sun begin	944 Jun 25 j 08:04	8°♄08'26					
behind sun end	944 Jun 25 j 12:46	8°♄09'57		conjunction	950 Sep 16 j 13:19	28°♃08'19	2°11'44
max. Earth dist.	944 Jun 25 j 17:53	8°♄11'36	10.05009 AU	minimum elong	950 Sep 16 j 13:17	28°♃08'19	2°11'44
morning rise	944 Jul 13 j 14:14	10°♄29'46		max. Earth dist.	950 Sep 16 j 13:50	28°♃08'29	10.65367 AU
retrograde	944 Oct 25 j 12:09	18°♄38'06			950 Oct 01 j 20:39	0°♄	
asc. node	944 Dec 11 j 16:23	16°♄42'54		morning rise	950 Oct 03 j 14:04	0°♄12'25	
opposition	944 Dec 31 j 00:49	15°♄10'42	0°02'08	retrograde	951 Jan 11 j 07:18	7°♄29'10	
min. Earth dist.	944 Dec 30 j 18:35	15°♄11'59	8.08013 AU	opposition	951 Mar 20 j 07:51	4°♄09'46	2°46'10
direct	945 Mar 08 j 10:13	11°♄41'19		min. Earth dist.	951 Mar 20 j 07:00	4°♄09'56	8.70934 AU
evening set	945 Jun 22 j 06:37	19°♄54'33		direct	951 May 29 j 20:47	0°♄44'53	
				evening set	951 Sep 12 j 01:48	8°♄18'22	
conjunction	945 Jul 10 j 10:15	22°♄14'04	0°18'29				
minimum elong	945 Jul 10 j 10:14	22°♄14'03	0°18'29	conjunction	951 Sep 29 j 02:59	10°♄21'20	2°17'07
max. Earth dist.	945 Jul 10 j 18:10	22°♄16'37	10.11677 AU	minimum elong	951 Sep 29 j 02:58	10°♄21'20	2°17'08
morning rise	945 Jul 28 j 11:22	24°♄32'46		max. Earth dist.	951 Sep 29 j 02:49	10°♄21'17	10.76003 AU
	945 Sep 15 j 14:25	0°♃		morning rise	951 Oct 15 j 23:34	12°♄22'59	
retrograde	945 Nov 08 j 10:44	2°♃32'42		retrograde	952 Jan 23 j 11:55	19°♄33'25	
	946 Jan 02 j 23:27	30°♃♄		opposition	952 Mar 31 j 22:30	16°♄14'54	2°48'42
opposition	946 Jan 13 j 23:38	29°♄06'38	0°42'57	min. Earth dist.	952 Mar 31 j 22:58	16°♄14'49	8.81067 AU
min. Earth dist.	946 Jan 13 j 17:11	29°♄07'58	8.15850 AU	direct	952 Jun 10 j 17:58	12°♄51'11	
direct	946 Mar 22 j 21:39	25°♄37'28		evening set	952 Sep 23 j 10:26	20°♄17'06	
	946 Jun 04 j 19:07	0°♃					
evening set	946 Jul 07 j 01:34	3°♃46'36		conjunction	952 Oct 10 j 07:55	22°♄17'54	2°16'23
				minimum elong	952 Oct 10 j 07:55	22°♄17'54	2°16'24
conjunction	946 Jul 25 j 02:12	6°♃03'50	0°50'16	max. Earth dist.	952 Oct 10 j 06:28	22°♄17'28	10.85504 AU
minimum elong	946 Jul 25 j 02:10	6°♃03'49	0°50'16	morning rise	952 Oct 27 j 01:15	24°♄17'31	
max. Earth dist.	946 Jul 25 j 10:02	6°♃06'20	10.20558 AU		952 Dec 24 j 20:53	0°♃	
morning rise	946 Aug 11 j 23:14	8°♃19'57		retrograde	953 Feb 03 j 10:43	1°♃22'49	
	946 Oct 17 j 00:15	15°♃			953 Mar 17 j 04:15	30°♃♄	

opposition	953 Apr 13 j 09:01	28°♄04'57	2°43'59	min. Earth dist.	959 Jun 24 j 11:00	6°♄24'14	9.01482 AU
min. Earth dist.	953 Apr 13 j 11:13	28°♄04'32	8.89870 AU	direct	959 Sep 02 j 18:08	3°♄06'33	
direct	953 Jun 23 j 10:47	24°♄42'19		evening set	959 Dec 12 j 00:09	10°♄07'09	
	953 Sep 17 j 12:35	0°♄					
evening set	953 Oct 05 j 10:54	2°♄01'15		conjunction	959 Dec 28 j 15:26	12°♄04'48	0°06'04
				minimum elong	959 Dec 28 j 15:26	12°♄04'49	0°06'04
conjunction	953 Oct 22 j 05:24	4°♄00'18	2°09'56	behind sun begin	959 Dec 28 j 08:47	12°♄02'52	
minimum elong	953 Oct 22 j 05:25	4°♄00'18	2°09'56	behind sun end	959 Dec 28 j 22:04	12°♄06'45	
max. Earth dist.	953 Oct 22 j 01:59	3°♄59'17	10.93520 AU	max. Earth dist.	959 Dec 28 j 10:01	12°♄03'14	10.98956 AU
morning rise	953 Nov 07 j 20:35	5°♄58'23		morning rise	960 Jan 14 j 07:54	14°♄02'54	
retrograde	954 Feb 15 j 06:44	12°♄59'48		desc. node	960 Mar 19 j 16:57	20°♄07'03	
opposition	954 Apr 25 j 15:56	9°♄42'19	2°32'37	retrograde	960 Apr 25 j 13:12	21°♄12'12	
min. Earth dist.	954 Apr 25 j 19:09	9°♄41'43	8.97019 AU	opposition	960 Jul 05 j 11:46	17°♄52'12	0°-9'-39
direct	954 Jul 05 j 21:33	6°♄20'42		min. Earth dist.	960 Jul 05 j 16:00	17°♄51'25	8.95908 AU
evening set	954 Oct 17 j 04:22	13°♄33'27		direct	960 Sep 13 j 14:13	14°♄33'38	
	954 Oct 29 j 11:28	15°♄		evening set	960 Dec 22 j 12:11	21°♄36'12	
conjunction	954 Nov 02 j 20:51	15°♄31'13	1°58'16	conjunction	961 Jan 08 j 04:27	23°♄34'57	0°-21'-35
minimum elong	954 Nov 02 j 20:53	15°♄31'13	1°58'15	minimum elong	961 Jan 08 j 04:26	23°♄34'57	0°21'37
max. Earth dist.	954 Nov 02 j 16:31	15°♄29'56	10.99752 AU	max. Earth dist.	961 Jan 07 j 23:08	23°♄33'22	10.92425 AU
morning rise	954 Nov 19 j 10:42	17°♄28'14		morning rise	961 Jan 24 j 22:45	25°♄34'22	
retrograde	955 Feb 27 j 00:16	24°♄27'11			961 Mar 08 j 04:53	0°≈	
opposition	955 May 07 j 20:07	21°♄09'48	2°15'19	retrograde	961 May 08 j 00:35	2°≈50'13	
min. Earth dist.	955 May 07 j 23:33	21°♄09'10	9.02240 AU		961 Jul 10 j 23:19	30°R♄	
direct	955 Jul 18 j 03:17	17°♄49'06		opposition	961 Jul 17 j 21:01	29°♄29'08	0°-43'-23
evening set	955 Oct 28 j 16:40	24°♄56'43		min. Earth dist.	961 Jul 18 j 01:09	29°♄28'21	8.88463 AU
				direct	961 Sep 25 j 11:55	26°♄10'22	
					961 Dec 04 j 11:56	0°≈	
conjunction	955 Nov 14 j 07:52	26°♄53'39	1°42'02	evening set	962 Jan 03 j 05:30	3°≈16'27	
minimum elong	955 Nov 14 j 07:55	26°♄53'40	1°42'01				
max. Earth dist.	955 Nov 14 j 03:33	26°♄52'22	11.03965 AU	conjunction	962 Jan 19 j 23:00	5°≈16'36	0°-48'-40
morning rise	955 Nov 30 j 20:59	28°♄50'02		minimum elong	962 Jan 19 j 22:58	5°≈16'36	0°48'41
	955 Dec 11 j 03:33	0°♄		max. Earth dist.	962 Jan 19 j 17:21	5°≈14'54	10.84142 AU
retrograde	956 Mar 09 j 19:10	5°♄48'00		morning rise	962 Feb 05 j 19:32	7°≈17'40	
opposition	956 May 18 j 22:34	2°♄30'31	1°52'55	retrograde	962 May 20 j 15:50	14°≈41'14	
min. Earth dist.	956 May 19 j 02:15	2°♄29'50	9.05357 AU	opposition	962 Jul 30 j 10:17	11°≈18'58	-1°-15'-57
	956 Jun 26 j 11:45	30°R♄		min. Earth dist.	962 Jul 30 j 14:30	11°≈18'10	8.79431 AU
direct	956 Jul 29 j 04:47	29°♄10'35		direct	962 Oct 07 j 12:12	7°≈59'47	
	956 Aug 30 j 07:31	0°♄			963 Jan 13 j 16:42	15°≈	
evening set	956 Nov 08 j 01:30	6°♄14'18		evening set	963 Jan 15 j 05:15	15°≈10'51	
conjunction	956 Nov 24 j 15:59	8°♄10'50	1°21'55	conjunction	963 Feb 01 j 00:30	17°≈12'42	-1°-14'-9
minimum elong	956 Nov 24 j 16:01	8°♄10'51	1°21'55	minimum elong	963 Feb 01 j 00:27	17°≈12'41	1°14'09
max. Earth dist.	956 Nov 24 j 11:12	8°♄09'25	11.06024 AU	max. Earth dist.	963 Jan 31 j 19:30	17°≈11'11	10.74430 AU
morning rise	956 Dec 11 j 05:08	10°♄07'03		morning rise	963 Feb 17 j 23:26	19°≈15'40	
retrograde	957 Mar 21 j 13:23	17°♄05'31		retrograde	963 Jun 02 j 14:34	26°≈48'02	
opposition	957 May 31 j 00:29	13°♄47'43	1°26'16	opposition	963 Aug 12 j 04:37	23°≈24'26	-1°-45'-56
min. Earth dist.	957 May 31 j 05:10	13°♄46'51	9.06281 AU	min. Earth dist.	963 Aug 12 j 08:09	23°≈23'46	8.69174 AU
direct	957 Aug 10 j 01:31	10°♄28'25		direct	963 Oct 19 j 19:14	20°≈04'40	
evening set	957 Nov 19 j 08:29	17°♄29'36		evening set	964 Jan 27 j 12:48	27°≈21'57	
conjunction	957 Dec 05 j 22:41	19°♄26'07	0°58'39	conjunction	964 Feb 13 j 10:18	29°≈25'48	-1°-36'-49
minimum elong	957 Dec 05 j 22:43	19°♄26'07	0°58'40	minimum elong	964 Feb 13 j 10:15	29°≈25'47	1°36'50
max. Earth dist.	957 Dec 05 j 16:36	19°♄24'19	11.05869 AU	max. Earth dist.	964 Feb 13 j 07:10	29°≈24'50	10.63684 AU
morning rise	957 Dec 22 j 12:39	21°♄22'35			964 Feb 18 j 01:28	0°✠	
retrograde	958 Apr 02 j 09:04	28°♄23'08		morning rise	964 Mar 01 j 11:50	1°✠30'56	
opposition	958 Jun 12 j 02:37	25°♄04'48	0°56'17	retrograde	964 Jun 14 j 22:50	9°✠12'44	
min. Earth dist.	958 Jun 12 j 07:59	25°♄03'49	9.04979 AU	opposition	964 Aug 24 j 04:26	5°✠47'47	-2°-11'-49
direct	958 Aug 21 j 22:15	21°♄45'55		min. Earth dist.	964 Aug 24 j 06:24	5°✠47'24	8.58123 AU
evening set	958 Nov 30 j 15:29	28°♄46'04		direct	964 Oct 31 j 06:34	2°✠27'13	
	958 Dec 11 j 04:31	0°♄		evening set	965 Feb 08 j 05:36	9°✠51'48	
conjunction	958 Dec 17 j 05:59	0°♄42'59	0°33'04	conjunction	965 Feb 25 j 05:48	11°✠57'54	-1°-55'-27
minimum elong	958 Dec 17 j 06:00	0°♄42'59	0°33'05	minimum elong	965 Feb 25 j 05:45	11°✠57'53	1°55'27
max. Earth dist.	958 Dec 16 j 23:39	0°♄41'07	11.03491 AU	max. Earth dist.	965 Feb 25 j 04:04	11°✠57'21	10.52374 AU
morning rise	959 Jan 02 j 21:05	2°♄40'05		morning rise	965 Mar 14 j 10:21	14°✠05'24	
retrograde	959 Apr 14 j 08:43	9°♄44'14		retrograde	965 Jun 28 j 14:32	21°✠56'44	
opposition	959 Jun 24 j 05:55	6°♄25'10	0°23'57				

opposition	965 Sep 06 j 09:52	18° ✕ 30'29	-2°-32'-2	conjunction	971 May 20 j 20:32	3° Π 44'14	-1°-29'-9
min. Earth dist.	965 Sep 06 j 10:32	18° ✕ 30'21	8.46764 AU	minimum elong	971 May 20 j 20:36	3° Π 44'16	1°29'11
direct	965 Nov 12 j 22:51	15° ✕ 08'57		max. Earth dist.	971 May 21 j 02:04	3° Π 46'03	10.02118 AU
evening set	966 Feb 21 j 08:17	22° ✕ 41'38		morning rise	971 Jun 07 j 23:19	6° Π 05'11	
				retrograde	971 Sep 21 j 23:03	14° Π 25'43	
conjunction	966 Mar 10 j 11:39	24° ✕ 50'11	-2°-8'-48	opposition	971 Nov 28 j 00:03	10° Π 56'09	-1°-34'-27
minimum elong	966 Mar 10 j 11:37	24° ✕ 50'10	2°08'48	min. Earth dist.	971 Nov 27 j 19:20	10° Π 57'07	8.01493 AU
max. Earth dist.	966 Mar 10 j 10:36	24° ✕ 49'51	10.41014 AU	direct	972 Feb 02 j 12:20	7° Π 27'46	
morning rise	966 Mar 27 j 19:44	27° ✕ 00'13		evening set	972 May 16 j 22:31	15° Π 41'07	
	966 Apr 22 j 08:46	0° Υ					
retrograde	966 Jul 12 j 12:24	5° Υ 00'41		conjunction	972 Jun 04 j 02:15	18° Π 02'18	-1°-1'-1
opposition	966 Sep 19 j 21:14	1° Υ 33'13	-2°-45'-4	minimum elong	972 Jun 04 j 02:18	18° Π 02'19	1°01'02
min. Earth dist.	966 Sep 19 j 21:09	1° Υ 33'14	8.35606 AU	max. Earth dist.	972 Jun 04 j 08:39	18° Π 04'24	10.01487 AU
	966 Oct 10 j 06:14	30° R ✕		morning rise	972 Jun 22 j 06:36	20° Π 23'43	
direct	966 Nov 25 j 23:52	28° ✕ 10'34		retrograde	972 Oct 05 j 11:44	28° Π 40'30	
	967 Jan 10 j 09:04	0° Υ		opposition	972 Dec 11 j 05:27	25° Π 11'31	0°-56'-45
evening set	967 Mar 06 j 20:57	5° Υ 51'42		min. Earth dist.	972 Dec 11 j 00:25	25° Π 12'34	8.02301 AU
				direct	973 Feb 15 j 23:51	21° Π 42'25	
conjunction	967 Mar 24 j 04:04	8° Υ 02'50	-2°-15'-45	evening set	973 Jun 01 j 02:33	29° Π 56'58	
minimum elong	967 Mar 24 j 04:04	8° Υ 02'50	2°15'46		973 Jun 01 j 12:03	0° ☾	
max. Earth dist.	967 Mar 24 j 03:31	8° Υ 02'40	10.30123 AU				
morning rise	967 Apr 10 j 16:05	10° Υ 15'30		conjunction	973 Jun 19 j 07:25	2° ☾ 18'05	0°-29'-12
retrograde	967 Jul 26 j 17:01	18° Υ 24'07		minimum elong	973 Jun 19 j 07:26	2° ☾ 18'06	0°29'13
opposition	967 Oct 03 j 14:10	14° Υ 55'38	-2°-49'-37	max. Earth dist.	973 Jun 19 j 13:58	2° ☾ 20'13	10.03799 AU
min. Earth dist.	967 Oct 03 j 13:49	14° Υ 55'42	8.25158 AU	morning rise	973 Jul 07 j 11:38	4° ☾ 38'59	
direct	967 Dec 09 j 08:01	11° Υ 31'44		retrograde	973 Oct 19 j 19:36	12° ☾ 49'45	
evening set	968 Mar 19 j 19:43	19° Υ 21'21		opposition	973 Dec 25 j 08:46	9° ☾ 21'41	0°-15'-48
				min. Earth dist.	973 Dec 25 j 03:52	9° ☾ 22'42	8.06004 AU
conjunction	968 Apr 06 j 07:15	21° Υ 35'09	-2°-15'-27	direct	974 Mar 02 j 13:21	5° ☾ 52'08	
minimum elong	968 Apr 06 j 07:17	21° Υ 35'10	2°15'28	asc. node	974 May 18 j 08:58	10° ☾ 38'54	
max. Earth dist.	968 Apr 06 j 07:44	21° Υ 35'19	10.20213 AU	evening set	974 Jun 16 j 04:31	14° ☾ 05'43	
morning rise	968 Apr 23 j 23:26	23° Υ 50'26					
	968 Jun 20 j 08:00	0° ♄		conjunction	974 Jul 04 j 08:46	16° ☾ 25'48	0°04'12
retrograde	968 Aug 09 j 03:17	2° ♄ 05'39		minimum elong	974 Jul 04 j 08:46	16° ☾ 25'47	0°04'11
	968 Sep 28 j 19:33	30° R Υ		behind sun begin	974 Jul 04 j 01:31	16° ☾ 23'28	
opposition	968 Oct 16 j 11:54	28° Υ 36'24	-2°-44'-45	behind sun end	974 Jul 04 j 16:00	16° ☾ 28'06	
min. Earth dist.	968 Oct 16 j 10:56	28° Υ 36'36	8.15949 AU	max. Earth dist.	974 Jul 04 j 15:01	16° ☾ 27'47	10.08887 AU
direct	968 Dec 21 j 23:19	25° Υ 11'16		morning rise	974 Jul 22 j 11:12	18° ☾ 45'16	
	969 Mar 08 j 00:21	0° ♄		retrograde	974 Nov 02 j 19:37	26° ☾ 48'19	
evening set	969 Apr 03 j 04:01	3° ♄ 08'56		opposition	975 Jan 08 j 08:41	23° ☾ 21'24	0°25'33
				min. Earth dist.	975 Jan 08 j 04:02	23° ☾ 22'21	8.12347 AU
conjunction	969 Apr 20 j 20:21	5° ♄ 25'20	-2°-7'-25	direct	975 Mar 17 j 02:01	19° ☾ 51'44	
minimum elong	969 Apr 20 j 20:23	5° ♄ 25'21	2°07'26	evening set	975 Jul 01 j 01:31	28° ☾ 02'15	
max. Earth dist.	969 Apr 20 j 22:21	5° ♄ 25'59	10.11855 AU		975 Jul 16 j 11:42	0° ♁	
morning rise	969 May 08 j 16:39	7° ♄ 43'01					
	969 Jul 20 j 06:54	15° ♄		conjunction	975 Jul 19 j 03:31	0° ♁ 20'28	0°36'47
retrograde	969 Aug 23 j 16:58	16° ♄ 02'43		minimum elong	975 Jul 19 j 03:29	0° ♁ 20'27	0°36'47
	969 Sep 27 j 07:20	15° R ♄		max. Earth dist.	975 Jul 19 j 09:09	0° ♁ 22'16	10.16395 AU
opposition	969 Oct 30 j 13:44	12° ♄ 33'02	-2°-30'-9	morning rise	975 Aug 06 j 02:39	2° ♁ 37'43	
min. Earth dist.	969 Oct 30 j 11:34	12° ♄ 33'28	8.08588 AU	retrograde	975 Nov 16 j 12:07	10° ♁ 32'04	
direct	970 Jan 04 j 22:50	9° ♄ 06'41		opposition	976 Jan 22 j 04:00	7° ♁ 06'25	1°04'40
	970 Mar 31 j 03:49	15° ♄		min. Earth dist.	976 Jan 21 j 23:25	7° ♁ 07'21	8.20890 AU
evening set	970 Apr 17 j 20:37	17° ♄ 11'20		direct	976 Mar 30 j 11:01	3° ♁ 36'58	
				evening set	976 Jul 14 j 15:29	11° ♁ 42'41	
conjunction	970 May 05 j 17:33	19° ♄ 29'59	-1°-51'-44				
minimum elong	970 May 05 j 17:37	19° ♄ 30'00	1°51'46	conjunction	976 Aug 01 j 13:49	13° ♁ 58'23	1°06'47
max. Earth dist.	970 May 05 j 21:26	19° ♄ 31'15	10.05661 AU	minimum elong	976 Aug 01 j 13:46	13° ♁ 58'22	1°06'46
morning rise	970 May 23 j 17:31	21° ♄ 49'38		max. Earth dist.	976 Aug 01 j 18:54	13° ♁ 59'59	10.25823 AU
	970 Aug 24 j 02:56	0° ♁			976 Aug 09 j 16:07	15° ♁	
retrograde	970 Sep 07 j 07:58	0° ♁ 11'10		morning rise	976 Aug 19 j 08:22	16° ♁ 12'51	
	970 Sep 21 j 14:22	30° R ♄		retrograde	976 Nov 28 j 21:48	23° ♁ 58'02	
opposition	970 Nov 13 j 18:17	26° ♄ 41'22	-2°-6'-17	opposition	977 Feb 03 j 17:58	20° ♁ 33'44	1°39'17
min. Earth dist.	970 Nov 13 j 14:38	26° ♄ 42'07	8.03640 AU	min. Earth dist.	977 Feb 03 j 13:25	20° ♁ 34'39	8.31091 AU
direct	971 Jan 19 j 03:35	23° ♄ 13'56		direct	977 Apr 13 j 14:23	17° ♁ 04'50	
	971 Apr 21 j 16:28	0° ♁		evening set	977 Jul 28 j 20:20	25° ♁ 04'20	
evening set	971 May 02 j 19:37	1° ♁ 23'56					
				conjunction	977 Aug 15 j 14:07	27° ♁ 17'08	1°32'32

minimum elong	977 Aug 15 j 14:03	27°♈17'07	1°32'32	morning rise	983 Nov 14 j 16:13	12°♌35'50	
max. Earth dist.	977 Aug 15 j 18:53	27°♈18'38	10.36603 AU		983 Dec 06 j 06:58	15°♌	
morning rise	977 Sep 02 j 03:20	29°♈28'31		retrograde	984 Feb 22 j 04:27	19°♌35'20	
	977 Sep 06 j 10:28	0°♐		opposition	984 May 01 j 18:52	16°♌18'15	2°23'36
retrograde	977 Dec 12 j 00:19	7°♐04'36		min. Earth dist.	984 May 01 j 21:37	16°♌17'45	9.01278 AU
opposition	978 Feb 17 j 02:25	3°♐41'42	2°07'46		984 May 19 j 20:15	15°♌	
min. Earth dist.	978 Feb 16 j 22:23	3°♐42'30	8.42360 AU	direct	984 Jul 12 j 00:09	12°♌57'32	
direct	978 Apr 27 j 11:29	0°♑13'38			984 Sep 01 j 10:59	15°♌	
evening set	978 Aug 11 j 14:52	8°♑05'55		evening set	984 Oct 22 j 22:58	20°♌07'00	
conjunction	978 Aug 29 j 03:38	10°♑15'39	1°52'57	conjunction	984 Nov 08 j 14:33	22°♌04'07	1°49'44
minimum elong	978 Aug 29 j 03:35	10°♑15'38	1°52'57	minimum elong	984 Nov 08 j 14:36	22°♌04'08	1°49'43
max. Earth dist.	978 Aug 29 j 07:42	10°♑16'55	10.48142 AU	max. Earth dist.	984 Nov 08 j 10:39	22°♌02'58	11.03636 AU
morning rise	978 Sep 15 j 11:26	12°♑23'55		morning rise	984 Nov 25 j 03:53	24°♌00'37	
retrograde	978 Dec 24 j 18:17	19°♑51'24			985 Jan 29 j 10:34	0°♊	
opposition	979 Mar 02 j 05:08	16°♑29'52	2°29'02	retrograde	985 Mar 04 j 22:11	0°♊58'27	
min. Earth dist.	979 Mar 02 j 02:24	16°♑30'24	8.54093 AU		985 Apr 09 j 04:48	30°♌	
direct	979 May 11 j 02:40	13°♑02'50		opposition	985 May 13 j 22:00	27°♌41'33	2°03'22
evening set	979 Aug 24 j 23:06	20°♑47'23		min. Earth dist.	985 May 14 j 01:52	27°♌40'50	9.05686 AU
conjunction	979 Sep 11 j 06:46	22°♑54'08	2°07'21	direct	985 Jul 24 j 03:59	24°♌21'47	
minimum elong	979 Sep 11 j 06:44	22°♑54'08	2°07'21	evening set	985 Oct 21 j 12:45	0°♊	
max. Earth dist.	979 Sep 11 j 09:15	22°♑54'54	10.59847 AU		985 Nov 03 j 09:09	1°♊26'47	
morning rise	979 Sep 28 j 09:32	24°♑59'26		conjunction	985 Nov 19 j 23:43	3°♊23'18	1°31'16
	979 Nov 14 j 21:36	0°♋		minimum elong	985 Nov 19 j 23:46	3°♊23'18	1°31'16
retrograde	980 Jan 06 j 05:54	2°♋19'03		max. Earth dist.	985 Nov 19 j 18:46	3°♊21'50	11.06974 AU
	980 Feb 29 j 16:54	30°♌		morning rise	985 Dec 06 j 12:53	5°♊19'24	
opposition	980 Mar 14 j 02:13	28°♌58'47	2°42'37	retrograde	986 Mar 16 j 15:30	12°♊17'02	
min. Earth dist.	980 Mar 14 j 01:07	28°♌59'00	8.65707 AU	opposition	986 May 25 j 23:45	8°♊59'59	1°38'32
direct	980 May 23 j 10:16	25°♌32'59		min. Earth dist.	986 May 26 j 03:53	8°♊59'13	9.07857 AU
	980 Aug 08 j 17:03	0°♋		direct	986 Aug 05 j 03:09	5°♊41'00	
evening set	980 Sep 05 j 20:58	3°♋09'38		evening set	986 Nov 14 j 16:43	12°♊42'47	
conjunction	980 Sep 22 j 23:53	5°♋13'39	2°15'29	conjunction	986 Dec 01 j 07:01	14°♊39'06	1°09'20
minimum elong	980 Sep 22 j 23:52	5°♋13'39	2°15'29	minimum elong	986 Dec 01 j 07:03	14°♊39'07	1°09'20
max. Earth dist.	980 Sep 23 j 00:14	5°♋13'46	10.71167 AU	max. Earth dist.	986 Dec 01 j 02:07	14°♊37'40	11.08008 AU
morning rise	980 Oct 09 j 22:20	7°♋16'19		morning rise	986 Dec 17 j 20:28	16°♊35'16	
retrograde	981 Jan 17 j 10:49	14°♋29'04		retrograde	987 Mar 28 j 11:29	23°♊34'13	
opposition	981 Mar 26 j 18:21	11°♋09'55	2°48'28	opposition	987 Jun 07 j 01:28	20°♊16'45	1°09'58
min. Earth dist.	981 Mar 26 j 18:06	11°♋09'58	8.76667 AU	min. Earth dist.	987 Jun 07 j 05:49	20°♊15'57	9.07661 AU
direct	981 Jun 05 j 11:06	7°♋45'26		direct	987 Aug 17 j 00:25	16°♊58'18	
evening set	981 Sep 18 j 08:55	15°♋14'20		evening set	987 Nov 25 j 23:30	23°♊58'19	
conjunction	981 Oct 05 j 07:53	17°♋15'58	2°17'25	conjunction	987 Dec 12 j 13:50	25°♊54'51	0°44'43
minimum elong	981 Oct 05 j 07:52	17°♋15'58	2°17'25	minimum elong	987 Dec 12 j 13:51	25°♊54'51	0°44'44
max. Earth dist.	981 Oct 05 j 07:07	17°♋15'44	10.81603 AU	max. Earth dist.	987 Dec 12 j 08:07	25°♊53'10	11.06632 AU
morning rise	981 Oct 22 j 02:44	19°♋16'24		morning rise	987 Dec 29 j 04:08	27°♊51'27	
retrograde	982 Jan 29 j 11:29	26°♋23'29			988 Jan 17 j 11:08	0°♋	
opposition	982 Apr 08 j 05:59	23°♋05'14	2°46'52	retrograde	988 Apr 08 j 10:16	4°♋53'18	
min. Earth dist.	982 Apr 08 j 06:11	23°♋05'12	8.86498 AU	opposition	988 Jun 18 j 04:12	1°♋35'11	0°38'36
direct	982 Jun 18 j 06:59	19°♋42'06		min. Earth dist.	988 Jun 18 j 09:32	1°♋34'12	9.05044 AU
evening set	982 Sep 30 j 12:20	27°♋03'42			988 Jul 10 j 15:58	30°♌	
conjunction	982 Oct 17 j 08:12	29°♋03'24	2°13'25	direct	988 Aug 27 j 19:03	28°♊17'02	
minimum elong	982 Oct 17 j 08:13	29°♋03'24	2°13'26	evening set	988 Oct 13 j 06:41	0°♋	
max. Earth dist.	982 Oct 17 j 07:00	29°♋03'02	10.90717 AU		988 Dec 06 j 07:19	5°♋16'50	
	982 Oct 25 j 05:58	0°♌		conjunction	988 Dec 22 j 22:01	7°♋13'58	0°18'16
morning rise	982 Nov 03 j 00:15	1°♌02'01		minimum elong	988 Dec 22 j 22:02	7°♋13'58	0°18'16
retrograde	983 Feb 10 j 10:06	8°♌04'39		max. Earth dist.	988 Dec 22 j 14:50	7°♋11'51	11.02853 AU
opposition	983 Apr 20 j 13:45	4°♌47'07	2°38'21	morning rise	989 Jan 08 j 13:47	9°♋11'26	
min. Earth dist.	983 Apr 20 j 14:52	4°♌46'54	8.94805 AU	retrograde	989 Apr 20 j 11:00	16°♋17'49	
direct	983 Jun 30 j 18:14	1°♌25'15		opposition	989 Jun 30 j 08:54	12°♋58'48	0°05'29
evening set	983 Oct 12 j 08:35	8°♌40'18		min. Earth dist.	989 Jun 30 j 15:12	12°♋57'38	9.00090 AU
conjunction	983 Oct 29 j 02:00	10°♌38'30	2°04'00	desc. node	989 Aug 30 j 17:25	9°♋44'36	
minimum elong	983 Oct 29 j 02:02	10°♌38'31	2°04'00	direct	989 Sep 08 j 14:54	9°♋40'39	
max. Earth dist.	983 Oct 28 j 23:52	10°♌37'52	10.98151 AU	evening set	989 Dec 17 j 17:42	16°♋41'53	

conjunction	990 Jan 03 j 09:20	18°♄39'59	0°-9'-14		996 Feb 27 j 20:12	0°♃	
minimum elong	990 Jan 03 j 09:19	18°♄39'59	0°09'15	evening set	996 Feb 29 j 03:30	0°♃09'42	
behind sun begin	990 Jan 03 j 03:24	18°♄38'14					
behind sun end	990 Jan 03 j 15:14	18°♄41'43		conjunction	996 Mar 17 j 09:03	2°♃19'51	-2°-13'-30
max. Earth dist.	990 Jan 03 j 01:53	18°♄37'47	10.96824 AU	minimum elong	996 Mar 17 j 09:02	2°♃19'51	2°13'31
morning rise	990 Jan 20 j 02:50	20°♄38'40		max. Earth dist.	996 Mar 17 j 08:19	2°♃19'37	10.33138 AU
retrograde	990 May 02 j 18:28	27°♄51'05		morning rise	996 Apr 03 j 19:13	4°♃31'32	
opposition	990 Jul 12 j 16:29	24°♄30'55	0°-28'-17	retrograde	996 Jul 19 j 16:17	12°♃37'21	
min. Earth dist.	990 Jul 12 j 22:30	24°♄29'47	8.93018 AU	opposition	996 Sep 26 j 19:40	9°♃08'38	-2°-48'-49
direct	990 Sep 20 j 13:18	21°♄12'32		min. Earth dist.	996 Sep 26 j 19:27	9°♃08'40	8.27802 AU
evening set	990 Dec 29 j 08:26	28°♄16'41		direct	996 Dec 02 j 18:06	5°♃44'40	
	991 Jan 12 j 19:42	0°♃		evening set	997 Mar 13 j 22:02	13°♃31'12	
conjunction	991 Jan 15 j 01:22	0°♃16'06	0°-36'-37	conjunction	997 Mar 31 j 07:45	15°♃44'04	-2°-16'-34
minimum elong	991 Jan 15 j 01:21	0°♃16'06	0°36'39	minimum elong	997 Mar 31 j 07:45	15°♃44'04	2°16'34
max. Earth dist.	991 Jan 14 j 18:52	0°♃14'10	10.88804 AU	max. Earth dist.	997 Mar 31 j 08:35	15°♃44'20	10.22493 AU
morning rise	991 Jan 31 j 20:44	2°♃16'19		morning rise	997 Apr 17 j 21:57	17°♃58'25	
retrograde	991 May 15 j 08:07	9°♃36'06		retrograde	997 Aug 03 j 01:18	26°♃11'44	
opposition	991 Jul 25 j 03:51	6°♃14'34	-1°-1'-32	opposition	997 Oct 10 j 15:30	22°♃42'06	-2°-48'-16
min. Earth dist.	991 Jul 25 j 08:53	6°♃13'37	8.84136 AU	min. Earth dist.	997 Oct 10 j 13:53	22°♃42'25	8.17862 AU
direct	991 Oct 02 j 12:41	2°♃55'43		direct	997 Dec 16 j 05:28	19°♃16'53	
evening set	992 Jan 10 j 05:07	10°♃04'16		evening set	998 Mar 28 j 02:29	27°♃11'49	
conjunction	992 Jan 26 j 23:36	12°♃05'18	-1°-2'-57	conjunction	998 Apr 14 j 16:42	29°♃27'20	-2°-12'-1
minimum elong	992 Jan 26 j 23:34	12°♃05'17	1°02'59	minimum elong	998 Apr 14 j 16:44	29°♃27'20	2°12'02
max. Earth dist.	992 Jan 26 j 17:46	12°♃03'32	10.79145 AU	max. Earth dist.	998 Apr 14 j 18:43	29°♃27'59	10.13378 AU
morning rise	992 Feb 12 j 21:12	14°♃07'20			998 Apr 18 j 21:51	0°♄	
	992 Feb 20 j 08:59	15°♃		morning rise	998 May 02 j 11:09	1°♄44'13	
retrograde	992 May 27 j 04:41	21°♃35'35		retrograde	998 Aug 17 j 14:29	10°♄03'01	
opposition	992 Aug 05 j 19:58	18°♃12'33	-1°-32'-51	opposition	998 Oct 24 j 16:03	6°♄32'49	-2°-38'-1
min. Earth dist.	992 Aug 06 j 00:09	18°♃11'45	8.73828 AU	min. Earth dist.	998 Oct 24 j 13:31	6°♄33'20	8.09717 AU
	992 Oct 02 j 00:20	15°♃		direct	998 Dec 30 j 01:28	3°♄06'24	
direct	992 Oct 13 j 16:21	14°♃52'59		evening set	999 Apr 11 j 15:39	11°♄08'48	
	992 Oct 25 j 06:27	15°♃					
evening set	993 Jan 21 j 09:02	22°♃07'18		conjunction	999 Apr 29 j 10:30	13°♄26'43	-1°-59'-43
conjunction	993 Feb 07 j 05:23	24°♃10'14	-1°-27'-2	minimum elong	999 Apr 29 j 10:33	13°♄26'44	1°59'44
minimum elong	993 Feb 07 j 05:20	24°♃10'13	1°27'03	max. Earth dist.	999 Apr 29 j 13:49	13°♄27'47	10.06350 AU
max. Earth dist.	993 Feb 06 j 23:36	24°♃08'28	10.68259 AU	morning rise	999 May 11 j 10:10	15°♄	
morning rise	993 Feb 24 j 05:42	26°♃14'24		retrograde	999 May 17 j 09:00	15°♄45'47	
	993 Mar 30 j 02:02	0°♄		opposition	999 Sep 01 j 05:12	24°♄07'35	
retrograde	993 Jun 09 j 08:42	3°♄51'55		opposition	999 Nov 07 j 20:00	20°♄37'12	-2°-18'-8
opposition	993 Aug 18 j 17:19	0°♄27'21	-2°00'-47	min. Earth dist.	999 Nov 07 j 16:41	20°♄37'53	8.03888 AU
min. Earth dist.	993 Aug 18 j 21:15	0°♄26'36	8.62527 AU	direct	1000 Jan 13 j 04:13	17°♄09'43	
	993 Aug 24 j 15:57	30°♃		evening set	1000 Apr 25 j 12:18	25°♄18'11	
direct	993 Oct 26 j 00:31	27°♃06'51		conjunction	1000 May 13 j 11:28	27°♄38'01	-1°-40'-3
	993 Dec 23 j 21:25	0°♄		minimum elong	1000 May 13 j 11:32	27°♄38'03	1°40'05
evening set	994 Feb 02 j 21:35	4°♄28'11		max. Earth dist.	1000 May 13 j 16:03	27°♄39'31	10.01871 AU
conjunction	994 Feb 19 j 20:21	6°♄33'17	-1°-47'-39	morning rise	1000 May 31 j 13:22	29°♄58'42	
minimum elong	994 Feb 19 j 20:19	6°♄33'17	1°47'39		1000 May 31 j 17:25	0°♄	
max. Earth dist.	994 Feb 19 j 15:29	6°♄31'47	10.56606 AU	retrograde	1000 Sep 14 j 20:38	8°♄20'40	
morning rise	994 Mar 08 j 23:38	8°♄39'47		opposition	1000 Nov 21 j 01:42	4°♄50'32	-1°-49'-35
retrograde	994 Jun 22 j 19:08	16°♄27'01		min. Earth dist.	1000 Nov 20 j 21:37	4°♄51'23	8.00770 AU
opposition	994 Aug 31 j 20:10	13°♄00'56	-2°-23'-47	direct	1001 Jan 26 j 11:58	1°♄22'09	
min. Earth dist.	994 Aug 31 j 23:22	13°♄00'19	8.50721 AU	evening set	1001 May 10 j 14:06	9°♄34'52	
direct	994 Nov 07 j 15:15	9°♄39'21		conjunction	1001 May 28 j 16:43	11°♄55'57	-1°-14'-9
evening set	995 Feb 15 j 19:31	17°♄08'40		minimum elong	1001 May 28 j 16:46	11°♄55'58	1°14'11
conjunction	995 Mar 04 j 21:22	19°♄16'12	-2°-3'-32	max. Earth dist.	1001 May 28 j 22:40	11°♄57'54	10.00248 AU
minimum elong	995 Mar 04 j 21:20	19°♄16'12	2°03'32	morning rise	1001 Jun 15 j 20:47	14°♄17'28	
max. Earth dist.	995 Mar 04 j 18:24	19°♄15'16	10.44708 AU	retrograde	1001 Sep 29 j 10:42	22°♄36'50	
morning rise	995 Mar 22 j 03:53	21°♄25'13		opposition	1001 Dec 05 j 07:50	19°♄07'19	-1°-14'-7
retrograde	995 Jul 06 j 13:23	29°♄22'06		min. Earth dist.	1001 Dec 05 j 02:39	19°♄08'23	8.00591 AU
opposition	995 Sep 14 j 05:02	25°♄54'36	-2°-40'-17	direct	1002 Feb 09 j 23:25	15°♄38'18	
min. Earth dist.	995 Sep 14 j 06:41	25°♄54'16	8.38954 AU	evening set	1002 May 25 j 18:11	23°♄53'10	
direct	995 Nov 20 j 13:59	22°♄31'51		conjunction	1002 Jun 12 j 22:48	26°♄14'34	0°-43'-40

minimum elong	1002 Jun 12 j 22:50	26°II14'35	0°43'41	morning rise	1007 Sep 10 j 03:00	7°mp05'06	
max. Earth dist.	1002 Jun 13 j 06:11	26°II16'59	10.01605 AU	retrograde	1007 Dec 19 j 15:23	14°mp36'17	
morning rise	1002 Jul 01 j 03:26	28°II35'59		opposition	1008 Feb 24 j 22:39	11°mp14'38	2°20'33
	1002 Jul 12 j 07:12	0°☉		min. Earth dist.	1008 Feb 24 j 19:46	11°mp15'13	8.49787 AU
retrograde	1002 Oct 13 j 21:10	6°☉50'18		direct	1008 May 04 j 15:13	7°mp47'36	
opposition	1002 Dec 19 j 12:40	3°☉21'44	0°-34'-12	evening set	1008 Aug 18 j 15:03	15°mp35'37	
min. Earth dist.	1002 Dec 19 j 06:28	3°☉23'01	8.03384 AU				
	1003 Feb 12 j 19:56	30°RII		conjunction	1008 Sep 05 j 00:51	17°mp43'37	2°01'45
direct	1003 Feb 24 j 12:42	29°II52'24		minimum elong	1008 Sep 05 j 00:48	17°mp43'36	2°01'45
	1003 Mar 08 j 04:59	0°☉		max. Earth dist.	1008 Sep 05 j 02:50	17°mp44'14	10.55528 AU
evening set	1003 Jun 09 j 21:53	8°☉07'10		morning rise	1008 Sep 22 j 05:53	19°mp50'10	
				retrograde	1008 Dec 31 j 06:53	27°mp13'12	
conjunction	1003 Jun 28 j 02:48	10°☉27'57	0°-10'-42	opposition	1009 Mar 08 j 22:30	23°mp52'49	2°37'30
minimum elong	1003 Jun 28 j 02:48	10°☉27'57	0°10'44	min. Earth dist.	1009 Mar 08 j 20:33	23°mp53'12	8.61345 AU
behind sun begin	1003 Jun 27 j 21:14	10°☉26'10		direct	1009 May 18 j 02:14	20°mp26'54	
behind sun end	1003 Jun 28 j 08:22	10°☉29'45		evening set	1009 Aug 31 j 17:47	28°mp07'08	
max. Earth dist.	1003 Jun 28 j 11:02	10°☉30'37	10.05865 AU		1009 Sep 16 j 06:28	0°♁	
morning rise	1003 Jul 16 j 06:17	12°☉48'18					
asc. node	1003 Oct 27 j 07:08	20°☉55'31		conjunction	1009 Sep 17 j 22:50	0°♁12'20	2°12'36
retrograde	1003 Oct 28 j 01:42	20°☉55'33		minimum elong	1009 Sep 17 j 22:49	0°♁12'19	2°12'37
opposition	1004 Jan 02 j 14:39	17°☉28'13	0°07'23	max. Earth dist.	1009 Sep 17 j 23:49	0°♁12'38	10.66796 AU
min. Earth dist.	1004 Jan 02 j 08:08	17°☉29'33	8.08977 AU	morning rise	1009 Oct 04 j 23:03	2°♁16'06	
direct	1004 Mar 10 j 01:34	13°☉58'49		retrograde	1010 Jan 12 j 16:11	9°♁31'58	
evening set	1004 Jun 23 j 22:14	22°☉11'23		opposition	1010 Mar 21 j 17:13	6°♁12'41	2°46'42
				min. Earth dist.	1010 Mar 21 j 16:47	6°♁12'46	8.72284 AU
conjunction	1004 Jul 12 j 01:36	24°☉30'37	0°22'36	direct	1010 May 31 j 05:45	2°♁47'57	
minimum elong	1004 Jul 12 j 01:35	24°☉30'37	0°22'35	evening set	1010 Sep 13 j 10:30	10°♁20'28	
max. Earth dist.	1004 Jul 12 j 09:53	24°☉33'16	10.12740 AU				
morning rise	1004 Jul 30 j 02:17	26°☉49'01		conjunction	1010 Sep 30 j 11:18	12°♁23'10	2°17'11
	1004 Aug 25 j 16:44	0°♁		minimum elong	1010 Sep 30 j 11:17	12°♁23'10	2°17'12
retrograde	1004 Nov 09 j 23:31	4°♁47'49		max. Earth dist.	1010 Sep 30 j 10:47	12°♁23'00	10.77247 AU
opposition	1005 Jan 15 j 12:45	1°♁21'53	0°47'51	morning rise	1010 Oct 17 j 07:32	14°♁24'34	
min. Earth dist.	1005 Jan 15 j 06:39	1°♁23'08	8.16995 AU	retrograde	1011 Jan 24 j 19:13	21°♁34'20	
	1005 Feb 01 j 17:37	30°R☉		opposition	1011 Apr 03 j 07:19	18°♁15'57	2°48'17
direct	1005 Mar 24 j 11:37	27°☉52'42		min. Earth dist.	1011 Apr 03 j 08:43	18°♁15'41	8.82198 AU
	1005 May 13 j 11:25	0°♁		direct	1011 Jun 13 j 03:42	14°♁52'21	
evening set	1005 Jul 08 j 16:20	6°♁01'05		evening set	1011 Sep 25 j 18:18	22°♁17'30	
conjunction	1005 Jul 26 j 16:29	8°♁18'01	0°54'00	conjunction	1011 Oct 12 j 15:26	24°♁18'06	2°15'42
minimum elong	1005 Jul 26 j 16:27	8°♁18'00	0°54'00	minimum elong	1011 Oct 12 j 15:26	24°♁18'06	2°15'42
max. Earth dist.	1005 Jul 26 j 23:59	8°♁20'24	10.21770 AU	max. Earth dist.	1011 Oct 12 j 12:47	24°♁17'19	10.86497 AU
morning rise	1005 Aug 13 j 13:01	10°♁33'47		morning rise	1011 Oct 29 j 08:40	26°♁17'34	
	1005 Sep 21 j 11:23	15°♁			1011 Dec 02 j 15:26	0°♁	
retrograde	1005 Nov 23 j 13:42	18°♁23'23		retrograde	1012 Feb 05 j 17:58	3°♁22'23	
opposition	1006 Jan 29 j 05:52	14°♁58'55	1°24'43	opposition	1012 Apr 14 j 17:17	0°♁04'38	2°42'41
min. Earth dist.	1006 Jan 29 j 00:52	14°♁59'56	8.26913 AU	min. Earth dist.	1012 Apr 14 j 20:03	0°♁04'07	8.90719 AU
	1006 Jan 29 j 00:31	15°R♁			1012 Apr 15 j 17:57	30°R♁	
direct	1006 Apr 07 j 17:55	11°♁30'14		direct	1012 Jun 24 j 19:25	26°♁42'09	
	1006 Jun 12 j 16:54	15°♁			1012 Aug 30 j 00:46	0°♁	
evening set	1006 Jul 23 j 02:03	19°♁32'48		evening set	1012 Oct 06 j 18:04	4°♁00'30	
conjunction	1006 Aug 09 j 21:50	21°♁46'54	1°21'49	conjunction	1012 Oct 23 j 12:25	5°♁59'26	2°08'33
minimum elong	1006 Aug 09 j 21:47	21°♁46'53	1°21'48	minimum elong	1012 Oct 23 j 12:26	5°♁59'27	2°08'32
max. Earth dist.	1006 Aug 10 j 03:30	21°♁48'41	10.32376 AU	max. Earth dist.	1012 Oct 23 j 08:20	5°♁58'13	10.94210 AU
morning rise	1006 Aug 27 j 13:26	23°♁59'39		morning rise	1012 Nov 09 j 03:32	7°♁57'25	
	1006 Oct 24 j 10:11	0°mp		retrograde	1013 Feb 16 j 13:24	14°♁58'38	
retrograde	1006 Dec 06 j 19:01	1°mp39'51		opposition	1013 Apr 27 j 00:01	11°♁41'13	2°30'31
	1007 Jan 20 j 02:23	30°R♁		min. Earth dist.	1013 Apr 27 j 03:03	11°♁40'39	8.97537 AU
opposition	1007 Feb 11 j 17:11	28°♁16'50	1°56'03	direct	1013 Jul 07 j 06:03	8°♁19'45	
min. Earth dist.	1007 Feb 11 j 13:17	28°♁17'37	8.38089 AU		1013 Oct 13 j 19:24	15°♁	
direct	1007 Apr 21 j 19:19	24°♁48'51		evening set	1013 Oct 18 j 11:03	15°♁32'06	
	1007 Jul 13 j 15:05	0°mp					
evening set	1007 Aug 06 j 01:49	2°mp44'28		conjunction	1013 Nov 04 j 03:33	17°♁29'49	1°56'16
				minimum elong	1013 Nov 04 j 03:35	17°♁29'50	1°56'15
conjunction	1007 Aug 23 j 16:40	4°mp55'29	1°44'40	max. Earth dist.	1013 Nov 03 j 23:27	17°♁28'37	11.00101 AU
minimum elong	1007 Aug 23 j 16:37	4°mp55'29	1°44'40	morning rise	1013 Nov 20 j 17:18	19°♁26'48	
max. Earth dist.	1007 Aug 23 j 20:18	4°mp56'37	10.43867 AU	retrograde	1014 Feb 28 j 09:19	26°♁25'48	

opposition	1014 May 09 j 04:12	23°♄08'28	2°12'31	retrograde	1020 May 09 j 11:06	4°≈56'26	
min. Earth dist.	1014 May 09 j 07:42	23°♄07'49	9.02405 AU	opposition	1020 Jul 19 j 07:55	1°≈35'09	0°-47'-51
direct	1014 Jul 19 j 11:37	19°♄47'53		min. Earth dist.	1020 Jul 19 j 12:44	1°≈34'15	8.86781 AU
evening set	1014 Oct 29 j 23:15	26°♄55'18			1020 Aug 10 j 09:35	30°R☾	
				direct	1020 Sep 26 j 20:26	28°☾16'14	
conjunction	1014 Nov 15 j 14:29	28°♄52'15	1°39'29		1020 Nov 11 j 16:29	0°≈	
minimum elong	1014 Nov 15 j 14:31	28°♄52'16	1°39'28	evening set	1021 Jan 04 j 15:11	5°≈23'15	
max. Earth dist.	1014 Nov 15 j 09:51	28°♄50'53	11.03956 AU				
	1014 Nov 25 j 04:28	0°♂		conjunction	1021 Jan 21 j 08:53	7°≈23'41	0°-52'-12
morning rise	1014 Dec 02 j 03:38	0°♂48'41		minimum elong	1021 Jan 21 j 08:51	7°≈23'40	0°52'12
retrograde	1015 Mar 12 j 02:41	7°♂46'51		max. Earth dist.	1021 Jan 21 j 03:10	7°≈21'57	10.82373 AU
opposition	1015 May 21 j 06:45	4°♂29'24	1°49'31	morning rise	1021 Feb 07 j 05:42	9°≈25'02	
min. Earth dist.	1015 May 21 j 11:20	4°♂28'33	9.05164 AU		1021 Apr 04 j 01:36	15°≈	
direct	1015 Jul 31 j 10:45	1°♂09'32		retrograde	1021 May 22 j 03:33	16°≈49'58	
evening set	1015 Nov 10 j 08:12	8°♂13'17			1021 Jul 10 j 16:49	15°R≈	
				opposition	1021 Jul 31 j 22:07	13°≈27'26	-1°-20'-8
conjunction	1015 Nov 26 j 22:38	10°♂09'52	1°18'55	min. Earth dist.	1021 Aug 01 j 02:23	13°≈26'37	8.77593 AU
minimum elong	1015 Nov 26 j 22:40	10°♂09'53	1°18'55	direct	1021 Oct 08 j 23:54	10°≈08'04	
max. Earth dist.	1015 Nov 26 j 16:39	10°♂08'06	11.05658 AU		1021 Dec 27 j 06:40	15°≈	
morning rise	1015 Dec 13 j 12:02	12°♂06'12		evening set	1022 Jan 16 j 16:02	17°≈20'12	
retrograde	1016 Mar 22 j 20:47	19°♂05'06					
opposition	1016 Jun 01 j 08:57	15°♂47'16	1°22'23	conjunction	1022 Feb 02 j 11:37	19°≈22'22	-1°-17'-21
min. Earth dist.	1016 Jun 01 j 14:29	15°♂46'15	9.05734 AU	minimum elong	1022 Feb 02 j 11:35	19°≈22'21	1°17'22
direct	1016 Aug 11 j 09:50	12°♂27'58		max. Earth dist.	1022 Feb 02 j 07:26	19°≈21'06	10.72528 AU
evening set	1016 Nov 20 j 15:22	19°♂29'24		morning rise	1022 Feb 19 j 10:46	21°≈25'40	
				retrograde	1022 Jun 04 j 05:13	28°≈59'28	
conjunction	1016 Dec 07 j 05:38	21°♂26'02	0°55'19	opposition	1022 Aug 13 j 17:19	25°≈35'35	-1°-49'-38
minimum elong	1016 Dec 07 j 05:40	21°♂26'03	0°55'19	min. Earth dist.	1022 Aug 13 j 20:10	25°≈35'03	8.67239 AU
max. Earth dist.	1016 Dec 06 j 23:09	21°♂24'07	11.05156 AU	direct	1022 Oct 21 j 06:30	22°≈15'37	
morning rise	1016 Dec 23 j 19:48	23°♂22'39		evening set	1023 Jan 29 j 00:57	29°≈34'05	
	1017 Mar 12 j 16:05	0°☾			1023 Feb 01 j 14:31	0°♁	
retrograde	1017 Apr 03 j 18:11	0°☾23'52		conjunction	1023 Feb 14 j 22:44	1°♁38'16	-1°-39'-32
	1017 Apr 26 j 02:52	30°R♂		minimum elong	1023 Feb 14 j 22:41	1°♁38'15	1°39'32
opposition	1017 Jun 13 j 11:30	27°♂05'26	0°52'02	max. Earth dist.	1023 Feb 14 j 20:01	1°♁37'26	10.61718 AU
min. Earth dist.	1017 Jun 13 j 16:48	27°♂04'27	9.04094 AU	morning rise	1023 Mar 04 j 00:31	3°♁43'45	
direct	1017 Aug 23 j 06:46	23°♂46'32		retrograde	1023 Jun 17 j 14:11	11°♁27'00	
	1017 Nov 25 j 02:12	0°☾		opposition	1023 Aug 26 j 18:07	8°♁01'47	-2°-14'-49
evening set	1017 Dec 01 j 22:45	0°☾47'04		min. Earth dist.	1023 Aug 26 j 19:29	8°♁01'31	8.56166 AU
				direct	1023 Nov 02 j 17:48	4°♁41'02	
conjunction	1017 Dec 18 j 13:29	2°☾44'09	0°29'29	evening set	1024 Feb 10 j 19:09	12°♁06'53	
minimum elong	1017 Dec 18 j 13:30	2°☾44'09	0°29'30				
max. Earth dist.	1017 Dec 18 j 07:36	2°☾42'25	11.02451 AU	conjunction	1024 Feb 27 j 19:33	14°♁13'19	-1°-57'-29
morning rise	1018 Jan 04 j 04:41	4°☾41'27		minimum elong	1024 Feb 27 j 19:31	14°♁13'19	1°57'30
retrograde	1018 Apr 15 j 18:26	11°☾46'28		max. Earth dist.	1024 Feb 27 j 17:36	14°♁12'43	10.50440 AU
opposition	1018 Jun 25 j 15:18	8°☾27'14	0°19'28	morning rise	1024 Mar 16 j 00:31	16°♁21'12	
min. Earth dist.	1018 Jun 25 j 20:03	8°☾26'22	9.00289 AU	retrograde	1024 Jun 30 j 06:12	20°♁13'57	
direct	1018 Sep 04 j 02:24	5°☾08'33		opposition	1024 Sep 08 j 00:42	20°♁47'28	-2°-34'-8
evening set	1018 Dec 13 j 08:07	12°☾09'44		min. Earth dist.	1024 Sep 08 j 01:17	20°♁47'21	8.44890 AU
				direct	1024 Nov 14 j 12:31	17°♁25'44	
conjunction	1018 Dec 29 j 23:32	14°☾07'37	0°02'22	evening set	1025 Feb 22 j 23:08	24°♁59'42	
minimum elong	1018 Dec 29 j 23:33	14°☾07'37	0°02'22				
behind sun begin	1018 Dec 29 j 16:34	14°☾05'34		conjunction	1025 Mar 12 j 02:50	27°♁08'36	-2°-10'00
behind sun end	1018 Dec 30 j 06:31	14°☾09'40		minimum elong	1025 Mar 12 j 02:48	27°♁08'35	2°10'01
max. Earth dist.	1018 Dec 29 j 17:55	14°☾05'59	10.97623 AU	max. Earth dist.	1025 Mar 12 j 01:40	27°♁08'14	10.39224 AU
morning rise	1019 Jan 15 j 16:14	16°☾05'56		morning rise	1025 Mar 29 j 11:25	29°♁19'01	
desc. node	1019 Jan 30 j 08:59	17°☾45'51			1025 Apr 04 j 01:15	0°♁	
retrograde	1019 Apr 28 j 00:47	23°☾16'15		retrograde	1025 Jul 14 j 05:41	7°♁20'46	
opposition	1019 Jul 07 j 21:49	19°☾56'05	0°-14'-12	opposition	1025 Sep 21 j 13:02	3°♁53'08	-2°-46'-3
min. Earth dist.	1019 Jul 08 j 02:26	19°☾55'14	8.94445 AU	min. Earth dist.	1025 Sep 21 j 13:03	3°♁53'07	8.33936 AU
direct	1019 Sep 15 j 22:51	16°☾37'24		direct	1025 Nov 27 j 14:13	0°♁30'16	
evening set	1019 Dec 24 j 21:01	23°☾40'44		evening set	1026 Mar 08 j 13:17	8°♁12'39	
conjunction	1020 Jan 10 j 13:20	25°☾39'43	0°-25'-16	conjunction	1026 Mar 25 j 20:53	10°♁24'08	-2°-16'00
minimum elong	1020 Jan 10 j 13:19	25°☾39'43	0°25'18	minimum elong	1026 Mar 25 j 20:53	10°♁24'08	2°16'01
max. Earth dist.	1020 Jan 10 j 07:08	25°☾37'53	10.90846 AU	max. Earth dist.	1026 Mar 25 j 21:01	10°♁24'10	10.28601 AU
morning rise	1020 Jan 27 j 07:57	27°☾39'26		morning rise	1026 Apr 12 j 09:21	12°♁37'08	
	1020 Feb 17 j 03:53	0°≈					

retrograde	1026 Jul 28 j 10:46	20° Υ 46'45		conjunction	1032 Jun 21 j 02:38	4° Θ 43'12	0°-24'-42
opposition	1026 Oct 05 j 06:38	17° Υ 18'08	-2°-49'-20	minimum elong	1032 Jun 21 j 02:39	4° Θ 43'12	0°24'43
min. Earth dist.	1026 Oct 05 j 05:55	17° Υ 18'16	8.23825 AU	max. Earth dist.	1032 Jun 21 j 08:38	4° Θ 45'08	10.04606 AU
direct	1026 Dec 10 j 23:54	13° Υ 54'03		morning rise	1032 Jul 09 j 06:50	7° Θ 03'56	
evening set	1027 Mar 22 j 13:14	21° Υ 44'43		retrograde	1032 Oct 21 j 11:24	15° Θ 13'44	
				opposition	1032 Dec 27 j 01:25	11° Θ 45'54	0°-10'-9
conjunction	1027 Apr 09 j 01:20	23° Υ 58'49	-2°-14'-39	min. Earth dist.	1032 Dec 26 j 20:41	11° Θ 46'53	8.06960 AU
minimum elong	1027 Apr 09 j 01:22	23° Υ 58'50	2°14'40	direct	1033 Mar 04 j 08:14	8° Θ 16'25	
max. Earth dist.	1027 Apr 09 j 03:12	23° Υ 59'25	10.19084 AU	asc. node	1033 Mar 29 j 17:17	8° Θ 51'36	
morning rise	1027 Apr 26 j 17:52	26° Υ 14'22		evening set	1033 Jun 17 j 23:17	16° Θ 29'33	
	1027 May 28 j 14:44	0° Υ					
retrograde	1027 Aug 11 j 20:53	4° Υ 30'11		conjunction	1033 Jul 06 j 03:20	18° Θ 49'24	0°08'40
opposition	1027 Oct 19 j 04:57	1° Υ 00'50	-2°-43'-8	minimum elong	1033 Jul 06 j 03:19	18° Θ 49'24	0°08'40
min. Earth dist.	1027 Oct 19 j 03:03	1° Υ 01'13	8.15042 AU	behind sun begin	1033 Jul 05 j 20:59	18° Θ 47'22	
	1027 Oct 31 j 20:53	30° Υ		behind sun end	1033 Jul 06 j 09:39	18° Θ 51'25	
direct	1027 Dec 24 j 16:59	27° Υ 35'34		max. Earth dist.	1033 Jul 06 j 09:19	18° Θ 51'19	10.09984 AU
	1028 Feb 14 j 17:29	0° Υ		morning rise	1033 Jul 24 j 05:30	21° Θ 08'36	
evening set	1028 Apr 04 j 22:23	5° Υ 33'57		retrograde	1033 Nov 04 j 10:39	29° Θ 10'36	
				opposition	1034 Jan 10 j 00:44	25° Θ 43'55	0°31'00
conjunction	1028 Apr 22 j 15:16	7° Υ 50'36	-2°-5'-34	min. Earth dist.	1034 Jan 09 j 19:45	25° Θ 44'56	8.13564 AU
minimum elong	1028 Apr 22 j 15:19	7° Υ 50'37	2°05'35	direct	1034 Mar 18 j 19:29	22° Θ 14'23	
max. Earth dist.	1028 Apr 22 j 18:37	7° Υ 51'41	10.11161 AU		1034 Jun 29 j 13:47	0° Ω	
morning rise	1028 May 10 j 11:54	10° Υ 08'29		evening set	1034 Jul 02 j 19:23	0° Ω 24'12	
	1028 Jun 21 j 16:51	15° Υ					
retrograde	1028 Aug 25 j 10:45	18° Υ 28'23		conjunction	1034 Jul 20 j 21:03	2° Ω 42'07	0°41'00
opposition	1028 Nov 01 j 07:05	14° Υ 58'39	-2°-27'-14	minimum elong	1034 Jul 20 j 21:01	2° Ω 42'07	0°40'59
min. Earth dist.	1028 Nov 01 j 03:57	14° Υ 59'17	8.08100 AU	max. Earth dist.	1034 Jul 21 j 03:00	2° Ω 44'01	10.17720 AU
	1028 Nov 01 j 00:29	15° Υ		morning rise	1034 Aug 07 j 19:40	4° Ω 59'02	
direct	1029 Jan 06 j 15:59	11° Υ 32'13		retrograde	1034 Nov 18 j 03:29	12° Ω 52'16	
	1029 Mar 10 j 21:39	15° Υ		opposition	1035 Jan 23 j 19:21	9° Ω 26'50	1°09'35
evening set	1029 Apr 19 j 15:45	19° Υ 37'20		min. Earth dist.	1035 Jan 23 j 14:10	9° Ω 27'53	8.22305 AU
				direct	1035 Apr 02 j 03:14	5° Ω 57'34	
conjunction	1029 May 07 j 13:10	21° Υ 56'10	-1°-48'-55	evening set	1035 Jul 17 j 08:14	14° Ω 02'24	
minimum elong	1029 May 07 j 13:13	21° Υ 56'11	1°48'56		1035 Jul 25 j 00:24	15° Ω	
max. Earth dist.	1029 May 07 j 17:45	21° Υ 57'39	10.05377 AU				
morning rise	1029 May 25 j 13:25	24° Υ 15'56		conjunction	1035 Aug 04 j 06:10	16° Ω 17'45	1°10'28
	1029 Jul 15 j 19:50	0° Υ		minimum elong	1035 Aug 04 j 06:07	16° Ω 17'45	1°10'27
retrograde	1029 Sep 09 j 02:58	2° Υ 37'18		max. Earth dist.	1035 Aug 04 j 11:58	16° Ω 19'36	10.27309 AU
	1029 Nov 04 j 18:42	30° Υ		morning rise	1035 Aug 22 j 00:03	18° Ω 31'50	
opposition	1029 Nov 15 j 11:41	29° Υ 07'32	-2°-2'-13	retrograde	1035 Dec 01 j 12:14	26° Ω 15'53	
min. Earth dist.	1029 Nov 15 j 07:35	29° Υ 08'23	8.03545 AU	opposition	1036 Feb 06 j 08:30	22° Ω 51'49	1°43'25
direct	1030 Jan 20 j 20:07	25° Υ 40'03		min. Earth dist.	1036 Feb 06 j 03:52	22° Ω 52'45	8.32630 AU
	1030 Apr 02 j 12:43	0° Υ		direct	1036 Apr 15 j 05:59	19° Ω 23'05	
evening set	1030 May 04 j 15:11	3° Υ 50'17		evening set	1036 Jul 30 j 11:57	27° Ω 21'37	
conjunction	1030 May 22 j 16:23	6° Υ 10'41	-1°-25'-31	conjunction	1036 Aug 17 j 05:13	29° Ω 34'01	1°35'32
minimum elong	1030 May 22 j 16:27	6° Υ 10'42	1°25'32	minimum elong	1036 Aug 17 j 05:10	29° Ω 34'00	1°35'32
max. Earth dist.	1030 May 22 j 21:57	6° Υ 12'30	10.02218 AU	max. Earth dist.	1036 Aug 17 j 10:18	29° Ω 35'37	10.38170 AU
morning rise	1030 Jun 09 j 19:24	8° Υ 31'41			1036 Aug 20 j 16:01	0° Υ	
retrograde	1030 Sep 23 j 18:17	16° Υ 51'42		morning rise	1036 Sep 03 j 17:46	1° Υ 45'01	
opposition	1030 Nov 29 j 17:28	13° Υ 22'15	-1°-29'-30	retrograde	1036 Dec 13 j 12:53	9° Υ 19'59	
min. Earth dist.	1030 Nov 29 j 12:51	13° Υ 23'13	8.01773 AU	opposition	1037 Feb 18 j 16:10	5° Υ 57'18	2°10'56
direct	1031 Feb 04 j 05:42	9° Υ 53'51		min. Earth dist.	1037 Feb 18 j 12:46	5° Υ 57'58	8.43942 AU
evening set	1031 May 19 j 18:03	18° Υ 07'13		direct	1037 Apr 29 j 02:50	2° Υ 29'22	
				evening set	1037 Aug 13 j 05:18	10° Υ 20'38	
conjunction	1031 Jun 06 j 21:52	20° Υ 28'22	0°-56'-48	conjunction	1037 Aug 30 j 17:23	12° Υ 29'59	1°55'08
minimum elong	1031 Jun 06 j 21:54	20° Υ 28'23	0°56'49	minimum elong	1037 Aug 30 j 17:21	12° Υ 29'58	1°55'08
max. Earth dist.	1031 Jun 07 j 03:50	20° Υ 30'19	10.01954 AU	max. Earth dist.	1037 Aug 30 j 20:55	12° Υ 31'05	10.49707 AU
morning rise	1031 Jun 25 j 02:19	22° Υ 49'44		morning rise	1037 Sep 17 j 00:38	14° Υ 37'52	
	1031 Sep 03 j 12:22	0° Υ		retrograde	1037 Dec 26 j 06:38	22° Υ 04'17	
retrograde	1031 Oct 08 j 05:47	1° Θ 05'45		opposition	1038 Mar 03 j 18:06	18° Υ 42'55	2°31'10
	1031 Nov 12 j 02:57	30° Υ		min. Earth dist.	1038 Mar 03 j 16:05	18° Υ 43'19	8.55641 AU
opposition	1031 Dec 13 j 22:37	27° Υ 36'58	0°-51'-15	direct	1038 May 12 j 16:20	15° Υ 16'01	
min. Earth dist.	1031 Dec 13 j 17:59	27° Υ 37'56	8.02937 AU	evening set	1038 Aug 26 j 12:09	22° Υ 59'30	
direct	1032 Feb 18 j 18:32	24° Υ 07'53					
	1032 May 14 j 15:35	0° Θ					
evening set	1032 Jun 02 j 21:50	2° Θ 22'13		conjunction	1038 Sep 12 j 19:11	25° Υ 05'54	2°08'41

minimum elong	1038 Sep 12 j 19:09	25°♄05'54	2°08'41	conjunction	1044 Nov 21 j 07:39	5°♂25'26	1°28'22
max. Earth dist.	1038 Sep 12 j 20:43	25°♄06'23	10.61343 AU	minimum elong	1044 Nov 21 j 07:42	5°♂25'27	1°28'22
morning rise	1038 Sep 29 j 21:33	27°♄10'52		max. Earth dist.	1044 Nov 21 j 03:04	5°♂24'05	11.06996 AU
	1038 Oct 24 j 14:06	0°♌		morning rise	1044 Dec 07 j 20:49	7°♂21'33	
retrograde	1039 Jan 07 j 15:59	4°♌29'31		retrograde	1045 Mar 18 j 01:01	14°♂19'18	
opposition	1039 Mar 16 j 14:18	1°♌09'21	2°43'42	opposition	1045 May 27 j 09:21	11°♂02'10	1°34'44
min. Earth dist.	1039 Mar 16 j 13:20	1°♌09'33	8.67150 AU	min. Earth dist.	1045 May 27 j 13:10	11°♂01'28	9.07721 AU
	1039 Mar 31 j 20:14	30°♄		direct	1045 Aug 06 j 12:53	7°♂43'12	
direct	1039 May 25 j 23:49	27°♄43'39		evening set	1045 Nov 16 j 00:26	14°♂44'49	
	1039 Jul 18 j 17:20	0°♌					
evening set	1039 Sep 08 j 08:39	5°♌19'16		conjunction	1045 Dec 02 j 14:49	16°♂41'12	1°06'02
				minimum elong	1045 Dec 02 j 14:51	16°♂41'13	1°06'03
conjunction	1039 Sep 25 j 11:10	7°♌22'59	2°15'58	max. Earth dist.	1045 Dec 02 j 09:56	16°♂39'46	11.07735 AU
minimum elong	1039 Sep 25 j 11:09	7°♌22'59	2°15'58	morning rise	1045 Dec 19 j 04:22	18°♂37'25	
max. Earth dist.	1039 Sep 25 j 11:09	7°♌22'58	10.72527 AU	retrograde	1046 Mar 29 j 21:39	25°♂36'40	
morning rise	1039 Oct 12 j 09:15	9°♌25'21		opposition	1046 Jun 08 j 11:16	22°♂19'08	1°05'45
retrograde	1040 Jan 19 j 20:19	16°♌37'16		min. Earth dist.	1046 Jun 08 j 16:02	22°♂18'15	9.07254 AU
opposition	1040 Mar 28 j 05:36	13°♌18'11	2°48'30	direct	1046 Aug 18 j 08:48	19°♂00'42	
min. Earth dist.	1040 Mar 28 j 05:04	13°♌18'17	8.77933 AU	evening set	1046 Nov 27 j 07:30	26°♂00'44	
direct	1040 Jun 07 j 00:53	9°♌53'47					
evening set	1040 Sep 19 j 19:29	17°♌21'43		conjunction	1046 Dec 13 j 21:50	27°♂57'21	0°41'09
				minimum elong	1046 Dec 13 j 21:51	27°♂57'21	0°41'09
conjunction	1040 Oct 06 j 18:12	19°♌23'06	2°17'04	max. Earth dist.	1046 Dec 13 j 15:21	27°♂55'26	11.06115 AU
minimum elong	1040 Oct 06 j 18:13	19°♌23'06	2°17'04	morning rise	1046 Dec 30 j 12:24	29°♂54'04	
max. Earth dist.	1040 Oct 06 j 17:45	19°♌22'58	10.82760 AU		1046 Dec 31 j 08:59	0°♄	
morning rise	1040 Oct 23 j 12:41	21°♌23'17		retrograde	1047 Apr 10 j 18:39	6°♄56'23	
retrograde	1041 Jan 30 j 22:28	28°♌29'40		opposition	1047 Jun 20 j 14:11	3°♄38'11	0°34'07
opposition	1041 Apr 09 j 16:39	25°♌11'28	2°45'57	min. Earth dist.	1047 Jun 20 j 20:08	3°♄37'05	9.04419 AU
min. Earth dist.	1041 Apr 09 j 17:00	25°♌11'24	8.87534 AU	direct	1047 Aug 30 j 03:53	0°♄19'59	
direct	1041 Jun 19 j 17:31	21°♌48'24		evening set	1047 Dec 08 j 15:38	7°♄20'01	
evening set	1041 Oct 01 j 21:57	29°♌09'07					
	1041 Oct 09 j 02:55	0°♄		conjunction	1047 Dec 25 j 06:27	9°♄17'16	0°14'32
				minimum elong	1047 Dec 25 j 06:27	9°♄17'16	0°14'32
conjunction	1041 Oct 18 j 17:35	1°♄08'38	2°12'19	behind sun begin	1047 Dec 25 j 03:12	9°♄16'19	
minimum elong	1041 Oct 18 j 17:36	1°♄08'39	2°12'19	behind sun end	1047 Dec 25 j 09:42	9°♄18'13	
max. Earth dist.	1041 Oct 18 j 16:16	1°♄08'15	10.91624 AU	max. Earth dist.	1047 Dec 24 j 23:06	9°♄15'07	11.02131 AU
morning rise	1041 Nov 04 j 09:24	3°♄07'06		morning rise	1048 Jan 10 j 22:25	11°♄14'52	
retrograde	1042 Feb 11 j 18:30	10°♄09'11		retrograde	1048 Apr 21 j 21:38	18°♄21'54	
opposition	1042 Apr 22 j 00:01	6°♄51'39	2°36'33	opposition	1048 Jul 01 j 19:16	15°♄02'46	0°00'52
min. Earth dist.	1042 Apr 22 j 02:00	6°♄51'17	8.95579 AU	min. Earth dist.	1048 Jul 02 j 01:28	15°♄01'37	8.99263 AU
direct	1042 Jul 02 j 04:00	3°♄29'50		desc. node	1048 Jul 11 j 12:24	14°♄19'58	
evening set	1042 Oct 13 j 17:20	10°♄44'10		direct	1048 Sep 10 j 01:16	11°♄44'35	
				evening set	1048 Dec 19 j 02:28	18°♄46'12	
conjunction	1042 Oct 30 j 10:33	12°♄42'14	2°02'13	conjunction	1049 Jan 04 j 18:18	20°♄44'28	0°-12'-59
minimum elong	1042 Oct 30 j 10:34	12°♄42'15	2°02'12	minimum elong	1049 Jan 04 j 18:17	20°♄44'27	0°13'01
max. Earth dist.	1042 Oct 30 j 07:21	12°♄41'17	10.98783 AU	behind sun begin	1049 Jan 04 j 13:58	20°♄43'11	
morning rise	1042 Nov 16 j 00:47	14°♄39'28		behind sun end	1049 Jan 04 j 22:37	20°♄45'44	
	1042 Nov 18 j 23:50	15°♄		max. Earth dist.	1049 Jan 04 j 11:33	20°♄42'28	10.95890 AU
retrograde	1043 Feb 23 j 12:59	21°♄38'39		morning rise	1049 Jan 21 j 11:54	22°♄43'19	
opposition	1043 May 04 j 04:42	18°♄21'32	2°21'01	retrograde	1049 May 04 j 05:57	29°♄56'35	
min. Earth dist.	1043 May 04 j 08:05	18°♄20'55	9.01762 AU	opposition	1049 Jul 14 j 03:23	26°♄36'17	0°-32'-52
direct	1043 Jul 14 j 11:09	15°♄00'50		min. Earth dist.	1049 Jul 14 j 08:49	26°♄35'16	8.91978 AU
evening set	1043 Oct 25 j 07:10	22°♄09'45		direct	1049 Sep 21 j 22:33	23°♄17'54	
					1049 Dec 27 j 12:34	0°♄	
conjunction	1043 Nov 10 j 22:41	24°♄06'49	1°47'20	evening set	1049 Dec 30 j 18:03	0°♄22'40	
minimum elong	1043 Nov 10 j 22:44	24°♄06'50	1°47'19				
max. Earth dist.	1043 Nov 10 j 18:11	24°♄05'30	11.03969 AU	conjunction	1050 Jan 16 j 11:09	2°♄22'16	0°-40'-16
morning rise	1043 Nov 27 j 12:06	26°♄03'17		minimum elong	1050 Jan 16 j 11:07	2°♄22'16	0°40'18
	1044 Jan 04 j 01:40	0°♄		max. Earth dist.	1050 Jan 16 j 04:38	2°♄20'19	10.87659 AU
retrograde	1044 Mar 06 j 06:19	3°♄01'00		morning rise	1050 Feb 02 j 06:42	4°♄22'41	
	1044 May 11 j 16:41	30°♄		retrograde	1050 May 16 j 20:48	11°♄43'30	
opposition	1044 May 15 j 07:29	29°♄44'01	2°00'08	opposition	1050 Jul 26 j 15:22	8°♄21'52	-1°-5'-53
min. Earth dist.	1044 May 15 j 11:13	29°♄43'19	9.05858 AU	min. Earth dist.	1050 Jul 26 j 20:25	8°♄20'55	8.82895 AU
direct	1044 Jul 25 j 13:17	26°♄24'17		direct	1050 Oct 03 j 22:45	5°♄02'59	
	1044 Oct 03 j 01:08	0°♄		evening set	1051 Jan 11 j 15:45	12°♄12'22	
evening set	1044 Nov 04 j 16:58	3°♄28'55					

conjunction	1051 Jan 28 j 10:19	14°≈13'38	-1°-6'-20	conjunction	1057 Apr 16 j 11:13	1°♄52'22	-2°-10'-39
minimum elong	1051 Jan 28 j 10:17	14°≈13'37	1°06'21	minimum elong	1057 Apr 16 j 11:15	1°♄52'23	2°10'40
max. Earth dist.	1051 Jan 28 j 03:39	14°≈11'36	10.77814 AU	max. Earth dist.	1057 Apr 16 j 12:59	1°♄52'57	10.12341 AU
	1051 Feb 03 j 19:19	15°≈		morning rise	1057 May 04 j 06:14	4°♄09'33	
morning rise	1051 Feb 14 j 08:15	16°≈15'56		retrograde	1057 Aug 19 j 08:18	12°♄28'55	
retrograde	1051 May 29 j 18:29	23°≈45'21		opposition	1057 Oct 26 j 09:30	8°♄58'41	-2°-35'-40
opposition	1051 Aug 08 j 08:21	20°≈22'15	-1°-36'-48	min. Earth dist.	1057 Oct 26 j 07:15	8°♄59'08	8.08829 AU
min. Earth dist.	1051 Aug 08 j 13:10	20°≈21'20	8.72420 AU	direct	1057 Dec 31 j 18:53	5°♄32'07	
direct	1051 Oct 16 j 02:15	17°≈02'37		evening set	1058 Apr 13 j 10:41	13°♄35'18	
evening set	1052 Jan 23 j 20:42	24°≈17'58			1058 Apr 24 j 09:41	15°♄	
conjunction	1052 Feb 09 j 17:15	26°≈21'09	-1°-30'00	conjunction	1058 May 01 j 06:02	15°♄53'28	-1°-57'-18
minimum elong	1052 Feb 09 j 17:12	26°≈21'09	1°30'00	minimum elong	1058 May 01 j 06:05	15°♄53'29	1°57'20
max. Earth dist.	1052 Feb 09 j 11:09	26°≈19'17	10.66788 AU	max. Earth dist.	1058 May 01 j 09:33	15°♄54'37	10.05629 AU
morning rise	1052 Feb 26 j 17:53	28°≈25'36		morning rise	1058 May 19 j 04:58	18°♄12'46	
	1052 Mar 11 j 03:26	0°♄		retrograde	1058 Sep 02 j 23:42	26°♄34'45	
retrograde	1052 Jun 10 j 22:02	6°♄04'27		opposition	1058 Nov 09 j 13:41	23°♄04'20	-2°-14'-34
opposition	1052 Aug 20 j 06:39	2°♄39'48	-2°-4'-8	min. Earth dist.	1058 Nov 09 j 10:16	23°♄05'03	8.03338 AU
min. Earth dist.	1052 Aug 20 j 10:56	2°♄38'58	8.61010 AU	direct	1059 Jan 14 j 21:51	19°♄36'42	
	1052 Sep 29 j 07:25	30°♄		evening set	1059 Apr 28 j 07:51	27°♄45'40	
direct	1052 Oct 27 j 12:36	29°≈19'13			1059 May 15 j 14:05	0°♄	
	1052 Nov 24 j 07:18	0°♄					
evening set	1053 Feb 04 j 10:26	6°♄41'42		conjunction	1059 May 16 j 07:30	0°♄05'42	-1°-36'-45
				minimum elong	1059 May 16 j 07:34	0°♄05'43	1°36'47
conjunction	1053 Feb 21 j 09:35	8°♄47'08	-1°-50'-1	max. Earth dist.	1059 May 16 j 12:50	0°♄07'26	10.01507 AU
minimum elong	1053 Feb 21 j 09:32	8°♄47'07	1°50'01	morning rise	1059 Jun 03 j 09:40	2°♄26'31	
max. Earth dist.	1053 Feb 21 j 05:21	8°♄45'49	10.55057 AU	retrograde	1059 Sep 17 j 15:18	10°♄48'17	
morning rise	1053 Mar 10 j 13:08	10°♄53'56		opposition	1059 Nov 23 j 19:27	7°♄18'07	-1°-44'-59
retrograde	1053 Jun 24 j 09:58	18°♄42'32		min. Earth dist.	1059 Nov 23 j 14:44	7°♄19'05	8.00589 AU
opposition	1053 Sep 02 j 10:25	15°♄16'21	-2°-26'-18	direct	1060 Jan 29 j 06:36	3°♄49'36	
min. Earth dist.	1053 Sep 02 j 13:14	15°♄15'48	8.49167 AU	evening set	1060 May 12 j 09:52	12°♄02'31	
direct	1053 Nov 09 j 05:18	11°♄54'41					
evening set	1054 Feb 17 j 09:46	19°♄25'12		conjunction	1060 May 30 j 12:51	14°♄23'40	-1°-10'-9
				minimum elong	1060 May 30 j 12:55	14°♄23'41	1°10'10
conjunction	1054 Mar 06 j 12:04	21°♄33'05	-2°-5'-8	max. Earth dist.	1060 May 30 j 19:51	14°♄25'57	10.00258 AU
minimum elong	1054 Mar 06 j 12:02	21°♄33'05	2°05'08	morning rise	1060 Jun 17 j 17:00	16°♄45'12	
max. Earth dist.	1054 Mar 06 j 09:48	21°♄32'23	10.43155 AU	retrograde	1060 Oct 01 j 04:39	25°♄04'01	
morning rise	1054 Mar 23 j 18:53	23°♄42'27		opposition	1060 Dec 07 j 01:22	21°♄34'29	-1°-8'-49
	1054 May 24 j 05:41	0°♄		min. Earth dist.	1060 Dec 06 j 19:24	21°♄35'43	8.00779 AU
retrograde	1054 Jul 08 j 07:21	1°♄40'38		direct	1061 Feb 11 j 18:20	18°♄05'22	
	1054 Aug 23 j 02:40	30°♄		evening set	1061 May 27 j 13:59	26°♄20'08	
opposition	1054 Sep 15 j 20:10	28°♄13'02	-2°-41'-46				
min. Earth dist.	1054 Sep 15 j 21:10	28°♄12'50	8.37435 AU	conjunction	1061 Jun 14 j 18:45	28°♄41'29	0°-39'-14
direct	1054 Nov 22 j 02:50	24°♄50'12		minimum elong	1061 Jun 14 j 18:47	28°♄41'30	0°39'16
	1055 Feb 09 j 23:36	0°♄		max. Earth dist.	1061 Jun 15 j 02:56	28°♄44'09	10.01973 AU
evening set	1055 Mar 02 j 19:10	2°♄29'15			1061 Jun 24 j 20:00	0°♄	
				morning rise	1061 Jul 02 j 23:15	1°♄02'47	
conjunction	1055 Mar 20 j 01:05	4°♄39'45	-2°-14'-12	retrograde	1061 Oct 15 j 14:09	9°♄16'16	
minimum elong	1055 Mar 20 j 01:04	4°♄39'45	2°14'13	opposition	1061 Dec 21 j 05:46	5°♄47'44	0°-28'-33
max. Earth dist.	1055 Mar 20 j 00:30	4°♄39'34	10.31665 AU	min. Earth dist.	1061 Dec 20 j 23:16	5°♄49'05	8.03917 AU
morning rise	1055 Apr 06 j 11:38	6°♄51'46		direct	1062 Feb 26 j 06:58	2°♄18'18	
retrograde	1055 Jul 22 j 10:51	14°♄58'44		evening set	1062 Jun 11 j 17:15	10°♄32'43	
opposition	1055 Sep 29 j 11:44	11°♄29'56	-2°-49'-6				
min. Earth dist.	1055 Sep 29 j 11:11	11°♄30'03	8.26408 AU	conjunction	1062 Jun 29 j 22:01	12°♄53'20	0°-6'-10
direct	1055 Dec 05 j 08:21	8°♄05'51		minimum elong	1062 Jun 29 j 22:02	12°♄53'20	0°06'12
evening set	1056 Mar 15 j 14:58	15°♄53'34		behind sun begin	1062 Jun 29 j 15:04	12°♄51'06	
				behind sun end	1062 Jun 30 j 04:59	12°♄55'34	
conjunction	1056 Apr 02 j 01:03	18°♄06'45	-2°-16'-14	max. Earth dist.	1062 Jun 30 j 06:31	12°♄56'04	10.06559 AU
minimum elong	1056 Apr 02 j 01:04	18°♄06'46	2°16'15	morning rise	1062 Jul 18 j 01:12	15°♄13'27	
max. Earth dist.	1056 Apr 02 j 01:34	18°♄06'55	10.21197 AU	asc. node	1062 Sep 07 j 13:35	20°♄55'34	
morning rise	1056 Apr 19 j 15:47	20°♄21'26		retrograde	1062 Oct 29 j 18:20	23°♄19'41	
retrograde	1056 Aug 04 j 19:29	28°♄35'40		opposition	1063 Jan 04 j 07:17	19°♄52'25	0°12'59
opposition	1056 Oct 12 j 08:24	25°♄05'57	-2°-47'-15	min. Earth dist.	1063 Jan 04 j 00:59	19°♄53'43	8.09818 AU
min. Earth dist.	1056 Oct 12 j 06:57	25°♄06'15	8.16684 AU	direct	1063 Mar 12 j 18:27	16°♄22'57	
direct	1056 Dec 17 j 22:02	21°♄40'36		evening set	1063 Jun 26 j 16:44	24°♄34'55	
evening set	1057 Mar 29 j 20:32	29°♄36'33					
	1057 Apr 01 j 22:18	0°♄		conjunction	1063 Jul 14 j 19:44	26°♄53'54	0°26'58

minimum elong	1063 Jul 14 j 19:43	26°♄53'54	0°26'58	conjunction	1069 Oct 01 j 21:55	14°♄30'51	2°17'11
max. Earth dist.	1063 Jul 15 j 03:42	26°♄56'28	10.13715 AU	minimum elong	1069 Oct 01 j 21:55	14°♄30'51	2°17'11
morning rise	1063 Aug 01 j 20:03	29°♄12'00		max. Earth dist.	1069 Oct 01 j 20:31	14°♄30'26	10.78824 AU
	1063 Aug 08 j 05:58	0°♄		morning rise	1069 Oct 18 j 17:53	16°♄31'57	
retrograde	1063 Nov 12 j 15:41	7°♄09'41		retrograde	1070 Jan 26 j 04:59	23°♄40'50	
opposition	1064 Jan 18 j 04:42	3°♄43'51	0°53'03	opposition	1070 Apr 04 j 18:25	20°♄22'36	2°47'44
min. Earth dist.	1064 Jan 17 j 23:05	3°♄45'00	8.18092 AU	min. Earth dist.	1070 Apr 04 j 20:13	20°♄22'15	8.83691 AU
direct	1064 Mar 26 j 04:46	0°♄14'39		direct	1070 Jun 14 j 15:32	16°♄59'12	
evening set	1064 Jul 10 j 09:56	8°♄22'18		evening set	1070 Sep 27 j 04:15	24°♄23'19	
conjunction	1064 Jul 28 j 09:34	10°♄38'54	0°57'58	conjunction	1070 Oct 14 j 01:03	26°♄23'39	2°14'54
minimum elong	1064 Jul 28 j 09:32	10°♄38'53	0°57'57	minimum elong	1070 Oct 14 j 01:04	26°♄23'39	2°14'54
max. Earth dist.	1064 Jul 28 j 16:20	10°♄41'03	10.22970 AU	max. Earth dist.	1070 Oct 13 j 21:48	26°♄22'41	10.87880 AU
morning rise	1064 Aug 15 j 05:41	12°♄54'20		morning rise	1070 Oct 30 j 18:07	28°♄22'54	
	1064 Sep 01 j 13:10	15°♄			1070 Nov 13 j 21:51	0°♄	
retrograde	1064 Nov 25 j 03:31	20°♄42'46		retrograde	1071 Feb 07 j 02:21	5°♄27'03	
opposition	1065 Jan 30 j 20:58	17°♄18'26	1°29'14	opposition	1071 Apr 17 j 03:35	2°♄09'25	2°41'13
min. Earth dist.	1065 Jan 30 j 16:06	17°♄19'25	8.28209 AU	min. Earth dist.	1071 Apr 17 j 06:08	2°♄08'56	8.91972 AU
	1065 Mar 03 j 06:29	15°♄			1071 May 18 j 09:30	30°♄	
direct	1065 Apr 09 j 11:33	13°♄49'47		direct	1071 Jun 27 j 06:51	28°♄47'07	
	1065 May 16 j 11:07	15°♄			1071 Aug 05 j 10:52	0°♄	
evening set	1065 Jul 24 j 18:31	21°♄51'31		evening set	1071 Oct 09 j 03:04	6°♄04'38	
conjunction	1065 Aug 11 j 13:44	24°♄05'14	1°25'08	conjunction	1071 Oct 25 j 21:19	8°♄03'23	2°07'01
minimum elong	1065 Aug 11 j 13:41	24°♄05'13	1°25'08	minimum elong	1071 Oct 25 j 21:21	8°♄03'23	2°07'01
max. Earth dist.	1065 Aug 11 j 19:03	24°♄06'54	10.33749 AU	max. Earth dist.	1071 Oct 25 j 17:27	8°♄02'14	10.95319 AU
morning rise	1065 Aug 29 j 04:49	26°♄17'37		morning rise	1071 Nov 11 j 12:14	10°♄01'12	
	1065 Sep 30 j 10:33	0°♄			1071 Dec 30 j 22:40	15°♄	
retrograde	1065 Dec 08 j 07:16	3°♄56'43		retrograde	1072 Feb 18 j 23:26	17°♄01'58	
opposition	1066 Feb 13 j 07:35	0°♄33'50	1°59'41		1072 Apr 11 j 02:46	15°♄	
min. Earth dist.	1066 Feb 13 j 03:07	0°♄34'44	8.39541 AU	opposition	1072 Apr 28 j 09:49	13°♄44'40	2°28'14
	1066 Feb 20 j 10:16	30°♄		min. Earth dist.	1072 Apr 28 j 12:52	13°♄44'06	8.98480 AU
direct	1066 Apr 23 j 12:29	27°♄05'59		direct	1072 Jul 08 j 16:35	10°♄23'24	
	1066 Jun 22 j 15:11	0°♄			1072 Sep 26 j 09:20	15°♄	
evening set	1066 Aug 07 j 16:54	5°♄00'35		evening set	1072 Oct 19 j 19:28	17°♄35'04	
conjunction	1066 Aug 25 j 07:14	7°♄11'14	1°47'14	conjunction	1072 Nov 05 j 11:52	19°♄32'41	1°54'06
minimum elong	1066 Aug 25 j 07:11	7°♄11'13	1°47'14	minimum elong	1072 Nov 05 j 11:54	19°♄32'42	1°54'06
max. Earth dist.	1066 Aug 25 j 11:27	7°♄12'33	10.45390 AU	max. Earth dist.	1072 Nov 05 j 07:39	19°♄31'26	11.00878 AU
morning rise	1066 Sep 11 j 16:57	9°♄20'27		morning rise	1072 Nov 22 j 01:30	21°♄29'34	
retrograde	1066 Dec 21 j 04:44	16°♄50'34		retrograde	1073 Mar 01 j 18:12	28°♄28'19	
opposition	1067 Feb 26 j 12:15	13°♄29'03	2°23'10	opposition	1073 May 10 j 13:51	25°♄11'05	2°09'32
min. Earth dist.	1067 Feb 26 j 08:39	13°♄29'45	8.51380 AU	min. Earth dist.	1073 May 10 j 18:09	25°♄10'17	9.03002 AU
direct	1067 May 07 j 05:32	10°♄02'10		direct	1073 Jul 20 j 19:34	21°♄50'40	
evening set	1067 Aug 21 j 04:49	17°♄49'02		evening set	1073 Oct 31 j 07:16	28°♄57'37	
					1073 Nov 09 j 05:17	0°♄	
conjunction	1067 Sep 07 j 14:09	19°♄56'40	2°03'28	conjunction	1073 Nov 16 j 22:22	0°♄54'31	1°36'47
minimum elong	1067 Sep 07 j 14:07	19°♄56'39	2°03'28	minimum elong	1073 Nov 16 j 22:24	0°♄54'32	1°36'47
max. Earth dist.	1067 Sep 07 j 17:02	19°♄57'33	10.57176 AU	max. Earth dist.	1073 Nov 16 j 16:40	0°♄52'50	11.04376 AU
morning rise	1067 Sep 24 j 18:34	22°♄02'49		morning rise	1073 Dec 03 j 11:39	2°♄50'56	
retrograde	1068 Jan 02 j 18:45	29°♄24'43		retrograde	1074 Mar 13 j 11:07	9°♄49'05	
opposition	1068 Mar 10 j 11:11	26°♄04'29	2°39'02	opposition	1074 May 22 j 16:17	6°♄31'41	1°45'56
min. Earth dist.	1068 Mar 10 j 09:16	26°♄04'51	8.63025 AU	min. Earth dist.	1074 May 22 j 21:49	6°♄30'39	9.05394 AU
direct	1068 May 19 j 15:22	22°♄38'43		direct	1074 Aug 01 j 20:31	3°♄11'55	
	1068 Aug 30 j 18:32	0°♄			1074 Nov 11 j 15:57	10°♄15'25	
evening set	1068 Sep 02 j 06:15	0°♄17'45					
conjunction	1068 Sep 19 j 10:48	2°♄22'34	2°13'27	conjunction	1074 Nov 28 j 06:24	12°♄12'02	1°15'47
minimum elong	1068 Sep 19 j 10:47	2°♄22'34	2°13'27	minimum elong	1074 Nov 28 j 06:26	12°♄12'03	1°15'47
max. Earth dist.	1068 Sep 19 j 11:52	2°♄22'54	10.68471 AU	max. Earth dist.	1074 Nov 27 j 23:37	12°♄10'02	11.05702 AU
morning rise	1068 Oct 06 j 10:31	4°♄26'00		morning rise	1074 Dec 14 j 19:59	14°♄08'23	
retrograde	1069 Jan 14 j 02:21	11°♄40'48		retrograde	1075 Mar 25 j 06:05	21°♄07'30	
opposition	1069 Mar 23 j 05:07	8°♄21'41	2°47'10	opposition	1075 Jun 03 j 18:23	17°♄49'40	1°18'20
min. Earth dist.	1069 Mar 23 j 05:23	8°♄21'38	8.73928 AU	min. Earth dist.	1075 Jun 04 j 00:10	17°♄48'36	9.05577 AU
direct	1069 Jun 01 j 18:55	4°♄57'06		direct	1075 Aug 13 j 19:12	14°♄30'25	
evening set	1069 Sep 14 j 21:38	12°♄28'28		evening set	1075 Nov 22 j 23:08	21°♄31'48	

conjunction	1075 Dec 09 j 13:35	23° 28 '31	0°51'51	opposition	1081 Aug 15 j 06:28	27° 47 '38	-1°-53'-19
minimum elong	1075 Dec 09 j 13:36	23° 28 '32	0°51'51	min. Earth dist.	1081 Aug 15 j 08:57	27° 47 '09	8.65278 AU
max. Earth dist.	1075 Dec 09 j 07:16	23° 26 '39	11.04805 AU	direct	1081 Oct 22 j 17:29	24° 27 '27	
morning rise	1075 Dec 26 j 03:48	25° 25 '14			1082 Jan 15 j 09:17	0° 0 '	
	1076 Feb 09 j 01:20	0° 0 '		evening set	1082 Jan 30 j 13:41	1° 47 '08	
retrograde	1076 Apr 05 j 03:18	2° 26 '53					
	1076 Jun 03 j 01:59	30° R ' 7		conjunction	1082 Feb 16 j 11:40	3° 51 '40	-1°-42'-12
opposition	1076 Jun 14 j 21:08	29° 08 '22	0°47'39	minimum elong	1082 Feb 16 j 11:38	3° 51 '39	1°42'12
min. Earth dist.	1076 Jun 15 j 02:16	29° 07 '25	9.03545 AU	max. Earth dist.	1082 Feb 16 j 08:20	3° 50 '38	10.59696 AU
direct	1076 Aug 24 j 15:31	25° 49 '29		morning rise	1082 Mar 05 j 13:50	5° 57 '30	
	1076 Nov 07 j 08:29	0° 0 '		retrograde	1082 Jun 19 j 05:23	13° 42 '14	
evening set	1076 Dec 03 j 06:49	2° 50 '12		opposition	1082 Aug 28 j 08:14	10° 16 '46	-2°-17'-46
				min. Earth dist.	1082 Aug 28 j 09:54	10° 16 '26	8.54114 AU
conjunction	1076 Dec 19 j 21:40	4° 47 '24	0°25'48	direct	1082 Nov 04 j 06:36	6° 55 '45	
minimum elong	1076 Dec 19 j 21:41	4° 47 '25	0°25'49	evening set	1083 Feb 12 j 09:16	14° 22 '59	
max. Earth dist.	1076 Dec 19 j 15:36	4° 45 '37	11.01716 AU				
morning rise	1077 Jan 05 j 12:59	6° 44 '50		conjunction	1083 Mar 01 j 09:57	16° 29 '48	-1°-59'-28
retrograde	1077 Apr 17 j 06:00	13° 50 '31		minimum elong	1083 Mar 01 j 09:55	16° 29 '47	1°59'28
opposition	1077 Jun 27 j 01:28	10° 31 '11	0°14'53	max. Earth dist.	1083 Mar 01 j 07:26	16° 29 '01	10.48377 AU
min. Earth dist.	1077 Jun 27 j 06:37	10° 30 '13	8.99372 AU	morning rise	1083 Mar 18 j 15:23	18° 38 '04	
direct	1077 Sep 05 j 11:33	7° 12 '26		retrograde	1083 Jul 02 j 23:09	26° 32 '20	
desc. node	1077 Dec 11 j 03:59	13° 49 '30		opposition	1083 Sep 10 j 16:00	23° 05 '37	-2°-36'-7
evening set	1077 Dec 14 j 16:41	14° 14 '01		min. Earth dist.	1083 Sep 10 j 17:00	23° 05 '25	8.42847 AU
				direct	1083 Nov 17 j 02:04	19° 43 '38	
conjunction	1077 Dec 31 j 08:10	16° 12 '04	0°-1'-30	evening set	1084 Feb 25 j 14:38	27° 19 '02	
minimum elong	1077 Dec 31 j 08:09	16° 12 '04	0°01'32				
behind sun begin	1077 Dec 31 j 01:10	16° 10 '00		conjunction	1084 Mar 13 j 18:47	29° 28 '20	-2°-11'-7
behind sun end	1077 Dec 31 j 15:09	16° 14 '07		minimum elong	1084 Mar 13 j 18:46	29° 28 '20	2°11'08
max. Earth dist.	1077 Dec 31 j 01:27	16° 10 '06	10.96538 AU	max. Earth dist.	1084 Mar 13 j 18:00	29° 28 '05	10.37229 AU
morning rise	1078 Jan 17 j 01:09	18° 10 '35			1084 Mar 17 j 23:01	0° 0 '	
retrograde	1078 Apr 29 j 10:53	25° 21 '46		morning rise	1084 Mar 31 j 03:49	1° 39 '10	
opposition	1078 Jul 09 j 08:32	22° 01 '25	0°-18'-50	retrograde	1084 Jul 15 j 23:02	9° 42 '23	
min. Earth dist.	1078 Jul 09 j 14:04	22° 00 '23	8.93196 AU	opposition	1084 Sep 23 j 05:27	6° 14 '32	-2°-46'-54
direct	1078 Sep 17 j 07:16	18° 42 '36		min. Earth dist.	1084 Sep 23 j 05:18	6° 14 '33	8.32024 AU
evening set	1078 Dec 26 j 06:19	25° 46 '36		direct	1084 Nov 29 j 05:51	2° 51 '27	
				evening set	1085 Mar 10 j 06:20	10° 35 '16	
conjunction	1079 Jan 11 j 22:46	27° 45 '48	0°-29'00				
minimum elong	1079 Jan 11 j 22:45	27° 45 '48	0°29'02	conjunction	1085 Mar 27 j 14:34	12° 47 '10	-2°-16'-8
max. Earth dist.	1079 Jan 11 j 16:02	27° 43 '47	10.89444 AU	minimum elong	1085 Mar 27 j 14:34	12° 47 '11	2°16'08
morning rise	1079 Jan 28 j 17:40	29° 45 '44		max. Earth dist.	1085 Mar 27 j 15:52	12° 47 '35	10.26804 AU
	1079 Jan 30 j 18:26	0° 0 '		morning rise	1085 Apr 14 j 03:27	15° 00 '35	
retrograde	1079 May 11 j 21:43	7° 03 '50		retrograde	1085 Jul 30 j 04:52	23° 11 '28	
opposition	1079 Jul 21 j 19:11	3° 42 '19	0°-52'-21	opposition	1085 Oct 06 j 23:59	19° 42 '40	-2°-48'-53
min. Earth dist.	1079 Jul 22 j 00:23	3° 41 '21	8.85238 AU	min. Earth dist.	1085 Oct 06 j 22:23	19° 43 '00	8.22184 AU
direct	1079 Sep 29 j 07:43	0° 23 '14		direct	1085 Dec 12 j 17:01	16° 18 '27	
evening set	1080 Jan 07 j 01:21	7° 31 '07		evening set	1086 Mar 24 j 07:49	24° 10 '24	
conjunction	1080 Jan 23 j 19:20	9° 31 '49	0°-55'-44	conjunction	1086 Apr 10 j 20:33	26° 24 '54	-2°-13'-42
minimum elong	1080 Jan 23 j 19:18	9° 31 '48	0°55'45	minimum elong	1086 Apr 10 j 20:34	26° 24 '55	2°13'43
max. Earth dist.	1080 Jan 23 j 13:58	9° 30 '12	10.80697 AU	max. Earth dist.	1086 Apr 10 j 23:44	26° 25 '56	10.17631 AU
morning rise	1080 Feb 09 j 16:18	11° 33 '27		morning rise	1086 Apr 28 j 13:30	28° 40 '48	
	1080 Mar 11 j 20:15	15° 0 '			1086 May 09 j 04:48	0° 0 '	
retrograde	1080 May 23 j 17:30	18° 59 '40		retrograde	1086 Aug 13 j 16:29	6° 57 '31	
opposition	1080 Aug 02 j 10:16	15° 36 '51	-1°-24'-19	opposition	1086 Oct 20 j 23:08	3° 28 '03	-2°-41'-19
min. Earth dist.	1080 Aug 02 j 14:07	15° 36 '07	8.75807 AU	min. Earth dist.	1086 Oct 20 j 20:05	3° 28 '41	8.13812 AU
	1080 Aug 10 j 13:56	15° R '		direct	1086 Dec 26 j 10:06	0° 02 '39	
direct	1080 Oct 10 j 10:49	12° 17 '19		evening set	1087 Apr 07 j 18:08	8° 02 '01	
	1080 Dec 06 j 22:18	15° 0 '					
evening set	1081 Jan 18 j 03:19	19° 30 '28		conjunction	1087 Apr 25 j 11:31	10° 18 '59	-2°-3'-33
				minimum elong	1087 Apr 25 j 11:34	10° 19 '00	2°03'34
conjunction	1081 Feb 03 j 23:10	21° 32 '56	-1°-20'-32	max. Earth dist.	1087 Apr 25 j 15:41	10° 20 '20	10.10167 AU
minimum elong	1081 Feb 03 j 23:07	21° 32 '56	1°20'33	morning rise	1087 May 13 j 08:34	12° 37 '09	
max. Earth dist.	1081 Feb 03 j 19:12	21° 31 '44	10.70639 AU		1087 Jun 01 j 17:47	15° 0 '	
morning rise	1081 Feb 20 j 22:31	23° 36 '33		retrograde	1087 Aug 28 j 07:48	20° 57 '29	
	1081 Apr 28 j 09:56	0° 0 '		opposition	1087 Nov 04 j 01:51	17° 27 '42	-2°-24'-5
retrograde	1081 Jun 05 j 19:35	1° 11 '47		min. Earth dist.	1087 Nov 03 j 22:07	17° 28 '28	8.07340 AU
	1081 Jul 14 j 20:00	30° R '			1087 Dec 07 j 13:32	15° R '	

direct	1088 Jan 09 j 09:13	14°♄01'09		minimum elong	1093 Jul 22 j 16:30	5°♄08'42	0°45'20
	1088 Feb 10 j 23:03	15°♄		max. Earth dist.	1093 Jul 22 j 23:16	5°♄10'52	10.19042 AU
evening set	1088 Apr 21 j 12:22	22°♄06'58		morning rise	1093 Aug 09 j 14:32	7°♄25'16	
					1093 Nov 02 j 05:12	15°♄	
conjunction	1088 May 09 j 10:11	24°♄26'01	-1°-45'-54	retrograde	1093 Nov 19 j 20:24	15°♄17'22	
minimum elong	1088 May 09 j 10:14	24°♄26'02	1°45'55		1093 Dec 07 j 13:06	15°♄R♄	
max. Earth dist.	1088 May 09 j 14:53	24°♄27'33	10.04852 AU	opposition	1094 Jan 25 j 12:31	11°♄52'10	1°14'39
morning rise	1088 May 27 j 10:52	26°♄46'00		min. Earth dist.	1094 Jan 25 j 07:08	11°♄53'15	8.23737 AU
	1088 Jun 23 j 02:36	0°♄		direct	1094 Apr 03 j 21:55	8°♄23'03	
retrograde	1088 Sep 11 j 00:04	5°♄07'21			1094 Jul 07 j 04:48	15°♄	
opposition	1088 Nov 17 j 06:43	1°♄37'38	-1°-57'-54	evening set	1094 Jul 19 j 02:59	16°♄27'02	
min. Earth dist.	1088 Nov 17 j 02:40	1°♄38'28	8.03238 AU				
	1088 Dec 07 j 19:47	30°♄R♄		conjunction	1094 Aug 06 j 00:23	18°♄42'00	1°14'15
direct	1089 Jan 22 j 15:25	28°♄10'03		minimum elong	1094 Aug 06 j 00:20	18°♄41'59	1°14'14
	1089 Mar 08 j 17:17	0°♄		max. Earth dist.	1094 Aug 06 j 06:35	18°♄43'58	10.28831 AU
evening set	1089 May 06 j 12:21	6°♄20'45		morning rise	1094 Aug 23 j 17:35	20°♄55'41	
				retrograde	1094 Dec 03 j 03:53	28°♄38'33	
conjunction	1089 May 24 j 13:51	8°♄41'16	-1°-21'-40	opposition	1095 Feb 08 j 00:57	25°♄14'43	1°47'38
minimum elong	1089 May 24 j 13:54	8°♄41'17	1°21'41	min. Earth dist.	1095 Feb 07 j 20:44	25°♄15'34	8.34229 AU
max. Earth dist.	1089 May 24 j 19:05	8°♄42'58	10.02133 AU	direct	1095 Apr 17 j 23:45	21°♄46'08	
morning rise	1089 Jun 11 j 17:12	11°♄02'22		evening set	1095 Aug 02 j 05:26	29°♄43'40	
retrograde	1089 Sep 25 j 13:50	19°♄22'00			1095 Aug 04 j 10:36	0°♄	
opposition	1089 Dec 01 j 12:32	15°♄52'42	-1°-24'-17				
min. Earth dist.	1089 Dec 01 j 08:12	15°♄53'36	8.01891 AU	conjunction	1095 Aug 19 j 22:02	1°♄55'40	1°38'35
direct	1090 Feb 06 j 02:12	12°♄24'16		minimum elong	1095 Aug 19 j 21:59	1°♄55'39	1°38'35
evening set	1090 May 21 j 15:23	20°♄37'48		max. Earth dist.	1095 Aug 20 j 02:43	1°♄57'08	10.39814 AU
				morning rise	1095 Sep 06 j 10:00	4°♄06'15	
conjunction	1090 Jun 08 j 19:19	22°♄58'58	0°-52'-22	retrograde	1095 Dec 16 j 03:55	11°♄40'02	
minimum elong	1090 Jun 08 j 19:22	22°♄58'58	0°52'24	opposition	1096 Feb 21 j 07:45	8°♄17'33	2°14'09
max. Earth dist.	1090 Jun 09 j 01:05	23°♄00'50	10.02281 AU	min. Earth dist.	1096 Feb 21 j 04:56	8°♄18'06	8.45623 AU
morning rise	1090 Jun 26 j 23:53	25°♄20'16		direct	1096 Apr 30 j 19:17	4°♄49'46	
	1090 Aug 05 j 23:42	0°♄		evening set	1096 Aug 14 j 21:30	12°♄39'56	
retrograde	1090 Oct 10 j 00:00	3°♄35'40					
opposition	1090 Dec 15 j 17:29	0°♄07'03	0°-45'-30	conjunction	1096 Sep 01 j 08:54	14°♄48'53	1°57'20
min. Earth dist.	1090 Dec 15 j 12:46	0°♄08'02	8.03457 AU	minimum elong	1096 Sep 01 j 08:52	14°♄48'52	1°57'20
	1090 Dec 17 j 03:36	30°♄R♄		max. Earth dist.	1096 Sep 01 j 11:34	14°♄49'42	10.51387 AU
direct	1091 Feb 20 j 15:00	26°♄38'01		morning rise	1096 Sep 18 j 15:39	16°♄56'22	
	1091 Apr 24 j 12:32	0°♄		retrograde	1096 Dec 27 j 19:07	24°♄21'38	
evening set	1091 Jun 05 j 18:53	4°♄52'12		opposition	1097 Mar 05 j 08:47	21°♄00'26	2°33'17
				min. Earth dist.	1097 Mar 05 j 06:51	21°♄00'48	8.57312 AU
conjunction	1091 Jun 23 j 23:42	7°♄13'04	0°-19'-59	direct	1097 May 14 j 08:56	17°♄33'40	
minimum elong	1091 Jun 23 j 23:43	7°♄13'04	0°20'01	evening set	1097 Aug 28 j 02:53	25°♄16'01	
max. Earth dist.	1091 Jun 24 j 05:58	7°♄15'06	10.05318 AU				
morning rise	1091 Jul 12 j 03:46	9°♄33'39		conjunction	1097 Sep 14 j 09:22	27°♄22'01	2°09'59
retrograde	1091 Oct 24 j 05:22	17°♄42'35		minimum elong	1097 Sep 14 j 09:21	27°♄22'01	2°10'00
opposition	1091 Dec 29 j 19:49	14°♄14'57	0°-4'-15	max. Earth dist.	1097 Sep 14 j 10:35	27°♄22'23	10.62975 AU
min. Earth dist.	1091 Dec 29 j 14:33	14°♄16'02	8.07847 AU	morning rise	1097 Oct 01 j 11:15	29°♄26'38	
asc. node	1092 Feb 06 j 19:45	11°♄28'50			1097 Oct 06 j 03:23	0°♄	
direct	1092 Mar 06 j 03:33	10°♄45'34		retrograde	1098 Jan 09 j 04:06	6°♄44'14	
evening set	1092 Jun 19 j 19:50	18°♄58'16		opposition	1098 Mar 18 j 04:12	3°♄24'11	2°44'41
				min. Earth dist.	1098 Mar 18 j 02:46	3°♄24'28	8.68732 AU
conjunction	1092 Jul 07 j 23:45	21°♄17'54	0°13'20		1098 May 22 j 09:42	30°♄R♄	
minimum elong	1092 Jul 07 j 23:44	21°♄17'54	0°13'19	direct	1098 May 27 j 16:09	29°♄58'37	
behind sun begin	1092 Jul 07 j 19:40	21°♄16'36			1098 Jun 01 j 21:39	0°♄	
behind sun end	1092 Jul 08 j 03:48	21°♄19'12		evening set	1098 Sep 09 j 21:55	7°♄33'02	
max. Earth dist.	1092 Jul 08 j 06:24	21°♄20'02	10.11035 AU				
morning rise	1092 Jul 26 j 01:32	23°♄36'51		conjunction	1098 Sep 27 j 00:04	9°♄36'25	2°16'22
	1092 Sep 24 j 15:26	0°♄		minimum elong	1098 Sep 27 j 00:03	9°♄36'25	2°16'22
retrograde	1092 Nov 06 j 05:00	1°♄37'49		max. Earth dist.	1098 Sep 27 j 00:32	9°♄36'34	10.74037 AU
	1092 Dec 19 j 10:43	30°♄R♄		morning rise	1098 Oct 13 j 21:40	11°♄38'28	
opposition	1093 Jan 11 j 18:33	28°♄11'20	0°36'39	retrograde	1099 Jan 21 j 09:21	18°♄49'28	
min. Earth dist.	1093 Jan 11 j 12:57	28°♄12'28	8.14758 AU	opposition	1099 Mar 30 j 18:42	15°♄30'26	2°48'26
direct	1093 Mar 20 j 14:21	24°♄41'55		min. Earth dist.	1099 Mar 30 j 18:10	15°♄30'32	8.79357 AU
	1093 Jun 10 j 20:04	0°♄		direct	1099 Jun 09 j 14:23	12°♄06'10	
evening set	1093 Jul 04 j 15:14	2°♄51'06		evening set	1099 Sep 22 j 07:36	19°♄32'56	
conjunction	1093 Jul 22 j 16:33	5°♄08'42	0°45'21	conjunction	1099 Oct 09 j 06:01	21°♄34'04	2°16'37

minimum elong	1099 Oct 09 j 06:01	21°♌34'04	2°16'37
max. Earth dist.	1099 Oct 09 j 05:38	21°♌33'57	10.84081 AU
morning rise	1099 Oct 26 j 00:07	23°♌33'59	
	1100 Jan 05 j 14:05	0°♌	
retrograde	1100 Feb 02 j 08:49	0°♌39'33	
	1100 Mar 01 j 13:17	30°♌♌	
opposition	1100 Apr 11 j 05:00	27°♌21'23	2°44'52
min. Earth dist.	1100 Apr 11 j 06:06	27°♌21'11	8.88744 AU
direct	1100 Jun 21 j 05:41	23°♌58'24	
	1100 Sep 21 j 23:48	0°♌	
evening set	1100 Oct 03 j 09:05	1°♌18'08	
conjunction	1100 Oct 20 j 04:21	3°♌17'25	2°11'05
minimum elong	1100 Oct 20 j 04:22	3°♌17'25	2°11'05
max. Earth dist.	1100 Oct 20 j 02:09	3°♌16'46	10.92711 AU
morning rise	1100 Nov 05 j 20:02	5°♌15'42	