

direct	600 Jan 24 j 03:37	18°♄30'12	evening set	605 May 17 j 21:34	13°♄31'14	
evening set	600 Apr 24 j 20:08	21°♄39'06	conjunction	605 Jun 03 j 16:14	14°♄31'00	0°05'55
conjunction	600 May 11 j 12:12	22°♄37'25 -0°10'51	minimum elong	605 Jun 03 j 16:15	14°♄31'00	0°05'54
minimum elong	600 May 11 j 12:12	22°♄37'25 0°10'51	behind sun begin	605 Jun 03 j 09:47	14°♄30'03	
behind sun begin	600 May 11 j 07:07	22°♄36'41	behind sun end	605 Jun 03 j 22:43	14°♄31'56	
behind sun end	600 May 11 j 17:16	22°♄38'09	max. Earth dist.	605 Jun 03 j 01:45	14°♄28'50	19.98225 AU
max. Earth dist.	600 May 11 j 09:17	22°♄37'00 20.30996 AU	morning rise	605 Jun 20 j 11:23	15°♄30'52	
morning rise	600 May 28 j 05:56	23°♄36'02	retrograde	605 Sep 22 j 02:04	18°♄47'45	
retrograde	600 Aug 30 j 11:47	26°♄50'14	opposition	605 Dec 05 j 19:27	16°♄45'29	0°08'22
opposition	600 Nov 14 j 01:27	24°♄48'37 -0°10'11	min. Earth dist.	605 Dec 06 j 08:07	16°♄44'07	17.94947 AU
min. Earth dist.	600 Nov 14 j 04:53	24°♄48'15 18.27822 AU	direct	606 Feb 18 j 15:07	14°♄42'44	
direct	601 Jan 27 j 16:00	22°♄47'59	evening set	606 May 22 j 19:32	17°♄58'48	
evening set	601 Apr 29 j 13:51	25°♄58'01	conjunction	606 Jun 08 j 14:39	18°♄58'50	0°09'15
conjunction	601 May 16 j 06:27	26°♄56'38 -0°07'37	minimum elong	606 Jun 08 j 14:39	18°♄58'50	0°09'15
minimum elong	601 May 16 j 06:27	26°♄56'38 0°07'37	behind sun begin	606 Jun 08 j 08:59	18°♄58'00	
behind sun begin	601 May 16 j 00:20	26°♄55'45	behind sun end	606 Jun 08 j 20:19	18°♄59'40	
behind sun end	601 May 16 j 12:34	26°♄57'31	max. Earth dist.	606 Jun 07 j 23:18	18°♄56'32	19.91729 AU
max. Earth dist.	601 May 16 j 00:07	26°♄55'43 20.24641 AU	morning rise	606 Jun 25 j 09:42	19°♄58'55	
morning rise	601 Jun 02 j 00:48	27°♄55'31	retrograde	606 Sep 26 j 22:05	23°♄16'18	
retrograde	601 Jul 12 j 19:44	0°♄	opposition	606 Dec 10 j 10:27	21°♄13'56	0°12'05
opposition	601 Sep 04 j 03:35	1°♄10'17	min. Earth dist.	606 Dec 10 j 23:34	21°♄12'31	17.88534 AU
min. Earth dist.	601 Oct 28 j 18:12	30°♄	direct	607 Feb 23 j 08:40	19°♄10'46	
direct	601 Nov 18 j 13:33	29°♄08'33 -0°06'33	evening set	607 May 27 j 18:22	22°♄28'03	
evening set	601 Nov 18 j 19:26	29°♄07'56 18.21386 AU	conjunction	607 Jun 13 j 13:32	23°♄28'20	0°12'34
conjunction	602 Feb 01 j 04:19	27°♄07'31	minimum elong	607 Jun 13 j 13:32	23°♄28'20	0°12'34
minimum elong	602 Apr 28 j 21:19	0°♄	behind sun begin	607 Jun 13 j 09:18	23°♄27'43	
behind sun begin	602 May 04 j 08:29	0°♄18'44	behind sun end	607 Jun 13 j 17:46	23°♄28'57	
behind sun end	602 May 21 j 01:55	1°♄17'39 -0°04'20	max. Earth dist.	607 Jun 12 j 19:57	23°♄25'41	19.85410 AU
max. Earth dist.	602 May 21 j 01:54	1°♄17'39 0°04'20	morning rise	607 Jun 30 j 08:29	24°♄28'38	
morning rise	602 May 20 j 19:14	1°♄16'41	retrograde	607 Oct 01 j 16:38	27°♄46'31	
retrograde	602 May 21 j 08:33	1°♄18'36	opposition	607 Dec 15 j 02:14	25°♄44'03	0°15'45
opposition	602 May 20 j 18:24	1°♄16'34 20.18127 AU	min. Earth dist.	607 Dec 15 j 17:28	25°♄42'24	17.82350 AU
min. Earth dist.	602 Jun 06 j 20:25	2°♄16'46	direct	608 Feb 28 j 00:28	23°♄40'29	
direct	602 Sep 08 j 20:55	5°♄32'05	evening set	608 May 31 j 17:50	26°♄59'00	
evening set	602 Nov 23 j 02:01	3°♄30'14 -0°02'52	conjunction	608 Jun 17 j 13:12	27°♄59'32	0°15'49
conjunction	602 Nov 23 j 09:07	3°♄29'28 18.14803 AU	minimum elong	608 Jun 17 j 13:11	27°♄59'32	0°15'49
minimum elong	603 Feb 05 j 18:36	1°♄28'48	max. Earth dist.	608 Jun 16 j 18:51	27°♄56'46	19.79364 AU
max. Earth dist.	603 May 09 j 04:10	4°♄41'12	morning rise	608 Jul 04 j 07:53	29°♄00'01	
morning rise	603 May 25 j 21:56	5°♄40'24 -0°00'57	retrograde	608 Jul 21 j 21:59	0°♄	
retrograde	603 May 25 j 21:57	5°♄40'24 0°00'57	opposition	608 Oct 05 j 14:00	2°♄18'24	
opposition	603 May 25 j 15:11	5°♄39'25	min. Earth dist.	608 Dec 18 j 18:35	0°♄15'51	0°19'21
min. Earth dist.	603 May 26 j 04:44	5°♄41'22	direct	608 Dec 19 j 09:53	0°♄14'12	17.76459 AU
direct	603 May 25 j 11:10	5°♄38'49 20.11502 AU	evening set	608 Dec 24 j 20:55	30°♄	
evening set	603 Jun 11 j 16:52	6°♄39'47	conjunction	609 Mar 03 j 19:50	28°♄11'56	
conjunction	603 Sep 02 j 19:14	9°♄52'32	minimum elong	609 May 09 j 00:57	0°♄	
minimum elong	603 Sep 13 j 13:41	9°♄55'37	max. Earth dist.	609 Jun 05 j 18:07	1°♄31'40	
max. Earth dist.	603 Nov 27 j 15:19	7°♄53'38 0°00'52	morning rise	609 Jun 22 j 13:28	2°♄32'26	0°19'00
morning rise	603 Nov 28 j 00:50	7°♄52'37 18.08157 AU	retrograde	609 Jun 22 j 13:28	2°♄32'26	0°19'00
retrograde	604 Feb 10 j 08:24	5°♄51'46	opposition	609 Jun 21 j 17:31	2°♄29'25	19.73631 AU
opposition	604 May 13 j 00:18	9°♄05'22	min. Earth dist.	609 Jul 09 j 07:52	3°♄33'07	
min. Earth dist.	604 May 29 j 18:43	10°♄04'51 0°02'32	direct	609 Oct 10 j 09:20	6°♄51'58	
direct	604 May 29 j 18:43	10°♄04'51 0°02'32	evening set	609 Dec 23 j 11:52	4°♄49'24	0°22'50
evening set	604 May 29 j 11:57	10°♄03'52	conjunction	609 Dec 24 j 05:08	4°♄47'31	17.70909 AU
conjunction	604 May 30 j 01:29	10°♄05'50	minimum elong	610 Mar 08 j 13:07	2°♄45'09	
minimum elong	604 May 29 j 07:03	10°♄03'08 20.04845 AU	max. Earth dist.	610 Jun 10 j 19:13	6°♄06'06	
max. Earth dist.	604 Jun 15 j 13:40	11°♄04'29	morning rise	610 Jun 27 j 14:30	7°♄07'05	0°22'04
morning rise	604 Sep 17 j 08:12	14°♄20'51	retrograde	610 Jun 27 j 14:29	7°♄07'05	0°22'04
retrograde	604 Dec 01 j 05:04	12°♄18'44 0°04'37	opposition	610 Jun 26 j 17:33	7°♄03'54	19.68263 AU
opposition	604 Dec 01 j 15:23	12°♄17'37 18.01507 AU	min. Earth dist.	610 Jul 14 j 08:31	8°♄07'55	
min. Earth dist.	605 Feb 14 j 00:13	10°♄16'25	direct			
direct			evening set			

retrograde	610 Oct 15 j 07:33	11°♄27'14	evening set	617 Jul 14 j 19:16	8°♄50'40	
opposition	610 Dec 28 j 05:38	9°♄24'41 0°26'12	max. Earth dist.	617 Jul 30 j 08:58	9°♄48'23	19.40499 AU
min. Earth dist.	610 Dec 28 j 22:53	9°♄22'48 17.65723 AU				
direct	611 Mar 13 j 10:34	7°♄20'10	conjunction	617 Jul 31 j 11:15	9°♄52'29	0°39'03
evening set	611 Jun 15 j 21:04	10°♄42'19	minimum elong	617 Jul 31 j 11:15	9°♄52'29	0°39'03
			morning rise	617 Aug 16 j 23:53	10°♄53'51	
conjunction	611 Jul 02 j 16:09	11°♄43'29 0°25'02	retrograde	617 Nov 16 j 22:16	14°♄15'20	
minimum elong	611 Jul 02 j 16:09	11°♄43'29 0°25'02	opposition	618 Jan 29 j 07:25	12°♄13'00	0°44'24
max. Earth dist.	611 Jul 01 j 18:14	11°♄40'08 19.63256 AU	min. Earth dist.	618 Jan 30 j 06:31	12°♄10'29	17.39248 AU
morning rise	611 Jul 19 j 09:35	12°♄44'28	direct	618 Apr 15 j 05:49	10°♄06'56	
retrograde	611 Oct 20 j 03:47	16°♄04'13	evening set	618 Jul 20 j 00:04	13°♄35'30	
opposition	612 Jan 02 j 00:27	14°♄01'43 0°29'26	max. Earth dist.	618 Aug 04 j 11:26	14°♄33'01	19.38031 AU
min. Earth dist.	612 Jan 02 j 19:34	13°♄59'37 17.60910 AU				
direct	612 Mar 17 j 05:43	11°♄56'57	conjunction	618 Aug 05 j 15:01	14°♄37'19	0°40'34
evening set	612 Jun 19 j 23:25	15°♄20'15	minimum elong	618 Aug 05 j 15:01	14°♄37'19	0°40'34
				618 Aug 11 j 16:16	15°♄	
conjunction	612 Jul 06 j 18:10	16°♄21'36 0°27'51	morning rise	618 Aug 22 j 02:47	15°♄38'41	
minimum elong	612 Jul 06 j 18:10	16°♄21'36 0°27'51	retrograde	618 Nov 21 j 22:00	19°♄00'17	
max. Earth dist.	612 Jul 05 j 18:59	16°♄18'02 19.58622 AU	opposition	619 Feb 03 j 06:34	16°♄57'56	0°45'56
morning rise	612 Jul 23 j 11:07	17°♄22'42	min. Earth dist.	619 Feb 04 j 05:34	16°♄55'26	17.37025 AU
retrograde	612 Oct 24 j 02:59	20°♄42'53		619 Apr 02 j 14:05	15°♄	
opposition	613 Jan 05 j 19:49	18°♄40'25 0°32'29	direct	619 Apr 20 j 07:51	14°♄51'41	
min. Earth dist.	613 Jan 06 j 14:59	18°♄38'19 17.56450 AU		619 May 07 j 22:58	15°♄	
direct	613 Mar 22 j 05:27	16°♄35'26	evening set	619 Jul 25 j 04:38	18°♄20'47	
evening set	613 Jun 25 j 02:34	19°♄59'49				
			conjunction	619 Aug 10 j 18:51	19°♄22'36	0°41'48
conjunction	613 Jul 11 j 21:00	21°♄01'19 0°30'30	minimum elong	619 Aug 10 j 18:51	19°♄22'36	0°41'49
minimum elong	613 Jul 11 j 21:00	21°♄01'19 0°30'30	max. Earth dist.	619 Aug 09 j 16:35	19°♄18'29	19.36054 AU
max. Earth dist.	613 Jul 10 j 21:17	20°♄57'40 19.54316 AU	morning rise	619 Aug 27 j 05:24	20°♄23'55	
morning rise	613 Jul 28 j 13:09	22°♄02'31	retrograde	619 Nov 26 j 22:15	23°♄45'33	
retrograde	613 Oct 29 j 00:07	25°♄23'04	opposition	620 Feb 08 j 06:14	21°♄43'14	0°47'10
opposition	614 Jan 10 j 16:02	23°♄20'39 0°35'21	min. Earth dist.	620 Feb 09 j 05:07	21°♄40'44	17.35308 AU
min. Earth dist.	614 Jan 11 j 13:02	23°♄18'21 17.52315 AU	direct	620 Apr 24 j 09:55	19°♄36'51	
direct	614 Mar 27 j 02:47	21°♄15'26	evening set	620 Jul 29 j 09:06	23°♄06'21	
evening set	614 Jun 30 j 06:21	24°♄40'52				
max. Earth dist.	614 Jul 15 j 22:45	25°♄38'32 19.50343 AU	conjunction	620 Aug 14 j 22:13	24°♄08'08	0°42'46
			minimum elong	620 Aug 14 j 22:13	24°♄08'08	0°42'45
conjunction	614 Jul 17 j 00:11	25°♄42'28 0°32'58	max. Earth dist.	620 Aug 13 j 19:21	24°♄03'55	19.34615 AU
minimum elong	614 Jul 17 j 00:11	25°♄42'28 0°32'59	morning rise	620 Aug 31 j 07:49	25°♄09'23	
morning rise	614 Aug 02 j 15:42	26°♄43'45	retrograde	620 Nov 30 j 21:29	28°♄31'03	
	614 Oct 21 j 03:58	0°♄	opposition	621 Feb 12 j 06:14	26°♄28'43	0°48'05
retrograde	614 Nov 03 j 00:00	0°♄04'37	min. Earth dist.	621 Feb 13 j 04:54	26°♄26'15	17.34164 AU
	614 Nov 15 j 22:03	30°♄	direct	621 Apr 29 j 12:17	24°♄22'15	
opposition	615 Jan 15 j 12:55	28°♄02'14 0°38'00	evening set	621 Aug 03 j 13:22	27°♄52'04	
min. Earth dist.	615 Jan 16 j 09:58	27°♄59'56 17.48509 AU	max. Earth dist.	621 Aug 19 j 00:23	28°♄49'49	19.33765 AU
direct	615 Apr 01 j 03:57	25°♄56'48				
evening set	615 Jul 05 j 10:18	29°♄23'08	conjunction	621 Aug 20 j 01:36	28°♄53'47	0°43'25
	615 Jul 15 j 11:14	0°♄	minimum elong	621 Aug 20 j 01:36	28°♄53'47	0°43'25
max. Earth dist.	615 Jul 21 j 02:20	0°♄20'55 19.46689 AU	morning rise	621 Sep 05 j 09:57	29°♄54'56	
				621 Sep 06 j 19:06	0°♄	
conjunction	615 Jul 22 j 03:39	0°♄24'51 0°35'14	retrograde	621 Dec 05 j 21:46	3°♄16'33	
minimum elong	615 Jul 22 j 03:39	0°♄24'51 0°35'13	opposition	622 Feb 17 j 06:31	1°♄14'18	0°48'39
morning rise	615 Aug 07 j 18:08	1°♄26'10	min. Earth dist.	622 Feb 18 j 04:16	1°♄11'55	17.33614 AU
retrograde	615 Nov 07 j 22:34	4°♄47'19		622 Mar 19 j 16:06	30°♄	
opposition	616 Jan 20 j 10:38	2°♄44'57 0°40'24	direct	622 May 04 j 15:19	29°♄07'48	
min. Earth dist.	616 Jan 21 j 08:59	2°♄42'31 17.45034 AU		622 Jun 18 j 15:04	0°♄	
direct	616 Apr 05 j 03:22	0°♄39'18	evening set	622 Aug 08 j 17:32	2°♄37'50	
evening set	616 Jul 09 j 14:45	4°♄06'29	max. Earth dist.	622 Aug 24 j 03:28	3°♄35'30	19.33534 AU
max. Earth dist.	616 Jul 25 j 04:20	5°♄04'03 19.43400 AU				
			conjunction	622 Aug 25 j 04:35	3°♄39'27	0°43'47
conjunction	616 Jul 26 j 07:17	5°♄08'15 0°37'16	minimum elong	622 Aug 25 j 04:35	3°♄39'27	0°43'47
minimum elong	616 Jul 26 j 07:17	5°♄08'15 0°37'16	morning rise	622 Sep 10 j 11:49	4°♄40'30	
morning rise	616 Aug 11 j 21:03	6°♄09'37	retrograde	622 Dec 10 j 20:40	8°♄02'04	
retrograde	616 Nov 11 j 22:33	9°♄30'58	opposition	623 Feb 22 j 07:17	5°♄59'52	0°48'54
opposition	617 Jan 24 j 08:39	7°♄28'37 0°42'32	min. Earth dist.	623 Feb 23 j 04:40	5°♄57'33	17.33715 AU
min. Earth dist.	617 Jan 25 j 07:00	7°♄26'10 17.41941 AU	direct	623 May 09 j 17:55	3°♄53'25	
direct	617 Apr 10 j 04:55	5°♄22'44	evening set	623 Aug 13 j 21:05	7°♄23'34	

max. Earth dist.	623 Aug 29 j 07:44	8° \mathbb{M} 21'22	19.33960 AU	morning rise	629 Oct 13 j 12:11	7° \mathbb{A} 51'15	
				retrograde	630 Jan 12 j 14:41	11° \mathbb{A} 11'13	
conjunction	623 Aug 30 j 07:06	8° \mathbb{M} 25'03	0°43'51	opposition	630 Mar 27 j 16:33	9° \mathbb{A} 10'06	0°41'28
minimum elong	623 Aug 30 j 07:06	8° \mathbb{M} 25'03	0°43'50	min. Earth dist.	630 Mar 28 j 05:44	9° \mathbb{A} 08'42	17.49621 AU
morning rise	623 Sep 15 j 13:10	9° \mathbb{M} 25'58		direct	630 Jun 12 j 18:04	7° \mathbb{A} 05'02	
retrograde	623 Dec 15 j 20:53	12° \mathbb{M} 47'27		evening set	630 Sep 16 j 09:35	10° \mathbb{A} 32'51	
opposition	624 Feb 27 j 08:12	10° \mathbb{M} 45'23	0°48'48				
min. Earth dist.	624 Feb 28 j 03:59	10° \mathbb{M} 43'14	17.34445 AU	conjunction	630 Oct 02 j 11:34	11° \mathbb{A} 32'57	0°36'13
direct	624 May 13 j 22:02	8° \mathbb{M} 39'03		minimum elong	630 Oct 02 j 11:34	11° \mathbb{A} 32'57	0°36'12
evening set	624 Aug 18 j 00:29	12° \mathbb{M} 09'12		max. Earth dist.	630 Oct 01 j 21:34	11° \mathbb{A} 30'45	19.51505 AU
max. Earth dist.	624 Sep 02 j 10:47	13° \mathbb{M} 07'00	19.35003 AU	morning rise	630 Oct 18 j 09:48	12° \mathbb{A} 32'31	
				retrograde	631 Jan 17 j 11:17	15° \mathbb{A} 52'04	
conjunction	624 Sep 03 j 09:21	13° \mathbb{M} 10'33	0°43'37	opposition	631 Apr 01 j 17:56	13° \mathbb{A} 51'04	0°39'12
minimum elong	624 Sep 03 j 09:21	13° \mathbb{M} 10'33	0°43'37	min. Earth dist.	631 Apr 02 j 06:39	13° \mathbb{A} 49'43	17.53505 AU
morning rise	624 Sep 19 j 14:15	14° \mathbb{M} 11'20		direct	631 Jun 17 j 18:55	11° \mathbb{A} 46'15	
retrograde	624 Dec 19 j 19:09	17° \mathbb{M} 32'40		evening set	631 Sep 21 j 08:29	15° \mathbb{A} 13'15	
opposition	625 Mar 03 j 09:16	15° \mathbb{M} 30'46	0°48'23				
min. Earth dist.	625 Mar 04 j 04:54	15° \mathbb{M} 28'38	17.35789 AU	conjunction	631 Oct 07 j 09:14	16° \mathbb{A} 13'05	0°34'05
direct	625 May 19 j 00:39	13° \mathbb{M} 24'34		minimum elong	631 Oct 07 j 09:14	16° \mathbb{A} 13'05	0°34'05
evening set	625 Aug 23 j 03:29	16° \mathbb{M} 54'39		max. Earth dist.	631 Oct 06 j 19:53	16° \mathbb{A} 11'00	19.55560 AU
				morning rise	631 Oct 23 j 06:42	17° \mathbb{A} 12'25	
conjunction	625 Sep 08 j 11:12	17° \mathbb{M} 55'50	0°43'05	retrograde	632 Jan 22 j 10:03	20° \mathbb{A} 31'30	
minimum elong	625 Sep 08 j 11:12	17° \mathbb{M} 55'50	0°43'05	opposition	632 Apr 05 j 18:46	18° \mathbb{A} 30'34	0°36'41
max. Earth dist.	625 Sep 07 j 13:58	17° \mathbb{M} 52'29	19.36635 AU	min. Earth dist.	632 Apr 06 j 05:07	18° \mathbb{A} 29'29	17.57713 AU
morning rise	625 Sep 24 j 15:00	18° \mathbb{M} 56'27		direct	632 Jun 21 j 22:15	16° \mathbb{A} 25'59	
retrograde	625 Dec 24 j 19:20	22° \mathbb{M} 17'36		evening set	632 Sep 25 j 06:26	19° \mathbb{A} 52'07	
opposition	626 Mar 08 j 10:35	20° \mathbb{M} 15'53	0°47'37				
min. Earth dist.	626 Mar 09 j 04:21	20° \mathbb{M} 13'58	17.37674 AU	conjunction	632 Oct 11 j 06:18	20° \mathbb{A} 51'40	0°31'44
direct	626 May 24 j 05:28	18° \mathbb{M} 09'54		minimum elong	632 Oct 11 j 06:18	20° \mathbb{A} 51'40	0°31'44
evening set	626 Aug 28 j 05:56	21° \mathbb{M} 39'45		max. Earth dist.	632 Oct 10 j 19:45	20° \mathbb{A} 50'02	19.59929 AU
				morning rise	632 Oct 27 j 02:43	21° \mathbb{A} 50'45	
conjunction	626 Sep 13 j 12:29	22° \mathbb{M} 40'45	0°42'16	retrograde	633 Jan 26 j 05:18	25° \mathbb{A} 09'19	
minimum elong	626 Sep 13 j 12:30	22° \mathbb{M} 40'45	0°42'16	opposition	633 Apr 10 j 19:16	23° \mathbb{A} 08'28	0°33'57
max. Earth dist.	626 Sep 12 j 16:40	22° \mathbb{M} 37'38	19.38771 AU	min. Earth dist.	633 Apr 11 j 04:48	23° \mathbb{A} 07'28	17.62234 AU
morning rise	626 Sep 29 j 15:02	23° \mathbb{M} 41'11		direct	633 Jun 26 j 22:57	21° \mathbb{A} 04'08	
retrograde	626 Dec 29 j 17:17	27° \mathbb{M} 02'08		evening set	633 Sep 30 j 03:36	24° \mathbb{A} 29'18	
opposition	627 Mar 13 j 12:12	25° \mathbb{M} 00'35	0°46'33				
min. Earth dist.	627 Mar 14 j 05:53	24° \mathbb{M} 58'41	17.40052 AU	conjunction	633 Oct 16 j 02:17	25° \mathbb{A} 28'33	0°29'11
direct	627 May 29 j 08:06	22° \mathbb{M} 54'49		minimum elong	633 Oct 16 j 02:17	25° \mathbb{A} 28'33	0°29'11
evening set	627 Sep 02 j 07:54	26° \mathbb{M} 24'20		max. Earth dist.	633 Oct 15 j 16:34	25° \mathbb{A} 27'03	19.64628 AU
				morning rise	633 Oct 31 j 22:01	26° \mathbb{A} 27'23	
conjunction	627 Sep 18 j 13:13	27° \mathbb{M} 25'08	0°41'09	retrograde	634 Jan 31 j 02:16	29° \mathbb{A} 45'25	
minimum elong	627 Sep 18 j 13:13	27° \mathbb{M} 25'08	0°41'10	opposition	634 Apr 15 j 19:25	27° \mathbb{A} 44'36	0°31'01
max. Earth dist.	627 Sep 17 j 18:21	27° \mathbb{M} 22'10	19.41382 AU	min. Earth dist.	634 Apr 16 j 02:30	27° \mathbb{A} 43'52	17.67104 AU
morning rise	627 Oct 04 j 14:44	28° \mathbb{M} 25'23		direct	634 Jul 02 j 01:26	25° \mathbb{A} 40'31	
	627 Nov 01 j 05:13	0° \mathbb{A}		evening set	634 Oct 04 j 23:28	29° \mathbb{A} 04'39	
retrograde	628 Jan 03 j 17:19	1° \mathbb{A} 46'03			634 Oct 19 j 22:00	0° \mathbb{M}	
	628 Mar 11 j 14:14	30° \mathbb{R} \mathbb{M}					
opposition	628 Mar 17 j 13:38	29° \mathbb{M} 44'39	0°45'09	conjunction	634 Oct 20 j 21:19	0° \mathbb{M} .03'38	0°26'28
min. Earth dist.	628 Mar 18 j 05:13	29° \mathbb{M} 42'59	17.42868 AU	minimum elong	634 Oct 20 j 21:19	0° \mathbb{M} .03'38	0°26'29
direct	628 Jun 02 j 12:36	27° \mathbb{M} 39'07		max. Earth dist.	634 Oct 20 j 14:54	0° \mathbb{M} .02'38	19.69673 AU
	628 Aug 18 j 00:12	0° \mathbb{A}		morning rise	634 Nov 05 j 16:06	1° \mathbb{M} .02'11	
evening set	628 Sep 06 j 09:08	1° \mathbb{A} 08'11		retrograde	635 Feb 04 j 20:16	4° \mathbb{M} .19'41	
				opposition	635 Apr 20 j 19:13	2° \mathbb{M} .18'56	0°27'54
conjunction	628 Sep 22 j 13:24	2° \mathbb{A} 08'46	0°39'46	min. Earth dist.	635 Apr 21 j 00:45	2° \mathbb{M} .18'21	17.72321 AU
minimum elong	628 Sep 22 j 13:24	2° \mathbb{A} 08'46	0°39'46	direct	635 Jul 07 j 01:54	0° \mathbb{M} .15'09	
max. Earth dist.	628 Sep 21 j 20:24	2° \mathbb{A} 06'06	19.44395 AU	evening set	635 Oct 09 j 18:39	3° \mathbb{M} .38'11	
morning rise	628 Oct 08 j 13:44	3° \mathbb{A} 08'48					
retrograde	629 Jan 07 j 14:49	6° \mathbb{A} 29'09		conjunction	635 Oct 25 j 15:23	4° \mathbb{M} .36'52	0°23'37
opposition	629 Mar 22 j 15:15	4° \mathbb{A} 27'54	0°43'27	minimum elong	635 Oct 25 j 15:23	4° \mathbb{M} .36'52	0°23'36
min. Earth dist.	629 Mar 23 j 06:42	4° \mathbb{A} 26'15	17.46069 AU	max. Earth dist.	635 Oct 25 j 10:05	4° \mathbb{M} .36'03	19.75079 AU
direct	629 Jun 07 j 14:09	2° \mathbb{A} 22'36		morning rise	635 Nov 10 j 09:37	5° \mathbb{M} .35'10	
evening set	629 Sep 11 j 09:48	5° \mathbb{A} 51'05		retrograde	636 Feb 09 j 15:24	8° \mathbb{M} .52'06	
				opposition	636 Apr 24 j 18:15	6° \mathbb{M} .51'26	0°24'37
conjunction	629 Sep 27 j 12:47	6° \mathbb{A} 51'26	0°38'07	min. Earth dist.	636 Apr 24 j 21:23	6° \mathbb{M} .51'07	17.77913 AU
minimum elong	629 Sep 27 j 12:47	6° \mathbb{A} 51'26	0°38'07	direct	636 Jul 11 j 01:58	4° \mathbb{M} .47'59	
max. Earth dist.	629 Sep 26 j 20:24	6° \mathbb{A} 48'52	19.47783 AU	evening set	636 Oct 13 j 12:42	8° \mathbb{M} .09'55	

conjunction	636 Oct 29 j 08:45	9°M.08'18	0°20'37	morning rise	641 Dec 06 j 01:42	2°♂16'56	
minimum elong	636 Oct 29 j 08:45	9°M.08'18	0°20'38	retrograde	642 Mar 07 j 19:28	5°♂30'37	
max. Earth dist.	636 Oct 29 j 06:39	9°M.07'59	19.80843 AU	opposition	642 May 23 j 01:59	3°♂30'56	0°03'05
morning rise	636 Nov 14 j 02:11	10°M.06'20		min. Earth dist.	642 May 22 j 18:10	3°♂31'44	18.16284 AU
retrograde	637 Feb 13 j 08:54	13°M.22'42		direct	642 Aug 08 j 06:37	1°♂29'58	
opposition	637 Apr 29 j 16:56	11°M.22'11	0°21'14	evening set	642 Nov 09 j 06:49	4°♂44'53	
min. Earth dist.	637 Apr 29 j 18:06	11°M.22'04	17.83827 AU				
direct	637 Jul 16 j 01:12	9°M.19'07		conjunction	642 Nov 24 j 22:47	5°♂41'32	0°01'09
evening set	637 Oct 18 j 05:57	12°M.39'55		minimum elong	642 Nov 24 j 22:49	5°♂41'32	0°01'08
				behind sun begin	642 Nov 24 j 16:17	5°♂40'34	
conjunction	637 Nov 03 j 00:59	13°M.37'59	0°17'32	behind sun end	642 Nov 25 j 05:21	5°♂42'30	
minimum elong	637 Nov 03 j 00:59	13°M.37'59	0°17'32	max. Earth dist.	642 Nov 25 j 08:07	5°♂42'56	20.19585 AU
max. Earth dist.	637 Nov 03 j 00:08	13°M.37'52	19.86915 AU	morning rise	642 Dec 10 j 13:50	6°♂38'05	
morning rise	637 Nov 18 j 17:58	14°M.35'46		retrograde	643 Mar 12 j 11:02	9°♂51'14	
	637 Nov 25 j 12:50	15°M.		desc. node	643 Mar 27 j 06:06	9°♂45'41	
retrograde	638 Feb 18 j 02:31	17°M.51'36		opposition	643 May 27 j 21:10	7°♂51'41	-0°00'37
opposition	638 May 04 j 15:05	15°M.51'14	0°17'43	min. Earth dist.	643 May 27 j 11:08	7°♂52'43	18.22821 AU
min. Earth dist.	638 May 04 j 14:10	15°M.51'20	17.90040 AU	direct	643 Aug 13 j 01:14	5°♂51'08	
	638 May 25 j 20:27	15°R.M.		evening set	643 Nov 13 j 19:05	9°♂04'50	
direct	638 Jul 20 j 22:54	13°M.48'34					
	638 Sep 12 j 10:09	15°M.		conjunction	643 Nov 29 j 10:34	10°♂01'14	-0°02'17
evening set	638 Oct 22 j 22:10	17°M.08'13		minimum elong	643 Nov 29 j 10:34	10°♂01'14	0°02'17
				behind sun begin	643 Nov 29 j 04:02	10°♂00'16	
conjunction	638 Nov 07 j 16:36	18°M.06'00	0°14'21	behind sun end	643 Nov 29 j 17:06	10°♂02'11	
minimum elong	638 Nov 07 j 16:36	18°M.06'00	0°14'21	max. Earth dist.	643 Nov 29 j 20:49	10°♂02'46	20.26055 AU
behind sun begin	638 Nov 07 j 13:26	18°M.05'32		morning rise	643 Dec 15 j 01:30	10°♂57'33	
behind sun end	638 Nov 07 j 19:47	18°M.06'29		retrograde	644 Mar 16 j 00:56	14°♂10'10	
max. Earth dist.	638 Nov 07 j 18:49	18°M.06'20	19.93249 AU	opposition	644 May 31 j 15:35	12°♂10'43	-0°04'17
morning rise	638 Nov 23 j 08:57	19°M.03'31		min. Earth dist.	644 May 31 j 04:57	12°♂11'48	18.29229 AU
retrograde	639 Feb 22 j 19:45	22°M.18'49		direct	644 Aug 16 j 17:33	10°♂10'30	
opposition	639 May 09 j 12:39	20°M.18'37	0°14'08	evening set	644 Nov 17 j 06:26	13°♂23'01	
min. Earth dist.	639 May 09 j 09:37	20°M.18'56	17.96464 AU				
direct	639 Jul 25 j 20:47	18°M.16'24		conjunction	644 Dec 02 j 21:38	14°♂19'10	-0°05'35
evening set	639 Oct 27 j 13:34	21°M.34'52		minimum elong	644 Dec 02 j 21:39	14°♂19'10	0°05'34
				behind sun begin	644 Dec 02 j 15:21	14°♂18'14	
conjunction	639 Nov 12 j 07:12	22°M.32'22	0°11'06	behind sun end	644 Dec 03 j 03:57	14°♂20'05	
minimum elong	639 Nov 12 j 07:12	22°M.32'22	0°11'07	max. Earth dist.	644 Dec 03 j 09:37	14°♂20'57	20.32378 AU
behind sun begin	639 Nov 12 j 02:15	22°M.31'37		morning rise	644 Dec 18 j 12:26	15°♂15'16	
behind sun end	639 Nov 12 j 12:09	22°M.33'06		retrograde	645 Mar 20 j 15:31	18°♂27'20	
max. Earth dist.	639 Nov 12 j 10:36	22°M.32'52	19.99757 AU	opposition	645 Jun 05 j 09:20	16°♂27'58	-0°07'55
morning rise	639 Nov 27 j 23:15	23°M.29'38		min. Earth dist.	645 Jun 04 j 20:26	16°♂29'16	18.35454 AU
retrograde	640 Feb 27 j 12:00	26°M.44'24		direct	645 Aug 21 j 10:40	14°♂28'05	
opposition	640 May 13 j 09:41	24°M.44'22	0°10'29	evening set	645 Nov 21 j 16:57	17°♂39'24	
min. Earth dist.	640 May 13 j 05:07	24°M.44'51	18.03037 AU				
direct	640 Jul 29 j 16:17	22°M.42'34		conjunction	645 Dec 07 j 07:48	18°♂35'18	-0°08'48
evening set	640 Oct 31 j 04:07	25°M.59'52		minimum elong	645 Dec 07 j 07:47	18°♂35'18	0°08'48
				behind sun begin	645 Dec 07 j 02:07	18°♂34'28	
conjunction	640 Nov 15 j 21:12	26°M.57'05	0°07'49	behind sun end	645 Dec 07 j 13:28	18°♂36'08	
minimum elong	640 Nov 15 j 21:12	26°M.57'05	0°07'48	max. Earth dist.	645 Dec 07 j 20:54	18°♂37'15	20.38508 AU
behind sun begin	640 Nov 15 j 15:17	26°M.56'12		morning rise	645 Dec 22 j 22:37	19°♂31'12	
behind sun end	640 Nov 16 j 03:08	26°M.57'58		retrograde	646 Mar 25 j 04:06	22°♂42'44	
max. Earth dist.	640 Nov 16 j 03:13	26°M.57'58	20.06367 AU	opposition	646 Jun 10 j 02:31	20°♂43'24	-0°11'28
morning rise	640 Dec 01 j 12:45	27°M.54'06		min. Earth dist.	646 Jun 09 j 13:09	20°♂44'45	18.41504 AU
	641 Jan 10 j 13:01	0°♂		direct	646 Aug 26 j 01:42	18°♂43'49	
retrograde	641 Mar 03 j 04:23	1°♂08'19		evening set	646 Nov 26 j 02:36	21°♂53'56	
	641 Apr 26 j 15:11	30°R.M.					
opposition	641 May 18 j 06:01	29°M.08'28	0°06'48	conjunction	646 Dec 11 j 17:18	22°♂49'36	-0°11'57
min. Earth dist.	641 May 17 j 23:18	29°M.09'10	18.09659 AU	minimum elong	646 Dec 11 j 17:19	22°♂49'36	0°11'56
direct	641 Aug 03 j 12:46	27°M.07'07		behind sun begin	646 Dec 11 j 12:43	22°♂48'56	
	641 Oct 29 j 03:46	0°♂		behind sun end	646 Dec 11 j 21:54	22°♂50'16	
evening set	641 Nov 04 j 17:59	0°♂23'13		max. Earth dist.	646 Dec 12 j 08:06	22°♂51'49	20.44474 AU
				morning rise	646 Dec 27 j 08:10	23°♂45'18	
conjunction	641 Nov 20 j 10:23	1°♂20'09	0°04'31	retrograde	647 Mar 29 j 17:53	26°♂56'18	
minimum elong	641 Nov 20 j 10:23	1°♂20'09	0°04'31	opposition	647 Jun 14 j 18:38	24°♂56'59	-0°14'55
behind sun begin	641 Nov 20 j 03:57	1°♂19'12		min. Earth dist.	647 Jun 14 j 02:54	24°♂58'35	18.47388 AU
behind sun end	641 Nov 20 j 16:48	1°♂21'06		direct	647 Aug 30 j 17:15	22°♂57'40	
max. Earth dist.	641 Nov 20 j 17:29	1°♂21'12	20.12993 AU	evening set	647 Nov 30 j 11:31	26°♂06'39	

conjunction	647 Dec 16 j 02:03	27° \mathbb{A} 02'06 -0°15'01	max. Earth dist.	654 Jan 09 j 19:29	21° \mathbb{B} 49'24 20.81876 AU
minimum elong	647 Dec 16 j 02:03	27° \mathbb{A} 02'06 0°15'02	morning rise	654 Jan 24 j 12:47	22° \mathbb{B} 40'38
behind sun begin	647 Dec 15 j 23:27	27° \mathbb{A} 01'43	retrograde	654 Apr 27 j 20:30	25° \mathbb{B} 48'52
behind sun end	647 Dec 16 j 04:39	27° \mathbb{A} 02'28	opposition	654 Jul 14 j 17:33	23° \mathbb{B} 49'54 -0°35'24
max. Earth dist.	647 Dec 16 j 18:10	27° \mathbb{A} 04'30 20.50276 AU	min. Earth dist.	654 Jul 13 j 18:53	23° \mathbb{B} 52'10 18.84142 AU
morning rise	647 Dec 31 j 17:05	27° \mathbb{A} 57'37	direct	654 Sep 29 j 02:17	21° \mathbb{B} 52'36
	648 Feb 09 j 13:52	0° \mathbb{B}	evening set	654 Dec 28 j 10:13	24° \mathbb{B} 55'03
retrograde	648 Apr 02 j 04:39	1° \mathbb{B} 08'07			
	648 May 27 j 13:25	30° \mathbb{R} \mathbb{A}	conjunction	655 Jan 13 j 01:37	25° \mathbb{B} 49'21 -0°33'03
opposition	648 Jun 18 j 10:14	29° \mathbb{A} 08'48 -0°18'16	minimum elong	655 Jan 13 j 01:37	25° \mathbb{B} 49'21 0°33'03
min. Earth dist.	648 Jun 17 j 18:06	29° \mathbb{A} 10'26 18.53133 AU	max. Earth dist.	655 Jan 14 j 01:47	25° \mathbb{B} 52'52 20.86264 AU
direct	648 Sep 03 j 06:49	27° \mathbb{A} 09'46	morning rise	655 Jan 28 j 19:13	26° \mathbb{B} 43'58
	648 Nov 28 j 16:46	0° \mathbb{B}	retrograde	655 May 02 j 07:10	29° \mathbb{B} 51'57
evening set	648 Dec 03 j 19:41	0° \mathbb{B} 17'38	min. Earth dist.	655 Jul 18 j 04:33	27° \mathbb{B} 55'27 18.88337 AU
			opposition	655 Jul 19 j 04:38	27° \mathbb{B} 53'03 -0°37'40
conjunction	648 Dec 19 j 10:09	1° \mathbb{B} 12'52 -0°17'59	direct	655 Oct 03 j 12:05	25° \mathbb{B} 56'00
minimum elong	648 Dec 19 j 10:09	1° \mathbb{B} 12'52 0°17'59	evening set	656 Jan 01 j 15:34	28° \mathbb{B} 57'45
max. Earth dist.	648 Dec 20 j 03:52	1° \mathbb{B} 15'30 20.55953 AU			
morning rise	649 Jan 04 j 01:19	2° \mathbb{B} 08'12	conjunction	656 Jan 17 j 07:19	29° \mathbb{B} 51'58 -0°35'02
retrograde	649 Apr 06 j 17:53	5° \mathbb{B} 18'14	minimum elong	656 Jan 17 j 07:19	29° \mathbb{B} 51'58 0°35'01
min. Earth dist.	649 Jun 22 j 06:18	3° \mathbb{B} 20'49 18.58747 AU	max. Earth dist.	656 Jan 18 j 08:04	29° \mathbb{B} 55'34 20.90234 AU
opposition	649 Jun 23 j 00:55	3° \mathbb{B} 18'56 -0°21'30		656 Jan 19 j 14:33	0° \approx
direct	649 Sep 07 j 20:52	1° \mathbb{B} 20'11	morning rise	656 Feb 02 j 01:29	0° \approx 46'31
evening set	649 Dec 08 j 03:20	4° \mathbb{B} 27'00	retrograde	656 May 05 j 15:36	3° \approx 54'17
			opposition	656 Jul 22 j 15:30	1° \approx 55'25 -0°39'45
conjunction	649 Dec 23 j 17:44	5° \mathbb{B} 22'03 -0°20'50	min. Earth dist.	656 Jul 21 j 16:12	1° \approx 57'45 18.92090 AU
minimum elong	649 Dec 23 j 17:44	5° \mathbb{B} 22'03 0°20'51		656 Sep 29 j 08:12	30° \mathbb{R} \mathbb{B}
max. Earth dist.	649 Dec 24 j 12:53	5° \mathbb{B} 24'52 20.61499 AU	direct	656 Oct 06 j 19:38	29° \mathbb{B} 58'36
morning rise	650 Jan 08 j 09:09	6° \mathbb{B} 17'14		656 Oct 14 j 05:13	0° \approx
retrograde	650 Apr 11 j 03:21	9° \mathbb{B} 26'49	evening set	657 Jan 04 j 20:35	2° \approx 59'42
opposition	650 Jun 27 j 15:10	7° \mathbb{B} 27'34 -0°24'35			
min. Earth dist.	650 Jun 26 j 20:13	7° \mathbb{B} 29'29 18.64241 AU	conjunction	657 Jan 20 j 12:46	3° \approx 53'50 -0°36'49
direct	650 Sep 12 j 08:23	5° \mathbb{B} 29'07	minimum elong	657 Jan 20 j 12:46	3° \approx 53'50 0°36'50
evening set	650 Dec 12 j 10:16	8° \mathbb{B} 34'56	max. Earth dist.	657 Jan 21 j 13:29	3° \approx 57'25 20.93751 AU
			morning rise	657 Feb 05 j 07:34	4° \approx 48'20
conjunction	650 Dec 28 j 00:47	9° \mathbb{B} 29'47 -0°23'34	retrograde	657 May 10 j 01:35	7° \approx 55'54
minimum elong	650 Dec 28 j 00:47	9° \mathbb{B} 29'47 0°23'34	min. Earth dist.	657 Jul 26 j 01:26	5° \approx 59'29 18.95359 AU
max. Earth dist.	650 Dec 28 j 21:16	9° \mathbb{B} 32'49 20.66920 AU	opposition	657 Jul 27 j 01:49	5° \approx 57'03 -0°41'37
morning rise	651 Jan 12 j 16:32	10° \mathbb{B} 24'50	direct	657 Oct 11 j 04:28	4° \approx 00'24
retrograde	651 Apr 15 j 15:44	13° \mathbb{B} 34'01	evening set	658 Jan 09 j 01:34	7° \approx 00'54
min. Earth dist.	651 Jul 01 j 07:21	11° \mathbb{B} 36'58 18.69574 AU			
opposition	651 Jul 02 j 04:33	11° \mathbb{B} 34'50 -0°27'32	conjunction	658 Jan 24 j 18:14	7° \approx 54'59 -0°38'26
direct	651 Sep 16 j 21:06	9° \mathbb{B} 36'40	minimum elong	658 Jan 24 j 18:14	7° \approx 54'59 0°38'25
evening set	651 Dec 16 j 16:52	12° \mathbb{B} 41'34	max. Earth dist.	658 Jan 25 j 19:15	7° \approx 58'36 20.96755 AU
			morning rise	658 Feb 09 j 13:43	8° \approx 49'27
conjunction	652 Jan 01 j 07:29	13° \mathbb{B} 36'16 -0°26'09	retrograde	658 May 14 j 09:37	11° \approx 56'51
minimum elong	652 Jan 01 j 07:29	13° \mathbb{B} 36'16 0°26'09	opposition	658 Jul 31 j 11:46	9° \approx 57'58 -0°43'17
max. Earth dist.	652 Jan 02 j 05:12	13° \mathbb{B} 39'27 20.72147 AU	min. Earth dist.	658 Jul 30 j 12:22	10° \approx 00'19 18.98111 AU
morning rise	652 Jan 16 j 23:37	14° \mathbb{B} 31'11	direct	658 Oct 15 j 11:20	8° \approx 01'26
retrograde	652 Apr 19 j 00:30	17° \mathbb{B} 40'00	evening set	659 Jan 13 j 06:16	11° \approx 01'24
opposition	652 Jul 05 j 17:22	15° \mathbb{B} 40'54 -0°30'19			
min. Earth dist.	652 Jul 04 j 20:14	15° \mathbb{B} 43'01 18.74702 AU	conjunction	659 Jan 28 j 23:33	11° \approx 55'26 -0°39'51
direct	652 Sep 20 j 06:35	13° \mathbb{B} 43'02	minimum elong	659 Jan 28 j 23:33	11° \approx 55'26 0°39'51
evening set	652 Dec 19 j 23:00	16° \mathbb{B} 47'03	max. Earth dist.	659 Jan 30 j 00:13	11° \approx 59'00 20.99257 AU
			morning rise	659 Feb 13 j 19:48	12° \approx 49'53
conjunction	653 Jan 04 j 13:49	17° \mathbb{B} 41'36 -0°28'37		659 Mar 30 j 14:35	15° \approx
minimum elong	653 Jan 04 j 13:49	17° \mathbb{B} 41'36 0°28'37	retrograde	659 May 18 j 18:59	15° \approx 57'07
max. Earth dist.	653 Jan 05 j 12:28	17° \mathbb{B} 44'55 20.77159 AU		659 Jul 08 j 17:39	15° \mathbb{R} \approx
morning rise	653 Jan 20 j 06:22	18° \mathbb{B} 36'24	opposition	659 Aug 04 j 21:05	13° \approx 58'11 -0°44'44
retrograde	653 Apr 23 j 11:52	21° \mathbb{B} 44'54	min. Earth dist.	659 Aug 03 j 20:53	14° \approx 00'36 19.00356 AU
min. Earth dist.	653 Jul 09 j 06:34	19° \mathbb{B} 48'11 18.79578 AU	direct	659 Oct 19 j 19:15	12° \approx 01'43
opposition	653 Jul 10 j 05:38	19° \mathbb{B} 45'52 -0°32'57	evening set	660 Jan 17 j 10:51	15° \approx 01'12
direct	653 Sep 24 j 17:56	17° \mathbb{B} 48'18		660 Jan 17 j 02:18	15° \approx
evening set	653 Dec 24 j 04:42	20° \mathbb{B} 51'30			
			conjunction	660 Feb 02 j 04:44	15° \approx 55'13 -0°41'04
conjunction	654 Jan 08 j 19:45	21° \mathbb{B} 45'56 -0°30'55	minimum elong	660 Feb 02 j 04:44	15° \approx 55'13 0°41'04
minimum elong	654 Jan 08 j 19:45	21° \mathbb{B} 45'56 0°30'54	max. Earth dist.	660 Feb 03 j 05:40	15° \approx 58'48 21.01247 AU

morning rise	660 Feb 18 j 01:43	16° \approx 49'40	direct	666 Nov 16 j 09:25	9° \times 52'44
retrograde	660 May 22 j 02:05	19° \approx 56'46	evening set	667 Feb 13 j 19:18	12° \times 50'52
min. Earth dist.	660 Aug 07 j 06:49	18° \approx 00'04 19.02118 AU			
opposition	660 Aug 08 j 05:58	17° \approx 57'45 -0°45'58	conjunction	667 Mar 01 j 18:46	13° \times 45'13 -0°43'46
direct	660 Oct 23 j 01:17	16° \approx 01'21	minimum elong	667 Mar 01 j 18:46	13° \times 45'13 0°43'47
evening set	661 Jan 20 j 15:18	19° \approx 00'24	max. Earth dist.	667 Mar 02 j 17:46	13° \times 48'30 21.04266 AU
			morning rise	667 Mar 17 j 22:08	14° \times 40'07
conjunction	661 Feb 05 j 09:50	19° \approx 54'24 -0°42'04	retrograde	667 Jun 20 j 13:11	17° \times 47'31
minimum elong	661 Feb 05 j 09:50	19° \approx 54'24 0°42'04	opposition	667 Sep 06 j 11:21	15° \times 48'04 -0°48'08
max. Earth dist.	661 Feb 06 j 10:28	19° \approx 57'56 21.02803 AU	min. Earth dist.	667 Sep 05 j 14:02	15° \times 50'13 19.03808 AU
morning rise	661 Feb 21 j 07:39	20° \approx 48'51	direct	667 Nov 20 j 14:18	13° \times 51'45
retrograde	661 May 26 j 11:19	23° \approx 55'52	evening set	668 Feb 18 j 00:55	16° \times 50'00
opposition	661 Aug 12 j 14:25	21° \approx 56'46 -0°46'57			
min. Earth dist.	661 Aug 11 j 14:28	21° \approx 59'09 19.03470 AU	conjunction	668 Mar 05 j 01:19	17° \times 44'29 -0°43'19
direct	661 Oct 27 j 08:11	20° \approx 00'22	minimum elong	668 Mar 05 j 01:19	17° \times 44'29 0°43'19
evening set	662 Jan 24 j 19:36	22° \approx 59'05	max. Earth dist.	668 Mar 05 j 23:56	17° \times 47'43 21.03154 AU
			morning rise	668 Mar 21 j 05:34	18° \times 39'31
conjunction	662 Feb 09 j 14:50	23° \approx 53'06 -0°42'52	retrograde	668 Jun 23 j 21:05	21° \times 47'07
minimum elong	662 Feb 09 j 14:50	23° \approx 53'06 0°42'53	opposition	668 Sep 09 j 18:28	19° \times 47'38 -0°47'31
max. Earth dist.	662 Feb 10 j 15:53	23° \approx 56'41 21.03949 AU	min. Earth dist.	668 Sep 08 j 22:44	19° \times 49'38 19.02467 AU
morning rise	662 Feb 25 j 13:30	24° \approx 47'35	direct	668 Nov 23 j 18:54	17° \times 51'17
retrograde	662 May 30 j 17:53	27° \approx 54'34	evening set	669 Feb 21 j 07:03	20° \times 49'43
opposition	662 Aug 16 j 22:35	25° \approx 55'22 -0°47'44			
min. Earth dist.	662 Aug 15 j 23:37	25° \approx 57'40 19.04432 AU	conjunction	669 Mar 09 j 08:23	21° \times 44'20 -0°42'40
direct	662 Oct 31 j 13:22	23° \approx 59'00	minimum elong	669 Mar 09 j 08:23	21° \times 44'20 0°42'41
evening set	663 Jan 29 j 00:04	26° \approx 57'26	max. Earth dist.	669 Mar 10 j 05:25	21° \times 47'21 21.01590 AU
			morning rise	669 Mar 25 j 13:40	22° \times 39'31
conjunction	663 Feb 13 j 20:05	27° \approx 51'29 -0°43'28	retrograde	669 Jun 28 j 08:09	25° \times 47'22
minimum elong	663 Feb 13 j 20:05	27° \approx 51'29 0°43'27	min. Earth dist.	669 Sep 13 j 06:24	23° \times 49'44 19.00654 AU
max. Earth dist.	663 Feb 14 j 20:39	27° \approx 55'00 21.04736 AU	opposition	669 Sep 14 j 01:33	23° \times 47'48 -0°46'41
morning rise	663 Mar 01 j 19:39	28° \approx 46'01	direct	669 Nov 28 j 00:26	21° \times 51'22
	663 Mar 25 j 05:03	0° \times	evening set	670 Feb 25 j 13:38	24° \times 50'03
retrograde	663 Jun 04 j 03:15	1° \times 52'59			
	663 Aug 18 j 15:26	30° \times	conjunction	670 Mar 13 j 16:00	25° \times 44'50 -0°41'48
min. Earth dist.	663 Aug 20 j 06:40	29° \approx 56'04 19.05040 AU	minimum elong	670 Mar 13 j 16:01	25° \times 44'50 0°41'47
opposition	663 Aug 21 j 06:09	29° \approx 53'43 -0°48'16	max. Earth dist.	670 Mar 14 j 12:14	25° \times 47'43 20.99509 AU
direct	663 Nov 04 j 19:08	27° \approx 57'22	morning rise	670 Mar 29 j 22:15	26° \times 40'10
	664 Jan 15 j 21:32	0° \times	retrograde	670 Jul 02 j 16:34	29° \times 48'15
evening set	664 Feb 02 j 04:35	0° \times 55'37	opposition	670 Sep 18 j 08:47	27° \times 48'36 -0°45'36
			min. Earth dist.	670 Sep 17 j 15:31	27° \times 50'22 18.98299 AU
conjunction	664 Feb 18 j 01:24	1° \times 49'43 -0°43'51	direct	670 Dec 02 j 05:03	25° \times 52'03
minimum elong	664 Feb 18 j 01:24	1° \times 49'43 0°43'52	evening set	671 Mar 01 j 20:50	28° \times 51'02
max. Earth dist.	664 Feb 19 j 02:10	1° \times 53'16 21.05156 AU			
morning rise	664 Mar 05 j 01:50	2° \times 44'20	conjunction	671 Mar 18 j 00:11	29° \times 45'58 -0°40'43
retrograde	664 Jun 07 j 09:57	5° \times 51'20	minimum elong	671 Mar 18 j 00:11	29° \times 45'58 0°40'43
opposition	664 Aug 24 j 13:43	3° \times 52'00 -0°48'35	max. Earth dist.	671 Mar 18 j 18:18	29° \times 48'34 20.96895 AU
min. Earth dist.	664 Aug 23 j 15:18	3° \times 54'15 19.05285 AU		671 Mar 22 j 02:13	0° \times
direct	664 Nov 07 j 23:48	1° \times 55'41	morning rise	671 Apr 03 j 07:29	0° \times 41'29
evening set	665 Feb 05 j 09:07	4° \times 53'49	retrograde	671 Jul 07 j 03:47	3° \times 49'50
			opposition	671 Sep 22 j 15:51	1° \times 50'03 -0°44'18
conjunction	665 Feb 21 j 06:46	5° \times 47'59 -0°44'02	min. Earth dist.	671 Sep 21 j 23:33	1° \times 51'43 18.95410 AU
minimum elong	665 Feb 21 j 06:46	5° \times 47'59 0°44'02		671 Nov 20 j 08:33	30° \times
max. Earth dist.	665 Feb 22 j 06:53	5° \times 51'26 21.05235 AU	direct	671 Dec 06 j 11:37	29° \times 53'18
morning rise	665 Mar 09 j 08:10	6° \times 42'40		671 Dec 22 j 11:49	0° \times
retrograde	665 Jun 11 j 19:33	9° \times 49'46	evening set	672 Mar 05 j 04:25	2° \times 52'39
opposition	665 Aug 28 j 21:05	7° \times 50'24 -0°48'40			
min. Earth dist.	665 Aug 27 j 22:19	7° \times 52'41 19.05181 AU	conjunction	672 Mar 21 j 08:51	3° \times 47'47 -0°39'26
direct	665 Nov 12 j 04:51	5° \times 54'04	minimum elong	672 Mar 21 j 08:51	3° \times 47'47 0°39'25
evening set	666 Feb 09 j 14:03	8° \times 52'10	max. Earth dist.	672 Mar 22 j 02:00	3° \times 50'14 20.93739 AU
			morning rise	672 Apr 06 j 17:03	4° \times 43'28
conjunction	666 Feb 25 j 12:36	9° \times 46'26 -0°44'01	retrograde	672 Jul 10 j 12:36	7° \times 52'06
minimum elong	666 Feb 25 j 12:36	9° \times 46'26 0°44'01	opposition	672 Sep 25 j 23:10	5° \times 52'09 -0°42'46
max. Earth dist.	666 Feb 26 j 12:42	9° \times 49'52 21.04939 AU	min. Earth dist.	672 Sep 25 j 08:45	5° \times 53'38 18.91995 AU
morning rise	666 Mar 13 j 14:55	10° \times 41'13	direct	672 Dec 09 j 16:38	3° \times 55'12
retrograde	666 Jun 16 j 03:00	13° \times 48'27	evening set	673 Mar 09 j 12:22	6° \times 54'55
min. Earth dist.	666 Sep 01 j 06:50	11° \times 51'11 19.04694 AU			
opposition	666 Sep 02 j 04:16	11° \times 49'02 -0°48'31	conjunction	673 Mar 25 j 17:49	7° \times 50'15 -0°37'57

minimum elong	673 Mar 25 j 17:49	7° Υ 50'15	0°37'57	opposition	679 Oct 25 j 06:16	4° S 32'29	-0°26'23
max. Earth dist.	673 Mar 26 j 08:53	7° Υ 52'24	20.90105 AU	min. Earth dist.	679 Oct 25 j 01:20	4° S 33'00	18.58576 AU
morning rise	673 Apr 11 j 03:07	8° Υ 46'08		direct	680 Jan 07 j 18:54	2° S 33'32	
retrograde	673 Jul 14 j 23:41	11° Υ 55'05		evening set	680 Apr 07 j 14:40	5° S 38'10	
opposition	673 Sep 30 j 06:30	9° Υ 54'56	-0°41'01				
min. Earth dist.	673 Sep 29 j 17:07	9° Υ 56'18	18.88133 AU	conjunction	680 Apr 24 j 03:15	6° S 35'16	-0°22'30
direct	673 Dec 13 j 23:47	7° Υ 57'42		minimum elong	680 Apr 24 j 03:15	6° S 35'16	0°22'30
evening set	674 Mar 13 j 21:00	10° Υ 57'55		max. Earth dist.	680 Apr 24 j 08:14	6° S 35'59	20.55791 AU
				morning rise	680 May 10 j 18:32	7° S 32'49	
conjunction	674 Mar 30 j 03:33	11° Υ 53'28	-0°36'16	retrograde	680 Aug 13 j 09:11	10° S 44'48	
minimum elong	674 Mar 30 j 03:33	11° Υ 53'28	0°36'16	opposition	680 Oct 28 j 15:30	8° S 43'37	-0°23'20
max. Earth dist.	674 Mar 30 j 17:48	11° Υ 55'30	20.86033 AU	min. Earth dist.	680 Oct 28 j 12:05	8° S 43'59	18.52949 AU
morning rise	674 Apr 15 j 13:45	12° Υ 49'33		direct	681 Jan 11 j 03:52	6° S 44'25	
retrograde	674 Jul 19 j 09:15	15° Υ 58'49		evening set	681 Apr 12 j 04:28	9° S 50'01	
opposition	674 Oct 04 j 13:49	13° Υ 58'29	-0°39'04				
min. Earth dist.	674 Oct 04 j 02:16	13° Υ 59'40	18.83867 AU	conjunction	681 Apr 28 j 17:51	10° S 47'25	-0°19'40
direct	674 Dec 18 j 05:42	12° Υ 00'58		minimum elong	681 Apr 28 j 17:51	10° S 47'25	0°19'40
evening set	675 Mar 18 j 06:15	15° Υ 01'44		max. Earth dist.	681 Apr 28 j 20:02	10° S 47'44	20.50093 AU
				morning rise	681 May 15 j 10:02	11° S 45'13	
conjunction	675 Apr 03 j 13:47	15° Υ 57'30	-0°34'23	retrograde	681 Aug 17 j 23:16	14° S 57'47	
minimum elong	675 Apr 03 j 13:48	15° Υ 57'30	0°34'23	opposition	681 Nov 02 j 01:14	12° S 56'31	-0°20'08
max. Earth dist.	675 Apr 04 j 01:49	15° Υ 59'14	20.81608 AU	min. Earth dist.	681 Nov 01 j 23:34	12° S 56'42	18.47157 AU
morning rise	675 Apr 20 j 01:02	16° Υ 53'49		direct	682 Jan 15 j 13:39	10° S 57'01	
retrograde	675 Jul 23 j 20:33	20° Υ 03'27		evening set	682 Apr 16 j 19:20	14° S 03'41	
opposition	675 Oct 08 j 21:23	18° Υ 02'55	-0°36'54				
min. Earth dist.	675 Oct 08 j 10:53	18° Υ 04'00	18.79281 AU	conjunction	682 May 03 j 09:44	15° S 01'23	-0°16'43
direct	675 Dec 22 j 12:40	16° Υ 05'07		minimum elong	682 May 03 j 09:44	15° S 01'23	0°16'42
evening set	676 Mar 21 j 15:56	19° Υ 06'29		max. Earth dist.	682 May 03 j 10:55	15° S 01'33	20.44197 AU
					682 May 03 j 00:12	15° S	
conjunction	676 Apr 07 j 00:33	20° Υ 02'30	-0°32'20	morning rise	682 May 20 j 02:21	15° S 59'27	
minimum elong	676 Apr 07 j 00:33	20° Υ 02'30	0°32'21	retrograde	682 Aug 22 j 13:21	19° S 12'33	
max. Earth dist.	676 Apr 07 j 11:54	20° Υ 04'08	20.76869 AU	opposition	682 Nov 06 j 11:24	17° S 11'14	-0°16'48
morning rise	676 Apr 23 j 12:34	20° Υ 59'02		min. Earth dist.	682 Nov 06 j 11:27	17° S 11'14	18.41152 AU
retrograde	676 Jul 27 j 07:14	24° Υ 09'05		direct	683 Jan 19 j 23:58	15° S 11'26	
opposition	676 Oct 12 j 05:11	22° Υ 08'22	-0°34'32	evening set	683 Apr 21 j 11:17	18° S 19'11	
min. Earth dist.	676 Oct 11 j 20:14	22° Υ 09'18	18.74409 AU				
direct	676 Dec 25 j 19:42	20° Υ 10'17		conjunction	683 May 08 j 02:20	19° S 17'11	-0°13'39
evening set	677 Mar 26 j 02:27	23° Υ 12'22		minimum elong	683 May 08 j 02:20	19° S 17'11	0°13'40
				behind sun begin	683 May 07 j 22:50	19° S 16'41	
conjunction	677 Apr 11 j 12:01	24° Υ 08'38	-0°30'07	behind sun end	683 May 08 j 05:50	19° S 17'41	
minimum elong	677 Apr 11 j 12:01	24° Υ 08'38	0°30'06	max. Earth dist.	683 May 08 j 00:13	19° S 16'53	20.38091 AU
max. Earth dist.	677 Apr 11 j 21:03	24° Υ 09'56	20.71893 AU	morning rise	683 May 24 j 19:41	20° S 15'31	
morning rise	677 Apr 28 j 01:03	25° Υ 05'24		retrograde	683 Aug 27 j 04:34	23° S 29'12	
retrograde	677 Jul 31 j 19:06	28° Υ 15'53		opposition	683 Nov 10 j 22:19	21° S 27'46	-0°13'21
opposition	677 Oct 16 j 13:11	26° Υ 15'01	-0°32'00	min. Earth dist.	683 Nov 11 j 00:26	21° S 27'33	18.34940 AU
min. Earth dist.	677 Oct 16 j 05:23	26° Υ 15'50	18.69324 AU	direct	684 Jan 24 j 11:32	19° S 27'37	
direct	677 Dec 30 j 02:44	24° Υ 16'38		evening set	684 Apr 25 j 03:50	22° S 36'28	
evening set	678 Mar 30 j 13:41	27° Υ 19'29					
				conjunction	684 May 11 j 19:48	23° S 34'47	-0°10'30
conjunction	678 Apr 16 j 00:21	28° Υ 16'02	-0°27'43	minimum elong	684 May 11 j 19:48	23° S 34'47	0°10'29
minimum elong	678 Apr 16 j 00:22	28° Υ 16'02	0°27'44	behind sun begin	684 May 11 j 14:35	23° S 34'02	
max. Earth dist.	678 Apr 16 j 08:39	28° Υ 17'13	20.66701 AU	behind sun end	684 May 12 j 01:01	23° S 35'32	
morning rise	678 May 02 j 14:07	29° Υ 13'03		max. Earth dist.	684 May 11 j 16:38	23° S 34'20	20.31763 AU
	678 May 16 j 21:46	0° S		morning rise	684 May 28 j 13:28	24° S 33'22	
retrograde	678 Aug 05 j 07:15	2° S 23'59		retrograde	684 Aug 30 j 19:46	27° S 47'37	
opposition	678 Oct 20 j 21:34	0° S 23'00	-0°29'16	opposition	684 Nov 14 j 09:47	25° S 46'05	-0°09'47
min. Earth dist.	678 Oct 20 j 15:17	0° S 23'39	18.64031 AU	min. Earth dist.	684 Nov 14 j 13:26	25° S 45'42	18.28503 AU
	678 Oct 30 j 03:47	30° K Υ		direct	685 Jan 27 j 23:45	23° S 45'33	
direct	679 Jan 03 j 10:50	28° Υ 24'21		evening set	685 Apr 29 j 21:36	26° S 55'32	
	679 Mar 07 j 00:45	0° S					
evening set	679 Apr 04 j 01:48	1° S 28'02		conjunction	685 May 16 j 14:07	27° S 54'07	-0°07'16
				minimum elong	685 May 16 j 14:07	27° S 54'07	0°07'16
conjunction	679 Apr 20 j 13:19	2° S 24'51	-0°25'11	behind sun begin	685 May 16 j 07:56	27° S 53'14	
minimum elong	679 Apr 20 j 13:19	2° S 24'51	0°25'11	behind sun end	685 May 16 j 20:18	27° S 55'01	
max. Earth dist.	679 Apr 20 j 19:03	2° S 25'41	20.61331 AU	max. Earth dist.	685 May 16 j 07:32	27° S 53'10	20.25243 AU
morning rise	679 May 07 j 04:00	3° S 22'08		morning rise	685 Jun 02 j 08:24	28° S 52'59	
retrograde	679 Aug 09 j 19:55	6° S 33'35			685 Jun 22 j 16:26	0° II	

retrograde	685 Sep 04 j 11:38	2°II07'46		evening set	691 May 28 j 01:21	23°II24'32	
opposition	685 Nov 18 j 21:43	0°II06'05 -0°06'09					
min. Earth dist.	685 Nov 19 j 03:39	0°II05'27 18.21908 AU		conjunction	691 Jun 13 j 20:28	24°II24'48 0°12'54	
	685 Nov 21 j 06:55	30°R8		minimum elong	691 Jun 13 j 20:28	24°II24'48 0°12'54	
direct	686 Feb 01 j 12:41	28°805'07		behind sun begin	691 Jun 13 j 16:27	24°II24'13	
	686 Apr 11 j 07:53	0°II		behind sun end	691 Jun 14 j 00:30	24°II25'23	
evening set	686 May 04 j 16:07	1°II16'15		max. Earth dist.	691 Jun 13 j 03:13	24°II22'13 19.85716 AU	
				morning rise	691 Jun 30 j 15:25	25°II25'05	
conjunction	686 May 21 j 09:28	2°II15'09 -0°03'58		retrograde	691 Oct 01 j 23:48	28°II42'55	
minimum elong	686 May 21 j 09:27	2°II15'09 0°03'58		opposition	691 Dec 15 j 10:02	26°II40'24 0°16'07	
behind sun begin	686 May 21 j 02:46	2°II14'12		min. Earth dist.	691 Dec 16 j 00:54	26°II38'47 17.82689 AU	
behind sun end	686 May 21 j 16:09	2°II16'07		direct	692 Feb 28 j 08:47	24°II36'50	
max. Earth dist.	686 May 21 j 01:51	2°II14'03 20.18580 AU		evening set	692 Jun 01 j 00:35	27°II55'13	
morning rise	686 Jun 07 j 03:56	3°II14'16					
retrograde	686 Sep 09 j 04:32	6°II29'34		conjunction	692 Jun 17 j 19:57	28°II55'44 0°16'09	
opposition	686 Nov 23 j 10:14	4°II27'44 -0°02'28		minimum elong	692 Jun 17 j 19:57	28°II55'44 0°16'09	
min. Earth dist.	686 Nov 23 j 17:27	4°II26'58 18.15193 AU		max. Earth dist.	692 Jun 17 j 02:11	28°II53'03 19.79737 AU	
direct	687 Feb 06 j 02:42	2°II26'20		morning rise	692 Jul 04 j 14:40	29°II56'12	
evening set	687 May 09 j 11:33	5°II38'39			692 Jul 05 j 16:27	0°0	
				retrograde	692 Oct 05 j 20:46	3°014'32	
conjunction	687 May 26 j 05:16	6°II37'49 -0°00'34		opposition	692 Dec 19 j 02:25	1°011'58 0°19'42	
minimum elong	687 May 26 j 05:16	6°II37'49 0°00'34		min. Earth dist.	692 Dec 19 j 17:25	1°010'21 17.76862 AU	
behind sun begin	687 May 25 j 22:30	6°II36'51			693 Jan 17 j 14:03	30°RII	
behind sun end	687 May 26 j 12:01	6°II38'48		direct	693 Mar 04 j 03:19	29°II08'04	
max. Earth dist.	687 May 25 j 18:30	6°II36'14 20.11842 AU			693 Apr 17 j 22:46	0°0	
morning rise	687 Jun 12 j 00:08	7°II37'11		evening set	693 Jun 06 j 00:57	2°027'41	
asc. node	687 Jul 25 j 01:30	9°II48'07					
retrograde	687 Sep 13 j 21:04	10°II53'01		conjunction	693 Jun 22 j 20:16	3°028'26 0°19'19	
opposition	687 Nov 27 j 23:22	8°II51'01 0°01'17		minimum elong	693 Jun 22 j 20:16	3°028'26 0°19'18	
min. Earth dist.	687 Nov 28 j 08:47	8°II50'00 18.08457 AU		max. Earth dist.	693 Jun 22 j 00:36	3°025'27 19.74065 AU	
direct	688 Feb 10 j 16:34	6°II49'09		morning rise	693 Jul 09 j 14:43	4°029'06	
evening set	688 May 13 j 07:40	10°II02'39		retrograde	693 Oct 10 j 16:34	7°047'55	
				opposition	693 Dec 23 j 19:33	5°045'21 0°23'11	
conjunction	688 May 30 j 02:03	11°II02'07 0°02'54		min. Earth dist.	693 Dec 24 j 12:34	5°043'30 17.71363 AU	
minimum elong	688 May 30 j 02:01	11°II02'07 0°02'53		direct	694 Mar 08 j 21:24	3°041'08	
behind sun begin	688 May 29 j 19:16	11°II01'08		evening set	694 Jun 11 j 02:02	7°001'59	
behind sun end	688 May 30 j 08:47	11°II03'06					
max. Earth dist.	688 May 29 j 14:34	11°II00'26 20.05117 AU		conjunction	694 Jun 27 j 21:20	8°002'57 0°22'22	
morning rise	688 Jun 15 j 20:55	12°II01'43		minimum elong	694 Jun 27 j 21:20	8°002'57 0°22'23	
retrograde	688 Sep 17 j 15:45	15°II18'03		max. Earth dist.	694 Jun 27 j 00:50	7°059'50 19.68730 AU	
opposition	688 Dec 01 j 12:58	13°II15'54 0°05'01		morning rise	694 Jul 14 j 15:23	9°003'47	
min. Earth dist.	688 Dec 01 j 23:17	13°II14'48 18.01763 AU		retrograde	694 Oct 15 j 14:48	12°023'05	
direct	689 Feb 14 j 08:08	11°II13'35		opposition	694 Dec 28 j 13:25	10°020'32 0°26'32	
evening set	689 May 18 j 04:45	14°II28'17		min. Earth dist.	694 Dec 29 j 06:32	10°018'40 17.66184 AU	
				direct	695 Mar 13 j 17:53	8°016'04	
conjunction	689 Jun 03 j 23:21	15°II28'02 0°06'16		evening set	695 Jun 16 j 03:50	11°038'08	
minimum elong	689 Jun 03 j 23:22	15°II28'02 0°06'17					
behind sun begin	689 Jun 03 j 16:58	15°II27'06		conjunction	695 Jul 02 j 22:53	12°039'17 0°25'19	
behind sun end	689 Jun 04 j 05:46	15°II28'58		minimum elong	695 Jul 02 j 22:53	12°039'17 0°25'19	
max. Earth dist.	689 Jun 03 j 09:05	15°II25'54 19.98474 AU		max. Earth dist.	695 Jul 02 j 01:01	12°035'57 19.63696 AU	
morning rise	689 Jun 20 j 18:30	16°II27'53		morning rise	695 Jul 19 j 16:22	13°040'15	
retrograde	689 Sep 22 j 09:14	19°II44'43		retrograde	695 Oct 20 j 11:39	17°000'01	
opposition	689 Dec 06 j 03:22	17°II42'25 0°08'46		opposition	696 Jan 02 j 08:14	14°057'31 0°29'45	
min. Earth dist.	689 Dec 06 j 15:48	17°II41'04 17.95197 AU		min. Earth dist.	696 Jan 03 j 03:23	14°055'26 17.61315 AU	
direct	690 Feb 18 j 23:12	15°II39'38		direct	696 Mar 17 j 13:43	12°052'48	
evening set	690 May 23 j 02:35	18°II55'34		evening set	696 Jun 20 j 06:22	16°016'01	
				max. Earth dist.	696 Jul 06 j 02:01	17°013'48 19.58974 AU	
conjunction	690 Jun 08 j 21:39	19°II55'35 0°09'36					
minimum elong	690 Jun 08 j 21:39	19°II55'35 0°09'36		conjunction	696 Jul 07 j 01:07	17°017'21 0°28'07	
behind sun begin	690 Jun 08 j 16:05	19°II54'46		minimum elong	696 Jul 07 j 01:07	17°017'21 0°28'07	
behind sun end	690 Jun 09 j 03:12	19°II56'24		morning rise	696 Jul 23 j 18:05	18°018'26	
max. Earth dist.	690 Jun 08 j 06:46	19°II53'21 19.91986 AU		retrograde	696 Oct 24 j 10:34	21°038'38	
morning rise	690 Jun 25 j 16:39	20°II55'39		opposition	697 Jan 06 j 03:32	19°036'09 0°32'47	
retrograde	690 Sep 27 j 05:11	24°II12'59		min. Earth dist.	697 Jan 06 j 22:46	19°034'03 17.56739 AU	
opposition	690 Dec 10 j 18:14	22°II10'34 0°12'28		direct	697 Mar 22 j 12:12	17°031'11	
min. Earth dist.	690 Dec 11 j 07:10	22°II09'10 17.88812 AU		evening set	697 Jun 25 j 09:34	20°055'31	
direct	691 Feb 23 j 16:12	20°II07'23		max. Earth dist.	697 Jul 11 j 03:57	21°053'18 19.54527 AU	

conjunction	697 Jul 12 j 04:00	21°☾57'00	0°30'46	minimum elong	703 Aug 11 j 01:23	20°♈17'36	0°41'53
minimum elong	697 Jul 12 j 04:00	21°☾57'00	0°30'46	morning rise	703 Aug 27 j 12:03	21°♈18'56	
morning rise	697 Jul 28 j 20:12	22°☾58'11		retrograde	703 Nov 27 j 04:47	24°♈40'38	
retrograde	697 Oct 29 j 08:20	26°☾18'45		opposition	704 Feb 08 j 13:28	22°♈38'13	0°47'15
opposition	698 Jan 10 j 23:52	24°☾16'18	0°35'38	min. Earth dist.	704 Feb 09 j 12:15	22°♈35'44	17.34789 AU
min. Earth dist.	698 Jan 11 j 21:01	24°☾14'00	17.52445 AU	direct	704 Apr 24 j 16:57	20°♈31'48	
direct	698 Mar 27 j 10:18	22°☾11'06		evening set	704 Jul 29 j 15:35	24°♈01'18	
evening set	698 Jun 30 j 13:18	25°☾36'26		max. Earth dist.	704 Aug 14 j 02:03	24°♈58'53	19.34110 AU
max. Earth dist.	698 Jul 16 j 05:33	26°☾34'05	19.50383 AU				
conjunction	698 Jul 17 j 07:08	26°☾38'02	0°33'12	conjunction	704 Aug 15 j 04:47	25°♈03'05	0°42'49
minimum elong	698 Jul 17 j 07:08	26°☾38'02	0°33'12	minimum elong	704 Aug 15 j 04:47	25°♈03'05	0°42'49
morning rise	698 Aug 02 j 22:41	27°☾39'19		morning rise	704 Aug 31 j 14:30	26°♈04'22	
	698 Sep 16 j 21:20	0°♈		retrograde	704 Dec 01 j 04:52	29°♈26'05	
retrograde	698 Nov 03 j 07:30	1°♈00'12		opposition	705 Feb 12 j 13:15	27°♈23'42	0°48'07
	698 Dec 21 j 22:41	30°♈☾		min. Earth dist.	705 Feb 13 j 11:32	27°♈21'16	17.33686 AU
opposition	699 Jan 15 j 20:40	28°☾57'46	0°38'15	direct	705 Apr 29 j 18:50	25°♈17'12	
min. Earth dist.	699 Jan 16 j 17:44	28°☾55'28	17.48462 AU	evening set	705 Aug 03 j 19:51	28°♈47'03	
direct	699 Apr 01 j 10:55	26°☾52'19		max. Earth dist.	705 Aug 19 j 07:15	29°♈44'52	19.33322 AU
	699 Jun 30 j 13:07	0°♈		conjunction	705 Aug 20 j 08:12	29°♈48'47	0°43'26
evening set	699 Jul 05 j 17:19	0°♈18'36		minimum elong	705 Aug 20 j 08:12	29°♈48'47	0°43'26
max. Earth dist.	699 Jul 21 j 08:59	1°♈16'19	19.46558 AU		705 Aug 23 j 07:35	0°♈	
conjunction	699 Jul 22 j 10:42	1°♈20'18	0°35'26	morning rise	705 Sep 05 j 16:39	0°♈49'58	
minimum elong	699 Jul 22 j 10:42	1°♈20'18	0°35'27	retrograde	705 Dec 06 j 04:57	4°♈11'40	
morning rise	699 Aug 08 j 01:15	2°♈21'38		opposition	706 Feb 17 j 13:37	2°♈09'22	0°48'40
retrograde	699 Nov 08 j 05:48	5°♈42'47		min. Earth dist.	706 Feb 18 j 11:07	2°♈07'01	17.33214 AU
opposition	700 Jan 20 j 18:15	3°♈40'22	0°40'37	direct	706 May 04 j 21:50	0°♈02'52	
min. Earth dist.	700 Jan 21 j 16:46	3°♈37'54	17.44824 AU	evening set	706 Aug 08 j 23:57	3°♈32'57	
direct	700 Apr 05 j 10:35	1°♈34'41		max. Earth dist.	706 Aug 24 j 10:09	4°♈30'39	19.33179 AU
evening set	700 Jul 09 j 21:35	5°♈01'48		conjunction	706 Aug 25 j 11:05	4°♈34'35	0°43'47
max. Earth dist.	700 Jul 25 j 11:03	5°♈59'21	19.43118 AU	minimum elong	706 Aug 25 j 11:05	4°♈34'35	0°43'47
conjunction	700 Jul 26 j 14:13	6°♈03'34	0°37'26	morning rise	706 Sep 10 j 18:28	5°♈35'40	
minimum elong	700 Jul 26 j 14:13	6°♈03'34	0°37'26	retrograde	706 Dec 11 j 04:06	8°♈57'19	
morning rise	700 Aug 12 j 04:05	7°♈04'57		opposition	707 Feb 22 j 14:19	6°♈55'08	0°48'53
retrograde	700 Nov 12 j 05:42	10°♈26'20		min. Earth dist.	707 Feb 23 j 11:18	6°♈52'51	17.33400 AU
opposition	701 Jan 24 j 16:14	8°♈23'53	0°42'43	direct	707 May 10 j 00:03	4°♈48'42	
min. Earth dist.	701 Jan 25 j 14:32	8°♈21'27	17.41589 AU	evening set	707 Aug 14 j 03:42	8°♈18'54	
direct	701 Apr 10 j 12:35	6°♈17'58		conjunction	707 Aug 30 j 13:51	9°♈20'25	0°43'49
evening set	701 Jul 15 j 02:05	9°♈45'51		minimum elong	707 Aug 30 j 13:51	9°♈20'25	0°43'49
conjunction	701 Jul 31 j 18:07	10°♈47'41	0°39'12	max. Earth dist.	707 Aug 29 j 14:47	9°♈16'48	19.33684 AU
minimum elong	701 Jul 31 j 18:07	10°♈47'41	0°39'12	morning rise	707 Sep 15 j 20:02	10°♈21'23	
max. Earth dist.	701 Jul 30 j 15:38	10°♈43'33	19.40089 AU	retrograde	707 Dec 16 j 04:20	13°♈42'56	
morning rise	701 Aug 17 j 06:50	11°♈49'04		opposition	708 Feb 27 j 15:10	11°♈40'54	0°48'45
	701 Oct 28 j 19:38	15°♈		min. Earth dist.	708 Feb 28 j 10:54	11°♈38'45	17.34197 AU
retrograde	701 Nov 17 j 04:39	15°♈10'35		direct	708 May 14 j 04:21	9°♈34'35	
	701 Dec 06 j 19:27	15°♈♈		evening set	708 Aug 18 j 07:12	13°♈04'48	
opposition	702 Jan 29 j 14:49	13°♈08'10	0°44'32	conjunction	708 Sep 03 j 16:11	14°♈06'11	0°43'33
min. Earth dist.	702 Jan 30 j 14:00	13°♈05'38	17.38792 AU	minimum elong	708 Sep 03 j 16:11	14°♈06'11	0°43'33
direct	702 Apr 15 j 13:20	11°♈02'02		max. Earth dist.	708 Sep 02 j 17:36	14°♈02'38	19.34775 AU
evening set	702 Jul 20 j 06:46	14°♈30'34		morning rise	708 Sep 19 j 21:15	15°♈07'00	
	702 Jul 28 j 06:01	15°♈		retrograde	708 Dec 20 j 02:49	18°♈28'26	
conjunction	702 Aug 05 j 21:49	15°♈32'24	0°40'41	opposition	709 Mar 03 j 16:24	16°♈26'33	0°48'18
minimum elong	702 Aug 05 j 21:49	15°♈32'24	0°40'41	min. Earth dist.	709 Mar 04 j 11:58	16°♈24'26	17.35568 AU
max. Earth dist.	702 Aug 04 j 18:12	15°♈28'06	19.37544 AU	direct	709 May 19 j 07:04	14°♈20'23	
morning rise	702 Aug 22 j 09:41	16°♈33'47		evening set	709 Aug 23 j 10:18	17°♈50'31	
retrograde	702 Nov 22 j 05:04	19°♈55'26		conjunction	709 Sep 08 j 18:09	18°♈51'44	0°43'00
opposition	703 Feb 03 j 13:53	17°♈53'00	0°46'03	minimum elong	709 Sep 08 j 18:09	18°♈51'44	0°43'01
min. Earth dist.	703 Feb 04 j 12:39	17°♈50'30	17.36514 AU	max. Earth dist.	709 Sep 07 j 21:04	18°♈48'24	19.36409 AU
direct	703 Apr 20 j 15:24	15°♈46'41		morning rise	709 Sep 24 j 22:02	19°♈52'22	
evening set	703 Jul 25 j 11:04	19°♈15'46		retrograde	709 Dec 25 j 03:01	23°♈13'36	
max. Earth dist.	703 Aug 09 j 23:17	20°♈13'30	19.35532 AU	opposition	710 Mar 08 j 17:48	21°♈11'53	0°47'31
conjunction	703 Aug 11 j 01:23	20°♈17'36	0°41'53	min. Earth dist.	710 Mar 09 j 11:43	21°♈09'57	17.37436 AU
				direct	710 May 24 j 12:13	19°♈05'55	

evening set	710 Aug 28 j 12:59	22° <u>♏</u> 35'48		max. Earth dist.	716 Oct 11 j 03:21	21° <u>♏</u> 45'33	19.59418 AU
				morning rise	716 Oct 27 j 10:22	22° <u>♏</u> 46'17	
conjunction	710 Sep 13 j 19:39	23° <u>♏</u> 36'50	0°42'09	retrograde	717 Jan 26 j 12:13	26° <u>♏</u> 04'50	
minimum elong	710 Sep 13 j 19:39	23° <u>♏</u> 36'50	0°42'09	opposition	717 Apr 11 j 02:31	24° <u>♏</u> 03'53	0°33'39
max. Earth dist.	710 Sep 12 j 23:36	23° <u>♏</u> 33'41	19.38515 AU	min. Earth dist.	717 Apr 11 j 12:06	24° <u>♏</u> 02'53	17.61749 AU
morning rise	710 Sep 29 j 22:20	24° <u>♏</u> 37'18		direct	717 Jun 27 j 06:55	21° <u>♏</u> 59'27	
retrograde	710 Dec 30 j 01:03	27° <u>♏</u> 58'18		evening set	717 Sep 30 j 10:54	25° <u>♏</u> 24'38	
opposition	711 Mar 13 j 19:29	25° <u>♏</u> 56'44	0°46'24				
min. Earth dist.	711 Mar 14 j 13:16	25° <u>♏</u> 54'49	17.39776 AU	conjunction	717 Oct 16 j 09:41	26° <u>♏</u> 23'55	0°28'54
direct	711 May 29 j 14:39	23° <u>♏</u> 50'57		minimum elong	717 Oct 16 j 09:41	26° <u>♏</u> 23'55	0°28'54
evening set	711 Sep 02 j 14:55	27° <u>♏</u> 20'29		max. Earth dist.	717 Oct 16 j 00:12	26° <u>♏</u> 22'26	19.64175 AU
				morning rise	717 Nov 01 j 05:31	27° <u>♏</u> 22'46	
conjunction	711 Sep 18 j 20:24	28° <u>♏</u> 21'18	0°41'01		717 Dec 23 j 12:32	0° <u>♏</u>	
minimum elong	711 Sep 18 j 20:24	28° <u>♏</u> 21'18	0°41'01	retrograde	718 Jan 31 j 09:05	0° <u>♏</u> 40'48	
max. Earth dist.	711 Sep 18 j 01:31	28° <u>♏</u> 18'20	19.41074 AU		718 Mar 12 j 11:48	30° <u>♏</u>	
morning rise	711 Oct 04 j 22:04	29° <u>♏</u> 21'34		opposition	718 Apr 16 j 02:36	28° <u>♏</u> 39'56	0°30'41
	711 Oct 15 j 13:30	0° <u>♏</u>		min. Earth dist.	718 Apr 16 j 09:24	28° <u>♏</u> 39'13	17.66700 AU
retrograde	712 Jan 04 j 01:04	2° <u>♏</u> 42'17		direct	718 Jul 02 j 07:54	26° <u>♏</u> 35'47	
opposition	712 Mar 17 j 21:02	0° <u>♏</u> 40'51	0°44'59	evening set	718 Oct 05 j 06:54	29° <u>♏</u> 59'58	
min. Earth dist.	712 Mar 18 j 12:47	0° <u>♏</u> 39'09	17.42524 AU		718 Oct 05 j 07:09	0° <u>♏</u>	
	712 Apr 03 j 01:00	30° <u>♏</u>					
direct	712 Jun 02 j 19:32	28° <u>♏</u> 35'16		conjunction	718 Oct 21 j 04:51	0° <u>♏</u> 58'57	0°26'11
	712 Jul 30 j 21:47	0° <u>♏</u>		minimum elong	718 Oct 21 j 04:51	0° <u>♏</u> 58'57	0°26'10
evening set	712 Sep 06 j 16:22	2° <u>♏</u> 04'20		max. Earth dist.	718 Oct 20 j 22:38	0° <u>♏</u> 58'00	19.69322 AU
				morning rise	718 Nov 05 j 23:43	1° <u>♏</u> 57'32	
conjunction	712 Sep 22 j 20:45	3° <u>♏</u> 04'56	0°39'36	retrograde	719 Feb 05 j 03:57	5° <u>♏</u> 15'02	
minimum elong	712 Sep 22 j 20:45	3° <u>♏</u> 04'56	0°39'36	opposition	719 Apr 21 j 02:18	3° <u>♏</u> 14'18	0°27'33
max. Earth dist.	712 Sep 22 j 03:27	3° <u>♏</u> 02'13	19.44015 AU	min. Earth dist.	719 Apr 21 j 07:42	3° <u>♏</u> 13'44	17.72036 AU
morning rise	712 Oct 08 j 21:12	4° <u>♏</u> 04'59		direct	719 Jul 07 j 08:29	1° <u>♏</u> 10'31	
retrograde	713 Jan 07 j 22:27	7° <u>♏</u> 25'20		evening set	719 Oct 10 j 02:03	4° <u>♏</u> 33'38	
opposition	713 Mar 22 j 22:34	5° <u>♏</u> 24'02	0°43'15				
min. Earth dist.	713 Mar 23 j 14:14	5° <u>♏</u> 22'22	17.45655 AU	conjunction	719 Oct 25 j 22:55	5° <u>♏</u> 32'20	0°23'18
direct	713 Jun 07 j 21:43	3° <u>♏</u> 18'40		minimum elong	719 Oct 25 j 22:55	5° <u>♏</u> 32'20	0°23'19
evening set	713 Sep 11 j 17:09	6° <u>♏</u> 47'10		max. Earth dist.	719 Oct 25 j 17:45	5° <u>♏</u> 31'32	19.74854 AU
				morning rise	719 Nov 10 j 17:15	6° <u>♏</u> 30'39	
conjunction	713 Sep 27 j 20:16	7° <u>♏</u> 47'31	0°37'55	retrograde	720 Feb 09 j 23:25	9° <u>♏</u> 47'39	
minimum elong	713 Sep 27 j 20:17	7° <u>♏</u> 47'31	0°37'55	opposition	720 Apr 25 j 01:24	7° <u>♏</u> 47'02	0°24'17
max. Earth dist.	713 Sep 27 j 03:50	7° <u>♏</u> 44'56	19.47338 AU	min. Earth dist.	720 Apr 25 j 04:12	7° <u>♏</u> 46'45	17.77744 AU
morning rise	713 Oct 13 j 19:48	8° <u>♏</u> 47'21		direct	720 Jul 11 j 08:08	5° <u>♏</u> 43'37	
retrograde	714 Jan 12 j 21:38	12° <u>♏</u> 07'18		evening set	720 Oct 13 j 20:11	9° <u>♏</u> 05'41	
opposition	714 Mar 27 j 23:57	10° <u>♏</u> 06'07	0°41'14				
min. Earth dist.	714 Mar 28 j 13:17	10° <u>♏</u> 04'42	17.49145 AU	conjunction	720 Oct 29 j 16:20	10° <u>♏</u> 04'06	0°20'18
direct	714 Jun 13 j 01:39	8° <u>♏</u> 00'58		minimum elong	720 Oct 29 j 16:20	10° <u>♏</u> 04'06	0°20'18
evening set	714 Sep 16 j 16:52	11° <u>♏</u> 28'45		max. Earth dist.	720 Oct 29 j 14:23	10° <u>♏</u> 03'48	19.80726 AU
				morning rise	720 Nov 14 j 09:50	11° <u>♏</u> 02'09	
conjunction	714 Oct 02 j 18:58	12° <u>♏</u> 28'52	0°36'00	retrograde	721 Feb 13 j 17:04	14° <u>♏</u> 18'36	
minimum elong	714 Oct 02 j 18:58	12° <u>♏</u> 28'52	0°36'00	opposition	721 Apr 30 j 00:04	12° <u>♏</u> 18'11	0°20'52
max. Earth dist.	714 Oct 02 j 04:51	12° <u>♏</u> 26'39	19.51006 AU	min. Earth dist.	721 Apr 30 j 01:16	12° <u>♏</u> 18'03	17.83752 AU
morning rise	714 Oct 18 j 17:21	13° <u>♏</u> 28'28		direct	721 Jul 16 j 07:49	10° <u>♏</u> 15'11	
retrograde	715 Jan 17 j 18:24	16° <u>♏</u> 47'59		evening set	721 Oct 18 j 13:37	13° <u>♏</u> 36'08	
opposition	715 Apr 02 j 01:17	14° <u>♏</u> 46'53	0°38'56				
min. Earth dist.	715 Apr 02 j 14:11	14° <u>♏</u> 45'31	17.52987 AU	conjunction	721 Nov 03 j 08:46	14° <u>♏</u> 34'15	0°17'12
direct	715 Jun 18 j 03:22	12° <u>♏</u> 41'58		minimum elong	721 Nov 03 j 08:46	14° <u>♏</u> 34'15	0°17'12
evening set	715 Sep 21 j 15:52	16° <u>♏</u> 08'58		max. Earth dist.	721 Nov 03 j 07:51	14° <u>♏</u> 34'07	19.86877 AU
					721 Nov 10 j 07:40	15° <u>♏</u>	
conjunction	715 Oct 07 j 16:46	17° <u>♏</u> 08'48	0°33'50	morning rise	721 Nov 19 j 01:50	15° <u>♏</u> 32'03	
minimum elong	715 Oct 07 j 16:46	17° <u>♏</u> 08'48	0°33'50	retrograde	722 Feb 18 j 11:25	18° <u>♏</u> 47'59	
max. Earth dist.	715 Oct 07 j 03:29	17° <u>♏</u> 06'43	19.55036 AU	opposition	722 May 04 j 22:19	16° <u>♏</u> 47'44	0°17'21
morning rise	715 Oct 23 j 14:22	18° <u>♏</u> 08'10		min. Earth dist.	722 May 04 j 21:18	16° <u>♏</u> 47'50	17.90021 AU
retrograde	716 Jan 22 j 16:24	21° <u>♏</u> 27'13			722 Jun 26 j 19:41	15° <u>♏</u>	
opposition	716 Apr 06 j 01:55	19° <u>♏</u> 26'11	0°36'24	direct	722 Jul 21 j 05:42	14° <u>♏</u> 45'10	
min. Earth dist.	716 Apr 06 j 12:21	19° <u>♏</u> 25'05	17.57188 AU		722 Aug 14 j 04:55	15° <u>♏</u>	
direct	716 Jun 22 j 05:45	17° <u>♏</u> 21'29		evening set	722 Oct 23 j 05:53	18° <u>♏</u> 04'59	
evening set	716 Sep 25 j 13:49	20° <u>♏</u> 47'37					
				conjunction	722 Nov 08 j 00:26	19° <u>♏</u> 02'48	0°14'01
conjunction	716 Oct 11 j 13:49	21° <u>♏</u> 47'12	0°31'28	minimum elong	722 Nov 08 j 00:26	19° <u>♏</u> 02'48	0°14'01
minimum elong	716 Oct 11 j 13:50	21° <u>♏</u> 47'12	0°31'28	behind sun begin	722 Nov 07 j 21:00	19° <u>♏</u> 02'17	

behind sun end	722 Nov 08 j 03:52	19° \mathbb{M} 03'19		retrograde	728 Mar 16 j 09:21	15° \mathbb{X} 09'00	
max. Earth dist.	722 Nov 08 j 02:34	19° \mathbb{M} 03'07	19.93239 AU	opposition	728 May 31 j 23:28	13° \mathbb{X} 09'32	-0°04'43
morning rise	722 Nov 23 j 16:51	20° \mathbb{M} 00'21		min. Earth dist.	728 May 31 j 13:14	13° \mathbb{X} 10'34	18.28701 AU
retrograde	723 Feb 23 j 03:51	23° \mathbb{M} 15'45		direct	728 Aug 17 j 01:21	11° \mathbb{X} 09'15	
opposition	723 May 09 j 20:02	21° \mathbb{M} 15'41	0°13'45	evening set	728 Nov 17 j 14:58	14° \mathbb{X} 21'50	
min. Earth dist.	723 May 09 j 17:15	21° \mathbb{M} 15'58	17.96448 AU				
direct	723 Jul 26 j 03:53	19° \mathbb{M} 13'33		conjunction	728 Dec 03 j 06:16	15° \mathbb{X} 18'00	-0°05'57
evening set	723 Oct 27 j 21:35	22° \mathbb{M} 32'11		minimum elong	728 Dec 03 j 06:16	15° \mathbb{X} 18'00	0°05'57
				behind sun begin	728 Dec 03 j 00:01	15° \mathbb{X} 17'05	
conjunction	723 Nov 12 j 15:16	23° \mathbb{M} 29'43	0°10'45	behind sun end	728 Dec 03 j 12:30	15° \mathbb{X} 18'55	
minimum elong	723 Nov 12 j 15:16	23° \mathbb{M} 29'43	0°10'45	max. Earth dist.	728 Dec 03 j 17:56	15° \mathbb{X} 19'45	20.31791 AU
behind sun begin	723 Nov 12 j 10:11	23° \mathbb{M} 28'57		morning rise	728 Dec 18 j 21:04	16° \mathbb{X} 14'07	
behind sun end	723 Nov 12 j 20:21	23° \mathbb{M} 30'28		retrograde	729 Mar 20 j 23:37	19° \mathbb{X} 26'10	
max. Earth dist.	723 Nov 12 j 18:17	23° \mathbb{M} 30'09	19.99725 AU	opposition	729 Jun 05 j 17:15	17° \mathbb{X} 26'45	-0°08'20
morning rise	723 Nov 28 j 07:23	24° \mathbb{M} 27'01		min. Earth dist.	729 Jun 05 j 04:50	17° \mathbb{X} 28'00	18.34818 AU
retrograde	724 Feb 27 j 20:46	27° \mathbb{M} 41'52		direct	729 Aug 21 j 19:39	15° \mathbb{X} 26'46	
opposition	724 May 13 j 17:01	25° \mathbb{M} 41'58	0°10'05	evening set	729 Nov 22 j 01:35	18° \mathbb{X} 38'08	
min. Earth dist.	724 May 13 j 12:40	25° \mathbb{M} 42'25	18.02980 AU				
direct	724 Jul 29 j 23:37	23° \mathbb{M} 40'14		conjunction	729 Dec 07 j 16:28	19° \mathbb{X} 34'02	-0°09'10
evening set	724 Oct 31 j 12:20	26° \mathbb{M} 57'43		minimum elong	729 Dec 07 j 16:28	19° \mathbb{X} 34'02	0°09'10
				behind sun begin	729 Dec 07 j 10:54	19° \mathbb{X} 33'13	
conjunction	724 Nov 16 j 05:32	27° \mathbb{M} 54'57	0°07'27	behind sun end	729 Dec 07 j 22:03	19° \mathbb{X} 34'51	
minimum elong	724 Nov 16 j 05:32	27° \mathbb{M} 54'57	0°07'28	max. Earth dist.	729 Dec 08 j 05:14	19° \mathbb{X} 35'57	20.37843 AU
behind sun begin	724 Nov 15 j 23:32	27° \mathbb{M} 54'04		morning rise	729 Dec 23 j 07:21	20° \mathbb{X} 29'57	
behind sun end	724 Nov 16 j 11:31	27° \mathbb{M} 55'51		retrograde	730 Mar 25 j 12:10	23° \mathbb{X} 41'28	
max. Earth dist.	724 Nov 16 j 11:09	27° \mathbb{M} 55'47	20.06273 AU	opposition	730 Jun 10 j 10:26	21° \mathbb{X} 42'02	-0°11'53
morning rise	724 Dec 01 j 21:07	28° \mathbb{M} 52'00		min. Earth dist.	730 Jun 09 j 21:19	21° \mathbb{X} 43'22	18.40824 AU
	724 Dec 21 j 19:07	0° \mathbb{X}		direct	730 Aug 26 j 10:00	19° \mathbb{X} 42'20	
retrograde	725 Mar 03 j 12:34	2° \mathbb{X} 06'18		evening set	730 Nov 26 j 11:09	22° \mathbb{X} 52'30	
opposition	725 May 18 j 13:37	0° \mathbb{X} 06'33	0°06'23				
min. Earth dist.	725 May 18 j 07:22	0° \mathbb{X} 07'12	18.09520 AU	conjunction	730 Dec 12 j 01:57	23° \mathbb{X} 48'11	-0°12'19
	725 May 21 j 05:32	30° \mathbb{R} \mathbb{M}		minimum elong	730 Dec 12 j 01:56	23° \mathbb{X} 48'11	0°12'20
direct	725 Aug 03 j 20:16	28° \mathbb{M} 05'15		behind sun begin	730 Dec 11 j 21:32	23° \mathbb{X} 47'32	
	725 Oct 11 j 18:28	0° \mathbb{X}		behind sun end	730 Dec 12 j 06:21	23° \mathbb{X} 48'49	
evening set	725 Nov 05 j 02:17	1° \mathbb{X} 21'30		max. Earth dist.	730 Dec 12 j 16:46	23° \mathbb{X} 50'23	20.43792 AU
				morning rise	730 Dec 27 j 16:49	24° \mathbb{X} 43'53	
conjunction	725 Nov 20 j 18:43	2° \mathbb{X} 18'27	0°04'08	retrograde	731 Mar 30 j 01:14	27° \mathbb{X} 54'52	
minimum elong	725 Nov 20 j 18:44	2° \mathbb{X} 18'27	0°04'08	min. Earth dist.	731 Jun 14 j 11:07	25° \mathbb{X} 57'02	18.46719 AU
behind sun begin	725 Nov 20 j 12:16	2° \mathbb{X} 17'29		opposition	731 Jun 15 j 02:39	25° \mathbb{X} 55'28	-0°15'20
behind sun end	725 Nov 21 j 01:12	2° \mathbb{X} 19'24		direct	731 Aug 31 j 02:24	23° \mathbb{X} 56'03	
max. Earth dist.	725 Nov 21 j 01:14	2° \mathbb{X} 19'25	20.12799 AU	evening set	731 Nov 30 j 20:13	27° \mathbb{X} 05'04	
morning rise	725 Dec 06 j 10:07	3° \mathbb{X} 15'15					
retrograde	726 Mar 08 j 04:05	6° \mathbb{X} 29'01		conjunction	731 Dec 16 j 10:44	28° \mathbb{X} 00'31	-0°15'22
opposition	726 May 23 j 09:40	4° \mathbb{X} 29'23	0°02'40	minimum elong	731 Dec 16 j 10:44	28° \mathbb{X} 00'31	0°15'22
min. Earth dist.	726 May 23 j 02:12	4° \mathbb{X} 30'09	18.16028 AU	behind sun begin	731 Dec 16 j 08:31	28° \mathbb{X} 00'12	
direct	726 Aug 08 j 13:57	2° \mathbb{X} 28'27		behind sun end	731 Dec 16 j 12:58	28° \mathbb{X} 00'51	
evening set	726 Nov 09 j 15:21	5° \mathbb{X} 43'29		max. Earth dist.	731 Dec 17 j 02:45	28° \mathbb{X} 02'54	20.49632 AU
				morning rise	732 Jan 01 j 01:46	28° \mathbb{X} 56'03	
conjunction	726 Nov 25 j 07:26	6° \mathbb{X} 40'10	0°00'45		732 Jan 20 j 06:03	0° \mathbb{Z}	
minimum elong	726 Nov 25 j 07:26	6° \mathbb{X} 40'10	0°00'46	retrograde	732 Apr 02 j 12:45	2° \mathbb{Z} 06'32	
behind sun begin	726 Nov 25 j 00:54	6° \mathbb{X} 39'12		opposition	732 Jun 18 j 18:11	0° \mathbb{Z} 07'10	-0°18'40
behind sun end	726 Nov 25 j 13:58	6° \mathbb{X} 41'08		min. Earth dist.	732 Jun 18 j 02:04	0° \mathbb{Z} 08'47	18.52529 AU
max. Earth dist.	726 Nov 25 j 16:13	6° \mathbb{X} 41'29	20.19261 AU		732 Jun 21 j 17:09	30° \mathbb{R} \mathbb{X}	
morning rise	726 Dec 10 j 22:28	7° \mathbb{X} 36'44		direct	732 Sep 03 j 14:58	28° \mathbb{X} 08'02	
desc. node	727 Feb 13 j 04:28	10° \mathbb{X} 30'02			732 Nov 10 j 23:53	0° \mathbb{Z}	
retrograde	727 Mar 12 j 19:22	10° \mathbb{X} 49'55		evening set	732 Dec 04 j 04:30	1° \mathbb{Z} 15'59	
opposition	727 May 28 j 04:51	8° \mathbb{X} 50'24	-0°01'02				
min. Earth dist.	727 May 27 j 19:25	8° \mathbb{X} 51'21	18.22429 AU	conjunction	732 Dec 19 j 19:00	2° \mathbb{Z} 11'13	-0°18'20
direct	727 Aug 13 j 09:28	6° \mathbb{X} 49'48		minimum elong	732 Dec 19 j 19:00	2° \mathbb{Z} 11'13	0°18'20
evening set	727 Nov 14 j 03:40	10° \mathbb{X} 03'37		max. Earth dist.	732 Dec 20 j 12:51	2° \mathbb{Z} 13'52	20.55396 AU
				morning rise	733 Jan 04 j 10:08	3° \mathbb{Z} 06'35	
conjunction	727 Nov 29 j 19:13	11° \mathbb{X} 00'02	-0°02'40	retrograde	733 Apr 07 j 00:56	6° \mathbb{Z} 16'36	
minimum elong	727 Nov 29 j 19:13	11° \mathbb{X} 00'02	0°02'40	opposition	733 Jun 23 j 09:02	4° \mathbb{Z} 17'18	-0°21'53
behind sun begin	727 Nov 29 j 12:42	10° \mathbb{X} 59'04		min. Earth dist.	733 Jun 22 j 14:24	4° \mathbb{Z} 19'10	18.58238 AU
behind sun end	727 Nov 30 j 01:45	11° \mathbb{X} 01'00		direct	733 Sep 08 j 05:16	2° \mathbb{Z} 18'29	
max. Earth dist.	727 Nov 30 j 04:48	11° \mathbb{X} 01'28	20.25594 AU	evening set	733 Dec 08 j 12:07	5° \mathbb{Z} 25'24	
morning rise	727 Dec 15 j 10:13	11° \mathbb{X} 56'23					

conjunction	733 Dec 24 j 02:32	6° $\overline{3}$ 20'27 -0°21'10	retrograde	740 May 06 j 01:03	4° \approx 54'46	
minimum elong	733 Dec 24 j 02:32	6° $\overline{3}$ 20'27 0°21'10	min. Earth dist.	740 Jul 22 j 01:26	2° \approx 58'14	18.91564 AU
max. Earth dist.	733 Dec 24 j 21:37	6° $\overline{3}$ 23'16 20.61039 AU	opposition	740 Jul 23 j 00:20	2° \approx 55'57	-0°40'00
morning rise	734 Jan 08 j 17:59	7° $\overline{3}$ 15'39	direct	740 Oct 07 j 04:33	0° \approx 59'07	
retrograde	734 Apr 11 j 11:57	10° $\overline{3}$ 25'16	evening set	741 Jan 05 j 06:16	4° \approx 00'21	
opposition	734 Jun 27 j 23:22	8° $\overline{3}$ 26'02 -0°24'57				
min. Earth dist.	734 Jun 27 j 04:23	8° $\overline{3}$ 27'56 18.63823 AU	conjunction	741 Jan 20 j 22:25	4° \approx 54'30	-0°37'02
direct	734 Sep 12 j 16:23	6° $\overline{3}$ 27'33	minimum elong	741 Jan 20 j 22:25	4° \approx 54'30	0°37'02
evening set	734 Dec 12 j 19:14	9° $\overline{3}$ 33'29	max. Earth dist.	741 Jan 21 j 22:44	4° \approx 58'02	20.93167 AU
			morning rise	741 Feb 05 j 17:07	5° \approx 49'01	
conjunction	734 Dec 28 j 09:47	10° $\overline{3}$ 28'22 -0°23'53	retrograde	741 May 10 j 11:35	8° \approx 56'39	
minimum elong	734 Dec 28 j 09:47	10° $\overline{3}$ 28'22 0°23'53	min. Earth dist.	741 Jul 26 j 10:38	7° \approx 00'12	18.94716 AU
max. Earth dist.	734 Dec 29 j 06:21	10° $\overline{3}$ 31'24 20.66542 AU	opposition	741 Jul 27 j 10:40	6° \approx 57'48	-0°41'51
morning rise	735 Jan 13 j 01:30	11° $\overline{3}$ 23'25	direct	741 Oct 11 j 13:47	5° \approx 01'06	
retrograde	735 Apr 15 j 23:41	14° $\overline{3}$ 32'39	evening set	742 Jan 09 j 11:07	8° \approx 01'42	
opposition	735 Jul 02 j 12:43	12° $\overline{3}$ 33'31 -0°27'53				
min. Earth dist.	735 Jul 01 j 15:35	12° $\overline{3}$ 35'38 18.69228 AU	conjunction	742 Jan 25 j 03:46	8° \approx 55'49	-0°38'37
direct	735 Sep 17 j 04:35	10° $\overline{3}$ 35'22	minimum elong	742 Jan 25 j 03:46	8° \approx 55'49	0°38'37
evening set	735 Dec 17 j 01:57	13° $\overline{3}$ 40'23	max. Earth dist.	742 Jan 26 j 04:17	8° \approx 59'21	20.96064 AU
			morning rise	742 Feb 09 j 23:12	9° \approx 50'18	
conjunction	736 Jan 01 j 16:33	14° $\overline{3}$ 35'06 -0°26'28	retrograde	742 May 14 j 18:25	12° \approx 57'43	
minimum elong	736 Jan 01 j 16:33	14° $\overline{3}$ 35'06 0°26'28	opposition	742 Jul 31 j 20:37	10° \approx 58'49	-0°43'29
max. Earth dist.	736 Jan 02 j 14:04	14° $\overline{3}$ 38'16 20.71829 AU	min. Earth dist.	742 Jul 30 j 21:37	11° \approx 01'06	18.97376 AU
morning rise	736 Jan 17 j 08:40	15° $\overline{3}$ 30'02	direct	742 Oct 15 j 20:38	9° \approx 02'12	
retrograde	736 Apr 19 j 09:36	18° $\overline{3}$ 38'56	evening set	743 Jan 13 j 15:47	12° \approx 02'14	
min. Earth dist.	736 Jul 05 j 04:45	16° $\overline{3}$ 42'00 18.74400 AU				
opposition	736 Jul 06 j 01:48	16° $\overline{3}$ 39'53 -0°30'40	conjunction	743 Jan 29 j 09:02	12° \approx 56'17	-0°40'00
direct	736 Sep 20 j 14:47	14° $\overline{3}$ 42'04	minimum elong	743 Jan 29 j 09:02	12° \approx 56'17	0°40'00
evening set	736 Dec 20 j 08:05	17° $\overline{3}$ 46'13	max. Earth dist.	743 Jan 30 j 09:35	12° \approx 59'50	20.98499 AU
			morning rise	743 Feb 14 j 05:12	13° \approx 50'45	
conjunction	737 Jan 04 j 22:54	18° $\overline{3}$ 40'47 -0°28'55		743 Mar 07 j 20:11	15° \approx	
minimum elong	737 Jan 04 j 22:54	18° $\overline{3}$ 40'47 0°28'55	retrograde	743 May 19 j 03:58	16° \approx 57'59	
max. Earth dist.	737 Jan 05 j 21:31	18° $\overline{3}$ 44'06 20.76863 AU	min. Earth dist.	743 Aug 04 j 05:45	15° \approx 01'23	18.99588 AU
morning rise	737 Jan 20 j 15:24	19° $\overline{3}$ 35'36		743 Aug 04 j 19:37	15° \approx	
retrograde	737 Apr 23 j 21:19	22° $\overline{3}$ 44'12	opposition	743 Aug 05 j 05:43	14° \approx 58'59	-0°44'53
opposition	737 Jul 10 j 14:12	20° $\overline{3}$ 45'15 -0°33'16	direct	743 Oct 20 j 04:38	13° \approx 02'26	
min. Earth dist.	737 Jul 09 j 15:17	20° $\overline{3}$ 47'32 18.79279 AU		743 Dec 29 j 13:55	15° \approx	
direct	737 Sep 25 j 01:36	18° $\overline{3}$ 47'43	evening set	744 Jan 17 j 20:17	16° \approx 01'58	
evening set	737 Dec 24 j 14:04	21° $\overline{3}$ 51'04				
			conjunction	744 Feb 02 j 14:06	16° \approx 56'00	-0°41'11
conjunction	738 Jan 09 j 05:04	22° $\overline{3}$ 45'31 -0°31'12	minimum elong	744 Feb 02 j 14:06	16° \approx 56'00	0°41'11
minimum elong	738 Jan 09 j 05:04	22° $\overline{3}$ 45'31 0°31'12	max. Earth dist.	744 Feb 03 j 14:54	16° \approx 59'34	21.00492 AU
max. Earth dist.	738 Jan 10 j 04:24	22° $\overline{3}$ 48'55 20.81564 AU	morning rise	744 Feb 18 j 11:03	17° \approx 50'27	
morning rise	738 Jan 24 j 22:04	23° $\overline{3}$ 40'14	retrograde	744 May 22 j 10:34	20° \approx 57'32	
retrograde	738 Apr 28 j 06:05	26° $\overline{3}$ 48'34	opposition	744 Aug 08 j 14:41	18° \approx 58'27	-0°46'05
min. Earth dist.	738 Jul 14 j 03:46	24° $\overline{3}$ 51'55 18.83811 AU	min. Earth dist.	744 Aug 07 j 15:39	19° \approx 00'45	19.01390 AU
opposition	738 Jul 15 j 02:09	24° $\overline{3}$ 49'41 -0°35'43	direct	744 Oct 23 j 10:33	17° \approx 01'57	
direct	738 Sep 29 j 10:45	22° $\overline{3}$ 52'26	evening set	745 Jan 21 j 00:30	20° \approx 01'02	
evening set	738 Dec 28 j 19:40	25° $\overline{3}$ 55'01				
			conjunction	745 Feb 05 j 19:00	20° \approx 55'02	-0°42'09
conjunction	739 Jan 13 j 11:03	26° $\overline{3}$ 49'21 -0°33'19	minimum elong	745 Feb 05 j 19:00	20° \approx 55'02	0°42'10
minimum elong	739 Jan 13 j 11:03	26° $\overline{3}$ 49'21 0°33'19	max. Earth dist.	745 Feb 06 j 19:52	20° \approx 58'37	21.02113 AU
max. Earth dist.	739 Jan 14 j 10:54	26° $\overline{3}$ 52'50 20.85896 AU	morning rise	745 Feb 21 j 16:45	21° \approx 49'30	
morning rise	739 Jan 29 j 04:34	27° $\overline{3}$ 44'00	retrograde	745 May 26 j 19:38	24° \approx 56'30	
	739 Mar 17 j 02:30	0° \approx	opposition	745 Aug 12 j 23:07	22° \approx 57'19	-0°47'02
retrograde	739 May 02 j 17:27	0° \approx 52'04	min. Earth dist.	745 Aug 11 j 23:03	22° \approx 59'44	19.02831 AU
	739 Jun 19 j 22:53	30° \approx	direct	745 Oct 27 j 17:29	21° \approx 00'51	
opposition	739 Jul 19 j 13:26	28° $\overline{3}$ 53'14 -0°37'57	evening set	746 Jan 25 j 04:53	23° \approx 59'35	
min. Earth dist.	739 Jul 18 j 13:40	28° $\overline{3}$ 55'36 18.87924 AU				
direct	739 Oct 03 j 20:43	26° $\overline{3}$ 56'13	conjunction	746 Feb 10 j 00:03	24° \approx 53'36	-0°42'56
evening set	740 Jan 02 j 01:08	29° $\overline{3}$ 58'06	minimum elong	746 Feb 10 j 00:03	24° \approx 53'36	0°42'55
	740 Jan 02 j 14:27	0° \approx	max. Earth dist.	746 Feb 11 j 01:07	24° \approx 57'12	21.03367 AU
			morning rise	746 Feb 25 j 22:38	25° \approx 48'05	
conjunction	740 Jan 17 j 16:48	0° \approx 52'21 -0°35'16	retrograde	746 May 31 j 02:37	28° \approx 55'02	
minimum elong	740 Jan 17 j 16:48	0° \approx 52'21 0°35'17	min. Earth dist.	746 Aug 16 j 08:08	26° \approx 58'05	19.03919 AU
max. Earth dist.	740 Jan 18 j 16:58	0° \approx 55'52 20.89765 AU	opposition	746 Aug 17 j 07:11	26° \approx 55'47	-0°47'46
morning rise	740 Feb 02 j 10:53	1° \approx 46'55	direct	746 Oct 31 j 22:20	24° \approx 59'20	

evening set	747 Jan 29 j 09:14	27° \approx 57'48		max. Earth dist.	753 Mar 10 j 14:39	22° \approx 47'21	21.01573 AU
				morning rise	753 Mar 25 j 22:49	23° \approx 39'30	
conjunction	747 Feb 14 j 05:13	28° \approx 51'51 -0°43'30		retrograde	753 Jun 28 j 16:37	26° \approx 47'21	
minimum elong	747 Feb 14 j 05:13	28° \approx 51'51 0°43'30		opposition	753 Sep 14 j 10:41	24° \approx 47'47 -0°46'30	
max. Earth dist.	747 Feb 15 j 06:02	28° \approx 55'24 21.04290 AU		min. Earth dist.	753 Sep 13 j 15:39	24° \approx 49'42 19.00606 AU	
morning rise	747 Mar 02 j 04:41	29° \approx 46'23		direct	753 Nov 28 j 10:14	22° \approx 51'20	
	747 Mar 06 j 06:57	0° \approx		evening set	754 Feb 25 j 23:02	25° \approx 50'00	
retrograde	747 Jun 04 j 11:40	2° \approx 53'19					
opposition	747 Aug 21 j 14:54	0° \approx 54'00 -0°48'17		conjunction	754 Mar 14 j 01:18	26° \approx 44'47 -0°41'37	
min. Earth dist.	747 Aug 20 j 15:06	0° \approx 56'23 19.04664 AU		minimum elong	754 Mar 14 j 01:18	26° \approx 44'47 0°41'38	
	747 Sep 13 j 21:58	30° \approx		max. Earth dist.	754 Mar 14 j 21:15	26° \approx 47'37 20.99428 AU	
direct	747 Nov 05 j 04:32	28° \approx 57'36		morning rise	754 Mar 30 j 07:27	27° \approx 40'06	
	747 Dec 25 j 06:02	0° \approx			754 May 18 j 23:10	0° \approx	
evening set	748 Feb 02 j 13:40	1° \approx 55'51		retrograde	754 Jul 03 j 01:07	0° \approx 48'10	
					754 Aug 18 j 05:24	30° \approx	
conjunction	748 Feb 18 j 10:23	2° \approx 49'57 -0°43'51		opposition	754 Sep 18 j 17:49	28° \approx 48'30 -0°45'24	
minimum elong	748 Feb 18 j 10:23	2° \approx 49'57 0°43'51		min. Earth dist.	754 Sep 18 j 00:51	28° \approx 50'13 18.98186 AU	
max. Earth dist.	748 Feb 19 j 11:14	2° \approx 53'30 21.04847 AU		direct	754 Dec 02 j 15:15	26° \approx 51'55	
morning rise	748 Mar 05 j 10:44	3° \approx 44'33		evening set	755 Mar 02 j 06:04	29° \approx 50'53	
retrograde	748 Jun 07 j 18:53	6° \approx 51'32			755 Mar 04 j 23:20	0° \approx	
opposition	748 Aug 24 j 22:33	4° \approx 52'11 -0°48'34					
min. Earth dist.	748 Aug 23 j 23:53	4° \approx 54'27 19.05043 AU		conjunction	755 Mar 18 j 09:22	0° \approx 45'49 -0°40'31	
direct	748 Nov 08 j 08:44	2° \approx 55'49		minimum elong	755 Mar 18 j 09:22	0° \approx 45'49 0°40'30	
evening set	749 Feb 05 j 18:19	5° \approx 53'57		max. Earth dist.	755 Mar 19 j 03:31	0° \approx 48'24 20.96760 AU	
				morning rise	755 Apr 03 j 16:34	1° \approx 41'18	
conjunction	749 Feb 21 j 15:54	6° \approx 48'07 -0°44'00		retrograde	755 Jul 07 j 11:45	4° \approx 49'38	
minimum elong	749 Feb 21 j 15:54	6° \approx 48'07 0°44'01		min. Earth dist.	755 Sep 22 j 08:39	2° \approx 51'28 18.95258 AU	
max. Earth dist.	749 Feb 22 j 16:16	6° \approx 51'36 21.05057 AU		opposition	755 Sep 23 j 00:57	2° \approx 49'49 -0°44'04	
morning rise	749 Mar 09 j 17:12	7° \approx 42'48		direct	755 Dec 06 j 21:00	0° \approx 53'02	
retrograde	749 Jun 12 j 04:31	10° \approx 49'52		evening set	756 Mar 05 j 13:24	3° \approx 52'20	
min. Earth dist.	749 Aug 28 j 06:49	8° \approx 52'48 19.05059 AU					
opposition	749 Aug 29 j 05:53	8° \approx 50'29 -0°48'37		conjunction	756 Mar 21 j 17:43	4° \approx 47'28 -0°39'12	
direct	749 Nov 12 j 14:33	6° \approx 54'09		minimum elong	756 Mar 21 j 17:43	4° \approx 47'28 0°39'13	
evening set	750 Feb 09 j 23:15	9° \approx 52'15		max. Earth dist.	756 Mar 22 j 10:53	4° \approx 49'55 20.93589 AU	
				morning rise	756 Apr 07 j 01:51	5° \approx 43'08	
conjunction	750 Feb 25 j 21:42	10° \approx 46'30 -0°43'57		retrograde	756 Jul 10 j 20:28	8° \approx 51'45	
minimum elong	750 Feb 25 j 21:42	10° \approx 46'30 0°43'57		opposition	756 Sep 26 j 08:13	6° \approx 51'46 -0°42'30	
max. Earth dist.	750 Feb 26 j 21:48	10° \approx 49'56 21.04866 AU		min. Earth dist.	756 Sep 25 j 17:48	6° \approx 53'14 18.91861 AU	
morning rise	750 Mar 13 j 23:58	11° \approx 41'17		direct	756 Dec 10 j 02:37	4° \approx 54'46	
retrograde	750 Jun 16 j 12:07	14° \approx 48'29		evening set	757 Mar 09 j 21:22	7° \approx 54'28	
opposition	750 Sep 02 j 13:14	12° \approx 49'04 -0°48'26					
min. Earth dist.	750 Sep 01 j 15:42	12° \approx 51'15 19.04658 AU		conjunction	757 Mar 26 j 02:43	8° \approx 49'47 -0°37'41	
direct	750 Nov 16 j 18:34	10° \approx 52'46		minimum elong	757 Mar 26 j 02:43	8° \approx 49'47 0°37'42	
evening set	751 Feb 14 j 04:34	13° \approx 50'54		max. Earth dist.	757 Mar 26 j 18:06	8° \approx 51'59 20.90004 AU	
				morning rise	757 Apr 11 j 11:54	9° \approx 45'39	
conjunction	751 Mar 02 j 03:57	14° \approx 45'15 -0°43'41		retrograde	757 Jul 15 j 07:55	12° \approx 54'35	
minimum elong	751 Mar 02 j 03:57	14° \approx 45'15 0°43'41		opposition	757 Sep 30 j 15:20	10° \approx 54'25 -0°40'44	
max. Earth dist.	751 Mar 03 j 03:05	14° \approx 48'34 21.04257 AU		min. Earth dist.	757 Sep 30 j 01:39	10° \approx 55'49 18.88083 AU	
morning rise	751 Mar 18 j 07:10	15° \approx 40'09		direct	757 Dec 14 j 08:50	8° \approx 57'09	
retrograde	751 Jun 20 j 22:09	18° \approx 47'32		evening set	758 Mar 14 j 05:51	11° \approx 57'21	
opposition	751 Sep 06 j 20:15	16° \approx 48'05 -0°48'01					
min. Earth dist.	751 Sep 05 j 22:52	16° \approx 50'15 19.03814 AU		conjunction	758 Mar 30 j 12:17	12° \approx 52'53 -0°35'59	
direct	751 Nov 21 j 00:12	14° \approx 51'46		minimum elong	758 Mar 30 j 12:17	12° \approx 52'53 0°35'59	
evening set	752 Feb 18 j 10:20	17° \approx 50'02		max. Earth dist.	758 Mar 31 j 02:44	12° \approx 54'57 20.86043 AU	
				morning rise	758 Apr 15 j 22:22	13° \approx 48'57	
conjunction	752 Mar 05 j 10:36	18° \approx 44'31 -0°43'13		retrograde	758 Jul 19 j 17:06	16° \approx 58'12	
minimum elong	752 Mar 05 j 10:36	18° \approx 44'31 0°43'13		opposition	758 Oct 04 j 22:42	14° \approx 57'52 -0°38'45	
max. Earth dist.	752 Mar 06 j 09:03	18° \approx 47'43 21.03165 AU		min. Earth dist.	758 Oct 04 j 10:49	14° \approx 59'05 18.83955 AU	
morning rise	752 Mar 21 j 14:45	19° \approx 39'32		direct	758 Dec 18 j 14:29	13° \approx 00'22	
retrograde	752 Jun 24 j 06:12	22° \approx 47'08		evening set	759 Mar 18 j 14:57	16° \approx 01'06	
min. Earth dist.	752 Sep 09 j 07:58	20° \approx 49'37 19.02472 AU					
opposition	752 Sep 10 j 03:31	20° \approx 47'39 -0°47'23		conjunction	759 Apr 03 j 22:21	16° \approx 56'51 -0°34'06	
direct	752 Nov 24 j 04:34	18° \approx 51'18		minimum elong	759 Apr 03 j 22:21	16° \approx 56'51 0°34'06	
evening set	753 Feb 21 j 16:21	21° \approx 49'44		max. Earth dist.	759 Apr 04 j 10:53	16° \approx 58'39 20.81776 AU	
				morning rise	759 Apr 20 j 09:26	17° \approx 53'08	
conjunction	753 Mar 09 j 17:37	22° \approx 44'21 -0°42'31		retrograde	759 Jul 24 j 05:23	21° \approx 02'46	
minimum elong	753 Mar 09 j 17:38	22° \approx 44'21 0°42'31		opposition	759 Oct 09 j 06:06	19° \approx 02'15 -0°36'34	

min. Earth dist.	759 Oct 08 j 18:58	19° Υ 03'24	18.79545 AU		766 Apr 16 j 04:48	15° \mathcal{B}	
direct	759 Dec 22 j 21:42	17° Υ 04'29		evening set	766 Apr 17 j 03:53	15° \mathcal{B} 03'17	
evening set	760 Mar 22 j 00:38	20° Υ 05'50					
conjunction	760 Apr 07 j 09:06	21° Υ 01'50	-0°32'02	conjunction	766 May 03 j 18:09	16° \mathcal{B} 00'56	-0°16'20
minimum elong	760 Apr 07 j 09:06	21° Υ 01'50	0°32'01	minimum elong	766 May 03 j 18:10	16° \mathcal{B} 00'57	0°16'21
max. Earth dist.	760 Apr 07 j 20:48	21° Υ 03'31	20.77232 AU	max. Earth dist.	766 May 03 j 19:20	16° \mathcal{B} 01'07	20.45291 AU
morning rise	760 Apr 23 j 21:01	21° Υ 58'21		morning rise	766 May 20 j 10:42	16° \mathcal{B} 58'58	
retrograde	760 Jul 27 j 15:20	25° Υ 08'22		retrograde	766 Aug 22 j 22:11	20° \mathcal{B} 12'00	
opposition	760 Oct 12 j 13:52	23° Υ 07'43	-0°34'12	opposition	766 Nov 06 j 20:22	18° \mathcal{B} 10'44	-0°16'22
min. Earth dist.	760 Oct 12 j 04:27	23° Υ 08'41	18.74880 AU	min. Earth dist.	766 Nov 06 j 20:35	18° \mathcal{B} 10'43	18.42212 AU
direct	760 Dec 26 j 03:21	21° Υ 09'41		direct	767 Jan 20 j 08:57	16° \mathcal{B} 11'00	
evening set	761 Mar 26 j 10:58	24° Υ 11'44		evening set	767 Apr 21 j 19:41	19° \mathcal{B} 18'36	
conjunction	761 Apr 11 j 20:26	25° Υ 07'58	-0°29'48	conjunction	767 May 08 j 10:37	20° \mathcal{B} 16'33	-0°13'16
minimum elong	761 Apr 11 j 20:27	25° Υ 07'58	0°29'48	minimum elong	767 May 08 j 10:37	20° \mathcal{B} 16'33	0°13'15
max. Earth dist.	761 Apr 12 j 06:04	25° Υ 09'21	20.72467 AU	behind sun begin	767 May 08 j 06:50	20° \mathcal{B} 16'01	
morning rise	761 Apr 28 j 09:22	26° Υ 04'44		behind sun end	767 May 08 j 14:24	20° \mathcal{B} 17'06	
retrograde	761 Aug 01 j 04:30	29° Υ 15'12		max. Earth dist.	767 May 08 j 08:30	20° \mathcal{B} 16'15	20.39102 AU
opposition	761 Oct 16 j 21:54	27° Υ 14'24	-0°31'38	morning rise	767 May 25 j 03:52	21° \mathcal{B} 14'51	
min. Earth dist.	761 Oct 16 j 13:26	27° Υ 15'17	18.69999 AU	retrograde	767 Aug 27 j 12:54	24° \mathcal{B} 28'26	
direct	761 Dec 30 j 11:49	25° Υ 16'06		opposition	767 Nov 11 j 07:14	22° \mathcal{B} 27'02	-0°12'55
evening set	762 Mar 30 j 22:12	28° Υ 18'55		min. Earth dist.	767 Nov 11 j 09:20	22° \mathcal{B} 26'48	18.35898 AU
conjunction	762 Apr 16 j 08:45	29° Υ 15'26	-0°27'24	direct	768 Jan 24 j 20:13	20° \mathcal{B} 26'54	
minimum elong	762 Apr 16 j 08:45	29° Υ 15'26	0°27'23	evening set	768 Apr 25 j 12:16	23° \mathcal{B} 35'35	
max. Earth dist.	762 Apr 16 j 17:27	29° Υ 16'41	20.67473 AU	conjunction	768 May 12 j 04:08	24° \mathcal{B} 33'50	-0°10'06
morning rise	762 Apr 29 j 06:41	0° \mathcal{B}		minimum elong	768 May 12 j 04:07	24° \mathcal{B} 33'50	0°10'07
retrograde	762 May 02 j 22:24	0° \mathcal{B} 12'26		behind sun begin	768 May 11 j 22:46	24° \mathcal{B} 33'04	
opposition	762 Aug 05 j 15:23	3° \mathcal{B} 23'21		behind sun end	768 May 12 j 09:29	24° \mathcal{B} 34'36	
min. Earth dist.	762 Oct 21 j 06:12	1° \mathcal{B} 22'27	-0°28'54	max. Earth dist.	768 May 12 j 00:48	24° \mathcal{B} 33'22	20.32670 AU
direct	762 Oct 20 j 23:33	1° \mathcal{B} 23'09	18.64895 AU	morning rise	768 May 28 j 21:44	25° \mathcal{B} 32'24	
evening set	762 Nov 26 j 18:17	30° $\mathcal{R}\Upsilon$		retrograde	768 Aug 31 j 04:23	28° \mathcal{B} 46'30	
conjunction	763 Jan 03 j 18:32	29° Υ 23'54		opposition	768 Nov 14 j 18:33	26° \mathcal{B} 44'57	-0°09'21
minimum elong	763 Feb 10 j 06:08	0° \mathcal{B}		min. Earth dist.	768 Nov 14 j 22:24	26° \mathcal{B} 44'33	18.29361 AU
max. Earth dist.	763 Apr 04 j 10:16	2° \mathcal{B} 27'33		direct	769 Jan 28 j 08:36	24° \mathcal{B} 44'25	
morning rise	763 Apr 20 j 21:43	3° \mathcal{B} 24'20	-0°24'50	evening set	769 Apr 30 j 05:50	27° \mathcal{B} 54'13	
minimum elong	763 Apr 20 j 21:43	3° \mathcal{B} 24'20	0°24'51	conjunction	769 May 16 j 22:17	28° \mathcal{B} 52'46	-0°06'52
max. Earth dist.	763 Apr 21 j 04:02	3° \mathcal{B} 25'15	20.62281 AU	minimum elong	769 May 16 j 22:17	28° \mathcal{B} 52'46	0°06'52
morning rise	763 May 07 j 12:18	4° \mathcal{B} 21'36		behind sun begin	769 May 16 j 16:01	28° \mathcal{B} 51'52	
retrograde	763 Aug 10 j 05:12	7° \mathcal{B} 33'01		behind sun end	769 May 17 j 04:34	28° \mathcal{B} 53'40	
opposition	763 Oct 25 j 15:01	5° \mathcal{B} 32'01	-0°25'59	max. Earth dist.	769 May 16 j 15:39	28° \mathcal{B} 51'49	20.26060 AU
min. Earth dist.	763 Oct 25 j 09:37	5° \mathcal{B} 32'35	18.59593 AU	morning rise	769 Jun 02 j 16:32	29° \mathcal{B} 51'35	
direct	764 Jan 08 j 03:44	3° \mathcal{B} 33'12		retrograde	769 Jun 05 j 03:20	0° \mathcal{B}	
evening set	764 Apr 07 j 23:02	6° \mathcal{B} 37'46		opposition	769 Sep 04 j 19:57	3° \mathcal{B} 06'13	
conjunction	764 Apr 24 j 11:30	7° \mathcal{B} 34'50	-0°22'08	min. Earth dist.	769 Nov 19 j 06:28	1° \mathcal{B} 04'30	-0°05'43
minimum elong	764 Apr 24 j 11:30	7° \mathcal{B} 34'50	0°22'09		769 Nov 19 j 12:19	1° \mathcal{B} 03'53	18.22686 AU
max. Earth dist.	764 Apr 24 j 16:53	7° \mathcal{B} 35'37	20.56863 AU	direct	769 Dec 15 j 21:53	30° $\mathcal{R}\mathcal{B}$	
morning rise	764 May 11 j 02:43	8° \mathcal{B} 32'21			770 Feb 01 j 21:19	29° \mathcal{B} 03'32	
retrograde	764 Aug 13 j 17:38	11° \mathcal{B} 44'18		evening set	770 Mar 20 j 21:13	0° \mathcal{B}	
opposition	764 Oct 29 j 00:20	9° \mathcal{B} 43'14	-0°22'56		770 May 05 j 00:11	2° \mathcal{B} 14'28	
min. Earth dist.	764 Oct 28 j 20:51	9° \mathcal{B} 43'36	18.54053 AU	conjunction	770 May 21 j 17:25	3° \mathcal{B} 13'19	-0°03'34
direct	765 Jan 11 j 12:21	7° \mathcal{B} 44'09		minimum elong	770 May 21 j 17:26	3° \mathcal{B} 13'19	0°03'34
evening set	765 Apr 12 j 13:00	10° \mathcal{B} 49'40		behind sun begin	770 May 21 j 10:43	3° \mathcal{B} 12'21	
conjunction	765 Apr 29 j 02:17	11° \mathcal{B} 47'02	-0°19'18	behind sun end	770 May 22 j 00:09	3° \mathcal{B} 14'17	
minimum elong	765 Apr 29 j 02:17	11° \mathcal{B} 47'02	0°19'18	max. Earth dist.	770 May 21 j 09:52	3° \mathcal{B} 12'14	20.19330 AU
max. Earth dist.	765 Apr 29 j 04:46	11° \mathcal{B} 47'23	20.51213 AU	morning rise	770 Jun 07 j 11:50	4° \mathcal{B} 12'24	
morning rise	765 May 15 j 18:21	12° \mathcal{B} 44'48		retrograde	770 Sep 09 j 12:27	7° \mathcal{B} 27'33	
retrograde	765 Jun 30 j 20:11	15° \mathcal{B}		opposition	770 Nov 23 j 18:47	5° \mathcal{B} 25'41	-0°02'01
opposition	765 Aug 18 j 07:56	15° \mathcal{B} 57'18		min. Earth dist.	770 Nov 24 j 02:01	5° \mathcal{B} 24'54	18.15926 AU
min. Earth dist.	765 Oct 06 j 16:12	15° $\mathcal{R}\mathcal{B}$		direct	771 Feb 06 j 11:17	3° \mathcal{B} 24'16	
direct	765 Nov 02 j 10:01	13° \mathcal{B} 56'08	-0°19'43	evening set	771 May 09 j 19:29	6° \mathcal{B} 36'23	
evening set	765 Nov 02 j 08:16	13° \mathcal{B} 56'19	18.48275 AU	conjunction	771 May 26 j 13:07	7° \mathcal{B} 35'31	-0°00'10
direct	766 Jan 15 j 22:17	11° \mathcal{B} 56'44		minimum elong	771 May 26 j 13:07	7° \mathcal{B} 35'31	0°00'10
				behind sun begin	771 May 26 j 06:24	7° \mathcal{B} 34'33	

behind sun end	771 May 26 j 19:50	7°II36'29		evening set	777 Jun 06 j 08:21	3°☾24'36	
max. Earth dist.	771 May 26 j 02:29	7°II33'57	20.12571 AU	max. Earth dist.	777 Jun 22 j 08:07	4°☾22'22	19.75127 AU
morning rise	771 Jun 12 j 07:57	8°II34'51					
asc. node	771 Jun 12 j 11:50	8°II35'24		conjunction	777 Jun 23 j 03:36	4°☾25'20	0°19'38
retrograde	771 Sep 14 j 04:57	11°II50'32		minimum elong	777 Jun 23 j 03:36	4°☾25'20	0°19'39
opposition	771 Nov 28 j 07:50	9°II48'30	0°01'42	morning rise	777 Jul 09 j 22:04	5°☾25'59	
min. Earth dist.	771 Nov 28 j 16:57	9°II47'32	18.09190 AU	retrograde	777 Oct 11 j 00:48	8°☾44'49	
direct	772 Feb 11 j 01:14	7°II46'38		opposition	777 Dec 24 j 03:44	6°☾42'24	0°23'32
evening set	772 May 13 j 15:18	10°II59'57		min. Earth dist.	777 Dec 24 j 20:36	6°☾40'34	17.72423 AU
				direct	778 Mar 09 j 04:26	4°☾38'21	
conjunction	772 May 30 j 09:36	11°II59'23	0°03'17	evening set	778 Jun 11 j 09:25	7°☾59'10	
minimum elong	772 May 30 j 09:36	11°II59'23	0°03'18	max. Earth dist.	778 Jun 27 j 08:26	8°☾57'02	19.69771 AU
behind sun begin	772 May 30 j 02:52	11°II58'24					
behind sun end	772 May 30 j 16:20	12°II00'22		conjunction	778 Jun 28 j 04:40	9°☾00'07	0°22'42
max. Earth dist.	772 May 29 j 22:26	11°II57'44	20.05860 AU	minimum elong	778 Jun 28 j 04:40	9°☾00'07	0°22'42
morning rise	772 Jun 16 j 04:29	12°II58'57		morning rise	778 Jul 14 j 22:40	10°☾00'55	
retrograde	772 Sep 17 j 22:56	16°II15'11		retrograde	778 Oct 15 j 23:49	13°☾20'15	
opposition	772 Dec 01 j 21:25	14°II13'01	0°05'27	opposition	778 Dec 28 j 21:35	11°☾17'51	0°26'53
min. Earth dist.	772 Dec 02 j 07:28	14°II11'56	18.02524 AU	min. Earth dist.	778 Dec 29 j 14:44	11°☾15'59	17.67193 AU
direct	773 Feb 14 j 16:41	12°II10'43		direct	779 Mar 14 j 01:30	9°☾13'32	
evening set	773 May 18 j 12:19	15°II25'15		evening set	779 Jun 16 j 11:21	12°☾35'32	
				max. Earth dist.	779 Jul 02 j 08:19	13°☾33'19	19.64656 AU
conjunction	773 Jun 04 j 06:52	16°II24'58	0°06'38				
minimum elong	773 Jun 04 j 06:52	16°II24'57	0°06'38	conjunction	779 Jul 03 j 06:21	13°☾36'41	0°25'38
behind sun begin	773 Jun 04 j 00:31	16°II24'02		minimum elong	779 Jul 03 j 06:21	13°☾36'41	0°25'38
behind sun end	773 Jun 04 j 13:12	16°II25'53		morning rise	779 Jul 19 j 23:51	14°☾37'38	
max. Earth dist.	773 Jun 03 j 16:50	16°II22'52	19.99260 AU	retrograde	779 Oct 20 j 19:54	17°☾57'25	
morning rise	773 Jun 21 j 01:59	17°II24'46		opposition	780 Jan 02 j 16:22	15°☾55'01	0°30'05
retrograde	773 Sep 22 j 16:36	20°II41'31		min. Earth dist.	780 Jan 03 j 11:39	15°☾52'55	17.62217 AU
opposition	773 Dec 06 j 11:37	18°II39'14	0°09'10	direct	780 Mar 17 j 20:47	13°☾50'25	
min. Earth dist.	773 Dec 06 j 23:35	18°II37'57	17.96017 AU	evening set	780 Jun 20 j 13:48	17°☾13'34	
direct	774 Feb 19 j 07:44	16°II36'31		max. Earth dist.	780 Jul 06 j 09:25	18°☾11'19	19.59801 AU
evening set	774 May 23 j 10:03	19°II52'19					
conjunction	774 Jun 09 j 05:04	20°II52'18	0°09'58	conjunction	780 Jul 07 j 08:35	18°☾14'52	0°28'25
minimum elong	774 Jun 09 j 05:04	20°II52'17	0°09'58	minimum elong	780 Jul 07 j 08:35	18°☾14'52	0°28'25
behind sun begin	774 Jun 08 j 23:38	20°II51'30		morning rise	780 Jul 24 j 01:35	19°☾15'57	
behind sun end	774 Jun 09 j 10:29	20°II53'05		retrograde	780 Oct 24 j 19:19	22°☾36'08	
max. Earth dist.	774 Jun 08 j 14:35	20°II50'08	19.92844 AU	opposition	781 Jan 06 j 11:45	20°☾33'43	0°33'06
morning rise	774 Jun 26 j 00:01	21°II52'19		min. Earth dist.	781 Jan 07 j 07:09	20°☾31'36	17.57483 AU
retrograde	774 Sep 27 j 12:31	25°II09'36		direct	781 Mar 22 j 20:17	18°☾28'50	
opposition	774 Dec 11 j 02:33	23°II07'14	0°12'52	evening set	781 Jun 25 j 17:01	21°☾53'03	
min. Earth dist.	774 Dec 11 j 15:04	23°II05'53	17.89711 AU	max. Earth dist.	781 Jul 11 j 11:02	22°☾50'46	19.55185 AU
direct	775 Feb 24 j 00:42	21°II04'09					
evening set	775 May 28 j 08:36	24°II21'11		conjunction	781 Jul 12 j 11:26	22°☾54'31	0°31'02
max. Earth dist.	775 Jun 13 j 10:45	25°II18'53	19.86659 AU	minimum elong	781 Jul 12 j 11:26	22°☾54'31	0°31'01
				morning rise	781 Jul 29 j 03:40	23°☾55'42	
conjunction	775 Jun 14 j 03:39	25°II21'25	0°13'15	retrograde	781 Oct 29 j 15:47	27°☾16'13	
minimum elong	775 Jun 14 j 03:39	25°II21'25	0°13'15	opposition	782 Jan 11 j 07:55	25°☾13'48	0°35'55
behind sun begin	775 Jun 13 j 23:51	25°II20'52		min. Earth dist.	782 Jan 12 j 05:20	25°☾11'27	17.53018 AU
behind sun end	775 Jun 14 j 07:27	25°II21'59		direct	782 Mar 27 j 17:46	23°☾08'37	
morning rise	775 Jun 30 j 22:36	26°II21'41		evening set	782 Jun 30 j 20:39	26°☾33'50	
retrograde	775 Oct 02 j 07:18	29°II39'30					
opposition	775 Dec 15 j 18:17	27°II37'04	0°16'30	conjunction	782 Jul 17 j 14:33	27°☾35'25	0°33'27
min. Earth dist.	775 Dec 16 j 08:39	27°II35'31	17.83671 AU	minimum elong	782 Jul 17 j 14:33	27°☾35'25	0°33'27
direct	776 Feb 28 j 16:28	25°II33'38		max. Earth dist.	782 Jul 16 j 12:53	27°☾31'27	19.50875 AU
evening set	776 Jun 01 j 07:57	28°II51'56		morning rise	782 Aug 03 j 06:08	28°☾36'41	
max. Earth dist.	776 Jun 17 j 09:58	29°II49'49	19.80756 AU		782 Aug 27 j 16:50	0°♂	
				retrograde	782 Nov 03 j 15:37	1°♂57'30	
conjunction	776 Jun 18 j 03:17	29°II52'26	0°16'29		783 Jan 14 j 07:18	30°♂	
minimum elong	776 Jun 18 j 03:17	29°II52'26	0°16'28	opposition	783 Jan 16 j 04:40	29°☾55'03	0°38'30
	776 Jun 20 j 05:19	0°☾		min. Earth dist.	783 Jan 17 j 01:53	29°☾52'43	17.48873 AU
morning rise	776 Jul 04 j 21:58	0°☾52'53		direct	783 Apr 01 j 19:06	27°☾49'35	
retrograde	776 Oct 06 j 05:15	4°☾11'13			783 Jun 14 j 00:23	0°♂	
opposition	776 Dec 19 j 10:31	2°☾08'47	0°20'04	evening set	783 Jul 06 j 00:24	1°♂15'42	
min. Earth dist.	776 Dec 20 j 01:16	2°☾07'11	17.77906 AU				
direct	777 Mar 04 j 11:21	0°☾05'02		conjunction	783 Jul 22 j 17:50	2°♂17'23	0°35'39
				minimum elong	783 Jul 22 j 17:50	2°♂17'23	0°35'38

max. Earth dist.	783 Jul 21 j 15:59	2°Ω13'23	19.46898 AU	morning rise	789 Sep 05 j 23:20	1°♏44'23	
morning rise	783 Aug 08 j 08:29	3°Ω18'42		retrograde	789 Dec 06 j 11:16	5°♏06'03	
retrograde	783 Nov 08 j 13:04	6°Ω39'47		opposition	790 Feb 17 j 20:44	3°♏03'44	0°48'39
opposition	784 Jan 21 j 02:08	4°Ω37'17	0°40'50	min. Earth dist.	790 Feb 18 j 18:09	3°♏01'24	17.33372 AU
min. Earth dist.	784 Jan 22 j 00:52	4°Ω34'48	17.45096 AU	direct	790 May 05 j 04:36	0°♏57'14	
direct	784 Apr 05 j 18:21	2°Ω31'33		evening set	790 Aug 09 j 06:31	4°♏27'15	
evening set	784 Jul 10 j 04:39	5°Ω58'30					
conjunction	784 Jul 26 j 21:20	7°Ω00'15	0°37'37	conjunction	790 Aug 25 j 17:46	5°♏28'54	0°43'45
minimum elong	784 Jul 26 j 21:20	7°Ω00'15	0°37'37	minimum elong	790 Aug 25 j 17:46	5°♏28'54	0°43'45
max. Earth dist.	784 Jul 25 j 18:16	6°Ω56'03	19.43333 AU	max. Earth dist.	790 Aug 24 j 16:55	5°♏25'00	19.33349 AU
morning rise	784 Aug 12 j 11:17	8°Ω01'37		morning rise	790 Sep 11 j 01:18	6°♏29'59	
retrograde	784 Nov 12 j 13:00	11°Ω22'53		retrograde	790 Dec 11 j 11:33	9°♏51'39	
opposition	785 Jan 24 j 23:50	9°Ω20'21	0°42'54	opposition	791 Feb 22 j 21:22	7°♏49'28	0°48'50
min. Earth dist.	785 Jan 25 j 22:13	9°Ω17'55	17.41754 AU	min. Earth dist.	791 Feb 23 j 18:11	7°♏47'12	17.33566 AU
direct	785 Apr 10 j 20:22	7°Ω14'21		direct	791 May 10 j 07:21	5°♏43'03	
evening set	785 Jul 15 j 08:59	10°Ω42'04		evening set	791 Aug 14 j 10:11	9°♏13'14	
max. Earth dist.	785 Jul 30 j 22:39	11°Ω39'45	19.40216 AU	conjunction	791 Aug 30 j 20:30	10°♏14'46	0°43'46
conjunction	785 Aug 01 j 01:05	11°Ω43'52	0°39'20	minimum elong	791 Aug 30 j 20:30	10°♏14'46	0°43'46
minimum elong	785 Aug 01 j 01:05	11°Ω43'52	0°39'20	max. Earth dist.	791 Aug 29 j 21:33	10°♏11'10	19.33834 AU
morning rise	785 Aug 17 j 13:55	12°Ω45'14		morning rise	791 Sep 16 j 02:48	11°♏15'45	
	785 Sep 28 j 18:18	15°Ω		retrograde	791 Dec 16 j 11:35	14°♏37'20	
retrograde	785 Nov 17 j 11:34	16°Ω06'39		opposition	792 Feb 27 j 22:19	12°♏35'19	0°48'41
	786 Jan 07 j 19:36	15°♐Ω		min. Earth dist.	792 Feb 28 j 18:12	12°♏33'10	17.34314 AU
opposition	786 Jan 29 j 22:23	14°Ω04'06	0°44'41	direct	792 May 14 j 10:13	10°♏29'03	
min. Earth dist.	786 Jan 30 j 21:39	14°Ω01'34	17.38892 AU	evening set	792 Aug 18 j 13:53	13°♏59'17	
direct	786 Apr 15 j 20:47	11°Ω57'53		conjunction	792 Sep 03 j 22:57	15°♏00'41	0°43'28
	786 Jul 13 j 06:31	15°Ω		minimum elong	792 Sep 03 j 22:57	15°♏00'41	0°43'29
evening set	786 Jul 20 j 13:24	15°Ω26'14		max. Earth dist.	792 Sep 03 j 00:06	14°♏57'05	19.34848 AU
max. Earth dist.	786 Aug 05 j 01:10	16°Ω23'47	19.37623 AU	morning rise	792 Sep 20 j 04:09	16°♏01'31	
conjunction	786 Aug 06 j 04:30	16°Ω28'03	0°40'47	retrograde	792 Dec 20 j 10:59	19°♏22'59	
minimum elong	786 Aug 06 j 04:30	16°Ω28'03	0°40'47	opposition	793 Mar 03 j 23:29	17°♏21'08	0°48'12
morning rise	786 Aug 22 j 16:29	17°Ω29'25		min. Earth dist.	793 Mar 04 j 19:06	17°♏19'00	17.35588 AU
retrograde	786 Nov 22 j 11:42	20°Ω50'57		direct	793 May 19 j 13:34	15°♏15'00	
opposition	787 Feb 03 j 21:17	18°Ω48'24	0°46'09	evening set	793 Aug 23 j 17:05	18°♏45'10	
min. Earth dist.	787 Feb 04 j 19:49	18°Ω45'56	17.36587 AU	max. Earth dist.	793 Sep 08 j 03:49	19°♏43'04	19.36365 AU
direct	787 Apr 20 j 23:14	16°Ω42'00		conjunction	793 Sep 09 j 01:04	19°♏46'24	0°42'53
evening set	787 Jul 25 j 17:42	20°Ω10'55		minimum elong	793 Sep 09 j 01:04	19°♏46'24	0°42'52
max. Earth dist.	787 Aug 10 j 06:13	21°Ω08'41	19.35605 AU	morning rise	793 Sep 25 j 05:04	20°♏47'04	
conjunction	787 Aug 11 j 08:05	21°Ω12'43	0°41'57	retrograde	793 Dec 25 j 10:40	24°♏08'22	
minimum elong	787 Aug 11 j 08:05	21°Ω12'43	0°41'58	opposition	794 Mar 09 j 00:58	22°♏06'40	0°47'22
morning rise	787 Aug 27 j 18:51	22°Ω14'03		min. Earth dist.	794 Mar 09 j 19:07	22°♏04'42	17.37324 AU
retrograde	787 Nov 27 j 10:58	25°Ω35'39		direct	794 May 24 j 18:02	20°♏00'44	
opposition	788 Feb 08 j 20:39	23°Ω33'08	0°47'18	evening set	794 Aug 28 j 19:44	23°♏30'39	
min. Earth dist.	788 Feb 09 j 19:20	23°Ω30'40	17.34878 AU	max. Earth dist.	794 Sep 13 j 06:00	24°♏28'29	19.38325 AU
direct	788 Apr 25 j 00:18	21°Ω26'39		conjunction	794 Sep 14 j 02:30	24°♏31'43	0°42'00
evening set	788 Jul 29 j 22:07	24°Ω56'00		minimum elong	794 Sep 14 j 02:30	24°♏31'43	0°42'01
max. Earth dist.	788 Aug 14 j 08:55	25°Ω53'38	19.34215 AU	morning rise	794 Sep 30 j 05:20	25°♏32'12	
conjunction	788 Aug 15 j 11:26	25°Ω57'47	0°42'51	retrograde	794 Dec 30 j 08:55	28°♏53'17	
minimum elong	788 Aug 15 j 11:25	25°Ω57'47	0°42'50	opposition	795 Mar 14 j 02:37	26°♏51'42	0°46'14
morning rise	788 Aug 31 j 21:16	26°Ω59'04		min. Earth dist.	795 Mar 14 j 20:34	26°♏49'46	17.39506 AU
	788 Nov 04 j 07:07	0°♏		direct	795 May 29 j 21:33	24°♏45'56	
retrograde	788 Dec 01 j 11:17	0°♏20'43		evening set	795 Sep 02 j 21:51	28°♏15'32	
	788 Dec 29 j 00:13	30°♐Ω		max. Earth dist.	795 Sep 18 j 08:18	29°♏13'22	19.40721 AU
opposition	789 Feb 12 j 20:29	28°Ω18'16	0°48'09	conjunction	795 Sep 19 j 03:28	29°♏16'23	0°40'50
min. Earth dist.	789 Feb 13 j 18:22	28°Ω15'53	17.33811 AU	minimum elong	795 Sep 19 j 03:28	29°♏16'23	0°40'50
direct	789 Apr 30 j 02:50	26°Ω11'43			795 Sep 30 j 17:23	0°♐	
evening set	789 Aug 04 j 02:20	29°Ω41'29		morning rise	795 Oct 05 j 05:14	0°♐16'40	
	789 Aug 09 j 02:32	0°♏		retrograde	796 Jan 04 j 08:10	3°♐37'27	
conjunction	789 Aug 20 j 14:47	0°♏43'12	0°43'27	opposition	796 Mar 18 j 03:59	1°♐36'00	0°44'46
minimum elong	789 Aug 20 j 14:47	0°♏43'12	0°43'27	min. Earth dist.	796 Mar 18 j 20:05	1°♐34'16	17.42092 AU
max. Earth dist.	789 Aug 19 j 14:08	0°♏39'20	19.33466 AU	direct	796 Apr 29 j 16:20	30°♐♏	
					796 Jun 03 j 02:18	29°♏30'24	

	796 Jul 06 j 18:51	0° <u>♄</u>		minimum elong	802 Oct 21 j 11:53	1° <u>♄</u> 54'19	0°25'52
evening set	796 Sep 06 j 23:22	2° <u>♄</u> 59'33		max. Earth dist.	802 Oct 21 j 05:53	1° <u>♄</u> 53'24	19.68895 AU
max. Earth dist.	796 Sep 22 j 10:02	3° <u>♄</u> 57'23	19.43508 AU	morning rise	802 Nov 06 j 06:53	2° <u>♄</u> 52'55	
				retrograde	803 Feb 05 j 10:41	6° <u>♄</u> 10'27	
conjunction	796 Sep 23 j 03:52	4° <u>♄</u> 00'11	0°39'24	opposition	803 Apr 21 j 09:02	4° <u>♄</u> 09'41	0°27'12
minimum elong	796 Sep 23 j 03:52	4° <u>♄</u> 00'11	0°39'24	min. Earth dist.	803 Apr 21 j 14:17	4° <u>♄</u> 09'08	17.71690 AU
morning rise	796 Oct 09 j 04:28	5° <u>♄</u> 00'16		direct	803 Jul 07 j 14:40	2° <u>♄</u> 05'51	
retrograde	797 Jan 08 j 05:33	8° <u>♄</u> 20'41		evening set	803 Oct 10 j 09:07	5° <u>♄</u> 29'02	
opposition	797 Mar 23 j 05:36	6° <u>♄</u> 19'21	0°43'00				
min. Earth dist.	797 Mar 23 j 21:29	6° <u>♄</u> 17'39	17.45078 AU	conjunction	803 Oct 26 j 06:08	6° <u>♄</u> 27'46	0°22'59
direct	797 Jun 08 j 04:42	4° <u>♄</u> 13'56		minimum elong	803 Oct 26 j 06:07	6° <u>♄</u> 27'46	0°22'58
evening set	797 Sep 12 j 00:03	7° <u>♄</u> 42'30		max. Earth dist.	803 Oct 26 j 01:09	6° <u>♄</u> 27'00	19.74594 AU
max. Earth dist.	797 Sep 27 j 10:40	8° <u>♄</u> 40'16	19.46699 AU	morning rise	803 Nov 11 j 00:34	7° <u>♄</u> 26'06	
				retrograde	804 Feb 10 j 06:24	10° <u>♄</u> 43'05	
conjunction	797 Sep 28 j 03:20	8° <u>♄</u> 42'53	0°37'42	opposition	804 Apr 25 j 08:02	8° <u>♄</u> 42'30	0°23'54
minimum elong	797 Sep 28 j 03:20	8° <u>♄</u> 42'53	0°37'42	min. Earth dist.	804 Apr 25 j 10:38	8° <u>♄</u> 42'13	17.77555 AU
morning rise	797 Oct 14 j 02:58	9° <u>♄</u> 42'45		direct	804 Jul 11 j 14:58	6° <u>♄</u> 39'04	
retrograde	798 Jan 13 j 04:45	13° <u>♄</u> 02'46		evening set	804 Oct 14 j 03:24	10° <u>♄</u> 01'11	
opposition	798 Mar 28 j 06:54	11° <u>♄</u> 01'31	0°40'58				
min. Earth dist.	798 Mar 28 j 20:25	11° <u>♄</u> 00'04	17.48455 AU	conjunction	804 Oct 29 j 23:41	10° <u>♄</u> 59'37	0°19'58
direct	798 Jun 13 j 09:03	8° <u>♄</u> 56'18		minimum elong	804 Oct 29 j 23:41	10° <u>♄</u> 59'37	0°19'59
evening set	798 Sep 16 j 23:52	12° <u>♄</u> 24'09		max. Earth dist.	804 Oct 29 j 21:54	10° <u>♄</u> 59'21	19.80610 AU
max. Earth dist.	798 Oct 02 j 11:38	13° <u>♄</u> 22'02	19.50281 AU	morning rise	804 Nov 14 j 17:17	11° <u>♄</u> 57'41	
					805 Jan 22 j 03:09	15° <u>♄</u>	
conjunction	798 Oct 03 j 02:06	13° <u>♄</u> 24'18	0°35'45	retrograde	805 Feb 14 j 00:18	15° <u>♄</u> 14'08	
minimum elong	798 Oct 03 j 02:06	13° <u>♄</u> 24'18	0°35'44		805 Mar 09 j 07:06	15° <u>♄</u>	
morning rise	798 Oct 19 j 00:38	14° <u>♄</u> 23'56		opposition	805 Apr 30 j 06:53	13° <u>♄</u> 13'44	0°20'29
retrograde	799 Jan 18 j 01:02	17° <u>♄</u> 43'30		min. Earth dist.	805 Apr 30 j 08:10	13° <u>♄</u> 13'36	17.83692 AU
opposition	799 Apr 02 j 08:03	15° <u>♄</u> 42'19	0°38'39	direct	805 Jul 16 j 13:54	11° <u>♄</u> 10'45	
min. Earth dist.	799 Apr 02 j 21:06	15° <u>♄</u> 40'56	17.52244 AU	evening set	805 Oct 18 j 20:51	14° <u>♄</u> 31'44	
direct	799 Jun 18 j 09:52	13° <u>♄</u> 37'18			805 Oct 26 j 14:35	15° <u>♄</u>	
evening set	799 Sep 21 j 22:45	17° <u>♄</u> 04'21					
				conjunction	805 Nov 03 j 16:06	15° <u>♄</u> 29'52	0°16'51
conjunction	799 Oct 07 j 23:49	18° <u>♄</u> 04'14	0°33'34	minimum elong	805 Nov 03 j 16:06	15° <u>♄</u> 29'52	0°16'51
minimum elong	799 Oct 07 j 23:49	18° <u>♄</u> 04'14	0°33'34	max. Earth dist.	805 Nov 03 j 15:17	15° <u>♄</u> 29'44	19.86866 AU
max. Earth dist.	799 Oct 07 j 10:30	18° <u>♄</u> 02'09	19.54288 AU	morning rise	805 Nov 19 j 09:17	16° <u>♄</u> 27'41	
morning rise	799 Oct 23 j 21:33	19° <u>♄</u> 03'37		retrograde	806 Feb 18 j 18:34	19° <u>♄</u> 43'36	
retrograde	800 Jan 22 j 23:35	22° <u>♄</u> 22'42		opposition	806 May 05 j 05:13	17° <u>♄</u> 43'22	0°16'57
opposition	800 Apr 06 j 08:45	20° <u>♄</u> 21'35	0°36'06	min. Earth dist.	806 May 05 j 04:11	17° <u>♄</u> 43'29	17.90044 AU
min. Earth dist.	800 Apr 06 j 19:05	20° <u>♄</u> 20'29	17.56453 AU	direct	806 Jul 21 j 12:19	15° <u>♄</u> 40'48	
direct	800 Jun 22 j 13:02	18° <u>♄</u> 16'48		evening set	806 Oct 23 j 13:23	19° <u>♄</u> 00'39	
evening set	800 Sep 25 j 20:42	21° <u>♄</u> 42'58					
				conjunction	806 Nov 08 j 08:02	19° <u>♄</u> 58'29	0°13'39
conjunction	800 Oct 11 j 20:48	22° <u>♄</u> 42'34	0°31'11	minimum elong	806 Nov 08 j 08:02	19° <u>♄</u> 58'29	0°13'39
minimum elong	800 Oct 11 j 20:48	22° <u>♄</u> 42'34	0°31'10	behind sun begin	806 Nov 08 j 04:21	19° <u>♄</u> 57'56	
max. Earth dist.	800 Oct 11 j 10:20	22° <u>♄</u> 40'56	19.58711 AU	behind sun end	806 Nov 08 j 11:42	19° <u>♄</u> 59'03	
morning rise	800 Oct 27 j 17:27	23° <u>♄</u> 41'42		max. Earth dist.	806 Nov 08 j 10:11	19° <u>♄</u> 58'49	19.93286 AU
retrograde	801 Jan 26 j 18:57	27° <u>♄</u> 00'16		morning rise	806 Nov 24 j 00:30	20° <u>♄</u> 56'03	
opposition	801 Apr 11 j 09:16	24° <u>♄</u> 59'15	0°33'19	retrograde	807 Feb 23 j 11:50	24° <u>♄</u> 11'25	
min. Earth dist.	801 Apr 11 j 18:42	24° <u>♄</u> 58'15	17.61095 AU	opposition	807 May 10 j 02:54	22° <u>♄</u> 11'22	0°13'20
direct	801 Jun 27 j 13:07	22° <u>♄</u> 54'44		min. Earth dist.	807 May 10 j 00:28	22° <u>♄</u> 11'37	17.96510 AU
evening set	801 Sep 30 j 17:52	26° <u>♄</u> 19'58		direct	807 Jul 26 j 10:15	20° <u>♄</u> 09'14	
				evening set	807 Oct 28 j 05:12	23° <u>♄</u> 27'55	
conjunction	801 Oct 16 j 16:46	27° <u>♄</u> 19'16	0°28'36				
minimum elong	801 Oct 16 j 16:47	27° <u>♄</u> 19'16	0°28'36	conjunction	807 Nov 12 j 22:58	24° <u>♄</u> 25'27	0°10'23
max. Earth dist.	801 Oct 16 j 07:31	27° <u>♄</u> 17'50	19.63588 AU	minimum elong	807 Nov 12 j 22:59	24° <u>♄</u> 25'27	0°10'23
morning rise	801 Nov 01 j 12:43	28° <u>♄</u> 18'08		behind sun begin	807 Nov 12 j 17:46	24° <u>♄</u> 24'40	
	801 Dec 01 j 20:38	0° <u>♄</u>		behind sun end	807 Nov 13 j 04:11	24° <u>♄</u> 26'14	
retrograde	802 Jan 31 j 16:07	1° <u>♄</u> 36'11		max. Earth dist.	807 Nov 13 j 01:48	24° <u>♄</u> 25'52	19.99787 AU
	802 Apr 06 j 12:52	30° <u>♄</u>		morning rise	807 Nov 28 j 15:10	25° <u>♄</u> 22'45	
opposition	802 Apr 16 j 09:18	29° <u>♄</u> 35'16	0°30'21	retrograde	808 Feb 28 j 04:26	28° <u>♄</u> 37'35	
min. Earth dist.	802 Apr 16 j 15:46	29° <u>♄</u> 34'35	17.66189 AU	opposition	808 May 14 j 00:07	26° <u>♄</u> 37'42	0°09'40
direct	802 Jul 02 j 15:11	27° <u>♄</u> 31'04		min. Earth dist.	808 May 13 j 19:54	26° <u>♄</u> 38'08	18.03030 AU
	802 Sep 19 j 20:40	0° <u>♄</u>		direct	808 Jul 30 j 06:43	24° <u>♄</u> 35'58	
evening set	802 Oct 05 j 13:48	0° <u>♄</u> 55'18		evening set	808 Oct 31 j 19:59	27° <u>♄</u> 53'28	
conjunction	802 Oct 21 j 11:53	1° <u>♄</u> 54'19	0°25'52	conjunction	808 Nov 16 j 13:15	28° <u>♄</u> 50'43	0°07'05

minimum elong	808 Nov 16 j 13:15	28° $\overline{\text{M}}$ 50'43	0°07'04	max. Earth dist.	813 Dec 08 j 12:39	20° $\overline{\text{X}}$ 31'36	20.37597 AU
behind sun begin	808 Nov 16 j 07:10	28° $\overline{\text{M}}$ 49'49		morning rise	813 Dec 23 j 15:02	21° $\overline{\text{X}}$ 25'39	
behind sun end	808 Nov 16 j 19:19	28° $\overline{\text{M}}$ 51'37		retrograde	814 Mar 25 j 19:02	24° $\overline{\text{X}}$ 37'09	
max. Earth dist.	808 Nov 16 j 18:44	28° $\overline{\text{M}}$ 51'32	20.06298 AU	opposition	814 Jun 10 j 17:23	22° $\overline{\text{X}}$ 37'44	-0°12'16
morning rise	808 Dec 02 j 04:51	29° $\overline{\text{M}}$ 47'46		min. Earth dist.	814 Jun 10 j 04:10	22° $\overline{\text{X}}$ 39'04	18.40604 AU
	808 Dec 05 j 15:23	0° $\overline{\text{X}}$		direct	814 Aug 26 j 17:26	20° $\overline{\text{X}}$ 38'01	
retrograde	809 Mar 03 j 20:37	3° $\overline{\text{X}}$ 02'02		evening set	814 Nov 26 j 18:52	23° $\overline{\text{X}}$ 48'16	
opposition	809 May 18 j 20:45	1° $\overline{\text{X}}$ 02'18	0°05'58				
min. Earth dist.	809 May 18 j 14:56	1° $\overline{\text{X}}$ 02'54	18.09516 AU	conjunction	814 Dec 12 j 09:41	24° $\overline{\text{X}}$ 43'57	-0°12'40
	809 Jun 14 j 10:18	30° $\overline{\text{R}}$ $\overline{\text{M}}$		minimum elong	814 Dec 12 j 09:41	24° $\overline{\text{X}}$ 43'57	0°12'39
direct	809 Aug 04 j 03:33	29° $\overline{\text{M}}$ 00'58		behind sun begin	814 Dec 12 j 05:26	24° $\overline{\text{X}}$ 43'20	
	809 Sep 21 j 14:54	0° $\overline{\text{X}}$		behind sun end	814 Dec 12 j 13:56	24° $\overline{\text{X}}$ 44'35	
evening set	809 Nov 05 j 10:06	2° $\overline{\text{X}}$ 17'15		max. Earth dist.	814 Dec 13 j 00:31	24° $\overline{\text{X}}$ 46'10	20.43607 AU
				morning rise	814 Dec 28 j 00:32	25° $\overline{\text{X}}$ 39'40	
conjunction	809 Nov 21 j 02:39	3° $\overline{\text{X}}$ 14'14	0°03'45	retrograde	815 Mar 30 j 08:23	28° $\overline{\text{X}}$ 50'39	
minimum elong	809 Nov 21 j 02:38	3° $\overline{\text{X}}$ 14'13	0°03'46	opposition	815 Jun 15 j 09:27	26° $\overline{\text{X}}$ 51'18	-0°15'42
behind sun begin	809 Nov 20 j 20:08	3° $\overline{\text{X}}$ 13'16		min. Earth dist.	815 Jun 14 j 17:55	26° $\overline{\text{X}}$ 52'52	18.46580 AU
behind sun end	809 Nov 21 j 09:07	3° $\overline{\text{X}}$ 15'11		direct	815 Aug 31 j 08:59	24° $\overline{\text{X}}$ 51'53	
max. Earth dist.	809 Nov 21 j 08:43	3° $\overline{\text{X}}$ 15'07	20.12756 AU	evening set	815 Dec 01 j 03:58	28° $\overline{\text{X}}$ 01'02	
morning rise	809 Dec 06 j 18:04	4° $\overline{\text{X}}$ 11'02					
retrograde	810 Mar 08 j 11:51	7° $\overline{\text{X}}$ 24'46		conjunction	815 Dec 16 j 18:30	28° $\overline{\text{X}}$ 56'30	-0°15'42
opposition	810 May 23 j 16:45	5° $\overline{\text{X}}$ 25'08	0°02'14	minimum elong	815 Dec 16 j 18:30	28° $\overline{\text{X}}$ 56'30	0°15'43
min. Earth dist.	810 May 23 j 09:33	5° $\overline{\text{X}}$ 25'52	18.15945 AU	behind sun begin	815 Dec 16 j 16:44	28° $\overline{\text{X}}$ 56'14	
direct	810 Aug 08 j 22:04	3° $\overline{\text{X}}$ 24'09		behind sun end	815 Dec 16 j 20:16	28° $\overline{\text{X}}$ 56'45	
evening set	810 Nov 09 j 23:05	6° $\overline{\text{X}}$ 39'14		max. Earth dist.	815 Dec 17 j 10:21	28° $\overline{\text{X}}$ 58'51	20.49545 AU
				morning rise	816 Jan 01 j 09:32	29° $\overline{\text{X}}$ 52'02	
conjunction	810 Nov 25 j 15:17	7° $\overline{\text{X}}$ 35'55	0°00'21		816 Jan 03 j 16:25	0° $\overline{\text{Z}}$	
minimum elong	810 Nov 25 j 15:17	7° $\overline{\text{X}}$ 35'55	0°00'21	retrograde	816 Apr 02 j 19:49	3° $\overline{\text{Z}}$ 02'33	
behind sun begin	810 Nov 25 j 08:46	7° $\overline{\text{X}}$ 34'58		min. Earth dist.	816 Jun 18 j 08:52	1° $\overline{\text{Z}}$ 04'54	18.52492 AU
behind sun end	810 Nov 25 j 21:48	7° $\overline{\text{X}}$ 36'53		opposition	816 Jun 19 j 01:07	1° $\overline{\text{Z}}$ 03'15	-0°19'01
max. Earth dist.	810 Nov 25 j 23:46	7° $\overline{\text{X}}$ 37'11	20.19131 AU		816 Jul 16 j 13:51	30° $\overline{\text{R}}$ $\overline{\text{X}}$	
morning rise	810 Dec 11 j 06:22	8° $\overline{\text{X}}$ 32'30		direct	816 Sep 03 j 21:37	29° $\overline{\text{X}}$ 04'11	
desc. node	811 Jan 02 j 00:52	9° $\overline{\text{X}}$ 45'51			816 Oct 21 j 05:26	0° $\overline{\text{Z}}$	
retrograde	811 Mar 13 j 02:44	11° $\overline{\text{X}}$ 45'39		evening set	816 Dec 04 j 12:10	2° $\overline{\text{Z}}$ 12'14	
opposition	811 May 28 j 11:58	9° $\overline{\text{X}}$ 46'07	-0°01'28				
min. Earth dist.	811 May 28 j 02:59	9° $\overline{\text{X}}$ 47'02	18.22252 AU	conjunction	816 Dec 20 j 02:42	3° $\overline{\text{Z}}$ 07'30	-0°18'39
direct	811 Aug 13 j 16:57	7° $\overline{\text{X}}$ 45'29		minimum elong	816 Dec 20 j 02:42	3° $\overline{\text{Z}}$ 07'30	0°18'38
evening set	811 Nov 14 j 11:26	10° $\overline{\text{X}}$ 59'20		max. Earth dist.	816 Dec 20 j 20:38	3° $\overline{\text{Z}}$ 10'10	20.55406 AU
				morning rise	817 Jan 04 j 17:48	4° $\overline{\text{Z}}$ 02'51	
conjunction	811 Nov 30 j 03:03	11° $\overline{\text{X}}$ 55'46	-0°03'03	retrograde	817 Apr 07 j 09:03	7° $\overline{\text{Z}}$ 12'56	
minimum elong	811 Nov 30 j 03:02	11° $\overline{\text{X}}$ 55'45	0°03'03	opposition	817 Jun 23 j 16:01	5° $\overline{\text{Z}}$ 13'43	-0°22'13
behind sun begin	811 Nov 29 j 20:31	11° $\overline{\text{X}}$ 54'48		min. Earth dist.	817 Jun 22 j 21:27	5° $\overline{\text{Z}}$ 15'36	18.58288 AU
behind sun end	811 Nov 30 j 09:33	11° $\overline{\text{X}}$ 56'43		direct	817 Sep 08 j 11:54	3° $\overline{\text{Z}}$ 14'59	
max. Earth dist.	811 Nov 30 j 12:10	11° $\overline{\text{X}}$ 57'07	20.25380 AU	evening set	817 Dec 08 j 19:59	6° $\overline{\text{Z}}$ 22'01	
morning rise	811 Dec 15 j 18:05	12° $\overline{\text{X}}$ 52'06					
retrograde	812 Mar 16 j 16:30	16° $\overline{\text{X}}$ 04'42		conjunction	817 Dec 24 j 10:23	7° $\overline{\text{Z}}$ 17'05	-0°21'29
opposition	812 Jun 01 j 06:26	14° $\overline{\text{X}}$ 05'13	-0°05'08	minimum elong	817 Dec 24 j 10:23	7° $\overline{\text{Z}}$ 17'05	0°21'29
min. Earth dist.	812 May 31 j 20:24	14° $\overline{\text{X}}$ 06'14	18.28456 AU	max. Earth dist.	817 Dec 25 j 05:18	7° $\overline{\text{Z}}$ 19'53	20.61127 AU
direct	812 Aug 17 j 09:42	12° $\overline{\text{X}}$ 04'53		morning rise	818 Jan 09 j 01:50	8° $\overline{\text{Z}}$ 12'18	
evening set	812 Nov 17 j 22:43	15° $\overline{\text{X}}$ 17'31		retrograde	818 Apr 11 j 19:25	11° $\overline{\text{Z}}$ 21'58	
				min. Earth dist.	818 Jun 27 j 11:28	9° $\overline{\text{Z}}$ 24'44	18.63939 AU
conjunction	812 Dec 03 j 14:05	16° $\overline{\text{X}}$ 13'41	-0°06'19	opposition	818 Jun 28 j 06:20	9° $\overline{\text{Z}}$ 22'50	-0°25'17
minimum elong	812 Dec 03 j 14:05	16° $\overline{\text{X}}$ 13'41	0°06'20	direct	818 Sep 12 j 22:47	7° $\overline{\text{Z}}$ 24'26	
behind sun begin	812 Dec 03 j 07:54	16° $\overline{\text{X}}$ 12'47		evening set	818 Dec 13 j 03:09	10° $\overline{\text{Z}}$ 30'29	
behind sun end	812 Dec 03 j 20:16	16° $\overline{\text{X}}$ 14'36					
max. Earth dist.	812 Dec 04 j 01:36	16° $\overline{\text{X}}$ 15'25	20.31534 AU	conjunction	818 Dec 28 j 17:43	11° $\overline{\text{Z}}$ 25'23	-0°24'11
morning rise	812 Dec 19 j 04:55	17° $\overline{\text{X}}$ 09'49		minimum elong	818 Dec 28 j 17:43	11° $\overline{\text{Z}}$ 25'23	0°24'11
retrograde	813 Mar 21 j 06:24	20° $\overline{\text{X}}$ 21'51		max. Earth dist.	818 Dec 29 j 14:15	11° $\overline{\text{Z}}$ 28'24	20.66676 AU
opposition	813 Jun 06 j 00:14	18° $\overline{\text{X}}$ 22'24	-0°08'44	morning rise	819 Jan 13 j 09:24	12° $\overline{\text{Z}}$ 20'27	
min. Earth dist.	813 Jun 05 j 12:02	18° $\overline{\text{X}}$ 23'39	18.34559 AU	retrograde	819 Apr 16 j 07:47	15° $\overline{\text{Z}}$ 29'43	
direct	813 Aug 22 j 02:45	16° $\overline{\text{X}}$ 22'23		opposition	819 Jul 02 j 19:54	13° $\overline{\text{Z}}$ 30'42	-0°28'13
evening set	813 Nov 22 j 09:11	19° $\overline{\text{X}}$ 33'48		min. Earth dist.	819 Jul 01 j 23:03	13° $\overline{\text{Z}}$ 32'47	18.69365 AU
				direct	819 Sep 17 j 12:01	11° $\overline{\text{Z}}$ 32'37	
conjunction	813 Dec 08 j 00:07	20° $\overline{\text{X}}$ 29'43	-0°09'32	evening set	819 Dec 17 j 09:58	14° $\overline{\text{Z}}$ 37'45	
minimum elong	813 Dec 08 j 00:07	20° $\overline{\text{X}}$ 29'43	0°09'32				
behind sun begin	813 Dec 07 j 18:38	20° $\overline{\text{X}}$ 28'55		conjunction	820 Jan 02 j 00:31	15° $\overline{\text{Z}}$ 32'29	-0°26'46
behind sun end	813 Dec 08 j 05:35	20° $\overline{\text{X}}$ 30'31		minimum elong	820 Jan 02 j 00:31	15° $\overline{\text{Z}}$ 32'29	0°26'46

max. Earth dist.	820 Jan 02 j 21:44	15°33'36	20.71960 AU	opposition	826 Aug 01 j 04:14	11°56'11	-0°43'39
morning rise	820 Jan 17 j 16:36	16°32'25		direct	826 Oct 16 j 04:46	9°59'28	
retrograde	820 Apr 19 j 17:34	19°36'21		evening set	827 Jan 14 j 00:08	12°59'30	
opposition	820 Jul 06 j 09:03	17°37'24	-0°30'59				
min. Earth dist.	820 Jul 05 j 12:21	17°39'29	18.74515 AU	conjunction	827 Jan 29 j 17:22	13°53'33	-0°40'08
direct	820 Sep 20 j 21:27	15°39'38		minimum elong	827 Jan 29 j 17:21	13°53'33	0°40'09
evening set	820 Dec 20 j 16:21	18°43'53		max. Earth dist.	827 Jan 30 j 17:48	13°57'05	20.97853 AU
				morning rise	827 Feb 14 j 13:27	14°48'00	
conjunction	821 Jan 05 j 07:09	19°38'28	-0°29'12		827 Feb 18 j 03:16	15°	
minimum elong	821 Jan 05 j 07:09	19°38'28	0°29'12	retrograde	827 May 19 j 11:49	17°55'12	
max. Earth dist.	821 Jan 06 j 05:32	19°41'45	20.76950 AU	opposition	827 Aug 05 j 13:27	15°56'07	-0°45'02
morning rise	821 Jan 20 j 23:34	20°33'17		min. Earth dist.	827 Aug 04 j 13:32	15°58'30	18.98938 AU
retrograde	821 Apr 24 j 04:46	23°41'54			827 Aug 29 j 22:26	15°	
opposition	821 Jul 10 j 21:35	21°43'01	-0°33'35	direct	827 Oct 20 j 12:45	13°59'27	
min. Earth dist.	821 Jul 09 j 23:10	21°45'16	18.79327 AU		827 Dec 08 j 20:01	15°	
direct	821 Sep 25 j 09:37	19°45'31		evening set	828 Jan 18 j 04:32	16°59'01	
evening set	821 Dec 24 j 22:24	22°48'57					
				conjunction	828 Feb 02 j 22:15	17°53'02	-0°41'17
conjunction	822 Jan 09 j 13:22	23°43'24	-0°31'28	minimum elong	828 Feb 02 j 22:15	17°53'02	0°41'18
minimum elong	822 Jan 09 j 13:22	23°43'24	0°31'28	max. Earth dist.	828 Feb 03 j 22:53	17°56'35	20.99849 AU
max. Earth dist.	822 Jan 10 j 12:08	23°46'44	20.81558 AU	morning rise	828 Feb 18 j 19:07	18°47'29	
morning rise	822 Jan 25 j 06:21	24°38'08		retrograde	828 May 22 j 18:41	21°54'34	
retrograde	822 Apr 28 j 14:17	27°46'28		opposition	828 Aug 08 j 22:25	19°55'25	-0°46'11
min. Earth dist.	822 Jul 14 j 11:53	25°49'48	18.83739 AU	min. Earth dist.	828 Aug 07 j 23:21	19°57'43	19.00770 AU
opposition	822 Jul 15 j 09:43	25°47'37	-0°35'59	direct	828 Oct 23 j 18:37	17°58'50	
direct	822 Sep 29 j 18:05	23°50'21		evening set	829 Jan 21 j 08:50	20°57'58	
evening set	822 Dec 29 j 04:11	26°53'01					
				conjunction	829 Feb 06 j 03:16	21°51'59	-0°42'14
conjunction	823 Jan 13 j 19:33	27°47'21	-0°33'34	minimum elong	829 Feb 06 j 03:16	21°51'59	0°42'14
minimum elong	823 Jan 13 j 19:33	27°47'21	0°33'35	max. Earth dist.	829 Feb 07 j 04:15	21°55'35	21.01518 AU
max. Earth dist.	823 Jan 14 j 18:54	27°50'45	20.85746 AU	morning rise	829 Feb 22 j 00:54	22°46'27	
morning rise	823 Jan 29 j 12:58	28°41'59		retrograde	829 May 27 j 04:14	25°53'28	
	823 Feb 22 j 21:11	0°		min. Earth dist.	829 Aug 12 j 06:38	23°56'40	19.02273 AU
retrograde	823 May 03 j 00:28	1°50'02		opposition	829 Aug 13 j 06:49	23°54'15	-0°47'06
	823 Jul 16 j 04:51	30°		direct	829 Oct 28 j 01:37	21°57'44	
opposition	823 Jul 19 j 20:59	29°51'12	-0°38'13	evening set	830 Jan 25 j 13:09	24°56'32	
min. Earth dist.	823 Jul 18 j 21:49	29°53'31	18.87692 AU				
direct	823 Oct 04 j 04:44	27°54'08		conjunction	830 Feb 10 j 08:15	25°50'34	-0°42'59
	823 Dec 16 j 06:06	0°		minimum elong	830 Feb 10 j 08:15	25°50'34	0°42'59
evening set	824 Jan 02 j 09:43	0°56'04		max. Earth dist.	830 Feb 11 j 09:15	25°54'10	21.02845 AU
				morning rise	830 Feb 26 j 06:47	26°45'05	
conjunction	824 Jan 18 j 01:22	1°50'18	-0°35'30	retrograde	830 May 31 j 10:45	29°52'04	
minimum elong	824 Jan 18 j 01:22	1°50'18	0°35'29	opposition	830 Aug 17 j 15:02	27°52'49	-0°47'49
max. Earth dist.	824 Jan 19 j 00:46	1°53'42	20.89453 AU	min. Earth dist.	830 Aug 16 j 15:56	27°55'08	19.03433 AU
morning rise	824 Feb 02 j 19:25	2°44'52		direct	830 Nov 01 j 06:27	25°56'22	
retrograde	824 May 06 j 09:08	5°52'40		evening set	831 Jan 29 j 17:31	28°54'55	
min. Earth dist.	824 Jul 22 j 09:42	3°56'03	18.91168 AU				
opposition	824 Jul 23 j 08:04	3°53'49	-0°40'14	conjunction	831 Feb 14 j 13:25	29°48'59	-0°43'31
direct	824 Oct 07 j 12:33	1°56'54		minimum elong	831 Feb 14 j 13:25	29°48'59	0°43'30
evening set	825 Jan 05 j 14:41	4°58'08		max. Earth dist.	831 Feb 15 j 14:25	29°52'34	21.03837 AU
					831 Feb 17 j 18:12	0°	
conjunction	825 Jan 21 j 06:51	5°52'17	-0°37'14	morning rise	831 Mar 02 j 12:46	0°43'32	
minimum elong	825 Jan 21 j 06:51	5°52'17	0°37'15	retrograde	831 Jun 04 j 20:23	3°50'33	
max. Earth dist.	825 Jan 22 j 06:45	5°55'46	20.92696 AU	opposition	831 Aug 21 j 22:43	1°51'16	-0°48'17
morning rise	825 Feb 06 j 01:31	6°46'48		min. Earth dist.	831 Aug 20 j 22:51	1°53'39	19.04241 AU
retrograde	825 May 10 j 18:48	9°54'23			831 Oct 22 j 06:52	30°	
opposition	825 Jul 27 j 18:26	7°55'27	-0°42'03	direct	831 Nov 05 j 12:38	29°54'53	
min. Earth dist.	825 Jul 26 j 18:48	7°57'49	18.94175 AU		831 Nov 19 j 12:50	0°	
direct	825 Oct 11 j 21:48	5°58'39		evening set	832 Feb 02 j 22:04	2°53'16	
evening set	826 Jan 09 j 19:35	8°59'15					
				conjunction	832 Feb 18 j 18:41	3°47'23	-0°43'51
conjunction	826 Jan 25 j 12:11	9°53'21	-0°38'47	minimum elong	832 Feb 18 j 18:41	3°47'23	0°43'51
minimum elong	826 Jan 25 j 12:10	9°53'21	0°38'47	max. Earth dist.	832 Feb 19 j 19:27	3°50'56	21.04457 AU
max. Earth dist.	826 Jan 26 j 12:11	9°56'49	20.95474 AU	morning rise	832 Mar 05 j 18:57	4°42'00	
morning rise	826 Feb 10 j 07:35	10°47'50		retrograde	832 Jun 08 j 03:05	7°49'05	
retrograde	826 May 15 j 02:25	13°55'11		min. Earth dist.	832 Aug 24 j 07:56	5°52'03	19.04674 AU
min. Earth dist.	826 Jul 31 j 05:32	11°58'27	18.96751 AU	opposition	832 Aug 25 j 06:29	5°49'47	-0°48'32

direct	832 Nov 08 j 16:59	3° H 53'28	minimum elong	839 Mar 18 j 17:45	1° Y 44'56	0°40'18
evening set	833 Feb 06 j 02:38	6° H 51'44	max. Earth dist.	839 Mar 19 j 11:48	1° Y 47'31	20.95856 AU
			morning rise	839 Apr 04 j 00:48	2° Y 40'26	
conjunction	833 Feb 22 j 00:10	7° H 45'55 -0°43'58	retrograde	839 Jul 07 j 19:39	5° Y 48'47	
minimum elong	833 Feb 22 j 00:10	7° H 45'55 0°43'57	opposition	839 Sep 23 j 09:14	3° Y 48'50	-0°43'48
max. Earth dist.	833 Feb 23 j 00:39	7° H 49'25 21.04700 AU	min. Earth dist.	839 Sep 22 j 16:54	3° Y 50'30	18.94326 AU
morning rise	833 Mar 10 j 01:22	8° H 40'37	direct	839 Dec 07 j 06:28	1° Y 51'56	
retrograde	833 Jun 12 j 12:59	11° H 47'49	evening set	840 Mar 05 j 21:56	4° Y 51'15	
opposition	833 Aug 29 j 13:57	9° H 48'30 -0°48'33				
min. Earth dist.	833 Aug 28 j 14:59	9° H 50'48 19.04702 AU	conjunction	840 Mar 22 j 02:07	5° Y 46'22	-0°38'57
direct	833 Nov 12 j 22:44	7° H 52'13	minimum elong	840 Mar 22 j 02:07	5° Y 46'22	0°38'57
evening set	834 Feb 10 j 07:46	10° H 50'28	max. Earth dist.	840 Mar 22 j 19:08	5° Y 48'48	20.92649 AU
			morning rise	840 Apr 07 j 10:10	6° Y 42'03	
conjunction	834 Feb 26 j 06:06	11° H 44'44 -0°43'53	retrograde	840 Jul 11 j 04:15	9° Y 50'39	
minimum elong	834 Feb 26 j 06:06	11° H 44'44 0°43'53	opposition	840 Sep 26 j 16:27	7° Y 50'32	-0°42'13
max. Earth dist.	834 Feb 27 j 05:56	11° H 48'08 21.04500 AU	min. Earth dist.	840 Sep 26 j 02:04	7° Y 52'00	18.90927 AU
morning rise	834 Mar 14 j 08:16	12° H 39'32	direct	840 Dec 10 j 11:14	5° Y 53'24	
retrograde	834 Jun 16 j 20:22	15° H 46'52	evening set	841 Mar 10 j 05:41	8° Y 53'06	
opposition	834 Sep 02 j 21:14	13° H 47'31 -0°48'20				
min. Earth dist.	834 Sep 02 j 00:04	13° H 49'39 19.04271 AU	conjunction	841 Mar 26 j 10:58	9° Y 48'25	-0°37'25
direct	834 Nov 17 j 02:53	11° H 51'15	minimum elong	841 Mar 26 j 10:58	9° Y 48'25	0°37'25
evening set	835 Feb 14 j 13:09	14° H 49'33	max. Earth dist.	841 Mar 27 j 02:37	9° Y 50'39	20.89087 AU
			morning rise	841 Apr 11 j 20:03	10° Y 44'17	
conjunction	835 Mar 02 j 12:26	15° H 43'55 -0°43'35	retrograde	841 Jul 15 j 15:14	13° Y 53'12	
minimum elong	835 Mar 02 j 12:26	15° H 43'55 0°43'35	opposition	841 Sep 30 j 23:37	11° Y 52'54	-0°40'25
max. Earth dist.	835 Mar 03 j 11:23	15° H 47'12 21.03834 AU	min. Earth dist.	841 Sep 30 j 09:42	11° Y 54'19	18.87194 AU
morning rise	835 Mar 18 j 15:31	16° H 38'49	direct	841 Dec 14 j 18:06	9° Y 55'32	
retrograde	835 Jun 21 j 06:27	19° H 46'20	evening set	842 Mar 14 j 14:11	12° Y 55'42	
min. Earth dist.	835 Sep 06 j 07:21	17° H 49'03 19.03345 AU				
opposition	835 Sep 07 j 04:28	17° H 46'56 -0°47'54	conjunction	842 Mar 30 j 20:29	13° Y 51'14	-0°35'41
direct	835 Nov 21 j 08:45	15° H 50'38	minimum elong	842 Mar 30 j 20:29	13° Y 51'14	0°35'41
evening set	836 Feb 18 j 18:53	18° H 49'01	max. Earth dist.	842 Mar 31 j 11:04	13° Y 53'19	20.85191 AU
			morning rise	842 Apr 16 j 06:28	14° Y 47'18	
conjunction	836 Mar 05 j 19:02	19° H 43'31 -0°43'05	retrograde	842 Jul 20 j 00:46	17° Y 56'33	
minimum elong	836 Mar 05 j 19:02	19° H 43'31 0°43'04	opposition	842 Oct 05 j 06:54	15° Y 56'06	-0°38'25
max. Earth dist.	836 Mar 06 j 16:58	19° H 46'39 21.02634 AU	min. Earth dist.	842 Oct 04 j 18:54	15° Y 57'20	18.83154 AU
morning rise	836 Mar 21 j 23:06	20° H 38'33	direct	842 Dec 18 j 23:35	13° Y 58'29	
retrograde	836 Jun 24 j 14:21	23° H 46'15	evening set	843 Mar 18 j 23:11	16° Y 59'13	
opposition	836 Sep 10 j 11:52	21° H 46'46 -0°47'13				
min. Earth dist.	836 Sep 09 j 16:41	21° H 48'42 19.01874 AU	conjunction	843 Apr 04 j 06:32	17° Y 54'59	-0°33'47
direct	836 Nov 24 j 12:57	19° H 50'24	minimum elong	843 Apr 04 j 06:32	17° Y 54'59	0°33'47
evening set	837 Feb 22 j 01:02	22° H 48'56	max. Earth dist.	843 Apr 04 j 19:31	17° Y 56'50	20.81032 AU
			morning rise	843 Apr 20 j 17:30	18° Y 51'16	
conjunction	837 Mar 10 j 02:13	23° H 43'33 -0°42'21	retrograde	843 Jul 24 j 12:22	22° Y 00'54	
minimum elong	837 Mar 10 j 02:13	23° H 43'33 0°42'22	opposition	843 Oct 09 j 14:25	20° Y 00'18	-0°36'13
max. Earth dist.	837 Mar 10 j 22:53	23° H 46'30 21.00903 AU	min. Earth dist.	843 Oct 09 j 02:55	20° Y 01'29	18.78865 AU
morning rise	837 Mar 26 j 07:17	24° H 38'43	direct	843 Dec 23 j 06:22	18° Y 02'27	
retrograde	837 Jun 29 j 00:56	27° H 46'38	evening set	844 Mar 22 j 08:44	21° Y 03'48	
opposition	837 Sep 14 j 18:58	25° H 47'01 -0°46'18				
min. Earth dist.	837 Sep 14 j 00:08	25° H 48'55 18.99864 AU	conjunction	844 Apr 07 j 17:07	21° Y 59'48	-0°31'42
direct	837 Nov 28 j 19:19	23° H 50'30	minimum elong	844 Apr 07 j 17:07	21° Y 59'48	0°31'42
evening set	838 Feb 26 j 07:39	26° H 49'15	max. Earth dist.	844 Apr 08 j 05:09	22° Y 01'32	20.76617 AU
			morning rise	844 Apr 24 j 04:58	22° Y 56'19	
conjunction	838 Mar 14 j 09:49	27° H 44'01 -0°41'26	retrograde	844 Jul 27 j 23:03	26° Y 06'23	
minimum elong	838 Mar 14 j 09:49	27° H 44'01 0°41'25	opposition	844 Oct 12 j 22:20	24° Y 05'40	-0°33'49
max. Earth dist.	838 Mar 15 j 05:14	27° H 46'48 20.98623 AU	min. Earth dist.	844 Oct 12 j 12:41	24° Y 06'40	18.74331 AU
morning rise	838 Mar 30 j 15:54	28° H 39'21	direct	844 Dec 26 j 12:47	22° Y 07'36	
	838 Apr 25 j 09:45	0° Y	evening set	845 Mar 26 j 19:11	25° Y 09'40	
retrograde	838 Jul 03 j 08:57	1° Y 47'28				
	838 Sep 14 j 00:52	30° R H	conjunction	845 Apr 12 j 04:35	26° Y 05'55	-0°29'27
min. Earth dist.	838 Sep 18 j 09:28	29° H 49'24 18.97324 AU	minimum elong	845 Apr 12 j 04:35	26° Y 05'55	0°29'26
opposition	838 Sep 19 j 02:13	29° H 47'42 -0°45'10	max. Earth dist.	845 Apr 12 j 14:44	26° Y 07'22	20.71987 AU
direct	838 Dec 02 j 23:41	27° H 51'01	morning rise	845 Apr 28 j 17:25	27° Y 02'40	
	839 Feb 15 j 03:10	0° Y		845 Jul 09 j 09:37	0° B	
evening set	839 Mar 02 j 14:32	0° Y 50'00	retrograde	845 Aug 01 j 11:50	0° B 13'11	
				845 Aug 24 j 15:36	30° R Y	
conjunction	839 Mar 18 j 17:44	1° Y 44'56 -0°40'17	opposition	845 Oct 17 j 06:20	28° Y 12'22	-0°31'15

min. Earth dist.	845 Oct 16 j 21:29	28°♄13'17	18.69585 AU	direct	852 Jan 25 j 05:07	21°♄26'21	
direct	845 Dec 30 j 20:04	26°♄14'04		evening set	852 Apr 25 j 20:42	24°♄35'03	
evening set	846 Mar 31 j 06:29	29°♄16'56					
	846 Apr 12 j 19:46	0°♄		conjunction	852 May 12 j 12:30	25°♄33'19	-0°09'40
				minimum elong	852 May 12 j 12:30	25°♄33'19	0°09'40
conjunction	846 Apr 16 j 16:55	0°♄13'27	-0°27'02	behind sun begin	852 May 12 j 06:58	25°♄32'32	
minimum elong	846 Apr 16 j 16:55	0°♄13'27	0°27'03	behind sun end	852 May 12 j 18:01	25°♄34'06	
max. Earth dist.	846 Apr 17 j 01:55	0°♄14'45	20.67122 AU	max. Earth dist.	852 May 12 j 09:18	25°♄32'52	20.32399 AU
morning rise	846 May 03 j 06:32	1°♄10'28		morning rise	852 May 29 j 06:04	26°♄31'53	
retrograde	846 Aug 05 j 23:41	4°♄21'28		retrograde	852 Aug 31 j 12:54	29°♄46'03	
opposition	846 Oct 21 j 14:53	2°♄20'35	-0°28'29	opposition	852 Nov 15 j 03:36	27°♄44'30	-0°08'52
min. Earth dist.	846 Oct 21 j 08:02	2°♄21'18	18.64598 AU	min. Earth dist.	852 Nov 15 j 07:21	27°♄44'06	18.29092 AU
direct	847 Jan 04 j 03:21	0°♄22'04		direct	853 Jan 28 j 16:48	25°♄43'58	
evening set	847 Apr 04 j 18:32	3°♄25'47		evening set	853 Apr 30 j 14:17	28°♄53'46	
conjunction	847 Apr 21 j 05:53	4°♄22'34	-0°24'28	conjunction	853 May 17 j 06:40	29°♄52'19	-0°06'26
minimum elong	847 Apr 21 j 05:53	4°♄22'34	0°24'28	minimum elong	853 May 17 j 06:40	29°♄52'19	0°06'26
max. Earth dist.	847 Apr 21 j 12:36	4°♄23'32	20.62029 AU	behind sun begin	853 May 17 j 00:19	29°♄51'24	
morning rise	847 May 07 j 20:22	5°♄19'50		behind sun end	853 May 17 j 13:01	29°♄53'14	
retrograde	847 Aug 10 j 13:41	8°♄31'22		max. Earth dist.	853 May 17 j 00:23	29°♄51'25	20.25806 AU
opposition	847 Oct 25 j 23:46	6°♄30'25	-0°25'34		853 May 19 j 10:45	0°♄	
min. Earth dist.	847 Oct 25 j 18:03	6°♄31'01	18.59375 AU	morning rise	853 Jun 03 j 00:51	0°♄51'09	
direct	848 Jan 08 j 12:01	4°♄31'39		retrograde	853 Sep 05 j 04:59	4°♄05'50	
evening set	848 Apr 08 j 07:35	7°♄36'17		opposition	853 Nov 19 j 15:20	2°♄04'06	-0°05'14
				min. Earth dist.	853 Nov 19 j 20:51	2°♄03'31	18.22454 AU
conjunction	848 Apr 24 j 19:55	8°♄33'22	-0°21'45	direct	854 Feb 02 j 06:22	0°♄03'08	
minimum elong	848 Apr 24 j 19:56	8°♄33'22	0°21'45	evening set	854 May 05 j 08:34	3°♄14'04	
max. Earth dist.	848 Apr 25 j 01:20	8°♄34'09	20.56665 AU				
morning rise	848 May 11 j 11:03	9°♄30'53		conjunction	854 May 22 j 01:46	4°♄12'55	-0°03'08
retrograde	848 Aug 14 j 02:39	12°♄42'57		minimum elong	854 May 22 j 01:44	4°♄12'55	0°03'08
opposition	848 Oct 29 j 09:09	10°♄41'56	-0°22'29	behind sun begin	854 May 21 j 19:00	4°♄11'57	
min. Earth dist.	848 Oct 29 j 05:39	10°♄42'18	18.53870 AU	behind sun end	854 May 22 j 08:29	4°♄13'53	
direct	849 Jan 11 j 20:11	8°♄42'54		max. Earth dist.	854 May 21 j 18:35	4°♄11'53	20.19131 AU
evening set	849 Apr 12 j 21:36	11°♄48'30		morning rise	854 Jun 07 j 20:06	5°♄11'59	
				retrograde	854 Sep 09 j 20:46	8°♄27'12	
conjunction	849 Apr 29 j 10:48	12°♄45'52	-0°18'54	opposition	854 Nov 24 j 03:46	6°♄25'18	-0°01'33
minimum elong	849 Apr 29 j 10:48	12°♄45'52	0°18'54	min. Earth dist.	854 Nov 24 j 10:46	6°♄24'33	18.15768 AU
max. Earth dist.	849 Apr 29 j 13:20	12°♄46'14	20.51024 AU	direct	855 Feb 06 j 19:51	4°♄23'54	
morning rise	849 May 16 j 02:46	13°♄43'39		asc. node	855 Apr 27 j 03:51	6°♄52'07	
	849 Jun 08 j 20:10	15°♄		evening set	855 May 10 j 03:39	7°♄35'59	
retrograde	849 Aug 18 j 17:45	16°♄56'16					
	849 Oct 31 j 20:44	15°♄		conjunction	855 May 26 j 21:12	8°♄35'07	0°00'17
opposition	849 Nov 02 j 19:02	14°♄55'08	-0°19'15	minimum elong	855 May 26 j 21:13	8°♄35'07	0°00'17
min. Earth dist.	849 Nov 02 j 17:04	14°♄55'21	18.48074 AU	behind sun begin	855 May 26 j 14:29	8°♄34'08	
direct	850 Jan 16 j 06:57	12°♄55'47		behind sun end	855 May 27 j 03:57	8°♄36'05	
	850 Mar 29 j 09:49	15°♄		max. Earth dist.	855 May 26 j 11:10	8°♄33'38	20.12460 AU
evening set	850 Apr 17 j 12:31	16°♄02'24		morning rise	855 Jun 12 j 16:01	9°♄34'26	
				retrograde	855 Sep 14 j 13:35	12°♄50'11	
conjunction	850 May 04 j 02:40	17°♄00'04	-0°15'55	opposition	855 Nov 28 j 16:47	10°♄48'07	0°02'10
minimum elong	850 May 04 j 02:40	17°♄00'04	0°15'54	min. Earth dist.	855 Nov 29 j 01:26	10°♄47'12	18.09132 AU
max. Earth dist.	850 May 04 j 03:42	17°♄00'13	20.45067 AU	direct	856 Feb 11 j 10:15	8°♄46'16	
morning rise	850 May 20 j 19:07	17°♄58'07		evening set	856 May 13 j 23:35	11°♄59'33	
retrograde	850 Aug 23 j 07:05	21°♄11'14					
opposition	850 Nov 07 j 05:23	19°♄10'00	-0°15'54	conjunction	856 May 30 j 17:48	12°♄58'58	0°03'42
min. Earth dist.	850 Nov 07 j 05:35	19°♄09'59	18.41969 AU	minimum elong	856 May 30 j 17:49	12°♄58'58	0°03'41
direct	851 Jan 20 j 16:36	17°♄10'18		behind sun begin	856 May 30 j 11:06	12°♄58'00	
evening set	851 Apr 22 j 04:17	20°♄17'56		behind sun end	856 May 31 j 00:32	12°♄59'57	
				max. Earth dist.	856 May 30 j 07:13	12°♄57'25	20.05859 AU
conjunction	851 May 08 j 19:10	21°♄15'53	-0°12'50	morning rise	856 Jun 16 j 12:38	13°♄58'32	
minimum elong	851 May 08 j 19:10	21°♄15'53	0°12'51	retrograde	856 Sep 18 j 07:18	17°♄14'47	
behind sun begin	851 May 08 j 15:06	21°♄15'19		opposition	856 Dec 02 j 06:18	15°♄12'37	0°05'54
behind sun end	851 May 08 j 23:13	21°♄16'28		min. Earth dist.	856 Dec 02 j 16:04	15°♄11'34	18.02592 AU
max. Earth dist.	851 May 08 j 17:08	21°♄15'36	20.38846 AU	direct	857 Feb 15 j 01:13	13°♄10'21	
morning rise	851 May 25 j 12:21	22°♄14'12		evening set	857 May 18 j 20:36	16°♄24'51	
retrograde	851 Aug 27 j 22:50	25°♄27'52					
opposition	851 Nov 11 j 16:13	23°♄26'27	-0°12'26	conjunction	857 Jun 04 j 15:04	17°♄24'32	0°07'02
min. Earth dist.	851 Nov 11 j 18:05	23°♄26'16	18.35630 AU	minimum elong	857 Jun 04 j 15:04	17°♄24'32	0°07'03

behind sun begin	857 Jun 04 j 08:49	17° Π 23'38		conjunction	863 Jul 03 j 14:58	14° \mathfrak{D} 36'36	0°25'58
behind sun end	857 Jun 04 j 21:19	17° Π 25'27		minimum elong	863 Jul 03 j 14:58	14° \mathfrak{D} 36'36	0°25'58
max. Earth dist.	857 Jun 04 j 01:37	17° Π 22'32	19.99397 AU	max. Earth dist.	863 Jul 02 j 16:45	14° \mathfrak{D} 33'12	19.65098 AU
morning rise	857 Jun 21 j 10:10	18° Π 24'21		morning rise	863 Jul 20 j 08:32	15° \mathfrak{D} 37'33	
retrograde	857 Sep 23 j 01:26	21° Π 41'08		retrograde	863 Oct 21 j 05:26	18° \mathfrak{D} 57'19	
opposition	857 Dec 06 j 20:38	19° Π 38'50	0°09'37	opposition	864 Jan 03 j 01:51	16° \mathfrak{D} 54'56	0°30'27
min. Earth dist.	857 Dec 07 j 08:05	19° Π 37'36	17.96226 AU	min. Earth dist.	864 Jan 03 j 21:05	16° \mathfrak{D} 52'50	17.62608 AU
direct	858 Feb 19 j 16:35	17° Π 36'10		direct	864 Mar 18 j 06:33	14° \mathfrak{D} 50'22	
evening set	858 May 23 j 18:15	20° Π 51'55		evening set	864 Jun 20 j 22:32	18° \mathfrak{D} 13'25	
conjunction	858 Jun 09 j 13:12	21° Π 51'53	0°10'21	conjunction	864 Jul 07 j 17:20	19° \mathfrak{D} 14'44	0°28'44
minimum elong	858 Jun 09 j 13:12	21° Π 51'53	0°10'21	minimum elong	864 Jul 07 j 17:20	19° \mathfrak{D} 14'43	0°28'44
behind sun begin	858 Jun 09 j 07:54	21° Π 51'06		max. Earth dist.	864 Jul 06 j 18:10	19° \mathfrak{D} 11'10	19.60141 AU
behind sun end	858 Jun 09 j 18:29	21° Π 52'39		morning rise	864 Jul 24 j 10:21	20° \mathfrak{D} 15'48	
max. Earth dist.	858 Jun 08 j 23:22	21° Π 49'49	19.93121 AU	retrograde	864 Oct 25 j 04:16	23° \mathfrak{D} 35'57	
morning rise	858 Jun 26 j 08:06	22° Π 51'54		opposition	865 Jan 06 j 21:07	21° \mathfrak{D} 33'33	0°33'26
retrograde	858 Sep 27 j 20:58	26° Π 09'13		min. Earth dist.	865 Jan 07 j 16:32	21° \mathfrak{D} 31'26	17.57772 AU
opposition	858 Dec 11 j 11:34	24° Π 06'52	0°13'18	direct	865 Mar 23 j 05:16	19° \mathfrak{D} 28'40	
min. Earth dist.	858 Dec 11 j 23:44	24° Π 05'33	17.90058 AU	evening set	865 Jun 26 j 01:44	22° \mathfrak{D} 52'48	
direct	859 Feb 24 j 09:02	22° Π 03'51		conjunction	865 Jul 12 j 20:10	23° \mathfrak{D} 54'15	0°31'19
evening set	859 May 28 j 16:57	25° Π 20'51		minimum elong	865 Jul 12 j 20:09	23° \mathfrak{D} 54'15	0°31'19
conjunction	859 Jun 14 j 11:58	26° Π 21'04	0°13'38	max. Earth dist.	865 Jul 11 j 19:34	23° \mathfrak{D} 50'28	19.55432 AU
minimum elong	859 Jun 14 j 11:58	26° Π 21'04	0°13'38	morning rise	865 Jul 29 j 12:28	24° \mathfrak{D} 55'26	
behind sun begin	859 Jun 14 j 08:27	26° Π 20'33		retrograde	865 Oct 30 j 01:43	28° \mathfrak{D} 15'56	
behind sun end	859 Jun 14 j 15:28	26° Π 21'35		opposition	866 Jan 11 j 17:20	26° \mathfrak{D} 13'29	0°36'13
max. Earth dist.	859 Jun 13 j 19:32	26° Π 18'36	19.87073 AU	min. Earth dist.	866 Jan 12 j 14:41	26° \mathfrak{D} 11'09	17.53224 AU
morning rise	859 Jul 01 j 06:55	27° Π 21'19		direct	866 Mar 28 j 02:51	24° \mathfrak{D} 08'18	
	859 Aug 25 j 01:30	0° \mathfrak{D}		evening set	866 Jul 01 j 05:09	27° \mathfrak{D} 33'26	
retrograde	859 Oct 02 j 16:26	0° \mathfrak{D} 39'09		conjunction	866 Jul 17 j 23:05	28° \mathfrak{D} 35'01	0°33'43
	859 Nov 10 j 19:44	30° \mathfrak{K} Π		minimum elong	866 Jul 17 j 23:05	28° \mathfrak{D} 35'01	0°33'42
opposition	859 Dec 16 j 03:17	28° Π 36'47	0°16'56	max. Earth dist.	866 Jul 16 j 21:35	28° \mathfrak{D} 31'04	19.51049 AU
min. Earth dist.	859 Dec 16 j 17:17	28° Π 35'16	17.84139 AU	morning rise	866 Aug 03 j 14:43	29° \mathfrak{D} 36'16	
direct	860 Feb 29 j 01:41	26° Π 33'26			866 Aug 10 j 06:07	0° \mathcal{O}	
evening set	860 Jun 01 j 16:20	29° Π 51'41		retrograde	866 Nov 04 j 00:41	2° \mathcal{O} 57'05	
	860 Jun 04 j 00:35	0° \mathfrak{D}		opposition	867 Jan 16 j 13:57	0° \mathcal{O} 54'35	0°38'46
conjunction	860 Jun 18 j 11:40	0° \mathfrak{D} 52'10	0°16'52	min. Earth dist.	867 Jan 17 j 11:01	0° \mathcal{O} 52'17	17.49022 AU
minimum elong	860 Jun 18 j 11:40	0° \mathfrak{D} 52'10	0°16'52		867 Feb 07 j 02:57	30° \mathfrak{K} \mathfrak{D}	
max. Earth dist.	860 Jun 17 j 18:48	0° \mathfrak{D} 49'37	19.81267 AU	direct	867 Apr 02 j 03:34	28° \mathfrak{D} 49'07	
morning rise	860 Jul 05 j 06:21	1° \mathfrak{D} 52'37			867 May 24 j 20:07	0° \mathcal{O}	
retrograde	860 Oct 06 j 13:29	5° \mathfrak{D} 10'58		evening set	867 Jul 06 j 08:57	2° \mathcal{O} 15'10	
opposition	860 Dec 19 j 19:42	3° \mathfrak{D} 08'36	0°20'29	max. Earth dist.	867 Jul 22 j 00:31	3° \mathcal{O} 12'50	19.47035 AU
min. Earth dist.	860 Dec 20 j 10:19	3° \mathfrak{D} 07'01	17.78440 AU	conjunction	867 Jul 23 j 02:24	3° \mathcal{O} 16'50	0°35'53
direct	861 Mar 04 j 19:52	1° \mathfrak{D} 04'57		minimum elong	867 Jul 23 j 02:24	3° \mathcal{O} 16'50	0°35'53
evening set	861 Jun 06 j 16:55	4° \mathfrak{D} 24'28		morning rise	867 Aug 08 j 17:08	4° \mathcal{O} 18'09	
conjunction	861 Jun 23 j 12:07	5° \mathfrak{D} 25'11	0°20'00	retrograde	867 Nov 08 j 22:21	7° \mathcal{O} 39'13	
minimum elong	861 Jun 23 j 12:07	5° \mathfrak{D} 25'11	0°20'00	opposition	868 Jan 21 j 11:14	5° \mathcal{O} 36'42	0°41'04
max. Earth dist.	861 Jun 22 j 16:43	5° \mathfrak{D} 22'14	19.75670 AU	min. Earth dist.	868 Jan 22 j 09:50	5° \mathcal{O} 34'13	17.45230 AU
morning rise	861 Jul 10 j 06:35	6° \mathfrak{D} 25'49		direct	868 Apr 06 j 02:41	3° \mathcal{O} 30'57	
retrograde	861 Oct 11 j 10:05	9° \mathfrak{D} 44'41		evening set	868 Jul 10 j 13:04	6° \mathcal{O} 57'50	
opposition	861 Dec 24 j 12:57	7° \mathfrak{D} 42'19	0°23'57	max. Earth dist.	868 Jul 26 j 02:59	7° \mathcal{O} 55'25	19.43473 AU
min. Earth dist.	861 Dec 25 j 05:41	7° \mathfrak{D} 40'30	17.72960 AU	conjunction	868 Jul 27 j 05:49	7° \mathcal{O} 59'35	0°37'49
direct	862 Mar 09 j 14:14	5° \mathfrak{D} 38'21		minimum elong	868 Jul 27 j 05:49	7° \mathcal{O} 59'35	0°37'49
evening set	862 Jun 11 j 18:07	8° \mathfrak{D} 59'06		morning rise	868 Aug 12 j 19:50	9° \mathcal{O} 00'56	
conjunction	862 Jun 28 j 13:22	10° \mathfrak{D} 00'02	0°23'03	retrograde	868 Nov 12 j 21:55	12° \mathcal{O} 22'12	
minimum elong	862 Jun 28 j 13:21	10° \mathfrak{D} 00'02	0°23'04	opposition	869 Jan 25 j 08:58	10° \mathcal{O} 19'39	0°43'06
max. Earth dist.	862 Jun 27 j 17:13	9° \mathfrak{D} 56'58	19.70286 AU	min. Earth dist.	869 Jan 26 j 06:59	10° \mathcal{O} 17'14	17.41909 AU
morning rise	862 Jul 15 j 07:22	11° \mathfrak{D} 00'50		direct	869 Apr 11 j 05:07	8° \mathcal{O} 13'39	
retrograde	862 Oct 16 j 08:16	14° \mathfrak{D} 20'10		evening set	869 Jul 15 j 17:17	11° \mathcal{O} 41'17	
opposition	862 Dec 29 j 06:58	12° \mathfrak{D} 17'48	0°27'16	max. Earth dist.	869 Jul 31 j 07:11	12° \mathcal{O} 39'00	19.40396 AU
min. Earth dist.	862 Dec 30 j 00:06	12° \mathfrak{D} 15'56	17.67677 AU	conjunction	869 Aug 01 j 09:24	12° \mathcal{O} 43'05	0°39'29
direct	863 Mar 14 j 10:39	10° \mathfrak{D} 13'33		minimum elong	869 Aug 01 j 09:24	12° \mathcal{O} 43'05	0°39'30
evening set	863 Jun 16 j 19:59	13° \mathfrak{D} 35'28		morning rise	869 Aug 17 j 22:17	13° \mathcal{O} 44'27	

	869 Sep 08 j 17:37	15°♈	opposition	876 Feb 28 j 07:00	13°♏35'09	0°48'36
retrograde	869 Nov 17 j 20:04	17°♏05'52	min. Earth dist.	876 Feb 29 j 03:10	13°♏32'58	17.34891 AU
opposition	870 Jan 30 j 07:24	15°♏03'19 0°44'50	direct	876 May 14 j 19:05	11°♏28'56	
min. Earth dist.	870 Jan 31 j 06:21	15°♏00'49 17.39111 AU	evening set	876 Aug 18 j 22:21	14°♏59'06	
	870 Jan 31 j 13:45	15°♏♈	max. Earth dist.	876 Sep 03 j 08:24	15°♏56'51	19.35380 AU
direct	870 Apr 16 j 05:23	12°♏57'08				
	870 Jun 26 j 00:58	15°♏	conjunction	876 Sep 04 j 07:29	16°♏00'29	0°43'23
evening set	870 Jul 20 j 21:42	16°♏25'25	minimum elong	876 Sep 04 j 07:29	16°♏00'29	0°43'22
max. Earth dist.	870 Aug 05 j 09:55	17°♏23'02 19.37891 AU	morning rise	876 Sep 20 j 12:47	17°♏01'18	
			retrograde	876 Dec 20 j 19:28	20°♏22'44	
conjunction	870 Aug 06 j 12:52	17°♏27'14 0°40'54	opposition	877 Mar 04 j 08:14	18°♏20'53	0°48'04
minimum elong	870 Aug 06 j 12:52	17°♏27'14 0°40'55	min. Earth dist.	877 Mar 05 j 04:01	18°♏18'45	17.36066 AU
morning rise	870 Aug 23 j 00:54	18°♏28'35	direct	877 May 19 j 21:56	16°♏14'46	
retrograde	870 Nov 22 j 20:19	21°♏50'08	evening set	877 Aug 24 j 01:28	19°♏44'50	
opposition	871 Feb 04 j 06:13	19°♏47'36 0°46'16				
min. Earth dist.	871 Feb 05 j 04:14	19°♏45'12 17.36912 AU	conjunction	877 Sep 09 j 09:32	20°♏46'03	0°42'45
direct	871 Apr 21 j 07:54	17°♏41'16	minimum elong	877 Sep 09 j 09:32	20°♏46'03	0°42'46
evening set	871 Jul 26 j 01:53	21°♏10'07	max. Earth dist.	877 Sep 08 j 12:10	20°♏42'41	19.36776 AU
			morning rise	877 Sep 25 j 13:36	21°♏46'42	
conjunction	871 Aug 11 j 16:21	22°♏11'56 0°42'03	retrograde	877 Dec 25 j 19:30	25°♏07'55	
minimum elong	871 Aug 11 j 16:21	22°♏11'56 0°42'02	opposition	878 Mar 09 j 09:38	23°♏06'12	0°47'12
max. Earth dist.	871 Aug 10 j 14:50	22°♏07'57 19.35990 AU	min. Earth dist.	878 Mar 10 j 04:11	23°♏04'11	17.37667 AU
morning rise	871 Aug 28 j 03:12	23°♏13'15	direct	878 May 25 j 03:05	21°♏00'13	
retrograde	871 Nov 27 j 19:46	26°♏34'53	evening set	878 Aug 29 j 04:13	24°♏30'02	
opposition	872 Feb 09 j 05:38	24°♏32'25 0°47'23				
min. Earth dist.	872 Feb 10 j 03:59	24°♏29'59 17.35321 AU	conjunction	878 Sep 14 j 11:04	25°♏31'04	0°41'50
direct	872 Apr 25 j 08:58	22°♏26'00	minimum elong	878 Sep 14 j 11:04	25°♏31'04	0°41'50
evening set	872 Jul 30 j 06:22	25°♏55'20	max. Earth dist.	878 Sep 13 j 14:08	25°♏27'47	19.38594 AU
			morning rise	878 Sep 30 j 14:01	26°♏31'33	
conjunction	872 Aug 15 j 19:44	26°♏57'07 0°42'54	retrograde	878 Dec 30 j 17:12	29°♏52'31	
minimum elong	872 Aug 15 j 19:44	26°♏57'07 0°42'54	opposition	879 Mar 14 j 11:04	27°♏50'53	0°46'01
max. Earth dist.	872 Aug 14 j 17:35	26°♏53'01 19.34719 AU	min. Earth dist.	879 Mar 15 j 05:19	27°♏48'55	17.39705 AU
morning rise	872 Sep 01 j 05:40	27°♏58'23	direct	879 May 30 j 05:48	25°♏45'01	
	872 Oct 08 j 04:41	0°♏	evening set	879 Sep 03 j 06:12	29°♏14'29	
retrograde	872 Dec 01 j 20:11	1°♏20'04		879 Sep 15 j 10:36	0°♏	
	873 Jan 27 j 17:24	30°♏♈				
opposition	873 Feb 13 j 05:17	29°♏17'42 0°48'11	conjunction	879 Sep 19 j 11:58	0°♏15'20	0°40'38
min. Earth dist.	873 Feb 14 j 02:48	29°♏15'21 17.34363 AU	minimum elong	879 Sep 19 j 11:58	0°♏15'20	0°40'38
direct	873 Apr 30 j 10:56	27°♏11'16	max. Earth dist.	879 Sep 18 j 16:34	0°♏12'17	19.40845 AU
	873 Jul 24 j 00:30	0°♏	morning rise	879 Oct 05 j 13:50	1°♏15'37	
evening set	873 Aug 04 j 10:37	0°♏40'59	retrograde	880 Jan 04 j 16:44	4°♏36'15	
			opposition	880 Mar 18 j 12:26	2°♏34'43	0°44'31
conjunction	873 Aug 20 j 23:09	1°♏42'43 0°43'28	min. Earth dist.	880 Mar 19 j 04:54	2°♏32'57	17.42145 AU
minimum elong	873 Aug 20 j 23:09	1°♏42'43 0°43'27	direct	880 Jun 03 j 11:01	0°♏29'01	
max. Earth dist.	873 Aug 19 j 22:48	1°♏38'54 19.34063 AU	evening set	880 Sep 07 j 07:37	3°♏58'00	
morning rise	873 Sep 06 j 07:48	2°♏43'54				
retrograde	873 Dec 06 j 20:37	6°♏05'35	conjunction	880 Sep 23 j 12:12	4°♏58'38	0°39'09
opposition	874 Feb 18 j 05:35	4°♏03'21 0°48'39	minimum elong	880 Sep 23 j 12:12	4°♏58'38	0°39'09
min. Earth dist.	874 Feb 19 j 02:57	4°♏01'02 17.33995 AU	max. Earth dist.	880 Sep 22 j 17:59	4°♏55'46	19.43496 AU
direct	874 May 05 j 13:06	1°♏56'58	morning rise	880 Oct 09 j 12:56	5°♏58'42	
evening set	874 Aug 09 j 14:44	5°♏26'57	retrograde	881 Jan 08 j 13:33	9°♏18'59	
max. Earth dist.	874 Aug 25 j 01:19	6°♏24'42 19.33985 AU	opposition	881 Mar 23 j 13:47	7°♏17'31	0°42'43
			min. Earth dist.	881 Mar 24 j 05:55	7°♏15'48	17.45010 AU
conjunction	874 Aug 26 j 02:02	6°♏28'35 0°43'44	direct	881 Jun 08 j 13:14	5°♏11'59	
minimum elong	874 Aug 26 j 02:02	6°♏28'35 0°43'44	evening set	881 Sep 12 j 08:10	8°♏40'24	
morning rise	874 Sep 11 j 09:41	7°♏29'41				
retrograde	874 Dec 11 j 20:25	10°♏51'21	conjunction	881 Sep 28 j 11:36	9°♏40'46	0°37'25
opposition	875 Feb 23 j 06:11	8°♏49'15 0°48'48	minimum elong	881 Sep 28 j 11:36	9°♏40'46	0°37'25
min. Earth dist.	875 Feb 24 j 02:54	8°♏46'59 17.34195 AU	max. Earth dist.	881 Sep 27 j 18:52	9°♏38'09	19.46586 AU
direct	875 May 10 j 15:09	6°♏42'55	morning rise	881 Oct 14 j 11:21	10°♏40'38	
evening set	875 Aug 14 j 18:35	10°♏13'03	retrograde	882 Jan 13 j 12:22	14°♏00'30	
max. Earth dist.	875 Aug 30 j 06:03	11°♏10'59 19.34442 AU	opposition	882 Mar 28 j 14:54	11°♏59'07	0°40'38
			min. Earth dist.	882 Mar 29 j 04:37	11°♏57'39	17.48308 AU
conjunction	875 Aug 31 j 04:58	11°♏14'35 0°43'42	direct	882 Jun 13 j 17:30	9°♏53'45	
minimum elong	875 Aug 31 j 04:58	11°♏14'35 0°43'43	evening set	882 Sep 17 j 07:41	13°♏21'28	
morning rise	875 Sep 16 j 11:21	12°♏15'33				
retrograde	875 Dec 16 j 20:52	15°♏37'07	conjunction	882 Oct 03 j 10:04	14°♏21'37	0°35'26

minimum elong	882 Oct 03 j 10:04	14° <u>♂</u> 21'37	0°35'27	retrograde	889 Feb 14 j 08:27	16° <u>♂</u> 11'05	
max. Earth dist.	882 Oct 02 j 19:29	14° <u>♂</u> 19'20	19.50112 AU		889 Apr 10 j 07:06	15° <u>♂</u> 11'05	
morning rise	882 Oct 19 j 08:45	15° <u>♂</u> 21'14		opposition	889 Apr 30 j 14:26	14° <u>♂</u> 10'45	0°20'02
retrograde	883 Jan 18 j 08:27	18° <u>♂</u> 40'41		min. Earth dist.	889 Apr 30 j 15:56	14° <u>♂</u> 10'36	17.83714 AU
opposition	883 Apr 02 j 15:55	16° <u>♂</u> 39'22	0°38'18	direct	889 Jul 16 j 20:27	12° <u>♂</u> 07'50	
min. Earth dist.	883 Apr 03 j 05:00	16° <u>♂</u> 37'58	17.52066 AU		889 Oct 11 j 01:35	15° <u>♂</u> 11'05	
direct	883 Jun 18 j 18:46	14° <u>♂</u> 34'13		evening set	889 Oct 19 j 04:50	15° <u>♂</u> 12'28'56	
evening set	883 Sep 22 j 06:30	18° <u>♂</u> 01'10					
conjunction	883 Oct 08 j 07:42	19° <u>♂</u> 01'02	0°33'14	conjunction	889 Nov 04 j 00:11	16° <u>♂</u> 12'05	0°16'26
minimum elong	883 Oct 08 j 07:42	19° <u>♂</u> 01'02	0°33'13	minimum elong	889 Nov 04 j 00:11	16° <u>♂</u> 12'05	0°16'27
max. Earth dist.	883 Oct 07 j 18:33	18° <u>♂</u> 58'59	19.54112 AU	max. Earth dist.	889 Nov 03 j 23:03	16° <u>♂</u> 12'55	19.86862 AU
morning rise	883 Oct 24 j 05:32	20° <u>♂</u> 00'26		morning rise	889 Nov 19 j 17:26	17° <u>♂</u> 12'45'55	
retrograde	884 Jan 23 j 06:24	23° <u>♂</u> 19'24		retrograde	890 Feb 19 j 03:50	20° <u>♂</u> 14'05'55	
opposition	884 Apr 06 j 16:21	21° <u>♂</u> 18'11	0°35'43	opposition	890 May 05 j 12:43	18° <u>♂</u> 14'04'45	0°16'29
min. Earth dist.	884 Apr 07 j 02:37	21° <u>♂</u> 17'06	17.56295 AU	min. Earth dist.	890 May 05 j 11:51	18° <u>♂</u> 14'05'1	17.90009 AU
direct	884 Jun 22 j 21:27	19° <u>♂</u> 13'18		direct	890 Jul 21 j 19:30	16° <u>♂</u> 13'8'14	
evening set	884 Sep 26 j 04:25	22° <u>♂</u> 39'25		evening set	890 Oct 23 j 21:22	19° <u>♂</u> 15'58'12	
conjunction	884 Oct 12 j 04:38	23° <u>♂</u> 39'02	0°30'50	conjunction	890 Nov 08 j 16:08	20° <u>♂</u> 15'56'04	0°13'13
minimum elong	884 Oct 12 j 04:38	23° <u>♂</u> 39'02	0°30'50	minimum elong	890 Nov 08 j 16:08	20° <u>♂</u> 15'56'04	0°13'13
max. Earth dist.	884 Oct 11 j 18:13	23° <u>♂</u> 37'24	19.58582 AU	behind sun begin	890 Nov 08 j 12:11	20° <u>♂</u> 15'55'29	
morning rise	884 Oct 28 j 01:23	24° <u>♂</u> 38'09		behind sun end	890 Nov 08 j 20:05	20° <u>♂</u> 15'56'40	
retrograde	885 Jan 27 j 01:50	27° <u>♂</u> 56'39		max. Earth dist.	890 Nov 08 j 17:54	20° <u>♂</u> 15'56'20	19.93208 AU
opposition	885 Apr 11 j 16:51	25° <u>♂</u> 55'35	0°32'55	morning rise	890 Nov 24 j 08:41	21° <u>♂</u> 15'53'39	
min. Earth dist.	885 Apr 12 j 02:10	25° <u>♂</u> 54'36	17.61002 AU	retrograde	891 Feb 23 j 19:48	25° <u>♂</u> 10'09'05	
direct	885 Jun 27 j 21:24	23° <u>♂</u> 51'01		opposition	891 May 10 j 10:32	23° <u>♂</u> 10'09'06	0°12'52
evening set	885 Oct 01 j 01:25	27° <u>♂</u> 16'14		min. Earth dist.	891 May 10 j 08:31	23° <u>♂</u> 10'09'18	17.96385 AU
conjunction	885 Oct 17 j 00:27	28° <u>♂</u> 15'33	0°28'14	direct	891 Jul 26 j 17:29	21° <u>♂</u> 10'07'00	
minimum elong	885 Oct 17 j 00:27	28° <u>♂</u> 15'33	0°28'15	evening set	891 Oct 28 j 13:19	24° <u>♂</u> 10'25'47	
max. Earth dist.	885 Oct 16 j 15:24	28° <u>♂</u> 14'09	19.63532 AU	conjunction	891 Nov 13 j 07:10	25° <u>♂</u> 10'23'20	0°09'57
morning rise	885 Nov 01 j 20:30	29° <u>♂</u> 14'26		minimum elong	891 Nov 13 j 07:10	25° <u>♂</u> 10'23'20	0°09'56
retrograde	885 Nov 14 j 15:48	0° <u>♂</u> 11'05		behind sun begin	891 Nov 13 j 01:48	25° <u>♂</u> 10'22'32	
opposition	886 Jan 31 j 23:32	2° <u>♂</u> 13'22'28		behind sun end	891 Nov 13 j 12:32	25° <u>♂</u> 10'24'08	
min. Earth dist.	886 Apr 16 j 16:48	0° <u>♂</u> 13'11'33	0°29'56	max. Earth dist.	891 Nov 13 j 09:28	25° <u>♂</u> 10'23'40	19.99607 AU
direct	886 Apr 16 j 23:05	0° <u>♂</u> 13'05'53	17.66164 AU	morning rise	891 Nov 28 j 23:24	26° <u>♂</u> 10'20'40	
evening set	886 Apr 29 j 07:40	30° <u>♂</u> 11'05		retrograde	892 Feb 28 j 13:24	29° <u>♂</u> 10'35'32	
conjunction	886 Jul 02 j 22:30	28° <u>♂</u> 27'21		opposition	892 May 14 j 07:41	27° <u>♂</u> 10'35'41	0°09'11
minimum elong	886 Sep 02 j 03:19	0° <u>♂</u> 11'05		min. Earth dist.	892 May 14 j 03:44	27° <u>♂</u> 10'36'05	18.02797 AU
max. Earth dist.	886 Oct 05 j 21:30	1° <u>♂</u> 15'13'37		direct	892 Jul 30 j 14:34	25° <u>♂</u> 10'33'57	
morning rise	886 Oct 21 j 19:42	2° <u>♂</u> 15'50'39	0°25'29	evening set	892 Nov 01 j 04:14	28° <u>♂</u> 10'51'32	
retrograde	886 Oct 21 j 19:42	2° <u>♂</u> 15'50'39	0°25'29	conjunction	892 Nov 16 j 21:34	29° <u>♂</u> 10'48'49	0°06'38
opposition	886 Oct 21 j 13:41	2° <u>♂</u> 14'49'43	19.68903 AU	minimum elong	892 Nov 16 j 21:35	29° <u>♂</u> 10'48'49	0°06'39
min. Earth dist.	886 Nov 06 j 14:49	3° <u>♂</u> 14'49'16		behind sun begin	892 Nov 16 j 15:26	29° <u>♂</u> 10'47'54	
direct	887 Feb 05 j 18:06	7° <u>♂</u> 10'06'48		behind sun end	892 Nov 17 j 03:44	29° <u>♂</u> 10'49'44	
evening set	887 Apr 21 j 16:22	5° <u>♂</u> 10'06'05	0°26'47	max. Earth dist.	892 Nov 17 j 02:35	29° <u>♂</u> 10'49'33	20.06011 AU
conjunction	887 Apr 21 j 21:41	5° <u>♂</u> 10'05'32	17.71720 AU		892 Nov 19 j 22:41	0° <u>♂</u> 11'05	
minimum elong	887 Jul 07 j 21:35	3° <u>♂</u> 10'02'18		morning rise	892 Dec 02 j 13:14	0° <u>♂</u> 11'45'52	
max. Earth dist.	887 Oct 10 j 16:51	6° <u>♂</u> 10'25'33		retrograde	893 Mar 04 j 04:19	4° <u>♂</u> 11'00'10	
morning rise	887 Oct 26 j 13:59	7° <u>♂</u> 10'24'18	0°22'35	opposition	893 May 19 j 04:23	2° <u>♂</u> 11'00'26	0°05'28
retrograde	887 Oct 26 j 13:59	7° <u>♂</u> 10'24'18	0°22'36	min. Earth dist.	893 May 18 j 23:01	2° <u>♂</u> 11'00'59	18.09177 AU
opposition	887 Oct 26 j 08:59	7° <u>♂</u> 10'23'32	19.74639 AU		893 Jul 29 j 08:47	30° <u>♂</u> 11'05	
min. Earth dist.	887 Nov 11 j 08:32	8° <u>♂</u> 10'22'40		direct	893 Aug 04 j 11:16	29° <u>♂</u> 10'59'04	
direct	887 Nov 11 j 08:32	8° <u>♂</u> 10'22'40			893 Aug 10 j 11:24	0° <u>♂</u> 11'05	
evening set	888 Feb 10 j 14:56	11° <u>♂</u> 10'39'42		evening set	893 Nov 05 j 18:16	3° <u>♂</u> 11'15'24	
conjunction	888 Apr 25 j 15:31	9° <u>♂</u> 10'39'10	0°23'28	conjunction	893 Nov 21 j 10:53	4° <u>♂</u> 11'12'23	0°03'18
minimum elong	888 Apr 25 j 18:06	9° <u>♂</u> 10'38'54	17.77601 AU	minimum elong	893 Nov 21 j 10:53	4° <u>♂</u> 11'12'23	0°03'18
max. Earth dist.	888 Jul 11 j 21:41	7° <u>♂</u> 10'35'48		behind sun begin	893 Nov 21 j 04:22	4° <u>♂</u> 11'11'26	
morning rise	888 Oct 14 j 11:10	10° <u>♂</u> 10'58'01		behind sun end	893 Nov 21 j 17:23	4° <u>♂</u> 11'13'21	
retrograde	888 Oct 30 j 07:33	11° <u>♂</u> 10'56'28	0°19'34	max. Earth dist.	893 Nov 21 j 16:29	4° <u>♂</u> 11'13'13	20.12372 AU
opposition	888 Oct 30 j 07:33	11° <u>♂</u> 10'56'28	0°19'33	morning rise	893 Dec 07 j 02:24	5° <u>♂</u> 11'09'13	
min. Earth dist.	888 Oct 30 j 05:36	11° <u>♂</u> 10'56'10	19.80647 AU	retrograde	894 Mar 08 j 20:02	6° <u>♂</u> 11'22'56	
direct	888 Nov 15 j 01:14	12° <u>♂</u> 10'54'34		opposition	894 May 24 j 00:21	6° <u>♂</u> 11'23'15	0°01'45
evening set	888 Dec 24 j 04:59	15° <u>♂</u> 10'54'34		min. Earth dist.	894 May 23 j 17:22	6° <u>♂</u> 11'23'58	18.15517 AU
conjunction	888 Dec 24 j 04:59	15° <u>♂</u> 10'54'34		direct	894 Aug 09 j 05:53	4° <u>♂</u> 11'22'13	

evening set	894 Nov 10 j 07:20	7°♂37'19		max. Earth dist.	899 Dec 17 j 18:25	29°♂55'47	20.49523 AU
desc. node	894 Nov 14 j 06:47	7°♂51'32			899 Dec 18 j 22:40	0°♂	
				morning rise	900 Jan 01 j 17:34	0°♂48'57	
conjunction	894 Nov 25 j 23:35	8°♂34'01	-0°00'07	retrograde	900 Apr 03 j 03:26	3°♂59'24	
minimum elong	894 Nov 25 j 23:36	8°♂34'01	0°00'06	opposition	900 Jun 19 j 08:24	2°♂00'07	-0°19'27
behind sun begin	894 Nov 25 j 17:19	8°♂33'06		min. Earth dist.	900 Jun 18 j 16:01	2°♂01'46	18.52531 AU
behind sun end	894 Nov 26 j 05:53	8°♂34'57		direct	900 Sep 04 j 05:45	0°♂01'01	
max. Earth dist.	894 Nov 26 j 07:49	8°♂35'15	20.18677 AU	evening set	900 Dec 04 j 20:19	3°♂09'08	
morning rise	894 Dec 11 j 14:44	9°♂30'36					
retrograde	895 Mar 13 j 10:11	12°♂43'42		conjunction	900 Dec 20 j 10:54	4°♂04'23	-0°19'02
opposition	895 May 28 j 19:23	10°♂44'06	-0°01'57	minimum elong	900 Dec 20 j 10:53	4°♂04'23	0°19'02
min. Earth dist.	895 May 28 j 10:48	10°♂44'58	18.21782 AU	max. Earth dist.	900 Dec 21 j 04:56	4°♂07'04	20.55499 AU
direct	895 Aug 14 j 01:10	8°♂43'22		morning rise	901 Jan 05 j 01:59	4°♂59'45	
evening set	895 Nov 14 j 19:38	11°♂57'13		retrograde	901 Apr 07 j 15:46	8°♂09'47	
				opposition	901 Jun 23 j 23:21	6°♂10'37	-0°22'38
conjunction	895 Nov 30 j 11:18	12°♂53'39	-0°03'30	min. Earth dist.	901 Jun 23 j 04:53	6°♂12'29	18.58424 AU
minimum elong	895 Nov 30 j 11:17	12°♂53'39	0°03'30	direct	901 Sep 08 j 19:23	4°♂11'53	
behind sun begin	895 Nov 30 j 04:48	12°♂52'41		evening set	901 Dec 09 j 04:08	7°♂18'59	
behind sun end	895 Nov 30 j 17:47	12°♂54'36					
max. Earth dist.	895 Nov 30 j 20:15	12°♂54'59	20.24915 AU	conjunction	901 Dec 24 j 18:34	8°♂14'03	-0°21'51
morning rise	895 Dec 16 j 02:23	13°♂50'00		minimum elong	901 Dec 24 j 18:34	8°♂14'03	0°21'51
retrograde	896 Mar 17 j 00:15	17°♂02'30		max. Earth dist.	901 Dec 25 j 13:16	8°♂16'49	20.61295 AU
opposition	896 Jun 01 j 13:53	15°♂02'56	-0°05'37	morning rise	902 Jan 09 j 10:01	9°♂09'16	
min. Earth dist.	896 Jun 01 j 03:53	15°♂03'57	18.28009 AU	retrograde	902 Apr 12 j 03:11	12°♂18'55	
direct	896 Aug 17 j 17:25	13°♂02'29		opposition	902 Jun 28 j 13:50	10°♂19'52	-0°25'42
evening set	896 Nov 18 j 06:45	16°♂15'06		min. Earth dist.	902 Jun 27 j 19:00	10°♂21'45	18.64122 AU
				direct	902 Sep 13 j 06:41	8°♂21'29	
conjunction	896 Dec 03 j 22:10	17°♂11'17	-0°06'45	evening set	902 Dec 13 j 11:28	11°♂27'38	
minimum elong	896 Dec 03 j 22:10	17°♂11'17	0°06'45				
behind sun begin	896 Dec 03 j 16:03	17°♂10'23		conjunction	902 Dec 29 j 02:03	12°♂22'32	-0°24'33
behind sun end	896 Dec 04 j 04:17	17°♂12'11		minimum elong	902 Dec 29 j 02:03	12°♂22'31	0°24'33
max. Earth dist.	896 Dec 04 j 09:52	17°♂13'02	20.31119 AU	max. Earth dist.	902 Dec 29 j 22:24	12°♂25'32	20.66863 AU
morning rise	896 Dec 19 j 13:00	18°♂07'24		morning rise	903 Jan 13 j 17:40	13°♂17'35	
retrograde	897 Mar 21 j 13:41	21°♂19'21		retrograde	903 Apr 16 j 15:08	16°♂26'53	
opposition	897 Jun 06 j 07:37	19°♂19'49	-0°09'12	min. Earth dist.	903 Jul 02 j 06:51	14°♂30'00	18.69544 AU
min. Earth dist.	897 Jun 05 j 19:31	19°♂21'03	18.34196 AU	opposition	903 Jul 03 j 03:25	14°♂27'57	-0°28'36
direct	897 Aug 22 j 11:10	17°♂19'41		direct	903 Sep 17 j 18:54	12°♂29'55	
evening set	897 Nov 22 j 17:21	20°♂31'06		evening set	903 Dec 17 j 18:29	15°♂35'09	
conjunction	897 Dec 08 j 08:17	21°♂27'01	-0°09'57	conjunction	904 Jan 02 j 09:01	16°♂29'53	-0°27'07
minimum elong	897 Dec 08 j 08:17	21°♂27'01	0°09'56	minimum elong	904 Jan 02 j 09:01	16°♂29'53	0°27'06
behind sun begin	897 Dec 08 j 02:56	21°♂26'14		max. Earth dist.	904 Jan 03 j 05:44	16°♂32'56	20.72122 AU
behind sun end	897 Dec 08 j 13:38	21°♂27'48		morning rise	904 Jan 18 j 01:05	17°♂24'50	
max. Earth dist.	897 Dec 08 j 20:54	21°♂28'54	20.37293 AU	retrograde	904 Apr 20 j 01:30	20°♂33'48	
morning rise	897 Dec 23 j 23:13	22°♂22'56		opposition	904 Jul 06 j 16:48	18°♂34'57	-0°31'21
retrograde	898 Mar 26 j 02:36	25°♂34'21		min. Earth dist.	904 Jul 05 j 20:21	18°♂36'59	18.74646 AU
min. Earth dist.	898 Jun 10 j 11:14	23°♂36'13	18.40373 AU	direct	904 Sep 21 j 05:14	16°♂37'14	
opposition	898 Jun 11 j 00:34	23°♂34'52	-0°12'43	evening set	904 Dec 21 j 00:53	19°♂41'36	
direct	898 Aug 27 j 01:28	21°♂35'03					
evening set	898 Nov 27 j 02:56	24°♂45'20		conjunction	905 Jan 05 j 15:42	20°♂36'11	-0°29'31
				minimum elong	905 Jan 05 j 15:42	20°♂36'11	0°29'31
conjunction	898 Dec 12 j 17:48	25°♂41'01	-0°13'04	max. Earth dist.	905 Jan 06 j 13:43	20°♂39'25	20.77034 AU
minimum elong	898 Dec 12 j 17:48	25°♂41'01	0°13'04	morning rise	905 Jan 21 j 08:03	21°♂31'01	
behind sun begin	898 Dec 12 j 13:46	25°♂40'25		retrograde	905 Apr 24 j 13:35	24°♂39'41	
behind sun end	898 Dec 12 j 21:50	25°♂41'36		min. Earth dist.	905 Jul 10 j 07:29	22°♂43'05	18.79354 AU
max. Earth dist.	898 Dec 13 j 08:52	25°♂43'16	20.43447 AU	opposition	905 Jul 11 j 05:27	22°♂40'53	-0°33'56
morning rise	898 Dec 28 j 08:38	26°♂36'43		direct	905 Sep 25 j 16:32	20°♂43'27	
retrograde	899 Mar 30 j 15:22	29°♂47'38		evening set	905 Dec 25 j 07:10	23°♂47'00	
opposition	899 Jun 15 j 16:44	27°♂48'15	-0°16'08				
min. Earth dist.	899 Jun 15 j 01:14	27°♂49'49	18.46492 AU	conjunction	906 Jan 09 j 22:06	24°♂41'27	-0°31'47
direct	899 Aug 31 j 17:00	25°♂48'48		minimum elong	906 Jan 09 j 22:06	24°♂41'27	0°31'46
evening set	899 Dec 01 j 12:00	28°♂57'57		max. Earth dist.	906 Jan 10 j 20:11	24°♂44'41	20.81519 AU
				morning rise	906 Jan 25 j 15:02	25°♂36'12	
conjunction	899 Dec 17 j 02:32	29°♂53'25	-0°16'06	retrograde	906 Apr 28 j 22:27	26°♂44'34	
minimum elong	899 Dec 17 j 02:32	29°♂53'25	0°16'05	opposition	906 Jul 15 j 17:33	26°♂45'48	-0°36'19
behind sun begin	899 Dec 17 j 01:31	29°♂53'16		min. Earth dist.	906 Jul 14 j 20:11	26°♂47'56	18.83628 AU
behind sun end	899 Dec 17 j 03:33	29°♂53'34		direct	906 Sep 30 j 01:45	24°♂48'35	

evening set	906 Dec 29 j 12:57	27° S 51'21		conjunction	913 Feb 06 j 11:54	22° S 51'19 -0°42'22	
				minimum elong	913 Feb 06 j 11:54	22° S 51'19 0°42'22	
conjunction	907 Jan 14 j 04:19	28° S 45'42 -0°33'52		max. Earth dist.	913 Feb 07 j 12:58	22° S 54'55 21.01172 AU	
minimum elong	907 Jan 14 j 04:19	28° S 45'42 0°33'51		morning rise	913 Feb 22 j 09:26	23° S 45'48	
max. Earth dist.	907 Jan 15 j 03:13	28° S 49'03 20.85560 AU		retrograde	913 May 27 j 12:12	26° S 52'51	
morning rise	907 Jan 29 j 21:41	29° S 40'21		opposition	913 Aug 13 j 15:02	24° S 53'39 -0°47'14	
	907 Feb 04 j 17:24	0° S		min. Earth dist.	913 Aug 12 j 14:49	24° S 56'05 19.01955 AU	
retrograde	907 May 03 j 09:52	2° S 48'27		direct	913 Oct 28 j 10:02	22° S 57'09	
min. Earth dist.	907 Jul 19 j 06:20	0° S 51'56 18.87430 AU		evening set	914 Jan 25 j 21:57	25° S 56'02	
opposition	907 Jul 20 j 05:00	0° S 49'40 -0°38'32					
	907 Aug 10 j 14:31	30° R S		conjunction	914 Feb 10 j 16:58	26° S 50'04 -0°43'04	
direct	907 Oct 04 j 12:26	28° S 52'37		minimum elong	914 Feb 10 j 16:58	26° S 50'04 0°43'04	
	907 Nov 25 j 17:04	0° S		max. Earth dist.	914 Feb 11 j 17:45	26° S 53'38 21.02557 AU	
evening set	908 Jan 02 j 18:23	1° S 54'39		morning rise	914 Feb 26 j 15:25	27° S 44'35	
					914 Apr 15 j 02:00	0° S	
conjunction	908 Jan 18 j 09:59	2° S 48'54 -0°35'46		retrograde	914 May 31 j 19:37	0° S 51'37	
minimum elong	908 Jan 18 j 09:59	2° S 48'54 0°35'46			914 Jul 19 j 00:44	30° R S	
max. Earth dist.	908 Jan 19 j 08:52	2° S 52'14 20.89125 AU		opposition	914 Aug 17 j 23:12	28° S 52'23 -0°47'54	
morning rise	908 Feb 03 j 04:01	3° S 43'29		min. Earth dist.	914 Aug 17 j 00:08	28° S 54'41 19.03168 AU	
retrograde	908 May 06 j 17:33	6° S 51'20		direct	914 Nov 01 j 14:39	26° S 55'57	
opposition	908 Jul 23 j 16:06	4° S 52'29 -0°40'31		evening set	915 Jan 30 j 02:23	29° S 54'35	
min. Earth dist.	908 Jul 22 j 18:08	4° S 54'41 18.90780 AU			915 Jan 31 j 17:00	0° S	
direct	908 Oct 07 j 20:14	2° S 55'34					
evening set	909 Jan 05 j 23:24	5° S 56'54		conjunction	915 Feb 14 j 22:14	0° S 48'39 -0°43'35	
				minimum elong	915 Feb 14 j 22:14	0° S 48'39 0°43'35	
conjunction	909 Jan 21 j 15:34	6° S 51'04 -0°37'29		max. Earth dist.	915 Feb 15 j 23:14	0° S 52'14 21.03592 AU	
minimum elong	909 Jan 21 j 15:33	6° S 51'04 0°37'28		morning rise	915 Mar 02 j 21:28	1° S 43'12	
max. Earth dist.	909 Jan 22 j 15:18	6° S 54'30 20.92266 AU		retrograde	915 Jun 05 j 04:43	4° S 50'15	
morning rise	909 Feb 06 j 10:09	7° S 45'35		min. Earth dist.	915 Aug 21 j 07:14	2° S 53'24 19.04006 AU	
retrograde	909 May 11 j 03:36	10° S 53'12		opposition	915 Aug 22 j 07:06	2° S 51'00 -0°48'21	
min. Earth dist.	909 Jul 27 j 03:06	8° S 56'36 18.93716 AU		direct	915 Nov 05 j 21:08	0° S 54'39	
opposition	909 Jul 28 j 02:23	8° S 54'17 -0°42'18		evening set	916 Feb 03 j 06:55	3° S 53'05	
direct	909 Oct 12 j 06:15	6° S 57'27					
evening set	910 Jan 10 j 04:14	9° S 58'08		conjunction	916 Feb 19 j 03:27	4° S 47'12 -0°43'53	
				minimum elong	916 Feb 19 j 03:27	4° S 47'12 0°43'52	
conjunction	910 Jan 25 j 20:47	10° S 52'15 -0°39'00		max. Earth dist.	916 Feb 20 j 04:00	4° S 50'43 21.04225 AU	
minimum elong	910 Jan 25 j 20:47	10° S 52'15 0°39'01		morning rise	916 Mar 06 j 03:39	5° S 41'50	
max. Earth dist.	910 Jan 26 j 20:33	10° S 55'42 20.95002 AU		retrograde	916 Jun 08 j 12:19	8° S 48'57	
morning rise	910 Feb 10 j 16:09	11° S 46'45		opposition	916 Aug 25 j 15:01	6° S 49'41 -0°48'33	
retrograde	910 May 15 j 10:56	14° S 54'09		min. Earth dist.	916 Aug 24 j 16:36	6° S 51'56 19.04432 AU	
opposition	910 Aug 01 j 12:19	12° S 55'08 -0°43'52		direct	916 Nov 09 j 01:24	4° S 53'22	
min. Earth dist.	910 Jul 31 j 13:47	12° S 57'23 18.96279 AU		evening set	917 Feb 06 j 11:45	7° S 51'43	
direct	910 Oct 16 j 12:38	10° S 58'24					
evening set	911 Jan 14 j 08:47	13° S 58'31		conjunction	917 Feb 22 j 09:12	8° S 45'54 -0°43'58	
				minimum elong	917 Feb 22 j 09:12	8° S 45'54 0°43'59	
conjunction	911 Jan 30 j 01:57	14° S 52'35 -0°40'19		max. Earth dist.	917 Feb 23 j 09:35	8° S 49'23 21.04439 AU	
minimum elong	911 Jan 30 j 01:57	14° S 52'35 0°40'19		morning rise	917 Mar 10 j 10:17	9° S 40'36	
max. Earth dist.	911 Jan 31 j 02:27	14° S 56'07 20.97389 AU		retrograde	917 Jun 12 j 22:04	12° S 47'50	
	911 Feb 01 j 05:15	15° S		opposition	917 Aug 29 j 22:30	10° S 48'31 -0°48'32	
morning rise	911 Feb 14 j 21:55	15° S 47'03		min. Earth dist.	917 Aug 28 j 23:47	10° S 50'48 19.04409 AU	
retrograde	911 May 19 j 19:57	18° S 54'17		direct	917 Nov 13 j 07:38	8° S 52'14	
opposition	911 Aug 05 j 21:29	16° S 55'12 -0°45'13		evening set	918 Feb 10 j 17:01	11° S 50'33	
min. Earth dist.	911 Aug 04 j 21:37	16° S 57'35 18.98496 AU					
	911 Oct 13 j 05:55	15° R S		conjunction	918 Feb 26 j 15:15	12° S 44'50 -0°43'51	
direct	911 Oct 20 j 21:18	14° S 58'32		minimum elong	918 Feb 26 j 15:15	12° S 44'50 0°43'51	
	911 Oct 28 j 09:30	15° S		max. Earth dist.	918 Feb 27 j 14:38	12° S 48'10 21.04162 AU	
evening set	912 Jan 18 j 13:17	17° S 58'11		morning rise	918 Mar 14 j 17:19	13° S 39'38	
				retrograde	918 Jun 17 j 05:41	16° S 47'00	
conjunction	912 Feb 03 j 06:56	18° S 52'13 -0°41'26		min. Earth dist.	918 Sep 02 j 09:16	14° S 49'44 19.03876 AU	
minimum elong	912 Feb 03 j 06:56	18° S 52'13 0°41'27		opposition	918 Sep 03 j 06:05	14° S 47'39 -0°48'17	
max. Earth dist.	912 Feb 04 j 07:25	18° S 55'45 20.99436 AU		direct	918 Nov 17 j 11:54	12° S 51'21	
morning rise	912 Feb 19 j 03:43	19° S 46'41		evening set	919 Feb 14 j 22:27	15° S 49'42	
retrograde	912 May 23 j 03:20	22° S 53'48					
min. Earth dist.	912 Aug 08 j 07:28	20° S 56'58 19.00391 AU		conjunction	919 Mar 02 j 21:39	16° S 44'04 -0°43'31	
opposition	912 Aug 09 j 06:33	20° S 54'39 -0°46'20		minimum elong	919 Mar 02 j 21:39	16° S 44'04 0°43'31	
direct	912 Oct 24 j 02:45	18° S 58'04		max. Earth dist.	919 Mar 03 j 20:19	16° S 47'19 21.03366 AU	
evening set	913 Jan 21 j 17:30	21° S 57'17		morning rise	919 Mar 19 j 00:36	17° S 38'59	

retrograde	919 Jun 21 j 15:50	20° H 46'31	evening set	926 Mar 14 j 23:10	13° Y 55'41
opposition	919 Sep 07 j 13:26	18° H 47'05 -0°47'48			
min. Earth dist.	919 Sep 06 j 16:38	18° H 49'11 19.02800 AU	conjunction	926 Mar 31 j 05:22	14° Y 51'14 -0°35'23
direct	919 Nov 21 j 18:12	16° H 50'45	minimum elong	926 Mar 31 j 05:22	14° Y 51'14 0°35'23
evening set	920 Feb 19 j 04:20	19° H 49'10	max. Earth dist.	926 Mar 31 j 20:02	14° Y 53'20 20.84408 AU
			morning rise	926 Apr 16 j 15:17	15° Y 47'19
conjunction	920 Mar 06 j 04:24	20° H 43'40 -0°42'58	retrograde	926 Jul 20 j 08:57	18° Y 56'41
minimum elong	920 Mar 06 j 04:24	20° H 43'40 0°42'59	opposition	926 Oct 05 j 16:00	16° Y 56'12 -0°38'04
max. Earth dist.	920 Mar 07 j 01:46	20° H 46'43 21.02013 AU	min. Earth dist.	926 Oct 05 j 03:45	16° Y 57'28 18.82418 AU
morning rise	920 Mar 22 j 08:23	21° H 38'42	direct	926 Dec 19 j 08:16	14° Y 58'35
retrograde	920 Jun 24 j 23:22	24° H 46'26	evening set	927 Mar 19 j 08:02	17° Y 59'25
opposition	920 Sep 10 j 20:52	22° H 46'53 -0°47'05			
min. Earth dist.	920 Sep 10 j 02:08	22° H 48'46 19.01175 AU	conjunction	927 Apr 04 j 15:17	18° Y 55'12 -0°33'27
direct	920 Nov 24 j 22:49	20° H 50'26	minimum elong	927 Apr 04 j 15:17	18° Y 55'12 0°33'27
evening set	921 Feb 22 j 10:22	23° H 48'59	max. Earth dist.	927 Apr 05 j 04:40	18° Y 57'07 20.80342 AU
			morning rise	927 Apr 21 j 02:09	19° Y 51'30
conjunction	921 Mar 10 j 11:31	24° H 43'37 -0°42'13	retrograde	927 Jul 24 j 21:45	23° Y 01'16
minimum elong	921 Mar 10 j 11:31	24° H 43'37 0°42'12	opposition	927 Oct 09 j 23:35	21° Y 00'40 -0°35'50
max. Earth dist.	921 Mar 11 j 07:55	24° H 46'32 21.00135 AU	min. Earth dist.	927 Oct 09 j 11:39	21° Y 01'54 18.78223 AU
morning rise	921 Mar 26 j 16:29	25° H 38'48	direct	927 Dec 23 j 15:45	19° Y 02'51
retrograde	921 Jun 29 j 09:40	28° H 46'43	evening set	928 Mar 22 j 17:45	22° Y 04'19
min. Earth dist.	921 Sep 14 j 09:30	26° H 48'54 18.99031 AU			
opposition	921 Sep 15 j 04:03	26° H 47'01 -0°46'08	conjunction	928 Apr 08 j 02:00	23° Y 00'20 -0°31'21
direct	921 Nov 29 j 05:06	24° H 50'26	minimum elong	928 Apr 08 j 02:01	23° Y 00'20 0°31'21
evening set	922 Feb 26 j 16:56	27° H 49'11	max. Earth dist.	928 Apr 08 j 14:11	23° Y 02'05 20.76023 AU
			morning rise	928 Apr 24 j 13:47	23° Y 56'52
conjunction	922 Mar 14 j 19:00	28° H 43'59 -0°41'15	retrograde	928 Jul 28 j 07:56	27° Y 07'04
minimum elong	922 Mar 14 j 19:00	28° H 43'59 0°41'15	opposition	928 Oct 13 j 07:29	25° Y 06'23 -0°33'25
max. Earth dist.	922 Mar 15 j 14:05	28° H 46'42 20.97745 AU	min. Earth dist.	928 Oct 12 j 21:38	25° Y 07'24 18.73780 AU
morning rise	922 Mar 31 j 01:00	29° H 39'19	direct	928 Dec 26 j 20:57	23° Y 08'20
	922 Apr 06 j 07:06	0° Y	evening set	929 Mar 27 j 04:12	26° Y 10'31
retrograde	922 Jul 03 j 17:21	2° Y 47'27			
opposition	922 Sep 19 j 11:09	0° Y 47'35 -0°44'57	conjunction	929 Apr 12 j 13:32	27° Y 06'47 -0°29'04
min. Earth dist.	922 Sep 18 j 18:41	0° Y 49'15 18.96413 AU	minimum elong	929 Apr 12 j 13:32	27° Y 06'47 0°29'05
	922 Oct 09 j 13:02	30° R H	max. Earth dist.	929 Apr 13 j 00:01	27° Y 08'18 20.71471 AU
direct	922 Dec 03 j 09:53	28° H 50'49	morning rise	929 Apr 29 j 02:16	28° Y 03'34
	923 Jan 25 j 04:33	0° Y		929 Jun 06 j 19:16	0° B
evening set	923 Mar 02 j 23:44	1° Y 49'50	retrograde	929 Aug 01 j 21:34	1° B 14'14
				929 Sep 28 j 10:34	30° R Y
conjunction	923 Mar 19 j 02:52	2° Y 44'47 -0°40'04	opposition	929 Oct 17 j 15:40	29° Y 13'27 -0°30'48
minimum elong	923 Mar 19 j 02:52	2° Y 44'47 0°40'04	min. Earth dist.	929 Oct 17 j 06:33	29° Y 14'24 18.69091 AU
max. Earth dist.	923 Mar 19 j 20:59	2° Y 47'23 20.94932 AU	direct	929 Dec 31 j 05:26	27° Y 15'12
morning rise	923 Apr 04 j 09:50	3° Y 40'17		930 Mar 26 j 05:19	0° B
retrograde	923 Jul 08 j 03:55	6° Y 48'41	evening set	930 Mar 31 j 15:35	0° B 18'10
opposition	923 Sep 23 j 18:13	4° Y 48'39 -0°43'33			
min. Earth dist.	923 Sep 23 j 01:52	4° Y 50'19 18.93400 AU	conjunction	930 Apr 17 j 01:53	1° B 14'42 -0°26'38
direct	923 Dec 07 j 16:09	2° Y 51'40	minimum elong	930 Apr 17 j 01:53	1° B 14'42 0°26'37
evening set	924 Mar 06 j 06:56	5° Y 51'02	max. Earth dist.	930 Apr 17 j 10:57	1° B 16'00 20.66640 AU
			morning rise	930 May 03 j 15:23	2° B 11'43
conjunction	924 Mar 22 j 11:02	6° Y 46'10 -0°38'42	retrograde	930 Aug 06 j 09:04	5° B 22'52
minimum elong	924 Mar 22 j 11:02	6° Y 46'10 0°38'42	opposition	930 Oct 22 j 00:13	3° B 22'01 -0°28'02
max. Earth dist.	924 Mar 23 j 04:01	6° Y 48'36 20.91733 AU	min. Earth dist.	930 Oct 21 j 17:26	3° B 22'43 18.64118 AU
morning rise	924 Apr 07 j 19:01	7° Y 41'52	direct	931 Jan 04 j 12:05	1° B 23'31
retrograde	924 Jul 11 j 12:17	10° Y 50'33	evening set	931 Apr 05 j 03:48	4° B 27'20
min. Earth dist.	924 Sep 26 j 11:02	8° Y 51'49 18.90033 AU			
opposition	924 Sep 27 j 01:28	8° Y 50'21 -0°41'55	conjunction	931 Apr 21 j 15:03	5° B 24'08 -0°24'02
direct	924 Dec 10 j 20:54	6° Y 53'10	minimum elong	931 Apr 21 j 15:03	5° B 24'09 0°24'03
evening set	925 Mar 10 j 14:43	9° Y 52'56	max. Earth dist.	931 Apr 21 j 21:54	5° B 25'08 20.61535 AU
			morning rise	931 May 08 j 05:25	6° B 21'25
conjunction	925 Mar 26 j 19:55	10° Y 48'16 -0°37'08	retrograde	931 Aug 10 j 23:13	9° B 33'04
minimum elong	925 Mar 26 j 19:55	10° Y 48'16 0°37'08	opposition	931 Oct 26 j 09:11	7° B 32'07 -0°25'05
max. Earth dist.	925 Mar 27 j 11:49	10° Y 50'33 20.88221 AU	min. Earth dist.	931 Oct 26 j 03:31	7° B 32'43 18.58856 AU
morning rise	925 Apr 12 j 04:54	11° Y 44'09	direct	932 Jan 08 j 21:24	5° B 33'22
retrograde	925 Jul 15 j 23:53	14° Y 53'10	evening set	932 Apr 08 j 16:51	8° B 38'04
opposition	925 Oct 01 j 08:32	12° Y 52'49 -0°40'06			
min. Earth dist.	925 Sep 30 j 18:21	12° Y 54'16 18.86368 AU	conjunction	932 Apr 25 j 05:06	9° B 35'10 -0°21'18
direct	925 Dec 15 j 03:35	10° Y 55'24	minimum elong	932 Apr 25 j 05:06	9° B 35'10 0°21'17

max. Earth dist.	932 Apr 25 j 10:20	9° 8 35'55	20.56105 AU	opposition	937 Nov 20 j 00:59	3° II 04'56	-0°04'41
morning rise	932 May 11 j 20:11	10° 8 32'42		min. Earth dist.	937 Nov 20 j 06:02	3° II 04'24	18.21726 AU
retrograde	932 Aug 14 j 12:01	13° 8 44'51		direct	938 Feb 02 j 15:48	1° II 03'52	
opposition	932 Oct 29 j 18:46	11° 8 43'47	-0°21'59	evening set	938 May 05 j 17:35	4° II 14'45	
min. Earth dist.	932 Oct 29 j 15:31	11° 8 44'08	18.53259 AU				
direct	933 Jan 12 j 06:10	9° 8 44'43		conjunction	938 May 22 j 10:39	5° II 13'36	-0°02'39
evening set	933 Apr 13 j 06:57	12° 8 50'21		minimum elong	938 May 22 j 10:39	5° II 13'36	0°02'38
				behind sun begin	938 May 22 j 03:53	5° II 12'38	
conjunction	933 Apr 29 j 20:05	13° 8 47'44	-0°18'26	behind sun end	938 May 22 j 17:25	5° II 14'35	
minimum elong	933 Apr 29 j 20:05	13° 8 47'44	0°18'25	max. Earth dist.	938 May 22 j 03:54	5° II 12'38	20.18459 AU
max. Earth dist.	933 Apr 29 j 22:34	13° 8 48'05	20.50360 AU	morning rise	938 Jun 08 j 04:58	6° II 12'41	
morning rise	933 May 16 j 11:58	14° 8 45'32		retrograde	938 Sep 10 j 06:06	9° II 27'54	
	933 May 20 j 18:39	15° 8		opposition	938 Nov 24 j 13:22	7° II 25'54	-0°01'00
retrograde	933 Aug 19 j 02:29	17° 8 58'11		min. Earth dist.	938 Nov 24 j 19:58	7° II 25'12	18.15170 AU
opposition	933 Nov 03 j 04:35	15° 8 56'59	-0°18'44	direct	939 Feb 07 j 05:00	5° II 24'25	
min. Earth dist.	933 Nov 03 j 02:42	15° 8 57'11	18.47356 AU	asc. node	939 Mar 04 j 05:46	5° II 41'01	
	933 Nov 26 j 18:13	15° 8		evening set	939 May 10 j 12:43	8° II 36'29	
direct	934 Jan 16 j 16:32	13° 8 57'33					
	934 Mar 07 j 09:21	15° 8		conjunction	939 May 27 j 06:14	9° II 35'37	0°00'47
evening set	934 Apr 17 j 21:51	17° 8 04'10		minimum elong	939 May 27 j 06:13	9° II 35'37	0°00'47
				behind sun begin	939 May 26 j 23:27	9° II 34'38	
conjunction	934 May 04 j 11:56	18° 8 01'50	-0°15'26	behind sun end	939 May 27 j 12:59	9° II 36'36	
minimum elong	934 May 04 j 11:56	18° 8 01'50	0°15'27	max. Earth dist.	939 May 26 j 20:42	9° II 34'13	20.11943 AU
behind sun begin	934 May 04 j 10:29	18° 8 01'38		morning rise	939 Jun 13 j 00:58	10° II 34'57	
behind sun end	934 May 04 j 13:22	18° 8 02'02		retrograde	939 Sep 14 j 23:05	13° II 50'43	
max. Earth dist.	934 May 04 j 12:49	18° 8 01'58	20.44307 AU	opposition	939 Nov 29 j 02:19	11° II 48'35	0°02'43
morning rise	934 May 21 j 04:21	18° 8 59'53		min. Earth dist.	939 Nov 29 j 10:18	11° II 47'43	18.08709 AU
retrograde	934 Aug 23 j 16:24	22° 8 13'02		direct	940 Feb 11 j 19:27	9° II 46'42	
opposition	934 Nov 07 j 15:03	20° 8 11'41	-0°15'22	evening set	940 May 14 j 08:35	12° II 59'58	
min. Earth dist.	934 Nov 07 j 15:24	20° 8 11'39	18.41170 AU				
direct	935 Jan 21 j 03:11	18° 8 11'53		conjunction	940 May 31 j 02:47	13° II 59'24	0°04'11
evening set	935 Apr 22 j 13:26	21° 8 19'29		minimum elong	940 May 31 j 02:46	13° II 59'24	0°04'12
				behind sun begin	940 May 30 j 20:05	13° II 58'26	
conjunction	935 May 09 j 04:16	22° 8 17'26	-0°12'21	behind sun end	940 May 31 j 09:26	14° II 00'22	
minimum elong	935 May 09 j 04:15	22° 8 17'26	0°12'21	max. Earth dist.	940 May 30 j 16:43	13° II 57'55	20.05530 AU
behind sun begin	935 May 08 j 23:54	22° 8 16'49		morning rise	940 Jun 16 j 21:34	14° II 58'58	
behind sun end	935 May 09 j 08:36	22° 8 18'04		retrograde	940 Sep 18 j 16:37	18° II 15'16	
max. Earth dist.	935 May 09 j 02:23	22° 8 17'11	20.38025 AU	opposition	940 Dec 02 j 15:59	16° II 13'04	0°06'26
morning rise	935 May 25 j 21:24	23° 8 15'45		min. Earth dist.	940 Dec 03 j 01:12	16° II 12'05	18.02362 AU
retrograde	935 Aug 28 j 07:14	26° 8 29'26		direct	941 Feb 15 j 10:14	14° II 10'49	
opposition	935 Nov 12 j 01:54	24° 8 27'53	-0°11'53	evening set	941 May 19 j 05:36	17° II 25'20	
min. Earth dist.	935 Nov 12 j 03:36	24° 8 27'42	18.34795 AU	max. Earth dist.	941 Jun 04 j 11:10	18° II 23'07	19.99266 AU
direct	936 Jan 25 j 14:48	22° 8 27'40					
evening set	936 Apr 26 j 05:57	25° 8 36'19		conjunction	941 Jun 05 j 00:01	18° II 25'01	0°07'31
				minimum elong	941 Jun 05 j 00:01	18° II 25'01	0°07'30
conjunction	936 May 12 j 21:39	26° 8 34'35	-0°09'11	behind sun begin	941 Jun 04 j 17:52	18° II 24'08	
minimum elong	936 May 12 j 21:40	26° 8 34'35	0°09'11	behind sun end	941 Jun 05 j 06:10	18° II 25'55	
behind sun begin	936 May 12 j 15:59	26° 8 33'46		morning rise	941 Jun 21 j 19:05	19° II 24'50	
behind sun end	936 May 13 j 03:20	26° 8 35'24		retrograde	941 Sep 23 j 10:48	22° II 41'42	
max. Earth dist.	936 May 12 j 18:35	26° 8 34'09	20.31570 AU	opposition	941 Dec 07 j 06:16	20° II 39'26	0°10'09
morning rise	936 May 29 j 15:12	27° 8 33'09		min. Earth dist.	941 Dec 07 j 17:01	20° II 38'16	17.96191 AU
	936 Jul 19 j 09:52	0° II		direct	942 Feb 20 j 01:56	18° II 36'50	
retrograde	936 Aug 31 j 22:16	0° II 47'19		evening set	942 May 24 j 03:20	21° II 52'37	
	936 Oct 15 j 01:32	30° 8					
opposition	936 Nov 15 j 13:09	28° 8 45'37	-0°08'19	conjunction	942 Jun 09 j 22:14	22° II 52'35	0°10'49
min. Earth dist.	936 Nov 15 j 16:50	28° 8 45'14	18.28283 AU	minimum elong	942 Jun 09 j 22:15	22° II 52'35	0°10'50
direct	937 Jan 29 j 02:44	26° 8 44'59		behind sun begin	942 Jun 09 j 17:09	22° II 51'51	
evening set	937 Apr 30 j 23:26	29° 8 54'44		behind sun end	942 Jun 10 j 03:20	22° II 53'20	
	937 May 02 j 12:02	0° II		max. Earth dist.	942 Jun 09 j 09:00	22° II 50'37	19.93179 AU
conjunction	937 May 17 j 15:45	0° II 53'17	-0°05'57	morning rise	942 Jun 26 j 17:09	23° II 52'37	
minimum elong	937 May 17 j 15:45	0° II 53'17	0°05'56	retrograde	942 Sep 28 j 06:28	27° II 10'02	
behind sun begin	937 May 17 j 09:19	0° II 52'22		opposition	942 Dec 11 j 21:20	25° II 07'46	0°13'49
behind sun end	937 May 17 j 22:12	0° II 54'13		min. Earth dist.	942 Dec 12 j 09:04	25° II 06'30	17.90194 AU
max. Earth dist.	937 May 17 j 09:50	0° II 52'26	20.25031 AU	direct	943 Feb 24 j 18:22	23° II 04'51	
morning rise	937 Jun 03 j 09:54	1° II 52'07		evening set	943 May 29 j 01:59	26° II 21'54	
retrograde	937 Sep 05 j 14:05	5° II 06'49		conjunction	943 Jun 14 j 20:58	27° II 22'08	0°14'06

minimum elong	943 Jun 14 j 20:58	27° Π 22'08	0°14'06	morning rise	949 Jul 29 j 21:49	25° \mathfrak{D} 58'09	
behind sun begin	943 Jun 14 j 17:50	27° Π 21'40		retrograde	949 Oct 30 j 11:06	29° \mathfrak{D} 18'41	
behind sun end	943 Jun 15 j 00:05	27° Π 22'35		opposition	950 Jan 12 j 03:20	27° \mathfrak{D} 16'12	0°36'36
max. Earth dist.	943 Jun 14 j 05:01	27° Π 19'44	19.87276 AU	min. Earth dist.	950 Jan 13 j 00:38	27° \mathfrak{D} 13'52	17.53169 AU
morning rise	943 Jul 01 j 15:57	28° Π 22'23		direct	950 Mar 28 j 12:46	25° \mathfrak{D} 11'00	
	943 Jul 31 j 14:06	0° \mathfrak{D}		evening set	950 Jul 01 j 14:32	28° \mathfrak{D} 36'05	
retrograde	943 Oct 03 j 01:57	1° \mathfrak{D} 40'21		max. Earth dist.	950 Jul 17 j 07:17	29° \mathfrak{D} 33'45	19.50983 AU
	943 Dec 08 j 01:16	30° \mathfrak{R} Π					
opposition	943 Dec 16 j 13:11	29° Π 38'05	0°17'27	conjunction	950 Jul 18 j 08:30	29° \mathfrak{D} 37'39	0°34'02
min. Earth dist.	943 Dec 17 j 02:46	29° Π 36'37	17.84384 AU	minimum elong	950 Jul 18 j 08:30	29° \mathfrak{D} 37'39	0°34'02
direct	944 Feb 29 j 11:00	27° Π 34'51			950 Jul 24 j 09:16	0° Ω	
	944 May 17 j 12:27	0° \mathfrak{D}		morning rise	950 Aug 04 j 00:10	0° Ω 38'54	
evening set	944 Jun 02 j 01:36	0° \mathfrak{D} 53'11		retrograde	950 Nov 04 j 10:41	3° Ω 59'43	
				opposition	951 Jan 16 j 23:54	1° Ω 57'10	0°39'07
conjunction	944 Jun 18 j 20:53	1° \mathfrak{D} 53'40	0°17'19	min. Earth dist.	951 Jan 17 j 20:51	1° Ω 54'53	17.48954 AU
minimum elong	944 Jun 18 j 20:53	1° \mathfrak{D} 53'40	0°17'19		951 Mar 15 j 19:40	30° \mathfrak{R} \mathfrak{D}	
max. Earth dist.	944 Jun 18 j 04:23	1° \mathfrak{D} 51'11	19.81537 AU	direct	951 Apr 02 j 13:31	29° \mathfrak{D} 51'40	
morning rise	944 Jul 05 j 15:33	2° \mathfrak{D} 54'07			951 Apr 20 j 04:44	0° Ω	
retrograde	944 Oct 06 j 23:55	6° \mathfrak{D} 12'37		evening set	951 Jul 06 j 18:14	3° Ω 17'38	
opposition	944 Dec 20 j 05:38	4° \mathfrak{D} 10'21	0°20'59	max. Earth dist.	951 Jul 22 j 10:00	4° Ω 15'20	19.46974 AU
min. Earth dist.	944 Dec 20 j 20:11	4° \mathfrak{D} 08'46	17.78719 AU				
direct	945 Mar 05 j 05:36	2° \mathfrak{D} 06'49		conjunction	951 Jul 23 j 11:42	4° Ω 19'18	0°36'10
evening set	945 Jun 07 j 02:16	5° \mathfrak{D} 26'24		minimum elong	951 Jul 23 j 11:42	4° Ω 19'18	0°36'10
				morning rise	951 Aug 09 j 02:31	5° Ω 20'37	
conjunction	945 Jun 23 j 21:26	6° \mathfrak{D} 27'07	0°20'27	retrograde	951 Nov 09 j 07:45	8° Ω 41'39	
minimum elong	945 Jun 23 j 21:26	6° \mathfrak{D} 27'07	0°20'27	opposition	952 Jan 21 j 21:13	6° Ω 39'04	0°41'23
max. Earth dist.	945 Jun 23 j 02:07	6° \mathfrak{D} 24'11	19.75940 AU	min. Earth dist.	952 Jan 22 j 19:39	6° Ω 36'37	17.45184 AU
morning rise	945 Jul 10 j 15:55	7° \mathfrak{D} 27'46		direct	952 Apr 06 j 12:46	4° Ω 33'17	
retrograde	945 Oct 11 j 19:59	10° \mathfrak{D} 46'44		evening set	952 Jul 10 j 22:21	8° Ω 00'05	
opposition	945 Dec 24 j 23:03	8° \mathfrak{D} 44'28	0°24'26				
min. Earth dist.	945 Dec 25 j 15:41	8° \mathfrak{D} 42'39	17.73208 AU	conjunction	952 Jul 27 j 15:08	9° Ω 01'49	0°38'04
direct	946 Mar 09 j 23:30	6° \mathfrak{D} 40'36		minimum elong	952 Jul 27 j 15:08	9° Ω 01'49	0°38'04
evening set	946 Jun 12 j 03:22	10° \mathfrak{D} 01'24		max. Earth dist.	952 Jul 26 j 12:48	8° Ω 57'43	19.43452 AU
				morning rise	952 Aug 13 j 05:10	10° Ω 03'10	
conjunction	946 Jun 28 j 22:36	11° \mathfrak{D} 02'19	0°23'29	retrograde	952 Nov 13 j 07:41	13° Ω 24'24	
minimum elong	946 Jun 28 j 22:36	11° \mathfrak{D} 02'19	0°23'28	opposition	953 Jan 25 j 18:52	11° Ω 21'47	0°43'22
max. Earth dist.	946 Jun 28 j 02:39	10° \mathfrak{D} 59'17	19.70496 AU	min. Earth dist.	953 Jan 26 j 16:34	11° Ω 19'24	17.41926 AU
morning rise	946 Jul 15 j 16:35	12° \mathfrak{D} 03'08		direct	953 Apr 11 j 14:41	9° Ω 15'45	
retrograde	946 Oct 16 j 19:10	15° \mathfrak{D} 22'34		evening set	953 Jul 16 j 02:36	12° Ω 43'18	
opposition	946 Dec 29 j 17:07	13° \mathfrak{D} 20'16	0°27'44				
min. Earth dist.	946 Dec 30 j 10:19	13° \mathfrak{D} 18'24	17.67845 AU	conjunction	953 Aug 01 j 18:44	13° Ω 45'05	0°39'43
direct	947 Mar 14 j 20:17	11° \mathfrak{D} 16'05		minimum elong	953 Aug 01 j 18:44	13° Ω 45'05	0°39'42
evening set	947 Jun 17 j 05:25	14° \mathfrak{D} 38'01		max. Earth dist.	953 Jul 31 j 16:54	13° Ω 41'04	19.40461 AU
max. Earth dist.	947 Jul 03 j 02:04	15° \mathfrak{D} 35'45	19.65220 AU	morning rise	953 Aug 18 j 07:41	14° Ω 46'27	
					953 Aug 22 j 01:28	15° Ω	
conjunction	947 Jul 04 j 00:22	15° \mathfrak{D} 39'09	0°26'23	retrograde	953 Nov 18 j 05:49	18° Ω 07'51	
minimum elong	947 Jul 04 j 00:22	15° \mathfrak{D} 39'09	0°26'23	opposition	954 Jan 30 j 17:22	16° Ω 05'15	0°45'03
morning rise	947 Jul 20 j 17:57	16° \mathfrak{D} 40'07		min. Earth dist.	954 Jan 31 j 15:57	16° Ω 02'46	17.39233 AU
retrograde	947 Oct 21 j 15:22	19° \mathfrak{D} 59'57			954 Feb 25 j 20:18	15° \mathfrak{R} Ω	
opposition	948 Jan 03 j 11:52	17° \mathfrak{D} 57'36	0°30'53	direct	954 Apr 16 j 14:58	13° Ω 59'03	
min. Earth dist.	948 Jan 04 j 07:09	17° \mathfrak{D} 55'30	17.62687 AU		954 Jun 04 j 07:13	15° Ω	
direct	948 Mar 18 j 16:09	15° \mathfrak{D} 53'04		evening set	954 Jul 21 j 06:51	17° Ω 27'15	
evening set	948 Jun 21 j 07:56	19° \mathfrak{D} 16'07					
max. Earth dist.	948 Jul 07 j 03:43	20° \mathfrak{D} 13'53	19.60177 AU	conjunction	954 Aug 06 j 22:05	18° Ω 29'03	0°41'05
				minimum elong	954 Aug 06 j 22:05	18° Ω 29'03	0°41'05
conjunction	948 Jul 08 j 02:46	20° \mathfrak{D} 17'25	0°29'07	max. Earth dist.	954 Aug 05 j 19:43	18° Ω 24'56	19.38071 AU
minimum elong	948 Jul 08 j 02:46	20° \mathfrak{D} 17'25	0°29'07	morning rise	954 Aug 23 j 10:12	19° Ω 30'24	
morning rise	948 Jul 24 j 19:47	21° \mathfrak{D} 18'30		retrograde	954 Nov 23 j 06:15	22° Ω 51'57	
retrograde	948 Oct 25 j 14:40	24° \mathfrak{D} 38'42		opposition	955 Feb 04 j 16:11	20° Ω 49'24	0°46'27
opposition	949 Jan 07 j 07:13	22° \mathfrak{D} 36'18	0°33'51	min. Earth dist.	955 Feb 05 j 13:43	20° Ω 47'02	17.37150 AU
min. Earth dist.	949 Jan 08 j 02:41	22° \mathfrak{D} 34'10	17.57769 AU	direct	955 Apr 21 j 17:27	18° Ω 43'05	
direct	949 Mar 23 j 14:59	20° \mathfrak{D} 31'26		evening set	955 Jul 26 j 11:14	22° Ω 11'53	
evening set	949 Jun 26 j 11:05	23° \mathfrak{D} 55'31		max. Earth dist.	955 Aug 11 j 00:36	23° Ω 09'45	19.36290 AU
max. Earth dist.	949 Jul 12 j 04:53	24° \mathfrak{D} 53'12	19.55398 AU				
				conjunction	955 Aug 12 j 01:45	23° Ω 13'41	0°42'12
conjunction	949 Jul 13 j 05:29	24° \mathfrak{D} 56'59	0°31'41	minimum elong	955 Aug 12 j 01:45	23° Ω 13'41	0°42'12
minimum elong	949 Jul 13 j 05:29	24° \mathfrak{D} 56'58	0°31'41	morning rise	955 Aug 28 j 12:40	24° Ω 15'00	

retrograde	955 Nov 28 j 05:11	27°♏36'38		evening set	962 Aug 29 j 14:02	25°♐32'43	
opposition	956 Feb 09 j 15:29	25°♏34'11	0°47'32				
min. Earth dist.	956 Feb 10 j 13:35	25°♏31'46	17.35672 AU	conjunction	962 Sep 14 j 20:59	26°♐33'46	0°41'41
direct	956 Apr 25 j 18:16	23°♏27'50		minimum elong	962 Sep 14 j 20:59	26°♐33'46	0°41'42
evening set	956 Jul 30 j 15:50	26°♏57'08		max. Earth dist.	962 Sep 13 j 23:42	26°♐30'25	19.38680 AU
max. Earth dist.	956 Aug 15 j 03:27	27°♏54'52	19.35117 AU	morning rise	962 Oct 01 j 00:05	27°♐34'15	
					962 Nov 16 j 06:21	0°♑	
conjunction	956 Aug 16 j 05:16	27°♏58'55	0°43'01	retrograde	962 Dec 31 j 04:17	0°♑55'14	
minimum elong	956 Aug 16 j 05:16	27°♏58'55	0°43'00		963 Feb 15 j 16:56	30°♑	
morning rise	956 Sep 01 j 15:17	29°♏00'11		opposition	963 Mar 14 j 21:10	28°♐53'36	0°45'50
	956 Sep 18 j 13:12	0°♐		min. Earth dist.	963 Mar 15 j 15:26	28°♐51'38	17.39742 AU
retrograde	956 Dec 02 j 06:14	2°♐21'53		direct	963 May 30 j 15:45	26°♐47'46	
opposition	957 Feb 13 j 15:16	0°♐19'34	0°48'17		963 Aug 29 j 22:51	0°♑	
min. Earth dist.	957 Feb 14 j 12:28	0°♐17'15	17.34788 AU	evening set	963 Sep 03 j 16:01	0°♑17'13	
	957 Feb 21 j 03:20	30°♑♏					
direct	957 Apr 30 j 21:10	28°♏13'12		conjunction	963 Sep 19 j 21:54	1°♑18'04	0°40'27
	957 Jul 05 j 10:54	0°♐		minimum elong	963 Sep 19 j 21:54	1°♑18'04	0°40'26
evening set	957 Aug 04 j 20:07	1°♐42'55		max. Earth dist.	963 Sep 19 j 02:23	1°♑15'00	19.40844 AU
max. Earth dist.	957 Aug 20 j 08:34	2°♐40'51	19.34504 AU	morning rise	963 Oct 05 j 23:52	2°♑18'21	
				retrograde	964 Jan 05 j 02:37	5°♑39'00	
conjunction	957 Aug 21 j 08:43	2°♐44'38	0°43'32	opposition	964 Mar 18 j 22:21	3°♑37'27	0°44'17
minimum elong	957 Aug 21 j 08:42	2°♐44'38	0°43'33	min. Earth dist.	964 Mar 19 j 14:57	3°♑35'40	17.42111 AU
morning rise	957 Sep 06 j 17:25	3°♐45'50		direct	964 Jun 03 j 20:23	1°♑31'44	
retrograde	957 Dec 07 j 05:56	7°♐07'33		evening set	964 Sep 07 j 17:22	5°♑00'42	
opposition	958 Feb 18 j 15:38	5°♐05'23	0°48'43				
min. Earth dist.	958 Feb 19 j 12:59	5°♐03'03	17.34439 AU	conjunction	964 Sep 23 j 22:03	6°♑01'20	0°38'55
direct	958 May 05 j 22:40	2°♐59'05		minimum elong	964 Sep 23 j 22:03	6°♑01'20	0°38'55
evening set	958 Aug 10 j 00:29	6°♐29'03		max. Earth dist.	964 Sep 23 j 03:39	5°♑58'27	19.43446 AU
max. Earth dist.	958 Aug 25 j 11:07	7°♐26'48	19.34418 AU	morning rise	964 Oct 09 j 22:55	7°♑01'25	
				retrograde	965 Jan 08 j 23:43	10°♑21'41	
conjunction	958 Aug 26 j 11:51	7°♐30'42	0°43'46	opposition	965 Mar 23 j 23:40	8°♑20'11	0°42'26
minimum elong	958 Aug 26 j 11:51	7°♐30'42	0°43'46	min. Earth dist.	965 Mar 24 j 15:44	8°♑18'28	17.44952 AU
morning rise	958 Sep 11 j 19:35	8°♐31'48		direct	965 Jun 08 j 23:18	6°♑14'37	
retrograde	958 Dec 12 j 06:58	11°♐53'29		evening set	965 Sep 12 j 17:41	9°♑42'59	
opposition	959 Feb 23 j 16:12	9°♐51'27	0°48'49				
min. Earth dist.	959 Feb 24 j 12:52	9°♐49'12	17.34609 AU	conjunction	965 Sep 28 j 21:14	10°♑43'23	0°37'09
direct	959 May 11 j 01:49	7°♐45'12		minimum elong	965 Sep 28 j 21:14	10°♑43'23	0°37'09
evening set	959 Aug 15 j 04:26	11°♐15'21		max. Earth dist.	965 Sep 28 j 04:42	10°♑40'47	19.46533 AU
				morning rise	965 Oct 14 j 21:05	11°♑43'14	
conjunction	959 Aug 31 j 14:55	12°♐16'53	0°43'42	retrograde	966 Jan 13 j 21:52	15°♑03'06	
minimum elong	959 Aug 31 j 14:55	12°♐16'53	0°43'42	opposition	966 Mar 29 j 00:42	13°♑01'39	0°40'19
max. Earth dist.	959 Aug 30 j 15:53	12°♐13'15	19.34821 AU	min. Earth dist.	966 Mar 29 j 14:20	13°♑00'12	17.48271 AU
morning rise	959 Sep 16 j 21:22	13°♐17'51		direct	966 Jun 14 j 03:27	10°♑56'16	
retrograde	959 Dec 17 j 06:43	16°♐39'27		evening set	966 Sep 17 j 17:17	14°♑23'57	
opposition	960 Feb 28 j 17:13	14°♐37'32	0°48'34				
min. Earth dist.	960 Feb 29 j 13:33	14°♐35'20	17.35230 AU	conjunction	966 Oct 03 j 19:44	15°♑24'05	0°35'08
direct	960 May 15 j 04:11	12°♐31'23		minimum elong	966 Oct 03 j 19:44	15°♑24'05	0°35'07
evening set	960 Aug 19 j 08:15	16°♐01'33		max. Earth dist.	966 Oct 03 j 05:11	15°♑21'48	19.50106 AU
				morning rise	966 Oct 19 j 18:31	16°♑23'43	
conjunction	960 Sep 04 j 17:26	17°♐02'56	0°43'20	retrograde	967 Jan 18 j 17:56	19°♑43'07	
minimum elong	960 Sep 04 j 17:26	17°♐02'56	0°43'20	opposition	967 Apr 03 j 01:28	17°♑41'46	0°37'56
max. Earth dist.	960 Sep 03 j 18:03	16°♐59'16	19.35668 AU	min. Earth dist.	967 Apr 03 j 14:22	17°♑40'24	17.52106 AU
morning rise	960 Sep 20 j 22:50	18°♐03'46		direct	967 Jun 19 j 04:19	15°♑36'35	
retrograde	960 Dec 21 j 06:50	21°♐25'13		evening set	967 Sep 22 j 16:05	19°♑03'30	
opposition	961 Mar 04 j 18:24	19°♐23'25	0°47'59				
min. Earth dist.	961 Mar 05 j 14:11	19°♐21'17	17.36303 AU	conjunction	967 Oct 08 j 17:23	20°♑03'23	0°32'54
direct	961 May 20 j 07:58	17°♐17'21		minimum elong	967 Oct 08 j 17:23	20°♑03'23	0°32'54
evening set	961 Aug 24 j 11:26	20°♐47'25		max. Earth dist.	967 Oct 08 j 04:29	20°♑01'22	19.54204 AU
				morning rise	967 Oct 24 j 15:17	21°♑02'45	
conjunction	961 Sep 09 j 19:37	21°♐48'39	0°42'39	retrograde	968 Jan 23 j 16:00	24°♑21'41	
minimum elong	961 Sep 09 j 19:37	21°♐48'39	0°42'39	opposition	968 Apr 07 j 01:57	22°♑20'28	0°35'20
max. Earth dist.	961 Sep 08 j 22:01	21°♐45'15	19.36960 AU	min. Earth dist.	968 Apr 07 j 11:59	22°♑19'24	17.56444 AU
morning rise	961 Sep 25 j 23:46	22°♐49'19		direct	968 Jun 23 j 07:00	20°♑15'34	
retrograde	961 Dec 26 j 05:52	26°♐10'33		evening set	968 Sep 26 j 13:56	23°♑41'39	
opposition	962 Mar 09 j 19:48	24°♐08'51	0°47'04				
min. Earth dist.	962 Mar 10 j 14:31	24°♐06'50	17.37801 AU	conjunction	968 Oct 12 j 14:13	24°♑41'15	0°30'28
direct	962 May 25 j 11:51	22°♐02'54		minimum elong	968 Oct 12 j 14:13	24°♑41'15	0°30'28

max. Earth dist.	968 Oct 12 j 03:54	24° $\underline{\text{A}}$ 39'38	19.58790 AU	minimum elong	974 Nov 09 j 01:54	21° M 57'21	0°12'44
morning rise	968 Oct 28 j 11:04	25° $\underline{\text{A}}$ 40'23		behind sun begin	974 Nov 08 j 21:41	21° M 56'43	
retrograde	969 Jan 27 j 11:36	28° $\underline{\text{A}}$ 58'50		behind sun end	974 Nov 09 j 06:06	21° M 57'59	
opposition	969 Apr 12 j 02:20	26° $\underline{\text{A}}$ 57'46	0°32'30	max. Earth dist.	974 Nov 09 j 03:18	21° M 57'33	19.93451 AU
min. Earth dist.	969 Apr 12 j 11:28	26° $\underline{\text{A}}$ 56'48	17.61266 AU	morning rise	974 Nov 24 j 18:29	22° M 54'55	
direct	969 Jun 28 j 06:44	24° $\underline{\text{A}}$ 53'12		retrograde	975 Feb 24 j 05:17	26° M 10'13	
evening set	969 Oct 01 j 11:00	28° $\underline{\text{A}}$ 18'23		opposition	975 May 10 j 19:37	24° M 10'12	0°12'19
				min. Earth dist.	975 May 10 j 18:05	24° M 10'21	17.96577 AU
conjunction	969 Oct 17 j 10:09	29° $\underline{\text{A}}$ 17'42	0°27'51	direct	975 Jul 27 j 02:41	22° M 08'02	
minimum elong	969 Oct 17 j 10:10	29° $\underline{\text{A}}$ 17'42	0°27'51	evening set	975 Oct 28 j 23:01	25° M 26'45	
max. Earth dist.	969 Oct 17 j 01:17	29° $\underline{\text{A}}$ 16'19	19.63849 AU				
	969 Oct 28 j 18:11	0° M		conjunction	975 Nov 13 j 16:56	26° M 24'18	0°09'27
morning rise	969 Nov 02 j 06:17	0° M 16'34		minimum elong	975 Nov 13 j 16:56	26° M 24'18	0°09'28
retrograde	970 Feb 01 j 08:51	3° M 34'32		behind sun begin	975 Nov 13 j 11:26	26° M 23'29	
opposition	970 Apr 17 j 02:09	1° M 33'39	0°29'29	behind sun end	975 Nov 13 j 22:27	26° M 25'07	
min. Earth dist.	970 Apr 17 j 08:22	1° M 32'59	17.66522 AU	max. Earth dist.	975 Nov 13 j 18:51	26° M 24'35	19.99745 AU
	970 May 29 j 02:25	30° R $\underline{\text{A}}$		morning rise	975 Nov 29 j 09:13	27° M 21'37	
direct	970 Jul 03 j 08:04	29° $\underline{\text{A}}$ 29'27			976 Jan 22 j 17:27	0° A	
	970 Aug 06 j 18:52	0° M		retrograde	976 Feb 28 j 22:14	0° A 36'21	
evening set	970 Oct 06 j 07:01	2° M 53'40			976 Apr 07 j 08:07	30° R M	
				opposition	976 May 14 j 16:45	28° M 36'27	0°08'38
conjunction	970 Oct 22 j 05:20	3° M 52'43	0°25'04	min. Earth dist.	976 May 14 j 13:04	28° M 36'50	18.02878 AU
minimum elong	970 Oct 22 j 05:20	3° M 52'43	0°25'05	direct	976 Jul 30 j 23:41	26° M 34'38	
max. Earth dist.	970 Oct 21 j 23:18	3° M 51'47	19.69292 AU	evening set	976 Nov 01 j 13:46	29° M 52'09	
morning rise	970 Nov 07 j 00:33	4° M 51'20			976 Nov 03 j 18:11	0° A	
retrograde	971 Feb 06 j 03:52	8° M 08'47					
opposition	971 Apr 22 j 01:47	6° M 08'05	0°26'18	conjunction	976 Nov 17 j 07:12	0° A 49'25	0°06'09
min. Earth dist.	971 Apr 22 j 07:13	6° M 07'31	17.72126 AU	minimum elong	976 Nov 17 j 07:12	0° A 49'25	0°06'09
direct	971 Jul 08 j 07:07	4° M 04'18		behind sun begin	976 Nov 17 j 00:58	0° A 48'30	
evening set	971 Oct 11 j 02:25	7° M 27'31		behind sun end	976 Nov 17 j 13:25	0° A 50'21	
				max. Earth dist.	976 Nov 17 j 11:53	0° A 50'07	20.06040 AU
conjunction	971 Oct 26 j 23:37	8° M 26'15	0°22'09	morning rise	976 Dec 02 j 22:54	1° A 46'29	
minimum elong	971 Oct 26 j 23:38	8° M 26'15	0°22'08	retrograde	977 Mar 04 j 13:49	5° A 00'38	
max. Earth dist.	971 Oct 26 j 18:38	8° M 25'29	19.75050 AU	opposition	977 May 19 j 13:19	3° A 00'50	0°04'55
morning rise	971 Nov 11 j 18:14	9° M 24'36		min. Earth dist.	977 May 19 j 08:23	3° A 01'21	18.09160 AU
retrograde	972 Feb 10 j 23:49	12° M 41'32		direct	977 Aug 04 j 20:38	0° A 59'23	
opposition	972 Apr 26 j 00:51	10° M 41'02	0°22'58	evening set	977 Nov 06 j 03:46	4° A 15'40	
min. Earth dist.	972 Apr 26 j 03:34	10° M 40'45	17.78007 AU				
direct	972 Jul 12 j 07:22	8° M 37'39		conjunction	977 Nov 21 j 20:26	5° A 12'39	0°02'48
evening set	972 Oct 14 j 20:50	11° M 59'48		minimum elong	977 Nov 21 j 20:27	5° A 12'39	0°02'50
				behind sun begin	977 Nov 21 j 13:55	5° A 11'41	
conjunction	972 Oct 30 j 17:17	12° M 58'15	0°19'07	behind sun end	977 Nov 22 j 02:59	5° A 13'37	
minimum elong	972 Oct 30 j 17:17	12° M 58'15	0°19'07	max. Earth dist.	977 Nov 22 j 01:44	5° A 13'25	20.12320 AU
max. Earth dist.	972 Oct 30 j 15:10	12° M 57'56	19.81039 AU	morning rise	977 Dec 07 j 12:01	6° A 09'27	
morning rise	972 Nov 15 j 11:02	13° M 56'20		retrograde	978 Mar 09 j 05:10	9° A 23'02	
	972 Dec 03 j 18:49	15° M		opposition	978 May 24 j 08:57	7° A 23'18	0°01'12
retrograde	973 Feb 14 j 17:49	17° M 12'45		min. Earth dist.	978 May 24 j 02:09	7° A 23'59	18.15442 AU
opposition	973 Apr 30 j 23:45	15° M 12'25	0°19'31	direct	978 Aug 09 j 15:30	5° A 22'09	
min. Earth dist.	973 May 01 j 01:36	15° M 12'13	17.84086 AU	desc. node	978 Sep 21 j 11:20	6° A 08'30	
	973 May 05 j 23:07	15° R M		evening set	978 Nov 10 j 16:36	8° A 37'12	
direct	973 Jul 17 j 06:03	13° M 09'28					
	973 Sep 22 j 16:56	15° M		conjunction	978 Nov 26 j 08:58	9° A 33'55	-0°00'37
evening set	973 Oct 19 j 14:24	16° M 30'29		minimum elong	978 Nov 26 j 08:58	9° A 33'55	0°00'38
				behind sun begin	978 Nov 26 j 02:26	9° A 32'57	
conjunction	973 Nov 04 j 09:50	17° M 28'38	0°15'58	behind sun end	978 Nov 26 j 15:29	9° A 34'53	
minimum elong	973 Nov 04 j 09:50	17° M 28'38	0°15'57	max. Earth dist.	978 Nov 26 j 17:03	9° A 35'07	20.18592 AU
behind sun begin	973 Nov 04 j 08:36	17° M 28'27		morning rise	978 Dec 12 j 00:08	10° A 30'29	
behind sun end	973 Nov 04 j 11:04	17° M 28'49		retrograde	979 Mar 13 j 19:03	13° A 43'28	
max. Earth dist.	973 Nov 04 j 08:30	17° M 28'26	19.87199 AU	opposition	979 May 29 j 04:00	11° A 43'48	-0°02'29
morning rise	973 Nov 20 j 03:09	18° M 26'28		min. Earth dist.	979 May 28 j 19:36	11° A 44'40	18.21707 AU
retrograde	974 Feb 19 j 12:27	21° M 42'20		direct	979 Aug 14 j 10:25	9° A 42'59	
opposition	974 May 05 j 21:59	19° M 42'10	0°15'57	evening set	979 Nov 15 j 04:42	12° A 56'48	
min. Earth dist.	974 May 05 j 21:23	19° M 42'14	17.90303 AU				
direct	974 Jul 22 j 04:41	17° M 39'36		conjunction	979 Nov 30 j 20:23	13° A 53'14	-0°03'58
evening set	974 Oct 24 j 07:04	20° M 59'30		minimum elong	979 Nov 30 j 20:24	13° A 53'14	0°03'58
				behind sun begin	979 Nov 30 j 13:56	13° A 52'17	
conjunction	974 Nov 09 j 01:54	21° M 57'21	0°12'44	behind sun end	979 Dec 01 j 02:52	13° A 54'11	

max. Earth dist.	979 Dec 01 j 05:18	13° 7 54'34	20.24863 AU	conjunction	985 Dec 25 j 03:39	9° 3 14'09	-0°22'15
morning rise	979 Dec 16 j 11:31	14° 7 49'35		minimum elong	985 Dec 25 j 03:39	9° 3 14'09	0°22'15
retrograde	980 Mar 17 j 09:12	18° 7 02'01		max. Earth dist.	985 Dec 25 j 22:15	9° 3 16'54	20.61911 AU
opposition	980 Jun 01 j 22:20	16° 7 02'24	-0°06'08	morning rise	986 Jan 09 j 19:05	10° 3 09'21	
min. Earth dist.	980 Jun 01 j 12:07	16° 7 03'26	18.27998 AU	retrograde	986 Apr 12 j 11:56	13° 3 18'58	
direct	980 Aug 18 j 03:08	14° 7 01'54		opposition	986 Jun 28 j 22:03	11° 3 20'01	-0°26'07
evening set	980 Nov 18 j 15:49	17° 7 14'32		min. Earth dist.	986 Jun 28 j 03:23	11° 3 21'54	18.64758 AU
				direct	986 Sep 13 j 14:31	9° 3 21'43	
conjunction	980 Dec 04 j 07:18	18° 7 10'42	-0°07'13	evening set	986 Dec 13 j 20:36	12° 3 27'53	
minimum elong	980 Dec 04 j 07:17	18° 7 10'42	0°07'13				
behind sun begin	980 Dec 04 j 01:15	18° 7 09'49		conjunction	986 Dec 29 j 11:10	13° 3 22'46	-0°24'56
behind sun end	980 Dec 04 j 13:19	18° 7 11'35		minimum elong	986 Dec 29 j 11:10	13° 3 22'46	0°24'55
max. Earth dist.	980 Dec 04 j 19:03	18° 7 12'28	20.31162 AU	max. Earth dist.	986 Dec 30 j 07:31	13° 3 25'46	20.67508 AU
morning rise	980 Dec 19 j 22:08	19° 7 06'49		morning rise	987 Jan 14 j 02:45	14° 3 17'49	
retrograde	981 Mar 21 j 22:06	22° 7 18'42		retrograde	987 Apr 16 j 23:41	17° 3 27'03	
opposition	981 Jun 06 j 15:58	20° 7 19'11	-0°09'43	opposition	987 Jul 03 j 11:48	15° 3 28'11	-0°29'01
min. Earth dist.	981 Jun 06 j 03:46	20° 7 20'25	18.34304 AU	min. Earth dist.	987 Jul 02 j 15:36	15° 3 30'13	18.70188 AU
direct	981 Aug 22 j 19:50	18° 7 19'03		direct	987 Sep 18 j 03:52	13° 3 30'12	
evening set	981 Nov 23 j 02:15	21° 7 30'29		evening set	987 Dec 18 j 03:34	16° 3 35'26	
conjunction	981 Dec 08 j 17:14	22° 7 26'24	-0°10'23	conjunction	988 Jan 02 j 18:04	17° 3 30'09	-0°27'28
minimum elong	981 Dec 08 j 17:15	22° 7 26'24	0°10'23	minimum elong	988 Jan 02 j 18:04	17° 3 30'09	0°27'29
behind sun begin	981 Dec 08 j 12:03	22° 7 25'39		max. Earth dist.	988 Jan 03 j 14:31	17° 3 33'09	20.72752 AU
behind sun end	981 Dec 08 j 22:27	22° 7 27'10		morning rise	988 Jan 18 j 10:05	18° 3 25'04	
max. Earth dist.	981 Dec 09 j 05:51	22° 7 28'17	20.37472 AU	retrograde	988 Apr 20 j 10:24	21° 3 33'58	
morning rise	981 Dec 24 j 08:13	23° 7 22'19		min. Earth dist.	988 Jul 06 j 05:01	19° 3 37'10	18.75253 AU
retrograde	982 Mar 26 j 11:16	26° 7 33'42		opposition	988 Jul 07 j 01:10	19° 3 35'09	-0°31'45
opposition	982 Jun 11 j 08:54	24° 7 34'17	-0°13'13	direct	988 Sep 21 j 13:41	17° 3 37'27	
min. Earth dist.	982 Jun 10 j 19:14	24° 7 35'40	18.40619 AU	evening set	988 Dec 21 j 10:04	20° 3 41'47	
direct	982 Aug 27 j 10:04	22° 7 34'30					
evening set	982 Nov 27 j 11:52	25° 7 44'49		conjunction	989 Jan 06 j 00:52	21° 3 36'21	-0°29'52
				minimum elong	989 Jan 06 j 00:52	21° 3 36'21	0°29'52
conjunction	982 Dec 13 j 02:47	26° 7 40'30	-0°13'30	max. Earth dist.	989 Jan 06 j 22:38	21° 3 39'32	20.77606 AU
minimum elong	982 Dec 13 j 02:47	26° 7 40'30	0°13'30	morning rise	989 Jan 21 j 17:10	22° 3 31'09	
behind sun begin	982 Dec 12 j 23:00	26° 7 39'57		retrograde	989 Apr 24 j 21:04	25° 3 39'42	
behind sun end	982 Dec 13 j 06:33	26° 7 41'03		opposition	989 Jul 11 j 13:44	23° 3 40'55	-0°34'18
max. Earth dist.	982 Dec 13 j 17:56	26° 7 42'46	20.43762 AU	min. Earth dist.	989 Jul 10 j 16:13	23° 3 43'04	18.79889 AU
morning rise	982 Dec 28 j 17:36	27° 7 36'13		direct	989 Sep 26 j 01:53	21° 3 43'27	
	983 Feb 15 j 16:42	0° 3		evening set	989 Dec 25 j 16:15	24° 3 46'56	
retrograde	983 Mar 30 j 23:49	0° 3 47'06					
	983 May 15 j 01:50	30° 8 7		conjunction	990 Jan 10 j 07:10	25° 3 41'22	-0°32'06
min. Earth dist.	983 Jun 15 j 09:26	28° 7 49'23	18.46870 AU	minimum elong	990 Jan 10 j 07:10	25° 3 41'22	0°32'05
opposition	983 Jun 16 j 00:59	28° 7 47'49	-0°16'37	max. Earth dist.	990 Jan 11 j 04:43	25° 3 44'31	20.82011 AU
direct	983 Sep 01 j 01:25	26° 7 48'25		morning rise	990 Jan 26 j 00:04	26° 3 36'04	
evening set	983 Dec 01 j 21:00	29° 7 57'38		retrograde	990 Apr 29 j 06:58	29° 3 44'18	
	983 Dec 02 j 13:15	0° 3		min. Earth dist.	990 Jul 15 j 04:47	27° 3 47'36	18.84074 AU
conjunction	983 Dec 17 j 11:34	0° 3 53'06	-0°16'31	opposition	990 Jul 16 j 01:51	27° 3 45'30	-0°36'40
minimum elong	983 Dec 17 j 11:33	0° 3 53'06	0°16'31	direct	990 Sep 30 j 10:40	25° 3 48'13	
max. Earth dist.	983 Dec 18 j 03:25	0° 3 55'27	20.49970 AU	evening set	990 Dec 29 j 21:52	28° 3 50'53	
morning rise	984 Jan 02 j 02:37	1° 3 48'38					
retrograde	984 Apr 03 j 12:05	4° 3 59'04		conjunction	991 Jan 14 j 13:12	29° 3 45'12	-0°34'09
opposition	984 Jun 19 j 16:43	2° 3 59'54	-0°19'55	minimum elong	991 Jan 14 j 13:12	29° 3 45'12	0°34'10
min. Earth dist.	984 Jun 19 j 00:10	3° 3 01'34	18.53030 AU	max. Earth dist.	991 Jan 15 j 11:50	29° 3 48'30	20.85967 AU
direct	984 Sep 04 j 13:28	1° 3 00'53			991 Jan 18 j 18:35	0° 3	
evening set	984 Dec 05 j 05:14	4° 3 09'02		morning rise	991 Jan 30 j 06:29	0° 3 39'49	
				retrograde	991 May 03 j 16:31	3° 3 47'44	
conjunction	984 Dec 20 j 19:50	5° 3 04'17	-0°19'26	opposition	991 Jul 20 j 13:09	1° 3 48'54	-0°38'50
minimum elong	984 Dec 20 j 19:50	5° 3 04'17	0°19'26	min. Earth dist.	991 Jul 19 j 14:46	1° 3 51'09	18.87805 AU
max. Earth dist.	984 Dec 21 j 14:01	5° 3 06'59	20.56047 AU		991 Sep 16 j 16:37	30° 8 3	
morning rise	985 Jan 05 j 10:55	5° 3 59'38		direct	991 Oct 04 j 21:22	29° 3 51'46	
retrograde	985 Apr 08 j 00:35	9° 3 09'40			991 Oct 22 j 19:19	0° 3	
opposition	985 Jun 24 j 07:44	7° 3 10'36	-0°23'05	evening set	992 Jan 03 j 03:15	2° 3 53'41	
min. Earth dist.	985 Jun 23 j 13:24	7° 3 12'27	18.59008 AU				
direct	985 Sep 09 j 03:53	5° 3 11'58		conjunction	992 Jan 18 j 18:48	3° 3 47'54	-0°36'02
evening set	985 Dec 09 j 13:14	8° 3 19'06		minimum elong	992 Jan 18 j 18:48	3° 3 47'54	0°36'01
				max. Earth dist.	992 Jan 19 j 17:18	3° 3 51'10	20.89487 AU
				morning rise	992 Feb 03 j 12:47	4° 3 42'27	

retrograde	992 May 07 j 01:14	7° \approx 50'06		opposition	998 Aug 18 j 07:09	29° \approx 50'15 -0°48'00
min. Earth dist.	992 Jul 23 j 02:14	5° \approx 53'24	18.91139 AU	direct	998 Nov 01 j 22:06	27° \approx 53'56
opposition	992 Jul 24 j 00:07	5° \approx 51'12	-0°40'48		999 Jan 14 j 04:14	0° \mathbb{H}
direct	992 Oct 08 j 05:13	3° \approx 54'12		evening set	999 Jan 30 j 10:49	0° \mathbb{H} 52'38
evening set	993 Jan 06 j 08:02	6° \approx 55'25				
				conjunction	999 Feb 15 j 06:35	1° \mathbb{H} 46'41 -0°43'40
conjunction	993 Jan 22 j 00:09	7° \approx 49'33	-0°37'43	minimum elong	999 Feb 15 j 06:35	1° \mathbb{H} 46'41 0°43'39
minimum elong	993 Jan 22 j 00:09	7° \approx 49'33	0°37'44	max. Earth dist.	999 Feb 16 j 07:36	1° \mathbb{H} 50'17 21.04254 AU
max. Earth dist.	993 Jan 22 j 23:51	7° \approx 52'59	20.92632 AU	morning rise	999 Mar 03 j 05:42	2° \mathbb{H} 41'14
morning rise	993 Feb 06 j 18:39	8° \approx 44'02		retrograde	999 Jun 05 j 13:57	5° \mathbb{H} 48'19
retrograde	993 May 11 j 10:45	11° \approx 51'28		opposition	999 Aug 22 j 15:09	3° \mathbb{H} 49'13 -0°48'25
min. Earth dist.	993 Jul 27 j 11:03	9° \approx 54'50	18.94101 AU	min. Earth dist.	999 Aug 21 j 15:34	3° \mathbb{H} 51'34 19.04644 AU
opposition	993 Jul 28 j 10:19	9° \approx 52'31	-0°42'33	direct	999 Nov 06 j 05:11	1° \mathbb{H} 52'59
direct	993 Oct 12 j 14:11	7° \approx 55'37		evening set	1000 Feb 03 j 15:36	4° \mathbb{H} 51'30
evening set	994 Jan 10 j 12:53	10° \approx 56'13				
				conjunction	1000 Feb 19 j 12:01	5° \mathbb{H} 45'37 -0°43'56
conjunction	994 Jan 26 j 05:20	11° \approx 50'17	-0°39'12	minimum elong	1000 Feb 19 j 12:01	5° \mathbb{H} 45'37 0°43'57
minimum elong	994 Jan 26 j 05:20	11° \approx 50'17	0°39'12	max. Earth dist.	1000 Feb 20 j 12:10	5° \mathbb{H} 49'05 21.04830 AU
max. Earth dist.	994 Jan 27 j 04:54	11° \approx 53'42	20.95414 AU	morning rise	1000 Mar 06 j 12:07	6° \mathbb{H} 40'14
morning rise	994 Feb 11 j 00:36	12° \approx 44'45		retrograde	1000 Jun 08 j 21:20	9° \mathbb{H} 47'25
	994 Mar 30 j 00:44	15° \approx		opposition	1000 Aug 25 j 23:09	7° \mathbb{H} 48'17 -0°48'36
retrograde	994 May 15 j 18:22	15° \approx 52'00		min. Earth dist.	1000 Aug 25 j 01:10	7° \mathbb{H} 50'29 19.04990 AU
	994 Jul 03 j 02:56	15° \mathbb{R}		direct	1000 Nov 09 j 09:28	5° \mathbb{H} 52'06
opposition	994 Aug 01 j 20:01	13° \approx 52'59	-0°44'05	evening set	1001 Feb 06 j 20:28	8° \mathbb{H} 50'31
min. Earth dist.	994 Jul 31 j 21:25	13° \approx 55'15	18.96729 AU			
direct	994 Oct 16 j 20:57	11° \approx 56'12		conjunction	1001 Feb 22 j 17:51	9° \mathbb{H} 44'43 -0°44'00
evening set	995 Jan 14 j 17:20	14° \approx 56'17		minimum elong	1001 Feb 22 j 17:51	9° \mathbb{H} 44'43 0°43'59
	995 Jan 15 j 19:43	15° \approx		max. Earth dist.	1001 Feb 23 j 17:51	9° \mathbb{H} 48'09 21.04929 AU
				morning rise	1001 Mar 10 j 18:48	10° \mathbb{H} 39'25
conjunction	995 Jan 30 j 10:26	15° \approx 50'19	-0°40'30	retrograde	1001 Jun 13 j 06:58	13° \mathbb{H} 46'42
minimum elong	995 Jan 30 j 10:26	15° \approx 50'19	0°40'30	min. Earth dist.	1001 Aug 29 j 08:34	11° \mathbb{H} 49'45 19.04818 AU
max. Earth dist.	995 Jan 31 j 11:00	15° \approx 53'52	20.97878 AU	opposition	1001 Aug 30 j 06:49	11° \mathbb{H} 47'31 -0°48'33
morning rise	995 Feb 15 j 06:17	16° \approx 44'45		direct	1001 Nov 13 j 16:10	9° \mathbb{H} 51'21
retrograde	995 May 20 j 04:14	19° \approx 51'52		evening set	1002 Feb 11 j 01:50	12° \mathbb{H} 49'44
min. Earth dist.	995 Aug 05 j 05:19	17° \approx 55'13	18.99026 AU			
opposition	995 Aug 06 j 05:15	17° \approx 52'49	-0°45'24	conjunction	1002 Feb 26 j 23:57	13° \mathbb{H} 44'00 -0°43'51
direct	995 Oct 21 j 04:44	15° \approx 56'10		minimum elong	1002 Feb 26 j 23:57	13° \mathbb{H} 44'00 0°43'51
evening set	996 Jan 18 j 21:40	18° \approx 55'46		max. Earth dist.	1002 Feb 27 j 22:34	13° \mathbb{H} 47'14 21.04477 AU
				morning rise	1002 Mar 15 j 01:54	14° \mathbb{H} 38'48
conjunction	996 Feb 03 j 15:14	19° \approx 49'47	-0°41'36	retrograde	1002 Jun 17 j 14:36	17° \mathbb{H} 46'13
minimum elong	996 Feb 03 j 15:14	19° \approx 49'47	0°41'35	opposition	1002 Sep 03 j 14:24	15° \mathbb{H} 46'57 -0°48'16
max. Earth dist.	996 Feb 04 j 15:39	19° \approx 53'18	21.00006 AU	min. Earth dist.	1002 Sep 02 j 18:07	15° \mathbb{H} 48'59 19.04091 AU
morning rise	996 Feb 19 j 11:57	20° \approx 44'14		direct	1002 Nov 17 j 20:30	13° \mathbb{H} 50'44
retrograde	996 May 23 j 11:21	23° \approx 51'17		evening set	1003 Feb 15 j 07:17	16° \mathbb{H} 49'08
opposition	996 Aug 09 j 14:20	21° \approx 52'12	-0°46'29			
min. Earth dist.	996 Aug 08 j 15:13	21° \approx 54'31	19.00994 AU	conjunction	1003 Mar 03 j 06:25	17° \mathbb{H} 43'30 -0°43'29
direct	996 Oct 24 j 10:19	19° \approx 55'40		minimum elong	1003 Mar 03 j 06:25	17° \mathbb{H} 43'30 0°43'28
evening set	997 Jan 22 j 01:58	22° \approx 54'54		max. Earth dist.	1003 Mar 04 j 04:30	17° \mathbb{H} 46'40 21.03479 AU
				morning rise	1003 Mar 19 j 09:15	18° \mathbb{H} 38'25
conjunction	997 Feb 06 j 20:19	23° \approx 48'54	-0°42'29	retrograde	1003 Jun 22 j 00:03	21° \mathbb{H} 45'59
minimum elong	997 Feb 06 j 20:19	23° \approx 48'54	0°42'29	opposition	1003 Sep 07 j 21:50	19° \mathbb{H} 46'35 -0°47'44
max. Earth dist.	997 Feb 07 j 21:29	23° \approx 52'31	21.01804 AU	min. Earth dist.	1003 Sep 07 j 01:27	19° \mathbb{H} 48'38 19.02807 AU
morning rise	997 Feb 22 j 17:45	24° \approx 43'22		direct	1003 Nov 22 j 03:10	17° \mathbb{H} 50'16
retrograde	997 May 27 j 21:16	27° \approx 50'23		evening set	1004 Feb 19 j 12:59	20° \mathbb{H} 48'43
opposition	997 Aug 13 j 22:45	25° \approx 51'17	-0°47'22			
min. Earth dist.	997 Aug 12 j 22:38	25° \approx 53'42	19.02609 AU	conjunction	1004 Mar 06 j 12:58	21° \mathbb{H} 43'12 -0°42'54
direct	997 Oct 28 j 17:36	23° \approx 54'52		minimum elong	1004 Mar 06 j 12:58	21° \mathbb{H} 43'12 0°42'54
evening set	998 Jan 26 j 06:26	26° \approx 53'47		max. Earth dist.	1004 Mar 07 j 09:41	21° \mathbb{H} 46'10 21.01927 AU
				morning rise	1004 Mar 22 j 16:53	22° \mathbb{H} 38'14
conjunction	998 Feb 11 j 01:22	27° \approx 47'49	-0°43'11	retrograde	1004 Jun 25 j 07:51	25° \mathbb{H} 45'58
minimum elong	998 Feb 11 j 01:22	27° \approx 47'49	0°43'11	min. Earth dist.	1004 Sep 10 j 10:55	23° \mathbb{H} 48'16 19.00996 AU
max. Earth dist.	998 Feb 12 j 02:00	27° \approx 51'22	21.03226 AU	opposition	1004 Sep 11 j 05:17	23° \mathbb{H} 46'24 -0°46'59
morning rise	998 Feb 26 j 23:44	28° \approx 42'19		direct	1004 Nov 25 j 07:26	21° \mathbb{H} 49'57
	998 Mar 23 j 14:37	0° \mathbb{H}		evening set	1005 Feb 22 j 18:59	24° \mathbb{H} 48'30
retrograde	998 Jun 01 j 04:17	1° \mathbb{H} 49'21				
	998 Aug 14 j 05:39	30° \mathbb{R}		conjunction	1005 Mar 10 j 20:04	25° \mathbb{H} 43'08 -0°42'06
min. Earth dist.	998 Aug 17 j 08:15	29° \approx 52'33	19.03839 AU	minimum elong	1005 Mar 10 j 20:04	25° \mathbb{H} 43'08 0°42'06

max. Earth dist.	1005 Mar 11 j 16:12	25° H 46'01	20.99884 AU	min. Earth dist.	1011 Oct 09 j 20:03	22° Y 00'34	18.77868 AU
morning rise	1005 Mar 27 j 00:56	26° H 38'19		direct	1011 Dec 24 j 00:28	20° Y 01'30	
retrograde	1005 Jun 29 j 17:32	29° H 46'13		evening set	1012 Mar 23 j 02:08	23° Y 03'00	
opposition	1005 Sep 15 j 12:17	27° H 46'28	-0°45'59				
min. Earth dist.	1005 Sep 14 j 17:57	27° H 48'20	18.98717 AU	conjunction	1012 Apr 08 j 10:18	23° Y 59'01	-0°31'02
direct	1005 Nov 29 j 14:08	25° H 49'49		minimum elong	1012 Apr 08 j 10:18	23° Y 59'01	0°31'02
evening set	1006 Feb 27 j 01:28	28° H 48'35		max. Earth dist.	1012 Apr 08 j 22:22	24° Y 00'45	20.75666 AU
				morning rise	1012 Apr 24 j 22:01	24° Y 55'34	
conjunction	1006 Mar 15 j 03:25	29° H 43'22	-0°41'06	retrograde	1012 Jul 28 j 15:58	28° Y 05'49	
minimum elong	1006 Mar 15 j 03:25	29° H 43'22	0°41'06	opposition	1012 Oct 13 j 16:05	26° Y 05'07	-0°33'03
max. Earth dist.	1006 Mar 15 j 22:12	29° H 46'03	20.97388 AU	min. Earth dist.	1012 Oct 13 j 06:23	26° Y 06'08	18.73407 AU
	1006 Mar 19 j 23:50	0° Y		direct	1012 Dec 27 j 06:27	24° Y 07'06	
morning rise	1006 Mar 31 j 09:20	0° Y 38'41		evening set	1013 Mar 27 j 12:45	27° Y 09'20	
retrograde	1006 Jul 04 j 01:25	3° Y 46'48					
opposition	1006 Sep 19 j 19:29	1° Y 46'53	-0°44'46	conjunction	1013 Apr 12 j 21:59	28° Y 05'37	-0°28'44
min. Earth dist.	1006 Sep 19 j 03:08	1° Y 48'33	18.96024 AU	minimum elong	1013 Apr 12 j 21:59	28° Y 05'37	0°28'43
	1006 Nov 14 j 00:23	30° R H		max. Earth dist.	1013 Apr 13 j 08:27	28° Y 07'07	20.71072 AU
direct	1006 Dec 03 j 18:20	29° H 50'02		morning rise	1013 Apr 29 j 10:36	29° Y 02'24	
	1006 Dec 23 j 08:07	0° Y			1013 May 17 j 04:27	0° R	
evening set	1007 Mar 03 j 08:03	2° Y 49'03		retrograde	1013 Aug 02 j 05:30	2° R 13'08	
				opposition	1013 Oct 18 j 00:14	0° R 12'22	-0°30'25
conjunction	1007 Mar 19 j 11:05	3° Y 43'59	-0°39'54	min. Earth dist.	1013 Oct 17 j 15:17	0° R 13'18	18.68650 AU
minimum elong	1007 Mar 19 j 11:05	3° Y 43'59	0°39'55		1013 Oct 22 j 23:41	30° R Y	
max. Earth dist.	1007 Mar 20 j 05:20	3° Y 46'36	20.94520 AU	direct	1013 Dec 31 j 14:27	28° Y 14'07	
morning rise	1007 Apr 04 j 17:56	4° Y 39'29			1014 Mar 07 j 17:36	0° R	
retrograde	1007 Jul 08 j 11:50	7° Y 47'52		evening set	1014 Apr 01 j 00:17	1° R 17'10	
min. Earth dist.	1007 Sep 23 j 10:08	5° Y 49'26	18.92978 AU				
opposition	1007 Sep 24 j 02:33	5° Y 47'45	-0°43'20	conjunction	1014 Apr 17 j 10:28	2° R 13'43	-0°26'16
direct	1007 Dec 08 j 01:00	3° Y 50'43		minimum elong	1014 Apr 17 j 10:28	2° R 13'43	0°26'16
evening set	1008 Mar 06 j 15:21	6° Y 50'03		max. Earth dist.	1014 Apr 17 j 19:08	2° R 14'57	20.66147 AU
				morning rise	1014 May 03 j 23:54	3° R 10'45	
conjunction	1008 Mar 22 j 19:19	7° Y 45'11	-0°38'30	retrograde	1014 Aug 06 j 17:07	6° R 22'00	
minimum elong	1008 Mar 22 j 19:19	7° Y 45'11	0°38'29	opposition	1014 Oct 22 j 09:04	4° R 21'09	-0°27'36
max. Earth dist.	1008 Mar 23 j 12:15	7° Y 47'36	20.91310 AU	min. Earth dist.	1014 Oct 22 j 02:35	4° R 21'49	18.63557 AU
morning rise	1008 Apr 08 j 03:12	8° Y 40'52		direct	1015 Jan 04 j 21:13	2° R 22'39	
retrograde	1008 Jul 11 j 20:23	11° Y 49'32		evening set	1015 Apr 05 j 12:28	5° R 26'33	
opposition	1008 Sep 27 j 09:44	9° Y 49'16	-0°41'41				
min. Earth dist.	1008 Sep 26 j 19:19	9° Y 50'44	18.89618 AU	conjunction	1015 Apr 21 j 23:38	6° R 23'22	-0°23'39
direct	1008 Dec 11 j 05:38	7° Y 52'01		minimum elong	1015 Apr 21 j 23:38	6° R 23'22	0°23'38
evening set	1009 Mar 10 j 23:04	10° Y 51'47		max. Earth dist.	1015 Apr 22 j 06:14	6° R 24'19	20.60893 AU
				morning rise	1015 May 08 j 13:55	7° R 20'40	
conjunction	1009 Mar 27 j 04:11	11° Y 47'06	-0°36'54	retrograde	1015 Aug 11 j 08:04	10° R 32'27	
minimum elong	1009 Mar 27 j 04:11	11° Y 47'06	0°36'55	opposition	1015 Oct 26 j 18:13	8° R 31'28	-0°24'38
max. Earth dist.	1009 Mar 27 j 20:16	11° Y 49'25	20.87813 AU	min. Earth dist.	1015 Oct 26 j 12:43	8° R 32'03	18.58122 AU
morning rise	1009 Apr 12 j 13:02	12° Y 42'59		direct	1016 Jan 09 j 06:46	6° R 32'41	
retrograde	1009 Jul 16 j 07:36	15° Y 51'59		evening set	1016 Apr 09 j 01:42	9° R 37'28	
opposition	1009 Oct 01 j 16:56	13° Y 51'34	-0°39'49				
min. Earth dist.	1009 Oct 01 j 02:37	13° Y 53'03	18.85972 AU	conjunction	1016 Apr 25 j 13:51	10° R 34'35	-0°20'53
direct	1009 Dec 15 j 12:15	11° Y 54'07		minimum elong	1016 Apr 25 j 13:51	10° R 34'35	0°20'53
evening set	1010 Mar 15 j 07:28	14° Y 54'23		max. Earth dist.	1016 Apr 25 j 18:31	10° R 35'15	20.55277 AU
				morning rise	1016 May 12 j 04:52	11° R 32'09	
conjunction	1010 Mar 31 j 13:31	15° Y 49'56	-0°35'08	retrograde	1016 Aug 14 j 20:28	14° R 44'25	
minimum elong	1010 Mar 31 j 13:31	15° Y 49'56	0°35'07	opposition	1016 Oct 30 j 03:48	12° R 43'19	-0°21'30
max. Earth dist.	1010 Apr 01 j 04:11	15° Y 52'02	20.84023 AU	min. Earth dist.	1016 Oct 30 j 00:51	12° R 43'37	18.52337 AU
morning rise	1010 Apr 16 j 23:20	16° Y 46'01		direct	1017 Jan 12 j 14:37	10° R 44'12	
retrograde	1010 Jul 20 j 17:07	19° Y 55'24		evening set	1017 Apr 13 j 15:45	13° R 49'55	
opposition	1010 Oct 06 j 00:23	17° Y 54'52	-0°37'46				
min. Earth dist.	1010 Oct 05 j 12:07	17° Y 56'08	18.82047 AU	conjunction	1017 Apr 30 j 04:51	14° R 47'19	-0°17'59
direct	1010 Dec 19 j 17:30	15° Y 57'14		minimum elong	1017 Apr 30 j 04:50	14° R 47'19	0°18'00
evening set	1011 Mar 19 j 16:26	18° Y 58'05		max. Earth dist.	1017 Apr 30 j 07:03	14° R 47'38	20.49351 AU
					1017 May 03 j 19:44	15° R	
conjunction	1011 Apr 04 j 23:35	19° Y 53'51	-0°33'10	morning rise	1017 May 16 j 20:39	15° R 45'08	
minimum elong	1011 Apr 04 j 23:35	19° Y 53'51	0°33'10	retrograde	1017 Aug 19 j 12:07	18° R 57'56	
max. Earth dist.	1011 Apr 05 j 13:09	19° Y 55'48	20.79983 AU	opposition	1017 Nov 03 j 13:44	16° R 56'39	-0°18'14
morning rise	1011 Apr 21 j 10:21	20° Y 50'09		min. Earth dist.	1017 Nov 03 j 11:56	16° R 56'51	18.46263 AU
retrograde	1011 Jul 25 j 05:16	23° Y 59'57			1018 Jan 06 j 18:12	15° R R	
opposition	1011 Oct 10 j 08:01	21° Y 59'20	-0°35'30	direct	1018 Jan 17 j 01:56	14° R 57'10	

	1018 Jan 27 j 10:08	15°♄	conjunction	1023 May 27 j 14:41	10°♄36'12	0°01'16
evening set	1018 Apr 18 j 06:32	18°♄03'51	minimum elong	1023 May 27 j 14:41	10°♄36'12	0°01'17
			behind sun begin	1023 May 27 j 07:55	10°♄35'13	
conjunction	1018 May 04 j 20:29	19°♄01'33 -0°14'59	behind sun end	1023 May 27 j 21:27	10°♄37'11	
minimum elong	1018 May 04 j 20:30	19°♄01'33 0°14'59	max. Earth dist.	1023 May 27 j 05:43	10°♄34'53	20.10768 AU
behind sun begin	1018 May 04 j 18:18	19°♄01'14	morning rise	1023 Jun 13 j 09:27	11°♄35'34	
behind sun end	1018 May 04 j 22:42	19°♄01'52	retrograde	1023 Sep 15 j 08:16	14°♄51'32	
max. Earth dist.	1018 May 04 j 21:07	19°♄01'38 20.43146 AU	opposition	1023 Nov 29 j 11:42	12°♄49'19	0°03'14
morning rise	1018 May 21 j 12:52	19°♄59'38	min. Earth dist.	1023 Nov 29 j 19:13	12°♄48'31	18.07580 AU
retrograde	1018 Aug 24 j 01:01	23°♄12'56	direct	1024 Feb 12 j 04:22	10°♄47'24	
opposition	1018 Nov 08 j 00:10	21°♄11'29 -0°14'51	evening set	1024 May 14 j 17:14	14°♄00'48	
min. Earth dist.	1018 Nov 08 j 00:40	21°♄11'26 18.39952 AU				
direct	1019 Jan 21 j 11:09	19°♄11'36	conjunction	1024 May 31 j 11:22	15°♄00'15	0°04'39
evening set	1019 Apr 22 j 22:09	22°♄19'18	minimum elong	1024 May 31 j 11:22	15°♄00'15	0°04'38
			behind sun begin	1024 May 31 j 04:44	14°♄59'18	
conjunction	1019 May 09 j 12:55	23°♄17'18 -0°11'53	behind sun end	1024 May 31 j 18:00	15°♄01'13	
minimum elong	1019 May 09 j 12:55	23°♄17'18 0°11'54	max. Earth dist.	1024 May 31 j 01:45	14°♄58'51	20.04452 AU
behind sun begin	1019 May 09 j 08:20	23°♄16'38	morning rise	1024 Jun 17 j 06:10	15°♄59'52	
behind sun end	1019 May 09 j 17:31	23°♄17'57	retrograde	1024 Sep 19 j 01:47	19°♄16'21	
max. Earth dist.	1019 May 09 j 11:07	23°♄17'02 20.36767 AU	opposition	1024 Dec 03 j 01:23	17°♄14'06	0°06'57
morning rise	1019 May 26 j 06:00	24°♄15'39	min. Earth dist.	1024 Dec 03 j 10:21	17°♄13'08	18.01336 AU
retrograde	1019 Aug 28 j 17:10	27°♄29'27	direct	1025 Feb 15 j 19:12	15°♄11'51	
opposition	1019 Nov 12 j 10:56	25°♄27'49 -0°11'22	evening set	1025 May 19 j 14:21	18°♄26'28	
min. Earth dist.	1019 Nov 12 j 12:33	25°♄27'39 18.33508 AU				
direct	1020 Jan 25 j 23:54	23°♄27'31	conjunction	1025 Jun 05 j 08:45	19°♄26'13	0°07'58
evening set	1020 Apr 26 j 14:35	26°♄36'17	minimum elong	1025 Jun 05 j 08:45	19°♄26'13	0°07'58
			behind sun begin	1025 Jun 05 j 02:43	19°♄25'20	
conjunction	1020 May 13 j 06:14	27°♄34'35 -0°08'43	behind sun end	1025 Jun 05 j 14:47	19°♄27'05	
minimum elong	1020 May 13 j 06:14	27°♄34'35 0°08'42	max. Earth dist.	1025 Jun 04 j 20:24	19°♄24'22	19.98293 AU
behind sun begin	1020 May 13 j 00:24	27°♄33'45	morning rise	1025 Jun 22 j 03:49	20°♄26'04	
behind sun end	1020 May 13 j 12:03	27°♄35'25	retrograde	1025 Sep 23 j 20:32	23°♄43'07	
max. Earth dist.	1020 May 13 j 03:12	27°♄34'09 20.30266 AU	opposition	1025 Dec 07 j 15:53	21°♄40'49	0°10'39
morning rise	1020 May 29 j 23:45	28°♄33'11	min. Earth dist.	1025 Dec 08 j 02:14	21°♄39'42	17.95260 AU
	1020 Jun 25 j 23:40	0°♄	direct	1026 Feb 20 j 10:58	19°♄38'13	
retrograde	1020 Sep 01 j 06:57	1°♄47'31	evening set	1026 May 24 j 12:08	22°♄54'07	
	1020 Nov 10 j 07:34	30°♄				
opposition	1020 Nov 15 j 22:18	29°♄45'43 -0°07'48	conjunction	1026 Jun 10 j 07:01	23°♄54'08	0°11'17
min. Earth dist.	1020 Nov 16 j 01:57	29°♄45'20 18.26974 AU	minimum elong	1026 Jun 10 j 07:00	23°♄54'08	0°11'16
direct	1021 Jan 29 j 11:02	27°♄45'00	behind sun begin	1026 Jun 10 j 02:06	23°♄53'24	
	1021 Apr 14 j 20:07	0°♄	behind sun end	1026 Jun 10 j 11:54	23°♄54'51	
evening set	1021 May 01 j 08:01	0°♄54'52	max. Earth dist.	1026 Jun 09 j 18:12	23°♄52'13	19.92284 AU
			morning rise	1026 Jun 27 j 01:54	24°♄54'12	
conjunction	1021 May 18 j 00:16	1°♄53'27 -0°05'28	retrograde	1026 Sep 28 j 15:58	28°♄11'48	
minimum elong	1021 May 18 j 00:16	1°♄53'27 0°05'28	opposition	1026 Dec 12 j 07:06	26°♄09'30	0°14'20
behind sun begin	1021 May 17 j 17:46	1°♄52'30	min. Earth dist.	1026 Dec 12 j 18:43	26°♄08'15	17.89324 AU
behind sun end	1021 May 18 j 06:47	1°♄54'23	direct	1027 Feb 25 j 03:26	24°♄06'36	
max. Earth dist.	1021 May 17 j 18:43	1°♄52'39 20.23726 AU	evening set	1027 May 29 j 11:09	27°♄23'45	
morning rise	1021 Jun 03 j 18:21	2°♄52'19				
retrograde	1021 Sep 05 j 23:29	6°♄07'10	conjunction	1027 Jun 15 j 06:05	28°♄24'01	0°14'33
opposition	1021 Nov 20 j 10:04	4°♄05'13 -0°04'10	minimum elong	1027 Jun 15 j 06:05	28°♄24'01	0°14'33
min. Earth dist.	1021 Nov 20 j 14:49	4°♄04'42 18.20441 AU	behind sun begin	1027 Jun 15 j 03:25	28°♄23'38	
direct	1022 Feb 03 j 00:41	2°♄04'04	behind sun end	1027 Jun 15 j 08:45	28°♄24'25	
evening set	1022 May 06 j 02:11	5°♄15'05	max. Earth dist.	1027 Jun 14 j 14:22	28°♄21'40	19.86420 AU
			morning rise	1027 Jul 02 j 01:04	29°♄24'19	
conjunction	1022 May 22 j 19:11	6°♄13'58 -0°02'10		1027 Jul 12 j 08:29	0°♄	
minimum elong	1022 May 22 j 19:11	6°♄13'58 0°02'10	retrograde	1027 Oct 03 j 12:05	2°♄42'27	
behind sun begin	1022 May 22 j 12:25	6°♄12'59	opposition	1027 Dec 16 j 22:59	0°♄40'09	0°17'57
behind sun end	1022 May 23 j 01:58	6°♄14'56	min. Earth dist.	1027 Dec 17 j 12:24	0°♄38'42	17.83534 AU
max. Earth dist.	1022 May 22 j 12:46	6°♄13'03 20.17201 AU		1028 Jan 01 j 16:51	30°♄	
morning rise	1022 Jun 08 j 13:29	7°♄13'05	direct	1028 Feb 29 j 20:42	28°♄36'54	
retrograde	1022 Sep 10 j 14:58	10°♄28'28		1028 Apr 27 j 06:48	0°♄	
opposition	1022 Nov 24 j 22:35	8°♄26'23 -0°00'29	evening set	1028 Jun 02 j 10:58	1°♄55'20	
min. Earth dist.	1022 Nov 25 j 04:58	8°♄25'42 18.13952 AU				
asc. node	1023 Jan 11 j 13:53	6°♄43'51	conjunction	1028 Jun 19 j 06:14	2°♄55'51	0°17'46
direct	1023 Feb 07 j 13:49	6°♄24'52	minimum elong	1028 Jun 19 j 06:14	2°♄55'51	0°17'46
evening set	1023 May 10 j 21:12	9°♄37'02	max. Earth dist.	1028 Jun 18 j 13:51	2°♄53'22	19.80677 AU
			morning rise	1028 Jul 06 j 00:53	3°♄56'20	

retrograde	1028 Oct 07 j 09:06	7°☿14'58		evening set	1035 Jul 07 j 04:00	4°♄20'07	
opposition	1028 Dec 20 j 15:44	5°☿12'39	0°21'29				
min. Earth dist.	1028 Dec 21 j 06:16	5°☿11'05	17.77848 AU	conjunction	1035 Jul 23 j 21:28	5°♄21'49	0°36'27
direct	1029 Mar 05 j 15:12	3°☿09'05		minimum elong	1035 Jul 23 j 21:28	5°♄21'49	0°36'27
evening set	1029 Jun 07 j 11:45	6°☿28'44		max. Earth dist.	1035 Jul 22 j 20:08	5°♄17'54	19.46309 AU
max. Earth dist.	1029 Jun 23 j 11:33	7°☿26'33	19.75049 AU	morning rise	1035 Aug 09 j 12:21	6°♄23'10	
				retrograde	1035 Nov 09 j 18:38	9°♄44'19	
conjunction	1029 Jun 24 j 06:52	7°☿29'28	0°20'53	opposition	1036 Jan 22 j 07:34	7°♄41'41	0°41'41
minimum elong	1029 Jun 24 j 06:52	7°☿29'28	0°20'53	min. Earth dist.	1036 Jan 23 j 05:33	7°♄39'16	17.44593 AU
morning rise	1029 Jul 11 j 01:20	8°☿30'09		direct	1036 Apr 06 j 21:55	5°♄35'52	
retrograde	1029 Oct 12 j 06:02	11°☿49'16		evening set	1036 Jul 11 j 08:08	9°♄02'45	
opposition	1029 Dec 25 j 09:14	9°☿46'54	0°24'55	max. Earth dist.	1036 Jul 26 j 23:14	10°♄00'31	19.42938 AU
min. Earth dist.	1029 Dec 26 j 01:39	9°☿45'07	17.72300 AU				
direct	1030 Mar 10 j 10:11	7°☿42'59		conjunction	1036 Jul 28 j 00:58	10°♄04'31	0°38'19
evening set	1030 Jun 12 j 13:03	11°☿03'50		minimum elong	1036 Jul 28 j 00:58	10°♄04'31	0°38'18
				morning rise	1036 Aug 13 j 15:03	11°♄05'53	
conjunction	1030 Jun 29 j 08:17	12°☿04'47	0°23'54	retrograde	1036 Nov 13 j 18:30	14°♄27'15	
minimum elong	1030 Jun 29 j 08:17	12°☿04'47	0°23'55	opposition	1037 Jan 26 j 05:22	12°♄24'37	0°43'37
max. Earth dist.	1030 Jun 28 j 12:24	12°☿01'45	19.69573 AU	min. Earth dist.	1037 Jan 27 j 02:31	12°♄22'18	17.41496 AU
morning rise	1030 Jul 16 j 02:16	13°☿05'37		direct	1037 Apr 12 j 00:23	10°♄18'38	
retrograde	1030 Oct 17 j 04:03	16°☿25'09		evening set	1037 Jul 16 j 12:22	13°♄46'16	
opposition	1030 Dec 30 j 03:21	14°☿22'45	0°28'12	max. Earth dist.	1037 Aug 01 j 03:07	14°♄44'08	19.40116 AU
min. Earth dist.	1030 Dec 30 j 20:26	14°☿20'54	17.66913 AU				
direct	1031 Mar 15 j 06:43	12°☿18'30		conjunction	1037 Aug 02 j 04:31	14°♄48'05	0°39'56
evening set	1031 Jun 17 j 15:06	15°☿40'28		minimum elong	1037 Aug 02 j 04:31	14°♄48'05	0°39'56
max. Earth dist.	1031 Jul 03 j 11:45	16°☿38'13	19.64288 AU				
				morning rise	1037 Aug 05 j 09:04	15°♄	
conjunction	1031 Jul 04 j 10:04	16°☿41'37	0°26'47	retrograde	1037 Aug 18 j 17:32	15°♄49'28	
minimum elong	1031 Jul 04 j 10:04	16°☿41'37	0°26'46	opposition	1037 Nov 18 j 16:27	19°♄11'01	
morning rise	1031 Jul 21 j 03:43	17°☿42'37		min. Earth dist.	1038 Jan 31 j 03:54	17°♄08'27	0°45'17
retrograde	1031 Oct 22 j 01:27	21°☿02'33		direct	1038 Feb 01 j 02:00	17°♄06'02	17.38975 AU
opposition	1032 Jan 03 j 22:14	19°☿00'05	0°31'19	evening set	1038 Apr 17 j 00:10	15°♄02'20	
min. Earth dist.	1032 Jan 04 j 17:14	18°☿58'01	17.61755 AU	max. Earth dist.	1038 Jul 21 j 16:51	18°♄30'39	
direct	1032 Mar 19 j 02:49	16°☿55'28			1038 Aug 06 j 06:18	19°♄28'27	19.37898 AU
evening set	1032 Jun 21 j 17:42	20°☿18'33					
				conjunction	1038 Aug 07 j 08:08	19°♄32'29	0°41'17
conjunction	1032 Jul 08 j 12:33	21°☿19'53	0°29'30	minimum elong	1038 Aug 07 j 08:08	19°♄32'29	0°41'16
minimum elong	1032 Jul 08 j 12:33	21°☿19'53	0°29'30	morning rise	1038 Aug 23 j 20:19	20°♄33'52	
max. Earth dist.	1032 Jul 07 j 13:45	21°☿16'23	19.59257 AU	retrograde	1038 Nov 23 j 17:07	23°♄55'34	
morning rise	1032 Jul 25 j 05:35	22°☿20'59		opposition	1039 Feb 05 j 02:40	21°♄53'06	0°46'38
retrograde	1032 Oct 26 j 00:23	25°☿41'16		min. Earth dist.	1039 Feb 05 j 23:48	21°♄50'47	17.37050 AU
opposition	1033 Jan 07 j 17:33	23°☿38'45	0°34'15	direct	1039 Apr 22 j 03:18	19°♄46'54	
min. Earth dist.	1033 Jan 08 j 12:47	23°☿36'40	17.56869 AU	evening set	1039 Jul 26 j 21:21	23°♄15'49	
direct	1033 Mar 24 j 01:32	21°☿33'48		max. Earth dist.	1039 Aug 11 j 11:07	24°♄13'47	19.36255 AU
evening set	1033 Jun 26 j 20:53	24°☿57'56					
				conjunction	1039 Aug 12 j 11:57	24°♄17'40	0°42'21
conjunction	1033 Jul 13 j 15:17	25°☿59'24	0°32'01	minimum elong	1039 Aug 12 j 11:57	24°♄17'40	0°42'21
minimum elong	1033 Jul 13 j 15:17	25°☿59'24	0°32'01	morning rise	1039 Aug 28 j 22:58	25°♄19'01	
max. Earth dist.	1033 Jul 12 j 14:53	25°☿55'39	19.54532 AU	retrograde	1039 Nov 28 j 16:24	28°♄40'48	
morning rise	1033 Jul 30 j 07:42	27°☿00'37		opposition	1040 Feb 10 j 02:13	26°♄38'28	0°47'41
	1033 Oct 03 j 02:28	0°♄		min. Earth dist.	1040 Feb 11 j 00:09	26°♄36'04	17.35683 AU
retrograde	1033 Oct 30 j 21:47	0°♄21'14		direct	1040 Apr 26 j 04:13	24°♄32'14	
	1033 Nov 27 j 23:24	30°♄☿		evening set	1040 Jul 31 j 02:06	28°♄01'40	
opposition	1034 Jan 12 j 13:45	28°☿18'40	0°36'58				
min. Earth dist.	1034 Jan 13 j 10:39	28°☿16'22	17.52341 AU	conjunction	1040 Aug 16 j 15:35	29°♄03'28	0°43'08
direct	1034 Mar 28 j 22:40	26°☿13'23		minimum elong	1040 Aug 16 j 15:35	29°♄03'28	0°43'09
evening set	1034 Jul 02 j 00:09	29°☿38'30		max. Earth dist.	1040 Aug 15 j 14:05	28°♄59'28	19.35161 AU
	1034 Jul 07 j 21:54	0°♄			1040 Aug 31 j 18:33	0°♄	
				morning rise	1040 Sep 02 j 01:40	0°♄04'46	
conjunction	1034 Jul 18 j 18:10	0°♄40'05	0°34'21	retrograde	1040 Dec 02 j 17:21	3°♄26'37	
minimum elong	1034 Jul 18 j 18:10	0°♄40'05	0°34'21	opposition	1041 Feb 14 j 02:07	1°♄24'24	0°48'24
max. Earth dist.	1034 Jul 17 j 17:30	0°♄36'17	19.50202 AU	min. Earth dist.	1041 Feb 14 j 23:09	1°♄22'07	17.34851 AU
morning rise	1034 Aug 04 j 09:54	1°♄41'23		direct	1041 Mar 21 j 11:20	30°♄♄	
retrograde	1034 Nov 04 j 21:09	5°♄02'17			1041 May 01 j 07:12	29°♄18'10	
opposition	1035 Jan 17 j 10:21	2°♄59'40	0°39'27	evening set	1041 Jun 10 j 08:09	0°♄	
min. Earth dist.	1035 Jan 18 j 06:54	2°♄57'25	17.48226 AU		1041 Aug 05 j 06:38	2°♄47'58	
direct	1035 Apr 02 j 23:19	0°♄54'06		conjunction	1041 Aug 21 j 19:16	3°♄49'43	0°43'38

minimum elong	1041 Aug 21 j 19:16	3° <u>♎</u> 49'43	0°43'37	opposition	1048 Mar 19 j 09:26	4° <u>♊</u> 42'41	0°44'04
max. Earth dist.	1041 Aug 20 j 19:13	3° <u>♎</u> 45'57	19.34573 AU	min. Earth dist.	1048 Mar 20 j 02:03	4° <u>♊</u> 40'53	17.41955 AU
morning rise	1041 Sep 07 j 04:04	4° <u>♎</u> 50'56		direct	1048 Jun 04 j 07:39	2° <u>♊</u> 36'53	
retrograde	1041 Dec 07 j 17:42	8° <u>♎</u> 12'47		evening set	1048 Sep 08 j 04:10	6° <u>♊</u> 05'46	
opposition	1042 Feb 19 j 02:37	6° <u>♎</u> 10'42	0°48'47				
min. Earth dist.	1042 Feb 20 j 00:03	6° <u>♎</u> 08'22	17.34506 AU	conjunction	1048 Sep 24 j 08:55	7° <u>♊</u> 06'23	0°38'43
direct	1042 May 06 j 09:08	4° <u>♎</u> 04'29		minimum elong	1048 Sep 24 j 08:55	7° <u>♊</u> 06'23	0°38'43
evening set	1042 Aug 10 j 11:00	7° <u>♎</u> 34'32		max. Earth dist.	1048 Sep 23 j 14:42	7° <u>♊</u> 03'32	19.43318 AU
				morning rise	1048 Oct 10 j 09:53	8° <u>♊</u> 06'28	
conjunction	1042 Aug 26 j 22:28	8° <u>♎</u> 36'11	0°43'49	retrograde	1049 Jan 09 j 10:37	11° <u>♊</u> 26'40	
minimum elong	1042 Aug 26 j 22:28	8° <u>♎</u> 36'11	0°43'49	opposition	1049 Mar 24 j 10:40	9° <u>♊</u> 25'05	0°42'11
max. Earth dist.	1042 Aug 25 j 21:44	8° <u>♎</u> 32'18	19.34467 AU	min. Earth dist.	1049 Mar 25 j 02:27	9° <u>♊</u> 23'24	17.44867 AU
morning rise	1042 Sep 12 j 06:18	9° <u>♎</u> 37'19		direct	1049 Jun 09 j 10:04	7° <u>♊</u> 19'26	
retrograde	1042 Dec 12 j 18:07	12° <u>♎</u> 59'06		evening set	1049 Sep 13 j 04:34	10° <u>♊</u> 47'44	
opposition	1043 Feb 24 j 03:21	10° <u>♎</u> 57'06	0°48'50				
min. Earth dist.	1043 Feb 24 j 23:59	10° <u>♎</u> 54'52	17.34631 AU	conjunction	1049 Sep 29 j 08:13	11° <u>♊</u> 48'07	0°36'54
direct	1043 May 11 j 12:03	8° <u>♎</u> 50'55		minimum elong	1049 Sep 29 j 08:13	11° <u>♊</u> 48'07	0°36'53
evening set	1043 Aug 15 j 15:08	12° <u>♎</u> 21'05		max. Earth dist.	1049 Sep 28 j 16:06	11° <u>♊</u> 45'36	19.46501 AU
max. Earth dist.	1043 Aug 31 j 02:37	13° <u>♎</u> 19'00	19.34811 AU	morning rise	1049 Oct 15 j 08:07	12° <u>♊</u> 47'59	
				retrograde	1050 Jan 14 j 08:57	16° <u>♊</u> 07'46	
conjunction	1043 Sep 01 j 01:41	13° <u>♎</u> 22'38	0°43'42	opposition	1050 Mar 29 j 11:35	14° <u>♊</u> 06'16	0°40'01
minimum elong	1043 Sep 01 j 01:41	13° <u>♎</u> 22'38	0°43'42	min. Earth dist.	1050 Mar 30 j 00:57	14° <u>♊</u> 04'51	17.48308 AU
morning rise	1043 Sep 17 j 08:13	14° <u>♎</u> 23'37		direct	1050 Jun 14 j 14:15	12° <u>♊</u> 00'50	
retrograde	1043 Dec 17 j 18:23	17° <u>♎</u> 45'16		evening set	1050 Sep 18 j 04:07	15° <u>♊</u> 28'27	
opposition	1044 Feb 29 j 04:21	15° <u>♎</u> 43'23	0°48'33				
min. Earth dist.	1044 Mar 01 j 00:52	15° <u>♎</u> 41'09	17.35188 AU	conjunction	1050 Oct 04 j 06:39	16° <u>♊</u> 28'36	0°34'51
direct	1044 May 15 j 15:33	13° <u>♎</u> 37'14		minimum elong	1050 Oct 04 j 06:39	16° <u>♊</u> 28'36	0°34'51
evening set	1044 Aug 19 j 19:05	17° <u>♎</u> 07'24		max. Earth dist.	1050 Oct 03 j 16:21	16° <u>♊</u> 26'22	19.50214 AU
max. Earth dist.	1044 Sep 04 j 04:51	18° <u>♎</u> 05'07	19.35594 AU	morning rise	1050 Oct 20 j 05:32	17° <u>♊</u> 28'13	
				retrograde	1051 Jan 19 j 04:57	20° <u>♊</u> 47'35	
conjunction	1044 Sep 05 j 04:21	18° <u>♎</u> 08'48	0°43'17	opposition	1051 Apr 03 j 12:25	18° <u>♊</u> 46'13	0°37'36
minimum elong	1044 Sep 05 j 04:21	18° <u>♎</u> 08'48	0°43'17	min. Earth dist.	1051 Apr 04 j 00:53	18° <u>♊</u> 44'53	17.52290 AU
morning rise	1044 Sep 21 j 09:50	19° <u>♎</u> 09'39		direct	1051 Jun 19 j 15:20	16° <u>♊</u> 41'03	
retrograde	1044 Dec 21 j 17:25	22° <u>♎</u> 31'07		evening set	1051 Sep 23 j 02:55	20° <u>♊</u> 07'56	
opposition	1045 Mar 05 j 05:37	20° <u>♎</u> 29'18	0°47'55				
min. Earth dist.	1045 Mar 06 j 01:23	20° <u>♎</u> 27'09	17.36197 AU	conjunction	1051 Oct 09 j 04:19	21° <u>♊</u> 07'48	0°32'35
direct	1045 May 20 j 18:50	18° <u>♎</u> 23'12		minimum elong	1051 Oct 09 j 04:19	21° <u>♊</u> 07'48	0°32'34
evening set	1045 Aug 24 j 22:11	21° <u>♎</u> 53'14		max. Earth dist.	1051 Oct 08 j 15:51	21° <u>♊</u> 05'51	19.54463 AU
max. Earth dist.	1045 Sep 09 j 08:58	22° <u>♎</u> 51'06	19.36827 AU	morning rise	1051 Oct 25 j 02:16	22° <u>♊</u> 07'11	
				retrograde	1052 Jan 24 j 02:50	25° <u>♊</u> 26'06	
conjunction	1045 Sep 10 j 06:28	22° <u>♎</u> 54'29	0°42'34	opposition	1052 Apr 07 j 12:49	23° <u>♊</u> 24'54	0°34'57
minimum elong	1045 Sep 10 j 06:28	22° <u>♎</u> 54'29	0°42'35	min. Earth dist.	1052 Apr 07 j 22:32	23° <u>♊</u> 23'53	17.56770 AU
morning rise	1045 Sep 26 j 10:42	23° <u>♎</u> 55'09		direct	1052 Jun 23 j 18:11	21° <u>♊</u> 20'04	
retrograde	1045 Dec 26 j 17:08	27° <u>♎</u> 16'23		evening set	1052 Sep 27 j 00:52	24° <u>♊</u> 46'08	
opposition	1046 Mar 10 j 06:58	25° <u>♎</u> 14'37	0°46'57				
min. Earth dist.	1046 Mar 11 j 01:51	25° <u>♎</u> 12'35	17.37643 AU	conjunction	1052 Oct 13 j 01:14	25° <u>♊</u> 45'45	0°30'07
direct	1046 May 25 j 23:30	23° <u>♎</u> 08'37		minimum elong	1052 Oct 13 j 01:14	25° <u>♊</u> 45'45	0°30'07
evening set	1046 Aug 30 j 00:57	26° <u>♎</u> 38'22		max. Earth dist.	1052 Oct 12 j 15:05	25° <u>♊</u> 44'10	19.59184 AU
max. Earth dist.	1046 Sep 14 j 10:40	27° <u>♎</u> 36'05	19.38509 AU	morning rise	1052 Oct 28 j 22:11	26° <u>♊</u> 44'53	
					1053 Jan 17 j 00:21	0° <u>♋</u>	
conjunction	1046 Sep 15 j 07:58	27° <u>♎</u> 39'26	0°41'34	retrograde	1053 Jan 27 j 22:19	0° <u>♋</u> 03'20	
minimum elong	1046 Sep 15 j 07:58	27° <u>♎</u> 39'26	0°41'33		1053 Feb 08 j 01:02	30° <u>♋</u> <u>♊</u>	
morning rise	1046 Oct 01 j 11:11	28° <u>♎</u> 39'55		opposition	1053 Apr 12 j 13:12	28° <u>♊</u> 02'20	0°32'06
	1046 Oct 24 j 10:46	0° <u>♊</u>		min. Earth dist.	1053 Apr 12 j 22:06	28° <u>♊</u> 01'23	17.61711 AU
retrograde	1046 Dec 31 j 14:52	2° <u>♊</u> 00'51		direct	1053 Jun 28 j 17:36	25° <u>♊</u> 57'51	
opposition	1047 Mar 15 j 08:10	29° <u>♎</u> 59'09	0°45'40	evening set	1053 Oct 01 j 21:51	29° <u>♊</u> 23'03	
	1047 Mar 15 j 00:12	30° <u>♋</u> <u>♎</u>			1053 Oct 11 j 21:40	0° <u>♋</u>	
min. Earth dist.	1047 Mar 16 j 02:24	29° <u>♎</u> 57'11	17.39564 AU				
direct	1047 May 31 j 02:41	27° <u>♎</u> 53'13		conjunction	1053 Oct 17 j 21:08	0° <u>♋</u> 22'22	0°27'28
	1047 Aug 11 j 07:59	0° <u>♊</u>		minimum elong	1053 Oct 17 j 21:08	0° <u>♋</u> 22'22	0°27'28
evening set	1047 Sep 04 j 02:56	1° <u>♊</u> 22'36		max. Earth dist.	1053 Oct 17 j 12:29	0° <u>♋</u> 21'02	19.64334 AU
				morning rise	1053 Nov 02 j 17:21	1° <u>♋</u> 21'15	
conjunction	1047 Sep 20 j 08:55	2° <u>♊</u> 23'27	0°40'16	retrograde	1054 Feb 01 j 20:08	4° <u>♋</u> 39'14	
minimum elong	1047 Sep 20 j 08:56	2° <u>♊</u> 23'27	0°40'17	opposition	1054 Apr 17 j 13:03	2° <u>♋</u> 38'26	0°29'02
max. Earth dist.	1047 Sep 19 j 13:38	2° <u>♊</u> 20'25	19.40672 AU	min. Earth dist.	1054 Apr 17 j 19:10	2° <u>♋</u> 37'47	17.67028 AU
morning rise	1047 Oct 06 j 10:58	3° <u>♊</u> 23'45		direct	1054 Jul 03 j 19:07	0° <u>♋</u> 34'20	
retrograde	1048 Jan 05 j 13:49	6° <u>♊</u> 44'19		evening set	1054 Oct 06 j 18:04	3° <u>♋</u> 58'35	

conjunction	1054 Oct 22 j 16:27	4°M.57'38	0°24'39	min. Earth dist.	1060 May 14 j 23:54	29°M.42'11	18.02978 AU
minimum elong	1054 Oct 22 j 16:27	4°M.57'38	0°24'39	direct	1060 Jul 31 j 11:04	27°M.39'58	
max. Earth dist.	1054 Oct 22 j 10:18	4°M.56'41	19.69811 AU		1060 Oct 16 j 08:35	0°J	
morning rise	1054 Nov 07 j 11:44	5°M.56'15		evening set	1060 Nov 02 j 00:42	0°J.57'25	
retrograde	1055 Feb 06 j 14:29	9°M.13'43					
opposition	1055 Apr 22 j 12:35	7°M.13'08	0°25'49	conjunction	1060 Nov 17 j 18:12	1°J.54'41	0°05'36
min. Earth dist.	1055 Apr 22 j 18:07	7°M.12'33	17.72645 AU	minimum elong	1060 Nov 17 j 18:13	1°J.54'41	0°05'37
direct	1055 Jul 08 j 17:26	5°M.09'26		behind sun begin	1060 Nov 17 j 11:54	1°J.53'45	
evening set	1055 Oct 11 j 13:35	8°M.32'41		behind sun end	1060 Nov 18 j 00:31	1°J.55'37	
				max. Earth dist.	1060 Nov 17 j 22:36	1°J.55'19	20.06105 AU
conjunction	1055 Oct 27 j 10:52	9°M.31'26	0°21'42	morning rise	1060 Dec 03 j 09:59	2°J.51'44	
minimum elong	1055 Oct 27 j 10:52	9°M.31'26	0°21'43	retrograde	1061 Mar 04 j 23:52	6°J.05'47	
max. Earth dist.	1055 Oct 27 j 05:44	9°M.30'38	19.75559 AU	opposition	1061 May 19 j 23:43	4°J.05'54	0°04'19
morning rise	1055 Nov 12 j 05:32	10°M.29'47		min. Earth dist.	1061 May 19 j 19:09	4°J.06'23	18.09202 AU
retrograde	1056 Feb 11 j 11:41	13°M.46'44		direct	1061 Aug 05 j 07:13	2°J.04'22	
opposition	1056 Apr 26 j 11:44	11°M.46'19	0°22'27	evening set	1061 Nov 06 j 14:26	5°J.20'33	
min. Earth dist.	1056 Apr 26 j 14:35	11°M.46'01	17.78493 AU				
direct	1056 Jul 12 j 18:01	9°M.43'01		conjunction	1061 Nov 22 j 07:13	6°J.17'31	0°02'16
evening set	1056 Oct 15 j 07:57	13°M.05'12		minimum elong	1061 Nov 22 j 07:12	6°J.17'31	0°02'15
				behind sun begin	1061 Nov 22 j 00:39	6°J.16'33	
conjunction	1056 Oct 31 j 04:27	14°M.03'39	0°18'38	behind sun end	1061 Nov 22 j 13:45	6°J.18'29	
minimum elong	1056 Oct 31 j 04:27	14°M.03'39	0°18'37	max. Earth dist.	1061 Nov 22 j 12:23	6°J.18'16	20.12352 AU
max. Earth dist.	1056 Oct 31 j 01:59	14°M.03'16	19.81491 AU	morning rise	1061 Dec 07 j 22:51	7°J.14'19	
morning rise	1056 Nov 15 j 22:15	15°M.01'44		retrograde	1062 Mar 09 j 15:23	10°J.27'46	
	1056 Nov 15 j 10:46	15°M.		opposition	1062 May 24 j 19:17	8°J.27'56	0°00'36
retrograde	1057 Feb 15 j 04:54	18°M.18'08		min. Earth dist.	1062 May 24 j 12:29	8°J.28'38	18.15477 AU
opposition	1057 May 01 j 10:37	16°M.17'54	0°18'58	desc. node	1062 Jul 24 j 04:02	6°J.33'52	
min. Earth dist.	1057 May 01 j 12:45	16°M.17'40	17.84499 AU	direct	1062 Aug 10 j 02:29	6°J.26'42	
	1057 Jun 04 j 05:25	15°R.M.		evening set	1062 Nov 11 j 03:11	9°J.41'39	
direct	1057 Jul 17 j 15:51	14°M.14'59					
	1057 Aug 28 j 19:54	15°M.		conjunction	1062 Nov 26 j 19:34	10°J.38'20	-0°01'10
evening set	1057 Oct 20 j 01:38	17°M.36'02		minimum elong	1062 Nov 26 j 19:34	10°J.38'20	0°01'10
				behind sun begin	1062 Nov 26 j 13:02	10°J.37'22	
conjunction	1057 Nov 04 j 21:09	18°M.34'11	0°15'28	behind sun end	1062 Nov 27 j 02:07	10°J.39'18	
minimum elong	1057 Nov 04 j 21:09	18°M.34'11	0°15'28	max. Earth dist.	1062 Nov 27 j 03:44	10°J.39'33	20.18645 AU
behind sun begin	1057 Nov 04 j 19:06	18°M.33'53		morning rise	1062 Dec 12 j 10:46	11°J.34'53	
behind sun end	1057 Nov 04 j 23:11	18°M.34'30		retrograde	1063 Mar 14 j 04:53	14°J.47'44	
max. Earth dist.	1057 Nov 04 j 19:25	18°M.33'56	19.87563 AU	opposition	1063 May 29 j 14:06	12°J.47'58	-0°03'05
morning rise	1057 Nov 20 j 14:30	19°M.32'01		min. Earth dist.	1063 May 29 j 05:46	12°J.48'49	18.21795 AU
retrograde	1058 Feb 20 j 00:24	22°M.47'51		direct	1063 Aug 14 j 20:59	10°J.47'04	
opposition	1058 May 06 j 08:40	20°M.47'44	0°15'23	evening set	1063 Nov 15 j 15:15	14°J.00'47	
min. Earth dist.	1058 May 06 j 08:21	20°M.47'46	17.90617 AU				
direct	1058 Jul 22 j 15:40	18°M.45'11		conjunction	1063 Dec 01 j 06:59	14°J.57'12	-0°04'30
evening set	1058 Oct 24 j 18:15	22°M.05'05		minimum elong	1063 Dec 01 j 06:59	14°J.57'12	0°04'30
				behind sun begin	1063 Dec 01 j 00:34	14°J.56'15	
conjunction	1058 Nov 09 j 13:09	23°M.02'56	0°12'13	behind sun end	1063 Dec 01 j 13:24	14°J.58'08	
minimum elong	1058 Nov 09 j 13:09	23°M.02'56	0°12'13	max. Earth dist.	1063 Dec 01 j 15:59	14°J.58'32	20.24999 AU
behind sun begin	1058 Nov 09 j 08:41	23°M.02'16		morning rise	1063 Dec 16 j 22:08	15°J.53'31	
behind sun end	1058 Nov 09 j 17:37	23°M.03'37		retrograde	1064 Mar 17 j 18:56	19°J.05'48	
max. Earth dist.	1058 Nov 09 j 14:04	23°M.03'04	19.93708 AU	opposition	1064 Jun 02 j 08:21	17°J.06'07	-0°06'43
morning rise	1058 Nov 25 j 05:48	24°M.00'30		min. Earth dist.	1064 Jun 01 j 21:54	17°J.07'11	18.28189 AU
retrograde	1059 Feb 24 j 16:03	27°M.15'45		direct	1064 Aug 18 j 13:29	15°J.05'33	
opposition	1059 May 11 j 06:22	25°M.15'45	0°11'44	evening set	1064 Nov 19 j 02:11	18°J.18'05	
min. Earth dist.	1059 May 11 j 05:15	25°M.15'52	17.96778 AU				
direct	1059 Jul 27 j 12:56	23°M.13'34		conjunction	1064 Dec 04 j 17:42	19°J.14'14	-0°07'44
evening set	1059 Oct 29 j 10:02	26°M.32'15		minimum elong	1064 Dec 04 j 17:42	19°J.14'14	0°07'43
				behind sun begin	1064 Dec 04 j 11:46	19°J.13'22	
conjunction	1059 Nov 14 j 04:02	27°M.29'48	0°08'55	behind sun end	1064 Dec 04 j 23:38	19°J.15'06	
minimum elong	1059 Nov 14 j 04:02	27°M.29'48	0°08'55	max. Earth dist.	1064 Dec 05 j 05:41	19°J.16'02	20.31410 AU
behind sun begin	1059 Nov 13 j 22:22	27°M.28'57		morning rise	1064 Dec 20 j 08:33	20°J.10'20	
behind sun end	1059 Nov 14 j 09:41	27°M.30'39		retrograde	1065 Mar 22 j 08:07	23°J.22'05	
max. Earth dist.	1059 Nov 14 j 05:34	27°M.30'01	19.99893 AU	opposition	1065 Jun 07 j 01:53	21°J.22'31	-0°10'17
morning rise	1059 Nov 29 j 20:22	28°M.27'06		min. Earth dist.	1065 Jun 06 j 13:42	21°J.23'45	18.34607 AU
	1059 Dec 27 j 18:05	0°J		direct	1065 Aug 23 j 06:15	19°J.22'20	
retrograde	1060 Feb 29 j 09:35	1°J.41'46		evening set	1065 Nov 23 j 12:39	22°J.33'42	
	1060 May 07 j 18:25	30°R.M.					
opposition	1060 May 15 j 03:20	29°M.41'50	0°08'02	conjunction	1065 Dec 09 j 03:42	23°J.29'36	-0°10'54

minimum elong	1065 Dec 09 j 03:41	23° \nearrow 29'36	0°10'53	minimum elong	1072 Jan 03 j 04:30	18° \searrow 32'31	0°27'53
behind sun begin	1065 Dec 08 j 22:40	23° \nearrow 28'52		max. Earth dist.	1072 Jan 04 j 00:21	18° \searrow 35'26	20.73091 AU
behind sun end	1065 Dec 09 j 08:42	23° \nearrow 30'20		morning rise	1072 Jan 18 j 20:29	19° \searrow 27'25	
max. Earth dist.	1065 Dec 09 j 16:22	23° \nearrow 31'30	20.37830 AU	retrograde	1072 Apr 20 j 19:34	22° \searrow 36'15	
morning rise	1065 Dec 24 j 18:40	24° \nearrow 25'29		opposition	1072 Jul 07 j 10:48	20° \searrow 37'29	-0°32'12
retrograde	1066 Mar 26 j 21:14	27° \nearrow 36'44		min. Earth dist.	1072 Jul 06 j 14:53	20° \searrow 39'28	18.75542 AU
opposition	1066 Jun 11 j 18:35	25° \nearrow 37'18	-0°13'46	direct	1072 Sep 21 j 23:44	18° \searrow 39'46	
min. Earth dist.	1066 Jun 11 j 04:50	25° \nearrow 38'42	18.41024 AU	evening set	1072 Dec 21 j 20:23	21° \searrow 44'06	
direct	1066 Aug 27 j 20:40	23° \nearrow 37'29					
evening set	1066 Nov 27 j 22:15	26° \nearrow 47'45		conjunction	1073 Jan 06 j 11:12	22° \searrow 38'39	-0°30'16
				minimum elong	1073 Jan 06 j 11:12	22° \searrow 38'39	0°30'16
conjunction	1066 Dec 13 j 13:12	27° \nearrow 43'26	-0°14'00	max. Earth dist.	1073 Jan 07 j 08:34	22° \searrow 41'47	20.77846 AU
minimum elong	1066 Dec 13 j 13:11	27° \nearrow 43'25	0°13'59	morning rise	1073 Jan 22 j 03:27	23° \searrow 33'26	
behind sun begin	1066 Dec 13 j 09:44	27° \nearrow 42'55		retrograde	1073 Apr 25 j 06:50	26° \searrow 41'55	
behind sun end	1066 Dec 13 j 16:39	27° \nearrow 43'56		opposition	1073 Jul 11 j 23:20	24° \searrow 43'10	-0°34'43
max. Earth dist.	1066 Dec 14 j 04:28	27° \nearrow 45'42	20.44210 AU	min. Earth dist.	1073 Jul 11 j 02:11	24° \searrow 45'17	18.80080 AU
morning rise	1066 Dec 29 j 04:01	28° \nearrow 39'07		direct	1073 Sep 26 j 11:19	22° \searrow 45'40	
	1067 Jan 22 j 18:57	0° \searrow		evening set	1073 Dec 26 j 02:31	25° \searrow 49'08	
retrograde	1067 Mar 31 j 09:46	1° \searrow 49'53					
	1067 Jun 12 j 13:38	30° \nwarrow		conjunction	1074 Jan 10 j 17:24	26° \searrow 43'34	-0°32'28
opposition	1067 Jun 16 j 10:46	29° \nwarrow 50'36	-0°17'09	minimum elong	1074 Jan 10 j 17:24	26° \searrow 43'34	0°32'28
min. Earth dist.	1067 Jun 15 j 19:21	29° \nwarrow 52'09	18.47350 AU	max. Earth dist.	1074 Jan 11 j 14:32	26° \searrow 46'39	20.82171 AU
direct	1067 Sep 01 j 11:33	27° \nwarrow 51'12		morning rise	1074 Jan 26 j 10:16	27° \searrow 38'15	
	1067 Nov 14 j 05:55	0° \searrow			1074 Mar 16 j 21:59	0° \approx	
evening set	1067 Dec 02 j 07:16	1° \searrow 00'22		retrograde	1074 Apr 29 j 15:46	0° \approx 46'24	
					1074 Jun 13 j 23:29	30° \nwarrow	
conjunction	1067 Dec 17 j 21:50	1° \searrow 55'49	-0°17'00	opposition	1074 Jul 16 j 11:11	28° \searrow 47'37	-0°37'03
minimum elong	1067 Dec 17 j 21:50	1° \searrow 55'49	0°17'00	min. Earth dist.	1074 Jul 15 j 14:20	28° \searrow 49'42	18.84212 AU
max. Earth dist.	1067 Dec 18 j 13:39	1° \searrow 58'10	20.50473 AU	direct	1074 Sep 30 j 20:03	26° \searrow 50'18	
morning rise	1068 Jan 02 j 12:54	2° \searrow 51'19		evening set	1074 Dec 30 j 08:00	29° \searrow 52'58	
retrograde	1068 Apr 03 j 22:09	6° \searrow 01'40			1075 Jan 01 j 09:21	0° \approx	
min. Earth dist.	1068 Jun 19 j 09:56	4° \searrow 04'10	18.53546 AU				
opposition	1068 Jun 20 j 02:27	4° \searrow 02'30	-0°20'26	conjunction	1075 Jan 14 j 23:20	0° \approx 47'16	-0°34'30
direct	1068 Sep 05 j 00:36	2° \searrow 03'29		minimum elong	1075 Jan 14 j 23:20	0° \approx 47'16	0°34'29
evening set	1068 Dec 05 j 15:38	5° \searrow 11'37		max. Earth dist.	1075 Jan 15 j 21:56	0° \approx 50'34	20.86107 AU
				morning rise	1075 Jan 30 j 16:34	1° \approx 41'52	
conjunction	1068 Dec 21 j 06:15	6° \searrow 06'52	-0°19'55	retrograde	1075 May 04 j 02:14	4° \approx 49'42	
minimum elong	1068 Dec 21 j 06:15	6° \searrow 06'52	0°19'55	opposition	1075 Jul 20 j 22:28	2° \approx 50'53	-0°39'11
max. Earth dist.	1068 Dec 22 j 00:19	6° \searrow 09'32	20.56566 AU	min. Earth dist.	1075 Jul 20 j 00:16	2° \approx 53'06	18.87960 AU
morning rise	1069 Jan 05 j 21:18	7° \searrow 02'11		direct	1075 Oct 05 j 06:49	0° \approx 53'43	
retrograde	1069 Apr 08 j 10:08	10° \searrow 12'07		evening set	1076 Jan 03 j 13:08	3° \approx 55'37	
opposition	1069 Jun 24 j 17:21	8° \searrow 13'06	-0°23'36				
min. Earth dist.	1069 Jun 23 j 23:20	8° \searrow 14'55	18.59523 AU	conjunction	1076 Jan 19 j 04:39	4° \approx 49'49	-0°36'20
direct	1069 Sep 09 j 13:46	6° \searrow 14'28		minimum elong	1076 Jan 19 j 04:39	4° \approx 49'49	0°36'21
evening set	1069 Dec 09 j 23:37	9° \searrow 21'35		max. Earth dist.	1076 Jan 20 j 03:13	4° \approx 53'06	20.89677 AU
				morning rise	1076 Feb 03 j 22:35	5° \approx 44'21	
conjunction	1069 Dec 25 j 14:01	10° \searrow 16'38	-0°22'42	retrograde	1076 May 07 j 10:30	8° \approx 51'57	
minimum elong	1069 Dec 25 j 14:01	10° \searrow 16'38	0°22'42	min. Earth dist.	1076 Jul 23 j 11:24	6° \approx 55'15	18.91379 AU
max. Earth dist.	1069 Dec 26 j 08:13	10° \searrow 19'19	20.62408 AU	opposition	1076 Jul 24 j 09:21	6° \approx 53'03	-0°41'07
morning rise	1070 Jan 10 j 05:27	11° \searrow 11'49		direct	1076 Oct 08 j 14:02	4° \approx 56'01	
retrograde	1070 Apr 12 j 21:38	14° \searrow 21'21		evening set	1077 Jan 06 j 17:55	7° \approx 57'14	
opposition	1070 Jun 29 j 07:47	12° \searrow 22'27	-0°26'37				
min. Earth dist.	1070 Jun 28 j 13:16	12° \searrow 24'18	18.65229 AU	conjunction	1077 Jan 22 j 10:00	8° \approx 51'21	-0°37'59
direct	1070 Sep 14 j 01:19	10° \searrow 24'09		minimum elong	1077 Jan 22 j 10:00	8° \approx 51'21	0°37'59
evening set	1070 Dec 14 j 06:58	13° \searrow 30'19		max. Earth dist.	1077 Jan 23 j 09:59	8° \approx 54'50	20.92932 AU
				morning rise	1077 Feb 07 j 04:25	9° \approx 45'50	
conjunction	1070 Dec 29 j 21:31	14° \searrow 25'11	-0°25'22	retrograde	1077 May 11 j 19:52	12° \approx 53'12	
minimum elong	1070 Dec 29 j 21:31	14° \searrow 25'11	0°25'23	opposition	1077 Jul 28 j 19:21	10° \approx 54'16	-0°42'50
max. Earth dist.	1070 Dec 30 j 17:30	14° \searrow 28'08	20.67937 AU	min. Earth dist.	1077 Jul 27 j 20:02	10° \approx 56'35	18.94476 AU
morning rise	1071 Jan 14 j 13:01	15° \searrow 20'12		direct	1077 Oct 12 j 23:51	8° \approx 57'23	
retrograde	1071 Apr 17 j 09:07	18° \searrow 29'23		evening set	1078 Jan 10 j 22:37	11° \approx 57'58	
opposition	1071 Jul 03 j 21:29	16° \searrow 30'34	-0°29'30				
min. Earth dist.	1071 Jul 03 j 01:38	16° \searrow 32'33	18.70575 AU	conjunction	1078 Jan 26 j 15:02	12° \approx 52'02	-0°39'27
direct	1071 Sep 18 j 13:35	14° \searrow 32'35		minimum elong	1078 Jan 26 j 15:02	12° \approx 52'02	0°39'27
evening set	1071 Dec 18 j 14:02	17° \searrow 37'49		max. Earth dist.	1078 Jan 27 j 14:45	12° \approx 55'28	20.95867 AU
				morning rise	1078 Feb 11 j 10:15	13° \approx 46'29	
conjunction	1072 Jan 03 j 04:30	18° \searrow 32'31	-0°27'54		1078 Mar 06 j 10:45	15° \approx	

retrograde	1078 May 16 j 04:14	16° \approx 53'40		opposition	1084 Aug 26 j 08:23	8° \approx 49'45	-0°48'40
	1078 Jul 30 j 24:00	15° \approx		direct	1084 Nov 09 j 18:52	6° \approx 53'36	
min. Earth dist.	1078 Aug 01 j 06:18	14° \approx 56'58	18.97264 AU	evening set	1085 Feb 07 j 06:13	9° \approx 51'57	
opposition	1078 Aug 02 j 05:07	14° \approx 54'42	-0°44'20				
direct	1078 Oct 17 j 05:42	12° \approx 57'57		conjunction	1085 Feb 23 j 03:31	10° \approx 46'06	-0°44'03
	1078 Dec 28 j 04:53	15° \approx		minimum elong	1085 Feb 23 j 03:31	10° \approx 46'06	0°44'03
evening set	1079 Jan 15 j 02:54	15° \approx 58'00		max. Earth dist.	1085 Feb 24 j 03:13	10° \approx 49'30	21.05773 AU
				morning rise	1085 Mar 11 j 04:20	11° \approx 40'46	
conjunction	1079 Jan 30 j 19:58	16° \approx 52'01	-0°40'43	retrograde	1085 Jun 13 j 16:29	14° \approx 47'56	
minimum elong	1079 Jan 30 j 19:58	16° \approx 52'01	0°40'43	opposition	1085 Aug 30 j 15:56	12° \approx 48'47	-0°48'35
max. Earth dist.	1079 Jan 31 j 20:51	16° \approx 55'37	20.98491 AU	min. Earth dist.	1085 Aug 29 j 18:05	12° \approx 50'58	19.05596 AU
morning rise	1079 Feb 15 j 15:44	17° \approx 46'26		direct	1085 Nov 14 j 01:28	10° \approx 52'37	
retrograde	1079 May 20 j 12:51	20° \approx 53'30		evening set	1086 Feb 11 j 11:31	13° \approx 50'55	
opposition	1079 Aug 06 j 14:21	18° \approx 54'31	-0°45'37				
min. Earth dist.	1079 Aug 05 j 14:15	18° \approx 56'55	18.99717 AU	conjunction	1086 Feb 27 j 09:33	14° \approx 45'09	-0°43'52
direct	1079 Oct 21 j 14:20	16° \approx 57'55		minimum elong	1086 Feb 27 j 09:33	14° \approx 45'09	0°43'51
evening set	1080 Jan 19 j 07:19	19° \approx 57'30		max. Earth dist.	1086 Feb 28 j 07:41	14° \approx 48'19	21.05187 AU
				morning rise	1086 Mar 15 j 11:25	15° \approx 39'55	
conjunction	1080 Feb 04 j 00:49	20° \approx 51'29	-0°41'47	retrograde	1086 Jun 17 j 23:47	18° \approx 47'13	
minimum elong	1080 Feb 04 j 00:49	20° \approx 51'29	0°41'47	opposition	1086 Sep 03 j 23:37	16° \approx 47'57	-0°48'16
max. Earth dist.	1080 Feb 05 j 01:17	20° \approx 55'01	21.00771 AU	min. Earth dist.	1086 Sep 03 j 03:42	16° \approx 49'57	19.04728 AU
morning rise	1080 Feb 19 j 21:29	21° \approx 45'54		direct	1086 Nov 18 j 05:55	14° \approx 51'43	
retrograde	1080 May 23 j 21:13	24° \approx 52'54		evening set	1087 Feb 15 j 16:43	17° \approx 50'00	
opposition	1080 Aug 09 j 23:23	22° \approx 53'53	-0°46'41				
min. Earth dist.	1080 Aug 09 j 00:05	22° \approx 56'13	19.01826 AU	conjunction	1087 Mar 03 j 15:47	18° \approx 44'20	-0°43'28
direct	1080 Oct 24 j 19:31	20° \approx 57'25		minimum elong	1087 Mar 03 j 15:47	18° \approx 44'20	0°43'28
evening set	1081 Jan 22 j 11:32	23° \approx 56'36		max. Earth dist.	1087 Mar 04 j 13:42	18° \approx 47'28	21.04053 AU
				morning rise	1087 Mar 19 j 18:30	19° \approx 39'13	
conjunction	1081 Feb 07 j 05:50	24° \approx 50'36	-0°42'39	retrograde	1087 Jun 22 j 09:33	22° \approx 46'39	
minimum elong	1081 Feb 07 j 05:50	24° \approx 50'36	0°42'39	min. Earth dist.	1087 Sep 07 j 10:56	20° \approx 49'15	19.03321 AU
max. Earth dist.	1081 Feb 08 j 07:08	24° \approx 54'14	21.02692 AU	opposition	1087 Sep 08 j 07:00	20° \approx 47'14	-0°47'42
morning rise	1081 Feb 23 j 03:11	25° \approx 45'02		direct	1087 Nov 22 j 12:45	18° \approx 50'54	
retrograde	1081 May 28 j 05:55	28° \approx 51'58		evening set	1088 Feb 19 j 22:26	21° \approx 49'14	
min. Earth dist.	1081 Aug 13 j 07:43	26° \approx 55'23	19.03539 AU				
opposition	1081 Aug 14 j 07:55	26° \approx 52'58	-0°47'31	conjunction	1088 Mar 06 j 22:19	22° \approx 43'42	-0°42'51
direct	1081 Oct 29 j 02:46	24° \approx 56'37		minimum elong	1088 Mar 06 j 22:19	22° \approx 43'42	0°42'51
evening set	1082 Jan 26 j 16:03	27° \approx 55'30		max. Earth dist.	1088 Mar 07 j 18:45	22° \approx 46'37	21.02398 AU
				morning rise	1088 Mar 23 j 02:09	23° \approx 38'42	
conjunction	1082 Feb 11 j 10:52	28° \approx 49'30	-0°43'19	retrograde	1088 Jun 25 j 16:41	26° \approx 46'19	
minimum elong	1082 Feb 11 j 10:52	28° \approx 49'30	0°43'19	opposition	1088 Sep 11 j 14:16	24° \approx 46'44	-0°46'54
max. Earth dist.	1082 Feb 12 j 11:22	28° \approx 53'01	21.04187 AU	min. Earth dist.	1088 Sep 10 j 20:10	24° \approx 48'34	19.01436 AU
morning rise	1082 Feb 27 j 09:09	29° \approx 43'58		direct	1088 Nov 25 j 17:05	22° \approx 50'15	
	1082 Mar 04 j 04:44	0° \approx		evening set	1089 Feb 23 j 04:17	25° \approx 48'43	
retrograde	1082 Jun 01 j 13:47	2° \approx 50'55					
opposition	1082 Aug 18 j 16:14	0° \approx 51'54	-0°48'08	conjunction	1089 Mar 11 j 05:17	26° \approx 43'19	-0°42'01
min. Earth dist.	1082 Aug 17 j 17:20	0° \approx 54'11	19.04818 AU	minimum elong	1089 Mar 11 j 05:17	26° \approx 43'19	0°42'02
	1082 Sep 10 j 01:34	30° \approx		max. Earth dist.	1089 Mar 12 j 01:24	26° \approx 46'12	21.00303 AU
direct	1082 Nov 02 j 07:38	28° \approx 55'39		morning rise	1089 Mar 27 j 10:01	27° \approx 38'28	
	1082 Dec 23 j 06:33	0° \approx			1089 May 16 j 21:26	0° \approx	
evening set	1083 Jan 30 j 20:31	1° \approx 54'17		retrograde	1089 Jun 30 j 02:36	0° \approx 46'16	
					1089 Aug 14 j 07:09	30° \approx	
conjunction	1083 Feb 15 j 16:13	2° \approx 48'19	-0°43'46	opposition	1089 Sep 15 j 21:18	28° \approx 46'31	-0°45'53
minimum elong	1083 Feb 15 j 16:13	2° \approx 48'19	0°43'47	min. Earth dist.	1089 Sep 15 j 03:03	28° \approx 48'22	18.99128 AU
max. Earth dist.	1083 Feb 16 j 17:08	2° \approx 51'54	21.05238 AU	direct	1089 Nov 29 j 23:41	26° \approx 49'52	
morning rise	1083 Mar 03 j 15:13	3° \approx 42'50		evening set	1090 Feb 27 j 10:38	29° \approx 48'34	
retrograde	1083 Jun 05 j 23:03	6° \approx 49'49			1090 Mar 02 j 20:15	0° \approx	
min. Earth dist.	1083 Aug 22 j 00:53	4° \approx 53'08	19.05617 AU				
opposition	1083 Aug 23 j 00:19	4° \approx 50'48	-0°48'31	conjunction	1090 Mar 15 j 12:27	0° \approx 43'19	-0°41'00
direct	1083 Nov 06 j 14:12	2° \approx 54'37		minimum elong	1090 Mar 15 j 12:27	0° \approx 43'19	0°41'00
evening set	1084 Feb 04 j 01:15	5° \approx 53'05		max. Earth dist.	1090 Mar 16 j 07:06	0° \approx 45'59	20.97798 AU
				morning rise	1090 Mar 31 j 18:14	1° \approx 38'37	
conjunction	1084 Feb 19 j 21:35	6° \approx 47'10	-0°44'01	retrograde	1090 Jul 04 j 10:10	4° \approx 46'40	
minimum elong	1084 Feb 19 j 21:35	6° \approx 47'10	0°44'00	opposition	1090 Sep 20 j 04:25	2° \approx 46'45	-0°44'38
max. Earth dist.	1084 Feb 20 j 21:22	6° \approx 50'34	21.05775 AU	min. Earth dist.	1090 Sep 19 j 12:03	2° \approx 48'25	18.96447 AU
morning rise	1084 Mar 06 j 21:36	7° \approx 41'45		direct	1090 Dec 04 j 04:03	0° \approx 49'56	
retrograde	1084 Jun 09 j 06:46	10° \approx 48'50		evening set	1091 Mar 03 j 17:14	3° \approx 48'55	
min. Earth dist.	1084 Aug 25 j 10:39	8° \approx 51'55	19.05891 AU				

conjunction	1091 Mar 19 j 20:10	4° Υ 43'50 -0°39'46	min. Earth dist.	1097 Oct 18 j 00:50	1° \mathcal{B} 14'37 18.69040 AU
minimum elong	1091 Mar 19 j 20:10	4° Υ 43'50 0°39'45		1097 Nov 19 j 09:19	30° $\mathcal{R}\Upsilon$
max. Earth dist.	1091 Mar 20 j 14:29	4° Υ 46'27 20.94960 AU	direct	1097 Dec 31 j 23:33	29° Υ 15'33
morning rise	1091 Apr 05 j 02:52	5° Υ 39'19		1098 Feb 11 j 15:45	0° \mathcal{B}
retrograde	1091 Jul 08 j 20:30	8° Υ 47'39	evening set	1098 Apr 01 j 09:27	2° \mathcal{B} 18'36
opposition	1091 Sep 24 j 11:26	6° Υ 47'35 -0°43'10			
min. Earth dist.	1091 Sep 23 j 18:55	6° Υ 49'16 18.93442 AU	conjunction	1098 Apr 17 j 19:29	3° \mathcal{B} 15'08 -0°25'55
direct	1091 Dec 08 j 10:33	4° Υ 50'36	minimum elong	1098 Apr 17 j 19:29	3° \mathcal{B} 15'08 0°25'54
evening set	1092 Mar 07 j 00:24	7° Υ 49'56	max. Earth dist.	1098 Apr 18 j 03:45	3° \mathcal{B} 16'20 20.66454 AU
			morning rise	1098 May 04 j 08:50	4° \mathcal{B} 12'10
conjunction	1092 Mar 23 j 04:16	8° Υ 45'03 -0°38'20	retrograde	1098 Aug 07 j 02:44	7° \mathcal{B} 23'27
minimum elong	1092 Mar 23 j 04:16	8° Υ 45'03 0°38'20	opposition	1098 Oct 22 j 18:28	5° \mathcal{B} 22'38 -0°27'13
max. Earth dist.	1092 Mar 23 j 21:06	8° Υ 47'27 20.91797 AU	min. Earth dist.	1098 Oct 22 j 12:22	5° \mathcal{B} 23'16 18.63774 AU
morning rise	1092 Apr 08 j 12:04	9° Υ 40'43	direct	1099 Jan 05 j 06:43	3° \mathcal{B} 24'10
retrograde	1092 Jul 12 j 05:07	12° Υ 49'23	evening set	1099 Apr 05 j 21:42	6° \mathcal{B} 28'02
opposition	1092 Sep 27 j 18:42	10° Υ 49'11 -0°41'29			
min. Earth dist.	1092 Sep 27 j 04:09	10° Υ 50'40 18.90129 AU	conjunction	1099 Apr 22 j 08:48	7° \mathcal{B} 24'51 -0°23'16
direct	1092 Dec 11 j 14:47	8° Υ 52'01	minimum elong	1099 Apr 22 j 08:48	7° \mathcal{B} 24'51 0°23'17
evening set	1093 Mar 11 j 08:06	11° Υ 51'47	max. Earth dist.	1099 Apr 22 j 15:08	7° \mathcal{B} 25'45 20.61015 AU
			morning rise	1099 May 08 j 22:59	8° \mathcal{B} 22'08
conjunction	1093 Mar 27 j 13:07	12° Υ 47'06 -0°36'43	retrograde	1099 Aug 11 j 16:42	11° \mathcal{B} 33'54
minimum elong	1093 Mar 27 j 13:07	12° Υ 47'06 0°36'42	opposition	1099 Oct 27 j 03:33	9° \mathcal{B} 32'55 -0°24'12
max. Earth dist.	1093 Mar 28 j 05:20	12° Υ 49'26 20.88347 AU	min. Earth dist.	1099 Oct 26 j 22:21	9° \mathcal{B} 33'27 18.58149 AU
morning rise	1093 Apr 12 j 21:50	13° Υ 42'58	direct	1100 Jan 09 j 16:10	7° \mathcal{B} 34'06
retrograde	1093 Jul 16 j 16:24	16° Υ 51'59	evening set	1100 Apr 09 j 10:49	10° \mathcal{B} 38'50
min. Earth dist.	1093 Oct 01 j 11:19	14° Υ 53'10 18.86525 AU			
opposition	1093 Oct 02 j 01:48	14° Υ 51'41 -0°39'36	conjunction	1100 Apr 25 j 22:53	11° \mathcal{B} 35'56 -0°20'29
direct	1093 Dec 15 j 21:41	12° Υ 54'20	minimum elong	1100 Apr 25 j 22:53	11° \mathcal{B} 35'56 0°20'29
evening set	1094 Mar 15 j 16:31	15° Υ 54'38	max. Earth dist.	1100 Apr 26 j 03:06	11° \mathcal{B} 36'32 20.55218 AU
			morning rise	1100 May 12 j 13:51	12° \mathcal{B} 33'29
conjunction	1094 Mar 31 j 22:28	16° Υ 50'11 -0°34'54		1100 Jul 03 j 00:51	15° \mathcal{B}
minimum elong	1094 Mar 31 j 22:28	16° Υ 50'11 0°34'54	retrograde	1100 Aug 15 j 05:30	15° \mathcal{B} 45'43
max. Earth dist.	1094 Apr 01 j 13:04	16° Υ 52'16 20.84597 AU		1100 Sep 28 j 01:32	15° $\mathcal{R}\mathcal{B}$
morning rise	1094 Apr 17 j 08:12	17° Υ 46'15	opposition	1100 Oct 30 j 13:11	13° \mathcal{B} 44'33 -0°21'03
retrograde	1094 Jul 21 j 01:51	20° Υ 55'40	min. Earth dist.	1100 Oct 30 j 10:35	13° \mathcal{B} 44'49 18.52193 AU
opposition	1094 Oct 06 j 09:25	18° Υ 55'16 -0°37'30	direct	1101 Jan 13 j 00:57	11° \mathcal{B} 45'23
min. Earth dist.	1094 Oct 05 j 21:04	18° Υ 56'32 18.82630 AU	evening set	1101 Apr 14 j 00:42	14° \mathcal{B} 51'01
direct	1094 Dec 20 j 02:03	16° Υ 57'45		1101 Apr 16 j 15:48	15° \mathcal{B}
evening set	1095 Mar 20 j 01:22	19° Υ 58'38			
			conjunction	1101 Apr 30 j 13:42	15° \mathcal{B} 48'24 -0°17'35
conjunction	1095 Apr 05 j 08:27	20° Υ 54'24 -0°32'55	minimum elong	1101 Apr 30 j 13:43	15° \mathcal{B} 48'24 0°17'34
minimum elong	1095 Apr 05 j 08:27	20° Υ 54'24 0°32'55	max. Earth dist.	1101 Apr 30 j 15:51	15° \mathcal{B} 48'42 20.49137 AU
max. Earth dist.	1095 Apr 05 j 22:12	20° Υ 56'22 20.80569 AU	morning rise	1101 May 17 j 05:25	16° \mathcal{B} 46'12
morning rise	1095 Apr 21 j 19:06	21° Υ 50'42	retrograde	1101 Aug 19 j 19:55	19° \mathcal{B} 58'56
retrograde	1095 Jul 25 j 14:38	25° Υ 00'34	opposition	1101 Nov 03 j 22:56	17° \mathcal{B} 57'34 -0°17'46
opposition	1095 Oct 10 j 17:09	23° Υ 00'04 -0°35'12	min. Earth dist.	1101 Nov 03 j 21:15	17° \mathcal{B} 57'44 18.45989 AU
min. Earth dist.	1095 Oct 10 j 05:08	23° Υ 01'18 18.78439 AU			
direct	1095 Dec 24 j 09:42	21° Υ 02'22			
evening set	1096 Mar 23 j 11:17	24° Υ 03'55			
conjunction	1096 Apr 08 j 19:19	24° Υ 59'56 -0°30'45			
minimum elong	1096 Apr 08 j 19:19	24° Υ 59'56 0°30'45			
max. Earth dist.	1096 Apr 09 j 07:14	25° Υ 01'38 20.76216 AU			
morning rise	1096 Apr 25 j 06:57	25° Υ 56'28			
retrograde	1096 Jul 29 j 01:12	29° Υ 06'47			
opposition	1096 Oct 14 j 01:12	27° Υ 06'12 -0°32'43			
min. Earth dist.	1096 Oct 13 j 15:43	27° Υ 07'11 18.73918 AU			
direct	1096 Dec 27 j 15:08	25° Υ 08'17			
evening set	1097 Mar 27 j 21:58	28° Υ 10'34			
conjunction	1097 Apr 13 j 07:06	29° Υ 06'50 -0°28'25			
minimum elong	1097 Apr 13 j 07:06	29° Υ 06'50 0°28'25			
max. Earth dist.	1097 Apr 13 j 17:29	29° Υ 08'19 20.71530 AU			
	1097 Apr 28 j 17:59	0° \mathcal{B}			
morning rise	1097 Apr 29 j 19:35	0° \mathcal{B} 03'36			
retrograde	1097 Aug 02 j 14:50	3° \mathcal{B} 14'24			
opposition	1097 Oct 18 j 09:34	1° \mathcal{B} 13'43 -0°30'03			