

retrograde	10600 Jan 18 03:38	20° <u>0</u> 44'45		opposition	10606 May 01 02:22	15° <u>0</u> 00'31	1°05'07
opposition	10600 Apr 04 11:15	18° <u>0</u> 43'21	0°59'03	min. Earth dist.	10606 May 01 07:37	14° <u>0</u> 59'57	17.94091 AU
min. Earth dist.	10600 Apr 04 10:19	18° <u>0</u> 43'27	18.33872 AU		10606 May 01 07:14	15° <u>0</u> 00'31	
direct	10600 Jun 18 07:56	16° <u>0</u> 43'34		direct	10606 Jul 14 19:01	12° <u>0</u> 58'37	
evening set	10600 Sep 17 13:33	19° <u>0</u> 52'25		evening set	10606 Sep 23 02:19	15° <u>0</u> 00'31	
					10606 Oct 15 02:37	16° <u>0</u> 13'44	
conjunction	10600 Oct 03 22:00	20° <u>0</u> 50'02	0°54'06	conjunction	10606 Oct 31 15:00	17° <u>0</u> 13'08	0°58'27
minimum elong	10600 Oct 03 22:00	20° <u>0</u> 50'02	0°54'15	minimum elong	10606 Oct 31 15:00	17° <u>0</u> 13'08	0°58'48
max. Earth dist.	10600 Oct 03 21:11	20° <u>0</u> 49'55	20.30706 AU	max. Earth dist.	10606 Oct 31 07:49	17° <u>0</u> 12'03	19.90795 AU
morning rise	10600 Oct 20 08:50	21° <u>0</u> 48'02		morning rise	10606 Nov 17 04:41	18° <u>0</u> 12'47	
retrograde	10601 Jan 22 19:00	25° <u>0</u> 03'19		retrograde	10607 Feb 19 10:53	21° <u>0</u> 32'15	
opposition	10601 Apr 09 00:23	23° <u>0</u> 01'45	1°00'56	opposition	10607 May 05 18:57	19° <u>0</u> 29'25	1°04'48
min. Earth dist.	10601 Apr 09 01:37	23° <u>0</u> 01'37	18.27511 AU	min. Earth dist.	10607 May 06 01:43	19° <u>0</u> 28'41	17.87581 AU
direct	10601 Jun 22 18:42	21° <u>0</u> 01'40		direct	10607 Jul 19 10:11	17° <u>0</u> 27'08	
evening set	10601 Sep 22 05:35	24° <u>0</u> 11'33		evening set	10607 Oct 19 23:43	20° <u>0</u> 14'32	
conjunction	10601 Oct 08 14:50	25° <u>0</u> 09'28	0°55'38	conjunction	10607 Nov 05 12:39	21° <u>0</u> 14'31	0°57'57
minimum elong	10601 Oct 08 14:50	25° <u>0</u> 09'28	0°55'49	minimum elong	10607 Nov 05 12:39	21° <u>0</u> 14'31	0°58'22
max. Earth dist.	10601 Oct 08 13:14	25° <u>0</u> 09'14	20.24250 AU	max. Earth dist.	10607 Nov 05 04:24	21° <u>0</u> 14'46	19.84396 AU
morning rise	10601 Oct 25 02:10	26° <u>0</u> 07'44		morning rise	10607 Nov 22 02:47	22° <u>0</u> 12'56	
retrograde	10602 Jan 27 13:30	29° <u>0</u> 23'46		retrograde	10608 Feb 24 08:38	26° <u>0</u> 10'01	
opposition	10602 Apr 13 14:02	27° <u>0</u> 22'01	1°02'30	opposition	10608 May 09 12:02	24° <u>0</u> 00'00	1°04'04
min. Earth dist.	10602 Apr 13 15:24	27° <u>0</u> 21'52	18.20960 AU	min. Earth dist.	10608 May 09 18:42	23° <u>0</u> 59'17	17.81302 AU
direct	10602 Jun 27 08:51	25° <u>0</u> 21'37		direct	10608 Jul 23 04:45	21° <u>0</u> 57'22	
evening set	10602 Sep 26 22:27	28° <u>0</u> 32'30		evening set	10608 Oct 23 21:47	25° <u>0</u> 14'39	
conjunction	10602 Oct 13 08:17	29° <u>0</u> 30'43	0°56'52	conjunction	10608 Nov 09 11:16	26° <u>0</u> 14'38	0°57'06
minimum elong	10602 Oct 13 08:16	29° <u>0</u> 30'43	0°57'06	minimum elong	10608 Nov 09 11:16	26° <u>0</u> 14'38	0°57'31
max. Earth dist.	10602 Oct 13 04:56	29° <u>0</u> 30'13	20.17614 AU	max. Earth dist.	10608 Nov 09 02:45	26° <u>0</u> 13'20	19.78239 AU
	10602 Oct 21 13:05	0° <u>0</u> 00'00		morning rise	10608 Nov 26 01:33	27° <u>0</u> 14'47	
morning rise	10602 Oct 29 20:11	0° <u>0</u> 29'15			10609 Jan 22 08:53	0° <u>0</u> 35'27	
retrograde	10603 Feb 01 05:50	3° <u>0</u> 46'01		retrograde	10609 Feb 28 04:06	0° <u>0</u> 35'27	
opposition	10603 Apr 18 04:27	1° <u>0</u> 44'04	1°03'42		10609 Apr 06 11:32	30° <u>0</u> 00'00	
min. Earth dist.	10603 Apr 18 07:51	1° <u>0</u> 43'42	18.14266 AU	opposition	10609 May 14 05:45	28° <u>0</u> 32'19	1°02'57
	10603 Jun 06 13:56	30° <u>0</u> 00'00		min. Earth dist.	10609 May 14 13:39	28° <u>0</u> 31'27	17.75297 AU
direct	10603 Jul 01 20:56	29° <u>0</u> 43'18		direct	10609 Jul 27 22:04	26° <u>0</u> 29'20	
	10603 Jul 26 22:26	0° <u>0</u> 00'00		evening set	10609 Oct 28 20:42	29° <u>0</u> 14'43	
evening set	10603 Oct 01 16:10	2° <u>0</u> 55'14			10609 Nov 01 06:50	0° <u>0</u> 35'27	
conjunction	10603 Oct 18 02:46	3° <u>0</u> 53'44	0°57'46	conjunction	10609 Nov 14 10:33	0° <u>0</u> 47'58	0°55'53
minimum elong	10603 Oct 18 02:45	3° <u>0</u> 53'44	0°58'02	minimum elong	10609 Nov 14 10:33	0° <u>0</u> 47'58	0°56'20
max. Earth dist.	10603 Oct 17 22:35	3° <u>0</u> 53'07	20.10886 AU	max. Earth dist.	10609 Nov 14 00:46	0° <u>0</u> 46'28	19.72406 AU
morning rise	10603 Nov 03 15:11	4° <u>0</u> 52'34		morning rise	10609 Dec 01 01:12	1° <u>0</u> 48'21	
retrograde	10604 Feb 06 01:57	8° <u>0</u> 10'02		retrograde	10610 Mar 05 02:22	5° <u>0</u> 09'37	
opposition	10604 Apr 21 19:07	6° <u>0</u> 07'50	1°04'33	opposition	10610 May 19 00:10	3° <u>0</u> 06'22	1°01'25
min. Earth dist.	10604 Apr 21 22:34	6° <u>0</u> 07'28	18.07510 AU	min. Earth dist.	10610 May 19 07:57	3° <u>0</u> 05'31	17.69637 AU
direct	10604 Jul 05 12:32	4° <u>0</u> 06'42		direct	10610 Aug 01 17:53	1° <u>0</u> 03'06	
evening set	10604 Oct 05 10:51	7° <u>0</u> 19'41		evening set	10610 Nov 02 20:13	4° <u>0</u> 22'33	
conjunction	10604 Oct 21 22:04	8° <u>0</u> 18'30	0°58'21	conjunction	10610 Nov 19 10:35	5° <u>0</u> 23'03	0°54'18
minimum elong	10604 Oct 21 22:04	8° <u>0</u> 18'30	0°58'39	minimum elong	10610 Nov 19 10:35	5° <u>0</u> 23'03	0°54'47
max. Earth dist.	10604 Oct 21 16:33	8° <u>0</u> 17'40	20.04116 AU	max. Earth dist.	10610 Nov 19 01:06	5° <u>0</u> 21'36	19.66918 AU
morning rise	10604 Nov 07 10:59	9° <u>0</u> 17'36		morning rise	10610 Dec 06 01:16	6° <u>0</u> 23'40	
retrograde	10605 Feb 09 19:22	12° <u>0</u> 35'44		retrograde	10611 Mar 09 23:39	9° <u>0</u> 45'29	
opposition	10605 Apr 26 10:34	10° <u>0</u> 33'20	1°05'02	opposition	10611 May 23 19:19	7° <u>0</u> 42'10	0°59'29
min. Earth dist.	10605 Apr 26 15:54	10° <u>0</u> 32'46	18.00757 AU	min. Earth dist.	10611 May 24 04:00	7° <u>0</u> 41'14	17.64329 AU
direct	10605 Jul 10 02:02	8° <u>0</u> 31'49		direct	10611 Aug 06 13:31	5° <u>0</u> 38'39	
evening set	10605 Oct 10 06:18	11° <u>0</u> 45'51		evening set	10611 Nov 07 20:51	8° <u>0</u> 59'10	
conjunction	10605 Oct 26 18:07	12° <u>0</u> 44'58	0°58'34	conjunction	10611 Nov 24 11:26	9° <u>0</u> 59'55	0°52'22
minimum elong	10605 Oct 26 18:07	12° <u>0</u> 44'58	0°58'55	minimum elong	10611 Nov 24 11:26	9° <u>0</u> 59'55	0°52'51
max. Earth dist.	10605 Oct 26 11:40	12° <u>0</u> 43'59	19.97399 AU	max. Earth dist.	10611 Nov 24 00:23	9° <u>0</u> 58'13	19.61801 AU
morning rise	10605 Nov 12 07:28	13° <u>0</u> 44'20		morning rise	10611 Dec 11 02:26	11° <u>0</u> 00'44	
	10605 Dec 04 22:56	15° <u>0</u> 00'00		retrograde	10612 Mar 13 22:37	14° <u>0</u> 23'04	
retrograde	10606 Feb 14 16:22	17° <u>0</u> 03'09					

opposition	10612 May 27 14:55	12° \mathring{A} 19'44	0°57'09	conjunction	10618 Dec 28 09:48	12° \mathring{B} 57'12	0°29'48
min. Earth dist.	10612 May 27 23:56	12° \mathring{A} 18'45	17.59389 AU	minimum elong	10618 Dec 28 09:48	12° \mathring{B} 57'12	0°30'20
direct	10612 Aug 10 10:31	10° \mathring{A} 15'57		max. Earth dist.	10618 Dec 27 19:35	12° \mathring{B} 54'59	19.35623 AU
evening set	10612 Nov 11 22:14	13° \mathring{A} 37'31		morning rise	10619 Jan 13 23:33	13° \mathring{B} 58'55	
				retrograde	10619 Apr 17 01:32	17° \mathring{B} 23'04	
conjunction	10612 Nov 28 13:15	14° \mathring{A} 38'30	0°50'05	opposition	10619 Jun 30 00:29	15° \mathring{B} 19'36	0°30'57
minimum elong	10612 Nov 28 13:15	14° \mathring{A} 38'30	0°50'37	min. Earth dist.	10619 Jun 30 12:17	15° \mathring{B} 18'19	17.34542 AU
max. Earth dist.	10612 Nov 28 02:32	14° \mathring{A} 36'51	19.57023 AU	direct	10619 Sep 13 07:00	13° \mathring{B} 14'09	
morning rise	10612 Dec 15 04:06	15° \mathring{A} 39'31		evening set	10619 Dec 16 23:11	16° \mathring{B} 41'07	
retrograde	10613 Mar 18 21:49	19° \mathring{A} 02'18					
opposition	10613 Jun 01 11:20	16° \mathring{A} 58'58	0°54'26	conjunction	10620 Jan 02 14:04	17° \mathring{B} 43'04	0°25'32
min. Earth dist.	10613 Jun 01 21:07	16° \mathring{A} 57'54	17.54774 AU	minimum elong	10620 Jan 02 14:05	17° \mathring{B} 43'04	0°26'04
direct	10613 Aug 15 07:58	14° \mathring{A} 54'57		max. Earth dist.	10620 Jan 01 23:14	17° \mathring{B} 40'45	19.33572 AU
evening set	10613 Nov 17 00:24	18° \mathring{A} 17'31		morning rise	10620 Jan 19 03:25	18° \mathring{B} 44'48	
				retrograde	10620 Apr 21 01:34	22° \mathring{B} 08'57	
conjunction	10613 Dec 03 15:25	19° \mathring{A} 18'42	0°47'28	opposition	10620 Jul 03 23:55	20° \mathring{B} 05'29	0°26'04
minimum elong	10613 Dec 03 15:26	19° \mathring{A} 18'42	0°47'59	min. Earth dist.	10620 Jul 04 12:37	20° \mathring{B} 04'06	17.32774 AU
max. Earth dist.	10613 Dec 03 02:50	19° \mathring{A} 16'45	19.52571 AU	direct	10620 Sep 17 07:34	17° \mathring{B} 59'50	
morning rise	10613 Dec 20 06:24	20° \mathring{A} 19'53		evening set	10620 Dec 21 03:43	21° \mathring{B} 27'16	
retrograde	10614 Mar 23 21:42	23° \mathring{A} 43'05					
opposition	10614 Jun 06 08:22	21° \mathring{A} 39'44	0°51'20	conjunction	10621 Jan 06 18:20	22° \mathring{B} 29'15	0°21'04
min. Earth dist.	10614 Jun 06 18:48	21° \mathring{A} 38'36	17.50488 AU	minimum elong	10621 Jan 06 18:20	22° \mathring{B} 29'15	0°21'35
direct	10614 Aug 20 06:20	19° \mathring{A} 35'28		max. Earth dist.	10621 Jan 06 04:03	22° \mathring{B} 27'01	19.32095 AU
evening set	10614 Nov 22 03:07	22° \mathring{A} 58'57		morning rise	10621 Jan 23 07:09	23° \mathring{B} 30'59	
				retrograde	10621 Apr 26 02:43	26° \mathring{B} 55'03	
conjunction	10614 Dec 08 18:28	24° \mathring{A} 00'20	0°44'31	opposition	10621 Jul 08 23:34	24° \mathring{B} 51'37	0°21'00
minimum elong	10614 Dec 08 18:28	24° \mathring{A} 00'20	0°45'03	min. Earth dist.	10621 Jul 09 11:04	24° \mathring{B} 50'21	17.31588 AU
max. Earth dist.	10614 Dec 08 06:18	23° \mathring{A} 58'27	19.48439 AU	direct	10621 Sep 22 10:24	22° \mathring{B} 45'50	
morning rise	10614 Dec 25 09:11	25° \mathring{A} 01'40		evening set	10621 Dec 26 08:08	26° \mathring{B} 13'37	
retrograde	10615 Mar 28 22:11	28° \mathring{A} 25'11					
opposition	10615 Jun 11 05:53	26° \mathring{A} 21'49	0°47'53	conjunction	10622 Jan 11 22:18	27° \mathring{B} 15'35	0°16'27
min. Earth dist.	10615 Jun 11 16:43	26° \mathring{A} 20'38	17.46514 AU	minimum elong	10622 Jan 11 22:18	27° \mathring{B} 15'35	0°16'57
direct	10615 Aug 25 05:22	24° \mathring{A} 17'18		max. Earth dist.	10622 Jan 11 08:23	27° \mathring{B} 13'24	19.31217 AU
evening set	10615 Nov 27 06:32	27° \mathring{A} 41'39		morning rise	10622 Jan 28 10:30	28° \mathring{B} 17'17	
					10622 Feb 27 18:19	0° \approx	
conjunction	10615 Dec 13 21:49	28° \mathring{A} 43'11	0°41'15	retrograde	10622 May 01 02:09	1° \approx 41'14	
minimum elong	10615 Dec 13 21:50	28° \mathring{A} 43'11	0°41'48		10622 Jul 05 12:10	30° \mathring{R} \mathring{B}	
max. Earth dist.	10615 Dec 13 07:47	28° \mathring{A} 41'00	19.44638 AU	opposition	10622 Jul 13 23:37	29° \mathring{B} 37'51	0°15'47
morning rise	10615 Dec 30 12:34	29° \mathring{A} 44'40		min. Earth dist.	10622 Jul 14 11:41	29° \mathring{B} 36'32	17.31039 AU
	10616 Jan 03 18:26	0° \mathring{B}		direct	10622 Sep 27 11:51	27° \mathring{B} 32'00	
retrograde	10616 Apr 01 22:33	3° \mathring{B} 08'27		evening set	10622 Dec 14 13:27	0° \approx	
opposition	10616 Jun 15 04:00	1° \mathring{B} 05'02	0°44'06		10622 Dec 31 12:35	1° \approx 00'02	
min. Earth dist.	10616 Jun 15 15:43	1° \mathring{B} 03'46	17.42893 AU				
	10616 Jul 11 06:27	30° \mathring{R} \mathring{A}		conjunction	10623 Jan 17 02:16	2° \approx 01'58	0°11'44
direct	10616 Aug 29 04:51	29° \mathring{A} 00'16		minimum elong	10623 Jan 17 02:16	2° \approx 01'58	0°12'14
	10616 Oct 15 23:02	0° \mathring{B}		behind sun begin	10623 Jan 16 21:50	2° \approx 01'17	
evening set	10616 Dec 01 10:16	2° \mathring{B} 25'24		behind sun end	10623 Jan 17 06:43	2° \approx 02'39	
				max. Earth dist.	10623 Jan 16 12:42	1° \approx 59'51	19.31003 AU
conjunction	10616 Dec 18 01:42	3° \mathring{B} 27'05	0°37'42	morning rise	10623 Feb 02 13:54	3° \approx 03'36	
minimum elong	10616 Dec 18 01:43	3° \mathring{B} 27'05	0°38'14	retrograde	10623 May 06 02:49	6° \approx 27'24	
max. Earth dist.	10616 Dec 17 12:11	3° \mathring{B} 24'58	19.41202 AU	opposition	10623 Jul 18 23:31	4° \approx 24'07	0°10'28
morning rise	10617 Jan 03 16:03	4° \mathring{B} 28'39		min. Earth dist.	10623 Jul 19 10:06	4° \approx 22'57	17.31151 AU
retrograde	10617 Apr 06 23:38	7° \mathring{B} 52'37		direct	10623 Oct 02 15:27	2° \approx 18'13	
opposition	10617 Jun 20 02:25	5° \mathring{B} 49'12	0°40'00	evening set	10624 Jan 05 16:57	5° \approx 46'28	
min. Earth dist.	10617 Jun 20 14:01	5° \mathring{B} 47'56	17.39648 AU				
direct	10617 Sep 03 05:16	3° \mathring{B} 44'11		conjunction	10624 Jan 22 06:11	6° \approx 48'20	0°06'57
evening set	10617 Dec 06 14:28	7° \mathring{B} 10'01		minimum elong	10624 Jan 22 06:10	6° \approx 48'20	0°07'25
				behind sun begin	10624 Jan 22 00:02	6° \approx 47'24	
conjunction	10617 Dec 23 05:40	8° \mathring{B} 11'49	0°33'52	behind sun end	10624 Jan 22 12:19	6° \approx 49'17	
minimum elong	10617 Dec 23 05:40	8° \mathring{B} 11'49	0°34'26	max. Earth dist.	10624 Jan 21 17:35	6° \approx 46'22	19.31442 AU
max. Earth dist.	10617 Dec 22 14:49	8° \mathring{B} 09'30	19.38175 AU	morning rise	10624 Feb 07 17:00	7° \approx 49'53	
morning rise	10618 Jan 08 19:49	9° \mathring{B} 13'28		retrograde	10624 May 10 02:07	11° \approx 13'27	
retrograde	10618 Apr 12 00:10	12° \mathring{B} 37'34		opposition	10624 Jul 22 23:50	9° \approx 10'20	0°05'05
opposition	10618 Jun 25 01:21	10° \mathring{B} 34'07	0°35'36	min. Earth dist.	10624 Jul 23 10:53	9° \approx 09'08	17.31913 AU
min. Earth dist.	10618 Jun 25 13:49	10° \mathring{B} 32'45	17.36855 AU	direct	10624 Oct 06 17:19	7° \approx 04'29	
direct	10618 Sep 08 05:23	8° \mathring{B} 28'52		evening set	10625 Jan 09 21:08	10° \approx 32'49	
evening set	10618 Dec 11 18:35	11° \mathring{B} 55'19					

conjunction	10625 Jan 26 09:38	11° \approx 34'36	0°02'07	max. Earth dist.	10630 Feb 19 12:34	5° \mathbb{H} 17'22	19.45624 AU
minimum elong	10625 Jan 26 09:37	11° \approx 34'36	0°02'34	morning rise	10630 Mar 08 03:06	6° \mathbb{H} 19'15	
behind sun begin	10625 Jan 26 02:54	11° \approx 33'34		retrograde	10630 Jun 08 00:34	9° \mathbb{H} 40'20	
behind sun end	10625 Jan 26 16:20	11° \approx 35'38		opposition	10630 Aug 21 01:23	7° \mathbb{H} 38'21	-0°26'29
max. Earth dist.	10625 Jan 25 21:01	11° \approx 32'38	19.32528 AU	min. Earth dist.	10630 Aug 21 09:15	7° \mathbb{H} 37'30	17.47497 AU
morning rise	10625 Feb 11 19:49	12° \approx 36'02		direct	10630 Nov 05 08:08	5° \mathbb{H} 33'14	
	10625 Mar 29 06:52	15° \approx		evening set	10631 Feb 08 14:14	8° \mathbb{H} 59'58	
retrograde	10625 May 15 03:01	15° \approx 59'20					
	10625 Jul 02 10:32	15° \mathbb{R}		conjunction	10631 Feb 24 21:53	10° \mathbb{H} 00'39	-0°26'00
desc. node	10625 Jul 05 14:32	14° \approx 52'47		minimum elong	10631 Feb 24 21:52	10° \mathbb{H} 00'39	0°25'46
opposition	10625 Jul 28 00:04	13° \approx 56'24	-0°00'20	max. Earth dist.	10631 Feb 24 12:37	9° \mathbb{H} 59'13	19.49457 AU
min. Earth dist.	10625 Jul 28 09:41	13° \approx 55'21	17.33297 AU	morning rise	10631 Mar 13 02:51	11° \mathbb{H} 00'57	
direct	10625 Oct 11 21:15	11° \approx 50'38		retrograde	10631 Jun 12 21:57	14° \mathbb{H} 21'25	
	10626 Jan 09 19:56	15° \approx		opposition	10631 Aug 26 00:55	12° \mathbb{H} 19'35	-0°31'16
evening set	10626 Jan 15 01:01	15° \approx 18'59		min. Earth dist.	10631 Aug 26 08:08	12° \mathbb{H} 18'48	17.51510 AU
				direct	10631 Nov 10 09:32	10° \mathbb{H} 14'36	
conjunction	10626 Jan 31 12:56	16° \approx 20'39	-0°02'52	evening set	10632 Feb 13 14:54	13° \mathbb{H} 40'44	
minimum elong	10626 Jan 31 12:56	16° \approx 20'39	0°02'27				
behind sun begin	10626 Jan 31 06:13	16° \approx 19'37		conjunction	10632 Feb 29 21:47	14° \mathbb{H} 41'10	-0°30'12
behind sun end	10626 Jan 31 19:39	16° \approx 21'40		minimum elong	10632 Feb 29 21:46	14° \mathbb{H} 41'10	0°30'01
max. Earth dist.	10626 Jan 31 01:49	16° \approx 18'55	19.34197 AU	max. Earth dist.	10632 Feb 29 14:16	14° \mathbb{H} 40'00	19.53641 AU
morning rise	10626 Feb 16 22:11	17° \approx 21'57		morning rise	10632 Mar 17 01:42	15° \mathbb{H} 41'11	
retrograde	10626 May 20 02:19	20° \approx 44'55		retrograde	10632 Jun 16 19:29	19° \mathbb{H} 01'00	
opposition	10626 Aug 02 00:28	18° \approx 42'12	-0°05'44	opposition	10632 Aug 30 00:16	16° \mathbb{H} 59'19	-0°35'49
min. Earth dist.	10626 Aug 02 10:31	18° \approx 41'07	17.35239 AU	min. Earth dist.	10632 Aug 30 06:42	16° \mathbb{H} 58'38	17.55855 AU
direct	10626 Oct 16 22:52	16° \approx 36'32		direct	10632 Nov 14 12:11	14° \mathbb{H} 54'31	
evening set	10627 Jan 20 04:41	20° \approx 04'47		evening set	10633 Feb 17 14:43	18° \mathbb{H} 19'55	
conjunction	10627 Feb 05 15:44	21° \approx 06'17	-0°07'41	conjunction	10633 Mar 05 20:30	19° \mathbb{H} 20'05	-0°34'10
minimum elong	10627 Feb 05 15:44	21° \approx 06'17	0°07'19	minimum elong	10633 Mar 05 20:30	19° \mathbb{H} 20'05	0°34'01
behind sun begin	10627 Feb 05 09:35	21° \approx 05'21		max. Earth dist.	10633 Mar 05 13:04	19° \mathbb{H} 18'56	19.58160 AU
behind sun end	10627 Feb 05 21:53	21° \approx 07'14		morning rise	10633 Mar 21 23:37	20° \mathbb{H} 19'50	
max. Earth dist.	10627 Feb 05 04:09	21° \approx 04'29	19.36401 AU	retrograde	10633 Jun 21 14:46	23° \mathbb{H} 38'59	
morning rise	10627 Feb 22 00:20	22° \approx 07'27		opposition	10633 Sep 03 23:12	21° \mathbb{H} 37'25	-0°40'06
retrograde	10627 May 25 03:07	25° \approx 30'02		min. Earth dist.	10633 Sep 04 05:02	21° \mathbb{H} 36'48	17.60559 AU
opposition	10627 Aug 07 00:48	23° \approx 27'30	-0°11'06	direct	10633 Nov 19 12:42	19° \mathbb{H} 32'47	
min. Earth dist.	10627 Aug 07 09:43	23° \approx 26'32	17.37682 AU	evening set	10634 Feb 22 13:32	22° \mathbb{H} 57'25	
direct	10627 Oct 22 01:56	21° \approx 21'58					
evening set	10628 Jan 25 07:54	24° \approx 49'59		conjunction	10634 Mar 10 18:31	23° \mathbb{H} 57'17	-0°37'54
				minimum elong	10634 Mar 10 18:31	23° \mathbb{H} 57'17	0°37'48
conjunction	10628 Feb 10 18:18	25° \approx 51'21	-0°12'26	max. Earth dist.	10634 Mar 10 12:55	23° \mathbb{H} 56'25	19.63042 AU
minimum elong	10628 Feb 10 18:18	25° \approx 51'21	0°12'05	morning rise	10634 Mar 26 20:40	24° \mathbb{H} 56'45	
behind sun begin	10628 Feb 10 13:46	25° \approx 50'39		retrograde	10634 Jun 26 11:03	28° \mathbb{H} 15'11	
behind sun end	10628 Feb 10 22:50	25° \approx 52'02		opposition	10634 Sep 08 21:29	26° \mathbb{H} 13'46	-0°44'07
max. Earth dist.	10628 Feb 10 08:20	25° \approx 49'48	19.39063 AU	min. Earth dist.	10634 Sep 09 01:57	26° \mathbb{H} 13'17	17.65614 AU
morning rise	10628 Feb 27 01:50	26° \approx 52'18		direct	10634 Nov 24 14:34	24° \mathbb{H} 09'21	
	10628 May 06 08:14	0° \mathbb{H}		evening set	10635 Feb 27 11:34	27° \mathbb{H} 33'07	
retrograde	10628 May 29 02:25	0° \mathbb{H} 14'26					
	10628 Jun 21 04:03	30° \mathbb{R}		conjunction	10635 Mar 15 15:33	28° \mathbb{H} 32'41	-0°41'22
opposition	10628 Aug 11 01:09	28° \approx 12'07	-0°16'22	minimum elong	10635 Mar 15 15:32	28° \mathbb{H} 32'41	0°41'18
min. Earth dist.	10628 Aug 11 10:15	28° \approx 11'08	17.40556 AU	max. Earth dist.	10635 Mar 15 10:31	28° \mathbb{H} 31'55	19.68280 AU
direct	10628 Oct 26 03:42	26° \approx 06'42		morning rise	10635 Mar 31 16:53	29° \mathbb{H} 31'53	
evening set	10629 Jan 29 10:45	29° \approx 34'25			10635 Apr 08 13:55	0° \mathbb{Y}	
	10629 Feb 05 08:41	0° \mathbb{H}		retrograde	10635 Jul 01 04:48	2° \mathbb{Y} 49'36	
conjunction	10629 Feb 14 20:08	0° \mathbb{H} 35'33	-0°17'05	opposition	10635 Sep 13 19:28	0° \mathbb{Y} 48'20	-0°47'48
minimum elong	10629 Feb 14 20:08	0° \mathbb{H} 35'33	0°16'47	min. Earth dist.	10635 Sep 13 23:24	0° \mathbb{Y} 47'55	17.71051 AU
max. Earth dist.	10629 Feb 14 09:34	0° \mathbb{H} 33'55	19.42149 AU		10635 Oct 03 07:11	30° \mathbb{R} \mathbb{H}	
morning rise	10629 Mar 03 02:56	1° \mathbb{H} 36'19		direct	10635 Nov 29 13:28	28° \mathbb{H} 44'08	
retrograde	10629 Jun 03 02:00	4° \mathbb{H} 57'57			10636 Jan 23 14:47	0° \mathbb{Y}	
opposition	10629 Aug 16 01:21	2° \mathbb{H} 55'48	-0°21'30	evening set	10636 Mar 03 08:33	2° \mathbb{Y} 07'02	
min. Earth dist.	10629 Aug 16 09:29	2° \mathbb{H} 54'55	17.43846 AU				
direct	10629 Oct 31 05:50	0° \mathbb{H} 50'31		conjunction	10636 Mar 19 11:39	3° \mathbb{Y} 06'18	-0°44'33
evening set	10630 Feb 03 12:40	4° \mathbb{H} 17'47		minimum elong	10636 Mar 19 11:38	3° \mathbb{Y} 06'18	0°44'32
				max. Earth dist.	10636 Mar 19 08:19	3° \mathbb{Y} 05'47	19.73902 AU
conjunction	10630 Feb 19 21:22	5° \mathbb{H} 18'44	-0°21'38	morning rise	10636 Apr 04 12:04	4° \mathbb{Y} 05'11	
minimum elong	10630 Feb 19 21:21	5° \mathbb{H} 18'44	0°21'21	retrograde	10636 Jul 04 23:57	7° \mathbb{Y} 22'12	
				opposition	10636 Sep 17 16:51	5° \mathbb{Y} 21'08	-0°51'10

min. Earth dist.	10636 Sep 17 18:49	5° Υ 20'55	17.76850 AU	max. Earth dist.	10643 Apr 20 12:18	4° \mathcal{B} 15'20	20.19770 AU
direct	10636 Dec 03 14:10	3° Υ 17'15		morning rise	10643 May 06 03:40	5° \mathcal{B} 11'36	
evening set	10637 Mar 08 04:42	6° Υ 39'13		retrograde	10643 Aug 05 16:01	8° \mathcal{B} 23'46	
				opposition	10643 Oct 20 08:10	6° \mathcal{B} 24'24	-1°04'40
conjunction	10637 Mar 24 06:51	7° Υ 38'10	-0°47'25	min. Earth dist.	10643 Oct 20 04:24	6° \mathcal{B} 24'47	18.23111 AU
minimum elong	10637 Mar 24 06:50	7° Υ 38'10	0°47'27	direct	10644 Jan 05 08:56	4° \mathcal{B} 23'08	
max. Earth dist.	10637 Mar 24 04:36	7° Υ 37'50	19.79881 AU	evening set	10644 Apr 08 00:36	7° \mathcal{B} 37'58	
morning rise	10637 Apr 09 06:27	8° Υ 36'46					
retrograde	10637 Jul 09 16:31	11° Υ 53'05		conjunction	10644 Apr 23 21:18	8° \mathcal{B} 34'49	-0°58'31
opposition	10637 Sep 22 13:51	9° Υ 52'14	-0°54'11	minimum elong	10644 Apr 23 21:18	8° \mathcal{B} 34'49	0°58'49
min. Earth dist.	10637 Sep 22 15:22	9° Υ 52'05	17.83009 AU	max. Earth dist.	10644 Apr 24 01:31	8° \mathcal{B} 35'27	20.26392 AU
direct	10637 Dec 08 11:14	7° Υ 48'41		morning rise	10644 May 09 16:30	9° \mathcal{B} 31'27	
evening set	10638 Mar 12 23:45	11° Υ 09'43		retrograde	10644 Aug 09 07:41	12° \mathcal{B} 42'56	
				opposition	10644 Oct 24 01:12	10° \mathcal{B} 43'44	-1°05'07
conjunction	10638 Mar 29 01:04	12° Υ 08'22	-0°49'59	min. Earth dist.	10644 Oct 23 19:42	10° \mathcal{B} 44'18	18.29655 AU
minimum elong	10638 Mar 29 01:04	12° Υ 08'22	0°50'03	direct	10645 Jan 09 03:38	8° \mathcal{B} 42'47	
max. Earth dist.	10638 Mar 29 00:10	12° Υ 08'14	19.86194 AU	evening set	10645 Apr 12 13:39	11° \mathcal{B} 56'32	
morning rise	10638 Apr 13 23:57	13° Υ 06'41					
retrograde	10638 Jul 14 10:48	16° Υ 22'18		conjunction	10645 Apr 28 09:53	12° \mathcal{B} 53'06	-0°58'46
opposition	10638 Sep 27 10:08	14° Υ 21'42	-0°56'51	minimum elong	10645 Apr 28 09:52	12° \mathcal{B} 53'06	0°59'06
min. Earth dist.	10638 Sep 27 09:39	14° Υ 21'45	17.89441 AU	max. Earth dist.	10645 Apr 28 15:33	12° \mathcal{B} 53'57	20.32846 AU
direct	10638 Dec 13 10:01	12° Υ 18'32		morning rise	10645 May 14 04:34	13° \mathcal{B} 49'29	
evening set	10639 Mar 17 18:06	15° Υ 38'36			10645 Jun 04 08:20	15° \mathcal{B}	
				retrograde	10645 Aug 13 19:12	17° \mathcal{B} 00'17	
conjunction	10639 Apr 02 18:33	16° Υ 36'56	-0°52'14	opposition	10645 Oct 28 17:37	15° \mathcal{B} 01'13	-1°05'12
minimum elong	10639 Apr 02 18:33	16° Υ 36'56	0°52'21	min. Earth dist.	10645 Oct 28 12:28	15° \mathcal{B} 01'44	18.36024 AU
max. Earth dist.	10639 Apr 02 18:54	16° Υ 37'00	19.92734 AU		10645 Oct 29 05:25	15° \mathcal{B}	
morning rise	10639 Apr 18 16:39	17° Υ 34'58		direct	10646 Jan 13 19:08	13° \mathcal{B} 00'34	
retrograde	10639 Jul 19 02:19	20° Υ 49'53			10646 Mar 25 22:55	15° \mathcal{B}	
opposition	10639 Oct 02 06:02	18° Υ 49'34	-0°59'09	evening set	10646 Apr 17 01:50	16° \mathcal{B} 13'12	
min. Earth dist.	10639 Oct 02 05:29	18° Υ 49'37	17.96079 AU				
direct	10639 Dec 18 05:35	16° Υ 46'47		conjunction	10646 May 02 21:28	17° \mathcal{B} 09'30	-0°58'42
evening set	10640 Mar 21 11:34	20° Υ 05'51		minimum elong	10646 May 02 21:28	17° \mathcal{B} 09'30	0°59'05
				max. Earth dist.	10646 May 03 02:59	17° \mathcal{B} 10'19	20.39128 AU
conjunction	10640 Apr 06 11:11	21° Υ 03'53	-0°54'09	morning rise	10646 May 18 15:58	18° \mathcal{B} 05'38	
minimum elong	10640 Apr 06 11:10	21° Υ 03'53	0°54'18	retrograde	10646 Aug 18 08:56	21° \mathcal{B} 15'46	
max. Earth dist.	10640 Apr 06 12:22	21° Υ 04'04	19.99447 AU	opposition	10646 Nov 02 09:15	19° \mathcal{B} 16'47	-1°04'56
morning rise	10640 Apr 22 08:37	22° Υ 01'37		min. Earth dist.	10646 Nov 02 02:31	19° \mathcal{B} 17'28	18.42210 AU
retrograde	10640 Jul 22 19:47	25° Υ 15'51		direct	10647 Jan 18 12:52	17° \mathcal{B} 16'24	
opposition	10640 Oct 06 01:23	23° Υ 15'48	-1°01'05	evening set	10647 Apr 21 13:02	20° \mathcal{B} 27'56	
min. Earth dist.	10640 Oct 05 22:52	23° Υ 16'04	18.02838 AU				
direct	10640 Dec 22 02:39	21° Υ 13'26		conjunction	10647 May 07 08:19	21° \mathcal{B} 23'59	-0°58'18
evening set	10641 Mar 26 04:01	24° Υ 31'27		minimum elong	10647 May 07 08:19	21° \mathcal{B} 23'59	0°58'42
				max. Earth dist.	10647 May 07 15:32	21° \mathcal{B} 25'03	20.45218 AU
conjunction	10641 Apr 11 02:52	25° Υ 29'11	-0°55'45	morning rise	10647 May 23 02:23	22° \mathcal{B} 19'53	
minimum elong	10641 Apr 11 02:52	25° Υ 29'11	0°55'56	retrograde	10647 Aug 22 19:06	25° \mathcal{B} 29'21	
max. Earth dist.	10641 Apr 11 05:28	25° Υ 29'35	20.06232 AU	opposition	10647 Nov 07 00:21	23° \mathcal{B} 30'27	-1°04'18
morning rise	10641 Apr 26 23:36	26° Υ 26'38		min. Earth dist.	10647 Nov 06 17:45	23° \mathcal{B} 31'07	18.48221 AU
retrograde	10641 Jul 27 10:18	29° Υ 40'12		direct	10648 Jan 23 03:20	21° \mathcal{B} 30'20	
opposition	10641 Oct 10 20:20	27° Υ 40'23	-1°02'39	evening set	10648 Apr 24 23:30	24° \mathcal{B} 40'47	
min. Earth dist.	10641 Oct 10 18:00	27° Υ 40'38	18.09646 AU				
direct	10641 Dec 26 20:35	25° Υ 38'24		conjunction	10648 May 10 18:14	25° \mathcal{B} 36'34	-0°57'36
evening set	10642 Mar 30 19:46	28° Υ 55'23		minimum elong	10648 May 10 18:14	25° \mathcal{B} 36'34	0°58'01
				max. Earth dist.	10648 May 11 01:27	25° \mathcal{B} 37'39	20.51162 AU
conjunction	10642 Apr 15 17:50	29° Υ 52'49	-0°57'00	morning rise	10648 May 26 12:13	26° \mathcal{B} 32'15	
minimum elong	10642 Apr 15 17:49	29° Υ 52'48	0°57'14	retrograde	10648 Aug 26 07:05	29° \mathcal{B} 41'06	
max. Earth dist.	10642 Apr 15 20:44	29° Υ 53'15	20.13037 AU	opposition	10648 Nov 10 14:44	27° \mathcal{B} 42'16	-1°03'20
	10642 Apr 17 17:15	0° \mathcal{B}		min. Earth dist.	10648 Nov 10 06:22	27° \mathcal{B} 43'07	18.54102 AU
morning rise	10642 May 01 14:04	0° \mathcal{B} 49'59		direct	10649 Jan 26 19:00	25° \mathcal{B} 42'24	
retrograde	10642 Aug 01 03:00	4° \mathcal{B} 02'50		evening set	10649 Apr 29 08:56	28° \mathcal{B} 51'49	
opposition	10642 Oct 15 14:22	2° \mathcal{B} 03'16	-1°03'51				
min. Earth dist.	10642 Oct 15 10:16	2° \mathcal{B} 03'41	18.16425 AU	conjunction	10649 May 15 03:27	29° \mathcal{B} 47'23	-0°56'35
direct	10642 Dec 31 16:12	0° \mathcal{B} 01'39		minimum elong	10649 May 15 03:27	29° \mathcal{B} 47'23	0°57'02
evening set	10643 Apr 04 10:38	3° \mathcal{B} 17'34		max. Earth dist.	10649 May 15 12:38	29° \mathcal{B} 48'44	20.56970 AU
					10649 May 18 16:44	0° \mathcal{B}	
conjunction	10643 Apr 20 08:05	4° \mathcal{B} 14'42	-0°57'55	morning rise	10649 May 30 21:08	0° \mathcal{B} 42'51	
minimum elong	10643 Apr 20 08:05	4° \mathcal{B} 14'42	0°58'11	retrograde	10649 Aug 30 16:29	3° \mathcal{B} 51'08	

opposition	10649 Nov 15 04:34	1° Π 52'23	-1°02'01	conjunction	10656 Jun 12 05:02	28° Π 26'24	-0°41'59
min. Earth dist.	10649 Nov 14 20:05	1° Π 53'15	18.59845 AU	minimum elong	10656 Jun 12 05:02	28° Π 26'24	0°42'33
	10650 Jan 14 06:30	30° \mathbb{R} 8		max. Earth dist.	10656 Jun 12 17:03	28° Π 28'08	20.91478 AU
direct	10650 Jan 31 08:10	29° \mathbb{B} 52'48		morning rise	10656 Jun 27 23:19	29° Π 20'53	
	10650 Feb 17 05:23	0° Π			10656 Jul 09 18:33	0° \mathbb{E}	
evening set	10650 May 03 17:54	3° Π 01'14		retrograde	10656 Sep 28 09:49	2° \mathbb{E} 26'31	
				opposition	10656 Dec 14 14:34	0° \mathbb{E} 28'34	-0°44'50
conjunction	10650 May 19 11:59	3° Π 56'34	-0°55'16	min. Earth dist.	10656 Dec 14 02:11	0° \mathbb{E} 29'48	18.93278 AU
minimum elong	10650 May 19 11:59	3° Π 56'34	0°55'44		10656 Dec 26 15:28	30° \mathbb{R} Π	
max. Earth dist.	10650 May 19 21:01	3° Π 57'53	20.62649 AU	direct	10657 Mar 01 11:12	28° Π 30'55	
morning rise	10650 Jun 04 05:42	4° Π 51'50			10657 May 01 11:43	0° \mathbb{E}	
retrograde	10650 Sep 04 03:06	7° Π 59'35		evening set	10657 May 31 17:01	1° \mathbb{E} 33'56	
opposition	10650 Nov 19 17:31	6° Π 00'57	-1°00'24				
min. Earth dist.	10650 Nov 19 07:30	6° Π 01'58	18.65449 AU	conjunction	10657 Jun 16 10:48	2° \mathbb{E} 28'14	-0°39'00
direct	10651 Feb 04 21:16	4° Π 01'39		minimum elong	10657 Jun 16 10:48	2° \mathbb{E} 28'14	0°39'33
evening set	10651 May 08 02:03	7° Π 09'10		max. Earth dist.	10657 Jun 16 23:55	2° \mathbb{E} 30'07	20.94904 AU
				morning rise	10657 Jul 02 05:13	3° \mathbb{E} 22'38	
conjunction	10651 May 23 20:03	8° Π 04'18	-0°53'41	retrograde	10657 Oct 02 16:52	6° \mathbb{E} 28'03	
minimum elong	10651 May 23 20:03	8° Π 04'18	0°54'11	opposition	10657 Dec 19 00:42	4° \mathbb{E} 30'09	-0°41'25
max. Earth dist.	10651 May 24 06:55	8° Π 05'54	20.68160 AU	min. Earth dist.	10657 Dec 18 12:37	4° \mathbb{E} 31'22	18.96440 AU
morning rise	10651 Jun 08 13:34	8° Π 59'24		direct	10658 Mar 05 20:08	2° \mathbb{E} 32'42	
retrograde	10651 Sep 08 12:12	12° Π 06'40		evening set	10658 Jun 04 22:26	5° \mathbb{E} 35'08	
opposition	10651 Nov 24 06:14	10° Π 08'10	-0°58'28				
min. Earth dist.	10651 Nov 23 20:06	10° Π 09'12	18.70859 AU	conjunction	10658 Jun 20 16:11	6° \mathbb{E} 29'19	-0°35'50
direct	10652 Feb 09 09:03	8° Π 09'11		minimum elong	10658 Jun 20 16:11	6° \mathbb{E} 29'19	0°36'23
evening set	10652 May 11 09:39	11° Π 15'48		max. Earth dist.	10658 Jun 21 04:06	6° \mathbb{E} 31'03	20.97808 AU
				morning rise	10658 Jul 06 11:05	7° \mathbb{E} 23'41	
conjunction	10652 May 27 03:19	12° Π 10'45	-0°51'49	retrograde	10658 Oct 07 01:41	10° \mathbb{E} 28'55	
minimum elong	10652 May 27 03:19	12° Π 10'45	0°52'19	opposition	10658 Dec 23 10:22	8° \mathbb{E} 31'00	-0°37'49
max. Earth dist.	10652 May 27 13:53	12° Π 12'18	20.73468 AU	min. Earth dist.	10658 Dec 22 22:11	8° \mathbb{E} 32'13	18.99081 AU
morning rise	10652 Jun 11 21:01	13° Π 05'42		direct	10659 Mar 10 03:53	6° \mathbb{E} 33'40	
retrograde	10652 Sep 11 22:06	16° Π 12'34		evening set	10659 Jun 09 03:22	9° \mathbb{E} 35'33	
opposition	10652 Nov 27 18:21	14° Π 14'11	-0°56'15				
min. Earth dist.	10652 Nov 27 06:57	14° Π 15'19	18.76044 AU	conjunction	10659 Jun 24 21:29	10° \mathbb{E} 29'41	-0°32'29
direct	10653 Feb 12 20:15	12° Π 15'29		minimum elong	10659 Jun 24 21:29	10° \mathbb{E} 29'41	0°33'02
evening set	10653 May 15 16:39	15° Π 21'17		max. Earth dist.	10659 Jun 25 10:28	10° \mathbb{E} 31'33	21.00189 AU
				morning rise	10659 Jul 10 16:34	11° \mathbb{E} 24'00	
conjunction	10653 May 31 10:22	16° Π 16'04	-0°49'43	retrograde	10659 Oct 11 08:16	14° \mathbb{E} 29'04	
minimum elong	10653 May 31 10:22	16° Π 16'04	0°50'14	opposition	10659 Dec 27 19:48	12° \mathbb{E} 31'07	-0°34'02
max. Earth dist.	10653 May 31 22:35	16° Π 17'51	20.78507 AU	min. Earth dist.	10659 Dec 27 07:46	12° \mathbb{E} 32'19	19.01202 AU
morning rise	10653 Jun 16 03:59	17° Π 10'53		direct	10660 Mar 13 12:18	10° \mathbb{E} 33'52	
retrograde	10653 Sep 16 06:44	20° Π 17'21		evening set	10660 Jun 12 08:01	13° \mathbb{E} 35'15	
opposition	10653 Dec 02 05:55	18° Π 19'07	-0°53'46				
min. Earth dist.	10653 Dec 01 18:36	18° Π 20'15	18.80928 AU	conjunction	10660 Jun 28 02:14	14° \mathbb{E} 29'19	-0°29'00
direct	10654 Feb 17 06:50	16° Π 20'43		minimum elong	10660 Jun 28 02:14	14° \mathbb{E} 29'19	0°29'33
evening set	10654 May 19 23:23	19° Π 25'45		max. Earth dist.	10660 Jun 28 14:13	14° \mathbb{E} 31'03	21.02080 AU
				morning rise	10660 Jul 13 21:56	15° \mathbb{E} 23'36	
conjunction	10654 Jun 04 16:53	20° Π 20'23	-0°47'22	retrograde	10660 Oct 14 16:20	18° \mathbb{E} 28'35	
minimum elong	10654 Jun 04 16:54	20° Π 20'23	0°47'54	opposition	10660 Dec 31 04:50	16° \mathbb{E} 30'32	-0°30'05
max. Earth dist.	10654 Jun 05 04:26	20° Π 22'04	20.83230 AU	min. Earth dist.	10660 Dec 30 16:43	16° \mathbb{E} 31'44	19.02870 AU
morning rise	10654 Jun 20 10:49	21° Π 15'04		direct	10661 Mar 17 18:38	14° \mathbb{E} 33'20	
retrograde	10654 Sep 20 16:22	24° Π 21'13		evening set	10661 Jun 16 12:25	17° \mathbb{E} 34'16	
opposition	10654 Dec 06 17:09	22° Π 23'06	-0°51'02				
min. Earth dist.	10654 Dec 06 05:01	22° Π 24'19	18.85471 AU	conjunction	10661 Jul 02 07:05	18° \mathbb{E} 28'19	-0°25'22
direct	10655 Feb 21 16:39	20° Π 24'59		minimum elong	10661 Jul 02 07:05	18° \mathbb{E} 28'19	0°25'54
evening set	10655 May 24 05:32	23° Π 29'18		max. Earth dist.	10661 Jul 02 20:17	18° \mathbb{E} 30'12	21.03527 AU
				morning rise	10661 Jul 18 03:03	19° \mathbb{E} 22'35	
conjunction	10655 Jun 08 23:09	24° Π 23'48	-0°44'47	retrograde	10661 Oct 18 22:53	22° \mathbb{E} 27'28	
minimum elong	10655 Jun 08 23:09	24° Π 23'48	0°45'20	opposition	10662 Jan 04 13:21	20° \mathbb{E} 29'20	-0°26'00
max. Earth dist.	10655 Jun 09 12:05	24° Π 25'40	20.87567 AU	min. Earth dist.	10662 Jan 04 01:12	20° \mathbb{E} 30'33	19.04111 AU
morning rise	10655 Jun 24 17:03	25° Π 18'22		direct	10662 Mar 22 02:29	18° \mathbb{E} 32'11	
retrograde	10655 Sep 25 00:16	28° Π 24'14		evening set	10662 Jun 20 16:50	21° \mathbb{E} 32'45	
opposition	10655 Dec 11 04:04	26° Π 26'14	-0°48'03				
min. Earth dist.	10655 Dec 10 16:06	26° Π 27'25	18.89595 AU	conjunction	10662 Jul 06 11:38	22° \mathbb{E} 26'47	-0°21'38
direct	10656 Feb 26 02:26	24° Π 28'23		minimum elong	10662 Jul 06 11:38	22° \mathbb{E} 26'47	0°22'09
evening set	10656 May 27 11:32	27° Π 32'01		max. Earth dist.	10662 Jul 06 23:51	22° \mathbb{E} 28'32	21.04582 AU
				morning rise	10662 Jul 22 08:15	23° \mathbb{E} 21'03	

retrograde	10662 Oct 23 06:48	26°☿25'56	direct	10668 Apr 14 13:20	12°♄21'51	
opposition	10663 Jan 08 21:46	24°☿27'42 -0°21'48		10668 Jul 07 06:22	15°♄	
min. Earth dist.	10663 Jan 08 09:32	24°☿28'56 19.04987 AU	evening set	10668 Jul 13 19:21	15°♄21'40	
direct	10663 Mar 26 07:51	22°☿30'36				
evening set	10663 Jun 24 20:52	25°☿30'51	conjunction	10668 Jul 29 16:51	16°♄15'57	0°02'23
			minimum elong	10668 Jul 29 16:51	16°♄15'57	0°01'59
conjunction	10663 Jul 10 16:11	26°☿24'53 -0°17'47	behind sun begin	10668 Jul 29 10:15	16°♄15'02	
minimum elong	10663 Jul 10 16:11	26°☿24'53 0°18'19	behind sun end	10668 Jul 29 23:27	16°♄16'52	
max. Earth dist.	10663 Jul 11 05:40	26°☿26'49 21.05271 AU	max. Earth dist.	10668 Jul 30 04:34	16°♄17'37	21.03130 AU
morning rise	10663 Jul 26 13:07	27°☿19'11	morning rise	10668 Aug 14 16:55	17°♄10'36	
	10663 Sep 26 03:42	0°♄	retrograde	10668 Nov 16 07:24	20°♄16'33	
retrograde	10663 Oct 27 13:41	0°♄24'06	opposition	10669 Feb 01 21:41	18°♄17'53	0°04'49
	10663 Nov 28 17:06	30°♄	min. Earth dist.	10669 Feb 01 10:30	18°♄19'01	19.02340 AU
opposition	10664 Jan 13 06:00	28°☿25'48 -0°17'30	direct	10669 Apr 18 18:50	16°♄20'58	
min. Earth dist.	10664 Jan 12 17:31	28°☿27'03 19.05494 AU	evening set	10669 Jul 18 00:41	19°♄20'54	
direct	10664 Mar 29 14:50	26°☿28'45				
evening set	10664 Jun 28 01:10	29°☿28'46	conjunction	10669 Aug 02 22:53	20°♄15'19	0°06'28
	10664 Jul 07 05:39	0°♄	minimum elong	10669 Aug 02 22:54	20°♄15'19	0°06'05
			behind sun begin	10669 Aug 02 16:37	20°♄14'26	
conjunction	10664 Jul 13 20:43	0°♄22'49 -0°13'52	behind sun end	10669 Aug 03 05:10	20°♄16'11	
minimum elong	10664 Jul 13 20:44	0°♄22'49 0°14'22	max. Earth dist.	10669 Aug 03 11:06	20°♄17'03	21.01409 AU
behind sun begin	10664 Jul 13 17:37	0°♄22'23	morning rise	10669 Aug 18 23:25	21°♄10'04	
behind sun end	10664 Jul 13 23:50	0°♄23'15	retrograde	10669 Nov 20 16:28	24°♄16'21	
max. Earth dist.	10664 Jul 14 09:10	0°♄24'35 21.05609 AU	opposition	10670 Feb 06 05:34	22°♄17'36	0°09'19
morning rise	10664 Jul 29 18:22	1°♄17'09	min. Earth dist.	10670 Feb 05 18:44	22°♄18'41	19.00361 AU
retrograde	10664 Oct 30 22:05	4°♄22'10	direct	10670 Apr 23 01:16	20°♄20'38	
opposition	10665 Jan 16 13:59	2°♄23'47 -0°13'07	evening set	10670 Jul 22 06:32	23°♄20'46	
min. Earth dist.	10665 Jan 16 01:37	2°♄25'02 19.05659 AU				
direct	10665 Apr 02 20:09	0°♄26'46	conjunction	10670 Aug 07 05:09	24°♄15'17	0°10'31
evening set	10665 Jul 02 05:20	3°♄26'38	minimum elong	10670 Aug 07 05:09	24°♄15'17	0°10'09
			behind sun begin	10670 Aug 06 23:51	24°♄14'33	
conjunction	10665 Jul 18 01:32	4°♄20'44 -0°09'53	behind sun end	10670 Aug 07 10:27	24°♄16'01	
minimum elong	10665 Jul 18 01:32	4°♄20'44 0°10'23	max. Earth dist.	10670 Aug 07 15:29	24°♄16'45	20.99174 AU
behind sun begin	10665 Jul 17 20:19	4°♄20'00	morning rise	10670 Aug 23 06:29	25°♄10'11	
behind sun end	10665 Jul 18 06:44	4°♄21'27	retrograde	10670 Nov 25 01:33	28°♄16'51	
max. Earth dist.	10665 Jul 18 15:01	4°♄22'39 21.05585 AU	opposition	10671 Feb 10 13:52	26°♄17'57	0°13'48
morning rise	10665 Aug 02 23:35	5°♄15'07	min. Earth dist.	10671 Feb 10 04:10	26°♄18'55	18.97863 AU
retrograde	10665 Nov 04 05:28	8°♄20'17	direct	10671 Apr 27 06:38	24°♄20'54	
opposition	10666 Jan 20 21:52	6°♄21'51 -0°08'41	evening set	10671 Jul 26 12:30	27°♄21'15	
min. Earth dist.	10666 Jan 20 09:25	6°♄23'05 19.05438 AU				
direct	10666 Apr 07 02:03	4°♄24'52	conjunction	10671 Aug 11 11:54	28°♄15'55	0°14'31
evening set	10666 Jul 06 09:49	7°♄24'39	minimum elong	10671 Aug 11 11:53	28°♄15'55	0°14'11
			behind sun begin	10671 Aug 11 08:41	28°♄15'28	
conjunction	10666 Jul 22 06:18	8°♄18'48 -0°05'53	behind sun end	10671 Aug 11 15:06	28°♄16'22	
minimum elong	10666 Jul 22 06:17	8°♄18'47 0°06'20	max. Earth dist.	10671 Aug 11 22:33	28°♄17'26	20.96405 AU
behind sun begin	10666 Jul 22 00:04	8°♄17'55	morning rise	10671 Aug 27 13:44	29°♄10'57	
behind sun end	10666 Jul 22 12:31	8°♄19'40		10671 Sep 11 15:37	0°♄	
max. Earth dist.	10666 Jul 22 18:33	8°♄20'32 21.05178 AU	retrograde	10671 Nov 29 11:27	2°♄18'01	
morning rise	10666 Aug 07 05:05	9°♄13'15	opposition	10672 Feb 14 22:13	0°♄18'57	0°18'13
retrograde	10666 Nov 08 14:12	12°♄18'37	min. Earth dist.	10672 Feb 14 12:51	0°♄19'54	18.94821 AU
opposition	10667 Jan 25 05:46	10°♄20'07 -0°04'12		10672 Feb 22 18:41	30°♄	
min. Earth dist.	10667 Jan 24 17:43	10°♄21'20 19.04835 AU	direct	10672 Apr 30 14:00	28°♄21'46	
direct	10667 Apr 11 07:36	8°♄23'10		10672 Jul 03 12:24	0°♄	
evening set	10667 Jul 10 14:24	11°♄22'57	evening set	10672 Jul 29 19:08	1°♄22'24	
conjunction	10667 Jul 26 11:32	12°♄17'10 -0°01'49	conjunction	10672 Aug 14 19:01	2°♄17'13	0°18'28
minimum elong	10667 Jul 26 11:31	12°♄17'10 0°02'16	minimum elong	10672 Aug 14 19:01	2°♄17'13	0°18'09
behind sun begin	10667 Jul 26 04:56	12°♄16'15	max. Earth dist.	10672 Aug 15 03:41	2°♄18'27	20.93115 AU
behind sun end	10667 Jul 26 18:07	12°♄18'05	morning rise	10672 Aug 30 21:45	3°♄12'25	
max. Earth dist.	10667 Jul 27 00:42	12°♄19'02 21.04370 AU	retrograde	10672 Dec 02 20:42	6°♄19'55	
morning rise	10667 Aug 11 10:46	13°♄11'42	opposition	10673 Feb 18 06:36	4°♄20'37	0°22'34
	10667 Sep 16 09:43	15°♄	min. Earth dist.	10673 Feb 17 22:34	4°♄21'26	18.91292 AU
retrograde	10667 Nov 12 22:25	16°♄17'20	direct	10673 May 04 19:25	2°♄23'15	
asc. node	10668 Jan 04 19:42	15°♄15'46	evening set	10673 Aug 03 01:59	5°♄24'14	
	10668 Jan 12 01:14	15°♄				
opposition	10668 Jan 29 13:41	14°♄18'46 0°00'18	conjunction	10673 Aug 19 02:43	6°♄19'13	0°22'21
min. Earth dist.	10668 Jan 29 01:39	14°♄19'58 19.03809 AU	minimum elong	10673 Aug 19 02:43	6°♄19'12	0°22'05

max. Earth dist.	10673 Aug 19 11:43	6° \mathring{M} 20'30	20.89357 AU	min. Earth dist.	10680 Mar 18 19:19	3° \mathring{U} 00'23	18.57608 AU
morning rise	10673 Sep 04 05:59	7° \mathring{M} 14'35		direct	10680 Jun 02 01:46	1° \mathring{U} 01'07	
retrograde	10673 Dec 07 07:01	10° \mathring{M} 22'32		evening set	10680 Aug 31 18:20	4° \mathring{U} 06'19	
opposition	10674 Feb 22 15:05	8° \mathring{M} 23'01	0°26'49				
min. Earth dist.	10674 Feb 22 07:13	8° \mathring{M} 23'49	18.87319 AU	conjunction	10680 Sep 16 23:49	5° \mathring{U} 02'49	0°45'42
direct	10674 May 09 03:22	6° \mathring{M} 25'28		minimum elong	10680 Sep 16 23:49	5° \mathring{U} 02'49	0°45'43
evening set	10674 Aug 07 09:21	9° \mathring{M} 26'50		max. Earth dist.	10680 Sep 17 03:04	5° \mathring{U} 03'18	20.54807 AU
				morning rise	10680 Oct 03 08:06	5° \mathring{U} 59'45	
conjunction	10674 Aug 23 10:33	10° \mathring{M} 21'59	0°26'08	retrograde	10681 Jan 05 17:17	9° \mathring{U} 12'04	
minimum elong	10674 Aug 23 10:33	10° \mathring{M} 21'59	0°25'54	opposition	10681 Mar 23 10:40	7° \mathring{U} 11'10	0°52'07
max. Earth dist.	10674 Aug 23 17:47	10° \mathring{M} 23'01	20.85197 AU	min. Earth dist.	10681 Mar 23 07:52	7° \mathring{U} 11'27	18.51968 AU
morning rise	10674 Sep 08 14:41	11° \mathring{M} 17'32		direct	10681 Jun 06 10:26	5° \mathring{U} 12'09	
retrograde	10674 Dec 11 17:08	14° \mathring{M} 26'01		evening set	10681 Sep 05 06:33	8° \mathring{U} 18'13	
opposition	10675 Feb 26 23:53	12° \mathring{M} 26'15	0°30'57				
min. Earth dist.	10675 Feb 26 17:13	12° \mathring{M} 26'56	18.82993 AU	conjunction	10681 Sep 21 12:55	9° \mathring{U} 15'00	0°48'17
direct	10675 May 13 09:16	10° \mathring{M} 28'29		minimum elong	10681 Sep 21 12:54	9° \mathring{U} 15'00	0°48'19
evening set	10675 Aug 11 17:08	13° \mathring{M} 30'20		max. Earth dist.	10681 Sep 21 16:16	9° \mathring{U} 15'30	20.49074 AU
				morning rise	10681 Oct 07 21:42	10° \mathring{U} 12'10	
conjunction	10675 Aug 27 19:11	14° \mathring{M} 25'40	0°29'48	retrograde	10682 Jan 10 08:03	13° \mathring{U} 25'15	
minimum elong	10675 Aug 27 19:11	14° \mathring{M} 25'40	0°29'37	opposition	10682 Mar 27 22:02	11° \mathring{U} 24'12	0°54'51
max. Earth dist.	10675 Aug 28 02:56	14° \mathring{M} 26'47	20.80711 AU	min. Earth dist.	10682 Mar 27 19:15	11° \mathring{U} 24'29	18.46133 AU
morning rise	10675 Sep 12 23:51	15° \mathring{M} 21'25		direct	10682 Jun 10 21:11	9° \mathring{U} 24'58	
retrograde	10675 Dec 16 03:57	18° \mathring{M} 30'26		evening set	10682 Sep 09 19:44	12° \mathring{U} 31'57	
opposition	10676 Mar 02 08:45	16° \mathring{M} 30'27	0°34'57				
min. Earth dist.	10676 Mar 02 01:59	16° \mathring{M} 31'09	18.78361 AU	conjunction	10682 Sep 26 02:37	13° \mathring{U} 29'00	0°50'37
direct	10676 May 16 17:32	14° \mathring{M} 32'28		minimum elong	10682 Sep 26 02:37	13° \mathring{U} 29'00	0°50'42
evening set	10676 Aug 15 01:38	17° \mathring{M} 34'51		max. Earth dist.	10682 Sep 26 04:00	13° \mathring{U} 29'12	20.43134 AU
				morning rise	10682 Oct 12 12:10	14° \mathring{U} 26'27	
conjunction	10676 Aug 31 04:14	18° \mathring{M} 30'24	0°33'20	retrograde	10683 Jan 14 22:16	17° \mathring{U} 40'17	
minimum elong	10676 Aug 31 04:14	18° \mathring{M} 30'24	0°33'11	opposition	10683 Apr 01 10:08	15° \mathring{U} 39'05	0°57'19
max. Earth dist.	10676 Aug 31 10:13	18° \mathring{M} 31'16	20.75948 AU	min. Earth dist.	10683 Apr 01 09:20	15° \mathring{U} 39'10	18.40092 AU
morning rise	10676 Sep 16 09:47	19° \mathring{M} 26'22		direct	10683 Jun 15 06:54	13° \mathring{U} 39'36	
retrograde	10676 Dec 19 15:24	22° \mathring{M} 35'59		evening set	10683 Sep 14 09:51	16° \mathring{U} 47'31	
opposition	10677 Mar 06 18:01	20° \mathring{M} 35'46	0°38'47				
min. Earth dist.	10677 Mar 06 12:30	20° \mathring{M} 36'20	18.73481 AU	conjunction	10683 Sep 30 17:37	17° \mathring{U} 44'51	0°52'41
direct	10677 May 21 00:05	18° \mathring{M} 37'34		minimum elong	10683 Sep 30 17:36	17° \mathring{U} 44'51	0°52'48
evening set	10677 Aug 19 10:39	21° \mathring{M} 40'34		max. Earth dist.	10683 Sep 30 18:40	17° \mathring{U} 45'01	20.36978 AU
				morning rise	10683 Oct 17 03:40	18° \mathring{U} 42'34	
conjunction	10677 Sep 04 14:07	22° \mathring{M} 36'20	0°36'42	retrograde	10684 Jan 19 14:53	21° \mathring{U} 57'09	
minimum elong	10677 Sep 04 14:06	22° \mathring{M} 36'20	0°36'35	opposition	10684 Apr 04 22:35	19° \mathring{U} 55'46	0°59'29
max. Earth dist.	10677 Sep 04 20:32	22° \mathring{M} 37'16	20.70948 AU	min. Earth dist.	10684 Apr 04 21:58	19° \mathring{U} 55'50	18.33817 AU
morning rise	10677 Sep 20 20:09	23° \mathring{M} 32'31		direct	10684 Jun 18 19:18	17° \mathring{U} 56'00	
retrograde	10677 Dec 24 02:51	26° \mathring{M} 42'45		evening set	10684 Sep 18 01:03	21° \mathring{U} 04'53	
opposition	10678 Mar 11 03:25	24° \mathring{M} 42'21	0°42'26				
min. Earth dist.	10678 Mar 10 21:44	24° \mathring{M} 42'56	18.68370 AU	conjunction	10684 Oct 04 09:24	22° \mathring{U} 02'30	0°54'29
direct	10678 May 25 08:45	22° \mathring{M} 43'57		minimum elong	10684 Oct 04 09:24	22° \mathring{U} 02'30	0°54'38
evening set	10678 Aug 23 20:30	25° \mathring{M} 47'37		max. Earth dist.	10684 Oct 04 08:14	22° \mathring{U} 02'20	20.30585 AU
				morning rise	10684 Oct 20 20:10	23° \mathring{U} 00'29	
conjunction	10678 Sep 09 00:30	26° \mathring{M} 43'37	0°39'54	retrograde	10685 Jan 23 06:17	26° \mathring{U} 15'48	
minimum elong	10678 Sep 09 00:30	26° \mathring{M} 43'37	0°39'50	opposition	10685 Apr 09 11:48	24° \mathring{U} 14'13	1°01'21
max. Earth dist.	10678 Sep 09 05:11	26° \mathring{M} 44'18	20.65743 AU	min. Earth dist.	10685 Apr 09 13:18	24° \mathring{U} 14'03	18.27324 AU
morning rise	10678 Sep 25 07:24	27° \mathring{M} 40'03		direct	10685 Jun 23 06:28	22° \mathring{U} 14'06	
	10678 Nov 12 19:03	0° \mathring{U}		evening set	10685 Sep 22 16:54	25° \mathring{U} 23'58	
retrograde	10678 Dec 28 15:14	0° \mathring{U} 50'57					
	10679 Feb 13 12:10	30° \mathring{R} \mathring{M}		conjunction	10685 Oct 09 02:04	26° \mathring{U} 21'52	0°55'59
opposition	10679 Mar 15 13:28	28° \mathring{M} 50'21	0°45'53	minimum elong	10685 Oct 09 02:04	26° \mathring{U} 21'52	0°56'12
min. Earth dist.	10679 Mar 15 09:07	28° \mathring{M} 50'48	18.63081 AU	max. Earth dist.	10685 Oct 09 00:21	26° \mathring{U} 21'37	20.24001 AU
direct	10679 May 29 16:21	26° \mathring{M} 51'45		morning rise	10685 Oct 25 13:18	27° \mathring{U} 20'08	
evening set	10679 Aug 28 06:50	29° \mathring{M} 56'09			10685 Dec 21 04:23	0° \mathring{M}	
	10679 Aug 29 09:55	0° \mathring{U}		retrograde	10686 Jan 28 00:10	0° \mathring{M} .36'09	
					10686 Mar 07 10:28	30° \mathring{R} \mathring{U}	
conjunction	10679 Sep 13 11:45	0° \mathring{U} 52'24	0°42'55	opposition	10686 Apr 14 01:21	28° \mathring{U} 34'20	1°02'52
minimum elong	10679 Sep 13 11:45	0° \mathring{U} 52'24	0°42'51	min. Earth dist.	10686 Apr 14 02:55	28° \mathring{U} 34'11	18.20659 AU
max. Earth dist.	10679 Sep 13 16:51	0° \mathring{U} 53'09	20.60364 AU	direct	10686 Jun 27 20:12	26° \mathring{U} 33'53	
morning rise	10679 Sep 29 19:12	1° \mathring{U} 49'04		evening set	10686 Sep 27 09:47	29° \mathring{U} 44'44	
retrograde	10680 Jan 02 04:10	5° \mathring{U} 00'40			10686 Oct 01 18:18	0° \mathring{M}	
opposition	10680 Mar 18 23:50	2° \mathring{U} 59'55	0°49'07				

conjunction	10686 Oct 13 19:32	0°M.42'56	0°57'11			10692 Dec 25 05:32	0°♊	
minimum elong	10686 Oct 13 19:32	0°M.42'56	0°57'25	retrograde		10693 Feb 28 15:02	1°♊45'40	
max. Earth dist.	10686 Oct 13 15:58	0°M.42'24	20.17279 AU			10693 May 07 22:25	30°R.M.	
morning rise	10686 Oct 30 07:23	1°M.41'28		opposition		10693 May 14 16:54	29°M.42'31	1°03'02
retrograde	10687 Feb 01 16:58	4°M.58'11		min. Earth dist.		10693 May 15 00:20	29°M.41'43	17.75553 AU
opposition	10687 Apr 18 15:38	2°M.56'08	1°04'03	direct		10693 Jul 28 08:57	27°M.39'35	
min. Earth dist.	10687 Apr 18 19:10	2°M.55'45	18.13908 AU			10693 Oct 12 11:12	0°♊	
direct	10687 Jul 02 08:54	0°M.55'17		evening set		10693 Oct 29 07:24	0°♊57'55	
evening set	10687 Oct 02 03:19	4°M.07'09						
conjunction	10687 Oct 18 13:52	5°M.05'39	0°58'04	conjunction		10693 Nov 14 21:11	1°♊58'09	0°55'57
minimum elong	10687 Oct 18 13:52	5°M.05'39	0°58'21	minimum elong		10693 Nov 14 21:11	1°♊58'09	0°56'25
max. Earth dist.	10687 Oct 18 09:47	5°M.05'02	20.10518 AU	max. Earth dist.		10693 Nov 14 11:56	1°♊56'44	19.72745 AU
morning rise	10687 Nov 04 02:13	6°M.04'28		morning rise		10693 Dec 01 11:47	2°♊58'31	
retrograde	10688 Feb 06 11:59	9°M.21'52		retrograde		10694 Mar 05 13:40	6°♊19'47	
opposition	10688 Apr 22 06:18	7°M.19'34	1°04'51	opposition		10694 May 19 11:19	4°♊16'35	1°01'28
min. Earth dist.	10688 Apr 22 09:44	7°M.19'12	18.07144 AU	min. Earth dist.		10694 May 19 18:36	4°♊15'48	17.70046 AU
direct	10688 Jul 06 00:03	5°M.18'20		direct		10694 Aug 02 04:52	2°♊13'23	
evening set	10688 Oct 05 21:58	8°M.31'14		evening set		10694 Nov 03 07:07	5°♊32'50	
conjunction	10688 Oct 22 09:04	9°M.30'02	0°58'36	conjunction		10694 Nov 19 21:24	6°♊33'20	0°54'20
minimum elong	10688 Oct 22 09:04	9°M.30'02	0°58'55	minimum elong		10694 Nov 19 21:24	6°♊33'20	0°54'50
max. Earth dist.	10688 Oct 22 03:34	9°M.29'13	20.03765 AU	max. Earth dist.		10694 Nov 19 12:09	6°♊31'55	19.67388 AU
morning rise	10688 Nov 07 21:55	10°M.29'07		morning rise		10694 Dec 06 12:03	7°♊33'56	
retrograde	10689 Feb 10 05:50	13°M.47'12		retrograde		10695 Mar 10 11:12	10°♊55'46	
opposition	10689 Apr 26 21:35	11°M.44'40	1°05'17	opposition		10695 May 24 06:25	8°♊52'33	0°59'29
min. Earth dist.	10689 Apr 27 02:50	11°M.44'07	18.00438 AU	min. Earth dist.		10695 May 24 14:58	8°♊51'37	17.64842 AU
direct	10689 Jul 10 14:06	9°M.43'03		direct		10695 Aug 06 23:14	6°♊49'07	
evening set	10689 Oct 10 17:19	12°M.57'01		evening set		10695 Nov 08 07:49	10°♊09'39	
conjunction	10689 Oct 27 05:05	13°M.56'07	0°58'47	conjunction		10695 Nov 24 22:21	11°♊10'23	0°52'22
minimum elong	10689 Oct 27 05:05	13°M.56'06	0°59'08	minimum elong		10695 Nov 24 22:21	11°♊10'23	0°52'53
max. Earth dist.	10689 Oct 26 22:59	13°M.55'11	19.97123 AU	max. Earth dist.		10695 Nov 24 11:27	11°♊08'43	19.62337 AU
morning rise	10689 Nov 12 18:21	14°M.55'28		morning rise		10695 Dec 11 13:17	12°♊11'12	
	10689 Nov 14 01:17	15°M.		retrograde		10696 Mar 14 10:46	15°♊33'34	
retrograde	10690 Feb 15 02:07	18°M.14'12		opposition		10696 May 28 02:11	13°♊30'20	0°57'07
opposition	10690 May 01 13:26	16°M.11'29	1°05'20	min. Earth dist.		10696 May 28 11:04	13°♊29'22	17.59930 AU
min. Earth dist.	10690 May 01 18:22	16°M.10'57	17.93871 AU	direct		10696 Aug 10 21:21	11°♊26'40	
	10690 May 31 07:07	15°R.M.		evening set		10696 Nov 12 09:15	14°♊48'14	
direct	10690 Jul 15 06:48	14°M.09'29		conjunction		10696 Nov 29 00:11	15°♊49'13	0°50'03
	10690 Aug 28 06:20	15°M.		minimum elong		10696 Nov 29 00:11	15°♊49'13	0°50'34
evening set	10690 Oct 15 13:27	17°M.24'31		max. Earth dist.		10696 Nov 28 13:22	15°♊47'33	19.57544 AU
conjunction	10690 Nov 01 01:46	18°M.23'54	0°58'37	morning rise		10696 Dec 15 14:58	16°♊50'14	
minimum elong	10690 Nov 01 01:46	18°M.23'54	0°59'01	retrograde		10697 Mar 19 09:13	20°♊13'03	
max. Earth dist.	10690 Oct 31 18:52	18°M.22'52	19.90638 AU	opposition		10697 Jun 01 22:38	18°♊09'49	0°54'22
morning rise	10690 Nov 17 15:25	19°M.23'32		min. Earth dist.		10697 Jun 02 08:32	18°♊08'44	17.55268 AU
retrograde	10691 Feb 19 21:04	22°M.42'56		direct		10697 Aug 15 18:14	16°♊05'54	
opposition	10691 May 06 06:03	20°M.40'01	1°04'58	evening set		10697 Nov 17 11:29	19°♊28'28	
min. Earth dist.	10691 May 06 12:28	20°M.39'20	17.87497 AU	conjunction		10697 Dec 04 02:28	20°♊29'38	0°47'23
direct	10691 Jul 19 22:08	18°M.37'41		minimum elong		10697 Dec 04 02:28	20°♊29'38	0°47'56
evening set	10691 Oct 20 10:35	21°M.53'48		max. Earth dist.		10697 Dec 03 13:43	20°♊27'40	19.53024 AU
conjunction	10691 Nov 05 23:27	22°M.53'29	0°58'06	morning rise		10697 Dec 20 17:24	21°♊30'50	
minimum elong	10691 Nov 05 23:27	22°M.53'29	0°58'30	retrograde		10698 Mar 24 09:08	24°♊54'04	
max. Earth dist.	10691 Nov 05 15:43	22°M.52'18	19.84391 AU	opposition		10698 Jun 06 19:41	22°♊50'47	0°51'14
morning rise	10691 Nov 22 13:31	23°M.53'22		min. Earth dist.		10698 Jun 07 06:07	22°♊49'38	17.50893 AU
retrograde	10692 Feb 24 18:39	27°M.13'24		direct		10698 Aug 20 17:33	20°♊46'36	
opposition	10692 May 09 23:01	25°M.10'21	1°04'12	evening set		10698 Nov 22 14:03	24°♊10'05	
min. Earth dist.	10692 May 10 05:10	25°M.09'41	17.81383 AU	conjunction		10698 Dec 09 05:24	25°♊11'27	0°44'24
direct	10692 Jul 23 16:16	23°M.07'41		minimum elong		10698 Dec 09 05:24	25°♊11'27	0°44'57
evening set	10692 Oct 24 08:37	26°M.24'55		max. Earth dist.		10698 Dec 08 17:02	25°♊09'32	19.48790 AU
conjunction	10692 Nov 09 22:02	27°M.24'52	0°57'12	morning rise		10698 Dec 25 20:06	26°♊12'47	
minimum elong	10692 Nov 09 22:02	27°M.24'52	0°57'39	retrograde		10699 Mar 29 09:19	29°♊36'21	
max. Earth dist.	10692 Nov 09 13:52	27°M.23'38	19.78408 AU	opposition		10699 Jun 11 17:18	27°♊33'02	0°47'45
morning rise	10692 Nov 26 12:17	28°M.25'01		min. Earth dist.		10699 Jun 12 04:17	27°♊31'50	17.46807 AU
				direct		10699 Aug 25 16:35	25°♊28'35	

evening set	10699 Nov 27 17:28	28° \approx 52'55			10706 Feb 07 15:15	0° \approx	
				retrograde	10706 May 02 12:37	2° \approx 52'20	
conjunction	10699 Dec 14 08:43	29° \approx 54'27 0°41'06		opposition	10706 Jul 15 10:42	0° \approx 48'57 0°15'24	
minimum elong	10699 Dec 14 08:43	29° \approx 54'27 0°41'39		min. Earth dist.	10706 Jul 15 22:30	0° \approx 47'40 17.31255 AU	
max. Earth dist.	10699 Dec 13 18:30	29° \approx 52'14 19.44880 AU			10706 Aug 03 14:00	30° \approx 3'	
	10699 Dec 15 20:30	0° \approx		direct	10706 Sep 28 22:40	28° \approx 43'07	
morning rise	10699 Dec 30 23:27	0° \approx 55'55			10706 Nov 22 15:10	0° \approx	
retrograde	10700 Apr 03 09:22	4° \approx 19'44		evening set	10707 Jan 01 23:15	2° \approx 11'08	
opposition	10700 Jun 16 15:13	2° \approx 16'22 0°43'55					
min. Earth dist.	10700 Jun 17 02:58	2° \approx 15'05 17.43084 AU		conjunction	10707 Jan 18 12:59	3° \approx 13'03 0°11'22	
direct	10700 Aug 30 16:03	0° \approx 11'38		minimum elong	10707 Jan 18 12:59	3° \approx 13'03 0°11'52	
evening set	10700 Dec 02 21:06	3° \approx 36'45		behind sun begin	10707 Jan 18 08:21	3° \approx 12'21	
				behind sun end	10707 Jan 18 17:36	3° \approx 13'46	
conjunction	10700 Dec 19 12:32	4° \approx 38'26 0°37'31		max. Earth dist.	10707 Jan 17 23:49	3° \approx 11'00 19.31261 AU	
minimum elong	10700 Dec 19 12:32	4° \approx 38'26 0°38'05		morning rise	10707 Feb 04 00:38	4° \approx 14'41	
max. Earth dist.	10700 Dec 18 22:59	4° \approx 36'19 19.41352 AU		retrograde	10707 May 07 14:24	7° \approx 38'29	
morning rise	10701 Jan 05 02:52	5° \approx 40'00		opposition	10707 Jul 20 10:45	5° \approx 35'14 0°10'03	
retrograde	10701 Apr 08 11:12	9° \approx 03'59		min. Earth dist.	10707 Jul 20 21:07	5° \approx 34'06 17.31441 AU	
opposition	10701 Jun 21 13:42	7° \approx 00'36 0°39'46		direct	10707 Oct 04 02:33	3° \approx 29'24	
min. Earth dist.	10701 Jun 22 01:23	6° \approx 59'19 17.39760 AU		evening set	10708 Jan 07 03:44	6° \approx 57'37	
direct	10701 Sep 04 16:35	4° \approx 55'36					
evening set	10701 Dec 08 01:04	8° \approx 21'24		conjunction	10708 Jan 23 16:56	7° \approx 59'29 0°06'34	
				minimum elong	10708 Jan 23 16:56	7° \approx 59'29 0°07'03	
conjunction	10701 Dec 24 16:15	9° \approx 23'11 0°33'39		behind sun begin	10708 Jan 23 10:43	7° \approx 58'32	
minimum elong	10701 Dec 24 16:15	9° \approx 23'11 0°34'12		behind sun end	10708 Jan 23 23:10	8° \approx 00'26	
max. Earth dist.	10701 Dec 24 01:27	9° \approx 20'53 19.38261 AU		max. Earth dist.	10708 Jan 23 04:32	7° \approx 57'33 19.31759 AU	
morning rise	10702 Jan 10 06:26	10° \approx 24'51		morning rise	10708 Feb 09 03:48	9° \approx 01'02	
retrograde	10702 Apr 13 10:51	13° \approx 48'58		retrograde	10708 May 11 13:22	12° \approx 24'36	
opposition	10702 Jun 26 12:34	11° \approx 34'53 0°35'20		opposition	10708 Jul 24 11:04	10° \approx 21'32 0°04'38	
min. Earth dist.	10702 Jun 27 00:58	11° \approx 34'09 17.36917 AU		min. Earth dist.	10708 Jul 24 22:05	10° \approx 20'20 17.32242 AU	
direct	10702 Sep 09 16:11	9° \approx 40'16		direct	10708 Oct 08 03:59	8° \approx 15'45	
evening set	10702 Dec 13 05:15	13° \approx 06'40		evening set	10709 Jan 11 08:04	11° \approx 44'05	
conjunction	10702 Dec 29 20:26	14° \approx 08'33 0°29'33		conjunction	10709 Jan 27 20:34	12° \approx 45'51 0°01'42	
minimum elong	10702 Dec 29 20:26	14° \approx 08'33 0°30'07		minimum elong	10709 Jan 27 20:35	12° \approx 45'51 0°02'09	
max. Earth dist.	10702 Dec 29 06:29	14° \approx 06'23 19.35673 AU		behind sun begin	10709 Jan 27 13:51	12° \approx 44'49	
morning rise	10703 Jan 15 10:10	15° \approx 10'16		behind sun end	10709 Jan 28 03:18	12° \approx 46'53	
retrograde	10703 Apr 18 13:03	18° \approx 34'25		max. Earth dist.	10709 Jan 27 08:12	12° \approx 43'55 19.32858 AU	
opposition	10703 Jul 01 11:33	16° \approx 30'57 0°30'39		morning rise	10709 Feb 13 06:49	13° \approx 47'18	
min. Earth dist.	10703 Jul 01 23:22	16° \approx 29'39 17.34589 AU			10709 Mar 06 00:47	15° \approx	
direct	10703 Sep 14 18:02	14° \approx 25'29		retrograde	10709 May 16 14:53	17° \approx 10'37	
evening set	10703 Dec 18 09:49	17° \approx 52'24		desc. node	10709 Jun 05 03:48	17° \approx 00'07	
max. Earth dist.	10704 Jan 03 10:01	18° \approx 52'04 19.33626 AU		opposition	10709 Jul 29 11:26	15° \approx 07'44 -0°00'48	
				min. Earth dist.	10709 Jul 29 21:04	15° \approx 06'41 17.33611 AU	
conjunction	10704 Jan 04 00:39	18° \approx 54'21 0°25'14			10709 Aug 01 10:27	15° \approx	
minimum elong	10704 Jan 04 00:40	18° \approx 54'21 0°25'47		direct	10709 Oct 13 07:54	13° \approx 02'01	
morning rise	10704 Jan 20 14:01	19° \approx 56'05			10709 Dec 21 05:27	15° \approx	
retrograde	10704 Apr 22 12:07	23° \approx 20'13		evening set	10710 Jan 16 11:59	16° \approx 30'20	
opposition	10704 Jul 05 11:04	21° \approx 16'44 0°25'44					
min. Earth dist.	10704 Jul 05 23:34	21° \approx 15'22 17.32845 AU		conjunction	10710 Feb 01 23:55	17° \approx 32'00 -0°03'18	
direct	10704 Sep 18 18:33	19° \approx 11'05		minimum elong	10710 Feb 01 23:55	17° \approx 32'00 0°02'54	
evening set	10704 Dec 22 14:14	22° \approx 38'28		behind sun begin	10710 Feb 01 17:13	17° \approx 30'59	
				behind sun end	10710 Feb 02 06:38	17° \approx 33'02	
conjunction	10705 Jan 08 04:49	23° \approx 40'25 0°20'45		max. Earth dist.	10710 Feb 01 12:46	17° \approx 30'16 19.34480 AU	
minimum elong	10705 Jan 08 04:49	23° \approx 40'25 0°21'17		morning rise	10710 Feb 18 09:14	18° \approx 33'19	
max. Earth dist.	10705 Jan 07 15:00	23° \approx 38'16 19.32188 AU		retrograde	10710 May 21 13:58	21° \approx 56'19	
morning rise	10705 Jan 24 17:36	24° \approx 42'09		opposition	10710 Aug 03 12:01	19° \approx 53'37 -0°06'14	
retrograde	10705 Apr 27 13:48	28° \approx 06'13		min. Earth dist.	10710 Aug 03 22:14	19° \approx 52'30 17.35479 AU	
opposition	10705 Jul 10 10:43	26° \approx 02'46 0°20'38		direct	10710 Oct 18 09:50	17° \approx 48'00	
min. Earth dist.	10705 Jul 10 21:59	26° \approx 01'32 17.31717 AU		evening set	10711 Jan 21 15:51	21° \approx 16'14	
direct	10705 Sep 23 21:41	23° \approx 57'00					
evening set	10705 Dec 27 18:48	27° \approx 24'43		conjunction	10711 Feb 07 02:56	22° \approx 17'45 -0°08'08	
				minimum elong	10711 Feb 07 02:56	22° \approx 17'45 0°07'45	
conjunction	10706 Jan 13 08:57	28° \approx 26'41 0°16'07		behind sun begin	10711 Feb 06 20:53	22° \approx 16'49	
minimum elong	10706 Jan 13 08:57	28° \approx 26'41 0°16'39		behind sun end	10711 Feb 07 08:58	22° \approx 18'40	
max. Earth dist.	10706 Jan 12 19:17	28° \approx 24'33 19.31387 AU		max. Earth dist.	10711 Feb 06 15:15	22° \approx 15'55 19.36586 AU	
morning rise	10706 Jan 29 21:09	29° \approx 28'23		morning rise	10711 Feb 23 11:33	23° \approx 18'54	

retrograde	10711 May 26 14:41	26° 41 '30		min. Earth dist.	10717 Sep 05 16:14	22° 48 '30	17.60094 AU
opposition	10711 Aug 08 12:19	24° 39 '00 -0°11'37		direct	10717 Nov 20 23:57	20° 44 '26	
min. Earth dist.	10711 Aug 08 21:22	24° 38 '01 17.37807 AU		evening set	10718 Feb 24 00:36	24° 40 '06	
direct	10711 Oct 23 13:35	22° 33 '29					
evening set	10712 Jan 26 19:12	26° 01 '30		conjunction	10718 Mar 12 05:40	25° 48 '59 -0°38'23	
				minimum elong	10718 Mar 12 05:40	25° 48 '59 0°38'17	
conjunction	10712 Feb 12 05:38	27° 02 '51 -0°12'54		max. Earth dist.	10718 Mar 12 00:15	25° 48 '09 19.62587 AU	
minimum elong	10712 Feb 12 05:37	27° 02 '51 0°12'34		morning rise	10718 Mar 28 07:53	26° 48 '29	
behind sun begin	10712 Feb 12 01:21	27° 02 '12		retrograde	10718 Jun 27 22:21	29° 42 '59	
behind sun end	10712 Feb 12 09:54	27° 03 '30		opposition	10718 Sep 10 08:59	27° 42 '53 -0°44'39	
max. Earth dist.	10712 Feb 11 19:24	27° 01 '16 19.39121 AU		min. Earth dist.	10718 Sep 10 13:14	27° 42 '05 17.65187 AU	
morning rise	10712 Feb 28 13:12	28° 03 '49		direct	10718 Nov 26 01:00	25° 42 '06	
	10712 Apr 03 13:38	0° 42 '		evening set	10719 Feb 28 22:40	28° 42 '55	
retrograde	10712 May 30 13:24	1° 42 '58					
	10712 Jul 29 07:41	30° 42 '		conjunction	10719 Mar 17 02:40	29° 42 '31 -0°41'50	
opposition	10712 Aug 12 12:49	29° 23 '39 -0°16'54		minimum elong	10719 Mar 17 02:40	29° 42 '30 0°41'48	
min. Earth dist.	10712 Aug 12 22:10	29° 22 '38 17.40546 AU		max. Earth dist.	10719 Mar 16 21:44	29° 43 '45 19.67888 AU	
direct	10712 Oct 27 15:19	27° 18 '15			10719 Mar 21 06:48	0° 43 '	
	10713 Jan 18 00:56	0° 43 '		morning rise	10719 Apr 02 04:03	0° 43 '43	
evening set	10713 Jan 30 21:58	0° 45 '57		retrograde	10719 Jul 02 16:56	4° 40 '31	
				opposition	10719 Sep 15 06:52	2° 40 '00 -0°48'19	
conjunction	10713 Feb 16 07:23	1° 47 '06 -0°17'35		min. Earth dist.	10719 Sep 15 10:22	1° 40 '59 17.70704 AU	
minimum elong	10713 Feb 16 07:23	1° 47 '06 0°17'16			10719 Nov 18 17:12	30° 42 '	
max. Earth dist.	10713 Feb 15 20:37	1° 45 '25 19.42066 AU		direct	10719 Dec 01 00:52	29° 45 '04	
morning rise	10713 Mar 04 14:14	2° 47 '52			10719 Dec 13 06:42	0° 43 '	
retrograde	10713 Jun 04 13:21	6° 40 '32		evening set	10720 Mar 04 19:42	3° 40 '19	
opposition	10713 Aug 17 13:01	4° 40 '22 -0°22'03					
min. Earth dist.	10713 Aug 17 21:15	4° 40 '29 17.43692 AU		conjunction	10720 Mar 20 22:52	4° 40 '18 -0°45'00	
direct	10713 Nov 01 18:17	2° 40 '05		minimum elong	10720 Mar 20 22:52	4° 40 '18 0°45'00	
evening set	10714 Feb 05 00:03	5° 40 '22		max. Earth dist.	10720 Mar 20 19:48	4° 40 '17 19.73604 AU	
				morning rise	10720 Apr 05 23:20	5° 40 '17	
conjunction	10714 Feb 21 08:47	6° 40 '18 -0°22'08		retrograde	10720 Jul 06 11:20	8° 40 '34	
minimum elong	10714 Feb 21 08:47	6° 40 '18 0°21'51		opposition	10720 Sep 19 04:19	6° 40 '33 -0°51'40	
max. Earth dist.	10714 Feb 20 23:46	6° 40 '28 19.45402 AU		min. Earth dist.	10720 Sep 19 06:02	6° 40 '33 17.76596 AU	
morning rise	10714 Mar 09 14:34	7° 40 '30		direct	10720 Dec 05 00:52	4° 40 '29	
retrograde	10714 Jun 09 11:22	10° 40 '51		evening set	10721 Mar 09 15:46	7° 40 '51	
opposition	10714 Aug 22 12:54	8° 40 '49 -0°27'02					
min. Earth dist.	10714 Aug 22 21:02	8° 40 '49 17.47214 AU		conjunction	10721 Mar 25 17:58	8° 40 '50 -0°47'52	
direct	10714 Nov 06 19:19	6° 40 '44		minimum elong	10721 Mar 25 17:58	8° 40 '50 0°47'53	
evening set	10715 Feb 10 01:36	10° 40 '11		max. Earth dist.	10721 Mar 25 15:49	8° 40 '50 19.79667 AU	
				morning rise	10721 Apr 10 17:41	9° 40 '49	
conjunction	10715 Feb 26 09:17	11° 40 '12 -0°26'31		retrograde	10721 Jul 11 04:29	13° 40 '05	
minimum elong	10715 Feb 26 09:17	11° 40 '12 0°26'17		opposition	10721 Sep 24 01:20	11° 40 '04 -0°54'40	
max. Earth dist.	10715 Feb 25 23:48	11° 40 '10 19.49117 AU		min. Earth dist.	10721 Sep 24 02:38	11° 40 '04 17.82819 AU	
morning rise	10715 Mar 14 14:20	12° 40 '12		direct	10721 Dec 09 22:27	9° 40 '01	
retrograde	10715 Jun 14 10:00	15° 40 '33		evening set	10722 Mar 14 11:02	12° 40 '22	
opposition	10715 Aug 27 12:31	13° 40 '31 -0°31'50					
min. Earth dist.	10715 Aug 27 19:44	13° 40 '30 17.51121 AU		conjunction	10722 Mar 30 12:25	13° 40 '20 -0°50'24	
direct	10715 Nov 11 21:35	11° 40 '26		minimum elong	10722 Mar 30 12:24	13° 40 '20 0°50'29	
evening set	10716 Feb 15 02:07	14° 40 '52		max. Earth dist.	10722 Mar 30 11:40	13° 40 '20 19.86023 AU	
				morning rise	10722 Apr 15 11:20	14° 40 '19	
conjunction	10716 Mar 02 09:03	15° 40 '52 -0°30'42		retrograde	10722 Jul 15 22:22	17° 40 '34	
minimum elong	10716 Mar 02 09:03	15° 40 '52 0°30'31		opposition	10722 Sep 28 21:34	15° 40 '34 -0°57'18	
max. Earth dist.	10716 Mar 02 01:31	15° 40 '51 19.53211 AU		min. Earth dist.	10722 Sep 28 21:09	15° 40 '34 17.89273 AU	
morning rise	10716 Mar 18 13:01	16° 40 '52		direct	10722 Dec 14 21:08	13° 40 '31	
retrograde	10716 Jun 18 06:35	20° 40 '12		evening set	10723 Mar 19 05:32	16° 40 '51	
opposition	10716 Aug 31 11:48	18° 40 '10 -0°36'22					
min. Earth dist.	10716 Aug 31 18:18	18° 40 '10 17.55400 AU		conjunction	10723 Apr 04 06:01	17° 40 '49 -0°52'38	
direct	10716 Nov 15 22:35	16° 40 '06		minimum elong	10723 Apr 04 06:01	17° 40 '49 0°52'44	
evening set	10717 Feb 19 01:56	19° 40 '31		max. Earth dist.	10723 Apr 04 06:14	17° 40 '49 19.92563 AU	
				morning rise	10723 Apr 20 04:11	18° 40 '47	
conjunction	10717 Mar 07 07:47	20° 40 '31 -0°34'40		retrograde	10723 Jul 20 14:18	22° 40 '02	
minimum elong	10717 Mar 07 07:46	20° 40 '31 0°34'32		opposition	10723 Oct 03 17:36	20° 40 '02 -0°59'35	
max. Earth dist.	10717 Mar 07 00:18	20° 40 '30 19.57691 AU		min. Earth dist.	10723 Oct 03 17:10	20° 40 '02 17.95893 AU	
morning rise	10717 Mar 23 10:59	21° 40 '31		direct	10723 Dec 19 16:43	17° 40 '59	
retrograde	10717 Jun 23 03:17	24° 40 '50		evening set	10724 Mar 22 23:00	21° 40 '18	
opposition	10717 Sep 05 10:36	22° 40 '49 -0°40'40					

conjunction	10724 Apr 07 22:39	22° Υ 16'50	-0°54'31	minimum elong	10730 May 04 09:06	18° \mathcal{B} 21'19	0°59'15
minimum elong	10724 Apr 07 22:39	22° Υ 16'50	0°54'42	max. Earth dist.	10730 May 04 14:41	18° \mathcal{B} 22'09	20.38365 AU
max. Earth dist.	10724 Apr 07 23:49	22° Υ 17'01	19.99233 AU	morning rise	10730 May 20 03:39	19° \mathcal{B} 17'28	
morning rise	10724 Apr 23 20:08	23° Υ 14'35		retrograde	10730 Aug 19 19:22	22° \mathcal{B} 27'33	
retrograde	10724 Jul 24 07:33	26° Υ 28'52		opposition	10730 Nov 03 20:35	20° \mathcal{B} 28'26	-1°05'06
opposition	10724 Oct 07 12:59	24° Υ 28'47	-1°01'29	min. Earth dist.	10730 Nov 03 13:49	20° \mathcal{B} 29'08	18.41454 AU
min. Earth dist.	10724 Oct 07 10:44	24° Υ 29'01	18.02591 AU	direct	10731 Jan 20 00:05	18° \mathcal{B} 27'55	
direct	10724 Dec 23 14:03	22° Υ 26'24		evening set	10731 Apr 23 00:36	21° \mathcal{B} 39'27	
evening set	10725 Mar 27 15:41	25° Υ 44'26					
conjunction	10725 Apr 12 14:34	26° Υ 42'11	-0°56'05	conjunction	10731 May 08 19:55	22° \mathcal{B} 35'30	-0°58'26
minimum elong	10725 Apr 12 14:33	26° Υ 42'11	0°56'18	minimum elong	10731 May 08 19:55	22° \mathcal{B} 35'30	0°58'52
max. Earth dist.	10725 Apr 12 16:49	26° Υ 42'31	20.05941 AU	max. Earth dist.	10731 May 09 03:14	22° \mathcal{B} 36'35	20.44490 AU
morning rise	10725 Apr 28 11:20	27° Υ 39'39		morning rise	10731 May 24 14:03	23° \mathcal{B} 31'24	
	10725 Jun 13 17:50	0° \mathcal{B}		retrograde	10731 Aug 24 05:47	26° \mathcal{B} 40'51	
retrograde	10725 Jul 28 22:15	0° \mathcal{B} 53'12		opposition	10731 Nov 08 11:42	24° \mathcal{B} 41'51	-1°04'26
	10725 Sep 13 22:51	30° $\mathcal{R}\Upsilon$		min. Earth dist.	10731 Nov 08 04:54	24° \mathcal{B} 42'32	18.47541 AU
opposition	10725 Oct 12 07:51	28° Υ 53'21	-1°03'02	direct	10732 Jan 24 15:04	22° \mathcal{B} 41'37	
min. Earth dist.	10725 Oct 12 05:50	28° Υ 53'34	18.09310 AU	evening set	10732 Apr 26 10:53	25° \mathcal{B} 52'06	
direct	10725 Dec 28 08:22	26° Υ 51'19		conjunction	10732 May 12 05:40	26° \mathcal{B} 47'54	-0°57'41
	10726 Mar 29 23:00	0° \mathcal{B}		minimum elong	10732 May 12 05:40	26° \mathcal{B} 47'54	0°58'08
evening set	10726 Apr 01 07:27	0° \mathcal{B} 08'18		max. Earth dist.	10732 May 12 13:12	26° \mathcal{B} 49'01	20.50540 AU
conjunction	10726 Apr 17 05:36	1° \mathcal{B} 05'44	-0°57'19	morning rise	10732 May 27 23:42	27° \mathcal{B} 43'35	
minimum elong	10726 Apr 17 05:35	1° \mathcal{B} 05'44	0°57'34		10732 Jul 13 01:08	0° \mathcal{B}	
max. Earth dist.	10726 Apr 17 08:16	1° \mathcal{B} 06'08	20.12643 AU	retrograde	10732 Aug 27 18:26	0° \mathcal{B} 52'28	
morning rise	10726 May 03 01:52	2° \mathcal{B} 02'55			10732 Oct 14 04:09	30° $\mathcal{R}\mathcal{B}$	
retrograde	10726 Aug 02 14:13	5° \mathcal{B} 15'46		opposition	10732 Nov 12 02:00	28° \mathcal{B} 53'34	-1°03'25
opposition	10726 Oct 17 02:02	3° \mathcal{B} 16'07	-1°04'11	min. Earth dist.	10732 Nov 11 17:14	28° \mathcal{B} 54'28	18.53551 AU
min. Earth dist.	10726 Oct 16 22:15	3° \mathcal{B} 16'30	18.15974 AU	direct	10733 Jan 28 05:31	26° \mathcal{B} 53'39	
direct	10727 Jan 02 04:11	1° \mathcal{B} 14'25			10733 Apr 29 22:43	0° \mathcal{B}	
evening set	10727 Apr 05 22:21	4° \mathcal{B} 30'19		evening set	10733 Apr 30 20:25	0° \mathcal{B} 03'08	
conjunction	10727 Apr 21 19:49	5° \mathcal{B} 27'28	-0°58'12	conjunction	10733 May 16 15:00	0° \mathcal{B} 58'42	-0°56'38
minimum elong	10727 Apr 21 19:49	5° \mathcal{B} 27'28	0°58'30	minimum elong	10733 May 16 14:59	0° \mathcal{B} 58'42	0°57'06
max. Earth dist.	10727 Apr 21 23:40	5° \mathcal{B} 28'02	20.19253 AU	max. Earth dist.	10733 May 17 00:21	1° \mathcal{B} 00'05	20.56497 AU
morning rise	10727 May 07 15:27	6° \mathcal{B} 24'22		morning rise	10733 Jun 01 08:44	1° \mathcal{B} 54'12	
retrograde	10727 Aug 07 03:39	9° \mathcal{B} 36'31		retrograde	10733 Sep 01 03:46	5° \mathcal{B} 02'30	
opposition	10727 Oct 21 19:47	7° \mathcal{B} 37'02	-1°04'58	opposition	10733 Nov 16 15:40	3° \mathcal{B} 03'46	-1°02'04
min. Earth dist.	10727 Oct 21 16:20	7° \mathcal{B} 37'23	18.22535 AU	min. Earth dist.	10733 Nov 16 06:55	3° \mathcal{B} 04'39	18.59455 AU
direct	10728 Jan 06 21:33	5° \mathcal{B} 35'39		direct	10734 Feb 01 18:44	1° \mathcal{B} 04'11	
evening set	10728 Apr 09 12:22	8° \mathcal{B} 50'28		evening set	10734 May 05 05:23	4° \mathcal{B} 12'42	
conjunction	10728 Apr 25 09:09	9° \mathcal{B} 47'19	-0°58'46	conjunction	10734 May 20 23:34	5° \mathcal{B} 08'04	-0°55'17
minimum elong	10728 Apr 25 09:09	9° \mathcal{B} 47'19	0°59'05	minimum elong	10734 May 20 23:34	5° \mathcal{B} 08'04	0°55'47
max. Earth dist.	10728 Apr 25 13:11	9° \mathcal{B} 47'55	20.25760 AU	max. Earth dist.	10734 May 21 08:50	5° \mathcal{B} 09'26	20.62342 AU
morning rise	10728 May 11 04:24	10° \mathcal{B} 43'58		morning rise	10734 Jun 05 17:20	6° \mathcal{B} 03'22	
retrograde	10728 Aug 10 18:10	13° \mathcal{B} 55'24		retrograde	10734 Sep 05 15:44	9° \mathcal{B} 11'11	
opposition	10728 Oct 25 12:45	11° \mathcal{B} 56'04	-1°05'23	opposition	10734 Nov 21 04:47	7° \mathcal{B} 12'35	-1°00'24
min. Earth dist.	10728 Oct 25 07:31	11° \mathcal{B} 56'37	18.28973 AU	min. Earth dist.	10734 Nov 20 18:24	7° \mathcal{B} 13'39	18.65219 AU
direct	10729 Jan 10 15:42	9° \mathcal{B} 55'00		direct	10735 Feb 06 07:53	5° \mathcal{B} 13'20	
evening set	10729 Apr 14 01:15	13° \mathcal{B} 08'42		evening set	10735 May 09 13:32	8° \mathcal{B} 20'57	
conjunction	10729 Apr 29 21:34	14° \mathcal{B} 05'17	-0°58'59	conjunction	10735 May 25 07:35	9° \mathcal{B} 16'07	-0°53'40
minimum elong	10729 Apr 29 21:34	14° \mathcal{B} 05'17	0°59'21	minimum elong	10735 May 25 07:35	9° \mathcal{B} 16'07	0°54'10
max. Earth dist.	10729 Apr 30 03:03	14° \mathcal{B} 06'06	20.32124 AU	max. Earth dist.	10735 May 25 18:37	9° \mathcal{B} 17'44	20.68005 AU
morning rise	10729 May 15 16:21	15° \mathcal{B} 01'40		morning rise	10735 Jun 10 01:09	10° \mathcal{B} 11'15	
	10729 May 15 05:00	15° \mathcal{B}		retrograde	10735 Sep 10 00:05	13° \mathcal{B} 18'36	
retrograde	10729 Aug 15 06:05	18° \mathcal{B} 12'25		opposition	10735 Nov 25 17:35	11° \mathcal{B} 20'11	-0°58'26
opposition	10729 Oct 30 05:09	16° \mathcal{B} 13'12	-1°05'26	min. Earth dist.	10735 Nov 25 07:15	11° \mathcal{B} 21'13	18.70773 AU
min. Earth dist.	10729 Oct 30 00:12	16° \mathcal{B} 13'43	18.35273 AU	direct	10736 Feb 10 19:37	9° \mathcal{B} 21'15	
	10729 Dec 01 05:12	15° $\mathcal{R}\mathcal{B}$		evening set	10736 May 12 21:18	12° \mathcal{B} 28'00	
direct	10730 Jan 15 07:55	14° \mathcal{B} 12'25		conjunction	10736 May 28 15:02	13° \mathcal{B} 22'58	-0°51'46
	10730 Feb 28 01:32	15° \mathcal{B}		minimum elong	10736 May 28 15:02	13° \mathcal{B} 22'58	0°52'19
evening set	10730 Apr 18 13:24	17° \mathcal{B} 25'01		max. Earth dist.	10736 May 29 01:49	13° \mathcal{B} 24'33	20.73448 AU
conjunction	10730 May 04 09:06	18° \mathcal{B} 21'19	-0°58'52	morning rise	10736 Jun 13 08:47	14° \mathcal{B} 11'57	
				retrograde	10736 Sep 13 11:14	17° \mathcal{B} 24'53	

opposition	10736 Nov 29 05:43	15° Π 26'36	-0°56'11	conjunction	10743 Jun 26 09:17	11° \mathfrak{C} 42'50	-0°32'12
min. Earth dist.	10736 Nov 28 18:08	15° Π 27'46	18.76081 AU	minimum elong	10743 Jun 26 09:17	11° \mathfrak{C} 42'50	0°32'47
direct	10737 Feb 14 07:24	13° Π 28'00		max. Earth dist.	10743 Jun 26 22:17	11° \mathfrak{C} 44'42	21.00367 AU
evening set	10737 May 17 04:23	16° Π 33'55		morning rise	10743 Jul 12 04:24	12° \mathfrak{C} 37'07	
				retrograde	10743 Oct 12 19:36	15° \mathfrak{C} 42'04	
conjunction	10737 Jun 01 22:09	17° Π 28'44	-0°49'37	opposition	10743 Dec 29 07:14	13° \mathfrak{C} 44'02	-0°33'42
minimum elong	10737 Jun 01 22:09	17° Π 28'44	0°50'10	min. Earth dist.	10743 Dec 28 19:13	13° \mathfrak{C} 45'14	19.01412 AU
max. Earth dist.	10737 Jun 02 10:27	17° Π 30'32	20.78594 AU	direct	10744 Mar 14 23:58	11° \mathfrak{C} 46'43	
morning rise	10737 Jun 17 15:50	18° Π 23'33		evening set	10744 Jun 13 19:49	14° \mathfrak{C} 47'59	
retrograde	10737 Sep 17 18:54	21° Π 30'07					
opposition	10737 Dec 03 17:30	19° Π 31'58	-0°53'39	conjunction	10744 Jun 29 14:02	15° \mathfrak{C} 42'03	-0°28'41
min. Earth dist.	10737 Dec 03 06:13	19° Π 33'06	18.81055 AU	minimum elong	10744 Jun 29 14:02	15° \mathfrak{C} 42'03	0°29'15
direct	10738 Feb 18 17:55	17° Π 33'40		max. Earth dist.	10744 Jun 30 02:09	15° \mathfrak{C} 43'47	21.02336 AU
evening set	10738 May 21 11:13	20° Π 38'48		morning rise	10744 Jul 15 09:43	16° \mathfrak{C} 36'18	
				retrograde	10744 Oct 16 03:35	19° \mathfrak{C} 41'07	
conjunction	10738 Jun 06 04:45	21° Π 33'27	-0°47'14	opposition	10745 Jan 01 16:02	17° \mathfrak{C} 43'00	-0°29'43
minimum elong	10738 Jun 06 04:45	21° Π 33'27	0°47'47	min. Earth dist.	10745 Jan 01 03:39	17° \mathfrak{C} 44'15	19.03188 AU
max. Earth dist.	10738 Jun 06 16:25	21° Π 35'09	20.83388 AU	direct	10745 Mar 19 07:11	15° \mathfrak{C} 45'44	
morning rise	10738 Jun 21 22:41	22° Π 28'09		evening set	10745 Jun 18 00:07	18° \mathfrak{C} 46'34	
retrograde	10738 Sep 22 04:53	25° Π 34'22					
opposition	10738 Dec 08 04:44	23° Π 36'20	-0°50'53	conjunction	10745 Jul 03 18:46	19° \mathfrak{C} 40'36	-0°25'02
min. Earth dist.	10738 Dec 07 16:36	23° Π 37'33	18.85652 AU	minimum elong	10745 Jul 03 18:46	19° \mathfrak{C} 40'36	0°25'36
direct	10739 Feb 23 04:17	21° Π 38'17		max. Earth dist.	10745 Jul 04 08:07	19° \mathfrak{C} 42'31	21.03912 AU
evening set	10739 May 25 17:33	24° Π 42'41		morning rise	10745 Jul 19 14:44	20° \mathfrak{C} 34'50	
				retrograde	10745 Oct 20 10:09	23° \mathfrak{C} 39'34	
conjunction	10739 Jun 10 11:11	25° Π 37'12	-0°44'37	opposition	10746 Jan 06 00:37	21° \mathfrak{C} 41'24	-0°25'37
minimum elong	10739 Jun 10 11:11	25° Π 37'12	0°45'11	min. Earth dist.	10746 Jan 05 12:16	21° \mathfrak{C} 42'38	19.04574 AU
max. Earth dist.	10739 Jun 11 00:05	25° Π 39'04	20.87763 AU	direct	10746 Mar 23 13:57	19° \mathfrak{C} 44'13	
morning rise	10739 Jun 26 05:06	26° Π 31'47		evening set	10746 Jun 22 04:24	22° \mathfrak{C} 44'41	
retrograde	10739 Sep 26 12:31	29° Π 37'41					
opposition	10739 Dec 12 15:45	27° Π 39'44	-0°47'51	conjunction	10746 Jul 07 23:11	23° \mathfrak{C} 38'41	-0°21'16
min. Earth dist.	10739 Dec 12 03:59	27° Π 40'55	18.89799 AU	minimum elong	10746 Jul 07 23:11	23° \mathfrak{C} 38'41	0°21'49
direct	10740 Feb 27 13:57	25° Π 41'56		max. Earth dist.	10746 Jul 08 11:38	23° \mathfrak{C} 40'28	21.05121 AU
evening set	10740 May 28 23:30	28° Π 45'37		morning rise	10746 Jul 23 19:45	24° \mathfrak{C} 32'55	
				retrograde	10746 Oct 24 18:14	27° \mathfrak{C} 37'40	
conjunction	10740 Jun 13 17:03	29° Π 40'00	-0°41'48	opposition	10747 Jan 10 08:56	25° \mathfrak{C} 39'26	-0°21'24
minimum elong	10740 Jun 13 17:03	29° Π 40'00	0°42'21	min. Earth dist.	10747 Jan 09 20:17	25° \mathfrak{C} 40'42	19.05607 AU
max. Earth dist.	10740 Jun 14 05:01	29° Π 41'44	20.91677 AU	direct	10747 Mar 27 20:15	23° \mathfrak{C} 42'18	
	10740 Jun 19 10:57	0° \mathfrak{C}		evening set	10747 Jun 26 08:29	26° \mathfrak{C} 42'29	
morning rise	10740 Jun 29 11:22	0° \mathfrak{C} 34'29					
retrograde	10740 Sep 29 21:22	3° \mathfrak{C} 40'07		conjunction	10747 Jul 12 03:48	27° \mathfrak{C} 36'30	-0°17'25
opposition	10740 Dec 16 02:15	1° \mathfrak{C} 42'12	-0°44'37	minimum elong	10747 Jul 12 03:48	27° \mathfrak{C} 36'30	0°17'56
min. Earth dist.	10740 Dec 15 13:57	1° \mathfrak{C} 43'25	18.93465 AU	max. Earth dist.	10747 Jul 12 17:27	27° \mathfrak{C} 38'27	21.05971 AU
	10741 Feb 05 16:57	30° \mathfrak{R} Π		morning rise	10747 Jul 28 00:42	28° \mathfrak{C} 30'45	
direct	10741 Mar 02 23:02	29° Π 44'34			10747 Aug 25 18:47	0° \mathfrak{O}	
	10741 Mar 27 17:00	0° \mathfrak{C}		retrograde	10747 Oct 29 01:01	1° \mathfrak{O} 35'33	
evening set	10741 Jun 02 05:05	2° \mathfrak{C} 47'35			10748 Jan 05 04:08	30° \mathfrak{R} \mathfrak{C}	
				opposition	10748 Jan 14 17:06	29° \mathfrak{C} 37'17	-0°17'04
conjunction	10741 Jun 17 22:53	3° \mathfrak{C} 41'52	-0°38'47	min. Earth dist.	10748 Jan 14 04:27	29° \mathfrak{C} 38'33	19.06271 AU
minimum elong	10741 Jun 17 22:53	3° \mathfrak{C} 41'52	0°39'21	direct	10748 Mar 31 02:32	27° \mathfrak{C} 40'15	
max. Earth dist.	10741 Jun 18 11:49	3° \mathfrak{C} 43'44	20.95078 AU		10748 Jun 17 05:21	0° \mathfrak{O}	
morning rise	10741 Jul 03 17:19	4° \mathfrak{C} 36'16		evening set	10748 Jun 29 12:41	0° \mathfrak{O} 40'12	
retrograde	10741 Oct 04 04:42	7° \mathfrak{C} 41'37					
opposition	10741 Dec 20 12:13	5° \mathfrak{C} 43'43	-0°41'09	conjunction	10748 Jul 15 08:16	1° \mathfrak{O} 34'14	-0°13'29
min. Earth dist.	10741 Dec 20 00:24	5° \mathfrak{C} 44'54	18.96600 AU	minimum elong	10748 Jul 15 08:16	1° \mathfrak{O} 34'14	0°14'00
direct	10742 Mar 07 07:54	3° \mathfrak{C} 46'14		behind sun begin	10748 Jul 15 04:52	1° \mathfrak{O} 33'45	
evening set	10742 Jun 06 10:26	6° \mathfrak{C} 48'37		behind sun end	10748 Jul 15 11:39	1° \mathfrak{O} 34'42	
				max. Earth dist.	10748 Jul 15 20:55	1° \mathfrak{O} 36'02	21.06458 AU
conjunction	10742 Jun 22 04:14	7° \mathfrak{C} 42'48	-0°35'34	morning rise	10748 Jul 31 05:54	2° \mathfrak{O} 28'32	
minimum elong	10742 Jun 22 04:14	7° \mathfrak{C} 42'48	0°36'08	retrograde	10748 Nov 01 09:21	5° \mathfrak{O} 33'27	
max. Earth dist.	10742 Jun 22 16:04	7° \mathfrak{C} 44'30	20.97968 AU	opposition	10749 Jan 18 01:07	3° \mathfrak{O} 35'08	-0°12'41
morning rise	10742 Jul 07 23:09	8° \mathfrak{C} 37'08		min. Earth dist.	10749 Jan 17 12:30	3° \mathfrak{O} 36'24	19.06566 AU
retrograde	10742 Oct 08 12:47	11° \mathfrak{C} 42'16		direct	10749 Apr 04 07:38	1° \mathfrak{O} 38'10	
opposition	10742 Dec 24 21:54	9° \mathfrak{C} 44'19	-0°37'31	evening set	10749 Jul 03 16:55	4° \mathfrak{O} 38'00	
min. Earth dist.	10742 Dec 24 09:42	9° \mathfrak{C} 45'32	18.99242 AU				
direct	10743 Mar 11 16:04	7° \mathfrak{C} 46'55		conjunction	10749 Jul 19 13:05	5° \mathfrak{O} 32'04	-0°09'29
evening set	10743 Jun 10 15:08	10° \mathfrak{C} 48'43		minimum elong	10749 Jul 19 13:05	5° \mathfrak{O} 32'04	0°09'58

behind sun begin	10749 Jul 19 07:44	5°Ω31'19		morning rise	10754 Aug 24 18:06	26°Ω22'06	
behind sun end	10749 Jul 19 18:26	5°Ω32'49		retrograde	10754 Nov 26 13:24	29°Ω28'43	
max. Earth dist.	10749 Jul 20 02:42	5°Ω34'00	21.06547 AU	opposition	10755 Feb 12 01:10	27°Ω29'54	0°14'20
morning rise	10749 Aug 04 11:06	6°Ω26'25		min. Earth dist.	10755 Feb 11 15:45	27°Ω30'51	18.98633 AU
retrograde	10749 Nov 05 16:33	9°Ω31'30		direct	10755 Apr 28 18:09	25°Ω32'54	
opposition	10750 Jan 22 08:55	7°Ω33'10	-0°08'13	evening set	10755 Jul 28 00:12	28°Ω33'14	
min. Earth dist.	10750 Jan 21 20:31	7°Ω34'24	19.06443 AU				
direct	10750 Apr 08 13:57	5°Ω36'16		conjunction	10755 Aug 12 23:34	29°Ω27'52	0°15'01
evening set	10750 Jul 07 21:28	8°Ω36'02		minimum elong	10755 Aug 12 23:34	29°Ω27'52	0°14'40
				behind sun begin	10755 Aug 12 20:46	29°Ω27'29	
conjunction	10750 Jul 23 17:55	9°Ω30'09	-0°05'27	behind sun end	10755 Aug 13 02:21	29°Ω28'16	
minimum elong	10750 Jul 23 17:56	9°Ω30'09	0°05'56	max. Earth dist.	10755 Aug 13 09:46	29°Ω29'19	20.97115 AU
behind sun begin	10750 Jul 23 11:39	9°Ω29'17			10755 Aug 22 07:33	0°൬	
behind sun end	10750 Jul 24 00:13	9°Ω31'02		morning rise	10755 Aug 29 01:22	0°൬22'53	
max. Earth dist.	10750 Jul 24 06:17	9°Ω31'55	21.06223 AU	retrograde	10755 Nov 30 22:08	3°൬29'53	
morning rise	10750 Aug 08 16:42	10°Ω24'35		opposition	10756 Feb 16 09:21	1°൬30'52	0°18'46
retrograde	10750 Nov 10 01:22	13°Ω29'54		min. Earth dist.	10756 Feb 16 00:20	1°൬31'46	18.95481 AU
opposition	10751 Jan 26 16:55	11°Ω31'31	-0°03'43		10756 Mar 30 05:59	30°ꠔ	
min. Earth dist.	10751 Jan 26 04:51	11°Ω32'43	19.05901 AU	direct	10756 May 02 00:33	29°Ω33'43	
direct	10751 Apr 12 18:20	9°Ω34'41			10756 Jun 03 04:42	0°൬	
evening set	10751 Jul 12 02:01	12°Ω34'26		evening set	10756 Jul 31 06:36	2°൬34'17	
conjunction	10751 Jul 27 23:06	13°Ω28'38	-0°01'22	conjunction	10756 Aug 16 06:29	3°൬29'04	0°18'58
minimum elong	10751 Jul 27 23:07	13°Ω28'38	0°01'48	minimum elong	10756 Aug 16 06:28	3°൬29'04	0°18'41
behind sun begin	10751 Jul 27 16:31	13°Ω27'43		max. Earth dist.	10756 Aug 16 14:51	3°൬30'16	20.93739 AU
behind sun end	10751 Jul 28 05:42	13°Ω29'33		morning rise	10756 Sep 01 09:10	4°൬24'15	
max. Earth dist.	10751 Jul 28 12:15	13°Ω30'30	21.05445 AU	retrograde	10756 Dec 04 08:21	7°൬31'40	
morning rise	10751 Aug 12 22:19	14°Ω23'09		opposition	10757 Feb 19 17:40	5°൬32'24	0°23'07
	10751 Aug 24 04:15	15°Ω		min. Earth dist.	10757 Feb 19 09:41	5°൬33'13	18.91891 AU
retrograde	10751 Nov 14 09:18	17°Ω28'44		direct	10757 May 06 07:05	3°൬35'03	
asc. node	10751 Nov 26 16:32	17°Ω25'07		evening set	10757 Aug 04 13:17	6°൬35'57	
opposition	10752 Jan 31 00:55	15°Ω30'19	0°00'48				
min. Earth dist.	10752 Jan 30 13:13	15°Ω31'29	19.04877 AU	conjunction	10757 Aug 20 13:57	7°൬30'54	0°22'51
	10752 Feb 12 18:58	15°ꠔ		minimum elong	10757 Aug 20 13:56	7°൬30'54	0°22'35
direct	10752 Apr 16 00:56	13°Ω33'30		max. Earth dist.	10757 Aug 20 22:50	7°൬32'11	20.89941 AU
	10752 Jun 14 22:33	15°Ω		morning rise	10757 Sep 05 17:08	8°൬26'15	
evening set	10752 Jul 15 07:10	16°Ω33'20		retrograde	10757 Dec 08 17:42	11°൬34'06	
				opposition	10758 Feb 24 01:59	9°൬34'37	0°27'22
conjunction	10752 Jul 31 04:39	17°Ω27'37	0°02'51	min. Earth dist.	10758 Feb 23 18:10	9°൬35'24	18.87905 AU
minimum elong	10752 Jul 31 04:38	17°Ω27'37	0°02'26	direct	10758 May 10 14:01	7°൬37'03	
behind sun begin	10752 Jul 30 22:02	17°Ω26'42		evening set	10758 Aug 08 20:35	10°൬38'21	
behind sun end	10752 Jul 31 11:13	17°Ω28'32					
max. Earth dist.	10752 Jul 31 16:06	17°Ω29'15	21.04176 AU	conjunction	10758 Aug 24 21:43	11°൬33'28	0°26'38
morning rise	10752 Aug 16 04:38	18°Ω22'14		minimum elong	10758 Aug 24 21:43	11°൬33'28	0°26'25
retrograde	10752 Nov 17 18:52	21°Ω28'09		max. Earth dist.	10758 Aug 25 04:57	11°൬34'30	20.85797 AU
opposition	10753 Feb 03 08:50	19°Ω29'37	0°05'20	morning rise	10758 Sep 10 01:46	12°൬29'00	
min. Earth dist.	10753 Feb 02 21:57	19°Ω30'43	19.03352 AU	retrograde	10758 Dec 13 03:55	15°൬37'22	
direct	10753 Apr 20 05:44	17°Ω32'47		opposition	10759 Feb 28 10:41	13°൬37'37	0°31'30
evening set	10753 Jul 19 12:31	20°Ω32'45		min. Earth dist.	10759 Feb 28 03:49	13°൬38'19	18.83615 AU
				direct	10759 May 14 20:41	11°൬39'51	
conjunction	10753 Aug 04 10:42	21°Ω27'09	0°06'57	evening set	10759 Aug 13 04:09	14°൬41'36	
minimum elong	10753 Aug 04 10:42	21°Ω27'08	0°06'33				
behind sun begin	10753 Aug 04 04:30	21°Ω26'17		conjunction	10759 Aug 29 06:09	15°൬36'55	0°30'18
behind sun end	10753 Aug 04 16:54	21°Ω28'00		minimum elong	10759 Aug 29 06:08	15°൬36'55	0°30'06
max. Earth dist.	10753 Aug 04 22:28	21°Ω28'49	21.02370 AU	max. Earth dist.	10759 Aug 29 13:59	15°൬38'03	20.81358 AU
morning rise	10753 Aug 20 11:10	22°Ω21'53		morning rise	10759 Sep 14 10:44	16°൬32'38	
retrograde	10753 Nov 22 03:18	25°Ω28'07		retrograde	10759 Dec 17 14:50	19°൬41'32	
opposition	10754 Feb 07 16:55	23°Ω29'29	0°09'51	opposition	10760 Mar 03 19:30	17°൬41'34	0°35'29
min. Earth dist.	10754 Feb 07 06:33	23°Ω30'32	19.01263 AU	min. Earth dist.	10760 Mar 03 12:40	17°൬42'16	18.79037 AU
direct	10754 Apr 24 12:11	21°Ω32'37		direct	10760 May 18 04:24	15°൬43'35	
evening set	10754 Jul 23 18:14	24°Ω32'44		evening set	10760 Aug 16 12:36	18°൬45'52	
conjunction	10754 Aug 08 16:49	25°Ω27'14	0°11'00	conjunction	10760 Sep 01 15:08	19°൬41'23	0°33'49
minimum elong	10754 Aug 08 16:49	25°Ω27'14	0°10'38	minimum elong	10760 Sep 01 15:07	19°൬41'23	0°33'40
behind sun begin	10754 Aug 08 11:42	25°Ω26'31		max. Earth dist.	10760 Sep 01 21:13	19°൬42'16	20.76657 AU
behind sun end	10754 Aug 08 21:56	25°Ω27'57		morning rise	10760 Sep 17 20:35	20°൬37'19	
max. Earth dist.	10754 Aug 09 02:41	25°Ω28'38	21.00011 AU	retrograde	10760 Dec 21 01:11	23°൬46'48	

opposition	10761 Mar 08 04:34	21° <u>17</u> 46'37	0°39'18	conjunction	10767 Oct 02 04:08	18° <u>53</u> '58	0°53'03
min. Earth dist.	10761 Mar 07 22:54	21° <u>17</u> 47'12	18.74224 AU	minimum elong	10767 Oct 02 04:08	18° <u>53</u> '58	0°53'12
direct	10761 May 22 11:06	19° <u>17</u> 48'25		max. Earth dist.	10767 Oct 02 04:39	18° <u>54</u> '03	20.37455 AU
evening set	10761 Aug 20 21:31	22° <u>17</u> 51'19		morning rise	10767 Oct 18 14:05	19° <u>51</u> '39	
				retrograde	10768 Jan 21 01:03	23° <u>51</u> '06'07	
conjunction	10761 Sep 06 00:54	23° <u>17</u> 47'03	0°37'10	opposition	10768 Apr 06 08:59	21° <u>51</u> '04'42	0°59'53
minimum elong	10761 Sep 06 00:54	23° <u>17</u> 47'03	0°37'04	min. Earth dist.	10768 Apr 06 08:43	21° <u>51</u> '04'44	18.34197 AU
max. Earth dist.	10761 Sep 06 07:30	23° <u>17</u> 48'00	20.71725 AU	direct	10768 Jun 20 06:04	19° <u>51</u> '04'53	
morning rise	10761 Sep 22 06:52	24° <u>17</u> 43'12		evening set	10768 Sep 19 11:31	22° <u>51</u> '13'39	
retrograde	10761 Dec 25 13:33	27° <u>17</u> 53'18					
opposition	10762 Mar 12 14:01	25° <u>17</u> 52'56	0°42'57	conjunction	10768 Oct 05 19:47	23° <u>51</u> '11'15	0°54'50
min. Earth dist.	10762 Mar 12 08:20	25° <u>17</u> 53'31	18.69179 AU	minimum elong	10768 Oct 05 19:46	23° <u>51</u> '11'15	0°55'01
direct	10762 May 26 19:44	23° <u>17</u> 54'33		max. Earth dist.	10768 Oct 05 17:59	23° <u>51</u> '10'59	20.30876 AU
evening set	10762 Aug 25 07:09	26° <u>17</u> 58'06		morning rise	10768 Oct 22 06:27	24° <u>51</u> '09'12	
				retrograde	10769 Jan 24 16:10	27° <u>51</u> '24'24	
conjunction	10762 Sep 10 11:05	27° <u>17</u> 54'04	0°40'22	opposition	10769 Apr 10 21:59	25° <u>51</u> '22'45	1°01'43
minimum elong	10762 Sep 10 11:04	27° <u>17</u> 54'04	0°40'16	min. Earth dist.	10769 Apr 10 23:46	25° <u>51</u> '22'34	18.27530 AU
max. Earth dist.	10762 Sep 10 15:55	27° <u>17</u> 54'46	20.66581 AU	direct	10769 Jun 24 17:18	23° <u>51</u> '22'36	
morning rise	10762 Sep 26 17:54	28° <u>17</u> 50'27		evening set	10769 Sep 24 03:13	26° <u>51</u> '32'21	
	10762 Oct 18 06:23	0° <u>51</u>					
retrograde	10762 Dec 30 00:56	2° <u>51</u> '01'14		conjunction	10769 Oct 10 12:20	27° <u>51</u> '30'14	0°56'19
opposition	10763 Mar 17 00:03	0° <u>51</u> '00'40	0°46'23	minimum elong	10769 Oct 10 12:19	27° <u>51</u> '30'14	0°56'31
min. Earth dist.	10763 Mar 16 19:38	0° <u>51</u> '01'07	18.63937 AU	max. Earth dist.	10769 Oct 10 10:18	27° <u>51</u> '29'56	20.24138 AU
	10763 Mar 17 06:29	30° <u>51</u> ' <u>17</u>		morning rise	10769 Oct 26 23:28	28° <u>51</u> '28'28	
direct	10763 May 31 02:54	28° <u>17</u> 02'04			10769 Nov 24 07:35	0° <u>51</u>	
	10763 Aug 09 06:32	0° <u>51</u>		retrograde	10770 Jan 29 09:42	1° <u>51</u> '44'23	
evening set	10763 Aug 29 17:34	1° <u>51</u> '06'22			10770 Apr 08 13:07	30° <u>51</u> ' <u>17</u>	
				opposition	10770 Apr 15 11:28	29° <u>51</u> '42'31	1°03'13
conjunction	10763 Sep 14 22:24	2° <u>51</u> '02'35	0°43'21	min. Earth dist.	10770 Apr 15 13:13	29° <u>51</u> '42'20	18.20734 AU
minimum elong	10763 Sep 14 22:24	2° <u>51</u> '02'35	0°43'19	direct	10770 Jun 29 07:14	27° <u>51</u> '41'59	
max. Earth dist.	10763 Sep 15 03:35	2° <u>51</u> '03'20	20.61233 AU		10770 Sep 13 03:33	0° <u>51</u>	
morning rise	10763 Oct 01 05:45	2° <u>51</u> '59'13		evening set	10770 Sep 28 19:47	0° <u>51</u> '52'45	
retrograde	10764 Jan 03 14:37	6° <u>51</u> '10'41					
opposition	10764 Mar 20 10:14	4° <u>51</u> '09'58	0°49'36	conjunction	10770 Oct 15 05:27	1° <u>51</u> '50'56	0°57'29
min. Earth dist.	10764 Mar 20 05:56	4° <u>51</u> '10'25	18.58480 AU	minimum elong	10770 Oct 15 05:27	1° <u>51</u> '50'56	0°57'45
direct	10764 Jun 03 12:37	2° <u>51</u> '11'11		max. Earth dist.	10770 Oct 15 01:38	1° <u>51</u> '50'22	20.17307 AU
evening set	10764 Sep 02 05:01	5° <u>51</u> '16'17		morning rise	10770 Oct 31 17:15	2° <u>51</u> '49'27	
				retrograde	10771 Feb 03 01:53	6° <u>51</u> '06'06	
conjunction	10764 Sep 18 10:24	6° <u>51</u> '12'46	0°46'08	opposition	10771 Apr 20 01:40	4° <u>51</u> '03'59	1°04'21
minimum elong	10764 Sep 18 10:24	6° <u>51</u> '12'46	0°46'08	min. Earth dist.	10771 Apr 20 05:17	4° <u>51</u> '03'36	18.13895 AU
max. Earth dist.	10764 Sep 18 13:31	6° <u>51</u> '13'13	20.55667 AU	direct	10771 Jul 03 19:27	2° <u>51</u> '03'05	
morning rise	10764 Oct 04 18:36	7° <u>51</u> '09'39		evening set	10771 Oct 03 13:13	5° <u>51</u> '14'52	
retrograde	10765 Jan 07 03:35	10° <u>51</u> '21'51					
opposition	10765 Mar 24 21:08	8° <u>51</u> '20'59	0°52'35	conjunction	10771 Oct 19 23:42	6° <u>51</u> '13'21	0°58'19
min. Earth dist.	10765 Mar 24 18:32	8° <u>51</u> '21'15	18.52802 AU	minimum elong	10771 Oct 19 23:42	6° <u>51</u> '13'21	0°58'37
direct	10765 Jun 07 20:43	6° <u>51</u> '21'59		max. Earth dist.	10771 Oct 19 19:40	6° <u>51</u> '12'45	20.10475 AU
evening set	10765 Sep 06 17:11	9° <u>51</u> '27'58		morning rise	10771 Nov 05 11:58	7° <u>51</u> '12'09	
				retrograde	10772 Feb 07 21:19	10° <u>51</u> '29'30	
conjunction	10765 Sep 22 23:25	10° <u>51</u> '24'42	0°48'41	opposition	10772 Apr 23 16:05	8° <u>51</u> '27'10	1°05'08
minimum elong	10765 Sep 22 23:25	10° <u>51</u> '24'42	0°48'45	min. Earth dist.	10772 Apr 23 19:32	8° <u>51</u> '26'48	18.07082 AU
max. Earth dist.	10765 Sep 23 02:33	10° <u>51</u> '25'10	20.49860 AU	direct	10772 Jul 07 10:45	6° <u>51</u> '25'53	
morning rise	10765 Oct 09 08:04	11° <u>51</u> '21'50		evening set	10772 Oct 07 07:41	9° <u>51</u> '38'45	
retrograde	10766 Jan 11 18:33	14° <u>51</u> '34'48					
opposition	10766 Mar 29 08:28	12° <u>51</u> '33'47	0°55'18	conjunction	10772 Oct 23 18:42	10° <u>51</u> '37'32	0°58'49
min. Earth dist.	10766 Mar 29 06:04	12° <u>51</u> '34'02	18.46862 AU	minimum elong	10772 Oct 23 18:41	10° <u>51</u> '37'32	0°59'09
direct	10766 Jun 12 07:50	10° <u>51</u> '34'33		max. Earth dist.	10772 Oct 23 13:10	10° <u>51</u> '36'43	20.03694 AU
evening set	10766 Sep 11 06:28	13° <u>51</u> '41'26		morning rise	10772 Nov 09 07:29	11° <u>51</u> '36'37	
				retrograde	10773 Feb 11 14:42	14° <u>51</u> '54'40	
conjunction	10766 Sep 27 13:15	14° <u>51</u> '38'27	0°51'00	opposition	10773 Apr 28 07:23	12° <u>51</u> '52'07	1°05'31
minimum elong	10766 Sep 27 13:15	14° <u>51</u> '38'26	0°51'06	min. Earth dist.	10773 Apr 28 12:33	12° <u>51</u> '51'34	18.00366 AU
max. Earth dist.	10766 Sep 27 14:04	14° <u>51</u> '38'34	20.43787 AU	direct	10773 Jul 12 00:06	10° <u>51</u> '50'28	
morning rise	10766 Oct 13 22:41	15° <u>51</u> '35'51		evening set	10773 Oct 12 02:45	14° <u>51</u> '04'25	
retrograde	10767 Jan 16 08:50	18° <u>51</u> '49'34			10773 Oct 27 15:11	15° <u>51</u>	
opposition	10767 Apr 02 20:31	16° <u>51</u> '48'22	0°57'44				
min. Earth dist.	10767 Apr 02 20:03	16° <u>51</u> '48'24	18.40663 AU	conjunction	10773 Oct 28 14:26	15° <u>51</u> '03'30	0°58'58
direct	10767 Jun 16 17:30	14° <u>51</u> '48'51		minimum elong	10773 Oct 28 14:26	15° <u>51</u> '03'30	0°59'21
evening set	10767 Sep 15 20:26	17° <u>51</u> '56'40		max. Earth dist.	10773 Oct 28 08:38	15° <u>51</u> '02'38	19.97053 AU

morning rise	10773 Nov 14 03:37	16° \mathbb{M} 02'51	direct	10780 Aug 12 06:53	12° \mathbb{A} 35'05	
retrograde	10774 Feb 16 11:40	19° \mathbb{M} 21'37	evening set	10780 Nov 13 18:51	15° \mathbb{A} 56'40	
opposition	10774 May 02 23:09	17° \mathbb{M} 18'52 1°05'31				
min. Earth dist.	10774 May 03 03:55	17° \mathbb{M} 18'21 17.93813 AU	conjunction	10780 Nov 30 09:44	16° \mathbb{A} 57'38 0°50'00	
direct	10774 Jul 16 16:34	15° \mathbb{M} 16'53	minimum elong	10780 Nov 30 09:44	16° \mathbb{A} 57'38 0°50'33	
evening set	10774 Oct 16 22:55	18° \mathbb{M} 31'55	max. Earth dist.	10780 Nov 29 22:39	16° \mathbb{A} 55'56 19.57331 AU	
			morning rise	10780 Dec 17 00:29	17° \mathbb{A} 58'39	
conjunction	10774 Nov 02 11:08	19° \mathbb{M} 31'18 0°58'46	retrograde	10781 Mar 20 19:09	21° \mathbb{A} 21'31	
minimum elong	10774 Nov 02 11:08	19° \mathbb{M} 31'18 0°59'10	opposition	10781 Jun 03 08:40	19° \mathbb{A} 18'13 0°54'17	
max. Earth dist.	10774 Nov 02 04:19	19° \mathbb{M} 30'16 19.90595 AU	min. Earth dist.	10781 Jun 03 18:48	19° \mathbb{A} 17'07 17.54989 AU	
morning rise	10774 Nov 19 00:43	20° \mathbb{M} 30'55	direct	10781 Aug 17 04:30	17° \mathbb{A} 14'16	
retrograde	10775 Feb 21 06:38	23° \mathbb{M} 50'21	evening set	10781 Nov 18 20:55	20° \mathbb{A} 36'48	
opposition	10775 May 07 15:40	21° \mathbb{M} 47'27 1°05'07				
min. Earth dist.	10775 May 07 21:58	21° \mathbb{M} 46'47 17.87478 AU	conjunction	10781 Dec 05 11:53	21° \mathbb{A} 37'59 0°47'18	
direct	10775 Jul 21 07:33	19° \mathbb{M} 45'08	minimum elong	10781 Dec 05 11:53	21° \mathbb{A} 37'59 0°47'51	
evening set	10775 Oct 21 19:56	23° \mathbb{M} 01'17	max. Earth dist.	10781 Dec 04 23:02	21° \mathbb{A} 36'00 19.52684 AU	
			morning rise	10781 Dec 22 02:49	22° \mathbb{A} 39'10	
conjunction	10775 Nov 07 08:46	24° \mathbb{M} 00'57 0°58'13	retrograde	10782 Mar 25 18:55	26° \mathbb{A} 02'25	
minimum elong	10775 Nov 07 08:46	24° \mathbb{M} 00'57 0°58'39	opposition	10782 Jun 08 05:44	23° \mathbb{A} 59'03 0°51'07	
max. Earth dist.	10775 Nov 07 01:21	23° \mathbb{M} 59'50 19.84393 AU	min. Earth dist.	10782 Jun 08 16:10	23° \mathbb{A} 57'55 17.50491 AU	
morning rise	10775 Nov 23 22:46	25° \mathbb{M} 00'51	direct	10782 Aug 22 03:27	21° \mathbb{A} 54'48	
retrograde	10776 Feb 26 04:38	28° \mathbb{M} 20'56	evening set	10782 Nov 23 23:38	25° \mathbb{A} 18'14	
opposition	10776 May 11 08:44	26° \mathbb{M} 17'55 1°04'19				
min. Earth dist.	10776 May 11 14:41	26° \mathbb{M} 17'17 17.81403 AU	conjunction	10782 Dec 10 14:56	26° \mathbb{A} 19'36 0°44'17	
direct	10776 Jul 25 01:26	24° \mathbb{M} 15'19	minimum elong	10782 Dec 10 14:56	26° \mathbb{A} 19'36 0°44'51	
evening set	10776 Oct 25 17:56	27° \mathbb{M} 32'35	max. Earth dist.	10782 Dec 10 02:27	26° \mathbb{A} 17'41 19.48339 AU	
			morning rise	10782 Dec 27 05:38	27° \mathbb{A} 20'57	
conjunction	10776 Nov 11 07:15	28° \mathbb{M} 32'32 0°57'17		10783 Feb 17 23:47	0° \mathbb{B}	
minimum elong	10776 Nov 11 07:15	28° \mathbb{M} 32'32 0°57'45	retrograde	10783 Mar 30 18:43	0° \mathbb{B} 44'30	
max. Earth dist.	10776 Nov 10 23:13	28° \mathbb{M} 31'19 19.78446 AU		10783 May 11 09:24	30° \mathbb{R} \mathbb{A}	
morning rise	10776 Nov 27 21:27	29° \mathbb{M} 32'41	opposition	10783 Jun 13 03:13	28° \mathbb{A} 41'05 0°47'36	
	10776 Dec 05 16:14	0° \mathbb{A}	min. Earth dist.	10783 Jun 13 14:23	28° \mathbb{A} 39'52 17.46315 AU	
retrograde	10777 Mar 02 00:48	2° \mathbb{A} 53'25	direct	10783 Aug 27 02:30	26° \mathbb{A} 36'32	
opposition	10777 May 16 02:36	0° \mathbb{A} 50'19 1°03'07		10783 Nov 28 21:39	0° \mathbb{B}	
min. Earth dist.	10777 May 16 10:02	0° \mathbb{A} 49'31 17.75600 AU	evening set	10783 Nov 29 03:01	0° \mathbb{B} 00'49	
	10777 Jun 05 03:09	30° \mathbb{R} \mathbb{M}				
direct	10777 Jul 29 18:24	28° \mathbb{M} 47'27	conjunction	10783 Dec 15 18:15	1° \mathbb{B} 02'21 0°40'57	
	10777 Sep 20 21:16	0° \mathbb{A}	minimum elong	10783 Dec 15 18:15	1° \mathbb{B} 02'21 0°41'32	
evening set	10777 Oct 30 16:49	2° \mathbb{A} 05'50	max. Earth dist.	10783 Dec 15 04:01	1° \mathbb{B} 00'08 19.44359 AU	
			morning rise	10784 Jan 01 08:59	2° \mathbb{B} 03'49	
conjunction	10777 Nov 16 06:34	3° \mathbb{A} 06'04 0°56'00	retrograde	10784 Apr 03 19:02	5° \mathbb{B} 27'37	
minimum elong	10777 Nov 16 06:34	3° \mathbb{A} 06'04 0°56'30	opposition	10784 Jun 17 01:14	3° \mathbb{B} 24'08 0°43'43	
max. Earth dist.	10777 Nov 15 21:34	3° \mathbb{A} 04'41 19.72794 AU	min. Earth dist.	10784 Jun 17 12:51	3° \mathbb{B} 22'52 17.42540 AU	
morning rise	10777 Dec 02 21:06	4° \mathbb{A} 06'27	direct	10784 Aug 31 02:24	1° \mathbb{B} 19'18	
retrograde	10778 Mar 06 23:38	7° \mathbb{A} 27'48	evening set	10784 Dec 03 06:32	4° \mathbb{B} 44'22	
opposition	10778 May 20 21:03	5° \mathbb{A} 24'39 1°01'30				
min. Earth dist.	10778 May 21 04:21	5° \mathbb{A} 23'52 17.70083 AU	conjunction	10784 Dec 19 21:55	5° \mathbb{B} 46'02 0°37'19	
direct	10778 Aug 03 13:58	3° \mathbb{A} 21'31	minimum elong	10784 Dec 19 21:56	5° \mathbb{B} 46'02 0°37'54	
evening set	10778 Nov 04 16:33	6° \mathbb{A} 41'00	max. Earth dist.	10784 Dec 19 08:32	5° \mathbb{B} 43'57 19.40795 AU	
			morning rise	10785 Jan 05 12:15	6° \mathbb{B} 47'37	
conjunction	10778 Nov 21 06:46	7° \mathbb{A} 41'30 0°54'21	retrograde	10785 Apr 08 19:39	10° \mathbb{B} 11'36	
minimum elong	10778 Nov 21 06:46	7° \mathbb{A} 41'30 0°54'52	opposition	10785 Jun 21 23:39	8° \mathbb{B} 08'05 0°39'32	
max. Earth dist.	10778 Nov 20 21:28	7° \mathbb{A} 40'05 19.67397 AU	min. Earth dist.	10785 Jun 22 11:18	8° \mathbb{B} 06'49 17.39200 AU	
morning rise	10778 Dec 07 21:24	8° \mathbb{A} 42'07	direct	10785 Sep 05 02:44	6° \mathbb{B} 03'00	
retrograde	10779 Mar 11 21:08	12° \mathbb{A} 04'02	evening set	10785 Dec 08 10:35	9° \mathbb{B} 28'45	
opposition	10779 May 25 16:20	10° \mathbb{A} 00'50 0°59'30	max. Earth dist.	10785 Dec 24 11:02	10° \mathbb{B} 28'15 19.37707 AU	
min. Earth dist.	10779 May 26 01:06	9° \mathbb{A} 59'53 17.64811 AU				
direct	10779 Aug 08 09:29	7° \mathbb{A} 57'27	conjunction	10785 Dec 25 01:44	10° \mathbb{B} 30'32 0°33'26	
evening set	10779 Nov 09 17:21	11° \mathbb{A} 18'00	minimum elong	10785 Dec 25 01:44	10° \mathbb{B} 30'32 0°34'01	
			morning rise	10786 Jan 10 15:56	11° \mathbb{B} 32'12	
conjunction	10779 Nov 26 07:50	12° \mathbb{A} 18'45 0°52'21	retrograde	10786 Apr 13 20:16	14° \mathbb{B} 56'19	
minimum elong	10779 Nov 26 07:50	12° \mathbb{A} 18'45 0°52'52	opposition	10786 Jun 26 22:25	12° \mathbb{B} 52'46 0°35'04	
max. Earth dist.	10779 Nov 25 20:52	12° \mathbb{A} 17'04 19.62250 AU	min. Earth dist.	10786 Jun 27 10:33	12° \mathbb{B} 51'26 17.36380 AU	
morning rise	10779 Dec 12 22:43	13° \mathbb{A} 19'34	direct	10786 Sep 10 02:58	10° \mathbb{B} 47'26	
retrograde	10780 Mar 15 20:18	16° \mathbb{A} 42'00	evening set	10786 Dec 13 14:41	14° \mathbb{B} 13'49	
opposition	10780 May 29 12:05	14° \mathbb{A} 38'45 0°57'05				
min. Earth dist.	10780 May 29 21:04	14° \mathbb{A} 37'47 17.59782 AU	conjunction	10786 Dec 30 05:53	15° \mathbb{B} 15'42 0°29'18	

minimum elong	10786 Dec 30 05:53	15° $\overline{3}$ 15'42	0°29'52	minimum elong	10793 Jan 28 06:36	13° \approx 55'15	0°01'45
max. Earth dist.	10786 Dec 29 16:11	15° $\overline{3}$ 13'34	19.35155 AU	behind sun begin	10793 Jan 27 23:53	13° \approx 54'13	
morning rise	10787 Jan 15 19:38	16° $\overline{3}$ 17'25		behind sun end	10793 Jan 28 13:20	13° \approx 56'17	
retrograde	10787 Apr 18 21:37	19° $\overline{3}$ 41'36		max. Earth dist.	10793 Jan 27 18:12	13° \approx 53'19	19.32557 AU
opposition	10787 Jul 01 21:32	17° $\overline{3}$ 38'03	0°30'21	morning rise	10793 Feb 13 16:52	14° \approx 56'44	
min. Earth dist.	10787 Jul 02 09:06	17° $\overline{3}$ 36'47	17.34102 AU		10793 Feb 14 14:13	15° \approx	
direct	10787 Sep 15 04:14	15° $\overline{3}$ 32'32		desc. node	10793 May 05 15:36	18° \approx 16'36	
evening set	10787 Dec 18 19:14	18° $\overline{3}$ 59'28		retrograde	10793 May 17 02:03	18° \approx 20'17	
				opposition	10793 Jul 29 22:07	16° \approx 17'29	-0°01'15
conjunction	10788 Jan 04 10:03	20° $\overline{3}$ 01'25	0°24'58	min. Earth dist.	10793 Jul 30 07:52	16° \approx 16'25	17.33257 AU
minimum elong	10788 Jan 04 10:03	20° $\overline{3}$ 01'25	0°25'31		10793 Aug 30 21:33	15° \approx	
max. Earth dist.	10788 Jan 03 19:34	19° $\overline{3}$ 59'09	19.33172 AU	direct	10793 Oct 13 17:49	14° \approx 11'53	
morning rise	10788 Jan 20 23:25	21° $\overline{3}$ 03'10			10793 Nov 25 13:24	15° \approx	
retrograde	10788 Apr 22 22:10	24° $\overline{3}$ 27'22		evening set	10794 Jan 16 22:20	17° \approx 40'23	
opposition	10788 Jul 05 21:02	22° $\overline{3}$ 23'51	0°25'24				
min. Earth dist.	10788 Jul 06 09:04	22° $\overline{3}$ 22'32	17.32434 AU	conjunction	10794 Feb 02 10:17	18° \approx 42'05	-0°03'43
direct	10788 Sep 19 04:31	20° $\overline{3}$ 18'12		minimum elong	10794 Feb 02 10:17	18° \approx 42'05	0°03'18
evening set	10788 Dec 22 23:43	23° $\overline{3}$ 45'37		behind sun begin	10794 Feb 02 03:35	18° \approx 41'04	
				behind sun end	10794 Feb 02 16:58	18° \approx 43'07	
conjunction	10789 Jan 08 14:19	24° $\overline{3}$ 47'36	0°20'27	max. Earth dist.	10794 Feb 01 22:46	18° \approx 40'18	19.34062 AU
minimum elong	10789 Jan 08 14:20	24° $\overline{3}$ 47'36	0°21'00	morning rise	10794 Feb 18 19:38	19° \approx 43'26	
max. Earth dist.	10789 Jan 08 00:52	24° $\overline{3}$ 45'30	19.31823 AU	retrograde	10794 May 22 01:05	23° \approx 06'39	
morning rise	10789 Jan 25 03:08	25° $\overline{3}$ 49'21		opposition	10794 Aug 03 22:45	21° \approx 04'01	-0°06'43
retrograde	10789 Apr 27 23:53	29° $\overline{3}$ 13'32		min. Earth dist.	10794 Aug 04 09:13	21° \approx 02'53	17.34996 AU
opposition	10789 Jul 10 20:47	27° $\overline{3}$ 10'06	0°20'17	direct	10794 Oct 18 19:47	18° \approx 58'28	
min. Earth dist.	10789 Jul 11 07:40	27° $\overline{3}$ 08'54	17.31398 AU	evening set	10795 Jan 22 02:21	22° \approx 26'52	
direct	10789 Sep 24 06:55	25° $\overline{3}$ 04'22					
evening set	10789 Dec 28 04:15	28° $\overline{3}$ 32'11		conjunction	10795 Feb 07 13:29	23° \approx 28'25	-0°08'34
				minimum elong	10795 Feb 07 13:29	23° \approx 28'25	0°08'11
conjunction	10790 Jan 13 18:26	29° $\overline{3}$ 34'11	0°15'47	behind sun begin	10795 Feb 07 07:32	23° \approx 27'31	
minimum elong	10790 Jan 13 18:26	29° $\overline{3}$ 34'11	0°16'18	behind sun end	10795 Feb 07 19:25	23° \approx 29'20	
max. Earth dist.	10790 Jan 13 04:55	29° $\overline{3}$ 32'04	19.31111 AU	max. Earth dist.	10795 Feb 07 01:32	23° \approx 26'34	19.36028 AU
	10790 Jan 20 15:07	0° \approx		morning rise	10795 Feb 23 22:09	24° \approx 29'37	
morning rise	10790 Jan 30 06:43	0° \approx 35'54		retrograde	10795 May 27 01:59	27° \approx 52'25	
retrograde	10790 May 02 23:52	4° \approx 00'01		opposition	10795 Aug 08 23:19	25° \approx 49'56	-0°12'06
opposition	10790 Jul 15 20:54	1° \approx 56'43	0°15'01	min. Earth dist.	10795 Aug 09 08:33	25° \approx 48'56	17.37174 AU
min. Earth dist.	10790 Jul 16 08:22	1° \approx 55'28	17.31007 AU	direct	10795 Oct 23 23:59	23° \approx 44'28	
	10790 Sep 10 23:53	30° \approx $\overline{3}$		evening set	10796 Jan 27 05:45	27° \approx 12'38	
direct	10790 Sep 29 07:40	29° $\overline{3}$ 50'58					
	10790 Oct 17 15:36	0° \approx		conjunction	10796 Feb 12 16:13	28° \approx 14'01	-0°13'21
evening set	10791 Jan 02 08:56	3° \approx 19'07		minimum elong	10796 Feb 12 16:13	28° \approx 14'01	0°13'00
				behind sun begin	10796 Feb 12 12:11	28° \approx 13'24	
conjunction	10791 Jan 18 22:41	4° \approx 21'05	0°11'01	behind sun end	10796 Feb 12 20:14	28° \approx 14'38	
minimum elong	10791 Jan 18 22:42	4° \approx 21'05	0°11'32	max. Earth dist.	10796 Feb 12 05:40	28° \approx 12'23	19.38410 AU
behind sun begin	10791 Jan 18 17:55	4° \approx 20'21		morning rise	10796 Feb 28 23:50	29° \approx 15'01	
behind sun end	10791 Jan 19 03:29	4° \approx 21'49			10796 Mar 12 13:24	0° \approx	
max. Earth dist.	10791 Jan 18 09:47	4° \approx 19'04	19.31035 AU	retrograde	10796 May 31 00:54	2° \approx 37'22	
morning rise	10791 Feb 04 10:23	5° \approx 22'45		opposition	10796 Aug 12 23:54	0° \approx 35'02	-0°17'25
retrograde	10791 May 08 01:17	8° \approx 46'44		min. Earth dist.	10796 Aug 13 09:31	0° \approx 33'59	17.39765 AU
opposition	10791 Jul 20 20:58	6° \approx 43'36	0°09'39		10796 Aug 26 15:42	30° \approx	
min. Earth dist.	10791 Jul 21 07:16	6° \approx 42'28	17.31216 AU	direct	10796 Oct 28 02:00	28° \approx 29'38	
direct	10791 Oct 04 11:20	4° \approx 37'53			10796 Dec 26 22:08	0° \approx	
evening set	10792 Jan 07 13:39	8° \approx 06'16		evening set	10797 Jan 31 08:43	1° \approx 57'27	
conjunction	10792 Jan 24 02:52	9° \approx 08'11	0°06'12	conjunction	10797 Feb 16 18:12	2° \approx 58'38	-0°18'03
minimum elong	10792 Jan 24 02:52	9° \approx 08'11	0°06'40	minimum elong	10797 Feb 16 18:12	2° \approx 58'38	0°17'44
behind sun begin	10792 Jan 23 20:34	9° \approx 07'13		max. Earth dist.	10797 Feb 16 07:12	2° \approx 56'56	19.41217 AU
behind sun end	10792 Jan 24 09:09	9° \approx 09'08		morning rise	10797 Mar 05 01:07	3° \approx 59'27	
max. Earth dist.	10792 Jan 23 14:22	9° \approx 06'14	19.31526 AU	retrograde	10797 Jun 05 00:34	7° \approx 21'16	
morning rise	10792 Feb 09 13:47	10° \approx 09'46		opposition	10797 Aug 18 00:08	5° \approx 19'03	-0°22'35
retrograde	10792 May 12 00:51	13° \approx 33'34		min. Earth dist.	10797 Aug 18 08:30	5° \approx 18'09	17.42783 AU
opposition	10792 Jul 24 21:34	11° \approx 30'36	0°04'12	direct	10797 Nov 02 04:46	3° \approx 13'44	
min. Earth dist.	10792 Jul 25 08:36	11° \approx 29'24	17.31983 AU	evening set	10798 Feb 05 10:50	6° \approx 41'07	
direct	10792 Oct 08 13:06	9° \approx 24'56					
evening set	10793 Jan 11 18:04	12° \approx 53'26		conjunction	10798 Feb 21 19:39	7° \approx 42'06	-0°22'36
				minimum elong	10798 Feb 21 19:39	7° \approx 42'06	0°22'20
conjunction	10793 Jan 28 06:37	13° \approx 55'15	0°01'18	max. Earth dist.	10798 Feb 21 10:27	7° \approx 40'40	19.44439 AU

morning rise	10798 Mar 10 01:31	8° H 42'40	direct	10804 Dec 05 12:07	5° Y 41'51	
retrograde	10798 Jun 09 22:56	12° H 03'54	evening set	10805 Mar 10 03:34	9° Y 04'01	
opposition	10798 Aug 23 00:13	10° H 01'49 -0°27'35				
min. Earth dist.	10798 Aug 23 08:34	10° H 00'55 17.46205 AU	conjunction	10805 Mar 26 05:48	10° Y 03'02 -0°48'17	
direct	10798 Nov 07 06:49	7° H 56'36	minimum elong	10805 Mar 26 05:47	10° Y 03'02 0°48'20	
evening set	10799 Feb 10 12:28	11° H 23'26	max. Earth dist.	10805 Mar 26 03:47	10° Y 02'43 19.79042 AU	
			morning rise	10805 Apr 11 05:35	11° Y 01'41	
conjunction	10799 Feb 26 20:13	12° H 24'10 -0°26'59	retrograde	10805 Jul 11 17:08	14° Y 18'14	
minimum elong	10799 Feb 26 20:13	12° H 24'10 0°26'46	opposition	10805 Sep 24 13:12	12° Y 17'26 -0°55'08	
max. Earth dist.	10799 Feb 26 10:42	12° H 22'41 19.48076 AU	min. Earth dist.	10805 Sep 24 14:25	12° Y 17'18 17.82217 AU	
morning rise	10799 Mar 15 01:20	13° H 24'30	direct	10805 Dec 10 09:30	10° Y 13'57	
retrograde	10799 Jun 14 20:41	16° H 45'07	evening set	10806 Mar 14 23:00	13° Y 35'12	
opposition	10799 Aug 27 23:49	14° H 43'08 -0°32'22				
min. Earth dist.	10799 Aug 28 07:00	14° H 42'22 17.50058 AU	conjunction	10806 Mar 31 00:27	14° Y 33'55 -0°50'49	
direct	10799 Nov 12 08:32	12° H 38'02	minimum elong	10806 Mar 31 00:27	14° Y 33'55 0°50'54	
evening set	10800 Feb 15 13:07	16° H 04'14	max. Earth dist.	10806 Mar 30 23:52	14° Y 33'49 19.85431 AU	
			morning rise	10806 Apr 15 23:25	15° Y 32'17	
conjunction	10800 Mar 02 20:06	17° H 04'43 -0°31'11	retrograde	10806 Jul 16 11:19	18° Y 48'07	
minimum elong	10800 Mar 02 20:06	17° H 04'43 0°31'01	opposition	10806 Sep 29 09:45	16° Y 47'35 -0°57'45	
max. Earth dist.	10800 Mar 02 12:45	17° H 03'34 19.52145 AU	min. Earth dist.	10806 Sep 29 09:23	16° Y 47'37 17.88683 AU	
morning rise	10800 Mar 19 00:09	18° H 04'47	direct	10806 Dec 15 08:50	14° Y 44'29	
retrograde	10800 Jun 18 18:01	21° H 24'45	evening set	10807 Mar 19 17:40	18° Y 04'45	
opposition	10800 Aug 31 23:14	19° H 22'53 -0°36'55				
min. Earth dist.	10800 Sep 01 05:41	19° H 22'12 17.54346 AU	conjunction	10807 Apr 04 18:10	19° Y 03'09 -0°53'01	
direct	10800 Nov 16 10:40	17° H 17'56	minimum elong	10807 Apr 04 18:10	19° Y 03'09 0°53'10	
evening set	10801 Feb 19 12:54	20° H 43'25	max. Earth dist.	10807 Apr 04 18:17	19° Y 03'10 19.91960 AU	
			morning rise	10807 Apr 20 16:23	20° Y 01'13	
conjunction	10801 Mar 07 18:48	21° H 43'37 -0°35'09	retrograde	10807 Jul 21 03:09	23° Y 16'22	
minimum elong	10801 Mar 07 18:47	21° H 43'37 0°35'00	opposition	10807 Oct 04 05:54	21° Y 16'04 -1°00'00	
max. Earth dist.	10801 Mar 07 11:36	21° H 42'30 19.56664 AU	min. Earth dist.	10807 Oct 04 05:27	21° Y 16'07 17.95276 AU	
morning rise	10801 Mar 23 22:05	22° H 43'26	direct	10807 Dec 20 04:56	19° Y 13'20	
retrograde	10801 Jun 23 13:51	26° H 02'44	evening set	10808 Mar 23 11:23	22° Y 32'36	
opposition	10801 Sep 05 22:10	24° H 01'00 -0°41'11				
min. Earth dist.	10801 Sep 06 03:26	24° H 00'26 17.59106 AU	conjunction	10808 Apr 08 11:06	23° Y 30'41 -0°54'53	
direct	10801 Nov 21 11:09	21° H 56'14	minimum elong	10808 Apr 08 11:06	23° Y 30'41 0°55'04	
evening set	10802 Feb 24 11:49	25° H 20'58	max. Earth dist.	10808 Apr 08 12:12	23° Y 30'51 19.98589 AU	
			morning rise	10808 Apr 24 08:37	24° Y 28'28	
conjunction	10802 Mar 12 16:57	26° H 20'53 -0°38'51	retrograde	10808 Jul 24 20:16	27° Y 42'53	
minimum elong	10802 Mar 12 16:56	26° H 20'53 0°38'46	opposition	10808 Oct 08 01:23	25° Y 42'50 -1°01'53	
max. Earth dist.	10802 Mar 12 11:58	26° H 20'07 19.61649 AU	min. Earth dist.	10808 Oct 07 23:15	25° Y 43'03 18.01919 AU	
morning rise	10802 Mar 28 19:12	27° H 20'24	direct	10808 Dec 24 02:34	23° Y 40'27	
	10802 May 21 09:55	0° Y	evening set	10809 Mar 28 04:06	26° Y 58'39	
retrograde	10802 Jun 28 10:09	0° Y 39'00				
	10802 Aug 06 09:28	30° R H	conjunction	10809 Apr 13 03:03	27° Y 56'26 -0°56'25	
opposition	10802 Sep 10 20:31	28° H 37'28 -0°45'10	minimum elong	10809 Apr 13 03:02	27° Y 56'26 0°56'39	
min. Earth dist.	10802 Sep 11 00:35	28° H 37'02 17.64309 AU	max. Earth dist.	10809 Apr 13 04:59	27° Y 56'44 20.05229 AU	
direct	10802 Nov 26 12:33	26° H 32'58	morning rise	10809 Apr 28 23:54	28° Y 53'56	
evening set	10803 Mar 01 10:04	29° H 56'53		10809 May 18 10:05	0° B	
	10803 Mar 02 06:39	0° Y	retrograde	10809 Jul 29 10:49	2° B 07'39	
conjunction	10803 Mar 17 14:07	0° Y 56'31 -0°42'18	opposition	10809 Oct 12 20:25	0° B 07'47 -1°03'23	
minimum elong	10803 Mar 17 14:07	0° Y 56'31 0°42'15	min. Earth dist.	10809 Oct 12 18:28	0° B 07'59 18.08556 AU	
max. Earth dist.	10803 Mar 17 09:30	0° Y 55'48 19.67074 AU		10809 Oct 15 23:33	30° R Y	
morning rise	10803 Apr 02 15:35	1° Y 55'45	direct	10809 Dec 28 20:46	28° Y 05'45	
retrograde	10803 Jul 03 04:39	5° Y 13'40		10810 Mar 07 22:16	0° B	
opposition	10803 Sep 15 18:36	3° Y 12'21 -0°48'49	evening set	10810 Apr 01 20:02	1° B 22'52	
min. Earth dist.	10803 Sep 15 21:46	3° Y 12'01 17.69948 AU				
direct	10803 Dec 01 11:33	1° Y 08'10	conjunction	10810 Apr 17 18:14	2° B 20'21 -0°57'37	
evening set	10804 Mar 05 07:09	4° Y 31'14	minimum elong	10810 Apr 17 18:13	2° B 20'21 0°57'53	
			max. Earth dist.	10810 Apr 17 20:42	2° B 20'43 20.11842 AU	
conjunction	10804 Mar 21 10:23	5° Y 30'33 -0°45'26	morning rise	10810 May 03 14:32	3° B 17'34	
minimum elong	10804 Mar 21 10:23	5° Y 30'33 0°45'26	retrograde	10810 Aug 03 02:59	6° B 30'32	
max. Earth dist.	10804 Mar 21 07:47	5° Y 30'09 19.72902 AU	opposition	10810 Oct 17 14:32	4° B 30'52 -1°04'30	
morning rise	10804 Apr 06 10:55	6° Y 29'30	min. Earth dist.	10810 Oct 17 10:55	4° B 31'15 18.15128 AU	
retrograde	10804 Jul 06 23:57	9° Y 46'44	direct	10811 Jan 02 17:02	2° B 29'09	
opposition	10804 Sep 19 16:10	7° Y 45'41 -0°52'09	evening set	10811 Apr 06 10:59	5° B 45'11	
min. Earth dist.	10804 Sep 19 17:48	7° Y 45'30 17.75935 AU	conjunction	10811 Apr 22 08:31	6° B 42'21 -0°58'29	

minimum elong	10811 Apr 22 08:31	6°8'42"21	0°58'46	max. Earth dist.	10817 May 17 13:05	2°11'15"08	20.56035 AU
max. Earth dist.	10811 Apr 22 12:01	6°8'42"53	20.18370 AU	morning rise	10817 Jun 01 21:17	3°11'09"13	
morning rise	10811 May 08 04:14	7°8'39"18		retrograde	10817 Sep 01 16:22	6°11'17"32	
retrograde	10811 Aug 07 15:52	10°8'51"33		opposition	10817 Nov 17 04:03	4°11'18"45	-1°02'04
opposition	10811 Oct 22 08:19	8°8'52"02	-1°05'15	min. Earth dist.	10817 Nov 16 19:09	4°11'19"40	18.59059 AU
min. Earth dist.	10811 Oct 22 04:58	8°8'52"23	18.21619 AU	direct	10818 Feb 02 06:58	2°11'19"07	
direct	10812 Jan 07 09:32	6°8'50"36		evening set	10818 May 05 17:49	5°11'27"40	
evening set	10812 Apr 10 00:49	10°8'05"30					
conjunction	10812 Apr 25 21:42	11°8'02"23	-0°58'59	conjunction	10818 May 21 12:03	6°11'23"03	-0°55'16
minimum elong	10812 Apr 25 21:41	11°8'02"23	0°59'20	minimum elong	10818 May 21 12:03	6°11'23"03	0°55'46
max. Earth dist.	10812 Apr 26 01:40	11°8'02"59	20.24820 AU	max. Earth dist.	10818 May 21 21:40	6°11'24"28	20.62006 AU
morning rise	10812 May 11 17:02	11°8'59"03		morning rise	10818 Jun 06 05:51	7°11'18"21	
	10812 Jul 22 04:30	15°8'		retrograde	10818 Sep 06 03:25	10°11'26"10	
retrograde	10812 Aug 11 07:03	15°8'10"35		opposition	10818 Nov 21 17:09	8°11'27"33	-1°00'21
	10812 Aug 31 14:57	15°8'8'		min. Earth dist.	10818 Nov 21 06:35	8°11'28"37	18.64933 AU
opposition	10812 Oct 26 01:14	13°8'11"11	-1°05'37	direct	10819 Feb 06 20:20	6°11'28"15	
min. Earth dist.	10812 Oct 25 20:03	13°8'11"43	18.28018 AU	evening set	10819 May 10 02:07	9°11'35"54	
direct	10813 Jan 11 04:28	11°8'10"01		conjunction	10819 May 25 20:12	10°11'31"04	-0°53'36
evening set	10813 Apr 14 13:46	14°8'23"48		minimum elong	10819 May 25 20:12	10°11'31"04	0°54'08
	10813 Apr 24 18:02	15°8'		max. Earth dist.	10819 May 26 07:24	10°11'32"43	20.67767 AU
conjunction	10813 Apr 30 10:08	15°8'20"24	-0°59'10	morning rise	10819 Jun 10 13:50	11°11'26"12	
minimum elong	10813 Apr 30 10:08	15°8'20"24	0°59'32	retrograde	10819 Sep 10 12:38	14°11'33"33	
max. Earth dist.	10813 Apr 30 15:31	15°8'21"12	20.31174 AU	opposition	10819 Nov 26 06:00	12°11'35"06	-0°58'20
morning rise	10813 May 16 04:59	16°8'16"49		min. Earth dist.	10819 Nov 25 19:40	12°11'36"08	18.70570 AU
retrograde	10813 Aug 15 18:21	19°8'27"37		direct	10820 Feb 11 07:59	10°11'36"08	
opposition	10813 Oct 30 17:26	17°8'28"19	-1°05'37	evening set	10820 May 13 09:50	13°11'42"53	
min. Earth dist.	10813 Oct 30 12:27	17°8'28"50	18.34345 AU	conjunction	10820 May 29 03:38	14°11'37"52	-0°51'40
direct	10814 Jan 15 19:28	15°8'27"26		minimum elong	10820 May 29 03:38	14°11'37"52	0°52'12
evening set	10814 Apr 19 01:50	18°8'40"06		max. Earth dist.	10820 May 29 14:33	14°11'39"28	20.73269 AU
conjunction	10814 May 04 21:37	19°8'36"25	-0°59'01	morning rise	10820 Jun 13 21:25	15°11'32"50	
minimum elong	10814 May 04 21:37	19°8'36"25	0°59'26	retrograde	10820 Sep 13 23:05	18°11'39"46	
max. Earth dist.	10814 May 05 03:26	19°8'37"17	20.37475 AU	opposition	10820 Nov 29 18:11	16°11'41"28	-0°56'03
morning rise	10814 May 20 16:13	20°8'32"36		min. Earth dist.	10820 Nov 29 06:32	16°11'42"38	18.75915 AU
retrograde	10814 Aug 20 07:49	23°8'42"43		direct	10821 Feb 14 19:35	14°11'42"49	
opposition	10814 Nov 04 08:58	21°8'43"31	-1°05'15	evening set	10821 May 17 17:06	17°11'48"44	
min. Earth dist.	10814 Nov 04 01:57	21°8'44"14	18.40619 AU	conjunction	10821 Jun 02 10:53	18°11'43"33	-0°49'29
direct	10815 Jan 20 13:03	19°8'42"54		minimum elong	10821 Jun 02 10:53	18°11'43"33	0°50'03
evening set	10815 Apr 23 12:56	22°8'54"28		max. Earth dist.	10821 Jun 02 23:03	18°11'45"19	20.78432 AU
conjunction	10815 May 09 08:17	23°8'50"33	-0°58'32	morning rise	10821 Jun 18 04:35	19°11'38"22	
minimum elong	10815 May 09 08:17	23°8'50"33	0°58'59	retrograde	10821 Sep 18 07:30	22°11'44"54	
max. Earth dist.	10815 May 09 15:50	23°8'51"40	20.43718 AU	opposition	10821 Dec 04 05:52	20°11'46"44	-0°53'29
morning rise	10815 May 25 02:28	24°8'46"29		min. Earth dist.	10821 Dec 03 18:45	20°11'47"51	18.80889 AU
retrograde	10815 Aug 24 18:24	27°8'55"58		direct	10822 Feb 19 06:17	18°11'48"23	
opposition	10815 Nov 09 00:03	25°8'56"53	-1°04'31	evening set	10822 May 22 00:02	21°11'53"31	
min. Earth dist.	10815 Nov 08 17:00	25°8'57"36	18.46845 AU	conjunction	10822 Jun 06 17:37	22°11'48"11	-0°47'04
direct	10816 Jan 25 02:47	23°8'56"35		minimum elong	10822 Jun 06 17:37	22°11'48"11	0°47'38
evening set	10816 Apr 26 23:19	27°8'07"06		max. Earth dist.	10822 Jun 07 05:05	22°11'49"51	20.83209 AU
conjunction	10816 May 12 18:11	28°8'02"55	-0°57'45	morning rise	10822 Jun 22 11:33	23°11'42"52	
minimum elong	10816 May 12 18:11	28°8'02"55	0°58'13	retrograde	10822 Sep 22 17:35	26°11'49"03	
max. Earth dist.	10816 May 13 02:05	28°8'04"06	20.49923 AU	opposition	10822 Dec 08 17:12	24°11'50"59	-0°50'40
morning rise	10816 May 28 12:15	28°8'58"38		min. Earth dist.	10822 Dec 08 05:08	24°11'52"12	18.85451 AU
	10816 Jun 15 22:45	0°11'		direct	10823 Feb 23 16:43	22°11'52"54	
retrograde	10816 Aug 28 06:27	2°11'07"31		evening set	10823 May 26 06:18	25°11'57"17	
opposition	10816 Nov 12 14:15	0°11'08"34	-1°03'27	conjunction	10823 Jun 10 23:59	26°11'51"48	-0°44'25
min. Earth dist.	10816 Nov 12 05:13	0°11'09"30	18.53013 AU	minimum elong	10823 Jun 10 23:59	26°11'51"48	0°45'00
	10816 Nov 16 02:40	30°8'8'		max. Earth dist.	10823 Jun 11 12:33	26°11'53"38	20.87533 AU
direct	10817 Jan 28 18:20	28°8'08"36		morning rise	10823 Jun 26 17:56	27°11'46"23	
	10817 Apr 07 08:44	0°11'			10823 Aug 11 18:43	0°11'	
evening set	10817 May 01 08:50	1°11'18"07		retrograde	10823 Sep 27 01:07	0°11'52"15	
conjunction	10817 May 17 03:29	2°11'13"43	-0°56'39		10823 Nov 14 02:41	30°8'11'	
minimum elong	10817 May 17 03:28	2°11'13"43	0°57'09	opposition	10823 Dec 13 04:14	28°11'54"16	-0°47'36
				min. Earth dist.	10823 Dec 12 16:41	28°11'55"25	18.89537 AU

direct	10824 Feb 28 02:37	26° Π 56'24	morning rise	10830 Jul 24 08:10	25° \mathfrak{D} 46'55	
evening set	10824 May 29 12:22	0° \mathfrak{D} 00'04	retrograde	10830 Oct 25 06:17	28° \mathfrak{D} 51'40	
	10824 May 29 11:57	0° \mathfrak{D}	opposition	10831 Jan 10 20:53	26° \mathfrak{D} 53'30	-0°20'56
			min. Earth dist.	10831 Jan 10 07:51	26° \mathfrak{D} 54'48	19.05974 AU
conjunction	10824 Jun 14 05:58	0° \mathfrak{D} 54'27 -0°41'33	direct	10831 Mar 28 08:00	24° \mathfrak{D} 56'27	
minimum elong	10824 Jun 14 05:58	0° \mathfrak{D} 54'27 0°42'09	evening set	10831 Jun 26 20:46	27° \mathfrak{D} 56'40	
max. Earth dist.	10824 Jun 14 17:38	0° \mathfrak{D} 56'08 20.91385 AU				
morning rise	10824 Jun 30 00:18	1° \mathfrak{D} 48'56	conjunction	10831 Jul 12 16:05	28° \mathfrak{D} 50'41 -0°16'59	
retrograde	10824 Sep 30 10:44	4° \mathfrak{D} 54'31	minimum elong	10831 Jul 12 16:05	28° \mathfrak{D} 50'41 0°17'32	
opposition	10824 Dec 16 14:33	2° \mathfrak{D} 56'33 -0°44'20	max. Earth dist.	10831 Jul 13 06:01	28° \mathfrak{D} 52'40 21.06424 AU	
min. Earth dist.	10824 Dec 16 02:22	2° \mathfrak{D} 57'45 18.93144 AU	morning rise	10831 Jul 28 13:01	29° \mathfrak{D} 44'56	
direct	10825 Mar 03 11:57	0° \mathfrak{D} 58'50		10831 Aug 02 01:33	0° Ω	
evening set	10825 Jun 02 17:52	4° \mathfrak{D} 01'50	retrograde	10831 Oct 29 13:09	2° Ω 49'44	
			opposition	10832 Jan 15 05:06	0° Ω 51'34 -0°16'36	
conjunction	10825 Jun 18 11:43	4° \mathfrak{D} 56'08 -0°38'30	min. Earth dist.	10832 Jan 14 16:19	0° Ω 52'50 19.06799 AU	
minimum elong	10825 Jun 18 11:43	4° \mathfrak{D} 56'08 0°39'05		10832 Feb 06 11:49	30° \mathfrak{R} \mathfrak{D}	
max. Earth dist.	10825 Jun 19 00:24	4° \mathfrak{D} 57'58 20.94743 AU	direct	10832 Mar 31 14:12	28° \mathfrak{D} 54'37	
morning rise	10825 Jul 04 06:12	5° \mathfrak{D} 50'32		10832 May 22 08:20	0° Ω	
retrograde	10825 Oct 04 17:00	8° \mathfrak{D} 55'50	evening set	10832 Jun 30 01:04	1° Ω 54'36	
opposition	10825 Dec 21 00:34	6° \mathfrak{D} 57'52 -0°40'50				
min. Earth dist.	10825 Dec 20 12:55	6° \mathfrak{D} 59'02 18.96259 AU	conjunction	10832 Jul 15 20:39	2° Ω 48'37 -0°13'02	
direct	10826 Mar 07 20:49	5° \mathfrak{D} 00'18	minimum elong	10832 Jul 15 20:39	2° Ω 48'37 0°13'33	
evening set	10826 Jun 06 23:00	8° \mathfrak{D} 02'40	behind sun begin	10832 Jul 15 16:57	2° Ω 48'07	
			behind sun end	10832 Jul 16 00:21	2° Ω 49'08	
conjunction	10826 Jun 22 16:50	8° \mathfrak{D} 56'52 -0°35'16	max. Earth dist.	10832 Jul 16 09:29	2° Ω 50'27 21.07055 AU	
minimum elong	10826 Jun 22 16:50	8° \mathfrak{D} 56'52 0°35'52	morning rise	10832 Jul 31 18:17	3° Ω 42'55	
max. Earth dist.	10826 Jun 23 04:45	8° \mathfrak{D} 58'35 20.97641 AU	retrograde	10832 Nov 01 21:39	6° Ω 47'50	
morning rise	10826 Jul 08 11:45	9° \mathfrak{D} 51'12	opposition	10833 Jan 18 12:59	4° Ω 49'38 -0°12'11	
retrograde	10826 Oct 09 01:49	12° \mathfrak{D} 56'17	min. Earth dist.	10833 Jan 18 00:11	4° Ω 50'54 19.07220 AU	
opposition	10826 Dec 25 10:06	10° \mathfrak{D} 58'17 -0°37'10	direct	10833 Apr 04 19:49	2° Ω 52'45	
min. Earth dist.	10826 Dec 24 21:47	10° \mathfrak{D} 59'30 18.98946 AU	evening set	10833 Jul 04 05:22	5° Ω 52'36	
direct	10827 Mar 12 04:58	9° \mathfrak{D} 00'49				
evening set	10827 Jun 11 03:44	12° \mathfrak{D} 02'37	conjunction	10833 Jul 20 01:31	6° Ω 46'40 -0°09'02	
			minimum elong	10833 Jul 20 01:31	6° Ω 46'40 0°09'33	
conjunction	10827 Jun 26 21:53	12° \mathfrak{D} 56'44 -0°31'52	behind sun begin	10833 Jul 19 20:02	6° Ω 45'54	
minimum elong	10827 Jun 26 21:53	12° \mathfrak{D} 56'44 0°32'27	behind sun end	10833 Jul 20 07:00	6° Ω 47'26	
max. Earth dist.	10827 Jun 27 11:04	12° \mathfrak{D} 58'38 21.00123 AU	max. Earth dist.	10833 Jul 20 15:09	6° Ω 48'36 21.07248 AU	
morning rise	10827 Jul 12 17:01	13° \mathfrak{D} 51'01	morning rise	10833 Aug 04 23:32	7° Ω 41'01	
retrograde	10827 Oct 13 07:45	16° \mathfrak{D} 55'56	retrograde	10833 Nov 06 04:56	10° Ω 46'04	
opposition	10827 Dec 29 19:18	14° \mathfrak{D} 57'53 -0°33'19	opposition	10834 Jan 22 20:59	8° Ω 47'51 -0°07'43	
min. Earth dist.	10827 Dec 29 07:13	14° \mathfrak{D} 59'05 19.01239 AU	min. Earth dist.	10834 Jan 22 08:39	8° Ω 49'05 19.07176 AU	
direct	10828 Mar 15 12:44	13° \mathfrak{D} 00'31	direct	10834 Apr 09 01:11	6° Ω 51'03	
evening set	10828 Jun 14 08:13	16° \mathfrak{D} 01'49	evening set	10834 Jul 08 09:52	9° Ω 50'49	
conjunction	10828 Jun 30 02:29	16° \mathfrak{D} 55'53 -0°28'19	conjunction	10834 Jul 24 06:19	10° Ω 44'55 -0°04'59	
minimum elong	10828 Jun 30 02:29	16° \mathfrak{D} 55'53 0°28'54	minimum elong	10834 Jul 24 06:19	10° Ω 44'55 0°05'28	
max. Earth dist.	10828 Jun 30 14:58	16° \mathfrak{D} 57'40 21.02240 AU	behind sun begin	10834 Jul 23 23:58	10° Ω 44'02	
morning rise	10828 Jul 15 22:11	17° \mathfrak{D} 50'08	behind sun end	10834 Jul 24 12:40	10° Ω 45'48	
retrograde	10828 Oct 16 15:54	20° \mathfrak{D} 54'56	max. Earth dist.	10834 Jul 24 18:37	10° Ω 46'40 21.06971 AU	
opposition	10829 Jan 02 04:05	18° \mathfrak{D} 56'50 -0°29'19	morning rise	10834 Aug 09 05:03	11° Ω 39'20	
min. Earth dist.	10829 Jan 01 15:20	18° \mathfrak{D} 58'06 19.03180 AU	retrograde	10834 Nov 10 13:57	14° Ω 44'37	
direct	10829 Mar 19 19:19	16° \mathfrak{D} 59'34	opposition	10835 Jan 27 05:01	12° Ω 46'20 -0°03'12	
evening set	10829 Jun 18 12:30	20° \mathfrak{D} 00'26	min. Earth dist.	10835 Jan 26 16:58	12° Ω 47'32 19.06652 AU	
			direct	10835 Apr 13 07:12	10° Ω 49'34	
conjunction	10829 Jul 04 07:09	20° \mathfrak{D} 54'28 -0°24'39	evening set	10835 Jul 12 14:37	13° Ω 49'19	
minimum elong	10829 Jul 04 07:09	20° \mathfrak{D} 54'28 0°25'12				
max. Earth dist.	10829 Jul 04 20:50	20° \mathfrak{D} 56'26 21.03993 AU	conjunction	10835 Jul 28 11:41	14° Ω 43'30 -0°00'52	
morning rise	10829 Jul 20 03:06	21° \mathfrak{D} 48'42	minimum elong	10835 Jul 28 11:41	14° Ω 43'30 0°01'20	
retrograde	10829 Oct 20 22:15	24° \mathfrak{D} 53'26	behind sun begin	10835 Jul 28 05:06	14° Ω 42'35	
opposition	10830 Jan 06 12:32	22° \mathfrak{D} 55'19 -0°25'11	behind sun end	10835 Jul 28 18:17	14° Ω 44'25	
min. Earth dist.	10830 Jan 05 23:59	22° \mathfrak{D} 56'34 19.04752 AU	max. Earth dist.	10835 Jul 29 00:33	14° Ω 45'19 21.06179 AU	
direct	10830 Mar 24 02:19	20° \mathfrak{D} 58'10		10835 Aug 02 06:50	15° Ω	
evening set	10830 Jun 22 16:47	23° \mathfrak{D} 58'40	morning rise	10835 Aug 13 10:52	15° Ω 38'00	
			asc. node	10835 Oct 13 10:22	18° Ω 17'55	
conjunction	10830 Jul 08 11:36	24° \mathfrak{D} 52'41 -0°20'52	retrograde	10835 Nov 14 21:58	18° Ω 43'31	
minimum elong	10830 Jul 08 11:36	24° \mathfrak{D} 52'41 0°21'25	opposition	10836 Jan 31 12:59	16° Ω 45'09 0°01'21	
max. Earth dist.	10830 Jul 09 00:25	24° \mathfrak{D} 54'30 21.05397 AU	min. Earth dist.	10836 Jan 31 01:37	16° Ω 46'18 19.05586 AU	

	10836 Mar 25 21:53	15° $\mathring{R}\delta\mathcal{L}$		minimum elong	10841 Aug 21 02:08	8° $\mathring{M}44'01$	0°23'07
direct	10836 Apr 16 12:45	14° $\mathcal{L}48'24$		max. Earth dist.	10841 Aug 21 11:03	8° $\mathring{M}45'17$	20.90295 AU
	10836 May 07 21:48	15° \mathcal{L}		morning rise	10841 Sep 06 05:16	9° $\mathring{M}39'20$	
evening set	10836 Jul 15 19:46	17° $\mathcal{L}48'11$		retrograde	10841 Dec 09 04:35	12° $\mathring{M}47'04$	
				opposition	10842 Feb 24 13:50	10° $\mathring{M}47'33$	0°27'56
conjunction	10836 Jul 31 17:13	18° $\mathcal{L}42'27$	0°03'21	min. Earth dist.	10842 Feb 24 06:06	10° $\mathring{M}48'20$	18.88287 AU
minimum elong	10836 Jul 31 17:14	18° $\mathcal{L}42'27$	0°02'56	direct	10842 May 11 02:29	8° $\mathring{M}49'59$	
behind sun begin	10836 Jul 31 10:39	18° $\mathcal{L}41'32$		evening set	10842 Aug 09 08:40	11° $\mathring{M}51'12$	
behind sun end	10836 Jul 31 23:48	18° $\mathcal{L}43'22$					
max. Earth dist.	10836 Aug 01 04:20	18° $\mathcal{L}44'01$	21.04839 AU	conjunction	10842 Aug 25 09:45	12° $\mathring{M}46'18$	0°27'08
morning rise	10836 Aug 16 17:12	19° $\mathcal{L}37'03$		minimum elong	10842 Aug 25 09:44	12° $\mathring{M}46'18$	0°26'54
retrograde	10836 Nov 18 07:06	22° $\mathcal{L}42'52$		max. Earth dist.	10842 Aug 25 17:04	12° $\mathring{M}47'21$	20.86207 AU
opposition	10837 Feb 03 21:02	20° $\mathcal{L}44'22$	0°05'53	morning rise	10842 Sep 10 13:44	13° $\mathring{M}41'48$	
min. Earth dist.	10837 Feb 03 10:21	20° $\mathcal{L}45'27$	19.03960 AU	retrograde	10842 Dec 13 15:26	16° $\mathring{M}50'05$	
direct	10837 Apr 20 18:41	18° $\mathcal{L}47'33$		opposition	10843 Feb 28 22:29	14° $\mathring{M}50'21$	0°32'03
evening set	10837 Jul 20 01:04	21° $\mathcal{L}47'26$		min. Earth dist.	10843 Feb 28 15:30	14° $\mathring{M}51'04$	18.84061 AU
				direct	10843 May 15 08:28	12° $\mathring{M}52'35$	
conjunction	10837 Aug 04 23:13	22° $\mathcal{L}41'48$	0°07'27	evening set	10843 Aug 13 16:17	15° $\mathring{M}54'18$	
minimum elong	10837 Aug 04 23:13	22° $\mathcal{L}41'48$	0°07'03				
behind sun begin	10837 Aug 04 17:06	22° $\mathcal{L}40'57$		conjunction	10843 Aug 29 18:13	16° $\mathring{M}49'36$	0°30'47
behind sun end	10837 Aug 05 05:19	22° $\mathcal{L}42'39$		minimum elong	10843 Aug 29 18:13	16° $\mathring{M}49'36$	0°30'36
max. Earth dist.	10837 Aug 05 10:35	22° $\mathcal{L}43'25$	21.02916 AU	max. Earth dist.	10843 Aug 30 02:06	16° $\mathring{M}50'44$	20.81837 AU
morning rise	10837 Aug 20 23:38	23° $\mathcal{L}36'31$		morning rise	10843 Sep 14 22:44	17° $\mathring{M}45'18$	
retrograde	10837 Nov 22 15:31	26° $\mathcal{L}42'38$		retrograde	10843 Dec 18 01:48	20° $\mathring{M}54'08$	
opposition	10838 Feb 08 05:04	24° $\mathcal{L}44'00$	0°10'25	opposition	10844 Mar 04 07:11	18° $\mathring{M}54'13$	0°36'01
min. Earth dist.	10838 Feb 07 19:04	24° $\mathcal{L}45'00$	19.01747 AU	min. Earth dist.	10844 Mar 04 00:22	18° $\mathring{M}54'55$	18.79556 AU
direct	10838 Apr 25 01:13	22° $\mathcal{L}47'05$		direct	10844 May 18 15:43	16° $\mathring{M}56'17$	
evening set	10838 Jul 24 06:46	25° $\mathcal{L}47'06$		evening set	10844 Aug 17 00:42	19° $\mathring{M}58'34$	
conjunction	10838 Aug 09 05:21	26° $\mathcal{L}41'34$	0°11'30	conjunction	10844 Sep 02 03:11	20° $\mathring{M}54'04$	0°34'18
minimum elong	10838 Aug 09 05:21	26° $\mathcal{L}41'34$	0°11'08	minimum elong	10844 Sep 02 03:10	20° $\mathring{M}54'04$	0°34'09
behind sun begin	10838 Aug 09 00:25	26° $\mathcal{L}40'53$		max. Earth dist.	10844 Sep 02 09:16	20° $\mathring{M}54'57$	20.77212 AU
behind sun end	10838 Aug 09 10:17	26° $\mathcal{L}42'16$		morning rise	10844 Sep 18 08:34	21° $\mathring{M}49'59$	
max. Earth dist.	10838 Aug 09 14:57	26° $\mathcal{L}42'56$	21.00445 AU	retrograde	10844 Dec 21 14:00	24° $\mathring{M}59'27$	
morning rise	10838 Aug 25 06:36	27° $\mathcal{L}36'25$		opposition	10845 Mar 08 16:22	22° $\mathring{M}59'21$	0°39'50
	10838 Oct 15 17:42	0° \mathring{M}		min. Earth dist.	10845 Mar 08 10:31	22° $\mathring{M}59'57$	18.74811 AU
retrograde	10838 Nov 27 00:40	0° $\mathring{M}42'54$		direct	10845 May 22 22:33	21° $\mathring{M}01'14$	
	10839 Jan 09 09:19	30° $\mathring{R}\mathcal{L}$		evening set	10845 Aug 21 09:32	24° $\mathring{M}04'09$	
opposition	10839 Feb 12 13:14	28° $\mathcal{L}44'02$	0°14'54				
min. Earth dist.	10839 Feb 12 03:59	28° $\mathcal{L}44'58$	18.99021 AU	conjunction	10845 Sep 06 12:51	24° $\mathring{M}59'52$	0°37'39
direct	10839 Apr 29 06:44	26° $\mathcal{L}46'58$		minimum elong	10845 Sep 06 12:51	24° $\mathring{M}59'52$	0°37'32
evening set	10839 Jul 28 12:32	29° $\mathcal{L}47'11$		max. Earth dist.	10845 Sep 06 19:28	25° $\mathring{M}00'50$	20.72339 AU
	10839 Aug 01 07:32	0° \mathring{M}		morning rise	10845 Sep 22 18:44	25° $\mathring{M}56'00$	
				retrograde	10845 Dec 26 01:17	29° $\mathring{M}06'07$	
conjunction	10839 Aug 13 11:53	0° $\mathring{M}41'48$	0°15'31	opposition	10846 Mar 13 01:52	27° $\mathring{M}05'52$	0°43'28
minimum elong	10839 Aug 13 11:53	0° $\mathring{M}41'48$	0°15'12	min. Earth dist.	10846 Mar 12 20:09	27° $\mathring{M}06'27$	18.69815 AU
behind sun begin	10839 Aug 13 09:40	0° $\mathring{M}41'29$		direct	10846 May 27 06:28	25° $\mathring{M}07'36$	
behind sun end	10839 Aug 13 14:06	0° $\mathring{M}42'06$		evening set	10846 Aug 25 19:21	28° $\mathring{M}11'12$	
max. Earth dist.	10839 Aug 13 21:57	0° $\mathring{M}43'14$	20.97473 AU				
morning rise	10839 Aug 29 13:40	1° $\mathring{M}36'47$		conjunction	10846 Sep 10 23:12	29° $\mathring{M}07'09$	0°40'49
retrograde	10839 Dec 01 09:31	4° $\mathring{M}43'38$		minimum elong	10846 Sep 10 23:12	29° $\mathring{M}07'09$	0°40'46
opposition	10840 Feb 16 21:22	2° $\mathring{M}44'33$	0°19'20	max. Earth dist.	10846 Sep 11 03:59	29° $\mathring{M}07'50$	20.67233 AU
min. Earth dist.	10840 Feb 16 12:37	2° $\mathring{M}45'27$	18.95817 AU		10846 Sep 26 05:07	0° \mathcal{L}	
direct	10840 May 02 13:53	0° $\mathring{M}47'20$		morning rise	10846 Sep 27 05:58	0° $\mathcal{L}03'32$	
evening set	10840 Jul 31 18:55	3° $\mathring{M}47'49$		retrograde	10846 Dec 30 14:23	3° $\mathcal{L}14'21$	
				opposition	10847 Mar 17 11:53	1° $\mathcal{L}13'55$	0°46'53
conjunction	10840 Aug 16 18:44	4° $\mathring{M}42'34$	0°19'29	min. Earth dist.	10847 Mar 17 07:26	1° $\mathcal{L}14'23$	18.64592 AU
minimum elong	10840 Aug 16 18:44	4° $\mathring{M}42'34$	0°19'11		10847 Apr 18 18:36	30° $\mathring{R}\mathring{M}$	
max. Earth dist.	10840 Aug 17 03:06	4° $\mathring{M}43'45$	20.94070 AU	direct	10847 May 31 14:26	29° $\mathring{M}15'28$	
morning rise	10840 Sep 01 21:22	5° $\mathring{M}37'42$			10847 Jul 12 08:58	0° \mathcal{L}	
retrograde	10840 Dec 04 19:05	8° $\mathring{M}44'59$		evening set	10847 Aug 30 05:48	2° $\mathcal{L}19'49$	
opposition	10841 Feb 20 05:28	6° $\mathring{M}45'41$	0°23'41				
min. Earth dist.	10841 Feb 19 21:30	6° $\mathring{M}46'29$	18.92228 AU	conjunction	10847 Sep 15 10:34	3° $\mathcal{L}16'03$	0°43'48
direct	10841 May 06 19:13	4° $\mathring{M}48'16$		minimum elong	10847 Sep 15 10:33	3° $\mathcal{L}16'03$	0°43'47
evening set	10841 Aug 05 01:32	7° $\mathring{M}49'06$		max. Earth dist.	10847 Sep 15 15:36	3° $\mathcal{L}16'47$	20.61877 AU
				morning rise	10847 Oct 01 17:51	4° $\mathcal{L}12'39$	
conjunction	10841 Aug 21 02:09	8° $\mathring{M}44'01$	0°23'22	retrograde	10848 Jan 04 03:15	7° $\mathcal{L}24'11$	

opposition	10848 Mar 20 22:16	5° <u>♂</u> 23'37	0°50'05	conjunction	10854 Oct 15 17:18	3° <u>♂</u> 04'39	0°57'46
min. Earth dist.	10848 Mar 20 18:10	5° <u>♂</u> 24'02	18.59095 AU	minimum elong	10854 Oct 15 17:18	3° <u>♂</u> 04'39	0°58'02
direct	10848 Jun 03 23:37	3° <u>♂</u> 24'58		max. Earth dist.	10854 Oct 15 13:25	3° <u>♂</u> 04'04	20.17159 AU
evening set	10848 Sep 02 17:23	6° <u>♂</u> 30'09		morning rise	10854 Nov 01 05:03	4° <u>♂</u> 03'09	
				retrograde	10855 Feb 03 13:23	7° <u>♂</u> 19'43	
conjunction	10848 Sep 18 22:40	7° <u>♂</u> 26'37	0°46'34	opposition	10855 Apr 20 13:26	5° <u>♂</u> 17'30	1°04'39
minimum elong	10848 Sep 18 22:39	7° <u>♂</u> 26'36	0°46'37	min. Earth dist.	10855 Apr 20 17:05	5° <u>♂</u> 17'07	18.13747 AU
max. Earth dist.	10848 Sep 19 01:29	7° <u>♂</u> 27'01	20.56239 AU	direct	10855 Jul 04 07:54	3° <u>♂</u> 16'31	
morning rise	10848 Oct 05 06:45	8° <u>♂</u> 23'29		evening set	10855 Oct 04 00:59	6° <u>♂</u> 28'14	
retrograde	10849 Jan 07 16:37	11° <u>♂</u> 35'45					
opposition	10849 Mar 25 09:10	9° <u>♂</u> 35'00	0°53'03	conjunction	10855 Oct 20 11:25	7° <u>♂</u> 26'42	0°58'34
min. Earth dist.	10849 Mar 25 06:49	9° <u>♂</u> 35'15	18.53316 AU	minimum elong	10855 Oct 20 11:24	7° <u>♂</u> 26'42	0°58'53
direct	10849 Jun 08 08:49	7° <u>♂</u> 36'07		max. Earth dist.	10855 Oct 20 07:29	7° <u>♂</u> 26'06	20.10329 AU
evening set	10849 Sep 07 05:39	10° <u>♂</u> 42'09		morning rise	10855 Nov 05 23:36	8° <u>♂</u> 25'28	
				retrograde	10856 Feb 08 08:13	11° <u>♂</u> 42'45	
conjunction	10849 Sep 23 11:49	11° <u>♂</u> 38'54	0°49'07	opposition	10856 Apr 24 03:54	9° <u>♂</u> 40'18	1°05'23
minimum elong	10849 Sep 23 11:49	11° <u>♂</u> 38'54	0°49'11	min. Earth dist.	10856 Apr 24 07:17	9° <u>♂</u> 39'57	18.06951 AU
max. Earth dist.	10849 Sep 23 14:33	11° <u>♂</u> 39'18	20.50302 AU	direct	10856 Jul 07 22:50	7° <u>♂</u> 38'57	
morning rise	10849 Oct 09 20:23	12° <u>♂</u> 36'01		evening set	10856 Oct 07 19:18	10° <u>♂</u> 51'43	
retrograde	10850 Jan 12 07:09	15° <u>♂</u> 49'01					
opposition	10850 Mar 29 20:38	13° <u>♂</u> 48'05	0°55'45	conjunction	10856 Oct 24 06:12	11° <u>♂</u> 50'29	0°59'01
min. Earth dist.	10850 Mar 29 18:38	13° <u>♂</u> 48'17	18.47224 AU	minimum elong	10856 Oct 24 06:12	11° <u>♂</u> 50'29	0°59'23
direct	10850 Jun 12 19:41	11° <u>♂</u> 48'56		max. Earth dist.	10856 Oct 24 00:42	11° <u>♂</u> 49'39	20.03579 AU
evening set	10850 Sep 11 18:48	14° <u>♂</u> 55'49		morning rise	10856 Nov 09 18:55	12° <u>♂</u> 49'32	
					10856 Dec 22 03:32	15° <u>♂</u>	
conjunction	10850 Sep 28 01:33	15° <u>♂</u> 52'50	0°51'24	retrograde	10857 Feb 12 01:54	16° <u>♂</u> 07'31	
minimum elong	10850 Sep 28 01:32	15° <u>♂</u> 52'50	0°51'31		10857 Apr 06 10:39	15° <u>♂</u>	
max. Earth dist.	10850 Sep 28 01:55	15° <u>♂</u> 52'53	20.44063 AU	opposition	10857 Apr 28 19:08	14° <u>♂</u> 04'53	1°05'44
morning rise	10850 Oct 14 10:56	16° <u>♂</u> 50'14		min. Earth dist.	10857 Apr 29 00:07	14° <u>♂</u> 04'21	18.00279 AU
retrograde	10851 Jan 16 21:05	20° <u>♂</u> 03'58		direct	10857 Jul 12 12:28	12° <u>♂</u> 03'10	
opposition	10851 Apr 03 08:44	18° <u>♂</u> 02'47	0°58'10		10857 Oct 07 17:16	15° <u>♂</u>	
min. Earth dist.	10851 Apr 03 08:36	18° <u>♂</u> 02'48	18.40848 AU	evening set	10857 Oct 12 14:21	15° <u>♂</u> 17'01	
direct	10851 Jun 17 06:00	16° <u>♂</u> 03'18					
evening set	10851 Sep 16 08:46	19° <u>♂</u> 11'06		conjunction	10857 Oct 29 01:59	16° <u>♂</u> 16'05	0°59'08
				minimum elong	10857 Oct 29 01:59	16° <u>♂</u> 16'05	0°59'32
conjunction	10851 Oct 02 16:25	20° <u>♂</u> 08'24	0°53'26	max. Earth dist.	10857 Oct 28 20:23	16° <u>♂</u> 15'15	19.96996 AU
minimum elong	10851 Oct 02 16:25	20° <u>♂</u> 08'24	0°53'35	morning rise	10857 Nov 14 15:05	17° <u>♂</u> 15'25	
max. Earth dist.	10851 Oct 02 16:37	20° <u>♂</u> 08'26	20.37560 AU	retrograde	10858 Feb 16 22:24	20° <u>♂</u> 34'07	
morning rise	10851 Oct 19 02:18	21° <u>♂</u> 06'04		opposition	10858 May 03 10:51	18° <u>♂</u> 31'18	1°05'41
retrograde	10852 Jan 21 12:55	24° <u>♂</u> 20'30		min. Earth dist.	10858 May 03 15:22	18° <u>♂</u> 30'49	17.93791 AU
opposition	10852 Apr 06 21:00	22° <u>♂</u> 19'04	1°00'18	direct	10858 Jul 17 04:57	16° <u>♂</u> 29'16	
min. Earth dist.	10852 Apr 06 21:10	22° <u>♂</u> 19'03	18.34229 AU	evening set	10858 Oct 17 10:23	19° <u>♂</u> 44'14	
direct	10852 Jun 20 18:32	20° <u>♂</u> 19'14					
evening set	10852 Sep 19 23:43	23° <u>♂</u> 27'58		conjunction	10858 Nov 02 22:33	20° <u>♂</u> 43'36	0°58'54
				minimum elong	10858 Nov 02 22:33	20° <u>♂</u> 43'35	0°59'20
conjunction	10852 Oct 06 07:55	24° <u>♂</u> 25'33	0°55'11	max. Earth dist.	10858 Nov 02 15:47	20° <u>♂</u> 42'34	19.90607 AU
minimum elong	10852 Oct 06 07:54	24° <u>♂</u> 25'33	0°55'22	morning rise	10858 Nov 19 12:07	21° <u>♂</u> 43'12	
max. Earth dist.	10852 Oct 06 05:53	24° <u>♂</u> 25'15	20.30851 AU	retrograde	10859 Feb 21 17:24	25° <u>♂</u> 02'36	
morning rise	10852 Oct 22 18:32	25° <u>♂</u> 23'29		opposition	10859 May 08 03:26	22° <u>♂</u> 59'40	1°05'14
retrograde	10853 Jan 25 03:45	28° <u>♂</u> 38'38		min. Earth dist.	10859 May 08 09:32	22° <u>♂</u> 59'01	17.87518 AU
opposition	10853 Apr 11 10:01	26° <u>♂</u> 36'57	1°02'06	direct	10859 Jul 21 19:42	20° <u>♂</u> 57'20	
min. Earth dist.	10853 Apr 11 12:01	26° <u>♂</u> 36'44	18.27456 AU	evening set	10859 Oct 22 07:27	24° <u>♂</u> 13'26	
direct	10853 Jun 25 05:45	24° <u>♂</u> 36'44					
evening set	10853 Sep 24 15:08	27° <u>♂</u> 46'25		conjunction	10859 Nov 07 20:14	25° <u>♂</u> 13'06	0°58'17
				minimum elong	10859 Nov 07 20:13	25° <u>♂</u> 13'06	0°58'44
conjunction	10853 Oct 11 00:11	28° <u>♂</u> 44'17	0°56'38	max. Earth dist.	10859 Nov 07 13:00	25° <u>♂</u> 12'00	19.84457 AU
minimum elong	10853 Oct 11 00:11	28° <u>♂</u> 44'17	0°56'53	morning rise	10859 Nov 24 10:08	26° <u>♂</u> 12'58	
max. Earth dist.	10853 Oct 10 22:11	28° <u>♂</u> 43'59	20.24028 AU	retrograde	10860 Feb 26 15:44	29° <u>♂</u> 33'03	
morning rise	10853 Oct 27 11:15	29° <u>♂</u> 42'30		opposition	10860 May 11 20:24	27° <u>♂</u> 30'02	1°04'23
	10853 Nov 01 13:15	0° <u>♂</u>		min. Earth dist.	10860 May 12 02:12	27° <u>♂</u> 29'25	17.81481 AU
retrograde	10854 Jan 29 21:04	2° <u>♂</u> 58'21		direct	10860 Jul 25 13:52	25° <u>♂</u> 27'26	
opposition	10854 Apr 15 23:26	0° <u>♂</u> 56'24	1°03'33	evening set	10860 Oct 26 05:31	28° <u>♂</u> 44'41	
min. Earth dist.	10854 Apr 16 01:20	0° <u>♂</u> 56'12	18.20599 AU				
	10854 May 09 03:23	30° <u>♂</u>		conjunction	10860 Nov 11 18:45	29° <u>♂</u> 44'39	0°57'20
direct	10854 Jun 29 19:29	28° <u>♂</u> 55'49		minimum elong	10860 Nov 11 18:44	29° <u>♂</u> 44'39	0°57'49
	10854 Aug 18 20:34	0° <u>♂</u>		max. Earth dist.	10860 Nov 11 10:39	29° <u>♂</u> 43'25	19.78531 AU
evening set	10854 Sep 29 07:43	2° <u>♂</u> 06'29			10860 Nov 15 23:39	0° <u>♂</u>	

morning rise	10860 Nov 28 08:55	0° \mathbb{A} 44'47		min. Earth dist.	10867 Jun 14 02:21	29° \mathbb{A} 52'28	17.45706 AU
retrograde	10861 Mar 02 12:08	4° \mathbb{A} 05'31		direct	10867 Aug 27 14:11	27° \mathbb{A} 49'07	
opposition	10861 May 16 14:22	2° \mathbb{A} 02'28	1°03'08		10867 Nov 08 08:58	0° \mathbb{B}	
min. Earth dist.	10861 May 16 21:49	2° \mathbb{A} 01'39	17.75673 AU	evening set	10867 Nov 29 14:27	1° \mathbb{B} 13'26	
	10861 Jul 26 12:00	30° \mathbb{R} 11					
direct	10861 Jul 30 06:00	29° \mathbb{M} 59'37		conjunction	10867 Dec 16 05:38	2° \mathbb{B} 14'58	0°40'42
	10861 Aug 03 00:43	0° \mathbb{A}		minimum elong	10867 Dec 16 05:38	2° \mathbb{B} 14'58	0°41'18
evening set	10861 Oct 31 04:21	3° \mathbb{A} 18'00		max. Earth dist.	10867 Dec 15 15:31	2° \mathbb{B} 12'47	19.43732 AU
				morning rise	10868 Jan 01 20:21	3° \mathbb{B} 16'28	
conjunction	10861 Nov 16 18:02	4° \mathbb{A} 18'14	0°56'00	retrograde	10868 Apr 04 06:17	6° \mathbb{B} 40'20	
minimum elong	10861 Nov 16 18:02	4° \mathbb{A} 18'14	0°56'31	opposition	10868 Jun 17 12:57	4° \mathbb{B} 36'48	0°43'26
max. Earth dist.	10861 Nov 16 09:01	4° \mathbb{A} 16'51	19.72839 AU	min. Earth dist.	10868 Jun 18 00:25	4° \mathbb{B} 35'33	17.41906 AU
morning rise	10861 Dec 03 08:31	5° \mathbb{A} 18'37		direct	10868 Aug 31 14:27	2° \mathbb{B} 31'55	
retrograde	10862 Mar 07 11:43	8° \mathbb{A} 40'01		evening set	10868 Dec 03 17:55	5° \mathbb{B} 57'00	
opposition	10862 May 21 08:54	6° \mathbb{A} 36'53	1°01'29				
min. Earth dist.	10862 May 21 16:16	6° \mathbb{A} 36'05	17.70082 AU	conjunction	10868 Dec 20 09:18	6° \mathbb{B} 58'42	0°37'03
direct	10862 Aug 04 02:09	4° \mathbb{A} 33'46		minimum elong	10868 Dec 20 09:18	6° \mathbb{B} 58'42	0°37'39
evening set	10862 Nov 05 04:17	7° \mathbb{A} 53'17		max. Earth dist.	10868 Dec 19 20:07	6° \mathbb{B} 56'39	19.40169 AU
				morning rise	10869 Jan 05 23:37	8° \mathbb{B} 00'17	
conjunction	10862 Nov 21 18:25	8° \mathbb{A} 53'47	0°54'19	retrograde	10869 Apr 09 07:11	11° \mathbb{B} 24'21	
minimum elong	10862 Nov 21 18:26	8° \mathbb{A} 53'47	0°54'51	opposition	10869 Jun 22 11:21	9° \mathbb{B} 20'46	0°39'13
max. Earth dist.	10862 Nov 21 08:43	8° \mathbb{A} 52'18	19.67337 AU	min. Earth dist.	10869 Jun 22 22:54	9° \mathbb{B} 19'30	17.38597 AU
morning rise	10862 Dec 08 09:00	9° \mathbb{A} 54'24		direct	10869 Sep 05 14:26	7° \mathbb{B} 15'38	
retrograde	10863 Mar 12 09:04	13° \mathbb{A} 16'21		evening set	10869 Dec 08 21:46	10° \mathbb{B} 41'24	
opposition	10863 May 26 04:10	11° \mathbb{A} 13'11	0°59'26				
min. Earth dist.	10863 May 26 13:12	11° \mathbb{A} 12'12	17.64683 AU	conjunction	10869 Dec 25 12:56	11° \mathbb{B} 43'13	0°33'07
direct	10863 Aug 08 20:18	9° \mathbb{A} 09'48		minimum elong	10869 Dec 25 12:56	11° \mathbb{B} 43'13	0°33'42
evening set	10863 Nov 10 05:06	12° \mathbb{A} 30'23		max. Earth dist.	10869 Dec 24 22:36	11° \mathbb{B} 40'59	19.37138 AU
				morning rise	10870 Jan 11 03:10	12° \mathbb{B} 44'54	
conjunction	10863 Nov 26 19:33	13° \mathbb{A} 31'08	0°52'16	retrograde	10870 Apr 14 07:32	16° \mathbb{B} 09'05	
minimum elong	10863 Nov 26 19:33	13° \mathbb{A} 31'08	0°52'50	opposition	10870 Jun 27 10:10	14° \mathbb{B} 05'28	0°34'43
max. Earth dist.	10863 Nov 26 08:18	13° \mathbb{A} 29'24	19.62047 AU	min. Earth dist.	10870 Jun 27 21:55	14° \mathbb{B} 04'11	17.35856 AU
morning rise	10863 Dec 13 10:22	14° \mathbb{A} 31'58		direct	10870 Sep 10 14:34	12° \mathbb{B} 00'06	
retrograde	10864 Mar 16 09:08	17° \mathbb{A} 54'26		evening set	10870 Dec 14 01:55	15° \mathbb{B} 26'30	
opposition	10864 May 30 00:02	15° \mathbb{A} 51'11	0°56'59				
min. Earth dist.	10864 May 30 09:10	15° \mathbb{A} 50'12	17.59502 AU	conjunction	10870 Dec 30 17:07	16° \mathbb{B} 28'24	0°28'57
direct	10864 Aug 12 18:51	13° \mathbb{A} 47'31		minimum elong	10870 Dec 30 17:07	16° \mathbb{B} 28'24	0°29'33
evening set	10864 Nov 14 06:27	17° \mathbb{A} 09'07		max. Earth dist.	10870 Dec 30 03:57	16° \mathbb{B} 26'21	19.34689 AU
				morning rise	10871 Jan 16 06:51	17° \mathbb{B} 30'08	
conjunction	10864 Nov 30 21:16	18° \mathbb{A} 10'06	0°49'53	retrograde	10871 Apr 19 09:34	20° \mathbb{B} 54'23	
minimum elong	10864 Nov 30 21:16	18° \mathbb{A} 10'06	0°50'26	opposition	10871 Jul 02 09:13	18° \mathbb{B} 50'48	0°29'57
max. Earth dist.	10864 Nov 30 09:52	18° \mathbb{A} 08'21	19.56976 AU	min. Earth dist.	10871 Jul 02 20:28	18° \mathbb{B} 49'34	17.33707 AU
morning rise	10864 Dec 17 11:59	19° \mathbb{A} 11'07		direct	10871 Sep 15 15:36	16° \mathbb{B} 45'16	
retrograde	10865 Mar 21 06:50	22° \mathbb{A} 34'03		evening set	10871 Dec 19 06:29	20° \mathbb{B} 12'13	
opposition	10865 Jun 03 20:36	20° \mathbb{A} 30'44	0°54'08				
min. Earth dist.	10865 Jun 04 06:59	20° \mathbb{A} 29'36	17.54564 AU	conjunction	10872 Jan 04 21:17	21° \mathbb{B} 14'11	0°24'35
direct	10865 Aug 17 15:24	18° \mathbb{A} 26'45		minimum elong	10872 Jan 04 21:17	21° \mathbb{B} 14'11	0°25'10
evening set	10865 Nov 19 08:35	21° \mathbb{A} 49'19		max. Earth dist.	10872 Jan 04 07:20	21° \mathbb{B} 12'00	19.32860 AU
				morning rise	10872 Jan 21 10:41	22° \mathbb{B} 15'56	
conjunction	10865 Dec 05 23:31	22° \mathbb{A} 50'30	0°47'08	retrograde	10872 Apr 23 09:34	25° \mathbb{B} 40'12	
minimum elong	10865 Dec 05 23:31	22° \mathbb{A} 50'31	0°47'44	opposition	10872 Jul 06 08:49	23° \mathbb{B} 36'40	0°24'59
max. Earth dist.	10865 Dec 05 10:32	22° \mathbb{A} 48'30	19.52199 AU	min. Earth dist.	10872 Jul 06 20:21	23° \mathbb{B} 35'25	17.32207 AU
morning rise	10865 Dec 22 14:25	23° \mathbb{A} 51'43		direct	10872 Sep 19 16:10	21° \mathbb{B} 31'01	
retrograde	10866 Mar 26 07:00	27° \mathbb{A} 15'02		evening set	10872 Dec 23 10:50	24° \mathbb{B} 58'28	
opposition	10866 Jun 08 17:31	25° \mathbb{A} 11'37	0°50'55				
min. Earth dist.	10866 Jun 09 04:03	25° \mathbb{A} 10'28	17.49954 AU	conjunction	10873 Jan 09 01:29	26° \mathbb{B} 00'27	0°20'03
direct	10866 Aug 22 15:24	23° \mathbb{A} 07'20		minimum elong	10873 Jan 09 01:29	26° \mathbb{B} 00'27	0°20'37
evening set	10866 Nov 24 11:11	26° \mathbb{A} 30'48		max. Earth dist.	10873 Jan 08 12:44	25° \mathbb{B} 58'28	19.31683 AU
				morning rise	10873 Jan 25 14:18	27° \mathbb{B} 02'13	
conjunction	10866 Dec 11 02:27	27° \mathbb{A} 32'12	0°44'05		10873 Mar 28 11:10	0° \approx	
minimum elong	10866 Dec 11 02:28	27° \mathbb{A} 32'12	0°44'40	retrograde	10873 Apr 28 11:39	0° \approx 26'27	
max. Earth dist.	10866 Dec 10 13:52	27° \mathbb{A} 30'15	19.47763 AU		10873 May 29 20:37	30° \mathbb{R} 13	
morning rise	10866 Dec 27 17:09	28° \mathbb{A} 33'33		opposition	10873 Jul 11 08:37	28° \mathbb{B} 23'02	0°19'50
	10867 Jan 22 01:26	0° \mathbb{B}		min. Earth dist.	10873 Jul 11 19:11	28° \mathbb{B} 21'52	17.31334 AU
retrograde	10867 Mar 31 06:05	1° \mathbb{B} 57'10		direct	10873 Sep 24 18:20	26° \mathbb{B} 17'21	
	10867 Jun 11 05:17	30° \mathbb{R} 11		evening set	10873 Dec 28 15:37	29° \mathbb{B} 45'10	
opposition	10867 Jun 13 15:04	29° \mathbb{A} 53'42	0°47'21		10874 Jan 01 15:58	0° \approx	

conjunction	10874 Jan 14 05:47	0°47'10	0°15'22	opposition	10879 Aug 09 11:25	27°02'47	-0°12'41
minimum elong	10874 Jan 14 05:47	0°47'10	0°15'55	min. Earth dist.	10879 Aug 09 20:38	27°01'47	17.37163 AU
max. Earth dist.	10874 Jan 13 16:43	0°45'08	19.31121 AU	direct	10879 Oct 24 12:02	24°57'17	
morning rise	10874 Jan 30 18:07	1°48'54		evening set	10880 Jan 27 17:31	28°25'23	
retrograde	10874 May 03 11:21	5°13'04					
opposition	10874 Jul 16 08:41	3°09'47	0°14'32	conjunction	10880 Feb 13 04:00	29°26'46	-0°13'52
min. Earth dist.	10874 Jul 16 19:54	3°08'33	17.31074 AU	minimum elong	10880 Feb 13 03:59	29°26'46	0°13'31
direct	10874 Sep 29 19:37	1°04'04		behind sun begin	10880 Feb 13 00:19	29°26'13	
evening set	10875 Jan 02 20:24	4°32'13		behind sun end	10880 Feb 13 07:40	29°27'20	
				max. Earth dist.	10880 Feb 12 17:19	29°25'07	19.38365 AU
conjunction	10875 Jan 19 10:11	5°34'11	0°10'35		10880 Feb 22 00:02	0°	
minimum elong	10875 Jan 19 10:10	5°34'11	0°11'06	morning rise	10880 Feb 29 11:39	0°27'46	
behind sun begin	10875 Jan 19 05:11	5°33'26		retrograde	10880 May 31 12:18	3°50'06	
behind sun end	10875 Jan 19 15:09	5°34'57		opposition	10880 Aug 13 12:00	1°47'43	-0°17'59
max. Earth dist.	10875 Jan 18 21:44	5°32'15	19.31146 AU	min. Earth dist.	10880 Aug 13 21:39	1°46'41	17.39688 AU
morning rise	10875 Feb 04 21:52	6°35'52			10880 Oct 02 11:13	30°	
retrograde	10875 May 08 13:24	9°59'53		direct	10880 Oct 28 14:05	29°42'18	
opposition	10875 Jul 21 08:59	7°56'46	0°09'09		10880 Nov 23 09:21	0°	
min. Earth dist.	10875 Jul 21 19:08	7°55'39	17.31356 AU	evening set	10881 Jan 31 20:19	3°10'04	
direct	10875 Oct 04 23:09	5°51'05					
evening set	10876 Jan 08 01:09	9°19'26		conjunction	10881 Feb 17 05:52	4°11'15	-0°18'34
				minimum elong	10881 Feb 17 05:51	4°11'15	0°18'15
conjunction	10876 Jan 24 14:19	10°21'21	0°05'44	max. Earth dist.	10881 Feb 16 18:53	4°09'33	19.41113 AU
minimum elong	10876 Jan 24 14:20	10°21'21	0°06'14	morning rise	10881 Mar 05 12:50	5°12'04	
behind sun begin	10876 Jan 24 07:57	10°20'22		retrograde	10881 Jun 05 12:17	8°33'53	
behind sun end	10876 Jan 24 20:42	10°22'19		opposition	10881 Aug 18 12:12	6°31'37	-0°23'09
max. Earth dist.	10876 Jan 24 01:59	10°19'25	19.31677 AU	min. Earth dist.	10881 Aug 18 20:28	6°30'44	17.42651 AU
morning rise	10876 Feb 10 01:16	11°22'56		direct	10881 Nov 02 17:38	4°26'16	
retrograde	10876 May 12 12:43	14°46'45		evening set	10882 Feb 05 22:30	7°53'37	
opposition	10876 Jul 25 09:37	12°43'47	0°03'41				
min. Earth dist.	10876 Jul 25 20:34	12°42'35	17.32139 AU	conjunction	10882 Feb 22 07:21	8°54'36	-0°23'07
direct	10876 Oct 09 01:05	10°38'08		minimum elong	10882 Feb 22 07:20	8°54'36	0°22'51
evening set	10877 Jan 12 05:44	14°06'35		max. Earth dist.	10882 Feb 21 22:09	8°53'10	19.44292 AU
	10877 Jan 26 12:52	15°		morning rise	10882 Mar 10 13:15	9°55'11	
conjunction	10877 Jan 28 18:17	15°08'24	0°00'48	retrograde	10882 Jun 10 09:47	13°16'25	
minimum elong	10877 Jan 28 18:18	15°08'24	0°01'16	opposition	10882 Aug 23 12:07	11°14'18	-0°28'09
behind sun begin	10877 Jan 28 11:34	15°07'22		min. Earth dist.	10882 Aug 23 20:26	11°13'24	17.46052 AU
behind sun end	10877 Jan 29 01:01	15°09'26		direct	10882 Nov 07 18:37	9°09'04	
max. Earth dist.	10877 Jan 28 06:04	15°06'29	19.32700 AU	evening set	10883 Feb 11 00:06	12°35'53	
morning rise	10877 Feb 14 04:34	16°09'53					
desc. node	10877 Mar 29 09:24	18°28'20		conjunction	10883 Feb 27 07:53	13°36'37	-0°27'30
retrograde	10877 May 17 14:19	19°33'25		minimum elong	10883 Feb 27 07:53	13°36'37	0°27'17
opposition	10877 Jul 30 10:10	17°30'36	-0°01'48	max. Earth dist.	10883 Feb 26 22:30	13°35'10	19.47930 AU
min. Earth dist.	10877 Jul 30 19:54	17°29'33	17.33385 AU	morning rise	10883 Mar 15 13:03	14°36'58	
direct	10877 Oct 14 05:16	15°25'00		retrograde	10883 Jun 15 08:50	17°57'37	
evening set	10878 Jan 17 10:01	18°53'26		opposition	10883 Aug 28 11:46	15°55'36	-0°32'55
				min. Earth dist.	10883 Aug 28 18:39	15°54'52	17.49931 AU
conjunction	10878 Feb 02 21:57	19°55'08	-0°04'13	direct	10883 Nov 12 21:02	13°50'30	
minimum elong	10878 Feb 02 21:58	19°55'08	0°03'48	evening set	10884 Feb 16 00:36	17°16'43	
behind sun begin	10878 Feb 02 15:19	19°54'07					
behind sun end	10878 Feb 03 04:38	19°56'09		conjunction	10884 Mar 03 07:37	18°17'12	-0°31'41
max. Earth dist.	10878 Feb 02 10:22	19°53'20	19.34161 AU	minimum elong	10884 Mar 03 07:36	18°17'12	0°31'30
morning rise	10878 Feb 19 07:23	20°56'29		max. Earth dist.	10884 Mar 03 00:32	18°16'06	19.52045 AU
retrograde	10878 May 22 13:18	24°19'40		morning rise	10884 Mar 19 11:41	19°17'17	
opposition	10878 Aug 04 10:56	22°17'01	-0°07'16	retrograde	10884 Jun 19 05:26	22°37'18	
min. Earth dist.	10878 Aug 04 21:27	22°15'52	17.35063 AU	opposition	10884 Sep 01 11:10	20°35'27	-0°37'27
direct	10878 Oct 19 07:44	20°11'27		min. Earth dist.	10884 Sep 01 17:23	20°34'47	17.54290 AU
evening set	10879 Jan 22 14:03	23°39'47		direct	10884 Nov 16 21:17	18°30'32	
				evening set	10885 Feb 20 00:32	21°56'04	
conjunction	10879 Feb 08 01:12	24°41'20	-0°09'04				
minimum elong	10879 Feb 08 01:12	24°41'20	0°08'41	conjunction	10885 Mar 08 06:28	22°56'17	-0°35'38
behind sun begin	10879 Feb 07 19:23	24°40'26		minimum elong	10885 Mar 08 06:27	22°56'17	0°35'30
behind sun end	10879 Feb 08 07:01	24°42'13		max. Earth dist.	10885 Mar 07 23:28	22°55'12	19.56655 AU
max. Earth dist.	10879 Feb 07 13:17	24°39'28	19.36056 AU	morning rise	10885 Mar 24 09:47	23°56'06	
morning rise	10879 Feb 24 09:53	25°42'31		retrograde	10885 Jun 24 02:57	27°15'28	
retrograde	10879 May 27 13:57	29°05'18		opposition	10885 Sep 06 09:58	25°13'48	-0°41'43
				min. Earth dist.	10885 Sep 06 14:51	25°13'17	17.59153 AU

direct	10885 Nov 21 22:38	23° H 09'07		minimum elong	10892 Apr 08 23:27	24° Y 45'52	0°55'26
evening set	10886 Feb 24 23:29	26° H 33'55		max. Earth dist.	10892 Apr 09 00:24	24° Y 46'00	19.98571 AU
				morning rise	10892 Apr 24 21:00	25° Y 43'39	
conjunction	10886 Mar 13 04:41	27° H 33'52 -0°39'19		retrograde	10892 Jul 25 08:59	28° Y 58'06	
minimum elong	10886 Mar 13 04:40	27° H 33'52 0°39'14		opposition	10892 Oct 08 13:55	26° Y 58'02	-1°02'15
max. Earth dist.	10886 Mar 12 23:55	27° H 33'08 19.61751 AU		min. Earth dist.	10892 Oct 08 12:08	26° Y 58'13	18.01836 AU
morning rise	10886 Mar 29 06:58	28° H 33'24		direct	10892 Dec 24 14:43	24° Y 55'39	
	10886 Apr 23 17:01	0° Y		evening set	10893 Mar 28 16:35	28° Y 13'50	
retrograde	10886 Jun 28 22:21	1° Y 52'06					
	10886 Sep 07 16:50	30° R H		conjunction	10893 Apr 13 15:34	29° Y 11'37	-0°56'44
opposition	10886 Sep 11 08:30	29° H 50'40 -0°45'40		minimum elong	10893 Apr 13 15:34	29° Y 11'37	0°56'59
min. Earth dist.	10886 Sep 11 12:22	29° H 50'15 17.64458 AU		max. Earth dist.	10893 Apr 13 17:07	29° Y 11'51	20.05080 AU
direct	10886 Nov 26 22:56	27° H 46'17			10893 Apr 26 23:16	0° B	
	10887 Feb 09 13:28	0° Y		morning rise	10893 Apr 29 12:30	0° B 09'08	
evening set	10887 Mar 01 21:47	1° Y 10'17		retrograde	10893 Jul 29 23:31	3° B 22'49	
				opposition	10893 Oct 13 08:49	1° B 22'56	-1°03'43
conjunction	10887 Mar 18 01:52	2° Y 09'56 -0°42'44		min. Earth dist.	10893 Oct 13 07:13	1° B 23'06	18.08343 AU
minimum elong	10887 Mar 18 01:51	2° Y 09'56 0°42'43			10893 Nov 18 23:34	30° R Y	
max. Earth dist.	10887 Mar 17 21:20	2° Y 09'14 19.67263 AU		direct	10893 Dec 29 09:33	29° Y 20'50	
morning rise	10887 Apr 03 03:23	3° Y 09'12			10894 Feb 06 18:17	0° B	
retrograde	10887 Jul 03 17:54	6° Y 27'14		evening set	10894 Apr 02 08:32	2° B 37'56	
opposition	10887 Sep 16 06:36	4° Y 26'01 -0°49'19					
min. Earth dist.	10887 Sep 16 09:30	4° Y 25'43 17.70165 AU		conjunction	10894 Apr 18 06:50	3° B 35'25	-0°57'54
direct	10887 Dec 01 23:06	2° Y 21'58		minimum elong	10894 Apr 18 06:49	3° B 35'25	0°58'11
evening set	10888 Mar 05 19:03	5° Y 45'08		max. Earth dist.	10894 Apr 18 09:07	3° B 35'45	20.11569 AU
				morning rise	10894 May 04 03:11	4° B 32'38	
conjunction	10888 Mar 21 22:21	6° Y 44'28 -0°45'52		retrograde	10894 Aug 03 15:12	7° B 45'34	
minimum elong	10888 Mar 21 22:21	6° Y 44'28 0°45'53		opposition	10894 Oct 18 03:04	5° B 45'49	-1°04'48
max. Earth dist.	10888 Mar 21 19:50	6° Y 44'05 19.73138 AU		min. Earth dist.	10894 Oct 17 23:46	5° B 46'10	18.14798 AU
morning rise	10888 Apr 06 22:55	7° Y 43'26		direct	10895 Jan 03 05:39	3° B 44'01	
retrograde	10888 Jul 07 12:30	11° Y 00'47		evening set	10895 Apr 06 23:24	6° B 59'59	
opposition	10888 Sep 20 04:15	8° Y 59'50 -0°52'37					
min. Earth dist.	10888 Sep 20 05:56	8° Y 59'39 17.76178 AU		conjunction	10895 Apr 22 20:59	7° B 57'10	-0°58'43
direct	10888 Dec 05 23:03	6° Y 56'07		minimum elong	10895 Apr 22 20:59	7° B 57'10	0°59'04
evening set	10889 Mar 10 15:32	10° Y 18'23		max. Earth dist.	10895 Apr 23 00:17	7° B 57'40	20.17995 AU
				morning rise	10895 May 08 16:47	8° B 54'07	
conjunction	10889 Mar 26 17:50	11° Y 17'25 -0°48'42		retrograde	10895 Aug 08 04:17	12° B 06'19	
minimum elong	10889 Mar 26 17:50	11° Y 17'25 0°48'45		opposition	10895 Oct 22 20:49	10° B 06'41	-1°05'31
max. Earth dist.	10889 Mar 26 15:40	11° Y 17'05 19.79276 AU		min. Earth dist.	10895 Oct 22 17:37	10° B 07'01	18.21211 AU
morning rise	10889 Apr 11 17:42	12° Y 16'06		direct	10896 Jan 07 23:09	8° B 05'08	
retrograde	10889 Jul 12 06:07	15° Y 32'44		evening set	10896 Apr 10 13:17	11° B 19'59	
opposition	10889 Sep 25 01:29	13° Y 32'02 -0°55'35					
min. Earth dist.	10889 Sep 25 02:42	13° Y 31'54 17.82431 AU		conjunction	10896 Apr 26 10:14	12° B 16'52	-0°59'12
direct	10889 Dec 10 21:30	11° Y 28'39		minimum elong	10896 Apr 26 10:14	12° B 16'52	0°59'33
evening set	10890 Mar 15 11:09	14° Y 49'58		max. Earth dist.	10896 Apr 26 14:19	12° B 17'29	20.24395 AU
				morning rise	10896 May 12 05:37	13° B 13'33	
conjunction	10890 Mar 31 12:39	15° Y 48'41 -0°51'12			10896 Jun 14 12:49	15° B	
minimum elong	10890 Mar 31 12:39	15° Y 48'41 0°51'20		retrograde	10896 Aug 11 18:30	16° B 25'01	
max. Earth dist.	10890 Mar 31 11:59	15° Y 48'35 19.85610 AU			10896 Oct 12 09:26	15° R B	
morning rise	10890 Apr 16 11:38	16° Y 47'04		opposition	10896 Oct 26 13:35	14° B 25'30	-1°05'50
retrograde	10890 Jul 16 23:54	20° Y 02'59		min. Earth dist.	10896 Oct 26 08:26	14° B 26'02	18.27594 AU
opposition	10890 Sep 29 22:02	18° Y 02'31 -0°58'10		direct	10897 Jan 11 17:18	12° B 24'14	
min. Earth dist.	10890 Sep 29 21:58	18° Y 02'31 17.88825 AU			10897 Apr 04 00:32	15° B	
direct	10890 Dec 15 20:34	15° Y 59'29		evening set	10897 Apr 15 02:10	15° B 37'57	
evening set	10891 Mar 20 05:59	19° Y 19'47					
				conjunction	10897 Apr 30 22:35	16° B 34'34	-0°59'20
conjunction	10891 Apr 05 06:32	20° Y 18'12 -0°53'23		minimum elong	10897 Apr 30 22:35	16° B 34'34	0°59'45
minimum elong	10891 Apr 05 06:32	20° Y 18'12 0°53'32		max. Earth dist.	10897 May 01 04:03	16° B 35'23	20.30763 AU
max. Earth dist.	10891 Apr 05 06:19	20° Y 18'10 19.92055 AU		morning rise	10897 May 16 17:31	17° B 30'59	
morning rise	10891 Apr 21 04:49	21° Y 16'17		retrograde	10897 Aug 16 06:12	20° B 41'45	
retrograde	10891 Jul 21 16:01	24° Y 31'28		opposition	10897 Oct 31 05:53	18° B 42'21	-1°05'47
opposition	10891 Oct 04 18:22	22° Y 31'13 -1°00'24		min. Earth dist.	10897 Oct 31 00:44	18° B 42'53	18.33966 AU
min. Earth dist.	10891 Oct 04 18:07	22° Y 31'14 17.95319 AU		direct	10898 Jan 16 09:02	16° B 41'23	
direct	10891 Dec 20 16:59	20° Y 28'30		evening set	10898 Apr 19 14:13	19° B 54'01	
evening set	10892 Mar 23 23:40	23° Y 47'46					
				conjunction	10898 May 05 10:03	20° B 50'21	-0°59'08
conjunction	10892 Apr 08 23:27	24° Y 45'52 -0°55'14		minimum elong	10898 May 05 10:02	20° B 50'21	0°59'34

max. Earth dist.	10898 May 05 16:09	20° 8 51'16	20.37133 AU	min. Earth dist.	10904 Nov 30 19:12	17° II 57'56	18.75837 AU
morning rise	10898 May 21 04:39	21° 8 46'32		direct	10905 Feb 16 08:05	15° II 58'11	
retrograde	10898 Aug 20 19:39	24° 8 56'38		evening set	10905 May 19 06:01	19° II 04'12	
opposition	10898 Nov 04 21:21	22° 8 57'23	-1°05'22				
min. Earth dist.	10898 Nov 04 14:04	22° 8 58'08	18.40327 AU	conjunction	10905 Jun 03 23:50	19° II 59'02	-0°49'19
direct	10899 Jan 21 01:14	20° 8 56'44		minimum elong	10905 Jun 03 23:50	19° II 59'02	0°49'54
evening set	10899 Apr 24 01:24	24° 8 08'19		max. Earth dist.	10905 Jun 04 11:39	20° II 00'46	20.78314 AU
				morning rise	10905 Jun 19 17:34	20° II 53'53	
conjunction	10899 May 09 20:48	25° 8 04'24	-0°58'37	retrograde	10905 Sep 19 20:41	24° II 00'28	
minimum elong	10899 May 09 20:48	25° 8 04'24	0°59'05	opposition	10905 Dec 05 18:26	22° II 02'20	-0°53'17
max. Earth dist.	10899 May 10 04:28	25° 8 05'33	20.43480 AU	min. Earth dist.	10905 Dec 05 07:43	22° II 03'25	18.80729 AU
morning rise	10899 May 25 15:03	26° 8 00'21		direct	10906 Feb 20 18:21	20° II 04'00	
retrograde	10899 Aug 25 06:09	29° 8 09'50		evening set	10906 May 23 12:54	23° II 09'13	
opposition	10899 Nov 09 12:25	27° 8 10'45	-1°04'35				
min. Earth dist.	10899 Nov 09 05:07	27° 8 11'30	18.46661 AU	conjunction	10906 Jun 08 06:31	24° II 03'53	-0°46'51
direct	10900 Jan 25 15:20	25° 8 10'27		minimum elong	10906 Jun 08 06:32	24° II 03'53	0°47'27
evening set	10900 Apr 28 11:42	28° 8 21'01		max. Earth dist.	10906 Jun 08 17:45	24° II 05'31	20.82995 AU
				morning rise	10906 Jun 24 00:28	24° II 58'36	
conjunction	10900 May 14 06:39	29° 8 16'51	-0°57'47	retrograde	10906 Sep 24 06:35	28° II 04'48	
minimum elong	10900 May 14 06:39	29° 8 16'51	0°58'16	opposition	10906 Dec 10 05:45	26° II 06'45	-0°50'25
max. Earth dist.	10900 May 14 14:45	29° 8 18'04	20.49787 AU	min. Earth dist.	10906 Dec 09 17:58	26° II 07'56	18.85184 AU
	10900 May 26 10:26	0° II		direct	10907 Feb 25 05:44	24° II 08'38	
morning rise	10900 May 30 00:47	0° II 12'35		evening set	10907 May 27 19:15	27° II 13'04	
retrograde	10900 Aug 29 19:22	3° II 21'30					
opposition	10900 Nov 14 02:40	1° II 22'36	-1°03'29	conjunction	10907 Jun 12 12:58	28° II 07'36	-0°44'10
min. Earth dist.	10900 Nov 13 17:25	1° II 23'33	18.52913 AU	minimum elong	10907 Jun 12 12:58	28° II 07'36	0°44'47
	10900 Dec 21 11:37	30° R 8		max. Earth dist.	10907 Jun 13 01:11	28° II 09'22	20.87216 AU
direct	10901 Jan 30 05:53	29° 8 22'39		morning rise	10907 Jun 28 06:58	29° II 02'11	
	10901 Mar 09 22:22	0° II			10907 Jul 15 23:40	0° III	
evening set	10901 May 02 21:22	2° II 32'15		retrograde	10907 Sep 28 13:58	2° III 08'02	
				opposition	10907 Dec 14 16:39	0° III 10'01	-0°47'19
conjunction	10901 May 18 16:03	3° II 27'51	-0°56'39	min. Earth dist.	10907 Dec 14 05:31	0° III 11'07	18.89174 AU
minimum elong	10901 May 18 16:03	3° II 27'51	0°57'09		10907 Dec 18 20:51	30° R II	
max. Earth dist.	10901 May 19 01:36	3° II 29'16	20.55970 AU	direct	10908 Feb 29 15:13	28° II 12'05	
morning rise	10901 Jun 03 09:54	4° II 23'23			10908 May 07 07:43	0° III	
retrograde	10901 Sep 03 04:42	7° II 31'45		evening set	10908 May 31 01:06	1° III 15'45	
opposition	10901 Nov 18 16:23	5° II 33'03	-1°02'02				
min. Earth dist.	10901 Nov 18 07:27	5° II 33'57	18.59017 AU	conjunction	10908 Jun 15 18:48	2° III 10'09	-0°41'16
direct	10902 Feb 03 18:28	3° II 33'28		minimum elong	10908 Jun 15 18:48	2° III 10'09	0°41'53
evening set	10902 May 07 06:28	6° II 42'07		max. Earth dist.	10908 Jun 16 06:19	2° III 11'49	20.90987 AU
				morning rise	10908 Jul 01 13:11	3° III 04'39	
conjunction	10902 May 23 00:45	7° II 37'30	-0°55'13	retrograde	10908 Oct 01 22:29	6° III 10'10	
minimum elong	10902 May 23 00:45	7° II 37'30	0°55'45	opposition	10908 Dec 18 02:58	4° III 12'08	-0°44'00
max. Earth dist.	10902 May 23 10:21	7° II 38'55	20.61984 AU	min. Earth dist.	10908 Dec 17 14:55	4° III 13'20	18.92720 AU
morning rise	10902 Jun 07 18:35	8° II 32'50		direct	10909 Mar 05 00:59	2° III 14'19	
retrograde	10902 Sep 07 17:07	11° II 40'43		evening set	10909 Jun 04 06:29	5° III 17'18	
opposition	10902 Nov 23 05:36	9° II 42'11	-1°00'17				
min. Earth dist.	10902 Nov 22 19:02	9° II 43'15	18.64916 AU	conjunction	10909 Jun 20 00:22	6° III 11'35	-0°38'11
direct	10903 Feb 08 08:11	7° II 42'57		minimum elong	10909 Jun 20 00:22	6° III 11'35	0°38'48
evening set	10903 May 11 14:45	10° II 50'41		max. Earth dist.	10909 Jun 20 12:59	6° III 13'24	20.94313 AU
				morning rise	10909 Jul 05 18:53	7° III 05'59	
conjunction	10903 May 27 08:52	11° II 45'52	-0°53'31	retrograde	10909 Oct 06 05:18	10° III 11'13	
minimum elong	10903 May 27 08:52	11° II 45'52	0°54'03	opposition	10909 Dec 22 12:48	8° III 13'09	-0°40'28
max. Earth dist.	10903 May 27 19:53	11° II 47'30	20.67748 AU	min. Earth dist.	10909 Dec 22 01:14	8° III 14'18	18.95844 AU
morning rise	10903 Jun 12 02:32	12° II 41'02		direct	10910 Mar 09 09:26	6° III 15'28	
retrograde	10903 Sep 12 01:42	15° II 48'27		evening set	10910 Jun 08 11:34	9° III 17'47	
opposition	10903 Nov 27 18:30	13° II 50'05	-0°58'14				
min. Earth dist.	10903 Nov 27 08:22	13° II 51'06	18.70540 AU	conjunction	10910 Jun 24 05:27	10° III 11'58	-0°34'55
direct	10904 Feb 12 19:22	11° II 51'11		minimum elong	10910 Jun 24 05:27	10° III 11'59	0°35'31
evening set	10904 May 14 22:41	14° II 58'02		max. Earth dist.	10910 Jun 24 17:31	10° III 13'43	20.97261 AU
				morning rise	10910 Jul 10 00:24	11° III 06'19	
conjunction	10904 May 30 16:31	15° II 53'02	-0°51'32	retrograde	10910 Oct 10 13:15	14° III 11'18	
minimum elong	10904 May 30 16:32	15° II 53'02	0°52'07	opposition	10910 Dec 26 22:17	12° III 13'11	-0°36'45
max. Earth dist.	10904 May 31 03:16	15° II 54'37	20.73218 AU	min. Earth dist.	10910 Dec 26 09:40	12° III 14'27	18.98618 AU
morning rise	10904 Jun 15 10:19	16° II 48'02		direct	10911 Mar 13 17:44	10° III 15'37	
retrograde	10904 Sep 15 12:50	19° II 55'01		evening set	10911 Jun 12 16:07	13° III 17'21	
opposition	10904 Dec 01 06:34	17° II 56'47	-0°55'53				

conjunction	10911 Jun 28 10:18	14°☿11'28 -0°31'29	behind sun begin	10917 Jul 21 08:17	7°♄59'32	
minimum elong	10911 Jun 28 10:18	14°☿11'28 0°32'06	behind sun end	10917 Jul 21 19:33	8°♄01'06	
max. Earth dist.	10911 Jun 28 23:39	14°☿13'24 20.99856 AU	max. Earth dist.	10917 Jul 22 03:42	8°♄02'16	21.07845 AU
morning rise	10911 Jul 14 05:28	15°☿05'45	morning rise	10917 Aug 06 11:54	8°♄54'39	
retrograde	10911 Oct 14 19:47	18°☿10'34	retrograde	10917 Nov 07 17:10	11°♄59'39	
opposition	10911 Dec 31 07:27	16°☿12'26 -0°32'53	opposition	10918 Jan 24 09:07	10°♄01'29	-0°07'09
min. Earth dist.	10911 Dec 30 19:06	16°☿13'40 19.01046 AU	min. Earth dist.	10918 Jan 23 20:53	10°♄02'43	19.07806 AU
direct	10912 Mar 17 00:59	14°☿14'59	direct	10918 Apr 10 14:17	8°♄04'44	
evening set	10912 Jun 15 20:39	17°☿16'13	evening set	10918 Jul 09 22:28	11°♄04'30	
conjunction	10912 Jul 01 14:57	18°☿10'17 -0°27'55	conjunction	10918 Jul 25 18:53	11°♄58'35	-0°04'28
minimum elong	10912 Jul 01 14:57	18°☿10'17 0°28'30	minimum elong	10918 Jul 25 18:54	11°♄58'35	0°04'58
max. Earth dist.	10912 Jul 02 03:39	18°☿12'06 21.02127 AU	behind sun begin	10918 Jul 25 12:29	11°♄57'42	
morning rise	10912 Jul 17 10:38	19°☿04'31	behind sun end	10918 Jul 26 01:18	11°♄59'29	
retrograde	10912 Oct 18 04:01	22°☿09'14	max. Earth dist.	10918 Jul 26 07:15	12°♄00'21	21.07623 AU
opposition	10913 Jan 03 16:01	20°☿11'04 -0°28'51	morning rise	10918 Aug 10 17:35	12°♄53'00	
min. Earth dist.	10913 Jan 03 02:53	20°☿12'22 19.03150 AU		10918 Sep 23 12:58	15°♄	
direct	10913 Mar 21 08:04	18°☿13'44	retrograde	10918 Nov 12 02:13	15°♄58'14	
evening set	10913 Jun 20 00:55	21°☿14'33		10919 Jan 02 10:52	15°♄♄	
conjunction	10913 Jul 05 19:36	22°☿08'35 -0°24'13	opposition	10919 Jan 28 17:08	14°♄00'00	-0°02'37
minimum elong	10913 Jul 05 19:36	22°☿08'35 0°24'48	min. Earth dist.	10919 Jan 28 05:07	14°♄01'12	19.07316 AU
max. Earth dist.	10913 Jul 06 09:26	22°☿10'34 21.04051 AU	direct	10919 Apr 14 19:20	12°♄03'17	
morning rise	10913 Jul 21 15:34	23°☿02'49		10919 Jul 13 05:29	15°♄	
retrograde	10913 Oct 22 10:20	26°☿07'27	evening set	10919 Jul 14 03:10	15°♄03'01	
min. Earth dist.	10914 Jan 07 11:47	24°☿10'34 19.04893 AU	conjunction	10919 Jul 30 00:13	15°♄57'11	-0°00'20
opposition	10914 Jan 08 00:35	24°☿09'18 -0°24'42	minimum elong	10919 Jul 30 00:13	15°♄57'11	0°00'46
direct	10914 Mar 25 14:26	22°☿12'06	behind sun begin	10919 Jul 29 17:38	15°♄56'16	
evening set	10914 Jun 24 05:04	25°☿12'34	behind sun end	10919 Jul 30 06:48	15°♄58'06	
conjunction	10914 Jul 09 23:55	26°☿06'34 -0°20'25	max. Earth dist.	10919 Jul 30 12:55	15°♄58'59	21.06841 AU
minimum elong	10914 Jul 09 23:55	26°☿06'34 0°20'59	morning rise	10919 Aug 14 23:22	16°♄51'40	
max. Earth dist.	10914 Jul 10 13:03	26°☿08'26 21.05622 AU	asc. node	10919 Aug 26 14:19	17°♄29'42	
morning rise	10914 Jul 25 20:29	27°☿00'48	retrograde	10919 Nov 16 09:38	19°♄57'08	
retrograde	10914 Oct 11 21:23	0°♄	opposition	10920 Feb 02 01:08	17°♄58'50	0°01'56
opposition	10914 Oct 26 19:03	0°♄05'27	min. Earth dist.	10920 Feb 01 13:59	17°♄59'57	19.06239 AU
min. Earth dist.	10915 Jan 12 08:56	28°☿07'18 -0°20'26	direct	10920 Apr 18 01:37	16°♄02'06	
direct	10915 Jan 11 19:34	28°☿08'38 19.06275 AU	evening set	10920 Jul 17 08:18	19°♄01'52	
evening set	10915 Mar 29 20:46	26°☿10'14	conjunction	10920 Aug 02 05:45	19°♄56'07	0°03'54
	10915 Jun 28 09:12	29°☿10'25	minimum elong	10920 Aug 02 05:45	19°♄56'06	0°03'28
	10915 Jul 12 21:43	0°♄	behind sun begin	10920 Aug 01 23:12	19°♄55'12	
conjunction	10915 Jul 14 04:32	0°♄04'25 -0°16'31	behind sun end	10920 Aug 02 12:17	19°♄57'01	
minimum elong	10915 Jul 14 04:32	0°♄04'25 0°17'05	max. Earth dist.	10920 Aug 02 16:40	19°♄57'39	21.05482 AU
max. Earth dist.	10915 Jul 14 18:40	0°♄06'26 21.06800 AU	morning rise	10920 Aug 18 05:39	20°♄50'41	
morning rise	10915 Jul 30 01:28	0°♄58'40	retrograde	10920 Nov 19 18:55	23°♄56'26	
retrograde	10915 Oct 31 01:28	4°♄03'23	opposition	10921 Feb 05 08:58	21°♄57'59	0°06'29
opposition	10916 Jan 16 17:04	2°♄05'14 -0°16'04	min. Earth dist.	10921 Feb 04 22:20	21°♄59'03	19.04592 AU
min. Earth dist.	10916 Jan 16 04:15	2°♄06'31 19.07244 AU	direct	10921 Apr 22 07:07	20°♄01'10	
direct	10916 Apr 02 02:43	0°♄08'18	evening set	10921 Jul 21 13:31	23°♄01'01	
evening set	10916 Jul 01 13:29	3°♄08'16	conjunction	10921 Aug 06 11:38	23°♄55'21	0°07'59
conjunction	10916 Jul 17 09:06	4°♄02'17 -0°12'33	minimum elong	10921 Aug 06 11:38	23°♄55'21	0°07'35
minimum elong	10916 Jul 17 09:06	4°♄02'17 0°13'06	behind sun begin	10921 Aug 06 05:38	23°♄54'31	
behind sun begin	10916 Jul 17 05:07	4°♄01'44	behind sun end	10921 Aug 06 17:38	23°♄56'12	
behind sun end	10916 Jul 17 13:05	4°♄02'50	max. Earth dist.	10921 Aug 06 22:49	23°♄56'57	21.03552 AU
max. Earth dist.	10916 Jul 17 22:11	4°♄04'09 21.07562 AU	morning rise	10921 Aug 22 12:01	24°♄50'03	
morning rise	10916 Aug 02 06:43	4°♄56'34	retrograde	10921 Nov 24 02:31	27°♄56'04	
retrograde	10916 Nov 03 10:18	8°♄01'25	opposition	10922 Feb 09 16:55	25°♄57'27	0°11'01
opposition	10917 Jan 20 01:06	6°♄03'16 -0°11'38	min. Earth dist.	10922 Feb 09 07:02	25°♄58'27	19.02392 AU
min. Earth dist.	10917 Jan 19 12:09	6°♄04'33 19.07777 AU	direct	10922 Apr 26 12:59	24°♄00'33	
direct	10917 Apr 06 08:10	4°♄06'25	evening set	10922 Jul 25 18:54	27°♄00'30	
evening set	10917 Jul 05 17:48	7°♄06'16	conjunction	10922 Aug 10 17:27	27°♄54'57	0°12'03
conjunction	10917 Jul 21 13:55	8°♄00'19 -0°08'32	minimum elong	10922 Aug 10 17:27	27°♄54'57	0°11'41
minimum elong	10917 Jul 21 13:55	8°♄00'19 0°09'02	behind sun begin	10922 Aug 10 12:45	27°♄54'17	
			behind sun end	10922 Aug 10 22:09	27°♄55'36	
			max. Earth dist.	10922 Aug 11 03:06	27°♄56'19	21.01116 AU

morning rise	10922 Aug 26 18:40	28° Ω 49'46		opposition	10929 Mar 10 03:30	24° Υ 11'36	0°40'21
	10922 Sep 17 20:52	0° Υ		min. Earth dist.	10929 Mar 09 21:27	24° Υ 12'13	18.76302 AU
retrograde	10922 Nov 28 12:16	1° Υ 56'08		direct	10929 May 24 09:41	22° Υ 13'35	
	10923 Feb 12 22:02	30° $\mathcal{R}\mathcal{L}$		evening set	10929 Aug 22 21:01	25° Υ 16'23	
opposition	10923 Feb 14 00:54	29° Ω 57'18	0°15'30				
min. Earth dist.	10923 Feb 13 15:29	29° Ω 58'15	18.99727 AU	conjunction	10929 Sep 08 00:15	26° Υ 12'04	0°38'07
direct	10923 Apr 30 19:14	28° Ω 00'15		minimum elong	10929 Sep 08 00:15	26° Υ 12'04	0°38'01
	10923 Jul 11 05:00	0° Υ		max. Earth dist.	10929 Sep 08 07:00	26° Υ 13'02	20.73868 AU
evening set	10923 Jul 30 00:37	1° Υ 00'23		morning rise	10929 Sep 24 06:04	27° Υ 08'09	
					10929 Nov 30 10:12	0° Ω	
conjunction	10923 Aug 14 23:55	1° Υ 54'58	0°16'04	retrograde	10929 Dec 27 12:44	0° Ω 18'07	
minimum elong	10923 Aug 14 23:55	1° Υ 54'58	0°15'43		10930 Jan 23 20:38	30° $\mathcal{R}\mathcal{L}$	
behind sun begin	10923 Aug 14 22:31	1° Υ 54'46		opposition	10930 Mar 14 13:02	28° Υ 17'58	0°43'58
behind sun end	10923 Aug 15 01:19	1° Υ 55'10		min. Earth dist.	10930 Mar 14 07:26	28° Υ 18'33	18.71367 AU
max. Earth dist.	10923 Aug 15 10:03	1° Υ 56'25	20.98227 AU	direct	10930 May 28 18:09	26° Υ 19'48	
morning rise	10923 Aug 31 01:39	2° Υ 49'55		evening set	10930 Aug 27 06:43	29° Υ 23'17	
retrograde	10923 Dec 02 20:31	5° Υ 56'39			10930 Sep 06 22:28	0° Ω	
opposition	10924 Feb 18 08:46	3° Υ 57'37	0°19'55				
min. Earth dist.	10924 Feb 17 23:56	3° Υ 58'30	18.96633 AU	conjunction	10930 Sep 12 10:31	0° Ω 19'11	0°41'16
direct	10924 May 04 00:41	2° Υ 00'25		minimum elong	10930 Sep 12 10:31	0° Ω 19'11	0°41'13
evening set	10924 Aug 02 06:49	5° Υ 00'49		max. Earth dist.	10930 Sep 12 15:18	0° Ω 19'53	20.68793 AU
				morning rise	10930 Sep 28 17:12	1° Ω 15'31	
conjunction	10924 Aug 18 06:36	5° Υ 55'32	0°20'01	retrograde	10931 Jan 01 00:52	4° Ω 26'11	
minimum elong	10924 Aug 18 06:35	5° Υ 55'32	0°19'43	opposition	10931 Mar 18 23:04	2° Ω 25'52	0°47'23
max. Earth dist.	10924 Aug 18 15:11	5° Υ 56'46	20.94951 AU	min. Earth dist.	10931 Mar 18 18:46	2° Ω 26'19	18.66141 AU
morning rise	10924 Sep 03 09:09	6° Υ 50'39		direct	10931 Jun 02 01:35	0° Ω 27'30	
retrograde	10924 Dec 06 06:36	9° Υ 57'48		evening set	10931 Aug 31 17:18	3° Ω 31'44	
opposition	10925 Feb 21 16:52	7° Υ 58'33	0°24'16				
min. Earth dist.	10925 Feb 21 08:32	7° Υ 59'23	18.93184 AU	conjunction	10931 Sep 16 21:58	4° Ω 27'53	0°44'14
direct	10925 May 08 07:13	6° Υ 01'11		minimum elong	10931 Sep 16 21:58	4° Ω 27'53	0°44'14
evening set	10925 Aug 06 13:13	9° Υ 01'55		max. Earth dist.	10931 Sep 17 02:46	4° Ω 28'35	20.63394 AU
				morning rise	10931 Oct 03 05:09	5° Ω 24'27	
conjunction	10925 Aug 22 13:44	9° Υ 56'48	0°23'53	retrograde	10932 Jan 05 14:13	8° Ω 35'49	
minimum elong	10925 Aug 22 13:44	9° Υ 56'48	0°23'37	opposition	10932 Mar 22 09:21	6° Ω 35'21	0°50'34
max. Earth dist.	10925 Aug 22 22:54	9° Υ 58'07	20.91322 AU	min. Earth dist.	10932 Mar 22 05:42	6° Ω 35'43	18.60568 AU
morning rise	10925 Sep 07 16:47	10° Υ 52'05		direct	10932 Jun 05 11:13	4° Ω 36'46	
retrograde	10925 Dec 10 16:00	13° Υ 59'42		evening set	10932 Sep 04 04:52	7° Ω 41'47	
opposition	10926 Feb 26 01:09	12° Υ 00'15	0°28'30				
min. Earth dist.	10926 Feb 25 17:10	12° Υ 01'04	18.89393 AU	conjunction	10932 Sep 20 10:04	8° Ω 38'12	0°47'00
direct	10926 May 12 13:26	10° Υ 02'44		minimum elong	10932 Sep 20 10:04	8° Ω 38'12	0°47'01
evening set	10926 Aug 10 20:18	13° Υ 03'53		max. Earth dist.	10932 Sep 20 12:27	8° Ω 38'33	20.57650 AU
				morning rise	10932 Oct 06 18:04	9° Ω 35'01	
conjunction	10926 Aug 26 21:21	13° Υ 58'56	0°27'39	retrograde	10933 Jan 09 03:41	12° Ω 47'07	
minimum elong	10926 Aug 26 21:20	13° Υ 58'56	0°27'26	opposition	10933 Mar 26 20:21	10° Ω 46'26	0°53'30
max. Earth dist.	10926 Aug 27 04:58	14° Υ 00'01	20.87389 AU	min. Earth dist.	10933 Mar 26 18:18	10° Ω 46'38	18.54655 AU
morning rise	10926 Sep 12 01:15	14° Υ 54'24		direct	10933 Jun 09 19:58	8° Ω 47'35	
retrograde	10926 Dec 15 02:33	18° Υ 02'33		evening set	10933 Sep 08 16:55	11° Ω 53'26	
opposition	10927 Mar 02 09:39	16° Υ 02'54	0°32'36				
min. Earth dist.	10927 Mar 02 02:19	16° Υ 03'38	18.85318 AU	conjunction	10933 Sep 24 23:00	12° Ω 50'07	0°49'31
direct	10927 May 16 19:49	14° Υ 05'12		minimum elong	10933 Sep 24 23:00	12° Ω 50'07	0°49'36
evening set	10927 Aug 15 03:48	17° Υ 06'49		max. Earth dist.	10933 Sep 25 01:18	12° Ω 50'27	20.51561 AU
				morning rise	10933 Oct 11 07:29	13° Ω 47'12	
conjunction	10927 Aug 31 05:41	18° Υ 02'05	0°31'17	retrograde	10934 Jan 13 17:53	17° Ω 00'00	
minimum elong	10927 Aug 31 05:41	18° Υ 02'05	0°31'06	opposition	10934 Mar 31 07:47	14° Ω 59'05	0°56'11
max. Earth dist.	10927 Aug 31 13:48	18° Υ 03'15	20.83163 AU	min. Earth dist.	10934 Mar 31 06:10	14° Ω 59'16	18.48400 AU
morning rise	10927 Sep 16 10:08	18° Υ 57'44		direct	10934 Jun 14 07:00	12° Ω 59'57	
retrograde	10927 Dec 19 13:27	22° Υ 06'27		evening set	10934 Sep 13 06:02	16° Ω 06'40	
opposition	10928 Mar 05 18:25	20° Υ 06'37	0°36'34				
min. Earth dist.	10928 Mar 05 11:28	20° Υ 07'20	18.80945 AU	conjunction	10934 Sep 29 12:41	17° Ω 03'37	0°51'47
direct	10928 May 20 03:09	18° Υ 08'47		minimum elong	10934 Sep 29 12:41	17° Ω 03'37	0°51'54
evening set	10928 Aug 18 12:08	21° Υ 10'57		max. Earth dist.	10934 Sep 29 12:36	17° Ω 03'36	20.45166 AU
				morning rise	10934 Oct 15 22:00	18° Ω 00'58	
conjunction	10928 Sep 03 14:32	22° Υ 06'24	0°34'47	retrograde	10935 Jan 18 08:18	21° Ω 14'30	
minimum elong	10928 Sep 03 14:32	22° Υ 06'24	0°34'39	opposition	10935 Apr 04 19:37	19° Ω 13'19	0°58'35
max. Earth dist.	10928 Sep 03 20:54	22° Υ 07'19	20.78656 AU	min. Earth dist.	10935 Apr 04 19:43	19° Ω 13'19	18.41882 AU
morning rise	10928 Sep 19 19:49	23° Υ 02'16		direct	10935 Jun 18 17:10	17° Ω 13'50	
retrograde	10928 Dec 23 00:26	26° Υ 11'36		evening set	10935 Sep 17 19:46	20° Ω 21'27	

conjunction	10935 Oct 04 03:21	21° <u>♂</u> 18'42	0°53'48	morning rise	10941 Nov 16 00:55	18° <u>♂</u> 24'13	
minimum elong	10935 Oct 04 03:21	21° <u>♂</u> 18'42	0°53'58	retrograde	10942 Feb 18 08:24	21° <u>♂</u> 42'53	
max. Earth dist.	10935 Oct 04 03:15	21° <u>♂</u> 18'41	20.38536 AU	opposition	10942 May 04 21:05	19° <u>♂</u> 40'11	1°05'50
morning rise	10935 Oct 20 13:09	22° <u>♂</u> 16'19		min. Earth dist.	10942 May 05 01:33	19° <u>♂</u> 39'42	17.94684 AU
retrograde	10936 Jan 22 23:27	25° <u>♂</u> 30'33		direct	10942 Jul 18 14:56	17° <u>♂</u> 38'16	
opposition	10936 Apr 08 07:52	23° <u>♂</u> 29'08	1°00'40	evening set	10942 Oct 18 20:28	20° <u>♂</u> 53'12	
min. Earth dist.	10936 Apr 08 08:13	23° <u>♂</u> 29'05	18.35155 AU				
direct	10936 Jun 22 05:21	21° <u>♂</u> 29'18		conjunction	10942 Nov 04 08:32	21° <u>♂</u> 52'32	0°59'01
evening set	10936 Sep 21 10:27	24° <u>♂</u> 37'51		minimum elong	10942 Nov 04 08:32	21° <u>♂</u> 52'32	0°59'27
				max. Earth dist.	10942 Nov 04 01:47	21° <u>♂</u> 51'31	19.91504 AU
conjunction	10936 Oct 07 18:32	25° <u>♂</u> 35'22	0°55'31	morning rise	10942 Nov 20 22:02	22° <u>♂</u> 52'07	
minimum elong	10936 Oct 07 18:31	25° <u>♂</u> 35'22	0°55'44	retrograde	10943 Feb 23 03:51	26° <u>♂</u> 11'30	
max. Earth dist.	10936 Oct 07 16:19	25° <u>♂</u> 35'03	20.31739 AU	opposition	10943 May 09 13:32	24° <u>♂</u> 08'42	1°05'21
morning rise	10936 Oct 24 05:03	26° <u>♂</u> 33'16		min. Earth dist.	10943 May 09 19:44	24° <u>♂</u> 08'02	17.88401 AU
retrograde	10937 Jan 26 14:32	29° <u>♂</u> 48'15		direct	10943 Jul 23 05:55	22° <u>♂</u> 06'29	
opposition	10937 Apr 12 20:41	27° <u>♂</u> 46'33	1°02'26	evening set	10943 Oct 23 17:29	25° <u>♂</u> 22'35	
min. Earth dist.	10937 Apr 12 22:39	27° <u>♂</u> 46'21	18.28317 AU				
direct	10937 Jun 26 16:53	25° <u>♂</u> 46'21		conjunction	10943 Nov 09 06:11	26° <u>♂</u> 22'13	0°58'23
evening set	10937 Sep 26 01:47	28° <u>♂</u> 55'53		minimum elong	10943 Nov 09 06:11	26° <u>♂</u> 22'13	0°58'52
				max. Earth dist.	10943 Nov 08 23:03	26° <u>♂</u> 21'08	19.85317 AU
conjunction	10937 Oct 12 10:44	29° <u>♂</u> 53'43	0°56'56	morning rise	10943 Nov 25 20:01	27° <u>♂</u> 22'04	
minimum elong	10937 Oct 12 10:43	29° <u>♂</u> 53'43	0°57'11		10944 Jan 18 16:42	0° <u>♂</u>	
max. Earth dist.	10937 Oct 12 08:42	29° <u>♂</u> 53'25	20.24870 AU	retrograde	10944 Feb 28 01:57	0° <u>♂</u> 42'09	
	10937 Oct 14 05:07	0° <u>♂</u>			10944 Apr 09 01:27	30° <u>♂</u>	
morning rise	10937 Oct 28 21:41	0° <u>♂</u> 51'53		opposition	10944 May 13 06:36	28° <u>♂</u> 39'15	1°04'28
retrograde	10938 Jan 31 07:07	4° <u>♂</u> 07'36		min. Earth dist.	10944 May 13 12:37	28° <u>♂</u> 38'37	17.82297 AU
opposition	10938 Apr 17 09:55	2° <u>♂</u> 05'39	1°03'52	direct	10944 Jul 26 23:21	26° <u>♂</u> 36'47	
min. Earth dist.	10938 Apr 17 11:49	2° <u>♂</u> 05'27	18.21433 AU	evening set	10944 Oct 27 15:28	29° <u>♂</u> 54'00	
direct	10938 Jul 01 06:17	0° <u>♂</u> 05'05			10944 Oct 29 07:51	0° <u>♂</u>	
evening set	10938 Sep 30 18:08	3° <u>♂</u> 15'38					
				conjunction	10944 Nov 13 04:35	0° <u>♂</u> 53'56	0°57'23
conjunction	10938 Oct 17 03:37	4° <u>♂</u> 13'45	0°58'01	minimum elong	10944 Nov 13 04:35	0° <u>♂</u> 53'56	0°57'53
minimum elong	10938 Oct 17 03:37	4° <u>♂</u> 13'45	0°58'20	max. Earth dist.	10944 Nov 12 20:13	0° <u>♂</u> 52'39	19.79286 AU
max. Earth dist.	10938 Oct 16 23:43	4° <u>♂</u> 13'11	20.17989 AU	morning rise	10944 Nov 29 18:41	1° <u>♂</u> 54'03	
morning rise	10938 Nov 02 15:18	5° <u>♂</u> 12'13		retrograde	10945 Mar 03 22:44	5° <u>♂</u> 14'48	
retrograde	10939 Feb 04 23:22	8° <u>♂</u> 28'41		opposition	10945 May 18 00:36	3° <u>♂</u> 11'49	1°03'11
opposition	10939 Apr 21 23:52	6° <u>♂</u> 26'30	1°04'55	min. Earth dist.	10945 May 18 08:26	3° <u>♂</u> 10'58	17.76352 AU
min. Earth dist.	10939 Apr 22 03:24	6° <u>♂</u> 26'08	18.14578 AU	direct	10945 Jul 31 16:26	1° <u>♂</u> 09'02	
direct	10939 Jul 05 18:42	4° <u>♂</u> 25'33		evening set	10945 Nov 01 14:25	4° <u>♂</u> 27'23	
evening set	10939 Oct 05 11:18	7° <u>♂</u> 37'10					
				conjunction	10945 Nov 18 04:02	5° <u>♂</u> 27'36	0°56'01
conjunction	10939 Oct 21 21:37	8° <u>♂</u> 35'36	0°58'47	minimum elong	10945 Nov 18 04:02	5° <u>♂</u> 27'36	0°56'33
minimum elong	10939 Oct 21 21:36	8° <u>♂</u> 35'36	0°59'07	max. Earth dist.	10945 Nov 17 18:45	5° <u>♂</u> 26'11	19.73423 AU
max. Earth dist.	10939 Oct 21 17:51	8° <u>♂</u> 35'02	20.11163 AU	morning rise	10945 Dec 04 18:26	6° <u>♂</u> 27'58	
morning rise	10939 Nov 07 09:40	9° <u>♂</u> 34'20		retrograde	10946 Mar 08 21:37	9° <u>♂</u> 49'19	
retrograde	10940 Feb 09 17:59	12° <u>♂</u> 51'32		opposition	10946 May 22 19:04	7° <u>♂</u> 46'14	1°01'29
opposition	10940 Apr 25 14:09	10° <u>♂</u> 49'09	1°05'37	min. Earth dist.	10946 May 23 02:51	7° <u>♂</u> 45'24	17.70565 AU
min. Earth dist.	10940 Apr 25 17:26	10° <u>♂</u> 48'48	18.07797 AU	direct	10946 Aug 05 12:02	5° <u>♂</u> 43'09	
direct	10940 Jul 09 09:33	8° <u>♂</u> 47'52		evening set	10946 Nov 06 14:17	9° <u>♂</u> 02'35	
evening set	10940 Oct 09 05:31	12° <u>♂</u> 00'34					
				conjunction	10946 Nov 23 04:21	10° <u>♂</u> 03'04	0°54'17
conjunction	10940 Oct 25 16:19	12° <u>♂</u> 59'17	0°59'13	minimum elong	10946 Nov 23 04:21	10° <u>♂</u> 03'04	0°54'51
minimum elong	10940 Oct 25 16:19	12° <u>♂</u> 59'17	0°59'36	max. Earth dist.	10946 Nov 22 18:03	10° <u>♂</u> 01'30	19.67707 AU
max. Earth dist.	10940 Oct 25 10:54	12° <u>♂</u> 58'29	20.04441 AU	morning rise	10946 Dec 09 18:54	11° <u>♂</u> 03'40	
morning rise	10940 Nov 11 04:57	13° <u>♂</u> 58'19		retrograde	10947 Mar 13 19:06	14° <u>♂</u> 25'34	
	10940 Nov 29 12:06	15° <u>♂</u>		opposition	10947 May 27 14:25	12° <u>♂</u> 22'23	0°59'23
retrograde	10941 Feb 13 11:36	17° <u>♂</u> 16'15		min. Earth dist.	10947 May 27 23:55	12° <u>♂</u> 21'21	17.64939 AU
opposition	10941 Apr 30 05:22	15° <u>♂</u> 13'42	1°05'55	direct	10947 Aug 10 07:28	10° <u>♂</u> 18'59	
min. Earth dist.	10941 Apr 30 10:12	15° <u>♂</u> 13'11	18.01156 AU	evening set	10947 Nov 11 14:56	13° <u>♂</u> 39'27	
	10941 May 05 13:58	15° <u>♂</u>					
direct	10941 Jul 13 22:54	13° <u>♂</u> 12'04		conjunction	10947 Nov 28 05:19	14° <u>♂</u> 40'11	0°52'13
	10941 Sep 17 22:03	15° <u>♂</u>		minimum elong	10947 Nov 28 05:19	14° <u>♂</u> 40'11	0°52'47
evening set	10941 Oct 14 00:21	16° <u>♂</u> 25'52		max. Earth dist.	10947 Nov 27 17:44	14° <u>♂</u> 38'24	19.62188 AU
				morning rise	10947 Dec 14 20:05	15° <u>♂</u> 41'00	
conjunction	10941 Oct 30 11:55	17° <u>♂</u> 24'55	0°59'18	retrograde	10948 Mar 17 18:10	19° <u>♂</u> 03'24	
minimum elong	10941 Oct 30 11:54	17° <u>♂</u> 24'55	0°59'42	opposition	10948 May 31 10:08	17° <u>♂</u> 00'05	0°56'54
max. Earth dist.	10941 Oct 30 06:35	17° <u>♂</u> 24'07	19.97885 AU	min. Earth dist.	10948 May 31 19:33	16° <u>♂</u> 59'04	17.59532 AU

direct	10948 Aug 14 05:04	14°♊56'20		minimum elong	10955 Jan 01 02:11	17°♊34'50	0°29'15
evening set	10948 Nov 15 16:14	18°♊17'49		max. Earth dist.	10954 Dec 31 13:09	17°♊32'48	19.34109 AU
				morning rise	10955 Jan 17 15:55	18°♊36'35	
conjunction	10948 Dec 02 06:59	19°♊18'47	0°49'47	retrograde	10955 Apr 20 18:04	22°♊00'54	
minimum elong	10948 Dec 02 06:59	19°♊18'47	0°50'23	opposition	10955 Jul 03 18:59	19°♊57'16	0°29'36
max. Earth dist.	10948 Dec 01 19:06	19°♊16'57	19.56907 AU	min. Earth dist.	10955 Jul 04 06:04	19°♊56'03	17.33133 AU
morning rise	10948 Dec 18 21:42	20°♊19'48		direct	10955 Sep 17 01:26	17°♊51'43	
retrograde	10949 Mar 22 16:34	23°♊42'38		evening set	10955 Dec 20 15:30	21°♊18'44	
opposition	10949 Jun 05 06:36	21°♊39'13	0°54'01				
min. Earth dist.	10949 Jun 05 17:19	21°♊38'03	17.54402 AU	conjunction	10956 Jan 06 06:18	22°♊20'42	0°24'15
direct	10949 Aug 19 02:21	19°♊35'08		minimum elong	10956 Jan 06 06:18	22°♊20'42	0°24'51
evening set	10949 Nov 20 18:05	22°♊57'34		max. Earth dist.	10956 Jan 05 16:24	22°♊18'32	19.32292 AU
				morning rise	10956 Jan 22 19:43	23°♊22'30	
conjunction	10949 Dec 07 09:02	23°♊58'44	0°47'00	retrograde	10956 Apr 24 19:16	26°♊46'54	
minimum elong	10949 Dec 07 09:02	23°♊58'44	0°47'36	opposition	10956 Jul 07 18:35	24°♊43'22	0°24'36
max. Earth dist.	10949 Dec 06 19:49	23°♊56'42	19.51954 AU	min. Earth dist.	10956 Jul 08 05:51	24°♊42'08	17.31634 AU
morning rise	10949 Dec 23 23:56	24°♊59'56		direct	10956 Sep 21 01:44	22°♊37'45	
retrograde	10950 Mar 27 16:09	28°♊23'10		evening set	10956 Dec 24 20:06	26°♊05'18	
opposition	10950 Jun 10 03:28	26°♊19'37	0°50'45				
min. Earth dist.	10950 Jun 10 14:05	26°♊18'28	17.49628 AU	conjunction	10957 Jan 10 10:45	27°♊07'19	0°19'41
direct	10950 Aug 24 01:27	24°♊15'12		minimum elong	10957 Jan 10 10:45	27°♊07'19	0°20'16
evening set	10950 Nov 25 20:37	27°♊38'33		max. Earth dist.	10957 Jan 09 22:06	27°♊05'21	19.31102 AU
				morning rise	10957 Jan 26 23:35	28°♊09'07	
conjunction	10950 Dec 12 11:51	28°♊39'56	0°43'54		10957 Mar 01 01:42	0°♊	
minimum elong	10950 Dec 12 11:52	28°♊39'56	0°44'31	retrograde	10957 Apr 29 21:37	1°♊33'32	
max. Earth dist.	10950 Dec 11 22:59	28°♊37'56	19.47369 AU		10957 Jul 01 07:04	30°♊	
morning rise	10950 Dec 29 02:33	29°♊41'17		opposition	10957 Jul 12 18:25	29°♊30'09	0°19'25
	10951 Jan 03 07:32	0°♊		min. Earth dist.	10957 Jul 13 05:01	29°♊28'59	17.30730 AU
retrograde	10951 Apr 01 15:23	3°♊04'49		direct	10957 Sep 26 03:47	27°♊24'30	
opposition	10951 Jun 15 00:50	1°♊01'12	0°47'08		10957 Dec 15 07:09	0°♊	
min. Earth dist.	10951 Jun 15 12:18	0°♊59'57	17.45256 AU	evening set	10957 Dec 30 01:01	0°♊52'29	
	10951 Jul 09 10:29	30°♊					
direct	10951 Aug 29 00:06	28°♊56'29		conjunction	10958 Jan 15 15:11	1°♊54'31	0°14'59
	10951 Oct 17 07:37	0°♊		minimum elong	10958 Jan 15 15:11	1°♊54'31	0°15'32
evening set	10951 Nov 30 23:43	2°♊20'41		behind sun begin	10958 Jan 15 13:47	1°♊54'19	
				behind sun end	10958 Jan 15 16:36	1°♊54'44	
conjunction	10951 Dec 17 14:54	3°♊22'14	0°40'30	max. Earth dist.	10958 Jan 15 01:55	1°♊52'27	19.30481 AU
minimum elong	10951 Dec 17 14:54	3°♊22'14	0°41'07	morning rise	10958 Feb 01 03:34	2°♊56'19	
max. Earth dist.	10951 Dec 17 00:43	3°♊20'02	19.43237 AU	retrograde	10958 May 04 22:13	6°♊20'41	
morning rise	10952 Jan 03 05:37	4°♊23'43		opposition	10958 Jul 17 18:44	4°♊17'26	0°14'06
retrograde	10952 Apr 05 15:36	7°♊47'32		min. Earth dist.	10958 Jul 18 05:58	4°♊16'12	17.30384 AU
opposition	10952 Jun 18 22:41	5°♊43'50	0°43'11	direct	10958 Oct 01 04:25	2°♊11'47	
min. Earth dist.	10952 Jun 19 10:02	5°♊42'36	17.41374 AU	evening set	10959 Jan 04 05:59	5°♊40'07	
direct	10952 Sep 02 00:13	3°♊38'50					
evening set	10952 Dec 05 02:56	7°♊03'50		conjunction	10959 Jan 20 19:46	6°♊42'08	0°10'11
				minimum elong	10959 Jan 20 19:46	6°♊42'08	0°10'42
conjunction	10952 Dec 21 18:18	8°♊05'32	0°36'48	behind sun begin	10959 Jan 20 14:37	6°♊41'20	
minimum elong	10952 Dec 21 18:18	8°♊05'32	0°37'24	behind sun end	10959 Jan 21 00:55	6°♊42'55	
max. Earth dist.	10952 Dec 21 05:10	8°♊03'29	19.39609 AU	max. Earth dist.	10959 Jan 20 07:12	6°♊40'10	19.30393 AU
morning rise	10953 Jan 07 08:38	9°♊07'07		morning rise	10959 Feb 06 07:28	7°♊43'51	
retrograde	10953 Apr 10 15:49	12°♊31'10		retrograde	10959 May 10 00:16	11°♊08'06	
opposition	10953 Jun 23 21:06	10°♊27'27	0°38'56	opposition	10959 Jul 22 19:07	9°♊05'00	0°08'41
min. Earth dist.	10953 Jun 24 08:36	10°♊26'12	17.38020 AU	min. Earth dist.	10959 Jul 23 05:29	9°♊03'52	17.30537 AU
direct	10953 Sep 07 00:10	8°♊22'13		direct	10959 Oct 06 08:19	6°♊59'21	
evening set	10953 Dec 10 06:51	11°♊47'57		evening set	10960 Jan 09 10:58	10°♊27'54	
				max. Earth dist.	10960 Jan 25 11:24	11°♊27'52	19.30787 AU
conjunction	10953 Dec 26 22:00	12°♊49'45	0°32'50				
minimum elong	10953 Dec 26 22:00	12°♊49'45	0°33'28	conjunction	10960 Jan 26 00:09	11°♊29'51	0°05'19
max. Earth dist.	10953 Dec 26 07:43	12°♊47'32	19.36553 AU	minimum elong	10960 Jan 26 00:09	11°♊29'51	0°05'48
morning rise	10954 Jan 12 12:14	13°♊51'26		behind sun begin	10960 Jan 25 17:43	11°♊28'52	
retrograde	10954 Apr 15 16:34	17°♊15'39		behind sun end	10960 Jan 26 06:36	11°♊30'51	
opposition	10954 Jun 28 19:46	15°♊11'56	0°34'23	morning rise	10960 Feb 11 11:09	12°♊31'30	
min. Earth dist.	10954 Jun 29 07:14	15°♊10'41	17.35272 AU		10960 Mar 29 17:34	15°♊	
direct	10954 Sep 12 00:35	13°♊06'30		retrograde	10960 May 13 23:50	15°♊55'33	
evening set	10954 Dec 15 10:59	16°♊32'55			10960 Jun 29 13:39	15°♊	
				opposition	10960 Jul 26 19:55	13°♊52'35	0°03'12
conjunction	10955 Jan 01 02:11	17°♊34'50	0°28'39	min. Earth dist.	10960 Jul 27 07:01	13°♊51'23	17.31178 AU

direct	10960 Oct 10 10:05	11° \approx 46'57		minimum elong	10966 Feb 23 17:44	10° \mathbb{H} 05'05	0°23'21
	10961 Jan 09 09:03	15° \approx		max. Earth dist.	10966 Feb 23 08:51	10° \mathbb{H} 03'42	19.43015 AU
evening set	10961 Jan 13 15:33	15° \approx 15'36		morning rise	10966 Mar 11 23:44	11° \mathbb{H} 05'42	
				retrograde	10966 Jun 11 20:42	14° \mathbb{H} 27'04	
conjunction	10961 Jan 30 04:11	16° \approx 17'28	0°00'21	opposition	10966 Aug 24 22:53	12° \mathbb{H} 24'48	-0°28'42
minimum elong	10961 Jan 30 04:10	16° \approx 17'28	0°00'48	min. Earth dist.	10966 Aug 25 07:02	12° \mathbb{H} 23'56	17.44826 AU
behind sun begin	10961 Jan 29 21:27	16° \approx 16'26		direct	10966 Nov 09 05:32	10° \mathbb{H} 19'27	
behind sun end	10961 Jan 30 10:53	16° \approx 18'29		evening set	10967 Feb 12 10:25	13° \mathbb{H} 46'21	
max. Earth dist.	10961 Jan 29 15:47	16° \approx 15'31	19.31666 AU				
morning rise	10961 Feb 15 14:29	17° \approx 18'59		conjunction	10967 Feb 28 18:14	14° \mathbb{H} 47'07	-0°28'00
desc. node	10961 Feb 23 12:23	17° \approx 47'42		minimum elong	10967 Feb 28 18:14	14° \mathbb{H} 47'07	0°27'47
retrograde	10961 May 19 01:09	20° \approx 42'46		max. Earth dist.	10967 Feb 28 09:22	14° \mathbb{H} 45'44	19.46763 AU
opposition	10961 Jul 31 20:38	18° \approx 39'55	-0°02'19	morning rise	10967 Mar 16 23:28	15° \mathbb{H} 47'30	
min. Earth dist.	10961 Aug 01 06:33	18° \approx 38'50	17.32278 AU	retrograde	10967 Jun 16 19:02	19° \mathbb{H} 08'15	
direct	10961 Oct 15 15:17	16° \approx 34'19		opposition	10967 Aug 29 22:35	17° \mathbb{H} 06'08	-0°33'29
evening set	10962 Jan 18 20:04	20° \approx 02'56		min. Earth dist.	10967 Aug 30 04:59	17° \mathbb{H} 05'26	17.48842 AU
				direct	10967 Nov 14 07:30	15° \mathbb{H} 00'55	
conjunction	10962 Feb 04 08:04	21° \approx 04'41	-0°04'41	evening set	10968 Feb 17 11:06	18° \mathbb{H} 27'13	
minimum elong	10962 Feb 04 08:03	21° \approx 04'41	0°04'15				
behind sun begin	10962 Feb 04 01:26	21° \approx 03'40		conjunction	10968 Mar 04 18:11	19° \mathbb{H} 27'44	-0°32'10
behind sun end	10962 Feb 04 14:40	21° \approx 05'42		minimum elong	10968 Mar 04 18:11	19° \mathbb{H} 27'44	0°32'00
max. Earth dist.	10962 Feb 03 20:05	21° \approx 02'49	19.32991 AU	max. Earth dist.	10968 Mar 04 11:36	19° \mathbb{H} 26'43	19.51038 AU
morning rise	10962 Feb 20 17:31	22° \approx 06'05		morning rise	10968 Mar 20 22:19	20° \mathbb{H} 27'51	
retrograde	10962 May 23 23:48	25° \approx 29'29		retrograde	10968 Jun 20 16:17	23° \mathbb{H} 47'58	
opposition	10962 Aug 05 21:22	23° \approx 26'47	-0°07'48	opposition	10968 Sep 02 22:02	21° \mathbb{H} 46'02	-0°38'00
min. Earth dist.	10962 Aug 06 08:03	23° \approx 25'37	17.33836 AU	min. Earth dist.	10968 Sep 03 03:54	21° \mathbb{H} 45'25	17.53374 AU
direct	10962 Oct 20 17:28	21° \approx 21'10		direct	10968 Nov 18 08:40	19° \mathbb{H} 41'04	
evening set	10963 Jan 24 00:13	24° \approx 49'41		evening set	10969 Feb 21 11:04	23° \mathbb{H} 06'40	
conjunction	10963 Feb 09 11:25	25° \approx 51'17	-0°09'33	conjunction	10969 Mar 09 17:05	24° \mathbb{H} 06'55	-0°36'06
minimum elong	10963 Feb 09 11:25	25° \approx 51'17	0°09'10	minimum elong	10969 Mar 09 17:05	24° \mathbb{H} 06'55	0°35'59
behind sun begin	10963 Feb 09 05:45	25° \approx 50'24		max. Earth dist.	10969 Mar 09 10:33	24° \mathbb{H} 05'55	19.55826 AU
behind sun end	10963 Feb 09 17:05	25° \approx 52'09		morning rise	10969 Mar 25 20:31	25° \mathbb{H} 06'47	
max. Earth dist.	10963 Feb 08 23:27	25° \approx 49'24	19.34787 AU	retrograde	10969 Jun 25 13:13	28° \mathbb{H} 26'16	
morning rise	10963 Feb 25 20:10	26° \approx 52'31		opposition	10969 Sep 07 21:01	26° \mathbb{H} 24'33	-0°42'14
	10963 May 05 11:05	0° \mathbb{H}		min. Earth dist.	10969 Sep 08 01:25	26° \mathbb{H} 24'05	17.58397 AU
retrograde	10963 May 29 00:39	0° \mathbb{H} 15'30		direct	10969 Nov 23 09:13	24° \mathbb{H} 19'50	
	10963 Jun 21 21:46	30° \mathbb{R}		evening set	10970 Feb 26 10:13	27° \mathbb{H} 44'45	
opposition	10963 Aug 10 22:01	28° \approx 12'54	-0°13'13				
min. Earth dist.	10963 Aug 11 07:17	28° \approx 11'54	17.35858 AU	conjunction	10970 Mar 14 15:28	28° \mathbb{H} 44'43	-0°39'47
direct	10963 Oct 25 22:30	26° \approx 07'20		minimum elong	10970 Mar 14 15:28	28° \mathbb{H} 44'43	0°39'44
evening set	10964 Jan 29 03:38	29° \approx 35'35		max. Earth dist.	10970 Mar 14 11:10	28° \mathbb{H} 44'03	19.61062 AU
	10964 Feb 04 17:47	0° \mathbb{H}		morning rise	10970 Mar 30 17:49	29° \mathbb{H} 44'18	
					10970 Apr 04 02:20	0° \mathbb{Y}	
conjunction	10964 Feb 14 14:09	0° \mathbb{H} 37'01	-0°14'22	retrograde	10970 Jun 30 09:43	3° \mathbb{Y} 03'07	
minimum elong	10964 Feb 14 14:09	0° \mathbb{H} 37'01	0°14'00	opposition	10970 Sep 12 19:38	1° \mathbb{Y} 01'40	-0°46'11
behind sun begin	10964 Feb 14 10:49	0° \mathbb{H} 36'30		min. Earth dist.	10970 Sep 12 23:21	1° \mathbb{Y} 01'16	17.63821 AU
behind sun end	10964 Feb 14 17:28	0° \mathbb{H} 37'31			10970 Oct 08 01:33	30° \mathbb{R} \mathbb{H}	
max. Earth dist.	10964 Feb 14 03:28	0° \mathbb{H} 35'21	19.37039 AU	direct	10970 Nov 28 10:00	28° \mathbb{H} 57'17	
morning rise	10964 Mar 01 21:54	1° \mathbb{H} 38'04			10971 Jan 17 03:32	0° \mathbb{Y}	
retrograde	10964 Jun 01 22:59	5° \mathbb{H} 00'34		evening set	10971 Mar 03 08:45	2° \mathbb{Y} 21'24	
opposition	10964 Aug 14 22:39	2° \mathbb{H} 58'05	-0°18'32				
min. Earth dist.	10964 Aug 15 08:20	2° \mathbb{H} 57'02	17.38351 AU	conjunction	10971 Mar 19 12:53	3° \mathbb{Y} 21'05	-0°43'11
direct	10964 Oct 30 00:32	0° \mathbb{H} 52'33		minimum elong	10971 Mar 19 12:53	3° \mathbb{Y} 21'05	0°43'10
evening set	10965 Feb 02 06:36	4° \mathbb{H} 20'26		max. Earth dist.	10971 Mar 19 08:37	3° \mathbb{Y} 20'26	19.66671 AU
				morning rise	10971 Apr 04 14:30	4° \mathbb{Y} 20'23	
conjunction	10965 Feb 18 16:12	5° \mathbb{H} 21'40	-0°19'03	retrograde	10971 Jul 05 05:19	7° \mathbb{Y} 38'33	
minimum elong	10965 Feb 18 16:12	5° \mathbb{H} 21'40	0°18'45	opposition	10971 Sep 17 17:57	5° \mathbb{Y} 37'21	-0°49'49
max. Earth dist.	10965 Feb 18 05:28	5° \mathbb{H} 20'00	19.39782 AU	min. Earth dist.	10971 Sep 17 20:38	5° \mathbb{Y} 37'04	17.69598 AU
morning rise	10965 Mar 06 23:15	6° \mathbb{H} 22'31		direct	10971 Dec 03 09:29	3° \mathbb{Y} 33'18	
retrograde	10965 Jun 06 22:42	9° \mathbb{H} 44'28		evening set	10972 Mar 07 06:07	6° \mathbb{Y} 56'36	
opposition	10965 Aug 19 22:46	7° \mathbb{H} 42'06	-0°23'43				
min. Earth dist.	10965 Aug 20 06:55	7° \mathbb{H} 41'13	17.41340 AU	conjunction	10972 Mar 23 09:29	7° \mathbb{Y} 55'58	-0°46'18
direct	10965 Nov 04 03:54	5° \mathbb{H} 36'37		minimum elong	10972 Mar 23 09:29	7° \mathbb{Y} 55'58	0°46'20
evening set	10966 Feb 07 08:50	9° \mathbb{H} 04'04		max. Earth dist.	10972 Mar 23 07:14	7° \mathbb{Y} 55'37	19.72582 AU
				morning rise	10972 Apr 08 10:08	8° \mathbb{Y} 54'59	
conjunction	10966 Feb 23 17:44	10° \mathbb{H} 05'05	-0°23'37	retrograde	10972 Jul 09 00:40	12° \mathbb{Y} 12'28	

opposition	10972 Sep 21 15:50	10° Υ 11'32	-0°53'06	conjunction	10979 Apr 24 09:17	9° \mathcal{B} 11'20	-0°58'58
min. Earth dist.	10972 Sep 21 17:35	10° Υ 11'21	17.75621 AU	minimum elong	10979 Apr 24 09:17	9° \mathcal{B} 11'20	0°59'19
direct	10972 Dec 07 09:51	8° Υ 07'51		max. Earth dist.	10979 Apr 24 12:32	9° \mathcal{B} 11'50	20.17084 AU
evening set	10973 Mar 12 02:58	11° Υ 30'14		morning rise	10979 May 10 05:10	10° \mathcal{B} 08'19	
				retrograde	10979 Aug 09 16:30	13° \mathcal{B} 20'39	
conjunction	10973 Mar 28 05:18	12° Υ 29'18	-0°49'07	opposition	10979 Oct 24 09:03	11° \mathcal{B} 20'59	-1°05'46
minimum elong	10973 Mar 28 05:17	12° Υ 29'18	0°49'12	min. Earth dist.	10979 Oct 24 05:41	11° \mathcal{B} 21'20	18.20328 AU
max. Earth dist.	10973 Mar 28 03:04	12° Υ 28'58	19.78707 AU	direct	10980 Jan 09 10:42	9° \mathcal{B} 19'25	
morning rise	10973 Apr 13 05:13	13° Υ 28'01		evening set	10980 Apr 12 01:27	12° \mathcal{B} 34'23	
retrograde	10973 Jul 13 18:41	16° Υ 44'49					
opposition	10973 Sep 26 13:06	14° Υ 44'07	-0°56'02	conjunction	10980 Apr 27 22:30	13° \mathcal{B} 31'19	-0°59'25
min. Earth dist.	10973 Sep 26 14:20	14° Υ 43'59	17.81843 AU	minimum elong	10980 Apr 27 22:30	13° \mathcal{B} 31'19	0°59'48
direct	10973 Dec 12 08:08	12° Υ 40'46		max. Earth dist.	10980 Apr 28 02:51	13° \mathcal{B} 31'58	20.23552 AU
evening set	10974 Mar 16 22:49	16° Υ 02'13		morning rise	10980 May 13 17:56	14° \mathcal{B} 28'02	
					10980 May 22 23:37	15° \mathcal{B}	
conjunction	10974 Apr 02 00:23	17° Υ 00'59	-0°51'36	retrograde	10980 Aug 13 07:10	17° \mathcal{B} 39'37	
minimum elong	10974 Apr 02 00:22	17° Υ 00'59	0°51'43	opposition	10980 Oct 28 01:56	15° \mathcal{B} 40'05	-1°06'03
max. Earth dist.	10974 Apr 01 23:40	17° Υ 00'52	19.84993 AU	min. Earth dist.	10980 Oct 27 20:32	15° \mathcal{B} 40'38	18.26807 AU
morning rise	10974 Apr 17 23:25	17° Υ 59'24			10980 Nov 13 15:06	15° \mathcal{B}	
retrograde	10974 Jul 18 12:33	21° Υ 15'28		direct	10981 Jan 13 05:35	13° \mathcal{B} 38'48	
opposition	10974 Oct 01 09:58	19° Υ 15'01	-0°58'37		10981 Mar 11 21:11	15° \mathcal{B}	
min. Earth dist.	10974 Oct 01 10:03	19° Υ 15'00	17.88174 AU	evening set	10981 Apr 16 14:32	16° \mathcal{B} 52'40	
direct	10974 Dec 17 07:49	17° Υ 12'00					
evening set	10975 Mar 21 17:46	20° Υ 32'28		conjunction	10981 May 02 10:58	17° \mathcal{B} 49'18	-0°59'30
				minimum elong	10981 May 02 10:58	17° \mathcal{B} 49'18	0°59'55
conjunction	10975 Apr 06 18:21	21° Υ 30'54	-0°53'46	max. Earth dist.	10981 May 02 16:34	17° \mathcal{B} 50'09	20.30041 AU
minimum elong	10975 Apr 06 18:20	21° Υ 30'54	0°53'56	morning rise	10981 May 18 05:57	18° \mathcal{B} 45'46	
max. Earth dist.	10975 Apr 06 17:51	21° Υ 30'50	19.91362 AU	retrograde	10981 Aug 17 18:50	21° \mathcal{B} 56'39	
morning rise	10975 Apr 22 16:41	22° Υ 29'02		opposition	10981 Nov 01 18:10	19° \mathcal{B} 57'16	-1°05'57
retrograde	10975 Jul 23 04:54	25° Υ 44'23		min. Earth dist.	10981 Nov 01 12:44	19° \mathcal{B} 57'49	18.33319 AU
opposition	10975 Oct 06 06:22	23° Υ 44'08	-1°00'49	direct	10982 Jan 17 20:19	17° \mathcal{B} 56'17	
min. Earth dist.	10975 Oct 06 06:10	23° Υ 44'09	17.94584 AU	evening set	10982 Apr 21 02:42	21° \mathcal{B} 09'04	
direct	10975 Dec 22 04:42	21° Υ 41'26					
evening set	10976 Mar 25 11:42	25° Υ 00'52		conjunction	10982 May 06 22:36	22° \mathcal{B} 05'26	-0°59'16
				minimum elong	10982 May 06 22:35	22° \mathcal{B} 05'26	0°59'43
conjunction	10976 Apr 10 11:33	25° Υ 59'00	-0°55'35	max. Earth dist.	10982 May 07 05:03	22° \mathcal{B} 06'24	20.36566 AU
minimum elong	10976 Apr 10 11:33	25° Υ 59'00	0°55'47	morning rise	10982 May 22 17:15	23° \mathcal{B} 01'39	
max. Earth dist.	10976 Apr 10 12:19	25° Υ 59'07	19.97790 AU	retrograde	10982 Aug 22 08:25	26° \mathcal{B} 11'51	
morning rise	10976 Apr 26 09:09	26° Υ 56'49		opposition	10982 Nov 06 09:47	24° \mathcal{B} 12'38	-1°05'29
	10976 Jul 06 06:26	0° \mathcal{B}		min. Earth dist.	10982 Nov 06 02:14	24° \mathcal{B} 13'25	18.39833 AU
retrograde	10976 Jul 26 21:23	0° \mathcal{B} 11'25		direct	10983 Jan 22 13:32	22° \mathcal{B} 12'01	
	10976 Aug 16 20:08	30° \mathcal{R} Υ		evening set	10983 Apr 25 13:53	25° \mathcal{B} 23'44	
opposition	10976 Oct 10 01:56	28° Υ 11'22	-1°02'38				
min. Earth dist.	10976 Oct 10 00:20	28° Υ 11'32	18.01015 AU	conjunction	10983 May 11 09:21	26° \mathcal{B} 19'50	-0°58'42
direct	10976 Dec 26 02:46	26° Υ 08'58		minimum elong	10983 May 11 09:21	26° \mathcal{B} 19'50	0°59'11
evening set	10977 Mar 30 04:43	29° Υ 27'19		max. Earth dist.	10983 May 11 17:13	26° \mathcal{B} 21'01	20.43059 AU
	10977 Apr 08 06:20	0° \mathcal{B}		morning rise	10983 May 27 03:40	27° \mathcal{B} 15'49	
					10983 Jul 26 09:37	0° \mathcal{B}	
conjunction	10977 Apr 15 03:46	0° \mathcal{B} 25'09	-0°57'04	retrograde	10983 Aug 26 19:37	0° \mathcal{B} 25'24	
minimum elong	10977 Apr 15 03:46	0° \mathcal{B} 25'09	0°57'20		10983 Sep 28 00:03	30° \mathcal{R} \mathcal{B}	
max. Earth dist.	10977 Apr 15 04:58	0° \mathcal{B} 25'20	20.04221 AU	opposition	10983 Nov 11 00:55	28° \mathcal{B} 26'22	-1°04'40
morning rise	10977 May 01 00:47	1° \mathcal{B} 22'42		min. Earth dist.	10983 Nov 10 17:28	28° \mathcal{B} 27'07	18.46299 AU
retrograde	10977 Jul 31 12:04	4° \mathcal{B} 36'32		direct	10984 Jan 27 03:01	26° \mathcal{B} 26'06	
opposition	10977 Oct 14 21:01	2° \mathcal{B} 36'38	-1°04'04	evening set	10984 Apr 29 00:25	29° \mathcal{B} 36'46	
min. Earth dist.	10977 Oct 14 19:26	2° \mathcal{B} 36'48	18.07451 AU		10984 May 05 15:17	0° \mathcal{B}	
direct	10977 Dec 30 21:35	0° \mathcal{B} 34'31					
evening set	10978 Apr 03 20:40	3° \mathcal{B} 51'46		conjunction	10984 May 14 19:26	0° \mathcal{B} 32'38	-0°57'49
				minimum elong	10984 May 14 19:26	0° \mathcal{B} 32'38	0°58'20
conjunction	10978 Apr 19 19:01	4° \mathcal{B} 49'17	-0°58'11	max. Earth dist.	10984 May 15 03:50	0° \mathcal{B} 33'53	20.49481 AU
minimum elong	10978 Apr 19 19:01	4° \mathcal{B} 49'17	0°58'30	morning rise	10984 May 30 13:36	1° \mathcal{B} 28'23	
max. Earth dist.	10978 Apr 19 21:18	4° \mathcal{B} 49'38	20.10656 AU	retrograde	10984 Aug 30 07:48	4° \mathcal{B} 37'23	
morning rise	10978 May 05 15:26	5° \mathcal{B} 46'32		opposition	10984 Nov 14 15:07	2° \mathcal{B} 38'31	-1°03'30
retrograde	10978 Aug 05 03:29	8° \mathcal{B} 59'37		min. Earth dist.	10984 Nov 14 05:52	2° \mathcal{B} 39'28	18.52650 AU
opposition	10978 Oct 19 15:17	6° \mathcal{B} 59'51	-1°05'07	direct	10985 Jan 30 18:31	0° \mathcal{B} 38'36	
min. Earth dist.	10978 Oct 19 12:00	7° \mathcal{B} 00'11	18.13876 AU	evening set	10985 May 03 10:15	3° \mathcal{B} 48'17	
direct	10979 Jan 04 18:14	4° \mathcal{B} 58'00					
evening set	10979 Apr 08 11:39	8° \mathcal{B} 14'07		conjunction	10985 May 19 04:58	4° \mathcal{B} 43'55	-0°56'38

minimum elong	10985 May 19 04:58	4° Π 43'55	0°57'11		10992 Jan 24 03:55	30° κ Π
max. Earth dist.	10985 May 19 14:36	4° Π 45'21	20.55741 AU	direct	10992 Mar 01 04:23	29° Π 27'43
morning rise	10985 Jun 03 22:54	5° Π 39'28			10992 Apr 06 04:13	0° \mathfrak{E}
retrograde	10985 Sep 03 18:12	8° Π 47'54		evening set	10992 May 31 14:18	2° \mathfrak{E} 31'22
opposition	10985 Nov 19 05:07	6° Π 49'13	-1°02'01			
min. Earth dist.	10985 Nov 18 20:15	6° Π 50'07	18.58812 AU	conjunction	10992 Jun 16 08:03	3° \mathfrak{E} 25'46 -0°40'58
direct	10986 Feb 04 07:08	4° Π 49'39		minimum elong	10992 Jun 16 08:03	3° \mathfrak{E} 25'46 0°41'36
evening set	10986 May 07 19:23	7° Π 58'22		max. Earth dist.	10992 Jun 16 19:30	3° \mathfrak{E} 27'26 20.90451 AU
				morning rise	10992 Jul 02 02:28	4° \mathfrak{E} 20'16
conjunction	10986 May 23 13:43	8° Π 53'46	-0°55'10	retrograde	10992 Oct 02 12:04	7° \mathfrak{E} 25'44
minimum elong	10986 May 23 13:43	8° Π 53'46	0°55'44	opposition	10992 Dec 18 15:44	5° \mathfrak{E} 27'35 -0°43'39
max. Earth dist.	10986 May 23 23:29	8° Π 55'12	20.61789 AU	min. Earth dist.	10992 Dec 18 03:40	5° \mathfrak{E} 28'48 18.92193 AU
morning rise	10986 Jun 08 07:36	9° Π 49'07		direct	10993 Mar 05 14:08	3° \mathfrak{E} 29'41
retrograde	10986 Sep 08 05:31	12° Π 57'02		evening set	10993 Jun 04 19:38	6° \mathfrak{E} 32'38
opposition	10986 Nov 23 18:27	10° Π 58'31	-1°00'13			
min. Earth dist.	10986 Nov 23 07:58	10° Π 59'34	18.64724 AU	conjunction	10993 Jun 20 13:33	7° \mathfrak{E} 26'56 -0°37'51
direct	10987 Feb 08 20:53	8° Π 59'16		minimum elong	10993 Jun 20 13:33	7° \mathfrak{E} 26'56 0°38'27
evening set	10987 May 12 03:55	12° Π 07'03		max. Earth dist.	10993 Jun 21 02:11	7° \mathfrak{E} 28'46 20.93815 AU
				morning rise	10993 Jul 06 08:05	8° \mathfrak{E} 21'21
conjunction	10987 May 27 22:05	13° Π 02'16	-0°53'25	retrograde	10993 Oct 06 17:59	11° \mathfrak{E} 26'32
minimum elong	10987 May 27 22:05	13° Π 02'16	0°54'01	opposition	10993 Dec 23 01:37	9° \mathfrak{E} 28'23 -0°40'05
max. Earth dist.	10987 May 28 08:57	13° Π 03'52	20.67546 AU	min. Earth dist.	10993 Dec 22 13:59	9° \mathfrak{E} 29'33 18.95390 AU
morning rise	10987 Jun 12 15:48	13° Π 57'25		direct	10994 Mar 09 22:24	7° \mathfrak{E} 30'38
retrograde	10987 Sep 12 14:44	17° Π 04'51		evening set	10994 Jun 09 00:32	10° \mathfrak{E} 32'58
opposition	10987 Nov 28 07:24	15° Π 06'29	-0°58'07			
min. Earth dist.	10987 Nov 27 21:29	15° Π 07'29	18.70324 AU	conjunction	10994 Jun 24 18:27	11° \mathfrak{E} 27'10 -0°34'32
direct	10988 Feb 13 08:41	13° Π 07'33		minimum elong	10994 Jun 24 18:28	11° \mathfrak{E} 27'10 0°35'10
evening set	10988 May 15 11:53	16° Π 14'26		max. Earth dist.	10994 Jun 25 06:48	11° \mathfrak{E} 28'57 20.96858 AU
				morning rise	10994 Jul 10 13:25	12° \mathfrak{E} 21'30
conjunction	10988 May 31 05:49	17° Π 09'27	-0°51'25	retrograde	10994 Oct 11 02:54	15° \mathfrak{E} 26'29
minimum elong	10988 May 31 05:49	17° Π 09'27	0°52'00	opposition	10994 Dec 27 11:01	13° \mathfrak{E} 28'20 -0°36'20
max. Earth dist.	10988 May 31 16:23	17° Π 11'00	20.72971 AU	min. Earth dist.	10994 Dec 26 22:11	13° \mathfrak{E} 29'37 18.98275 AU
morning rise	10988 Jun 15 23:39	18° Π 04'27		direct	10995 Mar 14 06:49	11° \mathfrak{E} 30'43
retrograde	10988 Sep 16 01:31	21° Π 11'26		evening set	10995 Jun 13 05:10	14° \mathfrak{E} 32'30
opposition	10988 Dec 01 19:39	19° Π 13'10	-0°55'43			
min. Earth dist.	10988 Dec 01 08:26	19° Π 14'17	18.75551 AU	conjunction	10995 Jun 28 23:21	15° \mathfrak{E} 26'38 -0°31'05
direct	10989 Feb 16 20:45	17° Π 14'30		minimum elong	10995 Jun 28 23:21	15° \mathfrak{E} 26'38 0°31'41
evening set	10989 May 19 19:19	20° Π 20'32		max. Earth dist.	10995 Jun 29 12:54	15° \mathfrak{E} 28'35 20.99577 AU
				morning rise	10995 Jul 14 18:32	16° \mathfrak{E} 20'56
conjunction	10989 Jun 04 13:10	21° Π 15'22	-0°49'09	retrograde	10995 Oct 15 08:47	19° \mathfrak{E} 25'45
minimum elong	10989 Jun 04 13:10	21° Π 15'22	0°49'45	opposition	10995 Dec 31 20:01	17° \mathfrak{E} 27'37 -0°32'25
max. Earth dist.	10989 Jun 05 00:36	21° Π 17'02	20.77980 AU	min. Earth dist.	10995 Dec 31 07:37	17° \mathfrak{E} 28'51 19.00834 AU
morning rise	10989 Jun 20 06:57	22° Π 10'13		direct	10996 Mar 17 13:51	15° \mathfrak{E} 30'10
retrograde	10989 Sep 20 09:32	25° Π 16'46		evening set	10996 Jun 16 09:36	18° \mathfrak{E} 31'28
opposition	10989 Dec 06 07:31	23° Π 18'36	-0°53'04			
min. Earth dist.	10989 Dec 05 21:02	23° Π 19'39	18.80347 AU	conjunction	10996 Jul 02 03:57	19° \mathfrak{E} 25'32 -0°27'29
direct	10990 Feb 21 07:42	21° Π 20'11		minimum elong	10996 Jul 02 03:57	19° \mathfrak{E} 25'32 0°28'06
evening set	10990 May 24 02:17	24° Π 25'22		max. Earth dist.	10996 Jul 02 16:56	19° \mathfrak{E} 27'24 21.01978 AU
				morning rise	10996 Jul 17 23:39	20° \mathfrak{E} 19'47
conjunction	10990 Jun 08 19:58	25° Π 20'03	-0°46'38	retrograde	10996 Oct 18 17:09	23° \mathfrak{E} 24'31
minimum elong	10990 Jun 08 19:59	25° Π 20'03	0°47'15	opposition	10997 Jan 04 04:41	21° \mathfrak{E} 26'24 -0°28'21
max. Earth dist.	10990 Jun 09 06:52	25° Π 21'38	20.82568 AU	min. Earth dist.	10997 Jan 03 15:22	21° \mathfrak{E} 27'43 19.03058 AU
morning rise	10990 Jun 24 13:58	26° Π 14'46		direct	10997 Mar 21 20:52	19° \mathfrak{E} 29'05
retrograde	10990 Sep 24 19:45	29° Π 20'56		evening set	10997 Jun 20 13:48	22° \mathfrak{E} 29'59
opposition	10990 Dec 10 18:49	27° Π 22'47	-0°50'10			
min. Earth dist.	10990 Dec 10 07:10	27° Π 23'57	18.84711 AU	conjunction	10997 Jul 06 08:29	23° \mathfrak{E} 24'01 -0°23'45
direct	10991 Feb 25 18:40	25° Π 24'34		minimum elong	10997 Jul 06 08:29	23° \mathfrak{E} 24'01 0°24'21
evening set	10991 May 28 08:28	28° Π 28'58		max. Earth dist.	10997 Jul 06 22:30	23° \mathfrak{E} 26'02 21.04013 AU
				morning rise	10997 Jul 22 04:28	24° \mathfrak{E} 18'15
conjunction	10991 Jun 13 02:15	29° Π 23'30	-0°43'55	retrograde	10997 Oct 22 23:36	27° \mathfrak{E} 22'57
minimum elong	10991 Jun 13 02:15	29° Π 23'30	0°44'32	opposition	10998 Jan 08 13:14	25° \mathfrak{E} 24'50 -0°24'10
max. Earth dist.	10991 Jun 13 14:09	29° Π 25'14	20.86710 AU	min. Earth dist.	10998 Jan 08 00:25	25° \mathfrak{E} 26'07 19.04903 AU
	10991 Jun 23 13:49	0° \mathfrak{E}		direct	10998 Mar 26 03:14	23° \mathfrak{E} 27'42
morning rise	10991 Jun 28 20:19	0° \mathfrak{E} 18'06		evening set	10998 Jun 24 18:03	26° \mathfrak{E} 28'14
retrograde	10991 Sep 29 02:39	3° \mathfrak{E} 23'54				
opposition	10991 Dec 15 05:41	1° \mathfrak{E} 25'46	-0°47'01	conjunction	10998 Jul 10 12:56	27° \mathfrak{E} 22'15 -0°19'56
min. Earth dist.	10991 Dec 14 18:42	1° \mathfrak{E} 26'52	18.88643 AU	minimum elong	10998 Jul 10 12:56	27° \mathfrak{E} 22'15 0°20'31

max. Earth dist.	10998 Jul 11 02:13	27° \mathring{O} 24'09	21.05674 AU	retrograde	11003 Nov 17 22:15	21° \mathring{O} 13'16	
morning rise	10998 Jul 26 09:30	28° \mathring{O} 16'29		opposition	11004 Feb 03 13:35	19° \mathring{O} 14'54	0°02'34
	10998 Aug 29 10:48	0° \mathring{O}		min. Earth dist.	11004 Feb 03 02:49	19° \mathring{O} 15'58	19.06094 AU
retrograde	10998 Oct 27 07:42	1° \mathring{O} 21'12		direct	11004 Apr 19 14:25	17° \mathring{O} 18'04	
	10998 Dec 28 05:07	30° \mathring{R} \mathring{O}		evening set	11004 Jul 18 21:19	20° \mathring{O} 17'47	
opposition	10999 Jan 12 21:31	29° \mathring{O} 23'06	-0°19'53				
min. Earth dist.	10999 Jan 12 08:04	29° \mathring{O} 24'26	19.06360 AU	conjunction	11004 Aug 03 18:47	21° \mathring{O} 12'01	0°04'29
direct	10999 Mar 30 09:28	27° \mathring{O} 26'05		minimum elong	11004 Aug 03 18:47	21° \mathring{O} 12'01	0°04'03
	10999 Jun 20 22:54	0° \mathring{O}		behind sun begin	11004 Aug 03 12:17	21° \mathring{O} 11'06	
evening set	10999 Jun 28 22:09	0° \mathring{O} 26'21		behind sun end	11004 Aug 04 01:18	21° \mathring{O} 12'55	
				max. Earth dist.	11004 Aug 04 05:30	21° \mathring{O} 13'32	21.05305 AU
conjunction	10999 Jul 14 17:29	1° \mathring{O} 20'21	-0°16'01	morning rise	11004 Aug 19 18:41	22° \mathring{O} 06'35	
minimum elong	10999 Jul 14 17:29	1° \mathring{O} 20'21	0°16'35	retrograde	11004 Nov 21 07:11	25° \mathring{O} 12'12	
max. Earth dist.	10999 Jul 15 07:33	1° \mathring{O} 22'22	21.06907 AU	opposition	11005 Feb 06 21:27	23° \mathring{O} 13'39	0°07'08
morning rise	10999 Jul 30 14:26	2° \mathring{O} 14'37		min. Earth dist.	11005 Feb 06 10:56	23° \mathring{O} 14'43	19.04391 AU
retrograde	10999 Oct 31 14:35	5° \mathring{O} 19'22		direct	11005 Apr 23 20:31	21° \mathring{O} 16'44	
opposition	11000 Jan 17 05:44	3° \mathring{O} 21'17	-0°15'30	evening set	11005 Jul 23 02:17	24° \mathring{O} 16'29	
min. Earth dist.	11000 Jan 16 17:01	3° \mathring{O} 22'33	19.07362 AU				
direct	11000 Apr 03 15:08	1° \mathring{O} 24'24		conjunction	11005 Aug 08 00:23	25° \mathring{O} 10'49	0°08'34
evening set	11000 Jul 03 02:33	4° \mathring{O} 24'26		minimum elong	11005 Aug 08 00:23	25° \mathring{O} 10'49	0°08'10
				behind sun begin	11005 Aug 07 18:31	25° \mathring{O} 10'00	
conjunction	11000 Jul 18 22:09	5° \mathring{O} 18'27	-0°12'02	behind sun end	11005 Aug 08 06:15	25° \mathring{O} 11'38	
minimum elong	11000 Jul 18 22:09	5° \mathring{O} 18'27	0°12'33	max. Earth dist.	11005 Aug 08 11:33	25° \mathring{O} 12'24	21.03346 AU
behind sun begin	11000 Jul 18 17:53	5° \mathring{O} 17'52		morning rise	11005 Aug 24 00:46	26° \mathring{O} 05'29	
behind sun end	11000 Jul 19 02:26	5° \mathring{O} 19'03		retrograde	11005 Nov 25 14:43	29° \mathring{O} 11'23	
max. Earth dist.	11000 Jul 19 11:04	5° \mathring{O} 20'18	21.07677 AU	opposition	11006 Feb 11 05:21	27° \mathring{O} 12'39	0°11'40
morning rise	11000 Aug 03 19:43	6° \mathring{O} 12'45		min. Earth dist.	11006 Feb 10 19:35	27° \mathring{O} 13'38	19.02198 AU
retrograde	11000 Nov 04 23:00	9° \mathring{O} 17'37		direct	11006 Apr 28 02:39	25° \mathring{O} 15'38	
opposition	11001 Jan 21 13:38	7° \mathring{O} 19'30	-0°11'03	evening set	11006 Jul 27 07:40	28° \mathring{O} 15'29	
min. Earth dist.	11001 Jan 21 00:46	7° \mathring{O} 20'47	19.07881 AU				
direct	11001 Apr 07 21:14	5° \mathring{O} 22'42		conjunction	11006 Aug 12 06:13	29° \mathring{O} 09'55	0°12'38
evening set	11001 Jul 07 06:59	8° \mathring{O} 22'35		minimum elong	11006 Aug 12 06:13	29° \mathring{O} 09'55	0°12'16
				behind sun begin	11006 Aug 12 01:48	29° \mathring{O} 09'18	
conjunction	11001 Jul 23 03:05	9° \mathring{O} 16'38	-0°07'59	behind sun end	11006 Aug 12 10:38	29° \mathring{O} 10'32	
minimum elong	11001 Jul 23 03:04	9° \mathring{O} 16'38	0°08'31	max. Earth dist.	11006 Aug 12 16:04	29° \mathring{O} 11'19	21.00952 AU
behind sun begin	11001 Jul 22 21:18	9° \mathring{O} 15'50			11006 Aug 26 21:44	0° \mathring{O}	
behind sun end	11001 Jul 23 08:50	9° \mathring{O} 17'26		morning rise	11006 Aug 28 07:24	0° \mathring{O} 04'43	
max. Earth dist.	11001 Jul 23 16:27	9° \mathring{O} 18'33	21.07926 AU	retrograde	11006 Nov 29 23:56	3° \mathring{O} 10'57	
morning rise	11001 Aug 08 01:01	10° \mathring{O} 10'58		opposition	11007 Feb 15 13:10	1° \mathring{O} 12'01	0°16'09
retrograde	11001 Nov 09 06:01	13° \mathring{O} 15'59		min. Earth dist.	11007 Feb 15 03:35	1° \mathring{O} 12'59	18.99610 AU
opposition	11002 Jan 25 21:44	11° \mathring{O} 17'50	-0°06'32		11007 Mar 19 14:11	30° \mathring{R} \mathring{O}	
min. Earth dist.	11002 Jan 25 09:47	11° \mathring{O} 19'02	19.07855 AU	direct	11007 May 02 08:02	29° \mathring{O} 14'51	
direct	11002 Apr 12 02:29	9° \mathring{O} 21'05			11007 Jun 13 19:54	0° \mathring{O}	
evening set	11002 Jul 11 11:33	12° \mathring{O} 20'51		evening set	11007 Jul 31 13:14	2° \mathring{O} 14'55	
conjunction	11002 Jul 27 07:59	13° \mathring{O} 14'57	-0°03'55	conjunction	11007 Aug 16 12:31	3° \mathring{O} 09'28	0°16'39
minimum elong	11002 Jul 27 07:59	13° \mathring{O} 14'57	0°04'24	minimum elong	11007 Aug 16 12:30	3° \mathring{O} 09'28	0°16'20
behind sun begin	11002 Jul 27 01:31	13° \mathring{O} 14'03		max. Earth dist.	11007 Aug 16 22:52	3° \mathring{O} 10'57	20.98164 AU
behind sun end	11002 Jul 27 14:27	13° \mathring{O} 15'51		morning rise	11007 Sep 01 14:13	4° \mathring{O} 04'24	
max. Earth dist.	11002 Jul 27 19:58	13° \mathring{O} 16'39	21.07627 AU	retrograde	11007 Dec 04 08:01	7° \mathring{O} 11'01	
morning rise	11002 Aug 12 06:39	14° \mathring{O} 09'20		opposition	11008 Feb 19 21:04	5° \mathring{O} 11'54	0°20'34
	11002 Aug 27 22:09	15° \mathring{O}		min. Earth dist.	11008 Feb 19 12:07	5° \mathring{O} 12'48	18.96640 AU
retrograde	11002 Nov 13 15:02	17° \mathring{O} 14'32		direct	11008 May 05 14:28	3° \mathring{O} 14'37	
opposition	11003 Jan 30 05:46	15° \mathring{O} 16'18	-0°01'59	evening set	11008 Aug 03 19:19	6° \mathring{O} 14'57	
min. Earth dist.	11003 Jan 29 17:56	15° \mathring{O} 17'28	19.07269 AU				
	11003 Feb 06 01:16	15° \mathring{R} \mathring{O}		conjunction	11008 Aug 19 19:03	7° \mathring{O} 09'39	0°20'36
direct	11003 Apr 16 08:53	13° \mathring{O} 19'31		minimum elong	11008 Aug 19 19:03	7° \mathring{O} 09'39	0°20'18
	11003 Jun 20 09:15	15° \mathring{O}		max. Earth dist.	11008 Aug 20 04:00	7° \mathring{O} 10'55	20.95029 AU
asc. node	11003 Jul 05 18:57	15° \mathring{O} 46'46		morning rise	11008 Sep 04 21:32	8° \mathring{O} 04'44	
evening set	11003 Jul 15 16:19	16° \mathring{O} 19'15		retrograde	11008 Dec 07 18:05	11° \mathring{O} 11'47	
				opposition	11009 Feb 23 05:03	9° \mathring{O} 12'29	0°24'54
conjunction	11003 Jul 31 13:22	17° \mathring{O} 13'24	0°00'16	min. Earth dist.	11009 Feb 22 20:21	9° \mathring{O} 13'22	18.93345 AU
minimum elong	11003 Jul 31 13:22	17° \mathring{O} 13'24	0°00'12	direct	11009 May 09 19:48	7° \mathring{O} 15'04	
behind sun begin	11003 Jul 31 06:51	17° \mathring{O} 12'30		evening set	11009 Aug 08 01:45	10° \mathring{O} 15'46	
behind sun end	11003 Jul 31 19:53	17° \mathring{O} 14'18					
max. Earth dist.	11003 Aug 01 01:36	17° \mathring{O} 15'08	21.06743 AU	conjunction	11009 Aug 24 02:13	11° \mathring{O} 10'37	0°24'28
morning rise	11003 Aug 16 12:30	18° \mathring{O} 07'52		minimum elong	11009 Aug 24 02:13	11° \mathring{O} 10'37	0°24'13

max. Earth dist.	11009 Aug 24 11:39	11° <u>♏</u> 11'58	20.91569 AU	min. Earth dist.	11016 Mar 23 18:19	7° <u>♍</u> 50'12	18.61261 AU
morning rise	11009 Sep 09 05:14	12° <u>♏</u> 05'53		direct	11016 Jun 06 22:43	5° <u>♍</u> 51'22	
retrograde	11009 Dec 12 03:05	15° <u>♏</u> 13'25		evening set	11016 Sep 05 17:21	8° <u>♍</u> 56'23	
opposition	11010 Feb 27 13:20	13° <u>♏</u> 13'58	0°29'08				
min. Earth dist.	11010 Feb 27 05:07	13° <u>♏</u> 14'48	18.89729 AU	conjunction	11016 Sep 21 22:28	9° <u>♍</u> 52'47	0°47'28
direct	11010 May 14 02:10	11° <u>♏</u> 16'27		minimum elong	11016 Sep 21 22:27	9° <u>♍</u> 52'47	0°47'32
evening set	11010 Aug 12 08:42	14° <u>♏</u> 17'33		max. Earth dist.	11016 Sep 22 00:35	9° <u>♍</u> 53'06	20.58287 AU
				morning rise	11016 Oct 08 06:22	10° <u>♍</u> 49'36	
conjunction	11010 Aug 28 09:43	15° <u>♏</u> 12'35	0°28'13	retrograde	11017 Jan 10 16:24	14° <u>♍</u> 01'40	
minimum elong	11010 Aug 28 09:43	15° <u>♏</u> 12'35	0°27'59	opposition	11017 Mar 28 08:38	12° <u>♍</u> 01'03	0°54'01
max. Earth dist.	11010 Aug 28 17:39	15° <u>♏</u> 13'43	20.87811 AU	min. Earth dist.	11017 Mar 28 06:42	12° <u>♍</u> 01'15	18.55235 AU
morning rise	11010 Sep 13 13:35	16° <u>♏</u> 08'01		direct	11017 Jun 11 08:18	10° <u>♍</u> 02'16	
retrograde	11010 Dec 16 14:35	19° <u>♏</u> 16'07		evening set	11017 Sep 10 05:25	13° <u>♍</u> 08'05	
opposition	11011 Mar 03 21:51	17° <u>♏</u> 16'30	0°33'13				
min. Earth dist.	11011 Mar 03 14:08	17° <u>♏</u> 17'18	18.85821 AU	conjunction	11017 Sep 26 11:26	14° <u>♍</u> 04'46	0°49'58
direct	11011 May 18 08:19	15° <u>♏</u> 18'51		minimum elong	11017 Sep 26 11:26	14° <u>♍</u> 04'46	0°50'04
evening set	11011 Aug 16 16:17	18° <u>♏</u> 20'28		max. Earth dist.	11017 Sep 26 13:29	14° <u>♍</u> 05'04	20.52091 AU
				morning rise	11017 Oct 12 19:50	15° <u>♍</u> 01'49	
conjunction	11011 Sep 01 18:06	19° <u>♏</u> 15'42	0°31'50	retrograde	11018 Jan 15 06:29	18° <u>♍</u> 14'35	
minimum elong	11011 Sep 01 18:06	19° <u>♏</u> 15'42	0°31'40	opposition	11018 Apr 01 19:56	16° <u>♍</u> 13'42	0°56'41
max. Earth dist.	11011 Sep 02 02:23	19° <u>♏</u> 16'53	20.83742 AU	min. Earth dist.	11018 Apr 01 18:36	16° <u>♍</u> 13'51	18.48888 AU
morning rise	11011 Sep 17 22:30	20° <u>♏</u> 11'20		direct	11018 Jun 15 19:09	14° <u>♍</u> 14'36	
retrograde	11011 Dec 21 00:44	23° <u>♏</u> 20'00		evening set	11018 Sep 14 18:21	17° <u>♍</u> 21'16	
opposition	11012 Mar 07 06:31	21° <u>♏</u> 20'16	0°37'10				
min. Earth dist.	11012 Mar 06 23:27	21° <u>♏</u> 20'59	18.81594 AU	conjunction	11018 Oct 01 00:57	18° <u>♍</u> 18'12	0°52'13
direct	11012 May 21 14:37	19° <u>♏</u> 22'30		minimum elong	11018 Oct 01 00:57	18° <u>♍</u> 18'12	0°52'22
evening set	11012 Aug 20 00:38	22° <u>♏</u> 24'41		max. Earth dist.	11018 Oct 01 00:45	18° <u>♍</u> 18'10	20.45624 AU
				morning rise	11018 Oct 17 10:12	19° <u>♍</u> 15'32	
conjunction	11012 Sep 05 02:59	23° <u>♏</u> 20'07	0°35'19	retrograde	11019 Jan 19 20:03	22° <u>♍</u> 29'00	
minimum elong	11012 Sep 05 02:59	23° <u>♏</u> 20'07	0°35'11	opposition	11019 Apr 06 07:44	20° <u>♍</u> 27'51	0°59'03
max. Earth dist.	11012 Sep 05 09:31	23° <u>♏</u> 21'03	20.79368 AU	min. Earth dist.	11019 Apr 06 07:55	20° <u>♍</u> 27'50	18.42315 AU
morning rise	11012 Sep 21 08:13	24° <u>♏</u> 15'58		direct	11019 Jun 20 05:33	18° <u>♍</u> 28'22	
retrograde	11012 Dec 24 13:28	27° <u>♏</u> 25'17		evening set	11019 Sep 19 08:01	21° <u>♍</u> 35'56	
opposition	11013 Mar 11 15:43	25° <u>♏</u> 25'24	0°40'57				
min. Earth dist.	11013 Mar 11 09:28	25° <u>♏</u> 26'02	18.77060 AU	conjunction	11019 Oct 05 15:30	22° <u>♍</u> 33'09	0°54'12
direct	11013 May 25 21:55	23° <u>♏</u> 27'30		minimum elong	11019 Oct 05 15:30	22° <u>♍</u> 33'09	0°54'23
evening set	11013 Aug 24 09:27	26° <u>♏</u> 30'19		max. Earth dist.	11019 Oct 05 15:24	22° <u>♍</u> 33'08	20.38955 AU
				morning rise	11019 Oct 22 01:11	23° <u>♍</u> 30'44	
conjunction	11013 Sep 09 12:37	27° <u>♏</u> 25'59	0°38'39	retrograde	11020 Jan 24 11:20	26° <u>♍</u> 44'55	
minimum elong	11013 Sep 09 12:36	27° <u>♏</u> 25'59	0°38'33	opposition	11020 Apr 09 19:49	24° <u>♍</u> 43'29	1°01'06
max. Earth dist.	11013 Sep 09 19:24	27° <u>♏</u> 26'57	20.74658 AU	min. Earth dist.	11020 Apr 09 20:19	24° <u>♍</u> 43'26	18.35573 AU
morning rise	11013 Sep 25 18:21	28° <u>♏</u> 22'03		direct	11020 Jun 23 17:52	22° <u>♍</u> 43'39	
	11013 Oct 27 06:09	0° <u>♍</u>		evening set	11020 Sep 22 22:38	25° <u>♍</u> 52'08	
retrograde	11013 Dec 29 00:53	1° <u>♍</u> 32'02					
	11014 Mar 04 13:39	30° <u>♏</u>		conjunction	11020 Oct 09 06:38	26° <u>♍</u> 49'39	0°55'53
opposition	11014 Mar 16 01:19	29° <u>♏</u> 32'01	0°44'33	minimum elong	11020 Oct 09 06:38	26° <u>♍</u> 49'39	0°56'06
min. Earth dist.	11014 Mar 15 19:48	29° <u>♏</u> 32'35	18.72171 AU	max. Earth dist.	11020 Oct 09 04:28	26° <u>♍</u> 49'19	20.32167 AU
direct	11014 May 30 05:10	27° <u>♏</u> 33'58		morning rise	11020 Oct 25 17:05	27° <u>♍</u> 47'31	
	11014 Aug 17 12:22	0° <u>♍</u>			11020 Dec 08 18:02	0° <u>♏</u>	
evening set	11014 Aug 28 19:21	0° <u>♍</u> 37'28		retrograde	11021 Jan 28 01:57	1° <u>♏</u> 02'25	
					11021 Mar 20 18:42	30° <u>♏</u>	
conjunction	11014 Sep 13 23:04	1° <u>♍</u> 33'22	0°41'47	opposition	11021 Apr 14 08:38	29° <u>♍</u> 00'43	1°02'50
minimum elong	11014 Sep 13 23:03	1° <u>♍</u> 33'22	0°41'45	min. Earth dist.	11021 Apr 14 10:32	29° <u>♍</u> 00'31	18.28763 AU
max. Earth dist.	11014 Sep 14 03:45	1° <u>♍</u> 34'02	20.69592 AU	direct	11021 Jun 28 05:01	27° <u>♍</u> 00'30	
morning rise	11014 Sep 30 05:39	2° <u>♍</u> 29'41			11021 Sep 24 16:35	0° <u>♏</u>	
retrograde	11015 Jan 02 14:21	5° <u>♍</u> 40'21		evening set	11021 Sep 27 13:46	0° <u>♏</u> 09'57	
opposition	11015 Mar 20 11:17	3° <u>♍</u> 40'10	0°47'56				
min. Earth dist.	11015 Mar 20 07:04	3° <u>♍</u> 40'36	18.66921 AU	conjunction	11021 Oct 13 22:39	1° <u>♏</u> 07'45	0°57'15
direct	11015 Jun 03 13:39	1° <u>♍</u> 41'55		minimum elong	11021 Oct 13 22:39	1° <u>♏</u> 07'45	0°57'32
evening set	11015 Sep 02 05:56	4° <u>♍</u> 46'10		max. Earth dist.	11021 Oct 13 20:48	1° <u>♏</u> 07'29	20.25336 AU
				morning rise	11021 Oct 30 09:33	2° <u>♏</u> 05'54	
conjunction	11015 Sep 18 10:31	5° <u>♍</u> 42'19	0°44'44	retrograde	11022 Feb 01 18:51	5° <u>♏</u> 21'32	
minimum elong	11015 Sep 18 10:31	5° <u>♍</u> 42'19	0°44'44	opposition	11022 Apr 18 21:53	3° <u>♏</u> 19'35	1°04'12
max. Earth dist.	11015 Sep 18 15:01	5° <u>♍</u> 42'58	20.64134 AU	min. Earth dist.	11022 Apr 18 23:45	3° <u>♏</u> 19'24	18.21927 AU
morning rise	11015 Oct 04 17:36	6° <u>♍</u> 38'52		direct	11022 Jul 02 18:32	1° <u>♏</u> 19'01	
retrograde	11016 Jan 07 03:03	9° <u>♍</u> 50'14		evening set	11022 Oct 02 06:09	4° <u>♏</u> 29'29	
opposition	11016 Mar 23 21:43	7° <u>♍</u> 49'51	0°51'06				

conjunction	11022 Oct 18 15:33	5° M 27'35	0°58'19	minimum elong	11028 Nov 14 16:44	2° 7 07'19	0°57'59
minimum elong	11022 Oct 18 15:33	5° M 27'35	0°58'37	max. Earth dist.	11028 Nov 14 07:55	2° 7 05'59	19.79852 AU
max. Earth dist.	11022 Oct 18 11:44	5° M 27'01	20.18514 AU	morning rise	11028 Dec 01 06:47	3° 7 07'25	
morning rise	11022 Nov 04 03:09	6° M 26'01		retrograde	11029 Mar 05 10:17	6° 7 28'09	
retrograde	11023 Feb 06 11:01	9° M 42'23		opposition	11029 May 19 12:53	4° 7 25'13	1°03'13
opposition	11023 Apr 23 11:42	7° M 40'12	1°05'14	min. Earth dist.	11029 May 19 20:57	4° 7 24'21	17.76845 AU
min. Earth dist.	11023 Apr 23 15:04	7° M 39'51	18.15141 AU	direct	11029 Aug 02 04:39	2° 7 22'29	
direct	11023 Jul 07 06:45	5° M 39'17		evening set	11029 Nov 03 02:32	5° 7 40'47	
evening set	11023 Oct 06 23:15	8° M 50'48					
conjunction	11023 Oct 23 09:30	9° M 49'12	0°59'03	conjunction	11029 Nov 19 16:08	6° 7 40'59	0°56'02
minimum elong	11023 Oct 23 09:30	9° M 49'12	0°59'24	minimum elong	11029 Nov 19 16:08	6° 7 40'59	0°56'35
max. Earth dist.	11023 Oct 23 05:54	9° M 48'40	20.11763 AU	max. Earth dist.	11029 Nov 19 06:33	6° 7 39'31	19.73834 AU
morning rise	11023 Nov 08 21:28	10° M 47'55		morning rise	11029 Dec 06 06:28	7° 7 41'20	
retrograde	11024 Feb 11 05:43	14° M 05'01		retrograde	11030 Mar 10 10:09	11° 7 02'40	
opposition	11024 Apr 27 02:08	12° M 02'40	1°05'52	opposition	11030 May 24 07:26	8° 7 59'37	1°01'29
min. Earth dist.	11024 Apr 27 05:15	12° M 02'20	18.08435 AU	min. Earth dist.	11030 May 24 15:24	8° 7 58'45	17.70889 AU
direct	11024 Jul 10 21:24	10° M 01'25		direct	11030 Aug 07 00:59	6° 7 56'33	
evening set	11024 Oct 10 17:19	13° M 14'01		evening set	11030 Nov 08 02:24	10° 7 15'57	
conjunction	11024 Oct 27 04:02	14° M 12'43	0°59'26	conjunction	11030 Nov 24 16:24	11° 7 16'24	0°54'16
minimum elong	11024 Oct 27 04:02	14° M 12'43	0°59'50	minimum elong	11030 Nov 24 16:24	11° 7 16'24	0°54'50
max. Earth dist.	11024 Oct 26 22:42	14° M 11'56	20.05115 AU	max. Earth dist.	11030 Nov 24 05:39	11° 7 14'46	19.67952 AU
	11024 Nov 09 08:51	15° M		morning rise	11030 Dec 11 06:55	12° 7 17'00	
morning rise	11024 Nov 12 16:37	15° M 11'43		retrograde	11031 Mar 15 07:00	15° 7 38'53	
retrograde	11025 Feb 14 23:32	18° M 29'35		opposition	11031 May 29 02:37	13° 7 35'42	0°59'20
opposition	11025 May 01 17:24	16° M 27'04	1°06'08	min. Earth dist.	11031 May 29 12:21	13° 7 34'39	17.65107 AU
min. Earth dist.	11025 May 01 22:01	16° M 26'35	18.01860 AU	direct	11031 Aug 11 19:07	11° 7 32'18	
	11025 Jun 08 16:26	15° R M		evening set	11031 Nov 13 02:56	14° 7 52'44	
direct	11025 Jul 15 10:56	14° M 25'31		conjunction	11031 Nov 29 17:18	15° 7 53'27	0°52'08
	11025 Aug 20 14:41	15° M		minimum elong	11031 Nov 29 17:18	15° 7 53'27	0°52'44
evening set	11025 Oct 15 12:18	17° M 39'15		max. Earth dist.	11031 Nov 29 05:34	15° 7 51'39	19.62293 AU
conjunction	11025 Oct 31 23:48	18° M 38'15	0°59'28	morning rise	11031 Dec 16 08:01	16° 7 54'16	
minimum elong	11025 Oct 31 23:48	18° M 38'15	0°59'54	retrograde	11032 Mar 19 07:11	20° 7 16'40	
max. Earth dist.	11025 Oct 31 18:37	18° M 37'29	19.98614 AU	opposition	11032 Jun 01 22:21	18° 7 13'20	0°56'47
morning rise	11025 Nov 17 12:45	19° M 37'32		min. Earth dist.	11032 Jun 02 07:51	18° 7 12'18	17.59577 AU
retrograde	11026 Feb 19 20:10	22° M 56'09		direct	11032 Aug 15 17:24	16° 7 09'36	
opposition	11026 May 06 09:05	20° M 53'31	1°06'01	evening set	11032 Nov 17 03:59	19° 7 31'02	
min. Earth dist.	11026 May 06 13:30	20° M 53'02	17.95425 AU	conjunction	11032 Dec 03 18:41	20° 7 32'00	0°49'39
direct	11026 Jul 20 03:13	18° M 51'40		minimum elong	11032 Dec 03 18:41	20° 7 32'00	0°50'15
evening set	11026 Oct 20 08:29	22° M 06'33		max. Earth dist.	11032 Dec 03 06:40	20° 7 30'09	19.56907 AU
conjunction	11026 Nov 05 20:28	23° M 05'52	0°59'09	morning rise	11032 Dec 20 09:24	21° 7 33'00	
minimum elong	11026 Nov 05 20:27	23° M 05'52	0°59'38	retrograde	11033 Mar 24 04:21	24° 7 55'51	
max. Earth dist.	11026 Nov 05 13:34	23° M 04'50	19.92244 AU	opposition	11033 Jun 06 18:45	22° 7 52'24	0°53'51
morning rise	11026 Nov 22 09:55	24° M 05'26		min. Earth dist.	11033 Jun 07 05:36	22° 7 51'13	17.54360 AU
retrograde	11027 Feb 24 15:27	27° M 24'47		direct	11033 Aug 20 13:31	20° 7 48'19	
opposition	11027 May 11 01:42	25° M 22'03	1°05'29	evening set	11033 Nov 22 05:49	24° 7 10'44	
min. Earth dist.	11027 May 11 07:57	25° M 21'23	17.89122 AU	conjunction	11033 Dec 08 20:44	25° 7 11'54	0°46'50
direct	11027 Jul 24 18:00	23° M 19'55		minimum elong	11033 Dec 08 20:44	25° 7 11'54	0°47'28
evening set	11027 Oct 25 05:33	26° M 35'58		max. Earth dist.	11033 Dec 08 07:38	25° 7 09'52	19.51884 AU
conjunction	11027 Nov 10 18:10	27° M 35'35	0°58'29	morning rise	11033 Dec 25 11:36	26° 7 13'05	
minimum elong	11027 Nov 10 18:10	27° M 35'35	0°58'59	retrograde	11034 Mar 29 04:39	29° 7 36'19	
max. Earth dist.	11027 Nov 10 10:56	27° M 34'29	19.85998 AU	opposition	11034 Jun 11 15:24	27° 7 32'46	0°50'33
morning rise	11027 Nov 27 07:53	28° M 35'24		min. Earth dist.	11034 Jun 12 02:01	27° 7 31'36	17.49539 AU
	11027 Dec 22 16:48	0° 7		direct	11034 Aug 25 13:28	25° 7 28'20	
retrograde	11028 Feb 29 14:02	1° 7 55'28		evening set	11034 Nov 27 08:15	28° 7 51'40	
	11028 May 11 22:18	30° R M		conjunction	11034 Dec 13 23:26	29° 7 53'03	0°43'41
opposition	11028 May 14 18:49	29° M 52'39	1°04'33	minimum elong	11034 Dec 13 23:26	29° 7 53'03	0°44'19
min. Earth dist.	11028 May 15 01:00	29° M 51'59	17.82928 AU	max. Earth dist.	11034 Dec 13 10:41	29° 7 51'04	19.47270 AU
direct	11028 Jul 28 12:23	27° M 50'14			11034 Dec 15 20:20	0° 3	
	11028 Oct 09 07:14	0° 7		morning rise	11034 Dec 30 14:06	0° 3 54'23	
evening set	11028 Oct 29 03:42	1° 7 07'25		retrograde	11035 Apr 03 02:49	4° 3 17'57	
conjunction	11028 Nov 14 16:44	2° 7 07'19	0°57'26	opposition	11035 Jun 16 12:49	2° 3 14'18	0°46'53
				min. Earth dist.	11035 Jun 17 00:18	2° 3 13'03	17.45158 AU

direct	11035 Aug 30 11:44	0°309'35		minimum elong	11042 Jan 17 02:47	3°07'58	0°15'05
evening set	11035 Dec 02 11:09	3°33'46		behind sun begin	11042 Jan 17 00:38	3°07'38	
				behind sun end	11042 Jan 17 04:57	3°08'18	
conjunction	11035 Dec 19 02:16	4°35'18	0°40'14	max. Earth dist.	11042 Jan 16 13:18	3°05'51	19.30476 AU
minimum elong	11035 Dec 19 02:17	4°35'18	0°40'52	morning rise	11042 Feb 02 15:11	4°09'45	
max. Earth dist.	11035 Dec 18 12:26	4°33'09	19.43145 AU	retrograde	11042 May 06 09:52	7°34'08	
morning rise	11036 Jan 04 16:57	5°36'47		opposition	11042 Jul 19 06:39	5°30'51	0°13'34
retrograde	11036 Apr 07 03:12	9°00'39		min. Earth dist.	11042 Jul 19 18:04	5°29'36	17.30318 AU
opposition	11036 Jun 20 10:37	6°56'56	0°42'53	direct	11042 Oct 02 17:14	3°25'10	
min. Earth dist.	11036 Jun 20 21:42	6°55'43	17.41301 AU	evening set	11043 Jan 05 17:38	6°53'28	
direct	11036 Sep 03 12:20	4°51'55					
evening set	11036 Dec 06 14:26	8°316'55		conjunction	11043 Jan 22 07:27	7°55'28	0°09'41
				minimum elong	11043 Jan 22 07:27	7°55'28	0°10'12
conjunction	11036 Dec 23 05:45	9°318'36	0°36'30	behind sun begin	11043 Jan 22 02:07	7°54'39	
minimum elong	11036 Dec 23 05:45	9°318'36	0°37'08	behind sun end	11043 Jan 22 12:47	7°56'17	
max. Earth dist.	11036 Dec 22 16:54	9°316'36	19.39561 AU	max. Earth dist.	11043 Jan 21 18:44	7°53'29	19.30256 AU
morning rise	11037 Jan 08 20:04	10°320'11		morning rise	11043 Feb 07 19:08	8°57'11	
retrograde	11037 Apr 12 03:13	13°344'16		retrograde	11043 May 11 11:43	12°21'25	
opposition	11037 Jun 25 08:55	11°340'33	0°38'34	opposition	11043 Jul 24 07:10	10°18'16	0°08'07
min. Earth dist.	11037 Jun 25 20:17	11°339'18	17.38008 AU	min. Earth dist.	11043 Jul 24 17:48	10°17'06	17.30325 AU
direct	11037 Sep 08 11:49	9°335'19		direct	11043 Oct 07 20:23	8°12'34	
evening set	11037 Dec 11 18:17	13°301'03		evening set	11044 Jan 10 22:30	11°41'03	
conjunction	11037 Dec 28 09:25	14°302'51	0°32'30	conjunction	11044 Jan 27 11:41	12°43'00	0°04'47
minimum elong	11037 Dec 28 09:25	14°302'51	0°33'07	minimum elong	11044 Jan 27 11:41	12°43'00	0°05'18
max. Earth dist.	11037 Dec 27 19:27	14°300'41	19.36575 AU	behind sun begin	11044 Jan 27 05:10	12°42'00	
morning rise	11038 Jan 13 23:39	15°304'33		behind sun end	11044 Jan 27 18:11	12°44'00	
retrograde	11038 Apr 17 04:19	18°328'48		max. Earth dist.	11044 Jan 26 22:36	12°40'57	19.30496 AU
opposition	11038 Jun 30 07:41	16°325'06	0°34'00	morning rise	11044 Feb 12 22:43	13°44'38	
min. Earth dist.	11038 Jun 30 18:50	16°323'53	17.35326 AU		11044 Mar 05 11:39	15°	
direct	11038 Sep 13 12:25	14°319'42		retrograde	11044 May 15 11:29	17°08'40	
evening set	11038 Dec 16 22:25	17°346'07		opposition	11044 Jul 28 07:57	15°05'37	0°02'36
				min. Earth dist.	11044 Jul 28 19:13	15°04'24	17.30809 AU
conjunction	11039 Jan 02 13:34	18°348'02	0°28'17		11044 Jul 30 11:26	15°R	
minimum elong	11039 Jan 02 13:35	18°348'02	0°28'54	direct	11044 Oct 11 22:47	12°59'54	
max. Earth dist.	11039 Jan 02 00:52	18°346'03	19.34193 AU		11044 Dec 20 11:52	15°	
morning rise	11039 Jan 19 03:17	19°349'46		desc. node	11045 Jan 14 10:24	16°25'54	
retrograde	11039 Apr 22 05:58	23°314'09		evening set	11045 Jan 15 03:11	16°28'28	
opposition	11039 Jul 05 06:49	21°310'32	0°29'10				
min. Earth dist.	11039 Jul 05 17:52	21°309'20	17.33237 AU	conjunction	11045 Jan 31 15:50	17°30'20	-0°00'13
direct	11039 Sep 18 12:48	19°305'02		minimum elong	11045 Jan 31 15:50	17°30'21	0°00'16
evening set	11039 Dec 22 03:00	22°332'03		behind sun begin	11045 Jan 31 09:10	17°29'19	
				behind sun end	11045 Jan 31 22:30	17°31'22	
conjunction	11040 Jan 07 17:47	23°334'02	0°23'51	max. Earth dist.	11045 Jan 31 03:17	17°28'23	19.31220 AU
minimum elong	11040 Jan 07 17:47	23°334'02	0°24'27	morning rise	11045 Feb 17 02:10	18°31'53	
max. Earth dist.	11040 Jan 07 04:04	23°331'53	19.32409 AU	retrograde	11045 May 20 12:49	21°55'37	
morning rise	11040 Jan 24 07:14	24°335'49		opposition	11045 Aug 02 08:30	19°52'41	-0°02'55
retrograde	11040 Apr 26 07:08	28°300'16		min. Earth dist.	11045 Aug 02 18:38	19°51'34	17.31761 AU
opposition	11040 Jul 09 06:27	25°356'46	0°24'08	direct	11045 Oct 17 02:52	17°46'57	
min. Earth dist.	11040 Jul 09 17:40	25°355'32	17.31745 AU	evening set	11046 Jan 20 07:38	21°15'31	
direct	11040 Sep 22 13:41	23°351'10					
evening set	11040 Dec 26 07:33	27°318'43		conjunction	11046 Feb 05 19:38	22°17'16	-0°05'14
				minimum elong	11046 Feb 05 19:39	22°17'16	0°04'48
conjunction	11041 Jan 11 22:13	28°320'44	0°19'15	behind sun begin	11046 Feb 05 13:05	22°16'16	
minimum elong	11041 Jan 11 22:13	28°320'44	0°19'50	behind sun end	11046 Feb 06 02:13	22°18'17	
max. Earth dist.	11041 Jan 11 09:41	28°318'47	19.31189 AU	max. Earth dist.	11046 Feb 05 07:24	22°15'22	19.32410 AU
morning rise	11041 Jan 28 11:05	29°322'32		morning rise	11046 Feb 22 05:11	23°18'40	
	11041 Feb 07 20:59	0°		retrograde	11046 May 25 11:46	26°42'04	
retrograde	11041 May 01 09:19	2°46'59		opposition	11046 Aug 07 09:18	24°39'14	-0°08'25
opposition	11041 Jul 14 06:25	0°43'36	0°18'55	min. Earth dist.	11046 Aug 07 20:05	24°38'03	17.33198 AU
min. Earth dist.	11041 Jul 14 17:14	0°42'25	17.30778 AU	direct	11046 Oct 22 05:36	22°33'30	
	11041 Jul 31 05:05	30°R3		evening set	11047 Jan 25 11:37	26°01'57	
direct	11041 Sep 27 15:20	28°337'58					
	11041 Nov 23 03:13	0°		conjunction	11047 Feb 10 22:52	27°03'34	-0°10'07
evening set	11041 Dec 31 12:39	2°05'56		minimum elong	11047 Feb 10 22:52	27°03'34	0°09'43
				behind sun begin	11047 Feb 10 17:22	27°02'43	
conjunction	11042 Jan 17 02:48	3°07'58	0°14'31	behind sun end	11047 Feb 11 04:22	27°04'24	

max. Earth dist.	11047 Feb 10 10:55	27° \approx 01'42	19.34099 AU	retrograde	11053 Jun 27 02:06	29° \times 39'02	
morning rise	11047 Feb 27 07:38	28° \approx 04'49		opposition	11053 Sep 09 08:46	27° \times 37'24	-0°42'49
	11047 Apr 02 21:12	0° \times		min. Earth dist.	11053 Sep 09 12:51	27° \times 36'58	17.58111 AU
retrograde	11047 May 30 12:10	1° \times 27'48		direct	11053 Nov 24 20:33	25° \times 32'47	
	11047 Jul 29 19:57	30° \times		evening set	11054 Feb 27 21:50	28° \times 57'49	
opposition	11047 Aug 12 09:50	29° \approx 25'04	-0°13'51				
min. Earth dist.	11047 Aug 12 19:05	29° \approx 24'03	17.35133 AU	conjunction	11054 Mar 16 03:07	29° \times 57'50	-0°40'18
direct	11047 Oct 27 09:59	27° \approx 19'23		minimum elong	11054 Mar 16 03:07	29° \times 57'50	0°40'14
	11048 Jan 17 07:22	0° \times		max. Earth dist.	11054 Mar 15 23:03	29° \times 57'12	19.60822 AU
evening set	11048 Jan 30 15:02	0° \times 47'35			11054 Mar 16 17:04	0° γ	
				morning rise	11054 Apr 01 05:32	0° γ 57'27	
conjunction	11048 Feb 16 01:35	1° \times 49'02	-0°14'55	retrograde	11054 Jul 01 22:04	4° γ 16'25	
minimum elong	11048 Feb 16 01:34	1° \times 49'02	0°14'35	opposition	11054 Sep 14 07:37	2° γ 15'03	-0°46'45
behind sun begin	11048 Feb 15 22:46	1° \times 48'36		min. Earth dist.	11054 Sep 14 11:15	2° γ 14'40	17.63614 AU
behind sun end	11048 Feb 16 04:23	1° \times 49'28		direct	11054 Nov 29 20:28	0° γ 10'46	
max. Earth dist.	11048 Feb 15 14:50	1° \times 47'22	19.36290 AU	evening set	11055 Mar 04 20:24	3° γ 35'01	
morning rise	11048 Mar 03 09:24	2° \times 50'06					
retrograde	11048 Jun 03 10:16	6° \times 12'37		conjunction	11055 Mar 21 00:34	4° γ 34'43	-0°43'41
opposition	11048 Aug 16 10:20	4° \times 10'00	-0°19'11	minimum elong	11055 Mar 21 00:34	4° γ 34'43	0°43'41
min. Earth dist.	11048 Aug 16 19:56	4° \times 08'57	17.37595 AU	max. Earth dist.	11055 Mar 20 20:25	4° γ 34'05	19.66486 AU
direct	11048 Oct 31 12:16	2° \times 04'22		morning rise	11055 Apr 06 02:14	5° γ 34'03	
evening set	11049 Feb 03 17:49	5° \times 32'15		retrograde	11055 Jul 06 18:24	8° γ 52'22	
				opposition	11055 Sep 19 06:00	6° γ 51'14	-0°50'21
conjunction	11049 Feb 20 03:30	6° \times 33'30	-0°19'37	min. Earth dist.	11055 Sep 19 08:32	6° γ 50'58	17.69428 AU
minimum elong	11049 Feb 20 03:29	6° \times 33'30	0°19'19	direct	11055 Dec 04 21:01	4° γ 47'16	
max. Earth dist.	11049 Feb 19 16:57	6° \times 31'51	19.39028 AU	evening set	11056 Mar 08 18:03	8° γ 10'39	
morning rise	11049 Mar 08 10:36	7° \times 34'22					
retrograde	11049 Jun 08 10:04	10° \times 56'22		conjunction	11056 Mar 24 21:27	9° γ 10'04	-0°46'47
opposition	11049 Aug 21 10:31	8° \times 53'52	-0°24'21	minimum elong	11056 Mar 24 21:27	9° γ 10'04	0°46'49
min. Earth dist.	11049 Aug 21 18:20	8° \times 53'01	17.40603 AU	max. Earth dist.	11056 Mar 24 19:15	9° γ 09'43	19.72417 AU
direct	11049 Nov 05 16:06	6° \times 48'20		morning rise	11056 Apr 09 22:07	10° γ 09'05	
evening set	11050 Feb 08 20:03	10° \times 15'48		retrograde	11056 Jul 10 13:09	13° γ 26'41	
				opposition	11056 Sep 23 03:52	11° γ 25'48	-0°53'37
conjunction	11050 Feb 25 04:58	11° \times 16'50	-0°24'10	min. Earth dist.	11056 Sep 23 05:44	11° γ 25'36	17.75459 AU
minimum elong	11050 Feb 25 04:57	11° \times 16'50	0°23'56	direct	11056 Dec 08 21:07	9° γ 22'09	
max. Earth dist.	11050 Feb 24 20:17	11° \times 15'29	19.42310 AU	evening set	11057 Mar 13 14:59	12° γ 44'38	
morning rise	11050 Mar 13 10:59	12° \times 17'28					
retrograde	11050 Jun 13 07:24	15° \times 38'55		conjunction	11057 Mar 29 17:21	13° γ 43'43	-0°49'34
opposition	11050 Aug 26 10:34	13° \times 36'36	-0°29'20	minimum elong	11057 Mar 29 17:21	13° γ 43'43	0°49'40
min. Earth dist.	11050 Aug 26 18:20	13° \times 35'45	17.44171 AU	max. Earth dist.	11057 Mar 29 14:59	13° γ 43'21	19.78535 AU
direct	11050 Nov 10 17:03	11° \times 31'12		morning rise	11057 Apr 14 17:20	14° γ 42'27	
evening set	11051 Feb 13 21:41	14° \times 58'10		retrograde	11057 Jul 15 07:08	17° γ 59'19	
				opposition	11057 Sep 28 01:19	15° γ 58'38	-0°56'32
conjunction	11051 Mar 02 05:33	15° \times 58'58	-0°28'33	min. Earth dist.	11057 Sep 28 02:32	15° γ 58'31	17.81658 AU
minimum elong	11051 Mar 02 05:33	15° \times 58'58	0°28'20	direct	11057 Dec 13 20:19	13° γ 55'18	
max. Earth dist.	11051 Mar 01 21:01	15° \times 57'38	19.46169 AU	evening set	11058 Mar 18 10:52	17° γ 16'48	
morning rise	11051 Mar 18 10:50	16° \times 59'22					
retrograde	11051 Jun 18 06:51	20° \times 20'14		conjunction	11058 Apr 03 12:29	18° γ 15'35	-0°52'02
opposition	11051 Aug 31 10:19	18° \times 18'06	-0°34'05	minimum elong	11058 Apr 03 12:28	18° γ 15'35	0°52'12
min. Earth dist.	11051 Aug 31 16:10	18° \times 17'28	17.48313 AU	max. Earth dist.	11058 Apr 03 11:45	18° γ 15'28	19.84785 AU
direct	11051 Nov 15 19:24	16° \times 12'55		morning rise	11058 Apr 19 11:31	19° γ 14'00	
evening set	11052 Feb 18 22:18	19° \times 39'19		retrograde	11058 Jul 20 00:53	22° γ 30'07	
				opposition	11058 Oct 02 22:12	20° γ 29'39	-0°59'05
conjunction	11052 Mar 06 05:26	20° \times 39'52	-0°32'42	min. Earth dist.	11058 Oct 02 22:27	20° γ 29'37	17.87944 AU
minimum elong	11052 Mar 06 05:26	20° \times 39'52	0°32'32	direct	11058 Dec 18 19:46	18° γ 26'37	
max. Earth dist.	11052 Mar 05 23:13	20° \times 38'54	19.50581 AU	evening set	11059 Mar 23 05:57	21° γ 47'05	
morning rise	11052 Mar 22 09:39	21° \times 40'01					
retrograde	11052 Jun 22 03:50	25° \times 00'17		conjunction	11059 Apr 08 06:35	22° γ 45'32	-0°54'10
opposition	11052 Sep 04 09:51	22° \times 58'24	-0°38'35	minimum elong	11059 Apr 08 06:34	22° γ 45'32	0°54'21
min. Earth dist.	11052 Sep 04 15:22	22° \times 57'48	17.52977 AU	max. Earth dist.	11059 Apr 08 05:54	22° γ 45'26	19.91108 AU
direct	11052 Nov 19 19:14	20° \times 53'29		morning rise	11059 Apr 24 04:59	23° γ 43'40	
evening set	11053 Feb 22 22:30	24° \times 19'14		retrograde	11059 Jul 24 16:59	26° γ 59'01	
				opposition	11059 Oct 07 18:33	24° γ 58'43	-1°01'15
conjunction	11053 Mar 11 04:34	25° \times 19'30	-0°36'38	min. Earth dist.	11059 Oct 07 18:25	24° γ 58'44	17.94308 AU
minimum elong	11053 Mar 11 04:33	25° \times 19'30	0°36'31	direct	11059 Dec 23 16:52	22° γ 55'58	
max. Earth dist.	11053 Mar 10 22:19	25° \times 18'32	19.55492 AU	evening set	11060 Mar 26 23:47	26° γ 15'21	
morning rise	11053 Mar 27 08:03	26° \times 19'24					

conjunction	11060 Apr 11 23:44	27° Υ 13'30	-0°55'58	minimum elong	11066 May 08 10:40	23° \mathcal{B} 18'42	0°59'53
minimum elong	11060 Apr 11 23:44	27° Υ 13'30	0°56'12	max. Earth dist.	11066 May 08 17:26	23° \mathcal{B} 19'43	20.36673 AU
max. Earth dist.	11060 Apr 12 00:31	27° Υ 13'37	19.97491 AU	morning rise	11066 May 24 05:22	24° \mathcal{B} 14'55	
morning rise	11060 Apr 27 21:24	28° Υ 11'20		retrograde	11066 Aug 23 20:32	27° \mathcal{B} 25'10	
	11060 May 31 09:52	0° \mathcal{B}		opposition	11066 Nov 07 21:51	25° \mathcal{B} 26'00	-1°05'38
retrograde	11060 Jul 28 09:35	1° \mathcal{B} 25'54		min. Earth dist.	11066 Nov 07 14:07	25° \mathcal{B} 26'47	18.39983 AU
	11060 Sep 27 17:04	30° $\mathcal{R}\Upsilon$		direct	11067 Jan 24 01:26	23° \mathcal{B} 25'26	
opposition	11060 Oct 11 14:09	29° Υ 25'45	-1°03'02	evening set	11067 Apr 27 02:06	26° \mathcal{B} 37'12	
min. Earth dist.	11060 Oct 11 12:45	29° Υ 25'54	18.00694 AU				
direct	11060 Dec 27 14:56	27° Υ 23'17		conjunction	11067 May 12 21:37	27° \mathcal{B} 33'19	-0°58'48
	11061 Mar 19 17:27	0° \mathcal{B}		minimum elong	11067 May 12 21:37	27° \mathcal{B} 33'19	0°59'19
evening set	11061 Mar 31 16:50	0° \mathcal{B} 41'34		max. Earth dist.	11067 May 13 05:30	27° \mathcal{B} 34'30	20.43246 AU
				morning rise	11067 May 28 16:00	28° \mathcal{B} 29'19	
conjunction	11061 Apr 16 15:55	1° \mathcal{B} 39'24	-0°57'24		11067 Jun 25 17:19	0° \mathcal{B}	
minimum elong	11061 Apr 16 15:55	1° \mathcal{B} 39'23	0°57'41	retrograde	11067 Aug 28 07:28	1° \mathcal{B} 38'57	
max. Earth dist.	11061 Apr 16 17:03	1° \mathcal{B} 39'34	20.03891 AU		11067 Nov 04 07:38	30° $\mathcal{R}\mathcal{B}$	
morning rise	11061 May 02 13:00	2° \mathcal{B} 36'56		opposition	11067 Nov 12 13:01	29° \mathcal{B} 40'00	-1°04'46
retrograde	11061 Aug 01 23:59	5° \mathcal{B} 50'43		min. Earth dist.	11067 Nov 12 05:29	29° \mathcal{B} 40'46	18.46513 AU
opposition	11061 Oct 16 09:04	3° \mathcal{B} 50'42	-1°04'26	direct	11068 Jan 28 14:59	27° \mathcal{B} 39'49	
min. Earth dist.	11061 Oct 16 07:30	3° \mathcal{B} 50'52	18.07121 AU		11068 Apr 15 11:33	0° \mathcal{B}	
direct	11062 Jan 01 10:07	1° \mathcal{B} 48'29		evening set	11068 Apr 30 12:43	0° \mathcal{B} 50'35	
evening set	11062 Apr 05 08:45	5° \mathcal{B} 05'40					
conjunction	11062 Apr 21 07:11	6° \mathcal{B} 03'11	-0°58'30	conjunction	11068 May 16 07:49	1° \mathcal{B} 46'27	-0°57'53
minimum elong	11062 Apr 21 07:11	6° \mathcal{B} 03'11	0°58'50	minimum elong	11068 May 16 07:49	1° \mathcal{B} 46'27	0°58'26
max. Earth dist.	11062 Apr 21 09:42	6° \mathcal{B} 03'34	20.10339 AU	max. Earth dist.	11068 May 16 16:15	1° \mathcal{B} 47'42	20.49708 AU
morning rise	11062 May 07 03:38	7° \mathcal{B} 00'26		morning rise	11068 Jun 01 02:03	2° \mathcal{B} 42'13	
retrograde	11062 Aug 06 15:22	10° \mathcal{B} 13'26		retrograde	11068 Aug 31 21:00	5° \mathcal{B} 51'17	
opposition	11062 Oct 21 03:21	8° \mathcal{B} 13'34	-1°05'26	opposition	11068 Nov 16 03:29	3° \mathcal{B} 52'32	-1°03'34
min. Earth dist.	11062 Oct 21 00:00	8° \mathcal{B} 13'55	18.13588 AU	min. Earth dist.	11068 Nov 15 18:14	3° \mathcal{B} 53'29	18.52877 AU
direct	11063 Jan 06 06:17	6° \mathcal{B} 11'38		direct	11069 Feb 01 06:07	1° \mathcal{B} 52'43	
evening set	11063 Apr 09 23:33	9° \mathcal{B} 27'40		evening set	11069 May 04 22:43	5° \mathcal{B} 02'30	
conjunction	11063 Apr 25 21:14	10° \mathcal{B} 24'53	-0°59'15	conjunction	11069 May 20 17:27	5° \mathcal{B} 58'09	-0°56'40
minimum elong	11063 Apr 25 21:14	10° \mathcal{B} 24'53	0°59'37	minimum elong	11069 May 20 17:27	5° \mathcal{B} 58'09	0°57'14
max. Earth dist.	11063 Apr 26 00:42	10° \mathcal{B} 25'24	20.16834 AU	max. Earth dist.	11069 May 21 02:51	5° \mathcal{B} 59'33	20.55958 AU
morning rise	11063 May 11 17:11	11° \mathcal{B} 21'52		morning rise	11069 Jun 05 11:25	6° \mathcal{B} 53'43	
retrograde	11063 Aug 11 04:26	14° \mathcal{B} 34'08		retrograde	11069 Sep 05 06:37	10° \mathcal{B} 02'14	
opposition	11063 Oct 25 21:03	12° \mathcal{B} 34'23	-1°06'03	opposition	11069 Nov 20 17:33	8° \mathcal{B} 03'41	-1°02'02
min. Earth dist.	11063 Oct 25 17:24	12° \mathcal{B} 34'46	18.20131 AU	min. Earth dist.	11069 Nov 20 08:48	8° \mathcal{B} 04'34	18.59012 AU
direct	11064 Jan 10 23:38	10° \mathcal{B} 32'45		direct	11070 Feb 05 18:26	6° \mathcal{B} 04'13	
evening set	11064 Apr 13 13:29	13° \mathcal{B} 47'41		evening set	11070 May 09 08:04	9° \mathcal{B} 13'02	
conjunction	11064 Apr 29 10:35	14° \mathcal{B} 44'37	-0°59'38	conjunction	11070 May 25 02:28	10° \mathcal{B} 08'28	-0°55'10
minimum elong	11064 Apr 29 10:35	14° \mathcal{B} 44'37	1°00'02	minimum elong	11070 May 25 02:28	10° \mathcal{B} 08'28	0°55'45
max. Earth dist.	11064 Apr 29 15:18	14° \mathcal{B} 45'19	20.23413 AU	max. Earth dist.	11070 May 25 12:02	10° \mathcal{B} 09'52	20.61962 AU
	11064 May 03 16:42	15° \mathcal{B}		morning rise	11070 Jun 09 20:22	11° \mathcal{B} 03'49	
morning rise	11064 May 15 06:03	15° \mathcal{B} 41'20		retrograde	11070 Sep 09 19:15	14° \mathcal{B} 11'50	
retrograde	11064 Aug 14 18:42	18° \mathcal{B} 52'52		opposition	11070 Nov 25 07:00	12° \mathcal{B} 13'26	-1°00'11
opposition	11064 Oct 29 13:47	16° \mathcal{B} 53'18	-1°06'17	min. Earth dist.	11070 Nov 24 20:43	12° \mathcal{B} 14'28	18.64861 AU
min. Earth dist.	11064 Oct 29 08:09	16° \mathcal{B} 53'53	18.26734 AU	direct	11071 Feb 10 08:49	10° \mathcal{B} 14'17	
	11064 Dec 27 19:41	15° $\mathcal{R}\mathcal{B}$		evening set	11071 May 13 16:39	13° \mathcal{B} 22'10	
direct	11065 Jan 14 17:40	14° \mathcal{B} 52'00		conjunction	11071 May 29 10:51	14° \mathcal{B} 17'24	-0°53'22
	11065 Feb 01 09:51	15° \mathcal{B}		minimum elong	11071 May 29 10:51	14° \mathcal{B} 17'24	0°53'58
evening set	11065 Apr 18 02:35	18° \mathcal{B} 05'52		max. Earth dist.	11071 May 29 21:19	14° \mathcal{B} 18'56	20.67636 AU
conjunction	11065 May 03 23:05	19° \mathcal{B} 02'30	-0°59'41	morning rise	11071 Jun 14 04:38	15° \mathcal{B} 12'35	
minimum elong	11065 May 03 23:05	19° \mathcal{B} 02'30	1°00'08	retrograde	11071 Sep 14 04:05	18° \mathcal{B} 20'07	
max. Earth dist.	11065 May 04 04:51	19° \mathcal{B} 03'22	20.30034 AU	opposition	11071 Nov 29 20:03	16° \mathcal{B} 21'50	-0°58'02
morning rise	11065 May 19 18:08	19° \mathcal{B} 58'58		min. Earth dist.	11071 Nov 29 10:28	16° \mathcal{B} 22'48	18.70358 AU
retrograde	11065 Aug 19 06:45	23° \mathcal{B} 09'51		direct	11072 Feb 14 19:50	14° \mathcal{B} 22'58	
opposition	11065 Nov 03 06:11	21° \mathcal{B} 10'28	-1°06'08	evening set	11072 May 17 00:48	17° \mathcal{B} 29'57	
min. Earth dist.	11065 Nov 03 00:26	21° \mathcal{B} 11'03	18.33372 AU	conjunction	11072 Jun 01 18:47	18° \mathcal{B} 24'59	-0°51'19
direct	11066 Jan 19 08:59	19° \mathcal{B} 09'31		minimum elong	11072 Jun 01 18:47	18° \mathcal{B} 24'59	0°51'56
evening set	11066 Apr 22 14:42	22° \mathcal{B} 22'20		max. Earth dist.	11072 Jun 02 05:01	18° \mathcal{B} 26'29	20.72944 AU
conjunction	11066 May 08 10:40	23° \mathcal{B} 18'42	-0°59'25	morning rise	11072 Jun 17 12:38	19° \mathcal{B} 20'00	
				retrograde	11072 Sep 17 14:58	22° \mathcal{B} 27'03	

opposition	11072 Dec 03 08:13	20° Π 28'51	-0°55'36	conjunction	11079 Jun 30 12:12	16° \mathcal{E} 42'17	-0°30'42
min. Earth dist.	11072 Dec 02 21:23	20° Π 29'57	18.75459 AU	minimum elong	11079 Jun 30 12:12	16° \mathcal{E} 42'17	0°31'21
direct	11073 Feb 18 09:30	18° Π 30'14		max. Earth dist.	11079 Jul 01 01:44	16° \mathcal{E} 44'14	20.99597 AU
evening set	11073 May 21 08:19	21° Π 36'21		morning rise	11079 Jul 16 07:25	17° \mathcal{E} 36'34	
				retrograde	11079 Oct 16 21:27	20° \mathcal{E} 41'21	
conjunction	11073 Jun 06 02:13	22° Π 31'13	-0°49'01	opposition	11080 Jan 02 08:32	18° \mathcal{E} 43'13	-0°31'59
minimum elong	11073 Jun 06 02:13	22° Π 31'13	0°49'38	min. Earth dist.	11080 Jan 01 19:59	18° \mathcal{E} 44'28	19.00904 AU
max. Earth dist.	11073 Jun 06 13:13	22° Π 32'49	20.77831 AU	direct	11080 Mar 19 02:14	16° \mathcal{E} 45'44	
morning rise	11073 Jun 21 20:03	23° Π 26'05		evening set	11080 Jun 17 22:27	19° \mathcal{E} 47'02	
retrograde	11073 Sep 21 23:02	26° Π 32'40					
opposition	11073 Dec 07 20:12	24° Π 34'31	-0°52'54	conjunction	11080 Jul 03 16:49	20° \mathcal{E} 41'06	-0°27'04
min. Earth dist.	11073 Dec 07 10:06	24° Π 35'32	18.80140 AU	minimum elong	11080 Jul 03 16:49	20° \mathcal{E} 41'06	0°27'41
direct	11074 Feb 22 19:42	22° Π 36'07		max. Earth dist.	11080 Jul 04 05:53	20° \mathcal{E} 42'58	21.02095 AU
evening set	11074 May 25 15:07	25° Π 41'21		morning rise	11080 Jul 19 12:31	21° \mathcal{E} 35'21	
				retrograde	11080 Oct 20 06:02	24° \mathcal{E} 40'01	
conjunction	11074 Jun 10 08:53	26° Π 36'02	-0°46'28	opposition	11081 Jan 05 17:07	22° \mathcal{E} 41'54	-0°27'53
minimum elong	11074 Jun 10 08:53	26° Π 36'02	0°47'06	min. Earth dist.	11081 Jan 05 03:36	22° \mathcal{E} 43'15	19.03215 AU
max. Earth dist.	11074 Jun 10 19:41	26° Π 37'37	20.82318 AU	direct	11081 Mar 23 09:30	20° \mathcal{E} 44'36	
morning rise	11074 Jun 26 02:55	27° Π 30'47		evening set	11081 Jun 22 02:46	23° \mathcal{E} 45'29	
	11074 Aug 18 16:06	0° \mathcal{E}					
retrograde	11074 Sep 26 08:29	0° \mathcal{E} 36'57		conjunction	11081 Jul 07 21:27	24° \mathcal{E} 39'31	-0°23'19
	11074 Nov 05 02:13	30° $\mathcal{R}\Pi$		minimum elong	11081 Jul 07 21:28	24° \mathcal{E} 39'31	0°23'56
opposition	11074 Dec 12 07:27	28° Π 38'48	-0°49'57	max. Earth dist.	11081 Jul 08 11:24	24° \mathcal{E} 41'30	21.04209 AU
min. Earth dist.	11074 Dec 11 20:03	28° Π 39'57	18.84426 AU	morning rise	11081 Jul 23 17:28	25° \mathcal{E} 33'45	
direct	11075 Feb 27 07:48	26° Π 40'33		retrograde	11081 Oct 24 12:15	28° \mathcal{E} 38'22	
evening set	11075 May 29 21:22	29° Π 44'58		opposition	11082 Jan 10 01:46	26° \mathcal{E} 40'17	-0°23'40
	11075 Jun 03 06:34	0° \mathcal{E}		min. Earth dist.	11082 Jan 09 12:59	26° \mathcal{E} 41'34	19.05126 AU
				direct	11082 Mar 27 15:41	24° \mathcal{E} 43'09	
conjunction	11075 Jun 14 15:11	0° \mathcal{E} 39'31	-0°43'41	evening set	11082 Jun 26 06:58	27° \mathcal{E} 43'40	
minimum elong	11075 Jun 14 15:11	0° \mathcal{E} 39'31	0°44'20				
max. Earth dist.	11075 Jun 15 03:00	0° \mathcal{E} 41'14	20.86411 AU	conjunction	11082 Jul 12 01:53	28° \mathcal{E} 37'40	-0°19'28
morning rise	11075 Jun 30 09:19	1° \mathcal{E} 34'08		minimum elong	11082 Jul 12 01:53	28° \mathcal{E} 37'41	0°20'03
retrograde	11075 Sep 30 15:40	4° \mathcal{E} 39'55		max. Earth dist.	11082 Jul 12 15:11	28° \mathcal{E} 39'35	21.05917 AU
opposition	11075 Dec 16 18:09	2° \mathcal{E} 41'45	-0°46'45	morning rise	11082 Jul 27 22:27	29° \mathcal{E} 31'54	
min. Earth dist.	11075 Dec 16 07:21	2° \mathcal{E} 42'50	18.88347 AU		11082 Aug 05 10:27	0° \mathcal{Q}	
direct	11076 Mar 02 17:02	0° \mathcal{E} 43'39		retrograde	11082 Oct 28 21:20	2° \mathcal{Q} 36'34	
evening set	11076 Jun 02 03:09	3° \mathcal{E} 47'18		opposition	11083 Jan 14 10:07	0° \mathcal{Q} 38'29	-0°19'21
				min. Earth dist.	11083 Jan 13 20:43	0° \mathcal{Q} 39'49	19.06609 AU
conjunction	11076 Jun 17 20:57	4° \mathcal{E} 41'43	-0°40'43		11083 Jan 30 19:20	30° $\mathcal{R}\mathcal{E}$	
minimum elong	11076 Jun 17 20:57	4° \mathcal{E} 41'43	0°41'21	direct	11083 Mar 31 22:20	28° \mathcal{E} 41'29	
max. Earth dist.	11076 Jun 18 08:34	4° \mathcal{E} 43'24	20.90172 AU		11083 May 27 22:55	0° \mathcal{Q}	
morning rise	11076 Jul 03 15:23	5° \mathcal{E} 36'13		evening set	11083 Jun 30 11:16	1° \mathcal{Q} 41'44	
retrograde	11076 Oct 04 00:04	8° \mathcal{E} 41'40					
opposition	11076 Dec 20 04:18	6° \mathcal{E} 43'29	-0°43'20	conjunction	11083 Jul 16 06:36	2° \mathcal{Q} 35'44	-0°15'31
min. Earth dist.	11076 Dec 19 16:06	6° \mathcal{E} 44'42	18.91948 AU	minimum elong	11083 Jul 16 06:36	2° \mathcal{Q} 35'44	0°16'05
direct	11077 Mar 07 03:01	4° \mathcal{E} 45'31		behind sun begin	11083 Jul 16 06:00	2° \mathcal{Q} 35'39	
evening set	11077 Jun 06 08:25	7° \mathcal{E} 48'29		behind sun end	11083 Jul 16 07:11	2° \mathcal{Q} 35'49	
				max. Earth dist.	11083 Jul 16 20:29	2° \mathcal{Q} 37'43	21.07154 AU
conjunction	11077 Jun 22 02:19	8° \mathcal{E} 42'47	-0°37'33	morning rise	11083 Aug 01 03:32	3° \mathcal{Q} 29'59	
minimum elong	11077 Jun 22 02:19	8° \mathcal{E} 42'47	0°38'12	retrograde	11083 Nov 02 03:26	6° \mathcal{Q} 34'42	
max. Earth dist.	11077 Jun 22 15:04	8° \mathcal{E} 44'38	20.93610 AU	opposition	11084 Jan 18 18:16	4° \mathcal{Q} 36'38	-0°14'56
morning rise	11077 Jul 07 20:53	9° \mathcal{E} 37'12		min. Earth dist.	11084 Jan 18 05:55	4° \mathcal{Q} 37'52	19.07596 AU
retrograde	11077 Oct 08 06:45	12° \mathcal{E} 42'21		direct	11084 Apr 04 04:10	2° \mathcal{Q} 39'44	
opposition	11077 Dec 24 14:09	10° \mathcal{E} 44'11	-0°39'44	evening set	11084 Jul 03 15:43	5° \mathcal{Q} 39'47	
min. Earth dist.	11077 Dec 24 02:21	10° \mathcal{E} 45'21	18.95239 AU				
direct	11078 Mar 11 11:04	8° \mathcal{E} 46'23		conjunction	11084 Jul 19 11:20	6° \mathcal{Q} 33'48	-0°11'30
evening set	11078 Jun 10 13:23	11° \mathcal{E} 48'42		minimum elong	11084 Jul 19 11:20	6° \mathcal{Q} 33'48	0°12'04
				behind sun begin	11084 Jul 19 06:49	6° \mathcal{Q} 33'10	
conjunction	11078 Jun 26 07:21	12° \mathcal{E} 42'55	-0°34'12	behind sun end	11084 Jul 19 15:51	6° \mathcal{Q} 34'25	
minimum elong	11078 Jun 26 07:21	12° \mathcal{E} 42'55	0°34'50	max. Earth dist.	11084 Jul 20 00:07	6° \mathcal{Q} 35'37	21.07888 AU
max. Earth dist.	11078 Jun 26 19:52	12° \mathcal{E} 44'43	20.96763 AU	morning rise	11084 Aug 04 08:53	7° \mathcal{Q} 28'04	
morning rise	11078 Jul 12 02:18	13° \mathcal{E} 37'15		retrograde	11084 Nov 05 12:28	10° \mathcal{Q} 32'53	
retrograde	11078 Oct 12 14:59	16° \mathcal{E} 42'12		opposition	11085 Jan 22 02:21	8° \mathcal{Q} 34'48	-0°10'27
opposition	11078 Dec 28 23:28	14° \mathcal{E} 44'01	-0°35'56	min. Earth dist.	11085 Jan 21 13:46	8° \mathcal{Q} 36'03	19.08056 AU
min. Earth dist.	11078 Dec 28 10:21	14° \mathcal{E} 45'20	18.98239 AU	direct	11085 Apr 08 10:19	6° \mathcal{Q} 37'59	
direct	11079 Mar 15 19:22	12° \mathcal{E} 46'23		evening set	11085 Jul 07 20:05	9° \mathcal{Q} 37'51	
evening set	11079 Jun 14 17:58	15° \mathcal{E} 48'09					

conjunction	11085 Jul 23 16:10	10°Ω31'54	-0°07'27	conjunction	11090 Aug 12 18:41	0°♊24'19	0°13'14
minimum elong	11085 Jul 23 16:10	10°Ω31'54	0°07'58	minimum elong	11090 Aug 12 18:41	0°♊24'20	0°12'52
behind sun begin	11085 Jul 23 10:16	10°Ω31'05		behind sun begin	11090 Aug 12 14:35	0°♊23'45	
behind sun end	11085 Jul 23 22:05	10°Ω32'43		behind sun end	11090 Aug 12 22:47	0°♊24'54	
max. Earth dist.	11085 Jul 24 05:15	10°Ω33'46	21.08055 AU	max. Earth dist.	11090 Aug 13 04:44	0°♊25'45	21.01031 AU
morning rise	11085 Aug 08 14:08	11°Ω26'13		morning rise	11090 Aug 28 19:50	1°♊19'06	
retrograde	11085 Nov 09 18:57	14°Ω31'11		retrograde	11090 Nov 30 11:50	4°♊25'18	
opposition	11086 Jan 26 10:30	12°Ω33'02	-0°05'55	opposition	11091 Feb 16 01:19	2°♊26'22	0°16'49
min. Earth dist.	11086 Jan 25 22:58	12°Ω34'11	19.07936 AU	min. Earth dist.	11091 Feb 15 15:22	2°♊27'22	18.99754 AU
direct	11086 Apr 12 16:18	10°Ω36'15		direct	11091 May 02 21:02	0°♊29'11	
evening set	11086 Jul 12 00:42	13°Ω36'00		evening set	11091 Aug 01 01:42	3°♊29'14	
conjunction	11086 Jul 27 21:09	14°Ω30'05	-0°03'21	conjunction	11091 Aug 17 00:55	4°♊23'47	0°17'14
minimum elong	11086 Jul 27 21:10	14°Ω30'05	0°03'52	minimum elong	11091 Aug 17 00:55	4°♊23'47	0°16'54
behind sun begin	11086 Jul 27 14:40	14°Ω29'11		max. Earth dist.	11091 Aug 17 11:22	4°♊25'17	20.98376 AU
behind sun end	11086 Jul 28 03:41	14°Ω31'00		morning rise	11091 Sep 02 02:33	5°♊18'43	
max. Earth dist.	11086 Jul 28 08:55	14°Ω31'45	21.07660 AU	retrograde	11091 Dec 04 19:47	8°♊25'17	
	11086 Aug 05 14:18	15°Ω		opposition	11092 Feb 20 09:01	6°♊26'11	0°21'13
morning rise	11086 Aug 12 19:49	15°Ω24'29		min. Earth dist.	11092 Feb 19 23:51	6°♊27'07	18.96930 AU
retrograde	11086 Nov 14 03:40	18°Ω29'37		direct	11092 May 06 01:47	4°♊28'55	
opposition	11087 Jan 30 18:21	16°Ω31'20	-0°01'22	evening set	11092 Aug 04 07:41	7°♊29'14	
min. Earth dist.	11087 Jan 30 06:47	16°Ω32'30	19.07257 AU				
	11087 Mar 15 09:43	15°♋Ω		conjunction	11092 Aug 20 07:24	8°♊23'55	0°21'11
direct	11087 Apr 16 22:08	14°Ω34'31		minimum elong	11092 Aug 20 07:24	8°♊23'55	0°20'54
asc. node	11087 May 16 04:07	14°Ω56'09		max. Earth dist.	11092 Aug 20 16:38	8°♊25'14	20.95399 AU
	11087 May 18 16:48	15°Ω		morning rise	11092 Sep 05 09:49	9°♊19'00	
evening set	11087 Jul 16 05:18	17°Ω34'13		retrograde	11092 Dec 08 05:57	12°♊26'00	
conjunction	11087 Aug 01 02:23	18°Ω28'22	0°00'53	opposition	11093 Feb 23 17:00	10°♊26'45	0°25'33
minimum elong	11087 Aug 01 02:21	18°Ω28'22	0°00'25	min. Earth dist.	11093 Feb 23 07:54	10°♊27'40	18.93794 AU
behind sun begin	11087 Jul 31 19:48	18°Ω27'27		direct	11093 May 10 08:09	8°♊29'22	
behind sun end	11087 Aug 01 08:55	18°Ω29'17		evening set	11093 Aug 08 13:55	11°♊30'02	
max. Earth dist.	11087 Aug 01 14:18	18°Ω30'04	21.06700 AU	conjunction	11093 Aug 24 14:21	12°♊24'53	0°25'02
morning rise	11087 Aug 17 01:31	19°Ω22'50		minimum elong	11093 Aug 24 14:21	12°♊24'53	0°24'46
retrograde	11087 Nov 18 10:27	22°Ω28'09		max. Earth dist.	11093 Aug 25 00:03	12°♊26'16	20.92096 AU
opposition	11088 Feb 04 02:11	20°Ω29'44	0°03'13	morning rise	11093 Sep 09 17:19	13°♊20'07	
min. Earth dist.	11088 Feb 03 15:38	20°Ω30'48	19.06029 AU	retrograde	11093 Dec 12 15:24	16°♊27'37	
direct	11088 Apr 20 03:54	18°Ω32'52		opposition	11094 Feb 28 01:17	14°♊28'13	0°29'45
evening set	11088 Jul 19 10:05	21°Ω32'32		min. Earth dist.	11094 Feb 27 16:53	14°♊29'04	18.90331 AU
conjunction	11088 Aug 04 07:33	22°Ω26'46	0°05'04	direct	11094 May 14 13:49	12°♊30'45	
minimum elong	11088 Aug 04 07:32	22°Ω26'46	0°04'38	evening set	11094 Aug 12 20:56	15°♊31'49	
behind sun begin	11088 Aug 04 01:05	22°Ω25'52		conjunction	11094 Aug 28 21:54	16°♊26'50	0°28'46
behind sun end	11088 Aug 04 14:00	22°Ω27'40		minimum elong	11094 Aug 28 21:54	16°♊26'50	0°28'34
max. Earth dist.	11088 Aug 04 18:15	22°Ω28'17	21.05236 AU	max. Earth dist.	11094 Aug 29 06:12	16°♊28'01	20.88485 AU
morning rise	11088 Aug 20 07:24	23°Ω21'19		morning rise	11094 Sep 14 01:42	17°♊22'15	
retrograde	11088 Nov 21 19:10	26°Ω26'53		retrograde	11094 Dec 17 02:17	20°♊30'17	
opposition	11089 Feb 07 09:50	24°Ω28'18	0°07'47	opposition	11095 Mar 04 09:37	18°♊30'45	0°33'50
min. Earth dist.	11089 Feb 06 23:12	24°Ω29'22	19.04336 AU	min. Earth dist.	11095 Mar 04 01:40	18°♊31'33	18.86561 AU
direct	11089 Apr 24 09:48	22°Ω31'19		direct	11095 May 18 20:02	16°♊33'09	
evening set	11089 Jul 23 15:00	25°Ω31'03		evening set	11095 Aug 17 04:27	19°♊34'43	
conjunction	11089 Aug 08 13:04	26°Ω25'22	0°09'10	conjunction	11095 Sep 02 06:13	20°♊29'56	0°32'23
minimum elong	11089 Aug 08 13:04	26°Ω25'22	0°08'46	minimum elong	11095 Sep 02 06:12	20°♊29'56	0°32'13
behind sun begin	11089 Aug 08 07:21	26°Ω24'35		max. Earth dist.	11095 Sep 02 14:43	20°♊31'09	20.84539 AU
behind sun end	11089 Aug 08 18:47	26°Ω26'10		morning rise	11095 Sep 18 10:33	21°♊25'32	
max. Earth dist.	11089 Aug 09 00:12	26°Ω26'57	21.03322 AU	retrograde	11095 Dec 21 13:01	24°♊34'09	
morning rise	11089 Aug 24 13:25	27°Ω20'02		opposition	11096 Mar 07 18:23	22°♊34'28	0°37'46
	11089 Oct 24 11:30	0°♊		min. Earth dist.	11096 Mar 07 11:20	22°♊35'11	18.82439 AU
retrograde	11089 Nov 26 02:17	0°♊25'53		direct	11096 May 22 03:02	20°♊36'46	
	11089 Dec 29 10:04	30°♋Ω		evening set	11096 Aug 20 12:44	23°♊38'53	
opposition	11090 Feb 11 17:36	28°Ω27'07	0°12'19	conjunction	11096 Sep 05 15:00	24°♊34'17	0°35'51
min. Earth dist.	11090 Feb 11 07:43	28°Ω28'07	19.02224 AU	minimum elong	11096 Sep 05 15:00	24°♊34'17	0°35'44
direct	11090 Apr 28 14:52	26°Ω30'04		max. Earth dist.	11096 Sep 05 21:46	24°♊35'16	20.80247 AU
evening set	11090 Jul 27 20:09	29°Ω29'54		morning rise	11096 Sep 21 20:08	25°♊30'07	
	11090 Aug 05 16:57	0°♊		retrograde	11096 Dec 25 00:44	28°♊39'20	

opposition	11097 Mar 12 03:32	26° <u>17</u> 39'31	0°41'32
min. Earth dist.	11097 Mar 11 21:15	26° <u>17</u> 40'09	18.77963 AU
direct	11097 May 26 09:42	24° <u>17</u> 41'40	
evening set	11097 Aug 24 21:42	27° <u>17</u> 44'24	
conjunction	11097 Sep 10 00:46	28° <u>17</u> 40'01	0°39'10
minimum elong	11097 Sep 10 00:46	28° <u>17</u> 40'01	0°39'06
max. Earth dist.	11097 Sep 10 07:29	28° <u>17</u> 40'59	20.75568 AU
morning rise	11097 Sep 26 06:25	29° <u>17</u> 36'03	
	11097 Oct 03 10:15	0° <u>18</u>	
retrograde	11097 Dec 29 12:32	2° <u>18</u> 45'55	
opposition	11098 Mar 16 13:05	0° <u>18</u> 45'56	0°45'07
min. Earth dist.	11098 Mar 16 07:49	0° <u>18</u> 46'29	18.73084 AU
	11098 Apr 04 17:31	30° <u>18</u>	
direct	11098 May 30 18:02	28° <u>17</u> 47'55	
	11098 Jul 23 14:57	0° <u>18</u>	
evening set	11098 Aug 29 07:32	1° <u>18</u> 51'18	
conjunction	11098 Sep 14 11:11	2° <u>18</u> 47'09	0°42'18
minimum elong	11098 Sep 14 11:11	2° <u>18</u> 47'09	0°42'16
max. Earth dist.	11098 Sep 14 15:41	2° <u>18</u> 47'48	20.70488 AU
morning rise	11098 Sep 30 17:41	3° <u>18</u> 43'25	
retrograde	11099 Jan 03 01:14	6° <u>18</u> 53'57	
opposition	11099 Mar 20 23:06	4° <u>18</u> 53'46	0°48'29
min. Earth dist.	11099 Mar 20 18:57	4° <u>18</u> 54'11	18.67795 AU
direct	11099 Jun 04 01:57	2° <u>18</u> 55'30	
evening set	11099 Sep 02 18:02	5° <u>18</u> 59'36	
conjunction	11099 Sep 18 22:32	6° <u>18</u> 55'42	0°45'14
minimum elong	11099 Sep 18 22:32	6° <u>18</u> 55'41	0°45'16
max. Earth dist.	11099 Sep 19 02:45	6° <u>18</u> 56'18	20.64983 AU
morning rise	11099 Oct 05 05:31	7° <u>18</u> 52'12	
retrograde	11100 Jan 07 13:45	11° <u>18</u> 03'22	
opposition	11100 Mar 25 09:22	9° <u>18</u> 02'58	0°51'38
min. Earth dist.	11100 Mar 25 06:12	9° <u>18</u> 03'18	18.62091 AU
direct	11100 Jun 08 11:18	7° <u>18</u> 04'26	
evening set	11100 Sep 07 05:20	10° <u>18</u> 09'16	
conjunction	11100 Sep 23 10:24	11° <u>18</u> 05'37	0°47'57
minimum elong	11100 Sep 23 10:24	11° <u>18</u> 05'37	0°48'00
max. Earth dist.	11100 Sep 23 12:23	11° <u>18</u> 05'55	20.59111 AU
morning rise	11100 Oct 09 18:13	12° <u>18</u> 02'22	
retrograde	11101 Jan 12 03:28	15° <u>18</u> 14'14	
opposition	11101 Mar 29 20:11	13° <u>18</u> 13'34	0°54'32
min. Earth dist.	11101 Mar 29 18:11	13° <u>18</u> 13'46	18.56060 AU
direct	11101 Jun 12 20:32	11° <u>18</u> 14'43	
evening set	11101 Sep 11 17:05	14° <u>18</u> 20'20	
conjunction	11101 Sep 27 23:02	15° <u>18</u> 16'57	0°50'25
minimum elong	11101 Sep 27 23:02	15° <u>18</u> 16'57	0°50'32
max. Earth dist.	11101 Sep 28 01:05	15° <u>18</u> 17'15	20.52931 AU
morning rise	11101 Oct 14 07:22	16° <u>18</u> 13'58	