

direct	13100 Feb 11 04:29	26° $\Pi$ 28'44	opposition	13105 Jun 13 12:27	1° $\mathfrak{Z}$ 25'36	0°45'00
	13100 Apr 01 05:08	0° $\mathfrak{E}$		13105 Jun 24 05:57	30° $\mathfrak{R}$ $\mathfrak{Z}$	
evening set	13100 Jun 16 17:19	14° $\mathfrak{E}$ 49'41	direct	13105 Aug 11 10:42	26° $\mathfrak{Z}$ 27'36	
max. Earth dist.	13100 Jun 27 07:38	17° $\mathfrak{E}$ 15'38	6.19280 AU	13105 Sep 28 09:29	0° $\mathfrak{Z}$	
			evening set	13105 Dec 16 01:25	15° $\mathfrak{Z}$ 21'21	
conjunction	13100 Jun 29 13:59	17° $\mathfrak{E}$ 46'58	-0°35'01			
minimum elong	13100 Jun 29 13:59	17° $\mathfrak{E}$ 46'57	0°36'00	conjunction	13105 Dec 29 14:04	18° $\mathfrak{Z}$ 26'11
morning rise	13100 Jul 12 10:19	20° $\mathfrak{E}$ 44'28		minimum elong	13105 Dec 29 14:04	18° $\mathfrak{Z}$ 26'11
	13100 Aug 24 01:24	0° $\Omega$		max. Earth dist.	13105 Dec 31 23:22	18° $\mathfrak{Z}$ 58'52
retrograde	13100 Nov 16 00:56	9° $\Omega$ 33'45		morning rise	13106 Jan 12 02:47	21° $\mathfrak{Z}$ 30'43
opposition	13101 Jan 15 04:29	4° $\Omega$ 38'58	-0°55'19		13106 Feb 20 15:37	0° $\approx$
min. Earth dist.	13101 Jan 16 14:37	4° $\Omega$ 27'49	4.10233 AU	retrograde	13106 May 17 20:06	9° $\approx$ 57'30
	13101 Mar 02 12:48	30° $\mathfrak{R}$ $\mathfrak{E}$		min. Earth dist.	13106 Jul 15 17:12	5° $\approx$ 06'01
direct	13101 Mar 16 12:55	29° $\mathfrak{E}$ 40'57		opposition	13106 Jul 17 01:03	4° $\approx$ 55'25
	13101 Mar 30 12:36	0° $\Omega$			13106 Sep 08 14:19	30° $\mathfrak{R}$ $\mathfrak{Z}$
	13101 Jul 03 20:12	15° $\Omega$		direct	13106 Sep 15 05:19	29° $\mathfrak{Z}$ 55'46
evening set	13101 Jul 20 21:26	18° $\Omega$ 59'05			13106 Sep 21 21:01	0° $\approx$
max. Earth dist.	13101 Aug 01 08:27	21° $\Omega$ 43'13	6.02003 AU		13107 Jan 05 13:12	15° $\approx$
				evening set	13107 Jan 19 00:51	17° $\approx$ 54'53
conjunction	13101 Aug 02 21:32	22° $\Omega$ 05'25	-0°35'33			
minimum elong	13101 Aug 02 21:33	22° $\Omega$ 05'25	0°36'14	conjunction	13107 Feb 01 09:49	20° $\approx$ 50'58
morning rise	13101 Aug 15 22:41	25° $\Omega$ 12'35		minimum elong	13107 Feb 01 09:50	20° $\approx$ 50'59
	13101 Sep 05 10:04	0° $\mathfrak{M}$		max. Earth dist.	13107 Feb 02 22:59	21° $\approx$ 11'23
retrograde	13101 Dec 23 17:19	15° $\mathfrak{M}$ 17'27		morning rise	13107 Feb 14 18:03	23° $\approx$ 46'23
opposition	13102 Feb 21 08:16	10° $\mathfrak{M}$ 20'30	-0°46'22		13107 Mar 16 07:40	0° $\mathfrak{H}$
min. Earth dist.	13102 Feb 21 21:25	10° $\mathfrak{M}$ 16'08	3.95197 AU	retrograde	13107 Jun 17 15:10	11° $\mathfrak{H}$ 08'34
direct	13102 Apr 21 07:18	5° $\mathfrak{M}$ 24'33		opposition	13107 Aug 17 08:25	6° $\mathfrak{H}$ 09'17
evening set	13102 Aug 26 11:20	25° $\mathfrak{M}$ 29'12		min. Earth dist.	13107 Aug 16 16:13	6° $\mathfrak{H}$ 14'35
				direct	13107 Oct 17 16:53	1° $\mathfrak{H}$ 08'42
conjunction	13102 Sep 08 17:20	28° $\mathfrak{M}$ 43'36	-0°22'40	evening set	13108 Feb 19 20:48	18° $\mathfrak{H}$ 28'22
minimum elong	13102 Sep 08 17:21	28° $\mathfrak{M}$ 43'37	0°22'48			
max. Earth dist.	13102 Sep 08 15:56	28° $\mathfrak{M}$ 42'45	5.90743 AU	conjunction	13108 Mar 04 01:37	21° $\mathfrak{H}$ 18'00
	13102 Sep 13 22:00	0° $\mathfrak{L}$		minimum elong	13108 Mar 04 01:38	21° $\mathfrak{H}$ 18'01
morning rise	13102 Sep 22 01:10	1° $\mathfrak{L}$ 59'10		max. Earth dist.	13108 Mar 04 11:01	21° $\mathfrak{H}$ 23'03
retrograde	13103 Jan 31 19:24	22° $\mathfrak{L}$ 50'56		morning rise	13108 Mar 17 04:44	24° $\mathfrak{H}$ 06'45
opposition	13103 Apr 01 00:48	17° $\mathfrak{L}$ 50'55	-0°18'00		13108 Apr 14 17:53	0° $\mathfrak{Y}$
min. Earth dist.	13103 Mar 31 12:36	17° $\mathfrak{L}$ 55'02	3.89062 AU	retrograde	13108 Jul 16 07:43	10° $\mathfrak{Y}$ 50'03
direct	13103 May 29 03:44	12° $\mathfrak{L}$ 55'52		opposition	13108 Sep 15 08:52	5° $\mathfrak{Y}$ 53'38
	13103 Sep 20 06:51	0° $\mathfrak{M}$		min. Earth dist.	13108 Sep 15 12:28	5° $\mathfrak{Y}$ 52'28
evening set	13103 Oct 03 15:18	3° $\mathfrak{M}$ 12'43		direct	13108 Nov 16 14:12	0° $\mathfrak{Y}$ 52'43
				evening set	13109 Mar 21 08:28	17° $\mathfrak{Y}$ 55'09
conjunction	13103 Oct 17 02:59	6° $\mathfrak{M}$ 30'03	-0°00'16			
minimum elong	13103 Oct 17 02:57	6° $\mathfrak{M}$ 30'02	0°00'14	conjunction	13109 Apr 03 09:04	20° $\mathfrak{Y}$ 41'39
behind sun begin	13103 Oct 16 18:39	6° $\mathfrak{M}$ 24'59		minimum elong	13109 Apr 03 09:04	20° $\mathfrak{Y}$ 41'39
behind sun end	13103 Oct 17 11:15	6° $\mathfrak{M}$ 35'05		behind sun begin	13109 Apr 03 02:43	20° $\mathfrak{Y}$ 38'16
max. Earth dist.	13103 Oct 18 16:03	6° $\mathfrak{M}$ 52'41	5.90375 AU	behind sun end	13109 Apr 03 15:26	20° $\mathfrak{Y}$ 45'02
asc. node	13103 Oct 21 23:05	7° $\mathfrak{M}$ 40'56		max. Earth dist.	13109 Apr 02 12:14	20° $\mathfrak{Y}$ 30'31
morning rise	13103 Oct 30 16:25	9° $\mathfrak{M}$ 48'15		morning rise	13109 Apr 16 08:03	23° $\mathfrak{Y}$ 27'21
	13103 Nov 21 13:47	15° $\mathfrak{M}$			13109 May 18 09:12	0° $\mathfrak{B}$
	13104 Feb 21 12:41	0° $\mathfrak{Z}$		retrograde	13109 Aug 15 00:34	10° $\mathfrak{B}$ 01'52
retrograde	13104 Mar 10 00:50	0° $\mathfrak{Z}$ 30'31		opposition	13109 Oct 15 04:00	5° $\mathfrak{B}$ 07'28
	13104 Mar 27 10:03	30° $\mathfrak{R}$ $\mathfrak{M}$		min. Earth dist.	13109 Oct 16 03:01	5° $\mathfrak{B}$ 00'05
min. Earth dist.	13104 May 06 22:57	25° $\mathfrak{M}$ 38'55	3.94567 AU	desc. node	13109 Nov 04 20:39	2° $\mathfrak{B}$ 35'59
opposition	13104 May 08 07:51	25° $\mathfrak{M}$ 27'45	0°17'54	direct	13109 Dec 16 18:06	0° $\mathfrak{B}$ 06'28
direct	13104 Jul 05 10:05	20° $\mathfrak{M}$ 31'47			13110 Apr 09 18:38	15° $\mathfrak{B}$
	13104 Sep 24 11:01	0° $\mathfrak{Z}$		evening set	13110 Apr 20 10:28	17° $\mathfrak{B}$ 15'57
evening set	13104 Nov 09 16:48	10° $\mathfrak{Z}$ 19'19		max. Earth dist.	13110 May 01 12:51	19° $\mathfrak{B}$ 39'35
						6.46468 AU
conjunction	13104 Nov 23 06:38	13° $\mathfrak{Z}$ 32'32	0°21'53	conjunction	13110 May 03 08:05	20° $\mathfrak{B}$ 03'00
minimum elong	13104 Nov 23 06:37	13° $\mathfrak{Z}$ 32'31	0°22'48	minimum elong	13110 May 03 08:04	20° $\mathfrak{B}$ 02'59
max. Earth dist.	13104 Nov 25 16:55	14° $\mathfrak{Z}$ 07'07	6.01059 AU	behind sun begin	13110 May 03 01:19	19° $\mathfrak{B}$ 59'21
morning rise	13104 Dec 06 21:56	16° $\mathfrak{Z}$ 46'08		behind sun end	13110 May 03 14:50	20° $\mathfrak{B}$ 06'38
	13105 Feb 07 04:39	0° $\mathfrak{Z}$		morning rise	13110 May 16 03:57	22° $\mathfrak{B}$ 49'25
retrograde	13105 Apr 14 19:09	6° $\mathfrak{Z}$ 29'15			13110 Jun 19 22:35	0° $\Pi$
min. Earth dist.	13105 Jun 11 20:44	1° $\mathfrak{Z}$ 39'02	4.09155 AU	retrograde	13110 Sep 14 18:08	9° $\Pi$ 46'08

opposition	13110 Nov 14 19:36	4° $\Pi$ 52'34	-0°25'42			13116 Aug 31 10:46	0° $\text{♊}$	
min. Earth dist.	13110 Nov 16 07:09	4° $\Pi$ 41'11	4.40993 AU	evening set		13116 Nov 14 21:02	15° $\text{♊}$ 27'45	
	13111 Jan 06 18:26	30° $\text{♋}$						
direct	13111 Jan 16 02:24	29° $\text{♋}$ 51'59		conjunction		13116 Nov 28 10:58	18° $\text{♊}$ 39'55	0°24'22
	13111 Jan 25 11:47	0° $\Pi$		minimum elong		13116 Nov 28 10:57	18° $\text{♊}$ 39'54	0°25'20
evening set	13111 May 21 03:10	17° $\Pi$ 31'51		max. Earth dist.		13116 Nov 30 22:34	19° $\text{♊}$ 15'06	6.03312 AU
max. Earth dist.	13111 May 31 15:36	19° $\Pi$ 52'02	6.33851 AU	morning rise		13116 Dec 12 01:56	21° $\text{♊}$ 52'18	
						13117 Jan 17 08:48	0° $\text{♋}$	
conjunction	13111 Jun 02 23:11	20° $\Pi$ 23'02	-0°25'33	retrograde		13117 Apr 19 13:50	11° $\text{♋}$ 24'45	
minimum elong	13111 Jun 02 23:10	20° $\Pi$ 23'01	0°26'31	min. Earth dist.		13117 Jun 16 17:23	6° $\text{♋}$ 34'13	4.11644 AU
morning rise	13111 Jun 15 18:10	23° $\Pi$ 14'00		opposition		13117 Jun 18 07:52	6° $\text{♋}$ 21'14	0°47'26
	13111 Jul 17 08:18	0° $\text{♌}$		direct		13117 Aug 16 10:32	1° $\text{♋}$ 22'59	
retrograde	13111 Oct 17 16:05	11° $\text{♌}$ 02'02		evening set		13117 Dec 20 21:51	20° $\text{♋}$ 08'37	
opposition	13111 Dec 17 07:16	6° $\text{♌}$ 08'14	-0°47'15					
min. Earth dist.	13111 Dec 18 23:50	5° $\text{♌}$ 55'09	4.25488 AU	conjunction		13118 Jan 03 10:04	23° $\text{♋}$ 12'11	0°35'47
direct	13112 Feb 16 18:22	1° $\text{♌}$ 08'40		minimum elong		13118 Jan 03 10:03	23° $\text{♋}$ 12'11	0°36'44
evening set	13112 Jun 21 09:32	19° $\text{♌}$ 37'57		max. Earth dist.		13118 Jan 05 17:27	23° $\text{♋}$ 43'35	6.20606 AU
max. Earth dist.	13112 Jul 02 00:44	22° $\text{♌}$ 05'20	6.16607 AU	morning rise		13118 Jan 16 22:18	26° $\text{♋}$ 15'24	
						13118 Feb 02 20:29	0° $\text{♌}$	
conjunction	13112 Jul 04 06:28	22° $\text{♌}$ 36'29	-0°35'49	retrograde		13118 May 22 04:16	14° $\text{♌}$ 32'16	
minimum elong	13112 Jul 04 06:28	22° $\text{♌}$ 36'29	0°36'47	min. Earth dist.		13118 Jul 20 05:27	9° $\text{♌}$ 40'42	4.29261 AU
morning rise	13112 Jul 17 03:25	25° $\text{♌}$ 35'21		opposition		13118 Jul 21 12:02	9° $\text{♌}$ 30'32	0°54'29
	13112 Aug 05 14:03	0° $\Omega$		direct		13118 Sep 19 19:30	4° $\text{♌}$ 30'45	
retrograde	13112 Nov 21 04:04	14° $\Omega$ 35'53				13118 Dec 19 04:29	15° $\text{♌}$	
opposition	13113 Jan 20 06:56	9° $\Omega$ 40'48	-0°55'17	evening set		13119 Jan 23 13:32	22° $\text{♌}$ 23'37	
min. Earth dist.	13113 Jan 21 13:35	9° $\Omega$ 30'46	4.07766 AU					
direct	13113 Mar 21 09:49	4° $\Omega$ 43'05		conjunction		13119 Feb 05 21:59	25° $\text{♌}$ 18'41	0°35'11
	13113 Jun 15 11:16	15° $\Omega$		minimum elong		13119 Feb 05 22:00	25° $\text{♌}$ 18'41	0°35'50
evening set	13113 Jul 25 22:13	24° $\Omega$ 08'54		max. Earth dist.		13119 Feb 07 07:15	25° $\text{♌}$ 36'54	6.37154 AU
				morning rise		13119 Feb 19 05:27	28° $\text{♌}$ 13'01	
conjunction	13113 Aug 07 23:03	27° $\Omega$ 16'29	-0°34'29			13119 Feb 27 11:59	0° $\text{♍}$	
minimum elong	13113 Aug 07 23:04	27° $\Omega$ 16'29	0°35'07	retrograde		13119 Jun 21 20:18	15° $\text{♍}$ 28'41	
max. Earth dist.	13113 Aug 06 15:32	26° $\Omega$ 57'31	5.99981 AU	opposition		13119 Aug 21 14:08	10° $\text{♍}$ 29'53	0°45'08
	13113 Aug 19 07:15	0° $\text{♍}$		min. Earth dist.		13119 Aug 21 01:12	10° $\text{♍}$ 34'07	4.43527 AU
morning rise	13113 Aug 21 00:57	0° $\text{♍}$ 24'57		direct		13119 Oct 22 02:35	5° $\text{♍}$ 29'18	
retrograde	13113 Dec 29 05:27	20° $\text{♍}$ 38'27		evening set		13120 Feb 24 04:22	22° $\text{♍}$ 45'47	
opposition	13114 Feb 26 17:56	15° $\text{♍}$ 41'04	-0°43'20					
min. Earth dist.	13114 Feb 27 04:10	15° $\text{♍}$ 37'39	3.93831 AU	conjunction		13120 Mar 08 08:31	25° $\text{♍}$ 34'52	0°24'38
direct	13114 Apr 26 14:34	10° $\text{♍}$ 45'17		minimum elong		13120 Mar 08 08:32	25° $\text{♍}$ 34'52	0°24'49
	13114 Aug 28 02:51	0° $\text{♎}$		max. Earth dist.		13120 Mar 08 12:45	25° $\text{♍}$ 37'07	6.48154 AU
evening set	13114 Aug 31 18:33	0° $\text{♎}$ 53'17		morning rise		13120 Mar 21 11:10	28° $\text{♍}$ 23'05	
						13120 Mar 29 02:27	0° $\text{♏}$	
conjunction	13114 Sep 14 01:28	4° $\text{♎}$ 08'23	-0°19'53	retrograde		13120 Jul 20 11:18	15° $\text{♏}$ 04'03	
minimum elong	13114 Sep 14 01:29	4° $\text{♎}$ 08'24	0°19'54	opposition		13120 Sep 19 12:44	10° $\text{♏}$ 08'00	0°24'18
max. Earth dist.	13114 Sep 14 06:18	4° $\text{♎}$ 11'21	5.90165 AU	min. Earth dist.		13120 Sep 19 19:12	10° $\text{♏}$ 05'55	4.50678 AU
morning rise	13114 Sep 27 10:11	7° $\text{♎}$ 24'37		direct		13120 Nov 20 19:29	5° $\text{♏}$ 07'06	
retrograde	13115 Feb 06 05:50	28° $\text{♎}$ 17'42		evening set		13121 Mar 25 13:48	22° $\text{♏}$ 09'50	
opposition	13115 Apr 06 11:18	23° $\text{♎}$ 17'13	-0°12'59					
min. Earth dist.	13115 Apr 05 19:18	23° $\text{♎}$ 22'37	3.89359 AU	conjunction		13121 Apr 07 14:07	24° $\text{♏}$ 56'18	0°07'52
direct	13115 Jun 03 12:10	18° $\text{♎}$ 22'09		minimum elong		13121 Apr 07 14:07	24° $\text{♏}$ 56'18	0°07'32
asc. node	13115 Aug 28 22:56	29° $\text{♎}$ 07'38		behind sun begin		13121 Apr 07 06:51	24° $\text{♏}$ 52'26	
	13115 Sep 02 00:09	0° $\text{♏}$		behind sun end		13121 Apr 07 21:24	25° $\text{♏}$ 00'11	
evening set	13115 Oct 09 00:02	8° $\text{♏}$ 36'13		max. Earth dist.		13121 Apr 06 15:14	24° $\text{♏}$ 44'05	6.50988 AU
				morning rise		13121 Apr 20 12:28	27° $\text{♏}$ 41'57	
conjunction	13115 Oct 22 12:00	11° $\text{♏}$ 53'11	0°03'10			13121 May 01 10:47	0° $\text{♐}$	
minimum elong	13115 Oct 22 11:59	11° $\text{♏}$ 53'11	0°03'46	retrograde		13121 Aug 19 06:02	14° $\text{♐}$ 18'23	
behind sun begin	13115 Oct 22 03:43	11° $\text{♏}$ 48'10		desc. node		13121 Sep 16 05:20	13° $\text{♐}$ 07'17	
behind sun end	13115 Oct 22 20:16	11° $\text{♏}$ 58'12		opposition		13121 Oct 19 09:50	9° $\text{♐}$ 24'15	-0°02'27
max. Earth dist.	13115 Oct 24 03:54	12° $\text{♏}$ 17'29	5.91472 AU	min. Earth dist.		13121 Oct 20 10:12	9° $\text{♐}$ 16'27	4.49111 AU
	13115 Nov 04 07:44	15° $\text{♏}$		direct		13121 Dec 20 22:58	4° $\text{♐}$ 23'27	
morning rise	13115 Nov 05 02:04	15° $\text{♏}$ 11'04				13122 Mar 23 18:42	15° $\text{♐}$	
	13116 Jan 13 03:04	0° $\text{♑}$		evening set		13122 Apr 24 17:02	21° $\text{♐}$ 36'16	
retrograde	13116 Mar 15 03:17	5° $\text{♑}$ 46'40		max. Earth dist.		13122 May 05 16:27	23° $\text{♐}$ 58'51	6.45085 AU
min. Earth dist.	13116 May 12 01:22	0° $\text{♑}$ 55'29	3.96331 AU					
opposition	13116 May 13 12:21	0° $\text{♑}$ 43'37	0°22'32	conjunction		13122 May 07 14:10	24° $\text{♐}$ 23'42	-0°11'08
	13116 May 18 21:24	30° $\text{♑}$		minimum elong		13122 May 07 14:10	24° $\text{♐}$ 23'41	0°11'53
direct	13116 Jul 10 16:47	25° $\text{♑}$ 47'21		behind sun begin		13122 May 07 08:36	24° $\text{♐}$ 20'41	

behind sun end	13122 May 07 19:43	24°♄26'42			13127 Dec 22 17:19	0°♈	
morning rise	13122 May 20 09:54	27°♄10'35	retrograde		13128 Mar 20 01:13	10°♈46'54	
	13122 Jun 02 14:58	0°♄	min. Earth dist.		13128 May 16 23:13	5°♈55'31	3.98036 AU
retrograde	13122 Sep 19 07:25	14°♄13'00	opposition		13128 May 18 10:04	5°♈43'42	0°26'44
opposition	13122 Nov 19 06:42	9°♄19'33 -0°29'17	direct		13128 Jul 15 17:11	0°♈47'10	
min. Earth dist.	13122 Nov 20 19:49	9°♄07'39 4.39220 AU	evening set		13128 Nov 19 18:57	20°♈21'11	
direct	13123 Jan 20 12:13	4°♄19'10					
evening set	13123 May 25 13:39	22°♄04'38	conjunction		13128 Dec 03 08:50	23°♈32'24 0°26'34	
max. Earth dist.	13123 Jun 05 01:53	24°♄25'22 6.31842 AU	minimum elong		13128 Dec 03 08:49	23°♈32'24 0°27'34	
			max. Earth dist.		13128 Dec 05 20:35	24°♈07'30 6.05282 AU	
conjunction	13123 Jun 07 09:39	24°♄56'36 -0°27'33	morning rise		13128 Dec 16 23:44	26°♈43'49	
minimum elong	13123 Jun 07 09:38	24°♄56'36 0°28'32			13128 Dec 31 05:00	0°♄	
morning rise	13123 Jun 20 04:41	27°♄48'25	retrograde		13129 Apr 24 01:16	16°♄07'07	
	13123 Jun 30 02:32	0°♄	min. Earth dist.		13129 Jun 21 07:12	11°♄16'43 4.13695 AU	
retrograde	13123 Oct 22 10:12	15°♄44'39	opposition		13129 Jun 22 21:40	11°♄03'46 0°49'28	
opposition	13123 Dec 22 01:10	10°♄50'45 -0°49'23	direct		13129 Aug 21 02:26	6°♄05'17	
min. Earth dist.	13123 Dec 23 15:44	10°♄38'17 4.23408 AU	evening set		13129 Dec 25 13:33	24°♄44'42	
direct	13124 Feb 21 07:28	5°♄51'30					
evening set	13124 Jun 26 01:52	24°♄27'07	conjunction		13130 Jan 08 01:22	27°♄47'15 0°36'24	
max. Earth dist.	13124 Jul 06 20:43	26°♄57'17 6.14636 AU	minimum elong		13130 Jan 08 01:21	27°♄47'15 0°37'19	
			max. Earth dist.		13130 Jan 10 05:08	28°♄16'29 6.22578 AU	
conjunction	13124 Jul 08 23:04	27°♄26'36 -0°36'26			13130 Jan 17 20:57	0°♄	
minimum elong	13124 Jul 08 23:04	27°♄26'36 0°37'22	morning rise		13130 Jan 21 13:08	0°♄49'24	
	13124 Jul 19 22:40	0°♄			13130 Apr 04 16:47	15°♄	
morning rise	13124 Jul 21 20:23	0°♄26'30	retrograde		13130 May 26 11:38	18°♄58'28	
	13124 Oct 01 13:59	15°♄			13130 Jul 17 20:35	15°♄	
retrograde	13124 Nov 26 07:29	19°♄35'40	opposition		13130 Jul 25 19:31	13°♄57'07 0°54'07	
	13125 Jan 22 20:12	15°♄	min. Earth dist.		13130 Jul 24 15:57	14°♄06'16 4.31000 AU	
opposition	13125 Jan 25 08:13	14°♄40'21 -0°54'54	direct		13130 Sep 24 07:48	8°♄57'09	
min. Earth dist.	13125 Jan 26 13:09	14°♄30'51 4.06068 AU			13130 Nov 29 08:31	15°♄	
direct	13125 Mar 26 08:31	9°♄42'56	evening set		13131 Jan 27 23:26	26°♄45'38	
	13125 May 24 13:23	15°♄					
evening set	13125 Jul 30 20:27	29°♄13'28	conjunction		13131 Feb 10 07:28	29°♄39'58 0°34'15	
	13125 Aug 03 02:08	0°♄	minimum elong		13131 Feb 10 07:29	29°♄39'58 0°34'51	
conjunction	13125 Aug 12 21:58	2°♄21'56 -0°33'15			13131 Feb 11 20:11	0°♄	
minimum elong	13125 Aug 12 21:59	2°♄21'56 0°33'49	max. Earth dist.		13131 Feb 11 13:47	29°♄56'30 6.38549 AU	
max. Earth dist.	13125 Aug 11 18:41	2°♄05'30 5.98725 AU	morning rise		13131 Feb 23 14:22	2°♄33'32	
morning rise	13125 Aug 26 00:37	5°♄31'19	retrograde		13131 Jun 25 22:11	19°♄44'20	
retrograde	13126 Jan 03 11:20	25°♄50'17	opposition		13131 Aug 25 17:53	14°♄45'53 0°42'50	
opposition	13126 Mar 03 23:10	20°♄52'31 -0°40'06	min. Earth dist.		13131 Aug 25 06:32	14°♄49'35 4.44517 AU	
min. Earth dist.	13126 Mar 04 05:35	20°♄50'23 3.93176 AU	direct		13131 Oct 26 08:04	9°♄45'13	
direct	13126 May 01 15:52	15°♄56'56	evening set		13132 Feb 28 10:21	26°♄59'46	
	13126 Aug 11 05:02	0°♄	conjunction		13132 Mar 12 14:03	29°♄48'26 0°22'36	
evening set	13126 Sep 05 21:07	6°♄05'48	minimum elong		13132 Mar 12 14:04	29°♄48'27 0°22'42	
			max. Earth dist.		13132 Mar 12 15:22	29°♄49'08 6.48688 AU	
conjunction	13126 Sep 19 04:34	9°♄21'13 -0°17'05			13132 Mar 13 11:38	0°♄	
minimum elong	13126 Sep 19 04:34	9°♄21'13 0°17'02	morning rise		13132 Mar 25 16:04	2°♄36'15	
max. Earth dist.	13126 Sep 19 12:45	9°♄26'13 5.90166 AU	retrograde		13132 Jul 24 14:21	19°♄15'44	
morning rise	13126 Oct 02 14:08	12°♄37'48	opposition		13132 Sep 23 16:00	14°♄19'58 0°20'49	
	13126 Dec 26 02:04	0°♄	min. Earth dist.		13132 Sep 24 00:59	14°♄17'05 4.50730 AU	
retrograde	13127 Feb 11 08:22	3°♄29'57	direct		13132 Nov 25 01:05	9°♄19'04	
	13127 Mar 31 05:43	30°♄	evening set		13133 Mar 29 18:23	26°♄22'17	
opposition	13127 Apr 11 15:05	28°♄29'03 -0°08'09					
min. Earth dist.	13127 Apr 10 20:19	28°♄35'24 3.90020 AU	conjunction		13133 Apr 11 18:05	29°♄08'43 0°05'16	
direct	13127 Jun 08 16:02	23°♄33'51	minimum elong		13133 Apr 11 18:06	29°♄08'43 0°04'51	
asc. node	13127 Jul 09 10:11	25°♄09'08	behind sun begin		13133 Apr 11 10:18	29°♄04'34	
	13127 Aug 12 07:21	0°♄	behind sun end		13133 Apr 12 01:55	29°♄12'53	
evening set	13127 Oct 14 02:22	13°♄44'16	max. Earth dist.		13133 Apr 10 15:01	28°♄54'14 6.50540 AU	
	13127 Oct 19 07:41	15°♄			13133 Apr 15 17:54	0°♄	
conjunction	13127 Oct 27 14:55	17°♄00'51 0°06'19	morning rise		13133 Apr 24 16:10	1°♄54'23	
minimum elong	13127 Oct 27 14:54	17°♄00'50 0°06'59			13133 Jul 04 20:14	15°♄	
behind sun begin	13127 Oct 27 07:10	16°♄56'10	desc. node		13133 Jul 29 17:36	17°♄36'59	
behind sun end	13127 Oct 27 22:38	17°♄05'31	retrograde		13133 Aug 23 11:54	18°♄32'47	
max. Earth dist.	13127 Oct 29 10:39	17°♄27'23 5.92733 AU			13133 Oct 12 21:21	15°♄	
morning rise	13127 Nov 10 05:10	20°♄18'12	opposition		13133 Oct 23 15:09	13°♄38'42 -0°06'20	
			min. Earth dist.		13133 Oct 24 17:26	13°♄30'17 4.48185 AU	

direct	13133 Dec 25 04:23	8°♄37'51			13139 May 19 05:58	30°♄♂	
	13134 Mar 04 11:48	15°♄		direct	13139 Jun 13 22:56	28°♂♂52'56	
evening set	13134 Apr 28 22:35	25°♄53'43			13139 Jul 09 14:37	0°♄	
max. Earth dist.	13134 May 09 21:09	28°♄16'14	6.43719 AU		13139 Oct 02 10:48	15°♄	
				evening set	13139 Oct 19 08:37	19°♄01'00	
conjunction	13134 May 11 19:36	28°♄41'33	-0°13'40				
minimum elong	13134 May 11 19:35	28°♄41'32	0°14'28	conjunction	13139 Nov 01 21:31	22°♄17'17	0°09'31
behind sun begin	13134 May 11 15:59	28°♄39'35		minimum elong	13139 Nov 01 21:31	22°♄17'17	0°10'15
behind sun end	13134 May 11 23:12	28°♄43'30		behind sun begin	13139 Nov 01 14:54	22°♄13'18	
	13134 May 17 19:32	0°♄		behind sun end	13139 Nov 02 04:08	22°♄21'16	
morning rise	13134 May 24 14:56	1°♄28'50		max. Earth dist.	13139 Nov 03 20:26	22°♄45'40	5.93768 AU
retrograde	13134 Sep 23 16:59	18°♄36'34		morning rise	13139 Nov 15 12:16	25°♄34'19	
opposition	13134 Nov 23 16:37	13°♄43'04	-0°32'39		13139 Dec 04 06:52	0°♄	
min. Earth dist.	13134 Nov 25 05:52	13°♄31'08	4.37470 AU	retrograde	13140 Mar 25 00:43	15°♄56'42	
direct	13135 Jan 24 19:11	8°♄42'47		min. Earth dist.	13140 May 21 22:24	11°♄05'57	3.99662 AU
evening set	13135 May 29 22:58	26°♄33'40		opposition	13140 May 23 11:24	10°♄53'24	0°30'52
max. Earth dist.	13135 Jun 09 10:42	28°♄54'47	6.29796 AU	direct	13140 Jul 20 19:16	5°♄56'40	
				evening set	13140 Nov 24 21:18	25°♄24'39	
conjunction	13135 Jun 11 18:50	29°♄26'23	-0°29'20				
minimum elong	13135 Jun 11 18:49	29°♄26'23	0°30'21	conjunction	13140 Dec 08 11:02	28°♄34'53	0°28'39
	13135 Jun 14 06:31	0°♄		minimum elong	13140 Dec 08 11:01	28°♄34'52	0°29'39
morning rise	13135 Jun 24 14:03	2°♄19'04		max. Earth dist.	13140 Dec 10 22:11	29°♄09'27	6.07340 AU
retrograde	13135 Oct 27 05:47	20°♄23'51			13140 Dec 14 12:44	0°♄	
opposition	13135 Dec 26 18:25	15°♄29'48	-0°51'10	morning rise	13140 Dec 22 01:44	1°♄45'13	
min. Earth dist.	13135 Dec 28 09:09	15°♄17'15	4.21167 AU	retrograde	13141 Apr 28 17:47	20°♄58'53	
direct	13136 Feb 25 22:21	10°♄30'42		min. Earth dist.	13141 Jun 26 02:06	16°♄08'11	4.15975 AU
evening set	13136 Jun 30 17:15	29°♄13'20		opposition	13141 Jun 27 15:06	15°♄55'44	0°51'13
	13136 Jul 04 01:34	0°♄		direct	13141 Aug 26 00:59	10°♄57'03	
max. Earth dist.	13136 Jul 11 14:27	1°♄45'36	6.12383 AU	evening set	13141 Dec 30 08:36	29°♄29'20	
				13142 Jan 01 15:27	0°♄		
conjunction	13136 Jul 13 14:56	2°♄13'59	-0°36'46				
minimum elong	13136 Jul 13 14:56	2°♄13'59	0°37'40	conjunction	13142 Jan 12 20:07	2°♄30'45	0°36'46
morning rise	13136 Jul 26 12:45	5°♄15'05		minimum elong	13142 Jan 12 20:07	2°♄30'45	0°37'41
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opposition	13137 Jan 30 09:08	19°♄38'34	-0°54'04		13142 Mar 12 15:56	15°♄	
min. Earth dist.	13137 Jan 31 11:18	19°♄29'58	4.04006 AU	retrograde	13142 May 30 19:07	23°♄31'28	
	13137 Mar 17 11:29	15°♄♄		min. Earth dist.	13142 Jul 29 02:40	18°♄39'24	4.33229 AU
direct	13137 Mar 31 04:08	14°♄41'26		opposition	13142 Jul 30 05:31	18°♄30'31	0°53'23
	13137 Apr 13 21:16	15°♄			13142 Aug 28 19:48	15°♄♄	
	13137 Jul 17 13:29	0°♄		direct	13142 Sep 28 20:58	13°♄30'29	
evening set	13137 Aug 04 19:36	4°♄18'31			13142 Oct 30 06:31	15°♄	
				13143 Jan 26 19:47	0°♄		
conjunction	13137 Aug 17 21:44	7°♄28'06	-0°31'42	evening set	13143 Feb 01 11:08	1°♄12'47	
minimum elong	13137 Aug 17 21:45	7°♄28'06	0°32'11				
max. Earth dist.	13137 Aug 16 21:49	7°♄13'37	5.97046 AU	conjunction	13143 Feb 14 18:24	4°♄06'04	0°33'07
morning rise	13137 Aug 31 01:23	10°♄38'42		minimum elong	13143 Feb 14 18:25	4°♄06'04	0°33'39
	13137 Dec 13 21:58	0°♄		max. Earth dist.	13143 Feb 15 20:32	4°♄20'16	6.40518 AU
retrograde	13138 Jan 08 18:38	1°♄05'05		morning rise	13143 Feb 28 00:39	6°♄58'35	
	13138 Feb 03 14:54	30°♄♄		retrograde	13143 Jun 30 02:29	24°♄02'45	
opposition	13138 Mar 09 05:44	26°♄06'53	-0°36'27	opposition	13143 Aug 29 22:47	19°♄04'42	0°40'18
min. Earth dist.	13138 Mar 09 08:50	26°♄05'51	3.92061 AU	min. Earth dist.	13143 Aug 29 14:42	19°♄07'20	4.46100 AU
direct	13138 May 06 19:32	21°♄11'26		direct	13143 Oct 30 17:46	14°♄03'58	
	13138 Jul 22 23:57	0°♄			13144 Feb 26 19:06	0°♄	
evening set	13138 Sep 11 01:59	11°♄23'18		evening set	13144 Mar 03 16:18	1°♄14'35	
conjunction	13138 Sep 24 10:27	14°♄39'22	-0°14'04	conjunction	13144 Mar 16 19:23	4°♄02'36	0°20'27
minimum elong	13138 Sep 24 10:28	14°♄39'23	0°13'55	minimum elong	13144 Mar 16 19:24	4°♄02'37	0°20'30
behind sun begin	13138 Sep 24 06:11	14°♄36'46		max. Earth dist.	13144 Mar 16 17:07	4°♄01'24	6.49773 AU
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max. Earth dist.	13138 Sep 25 00:56	14°♄48'14	5.89749 AU	retrograde	13144 Jul 28 14:40	23°♄26'09	
morning rise	13138 Oct 07 20:44	17°♄56'32		opposition	13144 Sep 27 18:18	18°♄30'38	0°17'17
	13138 Nov 30 05:50	0°♄		min. Earth dist.	13144 Sep 28 05:06	18°♄27'09	4.51262 AU
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opposition	13139 Apr 16 22:02	3°♄48'11	-0°03'05		13145 Mar 31 08:55	0°♄	
min. Earth dist.	13139 Apr 16 01:11	3°♄55'14	3.90358 AU	evening set	13145 Apr 02 21:18	0°♄31'59	
asc. node	13139 May 19 21:42	29°♄56'43					





















































































































conjunction	13145 Apr 15 20:33	3°♄18'14	0°02'42	behind sun end	13150 Sep 30 00:58	20°♄06'38	
minimum elong	13145 Apr 15 20:34	3°♄18'14	0°02'14	max. Earth dist.	13150 Sep 30 13:25	20°♄14'17	5.89092 AU
behind sun begin	13145 Apr 15 12:34	3°♄13'58		morning rise	13150 Oct 13 05:56	23°♄20'39	
behind sun end	13145 Apr 16 04:35	3°♄22'30			13150 Nov 10 08:23	0°♄	
max. Earth dist.	13145 Apr 14 15:14	3°♄02'31	6.50473 AU	retrograde	13151 Feb 22 01:34	14°♄14'39	
morning rise	13145 Apr 28 17:59	6°♄03'43		asc. node	13151 Apr 01 02:16	11°♄55'52	
desc. node	13145 Jun 11 07:18	14°♄46'54		min. Earth dist.	13151 Apr 21 05:51	9°♄21'31	3.90588 AU
	13145 Jun 12 12:31	15°♄		opposition	13151 Apr 22 06:55	9°♄13'01	0°02'00
retrograde	13145 Aug 27 14:37	22°♄43'07		direct	13151 Jun 19 06:05	4°♄17'38	
opposition	13145 Oct 27 18:35	17°♄49'11	-0°10'03		13151 Sep 13 17:06	15°♄	
min. Earth dist.	13145 Oct 28 23:14	17°♄40'01	4.47503 AU	evening set	13151 Oct 24 17:48	24°♄23'39	
	13145 Nov 20 05:31	15°♄♄					
direct	13145 Dec 29 08:15	12°♄48'21		conjunction	13151 Nov 07 07:07	27°♄39'36	0°12'40
	13146 Feb 06 10:48	15°♄		minimum elong	13151 Nov 07 07:06	27°♄39'35	0°13'27
	13146 May 02 13:37	0°♄		behind sun begin	13151 Nov 07 02:28	27°♄36'49	
evening set	13146 May 03 01:48	0°♄06'36		behind sun end	13151 Nov 07 11:44	27°♄42'22	
max. Earth dist.	13146 May 13 20:08	2°♄27'18	6.42439 AU	max. Earth dist.	13151 Nov 09 09:15	28°♄09'50	5.94855 AU
					13151 Nov 17 00:19	0°♄♄	
conjunction	13146 May 15 22:20	2°♄54'44	-0°16'03	morning rise	13151 Nov 20 22:11	0°♄56'12	
minimum elong	13146 May 15 22:20	2°♄54'44	0°16'53	retrograde	13152 Mar 30 03:14	21°♄11'34	
morning rise	13146 May 28 17:37	5°♄42'27		min. Earth dist.	13152 May 27 01:09	16°♄20'50	4.01450 AU
retrograde	13146 Sep 28 02:16	22°♄55'40		opposition	13152 May 28 14:54	16°♄08'02	0°34'45
opposition	13146 Nov 28 00:36	18°♄02'05	-0°35'43	direct	13152 Jul 26 02:14	11°♄10'59	
min. Earth dist.	13146 Nov 29 15:27	17°♄49'36	4.35638 AU		13152 Nov 27 18:13	0°♄♄	
direct	13147 Jan 29 01:54	13°♄01'47		evening set	13152 Nov 30 01:27	0°♄31'54	
	13147 May 29 21:16	0°♄♄					
evening set	13147 Jun 03 06:03	0°♄58'30		conjunction	13152 Dec 13 15:11	3°♄41'02	0°30'31
max. Earth dist.	13147 Jun 13 17:56	3°♄20'23	6.27539 AU	minimum elong	13152 Dec 13 15:11	3°♄41'01	0°31'31
				max. Earth dist.	13152 Dec 16 04:36	4°♄16'44	6.09646 AU
conjunction	13147 Jun 16 02:08	3°♄52'10	-0°30'54	morning rise	13152 Dec 27 05:26	6°♄50'06	
minimum elong	13147 Jun 16 02:07	3°♄52'10	0°31'54	retrograde	13153 May 03 10:30	25°♄52'51	
morning rise	13147 Jun 28 21:23	6°♄45'48		min. Earth dist.	13153 Jun 30 20:35	21°♄02'19	4.18538 AU
retrograde	13147 Oct 31 22:19	25°♄00'01		opposition	13153 Jul 02 09:44	20°♄49'52	0°52'33
opposition	13147 Dec 31 09:49	20°♄05'48	-0°52'35	direct	13153 Aug 30 23:22	15°♄50'56	
min. Earth dist.	13148 Jan 02 00:02	19°♄53'25	4.18631 AU		13153 Dec 15 17:59	0°♄♄	
direct	13148 Mar 01 09:06	15°♄06'52		evening set	13154 Jan 04 04:35	4°♄14'55	
	13148 Jun 18 01:11	0°♄♄					
evening set	13148 Jul 05 07:53	3°♄57'52		conjunction	13154 Jan 17 15:21	7°♄14'57	0°36'53
max. Earth dist.	13148 Jul 16 06:20	6°♄31'48	6.09768 AU	minimum elong	13154 Jan 17 15:21	7°♄14'57	0°37'45
				max. Earth dist.	13154 Jan 19 14:57	7°♄41'32	6.27489 AU
conjunction	13148 Jul 18 05:56	6°♄59'49	-0°36'51	morning rise	13154 Jan 31 01:53	10°♄14'28	
minimum elong	13148 Jul 18 05:56	6°♄59'49	0°37'43		13154 Feb 22 01:23	15°♄	
morning rise	13148 Jul 31 04:33	10°♄02'22		retrograde	13154 Jun 04 04:04	28°♄04'23	
	13148 Aug 21 18:45	15°♄♄		opposition	13154 Aug 03 15:57	23°♄03'46	0°52'17
retrograde	13148 Dec 06 13:16	29°♄32'57		min. Earth dist.	13154 Aug 02 15:54	23°♄11'42	4.35584 AU
opposition	13149 Feb 04 09:58	24°♄37'03	-0°52'54	direct	13154 Oct 03 12:34	18°♄03'32	
min. Earth dist.	13149 Feb 05 10:01	24°♄29'07	4.01525 AU		13155 Jan 09 22:18	0°♄♄	
direct	13149 Apr 05 00:37	19°♄40'05		evening set	13155 Feb 05 22:54	5°♄39'24	
	13149 Jun 29 13:49	0°♄♄					
evening set	13149 Aug 09 19:08	9°♄25'24		conjunction	13155 Feb 19 05:42	8°♄31'41	0°31'45
				minimum elong	13155 Feb 19 05:43	8°♄31'41	0°32'13
conjunction	13149 Aug 22 22:22	12°♄36'26	-0°29'57	max. Earth dist.	13155 Feb 20 05:17	8°♄44'27	6.42478 AU
minimum elong	13149 Aug 22 22:23	12°♄36'26	0°30'21	morning rise	13155 Mar 04 11:03	11°♄23'06	
max. Earth dist.	13149 Aug 22 04:00	12°♄25'16	5.94963 AU	retrograde	13155 Jul 04 05:07	28°♄20'54	
morning rise	13149 Sep 05 02:55	15°♄48'27		opposition	13155 Sep 03 03:51	23°♄23'16	0°37'28
	13149 Nov 09 10:51	0°♄♄		min. Earth dist.	13155 Sep 02 21:36	23°♄25'17	4.47540 AU
retrograde	13150 Jan 14 05:29	6°♄23'44		direct	13155 Nov 04 00:56	18°♄22'30	
opposition	13150 Mar 14 13:48	1°♄25'09	-0°32'32		13156 Feb 10 05:37	0°♄♄	
min. Earth dist.	13150 Mar 14 14:02	1°♄25'05	3.90618 AU	evening set	13156 Mar 07 22:42	5°♄29'54	
	13150 Mar 25 07:42	30°♄♄					
direct	13150 May 11 23:55	26°♄29'52		conjunction	13156 Mar 21 01:05	8°♄17'21	0°18'09
	13150 Jun 27 13:12	0°♄♄		minimum elong	13156 Mar 21 01:05	8°♄17'22	0°18'06
evening set	13150 Sep 16 09:18	16°♄45'55		max. Earth dist.	13156 Mar 20 17:54	8°♄13'32	6.50590 AU
				morning rise	13156 Apr 03 01:51	11°♄03'58	
conjunction	13150 Sep 29 18:33	20°♄02'43	-0°10'57	retrograde	13156 Aug 01 18:58	27°♄38'31	
minimum elong	13150 Sep 29 18:34	20°♄02'43	0°10'41	opposition	13156 Oct 01 22:12	22°♄43'20	0°13'33
behind sun begin	13150 Sep 29 12:09	19°♄58'48		min. Earth dist.	13156 Oct 02 12:43	22°♄38'40	4.51411 AU





























































































































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	13157 Mar 15 04:09	0° $\mathcal{B}$		behind sun begin	13162 Oct 04 22:09	25° $\Omega$ 29'15	
evening set	13157 Apr 07 01:43	4° $\mathcal{B}$ 45'09		behind sun end	13162 Oct 05 13:26	25° $\Omega$ 38'34	
max. Earth dist.	13157 Apr 18 14:44	7° $\mathcal{B}$ 13'18	6.49932 AU	max. Earth dist.	13162 Oct 06 06:42	25° $\Omega$ 49'11	5.89194 AU
desc. node	13157 Apr 19 05:03	7° $\mathcal{B}$ 20'59		morning rise	13162 Oct 18 17:52	28° $\Omega$ 52'06	
					13162 Oct 23 09:51	0° $\mathcal{M}$	
conjunction	13157 Apr 20 00:32	7° $\mathcal{B}$ 31'25	-0°00'03		13163 Jan 02 22:33	15° $\mathcal{M}$	
minimum elong	13157 Apr 20 00:31	7° $\mathcal{B}$ 31'24	0°00'35	asc. node	13163 Feb 10 11:14	19° $\mathcal{M}$ 14'54	
behind sun begin	13157 Apr 19 16:31	7° $\mathcal{B}$ 27'08		retrograde	13163 Feb 27 11:07	19° $\mathcal{M}$ 43'51	
behind sun end	13157 Apr 20 08:30	7° $\mathcal{B}$ 35'40			13163 Apr 25 11:17	15° $\mathcal{R}$ $\mathcal{M}$	
morning rise	13157 May 02 21:34	10° $\mathcal{B}$ 16'57		opposition	13163 Apr 27 17:01	14° $\mathcal{M}$ 41'46	0°07'10
	13157 May 25 12:36	15° $\mathcal{B}$		min. Earth dist.	13163 Apr 26 13:37	14° $\mathcal{M}$ 51'04	3.91614 AU
retrograde	13157 Aug 31 20:44	26° $\mathcal{B}$ 59'11		direct	13163 Jun 24 17:30	9° $\mathcal{M}$ 46'13	
opposition	13157 Nov 01 00:42	22° $\mathcal{B}$ 05'21	-0°13'54		13163 Aug 21 12:59	15° $\mathcal{M}$	
min. Earth dist.	13157 Nov 02 07:00	21° $\mathcal{B}$ 55'40	4.46310 AU	evening set	13163 Oct 30 02:47	29° $\mathcal{M}$ 46'54	
direct	13158 Jan 02 12:58	17° $\mathcal{B}$ 04'33			13163 Oct 31 00:44	0° $\mathcal{X}$	
	13158 Apr 16 09:58	0° $\mathcal{I}$					
evening set	13158 May 07 08:06	4° $\mathcal{I}$ 27'01		conjunction	13163 Nov 12 16:27	3° $\mathcal{X}$ 02'05	0°15'43
max. Earth dist.	13158 May 18 01:34	6° $\mathcal{I}$ 47'46	6.40672 AU	minimum elong	13163 Nov 12 16:26	3° $\mathcal{X}$ 02'05	0°16'35
				max. Earth dist.	13163 Nov 14 23:22	3° $\mathcal{X}$ 35'03	5.96690 AU
conjunction	13158 May 20 04:33	7° $\mathcal{I}$ 15'45	-0°18'28	morning rise	13163 Nov 26 07:31	6° $\mathcal{X}$ 17'47	
minimum elong	13158 May 20 04:32	7° $\mathcal{I}$ 15'45	0°19'22	retrograde	13164 Apr 04 03:35	26° $\mathcal{X}$ 23'10	
morning rise	13158 Jun 01 23:32	10° $\mathcal{I}$ 04'04		min. Earth dist.	13164 Jun 01 01:32	21° $\mathcal{X}$ 32'46	4.03876 AU
retrograde	13158 Oct 02 15:31	27° $\mathcal{I}$ 24'33		opposition	13164 Jun 02 16:36	21° $\mathcal{X}$ 19'33	0°38'18
opposition	13158 Dec 02 12:48	22° $\mathcal{I}$ 31'00	-0°38'46	direct	13164 Jul 31 07:08	16° $\mathcal{X}$ 22'13	
min. Earth dist.	13158 Dec 04 04:47	22° $\mathcal{I}$ 18'10	4.33396 AU		13164 Nov 10 09:21	0° $\mathcal{Z}$	
direct	13159 Feb 02 11:16	17° $\mathcal{I}$ 30'53		evening set	13164 Dec 05 03:24	5° $\mathcal{Z}$ 34'05	
	13159 May 13 06:02	0° $\mathcal{E}$					
evening set	13159 Jun 07 17:50	5° $\mathcal{E}$ 34'55		conjunction	13164 Dec 18 16:38	8° $\mathcal{Z}$ 41'45	0°32'07
max. Earth dist.	13159 Jun 18 04:23	7° $\mathcal{E}$ 56'56	6.24975 AU	minimum elong	13164 Dec 18 16:37	8° $\mathcal{Z}$ 41'45	0°33'08
				max. Earth dist.	13164 Dec 21 04:20	9° $\mathcal{Z}$ 16'14	6.12402 AU
conjunction	13159 Jun 20 13:55	8° $\mathcal{E}$ 29'39	-0°32'22	morning rise	13165 Jan 01 06:34	11° $\mathcal{Z}$ 49'21	
minimum elong	13159 Jun 20 13:54	8° $\mathcal{E}$ 29'39	0°33'22		13165 Apr 17 15:17	0° $\mathcal{A}$	
morning rise	13159 Jul 03 09:38	11° $\mathcal{E}$ 24'30		retrograde	13165 May 07 23:20	0° $\mathcal{A}$ 40'06	
retrograde	13159 Nov 05 22:03	29° $\mathcal{E}$ 49'36			13165 May 28 04:57	30° $\mathcal{R}$ $\mathcal{Z}$	
opposition	13160 Jan 05 07:05	24° $\mathcal{E}$ 55'13	-0°53'46	min. Earth dist.	13165 Jul 05 13:29	25° $\mathcal{Z}$ 49'15	4.21351 AU
min. Earth dist.	13160 Jan 06 20:07	24° $\mathcal{E}$ 43'10	4.15919 AU	opposition	13165 Jul 07 01:12	25° $\mathcal{Z}$ 37'17	0°53'30
direct	13160 Mar 06 02:00	19° $\mathcal{E}$ 56'30		direct	13165 Sep 04 19:39	20° $\mathcal{Z}$ 38'02	
	13160 May 30 22:32	0° $\mathcal{Q}$			13165 Nov 27 11:40	0° $\mathcal{A}$	
evening set	13160 Jul 10 03:44	8° $\mathcal{Q}$ 56'25		evening set	13166 Jan 08 21:03	8° $\mathcal{A}$ 53'20	
max. Earth dist.	13160 Jul 21 06:53	11° $\mathcal{Q}$ 33'58	6.07158 AU				
				conjunction	13166 Jan 22 07:24	11° $\mathcal{A}$ 52'02	0°36'47
conjunction	13160 Jul 23 02:32	11° $\mathcal{Q}$ 59'49	-0°36'40	minimum elong	13166 Jan 22 07:25	11° $\mathcal{A}$ 52'02	0°37'35
minimum elong	13160 Jul 23 02:33	11° $\mathcal{Q}$ 59'49	0°37'30	max. Earth dist.	13166 Jan 24 05:01	12° $\mathcal{A}$ 17'22	6.30137 AU
	13160 Aug 04 19:14	15° $\mathcal{Q}$		morning rise	13166 Feb 04 17:02	14° $\mathcal{A}$ 50'06	
morning rise	13160 Aug 05 01:44	15° $\mathcal{Q}$ 03'50			13166 Feb 05 11:02	15° $\mathcal{A}$	
	13160 Oct 16 09:49	0° $\mathcal{P}$			13166 Apr 28 16:04	0° $\mathcal{H}$	
retrograde	13160 Dec 11 22:49	4° $\mathcal{P}$ 45'55		retrograde	13166 Jun 08 09:45	2° $\mathcal{H}$ 30'21	
	13161 Feb 08 09:31	30° $\mathcal{R}$ $\mathcal{Q}$			13166 Jul 19 02:21	30° $\mathcal{R}$ $\mathcal{A}$	
opposition	13161 Feb 09 16:31	29° $\mathcal{Q}$ 49'46	-0°51'13	opposition	13166 Aug 07 23:26	27° $\mathcal{A}$ 30'08	0°50'55
min. Earth dist.	13161 Feb 10 14:08	29° $\mathcal{Q}$ 42'38	3.99279 AU	min. Earth dist.	13166 Aug 07 01:33	27° $\mathcal{A}$ 37'20	4.37861 AU
direct	13161 Apr 10 01:58	24° $\mathcal{Q}$ 53'11		direct	13166 Oct 07 23:46	22° $\mathcal{A}$ 29'48	
	13161 Jun 06 18:07	0° $\mathcal{P}$			13166 Dec 22 04:59	0° $\mathcal{H}$	
evening set	13161 Aug 15 00:11	14° $\mathcal{P}$ 45'43		evening set	13167 Feb 10 07:42	9° $\mathcal{H}$ 59'39	
conjunction	13161 Aug 28 04:09	17° $\mathcal{P}$ 57'55	-0°27'51	conjunction	13167 Feb 23 13:41	12° $\mathcal{H}$ 50'58	0°30'15
minimum elong	13161 Aug 28 04:10	17° $\mathcal{P}$ 57'56	0°28'11	minimum elong	13167 Feb 23 13:42	12° $\mathcal{H}$ 50'58	0°30'39
max. Earth dist.	13161 Aug 27 13:43	17° $\mathcal{P}$ 49'08	5.93308 AU	max. Earth dist.	13167 Feb 24 07:19	13° $\mathcal{H}$ 00'29	6.44214 AU
morning rise	13161 Sep 10 09:53	21° $\mathcal{P}$ 11'15		morning rise	13167 Mar 08 18:30	15° $\mathcal{H}$ 41'28	
	13161 Oct 18 09:12	0° $\mathcal{A}$			13167 May 27 16:44	0° $\mathcal{Y}$	
retrograde	13162 Jan 19 17:38	11° $\mathcal{A}$ 53'16		retrograde	13167 Jul 08 08:15	2° $\mathcal{Y}$ 33'58	
opposition	13162 Mar 20 01:37	6° $\mathcal{A}$ 54'17	-0°28'09		13167 Aug 19 00:35	30° $\mathcal{R}$ $\mathcal{H}$	
min. Earth dist.	13162 Mar 19 20:53	6° $\mathcal{A}$ 55'52	3.89788 AU	opposition	13167 Sep 07 07:02	27° $\mathcal{H}$ 36'41	0°34'31
direct	13162 May 17 08:19	1° $\mathcal{A}$ 59'08		min. Earth dist.	13167 Sep 07 04:39	27° $\mathcal{H}$ 37'27	4.48642 AU
evening set	13162 Sep 21 19:44	22° $\mathcal{A}$ 16'46		direct	13167 Nov 08 07:28	22° $\mathcal{H}$ 35'48	
					13168 Jan 22 21:09	0° $\mathcal{Y}$	
conjunction	13162 Oct 05 05:48	25° $\mathcal{A}$ 33'55	-0°07'38	evening set	13168 Mar 12 03:01	9° $\mathcal{Y}$ 41'02	

conjunction	13168 Mar 25 05:01	12°♈28'09	0°15'47	direct	13173 Apr 15 04:50	0°♏09'02	
minimum elong	13168 Mar 25 05:02	12°♈28'09	0°15'40	evening set	13173 Aug 20 05:54	20°♏06'53	
behind sun begin	13168 Mar 25 03:26	12°♈27'19					
behind sun end	13168 Mar 25 06:37	12°♈29'00		conjunction	13173 Sep 02 10:48	23°♏20'03	-0°25'31
max. Earth dist.	13168 Mar 24 18:22	12°♈22'29	6.50989 AU	minimum elong	13173 Sep 02 10:49	23°♏20'04	0°25'45
morning rise	13168 Apr 07 05:06	15°♈14'24		max. Earth dist.	13173 Sep 02 03:02	23°♏15'18	5.92193 AU
	13168 Jul 02 01:25	0°♏		morning rise	13173 Sep 15 17:22	26°♏34'19	
retrograde	13168 Aug 05 20:27	1°♏48'24			13173 Sep 30 00:04	0°♏	
	13168 Sep 09 16:24	30°♏		retrograde	13174 Jan 25 06:37	17°♏20'33	
opposition	13168 Oct 06 00:51	26°♈53'27	0°09'47	opposition	13174 Mar 25 12:54	12°♏21'05	-0°23'31
min. Earth dist.	13168 Oct 06 17:19	26°♈48'10	4.51104 AU	min. Earth dist.	13174 Mar 25 05:15	12°♏23'40	3.89520 AU
direct	13168 Dec 07 13:01	21°♈52'29		direct	13174 May 22 18:43	7°♏25'59	
desc. node	13169 Feb 24 09:37	29°♈49'31		evening set	13174 Sep 27 04:55	27°♏42'53	
	13169 Feb 25 09:10	0°♏			13174 Oct 06 13:32	0°♏	
evening set	13169 Apr 11 05:37	8°♏57'04		conjunction	13174 Oct 10 15:41	1°♏00'04	-0°04'17
max. Earth dist.	13169 Apr 22 15:08	11°♏23'43	6.48940 AU	minimum elong	13174 Oct 10 15:41	1°♏00'04	0°03'51
				behind sun begin	13174 Oct 10 07:26	0°♏55'02	
conjunction	13169 Apr 24 04:00	11°♏43'33	-0°02'45	behind sun end	13174 Oct 10 23:57	1°♏05'06	
minimum elong	13169 Apr 24 03:59	11°♏43'32	0°03'20	max. Earth dist.	13174 Oct 11 22:35	1°♏18'58	5.89787 AU
behind sun begin	13169 Apr 23 20:02	11°♏39'17		morning rise	13174 Oct 24 04:21	4°♏18'14	
behind sun end	13169 Apr 24 11:55	11°♏47'47			13174 Dec 10 00:03	15°♏	
morning rise	13169 May 07 00:41	14°♏29'19		asc. node	13174 Dec 22 02:38	17°♏23'46	
	13169 May 09 10:10	15°♏		retrograde	13175 Mar 04 17:40	25°♏05'28	
retrograde	13169 Sep 05 05:01	1°♏15'46		min. Earth dist.	13175 May 01 18:00	20°♏13'19	3.93001 AU
	13169 Oct 04 02:23	30°♏		opposition	13175 May 03 00:07	20°♏03'07	0°12'10
opposition	13169 Nov 05 07:23	26°♏22'06	-0°17'41	direct	13175 Jun 30 00:42	15°♏07'25	
min. Earth dist.	13169 Nov 06 16:32	26°♏11'30	4.44686 AU		13175 Oct 13 20:03	0°♏	
direct	13170 Jan 06 19:05	21°♏21'20		evening set	13175 Nov 04 09:22	5°♏01'57	
	13170 Mar 29 15:31	0°♏					
evening set	13170 May 11 15:02	8°♏49'12		conjunction	13175 Nov 17 22:59	8°♏16'12	0°18'37
max. Earth dist.	13170 May 22 05:19	11°♏08'56	6.38526 AU	minimum elong	13175 Nov 17 22:58	8°♏16'12	0°19'31
				max. Earth dist.	13175 Nov 20 06:26	8°♏49'19	5.98691 AU
conjunction	13170 May 24 11:18	11°♏38'43	-0°20'47	morning rise	13175 Dec 01 14:14	11°♏30'58	
minimum elong	13170 May 24 11:18	11°♏38'42	0°21'43		13176 Mar 10 03:36	0°♏	
morning rise	13170 Jun 06 06:24	14°♏27'53		retrograde	13176 Apr 08 23:42	1°♏26'15	
	13170 Sep 01 08:05	0°♏			13176 May 08 16:21	30°♏	
retrograde	13170 Oct 07 07:03	1°♏56'55		min. Earth dist.	13176 Jun 05 23:35	26°♏35'57	4.06263 AU
	13170 Nov 12 10:12	30°♏		opposition	13176 Jun 07 14:59	26°♏22'37	0°41'30
opposition	13170 Dec 07 02:46	27°♏03'18	-0°41'38	direct	13176 Aug 05 09:01	21°♏25'00	
min. Earth dist.	13170 Dec 08 18:24	26°♏50'32	4.30867 AU		13176 Oct 22 06:36	0°♏	
direct	13171 Feb 06 21:08	22°♏03'18		evening set	13176 Dec 10 02:27	10°♏28'39	
	13171 Apr 24 11:57	0°♏					
evening set	13171 Jun 12 07:19	10°♏15'30		conjunction	13176 Dec 23 15:31	13°♏35'04	0°33'29
max. Earth dist.	13171 Jun 22 20:32	12°♏39'51	6.22274 AU	minimum elong	13176 Dec 23 15:30	13°♏35'04	0°34'30
				max. Earth dist.	13176 Dec 26 02:30	14°♏08'57	6.14963 AU
conjunction	13171 Jun 25 03:45	13°♏11'27	-0°33'38	morning rise	13177 Jan 06 04:49	16°♏41'17	
minimum elong	13171 Jun 25 03:45	13°♏11'27	0°34'38		13177 Mar 12 21:48	0°♏	
morning rise	13171 Jul 07 23:40	16°♏07'32		retrograde	13177 May 12 12:01	5°♏21'23	
	13171 Sep 15 02:30	0°♏		min. Earth dist.	13177 Jul 10 04:52	0°♏30'14	4.23842 AU
retrograde	13171 Nov 11 00:24	4°♏43'49		opposition	13177 Jul 11 14:41	0°♏18'56	0°54'06
	13172 Jan 08 21:38	30°♏			13177 Jul 13 23:24	30°♏	
opposition	13172 Jan 10 06:28	29°♏49'19	-0°54'34	direct	13177 Sep 09 13:23	25°♏19'33	
min. Earth dist.	13172 Jan 11 18:26	29°♏37'36	4.13261 AU		13177 Nov 05 07:57	0°♏	
direct	13172 Mar 10 20:38	24°♏50'57		evening set	13178 Jan 13 12:04	13°♏27'41	
	13172 May 08 19:45	0°♏			13178 Jan 20 11:34	15°♏	
evening set	13172 Jul 15 01:53	13°♏59'21					
	13172 Jul 19 08:25	15°♏		conjunction	13178 Jan 26 21:45	16°♏25'14	0°36'27
max. Earth dist.	13172 Jul 26 07:52	16°♏39'29	6.04784 AU	minimum elong	13178 Jan 26 21:46	16°♏25'14	0°37'13
				max. Earth dist.	13178 Jan 28 15:03	16°♏48'03	6.32353 AU
conjunction	13172 Jul 28 01:11	17°♏04'05	-0°36'13	morning rise	13178 Feb 09 06:53	19°♏22'10	
minimum elong	13172 Jul 28 01:12	17°♏04'05	0°36'59		13178 Apr 02 23:34	0°♏	
morning rise	13172 Aug 10 01:21	20°♏09'32		retrograde	13178 Jun 12 14:59	6°♏54'35	
	13172 Sep 22 23:44	0°♏		min. Earth dist.	13178 Aug 11 10:54	2°♏01'08	4.39665 AU
retrograde	13172 Dec 17 07:00	10°♏01'51		opposition	13178 Aug 12 06:12	1°♏54'47	0°49'17
opposition	13173 Feb 15 00:21	5°♏05'20	-0°49'05		13178 Aug 27 05:36	30°♏	
min. Earth dist.	13173 Feb 15 17:28	4°♏59'40	3.97436 AU	direct	13178 Oct 12 09:46	26°♏54'21	

	13178 Nov 27 19:17	0°♏	opposition	13184 Jan 15 06:04	4°♎44'50	-0°55'04
evening set	13179 Feb 14 16:24	14°♏19'59	min. Earth dist.	13184 Jan 16 14:48	4°♎34'09	4.11286 AU
				13184 Mar 04 00:28	30°♏♏	
conjunction	13179 Feb 27 21:59	17°♏10'36 0°28'35	direct	13184 Mar 15 15:22	29°♏♏46'46	
minimum elong	13179 Feb 27 22:00	17°♏10'37 0°28'55		13184 Mar 27 07:36	0°♎	
max. Earth dist.	13179 Feb 28 12:30	17°♏18'25 6.45495 AU		13184 Jul 02 17:27	15°♎	
morning rise	13179 Mar 13 01:59	20°♏00'22	evening set	13184 Jul 19 22:59	19°♎00'56	
	13179 May 02 16:47	0°♏	max. Earth dist.	13184 Jul 31 10:48	21°♎45'04	6.03179 AU
retrograde	13179 Jul 12 11:02	6°♏49'04				
opposition	13179 Sep 11 10:47	1°♏52'13 0°31'23	conjunction	13184 Aug 01 22:52	22°♎06'37	-0°35'34
min. Earth dist.	13179 Sep 11 10:52	1°♏52'11 4.49337 AU	minimum elong	13184 Aug 01 22:52	22°♎06'37	0°36'16
	13179 Sep 26 06:47	30°♏♏	morning rise	13184 Aug 14 23:34	25°♎13'04	
direct	13179 Nov 12 12:52	26°♏51'23		13184 Sep 04 11:30	0°♏	
	13179 Dec 29 21:18	0°♏	retrograde	13184 Dec 22 14:21	15°♏12'27	
evening set	13180 Mar 16 08:37	13°♏55'45	opposition	13185 Feb 20 05:40	10°♏15'32	-0°46'40
			min. Earth dist.	13185 Feb 20 20:24	10°♏10'39	3.96369 AU
conjunction	13180 Mar 29 09:57	16°♏42'38 0°13'19	direct	13185 Apr 20 08:09	5°♏19'26	
minimum elong	13180 Mar 29 09:57	16°♏42'38 0°13'07	evening set	13185 Aug 25 08:11	25°♏19'33	
behind sun begin	13180 Mar 29 05:13	16°♏40'07				
behind sun end	13180 Mar 29 14:41	16°♏45'09	conjunction	13185 Sep 07 13:50	28°♏33'15	-0°23'07
max. Earth dist.	13180 Mar 28 18:05	16°♏34'10 6.51047 AU	minimum elong	13185 Sep 07 13:51	28°♏33'16	0°23'14
morning rise	13180 Apr 11 09:41	19°♏28'43	max. Earth dist.	13185 Sep 07 11:01	28°♏31'33	5.91772 AU
	13180 Jun 04 15:32	0°♏		13185 Sep 13 11:46	0°♎	
retrograde	13180 Aug 10 02:37	6°♏03'19	morning rise	13185 Sep 20 21:12	1°♎48'05	
opposition	13180 Oct 10 05:40	1°♏08'40 0°05'55	retrograde	13186 Jan 30 11:42	22°♎35'20	
min. Earth dist.	13180 Oct 11 01:26	1°♏02'19 4.50542 AU	opposition	13186 Mar 30 18:25	17°♎35'27	-0°18'57
	13180 Oct 19 05:42	30°♏♏	min. Earth dist.	13186 Mar 30 07:12	17°♎39'13	3.89828 AU
direct	13180 Dec 11 18:46	26°♏07'44	direct	13186 May 27 21:57	12°♎40'21	
desc. node	13181 Jan 01 11:20	26°♏45'42		13186 Sep 20 06:07	0°♎	
	13181 Feb 02 18:25	0°♏	evening set	13186 Oct 02 08:27	2°♎54'35	
evening set	13181 Apr 15 11:13	13°♏14'49				
	13181 Apr 23 15:08	15°♏	conjunction	13186 Oct 15 19:33	6°♎11'29	-0°01'02
max. Earth dist.	13181 Apr 26 18:02	15°♏40'23 6.47802 AU	minimum elong	13186 Oct 15 19:34	6°♎11'30	0°00'31
			behind sun begin	13186 Oct 15 11:14	6°♎06'25	
conjunction	13181 Apr 28 09:21	16°♏01'36 -0°05'27	behind sun end	13186 Oct 16 03:55	6°♎16'34	
minimum elong	13181 Apr 28 09:20	16°♏01'35 0°06'07	max. Earth dist.	13186 Oct 17 04:45	6°♎31'44	5.90764 AU
behind sun begin	13181 Apr 28 01:45	15°♏57'31	morning rise	13186 Oct 29 08:52	9°♎29'24	
behind sun end	13181 Apr 28 16:56	16°♏05'40	asc. node	13186 Nov 02 10:37	10°♎28'24	
morning rise	13181 May 11 05:40	18°♏47'41		13186 Nov 21 15:14	15°♎	
	13181 Jul 07 20:21	0°♏		13187 Feb 27 07:13	0°♏	
retrograde	13181 Sep 09 14:02	5°♏38'49	retrograde	13187 Mar 09 16:11	0°♏10'54	
opposition	13181 Nov 09 16:16	0°♏45'15 -0°21'28		13187 Mar 20 01:20	30°♏♏	
min. Earth dist.	13181 Nov 11 01:37	0°♏34'35 4.43076 AU	min. Earth dist.	13187 May 06 16:42	25°♎19'00	3.94534 AU
	13181 Nov 15 14:13	30°♏♏	opposition	13187 May 08 00:24	25°♎08'14	0°16'47
direct	13182 Jan 11 00:57	25°♏44'40	direct	13187 Jul 05 03:07	20°♎12'15	
	13182 Mar 07 07:42	0°♏		13187 Sep 25 17:33	0°♏	
evening set	13182 May 16 00:10	13°♏17'49	evening set	13187 Nov 09 09:01	10°♏00'30	
max. Earth dist.	13182 May 26 14:40	15°♏38'16 6.36576 AU				
			conjunction	13187 Nov 22 22:53	13°♏13'54	0°21'12
conjunction	13182 May 28 20:18	16°♏08'00 -0°23'03	minimum elong	13187 Nov 22 22:52	13°♏13'53	0°22'08
minimum elong	13182 May 28 20:17	16°♏08'00 0°24'01	max. Earth dist.	13187 Nov 25 07:56	13°♏47'48	6.00630 AU
morning rise	13182 Jun 10 15:16	18°♏57'55	morning rise	13187 Dec 06 13:55	16°♏27'38	
	13182 Aug 04 04:35	0°♏		13188 Feb 08 12:22	0°♏	
retrograde	13182 Oct 12 01:22	6°♏34'46	retrograde	13188 Apr 13 15:37	6°♏13'40	
opposition	13182 Dec 11 18:40	1°♏41'08 -0°44'21	min. Earth dist.	13188 Jun 10 17:02	1°♏23'03	4.08392 AU
min. Earth dist.	13182 Dec 13 10:47	1°♏28'13 4.28724 AU	opposition	13188 Jun 12 07:16	1°♏10'07	0°44'16
	13182 Dec 25 02:44	30°♏♏		13188 Jun 21 00:54	30°♏♏	
direct	13183 Feb 11 10:22	26°♏41'24	direct	13188 Aug 10 05:00	26°♏12'15	
	13183 Mar 30 21:20	0°♏		13188 Sep 28 21:40	0°♏	
evening set	13183 Jun 16 22:01	15°♏00'10	evening set	13188 Dec 14 19:55	15°♏08'59	
max. Earth dist.	13183 Jun 27 11:52	17°♏25'37 6.20119 AU				
			conjunction	13188 Dec 28 08:38	18°♏14'20	0°34'36
conjunction	13183 Jun 29 18:34	17°♏57'05 -0°34'44	minimum elong	13188 Dec 28 08:38	18°♏14'20	0°35'36
minimum elong	13183 Jun 29 18:34	17°♏57'04 0°35'44	max. Earth dist.	13188 Dec 30 17:35	18°♏46'52	6.17089 AU
morning rise	13183 Jul 12 14:57	20°♏54'14	morning rise	13189 Jan 10 21:38	21°♏19'26	
	13183 Aug 23 12:37	0°♎		13189 Feb 20 06:32	0°♏	
retrograde	13183 Nov 16 00:14	9°♎39'38	retrograde	13189 May 16 18:25	9°♏50'47	



opposition	13189 Jul 15 23:23	4°  38	0°54'26	evening set	13195 Jun 21 11:23	19°  41'05	
min. Earth dist.	13189 Jul 14 14:46	4°  31	4.25804 AU	max. Earth dist.	13195 Jul 02 03:40	22°  08'40	6.17880 AU
	13189 Sep 03 11:03	30°  3					
direct	13189 Sep 14 00:47	29°  49'05		conjunction	13195 Jul 04 08:09	22°  39'01	-0°35'34
	13189 Sep 24 17:19	0°  3		minimum elong	13195 Jul 04 08:09	22°  39'01	0°36'33
	13190 Jan 04 17:45	15°  3		morning rise	13195 Jul 17 04:51	25°  37'15	
evening set	13190 Jan 17 23:09	17°  52'02			13195 Aug 05 13:25	0°  0	
				retrograde	13195 Nov 21 01:24	14°  032'24	
conjunction	13190 Jan 31 08:26	20°  48'43	0°35'58	opposition	13196 Jan 20 04:37	9°  037'25	-0°55'06
minimum elong	13190 Jan 31 08:27	20°  48'43	0°36'42	min. Earth dist.	13196 Jan 21 12:33	9°  026'58	4.09107 AU
max. Earth dist.	13190 Feb 01 22:16	21°  09'33	6.34027 AU	direct	13196 Mar 20 10:52	4°  039'37	
morning rise	13190 Feb 13 16:54	23°  44'43			13196 Jun 14 21:17	15°  0	
	13190 Mar 15 07:54	0°  X		evening set	13196 Jul 24 19:34	24°  00'40	
retrograde	13190 Jun 16 19:02	11°  X11'14		max. Earth dist.	13196 Aug 05 11:02	26°  047'42	6.01263 AU
opposition	13190 Aug 16 10:30	6°  X11'54	0°47'32				
min. Earth dist.	13190 Aug 15 18:06	6°  X17'16	4.40944 AU	conjunction	13196 Aug 06 20:08	27°  007'32	-0°34'36
direct	13190 Oct 16 17:44	1°  X11'25		minimum elong	13196 Aug 06 20:09	27°  007'33	0°35'14
evening set	13191 Feb 18 22:54	18°  X34'20			13196 Aug 18 20:06	0°  0	
				morning rise	13196 Aug 19 21:40	0°  0	
conjunction	13191 Mar 04 03:53	21°  X24'26	0°26'51	retrograde	13196 Dec 27 20:42	20°  0	
minimum elong	13191 Mar 04 03:53	21°  X24'27	0°27'06	opposition	13197 Feb 25 10:42	15°  0	
max. Earth dist.	13191 Mar 04 13:51	21°  X29'48	6.46299 AU	min. Earth dist.	13197 Feb 25 21:38	15°  0	
morning rise	13191 Mar 17 07:28	24°  X13'43		direct	13197 Apr 25 08:19	10°  0	
	13191 Apr 14 05:05	0°  Y			13197 Aug 28 02:51	0°  0	
retrograde	13191 Jul 16 13:21	11°  Y00'05		evening set	13197 Aug 30 11:26	0°  0	
opposition	13191 Sep 15 13:34	6°  Y03'32	0°28'13				
min. Earth dist.	13191 Sep 15 16:05	6°  Y02'43	4.49647 AU	conjunction	13197 Sep 12 17:47	3°  0	
direct	13191 Nov 16 17:07	1°  Y02'41		minimum elong	13197 Sep 12 17:48	3°  0	
evening set	13192 Mar 20 13:00	18°  Y07'03		max. Earth dist.	13197 Sep 12 18:53	3°  0	
				morning rise	13197 Sep 26 02:10	7°  0	
conjunction	13192 Apr 02 14:02	20°  Y53'51	0°10'50	retrograde	13198 Feb 04 18:33	27°  0	
minimum elong	13192 Apr 02 14:02	20°  Y53'51	0°10'35	min. Earth dist.	13198 Apr 04 11:12	22°  0	
behind sun begin	13192 Apr 02 07:50	20°  Y50'33		opposition	13198 Apr 05 01:33	22°  0	
behind sun end	13192 Apr 02 20:15	20°  Y57'09		direct	13198 Jun 02 03:57	17°  0	
max. Earth dist.	13192 Apr 01 20:33	20°  Y44'31	6.50855 AU		13198 Sep 02 09:41	0°  0	
morning rise	13192 Apr 15 13:06	23°  Y39'48		asc. node	13198 Sep 10 13:02	1°  0	
	13192 May 16 11:49	0°  8		evening set	13198 Oct 07 14:27	8°  0	
retrograde	13192 Aug 14 05:56	10°  815'29					
opposition	13192 Oct 14 09:40	5°  821'02	0°02'06	conjunction	13198 Oct 21 02:22	11°  0	
min. Earth dist.	13192 Oct 15 06:39	5°  814'19	4.49865 AU	minimum elong	13198 Oct 21 02:20	11°  0	
desc. node	13192 Nov 12 05:12	1°  859'42		behind sun begin	13198 Oct 20 18:00	11°  0	
direct	13192 Dec 15 22:26	0°  820'12		behind sun end	13198 Oct 21 10:40	11°  0	
	13193 Apr 07 21:47	15°  8		max. Earth dist.	13198 Oct 22 16:53	11°  0	
evening set	13193 Apr 19 16:14	17°  829'47		morning rise	13198 Nov 03 15:59	14°  0	
max. Earth dist.	13193 Apr 30 19:44	19°  854'01	6.46666 AU		13198 Nov 04 12:47	15°  0	
					13199 Jan 13 23:54	0°  0	
conjunction	13193 May 02 13:51	20°  816'49	-0°08'03	retrograde	13199 Mar 14 20:21	5°  0	
minimum elong	13193 May 02 13:50	20°  816'49	0°08'46	min. Earth dist.	13199 May 11 18:53	0°  0	
behind sun begin	13193 May 02 06:56	20°  813'06		opposition	13199 May 13 03:36	0°  0	
behind sun end	13193 May 02 20:44	20°  820'31			13199 May 15 19:21	30°  R	
morning rise	13193 May 15 09:59	23°  803'14		direct	13199 Jul 10 08:12	25°  0	
	13193 Jun 18 00:36	0°  II			13199 Sep 02 09:35	0°  0	
retrograde	13193 Sep 14 00:16	9°  II58'53		evening set	13199 Nov 14 12:40	15°  0	
opposition	13193 Nov 14 00:37	5°  II05'20	-0°25'04				
min. Earth dist.	13193 Nov 15 11:55	4°  II54'02	4.41516 AU	conjunction	13199 Nov 28 02:32	18°  0	
direct	13194 Jan 15 08:40	0°  II04'48		minimum elong	13199 Nov 28 02:31	18°  0	
evening set	13194 May 20 07:52	17°  II42'47		max. Earth dist.	13199 Nov 30 12:54	18°  0	
max. Earth dist.	13194 May 30 21:16	20°  II03'14	6.34674 AU	morning rise	13199 Dec 11 17:38	21°  0	
					13200 Jan 18 09:20	0°  0	
conjunction	13194 Jun 02 03:58	20°  II33'40	-0°25'09	retrograde	13200 Apr 18 08:35	11°  0	
minimum elong	13194 Jun 02 03:57	20°  II33'40	0°26'07	min. Earth dist.	13200 Jun 15 11:40	6°  0	
morning rise	13194 Jun 14 22:55	23°  II24'19		opposition	13200 Jun 17 02:45	6°  0	
	13194 Jul 15 18:15	0°  0		direct	13200 Aug 15 02:29	1°  0	
retrograde	13194 Oct 16 16:13	11°  0		evening set	13200 Dec 19 17:03	19°  0	
opposition	13194 Dec 16 09:19	6°  0					
min. Earth dist.	13194 Dec 18 00:13	6°  0		conjunction	13201 Jan 02 05:24	23°  0	
direct	13195 Feb 15 20:22	1°  0		minimum elong	13201 Jan 02 05:24	23°  0	

max. Earth dist.	13201 Jan 04 12:12	23°  34'21	6.19382 AU	min. Earth dist.	13206 Dec 22 13:57	10°  30'27	4.24283 AU
morning rise	13201 Jan 15 17:52	26°  07'04		direct	13207 Feb 20 06:55	5°  43'56	
	13201 Feb 02 06:13	0°  ≈		evening set	13207 Jun 25 22:41	24°  16'50	
retrograde	13201 May 21 05:40	14°  ≈28'55		max. Earth dist.	13207 Jul 06 15:52	26°  45'45	6.15372 AU
min. Earth dist.	13201 Jul 19 05:07	9°  ≈37'12	4.28067 AU				
opposition	13201 Jul 20 11:27	9°  ≈27'06	0°54'24	conjunction	13207 Jul 08 19:55	27°  16'00	-0°36'09
direct	13201 Sep 18 18:16	4°  ≈27'24		minimum elong	13207 Jul 08 19:55	27°  16'00	0°37'06
	13201 Dec 18 05:36	15°  ≈			13207 Jul 20 14:18	0°  ♂	
evening set	13202 Jan 22 12:47	22°  ≈23'49		morning rise	13207 Jul 21 17:06	0°  ♂15'31	
					13207 Oct 02 20:10	15°  ♂	
conjunction	13202 Feb 04 21:32	25°  ≈19'25	0°35'15	retrograde	13207 Nov 26 00:07	19°  ♂21'34	
minimum elong	13202 Feb 04 21:32	25°  ≈19'26	0°35'55		13208 Jan 20 18:51	15°  ♂♂	
max. Earth dist.	13202 Feb 06 09:06	25°  ≈38'56	6.36109 AU	opposition	13208 Jan 25 01:50	14°  ♂26'20	-0°54'47
morning rise	13202 Feb 18 05:18	28°  ≈14'18		min. Earth dist.	13208 Jan 26 07:37	14°  ♂16'35	4.06590 AU
	13202 Feb 26 08:56	0°  ♂		direct	13208 Mar 25 02:21	9°  ♂28'46	
retrograde	13202 Jun 20 22:05	15°  ♂33'21			13208 May 24 19:28	15°  ♂	
opposition	13202 Aug 20 16:27	10°  ♂34'21	0°45'27	evening set	13208 Jul 29 15:35	28°  ♂58'13	
min. Earth dist.	13202 Aug 20 01:25	10°  ♂39'16	4.42729 AU		13208 Aug 02 22:43	0°  ♂	
direct	13202 Oct 21 02:34	5°  ♂33'47		max. Earth dist.	13208 Aug 10 10:44	1°  ♂48'21	5.98965 AU
evening set	13203 Feb 23 06:24	22°  ♂52'06					
				conjunction	13208 Aug 11 16:49	2°  ♂06'28	-0°33'25
conjunction	13203 Mar 08 10:46	25°  ♂41'25	0°24'58	minimum elong	13208 Aug 11 16:50	2°  ♂06'29	0°33'59
minimum elong	13203 Mar 08 10:47	25°  ♂41'26	0°25'08	morning rise	13208 Aug 24 19:22	5°  ♂15'41	
max. Earth dist.	13203 Mar 08 17:41	25°  ♂45'08	6.47678 AU	retrograde	13209 Jan 02 04:16	25°  ♂33'48	
morning rise	13203 Mar 21 13:33	28°  ♂29'53		opposition	13209 Mar 02 16:05	20°  ♂36'10	-0°40'42
	13203 Mar 28 15:51	0°  ♂		min. Earth dist.	13209 Mar 03 00:08	20°  ♂33'29	3.93081 AU
retrograde	13203 Jul 20 15:05	15°  ♂11'57		direct	13209 Apr 30 10:05	15°  ♂40'28	
opposition	13203 Sep 19 16:22	10°  ♂15'43	0°24'55		13209 Aug 11 02:39	0°  ♂♂	
min. Earth dist.	13203 Sep 19 21:39	10°  ♂14'01	4.50537 AU	evening set	13209 Sep 04 15:46	5°  ♂♂50'41	
direct	13203 Nov 20 23:31	5°  ♂14'50					
evening set	13204 Mar 24 16:35	22°  ♂17'12		conjunction	13209 Sep 17 23:16	9°  ♂♂06'16	-0°17'39
				minimum elong	13209 Sep 17 23:17	9°  ♂♂06'16	0°17'37
conjunction	13204 Apr 06 16:54	25°  ♂03'37	0°08'22	max. Earth dist.	13209 Sep 18 06:55	9°  ♂♂10'57	5.89767 AU
minimum elong	13204 Apr 06 16:54	25°  ♂03'37	0°08'02	morning rise	13209 Oct 01 08:31	12°  ♂♂22'57	
behind sun begin	13204 Apr 06 09:45	24°  ♂59'50			13209 Dec 26 11:09	0°  ♂♂	
behind sun end	13204 Apr 07 00:03	25°  ♂07'25		retrograde	13210 Feb 10 05:25	3°  ♂♂17'16	
max. Earth dist.	13204 Apr 05 18:34	24°  ♂51'42	6.51175 AU		13210 Mar 28 09:23	30°  ♂♂♂♂♂	
morning rise	13204 Apr 19 15:34	27°  ♂49'15		opposition	13210 Apr 10 10:09	28°  ♂♂16'35	-0°09'11
	13204 Apr 29 23:55	0°  ♂♂		min. Earth dist.	13210 Apr 09 17:01	28°  ♂♂22'22	3.89359 AU
retrograde	13204 Aug 18 08:38	14°  ♂♂24'35		direct	13210 Jun 07 10:57	23°  ♂♂21'28	
desc. node	13204 Sep 26 05:40	12°  ♂♂11'23		asc. node	13210 Jul 20 02:28	26°  ♂♂20'13	
opposition	13204 Oct 18 12:29	9°  ♂♂30'13	-0°01'38		13210 Aug 12 04:15	0°  ♂♂♂	
min. Earth dist.	13204 Oct 19 12:00	9°  ♂♂22'42	4.49592 AU	evening set	13210 Oct 12 22:57	13°  ♂♂35'05	
direct	13204 Dec 20 02:19	4°  ♂♂29'17			13210 Oct 18 19:02	15°  ♂♂♂	
	13205 Mar 22 11:11	15°  ♂♂					
evening set	13205 Apr 23 18:45	21°  ♂♂40'04		conjunction	13210 Oct 26 11:22	16°  ♂♂52'04	0°05'37
max. Earth dist.	13205 May 04 20:23	24°  ♂♂03'32	6.45801 AU	minimum elong	13210 Oct 26 11:22	16°  ♂♂52'04	0°06'17
				behind sun begin	13210 Oct 26 03:28	16°  ♂♂47'17	
conjunction	13205 May 06 16:08	24°  ♂♂27'15	-0°10'32	behind sun end	13210 Oct 26 19:16	16°  ♂♂56'51	
minimum elong	13205 May 06 16:07	24°  ♂♂27'15	0°11'18	max. Earth dist.	13210 Oct 28 05:51	17°  ♂♂17'53	5.91873 AU
behind sun begin	13205 May 06 10:15	24°  ♂♂24'05		morning rise	13210 Nov 09 01:45	20°  ♂♂09'54	
behind sun end	13205 May 06 21:59	24°  ♂♂30'25			13210 Dec 22 03:06	0°  ♂♂♂	
morning rise	13205 May 19 11:45	27°  ♂♂13'50		retrograde	13211 Mar 19 23:48	10°  ♂♂♂42'35	
	13205 Jun 01 11:20	0°  ♂♂♂		min. Earth dist.	13211 May 16 20:55	5°  ♂♂♂51'37	3.97090 AU
retrograde	13205 Sep 18 05:19	14°  ♂♂13'19		opposition	13211 May 18 08:43	5°  ♂♂♂39'27	0°25'48
opposition	13205 Nov 18 06:31	9°  ♂♂19'45	-0°28'25	direct	13211 Jul 15 13:35	0°  ♂♂♂43'04	
min. Earth dist.	13205 Nov 19 18:44	9°  ♂♂08'10	4.40094 AU	evening set	13211 Nov 19 18:27	20°  ♂♂♂20'41	
direct	13206 Jan 19 12:19	4°  ♂♂19'15					
evening set	13206 May 24 13:18	22°  ♂♂01'46		conjunction	13211 Dec 03 08:19	23°  ♂♂♂32'21	0°26'02
max. Earth dist.	13206 Jun 04 00:57	24°  ♂♂21'53	6.32770 AU	minimum elong	13211 Dec 03 08:18	23°  ♂♂♂32'21	0°27'02
				max. Earth dist.	13211 Dec 05 19:46	24°  ♂♂♂07'22	6.04347 AU
conjunction	13206 Jun 06 09:09	24°  ♂♂53'19	-0°27'00	morning rise	13211 Dec 16 23:18	26°  ♂♂♂44'14	
minimum elong	13206 Jun 06 09:08	24°  ♂♂53'19	0°28'00		13211 Dec 31 03:01	0°  ♂♂♂♂	
morning rise	13206 Jun 19 04:13	27°  ♂♂44'44		retrograde	13212 Apr 23 04:50	16°  ♂♂♂31'12'27	
	13206 Jun 29 09:19	0°  ♂♂♂		min. Earth dist.	13212 Jun 20 09:51	11°  ♂♂♂20'56	4.12850 AU
retrograde	13206 Oct 21 07:15	15°  ♂♂37'20		opposition	13212 Jun 22 00:08	11°  ♂♂♂08'01	0°48'55
opposition	13206 Dec 20 21:51	10°  ♂♂43'24	-0°48'42	direct	13212 Aug 20 04:54	6°  ♂♂♂09'39	

evening set	13212 Dec 24 15:30	24°♄51'29		max. Earth dist.	13218 Jun 08 10:19	28°♄53'06	6.30420 AU
conjunction	13213 Jan 07 03:32	27°♄54'24	0°36'08	conjunction	13218 Jun 10 18:37	29°♄24'44	-0°28'49
minimum elong	13213 Jan 07 03:32	27°♄54'24	0°37'05	minimum elong	13218 Jun 10 18:36	29°♄24'44	0°29'51
max. Earth dist.	13213 Jan 09 10:25	28°♄25'25	6.21899 AU		13218 Jun 13 09:21	0°♄	
	13213 Jan 16 10:02	0°♄		morning rise	13218 Jun 23 13:42	2°♄17'08	
morning rise	13213 Jan 20 15:20	0°♄56'54		retrograde	13218 Oct 26 01:55	20°♄19'27	
	13213 Apr 02 18:32	15°♄		opposition	13218 Dec 25 15:41	15°♄25'26	-0°50'34
retrograde	13213 May 25 15:25	19°♄08'21		min. Earth dist.	13218 Dec 27 07:01	15°♄12'42	4.21669 AU
	13213 Jul 18 07:14	15°♄		direct	13219 Feb 24 20:00	10°♄26'12	
min. Earth dist.	13213 Jul 23 18:24	14°♄16'43	4.30531 AU	evening set	13219 Jun 30 15:37	29°♄07'36	
opposition	13213 Jul 25 00:04	14°♄06'52	0°53'58		13219 Jul 04 09:51	0°♄	
direct	13213 Sep 23 10:26	9°♄07'01		max. Earth dist.	13219 Jul 11 10:22	1°♄38'22	6.12702 AU
	13213 Nov 27 11:04	15°♄					
evening set	13214 Jan 27 03:03	26°♄56'21		conjunction	13219 Jul 13 13:08	2°♄08'03	-0°36'32
				minimum elong	13219 Jul 13 13:08	2°♄08'03	0°37'27
conjunction	13214 Feb 09 11:03	29°♄50'47	0°34'17	morning rise	13219 Jul 26 11:02	5°♄09'01	
minimum elong	13214 Feb 09 11:04	29°♄50'48	0°34'53		13219 Sep 09 07:46	15°♄	
	13214 Feb 10 03:56	0°♄		retrograde	13219 Dec 01 06:21	24°♄26'43	
max. Earth dist.	13214 Feb 10 18:07	0°♄07'45	6.38315 AU	opposition	13220 Jan 30 05:10	19°♄31'12	-0°54'02
morning rise	13214 Feb 22 18:09	2°♄44'30		min. Earth dist.	13220 Jan 31 08:49	19°♄22'06	4.04085 AU
retrograde	13214 Jun 25 04:06	19°♄56'01			13220 Mar 13 18:43	15°♄	
opposition	13214 Aug 24 23:06	14°♄57'26	0°43'04	direct	13220 Mar 30 01:38	14°♄33'52	
min. Earth dist.	13214 Aug 24 11:36	15°♄01'12	4.44505 AU		13220 Apr 15 07:22	15°♄	
direct	13214 Oct 25 14:15	9°♄56'48			13220 Jul 16 23:43	0°♄	
evening set	13215 Feb 27 14:03	27°♄10'45		evening set	13220 Aug 03 17:25	4°♄11'29	
conjunction	13215 Mar 12 17:51	29°♄59'23	0°22'53	conjunction	13220 Aug 16 19:41	7°♄21'08	-0°31'54
minimum elong	13215 Mar 12 17:52	29°♄59'23	0°22'59	minimum elong	13220 Aug 16 19:42	7°♄21'08	0°32'23
	13215 Mar 12 19:00	0°♄		max. Earth dist.	13220 Aug 15 19:12	7°♄06'19	5.96893 AU
max. Earth dist.	13215 Mar 12 20:47	0°♄00'57	6.48889 AU	morning rise	13220 Aug 29 23:04	10°♄31'43	
morning rise	13215 Mar 25 19:59	2°♄47'09			13220 Dec 14 03:23	0°♄	
retrograde	13215 Jul 24 17:03	19°♄25'55		retrograde	13221 Jan 07 17:02	0°♄58'42	
opposition	13215 Sep 23 20:13	14°♄30'00	0°21'22		13221 Feb 01 04:14	30°♄	
min. Earth dist.	13215 Sep 24 03:36	14°♄27'38	4.51122 AU	opposition	13221 Mar 08 02:40	26°♄00'42	-0°37'02
direct	13215 Nov 25 04:31	9°♄29'06		min. Earth dist.	13221 Mar 08 07:20	25°♄59'09	3.91698 AU
evening set	13216 Mar 28 21:14	26°♄30'41		direct	13221 May 05 16:29	21°♄05'15	
					13221 Jul 22 08:43	0°♄	
conjunction	13216 Apr 10 21:06	29°♄16'56	0°05'45	evening set	13221 Sep 10 00:52	11°♄19'11	
minimum elong	13216 Apr 10 21:07	29°♄16'57	0°05'21				
behind sun begin	13216 Apr 10 13:23	29°♄12'50		conjunction	13221 Sep 23 09:06	14°♄35'26	-0°14'35
behind sun end	13216 Apr 11 04:51	29°♄21'04		minimum elong	13221 Sep 23 09:07	14°♄35'27	0°14'26
max. Earth dist.	13216 Apr 09 20:00	29°♄03'31	6.51097 AU	behind sun begin	13221 Sep 23 05:21	14°♄33'08	
	13216 Apr 14 05:36	0°♄		behind sun end	13221 Sep 23 12:53	14°♄37'45	
morning rise	13216 Apr 23 19:07	2°♄02'24		max. Earth dist.	13221 Sep 23 21:25	14°♄42'59	5.89222 AU
	13216 Jul 03 03:01	15°♄		morning rise	13221 Oct 06 19:28	17°♄52'51	
desc. node	13216 Aug 08 07:22	18°♄20'13			13221 Nov 29 09:50	0°♄	
retrograde	13216 Aug 22 13:07	18°♄38'55		retrograde	13222 Feb 15 16:00	8°♄48'01	
	13216 Oct 12 19:21	15°♄		opposition	13222 Apr 15 21:27	3°♄46'52	-0°03'59
opposition	13216 Oct 22 17:23	13°♄44'48	-0°05'32	min. Earth dist.	13222 Apr 14 23:43	3°♄54'13	3.89755 AU
min. Earth dist.	13216 Oct 23 19:30	13°♄36'27	4.48850 AU		13222 May 17 23:14	30°♄	
direct	13216 Dec 24 07:37	8°♄43'56		asc. node	13222 May 28 18:22	29°♄15'24	
	13217 Mar 03 01:08	15°♄		direct	13222 Jun 12 20:54	28°♄51'39	
evening set	13217 Apr 28 00:05	25°♄57'35			13222 Jul 08 19:28	0°♄	
max. Earth dist.	13217 May 08 21:13	28°♄19'09	6.44432 AU		13222 Oct 01 10:08	15°♄	
				evening set	13222 Oct 18 09:16	19°♄02'10	
conjunction	13217 May 10 21:00	28°♄45'08	-0°13'05	conjunction	13222 Oct 31 22:06	22°♄18'42	0°08'55
minimum elong	13217 May 10 21:00	28°♄45'08	0°13'53	minimum elong	13222 Oct 31 22:05	22°♄18'42	0°09'39
behind sun begin	13217 May 10 16:50	28°♄42'53		behind sun begin	13222 Oct 31 15:13	22°♄14'33	
behind sun end	13217 May 11 01:10	28°♄47'23		behind sun end	13222 Nov 01 04:58	22°♄22'50	
	13217 May 16 14:37	0°♄		max. Earth dist.	13222 Nov 02 20:40	22°♄46'55	5.93172 AU
morning rise	13217 May 23 16:35	1°♄32'12		morning rise	13222 Nov 14 12:45	25°♄35'59	
retrograde	13217 Sep 22 16:48	18°♄37'27			13222 Dec 03 03:46	0°♄	
opposition	13217 Nov 22 16:23	13°♄43'53	-0°31'48	retrograde	13223 Mar 25 03:21	16°♄00'48	
min. Earth dist.	13217 Nov 24 06:18	13°♄31'44	4.38164 AU	min. Earth dist.	13223 May 22 00:57	11°♄09'50	3.99120 AU
direct	13218 Jan 23 20:48	8°♄43'26		opposition	13223 May 23 13:36	10°♄57'24	0°30'03
evening set	13218 May 28 22:33	26°♄32'13					

direct	13223 Jul 20 22:03	6° $\text{♂}$ 00'41		max. Earth dist.	13229 May 13 01:32	2° $\text{♂}$ 36'32	6.42615 AU
evening set	13223 Nov 24 23:13	25° $\text{♂}$ 30'06					
conjunction	13223 Dec 08 13:03	28° $\text{♂}$ 40'31	0°28'10	conjunction	13229 May 15 02:15	3° $\text{♂}$ 03'09	-0°15'34
minimum elong	13223 Dec 08 13:02	28° $\text{♂}$ 40'31	0°29'11	minimum elong	13229 May 15 02:14	3° $\text{♂}$ 03'08	0°16'25
max. Earth dist.	13223 Dec 11 02:44	29° $\text{♂}$ 16'37	6.06897 AU	morning rise	13229 May 27 21:30	5° $\text{♂}$ 50'49	
	13223 Dec 14 04:57	0° $\text{♂}$		retrograde	13229 Sep 27 04:56	23° $\text{♂}$ 03'22	
morning rise	13223 Dec 22 03:36	1° $\text{♂}$ 51'01		opposition	13229 Nov 27 03:26	18° $\text{♂}$ 09'52	-0°35'03
retrograde	13224 Apr 27 21:19	21° $\text{♂}$ 06'14		min. Earth dist.	13229 Nov 28 18:31	17° $\text{♂}$ 57'21	4.35864 AU
min. Earth dist.	13224 Jun 25 04:29	16° $\text{♂}$ 15'51	4.15647 AU	direct	13230 Jan 28 05:04	13° $\text{♂}$ 09'37	
opposition	13224 Jun 26 18:55	16° $\text{♂}$ 02'57	0°50'41		13230 May 28 11:28	0° $\text{♂}$	
direct	13224 Aug 25 03:35	11° $\text{♂}$ 04'17		evening set	13230 Jun 02 09:42	1° $\text{♂}$ 05'56	
evening set	13224 Dec 29 11:16	29° $\text{♂}$ 36'56		max. Earth dist.	13230 Jun 12 20:04	3° $\text{♂}$ 26'56	6.27801 AU
	13224 Dec 31 04:32	0° $\text{♂}$					
conjunction	13225 Jan 11 22:35	2° $\text{♂}$ 38'23	0°36'32	conjunction	13230 Jun 15 05:42	3° $\text{♂}$ 59'31	-0°30'29
minimum elong	13225 Jan 11 22:35	2° $\text{♂}$ 38'23	0°37'27	minimum elong	13230 Jun 15 05:41	3° $\text{♂}$ 59'30	0°31'31
max. Earth dist.	13225 Jan 14 01:32	3° $\text{♂}$ 07'00	6.24683 AU	morning rise	13230 Jun 28 01:10	6° $\text{♂}$ 53'06	
morning rise	13225 Jan 25 09:52	5° $\text{♂}$ 39'24		retrograde	13230 Oct 31 00:39	25° $\text{♂}$ 06'12	
	13225 Mar 11 01:31	15° $\text{♂}$		opposition	13230 Dec 30 11:48	20° $\text{♂}$ 12'03	-0°52'08
retrograde	13225 May 29 23:48	23° $\text{♂}$ 40'09		min. Earth dist.	13231 Jan 01 02:04	19° $\text{♂}$ 59'38	4.18920 AU
min. Earth dist.	13225 Jul 28 07:18	18° $\text{♂}$ 47'50	4.33071 AU	direct	13231 Mar 01 12:00	15° $\text{♂}$ 13'03	
opposition	13225 Jul 29 10:02	18° $\text{♂}$ 38'59	0°53'14		13231 Jun 17 17:53	0° $\text{♂}$	
	13225 Aug 29 13:17	15° $\text{♂}$		evening set	13231 Jul 05 10:45	4° $\text{♂}$ 03'27	
direct	13225 Sep 28 01:46	13° $\text{♂}$ 38'53		max. Earth dist.	13231 Jul 16 10:05	6° $\text{♂}$ 37'44	6.10076 AU
	13225 Oct 27 20:45	15° $\text{♂}$					
	13226 Jan 25 07:09	0° $\text{♂}$		conjunction	13231 Jul 18 08:58	7° $\text{♂}$ 05'19	-0°36'40
evening set	13226 Jan 31 14:01	1° $\text{♂}$ 21'09		minimum elong	13231 Jul 18 08:58	7° $\text{♂}$ 05'19	0°37'33
				morning rise	13231 Jul 31 07:22	10° $\text{♂}$ 07'42	
conjunction	13226 Feb 13 21:32	4° $\text{♂}$ 14'31	0°33'09		13231 Aug 21 12:27	15° $\text{♂}$	
minimum elong	13226 Feb 13 21:33	4° $\text{♂}$ 14'32	0°33'41	retrograde	13231 Dec 06 14:53	29° $\text{♂}$ 36'42	
max. Earth dist.	13226 Feb 15 01:50	4° $\text{♂}$ 29'54	6.40423 AU	opposition	13232 Feb 04 10:47	24° $\text{♂}$ 40'57	-0°52'52
morning rise	13226 Feb 27 03:45	7° $\text{♂}$ 07'05		min. Earth dist.	13232 Feb 05 11:46	24° $\text{♂}$ 32'44	4.01842 AU
retrograde	13226 Jun 29 05:38	24° $\text{♂}$ 11'42		direct	13232 Apr 04 01:51	19° $\text{♂}$ 44'01	
opposition	13226 Aug 29 03:06	19° $\text{♂}$ 13'32	0°40'31		13232 Jun 28 09:00	0° $\text{♂}$	
min. Earth dist.	13226 Aug 28 17:36	19° $\text{♂}$ 16'37	4.46057 AU	evening set	13232 Aug 08 21:10	9° $\text{♂}$ 28'36	
direct	13226 Oct 29 20:30	14° $\text{♂}$ 12'50		max. Earth dist.	13232 Aug 21 03:34	12° $\text{♂}$ 26'55	5.95245 AU
	13227 Feb 25 05:43	0° $\text{♂}$					
evening set	13227 Mar 03 19:36	1° $\text{♂}$ 23'18		conjunction	13232 Aug 22 00:05	12° $\text{♂}$ 39'23	-0°30'06
				minimum elong	13232 Aug 22 00:06	12° $\text{♂}$ 39'24	0°30'30
conjunction	13227 Mar 16 22:42	4° $\text{♂}$ 11'20	0°20'43	morning rise	13232 Sep 04 04:36	15° $\text{♂}$ 51'13	
minimum elong	13227 Mar 16 22:42	4° $\text{♂}$ 11'21	0°20'46		13232 Nov 08 07:20	0° $\text{♂}$	
max. Earth dist.	13227 Mar 16 20:16	4° $\text{♂}$ 10'03	6.49778 AU	retrograde	13233 Jan 13 03:56	6° $\text{♂}$ 25'01	
morning rise	13227 Mar 30 00:15	6° $\text{♂}$ 58'32		opposition	13233 Mar 13 13:40	1° $\text{♂}$ 26'34	-0°33'01
retrograde	13227 Jul 28 20:01	23° $\text{♂}$ 35'08		min. Earth dist.	13233 Mar 13 13:28	1° $\text{♂}$ 26'38	3.90846 AU
opposition	13227 Sep 27 22:36	18° $\text{♂}$ 39'34	0°17'47		13233 Mar 24 12:23	30° $\text{♂}$	
min. Earth dist.	13227 Sep 28 09:59	18° $\text{♂}$ 35'55	4.51309 AU	direct	13233 May 11 00:04	26° $\text{♂}$ 31'16	
direct	13227 Nov 29 09:31	13° $\text{♂}$ 38'37			13233 Jun 26 10:22	0° $\text{♂}$	
	13228 Mar 29 19:52	0° $\text{♂}$		evening set	13233 Sep 15 09:55	16° $\text{♂}$ 46'45	
evening set	13228 Apr 02 00:43	0° $\text{♂}$ 40'42					
max. Earth dist.	13228 Apr 13 18:23	3° $\text{♂}$ 11'04	6.50557 AU	conjunction	13233 Sep 28 18:57	20° $\text{♂}$ 03'21	-0°11'24
				minimum elong	13233 Sep 28 18:58	20° $\text{♂}$ 03'22	0°11'09
conjunction	13228 Apr 15 00:09	3° $\text{♂}$ 27'00	0°03'08	behind sun begin	13233 Sep 28 12:48	19° $\text{♂}$ 59'35	
minimum elong	13228 Apr 15 00:09	3° $\text{♂}$ 27'00	0°02'39	behind sun end	13233 Sep 29 01:09	20° $\text{♂}$ 07'08	
behind sun begin	13228 Apr 14 16:09	3° $\text{♂}$ 22'44		max. Earth dist.	13233 Sep 29 13:37	20° $\text{♂}$ 14'48	5.89254 AU
behind sun end	13228 Apr 15 08:09	3° $\text{♂}$ 31'15		morning rise	13233 Oct 12 05:59	23° $\text{♂}$ 21'04	
morning rise	13228 Apr 27 21:50	6° $\text{♂}$ 12'32			13233 Nov 09 07:48	0° $\text{♂}$	
	13228 Jun 10 21:00	15° $\text{♂}$		retrograde	13234 Feb 21 01:24	14° $\text{♂}$ 14'32	
desc. node	13228 Jun 19 13:16	16° $\text{♂}$ 30'20		asc. node	13234 Apr 08 19:09	10° $\text{♂}$ 52'28	
retrograde	13228 Aug 26 18:05	22° $\text{♂}$ 51'48		min. Earth dist.	13234 Apr 20 06:58	9° $\text{♂}$ 21'02	3.90650 AU
opposition	13228 Oct 26 22:12	17° $\text{♂}$ 57'48	-0°09'23	opposition	13234 Apr 21 06:46	9° $\text{♂}$ 12'58	0°01'11
min. Earth dist.	13228 Oct 28 02:09	17° $\text{♂}$ 48'51	4.47631 AU	direct	13234 Jun 18 07:19	4° $\text{♂}$ 17'37	
	13228 Nov 20 18:24	15° $\text{♂}$			13234 Sep 12 17:23	15° $\text{♂}$	
direct	13228 Dec 28 11:03	12° $\text{♂}$ 56'56		evening set	13234 Oct 23 17:23	24° $\text{♂}$ 23'25	
	13229 Feb 04 05:31	15° $\text{♂}$					
	13229 May 01 01:43	0° $\text{♂}$		conjunction	13234 Nov 06 06:39	27° $\text{♂}$ 39'20	0°12'05
evening set	13229 May 02 05:25	0° $\text{♂}$ 14'58		minimum elong	13234 Nov 06 06:38	27° $\text{♂}$ 39'19	0°12'53
				behind sun begin	13234 Nov 06 01:32	27° $\text{♂}$ 36'16	
				behind sun end	13234 Nov 06 11:43	27° $\text{♂}$ 42'23	

max. Earth dist.	13234 Nov 08 09:35	28°♄10'03	5.94814 AU		13241 Apr 14 15:48	0°♄	
	13234 Nov 16 00:13	0°♂		evening set	13241 May 06 13:10	4°♄38'51	
morning rise	13234 Nov 19 21:26	0°♂55'52		max. Earth dist.	13241 May 17 06:13	6°♄59'22	6.40799 AU
retrograde	13235 Mar 30 03:37	21°♂11'41					
min. Earth dist.	13235 May 27 01:07	16°♂21'07	4.01314 AU	conjunction	13241 May 19 09:44	7°♄27'38	-0°18'02
opposition	13235 May 28 15:11	16°♂08'14	0°33'57	minimum elong	13241 May 19 09:43	7°♄27'37	0°18'56
direct	13235 Jul 26 01:53	11°♂11'17		morning rise	13241 Jun 01 05:00	10°♄15'59	
	13235 Nov 27 16:45	0°♂		retrograde	13241 Oct 01 19:39	27°♄35'42	
evening set	13235 Nov 30 01:03	0°♂32'33		opposition	13241 Dec 01 16:58	22°♄42'11	-0°38'11
				min. Earth dist.	13241 Dec 03 07:36	22°♄29'46	4.33728 AU
conjunction	13235 Dec 13 14:30	3°♂41'41	0°30'04	direct	13242 Feb 01 15:04	17°♄42'04	
minimum elong	13235 Dec 13 14:29	3°♂41'41	0°31'04		13242 May 11 14:37	0°♄	
max. Earth dist.	13235 Dec 16 02:26	4°♂16'33	6.09408 AU	evening set	13242 Jun 06 22:31	5°♄45'04	
morning rise	13235 Dec 27 04:52	6°♂50'53		max. Earth dist.	13242 Jun 17 11:35	8°♄08'15	6.25537 AU
retrograde	13236 May 02 11:27	25°♂55'03					
min. Earth dist.	13236 Jun 29 22:04	21°♂04'23	4.18224 AU	conjunction	13242 Jun 19 18:45	8°♄39'37	-0°32'02
opposition	13236 Jul 01 11:05	20°♂51'57	0°52'05	minimum elong	13242 Jun 19 18:45	8°♄39'36	0°33'02
direct	13236 Aug 30 00:21	15°♂53'02		morning rise	13242 Jul 02 14:17	11°♄34'11	
	13236 Dec 14 13:11	0°♄		retrograde	13242 Nov 05 00:27	29°♄56'37	
evening set	13237 Jan 03 04:40	4°♄17'47		opposition	13243 Jan 04 09:31	25°♄02'20	-0°53'24
				min. Earth dist.	13243 Jan 05 22:37	24°♄50'17	4.16715 AU
conjunction	13237 Jan 16 15:40	7°♄18'01	0°36'42	direct	13243 Mar 06 05:38	20°♄03'40	
minimum elong	13237 Jan 16 15:40	7°♄18'01	0°37'34		13243 May 30 14:28	0°♄	
max. Earth dist.	13237 Jan 18 16:51	7°♄45'31	6.27130 AU	evening set	13243 Jul 10 06:29	9°♄00'40	
morning rise	13237 Jan 30 02:07	10°♄17'42		max. Earth dist.	13243 Jul 21 08:11	11°♄37'05	6.08129 AU
	13237 Feb 20 19:06	15°♄					
retrograde	13237 Jun 03 06:51	28°♄09'16		conjunction	13243 Jul 23 04:58	12°♄03'33	-0°36'36
opposition	13237 Aug 02 18:25	23°♄08'34	0°52'14	minimum elong	13243 Jul 23 04:59	12°♄03'33	0°37'25
min. Earth dist.	13237 Aug 01 17:42	23°♄16'44	4.35197 AU		13243 Aug 04 16:07	15°♄	
direct	13237 Oct 02 13:34	18°♄08'24		morning rise	13243 Aug 05 04:08	15°♄07'04	
	13238 Jan 08 12:53	0°♄			13243 Oct 16 09:59	0°♄	
evening set	13238 Feb 05 00:29	5°♄45'12		retrograde	13243 Dec 11 19:02	4°♄44'29	
					13244 Feb 08 04:00	30°♄	
conjunction	13238 Feb 18 07:16	8°♄37'40	0°31'50	opposition	13244 Feb 09 15:16	29°♄48'22	-0°51'20
minimum elong	13238 Feb 18 07:17	8°♄37'41	0°32'19	min. Earth dist.	13244 Feb 10 12:08	29°♄41'28	4.00353 AU
max. Earth dist.	13238 Feb 19 05:47	8°♄49'53	6.42075 AU	direct	13244 Apr 09 02:12	24°♄51'41	
morning rise	13238 Mar 03 12:59	11°♄29'21			13244 Jun 06 00:29	0°♄	
retrograde	13238 Jul 03 10:13	28°♄28'43		evening set	13244 Aug 13 22:56	14°♄40'09	
opposition	13238 Sep 02 07:27	23°♄30'56	0°37'46				
min. Earth dist.	13238 Sep 02 01:38	23°♄32'50	4.47148 AU	conjunction	13244 Aug 27 02:39	17°♄51'42	-0°28'10
direct	13238 Nov 03 04:07	18°♄30'08		minimum elong	13244 Aug 27 02:40	17°♄51'42	0°28'29
	13239 Feb 08 15:23	0°♄		max. Earth dist.	13244 Aug 26 12:23	17°♄43'01	5.94379 AU
evening set	13239 Mar 08 01:30	5°♄38'30		morning rise	13244 Sep 09 07:48	21°♄04'17	
					13244 Oct 17 22:33	0°♄	
conjunction	13239 Mar 21 04:14	8°♄26'12	0°18'26	retrograde	13245 Jan 18 12:29	11°♄41'26	
minimum elong	13239 Mar 21 04:15	8°♄26'12	0°18'23	opposition	13245 Mar 18 20:43	6°♄42'33	-0°28'55
max. Earth dist.	13239 Mar 20 22:41	8°♄23'14	6.50239 AU	min. Earth dist.	13245 Mar 18 18:02	6°♄43'26	3.90707 AU
morning rise	13239 Apr 03 05:07	11°♄13'01		direct	13245 May 16 06:30	1°♄47'19	
retrograde	13239 Aug 01 22:42	27°♄48'45		evening set	13245 Sep 20 14:13	22°♄01'33	
opposition	13239 Oct 02 02:27	22°♄53'27	0°14'04				
min. Earth dist.	13239 Oct 02 15:33	22°♄49'15	4.51133 AU	conjunction	13245 Oct 03 23:55	25°♄18'11	-0°08'18
direct	13239 Dec 03 12:58	17°♄52'32		minimum elong	13245 Oct 03 23:55	25°♄18'11	0°07'57
	13240 Mar 13 10:51	0°♄		behind sun begin	13245 Oct 03 16:28	25°♄13'39	
evening set	13240 Apr 06 05:58	4°♄56'02		behind sun end	13245 Oct 04 07:22	25°♄22'44	
max. Earth dist.	13240 Apr 17 20:12	7°♄24'52	6.49763 AU	max. Earth dist.	13245 Oct 04 23:33	25°♄32'39	5.89847 AU
				morning rise	13245 Oct 17 11:34	28°♄35'52	
conjunction	13240 Apr 19 04:57	7°♄42'27	0°00'23		13245 Oct 23 06:33	0°♄	
minimum elong	13240 Apr 19 04:56	7°♄42'27	0°00'09		13246 Jan 03 13:40	15°♄	
behind sun begin	13240 Apr 18 21:01	7°♄38'13		asc. node	13246 Feb 21 00:31	19°♄22'39	
behind sun end	13240 Apr 19 12:52	7°♄46'41		retrograde	13246 Feb 26 03:36	19°♄25'18	
desc. node	13240 Apr 27 12:24	9°♄29'28			13246 Apr 21 21:40	15°♄	
morning rise	13240 May 02 02:12	10°♄28'08		min. Earth dist.	13246 Apr 25 07:26	14°♄32'23	3.91927 AU
	13240 May 23 18:56	15°♄		opposition	13246 Apr 26 09:55	14°♄23'25	0°06'02
retrograde	13240 Aug 31 02:38	22°♄10'48		direct	13246 Jun 23 10:04	9°♄27'56	
opposition	13240 Oct 31 05:23	27°♄17'01	-0°13'16		13246 Aug 22 02:32	15°♄	
min. Earth dist.	13240 Nov 01 12:00	22°♄07'13	4.46273 AU	evening set	13246 Oct 28 19:20	29°♄27'58	
direct	13241 Jan 01 18:05	17°♄16'14			13246 Oct 31 00:55	0°♄	

conjunction	13246 Nov 11 08:36	2°♏43'03	0°15'00	conjunction	13252 Apr 23 08:52	11°♏55'56	-0°02'18
minimum elong	13246 Nov 11 08:35	2°♏43'03	0°15'52	minimum elong	13252 Apr 23 08:51	11°♏55'55	0°02'54
behind sun begin	13246 Nov 11 07:49	2°♏42'35		behind sun begin	13252 Apr 23 00:52	11°♏51'39	
behind sun end	13246 Nov 11 09:20	2°♏43'30		behind sun end	13252 Apr 23 16:50	12°♏00'11	
max. Earth dist.	13246 Nov 13 11:48	3°♏13'48	5.96612 AU	morning rise	13252 May 06 05:43	14°♏41'49	
morning rise	13246 Nov 24 23:38	5°♏58'46			13252 May 07 15:45	15°♏	
retrograde	13247 Apr 03 20:45	26°♏05'35			13252 Aug 04 02:59	0°♐	
min. Earth dist.	13247 May 31 20:07	21°♏15'00	4.03433 AU	retrograde	13252 Sep 04 08:57	1°♐28'10	
opposition	13247 Jun 02 10:15	21°♏02'05	0°37'24		13252 Oct 05 15:52	30°♏♏	
direct	13247 Jul 31 00:24	16°♏04'51		opposition	13252 Nov 04 11:56	26°♏34'27	-0°17'01
	13247 Nov 11 07:44	0°♏		min. Earth dist.	13252 Nov 05 18:51	26°♏24'33	4.44919 AU
evening set	13247 Dec 04 20:43	5°♏18'48		direct	13253 Jan 05 22:11	21°♏33'45	
					13253 Mar 27 18:05	0°♐	
conjunction	13247 Dec 18 10:07	8°♏26'52	0°31'40	evening set	13253 May 10 19:45	9°♐00'41	
minimum elong	13247 Dec 18 10:06	8°♏26'51	0°32'41	max. Earth dist.	13253 May 21 12:28	11°♐21'34	6.39071 AU
max. Earth dist.	13247 Dec 20 21:35	9°♏01'17	6.11663 AU				
morning rise	13247 Dec 31 23:57	11°♏34'49		conjunction	13253 May 23 16:05	11°♐50'01	-0°20'20
	13248 Apr 19 11:47	0°♐		minimum elong	13253 May 23 16:04	11°♐50'01	0°21'17
retrograde	13248 May 06 21:52	0°♐29'25		morning rise	13253 Jun 05 11:09	14°♐38'59	
	13248 May 24 03:58	30°♏♏			13253 Aug 30 01:07	0°♑	
min. Earth dist.	13248 Jul 04 10:42	25°♏38'29	4.20407 AU	retrograde	13253 Oct 06 10:23	2°♑05'36	
opposition	13248 Jul 05 21:57	25°♏26'41	0°53'08		13253 Nov 12 22:45	30°♏♐	
direct	13248 Sep 03 14:54	20°♏27'37		opposition	13253 Dec 06 05:36	27°♐12'02	-0°41'02
	13248 Nov 27 01:30	0°♐		min. Earth dist.	13253 Dec 07 21:19	26°♐59'16	4.31699 AU
evening set	13249 Jan 07 17:27	8°♐46'14		direct	13254 Feb 06 01:34	22°♐12'05	
					13254 Apr 22 22:43	0°♑	
conjunction	13249 Jan 21 03:53	11°♐45'27	0°36'41	evening set	13254 Jun 11 10:02	10°♑21'19	
minimum elong	13249 Jan 21 03:53	11°♐45'27	0°37'31	max. Earth dist.	13254 Jun 21 22:29	12°♑44'55	6.23331 AU
max. Earth dist.	13249 Jan 23 00:54	12°♐10'31	6.29064 AU				
morning rise	13249 Feb 03 13:57	14°♐44'09		conjunction	13254 Jun 24 06:18	13°♑16'47	-0°33'19
	13249 Feb 04 18:43	15°♐		minimum elong	13254 Jun 24 06:18	13°♑16'47	0°34'19
	13249 Apr 27 23:57	0°♑		morning rise	13254 Jul 07 02:13	16°♑12'24	
retrograde	13249 Jun 07 10:48	2°♑28'44			13254 Sep 13 22:28	0°♒	
	13249 Jul 17 20:46	30°♏♐		retrograde	13254 Nov 09 21:21	4°♒44'08	
opposition	13249 Aug 06 23:32	27°♐28'26	0°51'03		13255 Jan 07 21:37	30°♏♑	
min. Earth dist.	13249 Aug 06 01:12	27°♐35'48	4.36771 AU	opposition	13255 Jan 09 05:33	29°♑49'36	-0°54'14
direct	13249 Oct 06 21:31	22°♐28'10		min. Earth dist.	13255 Jan 10 16:24	29°♑38'15	4.14479 AU
	13249 Dec 21 04:22	0°♑		direct	13255 Mar 10 20:39	24°♑51'10	
evening set	13250 Feb 09 07:42	10°♑01'25			13255 May 08 22:17	0°♒	
				evening set	13255 Jul 15 00:47	13°♒55'13	
conjunction	13250 Feb 22 14:07	12°♑53'17	0°30'27		13255 Jul 19 14:42	15°♒	
minimum elong	13250 Feb 22 14:08	12°♑53'17	0°30'52	max. Earth dist.	13255 Jul 26 07:19	16°♒35'10	6.06055 AU
max. Earth dist.	13250 Feb 23 10:01	13°♑04'02	6.43203 AU				
morning rise	13250 Mar 07 19:05	15°♑44'17		conjunction	13255 Jul 27 23:54	16°♒59'16	-0°36'13
	13250 May 26 00:14	0°♑		minimum elong	13255 Jul 27 23:55	16°♒59'16	0°36'59
retrograde	13250 Jul 07 11:53	2°♑40'12		morning rise	13255 Aug 09 23:36	20°♒03'58	
	13250 Aug 19 01:56	30°♏♑			13255 Sep 23 12:34	0°♓	
opposition	13250 Sep 06 09:57	27°♑42'52	0°34'58	retrograde	13255 Dec 17 01:21	9°♓50'39	
min. Earth dist.	13250 Sep 06 06:14	27°♑44'05	4.47782 AU	opposition	13256 Feb 14 18:52	4°♓54'13	-0°49'22
direct	13250 Nov 07 08:12	22°♑42'08		min. Earth dist.	13256 Feb 15 13:57	4°♓47'54	3.98629 AU
	13251 Jan 21 06:13	0°♑			13256 Apr 09 10:05	30°♏♒	
evening set	13251 Mar 12 06:07	9°♑49'46		direct	13256 Apr 14 02:44	29°♒57'47	
					13256 Apr 18 19:14	0°♓	
conjunction	13251 Mar 25 08:12	12°♑37'13	0°16'09	evening set	13256 Aug 19 00:13	19°♓51'20	
minimum elong	13251 Mar 25 08:12	12°♑37'13	0°16'02				
max. Earth dist.	13251 Mar 24 21:52	12°♑31'42	6.50342 AU	conjunction	13256 Sep 01 04:43	23°♓03'51	-0°25'58
morning rise	13251 Apr 07 08:43	15°♑23'50		minimum elong	13256 Sep 01 04:44	23°♓03'51	0°26'12
	13251 Jun 30 10:57	0°♓		max. Earth dist.	13256 Aug 31 18:38	22°♓57'42	5.93175 AU
retrograde	13251 Aug 06 03:03	1°♓59'45		morning rise	13256 Sep 14 10:53	26°♓17'26	
	13251 Sep 11 18:35	30°♏♓			13256 Sep 29 22:55	0°♔	
opposition	13251 Oct 06 05:36	27°♑04'45	0°10'24	retrograde	13257 Jan 23 20:04	16°♔59'26	
min. Earth dist.	13251 Oct 06 21:45	26°♑59'34	4.50718 AU	opposition	13257 Mar 24 03:46	12°♔00'08	-0°24'30
direct	13251 Dec 07 17:19	22°♑03'50		min. Earth dist.	13257 Mar 23 21:05	12°♔02'22	3.90189 AU
	13252 Feb 24 10:41	0°♓		direct	13257 May 21 09:55	7°♔04'59	
desc. node	13252 Mar 05 07:57	1°♓48'45		evening set	13257 Sep 25 19:54	27°♔19'51	
evening set	13252 Apr 10 10:09	9°♓09'18			13257 Oct 06 18:14	0°♕	
max. Earth dist.	13252 Apr 21 21:59	11°♓37'10	6.48851 AU				

conjunction	13257 Oct 09 06:10	0°♄36'41	-0°05'03			13262 Dec 28 06:36	0°♑	
minimum elong	13257 Oct 09 06:10	0°♄36'41	0°04'39	evening set		13263 Mar 16 10:32	14°♑01'10	
behind sun begin	13257 Oct 08 22:01	0°♄31'43						
behind sun end	13257 Oct 09 14:19	0°♄41'39		conjunction		13263 Mar 29 12:11	16°♑48'10	0°13'48
max. Earth dist.	13257 Oct 10 09:06	0°♄53'09	5.90057 AU	minimum elong		13263 Mar 29 12:12	16°♑48'10	0°13'36
morning rise	13257 Oct 22 18:36	3°♄54'35		behind sun begin		13263 Mar 29 07:51	16°♑45'51	
	13257 Dec 10 12:42	15°♄		behind sun end		13263 Mar 29 16:33	16°♑50'29	
asc. node	13258 Jan 03 03:50	19°♄22'54		max. Earth dist.		13263 Mar 28 23:59	16°♑41'39	6.51003 AU
retrograde	13258 Mar 03 07:15	24°♄41'31		morning rise		13263 Apr 11 11:55	19°♑34'17	
min. Earth dist.	13258 Apr 30 09:53	19°♄48'59	3.92836 AU			13263 Jun 04 04:36	0°♄	
opposition	13258 May 01 14:32	19°♄39'16	0°10'56	retrograde		13263 Aug 10 03:58	6°♄08'36	
	13258 Jun 16 02:05	15°♄♄		opposition		13263 Oct 10 08:10	1°♄13'47	0°06'43
direct	13258 Jun 28 15:57	14°♄43'33		min. Earth dist.		13263 Oct 11 01:53	1°♄08'07	4.50836 AU
	13258 Jul 11 06:31	15°♄				13263 Oct 20 00:55	30°♄♑	
	13258 Oct 14 02:52	0°♄♑		direct		13263 Dec 11 20:43	26°♑12'54	
evening set	13258 Nov 02 23:49	4°♄♑39'20		desc. node		13264 Jan 13 23:31	27°♑47'45	
						13264 Feb 02 06:06	0°♄	
conjunction	13258 Nov 16 13:30	7°♄♑53'50	0°17'52	evening set		13264 Apr 14 12:55	13°♄18'27	
minimum elong	13258 Nov 16 13:29	7°♄♑53'50	0°18'46			13264 Apr 22 10:18	15°♄	
max. Earth dist.	13258 Nov 18 20:07	8°♄♑26'30	5.98134 AU	max. Earth dist.		13264 Apr 25 20:23	15°♄44'13	6.48398 AU
morning rise	13258 Nov 30 04:30	11°♄♑08'48						
	13259 Mar 13 10:43	0°♄		conjunction		13264 Apr 27 10:59	16°♄05'01	-0°04'50
retrograde	13259 Apr 08 18:36	1°♄07'27		minimum elong		13264 Apr 27 10:59	16°♄05'01	0°05'30
	13259 May 04 20:58	30°♄♑		behind sun begin		13264 Apr 27 03:17	16°♄00'53	
min. Earth dist.	13259 Jun 05 18:05	26°♄♑16'48	4.05385 AU	behind sun end		13264 Apr 27 18:41	16°♄09'08	
opposition	13259 Jun 07 08:09	26°♄♑03'55	0°40'39	morning rise		13264 May 10 07:31	18°♄50'55	
direct	13259 Aug 05 01:22	21°♄♑06'26				13264 Jul 06 17:06	0°♄	
	13259 Oct 23 10:31	0°♄		retrograde		13264 Sep 08 14:58	5°♄39'40	
evening set	13259 Dec 09 19:39	10°♄♄13'31		opposition		13264 Nov 08 16:39	0°♄45'59	-0°20'33
				min. Earth dist.		13264 Nov 10 02:17	0°♄35'14	4.43896 AU
conjunction	13259 Dec 23 08:44	13°♄♄20'28	0°33'05			13264 Nov 14 16:50	30°♄♄	
minimum elong	13259 Dec 23 08:44	13°♄♄20'28	0°34'06	direct		13265 Jan 10 03:16	25°♄45'17	
max. Earth dist.	13259 Dec 25 19:20	13°♄♄54'12	6.13858 AU			13265 Mar 06 08:23	0°♄	
morning rise	13260 Jan 05 22:20	16°♄♄27'18		evening set		13265 May 14 23:46	13°♄15'33	
	13260 Mar 12 20:05	0°♄		max. Earth dist.		13265 May 25 14:06	15°♄35'36	6.37531 AU
retrograde	13260 May 11 09:03	5°♄12'14						
min. Earth dist.	13260 Jul 09 01:03	0°♄21'22	4.22661 AU	conjunction		13265 May 27 19:59	16°♄05'23	-0°22'27
opposition	13260 Jul 10 11:51	0°♄09'43	0°53'51	minimum elong		13265 May 27 19:58	16°♄05'22	0°23'24
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direct	13260 Sep 08 07:46	25°♄♄10'28				13265 Aug 03 15:09	0°♄	
	13260 Nov 05 01:10	0°♄		retrograde		13265 Oct 10 20:17	6°♄28'02	
evening set	13261 Jan 12 09:09	13°♄22'22		opposition		13265 Dec 10 15:27	1°♄34'20	-0°43'31
	13261 Jan 19 17:56	15°♄		min. Earth dist.		13265 Dec 12 06:52	1°♄21'39	4.29721 AU
						13265 Dec 23 01:36	30°♄♄	
conjunction	13261 Jan 25 19:08	16°♄20'29	0°36'25	direct		13266 Feb 10 07:15	26°♄34'28	
minimum elong	13261 Jan 25 19:09	16°♄20'29	0°37'12			13266 Mar 30 17:52	0°♄	
max. Earth dist.	13261 Jan 27 13:46	16°♄44'06	6.31235 AU	evening set		13266 Jun 15 18:47	14°♄50'05	
morning rise	13261 Feb 08 04:27	19°♄17'59		max. Earth dist.		13266 Jun 26 08:28	17°♄15'06	6.21049 AU
	13261 Apr 02 02:54	0°♄♄						
retrograde	13261 Jun 11 17:17	6°♄54'26		conjunction		13266 Jun 28 15:15	17°♄46'34	-0°34'20
min. Earth dist.	13261 Aug 10 11:07	2°♄01'06	4.38712 AU	minimum elong		13266 Jun 28 15:15	17°♄46'33	0°35'20
opposition	13261 Aug 11 07:04	1°♄54'33	0°49'31	morning rise		13266 Jul 11 11:26	20°♄43'15	
	13261 Aug 26 05:06	30°♄♄				13266 Aug 23 09:47	0°♄	
direct	13261 Oct 11 09:39	26°♄54'13		retrograde		13266 Nov 14 18:16	9°♄25'00	
	13261 Nov 26 17:40	0°♄♄		opposition		13267 Jan 13 23:33	4°♄30'17	-0°54'43
evening set	13262 Feb 13 16:56	14°♄♄22'19		min. Earth dist.		13267 Jan 15 10:32	4°♄18'52	4.12035 AU
						13267 Feb 26 10:31	30°♄♄	
conjunction	13262 Feb 26 22:38	17°♄13'17	0°28'52	direct		13267 Mar 15 11:27	29°♄32'02	
minimum elong	13262 Feb 26 22:39	17°♄13'18	0°29'11			13267 Apr 01 10:55	0°♄	
max. Earth dist.	13262 Feb 27 14:23	17°♄21'46	6.44792 AU			13267 Jul 03 16:29	15°♄	
morning rise	13262 Mar 12 03:03	20°♄03'27		evening set		13267 Jul 19 17:12	18°♄44'10	
	13262 May 01 08:50	0°♄		max. Earth dist.		13267 Jul 31 01:57	21°♄26'19	6.03665 AU
retrograde	13262 Jul 11 14:01	6°♄54'11						
opposition	13262 Sep 10 13:34	1°♄57'08	0°31'58	conjunction		13267 Aug 01 16:58	21°♄49'34	-0°35'35
min. Earth dist.	13262 Sep 10 12:13	1°♄57'34	4.48942 AU	minimum elong		13267 Aug 01 16:58	21°♄49'35	0°36'17
	13262 Sep 26 01:53	30°♄♄		morning rise		13267 Aug 14 17:32	24°♄55'45	
direct	13262 Nov 11 14:27	26°♄56'18				13267 Sep 05 12:31	0°♄♄	

retrograde	13267 Dec 22 05:04	14° $\cap$ 53'07		retrograde	13273 Jun 15 22:23	11° $\text{X}$ 22'30	
opposition	13268 Feb 19 21:00	9° $\cap$ 56'24	-0°47'05	opposition	13273 Aug 15 15:18	6° $\text{X}$ 22'56	0°47'38
min. Earth dist.	13268 Feb 20 12:40	9° $\cap$ 51'13	3.96533 AU	min. Earth dist.	13273 Aug 14 20:53	6° $\text{X}$ 28'58	4.40738 AU
direct	13268 Apr 18 23:21	5° $\cap$ 00'13		direct	13273 Oct 15 21:01	1° $\text{X}$ 22'28	
evening set	13268 Aug 24 01:27	25° $\cap$ 00'47		evening set	13274 Feb 18 02:29	18° $\text{X}$ 45'16	
conjunction	13268 Sep 06 06:49	28° $\cap$ 14'30	-0°23'36	conjunction	13274 Mar 03 07:35	21° $\text{X}$ 35'23	0°27'04
minimum elong	13268 Sep 06 06:50	28° $\cap$ 14'30	0°23'44	minimum elong	13274 Mar 03 07:36	21° $\text{X}$ 35'24	0°27'18
max. Earth dist.	13268 Sep 06 00:46	28° $\cap$ 10'48	5.91588 AU	max. Earth dist.	13274 Mar 03 19:44	21° $\text{X}$ 41'55	6.46360 AU
	13268 Sep 13 11:21	0° $\underline{\text{A}}$		morning rise	13274 Mar 16 11:11	24° $\text{X}$ 24'39	
morning rise	13268 Sep 19 14:03	1° $\underline{\text{A}}$ 29'21			13274 Apr 12 10:58	0° $\Upsilon$	
retrograde	13269 Jan 29 04:19	22° $\underline{\text{A}}$ 17'55		retrograde	13274 Jul 15 17:28	11° $\Upsilon$ 10'35	
opposition	13269 Mar 29 11:03	17° $\underline{\text{A}}$ 18'12	-0°19'57	opposition	13274 Sep 14 18:00	6° $\Upsilon$ 13'55	0°28'41
min. Earth dist.	13269 Mar 29 01:16	17° $\underline{\text{A}}$ 21'30	3.89292 AU	min. Earth dist.	13274 Sep 14 19:48	6° $\Upsilon$ 13'20	4.49945 AU
direct	13269 May 26 15:02	12° $\underline{\text{A}}$ 23'05		direct	13274 Nov 15 22:39	1° $\Upsilon$ 13'04	
	13269 Sep 20 01:01	0° $\mathbb{M}$		evening set	13275 Mar 20 16:01	18° $\Upsilon$ 15'53	
evening set	13269 Oct 01 02:43	2° $\mathbb{M}$ 40'18		conjunction	13275 Apr 02 16:58	21° $\Upsilon$ 02'30	0°11'17
conjunction	13269 Oct 14 13:58	5° $\mathbb{M}$ 57'37	-0°01'47	minimum elong	13275 Apr 02 16:59	21° $\Upsilon$ 02'30	0°11'02
minimum elong	13269 Oct 14 13:58	5° $\mathbb{M}$ 57'37	0°01'16	behind sun begin	13275 Apr 02 10:59	20° $\Upsilon$ 59'19	
behind sun begin	13269 Oct 14 05:36	5° $\mathbb{M}$ 52'32		behind sun end	13275 Apr 02 22:59	21° $\Upsilon$ 05'41	
behind sun end	13269 Oct 14 22:20	6° $\mathbb{M}$ 02'43		max. Earth dist.	13275 Apr 01 23:22	20° $\Upsilon$ 53'07	6.51354 AU
max. Earth dist.	13269 Oct 15 23:15	6° $\mathbb{M}$ 17'59	5.89962 AU	morning rise	13275 Apr 15 16:17	23° $\Upsilon$ 48'18	
morning rise	13269 Oct 28 03:01	9° $\mathbb{M}$ 15'53			13275 May 15 22:31	0° $\text{B}$	
asc. node	13269 Nov 14 00:49	13° $\mathbb{M}$ 18'27		retrograde	13275 Aug 14 08:21	10° $\text{B}$ 22'14	
	13269 Nov 21 07:39	15° $\mathbb{M}$		opposition	13275 Oct 14 12:19	5° $\text{B}$ 27'37	0°02'51
	13270 Mar 04 21:15	0° $\text{X}$		min. Earth dist.	13275 Oct 15 08:57	5° $\text{B}$ 21'00	4.50526 AU
retrograde	13270 Mar 08 15:10	0° $\text{X}$ 01'25		desc. node	13275 Nov 23 07:01	1° $\text{B}$ 13'05	
	13270 Mar 12 08:35	30° $\text{R}\mathbb{M}$		direct	13275 Dec 16 01:57	0° $\text{B}$ 26'39	
opposition	13270 May 06 20:50	24° $\mathbb{M}$ 58'54	0°15'43		13276 Apr 06 14:54	15° $\text{B}$	
min. Earth dist.	13270 May 05 14:10	25° $\mathbb{M}$ 09'18	3.93555 AU	evening set	13276 Apr 18 17:32	17° $\text{B}$ 33'51	
direct	13270 Jul 03 22:58	20° $\mathbb{M}$ 03'03		max. Earth dist.	13276 Apr 29 22:48	19° $\text{B}$ 58'42	6.47440 AU
	13270 Sep 25 04:19	0° $\text{X}$		conjunction	13276 May 01 15:24	20° $\text{B}$ 20'38	-0°07'28
evening set	13270 Nov 08 06:33	9° $\text{X}$ 55'18		minimum elong	13276 May 01 15:24	20° $\text{B}$ 20'38	0°08'11
conjunction	13270 Nov 21 20:22	13° $\text{X}$ 09'12	0°20'34	behind sun begin	13276 May 01 08:19	20° $\text{B}$ 16'49	
minimum elong	13270 Nov 21 20:21	13° $\text{X}$ 09'12	0°21'30	behind sun end	13276 May 01 22:29	20° $\text{B}$ 24'26	
max. Earth dist.	13270 Nov 24 05:27	13° $\text{X}$ 43'13	5.99566 AU	morning rise	13276 May 14 11:27	23° $\text{B}$ 06'45	
morning rise	13270 Dec 05 11:37	16° $\text{X}$ 23'32			13276 Jun 16 20:32	0° $\mathbb{I}$	
	13271 Feb 07 14:10	0° $\text{B}$		retrograde	13276 Sep 12 22:10	9° $\mathbb{I}$ 59'38	
retrograde	13271 Apr 13 15:43	6° $\text{B}$ 14'03		opposition	13276 Nov 13 00:24	5° $\mathbb{I}$ 06'00	-0°24'10
min. Earth dist.	13271 Jun 10 16:01	1° $\text{B}$ 23'54	4.07367 AU	min. Earth dist.	13276 Nov 14 11:06	4° $\mathbb{I}$ 54'54	4.42344 AU
opposition	13271 Jun 12 07:42	1° $\text{B}$ 10'28	0°43'33	direct	13277 Jan 14 08:36	0° $\mathbb{I}$ 05'22	
	13271 Jun 21 02:31	30° $\text{R}\text{X}$		evening set	13277 May 19 07:26	17° $\mathbb{I}$ 40'43	
direct	13271 Aug 10 02:47	26° $\text{X}$ 12'43		max. Earth dist.	13277 May 29 19:59	20° $\mathbb{I}$ 00'27	6.35480 AU
	13271 Sep 28 18:12	0° $\text{B}$		conjunction	13277 Jun 01 03:25	20° $\mathbb{I}$ 31'16	-0°24'34
evening set	13271 Dec 14 20:38	15° $\text{B}$ 12'46		minimum elong	13277 Jun 01 03:25	20° $\mathbb{I}$ 31'15	0°25'32
conjunction	13271 Dec 28 09:25	18° $\text{B}$ 18'32	0°34'14	morning rise	13277 Jun 13 22:28	23° $\mathbb{I}$ 21'35	
minimum elong	13271 Dec 28 09:25	18° $\text{B}$ 18'32	0°35'15		13277 Jul 15 00:46	0° $\text{E}$	
max. Earth dist.	13271 Dec 30 19:04	18° $\text{B}$ 51'33	6.16199 AU	retrograde	13277 Oct 15 13:52	11° $\text{E}$ 03'09	
morning rise	13272 Jan 10 22:31	21° $\text{B}$ 24'05		opposition	13277 Dec 15 06:24	6° $\text{E}$ 09'21	-0°45'57
	13272 Feb 19 19:58	0° $\approx$		min. Earth dist.	13277 Dec 16 23:03	5° $\text{E}$ 56'14	4.27279 AU
retrograde	13272 May 15 23:20	9° $\approx$ 58'43		direct	13278 Feb 14 20:09	1° $\text{E}$ 09'35	
min. Earth dist.	13272 Jul 13 18:19	5° $\approx$ 07'23	4.25105 AU	evening set	13278 Jun 20 08:50	19° $\text{E}$ 33'02	
opposition	13272 Jul 15 03:09	4° $\approx$ 56'26	0°54'10	max. Earth dist.	13278 Jun 30 23:17	21° $\text{E}$ 59'21	6.18414 AU
	13272 Sep 07 13:42	30° $\text{R}\text{B}$		conjunction	13278 Jul 03 05:41	22° $\text{E}$ 30'45	-0°35'13
direct	13272 Sep 13 04:39	29° $\text{B}$ 56'56		minimum elong	13278 Jul 03 05:41	22° $\text{E}$ 30'45	0°36'12
	13272 Sep 18 19:44	0° $\approx$		morning rise	13278 Jul 16 02:19	25° $\text{E}$ 28'44	
	13273 Jan 03 03:19	15° $\approx$			13278 Aug 05 03:00	0° $\Omega$	
evening set	13273 Jan 17 01:54	18° $\approx$ 01'25		retrograde	13278 Nov 19 19:19	14° $\Omega$ 21'35	
conjunction	13273 Jan 30 11:20	20° $\approx$ 58'21	0°35'54	opposition	13279 Jan 18 23:25	9° $\Omega$ 26'39	-0°54'51
minimum elong	13273 Jan 30 11:21	20° $\approx$ 58'21	0°36'38	min. Earth dist.	13279 Jan 20 08:01	9° $\Omega$ 16'00	4.09424 AU
max. Earth dist.	13273 Feb 01 03:45	21° $\approx$ 20'37	6.33564 AU	direct	13279 Mar 20 05:36	4° $\Omega$ 28'39	
morning rise	13273 Feb 12 19:59	23° $\approx$ 54'36			13279 Jun 15 15:08	15° $\Omega$	
	13273 Mar 13 14:43	0° $\text{X}$		evening set	13279 Jul 24 16:05	23° $\Omega$ 49'22	














































































































































max. Earth dist.	13279 Aug 05 05:07	26° $\Omega$ 34'56	6.01317 AU	morning rise	13285 Feb 17 08:23	28° $\approx$ 22'57	
					13285 Feb 24 19:54	0° $\mathbb{H}$	
conjunction	13279 Aug 06 16:30	26° $\Omega$ 56'09	-0°34'40	retrograde	13285 Jun 20 03:24	15° $\mathbb{H}$ 42'34	
minimum elong	13279 Aug 06 16:30	26° $\Omega$ 56'09	0°35'19	opposition	13285 Aug 19 20:58	10° $\mathbb{H}$ 43'27	0°45'34
morning rise	13279 Aug 19 18:00	0° $\mathbb{H}$ 03'48		min. Earth dist.	13285 Aug 19 06:18	10° $\mathbb{H}$ 48'15	4.42685 AU
	13279 Aug 19 11:37	0° $\mathbb{H}$		direct	13285 Oct 20 07:59	5° $\mathbb{H}$ 42'54	
retrograde	13279 Dec 27 16:13	20° $\mathbb{H}$ 11'29		evening set	13286 Feb 22 09:29	23° $\mathbb{H}$ 00'58	
opposition	13280 Feb 25 05:30	15° $\mathbb{H}$ 14'22	-0°44'16				
min. Earth dist.	13280 Feb 25 18:11	15° $\mathbb{H}$ 10'09	3.94687 AU	conjunction	13286 Mar 07 14:01	25° $\mathbb{H}$ 50'20	0°25'10
direct	13280 Apr 24 04:21	10° $\mathbb{H}$ 18'23		minimum elong	13286 Mar 07 14:02	25° $\mathbb{H}$ 50'21	0°25'20
	13280 Aug 27 15:56	0° $\underline{\Omega}$		max. Earth dist.	13286 Mar 07 21:49	25° $\mathbb{H}$ 54'31	6.47696 AU
evening set	13280 Aug 29 08:17	0° $\underline{\Omega}$ 24'32		morning rise	13286 Mar 20 16:58	28° $\mathbb{H}$ 38'51	
					13286 Mar 27 02:10	0° $\mathbb{Y}$	
conjunction	13280 Sep 11 14:45	3° $\underline{\Omega}$ 39'17	-0°20'55	retrograde	13286 Jul 19 18:10	15° $\mathbb{Y}$ 21'03	
minimum elong	13280 Sep 11 14:46	3° $\underline{\Omega}$ 39'17	0°20'57	opposition	13286 Sep 18 20:26	10° $\mathbb{Y}$ 24'44	0°25'21
max. Earth dist.	13280 Sep 11 15:38	3° $\underline{\Omega}$ 39'49	5.90464 AU	min. Earth dist.	13286 Sep 19 00:35	10° $\mathbb{Y}$ 23'23	4.50612 AU
morning rise	13280 Sep 24 22:52	6° $\underline{\Omega}$ 55'06		direct	13286 Nov 20 02:19	5° $\mathbb{Y}$ 23'51	
retrograde	13281 Feb 03 17:40	27° $\underline{\Omega}$ 47'35		evening set	13287 Mar 24 19:41	22° $\mathbb{Y}$ 25'52	
opposition	13281 Apr 03 22:48	22° $\underline{\Omega}$ 47'27	-0°15'00				
min. Earth dist.	13281 Apr 03 09:32	22° $\underline{\Omega}$ 51'55	3.89062 AU	conjunction	13287 Apr 06 20:14	25° $\mathbb{Y}$ 12'18	0°08'45
direct	13281 Jun 01 00:38	17° $\underline{\Omega}$ 52'25		minimum elong	13287 Apr 06 20:14	25° $\mathbb{Y}$ 12'19	0°08'25
	13281 Sep 01 17:20	0° $\mathbb{M}$		behind sun begin	13287 Apr 06 13:13	25° $\mathbb{Y}$ 08'35	
asc. node	13281 Sep 20 18:33	4° $\mathbb{M}$ 21'48		behind sun end	13287 Apr 07 03:16	25° $\mathbb{Y}$ 16'03	
evening set	13281 Oct 06 13:24	8° $\mathbb{M}$ 08'53		max. Earth dist.	13287 Apr 05 23:22	25° $\mathbb{Y}$ 01'10	6.51308 AU
				morning rise	13287 Apr 19 18:56	27° $\mathbb{Y}$ 57'57	
conjunction	13281 Oct 20 01:08	11° $\mathbb{M}$ 26'08	0°01'43		13287 Apr 29 10:49	0° $\mathbb{B}$	
minimum elong	13281 Oct 20 01:06	11° $\mathbb{M}$ 26'07	0°02'19	retrograde	13287 Aug 18 11:49	14° $\mathbb{B}$ 33'01	
behind sun begin	13281 Oct 19 16:44	11° $\mathbb{M}$ 21'03		desc. node	13287 Oct 05 03:21	11° $\mathbb{B}$ 20'16	
behind sun end	13281 Oct 20 09:28	11° $\mathbb{M}$ 31'12		opposition	13287 Oct 18 15:57	9° $\mathbb{B}$ 38'40	-0°00'59
max. Earth dist.	13281 Oct 21 14:30	11° $\mathbb{M}$ 48'56	5.90645 AU	min. Earth dist.	13287 Oct 19 15:25	9° $\mathbb{B}$ 31'10	4.49770 AU
morning rise	13281 Nov 02 14:54	14° $\mathbb{M}$ 44'19		direct	13287 Dec 20 05:58	4° $\mathbb{B}$ 37'47	
	13281 Nov 03 16:50	15° $\mathbb{M}$			13288 Mar 20 21:21	15° $\mathbb{B}$	
	13282 Jan 13 01:45	0° $\mathbb{Z}$		evening set	13288 Apr 22 21:59	21° $\mathbb{B}$ 48'06	
retrograde	13282 Mar 13 20:15	5° $\mathbb{Z}$ 24'32		max. Earth dist.	13288 May 03 22:23	24° $\mathbb{B}$ 10'53	6.46012 AU
min. Earth dist.	13282 May 10 18:05	0° $\mathbb{Z}$ 33'14	3.95086 AU				
opposition	13282 May 12 04:04	0° $\mathbb{Z}$ 21'42	0°20'28	conjunction	13288 May 05 19:22	24° $\mathbb{B}$ 35'16	-0°10'03
	13282 May 14 20:05	30° $\mathbb{R}\mathbb{M}$		minimum elong	13288 May 05 19:22	24° $\mathbb{B}$ 35'16	0°10'49
direct	13282 Jul 09 06:56	25° $\mathbb{M}$ 25'36		behind sun begin	13288 May 05 13:16	24° $\mathbb{B}$ 31'59	
	13282 Sep 01 08:02	0° $\mathbb{Z}$		behind sun end	13288 May 06 01:28	24° $\mathbb{B}$ 38'33	
evening set	13282 Nov 13 13:48	15° $\mathbb{Z}$ 11'10		morning rise	13288 May 18 15:20	27° $\mathbb{B}$ 21'53	
					13288 May 30 23:42	0° $\mathbb{I}$	
conjunction	13282 Nov 27 03:38	18° $\mathbb{Z}$ 24'01	0°23'10	retrograde	13288 Sep 17 08:44	14° $\mathbb{I}$ 20'41	
minimum elong	13282 Nov 27 03:37	18° $\mathbb{Z}$ 24'01	0°24'08	opposition	13288 Nov 17 09:03	9° $\mathbb{I}$ 27'08	-0°27'42
max. Earth dist.	13282 Nov 29 14:13	18° $\mathbb{Z}$ 58'45	6.01784 AU	min. Earth dist.	13288 Nov 18 21:40	9° $\mathbb{I}$ 15'24	4.40329 AU
morning rise	13282 Dec 10 18:42	21° $\mathbb{Z}$ 37'11		direct	13289 Jan 18 15:48	4° $\mathbb{I}$ 26'34	
	13283 Jan 17 02:42	0° $\mathbb{Z}$		evening set	13289 May 23 16:14	22° $\mathbb{I}$ 08'39	
retrograde	13283 Apr 18 12:36	11° $\mathbb{Z}$ 16'37		max. Earth dist.	13289 Jun 03 04:39	24° $\mathbb{I}$ 29'04	6.33028 AU
min. Earth dist.	13283 Jun 15 15:06	6° $\mathbb{Z}$ 26'10	4.09999 AU				
opposition	13283 Jun 17 05:58	6° $\mathbb{Z}$ 13'02	0°46'08	conjunction	13289 Jun 05 12:23	25° $\mathbb{I}$ 00'12	-0°26'33
direct	13283 Aug 15 06:11	1° $\mathbb{Z}$ 14'58		minimum elong	13289 Jun 05 12:23	25° $\mathbb{I}$ 00'12	0°27'34
evening set	13283 Dec 19 19:21	20° $\mathbb{Z}$ 05'50		morning rise	13289 Jun 18 07:24	27° $\mathbb{I}$ 51'32	
					13289 Jun 28 00:15	0° $\mathbb{E}$	
conjunction	13284 Jan 02 07:48	23° $\mathbb{Z}$ 10'12	0°35'10	retrograde	13289 Oct 20 07:43	15° $\mathbb{E}$ 43'00	
minimum elong	13284 Jan 02 07:48	23° $\mathbb{Z}$ 10'12	0°36'08	opposition	13289 Dec 19 23:18	10° $\mathbb{E}$ 49'10	-0°48'08
max. Earth dist.	13284 Jan 04 17:18	23° $\mathbb{Z}$ 42'55	6.19001 AU	min. Earth dist.	13289 Dec 21 15:08	10° $\mathbb{E}$ 36'19	4.24567 AU
morning rise	13284 Jan 15 20:15	26° $\mathbb{Z}$ 14'14		direct	13290 Feb 19 08:10	5° $\mathbb{E}$ 49'42	
	13284 Feb 01 19:09	0° $\approx$		evening set	13290 Jun 25 01:16	24° $\mathbb{E}$ 22'02	
retrograde	13284 May 20 08:43	14° $\approx$ 37'23		max. Earth dist.	13290 Jul 05 17:28	26° $\mathbb{E}$ 50'20	6.15659 AU
min. Earth dist.	13284 Jul 18 07:37	9° $\approx$ 46'06	4.27822 AU				
opposition	13284 Jul 19 15:42	9° $\approx$ 35'25	0°54'08	conjunction	13290 Jul 07 22:22	27° $\mathbb{E}$ 21'04	-0°35'54
direct	13284 Sep 17 20:55	4° $\approx$ 35'46		minimum elong	13290 Jul 07 22:22	27° $\mathbb{E}$ 21'04	0°36'50
	13284 Dec 16 15:22	15° $\approx$			13290 Jul 19 08:12	0° $\Omega$	
evening set	13285 Jan 21 15:45	22° $\approx$ 32'19		morning rise	13290 Jul 20 19:39	0° $\Omega$ 20'29	
					13290 Oct 01 11:05	15° $\Omega$	
conjunction	13285 Feb 04 00:27	25° $\approx$ 27'59	0°35'11	retrograde	13290 Nov 25 01:16	19° $\Omega$ 25'11	
minimum elong	13285 Feb 04 00:27	25° $\approx$ 27'59	0°35'51		13291 Jan 20 06:41	15° $\mathbb{R}\Omega$	
max. Earth dist.	13285 Feb 05 12:00	25° $\approx$ 47'29	6.35981 AU	opposition	13291 Jan 24 02:22	14° $\Omega$ 30'01	-0°54'36

min. Earth dist.	13291 Jan 25 08:51	14°♌20'01	4.06858 AU			13296 Nov 26 02:54	15°♏	
direct	13291 Mar 25 04:40	9°♌32'20		evening set		13297 Jan 26 03:59	27°♏00'34	
	13291 May 24 12:48	15°♌						
evening set	13291 Jul 29 17:15	29°♌01'15		conjunction		13297 Feb 08 12:16	29°♏55'13	0°34'17
	13291 Aug 02 19:24	0°♍		minimum elong		13297 Feb 08 12:17	29°♏55'13	0°34'53
						13297 Feb 08 21:02	0°♋	
conjunction	13291 Aug 11 18:34	2°♍09'24	-0°33'28	max. Earth dist.		13297 Feb 09 21:15	0°♋13'14	6.37975 AU
minimum elong	13291 Aug 11 18:35	2°♍09'24	0°34'02	morning rise		13297 Feb 21 19:23	2°♋49'06	
max. Earth dist.	13291 Aug 10 12:46	1°♍51'27	5.99204 AU	retrograde		13297 Jun 24 06:20	20°♋01'58	
morning rise	13291 Aug 24 20:50	5°♍18'24		opposition		13297 Aug 24 02:08	15°♋03'16	0°43'16
retrograde	13292 Jan 02 04:16	25°♍35'06		min. Earth dist.		13297 Aug 23 13:19	15°♋07'27	4.44177 AU
opposition	13292 Mar 01 15:45	20°♍37'37	-0°41'02	direct		13297 Oct 24 15:18	10°♋02'38	
min. Earth dist.	13292 Mar 02 00:41	20°♍34'39	3.93281 AU	evening set		13298 Feb 26 16:24	27°♋17'19	
direct	13292 Apr 29 10:03	15°♍41'56						
	13292 Aug 10 01:33	0°♎		conjunction		13298 Mar 11 20:15	0°♍06'07	0°23'07
evening set	13292 Sep 03 16:37	5°♎51'43		minimum elong		13298 Mar 11 20:16	0°♍06'07	0°23'14
						13298 Mar 11 08:50	0°♍	
conjunction	13292 Sep 16 23:44	9°♎07'06	-0°18'02	max. Earth dist.		13298 Mar 11 22:54	0°♍07'32	6.48587 AU
minimum elong	13292 Sep 16 23:45	9°♎07'06	0°17'59	morning rise		13298 Mar 24 22:38	2°♍54'04	
max. Earth dist.	13292 Sep 17 05:13	9°♎10'27	5.89893 AU	retrograde		13298 Jul 23 22:18	19°♍33'55	
morning rise	13292 Sep 30 08:56	12°♎23'39		opposition		13298 Sep 23 00:03	14°♍37'56	0°21'51
	13292 Dec 25 10:29	0°♏		min. Earth dist.		13298 Sep 23 08:01	14°♍35'22	4.50860 AU
retrograde	13293 Feb 09 03:44	3°♏17'15		direct		13298 Nov 24 08:40	9°♍37'01	
	13293 Mar 27 09:13	30°♏♎		evening set		13299 Mar 29 00:36	26°♍39'15	
opposition	13293 Apr 09 09:42	28°♎16'38	-0°09'56	max. Earth dist.		13299 Apr 09 23:29	29°♍12'12	6.50892 AU
min. Earth dist.	13293 Apr 08 15:59	28°♎22'37	3.89405 AU					
direct	13293 Jun 06 10:28	23°♎21'30		conjunction		13299 Apr 11 00:41	29°♍25'40	0°06'09
asc. node	13293 Jul 28 12:23	27°♎41'27		minimum elong		13299 Apr 11 00:41	29°♍25'40	0°05'44
	13293 Aug 11 04:19	0°♏		behind sun begin		13299 Apr 10 17:00	29°♍21'35	
evening set	13293 Oct 11 22:49	13°♏35'01		behind sun end		13299 Apr 11 08:21	29°♍29'45	
	13293 Oct 17 19:01	15°♏				13299 Apr 13 16:52	0°♐	
conjunction	13293 Oct 25 11:03	16°♏51'55	0°05'04	morning rise		13299 Apr 23 22:59	2°♐11'19	
minimum elong	13293 Oct 25 11:03	16°♏51'55	0°05'44			13299 Jul 02 03:50	15°♐	
behind sun begin	13293 Oct 25 03:03	16°♏47'04		desc. node		13299 Aug 16 23:51	18°♐45'25	
behind sun end	13293 Oct 25 19:03	16°♏56'45		retrograde		13299 Aug 22 17:16	18°♐48'29	
max. Earth dist.	13293 Oct 27 04:54	17°♏17'22	5.91844 AU			13299 Oct 14 06:20	15°♐♎	
morning rise	13293 Nov 08 01:08	20°♏09'38		opposition		13299 Oct 22 21:28	13°♐54'17	-0°04'54
	13293 Dec 21 02:45	0°♑		min. Earth dist.		13299 Oct 23 22:39	13°♐46'14	4.48736 AU
retrograde	13294 Mar 19 00:09	10°♑42'42		direct		13299 Dec 24 10:28	8°♐53'25	
min. Earth dist.	13294 May 15 22:17	5°♑51'21	3.96970 AU			13300 Mar 02 05:14	15°♐	
opposition	13294 May 17 09:00	5°♑39'34	0°24'58	evening set		13300 Apr 28 04:21	26°♐07'30	
direct	13294 Jul 14 14:54	0°♑43'11		max. Earth dist.		13300 May 09 03:50	28°♐30'16	6.44437 AU
evening set	13294 Nov 18 18:07	20°♑21'03						
conjunction	13294 Dec 02 07:58	23°♑32'46	0°25'32	conjunction		13300 May 11 01:36	28°♐55'10	-0°12'38
minimum elong	13294 Dec 02 07:57	23°♑32'46	0°26'33	minimum elong		13300 May 11 01:35	28°♐55'09	0°13'26
max. Earth dist.	13294 Dec 04 20:44	24°♑08'34	6.04148 AU	behind sun begin		13300 May 10 21:03	28°♐52'42	
morning rise	13294 Dec 15 22:46	26°♑44'41		behind sun end		13300 May 11 06:07	28°♐57'37	
	13294 Dec 30 01:34	0°♒				13300 May 16 00:43	0°♒	
retrograde	13295 Apr 23 05:35	16°♒12'55		morning rise		13300 May 23 21:11	1°♒42'16	
min. Earth dist.	13295 Jun 20 10:06	11°♒22'40	4.12597 AU	retrograde		13300 Sep 22 20:40	18°♒47'19	
opposition	13295 Jun 22 01:15	11°♒09'29	0°48'20	opposition		13300 Nov 22 20:16	13°♒53'51	-0°31'10
direct	13295 Aug 20 04:56	6°♒11'10		min. Earth dist.		13300 Nov 24 09:53	13°♒41'49	4.38322 AU
evening set	13295 Dec 24 15:42	24°♒53'31		direct		13301 Jan 24 00:44	8°♒53'30	
				evening set		13301 May 29 03:17	26°♒41'58	
conjunction	13296 Jan 07 03:32	27°♒56'30	0°35'52	max. Earth dist.		13301 Jun 08 14:26	29°♒02'29	6.30747 AU
minimum elong	13296 Jan 07 03:32	27°♒56'30	0°36'49					
max. Earth dist.	13296 Jan 09 09:14	28°♒26'53	6.21595 AU	conjunction		13301 Jun 10 23:15	29°♒34'23	-0°28'26
	13296 Jan 16 06:11	0°♓		minimum elong		13301 Jun 10 23:14	29°♒34'23	0°29'28
morning rise	13296 Jan 20 15:31	0°♓59'09				13301 Jun 12 20:51	0°♓	
	13296 Apr 01 10:29	15°♓		morning rise		13301 Jun 23 18:33	2°♓26'43	
retrograde	13296 May 24 18:14	19°♓12'05		retrograde		13301 Oct 26 05:06	20°♓27'32	
	13296 Jul 17 20:35	15°♓♏		opposition		13301 Dec 25 18:39	15°♓33'35	-0°50'06
min. Earth dist.	13296 Jul 22 21:12	14°♓20'09	4.30200 AU	min. Earth dist.		13301 Dec 27 09:27	15°♓21'01	4.22187 AU
opposition	13296 Jul 24 02:23	14°♓10'27	0°53'47	direct		13302 Feb 25 00:06	10°♓34'22	
direct	13296 Sep 22 12:52	9°♓10'33		evening set		13302 Jun 30 19:05	29°♓14'06	
						13302 Jul 04 02:17	0°♌	
				max. Earth dist.		13302 Jul 11 15:33	1°♌45'34	6.13412 AU

conjunction	13302 Jul 13 16:42	2°♏14'16	-0°36'22	conjunction	13308 Jan 12 18:06	2°♊29'49	0°36'20
minimum elong	13302 Jul 13 16:42	2°♏14'16	0°37'16	minimum elong	13308 Jan 12 18:06	2°♊29'49	0°37'15
morning rise	13302 Jul 26 14:18	5°♏14'50		max. Earth dist.	13308 Jan 14 22:13	2°♊59'11	6.23800 AU
	13302 Sep 09 01:31	15°♏		morning rise	13308 Jan 26 05:23	5°♊31'17	
retrograde	13302 Dec 01 06:34	24°♏29'06			13308 Mar 11 11:40	15°♊	
opposition	13303 Jan 30 05:38	19°♏33'43	-0°53'59	retrograde	13308 May 29 23:46	23°♊35'56	
min. Earth dist.	13303 Jan 31 09:28	19°♏24'36	4.04968 AU	min. Earth dist.	13308 Jul 28 05:31	18°♊43'51	4.32103 AU
	13303 Mar 15 15:31	15°♏♏		opposition	13308 Jul 29 08:55	18°♊34'47	0°53'14
direct	13303 Mar 31 03:05	14°♏36'26			13308 Aug 28 17:06	15°♏♊	
	13303 Apr 15 14:31	15°♏		direct	13308 Sep 27 22:15	13°♊34'51	
	13303 Jul 18 00:38	0°♏			13308 Oct 28 11:12	15°♊	
evening set	13303 Aug 04 18:12	4°♏10'48			13309 Jan 25 07:55	0°♏	
				evening set	13309 Jan 31 12:41	1°♏20'10	
conjunction	13303 Aug 17 20:00	7°♏19'51	-0°32'04	conjunction	13309 Feb 13 20:17	4°♏14'00	0°33'17
minimum elong	13303 Aug 17 20:01	7°♏19'52	0°32'33	minimum elong	13309 Feb 13 20:18	4°♏14'01	0°33'48
max. Earth dist.	13303 Aug 16 17:46	7°♏04'01	5.97852 AU	max. Earth dist.	13309 Feb 14 23:47	4°♏28'59	6.39445 AU
morning rise	13303 Aug 30 23:14	10°♏29'53		morning rise	13309 Feb 27 02:59	7°♏07'07	
	13303 Dec 16 08:30	0°♏		retrograde	13309 Jun 29 09:37	24°♏15'17	
retrograde	13304 Jan 08 11:29	0°♏52'18		opposition	13309 Aug 29 04:54	19°♏17'01	0°40'54
	13304 Jan 31 15:03	30°♏♏		min. Earth dist.	13309 Aug 28 19:31	19°♏20'05	4.45151 AU
opposition	13304 Mar 07 23:33	25°♏54'23	-0°37'35	direct	13309 Oct 29 21:08	14°♏16'20	
min. Earth dist.	13304 Mar 08 04:02	25°♏52'53	3.92629 AU		13310 Feb 24 20:06	0°♏	
direct	13304 May 05 14:48	20°♏58'53		evening set	13310 Mar 03 21:13	1°♏29'23	
	13304 Jul 22 22:16	0°♏					
evening set	13304 Sep 09 21:32	11°♏09'21		conjunction	13310 Mar 17 00:45	4°♏17'52	0°21'04
				minimum elong	13310 Mar 17 00:46	4°♏17'52	0°21'06
conjunction	13304 Sep 23 05:26	14°♏25'02	-0°15'09	max. Earth dist.	13310 Mar 17 00:43	4°♏17'50	6.49020 AU
minimum elong	13304 Sep 23 05:27	14°♏25'02	0°15'00	morning rise	13310 Mar 30 02:29	7°♏05'27	
behind sun begin	13304 Sep 23 02:23	14°♏23'10		retrograde	13310 Jul 28 23:32	23°♏44'22	
behind sun end	13304 Sep 23 08:30	14°♏26'54		opposition	13310 Sep 28 02:20	18°♏48'42	0°18'23
max. Earth dist.	13304 Sep 23 17:15	14°♏32'16	5.90022 AU	min. Earth dist.	13310 Sep 28 11:42	18°♏45'41	4.50756 AU
morning rise	13304 Oct 06 15:12	17°♏41'48		direct	13310 Nov 29 10:38	13°♏47'49	
	13304 Nov 30 06:30	0°♏			13311 Mar 30 03:38	0°♏	
retrograde	13305 Feb 15 10:15	8°♏33'48		evening set	13311 Apr 03 04:31	0°♏51'17	
opposition	13305 Apr 15 15:46	3°♏32'47	-0°05'03	max. Earth dist.	13311 Apr 15 00:13	3°♏22'48	6.50262 AU
min. Earth dist.	13305 Apr 14 20:12	3°♏39'24	3.90297 AU				
	13305 May 15 02:46	30°♏♏		conjunction	13311 Apr 16 04:08	3°♏37'46	0°03'35
asc. node	13305 Jun 09 11:57	28°♏38'41		minimum elong	13311 Apr 16 04:07	3°♏37'46	0°03'06
direct	13305 Jun 12 17:29	28°♏37'35		behind sun begin	13311 Apr 15 20:09	3°♏33'31	
	13305 Jul 11 05:56	0°♏		behind sun end	13311 Apr 16 12:06	3°♏42'01	
	13305 Oct 02 06:35	15°♏		morning rise	13311 Apr 29 02:02	6°♏23'30	
evening set	13305 Oct 18 02:49	18°♏46'20			13311 Jun 11 00:20	15°♏	
				desc. node	13311 Jun 30 10:23	18°♏14'22	
conjunction	13305 Oct 31 15:25	22°♏02'39	0°08'11	retrograde	13311 Aug 27 23:37	23°♏03'23	
minimum elong	13305 Oct 31 15:25	22°♏02'38	0°08'54	opposition	13311 Oct 28 02:44	18°♏09'22	-0°08'41
behind sun begin	13305 Oct 31 08:16	21°♏58'20		min. Earth dist.	13311 Oct 29 06:23	18°♏00'31	4.47614 AU
behind sun end	13305 Oct 31 22:34	22°♏06'57			13311 Nov 23 20:48	15°♏♏	
max. Earth dist.	13305 Nov 02 13:04	22°♏30'17	5.93392 AU	direct	13311 Dec 29 16:00	13°♏08'32	
morning rise	13305 Nov 14 05:45	25°♏19'42			13312 Feb 03 12:22	15°♏	
	13305 Dec 04 01:08	0°♏♏		evening set	13312 Apr 30 09:14	0°♏	
retrograde	13306 Mar 24 21:00	15°♏♏44'29		max. Earth dist.	13312 May 02 09:57	0°♏26'19	
min. Earth dist.	13306 May 21 19:11	10°♏♏53'33	3.99005 AU		13312 May 13 06:16	2°♏47'55	6.42884 AU
opposition	13306 May 23 07:24	10°♏♏41'17	0°29'01				
direct	13306 Jul 20 14:39	5°♏♏44'43		conjunction	13312 May 15 06:52	3°♏14'26	-0°15'06
evening set	13306 Nov 24 16:37	25°♏♏15'02		minimum elong	13312 May 15 06:51	3°♏14'26	0°15'58
				behind sun begin	13312 May 15 05:47	3°♏13'51	
conjunction	13306 Dec 08 06:11	28°♏♏25'36	0°27'36	behind sun end	13312 May 15 07:55	3°♏15'01	
minimum elong	13306 Dec 08 06:10	28°♏♏25'36	0°28'37	morning rise	13312 May 28 02:23	6°♏02'05	
max. Earth dist.	13306 Dec 10 16:57	29°♏♏00'02	6.06451 AU	retrograde	13312 Sep 27 07:53	23°♏13'11	
	13306 Dec 14 23:27	0°♏		opposition	13312 Nov 27 06:46	18°♏19'38	-0°34'23
morning rise	13306 Dec 21 20:52	1°♏36'21		min. Earth dist.	13312 Nov 28 20:19	18°♏07'35	4.36420 AU
retrograde	13307 Apr 28 17:34	20°♏35'24		direct	13313 Jan 28 08:23	13°♏19'19	
min. Earth dist.	13307 Jun 26 01:11	16°♏03'50	4.14940 AU		13313 May 28 00:47	0°♏	
opposition	13307 Jun 27 14:47	15°♏51'10	0°50'08	evening set	13313 Jun 02 13:07	1°♏13'37	
direct	13307 Aug 25 22:47	10°♏35'23		max. Earth dist.	13313 Jun 13 01:59	3°♏35'43	6.28615 AU
evening set	13307 Dec 30 06:28	29°♏32'54					
	13308 Jan 01 15:45	0°♏					

conjunction	13313 Jun 15 09:15	4°☿06'54	-0°30'06	morning rise	13318 Dec 26 21:13	6°♄33'39	
minimum elong	13313 Jun 15 09:14	4°☿06'54	0°31'08	retrograde	13319 May 03 09:07	25°♄42'08	
morning rise	13313 Jun 28 04:30	7°☿00'06		min. Earth dist.	13319 Jun 30 18:13	20°♄51'29	4.17173 AU
retrograde	13313 Oct 31 00:51	25°☿09'34		opposition	13319 Jul 02 07:02	20°♄39'07	0°51'37
opposition	13313 Dec 30 12:28	20°☿15'27	-0°51'40	direct	13319 Aug 30 18:38	15°♄40'23	
min. Earth dist.	13314 Jan 01 02:51	20°☿03'01	4.19950 AU		13319 Dec 16 02:57	0°♁	
direct	13314 Mar 01 14:06	15°☿16'26		evening set	13320 Jan 04 00:27	4°♁08'46	
	13314 Jun 17 17:55	0°♁					
evening set	13314 Jul 05 11:19	4°♁03'03		conjunction	13320 Jan 17 11:29	7°♁09'33	0°36'33
max. Earth dist.	13314 Jul 16 08:53	6°♁35'58	6.11227 AU	minimum elong	13320 Jan 17 11:29	7°♁09'33	0°37'26
				max. Earth dist.	13320 Jan 19 12:29	7°♁37'00	6.26012 AU
conjunction	13314 Jul 18 09:11	7°♁04'18	-0°36'32	morning rise	13320 Jan 30 22:22	10°♁09'52	
minimum elong	13314 Jul 18 09:11	7°♁04'18	0°37'25		13320 Feb 22 04:52	15°♁	
morning rise	13314 Jul 31 07:32	10°♁06'06		retrograde	13320 Jun 03 07:13	28°♁05'53	
	13314 Aug 21 16:51	15°♁		opposition	13320 Aug 02 18:04	23°♁05'04	0°52'19
retrograde	13314 Dec 06 08:41	29°♁29'56		min. Earth dist.	13320 Aug 01 16:30	23°♁13'32	4.34150 AU
opposition	13315 Feb 04 07:12	24°♁34'11	-0°52'54	direct	13320 Oct 02 10:58	18°♁05'01	
min. Earth dist.	13315 Feb 05 07:51	24°♁26'04	4.03015 AU		13321 Jan 08 14:07	0°♂	
direct	13315 Apr 05 00:07	19°♁37'05		evening set	13321 Feb 04 23:41	5°♂44'52	
	13315 Jun 29 23:57	0°♂					
evening set	13315 Aug 09 17:30	9°♂17'23		conjunction	13321 Feb 18 06:53	8°♂37'49	0°32'02
				minimum elong	13321 Feb 18 06:53	8°♂37'50	0°32'31
conjunction	13315 Aug 22 20:10	12°♂27'31	-0°30'24	max. Earth dist.	13321 Feb 19 08:26	8°♂51'42	6.41220 AU
minimum elong	13315 Aug 22 20:11	12°♂27'31	0°30'48	morning rise	13321 Mar 03 12:43	11°♂29'56	
max. Earth dist.	13315 Aug 21 23:32	12°♂15'01	5.96329 AU	retrograde	13321 Jul 03 12:37	28°♂32'08	
morning rise	13315 Sep 05 00:07	15°♂38'37		opposition	13321 Sep 02 09:35	23°♂34'17	0°38'15
	13315 Nov 10 13:02	0°♂		min. Earth dist.	13321 Sep 02 01:57	23°♂36'45	4.46556 AU
retrograde	13316 Jan 13 20:33	6°♂07'35		direct	13321 Nov 03 04:25	18°♂33'38	
opposition	13316 Mar 13 06:13	1°♂09'16	-0°33'47		13322 Feb 08 07:48	0°♀	
min. Earth dist.	13316 Mar 13 08:24	1°♂08'32	3.91707 AU	evening set	13322 Mar 08 03:09	5°♀43'18	
	13316 Mar 21 23:11	30°♀					
direct	13316 May 10 19:39	26°♀13'51		conjunction	13322 Mar 21 05:54	8°♀31'09	0°18'53
	13316 Jun 28 06:20	0°♂		minimum elong	13322 Mar 21 05:54	8°♀31'09	0°18'50
evening set	13316 Sep 15 02:18	16°♂26'21		max. Earth dist.	13322 Mar 21 01:14	8°♀28'39	6.49966 AU
conjunction	13316 Sep 28 10:59	19°♂42'31	-0°12'06	morning rise	13322 Apr 03 07:09	11°♀18'10	
minimum elong	13316 Sep 28 10:59	19°♂42'31	0°11'51	retrograde	13322 Aug 02 02:35	27°♀54'30	
behind sun begin	13316 Sep 28 05:12	19°♂38'59		opposition	13322 Oct 02 05:15	22°♀59'07	0°14'50
behind sun end	13316 Sep 28 16:47	19°♂46'03		min. Earth dist.	13322 Oct 02 17:47	22°♀55'05	4.51196 AU
max. Earth dist.	13316 Sep 29 03:28	19°♂52'36	5.89792 AU	direct	13322 Dec 03 15:58	17°♀58'13	
morning rise	13316 Oct 11 21:38	22°♂59'46			13323 Mar 14 02:10	0°♂	
	13316 Nov 10 13:44	0°♂		evening set	13323 Apr 07 07:40	5°♂00'57	
retrograde	13317 Feb 20 15:39	13°♂51'22		max. Earth dist.	13323 Apr 19 00:24	7°♂30'57	6.50160 AU
opposition	13317 Apr 20 21:38	8°♂49'59	-0°00'02				
min. Earth dist.	13317 Apr 19 22:42	8°♂57'44	3.90815 AU	conjunction	13323 Apr 20 06:54	7°♂47'18	0°00'59
asc. node	13317 Apr 21 07:48	8°♂46'32		minimum elong	13323 Apr 20 06:53	7°♂47'17	0°00'28
direct	13317 Jun 17 21:43	3°♂54'39		behind sun begin	13323 Apr 19 22:53	7°♂43'02	
	13317 Sep 14 03:56	15°♂		behind sun end	13323 Apr 20 14:53	7°♂51'33	
evening set	13317 Oct 23 08:14	24°♂00'24		morning rise	13323 May 03 04:13	10°♂32'52	
				desc. node	13323 May 11 13:33	12°♂19'26	
conjunction	13317 Nov 05 21:06	27°♂16'17	0°11'17		13323 May 24 12:18	15°♂	
minimum elong	13317 Nov 05 21:06	27°♂16'16	0°12'05	retrograde	13323 Sep 01 02:16	27°♂13'51	
behind sun begin	13317 Nov 05 15:28	27°♂12'53		opposition	13323 Nov 01 06:26	22°♂19'57	-0°12'21
behind sun end	13317 Nov 06 02:44	27°♂19'39		min. Earth dist.	13323 Nov 02 10:59	22°♂10'49	4.46972 AU
max. Earth dist.	13317 Nov 07 20:24	27°♂44'50	5.94578 AU	direct	13324 Jan 02 18:24	17°♂19'09	
	13317 Nov 17 04:57	0°♂			13324 Apr 14 14:16	0°♂	
morning rise	13317 Nov 19 11:53	0°♂32'54		evening set	13324 May 06 13:27	4°♂39'13	
retrograde	13318 Mar 29 19:45	20°♂50'47		max. Earth dist.	13324 May 17 08:16	7°♂00'23	6.41728 AU
min. Earth dist.	13318 May 26 18:35	15°♂59'56	4.00713 AU				
opposition	13318 May 28 07:32	15°♂47'24	0°32'55	conjunction	13324 May 19 10:03	7°♂27'39	-0°17'23
direct	13318 Jul 25 17:59	10°♂50'31		minimum elong	13324 May 19 10:02	7°♂27'38	0°18'18
	13318 Nov 28 16:24	0°♂		morning rise	13324 Jun 01 05:16	10°♂15'38	
evening set	13318 Nov 29 17:18	0°♂14'26		retrograde	13324 Oct 01 17:37	27°♂31'48	
				opposition	13324 Dec 01 14:51	22°♂38'15	-0°37'16
conjunction	13318 Dec 13 06:57	3°♂24'02	0°29'31	min. Earth dist.	13324 Dec 03 06:18	22°♂25'36	4.34785 AU
minimum elong	13318 Dec 13 06:56	3°♂24'02	0°30'32	direct	13325 Feb 01 15:05	17°♂38'03	
max. Earth dist.	13318 Dec 15 19:02	3°♂59'04	6.08527 AU		13325 May 12 00:45	0°♂	
				evening set	13325 Jun 06 19:58	5°♂37'33	

max. Earth dist.	13325 Jun 17 06:51	7°  59'11	6.26603 AU	conjunction	13330 Dec 18 09:35	8°  27'36	0°31'11
				minimum elong	13330 Dec 18 09:34	8°  27'36	0°32'13
conjunction	13325 Jun 19 16:03	8°  31'37	-0°31'31	max. Earth dist.	13330 Dec 20 21:47	9°  02'32	6.10561 AU
minimum elong	13325 Jun 19 16:02	8°  31'37	0°32'32	morning rise	13330 Dec 31 23:43	11°  36'10	
morning rise	13325 Jul 02 11:37	11°  25'44			13331 Apr 19 02:14	0° 	
retrograde	13325 Nov 04 16:53	29°  43'59		retrograde	13331 May 07 23:56	0°  34'52	
opposition	13326 Jan 04 03:22	24°  49'40	-0°52'50		13331 May 26 20:10	30°  R 	
min. Earth dist.	13326 Jan 05 16:32	24°  37'36	4.17678 AU	min. Earth dist.	13331 Jul 05 11:41	25°  344'19	4.19462 AU
direct	13326 Mar 06 00:13	19°  50'49		opposition	13331 Jul 07 00:34	25°  331'56	0°52'42
	13326 May 31 13:41	0°  Ω		direct	13331 Sep 04 15:11	20°  332'55	
evening set	13326 Jul 10 00:45	8°  Ω44'55			13331 Nov 27 13:38	0° 	
max. Earth dist.	13326 Jul 21 01:52	11°  Ω20'40	6.08890 AU	evening set	13332 Jan 08 19:42	8°  354'00	
conjunction	13326 Jul 22 23:13	11°  Ω47'25	-0°36'27	conjunction	13332 Jan 22 06:20	11°  353'35	0°36'31
minimum elong	13326 Jul 22 23:14	11°  Ω47'26	0°37'17	minimum elong	13332 Jan 22 06:21	11°  353'35	0°37'20
morning rise	13326 Aug 04 22:03	14°  Ω50'29		max. Earth dist.	13332 Jan 24 05:31	12°  319'53	6.28359 AU
	13326 Aug 05 14:17	15°  Ω		morning rise	13332 Feb 04 16:27	14°  352'35	
	13326 Oct 18 03:25	0°  M 			13332 Feb 05 05:53	15° 	
retrograde	13326 Dec 11 10:58	4°  M24'52			13332 Apr 26 16:59	0°  H	
	13327 Feb 05 07:44	30°  R  Ω		retrograde	13332 Jun 07 16:15	2°  H39'22	
opposition	13327 Feb 09 06:20	29°  Ω28'53	-0°51'30		13332 Jul 19 14:33	30°  R 	
min. Earth dist.	13327 Feb 10 05:59	29°  Ω21'05	4.00804 AU	min. Earth dist.	13332 Aug 06 05:10	27°  346'33	4.36331 AU
direct	13327 Apr 09 19:24	24°  Ω32'03		opposition	13332 Aug 07 04:27	27°  338'53	0°51'02
	13327 Jun 08 17:01	0°  M 		direct	13332 Oct 07 02:17	22°  338'39	
evening set	13327 Aug 14 15:21	14°  M19'45		evening set	13332 Dec 20 07:35	0°  H	
conjunction	13327 Aug 27 18:52	17°  M31'10	-0°28'32		13333 Feb 09 11:31	10°  H12'24	
minimum elong	13327 Aug 27 18:53	17°  M31'11	0°28'52	conjunction	13333 Feb 22 17:57	13°  H04'20	0°30'34
max. Earth dist.	13327 Aug 27 01:06	17°  M20'22	5.94460 AU	minimum elong	13333 Feb 22 17:57	13°  H04'21	0°30'58
morning rise	13327 Sep 09 23:56	20°  M43'39		max. Earth dist.	13333 Feb 23 15:05	13°  H15'46	6.43043 AU
	13327 Oct 20 04:57	0°  Ω		morning rise	13333 Mar 07 23:12	15°  H55'29	
retrograde	13328 Jan 19 03:24	11°  Ω20'43			13333 May 24 15:19	0°  Y	
opposition	13328 Mar 18 11:33	6°  Ω22'03	-0°29'49	retrograde	13333 Jul 07 16:15	2°  Y51'35	
min. Earth dist.	13328 Mar 18 09:45	6°  Ω22'39	3.90404 AU		13333 Aug 20 21:26	30°  R 	
direct	13328 May 15 20:22	1°  Ω26'47		opposition	13333 Sep 06 14:56	27°  H54'00	0°35'19
evening set	13328 Sep 20 07:04	21°  Ω43'16		min. Earth dist.	13333 Sep 06 10:02	27°  H55'35	4.47898 AU
conjunction	13328 Oct 03 16:32	25°  Ω00'08	-0°09'01	direct	13333 Nov 07 12:49	22°  H53'12	
minimum elong	13328 Oct 03 16:33	25°  Ω00'08	0°08'40		13334 Jan 20 09:20	0°  Y	
behind sun begin	13328 Oct 03 09:20	24°  Ω55'44		evening set	13334 Mar 12 09:44	9°  Y59'44	
behind sun end	13328 Oct 03 23:46	25°  Ω04'33		conjunction	13334 Mar 25 12:03	12°  Y47'05	0°16'31
max. Earth dist.	13328 Oct 04 13:00	25°  Ω12'41	5.89192 AU	minimum elong	13334 Mar 25 12:04	12°  Y47'05	0°16'23
morning rise	13328 Oct 17 04:09	28°  Ω18'07		max. Earth dist.	13334 Mar 25 04:46	12°  Y43'13	6.50727 AU
	13328 Oct 24 04:22	0°  M 		morning rise	13334 Apr 07 12:28	15°  Y33'33	
	13329 Jan 04 23:21	15°  M 			13334 Jun 29 06:18	0°  B	
retrograde	13329 Feb 25 22:03	19°  M11'02		retrograde	13334 Aug 06 05:03	2°  B07'57	
asc. node	13329 Mar 05 01:55	19°  M.05'50			13334 Sep 13 05:24	30°  R  Y	
	13329 Apr 19 21:44	15°  R  M 		opposition	13334 Oct 06 09:09	27°  Y12'47	0°11'04
min. Earth dist.	13329 Apr 25 02:33	14°  M17'54	3.90981 AU	min. Earth dist.	13334 Oct 06 23:42	27°  Y08'07	4.51330 AU
opposition	13329 Apr 26 04:02	14°  M.09'16	0°04'53	direct	13334 Dec 07 20:52	22°  Y11'53	
direct	13329 Jun 23 04:01	9°  M13'48			13335 Feb 23 21:47	0°  B	
	13329 Aug 23 03:20	15°  M 		desc. node	13335 Mar 18 07:50	4°  B14'04	
evening set	13329 Oct 28 14:53	29°  M17'59		evening set	13335 Apr 11 12:27	9°  B14'57	
	13329 Oct 31 12:58	0°  X 		max. Earth dist.	13335 Apr 23 00:09	11°  B42'30	6.49637 AU
conjunction	13329 Nov 11 04:23	2°  X33'40	0°14'16	conjunction	13335 Apr 24 11:03	12°  B01'15	-0°01'44
minimum elong	13329 Nov 11 04:22	2°  X33'40	0°15'08	minimum elong	13335 Apr 24 11:03	12°  B01'15	0°02'21
behind sun begin	13329 Nov 11 01:41	2°  X32'03		behind sun begin	13335 Apr 24 03:03	11°  B56'59	
behind sun end	13329 Nov 11 07:03	2°  X35'16		behind sun end	13335 Apr 24 19:02	12°  B05'31	
max. Earth dist.	13329 Nov 13 08:33	3°  X05'05	5.95505 AU	morning rise	13335 May 07 08:05	14°  B46'53	
morning rise	13329 Nov 24 19:18	5°  X49'55			13335 May 08 08:42	15°  B	
retrograde	13330 Apr 03 21:46	26°  X01'41			13335 Aug 04 16:40	0°  II	
min. Earth dist.	13330 May 31 19:06	21°  X11'02	4.02279 AU	retrograde	13335 Sep 05 10:23	1°  II30'29	
opposition	13330 Jun 02 09:01	20°  X58'11	0°36'31		13335 Oct 07 12:39	30°  R  B	
direct	13330 Jul 30 21:52	16°  X01'03		opposition	13335 Nov 05 12:56	26°  B36'40	-0°16'08
	13330 Nov 11 08:16	0°  B		min. Earth dist.	13335 Nov 06 20:31	26°  B26'33	4.45812 AU
evening set	13330 Dec 04 20:11	5°  B19'01		direct	13336 Jan 07 01:13	21°  B35'50	

	13336 Mar 27 17:19	0°♐	direct	13341 Jun 28 14:05	14°♎40'11	
evening set	13336 May 10 19:48	8°♐59'49		13341 Jul 12 10:43	15°♎	
max. Earth dist.	13336 May 21 11:58	11°♐20'04 6.40000 AU		13341 Oct 14 03:40	0°♏	
			evening set	13341 Nov 02 23:52	4°♏39'28	
conjunction	13336 May 23 16:15	11°♐48'48 -0°19'44				
minimum elong	13336 May 23 16:15	11°♐48'48 0°20'41	conjunction	13341 Nov 16 13:27	7°♏54'23 0°17'15	
morning rise	13336 Jun 05 11:20	14°♐37'24	minimum elong	13341 Nov 16 13:26	7°♏54'22 0°18'09	
	13336 Aug 30 16:16	0°♑	max. Earth dist.	13341 Nov 18 20:10	8°♏27'10 5.97267 AU	
retrograde	13336 Oct 06 06:06	2°♑00'35	morning rise	13341 Nov 30 04:39	11°♏09'49	
	13336 Nov 12 00:23	30°♑♐		13342 Mar 12 16:37	0°♑	
opposition	13336 Dec 06 03:03	27°♐06'57 -0°40'10	retrograde	13342 Apr 08 20:14	1°♑11'58	
min. Earth dist.	13336 Dec 07 18:21	26°♐54'19 4.32595 AU		13342 May 05 20:53	30°♑♏	
direct	13337 Feb 05 23:05	22°♐06'50	min. Earth dist.	13342 Jun 05 18:50	26°♏21'48 4.04627 AU	
	13337 Apr 23 11:02	0°♑	opposition	13342 Jun 07 10:25	26°♏08'23 0°39'53	
evening set	13337 Jun 11 07:46	10°♑13'24	direct	13342 Aug 05 01:43	21°♏10'58	
max. Earth dist.	13337 Jun 21 19:55	12°♑36'33 6.24110 AU		13342 Oct 23 00:54	0°♑	
			evening set	13342 Dec 09 21:56	10°♑20'19	
conjunction	13337 Jun 24 04:01	13°♑08'32 -0°32'51				
minimum elong	13337 Jun 24 04:00	13°♑08'32 0°33'52	conjunction	13342 Dec 23 11:02	13°♑27'32 0°32'40	
morning rise	13337 Jul 06 23:47	16°♑03'46	minimum elong	13342 Dec 23 11:02	13°♑27'31 0°33'42	
	13337 Sep 14 22:58	0°♒	max. Earth dist.	13342 Dec 25 22:32	14°♑01'51 6.13267 AU	
retrograde	13337 Nov 09 16:58	4°♒32'28	morning rise	13343 Jan 06 00:37	16°♑34'37	
	13338 Jan 06 04:35	30°♑♑		13343 Mar 13 01:29	0°♒	
opposition	13338 Jan 09 00:19	29°♑38'00 -0°53'46	retrograde	13343 May 12 14:25	5°♒21'40	
min. Earth dist.	13338 Jan 10 13:33	29°♑25'53 4.15052 AU	min. Earth dist.	13343 Jul 10 05:30	0°♒30'39 4.22242 AU	
direct	13338 Mar 10 17:50	24°♑39'21	opposition	13343 Jul 11 16:21	0°♒19'00 0°53'27	
	13338 May 10 00:26	0°♒		13343 Jul 14 01:10	30°♑♑	
evening set	13338 Jul 14 20:31	13°♒42'02	direct	13343 Sep 09 12:43	25°♑19'46	
	13338 Jul 20 08:47	15°♒		13343 Nov 05 03:40	0°♒	
max. Earth dist.	13338 Jul 25 23:53	16°♒20'00 6.06360 AU	evening set	13344 Jan 13 12:23	13°♒32'18	
				13344 Jan 20 03:04	15°♒	
conjunction	13338 Jul 27 19:35	16°♒45'54 -0°36'07				
minimum elong	13338 Jul 27 19:35	16°♒45'55 0°36'54	conjunction	13344 Jan 26 22:25	16°♒30'32 0°36'16	
morning rise	13338 Aug 09 19:16	19°♒50'28	minimum elong	13344 Jan 26 22:25	16°♒30'32 0°37'03	
	13338 Sep 24 11:43	0°♓	max. Earth dist.	13344 Jan 28 19:02	16°♒55'16 6.30979 AU	
retrograde	13338 Dec 16 18:06	9°♓35'53	morning rise	13344 Feb 09 07:50	19°♒28'10	
opposition	13339 Feb 14 12:15	4°♓39'35 -0°49'36		13344 Apr 01 06:26	0°♔	
min. Earth dist.	13339 Feb 15 08:03	4°♓33'02 3.98625 AU	retrograde	13344 Jun 11 20:33	7°♔05'27	
	13339 Apr 01 20:15	30°♓♒	opposition	13344 Aug 11 11:56	2°♔05'22 0°49'30	
direct	13339 Apr 14 19:39	29°♒43'02	min. Earth dist.	13344 Aug 10 14:27	2°♔12'26 4.38600 AU	
	13339 Apr 27 20:07	0°♓		13344 Aug 27 22:16	30°♓♒	
evening set	13339 Aug 19 19:49	19°♓37'43	direct	13344 Oct 11 13:05	27°♒05'02	
max. Earth dist.	13339 Sep 01 11:34	22°♓42'38 5.92858 AU		13344 Nov 25 10:50	0°♔	
			evening set	13345 Feb 13 20:26	14°♔32'56	
conjunction	13339 Sep 02 00:10	22°♓50'19 -0°26'20				
minimum elong	13339 Sep 02 00:11	22°♓50'20 0°26'34	conjunction	13345 Feb 27 02:16	17°♔23'56 0°28'58	
morning rise	13339 Sep 15 06:14	26°♓04'01	minimum elong	13345 Feb 27 02:17	17°♔23'56 0°29'18	
	13339 Oct 01 16:37	0°♕	max. Earth dist.	13345 Feb 27 19:19	17°♔33'07 6.44805 AU	
retrograde	13340 Jan 24 15:43	16°♕47'45	morning rise	13345 Mar 12 06:43	20°♔14'06	
opposition	13340 Mar 23 22:48	11°♕48'37 -0°25'20		13345 Apr 30 12:00	0°♕	
min. Earth dist.	13340 Mar 23 17:37	11°♕50'22 3.89577 AU	retrograde	13345 Jul 11 18:43	7°♕04'53	
direct	13340 May 21 05:35	6°♕53'28	opposition	13345 Sep 10 18:11	2°♕07'46 0°32'17	
evening set	13340 Sep 25 17:01	27°♕11'37	min. Earth dist.	13345 Sep 10 16:42	2°♕08'14 4.49040 AU	
	13340 Oct 07 04:19	0°♎		13345 Sep 27 18:24	30°♓♔	
			direct	13345 Nov 11 19:49	27°♔06'59	
conjunction	13340 Oct 09 03:26	0°♎28'53 -0°05'42		13345 Dec 26 23:54	0°♕	
minimum elong	13340 Oct 09 03:26	0°♎28'53 0°05'17	evening set	13346 Mar 16 14:03	14°♕11'15	
behind sun begin	13340 Oct 08 19:22	0°♎23'57				
behind sun end	13340 Oct 09 11:30	0°♎33'48	conjunction	13346 Mar 29 15:41	16°♕58'12 0°14'08	
max. Earth dist.	13340 Oct 10 06:53	0°♎45'43 5.89256 AU	minimum elong	13346 Mar 29 15:42	16°♕58'12 0°13'56	
morning rise	13340 Oct 22 15:39	3°♎47'08	behind sun begin	13346 Mar 29 11:38	16°♕56'03	
	13340 Dec 10 21:29	15°♎	behind sun end	13346 Mar 29 19:45	17°♕00'21	
asc. node	13341 Jan 14 00:02	20°♎58'49	max. Earth dist.	13346 Mar 29 02:39	16°♕51'15 6.51160 AU	
retrograde	13341 Mar 03 08:22	24°♎37'50	morning rise	13346 Apr 11 15:43	19°♕44'20	
min. Earth dist.	13341 Apr 30 09:18	19°♎45'17 3.91957 AU		13346 Jun 03 08:51	0°♖	
opposition	13341 May 01 13:25	19°♎35'45 0°09'57	retrograde	13346 Aug 10 08:22	6°♖18'16	
	13341 Jun 14 17:34	15°♓♎	opposition	13346 Oct 10 12:03	1°♖23'22 0°07'18	

min. Earth dist.	13346 Oct 11 05:46	1°♄17'41	4.51042 AU	opposition	13352 Mar 29 10:51	17°♄18'31	-0°20'36
	13346 Oct 21 11:33	30°♄17'41		min. Earth dist.	13352 Mar 29 01:46	17°♄21'34	3.89316 AU
direct	13346 Dec 12 00:45	26°♄22'26		direct	13352 May 26 14:55	12°♄23'26	
desc. node	13347 Jan 23 14:07	28°♄56'02			13352 Sep 20 00:55	0°♄	
	13347 Feb 01 05:22	0°♄		evening set	13352 Oct 01 03:13	2°♄40'40	
evening set	13347 Apr 15 16:03	13°♄27'18					
	13347 Apr 22 21:10	15°♄		conjunction	13352 Oct 14 14:05	5°♄57'52	-0°02'19
max. Earth dist.	13347 Apr 27 01:12	15°♄53'48	6.48646 AU	minimum elong	13352 Oct 14 14:05	5°♄57'52	0°01'48
				behind sun begin	13352 Oct 14 05:43	5°♄52'46	
conjunction	13347 Apr 28 14:26	16°♄13'51	-0°04'22	behind sun end	13352 Oct 14 22:27	6°♄02'57	
minimum elong	13347 Apr 28 14:26	16°♄13'51	0°05'02	max. Earth dist.	13352 Oct 15 21:31	6°♄17'05	5.89901 AU
behind sun begin	13347 Apr 28 06:40	16°♄09'41		morning rise	13352 Oct 28 03:06	9°♄16'05	
behind sun end	13347 Apr 28 22:12	16°♄18'01			13352 Nov 21 07:12	15°♄	
morning rise	13347 May 11 10:57	18°♄59'42		asc. node	13352 Nov 23 05:42	15°♄26'37	
	13347 Jul 06 23:54	0°♄			13353 Mar 04 06:52	0°♄	
retrograde	13347 Sep 09 16:34	5°♄47'37		retrograde	13353 Mar 08 14:01	0°♄01'52	
opposition	13347 Nov 09 19:19	0°♄53'55	-0°19'49		13353 Mar 12 21:02	30°♄	
min. Earth dist.	13347 Nov 11 04:14	0°♄43'24	4.44179 AU	opposition	13353 May 06 21:12	24°♄59'22	0°14'53
	13347 Nov 16 20:50	30°♄		min. Earth dist.	13353 May 05 13:47	25°♄10'02	3.93423 AU
direct	13348 Jan 11 05:07	25°♄53'12		direct	13353 Jul 03 22:39	20°♄03'32	
	13348 Mar 05 13:20	0°♄			13353 Sep 25 03:35	0°♄	
evening set	13348 May 15 02:47	13°♄22'46		evening set	13353 Nov 08 06:51	9°♄56'09	
max. Earth dist.	13348 May 25 16:49	15°♄42'34	6.37831 AU				
				conjunction	13353 Nov 21 20:32	13°♄10'05	0°20'02
conjunction	13348 May 27 23:00	16°♄12'31	-0°21'58	minimum elong	13353 Nov 21 20:31	13°♄10'04	0°20'59
minimum elong	13348 May 27 23:00	16°♄12'30	0°22'56	max. Earth dist.	13353 Nov 24 05:07	13°♄43'49	5.99383 AU
morning rise	13348 Jun 09 18:09	19°♄01'58		morning rise	13353 Dec 05 11:35	16°♄24'25	
	13348 Aug 03 03:01	0°♄			13354 Feb 07 11:10	0°♄	
retrograde	13348 Oct 10 23:11	6°♄33'55		retrograde	13354 Apr 13 17:49	6°♄15'57	
opposition	13348 Dec 10 17:07	1°♄40'15	-0°42'53	min. Earth dist.	13354 Jun 10 18:26	1°♄25'26	4.07132 AU
min. Earth dist.	13348 Dec 12 09:47	1°♄27'10	4.30013 AU	opposition	13354 Jun 12 09:13	1°♄12'19	0°42'53
	13348 Dec 23 22:24	30°♄			13354 Jun 21 09:24	30°♄	
direct	13349 Feb 10 10:49	26°♄40'18		direct	13354 Aug 10 05:11	26°♄14'36	
	13349 Mar 30 02:47	0°♄			13354 Sep 28 13:34	0°♄	
evening set	13349 Jun 15 21:14	14°♄55'14		evening set	13354 Dec 14 21:11	15°♄15'07	
max. Earth dist.	13349 Jun 26 09:59	17°♄19'38	6.21326 AU				
				conjunction	13354 Dec 28 10:00	18°♄21'00	0°33'53
conjunction	13349 Jun 28 17:49	17°♄51'39	-0°33'59	minimum elong	13354 Dec 28 09:59	18°♄21'00	0°34'54
minimum elong	13349 Jun 28 17:49	17°♄51'39	0°35'00	max. Earth dist.	13354 Dec 30 21:13	18°♄54'56	6.15926 AU
morning rise	13349 Jul 11 14:01	20°♄48'13		morning rise	13355 Jan 10 23:02	21°♄26'39	
	13349 Aug 23 03:02	0°♄			13355 Feb 19 14:38	0°♄	
retrograde	13349 Nov 14 17:35	9°♄28'32		retrograde	13355 May 17 00:40	10°♄02'33	
opposition	13350 Jan 14 00:01	4°♄33'53	-0°54'23	min. Earth dist.	13355 Jul 14 19:27	5°♄11'34	4.24823 AU
min. Earth dist.	13350 Jan 15 10:39	4°♄22'36	4.12297 AU	opposition	13355 Jul 16 05:34	5°♄00'11	0°53'51
	13350 Feb 27 14:54	30°♄		direct	13355 Sep 14 05:25	0°♄00'45	
direct	13350 Mar 15 11:37	29°♄35'34			13356 Jan 03 20:37	15°♄	
	13350 Mar 31 09:41	0°♄		evening set	13356 Jan 18 03:10	18°♄05'45	
	13350 Jul 03 12:52	15°♄					
evening set	13350 Jul 19 19:06	18°♄47'11		conjunction	13356 Jan 31 12:33	21°♄02'47	0°35'49
max. Earth dist.	13350 Jul 31 03:10	21°♄28'51	6.03891 AU	minimum elong	13356 Jan 31 12:34	21°♄02'48	0°36'33
				max. Earth dist.	13356 Feb 02 04:28	21°♄24'49	6.33282 AU
conjunction	13350 Aug 01 18:45	21°♄52'27	-0°35'32	morning rise	13356 Feb 13 21:21	23°♄59'12	
minimum elong	13350 Aug 01 18:45	21°♄52'27	0°36'14		13356 Mar 13 06:34	0°♄	
morning rise	13350 Aug 14 19:15	24°♄58'29		retrograde	13356 Jun 16 02:52	11°♄28'24	
	13350 Sep 05 09:34	0°♄		opposition	13356 Aug 15 18:42	6°♄28'44	0°47'43
retrograde	13350 Dec 22 05:37	14°♄54'36		min. Earth dist.	13356 Aug 15 00:50	6°♄34'36	4.40466 AU
opposition	13351 Feb 19 20:51	9°♄57'56	-0°47'15	direct	13356 Oct 16 00:59	1°♄28'17	
min. Earth dist.	13351 Feb 20 13:38	9°♄52'22	3.96692 AU	evening set	13357 Feb 18 04:40	18°♄51'37	
direct	13351 Apr 20 00:59	5°♄01'37					
evening set	13351 Aug 25 02:31	25°♄01'58		conjunction	13357 Mar 03 09:57	21°♄41'54	0°27'14
				minimum elong	13357 Mar 03 09:58	21°♄41'54	0°27'28
conjunction	13351 Sep 07 07:53	28°♄15'35	-0°23'53	max. Earth dist.	13357 Mar 03 22:55	21°♄48'51	6.46102 AU
minimum elong	13351 Sep 07 07:54	28°♄15'36	0°24'01	morning rise	13357 Mar 16 13:45	24°♄31'20	
max. Earth dist.	13351 Sep 07 02:11	28°♄12'06	5.91680 AU		13357 Apr 11 23:47	0°♄	
	13351 Sep 14 10:39	0°♄		retrograde	13357 Jul 15 20:30	11°♄18'19	
morning rise	13351 Sep 20 14:49	1°♄30'16		opposition	13357 Sep 14 21:42	6°♄21'31	0°29'05
retrograde	13352 Jan 30 04:48	22°♄18'06		min. Earth dist.	13357 Sep 14 22:25	6°♄21'17	4.49719 AU

direct	13357 Nov 16 00:40	1°♄20'41		minimum elong	13363 Sep 12 13:29	3°♄35'24	0°21'23
evening set	13358 Mar 20 19:12	18°♄24'05		max. Earth dist.	13363 Sep 12 12:03	3°♄34'31	5.91265 AU
				morning rise	13363 Sep 25 21:22	6°♄50'41	
conjunction	13358 Apr 02 20:24	21°♄10'50	0°11'38	retrograde	13364 Feb 04 11:43	27°♄39'31	
minimum elong	13358 Apr 02 20:25	21°♄10'50	0°11'23	opposition	13364 Apr 03 19:01	22°♄39'29	-0°15'54
behind sun begin	13358 Apr 02 14:36	21°♄07'45		min. Earth dist.	13364 Apr 03 05:48	22°♄43'56	3.89722 AU
behind sun end	13358 Apr 03 02:14	21°♄13'56		direct	13364 May 31 22:08	17°♄44'24	
max. Earth dist.	13358 Apr 02 04:13	21°♄02'12	6.51181 AU		13364 Sep 02 06:58	0°♄	
morning rise	13358 Apr 15 19:48	23°♄56'46		asc. node	13364 Oct 02 19:18	7°♄06'35	
	13358 May 15 08:25	0°♄		evening set	13364 Oct 06 09:07	7°♄58'28	
retrograde	13358 Aug 14 12:33	10°♄31'22					
opposition	13358 Oct 14 16:26	5°♄36'45	0°03'27	conjunction	13364 Oct 19 20:31	11°♄15'20	0°01'00
min. Earth dist.	13358 Oct 15 12:53	5°♄30'12	4.50412 AU	minimum elong	13364 Oct 19 20:32	11°♄15'20	0°01'36
desc. node	13358 Dec 02 03:32	0°♄53'44		behind sun begin	13364 Oct 19 12:10	11°♄10'16	
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	13359 Apr 07 00:26	15°♄		max. Earth dist.	13364 Oct 21 08:44	11°♄37'25	5.91085 AU
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					13365 Jan 14 01:44	0°♄	
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behind sun begin	13359 May 02 12:16	20°♄26'27		min. Earth dist.	13365 May 10 15:15	0°♄20'18	3.95233 AU
behind sun end	13359 May 03 02:41	20°♄34'12			13365 May 13 03:06	30°♄	
morning rise	13359 May 15 15:54	23°♄16'36		direct	13365 Jul 09 03:27	25°♄13'24	
	13359 Jun 17 04:40	0°♄			13365 Sep 02 10:27	0°♄	
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opposition	13359 Nov 14 04:29	5°♄16'03	-0°23'31				
min. Earth dist.	13359 Nov 15 15:13	5°♄04'56	4.42388 AU	conjunction	13365 Nov 26 21:48	18°♄11'33	0°22'32
direct	13360 Jan 15 13:05	0°♄15'26		minimum elong	13365 Nov 26 21:47	18°♄11'32	0°23'30
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max. Earth dist.	13360 May 30 01:55	20°♄11'22	6.35640 AU	morning rise	13365 Dec 10 12:43	21°♄24'45	
					13366 Jan 17 19:51	0°♄	
conjunction	13360 Jun 01 08:13	20°♄41'31	-0°24'08	retrograde	13366 Apr 18 08:20	11°♄05'44	
minimum elong	13360 Jun 01 08:12	20°♄41'31	0°25'08	min. Earth dist.	13366 Jun 15 10:56	6°♄15'27	4.09571 AU
morning rise	13360 Jun 14 03:14	23°♄31'50		opposition	13366 Jun 17 02:02	6°♄02'16	0°45'25
	13360 Jul 14 09:37	0°♄		direct	13366 Aug 15 00:45	1°♄04'20	
retrograde	13360 Oct 15 16:15	11°♄12'36		evening set	13366 Dec 19 14:48	19°♄56'54	
opposition	13360 Dec 15 09:43	6°♄18'56	-0°45'24				
min. Earth dist.	13360 Dec 17 01:25	6°♄06'08	4.27596 AU	conjunction	13367 Jan 02 03:07	23°♄01'32	0°34'51
direct	13361 Feb 14 22:58	1°♄19'18		minimum elong	13367 Jan 02 03:07	23°♄01'32	0°35'50
evening set	13361 Jun 20 13:10	19°♄41'59		max. Earth dist.	13367 Jan 04 10:36	23°♄33'09	6.18342 AU
max. Earth dist.	13361 Jul 01 03:44	22°♄08'15	6.18891 AU	morning rise	13367 Jan 15 15:48	26°♄05'55	
					13367 Feb 02 05:10	0°♄	
conjunction	13361 Jul 03 09:53	22°♄39'30	-0°34'58	retrograde	13367 May 21 08:35	14°♄32'20	
minimum elong	13361 Jul 03 09:52	22°♄39'30	0°35'57	min. Earth dist.	13367 Jul 19 07:04	9°♄40'44	4.27016 AU
morning rise	13361 Jul 16 06:33	25°♄37'17		opposition	13367 Jul 20 14:19	9°♄30'19	0°53'57
	13361 Aug 04 16:07	0°♄		direct	13367 Sep 18 19:07	4°♄30'43	
retrograde	13361 Nov 19 21:36	14°♄27'58			13367 Dec 17 20:10	15°♄	
opposition	13362 Jan 19 01:26	9°♄33'08	-0°54'38	evening set	13368 Jan 22 13:33	22°♄29'49	
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direct	13362 Mar 20 09:48	4°♄35'10		conjunction	13368 Feb 04 22:36	25°♄25'57	0°35'13
	13362 Jun 15 07:34	15°♄		minimum elong	13368 Feb 04 22:37	25°♄25'57	0°35'54
evening set	13362 Jul 24 18:22	23°♄53'39		max. Earth dist.	13368 Feb 06 12:02	25°♄46'31	6.35106 AU
max. Earth dist.	13362 Aug 05 08:16	26°♄39'25	6.02077 AU	morning rise	13368 Feb 18 06:41	28°♄21'22	
					13368 Feb 25 20:48	0°♄	
conjunction	13362 Aug 06 18:46	27°♄00'03	-0°34'42	retrograde	13368 Jun 20 04:25	15°♄44'20	
minimum elong	13362 Aug 06 18:47	27°♄00'04	0°35'22	opposition	13368 Aug 19 22:07	10°♄45'08	0°45'50
morning rise	13362 Aug 19 19:56	0°♄07'15		min. Earth dist.	13368 Aug 19 05:58	10°♄50'25	4.41823 AU
	13362 Aug 19 07:45	0°♄		direct	13368 Oct 20 06:20	5°♄44'38	
retrograde	13362 Dec 27 14:51	20°♄11'12		evening set	13369 Feb 22 10:25	23°♄05'09	
opposition	13363 Feb 25 04:41	15°♄14'13	-0°44'36				
min. Earth dist.	13363 Feb 25 17:44	15°♄09'53	3.95525 AU	conjunction	13369 Mar 07 15:07	25°♄54'55	0°25'27
direct	13363 Apr 25 04:21	10°♄18'15		minimum elong	13369 Mar 07 15:08	25°♄54'55	0°25'38
	13363 Aug 28 20:33	0°♄		max. Earth dist.	13369 Mar 07 23:05	25°♄59'11	6.46918 AU
evening set	13363 Aug 30 07:33	0°♄21'15		morning rise	13369 Mar 20 18:25	28°♄43'51	
					13369 Mar 26 17:58	0°♄	
conjunction	13363 Sep 12 13:28	3°♄35'23	-0°21'21	retrograde	13369 Jul 19 23:26	15°♄28'35	
































































































































opposition	13369 Sep 18 23:51	10°♊32'10	0°25'54			13375 Aug 11 21:59	0°♎	
min. Earth dist.	13369 Sep 19 04:08	10°♊30'47	4.49968 AU	evening set		13375 Sep 04 11:18	5°♎36'19	
direct	13369 Nov 20 05:29	5°♊31'18						
evening set	13370 Mar 24 22:53	22°♊34'56		conjunction		13375 Sep 17 18:10	8°♎51'11	-0°18'36
				minimum elong		13375 Sep 17 18:11	8°♎51'11	0°18'33
conjunction	13370 Apr 06 23:40	25°♊21'39	0°09'11	max. Earth dist.		13375 Sep 17 22:56	8°♎54'05	5.90629 AU
minimum elong	13370 Apr 06 23:40	25°♊21'39	0°08'51	morning rise		13375 Oct 01 02:46	12°♎07'08	
behind sun begin	13370 Apr 06 16:47	25°♊18'00				13375 Dec 28 11:44	0°♎	
behind sun end	13370 Apr 07 06:34	25°♊25'19		retrograde		13376 Feb 09 20:35	2°♎57'53	
max. Earth dist.	13370 Apr 06 03:38	25°♊10'57	6.50851 AU			13376 Mar 24 11:17	30°♎	
morning rise	13370 Apr 19 22:41	28°♊07'34		min. Earth dist.		13376 Apr 08 10:49	28°♎02'35	3.89821 AU
	13370 Apr 28 19:54	0°♋		opposition		13376 Apr 09 02:03	27°♎57'26	-0°11'02
retrograde	13370 Aug 18 16:12	14°♋43'51		direct		13376 Jun 06 04:58	23°♎02'18	
desc. node	13370 Oct 14 16:02	10°♋21'28		asc. node		13376 Aug 10 18:24	29°♎38'59	
opposition	13370 Oct 18 20:23	9°♋49'22	-0°00'18			13376 Aug 12 16:11	0°♎	
min. Earth dist.	13370 Oct 19 18:17	9°♋42'21	4.49545 AU	evening set		13376 Oct 11 14:54	13°♎14'42	
direct	13370 Dec 20 09:02	4°♋48'29				13376 Oct 18 20:30	15°♎	
	13371 Mar 21 02:39	15°♋						
evening set	13371 Apr 24 02:22	21°♋59'10		conjunction		13376 Oct 25 02:54	16°♎31'27	0°04'16
max. Earth dist.	13371 May 05 05:58	24°♋23'36	6.46054 AU	minimum elong		13376 Oct 25 02:53	16°♎31'26	0°04'57
				behind sun begin		13376 Oct 24 18:45	16°♎26'31	
conjunction	13371 May 07 00:04	24°♋46'25	-0°09'34	behind sun end		13376 Oct 25 11:01	16°♎36'22	
minimum elong	13371 May 07 00:04	24°♋46'25	0°10'20	max. Earth dist.		13376 Oct 26 19:14	16°♎55'58	5.91894 AU
behind sun begin	13371 May 06 17:45	24°♋43'00		morning rise		13376 Nov 07 16:43	19°♎49'03	
behind sun end	13371 May 07 06:23	24°♋49'49				13376 Dec 22 09:35	0°♌	
morning rise	13371 May 19 20:03	27°♋33'03		retrograde		13377 Mar 18 16:40	10°♌22'46	
	13371 May 31 07:27	0°♌		min. Earth dist.		13377 May 15 15:13	5°♌31'30	3.96668 AU
retrograde	13371 Sep 18 12:17	14°♌31'15		opposition		13377 May 17 01:36	5°♌19'50	0°23'50
opposition	13371 Nov 18 13:05	9°♌37'40	-0°27'00	direct		13377 Jul 14 05:53	0°♌23'35	
min. Earth dist.	13371 Nov 20 00:52	9°♌26'13	4.40647 AU	evening set		13377 Nov 18 10:44	20°♌03'07	
direct	13372 Jan 19 20:09	4°♌37'09						
evening set	13372 May 23 20:31	22°♌17'59		conjunction		13377 Dec 02 00:22	23°♌15'06	0°24'53
max. Earth dist.	13372 Jun 03 08:41	24°♌38'07	6.33599 AU	minimum elong		13377 Dec 02 00:21	23°♌15'05	0°25'54
				max. Earth dist.		13377 Dec 04 10:10	23°♌49'12	6.03518 AU
conjunction	13372 Jun 05 16:34	25°♌09'18	-0°26'07	morning rise		13377 Dec 15 15:18	26°♌27'21	
minimum elong	13372 Jun 05 16:33	25°♌09'18	0°27'08			13377 Dec 30 23:55	0°♍	
morning rise	13372 Jun 18 11:47	28°♌00'27		retrograde		13378 Apr 23 01:33	15°♍59'08	
	13372 Jun 27 12:36	0°♍		min. Earth dist.		13378 Jun 20 06:18	11°♍08'40	4.11722 AU
retrograde	13372 Oct 20 09:44	15°♍49'19		opposition		13378 Jun 21 20:34	10°♍55'45	0°47'41
opposition	13372 Dec 20 01:27	10°♍55'28	-0°47'35	direct		13378 Aug 19 23:33	5°♍57'33	
min. Earth dist.	13372 Dec 21 16:49	10°♍42'45	4.25360 AU	evening set		13378 Dec 24 10:51	24°♍43'14	
direct	13373 Feb 19 11:56	5°♍55'55						
evening set	13373 Jun 25 03:22	24°♍25'24		conjunction		13379 Jan 06 23:00	27°♍46'47	0°35'35
max. Earth dist.	13373 Jul 05 20:53	26°♍54'04	6.16627 AU	minimum elong		13379 Jan 06 23:00	27°♍46'47	0°36'33
				max. Earth dist.		13379 Jan 09 06:09	28°♍18'03	6.20582 AU
conjunction	13373 Jul 08 00:32	27°♍24'00	-0°35'39			13379 Jan 16 18:15	0°♎	
minimum elong	13373 Jul 08 00:32	27°♍24'00	0°36'36	morning rise		13379 Jan 20 11:00	0°♎49'57	
	13373 Jul 19 05:48	0°♎				13379 Apr 03 00:48	15°♎	
morning rise	13373 Jul 20 21:29	0°♎22'54		retrograde		13379 May 25 18:16	19°♎07'14	
	13373 Oct 01 12:56	15°♎				13379 Jul 18 04:51	15°♎	
retrograde	13373 Nov 24 22:59	19°♎23'11		min. Earth dist.		13379 Jul 23 19:08	14°♎15'41	4.29166 AU
	13374 Jan 19 23:17	15°♎		opposition		13379 Jul 25 01:19	14°♎05'39	0°53'42
opposition	13374 Jan 24 01:04	14°♎28'06	-0°54'26	direct		13379 Sep 23 09:18	9°♎05'59	
min. Earth dist.	13374 Jan 25 07:49	14°♎18'02	4.07937 AU			13379 Nov 27 09:13	15°♎	
direct	13374 Mar 25 04:31	9°♎30'23		evening set		13380 Jan 27 02:43	26°♎59'15	
	13374 May 24 20:02	15°♎						
evening set	13374 Jul 29 16:01	28°♎55'21		conjunction		13380 Feb 09 11:03	29°♎54'22	0°34'22
	13374 Aug 03 04:13	0°♏		minimum elong		13380 Feb 09 11:04	29°♎54'23	0°34'58
max. Earth dist.	13374 Aug 10 08:51	1°♏43'36	6.00278 AU			13380 Feb 09 21:20	0°♏	
				max. Earth dist.		13380 Feb 10 19:54	0°♏12'22	6.37023 AU
conjunction	13374 Aug 11 16:53	2°♏02'51	-0°33'36	morning rise		13380 Feb 22 18:38	2°♏48'48	
minimum elong	13374 Aug 11 16:54	2°♏02'51	0°34'10	retrograde		13380 Jun 24 10:11	20°♏05'09	
morning rise	13374 Aug 24 18:59	5°♏11'14		opposition		13380 Aug 24 04:05	15°♏06'22	0°43'38
retrograde	13375 Jan 01 20:40	25°♏23'04		min. Earth dist.		13380 Aug 23 14:52	15°♏10'41	4.43410 AU
opposition	13375 Mar 02 10:23	20°♏25'39	-0°41'33	direct		13380 Oct 24 16:10	10°♏05'50	
min. Earth dist.	13375 Mar 02 19:42	20°♏22'33	3.94231 AU	evening set		13381 Feb 26 17:49	27°♏22'33	
direct	13375 Apr 30 06:32	15°♏29'50						

conjunction	13381 Mar 11 22:03	0° $\Upsilon$ 11'40	0°23'29	conjunction	13386 Aug 16 12:31	6° $\eta$ 59'36	-0°32'16
minimum elong	13381 Mar 11 22:04	0° $\Upsilon$ 11'41	0°23'35	minimum elong	13386 Aug 16 12:32	6° $\eta$ 59'37	0°32'46
	13381 Mar 11 00:16	0° $\Upsilon$		morning rise	13386 Aug 29 15:21	10° $\eta$ 09'18	
max. Earth dist.	13381 Mar 12 03:54	0° $\Upsilon$ 14'48	6.48094 AU		13386 Dec 20 14:00	0° $\underline{\Omega}$	
morning rise	13381 Mar 25 00:33	2° $\Upsilon$ 59'54		retrograde	13387 Jan 07 03:07	0° $\underline{\Omega}$ 30'10	
retrograde	13381 Jul 24 00:36	19° $\Upsilon$ 41'09			13387 Jan 24 13:49	30° $\mathbb{R}$ $\eta$	
opposition	13381 Sep 23 03:04	14° $\Upsilon$ 45'05	0°22'31	opposition	13387 Mar 07 13:45	25° $\eta$ 32'25	-0°38'17
min. Earth dist.	13381 Sep 23 08:37	14° $\Upsilon$ 43'17	4.50689 AU	min. Earth dist.	13387 Mar 07 21:14	25° $\eta$ 29'55	3.92631 AU
direct	13381 Nov 24 09:37	9° $\Upsilon$ 44'16		direct	13387 May 05 06:46	20° $\eta$ 36'46	
evening set	13382 Mar 29 03:10	26° $\Upsilon$ 46'33			13387 Jul 24 08:37	0° $\underline{\Omega}$	
max. Earth dist.	13382 Apr 10 04:17	29° $\Upsilon$ 20'38	6.51073 AU	evening set	13387 Sep 09 13:29	10° $\underline{\Omega}$ 48'15	
conjunction	13382 Apr 11 03:20	29° $\Upsilon$ 32'57	0°06'42	conjunction	13387 Sep 22 21:13	14° $\underline{\Omega}$ 04'03	-0°15'48
minimum elong	13382 Apr 11 03:19	29° $\Upsilon$ 32'57	0°06'16	minimum elong	13387 Sep 22 21:14	14° $\underline{\Omega}$ 04'03	0°15'39
behind sun begin	13382 Apr 10 19:45	29° $\Upsilon$ 28'55		behind sun begin	13387 Sep 22 19:18	14° $\underline{\Omega}$ 02'53	
behind sun end	13382 Apr 11 10:53	29° $\Upsilon$ 36'58		behind sun end	13387 Sep 22 23:10	14° $\underline{\Omega}$ 05'14	
	13382 Apr 13 05:54	0° $\mathcal{B}$		max. Earth dist.	13387 Sep 23 05:53	14° $\underline{\Omega}$ 09'21	5.89604 AU
morning rise	13382 Apr 24 01:46	2° $\mathcal{B}$ 18'34		morning rise	13387 Oct 06 06:55	17° $\underline{\Omega}$ 20'59	
	13382 Jul 01 11:16	15° $\mathcal{B}$			13387 Dec 01 14:50	0° $\mathbb{M}$	
retrograde	13382 Aug 22 19:58	18° $\mathcal{B}$ 54'47		retrograde	13388 Feb 15 02:44	8° $\mathbb{M}$ .15'14	
desc. node	13382 Aug 28 17:47	18° $\mathcal{B}$ 51'33		opposition	13388 Apr 14 07:57	3° $\mathbb{M}$ .14'24	-0°06'12
	13382 Oct 15 04:35	15° $\mathcal{R}\mathcal{B}$		min. Earth dist.	13388 Apr 13 12:56	3° $\mathbb{M}$ .20'50	3.89515 AU
opposition	13382 Oct 22 23:54	14° $\mathcal{B}$ 00'33	-0°04'01		13388 May 10 14:36	30° $\mathcal{R}$ $\underline{\Omega}$	
min. Earth dist.	13382 Oct 24 00:38	13° $\mathcal{B}$ 52'38	4.49248 AU	direct	13388 Jun 11 07:57	28° $\underline{\Omega}$ 19'13	
direct	13382 Dec 24 14:04	8° $\mathcal{B}$ 59'41		asc. node	13388 Jun 21 04:17	28° $\underline{\Omega}$ 29'16	
	13383 Mar 01 17:27	15° $\mathcal{B}$			13388 Jul 12 23:56	0° $\mathbb{M}$	
evening set	13383 Apr 28 05:51	26° $\mathcal{B}$ 11'42			13388 Oct 02 02:23	15° $\mathbb{M}$	
max. Earth dist.	13383 May 09 05:23	28° $\mathcal{B}$ 34'16	6.45235 AU	evening set	13388 Oct 16 21:00	18° $\mathbb{M}$ .31'49	
conjunction	13383 May 11 03:06	28° $\mathcal{B}$ 59'05	-0°12'00	conjunction	13388 Oct 30 09:29	21° $\mathbb{M}$ .48'36	0°07'25
minimum elong	13383 May 11 03:05	28° $\mathcal{B}$ 59'05	0°12'49	minimum elong	13388 Oct 30 09:28	21° $\mathbb{M}$ .48'35	0°08'08
behind sun begin	13383 May 10 22:06	28° $\mathcal{B}$ 56'23		behind sun begin	13388 Oct 30 02:03	21° $\mathbb{M}$ .44'06	
behind sun end	13383 May 11 08:05	29° $\mathcal{B}$ 01'46		behind sun end	13388 Oct 30 16:52	21° $\mathbb{M}$ .53'04	
	13383 May 15 19:17	0° $\mathbb{I}$		max. Earth dist.	13388 Nov 01 04:37	22° $\mathbb{M}$ .14'48	5.92332 AU
morning rise	13383 May 23 22:53	1° $\mathbb{I}$ 45'56		morning rise	13388 Nov 12 23:55	25° $\mathbb{M}$ .06'12	
retrograde	13383 Sep 22 19:05	18° $\mathbb{I}$ 47'52			13388 Dec 03 17:19	0° $\mathcal{X}$	
opposition	13383 Nov 22 19:46	13° $\mathbb{I}$ 54'17	-0°30'13	retrograde	13389 Mar 23 18:43	15° $\mathcal{X}$ 36'00	
min. Earth dist.	13383 Nov 24 08:17	13° $\mathbb{I}$ 42'35	4.39338 AU	min. Earth dist.	13389 May 20 16:38	10° $\mathcal{X}$ 44'54	3.97782 AU
direct	13384 Jan 24 00:57	8° $\mathbb{I}$ 53'46		opposition	13389 May 22 04:20	10° $\mathcal{X}$ 32'47	0°28'00
evening set	13384 May 28 02:09	26° $\mathbb{I}$ 38'46		direct	13389 Jul 19 11:08	5° $\mathcal{X}$ 36'14	
max. Earth dist.	13384 Jun 07 14:44	28° $\mathbb{I}$ 59'39	6.31880 AU	evening set	13389 Nov 23 14:35	25° $\mathcal{X}$ 11'09	
conjunction	13384 Jun 09 22:14	29° $\mathbb{I}$ 30'44	-0°27'51	conjunction	13389 Dec 07 04:28	28° $\mathcal{X}$ 22'24	0°27'02
minimum elong	13384 Jun 09 22:13	29° $\mathbb{I}$ 30'44	0°28'54	minimum elong	13389 Dec 07 04:28	28° $\mathcal{X}$ 22'24	0°28'03
	13384 Jun 12 02:27	0° $\mathcal{E}$		max. Earth dist.	13389 Dec 09 17:06	28° $\mathcal{X}$ 58'02	6.05209 AU
morning rise	13384 Jun 22 17:17	2° $\mathcal{E}$ 22'32			13389 Dec 14 02:41	0° $\mathcal{Z}$	
retrograde	13384 Oct 24 23:46	20° $\mathcal{E}$ 18'47		morning rise	13389 Dec 20 19:09	1° $\mathcal{Z}$ 33'45	
opposition	13384 Dec 24 14:00	15° $\mathcal{E}$ 24'51	-0°49'22	retrograde	13390 Apr 27 20:53	20° $\mathcal{Z}$ 56'44	
min. Earth dist.	13384 Dec 26 05:49	15° $\mathcal{E}$ 11'59	4.23323 AU	min. Earth dist.	13390 Jun 25 02:04	16° $\mathcal{Z}$ 06'20	4.13788 AU
direct	13385 Feb 23 21:15	10° $\mathcal{E}$ 25'28		opposition	13390 Jun 26 16:27	15° $\mathcal{Z}$ 53'25	0°49'33
evening set	13385 Jun 29 14:37	29° $\mathcal{E}$ 01'30		direct	13390 Aug 24 22:42	10° $\mathcal{Z}$ 54'57	
	13385 Jul 03 19:41	0° $\mathcal{Q}$		evening set	13390 Dec 29 08:21	29° $\mathcal{Z}$ 33'39	
max. Earth dist.	13385 Jul 10 07:48	1° $\mathcal{Q}$ 30'46	6.14415 AU		13390 Dec 31 07:15	0° $\approx$	
conjunction	13385 Jul 12 11:56	2° $\mathcal{Q}$ 01'08	-0°36'04	conjunction	13391 Jan 11 19:57	2° $\approx$ 36'01	0°36'03
minimum elong	13385 Jul 12 11:56	2° $\mathcal{Q}$ 01'08	0°37'00	minimum elong	13391 Jan 11 19:57	2° $\approx$ 36'01	0°36'59
morning rise	13385 Jul 25 09:32	5° $\mathcal{Q}$ 01'13		max. Earth dist.	13391 Jan 14 00:52	3° $\approx$ 05'52	6.22825 AU
	13385 Sep 09 02:58	15° $\mathcal{Q}$		morning rise	13391 Jan 25 07:36	5° $\approx$ 38'00	
retrograde	13385 Nov 29 20:46	24° $\mathcal{Q}$ 11'23			13391 Mar 10 21:06	15° $\approx$	
opposition	13386 Jan 28 21:15	19° $\mathcal{Q}$ 16'00	-0°53'52	retrograde	13391 May 30 04:33	23° $\approx$ 45'53	
min. Earth dist.	13386 Jan 30 01:59	19° $\mathcal{Q}$ 06'33	4.05714 AU	min. Earth dist.	13391 Jul 28 09:01	18° $\approx$ 54'00	4.31377 AU
	13386 Mar 09 05:18	15° $\mathcal{R}\mathcal{Q}$		opposition	13391 Jul 29 13:43	18° $\approx$ 44'29	0°53'05
direct	13386 Mar 29 20:10	14° $\mathcal{Q}$ 18'26			13391 Aug 30 17:08	15° $\mathcal{R}\approx$	
	13386 Apr 19 11:00	15° $\mathcal{Q}$		direct	13391 Sep 28 01:38	13° $\approx$ 44'32	
	13386 Jul 18 03:25	0° $\mathbb{P}$			13391 Oct 26 17:54	15° $\approx$	
evening set	13386 Aug 03 10:44	3° $\mathbb{P}$ 50'49			13392 Jan 24 15:12	0° $\mathcal{H}$	
max. Earth dist.	13386 Aug 15 08:57	6° $\mathbb{P}$ 42'58	5.98263 AU	evening set	13392 Jan 31 16:38	1° $\mathcal{H}$ 31'21	

conjunction	13392 Feb 14 00:32	4° $\text{H}$ 25'26	0°33'17		13397 Aug 21 11:47	15° $\text{Q}$
minimum elong	13392 Feb 14 00:33	4° $\text{H}$ 25'26	0°33'49	retrograde	13397 Dec 05 03:06	29° $\text{Q}$ 15'09
max. Earth dist.	13392 Feb 15 07:29	4° $\text{H}$ 42'18	6.39030 AU	opposition	13398 Feb 03 00:34	24° $\text{Q}$ 19'33 -0°52'53
morning rise	13392 Feb 27 07:13	7° $\text{H}$ 18'43		min. Earth dist.	13398 Feb 04 03:53	24° $\text{Q}$ 10'34 4.03306 AU
retrograde	13392 Jun 28 14:52	24° $\text{H}$ 27'55		direct	13398 Apr 03 19:05	19° $\text{Q}$ 22'20
opposition	13392 Aug 28 10:43	19° $\text{H}$ 29'28	0°41'06		13398 Jun 29 23:06	0° $\text{H}$
min. Earth dist.	13392 Aug 27 23:28	19° $\text{H}$ 33'08	4.45044 AU	evening set	13398 Aug 08 12:25	9° $\text{H}$ 02'33
direct	13392 Oct 29 02:00	14° $\text{H}$ 28'50				
	13393 Feb 23 01:42	0° $\text{Y}$		conjunction	13398 Aug 21 14:56	12° $\text{H}$ 12'39 -0°30'38
evening set	13393 Mar 03 01:56	1° $\text{Y}$ 41'25		minimum elong	13398 Aug 21 14:57	12° $\text{H}$ 12'39 0°31'02
				max. Earth dist.	13398 Aug 20 14:37	11° $\text{H}$ 57'55 5.96266 AU
conjunction	13393 Mar 16 05:23	4° $\text{Y}$ 29'49	0°21'20	morning rise	13398 Sep 03 18:52	15° $\text{H}$ 23'45
minimum elong	13393 Mar 16 05:24	4° $\text{Y}$ 29'50	0°21'22		13398 Nov 10 17:10	0° $\text{A}$
max. Earth dist.	13393 Mar 16 05:57	4° $\text{Y}$ 30'07	6.49216 AU	retrograde	13399 Jan 12 14:06	5° $\text{A}$ 53'15
morning rise	13393 Mar 29 07:23	7° $\text{Y}$ 17'24		opposition	13399 Mar 12 23:43	0° $\text{A}$ 55'09 -0°34'28
retrograde	13393 Jul 28 05:02	23° $\text{Y}$ 55'23		min. Earth dist.	13399 Mar 13 02:32	0° $\text{A}$ 54'13 3.91291 AU
opposition	13393 Sep 27 07:24	18° $\text{Y}$ 59'35	0°18'56		13399 Mar 19 21:45	30° $\text{R}$ $\text{H}$
min. Earth dist.	13393 Sep 27 16:32	18° $\text{Y}$ 56'38	4.51220 AU	direct	13399 May 10 12:09	25° $\text{H}$ 59'44
direct	13393 Nov 28 16:37	13° $\text{Y}$ 58'40			13399 Jun 29 13:48	0° $\text{A}$
	13394 Mar 28 14:16	0° $\text{B}$		evening set	13399 Sep 14 22:15	16° $\text{A}$ 15'02
evening set	13394 Apr 02 08:01	1° $\text{B}$ 00'06				
max. Earth dist.	13394 Apr 14 05:37	3° $\text{B}$ 32'22	6.50962 AU	conjunction	13399 Sep 28 06:47	19° $\text{A}$ 31'31 -0°12'41
				minimum elong	13399 Sep 28 06:47	19° $\text{A}$ 31'31 0°12'26
conjunction	13394 Apr 15 07:48	3° $\text{B}$ 46'22	0°04'04	behind sun begin	13399 Sep 28 01:22	19° $\text{A}$ 28'11
minimum elong	13394 Apr 15 07:47	3° $\text{B}$ 46'22	0°03'35	behind sun end	13399 Sep 28 12:13	19° $\text{A}$ 34'50
behind sun begin	13394 Apr 14 23:51	3° $\text{B}$ 42'08		max. Earth dist.	13399 Sep 28 20:45	19° $\text{A}$ 40'05 5.89077 AU
behind sun end	13394 Apr 15 15:44	3° $\text{B}$ 50'36		morning rise	13399 Oct 11 17:22	22° $\text{A}$ 49'06
morning rise	13394 Apr 28 05:40	6° $\text{B}$ 31'50			13399 Nov 11 02:49	0° $\text{M}$
	13394 Jun 09 11:43	15° $\text{B}$		retrograde	13400 Feb 20 13:22	13° $\text{M}$ 44'23
desc. node	13394 Jul 10 02:57	19° $\text{B}$ 50'15		opposition	13400 Apr 20 18:42	8° $\text{M}$ 43'08 -0°01'02
retrograde	13394 Aug 27 00:22	23° $\text{B}$ 09'16		min. Earth dist.	13400 Apr 19 20:43	8° $\text{M}$ 50'35 3.89880 AU
opposition	13394 Oct 27 05:16	18° $\text{B}$ 15'08	-0°07'53	asc. node	13400 May 02 00:21	7° $\text{M}$ 13'25
min. Earth dist.	13394 Oct 28 07:17	18° $\text{B}$ 06'49	4.48501 AU	direct	13400 Jun 17 18:34	3° $\text{M}$ 47'54
	13394 Nov 23 23:15	15° $\text{R}$ $\text{B}$			13400 Sep 14 10:15	15° $\text{M}$
direct	13394 Dec 28 18:07	13° $\text{B}$ 14'17		evening set	13400 Oct 23 06:52	23° $\text{M}$ 57'46
	13395 Feb 01 16:55	15° $\text{B}$				
	13395 Apr 30 05:28	0° $\text{II}$		conjunction	13400 Nov 05 19:57	27° $\text{M}$ 14'12 0°10'38
evening set	13395 May 02 11:23	0° $\text{II}$ 29'03		minimum elong	13400 Nov 05 19:57	27° $\text{M}$ 14'12 0°11'27
max. Earth dist.	13395 May 13 08:53	2° $\text{II}$ 50'56	6.43892 AU	behind sun begin	13400 Nov 05 13:56	27° $\text{M}$ 10'34
				behind sun end	13400 Nov 06 01:58	27° $\text{M}$ 17'49
conjunction	13395 May 15 08:20	3° $\text{II}$ 16'47	-0°14'30	max. Earth dist.	13400 Nov 07 20:51	27° $\text{M}$ 43'48 5.93567 AU
minimum elong	13395 May 15 08:19	3° $\text{II}$ 16'47	0°15'22		13400 Nov 17 06:27	0° $\text{J}$
behind sun begin	13395 May 15 05:51	3° $\text{II}$ 15'27		morning rise	13400 Nov 19 10:35	0° $\text{J}$ 31'18
behind sun end	13395 May 15 10:46	3° $\text{II}$ 18'07		retrograde	13401 Mar 29 23:23	20° $\text{J}$ 53'38
morning rise	13395 May 28 03:47	6° $\text{II}$ 04'02		min. Earth dist.	13401 May 26 19:47	16° $\text{J}$ 02'54 3.99745 AU
retrograde	13395 Sep 27 07:05	23° $\text{II}$ 11'35		opposition	13401 Jul 28 09:00	15° $\text{J}$ 50'17 0°32'04
opposition	13395 Nov 27 05:56	18° $\text{II}$ 18'03	-0°33'28	direct	13401 Jul 25 18:19	10° $\text{J}$ 53'32
min. Earth dist.	13395 Nov 28 20:34	18° $\text{II}$ 05'40	4.37460 AU		13401 Nov 28 07:41	0° $\text{Z}$
direct	13396 Jan 28 09:40	13° $\text{II}$ 17'39		evening set	13401 Nov 29 19:17	0° $\text{Z}$ 20'41
	13396 May 27 08:08	0° $\text{E}$				
evening set	13396 Jun 01 11:52	1° $\text{E}$ 08'43		conjunction	13401 Dec 13 08:50	3° $\text{Z}$ 30'40 0°29'02
max. Earth dist.	13396 Jun 11 22:16	3° $\text{E}$ 29'08	6.29596 AU	minimum elong	13401 Dec 13 08:49	3° $\text{Z}$ 30'39 0°30'04
				max. Earth dist.	13401 Dec 15 21:37	4° $\text{Z}$ 06'10 6.07678 AU
conjunction	13396 Jun 14 07:54	4° $\text{E}$ 01'34	-0°29'34	morning rise	13401 Dec 26 23:20	6° $\text{Z}$ 40'44
minimum elong	13396 Jun 14 07:53	4° $\text{E}$ 01'34	0°30'36	retrograde	13402 May 03 12:39	25° $\text{Z}$ 52'16
morning rise	13396 Jun 27 03:14	6° $\text{E}$ 54'23		min. Earth dist.	13402 Jun 30 21:00	21° $\text{Z}$ 01'57 4.16510 AU
retrograde	13396 Oct 29 19:16	25° $\text{E}$ 00'11		opposition	13402 Jul 02 11:20	20° $\text{Z}$ 49'04 0°51'07
opposition	13396 Dec 29 07:59	20° $\text{E}$ 06'05	-0°51'01	direct	13402 Aug 30 21:05	15° $\text{Z}$ 50'21
min. Earth dist.	13396 Dec 30 22:38	19° $\text{E}$ 53'33	4.20778 AU		13402 Dec 15 09:57	0° $\approx$
direct	13397 Feb 28 10:14	15° $\text{E}$ 06'52		evening set	13403 Jan 04 04:11	4° $\approx$ 20'14
	13397 Jun 17 10:38	0° $\text{Q}$				
evening set	13397 Jul 04 07:24	3° $\text{Q}$ 51'13		conjunction	13403 Jan 17 15:20	7° $\approx$ 21'12 0°36'19
max. Earth dist.	13397 Jul 15 04:25	6° $\text{Q}$ 23'32	6.11829 AU	minimum elong	13403 Jan 17 15:21	7° $\approx$ 21'12 0°37'12
				max. Earth dist.	13403 Jan 19 18:16	7° $\approx$ 49'46 6.25571 AU
conjunction	13397 Jul 17 05:18	6° $\text{Q}$ 52'11	-0°36'18	morning rise	13403 Jan 31 02:09	10° $\approx$ 21'41
minimum elong	13397 Jul 17 05:18	6° $\text{Q}$ 52'11	0°37'12		13403 Feb 21 09:47	15° $\approx$
morning rise	13397 Jul 30 03:21	9° $\text{Q}$ 53'37		retrograde	13403 Jun 04 13:18	28° $\approx$ 19'01

opposition	13403 Aug 03 23:50	23° $\approx$ 18'01	0°52'10	minimum elong	13409 Jul 23 01:26	11° $\Omega$ 50'46	0°37'08
min. Earth dist.	13403 Aug 02 21:40	23° $\approx$ 26'40	4.33906 AU	morning rise	13409 Aug 05 00:18	14° $\Omega$ 53'44	
direct	13403 Oct 03 16:49	18° $\approx$ 17'58			13409 Aug 05 11:00	15° $\Omega$	
	13404 Jan 08 16:50	0° $\mathbb{X}$			13409 Oct 17 22:33	0° $\mathbb{M}$	
evening set	13404 Feb 06 03:59	5° $\mathbb{X}$ 57'45		retrograde	13409 Dec 11 10:11	4° $\mathbb{M}$ 26'51	
					13410 Feb 05 14:14	30° $\mathbb{R}$ $\Omega$	
conjunction	13404 Feb 19 11:07	8° $\mathbb{X}$ 50'43	0°32'03	opposition	13410 Feb 09 06:33	29° $\Omega$ 30'56	-0°51'30
minimum elong	13404 Feb 19 11:08	8° $\mathbb{X}$ 50'44	0°32'32	min. Earth dist.	13410 Feb 10 05:49	29° $\Omega$ 23'15	4.00961 AU
max. Earth dist.	13404 Feb 20 13:15	9° $\mathbb{X}$ 04'54	6.41139 AU	direct	13410 Apr 09 19:17	24° $\Omega$ 34'00	
morning rise	13404 Mar 03 17:13	11° $\mathbb{X}$ 42'56			13410 Jun 08 13:45	0° $\mathbb{M}$	
retrograde	13404 Jul 03 17:33	28° $\mathbb{X}$ 45'17		evening set	13410 Aug 14 17:03	14° $\mathbb{M}$ 21'36	
opposition	13404 Sep 02 15:07	23° $\mathbb{X}$ 47'12	0°38'27				
min. Earth dist.	13404 Sep 02 06:52	23° $\mathbb{X}$ 49'53	4.46608 AU	conjunction	13410 Aug 27 20:26	17° $\mathbb{M}$ 32'55	-0°28'42
direct	13404 Nov 03 09:27	18° $\mathbb{X}$ 46'28		minimum elong	13410 Aug 27 20:27	17° $\mathbb{M}$ 32'56	0°29'02
	13405 Feb 07 10:50	0° $\mathbb{Y}$		max. Earth dist.	13410 Aug 27 02:03	17° $\mathbb{M}$ 21'44	5.94544 AU
evening set	13405 Mar 08 07:20	5° $\mathbb{Y}$ 55'27		morning rise	13410 Sep 10 01:19	20° $\mathbb{M}$ 45'17	
					13410 Oct 20 03:25	0° $\underline{\Omega}$	
conjunction	13405 Mar 21 10:20	8° $\mathbb{Y}$ 43'18	0°19'08	retrograde	13411 Jan 19 03:45	11° $\underline{\Omega}$ 21'49	
minimum elong	13405 Mar 21 10:21	8° $\mathbb{Y}$ 43'18	0°19'04	opposition	13411 Mar 19 11:47	6° $\underline{\Omega}$ 23'12	-0°30'19
max. Earth dist.	13405 Mar 21 07:52	8° $\mathbb{Y}$ 41'59	6.50128 AU	min. Earth dist.	13411 Mar 19 11:06	6° $\underline{\Omega}$ 23'26	3.90393 AU
morning rise	13405 Apr 03 11:31	11° $\mathbb{Y}$ 30'16		direct	13411 May 16 22:08	1° $\underline{\Omega}$ 27'53	
retrograde	13405 Aug 02 06:16	28° $\mathbb{Y}$ 06'02		evening set	13411 Sep 21 08:15	21° $\underline{\Omega}$ 44'42	
opposition	13405 Oct 02 09:54	23° $\mathbb{Y}$ 10'32	0°15'19				
min. Earth dist.	13405 Oct 02 21:23	23° $\mathbb{Y}$ 06'51	4.51436 AU	conjunction	13411 Oct 04 17:42	25° $\underline{\Omega}$ 01'34	-0°09'28
direct	13405 Dec 03 20:11	18° $\mathbb{Y}$ 09'38		minimum elong	13411 Oct 04 17:43	25° $\underline{\Omega}$ 01'34	0°09'07
	13406 Mar 13 08:40	0° $\mathbb{Z}$		behind sun begin	13411 Oct 04 10:39	24° $\underline{\Omega}$ 57'15	
evening set	13406 Apr 07 11:39	5° $\mathbb{Z}$ 11'24		behind sun end	13411 Oct 05 00:47	25° $\underline{\Omega}$ 05'53	
max. Earth dist.	13406 Apr 19 03:38	7° $\mathbb{Z}$ 40'56	6.50453 AU	max. Earth dist.	13411 Oct 05 14:51	25° $\underline{\Omega}$ 14'32	5.89102 AU
				morning rise	13411 Oct 18 04:59	28° $\underline{\Omega}$ 19'28	
conjunction	13406 Apr 20 10:48	7° $\mathbb{Z}$ 57'38	0°01'25		13411 Oct 25 02:54	0° $\mathbb{M}$	
minimum elong	13406 Apr 20 10:48	7° $\mathbb{Z}$ 57'38	0°00'53		13412 Jan 05 19:44	15° $\mathbb{M}$	
behind sun begin	13406 Apr 20 02:47	7° $\mathbb{Z}$ 53'22		retrograde	13412 Feb 27 00:01	19° $\mathbb{M}$ 12'43	
behind sun end	13406 Apr 20 18:48	8° $\mathbb{Z}$ 01'54		asc. node	13412 Mar 13 07:13	18° $\mathbb{M}$ 49'01	
morning rise	13406 May 03 08:22	10° $\mathbb{Z}$ 43'09			13412 Apr 20 03:53	15° $\mathbb{R}$ $\mathbb{M}$	
desc. node	13406 May 20 22:08	14° $\mathbb{Z}$ 24'06		min. Earth dist.	13412 Apr 25 04:02	14° $\mathbb{M}$ 19'32	3.90831 AU
	13406 May 23 20:31	15° $\mathbb{Z}$		opposition	13412 Apr 26 05:04	14° $\mathbb{M}$ 11'04	0°04'06
retrograde	13406 Sep 01 07:12	27° $\mathbb{Z}$ 23'11		direct	13412 Jun 23 05:02	9° $\mathbb{M}$ 15'42	
opposition	13406 Nov 01 10:08	22° $\mathbb{Z}$ 29'12	-0°11'40		13412 Aug 22 23:57	15° $\mathbb{M}$	
min. Earth dist.	13406 Nov 02 15:32	22° $\mathbb{Z}$ 19'48	4.47294 AU	evening set	13412 Oct 28 16:06	29° $\mathbb{M}$ 20'25	
direct	13407 Jan 02 23:16	17° $\mathbb{Z}$ 28'19			13412 Oct 31 10:05	0° $\mathbb{Z}$	
	13407 Apr 15 01:05	0° $\mathbb{I}$					
evening set	13407 May 07 16:44	4° $\mathbb{I}$ 47'22		conjunction	13412 Nov 11 05:17	2° $\mathbb{Z}$ 36'06	0°13'45
max. Earth dist.	13407 May 18 11:15	7° $\mathbb{I}$ 08'13	6.42060 AU	minimum elong	13412 Nov 11 05:16	2° $\mathbb{Z}$ 36'05	0°14'37
				behind sun begin	13412 Nov 11 01:49	2° $\mathbb{Z}$ 34'01	
conjunction	13407 May 20 13:33	7° $\mathbb{I}$ 35'44	-0°16'54	behind sun end	13412 Nov 11 08:43	2° $\mathbb{Z}$ 38'09	
minimum elong	13407 May 20 13:32	7° $\mathbb{I}$ 35'44	0°17'50	max. Earth dist.	13412 Nov 13 08:27	3° $\mathbb{Z}$ 06'55	5.95293 AU
morning rise	13407 Jun 02 08:53	10° $\mathbb{I}$ 23'38		morning rise	13412 Nov 24 20:15	5° $\mathbb{Z}$ 52'25	
retrograde	13407 Oct 02 18:48	27° $\mathbb{I}$ 38'31		retrograde	13413 Apr 03 22:31	26° $\mathbb{Z}$ 05'15	
opposition	13407 Dec 02 17:01	22° $\mathbb{I}$ 44'55	-0°36'35	min. Earth dist.	13413 May 31 20:21	21° $\mathbb{Z}$ 14'52	4.02035 AU
min. Earth dist.	13407 Dec 04 07:43	22° $\mathbb{I}$ 32'30	4.35120 AU	opposition	13413 Jun 02 11:05	21° $\mathbb{Z}$ 01'44	0°35'48
direct	13408 Feb 02 16:22	17° $\mathbb{I}$ 44'37		direct	13413 Jul 30 23:00	16° $\mathbb{Z}$ 04'39	
	13408 May 11 16:06	0° $\mathbb{O}$			13413 Nov 11 02:26	0° $\mathbb{Z}$	
evening set	13408 Jun 06 22:51	5° $\mathbb{O}$ 43'18		evening set	13413 Dec 04 21:39	5° $\mathbb{Z}$ 23'17	
max. Earth dist.	13408 Jun 17 10:26	8° $\mathbb{O}$ 05'12	6.26919 AU				
				conjunction	13413 Dec 18 11:02	8° $\mathbb{Z}$ 31'58	0°30'47
conjunction	13408 Jun 19 19:02	8° $\mathbb{O}$ 37'16	-0°31'07	minimum elong	13413 Dec 18 11:02	8° $\mathbb{Z}$ 31'58	0°31'49
minimum elong	13408 Jun 19 19:02	8° $\mathbb{O}$ 37'16	0°32'09	max. Earth dist.	13413 Dec 20 23:19	9° $\mathbb{Z}$ 06'58	6.10308 AU
morning rise	13408 Jul 02 14:33	11° $\mathbb{O}$ 31'15		morning rise	13414 Jan 01 01:03	11° $\mathbb{Z}$ 40'37	
retrograde	13408 Nov 04 19:06	29° $\mathbb{O}$ 48'03			13414 Apr 17 16:23	0° $\approx$	
opposition	13409 Jan 04 04:29	24° $\mathbb{O}$ 53'49	-0°52'23	retrograde	13414 May 08 04:12	0° $\approx$ 40'38	
min. Earth dist.	13409 Jan 05 19:13	24° $\mathbb{O}$ 41'14	4.17953 AU		13414 May 28 11:19	30° $\mathbb{R}$ $\mathbb{Z}$	
direct	13409 Mar 06 03:11	19° $\mathbb{O}$ 54'51		min. Earth dist.	13414 Jul 05 15:34	25° $\mathbb{Z}$ 49'50	4.19202 AU
	13409 May 31 08:33	0° $\Omega$		opposition	13414 Jul 07 03:53	25° $\mathbb{Z}$ 37'40	0°52'17
evening set	13409 Jul 10 03:01	8° $\Omega$ 48'23		direct	13414 Sep 04 19:00	20° $\mathbb{Z}$ 38'43	
max. Earth dist.	13409 Jul 21 02:11	11° $\Omega$ 22'56	6.09106 AU		13414 Nov 27 03:15	0° $\approx$	
				evening set	13415 Jan 08 21:41	9° $\approx$ 00'17	
conjunction	13409 Jul 23 01:26	11° $\Omega$ 50'46	-0°36'17				

conjunction	13415 Jan 22 08:20	11°  59'59	0°36'21			13420 Apr 22 14:30	0° 	
minimum elong	13415 Jan 22 08:20	11°  59'59	0°37'10	evening set		13420 Jun 11 12:31	10°  24'35	
max. Earth dist.	13415 Jan 24 08:38	12°  26'55	6.28102 AU	max. Earth dist.		13420 Jun 22 00:31	12°  24'34	6.24388 AU
morning rise	13415 Feb 04 18:34	14°  59'09						
	13415 Feb 04 20:07	15° 		conjunction		13420 Jun 24 08:55	13°  19'42	-0°32'31
	13415 Apr 26 19:22	0° 		minimum elong		13420 Jun 24 08:55	13°  19'41	0°33'33
retrograde	13415 Jun 08 18:51	2°  47'10		morning rise		13420 Jul 07 04:45	16°  14'51	
	13415 Jul 21 21:02	30° 				13420 Sep 14 00:28	0° 	
min. Earth dist.	13415 Aug 07 07:57	27°  54'37	4.36097 AU	retrograde		13420 Nov 09 18:29	4°  42'09	
opposition	13415 Aug 08 08:23	27°  46'33	0°50'59			13421 Jan 07 13:46	30° 	
direct	13415 Oct 08 04:29	22°  46'23		opposition		13421 Jan 09 03:21	29°  47'47	-0°53'26
	13415 Dec 20 16:13	0° 		min. Earth dist.		13421 Jan 10 15:25	29°  36'04	4.15470 AU
evening set	13416 Feb 10 14:10	10°  20'33		direct		13421 Mar 10 20:24	24°  49'13	
						13421 May 09 04:44	0° 	
conjunction	13416 Feb 23 20:45	13°  12'37	0°30'39	evening set		13421 Jul 15 00:27	13°  50'37	
minimum elong	13416 Feb 23 20:46	13°  12'38	0°31'03			13421 Jul 19 22:20	15° 	
max. Earth dist.	13416 Feb 24 18:48	13°  24'33	6.42848 AU	max. Earth dist.		13421 Jul 26 04:22	16°  28'45	6.06909 AU
morning rise	13416 Mar 08 02:04	16°  03'53						
	13416 May 23 13:32	0° 		conjunction		13421 Jul 27 23:21	16°  54'13	-0°36'03
retrograde	13416 Jul 07 21:12	3°  00'55		minimum elong		13421 Jul 27 23:21	16°  54'13	0°36'49
	13416 Aug 22 09:28	30° 		morning rise		13421 Aug 09 22:53	19°  58'28	
opposition	13416 Sep 06 19:19	28°  03'18	0°35'36			13421 Sep 24 00:57	0° 	
min. Earth dist.	13416 Sep 06 14:24	28°  04'54	4.47734 AU	retrograde		13421 Dec 16 19:49	9°  41'12	
direct	13416 Nov 07 17:24	23°  02'35		opposition		13422 Feb 14 13:37	4°  44'59	-0°49'43
	13417 Jan 19 14:21	0° 		min. Earth dist.		13422 Feb 15 10:06	4°  38'12	3.99272 AU
evening set	13417 Mar 12 13:13	10°  09'27				13422 Apr 04 04:59	30° 	
				direct		13422 Apr 14 23:36	29°  48'23	
conjunction	13417 Mar 25 15:35	12°  09'56	0°16'49			13422 Apr 25 16:46	0° 	
minimum elong	13417 Mar 25 15:36	12°  09'56	0°16'41	evening set		13422 Aug 19 21:22	19°  40'36	
max. Earth dist.	13417 Mar 25 07:26	12°  09'56	6.50590 AU					
morning rise	13417 Apr 07 16:22	15°  43'31		conjunction		13422 Sep 02 01:36	22°  52'47	-0°26'37
	13417 Jun 27 20:43	0° 		minimum elong		13422 Sep 02 01:37	22°  52'47	0°26'51
retrograde	13417 Aug 06 10:33	2°  18'34		max. Earth dist.		13422 Sep 01 13:30	22°  45'25	5.93551 AU
	13417 Sep 15 01:40	30° 		morning rise		13422 Sep 15 07:15	26°  05'59	
opposition	13417 Oct 06 13:42	27°  23'21	0°11'36			13422 Oct 01 15:00	0° 	
min. Earth dist.	13417 Oct 07 04:13	27°  18'41	4.51228 AU	retrograde		13423 Jan 24 13:54	16°  46'12	
direct	13417 Dec 08 00:59	22°  09'22		opposition		13423 Mar 24 21:32	11°  47'10	-0°26'02
	13418 Feb 23 01:15	0° 		min. Earth dist.		13423 Mar 24 16:54	11°  48'44	3.90247 AU
desc. node	13418 Mar 27 16:50	6°  17'05		direct		13423 May 22 04:55	6°  52'00	
evening set	13418 Apr 11 16:27	9°  25'49		evening set		13423 Sep 26 15:37	27°  40'32	
max. Earth dist.	13418 Apr 23 06:05	11°  25'42	6.49587 AU			13423 Oct 08 09:47	0° 	
conjunction	13418 Apr 24 15:24	12°  12'15	-0°01'19	conjunction		13423 Oct 10 01:30	0°  24'19	-0°06'17
minimum elong	13418 Apr 24 15:24	12°  12'15	0°01'55	minimum elong		13423 Oct 10 01:29	0°  24'19	0°05'52
behind sun begin	13418 Apr 24 07:24	12°  07'58		behind sun begin		13423 Oct 09 17:32	0°  19'28	
behind sun end	13418 Apr 24 23:25	12°  16'32		behind sun end		13423 Oct 10 09:26	0°  29'10	
morning rise	13418 May 07 12:28	14°  57'57		max. Earth dist.		13423 Oct 11 02:14	0°  39'28	5.89794 AU
	13418 May 07 16:18	15° 		morning rise		13423 Oct 23 13:31	3°  42'10	
	13418 Aug 02 21:38	0° 				13423 Dec 12 06:37	15° 	
retrograde	13418 Sep 05 14:05	1°  41'48		asc. node		13424 Jan 25 11:53	22°  14'17	
	13418 Oct 09 07:43	30° 		retrograde		13424 Mar 03 03:27	24°  30'41	
opposition	13418 Nov 05 17:18	26°  48'00	-0°15'29	min. Earth dist.		13424 Apr 30 06:18	19°  38'10	3.92286 AU
min. Earth dist.	13418 Nov 06 23:55	26°  38'12	4.45827 AU	opposition		13424 May 01 10:24	19°  28'38	0°08'56
direct	13419 Jan 07 04:07	21°  47'16				13424 Jun 12 08:20	15° 	
	13419 Mar 27 20:24	0° 		direct		13424 Jun 28 11:26	14°  33'03	
evening set	13419 May 12 00:31	9°  11'23				13424 Jul 14 16:05	15° 	
max. Earth dist.	13419 May 22 16:51	11°  13'44	6.40089 AU	evening set		13424 Oct 14 14:22	0° 	
						13424 Nov 02 20:07	4°  31'10	
conjunction	13419 May 24 21:01	12°  00'25	-0°19'17					
minimum elong	13419 May 24 21:00	12°  00'24	0°20'14	conjunction		13424 Nov 16 09:31	7°  45'56	0°16'35
morning rise	13419 Jun 06 16:20	14°  49'04		minimum elong		13424 Nov 16 09:30	7°  45'55	0°17'30
	13419 Aug 30 02:55	0° 		max. Earth dist.		13424 Nov 18 14:55	8°  47'56	5.97353 AU
retrograde	13419 Oct 07 11:45	2°  11'53		morning rise		13424 Nov 30 00:23	11°  40'13	
	13419 Nov 15 00:02	30° 				13425 Mar 14 04:19	0° 	
opposition	13419 Dec 07 07:06	27°  18'21	-0°39'35	retrograde		13425 Apr 08 18:10	1°  30'51	
min. Earth dist.	13419 Dec 08 23:10	27°  05'28	4.32767 AU			13425 May 04 03:16	30° 	
direct	13420 Feb 07 04:22	22°  18'16		min. Earth dist.		13425 Jun 05 17:47	26°  47'08	4.04450 AU

opposition	13425 Jun 07 07:44	26° $\mathbb{A}$ 00'17	0°39'03	morning rise	13430 May 11 16:11	19° $\mathbb{C}$ 11'23	
direct	13425 Aug 04 23:43	21° $\mathbb{A}$ 02'56			13430 Jul 06 00:21	0° $\mathbb{D}$	
	13425 Oct 23 13:28	0° $\mathbb{B}$		retrograde	13430 Sep 09 22:23	5° $\mathbb{D}$ 59'28	
evening set	13425 Dec 09 18:18	10° $\mathbb{B}$ 12'59		opposition	13430 Nov 10 00:15	1° $\mathbb{D}$ 05'42	-0°19'08
				min. Earth dist.	13430 Nov 11 08:40	0° $\mathbb{D}$ 55'19	4.44272 AU
conjunction	13425 Dec 23 07:25	13° $\mathbb{B}$ 20'24	0°32'14		13430 Nov 18 15:04	30° $\mathbb{R}$ $\mathbb{B}$	
minimum elong	13425 Dec 23 07:25	13° $\mathbb{B}$ 20'24	0°33'16	direct	13431 Jan 11 10:28	26° $\mathbb{B}$ 04'58	
max. Earth dist.	13425 Dec 25 19:15	13° $\mathbb{B}$ 54'55	6.12845 AU		13431 Mar 05 08:31	0° $\mathbb{D}$	
morning rise	13426 Jan 05 21:00	16° $\mathbb{B}$ 27'41		evening set	13431 May 16 07:43	13° $\mathbb{D}$ 34'05	
	13426 Mar 13 12:25	0° $\mathbb{A}$		max. Earth dist.	13431 May 26 23:53	15° $\mathbb{D}$ 54'54	6.38165 AU
retrograde	13426 May 12 12:31	5° $\mathbb{A}$ 17'02					
min. Earth dist.	13426 Jul 10 03:33	0° $\mathbb{A}$ 26'16	4.21644 AU	conjunction	13431 May 29 04:15	16° $\mathbb{D}$ 23'48	-0°21'30
opposition	13426 Jul 11 15:09	0° $\mathbb{A}$ 14'22	0°53'06	minimum elong	13431 May 29 04:14	16° $\mathbb{D}$ 23'48	0°22'29
	13426 Jul 13 10:06	30° $\mathbb{R}$ $\mathbb{B}$		morning rise	13431 Jun 10 23:22	19° $\mathbb{D}$ 13'09	
direct	13426 Sep 09 09:30	25° $\mathbb{B}$ 15'13			13431 Aug 03 07:48	0° $\mathbb{B}$	
	13426 Nov 05 12:16	0° $\mathbb{A}$		retrograde	13431 Oct 12 01:17	6° $\mathbb{B}$ 43'26	
evening set	13427 Jan 13 10:38	13° $\mathbb{A}$ 29'43		opposition	13431 Dec 11 20:35	1° $\mathbb{B}$ 49'48	-0°42'16
	13427 Jan 20 05:44	15° $\mathbb{A}$		min. Earth dist.	13431 Dec 13 11:58	1° $\mathbb{B}$ 37'08	4.30591 AU
					13431 Dec 26 09:54	30° $\mathbb{R}$ $\mathbb{D}$	
conjunction	13427 Jan 26 20:42	16° $\mathbb{A}$ 28'17	0°36'11	direct	13432 Feb 11 14:08	26° $\mathbb{D}$ 49'53	
minimum elong	13427 Jan 26 20:43	16° $\mathbb{A}$ 28'18	0°36'59		13432 Mar 29 02:39	0° $\mathbb{B}$	
max. Earth dist.	13427 Jan 28 16:22	16° $\mathbb{A}$ 52'32	6.30263 AU	evening set	13432 Jun 16 01:12	15° $\mathbb{B}$ 02'54	
morning rise	13427 Feb 09 06:20	19° $\mathbb{A}$ 26'18		max. Earth dist.	13432 Jun 26 14:12	17° $\mathbb{B}$ 27'13	6.22099 AU
	13427 Apr 02 06:35	0° $\mathbb{H}$					
retrograde	13427 Jun 12 23:38	7° $\mathbb{H}$ 06'35		conjunction	13432 Jun 28 21:37	17° $\mathbb{B}$ 58'57	-0°33'40
opposition	13427 Aug 12 13:17	2° $\mathbb{H}$ 06'25	0°49'37	minimum elong	13432 Jun 28 21:37	17° $\mathbb{B}$ 58'57	0°34'42
min. Earth dist.	13427 Aug 11 16:27	2° $\mathbb{H}$ 13'17	4.37836 AU	morning rise	13432 Jul 11 17:48	20° $\mathbb{B}$ 55'11	
	13427 Aug 29 02:36	30° $\mathbb{R}$ $\mathbb{A}$			13432 Aug 22 18:45	0° $\mathbb{D}$	
direct	13427 Oct 12 14:21	27° $\mathbb{A}$ 06'07		retrograde	13432 Nov 14 18:33	9° $\mathbb{D}$ 32'05	
	13427 Nov 26 05:57	0° $\mathbb{H}$		opposition	13433 Jan 14 00:59	4° $\mathbb{D}$ 37'29	-0°54'04
evening set	13428 Feb 14 21:06	14° $\mathbb{H}$ 36'13		min. Earth dist.	13433 Jan 15 12:05	4° $\mathbb{D}$ 26'02	4.13208 AU
					13433 Feb 28 22:01	30° $\mathbb{R}$ $\mathbb{B}$	
conjunction	13428 Feb 28 03:13	17° $\mathbb{H}$ 27'37	0°29'11	direct	13433 Mar 15 15:13	29° $\mathbb{B}$ 39'07	
minimum elong	13428 Feb 28 03:14	17° $\mathbb{H}$ 27'38	0°29'30		13433 Mar 30 07:03	0° $\mathbb{D}$	
max. Earth dist.	13428 Feb 28 21:21	17° $\mathbb{H}$ 37'24	6.44051 AU		13433 Jul 03 12:29	15° $\mathbb{D}$	
morning rise	13428 Mar 12 07:58	20° $\mathbb{H}$ 18'12		evening set	13433 Jul 19 20:07	18° $\mathbb{D}$ 47'30	
	13428 Apr 30 01:45	0° $\mathbb{Y}$		max. Earth dist.	13433 Jul 31 04:13	21° $\mathbb{D}$ 28'49	6.04869 AU
retrograde	13428 Jul 11 21:46	7° $\mathbb{Y}$ 11'36					
opposition	13428 Sep 10 21:26	2° $\mathbb{Y}$ 14'19	0°32'45	conjunction	13433 Aug 01 19:41	21° $\mathbb{D}$ 52'17	-0°35'31
min. Earth dist.	13428 Sep 10 18:34	2° $\mathbb{Y}$ 15'15	4.48369 AU	minimum elong	13433 Aug 01 19:42	21° $\mathbb{D}$ 52'17	0°36'14
	13428 Sep 28 20:12	30° $\mathbb{R}$ $\mathbb{H}$		morning rise	13433 Aug 14 19:50	24° $\mathbb{D}$ 57'44	
direct	13428 Nov 11 20:46	27° $\mathbb{H}$ 13'32			13433 Sep 05 12:43	0° $\mathbb{D}$	
	13428 Dec 26 03:00	0° $\mathbb{Y}$		retrograde	13433 Dec 22 02:07	14° $\mathbb{D}$ 49'21	
evening set	13429 Mar 16 17:13	14° $\mathbb{Y}$ 19'39		opposition	13434 Feb 19 18:08	9° $\mathbb{D}$ 52'50	-0°47'30
				min. Earth dist.	13434 Feb 20 11:29	9° $\mathbb{D}$ 47'05	3.97658 AU
conjunction	13429 Mar 29 19:10	17° $\mathbb{Y}$ 06'55	0°14'31	direct	13434 Apr 19 23:12	4° $\mathbb{D}$ 56'30	
minimum elong	13429 Mar 29 19:11	17° $\mathbb{Y}$ 06'55	0°14'19	evening set	13434 Aug 25 00:00	24° $\mathbb{D}$ 53'28	
behind sun begin	13429 Mar 29 15:31	17° $\mathbb{Y}$ 04'58					
behind sun end	13429 Mar 29 22:51	17° $\mathbb{Y}$ 08'52		conjunction	13434 Sep 07 04:52	28° $\mathbb{D}$ 06'29	-0°24'18
max. Earth dist.	13429 Mar 29 08:07	17° $\mathbb{Y}$ 01'01	6.50631 AU	minimum elong	13434 Sep 07 04:53	28° $\mathbb{D}$ 06'30	0°24'26
morning rise	13429 Apr 11 19:20	19° $\mathbb{Y}$ 53'20		max. Earth dist.	13434 Sep 06 20:17	28° $\mathbb{D}$ 01'15	5.92512 AU
	13429 Jun 02 13:23	0° $\mathbb{B}$			13434 Sep 14 22:54	0° $\mathbb{B}$	
retrograde	13429 Aug 10 13:15	6° $\mathbb{B}$ 28'48		morning rise	13434 Sep 20 11:34	1° $\mathbb{B}$ 20'38	
opposition	13429 Oct 10 16:40	1° $\mathbb{B}$ 33'52	0°07'57	retrograde	13435 Jan 29 21:08	22° $\mathbb{B}$ 04'56	
min. Earth dist.	13429 Oct 11 09:43	1° $\mathbb{B}$ 28'24	4.50692 AU	opposition	13435 Mar 30 05:07	17° $\mathbb{B}$ 05'29	-0°21'30
	13429 Oct 23 02:22	30° $\mathbb{R}$ $\mathbb{Y}$		min. Earth dist.	13435 Mar 29 20:43	17° $\mathbb{B}$ 08'18	3.89908 AU
direct	13429 Dec 12 04:55	26° $\mathbb{Y}$ 32'59		direct	13435 May 27 10:30	12° $\mathbb{B}$ 10'21	
	13430 Jan 31 00:33	0° $\mathbb{B}$			13435 Sep 21 19:57	0° $\mathbb{D}$	
desc. node	13430 Feb 02 19:31	0° $\mathbb{B}$ 22'12		evening set	13435 Oct 01 21:32	2° $\mathbb{D}$ 25'48	
evening set	13430 Apr 15 20:51	13° $\mathbb{B}$ 38'42					
	13430 Apr 22 04:39	15° $\mathbb{B}$		conjunction	13435 Oct 15 08:12	5° $\mathbb{D}$ 42'44	-0°03'02
max. Earth dist.	13430 Apr 27 05:58	16° $\mathbb{B}$ 05'17	6.48506 AU	minimum elong	13435 Oct 15 08:11	5° $\mathbb{D}$ 42'44	0°02'32
				behind sun begin	13435 Oct 14 23:51	5° $\mathbb{D}$ 37'40	
conjunction	13430 Apr 28 19:16	16° $\mathbb{B}$ 25'22	-0°03'54	behind sun end	13435 Oct 15 16:31	5° $\mathbb{D}$ 47'49	
minimum elong	13430 Apr 28 19:17	16° $\mathbb{B}$ 25'22	0°04'35	max. Earth dist.	13435 Oct 16 14:28	6° $\mathbb{D}$ 01'15	5.90203 AU
behind sun begin	13430 Apr 28 11:27	16° $\mathbb{B}$ 21'10		morning rise	13435 Oct 28 20:41	9° $\mathbb{D}$ 00'38	
behind sun end	13430 Apr 29 03:07	16° $\mathbb{B}$ 29'34			13435 Nov 23 03:57	15° $\mathbb{D}$	

asc. node	13435 Dec 06 14:19	17° $\mathbb{M}$ 59'20		desc. node	13441 Dec 13 19:40	0° $\mathcal{B}$ 46'01	
retrograde	13436 Mar 08 08:35	29° $\mathbb{M}$ 45'55		direct	13441 Dec 16 08:52	0° $\mathcal{B}$ 45'26	
min. Earth dist.	13436 May 05 09:47	24° $\mathbb{M}$ 53'30	3.93385 AU		13442 Apr 06 11:17	15° $\mathcal{B}$	
opposition	13436 May 06 15:03	24° $\mathbb{M}$ 43'35	0°13'44	evening set	13442 Apr 20 00:31	17° $\mathcal{B}$ 51'38	
direct	13436 Jul 03 17:39	19° $\mathbb{M}$ 47'50		max. Earth dist.	13442 May 01 08:17	20° $\mathcal{B}$ 17'39	6.48001 AU
	13436 Sep 26 03:18	0° $\mathcal{Z}$					
evening set	13436 Nov 08 00:21	9° $\mathcal{Z}$ 41'05		conjunction	13442 May 02 22:36	20° $\mathcal{B}$ 38'19	-0°06'26
				minimum elong	13442 May 02 22:36	20° $\mathcal{B}$ 38'19	0°07'10
conjunction	13436 Nov 21 13:57	12° $\mathcal{Z}$ 55'09	0°19'20	behind sun begin	13442 May 02 15:15	20° $\mathcal{B}$ 34'22	
minimum elong	13436 Nov 21 13:57	12° $\mathcal{Z}$ 55'08	0°20'17	behind sun end	13442 May 03 05:57	20° $\mathcal{B}$ 42'15	
max. Earth dist.	13436 Nov 23 21:54	13° $\mathcal{Z}$ 28'32	5.99013 AU	morning rise	13442 May 15 18:56	23° $\mathcal{B}$ 24'20	
morning rise	13436 Dec 05 04:56	16° $\mathcal{Z}$ 09'40			13442 Jun 16 17:11	0° $\mathbb{I}$	
	13437 Feb 08 12:08	0° $\mathcal{B}$		retrograde	13442 Sep 14 03:41	10° $\mathbb{I}$ 14'55	
retrograde	13437 Apr 13 13:07	6° $\mathcal{B}$ 03'38		opposition	13442 Nov 14 06:10	5° $\mathbb{I}$ 21'14	-0°22'36
min. Earth dist.	13437 Jun 10 13:39	1° $\mathcal{B}$ 13'22	4.06493 AU	min. Earth dist.	13442 Nov 15 16:02	5° $\mathbb{I}$ 10'25	4.43286 AU
opposition	13437 Jun 12 04:44	1° $\mathcal{B}$ 00'09	0°42'03	direct	13443 Jan 15 16:00	0° $\mathbb{I}$ 20'36	
	13437 Jun 19 16:09	30° $\mathcal{R}$ $\mathcal{Z}$		evening set	13443 May 20 12:53	17° $\mathbb{I}$ 52'45	
direct	13437 Aug 09 22:39	26° $\mathcal{Z}$ 02'36		max. Earth dist.	13443 May 31 02:04	20° $\mathbb{I}$ 12'28	6.36743 AU
	13437 Sep 29 16:40	0° $\mathcal{B}$					
evening set	13437 Dec 14 16:40	15° $\mathcal{B}$ 05'45		conjunction	13443 Jun 02 09:00	20° $\mathbb{I}$ 42'53	-0°23'32
				minimum elong	13443 Jun 02 08:59	20° $\mathbb{I}$ 42'53	0°24'32
conjunction	13437 Dec 28 05:25	18° $\mathcal{B}$ 12'02	0°33'29	morning rise	13443 Jun 15 04:09	23° $\mathbb{I}$ 32'45	
minimum elong	13437 Dec 28 05:25	18° $\mathcal{B}$ 12'02	0°34'30		13443 Jul 15 10:48	0° $\mathcal{B}$	
max. Earth dist.	13437 Dec 30 14:43	18° $\mathcal{B}$ 44'56	6.15079 AU	retrograde	13443 Oct 16 13:23	11° $\mathcal{B}$ 09'08	
morning rise	13438 Jan 10 18:42	21° $\mathcal{B}$ 18'09		opposition	13443 Dec 16 07:29	6° $\mathcal{B}$ 15'22	-0°44'35
	13438 Feb 20 01:01	0° $\approx$		min. Earth dist.	13443 Dec 17 23:30	6° $\mathcal{B}$ 02'28	4.28794 AU
retrograde	13438 May 17 00:59	9° $\approx$ 58'03		direct	13444 Feb 15 23:14	1° $\mathcal{B}$ 15'29	
min. Earth dist.	13438 Jul 14 19:00	5° $\approx$ 06'51	4.23864 AU	evening set	13444 Jun 20 10:31	19° $\mathcal{B}$ 34'03	
opposition	13438 Jul 16 04:25	4° $\approx$ 55'41	0°53'35	max. Earth dist.	13444 Jul 01 00:50	21° $\mathcal{B}$ 59'44	6.20063 AU
	13438 Sep 08 01:29	30° $\mathcal{R}$ $\mathcal{B}$					
direct	13438 Sep 14 03:43	29° $\mathcal{B}$ 56'23		conjunction	13444 Jul 03 07:16	22° $\mathcal{B}$ 31'02	-0°34'33
	13438 Sep 20 05:44	0° $\approx$		minimum elong	13444 Jul 03 07:16	22° $\mathcal{B}$ 31'02	0°35'33
	13439 Jan 03 22:07	15° $\approx$		morning rise	13444 Jul 16 03:37	25° $\mathcal{B}$ 28'13	
evening set	13439 Jan 18 01:34	18° $\approx$ 04'34			13444 Aug 05 07:07	0° $\mathcal{Q}$	
				retrograde	13444 Nov 19 13:51	14° $\mathcal{Q}$ 13'58	
conjunction	13439 Jan 31 11:19	21° $\approx$ 02'08	0°35'47	opposition	13445 Jan 18 18:49	9° $\mathcal{Q}$ 19'10	-0°54'16
minimum elong	13439 Jan 31 11:19	21° $\approx$ 02'08	0°36'31	min. Earth dist.	13445 Jan 20 04:47	9° $\mathcal{Q}$ 08'05	4.11078 AU
max. Earth dist.	13439 Feb 02 05:29	21° $\approx$ 25'27	6.32318 AU	direct	13445 Mar 20 04:25	4° $\mathcal{Q}$ 20'58	
morning rise	13439 Feb 13 20:14	23° $\approx$ 59'03			13445 Jun 16 08:51	15° $\mathcal{Q}$	
	13439 Mar 14 04:12	0° $\mathcal{H}$		evening set	13445 Jul 24 12:17	23° $\mathcal{Q}$ 36'13	
retrograde	13439 Jun 17 04:33	11° $\mathcal{H}$ 31'55		max. Earth dist.	13445 Aug 04 22:07	26° $\mathcal{Q}$ 19'19	6.02817 AU
opposition	13439 Aug 16 20:31	6° $\mathcal{H}$ 32'14	0°47'55				
min. Earth dist.	13439 Aug 16 00:46	6° $\mathcal{H}$ 38'43	4.39605 AU	conjunction	13445 Aug 06 12:18	26° $\mathcal{Q}$ 42'08	-0°34'44
direct	13439 Oct 17 00:01	1° $\mathcal{H}$ 31'57		minimum elong	13445 Aug 06 12:18	26° $\mathcal{Q}$ 42'09	0°35'24
evening set	13440 Feb 19 06:15	18° $\mathcal{H}$ 57'41		morning rise	13445 Aug 19 13:21	29° $\mathcal{Q}$ 48'53	
					13445 Aug 20 08:05	0° $\mathcal{H}$	
conjunction	13440 Mar 03 11:40	21° $\mathcal{H}$ 48'19	0°27'29	retrograde	13445 Dec 27 04:07	19° $\mathcal{H}$ 49'50	
minimum elong	13440 Mar 03 11:41	21° $\mathcal{H}$ 48'19	0°27'44	opposition	13446 Feb 24 19:17	14° $\mathcal{H}$ 52'54	-0°45'02
max. Earth dist.	13440 Mar 04 01:29	21° $\mathcal{H}$ 55'45	6.45446 AU	min. Earth dist.	13446 Feb 25 09:51	14° $\mathcal{H}$ 48'03	3.95870 AU
morning rise	13440 Mar 16 15:48	24° $\mathcal{H}$ 38'07		direct	13446 Apr 24 20:28	9° $\mathcal{H}$ 56'41	
	13440 Apr 11 11:19	0° $\mathcal{Y}$		evening set	13446 Aug 29 23:30	29° $\mathcal{H}$ 59'21	
retrograde	13440 Jul 16 01:51	11° $\mathcal{Y}$ 27'11			13446 Aug 30 00:35	0° $\mathcal{L}$	
opposition	13440 Sep 15 01:31	6° $\mathcal{Y}$ 30'21	0°29'37				
min. Earth dist.	13440 Sep 15 01:50	6° $\mathcal{Y}$ 30'15	4.49331 AU	conjunction	13446 Sep 12 05:23	3° $\mathcal{L}$ 13'27	-0°21'52
direct	13440 Nov 16 04:32	1° $\mathcal{Y}$ 29'35		minimum elong	13446 Sep 12 05:24	3° $\mathcal{L}$ 13'27	0°21'54
evening set	13441 Mar 20 22:27	18° $\mathcal{Y}$ 33'41		max. Earth dist.	13446 Sep 12 02:22	3° $\mathcal{L}$ 11'36	5.91185 AU
				morning rise	13446 Sep 25 12:53	6° $\mathcal{L}$ 28'38	
conjunction	13441 Apr 02 23:51	21° $\mathcal{Y}$ 20'33	0°12'06	retrograde	13447 Feb 04 05:03	27° $\mathcal{L}$ 18'20	
minimum elong	13441 Apr 02 23:51	21° $\mathcal{Y}$ 20'33	0°11'50	opposition	13447 Apr 04 10:18	22° $\mathcal{L}$ 18'29	-0°16'57
behind sun begin	13441 Apr 02 18:17	21° $\mathcal{Y}$ 17'35		min. Earth dist.	13447 Apr 03 23:55	22° $\mathcal{L}$ 21'59	3.89202 AU
behind sun end	13441 Apr 03 05:26	21° $\mathcal{Y}$ 23'31		direct	13447 Jun 01 14:19	17° $\mathcal{L}$ 23'21	
max. Earth dist.	13441 Apr 02 09:16	21° $\mathcal{Y}$ 12'46	6.51110 AU		13447 Sep 04 10:29	0° $\mathbb{M}$	
morning rise	13441 Apr 15 23:29	24° $\mathcal{Y}$ 06'35		evening set	13447 Oct 07 02:15	7° $\mathbb{M}$ 40'25	
	13441 May 14 16:03	0° $\mathcal{B}$		asc. node	13447 Oct 17 02:13	10° $\mathbb{M}$ 06'45	
retrograde	13441 Aug 14 15:33	10° $\mathcal{B}$ 41'04					
opposition	13441 Oct 14 20:12	5° $\mathcal{B}$ 46'18	0°04'14	conjunction	13447 Oct 20 13:35	10° $\mathbb{M}$ 57'42	0°00'13
min. Earth dist.	13441 Oct 15 14:43	5° $\mathcal{B}$ 40'22	4.50680 AU	minimum elong	13447 Oct 20 13:35	10° $\mathbb{M}$ 57'42	0°00'50

behind sun begin	13447 Oct 20 05:13	10° $\mathbb{M}$ 52'36		opposition	13453 Oct 19 01:04	10° $\mathcal{S}$ 00'25	0°00'23
behind sun end	13447 Oct 20 21:57	11° $\mathbb{M}$ 02'47		min. Earth dist.	13453 Oct 19 22:54	9° $\mathcal{S}$ 53'26	4.50345 AU
max. Earth dist.	13447 Oct 21 23:55	11° $\mathbb{M}$ 18'40	5.90181 AU	desc. node	13453 Oct 24 07:22	9° $\mathcal{S}$ 20'05	
morning rise	13447 Nov 03 02:54	14° $\mathbb{M}$ 15'55		direct	13453 Dec 20 15:23	4° $\mathcal{S}$ 59'32	
	13447 Nov 06 03:46	15° $\mathbb{M}$			13454 Mar 20 10:54	15° $\mathcal{S}$	
	13448 Jan 16 06:58	0° $\mathcal{Z}$		evening set	13454 Apr 24 05:42	22° $\mathcal{S}$ 07'24	
retrograde	13448 Mar 13 11:33	4° $\mathcal{Z}$ 59'27		max. Earth dist.	13454 May 05 08:49	24° $\mathcal{S}$ 31'17	6.47036 AU
min. Earth dist.	13448 May 10 10:18	0° $\mathcal{Z}$ 07'46	3.94067 AU				
opposition	13448 May 11 18:34	29° $\mathbb{M}$ 56'50	0°18'19	conjunction	13454 May 07 03:21	24° $\mathcal{S}$ 54'16	-0°09'01
	13448 May 11 09:12	30° $\mathbb{R}$ $\mathbb{M}$		minimum elong	13454 May 07 03:20	24° $\mathcal{S}$ 54'16	0°09'48
direct	13448 Jul 08 20:08	25° $\mathbb{M}$ 00'52		behind sun begin	13454 May 06 20:48	24° $\mathcal{S}$ 50'45	
	13448 Sep 03 09:56	0° $\mathcal{Z}$		behind sun end	13454 May 07 09:53	24° $\mathcal{S}$ 57'47	
evening set	13448 Nov 13 04:51	14° $\mathcal{Z}$ 50'58		morning rise	13454 May 19 23:27	27° $\mathcal{S}$ 40'33	
					13454 May 30 21:07	0° $\mathbb{I}$	
conjunction	13448 Nov 26 18:35	18° $\mathcal{Z}$ 04'29	0°21'52	retrograde	13454 Sep 18 12:25	14° $\mathbb{I}$ 35'23	
minimum elong	13448 Nov 26 18:34	18° $\mathcal{Z}$ 04'29	0°22'52	opposition	13454 Nov 18 14:25	9° $\mathbb{I}$ 41'45	-0°26'08
max. Earth dist.	13448 Nov 29 03:22	18° $\mathcal{Z}$ 38'15	6.00314 AU	min. Earth dist.	13454 Nov 20 01:28	9° $\mathbb{I}$ 30'31	4.41744 AU
morning rise	13448 Dec 10 09:45	21° $\mathcal{Z}$ 18'24		direct	13455 Jan 19 22:14	4° $\mathbb{I}$ 41'07	
	13449 Jan 18 01:48	0° $\mathcal{S}$		evening set	13455 May 24 20:55	22° $\mathbb{I}$ 18'26	
retrograde	13449 Apr 18 10:02	11° $\mathcal{S}$ 05'02		max. Earth dist.	13455 Jun 04 10:11	24° $\mathbb{I}$ 38'47	6.34727 AU
min. Earth dist.	13449 Jun 15 11:34	6° $\mathcal{S}$ 14'39	4.08252 AU				
opposition	13449 Jun 17 02:34	6° $\mathcal{S}$ 01'28	0°44'42	conjunction	13455 Jun 06 17:06	25° $\mathbb{I}$ 09'20	-0°25'33
direct	13449 Aug 15 00:20	1° $\mathcal{S}$ 03'35		minimum elong	13455 Jun 06 17:05	25° $\mathbb{I}$ 09'20	0°26'34
evening set	13449 Dec 19 15:53	20° $\mathcal{S}$ 00'34		morning rise	13455 Jun 19 12:05	27° $\mathbb{I}$ 59'59	
					13455 Jun 28 14:24	0° $\mathcal{S}$	
conjunction	13450 Jan 02 04:34	23° $\mathcal{S}$ 05'50	0°34'29	retrograde	13455 Oct 21 06:20	15° $\mathcal{S}$ 44'43	
minimum elong	13450 Jan 02 04:33	23° $\mathcal{S}$ 05'50	0°35'28	opposition	13455 Dec 20 22:46	10° $\mathcal{S}$ 50'56	-0°46'49
max. Earth dist.	13450 Jan 04 14:55	23° $\mathcal{S}$ 39'11	6.17142 AU	min. Earth dist.	13455 Dec 22 15:14	10° $\mathcal{S}$ 37'53	4.26424 AU
morning rise	13450 Jan 15 17:16	26° $\mathcal{S}$ 10'49		direct	13456 Feb 20 10:52	5° $\mathcal{S}$ 51'16	
	13450 Feb 01 20:39	0° $\mathbb{M}$		evening set	13456 Jun 25 00:52	24° $\mathcal{S}$ 17'33	
retrograde	13450 May 21 13:50	14° $\mathbb{M}$ 41'29		max. Earth dist.	13456 Jul 05 15:06	26° $\mathcal{S}$ 44'05	6.17515 AU
min. Earth dist.	13450 Jul 19 09:49	9° $\mathbb{M}$ 50'23	4.26026 AU				
opposition	13450 Jul 20 18:52	9° $\mathbb{M}$ 39'22	0°53'40	conjunction	13456 Jul 07 21:46	27° $\mathcal{S}$ 15'42	-0°35'18
direct	13450 Sep 18 21:31	4° $\mathbb{M}$ 39'52		minimum elong	13456 Jul 07 21:45	27° $\mathcal{S}$ 15'42	0°36'15
	13450 Dec 17 02:15	15° $\mathbb{M}$			13456 Jul 19 18:05	0° $\mathcal{Q}$	
evening set	13451 Jan 22 17:57	22° $\mathbb{M}$ 41'33		morning rise	13456 Jul 20 18:45	0° $\mathcal{Q}$ 14'12	
					13456 Oct 02 14:37	15° $\mathcal{Q}$	
conjunction	13451 Feb 05 02:57	25° $\mathbb{M}$ 37'59	0°35'07	retrograde	13456 Nov 24 16:27	19° $\mathcal{Q}$ 11'04	
minimum elong	13451 Feb 05 02:58	25° $\mathbb{M}$ 37'59	0°35'48		13457 Jan 18 04:10	15° $\mathbb{R}$ $\mathcal{Q}$	
max. Earth dist.	13451 Feb 06 17:07	25° $\mathbb{M}$ 58'59	6.34392 AU	opposition	13457 Jan 23 19:05	14° $\mathcal{Q}$ 16'02	-0°54'11
morning rise	13451 Feb 18 11:22	28° $\mathbb{M}$ 33'47		min. Earth dist.	13457 Jan 25 02:55	14° $\mathcal{Q}$ 05'36	4.08545 AU
	13451 Feb 25 02:10	0° $\mathcal{H}$		direct	13457 Mar 24 23:49	9° $\mathcal{Q}$ 18'05	
retrograde	13451 Jun 21 12:11	15° $\mathcal{H}$ 58'54			13457 May 25 21:46	15° $\mathcal{Q}$	
min. Earth dist.	13451 Aug 20 11:57	11° $\mathcal{H}$ 05'02	4.41420 AU	evening set	13457 Jul 29 11:04	28° $\mathcal{Q}$ 41'42	
opposition	13451 Aug 21 04:49	10° $\mathcal{H}$ 59'30	0°45'54		13457 Aug 03 22:13	0° $\mathbb{P}$	
direct	13451 Oct 21 12:43	5° $\mathcal{H}$ 59'01		max. Earth dist.	13457 Aug 10 02:49	1° $\mathbb{P}$ 29'07	6.00553 AU
evening set	13452 Feb 23 15:56	23° $\mathcal{H}$ 20'00					
				conjunction	13457 Aug 11 11:59	1° $\mathbb{P}$ 49'02	-0°33'40
conjunction	13452 Mar 07 20:54	26° $\mathcal{H}$ 09'52	0°25'36	minimum elong	13457 Aug 11 12:00	1° $\mathbb{P}$ 49'03	0°34'15
minimum elong	13452 Mar 07 20:55	26° $\mathcal{H}$ 09'53	0°25'47	morning rise	13457 Aug 24 13:45	4° $\mathbb{P}$ 57'11	
max. Earth dist.	13452 Mar 08 08:20	26° $\mathcal{H}$ 16'00	6.46852 AU	retrograde	13458 Jan 01 15:16	25° $\mathbb{P}$ 08'08	
morning rise	13452 Mar 21 00:13	28° $\mathcal{H}$ 58'51		opposition	13458 Mar 02 03:30	20° $\mathbb{P}$ 10'55	-0°42'02
	13452 Mar 25 19:21	0° $\mathcal{Y}$		min. Earth dist.	13458 Mar 02 15:36	20° $\mathbb{P}$ 06'54	3.94115 AU
retrograde	13452 Jul 20 04:25	15° $\mathcal{Y}$ 43'30		direct	13458 Apr 30 00:38	15° $\mathbb{P}$ 15'01	
opposition	13452 Sep 19 06:18	10° $\mathcal{Y}$ 46'57	0°26'17		13458 Aug 12 16:36	0° $\mathcal{L}$	
min. Earth dist.	13452 Sep 19 08:16	10° $\mathcal{Y}$ 46'19	4.50223 AU	evening set	13458 Sep 04 06:23	5° $\mathcal{L}$ 23'04	
direct	13452 Nov 20 10:37	5° $\mathcal{Y}$ 46'09					
evening set	13453 Mar 25 04:13	22° $\mathcal{Y}$ 48'24		conjunction	13458 Sep 17 13:07	8° $\mathcal{L}$ 38'08	-0°19'06
max. Earth dist.	13453 Apr 06 10:36	25° $\mathcal{Y}$ 25'07	6.51406 AU	minimum elong	13458 Sep 17 13:07	8° $\mathcal{L}$ 38'08	0°19'04
				max. Earth dist.	13458 Sep 17 14:26	8° $\mathcal{L}$ 38'56	5.90123 AU
conjunction	13453 Apr 07 04:58	25° $\mathcal{Y}$ 34'55	0°09'34	morning rise	13458 Sep 30 21:45	11° $\mathcal{L}$ 54'20	
minimum elong	13453 Apr 07 04:58	25° $\mathcal{Y}$ 34'55	0°09'13		13458 Dec 29 16:30	0° $\mathbb{L}$	
behind sun begin	13453 Apr 06 22:12	25° $\mathcal{Y}$ 31'20		retrograde	13459 Feb 09 16:17	2° $\mathbb{L}$ 47'43	
behind sun end	13453 Apr 07 11:43	25° $\mathcal{Y}$ 38'31			13459 Mar 23 22:17	30° $\mathbb{R}$ $\mathcal{L}$	
morning rise	13453 Apr 20 04:02	28° $\mathcal{Y}$ 20'38		opposition	13459 Apr 09 21:25	27° $\mathcal{L}$ 47'29	-0°11'59
	13453 Apr 28 00:36	0° $\mathcal{S}$		min. Earth dist.	13459 Apr 09 06:27	27° $\mathcal{L}$ 52'33	3.88994 AU
retrograde	13453 Aug 18 20:46	14° $\mathcal{S}$ 54'55		direct	13459 Jun 06 22:30	22° $\mathcal{L}$ 52'24	



	13459 Aug 14 06:45	0°♌		minimum elong	13465 Apr 11 08:22	29°♏45'32	0°06'37
asc. node	13459 Aug 23 08:02	1°♌45'34		behind sun begin	13465 Apr 11 00:52	29°♏41'33	
evening set	13459 Oct 12 12:30	13°♌08'55		behind sun end	13465 Apr 11 15:53	29°♏49'32	
	13459 Oct 20 03:10	15°♌			13465 Apr 12 11:27	0°♏	
				morning rise	13465 Apr 24 06:52	2°♏31'04	
conjunction	13459 Oct 26 00:24	16°♌26'09	0°03'37		13465 Jun 30 06:46	15°♏	
minimum elong	13459 Oct 26 00:24	16°♌26'09	0°04'17	retrograde	13465 Aug 22 23:35	19°♏06'16	
behind sun begin	13459 Oct 25 16:11	16°♌21'09		desc. node	13465 Sep 05 20:00	18°♏48'30	
behind sun end	13459 Oct 26 08:37	16°♌31'08			13465 Oct 16 21:40	15°♏♏	
max. Earth dist.	13459 Oct 27 14:54	16°♌49'38	5.90857 AU	opposition	13465 Oct 23 04:39	14°♏11'54	-0°03'26
morning rise	13459 Nov 08 14:18	19°♌44'17		min. Earth dist.	13465 Oct 24 04:10	14°♏04'23	4.49609 AU
	13459 Dec 23 12:56	0°♏		direct	13465 Dec 24 17:44	9°♏10'59	
retrograde	13460 Mar 18 17:33	10°♏22'52			13466 Feb 28 18:49	15°♏	
min. Earth dist.	13460 May 15 15:46	5°♏31'29	3.95545 AU	evening set	13466 Apr 28 10:01	26°♏21'46	
opposition	13460 May 17 01:44	5°♏19'57	0°22'55	max. Earth dist.	13466 May 09 10:30	28°♏44'41	6.45628 AU
direct	13460 Jul 14 05:51	0°♏23'46					
evening set	13460 Nov 18 11:49	20°♏07'27		conjunction	13466 May 11 07:23	29°♏09'02	-0°11'33
				minimum elong	13466 May 11 07:22	29°♏09'02	0°12'22
conjunction	13460 Dec 02 01:45	23°♏20'00	0°24'21	behind sun begin	13466 May 11 02:06	29°♏06'11	
minimum elong	13460 Dec 02 01:44	23°♏20'00	0°25'22	behind sun end	13466 May 11 12:38	29°♏11'52	
max. Earth dist.	13460 Dec 04 13:59	23°♏55'38	6.02458 AU		13466 May 15 05:16	0°♐	
morning rise	13460 Dec 15 16:38	26°♏32'47		morning rise	13466 May 24 03:11	1°♐55'45	
	13460 Dec 30 14:54	0°♑		retrograde	13466 Sep 22 23:15	18°♐56'21	
retrograde	13461 Apr 23 07:08	16°♑08'39		opposition	13466 Nov 22 23:13	14°♐02'46	-0°29'33
min. Earth dist.	13461 Jun 20 09:26	11°♑18'25	4.10817 AU	min. Earth dist.	13466 Nov 24 12:41	13°♐50'46	4.39731 AU
opposition	13461 Jun 22 00:45	11°♑05'09	0°47'05	direct	13467 Jan 24 05:32	9°♐02'12	
direct	13461 Aug 20 02:16	6°♑07'01		evening set	13467 May 29 05:42	26°♐46'07	
evening set	13461 Dec 24 15:00	24°♑55'08		max. Earth dist.	13467 Jun 08 16:25	29°♐05'51	6.32245 AU
conjunction	13462 Jan 07 03:03	27°♑58'58	0°35'16	conjunction	13467 Jun 11 01:48	29°♐37'57	-0°27'26
minimum elong	13462 Jan 07 03:03	27°♑58'58	0°36'14	minimum elong	13467 Jun 11 01:47	29°♐37'57	0°28'28
max. Earth dist.	13462 Jan 09 10:51	28°♑30'39	6.19882 AU		13467 Jun 12 17:12	0°♑	
	13462 Jan 16 00:32	0°♒		morning rise	13467 Jun 23 21:05	2°♑29'40	
morning rise	13462 Jan 20 15:21	1°♒02'30		retrograde	13467 Oct 26 01:16	20°♑24'28	
	13462 Apr 01 15:27	15°♒		opposition	13467 Dec 25 15:52	15°♑30'32	-0°48'50
retrograde	13462 May 26 00:19	19°♒21'57		min. Earth dist.	13467 Dec 27 07:26	15°♑17'44	4.23640 AU
	13462 Jul 20 07:23	15°♒♒		direct	13468 Feb 24 22:59	10°♑31'01	
min. Earth dist.	13462 Jul 24 00:27	14°♒30'28	4.28696 AU	evening set	13468 Jun 29 17:28	29°♑06'26	
opposition	13462 Jul 25 07:43	14°♒20'04	0°53'27		13468 Jul 03 14:08	0°♒	
direct	13462 Sep 23 14:41	9°♒20'19		max. Earth dist.	13468 Jul 10 11:25	1°♒36'00	6.14671 AU
	13462 Nov 26 02:35	15°♒					
evening set	13463 Jan 27 07:50	27°♒14'08		conjunction	13468 Jul 12 14:57	2°♒06'00	-0°35'50
	13463 Feb 08 23:17	0°♓		minimum elong	13468 Jul 12 14:56	2°♒06'00	0°36'45
				morning rise	13468 Jul 25 12:21	5°♒05'55	
conjunction	13463 Feb 09 16:23	0°♓09'22	0°34'18		13468 Sep 08 20:59	15°♒	
minimum elong	13463 Feb 09 16:24	0°♓09'23	0°34'54	retrograde	13468 Nov 29 22:54	24°♒14'53	
max. Earth dist.	13463 Feb 11 04:10	0°♓28'58	6.36792 AU	opposition	13469 Jan 28 22:21	19°♒19'37	-0°53'42
morning rise	13463 Feb 22 23:53	3°♓03'52		min. Earth dist.	13469 Jan 30 04:38	19°♒09'41	4.05891 AU
retrograde	13463 Jun 25 16:13	20°♓20'41			13469 Mar 10 04:36	15°♒♒	
opposition	13463 Aug 25 10:50	15°♓21'41	0°43'42	direct	13469 Mar 29 22:20	14°♒22'01	
min. Earth dist.	13463 Aug 24 20:13	15°♓26'27	4.43374 AU		13469 Apr 18 14:47	15°♒	
direct	13463 Oct 25 22:10	10°♓21'07			13469 Jul 17 23:40	0°♓♓	
evening set	13464 Feb 27 23:10	27°♓37'10		evening set	13469 Aug 03 13:04	3°♓54'15	
	13464 Mar 10 02:26	0°♔		max. Earth dist.	13469 Aug 15 08:57	6°♓45'01	5.98344 AU
conjunction	13464 Mar 12 03:20	0°♔26'13	0°23'38	conjunction	13469 Aug 16 14:42	7°♓02'57	-0°32'20
minimum elong	13464 Mar 12 03:20	0°♔26'13	0°23'45	minimum elong	13469 Aug 16 14:43	7°♓02'58	0°32'50
max. Earth dist.	13464 Mar 12 08:53	0°♔29'11	6.48211 AU	morning rise	13469 Aug 29 17:35	10°♓12'37	
morning rise	13464 Mar 25 06:07	3°♔14'27			13469 Dec 19 19:55	0°♔	
retrograde	13464 Jul 24 07:20	19°♔55'11		retrograde	13470 Jan 07 02:59	0°♔32'57	
opposition	13464 Sep 23 09:09	14°♔58'56	0°22'53		13470 Jan 25 10:29	30°♓♓	
min. Earth dist.	13464 Sep 23 15:02	14°♔57'02	4.50917 AU	opposition	13470 Mar 07 14:32	25°♓35'19	-0°38'37
direct	13464 Nov 24 16:21	9°♔58'01		min. Earth dist.	13470 Mar 07 21:35	25°♓32'58	3.92619 AU
evening set	13465 Mar 29 07:59	26°♔59'12		direct	13470 May 05 07:03	20°♓39'39	
max. Earth dist.	13465 Apr 10 10:22	29°♔33'47	6.51379 AU		13470 Jul 24 04:29	0°♔	
				evening set	13470 Sep 09 15:40	10°♔51'43	
conjunction	13465 Apr 11 08:22	29°♔45'32	0°07'03				

conjunction	13470 Sep 22 23:13	14°♏07'30	-0°16'09	conjunction	13476 Mar 16 09:51	4°♑42'20	0°21'33
minimum elong	13470 Sep 22 23:14	14°♏07'30	0°16'00	minimum elong	13476 Mar 16 09:52	4°♑42'20	0°21'35
behind sun begin	13470 Sep 22 22:27	14°♏07'01		max. Earth dist.	13476 Mar 16 12:22	4°♑43'41	6.49127 AU
behind sun end	13470 Sep 23 00:02	14°♏07'59		morning rise	13476 Mar 29 11:51	7°♑29'58	
max. Earth dist.	13470 Sep 23 06:55	14°♏12'13	5.89504 AU	retrograde	13476 Jul 28 09:53	24°♑08'25	
morning rise	13470 Oct 06 08:43	17°♏24'24		opposition	13476 Sep 27 12:39	19°♑12'32	0°19'22
	13470 Dec 01 08:54	0°♏		min. Earth dist.	13476 Sep 27 20:52	19°♑09'54	4.51172 AU
retrograde	13471 Feb 15 04:23	8°♏19'09		direct	13476 Nov 28 20:51	14°♑11'41	
opposition	13471 Apr 15 09:35	3°♏18'25	-0°06'53		13477 Mar 27 18:14	0°♏	
min. Earth dist.	13471 Apr 14 15:28	3°♏24'32	3.89326 AU	evening set	13477 Apr 02 12:54	1°♏13'11	
	13471 May 12 08:34	30°♏♎		max. Earth dist.	13477 Apr 14 09:42	3°♏45'04	6.50948 AU
direct	13471 Jun 12 10:37	28°♏23'16					
asc. node	13471 Jun 30 09:46	28°♏56'37		conjunction	13477 Apr 15 12:40	3°♏59'29	0°04'27
	13471 Jul 13 09:46	0°♏		minimum elong	13477 Apr 15 12:40	3°♏59'29	0°03'57
	13471 Oct 02 20:28	15°♏		behind sun begin	13477 Apr 15 04:45	3°♏55'16	
evening set	13471 Oct 17 23:08	18°♏36'47		behind sun end	13477 Apr 15 20:34	4°♏03'41	
				morning rise	13477 Apr 28 10:50	6°♏45'02	
conjunction	13471 Oct 31 11:38	21°♏53'39	0°06'55		13477 Jun 08 11:52	15°♏	
minimum elong	13471 Oct 31 11:37	21°♏53'39	0°07'39	desc. node	13477 Jul 18 09:05	21°♏01'57	
behind sun begin	13471 Oct 31 04:04	21°♏49'05		retrograde	13477 Aug 27 07:20	23°♏22'34	
behind sun end	13471 Oct 31 19:10	21°♏58'13		opposition	13477 Oct 27 10:27	18°♏28'25	-0°07'17
max. Earth dist.	13471 Nov 02 08:06	22°♏20'41	5.92089 AU	min. Earth dist.	13477 Oct 28 13:15	18°♏19'50	4.48517 AU
morning rise	13471 Nov 14 01:46	25°♏11'18			13477 Nov 26 12:53	15°♏♎	
	13471 Dec 04 10:02	0°♏♎		direct	13477 Dec 28 23:54	13°♏27'31	
retrograde	13472 Mar 23 22:57	15°♏42'17			13478 Jan 30 13:45	15°♏	
min. Earth dist.	13472 May 20 19:42	10°♏51'16	3.97516 AU		13478 Apr 29 09:53	0°♐	
opposition	13472 May 22 07:22	10°♏39'10	0°27'17	evening set	13478 May 02 16:28	0°♐42'19	
direct	13472 Jul 19 13:46	5°♏42'45		max. Earth dist.	13478 May 13 14:04	3°♐04'12	6.43945 AU
evening set	13472 Nov 23 17:16	25°♏18'29					
				conjunction	13478 May 15 13:39	3°♐30'07	-0°14'04
conjunction	13472 Dec 07 06:54	28°♏29'48	0°26'36	minimum elong	13478 May 15 13:38	3°♐30'07	0°14'56
minimum elong	13472 Dec 07 06:54	28°♏29'48	0°27'37	behind sun begin	13478 May 15 10:34	3°♐28'27	
max. Earth dist.	13472 Dec 09 19:03	29°♏05'09	6.04923 AU	behind sun end	13478 May 15 16:42	3°♐31'47	
	13472 Dec 13 16:26	0°♐		morning rise	13478 May 28 09:16	6°♐17'25	
morning rise	13472 Dec 20 21:43	1°♐41'19		retrograde	13478 Sep 27 11:10	23°♐24'42	
retrograde	13473 Apr 28 00:03	21°♐05'42		opposition	13478 Nov 27 10:31	18°♐31'09	-0°32'52
min. Earth dist.	13473 Jun 25 05:30	16°♐15'29	4.13514 AU	min. Earth dist.	13478 Nov 29 00:06	18°♐19'05	4.37569 AU
opposition	13473 Jun 26 20:36	16°♐02'18	0°49'03	direct	13479 Jan 28 12:45	13°♐30'43	
direct	13473 Aug 25 01:39	11°♐03'54			13479 May 27 13:52	0°♐♎	
evening set	13473 Dec 29 11:33	29°♐43'15		evening set	13479 Jun 02 17:16	1°♐21'44	
	13473 Dec 30 17:22	0°♐♎		max. Earth dist.	13479 Jun 13 05:04	3°♐42'50	6.29770 AU
conjunction	13474 Jan 11 23:14	2°♐45'44	0°35'48	conjunction	13479 Jun 15 13:27	4°♐14'35	-0°29'12
minimum elong	13474 Jan 11 23:14	2°♐45'44	0°36'45	minimum elong	13479 Jun 15 13:26	4°♐14'35	0°30'14
max. Earth dist.	13474 Jan 14 05:10	3°♐16'12	6.22584 AU	morning rise	13479 Jun 28 08:48	7°♐07'21	
morning rise	13474 Jan 25 10:46	5°♐47'48		retrograde	13479 Oct 31 00:41	25°♐12'14	
	13474 Mar 10 03:00	15°♐		opposition	13479 Dec 30 12:05	20°♐18'15	-0°50'35
retrograde	13474 May 30 10:20	23°♐56'51		min. Earth dist.	13480 Jan 01 03:43	20°♐05'24	4.21031 AU
opposition	13474 Jul 29 18:47	18°♐55'24	0°52'54	direct	13480 Feb 29 15:46	15°♐19'03	
min. Earth dist.	13474 Jul 28 14:03	19°♐04'56	4.31171 AU		13480 Jun 16 18:40	0°♑	
	13474 Sep 02 02:50	15°♐♎		evening set	13480 Jul 04 12:33	4°♑02'47	
direct	13474 Sep 28 06:35	13°♐55'34		max. Earth dist.	13480 Jul 15 08:26	6°♑34'22	6.12170 AU
	13474 Oct 24 16:19	15°♐					
	13475 Jan 23 21:57	0°♑		conjunction	13480 Jul 17 10:23	7°♑03'37	-0°36'08
evening set	13475 Jan 31 20:25	1°♑42'39		minimum elong	13480 Jul 17 10:23	7°♑03'37	0°37'02
				morning rise	13480 Jul 30 08:30	10°♑04'54	
conjunction	13475 Feb 14 04:15	4°♑36'48	0°33'17		13480 Aug 20 21:04	15°♑	
minimum elong	13475 Feb 14 04:16	4°♑36'49	0°33'49	retrograde	13480 Dec 05 04:26	29°♑24'31	
max. Earth dist.	13475 Feb 15 11:12	4°♑53'41	6.38853 AU	opposition	13481 Feb 03 03:26	24°♑28'59	-0°52'50
morning rise	13475 Feb 27 11:11	7°♑30'15		min. Earth dist.	13481 Feb 04 05:41	24°♑20'21	4.03755 AU
retrograde	13475 Jun 29 20:00	24°♑40'18		direct	13481 Apr 03 21:59	19°♑31'44	
opposition	13475 Aug 29 16:05	19°♑41'43	0°41'16		13481 Jun 29 10:40	0°♑♎	
min. Earth dist.	13475 Aug 29 04:28	19°♑45'30	4.44908 AU	evening set	13481 Aug 08 16:11	9°♑10'23	
direct	13475 Oct 30 06:20	14°♑41'05					
	13476 Feb 23 06:16	0°♑		conjunction	13481 Aug 21 18:32	12°♑20'09	-0°30'46
evening set	13476 Mar 03 06:05	1°♑53'49		minimum elong	13481 Aug 21 18:33	12°♑20'10	0°31'10
				max. Earth dist.	13481 Aug 20 18:52	12°♑05'49	5.96802 AU

morning rise	13481 Sep 03 22:12	15° $\mathbb{M}$ 30'53		opposition	13487 Sep 02 18:55	23° $\mathbb{H}$ 54'25	0°38'47
	13481 Nov 10 06:52	0° $\underline{\mathbf{a}}$		min. Earth dist.	13487 Sep 02 10:31	23° $\mathbb{H}$ 57'08	4.45975 AU
retrograde	13482 Jan 12 15:12	5° $\underline{\mathbf{a}}$ 57'36		direct	13487 Nov 03 12:46	18° $\mathbb{H}$ 53'46	
opposition	13482 Mar 13 00:54	0° $\underline{\mathbf{a}}$ 59'31	-0°34'56		13488 Feb 06 20:35	0° $\mathbb{Y}$	
min. Earth dist.	13482 Mar 13 04:43	0° $\underline{\mathbf{a}}$ 58'14	3.91854 AU	evening set	13488 Mar 07 10:48	6° $\mathbb{Y}$ 04'34	
	13482 Mar 20 12:08	30° $\mathbb{R}$ $\mathbb{M}$					
direct	13482 May 10 15:42	26° $\mathbb{M}$ 04'00		conjunction	13488 Mar 20 13:55	8° $\mathbb{Y}$ 52'42	0°19'27
	13482 Jun 29 05:43	0° $\underline{\mathbf{a}}$		minimum elong	13488 Mar 20 13:56	8° $\mathbb{Y}$ 52'43	0°19'23
evening set	13482 Sep 14 23:32	16° $\underline{\mathbf{a}}$ 17'02		max. Earth dist.	13488 Mar 20 11:01	8° $\mathbb{Y}$ 51'09	6.49568 AU
				morning rise	13488 Apr 02 15:32	11° $\mathbb{Y}$ 40'01	
conjunction	13482 Sep 28 07:54	19° $\underline{\mathbf{a}}$ 33'08	-0°13'10	retrograde	13488 Aug 01 12:40	28° $\mathbb{Y}$ 17'39	
minimum elong	13482 Sep 28 07:55	19° $\underline{\mathbf{a}}$ 33'08	0°12'54	opposition	13488 Oct 01 15:03	23° $\mathbb{Y}$ 22'04	0°15'52
behind sun begin	13482 Sep 28 02:48	19° $\underline{\mathbf{a}}$ 30'00		min. Earth dist.	13488 Oct 02 02:05	23° $\mathbb{Y}$ 18'31	4.50999 AU
behind sun end	13482 Sep 28 13:01	19° $\underline{\mathbf{a}}$ 36'15		direct	13488 Dec 03 00:23	18° $\mathbb{Y}$ 21'11	
max. Earth dist.	13482 Sep 28 22:14	19° $\underline{\mathbf{a}}$ 41'54	5.89606 AU		13489 Mar 11 12:20	0° $\mathbb{B}$	
morning rise	13482 Oct 11 18:04	22° $\underline{\mathbf{a}}$ 50'17		evening set	13489 Apr 06 16:46	5° $\mathbb{B}$ 24'12	
	13482 Nov 11 02:18	0° $\mathbb{M}$		max. Earth dist.	13489 Apr 18 11:30	7° $\mathbb{B}$ 55'13	6.50186 AU
retrograde	13483 Feb 20 12:38	13° $\mathbb{M}$ 42'58					
opposition	13483 Apr 20 18:05	8° $\mathbb{M}$ 41'49	-0°01'55	conjunction	13489 Apr 19 16:18	8° $\mathbb{B}$ 10'40	0°01'52
min. Earth dist.	13483 Apr 19 20:43	8° $\mathbb{M}$ 49'02	3.90304 AU	minimum elong	13489 Apr 19 16:19	8° $\mathbb{B}$ 10'40	0°01'19
asc. node	13483 May 11 15:42	6° $\mathbb{M}$ 01'47		behind sun begin	13489 Apr 19 08:18	8° $\mathbb{B}$ 06'23	
direct	13483 Jun 17 18:30	3° $\mathbb{M}$ 46'35		behind sun end	13489 Apr 20 00:20	8° $\mathbb{B}$ 14'56	
	13483 Sep 14 14:08	15° $\mathbb{M}$		morning rise	13489 May 02 13:56	10° $\mathbb{B}$ 56'21	
evening set	13483 Oct 23 05:50	23° $\mathbb{M}$ 54'44			13489 May 22 00:02	15° $\mathbb{B}$	
				desc. node	13489 May 29 14:55	16° $\mathbb{B}$ 31'57	
conjunction	13483 Nov 05 18:26	27° $\mathbb{M}$ 10'52	0°10'01	retrograde	13489 Aug 31 12:18	27° $\mathbb{B}$ 37'05	
minimum elong	13483 Nov 05 18:25	27° $\mathbb{M}$ 10'52	0°10'50	opposition	13489 Oct 31 15:50	22° $\mathbb{B}$ 43'06	-0°11'01
behind sun begin	13483 Nov 05 12:05	27° $\mathbb{M}$ 07'03		min. Earth dist.	13489 Nov 01 19:43	22° $\mathbb{B}$ 34'11	4.47230 AU
behind sun end	13483 Nov 06 00:46	27° $\mathbb{M}$ 14'41		direct	13490 Jan 02 03:26	17° $\mathbb{B}$ 42'19	
max. Earth dist.	13483 Nov 07 16:55	27° $\mathbb{M}$ 38'59	5.93804 AU		13490 Apr 13 03:11	0° $\mathbb{I}$	
	13483 Nov 17 10:42	0° $\mathbb{J}$		evening set	13490 May 06 22:43	5° $\mathbb{I}$ 01'31	
morning rise	13483 Nov 19 08:58	0° $\mathbb{J}$ 27'46		max. Earth dist.	13490 May 17 18:09	7° $\mathbb{I}$ 22'51	6.42211 AU
retrograde	13484 Mar 28 20:26	20° $\mathbb{J}$ 49'32					
min. Earth dist.	13484 May 25 18:39	15° $\mathbb{J}$ 58'48	3.99765 AU	conjunction	13490 May 19 19:32	7° $\mathbb{I}$ 49'52	-0°16'27
opposition	13484 May 27 07:49	15° $\mathbb{J}$ 46'12	0°31'11	minimum elong	13490 May 19 19:32	7° $\mathbb{I}$ 49'52	0°17'23
direct	13484 Jul 24 16:52	10° $\mathbb{J}$ 49'28		morning rise	13490 Jun 01 15:06	10° $\mathbb{I}$ 37'47	
	13484 Nov 27 12:45	0° $\mathbb{Z}$		retrograde	13490 Oct 02 01:18	27° $\mathbb{I}$ 51'53	
evening set	13484 Nov 28 17:20	0° $\mathbb{Z}$ 16'36		opposition	13490 Dec 01 22:15	22° $\mathbb{I}$ 58'20	-0°35'57
				min. Earth dist.	13490 Dec 03 13:15	22° $\mathbb{I}$ 45'49	4.35483 AU
conjunction	13484 Dec 12 06:52	3° $\mathbb{Z}$ 26'39	0°28'32	direct	13491 Feb 01 22:57	17° $\mathbb{I}$ 58'03	
minimum elong	13484 Dec 12 06:51	3° $\mathbb{Z}$ 26'38	0°29'34		13491 May 10 21:05	0° $\mathbb{E}$	
max. Earth dist.	13484 Dec 14 18:50	4° $\mathbb{Z}$ 01'42	6.07488 AU	evening set	13491 Jun 07 04:16	5° $\mathbb{E}$ 55'34	
morning rise	13484 Dec 25 21:12	6° $\mathbb{Z}$ 36'45		max. Earth dist.	13491 Jun 17 15:58	8° $\mathbb{E}$ 17'22	6.27478 AU
retrograde	13485 May 02 13:50	25° $\mathbb{Z}$ 49'48					
min. Earth dist.	13485 Jun 29 22:11	20° $\mathbb{Z}$ 59'06	4.16125 AU	conjunction	13491 Jun 20 00:33	8° $\mathbb{E}$ 49'22	-0°30'45
opposition	13485 Jul 01 11:18	20° $\mathbb{Z}$ 46'37	0°50'36	minimum elong	13491 Jun 20 00:32	8° $\mathbb{E}$ 49'21	0°31'47
direct	13485 Aug 29 21:24	15° $\mathbb{Z}$ 47'58		morning rise	13491 Jul 02 20:05	11° $\mathbb{E}$ 43'08	
	13485 Dec 14 11:32	0° $\approx$		retrograde	13491 Nov 04 20:12	29° $\mathbb{E}$ 57'22	
evening set	13486 Jan 03 03:19	4° $\approx$ 19'11		opposition	13492 Jan 04 07:28	25° $\mathbb{E}$ 03'11	-0°51'56
				min. Earth dist.	13492 Jan 05 20:59	24° $\mathbb{E}$ 51'01	4.18693 AU
conjunction	13486 Jan 16 14:32	7° $\approx$ 20'26	0°36'07	direct	13492 Mar 05 06:05	20° $\mathbb{E}$ 04'15	
minimum elong	13486 Jan 16 14:32	7° $\approx$ 20'26	0°37'00		13492 May 29 20:18	0° $\mathbb{O}$	
max. Earth dist.	13486 Jan 18 17:38	7° $\approx$ 49'07	6.25023 AU	evening set	13492 Jul 09 06:32	8° $\mathbb{O}$ 55'19	
morning rise	13486 Jan 30 01:32	10° $\approx$ 21'13		max. Earth dist.	13492 Jul 20 06:07	11° $\mathbb{O}$ 29'50	6.09962 AU
	13486 Feb 20 09:24	15° $\approx$					
retrograde	13486 Jun 03 14:15	28° $\approx$ 21'05		conjunction	13492 Jul 22 04:46	11° $\mathbb{O}$ 57'16	-0°36'09
min. Earth dist.	13486 Aug 01 22:34	23° $\approx$ 28'56	4.33270 AU	minimum elong	13492 Jul 22 04:46	11° $\mathbb{O}$ 57'17	0°37'00
opposition	13486 Aug 03 01:33	23° $\approx$ 20'00	0°52'08	morning rise	13492 Aug 04 03:24	14° $\mathbb{O}$ 59'47	
direct	13486 Oct 02 16:22	18° $\approx$ 20'01			13492 Aug 04 03:47	15° $\mathbb{O}$	
	13487 Jan 07 10:58	0° $\mathbb{H}$			13492 Oct 16 15:05	0° $\mathbb{M}$	
evening set	13487 Feb 05 05:05	6° $\mathbb{H}$ 01'46		retrograde	13492 Dec 10 10:26	4° $\mathbb{M}$ 29'04	
					13493 Feb 04 21:22	30° $\mathbb{R}$ $\mathbb{O}$	
conjunction	13487 Feb 18 12:27	8° $\mathbb{H}$ 55'05	0°32'09	opposition	13493 Feb 08 06:45	29° $\mathbb{O}$ 33'14	-0°51'31
minimum elong	13487 Feb 18 12:28	8° $\mathbb{H}$ 55'05	0°32'38	min. Earth dist.	13493 Feb 09 07:13	29° $\mathbb{O}$ 25'11	4.01852 AU
max. Earth dist.	13487 Feb 19 15:18	9° $\mathbb{H}$ 09'41	6.40479 AU	direct	13493 Apr 08 22:33	24° $\mathbb{O}$ 36'16	
morning rise	13487 Mar 03 18:40	11° $\mathbb{H}$ 47'38			13493 Jun 07 11:45	0° $\mathbb{M}$	
retrograde	13487 Jul 03 22:29	28° $\mathbb{H}$ 52'32		evening set	13493 Aug 13 17:10	14° $\mathbb{M}$ 20'39	

conjunction	13493 Aug 26 20:22	17° $\mathbb{M}$ 31'28	-0°28'56	evening set	13499 Feb 09 15:55	10° $\mathbb{H}$ 27'16	
minimum elong	13493 Aug 26 20:23	17° $\mathbb{M}$ 31'29	0°29'17				
max. Earth dist.	13493 Aug 26 01:27	17° $\mathbb{M}$ 20'00	5.95384 AU	conjunction	13499 Feb 22 22:45	13° $\mathbb{H}$ 19'44	0°30'48
morning rise	13493 Sep 09 00:52	20° $\mathbb{M}$ 43'17		minimum elong	13499 Feb 22 22:46	13° $\mathbb{H}$ 19'45	0°31'12
	13493 Oct 19 08:40	0° $\mathbb{L}$		max. Earth dist.	13499 Feb 23 22:38	13° $\mathbb{H}$ 32'40	6.42072 AU
retrograde	13494 Jan 17 23:59	11° $\mathbb{L}$ 16'00		morning rise	13499 Mar 08 04:21	16° $\mathbb{H}$ 11'25	
opposition	13494 Mar 18 08:46	6° $\mathbb{L}$ 17'33	-0°30'58		13499 May 22 11:15	0° $\mathbb{Y}$	
min. Earth dist.	13494 Mar 18 08:53	6° $\mathbb{L}$ 17'31	3.91101 AU	retrograde	13499 Jul 08 01:08	3° $\mathbb{Y}$ 11'06	
direct	13494 May 15 19:34	1° $\mathbb{L}$ 22'14			13499 Aug 23 23:47	30° $\mathbb{R}$ $\mathbb{H}$	
evening set	13494 Sep 20 05:22	21° $\mathbb{L}$ 36'42		opposition	13499 Sep 06 23:44	28° $\mathbb{H}$ 13'21	0°36'00
				min. Earth dist.	13499 Sep 06 16:53	28° $\mathbb{H}$ 15'34	4.47160 AU
conjunction	13494 Oct 03 14:18	24° $\mathbb{L}$ 53'07	-0°10'03	direct	13499 Nov 07 19:37	23° $\mathbb{H}$ 12'42	
minimum elong	13494 Oct 03 14:18	24° $\mathbb{L}$ 53'07	0°09'43		13500 Jan 18 16:28	0° $\mathbb{Y}$	
behind sun begin	13494 Oct 03 07:28	24° $\mathbb{L}$ 48'57		evening set	13500 Mar 12 17:14	10° $\mathbb{Y}$ 20'53	
behind sun end	13494 Oct 03 21:08	24° $\mathbb{L}$ 57'18					
max. Earth dist.	13494 Oct 04 08:08	25° $\mathbb{L}$ 04'03	5.89576 AU	conjunction	13500 Mar 25 19:51	13° $\mathbb{Y}$ 08'32	0°17'11
morning rise	13494 Oct 17 01:22	28° $\mathbb{L}$ 10'40		minimum elong	13500 Mar 25 19:52	13° $\mathbb{Y}$ 08'33	0°17'03
	13494 Oct 24 14:02	0° $\mathbb{M}$		max. Earth dist.	13500 Mar 25 14:30	13° $\mathbb{Y}$ 05'41	6.50303 AU
	13495 Jan 05 18:21	15° $\mathbb{M}$		morning rise	13500 Apr 07 20:44	15° $\mathbb{Y}$ 55'20	
retrograde	13495 Feb 25 18:02	19° $\mathbb{M}$ 02'15			13500 Jun 26 05:56	0° $\mathbb{B}$	
asc. node	13495 Mar 24 02:14	17° $\mathbb{M}$ 53'33		retrograde	13500 Aug 06 15:26	2° $\mathbb{B}$ 31'01	
	13495 Apr 18 16:23	15° $\mathbb{R}$ $\mathbb{M}$			13500 Sep 17 04:23	30° $\mathbb{R}$ $\mathbb{Y}$	
min. Earth dist.	13495 Apr 24 23:59	14° $\mathbb{M}$ 09'02	3.91011 AU	opposition	13500 Oct 06 18:54	27° $\mathbb{Y}$ 35'43	0°12'14
opposition	13495 Apr 26 00:29	14° $\mathbb{M}$ 00'44	0°03'03	min. Earth dist.	13500 Oct 07 08:14	27° $\mathbb{Y}$ 31'27	4.51258 AU
direct	13495 Jun 23 01:10	9° $\mathbb{M}$ 05'22		direct	13500 Dec 08 06:16	22° $\mathbb{Y}$ 34'54	
	13495 Aug 23 20:04	15° $\mathbb{M}$			13501 Feb 22 01:42	0° $\mathbb{B}$	
evening set	13495 Oct 28 11:23	29° $\mathbb{M}$ 09'50		desc. node	13501 Apr 08 06:03	8° $\mathbb{B}$ 51'28	
	13495 Oct 31 22:58	0° $\mathbb{X}$		evening set	13501 Apr 11 21:07	9° $\mathbb{B}$ 37'37	
				max. Earth dist.	13501 Apr 23 11:16	12° $\mathbb{B}$ 06'22	6.49951 AU
conjunction	13495 Nov 11 00:27	2° $\mathbb{X}$ 25'29	0°13'03				
minimum elong	13495 Nov 11 00:26	2° $\mathbb{X}$ 25'29	0°13'55	conjunction	13501 Apr 24 19:59	12° $\mathbb{B}$ 23'56	-0°00'47
behind sun begin	13495 Nov 10 20:14	2° $\mathbb{X}$ 22'57		minimum elong	13501 Apr 24 20:00	12° $\mathbb{B}$ 23'56	0°01'24
behind sun end	13495 Nov 11 04:38	2° $\mathbb{X}$ 28'00		behind sun begin	13501 Apr 24 11:59	12° $\mathbb{B}$ 19'40	
max. Earth dist.	13495 Nov 13 02:23	2° $\mathbb{X}$ 55'35	5.95176 AU	behind sun end	13501 Apr 25 04:01	12° $\mathbb{B}$ 28'13	
morning rise	13495 Nov 24 15:04	5° $\mathbb{X}$ 41'46			13501 May 06 23:24	15° $\mathbb{B}$	
retrograde	13496 Apr 02 20:13	25° $\mathbb{X}$ 56'01		morning rise	13501 May 07 17:20	15° $\mathbb{B}$ 09'34	
min. Earth dist.	13496 May 30 18:38	21° $\mathbb{X}$ 05'10	4.01628 AU		13501 Aug 01 08:40	0° $\mathbb{I}$	
opposition	13496 Jun 01 07:42	20° $\mathbb{X}$ 52'36	0°34'53	retrograde	13501 Sep 05 18:00	1° $\mathbb{I}$ 51'47	
direct	13496 Jul 29 19:47	15° $\mathbb{X}$ 55'37			13501 Oct 11 04:10	30° $\mathbb{R}$ $\mathbb{B}$	
	13496 Nov 10 12:44	0° $\mathbb{B}$		opposition	13501 Nov 05 21:19	26° $\mathbb{B}$ 57'51	-0°14'40
evening set	13496 Dec 03 17:47	5° $\mathbb{B}$ 15'58		min. Earth dist.	13501 Nov 07 03:09	26° $\mathbb{B}$ 48'18	4.46510 AU
				direct	13502 Jan 07 09:28	21° $\mathbb{B}$ 57'03	
conjunction	13496 Dec 17 07:12	8° $\mathbb{B}$ 24'58	0°30'17		13502 Mar 27 05:00	0° $\mathbb{I}$	
minimum elong	13496 Dec 17 07:11	8° $\mathbb{B}$ 24'58	0°31'20	evening set	13502 May 12 03:31	9° $\mathbb{I}$ 18'30	
max. Earth dist.	13496 Dec 19 19:38	9° $\mathbb{B}$ 00'06	6.09651 AU	max. Earth dist.	13502 May 22 22:02	11° $\mathbb{I}$ 39'41	6.41053 AU
morning rise	13496 Dec 30 21:18	11° $\mathbb{B}$ 33'58					
	13497 Apr 17 13:35	0° $\mathbb{A}$		conjunction	13502 May 25 00:12	12° $\mathbb{I}$ 07'11	-0°18'43
retrograde	13497 May 07 02:38	0° $\mathbb{A}$ 37'15		minimum elong	13502 May 25 00:11	12° $\mathbb{I}$ 07'11	0°19'40
	13497 May 26 14:18	30° $\mathbb{R}$ $\mathbb{B}$		morning rise	13502 Jun 06 19:22	14° $\mathbb{I}$ 55'26	
min. Earth dist.	13497 Jul 04 13:46	25° $\mathbb{B}$ 46'45	4.18387 AU		13502 Aug 29 16:30	0° $\mathbb{E}$	
opposition	13497 Jul 06 02:55	25° $\mathbb{B}$ 34'18	0°51'50	retrograde	13502 Oct 07 09:55	2° $\mathbb{E}$ 14'22	
direct	13497 Sep 03 15:46	20° $\mathbb{B}$ 35'28			13502 Nov 15 09:26	30° $\mathbb{R}$ $\mathbb{I}$	
	13497 Nov 26 05:23	0° $\mathbb{A}$		opposition	13502 Dec 07 07:36	27° $\mathbb{I}$ 20'44	-0°38'44
evening set	13498 Jan 07 20:33	8° $\mathbb{A}$ 59'51		min. Earth dist.	13502 Dec 08 22:34	27° $\mathbb{I}$ 08'14	4.33945 AU
				direct	13503 Feb 07 05:44	22° $\mathbb{I}$ 20'33	
conjunction	13498 Jan 21 07:16	11° $\mathbb{A}$ 59'59	0°36'11		13503 Apr 23 14:21	0° $\mathbb{E}$	
minimum elong	13498 Jan 21 07:16	11° $\mathbb{A}$ 59'59	0°37'01	evening set	13503 Jun 12 12:31	10° $\mathbb{E}$ 22'44	
max. Earth dist.	13498 Jan 23 06:57	12° $\mathbb{A}$ 26'38	6.27206 AU	max. Earth dist.	13503 Jun 22 23:58	12° $\mathbb{E}$ 45'00	6.25655 AU
morning rise	13498 Feb 03 17:42	14° $\mathbb{A}$ 59'37					
	13498 Feb 03 18:24	15° $\mathbb{A}$		conjunction	13503 Jun 25 08:42	13° $\mathbb{E}$ 17'14	-0°32'02
	13498 Apr 25 09:36	0° $\mathbb{H}$		minimum elong	13503 Jun 25 08:41	13° $\mathbb{E}$ 17'13	0°33'04
retrograde	13498 Jun 07 22:53	2° $\mathbb{H}$ 51'15		morning rise	13503 Jul 08 04:27	16° $\mathbb{E}$ 11'48	
	13498 Jul 21 13:01	30° $\mathbb{R}$ $\mathbb{A}$			13503 Sep 15 15:29	0° $\mathbb{Q}$	
min. Earth dist.	13498 Aug 06 10:31	27° $\mathbb{A}$ 58'34	4.35215 AU	retrograde	13503 Nov 10 14:17	4° $\mathbb{Q}$ 33'57	
opposition	13498 Aug 07 10:37	27° $\mathbb{A}$ 50'37	0°51'01		13504 Jan 07 08:27	30° $\mathbb{R}$ $\mathbb{E}$	
direct	13498 Oct 07 06:32	22° $\mathbb{A}$ 50'33		opposition	13504 Jan 09 23:25	29° $\mathbb{E}$ 39'33	-0°52'53
	13498 Dec 19 05:12	0° $\mathbb{H}$		min. Earth dist.	13504 Jan 11 13:03	29° $\mathbb{E}$ 27'20	4.16679 AU

direct	13504 Mar 10 19:50	24°☾40'44		opposition	13509 Jul 11 19:19	0°☾22'43	0°52'41
	13504 May 10 01:54	0°♌			13509 Jul 14 15:08	30°♌☾	
evening set	13504 Jul 14 20:20	13°♌38'03		direct	13509 Sep 09 12:55	25°☾23'38	
	13504 Jul 20 15:50	15°♌			13509 Nov 04 14:27	0°☾	
max. Earth dist.	13504 Jul 25 22:18	16°♌14'37	6.07932 AU	evening set	13510 Jan 13 14:51	13°☾41'49	
					13510 Jan 19 11:49	15°☾	
conjunction	13504 Jul 27 19:09	16°♌41'06	-0°35'55				
minimum elong	13504 Jul 27 19:09	16°♌41'07	0°36'41	conjunction	13510 Jan 27 01:15	16°☾40'55	0°36'00
morning rise	13504 Aug 09 18:21	19°♌44'46		minimum elong	13510 Jan 27 01:15	16°☾40'55	0°36'47
	13504 Sep 25 02:46	0°♍		max. Earth dist.	13510 Jan 29 00:18	17°☾07'06	6.29261 AU
retrograde	13504 Dec 16 10:57	9°♍23'11		morning rise	13510 Feb 09 11:00	19°☾39'25	
opposition	13505 Feb 14 05:42	4°♍27'04	-0°49'51		13510 Apr 01 02:34	0°♋	
min. Earth dist.	13505 Feb 15 03:43	4°♍19'48	3.99988 AU	retrograde	13510 Jun 13 06:10	7°♋22'56	
	13505 Mar 28 09:58	30°♋♌		opposition	13510 Aug 12 20:24	2°♋22'38	0°49'33
direct	13505 Apr 14 16:25	29°♌30'17		min. Earth dist.	13510 Aug 11 21:03	2°♋30'19	4.37129 AU
	13505 May 01 23:13	0°♍			13510 Aug 31 17:06	30°♋☾	
evening set	13505 Aug 19 14:26	19°♍20'38		direct	13510 Oct 12 19:08	27°☾22'27	
					13510 Nov 24 04:34	0°♋	
conjunction	13505 Sep 01 18:17	22°♍32'30	-0°26'58	evening set	13511 Feb 15 03:36	14°♋54'01	
minimum elong	13505 Sep 01 18:18	22°♍32'31	0°27'13				
max. Earth dist.	13505 Sep 01 01:55	22°♍22'33	5.93861 AU	conjunction	13511 Feb 28 09:44	17°♋45'36	0°29'14
morning rise	13505 Sep 14 23:49	25°♍45'29		minimum elong	13511 Feb 28 09:45	17°♋45'36	0°29'33
	13505 Oct 02 18:38	0°♎		max. Earth dist.	13511 Mar 01 05:17	17°♋56'09	6.43687 AU
retrograde	13506 Jan 24 04:23	16°♎24'51		morning rise	13511 Mar 13 14:43	20°♋36'23	
opposition	13506 Mar 24 12:36	11°♎25'59	-0°26'54		13511 Apr 29 14:15	0°♏	
min. Earth dist.	13506 Mar 24 09:40	11°♎26'58	3.90081 AU	retrograde	13511 Jul 13 06:43	7°♏30'42	
direct	13506 May 21 20:42	6°♎30'41		opposition	13511 Sep 12 05:34	2°♏33'18	0°32'58
evening set	13506 Sep 26 08:21	26°♎48'02		min. Earth dist.	13511 Sep 12 02:05	2°♏34'26	4.48344 AU
					13511 Oct 02 23:14	30°♋♋	
conjunction	13506 Oct 09 18:16	0°♍05'05	-0°06'59	direct	13511 Nov 13 05:33	27°♋32'34	
minimum elong	13506 Oct 09 18:16	0°♍05'06	0°06'34		13511 Dec 24 16:28	0°♏	
behind sun begin	13506 Oct 09 10:28	0°♍00'19		evening set	13512 Mar 17 00:03	14°♏38'03	
behind sun end	13506 Oct 10 02:05	0°♍09'52					
	13506 Oct 09 09:56	0°♍		conjunction	13512 Mar 30 02:06	17°♏25'14	0°14'47
max. Earth dist.	13506 Oct 10 17:40	0°♍19'26	5.89189 AU	minimum elong	13512 Mar 30 02:06	17°♏25'14	0°14'34
morning rise	13506 Oct 23 06:00	3°♍23'10		behind sun begin	13512 Mar 29 22:43	17°♏23'26	
	13506 Dec 13 10:06	15°♍		behind sun end	13512 Mar 30 05:29	17°♏27'02	
asc. node	13507 Feb 06 09:59	23°♍10'48		max. Earth dist.	13512 Mar 29 16:46	17°♏20'16	6.50939 AU
retrograde	13507 Mar 03 23:53	24°♍15'11		morning rise	13512 Apr 12 02:25	20°♏11'34	
min. Earth dist.	13507 May 01 02:39	19°♍22'08	3.91298 AU		13512 Jun 01 02:48	0°♐	
opposition	13507 May 02 04:35	19°♍13'21	0°07'49	retrograde	13512 Aug 10 18:40	6°♐45'46	
	13507 Jun 08 22:34	15°♋♍		opposition	13512 Oct 10 23:24	1°♐50'42	0°08'28
direct	13507 Jun 29 05:27	14°♍17'50		min. Earth dist.	13512 Oct 11 14:43	1°♐45'47	4.51305 AU
	13507 Jul 19 11:46	15°♍			13512 Oct 25 17:16	30°♋♏	
	13507 Oct 16 05:55	0°♐		direct	13512 Dec 12 11:25	26°♏49'49	
evening set	13507 Nov 03 15:46	4°♐20'29			13513 Jan 29 03:30	0°♐	
				desc. node	13513 Feb 12 07:54	1°♐58'19	
conjunction	13507 Nov 17 05:14	7°♐35'54	0°15'54	evening set	13513 Apr 16 02:17	13°♐53'11	
minimum elong	13507 Nov 17 05:13	7°♐35'53	0°16'49		13513 Apr 21 07:26	15°♐	
max. Earth dist.	13507 Nov 19 10:13	8°♐07'44	5.96093 AU	max. Earth dist.	13513 Apr 27 14:12	16°♐20'55	6.49385 AU
morning rise	13507 Nov 30 20:16	10°♐51'52					
	13508 Mar 14 23:26	0°♑		conjunction	13513 Apr 29 00:52	16°♐39'32	-0°03'27
retrograde	13508 Apr 08 17:58	1°♑00'17		minimum elong	13513 Apr 29 00:51	16°♐39'32	0°04'08
	13508 May 03 09:48	30°♋♐		behind sun begin	13513 Apr 28 16:58	16°♐35'19	
min. Earth dist.	13508 Jun 05 15:57	26°♐10'00	4.03075 AU	behind sun end	13513 Apr 29 08:43	16°♐43'44	
opposition	13508 Jun 07 06:58	25°♐56'47	0°38'13	morning rise	13513 May 11 21:35	19°♐25'11	
direct	13508 Aug 04 19:49	20°♐59'35			13513 Jul 04 23:47	0°♒	
	13508 Oct 23 14:35	0°♑		retrograde	13513 Sep 10 00:46	6°♒10'11	
evening set	13508 Dec 09 18:39	10°♑14'43		opposition	13513 Nov 10 04:12	1°♒16'23	-0°18'22
				min. Earth dist.	13513 Nov 11 12:03	1°♒06'13	4.45351 AU
conjunction	13508 Dec 23 07:51	13°♑22'49	0°31'47		13513 Nov 20 05:42	30°♋♐	
minimum elong	13508 Dec 23 07:50	13°♑22'48	0°32'49	direct	13514 Jan 11 15:56	26°♐15'41	
max. Earth dist.	13508 Dec 25 19:09	13°♑57'09	6.11485 AU		13514 Mar 04 07:37	0°♒	
morning rise	13509 Jan 05 21:45	16°♑30'50		evening set	13514 May 16 10:31	13°♒41'07	
	13509 Mar 12 22:26	0°☾		max. Earth dist.	13514 May 27 01:26	16°♒00'56	6.39355 AU
retrograde	13509 May 12 18:20	5°☾25'30					
min. Earth dist.	13509 Jul 10 07:36	0°☾34'41	4.20412 AU	conjunction	13514 May 29 06:50	16°♒30'20	-0°20'58

minimum elong	13514 May 29 06:49	16° $\Pi$ 30'19	0°21'57			13520 Feb 09 01:23	0° $\Xi$	
morning rise	13514 Jun 11 02:04	19° $\Pi$ 19'13		retrograde		13520 Apr 13 17:40	6° $\Xi$ 10'55	
	13514 Aug 03 00:52	0° $\Xi$		min. Earth dist.		13520 Jun 10 17:07	1° $\Xi$ 20'32	4.05353 AU
retrograde	13514 Oct 12 00:38	6° $\Xi$ 45'16		opposition		13520 Jun 12 08:13	1° $\Xi$ 07'18	0°41'22
opposition	13514 Dec 11 20:34	1° $\Xi$ 51'34	-0°41'28			13520 Jun 20 16:56	30° $\mathbb{R}$ $\mathbb{A}$	
min. Earth dist.	13514 Dec 13 12:32	1° $\Xi$ 38'43	4.31794 AU	direct		13520 Aug 10 01:44	26° $\mathbb{A}$ 09'45	
	13514 Dec 26 15:53	30° $\mathbb{R}$ $\Pi$				13520 Sep 28 21:13	0° $\Xi$	
direct	13515 Feb 11 16:31	26° $\Pi$ 51'28		evening set		13520 Dec 14 20:29	15° $\Xi$ 16'29	
	13515 Mar 30 00:30	0° $\Xi$						
evening set	13515 Jun 17 00:31	15° $\Xi$ 00'36		conjunction		13520 Dec 28 09:33	18° $\Xi$ 23'17	0°33'07
max. Earth dist.	13515 Jun 27 13:02	17° $\Xi$ 24'13	6.23216 AU	minimum elong		13520 Dec 28 09:32	18° $\Xi$ 23'16	0°34'08
				max. Earth dist.		13520 Dec 30 21:59	18° $\Xi$ 58'03	6.14118 AU
conjunction	13515 Jun 29 21:01	17° $\Xi$ 56'10	-0°33'14	morning rise		13521 Jan 10 22:50	21° $\Xi$ 29'52	
minimum elong	13515 Jun 29 21:01	17° $\Xi$ 56'10	0°34'16			13521 Feb 19 03:40	0° $\approx$	
morning rise	13515 Jul 12 16:57	20° $\Xi$ 51'52		retrograde		13521 May 17 07:59	10° $\approx$ 12'58	
	13515 Aug 24 03:41	0° $\Omega$		min. Earth dist.		13521 Jul 14 23:53	5° $\approx$ 22'10	4.23137 AU
retrograde	13515 Nov 15 13:08	9° $\Omega$ 24'21		opposition		13521 Jul 16 11:06	5° $\approx$ 10'24	0°53'13
opposition	13516 Jan 14 20:41	4° $\Omega$ 29'49	-0°53'36	direct		13521 Sep 14 08:41	0° $\approx$ 11'07	
min. Earth dist.	13516 Jan 16 08:56	4° $\Omega$ 18'01	4.14139 AU			13522 Jan 02 22:15	15° $\approx$	
	13516 Feb 27 05:05	30° $\mathbb{R}$ $\Xi$		evening set		13522 Jan 18 07:47	18° $\approx$ 20'48	
direct	13516 Mar 15 11:59	29° $\Xi$ 31'15						
	13516 Apr 01 19:14	0° $\Omega$		conjunction		13522 Jan 31 17:24	21° $\approx$ 18'32	0°35'38
	13516 Jul 04 02:45	15° $\Omega$		minimum elong		13522 Jan 31 17:25	21° $\approx$ 18'32	0°36'22
evening set	13516 Jul 19 16:32	18° $\Omega$ 36'56		max. Earth dist.		13522 Feb 02 12:00	21° $\approx$ 42'07	6.31847 AU
max. Earth dist.	13516 Jul 30 20:50	21° $\Omega$ 15'47	6.05504 AU	morning rise		13522 Feb 14 02:36	24° $\approx$ 15'41	
						13522 Mar 13 01:19	0° $\mathbb{H}$	
conjunction	13516 Aug 01 15:47	21° $\Omega$ 41'18	-0°35'25	retrograde		13522 Jun 17 13:10	11° $\mathbb{H}$ 49'47	
minimum elong	13516 Aug 01 15:47	21° $\Omega$ 41'18	0°36'09	min. Earth dist.		13522 Aug 16 08:24	6° $\mathbb{H}$ 56'25	4.39377 AU
morning rise	13516 Aug 14 15:52	24° $\Omega$ 46'24		opposition		13522 Aug 17 04:31	6° $\mathbb{H}$ 49'48	0°47'52
	13516 Sep 06 05:31	0° $\Pi$		direct		13522 Oct 17 08:08	1° $\mathbb{H}$ 49'25	
retrograde	13516 Dec 21 18:42	14° $\Pi$ 35'34		evening set		13523 Feb 19 12:46	19° $\mathbb{H}$ 14'59	
opposition	13517 Feb 19 11:35	9° $\Pi$ 39'06	-0°47'44					
min. Earth dist.	13517 Feb 20 06:37	9° $\Pi$ 32'47	3.97900 AU	conjunction		13523 Mar 04 18:25	22° $\mathbb{H}$ 05'39	0°27'33
direct	13517 Apr 19 18:03	4° $\Pi$ 42'32		minimum elong		13523 Mar 04 18:26	22° $\mathbb{H}$ 05'39	0°27'48
evening set	13517 Aug 24 18:51	24° $\Pi$ 39'34		max. Earth dist.		13523 Mar 05 11:02	22° $\mathbb{H}$ 14'35	6.45439 AU
				morning rise		13523 Mar 17 22:32	24° $\mathbb{H}$ 55'27	
conjunction	13517 Sep 06 23:46	27° $\Pi$ 52'38	-0°24'40			13523 Apr 11 07:38	0° $\mathbb{Y}$	
minimum elong	13517 Sep 06 23:47	27° $\Pi$ 52'39	0°24'48	retrograde		13523 Jul 17 07:49	11° $\mathbb{Y}$ 44'18	
max. Earth dist.	13517 Sep 06 13:46	27° $\Pi$ 46'33	5.92345 AU	opposition		13523 Sep 16 08:57	6° $\mathbb{Y}$ 47'15	0°29'52
	13517 Sep 15 16:22	0° $\underline{\Omega}$		min. Earth dist.		13523 Sep 16 07:33	6° $\mathbb{Y}$ 47'42	4.49496 AU
morning rise	13517 Sep 20 06:09	1° $\underline{\Omega}$ 06'46		direct		13523 Nov 17 10:40	1° $\mathbb{Y}$ 46'27	
retrograde	13518 Jan 29 17:49	21° $\underline{\Omega}$ 52'16		evening set		13524 Mar 21 04:47	18° $\mathbb{Y}$ 49'31	
opposition	13518 Mar 29 23:34	16° $\underline{\Omega}$ 53'01	-0°22'20					
min. Earth dist.	13518 Mar 29 17:46	16° $\underline{\Omega}$ 54'58	3.89331 AU	conjunction		13524 Apr 03 06:12	21° $\mathbb{Y}$ 36'17	0°12'22
direct	13518 May 27 05:38	11° $\underline{\Omega}$ 57'50		minimum elong		13524 Apr 03 06:12	21° $\mathbb{Y}$ 36'18	0°12'06
	13518 Sep 22 08:25	0° $\mathbb{L}$		behind sun begin		13524 Apr 03 00:47	21° $\mathbb{Y}$ 33'25	
evening set	13518 Oct 01 18:03	2° $\mathbb{L}$ 16'34		behind sun end		13524 Apr 03 11:37	21° $\mathbb{Y}$ 39'10	
				max. Earth dist.		13524 Apr 02 16:15	21° $\mathbb{Y}$ 28'51	6.51408 AU
conjunction	13518 Oct 15 04:39	5° $\mathbb{L}$ 33'56	-0°03'41	morning rise		13524 Apr 16 05:57	24° $\mathbb{Y}$ 22'15	
minimum elong	13518 Oct 15 04:38	5° $\mathbb{L}$ 33'55	0°03'10			13524 May 13 15:10	0° $\mathbb{B}$	
behind sun begin	13518 Oct 14 20:19	5° $\mathbb{L}$ 28'51		retrograde		13524 Aug 14 22:18	10° $\mathbb{B}$ 55'42	
behind sun end	13518 Oct 15 12:56	5° $\mathbb{L}$ 39'00		opposition		13524 Oct 15 02:33	6° $\mathbb{B}$ 00'54	0°04'43
max. Earth dist.	13518 Oct 16 08:46	5° $\mathbb{L}$ 51'10	5.89278 AU	min. Earth dist.		13524 Oct 15 21:36	5° $\mathbb{B}$ 54'48	4.51057 AU
morning rise	13518 Oct 28 17:14	8° $\mathbb{L}$ 52'18		direct		13524 Dec 16 16:26	0° $\mathbb{B}$ 59'59	
	13518 Nov 23 13:31	15° $\mathbb{L}$		desc. node		13524 Dec 21 17:49	1° $\mathbb{B}$ 02'18	
asc. node	13518 Dec 17 12:23	20° $\mathbb{L}$ 11'40				13525 Apr 05 14:51	15° $\mathbb{B}$	
retrograde	13519 Mar 09 07:32	29° $\mathbb{L}$ 42'00		evening set		13525 Apr 20 06:01	18° $\mathbb{B}$ 04'52	
min. Earth dist.	13519 May 06 07:47	24° $\mathbb{L}$ 49'53	3.92252 AU	max. Earth dist.		13525 May 01 12:46	20° $\mathbb{B}$ 30'13	6.48419 AU
opposition	13519 May 07 13:29	24° $\mathbb{L}$ 39'48	0°12'47					
direct	13519 Jul 04 13:33	19° $\mathbb{L}$ 44'09		conjunction		13525 May 03 04:10	20° $\mathbb{B}$ 51'26	-0°06'02
	13519 Sep 27 04:56	0° $\mathbb{A}$		minimum elong		13525 May 03 04:09	20° $\mathbb{B}$ 51'25	0°06'46
evening set	13519 Nov 09 00:35	9° $\mathbb{A}$ 42'06		behind sun begin		13525 May 02 20:42	20° $\mathbb{B}$ 47'26	
				behind sun end		13525 May 03 11:36	20° $\mathbb{B}$ 55'25	
conjunction	13519 Nov 22 14:10	12° $\mathbb{A}$ 56'45	0°18'45	morning rise		13525 May 16 00:41	23° $\mathbb{B}$ 37'21	
minimum elong	13519 Nov 22 14:10	12° $\mathbb{A}$ 56'44	0°19'42			13525 Jun 15 21:05	0° $\Pi$	
max. Earth dist.	13519 Nov 24 21:04	13° $\mathbb{A}$ 29'37	5.97812 AU	retrograde		13525 Sep 14 08:00	10° $\Pi$ 26'34	
morning rise	13519 Dec 06 05:19	16° $\mathbb{A}$ 11'53		opposition		13525 Nov 14 10:52	5° $\Pi$ 32'50	-0°21'59

min. Earth dist.	13525 Nov 15 20:17	5°♊22'09	4.43720 AU	conjunction	13531 Nov 27 22:22	18°♊15'04	0°21'26
direct	13526 Jan 15 20:33	0°♊32'07		minimum elong	13531 Nov 27 22:21	18°♊15'03	0°22'26
evening set	13526 May 20 17:24	18°♊03'04		max. Earth dist.	13531 Nov 30 08:57	18°♊49'56	5.99993 AU
max. Earth dist.	13526 May 31 07:52	20°♊23'17	6.37171 AU	morning rise	13531 Dec 11 13:19	21°♊29'04	
					13532 Jan 18 08:09	0°♋	
conjunction	13526 Jun 02 13:46	20°♊53'06	-0°23'06	retrograde	13532 Apr 18 16:02	11°♋17'10	
minimum elong	13526 Jun 02 13:45	20°♊53'06	0°24'06	min. Earth dist.	13532 Jun 15 16:15	6°♋26'59	4.07953 AU
morning rise	13526 Jun 15 08:49	23°♊42'49		opposition	13532 Jun 17 07:48	6°♋13'37	0°44'09
	13526 Jul 14 20:24	0°♌		direct	13532 Aug 15 04:50	1°♋15'51	
retrograde	13526 Oct 16 16:22	11°♌17'38		evening set	13532 Dec 19 20:29	20°♋13'31	
opposition	13526 Dec 16 10:31	6°♌23'57	-0°44'00				
min. Earth dist.	13526 Dec 18 03:12	6°♌10'52	4.29187 AU	conjunction	13533 Jan 02 08:58	23°♋18'52	0°34'11
direct	13527 Feb 16 02:46	1°♌24'03		minimum elong	13533 Jan 02 08:57	23°♋18'52	0°35'10
evening set	13527 Jun 21 14:24	19°♌41'46		max. Earth dist.	13533 Jan 04 18:42	23°♋51'53	6.16870 AU
max. Earth dist.	13527 Jul 02 02:34	22°♌06'09	6.20386 AU	morning rise	13533 Jan 15 21:52	26°♋24'01	
					13533 Feb 01 00:45	0°♍	
conjunction	13527 Jul 04 11:02	22°♌38'37	-0°34'15	retrograde	13533 May 21 19:40	14°♍55'51	
minimum elong	13527 Jul 04 11:02	22°♌38'37	0°35'15	min. Earth dist.	13533 Jul 19 15:38	10°♍04'43	4.25799 AU
morning rise	13527 Jul 17 07:34	25°♌35'43		opposition	13533 Jul 21 00:57	9°♍53'36	0°53'23
	13527 Aug 05 21:39	0°♎		direct	13533 Sep 19 02:50	4°♍54'06	
retrograde	13527 Nov 20 15:58	14°♎20'09			13533 Dec 16 01:54	15°♍	
opposition	13528 Jan 19 20:38	9°♎25'25	-0°53'59	evening set	13534 Jan 22 22:54	22°♍56'05	
min. Earth dist.	13528 Jan 21 06:57	9°♎14'12	4.11300 AU				
direct	13528 Mar 20 06:55	4°♎27'08		conjunction	13534 Feb 05 08:07	25°♍52'39	0°35'02
	13528 Jun 16 00:11	15°♎		minimum elong	13534 Feb 05 08:07	25°♍52'39	0°35'43
evening set	13528 Jul 24 15:22	23°♎42'13		max. Earth dist.	13534 Feb 07 00:12	26°♍14'43	6.34228 AU
max. Earth dist.	13528 Aug 05 01:41	26°♎25'31	6.02939 AU	morning rise	13534 Feb 18 16:24	28°♍48'30	
					13534 Feb 24 03:59	0°♏	
conjunction	13528 Aug 06 15:31	26°♎48'07	-0°34'41	retrograde	13534 Jun 21 18:30	16°♏14'19	
minimum elong	13528 Aug 06 15:31	26°♎48'07	0°35'21	opposition	13534 Aug 21 11:22	11°♏14'49	0°45'56
morning rise	13528 Aug 19 16:19	29°♎54'44		min. Earth dist.	13534 Aug 20 17:35	11°♏20'38	4.41313 AU
	13528 Aug 20 01:11	0°♐		direct	13534 Oct 21 18:18	6°♏14'23	
retrograde	13528 Dec 27 06:52	19°♐55'05		evening set	13535 Feb 23 21:20	23°♏35'16	
opposition	13529 Feb 24 20:51	14°♐58'19	-0°45'12				
min. Earth dist.	13529 Feb 25 12:54	14°♐53'00	3.95883 AU	conjunction	13535 Mar 09 02:13	26°♏25'09	0°25'44
direct	13529 Apr 24 22:29	10°♐02'08		minimum elong	13535 Mar 09 02:14	26°♏25'09	0°25'54
	13529 Aug 29 17:46	0°♑		max. Earth dist.	13535 Mar 09 12:54	26°♏30'53	6.46792 AU
evening set	13529 Aug 30 02:33	0°♑05'20		morning rise	13535 Mar 22 05:50	29°♏14'14	
					13535 Mar 25 19:56	0°♒	
conjunction	13529 Sep 12 08:14	3°♑19'26	-0°22'07	retrograde	13535 Jul 21 12:01	15°♒59'12	
minimum elong	13529 Sep 12 08:15	3°♑19'27	0°22'09	opposition	13535 Sep 20 12:52	11°♒02'30	0°26'36
max. Earth dist.	13529 Sep 12 02:57	3°♑16'12	5.91085 AU	min. Earth dist.	13535 Sep 20 15:20	11°♒01'43	4.50204 AU
morning rise	13529 Sep 25 15:46	6°♑34'40		direct	13535 Nov 21 17:19	6°♒01'38	
retrograde	13530 Feb 04 06:39	27°♑24'42		evening set	13536 Mar 25 09:49	23°♒03'42	
opposition	13530 Apr 04 12:22	22°♑25'00	-0°17'31				
min. Earth dist.	13530 Apr 04 01:28	22°♑28'40	3.89007 AU	conjunction	13536 Apr 07 10:51	25°♒50'18	0°09'52
direct	13530 Jun 01 15:32	17°♑29'54		minimum elong	13536 Apr 07 10:51	25°♒50'18	0°09'30
	13530 Sep 04 00:27	0°♒		behind sun begin	13536 Apr 07 04:12	25°♒46'46	
evening set	13530 Oct 07 05:34	7°♒48'11		behind sun end	13536 Apr 07 17:31	25°♒53'50	
				max. Earth dist.	13536 Apr 06 17:29	25°♒41'02	6.51421 AU
conjunction	13530 Oct 20 16:44	11°♒05'31	-0°00'14	morning rise	13536 Apr 20 10:00	28°♒36'02	
minimum elong	13530 Oct 20 16:44	11°♒05'31	0°00'23		13536 Apr 27 01:11	0°♓	
behind sun begin	13530 Oct 20 08:24	11°♒00'27			13536 Aug 08 14:10	15°♓	
behind sun end	13530 Oct 21 01:04	11°♒10'35		retrograde	13536 Aug 19 02:03	15°♓10'16	
max. Earth dist.	13530 Oct 22 01:58	11°♒25'51	5.89918 AU		13536 Aug 29 14:19	15°♓♊	
asc. node	13530 Oct 25 02:30	12°♒10'12		opposition	13536 Oct 19 07:04	10°♓15'39	0°00'54
morning rise	13530 Nov 03 05:55	14°♒23'49		min. Earth dist.	13536 Oct 20 03:45	10°♓09'02	4.50393 AU
	13530 Nov 05 17:40	15°♒		desc. node	13536 Oct 31 19:23	8°♓41'10	
	13531 Jan 15 12:21	0°♓		direct	13536 Dec 20 19:50	5°♓14'44	
retrograde	13531 Mar 14 15:12	5°♓08'39			13537 Mar 19 08:59	15°♓	
opposition	13531 May 12 22:18	0°♓06'04	0°17'37	evening set	13537 Apr 24 11:41	22°♓22'25	
min. Earth dist.	13531 May 11 14:46	0°♓16'47	3.93751 AU	max. Earth dist.	13537 May 05 15:42	24°♓46'44	6.47115 AU
	13531 May 13 16:11	30°♓♌					
direct	13531 Jul 10 00:35	25°♓10'11		conjunction	13537 May 07 09:28	25°♓09'18	-0°08'37
	13531 Sep 03 13:50	0°♓		minimum elong	13537 May 07 09:27	25°♓09'18	0°09'24
evening set	13531 Nov 14 08:34	15°♓01'23		behind sun begin	13537 May 07 02:47	25°♓05'42	
				behind sun end	13537 May 07 16:08	25°♓12'53	

morning rise	13537 May 20 05:39	27°♄55'35		retrograde	13543 Mar 19 18:48	10°♄23'59	
	13537 May 29 23:00	0°♄		min. Earth dist.	13543 May 16 17:09	5°♄32'32	3.95714 AU
retrograde	13537 Sep 18 19:16	14°♄50'04		opposition	13543 May 18 02:41	5°♄21'10	0°22'04
opposition	13537 Nov 18 20:10	9°♄56'26	-0°25'33	direct	13543 Jul 15 06:53	0°♄25'04	
min. Earth dist.	13537 Nov 20 08:01	9°♄44'58	4.41845 AU	evening set	13543 Nov 19 12:02	20°♄08'06	
direct	13538 Jan 20 04:40	4°♄55'47					
evening set	13538 May 25 03:01	22°♄32'54		conjunction	13543 Dec 03 01:35	23°♄20'32	0°23'49
max. Earth dist.	13538 Jun 04 14:55	24°♄52'28	6.34850 AU	minimum elong	13543 Dec 03 01:34	23°♄20'32	0°24'51
				max. Earth dist.	13543 Dec 05 11:57	23°♄55'04	6.02433 AU
conjunction	13538 Jun 06 23:15	25°♄23'47	-0°25'10	morning rise	13543 Dec 16 16:31	26°♄33'18	
minimum elong	13538 Jun 06 23:14	25°♄23'47	0°26'12		13543 Dec 31 13:39	0°♄	
morning rise	13538 Jun 19 18:31	28°♄14'28		retrograde	13544 Apr 23 07:24	16°♄09'57	
	13538 Jun 27 18:16	0°♄		min. Earth dist.	13544 Jun 20 10:50	11°♄19'42	4.10611 AU
retrograde	13538 Oct 21 11:24	15°♄58'35		opposition	13544 Jun 22 02:03	11°♄06'28	0°46'27
opposition	13538 Dec 21 03:52	11°♄04'47	-0°46'20	direct	13544 Aug 20 02:50	6°♄08'24	
min. Earth dist.	13538 Dec 22 19:43	10°♄51'55	4.26581 AU	evening set	13544 Dec 24 15:20	24°♄57'18	
direct	13539 Feb 20 15:27	6°♄05'03					
evening set	13539 Jun 26 06:59	24°♄31'09		conjunction	13545 Jan 07 03:32	28°♄01'20	0°34'58
max. Earth dist.	13539 Jul 06 22:48	26°♄58'27	6.17724 AU	minimum elong	13545 Jan 07 03:32	28°♄01'19	0°35'57
				max. Earth dist.	13545 Jan 09 11:32	28°♄33'10	6.19524 AU
conjunction	13539 Jul 09 04:04	27°♄29'16	-0°35'03		13545 Jan 15 20:33	0°♄	
minimum elong	13539 Jul 09 04:04	27°♄29'16	0°36'01	morning rise	13545 Jan 20 15:43	1°♄05'01	
	13539 Jul 20 00:53	0°♄			13545 Apr 01 06:30	15°♄	
morning rise	13539 Jul 22 00:54	0°♄27'38		retrograde	13545 May 26 04:20	19°♄26'30	
	13539 Oct 02 10:05	15°♄			13545 Jul 20 23:58	15°♄	
retrograde	13539 Nov 25 21:39	19°♄23'17		min. Earth dist.	13545 Jul 24 03:39	14°♄34'55	4.28219 AU
	13540 Jan 20 22:32	15°♄		opposition	13545 Jul 25 10:29	14°♄24'40	0°53'15
opposition	13540 Jan 24 23:32	14°♄28'22	-0°53'59	direct	13545 Sep 23 16:55	9°♄25'03	
min. Earth dist.	13540 Jan 26 08:14	14°♄17'40	4.08828 AU		13545 Nov 25 15:27	15°♄	
direct	13540 Mar 25 05:18	9°♄30'27		evening set	13546 Jan 27 09:49	27°♄20'25	
	13540 May 24 22:17	15°♄			13546 Feb 08 13:20	0°♄	
evening set	13540 Jul 29 16:38	28°♄53'15					
	13540 Aug 03 08:32	0°♄		conjunction	13546 Feb 09 18:22	0°♄15'55	0°34'18
max. Earth dist.	13540 Aug 10 06:48	1°♄39'38	6.00903 AU	minimum elong	13546 Feb 09 18:23	0°♄15'55	0°34'54
				max. Earth dist.	13546 Feb 11 05:39	0°♄35'16	6.36230 AU
conjunction	13540 Aug 11 17:19	2°♄00'21	-0°33'41	morning rise	13546 Feb 23 02:11	3°♄10'45	
minimum elong	13540 Aug 11 17:20	2°♄00'22	0°34'17	retrograde	13546 Jun 25 20:59	20°♄29'59	
morning rise	13540 Aug 24 19:06	5°♄08'19		opposition	13546 Aug 25 15:18	15°♄30'54	0°43'53
retrograde	13541 Jan 01 16:55	25°♄17'14		min. Earth dist.	13546 Aug 25 00:26	15°♄35'46	4.42794 AU
opposition	13541 Mar 02 06:46	20°♄20'04	-0°42'17	direct	13546 Oct 26 00:58	10°♄30'25	
min. Earth dist.	13541 Mar 02 17:53	20°♄16'22	3.94533 AU	evening set	13547 Feb 28 02:59	27°♄48'11	
direct	13541 Apr 30 04:10	15°♄24'08			13547 Mar 10 09:30	0°♄	
	13541 Aug 12 06:54	0°♄					
evening set	13541 Sep 04 10:13	5°♄30'36		conjunction	13547 Mar 13 07:31	0°♄37'34	0°23'52
				minimum elong	13547 Mar 13 07:32	0°♄37'35	0°23'58
conjunction	13541 Sep 17 16:42	8°♄45'20	-0°19'26	max. Earth dist.	13547 Mar 13 15:12	0°♄41'41	6.47673 AU
minimum elong	13541 Sep 17 16:43	8°♄45'21	0°19'24	morning rise	13547 Mar 26 10:22	3°♄26'05	
max. Earth dist.	13541 Sep 17 18:05	8°♄46'10	5.90573 AU	retrograde	13547 Jul 25 13:18	20°♄08'47	
morning rise	13541 Oct 01 01:00	12°♄01'10		opposition	13547 Sep 24 14:58	15°♄12'32	0°23'20
	13541 Dec 29 02:53	0°♄		min. Earth dist.	13547 Sep 24 19:40	15°♄11'01	4.50460 AU
retrograde	13542 Feb 09 17:35	2°♄52'19		direct	13547 Nov 25 20:26	10°♄11'44	
	13542 Mar 24 14:51	30°♄		evening set	13548 Mar 29 13:48	27°♄14'15	
opposition	13542 Apr 09 23:18	27°♄52'06	-0°12'41				
min. Earth dist.	13542 Apr 09 09:25	27°♄56'47	3.89402 AU	conjunction	13548 Apr 11 14:14	0°♄00'47	0°07'25
direct	13542 Jun 07 02:29	22°♄56'58		minimum elong	13548 Apr 11 14:14	0°♄00'48	0°06'59
	13542 Aug 14 00:40	0°♄		behind sun begin	13548 Apr 11 06:49	29°♄56'51	
asc. node	13542 Sep 01 21:45	3°♄47'25		behind sun end	13548 Apr 11 21:40	0°♄04'44	
evening set	13542 Oct 12 14:01	13°♄11'48		max. Earth dist.	13548 Apr 10 15:58	29°♄48'53	6.51042 AU
	13542 Oct 20 00:05	15°♄			13548 Apr 11 12:43	0°♄	
				morning rise	13548 Apr 24 13:06	2°♄46'34	
conjunction	13542 Oct 26 01:46	16°♄28'46	0°03'04		13548 Jun 28 16:15	15°♄	
minimum elong	13542 Oct 26 01:44	16°♄28'46	0°03'45	retrograde	13548 Aug 23 08:23	19°♄22'50	
behind sun begin	13542 Oct 25 17:28	16°♄23'44		desc. node	13548 Sep 14 03:31	18°♄38'55	
behind sun end	13542 Oct 26 10:01	16°♄33'47			13548 Oct 19 08:46	15°♄	
max. Earth dist.	13542 Oct 27 16:50	16°♄52'35	5.91168 AU	opposition	13548 Oct 23 11:26	14°♄28'29	-0°02'50
morning rise	13542 Nov 08 15:13	19°♄46'35		min. Earth dist.	13548 Oct 24 11:12	14°♄20'52	4.49417 AU
	13542 Dec 23 10:16	0°♄		direct	13548 Dec 25 00:41	9°♄27'37	



	13549 Feb 27 06:37	15°♄			13554 Oct 03 03:35	15°♍	
evening set	13549 Apr 28 16:45	26°♄38'56		evening set	13554 Oct 17 20:53	18°♍31'09	
max. Earth dist.	13549 May 09 18:16	29°♄02'24	6.45610 AU				
				conjunction	13554 Oct 31 08:56	21°♍47'49	0°06'16
conjunction	13549 May 11 14:22	29°♄26'18	-0°11'07	minimum elong	13554 Oct 31 08:55	21°♍47'48	0°07'01
minimum elong	13549 May 11 14:21	29°♄26'18	0°11'57	behind sun begin	13554 Oct 31 01:12	21°♍43'08	
behind sun begin	13549 May 11 08:50	29°♄23'19		behind sun end	13554 Oct 31 16:38	21°♍52'29	
behind sun end	13549 May 11 19:53	29°♄29'17		max. Earth dist.	13554 Nov 02 02:11	22°♍12'52	5.92181 AU
	13549 May 14 04:28	0°♂		morning rise	13554 Nov 13 23:00	25°♍05'19	
morning rise	13549 May 24 10:19	2°♂13'06			13554 Dec 04 17:31	0°♄	
retrograde	13549 Sep 23 05:06	19°♂13'33		retrograde	13555 Mar 24 19:28	15°♄36'32	
opposition	13549 Nov 23 05:42	14°♂19'57	-0°28'55	min. Earth dist.	13555 May 21 17:54	10°♄45'27	3.97326 AU
min. Earth dist.	13549 Nov 24 17:31	14°♂08'29	4.39912 AU	opposition	13555 May 23 05:12	10°♄33'28	0°26'20
direct	13550 Jan 24 10:29	9°♂19'26		direct	13555 Jul 20 11:24	5°♄37'03	
evening set	13550 May 29 12:32	27°♂02'46		evening set	13555 Nov 24 14:42	25°♄13'43	
max. Earth dist.	13550 Jun 09 01:20	29°♂23'31	6.32625 AU				
				conjunction	13555 Dec 08 04:23	28°♄25'13	0°26'03
conjunction	13550 Jun 11 08:44	29°♂54'30	-0°27'02	minimum elong	13555 Dec 08 04:22	28°♄25'12	0°27'05
minimum elong	13550 Jun 11 08:44	29°♂54'30	0°28'05	max. Earth dist.	13555 Dec 10 15:53	29°♄00'15	6.04486 AU
	13550 Jun 11 18:34	0°♄			13555 Dec 14 21:29	0°♄	
morning rise	13550 Jun 24 03:59	2°♄46'05		morning rise	13555 Dec 21 19:01	1°♄36'53	
retrograde	13550 Oct 26 07:27	20°♄39'07		retrograde	13556 Apr 28 01:26	21°♄03'49	
opposition	13550 Dec 25 21:05	15°♄45'16	-0°48'19	min. Earth dist.	13556 Jun 25 06:34	16°♄13'14	4.12874 AU
min. Earth dist.	13550 Dec 27 13:16	15°♄32'17	4.24199 AU	opposition	13556 Jun 26 20:35	16°♄00'26	0°48'28
direct	13551 Feb 25 05:44	10°♄45'46		direct	13556 Aug 25 01:27	11°♄02'07	
evening set	13551 Jun 30 23:03	29°♄19'19		evening set	13556 Dec 29 11:02	29°♄43'41	
	13551 Jul 03 21:34	0°♂			13556 Dec 30 16:00	0°♄	
max. Earth dist.	13551 Jul 11 15:49	1°♂48'00	6.15365 AU				
				conjunction	13557 Jan 11 22:48	2°♄46'34	0°35'33
conjunction	13551 Jul 13 20:24	2°♂18'33	-0°35'35	minimum elong	13557 Jan 11 22:48	2°♄46'34	0°36'29
minimum elong	13551 Jul 13 20:23	2°♂18'33	0°36'31	max. Earth dist.	13557 Jan 14 04:57	3°♄17'11	6.21794 AU
morning rise	13551 Jul 26 17:49	5°♂18'10		morning rise	13557 Jan 25 10:34	5°♄49'04	
	13551 Sep 09 03:39	15°♂			13557 Mar 09 21:57	15°♄	
retrograde	13551 Nov 30 23:22	24°♂23'51		retrograde	13557 May 30 12:06	24°♄01'26	
opposition	13552 Jan 30 00:56	19°♂28'38	-0°53'32	opposition	13557 Jul 29 21:14	18°♄59'54	0°52'47
min. Earth dist.	13552 Jan 31 06:20	19°♂19'00	4.06678 AU	min. Earth dist.	13557 Jul 28 15:32	19°♄09'46	4.30329 AU
	13552 Mar 12 21:13	15°♂♂			13557 Sep 03 03:41	15°♂♂	
direct	13552 Mar 30 01:24	14°♂31'00		direct	13557 Sep 28 06:47	14°♄00'08	
	13552 Apr 16 07:02	15°♂			13557 Oct 23 17:25	15°♄	
	13552 Jul 17 15:12	0°♄			13558 Jan 23 11:08	0°♄	
evening set	13552 Aug 03 16:00	4°♄00'25		evening set	13558 Jan 31 22:38	1°♄49'49	
conjunction	13552 Aug 16 17:25	7°♄08'39	-0°32'24	conjunction	13558 Feb 14 06:43	4°♄44'23	0°33'19
minimum elong	13552 Aug 16 17:26	7°♄08'40	0°32'54	minimum elong	13558 Feb 14 06:44	4°♄44'23	0°33'51
max. Earth dist.	13552 Aug 15 12:04	6°♄50'58	5.99154 AU	max. Earth dist.	13558 Feb 15 14:45	5°♄01'53	6.38049 AU
morning rise	13552 Aug 29 19:55	10°♄17'46		morning rise	13558 Feb 27 13:47	7°♄38'13	
	13552 Dec 19 08:50	0°♄		retrograde	13558 Jun 30 02:17	24°♄51'10	
retrograde	13553 Jan 07 03:09	0°♄34'25		opposition	13558 Aug 29 21:15	19°♄52'33	0°41'30
	13553 Jan 25 18:56	30°♂♄		min. Earth dist.	13558 Aug 29 09:05	19°♄56'31	4.44224 AU
opposition	13553 Mar 07 14:25	25°♄36'51	-0°39'00	direct	13558 Oct 30 10:59	14°♄52'03	
min. Earth dist.	13553 Mar 07 23:02	25°♄33'59	3.93355 AU		13559 Feb 22 10:50	0°♄	
direct	13553 May 05 09:41	20°♄41'05		evening set	13559 Mar 04 10:47	2°♄06'32	
	13553 Jul 24 04:44	0°♄					
evening set	13553 Sep 09 15:27	10°♄50'28		conjunction	13559 Mar 17 14:38	4°♄55'19	0°21'48
				minimum elong	13559 Mar 17 14:39	4°♄55'20	0°21'49
conjunction	13553 Sep 22 22:48	14°♄05'49	-0°16'36	max. Earth dist.	13559 Mar 17 17:41	4°♄56'57	6.48639 AU
minimum elong	13553 Sep 22 22:49	14°♄05'50	0°16'27	morning rise	13559 Mar 30 17:02	7°♄43'17	
max. Earth dist.	13553 Sep 23 05:47	14°♄10'06	5.90089 AU	retrograde	13559 Jul 29 17:03	24°♄23'12	
morning rise	13553 Oct 06 07:54	17°♄22'16		opposition	13559 Sep 28 19:08	19°♄27'13	0°19'52
	13553 Dec 01 14:28	0°♍		min. Earth dist.	13559 Sep 29 02:14	19°♄24'56	4.50952 AU
retrograde	13554 Feb 15 01:47	8°♍14'29		direct	13559 Nov 30 02:36	14°♄26'24	
opposition	13554 Apr 15 07:18	3°♍13'54	-0°07'46		13560 Mar 26 19:35	0°♄	
min. Earth dist.	13554 Apr 14 14:01	3°♍19'44	3.89695 AU	evening set	13560 Apr 02 18:46	1°♄28'09	
	13554 May 11 12:33	30°♂♄					
direct	13554 Jun 12 08:18	28°♄18'45		conjunction	13560 Apr 15 18:51	4°♄14'30	0°04'52
asc. node	13554 Jul 11 00:07	29°♄41'41		minimum elong	13560 Apr 15 18:52	4°♄14'30	0°04'22
	13554 Jul 14 02:33	0°♍		behind sun begin	13560 Apr 15 10:59	4°♄10'19	

behind sun end	13560 Apr 16 02:44	4°8'18"41		max. Earth dist.	13565 Sep 28 10:43	19°20'48"	5.89391 AU
max. Earth dist.	13560 Apr 14 19:12	4°8'01"52	6.51050 AU	morning rise	13565 Oct 11 10:58	22°23'58"	
morning rise	13560 Apr 28 17:01	7°8'00"03			13565 Nov 12 03:03	0°0'00"	
	13560 Jun 07 09:59	15°8'		retrograde	13566 Feb 20 05:42	13°00'26"30	
desc. node	13560 Jul 27 21:01	22°8'12"23		opposition	13566 Apr 20 11:18	8°00'25"33	-0°02'59"
retrograde	13560 Aug 27 11:51	23°8'36"53		min. Earth dist.	13566 Apr 19 15:15	8°00'32"19	3.89621 AU
opposition	13560 Oct 27 16:22	18°8'42"41	-0°06'36"	asc. node	13566 May 23 03:16	4°00'35"44	
min. Earth dist.	13560 Oct 28 17:09	18°8'34"45	4.48959 AU	direct	13566 Jun 17 11:35	3°00'30"19	
	13560 Nov 29 12:03	15°8'8"			13566 Sep 15 10:47	15°0'00"	
direct	13560 Dec 29 05:06	13°8'41"53		evening set	13566 Oct 23 00:40	23°00'42"13	
	13561 Jan 28 02:59	15°8'					
	13561 Apr 28 15:40	0°0'00"		conjunction	13566 Nov 05 13:26	26°00'58"54	0°09'18"
evening set	13561 May 02 21:53	0°0'54"52		minimum elong	13566 Nov 05 13:25	26°00'58"54	0°10'07"
max. Earth dist.	13561 May 13 20:42	3°0'17"13	6.44708 AU	behind sun begin	13566 Nov 05 06:45	26°00'54"52	
				behind sun end	13566 Nov 05 20:06	27°00'02"56	
conjunction	13561 May 15 18:57	3°0'42"23	-0°13'33"	max. Earth dist.	13566 Nov 07 10:57	27°00'26"31	5.92752 AU
minimum elong	13561 May 15 18:57	3°0'42"22	0°14'26"		13566 Nov 18 00:42	0°0'00"	
behind sun begin	13561 May 15 15:18	3°0'40"24		morning rise	13566 Nov 19 03:49	0°0'16"19	
behind sun end	13561 May 15 22:36	3°0'44"21		retrograde	13567 Mar 29 20:58	20°0'43"27	
morning rise	13561 May 28 14:41	6°0'29"24		min. Earth dist.	13567 May 26 17:58	15°0'52"24	3.98460 AU
retrograde	13561 Sep 27 15:02	23°0'33"42		opposition	13567 May 28 05:48	15°0'40"15	0°30'16"
opposition	13561 Nov 27 14:11	18°0'40"06	-0°32'05"	direct	13567 Jul 25 13:50	10°0'43"39	
min. Earth dist.	13561 Nov 29 03:56	18°0'28"00	4.38603 AU		13567 Nov 28 13:01	0°0'00"	
direct	13562 Jan 28 18:44	13°0'39"38		evening set	13567 Nov 29 16:27	0°0'31"00	
	13562 May 27 06:41	0°0'00"					
evening set	13562 Jun 02 19:54	1°0'26"56		conjunction	13567 Dec 13 06:09	3°0'32"648	0°28'01"
max. Earth dist.	13562 Jun 13 07:29	3°0'47"32	6.30990 AU	minimum elong	13567 Dec 13 06:09	3°0'32"647	0°29'03"
				max. Earth dist.	13567 Dec 15 18:58	4°0'30"227	6.06063 AU
conjunction	13562 Jun 15 16:04	4°0'51"17	-0°28'42"	morning rise	13567 Dec 26 20:47	6°0'37"42	
minimum elong	13562 Jun 15 16:04	4°0'51"17	0°29'45"	retrograde	13568 May 02 16:57	25°0'35"636	
morning rise	13562 Jun 28 11:21	7°0'51"31		min. Earth dist.	13568 Jun 29 23:40	21°0'30"625	4.14736 AU
retrograde	13562 Oct 30 21:13	25°0'51"32		opposition	13568 Jul 01 14:25	20°0'35"322	0°50'05"
opposition	13562 Dec 30 11:12	20°0'51"728	-0°49'56"	direct	13568 Aug 29 21:26	15°0'35"451	
min. Earth dist.	13563 Jan 01 02:07	20°0'04"53	4.22339 AU		13568 Dec 13 19:34	0°0'00"	
direct	13563 Mar 01 15:43	15°0'51"808		evening set	13569 Jan 03 07:09	4°0'30"37	
	13563 Jun 18 01:51	0°0'00"					
evening set	13563 Jul 05 11:22	3°0'57"26		conjunction	13569 Jan 16 18:32	7°0'32"29	0°35'51"
max. Earth dist.	13563 Jul 16 06:31	6°0'52"809	6.13418 AU	minimum elong	13569 Jan 16 18:32	7°0'32"29	0°36'44"
				max. Earth dist.	13569 Jan 18 22:23	8°0'30"140	6.23788 AU
conjunction	13563 Jul 18 08:59	6°0'57"37	-0°35'52"	morning rise	13569 Jan 30 05:49	10°0'33"54	
minimum elong	13563 Jul 18 08:59	6°0'57"37	0°36'46"		13569 Feb 19 12:20	15°0'00"	
morning rise	13563 Jul 31 06:47	9°0'58"15		retrograde	13569 Jun 03 23:17	28°0'38"03	
	13563 Aug 22 08:51	15°0'00"		min. Earth dist.	13569 Aug 02 05:27	23°0'34"555	4.32268 AU
retrograde	13563 Dec 05 23:04	29°0'12"46		opposition	13569 Aug 03 08:51	23°0'36"50	0°51'57"
opposition	13564 Feb 03 22:04	24°0'17"17	-0°52'42"	direct	13569 Oct 02 23:24	18°0'36"56	
min. Earth dist.	13564 Feb 05 02:48	24°0'07"51	4.04784 AU		13570 Jan 06 04:20	0°0'00"	
direct	13564 Apr 03 20:01	19°0'19"51		evening set	13570 Feb 05 12:02	6°0'42"112	
	13564 Jun 30 08:24	0°0'00"					
evening set	13564 Aug 08 11:01	8°0'00"55'17		conjunction	13570 Feb 18 19:36	9°0'41"52	0°32'07"
max. Earth dist.	13564 Aug 20 10:43	11°0'00"48'38	5.97493 AU	minimum elong	13570 Feb 18 19:37	9°0'41"52	0°32'35"
				max. Earth dist.	13570 Feb 20 01:15	9°0'41"00	6.39781 AU
conjunction	13564 Aug 21 13:11	12°0'00"04'37	-0°30'56"	morning rise	13570 Mar 04 02:03	12°0'40"746	
minimum elong	13564 Aug 21 13:12	12°0'00"04'38	0°31'22"	retrograde	13570 Jul 04 06:30	29°0'41"37	
morning rise	13564 Sep 03 16:32	15°0'00"14'54		opposition	13570 Sep 03 03:59	24°0'41"617	0°38'52"
	13564 Nov 11 17:52	0°0'00"		min. Earth dist.	13570 Sep 02 17:14	24°0'41"947	4.45619 AU
retrograde	13565 Jan 12 06:56	5°0'00"38'58		direct	13570 Nov 03 20:12	19°0'41"541	
opposition	13565 Mar 12 16:53	0°0'00"41'05	-0°35'34"		13571 Feb 05 07:05	0°0'00"	
min. Earth dist.	13565 Mar 12 22:25	0°0'00"39'14	3.92116 AU	evening set	13571 Mar 08 19:01	6°0'00"26'46	
	13565 Mar 17 20:23	30°0'00"00'00					
direct	13565 May 10 07:40	25°0'00"00'45'29		conjunction	13571 Mar 21 22:19	9°0'00"14'58	0°19'36"
	13565 Jul 01 00:11	0°0'00"		minimum elong	13571 Mar 21 22:20	9°0'00"14'58	0°19'32"
evening set	13565 Sep 14 16:47	15°0'00"58'40		max. Earth dist.	13571 Mar 21 22:26	9°0'00"15'01	6.49585 AU
				morning rise	13571 Apr 03 23:57	12°0'00"02'17	
conjunction	13565 Sep 28 00:50	19°0'00"14'44	-0°13'45"	retrograde	13571 Aug 02 20:41	28°0'00"00'39'27	
minimum elong	13565 Sep 28 00:50	19°0'00"14'45	0°13'30"	opposition	13571 Oct 02 23:51	23°0'00"43'45	0°16'14"
behind sun begin	13565 Sep 27 20:12	19°0'00"11'54		min. Earth dist.	13571 Oct 03 09:41	23°0'00"40'36	4.51362 AU
behind sun end	13565 Sep 28 05:29	19°0'00"17'35		direct	13571 Dec 04 09:52	18°0'00"42'55	

	13572 Mar 10 02:28	0°♄		behind sun begin	13577 Oct 03 03:36	24°♄37'30	
evening set	13572 Apr 07 00:27	5°♄44'10		behind sun end	13577 Oct 03 16:47	24°♄45'34	
				max. Earth dist.	13577 Oct 04 02:57	24°♄51'49	5.88935 AU
conjunction	13572 Apr 19 23:53	8°♄30'21 0°02'13		morning rise	13577 Oct 16 21:00	27°♄59'19	
minimum elong	13572 Apr 19 23:53	8°♄30'21 0°01'40			13577 Oct 25 04:15	0°♄	
behind sun begin	13572 Apr 19 15:52	8°♄26'05			13578 Jan 06 14:49	15°♄	
behind sun end	13572 Apr 20 07:55	8°♄34'38		retrograde	13578 Feb 25 17:33	18°♄54'23	
max. Earth dist.	13572 Apr 18 19:25	8°♄15'07 6.50861 AU		asc. node	13578 Apr 03 03:15	16°♄46'14	
morning rise	13572 May 02 21:44	11°♄15'50			13578 Apr 17 13:59	15°♄♄	
	13572 May 20 18:23	15°♄		opposition	13578 Apr 25 21:31	13°♄53'02 0°02'06	
desc. node	13572 Jun 06 17:02	18°♄21'12		min. Earth dist.	13578 Apr 24 23:03	14°♄00'39 3.90024 AU	
retrograde	13572 Aug 31 18:25	27°♄54'02		direct	13578 Jun 22 21:51	8°♄57'43	
opposition	13572 Oct 31 22:28	22°♄59'55 -0°10'24			13578 Aug 24 08:05	15°♄	
min. Earth dist.	13572 Nov 02 01:48	22°♄51'10 4.48163 AU		evening set	13578 Oct 28 10:24	29°♄06'47	
direct	13573 Jan 02 11:41	17°♄59'05			13578 Nov 01 02:44	0°♄♄	
	13573 Apr 12 04:22	0°♄♄					
evening set	13573 May 07 03:54	5°♄14'53		conjunction	13578 Nov 10 23:29	2°♄♄23'03 0°12'26	
max. Earth dist.	13573 May 18 01:06	7°♄36'46 6.43345 AU		minimum elong	13578 Nov 10 23:28	2°♄♄23'03 0°13'19	
				behind sun begin	13578 Nov 10 18:43	2°♄♄20'12	
conjunction	13573 May 20 00:52	8°♄02'49 -0°15'58		behind sun end	13578 Nov 11 04:13	2°♄♄25'55	
minimum elong	13573 May 20 00:52	8°♄02'49 0°16'54		max. Earth dist.	13578 Nov 13 00:47	2°♄♄52'51 5.93965 AU	
morning rise	13573 Jun 01 20:14	10°♄50'15		morning rise	13578 Nov 24 14:17	5°♄♄40'00	
retrograde	13573 Oct 02 01:34	28°♄00'12		retrograde	13579 Apr 03 22:39	25°♄♄59'38	
opposition	13573 Dec 02 00:59	23°♄06'34 -0°35'12		min. Earth dist.	13579 May 31 19:26	21°♄♄09'15 4.00364 AU	
min. Earth dist.	13573 Dec 03 15:06	22°♄54'21 4.36743 AU		opposition	13579 Jun 02 09:45	20°♄♄56'15 0°34'08	
direct	13574 Feb 02 02:39	18°♄06'13		direct	13579 Jul 30 18:57	15°♄♄59'23	
	13574 May 10 13:23	0°♄♄			13579 Nov 11 02:33	0°♄♄	
evening set	13574 Jun 07 06:13	5°♄♄59'27		evening set	13579 Dec 04 21:00	5°♄♄24'18	
max. Earth dist.	13574 Jun 17 17:07	8°♄♄20'24 6.28755 AU					
				conjunction	13579 Dec 18 10:28	8°♄♄33'53 0°29'51	
conjunction	13574 Jun 20 02:18	8°♄♄52'40 -0°30'17		minimum elong	13579 Dec 18 10:27	8°♄♄33'53 0°30'55	
minimum elong	13574 Jun 20 02:17	8°♄♄52'40 0°31'19		max. Earth dist.	13579 Dec 20 22:48	9°♄♄09'04 6.08470 AU	
morning rise	13574 Jul 02 21:46	11°♄♄45'52		morning rise	13580 Jan 01 00:47	11°♄♄43'30	
retrograde	13574 Nov 04 18:19	29°♄♄55'12			13580 Apr 14 10:21	0°♄♄	
opposition	13575 Jan 04 05:45	25°♄♄01'00 -0°51'21		retrograde	13580 May 07 10:30	0°♄♄51'16	
min. Earth dist.	13575 Jan 05 20:59	24°♄♄48'16 4.19862 AU			13580 May 30 07:01	30°♄♄♄	
direct	13575 Mar 06 07:38	20°♄♄01'49		min. Earth dist.	13580 Jul 04 20:04	26°♄♄00'42 4.17385 AU	
	13575 May 31 04:11	0°♄♄		opposition	13580 Jul 06 09:27	25°♄♄48'08 0°51'24	
evening set	13575 Jul 10 04:41	8°♄♄49'06		direct	13580 Sep 03 21:59	20°♄♄49'19	
max. Earth dist.	13575 Jul 21 02:02	11°♄♄21'55 6.10915 AU			13580 Nov 25 03:33	0°♄♄	
				evening set	13581 Jan 08 02:55	9°♄♄16'25	
conjunction	13575 Jul 23 02:52	11°♄♄50'34 -0°35'56					
minimum elong	13575 Jul 23 02:52	11°♄♄50'34 0°36'47		conjunction	13581 Jan 21 13:53	12°♄♄16'56 0°35'59	
morning rise	13575 Aug 05 01:16	14°♄♄52'33		minimum elong	13581 Jan 21 13:53	12°♄♄16'56 0°36'49	
	13575 Aug 05 14:02	15°♄♄		max. Earth dist.	13581 Jan 23 16:53	12°♄♄45'28 6.26457 AU	
	13575 Oct 18 14:01	0°♄♄			13581 Feb 02 17:55	15°♄♄	
retrograde	13575 Dec 11 04:00	4°♄♄17'53		morning rise	13581 Feb 04 00:22	15°♄♄16'54	
	13576 Feb 04 05:55	30°♄♄♄			13581 Apr 23 05:14	0°♄♄♄	
opposition	13576 Feb 09 01:19	29°♄♄22'09 -0°51'29		retrograde	13581 Jun 08 06:30	3°♄♄♄10'44	
min. Earth dist.	13576 Feb 10 03:06	29°♄♄13'40 4.02487 AU			13581 Jul 24 13:57	30°♄♄♄	
direct	13576 Apr 08 17:37	24°♄♄24'58		opposition	13581 Aug 07 19:09	28°♄♄09'53 0°50'52	
	13576 Jun 08 11:56	0°♄♄		min. Earth dist.	13581 Aug 06 16:47	28°♄♄18'35 4.34740 AU	
evening set	13576 Aug 13 12:53	14°♄♄07'48		direct	13581 Oct 07 13:17	23°♄♄09'50	
					13581 Dec 17 15:25	0°♄♄♄	
conjunction	13576 Aug 26 15:45	17°♄♄18'23 -0°29'09		evening set	13582 Feb 09 23:43	10°♄♄47'13	
minimum elong	13576 Aug 26 15:46	17°♄♄18'23 0°29'30					
max. Earth dist.	13576 Aug 25 16:55	17°♄♄04'31 5.95620 AU		conjunction	13582 Feb 23 06:30	13°♄♄39'46 0°30'47	
morning rise	13576 Sep 08 20:10	20°♄♄29'59		minimum elong	13582 Feb 23 06:31	13°♄♄39'46 0°31'11	
	13576 Oct 20 05:15	0°♄♄		max. Earth dist.	13582 Feb 24 07:08	13°♄♄53'07 6.41870 AU	
retrograde	13577 Jan 17 17:36	11°♄♄02'08		morning rise	13582 Mar 08 12:15	16°♄♄31'33	
opposition	13577 Mar 18 02:43	6°♄♄03'48 -0°31'37			13582 May 20 05:09	0°♄♄	
min. Earth dist.	13577 Mar 18 04:40	6°♄♄03'08 3.90874 AU		retrograde	13582 Jul 08 10:47	3°♄♄31'34	
direct	13577 May 15 14:25	1°♄♄08'18			13582 Aug 27 02:52	30°♄♄♄	
evening set	13577 Sep 20 01:08	21°♄♄24'47		opposition	13582 Sep 07 08:43	28°♄♄33'39 0°36'07	
				min. Earth dist.	13582 Sep 07 01:48	28°♄♄35'54 4.47185 AU	
conjunction	13577 Oct 03 10:11	24°♄♄41'31 -0°10'37		direct	13582 Nov 08 05:29	23°♄♄32'57	
minimum elong	13577 Oct 03 10:11	24°♄♄41'32 0°10'16			13583 Jan 17 00:19	0°♄♄	

evening set	13583 Mar 13 00:46	10° $\Upsilon$ 40'24			13588 Mar 30 00:03	30° $\kappa$ $\Omega$
			direct		13588 Apr 13 19:41	29° $\Omega$ 38'04
conjunction	13583 Mar 26 03:29	13° $\Upsilon$ 28'00 0°17'22			13588 Apr 28 14:37	0° $\eta$
minimum elong	13583 Mar 26 03:30	13° $\Upsilon$ 28'01 0°17'13	evening set		13588 Aug 18 18:07	19° $\eta$ 28'50
max. Earth dist.	13583 Mar 25 23:06	13° $\Upsilon$ 25'40 6.50506 AU				
morning rise	13583 Apr 08 04:32	16° $\Upsilon$ 14'46	conjunction		13588 Aug 31 22:03	22° $\eta$ 40'45 -0°27'07
	13583 Jun 23 22:21	0° $\delta$	minimum elong		13588 Aug 31 22:04	22° $\eta$ 40'45 0°27'22
retrograde	13583 Aug 06 22:08	2° $\delta$ 49'42	max. Earth dist.		13588 Aug 31 05:59	22° $\eta$ 30'58 5.93796 AU
	13583 Sep 20 05:30	30° $\kappa$ $\Upsilon$	morning rise		13588 Sep 14 03:18	25° $\eta$ 53'40
opposition	13583 Oct 07 02:41	27° $\Upsilon$ 54'15 0°12'37			13588 Oct 01 08:07	0° $\underline{\alpha}$
min. Earth dist.	13583 Oct 07 14:56	27° $\Upsilon$ 50'19 4.51595 AU	retrograde		13589 Jan 23 08:35	16° $\underline{\alpha}$ 33'14
direct	13583 Dec 08 13:29	22° $\Upsilon$ 53'22	opposition		13589 Mar 23 15:25	11° $\underline{\alpha}$ 34'31 -0°27'20
	13584 Feb 20 15:09	0° $\delta$	min. Earth dist.		13589 Mar 23 13:51	11° $\underline{\alpha}$ 35'03 3.89904 AU
evening set	13584 Apr 11 03:58	9° $\delta$ 54'51	direct		13589 May 21 00:10	6° $\underline{\alpha}$ 39'15
desc. node	13584 Apr 14 23:42	10° $\delta$ 43'41	evening set		13589 Sep 25 12:26	26° $\underline{\alpha}$ 57'43
max. Earth dist.	13584 Apr 22 20:01	12° $\delta$ 24'26 6.50379 AU			13589 Oct 07 21:58	0° $\mathbb{M}$
conjunction	13584 Apr 24 03:04	12° $\delta$ 41'04 -0°00'27	conjunction		13589 Oct 08 22:07	0° $\mathbb{M}$ 14'49 -0°07'22
minimum elong	13584 Apr 24 03:03	12° $\delta$ 41'03 0°01'04	minimum elong		13589 Oct 08 22:08	0° $\mathbb{M}$ 14'50 0°06'57
behind sun begin	13584 Apr 23 19:02	12° $\delta$ 36'47	behind sun begin		13589 Oct 08 14:25	0° $\mathbb{M}$ 10'07
behind sun end	13584 Apr 24 11:03	12° $\delta$ 45'19	behind sun end		13589 Oct 09 05:52	0° $\mathbb{M}$ 19'33
	13584 May 04 22:31	15° $\delta$	max. Earth dist.		13589 Oct 09 20:02	0° $\mathbb{M}$ 28'16 5.88907 AU
morning rise	13584 May 07 00:18	15° $\delta$ 26'31	morning rise		13589 Oct 22 09:54	3° $\mathbb{M}$ 33'01
	13584 Jul 29 02:35	0° $\Pi$			13589 Dec 11 17:19	15° $\mathbb{M}$
retrograde	13584 Sep 04 23:28	2° $\Pi$ 07'20	asc. node		13590 Feb 12 08:03	23° $\mathbb{M}$ 50'53
	13584 Oct 12 23:34	30° $\kappa$ $\delta$	retrograde		13590 Mar 03 03:17	24° $\mathbb{M}$ 26'12
opposition	13584 Nov 05 03:29	27° $\delta$ 13'25 -0°14'06	min. Earth dist.		13590 Apr 30 05:57	19° $\mathbb{M}$ 33'29 3.90957 AU
min. Earth dist.	13584 Nov 06 09:18	27° $\delta$ 03'53 4.46987 AU	opposition		13590 May 01 08:40	19° $\mathbb{M}$ 24'26 0°07'11
direct	13585 Jan 06 16:26	22° $\delta$ 12'38			13590 Jun 11 01:07	15° $\kappa$ $\mathbb{M}$
	13585 Mar 25 01:44	0° $\Pi$	direct		13590 Jun 28 08:14	14° $\mathbb{M}$ 28'58
evening set	13585 May 11 09:27	9° $\Pi$ 32'41			13590 Jul 15 17:39	15° $\mathbb{M}$
max. Earth dist.	13585 May 22 02:22	11° $\Pi$ 52'53 6.41534 AU			13590 Oct 14 13:32	0° $\mathcal{A}$
conjunction	13585 May 24 06:02	12° $\Pi$ 21'11 -0°18'18	evening set		13590 Nov 02 20:35	4° $\mathcal{A}$ 33'01
minimum elong	13585 May 24 06:01	12° $\Pi$ 21'11 0°19'16	conjunction		13590 Nov 16 09:52	7° $\mathcal{A}$ 48'32 0°15'28
morning rise	13585 Jun 06 01:25	15° $\Pi$ 09'18	minimum elong		13590 Nov 16 09:51	7° $\mathcal{A}$ 48'31 0°16'23
	13585 Aug 27 01:29	0° $\mathfrak{E}$	max. Earth dist.		13590 Nov 18 13:52	8° $\mathcal{A}$ 19'50 5.95730 AU
retrograde	13585 Oct 06 14:53	2° $\mathfrak{E}$ 26'39	morning rise		13590 Nov 30 00:48	11° $\mathcal{A}$ 04'38
	13585 Nov 16 11:00	30° $\kappa$ $\Pi$			13591 Mar 12 08:27	0° $\mathfrak{Z}$
opposition	13585 Dec 06 12:09	27° $\Pi$ 33'02 -0°38'09	retrograde		13591 Apr 09 00:05	1° $\mathfrak{Z}$ 14'39
min. Earth dist.	13585 Dec 08 03:45	27° $\Pi$ 20'18 4.34392 AU			13591 May 06 12:23	30° $\kappa$ $\mathcal{A}$
direct	13586 Feb 06 11:32	22° $\Pi$ 32'45	min. Earth dist.		13591 Jun 05 22:27	26° $\mathcal{A}$ 24'09 4.02715 AU
	13586 Apr 21 17:06	0° $\mathfrak{E}$	opposition		13591 Jun 07 12:57	26° $\mathcal{A}$ 11'06 0°37'39
evening set	13586 Jun 11 17:15	10° $\mathfrak{E}$ 33'48	direct		13591 Aug 05 02:42	21° $\mathcal{A}$ 13'55
max. Earth dist.	13586 Jun 22 04:44	12° $\mathfrak{E}$ 55'55 6.26043 AU			13591 Oct 22 13:47	0° $\mathfrak{Z}$
conjunction	13586 Jun 24 13:40	13° $\mathfrak{E}$ 28'13 -0°31'42	evening set		13591 Dec 10 00:03	10° $\mathfrak{Z}$ 29'57
minimum elong	13586 Jun 24 13:39	13° $\mathfrak{E}$ 28'12 0°32'44	conjunction		13591 Dec 23 13:23	13° $\mathfrak{Z}$ 38'12 0°31'27
morning rise	13586 Jul 07 09:19	16° $\mathfrak{E}$ 22'38	minimum elong		13591 Dec 23 13:23	13° $\mathfrak{Z}$ 38'11 0°32'30
	13586 Sep 13 18:03	0° $\Omega$	max. Earth dist.		13591 Dec 26 02:51	14° $\mathfrak{Z}$ 13'48 6.11169 AU
retrograde	13586 Nov 09 16:37	4° $\Omega$ 43'13	morning rise		13592 Jan 06 03:09	16° $\mathfrak{Z}$ 46'20
	13587 Jan 07 16:09	30° $\kappa$ $\mathfrak{E}$			13592 Mar 10 12:38	0° $\approx$
opposition	13587 Jan 09 02:16	29° $\mathfrak{E}$ 48'56 -0°52'30	retrograde		13592 May 12 01:21	5° $\approx$ 42'13
min. Earth dist.	13587 Jan 10 16:15	29° $\mathfrak{E}$ 36'36 4.16989 AU	min. Earth dist.		13592 Jul 09 13:34	0° $\approx$ 51'41 4.20159 AU
direct	13587 Mar 10 22:40	24° $\mathfrak{E}$ 50'04	opposition		13592 Jul 11 02:24	0° $\approx$ 39'21 0°52'20
	13587 May 09 07:00	0° $\Omega$			13592 Jul 16 00:19	30° $\kappa$ $\mathfrak{Z}$
evening set	13587 Jul 15 00:32	13° $\Omega$ 46'55	direct		13592 Sep 08 18:53	25° $\mathfrak{Z}$ 40'20
	13587 Jul 20 05:01	15° $\Omega$			13592 Nov 01 23:49	0° $\approx$
max. Earth dist.	13587 Jul 26 00:27	16° $\Omega$ 22'15 6.08129 AU	evening set		13593 Jan 12 21:07	13° $\approx$ 58'50
conjunction	13587 Jul 27 23:09	16° $\Omega$ 49'51 -0°35'47			13593 Jan 17 11:23	15° $\approx$
minimum elong	13587 Jul 27 23:10	16° $\Omega$ 49'51 0°36'34	conjunction		13593 Jan 26 07:21	16° $\approx$ 57'59 0°35'51
morning rise	13587 Aug 09 22:25	19° $\Omega$ 53'25	minimum elong		13593 Jan 26 07:21	16° $\approx$ 57'59 0°36'38
	13587 Sep 24 13:46	0° $\eta$	max. Earth dist.		13593 Jan 28 05:40	17° $\approx$ 23'46 6.29072 AU
retrograde	13587 Dec 16 13:24	9° $\eta$ 30'59	morning rise		13593 Feb 08 17:19	19° $\approx$ 56'36
opposition	13588 Feb 14 07:57	4° $\eta$ 34'56 -0°49'52			13593 Mar 29 18:07	0° $\mathcal{H}$
min. Earth dist.	13588 Feb 15 06:43	4° $\eta$ 27'25 4.00046 AU	retrograde		13593 Jun 12 14:39	7° $\mathcal{H}$ 40'50

min. Earth dist.	13593 Aug 11 05:08	2° $\text{H}$ 47'58	4.37003 AU	minimum elong	13598 Jun 29 03:54	18° $\text{S}$ 11'23	0°33'59
opposition	13593 Aug 12 04:11	2° $\text{H}$ 40'22	0°49'29	morning rise	13598 Jul 12 00:04	21° $\text{S}$ 07'05	
	13593 Sep 02 15:46	30° $\text{R}$ $\approx$			13598 Aug 22 04:07	0° $\text{Q}$	
direct	13593 Oct 12 03:05	27° $\approx$ 40'08		retrograde	13598 Nov 14 19:06	9° $\text{Q}$ 38'51	
	13593 Nov 20 21:34	0° $\text{H}$		opposition	13599 Jan 14 02:11	4° $\text{Q}$ 44'23	-0°53'18
evening set	13594 Feb 14 09:58	15° $\text{H}$ 11'34		min. Earth dist.	13599 Jan 15 14:21	4° $\text{Q}$ 32'36	4.14302 AU
					13599 Mar 03 15:22	30° $\text{R}$ $\text{S}$	
conjunction	13594 Feb 27 16:20	18° $\text{H}$ 03'13	0°29'17	direct	13599 Mar 15 18:03	29° $\text{S}$ 45'47	
minimum elong	13594 Feb 27 16:21	18° $\text{H}$ 03'13	0°29'35		13599 Mar 27 20:36	0° $\text{Q}$	
max. Earth dist.	13594 Feb 28 13:59	18° $\text{H}$ 14'54	6.43629 AU		13599 Jul 03 08:04	15° $\text{Q}$	
morning rise	13594 Mar 12 21:16	20° $\text{H}$ 54'02		evening set	13599 Jul 19 23:10	18° $\text{Q}$ 51'18	
	13594 Apr 27 05:24	0° $\text{Y}$		max. Earth dist.	13599 Jul 31 04:50	21° $\text{Q}$ 30'50	6.05710 AU
retrograde	13594 Jul 12 13:11	7° $\text{Y}$ 48'35					
opposition	13594 Sep 11 13:11	2° $\text{Y}$ 51'02	0°33'10	conjunction	13599 Aug 01 22:34	21° $\text{Q}$ 55'37	-0°35'21
min. Earth dist.	13594 Sep 11 08:20	2° $\text{Y}$ 52'36	4.48347 AU	minimum elong	13599 Aug 01 22:35	21° $\text{Q}$ 55'38	0°36'04
	13594 Oct 05 00:20	30° $\text{R}$ $\text{H}$		morning rise	13599 Aug 14 22:25	25° $\text{Q}$ 00'34	
direct	13594 Nov 12 11:38	27° $\text{H}$ 50'17			13599 Sep 05 11:11	0° $\text{H}$	
	13594 Dec 21 07:00	0° $\text{Y}$		retrograde	13599 Dec 22 00:24	14° $\text{H}$ 48'32	
evening set	13595 Mar 17 06:44	14° $\text{Y}$ 55'22		opposition	13600 Feb 19 16:35	9° $\text{H}$ 52'12	-0°47'48
				min. Earth dist.	13600 Feb 20 12:15	9° $\text{H}$ 45'42	3.98169 AU
conjunction	13595 Mar 30 08:49	17° $\text{Y}$ 42'33	0°15'01	direct	13600 Apr 18 23:32	4° $\text{H}$ 55'43	
minimum elong	13595 Mar 30 08:50	17° $\text{Y}$ 42'33	0°14'48	evening set	13600 Aug 24 00:39	24° $\text{H}$ 51'54	
behind sun begin	13595 Mar 30 05:43	17° $\text{Y}$ 40'55					
behind sun end	13595 Mar 30 11:56	17° $\text{Y}$ 44'12		conjunction	13600 Sep 06 05:16	28° $\text{H}$ 04'43	-0°24'52
max. Earth dist.	13595 Mar 29 23:39	17° $\text{Y}$ 37'40	6.50997 AU	minimum elong	13600 Sep 06 05:17	28° $\text{H}$ 04'44	0°25'00
morning rise	13595 Apr 12 09:18	20° $\text{Y}$ 28'55		max. Earth dist.	13600 Sep 05 17:46	27° $\text{H}$ 57'43	5.92654 AU
	13595 May 30 17:33	0° $\text{S}$			13600 Sep 14 02:14	0° $\text{S}$	
retrograde	13595 Aug 11 02:47	7° $\text{S}$ 02'57		morning rise	13600 Sep 19 11:37	1° $\text{S}$ 18'39	
opposition	13595 Oct 11 06:42	2° $\text{S}$ 07'48	0°08'53	retrograde	13601 Jan 28 20:18	22° $\text{S}$ 02'27	
min. Earth dist.	13595 Oct 11 22:40	2° $\text{S}$ 02'41	4.51393 AU	opposition	13601 Mar 29 03:31	17° $\text{S}$ 03'16	-0°22'51
	13595 Oct 28 10:31	30° $\text{R}$ $\text{Y}$		min. Earth dist.	13601 Mar 28 20:49	17° $\text{S}$ 05'31	3.89664 AU
direct	13595 Dec 12 19:34	27° $\text{Y}$ 06'52		direct	13601 May 26 09:36	12° $\text{S}$ 08'06	
	13596 Jan 27 02:59	0° $\text{S}$			13601 Sep 20 21:23	0° $\text{M}$	
desc. node	13596 Feb 20 00:21	3° $\text{S}$ 25'22		evening set	13601 Sep 30 22:11	2° $\text{M}$ 25'33	
evening set	13596 Apr 15 09:04	14° $\text{S}$ 09'49					
	13596 Apr 19 07:06	15° $\text{S}$		conjunction	13601 Oct 14 08:30	5° $\text{M}$ 42'38	-0°04'08
max. Earth dist.	13596 Apr 26 20:02	16° $\text{S}$ 37'01	6.49489 AU	minimum elong	13601 Oct 14 08:30	5° $\text{M}$ 42'38	0°03'36
				behind sun begin	13601 Oct 14 00:14	5° $\text{M}$ 37'35	
conjunction	13596 Apr 28 07:44	16° $\text{S}$ 56'11	-0°03'06	behind sun end	13601 Oct 14 16:46	5° $\text{M}$ 47'40	
minimum elong	13596 Apr 28 07:43	16° $\text{S}$ 56'11	0°03'48	max. Earth dist.	13601 Oct 15 11:57	5° $\text{M}$ 59'27	5.89593 AU
behind sun begin	13596 Apr 27 23:48	16° $\text{S}$ 51'57		morning rise	13601 Oct 27 20:46	9° $\text{M}$ 00'43	
behind sun end	13596 Apr 28 15:39	17° $\text{S}$ 00'24			13601 Nov 22 02:41	15° $\text{M}$	
morning rise	13596 May 11 04:44	19° $\text{S}$ 41'52		asc. node	13601 Dec 24 17:52	21° $\text{M}$ 55'02	
	13596 Jul 02 15:36	0° $\text{II}$					
retrograde	13596 Sep 09 07:21	6° $\text{II}$ 26'29					
opposition	13596 Nov 09 10:53	1° $\text{II}$ 32'37	-0°17'50				
min. Earth dist.	13596 Nov 10 18:12	1° $\text{II}$ 22'36	4.45464 AU				
	13596 Nov 21 17:10	30° $\text{R}$ $\text{S}$					
direct	13597 Jan 10 21:56	26° $\text{S}$ 31'48					
	13597 Mar 01 14:02	0° $\text{II}$					
evening set	13597 May 15 17:14	13° $\text{II}$ 56'59					
max. Earth dist.	13597 May 26 09:43	16° $\text{II}$ 17'33	6.39479 AU				
conjunction	13597 May 28 13:49	16° $\text{II}$ 46'14	-0°20'35				
minimum elong	13597 May 28 13:49	16° $\text{II}$ 46'13	0°21'34				
morning rise	13597 Jun 10 09:00	19° $\text{II}$ 35'05					
	13597 Jul 31 19:52	0° $\text{S}$					
retrograde	13597 Oct 11 06:49	7° $\text{S}$ 00'35					
opposition	13597 Dec 11 02:40	2° $\text{S}$ 06'58	-0°40'57				
min. Earth dist.	13597 Dec 12 18:54	1° $\text{S}$ 54'02	4.31931 AU				
	13597 Dec 28 02:11	30° $\text{R}$ $\text{II}$					
direct	13598 Feb 10 22:38	27° $\text{II}$ 06'52					
	13598 Mar 27 06:19	0° $\text{S}$					
evening set	13598 Jun 16 07:28	15° $\text{S}$ 15'51					
max. Earth dist.	13598 Jun 26 18:33	17° $\text{S}$ 38'39	6.23362 AU				
conjunction	13598 Jun 29 03:54	18° $\text{S}$ 11'24	-0°32'57				