

























































































































direct	16100 Feb 17 19:39	7°  53'55		opposition	16105 Jun 12 19:41	5°  31'56	0°22'45
evening set	16100 Jun 22 11:00	25°  16'17		min. Earth dist.	16105 Jun 11 18:08	5°  40'35	3.92220 AU
max. Earth dist.	16100 Jul 03 06:56	27°  38'24	6.40238 AU	direct	16105 Aug 10 00:19	0°  36'07	
				evening set	16105 Dec 15 14:50	20°  36'46	
conjunction	16100 Jul 05 08:24	28°  05'34	-0°24'44	conjunction	16105 Dec 29 03:19	23°  51'09	0°22'46
minimum elong	16100 Jul 05 08:23	28°  05'34	0°25'26	minimum elong	16105 Dec 29 03:18	23°  51'09	0°23'29
	16100 Jul 14 00:53	0°  0		max. Earth dist.	16105 Dec 31 06:43	24°  32'00	5.97232 AU
morning rise	16100 Jul 18 04:37	0°  54'32		morning rise	16106 Jan 11 16:55	27°  30'56	
	16100 Oct 01 15:08	15°  0			16106 Jan 24 00:43	0°  0	
retrograde	16100 Nov 18 05:11	18°  018'34			16106 Apr 14 17:46	15°  0	
	16101 Jan 05 09:26	15°  0		retrograde	16106 May 21 05:51	17°  07'09	
opposition	16101 Jan 17 23:48	13°  024'34	-0°42'46		16106 Jun 26 15:11	15°  0	
min. Earth dist.	16101 Jan 19 14:50	13°  012'00	4.32947 AU	min. Earth dist.	16106 Jul 18 06:16	12°  016'47	4.04286 AU
direct	16101 Mar 20 18:28	8°  024'19		opposition	16106 Jul 19 19:32	12°  004'12	0°42'43
	16101 May 28 22:17	15°  0		direct	16106 Sep 16 13:44	7°  006'59	
evening set	16101 Jul 24 01:14	26°  029'48			16106 Nov 29 14:54	15°  0	
max. Earth dist.	16101 Aug 03 14:09	28°  053'05	6.24591 AU	evening set	16107 Jan 21 10:17	26°  000'03	
conjunction	16101 Aug 05 22:50	29°  025'19	-0°31'24	conjunction	16107 Feb 03 22:03	29°  000'03	0°31'09
minimum elong	16101 Aug 05 22:51	29°  025'19	0°31'51	minimum elong	16107 Feb 03 22:03	29°  000'03	0°31'36
	16101 Aug 08 11:49	0°  0		max. Earth dist.	16107 Feb 06 08:29	29°  000'03	6.12654 AU
morning rise	16101 Aug 18 20:06	2°  020'58			16107 Feb 06 10:40	0°  0	
retrograde	16101 Dec 22 10:16	20°  020'58		morning rise	16107 Feb 17 10:25	2°  020'58	
opposition	16102 Feb 20 16:57	15°  020'58	-0°46'22	retrograde	16107 Jun 24 01:20	21°  020'58	
min. Earth dist.	16102 Feb 22 05:13	15°  020'58	4.15675 AU	min. Earth dist.	16107 Aug 21 18:14	16°  020'58	4.21442 AU
direct	16102 Apr 22 08:52	10°  020'58		opposition	16107 Aug 23 06:12	16°  020'58	0°46'01
evening set	16102 Aug 26 15:53	29°  020'58		direct	16107 Oct 22 01:43	11°  020'58	
	16102 Aug 26 22:40	0°  0		evening set	16108 Feb 24 23:16	29°  020'58	
max. Earth dist.	16102 Sep 06 20:15	2°  020'58	6.07110 AU		16108 Feb 26 22:04	0°  0	
conjunction	16102 Sep 08 16:20	3°  020'58	-0°28'22	conjunction	16108 Mar 09 08:25	2°  020'58	0°28'35
minimum elong	16102 Sep 08 16:20	3°  020'58	0°28'24	minimum elong	16108 Mar 09 08:26	2°  020'58	0°28'37
morning rise	16102 Sep 21 17:07	6°  020'58		max. Earth dist.	16108 Mar 11 06:10	2°  020'58	6.30078 AU
retrograde	16103 Jan 28 09:16	25°  020'58		morning rise	16108 Mar 22 17:06	5°  020'58	
opposition	16103 Mar 29 00:03	20°  020'58	-0°34'02	retrograde	16108 Jul 24 14:08	23°  020'58	
min. Earth dist.	16103 Mar 29 22:29	20°  020'58	3.99446 AU	min. Earth dist.	16108 Sep 22 08:18	18°  020'58	4.37671 AU
direct	16103 May 27 10:35	15°  020'58		opposition	16108 Sep 23 06:59	18°  020'58	0°34'46
	16103 Sep 07 04:17	0°  0		direct	16108 Nov 23 07:19	13°  020'58	
evening set	16103 Oct 01 15:30	5°  020'58			16109 Mar 25 04:13	0°  0	
				evening set	16109 Mar 28 07:20	0°  020'58	
conjunction	16103 Oct 14 20:38	8°  020'58	-0°14'51				
minimum elong	16103 Oct 14 20:39	8°  020'58	0°14'27	conjunction	16109 Apr 10 12:47	3°  020'58	0°17'38
behind sun begin	16103 Oct 14 16:52	8°  020'58		minimum elong	16109 Apr 10 12:48	3°  020'58	0°17'17
behind sun end	16103 Oct 15 00:25	9°  020'58		max. Earth dist.	16109 Apr 11 09:04	3°  020'58	6.43925 AU
max. Earth dist.	16103 Oct 14 04:35	8°  020'58	5.93681 AU	morning rise	16109 Apr 23 17:18	6°  020'58	
morning rise	16103 Oct 28 03:04	12°  020'58			16109 Jun 05 11:14	15°  020'58	
	16103 Nov 08 18:39	15°  020'58		retrograde	16109 Aug 23 14:28	23°  020'58	
	16104 Jan 24 18:45	0°  0		opposition	16109 Oct 23 16:47	18°  020'58	0°14'40
retrograde	16104 Mar 07 00:30	2°  020'58		min. Earth dist.	16109 Oct 23 12:05	18°  020'58	4.48280 AU
	16104 Apr 18 14:42	30°  020'58			16109 Nov 21 01:00	15°  020'58	
opposition	16104 May 05 06:11	27°  020'58	-0°07'25	direct	16109 Dec 24 14:28	13°  020'58	
min. Earth dist.	16104 May 05 03:28	27°  020'58	3.90313 AU		16110 Jan 27 10:52	15°  020'58	
direct	16104 Jul 02 15:28	22°  020'58		evening set	16110 Apr 26 05:33	0°  0	
asc. node	16104 Aug 10 06:00	25°  020'58			16110 Apr 28 02:06	0°  0	
	16104 Sep 08 23:13	0°  0		conjunction	16110 May 11 04:03	3°  020'58	0°02'17
evening set	16104 Nov 07 11:09	13°  020'58		minimum elong	16110 May 11 04:02	3°  020'58	0°01'40
				behind sun begin	16110 May 10 19:58	3°  020'58	
conjunction	16104 Nov 20 20:57	16°  020'58	0°05'06	behind sun end	16110 May 11 12:05	3°  020'58	
minimum elong	16104 Nov 20 20:58	16°  020'58	0°05'48	max. Earth dist.	16110 May 10 20:53	3°  020'58	6.50597 AU
behind sun begin	16104 Nov 20 13:00	16°  020'58		morning rise	16110 May 24 04:20	5°  020'58	
behind sun end	16104 Nov 21 04:55	16°  020'58		desc. node	16110 Jul 04 19:26	14°  020'58	
max. Earth dist.	16104 Nov 21 18:05	16°  020'58	5.89803 AU	retrograde	16110 Sep 22 06:03	22°  020'58	
morning rise	16104 Dec 04 08:33	19°  020'58		opposition	16110 Nov 22 12:12	17°  020'58	-0°08'38
	16105 Jan 17 18:05	0°  0					
retrograde	16105 Apr 14 14:13	10°  020'58					

min. Earth dist.	16110 Nov 23 02:23	17° $\Pi$ 35'19	4.50709 AU		16116 Jun 04 21:34	30° $\mathbb{R}\mathbb{M}$	
direct	16111 Jan 23 20:54	12° $\Pi$ 39'24		asc. node	16116 Jun 19 13:00	28° $\mathbb{M}$ 46'53	
evening set	16111 May 28 05:59	29° $\Pi$ 42'49		direct	16116 Jul 07 21:47	28° $\mathbb{M}$ 12'23	
	16111 May 29 14:10	0° $\mathfrak{E}$			16116 Aug 09 17:29	0° $\mathfrak{A}$	
max. Earth dist.	16111 Jun 08 18:52	2° $\mathfrak{E}$ 11'20	6.48583 AU	evening set	16116 Nov 12 16:41	18° $\mathfrak{A}$ 30'41	
conjunction	16111 Jun 10 04:47	2° $\mathfrak{E}$ 29'36	-0°13'37	conjunction	16116 Nov 26 03:11	21° $\mathfrak{A}$ 47'34	0°07'52
minimum elong	16111 Jun 10 04:46	2° $\mathfrak{E}$ 29'35	0°14'21	minimum elong	16116 Nov 26 03:10	21° $\mathfrak{A}$ 47'34	0°08'35
behind sun begin	16111 Jun 10 01:05	2° $\mathfrak{E}$ 27'37		behind sun begin	16116 Nov 25 19:55	21° $\mathfrak{A}$ 43'09	
behind sun end	16111 Jun 10 08:27	2° $\mathfrak{E}$ 31'34		behind sun end	16116 Nov 26 10:25	21° $\mathfrak{A}$ 51'59	
morning rise	16111 Jun 23 02:17	5° $\mathfrak{E}$ 15'50		max. Earth dist.	16116 Nov 27 06:15	22° $\mathfrak{A}$ 04'07	5.90190 AU
retrograde	16111 Oct 22 16:30	22° $\mathfrak{E}$ 05'55		morning rise	16116 Dec 09 15:07	25° $\mathfrak{A}$ 05'12	
opposition	16111 Dec 22 18:43	17° $\mathfrak{E}$ 11'41	-0°29'56		16116 Dec 30 06:06	0° $\mathfrak{B}$	
min. Earth dist.	16111 Dec 24 01:35	17° $\mathfrak{E}$ 01'47	4.44393 AU	retrograde	16117 Apr 19 19:06	15° $\mathfrak{B}$ 47'41	
direct	16112 Feb 23 02:22	12° $\mathfrak{E}$ 11'03		min. Earth dist.	16117 Jun 16 20:40	10° $\mathfrak{B}$ 55'22	3.93306 AU
evening set	16112 Jun 26 18:16	29° $\mathfrak{E}$ 38'28		opposition	16117 Jun 18 00:10	10° $\mathfrak{B}$ 46'04	0°26'22
	16112 Jun 28 09:40	0° $\mathcal{O}$		direct	16117 Aug 15 05:26	5° $\mathfrak{B}$ 50'10	
max. Earth dist.	16112 Jul 07 12:21	2° $\mathcal{O}$ 00'11	6.38328 AU	evening set	16117 Dec 20 18:28	25° $\mathfrak{B}$ 45'48	
conjunction	16112 Jul 09 15:37	2° $\mathcal{O}$ 28'27	-0°26'06	conjunction	16118 Jan 03 06:55	28° $\mathfrak{B}$ 59'26	0°24'34
minimum elong	16112 Jul 09 15:37	2° $\mathcal{O}$ 28'27	0°26'46	minimum elong	16118 Jan 03 06:54	28° $\mathfrak{B}$ 59'26	0°25'14
morning rise	16112 Jul 22 11:52	5° $\mathcal{O}$ 18'09		max. Earth dist.	16118 Jan 05 11:36	29° $\mathfrak{B}$ 30'55	5.98877 AU
	16112 Sep 07 19:18	15° $\mathcal{O}$			16118 Jan 07 12:19	0° $\approx$	
retrograde	16112 Nov 22 18:08	22° $\mathcal{O}$ 49'27		morning rise	16118 Jan 16 20:41	2° $\approx$ 13'26	
opposition	16113 Jan 22 12:41	17° $\mathcal{O}$ 55'19	-0°44'03		16118 Mar 17 02:00	15° $\approx$	
min. Earth dist.	16113 Jan 24 02:50	17° $\mathcal{O}$ 43'01	4.30783 AU	retrograde	16118 May 25 23:58	22° $\approx$ 06'19	
	16113 Feb 15 17:44	15° $\mathbb{R}\mathcal{O}$		min. Earth dist.	16118 Jul 23 02:10	17° $\approx$ 16'19	4.06313 AU
direct	16113 Mar 25 03:30	12° $\mathcal{O}$ 55'10		opposition	16118 Jul 24 16:36	17° $\approx$ 03'21	0°44'09
	16113 May 01 10:39	15° $\mathcal{O}$			16118 Aug 09 10:56	15° $\mathbb{R}\approx$	
	16113 Jul 23 14:18	0° $\mathbb{P}$		direct	16118 Sep 21 12:55	12° $\approx$ 05'57	
evening set	16113 Jul 28 13:54	1° $\mathbb{P}$ 07'27			16118 Nov 03 13:51	15° $\approx$	
max. Earth dist.	16113 Aug 08 05:01	3° $\mathbb{P}$ 32'41	6.22317 AU		16119 Jan 21 05:10	0° $\mathfrak{H}$	
				evening set	16119 Jan 26 07:46	1° $\mathfrak{H}$ 09'54	
conjunction	16113 Aug 10 11:45	4° $\mathbb{P}$ 03'59	-0°31'35	conjunction	16119 Feb 08 19:20	4° $\mathfrak{H}$ 15'45	0°31'24
minimum elong	16113 Aug 10 11:45	4° $\mathbb{P}$ 03'59	0°31'59	minimum elong	16119 Feb 08 19:20	4° $\mathfrak{H}$ 15'45	0°31'47
morning rise	16113 Aug 23 09:12	7° $\mathbb{P}$ 00'41		max. Earth dist.	16119 Feb 11 04:42	4° $\mathfrak{H}$ 48'44	6.14887 AU
retrograde	16113 Dec 27 09:52	25° $\mathbb{P}$ 36'57		morning rise	16119 Feb 22 07:15	7° $\mathfrak{H}$ 21'24	
opposition	16114 Feb 25 13:51	20° $\mathbb{P}$ 42'03	-0°45'36	retrograde	16119 Jun 28 14:09	26° $\mathfrak{H}$ 01'52	
min. Earth dist.	16114 Feb 27 01:44	20° $\mathbb{P}$ 30'20	4.13430 AU	min. Earth dist.	16119 Aug 26 09:30	21° $\mathfrak{H}$ 11'03	4.23671 AU
direct	16114 Apr 27 03:06	15° $\mathbb{P}$ 43'13		opposition	16119 Aug 27 19:33	20° $\mathfrak{H}$ 59'42	0°45'10
	16114 Aug 10 08:48	0° $\underline{\mathfrak{A}}$		direct	16119 Oct 26 19:47	16° $\mathfrak{H}$ 00'54	
evening set	16114 Aug 31 11:41	4° $\underline{\mathfrak{A}}$ 52'10			16120 Feb 10 11:16	0° $\mathfrak{Y}$	
max. Earth dist.	16114 Sep 11 18:24	7° $\underline{\mathfrak{A}}$ 32'26	6.05077 AU	evening set	16120 Feb 29 13:30	4° $\mathfrak{Y}$ 08'06	
conjunction	16114 Sep 13 12:36	7° $\underline{\mathfrak{A}}$ 57'30	-0°27'03	conjunction	16120 Mar 13 22:13	7° $\mathfrak{Y}$ 05'21	0°27'27
minimum elong	16114 Sep 13 12:37	7° $\underline{\mathfrak{A}}$ 57'30	0°27'01	minimum elong	16120 Mar 13 22:14	7° $\mathfrak{Y}$ 05'22	0°27'26
morning rise	16114 Sep 26 14:07	11° $\underline{\mathfrak{A}}$ 03'28		max. Earth dist.	16120 Mar 15 17:40	7° $\mathfrak{Y}$ 29'24	6.32140 AU
	16115 Jan 10 06:20	0° $\mathbb{M}$		morning rise	16120 Mar 27 06:27	10° $\mathfrak{Y}$ 02'05	
retrograde	16115 Feb 02 13:49	0° $\mathbb{M}$ 52'38		retrograde	16120 Jul 28 18:51	27° $\mathfrak{Y}$ 36'40	
	16115 Feb 25 20:43	30° $\mathbb{R}\underline{\mathfrak{A}}$		opposition	16120 Sep 27 14:08	22° $\mathfrak{Y}$ 36'48	0°32'20
opposition	16115 Apr 03 03:50	25° $\underline{\mathfrak{A}}$ 56'09	-0°31'00	min. Earth dist.	16120 Sep 26 16:41	22° $\mathfrak{Y}$ 43'50	4.39454 AU
min. Earth dist.	16115 Apr 03 22:34	25° $\underline{\mathfrak{A}}$ 49'56	3.97826 AU	direct	16120 Nov 27 16:50	17° $\mathfrak{Y}$ 37'07	
direct	16115 Jun 01 09:35	20° $\underline{\mathfrak{A}}$ 59'15			16121 Mar 08 16:17	0° $\mathfrak{B}$	
	16115 Aug 19 06:38	0° $\mathbb{M}$		evening set	16121 Apr 01 15:43	5° $\mathfrak{B}$ 00'46	
evening set	16115 Oct 06 18:03	10° $\mathbb{M}$ 58'14					
conjunction	16115 Oct 19 23:47	14° $\mathbb{M}$ 11'38	-0°12'18	conjunction	16121 Apr 14 20:42	7° $\mathfrak{B}$ 51'16	0°15'39
minimum elong	16115 Oct 19 23:48	14° $\mathbb{M}$ 11'39	0°11'50	minimum elong	16121 Apr 14 20:43	7° $\mathfrak{B}$ 51'17	0°15'14
behind sun begin	16115 Oct 19 18:01	14° $\mathbb{M}$ 08'08		behind sun begin	16121 Apr 14 18:19	7° $\mathfrak{B}$ 49'59	
behind sun end	16115 Oct 20 05:34	14° $\mathbb{M}$ 15'09		behind sun end	16121 Apr 14 23:07	7° $\mathfrak{B}$ 52'34	
max. Earth dist.	16115 Oct 19 12:18	14° $\mathbb{M}$ 04'38	5.92636 AU	max. Earth dist.	16121 Apr 15 14:16	8° $\mathfrak{B}$ 00'44	6.45341 AU
	16115 Oct 23 07:01	15° $\mathbb{M}$		morning rise	16121 Apr 28 00:30	10° $\mathfrak{B}$ 41'04	
morning rise	16115 Nov 02 06:58	17° $\mathbb{M}$ 26'00			16121 May 18 14:50	15° $\mathfrak{B}$	
	16115 Dec 28 12:29	0° $\mathfrak{A}$		retrograde	16121 Aug 27 17:20	27° $\mathfrak{B}$ 32'25	
retrograde	16116 Mar 12 08:11	8° $\mathfrak{A}$ 06'56		opposition	16121 Oct 27 20:30	22° $\mathfrak{B}$ 35'12	0°11'28
opposition	16116 May 10 13:24	3° $\mathfrak{A}$ 07'57	-0°03'07	min. Earth dist.	16121 Oct 27 18:14	22° $\mathfrak{B}$ 35'56	4.49265 AU
min. Earth dist.	16116 May 10 07:56	3° $\mathfrak{A}$ 09'47	3.89961 AU	direct	16121 Dec 28 21:11	17° $\mathfrak{B}$ 35'03	

	16122 Apr 10 00:29	0°♊	conjunction	16127 Oct 25 00:46	19°♎.19'30	-0°09'44
evening set	16122 May 02 06:55	4°♊36'38	minimum elong	16127 Oct 25 00:46	19°♎.19'31	0°09'13
desc. node	16122 May 14 22:03	7°♊18'06	behind sun begin	16127 Oct 24 17:46	19°♎.15'15	
			behind sun end	16127 Oct 25 07:46	19°♎.23'46	
conjunction	16122 May 15 08:11	7°♊23'30 -0°00'02	max. Earth dist.	16127 Oct 24 18:21	19°♎.15'36	5.91259 AU
minimum elong	16122 May 15 08:11	7°♊23'30 0°00'41	morning rise	16127 Nov 07 08:41	22°♎.34'53	
behind sun begin	16122 May 15 00:09	7°♊19'14		16127 Dec 08 21:23	0°♊	
behind sun end	16122 May 15 16:13	7°♊27'46	retrograde	16128 Mar 17 15:50	13°♊21'14	
max. Earth dist.	16122 May 14 20:28	7°♊17'16 6.51092 AU	asc. node	16128 May 01 17:01	10°♊12'51	
morning rise	16122 May 28 08:08	10°♊09'41	opposition	16128 May 15 18:56	8°♊21'55	0°01'07
retrograde	16122 Sep 26 09:08	26°♊46'35	min. Earth dist.	16128 May 15 10:35	8°♊24'43	3.89234 AU
opposition	16122 Nov 26 15:17	21°♊51'21 -0°11'48	direct	16128 Jul 13 00:50	3°♊26'24	
min. Earth dist.	16122 Nov 27 07:57	21°♊46'00 4.50697 AU	evening set	16128 Nov 17 21:49	23°♊46'19	
direct	16123 Jan 28 01:30	16°♊50'49				
	16123 May 13 17:17	0°♊	conjunction	16128 Dec 01 08:44	27°♊03'27	0°10'31
evening set	16123 Jun 01 09:18	3°♊54'50	minimum elong	16128 Dec 01 08:44	27°♊03'27	0°11'15
max. Earth dist.	16123 Jun 12 20:22	6°♊22'32 6.48057 AU	behind sun begin	16128 Dec 01 02:36	26°♊59'43	
			behind sun end	16128 Dec 01 14:51	27°♊07'10	
conjunction	16123 Jun 14 07:54	6°♊41'41 -0°15'35	max. Earth dist.	16128 Dec 02 14:57	27°♊21'55	5.90172 AU
minimum elong	16123 Jun 14 07:54	6°♊41'40 0°16'20		16128 Dec 13 10:12	0°♊	
morning rise	16123 Jun 27 04:56	9°♊27'57	morning rise	16128 Dec 14 21:26	0°♊21'23	
retrograde	16123 Oct 26 20:35	26°♊20'33	retrograde	16129 Apr 24 21:49	21°♊02'11	
opposition	16123 Dec 26 23:55	21°♊26'20 -0°32'21	min. Earth dist.	16129 Jun 21 21:46	16°♊10'34	3.94008 AU
min. Earth dist.	16123 Dec 28 07:32	21°♊16'13 4.43374 AU	opposition	16129 Jun 23 04:18	16°♊00'13	0°29'43
direct	16124 Feb 27 06:07	16°♊25'44	direct	16129 Aug 20 09:08	11°♊04'08	
	16124 Jun 12 15:36	0°♊		16129 Dec 21 23:38	0°♊	
evening set	16124 Jun 30 23:19	3°♊56'29	evening set	16129 Dec 25 22:50	0°♊56'15	
max. Earth dist.	16124 Jul 11 15:37	6°♊17'43 6.36864 AU				
			conjunction	16130 Jan 08 11:29	4°♊09'19	0°26'09
conjunction	16124 Jul 13 20:24	6°♊46'56 -0°27'18	minimum elong	16130 Jan 08 11:29	4°♊09'19	0°26'48
minimum elong	16124 Jul 13 20:24	6°♊46'56 0°27'56	max. Earth dist.	16130 Jan 10 18:34	4°♊42'07	6.00229 AU
morning rise	16124 Jul 26 16:37	9°♊37'11	morning rise	16130 Jan 22 01:14	7°♊22'38	
	16124 Aug 20 18:14	15°♊		16130 Feb 24 14:58	15°♊	
retrograde	16124 Nov 27 06:28	27°♊14'35	retrograde	16130 May 30 22:04	27°♊08'09	
opposition	16125 Jan 26 23:00	22°♊20'22 -0°45'02	min. Earth dist.	16130 Jul 28 00:47	22°♊17'59	4.08139 AU
min. Earth dist.	16125 Jan 28 14:42	22°♊07'32 4.28932 AU	opposition	16130 Jul 29 15:02	22°♊05'05	0°45'16
direct	16125 Mar 29 12:44	17°♊20'13	direct	16130 Sep 26 15:14	17°♊07'26	
	16125 Jul 07 11:20	0°♊		16131 Jan 03 21:23	0°♊	
evening set	16125 Aug 01 23:29	5°♊38'26	evening set	16131 Jan 31 06:31	6°♊04'38	
max. Earth dist.	16125 Aug 12 14:12	8°♊04'07 6.20212 AU				
			conjunction	16131 Feb 13 17:53	9°♊09'25	0°31'24
conjunction	16125 Aug 14 21:35	8°♊35'55 -0°31'33	minimum elong	16131 Feb 13 17:54	9°♊09'26	0°31'44
minimum elong	16125 Aug 14 21:36	8°♊35'56 0°31'54	max. Earth dist.	16131 Feb 16 04:09	9°♊42'45	6.17016 AU
morning rise	16125 Aug 27 19:25	11°♊33'39	morning rise	16131 Feb 27 05:26	12°♊13'58	
	16125 Dec 18 04:23	0°♊		16131 Jun 11 09:19	0°♊	
retrograde	16126 Jan 01 04:01	0°♊18'49	retrograde	16131 Jul 03 01:58	0°♊45'10	
	16126 Jan 15 04:23	30°♊		16131 Jul 24 16:57	30°♊	
opposition	16126 Mar 02 07:12	25°♊23'42 -0°44'33	min. Earth dist.	16131 Aug 30 24:00	25°♊54'32	4.25899 AU
min. Earth dist.	16126 Mar 03 17:18	25°♊12'33 4.11223 AU	opposition	16131 Sep 01 10:12	25°♊43'09	0°44'00
direct	16126 May 01 15:35	20°♊25'00	direct	16131 Oct 31 13:11	20°♊44'09	
	16126 Jul 23 16:43	0°♊		16132 Jan 23 04:17	0°♊	
evening set	16126 Sep 05 04:17	9°♊41'17	evening set	16132 Mar 05 05:10	8°♊44'27	
max. Earth dist.	16126 Sep 16 14:04	12°♊24'08 6.02955 AU				
			conjunction	16132 Mar 18 13:18	11°♊40'36	0°26'07
conjunction	16126 Sep 18 05:45	12°♊47'49 -0°25'35	minimum elong	16132 Mar 18 13:19	11°♊40'36	0°26'03
minimum elong	16126 Sep 18 05:46	12°♊47'49 0°25'30	max. Earth dist.	16132 Mar 20 05:26	12°♊02'44	6.34284 AU
morning rise	16126 Oct 01 07:59	15°♊55'04	morning rise	16132 Mar 31 20:56	14°♊36'12	
	16126 Dec 06 13:49	0°♊		16132 Jun 26 06:35	0°♊	
retrograde	16127 Feb 07 17:15	5°♊53'39	retrograde	16132 Aug 02 02:46	2°♊02'58	
opposition	16127 Apr 08 05:01	0°♊56'49 -0°27'50		16132 Sep 07 19:40	30°♊	
min. Earth dist.	16127 Apr 08 22:00	0°♊51'10 3.95976 AU	opposition	16132 Oct 01 22:25	27°♊03'24	0°29'40
	16127 Apr 15 08:51	30°♊	min. Earth dist.	16132 Oct 01 03:55	27°♊09'27	4.41327 AU
direct	16127 Jun 06 07:46	26°♊00'03	direct	16132 Dec 02 05:47	22°♊03'34	
	16127 Jul 26 16:13	0°♊		16133 Feb 18 03:18	0°♊	
	16127 Oct 07 06:42	15°♊	evening set	16133 Apr 06 00:51	9°♊22'14	
evening set	16127 Oct 11 18:06	16°♊05'03				
			conjunction	16133 Apr 19 05:19	12°♊11'57	0°13'33

minimum elong	16133 Apr 19 05:19	12° $\mathbf{8}$ 11'57	0°13'06	direct	16138 May 06 11:31	25° $\mathbf{7}$ 21'15	
behind sun begin	16133 Apr 19 00:34	12° $\mathbf{8}$ 09'25			16138 Jun 30 21:48	0° $\mathbf{2}$	
behind sun end	16133 Apr 19 10:04	12° $\mathbf{8}$ 14'30		evening set	16138 Sep 10 03:07	14° $\mathbf{2}$ 46'07	
max. Earth dist.	16133 Apr 19 19:18	12° $\mathbf{8}$ 19'28	6.46784 AU	max. Earth dist.	16138 Sep 21 17:33	17° $\mathbf{2}$ 32'32	6.00671 AU
morning rise	16133 May 02 08:33	15° $\mathbf{8}$ 00'58					
	16133 May 02 06:44	15° $\mathbf{8}$		conjunction	16138 Sep 23 05:25	17° $\mathbf{2}$ 54'02	-0°23'52
	16133 Jul 28 04:01	0° $\mathbf{II}$		minimum elong	16138 Sep 23 05:26	17° $\mathbf{2}$ 54'03	0°23'43
retrograde	16133 Aug 31 20:06	1° $\mathbf{II}$ 47'55		morning rise	16138 Oct 06 08:22	21° $\mathbf{2}$ 02'41	
	16133 Oct 05 11:30	30° $\mathbf{R8}$			16138 Nov 14 15:21	0° $\mathbf{M}$	
opposition	16133 Nov 01 01:00	26° $\mathbf{8}$ 50'57	0°08'10	retrograde	16139 Feb 13 02:46	11° $\mathbf{M}$ 11'03	
min. Earth dist.	16133 Nov 01 00:47	26° $\mathbf{8}$ 51'02	4.50182 AU	opposition	16139 Apr 13 12:31	6° $\mathbf{M}$ 14'00	-0°24'15
direct	16134 Jan 02 03:05	21° $\mathbf{8}$ 50'42		min. Earth dist.	16139 Apr 14 02:16	6° $\mathbf{M}$ 09'25	3.94204 AU
desc. node	16134 Mar 21 22:22	29° $\mathbf{8}$ 48'30		direct	16139 Jun 11 10:11	1° $\mathbf{M}$ 17'34	
	16134 Mar 23 00:14	0° $\mathbf{II}$			16139 Sep 19 17:29	15° $\mathbf{M}$	
evening set	16134 May 06 12:08	8° $\mathbf{II}$ 50'28		evening set	16139 Oct 17 01:00	21° $\mathbf{M}$ 28'11	
conjunction	16134 May 19 13:01	11° $\mathbf{II}$ 37'01	-0°02'23	conjunction	16139 Oct 30 08:16	24° $\mathbf{M}$ 43'31	-0°06'57
minimum elong	16134 May 19 13:00	11° $\mathbf{II}$ 37'01	0°03'03	minimum elong	16139 Oct 30 08:16	24° $\mathbf{M}$ 43'31	0°06'24
behind sun begin	16134 May 19 05:01	11° $\mathbf{II}$ 32'46		behind sun begin	16139 Oct 30 00:27	24° $\mathbf{M}$ 38'45	
behind sun end	16134 May 19 21:00	11° $\mathbf{II}$ 41'16		behind sun end	16139 Oct 30 16:04	24° $\mathbf{M}$ 48'17	
max. Earth dist.	16134 May 18 22:47	11° $\mathbf{II}$ 29'26	6.51406 AU	max. Earth dist.	16139 Oct 30 05:43	24° $\mathbf{M}$ 41'59	5.90178 AU
morning rise	16134 Jun 01 12:19	14° $\mathbf{II}$ 22'52		morning rise	16139 Nov 12 17:12	27° $\mathbf{M}$ 59'50	
	16134 Sep 04 22:10	0° $\mathbf{26}$			16139 Nov 20 23:39	0° $\mathbf{7}$	
retrograde	16134 Sep 30 12:56	0° $\mathbf{26}$ 59'33		asc. node	16140 Mar 12 13:54	18° $\mathbf{7}$ 38'48	
	16134 Oct 26 02:17	30° $\mathbf{RII}$		retrograde	16140 Mar 23 02:23	18° $\mathbf{7}$ 49'58	
opposition	16134 Nov 30 19:36	26° $\mathbf{II}$ 04'34	-0°14'58	opposition	16140 May 21 05:45	13° $\mathbf{7}$ 50'16	0°05'33
min. Earth dist.	16134 Dec 01 14:49	25° $\mathbf{II}$ 58'25	4.50379 AU	min. Earth dist.	16140 May 20 17:06	13° $\mathbf{7}$ 54'32	3.88996 AU
direct	16135 Feb 01 06:36	21° $\mathbf{II}$ 04'02		direct	16140 Jul 18 09:57	8° $\mathbf{7}$ 54'48	
	16135 Apr 26 06:14	0° $\mathbf{26}$		evening set	16140 Nov 23 07:40	29° $\mathbf{7}$ 14'12	
evening set	16135 Jun 05 14:18	8° $\mathbf{26}$ 09'47			16140 Nov 26 11:05	0° $\mathbf{3}$	
max. Earth dist.	16135 Jun 16 20:23	10° $\mathbf{26}$ 35'12	6.47109 AU				
conjunction	16135 Jun 18 12:24	10° $\mathbf{26}$ 56'49	-0°17'33	conjunction	16140 Dec 06 19:09	2° $\mathbf{3}$ 31'15	0°13'13
minimum elong	16135 Jun 18 12:24	10° $\mathbf{26}$ 56'48	0°18'17	minimum elong	16140 Dec 06 19:09	2° $\mathbf{3}$ 31'15	0°13'57
morning rise	16135 Jul 01 09:19	13° $\mathbf{26}$ 43'22		behind sun begin	16140 Dec 06 14:56	2° $\mathbf{3}$ 28'41	
	16135 Oct 10 08:10	0° $\mathbf{Q}$		behind sun end	16140 Dec 06 23:22	2° $\mathbf{3}$ 33'49	
retrograde	16135 Oct 31 05:56	0° $\mathbf{Q}$ 40'08		max. Earth dist.	16140 Dec 08 07:00	2° $\mathbf{3}$ 53'08	5.90824 AU
	16135 Nov 21 01:59	30° $\mathbf{R26}$		morning rise	16140 Dec 20 08:09	5° $\mathbf{3}$ 49'00	
opposition	16135 Dec 31 07:36	25° $\mathbf{26}$ 45'59	-0°34'43	retrograde	16141 Apr 30 04:38	26° $\mathbf{2}$ 25'05	
min. Earth dist.	16136 Jan 01 17:29	25° $\mathbf{26}$ 35'07	4.41838 AU	min. Earth dist.	16141 Jun 27 03:31	21° $\mathbf{2}$ 33'42	3.95470 AU
direct	16136 Mar 02 13:01	20° $\mathbf{26}$ 45'21		opposition	16141 Jun 28 11:33	21° $\mathbf{2}$ 22'50	0°32'55
	16136 May 26 03:38	0° $\mathbf{Q}$		direct	16141 Aug 25 18:55	16° $\mathbf{2}$ 26'36	
evening set	16136 Jul 05 07:15	8° $\mathbf{Q}$ 21'24		evening set	16141 Dec 04 06:12	0° $\mathbf{\approx}$	
max. Earth dist.	16136 Jul 15 22:31	10° $\mathbf{Q}$ 42'40	6.34846 AU		16141 Dec 31 05:12	6° $\mathbf{\approx}$ 12'05	
conjunction	16136 Jul 18 04:29	11° $\mathbf{Q}$ 12'39	-0°28'24	conjunction	16142 Jan 13 17:52	9° $\mathbf{\approx}$ 24'09	0°27'35
minimum elong	16136 Jul 18 04:29	11° $\mathbf{Q}$ 12'39	0°29'00	minimum elong	16142 Jan 13 17:52	9° $\mathbf{\approx}$ 24'09	0°28'13
morning rise	16136 Jul 31 00:40	14° $\mathbf{Q}$ 03'43		max. Earth dist.	16142 Jan 16 04:15	9° $\mathbf{\approx}$ 58'43	6.02348 AU
	16136 Aug 04 06:47	15° $\mathbf{Q}$		morning rise	16142 Jan 27 07:27	12° $\mathbf{\approx}$ 36'22	
	16136 Oct 28 06:48	0° $\mathbf{7}$			16142 Feb 06 14:16	15° $\mathbf{\approx}$	
retrograde	16136 Dec 01 21:45	1° $\mathbf{7}$ 49'18		retrograde	16142 Apr 28 12:04	0° $\mathbf{H}$	
	16137 Jan 05 15:42	30° $\mathbf{RQ}$			16142 Jun 04 17:53	2° $\mathbf{H}$ 11'21	
opposition	16137 Jan 31 13:25	26° $\mathbf{Q}$ 55'02	-0°45'49	min. Earth dist.	16142 Jul 11 22:15	30° $\mathbf{R\approx}$	
min. Earth dist.	16137 Feb 02 04:47	26° $\mathbf{Q}$ 42'19	4.26558 AU	opposition	16142 Aug 01 21:49	27° $\mathbf{\approx}$ 21'36	4.10688 AU
direct	16137 Apr 02 22:46	21° $\mathbf{Q}$ 55'04		direct	16142 Aug 03 13:20	27° $\mathbf{\approx}$ 08'18	0°46'04
	16137 Jun 18 19:36	0° $\mathbf{7}$			16142 Oct 01 16:27	22° $\mathbf{\approx}$ 10'26	
evening set	16137 Aug 06 13:52	10° $\mathbf{7}$ 21'13		evening set	16142 Dec 15 02:34	0° $\mathbf{H}$	
max. Earth dist.	16137 Aug 17 05:29	12° $\mathbf{7}$ 48'18	6.17662 AU		16143 Feb 05 04:57	10° $\mathbf{H}$ 58'35	
conjunction	16137 Aug 19 12:12	13° $\mathbf{7}$ 19'55	-0°31'21	conjunction	16143 Feb 18 15:46	14° $\mathbf{H}$ 01'57	0°31'14
minimum elong	16137 Aug 19 12:12	13° $\mathbf{7}$ 19'55	0°31'37	minimum elong	16143 Feb 18 15:46	14° $\mathbf{H}$ 01'58	0°31'31
morning rise	16137 Sep 01 10:34	16° $\mathbf{7}$ 18'56		max. Earth dist.	16143 Feb 20 23:27	14° $\mathbf{H}$ 33'38	6.19754 AU
	16137 Nov 07 08:19	0° $\mathbf{2}$		morning rise	16143 Mar 04 02:52	17° $\mathbf{H}$ 05'04	
retrograde	16138 Jan 06 07:08	5° $\mathbf{2}$ 15'00			16143 May 07 07:38	0° $\mathbf{Y}$	
opposition	16138 Mar 07 06:45	0° $\mathbf{2}$ 19'43	-0°43'09	retrograde	16143 Jul 07 13:44	5° $\mathbf{Y}$ 25'14	
min. Earth dist.	16138 Mar 08 15:57	0° $\mathbf{2}$ 08'50	4.08681 AU	opposition	16143 Sep 05 23:14	0° $\mathbf{Y}$ 23'26	0°42'37
	16138 Mar 09 18:51	30° $\mathbf{R7}$		min. Earth dist.	16143 Sep 04 15:25	0° $\mathbf{Y}$ 34'00	4.28570 AU
					16143 Sep 08 21:54	30° $\mathbf{RH}$	

direct	16143 Nov 05 07:21	25° $\text{K}$ 24'12			16148 Sep 29 17:40	0° $\text{M}$	
	16143 Dec 31 21:23	0° $\text{Y}$		retrograde	16148 Dec 06 17:21	6° $\text{M}$ 28'14	
evening set	16144 Mar 09 18:30	13° $\text{Y}$ 16'29		opposition	16149 Feb 05 05:52	1° $\text{M}$ 33'53	-0°46'23
				min. Earth dist.	16149 Feb 06 21:30	1° $\text{M}$ 21'01	4.23798 AU
conjunction	16144 Mar 23 02:14	16° $\text{Y}$ 11'27	0°24'41		16149 Feb 17 12:11	30° $\text{R}$ 0	
minimum elong	16144 Mar 23 02:15	16° $\text{Y}$ 11'28	0°24'32	direct	16149 Apr 07 11:43	26°0'34'00	
max. Earth dist.	16144 Mar 24 16:19	16° $\text{Y}$ 32'20	6.36681 AU		16149 May 25 12:53	0° $\text{M}$	
morning rise	16144 Apr 05 09:07	19° $\text{Y}$ 05'48		evening set	16149 Aug 11 06:31	15° $\text{M}$ 09'23	
	16144 May 30 05:31	0° $\text{X}$		max. Earth dist.	16149 Aug 22 00:58	17° $\text{M}$ 38'59	6.14835 AU
retrograde	16144 Aug 06 05:55	6° $\text{X}$ 24'23					
min. Earth dist.	16144 Oct 05 11:32	1° $\text{X}$ 30'38	4.43283 AU	conjunction	16149 Aug 24 05:29	18° $\text{M}$ 09'31	-0°30'57
opposition	16144 Oct 06 04:22	1° $\text{X}$ 25'08	0°26'56	minimum elong	16149 Aug 24 05:30	18° $\text{M}$ 09'31	0°31'10
	16144 Oct 17 05:21	30° $\text{R}$ Y		morning rise	16149 Sep 06 04:18	21° $\text{M}$ 09'59	
direct	16144 Dec 06 14:06	26° $\text{Y}$ 25'13			16149 Oct 16 06:19	0° $\text{A}$	
	16145 Jan 25 22:19	0° $\text{X}$		retrograde	16150 Jan 11 11:46	10° $\text{A}$ 17'44	
evening set	16145 Apr 10 07:41	13° $\text{X}$ 38'54		opposition	16150 Mar 12 09:04	5° $\text{A}$ 22'17	-0°41'26
	16145 Apr 16 15:37	15° $\text{X}$		min. Earth dist.	16150 Mar 13 16:03	5° $\text{A}$ 12'06	4.06048 AU
				direct	16150 May 11 08:09	0° $\text{A}$ 24'10	
conjunction	16145 Apr 23 11:30	16° $\text{X}$ 27'51	0°11'26	evening set	16150 Sep 15 05:12	19° $\text{A}$ 57'48	
minimum elong	16145 Apr 23 11:30	16° $\text{X}$ 27'51	0°10'57	max. Earth dist.	16150 Sep 26 23:33	22° $\text{A}$ 47'27	5.98480 AU
behind sun begin	16145 Apr 23 05:27	16° $\text{X}$ 24'37					
behind sun end	16145 Apr 23 17:33	16° $\text{X}$ 31'05		conjunction	16150 Sep 28 08:04	23° $\text{A}$ 07'03	-0°21'56
max. Earth dist.	16145 Apr 23 20:35	16° $\text{X}$ 32'43	6.48159 AU	minimum elong	16150 Sep 28 08:05	23° $\text{A}$ 07'04	0°21'43
morning rise	16145 May 06 14:07	19° $\text{X}$ 16'06		morning rise	16150 Oct 11 12:02	26° $\text{A}$ 17'09	
	16145 Jun 30 21:42	0° $\text{II}$			16150 Oct 27 04:30	0° $\text{M}$	
retrograde	16145 Sep 04 22:58	5° $\text{II}$ 59'08			16151 Jan 18 06:29	15° $\text{M}$	
opposition	16145 Nov 05 03:41	1° $\text{II}$ 02'31	0°04'55	retrograde	16151 Feb 18 13:58	16° $\text{M}$ 34'41	
min. Earth dist.	16145 Nov 05 07:21	1° $\text{II}$ 01'20	4.50896 AU		16151 Mar 21 22:56	15° $\text{R}$ M	
	16145 Nov 13 07:06	30° $\text{R}$ X		opposition	16151 Apr 18 22:52	11° $\text{M}$ 37'16	-0°20'25
direct	16146 Jan 06 08:49	26° $\text{X}$ 02'09		min. Earth dist.	16151 Apr 19 08:12	11° $\text{M}$ 34'09	3.92706 AU
desc. node	16146 Jan 27 15:04	26° $\text{X}$ 42'27		direct	16151 Jun 16 17:19	6° $\text{M}$ 41'02	
	16146 Feb 28 22:51	0° $\text{II}$			16151 Aug 30 14:50	15° $\text{M}$	
evening set	16146 May 10 15:49	13° $\text{II}$ 00'50		evening set	16151 Oct 22 09:57	26° $\text{M}$ 55'46	
					16151 Nov 03 22:51	0° $\text{X}$	
conjunction	16146 May 23 16:12	15° $\text{II}$ 47'11	-0°04'37				
minimum elong	16146 May 23 16:12	15° $\text{II}$ 47'11	0°05'19	conjunction	16151 Nov 04 18:02	0° $\text{X}$ 11'47	-0°04'04
behind sun begin	16146 May 23 08:27	15° $\text{II}$ 43'04		minimum elong	16151 Nov 04 18:03	0° $\text{X}$ 11'47	0°03'29
behind sun end	16146 May 23 23:58	15° $\text{II}$ 51'18		behind sun begin	16151 Nov 04 09:49	0° $\text{X}$ 06'45	
max. Earth dist.	16146 May 22 20:47	15° $\text{II}$ 36'50	6.51397 AU	behind sun end	16151 Nov 05 02:17	0° $\text{X}$ 16'49	
morning rise	16146 Jun 05 15:10	18° $\text{II}$ 32'54		max. Earth dist.	16151 Nov 04 22:54	0° $\text{X}$ 14'43	5.89551 AU
	16146 Aug 04 16:12	0° $\text{E}$		morning rise	16151 Nov 18 03:34	3° $\text{X}$ 28'42	
retrograde	16146 Oct 04 16:28	5° $\text{E}$ 10'26		asc. node	16152 Jan 22 07:33	17° $\text{X}$ 46'48	
opposition	16146 Dec 04 22:51	0° $\text{E}$ 15'34	-0°18'03	retrograde	16152 Mar 28 15:03	24° $\text{X}$ 20'11	
min. Earth dist.	16146 Dec 05 20:22	0° $\text{E}$ 08'41	4.49659 AU	opposition	16152 May 26 17:32	19° $\text{X}$ 20'04	0°09'57
	16146 Dec 06 23:27	30° $\text{R}$ II		min. Earth dist.	16152 May 26 02:04	19° $\text{X}$ 25'17	3.89319 AU
direct	16147 Feb 05 09:10	25° $\text{II}$ 14'55		direct	16152 Jul 23 21:31	14° $\text{X}$ 24'35	
	16147 Apr 05 09:40	0° $\text{E}$			16152 Nov 09 01:45	0° $\text{E}$	
evening set	16147 Jun 09 18:32	12° $\text{E}$ 23'41		evening set	16152 Nov 28 17:46	4° $\text{E}$ 40'55	
max. Earth dist.	16147 Jun 20 22:40	14° $\text{E}$ 48'26	6.45718 AU				
				conjunction	16152 Dec 12 05:35	7° $\text{E}$ 57'33	0°15'47
conjunction	16147 Jun 22 16:34	15° $\text{E}$ 11'09	-0°19'24	minimum elong	16152 Dec 12 05:34	7° $\text{E}$ 57'33	0°16'30
minimum elong	16147 Jun 22 16:34	15° $\text{E}$ 11'08	0°20'07	max. Earth dist.	16152 Dec 13 22:34	8° $\text{E}$ 22'29	5.92030 AU
morning rise	16147 Jul 05 13:08	17° $\text{E}$ 58'08		morning rise	16152 Dec 25 18:51	11° $\text{E}$ 14'47	
	16147 Sep 05 23:30	0° $\text{A}$			16153 Apr 02 16:37	0° $\approx$	
retrograde	16147 Nov 04 15:10	5° $\text{A}$ 00'29		retrograde	16153 May 05 08:17	1° $\approx$ 43'30	
opposition	16148 Jan 04 15:43	0° $\text{A}$ 06'24	-0°36'54		16153 Jun 06 21:50	30° $\text{R}$ E	
	16148 Jan 05 11:41	30° $\text{R}$ E		min. Earth dist.	16153 Jul 02 06:17	26° $\text{E}$ 52'48	3.97411 AU
min. Earth dist.	16148 Jan 06 03:17	29° $\text{E}$ 55'00	4.39852 AU	opposition	16153 Jul 03 16:59	26° $\text{E}$ 41'03	0°35'47
direct	16148 Mar 06 18:42	25° $\text{E}$ 05'48		direct	16153 Aug 31 01:45	21° $\text{E}$ 44'37	
	16148 May 05 01:50	0° $\text{A}$			16153 Nov 14 09:52	0° $\approx$	
evening set	16148 Jul 09 16:08	12° $\text{A}$ 48'31		evening set	16154 Jan 05 09:48	11° $\approx$ 22'03	
	16148 Jul 19 12:24	15° $\text{A}$					
max. Earth dist.	16148 Jul 20 05:02	15° $\text{A}$ 09'18	6.32395 AU	conjunction	16154 Jan 18 22:11	14° $\approx$ 32'52	0°28'47
				minimum elong	16154 Jan 18 22:11	14° $\approx$ 32'52	0°29'21
conjunction	16148 Jul 22 13:17	15° $\text{A}$ 40'43	-0°29'22		16154 Jan 20 20:16	15° $\approx$	
minimum elong	16148 Jul 22 13:17	15° $\text{A}$ 40'43	0°29'56	max. Earth dist.	16154 Jan 21 08:13	15° $\approx$ 07'02	6.04792 AU
morning rise	16148 Aug 04 09:48	18° $\text{A}$ 32'52		morning rise	16154 Feb 01 11:38	17° $\approx$ 43'50	

	16154 Mar 31 01:24	0°♄			16159 Aug 15 22:47	0°♌	
retrograde	16154 Jun 09 11:48	7°♄07'41		retrograde	16159 Nov 09 03:58	9°♌28'36	
min. Earth dist.	16154 Aug 06 18:46	2°♄17'39	4.13359 AU	opposition	16160 Jan 09 02:45	4°♌34'33	-0°38'57
opposition	16154 Aug 08 09:18	2°♄04'42	0°46'29	min. Earth dist.	16160 Jan 10 15:04	4°♌22'52	4.37703 AU
	16154 Aug 24 09:32	30°♄			16160 Feb 23 08:20	30°♌	
direct	16154 Oct 06 16:51	27°♄06'36		direct	16160 Mar 11 02:27	29°♌34'02	
	16154 Nov 18 23:50	0°♄			16160 Mar 27 22:57	0°♌	
evening set	16155 Feb 10 00:35	15°♄45'47			16160 Jul 03 06:42	15°♌	
				evening set	16160 Jul 14 03:49	17°♌23'56	
conjunction	16155 Feb 23 11:10	18°♄47'52	0°30'50	max. Earth dist.	16160 Jul 24 18:00	19°♌46'09	6.29941 AU
minimum elong	16155 Feb 23 11:10	18°♄47'53	0°31'04				
max. Earth dist.	16155 Feb 25 18:15	19°♄19'02	6.22428 AU	conjunction	16160 Jul 27 01:15	20°♌17'12	-0°30'10
morning rise	16155 Mar 08 21:33	21°♄49'34		minimum elong	16160 Jul 27 01:14	20°♌17'12	0°30'41
	16155 Apr 16 05:23	0°♄		morning rise	16160 Aug 08 21:47	23°♌10'24	
retrograde	16155 Jul 11 22:33	9°♄59'35			16160 Sep 09 12:24	0°♍	
min. Earth dist.	16155 Sep 09 03:54	5°♄08'14	4.31023 AU	retrograde	16160 Dec 11 15:20	11°♍15'32	
opposition	16155 Sep 10 10:18	4°♄58'11	0°40'59	opposition	16161 Feb 10 01:25	6°♍21'09	-0°46'39
	16155 Nov 06 12:27	30°♄		min. Earth dist.	16161 Feb 11 16:32	6°♍08'28	4.21233 AU
direct	16155 Nov 09 21:48	29°♄58'54		direct	16161 Apr 12 02:53	1°♍21'36	
	16155 Nov 13 07:25	0°♄		evening set	16161 Aug 16 01:52	20°♍05'20	
evening set	16156 Mar 14 06:26	17°♄44'21		max. Earth dist.	16161 Aug 26 21:54	22°♍36'46	6.12390 AU
conjunction	16156 Mar 27 13:27	20°♄38'16	0°23'06	conjunction	16161 Aug 29 01:06	23°♍06'41	-0°30'20
minimum elong	16156 Mar 27 13:27	20°♄38'16	0°22'55	minimum elong	16161 Aug 29 01:06	23°♍06'41	0°30'30
max. Earth dist.	16156 Mar 28 22:13	20°♄56'09	6.38731 AU	morning rise	16161 Sep 11 00:38	26°♍08'30	
morning rise	16156 Apr 09 19:51	23°♄31'35			16161 Sep 27 20:13	0°♎	
	16156 May 10 20:08	0°♄		retrograde	16162 Jan 16 17:16	15°♎26'29	
retrograde	16156 Aug 10 10:55	10°♄43'35		opposition	16162 Mar 17 13:31	10°♎30'47	-0°39'23
opposition	16156 Oct 10 09:42	5°♄44'45	0°24'04	min. Earth dist.	16162 Mar 18 17:06	10°♎21'42	4.03964 AU
min. Earth dist.	16156 Oct 09 20:33	5°♄49'03	4.44808 AU	direct	16162 May 16 08:26	5°♎32'59	
direct	16156 Dec 10 23:05	0°♄44'45		evening set	16162 Sep 20 08:10	25°♎12'57	
	16157 Mar 31 16:42	15°♄		max. Earth dist.	16162 Oct 02 09:53	28°♎07'34	5.96993 AU
evening set	16157 Apr 14 14:11	17°♄55'07					
				conjunction	16162 Oct 03 11:47	28°♎23'14	-0°19'52
conjunction	16157 Apr 27 17:38	20°♄43'33	0°09'15	minimum elong	16162 Oct 03 11:48	28°♎23'14	0°19'34
minimum elong	16157 Apr 27 17:38	20°♄43'34	0°08'44		16162 Oct 10 03:49	0°♏	
behind sun begin	16157 Apr 27 10:41	20°♄39'51		morning rise	16162 Oct 16 16:18	1°♏34'18	
behind sun end	16157 Apr 28 00:36	20°♄47'16			16162 Dec 17 03:13	15°♏	
max. Earth dist.	16157 Apr 27 23:24	20°♄46'38	6.49062 AU	retrograde	16163 Feb 24 01:42	21°♏57'44	
morning rise	16157 May 10 19:37	23°♄31'16		opposition	16163 Apr 24 08:29	16°♏59'58	-0°16'28
	16157 Jun 11 11:36	0°♐		min. Earth dist.	16163 Apr 24 14:47	16°♏57'51	3.92004 AU
retrograde	16157 Sep 09 01:14	10°♐12'07			16163 May 09 18:02	15°♏	
opposition	16157 Nov 09 07:02	5°♐15'48	0°01'36	direct	16163 Jun 22 01:04	12°♏03'57	
min. Earth dist.	16157 Nov 09 12:37	5°♐14'00	4.51142 AU		16163 Aug 03 13:47	15°♏	
desc. node	16157 Dec 06 00:50	2°♐05'51			16163 Oct 18 02:54	0°♐	
direct	16158 Jan 10 12:20	0°♐15'27		evening set	16163 Oct 27 17:20	2°♐19'25	
evening set	16158 May 14 20:30	17°♐14'32					
				conjunction	16163 Nov 10 01:56	5°♐35'37	-0°01'13
conjunction	16158 May 27 20:28	20°♐00'53	-0°06'52	minimum elong	16163 Nov 10 01:54	5°♐35'36	0°00'34
minimum elong	16158 May 27 20:28	20°♐00'53	0°07'34	behind sun begin	16163 Nov 09 17:36	5°♐30'32	
behind sun begin	16158 May 27 13:12	19°♐57'01		behind sun end	16163 Nov 10 10:13	5°♐40'40	
behind sun end	16158 May 28 03:45	20°♐04'45		max. Earth dist.	16163 Nov 10 11:56	5°♐41'44	5.89699 AU
max. Earth dist.	16158 May 26 21:32	19°♐48'37	6.50969 AU	morning rise	16163 Nov 23 12:05	8°♐52'43	
morning rise	16158 Jun 09 19:01	22°♐46'37		asc. node	16163 Dec 03 18:09	11°♐21'24	
	16158 Jul 15 08:08	0°♑		retrograde	16164 Apr 02 20:55	29°♐41'56	
retrograde	16158 Oct 08 23:38	9°♑26'28		min. Earth dist.	16164 May 31 05:40	24°♐48'01	3.90329 AU
opposition	16158 Dec 09 04:23	4°♑31'51	-0°21'05	opposition	16164 Jun 01 01:14	24°♐41'24	0°14'03
min. Earth dist.	16158 Dec 10 05:01	4°♑23'57	4.48578 AU	direct	16164 Jul 29 04:17	19°♐45'52	
	16159 Jan 22 18:06	30°♑			16164 Oct 21 11:27	0°♑	
direct	16159 Feb 09 14:50	29°♑31'13		evening set	16164 Dec 03 23:21	9°♑56'38	
	16159 Feb 27 12:35	0°♑					
evening set	16159 Jun 14 01:07	16°♑44'04		conjunction	16164 Dec 17 11:11	13°♑12'26	0°18'05
max. Earth dist.	16159 Jun 25 01:05	19°♑07'09	6.44050 AU	minimum elong	16164 Dec 17 11:11	13°♑12'26	0°18'48
				max. Earth dist.	16164 Dec 19 06:16	13°♑38'31	5.93768 AU
conjunction	16159 Jun 26 22:52	19°♑32'04	-0°21'12	morning rise	16164 Dec 31 00:39	16°♑28'51	
minimum elong	16159 Jun 26 22:51	19°♑32'03	0°21'54		16165 Mar 03 06:03	0°♒	
morning rise	16159 Jul 09 19:27	22°♑19'41		retrograde	16165 May 10 05:57	6°♒48'32	

min. Earth dist.	16165 Jul 07 05:36	1° $\approx$ 57'49	3.99660 AU	evening set	16171 Jun 18 07:05	21° $\approx$ 02'25	
opposition	16165 Jul 08 16:57	1° $\approx$ 45'51	0°38'11	max. Earth dist.	16171 Jun 29 06:23	23° $\approx$ 25'41	6.42321 AU
	16165 Jul 22 01:39	30° $\approx$ 3					
direct	16165 Sep 05 05:27	26° $\approx$ 34'07		conjunction	16171 Jul 01 04:44	23° $\approx$ 51'01	-0°22'49
	16165 Oct 20 00:08	0° $\approx$		minimum elong	16171 Jul 01 04:44	23° $\approx$ 51'01	0°23'31
	16166 Jan 04 18:31	15° $\approx$		morning rise	16171 Jul 14 01:08	26° $\approx$ 39'15	
evening set	16166 Jan 10 08:23	16° $\approx$ 17'41			16171 Jul 29 15:42	0° $\approx$	
				retrograde	16171 Nov 13 17:06	13° $\approx$ 54'49	
conjunction	16166 Jan 23 20:43	19° $\approx$ 27'15	0°29'42	opposition	16172 Jan 13 13:38	9° $\approx$ 00'47	-0°40'42
minimum elong	16166 Jan 23 20:42	19° $\approx$ 27'15	0°30'13	min. Earth dist.	16172 Jan 15 03:20	8° $\approx$ 04'40	4.35638 AU
max. Earth dist.	16166 Jan 26 07:59	20° $\approx$ 01'57	6.07335 AU	direct	16172 Mar 15 11:35	4° $\approx$ 00'23	
morning rise	16166 Feb 06 09:38	22° $\approx$ 36'50			16172 Jun 16 06:52	15° $\approx$	
	16166 Mar 11 11:51	0° $\approx$		evening set	16172 Jul 18 14:48	21° $\approx$ 56'53	
retrograde	16166 Jun 14 00:20	11° $\approx$ 49'40		max. Earth dist.	16172 Jul 29 03:46	24° $\approx$ 19'13	6.27672 AU
min. Earth dist.	16166 Aug 11 09:54	6° $\approx$ 59'27	4.15942 AU				
opposition	16166 Aug 12 23:30	6° $\approx$ 46'51	0°46'35	conjunction	16172 Jul 31 12:13	24° $\approx$ 51'05	-0°30'46
direct	16166 Oct 11 10:47	1° $\approx$ 48'35		minimum elong	16172 Jul 31 12:13	24° $\approx$ 51'05	0°31'14
evening set	16167 Feb 14 15:05	20° $\approx$ 19'32		morning rise	16172 Aug 13 09:08	27° $\approx$ 45'19	
					16172 Aug 23 10:33	0° $\approx$	
conjunction	16167 Feb 28 01:04	23° $\approx$ 20'23	0°30'18	retrograde	16172 Dec 16 10:44	15° $\approx$ 59'34	
minimum elong	16167 Feb 28 01:05	23° $\approx$ 20'23	0°30'27	opposition	16173 Feb 14 19:56	11° $\approx$ 04'59	-0°46'34
max. Earth dist.	16167 Mar 02 04:12	23° $\approx$ 49'08	6.24826 AU	min. Earth dist.	16173 Feb 16 09:24	10° $\approx$ 52'47	4.18905 AU
morning rise	16167 Mar 13 11:07	26° $\approx$ 20'52		direct	16173 Apr 16 17:11	6° $\approx$ 05'36	
	16167 Mar 30 02:29	0° $\approx$		evening set	16173 Aug 20 19:39	24° $\approx$ 56'48	
retrograde	16167 Jul 16 02:57	14° $\approx$ 22'05		max. Earth dist.	16173 Aug 31 20:03	27° $\approx$ 31'29	6.10187 AU
opposition	16167 Sep 14 16:43	9° $\approx$ 20'59	0°39'14				
min. Earth dist.	16167 Sep 13 12:51	9° $\approx$ 30'12	4.33073 AU	conjunction	16173 Sep 02 19:26	27° $\approx$ 59'20	-0°29'28
direct	16167 Nov 14 07:47	4° $\approx$ 21'34		minimum elong	16173 Sep 02 19:27	27° $\approx$ 59'20	0°29'35
evening set	16168 Mar 18 13:59	22° $\approx$ 01'43			16173 Sep 11 08:53	0° $\approx$	
				morning rise	16173 Sep 15 19:22	1° $\approx$ 02'20	
conjunction	16168 Mar 31 20:44	24° $\approx$ 54'52	0°21'30	retrograde	16174 Jan 21 22:20	20° $\approx$ 29'39	
minimum elong	16168 Mar 31 20:45	24° $\approx$ 54'52	0°21'16	opposition	16174 Mar 22 15:51	15° $\approx$ 33'46	-0°37'01
max. Earth dist.	16168 Apr 02 02:47	25° $\approx$ 11'13	6.40305 AU	min. Earth dist.	16174 Mar 23 17:54	15° $\approx$ 25'10	4.02069 AU
morning rise	16168 Apr 14 02:26	27° $\approx$ 47'20		direct	16174 May 21 07:45	10° $\approx$ 36'14	
	16168 Apr 24 10:27	0° $\approx$			16174 Sep 23 20:17	0° $\approx$	
retrograde	16168 Aug 14 11:58	14° $\approx$ 54'27		evening set	16174 Sep 25 09:05	0° $\approx$ 22'07	
opposition	16168 Oct 14 12:01	9° $\approx$ 56'03	0°21'14				
min. Earth dist.	16168 Oct 14 01:02	9° $\approx$ 59'37	4.45831 AU	conjunction	16174 Oct 08 13:18	3° $\approx$ 33'22	-0°17'37
direct	16168 Dec 15 03:39	4° $\approx$ 56'03		minimum elong	16174 Oct 08 13:18	3° $\approx$ 33'23	0°17'17
	16169 Mar 15 00:03	15° $\approx$		max. Earth dist.	16174 Oct 07 14:37	3° $\approx$ 19'38	5.95573 AU
evening set	16169 Apr 18 18:12	22° $\approx$ 04'35		morning rise	16174 Oct 21 18:43	6° $\approx$ 45'31	
					16174 Nov 26 07:42	15° $\approx$	
conjunction	16169 May 01 21:02	24° $\approx$ 52'40	0°07'08	retrograde	16175 Mar 01 08:48	27° $\approx$ 14'49	
minimum elong	16169 May 01 21:03	24° $\approx$ 52'41	0°06'34	opposition	16175 Apr 29 15:34	22° $\approx$ 16'42	-0°12'23
behind sun begin	16169 May 01 13:30	24° $\approx$ 48'40		min. Earth dist.	16175 Apr 29 17:36	22° $\approx$ 16'01	3.91234 AU
behind sun end	16169 May 02 04:36	24° $\approx$ 56'42		direct	16175 Jun 27 04:20	17° $\approx$ 20'52	
max. Earth dist.	16169 May 01 21:23	24° $\approx$ 52'51	6.49472 AU		16175 Sep 30 12:37	0° $\approx$	
morning rise	16169 May 14 22:42	27° $\approx$ 40'05		asc. node	16175 Oct 12 22:45	2° $\approx$ 50'33	
	16169 May 26 00:34	0° $\approx$		evening set	16175 Nov 01 22:45	7° $\approx$ 37'54	
retrograde	16169 Sep 13 04:26	14° $\approx$ 20'17					
desc. node	16169 Oct 18 13:55	12° $\approx$ 28'04		conjunction	16175 Nov 15 07:50	10° $\approx$ 54'24	0°01'42
opposition	16169 Nov 13 09:02	9° $\approx$ 24'17	-0°01'34	minimum elong	16175 Nov 15 07:49	10° $\approx$ 54'23	0°02'22
min. Earth dist.	16169 Nov 13 18:05	9° $\approx$ 21'22	4.50947 AU	behind sun begin	16175 Nov 14 23:30	10° $\approx$ 49'18	
direct	16170 Jan 14 16:07	4° $\approx$ 23'53		behind sun end	16175 Nov 15 16:08	10° $\approx$ 59'28	
evening set	16170 May 18 24:00	21° $\approx$ 24'36		max. Earth dist.	16175 Nov 15 22:16	11° $\approx$ 03'14	5.89657 AU
				morning rise	16175 Nov 28 18:37	14° $\approx$ 11'47	
conjunction	16170 May 31 23:45	24° $\approx$ 11'08	-0°09'00		16176 Feb 10 22:35	0° $\approx$	
minimum elong	16170 May 31 23:45	24° $\approx$ 11'08	0°09'42	retrograde	16176 Apr 08 02:45	5° $\approx$ 00'05	
behind sun begin	16170 May 31 17:10	24° $\approx$ 07'38		min. Earth dist.	16176 Jun 05 09:40	0° $\approx$ 06'34	3.91014 AU
behind sun end	16170 Jun 01 06:19	24° $\approx$ 14'39		opposition	16176 Jun 06 07:25	29° $\approx$ 59'12	0°18'04
max. Earth dist.	16170 May 30 21:47	23° $\approx$ 15'14	6.50188 AU		16176 Jun 06 05:04	30° $\approx$ 8	
morning rise	16170 Jun 13 21:56	26° $\approx$ 15'03		direct	16176 Aug 03 11:38	25° $\approx$ 03'34	
	16170 Jun 28 10:00	0° $\approx$			16176 Sep 28 13:51	0° $\approx$	
retrograde	16170 Oct 13 04:19	13° $\approx$ 40'08		evening set	16176 Dec 09 04:12	15° $\approx$ 310'32	
opposition	16170 Dec 13 09:09	8° $\approx$ 45'37	-0°23'56				
min. Earth dist.	16170 Dec 14 10:40	8° $\approx$ 37'27	4.47281 AU	conjunction	16176 Dec 22 16:26	18° $\approx$ 35'50	0°20'16
direct	16171 Feb 13 17:19	3° $\approx$ 45'01		minimum elong	16176 Dec 22 16:25	18° $\approx$ 35'50	0°20'59

max. Earth dist.	16176 Dec 24 15:59	18° $\text{♁}$ 54'32	5.95114 AU	retrograde	16182 Oct 17 10:03	17° $\text{♁}$ 53'31	
morning rise	16177 Jan 05 05:53	21° $\text{♁}$ 41'37		opposition	16182 Dec 17 13:55	12° $\text{♁}$ 59'05	-0°26'39
	16177 Feb 10 11:23	0° $\text{♁}$		min. Earth dist.	16182 Dec 18 18:08	12° $\text{♁}$ 50'03	4.46561 AU
retrograde	16177 May 15 05:20	11° $\text{♁}$ 54'00		direct	16183 Feb 17 23:23	7° $\text{♁}$ 58'26	
min. Earth dist.	16177 Jul 12 04:30	7° $\text{♁}$ 03'28	4.01509 AU	evening set	16183 Jun 22 11:39	25° $\text{♁}$ 18'15	
opposition	16177 Jul 13 16:42	6° $\text{♁}$ 51'14	0°40'21	max. Earth dist.	16183 Jul 03 08:12	27° $\text{♁}$ 40'25	6.41140 AU
direct	16177 Sep 10 07:05	1° $\text{♁}$ 54'21					
	16177 Dec 18 14:18	15° $\text{♁}$		conjunction	16183 Jul 05 09:06	28° $\text{♁}$ 07'12	-0°24'19
evening set	16178 Jan 15 08:02	21° $\text{♁}$ 15'55		minimum elong	16183 Jul 05 09:06	28° $\text{♁}$ 07'11	0°24'59
					16183 Jul 13 23:07	0° $\text{♁}$	
conjunction	16178 Jan 28 20:04	24° $\text{♁}$ 24'25	0°30'25	morning rise	16183 Jul 18 05:22	0° $\text{♁}$ 55'48	
minimum elong	16178 Jan 28 20:04	24° $\text{♁}$ 24'25	0°30'54		16183 Oct 01 19:01	15° $\text{♁}$	
max. Earth dist.	16178 Jan 31 06:35	24° $\text{♁}$ 58'28	6.09487 AU	retrograde	16183 Nov 18 01:10	18° $\text{♁}$ 16'12	
morning rise	16178 Feb 11 08:55	27° $\text{♁}$ 32'54			16184 Jan 04 23:40	15° $\text{♁}$	
	16178 Feb 22 02:07	0° $\text{♁}$		opposition	16184 Jan 17 22:12	13° $\text{♁}$ 22'03	-0°42'12
retrograde	16178 Jun 18 12:51	16° $\text{♁}$ 36'15		min. Earth dist.	16184 Jan 19 11:47	13° $\text{♁}$ 09'57	4.34057 AU
min. Earth dist.	16178 Aug 16 01:52	11° $\text{♁}$ 46'02	4.18194 AU	direct	16184 Mar 19 17:24	8° $\text{♁}$ 21'40	
opposition	16178 Aug 17 15:05	11° $\text{♁}$ 33'35	0°46'23		16184 May 28 06:31	15° $\text{♁}$	
direct	16178 Oct 16 05:26	6° $\text{♁}$ 35'08		evening set	16184 Jul 22 22:56	26° $\text{♁}$ 23'11	
evening set	16179 Feb 19 07:20	24° $\text{♁}$ 59'03		max. Earth dist.	16184 Aug 02 12:46	28° $\text{♁}$ 46'33	6.25795 AU
conjunction	16179 Mar 04 17:03	27° $\text{♁}$ 58'50	0°29'32	conjunction	16184 Aug 04 20:29	29° $\text{♁}$ 18'09	-0°31'09
minimum elong	16179 Mar 04 17:04	27° $\text{♁}$ 58'50	0°29'37	minimum elong	16184 Aug 04 20:29	29° $\text{♁}$ 18'09	0°31'35
max. Earth dist.	16179 Mar 06 18:30	28° $\text{♁}$ 26'31	6.27016 AU		16184 Aug 07 22:13	0° $\text{♁}$	
	16179 Mar 13 17:49	0° $\text{♁}$		morning rise	16184 Aug 17 17:29	2° $\text{♁}$ 13'12	
morning rise	16179 Mar 18 02:27	0° $\text{♁}$ 58'10		retrograde	16184 Dec 21 04:18	20° $\text{♁}$ 35'18	
retrograde	16179 Jul 20 10:48	18° $\text{♁}$ 51'16		opposition	16185 Feb 19 11:09	15° $\text{♁}$ 40'34	-0°46'11
min. Earth dist.	16179 Sep 17 23:49	13° $\text{♁}$ 59'05	4.35035 AU	min. Earth dist.	16185 Feb 21 01:09	15° $\text{♁}$ 28'11	4.16836 AU
opposition	16179 Sep 19 01:37	13° $\text{♁}$ 50'35	0°37'11	direct	16185 Apr 21 06:03	10° $\text{♁}$ 41'19	
direct	16179 Nov 18 21:00	8° $\text{♁}$ 51'08		evening set	16185 Aug 25 09:45	29° $\text{♁}$ 39'11	
evening set	16180 Mar 23 00:06	26° $\text{♁}$ 26'04			16185 Aug 26 21:20	0° $\text{♁}$	
				max. Earth dist.	16185 Sep 05 10:48	2° $\text{♁}$ 15'00	6.08091 AU
conjunction	16180 Apr 05 06:13	29° $\text{♁}$ 18'22	0°19'43				
minimum elong	16180 Apr 05 06:13	29° $\text{♁}$ 18'22	0°19'26	conjunction	16185 Sep 07 09:57	2° $\text{♁}$ 42'49	-0°28'27
max. Earth dist.	16180 Apr 06 07:59	29° $\text{♁}$ 32'21	6.41920 AU	minimum elong	16185 Sep 07 09:58	2° $\text{♁}$ 42'49	0°28'29
	16180 Apr 08 10:58	0° $\text{♁}$		morning rise	16185 Sep 20 10:36	5° $\text{♁}$ 47'02	
morning rise	16180 Apr 18 11:30	2° $\text{♁}$ 10'01		retrograde	16186 Jan 26 21:46	25° $\text{♁}$ 23'31	
	16180 Jun 25 11:58	15° $\text{♁}$		opposition	16186 Mar 27 14:20	20° $\text{♁}$ 27'21	-0°34'27
retrograde	16180 Aug 18 15:17	19° $\text{♁}$ 11'57		min. Earth dist.	16186 Mar 28 13:30	20° $\text{♁}$ 19'41	4.00130 AU
	16180 Oct 12 17:57	15° $\text{♁}$		direct	16186 May 26 01:22	15° $\text{♁}$ 30'00	
opposition	16180 Oct 18 16:35	14° $\text{♁}$ 13'52	0°18'11		16186 Sep 07 12:48	0° $\text{♁}$	
min. Earth dist.	16180 Oct 18 08:00	14° $\text{♁}$ 16'40	4.47037 AU	evening set	16186 Sep 30 06:38	5° $\text{♁}$ 22'17	
direct	16180 Dec 19 11:02	9° $\text{♁}$ 13'49					
	16181 Feb 22 23:44	15° $\text{♁}$		conjunction	16186 Oct 13 11:33	8° $\text{♁}$ 34'37	-0°15'19
evening set	16181 Apr 22 23:56	26° $\text{♁}$ 19'39		minimum elong	16186 Oct 13 11:33	8° $\text{♁}$ 34'38	0°14'55
				behind sun begin	16186 Oct 13 08:20	8° $\text{♁}$ 32'41	
conjunction	16181 May 06 02:29	29° $\text{♁}$ 07'19	0°04'54	behind sun end	16186 Oct 13 14:46	8° $\text{♁}$ 36'34	
minimum elong	16181 May 06 02:27	29° $\text{♁}$ 07'18	0°04'19	max. Earth dist.	16186 Oct 12 16:43	8° $\text{♁}$ 23'10	5.93984 AU
behind sun begin	16181 May 05 18:32	29° $\text{♁}$ 03'06		morning rise	16186 Oct 26 17:44	11° $\text{♁}$ 47'52	
behind sun end	16181 May 06 10:22	29° $\text{♁}$ 11'31			16186 Nov 09 02:43	15° $\text{♁}$	
max. Earth dist.	16181 May 06 00:59	29° $\text{♁}$ 06'33	6.50225 AU		16187 Jan 26 18:46	0° $\text{♁}$	
	16181 May 10 05:03	0° $\text{♁}$		retrograde	16187 Mar 06 14:27	2° $\text{♁}$ 23'59	
morning rise	16181 May 19 03:24	1° $\text{♁}$ 54'12			16187 Apr 14 14:11	30° $\text{♁}$	
desc. node	16181 Aug 30 16:28	18° $\text{♁}$ 04'00		opposition	16187 May 04 19:32	27° $\text{♁}$ 25'31	-0°08'19
retrograde	16181 Sep 17 05:50	18° $\text{♁}$ 32'25		min. Earth dist.	16187 May 04 19:29	27° $\text{♁}$ 25'32	3.90161 AU
opposition	16181 Nov 17 12:14	13° $\text{♁}$ 36'39	-0°04'50	direct	16187 Jul 02 06:24	22° $\text{♁}$ 29'45	
min. Earth dist.	16181 Nov 17 22:42	13° $\text{♁}$ 33'17	4.51221 AU	asc. node	16187 Aug 22 14:32	26° $\text{♁}$ 41'51	
direct	16182 Jan 18 20:08	8° $\text{♁}$ 36'16			16187 Sep 10 17:56	0° $\text{♁}$	
evening set	16182 May 23 03:53	25° $\text{♁}$ 36'45		evening set	16187 Nov 07 02:01	12° $\text{♁}$ 49'50	
max. Earth dist.	16182 Jun 03 21:47	28° $\text{♁}$ 07'28	6.49965 AU				
				conjunction	16187 Nov 20 11:56	16° $\text{♁}$ 06'54	0°04'28
conjunction	16182 Jun 05 03:05	28° $\text{♁}$ 23'11	-0°11'07	minimum elong	16187 Nov 20 11:56	16° $\text{♁}$ 06'54	0°05'09
minimum elong	16182 Jun 05 03:04	28° $\text{♁}$ 23'10	0°11'50	behind sun begin	16187 Nov 20 03:51	16° $\text{♁}$ 01'58	
behind sun begin	16182 Jun 04 21:29	28° $\text{♁}$ 20'12		behind sun end	16187 Nov 20 20:00	16° $\text{♁}$ 11'50	
behind sun end	16182 Jun 05 08:39	28° $\text{♁}$ 26'09		max. Earth dist.	16187 Nov 21 07:58	16° $\text{♁}$ 19'11	5.89227 AU
	16182 Jun 12 15:42	0° $\text{♁}$		morning rise	16187 Dec 03 23:18	19° $\text{♁}$ 24'47	
morning rise	16182 Jun 18 00:57	1° $\text{♁}$ 09'02			16188 Jan 19 02:44	0° $\text{♁}$	





















































































































































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min. Earth dist.	16188 Jun 10 11:37	5° $\text{♁}$ 20'39	3.91290 AU	evening set	16194 May 27 08:43	29° $\text{♁}$ 51'25	
opposition	16188 Jun 11 11:50	5° $\text{♁}$ 12'27	0°21'52		16194 May 28 00:50	0° $\text{♁}$	
direct	16188 Aug 08 15:14	0° $\text{♁}$ 16'45		max. Earth dist.	16194 Jun 08 00:05	2° $\text{♁}$ 20'56	6.49412 AU
evening set	16188 Dec 14 08:39	20° $\text{♁}$ 21'45					
conjunction	16188 Dec 27 21:03	23° $\text{♁}$ 36'43	0°22'16	conjunction	16194 Jun 09 07:42	2° $\text{♁}$ 37'55	-0°13'13
minimum elong	16188 Dec 27 21:02	23° $\text{♁}$ 36'43	0°22'57	minimum elong	16194 Jun 09 07:41	2° $\text{♁}$ 37'55	0°13'57
max. Earth dist.	16188 Dec 29 22:31	24° $\text{♁}$ 06'30	5.96042 AU	behind sun begin	16194 Jun 09 03:37	2° $\text{♁}$ 35'44	
morning rise	16189 Jan 10 10:56	26° $\text{♁}$ 52'11		behind sun end	16194 Jun 09 11:46	2° $\text{♁}$ 40'05	
	16189 Jan 23 17:20	0° $\text{♁}$		morning rise	16194 Jun 22 05:04	5° $\text{♁}$ 23'49	
	16189 Apr 14 23:09	15° $\text{♁}$		retrograde	16194 Oct 21 15:35	22° $\text{♁}$ 10'59	
retrograde	16189 May 20 02:48	16° $\text{♁}$ 58'52		opposition	16194 Dec 21 20:05	17° $\text{♁}$ 16'41	-0°29'19
	16189 Jun 24 05:54	15° $\text{♁}$		min. Earth dist.	16194 Dec 23 01:32	17° $\text{♁}$ 07'15	4.45413 AU
min. Earth dist.	16189 Jul 17 02:28	12° $\text{♁}$ 08'48	4.02981 AU	direct	16195 Feb 22 04:04	12° $\text{♁}$ 16'04	
opposition	16189 Jul 18 16:30	11° $\text{♁}$ 55'56	0°42'12	evening set	16195 Jun 26 18:30	29° $\text{♁}$ 40'00	
direct	16189 Sep 15 08:13	6° $\text{♁}$ 58'49			16195 Jun 28 07:11	0° $\text{♁}$	
	16189 Nov 29 00:45	15° $\text{♁}$		max. Earth dist.	16195 Jul 07 12:42	2° $\text{♁}$ 01'27	6.39455 AU
evening set	16190 Jan 20 08:25	26° $\text{♁}$ 14'47		conjunction	16195 Jul 09 15:43	2° $\text{♁}$ 29'31	-0°25'43
conjunction	16190 Feb 02 20:24	29° $\text{♁}$ 22'23	0°30'54	minimum elong	16195 Jul 09 15:43	2° $\text{♁}$ 29'31	0°26'22
minimum elong	16190 Feb 02 20:25	29° $\text{♁}$ 22'23	0°31'21	morning rise	16195 Jul 22 11:58	5° $\text{♁}$ 18'46	
max. Earth dist.	16190 Feb 05 07:28	29° $\text{♁}$ 56'37	6.11372 AU		16195 Sep 07 21:29	15° $\text{♁}$	
	16190 Feb 05 13:18	0° $\text{♁}$		retrograde	16195 Nov 22 15:46	22° $\text{♁}$ 46'04	
morning rise	16190 Feb 16 08:53	2° $\text{♁}$ 29'52		opposition	16196 Jan 22 10:24	17° $\text{♁}$ 51'55	-0°43'32
retrograde	16190 Jun 23 05:07	21° $\text{♁}$ 24'34		min. Earth dist.	16196 Jan 24 01:49	17° $\text{♁}$ 39'12	4.31917 AU
min. Earth dist.	16190 Aug 20 19:46	16° $\text{♁}$ 34'07	4.20284 AU		16196 Feb 15 02:37	15° $\text{♁}$	
opposition	16190 Aug 22 07:53	16° $\text{♁}$ 22'03	0°45'52	direct	16196 Mar 24 04:06	12° $\text{♁}$ 51'36	
direct	16190 Oct 21 02:41	11° $\text{♁}$ 23'26			16196 May 01 00:04	15° $\text{♁}$	
evening set	16191 Feb 24 01:09	29° $\text{♁}$ 40'40			16196 Jul 23 00:00	0° $\text{♁}$	
	16191 Feb 25 12:01	0° $\text{♁}$		evening set	16196 Jul 27 10:56	1° $\text{♁}$ 00'12	
				max. Earth dist.	16196 Aug 07 00:07	3° $\text{♁}$ 24'00	6.23360 AU
conjunction	16191 Mar 09 10:25	2° $\text{♁}$ 39'24	0°28'34	conjunction	16196 Aug 09 08:44	3° $\text{♁}$ 56'16	-0°31'23
minimum elong	16191 Mar 09 10:26	2° $\text{♁}$ 39'24	0°28'36	minimum elong	16196 Aug 09 08:44	3° $\text{♁}$ 56'16	0°31'46
max. Earth dist.	16191 Mar 11 10:21	3° $\text{♁}$ 06'05	6.29131 AU	morning rise	16196 Aug 22 06:07	6° $\text{♁}$ 52'29	
morning rise	16191 Mar 22 19:23	5° $\text{♁}$ 37'39		retrograde	16196 Dec 26 01:40	25° $\text{♁}$ 24'41	
retrograde	16191 Jul 24 17:57	23° $\text{♁}$ 22'35		opposition	16197 Feb 24 07:31	20° $\text{♁}$ 29'48	-0°45'30
min. Earth dist.	16191 Sep 22 10:39	18° $\text{♁}$ 30'20	4.37005 AU	min. Earth dist.	16197 Feb 25 19:40	20° $\text{♁}$ 18'00	4.14288 AU
opposition	16191 Sep 23 11:29	18° $\text{♁}$ 22'10	0°34'54	direct	16197 Apr 25 21:20	15° $\text{♁}$ 30'46	
direct	16191 Nov 23 09:43	13° $\text{♁}$ 22'34			16197 Aug 10 04:58	0° $\text{♁}$	
	16192 Mar 23 09:51	0° $\text{♁}$		evening set	16197 Aug 30 05:54	4° $\text{♁}$ 37'12	
evening set	16192 Mar 27 11:10	0° $\text{♁}$ 52'06		max. Earth dist.	16197 Sep 10 10:37	7° $\text{♁}$ 16'03	6.05657 AU
conjunction	16192 Apr 09 16:49	3° $\text{♁}$ 43'32	0°17'47	conjunction	16197 Sep 12 06:39	7° $\text{♁}$ 42'11	-0°27'11
minimum elong	16192 Apr 09 16:49	3° $\text{♁}$ 43'33	0°17'27	minimum elong	16197 Sep 12 06:40	7° $\text{♁}$ 42'11	0°27'09
max. Earth dist.	16192 Apr 10 15:51	3° $\text{♁}$ 56'00	6.43589 AU	morning rise	16197 Sep 25 07:59	10° $\text{♁}$ 47'48	
morning rise	16192 Apr 22 21:21	6° $\text{♁}$ 34'17			16198 Jan 13 08:00	0° $\text{♁}$	
	16192 Jun 03 12:06	15° $\text{♁}$		retrograde	16198 Feb 01 06:01	0° $\text{♁}$ 34'49	
retrograde	16192 Aug 22 19:47	23° $\text{♁}$ 30'46			16198 Feb 20 02:02	30° $\text{♁}$	
opposition	16192 Oct 22 22:08	18° $\text{♁}$ 33'04	0°15'00	opposition	16198 Apr 01 19:32	25° $\text{♁}$ 38'22	-0°31'28
min. Earth dist.	16192 Oct 22 16:13	18° $\text{♁}$ 34'59	4.48270 AU	min. Earth dist.	16198 Apr 02 16:48	25° $\text{♁}$ 31'19	3.98032 AU
	16192 Nov 22 14:29	15° $\text{♁}$		direct	16198 May 31 03:15	20° $\text{♁}$ 41'14	
direct	16192 Dec 23 20:00	13° $\text{♁}$ 32'57			16198 Aug 19 11:10	0° $\text{♁}$	
	16193 Jan 24 07:06	15° $\text{♁}$		evening set	16198 Oct 05 11:00	10° $\text{♁}$ 40'23	
	16193 Apr 24 10:18	0° $\text{♁}$					
evening set	16193 Apr 27 06:23	0° $\text{♁}$ 35'59		conjunction	16198 Oct 18 16:49	13° $\text{♁}$ 53'51	-0°12'45
conjunction	16193 May 10 08:13	3° $\text{♁}$ 23'08	0°02'36	minimum elong	16198 Oct 18 16:49	13° $\text{♁}$ 53'52	0°12'18
minimum elong	16193 May 10 08:13	3° $\text{♁}$ 23'08	0°01'59	behind sun begin	16198 Oct 18 11:19	13° $\text{♁}$ 50'31	
behind sun begin	16193 May 10 00:09	3° $\text{♁}$ 18'51		behind sun end	16198 Oct 18 22:19	13° $\text{♁}$ 57'12	
behind sun end	16193 May 10 16:16	3° $\text{♁}$ 27'25		max. Earth dist.	16198 Oct 18 03:19	13° $\text{♁}$ 45'38	5.92447 AU
max. Earth dist.	16193 May 10 01:40	3° $\text{♁}$ 19'40	6.50900 AU		16198 Oct 23 05:10	15° $\text{♁}$	
morning rise	16193 May 23 08:47	6° $\text{♁}$ 09'37		morning rise	16198 Oct 31 23:49	17° $\text{♁}$ 08'14	
desc. node	16193 Jul 11 11:07	15° $\text{♁}$ 48'42			16198 Dec 28 17:11	0° $\text{♁}$	
retrograde	16193 Sep 21 10:00	22° $\text{♁}$ 46'18		retrograde	16199 Mar 12 02:17	7° $\text{♁}$ 50'21	
opposition	16193 Nov 21 16:25	17° $\text{♁}$ 50'45	-0°08'07	opposition	16199 May 10 05:55	2° $\text{♁}$ 51'33	-0°03'57
min. Earth dist.	16193 Nov 22 05:51	17° $\text{♁}$ 46'26	4.51294 AU	min. Earth dist.	16199 May 10 02:06	2° $\text{♁}$ 52'50	3.89392 AU
					16199 Jun 01 23:44	30° $\text{♁}$	

asc. node	16199 Jun 30 05:35	28°♄01'30	evening set	16205 May 02 10:42	4°♄46'56	
direct	16199 Jul 07 13:41	27°♄55'57				
	16199 Aug 11 21:39	0°♄	conjunction	16205 May 15 12:09	7°♄33'43	0°00'17
evening set	16199 Nov 12 11:26	18°♄17'30	minimum elong	16205 May 15 12:09	7°♄33'43	0°00'21
			behind sun begin	16205 May 15 04:08	7°♄29'28	
conjunction	16199 Nov 25 21:45	21°♄34'46 0°07'19	behind sun end	16205 May 15 20:10	7°♄37'58	
minimum elong	16199 Nov 25 21:45	21°♄34'47 0°08'00	max. Earth dist.	16205 May 15 02:23	7°♄28'32	6.51380 AU
behind sun begin	16199 Nov 25 14:19	21°♄30'14	desc. node	16205 May 22 18:06	9°♄06'32	
behind sun end	16199 Nov 26 05:12	21°♄39'19	morning rise	16205 May 28 12:03	10°♄19'48	
max. Earth dist.	16199 Nov 26 21:46	21°♄49'29 5.89298 AU	retrograde	16205 Sep 26 12:21	26°♄55'43	
morning rise	16199 Dec 09 09:54	24°♄52'55	opposition	16205 Nov 26 19:09	22°♄00'26	-0°11'17
	16199 Dec 30 20:46	0°♄	min. Earth dist.	16205 Nov 27 11:31	21°♄55'12	4.51068 AU
retrograde	16200 Apr 19 15:32	15°♄39'39	direct	16206 Jan 28 05:48	16°♄59'55	
opposition	16200 Jun 17 20:38	10°♄38'06 0°25'37		16206 May 13 04:32	0°♄	
min. Earth dist.	16200 Jun 16 16:55	10°♄47'29 3.92215 AU	evening set	16206 Jun 01 12:25	4°♄02'38	
direct	16200 Aug 15 00:08	5°♄42'15	max. Earth dist.	16206 Jun 12 22:13	6°♄29'34	6.48476 AU
evening set	16200 Dec 20 16:42	25°♄42'25				
			conjunction	16206 Jun 14 10:54	6°♄49'19	-0°15'14
conjunction	16201 Jan 03 05:18	28°♄56'39 0°24'10	minimum elong	16206 Jun 14 10:54	6°♄49'19	0°15'58
minimum elong	16201 Jan 03 05:18	28°♄56'39 0°24'49	behind sun begin	16206 Jun 14 10:06	6°♄48'53	
max. Earth dist.	16201 Jan 05 10:19	29°♄28'26 5.97739 AU	behind sun end	16206 Jun 14 11:42	6°♄49'44	
	16201 Jan 07 15:03	0°♄	morning rise	16206 Jun 27 08:11	9°♄35'30	
morning rise	16201 Jan 16 19:05	2°♄11'13	retrograde	16206 Oct 26 23:35	26°♄26'47	
	16201 Mar 17 00:26	15°♄	opposition	16206 Dec 27 02:23	21°♄32'33	-0°31'50
retrograde	16201 May 26 03:14	22°♄08'48	min. Earth dist.	16206 Dec 28 10:27	21°♄22'15	4.43809 AU
min. Earth dist.	16201 Jul 23 03:46	17°♄18'38 4.05243 AU	direct	16207 Feb 27 09:33	16°♄31'52	
opposition	16201 Jul 24 17:54	17°♄05'45 0°43'45		16207 Jun 13 07:53	0°♄	
	16201 Aug 09 19:34	15°♄	evening set	16207 Jul 02 01:20	4°♄01'22	
direct	16201 Sep 21 14:00	12°♄08'23	max. Earth dist.	16207 Jul 12 18:02	6°♄22'38	6.37293 AU
	16201 Nov 03 05:00	15°♄				
	16202 Jan 20 21:04	0°♄	conjunction	16207 Jul 14 22:41	6°♄51'43	-0°27'00
evening set	16202 Jan 26 09:31	1°♄15'42	minimum elong	16207 Jul 14 22:40	6°♄51'43	0°27'36
			morning rise	16207 Jul 27 18:52	9°♄41'49	
conjunction	16202 Feb 08 21:14	4°♄21'59 0°31'13		16207 Aug 21 12:11	15°♄	
minimum elong	16202 Feb 08 21:14	4°♄21'59 0°31'35	retrograde	16207 Nov 28 06:01	27°♄17'40	
max. Earth dist.	16202 Feb 11 09:04	4°♄56'27 6.13981 AU	opposition	16208 Jan 27 23:36	22°♄23'30	-0°44'40
morning rise	16202 Feb 22 09:18	7°♄28'06	min. Earth dist.	16208 Jan 29 14:56	22°♄10'48	4.29337 AU
retrograde	16202 Jun 28 17:39	26°♄11'30	direct	16208 Mar 29 12:54	17°♄23'20	
min. Earth dist.	16202 Aug 26 11:34	21°♄21'11 4.22990 AU		16208 Jul 07 08:02	0°♄	
opposition	16202 Aug 27 23:44	21°♄09'08 0°45'04	evening set	16208 Aug 02 00:51	5°♄40'38	
direct	16202 Oct 26 21:56	16°♄10'19	max. Earth dist.	16208 Aug 12 14:46	8°♄05'47	6.20558 AU
	16203 Feb 09 19:06	0°♄				
evening set	16203 Mar 01 17:17	4°♄18'55	conjunction	16208 Aug 14 22:53	8°♄37'59	-0°31'26
			minimum elong	16208 Aug 14 22:53	8°♄37'59	0°31'45
conjunction	16203 Mar 15 01:59	7°♄16'20 0°27'27	morning rise	16208 Aug 27 20:46	11°♄35'35	
minimum elong	16203 Mar 15 01:59	7°♄16'20 0°27'27		16208 Dec 17 23:14	0°♄	
max. Earth dist.	16203 Mar 16 22:16	7°♄40'53 6.31714 AU	retrograde	16209 Jan 01 04:51	0°♄19'24	
morning rise	16203 Mar 28 10:18	10°♄13'14		16209 Jan 15 08:37	30°♄	
retrograde	16203 Jul 30 01:23	27°♄48'54	opposition	16209 Mar 02 06:42	25°♄24'24	-0°44'31
opposition	16203 Sep 28 19:40	22°♄48'49 0°32'29	min. Earth dist.	16209 Mar 03 18:07	25°♄12'48	4.11474 AU
min. Earth dist.	16203 Sep 27 22:02	22°♄55'54 4.39255 AU	direct	16209 May 01 16:44	20°♄25'37	
direct	16203 Nov 28 22:57	17°♄49'04		16209 Jul 23 16:17	0°♄	
	16204 Mar 07 21:04	0°♄	evening set	16209 Sep 05 04:45	9°♄41'33	
evening set	16204 Apr 01 19:51	5°♄12'29	max. Earth dist.	16209 Sep 16 13:58	12°♄23'58	6.03104 AU
conjunction	16204 Apr 15 00:55	8°♄03'00 0°15'50	conjunction	16209 Sep 18 06:19	12°♄48'02	-0°25'43
minimum elong	16204 Apr 15 00:56	8°♄03'00 0°15'26	minimum elong	16209 Sep 18 06:19	12°♄48'02	0°25'38
behind sun begin	16204 Apr 14 22:54	8°♄01'55	morning rise	16209 Oct 01 08:23	15°♄55'10	
behind sun end	16204 Apr 15 02:57	8°♄04'05		16209 Dec 06 14:28	0°♄	
max. Earth dist.	16204 Apr 15 19:57	8°♄13'14 6.45340 AU	retrograde	16210 Feb 07 16:19	5°♄53'01	
morning rise	16204 Apr 28 04:52	10°♄52'49	opposition	16210 Apr 08 03:53	0°♄56'21	-0°28'12
	16204 May 17 20:20	15°♄	min. Earth dist.	16210 Apr 08 21:23	0°♄50'32	3.96025 AU
retrograde	16204 Aug 27 21:12	27°♄43'57		16210 Apr 15 06:34	30°♄	
opposition	16204 Oct 28 01:28	22°♄46'31 0°11'50	direct	16210 Jun 06 05:48	25°♄59'37	
min. Earth dist.	16204 Oct 27 21:54	22°♄47'40 4.49423 AU		16210 Jul 26 17:08	0°♄	
direct	16204 Dec 29 01:07	17°♄46'18		16210 Oct 07 07:05	15°♄	
	16205 Apr 09 07:21	0°♄	evening set	16210 Oct 11 18:30	16°♄05'02	

conjunction	16210 Oct 25 00:54	19° $\mathbb{M}$ 19'28	-0°10'04	minimum elong	16216 Apr 19 08:19	12° $\mathcal{B}$ 21'53	0°13'20
minimum elong	16210 Oct 25 00:54	19° $\mathbb{M}$ 19'28	0°09'34	behind sun begin	16216 Apr 19 03:45	12° $\mathcal{B}$ 19'27	
behind sun begin	16210 Oct 24 18:02	19° $\mathbb{M}$ 15'17		behind sun end	16216 Apr 19 12:52	12° $\mathcal{B}$ 24'19	
behind sun end	16210 Oct 25 07:46	19° $\mathbb{M}$ 23'39		max. Earth dist.	16216 Apr 19 22:23	12° $\mathcal{B}$ 29'26	6.46685 AU
max. Earth dist.	16210 Oct 24 15:59	19° $\mathbb{M}$ 14'02	5.91191 AU		16216 May 01 15:07	15° $\mathcal{B}$	
morning rise	16210 Nov 07 08:52	22° $\mathbb{M}$ 34'52		morning rise	16216 May 02 11:41	15° $\mathcal{B}$ 10'58	
	16210 Dec 08 21:20	0° $\mathcal{A}$			16216 Jul 26 15:14	0° $\mathbb{I}$	
retrograde	16211 Mar 18 14:27	13° $\mathcal{A}$ 21'30		retrograde	16216 Sep 01 01:23	1° $\mathbb{I}$ 58'19	
asc. node	16211 May 10 09:26	9° $\mathcal{A}$ 13'30			16216 Oct 07 09:12	30° $\mathcal{R}$ $\mathcal{B}$	
opposition	16211 May 16 18:14	8° $\mathcal{A}$ 22'17	0°00'30	opposition	16216 Nov 01 05:12	27° $\mathcal{B}$ 01'17	0°08'35
min. Earth dist.	16211 May 16 09:51	8° $\mathcal{A}$ 25'06	3.89054 AU	min. Earth dist.	16216 Nov 01 05:29	27° $\mathcal{B}$ 01'11	4.50130 AU
direct	16211 Jul 14 00:27	3° $\mathcal{A}$ 26'46		direct	16217 Jan 02 07:44	22° $\mathcal{B}$ 00'59	
evening set	16211 Nov 18 22:19	23° $\mathcal{A}$ 47'51			16217 Mar 22 04:34	0° $\mathbb{I}$	
				desc. node	16217 Mar 30 05:45	1° $\mathbb{I}$ 27'57	
conjunction	16211 Dec 02 09:14	27° $\mathcal{A}$ 05'05	0°10'06	evening set	16217 May 06 15:31	9° $\mathbb{I}$ 00'39	
minimum elong	16211 Dec 02 09:13	27° $\mathcal{A}$ 05'04	0°10'49				
behind sun begin	16211 Dec 02 02:52	27° $\mathcal{A}$ 01'12		conjunction	16217 May 19 16:29	11° $\mathbb{I}$ 47'14	-0°02'03
behind sun end	16211 Dec 02 15:34	27° $\mathcal{A}$ 08'56		minimum elong	16217 May 19 16:29	11° $\mathbb{I}$ 47'15	0°02'43
max. Earth dist.	16211 Dec 03 15:43	27° $\mathcal{A}$ 23'44	5.89919 AU	behind sun begin	16217 May 19 08:28	11° $\mathbb{I}$ 42'59	
	16211 Dec 14 07:41	0° $\mathcal{B}$		behind sun end	16217 May 20 00:30	11° $\mathbb{I}$ 51'30	
morning rise	16211 Dec 15 21:38	0° $\mathcal{B}$ 23'02		max. Earth dist.	16217 May 19 01:48	11° $\mathbb{I}$ 39'25	6.51390 AU
retrograde	16212 Apr 24 23:44	21° $\mathcal{B}$ 05'05		morning rise	16217 Jun 01 16:02	14° $\mathbb{I}$ 33'10	
min. Earth dist.	16212 Jun 21 23:47	16° $\mathcal{B}$ 13'11	3.93696 AU		16217 Sep 02 21:33	0° $\mathcal{B}$	
opposition	16212 Jun 23 05:14	16° $\mathcal{B}$ 03'13	0°29'08	retrograde	16217 Sep 30 16:50	1° $\mathcal{B}$ 09'53	
direct	16212 Aug 20 10:46	11° $\mathcal{B}$ 07'12			16217 Oct 28 10:43	30° $\mathcal{R}$ $\mathbb{I}$	
	16212 Dec 21 17:40	0° $\approx$		opposition	16217 Nov 30 23:26	26° $\mathbb{I}$ 14'47	-0°14'28
evening set	16212 Dec 25 23:52	1° $\approx$ 00'28		min. Earth dist.	16217 Dec 01 17:58	26° $\mathbb{I}$ 08'50	4.50401 AU
				direct	16218 Feb 01 09:24	21° $\mathbb{I}$ 14'10	
conjunction	16213 Jan 08 12:29	4° $\approx$ 13'41	0°25'50		16218 Apr 25 11:56	0° $\mathcal{B}$	
minimum elong	16213 Jan 08 12:29	4° $\approx$ 13'40	0°26'28	evening set	16218 Jun 05 17:52	8° $\mathcal{B}$ 19'47	
max. Earth dist.	16213 Jan 10 20:40	4° $\approx$ 47'08	5.99889 AU	max. Earth dist.	16218 Jun 17 01:50	10° $\mathcal{B}$ 46'06	6.47174 AU
morning rise	16213 Jan 22 02:11	7° $\approx$ 27'09					
	16213 Feb 24 06:42	15° $\approx$		conjunction	16218 Jun 18 16:16	11° $\mathcal{B}$ 06'51	-0°17'13
retrograde	16213 May 31 00:01	27° $\approx$ 14'07		minimum elong	16218 Jun 18 16:15	11° $\mathcal{B}$ 06'51	0°17'55
min. Earth dist.	16213 Jul 28 01:55	22° $\approx$ 24'21	4.07811 AU	morning rise	16218 Jul 01 13:08	13° $\mathcal{B}$ 53'24	
opposition	16213 Jul 29 17:21	22° $\approx$ 11'04	0°44'55		16218 Oct 08 01:15	0° $\mathcal{Q}$	
direct	16213 Sep 26 16:10	17° $\approx$ 13'30		retrograde	16218 Oct 31 09:18	0° $\mathcal{Q}$ 49'51	
	16214 Jan 03 10:54	0° $\mathcal{H}$			16218 Nov 23 16:19	30° $\mathcal{R}$ $\mathcal{B}$	
evening set	16214 Jan 31 08:32	6° $\mathcal{H}$ 11'36		opposition	16218 Dec 31 11:05	25° $\mathcal{B}$ 55'43	-0°34'15
				min. Earth dist.	16219 Jan 01 20:48	25° $\mathcal{B}$ 44'54	4.41950 AU
conjunction	16214 Feb 13 19:45	9° $\mathcal{H}$ 16'29	0°31'16	direct	16219 Mar 03 16:07	20° $\mathcal{B}$ 55'05	
minimum elong	16214 Feb 13 19:45	9° $\mathcal{H}$ 16'29	0°31'35		16219 May 26 10:58	0° $\mathcal{Q}$	
max. Earth dist.	16214 Feb 16 05:03	9° $\mathcal{H}$ 49'18	6.16713 AU	evening set	16219 Jul 06 11:06	8° $\mathcal{Q}$ 30'52	
morning rise	16214 Feb 27 07:23	12° $\mathcal{H}$ 21'10		max. Earth dist.	16219 Jul 17 01:27	10° $\mathcal{Q}$ 51'37	6.34999 AU
	16214 Jun 09 12:53	0° $\mathcal{Y}$					
retrograde	16214 Jul 03 06:31	0° $\mathcal{Y}$ 53'38		conjunction	16219 Jul 19 08:18	11° $\mathcal{Q}$ 22'04	-0°28'09
	16214 Jul 26 19:27	30° $\mathcal{R}$ $\mathcal{H}$		minimum elong	16219 Jul 19 08:17	11° $\mathcal{Q}$ 22'04	0°28'44
min. Earth dist.	16214 Aug 31 04:01	26° $\mathcal{H}$ 02'45	4.25633 AU	morning rise	16219 Aug 01 04:45	14° $\mathcal{Q}$ 13'10	
opposition	16214 Sep 01 13:42	25° $\mathcal{H}$ 51'32	0°43'58		16219 Aug 04 17:44	15° $\mathcal{Q}$	
direct	16214 Oct 31 16:58	20° $\mathcal{H}$ 52'32			16219 Oct 28 00:13	0° $\mathbb{N}$	
	16215 Jan 22 12:47	0° $\mathcal{Y}$		retrograde	16219 Dec 03 01:45	1° $\mathbb{N}$ 58'03	
evening set	16215 Mar 06 07:37	8° $\mathcal{Y}$ 53'18			16220 Jan 08 05:23	30° $\mathcal{R}$ $\mathcal{Q}$	
				opposition	16220 Feb 01 16:22	27° $\mathcal{Q}$ 03'49	-0°45'32
conjunction	16215 Mar 19 15:55	11° $\mathcal{Y}$ 49'34	0°26'11	min. Earth dist.	16220 Feb 03 08:01	26° $\mathcal{Q}$ 50'59	4.26758 AU
minimum elong	16215 Mar 19 15:55	11° $\mathcal{Y}$ 49'34	0°26'06	direct	16220 Apr 03 02:28	22° $\mathcal{Q}$ 03'46	
max. Earth dist.	16215 Mar 21 10:04	12° $\mathcal{Y}$ 12'48	6.34068 AU		16220 Jun 18 04:38	0° $\mathbb{N}$	
morning rise	16215 Apr 01 23:30	14° $\mathcal{Y}$ 45'15		evening set	16220 Aug 06 17:31	10° $\mathbb{N}$ 29'31	
	16215 Jun 25 21:51	0° $\mathcal{B}$		max. Earth dist.	16220 Aug 17 10:09	12° $\mathbb{N}$ 57'03	6.17929 AU
retrograde	16215 Aug 03 05:41	2° $\mathcal{B}$ 12'51					
	16215 Sep 10 12:36	30° $\mathcal{R}$ $\mathcal{Y}$		conjunction	16220 Aug 19 16:03	13° $\mathbb{N}$ 28'09	-0°31'16
min. Earth dist.	16215 Oct 02 06:28	27° $\mathcal{Y}$ 19'41	4.41170 AU	minimum elong	16220 Aug 19 16:03	13° $\mathbb{N}$ 28'09	0°31'32
opposition	16215 Oct 03 02:23	27° $\mathcal{Y}$ 13'10	0°29'54	morning rise	16220 Sep 01 14:17	16° $\mathbb{N}$ 27'03	
direct	16215 Dec 03 07:54	22° $\mathcal{Y}$ 13'21			16220 Nov 06 17:31	0° $\mathcal{B}$	
	16216 Feb 18 08:19	0° $\mathcal{B}$		retrograde	16221 Jan 06 08:39	5° $\mathcal{B}$ 21'39	
evening set	16216 Apr 06 03:51	9° $\mathcal{B}$ 32'06		opposition	16221 Mar 07 08:44	0° $\mathcal{B}$ 26'29	-0°43'11
				min. Earth dist.	16221 Mar 08 17:44	0° $\mathcal{B}$ 15'40	4.09049 AU
conjunction	16216 Apr 19 08:19	12° $\mathcal{B}$ 21'53	0°13'46		16221 Mar 10 17:37	30° $\mathcal{R}$ $\mathbb{N}$	

direct	16221 May 06 13:20	25° $\mathbb{M}$ 28'04		direct	16226 Nov 05 05:04	25° $\mathbb{H}$ 21'35	
	16221 Jun 30 07:45	0° $\mathbb{L}$			16227 Jan 01 01:39	0° $\mathbb{Y}$	
evening set	16221 Sep 10 06:04	14° $\mathbb{L}$ 51'45		evening set	16227 Mar 10 17:23	13° $\mathbb{Y}$ 15'41	
max. Earth dist.	16221 Sep 21 19:17	17° $\mathbb{L}$ 37'21	6.01124 AU				
conjunction	16221 Sep 23 08:04	17° $\mathbb{L}$ 59'23	-0°24'02	conjunction	16227 Mar 24 01:04	16° $\mathbb{Y}$ 10'56	0°24'50
minimum elong	16221 Sep 23 08:04	17° $\mathbb{L}$ 59'24	0°23'53	minimum elong	16227 Mar 24 01:04	16° $\mathbb{Y}$ 10'56	0°24'41
morning rise	16221 Oct 06 11:01	21° $\mathbb{L}$ 07'48		max. Earth dist.	16227 Mar 25 13:53	16° $\mathbb{Y}$ 31'09	6.36045 AU
	16221 Nov 14 09:21	0° $\mathbb{M}$		morning rise	16227 Apr 06 08:16	19° $\mathbb{Y}$ 05'39	
retrograde	16222 Feb 13 01:58	11° $\mathbb{M}$ 13'49			16227 May 31 02:32	0° $\mathbb{B}$	
opposition	16222 Apr 13 13:03	6° $\mathbb{M}$ 16'47	-0°24'42	retrograde	16227 Aug 07 09:00	6° $\mathbb{B}$ 26'55	
min. Earth dist.	16222 Apr 14 02:24	6° $\mathbb{M}$ 12'20	3.94720 AU	opposition	16227 Oct 07 05:56	1° $\mathbb{B}$ 27'39	0°27'18
direct	16222 Jun 11 12:17	1° $\mathbb{M}$ 20'17		min. Earth dist.	16227 Oct 06 13:38	1° $\mathbb{B}$ 32'58	4.42621 AU
	16222 Sep 19 16:08	15° $\mathbb{M}$			16227 Oct 18 14:33	30° $\mathbb{R}$ $\mathbb{Y}$	
evening set	16222 Oct 17 01:45	21° $\mathbb{M}$ 28'53		direct	16227 Dec 07 14:53	26° $\mathbb{Y}$ 27'47	
					16228 Jan 26 13:29	0° $\mathbb{B}$	
conjunction	16222 Oct 30 08:56	24° $\mathbb{M}$ 43'53	-0°07'21	evening set	16228 Apr 10 08:37	13° $\mathbb{B}$ 43'28	
minimum elong	16222 Oct 30 08:56	24° $\mathbb{M}$ 43'53	0°06'49		16228 Apr 16 07:51	15° $\mathbb{B}$	
behind sun begin	16222 Oct 30 01:14	24° $\mathbb{M}$ 39'11		conjunction	16228 Apr 23 12:47	16° $\mathbb{B}$ 32'47	0°11'45
behind sun end	16222 Oct 30 16:39	24° $\mathbb{M}$ 48'35		minimum elong	16228 Apr 23 12:47	16° $\mathbb{B}$ 32'47	0°11'17
max. Earth dist.	16222 Oct 30 07:26	24° $\mathbb{M}$ 42'59	5.90722 AU	behind sun begin	16228 Apr 23 06:54	16° $\mathbb{B}$ 29'38	
morning rise	16222 Nov 12 17:25	27° $\mathbb{M}$ 59'46		behind sun end	16228 Apr 23 18:41	16° $\mathbb{B}$ 35'56	
	16222 Nov 21 00:19	0° $\mathbb{J}$		max. Earth dist.	16228 Apr 23 23:39	16° $\mathbb{B}$ 38'36	6.47530 AU
asc. node	16223 Mar 22 09:39	18° $\mathbb{J}$ 46'57		morning rise	16228 May 06 15:34	19° $\mathbb{B}$ 21'22	
retrograde	16223 Mar 24 01:25	18° $\mathbb{J}$ 47'14			16228 Jun 30 08:02	0° $\mathbb{I}$	
opposition	16223 May 22 04:28	13° $\mathbb{J}$ 47'36	0°04'48	retrograde	16228 Sep 05 01:57	6° $\mathbb{I}$ 06'40	
min. Earth dist.	16223 May 21 17:13	13° $\mathbb{J}$ 51'23	3.89493 AU	opposition	16228 Nov 05 06:46	1° $\mathbb{I}$ 09'59	0°05'26
direct	16223 Jul 19 10:25	8° $\mathbb{J}$ 52'07		min. Earth dist.	16228 Nov 05 08:49	1° $\mathbb{I}$ 09'19	4.50354 AU
evening set	16223 Nov 24 05:59	29° $\mathbb{J}$ 09'30			16228 Nov 14 10:04	30° $\mathbb{R}$ $\mathbb{B}$	
	16223 Nov 27 17:09	0° $\mathbb{B}$		direct	16229 Jan 06 09:25	26° $\mathbb{B}$ 09'44	
				desc. node	16229 Feb 06 05:48	27° $\mathbb{B}$ 32'49	
conjunction	16223 Dec 07 17:10	2° $\mathbb{B}$ 26'14	0°12'42		16229 Feb 28 01:48	0° $\mathbb{I}$	
minimum elong	16223 Dec 07 17:09	2° $\mathbb{B}$ 26'14	0°13'25	evening set	16229 May 10 18:55	13° $\mathbb{I}$ 09'59	
behind sun begin	16223 Dec 07 12:27	2° $\mathbb{B}$ 23'23					
behind sun end	16223 Dec 07 21:51	2° $\mathbb{B}$ 29'05		conjunction	16229 May 23 19:29	15° $\mathbb{I}$ 56'35	-0°04'14
max. Earth dist.	16223 Dec 09 04:17	2° $\mathbb{B}$ 47'39	5.91193 AU	minimum elong	16229 May 23 19:29	15° $\mathbb{I}$ 56'35	0°04'55
morning rise	16223 Dec 21 05:55	5° $\mathbb{B}$ 43'41		behind sun begin	16229 May 23 11:41	15° $\mathbb{I}$ 52'26	
retrograde	16224 Apr 30 01:04	26° $\mathbb{B}$ 18'21		behind sun end	16229 May 24 03:18	16° $\mathbb{I}$ 00'44	
min. Earth dist.	16224 Jun 27 00:44	21° $\mathbb{B}$ 27'07	3.95669 AU	max. Earth dist.	16229 May 23 01:20	15° $\mathbb{I}$ 46'53	6.50993 AU
opposition	16224 Jun 28 09:00	21° $\mathbb{B}$ 16'13	0°32'12	morning rise	16229 Jun 05 18:39	18° $\mathbb{I}$ 42'32	
direct	16224 Aug 25 15:46	16° $\mathbb{B}$ 20'01			16229 Aug 03 17:26	0° $\mathbb{B}$	
	16224 Dec 04 16:06	0° $\mathbb{A}$		retrograde	16229 Oct 04 22:17	5° $\mathbb{B}$ 21'21	
evening set	16224 Dec 31 02:02	6° $\mathbb{A}$ 04'52		opposition	16229 Dec 05 03:09	0° $\mathbb{B}$ 26'31	-0°17'29
				min. Earth dist.	16229 Dec 06 00:38	0° $\mathbb{B}$ 19'38	4.49419 AU
conjunction	16225 Jan 13 14:24	9° $\mathbb{A}$ 16'50	0°27'13		16229 Dec 08 14:00	30° $\mathbb{R}$ $\mathbb{I}$	
minimum elong	16225 Jan 13 14:24	9° $\mathbb{A}$ 16'50	0°27'49	direct	16230 Feb 05 13:25	25° $\mathbb{I}$ 25'58	
max. Earth dist.	16225 Jan 15 22:21	9° $\mathbb{A}$ 49'58	6.02335 AU		16230 Apr 04 06:49	0° $\mathbb{B}$	
morning rise	16225 Jan 27 03:57	12° $\mathbb{A}$ 29'02		evening set	16230 Jun 09 22:47	12° $\mathbb{B}$ 35'21	
	16225 Feb 06 23:25	15° $\mathbb{A}$		max. Earth dist.	16230 Jun 21 02:52	15° $\mathbb{B}$ 00'08	6.45670 AU
	16225 Apr 29 09:27	0° $\mathbb{H}$					
retrograde	16225 Jun 04 15:55	2° $\mathbb{H}$ 04'51		conjunction	16230 Jun 22 20:54	15° $\mathbb{B}$ 22'54	-0°19'02
	16225 Jul 10 20:07	30° $\mathbb{R}$ $\mathbb{A}$		minimum elong	16230 Jun 22 20:53	15° $\mathbb{B}$ 22'54	0°19'44
min. Earth dist.	16225 Aug 01 20:57	27° $\mathbb{A}$ 14'43	4.10460 AU	morning rise	16230 Jul 05 17:47	18° $\mathbb{B}$ 10'01	
opposition	16225 Aug 03 11:15	27° $\mathbb{A}$ 01'50	0°45'42		16230 Sep 04 21:27	0° $\mathbb{Q}$	
direct	16225 Oct 01 14:48	22° $\mathbb{A}$ 04'00		retrograde	16230 Nov 04 19:41	5° $\mathbb{Q}$ 12'20	
	16225 Dec 15 12:49	0° $\mathbb{H}$		opposition	16231 Jan 04 19:59	0° $\mathbb{Q}$ 18'14	-0°36'25
evening set	16226 Feb 05 02:01	10° $\mathbb{H}$ 53'06		min. Earth dist.	16231 Jan 06 06:20	0° $\mathbb{Q}$ 07'11	4.40019 AU
					16231 Jan 07 04:44	30° $\mathbb{R}$ $\mathbb{B}$	
conjunction	16226 Feb 18 13:01	13° $\mathbb{H}$ 56'43	0°31'08	direct	16231 Mar 07 22:05	25° $\mathbb{B}$ 17'40	
minimum elong	16226 Feb 18 13:01	13° $\mathbb{H}$ 56'43	0°31'23		16231 May 04 22:54	0° $\mathbb{Q}$	
max. Earth dist.	16226 Feb 20 21:41	14° $\mathbb{H}$ 28'58	6.19342 AU	evening set	16231 Jul 10 20:23	12° $\mathbb{Q}$ 59'46	
morning rise	16226 Mar 04 00:01	17° $\mathbb{H}$ 00'01			16231 Jul 19 20:49	15° $\mathbb{Q}$	
	16226 May 07 14:56	0° $\mathbb{Y}$		max. Earth dist.	16231 Jul 21 11:52	15° $\mathbb{Q}$ 21'47	6.32782 AU
retrograde	16226 Jul 07 13:24	5° $\mathbb{Y}$ 22'23					
opposition	16226 Sep 05 22:41	0° $\mathbb{Y}$ 20'39	0°42'40	conjunction	16231 Jul 23 17:47	15° $\mathbb{Q}$ 51'53	-0°29'06
min. Earth dist.	16226 Sep 04 14:23	0° $\mathbb{Y}$ 31'21	4.28024 AU	minimum elong	16231 Jul 23 17:47	15° $\mathbb{Q}$ 51'53	0°29'39
	16226 Sep 08 12:59	30° $\mathbb{R}$ $\mathbb{H}$		morning rise	16231 Aug 05 14:10	18° $\mathbb{Q}$ 43'53	

	16231 Sep 29 22:08	0°♎			16237 Jan 21 11:58	15°♏	
retrograde	16231 Dec 07 20:03	6°♎37'26		morning rise	16237 Feb 01 05:28	17°♏31'11	
opposition	16232 Feb 06 08:38	1°♎43'09 -0°46'05			16237 Mar 31 21:06	0°♏	
min. Earth dist.	16232 Feb 07 24:00	1°♎30'24 4.24399 AU		retrograde	16237 Jun 09 09:01	6°♏57'31	
	16232 Feb 19 21:28	30°♎♏		min. Earth dist.	16237 Aug 06 15:19	2°♏07'26 4.12708 AU	
direct	16232 Apr 07 14:51	26°♏43'21		opposition	16237 Aug 08 05:34	1°♏54'35 0°46'11	
	16232 May 24 13:26	0°♎			16237 Aug 22 20:27	30°♎♏	
evening set	16232 Aug 11 09:34	15°♎16'38		direct	16237 Oct 06 11:53	26°♏56'35	
max. Earth dist.	16232 Aug 22 02:56	17°♎45'25 6.15594 AU			16237 Nov 20 01:51	0°♏	
				evening set	16238 Feb 09 20:46	15°♏38'10	
conjunction	16232 Aug 24 08:17	18°♎16'23 -0°30'52					
minimum elong	16232 Aug 24 08:17	18°♎16'23 0°31'05		conjunction	16238 Feb 23 07:16	18°♏40'37 0°30'46	
morning rise	16232 Sep 06 07:09	21°♎16'31		minimum elong	16238 Feb 23 07:16	18°♏40'37 0°30'59	
	16232 Oct 15 22:08	0°♏		max. Earth dist.	16238 Feb 25 13:02	19°♏11'05 6.21605 AU	
retrograde	16233 Jan 11 10:28	10°♏20'51		morning rise	16238 Mar 08 17:59	21°♏42'46	
opposition	16233 Mar 12 09:13	5°♏25'25 -0°41'30			16238 Apr 16 13:29	0°♎	
min. Earth dist.	16233 Mar 13 15:46	5°♏15'22 4.06910 AU		retrograde	16238 Jul 11 21:56	9°♎56'16	
direct	16233 May 11 09:45	0°♏27'13		min. Earth dist.	16238 Sep 09 03:01	5°♎04'51 4.30131 AU	
evening set	16233 Sep 15 05:12	19°♏57'40		opposition	16238 Sep 10 09:25	4°♎54'47 0°41'06	
max. Earth dist.	16233 Sep 27 00:32	22°♏47'31 5.99378 AU			16238 Nov 03 00:43	30°♎♏	
				direct	16238 Nov 09 19:31	29°♏55'33	
conjunction	16233 Sep 28 07:59	23°♏06'26 -0°22'09			16238 Nov 16 15:17	0°♎	
minimum elong	16233 Sep 28 08:00	23°♏06'26 0°21'56		evening set	16239 Mar 15 05:18	17°♎43'48	
morning rise	16233 Oct 11 11:30	26°♏15'56					
	16233 Oct 27 06:56	0°♎		conjunction	16239 Mar 28 12:41	20°♎38'10 0°23'17	
	16234 Jan 18 23:52	15°♎		minimum elong	16239 Mar 28 12:41	20°♎38'10 0°23'06	
retrograde	16234 Feb 18 11:24	16°♎29'23		max. Earth dist.	16239 Mar 29 23:44	20°♎57'20 6.37868 AU	
	16234 Mar 20 21:14	15°♎♎		morning rise	16239 Apr 10 19:08	23°♎31'54	
opposition	16234 Apr 18 19:48	11°♎32'03 -0°20'59			16239 May 11 17:18	0°♏	
min. Earth dist.	16234 Apr 19 06:43	11°♎28'25 3.93547 AU		retrograde	16239 Aug 11 12:52	10°♏46'58	
direct	16234 Jun 16 16:26	6°♎35'46		opposition	16239 Oct 11 11:30	5°♏48'06 0°24'28	
	16234 Aug 31 01:54	15°♎		min. Earth dist.	16239 Oct 10 20:50	5°♏52'52 4.44067 AU	
evening set	16234 Oct 22 06:40	26°♎47'21		direct	16239 Dec 11 23:14	0°♏48'15	
					16240 Mar 31 08:06	15°♏	
conjunction	16234 Nov 04 14:22	0°♏02'53 -0°04'34		evening set	16240 Apr 14 15:48	18°♏00'32	
minimum elong	16234 Nov 04 14:23	0°♏02'53 0°04'00					
behind sun begin	16234 Nov 04 06:11	29°♎57'53		conjunction	16240 Apr 27 19:16	20°♏49'15 0°09'35	
behind sun end	16234 Nov 04 22:34	0°♏07'53		minimum elong	16240 Apr 27 19:17	20°♏49'15 0°09'05	
	16234 Nov 04 09:37	0°♏		behind sun begin	16240 Apr 27 12:27	20°♏45'37	
max. Earth dist.	16234 Nov 04 17:01	0°♏04'27 5.90229 AU		behind sun end	16240 Apr 28 02:08	20°♏52'54	
morning rise	16234 Nov 17 23:40	3°♏19'20		max. Earth dist.	16240 Apr 28 01:23	20°♏52'30 6.48526 AU	
asc. node	16235 Feb 01 11:11	19°♏20'34		morning rise	16240 May 10 21:39	23°♏37'17	
retrograde	16235 Mar 29 07:39	24°♏07'54			16240 Jun 11 00:24	0°♎	
opposition	16235 May 27 11:49	19°♏07'53 0°09'04		retrograde	16240 Sep 09 06:04	10°♎19'45	
min. Earth dist.	16235 May 26 20:29	19°♏13'04 3.89764 AU		opposition	16240 Nov 09 10:30	5°♎23'21 0°02'10	
direct	16235 Jul 24 15:33	14°♏12'24		min. Earth dist.	16240 Nov 09 15:39	5°♎21'42 4.50875 AU	
	16235 Nov 10 19:08	0°♏		desc. node	16240 Dec 15 16:25	1°♎23'26	
evening set	16235 Nov 29 12:05	4°♏27'23		direct	16241 Jan 10 15:53	0°♎23'03	
				evening set	16241 May 14 23:21	17°♎22'29	
conjunction	16235 Dec 12 23:31	7°♏43'46 0°15'12					
minimum elong	16235 Dec 12 23:31	7°♏43'46 0°15'55		conjunction	16241 May 27 23:34	20°♎08'55 -0°06'27	
behind sun begin	16235 Dec 12 22:42	7°♏43'16		minimum elong	16241 May 27 23:34	20°♎08'55 0°07'09	
behind sun end	16235 Dec 13 00:20	7°♏44'15		behind sun begin	16241 May 27 16:11	20°♎04'59	
max. Earth dist.	16235 Dec 14 13:26	8°♏06'49 5.92188 AU		behind sun end	16241 May 28 06:57	20°♎12'50	
morning rise	16235 Dec 26 12:36	11°♏00'50		max. Earth dist.	16241 May 27 02:50	19°♎57'50 6.51018 AU	
	16236 Apr 04 19:01	0°♏		morning rise	16241 Jun 09 22:13	22°♎54'41	
retrograde	16236 May 05 02:19	1°♏29'36			16241 Jul 14 18:37	0°♏	
	16236 Jun 04 07:18	30°♎♏		retrograde	16241 Oct 09 01:15	9°♏33'59	
min. Earth dist.	16236 Jul 02 02:06	26°♏38'27 3.97258 AU		opposition	16241 Dec 09 07:20	4°♏39'15 -0°20'28	
opposition	16236 Jul 03 11:19	26°♏27'11 0°35'02		min. Earth dist.	16241 Dec 10 05:42	4°♏32'05 4.48967 AU	
direct	16236 Aug 30 21:05	21°♏30'45			16242 Jan 25 09:30	30°♎♎	
	16236 Nov 15 08:02	0°♏		direct	16242 Feb 09 16:35	29°♎38'41	
evening set	16237 Jan 05 03:44	11°♏09'02			16242 Feb 25 03:22	0°♏	
				evening set	16242 Jun 14 03:24	16°♏49'50	
conjunction	16237 Jan 18 16:13	14°♏20'04 0°28'25		max. Earth dist.	16242 Jun 25 06:12	19°♏14'13 6.44765 AU	
minimum elong	16237 Jan 18 16:13	14°♏20'04 0°28'58					
max. Earth dist.	16237 Jan 21 02:35	14°♏54'28 6.04361 AU		conjunction	16242 Jun 27 01:13	19°♏37'35 -0°20'47	

minimum elong	16242 Jun 27 01:13	19°  37'35	0°21'28			16248 Mar 04 06:14	0° 	
morning rise	16242 Jul 09 21:44	22°  24'55		retrograde		16248 May 10 03:44	6°  37'01	
	16242 Aug 15 16:01	0°  0		min. Earth dist.		16248 Jul 07 01:29	1°  46'18	3.98394 AU
retrograde	16242 Nov 09 04:26	9°  30'59		opposition		16248 Jul 08 12:21	1°  34'30	0°37'34
opposition	16243 Jan 09 03:29	4°  036'55	-0°38'22			16248 Jul 20 08:58	30°  R 	
min. Earth dist.	16243 Jan 10 15:46	4°  025'15	4.38696 AU	direct		16248 Sep 04 22:50	26°  Z 	37'55
	16243 Feb 24 03:57	30°  R 				16248 Oct 21 01:37	0° 	
direct	16243 Mar 12 05:06	29°  036'22				16249 Jan 05 02:17	15° 	
	16243 Mar 28 06:33	0°  0		evening set		16249 Jan 10 05:15	16° 	11'37
	16243 Jul 04 08:04	15°  0						
evening set	16243 Jul 15 03:38	17°  022'41		conjunction		16249 Jan 23 17:36	19°  21'53	0°29'23
max. Earth dist.	16243 Jul 25 16:40	19°  043'56	6.31118 AU	minimum elong		16249 Jan 23 17:36	19°  21'53	0°29'53
				max. Earth dist.		16249 Jan 26 04:05	19°  35'6'13	6.05960 AU
conjunction	16243 Jul 28 00:53	20°  015'26	-0°29'52	morning rise		16249 Feb 06 06:55	22°  32'14	
minimum elong	16243 Jul 28 00:53	20°  015'26	0°30'23			16249 Mar 11 15:00	0° 	
morning rise	16243 Aug 09 21:30	23°  008'08		retrograde		16249 Jun 14 00:45	11°  H 	50'42
	16243 Sep 10 18:48	0°  0		min. Earth dist.		16249 Aug 11 09:22	7°  H 	00'45
retrograde	16243 Dec 12 09:55	11°  08'37		opposition		16249 Aug 12 23:55	6°  H 	47'48
opposition	16244 Feb 10 21:52	6°  014'09	-0°46'20	direct		16249 Oct 11 08:54	1°  H 	49'36
min. Earth dist.	16244 Feb 12 12:35	6°  001'34	4.22482 AU	evening set		16250 Feb 14 16:17	20°  H 	24'59
direct	16244 Apr 12 00:48	1°  014'24						
evening set	16244 Aug 15 21:46	19°  053'52		conjunction		16250 Feb 28 02:36	23°  H 	26'27
max. Earth dist.	16244 Aug 26 17:59	22°  024'55	6.13579 AU	minimum elong		16250 Feb 28 02:36	23°  H 	26'27
				max. Earth dist.		16250 Mar 02 07:50	23°  H 	56'28
conjunction	16244 Aug 28 20:57	22°  054'38	-0°30'18	morning rise		16250 Mar 13 12:43	26°  H 	27'30
minimum elong	16244 Aug 28 20:58	22°  054'38	0°30'28			16250 Mar 29 14:49	0° 	
morning rise	16244 Sep 10 20:06	25°  055'48		retrograde		16250 Jul 16 08:36	14°  Y 	32'44
	16244 Sep 28 15:33	0°  0		opposition		16250 Sep 14 21:09	9°  Y 	31'33
retrograde	16245 Jan 16 09:18	15°  008'55		min. Earth dist.		16250 Sep 13 16:12	9°  Y 	41'07
opposition	16245 Mar 17 05:37	10°  013'19	-0°39'36	direct		16250 Nov 14 11:29	4°  Y 	32'14
min. Earth dist.	16245 Mar 18 11:33	10°  003'28	4.04948 AU	evening set		16251 Mar 19 18:14	22°  Y 	14'44
direct	16245 May 16 03:06	5°  015'21						
evening set	16245 Sep 20 00:29	24°  005'14		conjunction		16251 Apr 02 00:58	25°  Y 	08'10
max. Earth dist.	16245 Oct 01 21:54	27°  004'03	5.97644 AU	minimum elong		16251 Apr 02 00:59	25°  Y 	08'11
				max. Earth dist.		16251 Apr 03 08:15	25°  Y 	25'12
conjunction	16245 Oct 03 03:48	28°  002'05	-0°20'12	morning rise		16251 Apr 15 07:01	28°  Y 	00'59
minimum elong	16245 Oct 03 03:48	28°  002'06	0°19'56			16251 Apr 24 12:53	0° 	
	16245 Oct 11 07:12	0°  0				16251 Aug 05 12:28	15° 	
morning rise	16245 Oct 16 08:13	1°  011'24'7		retrograde		16251 Aug 15 17:59	15°  09'55	
	16245 Dec 18 21:19	15°  0				16251 Aug 25 23:09	15°  R 	
retrograde	16246 Feb 23 14:07	21°  011'33'47		opposition		16251 Oct 15 18:13	10°  08'11'18	0°21'28
opposition	16246 Apr 23 21:58	16°  011'36'10	-0°17'14	min. Earth dist.		16251 Oct 15 05:52	10°  08'15'19	4.45512 AU
min. Earth dist.	16246 Apr 24 05:22	16°  011'33'42	3.92231 AU	direct		16251 Dec 16 09:13	5°  08'11'19	
	16246 May 06 03:19	15°  008'00				16252 Mar 13 20:44	15°  08	
direct	16246 Jun 21 14:36	11°  011'40'01		evening set		16252 Apr 18 23:25	22°  08'20'03	
	16246 Aug 06 03:26	15°  0						
	16246 Oct 19 09:05	0°  0		conjunction		16252 May 02 02:33	25°  08'08'12	0°07'21
evening set	16246 Oct 27 08:12	1°  007'55'48		minimum elong		16252 May 02 02:33	25°  08'08'12	0°06'48
				behind sun begin		16252 May 01 19:03	25°  08'04'12	
conjunction	16246 Nov 09 16:36	5°  007'12'01	-0°01'49	behind sun end		16252 May 02 10:03	25°  08'12'11	
minimum elong	16246 Nov 09 16:36	5°  007'12'02	0°01'12	max. Earth dist.		16252 May 02 06:29	25°  08'10'17	6.49510 AU
behind sun begin	16246 Nov 09 08:17	5°  006'57		morning rise		16252 May 15 04:09	27°  08'55'36	
behind sun end	16246 Nov 10 00:55	5°  007'17'07				16252 May 25 00:25	0° 	
max. Earth dist.	16246 Nov 09 23:26	5°  007'16'11	5.89473 AU	retrograde		16252 Sep 13 08:28	14°  00'35'15	
morning rise	16246 Nov 23 02:37	8°  007'29'11		desc. node		16252 Oct 25 07:26	12°  00'11'38	
asc. node	16246 Dec 15 04:13	13°  007'45'32		opposition		16252 Nov 13 14:45	9°  00'39'07	-0°01'10
retrograde	16247 Apr 03 12:45	29°  007'20'18		min. Earth dist.		16252 Nov 13 21:46	9°  00'36'52	4.51319 AU
opposition	16247 Jun 01 16:08	24°  007'19'58	0°13'08	direct		16253 Jan 14 21:26	4°  00'38'46	
min. Earth dist.	16247 May 31 22:54	24°  007'25'47	3.89648 AU	evening set		16253 May 19 04:42	21°  00'37'42	
direct	16247 Jul 29 19:53	19°  007'24'25		max. Earth dist.		16253 May 31 03:21	24°  00'31'03'6	6.50864 AU
	16247 Oct 23 16:38	0°  0						
evening set	16247 Dec 04 15:53	9°  00'38'54		conjunction		16253 Jun 01 04:21	24°  00'23'59	-0°08'40
				minimum elong		16253 Jun 01 04:20	24°  00'23'59	0°09'21
conjunction	16247 Dec 18 03:56	12°  00'35'57	0°17'32	behind sun begin		16253 May 31 21:38	24°  00'22'0'24	
minimum elong	16247 Dec 18 03:55	12°  00'35'56	0°18'14	behind sun end		16253 Jun 01 11:03	24°  00'22'7'33	
max. Earth dist.	16247 Dec 19 22:46	13°  00'32'16	5.92731 AU	morning rise		16253 Jun 14 02:40	27°  00'22'09'39	
morning rise	16247 Dec 31 17:17	16°  00'31'2'12				16253 Jun 27 14:53	0° 	

retrograde	16253 Oct 13 08:03	13°♏50'12		evening set	16259 Dec 10 01:05	15°♑02'35	
opposition	16253 Dec 13 12:53	8°♏55'37	-0°23'23				
min. Earth dist.	16253 Dec 14 14:30	8°♏47'24	4.48201 AU	conjunction	16259 Dec 23 13:13	18°♑18'28	0°19'49
direct	16254 Feb 13 23:25	3°♏54'59		minimum elong	16259 Dec 23 13:13	18°♑18'28	0°20'31
evening set	16254 Jun 18 09:18	21°♏09'01		max. Earth dist.	16259 Dec 25 10:49	18°♑46'03	5.93922 AU
max. Earth dist.	16254 Jun 29 08:43	23°♏32'00	6.43421 AU	morning rise	16260 Jan 06 02:58	21°♑34'55	
					16260 Feb 11 17:58	0°♑	
conjunction	16254 Jul 01 06:58	23°♏57'11	-0°22'27	retrograde	16260 May 15 04:59	11°♑52'34	
minimum elong	16254 Jul 01 06:57	23°♏57'11	0°23'08	min. Earth dist.	16260 Jul 12 03:21	7°♑02'20	4.00270 AU
morning rise	16254 Jul 14 03:21	26°♏44'58		opposition	16260 Jul 13 16:23	6°♑49'48	0°39'52
	16254 Jul 29 08:02	0°♏		direct	16260 Sep 10 04:44	1°♑52'58	
retrograde	16254 Nov 13 14:35	13°♏56'33			16260 Dec 18 11:23	15°♑	
opposition	16255 Jan 13 13:33	9°♏02'24	-0°40'10	evening set	16261 Jan 15 08:55	21°♑19'03	
min. Earth dist.	16255 Jan 15 02:07	8°♏50'38	4.36847 AU				
direct	16255 Mar 16 12:08	4°♏01'53		conjunction	16261 Jan 28 21:11	24°♑28'08	0°30'11
	16255 Jun 17 08:30	15°♏		minimum elong	16261 Jan 28 21:11	24°♑28'08	0°30'39
evening set	16255 Jul 19 13:48	21°♏54'18		max. Earth dist.	16261 Jan 31 08:58	25°♑03'03	6.08348 AU
max. Earth dist.	16255 Jul 30 03:19	24°♏16'30	6.28889 AU	morning rise	16261 Feb 11 10:03	27°♑37'12	
					16261 Feb 21 19:08	0°♑	
conjunction	16255 Aug 01 11:11	24°♏47'57	-0°30'30	retrograde	16261 Jun 18 18:41	16°♑44'47	
minimum elong	16255 Aug 01 11:11	24°♏47'57	0°30'57	min. Earth dist.	16261 Aug 16 05:32	11°♑54'35	4.17241 AU
morning rise	16255 Aug 14 07:52	27°♏41'37		opposition	16261 Aug 17 19:08	11°♑41'59	0°46'13
	16255 Aug 24 16:49	0°♑		direct	16261 Oct 16 09:01	6°♑43'35	
retrograde	16255 Dec 17 06:11	15°♑51'10		evening set	16262 Feb 19 11:21	25°♑10'04	
opposition	16256 Feb 15 15:34	10°♑56'36	-0°46'19				
min. Earth dist.	16256 Feb 17 06:55	10°♑43'49	4.20015 AU	conjunction	16262 Mar 04 21:07	28°♑10'11	0°29'29
direct	16256 Apr 16 15:40	5°♑57'02		minimum elong	16262 Mar 04 21:08	28°♑10'11	0°29'34
evening set	16256 Aug 20 15:11	24°♑44'37		max. Earth dist.	16262 Mar 07 00:39	28°♑39'03	6.26303 AU
max. Earth dist.	16256 Aug 31 11:58	27°♑16'54	6.11077 AU		16262 Mar 13 01:19	0°♑	
				morning rise	16262 Mar 18 06:44	1°♑09'52	
conjunction	16256 Sep 02 14:46	27°♑46'40	-0°29'29	retrograde	16262 Jul 20 15:42	19°♑05'02	
minimum elong	16256 Sep 02 14:46	27°♑46'40	0°29'36	min. Earth dist.	16262 Sep 18 03:51	14°♑13'15	4.34590 AU
	16256 Sep 12 02:23	0°♑		opposition	16262 Sep 19 07:35	14°♑04'07	0°37'16
morning rise	16256 Sep 15 14:38	0°♑49'12		direct	16262 Nov 19 01:24	9°♑04'39	
retrograde	16257 Jan 21 12:55	20°♑12'55		evening set	16263 Mar 24 05:13	26°♑40'10	
opposition	16257 Mar 22 07:59	15°♑17'03	-0°37'18				
min. Earth dist.	16257 Mar 23 10:47	15°♑08'13	4.02638 AU	conjunction	16263 Apr 06 11:27	29°♑32'32	0°19'50
direct	16257 May 21 00:22	10°♑19'17		minimum elong	16263 Apr 06 11:27	29°♑32'33	0°19'34
	16257 Sep 24 19:52	0°♑		max. Earth dist.	16263 Apr 07 15:26	29°♑47'44	6.41746 AU
evening set	16257 Sep 25 02:15	0°♑03'50			16263 Apr 08 14:02	0°♑	
max. Earth dist.	16257 Oct 07 05:19	2°♑59'46	5.95756 AU	morning rise	16263 Apr 19 16:40	2°♑24'15	
					16263 Jun 25 01:43	15°♑	
conjunction	16257 Oct 08 06:20	3°♑14'56	-0°17'58	retrograde	16263 Aug 19 21:26	19°♑26'27	
minimum elong	16257 Oct 08 06:21	3°♑14'56	0°17'39		16263 Oct 15 20:47	15°♑	
morning rise	16257 Oct 21 11:32	6°♑26'53		opposition	16263 Oct 19 22:53	14°♑28'14	0°18'28
	16257 Nov 27 11:04	15°♑		min. Earth dist.	16263 Oct 19 13:33	14°♑31'16	4.47086 AU
retrograde	16258 Mar 01 01:31	26°♑55'51		direct	16263 Dec 20 17:41	9°♑28'12	
opposition	16258 Apr 29 07:18	21°♑57'51	-0°13'08		16264 Feb 22 17:21	15°♑	
min. Earth dist.	16258 Apr 29 12:06	21°♑56'14	3.90972 AU	evening set	16264 Apr 23 04:56	26°♑33'15	
direct	16258 Jun 26 21:31	17°♑01'52					
	16258 Oct 01 13:34	0°♑		conjunction	16264 May 06 07:22	29°♑20'49	0°05'09
asc. node	16258 Oct 23 14:14	5°♑08'48		minimum elong	16264 May 06 07:22	29°♑20'48	0°04'35
evening set	16258 Nov 01 16:16	7°♑21'00		behind sun begin	16264 May 05 23:28	29°♑16'37	
				behind sun end	16264 May 06 15:15	29°♑25'00	
conjunction	16258 Nov 15 01:30	10°♑37'51	0°01'10	max. Earth dist.	16264 May 06 05:42	29°♑19'57	6.50444 AU
minimum elong	16258 Nov 15 01:28	10°♑37'50	0°01'48		16264 May 09 08:46	0°♑	
behind sun begin	16258 Nov 14 17:08	10°♑32'44		morning rise	16264 May 19 08:34	2°♑07'41	
behind sun end	16258 Nov 15 09:48	10°♑42'55		desc. node	16264 Sep 06 12:45	18°♑34'00	
max. Earth dist.	16258 Nov 15 14:38	10°♑45'54	5.88988 AU	retrograde	16264 Sep 17 11:05	18°♑45'07	
morning rise	16258 Nov 28 12:07	13°♑55'31		opposition	16264 Nov 17 17:29	13°♑49'14	-0°04'24
	16259 Feb 12 03:43	0°♑		min. Earth dist.	16264 Nov 18 03:48	13°♑45'54	4.51566 AU
retrograde	16259 Apr 08 23:27	4°♑47'14		direct	16265 Jan 19 01:57	8°♑48'47	
	16259 Jun 05 10:18	30°♑		evening set	16265 May 23 07:58	25°♑47'59	
min. Earth dist.	16259 Jun 06 05:23	29°♑53'33	3.90028 AU	max. Earth dist.	16265 Jun 04 03:39	28°♑19'26	6.50398 AU
opposition	16259 Jun 07 02:04	29°♑46'34	0°17'17				
direct	16259 Aug 04 04:47	24°♑51'00		conjunction	16265 Jun 05 07:24	28°♑34'18	-0°10'47
	16259 Sep 30 12:54	0°♑		minimum elong	16265 Jun 05 07:23	28°♑34'18	0°11'29

behind sun begin	16265 Jun 05 01:37	28° $\Pi$ 31'13		behind sun end	16270 Nov 20 20:57	16° $\text{♄}$ 14'45	
behind sun end	16265 Jun 05 13:09	28° $\Pi$ 37'22		max. Earth dist.	16270 Nov 21 06:35	16° $\text{♄}$ 20'41	5.88953 AU
	16265 Jun 11 23:22	0° $\text{♄}$		morning rise	16270 Dec 04 00:14	19° $\text{♄}$ 27'47	
morning rise	16265 Jun 18 05:11	1° $\text{♄}$ 19'59			16271 Jan 18 20:47	0° $\text{♄}$	
retrograde	16265 Oct 17 12:05	18° $\text{♄}$ 03'06		retrograde	16271 Apr 14 08:45	10° $\text{♄}$ 17'49	
opposition	16265 Dec 17 17:27	13° $\text{♄}$ 08'39	-0°26'09	opposition	16271 Jun 12 12:56	5° $\text{♄}$ 16'42	0°21'16
min. Earth dist.	16265 Dec 18 20:41	12° $\text{♄}$ 59'56	4.47049 AU	min. Earth dist.	16271 Jun 11 12:28	5° $\text{♄}$ 24'58	3.90935 AU
direct	16266 Feb 18 02:33	8° $\text{♄}$ 08'02		direct	16271 Aug 09 16:03	0° $\text{♄}$ 20'59	
evening set	16266 Jun 22 14:46	25° $\text{♄}$ 26'22		evening set	16271 Dec 15 10:23	20° $\text{♄}$ 27'27	
max. Earth dist.	16266 Jul 03 11:12	27° $\text{♄}$ 48'20	6.41643 AU				
				conjunction	16271 Dec 28 22:48	23° $\text{♄}$ 42'35	0°21'55
conjunction	16266 Jul 05 12:10	28° $\text{♄}$ 15'08	-0°24'00	minimum elong	16271 Dec 28 22:47	23° $\text{♄}$ 42'35	0°22'35
minimum elong	16266 Jul 05 12:10	28° $\text{♄}$ 15'07	0°24'39	max. Earth dist.	16271 Dec 31 00:46	24° $\text{♄}$ 12'42	5.95660 AU
	16266 Jul 13 11:53	0° $\text{♄}$		morning rise	16272 Jan 11 12:27	26° $\text{♄}$ 58'08	
morning rise	16266 Jul 18 08:31	1° $\text{♄}$ 03'35			16272 Jan 24 08:24	0° $\text{♄}$	
	16266 Oct 01 01:34	15° $\text{♄}$			16272 Apr 13 22:37	15° $\text{♄}$	
retrograde	16266 Nov 18 03:52	18° $\text{♄}$ 22'20		retrograde	16272 May 20 06:55	17° $\text{♄}$ 06'31	
	16267 Jan 05 21:37	15° $\text{♄}$			16272 Jun 25 13:22	15° $\text{♄}$	
opposition	16267 Jan 18 00:07	13° $\text{♄}$ 28'14	-0°41'47	min. Earth dist.	16272 Jul 17 06:14	12° $\text{♄}$ 16'11	4.02596 AU
min. Earth dist.	16267 Jan 19 14:57	13° $\text{♄}$ 15'44	4.34533 AU	opposition	16272 Jul 18 19:34	12° $\text{♄}$ 03'34	0°41'47
direct	16267 Mar 20 21:05	8° $\text{♄}$ 27'48		direct	16272 Sep 15 11:59	7° $\text{♄}$ 06'31	
	16267 May 28 19:25	15° $\text{♄}$			16272 Nov 28 10:10	15° $\text{♄}$	
evening set	16267 Jul 24 00:53	26° $\text{♄}$ 28'03		evening set	16273 Jan 20 11:07	26° $\text{♄}$ 23'29	
max. Earth dist.	16267 Aug 03 13:17	28° $\text{♄}$ 50'28	6.26212 AU				
				conjunction	16273 Feb 02 23:05	29° $\text{♄}$ 31'14	0°30'43
conjunction	16267 Aug 05 22:31	29° $\text{♄}$ 22'53	-0°30'58	minimum elong	16273 Feb 02 23:05	29° $\text{♄}$ 31'14	0°31'08
minimum elong	16267 Aug 05 22:31	29° $\text{♄}$ 22'53	0°31'23	max. Earth dist.	16273 Feb 05 11:26	0° $\text{♄}$ 06'14	6.11012 AU
	16267 Aug 08 16:01	0° $\text{♄}$			16273 Feb 05 00:41	0° $\text{♄}$	
morning rise	16267 Aug 18 19:35	2° $\text{♄}$ 17'48		morning rise	16273 Feb 16 11:36	2° $\text{♄}$ 38'53	
retrograde	16267 Dec 22 03:12	20° $\text{♄}$ 38'18		retrograde	16273 Jun 23 08:18	21° $\text{♄}$ 34'56	
opposition	16268 Feb 20 11:15	15° $\text{♄}$ 43'38	-0°46'02	min. Earth dist.	16273 Aug 20 22:32	16° $\text{♄}$ 44'51	4.19981 AU
min. Earth dist.	16268 Feb 22 00:55	15° $\text{♄}$ 31'22	4.17171 AU	opposition	16273 Aug 22 12:04	16° $\text{♄}$ 32'18	0°45'43
direct	16268 Apr 21 05:55	10° $\text{♄}$ 44'19		direct	16273 Oct 21 05:26	11° $\text{♄}$ 33'42	
evening set	16268 Aug 25 10:57	29° $\text{♄}$ 41'34		evening set	16274 Feb 24 04:39	29° $\text{♄}$ 51'28	
	16268 Aug 26 18:29	0° $\text{♄}$			16274 Feb 24 20:02	0° $\text{♄}$	
max. Earth dist.	16268 Sep 05 11:39	2° $\text{♄}$ 17'06	6.08320 AU				
				conjunction	16274 Mar 09 13:53	2° $\text{♄}$ 50'17	0°28'33
conjunction	16268 Sep 07 11:06	2° $\text{♄}$ 45'05	-0°28'30	minimum elong	16274 Mar 09 13:53	2° $\text{♄}$ 50'17	0°28'35
minimum elong	16268 Sep 07 11:07	2° $\text{♄}$ 45'06	0°28'31	max. Earth dist.	16274 Mar 11 13:37	3° $\text{♄}$ 16'54	6.28899 AU
morning rise	16268 Sep 20 11:38	5° $\text{♄}$ 49'10		morning rise	16274 Mar 22 22:52	5° $\text{♄}$ 48'37	
retrograde	16269 Jan 26 22:30	25° $\text{♄}$ 24'44		retrograde	16274 Jul 25 00:15	23° $\text{♄}$ 34'25	
opposition	16269 Mar 27 13:51	20° $\text{♄}$ 28'40	-0°34'42	opposition	16274 Sep 23 16:36	18° $\text{♄}$ 33'52	0°35'01
min. Earth dist.	16269 Mar 28 14:39	20° $\text{♄}$ 20'28	4.00220 AU	min. Earth dist.	16274 Sep 22 16:09	18° $\text{♄}$ 41'54	4.36839 AU
direct	16269 May 26 02:30	15° $\text{♄}$ 31'14		direct	16274 Nov 23 15:23	13° $\text{♄}$ 34'15	
	16269 Sep 07 10:56	0° $\text{♄}$			16275 Mar 23 15:54	0° $\text{♄}$	
evening set	16269 Sep 30 07:18	5° $\text{♄}$ 23'45		evening set	16275 Mar 28 14:58	1° $\text{♄}$ 03'45	
conjunction	16269 Oct 13 12:16	8° $\text{♄}$ 36'07	-0°15'35	conjunction	16275 Apr 10 20:40	3° $\text{♄}$ 55'14	0°17'57
minimum elong	16269 Oct 13 12:16	8° $\text{♄}$ 36'07	0°15'13	minimum elong	16275 Apr 10 20:41	3° $\text{♄}$ 55'15	0°17'37
behind sun begin	16269 Oct 13 09:27	8° $\text{♄}$ 34'25		max. Earth dist.	16275 Apr 11 20:38	4° $\text{♄}$ 08'11	6.43487 AU
behind sun end	16269 Oct 13 15:05	8° $\text{♄}$ 37'49		morning rise	16275 Apr 24 01:21	6° $\text{♄}$ 46'03	
max. Earth dist.	16269 Oct 12 16:39	8° $\text{♄}$ 24'11	5.93940 AU		16275 Jun 03 14:31	15° $\text{♄}$	
morning rise	16269 Oct 26 18:18	11° $\text{♄}$ 49'20		retrograde	16275 Aug 24 00:00	23° $\text{♄}$ 42'56	
	16269 Nov 09 00:46	15° $\text{♄}$		opposition	16275 Oct 24 03:14	18° $\text{♄}$ 45'01	0°15'20
	16270 Jan 26 13:35	0° $\text{♄}$		min. Earth dist.	16275 Oct 23 20:16	18° $\text{♄}$ 47'17	4.48233 AU
retrograde	16270 Mar 06 14:31	2° $\text{♄}$ 25'31			16275 Nov 26 02:18	15° $\text{♄}$	
	16270 Apr 14 19:58	30° $\text{♄}$		direct	16275 Dec 24 23:45	13° $\text{♄}$ 44'52	
opposition	16270 May 04 19:16	27° $\text{♄}$ 27'12	-0°08'52		16276 Jan 23 04:22	15° $\text{♄}$	
min. Earth dist.	16270 May 04 19:36	27° $\text{♄}$ 27'06	3.90001 AU		16276 Apr 23 16:15	0° $\text{♄}$	
direct	16270 Jul 02 05:30	22° $\text{♄}$ 31'28		evening set	16276 Apr 27 10:26	0° $\text{♄}$ 47'37	
asc. node	16270 Aug 30 11:10	27° $\text{♄}$ 59'42					
	16270 Sep 10 14:17	0° $\text{♄}$		conjunction	16276 May 10 12:29	3° $\text{♄}$ 34'48	0°02'52
evening set	16270 Nov 07 03:10	12° $\text{♄}$ 52'40		minimum elong	16276 May 10 12:29	3° $\text{♄}$ 34'48	0°02'17
				behind sun begin	16276 May 10 04:26	3° $\text{♄}$ 30'32	
conjunction	16270 Nov 20 12:49	16° $\text{♄}$ 09'47	0°04'05	behind sun end	16276 May 10 20:32	3° $\text{♄}$ 39'04	
minimum elong	16270 Nov 20 12:48	16° $\text{♄}$ 09'46	0°04'44	max. Earth dist.	16276 May 10 07:33	3° $\text{♄}$ 32'12	6.50928 AU
behind sun begin	16270 Nov 20 04:40	16° $\text{♄}$ 04'48		morning rise	16276 May 23 13:02	6° $\text{♄}$ 21'17	






























































































































desc. node	16276 Jul 18 16:12	17° $\Pi$ 10'30	retrograde	16282 Mar 12 01:40	7° $\text{♊}$ 53'19	
retrograde	16276 Sep 21 14:28	22° $\Pi$ 57'52	opposition	16282 May 10 06:42	2° $\text{♊}$ 54'34	-0°04'33
opposition	16276 Nov 21 21:09	18° $\Pi$ 02'15	min. Earth dist.	16282 May 10 02:41	2° $\text{♊}$ 55'55	3.89793 AU
min. Earth dist.	16276 Nov 22 10:23	17° $\Pi$ 58'01		16282 Jun 02 12:11	30° $\text{♋}$	
direct	16277 Jan 23 06:50	13° $\Pi$ 01'46	direct	16282 Jul 07 15:45	27° $\text{♋}$ 58'56	
evening set	16277 May 27 13:03	0° $\text{♌}$ 02'31	asc. node	16282 Jul 08 17:32	27° $\text{♋}$ 59'03	
	16277 May 27 08:20	0° $\text{♌}$		16282 Aug 11 13:07	0° $\text{♊}$	
max. Earth dist.	16277 Jun 08 03:08	2° $\text{♌}$ 31'21	evening set	16282 Nov 12 12:14	18° $\text{♊}$ 18'58	
conjunction	16277 Jun 09 11:59	2° $\text{♌}$ 48'59	conjunction	16282 Nov 25 22:26	21° $\text{♊}$ 35'58	0°06'52
minimum elong	16277 Jun 09 11:59	2° $\text{♌}$ 48'59	minimum elong	16282 Nov 25 22:27	21° $\text{♊}$ 35'58	0°07'32
behind sun begin	16277 Jun 09 07:37	2° $\text{♌}$ 46'39	behind sun begin	16282 Nov 25 14:53	21° $\text{♊}$ 31'21	
behind sun end	16277 Jun 09 16:21	2° $\text{♌}$ 51'19	behind sun end	16282 Nov 26 06:01	21° $\text{♊}$ 40'35	
morning rise	16277 Jun 22 09:40	5° $\text{♌}$ 34'55	max. Earth dist.	16282 Nov 26 23:01	21° $\text{♊}$ 51'01	5.89667 AU
retrograde	16277 Oct 21 20:46	22° $\text{♌}$ 21'45	morning rise	16282 Dec 09 10:08	24° $\text{♊}$ 53'45	
opposition	16277 Dec 22 00:28	17° $\text{♌}$ 27'23		16282 Dec 30 19:56	0° $\text{♋}$	
min. Earth dist.	16277 Dec 23 06:18	17° $\text{♌}$ 17'49	retrograde	16283 Apr 19 15:47	15° $\text{♋}$ 38'58	
direct	16278 Feb 22 08:57	12° $\text{♌}$ 26'41	opposition	16283 Jun 17 20:20	10° $\text{♋}$ 37'30	0°24'55
evening set	16278 Jun 26 22:37	29° $\text{♌}$ 50'16	min. Earth dist.	16283 Jun 16 18:02	10° $\text{♋}$ 46'24	3.92484 AU
	16278 Jun 27 16:29	0° $\text{♍}$	direct	16283 Aug 15 01:07	5° $\text{♋}$ 41'42	
max. Earth dist.	16278 Jul 07 17:37	2° $\text{♍}$ 12'03	evening set	16283 Dec 20 15:46	25° $\text{♋}$ 40'52	
conjunction	16278 Jul 09 20:07	2° $\text{♍}$ 39'49	conjunction	16284 Jan 03 04:09	28° $\text{♋}$ 54'57	0°23'45
minimum elong	16278 Jul 09 20:07	2° $\text{♍}$ 39'48	minimum elong	16284 Jan 03 04:09	28° $\text{♋}$ 54'56	0°24'23
morning rise	16278 Jul 22 16:23	5° $\text{♍}$ 29'03	max. Earth dist.	16284 Jan 05 08:58	29° $\text{♋}$ 26'34	5.97852 AU
	16278 Sep 07 03:55	15° $\text{♍}$		16284 Jan 07 16:49	0° $\text{♌}$	
retrograde	16278 Nov 22 18:30	22° $\text{♍}$ 55'46	morning rise	16284 Jan 16 17:47	2° $\text{♌}$ 09'23	
opposition	16279 Jan 22 13:58	18° $\text{♍}$ 01'38		16284 Mar 16 03:12	15° $\text{♌}$	
min. Earth dist.	16279 Jan 24 04:38	17° $\text{♍}$ 49'11	retrograde	16284 May 25 01:49	22° $\text{♌}$ 07'00	
	16279 Feb 16 19:41	15° $\text{♋}$	min. Earth dist.	16284 Jul 22 02:44	17° $\text{♌}$ 17'04	4.05193 AU
direct	16279 Mar 25 06:45	13° $\text{♍}$ 01'20	opposition	16284 Jul 23 17:21	17° $\text{♌}$ 04'02	0°43'16
	16279 Apr 30 15:32	15° $\text{♍}$		16284 Aug 08 13:43	15° $\text{♋}$	
	16279 Jul 23 11:18	0° $\text{♎}$	direct	16284 Sep 20 12:16	12° $\text{♌}$ 06'46	
evening set	16279 Jul 28 15:15	1° $\text{♎}$ 09'41		16284 Nov 02 09:19	15° $\text{♌}$	
max. Earth dist.	16279 Aug 08 04:28	3° $\text{♎}$ 33'26	evening set	16285 Jan 19 22:08	0° $\text{♍}$	
conjunction	16279 Aug 10 13:02	4° $\text{♎}$ 05'41	conjunction	16285 Jan 25 08:17	1° $\text{♍}$ 14'23	
minimum elong	16279 Aug 10 13:02	4° $\text{♎}$ 05'41	minimum elong	16285 Feb 07 19:49	4° $\text{♍}$ 20'43	0°31'01
morning rise	16279 Aug 23 10:30	7° $\text{♎}$ 01'52	max. Earth dist.	16285 Feb 07 19:50	4° $\text{♍}$ 20'44	0°31'23
retrograde	16279 Dec 27 06:03	25° $\text{♎}$ 33'12	morning rise	16285 Feb 10 05:43	4° $\text{♍}$ 54'06	6.13759 AU
opposition	16280 Feb 25 10:31	20° $\text{♎}$ 38'26	retrograde	16285 Feb 21 07:57	7° $\text{♍}$ 26'57	
min. Earth dist.	16280 Feb 26 23:31	20° $\text{♎}$ 26'21	min. Earth dist.	16285 Jun 27 19:32	26° $\text{♍}$ 11'58	
direct	16280 Apr 26 01:48	15° $\text{♎}$ 39'22	opposition	16285 Aug 25 13:22	21° $\text{♍}$ 21'17	4.22619 AU
	16280 Aug 09 17:58	0° $\text{♏}$	direct	16285 Aug 27 00:19	21° $\text{♍}$ 09'38	0°44'58
evening set	16280 Aug 30 09:46	4° $\text{♏}$ 45'22	evening set	16285 Oct 25 22:44	16° $\text{♍}$ 10'52	
max. Earth dist.	16280 Sep 10 14:37	7° $\text{♏}$ 24'11		16286 Feb 08 15:50	0° $\text{♎}$	
conjunction	16280 Sep 12 10:36	7° $\text{♏}$ 50'15	conjunction	16286 Feb 28 17:01	4° $\text{♎}$ 20'47	
minimum elong	16280 Sep 12 10:37	7° $\text{♏}$ 50'15	minimum elong	16286 Mar 14 01:54	7° $\text{♎}$ 18'28	0°27'30
morning rise	16280 Sep 25 11:48	10° $\text{♏}$ 55'42	max. Earth dist.	16286 Mar 14 01:55	7° $\text{♎}$ 18'29	0°27'30
	16281 Jan 11 17:01	0° $\text{♐}$	morning rise	16286 Mar 15 23:28	7° $\text{♎}$ 43'45	6.31228 AU
retrograde	16281 Feb 01 07:39	0° $\text{♐}$ 41'13	retrograde	16286 Mar 27 10:15	10° $\text{♎}$ 15'37	
	16281 Feb 21 21:04	30° $\text{♋}$	opposition	16286 Jul 29 03:02	27° $\text{♎}$ 53'30	
opposition	16281 Apr 01 21:36	25° $\text{♏}$ 44'55	min. Earth dist.	16286 Sep 27 21:39	22° $\text{♎}$ 53'24	0°32'43
min. Earth dist.	16281 Apr 02 18:28	25° $\text{♏}$ 38'01	direct	16286 Sep 26 22:57	23° $\text{♎}$ 00'51	4.38714 AU
direct	16281 May 31 04:42	20° $\text{♏}$ 47'52		16286 Nov 27 22:33	17° $\text{♎}$ 53'46	
	16281 Aug 19 02:03	0° $\text{♐}$	evening set	16287 Mar 07 10:46	0° $\text{♏}$	
evening set	16281 Oct 05 13:48	10° $\text{♐}$ 45'51		16287 Apr 01 21:24	5° $\text{♏}$ 18'52	
conjunction	16281 Oct 18 19:16	13° $\text{♐}$ 59'02	conjunction	16287 Apr 15 02:33	8° $\text{♏}$ 09'39	0°16'04
minimum elong	16281 Oct 18 19:17	13° $\text{♐}$ 59'03	minimum elong	16287 Apr 15 02:34	8° $\text{♏}$ 09'39	0°15'41
behind sun begin	16281 Oct 18 13:59	13° $\text{♐}$ 55'50	behind sun begin	16287 Apr 15 01:11	8° $\text{♏}$ 08'54	
behind sun end	16281 Oct 19 00:35	14° $\text{♐}$ 02'16	behind sun end	16287 Apr 15 03:56	8° $\text{♏}$ 10'23	
max. Earth dist.	16281 Oct 18 04:29	13° $\text{♐}$ 50'02	max. Earth dist.	16287 Apr 15 21:28	8° $\text{♏}$ 19'51	6.44791 AU
	16281 Oct 22 23:13	15° $\text{♐}$	morning rise	16287 Apr 28 06:43	10° $\text{♏}$ 59'46	
morning rise	16281 Nov 01 02:13	17° $\text{♐}$ 13'10		16287 May 17 07:57	15° $\text{♏}$	
	16281 Dec 28 10:46	0° $\text{♑}$	retrograde	16287 Aug 28 02:41	27° $\text{♏}$ 53'00	

opposition	16287 Oct 28 05:12	22°♄55'34	0°12'16	direct	16293 Jun 05 07:30	26°♄00'15	
min. Earth dist.	16287 Oct 28 02:03	22°♄56'36	4.48911 AU		16293 Jul 25 17:30	0°♄	
direct	16287 Dec 29 04:30	17°♄55'24			16293 Oct 06 10:07	15°♄	
	16288 Apr 07 13:59	0°♄		evening set	16293 Oct 10 17:49	16°♄02'42	
evening set	16288 May 01 14:01	4°♄57'29					
				conjunction	16293 Oct 24 00:07	19°♄16'41	-0°10'27
conjunction	16288 May 14 15:38	7°♄44'32	0°00'38	minimum elong	16293 Oct 24 00:07	19°♄16'41	0°09'58
minimum elong	16288 May 14 15:39	7°♄44'32	0°00'02	behind sun begin	16293 Oct 23 17:26	19°♄12'36	
behind sun begin	16288 May 14 09:34	7°♄41'19		behind sun end	16293 Oct 24 06:49	19°♄20'45	
behind sun end	16288 May 14 21:43	7°♄47'44		max. Earth dist.	16293 Oct 23 15:44	19°♄11'34	5.91910 AU
max. Earth dist.	16288 May 14 05:58	7°♄39'23	6.50942 AU	morning rise	16293 Nov 06 07:37	22°♄31'33	
morning rise	16288 May 27 15:53	10°♄30'53			16293 Dec 08 03:19	0°♄	
desc. node	16288 May 30 03:11	11°♄02'17		retrograde	16294 Mar 17 11:40	13°♄14'56	
retrograde	16288 Sep 25 17:27	27°♄08'15		opposition	16294 May 15 15:06	8°♄15'49	-0°00'14
opposition	16288 Nov 25 23:49	22°♄12'54	-0°10'47	min. Earth dist.	16294 May 15 08:29	8°♄18'02	3.89613 AU
min. Earth dist.	16288 Nov 26 15:05	22°♄08'00	4.50750 AU	asc. node	16294 May 18 16:41	7°♄51'05	
direct	16289 Jan 27 08:45	17°♄12'23		direct	16294 Jul 12 22:57	3°♄20'14	
	16289 May 11 07:13	0°♄		evening set	16294 Nov 17 19:04	23°♄39'21	
evening set	16289 May 31 17:04	4°♄15'58					
max. Earth dist.	16289 Jun 12 05:33	6°♄44'20	6.48316 AU	conjunction	16294 Dec 01 05:40	26°♄56'17	0°09'35
				minimum elong	16294 Dec 01 05:39	26°♄56'16	0°10'16
conjunction	16289 Jun 13 15:53	7°♄02'49	-0°14'53	behind sun begin	16294 Nov 30 23:03	26°♄52'15	
minimum elong	16289 Jun 13 15:53	7°♄02'49	0°15'35	behind sun end	16294 Dec 01 12:16	27°♄00'18	
behind sun begin	16289 Jun 13 13:56	7°♄01'46		max. Earth dist.	16294 Dec 02 10:10	27°♄13'42	5.90240 AU
behind sun end	16289 Jun 13 17:49	7°♄03'51			16294 Dec 13 18:52	0°♄	
morning rise	16289 Jun 26 13:10	9°♄49'06		morning rise	16294 Dec 14 17:54	0°♄13'59	
retrograde	16289 Oct 26 04:31	26°♄40'42		retrograde	16295 Apr 24 18:31	20°♄54'57	
opposition	16289 Dec 26 07:24	21°♄46'29	-0°31'21	min. Earth dist.	16295 Jun 21 19:38	16°♄03'09	3.93757 AU
min. Earth dist.	16289 Dec 27 14:41	21°♄36'28	4.43833 AU	opposition	16295 Jun 23 01:04	15°♄53'11	0°28'21
direct	16290 Feb 26 14:02	16°♄45'53		direct	16295 Aug 20 06:01	10°♄57'12	
	16290 Jun 11 10:24	0°♄			16295 Dec 22 06:14	0°♄	
evening set	16290 Jul 01 06:35	4°♄15'11		evening set	16295 Dec 25 19:38	0°♄50'33	
max. Earth dist.	16290 Jul 11 23:16	6°♄36'25	6.37506 AU				
				conjunction	16296 Jan 08 08:00	4°♄03'45	0°25'24
conjunction	16290 Jul 14 03:53	7°♄05'28	-0°26'42	minimum elong	16296 Jan 08 07:59	4°♄03'45	0°26'01
minimum elong	16290 Jul 14 03:52	7°♄05'28	0°27'17	max. Earth dist.	16296 Jan 10 13:34	4°♄35'41	5.99678 AU
morning rise	16290 Jul 27 00:20	9°♄55'34		morning rise	16296 Jan 21 21:39	7°♄17'17	
	16290 Aug 19 15:28	15°♄			16296 Feb 24 19:56	15°♄	
retrograde	16290 Nov 27 11:07	27°♄30'20		retrograde	16296 May 29 21:38	27°♄05'54	
opposition	16291 Jan 27 03:55	22°♄36'09	-0°44'18	min. Earth dist.	16296 Jul 27 00:29	22°♄15'42	4.07354 AU
min. Earth dist.	16291 Jan 28 19:06	22°♄23'29	4.29734 AU	opposition	16296 Jul 28 14:32	22°♄02'52	0°44'29
direct	16291 Mar 29 18:11	17°♄35'55		direct	16296 Sep 25 13:46	17°♄05'19	
	16291 Jul 06 14:25	0°♄			16297 Jan 02 20:41	0°♄	
evening set	16291 Aug 02 05:14	5°♄51'48		evening set	16297 Jan 30 05:21	6°♄05'13	
max. Earth dist.	16291 Aug 12 20:30	8°♄17'29	6.21124 AU				
				conjunction	16297 Feb 12 16:46	9°♄10'27	0°31'07
conjunction	16291 Aug 15 03:26	8°♄48'58	-0°31'16	minimum elong	16297 Feb 12 16:47	9°♄10'27	0°31'24
minimum elong	16291 Aug 15 03:27	8°♄48'58	0°31'35	max. Earth dist.	16297 Feb 15 03:06	9°♄43'54	6.16067 AU
morning rise	16291 Aug 28 01:10	11°♄46'17		morning rise	16297 Feb 26 04:21	12°♄15'26	
	16291 Dec 15 07:25	0°♄			16297 Jun 09 04:21	0°♄	
retrograde	16292 Jan 01 05:59	0°♄27'22		retrograde	16297 Jul 02 06:22	0°♄50'53	
	16292 Jan 18 03:38	30°♄			16297 Jul 25 04:32	30°♄	
opposition	16292 Mar 01 08:52	25°♄32'24	-0°44'26	min. Earth dist.	16297 Aug 30 02:53	26°♄00'13	4.24870 AU
min. Earth dist.	16292 Mar 02 19:53	25°♄20'57	4.12189 AU	opposition	16297 Aug 31 13:11	25°♄48'49	0°43'56
direct	16292 Apr 30 19:04	20°♄33'36		direct	16297 Oct 30 14:30	20°♄49'56	
	16292 Jul 22 05:48	0°♄			16298 Jan 21 14:23	0°♄	
evening set	16292 Sep 04 07:16	9°♄46'57		evening set	16298 Mar 05 07:06	8°♄53'16	
max. Earth dist.	16292 Sep 15 15:12	12°♄28'21	6.03895 AU				
				conjunction	16298 Mar 18 15:23	11°♄49'54	0°26'16
conjunction	16292 Sep 17 08:30	12°♄52'57	-0°25'48	minimum elong	16298 Mar 18 15:23	11°♄49'55	0°26'12
minimum elong	16292 Sep 17 08:30	12°♄52'57	0°25'43	max. Earth dist.	16298 Mar 20 08:30	12°♄12'37	6.33253 AU
morning rise	16292 Sep 30 10:30	15°♄59'39		morning rise	16298 Mar 31 23:19	14°♄46'02	
	16292 Dec 05 10:10	0°♄			16298 Jun 24 11:21	0°♄	
retrograde	16293 Feb 06 14:14	5°♄53'48		retrograde	16298 Aug 02 09:31	2°♄16'49	
opposition	16293 Apr 07 03:19	0°♄57'07	-0°28'33		16298 Sep 10 05:32	30°♄	
min. Earth dist.	16293 Apr 07 20:59	0°♄51'15	3.96813 AU	min. Earth dist.	16298 Oct 01 09:01	27°♄23'31	4.40390 AU
	16293 Apr 14 08:20	30°♄		opposition	16298 Oct 02 04:41	27°♄17'05	0°30'10

direct	16298 Dec 02 09:23	22°♄17'22			16303 Nov 08 11:22	0°♎	
	16299 Feb 16 22:05	0°♄		retrograde	16304 Jan 07 01:49	5°♎11'15	
evening set	16299 Apr 06 05:42	9°♄38'24		opposition	16304 Mar 07 03:21	0°♎16'04	-0°43'12
				min. Earth dist.	16304 Mar 08 13:07	0°♎05'00	4.10249 AU
conjunction	16299 Apr 19 10:31	12°♄28'33	0°14'01		16304 Mar 09 04:22	30°♋♎	
minimum elong	16299 Apr 19 10:31	12°♄28'33	0°13'36	direct	16304 May 06 10:10	25°♎17'26	
behind sun begin	16299 Apr 19 06:10	12°♄26'14			16304 Jul 01 09:37	0°♎	
behind sun end	16299 Apr 19 14:51	12°♄30'53		evening set	16304 Sep 10 00:28	14°♎37'08	
max. Earth dist.	16299 Apr 20 03:03	12°♄37'27	6.46031 AU	max. Earth dist.	16304 Sep 21 12:47	17°♎21'44	6.02098 AU
	16299 May 01 04:22	15°♄					
morning rise	16299 May 02 14:01	15°♄17'59		conjunction	16304 Sep 23 02:24	17°♎44'14	-0°24'14
	16299 Jul 25 09:19	0°♄		minimum elong	16304 Sep 23 02:24	17°♎44'15	0°24'06
retrograde	16299 Sep 01 05:05	2°♄07'34		morning rise	16304 Oct 06 04:52	20°♎52'01	
	16299 Oct 09 01:02	30°♋♄			16304 Nov 15 11:27	0°♎	
opposition	16299 Nov 01 09:17	27°♄10'28	0°09'02	retrograde	16305 Feb 12 17:37	10°♎54'08	
min. Earth dist.	16299 Nov 01 07:24	27°♄11'05	4.49683 AU	opposition	16305 Apr 13 04:04	5°♎57'15	-0°25'17
direct	16300 Jan 02 09:27	22°♄10'21		min. Earth dist.	16305 Apr 13 20:09	5°♎51'54	3.95335 AU
	16300 Mar 21 09:35	0°♄		direct	16305 Jun 11 05:10	1°♎00'37	
desc. node	16300 Apr 07 23:36	3°♄16'36			16305 Sep 20 20:33	15°♎	
evening set	16300 May 06 19:24	9°♄11'05		evening set	16305 Oct 16 17:24	21°♎07'45	
conjunction	16300 May 19 20:29	11°♄57'49	-0°01'42	conjunction	16305 Oct 30 00:17	24°♎22'33	-0°07'52
minimum elong	16300 May 19 20:30	11°♄57'50	0°02'21	minimum elong	16305 Oct 30 00:17	24°♎22'33	0°07'21
behind sun begin	16300 May 19 12:28	11°♄53'34		behind sun begin	16305 Oct 29 16:42	24°♎17'56	
behind sun end	16300 May 20 04:32	12°♄02'06		behind sun end	16305 Oct 30 07:52	24°♎27'10	
max. Earth dist.	16300 May 19 07:48	11°♄51'03	6.51224 AU	max. Earth dist.	16305 Oct 29 18:33	24°♎19'04	5.90886 AU
morning rise	16300 Jun 01 20:13	14°♄43'54		morning rise	16305 Nov 12 08:42	27°♎38'18	
	16300 Aug 31 21:52	0°♄			16305 Nov 22 03:19	0°♄	
retrograde	16300 Sep 30 22:28	1°♄20'57		retrograde	16306 Mar 23 15:17	18°♄25'43	
	16300 Oct 30 19:58	30°♋♄		asc. node	16306 Apr 02 01:47	18°♄16'44	
opposition	16300 Dec 01 04:03	26°♄25'52	-0°13'56	opposition	16306 May 21 18:52	13°♄26'16	0°03'55
min. Earth dist.	16300 Dec 01 22:02	26°♄20'07	4.50547 AU	min. Earth dist.	16306 May 21 08:35	13°♄29'44	3.89178 AU
direct	16301 Feb 01 14:30	21°♄25'24		direct	16306 Jul 18 23:40	8°♄30'44	
	16301 Apr 24 16:12	0°♄		evening set	16306 Nov 23 22:08	28°♄50'35	
evening set	16301 Jun 05 21:58	8°♄30'12			16306 Nov 28 16:13	0°♄	
max. Earth dist.	16301 Jun 17 06:28	10°♄56'42	6.47643 AU				
				conjunction	16306 Dec 07 09:13	2°♄07'40	0°12'08
conjunction	16301 Jun 18 20:20	11°♄17'08	-0°16'50	minimum elong	16306 Dec 07 09:12	2°♄07'40	0°12'50
minimum elong	16301 Jun 18 20:20	11°♄17'08	0°17'32	behind sun begin	16306 Dec 07 04:03	2°♄04'31	
morning rise	16301 Jul 01 17:26	14°♄03'35		behind sun end	16306 Dec 07 14:21	2°♄10'48	
	16301 Oct 06 05:47	0°♄		max. Earth dist.	16306 Dec 08 16:59	2°♄27'05	5.90437 AU
retrograde	16301 Oct 31 11:48	0°♄58'09		morning rise	16306 Dec 20 21:56	5°♄25'28	
	16301 Nov 25 16:46	30°♋♄		retrograde	16307 Apr 30 20:30	26°♄04'18	
opposition	16301 Dec 31 14:11	26°♄03'57	-0°33'42	min. Earth dist.	16307 Jun 27 20:26	21°♄12'39	3.94550 AU
min. Earth dist.	16302 Jan 01 22:25	25°♄53'36	4.42732 AU	opposition	16307 Jun 29 02:59	21°♄02'18	0°31'29
direct	16302 Mar 03 19:13	21°♄03'21		direct	16307 Aug 26 09:44	16°♄06'08	
	16302 May 25 23:09	0°♄			16307 Dec 06 05:49	0°♄	
evening set	16302 Jul 06 13:13	8°♄36'17		evening set	16307 Dec 31 21:35	5°♄55'54	
max. Earth dist.	16302 Jul 17 06:09	10°♄58'04	6.36048 AU				
				conjunction	16308 Jan 14 10:14	9°♄08'36	0°26'51
conjunction	16302 Jul 19 10:32	11°♄27'06	-0°27'50	minimum elong	16308 Jan 14 10:14	9°♄08'35	0°27'25
minimum elong	16302 Jul 19 10:32	11°♄27'06	0°28'24	max. Earth dist.	16308 Jan 16 19:08	9°♄42'24	6.00994 AU
morning rise	16302 Aug 01 06:45	14°♄17'43		morning rise	16308 Jan 27 23:47	12°♄21'28	
	16302 Aug 04 11:39	15°♄			16308 Feb 08 07:34	15°♄	
	16302 Oct 27 19:54	0°♎			16308 Apr 29 17:21	0°♎	
retrograde	16302 Dec 03 00:04	1°♎58'30		retrograde	16308 Jun 04 17:13	2°♎03'07	
	16303 Jan 08 06:18	30°♋♄			16308 Jul 10 13:49	30°♋♄	
opposition	16303 Feb 01 15:49	27°♄04'17	-0°45'08	min. Earth dist.	16308 Aug 01 19:44	27°♄13'11	4.09046 AU
min. Earth dist.	16303 Feb 03 07:19	26°♄51'31	4.27998 AU	opposition	16308 Aug 03 10:33	27°♄00'07	0°45'23
direct	16303 Apr 04 03:12	22°♄04'13		direct	16308 Oct 01 11:30	22°♄02'25	
	16303 Jun 19 07:32	0°♎			16308 Dec 15 10:48	0°♎	
evening set	16303 Aug 07 16:17	10°♎25'37		evening set	16309 Feb 05 02:28	10°♎56'27	
max. Earth dist.	16303 Aug 18 06:56	12°♎51'37	6.19223 AU				
				conjunction	16309 Feb 18 13:30	14°♎00'44	0°31'00
conjunction	16303 Aug 20 14:30	13°♎23'36	-0°31'09	minimum elong	16309 Feb 18 13:30	14°♎00'44	0°31'15
minimum elong	16303 Aug 20 14:30	13°♎23'36	0°31'24	max. Earth dist.	16309 Feb 20 22:03	14°♎33'01	6.17972 AU
morning rise	16303 Sep 02 12:41	16°♎21'53		morning rise	16309 Mar 04 00:56	17°♎04'45	

	16309 May 06 21:42	0°♈		max. Earth dist.	16314 Jul 21 11:45	15°♏23'43	6.34065 AU
retrograde	16309 Jul 07 17:49	5°♈32'04					
min. Earth dist.	16309 Sep 04 17:33	0°♈41'08	4.26816 AU	conjunction	16314 Jul 23 19:02	15°♏54'30	-0°28'49
opposition	16309 Sep 06 02:37	0°♈30'08	0°42'39	minimum elong	16314 Jul 23 19:02	15°♏54'30	0°29'21
	16309 Sep 09 21:28	30°♋		morning rise	16314 Aug 05 15:30	18°♏45'57	
direct	16309 Nov 05 07:24	25°♋31'04			16314 Sep 29 23:45	0°♐	
	16309 Dec 31 00:43	0°♈		retrograde	16314 Dec 07 16:26	6°♐34'43	
evening set	16310 Mar 10 21:35	13°♈28'34		opposition	16315 Feb 06 06:51	1°♐40'20	-0°45'44
				min. Earth dist.	16315 Feb 07 22:06	1°♐27'37	4.25674 AU
conjunction	16310 Mar 24 05:37	16°♈24'18	0°24'52		16315 Feb 19 10:42	30°♋♏	
minimum elong	16310 Mar 24 05:37	16°♈24'19	0°24'44	direct	16315 Apr 08 14:42	26°♏40'19	
max. Earth dist.	16310 Mar 25 21:54	16°♈46'28	6.35100 AU		16315 May 26 00:06	0°♐	
morning rise	16310 Apr 06 12:49	19°♈19'26		evening set	16315 Aug 12 07:09	15°♐09'22	
	16310 May 29 19:45	0°♋		max. Earth dist.	16315 Aug 23 00:27	17°♐37'39	6.16752 AU
retrograde	16310 Aug 07 15:31	6°♋43'28					
opposition	16310 Oct 07 12:40	1°♋44'01	0°27'28	conjunction	16315 Aug 25 05:52	18°♐08'34	-0°30'48
min. Earth dist.	16310 Oct 06 18:14	1°♋50'02	4.41990 AU	minimum elong	16315 Aug 25 05:52	18°♐08'34	0°31'00
	16310 Oct 21 02:19	30°♋♈		morning rise	16315 Sep 07 04:21	21°♐08'04	
direct	16310 Dec 07 20:23	26°♈44'14			16315 Oct 17 14:57	0°♑	
	16311 Jan 24 16:01	0°♋		retrograde	16316 Jan 12 04:21	10°♑07'48	
evening set	16311 Apr 11 14:57	14°♋01'01		opposition	16316 Mar 12 03:12	5°♑12'27	-0°41'36
	16311 Apr 16 05:19	15°♋		min. Earth dist.	16316 Mar 13 12:05	5°♑01'39	4.07826 AU
				direct	16316 May 11 06:02	0°♑14'04	
conjunction	16311 Apr 24 19:02	16°♋50'27	0°11'54	evening set	16316 Sep 14 23:34	19°♑41'45	
minimum elong	16311 Apr 24 19:03	16°♋50'27	0°11'27	max. Earth dist.	16316 Sep 26 14:22	22°♑28'42	5.99944 AU
behind sun begin	16311 Apr 24 13:15	16°♋47'21					
behind sun end	16311 Apr 25 00:51	16°♋53'33		conjunction	16316 Sep 28 02:03	22°♑50'08	-0°22'25
max. Earth dist.	16311 Apr 25 06:53	16°♋56'48	6.47250 AU	minimum elong	16316 Sep 28 02:03	22°♑50'08	0°22'12
morning rise	16311 May 07 22:07	19°♋39'12		morning rise	16316 Oct 11 05:30	25°♑59'18	
	16311 Jun 29 19:10	0°♒			16316 Oct 28 06:00	0°♒	
retrograde	16311 Sep 06 10:06	6°♒24'56			16317 Jan 22 02:36	15°♒	
opposition	16311 Nov 06 14:13	1°♒28'03	0°05'45	retrograde	16317 Feb 18 01:56	16°♒10'39	
min. Earth dist.	16311 Nov 06 15:38	1°♒27'36	4.50426 AU		16317 Mar 17 01:19	15°♒♒	
	16311 Nov 18 03:24	30°♒♋		opposition	16317 Apr 18 11:35	11°♒13'27	-0°21'36
direct	16312 Jan 07 17:37	26°♋27'46		min. Earth dist.	16317 Apr 18 23:34	11°♒09'27	3.93681 AU
desc. node	16312 Feb 13 11:47	28°♋24'33		direct	16317 Jun 16 08:20	6°♒17'00	
	16312 Feb 27 02:52	0°♒			16317 Sep 01 08:33	15°♒	
evening set	16312 May 11 01:09	13°♒27'00		evening set	16317 Oct 21 23:58	26°♒29'13	
max. Earth dist.	16312 May 23 10:08	16°♒05'05	6.51410 AU				
				conjunction	16317 Nov 04 07:36	29°♒44'51	-0°05'04
conjunction	16312 May 24 01:55	16°♒13'30	-0°03'59	minimum elong	16317 Nov 04 07:36	29°♒44'50	0°04'31
minimum elong	16312 May 24 01:54	16°♒13'29	0°04'39	behind sun begin	16317 Nov 03 23:28	29°♒39'53	
behind sun begin	16312 May 23 18:03	16°♒09'19		behind sun end	16317 Nov 04 15:43	29°♒49'48	
behind sun end	16312 May 24 09:45	16°♒17'40		max. Earth dist.	16317 Nov 04 07:34	29°♒44'50	5.89920 AU
morning rise	16312 Jun 06 01:05	18°♒59'18			16317 Nov 05 08:19	0°♓	
	16312 Aug 02 07:44	0°♓		morning rise	16317 Nov 17 16:43	3°♓01'24	
retrograde	16312 Oct 05 02:07	5°♓36'18		asc. node	16318 Feb 11 05:03	20°♓32'57	
opposition	16312 Dec 05 08:56	0°♓41'18	-0°17'02	retrograde	16318 Mar 29 02:28	23°♓52'06	
min. Earth dist.	16312 Dec 06 04:20	0°♓35'05	4.50151 AU	opposition	16318 May 27 05:15	18°♓52'16	0°08'15
	16312 Dec 10 18:14	30°♒♒		min. Earth dist.	16318 May 26 16:23	18°♓56'37	3.89016 AU
direct	16313 Feb 05 18:35	25°♒40'44		direct	16318 Jul 24 09:40	13°♓56'45	
	16313 Apr 02 21:27	0°♓			16318 Nov 11 11:35	0°♓	
evening set	16313 Jun 10 03:24	12°♓47'17		evening set	16318 Nov 29 07:29	4°♓15'47	
max. Earth dist.	16313 Jun 21 09:45	15°♓12'56	6.46667 AU				
				conjunction	16318 Dec 12 19:08	7°♓32'46	0°14'43
conjunction	16313 Jun 23 01:30	15°♓34'26	-0°18'43	minimum elong	16318 Dec 12 19:08	7°♓32'46	0°15'24
minimum elong	16313 Jun 23 01:29	15°♓34'26	0°19'23	behind sun begin	16318 Dec 12 16:48	7°♓31'21	
morning rise	16313 Jul 05 22:14	18°♓21'07		behind sun end	16318 Dec 12 21:27	7°♓34'11	
	16313 Sep 04 02:27	0°♑		max. Earth dist.	16318 Dec 14 08:51	7°♓55'45	5.91110 AU
retrograde	16313 Nov 04 21:43	5°♑19'46		morning rise	16318 Dec 26 08:10	10°♓50'23	
opposition	16314 Jan 04 22:42	0°♑25'37	-0°35'54		16319 Apr 06 17:39	0°♓	
min. Earth dist.	16314 Jan 06 09:19	0°♑14'31	4.41206 AU	retrograde	16319 May 06 02:39	1°♓24'21	
	16314 Jan 08 06:36	30°♒♓			16319 Jun 04 07:58	30°♒♓	
direct	16314 Mar 08 03:07	25°♓25'00		min. Earth dist.	16319 Jul 03 00:21	26°♓33'20	3.95995 AU
	16314 May 04 09:04	0°♑		opposition	16319 Jul 04 09:26	26°♓22'08	0°34'28
evening set	16314 Jul 10 21:52	13°♑02'57		direct	16319 Aug 31 17:04	21°♓25'51	
	16314 Jul 19 17:06	15°♑			16319 Nov 16 11:56	0°♓	

evening set	16320 Jan 06 03:31	11°  09'17		max. Earth dist.	16325 Jun 25 10:07	19°  25'53	6.45302 AU
conjunction	16320 Jan 19 15:58	14°  20'57	0°28'07	conjunction	16325 Jun 27 05:41	19°  49'31	-0°20'29
minimum elong	16320 Jan 19 15:57	14°  20'57	0°28'39	minimum elong	16325 Jun 27 05:40	19°  49'30	0°21'08
max. Earth dist.	16320 Jan 22 01:37	14°  55'03	6.03051 AU	morning rise	16325 Jul 10 02:16	22°  36'39	
	16320 Jan 22 10:00	15° 			16325 Aug 14 21:14	0° 	
morning rise	16320 Feb 02 05:33	17°  32'49		retrograde	16325 Nov 09 06:25	9°  40'56	
	16320 Mar 31 12:02	0° 		opposition	16326 Jan 09 06:45	4°  46'47	-0°37'55
retrograde	16320 Jun 09 12:00	7°  04'28		min. Earth dist.	16326 Jan 10 18:09	4°  35'25	4.39241 AU
min. Earth dist.	16320 Aug 06 17:18	2°  14'41	4.11499 AU		16326 Feb 28 03:14	30°  46'12	
opposition	16320 Aug 08 08:40	2°  01'26	0°45'57	direct	16326 Mar 12 07:59	29°  46'12	
	16320 Aug 23 21:51	30° 			16326 Mar 24 14:48	0° 	
direct	16320 Oct 06 13:00	27°  03'31			16326 Jul 03 19:39	15° 	
	16320 Nov 19 04:07	0° 		evening set	16326 Jul 15 06:39	17°  30'53	
evening set	16321 Feb 10 00:24	15°  48'57		max. Earth dist.	16326 Jul 25 20:29	19°  52'22	6.31630 AU
conjunction	16321 Feb 23 11:10	18°  51'54	0°30'41	conjunction	16326 Jul 28 04:00	20°  23'27	-0°29'39
minimum elong	16321 Feb 23 11:10	18°  51'55	0°30'53	minimum elong	16326 Jul 28 04:00	20°  23'27	0°30'08
max. Earth dist.	16321 Feb 25 19:24	19°  23'50	6.20617 AU	morning rise	16326 Aug 10 00:32	23°  15'56	
morning rise	16321 Mar 08 21:53	21°  54'31			16326 Sep 10 07:33	0° 	
	16321 Apr 15 15:37	0° 		retrograde	16326 Dec 12 11:54	11°  14'33	
retrograde	16321 Jul 12 05:13	10°  09'11'17		opposition	16327 Feb 10 23:22	6°  14'33	-0°46'06
min. Earth dist.	16321 Sep 09 08:12	5°  09'40	4.29407 AU	min. Earth dist.	16327 Feb 12 15:32	6°  07'06	4.22918 AU
opposition	16321 Sep 10 15:44	5°  09'40	0°41'07	direct	16327 Apr 13 03:49	1°  20'19	
direct	16321 Nov 10 01:14	0°  10'30		evening set	16327 Aug 16 23:48	19°  58'38	
evening set	16322 Mar 15 11:14	18°  00'19		max. Earth dist.	16327 Aug 27 17:24	22°  28'06	6.13900 AU
conjunction	16322 Mar 28 18:32	20°  05'51	0°23'22	conjunction	16327 Aug 29 22:55	22°  59'15	-0°30'16
minimum elong	16322 Mar 28 18:33	20°  05'52	0°23'10	minimum elong	16327 Aug 29 22:55	22°  59'16	0°30'25
max. Earth dist.	16322 Mar 30 06:34	21°  05'52	6.37428 AU	morning rise	16327 Sep 11 22:10	26°  00'18	
morning rise	16322 Apr 11 01:15	23°  05'52			16327 Sep 29 09:50	0° 	
	16322 May 10 12:48	0° 		retrograde	16328 Jan 17 08:18	15°  12'00	
retrograde	16322 Aug 11 19:51	11°  05'00		opposition	16328 Mar 17 05:39	10°  16'27	-0°39'43
opposition	16322 Oct 11 18:54	6°  05'53	0°24'40	min. Earth dist.	16328 Mar 18 11:26	10°  06'39	4.05132 AU
min. Earth dist.	16322 Oct 11 03:10	6°  11'01	4.43900 AU	direct	16328 May 16 03:07	5°  18'21	
direct	16322 Dec 12 06:17	1°  05'59		evening set	16328 Sep 20 01:52	24°  55'10	
	16323 Mar 31 04:20	15° 		max. Earth dist.	16328 Oct 01 22:52	27°  46'41	5.97684 AU
evening set	16323 Apr 15 21:50	18°  18'01		conjunction	16328 Oct 03 05:09	28°  04'58	-0°20'24
conjunction	16323 Apr 29 01:33	21°  06'45	0°09'47	minimum elong	16328 Oct 03 05:10	28°  04'58	0°20'08
minimum elong	16323 Apr 29 01:33	21°  06'45	0°09'17		16328 Oct 11 03:42	0° 	
behind sun begin	16323 Apr 28 18:47	21°  03'08		morning rise	16328 Oct 16 09:22	1°  15'34	
behind sun end	16323 Apr 29 08:19	21°  10'21			16328 Dec 18 16:16	15° 	
max. Earth dist.	16323 Apr 29 10:37	21°  11'35	6.48608 AU	retrograde	16329 Feb 23 15:26	21°  13'62'24	
morning rise	16323 May 12 03:50	23°  05'44		opposition	16329 Apr 23 22:16	16°  13'51	-0°17'42
	16323 Jun 10 19:01	0° 		min. Earth dist.	16329 Apr 24 07:23	16°  13'54'48	3.92111 AU
retrograde	16323 Sep 10 11:12	10°  36'43			16329 May 06 11:50	15°  13'54	
opposition	16323 Nov 10 17:11	5°  40'10	0°02'31	direct	16329 Jun 21 16:07	11°  13'54'39	
min. Earth dist.	16323 Nov 10 20:52	5°  38'59	4.51150 AU		16329 Aug 05 20:19	15° 	
desc. node	16323 Dec 23 09:13	1°  14'25			16329 Oct 19 04:54	0° 	
direct	16324 Jan 11 22:03	0°  13'59'54		evening set	16329 Oct 27 09:38	1°  13'59'19	
evening set	16324 May 15 04:58	17°  13'38'02		conjunction	16329 Nov 09 18:04	5°  15'40	-0°02'11
max. Earth dist.	16324 May 27 08:21	20°  13'13	6.51434 AU	minimum elong	16329 Nov 09 18:05	5°  15'40	0°01'35
conjunction	16324 May 28 05:07	20°  12'41'18	-0°06'10	behind sun begin	16329 Nov 09 09:45	5°  10'35	
minimum elong	16324 May 28 05:06	20°  12'41'18	0°06'50	behind sun end	16329 Nov 10 02:25	5°  10'35'46	
behind sun begin	16324 May 27 21:39	20°  12'02'20		max. Earth dist.	16329 Nov 10 00:44	5°  19'44	5.89216 AU
behind sun end	16324 May 28 12:33	20°  12'28'15		morning rise	16329 Nov 23 03:58	8°  13'32'55	
morning rise	16324 Jun 10 03:56	23°  12'09'57		asc. node	16329 Dec 22 07:03	15°  13'26'51	
	16324 Jul 13 17:15	0° 		retrograde	16330 Apr 03 15:13	29°  13'25'03	
retrograde	16324 Oct 09 07:08	9°  47'51		opposition	16330 Jun 01 17:36	24°  13'24'49	0°12'33
opposition	16324 Dec 09 12:36	4°  53'04	-0°20'00	min. Earth dist.	16330 Jun 01 00:31	24°  13'30'35	3.89295 AU
min. Earth dist.	16324 Dec 10 11:41	4°  54'54	4.49466 AU	direct	16330 Jul 29 20:32	19°  13'29'18	
	16325 Jan 31 20:44	30° 			16330 Oct 23 08:00	0° 	
direct	16325 Feb 09 23:33	29°  12'52'27		evening set	16330 Dec 04 18:26	9°  12'45'22	
	16325 Feb 19 02:37	0° 		conjunction	16330 Dec 18 06:13	13°  01'52	0°17'11
evening set	16325 Jun 14 07:46	17°  01'56					

minimum elong	16330 Dec 18 06:13	13° $\text{Z}$ 01'52	0°17'51	behind sun end	16336 Jun 01 16:27	24° $\text{II}$ 40'58	
max. Earth dist.	16330 Dec 19 23:21	13° $\text{Z}$ 26'52	5.92304 AU	morning rise	16336 Jun 14 07:56	27° $\text{II}$ 22'59	
morning rise	16330 Dec 31 19:41	16° $\text{Z}$ 19'01			16336 Jun 26 18:40	0° $\text{Z}$	
	16331 Mar 04 15:18	0° $\approx$		retrograde	16336 Oct 13 12:07	14° $\text{Z}$ 03'09	
retrograde	16331 May 11 06:06	6° $\approx$ 45'37		opposition	16336 Dec 13 18:03	9° $\text{Z}$ 08'31	-0°22'56
min. Earth dist.	16331 Jul 08 04:21	1° $\approx$ 55'02	3.97944 AU	min. Earth dist.	16336 Dec 14 18:44	9° $\text{Z}$ 00'37	4.48367 AU
opposition	16331 Jul 09 15:45	1° $\approx$ 43'02	0°37'07	direct	16337 Feb 14 03:47	4° $\text{Z}$ 07'54	
	16331 Jul 22 15:24	30° $\text{R}$ $\text{Z}$		evening set	16337 Jun 18 14:20	21° $\text{Z}$ 21'28	
direct	16331 Sep 06 01:27	26° $\text{Z}$ 46'28		max. Earth dist.	16337 Jun 29 13:39	23° $\text{Z}$ 44'22	6.43600 AU
	16331 Oct 21 02:55	0° $\approx$					
	16332 Jan 05 12:44	15° $\approx$		conjunction	16337 Jul 01 11:59	24° $\text{Z}$ 09'36	-0°22'10
evening set	16332 Jan 11 08:47	16° $\approx$ 21'36		minimum elong	16337 Jul 01 11:59	24° $\text{Z}$ 09'36	0°22'49
				morning rise	16337 Jul 14 08:32	26° $\text{Z}$ 57'22	
conjunction	16332 Jan 24 21:12	19° $\approx$ 32'03	0°29'09		16337 Jul 28 13:47	0° $\Omega$	
minimum elong	16332 Jan 24 21:11	19° $\approx$ 32'03	0°29'38	retrograde	16337 Nov 13 20:19	14° $\Omega$ 08'24	
max. Earth dist.	16332 Jan 27 08:34	20° $\approx$ 06'58	6.05545 AU	opposition	16338 Jan 13 18:09	9° $\Omega$ 14'18	-0°39'47
morning rise	16332 Feb 07 10:20	22° $\approx$ 42'33		min. Earth dist.	16338 Jan 15 07:46	9° $\Omega$ 02'12	4.37020 AU
	16332 Mar 10 22:11	0° $\text{X}$		direct	16338 Mar 16 17:57	4° $\Omega$ 13'46	
retrograde	16332 Jun 14 07:06	12° $\text{X}$ 02'40			16338 Jun 16 13:58	15° $\Omega$	
min. Earth dist.	16332 Aug 11 14:50	7° $\text{X}$ 12'35	4.14241 AU	evening set	16338 Jul 19 18:34	22° $\Omega$ 05'53	
opposition	16332 Aug 13 05:12	6° $\text{X}$ 59'42	0°46'08	max. Earth dist.	16338 Jul 30 07:10	24° $\Omega$ 27'30	6.29055 AU
direct	16332 Oct 11 14:27	2° $\text{X}$ 01'32					
evening set	16333 Feb 14 20:50	20° $\text{X}$ 37'38		conjunction	16338 Aug 01 16:05	24° $\Omega$ 59'32	-0°30'19
				minimum elong	16338 Aug 01 16:05	24° $\Omega$ 59'32	0°30'44
conjunction	16333 Feb 28 07:06	23° $\text{X}$ 39'12	0°30'09	morning rise	16338 Aug 14 12:55	27° $\Omega$ 53'11	
minimum elong	16333 Feb 28 07:06	23° $\text{X}$ 39'13	0°30'18		16338 Aug 24 00:54	0° $\text{P}$	
max. Earth dist.	16333 Mar 02 13:17	24° $\text{X}$ 09'46	6.23354 AU	retrograde	16338 Dec 17 08:59	16° $\text{P}$ 02'06	
morning rise	16333 Mar 13 17:22	26° $\text{X}$ 40'25		opposition	16339 Feb 15 19:17	11° $\text{P}$ 07'36	-0°46'08
	16333 Mar 28 19:20	0° $\text{Y}$		min. Earth dist.	16339 Feb 17 09:48	10° $\text{P}$ 55'05	4.20185 AU
retrograde	16333 Jul 16 13:26	14° $\text{Y}$ 46'40		direct	16339 Apr 17 18:37	6° $\text{P}$ 08'03	
min. Earth dist.	16333 Sep 13 21:02	9° $\text{Y}$ 55'17	4.31920 AU	evening set	16339 Aug 21 19:58	24° $\text{P}$ 55'34	
opposition	16333 Sep 15 03:11	9° $\text{Y}$ 45'19	0°39'19	max. Earth dist.	16339 Sep 01 17:30	27° $\text{P}$ 28'13	6.11258 AU
direct	16333 Nov 14 16:16	4° $\text{Y}$ 46'00					
evening set	16334 Mar 19 23:15	22° $\text{Y}$ 28'39		conjunction	16339 Sep 03 19:35	27° $\text{P}$ 57'34	-0°29'29
				minimum elong	16339 Sep 03 19:36	27° $\text{P}$ 57'34	0°29'34
conjunction	16334 Apr 02 06:06	25° $\text{Y}$ 22'09	0°21'42		16339 Sep 12 12:33	0° $\text{A}$	
minimum elong	16334 Apr 02 06:06	25° $\text{Y}$ 22'09	0°21'28	morning rise	16339 Sep 16 19:23	1° $\text{A}$ 00'02	
max. Earth dist.	16334 Apr 03 14:38	25° $\text{Y}$ 39'53	6.39545 AU	retrograde	16340 Jan 22 17:44	20° $\text{A}$ 22'55	
morning rise	16334 Apr 15 12:04	28° $\text{Y}$ 15'00		opposition	16340 Mar 22 11:22	15° $\text{A}$ 27'13	-0°37'26
	16334 Apr 23 15:42	0° $\text{B}$		min. Earth dist.	16340 Mar 23 15:12	15° $\text{A}$ 18'02	4.02836 AU
	16334 Jul 30 20:56	15° $\text{B}$		direct	16340 May 21 05:19	10° $\text{A}$ 29'29	
retrograde	16334 Aug 16 00:29	15° $\text{B}$ 24'20			16340 Sep 24 07:45	0° $\text{M}$	
	16334 Sep 01 01:41	15° $\text{R}$ $\text{B}$		evening set	16340 Sep 25 06:27	0° $\text{M}$ 13'38	
min. Earth dist.	16334 Oct 15 11:59	10° $\text{B}$ 29'44	4.45482 AU	max. Earth dist.	16340 Oct 07 09:21	3° $\text{M}$ 09'22	5.95987 AU
opposition	16334 Oct 16 00:36	10° $\text{B}$ 25'38	0°21'43				
direct	16334 Dec 16 15:48	5° $\text{B}$ 25'40		conjunction	16340 Oct 08 10:30	3° $\text{M}$ 24'36	-0°18'11
	16335 Mar 13 20:03	15° $\text{B}$		minimum elong	16340 Oct 08 10:31	3° $\text{M}$ 24'37	0°17'52
evening set	16335 Apr 20 04:36	22° $\text{B}$ 34'02		morning rise	16340 Oct 21 15:33	6° $\text{M}$ 36'24	
					16340 Nov 26 21:54	15° $\text{M}$	
conjunction	16335 May 03 07:40	25° $\text{B}$ 22'11	0°07'35	retrograde	16341 Mar 01 03:33	27° $\text{M}$ 04'03	
minimum elong	16335 May 03 07:40	25° $\text{B}$ 22'10	0°07'03	opposition	16341 Apr 29 09:55	22° $\text{M}$ 06'11	-0°13'36
behind sun begin	16335 May 03 00:13	25° $\text{B}$ 18'13		min. Earth dist.	16341 Apr 29 14:16	22° $\text{M}$ 04'44	3.91249 AU
behind sun end	16335 May 03 15:06	25° $\text{B}$ 26'08		direct	16341 Jun 26 23:27	17° $\text{M}$ 10'17	
max. Earth dist.	16335 May 03 11:03	25° $\text{B}$ 23'58	6.49546 AU		16341 Oct 01 02:57	0° $\text{J}$	
morning rise	16335 May 16 09:34	28° $\text{B}$ 09'38		asc. node	16341 Oct 31 05:47	7° $\text{J}$ 05'31	
	16335 May 25 02:55	0° $\text{II}$		evening set	16341 Nov 01 19:28	7° $\text{J}$ 28'28	
retrograde	16335 Sep 14 14:41	14° $\text{II}$ 49'15					
desc. node	16335 Nov 02 00:58	11° $\text{II}$ 30'02		conjunction	16341 Nov 15 04:19	10° $\text{J}$ 45'03	0°00'47
opposition	16335 Nov 14 20:43	9° $\text{II}$ 52'59	-0°00'46	minimum elong	16341 Nov 15 04:17	10° $\text{J}$ 45'02	0°01'24
min. Earth dist.	16335 Nov 15 03:45	9° $\text{II}$ 50'43	4.51410 AU	behind sun begin	16341 Nov 14 19:58	10° $\text{J}$ 39'57	
direct	16336 Jan 16 03:29	4° $\text{II}$ 52'35		behind sun end	16341 Nov 15 12:37	10° $\text{J}$ 50'07	
evening set	16336 May 19 09:42	21° $\text{II}$ 51'02		max. Earth dist.	16341 Nov 15 15:42	10° $\text{J}$ 52'01	5.89273 AU
max. Earth dist.	16336 May 31 10:08	24° $\text{II}$ 24'46	6.50999 AU	morning rise	16341 Nov 28 14:53	14° $\text{J}$ 02'31	
					16342 Feb 11 14:30	0° $\text{Z}$	
conjunction	16336 Jun 01 09:38	24° $\text{II}$ 37'20	-0°08'22	retrograde	16342 Apr 08 23:48	4° $\text{Z}$ 52'51	
minimum elong	16336 Jun 01 09:38	24° $\text{II}$ 37'20	0°09'02	min. Earth dist.	16342 Jun 06 07:02	29° $\text{J}$ 59'12	3.90275 AU
behind sun begin	16336 Jun 01 02:48	24° $\text{II}$ 33'42			16342 Jun 06 04:42	30° $\text{R}$ $\text{J}$	

opposition	16342 Jun 07 03:44	29° $\text{♁}$ 52'12	0°16'39	conjunction	16348 Jun 05 12:55	28° $\text{♁}$ 49'13	-0°10'28
direct	16342 Aug 04 07:30	24° $\text{♁}$ 56'37		minimum elong	16348 Jun 05 12:54	28° $\text{♁}$ 49'13	0°11'09
	16342 Sep 30 02:05	0° $\text{♁}$		behind sun begin	16348 Jun 05 06:58	28° $\text{♁}$ 46'03	
evening set	16342 Dec 10 02:35	15° $\text{♁}$ 07'15		behind sun end	16348 Jun 05 18:51	28° $\text{♁}$ 52'23	
					16348 Jun 11 01:00	0° $\text{♁}$	
conjunction	16342 Dec 23 14:38	18° $\text{♁}$ 22'58	0°19'25	morning rise	16348 Jun 18 11:05	1° $\text{♁}$ 35'06	
minimum elong	16342 Dec 23 14:38	18° $\text{♁}$ 22'58	0°20'05	retrograde	16348 Oct 17 19:05	18° $\text{♁}$ 18'47	
max. Earth dist.	16342 Dec 25 12:33	18° $\text{♁}$ 50'45	5.94102 AU	opposition	16348 Dec 17 23:28	13° $\text{♁}$ 24'17	-0°25'41
morning rise	16343 Jan 06 03:59	21° $\text{♁}$ 39'12		min. Earth dist.	16348 Dec 19 02:36	13° $\text{♁}$ 15'35	4.46950 AU
	16343 Feb 11 11:24	0° $\text{♁}$		direct	16349 Feb 18 08:46	8° $\text{♁}$ 23'36	
retrograde	16343 May 16 06:57	11° $\text{♁}$ 56'23		evening set	16349 Jun 22 20:54	25° $\text{♁}$ 42'08	
min. Earth dist.	16343 Jul 13 06:03	7° $\text{♁}$ 05'46	4.00331 AU	max. Earth dist.	16349 Jul 03 18:59	28° $\text{♁}$ 04'56	6.41702 AU
opposition	16343 Jul 14 17:52	6° $\text{♁}$ 53'40	0°39'20				
direct	16343 Sep 11 07:12	1° $\text{♁}$ 56'54		conjunction	16349 Jul 05 18:35	28° $\text{♁}$ 30'58	-0°23'42
	16343 Dec 19 05:28	15° $\text{♁}$		minimum elong	16349 Jul 05 18:35	28° $\text{♁}$ 30'58	0°24'20
evening set	16344 Jan 16 09:31	21° $\text{♁}$ 22'41			16349 Jul 12 13:21	0° $\text{♁}$	
				morning rise	16349 Jul 18 14:57	1° $\text{♁}$ 19'25	
conjunction	16344 Jan 29 21:39	24° $\text{♁}$ 31'45	0°29'55		16349 Sep 29 09:42	15° $\text{♁}$	
minimum elong	16344 Jan 29 21:39	24° $\text{♁}$ 31'45	0°30'22	retrograde	16349 Nov 18 08:23	18° $\text{♁}$ 37'36	
max. Earth dist.	16344 Feb 01 09:24	25° $\text{♁}$ 06'38	6.08261 AU		16350 Jan 08 05:06	15° $\text{♁}$	
morning rise	16344 Feb 12 10:30	27° $\text{♁}$ 40'50		opposition	16350 Jan 18 05:43	13° $\text{♁}$ 43'29	-0°41'24
	16344 Feb 22 13:00	0° $\text{♁}$		min. Earth dist.	16350 Jan 19 19:10	13° $\text{♁}$ 31'26	4.34773 AU
retrograde	16344 Jun 18 19:24	16° $\text{♁}$ 49'16		direct	16350 Mar 21 01:52	8° $\text{♁}$ 43'03	
min. Earth dist.	16344 Aug 16 06:39	11° $\text{♁}$ 59'18	4.17025 AU		16350 May 27 14:06	15° $\text{♁}$	
opposition	16344 Aug 17 20:56	11° $\text{♁}$ 46'29	0°46'00	evening set	16350 Jul 24 06:52	26° $\text{♁}$ 42'26	
direct	16344 Oct 16 09:32	6° $\text{♁}$ 48'09		max. Earth dist.	16350 Aug 03 20:08	29° $\text{♁}$ 05'13	6.26617 AU
evening set	16345 Feb 19 12:29	25° $\text{♁}$ 15'21					
				conjunction	16350 Aug 06 04:27	29° $\text{♁}$ 37'07	-0°30'46
conjunction	16345 Mar 04 22:15	28° $\text{♁}$ 15'37	0°29'27	minimum elong	16350 Aug 06 04:27	29° $\text{♁}$ 37'06	0°31'10
minimum elong	16345 Mar 04 22:15	28° $\text{♁}$ 15'37	0°29'32		16350 Aug 07 20:53	0° $\text{♁}$	
max. Earth dist.	16345 Mar 07 00:40	28° $\text{♁}$ 43'54	6.25975 AU	morning rise	16350 Aug 19 01:36	2° $\text{♁}$ 31'52	
	16345 Mar 12 16:30	0° $\text{♁}$		retrograde	16350 Dec 22 08:23	20° $\text{♁}$ 50'26	
morning rise	16345 Mar 18 07:53	1° $\text{♁}$ 15'28		opposition	16351 Feb 20 15:33	15° $\text{♁}$ 55'46	-0°45'50
retrograde	16345 Jul 20 20:29	19° $\text{♁}$ 12'18		min. Earth dist.	16351 Feb 22 05:47	15° $\text{♁}$ 43'19	4.17717 AU
min. Earth dist.	16345 Sep 18 07:52	14° $\text{♁}$ 20'13	4.34177 AU	direct	16351 Apr 22 12:10	10° $\text{♁}$ 56'22	
opposition	16345 Sep 19 10:39	14° $\text{♁}$ 11'23	0°37'22	evening set	16351 Aug 26 15:29	29° $\text{♁}$ 51'40	
direct	16345 Nov 19 04:42	9° $\text{♁}$ 11'57			16351 Aug 27 05:45	0° $\text{♁}$	
evening set	16346 Mar 24 07:36	26° $\text{♁}$ 48'42		max. Earth dist.	16351 Sep 06 16:08	2° $\text{♁}$ 26'55	6.08967 AU
conjunction	16346 Apr 06 13:57	29° $\text{♁}$ 41'19	0°19'59	conjunction	16351 Sep 08 15:39	2° $\text{♁}$ 54'54	-0°28'29
minimum elong	16346 Apr 06 13:58	29° $\text{♁}$ 41'19	0°19'43	minimum elong	16351 Sep 08 15:40	2° $\text{♁}$ 54'54	0°28'30
max. Earth dist.	16346 Apr 07 18:21	29° $\text{♁}$ 56'44	6.41278 AU	morning rise	16351 Sep 21 16:01	5° $\text{♁}$ 58'37	
	16346 Apr 08 00:21	0° $\text{♁}$		retrograde	16352 Jan 27 22:55	25° $\text{♁}$ 30'58	
morning rise	16346 Apr 19 19:23	2° $\text{♁}$ 33'17		opposition	16352 Mar 27 15:34	20° $\text{♁}$ 34'57	-0°34'51
	16346 Jun 24 01:31	15° $\text{♁}$		min. Earth dist.	16352 Mar 28 16:02	20° $\text{♁}$ 26'52	4.00934 AU
retrograde	16346 Aug 20 01:30	19° $\text{♁}$ 37'20		direct	16352 May 26 04:17	15° $\text{♁}$ 37'29	
	16346 Oct 17 10:34	15° $\text{♁}$			16352 Sep 07 05:48	0° $\text{♁}$	
opposition	16346 Oct 20 03:13	14° $\text{♁}$ 39'01	0°18'47	evening set	16352 Sep 30 09:27	5° $\text{♁}$ 27'24	
min. Earth dist.	16346 Oct 19 17:00	14° $\text{♁}$ 42'20	4.46620 AU				
direct	16346 Dec 20 20:05	9° $\text{♁}$ 38'59		conjunction	16352 Oct 13 14:00	8° $\text{♁}$ 39'16	-0°15'50
	16347 Feb 21 15:55	15° $\text{♁}$		minimum elong	16352 Oct 13 14:01	8° $\text{♁}$ 39'17	0°15'28
evening set	16347 Apr 24 08:49	26° $\text{♁}$ 45'18		behind sun begin	16352 Oct 13 11:38	8° $\text{♁}$ 37'50	
				behind sun end	16352 Oct 13 16:24	8° $\text{♁}$ 40'43	
conjunction	16347 May 07 11:32	29° $\text{♁}$ 33'06	0°05'25	max. Earth dist.	16352 Oct 12 16:52	8° $\text{♁}$ 26'26	5.94638 AU
minimum elong	16347 May 07 11:32	29° $\text{♁}$ 33'06	0°04'52	morning rise	16352 Oct 26 19:53	11° $\text{♁}$ 52'03	
behind sun begin	16347 May 07 03:41	29° $\text{♁}$ 28'56			16352 Nov 08 22:10	15° $\text{♁}$	
behind sun end	16347 May 07 19:23	29° $\text{♁}$ 37'17		retrograde	16353 Jan 26 13:25	0° $\text{♁}$	
max. Earth dist.	16347 May 07 11:32	29° $\text{♁}$ 33'06	6.50028 AU		16353 Mar 06 12:23	2° $\text{♁}$ 25'01	
	16347 May 09 13:50	0° $\text{♁}$			16353 Apr 14 17:02	30° $\text{♁}$	
morning rise	16347 May 20 12:49	2° $\text{♁}$ 20'12		opposition	16353 May 04 18:33	27° $\text{♁}$ 26'44	-0°09'25
desc. node	16347 Sep 14 16:32	18° $\text{♁}$ 57'32		min. Earth dist.	16353 May 04 19:25	27° $\text{♁}$ 26'26	3.90599 AU
retrograde	16347 Sep 18 16:50	18° $\text{♁}$ 59'01		direct	16353 Jul 02 06:44	22° $\text{♁}$ 30'53	
opposition	16347 Nov 18 22:56	14° $\text{♁}$ 03'06	-0°03'57	asc. node	16353 Sep 08 04:49	29° $\text{♁}$ 31'38	
min. Earth dist.	16347 Nov 19 08:50	13° $\text{♁}$ 59'56	4.51230 AU		16353 Sep 10 17:11	0° $\text{♁}$	
direct	16348 Jan 20 06:55	9° $\text{♁}$ 02'42		evening set	16353 Nov 07 02:23	12° $\text{♁}$ 49'57	
evening set	16348 May 23 13:28	26° $\text{♁}$ 02'46					
max. Earth dist.	16348 Jun 04 08:27	28° $\text{♁}$ 33'58	6.50167 AU	conjunction	16353 Nov 20 11:57	16° $\text{♁}$ 06'46	0°03'38

minimum elong	16353 Nov 20 11:56	16° $\text{♊}$ 06'45	0°04'16	max. Earth dist.	16359 May 11 13:21	3° $\text{♊}$ 46'12	6.50558 AU
behind sun begin	16353 Nov 20 03:45	16° $\text{♊}$ 01'45		morning rise	16359 May 24 18:06	6° $\text{♊}$ 34'58	
behind sun end	16353 Nov 20 20:08	16° $\text{♊}$ 11'45		desc. node	16359 Jul 26 16:12	18° $\text{♊}$ 28'03	
max. Earth dist.	16353 Nov 21 05:44	16° $\text{♊}$ 17'40	5.89399 AU	retrograde	16359 Sep 22 20:26	23° $\text{♊}$ 12'44	
morning rise	16353 Dec 03 22:55	19° $\text{♊}$ 24'23		opposition	16359 Nov 23 03:02	18° $\text{♊}$ 17'07	-0°07'13
	16354 Jan 19 03:11	0° $\text{♋}$		min. Earth dist.	16359 Nov 23 14:30	18° $\text{♊}$ 13'26	4.51263 AU
retrograde	16354 Apr 14 07:28	10° $\text{♋}$ 12'43		direct	16360 Jan 24 11:06	13° $\text{♊}$ 16'44	
opposition	16354 Jun 12 10:51	5° $\text{♋}$ 11'44	0°20'33		16360 May 26 09:29	0° $\text{♋}$	
min. Earth dist.	16354 Jun 11 12:12	5° $\text{♋}$ 19'24	3.91163 AU	evening set	16360 May 27 18:32	0° $\text{♋}$ 17'33	
direct	16354 Aug 09 15:05	0° $\text{♋}$ 16'03					
evening set	16354 Dec 15 08:10	20° $\text{♋}$ 21'57		conjunction	16360 Jun 09 17:43	3° $\text{♋}$ 04'02	-0°12'35
				minimum elong	16360 Jun 09 17:43	3° $\text{♋}$ 04'02	0°13'15
conjunction	16354 Dec 28 20:21	23° $\text{♋}$ 37'00	0°21'29	behind sun begin	16360 Jun 09 13:05	3° $\text{♋}$ 01'33	
minimum elong	16354 Dec 28 20:20	23° $\text{♋}$ 37'00	0°22'07	behind sun end	16360 Jun 09 22:22	3° $\text{♋}$ 06'31	
max. Earth dist.	16354 Dec 30 21:07	24° $\text{♋}$ 06'23	5.95633 AU	max. Earth dist.	16360 Jun 08 12:06	2° $\text{♋}$ 48'09	6.49727 AU
morning rise	16355 Jan 11 09:55	26° $\text{♋}$ 52'32		morning rise	16360 Jun 22 15:21	5° $\text{♋}$ 49'56	
	16355 Jan 24 15:19	0° $\text{♌}$		retrograde	16360 Oct 22 01:13	22° $\text{♋}$ 35'48	
	16355 Apr 15 14:37	15° $\text{♌}$		opposition	16360 Dec 22 05:41	17° $\text{♋}$ 41'28	-0°28'22
retrograde	16355 May 21 04:26	17° $\text{♌}$ 01'34		min. Earth dist.	16360 Dec 23 10:12	17° $\text{♋}$ 32'21	4.46072 AU
	16355 Jun 25 17:41	15° $\text{♌}$		direct	16361 Feb 22 14:18	12° $\text{♋}$ 40'55	
min. Earth dist.	16355 Jul 18 04:14	12° $\text{♌}$ 11'26	4.02338 AU		16361 Jun 26 22:44	0° $\text{♌}$	
opposition	16355 Jul 19 17:50	11° $\text{♌}$ 58'45	0°41'16	evening set	16361 Jun 27 03:15	0° $\text{♌}$ 02'27	
direct	16355 Sep 16 08:50	7° $\text{♌}$ 01'46		max. Earth dist.	16361 Jul 07 22:37	2° $\text{♌}$ 24'14	6.40438 AU
	16355 Nov 29 17:27	15° $\text{♌}$					
evening set	16356 Jan 21 09:16	26° $\text{♌}$ 19'59		conjunction	16361 Jul 10 00:34	2° $\text{♌}$ 51'38	-0°25'09
				minimum elong	16361 Jul 10 00:34	2° $\text{♌}$ 51'38	0°25'44
conjunction	16356 Feb 03 21:08	29° $\text{♌}$ 27'55	0°30'29	morning rise	16361 Jul 22 20:58	5° $\text{♌}$ 40'34	
minimum elong	16356 Feb 03 21:08	29° $\text{♌}$ 27'55	0°30'53		16361 Sep 06 09:46	15° $\text{♌}$	
max. Earth dist.	16356 Feb 06 07:33	0° $\text{♍}$ 01'51	6.10548 AU	retrograde	16361 Nov 22 20:53	23° $\text{♌}$ 04'02	
	16356 Feb 06 04:22	0° $\text{♍}$		opposition	16362 Jan 22 16:34	18° $\text{♌}$ 09'53	-0°42'47
morning rise	16356 Feb 17 09:41	2° $\text{♍}$ 35'48		min. Earth dist.	16362 Jan 24 06:59	17° $\text{♌}$ 57'30	4.33180 AU
retrograde	16356 Jun 23 10:10	21° $\text{♍}$ 34'23			16362 Feb 18 07:37	15° $\text{♌}$	
min. Earth dist.	16356 Aug 21 00:09	16° $\text{♍}$ 43'56	4.19357 AU	direct	16362 Mar 25 11:22	13° $\text{♌}$ 09'32	
opposition	16356 Aug 22 12:27	16° $\text{♍}$ 31'47	0°45'34		16362 Apr 29 12:27	15° $\text{♌}$	
direct	16356 Oct 21 05:53	11° $\text{♍}$ 33'15			16362 Jul 23 04:54	0° $\text{♍}$	
evening set	16357 Feb 24 04:39	29° $\text{♍}$ 53'17		evening set	16362 Jul 28 16:46	1° $\text{♍}$ 13'55	
	16357 Feb 24 16:45	0° $\text{♎}$		max. Earth dist.	16362 Aug 08 06:52	3° $\text{♍}$ 37'44	6.24817 AU
conjunction	16357 Mar 09 14:08	2° $\text{♎}$ 52'29	0°28'33	conjunction	16362 Aug 10 14:35	4° $\text{♎}$ 09'23	-0°31'04
minimum elong	16357 Mar 09 14:08	2° $\text{♎}$ 52'29	0°28'35	minimum elong	16362 Aug 10 14:35	4° $\text{♎}$ 09'23	0°31'25
max. Earth dist.	16357 Mar 11 15:16	3° $\text{♎}$ 19'55	6.28174 AU	morning rise	16362 Aug 23 11:48	7° $\text{♎}$ 04'57	
morning rise	16357 Mar 22 23:12	5° $\text{♎}$ 51'12		retrograde	16362 Dec 27 02:08	25° $\text{♎}$ 31'05	
retrograde	16357 Jul 25 02:46	23° $\text{♎}$ 40'00		opposition	16363 Feb 25 08:23	20° $\text{♎}$ 36'19	-0°45'17
opposition	16357 Sep 23 19:15	18° $\text{♎}$ 39'28	0°35'11	min. Earth dist.	16363 Feb 26 21:24	20° $\text{♎}$ 24'15	4.15835 AU
min. Earth dist.	16357 Sep 22 17:35	18° $\text{♎}$ 47'55	4.36092 AU	direct	16363 Apr 27 00:43	15° $\text{♎}$ 37'08	
direct	16357 Nov 23 15:29	13° $\text{♎}$ 40'01			16363 Aug 11 02:15	0° $\text{♏}$	
	16358 Mar 23 03:21	0° $\text{♏}$		evening set	16363 Aug 31 07:13	4° $\text{♏}$ 38'28	
evening set	16358 Mar 28 17:33	1° $\text{♏}$ 11'54		max. Earth dist.	16363 Sep 11 09:35	7° $\text{♏}$ 15'24	6.07151 AU
conjunction	16358 Apr 10 23:20	4° $\text{♏}$ 03'43	0°18'07	conjunction	16363 Sep 13 07:39	7° $\text{♏}$ 42'39	-0°27'21
minimum elong	16358 Apr 10 23:21	4° $\text{♏}$ 03'44	0°17'48	minimum elong	16363 Sep 13 07:39	7° $\text{♏}$ 42'39	0°27'19
max. Earth dist.	16358 Apr 11 23:31	4° $\text{♏}$ 16'49	6.42793 AU	morning rise	16363 Sep 26 08:40	10° $\text{♏}$ 47'27	
morning rise	16358 Apr 24 04:15	6° $\text{♏}$ 54'54			16364 Jan 16 01:57	0° $\text{♐}$	
	16358 Jun 02 20:41	15° $\text{♏}$		retrograde	16364 Feb 01 23:42	0° $\text{♐}$ 27'55	
retrograde	16358 Aug 24 06:46	23° $\text{♏}$ 54'20			16364 Feb 18 20:50	30° $\text{♐}$	
opposition	16358 Oct 24 08:14	18° $\text{♏}$ 56'29	0°15'41	opposition	16364 Apr 01 14:59	25° $\text{♐}$ 31'37	-0°32'08
min. Earth dist.	16358 Oct 24 01:15	18° $\text{♏}$ 58'45	4.47664 AU	min. Earth dist.	16364 Apr 02 13:28	25° $\text{♐}$ 24'09	3.99332 AU
	16358 Nov 28 15:40	15° $\text{♐}$		direct	16364 May 31 00:43	20° $\text{♐}$ 34'19	
direct	16358 Dec 25 04:18	13° $\text{♐}$ 56'29			16364 Aug 20 02:03	0° $\text{♐}$	
	16359 Jan 20 21:33	15° $\text{♐}$		evening set	16364 Oct 05 07:09	10° $\text{♐}$ 29'15	
	16359 Apr 23 19:54	0° $\text{♑}$					
evening set	16359 Apr 28 15:02	1° $\text{♑}$ 00'48		conjunction	16364 Oct 18 12:33	13° $\text{♐}$ 42'03	-0°13'29
				minimum elong	16364 Oct 18 12:34	13° $\text{♐}$ 42'04	0°13'03
conjunction	16359 May 11 17:14	3° $\text{♑}$ 48'14	0°03'09	behind sun begin	16364 Oct 18 07:34	13° $\text{♐}$ 39'02	
minimum elong	16359 May 11 17:15	3° $\text{♑}$ 48'14	0°02'35	behind sun end	16364 Oct 18 17:33	13° $\text{♐}$ 45'05	
behind sun begin	16359 May 11 09:12	3° $\text{♑}$ 43'58		max. Earth dist.	16364 Oct 17 20:23	13° $\text{♐}$ 32'13	5.93421 AU
behind sun end	16359 May 12 01:18	3° $\text{♑}$ 52'31			16364 Oct 23 20:29	15° $\text{♐}$	

































































































































morning rise	16364 Oct 31 19:01	16° $\mathbb{M}$ 55'44			16370 May 16 01:56	15° $\mathcal{B}$	
	16364 Dec 29 18:16	0° $\mathcal{A}$		retrograde	16370 Aug 28 10:08	28° $\mathcal{B}$ 13'23	
retrograde	16365 Mar 11 18:08	7° $\mathcal{A}$ 33'52		opposition	16370 Oct 28 13:39	23° $\mathcal{B}$ 15'44	0°12'29
opposition	16365 May 09 22:02	2° $\mathcal{A}$ 35'17	-0°05'22	min. Earth dist.	16370 Oct 28 07:51	23° $\mathcal{B}$ 17'36	4.48650 AU
min. Earth dist.	16365 May 09 20:47	2° $\mathcal{A}$ 35'42	3.89907 AU	direct	16370 Dec 29 11:07	18° $\mathcal{B}$ 15'37	
	16365 May 30 05:43	30° $\mathcal{R}\mathbb{M}$			16371 Apr 07 04:56	0° $\mathbb{I}$	
direct	16365 Jul 07 08:04	27° $\mathbb{M}$ 39'33		evening set	16371 May 02 21:43	5° $\mathbb{I}$ 17'41	
asc. node	16365 Jul 19 14:43	27° $\mathbb{M}$ 55'03					
	16365 Aug 14 00:43	0° $\mathcal{A}$		conjunction	16371 May 15 23:22	8° $\mathbb{I}$ 04'42	0°00'49
evening set	16365 Nov 12 04:35	18° $\mathcal{A}$ 00'08		minimum elong	16371 May 15 23:23	8° $\mathbb{I}$ 04'42	0°00'14
				behind sun begin	16371 May 15 15:25	8° $\mathbb{I}$ 00'28	
conjunction	16365 Nov 25 14:35	21° $\mathcal{A}$ 17'14	0°06'19	behind sun end	16371 May 16 07:22	8° $\mathbb{I}$ 08'57	
minimum elong	16365 Nov 25 14:35	21° $\mathcal{A}$ 17'14	0°06'58	max. Earth dist.	16371 May 15 16:01	8° $\mathbb{I}$ 00'48	6.51058 AU
behind sun begin	16365 Nov 25 06:52	21° $\mathcal{A}$ 12'31		morning rise	16371 May 28 23:42	10° $\mathbb{I}$ 51'02	
behind sun end	16365 Nov 25 22:18	21° $\mathcal{A}$ 21'57		desc. node	16371 Jun 05 05:00	12° $\mathbb{I}$ 22'20	
max. Earth dist.	16365 Nov 26 11:18	21° $\mathcal{A}$ 29'56	5.89287 AU	retrograde	16371 Sep 27 01:52	27° $\mathbb{I}$ 27'35	
morning rise	16365 Dec 09 02:18	24° $\mathcal{A}$ 35'12		opposition	16371 Nov 27 07:52	22° $\mathbb{I}$ 32'08	-0°10'26
	16365 Dec 31 19:27	0° $\mathcal{B}$		min. Earth dist.	16371 Nov 27 22:30	22° $\mathbb{I}$ 27'27	4.51216 AU
retrograde	16366 Apr 19 08:33	15° $\mathcal{B}$ 22'50		direct	16372 Jan 28 17:55	17° $\mathbb{I}$ 31'39	
min. Earth dist.	16366 Jun 16 11:33	10° $\mathcal{B}$ 30'17	3.91663 AU		16372 May 10 03:05	0° $\mathcal{B}$	
opposition	16366 Jun 17 13:20	10° $\mathcal{B}$ 21'33	0°24'09	evening set	16372 May 31 23:54	4° $\mathcal{B}$ 33'11	
direct	16366 Aug 14 16:26	5° $\mathcal{B}$ 25'45					
evening set	16366 Dec 20 10:33	25° $\mathcal{B}$ 28'59		conjunction	16372 Jun 13 22:39	7° $\mathcal{B}$ 19'43	-0°14'38
				minimum elong	16372 Jun 13 22:38	7° $\mathcal{B}$ 19'43	0°15'18
conjunction	16367 Jan 02 22:55	28° $\mathcal{B}$ 43'38	0°23'20	behind sun begin	16372 Jun 13 20:11	7° $\mathcal{B}$ 18'24	
minimum elong	16367 Jan 02 22:55	28° $\mathcal{B}$ 43'37	0°23'57	behind sun end	16372 Jun 14 01:06	7° $\mathcal{B}$ 21'02	
max. Earth dist.	16367 Jan 05 01:11	29° $\mathcal{B}$ 13'49	5.96687 AU	max. Earth dist.	16372 Jun 12 12:50	7° $\mathcal{B}$ 01'33	6.49096 AU
	16367 Jan 08 06:06	0° $\approx$		morning rise	16372 Jun 26 20:04	10° $\mathcal{B}$ 05'44	
morning rise	16367 Jan 16 12:39	1° $\approx$ 58'41		retrograde	16372 Oct 26 08:51	26° $\mathcal{B}$ 54'25	
	16367 Mar 17 16:10	15° $\approx$		opposition	16372 Dec 26 12:48	22° $\mathcal{B}$ 00'06	-0°30'55
retrograde	16367 May 26 01:42	22° $\approx$ 01'49		min. Earth dist.	16372 Dec 27 18:53	21° $\mathcal{B}$ 50'27	4.44876 AU
min. Earth dist.	16367 Jul 23 01:57	17° $\approx$ 11'30	4.03813 AU	direct	16373 Feb 26 19:57	16° $\mathcal{B}$ 59'27	
opposition	16367 Jul 24 15:24	16° $\approx$ 58'51	0°42'53		16373 Jun 10 18:08	0° $\mathcal{Q}$	
	16367 Aug 08 18:21	15° $\mathcal{R}\approx$		evening set	16373 Jul 01 10:40	4° $\mathcal{Q}$ 25'04	
direct	16367 Sep 21 09:51	12° $\approx$ 01'37		max. Earth dist.	16373 Jul 12 05:28	6° $\mathcal{Q}$ 47'01	6.38744 AU
	16367 Nov 03 19:57	15° $\approx$					
	16368 Jan 20 21:44	0° $\mathcal{H}$		conjunction	16373 Jul 14 08:02	7° $\mathcal{Q}$ 14'52	-0°26'26
evening set	16368 Jan 26 07:22	1° $\mathcal{H}$ 14'22		minimum elong	16373 Jul 14 08:01	7° $\mathcal{Q}$ 14'52	0°27'00
				morning rise	16373 Jul 27 04:11	10° $\mathcal{Q}$ 04'24	
conjunction	16368 Feb 08 19:16	4° $\mathcal{H}$ 21'29	0°30'50		16373 Aug 19 04:00	15° $\mathcal{Q}$	
minimum elong	16368 Feb 08 19:16	4° $\mathcal{H}$ 21'29	0°31'11	retrograde	16373 Nov 27 10:53	27° $\mathcal{Q}$ 34'37	
max. Earth dist.	16368 Feb 11 07:12	4° $\mathcal{H}$ 56'09	6.12312 AU	opposition	16374 Jan 27 05:15	22° $\mathcal{Q}$ 40'26	-0°43'55
morning rise	16368 Feb 22 07:30	7° $\mathcal{H}$ 28'27		min. Earth dist.	16374 Jan 28 20:29	22° $\mathcal{Q}$ 27'48	4.31082 AU
retrograde	16368 Jun 27 23:36	26° $\mathcal{H}$ 19'01		direct	16374 Mar 29 20:56	17° $\mathcal{Q}$ 40'11	
min. Earth dist.	16368 Aug 25 15:00	21° $\mathcal{H}$ 28'44	4.21243 AU		16374 Jul 06 13:17	0° $\mathcal{H}$	
opposition	16368 Aug 27 03:26	21° $\mathcal{H}$ 16'34	0°44'54	evening set	16374 Aug 02 05:35	5° $\mathcal{H}$ 51'29	
direct	16368 Oct 25 23:05	16° $\mathcal{H}$ 17'53		max. Earth dist.	16374 Aug 12 18:41	8° $\mathcal{H}$ 15'32	6.22458 AU
	16369 Feb 07 23:51	0° $\mathcal{Y}$					
evening set	16369 Feb 28 20:54	4° $\mathcal{Y}$ 32'01		conjunction	16374 Aug 15 03:28	8° $\mathcal{H}$ 47'59	-0°31'09
				minimum elong	16374 Aug 15 03:28	8° $\mathcal{H}$ 47'59	0°31'27
conjunction	16369 Mar 14 05:50	7° $\mathcal{Y}$ 30'15	0°27'30	morning rise	16374 Aug 28 01:11	11° $\mathcal{H}$ 44'42	
minimum elong	16369 Mar 14 05:50	7° $\mathcal{Y}$ 30'15	0°27'29		16374 Dec 17 08:22	0° $\mathcal{L}$	
max. Earth dist.	16369 Mar 16 03:40	7° $\mathcal{Y}$ 55'44	6.30026 AU	retrograde	16375 Jan 01 01:23	0° $\mathcal{L}$ 20'44	
morning rise	16369 Mar 27 14:33	10° $\mathcal{Y}$ 28'01			16375 Jan 15 17:35	30° $\mathcal{R}\mathcal{H}$	
retrograde	16369 Jul 29 11:17	28° $\mathcal{Y}$ 09'44		opposition	16375 Mar 02 05:26	25° $\mathcal{H}$ 25'45	-0°44'23
min. Earth dist.	16369 Sep 27 05:19	23° $\mathcal{Y}$ 17'03	4.37769 AU	min. Earth dist.	16375 Mar 03 17:28	25° $\mathcal{H}$ 13'57	4.13376 AU
opposition	16369 Sep 28 04:33	23° $\mathcal{Y}$ 09'25	0°32'50	direct	16375 May 01 17:54	20° $\mathcal{H}$ 26'44	
direct	16369 Nov 28 04:44	18° $\mathcal{Y}$ 09'46			16375 Jul 23 20:35	0° $\mathcal{L}$	
	16370 Mar 06 06:00	0° $\mathcal{B}$		evening set	16375 Sep 05 03:31	9° $\mathcal{L}$ 36'16	
evening set	16370 Apr 02 04:04	5° $\mathcal{B}$ 37'06		max. Earth dist.	16375 Sep 16 10:19	12° $\mathcal{L}$ 16'36	6.04824 AU
conjunction	16370 Apr 15 09:30	8° $\mathcal{B}$ 28'12	0°16'10	conjunction	16375 Sep 18 04:42	12° $\mathcal{L}$ 41'48	-0°25'57
minimum elong	16370 Apr 15 09:30	8° $\mathcal{B}$ 28'13	0°15'48	minimum elong	16375 Sep 18 04:43	12° $\mathcal{L}$ 41'48	0°25'53
behind sun begin	16370 Apr 15 08:34	8° $\mathcal{B}$ 27'42		morning rise	16375 Oct 01 06:17	15° $\mathcal{L}$ 47'56	
behind sun end	16370 Apr 15 10:27	8° $\mathcal{B}$ 28'43			16375 Dec 07 14:08	0° $\mathbb{M}$	
max. Earth dist.	16370 Apr 16 07:54	8° $\mathcal{B}$ 40'18	6.44172 AU	retrograde	16376 Feb 07 07:35	5° $\mathbb{M}$ 38'27	
morning rise	16370 Apr 28 13:44	11° $\mathcal{B}$ 18'36		opposition	16376 Apr 06 20:20	0° $\mathbb{M}$ 41'57	-0°29'01

min. Earth dist.	16376 Apr 07 16:39	0° $\mathbb{M}$ 35'13	3.97370 AU	opposition	16381 Oct 02 12:47	27° $\mathbb{Y}$ 37'08	0°30'19
	16376 Apr 12 03:10	30° $\mathbb{R}$ $\mathbb{A}$		min. Earth dist.	16381 Oct 01 15:07	27° $\mathbb{Y}$ 44'14	4.39961 AU
direct	16376 Jun 05 02:00	25° $\mathbb{A}$ 44'58		direct	16381 Dec 02 16:24	22° $\mathbb{Y}$ 37'28	
	16376 Jul 27 05:16	0° $\mathbb{M}$			16382 Feb 15 07:06	0° $\mathbb{B}$	
	16376 Oct 07 07:15	15° $\mathbb{M}$		evening set	16382 Apr 06 13:02	9° $\mathbb{B}$ 58'55	
evening set	16376 Oct 10 11:42	15° $\mathbb{M}$ 46'15					
conjunction	16376 Oct 23 17:41	19° $\mathbb{M}$ 00'04	-0°10'53	conjunction	16382 Apr 19 17:43	12° $\mathbb{B}$ 49'06	0°14'10
minimum elong	16376 Oct 23 17:42	19° $\mathbb{M}$ 00'04	0°10'26	minimum elong	16382 Apr 19 17:43	12° $\mathbb{B}$ 49'07	0°13'46
behind sun begin	16376 Oct 23 11:12	18° $\mathbb{M}$ 56'07		behind sun begin	16382 Apr 19 13:32	12° $\mathbb{B}$ 46'52	
behind sun end	16376 Oct 24 00:12	19° $\mathbb{M}$ 04'01		behind sun end	16382 Apr 19 21:55	12° $\mathbb{B}$ 51'21	
max. Earth dist.	16376 Oct 23 04:52	18° $\mathbb{M}$ 52'15	5.92016 AU	max. Earth dist.	16382 Apr 20 10:44	12° $\mathbb{B}$ 58'15	6.45894 AU
morning rise	16376 Nov 06 01:10	22° $\mathbb{M}$ 14'51			16382 Apr 29 21:15	15° $\mathbb{B}$	
	16376 Dec 09 02:44	0° $\mathbb{A}$		morning rise	16382 May 02 21:28	15° $\mathbb{B}$ 38'37	
retrograde	16377 Mar 17 04:00	12° $\mathbb{A}$ 58'28			16382 Jul 22 14:40	0° $\mathbb{II}$	
opposition	16377 May 15 07:49	7° $\mathbb{A}$ 59'33	-0°01'01	retrograde	16382 Sep 01 13:58	2° $\mathbb{II}$ 28'15	
min. Earth dist.	16377 May 15 02:12	8° $\mathbb{A}$ 01'26	3.89242 AU		16382 Oct 12 13:04	30° $\mathbb{R}$ $\mathbb{B}$	
asc. node	16377 May 28 13:55	6° $\mathbb{A}$ 15'01		opposition	16382 Nov 01 17:33	27° $\mathbb{B}$ 30'55	0°09'20
direct	16377 Jul 12 14:49	3° $\mathbb{A}$ 03'55		min. Earth dist.	16382 Nov 01 15:28	27° $\mathbb{B}$ 31'36	4.49794 AU
evening set	16377 Nov 17 13:37	23° $\mathbb{A}$ 25'48		direct	16383 Jan 02 18:31	22° $\mathbb{B}$ 30'43	
					16383 Mar 19 19:14	0° $\mathbb{II}$	
conjunction	16377 Dec 01 00:13	26° $\mathbb{A}$ 43'07	0°09'05	desc. node	16383 Apr 14 07:14	4° $\mathbb{II}$ 47'44	
minimum elong	16377 Dec 01 00:12	26° $\mathbb{A}$ 43'07	0°09'44	evening set	16383 May 07 02:12	9° $\mathbb{II}$ 30'23	
behind sun begin	16377 Nov 30 17:23	26° $\mathbb{A}$ 38'57		conjunction	16383 May 20 03:30	12° $\mathbb{II}$ 17'03	-0°01'28
behind sun end	16377 Dec 01 07:02	26° $\mathbb{A}$ 47'17		minimum elong	16383 May 20 03:29	12° $\mathbb{II}$ 17'02	0°02'05
max. Earth dist.	16377 Dec 02 02:00	26° $\mathbb{A}$ 58'56	5.89444 AU	behind sun begin	16383 May 19 19:26	12° $\mathbb{II}$ 12'46	
morning rise	16377 Dec 14 12:25	0° $\mathbb{B}$ 01'14		behind sun end	16383 May 20 11:31	12° $\mathbb{II}$ 21'18	
	16377 Dec 14 10:23	0° $\mathbb{B}$		max. Earth dist.	16383 May 19 16:28	12° $\mathbb{II}$ 11'10	6.51537 AU
retrograde	16378 Apr 24 16:42	20° $\mathbb{B}$ 46'36		morning rise	16383 Jun 02 03:13	15° $\mathbb{II}$ 02'59	
opposition	16378 Jun 22 21:31	15° $\mathbb{B}$ 45'01	0°27'42		16383 Aug 28 21:45	0° $\mathbb{B}$	
min. Earth dist.	16378 Jun 21 17:54	15° $\mathbb{B}$ 54'22	3.92618 AU	retrograde	16383 Oct 01 03:35	1° $\mathbb{B}$ 38'48	
direct	16378 Aug 20 02:18	10° $\mathbb{B}$ 49'07			16383 Nov 03 08:50	30° $\mathbb{R}$ $\mathbb{II}$	
	16378 Dec 22 09:43	0° $\mathbb{A}$		opposition	16383 Dec 01 10:46	26° $\mathbb{II}$ 43'31	-0°13'31
evening set	16378 Dec 25 17:51	0° $\mathbb{A}$ 47'36		min. Earth dist.	16383 Dec 02 03:17	26° $\mathbb{II}$ 38'14	4.51007 AU
				direct	16384 Feb 01 20:12	21° $\mathbb{II}$ 42'59	
conjunction	16379 Jan 08 06:30	4° $\mathbb{A}$ 01'33	0°25'04		16384 Apr 22 09:32	0° $\mathbb{B}$	
minimum elong	16379 Jan 08 06:30	4° $\mathbb{A}$ 01'33	0°25'39	evening set	16384 Jun 05 03:46	8° $\mathbb{B}$ 46'02	
max. Earth dist.	16379 Jan 10 13:08	4° $\mathbb{A}$ 34'14	5.98353 AU	max. Earth dist.	16384 Jun 16 13:37	11° $\mathbb{B}$ 13'02	6.48200 AU
morning rise	16379 Jan 21 20:10	7° $\mathbb{A}$ 15'47					
	16379 Feb 24 18:19	15° $\mathbb{A}$		conjunction	16384 Jun 18 02:13	11° $\mathbb{B}$ 32'46	-0°16'33
retrograde	16379 May 31 01:28	27° $\mathbb{A}$ 10'11		minimum elong	16384 Jun 18 02:13	11° $\mathbb{B}$ 32'45	0°17'12
min. Earth dist.	16379 Jul 28 01:23	22° $\mathbb{A}$ 20'21	4.06011 AU	morning rise	16384 Jun 30 23:17	14° $\mathbb{B}$ 18'59	
opposition	16379 Jul 29 16:19	22° $\mathbb{A}$ 07'14	0°44'11		16384 Oct 02 13:45	0° $\mathbb{Q}$	
direct	16379 Sep 26 12:53	17° $\mathbb{A}$ 09'51		retrograde	16384 Oct 30 16:51	1° $\mathbb{Q}$ 11'35	
	16380 Jan 03 08:22	0° $\mathbb{H}$			16384 Nov 27 17:36	30° $\mathbb{R}$ $\mathbb{B}$	
evening set	16380 Jan 31 08:16	6° $\mathbb{H}$ 14'29		opposition	16384 Dec 30 19:06	26° $\mathbb{B}$ 17'21	-0°33'16
				min. Earth dist.	16385 Jan 01 04:04	26° $\mathbb{B}$ 06'47	4.43324 AU
conjunction	16380 Feb 13 19:41	9° $\mathbb{H}$ 20'19	0°30'59	direct	16385 Mar 03 01:35	21° $\mathbb{B}$ 16'41	
minimum elong	16380 Feb 13 19:41	9° $\mathbb{H}$ 20'19	0°31'16		16385 May 24 01:24	0° $\mathbb{Q}$	
max. Earth dist.	16380 Feb 16 06:09	9° $\mathbb{H}$ 53'56	6.14832 AU	evening set	16385 Jul 05 17:33	8° $\mathbb{Q}$ 47'39	
morning rise	16380 Feb 27 07:39	12° $\mathbb{H}$ 25'59		max. Earth dist.	16385 Jul 16 08:36	11° $\mathbb{Q}$ 08'15	6.36626 AU
	16380 Jun 06 05:42	0° $\mathbb{Y}$					
retrograde	16380 Jul 02 12:46	1° $\mathbb{Y}$ 05'53		conjunction	16385 Jul 18 14:47	11° $\mathbb{Q}$ 38'14	-0°27'35
	16380 Jul 28 16:38	30° $\mathbb{R}$ $\mathbb{H}$		minimum elong	16385 Jul 18 14:47	11° $\mathbb{Q}$ 38'14	0°28'07
min. Earth dist.	16380 Aug 30 08:01	26° $\mathbb{H}$ 15'21	4.23848 AU	morning rise	16385 Jul 31 11:12	14° $\mathbb{Q}$ 28'39	
opposition	16380 Aug 31 19:13	26° $\mathbb{H}$ 03'37	0°43'55		16385 Aug 02 20:13	15° $\mathbb{Q}$	
direct	16380 Oct 30 19:08	21° $\mathbb{H}$ 04'45			16385 Oct 25 13:06	0° $\mathbb{H}$	
	16381 Jan 20 09:35	0° $\mathbb{Y}$		retrograde	16385 Dec 02 02:14	2° $\mathbb{H}$ 07'22	
evening set	16381 Mar 05 13:06	9° $\mathbb{Y}$ 10'48			16386 Jan 08 18:46	30° $\mathbb{R}$ $\mathbb{Q}$	
				opposition	16386 Jan 31 18:37	27° $\mathbb{Q}$ 13'03	-0°44'50
conjunction	16381 Mar 18 21:42	12° $\mathbb{Y}$ 07'50	0°26'18	min. Earth dist.	16386 Feb 02 10:02	27° $\mathbb{Q}$ 00'18	4.28518 AU
minimum elong	16381 Mar 18 21:43	12° $\mathbb{Y}$ 07'50	0°26'13	direct	16386 Apr 03 06:30	22° $\mathbb{Q}$ 12'50	
max. Earth dist.	16381 Mar 20 18:19	12° $\mathbb{Y}$ 32'30	6.32524 AU		16386 Jun 17 17:29	0° $\mathbb{H}$	
morning rise	16381 Apr 01 05:37	15° $\mathbb{Y}$ 04'17		evening set	16386 Aug 06 19:13	10° $\mathbb{H}$ 32'43	
	16381 Jun 21 21:29	0° $\mathbb{B}$		max. Earth dist.	16386 Aug 17 10:24	12° $\mathbb{H}$ 58'49	6.19653 AU
retrograde	16381 Aug 02 17:16	2° $\mathbb{B}$ 37'04					
	16381 Sep 13 13:55	30° $\mathbb{R}$ $\mathbb{Y}$		conjunction	16386 Aug 19 17:36	13° $\mathbb{H}$ 30'33	-0°31'03

minimum elong	16386 Aug 19 17:36	13° $\mathbb{M}$ 30'33	0°31'17	max. Earth dist.	16392 Feb 21 05:11	14° $\mathbb{H}$ 48'41	6.17616 AU
morning rise	16386 Sep 01 15:37	16° $\mathbb{M}$ 28'37		morning rise	16392 Mar 03 06:18	17° $\mathbb{H}$ 19'36	
	16386 Nov 06 23:53	0° $\mathbb{L}$			16392 May 04 13:26	0° $\mathbb{Y}$	
retrograde	16387 Jan 06 03:22	5° $\mathbb{L}$ 16'10		retrograde	16392 Jul 07 01:29	5° $\mathbb{Y}$ 48'15	
opposition	16387 Mar 07 04:28	0° $\mathbb{L}$ 21'04	-0°43'12	min. Earth dist.	16392 Sep 04 00:10	0° $\mathbb{Y}$ 57'25	4.26555 AU
min. Earth dist.	16387 Mar 08 15:44	0° $\mathbb{L}$ 09'31	4.10552 AU	opposition	16392 Sep 05 09:44	0° $\mathbb{Y}$ 46'16	0°42'37
	16387 Mar 09 20:49	30° $\mathbb{R}$ $\mathbb{M}$			16392 Sep 11 05:40	30° $\mathbb{R}$ $\mathbb{H}$	
direct	16387 May 06 12:19	25° $\mathbb{M}$ 22'19		direct	16392 Nov 04 14:17	25° $\mathbb{H}$ 47'16	
	16387 Jun 30 23:30	0° $\mathbb{L}$			16392 Dec 28 10:26	0° $\mathbb{Y}$	
evening set	16387 Sep 10 02:40	14° $\mathbb{L}$ 41'24		evening set	16393 Mar 10 03:53	13° $\mathbb{Y}$ 45'10	
max. Earth dist.	16387 Sep 21 11:52	17° $\mathbb{L}$ 24'10	6.02238 AU				
conjunction	16387 Sep 23 04:25	17° $\mathbb{L}$ 48'24	-0°24'22	conjunction	16393 Mar 23 11:46	16° $\mathbb{Y}$ 40'58	0°24'55
minimum elong	16387 Sep 23 04:26	17° $\mathbb{L}$ 48'24	0°24'14	minimum elong	16393 Mar 23 11:47	16° $\mathbb{Y}$ 40'58	0°24'46
morning rise	16387 Oct 06 07:00	20° $\mathbb{L}$ 56'07		max. Earth dist.	16393 Mar 25 03:56	17° $\mathbb{Y}$ 03'04	6.34930 AU
	16387 Nov 15 05:54	0° $\mathbb{M}$		morning rise	16393 Apr 05 19:12	19° $\mathbb{Y}$ 36'12	
retrograde	16388 Feb 12 17:19	10° $\mathbb{M}$ 57'33		retrograde	16393 May 27 10:57	0° $\mathbb{B}$	
opposition	16388 Apr 12 04:40	6° $\mathbb{M}$ 00'43	-0°25'38	opposition	16393 Aug 06 22:34	7° $\mathbb{B}$ 00'51	
min. Earth dist.	16388 Apr 12 20:44	5° $\mathbb{M}$ 55'23	3.95301 AU	opposition	16393 Oct 06 20:04	2° $\mathbb{B}$ 01'16	0°27'37
direct	16388 Jun 10 05:40	1° $\mathbb{M}$ 03'58		min. Earth dist.	16393 Oct 06 01:14	2° $\mathbb{B}$ 07'26	4.41917 AU
	16388 Sep 19 15:44	15° $\mathbb{M}$			16393 Oct 22 19:01	30° $\mathbb{R}$ $\mathbb{Y}$	
evening set	16388 Oct 15 19:26	21° $\mathbb{M}$ 11'50		direct	16393 Dec 07 03:26	27° $\mathbb{Y}$ 01'29	
					16394 Jan 21 15:41	0° $\mathbb{B}$	
conjunction	16388 Oct 29 02:19	24° $\mathbb{M}$ 26'41	-0°08'10	evening set	16394 Apr 10 21:14	14° $\mathbb{B}$ 18'07	
minimum elong	16388 Oct 29 02:18	24° $\mathbb{M}$ 26'41	0°07'41		16394 Apr 14 03:41	15° $\mathbb{B}$	
behind sun begin	16388 Oct 28 18:49	24° $\mathbb{M}$ 22'07		conjunction	16394 Apr 24 01:33	17° $\mathbb{B}$ 07'35	0°12'04
behind sun end	16388 Oct 29 09:48	24° $\mathbb{M}$ 31'15		minimum elong	16394 Apr 24 01:33	17° $\mathbb{B}$ 07'35	0°11'39
max. Earth dist.	16388 Oct 28 20:08	24° $\mathbb{M}$ 22'56	5.90697 AU	behind sun begin	16394 Apr 23 19:51	17° $\mathbb{B}$ 04'33	
morning rise	16388 Nov 11 10:32	27° $\mathbb{M}$ 42'28		behind sun end	16394 Apr 24 07:15	17° $\mathbb{B}$ 10'38	
	16388 Nov 20 22:09	0° $\mathbb{X}$		max. Earth dist.	16394 Apr 24 15:33	17° $\mathbb{B}$ 15'06	6.47276 AU
retrograde	16389 Mar 22 18:07	18° $\mathbb{X}$ 30'49		morning rise	16394 May 07 04:30	19° $\mathbb{B}$ 56'20	
asc. node	16389 Apr 07 19:05	18° $\mathbb{X}$ 04'49			16394 Jun 27 09:08	0° $\mathbb{I}$	
opposition	16389 May 20 20:42	13° $\mathbb{X}$ 31'26	0°03'22	retrograde	16394 Sep 05 16:05	6° $\mathbb{I}$ 42'03	
min. Earth dist.	16389 May 20 11:58	13° $\mathbb{X}$ 34'22	3.88841 AU	opposition	16394 Nov 05 21:19	1° $\mathbb{I}$ 45'07	0°06'04
direct	16389 Jul 18 02:37	8° $\mathbb{X}$ 35'51		min. Earth dist.	16394 Nov 05 21:41	1° $\mathbb{I}$ 45'00	4.50533 AU
evening set	16389 Nov 23 01:04	28° $\mathbb{X}$ 57'23			16394 Nov 19 18:44	30° $\mathbb{R}$ $\mathbb{B}$	
	16389 Nov 27 07:52	0° $\mathbb{Z}$		direct	16395 Jan 06 23:54	26° $\mathbb{B}$ 44'54	
conjunction	16389 Dec 06 12:13	2° $\mathbb{Z}$ 14'40	0°11'47	desc. node	16395 Feb 19 03:33	29° $\mathbb{B}$ 23'15	
minimum elong	16389 Dec 06 12:12	2° $\mathbb{Z}$ 14'40	0°12'27		16395 Feb 24 04:39	0° $\mathbb{I}$	
behind sun begin	16389 Dec 06 06:47	2° $\mathbb{Z}$ 11'22		evening set	16395 May 11 07:23	13° $\mathbb{I}$ 43'35	
behind sun end	16389 Dec 06 17:38	2° $\mathbb{Z}$ 17'58		conjunction	16395 May 24 08:05	16° $\mathbb{I}$ 30'01	-0°03'44
max. Earth dist.	16389 Dec 07 20:38	2° $\mathbb{Z}$ 34'30	5.90000 AU	minimum elong	16395 May 24 08:05	16° $\mathbb{I}$ 30'01	0°04'22
morning rise	16389 Dec 20 00:48	5° $\mathbb{Z}$ 32'40		behind sun begin	16395 May 24 00:12	16° $\mathbb{I}$ 25'50	
retrograde	16390 Apr 30 01:05	26° $\mathbb{Z}$ 13'19		behind sun end	16395 May 24 15:58	16° $\mathbb{I}$ 34'12	
min. Earth dist.	16390 Jun 26 23:51	21° $\mathbb{Z}$ 21'50	3.94072 AU	max. Earth dist.	16395 May 23 15:52	16° $\mathbb{I}$ 21'22	6.51576 AU
opposition	16390 Jun 28 06:41	21° $\mathbb{Z}$ 11'23	0°31'00	morning rise	16395 Jun 06 07:29	19° $\mathbb{I}$ 15'49	
direct	16390 Aug 25 12:16	16° $\mathbb{Z}$ 15'18			16395 Jul 31 21:44	0° $\mathbb{S}$	
	16390 Dec 04 15:24	0° $\mathbb{A}$		retrograde	16395 Oct 05 09:41	5° $\mathbb{S}$ 52'25	
evening set	16390 Dec 31 02:01	6° $\mathbb{A}$ 06'54		opposition	16395 Dec 05 15:25	0° $\mathbb{S}$ 57'24	-0°16'37
conjunction	16391 Jan 13 14:27	9° $\mathbb{A}$ 19'45	0°26'35	min. Earth dist.	16395 Dec 06 11:38	0° $\mathbb{S}$ 50'55	4.50348 AU
minimum elong	16391 Jan 13 14:27	9° $\mathbb{A}$ 19'45	0°27'09		16395 Dec 13 03:32	30° $\mathbb{R}$ $\mathbb{I}$	
max. Earth dist.	16391 Jan 15 22:10	9° $\mathbb{A}$ 52'54	6.00507 AU	direct	16396 Feb 06 02:11	25° $\mathbb{I}$ 56'48	
morning rise	16391 Jan 27 04:09	12° $\mathbb{A}$ 32'53			16396 Mar 31 06:17	0° $\mathbb{S}$	
	16391 Feb 06 15:46	15° $\mathbb{A}$		evening set	16396 Jun 09 09:19	13° $\mathbb{S}$ 02'46	
	16391 Apr 27 23:52	0° $\mathbb{H}$		max. Earth dist.	16396 Jun 20 15:20	15° $\mathbb{S}$ 28'10	6.46874 AU
retrograde	16391 Jun 04 22:01	2° $\mathbb{H}$ 16'30		conjunction	16396 Jun 22 07:35	15° $\mathbb{S}$ 49'54	-0°18'26
	16391 Jul 12 20:06	30° $\mathbb{R}$ $\mathbb{A}$		minimum elong	16396 Jun 22 07:34	15° $\mathbb{S}$ 49'54	0°19'05
min. Earth dist.	16391 Aug 02 00:56	27° $\mathbb{A}$ 26'42	4.08602 AU	morning rise	16396 Jul 05 04:26	18° $\mathbb{S}$ 36'33	
opposition	16391 Aug 03 16:20	27° $\mathbb{A}$ 13'25	0°45'07		16396 Sep 01 18:36	0° $\mathbb{Q}$	
direct	16391 Oct 01 16:38	22° $\mathbb{A}$ 15'44		retrograde	16396 Nov 04 02:29	5° $\mathbb{Q}$ 34'34	
	16391 Dec 14 10:14	0° $\mathbb{H}$		opposition	16397 Jan 04 04:05	0° $\mathbb{Q}$ 40'23	-0°35'30
evening set	16392 Feb 05 07:50	11° $\mathbb{H}$ 11'00		min. Earth dist.	16397 Jan 05 13:50	0° $\mathbb{Q}$ 29'33	4.41414 AU
conjunction	16392 Feb 18 19:01	14° $\mathbb{H}$ 15'26	0°30'53		16397 Jan 09 10:17	30° $\mathbb{R}$ $\mathbb{S}$	
minimum elong	16392 Feb 18 19:02	14° $\mathbb{H}$ 15'26	0°31'08	direct	16397 Mar 07 07:33	25° $\mathbb{S}$ 39'46	
					16397 May 01 22:35	0° $\mathbb{Q}$	

evening set	16397 Jul 10 03:31	13°Ω17'18		direct	16402 Aug 30 20:27	21°♄34'40	
	16397 Jul 17 21:06	15°Ω			16402 Nov 14 21:27	0°♄	
max. Earth dist.	16397 Jul 20 18:26	15°Ω38'33	6.34260 AU	evening set	16403 Jan 05 06:07	11°♄17'34	
conjunction	16397 Jul 23 00:50	16°Ω08'50	-0°28'36	conjunction	16403 Jan 18 18:33	14°♄29'11	0°27'50
minimum elong	16397 Jul 23 00:50	16°Ω08'50	0°29'06	minimum elong	16403 Jan 18 18:33	14°♄29'11	0°28'20
morning rise	16397 Aug 04 21:14	19°Ω00'13			16403 Jan 20 22:39	15°♄	
	16397 Sep 27 21:11	0°♍		max. Earth dist.	16403 Jan 21 04:27	15°♄03'26	6.03068 AU
retrograde	16397 Dec 06 22:05	6°♍48'18		morning rise	16403 Feb 01 07:49	17°♄40'55	
opposition	16398 Feb 05 11:36	1°♍54'01	-0°45'30		16403 Mar 30 20:17	0°♋	
min. Earth dist.	16398 Feb 07 03:59	1°♍40'57	4.25845 AU	retrograde	16403 Jun 09 16:10	7°♋12'50	
	16398 Feb 20 12:34	30°♋Ω		min. Earth dist.	16403 Aug 06 21:34	2°♋22'46	4.11410 AU
direct	16398 Apr 07 20:12	26°Ω54'02		opposition	16403 Aug 08 12:08	2°♋09'48	0°45'38
	16398 May 23 11:22	0°♍			16403 Aug 25 04:44	30°♋♄	
evening set	16398 Aug 11 12:40	15°♍22'55		direct	16403 Oct 06 17:01	27°♄11'56	
max. Earth dist.	16398 Aug 22 04:01	17°♍50'05	6.16890 AU		16403 Nov 18 04:39	0°♋	
				evening set	16404 Feb 10 02:59	15°♋57'28	
conjunction	16398 Aug 24 11:22	18°♍22'06	-0°30'43	conjunction	16404 Feb 23 13:39	19°♋00'29	0°30'35
minimum elong	16398 Aug 24 11:22	18°♍22'06	0°30'55	minimum elong	16404 Feb 23 13:39	19°♋00'30	0°30'46
morning rise	16398 Sep 06 10:03	21°♍21'36		max. Earth dist.	16404 Feb 25 21:36	19°♋32'15	6.20412 AU
	16398 Oct 15 18:05	0°♊		morning rise	16404 Mar 08 00:30	22°♋03'13	
retrograde	16399 Jan 11 07:29	10°♊20'41			16404 Apr 14 00:11	0°♑	
opposition	16399 Mar 12 07:16	5°♊25'25	-0°41'38	retrograde	16404 Jul 11 08:18	10°♑21'06	
min. Earth dist.	16399 Mar 13 15:28	5°♊14'51	4.07946 AU	min. Earth dist.	16404 Sep 08 11:44	5°♑30'02	4.29115 AU
direct	16399 May 11 09:55	0°♊27'02		opposition	16404 Sep 09 19:49	5°♑19'24	0°41'06
evening set	16399 Sep 15 04:57	19°♊54'49		direct	16404 Nov 09 04:07	0°♑20'15	
max. Earth dist.	16399 Sep 26 20:34	22°♊42'12	6.00067 AU	evening set	16405 Mar 14 14:38	18°♑10'53	
conjunction	16399 Sep 28 07:27	23°♊03'09	-0°22'32	conjunction	16405 Mar 27 22:06	21°♑05'36	0°23'26
minimum elong	16399 Sep 28 07:27	23°♊03'09	0°22'20	minimum elong	16405 Mar 27 22:07	21°♑05'36	0°23'15
morning rise	16399 Oct 11 10:41	26°♊12'13		max. Earth dist.	16405 Mar 29 10:35	21°♑25'36	6.37081 AU
	16399 Oct 27 13:01	0°♌		morning rise	16405 Apr 10 04:49	23°♑59'43	
retrograde	16400 Jan 19 23:27	15°♌			16405 May 08 18:00	0°♎	
	16400 Feb 18 07:02	16°♌22'51		retrograde	16405 Aug 11 01:51	11°♎17'22	
	16400 Mar 18 12:57	15°♌♌		min. Earth dist.	16405 Oct 10 08:36	6°♎23'19	4.43521 AU
opposition	16400 Apr 17 15:33	11°♌25'45	-0°21'56	opposition	16405 Oct 11 00:14	6°♎18'13	0°24'53
min. Earth dist.	16400 Apr 18 04:40	11°♌21'23	3.93818 AU	direct	16405 Dec 11 11:24	1°♎18'22	
direct	16400 Jun 15 13:46	6°♌29'20			16406 Mar 29 07:18	15°♎	
	16400 Aug 30 12:45	15°♌		evening set	16406 Apr 15 02:34	18°♎31'22	
evening set	16400 Oct 21 04:42	26°♌41'12					
conjunction	16400 Nov 03 12:16	29°♌56'42	-0°05'22	conjunction	16406 Apr 28 06:17	21°♎20'16	0°09'59
minimum elong	16400 Nov 03 12:16	29°♌56'42	0°04'50	minimum elong	16406 Apr 28 06:17	21°♎20'16	0°09'30
behind sun begin	16400 Nov 03 04:11	29°♌51'46		behind sun begin	16406 Apr 27 23:35	21°♎16'42	
behind sun end	16400 Nov 03 20:22	0°♏01'38		behind sun end	16406 Apr 28 12:58	21°♎23'50	
	16400 Nov 03 17:42	0°♏		max. Earth dist.	16406 Apr 28 14:36	21°♎24'42	6.48227 AU
max. Earth dist.	16400 Nov 03 12:26	29°♌56'48	5.90076 AU	morning rise	16406 May 11 08:54	24°♎08'30	
morning rise	16400 Nov 16 21:14	3°♏13'06			16406 Jun 08 19:25	0°♐	
asc. node	16401 Feb 16 16:17	21°♏32'39		retrograde	16406 Sep 09 18:11	10°♐51'52	
retrograde	16401 Mar 28 05:50	24°♏02'44		opposition	16406 Nov 09 23:32	5°♐55'13	0°02'53
opposition	16401 May 26 08:45	19°♏03'00	0°07'43	min. Earth dist.	16406 Nov 10 03:09	5°♐54'03	4.50807 AU
min. Earth dist.	16401 May 25 19:33	19°♏07'27	3.89196 AU	desc. node	16406 Dec 29 03:21	1°♐10'22	
direct	16401 Jul 23 12:55	14°♏07'31		direct	16407 Jan 11 03:55	0°♐54'54	
	16401 Nov 09 22:08	0°♄		evening set	16407 May 15 10:52	17°♐53'55	
evening set	16401 Nov 28 11:19	4°♄25'46		conjunction	16407 May 28 11:23	20°♐40'23	-0°05'54
conjunction	16401 Dec 11 22:35	7°♄42'33	0°14'21	minimum elong	16407 May 28 11:22	20°♐40'23	0°06'32
minimum elong	16401 Dec 11 22:35	7°♄42'32	0°15'00	behind sun begin	16407 May 28 03:51	20°♐36'23	
behind sun begin	16401 Dec 11 19:36	7°♄40'43		behind sun end	16407 May 28 18:54	20°♐44'23	
behind sun end	16401 Dec 12 01:34	7°♄44'21		max. Earth dist.	16407 May 27 16:30	20°♐30'18	6.51168 AU
max. Earth dist.	16401 Dec 13 10:30	8°♄04'26	5.91267 AU	morning rise	16407 Jun 10 10:15	23°♐26'11	
morning rise	16401 Dec 25 11:35	11°♄00'02			16407 Jul 12 13:20	0°♑	
	16402 Apr 04 06:44	0°♄		retrograde	16407 Oct 09 13:07	10°♑04'52	
retrograde	16402 May 05 04:22	1°♄33'14		opposition	16407 Dec 09 19:22	5°♑10'02	-0°19'35
	16402 Jun 05 00:21	30°♋♄		min. Earth dist.	16407 Dec 10 17:07	5°♑03'04	4.49306 AU
min. Earth dist.	16402 Jul 02 03:28	26°♄42'11	3.96089 AU	direct	16408 Feb 10 05:10	0°♑09'27	
opposition	16402 Jul 03 12:33	26°♄30'59	0°33'56	evening set	16408 Jun 13 14:49	17°♑19'21	

max. Earth dist.	16408 Jun 24 17:45	19°  43'39	6.45269 AU	morning rise	16413 Dec 30 19:08	16°  18'41	
					16414 Mar 03 15:38	0° 	
conjunction	16408 Jun 26 12:46	20°  06'59	-0°20'12	retrograde	16414 May 10 06:59	6°  45'16	
minimum elong	16408 Jun 26 12:46	20°  06'59	0°20'50	min. Earth dist.	16414 Jul 07 05:50	1°  54'17	3.97868 AU
morning rise	16408 Jul 09 09:34	22°  54'13		opposition	16414 Jul 08 15:42	1°  42'50	0°36'33
	16408 Aug 12 16:16	0° 			16414 Jul 21 14:31	30°  R 	
retrograde	16408 Nov 08 14:29	9°  58'25		direct	16414 Sep 05 02:00	26°  Z46'21	
opposition	16409 Jan 08 13:45	5°  04'16	-0°37'32		16414 Oct 20 03:02	0° 	
min. Earth dist.	16409 Jan 10 01:36	4°  52'45	4.39341 AU		16415 Jan 04 11:44	15° 	
direct	16409 Mar 11 16:06	0°  03'41		evening set	16415 Jan 10 08:24	16°  ~22'04	
	16409 Jul 01 18:59	15° 					
evening set	16409 Jul 14 13:44	17°  047'59		conjunction	16415 Jan 23 20:39	19°  ~32'36	0°28'52
max. Earth dist.	16409 Jul 25 03:31	20°  09'22	6.31871 AU	minimum elong	16415 Jan 23 20:39	19°  ~32'35	0°29'20
				max. Earth dist.	16415 Jan 26 07:21	20°  ~07'07	6.05245 AU
conjunction	16409 Jul 27 11:10	20°  04'30	-0°29'25	morning rise	16415 Feb 06 09:49	22°  ~43'14	
minimum elong	16409 Jul 27 11:10	20°  04'30	0°29'53		16415 Mar 10 19:32	0°  H	
morning rise	16409 Aug 09 07:49	23°  032'56		retrograde	16415 Jun 14 07:27	12°  H05'12	
	16409 Sep 08 06:06	0°  M		min. Earth dist.	16415 Aug 11 15:28	7°  H15'21	4.13772 AU
retrograde	16409 Dec 11 16:33	11°  M30'20		opposition	16415 Aug 13 06:23	7°  H02'18	0°45'53
opposition	16410 Feb 10 05:17	6°  M35'54	-0°45'50	direct	16415 Oct 11 13:56	2°  H04'15	
min. Earth dist.	16410 Feb 11 20:03	6°  M23'20	4.23310 AU	evening set	16416 Feb 14 21:41	20°  H42'07	
direct	16410 Apr 12 09:16	1°  M36'05					
evening set	16410 Aug 16 06:09	20°  M13'06		conjunction	16416 Feb 28 07:59	23°  H43'58	0°30'05
max. Earth dist.	16410 Aug 27 01:07	22°  M43'11	6.14416 AU	minimum elong	16416 Feb 28 07:59	23°  H43'59	0°30'13
				max. Earth dist.	16416 Mar 01 13:13	24°  H14'03	6.22759 AU
conjunction	16410 Aug 29 05:14	23°  M13'30	-0°30'10	morning rise	16416 Mar 12 18:19	26°  H45'29	
minimum elong	16410 Aug 29 05:15	23°  M13'30	0°30'19		16416 Mar 27 10:25	0°  Y	
morning rise	16410 Sep 11 04:20	26°  M14'16		retrograde	16416 Jul 15 18:49	14°  Y54'30	
	16410 Sep 27 15:36	0°  A		min. Earth dist.	16416 Sep 13 01:20	10°  Y02'53	4.31251 AU
retrograde	16411 Jan 16 13:20	15°  A23'34		opposition	16416 Sep 14 06:39	9°  Y53'11	0°39'22
opposition	16411 Mar 17 09:48	10°  A28'05	-0°39'43	direct	16416 Nov 13 19:39	4°  Y53'57	
min. Earth dist.	16411 Mar 18 16:35	10°  A17'58	4.05730 AU	evening set	16417 Mar 19 02:18	22°  Y38'47	
direct	16411 May 16 09:25	5°  A29'57					
evening set	16411 Sep 20 06:15	25°  A04'38		conjunction	16417 Apr 01 09:18	25°  Y32'38	0°21'48
max. Earth dist.	16411 Oct 02 02:24	27°  A55'24	5.98308 AU	minimum elong	16417 Apr 01 09:18	25°  Y32'38	0°21'35
				max. Earth dist.	16417 Apr 02 18:36	25°  Y50'48	6.38853 AU
conjunction	16411 Oct 03 09:25	28°  A14'05	-0°20'32	morning rise	16417 Apr 14 15:30	28°  Y25'51	
minimum elong	16411 Oct 03 09:25	28°  A14'06	0°20'16		16417 Apr 21 22:23	0°  B	
	16411 Oct 10 17:07	0°  M			16417 Jul 26 02:51	15°  B	
morning rise	16411 Oct 16 13:26	1°  M24'19		retrograde	16417 Aug 15 05:44	15°  B37'49	
	16411 Dec 18 03:33	15°  M			16417 Sep 04 07:44	15°  R  B	
retrograde	16412 Feb 23 16:03	21°  M42'08		opposition	16417 Oct 15 06:00	10°  B39'05	0°21'58
opposition	16412 Apr 23 00:02	16°  M44'42	-0°18'04	min. Earth dist.	16417 Oct 14 16:11	10°  B43'35	4.44849 AU
min. Earth dist.	16412 Apr 23 08:54	16°  M41'44	3.92715 AU	direct	16417 Dec 15 19:02	5°  B39'14	
	16412 May 06 08:46	15°  R  M			16418 Mar 11 17:33	15°  B	
direct	16412 Jun 20 17:38	11°  M48'30		evening set	16418 Apr 19 09:48	22°  B49'28	
	16412 Aug 04 07:11	15°  M					
	16412 Oct 18 00:20	0°  Z		conjunction	16418 May 02 13:07	25°  B37'53	0°07'47
evening set	16412 Oct 26 11:33	2°  Z03'02		minimum elong	16418 May 02 13:07	25°  B37'53	0°07'17
				behind sun begin	16418 May 02 05:44	25°  B33'57	
conjunction	16412 Nov 08 19:34	5°  Z18'59	-0°02'32	behind sun end	16418 May 02 20:30	25°  B41'49	
minimum elong	16412 Nov 08 19:35	5°  Z18'59	0°01'58	max. Earth dist.	16418 May 02 18:41	25°  B40'51	6.49052 AU
behind sun begin	16412 Nov 08 11:16	5°  Z13'54		morning rise	16418 May 15 15:04	28°  B25'36	
behind sun end	16412 Nov 09 03:54	5°  Z24'04			16418 May 23 01:49	0°  II	
max. Earth dist.	16412 Nov 08 23:58	5°  Z21'38	5.89721 AU	retrograde	16418 Sep 13 21:58	15°  II06'54	
morning rise	16412 Nov 22 05:19	8°  Z35'53		desc. node	16418 Nov 07 06:10	11°  II03'36	
asc. node	16412 Dec 28 12:58	17°  Z05'41		opposition	16418 Nov 14 03:43	10°  II10'40	-0°00'25
retrograde	16413 Apr 02 14:01	29°  Z25'59		min. Earth dist.	16418 Nov 14 09:46	10°  II08'44	4.51116 AU
opposition	16413 May 31 17:42	24°  Z25'50	0°11'56	direct	16419 Jan 15 09:56	5°  II10'26	
min. Earth dist.	16413 May 31 01:17	24°  Z31'23	3.89630 AU	evening set	16419 May 19 16:24	22°  II09'32	
direct	16413 Jul 28 22:02	19°  Z30'18					
	16413 Oct 22 07:40	0°  Z		conjunction	16419 Jun 01 16:19	24°  II55'54	-0°08'07
evening set	16413 Dec 03 18:22	9°  Z45'23		minimum elong	16419 Jun 01 16:19	24°  II55'54	0°08'45
				behind sun begin	16419 Jun 01 09:24	24°  II52'13	
conjunction	16413 Dec 17 06:05	13°  Z01'45	0°16'46	behind sun end	16419 Jun 01 23:14	24°  II59'35	
minimum elong	16413 Dec 17 06:05	13°  Z01'44	0°17'25	max. Earth dist.	16419 May 31 17:05	24°  II43'29	6.50962 AU
max. Earth dist.	16413 Dec 18 23:08	13°  Z26'42	5.92446 AU	morning rise	16419 Jun 14 14:58	27°  II41'40	

	16419 Jun 25 13:39	0°☾			16425 Sep 30 10:38	0°☾	
retrograde	16419 Oct 13 19:42	14°☾21'47		evening set	16425 Dec 08 20:50	14°☾53'06	
opposition	16419 Dec 14 01:09	9°☾27'07 -0°22'31					
min. Earth dist.	16419 Dec 15 01:03	9°☾19'28 4.48625 AU		conjunction	16425 Dec 22 08:49	18°☾09'14 0°18'58	
direct	16420 Feb 14 11:20	4°☾26'33		minimum elong	16425 Dec 22 08:49	18°☾09'13 0°19'36	
evening set	16420 Jun 17 20:50	21°☾38'59		max. Earth dist.	16425 Dec 24 04:08	18°☾35'29 5.93235 AU	
max. Earth dist.	16420 Jun 28 22:44	24°☾03'03 6.44173 AU		morning rise	16426 Jan 04 22:20	21°☾25'56	
					16426 Feb 11 04:03	0°☾	
conjunction	16420 Jun 30 18:41	24°☾26'57 -0°21'54		retrograde	16426 May 15 03:57	11°☾47'32	
minimum elong	16420 Jun 30 18:41	24°☾26'57 0°22'31		min. Earth dist.	16426 Jul 12 02:34	6°☾57'04 3.99136 AU	
morning rise	16420 Jul 13 15:08	27°☾14'30		opposition	16426 Jul 13 14:27	6°☾44'56 0°38'51	
	16420 Jul 26 12:28	0°☾		direct	16426 Sep 10 01:24	1°☾48'13	
retrograde	16420 Nov 12 23:27	14°☾23'10			16426 Dec 18 12:40	15°☾	
opposition	16421 Jan 12 23:19	9°☾29'02 -0°39'24		evening set	16427 Jan 15 07:37	21°☾18'59	
min. Earth dist.	16421 Jan 14 11:06	9°☾17'32 4.37904 AU					
direct	16421 Mar 15 23:11	4°☾28'34		conjunction	16427 Jan 28 19:51	24°☾28'45 0°29'42	
	16421 Jun 14 17:09	15°☾		minimum elong	16427 Jan 28 19:51	24°☾28'45 0°30'08	
evening set	16421 Jul 18 23:06	22°☾17'23		max. Earth dist.	16427 Jan 31 06:14	25°☾02'57 6.06871 AU	
max. Earth dist.	16421 Jul 29 12:48	24°☾39'18 6.30189 AU		morning rise	16427 Feb 11 08:55	27°☾38'34	
					16427 Feb 21 14:38	0°☾	
conjunction	16421 Jul 31 20:25	25°☾10'32 -0°30'07		retrograde	16427 Jun 18 23:51	16°☾52'52	
minimum elong	16421 Jul 31 20:25	25°☾10'32 0°30'32		min. Earth dist.	16427 Aug 16 09:24	12°☾02'37 4.15575 AU	
morning rise	16421 Aug 13 17:10	28°☾03'40		opposition	16427 Aug 17 22:58	11°☾50'01 0°45'52	
	16421 Aug 22 10:45	0°☾		direct	16427 Oct 16 10:46	6°☾51'44	
retrograde	16421 Dec 16 10:17	16°☾07'59		evening set	16428 Feb 19 15:18	25°☾23'48	
opposition	16422 Feb 14 20:46	11°☾13'27 -0°45'55					
min. Earth dist.	16422 Feb 16 12:02	11°☾00'42 4.21475 AU		conjunction	16428 Mar 04 01:25	28°☾24'46 0°29'25	
direct	16422 Apr 16 23:13	6°☾13'45		minimum elong	16428 Mar 04 01:25	28°☾24'46 0°29'29	
evening set	16422 Aug 20 20:28	24°☾56'29		max. Earth dist.	16428 Mar 06 06:22	28°☾54'33 6.24599 AU	
max. Earth dist.	16422 Aug 31 16:54	27°☾28'01 6.12579 AU			16428 Mar 11 02:48	0°☾	
				morning rise	16428 Mar 17 11:17	1°☾25'19	
conjunction	16422 Sep 02 19:56	27°☾57'49 -0°29'29		retrograde	16428 Jul 20 02:56	19°☾26'54	
minimum elong	16422 Sep 02 19:57	27°☾57'49 0°29'35		opposition	16428 Sep 18 16:58	14°☾25'50 0°37'27	
	16422 Sep 11 13:09	0°☾		min. Earth dist.	16428 Sep 17 12:06	14°☾35'22 4.32987 AU	
morning rise	16422 Sep 15 19:29	0°☾59'34		direct	16428 Nov 18 08:05	9°☾26'29	
retrograde	16423 Jan 21 11:52	20°☾16'46		evening set	16429 Mar 23 14:23	27°☾06'34	
opposition	16423 Mar 22 07:41	15°☾21'03 -0°37'39					
min. Earth dist.	16423 Mar 23 11:58	15°☾11'44 4.04050 AU		conjunction	16429 Apr 05 20:52	29°☾59'36 0°20'04	
direct	16423 May 21 02:34	10°☾23'07		minimum elong	16429 Apr 05 20:52	29°☾59'37 0°19'48	
	16423 Sep 24 21:37	0°☾			16429 Apr 05 21:35	0°☾	
evening set	16423 Sep 25 02:37	0°☾03'00		max. Earth dist.	16429 Apr 07 02:36	0°☾15'48 6.40364 AU	
max. Earth dist.	16423 Oct 07 02:12	2°☾56'23 5.96935 AU		morning rise	16429 Apr 19 02:33	2°☾52'02	
					16429 Jun 21 03:21	15°☾	
conjunction	16423 Oct 08 06:15	3°☾13'20 -0°18'29		retrograde	16429 Aug 19 12:11	19°☾58'44	
minimum elong	16423 Oct 08 06:16	3°☾13'21 0°18'12		opposition	16429 Oct 19 12:22	15°☾00'18 0°18'58	
morning rise	16423 Oct 21 11:02	6°☾24'32		min. Earth dist.	16429 Oct 19 01:28	15°☾03'51 4.46024 AU	
	16423 Nov 27 17:20	15°☾			16429 Oct 19 13:18	15°☾	
retrograde	16424 Feb 28 19:18	26°☾48'22		direct	16429 Dec 20 05:03	10°☾00'20	
opposition	16424 Apr 28 02:46	21°☾50'33 -0°14'17			16430 Feb 18 15:12	15°☾	
min. Earth dist.	16424 Apr 28 09:13	21°☾48'24 3.91782 AU		evening set	16430 Apr 23 17:23	27°☾07'47	
direct	16424 Jun 25 18:48	16°☾54'26					
	16424 Oct 01 02:26	0°☾		conjunction	16430 May 06 20:12	29°☾55'43 0°05'34	
evening set	16424 Oct 31 12:42	7°☾11'19		minimum elong	16430 May 06 20:13	29°☾55'44 0°05'02	
asc. node	16424 Nov 09 12:37	9°☾23'24		behind sun begin	16430 May 06 12:23	29°☾51'34	
				behind sun end	16430 May 07 04:03	29°☾59'54	
conjunction	16424 Nov 13 21:30	10°☾27'46 0°00'15		max. Earth dist.	16430 May 06 22:10	29°☾56'45 6.49788 AU	
minimum elong	16424 Nov 13 21:32	10°☾27'47 0°00'50			16430 May 07 04:15	0°☾	
behind sun begin	16424 Nov 13 13:13	10°☾22'42		morning rise	16430 May 19 21:43	2°☾42'58	
behind sun end	16424 Nov 14 05:51	10°☾32'52		retrograde	16430 Sep 18 01:47	19°☾22'11	
max. Earth dist.	16424 Nov 14 07:18	10°☾33'46 5.89343 AU		desc. node	16430 Sep 18 00:40	19°☾22'11	
morning rise	16424 Nov 27 07:44	13°☾45'07		opposition	16430 Nov 18 08:30	14°☾26'07 -0°03'42	
	16425 Feb 12 02:52	0°☾		min. Earth dist.	16430 Nov 18 16:14	14°☾23'38 4.51361 AU	
retrograde	16425 Apr 07 18:26	4°☾35'56		direct	16431 Jan 19 15:16	9°☾25'46	
	16425 Jun 02 20:02	30°☾		evening set	16431 May 23 21:59	26°☾24'49	
opposition	16425 Jun 05 20:43	29°☾35'28 0°15'51					
min. Earth dist.	16425 Jun 05 02:33	29°☾41'36 3.89857 AU		conjunction	16431 Jun 05 21:37	29°☾11'08 -0°10'16	
direct	16425 Aug 03 00:33	24°☾39'51		minimum elong	16431 Jun 05 21:37	29°☾11'08 0°10'55	

behind sun begin	16431 Jun 05 15:34	29° $\Pi$ 07'54		behind sun begin	16436 Nov 18 21:45	15° $\text{X}$ 47'50	
behind sun end	16431 Jun 06 03:40	29° $\Pi$ 14'21		behind sun end	16436 Nov 19 14:15	15° $\text{X}$ 57'55	
max. Earth dist.	16431 Jun 04 20:33	28° $\Pi$ 57'43	6.50667 AU	max. Earth dist.	16436 Nov 19 19:39	16° $\text{X}$ 01'14	5.88985 AU
	16431 Jun 09 16:52	0° $\text{E}$		morning rise	16436 Dec 02 17:04	19° $\text{X}$ 10'43	
morning rise	16431 Jun 18 19:41	1° $\text{E}$ 56'49			16437 Jan 18 21:50	0° $\text{Z}$	
retrograde	16431 Oct 18 01:39	18° $\text{E}$ 38'31		retrograde	16437 Apr 13 02:14	10° $\text{Z}$ 01'45	
opposition	16431 Dec 18 07:16	13° $\text{E}$ 44'00	-0°25'20	min. Earth dist.	16437 Jun 10 07:41	5° $\text{Z}$ 08'27	3.90314 AU
min. Earth dist.	16431 Dec 19 09:10	13° $\text{E}$ 35'43	4.47779 AU	opposition	16437 Jun 11 05:50	5° $\text{Z}$ 00'57	0°19'50
direct	16432 Feb 18 17:11	8° $\text{E}$ 43'26		direct	16437 Aug 08 08:09	0° $\text{Z}$ 05'18	
evening set	16432 Jun 22 03:37	25° $\text{E}$ 58'57		evening set	16437 Dec 14 05:08	20° $\text{Z}$ 15'35	
max. Earth dist.	16432 Jul 03 01:42	28° $\text{E}$ 21'27	6.42798 AU				
				conjunction	16437 Dec 27 17:22	23° $\text{Z}$ 31'15	0°21'06
conjunction	16432 Jul 05 01:06	28° $\text{E}$ 47'19	-0°23'28	minimum elong	16437 Dec 27 17:22	23° $\text{Z}$ 31'15	0°21'43
minimum elong	16432 Jul 05 01:05	28° $\text{E}$ 47'18	0°24'04	max. Earth dist.	16437 Dec 29 15:59	23° $\text{Z}$ 59'25	5.94460 AU
	16432 Jul 10 14:17	0° $\Omega$		morning rise	16438 Jan 10 07:01	26° $\text{Z}$ 47'24	
morning rise	16432 Jul 17 21:34	1° $\Omega$ 35'21			16438 Jan 23 20:15	0° $\approx$	
	16432 Sep 27 00:40	15° $\Omega$			16438 Apr 14 15:33	15° $\approx$	
retrograde	16432 Nov 17 12:22	18° $\Omega$ 49'37		retrograde	16438 May 20 06:37	17° $\approx$ 02'04	
	16433 Jan 08 23:46	15° $\text{R}$ $\Omega$			16438 Jun 24 20:05	15° $\text{R}$ $\approx$	
opposition	16433 Jan 17 10:11	13° $\Omega$ 55'28	-0°41'02	min. Earth dist.	16438 Jul 17 05:26	12° $\approx$ 11'38	4.00981 AU
min. Earth dist.	16433 Jan 18 23:38	13° $\Omega$ 43'25	4.36055 AU	opposition	16438 Jul 18 17:54	11° $\approx$ 59'18	0°40'53
direct	16433 Mar 20 08:36	8° $\Omega$ 55'00		direct	16438 Sep 15 08:34	7° $\approx$ 02'24	
	16433 May 25 17:30	15° $\Omega$			16438 Nov 28 11:28	15° $\approx$	
evening set	16433 Jul 23 09:50	26° $\Omega$ 49'57		evening set	16439 Jan 20 10:42	26° $\approx$ 25'50	
max. Earth dist.	16433 Aug 02 23:35	29° $\Omega$ 12'33	6.27995 AU				
				conjunction	16439 Feb 02 22:52	29° $\approx$ 34'30	0°30'19
conjunction	16433 Aug 05 07:26	29° $\Omega$ 44'03	-0°30'36	minimum elong	16439 Feb 02 22:52	29° $\approx$ 34'30	0°30'42
minimum elong	16433 Aug 05 07:26	29° $\Omega$ 44'03	0°30'59		16439 Feb 04 18:38	0° $\text{H}$	
	16433 Aug 06 11:42	0° $\text{H}$		max. Earth dist.	16439 Feb 05 11:32	0° $\text{H}$ 09'51	6.09173 AU
morning rise	16433 Aug 18 04:18	2° $\text{H}$ 38'10		morning rise	16439 Feb 16 11:32	2° $\text{H}$ 43'06	
retrograde	16433 Dec 21 05:58	20° $\text{H}$ 51'31		retrograde	16439 Jun 23 16:13	21° $\text{H}$ 46'56	
opposition	16434 Feb 19 15:04	15° $\text{H}$ 56'54	-0°45'41	min. Earth dist.	16439 Aug 21 03:28	16° $\text{H}$ 56'59	4.18113 AU
min. Earth dist.	16434 Feb 21 05:22	15° $\text{H}$ 44'26	4.19088 AU	opposition	16439 Aug 22 17:30	16° $\text{H}$ 44'15	0°45'31
direct	16434 Apr 21 12:40	10° $\text{H}$ 57'25		direct	16439 Oct 21 08:11	11° $\text{H}$ 45'49	
evening set	16434 Aug 25 14:22	29° $\text{H}$ 48'08			16440 Feb 23 17:10	0° $\text{Y}$	
	16434 Aug 26 10:45	0° $\text{E}$		evening set	16440 Feb 24 10:19	0° $\text{Y}$ 09'32	
max. Earth dist.	16434 Sep 05 12:35	2° $\text{E}$ 21'33	6.10190 AU				
				conjunction	16440 Mar 08 19:48	3° $\text{Y}$ 09'11	0°28'34
conjunction	16434 Sep 07 14:11	2° $\text{E}$ 50'41	-0°28'33	minimum elong	16440 Mar 08 19:48	3° $\text{Y}$ 09'12	0°28'36
minimum elong	16434 Sep 07 14:11	2° $\text{E}$ 50'41	0°28'34	max. Earth dist.	16440 Mar 10 21:27	3° $\text{Y}$ 36'59	6.27158 AU
morning rise	16434 Sep 20 14:24	5° $\text{E}$ 53'47		morning rise	16440 Mar 22 05:13	6° $\text{Y}$ 08'26	
retrograde	16435 Jan 26 17:13	25° $\text{E}$ 21'22		retrograde	16440 Jul 24 12:07	24° $\text{Y}$ 00'23	
opposition	16435 Mar 27 10:33	20° $\text{E}$ 25'25	-0°35'09	min. Earth dist.	16440 Sep 22 01:20	19° $\text{Y}$ 08'14	4.35358 AU
min. Earth dist.	16435 Mar 28 12:56	20° $\text{E}$ 16'42	4.01862 AU	opposition	16440 Sep 23 03:33	18° $\text{Y}$ 59'35	0°35'18
direct	16435 May 26 01:41	15° $\text{E}$ 27'44		direct	16440 Nov 22 23:19	14° $\text{Y}$ 00'04	
	16435 Sep 07 22:00	0° $\text{M}$			16441 Mar 20 19:01	0° $\text{B}$	
evening set	16435 Sep 30 04:35	5° $\text{M}$ 14'55		evening set	16441 Mar 28 01:19	1° $\text{B}$ 33'23	
max. Earth dist.	16435 Oct 12 10:19	8° $\text{M}$ 12'39	5.95180 AU				
				conjunction	16441 Apr 10 07:21	4° $\text{B}$ 25'26	0°18'15
conjunction	16435 Oct 13 09:06	8° $\text{M}$ 26'28	-0°16'11	minimum elong	16441 Apr 10 07:21	4° $\text{B}$ 25'26	0°17'55
minimum elong	16435 Oct 13 09:07	8° $\text{M}$ 26'29	0°15'50	max. Earth dist.	16441 Apr 11 10:52	4° $\text{B}$ 40'21	6.42375 AU
behind sun begin	16435 Oct 13 07:32	8° $\text{M}$ 25'31		morning rise	16441 Apr 23 12:16	7° $\text{B}$ 16'47	
behind sun end	16435 Oct 13 10:41	8° $\text{M}$ 27'26			16441 May 31 05:37	15° $\text{B}$	
morning rise	16435 Oct 26 14:34	11° $\text{M}$ 38'51		retrograde	16441 Aug 23 14:36	24° $\text{B}$ 16'59	
	16435 Nov 09 15:41	15° $\text{M}$		opposition	16441 Oct 23 17:17	19° $\text{B}$ 18'51	0°15'55
	16436 Jan 28 09:58	0° $\text{X}$		min. Earth dist.	16441 Oct 23 08:00	19° $\text{B}$ 21'52	4.47547 AU
retrograde	16436 Mar 05 06:44	2° $\text{X}$ 10'01			16441 Dec 03 06:43	15° $\text{R}$ $\text{B}$	
	16436 Apr 11 05:08	30° $\text{R}$ $\text{M}$		direct	16441 Dec 24 11:53	14° $\text{B}$ 18'49	
opposition	16436 May 03 11:39	27° $\text{M}$ 11'57	-0°10'08		16442 Jan 14 23:03	15° $\text{B}$	
min. Earth dist.	16436 May 03 15:09	27° $\text{M}$ 10'47	3.90676 AU		16442 Apr 21 10:25	0° $\Pi$	
direct	16436 Jul 01 00:30	22° $\text{M}$ 16'03		evening set	16442 Apr 27 23:09	1° $\Pi$ 22'36	
	16436 Sep 10 18:02	0° $\text{X}$					
asc. node	16436 Sep 17 08:13	1° $\text{X}$ 18'09		conjunction	16442 May 11 01:23	4° $\Pi$ 09'58	0°03'21
evening set	16436 Nov 05 20:40	12° $\text{X}$ 35'56		minimum elong	16442 May 11 01:22	4° $\Pi$ 09'57	0°02'49
				behind sun begin	16442 May 10 17:20	4° $\Pi$ 05'41	
conjunction	16436 Nov 19 06:01	15° $\text{X}$ 52'53	0°03'08	behind sun end	16442 May 11 09:23	4° $\Pi$ 14'13	
minimum elong	16436 Nov 19 06:00	15° $\text{X}$ 52'52	0°03'44	max. Earth dist.	16442 May 10 22:55	4° $\Pi$ 08'42	6.50714 AU





























































































































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desc. node	16442 Jul 31 06:19	19°♊34'40		retrograde	16448 Mar 10 19:08	7°♏39'08	
retrograde	16442 Sep 22 05:16	23°♊33'28		opposition	16448 May 08 23:42	2°♏40'40	-0°05'52
opposition	16442 Nov 22 11:25	18°♊37'39	-0°06'51	min. Earth dist.	16448 May 08 22:22	2°♏41'07	3.89630 AU
min. Earth dist.	16442 Nov 22 22:53	18°♊33'58	4.51625 AU		16448 May 30 02:41	30°♏	
direct	16443 Jan 23 20:38	13°♊37'11		direct	16448 Jul 06 09:18	27°♏44'54	
	16443 May 25 05:13	0°♏		asc. node	16448 Jul 25 15:17	28°♏22'43	
evening set	16443 May 28 01:42	0°♏36'19			16448 Aug 12 07:58	0°♏	
max. Earth dist.	16443 Jun 08 18:53	3°♏06'32	6.50231 AU	evening set	16448 Nov 11 07:47	18°♏07'12	
conjunction	16443 Jun 10 00:52	3°♏22'36	-0°12'19	conjunction	16448 Nov 24 17:47	21°♏24'30	0°05'58
minimum elong	16443 Jun 10 00:52	3°♏22'36	0°12'58	minimum elong	16448 Nov 24 17:47	21°♏24'30	0°06'35
behind sun begin	16443 Jun 09 20:00	3°♏20'00		behind sun begin	16448 Nov 24 09:59	21°♏19'43	
behind sun end	16443 Jun 10 05:44	3°♏25'11		behind sun end	16448 Nov 25 01:35	21°♏29'16	
morning rise	16443 Jun 22 22:42	6°♏08'19		max. Earth dist.	16448 Nov 25 13:57	21°♏36'52	5.88884 AU
retrograde	16443 Oct 22 07:02	22°♏52'19		morning rise	16448 Dec 08 05:21	24°♏42'37	
opposition	16443 Dec 22 12:04	17°♏57'50	-0°27'57		16448 Dec 30 09:03	0°♏	
min. Earth dist.	16443 Dec 23 16:04	17°♏48'51	4.46661 AU	retrograde	16449 Apr 18 13:19	15°♏32'13	
direct	16444 Feb 22 20:40	12°♏57'08		opposition	16449 Jun 16 17:03	10°♏31'00	0°23'39
	16444 Jun 25 02:10	0°♏		min. Earth dist.	16449 Jun 15 16:27	10°♏39'20	3.91161 AU
evening set	16444 Jun 26 08:54	0°♏16'39		direct	16449 Aug 13 20:51	5°♏35'14	
max. Earth dist.	16444 Jul 07 05:42	2°♏38'57	6.41061 AU	evening set	16449 Dec 19 15:09	25°♏40'39	
conjunction	16444 Jul 09 06:24	3°♏05'38	-0°24'53	conjunction	16450 Jan 02 03:39	28°♏55'35	0°23'03
minimum elong	16444 Jul 09 06:24	3°♏05'38	0°25'27	minimum elong	16450 Jan 02 03:38	28°♏55'34	0°23'38
morning rise	16444 Jul 22 02:38	5°♏54'16		max. Earth dist.	16450 Jan 04 07:14	29°♏26'36	5.96151 AU
	16444 Sep 04 11:36	15°♏			16450 Jan 06 14:47	0°♏	
retrograde	16444 Nov 22 00:17	23°♏15'27		morning rise	16450 Jan 15 17:17	2°♏10'53	
opposition	16445 Jan 21 20:44	18°♏21'17	-0°42'26		16450 Mar 15 15:34	15°♏	
min. Earth dist.	16445 Jan 23 11:28	18°♏08'49	4.33790 AU	retrograde	16450 May 25 08:29	22°♏16'14	
	16445 Feb 19 10:52	15°♏		min. Earth dist.	16450 Jul 22 07:02	17°♏26'17	4.03303 AU
direct	16445 Mar 24 16:01	13°♏20'52		opposition	16450 Jul 23 21:23	17°♏13'20	0°42'33
	16445 Apr 26 20:18	15°♏			16450 Aug 09 23:58	15°♏	
	16445 Jul 21 15:55	0°♏		direct	16450 Sep 20 14:22	12°♏16'13	
evening set	16445 Jul 27 20:59	1°♏23'22			16450 Nov 01 02:56	15°♏	
max. Earth dist.	16445 Aug 07 09:04	3°♏45'54	6.25356 AU		16451 Jan 18 23:33	0°♏	
conjunction	16445 Aug 09 18:38	4°♏18'35	-0°30'54	evening set	16451 Jan 25 13:33	1°♏30'39	
minimum elong	16445 Aug 09 18:38	4°♏18'35	0°31'15	conjunction	16451 Feb 08 01:15	4°♏37'55	0°30'41
morning rise	16445 Aug 22 15:59	7°♏13'56		minimum elong	16451 Feb 08 01:15	4°♏37'55	0°31'01
retrograde	16445 Dec 26 04:19	25°♏38'03		max. Earth dist.	16451 Feb 10 12:33	5°♏12'15	6.11860 AU
opposition	16446 Feb 24 10:35	20°♏43'15	-0°45'11	morning rise	16451 Feb 21 13:39	7°♏45'07	
min. Earth dist.	16446 Feb 26 00:25	20°♏30'54	4.16249 AU	retrograde	16451 Jun 28 07:01	26°♏37'29	
direct	16446 Apr 26 04:13	15°♏43'53		min. Earth dist.	16451 Aug 25 22:26	21°♏47'12	4.20883 AU
	16446 Aug 09 18:27	0°♏		opposition	16451 Aug 27 11:09	21°♏34'56	0°44'47
evening set	16446 Aug 30 10:03	4°♏44'15		direct	16451 Oct 26 06:21	16°♏36'17	
max. Earth dist.	16446 Sep 10 12:13	7°♏20'53	6.07415 AU		16452 Feb 06 18:52	0°♏	
conjunction	16446 Sep 12 10:39	7°♏48'20	-0°27'24	evening set	16452 Feb 29 03:53	4°♏51'14	
minimum elong	16446 Sep 12 10:40	7°♏48'20	0°27'22	conjunction	16452 Mar 13 13:01	7°♏49'36	0°27'30
morning rise	16446 Sep 25 11:28	10°♏52'57		minimum elong	16452 Mar 13 13:01	7°♏49'36	0°27'29
	16447 Jan 13 19:57	0°♏		max. Earth dist.	16452 Mar 15 13:13	8°♏16'25	6.29789 AU
retrograde	16447 Feb 01 01:28	0°♏32'14		morning rise	16452 Mar 26 21:37	10°♏47'27	
	16447 Feb 19 05:06	30°♏		retrograde	16452 Jul 28 19:13	28°♏29'59	
opposition	16447 Apr 01 16:05	25°♏36'05	-0°32'23	opposition	16452 Sep 27 12:52	23°♏29'37	0°32'55
min. Earth dist.	16447 Apr 02 16:05	25°♏28'09	3.99423 AU	min. Earth dist.	16452 Sep 26 12:23	23°♏37'39	4.37648 AU
direct	16447 May 31 02:17	20°♏38'45		direct	16452 Nov 27 12:04	18°♏30'05	
	16447 Aug 19 19:24	0°♏			16453 Mar 03 20:56	0°♏	
evening set	16447 Oct 05 09:45	10°♏34'00		evening set	16453 Apr 01 11:35	5°♏57'23	
conjunction	16447 Oct 18 14:55	13°♏46'48	-0°13'44	conjunction	16453 Apr 14 16:52	8°♏48'29	0°16'17
minimum elong	16447 Oct 18 14:56	13°♏46'48	0°13'20	minimum elong	16453 Apr 14 16:53	8°♏48'29	0°15'56
behind sun begin	16447 Oct 18 10:09	13°♏43'54		max. Earth dist.	16453 Apr 15 14:40	9°♏00'15	6.44159 AU
behind sun end	16447 Oct 18 19:43	13°♏49'42		morning rise	16453 Apr 27 21:19	11°♏38'56	
max. Earth dist.	16447 Oct 17 19:50	13°♏35'10	5.93321 AU		16453 May 13 18:06	15°♏	
	16447 Oct 23 15:06	15°♏		retrograde	16453 Aug 27 19:26	28°♏33'49	
morning rise	16447 Oct 31 21:29	17°♏00'31		opposition	16453 Oct 27 22:00	23°♏36'05	0°12'45






























































































































min. Earth dist.	16453 Oct 27 16:33	23°♄37'50	4.48729 AU		16459 Jul 25 21:17	0°♄	
direct	16453 Dec 28 20:02	18°♄35'58			16459 Oct 06 13:26	15°♄	
	16454 Apr 04 19:38	0°♄		evening set	16459 Oct 10 17:35	16°♄00'31	
evening set	16454 May 02 04:48	5°♄37'28					
				conjunction	16459 Oct 23 23:34	19°♄14'17	-0°11'07
conjunction	16454 May 15 06:40	8°♄24'28	0°01'03	minimum elong	16459 Oct 23 23:34	19°♄14'18	0°10'40
minimum elong	16454 May 15 06:40	8°♄24'28	0°00'29	behind sun begin	16459 Oct 23 17:11	19°♄10'25	
behind sun begin	16454 May 14 22:37	8°♄20'12		behind sun end	16459 Oct 24 05:57	19°♄18'11	
behind sun end	16454 May 15 14:42	8°♄28'44		max. Earth dist.	16459 Oct 23 11:32	19°♄06'57	5.92063 AU
max. Earth dist.	16454 May 15 00:33	8°♄21'14	6.51215 AU	morning rise	16459 Nov 06 06:47	22°♄28'57	
morning rise	16454 May 28 07:00	11°♄10'46			16459 Dec 08 07:04	0°♄	
desc. node	16454 Jun 10 02:54	13°♄52'02		retrograde	16460 Mar 16 09:39	13°♄12'07	
retrograde	16454 Sep 26 08:09	27°♄46'53		opposition	16460 May 14 12:48	8°♄13'14	-0°01'29
opposition	16454 Nov 26 15:21	22°♄51'20	-0°10'04	min. Earth dist.	16460 May 14 08:16	8°♄14'45	3.89302 AU
min. Earth dist.	16454 Nov 27 04:44	22°♄47'02	4.51434 AU	asc. node	16460 Jun 02 18:27	5°♄45'16	
direct	16455 Jan 27 23:52	17°♄50'52		direct	16460 Jul 11 21:07	3°♄17'36	
	16455 May 08 20:59	0°♄		evening set	16460 Nov 16 18:54	23°♄39'08	
evening set	16455 Jun 01 06:45	4°♄51'36					
max. Earth dist.	16455 Jun 12 20:41	7°♄20'24	6.49354 AU	conjunction	16460 Nov 30 05:26	26°♄56'22	0°08'45
				minimum elong	16460 Nov 30 05:25	26°♄56'21	0°09'24
conjunction	16455 Jun 14 05:36	7°♄38'05	-0°14'21	behind sun begin	16460 Nov 29 22:27	26°♄52'06	
minimum elong	16455 Jun 14 05:35	7°♄38'04	0°15'00	behind sun end	16460 Nov 30 12:23	27°♄00'36	
behind sun begin	16455 Jun 14 02:41	7°♄36'31		max. Earth dist.	16460 Dec 01 08:02	27°♄12'39	5.89515 AU
behind sun end	16455 Jun 14 08:29	7°♄39'38			16460 Dec 12 17:51	0°♄	
morning rise	16455 Jun 27 03:02	10°♄24'01		morning rise	16460 Dec 13 17:26	0°♄14'20	
retrograde	16455 Oct 26 16:02	27°♄11'52		retrograde	16461 Apr 23 21:27	20°♄59'05	
opposition	16455 Dec 26 19:18	22°♄17'34	-0°30'30	min. Earth dist.	16461 Jun 20 22:14	16°♄07'01	3.92695 AU
min. Earth dist.	16455 Dec 28 02:12	22°♄07'40	4.45140 AU	opposition	16461 Jun 22 02:19	15°♄57'30	0°27'12
direct	16456 Feb 27 03:19	17°♄16'53		direct	16461 Aug 19 06:39	11°♄01'36	
	16456 Jun 08 15:50	0°♄			16461 Dec 20 18:09	0°♄	
evening set	16456 Jun 30 17:07	4°♄41'47		evening set	16461 Dec 24 22:29	0°♄59'33	
max. Earth dist.	16456 Jul 11 10:05	7°♄02'41	6.38985 AU				
				conjunction	16462 Jan 07 10:46	4°♄13'21	0°24'46
conjunction	16456 Jul 13 14:27	7°♄31'30	-0°26'12	minimum elong	16462 Jan 07 10:46	4°♄13'21	0°25'20
minimum elong	16456 Jul 13 14:27	7°♄31'30	0°26'45	max. Earth dist.	16462 Jan 09 15:40	4°♄44'59	5.98388 AU
morning rise	16456 Jul 26 10:51	10°♄21'00		morning rise	16462 Jan 21 00:27	7°♄27'31	
	16456 Aug 17 03:05	15°♄			16462 Feb 23 00:51	15°♄	
retrograde	16456 Nov 26 16:36	27°♄50'22		retrograde	16462 May 30 04:47	27°♄21'50	
opposition	16457 Jan 26 10:48	22°♄56'09	-0°43'37	min. Earth dist.	16462 Jul 27 06:19	22°♄31'53	4.05980 AU
min. Earth dist.	16457 Jan 28 01:49	22°♄43'34	4.31283 AU	opposition	16462 Jul 28 21:08	22°♄18'47	0°43'49
direct	16457 Mar 29 02:21	17°♄55'48		direct	16462 Sep 25 17:53	17°♄21'22	
	16457 Jul 04 13:48	0°♄			16463 Jan 01 15:14	0°♄	
evening set	16457 Aug 01 11:31	6°♄06'44		evening set	16463 Jan 30 12:13	6°♄25'52	
max. Earth dist.	16457 Aug 12 01:37	8°♄31'14	6.22614 AU				
				conjunction	16463 Feb 12 23:43	9°♄31'43	0°30'49
conjunction	16457 Aug 14 09:37	9°♄03'13	-0°31'01	minimum elong	16463 Feb 12 23:43	9°♄31'43	0°31'06
minimum elong	16457 Aug 14 09:38	9°♄03'13	0°31'18	max. Earth dist.	16463 Feb 15 10:55	10°♄05'47	6.14732 AU
morning rise	16457 Aug 27 07:13	11°♄59'52		morning rise	16463 Feb 26 11:26	12°♄37'21	
	16457 Dec 12 00:36	0°♄			16463 Jun 04 01:45	0°♄	
retrograde	16457 Dec 31 06:49	0°♄35'11		retrograde	16463 Jul 02 18:36	1°♄17'59	
	16458 Jan 19 11:11	30°♄			16463 Jul 31 06:48	30°♄	
opposition	16458 Mar 01 10:20	25°♄40'18	-0°44'19	min. Earth dist.	16463 Aug 30 13:33	26°♄27'22	4.23675 AU
min. Earth dist.	16458 Mar 02 23:18	25°♄28'14	4.13488 AU	opposition	16463 Sep 01 00:38	26°♄15'41	0°43'48
direct	16458 Apr 30 23:04	20°♄41'18		direct	16463 Oct 31 00:23	21°♄16'53	
	16458 Jul 21 21:11	0°♄			16464 Jan 19 12:00	0°♄	
evening set	16458 Sep 04 09:35	9°♄50'52		evening set	16464 Mar 04 17:33	9°♄23'17	
max. Earth dist.	16458 Sep 15 14:10	12°♄29'55	6.04888 AU				
				conjunction	16464 Mar 18 02:02	12°♄20'24	0°26'18
conjunction	16458 Sep 17 10:38	12°♄56'21	-0°26'00	minimum elong	16464 Mar 18 02:02	12°♄20'24	0°26'14
minimum elong	16458 Sep 17 10:39	12°♄56'21	0°25'56	max. Earth dist.	16464 Mar 19 21:40	12°♄44'33	6.32271 AU
morning rise	16458 Sep 30 12:22	16°♄02'29		morning rise	16464 Mar 31 10:12	15°♄17'01	
	16458 Dec 05 09:49	0°♄			16464 Jun 19 05:52	0°♄	
retrograde	16459 Feb 06 11:28	5°♄52'29		retrograde	16464 Aug 01 23:15	2°♄51'03	
opposition	16459 Apr 07 00:57	0°♄56'04	-0°29'15		16464 Sep 14 19:46	30°♄	
min. Earth dist.	16459 Apr 07 20:41	0°♄49'31	3.97409 AU	opposition	16464 Oct 01 18:55	27°♄51'01	0°30'27
	16459 Apr 14 02:55	30°♄		min. Earth dist.	16464 Sep 30 21:20	27°♄58'06	4.39661 AU
direct	16459 Jun 05 06:46	25°♄59'02		direct	16464 Dec 01 21:55	22°♄51'20	

	16465 Feb 13 03:34	0°♄	retrograde	16470 Jan 05 07:50	5°♄32'29	
evening set	16465 Apr 05 18:22	10°♄13'36	opposition	16470 Mar 06 10:18	0°♄37'24 -0°43'06	
			min. Earth dist.	16470 Mar 07 20:30	0°♄26'12 4.11034 AU	
conjunction	16465 Apr 18 23:20	13°♄03'59 0°14'19		16470 Mar 11 04:46	30°♄	
minimum elong	16465 Apr 18 23:20	13°♄03'59 0°13'56	direct	16470 May 05 18:24	25°♄38'39	
behind sun begin	16465 Apr 18 19:18	13°♄01'49		16470 Jun 28 12:21	0°♄	
behind sun end	16465 Apr 19 03:23	13°♄06'09	evening set	16470 Sep 09 08:57	14°♄56'10	
max. Earth dist.	16465 Apr 19 18:01	13°♄14'03 6.45580 AU	max. Earth dist.	16470 Sep 20 19:20	17°♄39'24 6.02788 AU	
	16465 Apr 27 22:52	15°♄				
morning rise	16465 May 02 03:02	15°♄53'39	conjunction	16470 Sep 22 10:41	18°♄02'54 -0°24'24	
	16465 Jul 19 14:31	0°♄	minimum elong	16470 Sep 22 10:42	18°♄02'54 0°24'16	
retrograde	16465 Aug 31 20:19	2°♄44'32	morning rise	16470 Oct 05 12:59	21°♄10'17	
	16465 Oct 14 05:57	30°♄		16470 Nov 13 10:22	0°♄	
opposition	16465 Nov 01 00:32	27°♄47'11 0°09'37	retrograde	16471 Feb 11 22:03	11°♄09'09	
min. Earth dist.	16465 Oct 31 21:34	27°♄48'08 4.49494 AU	opposition	16471 Apr 12 08:39	6°♄12'26 -0°25'51	
direct	16466 Jan 02 00:14	22°♄47'04	min. Earth dist.	16471 Apr 13 02:01	6°♄06'40 3.95860 AU	
	16466 Mar 17 10:55	0°♄	direct	16471 Jun 10 11:44	1°♄15'41	
desc. node	16466 Apr 19 08:11	6°♄14'40		16471 Sep 19 01:57	15°♄	
evening set	16466 May 06 08:48	9°♄47'31	evening set	16471 Oct 15 23:31	21°♄21'32	
conjunction	16466 May 19 10:05	12°♄34'19 -0°01'14	conjunction	16471 Oct 29 06:11	24°♄36'04 -0°08'25	
minimum elong	16466 May 19 10:04	12°♄34'19 0°01'49	minimum elong	16471 Oct 29 06:11	24°♄36'04 0°07'57	
behind sun begin	16466 May 19 02:01	12°♄30'02	behind sun begin	16471 Oct 28 22:46	24°♄31'33	
behind sun end	16466 May 19 18:07	12°♄38'35	behind sun end	16471 Oct 29 13:36	24°♄40'34	
max. Earth dist.	16466 May 18 22:37	12°♄28'13 6.51278 AU	max. Earth dist.	16471 Oct 28 23:08	24°♄31'46 5.91207 AU	
morning rise	16466 Jun 01 10:06	15°♄20'27	morning rise	16471 Nov 11 14:11	27°♄51'29	
	16466 Aug 25 03:59	0°♄		16471 Nov 20 10:55	0°♄	
retrograde	16466 Sep 30 12:46	1°♄57'13	retrograde	16472 Mar 21 19:12	18°♄37'30	
	16466 Nov 05 20:02	30°♄	asc. node	16472 Apr 13 03:42	17°♄47'46	
opposition	16466 Nov 30 18:30	27°♄01'56 -0°13'09	opposition	16472 May 19 22:47	13°♄38'16 0°02'51	
min. Earth dist.	16466 Dec 01 11:35	26°♄56'27 4.50812 AU	min. Earth dist.	16472 May 19 14:01	13°♄41'13 3.89256 AU	
direct	16467 Feb 01 04:28	22°♄01'25	direct	16472 Jul 17 04:28	8°♄42'44	
	16467 Apr 20 22:53	0°♄	evening set	16472 Nov 22 03:13	29°♄02'53	
evening set	16467 Jun 05 11:13	9°♄05'01		16472 Nov 26 01:03	0°♄	
max. Earth dist.	16467 Jun 16 21:34	11°♄32'19 6.48091 AU				
			conjunction	16472 Dec 05 13:59	2°♄19'54 0°11'25	
conjunction	16467 Jun 18 09:55	11°♄51'54 -0°16'18	minimum elong	16472 Dec 05 13:58	2°♄19'54 0°12'03	
minimum elong	16467 Jun 18 09:54	11°♄51'53 0°16'55	behind sun begin	16472 Dec 05 08:18	2°♄16'27	
morning rise	16467 Jul 01 07:09	14°♄38'14	behind sun end	16472 Dec 05 19:39	2°♄23'21	
	16467 Sep 29 04:38	0°♄	max. Earth dist.	16472 Dec 06 19:50	2°♄38'09 5.90261 AU	
retrograde	16467 Oct 31 00:08	1°♄31'09	morning rise	16472 Dec 19 02:29	5°♄37'42	
	16467 Dec 01 19:31	30°♄	retrograde	16473 Apr 29 01:35	26°♄17'38	
opposition	16467 Dec 31 02:48	26°♄36'54 -0°32'53	min. Earth dist.	16473 Jun 26 01:53	21°♄25'59 3.94137 AU	
min. Earth dist.	16468 Jan 01 10:22	26°♄26'46 4.43330 AU	opposition	16473 Jun 27 08:02	21°♄15'46 0°30'27	
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evening set	16468 Jul 05 01:33	9°♄07'18	evening set	16473 Dec 30 03:08	6°♄11'18	
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			conjunction	16474 Jan 12 15:36	9°♄24'11 0°26'16	
conjunction	16468 Jul 17 22:57	11°♄57'53 -0°27'21	minimum elong	16474 Jan 12 15:35	9°♄24'11 0°26'49	
minimum elong	16468 Jul 17 22:56	11°♄57'53 0°27'52	max. Earth dist.	16474 Jan 14 23:16	9°♄57'20 6.00384 AU	
morning rise	16468 Jul 30 19:19	14°♄48'16	morning rise	16474 Jan 26 05:00	12°♄37'18	
	16468 Jul 31 16:39	15°♄		16474 Feb 05 08:59	15°♄	
	16468 Oct 22 00:29	0°♄		16474 Apr 26 07:05	0°♄	
retrograde	16468 Dec 01 10:16	2°♄26'20	retrograde	16474 Jun 04 01:17	2°♄22'02	
	16469 Jan 11 00:41	30°♄		16474 Jul 12 18:17	30°♄	
opposition	16469 Jan 31 01:58	27°♄32'07 -0°44'32	min. Earth dist.	16474 Aug 01 04:11	27°♄31'58 4.08297 AU	
min. Earth dist.	16469 Feb 01 17:49	27°♄19'14 4.28782 AU	opposition	16474 Aug 02 18:37	27°♄19'02 0°44'46	
direct	16469 Apr 02 14:35	22°♄31'58	direct	16474 Sep 30 18:51	22°♄21'27	
	16469 Jun 15 07:47	0°♄		16474 Dec 12 22:42	0°♄	
evening set	16469 Aug 06 02:52	10°♄51'02	evening set	16475 Feb 04 09:37	11°♄17'52	
max. Earth dist.	16469 Aug 16 16:58	13°♄16'26 6.20034 AU				
			conjunction	16475 Feb 17 20:43	14°♄22'30 0°30'45	
conjunction	16469 Aug 19 01:10	13°♄48'43 -0°30'55	minimum elong	16475 Feb 17 20:43	14°♄22'30 0°30'59	
minimum elong	16469 Aug 19 01:10	13°♄48'43 0°31'08	max. Earth dist.	16475 Feb 20 06:19	14°♄55'27 6.17145 AU	
morning rise	16469 Aug 31 23:20	16°♄46'40	morning rise	16475 Mar 03 08:10	17°♄26'56	
	16469 Nov 04 13:02	0°♄		16475 May 03 19:12	0°♄	

retrograde	16475 Jul 07 04:38	5° $\Upsilon$ 57'52		conjunction	16480 Jul 22 07:37	16° $\Omega$ 25'26	-0°28'24
min. Earth dist.	16475 Sep 04 03:33	1° $\Upsilon$ 07'10	4.25982 AU	minimum elong	16480 Jul 22 07:37	16° $\Omega$ 25'26	0°28'53
opposition	16475 Sep 05 13:38	0° $\Upsilon$ 55'50	0°42'34	morning rise	16480 Aug 04 04:01	19° $\Omega$ 16'27	
	16475 Sep 12 14:47	30° $\mathcal{R}$ $\mathcal{H}$			16480 Sep 25 18:28	0° $\mathfrak{M}$	
direct	16475 Nov 04 16:43	25° $\mathcal{H}$ 56'53		retrograde	16480 Dec 06 00:11	7° $\mathfrak{M}$ 00'50	
	16475 Dec 27 09:34	0° $\Upsilon$		opposition	16481 Feb 04 16:02	2° $\mathfrak{M}$ 06'28	-0°45'15
evening set	16476 Mar 09 07:25	13° $\Upsilon$ 56'39		min. Earth dist.	16481 Feb 06 06:44	1° $\mathfrak{M}$ 53'56	4.26998 AU
					16481 Feb 21 11:35	30° $\mathcal{R}$ $\Omega$	
conjunction	16476 Mar 22 15:31	16° $\Upsilon$ 52'46	0°24'57	direct	16481 Apr 07 01:15	27° $\Omega$ 06'25	
minimum elong	16476 Mar 22 15:31	16° $\Upsilon$ 52'46	0°24'49		16481 May 21 03:38	0° $\mathfrak{M}$	
max. Earth dist.	16476 Mar 24 08:15	17° $\Upsilon$ 15'13	6.34310 AU	evening set	16481 Aug 10 16:11	15° $\mathfrak{M}$ 31'00	
morning rise	16476 Apr 04 22:59	19° $\Upsilon$ 48'18		max. Earth dist.	16481 Aug 21 08:54	17° $\mathfrak{M}$ 58'29	6.18198 AU
	16476 May 25 08:58	0° $\mathcal{B}$					
retrograde	16476 Aug 06 05:31	7° $\mathcal{B}$ 15'23		conjunction	16481 Aug 23 14:44	18° $\mathfrak{M}$ 29'32	-0°30'40
min. Earth dist.	16476 Oct 05 07:09	2° $\mathcal{B}$ 21'58	4.41298 AU	minimum elong	16481 Aug 23 14:44	18° $\mathfrak{M}$ 29'33	0°30'52
opposition	16476 Oct 06 02:00	2° $\mathcal{B}$ 15'48	0°27'47	morning rise	16481 Sep 05 13:08	21° $\mathfrak{M}$ 28'22	
	16476 Oct 24 02:06	30° $\mathcal{R}$ $\Upsilon$			16481 Oct 14 11:11	0° $\underline{\mathcal{A}}$	
direct	16476 Dec 06 08:54	27° $\Upsilon$ 16'06		retrograde	16482 Jan 10 07:12	10° $\underline{\mathcal{A}}$ 21'58	
	16477 Jan 18 19:21	0° $\mathcal{B}$		opposition	16482 Mar 11 07:08	5° $\underline{\mathcal{A}}$ 26'40	-0°41'41
evening set	16477 Apr 10 02:58	14° $\mathcal{B}$ 34'33		min. Earth dist.	16482 Mar 12 16:49	5° $\underline{\mathcal{A}}$ 15'37	4.09277 AU
	16477 Apr 12 02:36	15° $\mathcal{B}$		direct	16482 May 10 13:02	0° $\underline{\mathcal{A}}$ 28'06	
				evening set	16482 Sep 14 03:59	19° $\underline{\mathcal{A}}$ 50'56	
conjunction	16477 Apr 23 07:19	17° $\mathcal{B}$ 24'17	0°12'13	max. Earth dist.	16482 Sep 25 17:05	22° $\underline{\mathcal{A}}$ 36'21	6.01265 AU
minimum elong	16477 Apr 23 07:19	17° $\mathcal{B}$ 24'17	0°11'49				
behind sun begin	16477 Apr 23 01:43	17° $\mathcal{B}$ 21'17		conjunction	16482 Sep 27 06:12	22° $\underline{\mathcal{A}}$ 58'35	-0°22'45
behind sun end	16477 Apr 23 12:55	17° $\mathcal{B}$ 27'17		minimum elong	16482 Sep 27 06:13	22° $\underline{\mathcal{A}}$ 58'35	0°22'33
max. Earth dist.	16477 Apr 23 21:02	17° $\mathcal{B}$ 31'39	6.46709 AU	morning rise	16482 Oct 10 09:11	26° $\underline{\mathcal{A}}$ 06'57	
morning rise	16477 May 06 10:38	20° $\mathcal{B}$ 13'22			16482 Oct 26 21:42	0° $\mathfrak{M}$	
	16477 Jun 24 21:44	0° $\mathfrak{I}$			16483 Jan 20 15:46	15° $\mathfrak{M}$	
retrograde	16477 Sep 05 00:22	7° $\mathfrak{I}$ 01'03		retrograde	16483 Feb 17 00:11	16° $\mathfrak{M}$ 12'23	
opposition	16477 Nov 05 05:00	2° $\mathfrak{I}$ 04'02	0°06'21		16483 Mar 16 08:03	15° $\mathcal{R}$ $\mathfrak{M}$	
min. Earth dist.	16477 Nov 05 04:48	2° $\mathfrak{I}$ 04'06	4.50091 AU	opposition	16483 Apr 17 10:34	11° $\mathfrak{M}$ 15'22	-0°22'28
	16477 Nov 21 18:02	30° $\mathcal{R}$ $\mathcal{B}$		min. Earth dist.	16483 Apr 18 00:31	11° $\mathfrak{M}$ 10'43	3.94738 AU
direct	16478 Jan 06 06:49	27° $\mathcal{B}$ 03'53		direct	16483 Jun 15 09:19	6° $\mathfrak{M}$ 18'46	
	16478 Feb 20 21:16	0° $\mathfrak{I}$			16483 Aug 31 08:54	15° $\mathfrak{M}$	
desc. node	16478 Feb 23 21:53	0° $\mathfrak{I}$ 22'36		evening set	16483 Oct 20 23:53	26° $\mathfrak{M}$ 27'42	
evening set	16478 May 10 14:36	14° $\mathfrak{I}$ 03'40					
				conjunction	16483 Nov 03 07:03	29° $\mathfrak{M}$ 42'47	-0°05'50
conjunction	16478 May 23 15:38	16° $\mathfrak{I}$ 50'18	-0°03'31	minimum elong	16483 Nov 03 07:03	29° $\mathfrak{M}$ 42'47	0°05'19
minimum elong	16478 May 23 15:38	16° $\mathfrak{I}$ 50'18	0°04'08	behind sun begin	16483 Nov 02 23:02	29° $\mathfrak{M}$ 37'54	
behind sun begin	16478 May 23 07:43	16° $\mathfrak{I}$ 46'06		behind sun end	16483 Nov 03 15:03	29° $\mathfrak{M}$ 47'40	
behind sun end	16478 May 23 23:33	16° $\mathfrak{I}$ 54'30		max. Earth dist.	16483 Nov 03 03:18	29° $\mathfrak{M}$ 40'31	5.90593 AU
max. Earth dist.	16478 May 23 02:14	16° $\mathfrak{I}$ 43'10	6.51332 AU		16483 Nov 04 11:09	0° $\mathcal{A}$	
morning rise	16478 Jun 05 15:04	19° $\mathfrak{I}$ 36'15		morning rise	16483 Nov 16 15:46	2° $\mathcal{A}$ 58'48	
	16478 Jul 29 02:43	0° $\mathfrak{B}$		asc. node	16484 Feb 26 02:58	22° $\mathcal{A}$ 19'49	
retrograde	16478 Oct 04 16:53	6° $\mathfrak{B}$ 13'31		retrograde	16484 Mar 26 22:37	23° $\mathcal{A}$ 46'55	
opposition	16478 Dec 04 23:41	1° $\mathfrak{B}$ 18'28	-0°16'17	opposition	16484 May 25 02:08	18° $\mathcal{A}$ 47'18	0°06'55
min. Earth dist.	16478 Dec 05 17:53	1° $\mathfrak{B}$ 12'38	4.50362 AU	min. Earth dist.	16484 May 24 15:04	18° $\mathcal{A}$ 51'02	3.89219 AU
	16478 Dec 15 07:33	30° $\mathcal{R}$ $\mathfrak{I}$		direct	16484 Jul 22 07:38	13° $\mathcal{A}$ 51'42	
direct	16479 Feb 05 09:27	26° $\mathfrak{I}$ 18'01			16484 Nov 09 18:08	0° $\mathcal{B}$	
	16479 Mar 29 00:06	0° $\mathfrak{B}$		evening set	16484 Nov 27 05:23	4° $\mathcal{B}$ 10'54	
evening set	16479 Jun 09 17:22	13° $\mathfrak{B}$ 23'36					
max. Earth dist.	16479 Jun 21 00:47	15° $\mathfrak{B}$ 49'41	6.47184 AU	conjunction	16484 Dec 10 16:46	7° $\mathcal{B}$ 27'53	0°13'52
				minimum elong	16484 Dec 10 16:46	7° $\mathcal{B}$ 27'53	0°14'30
conjunction	16479 Jun 22 15:36	16° $\mathfrak{B}$ 10'39	-0°18'12	behind sun begin	16484 Dec 10 13:07	7° $\mathcal{B}$ 25'40	
minimum elong	16479 Jun 22 15:36	16° $\mathfrak{B}$ 10'39	0°18'50	behind sun end	16484 Dec 10 20:25	7° $\mathcal{B}$ 30'06	
morning rise	16479 Jul 05 12:38	18° $\mathfrak{B}$ 57'14		max. Earth dist.	16484 Dec 12 03:21	7° $\mathcal{B}$ 49'00	5.90812 AU
	16479 Aug 31 01:13	0° $\Omega$		morning rise	16484 Dec 24 05:31	10° $\mathcal{B}$ 45'33	
retrograde	16479 Nov 04 10:17	5° $\Omega$ 53'53			16485 Apr 05 04:21	0° $\approx$	
opposition	16480 Jan 04 11:33	0° $\Omega$ 59'41	-0°35'09	retrograde	16485 May 04 02:15	1° $\approx$ 21'46	
min. Earth dist.	16480 Jan 05 21:07	0° $\Omega$ 48'55	4.42029 AU		16485 Jun 01 20:03	30° $\mathcal{R}$ $\mathcal{B}$	
	16480 Jan 12 06:42	30° $\mathcal{R}$ $\mathfrak{B}$		min. Earth dist.	16485 Jul 01 01:12	26° $\mathcal{B}$ 30'12	3.95210 AU
direct	16480 Mar 06 16:47	25° $\mathfrak{B}$ 59'06		opposition	16485 Jul 02 08:13	26° $\mathcal{B}$ 19'42	0°33'21
	16480 Apr 29 01:14	0° $\Omega$		direct	16485 Aug 29 15:31	21° $\mathcal{B}$ 23'28	
evening set	16480 Jul 09 10:18	13° $\Omega$ 34'16			16485 Nov 14 12:48	0° $\approx$	
	16480 Jul 15 21:36	15° $\Omega$		evening set	16486 Jan 04 03:05	11° $\approx$ 10'34	
max. Earth dist.	16480 Jul 20 01:49	15° $\Omega$ 55'34	6.35162 AU				

conjunction	16486 Jan 17 15:32	14°  22'47	0°27'33	morning rise	16491 Jul 09 18:12	23°  16'15	
minimum elong	16486 Jan 17 15:31	14°  22'46	0°28'03		16491 Aug 11 05:21	0° 	
max. Earth dist.	16486 Jan 20 00:06	14°  56'19	6.01851 AU	retrograde	16491 Nov 08 18:58	10°  17'16	
	16486 Jan 20 06:19	15° 		opposition	16492 Jan 08 20:37	5°  23'07	-0°37'12
morning rise	16486 Jan 31 05:04	17°  35'12		min. Earth dist.	16492 Jan 10 06:49	5°  12'08	4.40467 AU
	16486 Mar 30 00:40	0° 		direct	16492 Mar 10 23:21	0°  12'23'35	
retrograde	16486 Jun 08 16:49	7°  12'39			16492 Jun 29 20:01	15° 	
min. Earth dist.	16486 Aug 05 21:17	2°  22'52	4.10014 AU	evening set	16492 Jul 13 19:36	18°  12'02'57	
opposition	16486 Aug 07 12:26	2°  09'41	0°45'27	max. Earth dist.	16492 Jul 24 10:05	20°  12'24'19	6.33194 AU
	16486 Aug 24 04:34	30° 					
direct	16486 Oct 05 14:25	27°  11'54		conjunction	16492 Jul 26 16:50	20°  15'54'52	-0°29'15
	16486 Nov 17 01:30	0° 		minimum elong	16492 Jul 26 16:49	20°  15'54'51	0°29'41
evening set	16487 Feb 09 04:30	16°  02'38		morning rise	16492 Aug 08 13:21	23°  12'46'42	
					16492 Sep 06 11:06	0° 	
conjunction	16487 Feb 22 15:23	19°  06'23	0°30'31	retrograde	16492 Dec 10 18:48	11°  11'39'08	
minimum elong	16487 Feb 22 15:24	19°  06'23	0°30'42	opposition	16493 Feb 09 07:57	6°  11'44'44	-0°45'37
max. Earth dist.	16487 Feb 24 23:17	19°  38'15	6.18975 AU	min. Earth dist.	16493 Feb 10 23:45	6°  11'31'50	4.24723 AU
morning rise	16487 Mar 08 02:27	22°  38'09'51		direct	16493 Apr 11 15:15	1°  11'44'49	
	16487 Apr 13 09:47	0° 		evening set	16493 Aug 15 07:38	20°  11'16'53	
retrograde	16487 Jul 11 16:19	10°  33'14		max. Earth dist.	16493 Aug 26 01:05	22°  11'45'36	6.15802 AU
min. Earth dist.	16487 Sep 08 17:20	5°  34'20'05	4.27757 AU				
opposition	16487 Sep 10 01:16	5°  31'29	0°41'10	conjunction	16493 Aug 28 06:35	23°  11'16'37	-0°30'10
direct	16487 Nov 09 08:41	0°  32'25		minimum elong	16493 Aug 28 06:35	23°  11'16'37	0°30'18
evening set	16488 Mar 13 20:34	18°  32'27'13		morning rise	16493 Sep 10 05:28	26°  11'16'41	
					16493 Sep 26 13:42	0° 	
conjunction	16488 Mar 27 04:17	21°  32'22'32	0°23'30	retrograde	16494 Jan 15 08:37	15°  11'20'23	
minimum elong	16488 Mar 27 04:18	21°  32'22'32	0°23'20	opposition	16494 Mar 16 07:08	10°  11'24'57	-0°39'52
max. Earth dist.	16488 Mar 28 18:47	21°  34'40	6.35903 AU	min. Earth dist.	16494 Mar 17 14:23	10°  11'24'40	4.06964 AU
morning rise	16488 Apr 09 11:20	24°  31'17'15		direct	16494 May 15 07:39	5°  11'26'38	
	16488 May 06 11:58	0° 		evening set	16494 Sep 19 03:32	24°  11'25'15	
retrograde	16488 Aug 10 10:35	11°  38'38'39		max. Earth dist.	16494 Sep 30 20:39	27°  11'25'50	5.99253 AU
opposition	16488 Oct 10 09:00	6°  39'22	0°25'03				
min. Earth dist.	16488 Oct 09 15:25	6°  45'07	4.42608 AU	conjunction	16494 Oct 02 06:20	28°  11'26'06	-0°20'48
direct	16488 Dec 10 17:50	1°  39'35		minimum elong	16494 Oct 02 06:21	28°  11'26'07	0°20'33
	16489 Mar 26 18:56	15° 			16494 Oct 10 03:41	0° 	
evening set	16489 Apr 14 11:25	18°  35'54'54		morning rise	16494 Oct 15 10:07	1°  11'15'46	
					16494 Dec 17 23:28	15° 	
conjunction	16489 Apr 27 15:22	21°  34'44'06	0°10'06	retrograde	16495 Feb 22 09:13	21°  11'29'55	
minimum elong	16489 Apr 27 15:22	21°  34'44'07	0°09'39	opposition	16495 Apr 22 17:58	16°  11'32'34	-0°18'41
behind sun begin	16489 Apr 27 08:45	21°  34'40'34		min. Earth dist.	16495 Apr 23 05:14	16°  11'28'48	3.93231 AU
behind sun end	16489 Apr 27 22:00	21°  34'47'39			16495 May 04 12:03	15°  11'31'11	
max. Earth dist.	16489 Apr 28 02:45	21°  35'01'12	6.47652 AU	direct	16495 Jun 20 14:03	11°  11'36'09	
morning rise	16489 May 10 18:02	24°  32'32'36			16495 Aug 05 14:48	15° 	
	16489 Jun 06 02:55	0° 			16495 Oct 18 17:15	0° 	
retrograde	16489 Sep 09 04:40	11°  31'17'27		evening set	16495 Oct 26 06:05	1°  11'27'49'36	
opposition	16489 Nov 09 09:57	6°  32'20'45	0°03'06				
min. Earth dist.	16489 Nov 09 12:05	6°  32'20'03	4.50592 AU	conjunction	16495 Nov 08 14:08	5°  11'27'05'28	-0°03'02
desc. node	16490 Jan 01 13:27	1°  32'27'56		minimum elong	16495 Nov 08 14:08	5°  11'27'05'28	0°02'28
direct	16490 Jan 10 14:09	1°  32'20'33		behind sun begin	16495 Nov 08 05:50	5°  11'27'00'24	
evening set	16490 May 14 20:42	18°  32'19'36		behind sun end	16495 Nov 08 22:26	5°  11'27'10'32	
				max. Earth dist.	16495 Nov 08 16:45	5°  11'27'07'01	5.89767 AU
conjunction	16490 May 27 21:07	21°  32'06'01	-0°05'44	morning rise	16495 Nov 21 23:29	8°  11'27'22'13	
minimum elong	16490 May 27 21:07	21°  32'06'02	0°06'20	asc. node	16496 Jan 07 01:12	18°  11'27'27'24	
behind sun begin	16490 May 27 13:33	21°  32'02'01		retrograde	16496 Apr 01 09:53	29°  11'27'21'54	
behind sun end	16490 May 28 04:41	21°  32'10'03		opposition	16496 May 30 11:50	24°  11'27'21'57	0°11'10
max. Earth dist.	16490 May 27 03:05	20°  32'56'24	6.51324 AU	min. Earth dist.	16496 May 29 21:49	24°  11'27'17'41	3.89188 AU
morning rise	16490 Jun 09 20:16	23°  32'51'50		direct	16496 Jul 27 16:04	19°  11'27'17'23	
	16490 Jul 09 18:46	0° 			16496 Oct 22 00:34	0° 	
retrograde	16490 Oct 08 22:55	10°  32'29'40		evening set	16496 Dec 02 14:06	9°  11'27'35'17	
opposition	16490 Dec 09 05:09	5°  32'34'45	-0°19'17				
min. Earth dist.	16490 Dec 10 01:55	5°  32'28'05	4.49820 AU	conjunction	16496 Dec 16 01:44	12°  11'27'52'04	0°16'20
direct	16491 Feb 09 15:42	0°  32'34'12		minimum elong	16496 Dec 16 01:43	12°  11'27'52'04	0°16'57
evening set	16491 Jun 13 23:26	17°  32'42'01		max. Earth dist.	16496 Dec 17 15:39	13°  11'27'15'10	5.91559 AU
max. Earth dist.	16491 Jun 25 05:00	20°  32'07'25	6.46113 AU	morning rise	16496 Dec 29 14:59	16°  11'27'09'31	
					16497 Mar 03 02:56	0° 	
conjunction	16491 Jun 26 21:33	20°  32'29'22	-0°20'00	retrograde	16497 May 09 05:05	6°  11'27'40'36	
minimum elong	16491 Jun 26 21:33	20°  32'29'22	0°20'36	min. Earth dist.	16497 Jul 06 03:37	1°  11'27'49'47	3.96664 AU

opposition	16497 Jul 07 13:32	1°  38'17	0°36'05	direct	16503 Feb 14 19:36	4°  45'30	
	16497 Jul 19 22:09	30°  41'52		evening set	16503 Jun 19 03:47	21°  55'55	
direct	16497 Sep 03 21:37	26°  41'52		max. Earth dist.	16503 Jun 30 04:39	24°  19'16	6.44811 AU
	16497 Oct 19 11:25	0°  41'52					
	16498 Jan 03 10:45	15°  41'52		conjunction	16503 Jul 02 01:30	24°  43'37	-0°21'38
evening set	16498 Jan 09 08:11	16°  22'44		minimum elong	16503 Jul 02 01:29	24°  43'37	0°22'14
				morning rise	16503 Jul 14 22:08	27°  30'57	
conjunction	16498 Jan 22 20:35	19°  33'58	0°28'39		16503 Jul 26 12:43	0°  30'57	
minimum elong	16498 Jan 22 20:35	19°  33'58	0°29'06	retrograde	16503 Nov 14 05:17	14°  37'21	
max. Earth dist.	16498 Jan 25 06:15	20°  08'01	6.03877 AU	opposition	16504 Jan 14 04:51	9°  43'11	-0°39'01
morning rise	16498 Feb 05 09:54	22°  45'20		min. Earth dist.	16504 Jan 15 17:19	9°  31'28	4.38558 AU
	16498 Mar 09 12:59	0°  45'20		direct	16504 Mar 16 06:19	4°  42'35	
retrograde	16498 Jun 13 13:19	12°  13'02			16504 Jun 13 20:43	15°  42'35	
min. Earth dist.	16498 Aug 10 19:26	7°  22'58	4.12391 AU	evening set	16504 Jul 19 04:10	22°  29'23	
opposition	16498 Aug 12 09:49	7°  10'04	0°45'46	max. Earth dist.	16504 Jul 29 17:51	24°  51'02	6.30809 AU
direct	16498 Oct 10 16:51	2°  12'04					
evening set	16499 Feb 14 01:55	20°  54'29		conjunction	16504 Aug 01 01:39	25°  22'19	-0°29'55
				minimum elong	16504 Aug 01 01:39	25°  22'18	0°30'20
conjunction	16499 Feb 27 12:30	23°  56'59	0°30'04	morning rise	16504 Aug 13 22:16	28°  15'10	
minimum elong	16499 Feb 27 12:31	23°  56'59	0°30'11		16504 Aug 21 19:15	0°  15'10	
max. Earth dist.	16499 Mar 01 20:33	24°  28'44	6.21507 AU	retrograde	16504 Dec 16 12:22	16°  17'12	
morning rise	16499 Mar 12 23:01	26°  59'07		opposition	16505 Feb 14 23:59	11°  22'43	-0°45'44
	16499 Mar 26 13:13	0°  59'07		min. Earth dist.	16505 Feb 16 15:18	11°  09'57	4.22020 AU
retrograde	16499 Jul 16 02:07	15°  12'20		direct	16505 Apr 17 02:17	6°  22'57	
min. Earth dist.	16499 Sep 13 06:30	10°  21'16	4.30234 AU	evening set	16505 Aug 21 00:06	25°  04'14	
opposition	16499 Sep 14 14:04	10°  10'49	0°39'28	max. Earth dist.	16505 Aug 31 18:55	27°  34'42	6.12992 AU
direct	16499 Nov 14 00:27	5°  11'36					
evening set	16500 Mar 19 09:57	22°  58'59		conjunction	16505 Sep 02 23:26	28°  05'21	-0°29'29
				minimum elong	16505 Sep 02 23:26	28°  05'21	0°29'34
conjunction	16500 Apr 01 17:01	25°  53'08	0°21'54		16505 Sep 11 03:55	0°  05'21	
minimum elong	16500 Apr 01 17:01	25°  53'08	0°21'41	morning rise	16505 Sep 15 23:00	1°  06'55	
max. Earth dist.	16500 Apr 03 03:38	26°  12'04	6.38140 AU	retrograde	16506 Jan 21 14:10	20°  22'37	
morning rise	16500 Apr 14 23:24	28°  46'41		opposition	16506 Mar 22 09:25	15°  26'57	-0°37'47
	16500 Apr 20 15:16	0°  46'41		min. Earth dist.	16506 Mar 23 15:07	15°  17'10	4.04277 AU
	16500 Jul 21 01:35	15°  46'41		direct	16506 May 21 05:44	10°  28'54	
retrograde	16500 Aug 15 16:25	16°  00'27			16506 Sep 24 14:53	0°  28'54	
	16500 Sep 10 02:45	15°  00'27		evening set	16506 Sep 25 05:20	0°  08'40	
opposition	16500 Oct 15 15:29	11°  01'30	0°22'11	max. Earth dist.	16506 Oct 07 04:31	3°  01'44	5.96967 AU
min. Earth dist.	16500 Oct 15 01:08	11°  06'11	4.44449 AU				
direct	16500 Dec 16 04:50	6°  01'36		conjunction	16506 Oct 08 09:05	3°  19'00	-0°18'42
	16501 Mar 10 01:36	15°  01'36		minimum elong	16506 Oct 08 09:05	3°  19'00	0°18'25
evening set	16501 Apr 19 18:33	23°  12'10		morning rise	16506 Oct 21 13:38	6°  30'07	
					16506 Nov 27 09:30	15°  30'07	
conjunction	16501 May 02 21:55	26°  00'38	0°07'58	retrograde	16507 Feb 28 22:12	26°  35'54	
minimum elong	16501 May 02 21:55	26°  00'38	0°07'29	opposition	16507 Apr 29 04:24	21°  56'18	-0°14'44
behind sun begin	16501 May 02 14:35	25°  56'44		min. Earth dist.	16507 Apr 29 12:10	21°  53'42	3.91622 AU
behind sun end	16501 May 03 05:16	26°  04'33		direct	16507 Jun 26 20:16	17°  00'12	
max. Earth dist.	16501 May 03 05:08	26°  04'28	6.48956 AU		16507 Oct 01 17:37	0°  00'12	
morning rise	16501 May 16 00:02	28°  48'24		evening set	16507 Nov 01 15:52	7°  18'27	
	16501 May 21 15:20	0°  48'24					
retrograde	16501 Sep 14 06:22	15°  29'29		conjunction	16507 Nov 15 00:28	10°  35'02	-0°00'06
desc. node	16501 Nov 13 01:11	10°  44'32		minimum elong	16507 Nov 15 00:27	10°  35'01	0°00'28
opposition	16501 Nov 14 13:02	10°  33'00	-0°00'05	behind sun begin	16507 Nov 14 16:09	10°  39'27	
min. Earth dist.	16501 Nov 14 17:23	10°  31'36	4.51292 AU	behind sun end	16507 Nov 15 08:46	10°  40'06	
direct	16502 Jan 15 18:19	5°  32'40		max. Earth dist.	16507 Nov 15 07:42	10°  39'27	5.88999 AU
evening set	16502 May 20 00:31	22°  30'31		asc. node	16507 Nov 17 08:26	11°  39'27	
max. Earth dist.	16502 Jun 01 03:52	25°  05'41	6.51362 AU	morning rise	16507 Nov 28 10:46	13°  52'32	
					16508 Feb 12 08:08	0°  52'32	
conjunction	16502 Jun 02 00:37	25°  16'45	-0°07'52	retrograde	16508 Apr 07 21:07	4°  45'04	
minimum elong	16502 Jun 02 00:37	25°  16'45	0°08'28		16508 Jun 04 02:46	30°  45'04	
behind sun begin	16502 Jun 01 17:36	25°  13'02		opposition	16508 Jun 05 23:58	29°  44'43	0°15'20
behind sun end	16502 Jun 02 07:37	25°  20'28		min. Earth dist.	16508 Jun 05 05:20	29°  51'01	3.89379 AU
morning rise	16502 Jun 14 23:09	28°  02'20		direct	16508 Aug 03 02:26	24°  49'09	
	16502 Jun 24 06:35	0°  02'20			16508 Sep 29 14:28	0°  49'09	
retrograde	16502 Oct 14 02:27	14°  40'52		evening set	16508 Dec 09 01:16	15°  04'43	
opposition	16502 Dec 14 08:55	9°  46'06	-0°22'07				
min. Earth dist.	16502 Dec 15 08:16	9°  38'38	4.49180 AU	conjunction	16508 Dec 22 13:15	18°  32'107	0°18'39

minimum elong	16508 Dec 22 13:14	18° $\text{♁}$ 21'06	0°19'16	morning rise	16514 Jun 19 03:21	2° $\text{♁}$ 16'57	
max. Earth dist.	16508 Dec 24 07:59	18° $\text{♁}$ 47'04	5.92686 AU	retrograde	16514 Oct 18 08:49	18° $\text{♁}$ 57'46	
morning rise	16509 Jan 05 02:41	21° $\text{♁}$ 38'04		opposition	16514 Dec 18 14:35	14° $\text{♁}$ 03'07	-0°24'56
	16509 Feb 10 08:34	0° $\text{♁}$		min. Earth dist.	16514 Dec 19 16:03	13° $\text{♁}$ 54'57	4.48076 AU
retrograde	16509 May 15 10:53	12° $\text{♁}$ 02'14		direct	16515 Feb 18 23:55	9° $\text{♁}$ 02'25	
min. Earth dist.	16509 Jul 12 09:13	7° $\text{♁}$ 11'31	3.98561 AU	evening set	16515 Jun 23 10:26	26° $\text{♁}$ 16'57	
opposition	16509 Jul 13 20:16	6° $\text{♁}$ 59'39	0°38'29	max. Earth dist.	16515 Jul 04 09:57	28° $\text{♁}$ 40'03	6.43097 AU
direct	16509 Sep 10 07:47	2° $\text{♁}$ 03'01					
	16509 Dec 17 12:53	15° $\text{♁}$		conjunction	16515 Jul 06 08:10	29° $\text{♁}$ 05'15	-0°23'13
evening set	16510 Jan 15 13:43	21° $\text{♁}$ 35'49		minimum elong	16515 Jul 06 08:09	29° $\text{♁}$ 05'14	0°23'47
					16515 Jul 10 12:31	0° $\text{♁}$	
conjunction	16510 Jan 29 02:03	24° $\text{♁}$ 45'52	0°29'31	morning rise	16515 Jul 19 04:32	1° $\text{♁}$ 53'10	
minimum elong	16510 Jan 29 02:03	24° $\text{♁}$ 45'52	0°29'55		16515 Sep 26 07:06	15° $\text{♁}$	
max. Earth dist.	16510 Jan 31 14:28	25° $\text{♁}$ 21'19	6.06332 AU	retrograde	16515 Nov 18 18:08	19° $\text{♁}$ 06'17	
morning rise	16510 Feb 11 15:02	27° $\text{♁}$ 55'56			16516 Jan 12 10:43	15° $\text{♁}$	
	16510 Feb 20 14:02	0° $\text{♁}$		opposition	16516 Jan 18 16:17	14° $\text{♁}$ 12'09	-0°40'41
retrograde	16510 Jun 19 07:47	17° $\text{♁}$ 12'19		min. Earth dist.	16516 Jan 20 06:00	14° $\text{♁}$ 00'01	4.36330 AU
min. Earth dist.	16510 Aug 16 15:46	12° $\text{♁}$ 22'33	4.15125 AU	direct	16516 Mar 20 14:39	9° $\text{♁}$ 11'37	
opposition	16510 Aug 18 06:47	12° $\text{♁}$ 09'28	0°45'42		16516 May 24 08:23	15° $\text{♁}$	
direct	16510 Oct 16 16:51	7° $\text{♁}$ 11'17		evening set	16516 Jul 23 16:16	27° $\text{♁}$ 05'48	
evening set	16511 Feb 19 22:44	25° $\text{♁}$ 44'29		max. Earth dist.	16516 Aug 03 04:16	29° $\text{♁}$ 27'23	6.28214 AU
conjunction	16511 Mar 05 08:42	28° $\text{♁}$ 45'34	0°29'22	conjunction	16516 Aug 05 13:46	29° $\text{♁}$ 59'48	-0°30'26
minimum elong	16511 Mar 05 08:42	28° $\text{♁}$ 45'34	0°29'26	minimum elong	16516 Aug 05 13:45	29° $\text{♁}$ 59'48	0°30'48
max. Earth dist.	16511 Mar 07 13:19	29° $\text{♁}$ 15'12	6.24261 AU		16516 Aug 05 14:07	0° $\text{♁}$	
	16511 Mar 10 20:57	0° $\text{♁}$		morning rise	16516 Aug 18 10:49	2° $\text{♁}$ 53'51	
morning rise	16511 Mar 18 18:44	1° $\text{♁}$ 46'17		retrograde	16516 Dec 21 11:46	21° $\text{♁}$ 06'21	
retrograde	16511 Jul 21 12:33	19° $\text{♁}$ 49'06		opposition	16517 Feb 19 20:25	16° $\text{♁}$ 11'42	-0°45'32
min. Earth dist.	16511 Sep 18 21:13	14° $\text{♁}$ 57'25	4.32770 AU	min. Earth dist.	16517 Feb 21 11:17	15° $\text{♁}$ 59'03	4.19227 AU
opposition	16511 Sep 20 01:58	14° $\text{♁}$ 47'55	0°37'28	direct	16517 Apr 21 18:49	11° $\text{♁}$ 12'06	
direct	16511 Nov 19 17:08	9° $\text{♁}$ 48'33		evening set	16517 Aug 25 20:26	0° $\text{♁}$ 02'40	
evening set	16512 Mar 23 22:17	27° $\text{♁}$ 28'49			16517 Aug 25 15:50	0° $\text{♁}$	
	16512 Apr 04 12:39	0° $\text{♁}$		max. Earth dist.	16517 Sep 05 19:00	2° $\text{♁}$ 36'12	6.10259 AU
conjunction	16512 Apr 06 04:56	0° $\text{♁}$ 21'56	0°20'09	conjunction	16517 Sep 07 20:27	3° $\text{♁}$ 05'15	-0°28'32
minimum elong	16512 Apr 06 04:57	0° $\text{♁}$ 21'56	0°19'53	minimum elong	16517 Sep 07 20:28	3° $\text{♁}$ 05'15	0°28'33
max. Earth dist.	16512 Apr 07 13:00	0° $\text{♁}$ 39'23	6.40276 AU	morning rise	16517 Sep 20 20:33	6° $\text{♁}$ 08'17	
morning rise	16512 Apr 19 10:36	3° $\text{♁}$ 14'23		retrograde	16518 Jan 26 22:35	25° $\text{♁}$ 35'22	
	16512 Jun 19 01:44	15° $\text{♁}$		opposition	16518 Mar 27 15:30	20° $\text{♁}$ 39'32	-0°35'17
retrograde	16512 Aug 19 20:02	20° $\text{♁}$ 21'20		min. Earth dist.	16518 Mar 28 18:37	20° $\text{♁}$ 30'35	4.01876 AU
opposition	16512 Oct 19 21:21	15° $\text{♁}$ 22'47	0°19'10	direct	16518 May 26 06:39	15° $\text{♁}$ 41'52	
min. Earth dist.	16512 Oct 19 08:49	15° $\text{♁}$ 26'51	4.46055 AU		16518 Sep 07 02:59	0° $\text{♁}$	
	16512 Oct 22 19:31	15° $\text{♁}$		evening set	16518 Sep 30 10:58	5° $\text{♁}$ 29'25	
direct	16512 Dec 20 12:29	10° $\text{♁}$ 22'51					
	16513 Feb 16 11:16	15° $\text{♁}$		conjunction	16518 Oct 13 15:17	8° $\text{♁}$ 40'56	-0°16'21
evening set	16513 Apr 24 01:21	27° $\text{♁}$ 29'44		minimum elong	16518 Oct 13 15:17	8° $\text{♁}$ 40'57	0°16'01
	16513 May 05 19:12	0° $\text{♁}$		behind sun begin	16518 Oct 13 14:20	8° $\text{♁}$ 40'22	
				behind sun end	16518 Oct 13 16:14	8° $\text{♁}$ 41'31	
conjunction	16513 May 07 04:09	0° $\text{♁}$ 17'37	0°05'45	max. Earth dist.	16518 Oct 12 14:29	8° $\text{♁}$ 25'54	5.95149 AU
minimum elong	16513 May 07 04:08	0° $\text{♁}$ 17'37	0°05'15	morning rise	16518 Oct 26 20:52	11° $\text{♁}$ 53'21	
behind sun begin	16513 May 06 20:21	0° $\text{♁}$ 13'28			16518 Nov 08 21:13	15° $\text{♁}$	
behind sun end	16513 May 07 11:56	0° $\text{♁}$ 21'46		retrograde	16519 Jan 26 13:51	0° $\text{♁}$	
max. Earth dist.	16513 May 07 06:33	0° $\text{♁}$ 18'52	6.49929 AU		16519 Mar 06 11:02	2° $\text{♁}$ 24'23	
morning rise	16513 May 20 05:42	3° $\text{♁}$ 04'49			16519 Apr 14 13:51	30° $\text{♁}$	
retrograde	16513 Sep 18 11:12	19° $\text{♁}$ 43'34		opposition	16519 May 04 16:57	27° $\text{♁}$ 26'22	-0°10'31
desc. node	16513 Sep 23 13:36	19° $\text{♁}$ 41'08		min. Earth dist.	16519 May 04 19:50	27° $\text{♁}$ 25'24	3.90628 AU
opposition	16513 Nov 18 17:01	14° $\text{♁}$ 47'26	-0°03'21	direct	16519 Jul 02 05:51	22° $\text{♁}$ 30'26	
min. Earth dist.	16513 Nov 19 01:12	14° $\text{♁}$ 44'48	4.51580 AU		16519 Sep 10 17:40	0° $\text{♁}$	
direct	16514 Jan 20 00:38	9° $\text{♁}$ 47'03		asc. node	16519 Sep 24 10:00	2° $\text{♁}$ 44'51	
evening set	16514 May 24 05:25	26° $\text{♁}$ 45'06		evening set	16519 Nov 07 02:53	12° $\text{♁}$ 50'40	
max. Earth dist.	16514 Jun 05 03:24	29° $\text{♁}$ 17'35	6.50938 AU				
				conjunction	16519 Nov 20 12:11	16° $\text{♁}$ 07'34	0°02'50
conjunction	16514 Jun 06 05:05	29° $\text{♁}$ 31'19	-0°10'01	minimum elong	16519 Nov 20 12:11	16° $\text{♁}$ 07'34	0°03'25
minimum elong	16514 Jun 06 05:04	29° $\text{♁}$ 31'19	0°10'38	behind sun begin	16519 Nov 20 03:55	16° $\text{♁}$ 02'31	
behind sun begin	16514 Jun 05 22:53	29° $\text{♁}$ 28'01		behind sun end	16519 Nov 20 20:27	16° $\text{♁}$ 12'37	
behind sun end	16514 Jun 06 11:15	29° $\text{♁}$ 34'36		max. Earth dist.	16519 Nov 21 02:33	16° $\text{♁}$ 16'23	5.88959 AU
	16514 Jun 08 10:42	0° $\text{♁}$		morning rise	16519 Dec 03 22:59	19° $\text{♁}$ 25'20	

	16520 Jan 18 23:26	0°♁		min. Earth dist.	16525 Nov 23 05:37	18°♐54'11	4.51424 AU
retrograde	16520 Apr 13 08:33	10°♁16'19		direct	16526 Jan 24 02:28	13°♐57'04	
opposition	16520 Jun 11 11:45	5°♁15'30	0°19'21		16526 May 23 22:09	0°♐	
min. Earth dist.	16520 Jun 10 14:31	5°♁22'41	3.90301 AU	evening set	16526 May 28 09:28	0°♐56'49	
direct	16520 Aug 08 15:30	0°♁19'51		max. Earth dist.	16526 Jun 09 04:00	3°♐27'47	6.50100 AU
evening set	16520 Dec 14 10:59	20°♁29'57					
				conjunction	16526 Jun 10 08:49	3°♐43'14	-0°12'05
conjunction	16520 Dec 27 23:10	23°♁45'33	0°20'48	minimum elong	16526 Jun 10 08:48	3°♐43'13	0°12'43
minimum elong	16520 Dec 27 23:10	23°♁45'33	0°21'23	behind sun begin	16526 Jun 10 03:46	3°♐40'32	
max. Earth dist.	16520 Dec 29 22:54	24°♁14'24	5.94454 AU	behind sun end	16526 Jun 10 13:50	3°♐45'54	
morning rise	16521 Jan 10 12:37	27°♁01'38		morning rise	16526 Jun 23 06:44	6°♐29'04	
	16521 Jan 23 01:32	0°♐		retrograde	16526 Oct 22 16:32	23°♐13'35	
	16521 Apr 12 18:39	15°♐		opposition	16526 Dec 22 20:27	18°♐19'09	-0°27'36
retrograde	16521 May 20 12:20	17°♐16'09		min. Earth dist.	16526 Dec 24 00:48	18°♐10'04	4.46613 AU
	16521 Jun 27 05:23	15°♐		direct	16527 Feb 23 05:17	13°♐18'31	
min. Earth dist.	16521 Jul 17 10:38	12°♐25'58	4.00971 AU		16527 Jun 24 18:42	0°♐	
opposition	16521 Jul 18 23:48	12°♐13'24	0°40'29	evening set	16527 Jun 27 17:25	0°♐38'18	
direct	16521 Sep 15 13:43	7°♐16'33		max. Earth dist.	16527 Jul 08 13:14	3°♐00'05	6.41105 AU
	16521 Nov 27 11:30	15°♐					
evening set	16522 Jan 20 16:12	26°♐39'47		conjunction	16527 Jul 10 14:56	3°♐27'18	-0°24'39
				minimum elong	16527 Jul 10 14:56	3°♐27'18	0°25'12
conjunction	16522 Feb 03 04:04	29°♐48'22	0°30'07	morning rise	16527 Jul 23 11:27	6°♐16'01	
minimum elong	16522 Feb 03 04:04	29°♐48'22	0°30'29		16527 Sep 03 21:38	15°♐	
	16522 Feb 04 00:01	0°♐		retrograde	16527 Nov 23 08:48	23°♐36'57	
max. Earth dist.	16522 Feb 05 15:09	0°♐22'48	6.09117 AU	opposition	16528 Jan 23 04:45	18°♐42'48	-0°42'07
morning rise	16522 Feb 16 16:47	2°♐56'58		min. Earth dist.	16528 Jan 24 18:41	18°♐30'34	4.33941 AU
retrograde	16522 Jun 23 21:57	22°♐01'19			16528 Feb 24 18:18	15°♐	
min. Earth dist.	16522 Aug 21 10:11	17°♐11'09	4.18001 AU	direct	16528 Mar 24 23:37	13°♐42'23	
opposition	16522 Aug 22 23:50	16°♐58'33	0°45'19		16528 Apr 23 06:12	15°♐	
direct	16522 Oct 21 14:38	12°♐00'07			16528 Jul 20 10:06	0°♐	
	16523 Feb 22 20:20	0°♐		evening set	16528 Jul 28 05:21	1°♐44'33	
evening set	16523 Feb 24 15:31	0°♐24'01		max. Earth dist.	16528 Aug 07 19:22	4°♐08'01	6.25620 AU
conjunction	16523 Mar 10 01:10	3°♐23'46	0°28'31	conjunction	16528 Aug 10 03:13	4°♐39'43	-0°30'45
minimum elong	16523 Mar 10 01:11	3°♐23'46	0°28'33	minimum elong	16528 Aug 10 03:13	4°♐39'43	0°31'05
max. Earth dist.	16523 Mar 12 04:18	3°♐52'23	6.26995 AU	morning rise	16528 Aug 23 00:25	7°♐34'56	
morning rise	16523 Mar 23 10:26	6°♐23'03		retrograde	16528 Dec 26 11:38	25°♐57'48	
retrograde	16523 Jul 25 18:45	24°♐15'59		opposition	16529 Feb 24 17:45	21°♐03'05	-0°45'01
min. Earth dist.	16523 Sep 23 07:27	19°♐24'03	4.35152 AU	min. Earth dist.	16529 Feb 26 07:47	20°♐50'41	4.16629 AU
opposition	16523 Sep 24 10:23	19°♐15'11	0°35'20	direct	16529 Apr 26 11:29	16°♐03'48	
direct	16523 Nov 24 04:57	14°♐15'46			16529 Aug 08 15:52	0°♐	
	16524 Mar 19 18:34	0°♐		evening set	16529 Aug 30 17:40	5°♐02'55	
evening set	16524 Mar 28 07:25	1°♐49'40		max. Earth dist.	16529 Sep 10 18:17	7°♐38'33	6.07871 AU
conjunction	16524 Apr 10 13:21	4°♐41'48	0°18'20	conjunction	16529 Sep 12 18:04	8°♐06'46	-0°27'23
minimum elong	16524 Apr 10 13:21	4°♐41'48	0°18'01	minimum elong	16529 Sep 12 18:04	8°♐06'46	0°27'21
max. Earth dist.	16524 Apr 11 15:33	4°♐56'01	6.42130 AU	morning rise	16529 Sep 25 18:59	11°♐11'11	
morning rise	16524 Apr 23 18:32	7°♐33'19			16530 Jan 09 21:49	0°♐	
	16524 May 30 00:27	15°♐		retrograde	16530 Feb 01 05:26	0°♐48'18	
retrograde	16524 Aug 23 23:34	24°♐34'42			16530 Feb 23 13:50	30°♐	
opposition	16524 Oct 24 00:50	19°♐36'32	0°16'08	opposition	16530 Apr 01 21:29	25°♐52'10	-0°32'29
min. Earth dist.	16524 Oct 23 16:14	19°♐39'20	4.47289 AU	min. Earth dist.	16530 Apr 02 20:52	25°♐44'26	3.99922 AU
	16524 Dec 08 19:43	15°♐		direct	16530 May 31 08:36	20°♐54'46	
direct	16524 Dec 24 19:29	14°♐36'32			16530 Aug 18 19:28	0°♐	
	16525 Jan 09 21:26	15°♐		evening set	16530 Oct 05 15:34	10°♐48'19	
	16525 Apr 20 06:09	0°♐					
evening set	16525 Apr 28 06:00	1°♐41'05		conjunction	16530 Oct 18 20:40	14°♐00'49	-0°13'54
				minimum elong	16530 Oct 18 20:41	14°♐00'49	0°13'31
conjunction	16525 May 11 08:28	4°♐28'37	0°03'33	behind sun begin	16530 Oct 18 16:03	13°♐58'00	
minimum elong	16525 May 11 08:28	4°♐28'37	0°03'02	behind sun end	16530 Oct 19 01:19	14°♐03'38	
behind sun begin	16525 May 11 00:26	4°♐24'21		max. Earth dist.	16530 Oct 18 02:19	13°♐49'39	5.93822 AU
behind sun end	16525 May 11 16:30	4°♐32'52			16530 Oct 22 21:52	15°♐	
max. Earth dist.	16525 May 11 07:11	4°♐27'58	6.50467 AU	morning rise	16530 Nov 01 02:52	17°♐14'10	
morning rise	16525 May 24 09:27	7°♐15'26			16530 Dec 28 12:22	0°♐	
desc. node	16525 Aug 05 09:49	20°♐33'10		retrograde	16531 Mar 11 23:30	7°♐50'25	
retrograde	16525 Sep 22 12:39	23°♐53'18		opposition	16531 May 10 03:27	2°♐52'02	-0°06'16
opposition	16525 Nov 22 19:26	18°♐57'27	-0°06'32	min. Earth dist.	16531 May 10 03:40	2°♐51'58	3.90073 AU

	16531 Jun 01 23:58	30° $\mathbb{M}$		conjunction	16537 May 15 14:20	8° $\mathbb{II}$ 44'45	0°01'14
direct	16531 Jul 07 14:46	27° $\mathbb{M}$ 56'15		minimum elong	16537 May 15 14:20	8° $\mathbb{II}$ 44'45	0°00'42
asc. node	16531 Aug 01 19:10	29° $\mathbb{M}$ 00'30		behind sun begin	16537 May 15 06:17	8° $\mathbb{II}$ 40'28	
	16531 Aug 11 21:53	0° $\mathbb{A}$		behind sun end	16537 May 15 22:23	8° $\mathbb{II}$ 49'01	
evening set	16531 Nov 12 11:31	18° $\mathbb{A}$ 16'55		max. Earth dist.	16537 May 15 08:14	8° $\mathbb{II}$ 41'31	6.50832 AU
				morning rise	16537 May 28 15:00	11° $\mathbb{II}$ 31'17	
conjunction	16531 Nov 25 21:19	21° $\mathbb{A}$ 33'57	0°05'39	desc. node	16537 Jun 15 00:33	15° $\mathbb{II}$ 09'04	
minimum elong	16531 Nov 25 21:20	21° $\mathbb{A}$ 33'58	0°06'15	retrograde	16537 Sep 26 18:32	28° $\mathbb{II}$ 08'38	
behind sun begin	16531 Nov 25 13:27	21° $\mathbb{A}$ 29'09		opposition	16537 Nov 27 00:24	23° $\mathbb{II}$ 13'05	-0°09'46
behind sun end	16531 Nov 26 05:12	21° $\mathbb{A}$ 38'46		min. Earth dist.	16537 Nov 27 13:47	23° $\mathbb{II}$ 08'47	4.51232 AU
max. Earth dist.	16531 Nov 26 17:03	21° $\mathbb{A}$ 46'03	5.89214 AU	direct	16538 Jan 28 09:25	18° $\mathbb{II}$ 12'41	
morning rise	16531 Dec 09 08:41	24° $\mathbb{A}$ 51'49			16538 May 07 09:07	0° $\mathbb{B}$	
	16531 Dec 30 20:57	0° $\mathbb{B}$		evening set	16538 Jun 01 15:25	5° $\mathbb{B}$ 13'48	
retrograde	16532 Apr 18 15:41	15° $\mathbb{B}$ 40'00		max. Earth dist.	16538 Jun 13 07:00	7° $\mathbb{B}$ 43'27	6.49393 AU
opposition	16532 Jun 16 19:41	10° $\mathbb{B}$ 38'54	0°23'07				
min. Earth dist.	16532 Jun 15 19:05	10° $\mathbb{B}$ 47'13	3.91353 AU	conjunction	16538 Jun 14 14:29	8° $\mathbb{B}$ 00'22	-0°14'09
direct	16532 Aug 13 23:04	5° $\mathbb{B}$ 43'09		minimum elong	16538 Jun 14 14:29	8° $\mathbb{B}$ 00'22	0°14'46
evening set	16532 Dec 19 17:43	25° $\mathbb{B}$ 47'59		behind sun begin	16538 Jun 14 11:16	7° $\mathbb{B}$ 58'39	
				behind sun end	16538 Jun 14 17:41	8° $\mathbb{B}$ 02'05	
conjunction	16533 Jan 02 05:53	29° $\mathbb{B}$ 02'47	0°22'44	morning rise	16538 Jun 27 12:04	10° $\mathbb{B}$ 46'21	
minimum elong	16533 Jan 02 05:53	29° $\mathbb{B}$ 02'47	0°23'18	retrograde	16538 Oct 26 23:50	27° $\mathbb{B}$ 33'51	
max. Earth dist.	16533 Jan 04 06:55	29° $\mathbb{B}$ 32'17	5.96166 AU	opposition	16538 Dec 27 04:01	22° $\mathbb{B}$ 39'30	-0°30'12
	16533 Jan 06 05:01	0° $\mathbb{C}$		min. Earth dist.	16538 Dec 28 08:44	22° $\mathbb{B}$ 30'18	4.45470 AU
morning rise	16533 Jan 15 19:32	2° $\mathbb{C}$ 18'03		direct	16539 Feb 27 11:02	17° $\mathbb{B}$ 38'56	
	16533 Mar 15 02:03	15° $\mathbb{C}$			16539 Jun 08 07:12	0° $\mathbb{D}$	
retrograde	16533 May 25 10:30	22° $\mathbb{C}$ 23'47		evening set	16539 Jul 02 01:36	5° $\mathbb{D}$ 02'32	
min. Earth dist.	16533 Jul 22 10:35	17° $\mathbb{C}$ 33'36	4.03135 AU	max. Earth dist.	16539 Jul 12 21:22	7° $\mathbb{D}$ 24'44	6.39622 AU
opposition	16533 Jul 24 00:15	17° $\mathbb{C}$ 20'52	0°42'10				
	16533 Aug 11 04:26	15° $\mathbb{C}$		conjunction	16539 Jul 14 23:00	7° $\mathbb{D}$ 52'02	-0°26'01
direct	16533 Sep 20 17:18	12° $\mathbb{C}$ 23'45		minimum elong	16539 Jul 14 23:00	7° $\mathbb{D}$ 52'02	0°26'32
	16533 Oct 31 04:52	15° $\mathbb{C}$		morning rise	16539 Jul 27 19:19	10° $\mathbb{D}$ 41'16	
	16534 Jan 18 11:50	0° $\mathbb{H}$			16539 Aug 16 21:29	15° $\mathbb{D}$	
evening set	16534 Jan 25 16:00	1° $\mathbb{H}$ 38'51		retrograde	16539 Nov 27 23:14	28° $\mathbb{D}$ 08'01	
				opposition	16540 Jan 27 17:42	23° $\mathbb{D}$ 13'51	-0°43'22
conjunction	16534 Feb 08 03:50	4° $\mathbb{H}$ 46'17	0°30'31	min. Earth dist.	16540 Jan 29 08:34	23° $\mathbb{D}$ 01'19	4.32211 AU
minimum elong	16534 Feb 08 03:50	4° $\mathbb{H}$ 46'17	0°30'49	direct	16540 Mar 29 10:52	18° $\mathbb{D}$ 13'34	
max. Earth dist.	16534 Feb 10 15:33	5° $\mathbb{H}$ 20'54	6.11538 AU		16540 Jul 03 14:34	0° $\mathbb{N}$	
morning rise	16534 Feb 21 16:02	7° $\mathbb{H}$ 53'35		evening set	16540 Aug 01 17:41	6° $\mathbb{N}$ 21'03	
retrograde	16534 Jun 28 12:02	26° $\mathbb{H}$ 47'38		max. Earth dist.	16540 Aug 12 07:02	8° $\mathbb{N}$ 44'49	6.23770 AU
min. Earth dist.	16534 Aug 26 02:58	21° $\mathbb{H}$ 57'16	4.20436 AU				
opposition	16534 Aug 27 15:28	21° $\mathbb{H}$ 45'05	0°44'40	conjunction	16540 Aug 14 15:33	9° $\mathbb{N}$ 17'00	-0°30'56
direct	16534 Oct 26 10:03	16° $\mathbb{H}$ 46'31		minimum elong	16540 Aug 14 15:33	9° $\mathbb{N}$ 17'01	0°31'12
	16535 Feb 06 01:16	0° $\mathbb{Y}$		morning rise	16540 Aug 27 13:08	12° $\mathbb{N}$ 13'08	
evening set	16535 Mar 01 07:45	5° $\mathbb{Y}$ 02'51			16540 Dec 09 20:33	0° $\mathbb{U}$	
				retrograde	16540 Dec 31 07:20	0° $\mathbb{U}$ 43'39	
conjunction	16535 Mar 14 16:48	8° $\mathbb{Y}$ 01'28	0°27'29		16541 Jan 21 18:29	30° $\mathbb{R}$ $\mathbb{N}$	
minimum elong	16535 Mar 14 16:49	8° $\mathbb{Y}$ 01'28	0°27'28	opposition	16541 Mar 01 13:08	25° $\mathbb{N}$ 48'43	-0°44'16
max. Earth dist.	16535 Mar 16 16:00	8° $\mathbb{Y}$ 27'45	6.29242 AU	min. Earth dist.	16541 Mar 03 01:05	25° $\mathbb{N}$ 36'59	4.14792 AU
morning rise	16535 Mar 28 01:43	10° $\mathbb{Y}$ 59'38		direct	16541 May 01 03:20	20° $\mathbb{N}$ 49'37	
retrograde	16535 Jul 30 01:20	28° $\mathbb{Y}$ 44'25			16541 Jul 21 12:16	0° $\mathbb{U}$	
opposition	16535 Sep 28 18:55	23° $\mathbb{Y}$ 43'56	0°33'01	evening set	16541 Sep 04 11:33	9° $\mathbb{U}$ 54'22	
min. Earth dist.	16535 Sep 27 18:26	23° $\mathbb{Y}$ 51'59	4.37059 AU	max. Earth dist.	16541 Sep 15 16:43	12° $\mathbb{U}$ 33'14	6.06215 AU
direct	16535 Nov 28 17:17	18° $\mathbb{Y}$ 44'23					
	16536 Mar 02 19:12	0° $\mathbb{B}$		conjunction	16541 Sep 17 12:27	12° $\mathbb{U}$ 59'09	-0°26'08
evening set	16536 Apr 01 17:16	6° $\mathbb{B}$ 13'25		minimum elong	16541 Sep 17 12:27	12° $\mathbb{U}$ 59'10	0°26'03
				morning rise	16541 Sep 30 13:43	16° $\mathbb{U}$ 04'31	
conjunction	16536 Apr 14 22:54	9° $\mathbb{B}$ 04'51	0°16'24		16541 Dec 05 13:10	0° $\mathbb{M}$	
minimum elong	16536 Apr 14 22:54	9° $\mathbb{B}$ 04'51	0°16'03	retrograde	16542 Feb 06 09:12	5° $\mathbb{M}$ 48'51	
max. Earth dist.	16536 Apr 15 22:33	9° $\mathbb{B}$ 17'38	6.43586 AU	opposition	16542 Apr 06 22:47	0° $\mathbb{M}$ 52'29	-0°29'37
morning rise	16536 Apr 28 03:22	11° $\mathbb{B}$ 55'34		min. Earth dist.	16542 Apr 07 20:42	0° $\mathbb{M}$ 45'14	3.98597 AU
	16536 May 12 15:48	15° $\mathbb{B}$			16542 Apr 13 13:52	30° $\mathbb{R}$ $\mathbb{U}$	
retrograde	16536 Aug 28 02:46	28° $\mathbb{B}$ 52'27		direct	16542 Jun 05 07:36	25° $\mathbb{U}$ 55'18	
opposition	16536 Oct 28 05:45	23° $\mathbb{B}$ 54'41	0°12'59		16542 Jul 26 08:45	0° $\mathbb{M}$	
min. Earth dist.	16536 Oct 27 23:13	23° $\mathbb{B}$ 56'48	4.48222 AU		16542 Oct 06 23:48	15° $\mathbb{M}$	
direct	16536 Dec 29 02:23	18° $\mathbb{B}$ 54'41		evening set	16542 Oct 10 14:58	15° $\mathbb{M}$ 52'37	
	16537 Apr 03 10:57	0° $\mathbb{II}$					
evening set	16537 May 02 12:29	5° $\mathbb{II}$ 57'33		conjunction	16542 Oct 23 20:37	19° $\mathbb{M}$ 05'48	-0°11'30



minimum elong	16542 Oct 23 20:37	19° $\mathbb{M}$ 05'48	0°11'04	behind sun begin	16548 Apr 19 03:45	13° $\mathcal{B}$ 24'47	
behind sun begin	16542 Oct 23 14:26	19° $\mathbb{M}$ 02'03		behind sun end	16548 Apr 19 11:35	13° $\mathcal{B}$ 28'59	
behind sun end	16542 Oct 24 02:49	19° $\mathbb{M}$ 09'33		max. Earth dist.	16548 Apr 20 03:17	13° $\mathcal{B}$ 37'28	6.44690 AU
max. Earth dist.	16542 Oct 23 05:27	18° $\mathbb{M}$ 56'34	5.92955 AU		16548 Apr 26 12:21	15° $\mathcal{B}$	
morning rise	16542 Nov 06 03:33	22° $\mathbb{M}$ 19'53		morning rise	16548 May 02 11:45	16° $\mathcal{B}$ 17'00	
	16542 Dec 08 21:36	0° $\mathcal{A}$			16548 Jul 16 14:34	0° $\mathbb{I}$	
retrograde	16543 Mar 17 02:42	12° $\mathcal{A}$ 59'32		retrograde	16548 Sep 01 07:05	3° $\mathbb{I}$ 10'26	
opposition	16543 May 15 07:08	8° $\mathcal{A}$ 00'50	-0°02'13		16548 Oct 18 07:48	30° $\mathcal{R}\mathcal{B}$	
min. Earth dist.	16543 May 15 03:44	8° $\mathcal{A}$ 01'58	3.89784 AU	opposition	16548 Nov 01 10:49	28° $\mathcal{B}$ 12'56	0°09'50
asc. node	16543 Jun 13 10:25	4° $\mathcal{A}$ 30'32		min. Earth dist.	16548 Nov 01 06:36	28° $\mathcal{B}$ 14'18	4.48921 AU
direct	16543 Jul 12 15:25	3° $\mathcal{A}$ 05'08		direct	16549 Jan 02 09:45	23° $\mathcal{B}$ 12'50	
evening set	16543 Nov 17 13:42	23° $\mathcal{A}$ 25'45			16549 Mar 15 06:27	0° $\mathbb{I}$	
				desc. node	16549 Apr 23 17:58	7° $\mathbb{I}$ 30'37	
conjunction	16543 Nov 30 23:53	26° $\mathcal{A}$ 42'50	0°08'15	evening set	16549 May 06 18:47	10° $\mathbb{I}$ 14'27	
minimum elong	16543 Nov 30 23:53	26° $\mathcal{A}$ 42'50	0°08'52				
behind sun begin	16543 Nov 30 16:44	26° $\mathcal{A}$ 38'28		conjunction	16549 May 19 20:20	13° $\mathbb{I}$ 01'23	-0°01'04
behind sun end	16543 Dec 01 07:02	26° $\mathcal{A}$ 47'12		minimum elong	16549 May 19 20:21	13° $\mathbb{I}$ 01'24	0°01'38
max. Earth dist.	16543 Dec 01 22:13	26° $\mathcal{A}$ 56'31	5.89520 AU	behind sun begin	16549 May 19 12:18	12° $\mathbb{I}$ 57'08	
morning rise	16543 Dec 14 11:48	0° $\mathcal{B}$ 00'46		behind sun end	16549 May 20 04:24	13° $\mathbb{I}$ 05'40	
	16543 Dec 14 10:32	0° $\mathcal{B}$		max. Earth dist.	16549 May 19 12:33	12° $\mathbb{I}$ 57'16	6.51071 AU
retrograde	16544 Apr 23 16:25	20° $\mathcal{B}$ 46'37		morning rise	16549 Jun 01 20:21	15° $\mathbb{I}$ 47'38	
opposition	16544 Jun 21 21:11	15° $\mathcal{B}$ 45'14	0°26'32		16549 Aug 21 09:09	0° $\mathcal{B}$	
min. Earth dist.	16544 Jun 20 19:00	15° $\mathcal{B}$ 54'06	3.92211 AU	retrograde	16549 Sep 30 22:03	2° $\mathcal{B}$ 24'37	
direct	16544 Aug 19 02:01	10° $\mathcal{B}$ 49'20			16549 Nov 10 14:30	30° $\mathcal{R}\mathbb{I}$	
	16544 Dec 21 06:00	0° $\approx$		opposition	16549 Dec 01 05:10	27° $\mathbb{I}$ 29'13	-0°12'54
evening set	16544 Dec 24 18:21	0° $\approx$ 50'12		min. Earth dist.	16549 Dec 01 19:53	27° $\mathbb{I}$ 24'30	4.50983 AU
				direct	16550 Feb 01 14:34	22° $\mathbb{I}$ 28'49	
conjunction	16545 Jan 07 06:51	4° $\approx$ 04'29	0°24'26		16550 Apr 18 19:57	0° $\mathcal{B}$	
minimum elong	16545 Jan 07 06:50	4° $\approx$ 04'29	0°24'58	evening set	16550 Jun 05 21:14	9° $\mathcal{B}$ 31'16	
max. Earth dist.	16545 Jan 09 10:57	4° $\approx$ 35'44	5.97495 AU	max. Earth dist.	16550 Jun 17 09:04	11° $\mathcal{B}$ 59'14	6.48630 AU
morning rise	16545 Jan 20 20:23	7° $\approx$ 19'05					
	16545 Feb 23 10:17	15° $\approx$		conjunction	16550 Jun 18 19:49	12° $\mathcal{B}$ 17'56	-0°16'07
retrograde	16545 May 30 05:47	27° $\approx$ 18'05		minimum elong	16550 Jun 18 19:49	12° $\mathcal{B}$ 17'56	0°16'43
min. Earth dist.	16545 Jul 27 06:11	22° $\approx$ 27'53	4.04784 AU	morning rise	16550 Jul 01 17:10	15° $\mathcal{B}$ 04'05	
opposition	16545 Jul 28 19:48	22° $\approx$ 15'12	0°43'32		16550 Sep 25 11:24	0° $\mathcal{Q}$	
direct	16545 Sep 25 15:08	17° $\approx$ 17'56		retrograde	16550 Oct 31 09:05	1° $\mathcal{Q}$ 54'49	
	16546 Jan 01 14:50	0° $\mathcal{H}$			16550 Dec 06 06:44	30° $\mathcal{R}\mathcal{B}$	
evening set	16546 Jan 30 12:08	6° $\mathcal{H}$ 27'19		opposition	16550 Dec 31 11:51	27° $\mathcal{B}$ 00'30	-0°32'36
				min. Earth dist.	16551 Jan 01 19:11	26° $\mathcal{B}$ 50'27	4.44195 AU
conjunction	16546 Feb 12 23:41	9° $\mathcal{H}$ 33'51	0°30'44	direct	16551 Mar 03 19:08	21° $\mathcal{B}$ 59'53	
minimum elong	16546 Feb 12 23:41	9° $\mathcal{H}$ 33'51	0°30'59		16551 May 20 22:48	0° $\mathcal{Q}$	
max. Earth dist.	16546 Feb 15 10:14	10° $\mathcal{H}$ 07'37	6.13345 AU	evening set	16551 Jul 06 09:28	9° $\mathcal{Q}$ 27'41	
morning rise	16546 Feb 26 11:46	12° $\mathcal{H}$ 40'15		max. Earth dist.	16551 Jul 17 02:53	11° $\mathcal{Q}$ 49'11	6.37893 AU
	16546 Jun 02 17:39	0° $\mathcal{Y}$					
retrograde	16546 Jul 02 22:30	1° $\mathcal{Y}$ 26'33		conjunction	16551 Jul 19 06:48	12° $\mathcal{Q}$ 17'49	-0°27'11
	16546 Aug 02 01:07	30° $\mathcal{R}\mathcal{H}$		minimum elong	16551 Jul 19 06:48	12° $\mathcal{Q}$ 17'48	0°27'41
min. Earth dist.	16546 Aug 30 16:17	26° $\mathcal{H}$ 36'12	4.22250 AU		16551 Jul 31 13:04	15° $\mathcal{Q}$	
opposition	16546 Sep 01 04:13	26° $\mathcal{H}$ 24'13	0°43'50	morning rise	16551 Aug 01 03:07	15° $\mathcal{Q}$ 07'43	
direct	16546 Oct 31 01:23	21° $\mathcal{H}$ 25'31			16551 Oct 21 00:21	0° $\mathbb{N}$	
	16547 Jan 18 15:56	0° $\mathcal{Y}$		retrograde	16551 Dec 02 12:47	2° $\mathbb{N}$ 41'22	
evening set	16547 Mar 05 21:57	9° $\mathcal{Y}$ 36'39			16552 Jan 14 10:45	30° $\mathcal{R}\mathcal{Q}$	
				opposition	16552 Feb 01 07:07	27° $\mathcal{Q}$ 47'05	-0°44'18
conjunction	16547 Mar 19 06:46	12° $\mathcal{Y}$ 34'26	0°26'22	min. Earth dist.	16552 Feb 02 21:34	27° $\mathcal{Q}$ 34'40	4.30119 AU
minimum elong	16547 Mar 19 06:47	12° $\mathcal{Y}$ 34'26	0°26'17	direct	16552 Apr 02 20:40	22° $\mathcal{Q}$ 46'53	
max. Earth dist.	16547 Mar 21 04:00	12° $\mathcal{Y}$ 59'33	6.30940 AU		16552 Jun 14 08:20	0° $\mathbb{N}$	
morning rise	16547 Apr 01 15:05	15° $\mathcal{Y}$ 31'42		evening set	16552 Aug 06 07:00	11° $\mathbb{N}$ 01'11	
	16547 Jun 18 02:43	0° $\mathcal{B}$		max. Earth dist.	16552 Aug 16 22:08	13° $\mathbb{N}$ 26'40	6.21467 AU
retrograde	16547 Aug 03 08:41	3° $\mathcal{B}$ 10'18					
	16547 Sep 18 19:58	30° $\mathcal{R}\mathcal{Y}$		conjunction	16552 Aug 19 05:08	13° $\mathbb{N}$ 58'10	-0°30'52
min. Earth dist.	16547 Oct 02 04:27	28° $\mathcal{Y}$ 17'32	4.38514 AU	minimum elong	16552 Aug 19 05:08	13° $\mathbb{N}$ 58'10	0°31'05
opposition	16547 Oct 03 02:48	28° $\mathcal{Y}$ 10'13	0°30'37	morning rise	16552 Sep 01 02:57	16° $\mathbb{N}$ 55'22	
direct	16547 Dec 03 04:46	23° $\mathcal{Y}$ 10'38			16552 Nov 04 02:36	0° $\mathcal{B}$	
	16548 Feb 12 10:35	0° $\mathcal{B}$		retrograde	16553 Jan 05 07:51	5° $\mathcal{B}$ 35'28	
evening set	16548 Apr 06 02:37	10° $\mathcal{B}$ 36'05		opposition	16553 Mar 06 10:37	0° $\mathcal{B}$ 40'24	-0°43'08
				min. Earth dist.	16553 Mar 07 22:31	0° $\mathcal{B}$ 28'39	4.12436 AU
conjunction	16548 Apr 19 07:40	13° $\mathcal{B}$ 26'53	0°14'26		16553 Mar 11 14:22	30° $\mathcal{R}\mathbb{N}$	
minimum elong	16548 Apr 19 07:40	13° $\mathcal{B}$ 26'53	0°14'04	direct	16553 May 05 22:03	25° $\mathbb{N}$ 41'29	

	16553 Jun 28 09:14	0°♏			16558 Dec 25 22:11	0°♑	
evening set	16553 Sep 09 08:21	14°♏53'58		evening set	16559 Mar 10 13:40	14°♑13'32	
max. Earth dist.	16553 Sep 20 15:49	17°♏35'01	6.04018 AU				
				conjunction	16559 Mar 23 21:57	17°♑10'09	0°25'03
conjunction	16553 Sep 22 09:49	18°♏00'00	-0°24'36	minimum elong	16559 Mar 23 21:58	17°♑10'09	0°24'54
minimum elong	16553 Sep 22 09:50	18°♏00'01	0°24'28	max. Earth dist.	16559 Mar 25 17:02	17°♑33'55	6.33306 AU
morning rise	16553 Oct 05 11:54	21°♏06'42		morning rise	16559 Apr 06 05:43	20°♑06'11	
	16553 Nov 13 18:54	0°♎			16559 May 24 20:41	0°♎	
retrograde	16554 Feb 11 15:28	11°♎00'26		retrograde	16559 Aug 07 13:48	7°♎36'18	
opposition	16554 Apr 12 04:03	6°♎03'46	-0°26'21	opposition	16559 Oct 07 10:47	2°♎36'30	0°28'00
min. Earth dist.	16554 Apr 12 22:17	5°♎57'43	3.96787 AU	min. Earth dist.	16559 Oct 06 13:51	2°♎43'21	4.40590 AU
direct	16554 Jun 10 07:43	1°♎06'49			16559 Oct 28 11:53	30°♎♑	
	16554 Sep 19 17:24	15°♎		direct	16559 Dec 07 15:40	27°♑36'48	
evening set	16554 Oct 15 19:14	21°♎09'49			16560 Jan 17 02:35	0°♎	
				evening set	16560 Apr 10 11:26	14°♎56'41	
conjunction	16554 Oct 29 01:33	24°♎23'55	-0°08'52		16560 Apr 10 17:38	15°♎	
minimum elong	16554 Oct 29 01:33	24°♎23'55	0°08'25				
behind sun begin	16554 Oct 28 18:17	24°♎19'30		conjunction	16560 Apr 23 15:58	17°♎46'37	0°12'24
behind sun end	16554 Oct 29 08:48	24°♎28'20		minimum elong	16560 Apr 23 15:59	17°♎46'37	0°12'00
max. Earth dist.	16554 Oct 28 14:56	24°♎17'27	5.91720 AU	behind sun begin	16560 Apr 23 10:29	17°♎43'41	
morning rise	16554 Nov 11 09:18	27°♎38'58		behind sun end	16560 Apr 23 21:28	17°♎49'34	
	16554 Nov 21 03:12	0°♎		max. Earth dist.	16560 Apr 24 08:30	17°♎55'31	6.46339 AU
retrograde	16555 Mar 22 12:44	18°♎23'23		morning rise	16560 May 06 19:19	20°♎35'51	
asc. node	16555 Apr 23 19:34	16°♎42'04			16560 Jun 23 02:02	0°♎	
opposition	16555 May 20 16:32	13°♎24'16	0°02'04	retrograde	16560 Sep 05 09:57	7°♎24'14	
min. Earth dist.	16555 May 20 10:11	13°♎26'24	3.89265 AU	opposition	16560 Nov 05 14:42	2°♎27'05	0°06'40
direct	16555 Jul 17 23:55	8°♎28'35		min. Earth dist.	16560 Nov 05 13:20	2°♎27'32	4.50030 AU
evening set	16555 Nov 22 21:53	28°♎49'43			16560 Nov 25 12:03	30°♎♎	
	16555 Nov 27 17:12	0°♎		direct	16561 Jan 06 16:47	27°♎26'57	
					16561 Feb 18 00:26	0°♎	
conjunction	16555 Dec 06 08:45	2°♎06'58	0°10'56	desc. node	16561 Mar 02 07:55	1°♎34'01	
minimum elong	16555 Dec 06 08:45	2°♎06'57	0°11'32	evening set	16561 May 10 23:19	14°♎26'09	
behind sun begin	16555 Dec 06 02:46	2°♎03'19		max. Earth dist.	16561 May 23 11:01	17°♎05'39	6.51546 AU
behind sun end	16555 Dec 06 14:43	2°♎10'36					
max. Earth dist.	16555 Dec 07 13:17	2°♎24'25	5.89787 AU	conjunction	16561 May 24 00:15	17°♎12'41	-0°03'16
morning rise	16555 Dec 19 21:00	5°♎24'56		minimum elong	16561 May 24 00:15	17°♎12'41	0°03'51
retrograde	16556 Apr 28 23:54	26°♎07'51		behind sun begin	16561 May 23 16:18	17°♎08'29	
min. Earth dist.	16556 Jun 25 23:55	21°♎15'44	3.93241 AU	behind sun end	16561 May 24 08:11	17°♎16'54	
opposition	16556 Jun 27 04:11	21°♎06'10	0°29'51	morning rise	16561 Jun 05 23:55	19°♎58'36	
direct	16556 Aug 24 09:33	16°♎10'08			16561 Jul 27 07:12	0°♎	
	16556 Dec 03 17:50	0°♎		retrograde	16561 Oct 05 01:35	6°♎34'52	
evening set	16556 Dec 30 00:49	6°♎06'02		opposition	16561 Dec 05 08:26	1°♎39'39	-0°15'53
				min. Earth dist.	16561 Dec 06 02:12	1°♎33'57	4.50791 AU
conjunction	16557 Jan 12 13:17	9°♎19'33	0°25'59		16561 Dec 18 13:25	30°♎♎	
minimum elong	16557 Jan 12 13:17	9°♎19'33	0°26'30	direct	16562 Feb 05 18:55	26°♎39'07	
max. Earth dist.	16557 Jan 14 19:22	9°♎51'50	5.99163 AU		16562 Mar 26 17:06	0°♎	
morning rise	16557 Jan 26 02:59	12°♎33'21		evening set	16562 Jun 10 00:50	13°♎42'56	
	16557 Feb 05 12:55	15°♎		max. Earth dist.	16562 Jun 21 10:03	16°♎09'44	6.47770 AU
	16557 Apr 26 05:07	0°♎					
retrograde	16557 Jun 04 02:34	2°♎23'37		conjunction	16562 Jun 22 23:17	16°♎29'49	-0°17'56
	16557 Jul 13 01:24	30°♎♎		minimum elong	16562 Jun 22 23:16	16°♎29'48	0°18'31
min. Earth dist.	16557 Aug 01 04:27	27°♎33'50	4.06920 AU	morning rise	16562 Jul 05 20:13	19°♎16'10	
opposition	16557 Aug 02 19:32	27°♎20'39	0°44'34		16562 Aug 29 13:16	0°♎	
direct	16557 Sep 30 17:08	22°♎23'10		retrograde	16562 Nov 04 14:49	6°♎10'42	
	16557 Dec 12 15:18	0°♎		opposition	16563 Jan 04 17:56	1°♎16'27	-0°34'45
evening set	16558 Feb 04 11:51	11°♎24'40		min. Earth dist.	16563 Jan 06 02:33	1°♎06'00	4.42706 AU
					16563 Jan 14 19:01	30°♎♎	
conjunction	16558 Feb 17 23:09	14°♎30'00	0°30'42	direct	16563 Mar 07 22:59	26°♎15'51	
minimum elong	16558 Feb 17 23:10	14°♎30'00	0°30'55		16563 Apr 28 08:47	0°♎	
max. Earth dist.	16558 Feb 20 09:06	15°♎03'16	6.15776 AU	evening set	16563 Jul 10 16:13	13°♎48'51	
morning rise	16558 Mar 03 10:46	17°♎35'07			16563 Jul 16 01:23	15°♎	
	16558 May 02 20:27	0°♑		max. Earth dist.	16563 Jul 21 07:36	16°♎09'53	6.35858 AU
retrograde	16558 Jul 07 12:56	6°♑11'13					
min. Earth dist.	16558 Sep 04 09:26	1°♑20'28	4.24744 AU	conjunction	16563 Jul 23 13:27	16°♎39'44	-0°28'11
opposition	16558 Sep 05 19:37	1°♑09'05	0°42'39	minimum elong	16563 Jul 23 13:27	16°♎39'44	0°28'38
	16558 Sep 14 13:16	30°♎♎		morning rise	16563 Aug 05 09:53	19°♎30'29	
direct	16558 Nov 04 22:02	26°♎10'13			16563 Sep 25 18:53	0°♎	

retrograde	16563 Dec 07 04:53	7° $\mathbb{M}$ 12'25		morning rise	16569 Jan 31 10:45	17° $\approx$ 51'23	
opposition	16564 Feb 05 20:11	2° $\mathbb{M}$ 18'06	-0°44'58		16569 Mar 28 16:38	0° $\mathbb{H}$	
min. Earth dist.	16564 Feb 07 12:20	2° $\mathbb{M}$ 05'07	4.27638 AU	retrograde	16569 Jun 09 01:38	7° $\mathbb{H}$ 31'17	
	16564 Feb 24 07:49	30° $\mathbb{R}$ $\mathbb{Q}$		min. Earth dist.	16569 Aug 06 05:14	2° $\mathbb{H}$ 41'16	4.09463 AU
direct	16564 Apr 07 07:43	27° $\mathbb{Q}$ 17'59		opposition	16569 Aug 07 19:53	2° $\mathbb{H}$ 28'15	0°45'13
	16564 May 19 19:34	0° $\mathbb{M}$			16569 Aug 27 02:40	30° $\mathbb{R}$ $\approx$	
evening set	16564 Aug 10 20:08	15° $\mathbb{M}$ 40'40		direct	16569 Oct 05 22:41	27° $\approx$ 30'31	
max. Earth dist.	16564 Aug 21 11:10	18° $\mathbb{M}$ 07'00	6.18732 AU		16569 Nov 14 18:37	0° $\mathbb{H}$	
				evening set	16570 Feb 09 11:44	16° $\mathbb{H}$ 22'46	
conjunction	16564 Aug 23 18:43	18° $\mathbb{M}$ 38'59	-0°30'36				
minimum elong	16564 Aug 23 18:43	18° $\mathbb{M}$ 38'59	0°30'46	conjunction	16570 Feb 22 22:42	19° $\mathbb{H}$ 26'44	0°30'26
morning rise	16564 Sep 05 17:04	21° $\mathbb{M}$ 37'34		minimum elong	16570 Feb 22 22:42	19° $\mathbb{H}$ 26'44	0°30'36
	16564 Oct 13 22:07	0° $\mathbb{Q}$		max. Earth dist.	16570 Feb 25 08:50	19° $\mathbb{H}$ 59'53	6.18521 AU
retrograde	16565 Jan 10 08:07	10° $\mathbb{Q}$ 29'08		morning rise	16570 Mar 08 09:46	22° $\mathbb{H}$ 30'24	
opposition	16565 Mar 11 09:04	5° $\mathbb{Q}$ 33'56	-0°41'43		16570 Apr 11 23:31	0° $\mathbb{Y}$	
min. Earth dist.	16565 Mar 12 18:50	5° $\mathbb{Q}$ 22'52	4.09665 AU	retrograde	16570 Jul 12 00:24	10° $\mathbb{Y}$ 55'18	
direct	16565 May 10 14:39	0° $\mathbb{Q}$ 35'17		min. Earth dist.	16570 Sep 09 00:28	6° $\mathbb{Y}$ 04'36	4.27436 AU
evening set	16565 Sep 14 06:49	19° $\mathbb{Q}$ 57'22		opposition	16570 Sep 10 10:09	5° $\mathbb{Y}$ 53'25	0°41'09
max. Earth dist.	16565 Sep 25 18:21	22° $\mathbb{Q}$ 41'47	6.01466 AU	direct	16570 Nov 09 15:47	0° $\mathbb{Y}$ 54'23	
				evening set	16571 Mar 15 04:43	18° $\mathbb{Y}$ 49'38	
conjunction	16565 Sep 27 08:55	23° $\mathbb{Q}$ 04'53	-0°22'54				
minimum elong	16565 Sep 27 08:56	23° $\mathbb{Q}$ 04'53	0°22'42	conjunction	16571 Mar 28 12:23	21° $\mathbb{Y}$ 45'00	0°23'32
morning rise	16565 Oct 10 11:50	26° $\mathbb{Q}$ 13'07		minimum elong	16571 Mar 28 12:23	21° $\mathbb{Y}$ 45'01	0°23'23
	16565 Oct 26 13:44	0° $\mathbb{M}$		max. Earth dist.	16571 Mar 30 03:13	22° $\mathbb{Y}$ 06'21	6.35728 AU
	16566 Jan 19 16:04	15° $\mathbb{M}$		morning rise	16571 Apr 10 19:31	24° $\mathbb{Y}$ 39'49	
retrograde	16566 Feb 17 02:04	16° $\mathbb{M}$ 17'56			16571 May 05 23:34	0° $\mathbb{B}$	
	16566 Mar 17 11:07	15° $\mathbb{R}$ $\mathbb{M}$		retrograde	16571 Aug 11 21:00	12° $\mathbb{B}$ 01'42	
opposition	16566 Apr 17 11:50	11° $\mathbb{M}$ 21'00	-0°22'51	opposition	16571 Oct 11 18:29	7° $\mathbb{B}$ 02'17	0°25'12
min. Earth dist.	16566 Apr 18 03:27	11° $\mathbb{M}$ 15'48	3.94712 AU	min. Earth dist.	16571 Oct 11 01:02	7° $\mathbb{B}$ 07'59	4.42568 AU
direct	16566 Jun 15 11:55	6° $\mathbb{M}$ 24'19		direct	16571 Dec 12 03:54	2° $\mathbb{B}$ 02'28	
	16566 Aug 30 23:17	15° $\mathbb{M}$			16572 Mar 25 07:02	15° $\mathbb{B}$	
evening set	16566 Oct 21 02:28	26° $\mathbb{M}$ 34'08		evening set	16572 Apr 14 19:41	19° $\mathbb{B}$ 17'20	
conjunction	16566 Nov 03 09:44	29° $\mathbb{M}$ 49'20	-0°06'09	conjunction	16572 Apr 27 23:40	22° $\mathbb{B}$ 06'31	0°10'16
minimum elong	16566 Nov 03 09:44	29° $\mathbb{M}$ 49'20	0°05'39	minimum elong	16572 Apr 27 23:41	22° $\mathbb{B}$ 06'31	0°09'49
behind sun begin	16566 Nov 03 01:47	29° $\mathbb{M}$ 44'29		behind sun begin	16572 Apr 27 17:07	22° $\mathbb{B}$ 03'01	
behind sun end	16566 Nov 03 17:41	29° $\mathbb{M}$ 54'11		behind sun end	16572 Apr 28 06:15	22° $\mathbb{B}$ 10'02	
max. Earth dist.	16566 Nov 03 05:47	29° $\mathbb{M}$ 46'57	5.90360 AU	max. Earth dist.	16572 Apr 28 11:54	22° $\mathbb{B}$ 13'04	6.47730 AU
	16566 Nov 04 03:09	0° $\mathbb{X}$		morning rise	16572 May 11 02:28	24° $\mathbb{B}$ 55'00	
morning rise	16566 Nov 16 18:15	3° $\mathbb{X}$ 05'25			16572 Jun 04 14:37	0° $\mathbb{I}$	
asc. node	16567 Mar 04 21:40	23° $\mathbb{X}$ 01'30		retrograde	16572 Sep 09 12:40	11° $\mathbb{I}$ 39'28	
retrograde	16567 Mar 28 02:47	23° $\mathbb{X}$ 54'43		opposition	16572 Nov 09 18:45	6° $\mathbb{I}$ 42'36	0°03'24
opposition	16567 May 26 04:40	18° $\mathbb{X}$ 55'17	0°06'23	min. Earth dist.	16572 Nov 09 19:45	6° $\mathbb{I}$ 42'16	4.50778 AU
min. Earth dist.	16567 May 25 18:33	18° $\mathbb{X}$ 58'42	3.88812 AU	desc. node	16573 Jan 07 13:54	1° $\mathbb{I}$ 43'21	
direct	16567 Jul 23 09:46	13° $\mathbb{X}$ 59'45		direct	16573 Jan 10 21:52	1° $\mathbb{I}$ 42'20	
	16567 Nov 10 05:11	0° $\mathbb{Z}$		evening set	16573 May 15 04:26	18° $\mathbb{I}$ 40'24	
evening set	16567 Nov 28 09:12	4° $\mathbb{Z}$ 21'02					
				conjunction	16573 May 28 05:03	21° $\mathbb{I}$ 26'45	-0°05'30
conjunction	16567 Dec 11 20:24	7° $\mathbb{Z}$ 38'15	0°13'32	minimum elong	16573 May 28 05:02	21° $\mathbb{I}$ 26'44	0°06'04
minimum elong	16567 Dec 11 20:24	7° $\mathbb{Z}$ 38'15	0°14'08	behind sun begin	16573 May 27 21:25	21° $\mathbb{I}$ 22'42	
behind sun begin	16567 Dec 11 16:21	7° $\mathbb{Z}$ 35'47		behind sun end	16573 May 28 12:39	21° $\mathbb{I}$ 30'47	
behind sun end	16567 Dec 12 00:26	7° $\mathbb{Z}$ 40'42		max. Earth dist.	16573 May 27 12:47	21° $\mathbb{I}$ 18'05	6.51602 AU
max. Earth dist.	16567 Dec 13 05:11	7° $\mathbb{Z}$ 58'17	5.90268 AU	morning rise	16573 Jun 10 04:05	24° $\mathbb{I}$ 12'25	
morning rise	16567 Dec 25 09:18	10° $\mathbb{Z}$ 56'12			16573 Jul 08 08:58	0° $\mathbb{E}$	
	16568 Apr 03 02:45	0° $\approx$		retrograde	16573 Oct 09 06:07	10° $\mathbb{E}$ 49'18	
retrograde	16568 May 04 06:13	1° $\approx$ 34'55		opposition	16573 Dec 09 12:58	5° $\mathbb{E}$ 54'18	-0°18'54
	16568 Jun 04 08:55	30° $\mathbb{R}$ $\mathbb{Z}$		min. Earth dist.	16573 Dec 10 09:31	5° $\mathbb{E}$ 47'43	4.50157 AU
min. Earth dist.	16568 Jul 01 05:14	26° $\mathbb{Z}$ 43'41	3.94602 AU	direct	16574 Feb 09 23:44	0° $\mathbb{E}$ 53'42	
opposition	16568 Jul 02 13:05	26° $\mathbb{Z}$ 32'54	0°32'54	evening set	16574 Jun 14 06:34	18° $\mathbb{E}$ 00'16	
direct	16568 Aug 29 18:55	21° $\mathbb{Z}$ 36'42		max. Earth dist.	16574 Jun 25 10:54	20° $\mathbb{E}$ 24'55	6.46470 AU
	16568 Nov 13 12:46	0° $\approx$					
evening set	16569 Jan 04 08:48	11° $\approx$ 26'11		conjunction	16574 Jun 27 04:36	20° $\mathbb{E}$ 47'29	-0°19'44
				minimum elong	16574 Jun 27 04:36	20° $\mathbb{E}$ 47'28	0°20'19
conjunction	16569 Jan 17 21:16	14° $\approx$ 38'41	0°27'20	morning rise	16574 Jul 10 01:31	23° $\mathbb{E}$ 34'17	
minimum elong	16569 Jan 17 21:15	14° $\approx$ 38'41	0°27'47		16574 Aug 10 00:39	0° $\mathbb{Q}$	
	16569 Jan 19 09:09	15° $\approx$		retrograde	16574 Nov 09 02:09	10° $\mathbb{Q}$ 34'04	
max. Earth dist.	16569 Jan 20 05:40	15° $\approx$ 12'11	6.01250 AU	opposition	16575 Jan 09 03:08	5° $\mathbb{Q}$ 39'49	-0°36'49

min. Earth dist.	16575 Jan 10 14:02	5°♌28'36	4.40804 AU			16581 Jan 02 13:34	15°♏	
direct	16575 Mar 12 06:57	0°♌39'08		evening set		16581 Jan 09 14:18	16°♏38'42	
	16575 Jun 29 21:04	15°♌						
evening set	16575 Jul 15 01:55	18°♌18'29		conjunction		16581 Jan 23 02:42	19°♏49'57	0°28'26
max. Earth dist.	16575 Jul 25 16:30	20°♌39'47	6.33485 AU	minimum elong		16581 Jan 23 02:41	19°♏49'57	0°28'51
				max. Earth dist.		16581 Jan 25 13:46	20°♏24'48	6.03813 AU
conjunction	16575 Jul 27 23:22	21°♌10'21	-0°29'03	morning rise		16581 Feb 05 15:52	23°♏01'17	
minimum elong	16575 Jul 27 23:21	21°♌10'21	0°29'28			16581 Mar 08 12:57	0°♐	
morning rise	16575 Aug 09 19:50	24°♌02'04		retrograde		16581 Jun 13 19:38	12°♐29'18	
	16575 Sep 06 12:15	0°♐		min. Earth dist.		16581 Aug 11 01:12	7°♐39'35	4.12316 AU
retrograde	16575 Dec 11 23:07	11°♐53'21		opposition		16581 Aug 12 16:35	7°♐26'22	0°45'31
opposition	16576 Feb 10 13:10	6°♐58'57	-0°45'24	direct		16581 Oct 10 22:28	2°♐28'26	
min. Earth dist.	16576 Feb 12 04:49	6°♐46'06	4.24951 AU	evening set		16582 Feb 14 07:56	21°♐10'54	
direct	16576 Apr 11 19:51	1°♐58'58						
evening set	16576 Aug 15 13:39	20°♐30'37		conjunction		16582 Feb 27 18:19	24°♐13'24	0°29'58
max. Earth dist.	16576 Aug 26 06:04	22°♐58'42	6.15942 AU	minimum elong		16582 Feb 27 18:19	24°♐13'24	0°30'05
				max. Earth dist.		16582 Mar 02 01:01	24°♐44'24	6.21397 AU
conjunction	16576 Aug 28 12:31	23°♐30'16	-0°30'07	morning rise		16582 Mar 13 04:55	27°♐15'35	
minimum elong	16576 Aug 28 12:32	23°♐30'16	0°30'15			16582 Mar 25 12:51	0°♑	
morning rise	16576 Sep 10 11:29	26°♐30'17		retrograde		16582 Jul 16 10:02	15°♑29'36	
	16576 Sep 25 19:29	0°♑		opposition		16582 Sep 14 21:23	10°♑28'02	0°39'26
retrograde	16577 Jan 15 14:20	15°♑33'27		min. Earth dist.		16582 Sep 13 14:32	10°♑38'15	4.30086 AU
opposition	16577 Mar 16 11:58	10°♑38'03	-0°39'55	direct		16582 Nov 14 07:58	5°♑28'52	
min. Earth dist.	16577 Mar 17 20:20	10°♑27'24	4.06998 AU	evening set		16583 Mar 19 16:08	23°♑16'35	
direct	16577 May 15 13:41	5°♑39'39						
evening set	16577 Sep 19 09:26	25°♑10'40		conjunction		16583 Apr 01 23:23	26°♑10'52	0°21'57
max. Earth dist.	16577 Oct 01 02:42	27°♑59'19	5.99202 AU	minimum elong		16583 Apr 01 23:24	26°♑10'52	0°21'44
				max. Earth dist.		16583 Apr 03 11:31	26°♑30'38	6.37961 AU
conjunction	16577 Oct 02 12:25	28°♑19'36	-0°20'56	morning rise		16583 Apr 15 05:46	29°♑04'32	
minimum elong	16577 Oct 02 12:25	28°♑19'37	0°20'42			16583 Apr 19 12:24	0°♒	
	16577 Oct 09 11:15	0°♒				16583 Jul 17 13:56	15°♒	
morning rise	16577 Oct 15 16:04	1°♒29'16		retrograde		16583 Aug 15 23:22	16°♒19'15	
	16577 Dec 16 22:42	15°♒				16583 Sep 14 06:00	15°♒♐	
retrograde	16578 Feb 22 15:05	21°♒43'28		opposition		16583 Oct 15 23:05	11°♒20'17	0°22'21
opposition	16578 Apr 22 23:00	16°♒46'17	-0°19'01	min. Earth dist.		16583 Oct 15 07:35	11°♒25'19	4.44253 AU
min. Earth dist.	16578 Apr 23 10:49	16°♒42'21	3.93133 AU	direct		16583 Dec 16 10:25	6°♒20'27	
	16578 May 06 12:54	15°♒♒				16584 Mar 07 14:48	15°♒	
direct	16578 Jun 20 18:41	11°♒49'56		evening set		16584 Apr 19 01:38	23°♒31'36	
	16578 Aug 04 04:11	15°♒						
	16578 Oct 17 23:27	0°♓		conjunction		16584 May 02 05:03	26°♒20'11	0°08'07
evening set	16578 Oct 26 12:32	2°♓04'12		minimum elong		16584 May 02 05:03	26°♒20'11	0°07'39
				behind sun begin		16584 May 01 21:46	26°♒16'18	
conjunction	16578 Nov 08 20:18	5°♓20'03	-0°03'18	behind sun end		16584 May 02 12:20	26°♒24'04	
minimum elong	16578 Nov 08 20:19	5°♓20'04	0°02'46	max. Earth dist.		16584 May 02 12:02	26°♒23'54	6.48762 AU
behind sun begin	16578 Nov 08 12:02	5°♓15'00		morning rise		16584 May 15 07:18	29°♒08'05	
behind sun end	16578 Nov 09 04:36	5°♓25'07				16584 May 19 09:19	0°♔	
max. Earth dist.	16578 Nov 08 21:12	5°♓20'35	5.89640 AU	retrograde		16584 Sep 13 16:20	15°♔50'03	
morning rise	16578 Nov 22 05:45	8°♓36'52		opposition		16584 Nov 13 21:20	10°♔53'35	0°00'12
asc. node	16579 Jan 12 16:38	20°♓18'28		min. Earth dist.		16584 Nov 14 02:18	10°♔51'59	4.51111 AU
retrograde	16579 Apr 02 14:44	29°♓27'56		desc. node		16584 Nov 17 04:22	10°♔28'10	
opposition	16579 May 31 17:39	24°♓28'03	0°10'42	direct		16585 Jan 15 02:50	5°♔53'19	
min. Earth dist.	16579 May 31 02:49	24°♓33'04	3.89067 AU	evening set		16585 May 19 08:17	22°♔51'40	
direct	16579 Jul 28 21:25	19°♓32'31		max. Earth dist.		16585 May 31 11:17	25°♔26'42	6.51213 AU
	16579 Oct 22 01:51	0°♕						
evening set	16579 Dec 03 20:30	9°♕50'56		conjunction		16585 Jun 01 08:29	25°♔38'01	-0°07'39
				minimum elong		16585 Jun 01 08:28	25°♔38'01	0°08'14
conjunction	16579 Dec 17 08:04	13°♕07'43	0°16'02	behind sun begin		16585 Jun 01 01:23	25°♔34'15	
minimum elong	16579 Dec 17 08:03	13°♕07'43	0°16'38	behind sun end		16585 Jun 01 15:33	25°♔41'47	
max. Earth dist.	16579 Dec 18 22:16	13°♕31'00	5.91476 AU	morning rise		16585 Jun 14 07:17	28°♔23'45	
morning rise	16579 Dec 30 21:06	16°♕25'07				16585 Jun 21 21:38	0°♕	
	16580 Mar 01 22:07	0°♖		retrograde		16585 Oct 13 11:16	15°♕02'54	
retrograde	16580 May 09 12:09	6°♖56'32		opposition		16585 Dec 13 17:25	10°♕08'05	-0°21'47
min. Earth dist.	16580 Jul 06 11:00	2°♖05'26	3.96598 AU	min. Earth dist.		16585 Dec 14 16:03	10°♕00'50	4.49089 AU
opposition	16580 Jul 07 20:06	1°♖54'13	0°35'39	direct		16586 Feb 14 02:44	5°♕07'29	
	16580 Jul 22 07:12	30°♒♑		evening set		16586 Jun 18 12:12	22°♕18'13	
direct	16580 Sep 04 05:16	26°♑57'50		max. Earth dist.		16586 Jun 29 15:09	24°♕42'37	6.44801 AU
	16580 Oct 17 18:13	0°♖						

conjunction	16586 Jul 01 10:13	25°☾06'00	-0°21'25	retrograde	16592 May 14 13:59	12°♊10'34	
minimum elong	16586 Jul 01 10:13	25°☾06'00	0°21'59	opposition	16592 Jul 12 23:36	7°♊08'03	0°38'03
morning rise	16586 Jul 14 06:50	27°☾53'22		min. Earth dist.	16592 Jul 11 12:16	7°♊20'00	3.98531 AU
	16586 Jul 24 03:13	0°♏		direct	16592 Sep 09 10:21	2°♊11'26	
retrograde	16586 Nov 13 13:31	14°♏59'42			16592 Dec 16 00:35	15°♊	
opposition	16587 Jan 13 13:06	10°♏05'34	-0°38'42	evening set	16593 Jan 14 16:55	21°♊44'26	
min. Earth dist.	16587 Jan 15 01:15	9°♏53'58	4.38645 AU				
direct	16587 Mar 16 14:03	5°♏05'01		conjunction	16593 Jan 28 04:59	24°♊54'29	0°29'18
	16587 Jun 12 07:45	15°♏		minimum elong	16593 Jan 28 04:59	24°♊54'29	0°29'41
evening set	16587 Jul 19 12:59	22°♏51'38		max. Earth dist.	16593 Jan 30 15:07	25°♊28'36	6.06136 AU
max. Earth dist.	16587 Jul 30 01:50	25°♏12'49	6.30987 AU	morning rise	16593 Feb 10 18:02	28°♊04'37	
					16593 Feb 19 01:43	0°♋	
conjunction	16587 Aug 01 10:23	25°♏44'30	-0°29'45	retrograde	16593 Jun 18 11:48	17°♋22'13	
minimum elong	16587 Aug 01 10:22	25°♏44'30	0°30'08	min. Earth dist.	16593 Aug 15 20:50	12°♋32'09	4.14786 AU
morning rise	16587 Aug 14 07:13	28°♏37'21		opposition	16593 Aug 17 11:05	12°♋19'18	0°45'31
	16587 Aug 20 12:04	0°♌		direct	16593 Oct 15 21:13	7°♋21'07	
retrograde	16587 Dec 16 20:49	16°♌38'31		evening set	16594 Feb 19 02:32	25°♋55'26	
opposition	16588 Feb 15 07:43	11°♌44'01	-0°45'31				
min. Earth dist.	16588 Feb 16 22:59	11°♌31'15	4.22286 AU	conjunction	16594 Mar 04 12:41	28°♋56'44	0°29'19
direct	16588 Apr 16 10:48	6°♌44'12		minimum elong	16594 Mar 04 12:41	28°♋56'45	0°29'23
evening set	16588 Aug 20 08:10	25°♌24'37		max. Earth dist.	16594 Mar 06 18:32	29°♋27'06	6.23816 AU
max. Earth dist.	16588 Aug 31 04:05	27°♌55'33	6.13344 AU		16594 Mar 09 04:56	0°♍	
				morning rise	16594 Mar 17 22:36	1°♍57'39	
conjunction	16588 Sep 02 07:40	28°♌25'37	-0°29'25	retrograde	16594 Jul 20 18:30	20°♍02'25	
minimum elong	16588 Sep 02 07:40	28°♌25'37	0°29'29	min. Earth dist.	16594 Sep 18 02:27	15°♍10'55	4.32261 AU
	16588 Sep 09 01:29	0°♎		opposition	16594 Sep 19 07:51	15°♍01'12	0°37'31
morning rise	16588 Sep 15 07:03	1°♎27'00		direct	16594 Nov 18 21:31	10°♍01'56	
retrograde	16589 Jan 20 20:08	20°♎40'51		evening set	16595 Mar 24 03:48	27°♍43'43	
opposition	16589 Mar 21 15:47	15°♎45'15	-0°37'48		16595 Apr 03 14:25	0°♐	
min. Earth dist.	16589 Mar 22 21:36	15°♎35'26	4.04707 AU				
direct	16589 May 20 12:15	10°♎47'12		conjunction	16595 Apr 06 10:25	0°♐37'04	0°20'13
	16589 Sep 22 17:47	0°♏		minimum elong	16595 Apr 06 10:25	0°♐37'05	0°19'58
evening set	16589 Sep 24 12:19	0°♏25'27		max. Earth dist.	16595 Apr 07 17:17	0°♐53'54	6.39731 AU
max. Earth dist.	16589 Oct 06 09:26	3°♏17'09	5.97420 AU	morning rise	16595 Apr 19 16:23	3°♐29'50	
					16595 Jun 17 14:27	15°♐	
conjunction	16589 Oct 07 15:46	3°♏35'28	-0°18'48	retrograde	16595 Aug 20 05:07	20°♐38'52	
minimum elong	16589 Oct 07 15:46	3°♏35'29	0°18'31	opposition	16595 Oct 20 04:56	15°♐40'15	0°19'22
morning rise	16589 Oct 20 20:20	6°♏46'20		min. Earth dist.	16595 Oct 19 16:56	15°♐44'09	4.45523 AU
	16589 Nov 25 11:11	15°♏			16595 Oct 25 09:01	15°♑	
retrograde	16590 Feb 28 01:22	27°♏07'47		direct	16595 Dec 20 19:51	10°♐40'20	
opposition	16590 Apr 28 08:59	22°♏10'11	-0°15'02		16596 Feb 14 16:29	15°♐	
min. Earth dist.	16590 Apr 28 16:30	22°♏07'41	3.92053 AU	evening set	16596 Apr 23 08:36	27°♐48'48	
direct	16590 Jun 26 02:00	17°♏13'59			16596 May 03 14:37	0°♒	
	16590 Sep 30 00:03	0°♑					
evening set	16590 Oct 31 20:52	7°♑30'41		conjunction	16596 May 06 11:41	0°♒36'57	0°05'54
				minimum elong	16596 May 06 11:41	0°♒36'57	0°05'25
conjunction	16590 Nov 14 05:23	10°♑47'00	-0°00'23	behind sun begin	16596 May 06 03:55	0°♒32'49	
minimum elong	16590 Nov 14 05:21	10°♑46'59	0°00'10	behind sun end	16596 May 06 19:28	0°♒41'06	
behind sun begin	16590 Nov 13 21:06	10°♑41'56		max. Earth dist.	16596 May 06 15:47	0°♒39'07	6.49460 AU
behind sun end	16590 Nov 14 13:37	10°♑52'02		morning rise	16596 May 19 13:21	3°♒24'24	
max. Earth dist.	16590 Nov 14 12:56	10°♑51'36	5.89374 AU	retrograde	16596 Sep 17 19:20	20°♒04'45	
asc. node	16590 Nov 21 23:36	12°♑41'16		desc. node	16596 Sep 27 04:30	19°♒56'33	
morning rise	16590 Nov 27 15:16	14°♑04'09		opposition	16596 Nov 18 01:47	15°♒08'36	-0°03'05
	16591 Feb 10 09:42	0°♓		min. Earth dist.	16596 Nov 18 08:18	15°♒06'30	4.51235 AU
retrograde	16591 Apr 08 00:55	4°♓55'01		direct	16597 Jan 19 07:08	10°♒08'21	
min. Earth dist.	16591 Jun 05 10:32	0°♓00'28	3.89641 AU	evening set	16597 May 23 14:11	27°♒07'23	
	16591 Jun 05 11:54	30°♑					
opposition	16591 Jun 06 03:35	29°♑54'42	0°14'50	conjunction	16597 Jun 05 13:58	29°♒53'44	-0°09'50
direct	16591 Aug 03 07:51	24°♑59'05		minimum elong	16597 Jun 05 13:58	29°♒53'44	0°10'25
	16591 Sep 28 19:07	0°♓		behind sun begin	16597 Jun 05 07:41	29°♒50'24	
evening set	16591 Dec 09 04:40	15°♓13'39		behind sun end	16597 Jun 05 20:14	29°♒57'05	
				max. Earth dist.	16597 Jun 04 14:06	29°♒40'58	6.50779 AU
conjunction	16591 Dec 22 16:32	18°♓29'55	0°18'20		16597 Jun 06 01:41	0°♔	
minimum elong	16591 Dec 22 16:31	18°♓29'54	0°18'56	morning rise	16597 Jun 18 12:21	2°♔39'30	
max. Earth dist.	16591 Dec 24 11:13	18°♓55'48	5.92803 AU	retrograde	16597 Oct 17 19:09	19°♔20'47	
morning rise	16592 Jan 05 05:46	21°♓46'43		opposition	16597 Dec 18 00:00	14°♔26'14	-0°24'38
	16592 Feb 09 19:46	0°♕		min. Earth dist.	16597 Dec 19 01:10	14°♔18'10	4.48153 AU

direct	16598 Feb 18 09:40	9° $\overline{25}$ '43	
evening set	16598 Jun 22 19:39	26° $\overline{39}$ '52	
max. Earth dist.	16598 Jul 03 19:18	29° $\overline{03}$ '00	6.43445 AU
conjunction	16598 Jul 05 17:22	29° $\overline{28}$ '05	-0°23'02
minimum elong	16598 Jul 05 17:21	29° $\overline{28}$ '05	0°23'34
	16598 Jul 08 03:56	0° $\overline{0}$	
morning rise	16598 Jul 18 13:58	2° $\overline{0}$ 15'57	
	16598 Sep 23 03:45	15° $\overline{0}$	
retrograde	16598 Nov 18 02:19	19° $\overline{0}$ 27'40	
	16599 Jan 14 14:15	15° $\overline{0}$	
opposition	16599 Jan 18 00:36	14° $\overline{0}$ 33'33	-0°40'26
min. Earth dist.	16599 Jan 19 12:47	14° $\overline{0}$ 21'54	4.36971 AU
direct	16599 Mar 20 23:01	9° $\overline{0}$ 33'06	
	16599 May 22 13:05	15° $\overline{0}$	
evening set	16599 Jul 24 00:08	27° $\overline{0}$ 25'02	
max. Earth dist.	16599 Aug 03 14:50	29° $\overline{0}$ 47'47	6.29136 AU
	16599 Aug 04 12:33	0° $\overline{0}$	
conjunction	16599 Aug 05 21:43	0° $\overline{0}$ 18'40	-0°30'19
minimum elong	16599 Aug 05 21:43	0° $\overline{0}$ 18'40	0°30'40
morning rise	16599 Aug 18 18:30	3° $\overline{0}$ 12'17	
retrograde	16599 Dec 21 16:09	21° $\overline{0}$ 20'59	
opposition	16600 Feb 20 01:42	16° $\overline{0}$ 26'25	-0°45'26
min. Earth dist.	16600 Feb 21 16:21	16° $\overline{0}$ 13'51	4.20391 AU
direct	16600 Apr 22 01:10	11° $\overline{0}$ 26'53	
	16600 Aug 25 02:19	0° $\overline{0}$	
evening set	16600 Aug 26 01:02	0° $\overline{0}$ 13'10	
max. Earth dist.	16600 Sep 05 22:04	2° $\overline{0}$ 45'26	6.11557 AU
conjunction	16600 Sep 08 00:40	3° $\overline{0}$ 15'04	-0°28'36
minimum elong	16600 Sep 08 00:40	3° $\overline{0}$ 15'04	0°28'37
morning rise	16600 Sep 21 00:41	6° $\overline{0}$ 17'27	
retrograde	16601 Jan 26 20:37	25° $\overline{0}$ 39'01	
opposition	16601 Mar 27 16:01	20° $\overline{0}$ 43'11	-0°35'32
min. Earth dist.	16601 Mar 28 19:00	20° $\overline{0}$ 34'17	4.03181 AU
direct	16601 May 26 09:20	15° $\overline{0}$ 45'22	
	16601 Sep 07 03:24	0° $\overline{0}$	
evening set	16601 Sep 30 10:44	5° $\overline{0}$ 28'10	
conjunction	16601 Oct 13 14:52	8° $\overline{0}$ 39'00	-0°16'40
minimum elong	16601 Oct 13 14:52	8° $\overline{0}$ 39'00	0°16'21
max. Earth dist.	16601 Oct 12 13:47	8° $\overline{0}$ 23'49	5.96316 AU
morning rise	16601 Oct 26 19:55	11° $\overline{0}$ 50'39	
	16601 Nov 09 01:46	15° $\overline{0}$	