




























































































































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opposition	2100 Apr 08 02:08	18°♄20'25	1°34'47	opposition	2105 Sep 26 11:22	3°♃16'48	-1°36'35
min. Earth dist.	2100 Apr 09 01:16	18°♄12'58	4.45172 AU	min. Earth dist.	2105 Sep 25 19:56	3°♃21'57	3.95782 AU
direct	2100 Jun 09 17:32	13°♄18'13			2105 Oct 23 10:28	30°♃	
	2100 Oct 10 06:25	0°♄		direct	2105 Nov 23 15:56	28°♃23'04	
evening set	2100 Oct 14 03:37	0°♄50'14			2105 Dec 24 17:29	0°♃	
max. Earth dist.	2100 Oct 25 06:12	3°♄15'07	6.43470 AU	evening set	2106 Mar 29 05:19	18°♃05'43	
conjunction	2100 Oct 26 23:27	3°♄37'37	1°01'03	conjunction	2106 Apr 11 13:28	21°♃18'36	-1°03'52
minimum elong	2100 Oct 26 23:28	3°♄37'38	1°01'03	minimum elong	2106 Apr 11 13:29	21°♃18'36	1°03'51
morning rise	2100 Nov 08 16:35	6°♄23'52		max. Earth dist.	2106 Apr 13 01:53	21°♃40'34	5.95636 AU
	2100 Dec 20 16:49	15°♄		morning rise	2106 Apr 25 00:55	24°♃33'08	
retrograde	2101 Mar 09 08:40	23°♄19'49			2106 May 18 07:25	0°♃	
opposition	2101 May 09 04:58	18°♄27'54	1°16'35		2106 Aug 26 00:07	15°♃	
min. Earth dist.	2101 May 10 14:28	18°♄17'14	4.40213 AU	retrograde	2106 Sep 04 04:55	15°♃08'26	
	2101 Jun 08 07:47	15°♄			2106 Sep 13 09:21	15°♃	
direct	2101 Jul 10 20:21	13°♄27'16		opposition	2106 Nov 02 21:09	10°♃04'10	-1°25'33
	2101 Aug 12 11:00	15°♄		min. Earth dist.	2106 Nov 01 13:34	10°♃14'54	3.97951 AU
	2101 Nov 08 06:55	0°♄		direct	2106 Dec 30 18:22	5°♃08'36	
evening set	2101 Nov 13 19:20	1°♄12'48			2107 Mar 23 11:13	15°♃	
max. Earth dist.	2101 Nov 24 09:30	3°♄34'00	6.35284 AU	evening set	2107 May 05 18:35	24°♃40'27	
conjunction	2101 Nov 26 11:47	4°♄02'03	0°40'06	conjunction	2107 May 19 10:09	27°♃53'43	-0°44'48
minimum elong	2101 Nov 26 11:48	4°♄02'04	0°40'06	minimum elong	2107 May 19 10:11	27°♃53'44	0°44'48
morning rise	2101 Dec 09 02:45	6°♄50'44		max. Earth dist.	2107 May 21 16:10	28°♃25'38	6.02148 AU
retrograde	2102 Apr 10 20:27	24°♄24'04			2107 May 28 08:08	0°♃	
opposition	2102 Jun 10 18:02	19°♄31'51	0°36'10	morning rise	2107 Jun 02 03:56	1°♃07'57	
min. Earth dist.	2102 Jun 12 05:48	19°♄20'27	4.29211 AU	retrograde	2107 Oct 10 03:51	20°♃59'43	
direct	2102 Aug 11 18:28	14°♄33'19		min. Earth dist.	2107 Dec 07 06:38	16°♃06'18	4.08017 AU
	2102 Dec 02 20:25	0°♃		opposition	2107 Dec 08 16:19	15°♃54'49	-0°41'57
evening set	2102 Dec 15 05:28	2°♃47'17		direct	2108 Feb 05 04:26	10°♃56'18	
max. Earth dist.	2102 Dec 26 01:42	5°♃16'17	6.22339 AU	evening set	2108 Jun 10 15:21	29°♃56'25	
					2108 Jun 10 21:39	0°♃	
conjunction	2102 Dec 27 21:45	5°♃41'35	0°06'47	conjunction	2108 Jun 24 09:37	3°♃05'08	-0°09'41
minimum elong	2102 Dec 27 21:46	5°♃41'36	0°06'47	minimum elong	2108 Jun 24 09:37	3°♃05'08	0°09'41
behind sun begin	2102 Dec 27 14:20	5°♃37'20		behind sun begin	2108 Jun 24 02:47	3°♃01'15	
behind sun end	2102 Dec 28 05:13	5°♃45'51		behind sun end	2108 Jun 24 16:26	3°♃09'01	
morning rise	2103 Jan 09 13:40	8°♃36'00		max. Earth dist.	2108 Jun 26 11:12	3°♃33'30	6.14854 AU
desc. node	2103 Mar 09 11:25	20°♃48'45		morning rise	2108 Jul 08 04:21	6°♃13'47	
retrograde	2103 May 15 11:02	27°♃08'56		asc. node	2108 Oct 03 03:52	22°♃31'59	
opposition	2103 Jul 15 06:37	22°♃14'54	-0°17'56	retrograde	2108 Nov 11 15:25	24°♃58'00	
min. Earth dist.	2103 Jul 16 08:04	22°♃06'42	4.15133 AU	min. Earth dist.	2109 Jan 09 05:45	20°♃03'57	4.21999 AU
direct	2103 Sep 14 00:38	17°♃18'54		opposition	2109 Jan 10 07:45	19°♃55'11	0°13'50
	2103 Dec 21 04:19	0°♃		direct	2109 Mar 10 23:24	14°♃54'02	
evening set	2104 Jan 17 06:08	6°♃10'20			2109 Jun 30 19:17	0°♃	
max. Earth dist.	2104 Jan 29 00:23	8°♃57'01	6.08348 AU	evening set	2109 Jul 15 19:48	3°♃16'28	
conjunction	2104 Jan 30 00:53	9°♃11'32	-0°30'16	conjunction	2109 Jul 29 10:49	6°♃17'37	0°27'16
minimum elong	2104 Jan 30 00:51	9°♃11'31	0°30'16	minimum elong	2109 Jul 29 10:47	6°♃17'36	0°27'16
morning rise	2104 Feb 11 20:59	12°♃13'40		max. Earth dist.	2109 Jul 30 14:13	6°♃32'50	6.28993 AU
	2104 Feb 23 18:13	15°♃		morning rise	2109 Aug 12 00:33	9°♃17'52	
	2104 May 16 04:06	0°♃			2109 Sep 07 15:57	15°♃	
retrograde	2104 Jun 20 08:57	1°♃54'35		retrograde	2109 Dec 13 05:28	26°♃59'19	
	2104 Jul 25 15:48	30°♃		opposition	2110 Feb 11 03:10	22°♃00'03	1°01'52
opposition	2104 Aug 19 19:01	26°♃57'18	-1°09'22	min. Earth dist.	2110 Feb 10 18:00	22°♃03'06	4.35104 AU
min. Earth dist.	2104 Aug 20 01:32	26°♃55'09	4.02415 AU	direct	2110 Apr 13 04:11	16°♃57'25	
direct	2104 Oct 18 03:18	22°♃03'13			2110 Jul 26 06:47	0°♃	
	2104 Dec 30 13:56	0°♃		evening set	2110 Aug 18 01:24	4°♃48'40	
evening set	2105 Feb 20 08:17	11°♃29'26					
conjunction	2105 Mar 05 08:45	14°♃37'38	-0°57'55	conjunction	2110 Aug 31 09:38	7°♃42'25	0°54'26
minimum elong	2105 Mar 05 08:43	14°♃37'37	0°57'55	minimum elong	2110 Aug 31 09:36	7°♃42'23	0°54'26
max. Earth dist.	2105 Mar 05 15:38	14°♃41'47	5.98070 AU	max. Earth dist.	2110 Aug 31 10:01	7°♃42'37	6.40055 AU
morning rise	2105 Mar 18 11:41	17°♃47'20		morning rise	2110 Sep 13 15:17	10°♃34'47	
	2105 May 12 16:36	0°♃		retrograde	2111 Jan 12 13:03	27°♃34'34	

opposition	2111 Mar 13 20:09	22° $\mathfrak{M}$ 38'52	1°30'07			2116 Dec 04 14:54	0° $\mathfrak{H}$
min. Earth dist.	2111 Mar 14 04:21	22° $\mathfrak{M}$ 36'12	4.43478 AU	evening set		2117 Feb 25 08:16	16° $\mathfrak{H}$ 36'17
direct	2111 May 14 22:24	17° $\mathfrak{M}$ 35'59					
	2111 Aug 25 00:03	0° $\mathfrak{L}$		conjunction		2117 Mar 10 09:34	19° $\mathfrak{H}$ 45'21 -1°00'13
evening set	2111 Sep 18 16:38	5° $\mathfrak{L}$ 09'44		minimum elong		2117 Mar 10 09:32	19° $\mathfrak{H}$ 45'21 1°00'14
				max. Earth dist.		2117 Mar 10 19:21	19° $\mathfrak{H}$ 51'17 5.97067 AU
conjunction	2111 Oct 01 17:24	7° $\mathfrak{L}$ 58'28	1°05'39	morning rise		2117 Mar 23 13:47	22° $\mathfrak{H}$ 56'04
minimum elong	2111 Oct 01 17:24	7° $\mathfrak{L}$ 58'28	1°05'38			2117 Apr 22 22:58	0° $\mathfrak{Y}$
max. Earth dist.	2111 Sep 30 16:06	7° $\mathfrak{L}$ 44'46	6.45072 AU	retrograde		2117 Aug 02 17:47	13° $\mathfrak{Y}$ 31'11
morning rise	2111 Oct 14 15:16	10° $\mathfrak{L}$ 45'50		opposition		2117 Oct 01 16:40	8° $\mathfrak{Y}$ 29'30 -1°37'26
retrograde	2112 Feb 11 18:04	27° $\mathfrak{L}$ 31'01		min. Earth dist.		2117 Sep 30 21:57	8° $\mathfrak{Y}$ 35'47 3.95350 AU
opposition	2112 Apr 12 08:49	22° $\mathfrak{L}$ 37'59	1°33'40	direct		2117 Nov 28 18:35	3° $\mathfrak{Y}$ 35'39
min. Earth dist.	2112 Apr 13 09:39	22° $\mathfrak{L}$ 30'01	4.44953 AU	evening set		2118 Apr 03 09:54	23° $\mathfrak{Y}$ 19'21
direct	2112 Jun 14 01:50	17° $\mathfrak{L}$ 35'56					
	2112 Sep 24 00:53	0° $\mathfrak{M}$		conjunction		2118 Apr 16 19:21	26° $\mathfrak{Y}$ 32'43 -1°02'36
evening set	2112 Oct 18 09:52	5° $\mathfrak{M}$ 08'26		minimum elong		2118 Apr 16 19:23	26° $\mathfrak{Y}$ 32'44 1°02'36
max. Earth dist.	2112 Oct 29 08:41	7° $\mathfrak{M}$ 31'36	6.42822 AU	max. Earth dist.		2118 Apr 18 12:16	26° $\mathfrak{Y}$ 57'22 5.95824 AU
				morning rise		2118 Apr 30 07:46	29° $\mathfrak{Y}$ 47'39
conjunction	2112 Oct 31 04:57	7° $\mathfrak{M}$ 55'48	0°59'03			2118 May 01 04:28	0° $\mathfrak{B}$
minimum elong	2112 Oct 31 04:58	7° $\mathfrak{M}$ 55'49	0°59'03			2118 Jul 11 12:02	15° $\mathfrak{B}$
morning rise	2112 Nov 12 21:42	10° $\mathfrak{M}$ 42'07		retrograde		2118 Sep 09 09:37	20° $\mathfrak{B}$ 20'33
	2112 Dec 03 01:20	15° $\mathfrak{M}$		opposition		2118 Nov 07 23:42	15° $\mathfrak{B}$ 16'04 -1°21'02
retrograde	2113 Mar 13 18:26	27° $\mathfrak{M}$ 41'07		min. Earth dist.		2118 Nov 06 15:43	15° $\mathfrak{B}$ 26'57 3.98739 AU
opposition	2113 May 13 14:54	22° $\mathfrak{M}$ 49'10	1°12'07			2118 Nov 09 22:56	15° $\mathfrak{R}$ 8
min. Earth dist.	2113 May 15 01:30	22° $\mathfrak{M}$ 38'08	4.39146 AU	direct		2119 Jan 04 22:13	10° $\mathfrak{B}$ 20'13
direct	2113 Jul 15 05:54	17° $\mathfrak{M}$ 48'41				2119 Feb 28 07:51	15° $\mathfrak{B}$
	2113 Oct 22 23:51	0° $\mathfrak{J}$		evening set		2119 May 10 23:46	29° $\mathfrak{B}$ 49'27
evening set	2113 Nov 18 02:05	5° $\mathfrak{J}$ 36'47				2119 May 11 17:46	0° $\mathfrak{I}$
max. Earth dist.	2113 Nov 28 17:12	7° $\mathfrak{J}$ 58'57	6.33862 AU				
				conjunction		2119 May 24 16:03	3° $\mathfrak{I}$ 02'28 -0°40'31
conjunction	2113 Nov 30 18:29	8° $\mathfrak{J}$ 26'31	0°36'02	minimum elong		2119 May 24 16:05	3° $\mathfrak{I}$ 02'29 0°40'31
minimum elong	2113 Nov 30 18:31	8° $\mathfrak{J}$ 26'32	0°36'02	max. Earth dist.		2119 May 26 23:29	3° $\mathfrak{I}$ 35'06 6.03472 AU
morning rise	2113 Dec 13 09:14	11° $\mathfrak{J}$ 15'43		morning rise		2119 Jun 07 10:27	6° $\mathfrak{I}$ 16'20
retrograde	2114 Apr 15 10:31	28° $\mathfrak{J}$ 55'33		retrograde		2119 Oct 14 22:59	26° $\mathfrak{I}$ 00'02
opposition	2114 Jun 15 09:19	24° $\mathfrak{J}$ 03'10	0°29'11	min. Earth dist.		2119 Dec 12 01:59	21° $\mathfrak{I}$ 07'03 4.09759 AU
min. Earth dist.	2114 Jun 16 20:07	23° $\mathfrak{J}$ 52'04	4.27501 AU	opposition		2119 Dec 13 12:24	20° $\mathfrak{I}$ 55'20 -0°34'20
direct	2114 Aug 16 05:58	19° $\mathfrak{J}$ 04'59		direct		2120 Feb 10 02:29	15° $\mathfrak{I}$ 56'30
	2114 Nov 15 22:36	0° $\mathfrak{Z}$				2120 May 24 20:02	0° $\mathfrak{E}$
evening set	2114 Dec 19 16:08	7° $\mathfrak{Z}$ 23'19		evening set		2120 Jun 15 16:25	4° $\mathfrak{E}$ 51'37
max. Earth dist.	2114 Dec 30 13:25	9° $\mathfrak{Z}$ 53'36	6.20467 AU				
				conjunction		2120 Jun 29 10:28	7° $\mathfrak{E}$ 59'22 -0°04'20
conjunction	2115 Jan 01 08:26	10° $\mathfrak{Z}$ 18'26	0°01'36	minimum elong		2120 Jun 29 10:28	7° $\mathfrak{E}$ 59'22 0°04'20
minimum elong	2115 Jan 01 08:26	10° $\mathfrak{Z}$ 18'25	0°01'37	behind sun begin		2120 Jun 29 02:15	7° $\mathfrak{E}$ 54'42
behind sun begin	2115 Jan 01 00:26	10° $\mathfrak{Z}$ 13'50		behind sun end		2120 Jun 29 18:41	8° $\mathfrak{E}$ 04'01
behind sun end	2115 Jan 01 16:25	10° $\mathfrak{Z}$ 23'01		max. Earth dist.		2120 Jul 01 09:32	8° $\mathfrak{E}$ 26'10 6.16889 AU
morning rise	2115 Jan 14 00:48	13° $\mathfrak{Z}$ 13'47		morning rise		2120 Jul 13 04:52	11° $\mathfrak{E}$ 06'56
desc. node	2115 Jan 17 22:19	14° $\mathfrak{Z}$ 07'18		asc. node		2120 Aug 13 02:16	17° $\mathfrak{E}$ 51'21
	2115 Apr 14 19:53	0° $\mathfrak{A}$		retrograde		2120 Nov 16 04:29	29° $\mathfrak{E}$ 41'24
retrograde	2115 May 20 10:28	1° $\mathfrak{A}$ 55'47		opposition		2121 Jan 14 21:06	24° $\mathfrak{E}$ 39'00 0°21'22
	2115 Jun 25 06:38	30° $\mathfrak{R}$ 3		min. Earth dist.		2121 Jan 13 21:26	24° $\mathfrak{E}$ 46'58 4.24137 AU
opposition	2115 Jul 20 04:33	27° $\mathfrak{Z}$ 01'22	-0°25'39	direct		2121 Mar 15 18:35	19° $\mathfrak{E}$ 37'37
min. Earth dist.	2115 Jul 21 04:28	26° $\mathfrak{Z}$ 53'39	4.13221 AU			2121 Jun 13 00:02	0° $\mathfrak{Q}$
direct	2115 Sep 18 18:59	22° $\mathfrak{Z}$ 05'37		evening set		2121 Jul 20 13:37	7° $\mathfrak{Q}$ 54'14
	2115 Dec 02 07:47	0° $\mathfrak{A}$					
evening set	2116 Jan 21 23:01	11° $\mathfrak{A}$ 02'22		conjunction		2121 Aug 03 03:53	10° $\mathfrak{Q}$ 54'11 0°31'48
				minimum elong		2121 Aug 03 03:51	10° $\mathfrak{Q}$ 54'10 0°31'47
conjunction	2116 Feb 03 18:29	14° $\mathfrak{A}$ 04'37	-0°34'57	max. Earth dist.		2121 Aug 04 05:34	11° $\mathfrak{Q}$ 08'22 6.31078 AU
minimum elong	2116 Feb 03 18:28	14° $\mathfrak{A}$ 04'35	0°34'57	morning rise		2121 Aug 16 16:27	13° $\mathfrak{Q}$ 53'05
max. Earth dist.	2116 Feb 02 22:08	13° $\mathfrak{A}$ 52'31	6.06575 AU			2121 Aug 21 19:01	15° $\mathfrak{Q}$
	2116 Feb 07 15:40	15° $\mathfrak{A}$				2121 Nov 17 04:22	0° $\mathfrak{M}$
morning rise	2116 Feb 16 15:17	17° $\mathfrak{A}$ 07'51		retrograde		2121 Dec 17 09:59	1° $\mathfrak{M}$ 26'12
	2116 Apr 16 13:33	0° $\mathfrak{H}$				2122 Jan 16 12:53	30° $\mathfrak{R}$ 8
retrograde	2116 Jun 25 14:13	6° $\mathfrak{H}$ 57'31		opposition		2122 Feb 15 10:35	26° $\mathfrak{Q}$ 27'26 1°07'03
opposition	2116 Aug 24 22:22	1° $\mathfrak{H}$ 59'46	-1°15'01	min. Earth dist.		2122 Feb 15 02:36	26° $\mathfrak{Q}$ 30'04 4.36988 AU
min. Earth dist.	2116 Aug 25 02:11	1° $\mathfrak{H}$ 58'31	4.00971 AU	direct		2122 Apr 17 15:19	21° $\mathfrak{Q}$ 24'44
	2116 Sep 09 13:52	30° $\mathfrak{R}$ 8				2122 Jul 08 03:32	0° $\mathfrak{M}$
direct	2116 Oct 23 01:30	27° $\mathfrak{A}$ 05'53		evening set		2122 Aug 22 12:08	9° $\mathfrak{M}$ 11'11




























































































































conjunction	2122 Sep 04 19:06	12° $\mathbb{M}$ 03'49	0°56'57			2128 Jan 22 16:30	15° $\approx$
minimum elong	2122 Sep 04 19:04	12° $\mathbb{M}$ 03'48	0°56'57	evening set		2128 Jan 26 16:49	15° $\approx$ 56'53
max. Earth dist.	2122 Sep 04 15:11	12° $\mathbb{M}$ 01'42	6.41589 AU				
morning rise	2122 Sep 17 23:36	14° $\mathbb{M}$ 55'06		conjunction		2128 Feb 08 12:53	19° $\approx$ 00'25 -0°39'22
	2122 Dec 13 02:52	0° $\underline{\mathbb{L}}$		minimum elong		2128 Feb 08 12:51	19° $\approx$ 00'23 0°39'21
retrograde	2123 Jan 16 16:18	1° $\underline{\mathbb{L}}$ 49'45		max. Earth dist.		2128 Feb 07 18:51	18° $\approx$ 49'39 6.04308 AU
	2123 Feb 20 04:55	30° $\mathbb{R}$ $\mathbb{M}$		morning rise		2128 Feb 21 10:49	22° $\approx$ 05'06
opposition	2123 Mar 18 00:18	26° $\mathbb{M}$ 54'30	1°31'59			2128 Mar 27 03:16	0° $\mathbb{H}$
min. Earth dist.	2123 Mar 18 11:50	26° $\mathbb{M}$ 50'45	4.44562 AU	retrograde		2128 Jun 30 20:34	12° $\mathbb{H}$ 05'32
direct	2123 May 19 07:11	21° $\mathbb{M}$ 51'39		opposition		2128 Aug 30 03:30	7° $\mathbb{H}$ 07'11 -1°20'07
	2123 Aug 07 02:27	0° $\underline{\mathbb{L}}$		min. Earth dist.		2128 Aug 30 03:30	7° $\mathbb{H}$ 07'11 3.99100 AU
evening set	2123 Sep 22 21:44	9° $\underline{\mathbb{L}}$ 22'42		direct		2128 Oct 28 01:09	2° $\mathbb{H}$ 13'24
				evening set		2129 Mar 02 10:48	21° $\mathbb{H}$ 49'31
conjunction	2123 Oct 05 21:35	12° $\underline{\mathbb{L}}$ 10'51	1°05'44				
minimum elong	2123 Oct 05 21:34	12° $\underline{\mathbb{L}}$ 10'51	1°05'43	conjunction		2129 Mar 15 13:25	24° $\mathbb{H}$ 59'44 -1°02'02
max. Earth dist.	2123 Oct 04 16:31	11° $\underline{\mathbb{L}}$ 55'08	6.45600 AU	minimum elong		2129 Mar 15 13:24	24° $\mathbb{H}$ 59'44 1°02'02
morning rise	2123 Oct 18 18:33	14° $\underline{\mathbb{L}}$ 57'40		max. Earth dist.		2129 Mar 16 05:38	25° $\mathbb{H}$ 09'35 5.95787 AU
	2124 Jan 13 10:40	0° $\mathbb{M}$		morning rise		2129 Mar 28 18:44	28° $\mathbb{H}$ 11'33
retrograde	2124 Feb 15 20:02	1° $\mathbb{M}$ 41'52				2129 Apr 05 08:06	0° $\mathbb{Y}$
	2124 Mar 20 08:38	30° $\mathbb{R}$ $\underline{\mathbb{L}}$		retrograde		2129 Aug 08 04:59	18° $\mathbb{Y}$ 51'41
opposition	2124 Apr 16 12:46	26° $\underline{\mathbb{L}}$ 49'00	1°32'04	min. Earth dist.		2129 Oct 06 03:46	13° $\mathbb{Y}$ 56'30 3.94822 AU
min. Earth dist.	2124 Apr 17 15:16	26° $\underline{\mathbb{L}}$ 40'30	4.44898 AU	opposition		2129 Oct 07 00:38	13° $\mathbb{Y}$ 49'29 -1°37'25
direct	2124 Jun 18 06:28	21° $\underline{\mathbb{L}}$ 47'02		direct		2129 Dec 04 01:01	8° $\mathbb{Y}$ 55'27
	2124 Sep 06 11:20	0° $\mathbb{M}$		evening set		2130 Apr 08 18:02	28° $\mathbb{Y}$ 40'14
evening set	2124 Oct 22 12:25	9° $\mathbb{M}$ 19'43				2130 Apr 14 07:01	0° $\mathbb{B}$
max. Earth dist.	2124 Nov 02 09:47	11° $\mathbb{M}$ 42'19	6.42174 AU				
conjunction	2124 Nov 04 07:00	12° $\mathbb{M}$ 07'05	0°56'46	conjunction		2130 Apr 22 04:37	1° $\mathbb{B}$ 54'02 -1°00'45
minimum elong	2124 Nov 04 07:01	12° $\mathbb{M}$ 07'06	0°56'47	minimum elong		2130 Apr 22 04:39	1° $\mathbb{B}$ 54'03 1°00'45
morning rise	2124 Nov 16 23:09	14° $\mathbb{M}$ 53'28		max. Earth dist.		2130 Apr 24 01:28	2° $\mathbb{B}$ 21'01 5.96083 AU
	2124 Nov 17 11:09	15° $\mathbb{M}$		morning rise		2130 May 05 18:18	5° $\mathbb{B}$ 09'21
retrograde	2125 Feb 10 04:52	0° $\mathbb{Z}$				2130 Jun 18 08:16	15° $\mathbb{B}$
	2125 Mar 18 00:25	1° $\mathbb{Z}$ 55'58		retrograde		2130 Sep 14 14:01	25° $\mathbb{B}$ 38'29
	2125 Apr 23 02:39	30° $\mathbb{R}$ $\mathbb{M}$		min. Earth dist.		2130 Nov 11 17:36	20° $\mathbb{B}$ 45'29 3.99757 AU
opposition	2125 May 17 22:04	27° $\mathbb{M}$ 04'04	1°07'23	opposition		2130 Nov 13 04:09	20° $\mathbb{B}$ 33'43 -1°15'43
min. Earth dist.	2125 May 19 10:09	26° $\mathbb{M}$ 52'35	4.37916 AU	direct		2131 Jan 10 02:18	15° $\mathbb{B}$ 37'26
direct	2125 Jul 19 12:08	22° $\mathbb{M}$ 03'49				2131 Apr 24 06:15	0° $\mathbb{I}$
	2125 Oct 05 05:05	0° $\mathbb{Z}$		evening set		2131 May 16 07:12	5° $\mathbb{I}$ 02'51
evening set	2125 Nov 22 06:14	9° $\mathbb{Z}$ 55'11		conjunction		2131 May 30 00:01	8° $\mathbb{I}$ 15'21 -0°35'50
max. Earth dist.	2125 Dec 02 18:54	12° $\mathbb{Z}$ 16'37	6.32128 AU	minimum elong		2131 May 30 00:03	8° $\mathbb{I}$ 15'23 0°35'50
conjunction	2125 Dec 04 22:20	12° $\mathbb{Z}$ 45'31	0°31'53	max. Earth dist.		2131 Jun 01 07:18	8° $\mathbb{I}$ 47'46 6.05121 AU
minimum elong	2125 Dec 04 22:22	12° $\mathbb{Z}$ 45'31	0°31'53	morning rise		2131 Jun 12 18:51	11° $\mathbb{I}$ 28'35
morning rise	2125 Dec 17 13:18	15° $\mathbb{Z}$ 35'27				2131 Sep 24 11:01	0° $\mathbb{O}$
	2126 Mar 03 01:45	0° $\mathbb{B}$		retrograde		2131 Oct 19 19:42	1° $\mathbb{O}$ 02'38
retrograde	2126 Apr 20 00:49	3° $\mathbb{B}$ 23'14				2131 Nov 13 23:17	30° $\mathbb{R}$ $\mathbb{I}$
	2126 Jun 08 01:59	30° $\mathbb{R}$ $\mathbb{Z}$		min. Earth dist.		2131 Dec 17 00:17	26° $\mathbb{I}$ 09'21 4.11802 AU
opposition	2126 Jun 19 22:46	28° $\mathbb{Z}$ 30'37	0°22'10	opposition		2131 Dec 18 09:37	25° $\mathbb{I}$ 57'59 -0°26'23
min. Earth dist.	2126 Jun 21 09:27	28° $\mathbb{Z}$ 19'32	4.25347 AU	direct		2132 Feb 15 04:40	20° $\mathbb{I}$ 58'40
direct	2126 Aug 20 16:06	23° $\mathbb{Z}$ 32'37				2132 May 05 18:10	0° $\mathbb{O}$
	2126 Oct 27 14:37	0° $\mathbb{B}$		evening set		2132 Jun 20 18:01	9° $\mathbb{O}$ 47'31
desc. node	2126 Nov 29 13:31	6° $\mathbb{B}$ 28'12		asc. node		2132 Jun 21 23:45	10° $\mathbb{O}$ 04'17
evening set	2126 Dec 24 01:29	11° $\mathbb{B}$ 57'09		conjunction		2132 Jul 04 11:55	12° $\mathbb{O}$ 54'09 0°01'14
max. Earth dist.	2127 Jan 04 01:40	14° $\mathbb{B}$ 29'50	6.18083 AU	minimum elong		2132 Jul 04 11:55	12° $\mathbb{O}$ 54'09 0°01'15
conjunction	2127 Jan 05 18:16	14° $\mathbb{B}$ 53'23	-0°03'35	behind sun begin		2132 Jul 04 03:33	12° $\mathbb{O}$ 49'26
minimum elong	2127 Jan 05 18:17	14° $\mathbb{B}$ 53'23	0°03'35	behind sun end		2132 Jul 04 20:18	12° $\mathbb{O}$ 58'53
behind sun begin	2127 Jan 05 10:21	14° $\mathbb{B}$ 48'49		max. Earth dist.		2132 Jul 06 10:17	13° $\mathbb{O}$ 20'25 6.19135 AU
behind sun end	2127 Jan 06 02:12	14° $\mathbb{B}$ 57'58		morning rise		2132 Jul 18 05:36	16° $\mathbb{O}$ 00'26
morning rise	2127 Jan 18 11:01	17° $\mathbb{B}$ 49'56				2132 Sep 27 07:50	0° $\mathbb{Q}$
	2127 Mar 17 08:44	0° $\approx$		retrograde		2132 Nov 20 16:20	4° $\mathbb{Q}$ 24'26
retrograde	2127 May 25 10:19	6° $\approx$ 43'00				2133 Jan 14 18:36	30° $\mathbb{R}$ $\mathbb{O}$
opposition	2127 Jul 25 02:19	1° $\approx$ 48'14	-0°33'09	min. Earth dist.		2133 Jan 18 12:00	29° $\mathbb{O}$ 30'03 4.26355 AU
min. Earth dist.	2127 Jul 26 00:31	1° $\approx$ 41'03	4.10790 AU	opposition		2133 Jan 19 10:28	29° $\mathbb{O}$ 22'30 0°28'48
	2127 Aug 08 08:50	30° $\mathbb{R}$ $\mathbb{B}$		direct		2133 Mar 20 12:16	24° $\mathbb{O}$ 20'51
direct	2127 Sep 23 11:01	26° $\mathbb{B}$ 52'47				2133 May 22 19:28	0° $\mathbb{Q}$
	2127 Nov 07 10:11	0° $\approx$		evening set		2133 Jul 25 07:55	12° $\mathbb{Q}$ 31'42
						2133 Aug 05 13:54	15° $\mathbb{Q}$

conjunction	2133 Aug 07 21:04	15° $\Omega$ 30'22	0°36'12	conjunction	2139 Jan 10 09:13	19° $\mathfrak{Z}$ 41'55	-0°08'53
minimum elong	2133 Aug 07 21:02	15° $\Omega$ 30'21	0°36'12	minimum elong	2139 Jan 10 09:13	19° $\mathfrak{Z}$ 41'54	0°08'54
max. Earth dist.	2133 Aug 08 17:17	15° $\Omega$ 41'30	6.33076 AU	behind sun begin	2139 Jan 10 02:18	19° $\mathfrak{Z}$ 37'54	
morning rise	2133 Aug 21 08:39	18° $\Omega$ 27'59		behind sun end	2139 Jan 10 16:07	19° $\mathfrak{Z}$ 45'55	
	2133 Oct 18 12:10	0° $\mathfrak{M}$		morning rise	2139 Jan 23 02:42	22° $\mathfrak{Z}$ 39'41	
retrograde	2133 Dec 21 17:43	5° $\mathfrak{M}$ 53'27			2139 Feb 24 23:02	0° $\mathfrak{M}$	
opposition	2134 Feb 19 18:43	0° $\mathfrak{M}$ 55'13	1°11'58	retrograde	2139 May 30 14:13	11° $\mathfrak{M}$ 43'22	
min. Earth dist.	2134 Feb 19 14:18	0° $\mathfrak{M}$ 56'40	4.38628 AU	opposition	2139 Jul 30 05:20	6° $\mathfrak{M}$ 48'11	-0°40'50
	2134 Feb 26 18:50	30° $\mathfrak{R}$ $\Omega$		min. Earth dist.	2139 Jul 31 00:05	6° $\mathfrak{M}$ 42'06	4.08725 AU
direct	2134 Apr 22 04:45	25° $\Omega$ 52'23		direct	2139 Sep 28 08:13	1° $\mathfrak{M}$ 53'06	
	2134 Jun 15 11:08	0° $\mathfrak{M}$			2140 Jan 05 11:05	15° $\mathfrak{M}$	
evening set	2134 Aug 26 23:31	13° $\mathfrak{M}$ 35'07		evening set	2140 Jan 31 15:12	21° $\mathfrak{M}$ 03'10	
conjunction	2134 Sep 09 05:35	16° $\mathfrak{M}$ 26'53	0°59'14	conjunction	2140 Feb 13 12:10	24° $\mathfrak{M}$ 07'48	-0°43'41
minimum elong	2134 Sep 09 05:33	16° $\mathfrak{M}$ 26'52	0°59'13	minimum elong	2140 Feb 13 12:08	24° $\mathfrak{M}$ 07'46	0°43'41
max. Earth dist.	2134 Sep 08 22:37	16° $\mathfrak{M}$ 23'07	6.42741 AU	max. Earth dist.	2140 Feb 13 00:12	24° $\mathfrak{M}$ 00'37	6.02613 AU
morning rise	2134 Sep 22 08:47	19° $\mathfrak{M}$ 17'14		morning rise	2140 Feb 26 10:52	27° $\mathfrak{M}$ 13'37	
	2134 Nov 15 18:32	0° $\mathfrak{L}$			2140 Mar 09 05:00	0° $\mathfrak{H}$	
retrograde	2135 Jan 20 19:59	6° $\mathfrak{L}$ 08'20		retrograde	2140 Jul 06 07:23	17° $\mathfrak{H}$ 22'14	
opposition	2135 Mar 22 06:21	1° $\mathfrak{L}$ 13'30	1°33'30	opposition	2140 Sep 04 11:46	12° $\mathfrak{H}$ 23'25	-1°24'47
min. Earth dist.	2135 Mar 22 19:33	1° $\mathfrak{L}$ 09'13	4.45181 AU	min. Earth dist.	2140 Sep 04 09:07	12° $\mathfrak{H}$ 24'17	3.97988 AU
	2135 Mar 31 19:30	30° $\mathfrak{R}$ $\mathfrak{M}$		direct	2140 Nov 02 06:15	7° $\mathfrak{H}$ 29'48	
direct	2135 May 23 14:41	26° $\mathfrak{M}$ 10'45		evening set	2141 Mar 07 15:51	27° $\mathfrak{H}$ 08'39	
	2135 Jul 15 06:13	0° $\mathfrak{L}$			2141 Mar 19 11:10	0° $\mathfrak{Y}$	
evening set	2135 Sep 27 05:06	13° $\mathfrak{L}$ 40'44		conjunction	2141 Mar 20 19:26	0° $\mathfrak{Y}$ 19'33	-1°03'26
max. Earth dist.	2135 Oct 08 19:30	16° $\mathfrak{L}$ 10'56	6.45635 AU	minimum elong	2141 Mar 20 19:25	0° $\mathfrak{Y}$ 19'33	1°03'25
conjunction	2135 Oct 10 03:57	16° $\mathfrak{L}$ 28'30	1°05'31	max. Earth dist.	2141 Mar 21 16:06	0° $\mathfrak{Y}$ 32'04	5.95358 AU
minimum elong	2135 Oct 10 03:57	16° $\mathfrak{L}$ 28'30	1°05'31	morning rise	2141 Apr 03 02:04	3° $\mathfrak{Y}$ 32'07	
morning rise	2135 Oct 23 00:06	19° $\mathfrak{L}$ 14'59		retrograde	2141 Aug 13 12:58	24° $\mathfrak{Y}$ 13'17	
	2135 Dec 16 16:30	0° $\mathfrak{M}$		min. Earth dist.	2141 Oct 11 07:44	19° $\mathfrak{Y}$ 18'52	3.95168 AU
retrograde	2136 Feb 20 03:23	5° $\mathfrak{M}$ 59'58		opposition	2141 Oct 12 08:18	19° $\mathfrak{Y}$ 10'35	-1°36'37
opposition	2136 Apr 20 20:19	1° $\mathfrak{M}$ 07'25	1°30'00	direct	2141 Dec 09 06:15	14° $\mathfrak{Y}$ 16'22	
min. Earth dist.	2136 Apr 22 01:40	0° $\mathfrak{M}$ 58'02	4.44351 AU		2142 Mar 28 03:09	0° $\mathfrak{Z}$	
	2136 Apr 29 16:39	30° $\mathfrak{R}$ $\mathfrak{L}$		evening set	2142 Apr 14 01:12	3° $\mathfrak{Z}$ 59'02	
direct	2136 Jun 22 15:31	26° $\mathfrak{L}$ 05'39		conjunction	2142 Apr 27 12:46	7° $\mathfrak{Z}$ 12'48	-0°58'28
	2136 Aug 14 20:11	0° $\mathfrak{M}$		minimum elong	2142 Apr 27 12:48	7° $\mathfrak{Z}$ 12'49	0°58'28
evening set	2136 Oct 26 18:54	13° $\mathfrak{M}$ 40'05		max. Earth dist.	2142 Apr 29 12:05	7° $\mathfrak{Z}$ 41'11	5.97146 AU
	2136 Nov 01 21:09	15° $\mathfrak{M}$		morning rise	2142 May 11 03:22	10° $\mathfrak{Z}$ 28'01	
max. Earth dist.	2136 Nov 06 12:59	16° $\mathfrak{M}$ 01'20	6.41076 AU		2142 May 30 13:01	15° $\mathfrak{Z}$	
conjunction	2136 Nov 08 12:58	16° $\mathfrak{M}$ 27'42	0°54'08		2142 Aug 27 23:13	0° $\mathfrak{I}$	
minimum elong	2136 Nov 08 13:00	16° $\mathfrak{M}$ 27'43	0°54'08	retrograde	2142 Sep 19 15:05	0° $\mathfrak{I}$ 50'23	
morning rise	2136 Nov 21 04:50	19° $\mathfrak{M}$ 14'24			2142 Oct 12 03:27	30° $\mathfrak{R}$ $\mathfrak{Z}$	
	2137 Jan 13 22:05	0° $\mathfrak{Z}$		min. Earth dist.	2142 Nov 16 19:00	25° $\mathfrak{Z}$ 57'15	4.01393 AU
retrograde	2137 Mar 22 11:57	6° $\mathfrak{Z}$ 21'59		opposition	2142 Nov 18 05:45	25° $\mathfrak{Z}$ 45'24	-1°09'57
opposition	2137 May 22 10:07	1° $\mathfrak{Z}$ 30'05	1°02'06	direct	2143 Jan 15 06:58	20° $\mathfrak{Z}$ 48'40	
min. Earth dist.	2137 May 23 22:21	1° $\mathfrak{Z}$ 18'32	4.36334 AU		2143 Apr 05 05:09	0° $\mathfrak{I}$	
	2137 Jun 03 09:20	30° $\mathfrak{R}$ $\mathfrak{M}$		evening set	2143 May 21 11:14	10° $\mathfrak{I}$ 08'22	
direct	2137 Jul 23 21:31	26° $\mathfrak{M}$ 30'05		conjunction	2143 Jun 04 04:38	13° $\mathfrak{I}$ 20'09	-0°31'02
	2137 Sep 11 13:16	0° $\mathfrak{Z}$		minimum elong	2143 Jun 04 04:40	13° $\mathfrak{I}$ 20'10	0°31'03
evening set	2137 Nov 26 15:10	14° $\mathfrak{Z}$ 25'54		max. Earth dist.	2143 Jun 06 13:03	13° $\mathfrak{I}$ 53'02	6.07183 AU
max. Earth dist.	2137 Dec 07 05:28	16° $\mathfrak{Z}$ 48'50	6.30192 AU	morning rise	2143 Jun 17 23:30	16° $\mathfrak{I}$ 32'27	
conjunction	2137 Dec 09 07:20	17° $\mathfrak{Z}$ 16'59	0°27'21		2143 Aug 21 21:12	0° $\mathfrak{E}$	
minimum elong	2137 Dec 09 07:21	17° $\mathfrak{Z}$ 17'00	0°27'21	retrograde	2143 Oct 24 12:34	5° $\mathfrak{E}$ 55'44	
morning rise	2137 Dec 21 22:15	20° $\mathfrak{Z}$ 07'45		min. Earth dist.	2143 Dec 21 18:13	1° $\mathfrak{E}$ 02'23	4.14056 AU
	2138 Feb 06 23:21	0° $\mathfrak{Z}$		opposition	2143 Dec 23 02:36	0° $\mathfrak{E}$ 51'23	-0°18'33
retrograde	2138 Apr 24 21:12	8° $\mathfrak{Z}$ 04'18			2143 Dec 29 10:37	30° $\mathfrak{R}$ $\mathfrak{I}$	
opposition	2138 Jun 24 18:07	3° $\mathfrak{Z}$ 11'34	0°14'38	direct	2144 Feb 20 01:38	25° $\mathfrak{I}$ 51'40	
min. Earth dist.	2138 Jun 26 04:17	3° $\mathfrak{Z}$ 00'39	4.23177 AU		2144 Apr 12 08:52	0° $\mathfrak{E}$	
	2138 Jul 21 21:50	30° $\mathfrak{R}$ $\mathfrak{Z}$		asc. node	2144 May 02 06:43	3° $\mathfrak{E}$ 16'08	
direct	2138 Aug 25 07:21	28° $\mathfrak{Z}$ 14'00		evening set	2144 Jun 25 15:38	14° $\mathfrak{E}$ 34'03	
	2138 Sep 28 09:34	0° $\mathfrak{Z}$		conjunction	2144 Jul 09 09:00	17° $\mathfrak{E}$ 39'30	0°06'30
desc. node	2138 Oct 08 22:59	1° $\mathfrak{Z}$ 12'06		minimum elong	2144 Jul 09 08:59	17° $\mathfrak{E}$ 39'30	0°06'30
evening set	2138 Dec 28 16:14	16° $\mathfrak{Z}$ 44'38		behind sun begin	2144 Jul 09 01:10	17° $\mathfrak{E}$ 35'06	
max. Earth dist.	2139 Jan 08 17:45	19° $\mathfrak{Z}$ 18'54	6.15866 AU				

behind sun end	2144 Jul 09 16:48	17°♄43'53		direct	2150 Aug 29 22:57	2°♄58'38	
max. Earth dist.	2144 Jul 11 02:41	18°♄03'00	6.21376 AU	evening set	2151 Jan 02 08:17	21°♄34'45	
morning rise	2144 Jul 23 02:13	20°♄44'32		max. Earth dist.	2151 Jan 13 14:52	24°♄12'36	6.13915 AU
	2144 Sep 05 00:07	0°♂					
retrograde	2144 Nov 25 01:19	8°♂58'47		conjunction	2151 Jan 15 01:43	24°♄33'01	-0°14'11
opposition	2145 Jan 23 20:18	3°♂57'18	0°35'47	minimum elong	2151 Jan 15 01:42	24°♄33'00	0°14'11
min. Earth dist.	2145 Jan 23 00:41	4°♂03'53	4.28393 AU	behind sun begin	2151 Jan 14 21:38	24°♄30'38	
	2145 Feb 27 02:01	30°♄		behind sun end	2151 Jan 15 05:45	24°♄35'22	
direct	2145 Mar 25 03:05	28°♄55'21		morning rise	2151 Jan 27 19:36	27°♄31'49	
	2145 Apr 20 11:46	0°♂			2151 Feb 07 12:21	0°♄	
	2145 Jul 20 14:10	15°♂			2151 May 02 02:22	15°♄	
evening set	2145 Jul 29 22:09	17°♂01'15		retrograde	2151 Jun 04 19:52	16°♄44'47	
					2151 Jul 08 15:24	15°♄	
conjunction	2145 Aug 12 10:35	19°♂58'52	0°40'14	opposition	2151 Aug 04 09:05	11°♄49'09	-0°48'14
minimum elong	2145 Aug 12 10:33	19°♂58'51	0°40'14	min. Earth dist.	2151 Aug 05 01:40	11°♄43'46	4.07056 AU
max. Earth dist.	2145 Aug 13 03:46	20°♂08'18	6.34762 AU	direct	2151 Oct 03 07:54	6°♄54'23	
morning rise	2145 Aug 25 20:55	22°♂55'18			2151 Dec 17 03:14	15°♄	
	2145 Sep 28 17:08	0°♄		evening set	2152 Feb 05 13:46	26°♄08'39	
retrograde	2145 Dec 25 21:57	10°♄14'32					
opposition	2146 Feb 24 00:17	5°♄16'50	1°16'20	conjunction	2152 Feb 18 11:23	29°♄14'08	-0°47'40
min. Earth dist.	2146 Feb 23 22:10	5°♄17'32	4.39861 AU	minimum elong	2152 Feb 18 11:21	29°♄14'07	0°47'41
direct	2146 Apr 26 13:14	0°♄13'58		max. Earth dist.	2152 Feb 18 03:02	29°♄09'07	6.01362 AU
evening set	2146 Aug 31 08:38	17°♄54'16			2152 Feb 21 15:46	0°♄	
				morning rise	2152 Mar 02 11:09	2°♄20'57	
conjunction	2146 Sep 13 13:31	20°♄45'20	1°01'08	retrograde	2152 Jul 11 14:35	22°♄35'38	
minimum elong	2146 Sep 13 13:29	20°♄45'19	1°01'07	opposition	2152 Sep 09 18:40	17°♄36'14	-1°28'42
max. Earth dist.	2146 Sep 13 00:58	20°♄38'32	6.43422 AU	min. Earth dist.	2152 Sep 09 11:48	17°♄38'31	3.97305 AU
morning rise	2146 Sep 26 15:50	23°♄35'02		direct	2152 Nov 07 08:44	12°♄42'41	
	2146 Oct 27 14:10	0°♄			2153 Mar 02 20:36	0°♄	
retrograde	2147 Jan 25 01:20	10°♄24'10		evening set	2153 Mar 12 19:34	2°♄22'46	
opposition	2147 Mar 26 11:23	5°♄29'44	1°34'31				
min. Earth dist.	2147 Mar 27 04:08	5°♄24'19	4.45297 AU	conjunction	2153 Mar 26 00:09	5°♄34'10	-1°04'18
direct	2147 May 27 22:30	0°♄27'01		minimum elong	2153 Mar 26 00:09	5°♄34'10	1°04'17
evening set	2147 Oct 01 11:26	17°♄57'23		max. Earth dist.	2153 Mar 27 01:01	5°♄49'13	5.95285 AU
max. Earth dist.	2147 Oct 12 23:02	20°♄26'17	6.45177 AU	morning rise	2153 Apr 08 07:49	8°♄47'14	
				retrograde	2153 Aug 18 18:37	29°♄28'01	
conjunction	2147 Oct 14 09:41	20°♄45'04	1°04'57	min. Earth dist.	2153 Oct 16 11:11	24°♄33'40	3.95716 AU
minimum elong	2147 Oct 14 09:41	20°♄45'04	1°04'57	opposition	2153 Oct 17 13:14	24°♄24'52	-1°35'03
morning rise	2147 Oct 27 05:01	23°♄31'26		direct	2153 Dec 14 11:11	19°♄30'22	
	2147 Nov 27 08:30	0°♄			2154 Mar 09 20:04	0°♄	
retrograde	2148 Feb 24 09:46	10°♄18'43		evening set	2154 Apr 19 06:12	9°♄10'36	
opposition	2148 Apr 25 04:07	5°♄26'20	1°27'30				
min. Earth dist.	2148 Apr 26 10:02	5°♄16'46	4.43371 AU	conjunction	2154 May 02 18:53	12°♄24'20	-0°55'47
direct	2148 Jun 26 21:41	0°♄24'47		minimum elong	2154 May 02 18:55	12°♄24'22	0°55'46
	2148 Oct 16 23:49	15°♄		max. Earth dist.	2154 May 04 21:38	12°♄54'40	5.98263 AU
evening set	2148 Oct 31 01:40	18°♄02'06			2154 May 13 15:52	15°♄	
max. Earth dist.	2148 Nov 10 18:47	20°♄23'20	6.39651 AU	morning rise	2154 May 16 10:14	15°♄39'22	
					2154 Jul 23 06:27	0°♄	
conjunction	2148 Nov 12 19:19	20°♄50'06	0°51'12	retrograde	2154 Sep 24 14:53	5°♄54'51	
minimum elong	2148 Nov 12 19:20	20°♄50'07	0°51'11	min. Earth dist.	2154 Nov 21 17:30	1°♄01'45	4.02954 AU
morning rise	2148 Nov 25 10:54	23°♄37'16		opposition	2154 Nov 23 04:26	0°♄49'51	-1°03'47
	2148 Dec 25 12:59	0°♄			2154 Nov 29 07:29	30°♄	
retrograde	2149 Mar 27 02:33	10°♄50'56		direct	2155 Jan 20 07:30	25°♄52'45	
opposition	2149 May 26 23:50	5°♄59'03	0°56'23		2155 Mar 12 13:32	0°♄	
min. Earth dist.	2149 May 28 12:59	5°♄47'13	4.34545 AU	evening set	2155 May 26 13:21	15°♄07'36	
direct	2149 Jul 28 09:30	0°♄59'24					
evening set	2149 Dec 01 01:25	18°♄59'55		conjunction	2155 Jun 09 06:57	18°♄18'40	-0°26'06
max. Earth dist.	2149 Dec 11 15:36	21°♄23'30	6.28190 AU	minimum elong	2155 Jun 09 06:58	18°♄18'41	0°26'06
				max. Earth dist.	2155 Jun 11 12:54	18°♄49'58	6.09028 AU
conjunction	2149 Dec 13 17:31	21°♄51'49	0°22'36	morning rise	2155 Jun 23 02:06	21°♄30'11	
minimum elong	2149 Dec 13 17:33	21°♄51'49	0°22'36		2155 Jul 31 19:18	0°♄	
morning rise	2149 Dec 26 08:44	24°♄43'29		retrograde	2155 Oct 29 02:58	10°♄44'03	
	2150 Jan 19 07:31	0°♄		min. Earth dist.	2155 Dec 26 10:47	5°♄50'33	4.15995 AU
retrograde	2150 Apr 29 18:08	12°♄48'52		opposition	2155 Dec 27 17:54	5°♄39'59	-0°10'44
opposition	2150 Jun 29 14:56	7°♄55'51	0°06'54	direct	2156 Feb 24 20:45	0°♄39'54	
min. Earth dist.	2150 Jun 30 22:27	7°♄45'45	4.21105 AU	asc. node	2156 Mar 12 16:56	1°♄07'47	
desc. node	2150 Aug 18 06:49	3°♄11'33		evening set	2156 Jun 30 11:58	19°♄17'16	

conjunction	2156 Jul 14 05:01	22°  21'45	0°11'39	min. Earth dist.	2162 Jul 05 18:20	12°  30'35	4.19523 AU
minimum elong	2156 Jul 14 05:00	22°  21'44	0°11'39	direct	2162 Sep 03 17:00	7°  34'33	
behind sun begin	2156 Jul 13 23:12	22°  18'29		evening set	2163 Jan 06 23:14	26°  23'17	
behind sun end	2156 Jul 14 10:48	22°  24'58		max. Earth dist.	2163 Jan 18 08:41	29°  03'19	6.12462 AU
max. Earth dist.	2156 Jul 15 20:12	22°  43'45	6.23266 AU				
morning rise	2156 Jul 27 21:22	25°  25'36		conjunction	2163 Jan 19 16:57	29°  22'16	-0°19'17
	2156 Aug 17 20:17	0°  ♏		minimum elong	2163 Jan 19 16:56	29°  22'15	0°19'16
retrograde	2156 Nov 29 10:49	13°  ♏31'40			2163 Jan 22 09:13	0°  ♏	
opposition	2157 Jan 28 05:43	8°  ♏30'45	0°42'30	morning rise	2163 Feb 01 11:28	2°  ♏21'56	
min. Earth dist.	2157 Jan 27 12:38	8°  ♏36'28	4.30073 AU		2163 Apr 02 01:54	15°  ♏	
direct	2157 Mar 29 16:42	3°  ♏28'39		retrograde	2163 Jun 09 20:28	21°  ♏42'16	
	2157 Jul 03 13:33	15°  ♏		opposition	2163 Aug 09 10:29	16°  ♏46'08	-0°55'04
evening set	2157 Aug 03 12:46	21°  ♏30'57		min. Earth dist.	2163 Aug 09 23:13	16°  ♏41'59	4.05875 AU
					2163 Aug 23 08:03	15°  ♏	
conjunction	2157 Aug 17 00:08	24°  ♏27'37	0°44'03	direct	2163 Oct 08 04:25	11°  ♏51'35	
minimum elong	2157 Aug 17 00:06	24°  ♏27'36	0°44'03		2163 Nov 21 22:48	15°  ♏	
max. Earth dist.	2157 Aug 17 12:04	24°  ♏34'08	6.36094 AU		2164 Feb 05 14:51	0°  ♏	
morning rise	2157 Aug 30 09:33	27°  ♏23'06		evening set	2164 Feb 10 10:00	1°  ♏08'28	
	2157 Sep 11 13:17	0°  ♏					
retrograde	2157 Dec 30 03:46	14°  ♏37'23		conjunction	2164 Feb 23 08:17	4°  ♏14'36	-0°51'10
opposition	2158 Feb 28 06:41	9°  ♏40'11	1°20'20	minimum elong	2164 Feb 23 08:15	4°  ♏14'35	0°51'10
min. Earth dist.	2158 Feb 28 07:30	9°  ♏39'55	4.40784 AU	max. Earth dist.	2164 Feb 23 04:23	4°  ♏12'16	6.00551 AU
direct	2158 Apr 30 22:42	4°  ♏37'16		morning rise	2164 Mar 07 08:51	7°  ♏22'08	
evening set	2158 Sep 04 18:31	22°  ♏16'08		retrograde	2164 Jul 16 18:55	27°  ♏41'06	
				opposition	2164 Sep 14 21:39	22°  ♏41'07	-1°31'45
conjunction	2158 Sep 17 22:35	25°  ♏06'40	1°02'43	min. Earth dist.	2164 Sep 14 12:44	22°  ♏44'05	3.96954 AU
minimum elong	2158 Sep 17 22:34	25°  ♏06'40	1°02'43	direct	2164 Nov 12 09:57	17°  ♏47'28	
max. Earth dist.	2158 Sep 17 07:55	24°  ♏58'44	6.43871 AU		2165 Feb 13 16:55	0°  ♏	
morning rise	2158 Sep 30 23:42	27°  ♏55'46		evening set	2165 Mar 17 19:34	7°  ♏27'48	
	2158 Oct 10 16:44	0°  ♏					
retrograde	2159 Jan 29 06:38	14°  ♏43'45		conjunction	2165 Mar 31 01:18	10°  ♏39'37	-1°04'37
opposition	2159 Mar 30 17:58	9°  ♏49'45	1°35'03	minimum elong	2165 Mar 31 01:18	10°  ♏39'37	1°04'38
min. Earth dist.	2159 Mar 31 12:09	9°  ♏43'53	4.45273 AU	max. Earth dist.	2165 Apr 01 06:27	10°  ♏57'15	5.95423 AU
direct	2159 Jun 01 05:50	4°  ♏47'14		morning rise	2165 Apr 13 09:58	13°  ♏53'04	
evening set	2159 Oct 05 19:12	22°  ♏18'16			2165 Jun 29 22:24	0°  ♏	
max. Earth dist.	2159 Oct 17 02:38	24°  ♏45'14	6.44683 AU	retrograde	2165 Aug 23 20:07	4°  ♏32'25	
					2165 Oct 18 17:36	30°  ♏	
conjunction	2159 Oct 18 16:31	25°  ♏05'49	1°04'02	min. Earth dist.	2165 Oct 21 10:10	29°  ♏38'12	3.96349 AU
minimum elong	2159 Oct 18 16:32	25°  ♏05'50	1°04'01	opposition	2165 Oct 22 13:35	29°  ♏28'56	-1°32'48
morning rise	2159 Oct 31 11:18	27°  ♏52'10		direct	2165 Dec 19 10:43	24°  ♏34'10	
	2159 Nov 10 09:52	0°  ♏			2166 Feb 16 08:56	0°  ♏	
retrograde	2160 Feb 28 20:16	14°  ♏41'55		evening set	2166 Apr 24 07:11	14°  ♏11'57	
opposition	2160 Apr 29 13:54	9°  ♏49'44	1°24'29		2166 Apr 27 16:09	15°  ♏	
min. Earth dist.	2160 Apr 30 21:45	9°  ♏39'34	4.42461 AU				
direct	2160 Jul 01 07:50	4°  ♏48'28		conjunction	2166 May 07 20:36	17°  ♏25'35	-0°52'47
	2160 Sep 29 16:17	15°  ♏		minimum elong	2166 May 07 20:38	17°  ♏25'36	0°52'47
evening set	2160 Nov 04 09:41	22°  ♏28'14		max. Earth dist.	2166 May 09 22:59	17°  ♏55'35	5.99310 AU
max. Earth dist.	2160 Nov 15 02:20	24°  ♏49'39	6.38413 AU	morning rise	2166 May 21 12:56	20°  ♏40'30	
					2166 Jul 02 02:20	0°  ♏	
conjunction	2160 Nov 17 03:02	25°  ♏16'35	0°47'57	retrograde	2166 Sep 29 08:56	10°  ♏49'37	
minimum elong	2160 Nov 17 03:04	25°  ♏16'36	0°47'57	min. Earth dist.	2166 Nov 26 11:58	5°  ♏56'33	4.04297 AU
morning rise	2160 Nov 29 18:18	28°  ♏04'08		opposition	2166 Nov 27 23:01	5°  ♏44'36	-0°57'27
	2160 Dec 08 14:18	0°  ♏		direct	2167 Jan 25 04:13	0°  ♏47'03	
retrograde	2161 Mar 31 16:02	15°  ♏23'14		evening set	2167 May 31 11:55	19°  ♏58'06	
opposition	2161 May 31 14:29	10°  ♏31'16	0°50'20				
min. Earth dist.	2161 Jun 02 02:07	10°  ♏19'55	4.33075 AU	conjunction	2167 Jun 14 05:58	23°  ♏08'37	-0°21'11
direct	2161 Aug 01 20:18	5°  ♏32'00		minimum elong	2167 Jun 14 05:59	23°  ♏08'38	0°21'11
evening set	2161 Dec 05 12:05	23°  ♏36'03		max. Earth dist.	2167 Jun 16 11:02	23°  ♏39'19	6.10577 AU
max. Earth dist.	2161 Dec 16 04:42	26°  ♏01'33	6.26616 AU	morning rise	2167 Jun 28 01:01	26°  ♏19'25	
					2167 Jul 14 07:40	0°  ♏	
conjunction	2161 Dec 18 04:08	26°  ♏28'33	0°17'45	retrograde	2167 Nov 02 16:40	15°  ♏25'11	
minimum elong	2161 Dec 18 04:09	26°  ♏28'33	0°17'45	min. Earth dist.	2167 Dec 31 01:38	10°  ♏31'16	4.17585 AU
morning rise	2161 Dec 30 19:26	29°  ♏20'55		opposition	2168 Jan 01 06:29	10°  ♏21'30	-0°03'09
	2162 Jan 02 16:38	0°  ♏		asc. node	2168 Jan 23 13:51	7°  ♏31'31	
retrograde	2162 May 04 16:04	17°  ♏33'42		direct	2168 Feb 29 13:26	5°  ♏21'05	
desc. node	2162 Jun 28 18:27	13°  ♏24'14		evening set	2168 Jul 05 06:10	23°  ♏54'43	
opposition	2162 Jul 04 11:46	12°  ♏40'23	-0°00'48				

conjunction	2168 Jul 18 22:43	26°☿58'20	0°16'34	morning rise	2174 Jan 04 05:03	3°♄55'04	
minimum elong	2168 Jul 18 22:42	26°☿58'20	0°16'34	retrograde	2174 May 09 11:17	22°♄16'16	
max. Earth dist.	2168 Jul 20 10:32	27°☿18'23	6.24780 AU	desc. node	2174 May 09 03:09	22°♄16'15	
morning rise	2168 Aug 01 14:31	0°♌01'17		opposition	2174 Jul 09 07:44	17°♄22'39	-0°08'33
	2168 Aug 01 12:13	0°♌		min. Earth dist.	2174 Jul 10 11:54	17°♄13'37	4.17634 AU
	2168 Oct 20 08:19	15°♌		direct	2174 Sep 08 07:31	12°♄26'11	
retrograde	2168 Dec 03 17:22	18°♌00'30			2175 Jan 06 12:14	0°♄	
	2169 Jan 17 04:03	15°♌♌		evening set	2175 Jan 11 14:19	1°♄11'04	
opposition	2169 Feb 01 13:47	13°♌00'03	0°48'47	max. Earth dist.	2175 Jan 23 03:12	3°♄53'47	6.10623 AU
min. Earth dist.	2169 Jan 31 22:23	13°♌05'11	4.31412 AU				
direct	2169 Apr 03 03:47	7°♌57'46		conjunction	2175 Jan 24 08:25	4°♄11'00	-0°24'18
	2169 Jun 14 07:36	15°♌		minimum elong	2175 Jan 24 08:23	4°♄11'00	0°24'18
evening set	2169 Aug 08 01:51	25°♌57'20		morning rise	2175 Feb 06 03:34	7°♄11'45	
					2175 Mar 12 19:14	15°♄	
conjunction	2169 Aug 21 12:23	28°♌53'12	0°47'30	retrograde	2175 Jun 15 01:04	26°♄41'19	
minimum elong	2169 Aug 21 12:21	28°♌53'11	0°47'30	opposition	2175 Aug 14 12:44	21°♄44'43	-1°01'41
max. Earth dist.	2169 Aug 21 21:29	28°♌58'10	6.37177 AU	min. Earth dist.	2175 Aug 14 23:27	21°♄41'13	4.04236 AU
	2169 Aug 26 14:38	0°♍		direct	2175 Oct 13 03:06	16°♄50'23	
morning rise	2169 Sep 03 20:39	1°♍47'47			2176 Jan 19 16:41	0°♍	
retrograde	2170 Jan 03 09:25	18°♍57'53		evening set	2176 Feb 15 07:47	6°♍11'55	
opposition	2170 Mar 04 12:46	14°♍01'11	1°23'46				
min. Earth dist.	2170 Mar 04 15:53	14°♍00'09	4.41549 AU	conjunction	2176 Feb 28 07:04	9°♍19'02	-0°54'22
direct	2170 May 05 08:20	8°♍58'18		minimum elong	2176 Feb 28 07:02	9°♍19'01	0°54'22
evening set	2170 Sep 09 03:37	26°♍35'45		max. Earth dist.	2176 Feb 28 07:50	9°♍19'30	5.99268 AU
max. Earth dist.	2170 Sep 21 11:51	29°♍15'36	6.44248 AU	morning rise	2176 Mar 12 08:38	12°♍27'36	
					2176 Jun 08 18:45	0°♎	
conjunction	2170 Sep 22 06:35	29°♍25'44	1°03'55	retrograde	2176 Jul 22 02:13	2°♎52'44	
minimum elong	2170 Sep 22 06:34	29°♍25'43	1°03'55		2176 Sep 03 14:47	30°♎♎	
	2170 Sep 24 21:57	0°♎		opposition	2176 Sep 20 03:04	27°♎52'17	-1°34'15
morning rise	2170 Oct 05 06:51	2°♎14'19		min. Earth dist.	2176 Sep 19 15:16	27°♎56'13	3.96192 AU
retrograde	2171 Feb 02 12:15	19°♎01'12		direct	2176 Nov 17 10:53	22°♎58'40	
opposition	2171 Apr 04 00:16	14°♎07'27	1°35'01		2177 Jan 24 08:39	0°♎	
min. Earth dist.	2171 Apr 04 20:29	14°♎00'55	4.45255 AU	evening set	2177 Mar 22 23:16	12°♎41'02	
direct	2171 Jun 05 13:54	9°♎05'00					
evening set	2171 Oct 10 01:44	26°♎36'16		conjunction	2177 Apr 05 05:58	15°♎53'26	-1°04'29
max. Earth dist.	2171 Oct 21 08:06	29°♎02'49	6.44256 AU	minimum elong	2177 Apr 05 05:58	15°♎53'27	1°04'28
				max. Earth dist.	2177 Apr 06 13:28	16°♎12'29	5.95230 AU
conjunction	2171 Oct 22 22:30	29°♎23'42	1°02'45	morning rise	2177 Apr 18 15:58	19°♎07'32	
minimum elong	2171 Oct 22 22:31	29°♎23'43	1°02'44		2177 Jun 05 23:58	0°♏	
	2171 Oct 25 17:10	0°♏		retrograde	2177 Aug 29 00:06	9°♏46'35	
morning rise	2171 Nov 04 16:26	2°♏09'56		min. Earth dist.	2177 Oct 26 11:36	4°♏52'49	3.96761 AU
	2172 Jan 11 10:45	15°♏		opposition	2177 Oct 27 17:17	4°♏42'45	-1°29'47
retrograde	2172 Mar 04 03:15	19°♏01'49			2177 Dec 13 17:53	30°♏♎	
	2172 Apr 27 08:19	15°♏♏		direct	2177 Dec 24 14:03	29°♏47'41	
opposition	2172 May 03 22:45	14°♏09'44	1°20'59		2178 Jan 04 10:52	0°♏	
min. Earth dist.	2172 May 05 06:50	13°♏59'30	4.41629 AU		2178 Apr 10 15:13	15°♏	
direct	2172 Jul 05 15:15	9°♏08'43		evening set	2178 Apr 29 12:40	19°♏23'59	
	2172 Sep 09 17:00	15°♏					
evening set	2172 Nov 08 16:13	26°♏50'27		conjunction	2178 May 13 03:11	22°♏37'37	-0°49'16
max. Earth dist.	2172 Nov 19 07:11	29°♏11'25	6.37208 AU	minimum elong	2178 May 13 03:14	22°♏37'39	0°49'16
				max. Earth dist.	2178 May 15 08:13	23°♏09'07	6.00304 AU
conjunction	2172 Nov 21 09:03	29°♏39'06	0°44'26	morning rise	2178 May 26 20:08	25°♏52'23	
minimum elong	2172 Nov 21 09:05	29°♏39'07	0°44'26		2178 Jun 13 15:33	0°♐	
	2172 Nov 22 22:43	0°♐		retrograde	2178 Oct 04 09:04	15°♐54'57	
morning rise	2172 Dec 04 00:13	2°♐27'04		min. Earth dist.	2178 Dec 01 11:00	11°♐01'44	4.05758 AU
retrograde	2173 Apr 05 06:54	19°♐51'45		opposition	2178 Dec 02 21:25	10°♐49'59	-0°50'27
opposition	2173 Jun 05 04:23	14°♐59'41	0°43'59	direct	2179 Jan 30 05:32	5°♐52'05	
min. Earth dist.	2173 Jun 06 16:46	14°♐48'05	4.31522 AU	evening set	2179 Jun 05 14:41	24°♐58'49	
direct	2173 Aug 06 08:45	10°♐00'41					
evening set	2173 Dec 09 21:23	28°♐08'38		conjunction	2179 Jun 19 08:52	28°♐08'37	-0°15'55
	2173 Dec 18 01:14	0°♑		minimum elong	2179 Jun 19 08:53	28°♐08'37	0°15'55
max. Earth dist.	2173 Dec 20 15:10	0°♑35'22	6.24837 AU	max. Earth dist.	2179 Jun 21 13:23	28°♐38'50	6.12395 AU
					2179 Jun 27 10:39	0°♑	
conjunction	2173 Dec 22 13:33	1°♑01'52	0°12'48	morning rise	2179 Jul 03 03:56	1°♑18'33	
minimum elong	2173 Dec 22 13:34	1°♑01'52	0°12'48	retrograde	2179 Nov 07 06:12	20°♑14'51	
behind sun begin	2173 Dec 22 08:29	0°♑58'59		asc. node	2179 Dec 03 08:22	19°♑08'00	
behind sun end	2173 Dec 22 18:39	1°♑04'46		opposition	2180 Jan 05 21:59	15°♑11'31	0°04'42

min. Earth dist.	2180 Jan 04 17:17	15°  21'13	4.19607 AU	conjunction	2185 Dec 26 20:41	5°  29'37	0°07'54
direct	2180 Mar 05 08:05	10°  10'49		minimum elong	2185 Dec 26 20:42	5°  29'38	0°07'55
evening set	2180 Jul 10 02:46	28°  38'57		behind sun begin	2185 Dec 26 13:32	5°  25'32	
	2180 Jul 16 04:45	0°  ♃		behind sun end	2185 Dec 27 03:52	5°  33'43	
				morning rise	2186 Jan 08 12:40	8°  23'53	
conjunction	2180 Jul 23 18:36	1°  ♃41'22	0°21'31	desc. node	2186 Mar 20 21:49	22°  35'59	
minimum elong	2180 Jul 23 18:35	1°  ♃41'21	0°21'32	retrograde	2186 May 14 07:59	26°  35'07	
max. Earth dist.	2180 Jul 25 03:21	1°  ♃59'37	6.26870 AU	opposition	2186 Jul 14 02:22	22°  30'10	-0°16'06
morning rise	2180 Aug 06 09:28	4°  ♃43'00		min. Earth dist.	2186 Jul 15 05:49	21°  35'21'9	4.15273 AU
	2180 Sep 25 11:06	15°  ♃		direct	2186 Sep 12 22:28	17°  30'45'4	
retrograde	2180 Dec 08 02:18	22°  ♃33'18			2186 Dec 21 03:27	0°  ♃	
opposition	2181 Feb 05 23:16	17°  ♃33'20	0°54'51	evening set	2187 Jan 16 04:30	5°  ♃56'50	
min. Earth dist.	2181 Feb 05 10:35	17°  ♃37'34	4.33405 AU				
	2181 Feb 26 03:52	15°  ♃♃		conjunction	2187 Jan 28 23:21	8°  ♃58'04	-0°29'05
direct	2181 Apr 07 19:13	12°  ♃30'55		minimum elong	2187 Jan 28 23:19	8°  ♃58'03	0°29'05
	2181 May 18 20:20	15°  ♃		max. Earth dist.	2187 Jan 27 21:29	8°  ♃42'45	6.08263 AU
	2181 Aug 10 16:24	0°  ♃♃		morning rise	2187 Feb 10 19:16	12°  ♃00'11	
evening set	2181 Aug 12 15:13	0°  ♃25'17			2187 Feb 23 15:49	15°  ♃	
					2187 May 18 06:24	0°  ♃♃	
conjunction	2181 Aug 26 00:40	3°  ♃20'00	0°50'43	retrograde	2187 Jun 20 05:51	1°  ♃41'00	
minimum elong	2181 Aug 26 00:38	3°  ♃19'59	0°50'43		2187 Jul 23 06:06	30°  ♃♃	
max. Earth dist.	2181 Aug 26 06:27	3°  ♃23'09	6.38914 AU	opposition	2187 Aug 19 15:08	26°  ♃43'56	-1°07'49
morning rise	2181 Sep 08 07:43	6°  ♃13'23		min. Earth dist.	2187 Aug 19 23:01	26°  ♃41'21	4.02112 AU
retrograde	2182 Jan 07 11:40	23°  ♃17'11		direct	2187 Oct 17 23:22	21°  ♃49'49	
opposition	2182 Mar 08 17:56	18°  ♃20'51	1°26'42		2187 Dec 31 14:14	0°  ♃♃	
min. Earth dist.	2182 Mar 08 22:50	18°  ♃19'15	4.42933 AU	evening set	2188 Feb 20 07:16	11°  ♃18'01	
direct	2182 May 09 16:51	13°  ♃17'55					
	2182 Sep 09 09:32	0°  ♃♃		conjunction	2188 Mar 04 07:26	14°  ♃26'21	-0°57'08
evening set	2182 Sep 13 10:40	0°  ♃51'52		minimum elong	2188 Mar 04 07:24	14°  ♃26'20	0°57'08
				max. Earth dist.	2188 Mar 04 11:35	14°  ♃28'52	5.97569 AU
conjunction	2182 Sep 26 12:38	3°  ♃41'03	1°04'45	morning rise	2188 Mar 17 10:21	17°  ♃36'16	
minimum elong	2182 Sep 26 12:37	3°  ♃41'03	1°04'46		2188 May 12 12:09	0°  ♃♃	
max. Earth dist.	2182 Sep 25 15:21	3°  ♃29'33	6.45167 AU	retrograde	2188 Jul 27 10:13	8°  ♃08'56	
morning rise	2182 Oct 09 11:43	6°  ♃28'50		opposition	2188 Sep 25 10:00	3°  ♃07'54	-1°35'58
retrograde	2183 Feb 06 14:24	23°  ♃13'08		min. Earth dist.	2188 Sep 24 18:31	3°  ♃13'05	3.95122 AU
opposition	2183 Apr 08 04:18	18°  ♃19'41	1°34'28		2188 Oct 20 21:40	30°  ♃♃	
min. Earth dist.	2183 Apr 09 02:51	18°  ♃12'25	4.45646 AU	direct	2188 Nov 22 14:16	28°  ♃14'12	
direct	2183 Jun 09 20:22	13°  ♃17'21			2188 Dec 25 01:57	0°  ♃♃	
	2183 Oct 10 12:52	0°  ♃♃		evening set	2189 Mar 28 05:40	17°  ♃59'44	
evening set	2183 Oct 14 05:06	0°  ♃♃47'29					
max. Earth dist.	2183 Oct 25 06:32	3°  ♃11'34	6.44060 AU	conjunction	2189 Apr 10 13:50	21°  ♃12'57	-1°03'45
				minimum elong	2189 Apr 10 13:51	21°  ♃12'57	1°03'44
conjunction	2183 Oct 27 01:00	3°  ♃34'41	1°01'09	max. Earth dist.	2189 Apr 12 03:14	21°  ♃35'33	5.94906 AU
minimum elong	2183 Oct 27 01:01	3°  ♃34'42	1°01'09	morning rise	2189 Apr 24 00:57	24°  ♃27'44	
morning rise	2183 Nov 08 18:28	6°  ♃20'47			2189 May 17 15:50	0°  ♃♃	
	2183 Dec 21 03:07	15°  ♃♃			2189 Aug 26 09:32	15°  ♃♃	
retrograde	2184 Mar 08 08:49	23°  ♃14'25		retrograde	2189 Sep 03 08:42	15°  ♃06'19	
opposition	2184 May 08 04:41	18°  ♃22'21	1°17'08		2189 Sep 11 06:22	15°  ♃♃	
min. Earth dist.	2184 May 09 14:47	18°  ♃11'28	4.40842 AU	opposition	2189 Nov 01 23:23	10°  ♃02'07	-1°25'55
	2184 Jun 06 06:58	15°  ♃♃♃		min. Earth dist.	2189 Oct 31 16:24	10°  ♃12'38	3.97214 AU
direct	2184 Jul 09 21:33	13°  ♃21'26		direct	2189 Dec 29 20:41	5°  ♃06'43	
	2184 Aug 12 13:02	15°  ♃♃			2190 Mar 22 14:31	15°  ♃♃	
	2184 Nov 07 20:48	0°  ♃♃♃		evening set	2190 May 04 20:52	24°  ♃41'00	
evening set	2184 Nov 12 19:24	1°  ♃♃05'09					
max. Earth dist.	2184 Nov 23 10:05	3°  ♃♃26'21	6.35882 AU	conjunction	2190 May 18 12:14	27°  ♃54'31	-0°45'16
				minimum elong	2190 May 18 12:17	27°  ♃54'32	0°45'16
conjunction	2184 Nov 25 12:08	3°  ♃♃54'14	0°40'47	max. Earth dist.	2190 May 20 19:32	28°  ♃27'14	6.01470 AU
minimum elong	2184 Nov 25 12:10	3°  ♃♃54'15	0°40'48		2190 May 27 08:35	0°  ♃♃♃	
morning rise	2184 Dec 08 03:00	6°  ♃♃42'39		morning rise	2190 Jun 01 06:01	1°  ♃♃09'03	
retrograde	2185 Apr 09 16:33	24°  ♃♃13'29		retrograde	2190 Oct 09 07:45	21°  ♃♃03'42	
opposition	2185 Jun 09 15:11	19°  ♃♃21'16	0°37'33	min. Earth dist.	2190 Dec 06 09:35	16°  ♃♃10'54	4.07480 AU
min. Earth dist.	2185 Jun 11 03:28	19°  ♃♃09'43	4.29722 AU	opposition	2190 Dec 07 21:16	15°  ♃♃58'44	-0°42'57
direct	2185 Aug 10 16:01	14°  ♃♃22'32		direct	2191 Feb 04 07:13	11°  ♃♃00'23	
	2185 Dec 02 16:18	0°  ♃♃♃		evening set	2191 Jun 10 18:58	0°  ♃♃01'39	
evening set	2185 Dec 14 04:30	2°  ♃♃35'29			2191 Jun 10 16:04	0°  ♃♃♃	
max. Earth dist.	2185 Dec 24 22:18	5°  ♃♃02'59	6.22692 AU				
				conjunction	2191 Jun 24 13:06	3°  ♃♃10'29	-0°10'29



minimum elong	2191 Jun 24 13:07	3° $\mathfrak{D}$ 10'30	0°10'29			2197 Nov 15 09:54	0° $\mathfrak{Z}$	
behind sun begin	2191 Jun 24 06:40	3° $\mathfrak{D}$ 06'49		evening set		2197 Dec 18 17:11	7° $\mathfrak{Z}$ 17'59	
behind sun end	2191 Jun 24 19:35	3° $\mathfrak{D}$ 14'11		max. Earth dist.		2197 Dec 29 14:06	9° $\mathfrak{Z}$ 47'58	6.20471 AU
max. Earth dist.	2191 Jun 26 15:30	3° $\mathfrak{D}$ 39'21	6.14493 AU					
morning rise	2191 Jul 08 07:55	6° $\mathfrak{D}$ 19'20		conjunction		2197 Dec 31 09:46	10° $\mathfrak{Z}$ 13'10	0°02'40
asc. node	2191 Oct 12 01:17	23° $\mathfrak{D}$ 34'11		minimum elong		2197 Dec 31 09:46	10° $\mathfrak{Z}$ 13'09	0°02'41
retrograde	2191 Nov 11 22:04	25° $\mathfrak{D}$ 05'10		behind sun begin		2197 Dec 31 01:47	10° $\mathfrak{Z}$ 08'35	
min. Earth dist.	2192 Jan 09 11:53	20° $\mathfrak{D}$ 11'02	4.21824 AU	behind sun end		2197 Dec 31 17:44	10° $\mathfrak{Z}$ 17'44	
opposition	2192 Jan 10 14:09	20° $\mathfrak{D}$ 02'10	0°12'35	morning rise		2198 Jan 13 02:00	13° $\mathfrak{Z}$ 08'30	
direct	2192 Mar 10 06:06	15° $\mathfrak{D}$ 01'07		desc. node		2198 Jan 28 05:31	16° $\mathfrak{Z}$ 34'26	
	2192 Jun 29 10:42	0° $\mathfrak{N}$				2198 Apr 14 17:43	0° $\approx$	
evening set	2192 Jul 14 23:45	3° $\mathfrak{N}$ 23'12		retrograde		2198 May 19 10:02	1° $\approx$ 50'02	
						2198 Jun 23 07:10	30° $\mathfrak{R}$ $\mathfrak{Z}$	
conjunction	2192 Jul 28 14:57	6° $\mathfrak{N}$ 24'25	0°26'24	opposition		2198 Jul 19 03:12	26° $\mathfrak{Z}$ 55'49	-0°24'01
minimum elong	2192 Jul 28 14:56	6° $\mathfrak{N}$ 24'24	0°26'24	min. Earth dist.		2198 Jul 20 04:29	26° $\mathfrak{Z}$ 47'40	4.13070 AU
max. Earth dist.	2192 Jul 29 21:24	6° $\mathfrak{N}$ 41'18	6.29009 AU	direct		2198 Sep 17 17:48	21° $\mathfrak{Z}$ 59'58	
morning rise	2192 Aug 11 04:45	9° $\mathfrak{N}$ 24'42				2198 Dec 01 19:17	0° $\approx$	
	2192 Sep 06 07:02	15° $\mathfrak{N}$		evening set		2199 Jan 21 00:49	10° $\approx$ 58'12	
retrograde	2192 Dec 12 09:34	27° $\mathfrak{N}$ 06'15						
opposition	2193 Feb 10 09:05	22° $\mathfrak{N}$ 06'50	1°00'40	conjunction		2199 Feb 02 20:07	14° $\approx$ 00'32	-0°33'55
min. Earth dist.	2193 Feb 09 21:55	22° $\mathfrak{N}$ 10'32	4.35293 AU	minimum elong		2199 Feb 02 20:05	14° $\approx$ 00'31	0°33'56
direct	2193 Apr 12 08:43	17° $\mathfrak{N}$ 04'17		max. Earth dist.		2199 Feb 01 21:03	13° $\approx$ 46'49	6.06282 AU
	2193 Jul 24 23:09	0° $\mathfrak{N}$				2199 Feb 07 00:04	15° $\approx$	
evening set	2193 Aug 17 04:59	4° $\mathfrak{N}$ 54'10		morning rise		2199 Feb 15 17:00	17° $\approx$ 03'54	
						2199 Apr 16 22:34	0° $\mathfrak{H}$	
conjunction	2193 Aug 30 13:16	7° $\mathfrak{N}$ 47'49	0°53'43	retrograde		2199 Jun 25 14:08	6° $\mathfrak{H}$ 54'21	
minimum elong	2193 Aug 30 13:13	7° $\mathfrak{N}$ 47'48	0°53'43	opposition		2199 Aug 24 22:31	1° $\mathfrak{H}$ 56'44	-1°13'44
max. Earth dist.	2193 Aug 30 14:11	7° $\mathfrak{N}$ 48'19	6.40399 AU	min. Earth dist.		2199 Aug 25 02:27	1° $\mathfrak{H}$ 55'26	4.00572 AU
morning rise	2193 Sep 12 19:11	10° $\mathfrak{N}$ 40'08				2199 Sep 09 04:13	30° $\mathfrak{R}$ $\approx$	
retrograde	2194 Jan 11 18:03	27° $\mathfrak{N}$ 39'00		direct		2199 Oct 23 01:39	27° $\approx$ 02'49	
opposition	2194 Mar 13 00:48	22° $\mathfrak{N}$ 43'12	1°29'17			2199 Dec 05 00:30	0° $\mathfrak{H}$	
min. Earth dist.	2194 Mar 13 09:14	22° $\mathfrak{N}$ 40'27	4.43926 AU	evening set		2200 Feb 25 10:48	16° $\mathfrak{H}$ 35'12	
direct	2194 May 14 04:09	17° $\mathfrak{N}$ 40'19						
	2194 Aug 23 20:50	0° $\mathfrak{N}$		conjunction		2200 Mar 10 12:09	19° $\mathfrak{H}$ 44'27	-0°59'36
evening set	2194 Sep 17 19:16	5° $\mathfrak{N}$ 12'13		minimum elong		2200 Mar 10 12:07	19° $\mathfrak{H}$ 44'26	0°59'36
				max. Earth dist.		2200 Mar 10 23:04	19° $\mathfrak{H}$ 51'04	5.96642 AU
conjunction	2194 Sep 30 20:18	8° $\mathfrak{N}$ 00'52	1°05'19	morning rise		2200 Mar 23 16:01	22° $\mathfrak{H}$ 55'15	
minimum elong	2194 Sep 30 20:17	8° $\mathfrak{N}$ 00'52	1°05'18			2200 Apr 23 01:46	0° $\mathfrak{Y}$	
max. Earth dist.	2194 Sep 29 19:01	7° $\mathfrak{N}$ 47'12	6.45581 AU	retrograde		2200 Aug 02 21:58	13° $\mathfrak{Y}$ 31'46	
morning rise	2194 Oct 13 18:26	10° $\mathfrak{N}$ 48'08		opposition		2200 Oct 01 19:14	8° $\mathfrak{Y}$ 30'12	-1°36'57
retrograde	2195 Feb 10 19:41	27° $\mathfrak{N}$ 31'48		min. Earth dist.		2200 Oct 01 01:22	8° $\mathfrak{Y}$ 36'11	3.94949 AU
opposition	2195 Apr 12 11:11	22° $\mathfrak{N}$ 38'37	1°33'29	direct		2200 Nov 28 22:04	3° $\mathfrak{Y}$ 36'24	
min. Earth dist.	2195 Apr 13 11:32	22° $\mathfrak{N}$ 30'48	4.45481 AU	evening set		2201 Apr 03 13:21	23° $\mathfrak{Y}$ 21'23	
direct	2195 Jun 14 03:57	17° $\mathfrak{N}$ 36'26						
	2195 Sep 24 03:55	0° $\mathfrak{N}$		conjunction		2201 Apr 16 22:30	26° $\mathfrak{Y}$ 34'48	-1°02'34
evening set	2195 Oct 18 11:41	5° $\mathfrak{N}$ 07'25		minimum elong		2201 Apr 16 22:31	26° $\mathfrak{Y}$ 34'49	1°02'33
max. Earth dist.	2195 Oct 29 11:35	7° $\mathfrak{N}$ 30'56	6.43328 AU	max. Earth dist.		2201 Apr 18 15:30	26° $\mathfrak{Y}$ 59'32	5.95481 AU
				morning rise		2201 Apr 30 10:49	29° $\mathfrak{Y}$ 49'48	
conjunction	2195 Oct 31 07:03	7° $\mathfrak{N}$ 54'40	0°59'13			2201 May 01 03:53	0° $\mathfrak{B}$	
minimum elong	2195 Oct 31 07:04	7° $\mathfrak{N}$ 54'41	0°59'14			2201 Jul 11 07:54	15° $\mathfrak{B}$	
morning rise	2195 Nov 12 23:51	10° $\mathfrak{N}$ 40'50		retrograde		2201 Sep 09 12:30	20° $\mathfrak{B}$ 23'46	
	2195 Dec 03 06:37	15° $\mathfrak{N}$		min. Earth dist.		2201 Nov 06 18:17	15° $\mathfrak{B}$ 30'38	3.98489 AU
retrograde	2196 Mar 12 18:23	27° $\mathfrak{N}$ 38'07		opposition		2201 Nov 08 03:47	15° $\mathfrak{B}$ 19'14	-1°21'26
opposition	2196 May 12 15:13	22° $\mathfrak{N}$ 46'11	1°12'45			2201 Nov 10 12:25	15° $\mathfrak{R}$ $\mathfrak{B}$	
min. Earth dist.	2196 May 14 02:37	22° $\mathfrak{N}$ 34'55	4.39580 AU	direct		2202 Jan 05 00:54	10° $\mathfrak{B}$ 23'26	
direct	2196 Jul 14 07:10	17° $\mathfrak{N}$ 45'35				2202 Feb 28 03:33	15° $\mathfrak{B}$	
	2196 Oct 22 08:15	0° $\mathfrak{Z}$		evening set		2202 May 11 03:10	29° $\mathfrak{B}$ 52'53	
evening set	2196 Nov 17 03:22	5° $\mathfrak{Z}$ 32'47				2202 May 11 15:20	0° $\mathfrak{I}$	
max. Earth dist.	2196 Nov 27 15:50	7° $\mathfrak{Z}$ 53'25	6.34177 AU					
				conjunction		2202 May 24 19:08	3° $\mathfrak{I}$ 05'49	-0°41'01
conjunction	2196 Nov 29 19:45	8° $\mathfrak{Z}$ 22'26	0°36'45	minimum elong		2202 May 24 19:10	3° $\mathfrak{I}$ 05'50	0°41'01
minimum elong	2196 Nov 29 19:47	8° $\mathfrak{Z}$ 22'27	0°36'44	max. Earth dist.		2202 May 27 02:16	3° $\mathfrak{I}$ 38'18	6.03305 AU
morning rise	2196 Dec 12 10:46	11° $\mathfrak{Z}$ 11'34		morning rise		2202 Jun 07 13:20	6° $\mathfrak{I}$ 19'38	
retrograde	2197 Apr 14 10:18	28° $\mathfrak{Z}$ 50'08		retrograde		2202 Oct 15 03:29	26° $\mathfrak{I}$ 04'08	
opposition	2197 Jun 14 08:17	23° $\mathfrak{Z}$ 57'46	0°30'32	min. Earth dist.		2202 Dec 12 07:12	21° $\mathfrak{I}$ 10'55	4.09643 AU
min. Earth dist.	2197 Jun 15 20:15	23° $\mathfrak{Z}$ 46'17	4.27665 AU	opposition		2202 Dec 13 17:30	20° $\mathfrak{I}$ 59'13	-0°35'23
direct	2197 Aug 15 06:04	18° $\mathfrak{Z}$ 59'20		direct		2203 Feb 10 08:24	16° $\mathfrak{I}$ 00'23	

	2203 May 25 16:40	0°♄		direct	2208 Jul 19 16:24	22°♄11'05	
evening set	2203 Jun 16 19:12	4°♄55'00			2208 Oct 04 18:17	0°♄	
				evening set	2208 Nov 22 12:33	10°♄02'50	
conjunction	2203 Jun 30 13:19	8°♄02'46 -0°05'10		max. Earth dist.	2208 Dec 03 02:46	12°♄25'01	6.32254 AU
minimum elong	2203 Jun 30 13:19	8°♄02'46 0°05'10					
behind sun begin	2203 Jun 30 05:13	7°♄58'10		conjunction	2208 Dec 05 04:55	12°♄53'12	0°32'28
behind sun end	2203 Jun 30 21:25	8°♄07'22		minimum elong	2208 Dec 05 04:57	12°♄53'12	0°32'28
max. Earth dist.	2203 Jul 02 14:40	8°♄30'53	6.16799 AU	morning rise	2208 Dec 17 19:49	15°♄43'06	
morning rise	2203 Jul 14 07:34	11°♄10'20			2209 Mar 02 10:36	0°♄	
asc. node	2203 Aug 23 04:14	19°♄44'03		retrograde	2209 Apr 20 05:46	3°♄29'59	
retrograde	2203 Nov 17 08:50	29°♄45'30			2209 Jun 09 04:53	30°♄♄	
min. Earth dist.	2204 Jan 15 01:24	24°♄51'21	4.24053 AU	opposition	2209 Jun 20 03:05	28°♄37'31	0°23'15
opposition	2204 Jan 16 02:19	24°♄42'57	0°20'05	min. Earth dist.	2209 Jun 21 14:21	28°♄26'16	4.25566 AU
direct	2204 Mar 15 22:26	19°♄41'37		direct	2209 Aug 20 21:11	23°♄39'31	
	2204 Jun 12 19:39	0°♄			2209 Oct 27 04:23	0°♄	
evening set	2204 Jul 20 16:44	7°♄57'55		desc. node	2209 Dec 08 10:34	8°♄28'13	
				evening set	2209 Dec 24 07:44	12°♄03'51	
conjunction	2204 Aug 03 06:56	10°♄57'54	0°30'57	max. Earth dist.	2210 Jan 04 06:03	14°♄35'26	6.18373 AU
minimum elong	2204 Aug 03 06:54	10°♄57'53	0°30'56				
max. Earth dist.	2204 Aug 04 07:39	11°♄11'33	6.30974 AU	conjunction	2210 Jan 06 00:24	14°♄59'58	-0°02'45
morning rise	2204 Aug 16 19:51	13°♄56'57		minimum elong	2210 Jan 06 00:24	14°♄59'58	0°02'45
	2204 Aug 21 15:17	15°♄		behind sun begin	2210 Jan 05 16:25	14°♄55'22	
	2204 Nov 16 13:25	0°♄		behind sun end	2210 Jan 06 08:22	15°♄04'34	
retrograde	2204 Dec 17 16:13	1°♄30'54		morning rise	2210 Jan 18 17:16	17°♄56'26	
	2205 Jan 17 14:22	30°♄♄			2210 Mar 17 01:29	0°♄	
opposition	2205 Feb 15 15:58	26°♄31'59	1°05'57	retrograde	2210 May 25 13:08	6°♄47'47	
min. Earth dist.	2205 Feb 15 08:34	26°♄34'26	4.36863 AU	opposition	2210 Jul 25 05:29	1°♄53'07	-0°31'51
direct	2205 Apr 17 20:52	21°♄29'16		min. Earth dist.	2210 Jul 26 03:22	1°♄46'02	4.11142 AU
	2205 Jul 07 21:18	0°♄			2210 Aug 09 04:41	30°♄♄	
evening set	2205 Aug 22 15:42	9°♄15'47		direct	2210 Sep 23 14:48	26°♄57'37	
					2210 Nov 07 00:17	0°♄	
conjunction	2205 Sep 04 23:06	12°♄08'37	0°56'20		2211 Jan 22 14:30	15°♄	
minimum elong	2205 Sep 04 23:04	12°♄08'36	0°56'20	evening set	2211 Jan 26 21:49	16°♄00'58	
max. Earth dist.	2205 Sep 04 20:42	12°♄07'18	6.41454 AU				
morning rise	2205 Sep 18 03:46	15°♄00'03		conjunction	2211 Feb 08 17:54	19°♄04'17	-0°38'32
	2205 Dec 12 10:18	0°♄		minimum elong	2211 Feb 08 17:52	19°♄04'16	0°38'32
retrograde	2206 Jan 16 20:50	1°♄55'28		max. Earth dist.	2211 Feb 08 00:47	18°♄54'05	6.04704 AU
	2206 Feb 21 08:46	30°♄♄		morning rise	2211 Feb 21 15:25	22°♄08'40	
opposition	2206 Mar 18 05:35	27°♄00'06	1°31'22		2211 Mar 28 01:56	0°♄	
min. Earth dist.	2206 Mar 18 15:54	26°♄56'45	4.44435 AU	retrograde	2211 Jul 01 23:22	12°♄06'53	
direct	2206 May 19 10:28	21°♄57'16		opposition	2211 Aug 31 05:42	7°♄08'45	-1°19'03
	2206 Aug 06 17:52	0°♄		min. Earth dist.	2211 Aug 31 07:05	7°♄08'18	3.99508 AU
evening set	2206 Sep 23 02:28	9°♄28'42		direct	2211 Oct 29 05:23	2°♄15'01	
max. Earth dist.	2206 Oct 04 21:31	12°♄01'19	6.45501 AU	evening set	2212 Mar 02 13:58	21°♄49'50	
conjunction	2206 Oct 06 02:31	12°♄17'00	1°05'30	conjunction	2212 Mar 15 16:08	24°♄59'43	-1°01'33
minimum elong	2206 Oct 06 02:31	12°♄17'00	1°05'30	minimum elong	2212 Mar 15 16:07	24°♄59'42	1°01'33
morning rise	2206 Oct 18 23:51	15°♄03'59		max. Earth dist.	2212 Mar 16 06:45	25°♄08'34	5.96162 AU
	2207 Jan 12 13:43	0°♄		morning rise	2212 Mar 28 21:15	28°♄11'14	
retrograde	2207 Feb 16 02:38	1°♄48'36			2212 Apr 05 11:12	0°♄	
	2207 Mar 22 18:04	30°♄♄		retrograde	2212 Aug 08 04:47	18°♄49'30	
opposition	2207 Apr 17 18:02	26°♄55'45	1°32'02	min. Earth dist.	2212 Oct 06 04:26	13°♄54'39	3.95134 AU
min. Earth dist.	2207 Apr 18 21:17	26°♄47'01	4.44832 AU	opposition	2212 Oct 07 01:50	13°♄47'27	-1°37'06
direct	2207 Jun 19 12:19	21°♄53'45		direct	2212 Dec 04 02:06	8°♄53'30	
	2207 Sep 07 00:59	0°♄		evening set	2213 Apr 08 19:06	28°♄37'08	
evening set	2207 Oct 23 18:10	9°♄26'55			2213 Apr 14 13:20	0°♄	
max. Earth dist.	2207 Nov 03 14:51	11°♄49'10	6.42151 AU				
				conjunction	2213 Apr 22 05:18	1°♄50'39	-1°00'53
conjunction	2207 Nov 05 13:00	12°♄14'25	0°56'58	minimum elong	2213 Apr 22 05:20	1°♄50'40	1°00'53
minimum elong	2207 Nov 05 13:02	12°♄14'26	0°56'59	max. Earth dist.	2213 Apr 24 00:57	2°♄16'55	5.96295 AU
morning rise	2207 Nov 18 05:28	15°♄00'55		morning rise	2213 May 05 18:34	5°♄05'42	
	2207 Nov 18 03:46	15°♄			2213 Jun 18 15:52	15°♄	
	2208 Feb 10 07:06	0°♄		retrograde	2213 Sep 14 14:12	25°♄34'26	
retrograde	2208 Mar 18 05:33	2°♄03'19		min. Earth dist.	2213 Nov 11 19:43	20°♄41'09	3.99825 AU
	2208 Apr 24 12:29	30°♄♄		opposition	2213 Nov 13 05:19	20°♄29'42	-1°16'24
opposition	2208 May 18 02:55	27°♄11'25	1°07'58	direct	2214 Jan 10 04:41	15°♄33'30	
min. Earth dist.	2208 May 19 14:25	27°♄00'06	4.37960 AU		2214 Apr 24 14:03	0°♄	

evening set	2214 May 16 06:51	4° $\Pi$ 58'24	direct	2219 Jun 23 19:37	26° $\Omega$ 15'41	
				2219 Aug 14 20:00	0° $\Pi$	
conjunction	2214 May 29 23:32	8° $\Pi$ 10'51 -0°36'33	evening set	2219 Oct 28 01:59	13° $\Pi$ 50'57	
minimum elong	2214 May 29 23:35	8° $\Pi$ 10'52 0°36'33		2219 Nov 02 08:28	15° $\Pi$	
max. Earth dist.	2214 Jun 01 08:03	8° $\Pi$ 43'58 6.05049 AU	max. Earth dist.	2219 Nov 07 21:34	16° $\Pi$ 13'01	6.41054 AU
morning rise	2214 Jun 12 18:01	11° $\Pi$ 24'00				
	2214 Sep 25 05:57	0° $\Phi$	conjunction	2219 Nov 09 20:15	16° $\Pi$ 38'40	0°54'23
retrograde	2214 Oct 19 21:36	0° $\Phi$ 59'07	minimum elong	2219 Nov 09 20:17	16° $\Pi$ 38'41	0°54'22
	2214 Nov 13 07:17	30° $\kappa$ $\Pi$	morning rise	2219 Nov 22 12:19	19° $\Pi$ 25'27	
min. Earth dist.	2214 Dec 17 01:48	26° $\Pi$ 05'56 4.11602 AU		2220 Jan 14 03:52	0° $\chi$	
opposition	2214 Dec 18 11:29	25° $\Pi$ 54'29 -0°27'44	retrograde	2220 Mar 22 19:27	6° $\chi$ 32'38	
direct	2215 Feb 15 05:28	20° $\Pi$ 55'19	opposition	2220 May 22 16:19	1° $\chi$ 40'47	1°02'44
	2215 May 07 01:11	0° $\Phi$	min. Earth dist.	2220 May 24 04:41	1° $\chi$ 29'12	4.36543 AU
evening set	2215 Jun 21 17:53	9° $\Phi$ 44'28		2220 Jun 05 02:52	30° $\kappa$ $\Pi$	
asc. node	2215 Jul 03 11:39	12° $\Phi$ 24'01	direct	2220 Jul 24 04:42	26° $\Pi$ 40'48	
				2220 Sep 10 11:28	0° $\chi$	
conjunction	2215 Jul 05 11:37	12° $\Phi$ 51'13 0°00'12	evening set	2220 Nov 26 22:23	14° $\chi$ 35'58	
minimum elong	2215 Jul 05 11:37	12° $\Phi$ 51'13 0°00'13	max. Earth dist.	2220 Dec 07 12:21	16° $\chi$ 58'36	6.30643 AU
behind sun begin	2215 Jul 05 03:19	12° $\Phi$ 46'32				
behind sun end	2215 Jul 05 19:55	12° $\Phi$ 55'53	conjunction	2220 Dec 09 14:35	17° $\chi$ 26'55	0°27'59
max. Earth dist.	2215 Jul 07 08:36	13° $\Phi$ 16'43 6.18801 AU	minimum elong	2220 Dec 09 14:36	17° $\chi$ 26'56	0°27'59
morning rise	2215 Jul 19 05:34	15° $\Phi$ 57'43	morning rise	2220 Dec 22 05:38	20° $\chi$ 17'32	
	2215 Sep 28 12:40	0° $\Omega$		2221 Feb 06 11:21	0° $\Xi$	
retrograde	2215 Nov 21 19:35	4° $\Omega$ 23'47	retrograde	2221 Apr 25 00:51	8° $\Xi$ 11'42	
	2216 Jan 15 19:21	30° $\kappa$ $\Phi$	opposition	2221 Jun 24 22:36	3° $\Xi$ 18'57	0°15'49
opposition	2216 Jan 20 13:28	29° $\Phi$ 21'41 0°27'22	min. Earth dist.	2221 Jun 26 07:23	3° $\Xi$ 08'28	4.23873 AU
min. Earth dist.	2216 Jan 19 15:15	29° $\Phi$ 29'10 4.25921 AU		2221 Jul 23 09:25	30° $\kappa$ $\chi$	
direct	2216 Mar 20 14:31	24° $\Phi$ 20'03	direct	2221 Aug 25 12:06	28° $\chi$ 21'18	
	2216 May 22 21:53	0° $\Omega$		2221 Sep 27 10:25	0° $\Xi$	
evening set	2216 Jul 25 09:02	12° $\Omega$ 32'01	desc. node	2221 Oct 18 13:31	2° $\Xi$ 36'01	
	2216 Aug 05 14:20	15° $\Omega$	evening set	2221 Dec 28 21:49	16° $\Xi$ 49'36	
			max. Earth dist.	2222 Jan 09 00:50	19° $\Xi$ 24'24	6.16755 AU
conjunction	2216 Aug 07 22:37	15° $\Omega$ 31'01 0°35'17				
minimum elong	2216 Aug 07 22:35	15° $\Omega$ 31'00 0°35'17	conjunction	2222 Jan 10 14:46	19° $\Xi$ 46'29	-0°07'58
max. Earth dist.	2216 Aug 08 20:35	15° $\Omega$ 43'08 6.32579 AU	minimum elong	2222 Jan 10 14:46	19° $\Xi$ 46'28	0°07'59
morning rise	2216 Aug 21 10:21	18° $\Omega$ 28'57	behind sun begin	2222 Jan 10 07:36	19° $\Xi$ 42'19	
	2216 Oct 18 09:35	0° $\Pi$	behind sun end	2222 Jan 10 21:56	19° $\Xi$ 50'38	
retrograde	2216 Dec 21 22:15	5° $\Pi$ 56'37	morning rise	2222 Jan 23 07:54	22° $\Xi$ 43'45	
opposition	2217 Feb 19 23:01	0° $\Pi$ 58'16 1°10'52		2222 Feb 24 22:21	0° $\approx$	
min. Earth dist.	2217 Feb 19 17:40	1° $\Pi$ 00'02 4.38099 AU	retrograde	2222 May 30 15:34	11° $\approx$ 43'03	
	2217 Feb 27 08:38	30° $\kappa$ $\Omega$	opposition	2222 Jul 30 06:44	6° $\approx$ 47'57	-0°39'19
direct	2217 Apr 22 06:50	25° $\Omega$ 55'30	min. Earth dist.	2222 Jul 31 02:42	6° $\approx$ 41'29	4.09729 AU
	2217 Jun 15 04:07	0° $\Pi$	direct	2222 Sep 28 12:24	1° $\approx$ 52'46	
evening set	2217 Aug 27 02:50	13° $\Pi$ 39'39		2223 Jan 05 18:42	15° $\approx$	
			evening set	2223 Jan 31 17:22	20° $\approx$ 59'18	
conjunction	2217 Sep 09 09:04	16° $\Pi$ 31'45 0°58'38				
minimum elong	2217 Sep 09 09:03	16° $\Pi$ 31'44 0°58'38	conjunction	2223 Feb 13 13:54	24° $\approx$ 03'18	-0°42'44
max. Earth dist.	2217 Sep 09 01:18	16° $\Pi$ 27'32 6.42220 AU	minimum elong	2223 Feb 13 13:52	24° $\approx$ 03'17	0°42'44
morning rise	2217 Sep 22 12:50	19° $\Pi$ 22'29	max. Earth dist.	2223 Feb 12 23:44	23° $\approx$ 54'51	6.03614 AU
	2217 Nov 15 08:24	0° $\Omega$	morning rise	2223 Feb 26 12:21	27° $\approx$ 08'32	
retrograde	2218 Jan 21 03:32	6° $\Omega$ 15'30		2223 Mar 10 15:44	0° $\text{H}$	
opposition	2218 Mar 22 11:59	1° $\Omega$ 20'34 1°32'59	retrograde	2223 Jul 07 02:50	17° $\text{H}$ 12'21	
min. Earth dist.	2218 Mar 23 01:40	1° $\Omega$ 16'08 4.44707 AU	opposition	2223 Sep 05 09:36	12° $\text{H}$ 13'39	-1°23'32
	2218 Apr 01 23:14	30° $\kappa$ $\Pi$	min. Earth dist.	2223 Sep 05 06:58	12° $\text{H}$ 14'31	3.98874 AU
direct	2218 May 23 19:51	26° $\Pi$ 17'46	direct	2223 Nov 03 05:06	7° $\text{H}$ 19'58	
	2218 Jul 14 12:44	0° $\Omega$	evening set	2224 Mar 07 13:55	26° $\text{H}$ 55'45	
evening set	2218 Sep 27 10:26	13° $\Omega$ 49'10				
max. Earth dist.	2218 Oct 09 02:51	16° $\Omega$ 20'30 6.45260 AU	conjunction	2224 Mar 20 17:03	0° $\Upsilon$ 06'07	-1°02'56
			minimum elong	2224 Mar 20 17:03	0° $\Upsilon$ 06'07	1°02'56
conjunction	2218 Oct 10 09:48	16° $\Omega$ 37'16 1°05'21		2224 Mar 20 06:57	0° $\Upsilon$	
minimum elong	2218 Oct 10 09:48	16° $\Omega$ 37'16 1°05'21	max. Earth dist.	2224 Mar 21 11:55	0° $\Upsilon$ 17'32	5.96029 AU
morning rise	2218 Oct 23 06:13	19° $\Omega$ 24'01	morning rise	2224 Apr 02 23:07	3° $\Upsilon$ 18'08	
	2218 Dec 15 23:53	0° $\Pi$	retrograde	2224 Aug 13 08:23	23° $\Upsilon$ 56'49	
retrograde	2219 Feb 20 09:25	6° $\Pi$ 10'05	min. Earth dist.	2224 Oct 11 05:46	19° $\Upsilon$ 01'53	3.95521 AU
opposition	2219 Apr 22 02:27	1° $\Pi$ 17'27 1°30'04	opposition	2224 Oct 12 04:24	18° $\Upsilon$ 54'15	-1°36'27
min. Earth dist.	2219 Apr 23 06:10	1° $\Pi$ 08'35 4.44128 AU	direct	2224 Dec 09 04:27	14° $\Upsilon$ 00'03	
	2219 May 02 07:07	30° $\kappa$ $\Omega$		2225 Mar 29 04:40	0° $\text{B}$	

evening set	2225 Apr 13 20:42	3°♄41'42		max. Earth dist.	2230 Oct 13 05:54	20°♄37'08	6.45052 AU
conjunction	2225 Apr 27 07:59	6°♄55'18 -0°58'47		conjunction	2230 Oct 14 16:13	20°♄55'44	1°04'48
minimum elong	2225 Apr 27 08:01	6°♄55'20 0°58'47		minimum elong	2230 Oct 14 16:14	20°♄55'44	1°04'48
max. Earth dist.	2225 Apr 29 06:51	7°♄23'25 5.97160 AU		morning rise	2230 Oct 27 12:01	23°♄42'19	
morning rise	2225 May 10 22:07	10°♄10'20			2230 Nov 26 17:27	0°♄	
	2225 May 31 14:40	15°♄		retrograde	2231 Feb 24 17:59	10°♄29'39	
	2225 Sep 01 00:18	0°♄		opposition	2231 Apr 26 10:38	5°♄37'13	1°27'35
retrograde	2225 Sep 19 12:17	0°♄33'39		min. Earth dist.	2231 Apr 27 16:32	5°♄27'39	4.43505 AU
	2225 Oct 07 20:10	30°♄		direct	2231 Jun 28 04:49	0°♄35'37	
min. Earth dist.	2225 Nov 16 16:25	25°♄40'25 4.01084 AU			2231 Oct 17 10:47	15°♄	
opposition	2225 Nov 18 02:25	25°♄28'50 -1°11'00		evening set	2231 Nov 01 08:23	18°♄12'25	
direct	2226 Jan 15 02:46	20°♄32'18		max. Earth dist.	2231 Nov 12 02:53	20°♄34'15	6.40038 AU
	2226 Apr 06 08:49	0°♄					
evening set	2226 May 21 06:58	9°♄53'20		conjunction	2231 Nov 14 02:18	21°♄00'22	0°51'29
				minimum elong	2231 Nov 14 02:20	21°♄00'23	0°51'29
conjunction	2226 Jun 04 00:00	13°♄05'16 -0°32'00		morning rise	2231 Nov 26 17:57	23°♄47'25	
minimum elong	2226 Jun 04 00:02	13°♄05'17 0°32'01			2231 Dec 26 00:41	0°♄	
max. Earth dist.	2226 Jun 06 06:11	13°♄36'54 6.06573 AU		retrograde	2232 Mar 27 06:20	10°♄59'13	
morning rise	2226 Jun 17 18:58	16°♄17'52		opposition	2232 May 27 04:35	6°♄07'18	0°57'08
	2226 Aug 22 23:35	0°♄		min. Earth dist.	2232 May 28 16:09	5°♄55'58	4.35171 AU
retrograde	2226 Oct 24 11:36	5°♄44'49		direct	2232 Jul 28 13:32	1°♄07'36	
min. Earth dist.	2226 Dec 21 17:30	0°♄51'28 4.13237 AU		evening set	2232 Dec 01 07:00	19°♄06'11	
opposition	2226 Dec 23 01:55	0°♄40'26 -0°20'12		max. Earth dist.	2232 Dec 11 22:16	21°♄30'06	6.29005 AU
	2226 Dec 28 01:10	30°♄					
direct	2227 Feb 19 23:30	25°♄40'51		conjunction	2232 Dec 13 23:04	21°♄57'44	0°23'21
	2227 Apr 14 10:19	0°♄		minimum elong	2232 Dec 13 23:06	21°♄57'45	0°23'21
asc. node	2227 May 15 05:39	5°♄23'04		morning rise	2232 Dec 26 14:10	24°♄49'02	
evening set	2227 Jun 26 13:32	14°♄25'59			2233 Jan 19 03:38	0°♄	
				retrograde	2233 Apr 29 20:46	12°♄50'50	
conjunction	2227 Jul 10 07:12	17°♄31'57 0°05'22		opposition	2233 Jun 29 16:57	7°♄57'52	0°08'17
minimum elong	2227 Jul 10 07:11	17°♄31'57 0°05'22		min. Earth dist.	2233 Jul 01 01:38	7°♄47'24	4.22042 AU
behind sun begin	2227 Jul 09 23:08	17°♄27'25		desc. node	2233 Aug 28 18:54	3°♄00'43	
behind sun end	2227 Jul 10 15:14	17°♄36'28		direct	2233 Aug 30 03:35	3°♄00'33	
max. Earth dist.	2227 Jul 12 02:17	17°♄56'18 6.20440 AU		evening set	2234 Jan 02 11:10	21°♄33'41	
morning rise	2227 Jul 24 00:29	20°♄37'28		max. Earth dist.	2234 Jan 13 15:55	24°♄10'09	6.14882 AU
	2227 Sep 06 10:32	0°♄					
retrograde	2227 Nov 26 05:22	8°♄56'01		conjunction	2234 Jan 15 04:25	24°♄31'28	-0°13'08
opposition	2228 Jan 24 22:48	3°♄54'28 0°34'14		minimum elong	2234 Jan 15 04:24	24°♄31'28	0°13'08
min. Earth dist.	2228 Jan 24 02:45	4°♄01'12 4.27426 AU		behind sun begin	2234 Jan 14 23:31	24°♄28'37	
	2228 Feb 27 14:10	30°♄		behind sun end	2234 Jan 15 09:18	24°♄34'18	
direct	2228 Mar 25 03:36	28°♄52'40		morning rise	2234 Jan 27 22:11	27°♄29'47	
	2228 Apr 21 00:46	0°♄			2234 Feb 07 18:58	0°♄	
	2228 Jul 20 15:41	15°♄			2234 May 03 01:38	15°♄	
evening set	2228 Jul 29 23:40	17°♄01'28		retrograde	2234 Jun 04 15:59	16°♄38'15	
					2234 Jul 07 10:17	15°♄	
conjunction	2228 Aug 12 12:18	19°♄59'36 0°39'18		opposition	2234 Aug 04 07:21	11°♄42'43	-0°46'34
minimum elong	2228 Aug 12 12:16	19°♄59'35 0°39'18		min. Earth dist.	2234 Aug 04 23:54	11°♄37'21	4.07971 AU
max. Earth dist.	2228 Aug 13 05:34	20°♄09'06 6.33835 AU		direct	2234 Oct 03 07:18	6°♄47'49	
morning rise	2228 Aug 25 23:12	22°♄56'38			2234 Dec 17 19:38	15°♄	
	2228 Sep 28 14:57	0°♄		evening set	2235 Feb 05 13:16	25°♄59'14	
retrograde	2228 Dec 26 04:03	10°♄19'21					
opposition	2229 Feb 24 05:24	5°♄21'29 1°15'16		conjunction	2235 Feb 18 10:34	29°♄04'14	-0°46'41
min. Earth dist.	2229 Feb 24 02:39	5°♄22'23 4.39052 AU		minimum elong	2235 Feb 18 10:32	29°♄04'12	0°46'42
direct	2229 Apr 26 16:25	0°♄18'39		max. Earth dist.	2235 Feb 18 00:57	28°♄58'28	6.02128 AU
evening set	2229 Aug 31 13:00	18°♄01'10			2235 Feb 22 07:34	0°♄	
				morning rise	2235 Mar 03 09:52	2°♄10'30	
conjunction	2229 Sep 13 18:25	20°♄52'40 1°00'34		retrograde	2235 Jul 12 10:27	22°♄21'47	
minimum elong	2229 Sep 13 18:23	20°♄52'39 1°00'33		opposition	2235 Sep 10 14:39	17°♄22'31	-1°27'32
max. Earth dist.	2229 Sep 13 08:56	20°♄47'32 6.42808 AU		min. Earth dist.	2235 Sep 10 09:52	17°♄24'06	3.97811 AU
morning rise	2229 Sep 26 20:56	23°♄42'43		direct	2235 Nov 08 07:25	12°♄28'51	
	2229 Oct 27 02:46	0°♄			2236 Mar 03 18:55	0°♄	
retrograde	2230 Jan 25 07:56	10°♄33'47		evening set	2236 Mar 12 16:08	2°♄07'31	
opposition	2230 Mar 26 17:50	5°♄39'16 1°34'01					
min. Earth dist.	2230 Mar 27 08:46	5°♄34'26 4.44914 AU		conjunction	2236 Mar 25 20:28	5°♄18'39	-1°03'54
direct	2230 May 28 02:58	0°♄36'37		minimum elong	2236 Mar 25 20:27	5°♄18'39	1°03'53
evening set	2230 Oct 01 17:50	18°♄07'55		max. Earth dist.	2236 Mar 26 19:58	5°♄32'53	5.95490 AU

morning rise	2236 Apr 08 03:42	8° $\Upsilon$ 31'26	direct	2242 Jun 01 10:36	4° $\Omega$ 51'11	
retrograde	2236 Aug 18 14:33	29° $\Upsilon$ 11'44	evening set	2242 Oct 05 22:24	22° $\Omega$ 20'27	
min. Earth dist.	2236 Oct 16 08:10	24° $\Upsilon$ 17'12 3.95593 AU	max. Earth dist.	2242 Oct 17 08:20	24° $\Omega$ 48'28	6.45270 AU
opposition	2236 Oct 17 09:07	24° $\Upsilon$ 08'47 -1°35'05				
direct	2236 Dec 14 06:48	19° $\Upsilon$ 14'22	conjunction	2242 Oct 18 20:06	25° $\Omega$ 07'52	1°03'56
	2237 Mar 10 21:55	0° $\mathcal{B}$	minimum elong	2242 Oct 18 20:07	25° $\Omega$ 07'53	1°03'55
evening set	2237 Apr 19 02:17	8° $\mathcal{B}$ 55'28	morning rise	2242 Oct 31 14:54	27° $\Omega$ 54'01	
				2242 Nov 10 10:28	0° $\mathcal{M}$	
conjunction	2237 May 02 14:30	12° $\mathcal{B}$ 09'14 -0°56'11	retrograde	2243 Feb 28 20:51	14° $\mathcal{M}$ 41'29	
minimum elong	2237 May 02 14:32	12° $\mathcal{B}$ 09'16 0°56'10	opposition	2243 Apr 30 15:50	9° $\mathcal{M}$ 49'11	1°24'41
max. Earth dist.	2237 May 04 14:15	12° $\mathcal{B}$ 37'48 5.97816 AU	min. Earth dist.	2243 May 01 22:46	9° $\mathcal{M}$ 39'18	4.43170 AU
	2237 May 14 12:38	15° $\mathcal{B}$	direct	2243 Jul 02 09:31	4° $\mathcal{M}$ 47'46	
morning rise	2237 May 16 05:46	15° $\mathcal{B}$ 24'25		2243 Sep 30 22:26	15° $\mathcal{M}$	
	2237 Jul 24 10:13	0° $\Pi$	evening set	2243 Nov 05 11:39	22° $\mathcal{M}$ 25'18	
retrograde	2237 Sep 24 12:26	5° $\Pi$ 42'42	max. Earth dist.	2243 Nov 16 03:05	24° $\mathcal{M}$ 45'50	6.39154 AU
min. Earth dist.	2237 Nov 21 15:46	0° $\Pi$ 49'40 4.02246 AU				
opposition	2237 Nov 23 02:40	0° $\Pi$ 37'46 -1°04'55	conjunction	2243 Nov 18 04:58	25° $\mathcal{M}$ 13'23	0°48'24
	2237 Nov 27 17:48	30° $\mathcal{R}\mathcal{B}$	minimum elong	2243 Nov 18 05:00	25° $\mathcal{M}$ 13'24	0°48'25
direct	2238 Jan 20 04:51	25° $\mathcal{B}$ 40'48	morning rise	2243 Nov 30 20:25	28° $\mathcal{M}$ 00'41	
	2238 Mar 13 17:24	0° $\Pi$		2243 Dec 09 23:13	0° $\mathcal{J}$	
evening set	2238 May 26 10:57	14° $\Pi$ 58'15	retrograde	2244 Mar 31 16:28	15° $\mathcal{J}$ 16'57	
			opposition	2244 May 31 13:45	10° $\mathcal{J}$ 24'59	0°51'23
conjunction	2238 Jun 09 04:38	18° $\Pi$ 09'43 -0°27'03	min. Earth dist.	2244 Jun 02 03:05	10° $\mathcal{J}$ 13'05	4.33755 AU
minimum elong	2238 Jun 09 04:39	18° $\Pi$ 09'44 0°27'03	direct	2244 Aug 01 21:50	5° $\mathcal{J}$ 25'27	
max. Earth dist.	2238 Jun 11 11:39	18° $\Pi$ 41'43 6.08171 AU	evening set	2244 Dec 05 12:14	23° $\mathcal{J}$ 27'49	
morning rise	2238 Jun 22 23:38	21° $\Pi$ 21'38	max. Earth dist.	2244 Dec 16 03:17	25° $\mathcal{J}$ 52'12	6.27162 AU
	2238 Aug 01 07:30	0° $\mathcal{E}$				
retrograde	2238 Oct 29 06:30	10° $\mathcal{E}$ 39'45	conjunction	2244 Dec 18 04:25	26° $\mathcal{J}$ 20'08	0°18'43
opposition	2238 Dec 27 19:51	5° $\mathcal{E}$ 35'39 -0°12'17	minimum elong	2244 Dec 18 04:26	26° $\mathcal{J}$ 20'08	0°18'43
min. Earth dist.	2238 Dec 26 12:46	5° $\mathcal{E}$ 46'12 4.15101 AU	morning rise	2244 Dec 30 19:41	29° $\mathcal{J}$ 12'16	
direct	2239 Feb 24 21:28	0° $\mathcal{E}$ 35'46		2245 Jan 03 08:19	0° $\mathcal{Z}$	
asc. node	2239 Mar 24 20:02	1° $\mathcal{E}$ 51'07	retrograde	2245 May 04 11:54	17° $\mathcal{Z}$ 22'44	
evening set	2239 Jul 01 12:36	19° $\mathcal{E}$ 15'44	opposition	2245 Jul 04 08:36	12° $\mathcal{Z}$ 29'29	0°00'52
			min. Earth dist.	2245 Jul 05 15:43	12° $\mathcal{Z}$ 19'31	4.19884 AU
conjunction	2239 Jul 15 05:46	22° $\mathcal{E}$ 20'38 0°10'36	desc. node	2245 Jul 10 15:30	11° $\mathcal{Z}$ 41'20	
minimum elong	2239 Jul 15 05:45	22° $\mathcal{E}$ 20'37 0°10'35	direct	2245 Sep 03 13:41	7° $\mathcal{Z}$ 32'28	
behind sun begin	2239 Jul 14 23:22	22° $\mathcal{E}$ 17'03	evening set	2246 Jan 06 22:31	26° $\mathcal{Z}$ 11'57	
behind sun end	2239 Jul 15 12:08	22° $\mathcal{E}$ 24'11	max. Earth dist.	2246 Jan 18 05:57	28° $\mathcal{Z}$ 50'46	6.12587 AU
max. Earth dist.	2239 Jul 16 22:21	22° $\mathcal{E}$ 43'27 6.22443 AU				
morning rise	2239 Jul 28 22:31	25° $\mathcal{E}$ 25'00	conjunction	2246 Jan 19 16:10	29° $\mathcal{Z}$ 10'52	-0°18'06
	2239 Aug 18 21:42	0° $\Omega$	minimum elong	2246 Jan 19 16:09	29° $\mathcal{Z}$ 10'51	0°18'06
retrograde	2239 Nov 30 14:31	13° $\Omega$ 34'20		2246 Jan 23 03:50	0° $\approx$	
opposition	2240 Jan 29 10:12	8° $\Omega$ 33'12 0°41'04	morning rise	2246 Feb 01 10:33	2° $\approx$ 10'26	
min. Earth dist.	2240 Jan 28 15:24	8° $\Omega$ 39'30 4.29425 AU		2246 Apr 03 03:30	15° $\approx$	
direct	2240 Mar 29 18:59	3° $\Omega$ 31'10	retrograde	2246 Jun 09 18:30	21° $\approx$ 30'03	
	2240 Jul 03 09:30	15° $\Omega$	opposition	2246 Aug 09 06:59	16° $\approx$ 34'06	-0°53'26
evening set	2240 Aug 03 15:48	21° $\Omega$ 34'49	min. Earth dist.	2246 Aug 09 22:06	16° $\approx$ 29'11	4.05719 AU
				2246 Aug 21 12:58	15° $\mathcal{R}\approx$	
conjunction	2240 Aug 17 03:30	24° $\Omega$ 31'46 0°43'09	direct	2246 Oct 08 02:53	11° $\approx$ 39'24	
minimum elong	2240 Aug 17 03:28	24° $\Omega$ 31'44 0°43'09		2246 Nov 23 07:59	15° $\approx$	
max. Earth dist.	2240 Aug 17 18:11	24° $\Omega$ 39'48 6.35704 AU		2247 Feb 06 08:03	0° $\mathcal{H}$	
morning rise	2240 Aug 30 13:07	27° $\Omega$ 27'30	evening set	2247 Feb 10 09:14	0° $\mathcal{H}$ 57'54	
	2240 Sep 11 08:30	0° $\mathcal{M}$				
retrograde	2240 Dec 30 09:40	14° $\mathcal{M}$ 43'00	conjunction	2247 Feb 23 07:32	4° $\mathcal{H}$ 04'13	-0°50'15
opposition	2241 Feb 28 12:15	9° $\mathcal{M}$ 45'37 1°19'15	minimum elong	2247 Feb 23 07:30	4° $\mathcal{H}$ 04'12	0°50'15
min. Earth dist.	2241 Feb 28 11:49	9° $\mathcal{M}$ 45'46 4.40662 AU	max. Earth dist.	2247 Feb 23 02:01	4° $\mathcal{H}$ 00'54	6.00138 AU
direct	2241 May 01 03:57	4° $\mathcal{M}$ 42'45	morning rise	2247 Mar 08 07:56	7° $\mathcal{H}$ 11'53	
evening set	2241 Sep 04 22:24	22° $\mathcal{M}$ 21'08	retrograde	2247 Jul 17 18:26	27° $\mathcal{H}$ 32'28	
			opposition	2247 Sep 15 20:09	22° $\mathcal{H}$ 32'44	-1°30'51
conjunction	2241 Sep 18 02:36	25° $\mathcal{M}$ 11'40 1°02'09	min. Earth dist.	2247 Sep 15 12:02	22° $\mathcal{H}$ 35'25	3.96324 AU
minimum elong	2241 Sep 18 02:35	25° $\mathcal{M}$ 11'40 1°02'09	direct	2247 Nov 13 07:19	17° $\mathcal{H}$ 39'09	
max. Earth dist.	2241 Sep 17 12:37	25° $\mathcal{M}$ 04'07 6.44020 AU		2248 Feb 15 04:52	0° $\Upsilon$	
morning rise	2241 Oct 01 04:08	28° $\mathcal{M}$ 00'50	evening set	2248 Mar 17 20:22	7° $\Upsilon$ 22'33	
	2241 Oct 10 11:38	0° $\Omega$				
retrograde	2242 Jan 29 11:15	14° $\Omega$ 48'05	conjunction	2248 Mar 31 01:49	10° $\Upsilon$ 34'39	-1°04'18
opposition	2242 Mar 30 22:34	9° $\Omega$ 53'50 1°34'31	minimum elong	2248 Mar 31 01:49	10° $\Upsilon$ 34'39	1°04'19
min. Earth dist.	2242 Mar 31 16:01	9° $\Omega$ 48'11 4.45663 AU	max. Earth dist.	2248 Apr 01 04:40	10° $\Upsilon$ 50'56	5.94633 AU

morning rise	2248 Apr 13 10:30	13° $\Upsilon$ 48'28	direct	2254 Jun 05 19:41	9° $\Omega$ 11'35	
	2248 Jun 30 04:58	0° $\mathcal{B}$	evening set	2254 Oct 10 05:42	26° $\Omega$ 40'38	
retrograde	2248 Aug 23 21:53	4° $\mathcal{B}$ 31'24	max. Earth dist.	2254 Oct 21 10:30	29° $\Omega$ 06'09	6.44910 AU
	2248 Oct 18 17:03	30° $\mathcal{R}\Upsilon$				
min. Earth dist.	2248 Oct 21 11:50	29° $\Upsilon$ 37'26 3.95474 AU	conjunction	2254 Oct 23 02:31	29° $\Omega$ 27'53	1°02'44
opposition	2248 Oct 22 15:43	29° $\Upsilon$ 28'00 -1°32'52	minimum elong	2254 Oct 23 02:32	29° $\Omega$ 27'53	1°02'43
direct	2248 Dec 19 12:10	24° $\Upsilon$ 33'19		2254 Oct 25 13:40	0° $\mathcal{M}$	
	2249 Feb 16 11:03	0° $\mathcal{B}$	morning rise	2254 Nov 04 20:48	2° $\mathcal{M}$ 13'57	
evening set	2249 Apr 24 10:17	14° $\mathcal{B}$ 14'27		2255 Jan 11 07:32	15° $\mathcal{M}$	
	2249 Apr 27 14:54	15° $\mathcal{B}$	retrograde	2255 Mar 05 06:15	19° $\mathcal{M}$ 03'37	
				2255 Apr 28 16:18	15° $\mathcal{R}\mathcal{M}$	
conjunction	2249 May 07 23:46	17° $\mathcal{B}$ 28'29 -0°53'03	opposition	2255 May 05 01:15	14° $\mathcal{M}$ 11'26	1°21'18
minimum elong	2249 May 07 23:48	17° $\mathcal{B}$ 28'30 0°53'03	min. Earth dist.	2255 May 06 10:13	14° $\mathcal{M}$ 00'54	4.42241 AU
max. Earth dist.	2249 May 10 03:50	17° $\mathcal{B}$ 59'34 5.98454 AU	direct	2255 Jul 06 19:12	9° $\mathcal{M}$ 10'11	
morning rise	2249 May 21 15:49	20° $\mathcal{B}$ 43'45		2255 Sep 10 17:29	15° $\mathcal{M}$	
	2249 Jul 01 20:42	0° $\mathcal{I}$	evening set	2255 Nov 09 18:56	26° $\mathcal{M}$ 50'18	
retrograde	2249 Sep 29 16:30	10° $\mathcal{I}$ 56'35	max. Earth dist.	2255 Nov 20 10:15	29° $\mathcal{M}$ 11'12	6.37728 AU
min. Earth dist.	2249 Nov 26 17:50	6° $\mathcal{I}$ 03'31 4.03539 AU				
opposition	2249 Nov 28 04:55	5° $\mathcal{I}$ 51'33 -0°58'12	conjunction	2255 Nov 22 12:05	29° $\mathcal{M}$ 38'49	0°44'56
direct	2250 Jan 25 09:42	0° $\mathcal{I}$ 54'10	minimum elong	2255 Nov 22 12:07	29° $\mathcal{M}$ 38'50	0°44'57
evening set	2250 May 31 17:11	20° $\mathcal{I}$ 07'20		2255 Nov 24 02:19	0° $\mathcal{A}$	
			morning rise	2255 Dec 05 03:11	2° $\mathcal{A}$ 26'35	
conjunction	2250 Jun 14 11:05	23° $\mathcal{I}$ 18'06 -0°21'49	retrograde	2256 Apr 05 06:07	19° $\mathcal{A}$ 49'14	
minimum elong	2250 Jun 14 11:07	23° $\mathcal{I}$ 18'07 0°21'48	opposition	2256 Jun 05 04:39	14° $\mathcal{A}$ 57'10	0°45'03
max. Earth dist.	2250 Jun 16 18:05	23° $\mathcal{I}$ 49'56 6.09972 AU	min. Earth dist.	2256 Jun 06 17:34	14° $\mathcal{A}$ 45'25	4.31912 AU
morning rise	2250 Jun 28 06:16	26° $\mathcal{I}$ 29'12	direct	2256 Aug 06 09:16	9° $\mathcal{A}$ 58'00	
	2250 Jul 13 18:42	0° $\mathcal{E}$	evening set	2256 Dec 09 23:32	28° $\mathcal{A}$ 05'22	
retrograde	2250 Nov 02 23:05	15° $\mathcal{E}$ 37'20		2256 Dec 18 09:10	0° $\mathcal{Z}$	
min. Earth dist.	2250 Dec 31 07:27	10° $\mathcal{E}$ 44'00 4.17193 AU	max. Earth dist.	2256 Dec 20 15:01	0° $\mathcal{Z}$ 30'45	6.25049 AU
opposition	2251 Jan 01 14:28	10° $\mathcal{E}$ 33'28 -0°04'11				
asc. node	2251 Jan 31 09:21	6° $\mathcal{E}$ 57'48	conjunction	2256 Dec 22 15:38	0° $\mathcal{Z}$ 58'31	0°13'43
direct	2251 Mar 01 19:23	5° $\mathcal{E}$ 33'10	minimum elong	2256 Dec 22 15:39	0° $\mathcal{Z}$ 58'32	0°13'43
evening set	2251 Jul 06 12:25	24° $\mathcal{E}$ 07'14	behind sun begin	2256 Dec 22 11:14	0° $\mathcal{Z}$ 56'01	
			behind sun end	2256 Dec 22 20:04	1° $\mathcal{Z}$ 01'02	
conjunction	2251 Jul 20 05:01	27° $\mathcal{E}$ 10'56 0°15'49	morning rise	2257 Jan 04 07:16	3° $\mathcal{Z}$ 51'40	
minimum elong	2251 Jul 20 04:59	27° $\mathcal{E}$ 10'55 0°15'49	retrograde	2257 May 09 12:11	22° $\mathcal{Z}$ 11'46	
max. Earth dist.	2251 Jul 21 18:24	27° $\mathcal{E}$ 31'52 6.24626 AU	desc. node	2257 May 19 21:20	22° $\mathcal{Z}$ 01'34	
	2251 Aug 01 19:43	0° $\mathcal{O}$	opposition	2257 Jul 09 07:09	17° $\mathcal{Z}$ 18'15	-0°07'01
morning rise	2251 Aug 02 20:53	0° $\mathcal{O}$ 13'58	min. Earth dist.	2257 Jul 10 13:20	17° $\mathcal{Z}$ 08'32	4.17634 AU
	2251 Oct 19 22:45	15° $\mathcal{O}$	direct	2257 Sep 08 08:55	12° $\mathcal{Z}$ 21'31	
retrograde	2251 Dec 05 02:12	18° $\mathcal{O}$ 13'47		2258 Jan 06 20:46	0° $\approx$	
	2252 Jan 20 06:54	15° $\mathcal{R}\mathcal{O}$	evening set	2258 Jan 11 16:24	1° $\approx$ 07'23	
opposition	2252 Feb 02 22:16	13° $\mathcal{O}$ 13'09 0°47'41	max. Earth dist.	2258 Jan 23 04:04	3° $\approx$ 49'25	6.10419 AU
min. Earth dist.	2252 Feb 02 06:28	13° $\mathcal{O}$ 18'26 4.31476 AU				
direct	2252 Apr 03 12:50	8° $\mathcal{O}$ 10'56	conjunction	2258 Jan 24 10:40	4° $\approx$ 07'27	-0°23'16
	2252 Jun 13 08:40	15° $\mathcal{O}$	minimum elong	2258 Jan 24 10:39	4° $\approx$ 07'26	0°23'16
evening set	2252 Aug 08 08:01	26° $\mathcal{O}$ 09'23	morning rise	2258 Feb 06 05:43	7° $\approx$ 08'15	
				2258 Mar 13 03:24	15° $\approx$	
conjunction	2252 Aug 21 18:41	29° $\mathcal{O}$ 05'12 0°46'49	retrograde	2258 Jun 15 02:02	26° $\approx$ 38'11	
minimum elong	2252 Aug 21 18:39	29° $\mathcal{O}$ 05'11 0°46'48	opposition	2258 Aug 14 12:54	21° $\approx$ 41'48	-1°00'18
max. Earth dist.	2252 Aug 22 05:32	29° $\mathcal{O}$ 11'07 6.37436 AU	min. Earth dist.	2258 Aug 15 00:35	21° $\approx$ 37'59	4.03861 AU
	2252 Aug 25 23:05	0° $\mathcal{P}$	direct	2258 Oct 13 02:48	16° $\approx$ 47'25	
morning rise	2252 Sep 04 03:08	1° $\mathcal{P}$ 59'45		2259 Jan 19 22:06	0° $\mathcal{H}$	
retrograde	2253 Jan 03 14:45	19° $\mathcal{P}$ 09'00	evening set	2259 Feb 15 11:02	6° $\mathcal{H}$ 11'10	
opposition	2253 Mar 04 19:56	14° $\mathcal{P}$ 12'04 1°22'53				
min. Earth dist.	2253 Mar 04 21:36	14° $\mathcal{P}$ 11'31 4.41975 AU	conjunction	2259 Feb 28 10:05	9° $\mathcal{H}$ 18'28	-0°53'38
direct	2253 May 05 14:53	9° $\mathcal{P}$ 09'10	minimum elong	2259 Feb 28 10:03	9° $\mathcal{H}$ 18'27	0°53'37
evening set	2253 Sep 09 08:48	26° $\mathcal{P}$ 44'40	max. Earth dist.	2259 Feb 28 08:42	9° $\mathcal{H}$ 17'38	5.98768 AU
			morning rise	2259 Mar 13 11:39	12° $\mathcal{H}$ 27'14	
conjunction	2253 Sep 22 11:59	29° $\mathcal{P}$ 34'28 1°03'28		2259 Jun 09 18:17	0° $\Upsilon$	
minimum elong	2253 Sep 22 11:58	29° $\mathcal{P}$ 34'28 1°03'29	retrograde	2259 Jul 23 04:32	2° $\Upsilon$ 54'11	
max. Earth dist.	2253 Sep 21 18:52	29° $\mathcal{P}$ 25'13 6.44813 AU		2259 Sep 04 22:33	30° $\mathcal{R}\mathcal{H}$	
	2253 Sep 24 11:13	0° $\Omega$	opposition	2259 Sep 21 05:44	27° $\mathcal{H}$ 53'49	-1°33'33
morning rise	2253 Oct 05 12:19	2° $\Omega$ 22'53	min. Earth dist.	2259 Sep 20 17:45	27° $\mathcal{H}$ 57'49	3.95626 AU
retrograde	2254 Feb 02 16:36	19° $\Omega$ 07'56	direct	2259 Nov 18 13:37	23° $\mathcal{H}$ 00'13	
opposition	2254 Apr 04 05:17	14° $\Omega$ 14'05 1°34'37		2260 Jan 25 07:10	0° $\Upsilon$	
min. Earth dist.	2254 Apr 05 01:21	14° $\Omega$ 07'37 4.45897 AU	evening set	2260 Mar 23 03:42	12° $\Upsilon$ 44'55	
































































































































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minimum elong	2260 Apr 05 10:27	15° $\Upsilon$ 57'33	1°04'15	opposition	2266 Apr 08 11:19	18° $\Omega$ 30'43	1°34'15
max. Earth dist.	2260 Apr 06 19:35	16° $\Upsilon$ 17'38	5.94694 AU	min. Earth dist.	2266 Apr 09 09:15	18° $\Omega$ 23'39	4.45608 AU
morning rise	2260 Apr 18 20:06	19° $\Upsilon$ 11'48		direct	2266 Jun 10 02:15	13° $\Omega$ 28'22	
	2260 Jun 05 17:58	0° $\mathcal{B}$			2266 Oct 09 22:37	0° $\mathcal{M}$	
retrograde	2260 Aug 29 06:48	9° $\mathcal{B}$ 52'52		evening set	2266 Oct 14 12:06	0° $\mathcal{M}$ 58'51	
opposition	2260 Oct 27 22:44	4° $\mathcal{B}$ 49'03	-1°29'53	max. Earth dist.	2266 Oct 25 15:11	3° $\mathcal{M}$ 23'46	6.44053 AU
min. Earth dist.	2260 Oct 26 17:25	4° $\mathcal{B}$ 59'00	3.96301 AU				
	2260 Dec 17 06:32	30° $\mathcal{R}$ $\Upsilon$		conjunction	2266 Oct 27 08:20	3° $\mathcal{M}$ 46'11	1°01'12
direct	2260 Dec 24 19:53	29° $\Upsilon$ 54'04		minimum elong	2266 Oct 27 08:21	3° $\mathcal{M}$ 46'11	1°01'12
	2261 Jan 01 08:50	0° $\mathcal{B}$		morning rise	2266 Nov 09 01:55	6° $\mathcal{M}$ 32'21	
	2261 Apr 10 07:48	15° $\mathcal{B}$			2266 Dec 20 09:47	15° $\mathcal{M}$	
evening set	2261 Apr 29 18:11	19° $\mathcal{B}$ 31'34		retrograde	2267 Mar 09 15:35	23° $\mathcal{M}$ 25'59	
				opposition	2267 May 09 11:15	18° $\mathcal{M}$ 33'59	1°17'29
conjunction	2261 May 13 08:25	22° $\mathcal{B}$ 45'17	-0°49'33	min. Earth dist.	2267 May 10 21:30	18° $\mathcal{M}$ 23'04	4.40875 AU
minimum elong	2261 May 13 08:28	22° $\mathcal{B}$ 45'18	0°49'34		2267 Jun 09 16:37	15° $\mathcal{R}$ $\mathcal{M}$	
max. Earth dist.	2261 May 15 14:12	23° $\mathcal{B}$ 17'14	5.99944 AU	direct	2267 Jul 11 04:19	13° $\mathcal{M}$ 33'04	
morning rise	2261 May 27 01:19	26° $\mathcal{B}$ 00'09			2267 Aug 11 16:53	15° $\mathcal{M}$	
	2261 Jun 13 06:40	0° $\mathcal{I}$			2267 Nov 08 06:35	0° $\mathcal{J}$	
retrograde	2261 Oct 04 14:28	16° $\mathcal{I}$ 03'59		evening set	2267 Nov 14 03:11	1° $\mathcal{J}$ 17'09	
min. Earth dist.	2261 Dec 01 16:10	11° $\mathcal{I}$ 11'15	4.05518 AU	max. Earth dist.	2267 Nov 24 16:19	3° $\mathcal{J}$ 37'31	6.35954 AU
opposition	2261 Dec 03 04:21	10° $\mathcal{I}$ 58'55	-0°51'12				
direct	2262 Jan 30 11:01	6° $\mathcal{I}$ 01'04		conjunction	2267 Nov 26 19:56	4° $\mathcal{J}$ 06'15	0°41'12
evening set	2262 Jun 05 20:09	25° $\mathcal{I}$ 07'49		minimum elong	2267 Nov 26 19:58	4° $\mathcal{J}$ 06'16	0°41'12
				morning rise	2267 Dec 09 11:07	6° $\mathcal{J}$ 54'44	
conjunction	2262 Jun 19 14:08	28° $\mathcal{I}$ 17'35	-0°16'35	retrograde	2268 Apr 09 23:38	24° $\mathcal{J}$ 25'05	
minimum elong	2262 Jun 19 14:10	28° $\mathcal{I}$ 17'35	0°16'34	opposition	2268 Jun 09 21:26	19° $\mathcal{J}$ 32'56	0°38'23
max. Earth dist.	2262 Jun 21 18:50	28° $\mathcal{I}$ 47'55	6.12253 AU	min. Earth dist.	2268 Jun 11 09:57	19° $\mathcal{J}$ 21'16	4.29842 AU
	2262 Jun 27 00:11	0° $\mathcal{E}$		direct	2268 Aug 10 23:05	14° $\mathcal{J}$ 34'06	
morning rise	2262 Jul 03 09:08	1° $\mathcal{E}$ 27'32			2268 Dec 02 02:59	0° $\mathcal{Z}$	
retrograde	2262 Nov 07 13:55	20° $\mathcal{E}$ 24'39		evening set	2268 Dec 14 12:14	2° $\mathcal{Z}$ 47'10	
asc. node	2262 Dec 11 07:44	18° $\mathcal{E}$ 34'42		max. Earth dist.	2268 Dec 25 07:01	5° $\mathcal{Z}$ 15'06	6.22870 AU
min. Earth dist.	2263 Jan 05 01:13	15° $\mathcal{E}$ 30'44	4.19521 AU				
opposition	2263 Jan 06 05:36	15° $\mathcal{E}$ 21'07	0°03'37	conjunction	2268 Dec 27 04:40	5° $\mathcal{Z}$ 41'19	0°08'35
direct	2263 Mar 06 16:17	10° $\mathcal{E}$ 20'28		minimum elong	2268 Dec 27 04:40	5° $\mathcal{Z}$ 41'19	0°08'36
evening set	2263 Jul 11 08:01	28° $\mathcal{E}$ 48'07		behind sun begin	2268 Dec 26 21:42	5° $\mathcal{Z}$ 37'20	
	2263 Jul 16 17:29	0° $\mathcal{O}$		behind sun end	2268 Dec 27 11:39	5° $\mathcal{Z}$ 45'17	
				morning rise	2269 Jan 08 20:30	8° $\mathcal{Z}$ 35'29	
conjunction	2263 Jul 25 00:02	1° $\mathcal{O}$ 50'36	0°20'45	desc. node	2269 Mar 28 23:42	23° $\mathcal{Z}$ 52'06	
minimum elong	2263 Jul 25 00:00	1° $\mathcal{O}$ 50'36	0°20'46	retrograde	2269 May 14 13:22	27° $\mathcal{Z}$ 05'30	
max. Earth dist.	2263 Jul 26 10:42	2° $\mathcal{O}$ 09'56	6.26812 AU	opposition	2269 Jul 14 07:49	22° $\mathcal{Z}$ 11'43	-0°14'58
morning rise	2263 Aug 07 14:56	4° $\mathcal{O}$ 52'18		min. Earth dist.	2269 Jul 15 11:29	22° $\mathcal{Z}$ 02'49	4.15521 AU
	2263 Sep 25 20:03	15° $\mathcal{O}$		direct	2269 Sep 13 04:16	17° $\mathcal{Z}$ 15'27	
retrograde	2263 Dec 09 08:11	22° $\mathcal{O}$ 43'12			2269 Dec 20 15:54	0° $\mathcal{A}$	
opposition	2264 Feb 07 06:37	17° $\mathcal{O}$ 43'06	0°53'47	evening set	2270 Jan 16 11:55	6° $\mathcal{A}$ 06'59	
min. Earth dist.	2264 Feb 06 16:34	17° $\mathcal{O}$ 47'47	4.33359 AU	max. Earth dist.	2270 Jan 28 03:01	8° $\mathcal{A}$ 51'46	6.08551 AU
	2264 Feb 28 21:58	15° $\mathcal{R}$ $\mathcal{O}$					
direct	2264 Apr 08 00:55	12° $\mathcal{O}$ 40'44		conjunction	2270 Jan 29 06:30	9° $\mathcal{A}$ 08'03	-0°28'18
	2264 May 17 15:55	15° $\mathcal{O}$		minimum elong	2270 Jan 29 06:29	9° $\mathcal{A}$ 08'02	0°28'19
	2264 Aug 10 04:12	0° $\mathcal{M}$		morning rise	2270 Feb 11 02:24	12° $\mathcal{A}$ 09'59	
evening set	2264 Aug 12 20:53	0° $\mathcal{M}$ 34'53			2270 Feb 23 06:00	15° $\mathcal{A}$	
					2270 May 17 02:41	0° $\mathcal{H}$	
conjunction	2264 Aug 26 06:25	3° $\mathcal{M}$ 29'40	0°50'05	retrograde	2270 Jun 20 09:38	1° $\mathcal{H}$ 49'04	
minimum elong	2264 Aug 26 06:23	3° $\mathcal{M}$ 29'39	0°50'05		2270 Jul 24 19:17	30° $\mathcal{R}$ $\mathcal{A}$	
max. Earth dist.	2264 Aug 26 11:54	3° $\mathcal{M}$ 32'40	6.38871 AU	opposition	2270 Aug 19 19:41	26° $\mathcal{A}$ 52'07	-1°06'44
morning rise	2264 Sep 08 13:46	6° $\mathcal{M}$ 23'11		min. Earth dist.	2270 Aug 20 03:34	26° $\mathcal{A}$ 49'32	4.02418 AU
retrograde	2265 Jan 07 20:06	23° $\mathcal{M}$ 27'33		direct	2270 Oct 18 04:54	21° $\mathcal{A}$ 57'57	
opposition	2265 Mar 09 01:21	18° $\mathcal{M}$ 31'10	1°25'58		2270 Dec 31 04:12	0° $\mathcal{H}$	
min. Earth dist.	2265 Mar 09 06:48	18° $\mathcal{M}$ 29'23	4.42884 AU	evening set	2271 Feb 20 13:07	11° $\mathcal{H}$ 25'18	
direct	2265 May 10 00:38	13° $\mathcal{M}$ 28'16					
	2265 Sep 08 20:11	0° $\mathcal{U}$		conjunction	2271 Mar 05 13:12	14° $\mathcal{H}$ 33'25	-0°56'34
evening set	2265 Sep 13 16:46	1° $\mathcal{U}$ 02'15		minimum elong	2271 Mar 05 13:11	14° $\mathcal{H}$ 33'24	0°56'34
				max. Earth dist.	2271 Mar 05 18:19	14° $\mathcal{H}$ 36'31	5.97881 AU
conjunction	2265 Sep 26 19:02	3° $\mathcal{U}$ 51'35	1°04'25	morning rise	2271 Mar 18 15:38	17° $\mathcal{H}$ 43'00	
minimum elong	2265 Sep 26 19:02	3° $\mathcal{U}$ 51'34	1°04'25		2271 May 13 04:15	0° $\mathcal{Y}$	
max. Earth dist.	2265 Sep 25 21:42	3° $\mathcal{U}$ 40'03	6.45115 AU	retrograde	2271 Jul 28 14:57	8° $\mathcal{Y}$ 13'58	
morning rise	2265 Oct 09 18:27	6° $\mathcal{U}$ 39'31		opposition	2271 Sep 26 14:03	3° $\mathcal{Y}$ 13'05	-1°35'25

min. Earth dist.	2271 Sep 25 23:47	3°♄17'51	3.95410 AU	evening set	2277 Sep 18 01:35	5°♂22'36	
	2271 Oct 22 22:50	30°♄16'42		max. Earth dist.	2277 Sep 30 01:50	7°♂57'59	6.45197 AU
direct	2271 Nov 23 20:06	28°♄19'26					
	2271 Dec 25 11:18	0°♄		conjunction	2277 Oct 01 02:50	8°♂11'30	1°05'01
evening set	2272 Mar 28 09:46	18°♄03'48		minimum elong	2277 Oct 01 02:49	8°♂11'30	1°05'00
				morning rise	2277 Oct 14 01:22	10°♂59'03	
conjunction	2272 Apr 10 17:27	21°♄16'42	-1°03'40	retrograde	2278 Feb 11 04:46	27°♂43'59	
minimum elong	2272 Apr 10 17:28	21°♄16'42	1°03'40	opposition	2278 Apr 12 18:46	22°♂50'48	1°33'21
max. Earth dist.	2272 Apr 12 05:40	21°♄38'35	5.95130 AU	min. Earth dist.	2278 Apr 13 19:32	22°♂42'50	4.45178 AU
morning rise	2272 Apr 24 04:22	24°♄31'15		direct	2278 Jun 14 11:43	17°♂48'36	
	2272 May 17 13:13	0°♄			2278 Sep 23 09:58	0°♄	
	2272 Aug 24 22:57	15°♄		evening set	2278 Oct 18 19:41	5°♄20'37	
retrograde	2272 Sep 03 10:41	15°♄08'56		max. Earth dist.	2278 Oct 29 19:37	7°♄44'13	6.43145 AU
	2272 Sep 12 21:38	15°♄					
min. Earth dist.	2272 Oct 31 19:10	10°♄15'35	3.97358 AU	conjunction	2278 Oct 31 15:20	8°♄08'04	0°59'19
opposition	2272 Nov 02 02:58	10°♄04'47	-1°26'13	minimum elong	2278 Oct 31 15:21	8°♄08'05	0°59'19
direct	2272 Dec 29 23:29	5°♄09'27		morning rise	2278 Nov 13 08:29	10°♄54'26	
	2273 Mar 22 13:21	15°♄			2278 Dec 02 12:59	15°♄	
evening set	2273 May 04 23:32	24°♄42'58		retrograde	2279 Mar 14 02:22	27°♄52'03	
				opposition	2279 May 13 22:57	23°♄00'07	1°13'10
conjunction	2273 May 18 14:32	27°♄56'17	-0°45'45	min. Earth dist.	2279 May 15 09:17	22°♄49'10	4.39566 AU
minimum elong	2273 May 18 14:35	27°♄56'19	0°45'44	direct	2279 Jul 15 14:03	17°♄59'28	
max. Earth dist.	2273 May 20 20:40	28°♄28'21	6.01510 AU		2279 Oct 22 13:20	0°♄	
	2273 May 27 07:49	0°♄		evening set	2279 Nov 18 12:17	5°♄46'58	
morning rise	2273 Jun 01 08:00	1°♄10'40		max. Earth dist.	2279 Nov 29 03:07	8°♄08'47	6.34372 AU
retrograde	2273 Oct 09 11:16	21°♄05'47					
min. Earth dist.	2273 Dec 06 14:25	16°♄12'38	4.07402 AU	conjunction	2279 Dec 01 04:54	8°♄36'36	0°37'12
opposition	2273 Dec 08 01:17	16°♄00'44	-0°43'59	minimum elong	2279 Dec 01 04:56	8°♄36'37	0°37'11
direct	2274 Feb 04 12:10	11°♄02'28		morning rise	2279 Dec 13 19:51	11°♄25'41	
evening set	2274 Jun 10 20:55	0°♄03'31		retrograde	2280 Apr 14 17:32	29°♄02'58	
	2274 Jun 10 14:46	0°♄		opposition	2280 Jun 14 15:22	24°♄10'43	0°31'26
				min. Earth dist.	2280 Jun 16 03:10	23°♄59'18	4.28092 AU
conjunction	2274 Jun 24 15:04	3°♄12'23	-0°11'19	direct	2280 Aug 15 14:03	19°♄12'19	
minimum elong	2274 Jun 24 15:04	3°♄12'24	0°11'20		2280 Nov 14 18:15	0°♄	
behind sun begin	2274 Jun 24 09:03	3°♄08'58		evening set	2280 Dec 19 01:32	7°♄29'40	
behind sun end	2274 Jun 24 21:06	3°♄15'50		max. Earth dist.	2280 Dec 29 21:23	9°♄58'54	6.21106 AU
max. Earth dist.	2274 Jun 26 19:00	3°♄42'09	6.14304 AU				
morning rise	2274 Jul 08 09:43	6°♄21'17		conjunction	2280 Dec 31 17:54	10°♄24'32	0°03'26
asc. node	2274 Oct 21 11:34	24°♄23'03		minimum elong	2280 Dec 31 17:54	10°♄24'32	0°03'26
retrograde	2274 Nov 12 02:08	25°♄08'30		behind sun begin	2280 Dec 31 09:59	10°♄20'00	
opposition	2275 Jan 10 18:50	20°♄05'25	0°11'17	behind sun end	2281 Jan 01 01:50	10°♄29'05	
min. Earth dist.	2275 Jan 09 15:36	20°♄14'37	4.21548 AU	morning rise	2281 Jan 13 10:14	13°♄19'37	
direct	2275 Mar 11 09:14	15°♄04'27		desc. node	2281 Feb 05 18:47	18°♄33'36	
	2275 Jun 30 06:35	0°♄			2281 Apr 13 15:16	0°♄	
evening set	2275 Jul 16 02:33	3°♄27'00		retrograde	2281 May 19 14:02	1°♄57'59	
					2281 Jun 24 19:04	30°♄	
conjunction	2275 Jul 29 17:44	6°♄28'23	0°25'32	opposition	2281 Jul 19 08:00	27°♄03'47	-0°22'44
minimum elong	2275 Jul 29 17:42	6°♄28'22	0°25'31	min. Earth dist.	2281 Jul 20 08:38	26°♄55'50	4.13875 AU
max. Earth dist.	2275 Jul 30 22:59	6°♄44'37	6.28650 AU	direct	2281 Sep 17 23:55	22°♄07'50	
morning rise	2275 Aug 12 07:53	9°♄28'56			2281 Dec 01 11:12	0°♄	
	2275 Sep 07 01:30	15°♄		evening set	2282 Jan 21 06:31	11°♄03'22	
retrograde	2275 Dec 13 16:30	27°♄12'20		max. Earth dist.	2282 Feb 02 03:43	13°♄52'10	6.07185 AU
opposition	2276 Feb 11 14:53	22°♄12'45	0°59'33				
min. Earth dist.	2276 Feb 11 04:24	22°♄16'14	4.34877 AU	conjunction	2282 Feb 03 01:45	14°♄05'14	-0°33'03
direct	2276 Apr 12 14:23	17°♄10'10		minimum elong	2282 Feb 03 01:43	14°♄05'13	0°33'03
	2276 Jul 24 14:22	0°♄			2282 Feb 06 21:57	15°♄	
evening set	2276 Aug 17 09:16	5°♄01'04		morning rise	2282 Feb 15 22:09	17°♄08'02	
					2282 Apr 16 22:25	0°♄	
conjunction	2276 Aug 30 17:59	7°♄55'02	0°53'04	retrograde	2282 Jun 25 15:45	6°♄54'04	
minimum elong	2276 Aug 30 17:57	7°♄55'01	0°53'04	opposition	2282 Aug 25 00:13	1°♄56'37	-1°12'28
max. Earth dist.	2276 Aug 30 20:28	7°♄56'23	6.39954 AU	min. Earth dist.	2282 Aug 25 05:40	1°♄54'50	4.01471 AU
morning rise	2276 Sep 13 00:06	10°♄47'39			2282 Sep 09 05:40	30°♄	
retrograde	2277 Jan 12 00:12	27°♄48'15		direct	2282 Oct 23 05:47	27°♄02'40	
opposition	2277 Mar 13 07:27	22°♄52'19	1°28'37		2282 Dec 05 06:01	0°♄	
min. Earth dist.	2277 Mar 13 14:36	22°♄49'59	4.43490 AU	evening set	2283 Feb 25 12:52	16°♄31'53	
direct	2277 May 14 08:29	17°♄49'26					
	2277 Aug 23 06:57	0°♄		conjunction	2283 Mar 10 13:39	19°♄40'34	-0°58'58



minimum elong	2283 Mar 10 13:38	19° $\text{H}$ 40'33	0°58'58	morning rise	2288 Sep 17 09:46	15° $\text{M}$ 10'19	
max. Earth dist.	2283 Mar 10 21:53	19° $\text{H}$ 45'32	5.97421 AU		2288 Dec 09 20:13	0° $\text{A}$	
morning rise	2283 Mar 23 17:15	22° $\text{H}$ 50'50		retrograde	2289 Jan 16 06:27	2° $\text{A}$ 08'03	
	2283 Apr 23 12:10	0° $\text{Y}$			2289 Feb 22 16:51	30° $\text{R}$ $\text{M}$	
retrograde	2283 Aug 02 19:05	13° $\text{Y}$ 23'57		opposition	2289 Mar 17 13:23	27° $\text{M}$ 12'34	1°30'43
opposition	2283 Oct 01 18:20	8° $\text{Y}$ 22'34	-1°36'25	min. Earth dist.	2289 Mar 17 23:39	27° $\text{M}$ 09'13	4.43918 AU
min. Earth dist.	2283 Oct 01 00:35	8° $\text{Y}$ 28'31	3.95513 AU	direct	2289 May 18 17:43	22° $\text{M}$ 09'42	
direct	2283 Nov 28 21:37	3° $\text{Y}$ 28'48			2289 Aug 04 18:58	0° $\text{A}$	
evening set	2284 Apr 02 12:13	23° $\text{Y}$ 11'59		evening set	2289 Sep 22 09:37	9° $\text{A}$ 42'24	
				max. Earth dist.	2289 Oct 04 07:29	12° $\text{A}$ 16'34	6.45200 AU
conjunction	2284 Apr 15 20:57	26° $\text{Y}$ 25'04	-1°02'35				
minimum elong	2284 Apr 15 20:59	26° $\text{Y}$ 25'05	1°02'35	conjunction	2289 Oct 05 10:10	12° $\text{A}$ 31'00	1°05'13
max. Earth dist.	2284 Apr 17 12:03	26° $\text{Y}$ 48'39	5.95772 AU	minimum elong	2289 Oct 05 10:10	12° $\text{A}$ 31'00	1°05'13
morning rise	2284 Apr 29 08:47	29° $\text{Y}$ 39'45		morning rise	2289 Oct 18 07:43	15° $\text{A}$ 18'13	
	2284 Apr 30 18:43	0° $\text{B}$			2290 Jan 09 13:05	0° $\text{M}$	
	2284 Jul 11 07:14	15° $\text{B}$		retrograde	2290 Feb 15 10:12	2° $\text{M}$ 03'33	
retrograde	2284 Sep 08 11:06	20° $\text{B}$ 13'23			2290 Mar 24 13:06	30° $\text{R}$ $\text{A}$	
min. Earth dist.	2284 Nov 05 18:52	15° $\text{B}$ 19'48	3.98458 AU	opposition	2290 Apr 17 02:05	27° $\text{A}$ 10'35	1°31'55
opposition	2284 Nov 07 02:37	15° $\text{B}$ 09'00	-1°22'02	min. Earth dist.	2290 Apr 18 03:21	27° $\text{A}$ 02'28	4.44771 AU
	2284 Nov 08 05:04	15° $\text{R}$ $\text{B}$		direct	2290 Jun 18 18:31	22° $\text{A}$ 08'33	
direct	2285 Jan 04 00:51	10° $\text{B}$ 13'19			2290 Sep 04 23:40	0° $\text{M}$	
	2285 Feb 28 03:42	15° $\text{B}$		evening set	2290 Oct 23 02:30	9° $\text{M}$ 41'44	
evening set	2285 May 10 01:00	29° $\text{B}$ 43'08		max. Earth dist.	2290 Nov 03 00:48	12° $\text{M}$ 04'46	6.42342 AU
	2285 May 11 05:44	0° $\text{I}$					
conjunction	2285 May 23 16:50	2° $\text{I}$ 56'09	-0°41'44	conjunction	2290 Nov 04 21:29	12° $\text{M}$ 29'14	0°57'05
minimum elong	2285 May 23 16:53	2° $\text{I}$ 56'11	0°41'43	minimum elong	2290 Nov 04 21:30	12° $\text{M}$ 29'15	0°57'05
max. Earth dist.	2285 May 26 00:17	3° $\text{I}$ 28'50	6.02974 AU	morning rise	2290 Nov 16 09:15	15° $\text{M}$	
morning rise	2285 Jun 06 10:46	6° $\text{I}$ 10'04			2290 Nov 17 14:08	15° $\text{M}$ 15'43	
retrograde	2285 Oct 14 04:31	25° $\text{I}$ 57'03		retrograde	2291 Feb 07 12:22	0° $\text{A}$	
min. Earth dist.	2285 Dec 11 07:41	21° $\text{I}$ 03'58	4.09074 AU		2291 Mar 18 13:40	2° $\text{A}$ 16'57	
opposition	2285 Dec 12 18:06	20° $\text{I}$ 52'15	-0°36'46	opposition	2291 Apr 26 23:42	30° $\text{R}$ $\text{M}$	
direct	2286 Feb 09 07:07	15° $\text{I}$ 53'38		min. Earth dist.	2291 May 18 10:06	27° $\text{M}$ 25'03	1°08'25
	2286 May 25 01:40	0° $\text{E}$		direct	2291 May 19 21:47	27° $\text{M}$ 13'41	4.38383 AU
evening set	2286 Jun 15 18:30	4° $\text{E}$ 50'16			2291 Jul 20 00:51	22° $\text{M}$ 24'39	
				evening set	2291 Oct 03 20:55	0° $\text{A}$	
conjunction	2286 Jun 29 12:28	7° $\text{E}$ 58'21	-0°06'11	max. Earth dist.	2291 Nov 22 20:18	10° $\text{A}$ 14'59	
minimum elong	2286 Jun 29 12:29	7° $\text{E}$ 58'21	0°06'11		2291 Dec 03 09:50	12° $\text{A}$ 36'37	6.32874 AU
behind sun begin	2286 Jun 29 04:34	7° $\text{E}$ 53'51		conjunction	2291 Dec 05 12:41	13° $\text{A}$ 05'08	0°32'59
behind sun end	2286 Jun 29 20:23	8° $\text{E}$ 02'51		minimum elong	2291 Dec 05 12:42	13° $\text{A}$ 05'09	0°32'59
max. Earth dist.	2286 Jul 01 12:16	8° $\text{E}$ 25'38	6.16040 AU	morning rise	2291 Dec 18 03:42	15° $\text{A}$ 54'49	
morning rise	2286 Jul 13 07:03	11° $\text{E}$ 06'23			2292 Feb 29 12:47	0° $\text{B}$	
asc. node	2286 Sep 02 02:11	21° $\text{E}$ 47'13		retrograde	2292 Apr 19 09:50	3° $\text{B}$ 38'51	
retrograde	2286 Nov 16 12:58	29° $\text{E}$ 45'25			2292 Jun 09 14:37	30° $\text{R}$ $\text{A}$	
min. Earth dist.	2287 Jan 14 04:57	24° $\text{E}$ 51'08	4.23195 AU	opposition	2292 Jun 19 07:57	28° $\text{A}$ 46'21	0°24'18
opposition	2287 Jan 15 05:41	24° $\text{E}$ 42'47	0°18'36	min. Earth dist.	2292 Jun 20 18:12	28° $\text{A}$ 35'24	4.26350 AU
direct	2287 Mar 16 00:40	19° $\text{E}$ 41'32		direct	2292 Aug 20 02:19	23° $\text{A}$ 48'12	
	2287 Jun 12 18:30	0° $\text{O}$			2292 Oct 25 15:57	0° $\text{B}$	
evening set	2287 Jul 20 18:46	8° $\text{O}$ 00'30		desc. node	2292 Dec 16 20:42	10° $\text{B}$ 38'23	
				evening set	2292 Dec 23 13:23	12° $\text{B}$ 10'00	
conjunction	2287 Aug 03 09:27	11° $\text{O}$ 01'01	0°30'00	max. Earth dist.	2293 Jan 03 12:49	14° $\text{B}$ 41'51	6.19256 AU
minimum elong	2287 Aug 03 09:25	11° $\text{O}$ 01'00	0°30'00				
max. Earth dist.	2287 Aug 04 12:25	11° $\text{O}$ 15'57	6.30105 AU	conjunction	2293 Jan 05 06:05	15° $\text{B}$ 05'44	-0°01'52
morning rise	2287 Aug 16 22:33	14° $\text{O}$ 00'33		minimum elong	2293 Jan 05 06:04	15° $\text{B}$ 05'43	0°01'52
	2287 Aug 21 11:09	15° $\text{O}$		behind sun begin	2293 Jan 04 22:04	15° $\text{B}$ 01'07	
	2287 Nov 15 14:52	0° $\text{M}$		behind sun end	2293 Jan 05 14:04	15° $\text{B}$ 10'20	
retrograde	2287 Dec 17 22:42	1° $\text{M}$ 37'59		morning rise	2293 Jan 17 22:38	18° $\text{B}$ 01'42	
	2288 Jan 19 02:15	30° $\text{R}$ $\text{O}$			2293 Mar 15 22:36	0° $\text{A}$	
opposition	2288 Feb 15 21:49	26° $\text{O}$ 38'59	1°04'49	retrograde	2293 May 24 14:58	6° $\text{A}$ 48'59	
min. Earth dist.	2288 Feb 15 13:05	26° $\text{O}$ 41'53	4.36054 AU	opposition	2293 Jul 24 07:17	1° $\text{A}$ 54'24	-0°30'23
direct	2288 Apr 17 00:11	21° $\text{O}$ 36'22		min. Earth dist.	2293 Jul 25 06:40	1° $\text{A}$ 46'51	4.12042 AU
	2288 Jul 06 07:45	0° $\text{M}$			2293 Aug 08 10:45	30° $\text{R}$ $\text{B}$	
evening set	2288 Aug 21 20:58	9° $\text{M}$ 25'11		direct	2293 Sep 22 19:04	26° $\text{B}$ 58'45	
					2293 Nov 06 01:52	0° $\text{A}$	
conjunction	2288 Sep 04 04:33	12° $\text{M}$ 18'25	0°55'41		2294 Jan 21 20:09	15° $\text{A}$	
minimum elong	2288 Sep 04 04:31	12° $\text{M}$ 18'24	0°55'41	evening set	2294 Jan 26 00:36	15° $\text{A}$ 59'11	
max. Earth dist.	2288 Sep 04 02:01	12° $\text{M}$ 17'02	6.40767 AU				





























































































































conjunction	2294 Feb 07 20:18	19° $\approx$ 02'00	-0°37'35	max. Earth dist.	2299 Aug 09 02:07	15° $\Omega$ 51'08	6.32012 AU
minimum elong	2294 Feb 07 20:16	19° $\approx$ 01'59	0°37'34	morning rise	2299 Aug 21 15:25	18° $\Omega$ 36'50	
max. Earth dist.	2294 Feb 07 00:30	18° $\approx$ 50'13	6.05521 AU		2299 Oct 17 17:48	0° $\Pi$	
morning rise	2294 Feb 20 17:40	22° $\approx$ 05'54		retrograde	2299 Dec 22 05:48	6° $\Pi$ 06'32	
	2294 Mar 27 10:53	0° $\text{X}$		opposition	2300 Feb 20 06:22	1° $\Pi$ 08'00	1°09'47
retrograde	2294 Jun 30 19:59	12° $\text{X}$ 00'12		min. Earth dist.	2300 Feb 19 23:58	1° $\Pi$ 10'07	4.37781 AU
opposition	2294 Aug 30 04:27	7° $\text{X}$ 02'11	-1°17'45		2300 Feb 28 21:52	30° $\text{R}$ $\Omega$	
min. Earth dist.	2294 Aug 30 06:01	7° $\text{X}$ 01'40	4.00155 AU	direct	2300 Apr 22 13:03	26° $\Omega$ 05'16	
direct	2294 Oct 28 05:05	2° $\text{X}$ 08'20			2300 Jun 14 05:31	0° $\Pi$	
evening set	2295 Mar 02 13:38	21° $\text{X}$ 41'09		evening set	2300 Aug 27 08:41	13° $\Pi$ 49'44	
conjunction	2295 Mar 15 15:30	24° $\text{X}$ 50'40	-1°00'58	conjunction	2300 Sep 09 15:18	16° $\Pi$ 41'57	0°58'01
minimum elong	2295 Mar 15 15:29	24° $\text{X}$ 50'40	1°00'58	minimum elong	2300 Sep 09 15:17	16° $\Pi$ 41'56	0°58'01
max. Earth dist.	2295 Mar 16 04:34	24° $\text{X}$ 58'35	5.96572 AU	max. Earth dist.	2300 Sep 09 11:04	16° $\Pi$ 39'39	6.42198 AU
morning rise	2295 Mar 28 20:06	28° $\text{X}$ 01'48		morning rise	2300 Sep 22 19:09	19° $\Pi$ 32'46	
	2295 Apr 06 02:10	0° $\Upsilon$			2300 Nov 14 14:43	0° $\Omega$	
retrograde	2295 Aug 08 02:44	18° $\Upsilon$ 38'34		retrograde	2301 Jan 21 09:39	6° $\Omega$ 25'40	
opposition	2295 Oct 06 23:53	13° $\Upsilon$ 36'37	-1°36'44	opposition	2301 Mar 22 18:57	1° $\Omega$ 30'35	1°32'18
min. Earth dist.	2295 Oct 06 04:32	13° $\Upsilon$ 43'07	3.95231 AU	min. Earth dist.	2301 Mar 23 06:40	1° $\Omega$ 26'47	4.44966 AU
direct	2295 Dec 04 02:03	8° $\Upsilon$ 42'38			2301 Apr 03 14:37	30° $\text{R}$ $\Pi$	
evening set	2296 Apr 07 17:12	28° $\Upsilon$ 26'14		direct	2301 May 24 01:48	26° $\Pi$ 27'50	
	2296 Apr 14 05:27	0° $\text{X}$			2301 Jul 13 13:18	0° $\Omega$	
conjunction	2296 Apr 21 03:11	1° $\text{X}$ 39'44	-1°01'00	evening set	2301 Sep 27 16:11	13° $\Omega$ 57'49	
minimum elong	2296 Apr 21 03:13	1° $\text{X}$ 39'45	1°01'01	max. Earth dist.	2301 Oct 09 08:46	16° $\Omega$ 29'06	6.45773 AU
max. Earth dist.	2296 Apr 22 22:16	2° $\text{X}$ 05'40	5.96080 AU	conjunction	2301 Oct 10 15:34	16° $\Omega$ 45'45	1°05'06
morning rise	2296 May 04 16:08	4° $\text{X}$ 54'45		minimum elong	2301 Oct 10 15:34	16° $\Omega$ 45'45	1°05'06
	2296 Jun 18 09:43	15° $\text{X}$		morning rise	2301 Oct 23 12:20	19° $\Omega$ 32'25	
retrograde	2296 Sep 13 14:17	25° $\text{X}$ 25'08			2301 Dec 15 12:17	0° $\text{M}$	
min. Earth dist.	2296 Nov 10 19:41	20° $\text{X}$ 31'49	3.99332 AU	retrograde	2302 Feb 20 15:14	6° $\text{M}$ 16'31	
opposition	2296 Nov 12 04:49	20° $\text{X}$ 20'33	-1°17'08	opposition	2302 Apr 22 07:25	1° $\text{M}$ 23'47	1°30'00
direct	2297 Jan 09 03:02	15° $\text{X}$ 24'30		min. Earth dist.	2302 Apr 23 11:30	1° $\text{M}$ 14'47	4.44826 AU
	2297 Apr 24 02:41	0° $\text{II}$			2302 May 03 08:19	30° $\text{R}$ $\Omega$	
evening set	2297 May 15 06:03	4° $\text{II}$ 51'25		direct	2302 Jun 24 02:04	26° $\Omega$ 21'53	
conjunction	2297 May 28 22:26	8° $\text{II}$ 04'06	-0°37'17		2302 Aug 14 07:40	0° $\text{M}$	
minimum elong	2297 May 28 22:28	8° $\text{II}$ 04'07	0°37'17	evening set	2302 Oct 28 06:10	13° $\text{M}$ 54'46	
max. Earth dist.	2297 May 31 04:58	8° $\text{II}$ 36'08	6.04320 AU	max. Earth dist.	2302 Nov 02 05:55	15° $\text{M}$	
morning rise	2297 Jun 11 17:01	11° $\text{II}$ 17'37			2302 Nov 08 02:11	16° $\text{M}$ 16'45	6.41859 AU
	2297 Sep 24 22:23	0° $\text{S}$		conjunction	2302 Nov 10 00:42	16° $\text{M}$ 42'15	0°54'38
retrograde	2297 Oct 19 00:02	0° $\text{S}$ 56'37		minimum elong	2302 Nov 10 00:43	16° $\text{M}$ 42'16	0°54'37
	2297 Nov 11 21:28	30° $\text{R}$ $\text{II}$		morning rise	2302 Nov 22 16:47	19° $\text{M}$ 28'44	
min. Earth dist.	2297 Dec 16 04:11	26° $\text{II}$ 03'30	4.10746 AU		2303 Jan 14 03:52	0° $\text{X}$	
opposition	2297 Dec 17 14:05	25° $\text{II}$ 51'57	-0°29'04	retrograde	2303 Mar 23 19:49	6° $\text{X}$ 32'53	
direct	2298 Feb 14 06:54	20° $\text{II}$ 52'55		opposition	2303 May 23 17:57	1° $\text{X}$ 40'59	1°03'26
	2298 May 06 04:42	0° $\text{S}$		min. Earth dist.	2303 May 25 05:44	1° $\text{X}$ 29'35	4.37373 AU
evening set	2298 Jun 20 19:29	9° $\text{S}$ 44'53			2303 Jun 06 05:27	30° $\text{R}$ $\text{M}$	
conjunction	2298 Jul 04 13:29	12° $\text{S}$ 52'06	-0°00'47	direct	2303 Jul 25 06:02	26° $\text{M}$ 40'49	
minimum elong	2298 Jul 04 13:29	12° $\text{S}$ 52'06	0°00'47		2303 Sep 11 15:27	0° $\text{X}$	
behind sun begin	2298 Jul 04 05:07	12° $\text{S}$ 47'22		evening set	2303 Nov 28 00:42	14° $\text{X}$ 33'42	
behind sun end	2298 Jul 04 21:51	12° $\text{S}$ 56'50		max. Earth dist.	2303 Dec 08 14:13	16° $\text{X}$ 55'49	6.31405 AU
max. Earth dist.	2298 Jul 06 12:44	13° $\text{S}$ 18'58	6.17942 AU	conjunction	2303 Dec 10 16:54	17° $\text{X}$ 24'21	0°28'44
asc. node	2298 Jul 12 13:09	14° $\text{S}$ 40'56		minimum elong	2303 Dec 10 16:55	17° $\text{X}$ 24'22	0°28'45
morning rise	2298 Jul 18 07:27	15° $\text{S}$ 59'03		morning rise	2303 Dec 23 07:52	20° $\text{X}$ 14'37	
	2298 Sep 27 05:56	0° $\Omega$			2304 Feb 07 22:02	0° $\text{S}$	
retrograde	2298 Nov 21 02:34	4° $\Omega$ 28'53		retrograde	2304 Apr 25 01:02	8° $\text{S}$ 05'49	
	2299 Jan 15 16:08	30° $\text{R}$ $\text{S}$		opposition	2304 Jun 24 21:29	3° $\text{S}$ 13'10	0°17'14
opposition	2299 Jan 19 19:14	29° $\text{S}$ 26'44	0°26'01	min. Earth dist.	2304 Jun 26 08:36	3° $\text{S}$ 01'56	4.24474 AU
min. Earth dist.	2299 Jan 18 20:01	29° $\text{S}$ 34'32	4.25167 AU		2304 Jul 22 08:05	30° $\text{R}$ $\text{X}$	
direct	2299 Mar 20 18:31	24° $\text{S}$ 25'17		direct	2304 Aug 25 13:17	28° $\text{X}$ 15'18	
	2299 May 22 11:25	0° $\Omega$			2304 Sep 28 11:44	0° $\text{S}$	
evening set	2299 Jul 25 13:32	12° $\Omega$ 39'10		desc. node	2304 Oct 29 17:59	4° $\text{S}$ 15'36	
	2299 Aug 05 05:26	15° $\Omega$		evening set	2304 Dec 28 22:23	16° $\text{S}$ 42'24	
conjunction	2299 Aug 08 03:13	15° $\Omega$ 38'30	0°34'25	max. Earth dist.	2305 Jan 08 22:09	19° $\text{S}$ 15'11	6.17126 AU
minimum elong	2299 Aug 08 03:11	15° $\Omega$ 38'29	0°34'25	conjunction	2305 Jan 10 15:18	19° $\text{S}$ 39'07	-0°06'53

minimum elong	2305 Jan 10 15:18	19°  39'06 0°06'54	max. Earth dist.	2310 Jul 12 12:16	18°  14'31 6.20025 AU
behind sun begin	2305 Jan 10 07:51	19°  34'48	morning rise	2310 Jul 24 08:53	20°  54'54
behind sun end	2305 Jan 10 22:45	19°  43'25		2310 Sep 05 05:46	0° 
morning rise	2305 Jan 23 08:28	22°  36'13	retrograde	2310 Nov 26 14:21	9°  14'48
	2305 Feb 25 13:48	0° 	min. Earth dist.	2311 Jan 24 11:31	4°  120'19 4.27266 AU
retrograde	2305 May 30 11:54	11°  33'48	opposition	2311 Jan 25 09:22	4°  12'59 0°33'18
opposition	2305 Jul 30 03:52	6°  38'50 -0°37'40		2311 Mar 04 00:59	30°  R 
min. Earth dist.	2305 Jul 31 00:35	6°  32'08 4.09822 AU	direct	2311 Mar 26 12:49	29°  11'12
direct	2305 Sep 28 09:24	1°  43'29		2311 Apr 18 08:22	0° 
	2306 Jan 06 10:15	15° 		2311 Jul 20 14:42	15° 
evening set	2306 Jan 31 17:22	20°  50'49	evening set	2311 Jul 31 08:23	17°  19'33
conjunction	2306 Feb 13 13:52	23°  54'54 -0°41'45	conjunction	2311 Aug 13 21:11	20°  17'40 0°38'40
minimum elong	2306 Feb 13 13:50	23°  54'53 0°41'44	minimum elong	2311 Aug 13 21:09	20°  17'39 0°38'40
max. Earth dist.	2306 Feb 12 22:05	23°  45'28 6.03415 AU	max. Earth dist.	2311 Aug 14 16:59	20°  128'33 6.33942 AU
morning rise	2306 Feb 26 12:05	27°  00'08	morning rise	2311 Aug 27 08:06	23°  14'40
	2306 Mar 11 05:46	0° 		2311 Sep 28 11:55	0° 
retrograde	2306 Jul 07 03:06	17°  X04'45	retrograde	2311 Dec 27 13:48	10°  136'51
opposition	2306 Sep 05 07:59	12°  X06'15 -1°22'24	opposition	2312 Feb 25 15:23	5°  138'48 1°14'24
min. Earth dist.	2306 Sep 05 07:37	12°  X06'22 3.98367 AU	min. Earth dist.	2312 Feb 25 11:43	5°  140'01 4.39382 AU
direct	2306 Nov 03 04:57	7°  X12'30	direct	2312 Apr 27 02:49	0°  136'00
evening set	2307 Mar 08 14:49	26°  X51'03	evening set	2312 Aug 31 21:05	18°  116'39
conjunction	2307 Mar 21 17:55	0°  Y01'45 -1°02'27	conjunction	2312 Sep 14 02:29	21°  107'58 1°00'05
minimum elong	2307 Mar 21 17:54	0°  Y01'44 1°02'26	minimum elong	2312 Sep 14 02:28	21°  107'57 1°00'04
	2307 Mar 21 15:02	0° 	max. Earth dist.	2312 Sep 13 17:05	21°  102'53 6.43322 AU
max. Earth dist.	2307 Mar 22 11:39	0°  Y12'30 5.95280 AU	morning rise	2312 Sep 27 05:18	23°  157'54
morning rise	2307 Apr 03 23:51	3°  Y14'04		2312 Oct 26 05:32	0° 
retrograde	2307 Aug 14 11:12	23°  Y56'02	retrograde	2313 Jan 25 15:40	10°  147'12
min. Earth dist.	2307 Oct 12 07:45	19°  Y01'14 3.94611 AU	opposition	2313 Mar 27 01:58	5°  152'28 1°33'28
opposition	2307 Oct 13 06:15	18°  Y53'40 -1°36'15	min. Earth dist.	2313 Mar 27 16:35	5°  147'43 4.45565 AU
direct	2307 Dec 10 04:26	13°  Y59'35	direct	2313 May 28 11:39	0°  149'42
	2308 Mar 29 03:29	0° 	evening set	2313 Oct 02 00:13	18°  118'30
evening set	2308 Apr 14 00:19	3°  X45'00	conjunction	2313 Oct 14 22:54	21°  106'07 1°04'38
conjunction	2308 Apr 27 11:22	6°  X59'00 -0°58'53	minimum elong	2313 Oct 14 22:55	21°  106'07 1°04'39
minimum elong	2308 Apr 27 11:24	6°  X59'01 0°58'52	max. Earth dist.	2313 Oct 13 14:16	20°  148'27 6.45794 AU
max. Earth dist.	2308 Apr 29 08:40	7°  X26'15 5.96175 AU	morning rise	2313 Oct 27 18:39	23°  152'25
morning rise	2308 May 11 01:35	10°  X14'30		2313 Nov 26 05:05	0° 
	2308 May 31 09:28	15° 	retrograde	2314 Feb 24 21:44	10°  137'16
	2308 Aug 30 02:14	0° 	opposition	2314 Apr 26 15:50	5°  144'43 1°27'37
retrograde	2308 Sep 19 18:09	0°  142'06	min. Earth dist.	2314 Apr 27 21:07	5°  135'21 4.44274 AU
	2308 Oct 10 07:37	30°  R 	direct	2314 Jun 28 09:51	0°  143'00
min. Earth dist.	2308 Nov 16 21:40	25°  X49'07 4.00120 AU		2314 Oct 17 05:24	15° 
opposition	2308 Nov 18 08:26	25°  X37'15 -1°11'31	evening set	2314 Nov 01 13:23	18°  117'28
direct	2309 Jan 15 07:59	20°  X40'47	max. Earth dist.	2314 Nov 12 06:19	20°  138'13 6.40763 AU
	2309 Apr 05 18:34	0° 	conjunction	2314 Nov 14 07:15	21°  105'08 0°51'47
evening set	2309 May 21 13:17	10°  105'00	minimum elong	2314 Nov 14 07:16	21°  105'09 0°51'47
conjunction	2309 Jun 04 06:27	13°  117'20 -0°32'28	morning rise	2314 Nov 26 23:06	23°  151'57
minimum elong	2309 Jun 04 06:29	13°  117'22 0°32'28		2314 Dec 25 22:10	0° 
max. Earth dist.	2309 Jun 06 15:12	13°  150'33 6.05738 AU	retrograde	2315 Mar 28 10:05	11°  140'09
morning rise	2309 Jun 18 01:14	16°  130'18	opposition	2315 May 28 07:10	6°  1409'13 0°57'54
	2309 Aug 21 20:24	0° 	min. Earth dist.	2315 May 29 20:36	5°  1457'18 4.35783 AU
retrograde	2309 Oct 24 22:23	6°  100'32	direct	2315 Jul 29 18:21	1°  1409'17
min. Earth dist.	2309 Dec 22 02:16	1°  107'16 4.12594 AU	evening set	2315 Dec 02 10:30	19°  1406'27
opposition	2309 Dec 23 11:21	0°  156'01 -0°21'03	max. Earth dist.	2315 Dec 13 00:06	21°  1429'14 6.29449 AU
	2309 Dec 30 09:01	30°  R 	conjunction	2315 Dec 15 02:44	21°  1457'51 0°24'06
direct	2310 Feb 20 08:06	25°  156'33	minimum elong	2315 Dec 15 02:45	21°  1457'52 0°24'06
	2310 Apr 12 22:54	0° 	morning rise	2315 Dec 27 17:48	24°  1448'58
asc. node	2310 May 22 00:24	6°  156'52		2316 Jan 20 08:04	0° 
evening set	2310 Jun 26 21:45	14°  142'59	retrograde	2316 Apr 29 20:23	12°  148'54
conjunction	2310 Jul 10 15:21	17°  149'08 0°04'44	opposition	2316 Jun 29 17:34	7°  156'00 0°09'37
minimum elong	2310 Jul 10 15:21	17°  149'07 0°04'45	min. Earth dist.	2316 Jul 01 02:44	7°  145'22 4.22286 AU
behind sun begin	2310 Jul 10 07:11	17°  144'32	direct	2316 Aug 30 03:54	2°  158'29
behind sun end	2310 Jul 10 23:30	17°  153'43	desc. node	2316 Sep 07 22:00	3°  1505'39

evening set	2317 Jan 02 14:07	21° $\text{♁}$ 31'44		conjunction	2322 Jul 15 13:21	22° $\text{♁}$ 36'01	0°09'56
max. Earth dist.	2317 Jan 13 17:14	24° $\text{♁}$ 07'14	6.14895 AU	minimum elong	2322 Jul 15 13:20	22° $\text{♁}$ 36'00	0°09'56
				behind sun begin	2322 Jul 15 06:39	22° $\text{♁}$ 32'16	
conjunction	2317 Jan 15 07:21	24° $\text{♁}$ 29'31	-0°12'10	behind sun end	2322 Jul 15 20:01	22° $\text{♁}$ 39'45	
minimum elong	2317 Jan 15 07:20	24° $\text{♁}$ 29'30	0°12'09	max. Earth dist.	2322 Jul 17 06:43	22° $\text{♁}$ 59'18	6.22366 AU
behind sun begin	2317 Jan 15 01:51	24° $\text{♁}$ 26'18		morning rise	2322 Jul 29 06:06	25° $\text{♁}$ 40'25	
behind sun end	2317 Jan 15 12:50	24° $\text{♁}$ 32'42			2322 Aug 18 00:16	0° $\text{♁}$	
morning rise	2317 Jan 28 01:03	27° $\text{♁}$ 27'48		retrograde	2322 Dec 01 00:47	13° $\text{♁}$ 50'21	
	2317 Feb 08 01:22	0° $\text{♁}$		opposition	2323 Jan 29 19:57	8° $\text{♁}$ 49'05	0°40'06
	2317 May 03 12:42	15° $\text{♁}$		min. Earth dist.	2323 Jan 29 01:22	8° $\text{♁}$ 55'18	4.29403 AU
retrograde	2317 Jun 04 18:31	16° $\text{♁}$ 36'02		direct	2323 Mar 31 05:02	3° $\text{♁}$ 47'06	
	2317 Jul 07 02:18	15° $\text{♁}$			2323 Jul 03 10:08	15° $\text{♁}$	
opposition	2317 Aug 04 08:05	11° $\text{♁}$ 40'40	-0°45'10	evening set	2323 Aug 04 23:23	21° $\text{♁}$ 50'14	
min. Earth dist.	2317 Aug 05 02:57	11° $\text{♁}$ 34'33	4.07731 AU				
direct	2317 Oct 03 09:48	6° $\text{♁}$ 45'37		conjunction	2323 Aug 18 11:14	24° $\text{♁}$ 47'15	0°42'32
	2317 Dec 18 01:07	15° $\text{♁}$		minimum elong	2323 Aug 18 11:12	24° $\text{♁}$ 47'14	0°42'32
evening set	2318 Feb 05 16:46	25° $\text{♁}$ 58'56		max. Earth dist.	2323 Aug 19 02:43	24° $\text{♁}$ 55'43	6.35701 AU
				morning rise	2323 Aug 31 21:04	27° $\text{♁}$ 43'05	
conjunction	2318 Feb 18 14:06	29° $\text{♁}$ 04'09	-0°45'52		2323 Sep 11 11:11	0° $\text{♁}$	
minimum elong	2318 Feb 18 14:04	29° $\text{♁}$ 04'08	0°45'53	retrograde	2323 Dec 31 17:45	14° $\text{♁}$ 58'57	
max. Earth dist.	2318 Feb 18 02:55	28° $\text{♁}$ 57'27	6.01674 AU	opposition	2324 Feb 29 21:31	10° $\text{♁}$ 01'26	1°18'29
	2318 Feb 22 11:09	0° $\text{♁}$		min. Earth dist.	2324 Feb 29 20:11	10° $\text{♁}$ 01'52	4.40668 AU
morning rise	2318 Mar 03 13:19	2° $\text{♁}$ 10'36		direct	2324 May 01 11:57	4° $\text{♁}$ 58'35	
retrograde	2318 Jul 12 13:57	22° $\text{♁}$ 23'31		evening set	2324 Sep 05 06:17	22° $\text{♁}$ 36'43	
opposition	2318 Sep 10 17:20	17° $\text{♁}$ 24'31	-1°26'40				
min. Earth dist.	2318 Sep 10 12:56	17° $\text{♁}$ 25'58	3.97214 AU	conjunction	2324 Sep 18 10:44	25° $\text{♁}$ 27'21	1°01'45
direct	2318 Nov 08 08:57	12° $\text{♁}$ 30'56		minimum elong	2324 Sep 18 10:43	25° $\text{♁}$ 27'20	1°01'45
	2319 Mar 04 16:03	0° $\text{♁}$		max. Earth dist.	2324 Sep 17 21:46	25° $\text{♁}$ 20'20	6.44040 AU
evening set	2319 Mar 13 21:18	2° $\text{♁}$ 12'27		morning rise	2324 Oct 01 12:25	28° $\text{♁}$ 16'35	
					2324 Oct 09 14:16	0° $\text{♁}$	
conjunction	2319 Mar 27 01:22	5° $\text{♁}$ 23'50	-1°03'32	retrograde	2325 Jan 29 20:18	15° $\text{♁}$ 04'03	
minimum elong	2319 Mar 27 01:21	5° $\text{♁}$ 23'49	1°03'31	opposition	2325 Mar 31 07:30	10° $\text{♁}$ 09'46	1°34'09
max. Earth dist.	2319 Mar 27 23:18	5° $\text{♁}$ 37'08	5.94823 AU	min. Earth dist.	2325 Apr 01 00:55	10° $\text{♁}$ 04'09	4.45687 AU
morning rise	2319 Apr 09 08:34	8° $\text{♁}$ 36'54		direct	2325 Jun 01 19:18	5° $\text{♁}$ 07'11	
retrograde	2319 Aug 19 19:53	29° $\text{♁}$ 19'59		evening set	2325 Oct 06 06:52	22° $\text{♁}$ 36'24	
opposition	2319 Oct 18 15:02	24° $\text{♁}$ 17'05	-1°34'58	max. Earth dist.	2325 Oct 17 15:33	25° $\text{♁}$ 03'46	6.45296 AU
min. Earth dist.	2319 Oct 17 13:30	24° $\text{♁}$ 25'43	3.94933 AU				
direct	2319 Dec 15 12:30	19° $\text{♁}$ 22'45		conjunction	2325 Oct 19 04:42	25° $\text{♁}$ 23'54	1°03'51
	2320 Mar 10 10:04	0° $\text{♁}$		minimum elong	2325 Oct 19 04:42	25° $\text{♁}$ 23'54	1°03'50
evening set	2320 Apr 19 08:59	9° $\text{♁}$ 06'12		morning rise	2325 Oct 31 23:55	28° $\text{♁}$ 10'10	
					2325 Nov 09 13:00	0° $\text{♁}$	
conjunction	2320 May 02 21:14	12° $\text{♁}$ 20'13	-0°56'18	retrograde	2326 Mar 01 06:33	14° $\text{♁}$ 57'38	
minimum elong	2320 May 02 21:16	12° $\text{♁}$ 20'15	0°56'18	opposition	2326 May 01 00:18	10° $\text{♁}$ 05'17	1°24'49
max. Earth dist.	2320 May 04 23:07	12° $\text{♁}$ 50'07	5.97250 AU	min. Earth dist.	2326 May 02 07:41	9° $\text{♁}$ 55'15	4.43204 AU
	2320 May 14 00:23	15° $\text{♁}$		direct	2326 Jul 02 18:21	5° $\text{♁}$ 03'47	
morning rise	2320 May 16 12:12	15° $\text{♁}$ 35'35			2326 Sep 29 21:41	15° $\text{♁}$	
	2320 Jul 23 11:15	0° $\text{♁}$		evening set	2326 Nov 05 20:37	22° $\text{♁}$ 41'33	
retrograde	2320 Sep 24 22:13	5° $\text{♁}$ 56'09		max. Earth dist.	2326 Nov 16 13:24	25° $\text{♁}$ 02'43	6.39209 AU
min. Earth dist.	2320 Nov 22 00:17	1° $\text{♁}$ 03'05	4.01810 AU				
opposition	2320 Nov 23 11:15	0° $\text{♁}$ 51'10	-1°05'25	conjunction	2326 Nov 18 14:19	25° $\text{♁}$ 29'43	0°48'40
	2320 Nov 29 18:07	30° $\text{♁}$		minimum elong	2326 Nov 18 14:21	25° $\text{♁}$ 29'44	0°48'41
direct	2321 Jan 20 13:33	25° $\text{♁}$ 54'18		morning rise	2326 Dec 01 05:47	28° $\text{♁}$ 17'02	
	2321 Mar 12 12:50	0° $\text{♁}$			2326 Dec 09 02:28	0° $\text{♁}$	
evening set	2321 May 26 18:37	15° $\text{♁}$ 12'36		retrograde	2327 Apr 01 23:39	15° $\text{♁}$ 32'54	
				opposition	2327 Jun 01 21:37	10° $\text{♁}$ 40'58	0°52'00
conjunction	2321 Jun 09 12:03	18° $\text{♁}$ 24'07	-0°27'32	min. Earth dist.	2327 Jun 03 10:31	10° $\text{♁}$ 29'13	4.33845 AU
minimum elong	2321 Jun 09 12:05	18° $\text{♁}$ 24'08	0°27'31	direct	2327 Aug 03 05:14	5° $\text{♁}$ 41'26	
max. Earth dist.	2321 Jun 11 20:15	18° $\text{♁}$ 56'50	6.07863 AU	evening set	2327 Dec 06 21:43	23° $\text{♁}$ 43'57	
morning rise	2321 Jun 23 07:05	21° $\text{♁}$ 36'09		max. Earth dist.	2327 Dec 17 11:58	26° $\text{♁}$ 07'53	6.27285 AU
	2321 Jul 31 09:45	0° $\text{♁}$					
retrograde	2321 Oct 29 14:10	10° $\text{♁}$ 55'28		conjunction	2327 Dec 19 13:51	26° $\text{♁}$ 36'13	0°19'16
min. Earth dist.	2321 Dec 26 20:35	6° $\text{♁}$ 02'19	4.14923 AU	minimum elong	2327 Dec 19 13:52	26° $\text{♁}$ 36'14	0°19'15
opposition	2321 Dec 28 05:22	5° $\text{♁}$ 51'11	-0°13'09	morning rise	2328 Jan 01 05:16	29° $\text{♁}$ 28'21	
direct	2322 Feb 25 05:31	0° $\text{♁}$ 51'21			2328 Jan 03 13:22	0° $\text{♁}$	
asc. node	2322 Mar 31 18:35	2° $\text{♁}$ 44'36		retrograde	2328 May 04 20:34	17° $\text{♁}$ 37'58	
evening set	2322 Jul 01 20:13	19° $\text{♁}$ 31'07		opposition	2328 Jul 04 16:11	12° $\text{♁}$ 44'48	0°01'50
				min. Earth dist.	2328 Jul 06 00:14	12° $\text{♁}$ 34'32	4.20037 AU

desc. node	2328 Jul 17 22:12	11° $\text{♁}$ 04'46	conjunction	2334 Jul 20 09:41	27° $\text{♁}$ 18'54	0°15'01
direct	2328 Sep 03 23:12	7° $\text{♁}$ 47'41	minimum elong	2334 Jul 20 09:39	27° $\text{♁}$ 18'53	0°15'02
evening set	2329 Jan 07 07:42	26° $\text{♁}$ 27'03	behind sun begin	2334 Jul 20 07:04	27° $\text{♁}$ 17'27	
max. Earth dist.	2329 Jan 18 15:08	29° $\text{♁}$ 05'47	behind sun end	2334 Jul 20 12:14	27° $\text{♁}$ 20'19	
		6.12776 AU	max. Earth dist.	2334 Jul 22 00:30	27° $\text{♁}$ 40'38	6.24392 AU
conjunction	2329 Jan 20 01:28	29° $\text{♁}$ 25'55		2334 Aug 01 09:54	0° $\text{♁}$	
minimum elong	2329 Jan 20 01:27	29° $\text{♁}$ 25'54	morning rise	2334 Aug 03 01:38	0° $\text{♁}$ 22'05	
	2329 Jan 22 11:33	0° $\text{♁}$		2334 Oct 19 01:14	15° $\text{♁}$	
morning rise	2329 Feb 01 19:44	2° $\text{♁}$ 25'22	retrograde	2334 Dec 05 08:18	18° $\text{♁}$ 23'21	
	2329 Apr 02 03:29	15° $\text{♁}$		2335 Jan 21 20:40	15° $\text{♁}$	
retrograde	2329 Jun 10 01:04	21° $\text{♁}$ 43'32	opposition	2335 Feb 03 05:32	13° $\text{♁}$ 22'34	0°46'36
opposition	2329 Aug 09 13:44	16° $\text{♁}$ 47'44	min. Earth dist.	2335 Feb 02 12:32	13° $\text{♁}$ 28'15	4.31186 AU
min. Earth dist.	2329 Aug 10 04:52	16° $\text{♁}$ 42'49	direct	2335 Apr 04 18:12	8° $\text{♁}$ 20'24	
	2329 Aug 23 16:40	15° $\text{♁}$		2335 Jun 13 15:44	15° $\text{♁}$	
direct	2329 Oct 08 09:41	11° $\text{♁}$ 53'01	evening set	2335 Aug 09 13:47	26° $\text{♁}$ 19'29	
	2329 Nov 22 00:15	15° $\text{♁}$				
	2330 Feb 05 18:24	0° $\text{♁}$	conjunction	2335 Aug 23 00:35	29° $\text{♁}$ 15'29	0°46'09
evening set	2330 Feb 10 17:45	1° $\text{♁}$ 11'00	minimum elong	2335 Aug 23 00:33	29° $\text{♁}$ 15'28	0°46'08
			max. Earth dist.	2335 Aug 23 10:57	29° $\text{♁}$ 21'09	6.37106 AU
conjunction	2330 Feb 23 15:44	4° $\text{♁}$ 17'06		2335 Aug 26 10:03	0° $\text{♁}$	
minimum elong	2330 Feb 23 15:42	4° $\text{♁}$ 17'04	morning rise	2335 Sep 05 09:22	2° $\text{♁}$ 10'18	
max. Earth dist.	2330 Feb 23 08:52	4° $\text{♁}$ 12'58	retrograde	2336 Jan 05 00:15	19° $\text{♁}$ 21'04	
morning rise	2330 Mar 08 15:59	7° $\text{♁}$ 24'33	opposition	2336 Mar 05 04:03	14° $\text{♁}$ 24'04	1°22'07
retrograde	2330 Jul 17 23:35	27° $\text{♁}$ 43'37	min. Earth dist.	2336 Mar 05 06:22	14° $\text{♁}$ 23'18	4.41618 AU
opposition	2330 Sep 16 02:27	22° $\text{♁}$ 43'57	direct	2336 May 05 23:02	9° $\text{♁}$ 21'10	
min. Earth dist.	2330 Sep 15 18:23	22° $\text{♁}$ 46'38	evening set	2336 Sep 09 16:02	26° $\text{♁}$ 57'40	
direct	2330 Nov 13 14:45	17° $\text{♁}$ 50'20				
	2331 Feb 14 16:44	0° $\text{♁}$	conjunction	2336 Sep 22 19:33	29° $\text{♁}$ 47'45	1°03'06
evening set	2331 Mar 19 03:11	7° $\text{♁}$ 32'51	minimum elong	2336 Sep 22 19:32	29° $\text{♁}$ 47'44	1°03'06
			max. Earth dist.	2336 Sep 22 02:34	29° $\text{♁}$ 38'34	6.44452 AU
conjunction	2331 Apr 01 08:30	10° $\text{♁}$ 44'45		2336 Sep 23 18:13	0° $\text{♁}$	
minimum elong	2331 Apr 01 08:29	10° $\text{♁}$ 44'45	morning rise	2336 Oct 05 20:15	2° $\text{♁}$ 36'26	
max. Earth dist.	2331 Apr 02 12:34	11° $\text{♁}$ 01'45	retrograde	2337 Feb 03 01:31	19° $\text{♁}$ 22'53	
morning rise	2331 Apr 14 16:41	13° $\text{♁}$ 58'16	opposition	2337 Apr 04 14:06	14° $\text{♁}$ 28'56	1°34'20
	2331 Jun 30 11:01	0° $\text{♁}$	min. Earth dist.	2337 Apr 05 09:20	14° $\text{♁}$ 22'43	4.45571 AU
retrograde	2331 Aug 25 04:42	4° $\text{♁}$ 40'11	direct	2337 Jun 06 02:52	9° $\text{♁}$ 26'25	
	2331 Oct 21 01:22	30° $\text{♁}$	evening set	2337 Oct 10 14:33	26° $\text{♁}$ 56'36	
opposition	2331 Oct 23 21:55	29° $\text{♁}$ 36'50	max. Earth dist.	2337 Oct 21 21:26	29° $\text{♁}$ 23'16	6.44664 AU
min. Earth dist.	2331 Oct 22 18:56	29° $\text{♁}$ 45'58				
direct	2331 Dec 20 19:29	24° $\text{♁}$ 42'14	conjunction	2337 Oct 23 11:44	29° $\text{♁}$ 44'05	1°02'42
	2332 Feb 16 20:52	0° $\text{♁}$	minimum elong	2337 Oct 23 11:45	29° $\text{♁}$ 44'05	1°02'41
evening set	2332 Apr 24 15:49	14° $\text{♁}$ 22'26		2337 Oct 24 17:01	0° $\text{♁}$	
	2332 Apr 27 07:01	15° $\text{♁}$	morning rise	2337 Nov 05 06:11	2° $\text{♁}$ 30'21	
				2338 Jan 09 18:38	15° $\text{♁}$	
conjunction	2332 May 08 04:52	17° $\text{♁}$ 36'14	retrograde	2338 Mar 05 15:53	19° $\text{♁}$ 20'47	
minimum elong	2332 May 08 04:54	17° $\text{♁}$ 36'15		2338 May 01 08:00	15° $\text{♁}$	
max. Earth dist.	2332 May 10 08:07	18° $\text{♁}$ 06'49	opposition	2338 May 05 10:27	14° $\text{♁}$ 28'39	1°21'29
morning rise	2332 May 21 20:47	20° $\text{♁}$ 51'21	min. Earth dist.	2338 May 06 19:08	14° $\text{♁}$ 18'14	4.42106 AU
	2332 Jul 01 11:02	0° $\text{♁}$	direct	2338 Jul 07 04:11	9° $\text{♁}$ 27'28	
retrograde	2332 Sep 29 20:47	11° $\text{♁}$ 04'04		2338 Sep 09 06:52	15° $\text{♁}$	
min. Earth dist.	2332 Nov 26 22:55	6° $\text{♁}$ 11'18	evening set	2338 Nov 10 05:11	27° $\text{♁}$ 08'19	
opposition	2332 Nov 28 11:00	5° $\text{♁}$ 59'00	max. Earth dist.	2338 Nov 20 19:43	29° $\text{♁}$ 28'51	6.37732 AU
direct	2333 Jan 25 14:39	1° $\text{♁}$ 01'42				
evening set	2333 May 31 21:47	20° $\text{♁}$ 14'23	conjunction	2338 Nov 22 22:23	29° $\text{♁}$ 56'55	0°45'14
			minimum elong	2338 Nov 22 22:25	29° $\text{♁}$ 56'56	0°45'14
conjunction	2333 Jun 14 15:29	23° $\text{♁}$ 25'05		2338 Nov 23 03:57	0° $\text{♁}$	
minimum elong	2333 Jun 14 15:31	23° $\text{♁}$ 25'06	morning rise	2338 Dec 05 13:49	2° $\text{♁}$ 44'48	
max. Earth dist.	2333 Jun 16 21:45	23° $\text{♁}$ 56'31	retrograde	2339 Apr 06 16:02	20° $\text{♁}$ 07'07	
morning rise	2333 Jun 28 10:30	26° $\text{♁}$ 36'09	opposition	2339 Jun 06 13:43	15° $\text{♁}$ 15'07	0°45'42
	2333 Jul 13 10:23	0° $\text{♁}$	min. Earth dist.	2339 Jun 08 02:20	15° $\text{♁}$ 03'27	4.32093 AU
retrograde	2333 Nov 03 06:08	15° $\text{♁}$ 45'13	direct	2339 Aug 07 18:59	10° $\text{♁}$ 15'56	
opposition	2334 Jan 01 21:14	10° $\text{♁}$ 41'14	evening set	2339 Dec 11 09:48	28° $\text{♁}$ 23'01	
min. Earth dist.	2333 Dec 31 15:00	10° $\text{♁}$ 51'30		2339 Dec 18 12:42	0° $\text{♁}$	
asc. node	2334 Feb 08 18:44	6° $\text{♁}$ 26'02	max. Earth dist.	2339 Dec 22 03:03	0° $\text{♁}$ 49'13	6.25427 AU
direct	2334 Mar 02 02:42	5° $\text{♁}$ 41'00				
evening set	2334 Jul 06 16:56	24° $\text{♁}$ 15'04	conjunction	2339 Dec 24 02:07	1° $\text{♁}$ 16'04	0°14'18
			minimum elong	2339 Dec 24 02:07	1° $\text{♁}$ 16'05	0°14'18

behind sun begin	2339 Dec 23 22:12	1°♊13'51	asc. node	2345 Dec 21 04:44	17°♊31'35	
behind sun end	2339 Dec 24 06:03	1°♊18'18	min. Earth dist.	2346 Jan 05 04:38	15°♊33'49	4.18826 AU
morning rise	2340 Jan 05 17:34	4°♊09'02	opposition	2346 Jan 06 09:56	15°♊23'54	0°02'16
retrograde	2340 May 09 19:09	22°♊27'06	direct	2346 Mar 06 18:21	10°♊23'25	
desc. node	2340 May 27 10:26	21°♊58'05	evening set	2346 Jul 11 11:08	28°♊53'13	
opposition	2340 Jul 09 14:55	17°♊33'42 -0°05'59		2346 Jul 16 11:13	0°♊	
min. Earth dist.	2340 Jul 10 20:37	17°♊24'11 4.18222 AU				
direct	2340 Sep 08 17:17	12°♊37'02	conjunction	2346 Jul 25 03:12	1°♊56'06	0°19'51
	2341 Jan 06 05:54	0°♊	minimum elong	2346 Jul 25 03:10	1°♊56'05	0°19'51
evening set	2341 Jan 12 01:16	1°♊20'59	max. Earth dist.	2346 Jul 26 12:53	2°♊14'54	6.26038 AU
max. Earth dist.	2341 Jan 23 11:42	4°♊02'06 6.11155 AU	morning rise	2346 Aug 07 18:32	4°♊58'17	
				2346 Sep 25 08:01	15°♊	
conjunction	2341 Jan 24 19:14	4°♊20'40 -0°22'30	retrograde	2346 Dec 09 16:38	22°♊52'32	
minimum elong	2341 Jan 24 19:13	4°♊20'39 0°22'30	opposition	2347 Feb 07 13:30	17°♊52'19	0°52'38
morning rise	2341 Feb 06 14:13	7°♊21'05	min. Earth dist.	2347 Feb 06 23:50	17°♊56'52	4.32578 AU
	2341 Mar 12 13:09	15°♊		2347 Mar 02 13:57	15°♊	
retrograde	2341 Jun 15 06:09	26°♊47'26	direct	2347 Apr 09 07:14	12°♊49'57	
opposition	2341 Aug 14 18:03	21°♊51'06 -0°59'06		2347 May 17 10:22	15°♊	
min. Earth dist.	2341 Aug 15 05:49	21°♊47'15 4.04671 AU		2347 Aug 10 12:57	0°♊	
direct	2341 Oct 13 09:50	16°♊56'37	evening set	2347 Aug 14 02:41	0°♊46'19	
	2342 Jan 19 15:08	0°♊				
evening set	2342 Feb 15 16:41	6°♊17'33	conjunction	2347 Aug 27 12:45	3°♊41'34	0°49'24
			minimum elong	2347 Aug 27 12:43	3°♊41'33	0°49'23
conjunction	2342 Feb 28 15:34	9°♊24'22 -0°52'57	max. Earth dist.	2347 Aug 27 20:26	3°♊45'46	6.38155 AU
minimum elong	2342 Feb 28 15:32	9°♊24'21 0°52'56	morning rise	2347 Sep 09 20:21	6°♊35'31	
max. Earth dist.	2342 Feb 28 14:43	9°♊23'51 5.99568 AU	retrograde	2348 Jan 09 04:22	23°♊42'22	
morning rise	2342 Mar 13 16:35	12°♊32'34	opposition	2348 Mar 09 09:57	18°♊45'50	1°25'13
	2342 Jun 09 13:42	0°♊	min. Earth dist.	2348 Mar 09 13:41	18°♊44'37	4.42288 AU
retrograde	2342 Jul 23 07:01	2°♊55'47	direct	2348 May 10 06:49	13°♊42'57	
	2342 Sep 05 06:19	30°♊		2348 Sep 07 22:01	0°♊	
opposition	2342 Sep 21 08:17	27°♊55'36 -1°32'46	evening set	2348 Sep 14 01:06	1°♊18'28	
min. Earth dist.	2342 Sep 20 21:59	27°♊59'02 3.96313 AU	max. Earth dist.	2348 Sep 26 07:10	3°♊57'01	6.44697 AU
direct	2342 Nov 18 18:17	23°♊02'02				
	2343 Jan 25 08:51	0°♊	conjunction	2348 Sep 27 03:35	4°♊08'04	1°04'03
evening set	2343 Mar 24 06:05	12°♊44'18	minimum elong	2348 Sep 27 03:35	4°♊08'04	1°04'02
			morning rise	2348 Oct 10 03:23	6°♊56'18	
conjunction	2343 Apr 06 12:15	15°♊56'29 -1°04'03	retrograde	2349 Feb 07 08:12	23°♊42'10	
minimum elong	2343 Apr 06 12:15	15°♊56'29 1°04'03	opposition	2349 Apr 08 20:59	18°♊48'34	1°33'57
max. Earth dist.	2343 Apr 07 18:52	16°♊15'00 5.95171 AU	min. Earth dist.	2349 Apr 09 18:52	18°♊41'31	4.45388 AU
morning rise	2343 Apr 19 21:39	19°♊10'21	direct	2349 Jun 10 12:18	13°♊46'10	
	2343 Jun 06 23:24	0°♊		2349 Oct 08 22:14	0°♊	
retrograde	2343 Aug 30 06:28	9°♊49'49	evening set	2349 Oct 14 21:42	1°♊17'03	
opposition	2343 Oct 28 23:57	4°♊46'10 -1°30'05	max. Earth dist.	2349 Oct 26 01:24	3°♊42'16	6.44051 AU
min. Earth dist.	2343 Oct 27 18:35	4°♊56'07 3.96519 AU				
	2343 Dec 16 17:33	30°♊	conjunction	2349 Oct 27 18:12	4°♊04'29	1°01'10
direct	2343 Dec 25 20:46	29°♊51'15	minimum elong	2349 Oct 27 18:13	4°♊04'30	1°01'10
	2344 Jan 04 00:35	0°♊	morning rise	2349 Nov 09 12:06	6°♊50'46	
	2344 Apr 10 14:24	15°♊		2349 Dec 19 04:51	15°♊	
evening set	2344 Apr 29 18:39	19°♊28'12	retrograde	2350 Mar 10 00:25	23°♊43'56	
			opposition	2350 May 09 20:21	18°♊51'49	1°17'40
conjunction	2344 May 13 08:36	22°♊41'47 -0°50'00	min. Earth dist.	2350 May 11 05:20	18°♊41'17	4.41098 AU
minimum elong	2344 May 13 08:38	22°♊41'49 0°50'01		2350 Jun 13 13:50	15°♊	
max. Earth dist.	2344 May 15 12:35	23°♊12'43 5.99885 AU	direct	2350 Jul 11 12:55	13°♊50'47	
morning rise	2344 May 27 01:11	25°♊56'34		2350 Aug 08 14:40	15°♊	
	2344 Jun 13 12:35	0°♊		2350 Nov 07 08:57	0°♊	
retrograde	2344 Oct 04 16:45	16°♊01'47	evening set	2350 Nov 14 12:51	1°♊34'05	
min. Earth dist.	2344 Dec 01 19:50	11°♊08'37 4.05186 AU	max. Earth dist.	2350 Nov 25 04:14	3°♊55'30	6.36394 AU
opposition	2344 Dec 03 06:34	10°♊56'46 -0°52'16				
direct	2345 Jan 30 13:41	5°♊59'03	conjunction	2350 Nov 27 05:49	4°♊23'04	0°41'32
evening set	2345 Jun 05 20:58	25°♊07'00	minimum elong	2350 Nov 27 05:51	4°♊23'05	0°41'32
			morning rise	2350 Dec 09 20:55	7°♊11'23	
conjunction	2345 Jun 19 15:00	28°♊17'01 -0°17'26	retrograde	2351 Apr 11 06:51	24°♊39'32	
minimum elong	2345 Jun 19 15:01	28°♊17'02 0°17'27	opposition	2351 Jun 11 04:52	19°♊47'24	0°39'08
max. Earth dist.	2345 Jun 21 20:37	28°♊47'55 6.11698 AU	min. Earth dist.	2351 Jun 12 17:24	19°♊35'46	4.30472 AU
	2345 Jun 27 01:48	0°♊	direct	2351 Aug 12 07:47	14°♊48'31	
morning rise	2345 Jul 03 09:56	1°♊27'14		2351 Dec 02 12:19	0°♊	
retrograde	2345 Nov 07 18:08	20°♊27'27	evening set	2351 Dec 15 20:36	2°♊59'32	

max. Earth dist.	2351 Dec 26 13:48	5°  26'23	6.23630 AU	conjunction	2357 Jun 24 17:47	3°  15'35	-0°12'08
				minimum elong	2357 Jun 24 17:48	3°  15'35	0°12'09
conjunction	2351 Dec 28 12:49	5°  53'19	0°09'16	behind sun begin	2357 Jun 24 12:16	3°  12'26	
minimum elong	2351 Dec 28 12:49	5°  53'19	0°09'17	behind sun end	2357 Jun 24 23:19	3°  18'45	
behind sun begin	2351 Dec 28 06:04	5°  49'28		max. Earth dist.	2357 Jun 26 20:33	3°  44'44	6.13463 AU
behind sun end	2351 Dec 28 19:34	5°  57'10		morning rise	2357 Jul 08 12:42	6°  24'57	
morning rise	2352 Jan 10 04:43	8°  47'09		asc. node	2357 Oct 30 13:13	24°  59'50	
desc. node	2352 Apr 06 08:50	25°  00'11		retrograde	2357 Nov 12 09:25	25°  16'10	
retrograde	2352 May 14 17:30	27°  13'41		min. Earth dist.	2358 Jan 09 22:01	20°  22'19	4.20717 AU
opposition	2352 Jul 14 12:34	22°  19'53	-0°13'44	opposition	2358 Jan 11 01:27	20°  13'02	0°10'03
min. Earth dist.	2352 Jul 15 16:07	22°  11'01	4.16348 AU	direct	2358 Mar 11 14:53	15°  21'14	
direct	2352 Sep 13 10:30	17°  23'26			2358 Jun 29 17:40	0°  00	
	2352 Dec 20 10:27	0°  00		evening set	2358 Jul 16 07:59	3°  37'16	
evening set	2353 Jan 16 17:36	6°  12'19					
max. Earth dist.	2353 Jan 28 09:07	8°  56'58	6.09376 AU	conjunction	2358 Jul 29 23:34	6°  39'06	0°24'43
				minimum elong	2358 Jul 29 23:33	6°  39'05	0°24'43
conjunction	2353 Jan 29 12:11	9°  12'58	-0°27'26	max. Earth dist.	2358 Jul 31 07:57	6°  57'06	6.27946 AU
minimum elong	2353 Jan 29 12:09	9°  12'57	0°27'27	morning rise	2358 Aug 12 13:49	9°  40'03	
morning rise	2353 Feb 11 07:39	12°  14'24			2358 Sep 06 09:00	15°  00	
	2353 Feb 23 04:15	15°  00		retrograde	2358 Dec 14 01:29	27°  02'12	
	2353 May 17 01:28	0°  00		opposition	2359 Feb 11 23:40	22°  02'33	0°58'30
retrograde	2353 Jun 20 11:29	1°  49'31		min. Earth dist.	2359 Feb 11 11:16	22°  03'40	4.34381 AU
	2353 Jul 24 22:50	30°  00		direct	2359 Apr 13 21:05	17°  02'49	
opposition	2353 Aug 19 21:28	26°  52'42	-1°05'26		2359 Jul 24 16:58	0°  00	
min. Earth dist.	2353 Aug 20 07:07	26°  49'33	4.03151 AU	evening set	2359 Aug 18 17:01	5°  16'06	
direct	2353 Oct 18 08:46	21°  58'26					
	2353 Dec 31 08:40	0°  00		conjunction	2359 Sep 01 01:48	8°  10'14	0°52'26
evening set	2354 Feb 20 15:56	11°  42'29		minimum elong	2359 Sep 01 01:46	8°  10'12	0°52'27
				max. Earth dist.	2359 Sep 01 04:56	8°  11'56	6.39727 AU
conjunction	2354 Mar 05 15:33	14°  42'11	-0°55'53	morning rise	2359 Sep 14 08:21	11°  10'05	
minimum elong	2354 Mar 05 15:31	14°  42'09	0°55'53	retrograde	2360 Jan 13 10:30	28°  10'20	
max. Earth dist.	2354 Mar 05 17:25	14°  42'18	5.98432 AU	opposition	2360 Mar 13 16:46	23°  10'17	1°27'53
morning rise	2354 Mar 18 17:47	17°  40'22		min. Earth dist.	2360 Mar 13 23:32	23°  10'05	4.43547 AU
	2354 May 13 13:44	0°  00		direct	2360 May 14 18:09	18°  10'25	
retrograde	2354 Jul 28 13:17	8°  08'52			2360 Aug 22 07:55	0°  00	
opposition	2354 Sep 26 14:07	3°  08'08	-1°34'45	evening set	2360 Sep 18 09:31	5°  37'48	
min. Earth dist.	2354 Sep 26 00:06	3°  08'12	3.95708 AU				
	2354 Oct 22 03:41	30°  00		conjunction	2360 Oct 01 11:07	8°  26'41	1°04'40
direct	2354 Nov 23 20:27	28°  14'27		minimum elong	2360 Oct 01 11:06	8°  26'41	1°04'40
	2354 Dec 26 08:03	0°  00		max. Earth dist.	2360 Sep 30 12:49	8°  26'38	6.45544 AU
evening set	2355 Mar 29 10:20	17°  05'08		morning rise	2360 Oct 14 09:43	11°  26'10	
				retrograde	2361 Feb 11 11:00	27°  26'41	
conjunction	2355 Apr 11 17:44	21°  05'52	-1°03'33	opposition	2361 Apr 13 02:28	23°  26'42	1°33'04
minimum elong	2355 Apr 11 17:45	21°  05'53	1°03'33	min. Earth dist.	2361 Apr 14 01:17	22°  26'01	4.45783 AU
max. Earth dist.	2355 Apr 13 04:22	21°  05'49	5.95148 AU	direct	2361 Jun 14 18:31	18°  26'08	
morning rise	2355 Apr 25 04:11	24°  05'15			2361 Sep 22 17:11	0°  00	
	2355 May 18 23:23	0°  00		evening set	2361 Oct 19 02:31	5°  31'54	
	2355 Aug 29 12:18	15°  00		max. Earth dist.	2361 Oct 30 03:28	7°  31'45	6.43950 AU
retrograde	2355 Sep 04 12:00	15°  03'35					
	2355 Sep 10 10:50	15°  08'00		conjunction	2361 Oct 31 22:13	8°  31'04	0°59'22
min. Earth dist.	2355 Nov 01 21:52	10°  09'44	3.97070 AU	minimum elong	2361 Oct 31 22:14	8°  31'04	0°59'23
opposition	2355 Nov 03 03:51	9°  05'33	-1°26'35	morning rise	2361 Nov 13 15:28	11°  31'09	
direct	2355 Dec 31 01:21	5°  04'18			2361 Dec 02 00:16	15°  31'00	
	2356 Mar 22 22:57	15°  00		retrograde	2362 Mar 14 07:26	27°  31'46	
evening set	2356 May 05 00:09	24°  03'11		opposition	2362 May 14 03:45	23°  31'48	1°13'33
				min. Earth dist.	2362 May 15 14:52	22°  31'36	4.40478 AU
conjunction	2356 May 18 15:04	27°  05'43	-0°46'15	direct	2362 Jul 15 20:56	18°  31'00	
minimum elong	2356 May 18 15:07	27°  05'45	0°46'15		2362 Oct 22 07:17	0°  00	
max. Earth dist.	2356 May 20 21:32	28°  05'00	6.00959 AU	evening set	2362 Nov 18 16:59	5°  31'40	
	2356 May 27 14:05	0°  00		max. Earth dist.	2362 Nov 29 05:50	8°  31'06	6.35285 AU
morning rise	2356 Jun 01 08:20	1°  07'18					
retrograde	2356 Oct 09 15:11	21°  05'33		conjunction	2362 Dec 01 09:36	8°  31'40	0°37'45
min. Earth dist.	2356 Dec 06 17:24	16°  05'38	4.06669 AU	minimum elong	2362 Dec 01 09:37	8°  31'40	0°37'44
opposition	2356 Dec 08 04:36	16°  00'38	-0°45'04	morning rise	2362 Dec 14 00:38	11°  31'40	
direct	2357 Feb 04 13:21	11°  02'35		retrograde	2363 Apr 15 18:01	29°  31'26	
evening set	2357 Jun 10 23:47	0°  06'20		opposition	2363 Jun 15 16:34	24°  31'09	0°32'33
	2357 Jun 10 12:42	0°  00		min. Earth dist.	2363 Jun 17 04:34	23°  31'39	4.28916 AU

direct	2363 Aug 16 15:47	19°♌12'29		direct	2369 Feb 09 16:17	16°♐10'22	
	2363 Nov 15 22:56	0°♌			2369 May 24 00:34	0°♐	
evening set	2363 Dec 20 03:53	7°♌27'42		evening set	2369 Jun 16 03:45	5°♐09'26	
max. Earth dist.	2363 Dec 30 23:18	9°♌56'23	6.21756 AU				
conjunction	2364 Jan 01 20:19	10°♌22'17	0°04'23	conjunction	2369 Jun 29 21:55	8°♐17'52	-0°06'42
minimum elong	2364 Jan 01 20:20	10°♌22'18	0°04'23	minimum elong	2369 Jun 29 21:56	8°♐17'53	0°06'42
behind sun begin	2364 Jan 01 12:30	10°♌17'49		behind sun begin	2369 Jun 29 14:08	8°♐13'26	
behind sun end	2364 Jan 02 04:10	10°♌26'47		behind sun end	2369 Jun 30 05:44	8°♐22'19	
morning rise	2364 Jan 14 12:23	13°♌17'01		max. Earth dist.	2369 Jul 02 01:04	8°♐47'06	6.15356 AU
desc. node	2364 Feb 17 06:20	20°♌42'40		morning rise	2369 Jul 13 16:24	11°♐26'11	
	2364 Apr 14 10:18	0°♌		asc. node	2369 Sep 08 01:03	23°♐08'28	
retrograde	2364 May 19 13:48	1°♌52'40			2369 Nov 08 06:29	0°♐	
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min. Earth dist.	2364 Jul 20 10:01	26°♌49'50	4.14270 AU	opposition	2370 Jan 15 17:56	25°♐04'48	0°17'49
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evening set	2365 Jan 21 07:29	10°♌57'31			2370 Jun 11 07:31	0°♐	
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conjunction	2365 Feb 03 02:32	13°♌59'18	-0°32'02	conjunction	2370 Aug 03 20:06	11°♐23'32	0°29'27
minimum elong	2365 Feb 03 02:30	13°♌59'17	0°32'02	minimum elong	2370 Aug 03 20:04	11°♐23'31	0°29'27
	2365 Feb 07 08:48	15°♌		max. Earth dist.	2370 Aug 05 00:12	11°♐39'06	6.29958 AU
morning rise	2365 Feb 15 22:58	17°♌02'02		morning rise	2370 Aug 17 09:30	14°♐23'13	
	2365 Apr 17 12:40	0°♌			2370 Aug 20 04:36	15°♐	
retrograde	2365 Jun 25 13:19	6°♌47'33			2370 Nov 12 08:52	0°♐	
opposition	2365 Aug 24 22:38	1°♌50'15	-1°11'10	retrograde	2370 Dec 18 10:28	2°♐00'56	
min. Earth dist.	2365 Aug 25 04:51	1°♌48'12	4.01215 AU		2371 Jan 23 08:29	30°♌	
	2365 Sep 08 07:22	30°♌		opposition	2371 Feb 16 10:13	27°♐01'41	1°04'03
direct	2365 Oct 23 04:10	26°♌56'09		min. Earth dist.	2371 Feb 16 00:27	27°♐04'55	4.36175 AU
	2365 Dec 06 00:51	0°♌		direct	2371 Apr 18 12:14	21°♐59'02	
evening set	2366 Feb 25 13:59	16°♌27'20			2371 Jul 05 17:40	0°♐	
conjunction	2366 Mar 10 14:45	19°♌36'14	-0°58'20	evening set	2371 Aug 23 07:22	9°♐46'33	
minimum elong	2366 Mar 10 14:43	19°♌36'13	0°58'20	conjunction	2371 Sep 05 15:13	12°♐39'41	0°55'12
max. Earth dist.	2366 Mar 10 21:37	19°♌40'24	5.96856 AU	minimum elong	2371 Sep 05 15:11	12°♐39'40	0°55'12
morning rise	2366 Mar 23 18:04	22°♌46'40		max. Earth dist.	2371 Sep 05 15:51	12°♐40'02	6.41149 AU
	2366 Apr 23 19:13	0°♌		morning rise	2371 Sep 18 20:24	15°♐31'27	
retrograde	2366 Aug 02 22:04	13°♌22'23			2371 Dec 08 07:41	0°♐	
opposition	2366 Oct 01 19:40	8°♌21'08	-1°35'58	retrograde	2372 Jan 17 16:00	2°♐27'46	
min. Earth dist.	2366 Oct 01 03:48	8°♌26'27	3.94672 AU		2372 Feb 27 03:33	30°♌	
direct	2366 Nov 28 23:44	3°♌27'21		opposition	2372 Mar 18 00:15	27°♐32'08	1°30'07
evening set	2367 Apr 03 15:27	23°♌14'14		min. Earth dist.	2372 Mar 18 08:55	27°♐29'18	4.44503 AU
conjunction	2367 Apr 17 00:11	26°♌27'47	-1°02'31	direct	2372 May 19 04:09	22°♐29'18	
minimum elong	2367 Apr 17 00:12	26°♌27'48	1°02'31		2372 Aug 03 10:35	0°♐	
max. Earth dist.	2367 Apr 18 15:22	26°♌51'28	5.94756 AU	evening set	2372 Sep 22 18:48	9°♐59'32	
morning rise	2367 Apr 30 11:57	29°♌42'55		conjunction	2372 Oct 05 19:15	12°♐47'51	1°04'58
	2367 May 01 16:28	0°♌		minimum elong	2372 Oct 05 19:15	12°♐47'50	1°04'58
	2367 Jul 11 20:16	15°♌		max. Earth dist.	2372 Oct 04 16:09	12°♐33'12	6.45942 AU
retrograde	2367 Sep 09 17:44	20°♌21'01		morning rise	2372 Oct 18 17:05	15°♐34'50	
min. Earth dist.	2367 Nov 07 00:03	15°♌27'40	3.97386 AU		2373 Jan 07 16:38	0°♐	
opposition	2367 Nov 08 08:21	15°♌16'41	-1°22'22	retrograde	2373 Feb 15 19:06	2°♐17'42	
	2367 Nov 10 09:30	15°♌			2373 Mar 27 02:27	30°♌	
direct	2368 Jan 05 04:37	10°♌21'07		opposition	2373 Apr 17 10:28	27°♐24'38	1°31'44
	2368 Feb 28 11:07	15°♌		min. Earth dist.	2373 Apr 18 12:22	27°♐16'19	4.45602 AU
evening set	2368 May 10 07:40	29°♌54'47		direct	2373 Jun 19 04:33	22°♐22'30	
	2368 May 10 16:32	0°♐			2373 Sep 04 02:35	0°♐	
conjunction	2368 May 23 23:20	3°♐08'15	-0°42'05	evening set	2373 Oct 23 09:37	9°♐52'55	
minimum elong	2368 May 23 23:22	3°♐08'16	0°42'04	max. Earth dist.	2373 Nov 03 08:07	12°♐15'44	6.43195 AU
max. Earth dist.	2368 May 26 06:15	3°♐40'42	6.01936 AU	conjunction	2373 Nov 05 04:50	12°♐40'09	0°57'13
morning rise	2368 Jun 06 17:27	6°♐22'41		minimum elong	2373 Nov 05 04:51	12°♐40'10	0°57'12
retrograde	2368 Oct 14 14:14	26°♐13'54			2373 Nov 15 21:04	15°♐	
min. Earth dist.	2368 Dec 11 16:34	21°♐20'59	4.08167 AU	morning rise	2373 Nov 17 21:29	15°♐26'20	
opposition	2368 Dec 13 03:55	21°♐08'56	-0°37'27		2374 Feb 06 13:33	0°♌	
				retrograde	2374 Mar 18 17:20	2°♌24'39	































































































































	2374 Apr 28 08:56	30° $\mathbb{M}$		opposition	2379 Nov 13 13:56	20° $\mathbb{B}$ 36'27" -1°17'27"
opposition	2374 May 18 15:05	27° $\mathbb{M}$ 32'42" 1°08'53"		direct	2380 Jan 10 11:50	15° $\mathbb{B}$ 40'30"
min. Earth dist.	2374 May 20 02:19	27° $\mathbb{M}$ 21'28" 4.39195 AU			2380 Apr 23 04:26	0° $\mathbb{I}$
direct	2374 Jul 20 05:28	22° $\mathbb{M}$ 32'09"		evening set	2380 May 15 15:01	5° $\mathbb{I}$ 09'20"
	2374 Oct 03 11:54	0° $\mathbb{X}$				
evening set	2374 Nov 23 01:42	10° $\mathbb{X}$ 20'18"		conjunction	2380 May 29 07:28	8° $\mathbb{I}$ 22'14" -0°37'37"
max. Earth dist.	2374 Dec 03 14:40	12° $\mathbb{X}$ 41'22" 6.33574 AU		minimum elong	2380 May 29 07:30	8° $\mathbb{I}$ 22'16" 0°37'37"
				max. Earth dist.	2380 May 31 16:38	8° $\mathbb{I}$ 55'52" 6.03814 AU
conjunction	2374 Dec 05 18:06	13° $\mathbb{X}$ 10'10" 0°33'34"		morning rise	2380 Jun 12 01:47	11° $\mathbb{I}$ 35'55"
minimum elong	2374 Dec 05 18:08	13° $\mathbb{X}$ 10'11" 0°33'34"			2380 Sep 21 06:59	0° $\mathbb{E}$
morning rise	2374 Dec 18 09:05	15° $\mathbb{X}$ 59'34"		retrograde	2380 Oct 19 12:16	1° $\mathbb{E}$ 16'50"
	2375 Mar 01 08:35	0° $\mathbb{B}$			2380 Nov 16 09:20	30° $\mathbb{R}$ $\mathbb{I}$
retrograde	2375 Apr 20 13:42	3° $\mathbb{B}$ 41'02"		min. Earth dist.	2380 Dec 16 14:51	26° $\mathbb{I}$ 23'45" 4.10405 AU
	2375 Jun 11 00:17	30° $\mathbb{R}$ $\mathbb{X}$		opposition	2380 Dec 18 01:12	26° $\mathbb{I}$ 12'03" -0°29'44"
opposition	2375 Jun 20 10:30	28° $\mathbb{X}$ 48'38" 0°25'25"		direct	2381 Feb 14 17:43	21° $\mathbb{I}$ 13'06"
min. Earth dist.	2375 Jun 21 23:04	28° $\mathbb{X}$ 36'58" 4.26863 AU			2381 May 04 20:25	0° $\mathbb{E}$
direct	2375 Aug 21 06:59	23° $\mathbb{X}$ 50'19"		evening set	2381 Jun 21 05:09	10° $\mathbb{E}$ 05'22"
	2375 Oct 26 15:40	0° $\mathbb{B}$				
evening set	2375 Dec 24 17:23	12° $\mathbb{B}$ 11'13"		conjunction	2381 Jul 04 22:56	13° $\mathbb{E}$ 12'36" -0°01'20"
desc. node	2375 Dec 27 09:51	12° $\mathbb{B}$ 48'13"		minimum elong	2381 Jul 04 22:58	13° $\mathbb{E}$ 12'37" 0°01'20"
max. Earth dist.	2376 Jan 04 13:39	14° $\mathbb{B}$ 41'10" 6.19530 AU		behind sun begin	2381 Jul 04 14:35	13° $\mathbb{E}$ 07'52"
				behind sun end	2381 Jul 05 07:21	13° $\mathbb{E}$ 17'21"
conjunction	2376 Jan 06 10:02	15° $\mathbb{B}$ 06'49" -0°00'58"		max. Earth dist.	2381 Jul 06 23:08	13° $\mathbb{E}$ 40'00" 6.17739 AU
minimum elong	2376 Jan 06 10:02	15° $\mathbb{B}$ 06'49" 0°00'58"		morning rise	2381 Jul 18 17:05	16° $\mathbb{E}$ 19'39"
behind sun begin	2376 Jan 06 02:02	15° $\mathbb{B}$ 02'13"		asc. node	2381 Jul 18 16:07	16° $\mathbb{E}$ 19'07"
behind sun end	2376 Jan 06 18:01	15° $\mathbb{B}$ 11'25"			2381 Sep 25 08:42	0° $\mathbb{Q}$
morning rise	2376 Jan 19 02:39	18° $\mathbb{B}$ 02'41"		retrograde	2381 Nov 21 12:26	4° $\mathbb{Q}$ 50'16"
	2376 Mar 16 01:14	0° $\mathbb{W}$			2382 Jan 18 18:44	30° $\mathbb{R}$ $\mathbb{E}$
retrograde	2376 May 24 15:39	6° $\mathbb{W}$ 48'49"		min. Earth dist.	2382 Jan 19 06:21	29° $\mathbb{E}$ 56'05" 4.25083 AU
opposition	2376 Jul 24 08:35	1° $\mathbb{W}$ 54'21" -0°29'00"		opposition	2382 Jan 20 06:45	29° $\mathbb{E}$ 47'52" 0°25'11"
min. Earth dist.	2376 Jul 25 08:32	1° $\mathbb{W}$ 46'37" 4.12051 AU		direct	2382 Mar 21 04:53	24° $\mathbb{E}$ 46'24"
	2376 Aug 08 12:14	30° $\mathbb{R}$ $\mathbb{B}$			2382 May 20 16:38	0° $\mathbb{Q}$
direct	2376 Sep 22 19:50	26° $\mathbb{B}$ 58'35"		evening set	2382 Jul 25 22:59	12° $\mathbb{Q}$ 59'48"
	2376 Nov 06 04:42	0° $\mathbb{W}$			2382 Aug 04 01:37	15° $\mathbb{Q}$
	2377 Jan 21 22:31	15° $\mathbb{W}$				
evening set	2377 Jan 26 04:30	16° $\mathbb{W}$ 00'06"		conjunction	2382 Aug 08 12:50	15° $\mathbb{Q}$ 59'10" 0°33'51"
max. Earth dist.	2377 Feb 07 03:18	18° $\mathbb{W}$ 50'34" 6.05267 AU		minimum elong	2382 Aug 08 12:48	15° $\mathbb{Q}$ 59'09" 0°33'51"
				max. Earth dist.	2382 Aug 09 13:16	16° $\mathbb{Q}$ 12'39" 6.32017 AU
conjunction	2377 Feb 08 00:15	19° $\mathbb{W}$ 03'03" -0°36'43"		morning rise	2382 Aug 22 01:02	18° $\mathbb{Q}$ 57'30"
minimum elong	2377 Feb 08 00:13	19° $\mathbb{W}$ 03'01" 0°36'42"			2382 Oct 16 02:44	0° $\mathbb{P}$
morning rise	2377 Feb 20 21:25	22° $\mathbb{W}$ 07'01"		retrograde	2382 Dec 22 17:15	6° $\mathbb{P}$ 27'25"
	2377 Mar 27 11:52	0° $\mathbb{H}$		opposition	2383 Feb 20 17:35	1° $\mathbb{P}$ 28'44" 1°09'01"
retrograde	2377 Jul 01 00:40	12° $\mathbb{H}$ 02'22"		min. Earth dist.	2383 Feb 20 10:55	1° $\mathbb{P}$ 30'57" 4.37830 AU
opposition	2377 Aug 30 07:03	7° $\mathbb{H}$ 04'36" -1°16'43"			2383 Mar 04 02:10	30° $\mathbb{R}$ $\mathbb{Q}$
min. Earth dist.	2377 Aug 30 10:45	7° $\mathbb{H}$ 03'22" 3.99648 AU		direct	2383 Apr 23 00:06	26° $\mathbb{Q}$ 26'02"
direct	2377 Oct 28 08:58	2° $\mathbb{H}$ 10'43"			2383 Jun 12 02:31	0° $\mathbb{P}$
evening set	2378 Mar 02 18:48	21° $\mathbb{H}$ 46'21"		evening set	2383 Aug 27 18:17	14° $\mathbb{P}$ 09'54"
conjunction	2378 Mar 15 20:37	24° $\mathbb{H}$ 56'12" -1°00'28"		conjunction	2383 Sep 10 00:59	17° $\mathbb{P}$ 02'09" 0°57'35"
minimum elong	2378 Mar 15 20:36	24° $\mathbb{H}$ 56'11" 1°00'28"		minimum elong	2383 Sep 10 00:57	17° $\mathbb{P}$ 02'08" 0°57'34"
max. Earth dist.	2378 Mar 16 08:40	25° $\mathbb{H}$ 03'30" 5.95891 AU		max. Earth dist.	2383 Sep 09 20:02	16° $\mathbb{P}$ 59'28" 6.42258 AU
morning rise	2378 Mar 29 01:10	28° $\mathbb{H}$ 07'37"		morning rise	2383 Sep 23 05:11	19° $\mathbb{P}$ 53'03"
	2378 Apr 05 20:57	0° $\mathbb{Y}$			2383 Nov 13 01:46	0° $\mathbb{L}$
retrograde	2378 Aug 08 09:22	18° $\mathbb{Y}$ 47'16"		retrograde	2384 Jan 21 20:43	6° $\mathbb{L}$ 45'58"
min. Earth dist.	2378 Oct 06 09:57	13° $\mathbb{Y}$ 52'08" 3.94478 AU		opposition	2384 Mar 22 05:37	1° $\mathbb{L}$ 50'44" 1°31'50"
opposition	2378 Oct 07 05:38	13° $\mathbb{Y}$ 45'32" -1°36'25"		min. Earth dist.	2384 Mar 22 17:26	1° $\mathbb{L}$ 46'54" 4.45030 AU
direct	2378 Dec 04 05:52	8° $\mathbb{Y}$ 51'43"			2384 Apr 05 19:03	30° $\mathbb{R}$ $\mathbb{P}$
evening set	2379 Apr 09 00:32	28° $\mathbb{Y}$ 38'24"		direct	2384 May 23 12:11	26° $\mathbb{P}$ 47'54"
	2379 Apr 14 16:17	0° $\mathbb{B}$			2384 Jul 10 08:45	0° $\mathbb{L}$
				evening set	2384 Sep 27 01:55	14° $\mathbb{L}$ 17'35"
conjunction	2379 Apr 22 10:15	1° $\mathbb{B}$ 52'11" -1°00'59"		max. Earth dist.	2384 Oct 08 20:22	16° $\mathbb{L}$ 49'45" 6.45844 AU
minimum elong	2379 Apr 22 10:17	1° $\mathbb{B}$ 52'12" 1°00'59"				
max. Earth dist.	2379 Apr 24 04:18	2° $\mathbb{B}$ 17'32" 5.95337 AU		conjunction	2384 Oct 10 01:42	17° $\mathbb{L}$ 05'36" 1°04'55"
morning rise	2379 May 05 23:13	5° $\mathbb{B}$ 07'32"		minimum elong	2384 Oct 10 01:42	17° $\mathbb{L}$ 05'36" 1°04'55"
	2379 Jun 18 13:39	15° $\mathbb{B}$		morning rise	2384 Oct 22 22:30	19° $\mathbb{L}$ 52'17"
retrograde	2379 Sep 14 22:51	25° $\mathbb{B}$ 41'06"			2384 Dec 13 00:02	0° $\mathbb{M}$
min. Earth dist.	2379 Nov 12 03:58	20° $\mathbb{B}$ 48'02" 3.98675 AU		retrograde	2385 Feb 20 00:39	6° $\mathbb{M}$ 36'14"

opposition	2385 Apr 21 17:23	1° $\mathbb{M}$ 43'26	1°29'57	min. Earth dist.	2390 Oct 11 15:46	19° $\Upsilon$ 15'11	3.94757 AU
min. Earth dist.	2385 Apr 22 20:45	1° $\mathbb{M}$ 34'40	4.44905 AU	direct	2390 Dec 09 13:39	14° $\Upsilon$ 13'31	
	2385 May 05 11:05	30° $\mathbb{R}$ $\underline{\mathbb{A}}$			2391 Mar 28 12:37	0° $\mathbb{B}$	
direct	2385 Jun 23 10:46	26° $\underline{\mathbb{A}}$ 41'30		evening set	2391 Apr 14 08:08	3° $\mathbb{B}$ 58'13	
	2385 Aug 11 05:23	0° $\mathbb{M}$					
evening set	2385 Oct 27 16:28	14° $\mathbb{M}$ 14'18		conjunction	2391 Apr 27 19:05	7° $\mathbb{B}$ 12'04	-0°58'57
	2385 Oct 31 04:27	15° $\mathbb{M}$		minimum elong	2391 Apr 27 19:07	7° $\mathbb{B}$ 12'06	0°58'57
max. Earth dist.	2385 Nov 07 11:34	16° $\mathbb{M}$ 35'47	6.41941 AU	max. Earth dist.	2391 Apr 29 17:41	7° $\mathbb{B}$ 40'05	5.96296 AU
				morning rise	2391 May 11 08:50	10° $\mathbb{B}$ 27'22	
conjunction	2385 Nov 09 11:02	17° $\mathbb{M}$ 01'49	0°54'46		2391 May 30 18:23	15° $\mathbb{B}$	
minimum elong	2385 Nov 09 11:04	17° $\mathbb{M}$ 01'49	0°54'45		2391 Aug 27 10:35	0° $\mathbb{II}$	
morning rise	2385 Nov 22 03:28	19° $\mathbb{M}$ 48'22		retrograde	2391 Sep 20 02:58	0° $\mathbb{II}$ 54'39	
	2386 Jan 11 17:32	0° $\mathbb{A}$			2391 Oct 13 13:06	30° $\mathbb{R}$ $\mathbb{B}$	
retrograde	2386 Mar 23 07:10	6° $\mathbb{A}$ 52'07		min. Earth dist.	2391 Nov 17 06:30	26° $\mathbb{B}$ 01'30	4.00195 AU
opposition	2386 May 23 03:30	2° $\mathbb{A}$ 00'13	1°03'51	opposition	2391 Nov 18 16:41	25° $\mathbb{B}$ 49'51	-1°11'58
min. Earth dist.	2386 May 24 16:28	1° $\mathbb{A}$ 48'26	4.37455 AU	direct	2392 Jan 15 16:52	20° $\mathbb{B}$ 53'30	
	2386 Jun 08 07:36	30° $\mathbb{R}$ $\mathbb{M}$			2392 Apr 04 01:14	0° $\mathbb{II}$	
direct	2386 Jul 24 16:50	26° $\mathbb{M}$ 59'55		evening set	2392 May 20 20:16	10° $\mathbb{II}$ 17'04	
	2386 Sep 08 12:56	0° $\mathbb{A}$					
evening set	2386 Nov 27 11:19	14° $\mathbb{A}$ 52'55		conjunction	2392 Jun 03 13:07	13° $\mathbb{II}$ 29'18	-0°32'57
max. Earth dist.	2386 Dec 08 00:31	17° $\mathbb{A}$ 14'48	6.31491 AU	minimum elong	2392 Jun 03 13:09	13° $\mathbb{II}$ 29'19	0°32'57
				max. Earth dist.	2392 Jun 05 21:27	14° $\mathbb{II}$ 02'15	6.05741 AU
conjunction	2386 Dec 10 03:44	17° $\mathbb{A}$ 43'36	0°29'09	morning rise	2392 Jun 17 07:53	16° $\mathbb{II}$ 42'13	
minimum elong	2386 Dec 10 03:46	17° $\mathbb{A}$ 43'37	0°29'10		2392 Aug 19 22:43	0° $\mathbb{B}$	
morning rise	2386 Dec 22 18:47	20° $\mathbb{A}$ 33'53		retrograde	2392 Oct 24 04:58	6° $\mathbb{B}$ 12'56	
	2387 Feb 05 16:14	0° $\mathbb{B}$		min. Earth dist.	2392 Dec 21 09:38	1° $\mathbb{B}$ 19'57	4.12535 AU
retrograde	2387 Apr 25 08:53	8° $\mathbb{B}$ 24'20		opposition	2392 Dec 22 19:44	1° $\mathbb{B}$ 08'21	-0°21'58
opposition	2387 Jun 25 06:23	3° $\mathbb{B}$ 31'43	0°18'01		2392 Dec 31 06:47	30° $\mathbb{R}$ $\mathbb{II}$	
min. Earth dist.	2387 Jun 26 16:51	3° $\mathbb{B}$ 20'42	4.24586 AU	direct	2393 Feb 19 15:15	26° $\mathbb{II}$ 08'59	
	2387 Jul 26 00:46	30° $\mathbb{R}$ $\mathbb{A}$			2393 Apr 10 20:00	0° $\mathbb{B}$	
direct	2387 Aug 25 21:27	28° $\mathbb{A}$ 33'47		asc. node	2393 May 28 12:33	8° $\mathbb{B}$ 38'48	
	2387 Sep 25 15:52	0° $\mathbb{B}$		evening set	2393 Jun 26 04:18	14° $\mathbb{B}$ 55'15	
desc. node	2387 Nov 05 09:08	5° $\mathbb{B}$ 38'52					
evening set	2387 Dec 29 09:10	17° $\mathbb{B}$ 00'58		conjunction	2393 Jul 09 21:51	18° $\mathbb{B}$ 01'24	0°04'03
max. Earth dist.	2388 Jan 09 09:03	19° $\mathbb{B}$ 33'47	6.17262 AU	minimum elong	2393 Jul 09 21:52	18° $\mathbb{B}$ 01'24	0°04'03
				behind sun begin	2393 Jul 09 13:38	17° $\mathbb{B}$ 56'46	
conjunction	2388 Jan 11 02:04	19° $\mathbb{B}$ 57'37	-0°06'18	behind sun end	2393 Jul 10 06:06	18° $\mathbb{B}$ 06'03	
minimum elong	2388 Jan 11 02:03	19° $\mathbb{B}$ 57'37	0°06'18	max. Earth dist.	2393 Jul 11 18:48	18° $\mathbb{B}$ 26'50	6.19909 AU
behind sun begin	2388 Jan 10 18:29	19° $\mathbb{B}$ 53'14		morning rise	2393 Jul 23 15:22	21° $\mathbb{B}$ 07'14	
behind sun end	2388 Jan 11 09:37	20° $\mathbb{B}$ 01'59			2393 Sep 03 10:27	0° $\mathbb{Q}$	
morning rise	2388 Jan 23 19:09	22° $\mathbb{B}$ 54'38		retrograde	2393 Nov 26 00:12	9° $\mathbb{Q}$ 28'15	
	2388 Feb 24 13:48	0° $\mathbb{A}$		opposition	2394 Jan 24 18:23	4° $\mathbb{Q}$ 26'22	0°32'17
retrograde	2388 May 29 21:48	11° $\mathbb{A}$ 51'12		min. Earth dist.	2394 Jan 23 21:04	4° $\mathbb{Q}$ 33'32	4.27091 AU
opposition	2388 Jul 29 12:34	6° $\mathbb{A}$ 56'20	-0°36'43		2394 Mar 06 18:37	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	2388 Jul 30 10:34	6° $\mathbb{A}$ 49'13	4.09974 AU	direct	2394 Mar 25 21:49	29° $\mathbb{B}$ 24'41	
direct	2388 Sep 27 20:17	2° $\mathbb{A}$ 00'53			2394 Apr 14 04:59	0° $\mathbb{Q}$	
	2389 Jan 04 13:13	15° $\mathbb{A}$			2394 Jul 18 20:19	15° $\mathbb{Q}$	
evening set	2389 Jan 31 03:36	21° $\mathbb{A}$ 08'01		evening set	2394 Jul 30 15:27	17° $\mathbb{Q}$ 33'15	
max. Earth dist.	2389 Feb 12 07:41	24° $\mathbb{A}$ 02'13	6.03579 AU				
				conjunction	2394 Aug 13 04:26	20° $\mathbb{Q}$ 31'33	0°38'00
conjunction	2389 Feb 13 00:04	24° $\mathbb{A}$ 12'01	-0°41'09	minimum elong	2394 Aug 13 04:24	20° $\mathbb{Q}$ 31'32	0°38'01
minimum elong	2389 Feb 13 00:02	24° $\mathbb{A}$ 11'59	0°41'09	max. Earth dist.	2394 Aug 14 00:44	20° $\mathbb{Q}$ 42'43	6.33708 AU
morning rise	2389 Feb 25 22:11	27° $\mathbb{A}$ 17'07		morning rise	2394 Aug 26 15:38	23° $\mathbb{Q}$ 28'46	
	2389 Mar 09 10:43	0° $\mathbb{H}$			2394 Sep 26 14:43	0° $\mathbb{H}$	
retrograde	2389 Jul 06 10:45	17° $\mathbb{H}$ 20'24		retrograde	2394 Dec 26 22:19	10° $\mathbb{H}$ 52'16	
opposition	2389 Sep 04 16:09	12° $\mathbb{H}$ 22'02	-1°21'39	opposition	2395 Feb 25 00:41	5° $\mathbb{H}$ 54'06	1°13'36
min. Earth dist.	2389 Sep 04 15:36	12° $\mathbb{H}$ 22'13	3.98550 AU	min. Earth dist.	2395 Feb 24 20:13	5° $\mathbb{H}$ 55'35	4.39112 AU
direct	2389 Nov 02 12:51	7° $\mathbb{H}$ 28'18		direct	2395 Apr 27 10:22	0° $\mathbb{H}$ 51'19	
evening set	2390 Mar 08 00:09	27° $\mathbb{H}$ 06'20		evening set	2395 Sep 01 05:22	18° $\mathbb{H}$ 32'45	
	2390 Mar 19 23:10	0° $\Upsilon$					
				conjunction	2395 Sep 14 11:06	21° $\mathbb{H}$ 24'18	0°59'38
conjunction	2390 Mar 21 02:53	0° $\Upsilon$ 16'48	-1°02'06	minimum elong	2395 Sep 14 11:05	21° $\mathbb{H}$ 24'17	0°59'38
minimum elong	2390 Mar 21 02:52	0° $\Upsilon$ 16'48	1°02'05	max. Earth dist.	2395 Sep 14 02:33	21° $\mathbb{H}$ 19'40	6.43042 AU
max. Earth dist.	2390 Mar 21 19:19	0° $\Upsilon$ 26'46	5.95457 AU	morning rise	2395 Sep 27 14:08	24° $\mathbb{H}$ 14'27	
morning rise	2390 Apr 03 08:36	3° $\Upsilon$ 28'56			2395 Oct 25 04:41	0° $\underline{\mathbb{A}}$	
retrograde	2390 Aug 13 17:45	24° $\Upsilon$ 09'55		retrograde	2396 Jan 26 02:15	11° $\underline{\mathbb{A}}$ 04'59	
opposition	2390 Oct 12 14:18	19° $\Upsilon$ 07'35	-1°36'01	opposition	2396 Mar 26 11:54	6° $\underline{\mathbb{A}}$ 10'14	1°33'03

min. Earth dist.	2396 Mar 27 02:28	6°♏05'31	4.45283 AU	conjunction	2402 Mar 26 06:43	5°♑30'43	-1°03'10
direct	2396 May 27 20:53	1°♏07'33		minimum elong	2402 Mar 26 06:42	5°♑30'43	1°03'10
evening set	2396 Oct 01 09:57	18°♏37'19		max. Earth dist.	2402 Mar 27 04:57	5°♑44'12	5.95423 AU
max. Earth dist.	2396 Oct 12 23:03	21°♏06'52	6.45532 AU	morning rise	2402 Apr 08 13:20	8°♑43'17	
				retrograde	2402 Aug 19 00:08	29°♑23'51	
conjunction	2396 Oct 14 08:48	21°♏25'08	1°04'30	opposition	2402 Oct 17 18:53	24°♑21'05	-1°34'48
minimum elong	2396 Oct 14 08:49	21°♏25'08	1°04'30	min. Earth dist.	2402 Oct 16 18:52	24°♑29'11	3.95341 AU
morning rise	2396 Oct 27 05:01	24°♏11'42		direct	2402 Dec 14 17:45	19°♑26'49	
	2396 Nov 24 00:18	0°♏			2403 Mar 10 07:50	0°♑	
retrograde	2397 Feb 24 09:40	10°♏57'30		evening set	2403 Apr 19 12:05	9°♑08'46	
opposition	2397 Apr 26 02:17	6°♏04'57	1°27'39				
min. Earth dist.	2397 Apr 27 07:41	5°♏55'32	4.44065 AU	conjunction	2403 May 02 23:50	12°♑22'31	-0°56'31
direct	2397 Jun 27 19:59	1°♏03'14		minimum elong	2403 May 02 23:52	12°♑22'32	0°56'30
	2397 Oct 15 00:14	15°♏		max. Earth dist.	2403 May 04 23:31	12°♑51'04	5.97406 AU
evening set	2397 Nov 01 00:20	18°♏38'39			2403 May 13 23:16	15°♑	
max. Earth dist.	2397 Nov 11 19:15	21°♏00'28	6.40648 AU	morning rise	2403 May 16 14:39	15°♑37'42	
					2403 Jul 23 08:45	0°♑	
conjunction	2397 Nov 13 18:38	21°♏26'31	0°51'57	retrograde	2403 Sep 25 00:25	5°♑58'21	
minimum elong	2397 Nov 13 18:40	21°♏26'32	0°51'57	min. Earth dist.	2403 Nov 22 03:39	1°♑05'28	4.01714 AU
morning rise	2397 Nov 26 10:32	24°♏13'27		opposition	2403 Nov 23 14:57	0°♑53'26	-1°06'09
	2397 Dec 23 15:00	0°♑			2403 Nov 30 04:49	30°♑♂	
retrograde	2398 Mar 27 20:03	11°♑22'49		direct	2404 Jan 20 16:00	25°♑56'39	
opposition	2398 May 27 17:28	6°♑30'59	0°58'21		2404 Mar 11 09:51	0°♑	
min. Earth dist.	2398 May 29 05:57	6°♑19'22	4.35805 AU	evening set	2404 May 25 21:17	15°♑15'22	
direct	2398 Jul 29 03:47	1°♑31'07					
evening set	2398 Dec 01 22:21	19°♑28'36		conjunction	2404 Jun 08 14:34	18°♑26'58	-0°28'13
max. Earth dist.	2398 Dec 12 11:54	21°♑51'22	6.29630 AU	minimum elong	2404 Jun 08 14:36	18°♑26'59	0°28'13
				max. Earth dist.	2404 Jun 10 21:28	18°♑58'58	6.07533 AU
conjunction	2398 Dec 14 14:32	22°♑19'59	0°24'32	morning rise	2404 Jun 22 09:27	21°♑39'06	
minimum elong	2398 Dec 14 14:34	22°♑19'59	0°24'32		2404 Jul 30 05:27	0°♑	
morning rise	2398 Dec 27 05:47	25°♑11'05		retrograde	2404 Oct 28 20:23	11°♑00'42	
	2399 Jan 18 02:42	0°♑		min. Earth dist.	2404 Dec 26 03:07	6°♑07'10	4.14402 AU
retrograde	2399 Apr 30 07:18	13°♑09'55		opposition	2404 Dec 27 10:47	5°♑56'24	-0°14'20
opposition	2399 Jun 30 03:31	8°♑17'06	0°10'26	direct	2405 Feb 24 10:59	0°♑56'40	
min. Earth dist.	2399 Jul 01 13:04	8°♑06'22	4.22639 AU	asc. node	2405 Apr 08 18:07	3°♑51'15	
direct	2399 Aug 30 15:44	3°♑19'35		evening set	2405 Jul 01 00:13	19°♑38'02	
desc. node	2399 Sep 14 15:49	3°♑40'46					
evening set	2400 Jan 03 01:07	21°♑51'48		conjunction	2405 Jul 14 17:31	22°♑43'17	0°09'07
max. Earth dist.	2400 Jan 14 04:51	24°♑27'28	6.15416 AU	minimum elong	2405 Jul 14 17:30	22°♑43'17	0°09'06
				behind sun begin	2405 Jul 14 10:29	22°♑39'20	
conjunction	2400 Jan 15 18:24	24°♑49'22	-0°11'32	behind sun end	2405 Jul 15 00:32	22°♑47'13	
minimum elong	2400 Jan 15 18:24	24°♑49'22	0°11'31	max. Earth dist.	2405 Jul 16 12:05	23°♑07'15	6.21709 AU
behind sun begin	2400 Jan 15 12:33	24°♑45'59		morning rise	2405 Jul 28 10:24	25°♑48'03	
behind sun end	2400 Jan 16 00:14	24°♑52'46			2405 Aug 16 13:40	0°♑	
morning rise	2400 Jan 28 11:56	27°♑47'24		retrograde	2405 Nov 30 07:33	14°♑01'00	
	2400 Feb 07 02:11	0°♑		min. Earth dist.	2406 Jan 28 07:32	9°♑06'17	4.28697 AU
	2400 Apr 30 00:37	15°♑		opposition	2406 Jan 29 03:26	8°♑59'37	0°38'58
retrograde	2400 Jun 04 01:23	16°♑52'50		direct	2406 Mar 30 10:09	3°♑57'44	
	2400 Jul 09 07:06	15°♑			2406 Jul 01 16:24	15°♑	
opposition	2400 Aug 03 16:05	11°♑57'35	-0°44'06	evening set	2406 Aug 04 05:55	22°♑02'52	
min. Earth dist.	2400 Aug 04 10:27	11°♑51'37	4.08404 AU				
direct	2400 Oct 02 18:23	7°♑02'31		conjunction	2406 Aug 17 17:58	25°♑00'16	0°41'50
	2400 Dec 16 01:31	15°♑		minimum elong	2406 Aug 17 17:56	25°♑00'15	0°41'50
evening set	2401 Feb 05 01:43	26°♑13'29		max. Earth dist.	2406 Aug 18 09:26	25°♑08'45	6.35010 AU
				morning rise	2406 Aug 31 04:11	27°♑56'32	
conjunction	2401 Feb 17 22:40	29°♑18'13	-0°45'12		2406 Sep 09 16:49	0°♑	
minimum elong	2401 Feb 17 22:38	29°♑18'12	0°45'13	retrograde	2406 Dec 31 04:54	15°♑15'01	
max. Earth dist.	2401 Feb 17 10:25	29°♑10'52	6.02416 AU	opposition	2407 Mar 01 07:05	10°♑17'22	1°17'40
	2401 Feb 20 20:22	0°♑		min. Earth dist.	2407 Mar 01 06:00	10°♑17'44	4.40043 AU
morning rise	2401 Mar 02 21:39	2°♑24'12		direct	2407 May 01 21:18	5°♑14'32	
retrograde	2401 Jul 11 18:02	22°♑33'29		evening set	2407 Sep 05 15:15	22°♑54'20	
opposition	2401 Sep 09 22:47	17°♑34'31	-1°25'46				
min. Earth dist.	2401 Sep 09 18:55	17°♑35'47	3.97922 AU	conjunction	2407 Sep 18 20:04	25°♑45'18	1°01'19
direct	2401 Nov 07 16:18	12°♑40'50		minimum elong	2407 Sep 18 20:02	25°♑45'17	1°01'19
	2402 Mar 03 09:06	0°♑		max. Earth dist.	2407 Sep 18 08:04	25°♑38'48	6.43529 AU
evening set	2402 Mar 13 02:52	2°♑19'45		morning rise	2407 Oct 01 22:06	28°♑34'52	
					2407 Oct 08 13:17	0°♑	

retrograde	2408 Jan 30 06:50	15°♏23'53		evening set	2414 Mar 18 06:08	7°♑32'44	
opposition	2408 Mar 30 18:09	10°♏29'27	1°33'44				
min. Earth dist.	2408 Mar 31 10:15	10°♏24'15	4.45336 AU	conjunction	2414 Mar 31 10:55	10°♑44'20	-1°03'46
direct	2408 Jun 01 04:28	5°♏26'49		minimum elong	2414 Mar 31 10:55	10°♑44'20	1°03'46
evening set	2408 Oct 05 17:31	22°♏56'54		max. Earth dist.	2414 Apr 01 11:53	10°♑59'27	5.95055 AU
max. Earth dist.	2408 Oct 17 04:52	25°♏25'42	6.45150 AU	morning rise	2414 Apr 13 18:55	13°♑57'38	
					2414 Jun 29 15:24	0°♏	
conjunction	2408 Oct 18 15:39	25°♏44'34	1°03'42	retrograde	2414 Aug 24 05:26	4°♏39'03	
minimum elong	2408 Oct 18 15:39	25°♏44'34	1°03'42		2414 Oct 20 00:30	30°♏♑	
morning rise	2408 Oct 31 10:59	28°♏30'58		opposition	2414 Oct 22 23:56	29°♑35'53	-1°32'53
	2408 Nov 07 09:04	0°♏		min. Earth dist.	2414 Oct 21 21:01	29°♑44'58	3.95569 AU
	2409 Feb 14 15:15	15°♏		direct	2414 Dec 19 21:06	24°♑41'21	
retrograde	2409 Feb 28 17:17	15°♏18'34			2415 Feb 16 01:06	0°♏	
	2409 Mar 14 18:47	15°♏♏		evening set	2415 Apr 24 17:50	14°♏22'13	
opposition	2409 Apr 30 11:04	10°♏26'11	1°24'50		2415 Apr 27 09:21	15°♏	
min. Earth dist.	2409 May 01 17:48	10°♏16'21	4.43270 AU				
direct	2409 Jul 02 05:19	5°♏24'41		conjunction	2415 May 08 06:41	17°♏36'05	-0°53'37
	2409 Sep 27 13:15	15°♏		minimum elong	2415 May 08 06:43	17°♏36'06	0°53'36
evening set	2409 Nov 05 07:52	23°♏02'07		max. Earth dist.	2415 May 10 08:34	18°♏05'54	5.98206 AU
max. Earth dist.	2409 Nov 16 00:05	25°♏22'56	6.39478 AU	morning rise	2415 May 21 22:18	20°♏51'16	
					2415 Jul 01 11:31	0°♏	
conjunction	2409 Nov 18 01:34	25°♏50'14	0°48'51	retrograde	2415 Sep 30 01:29	11°♏06'26	
minimum elong	2409 Nov 18 01:36	25°♏50'15	0°48'51	min. Earth dist.	2415 Nov 27 04:21	6°♏13'17	4.02971 AU
morning rise	2409 Nov 30 17:20	28°♏37'32		opposition	2415 Nov 28 15:01	6°♏01'27	-0°59'45
	2409 Dec 07 00:20	0°♏		direct	2416 Jan 25 18:50	1°♏04'17	
retrograde	2410 Apr 01 09:39	15°♏51'59		evening set	2416 May 31 01:14	20°♏19'17	
opposition	2410 Jun 01 07:15	11°♏00'00	0°52'29				
min. Earth dist.	2410 Jun 02 19:55	10°♏48'19	4.34303 AU	conjunction	2416 Jun 13 19:00	23°♏30'21	-0°23'10
direct	2410 Aug 02 15:56	6°♏00'21		minimum elong	2416 Jun 13 19:02	23°♏30'22	0°23'09
evening set	2410 Dec 06 08:03	24°♏01'28		max. Earth dist.	2416 Jun 16 02:19	24°♏02'26	6.09148 AU
max. Earth dist.	2410 Dec 16 23:41	26°♏25'56	6.27905 AU	morning rise	2416 Jun 27 14:01	26°♏41'48	
					2416 Jul 12 03:08	0°♏	
conjunction	2410 Dec 19 00:20	26°♏53'32	0°19'46	retrograde	2416 Nov 02 13:12	15°♏54'38	
minimum elong	2410 Dec 19 00:21	26°♏53'32	0°19'46	min. Earth dist.	2416 Dec 30 20:46	11°♏01'22	4.16216 AU
morning rise	2410 Dec 31 15:33	29°♏45'21		opposition	2417 Jan 01 04:13	10°♏50'42	-0°06'25
	2411 Jan 01 17:31	0°♏		asc. node	2417 Feb 16 01:30	6°♏08'17	
retrograde	2411 May 05 02:44	17°♏52'03		direct	2417 Mar 01 07:02	5°♏50'43	
opposition	2411 Jul 04 23:28	12°♏58'58	0°02'48	evening set	2417 Jul 05 23:10	24°♏27'26	
min. Earth dist.	2411 Jul 06 07:21	12°♏48'46	4.20784 AU				
desc. node	2411 Jul 25 10:48	10°♏28'50		conjunction	2417 Jul 19 15:54	27°♏31'40	0°14'16
direct	2411 Sep 04 07:25	8°♏01'48		minimum elong	2417 Jul 19 15:53	27°♏31'40	0°14'16
evening set	2412 Jan 07 16:05	26°♏38'49		behind sun begin	2417 Jul 19 12:14	27°♏29'38	
max. Earth dist.	2412 Jan 18 21:45	29°♏16'18	6.13571 AU	behind sun end	2417 Jul 19 19:31	27°♏33'42	
				max. Earth dist.	2417 Jul 21 06:26	27°♏53'18	6.23595 AU
conjunction	2412 Jan 20 09:32	29°♏37'15	-0°16'40		2417 Jul 30 16:44	0°♏	
minimum elong	2412 Jan 20 09:31	29°♏37'14	0°16'39	morning rise	2417 Aug 02 08:13	0°♏35'21	
	2412 Jan 22 00:22	0°♏			2417 Oct 16 11:11	15°♏	
morning rise	2412 Feb 02 03:43	2°♏36'17		retrograde	2417 Dec 04 19:27	18°♏39'59	
	2412 Mar 31 14:11	15°♏			2418 Jan 23 10:28	15°♏♏	
retrograde	2412 Jun 09 04:54	21°♏50'50		opposition	2418 Feb 02 15:22	13°♏39'09	0°45'36
opposition	2412 Aug 08 18:15	16°♏55'05	-0°51'11	min. Earth dist.	2418 Feb 01 22:11	13°♏44'54	4.30519 AU
min. Earth dist.	2412 Aug 09 10:01	16°♏49'56	4.06710 AU	direct	2418 Apr 04 03:37	8°♏37'06	
	2412 Aug 23 21:53	15°♏♏			2418 Jun 11 06:37	15°♏	
direct	2412 Oct 07 16:18	12°♏00'13		evening set	2418 Aug 08 22:25	26°♏37'52	
	2412 Nov 20 09:28	15°♏					
	2413 Feb 04 15:27	0°♏		conjunction	2418 Aug 22 09:38	29°♏34'13	0°45'31
evening set	2413 Feb 09 23:04	1°♏15'50		minimum elong	2418 Aug 22 09:35	29°♏34'12	0°45'31
				max. Earth dist.	2418 Aug 22 23:12	29°♏41'38	6.36664 AU
conjunction	2413 Feb 22 20:57	4°♏21'32	-0°48'56		2418 Aug 24 08:46	0°♏	
minimum elong	2413 Feb 22 20:55	4°♏21'31	0°48'56	morning rise	2418 Sep 04 18:34	2°♏29'19	
max. Earth dist.	2413 Feb 22 13:55	4°♏17'19	6.01036 AU	retrograde	2419 Jan 04 10:12	19°♏41'33	
morning rise	2413 Mar 07 20:44	7°♏28'32		opposition	2419 Mar 05 14:54	14°♏44'26	1°21'22
retrograde	2413 Jul 17 02:10	27°♏44'36		min. Earth dist.	2419 Mar 05 14:54	14°♏44'25	4.41450 AU
opposition	2413 Sep 15 04:48	22°♏45'08	-1°29'17	direct	2419 May 06 08:01	9°♏41'38	
min. Earth dist.	2413 Sep 14 22:36	22°♏47'11	3.97018 AU	evening set	2419 Sep 10 01:57	27°♏18'03	
direct	2413 Nov 12 18:42	17°♏51'32			2419 Sep 22 14:30	0°♏	
	2414 Feb 13 19:32	0°♏					

conjunction	2419 Sep 23 05:34	0°♏08'09	1°02'41	retrograde	2425 Jul 22 07:03	2°♑52'22	
minimum elong	2419 Sep 23 05:33	0°♏08'08	1°02'42		2425 Sep 03 20:08	30°♑♏	
max. Earth dist.	2419 Sep 22 14:04	29°♑59'46	6.44597 AU	opposition	2425 Sep 20 08:43	27°♑52'21	-1°32'04
morning rise	2419 Oct 06 06:32	2°♏56'52		min. Earth dist.	2425 Sep 19 22:55	27°♑55'37	3.95681 AU
retrograde	2420 Feb 03 12:12	19°♏42'33		direct	2425 Nov 17 18:06	22°♑58'42	
opposition	2420 Apr 04 00:26	14°♏48'31	1°33'55		2426 Jan 24 15:27	0°♑	
min. Earth dist.	2420 Apr 04 19:20	14°♏42'25	4.46005 AU	evening set	2426 Mar 23 08:50	12°♑44'10	
direct	2420 Jun 05 14:30	9°♏46'00					
evening set	2420 Oct 09 23:37	27°♏14'14		conjunction	2426 Apr 05 15:00	15°♑56'45	-1°03'50
max. Earth dist.	2420 Oct 21 07:13	29°♏41'03	6.45351 AU	minimum elong	2426 Apr 05 15:00	15°♑56'45	1°03'50
				max. Earth dist.	2426 Apr 06 20:42	16°♑14'46	5.94271 AU
conjunction	2420 Oct 22 20:56	0°♑01'30	1°02'36	morning rise	2426 Apr 19 00:10	19°♑10'58	
minimum elong	2420 Oct 22 20:57	0°♑01'31	1°02'36		2426 Jun 05 21:28	0°♑	
	2420 Oct 22 18:10	0°♑		retrograde	2426 Aug 29 12:57	9°♑54'44	
morning rise	2420 Nov 04 15:33	2°♑47'33		min. Earth dist.	2426 Oct 27 00:43	5°♑00'38	3.95430 AU
	2421 Jan 07 09:31	15°♑		opposition	2426 Oct 28 04:46	4°♑51'07	-1°30'14
retrograde	2421 Mar 04 22:16	19°♑35'22			2426 Dec 19 02:17	30°♑♑	
	2421 May 02 13:08	15°♑♑		direct	2426 Dec 25 01:32	29°♑56'16	
opposition	2421 May 04 18:08	14°♑43'05	1°21'37		2426 Dec 31 00:28	0°♑	
min. Earth dist.	2421 May 06 01:44	14°♑32'59	4.42989 AU		2427 Apr 10 05:28	15°♑	
direct	2421 Jul 06 12:16	9°♑41'44		evening set	2427 Apr 30 00:34	19°♑37'26	
	2421 Sep 07 04:27	15°♑					
evening set	2421 Nov 09 12:15	27°♑19'34		conjunction	2427 May 13 14:35	22°♑51'35	-0°50'15
max. Earth dist.	2421 Nov 20 04:11	29°♑40'28	6.38729 AU	minimum elong	2427 May 13 14:37	22°♑51'37	0°50'16
	2421 Nov 21 15:30	0°♑♑		max. Earth dist.	2427 May 15 19:59	23°♑23'26	5.98727 AU
conjunction	2421 Nov 22 05:35	0°♑07'47	0°45'35	morning rise	2427 May 27 07:11	26°♑06'57	
minimum elong	2421 Nov 22 05:37	0°♑07'48	0°45'35		2427 Jun 12 23:17	0°♑	
morning rise	2421 Dec 04 20:52	2°♑55'14		retrograde	2427 Oct 05 03:00	16°♑17'05	
retrograde	2422 Apr 05 19:11	20°♑13'42		min. Earth dist.	2427 Dec 02 03:55	11°♑24'18	4.04090 AU
opposition	2422 Jun 05 17:39	15°♑21'41	0°46'31	opposition	2427 Dec 03 15:57	11°♑12'01	-0°52'53
min. Earth dist.	2422 Jun 07 07:05	15°♑09'46	4.33100 AU	direct	2428 Jan 30 20:38	6°♑14'26	
direct	2422 Aug 07 00:52	10°♑22'18		evening set	2428 Jun 05 06:37	25°♑25'53	
evening set	2422 Dec 10 14:18	28°♑26'20		conjunction	2428 Jun 19 00:33	28°♑36'20	-0°17'53
	2422 Dec 17 11:38	0°♑		minimum elong	2428 Jun 19 00:34	28°♑36'21	0°17'54
max. Earth dist.	2422 Dec 21 04:29	0°♑50'33	6.26328 AU	max. Earth dist.	2428 Jun 21 06:19	29°♑07'24	6.10746 AU
					2428 Jun 25 01:27	0°♑	
conjunction	2422 Dec 23 06:25	1°♑18'58	0°15'05	morning rise	2428 Jul 02 19:43	1°♑47'03	
minimum elong	2422 Dec 23 06:25	1°♑18'59	0°15'05	retrograde	2428 Nov 07 07:16	20°♑50'51	
behind sun begin	2422 Dec 23 03:21	1°♑17'14		asc. node	2428 Dec 25 15:56	17°♑17'31	
behind sun end	2422 Dec 23 09:30	1°♑20'43		opposition	2429 Jan 05 22:44	15°♑47'06	0°01'34
morning rise	2423 Jan 04 21:57	4°♑11'32		min. Earth dist.	2429 Jan 04 16:40	15°♑57'18	4.18097 AU
retrograde	2423 May 09 19:39	22°♑25'59		direct	2429 Mar 06 06:48	10°♑46'39	
desc. node	2423 Jun 06 08:33	21°♑16'24		evening set	2429 Jul 10 22:48	29°♑18'03	
opposition	2423 Jul 09 15:33	17°♑32'35	-0°04'35		2429 Jul 14 02:13	0°♑	
min. Earth dist.	2423 Jul 10 22:24	17°♑22'40	4.18913 AU				
direct	2423 Sep 08 19:28	12°♑35'36		conjunction	2429 Jul 24 15:08	2°♑21'12	0°19'22
	2424 Jan 06 13:11	0°♑		minimum elong	2429 Jul 24 15:06	2°♑21'11	0°19'22
evening set	2424 Jan 12 03:18	1°♑17'53		max. Earth dist.	2429 Jul 26 04:38	2°♑42'09	6.25596 AU
				morning rise	2429 Aug 07 06:26	5°♑23'35	
conjunction	2424 Jan 24 21:21	4°♑17'21	-0°21'31		2429 Sep 22 12:10	15°♑	
minimum elong	2424 Jan 24 21:20	4°♑17'21	0°21'31	retrograde	2429 Dec 09 06:11	23°♑19'11	
max. Earth dist.	2424 Jan 23 12:42	3°♑58'09	6.11571 AU	min. Earth dist.	2430 Feb 06 11:45	18°♑24'02	4.32436 AU
morning rise	2424 Feb 06 16:01	7°♑17'30		opposition	2430 Feb 07 03:28	18°♑18'47	0°51'57
	2424 Mar 11 22:29	15°♑			2430 Mar 06 09:58	15°♑♑	
retrograde	2424 Jun 14 06:07	26°♑41'58		direct	2430 Apr 08 19:47	13°♑16'31	
opposition	2424 Aug 13 17:13	21°♑45'48	-0°57'42		2430 May 12 16:22	15°♑	
min. Earth dist.	2424 Aug 14 07:28	21°♑41'09	4.04750 AU		2430 Aug 08 00:43	0°♑	
direct	2424 Oct 12 10:05	16°♑51'10		evening set	2430 Aug 13 15:04	1°♑12'25	
	2425 Jan 19 01:34	0°♑					
evening set	2425 Feb 14 18:10	6°♑12'46		conjunction	2430 Aug 27 01:03	4°♑07'37	0°48'57
				minimum elong	2430 Aug 27 01:01	4°♑07'36	0°48'57
conjunction	2425 Feb 27 16:47	9°♑19'37	-0°52'12	max. Earth dist.	2430 Aug 27 09:25	4°♑12'11	6.38308 AU
minimum elong	2425 Feb 27 16:45	9°♑19'36	0°52'11	morning rise	2430 Sep 09 08:59	7°♑01'35	
max. Earth dist.	2425 Feb 27 11:47	9°♑16'36	5.99285 AU	retrograde	2431 Jan 08 18:00	24°♑07'46	
morning rise	2425 Mar 12 17:49	12°♑27'55		opposition	2431 Mar 09 23:16	19°♑11'04	1°24'38
	2425 Jun 09 02:17	0°♑		min. Earth dist.	2431 Mar 10 02:44	19°♑09'56	4.42700 AU

direct	2431 May 10 21:01	14°  08'11		conjunction	2437 Mar 04 20:26	14°  35'59 -0°55'16	
	2431 Sep 06 13:17	0°  0		minimum elong	2437 Mar 04 20:24	14°  35'58 0°55'16	
evening set	2431 Sep 14 12:27	1°  41'44		max. Earth dist.	2437 Mar 04 21:32	14°  36'38 5.97902 AU	
				morning rise	2437 Mar 17 22:26	17°  45'22	
conjunction	2431 Sep 27 15:11	4°  31'09 1°03'44			2437 May 12 05:21	0°  0	
minimum elong	2431 Sep 27 15:10	4°  31'08 1°03'44		retrograde	2437 Jul 27 20:12	8°  16'16	
max. Earth dist.	2431 Sep 26 21:10	4°  21'25 6.45334 AU		opposition	2437 Sep 25 18:59	3°  15'45 -1°34'14	
morning rise	2431 Oct 10 14:57	7°  19'09		min. Earth dist.	2437 Sep 25 06:39	3°  19'52 3.94972 AU	
retrograde	2432 Feb 07 17:14	24°  02'52			2437 Oct 22 15:07	30°  08	
opposition	2432 Apr 08 07:50	19°  09'08 1°33'38		direct	2437 Nov 23 02:09	28°  22'08	
min. Earth dist.	2432 Apr 09 04:05	19°  02'37 4.46196 AU			2437 Dec 24 06:24	0°  0	
direct	2432 Jun 09 22:33	14°  06'45		evening set	2438 Mar 28 17:09	18°  09'08	
	2432 Oct 06 22:00	0°  0					
evening set	2432 Oct 14 07:16	1°  34'49		conjunction	2438 Apr 11 00:29	21°  22'16 -1°03'25	
max. Earth dist.	2432 Oct 25 11:26	4°  00'00 6.44972 AU		minimum elong	2438 Apr 11 00:30	21°  22'16 1°03'24	
				max. Earth dist.	2438 Apr 12 11:13	21°  43'17 5.94315 AU	
conjunction	2432 Oct 27 03:45	4°  21'55 1°01'09		morning rise	2438 Apr 24 10:54	24°  37'01	
minimum elong	2432 Oct 27 03:46	4°  21'55 1°01'09			2438 May 17 08:12	0°  0	
morning rise	2432 Nov 08 21:43	7°  07'52			2438 Aug 21 00:50	15°  0	
	2432 Dec 17 04:31	15°  0		retrograde	2438 Sep 03 20:55	15°  18'54	
retrograde	2433 Mar 09 08:22	23°  15'57'59			2438 Sep 17 15:07	15°  18'54	
opposition	2433 May 09 04:07	19°  05'53 1°17'53		min. Earth dist.	2438 Nov 01 05:32	10°  25'27 3.96259 AU	
min. Earth dist.	2433 May 10 14:06	18°  15'55'03 4.42049 AU		opposition	2438 Nov 02 12:26	10°  14'58 -1°26'45	
	2433 Jun 15 23:31	15°  08'00		direct	2438 Dec 30 08:00	5°  19'51	
direct	2433 Jul 10 22:44	14°  04'46			2439 Mar 21 22:35	15°  0	
	2433 Aug 04 22:28	15°  0		evening set	2439 May 05 09:29	24°  05'32	
	2433 Nov 05 19:22	0°  0					
evening set	2433 Nov 13 20:09	1°  45'14		conjunction	2439 May 19 00:11	28°  11'20 -0°46'30	
max. Earth dist.	2433 Nov 24 09:31	4°  05'15 6.37291 AU		minimum elong	2439 May 19 00:14	28°  11'22 0°46'29	
				max. Earth dist.	2439 May 21 06:16	28°  43'27 6.00242 AU	
conjunction	2433 Nov 26 13:09	4°  03'33'53 0°41'56			2439 May 26 15:23	0°  0	
minimum elong	2433 Nov 26 13:10	4°  03'33'54 0°41'56		morning rise	2439 Jun 01 17:33	1°  26'16	
morning rise	2433 Dec 09 04:22	7°  02'21'52		retrograde	2439 Oct 10 02:16	21°  27'20	
retrograde	2434 Apr 10 10:34	24°  04'46'53		min. Earth dist.	2439 Dec 07 04:07	16°  34'32 4.06099 AU	
opposition	2434 Jun 10 09:14	19°  04'54'46 0°40'00		opposition	2439 Dec 08 16:05	16°  22'15 -0°45'38	
min. Earth dist.	2434 Jun 11 22:04	19°  04'33'02 4.31242 AU		direct	2440 Feb 05 00:55	11°  24'12	
direct	2434 Aug 11 12:29	14°  04'55'41			2440 Jun 08 07:22	0°  0	
	2434 Dec 01 07:33	0°  0		evening set	2440 Jun 10 10:27	0°  29'09	
evening set	2434 Dec 15 01:54	3°  04'52					
max. Earth dist.	2434 Dec 25 18:44	5°  03'11'15 6.24209 AU		conjunction	2440 Jun 24 04:36	3°  03'36 -0°12'35	
				minimum elong	2440 Jun 24 04:36	3°  03'36 0°12'36	
conjunction	2434 Dec 27 18:13	5°  03'58'25 0°10'02		behind sun begin	2440 Jun 23 23:24	3°  03'37	
minimum elong	2434 Dec 27 18:14	5°  03'58'26 0°10'03		behind sun end	2440 Jun 24 09:49	3°  04'13'5	
behind sun begin	2434 Dec 27 11:47	5°  03'54'45		max. Earth dist.	2440 Jun 26 10:18	4°  09'27 6.13081 AU	
behind sun end	2434 Dec 28 00:42	6°  02'06		morning rise	2440 Jul 07 23:20	6°  04'48'04	
morning rise	2435 Jan 09 09:54	8°  05'15'58		asc. node	2440 Nov 04 05:12	25°  03'41	
desc. node	2435 Apr 15 12:19	25°  05'7'00		retrograde	2440 Nov 11 22:44	25°  04'34	
retrograde	2435 May 14 20:55	27°  03'16'16		min. Earth dist.	2441 Jan 09 09:52	20°  06'49 4.20505 AU	
opposition	2435 Jul 14 14:52	22°  03'22'38 -0°12'26		opposition	2441 Jan 10 14:17	20°  03'7'13 0°09'19	
min. Earth dist.	2435 Jul 15 20:48	22°  03'13'01 4.16672 AU		direct	2441 Mar 11 02:59	15°  03'36'26	
direct	2435 Sep 13 14:14	17°  03'26'04			2441 Jun 27 07:53	0°  0	
	2435 Dec 20 10:04	0°  0		evening set	2441 Jul 15 19:03	4°  01'12	
evening set	2436 Jan 16 21:57	6°  00'14'49					
max. Earth dist.	2436 Jan 28 09:35	8°  00'57'13 6.09407 AU		conjunction	2441 Jul 29 10:30	7°  03'01 0°24'11	
				minimum elong	2441 Jul 29 10:29	7°  03'00 0°24'11	
conjunction	2436 Jan 29 16:22	9°  00'15'25 -0°26'33		max. Earth dist.	2441 Jul 30 19:04	7°  02'1'08 6.27863 AU	
minimum elong	2436 Jan 29 16:20	9°  00'15'24 0°26'33		morning rise	2441 Aug 12 01:02	10°  02'04'04	
morning rise	2436 Feb 11 11:56	12°  00'16'51			2441 Sep 03 22:06	15°  0	
	2436 Feb 23 04:07	15°  0		retrograde	2441 Dec 13 13:39	27°  02'50'32	
	2436 May 15 19:40	0°  0		opposition	2442 Feb 11 12:25	22°  02'50'36 0°57'46	
retrograde	2436 Jun 19 13:05	1°  00'51'50		min. Earth dist.	2442 Feb 10 23:40	22°  02'54'51 4.34390 AU	
	2436 Jul 24 10:40	30°  00'00'00		direct	2442 Apr 13 09:23	17°  02'48'06	
opposition	2436 Aug 18 23:37	26°  00'55'12 -1°04'16			2442 Jul 22 05:42	0°  0	
min. Earth dist.	2436 Aug 19 09:51	26°  00'51'51 4.02877 AU		evening set	2442 Aug 18 03:55	5°  00'39'22	
direct	2436 Oct 17 10:32	22°  00'00'52					
	2436 Dec 30 05:59	0°  0		conjunction	2442 Aug 31 13:00	8°  00'33'33 0°51'59	
evening set	2437 Feb 19 20:46	11°  00'28'02		minimum elong	2442 Aug 31 12:58	8°  00'33'32 0°51'59	

max. Earth dist.	2442 Aug 31 18:13	8° $\mathbb{M}$ 36'23	6.39803 AU	min. Earth dist.	2448 Aug 24 15:43	2° $\mathbb{H}$ 06'43	4.01339 AU
morning rise	2442 Sep 13 19:34	11° $\mathbb{M}$ 26'24			2448 Sep 10 08:09	30° $\mathbb{R}$ $\approx$	
retrograde	2443 Jan 12 21:55	28° $\mathbb{M}$ 27'29		direct	2448 Oct 22 15:38	27° $\approx$ 15'03	
opposition	2443 Mar 14 04:46	23° $\mathbb{M}$ 31'17	1°27'20		2448 Dec 03 01:17	0° $\mathbb{H}$	
min. Earth dist.	2443 Mar 14 10:35	23° $\mathbb{M}$ 29'23	4.43654 AU	evening set	2449 Feb 25 00:50	16° $\mathbb{H}$ 46'05	
direct	2443 May 15 05:07	18° $\mathbb{M}$ 28'24					
	2443 Aug 20 21:37	0° $\underline{\mathbb{A}}$		conjunction	2449 Mar 10 01:25	19° $\mathbb{H}$ 54'52	-0°57'55
evening set	2443 Sep 18 20:40	6° $\underline{\mathbb{A}}$ 00'11		minimum elong	2449 Mar 10 01:23	19° $\mathbb{H}$ 54'51	0°57'55
				max. Earth dist.	2449 Mar 10 07:41	19° $\mathbb{H}$ 58'39	5.96975 AU
conjunction	2443 Oct 01 22:17	8° $\underline{\mathbb{A}}$ 49'04	1°04'25	morning rise	2449 Mar 23 04:34	23° $\mathbb{H}$ 05'10	
minimum elong	2443 Oct 01 22:16	8° $\underline{\mathbb{A}}$ 49'04	1°04'24		2449 Apr 21 20:28	0° $\mathbb{Y}$	
max. Earth dist.	2443 Sep 30 22:46	8° $\underline{\mathbb{A}}$ 36'22	6.45661 AU	retrograde	2449 Aug 02 06:57	13° $\mathbb{Y}$ 39'58	
morning rise	2443 Oct 14 21:15	11° $\underline{\mathbb{A}}$ 36'36		opposition	2449 Oct 01 05:01	8° $\mathbb{Y}$ 38'52	-1°35'34
retrograde	2444 Feb 11 23:56	28° $\underline{\mathbb{A}}$ 19'49		min. Earth dist.	2449 Sep 30 12:40	8° $\mathbb{Y}$ 44'20	3.94794 AU
opposition	2444 Apr 12 13:59	23° $\underline{\mathbb{A}}$ 26'24	1°32'53	direct	2449 Nov 28 08:23	3° $\mathbb{Y}$ 45'11	
min. Earth dist.	2444 Apr 13 13:39	23° $\underline{\mathbb{A}}$ 18'47	4.45896 AU	evening set	2450 Apr 03 01:18	23° $\mathbb{Y}$ 31'40	
direct	2444 Jun 14 06:40	18° $\underline{\mathbb{A}}$ 24'03					
	2444 Sep 20 08:44	0° $\mathbb{M}$		conjunction	2450 Apr 16 09:36	26° $\mathbb{Y}$ 45'00	-1°02'27
evening set	2444 Oct 18 13:35	5° $\mathbb{M}$ 53'30		minimum elong	2450 Apr 16 09:37	26° $\mathbb{Y}$ 45'01	1°02'27
max. Earth dist.	2444 Oct 29 15:05	8° $\mathbb{M}$ 17'33	6.44056 AU	max. Earth dist.	2450 Apr 17 23:20	27° $\mathbb{Y}$ 07'49	5.94861 AU
				morning rise	2450 Apr 29 21:10	29° $\mathbb{Y}$ 59'59	
conjunction	2444 Oct 31 09:38	8° $\mathbb{M}$ 40'44	0°59'24		2450 Apr 29 21:12	0° $\mathbb{B}$	
minimum elong	2444 Oct 31 09:39	8° $\mathbb{M}$ 40'44	0°59'24		2450 Jul 09 12:19	15° $\mathbb{B}$	
morning rise	2444 Nov 13 03:00	11° $\mathbb{M}$ 26'50		retrograde	2450 Sep 09 01:59	20° $\mathbb{B}$ 37'47	
	2444 Nov 29 18:32	15° $\mathbb{M}$		min. Earth dist.	2450 Nov 06 09:34	15° $\mathbb{B}$ 44'29	3.97457 AU
retrograde	2445 Mar 13 17:30	28° $\mathbb{M}$ 21'02		opposition	2450 Nov 07 17:56	15° $\mathbb{B}$ 33'29	-1°22'34
opposition	2445 May 13 14:20	23° $\mathbb{M}$ 29'00	1°13'47		2450 Nov 11 20:41	15° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	2445 May 15 00:37	23° $\mathbb{M}$ 18'04	4.40586 AU	direct	2451 Jan 04 14:56	10° $\mathbb{B}$ 37'59	
direct	2445 Jul 15 06:04	18° $\mathbb{M}$ 28'07			2451 Feb 26 01:43	15° $\mathbb{B}$	
	2445 Oct 20 00:59	0° $\mathbb{X}$			2451 May 09 21:20	0° $\mathbb{I}$	
evening set	2445 Nov 18 04:31	6° $\mathbb{X}$ 12'47		evening set	2451 May 10 16:18	0° $\mathbb{I}$ 11'09	
max. Earth dist.	2445 Nov 28 17:48	8° $\mathbb{X}$ 33'24	6.35393 AU				
				conjunction	2451 May 24 07:55	3° $\mathbb{I}$ 24'31	-0°42'24
conjunction	2445 Nov 30 21:15	9° $\mathbb{X}$ 02'05	0°38'03	minimum elong	2451 May 24 07:57	3° $\mathbb{I}$ 24'33	0°42'24
minimum elong	2445 Nov 30 21:17	9° $\mathbb{X}$ 02'06	0°38'03	max. Earth dist.	2451 May 26 16:20	3° $\mathbb{I}$ 57'52	6.01980 AU
morning rise	2445 Dec 13 12:23	11° $\mathbb{X}$ 50'48		morning rise	2451 Jun 07 01:38	6° $\mathbb{I}$ 38'49	
retrograde	2446 Apr 15 05:48	29° $\mathbb{X}$ 23'54		retrograde	2451 Oct 15 00:59	26° $\mathbb{I}$ 30'20	
opposition	2446 Jun 15 02:39	24° $\mathbb{X}$ 31'42	0°33'12	min. Earth dist.	2451 Dec 12 02:45	21° $\mathbb{I}$ 37'21	4.08171 AU
min. Earth dist.	2446 Jun 16 16:02	24° $\mathbb{X}$ 19'47	4.29022 AU	opposition	2451 Dec 13 13:49	21° $\mathbb{I}$ 25'24	-0°38'11
direct	2446 Aug 16 03:13	19° $\mathbb{X}$ 32'57		direct	2452 Feb 10 02:15	16° $\mathbb{I}$ 26'58	
	2446 Nov 13 17:44	0° $\mathbb{Z}$			2452 May 22 02:52	0° $\mathbb{E}$	
evening set	2446 Dec 19 15:33	7° $\mathbb{Z}$ 48'19		evening set	2452 Jun 15 12:01	5° $\mathbb{E}$ 25'41	
max. Earth dist.	2446 Dec 30 09:22	10° $\mathbb{Z}$ 16'04	6.21855 AU				
				conjunction	2452 Jun 29 05:57	8° $\mathbb{E}$ 34'04	-0°07'17
conjunction	2447 Jan 01 08:01	10° $\mathbb{Z}$ 42'54	0°04'54	minimum elong	2452 Jun 29 05:57	8° $\mathbb{E}$ 34'04	0°07'17
minimum elong	2447 Jan 01 08:01	10° $\mathbb{Z}$ 42'54	0°04'54	behind sun begin	2452 Jun 28 22:18	8° $\mathbb{E}$ 29'43	
behind sun begin	2447 Jan 01 00:15	10° $\mathbb{Z}$ 38'27		behind sun end	2452 Jun 29 13:36	8° $\mathbb{E}$ 38'25	
behind sun end	2447 Jan 01 15:48	10° $\mathbb{Z}$ 47'21		max. Earth dist.	2452 Jul 01 08:45	9° $\mathbb{E}$ 03'06	6.15297 AU
morning rise	2447 Jan 14 00:12	13° $\mathbb{Z}$ 37'36		morning rise	2452 Jul 13 00:31	11° $\mathbb{E}$ 42'26	
desc. node	2447 Feb 22 12:13	22° $\mathbb{Z}$ 13'29		asc. node	2452 Sep 13 22:29	24° $\mathbb{E}$ 32'34	
	2447 Apr 11 18:46	0° $\approx$			2452 Oct 31 14:32	0° $\mathbb{Q}$	
retrograde	2447 May 19 22:34	2° $\approx$ 12'26		retrograde	2452 Nov 16 10:29	0° $\mathbb{Q}$ 24'41	
	2447 Jun 27 11:27	30° $\mathbb{R}$ $\mathbb{Z}$			2452 Dec 02 04:53	30° $\mathbb{R}$ $\mathbb{E}$	
opposition	2447 Jul 19 16:28	27° $\mathbb{Z}$ 18'26	-0°20'19	min. Earth dist.	2453 Jan 14 01:12	25° $\mathbb{E}$ 30'49	4.22667 AU
min. Earth dist.	2447 Jul 20 19:01	27° $\mathbb{Z}$ 09'52	4.14380 AU	opposition	2453 Jan 15 03:59	25° $\mathbb{E}$ 21'46	0°16'53
direct	2447 Sep 18 09:32	22° $\mathbb{Z}$ 22'14		direct	2453 Mar 15 20:43	20° $\mathbb{E}$ 20'41	
	2447 Nov 30 16:47	0° $\approx$			2453 Jun 09 04:54	0° $\mathbb{Q}$	
evening set	2448 Jan 21 18:53	11° $\approx$ 17'24		evening set	2453 Jul 20 13:40	8° $\mathbb{Q}$ 40'02	
conjunction	2448 Feb 03 13:57	14° $\approx$ 19'07	-0°31'28	conjunction	2453 Aug 03 04:28	11° $\mathbb{Q}$ 40'43	0°28'49
minimum elong	2448 Feb 03 13:55	14° $\approx$ 19'06	0°31'28	minimum elong	2453 Aug 03 04:26	11° $\mathbb{Q}$ 40'42	0°28'48
max. Earth dist.	2448 Feb 02 12:39	14° $\approx$ 04'06	6.07391 AU	max. Earth dist.	2453 Aug 04 09:34	11° $\mathbb{Q}$ 56'51	6.29819 AU
	2448 Feb 06 10:48	15° $\approx$		morning rise	2453 Aug 16 17:53	14° $\mathbb{Q}$ 40'30	
morning rise	2448 Feb 16 10:11	17° $\approx$ 21'44			2453 Aug 18 05:26	15° $\mathbb{Q}$	
	2448 Apr 15 04:25	0° $\mathbb{H}$			2453 Nov 09 00:45	0° $\mathbb{M}$	
retrograde	2448 Jun 25 00:06	7° $\mathbb{H}$ 06'21		retrograde	2453 Dec 17 21:39	2° $\mathbb{M}$ 19'16	
opposition	2448 Aug 24 08:12	2° $\mathbb{H}$ 09'10	-1°10'22		2454 Jan 25 14:41	30° $\mathbb{R}$ $\mathbb{Q}$	

opposition	2454 Feb 15 20:39	27°♎19'58	1°03'13	retrograde	2459 May 25 02:30	7°♏10'24	
min. Earth dist.	2454 Feb 15 10:53	27°♎23'12	4.35999 AU	opposition	2459 Jul 24 18:46	2°♏16'02	-0°28'05
direct	2454 Apr 17 22:00	22°♎17'24		min. Earth dist.	2459 Jul 25 19:32	2°♏08'02	4.12539 AU
	2454 Jul 03 09:03	0°♎			2459 Aug 12 00:41	30°♎	
evening set	2454 Aug 22 16:25	10°♎05'17		direct	2459 Sep 23 08:39	27°♎20'13	
					2459 Nov 03 20:20	0°♎	
conjunction	2454 Sep 05 00:24	12°♎58'36	0°54'43		2460 Jan 20 23:34	15°♎	
minimum elong	2454 Sep 05 00:22	12°♎58'35	0°54'43	evening set	2460 Jan 26 15:36	16°♎20'00	
max. Earth dist.	2454 Sep 05 00:13	12°♎58'30	6.40933 AU				
morning rise	2454 Sep 18 06:00	15°♎50'35		conjunction	2460 Feb 08 11:12	19°♎22'37	-0°36'06
	2454 Dec 04 23:32	0°♎		minimum elong	2460 Feb 08 11:10	19°♎22'35	0°36'05
retrograde	2455 Jan 17 03:34	2°♎47'59		max. Earth dist.	2460 Feb 07 13:56	19°♎09'57	6.05875 AU
	2455 Mar 01 12:38	30°♎		morning rise	2460 Feb 21 08:12	22°♎26'13	
opposition	2455 Mar 18 11:00	27°♎52'14	1°29'36		2460 Mar 25 12:05	0°♎	
min. Earth dist.	2455 Mar 18 19:47	27°♎49'22	4.44266 AU	retrograde	2460 Jun 30 07:15	12°♎18'14	
direct	2455 May 19 14:03	22°♎49'22		opposition	2460 Aug 29 14:55	7°♎20'31	-1°15'48
	2455 Aug 01 21:07	0°♎		min. Earth dist.	2460 Aug 29 18:16	7°♎19'25	4.00325 AU
evening set	2455 Sep 23 04:58	10°♎20'25		direct	2460 Oct 27 17:20	2°♎26'36	
max. Earth dist.	2455 Oct 05 04:18	12°♎55'07	6.45709 AU	evening set	2461 Mar 02 03:14	21°♎59'41	
conjunction	2455 Oct 06 05:52	13°♎08'56	1°04'45	conjunction	2461 Mar 15 04:37	25°♎09'02	-1°00'01
minimum elong	2455 Oct 06 05:51	13°♎08'56	1°04'44	minimum elong	2461 Mar 15 04:36	25°♎09'01	1°00'01
morning rise	2455 Oct 19 03:46	15°♎56'06		max. Earth dist.	2461 Mar 15 15:11	25°♎15'26	5.96542 AU
	2456 Jan 05 00:12	0°♎		morning rise	2461 Mar 28 08:49	28°♎19'59	
retrograde	2456 Feb 16 06:01	2°♎39'51			2461 Apr 04 08:06	0°♎	
	2456 Mar 29 21:49	30°♎		retrograde	2461 Aug 07 13:20	18°♎56'34	
opposition	2456 Apr 16 21:30	27°♎46'46	1°31'37	opposition	2461 Oct 06 11:28	13°♎54'52	-1°36'01
min. Earth dist.	2456 Apr 17 22:34	27°♎38'43	4.45393 AU	min. Earth dist.	2461 Oct 05 16:30	14°♎01'14	3.94997 AU
direct	2456 Jun 18 13:48	22°♎44'41		direct	2461 Dec 03 13:39	9°♎01'00	
	2456 Sep 01 09:48	0°♎		evening set	2462 Apr 08 05:48	28°♎45'40	
evening set	2456 Oct 22 21:13	10°♎15'58			2462 Apr 13 09:35	0°♎	
max. Earth dist.	2456 Nov 02 19:08	12°♎38'33	6.43034 AU				
				conjunction	2462 Apr 21 15:19	1°♎59'08	-1°01'00
conjunction	2456 Nov 04 16:30	13°♎03'21	0°57'16	minimum elong	2462 Apr 21 15:21	1°♎59'09	1°01'00
minimum elong	2456 Nov 04 16:32	13°♎03'22	0°57'16	max. Earth dist.	2462 Apr 23 09:39	2°♎24'39	5.95676 AU
	2456 Nov 13 14:10	15°♎		morning rise	2462 May 05 03:43	5°♎14'08	
morning rise	2456 Nov 17 09:32	15°♎49'42			2462 Jun 17 06:13	15°♎	
	2457 Feb 02 17:47	0°♎		retrograde	2462 Sep 14 04:34	25°♎46'44	
retrograde	2457 Mar 18 06:51	2°♎48'27		min. Earth dist.	2462 Nov 11 10:22	20°♎53'21	3.98790 AU
	2457 May 01 09:26	30°♎		opposition	2462 Nov 12 19:09	20°♎42'12	-1°17'52
opposition	2457 May 18 02:29	27°♎56'33	1°09'11	direct	2463 Jan 09 17:42	15°♎46'20	
min. Earth dist.	2457 May 19 14:30	27°♎45'04	4.39108 AU		2463 Apr 22 23:05	0°♎	
direct	2457 Jul 19 17:34	22°♎55'58		evening set	2463 May 15 19:10	5°♎14'44	
	2457 Sep 30 16:41	0°♎					
evening set	2457 Nov 22 14:09	10°♎44'45		conjunction	2463 May 29 11:14	8°♎27'33	-0°38'08
max. Earth dist.	2457 Dec 03 03:37	13°♎06'03	6.33594 AU	minimum elong	2463 May 29 11:17	8°♎27'35	0°38'08
				max. Earth dist.	2463 May 31 18:42	9°♎00'10	6.03683 AU
conjunction	2457 Dec 05 06:50	13°♎34'43	0°33'53	morning rise	2463 Jun 12 05:33	11°♎41'15	
minimum elong	2457 Dec 05 06:51	13°♎34'44	0°33'53		2463 Sep 20 06:52	0°♎	
morning rise	2457 Dec 17 21:53	16°♎24'09		retrograde	2463 Oct 19 16:45	1°♎23'34	
	2458 Feb 26 00:14	0°♎			2463 Nov 17 20:58	30°♎	
retrograde	2458 Apr 19 23:46	4°♎05'07		min. Earth dist.	2463 Dec 16 20:19	26°♎30'39	4.10066 AU
	2458 Jun 13 16:54	30°♎		opposition	2463 Dec 18 07:09	26°♎18'46	-0°30'45
opposition	2458 Jun 19 21:31	29°♎12'46	0°26'03	direct	2464 Feb 14 22:11	21°♎19'54	
min. Earth dist.	2458 Jun 21 08:51	29°♎01'29	4.27035 AU		2464 May 03 10:13	0°♎	
direct	2458 Aug 20 17:06	24°♎14'28		evening set	2464 Jun 20 09:56	10°♎13'19	
	2458 Oct 23 18:05	0°♎					
evening set	2458 Dec 24 06:01	12°♎35'04		conjunction	2464 Jul 04 03:50	13°♎20'49	-0°02'07
desc. node	2459 Jan 01 15:09	14°♎30'44		minimum elong	2464 Jul 04 03:49	13°♎20'48	0°02'06
max. Earth dist.	2459 Jan 04 03:13	15°♎05'26	6.19865 AU	behind sun begin	2464 Jul 03 19:26	13°♎16'03	
				behind sun end	2464 Jul 04 12:11	13°♎25'33	
conjunction	2459 Jan 05 22:35	15°♎30'30	-0°00'25	max. Earth dist.	2464 Jul 06 03:39	13°♎48'02	6.17239 AU
minimum elong	2459 Jan 05 22:37	15°♎30'31	0°00'25	morning rise	2464 Jul 17 21:55	16°♎28'06	
behind sun begin	2459 Jan 05 14:39	15°♎25'56		asc. node	2464 Jul 26 00:28	18°♎17'07	
behind sun end	2459 Jan 06 06:35	15°♎35'06			2464 Sep 23 12:52	0°♎	
morning rise	2459 Jan 18 15:08	18°♎26'13		retrograde	2464 Nov 20 21:49	5°♎01'23	
	2459 Mar 14 10:23	0°♎		opposition	2465 Jan 19 14:49	29°♎58'56	0°24'05



min. Earth dist.	2465 Jan 18 15:00	0°♏06'58	4.24478 AU	min. Earth dist.	2470 Jun 26 02:52	3°♎39'36	4.25223 AU
	2465 Jan 19 11:41	30°♏♎			2470 Jul 29 04:46	30°♏♎	
direct	2465 Mar 20 12:25	24°♎♎57'35		direct	2470 Aug 25 08:59	28°♎♎52'49	
	2465 May 18 17:16	0°♏			2470 Sep 21 10:21	0°♎	
evening set	2465 Jul 25 05:42	13°♏12'44		desc. node	2470 Nov 11 07:28	7°♎08'53	
	2465 Aug 02 08:31	15°♏		evening set	2470 Dec 28 19:15	17°♎18'04	
				max. Earth dist.	2471 Jan 08 19:04	19°♎50'34	6.17990 AU
conjunction	2465 Aug 07 19:47	16°♏12'29	0°33'08	conjunction	2471 Jan 10 12:10	20°♎14'24	-0°05'39
minimum elong	2465 Aug 07 19:45	16°♏12'28	0°33'09	minimum elong	2471 Jan 10 12:09	20°♎14'24	0°05'40
max. Earth dist.	2465 Aug 08 20:59	16°♏26'24	6.31360 AU	behind sun begin	2471 Jan 10 04:28	20°♎09'58	
morning rise	2465 Aug 21 08:20	19°♏11'15		behind sun end	2471 Jan 10 19:50	20°♎18'50	
	2465 Oct 13 23:44	0°♏		morning rise	2471 Jan 23 05:03	23°♎11'03	
retrograde	2465 Dec 22 02:38	6°♏43'53			2471 Feb 22 17:58	0°♎	
opposition	2466 Feb 20 03:28	1°♏45'03	1°08'10	retrograde	2471 May 30 02:53	12°♎04'14	
min. Earth dist.	2466 Feb 19 19:38	1°♏47'39	4.37195 AU	opposition	2471 Jul 29 19:15	7°♎09'29	-0°35'37
	2466 Mar 05 16:15	30°♏♏		min. Earth dist.	2471 Jul 30 17:05	7°♎02'25	4.10746 AU
direct	2466 Apr 22 07:51	26°♏42'23		direct	2471 Sep 28 03:40	2°♎14'00	
	2466 Jun 09 07:49	0°♏			2472 Jan 04 00:20	15°♎	
evening set	2466 Aug 27 03:31	14°♏28'04		evening set	2472 Jan 31 11:10	21°♎18'41	
conjunction	2466 Sep 09 10:34	17°♏20'40	0°57'05	conjunction	2472 Feb 13 07:17	24°♎22'13	-0°40'26
minimum elong	2466 Sep 09 10:32	17°♏20'39	0°57'05	minimum elong	2472 Feb 13 07:15	24°♎22'12	0°40'26
max. Earth dist.	2466 Sep 09 07:04	17°♏18'46	6.41710 AU	max. Earth dist.	2472 Feb 12 13:22	24°♎11'32	6.04307 AU
morning rise	2466 Sep 22 15:01	20°♏11'55		morning rise	2472 Feb 26 05:10	27°♎26'54	
	2466 Nov 10 14:36	0°♏			2472 Mar 08 01:20	0°♏	
retrograde	2467 Jan 21 08:45	7°♏06'42		retrograde	2472 Jul 05 14:16	17°♏26'56	
opposition	2467 Mar 22 16:54	2°♏11'25	1°31'19	opposition	2472 Sep 03 20:22	12°♏28'40	-1°20'40
min. Earth dist.	2467 Mar 23 04:13	2°♏07'45	4.44603 AU	min. Earth dist.	2472 Sep 03 20:56	12°♏28'29	3.99136 AU
	2467 Apr 09 03:50	30°♏♏		direct	2472 Nov 01 19:04	7°♏34'50	
direct	2467 May 23 22:42	27°♏08'40		evening set	2473 Mar 07 04:51	27°♏11'05	
	2467 Jul 07 22:49	0°♏			2473 Mar 18 20:20	0°♏	
evening set	2467 Sep 27 13:09	14°♏39'30		conjunction	2473 Mar 20 07:25	0°♏21'15	-1°01'40
max. Earth dist.	2467 Oct 09 07:26	17°♏11'42	6.45571 AU	minimum elong	2473 Mar 20 07:24	0°♏21'15	1°01'39
conjunction	2467 Oct 10 13:05	17°♏27'44	1°04'41	max. Earth dist.	2473 Mar 20 23:35	0°♏31'03	5.95847 AU
minimum elong	2467 Oct 10 13:05	17°♏27'44	1°04'42	morning rise	2473 Apr 02 12:38	3°♏33'00	
morning rise	2467 Oct 23 10:19	20°♏14'40		retrograde	2473 Aug 12 21:39	24°♏12'31	
	2467 Dec 11 07:27	0°♏		opposition	2473 Oct 11 17:34	19°♏10'23	-1°35'45
retrograde	2468 Feb 20 13:38	6°♏59'21		min. Earth dist.	2473 Oct 10 20:41	19°♏17'24	3.94896 AU
opposition	2468 Apr 21 05:20	2°♏06'28	1°29'49	direct	2473 Dec 08 17:47	14°♏16'23	
min. Earth dist.	2468 Apr 22 08:16	1°♏57'49	4.44814 AU		2474 Mar 27 11:23	0°♏	
	2468 May 08 04:44	30°♏♏		evening set	2474 Apr 13 11:25	4°♏00'53	
direct	2468 Jun 22 22:29	27°♏04'31		conjunction	2474 Apr 26 21:53	7°♏14'37	-0°59'04
	2468 Aug 07 14:32	0°♏		minimum elong	2474 Apr 26 21:55	7°♏14'39	0°59'04
evening set	2468 Oct 27 04:23	14°♏37'31		max. Earth dist.	2474 Apr 28 17:54	7°♏41'06	5.96152 AU
max. Earth dist.	2468 Oct 28 21:48	15°♏		morning rise	2474 May 10 11:33	10°♏29'54	
	2468 Nov 07 02:07	17°♏00'19	6.42053 AU		2474 May 29 16:16	15°♏	
conjunction	2468 Nov 08 23:20	17°♏25'06	0°54'49		2474 Aug 25 18:34	0°♏	
minimum elong	2468 Nov 08 23:22	17°♏25'07	0°54'48	retrograde	2474 Sep 19 06:20	0°♏58'35	
morning rise	2468 Nov 21 15:46	20°♏11'39			2474 Oct 13 14:01	30°♏♏	
	2469 Jan 09 01:35	0°♏		min. Earth dist.	2474 Nov 16 10:30	26°♏05'36	3.99791 AU
retrograde	2469 Mar 22 17:27	7°♏14'40		opposition	2474 Nov 17 20:57	25°♏53'52	-1°12'33
opposition	2469 May 22 14:35	2°♏22'46	1°04'08	direct	2475 Jan 14 19:44	20°♏57'36	
min. Earth dist.	2469 May 24 02:20	2°♏11'23	4.37774 AU		2475 Apr 03 19:23	0°♏	
	2469 Jun 11 01:53	30°♏♏		evening set	2475 May 21 00:04	10°♏22'52	
direct	2469 Jul 24 03:26	27°♏22'30		conjunction	2475 Jun 03 16:52	13°♏35'21	-0°33'31
	2469 Sep 04 22:11	0°♏		minimum elong	2475 Jun 03 16:54	13°♏35'22	0°33'32
evening set	2469 Nov 26 23:10	15°♏14'35		max. Earth dist.	2475 Jun 06 00:21	14°♏07'53	6.05124 AU
max. Earth dist.	2469 Dec 07 12:14	17°♏36'15	6.31988 AU	morning rise	2475 Jun 17 11:31	16°♏48'32	
conjunction	2469 Dec 09 15:30	18°♏05'04	0°29'31		2475 Aug 19 08:21	0°♏	
minimum elong	2469 Dec 09 15:31	18°♏05'05	0°29'32	retrograde	2475 Oct 24 13:10	6°♏22'41	
morning rise	2469 Dec 22 06:40	20°♏55'11		min. Earth dist.	2475 Dec 21 17:41	1°♏29'23	4.11769 AU
	2470 Feb 03 08:31	0°♎		opposition	2475 Dec 23 02:50	1°♏18'07	-0°22'58
retrograde	2470 Apr 24 18:57	8°♎43'24			2476 Jan 01 19:14	30°♏♏	
opposition	2470 Jun 24 15:45	3°♎50'50	0°18'46				

direct	2476 Feb 19 21:54	26° $\Pi$ 18'54		conjunction	2481 Dec 13 21:05	22° $\cancel{x}$ 27'50	0°25'09
	2476 Apr 08 20:13	0° $\mathfrak{D}$		minimum elong	2481 Dec 13 21:06	22° $\cancel{x}$ 27'51	0°25'09
asc. node	2476 Jun 04 08:13	10° $\mathfrak{D}$ 27'22		morning rise	2481 Dec 26 12:05	25° $\cancel{x}$ 18'26	
evening set	2476 Jun 25 10:27	15° $\mathfrak{D}$ 07'42			2482 Jan 16 20:41	0° $\mathfrak{Z}$	
				retrograde	2482 Apr 29 08:24	13° $\mathfrak{Z}$ 12'57	
conjunction	2476 Jul 09 04:13	18° $\mathfrak{D}$ 14'20	0°03'20	opposition	2482 Jun 29 06:05	8° $\mathfrak{Z}$ 20'09	0°11'38
minimum elong	2476 Jul 09 04:12	18° $\mathfrak{D}$ 14'19	0°03'20	min. Earth dist.	2482 Jun 30 16:25	8° $\mathfrak{Z}$ 09'11	4.23612 AU
behind sun begin	2476 Jul 08 19:53	18° $\mathfrak{D}$ 09'37		direct	2482 Aug 29 19:44	3° $\mathfrak{Z}$ 22'26	
behind sun end	2476 Jul 09 12:30	18° $\mathfrak{D}$ 19'00		desc. node	2482 Sep 23 05:06	4° $\mathfrak{Z}$ 17'25	
max. Earth dist.	2476 Jul 11 02:43	18° $\mathfrak{D}$ 40'40	6.19077 AU	evening set	2483 Jan 02 04:47	21° $\mathfrak{Z}$ 51'52	
morning rise	2476 Jul 22 21:51	21° $\mathfrak{D}$ 20'36		max. Earth dist.	2483 Jan 13 05:13	24° $\mathfrak{Z}$ 25'23	6.16174 AU
	2476 Sep 01 11:27	0° $\Omega$					
retrograde	2476 Nov 25 09:22	9° $\Omega$ 45'13		conjunction	2483 Jan 14 21:47	24° $\mathfrak{Z}$ 49'01	-0°10'36
min. Earth dist.	2477 Jan 23 05:09	4° $\Omega$ 51'01	4.26310 AU	minimum elong	2483 Jan 14 21:47	24° $\mathfrak{Z}$ 49'00	0°10'35
opposition	2477 Jan 24 04:12	4° $\Omega$ 43'16	0°31'18	behind sun begin	2483 Jan 14 15:31	24° $\mathfrak{Z}$ 45'22	
	2477 Mar 11 13:04	30° $\mathfrak{R}$ $\mathfrak{D}$		behind sun end	2483 Jan 15 04:03	24° $\mathfrak{Z}$ 52'38	
direct	2477 Mar 25 05:08	29° $\mathfrak{D}$ 41'46		morning rise	2483 Jan 27 15:16	27° $\mathfrak{Z}$ 46'38	
	2477 Apr 08 01:07	0° $\Omega$			2483 Feb 06 07:11	0° $\approx$	
	2477 Jul 16 17:39	15° $\Omega$			2483 Apr 30 15:13	15° $\approx$	
evening set	2477 Jul 30 00:25	17° $\Omega$ 52'30		retrograde	2483 Jun 04 01:22	16° $\approx$ 48'59	
					2483 Jul 08 15:27	15° $\mathfrak{R}$ $\approx$	
conjunction	2477 Aug 12 13:32	20° $\Omega$ 51'10	0°37'23	opposition	2483 Aug 03 16:01	11° $\approx$ 53'47	-0°42'40
minimum elong	2477 Aug 12 13:30	20° $\Omega$ 51'09	0°37'23	min. Earth dist.	2483 Aug 04 12:18	11° $\approx$ 47'12	4.08842 AU
max. Earth dist.	2477 Aug 13 10:44	21° $\Omega$ 02'50	6.33081 AU	direct	2483 Oct 02 20:20	6° $\approx$ 58'27	
morning rise	2477 Aug 26 01:04	23° $\Omega$ 48'46			2483 Dec 16 12:21	15° $\approx$	
	2477 Sep 24 07:21	0° $\mathfrak{M}$		evening set	2484 Feb 05 03:23	26° $\approx$ 08'46	
retrograde	2477 Dec 26 11:26	11° $\mathfrak{M}$ 14'33		max. Earth dist.	2484 Feb 17 10:24	29° $\approx$ 05'04	6.02500 AU
opposition	2478 Feb 24 12:35	6° $\mathfrak{M}$ 16'18	1°12'51				
min. Earth dist.	2478 Feb 24 07:41	6° $\mathfrak{M}$ 17'55	4.38709 AU	conjunction	2484 Feb 18 00:23	29° $\approx$ 13'26	-0°44'21
direct	2478 Apr 26 22:18	1° $\mathfrak{M}$ 13'36		minimum elong	2484 Feb 18 00:21	29° $\approx$ 13'25	0°44'22
evening set	2478 Aug 31 16:05	18° $\mathfrak{M}$ 55'40			2484 Feb 21 06:05	0° $\mathfrak{H}$	
				morning rise	2484 Mar 01 23:03	2° $\mathfrak{H}$ 19'16	
conjunction	2478 Sep 13 22:06	21° $\mathfrak{M}$ 47'22	0°59'12	retrograde	2484 Jul 10 19:05	22° $\mathfrak{H}$ 28'13	
minimum elong	2478 Sep 13 22:04	21° $\mathfrak{M}$ 47'21	0°59'11	opposition	2484 Sep 08 22:35	17° $\mathfrak{H}$ 29'29	-1°24'50
max. Earth dist.	2478 Sep 13 15:39	21° $\mathfrak{M}$ 43'53	6.42922 AU	min. Earth dist.	2484 Sep 08 21:06	17° $\mathfrak{H}$ 29'59	3.97623 AU
morning rise	2478 Sep 27 01:24	24° $\mathfrak{M}$ 37'41		direct	2484 Nov 06 16:34	12° $\mathfrak{H}$ 35'45	
	2478 Oct 22 17:38	0° $\mathfrak{L}$			2485 Mar 02 16:30	0° $\mathfrak{Y}$	
retrograde	2479 Jan 25 13:06	11° $\mathfrak{L}$ 28'21		evening set	2485 Mar 12 04:59	2° $\mathfrak{Y}$ 16'49	
opposition	2479 Mar 26 23:46	6° $\mathfrak{L}$ 33'25	1°32'35				
min. Earth dist.	2479 Mar 27 12:27	6° $\mathfrak{L}$ 29'18	4.45468 AU	conjunction	2485 Mar 25 08:32	5° $\mathfrak{Y}$ 27'59	-1°02'48
direct	2479 May 28 07:56	1° $\mathfrak{L}$ 30'43		minimum elong	2485 Mar 25 08:32	5° $\mathfrak{Y}$ 27'59	1°02'48
evening set	2479 Oct 01 20:46	18° $\mathfrak{L}$ 59'16		max. Earth dist.	2485 Mar 26 03:03	5° $\mathfrak{Y}$ 39'13	5.94760 AU
				morning rise	2485 Apr 07 15:12	8° $\mathfrak{Y}$ 40'51	
conjunction	2479 Oct 14 19:48	21° $\mathfrak{L}$ 46'57	1°04'19	retrograde	2485 Aug 18 02:52	29° $\mathfrak{Y}$ 24'39	
minimum elong	2479 Oct 14 19:49	21° $\mathfrak{L}$ 46'58	1°04'19	opposition	2485 Oct 16 21:44	24° $\mathfrak{Y}$ 22'03	-1°34'46
max. Earth dist.	2479 Oct 13 12:52	21° $\mathfrak{L}$ 30'14	6.46033 AU	min. Earth dist.	2485 Oct 15 21:46	24° $\mathfrak{Y}$ 30'08	3.94379 AU
morning rise	2479 Oct 27 16:02	24° $\mathfrak{L}$ 33'21		direct	2485 Dec 13 19:15	19° $\mathfrak{Y}$ 27'50	
	2479 Nov 22 16:59	0° $\mathfrak{M}$			2486 Mar 09 05:32	0° $\mathfrak{B}$	
retrograde	2480 Feb 24 18:42	11° $\mathfrak{M}$ 17'06		evening set	2486 Apr 18 16:39	9° $\mathfrak{B}$ 14'00	
opposition	2480 Apr 25 12:22	6° $\mathfrak{M}$ 24'26	1°27'35				
min. Earth dist.	2480 Apr 26 16:59	6° $\mathfrak{M}$ 15'17	4.44834 AU	conjunction	2486 May 02 04:27	12° $\mathfrak{B}$ 28'17	-0°56'41
direct	2480 Jun 27 07:22	1° $\mathfrak{M}$ 22'41		minimum elong	2486 May 02 04:29	12° $\mathfrak{B}$ 28'19	0°56'40
	2480 Oct 13 00:39	15° $\mathfrak{M}$		max. Earth dist.	2486 May 04 03:56	12° $\mathfrak{B}$ 56'49	5.96265 AU
evening set	2480 Oct 31 09:36	18° $\mathfrak{M}$ 55'13			2486 May 12 17:21	15° $\mathfrak{B}$	
max. Earth dist.	2480 Nov 11 03:41	21° $\mathfrak{M}$ 16'18	6.41614 AU	morning rise	2486 May 15 19:07	15° $\mathfrak{B}$ 44'00	
					2486 Jul 21 16:10	0° $\mathfrak{I}$	
conjunction	2480 Nov 13 03:48	21° $\mathfrak{M}$ 42'42	0°52'09	retrograde	2486 Sep 24 09:59	6° $\mathfrak{I}$ 10'00	
minimum elong	2480 Nov 13 03:49	21° $\mathfrak{M}$ 42'43	0°52'08	opposition	2486 Nov 22 22:51	1° $\mathfrak{I}$ 05'05	-1°06'42
morning rise	2480 Nov 25 19:54	24° $\mathfrak{M}$ 29'16		min. Earth dist.	2486 Nov 21 12:16	1° $\mathfrak{I}$ 16'53	4.00501 AU
	2480 Dec 21 18:55	0° $\cancel{x}$			2486 Nov 30 23:22	30° $\mathfrak{R}$ $\mathfrak{B}$	
retrograde	2481 Mar 27 02:11	11° $\cancel{x}$ 34'58		direct	2487 Jan 19 23:23	26° $\mathfrak{B}$ 08'25	
opposition	2481 May 27 00:07	6° $\cancel{x}$ 43'00	0°58'54		2487 Mar 10 06:23	0° $\mathfrak{I}$	
min. Earth dist.	2481 May 28 12:50	6° $\cancel{x}$ 31'17	4.36877 AU	evening set	2487 May 26 05:46	15° $\mathfrak{I}$ 31'29	
direct	2481 Jul 28 12:27	1° $\cancel{x}$ 42'53					
evening set	2481 Dec 01 04:46	19° $\cancel{x}$ 36'54		conjunction	2487 Jun 08 23:12	18° $\mathfrak{I}$ 43'40	-0°28'39
max. Earth dist.	2481 Dec 11 18:34	21° $\cancel{x}$ 59'22	6.30704 AU	minimum elong	2487 Jun 08 23:14	18° $\mathfrak{I}$ 43'42	0°28'38
				max. Earth dist.	2487 Jun 11 08:18	19° $\mathfrak{I}$ 17'01	6.06371 AU

morning rise	2487 Jun 22 18:12	21° $\Pi$ 56'25	direct	2493 Aug 02 00:09	6° $\mathbb{X}$ 12'39	
	2487 Jul 29 02:03	0° $\mathfrak{D}$	evening set	2493 Dec 05 14:52	24° $\mathbb{X}$ 10'59	
retrograde	2487 Oct 29 08:34	11° $\mathfrak{D}$ 22'36	max. Earth dist.	2493 Dec 16 03:25	26° $\mathbb{X}$ 33'28	6.28757 AU
opposition	2487 Dec 27 22:47	6° $\mathfrak{D}$ 18'14 -0°15'01				
min. Earth dist.	2487 Dec 26 13:10	6° $\mathfrak{D}$ 29'39 4.13406 AU	conjunction	2493 Dec 18 06:59	27° $\mathbb{X}$ 02'39	0°20'26
direct	2488 Feb 24 20:13	1° $\mathfrak{D}$ 18'38	minimum elong	2493 Dec 18 07:00	27° $\mathbb{X}$ 02'40	0°20'25
asc. node	2488 Apr 13 04:03	4° $\mathfrak{D}$ 53'02	morning rise	2493 Dec 30 22:18	29° $\mathbb{X}$ 54'08	
evening set	2488 Jun 30 12:05	20° $\mathfrak{D}$ 02'53		2493 Dec 31 08:42	0° $\mathfrak{Z}$	
			retrograde	2494 May 04 06:02	17° $\mathfrak{Z}$ 57'37	
conjunction	2488 Jul 14 05:22	23° $\mathfrak{D}$ 08'29 0°08'39	opposition	2494 Jul 04 02:40	13° $\mathfrak{Z}$ 04'35	0°04'00
minimum elong	2488 Jul 14 05:21	23° $\mathfrak{D}$ 08'29 0°08'38	min. Earth dist.	2494 Jul 05 11:47	12° $\mathfrak{Z}$ 53'58	4.21421 AU
behind sun begin	2488 Jul 13 22:09	23° $\mathfrak{D}$ 04'26	desc. node	2494 Aug 02 10:01	9° $\mathfrak{Z}$ 40'32	
behind sun end	2488 Jul 14 12:33	23° $\mathfrak{D}$ 12'31	direct	2494 Sep 03 12:03	8° $\mathfrak{Z}$ 07'09	
max. Earth dist.	2488 Jul 16 00:35	23° $\mathfrak{D}$ 32'53 6.20954 AU	evening set	2495 Jan 06 20:47	26° $\mathfrak{Z}$ 42'51	
morning rise	2488 Jul 27 22:31	26° $\mathfrak{D}$ 13'40	max. Earth dist.	2495 Jan 18 01:31	29° $\mathfrak{Z}$ 19'34	6.13941 AU
	2488 Aug 14 01:21	0° $\mathcal{O}$				
retrograde	2488 Nov 29 22:59	14° $\mathcal{O}$ 29'14	conjunction	2495 Jan 19 14:21	29° $\mathfrak{Z}$ 41'07	-0°15'48
opposition	2489 Jan 28 18:02	9° $\mathcal{O}$ 27'41 0°38'20	minimum elong	2495 Jan 19 14:20	29° $\mathfrak{Z}$ 41'07	0°15'47
min. Earth dist.	2489 Jan 27 21:34	9° $\mathcal{O}$ 34'33 4.28224 AU	behind sun begin	2495 Jan 19 12:19	29° $\mathfrak{Z}$ 39'56	
direct	2489 Mar 30 00:51	4° $\mathcal{O}$ 25'50	behind sun end	2495 Jan 19 16:21	29° $\mathfrak{Z}$ 42'17	
	2489 Jun 28 19:40	15° $\mathcal{O}$		2495 Jan 20 22:36	0° $\approx$	
evening set	2489 Aug 03 19:05	22° $\mathcal{O}$ 31'40	morning rise	2495 Feb 01 08:15	2° $\approx$ 39'55	
				2495 Mar 31 11:43	15° $\approx$	
conjunction	2489 Aug 17 07:25	25° $\mathcal{O}$ 29'13 0°41'24	retrograde	2495 Jun 09 07:47	21° $\approx$ 52'53	
minimum elong	2489 Aug 17 07:23	25° $\mathcal{O}$ 29'12 0°41'24	opposition	2495 Aug 08 20:13	16° $\approx$ 57'20	-0°49'54
max. Earth dist.	2489 Aug 18 02:28	25° $\mathcal{O}$ 39'40 6.34854 AU	min. Earth dist.	2495 Aug 09 14:16	16° $\approx$ 51'28	4.06769 AU
morning rise	2489 Aug 30 17:42	28° $\mathcal{O}$ 25'35		2495 Aug 24 07:19	15° $\mathfrak{R}$ $\approx$	
	2489 Sep 07 00:09	0° $\mathfrak{P}$	direct	2495 Oct 07 18:54	12° $\approx$ 02'22	
retrograde	2489 Dec 30 18:05	15° $\mathfrak{P}$ 44'22		2495 Nov 20 06:13	15° $\approx$	
opposition	2490 Feb 28 21:43	10° $\mathfrak{P}$ 46'34 1°17'06		2496 Feb 04 14:50	0° $\mathfrak{H}$	
min. Earth dist.	2490 Feb 28 18:17	10° $\mathfrak{P}$ 47'42 4.40194 AU	evening set	2496 Feb 10 03:25	1° $\mathfrak{H}$ 18'48	
direct	2490 May 01 10:35	5° $\mathfrak{P}$ 43'47				
evening set	2490 Sep 05 04:30	23° $\mathfrak{P}$ 22'24	conjunction	2496 Feb 23 01:05	4° $\mathfrak{H}$ 24'34	-0°48'13
			minimum elong	2496 Feb 23 01:03	4° $\mathfrak{H}$ 24'33	0°48'13
conjunction	2490 Sep 18 09:18	26° $\mathfrak{P}$ 13'13 1°00'59	max. Earth dist.	2496 Feb 22 14:12	4° $\mathfrak{H}$ 18'02	6.00773 AU
minimum elong	2490 Sep 18 09:16	26° $\mathfrak{P}$ 13'12 1°00'59	morning rise	2496 Mar 07 00:56	7° $\mathfrak{H}$ 31'41	
max. Earth dist.	2490 Sep 17 22:26	26° $\mathfrak{P}$ 07'21 6.43974 AU	retrograde	2496 Jul 16 04:54	27° $\mathfrak{H}$ 48'55	
morning rise	2490 Oct 01 11:31	29° $\mathfrak{P}$ 02'40	opposition	2496 Sep 14 08:02	22° $\mathfrak{H}$ 49'38	-1°28'34
	2490 Oct 05 22:41	0° $\mathfrak{A}$	min. Earth dist.	2496 Sep 14 02:12	22° $\mathfrak{H}$ 51'34	3.96458 AU
retrograde	2491 Jan 29 19:59	15° $\mathfrak{A}$ 50'02	direct	2496 Nov 11 21:28	17° $\mathfrak{H}$ 56'00	
opposition	2491 Mar 31 07:13	10° $\mathfrak{A}$ 55'33 1°33'21		2497 Feb 12 13:13	0° $\mathfrak{Y}$	
min. Earth dist.	2491 Mar 31 23:16	10° $\mathfrak{A}$ 50'21 4.46015 AU	evening set	2497 Mar 17 11:46	7° $\mathfrak{Y}$ 40'11	
direct	2491 Jun 01 19:14	5° $\mathfrak{A}$ 52'55				
evening set	2491 Oct 06 05:06	23° $\mathfrak{A}$ 20'26	conjunction	2497 Mar 30 16:36	10° $\mathfrak{Y}$ 52'08	-1°03'30
max. Earth dist.	2491 Oct 17 16:49	25° $\mathfrak{A}$ 49'08 6.46007 AU	minimum elong	2497 Mar 30 16:36	10° $\mathfrak{Y}$ 52'08	1°03'30
			max. Earth dist.	2497 Mar 31 17:16	11° $\mathfrak{Y}$ 07'07	5.94292 AU
conjunction	2491 Oct 19 03:19	26° $\mathfrak{A}$ 07'48 1°03'36	morning rise	2497 Apr 13 00:21	14° $\mathfrak{Y}$ 05'44	
minimum elong	2491 Oct 19 03:20	26° $\mathfrak{A}$ 07'49 1°03'35		2497 Jun 27 18:30	0° $\mathfrak{B}$	
morning rise	2491 Oct 31 22:46	28° $\mathfrak{A}$ 53'55	retrograde	2497 Aug 23 14:17	4° $\mathfrak{B}$ 50'39	
	2491 Nov 06 02:04	0° $\mathfrak{M}$		2497 Oct 20 18:17	30° $\mathfrak{R}$ $\mathfrak{Y}$	
	2492 Feb 08 17:47	15° $\mathfrak{M}$	min. Earth dist.	2497 Oct 21 05:14	29° $\mathfrak{Y}$ 56'18	3.94692 AU
retrograde	2492 Feb 29 01:54	15° $\mathfrak{M}$ 38'37	opposition	2497 Oct 22 07:00	29° $\mathfrak{Y}$ 47'35	-1°32'55
	2492 Mar 20 11:03	15° $\mathfrak{R}$ $\mathfrak{M}$	direct	2497 Dec 19 04:25	24° $\mathfrak{Y}$ 53'08	
opposition	2492 Apr 29 21:07	10° $\mathfrak{M}$ 46'08 1°24'51		2498 Feb 14 01:49	0° $\mathfrak{B}$	
min. Earth dist.	2492 May 01 03:01	10° $\mathfrak{M}$ 36'34 4.44246 AU	evening set	2498 Apr 24 02:04	14° $\mathfrak{B}$ 37'21	
direct	2492 Jul 01 15:45	5° $\mathfrak{M}$ 44'32		2498 Apr 25 16:02	15° $\mathfrak{B}$	
	2492 Sep 25 08:31	15° $\mathfrak{M}$				
evening set	2492 Nov 04 17:01	23° $\mathfrak{M}$ 18'52	conjunction	2498 May 07 14:53	17° $\mathfrak{B}$ 51'38	-0°53'47
max. Earth dist.	2492 Nov 15 10:22	25° $\mathfrak{M}$ 39'55 6.40501 AU	minimum elong	2498 May 07 14:55	17° $\mathfrak{B}$ 51'39	0°53'47
			max. Earth dist.	2498 May 09 18:12	18° $\mathfrak{B}$ 22'21	5.97330 AU
conjunction	2492 Nov 17 10:51	26° $\mathfrak{M}$ 06'36 0°49'06	morning rise	2498 May 21 06:30	21° $\mathfrak{B}$ 07'13	
minimum elong	2492 Nov 17 10:53	26° $\mathfrak{M}$ 06'37 0°49'06		2498 Jun 29 11:00	0° $\mathfrak{I}$	
morning rise	2492 Nov 30 02:29	28° $\mathfrak{M}$ 53'29	retrograde	2498 Sep 29 12:26	11° $\mathfrak{I}$ 25'56	
	2492 Dec 05 04:30	0° $\mathbb{X}$	min. Earth dist.	2498 Nov 26 13:38	6° $\mathfrak{I}$ 33'12	4.02205 AU
retrograde	2493 Mar 31 15:18	16° $\mathbb{X}$ 04'21	opposition	2498 Nov 28 01:45	6° $\mathfrak{I}$ 20'54	-1°00'16
opposition	2493 May 31 13:38	11° $\mathbb{X}$ 12'25 0°53'07	direct	2499 Jan 25 03:37	1° $\mathfrak{I}$ 23'49	
min. Earth dist.	2493 Jun 02 03:12	11° $\mathbb{X}$ 00'28 4.35290 AU	evening set	2499 May 31 11:53	20° $\mathfrak{I}$ 40'58	

conjunction	2499 Jun 14 05:29	23° $\Pi$ 52'16	-0°23'34	minimum elong	2504 Nov 22 17:34	0° $\cancel{\times}$ 29'57	0°45'49
minimum elong	2499 Jun 14 05:31	23° $\Pi$ 52'17	0°23'34	morning rise	2504 Dec 05 09:03	3° $\cancel{\times}$ 17'25	
max. Earth dist.	2499 Jun 16 12:52	24° $\Pi$ 24'27	6.08539 AU	retrograde	2505 Apr 06 05:53	20° $\cancel{\times}$ 35'19	
morning rise	2499 Jun 28 00:39	27° $\Pi$ 04'01		opposition	2505 Jun 06 04:14	15° $\cancel{\times}$ 43'20	0°47'03
	2499 Jul 10 21:37	0° $\mathfrak{C}$		min. Earth dist.	2505 Jun 07 17:18	15° $\cancel{\times}$ 31'31	4.33217 AU
retrograde	2499 Nov 03 02:04	16° $\mathfrak{C}$ 19'01		direct	2505 Aug 07 10:46	10° $\cancel{\times}$ 43'51	
min. Earth dist.	2499 Dec 31 09:18	11° $\mathfrak{C}$ 25'41	4.15787 AU	evening set	2505 Dec 11 02:17	28° $\cancel{\times}$ 48'04	
opposition	2500 Jan 01 17:12	11° $\mathfrak{C}$ 14'51	-0°07'07		2505 Dec 16 09:28	0° $\mathfrak{Z}$	
asc. node	2500 Feb 21 16:39	6° $\mathfrak{C}$ 21'29		max. Earth dist.	2505 Dec 21 17:31	1° $\mathfrak{Z}$ 12'46	6.26437 AU
direct	2500 Mar 01 20:25	6° $\mathfrak{C}$ 14'48					
evening set	2500 Jul 06 10:40	24° $\mathfrak{C}$ 52'01		conjunction	2505 Dec 23 18:35	1° $\mathfrak{Z}$ 40'43	0°15'33
				minimum elong	2505 Dec 23 18:36	1° $\mathfrak{Z}$ 40'44	0°15'33
conjunction	2500 Jul 20 03:36	27° $\mathfrak{C}$ 56'22	0°13'46	behind sun begin	2505 Dec 23 16:12	1° $\mathfrak{Z}$ 39'22	
minimum elong	2500 Jul 20 03:35	27° $\mathfrak{C}$ 56'22	0°13'46	behind sun end	2505 Dec 23 21:01	1° $\mathfrak{Z}$ 42'06	
behind sun begin	2500 Jul 19 23:24	27° $\mathfrak{C}$ 54'01		morning rise	2506 Jan 05 10:01	4° $\mathfrak{Z}$ 33'14	
behind sun end	2500 Jul 20 07:46	27° $\mathfrak{C}$ 58'42		retrograde	2506 May 10 07:06	22° $\mathfrak{Z}$ 46'58	
max. Earth dist.	2500 Jul 21 21:12	28° $\mathfrak{C}$ 19'44	6.23355 AU	desc. node	2506 Jun 12 12:30	21° $\mathfrak{Z}$ 07'01	
	2500 Jul 29 08:03	0° $\Omega$		opposition	2506 Jul 10 01:47	17° $\mathfrak{Z}$ 53'44	-0°03'47
morning rise	2500 Aug 02 19:48	1° $\Omega$ 00'07		min. Earth dist.	2506 Jul 11 09:45	17° $\mathfrak{Z}$ 43'29	4.19017 AU
	2500 Oct 14 00:04	15° $\Omega$		direct	2506 Sep 09 06:31	12° $\mathfrak{Z}$ 56'45	
retrograde	2500 Dec 05 08:20	19° $\Omega$ 05'26			2507 Jan 05 12:09	0° $\approx$	
	2501 Jan 27 05:32	15° $\mathfrak{R}$ $\Omega$		evening set	2507 Jan 12 15:17	1° $\approx$ 39'14	
min. Earth dist.	2501 Feb 02 10:12	14° $\Omega$ 10'36	4.30432 AU	max. Earth dist.	2507 Jan 23 22:37	4° $\approx$ 18'19	6.11664 AU
opposition	2501 Feb 03 04:49	14° $\Omega$ 04'22	0°44'52				
direct	2501 Apr 04 15:55	9° $\Omega$ 02'19		conjunction	2507 Jan 25 09:10	4° $\approx$ 38'39	-0°20'57
	2501 Jun 09 06:17	15° $\Omega$		minimum elong	2507 Jan 25 09:09	4° $\approx$ 38'38	0°20'57
evening set	2501 Aug 09 10:09	27° $\Omega$ 02'31		morning rise	2507 Feb 07 03:56	7° $\approx$ 38'45	
					2507 Mar 11 18:24	15° $\approx$	
conjunction	2501 Aug 22 21:17	29° $\Omega$ 58'51	0°45'03	retrograde	2507 Jun 15 15:13	27° $\approx$ 02'30	
minimum elong	2501 Aug 22 21:15	29° $\Omega$ 58'49	0°45'02	opposition	2507 Aug 15 03:10	22° $\approx$ 06'26	-0°56'53
	2501 Aug 22 23:24	0° $\mathfrak{N}$		min. Earth dist.	2507 Aug 15 16:51	22° $\approx$ 01'59	4.04838 AU
max. Earth dist.	2501 Aug 23 10:25	0° $\mathfrak{N}$ 06'01	6.36686 AU	direct	2507 Oct 13 19:47	17° $\approx$ 11'49	
morning rise	2501 Sep 05 06:34	2° $\mathfrak{N}$ 54'01			2508 Jan 18 23:43	0° $\mathfrak{H}$	
retrograde	2502 Jan 04 23:52	20° $\mathfrak{N}$ 06'12		evening set	2508 Feb 16 05:43	6° $\mathfrak{H}$ 33'33	
opposition	2502 Mar 06 03:57	15° $\mathfrak{N}$ 08'53	1°20'46				
min. Earth dist.	2502 Mar 06 04:24	15° $\mathfrak{N}$ 08'44	4.41538 AU	conjunction	2508 Feb 29 04:19	9° $\mathfrak{H}$ 40'20	-0°51'43
direct	2502 May 06 21:37	10° $\mathfrak{N}$ 05'59		minimum elong	2508 Feb 29 04:17	9° $\mathfrak{H}$ 40'19	0°51'43
evening set	2502 Sep 10 13:28	27° $\mathfrak{N}$ 41'43		max. Earth dist.	2508 Feb 29 00:07	9° $\mathfrak{H}$ 37'48	5.99377 AU
	2502 Sep 21 06:25	0° $\mathfrak{U}$		morning rise	2508 Mar 13 05:01	12° $\mathfrak{H}$ 48'29	
conjunction	2502 Sep 23 17:26	0° $\mathfrak{U}$ 31'52	1°02'22		2508 Jun 06 22:37	0° $\mathfrak{Y}$	
minimum elong	2502 Sep 23 17:25	0° $\mathfrak{U}$ 31'52	1°02'23	retrograde	2508 Jul 22 18:09	3° $\mathfrak{Y}$ 12'15	
max. Earth dist.	2502 Sep 23 03:27	0° $\mathfrak{U}$ 24'19	6.44723 AU		2508 Sep 06 23:25	30° $\mathfrak{R}$ $\mathfrak{H}$	
morning rise	2502 Oct 06 18:28	3° $\mathfrak{U}$ 20'36		opposition	2508 Sep 20 18:45	28° $\mathfrak{H}$ 12'23	-1°31'33
retrograde	2503 Feb 03 23:15	20° $\mathfrak{U}$ 05'57		min. Earth dist.	2508 Sep 20 10:10	28° $\mathfrak{H}$ 15'15	3.95764 AU
opposition	2503 Apr 05 12:32	15° $\mathfrak{U}$ 11'48	1°33'37	direct	2508 Nov 18 05:52	23° $\mathfrak{H}$ 18'48	
min. Earth dist.	2503 Apr 06 06:18	15° $\mathfrak{U}$ 06'04	4.46147 AU		2509 Jan 23 06:55	0° $\mathfrak{Y}$	
direct	2503 Jun 07 01:11	10° $\mathfrak{U}$ 09'15		evening set	2509 Mar 23 19:35	13° $\mathfrak{Y}$ 04'07	
evening set	2503 Oct 11 11:19	27° $\mathfrak{U}$ 37'02					
	2503 Oct 22 11:57	0° $\mathfrak{M}$		conjunction	2509 Apr 06 01:29	16° $\mathfrak{Y}$ 16'33	-1°03'39
max. Earth dist.	2503 Oct 22 18:58	0° $\mathfrak{M}$ 03'49	6.45503 AU	minimum elong	2509 Apr 06 01:29	16° $\mathfrak{Y}$ 16'33	1°03'39
				max. Earth dist.	2509 Apr 07 06:57	16° $\mathfrak{Y}$ 34'25	5.94340 AU
conjunction	2503 Oct 24 08:44	0° $\mathfrak{M}$ 24'17	1°02'33	morning rise	2509 Apr 19 10:26	19° $\mathfrak{Y}$ 30'39	
minimum elong	2503 Oct 24 08:44	0° $\mathfrak{M}$ 24'17	1°02'32		2509 Jun 04 17:13	0° $\mathfrak{B}$	
morning rise	2503 Nov 06 03:33	3° $\mathfrak{M}$ 10'21		retrograde	2509 Aug 29 22:19	10° $\mathfrak{B}$ 13'59	
	2504 Jan 06 10:28	15° $\mathfrak{M}$		min. Earth dist.	2509 Oct 27 10:09	5° $\mathfrak{B}$ 20'14	3.95496 AU
retrograde	2504 Mar 05 10:51	19° $\mathfrak{M}$ 57'43		opposition	2509 Oct 28 14:55	5° $\mathfrak{B}$ 10'30	-1°30'15
opposition	2504 May 05 05:37	15° $\mathfrak{M}$ 05'26	1°21'43	direct	2509 Dec 25 10:43	0° $\mathfrak{B}$ 15'48	
	2504 May 05 22:38	15° $\mathfrak{R}$ $\mathfrak{M}$			2510 Apr 09 05:46	15° $\mathfrak{B}$	
min. Earth dist.	2504 May 06 14:08	14° $\mathfrak{M}$ 55'03	4.43132 AU	evening set	2510 Apr 30 10:20	19° $\mathfrak{B}$ 56'33	
direct	2504 Jul 07 00:41	10° $\mathfrak{M}$ 04'03					
	2504 Sep 05 05:49	15° $\mathfrak{M}$		conjunction	2510 May 13 23:56	23° $\mathfrak{B}$ 10'32	-0°50'28
evening set	2504 Nov 10 00:03	27° $\mathfrak{M}$ 41'41		minimum elong	2510 May 13 23:59	23° $\mathfrak{B}$ 10'34	0°50'28
	2504 Nov 20 11:21	0° $\cancel{\times}$		max. Earth dist.	2510 May 16 04:03	23° $\mathfrak{B}$ 41'37	5.98772 AU
max. Earth dist.	2504 Nov 20 14:39	0° $\cancel{\times}$ 01'50	6.38856 AU	morning rise	2510 May 27 16:23	26° $\mathfrak{B}$ 25'47	
					2510 Jun 11 23:29	0° $\Pi$	
conjunction	2504 Nov 22 17:32	0° $\cancel{\times}$ 29'56	0°45'49	retrograde	2510 Oct 05 12:24	16° $\Pi$ 36'07	
				min. Earth dist.	2510 Dec 02 14:27	11° $\Pi$ 43'19	4.04102 AU

opposition	2510 Dec 04 02:26	11° $\Pi$ 31'02	-0°53'26	conjunction	2516 Nov 27 01:48	4° $\text{X}$ 58'24	0°42'11
direct	2511 Jan 31 07:53	6° $\Pi$ 33'32		minimum elong	2516 Nov 27 01:49	4° $\text{X}$ 58'25	0°42'11
evening set	2511 Jun 06 15:35	25° $\Pi$ 44'34		morning rise	2516 Dec 09 17:09	7° $\text{X}$ 46'27	
				retrograde	2517 Apr 10 24:00	25° $\text{X}$ 11'21	
conjunction	2511 Jun 20 09:32	28° $\Pi$ 54'59	-0°18'24	opposition	2517 Jun 10 20:52	20° $\text{X}$ 19'20	0°40'32
minimum elong	2511 Jun 20 09:34	28° $\Pi$ 55'00	0°18'24	min. Earth dist.	2517 Jun 12 10:33	20° $\text{X}$ 07'19	4.31284 AU
max. Earth dist.	2511 Jun 22 17:04	29° $\Pi$ 27'05	6.10734 AU	direct	2517 Aug 12 01:10	15° $\text{X}$ 20'13	
	2511 Jun 25 02:03	0° $\text{E}$			2517 Nov 29 23:27	0° $\text{Z}$	
morning rise	2511 Jul 04 04:25	2° $\text{E}$ 05'38		evening set	2517 Dec 15 14:57	3° $\text{Z}$ 29'34	
retrograde	2511 Nov 08 18:34	21° $\text{E}$ 09'59		max. Earth dist.	2517 Dec 26 07:00	5° $\text{Z}$ 55'28	6.24370 AU
asc. node	2512 Jan 02 06:58	16° $\text{E}$ 47'35					
min. Earth dist.	2512 Jan 06 03:05	16° $\text{E}$ 16'30	4.18056 AU	conjunction	2517 Dec 28 07:18	6° $\text{Z}$ 23'05	0°10'30
opposition	2512 Jan 07 09:25	16° $\text{E}$ 06'14	0°00'42	minimum elong	2517 Dec 28 07:18	6° $\text{Z}$ 23'05	0°10'31
direct	2512 Mar 06 16:54	11° $\text{E}$ 05'53		behind sun begin	2517 Dec 28 01:02	6° $\text{Z}$ 19'31	
evening set	2512 Jul 11 07:46	29° $\text{E}$ 37'01		behind sun end	2517 Dec 28 13:35	6° $\text{Z}$ 26'39	
	2512 Jul 13 01:05	0° $\Omega$		morning rise	2518 Jan 09 23:06	9° $\text{Z}$ 16'35	
				desc. node	2518 Apr 21 12:57	26° $\text{Z}$ 47'10	
conjunction	2512 Jul 24 23:56	2° $\Omega$ 40'10	0°18'45	retrograde	2518 May 15 06:42	27° $\text{Z}$ 39'39	
minimum elong	2512 Jul 24 23:55	2° $\Omega$ 40'09	0°18'45	opposition	2518 Jul 15 01:47	22° $\text{Z}$ 46'03	-0°11'37
max. Earth dist.	2512 Jul 26 12:42	3° $\Omega$ 00'43	6.25507 AU	min. Earth dist.	2518 Jul 16 06:33	22° $\text{Z}$ 36'49	4.16987 AU
morning rise	2512 Aug 07 15:29	5° $\Omega$ 42'40		direct	2518 Sep 14 00:49	17° $\text{Z}$ 49'27	
	2512 Sep 21 04:09	15° $\Omega$			2518 Dec 19 04:08	0° $\approx$	
retrograde	2512 Dec 09 16:50	23° $\Omega$ 39'07		evening set	2519 Jan 17 10:15	6° $\approx$ 37'15	
opposition	2513 Feb 07 14:26	18° $\Omega$ 38'34	0°51'06	max. Earth dist.	2519 Jan 28 23:19	9° $\approx$ 20'18	6.09868 AU
min. Earth dist.	2513 Feb 06 22:41	18° $\Omega$ 43'50	4.32313 AU				
	2513 Mar 10 08:20	15° $\text{R}$ $\Omega$		conjunction	2519 Jan 30 04:38	9° $\approx$ 37'37	-0°25'58
direct	2513 Apr 09 06:01	13° $\Omega$ 36'18		minimum elong	2519 Jan 30 04:36	9° $\approx$ 37'36	0°25'58
	2513 May 09 13:30	15° $\Omega$		morning rise	2519 Feb 11 23:54	12° $\approx$ 38'45	
	2513 Aug 06 20:57	0° $\text{P}$			2519 Feb 22 02:29	15° $\approx$	
evening set	2513 Aug 14 00:15	1° $\text{P}$ 32'16			2519 May 14 04:33	0° $\text{H}$	
				retrograde	2519 Jun 20 23:12	2° $\text{H}$ 11'09	
conjunction	2513 Aug 27 10:35	4° $\text{P}$ 27'37	0°48'25		2519 Jul 28 22:16	30° $\text{R}$ $\approx$	
minimum elong	2513 Aug 27 10:32	4° $\text{P}$ 27'36	0°48'25	opposition	2519 Aug 20 09:16	27° $\approx$ 14'35	-1°03'21
max. Earth dist.	2513 Aug 27 20:42	4° $\text{P}$ 33'09	6.38163 AU	min. Earth dist.	2519 Aug 20 20:32	27° $\approx$ 10'54	4.03449 AU
morning rise	2513 Sep 09 18:33	7° $\text{P}$ 21'42		direct	2519 Oct 18 22:46	22° $\approx$ 20'11	
retrograde	2514 Jan 09 05:00	24° $\text{P}$ 28'44			2519 Dec 30 02:09	0° $\text{H}$	
opposition	2514 Mar 10 10:19	19° $\text{P}$ 31'57	1°24'01	evening set	2520 Feb 21 06:53	11° $\text{H}$ 45'09	
min. Earth dist.	2514 Mar 10 12:59	19° $\text{P}$ 31'05	4.42533 AU				
direct	2514 May 11 06:32	14° $\text{P}$ 29'05		conjunction	2520 Mar 05 06:16	14° $\text{H}$ 52'41	-0°54'46
	2514 Sep 05 07:13	0° $\underline{\Omega}$		minimum elong	2520 Mar 05 06:15	14° $\text{H}$ 52'40	0°54'46
evening set	2514 Sep 14 22:50	2° $\underline{\Omega}$ 03'03		max. Earth dist.	2520 Mar 05 06:35	14° $\text{H}$ 52'52	5.98517 AU
max. Earth dist.	2514 Sep 27 06:20	4° $\underline{\Omega}$ 42'10	6.45149 AU	morning rise	2520 Mar 18 08:04	18° $\text{H}$ 01'40	
					2520 May 11 07:27	0° $\text{Y}$	
conjunction	2514 Sep 28 01:39	4° $\underline{\Omega}$ 52'36	1°03'26	retrograde	2520 Jul 28 02:07	8° $\text{Y}$ 29'21	
minimum elong	2514 Sep 28 01:38	4° $\underline{\Omega}$ 52'36	1°03'26	opposition	2520 Sep 26 02:22	3° $\text{Y}$ 28'54	-1°33'39
morning rise	2514 Oct 11 01:51	7° $\underline{\Omega}$ 40'48		min. Earth dist.	2520 Sep 25 13:47	3° $\text{Y}$ 33'06	3.95562 AU
retrograde	2515 Feb 08 06:28	24° $\underline{\Omega}$ 25'16			2520 Oct 25 06:07	30° $\text{R}$ $\text{H}$	
opposition	2515 Apr 09 19:14	19° $\underline{\Omega}$ 31'28	1°33'25	direct	2520 Nov 23 09:40	28° $\text{H}$ 35'16	
min. Earth dist.	2515 Apr 10 16:18	19° $\underline{\Omega}$ 24'41	4.46003 AU		2520 Dec 22 10:13	0° $\text{Y}$	
direct	2515 Jun 11 10:05	14° $\underline{\Omega}$ 28'59		evening set	2521 Mar 29 00:26	18° $\text{Y}$ 20'00	
	2515 Oct 06 14:17	0° $\text{M}$					
evening set	2515 Oct 15 18:38	1° $\text{M}$ 57'46		conjunction	2521 Apr 11 07:17	21° $\text{Y}$ 32'41	-1°03'16
max. Earth dist.	2515 Oct 26 23:44	4° $\text{M}$ 23'26	6.44791 AU	minimum elong	2521 Apr 11 07:18	21° $\text{Y}$ 32'42	1°03'16
				max. Earth dist.	2521 Apr 12 15:57	21° $\text{Y}$ 52'28	5.94788 AU
conjunction	2515 Oct 28 15:31	4° $\text{M}$ 45'03	1°01'08	morning rise	2521 Apr 24 17:21	24° $\text{Y}$ 47'02	
minimum elong	2515 Oct 28 15:32	4° $\text{M}$ 45'04	1°01'09		2521 May 16 21:31	0° $\text{B}$	
morning rise	2515 Nov 10 09:37	7° $\text{M}$ 31'09			2521 Aug 18 11:40	15° $\text{B}$	
	2515 Dec 16 15:16	15° $\text{M}$		retrograde	2521 Sep 04 01:32	15° $\text{B}$ 27'12	
retrograde	2516 Mar 09 19:40	24° $\text{M}$ 21'46			2521 Sep 20 14:21	15° $\text{R}$ $\text{B}$	
opposition	2516 May 09 15:38	19° $\text{M}$ 29'37	1°18'04	opposition	2521 Nov 02 18:37	10° $\text{B}$ 23'18	-1°26'54
min. Earth dist.	2516 May 11 00:30	19° $\text{M}$ 19'08	4.41916 AU	min. Earth dist.	2521 Nov 01 12:28	10° $\text{B}$ 33'32	3.96536 AU
	2516 Jun 22 15:24	15° $\text{R}$ $\text{M}$		direct	2521 Dec 30 15:32	5° $\text{B}$ 28'13	
direct	2516 Jul 11 08:16	14° $\text{M}$ 28'29			2522 Mar 21 13:14	15° $\text{B}$	
	2516 Jul 30 04:51	15° $\text{M}$		evening set	2522 May 05 14:32	25° $\text{B}$ 04'50	
	2516 Nov 04 10:38	0° $\text{X}$					
evening set	2516 Nov 14 08:39	2° $\text{X}$ 09'38		conjunction	2522 May 19 05:07	28° $\text{B}$ 18'30	-0°46'51
max. Earth dist.	2516 Nov 24 22:58	4° $\text{X}$ 30'11	6.37232 AU	minimum elong	2522 May 19 05:10	28° $\text{B}$ 18'32	0°46'51




























































































































max. Earth dist.	2522 May 21 11:44	28°♄50'56	6.00310 AU		2528 Oct 18 12:43	0°♄	
	2522 May 26 08:10	0°♄		evening set	2528 Nov 18 16:47	6°♄36'55	
morning rise	2522 Jun 01 22:03	1°♄33'16		max. Earth dist.	2528 Nov 29 06:59	8°♄57'54	6.35741 AU
retrograde	2522 Oct 10 09:41	21°♄34'56					
min. Earth dist.	2522 Dec 07 11:24	16°♄41'57	4.05957 AU	conjunction	2528 Dec 01 09:46	9°♄26'10	0°38'19
opposition	2522 Dec 08 22:38	16°♄29'57	-0°46'28	minimum elong	2528 Dec 01 09:47	9°♄26'11	0°38'18
direct	2523 Feb 05 07:15	11°♄32'02		morning rise	2528 Dec 14 00:55	12°♄14'47	
	2523 Jun 08 21:59	0°♄		retrograde	2529 Apr 15 14:57	29°♄46'13	
evening set	2523 Jun 11 15:36	0°♄37'29		opposition	2529 Jun 15 13:00	24°♄54'01	0°33'46
				min. Earth dist.	2529 Jun 17 01:06	24°♄42'30	4.29548 AU
conjunction	2523 Jun 25 09:32	3°♄47'01	-0°13'17	direct	2529 Aug 16 13:00	19°♄55'15	
minimum elong	2523 Jun 25 09:32	3°♄47'02	0°13'17		2529 Nov 12 10:13	0°♄	
behind sun begin	2523 Jun 25 04:52	3°♄44'21		evening set	2529 Dec 20 02:53	8°♄09'04	
behind sun end	2523 Jun 25 14:13	3°♄49'42		max. Earth dist.	2529 Dec 30 21:17	10°♄36'56	6.22517 AU
max. Earth dist.	2523 Jun 27 14:03	4°♄17'14	6.12732 AU				
morning rise	2523 Jul 09 04:27	6°♄56'43		conjunction	2530 Jan 01 19:16	11°♄03'21	0°05'26
retrograde	2523 Nov 13 05:42	25°♄51'28		minimum elong	2530 Jan 01 19:17	11°♄03'22	0°05'26
asc. node	2523 Nov 13 06:04	25°♄51'28		behind sun begin	2530 Jan 01 11:35	10°♄58'58	
opposition	2524 Jan 11 22:09	20°♄48'05	0°08'14	behind sun end	2530 Jan 02 02:59	11°♄07'45	
min. Earth dist.	2524 Jan 10 17:22	20°♄57'50	4.20011 AU	morning rise	2530 Jan 14 11:20	13°♄57'45	
direct	2524 Mar 11 09:19	15°♄47'24		desc. node	2530 Mar 01 03:23	23°♄45'23	
	2524 Jun 26 15:33	0°♄			2530 Apr 09 14:13	0°♄	
evening set	2524 Jul 16 01:32	4°♄13'45		retrograde	2530 May 20 07:21	2°♄29'34	
					2530 Jun 30 10:30	30°♄	
conjunction	2524 Jul 29 17:15	7°♄15'55	0°23'28	opposition	2530 Jul 20 00:44	27°♄35'39	-0°19'21
minimum elong	2524 Jul 29 17:13	7°♄15'54	0°23'28	min. Earth dist.	2530 Jul 21 04:32	27°♄26'42	4.15117 AU
max. Earth dist.	2524 Jul 31 02:46	7°♄34'35	6.27287 AU	direct	2530 Sep 18 20:37	22°♄39'23	
morning rise	2524 Aug 12 07:51	10°♄17'17			2530 Nov 29 15:14	0°♄	
	2524 Sep 03 02:56	15°♄		evening set	2531 Jan 22 03:50	11°♄32'08	
retrograde	2524 Dec 14 00:43	28°♄06'27					
opposition	2525 Feb 11 22:15	23°♄06'30	0°56'51	conjunction	2531 Feb 03 22:43	14°♄33'27	-0°30'46
min. Earth dist.	2525 Feb 11 09:18	23°♄10'49	4.33788 AU	minimum elong	2531 Feb 03 22:42	14°♄33'26	0°30'46
direct	2525 Apr 13 17:54	18°♄04'09		max. Earth dist.	2531 Feb 02 20:12	14°♄17'45	6.08137 AU
	2525 Jul 21 04:01	0°♄			2531 Feb 05 19:32	15°♄	
evening set	2525 Aug 18 12:41	5°♄57'10		morning rise	2531 Feb 16 18:46	17°♄35'39	
					2531 Apr 15 09:20	0°♄	
conjunction	2525 Aug 31 21:58	8°♄51'42	0°51'26	retrograde	2531 Jun 26 04:13	7°♄16'42	
minimum elong	2525 Aug 31 21:56	8°♄51'41	0°51'26	opposition	2531 Aug 25 13:43	2°♄19'39	-1°09'20
max. Earth dist.	2525 Sep 01 02:59	8°♄54'25	6.39223 AU	min. Earth dist.	2531 Aug 25 21:17	2°♄17'11	4.02029 AU
morning rise	2525 Sep 14 05:02	11°♄44'57			2531 Sep 13 02:11	30°♄	
retrograde	2526 Jan 13 10:11	28°♄48'17		direct	2531 Oct 23 21:44	27°♄25'28	
opposition	2526 Mar 14 16:02	23°♄51'58	1°26'45		2531 Dec 03 00:08	0°♄	
min. Earth dist.	2526 Mar 14 21:26	23°♄50'12	4.43152 AU	evening set	2532 Feb 26 07:06	16°♄54'15	
direct	2526 May 15 15:02	18°♄49'06					
	2526 Aug 19 11:55	0°♄		conjunction	2532 Mar 10 07:18	20°♄02'37	-0°57'22
evening set	2526 Sep 19 07:26	6°♄22'22		minimum elong	2532 Mar 10 07:17	20°♄02'36	0°57'23
				max. Earth dist.	2532 Mar 10 11:41	20°♄05'16	5.97528 AU
conjunction	2526 Oct 02 09:31	9°♄11'33	1°04'07	morning rise	2532 Mar 23 10:08	23°♄12'31	
minimum elong	2526 Oct 02 09:30	9°♄11'33	1°04'06		2532 Apr 21 13:40	0°♄	
max. Earth dist.	2526 Oct 01 12:22	9°♄00'07	6.45293 AU	retrograde	2532 Aug 02 09:40	13°♄44'56	
morning rise	2526 Oct 15 08:38	11°♄59'20		opposition	2532 Oct 01 08:48	8°♄43'55	-1°35'04
retrograde	2527 Feb 12 11:50	28°♄43'43		min. Earth dist.	2532 Sep 30 17:46	8°♄48'57	3.95118 AU
opposition	2527 Apr 14 02:00	23°♄50'17	1°32'39	direct	2532 Nov 28 13:53	3°♄50'10	
min. Earth dist.	2527 Apr 15 00:17	23°♄43'07	4.45686 AU	evening set	2533 Apr 03 05:15	23°♄35'43	
direct	2527 Jun 15 16:51	18°♄48'02					
	2527 Sep 19 19:28	0°♄		conjunction	2533 Apr 16 13:24	26°♄48'55	-1°02'24
evening set	2527 Oct 20 01:49	6°♄18'03		minimum elong	2533 Apr 16 13:25	26°♄48'55	1°02'24
max. Earth dist.	2527 Oct 31 03:23	8°♄42'12	6.44031 AU	max. Earth dist.	2533 Apr 18 02:59	27°♄11'38	5.94934 AU
					2533 Apr 29 18:22	0°♄	
conjunction	2527 Nov 01 21:54	9°♄05'22	0°59'22	morning rise	2533 Apr 30 00:29	0°♄03'40	
minimum elong	2527 Nov 01 21:55	9°♄05'23	0°59'22		2533 Jul 09 06:38	15°♄	
morning rise	2527 Nov 14 15:37	11°♄51'36		retrograde	2533 Sep 09 07:08	20°♄41'41	
	2527 Nov 29 07:52	15°♄		opposition	2533 Nov 07 22:09	15°♄37'31	-1°22'55
retrograde	2528 Mar 14 07:11	28°♄45'40		min. Earth dist.	2533 Nov 06 15:01	15°♄48'05	3.97263 AU
opposition	2528 May 14 02:21	23°♄53'39	1°13'56		2533 Nov 12 12:55	15°♄	
min. Earth dist.	2528 May 15 12:56	23°♄42'37	4.40748 AU	direct	2534 Jan 04 19:20	10°♄42'06	
direct	2528 Jul 15 18:54	18°♄52'45			2534 Feb 25 18:46	15°♄	

	2534 May 09 16:41	0°♐		2539 Aug 31 18:23	0°♍
evening set	2534 May 10 20:03	0°♐16'06	evening set	2539 Oct 24 07:57	10°♍36'14
			max. Earth dist.	2539 Nov 04 08:43	13°♍00'02 6.43855 AU
conjunction	2534 May 24 11:19	3°♐29'34 -0°42'52			
minimum elong	2534 May 24 11:22	3°♐29'35 0°42'51	conjunction	2539 Nov 06 03:29	13°♍23'22 0°57'20
max. Earth dist.	2534 May 26 17:45	4°♐01'46 6.01523 AU	minimum elong	2539 Nov 06 03:31	13°♍23'22 0°57'20
morning rise	2534 Jun 07 05:07	6°♐44'05		2539 Nov 13 12:43	15°♍
retrograde	2534 Oct 15 06:08	26°♐38'17	morning rise	2539 Nov 18 20:23	16°♍09'23
min. Earth dist.	2534 Dec 12 08:23	21°♐45'29 4.07516 AU		2540 Feb 01 20:18	0°♌
opposition	2534 Dec 13 20:00	21°♐33'20 -0°39'06	retrograde	2540 Mar 18 13:41	3°♌04'56
direct	2535 Feb 10 06:36	16°♐34'59		2540 May 04 02:36	30°♌♍
	2535 May 22 14:29	0°♌	opposition	2540 May 18 11:08	28°♌12'57 1°09'31
evening set	2535 Jun 16 17:35	5°♌36'01	min. Earth dist.	2540 May 19 22:01	28°♌01'50 4.40149 AU
			direct	2540 Jul 20 02:50	23°♌12'18
conjunction	2535 Jun 30 11:38	8°♌44'47 -0°07'59		2540 Sep 29 15:06	0°♌
minimum elong	2535 Jun 30 11:39	8°♌44'48 0°07'58	evening set	2540 Nov 22 22:30	10°♌57'35
behind sun begin	2535 Jun 30 04:12	8°♌40'33	max. Earth dist.	2540 Dec 03 11:05	13°♌18'04 6.34749 AU
behind sun end	2535 Jun 30 19:05	8°♌49'02			
max. Earth dist.	2535 Jul 02 14:30	9°♌13'56 6.14517 AU	conjunction	2540 Dec 05 15:00	13°♌47'03 0°34'22
morning rise	2535 Jul 14 06:14	11°♌53'33	minimum elong	2540 Dec 05 15:01	13°♌47'04 0°34'22
asc. node	2535 Sep 22 15:38	25°♌57'13	morning rise	2540 Dec 18 06:06	16°♌36'01
	2535 Oct 28 18:10	0°♏		2541 Feb 25 06:30	0°♎
retrograde	2535 Nov 17 21:13	0°♏39'24	retrograde	2541 Apr 20 04:29	4°♎12'31
	2535 Dec 07 18:54	30°♏♌		2541 Jun 14 20:47	30°♏♌
min. Earth dist.	2536 Jan 15 10:43	25°♌45'23 4.21846 AU	opposition	2541 Jun 20 02:07	29°♌20'09 0°27'03
opposition	2536 Jan 16 13:12	25°♌36'27 0°15'53	min. Earth dist.	2541 Jun 21 14:55	29°♌08'24 4.28187 AU
direct	2536 Mar 16 05:05	20°♌35'30	direct	2541 Aug 21 00:41	24°♌21'36
	2536 Jun 08 03:21	0°♏		2541 Oct 23 09:11	0°♎
evening set	2536 Jul 20 22:03	8°♏57'19	evening set	2541 Dec 24 10:57	12°♎38'43
			max. Earth dist.	2542 Jan 04 06:30	15°♎07'46 6.20896 AU
conjunction	2536 Aug 03 13:03	11°♏58'26 0°28'11			
minimum elong	2536 Aug 03 13:01	11°♏58'25 0°28'10	conjunction	2542 Jan 06 03:34	15°♎33'44 0°00'28
max. Earth dist.	2536 Aug 04 19:34	12°♏15'22 6.29044 AU	minimum elong	2542 Jan 06 03:32	15°♎33'43 0°00'28
morning rise	2536 Aug 17 02:47	14°♏58'41	behind sun begin	2542 Jan 05 19:34	15°♎29'09
	2536 Aug 17 05:12	15°♏	behind sun end	2542 Jan 06 11:31	15°♎38'17
	2536 Nov 06 13:28	0°♐	desc. node	2542 Jan 11 01:30	16°♎41'43
retrograde	2536 Dec 18 08:31	2°♐40'24	morning rise	2542 Jan 18 19:50	18°♎28'53
	2537 Jan 29 04:07	30°♐♏		2542 Mar 14 12:56	0°♐
opposition	2537 Feb 16 08:13	27°♏40'57 1°02'25	retrograde	2542 May 25 01:27	7°♐08'50
min. Earth dist.	2537 Feb 15 20:42	27°♏44'47 4.35378 AU	opposition	2542 Jul 24 19:22	2°♐14'34 -0°26'39
direct	2537 Apr 18 07:28	22°♏38'29	min. Earth dist.	2542 Jul 25 21:06	2°♐06'16 4.13350 AU
	2537 Jul 01 17:47	0°♐		2542 Aug 11 20:31	30°♐♎
evening set	2537 Aug 23 03:11	10°♐27'52	direct	2542 Sep 23 10:12	27°♎18'35
				2542 Nov 04 05:21	0°♐
conjunction	2537 Sep 05 11:28	13°♐21'26 0°54'15		2543 Jan 21 07:45	15°♐
minimum elong	2537 Sep 05 11:26	13°♐21'25 0°54'15	evening set	2543 Jan 26 17:48	16°♐16'22
max. Earth dist.	2537 Sep 05 13:41	13°♐22'39 6.40564 AU			
morning rise	2537 Sep 18 17:16	16°♐13'40	conjunction	2543 Feb 08 13:07	19°♐18'39 -0°35'10
	2537 Dec 02 07:39	0°♑	minimum elong	2543 Feb 08 13:05	19°♐18'38 0°35'09
retrograde	2538 Jan 17 16:24	3°♑12'09	max. Earth dist.	2543 Feb 07 12:51	19°♐04'13 6.06369 AU
	2538 Mar 05 10:05	30°♐♐	morning rise	2543 Feb 21 09:56	22°♐21'57
opposition	2538 Mar 18 23:36	28°♐16'19 1°29'04		2543 Mar 26 22:33	0°♐
min. Earth dist.	2538 Mar 19 07:14	28°♐13'49 4.44186 AU	retrograde	2543 Jul 01 06:41	12°♐12'04
direct	2538 May 20 02:23	23°♐13'32	opposition	2543 Aug 30 14:00	7°♐14'31 -1°14'37
	2538 Jul 31 00:04	0°♑	min. Earth dist.	2543 Aug 30 19:41	7°♐12'39 4.00418 AU
evening set	2538 Sep 23 16:48	10°♑44'13	direct	2543 Oct 28 18:18	2°♐20'26
			evening set	2544 Mar 02 04:12	21°♐54'17
conjunction	2538 Oct 06 17:45	13°♑32'43 1°04'30			
minimum elong	2538 Oct 06 17:45	13°♑32'43 1°04'30	conjunction	2544 Mar 15 05:36	25°♐03'44 -0°59'29
max. Earth dist.	2538 Oct 05 16:49	13°♑19'16 6.45943 AU	minimum elong	2544 Mar 15 05:34	25°♐03'43 0°59'29
morning rise	2538 Oct 19 16:00	16°♑19'54	max. Earth dist.	2544 Mar 15 14:35	25°♐09'11 5.96237 AU
	2539 Jan 02 09:50	0°♒	morning rise	2544 Mar 28 09:30	28°♐14'44
retrograde	2539 Feb 16 17:41	3°♒02'30		2544 Apr 07 17:25	0°♑
	2539 Apr 03 14:48	30°♐♑	retrograde	2544 Aug 07 15:49	18°♑53'04
opposition	2539 Apr 18 09:09	28°♑09'16 1°31'26	opposition	2544 Oct 06 12:17	13°♑51'38 -1°35'43
min. Earth dist.	2539 Apr 19 09:21	28°♑01'29 4.45933 AU	min. Earth dist.	2544 Oct 05 19:16	13°♑57'21 3.94313 AU
direct	2539 Jun 20 02:07	23°♑07'07	direct	2544 Dec 03 14:03	8°♑57'51

evening set	2545 Apr 08 08:32	28° $\Upsilon$ 46'00	direct	2550 May 24 12:21	27° $\mathfrak{M}$ 37'44	
	2545 Apr 13 11:25	0° $\mathcal{B}$		2550 Jul 04 08:22	0° $\mathfrak{L}$	
conjunction	2545 Apr 21 17:47	1° $\mathcal{B}$ 59'52 -1°01'03	evening set	2550 Sep 28 01:55	15° $\mathfrak{L}$ 06'34	
minimum elong	2545 Apr 21 17:48	1° $\mathcal{B}$ 59'53 1°01'03	max. Earth dist.	2550 Oct 09 22:41	17° $\mathfrak{L}$ 39'50	6.46280 AU
max. Earth dist.	2545 Apr 23 09:19	2° $\mathcal{B}$ 23'45 5.94680 AU	conjunction	2550 Oct 11 01:58	17° $\mathfrak{L}$ 54'34	1°04'30
morning rise	2545 May 05 06:17	5° $\mathcal{B}$ 15'21	minimum elong	2550 Oct 11 01:58	17° $\mathfrak{L}$ 54'34	1°04'31
	2545 Jun 17 03:10	15° $\mathcal{B}$	morning rise	2550 Oct 23 23:12	20° $\mathfrak{L}$ 41'14	
retrograde	2545 Sep 14 09:55	25° $\mathcal{B}$ 52'50		2550 Dec 09 10:23	0° $\mathfrak{M}$	
min. Earth dist.	2545 Nov 11 14:59	20° $\mathcal{B}$ 59'45 3.97597 AU	retrograde	2551 Feb 21 00:18	7° $\mathfrak{M}$ 23'21	
opposition	2545 Nov 13 00:19	20° $\mathcal{B}$ 48'25 -1°18'23	opposition	2551 Apr 22 17:05	2° $\mathfrak{M}$ 30'25	1°29'43
direct	2546 Jan 09 20:52	15° $\mathcal{B}$ 52'39	min. Earth dist.	2551 Apr 23 19:33	2° $\mathfrak{M}$ 21'57	4.45720 AU
	2546 Apr 22 11:27	0° $\mathfrak{I}$		2551 May 13 05:06	30° $\mathcal{R}$ $\mathfrak{L}$	
evening set	2546 May 16 01:24	5° $\mathfrak{I}$ 25'45	direct	2551 Jun 24 11:51	27° $\mathfrak{L}$ 28'27	
				2551 Aug 05 18:44	0° $\mathfrak{M}$	
conjunction	2546 May 29 17:37	8° $\mathfrak{I}$ 39'13 -0°38'34	evening set	2551 Oct 28 15:03	14° $\mathfrak{M}$ 58'16	
minimum elong	2546 May 29 17:39	8° $\mathfrak{I}$ 39'14 0°38'35		2551 Oct 28 18:16	15° $\mathfrak{M}$	
max. Earth dist.	2546 Jun 01 01:34	9° $\mathfrak{I}$ 12'15 6.02431 AU	max. Earth dist.	2551 Nov 08 11:35	17° $\mathfrak{M}$ 20'08	6.43085 AU
morning rise	2546 Jun 12 11:56	11° $\mathfrak{I}$ 53'33				
	2546 Sep 17 16:42	0° $\mathfrak{E}$	conjunction	2551 Nov 10 09:52	17° $\mathfrak{M}$ 45'26	0°54'57
retrograde	2546 Oct 20 04:43	1° $\mathfrak{E}$ 41'22	minimum elong	2551 Nov 10 09:54	17° $\mathfrak{M}$ 45'26	0°54'56
	2546 Nov 21 09:28	30° $\mathcal{R}$ $\mathfrak{I}$	morning rise	2551 Nov 23 02:28	20° $\mathfrak{M}$ 31'37	
min. Earth dist.	2546 Dec 17 06:45	26° $\mathfrak{I}$ 48'19 4.08865 AU		2552 Jan 08 18:52	0° $\mathcal{J}$	
opposition	2546 Dec 18 17:24	26° $\mathfrak{I}$ 36'30 -0°31'31	retrograde	2552 Mar 23 01:07	7° $\mathcal{J}$ 31'01	
direct	2547 Feb 15 07:30	21° $\mathfrak{I}$ 37'46	opposition	2552 May 22 22:51	2° $\mathcal{J}$ 39'01	1°04'35
	2547 May 03 02:18	0° $\mathfrak{E}$	min. Earth dist.	2552 May 24 10:57	2° $\mathcal{J}$ 27'31	4.38854 AU
evening set	2547 Jun 21 20:12	10° $\mathfrak{E}$ 35'02		2552 Jun 13 21:41	30° $\mathcal{R}$ $\mathfrak{M}$	
			direct	2552 Jul 24 13:36	27° $\mathfrak{M}$ 38'34	
conjunction	2547 Jul 05 14:16	13° $\mathfrak{E}$ 43'04 -0°02'38		2552 Sep 03 00:27	0° $\mathcal{J}$	
minimum elong	2547 Jul 05 14:16	13° $\mathfrak{E}$ 43'04 0°02'37	evening set	2552 Nov 27 07:00	15° $\mathcal{J}$ 27'17	
behind sun begin	2547 Jul 05 05:54	13° $\mathfrak{E}$ 38'19	max. Earth dist.	2552 Dec 07 20:16	17° $\mathcal{J}$ 48'40	6.33032 AU
behind sun end	2547 Jul 05 22:38	13° $\mathfrak{E}$ 47'49				
max. Earth dist.	2547 Jul 07 16:43	14° $\mathfrak{E}$ 11'50 6.16196 AU	conjunction	2552 Dec 09 23:29	18° $\mathcal{J}$ 17'22	0°30'04
morning rise	2547 Jul 19 08:35	16° $\mathfrak{E}$ 50'56	minimum elong	2552 Dec 09 23:31	18° $\mathcal{J}$ 17'23	0°30'04
asc. node	2547 Aug 01 20:01	19° $\mathfrak{E}$ 51'41	morning rise	2552 Dec 22 14:25	21° $\mathcal{J}$ 07'00	
	2547 Sep 22 09:22	0° $\mathcal{Q}$		2553 Feb 02 18:27	0° $\mathfrak{Z}$	
retrograde	2547 Nov 22 10:42	5° $\mathcal{Q}$ 28'00	retrograde	2553 Apr 24 21:46	8° $\mathfrak{Z}$ 51'14	
min. Earth dist.	2548 Jan 20 02:17	0° $\mathcal{Q}$ 34'13 4.23678 AU	opposition	2553 Jun 24 20:00	3° $\mathfrak{Z}$ 58'42	0°19'50
opposition	2548 Jan 21 04:26	0° $\mathcal{Q}$ 25'24 0°23'23	min. Earth dist.	2553 Jun 26 07:52	3° $\mathfrak{Z}$ 47'16	4.26149 AU
	2548 Jan 24 07:56	30° $\mathcal{R}$ $\mathfrak{E}$		2553 Jul 31 01:55	30° $\mathcal{R}$ $\mathcal{J}$	
direct	2548 Mar 20 23:35	25° $\mathfrak{E}$ 24'10	direct	2553 Aug 25 14:36	29° $\mathcal{J}$ 00'31	
	2548 May 16 06:20	0° $\mathcal{Q}$		2553 Sep 20 01:59	0° $\mathfrak{Z}$	
evening set	2548 Jul 25 18:37	13° $\mathcal{Q}$ 41'12	desc. node	2553 Nov 20 09:07	8° $\mathfrak{Z}$ 58'22	
	2548 Jul 31 17:43	15° $\mathcal{Q}$	evening set	2553 Dec 29 00:40	17° $\mathfrak{Z}$ 23'14	
			max. Earth dist.	2554 Jan 08 21:20	19° $\mathfrak{Z}$ 53'43	6.18702 AU
conjunction	2548 Aug 08 08:45	16° $\mathcal{Q}$ 41'12 0°32'41				
minimum elong	2548 Aug 08 08:43	16° $\mathcal{Q}$ 41'11 0°32'42	conjunction	2554 Jan 10 17:20	20° $\mathfrak{Z}$ 19'12	-0°04'49
max. Earth dist.	2548 Aug 09 11:27	16° $\mathcal{Q}$ 55'57 6.30868 AU	minimum elong	2554 Jan 10 17:20	20° $\mathfrak{Z}$ 19'12	0°04'49
morning rise	2548 Aug 21 21:32	19° $\mathcal{Q}$ 40'14	behind sun begin	2554 Jan 10 09:32	20° $\mathfrak{Z}$ 14'42	
	2548 Oct 11 17:24	0° $\mathfrak{M}$	behind sun end	2554 Jan 11 01:08	20° $\mathfrak{Z}$ 23'41	
retrograde	2548 Dec 22 18:28	7° $\mathfrak{M}$ 14'21	morning rise	2554 Jan 23 10:12	23° $\mathfrak{Z}$ 15'30	
opposition	2549 Feb 20 18:36	2° $\mathfrak{M}$ 15'21 1°07'35		2554 Feb 22 15:56	0° $\mathfrak{N}$	
min. Earth dist.	2549 Feb 20 10:08	2° $\mathfrak{M}$ 18'10 4.37018 AU	retrograde	2554 May 30 05:13	12° $\mathfrak{N}$ 05'49	
	2549 Mar 10 11:25	30° $\mathcal{R}$ $\mathcal{Q}$	opposition	2554 Jul 29 21:06	7° $\mathfrak{N}$ 11'09	-0°34'17
direct	2549 Apr 22 23:28	27° $\mathcal{Q}$ 12'45	min. Earth dist.	2554 Jul 30 20:52	7° $\mathfrak{N}$ 03'27	4.11157 AU
	2549 Jun 05 19:55	0° $\mathfrak{M}$	direct	2554 Sep 28 07:29	2° $\mathfrak{N}$ 15'24	
evening set	2549 Aug 27 17:06	14° $\mathfrak{M}$ 58'06		2555 Jan 04 02:08	15° $\mathfrak{N}$	
			evening set	2555 Jan 31 14:45	21° $\mathfrak{N}$ 19'32	
conjunction	2549 Sep 10 00:21	17° $\mathfrak{M}$ 50'43 0°56'44				
minimum elong	2549 Sep 10 00:19	17° $\mathfrak{M}$ 50'42 0°56'43	conjunction	2555 Feb 13 10:56	24° $\mathfrak{N}$ 23'00	-0°39'37
max. Earth dist.	2549 Sep 09 23:08	17° $\mathfrak{M}$ 50'03 6.41855 AU	minimum elong	2555 Feb 13 10:54	24° $\mathfrak{N}$ 22'59	0°39'37
morning rise	2549 Sep 23 04:58	20° $\mathfrak{M}$ 41'58	max. Earth dist.	2555 Feb 12 15:25	24° $\mathfrak{N}$ 11'21	6.04391 AU
	2549 Nov 08 09:42	0° $\mathfrak{L}$	morning rise	2555 Feb 26 08:31	27° $\mathfrak{N}$ 27'32	
retrograde	2550 Jan 21 21:24	7° $\mathfrak{L}$ 35'59		2555 Mar 09 03:38	0° $\mathcal{H}$	
opposition	2550 Mar 23 07:03	2° $\mathfrak{L}$ 40'31 1°30'53	retrograde	2555 Jul 06 17:05	17° $\mathcal{H}$ 27'13	
min. Earth dist.	2550 Mar 23 16:33	2° $\mathfrak{L}$ 37'25 4.45041 AU	opposition	2555 Sep 04 22:11	12° $\mathcal{H}$ 29'11	-1°19'42
	2550 Apr 14 01:13	30° $\mathcal{R}$ $\mathfrak{M}$	min. Earth dist.	2555 Sep 05 00:46	12° $\mathcal{H}$ 28'20	3.98879 AU



direct	2555 Nov 02 21:00	7° $\text{H}$ 35'19		conjunction	2561 Sep 14 09:42	22° $\text{H}$ 11'14	0°58'49
evening set	2556 Mar 07 09:01	27° $\text{H}$ 13'29		minimum elong	2561 Sep 14 09:40	22° $\text{H}$ 11'13	0°58'49
	2556 Mar 18 20:00	0° $\text{Y}$		max. Earth dist.	2561 Sep 14 03:14	22° $\text{H}$ 07'44	6.43030 AU
				morning rise	2561 Sep 27 13:16	25° $\text{H}$ 01'35	
conjunction	2556 Mar 20 11:17	0° $\text{Y}$ 23'50	-1°01'15		2561 Oct 21 06:21	0° $\text{A}$	
minimum elong	2556 Mar 20 11:16	0° $\text{Y}$ 23'50	1°01'15	retrograde	2562 Jan 26 02:15	11° $\text{A}$ 52'00	
max. Earth dist.	2556 Mar 20 23:56	0° $\text{Y}$ 31'31	5.95280 AU	opposition	2562 Mar 27 12:09	6° $\text{A}$ 57'00	1°32'10
morning rise	2556 Apr 02 16:33	3° $\text{Y}$ 35'50		min. Earth dist.	2562 Mar 28 01:28	6° $\text{A}$ 52'41	4.45619 AU
retrograde	2556 Aug 13 01:50	24° $\text{Y}$ 17'59		direct	2562 May 28 21:21	1° $\text{A}$ 54'16	
opposition	2556 Oct 11 21:58	19° $\text{Y}$ 16'01	-1°35'36	evening set	2562 Oct 02 08:15	19° $\text{A}$ 22'14	
min. Earth dist.	2556 Oct 11 01:02	19° $\text{Y}$ 23'04	3.94095 AU	max. Earth dist.	2562 Oct 14 00:14	21° $\text{A}$ 53'03	6.46196 AU
direct	2556 Dec 08 21:16	14° $\text{Y}$ 22'04					
	2557 Mar 27 02:48	0° $\text{B}$		conjunction	2562 Oct 15 07:31	22° $\text{A}$ 09'57	1°04'11
evening set	2557 Apr 13 17:39	4° $\text{B}$ 10'07		minimum elong	2562 Oct 15 07:31	22° $\text{A}$ 09'57	1°04'11
				morning rise	2562 Oct 28 03:57	24° $\text{A}$ 56'21	
conjunction	2557 Apr 27 04:09	7° $\text{B}$ 24'17	-0°59'10		2562 Nov 21 07:34	0° $\text{M}$	
minimum elong	2557 Apr 27 04:11	7° $\text{B}$ 24'18	0°59'10	retrograde	2563 Feb 25 05:36	11° $\text{M}$ 39'40	
max. Earth dist.	2557 Apr 29 00:33	7° $\text{B}$ 51'04	5.95242 AU	opposition	2563 Apr 26 23:45	6° $\text{M}$ 46'57	1°27'35
morning rise	2557 May 10 17:34	10° $\text{B}$ 39'56		min. Earth dist.	2563 Apr 28 03:48	6° $\text{M}$ 37'58	4.45001 AU
	2557 May 29 03:46	15° $\text{B}$		direct	2563 Jun 28 18:01	1° $\text{M}$ 45'08	
	2557 Aug 23 07:12	0° $\text{II}$			2563 Oct 12 17:16	15° $\text{M}$	
retrograde	2557 Sep 19 16:28	1° $\text{II}$ 12'44		evening set	2563 Nov 01 21:07	19° $\text{M}$ 17'24	
	2557 Oct 16 19:24	30° $\text{R}$ 8		max. Earth dist.	2563 Nov 12 16:26	21° $\text{M}$ 39'03	6.41782 AU
min. Earth dist.	2557 Nov 16 19:49	26° $\text{B}$ 19'34	3.98876 AU				
opposition	2557 Nov 18 05:42	26° $\text{B}$ 08'01	-1°13'02	conjunction	2563 Nov 14 15:33	22° $\text{M}$ 04'54	0°52'18
direct	2558 Jan 15 04:24	21° $\text{B}$ 11'51		minimum elong	2563 Nov 14 15:35	22° $\text{M}$ 04'55	0°52'18
	2558 Apr 02 20:03	0° $\text{II}$		morning rise	2563 Nov 27 07:40	24° $\text{M}$ 51'27	
evening set	2558 May 21 08:59	10° $\text{II}$ 40'07			2563 Dec 21 11:34	0° $\text{X}$	
				retrograde	2564 Mar 27 12:57	11° $\text{X}$ 56'32	
conjunction	2558 Jun 04 01:48	13° $\text{II}$ 52'59	-0°33'56	opposition	2564 May 27 10:41	7° $\text{X}$ 04'39	0°59'19
minimum elong	2558 Jun 04 01:50	13° $\text{II}$ 53'00	0°33'57	min. Earth dist.	2564 May 28 23:54	6° $\text{X}$ 52'48	4.37039 AU
max. Earth dist.	2558 Jun 06 11:28	14° $\text{II}$ 26'51	6.04300 AU	direct	2564 Jul 28 23:34	2° $\text{X}$ 04'32	
morning rise	2558 Jun 17 20:28	17° $\text{II}$ 06'34		evening set	2564 Dec 01 16:26	19° $\text{X}$ 58'31	
	2558 Aug 17 20:25	0° $\text{E}$		max. Earth dist.	2564 Dec 12 04:18	22° $\text{X}$ 19'54	6.30843 AU
retrograde	2558 Oct 25 00:31	6° $\text{E}$ 43'53					
min. Earth dist.	2558 Dec 22 03:30	1° $\text{E}$ 51'06	4.11117 AU	conjunction	2564 Dec 14 08:44	22° $\text{X}$ 49'26	0°25'35
opposition	2558 Dec 23 14:33	1° $\text{E}$ 39'10	-0°23'43	minimum elong	2564 Dec 14 08:45	22° $\text{X}$ 49'27	0°25'35
	2559 Jan 05 00:07	30° $\text{R}$ II		morning rise	2564 Dec 26 23:59	25° $\text{X}$ 40'03	
direct	2559 Feb 20 07:29	26° $\text{II}$ 40'01			2565 Jan 15 16:17	0° $\text{Z}$	
	2559 Apr 07 16:47	0° $\text{E}$		retrograde	2565 Apr 29 19:00	13° $\text{Z}$ 33'53	
asc. node	2559 Jun 11 09:06	12° $\text{E}$ 02'41		opposition	2565 Jun 29 15:58	8° $\text{Z}$ 41'11	0°12'25
evening set	2559 Jun 26 21:29	15° $\text{E}$ 30'19		min. Earth dist.	2565 Jul 01 02:37	8° $\text{Z}$ 30'05	4.23725 AU
				direct	2565 Aug 30 06:07	3° $\text{Z}$ 43'21	
conjunction	2559 Jul 10 15:06	18° $\text{E}$ 37'05	0°02'48	desc. node	2565 Sep 29 15:33	5° $\text{Z}$ 07'58	
minimum elong	2559 Jul 10 15:06	18° $\text{E}$ 37'05	0°02'48	evening set	2566 Jan 02 16:19	22° $\text{Z}$ 13'02	
behind sun begin	2559 Jul 10 06:45	18° $\text{E}$ 32'23		max. Earth dist.	2566 Jan 13 17:33	24° $\text{Z}$ 46'56	6.16268 AU
behind sun end	2559 Jul 10 23:26	18° $\text{E}$ 41'48					
max. Earth dist.	2559 Jul 12 13:54	19° $\text{E}$ 03'38	6.18620 AU	conjunction	2566 Jan 15 09:32	25° $\text{Z}$ 10'12	-0°10'01
morning rise	2559 Jul 24 08:55	21° $\text{E}$ 43'36		minimum elong	2566 Jan 15 09:31	25° $\text{Z}$ 10'12	0°10'01
	2559 Aug 31 23:01	0° $\text{Q}$		behind sun begin	2566 Jan 15 03:00	25° $\text{Z}$ 06'25	
retrograde	2559 Nov 26 22:59	10° $\text{Q}$ 09'45		behind sun end	2566 Jan 15 16:01	25° $\text{Z}$ 13'58	
opposition	2560 Jan 25 17:26	5° $\text{Q}$ 07'34	0°30'32	morning rise	2566 Jan 28 02:48	28° $\text{Z}$ 07'45	
min. Earth dist.	2560 Jan 24 18:15	5° $\text{Q}$ 15'22	4.26039 AU		2566 Feb 05 05:49	0° $\text{R}$	
direct	2560 Mar 25 18:56	0° $\text{Q}$ 06'00			2566 Apr 27 20:30	15° $\text{R}$	
	2560 Jul 15 07:46	15° $\text{Q}$		retrograde	2566 Jun 04 11:47	17° $\text{R}$ 09'19	
evening set	2560 Jul 30 11:51	18° $\text{Q}$ 16'45			2566 Jul 12 08:46	15° $\text{R}$ 00	
				opposition	2566 Aug 04 01:38	12° $\text{R}$ 14'19	-0°41'47
conjunction	2560 Aug 13 01:12	21° $\text{Q}$ 15'29	0°36'52	min. Earth dist.	2566 Aug 04 22:43	12° $\text{R}$ 07'29	4.08930 AU
minimum elong	2560 Aug 13 01:10	21° $\text{Q}$ 15'28	0°36'52	direct	2566 Oct 03 06:11	7° $\text{R}$ 19'02	
max. Earth dist.	2560 Aug 14 01:05	21° $\text{Q}$ 28'38	6.32975 AU		2566 Dec 15 04:03	15° $\text{R}$	
morning rise	2560 Aug 26 12:44	24° $\text{Q}$ 13'09		evening set	2567 Feb 05 14:47	26° $\text{R}$ 29'31	
	2560 Sep 22 18:49	0° $\text{H}$					
retrograde	2560 Dec 26 23:04	11° $\text{H}$ 39'15		conjunction	2567 Feb 18 11:32	29° $\text{R}$ 34'06	-0°43'49
opposition	2561 Feb 25 01:35	6° $\text{H}$ 40'47	1°12'11	minimum elong	2567 Feb 18 11:29	29° $\text{R}$ 34'04	0°43'49
min. Earth dist.	2561 Feb 24 19:05	6° $\text{H}$ 42'56	4.38729 AU	max. Earth dist.	2567 Feb 17 19:40	29° $\text{R}$ 24'36	6.02572 AU
direct	2561 Apr 27 09:50	1° $\text{H}$ 38'04			2567 Feb 20 06:45	0° $\text{H}$	
evening set	2561 Sep 01 03:38	19° $\text{H}$ 19'32		morning rise	2567 Mar 03 10:14	2° $\text{H}$ 39'54	

retrograde	2567 Jul 12 03:13	22°  48'11	evening set	2573 Sep 05 13:59	23°  42'11	
opposition	2567 Sep 10 08:10	17°  49'34 -1°24'10				
min. Earth dist.	2567 Sep 10 06:07	17°  50'15 3.97678 AU	conjunction	2573 Sep 18 19:13	26°  33'10 1°00'36	
direct	2567 Nov 08 02:22	12°  55'51	minimum elong	2573 Sep 18 19:11	26°  33'10 1°00'36	
	2568 Mar 01 17:19	0°  Y	max. Earth dist.	2573 Sep 18 09:48	26°  28'05 6.43838 AU	
evening set	2568 Mar 12 15:42	2°  Y36'58	morning rise	2573 Oct 01 21:34	29°  22'45	
				2573 Oct 04 19:06	0°  A	
conjunction	2568 Mar 25 19:12	5°  Y48'04 -1°02'31	retrograde	2574 Jan 30 06:10	16°  A10'46	
minimum elong	2568 Mar 25 19:11	5°  Y48'03 1°02'31	opposition	2574 Mar 31 18:03	11°  A16'09 1°33'00	
max. Earth dist.	2568 Mar 26 14:29	5°  Y59'46 5.94812 AU	min. Earth dist.	2574 Apr 01 09:00	11°  A11'19 4.45869 AU	
morning rise	2568 Apr 08 01:28	9°  Y00'46	direct	2574 Jun 02 04:10	6°  A13'28	
retrograde	2568 Aug 18 13:47	29°  Y44'12	evening set	2574 Oct 06 15:48	23°  A41'27	
min. Earth dist.	2568 Oct 16 08:53	24°  Y49'26 3.94415 AU	max. Earth dist.	2574 Oct 18 03:31	26°  A10'11 6.45865 AU	
opposition	2568 Oct 17 07:47	24°  Y41'43 -1°34'37				
direct	2568 Dec 14 06:50	19°  Y47'34	conjunction	2574 Oct 19 14:11	26°  A28'57 1°03'30	
	2569 Mar 08 02:30	0°  8	minimum elong	2574 Oct 19 14:11	26°  A28'57 1°03'29	
evening set	2569 Apr 19 02:33	9°  833'27	morning rise	2574 Nov 01 09:56	29°  A15'13	
				2574 Nov 04 21:24	0°  M	
conjunction	2569 May 02 14:04	12°  847'36 -0°56'47		2575 Feb 04 00:30	15°  M	
minimum elong	2569 May 02 14:06	12°  847'37 0°56'46	retrograde	2575 Mar 01 14:36	16°  M00'23	
max. Earth dist.	2569 May 04 14:04	13°  816'27 5.96284 AU		2575 Mar 27 03:58	15°  R1M	
	2569 May 11 18:42	15°  8	opposition	2575 May 01 08:18	11°  M07'54 1°24'56	
morning rise	2569 May 16 04:32	16°  803'12	min. Earth dist.	2575 May 02 14:59	10°  M58'05 4.44113 AU	
	2569 Jul 20 05:12	0°  II	direct	2575 Jul 03 03:27	6°  M06'15	
retrograde	2569 Sep 24 19:19	6°  II29'13		2575 Sep 24 20:32	15°  M	
min. Earth dist.	2569 Nov 21 21:41	1°  II36'26 4.00518 AU	evening set	2575 Nov 06 04:37	23°  M41'10	
opposition	2569 Nov 23 09:13	1°  II24'20 -1°07'08	max. Earth dist.	2575 Nov 16 21:13	26°  M01'51 6.40395 AU	
	2569 Dec 03 20:36	30°  R8				
direct	2570 Jan 20 08:39	26°  827'48	conjunction	2575 Nov 18 22:40	26°  M29'03 0°49'17	
	2570 Mar 08 10:45	0°  II	minimum elong	2575 Nov 18 22:41	26°  M29'04 0°49'18	
evening set	2570 May 26 14:59	15°  II50'22	morning rise	2575 Dec 01 14:35	29°  M16'04	
				2575 Dec 04 23:01	0°  A	
conjunction	2570 Jun 09 08:06	19°  II02'27 -0°29'05	retrograde	2576 Apr 01 02:44	16°  A27'07	
minimum elong	2570 Jun 09 08:08	19°  II02'28 0°29'05	opposition	2576 Jun 01 00:48	11°  A35'11 0°53'35	
max. Earth dist.	2570 Jun 11 16:09	19°  II35'11 6.06371 AU	min. Earth dist.	2576 Jun 02 13:34	11°  A23'28 4.35246 AU	
morning rise	2570 Jun 23 03:04	22°  II15'09	direct	2576 Aug 02 10:11	6°  A35'21	
	2570 Jul 27 22:56	0°  E	evening set	2576 Dec 06 03:18	24°  A34'12	
retrograde	2570 Oct 29 18:48	11°  E41'48	max. Earth dist.	2576 Dec 16 17:39	26°  A57'38 6.28808 AU	
min. Earth dist.	2570 Dec 27 00:11	6°  E48'38 4.13381 AU				
opposition	2570 Dec 28 09:27	6°  E37'19 -0°15'51	conjunction	2576 Dec 18 19:39	27°  A25'57 0°20'51	
direct	2571 Feb 25 07:52	1°  E37'44	minimum elong	2576 Dec 18 19:40	27°  A25'57 0°20'50	
asc. node	2571 Apr 20 21:10	6°  E06'43		2576 Dec 30 03:59	0°  E	
evening set	2571 Jul 01 20:50	20°  E21'33	morning rise	2576 Dec 31 10:54	0°  E17'25	
			retrograde	2577 May 04 18:01	18°  E20'15	
conjunction	2571 Jul 15 14:16	23°  E27'12 0°08'02	opposition	2577 Jul 04 13:36	13°  E27'21 0°04'46	
minimum elong	2571 Jul 15 14:16	23°  E27'12 0°08'01	min. Earth dist.	2577 Jul 05 23:14	13°  E16'35 4.21597 AU	
behind sun begin	2571 Jul 15 06:52	23°  E23'02	desc. node	2577 Aug 08 14:52	9°  E33'50	
behind sun end	2571 Jul 15 21:40	23°  E31'21	direct	2577 Sep 03 23:45	8°  E29'57	
max. Earth dist.	2571 Jul 17 11:27	23°  E52'42 6.20909 AU	evening set	2578 Jan 07 09:17	27°  E05'20	
morning rise	2571 Jul 29 07:18	26°  E32'23	max. Earth dist.	2578 Jan 18 12:42	29°  E41'15 6.14244 AU	
	2571 Aug 13 23:38	0°  Q		2578 Jan 19 20:44	0°  A	
retrograde	2571 Dec 01 09:33	14°  Q48'33				
min. Earth dist.	2572 Jan 29 07:31	9°  Q54'04 4.28159 AU	conjunction	2578 Jan 20 02:40	0°  A03'28 -0°15'13	
opposition	2572 Jan 30 04:53	9°  Q46'54 0°37'25	minimum elong	2578 Jan 20 02:39	0°  A03'27 0°15'13	
direct	2572 Mar 30 10:25	4°  Q45'08	behind sun begin	2578 Jan 19 23:43	0°  A01'44	
	2572 Jun 27 13:45	15°  Q	behind sun end	2578 Jan 20 05:35	0°  A05'09	
evening set	2572 Aug 04 04:05	22°  Q50'41	morning rise	2578 Feb 01 20:40	3°  A02'08	
				2578 Mar 29 23:58	15°  A	
conjunction	2572 Aug 17 16:21	25°  Q48'16 0°40'49	retrograde	2578 Jun 09 16:35	22°  A13'17	
minimum elong	2572 Aug 17 16:19	25°  Q48'15 0°40'49	opposition	2578 Aug 09 06:13	17°  A17'46 -0°49'00	
max. Earth dist.	2572 Aug 18 10:25	25°  Q58'10 6.34760 AU	min. Earth dist.	2578 Aug 09 23:16	17°  A12'14 4.07202 AU	
morning rise	2572 Aug 31 02:59	28°  Q44'47		2578 Aug 27 15:45	15°  R	
	2572 Sep 05 21:46	0°  M	direct	2578 Oct 08 05:09	12°  A22'47	
retrograde	2572 Dec 31 05:59	16°  M04'17		2578 Nov 18 01:18	15°  A	
opposition	2573 Mar 01 08:44	11°  M06'20 1°16'23		2579 Feb 03 17:32	0°  H	
min. Earth dist.	2573 Mar 01 05:56	11°  M07'15 4.40076 AU	evening set	2579 Feb 10 14:17	1°  H37'42	
direct	2573 May 01 21:44	6°  M03'30				

conjunction	2579 Feb 23 11:53	4° $\text{H}$ 43'11	-0°47'39	max. Earth dist.	2584 Aug 22 20:39	0° $\text{H}$ 23'45	6.36114 AU
minimum elong	2579 Feb 23 11:51	4° $\text{H}$ 43'10	0°47'39	morning rise	2584 Sep 04 14:50	3° $\text{H}$ 10'56	
max. Earth dist.	2579 Feb 23 02:24	4° $\text{H}$ 37'29	6.01309 AU	retrograde	2585 Jan 04 10:51	20° $\text{H}$ 25'28	
morning rise	2579 Mar 08 11:19	7° $\text{H}$ 49'53		opposition	2585 Mar 05 14:26	15° $\text{H}$ 28'07	1°20'05
retrograde	2579 Jul 17 13:42	28° $\text{H}$ 04'22		min. Earth dist.	2585 Mar 05 13:45	15° $\text{H}$ 28'21	4.41009 AU
opposition	2579 Sep 15 16:27	23° $\text{H}$ 05'10	-1°27'50	direct	2585 May 06 05:55	10° $\text{H}$ 25'20	
min. Earth dist.	2579 Sep 15 11:49	23° $\text{H}$ 06'42	3.97030 AU	evening set	2585 Sep 09 23:30	28° $\text{H}$ 02'36	
direct	2579 Nov 13 08:13	18° $\text{H}$ 11'31			2585 Sep 19 01:30	0° $\text{H}$	
	2580 Feb 12 20:27	0° $\text{Y}$					
evening set	2580 Mar 17 20:10	7° $\text{Y}$ 53'27		conjunction	2585 Sep 23 03:37	0° $\text{H}$ 53'02	1°02'00
				minimum elong	2585 Sep 23 03:36	0° $\text{H}$ 53'01	1°02'00
conjunction	2580 Mar 31 00:36	11° $\text{Y}$ 05'00	-1°03'13	max. Earth dist.	2585 Sep 22 13:04	0° $\text{H}$ 45'10	6.44280 AU
minimum elong	2580 Mar 31 00:35	11° $\text{Y}$ 05'00	1°03'14	morning rise	2585 Oct 06 05:09	3° $\text{H}$ 42'06	
max. Earth dist.	2580 Apr 01 00:12	11° $\text{Y}$ 19'19	5.94817 AU	retrograde	2586 Feb 03 12:53	20° $\text{H}$ 28'57	
morning rise	2580 Apr 13 08:03	14° $\text{Y}$ 18'12		opposition	2586 Apr 05 00:09	15° $\text{H}$ 34'45	1°33'18
	2580 Jun 26 21:52	0° $\text{B}$		min. Earth dist.	2586 Apr 05 18:08	15° $\text{H}$ 28'56	4.45826 AU
retrograde	2580 Aug 23 19:34	5° $\text{B}$ 00'44		direct	2586 Jun 06 12:34	10° $\text{H}$ 32'11	
min. Earth dist.	2580 Oct 21 11:33	0° $\text{B}$ 06'34	3.95105 AU	evening set	2586 Oct 10 22:52	28° $\text{H}$ 00'55	
opposition	2580 Oct 22 13:34	29° $\text{Y}$ 57'47	-1°32'50		2586 Oct 20 03:28	0° $\text{H}$	
	2580 Oct 22 07:01	30° $\text{R}$ $\text{Y}$		max. Earth dist.	2586 Oct 22 08:27	0° $\text{H}$ 28'43	6.45340 AU
direct	2580 Dec 19 10:38	25° $\text{Y}$ 03'25					
	2581 Feb 13 08:48	0° $\text{B}$		conjunction	2586 Oct 23 20:41	0° $\text{H}$ 48'22	1°02'27
evening set	2581 Apr 24 07:58	14° $\text{B}$ 46'07		minimum elong	2586 Oct 23 20:42	0° $\text{H}$ 48'22	1°02'26
	2581 Apr 25 07:17	15° $\text{B}$		morning rise	2586 Nov 05 15:39	3° $\text{H}$ 34'34	
					2587 Jan 03 08:20	15° $\text{H}$	
conjunction	2581 May 07 20:19	18° $\text{B}$ 00'05	-0°53'59	retrograde	2587 Mar 05 22:03	20° $\text{H}$ 22'13	
minimum elong	2581 May 07 20:21	18° $\text{B}$ 00'06	0°54'00	opposition	2587 May 05 17:15	15° $\text{H}$ 29'54	1°21'46
max. Earth dist.	2581 May 09 21:20	18° $\text{B}$ 29'26	5.97562 AU	min. Earth dist.	2587 May 07 00:09	15° $\text{H}$ 20'02	4.43155 AU
morning rise	2581 May 21 11:38	21° $\text{B}$ 15'25			2587 May 09 14:58	15° $\text{R}$ $\text{H}$	
	2581 Jun 29 00:49	0° $\text{H}$		direct	2587 Jul 07 10:27	10° $\text{H}$ 28'30	
retrograde	2581 Sep 29 17:46	11° $\text{H}$ 33'58			2587 Sep 02 23:25	15° $\text{H}$	
min. Earth dist.	2581 Nov 26 20:47	6° $\text{H}$ 41'02	4.02224 AU	evening set	2587 Nov 10 12:19	28° $\text{H}$ 06'06	
opposition	2581 Nov 28 08:06	6° $\text{H}$ 28'59	-1°00'56		2587 Nov 19 03:33	0° $\text{H}$	
direct	2582 Jan 25 10:40	1° $\text{H}$ 32'00		max. Earth dist.	2587 Nov 21 04:22	0° $\text{H}$ 26'57	6.39075 AU
evening set	2582 May 31 16:40	20° $\text{H}$ 49'04					
				conjunction	2587 Nov 23 05:53	0° $\text{H}$ 54'19	0°45'59
conjunction	2582 Jun 14 10:18	24° $\text{H}$ 00'26	-0°24'12	minimum elong	2587 Nov 23 05:55	0° $\text{H}$ 54'20	0°45'59
minimum elong	2582 Jun 14 10:20	24° $\text{H}$ 00'27	0°24'12	morning rise	2587 Dec 05 21:31	3° $\text{H}$ 41'44	
max. Earth dist.	2582 Jun 16 18:40	24° $\text{H}$ 33'12	6.08359 AU	retrograde	2588 Apr 05 18:03	20° $\text{H}$ 58'27	
morning rise	2582 Jun 28 05:12	27° $\text{H}$ 12'13		opposition	2588 Jun 05 15:04	16° $\text{H}$ 06'30	0°47'31
	2582 Jul 10 11:30	0° $\text{H}$		min. Earth dist.	2588 Jun 07 04:43	15° $\text{H}$ 54'30	4.33619 AU
retrograde	2582 Nov 03 10:26	16° $\text{H}$ 28'57		direct	2588 Aug 06 22:59	11° $\text{H}$ 06'58	
min. Earth dist.	2582 Dec 31 16:42	11° $\text{H}$ 35'39	4.15441 AU	evening set	2588 Dec 10 13:53	29° $\text{H}$ 09'57	
opposition	2583 Jan 02 00:32	11° $\text{H}$ 24'51	-0°08'11		2588 Dec 14 06:31	0° $\text{H}$	
asc. node	2583 Mar 01 17:46	6° $\text{H}$ 24'59		max. Earth dist.	2588 Dec 21 04:19	1° $\text{H}$ 34'03	6.26992 AU
direct	2583 Mar 02 02:39	6° $\text{H}$ 24'58					
evening set	2583 Jul 06 16:39	25° $\text{H}$ 03'21		conjunction	2588 Dec 23 06:12	2° $\text{H}$ 02'24	0°16'01
				minimum elong	2588 Dec 23 06:12	2° $\text{H}$ 02'24	0°16'01
conjunction	2583 Jul 20 09:29	28° $\text{H}$ 07'56	0°13'01	behind sun begin	2588 Dec 23 04:47	2° $\text{H}$ 01'36	
minimum elong	2583 Jul 20 09:28	28° $\text{H}$ 07'55	0°13'02	behind sun end	2588 Dec 23 07:37	2° $\text{H}$ 03'12	
behind sun begin	2583 Jul 20 04:37	28° $\text{H}$ 05'12		morning rise	2589 Jan 04 21:42	4° $\text{H}$ 54'42	
behind sun end	2583 Jul 20 14:18	28° $\text{H}$ 10'38		retrograde	2589 May 09 14:19	23° $\text{H}$ 05'45	
max. Earth dist.	2583 Jul 22 01:59	28° $\text{H}$ 30'41	6.22865 AU	desc. node	2589 Jun 18 04:36	20° $\text{H}$ 47'10	
	2583 Jul 28 17:07	0° $\text{H}$		opposition	2589 Jul 09 10:24	18° $\text{H}$ 12'30	-0°02'54
morning rise	2583 Aug 03 02:01	1° $\text{H}$ 12'00		min. Earth dist.	2589 Jul 10 17:31	18° $\text{H}$ 02'31	4.19696 AU
	2583 Oct 12 18:17	15° $\text{H}$		direct	2589 Sep 08 15:18	13° $\text{H}$ 15'25	
retrograde	2583 Dec 05 17:33	19° $\text{H}$ 19'54			2590 Jan 03 16:47	0° $\text{H}$	
	2584 Jan 29 10:15	15° $\text{R}$ $\text{H}$		evening set	2590 Jan 12 01:00	1° $\text{H}$ 55'45	
opposition	2584 Feb 03 13:46	14° $\text{H}$ 18'46	0°43'52	max. Earth dist.	2590 Jan 23 09:06	4° $\text{H}$ 34'59	6.12412 AU
min. Earth dist.	2584 Feb 02 19:09	14° $\text{H}$ 25'00	4.29868 AU				
direct	2584 Apr 03 23:36	9° $\text{H}$ 16'47		conjunction	2590 Jan 24 18:49	4° $\text{H}$ 54'47	-0°20'17
	2584 Jun 07 00:32	15° $\text{H}$		minimum elong	2590 Jan 24 18:48	4° $\text{H}$ 54'47	0°20'17
evening set	2584 Aug 08 17:53	27° $\text{H}$ 18'44		morning rise	2590 Feb 06 13:14	7° $\text{H}$ 54'27	
	2584 Aug 21 01:16	0° $\text{H}$			2590 Mar 09 23:45	15° $\text{H}$	
				retrograde	2590 Jun 14 21:39	27° $\text{H}$ 14'36	
conjunction	2584 Aug 22 05:26	0° $\text{H}$ 15'26	0°44'26	opposition	2590 Aug 14 09:23	22° $\text{H}$ 18'38	-0°55'49
minimum elong	2584 Aug 22 05:24	0° $\text{H}$ 15'25	0°44'25	min. Earth dist.	2590 Aug 15 00:43	22° $\text{H}$ 13'38	4.05579 AU

direct	2590 Oct 13 05:02	17° $\approx$ 23'53	conjunction	2596 Aug 26 20:27	4° $\mathbb{M}$ 47'47	0°47'53
	2591 Jan 17 12:14	0° $\mathbb{H}$	minimum elong	2596 Aug 26 20:25	4° $\mathbb{M}$ 47'46	0°47'53
evening set	2591 Feb 15 12:37	6° $\mathbb{H}$ 43'06	max. Earth dist.	2596 Aug 27 07:20	4° $\mathbb{M}$ 53'43	6.37553 AU
			morning rise	2596 Sep 09 04:53	7° $\mathbb{M}$ 42'16	
conjunction	2591 Feb 28 10:55	9° $\mathbb{H}$ 49'27 -0°51'06	retrograde	2597 Jan 08 17:46	24° $\mathbb{M}$ 51'26	
minimum elong	2591 Feb 28 10:53	9° $\mathbb{H}$ 49'26 0°51'05	opposition	2597 Mar 09 22:34	19° $\mathbb{M}$ 54'32	1°23'25
max. Earth dist.	2591 Feb 28 04:51	9° $\mathbb{H}$ 45'48 6.00036 AU	min. Earth dist.	2597 Mar 10 00:04	19° $\mathbb{M}$ 54'02	4.42161 AU
morning rise	2591 Mar 13 11:25	12° $\mathbb{H}$ 57'11	direct	2597 May 10 17:33	14° $\mathbb{M}$ 51'45	
	2591 Jun 06 08:33	0° $\mathbb{Y}$		2597 Sep 02 22:16	0° $\underline{\mathbb{L}}$	
retrograde	2591 Jul 22 20:37	3° $\mathbb{Y}$ 17'44	evening set	2597 Sep 14 10:16	2° $\underline{\mathbb{L}}$ 26'25	
	2591 Sep 07 21:18	30° $\mathbb{R}$ $\mathbb{H}$				
opposition	2591 Sep 20 22:36	28° $\mathbb{H}$ 18'00 -1°30'49	conjunction	2597 Sep 27 13:28	5° $\underline{\mathbb{L}}$ 16'08	1°03'08
min. Earth dist.	2591 Sep 20 14:11	28° $\mathbb{H}$ 20'48 3.96268 AU	minimum elong	2597 Sep 27 13:27	5° $\underline{\mathbb{L}}$ 16'08	1°03'07
direct	2591 Nov 18 09:57	23° $\mathbb{H}$ 24'21	max. Earth dist.	2597 Sep 26 21:32	5° $\underline{\mathbb{L}}$ 07'32	6.45090 AU
	2592 Jan 23 01:09	0° $\mathbb{Y}$	morning rise	2597 Oct 10 13:45	8° $\underline{\mathbb{L}}$ 04'26	
evening set	2592 Mar 22 24:00	13° $\mathbb{Y}$ 08'03	retrograde	2598 Feb 07 17:47	24° $\underline{\mathbb{L}}$ 48'48	
			opposition	2598 Apr 09 07:17	19° $\underline{\mathbb{L}}$ 54'58	1°33'08
conjunction	2592 Apr 05 05:29	16° $\mathbb{Y}$ 20'10 -1°03'27	min. Earth dist.	2598 Apr 10 02:23	19° $\underline{\mathbb{L}}$ 48'48	4.46270 AU
minimum elong	2592 Apr 05 05:29	16° $\mathbb{Y}$ 20'10 1°03'26	direct	2598 Jun 10 21:02	14° $\underline{\mathbb{L}}$ 52'36	
max. Earth dist.	2592 Apr 06 08:33	16° $\mathbb{Y}$ 36'35 5.94626 AU		2598 Oct 04 07:07	0° $\mathbb{M}$	
morning rise	2592 Apr 18 14:06	19° $\mathbb{Y}$ 33'58	evening set	2598 Oct 15 06:12	2° $\mathbb{M}$ 20'06	
	2592 Jun 03 14:52	0° $\mathbb{B}$	max. Earth dist.	2598 Oct 26 11:50	4° $\mathbb{M}$ 45'55	6.45384 AU
retrograde	2592 Aug 29 00:40	10° $\mathbb{B}$ 16'24				
opposition	2592 Oct 27 18:20	5° $\mathbb{B}$ 12'59 -1°30'22	conjunction	2598 Oct 28 03:01	5° $\mathbb{M}$ 07'12	1°01'07
min. Earth dist.	2592 Oct 26 14:48	5° $\mathbb{B}$ 22'19 3.95502 AU	minimum elong	2598 Oct 28 03:02	5° $\mathbb{M}$ 07'12	1°01'07
direct	2592 Dec 24 15:29	0° $\mathbb{B}$ 18'16	morning rise	2598 Nov 09 21:23	7° $\mathbb{M}$ 53'08	
	2593 Apr 08 04:40	15° $\mathbb{B}$		2598 Dec 14 06:47	15° $\mathbb{M}$	
evening set	2593 Apr 29 13:25	19° $\mathbb{B}$ 59'09	retrograde	2599 Mar 10 06:32	24° $\mathbb{M}$ 41'25	
			opposition	2599 May 10 01:52	19° $\mathbb{M}$ 49'14	1°18'14
conjunction	2593 May 13 02:56	23° $\mathbb{B}$ 13'10 -0°50'48	min. Earth dist.	2599 May 11 10:46	19° $\mathbb{M}$ 38'44	4.42789 AU
minimum elong	2593 May 13 02:58	23° $\mathbb{B}$ 13'12 0°50'48		2599 Jun 30 08:04	15° $\mathbb{R}$ $\mathbb{M}$	
max. Earth dist.	2593 May 15 07:15	23° $\mathbb{B}$ 44'24 5.98515 AU	direct	2599 Jul 11 20:15	14° $\mathbb{M}$ 48'03	
morning rise	2593 May 26 19:00	26° $\mathbb{B}$ 28'25		2599 Jul 23 09:07	15° $\mathbb{M}$	
	2593 Jun 10 21:20	0° $\mathbb{I}$		2599 Nov 03 12:46	0° $\mathbb{X}$	
retrograde	2593 Oct 04 18:34	16° $\mathbb{I}$ 40'36	evening set	2599 Nov 14 18:03	2° $\mathbb{X}$ 26'09	
min. Earth dist.	2593 Dec 01 20:10	11° $\mathbb{I}$ 47'36 4.03610 AU	max. Earth dist.	2599 Nov 25 09:16	4° $\mathbb{X}$ 46'50	6.38320 AU
opposition	2593 Dec 03 07:27	11° $\mathbb{I}$ 35'35 -0°54'16				
direct	2594 Jan 30 12:18	6° $\mathbb{I}$ 38'11	conjunction	2599 Nov 27 11:18	5° $\mathbb{X}$ 14'31	0°42'33
evening set	2594 Jun 05 19:56	25° $\mathbb{I}$ 51'00	minimum elong	2599 Nov 27 11:20	5° $\mathbb{X}$ 14'32	0°42'32
			morning rise	2599 Dec 10 02:34	8° $\mathbb{X}$ 02'08	
conjunction	2594 Jun 19 13:43	29° $\mathbb{I}$ 01'42 -0°19'05	retrograde	2600 Apr 11 04:10	25° $\mathbb{X}$ 22'52	
minimum elong	2594 Jun 19 13:44	29° $\mathbb{I}$ 01'43 0°19'05	opposition	2600 Jun 11 03:02	20° $\mathbb{X}$ 30'47	0°41'21
max. Earth dist.	2594 Jun 21 19:56	29° $\mathbb{I}$ 33'05 6.10040 AU	min. Earth dist.	2600 Jun 12 15:46	20° $\mathbb{X}$ 19'05	4.32505 AU
	2594 Jun 23 18:28	0° $\mathbb{E}$	direct	2600 Aug 12 07:46	15° $\mathbb{X}$ 31'34	
morning rise	2594 Jul 03 08:50	2° $\mathbb{E}$ 12'44		2600 Nov 29 14:52	0° $\mathbb{Z}$	
retrograde	2594 Nov 08 01:29	21° $\mathbb{E}$ 20'32	evening set	2600 Dec 15 21:14	3° $\mathbb{Z}$ 37'04	
min. Earth dist.	2595 Jan 05 10:08	16° $\mathbb{E}$ 27'10 4.17247 AU	max. Earth dist.	2600 Dec 26 12:47	6° $\mathbb{Z}$ 02'16	6.25599 AU
opposition	2595 Jan 06 16:59	16° $\mathbb{E}$ 16'42 -0°00'21				
asc. node	2595 Jan 09 06:10	15° $\mathbb{E}$ 55'58	conjunction	2600 Dec 28 13:25	6° $\mathbb{Z}$ 30'01	0°11'16
direct	2595 Mar 06 22:40	11° $\mathbb{E}$ 16'26	minimum elong	2600 Dec 28 13:25	6° $\mathbb{Z}$ 30'02	0°11'16
evening set	2595 Jul 11 14:40	29° $\mathbb{E}$ 50'14	behind sun begin	2600 Dec 28 07:30	6° $\mathbb{Z}$ 26'40	
	2595 Jul 12 08:12	0° $\mathbb{Q}$	behind sun end	2600 Dec 28 19:21	6° $\mathbb{Z}$ 33'23	
			morning rise	2601 Jan 10 05:00	9° $\mathbb{Z}$ 22'56	
conjunction	2595 Jul 25 07:09	2° $\mathbb{Q}$ 53'51 0°18'03	desc. node	2601 May 01 02:31	27° $\mathbb{Z}$ 22'07	
minimum elong	2595 Jul 25 07:07	2° $\mathbb{Q}$ 53'50 0°18'04	retrograde	2601 May 15 08:50	27° $\mathbb{Z}$ 41'08	
max. Earth dist.	2595 Jul 26 21:16	3° $\mathbb{Q}$ 15'12 6.24678 AU	opposition	2601 Jul 15 03:36	22° $\mathbb{Z}$ 47'38	-0°10'15
morning rise	2595 Aug 07 22:47	5° $\mathbb{Q}$ 56'47	min. Earth dist.	2601 Jul 16 10:41	22° $\mathbb{Z}$ 37'39	4.18090 AU
	2595 Sep 20 03:27	15° $\mathbb{Q}$	direct	2601 Sep 14 05:55	17° $\mathbb{Z}$ 50'51	
retrograde	2595 Dec 10 04:43	23° $\mathbb{Q}$ 56'39		2601 Dec 19 08:35	0° $\approx$	
min. Earth dist.	2596 Feb 07 08:36	19° $\mathbb{Q}$ 01'31 4.31550 AU				
opposition	2596 Feb 08 00:56	18° $\mathbb{Q}$ 56'04 0°50'13				
	2596 Mar 13 04:11	15° $\mathbb{R}$ $\mathbb{Q}$				
direct	2596 Apr 08 15:03	13° $\mathbb{Q}$ 53'58				
	2596 May 05 09:54	15° $\mathbb{Q}$				
	2596 Aug 04 17:56	0° $\mathbb{M}$				
evening set	2596 Aug 13 09:58	1° $\mathbb{M}$ 52'04				