

opposition	7100 Mar 09 21:11	19° $\mathbb{M}$ 46'59	0°31'24	evening set	7105 Nov 06 19:02	2° $\mathbb{X}$ 31'33	
min. Earth dist.	7100 Mar 09 20:07	19° $\mathbb{M}$ 47'13	8.22553 AU				
direct	7100 May 15 23:21	16° $\mathbb{M}$ 20'35		conjunction	7105 Nov 24 11:35	4° $\mathbb{X}$ 45'03	2°02'38
evening set	7100 Aug 27 08:11	24° $\mathbb{M}$ 16'21		minimum elong	7105 Nov 24 11:34	4° $\mathbb{X}$ 45'03	2°02'43
				max. Earth dist.	7105 Nov 24 07:19	4° $\mathbb{X}$ 43'42	10.30865 AU
conjunction	7100 Sep 14 07:38	26° $\mathbb{M}$ 33'00	0°39'15	morning rise	7105 Dec 12 00:49	6° $\mathbb{X}$ 57'34	
minimum elong	7100 Sep 14 07:36	26° $\mathbb{M}$ 32'59	0°39'15	retrograde	7106 Mar 23 22:59	14° $\mathbb{X}$ 43'12	
max. Earth dist.	7100 Sep 14 08:23	26° $\mathbb{M}$ 33'14	10.21181 AU	opposition	7106 May 30 00:39	11° $\mathbb{X}$ 19'47	2°32'05
morning rise	7100 Oct 02 08:00	28° $\mathbb{M}$ 50'00		min. Earth dist.	7106 May 30 03:28	11° $\mathbb{X}$ 19'13	8.33858 AU
	7100 Oct 11 19:32	0° $\mathbb{L}$		direct	7106 Aug 06 21:13	7° $\mathbb{X}$ 52'11	
retrograde	7101 Jan 15 05:07	6° $\mathbb{L}$ 52'50		evening set	7106 Nov 20 20:01	15° $\mathbb{X}$ 50'57	
opposition	7101 Mar 23 14:12	3° $\mathbb{L}$ 25'28	1°05'43				
min. Earth dist.	7101 Mar 23 13:39	3° $\mathbb{L}$ 25'35	8.20278 AU	conjunction	7106 Dec 08 09:52	18° $\mathbb{X}$ 02'54	2°01'01
	7101 May 24 09:42	30° $\mathbb{R}$ $\mathbb{M}$		minimum elong	7106 Dec 08 09:52	18° $\mathbb{X}$ 02'54	2°01'06
direct	7101 May 29 18:41	29° $\mathbb{M}$ 58'24		max. Earth dist.	7106 Dec 08 05:49	18° $\mathbb{X}$ 01'37	10.36807 AU
	7101 Jun 04 03:47	0° $\mathbb{L}$		morning rise	7106 Dec 25 19:52	20° $\mathbb{X}$ 13'42	
evening set	7101 Sep 10 20:42	7° $\mathbb{L}$ 58'19		retrograde	7107 Apr 06 06:26	27° $\mathbb{X}$ 53'41	
				opposition	7107 Jun 12 11:52	24° $\mathbb{X}$ 31'15	2°25'57
conjunction	7101 Sep 28 20:29	10° $\mathbb{L}$ 15'18	1°05'38	min. Earth dist.	7107 Jun 12 14:55	24° $\mathbb{X}$ 30'39	8.40225 AU
minimum elong	7101 Sep 28 20:26	10° $\mathbb{L}$ 15'18	1°05'40	direct	7107 Aug 20 16:57	21° $\mathbb{X}$ 04'11	
max. Earth dist.	7101 Sep 28 20:15	10° $\mathbb{L}$ 15'14	10.19772 AU	evening set	7107 Dec 04 14:02	28° $\mathbb{X}$ 58'27	
morning rise	7101 Oct 16 20:15	12° $\mathbb{L}$ 32'21			7107 Dec 12 21:10	0° $\mathbb{Z}$	
retrograde	7102 Jan 29 04:52	20° $\mathbb{L}$ 34'07					
opposition	7102 Apr 06 08:12	17° $\mathbb{L}$ 07'17	1°36'26	conjunction	7107 Dec 22 01:04	1° $\mathbb{Z}$ 08'44	1°53'06
min. Earth dist.	7102 Apr 06 08:39	17° $\mathbb{L}$ 07'11	8.19816 AU	minimum elong	7107 Dec 22 01:06	1° $\mathbb{Z}$ 08'44	1°53'11
direct	7102 Jun 12 17:49	13° $\mathbb{L}$ 39'41		max. Earth dist.	7107 Dec 21 21:07	1° $\mathbb{Z}$ 07'29	10.43566 AU
evening set	7102 Sep 25 11:14	21° $\mathbb{L}$ 42'27		morning rise	7108 Jan 08 08:06	3° $\mathbb{Z}$ 17'49	
				retrograde	7108 Apr 18 08:55	10° $\mathbb{Z}$ 51'58	
conjunction	7102 Oct 13 10:14	23° $\mathbb{L}$ 59'12	1°28'21	opposition	7108 Jun 24 20:07	7° $\mathbb{Z}$ 30'25	2°12'24
minimum elong	7102 Oct 13 10:11	23° $\mathbb{L}$ 59'11	1°28'23	min. Earth dist.	7108 Jun 24 23:31	7° $\mathbb{Z}$ 29'45	8.47254 AU
max. Earth dist.	7102 Oct 13 08:28	23° $\mathbb{L}$ 58'38	10.20183 AU	direct	7108 Sep 02 09:13	4° $\mathbb{Z}$ 04'01	
morning rise	7102 Oct 31 08:19	26° $\mathbb{L}$ 15'42		evening set	7108 Dec 17 00:38	11° $\mathbb{Z}$ 52'48	
	7102 Dec 02 06:34	0° $\mathbb{M}$					
retrograde	7103 Feb 12 02:34	4° $\mathbb{M}$ 14'55		conjunction	7109 Jan 03 08:56	14° $\mathbb{Z}$ 01'22	1°39'35
opposition	7103 Apr 20 02:09	0° $\mathbb{M}$ 48'48	2°01'39	minimum elong	7109 Jan 03 08:58	14° $\mathbb{Z}$ 01'23	1°39'40
min. Earth dist.	7103 Apr 20 03:51	0° $\mathbb{M}$ 48'27	8.21150 AU	max. Earth dist.	7109 Jan 03 04:46	14° $\mathbb{Z}$ 00'04	10.50837 AU
	7103 Apr 30 04:23	30° $\mathbb{R}$ $\mathbb{L}$		morning rise	7109 Jan 20 13:25	16° $\mathbb{Z}$ 08'47	
direct	7103 Jun 26 18:46	27° $\mathbb{L}$ 20'50		retrograde	7109 May 01 04:11	23° $\mathbb{Z}$ 37'12	
	7103 Aug 21 20:41	0° $\mathbb{M}$		opposition	7109 Jul 08 00:51	20° $\mathbb{Z}$ 16'26	1°52'31
evening set	7103 Oct 10 01:16	5° $\mathbb{M}$ 24'53		min. Earth dist.	7109 Jul 08 04:08	20° $\mathbb{Z}$ 15'47	8.54614 AU
				direct	7109 Sep 15 23:03	16° $\mathbb{Z}$ 50'47	
conjunction	7103 Oct 27 22:34	7° $\mathbb{M}$ 40'54	1°46'00	evening set	7109 Dec 30 03:38	24° $\mathbb{Z}$ 33'31	
minimum elong	7103 Oct 27 22:31	7° $\mathbb{M}$ 40'53	1°46'03				
max. Earth dist.	7103 Oct 27 19:22	7° $\mathbb{M}$ 39'53	10.22326 AU	conjunction	7110 Jan 16 09:24	26° $\mathbb{Z}$ 40'24	1°21'24
morning rise	7103 Nov 14 18:07	9° $\mathbb{M}$ 56'21		minimum elong	7110 Jan 16 09:26	26° $\mathbb{Z}$ 40'25	1°21'28
	7103 Dec 30 02:35	15° $\mathbb{M}$		max. Earth dist.	7110 Jan 16 05:30	26° $\mathbb{Z}$ 39'12	10.58259 AU
retrograde	7104 Feb 25 21:25	17° $\mathbb{M}$ 51'49		morning rise	7110 Feb 02 11:37	28° $\mathbb{Z}$ 46'11	
	7104 Apr 25 21:07	15° $\mathbb{R}$ $\mathbb{M}$			7110 Feb 12 19:58	0° $\mathbb{Z}$	
opposition	7104 May 02 19:24	14° $\mathbb{M}$ 26'30	2°19'52	retrograde	7110 May 13 20:35	6° $\mathbb{Z}$ 09'23	
min. Earth dist.	7104 May 02 21:49	14° $\mathbb{M}$ 26'01	8.24109 AU	opposition	7110 Jul 21 02:12	2° $\mathbb{Z}$ 49'13	1°27'34
direct	7104 Jul 09 20:21	10° $\mathbb{M}$ 58'25		min. Earth dist.	7110 Jul 21 04:33	2° $\mathbb{Z}$ 48'46	8.61936 AU
	7104 Sep 18 13:12	15° $\mathbb{M}$			7110 Sep 02 08:45	30° $\mathbb{R}$ $\mathbb{Z}$	
evening set	7104 Oct 23 12:18	19° $\mathbb{M}$ 02'08		direct	7110 Sep 29 07:54	29° $\mathbb{Z}$ 24'26	
					7110 Oct 26 00:11	0° $\mathbb{Z}$	
conjunction	7104 Nov 10 07:22	21° $\mathbb{M}$ 17'01	1°57'36	evening set	7111 Jan 11 23:17	7° $\mathbb{Z}$ 00'51	
minimum elong	7104 Nov 10 07:21	21° $\mathbb{M}$ 17'00	1°57'40				
max. Earth dist.	7104 Nov 10 03:22	21° $\mathbb{M}$ 15'44	10.25973 AU	conjunction	7111 Jan 29 02:41	9° $\mathbb{Z}$ 06'08	0°59'38
morning rise	7104 Nov 27 23:53	23° $\mathbb{M}$ 31'06		minimum elong	7111 Jan 29 02:43	9° $\mathbb{Z}$ 06'08	0°59'41
	7105 Jan 30 10:03	0° $\mathbb{X}$		max. Earth dist.	7111 Jan 29 00:04	9° $\mathbb{Z}$ 05'20	10.65464 AU
retrograde	7105 Mar 10 12:21	1° $\mathbb{X}$ 21'58		morning rise	7111 Feb 15 02:43	11° $\mathbb{Z}$ 10'24	
	7105 Apr 19 05:43	30° $\mathbb{R}$ $\mathbb{M}$			7111 Mar 21 17:14	15° $\mathbb{Z}$	
opposition	7105 May 16 11:06	27° $\mathbb{M}$ 57'34	2°30'07	retrograde	7111 May 26 09:51	18° $\mathbb{Z}$ 29'07	
min. Earth dist.	7105 May 16 13:50	27° $\mathbb{M}$ 57'01	8.28420 AU	opposition	7111 Aug 03 00:11	15° $\mathbb{Z}$ 09'22	0°58'58
direct	7105 Jul 23 22:02	24° $\mathbb{M}$ 29'37		min. Earth dist.	7111 Aug 03 01:14	15° $\mathbb{Z}$ 09'10	8.68880 AU
	7105 Oct 16 14:58	0° $\mathbb{X}$			7111 Aug 05 01:14	15° $\mathbb{R}$ $\mathbb{Z}$	

direct	7111 Oct 12 10:20	11° $\approx$ 45'30		max. Earth dist.	7117 Apr 09 10:00	20° $\Upsilon$ 29'54	10.88854 AU
	7111 Dec 16 03:16	15° $\approx$		morning rise	7117 Apr 25 23:45	22° $\Upsilon$ 28'25	
evening set	7112 Jan 24 12:20	19° $\approx$ 15'45		retrograde	7117 Aug 06 02:26	29° $\Upsilon$ 42'34	
				opposition	7117 Oct 15 12:39	26° $\Upsilon$ 22'18	-1°53'25
conjunction	7112 Feb 10 13:30	21° $\approx$ 19'32	0°35'26	min. Earth dist.	7117 Oct 15 09:29	26° $\Upsilon$ 22'53	8.88661 AU
minimum elong	7112 Feb 10 13:31	21° $\approx$ 19'33	0°35'29	direct	7117 Dec 24 12:08	23° $\Upsilon$ 02'52	
max. Earth dist.	7112 Feb 10 12:32	21° $\approx$ 19'15	10.72124 AU		7118 Apr 02 15:27	0° $\mathcal{B}$	
morning rise	7112 Feb 27 11:34	23° $\approx$ 22'27		evening set	7118 Apr 04 09:57	0° $\mathcal{B}$ 12'27	
	7112 May 10 18:02	0° $\mathcal{H}$					
retrograde	7112 Jun 06 19:18	0° $\mathcal{H}$ 37'36		conjunction	7118 Apr 21 02:00	2° $\mathcal{B}$ 11'45	-1°40'26
	7112 Jul 04 06:05	30° $\mathcal{R}\approx$		minimum elong	7118 Apr 21 01:58	2° $\mathcal{B}$ 11'44	1°40'29
opposition	7112 Aug 14 19:04	27° $\approx$ 18'08	0°28'10	max. Earth dist.	7118 Apr 21 04:59	2° $\mathcal{B}$ 12'38	10.87916 AU
min. Earth dist.	7112 Aug 14 19:29	27° $\approx$ 18'03	8.75149 AU	morning rise	7118 May 07 19:23	4° $\mathcal{B}$ 11'26	
direct	7112 Oct 24 07:40	23° $\approx$ 55'10		retrograde	7118 Aug 18 11:43	11° $\mathcal{B}$ 28'33	
	7113 Jan 24 09:21	0° $\mathcal{H}$		opposition	7118 Oct 28 00:35	8° $\mathcal{B}$ 07'43	-2°11'33
evening set	7113 Feb 04 19:41	1° $\mathcal{H}$ 19'46		min. Earth dist.	7118 Oct 27 21:30	8° $\mathcal{B}$ 08'17	8.87009 AU
				direct	7119 Jan 05 17:18	4° $\mathcal{B}$ 48'34	
conjunction	7113 Feb 21 18:37	3° $\mathcal{H}$ 22'12	0°09'59	evening set	7119 Apr 16 06:41	11° $\mathcal{B}$ 58'12	
minimum elong	7113 Feb 21 18:37	3° $\mathcal{H}$ 22'12	0°10'01				
behind sun begin	7113 Feb 21 12:54	3° $\mathcal{H}$ 20'29		conjunction	7119 May 02 22:59	13° $\mathcal{B}$ 57'50	-1°53'02
behind sun end	7113 Feb 22 00:20	3° $\mathcal{H}$ 23'54		minimum elong	7119 May 02 22:57	13° $\mathcal{B}$ 57'50	1°53'05
max. Earth dist.	7113 Feb 21 18:18	3° $\mathcal{H}$ 22'06	10.77955 AU	max. Earth dist.	7119 May 03 02:30	13° $\mathcal{B}$ 58'54	10.85513 AU
morning rise	7113 Mar 10 15:06	5° $\mathcal{H}$ 23'56			7119 May 11 13:53	15° $\mathcal{B}$	
retrograde	7113 Jun 19 02:49	12° $\mathcal{H}$ 36'35		morning rise	7119 May 19 17:21	15° $\mathcal{B}$ 58'05	
desc. node	7113 Jul 17 09:17	11° $\mathcal{H}$ 57'11		retrograde	7119 Aug 30 23:19	23° $\mathcal{B}$ 18'58	
opposition	7113 Aug 27 11:17	9° $\mathcal{H}$ 17'16	-0°03'27	opposition	7119 Nov 09 13:25	19° $\mathcal{B}$ 57'27	-2°24'15
min. Earth dist.	7113 Aug 27 11:28	9° $\mathcal{H}$ 17'14	8.80473 AU	min. Earth dist.	7119 Nov 09 09:50	19° $\mathcal{B}$ 58'08	8.83924 AU
direct	7113 Nov 06 00:48	5° $\mathcal{H}$ 55'09		direct	7120 Jan 17 22:04	16° $\mathcal{B}$ 38'24	
evening set	7114 Feb 16 22:28	13° $\mathcal{H}$ 14'50		evening set	7120 Apr 27 05:48	23° $\mathcal{B}$ 49'06	
conjunction	7114 Mar 05 19:14	15° $\mathcal{H}$ 16'07	-0°15'45	conjunction	7120 May 13 23:13	25° $\mathcal{B}$ 49'27	-2°00'54
minimum elong	7114 Mar 05 19:14	15° $\mathcal{H}$ 16'07	0°15'43	minimum elong	7120 May 13 23:12	25° $\mathcal{B}$ 49'27	2°00'57
behind sun begin	7114 Mar 05 17:28	15° $\mathcal{H}$ 15'35		max. Earth dist.	7120 May 14 03:51	25° $\mathcal{B}$ 50'51	10.81738 AU
behind sun end	7114 Mar 05 21:00	15° $\mathcal{H}$ 16'38		morning rise	7120 May 30 19:08	27° $\mathcal{B}$ 50'35	
max. Earth dist.	7114 Mar 05 19:02	15° $\mathcal{H}$ 16'03	10.82711 AU		7120 Jun 18 16:42	0° $\mathcal{I}$	
morning rise	7114 Mar 22 14:25	17° $\mathcal{H}$ 16'53		retrograde	7120 Sep 11 14:54	5° $\mathcal{I}$ 15'53	
retrograde	7114 Jul 01 07:33	24° $\mathcal{H}$ 28'12		opposition	7120 Nov 21 03:37	1° $\mathcal{I}$ 53'36	-2°30'53
opposition	7114 Sep 09 01:19	21° $\mathcal{H}$ 08'52	-0°34'34	min. Earth dist.	7120 Nov 20 23:14	1° $\mathcal{I}$ 54'26	8.79525 AU
min. Earth dist.	7114 Sep 09 00:54	21° $\mathcal{H}$ 08'57	8.84631 AU		7120 Dec 17 18:38	30° $\mathcal{R}\mathcal{B}$	
direct	7114 Nov 18 14:00	17° $\mathcal{H}$ 47'35		direct	7121 Jan 29 04:53	28° $\mathcal{B}$ 34'28	
evening set	7115 Feb 28 21:40	25° $\mathcal{H}$ 03'14			7121 Mar 11 09:25	0° $\mathcal{I}$	
				evening set	7121 May 09 08:18	5° $\mathcal{I}$ 47'12	
conjunction	7115 Mar 17 16:40	27° $\mathcal{H}$ 03'34	-0°40'30	conjunction	7121 May 26 03:32	7° $\mathcal{I}$ 48'38	-2°03'35
minimum elong	7115 Mar 17 16:39	27° $\mathcal{H}$ 03'34	0°40'30	minimum elong	7121 May 26 03:33	7° $\mathcal{I}$ 48'38	2°03'39
max. Earth dist.	7115 Mar 17 17:26	27° $\mathcal{H}$ 03'48	10.86203 AU	max. Earth dist.	7121 May 26 08:44	7° $\mathcal{I}$ 50'13	10.76739 AU
morning rise	7115 Apr 03 10:46	29° $\mathcal{H}$ 03'38		morning rise	7121 Jun 12 01:46	9° $\mathcal{I}$ 51'01	
	7115 Apr 11 12:49	0° $\mathcal{Y}$		retrograde	7121 Sep 24 11:51	17° $\mathcal{I}$ 21'10	
retrograde	7115 Jul 13 12:31	6° $\mathcal{Y}$ 14'49		opposition	7121 Dec 03 20:05	13° $\mathcal{I}$ 58'05	-2°30'59
opposition	7115 Sep 21 13:49	2° $\mathcal{Y}$ 55'18	-1°03'59	min. Earth dist.	7121 Dec 03 15:31	13° $\mathcal{I}$ 58'57	8.73983 AU
min. Earth dist.	7115 Sep 21 11:58	2° $\mathcal{Y}$ 55'38	8.87455 AU	direct	7122 Feb 10 11:56	10° $\mathcal{I}$ 38'39	
	7115 Nov 08 04:44	30° $\mathcal{R}\mathcal{H}$		evening set	7122 May 21 15:03	17° $\mathcal{I}$ 54'15	
direct	7115 Dec 01 00:50	29° $\mathcal{H}$ 34'46					
	7115 Dec 23 13:18	0° $\mathcal{Y}$					
evening set	7116 Mar 11 18:23	6° $\mathcal{Y}$ 47'20		conjunction	7122 Jun 07 12:47	19° $\mathcal{I}$ 57'07	-2°00'49
				minimum elong	7122 Jun 07 12:48	19° $\mathcal{I}$ 57'07	2°00'53
conjunction	7116 Mar 28 12:04	8° $\mathcal{Y}$ 47'01	-1°03'27	max. Earth dist.	7122 Jun 07 17:20	19° $\mathcal{I}$ 58'30	10.70719 AU
minimum elong	7116 Mar 28 12:02	8° $\mathcal{Y}$ 47'01	1°03'28	morning rise	7122 Jun 24 14:10	22° $\mathcal{I}$ 01'05	
max. Earth dist.	7116 Mar 28 14:28	8° $\mathcal{Y}$ 47'45	10.88281 AU	retrograde	7122 Oct 07 12:01	29° $\mathcal{I}$ 36'21	
morning rise	7116 Apr 14 05:21	10° $\mathcal{Y}$ 46'39		opposition	7122 Dec 16 15:06	26° $\mathcal{I}$ 12'26	-2°24'19
retrograde	7116 Jul 24 19:45	17° $\mathcal{Y}$ 58'48		min. Earth dist.	7122 Dec 16 11:18	26° $\mathcal{I}$ 13'10	8.67515 AU
opposition	7116 Oct 03 01:22	14° $\mathcal{Y}$ 38'57	-1°30'36	direct	7123 Feb 22 21:07	22° $\mathcal{I}$ 52'27	
min. Earth dist.	7116 Oct 02 22:25	14° $\mathcal{Y}$ 39'31	8.88816 AU		7123 Jun 01 11:46	0° $\mathcal{G}$	
direct	7116 Dec 12 07:28	11° $\mathcal{Y}$ 19'05		evening set	7123 Jun 03 03:09	0° $\mathcal{G}$ 11'47	
evening set	7117 Mar 23 14:08	18° $\mathcal{Y}$ 29'35					
				conjunction	7123 Jun 20 04:12	2° $\mathcal{G}$ 16'23	-1°52'30
conjunction	7117 Apr 09 06:46	20° $\mathcal{Y}$ 28'56	-1°23'41	minimum elong	7123 Jun 20 04:14	2° $\mathcal{G}$ 16'24	1°52'35
minimum elong	7117 Apr 09 06:44	20° $\mathcal{Y}$ 28'55	1°23'43	max. Earth dist.	7123 Jun 20 07:49	2° $\mathcal{G}$ 17'30	10.63896 AU

morning rise	7123 Jul 07 09:21	4° $\Omega$ 22'12	conjunction	7129 Sep 08 00:17	20° $\eta$ 31'12	0°26'21
retrograde	7123 Oct 20 14:50	12° $\Omega$ 02'38	minimum elong	7129 Sep 08 00:15	20° $\eta$ 31'11	0°26'21
opposition	7123 Dec 29 12:42	8° $\Omega$ 37'53 -2°10'51	max. Earth dist.	7129 Sep 07 22:37	20° $\eta$ 30'40	10.23983 AU
min. Earth dist.	7123 Dec 29 09:56	8° $\Omega$ 38'25 8.60341 AU	morning rise	7129 Sep 26 00:33	22° $\eta$ 47'41	
direct	7124 Mar 06 12:14	5° $\Omega$ 17'08		7129 Dec 09 14:09	0° $\Omega$	
evening set	7124 Jun 14 21:16	12° $\Omega$ 40'59	retrograde	7130 Jan 09 00:47	0° $\Omega$ 49'23	
				7130 Feb 08 14:11	30° $\kappa$ $\eta$	
conjunction	7124 Jul 02 02:19	14° $\Omega$ 47'36 -1°38'46	opposition	7130 Mar 17 14:53	27° $\eta$ 21'52	0°50'14
minimum elong	7124 Jul 02 02:21	14° $\Omega$ 47'37 1°38'52	min. Earth dist.	7130 Mar 17 16:07	27° $\eta$ 21'37	8.22341 AU
max. Earth dist.	7124 Jul 02 05:22	14° $\Omega$ 48'33 10.56490 AU	direct	7130 May 23 19:42	23° $\eta$ 55'01	
morning rise	7124 Jul 19 11:29	16° $\Omega$ 55'28		7130 Aug 20 02:57	0° $\Omega$	
retrograde	7124 Nov 01 23:49	24° $\Omega$ 41'02	evening set	7130 Sep 04 11:26	1° $\Omega$ 52'04	
opposition	7125 Jan 10 13:24	21° $\Omega$ 15'29 -1°50'54				
min. Earth dist.	7125 Jan 10 11:13	21° $\Omega$ 15'54 8.52710 AU	conjunction	7130 Sep 22 11:04	4° $\Omega$ 08'43	0°53'48
direct	7125 Mar 19 05:58	17° $\Omega$ 53'51	minimum elong	7130 Sep 22 11:02	4° $\Omega$ 08'43	0°53'50
evening set	7125 Jun 27 22:03	25° $\Omega$ 22'53	max. Earth dist.	7130 Sep 22 08:58	4° $\Omega$ 08'03	10.21104 AU
			morning rise	7130 Oct 10 11:19	6° $\Omega$ 25'37	
conjunction	7125 Jul 15 07:24	27° $\Omega$ 31'40 -1°20'03	retrograde	7131 Jan 22 23:19	14° $\Omega$ 27'09	
minimum elong	7125 Jul 15 07:27	27° $\Omega$ 31'41 1°20'07	opposition	7131 Mar 31 07:24	10° $\Omega$ 59'52	1°22'46
max. Earth dist.	7125 Jul 15 10:16	27° $\Omega$ 32'34 10.48797 AU	min. Earth dist.	7131 Mar 31 08:50	10° $\Omega$ 59'34	8.20369 AU
morning rise	7125 Aug 01 20:38	29° $\Omega$ 41'41	direct	7131 Jun 06 16:43	7° $\Omega$ 32'14	
	7125 Aug 04 09:04	0° $\Omega$	evening set	7131 Sep 19 00:11	15° $\Omega$ 33'01	
retrograde	7125 Nov 15 13:44	7° $\Omega$ 32'09				
opposition	7126 Jan 23 17:23	4° $\Omega$ 05'52 -1°25'06	conjunction	7131 Oct 06 23:42	17° $\Omega$ 49'49	1°18'20
min. Earth dist.	7126 Jan 23 15:17	4° $\Omega$ 06'17 8.45005 AU	minimum elong	7131 Oct 06 23:40	17° $\Omega$ 49'49	1°18'23
direct	7126 Apr 01 03:18	0° $\Omega$ 43'16	max. Earth dist.	7131 Oct 06 21:19	17° $\Omega$ 49'04	10.19995 AU
evening set	7126 Jul 11 06:19	8° $\Omega$ 18'01	morning rise	7131 Oct 24 22:39	20° $\Omega$ 06'30	
			retrograde	7132 Feb 05 22:01	28° $\Omega$ 06'32	
conjunction	7126 Jul 28 19:54	10° $\Omega$ 28'59 -0°57'00	opposition	7132 Apr 13 00:32	24° $\Omega$ 39'41	1°50'41
minimum elong	7126 Jul 28 19:56	10° $\Omega$ 28'59 0°57'05	min. Earth dist.	7132 Apr 13 02:08	24° $\Omega$ 39'22	8.20212 AU
max. Earth dist.	7126 Jul 28 21:59	10° $\Omega$ 29'38 10.41266 AU	direct	7132 Jun 19 14:59	21° $\Omega$ 11'29	
morning rise	7126 Aug 15 13:03	12° $\Omega$ 41'06	evening set	7132 Oct 02 13:47	29° $\Omega$ 14'38	
	7126 Sep 04 02:47	15° $\Omega$		7132 Oct 08 14:05	0° $\mathbb{M}$	
retrograde	7126 Nov 29 06:41	20° $\Omega$ 35'51				
opposition	7127 Feb 06 00:33	17° $\Omega$ 08'59 -0°54'29	conjunction	7132 Oct 20 12:07	1° $\mathbb{M}$ 31'02	1°38'27
min. Earth dist.	7127 Feb 05 23:02	17° $\Omega$ 09'17 8.37707 AU	minimum elong	7132 Oct 20 12:04	1° $\mathbb{M}$ 31'01	1°38'30
	7127 Mar 07 05:48	15° $\kappa$ $\Omega$	max. Earth dist.	7132 Oct 20 09:24	1° $\mathbb{M}$ 30'10	10.20718 AU
direct	7127 Apr 14 06:13	13° $\Omega$ 45'17	morning rise	7132 Nov 07 08:50	3° $\mathbb{M}$ 46'59	
	7127 May 21 16:37	15° $\Omega$	retrograde	7133 Feb 18 18:54	11° $\mathbb{M}$ 44'12	
evening set	7127 Jul 24 22:05	21° $\Omega$ 26'00	opposition	7133 Apr 26 17:41	8° $\mathbb{M}$ 17'59	2°12'18
			min. Earth dist.	7133 Apr 26 19:49	8° $\mathbb{M}$ 17'33	8.21875 AU
conjunction	7127 Aug 11 15:27	23° $\Omega$ 39'00 -0°30'41	direct	7133 Jul 03 14:54	4° $\mathbb{M}$ 49'26	
minimum elong	7127 Aug 11 15:28	23° $\Omega$ 39'00 0°30'44	evening set	7133 Oct 17 01:55	12° $\mathbb{M}$ 53'20	
max. Earth dist.	7127 Aug 11 16:09	23° $\Omega$ 39'13 10.34361 AU		7133 Nov 02 18:30	15° $\mathbb{M}$	
morning rise	7127 Aug 29 12:00	25° $\Omega$ 52'59				
	7127 Oct 04 16:12	0° $\eta$	conjunction	7133 Nov 03 22:16	15° $\mathbb{M}$ 08'51	1°52'58
retrograde	7127 Dec 13 03:14	3° $\eta$ 51'10	minimum elong	7133 Nov 03 22:14	15° $\mathbb{M}$ 08'50	1°53'02
opposition	7128 Feb 19 10:52	0° $\eta$ 23'53 -0°20'29	max. Earth dist.	7133 Nov 03 18:47	15° $\mathbb{M}$ 07'44	10.23226 AU
min. Earth dist.	7128 Feb 19 10:24	0° $\eta$ 23'59 8.31256 AU	morning rise	7133 Nov 21 16:13	17° $\mathbb{M}$ 23'40	
	7128 Feb 24 09:51	30° $\kappa$ $\Omega$	retrograde	7134 Mar 04 11:56	25° $\mathbb{M}$ 16'52	
direct	7128 Apr 26 13:29	26° $\Omega$ 59'03	opposition	7134 May 10 09:54	21° $\mathbb{M}$ 51'28	2°26'23
	7128 Jun 25 03:53	0° $\eta$	min. Earth dist.	7134 May 10 12:51	21° $\mathbb{M}$ 50'52	8.25245 AU
evening set	7128 Aug 06 20:50	4° $\eta$ 45'43	direct	7134 Jul 17 15:57	18° $\mathbb{M}$ 22'51	
			evening set	7134 Oct 31 10:46	26° $\mathbb{M}$ 25'51	
conjunction	7128 Aug 24 17:13	7° $\eta$ 00'24 -0°02'26				
minimum elong	7128 Aug 24 17:14	7° $\eta$ 00'24 0°02'28	conjunction	7134 Nov 18 04:34	28° $\mathbb{M}$ 40'06	2°01'08
behind sun begin	7128 Aug 24 09:56	6° $\eta$ 58'07	minimum elong	7134 Nov 18 04:33	28° $\mathbb{M}$ 40'06	2°01'12
behind sun end	7128 Aug 25 00:31	7° $\eta$ 02'41	max. Earth dist.	7134 Nov 18 00:12	28° $\mathbb{M}$ 38'43	10.27363 AU
max. Earth dist.	7128 Aug 24 16:26	7° $\eta$ 00'11 10.28485 AU		7134 Nov 28 16:46	0° $\mathcal{A}$	
morning rise	7128 Sep 11 16:13	9° $\eta$ 15'53	morning rise	7134 Dec 05 19:24	0° $\mathcal{A}$ 53'28	
asc. node	7128 Sep 25 00:48	10° $\eta$ 53'06	retrograde	7135 Mar 17 23:46	8° $\mathcal{A}$ 41'43	
retrograde	7128 Dec 26 01:42	17° $\eta$ 16'26	opposition	7135 May 24 00:21	5° $\mathcal{A}$ 17'17	2°32'16
opposition	7129 Mar 03 23:51	13° $\eta$ 48'57 0°15'06	min. Earth dist.	7135 May 24 03:46	5° $\mathcal{A}$ 16'36	8.30121 AU
min. Earth dist.	7129 Mar 04 00:32	13° $\eta$ 48'48 8.26034 AU	direct	7135 Jul 31 16:28	1° $\mathcal{A}$ 48'53	
direct	7129 May 10 01:58	10° $\eta$ 23'03	evening set	7135 Nov 14 14:22	9° $\mathcal{A}$ 49'21	
evening set	7129 Aug 21 01:44	18° $\eta$ 15'15				
			conjunction	7135 Dec 02 05:25	12° $\mathcal{A}$ 02'06	2°02'38

minimum elong	7135 Dec 02 05:25	12° $\mathbb{A}$ 02'06	2°02'42	minimum elong	7142 Feb 16 09:24	27° $\approx$ 55'44	0°22'10
max. Earth dist.	7135 Dec 02 00:42	12° $\mathbb{A}$ 00'37	10.32900 AU	max. Earth dist.	7142 Feb 16 08:39	27° $\approx$ 55'30	10.76099 AU
morning rise	7135 Dec 19 17:07	14° $\mathbb{A}$ 13'48		morning rise	7142 Mar 05 06:44	29° $\approx$ 57'58	
retrograde	7136 Mar 30 08:02	21° $\mathbb{A}$ 56'30			7142 Mar 05 13:34	0° $\mathbb{H}$	
opposition	7136 Jun 05 12:32	18° $\mathbb{A}$ 33'05	2°29'53	retrograde	7142 Jun 13 16:49	7° $\mathbb{H}$ 11'42	
min. Earth dist.	7136 Jun 05 15:39	18° $\mathbb{A}$ 32'28	8.36236 AU	opposition	7142 Aug 21 20:31	3° $\mathbb{H}$ 52'49	0°11'33
direct	7136 Aug 13 14:12	15° $\mathbb{A}$ 05'13		min. Earth dist.	7142 Aug 21 20:05	3° $\mathbb{H}$ 52'53	8.78993 AU
evening set	7136 Nov 27 11:16	23° $\mathbb{A}$ 01'41		direct	7142 Oct 31 10:01	0° $\mathbb{H}$ 30'50	
				desc. node	7143 Jan 06 14:35	3° $\mathbb{H}$ 58'31	
conjunction	7136 Dec 14 23:38	25° $\mathbb{A}$ 12'48	1°57'38	evening set	7143 Feb 11 14:33	7° $\mathbb{H}$ 52'47	
minimum elong	7136 Dec 14 23:39	25° $\mathbb{A}$ 12'48	1°57'42				
max. Earth dist.	7136 Dec 14 19:25	25° $\mathbb{A}$ 11'29	10.39531 AU	conjunction	7143 Feb 28 12:24	9° $\mathbb{H}$ 54'33	-0°03'40
morning rise	7137 Jan 01 08:18	27° $\mathbb{A}$ 22'46		minimum elong	7143 Feb 28 12:24	9° $\mathbb{H}$ 54'33	0°03'38
	7137 Jan 23 13:41	0° $\mathbb{B}$		behind sun begin	7143 Feb 28 05:26	9° $\mathbb{H}$ 52'28	
retrograde	7137 Apr 12 11:44	4° $\mathbb{B}$ 59'38		behind sun end	7143 Feb 28 19:22	9° $\mathbb{H}$ 56'38	
opposition	7137 Jun 18 21:47	1° $\mathbb{B}$ 37'14	2°19'44	max. Earth dist.	7143 Feb 28 13:07	9° $\mathbb{H}$ 54'44	10.81620 AU
min. Earth dist.	7137 Jun 19 00:03	1° $\mathbb{B}$ 36'47	8.43249 AU	morning rise	7143 Mar 17 08:05	11° $\mathbb{H}$ 55'42	
	7137 Jul 10 07:18	30° $\mathbb{R}$ $\mathbb{A}$		retrograde	7143 Jun 25 23:27	19° $\mathbb{H}$ 07'30	
direct	7137 Aug 27 08:39	28° $\mathbb{A}$ 10'08		opposition	7143 Sep 03 11:50	15° $\mathbb{H}$ 48'44	-0°19'57
	7137 Oct 13 12:08	0° $\mathbb{B}$		min. Earth dist.	7143 Sep 03 10:36	15° $\mathbb{H}$ 48'58	8.83898 AU
evening set	7137 Dec 11 01:10	6° $\mathbb{B}$ 01'31		direct	7143 Nov 13 00:23	12° $\mathbb{H}$ 27'40	
				evening set	7144 Feb 23 15:40	19° $\mathbb{H}$ 45'05	
conjunction	7137 Dec 28 10:56	8° $\mathbb{B}$ 10'56	1°46'39				
minimum elong	7137 Dec 28 10:58	8° $\mathbb{B}$ 10'56	1°46'43	conjunction	7144 Mar 11 11:34	21° $\mathbb{H}$ 45'47	-0°28'56
max. Earth dist.	7137 Dec 28 07:54	8° $\mathbb{B}$ 09'59	10.46888 AU	minimum elong	7144 Mar 11 11:33	21° $\mathbb{H}$ 45'46	0°28'54
morning rise	7138 Jan 14 16:43	10° $\mathbb{B}$ 19'10		max. Earth dist.	7144 Mar 11 12:48	21° $\mathbb{H}$ 46'09	10.85826 AU
retrograde	7138 Apr 25 10:55	17° $\mathbb{B}$ 50'13		morning rise	7144 Mar 28 05:59	23° $\mathbb{H}$ 46'05	
opposition	7138 Jul 02 03:50	14° $\mathbb{B}$ 28'49	2°02'41		7144 Jun 03 07:02	0° $\mathbb{Y}$	
min. Earth dist.	7138 Jul 02 05:41	14° $\mathbb{B}$ 28'27	8.50789 AU	retrograde	7144 Jul 07 05:09	0° $\mathbb{Y}$ 57'08	
direct	7138 Sep 09 23:03	11° $\mathbb{B}$ 02'38			7144 Aug 10 20:10	30° $\mathbb{R}$ $\mathbb{H}$	
evening set	7138 Dec 24 07:40	18° $\mathbb{B}$ 48'13		opposition	7144 Sep 15 01:11	27° $\mathbb{H}$ 38'17	-0°50'18
				min. Earth dist.	7144 Sep 15 00:16	27° $\mathbb{H}$ 38'27	8.87376 AU
conjunction	7139 Jan 10 14:51	20° $\mathbb{B}$ 55'55	1°30'33	direct	7144 Nov 24 12:04	24° $\mathbb{H}$ 17'58	
minimum elong	7139 Jan 10 14:53	20° $\mathbb{B}$ 55'56	1°30'37		7145 Feb 21 05:34	0° $\mathbb{Y}$	
max. Earth dist.	7139 Jan 10 12:40	20° $\mathbb{B}$ 55'14	10.54589 AU	evening set	7145 Mar 06 13:55	1° $\mathbb{Y}$ 31'52	
morning rise	7139 Jan 27 18:02	23° $\mathbb{B}$ 02'28					
	7139 Apr 15 06:18	0° $\approx$		conjunction	7145 Mar 23 08:04	3° $\mathbb{Y}$ 31'47	-0°52'50
retrograde	7139 May 08 06:52	0° $\approx$ 28'03		minimum elong	7145 Mar 23 08:03	3° $\mathbb{Y}$ 31'47	0°52'51
	7139 May 31 11:24	30° $\mathbb{R}$ $\mathbb{B}$		max. Earth dist.	7145 Mar 23 08:38	3° $\mathbb{Y}$ 31'57	10.88480 AU
opposition	7139 Jul 15 06:50	27° $\mathbb{B}$ 07'33	1°39'57	morning rise	7145 Apr 09 01:42	5° $\mathbb{Y}$ 31'32	
min. Earth dist.	7139 Jul 15 08:33	27° $\mathbb{B}$ 07'13	8.58487 AU	retrograde	7145 Jul 19 11:03	12° $\mathbb{Y}$ 43'03	
direct	7139 Sep 23 07:47	23° $\mathbb{B}$ 42'24		opposition	7145 Sep 27 13:27	9° $\mathbb{Y}$ 23'57	-1°18'21
	7139 Dec 25 17:46	0° $\approx$		min. Earth dist.	7145 Sep 27 12:38	9° $\mathbb{Y}$ 24'06	8.89224 AU
evening set	7140 Jan 06 06:45	1° $\approx$ 21'47		direct	7145 Dec 06 20:28	6° $\mathbb{Y}$ 04'14	
				evening set	7146 Mar 18 10:22	13° $\mathbb{Y}$ 15'44	
conjunction	7140 Jan 23 11:21	3° $\approx$ 27'49	1°10'20				
minimum elong	7140 Jan 23 11:23	3° $\approx$ 27'50	1°10'23	conjunction	7146 Apr 04 03:17	15° $\mathbb{Y}$ 15'10	-1°14'27
max. Earth dist.	7140 Jan 23 09:29	3° $\approx$ 27'15	10.62259 AU	minimum elong	7146 Apr 04 03:15	15° $\mathbb{Y}$ 15'10	1°14'29
morning rise	7140 Feb 09 12:21	5° $\approx$ 32'47		max. Earth dist.	7146 Apr 04 04:08	15° $\mathbb{Y}$ 15'26	10.89459 AU
retrograde	7140 May 19 20:56	12° $\approx$ 53'32		morning rise	7146 Apr 20 20:26	17° $\mathbb{Y}$ 14'41	
opposition	7140 Jul 27 06:32	9° $\approx$ 33'47	1°12'53	retrograde	7146 Jul 31 16:32	24° $\mathbb{Y}$ 27'54	
min. Earth dist.	7140 Jul 27 08:11	9° $\approx$ 33'28	8.65981 AU	opposition	7146 Oct 10 01:15	21° $\mathbb{Y}$ 08'17	-1°43'05
direct	7140 Oct 05 12:46	6° $\approx$ 09'42		min. Earth dist.	7146 Oct 09 23:40	21° $\mathbb{Y}$ 08'35	8.89400 AU
evening set	7141 Jan 17 23:09	13° $\approx$ 42'54		direct	7146 Dec 19 03:55	17° $\mathbb{Y}$ 49'00	
	7141 Jan 28 14:14	15° $\approx$		evening set	7147 Mar 30 06:20	24° $\mathbb{Y}$ 59'09	
conjunction	7141 Feb 04 01:17	15° $\approx$ 47'21	0°47'08				
minimum elong	7141 Feb 04 01:19	15° $\approx$ 47'21	0°47'11	conjunction	7147 Apr 15 22:39	26° $\mathbb{Y}$ 58'28	-1°32'57
max. Earth dist.	7141 Feb 03 23:29	15° $\approx$ 46'48	10.69542 AU	minimum elong	7147 Apr 15 22:37	26° $\mathbb{Y}$ 58'27	1°33'00
morning rise	7141 Feb 21 00:25	17° $\approx$ 50'53		max. Earth dist.	7147 Apr 16 00:49	26° $\mathbb{Y}$ 59'06	10.88789 AU
retrograde	7141 Jun 01 07:00	25° $\approx$ 07'37		morning rise	7147 May 02 15:44	28° $\mathbb{Y}$ 58'02	
opposition	7141 Aug 09 02:51	21° $\approx$ 48'24	0°42'57		7147 May 11 13:46	0° $\mathbb{B}$	
min. Earth dist.	7141 Aug 09 03:41	21° $\approx$ 48'15	8.72924 AU	retrograde	7147 Aug 13 02:12	6° $\mathbb{B}$ 13'56	
direct	7141 Oct 18 14:06	18° $\approx$ 25'23		opposition	7147 Oct 22 13:09	2° $\mathbb{B}$ 53'37	-2°03'34
evening set	7142 Jan 30 09:29	25° $\approx$ 52'43		min. Earth dist.	7147 Oct 22 10:31	2° $\mathbb{B}$ 54'07	8.87964 AU
					7147 Dec 08 14:35	30° $\mathbb{R}$ $\mathbb{Y}$	
conjunction	7142 Feb 16 09:24	27° $\approx$ 55'44	0°22'07	direct	7147 Dec 31 10:06	29° $\mathbb{Y}$ 34'32	
					7148 Jan 22 21:05	0° $\mathbb{B}$	

evening set	7148 Apr 10 02:55	6°♄44'21	evening set	7154 Jun 22 06:16	19°♄46'00
conjunction	7148 Apr 26 19:11	8°♄43'52 -1°47'36	conjunction	7154 Jul 09 13:35	21°♄54'03 -1°29'17
minimum elong	7148 Apr 26 19:09	8°♄43'52 1°47'40	minimum elong	7154 Jul 09 13:38	21°♄54'04 1°29'21
max. Earth dist.	7148 Apr 26 21:57	8°♄44'42 10.86552 AU	max. Earth dist.	7154 Jul 09 16:06	21°♄54'50 10.49910 AU
morning rise	7148 May 13 12:53	10°♄43'52	morning rise	7154 Jul 27 01:07	24°♄03'23
	7148 Jun 22 15:40	15°♄		7154 Sep 22 20:31	0°♄
retrograde	7148 Aug 24 14:03	18°♄03'15	retrograde	7154 Nov 09 16:44	1°♄52'33
	7148 Oct 30 02:29	15°♄♄		7154 Dec 28 08:55	30°♄♄
opposition	7148 Nov 03 01:49	14°♄42'06 -2°18'57	opposition	7155 Jan 18 01:01	28°♄25'51 -1°37'43
min. Earth dist.	7148 Nov 02 23:03	14°♄42'37 8.85006 AU	min. Earth dist.	7155 Jan 17 22:58	28°♄26'15 8.46160 AU
direct	7149 Jan 11 13:50	11°♄23'00	direct	7155 Mar 26 13:20	25°♄03'00
	7149 Mar 20 12:47	15°♄		7155 Jun 13 07:20	0°♄
evening set	7149 Apr 22 01:15	18°♄33'30	evening set	7155 Jul 05 11:31	2°♄35'57
conjunction	7149 May 08 18:00	20°♄33'34 -1°57'46	conjunction	7155 Jul 22 23:08	4°♄46'11 -1°08'05
minimum elong	7149 May 08 17:59	20°♄33'34 1°57'50	minimum elong	7155 Jul 22 23:11	4°♄46'11 1°08'09
max. Earth dist.	7149 May 08 20:32	20°♄34'20 10.82866 AU	max. Earth dist.	7155 Jul 23 01:09	4°♄46'48 10.42422 AU
morning rise	7149 May 25 13:06	22°♄34'21	morning rise	7155 Aug 09 14:47	6°♄57'38
retrograde	7149 Sep 06 02:50	29°♄57'55	retrograde	7155 Nov 23 07:26	14°♄51'19
opposition	7149 Nov 15 15:47	26°♄35'50 -2°28'32	opposition	7156 Jan 31 07:08	11°♄24'04 -1°09'05
min. Earth dist.	7149 Nov 15 13:17	26°♄36'19 8.80670 AU	min. Earth dist.	7156 Jan 31 05:36	11°♄24'22 8.38860 AU
direct	7150 Jan 23 20:11	23°♄16'28	direct	7156 Apr 07 15:24	8°♄00'13
	7150 Apr 30 00:59	0°♄♄		7156 Jul 12 16:21	15°♄
evening set	7150 May 04 02:18	0°♄♄28'40	evening set	7156 Jul 18 00:10	15°♄39'01
conjunction	7150 May 20 20:29	2°♄♄29'41 -2°02'57	conjunction	7156 Aug 04 15:56	17°♄51'22 -0°43'05
minimum elong	7150 May 20 20:28	2°♄♄29'41 2°03'01	minimum elong	7156 Aug 04 15:58	17°♄51'22 0°43'08
max. Earth dist.	7150 May 20 23:03	2°♄♄30'28 10.77904 AU	max. Earth dist.	7156 Aug 04 17:50	17°♄51'58 10.35464 AU
morning rise	7150 Jun 06 17:42	4°♄♄31'35	morning rise	7156 Aug 22 11:09	20°♄04'47
retrograde	7150 Sep 18 20:35	11°♄♄59'57	retrograde	7156 Dec 06 03:07	28°♄02'19
opposition	7150 Nov 28 07:36	8°♄♄36'51 -2°31'47	opposition	7157 Feb 12 16:33	24°♄34'40 -0°36'22
min. Earth dist.	7150 Nov 28 05:04	8°♄♄37'20 8.75145 AU	min. Earth dist.	7157 Feb 12 15:04	24°♄34'58 8.32296 AU
direct	7151 Feb 05 04:06	5°♄♄17'04	direct	7157 Apr 20 20:47	21°♄09'54
evening set	7151 May 16 07:02	12°♄♄31'50	evening set	7157 Jul 31 20:02	28°♄54'36
				7157 Aug 09 13:28	0°♄♄
conjunction	7151 Jun 02 03:36	14°♄♄34'10 -2°02'46	conjunction	7157 Aug 18 15:20	1°♄♄08'48 -0°15'29
minimum elong	7151 Jun 02 03:37	14°♄♄34'11 2°02'51	minimum elong	7157 Aug 18 15:21	1°♄♄08'48 0°15'31
max. Earth dist.	7151 Jun 02 07:12	14°♄♄35'16 10.71864 AU	behind sun begin	7157 Aug 18 13:52	1°♄♄08'20
morning rise	7151 Jun 19 03:33	16°♄♄37'34	behind sun end	7157 Aug 18 16:50	1°♄♄09'16
retrograde	7151 Oct 01 18:35	24°♄♄11'05	max. Earth dist.	7157 Aug 18 17:11	1°♄♄09'22 10.29422 AU
opposition	7151 Dec 11 01:35	20°♄♄46'58 -2°28'19	morning rise	7157 Sep 05 13:20	3°♄♄23'52
min. Earth dist.	7151 Dec 10 22:22	20°♄♄47'35 8.68640 AU	retrograde	7157 Dec 20 02:06	11°♄♄24'19
direct	7152 Feb 17 13:33	17°♄♄26'36	opposition	7158 Feb 26 04:55	7°♄♄56'31 -0°01'12
evening set	7152 May 27 16:46	24°♄♄44'51	min. Earth dist.	7158 Feb 26 03:28	7°♄♄56'48 8.26845 AU
conjunction	7152 Jun 13 16:26	26°♄♄48'51 -1°57'03	asc. node	7158 Mar 10 22:43	6°♄♄55'40
minimum elong	7152 Jun 13 16:28	26°♄♄48'52 1°57'07	direct	7158 May 04 07:01	4°♄♄30'51
max. Earth dist.	7152 Jun 13 20:29	26°♄♄50'05 10.64979 AU	evening set	7158 Aug 14 22:54	12°♄♄21'18
morning rise	7152 Jun 30 19:43	28°♄♄54'00			
	7152 Jul 10 03:08	0°♄♄	conjunction	7158 Sep 01 20:48	14°♄♄36'56 0°13'21
retrograde	7152 Oct 13 21:19	6°♄♄32'50	minimum elong	7158 Sep 01 20:48	14°♄♄36'56 0°13'19
opposition	7152 Dec 22 22:09	3°♄♄07'46 -2°18'00	behind sun begin	7158 Sep 01 16:44	14°♄♄35'40
min. Earth dist.	7152 Dec 22 18:42	3°♄♄08'26 8.61419 AU	behind sun end	7158 Sep 02 00:52	14°♄♄38'13
	7153 Feb 13 03:37	30°♄♄♄	max. Earth dist.	7158 Sep 01 21:55	14°♄♄37'17 10.24647 AU
direct	7153 Mar 01 02:01	29°♄♄46'41	morning rise	7158 Sep 19 20:35	16°♄♄53'14
	7153 Mar 16 21:11	0°♄♄	retrograde	7159 Jan 03 02:23	24°♄♄55'22
evening set	7153 Jun 09 08:18	7°♄♄09'12	opposition	7159 Mar 11 19:39	21°♄♄27'41 0°34'27
			min. Earth dist.	7159 Mar 11 18:55	21°♄♄27'50 8.22829 AU
conjunction	7153 Jun 26 11:34	9°♄♄15'08 -1°45'47	direct	7159 May 17 22:09	18°♄♄01'14
minimum elong	7153 Jun 26 11:36	9°♄♄15'09 1°45'52	evening set	7159 Aug 29 07:29	25°♄♄56'54
max. Earth dist.	7153 Jun 26 15:08	9°♄♄16'14 10.57549 AU			
morning rise	7153 Jul 13 18:48	11°♄♄22'18	conjunction	7159 Sep 16 06:49	28°♄♄13'28 0°41'36
retrograde	7153 Oct 27 05:23	19°♄♄06'26	minimum elong	7159 Sep 16 06:47	28°♄♄13'27 0°41'36
opposition	7154 Jan 04 21:58	15°♄♄40'29 -2°00'58	max. Earth dist.	7159 Sep 16 06:33	28°♄♄13'23 10.21426 AU
min. Earth dist.	7154 Jan 04 18:55	15°♄♄41'05 8.53806 AU		7159 Sep 30 06:14	0°♄♄
direct	7154 Mar 13 16:57	12°♄♄18'34	morning rise	7159 Oct 04 07:11	0°♄♄30'24

retrograde	7160 Jan 17 02:56	8° $\underline{\text{A}}$ 32'56		max. Earth dist.	7165 Dec 09 03:17	19° $\text{A}$ 40'00	10.36973 AU
opposition	7160 Mar 24 12:24	5° $\underline{\text{A}}$ 05'36	1°08'27	morning rise	7165 Dec 26 17:41	21° $\text{A}$ 52'12	
min. Earth dist.	7160 Mar 24 12:45	5° $\underline{\text{A}}$ 05'32	8.20493 AU	retrograde	7166 Apr 07 04:19	29° $\text{A}$ 31'59	
direct	7160 May 30 17:25	1° $\underline{\text{A}}$ 38'29		opposition	7166 Jun 13 09:41	26° $\text{A}$ 09'36	2°24'51
evening set	7160 Sep 11 19:51	9° $\underline{\text{A}}$ 38'22		min. Earth dist.	7166 Jun 13 13:37	26° $\text{A}$ 08'49	8.40353 AU
				direct	7166 Aug 21 14:37	22° $\text{A}$ 42'31	
conjunction	7160 Sep 29 19:26	11° $\underline{\text{A}}$ 55'18	1°07'40		7166 Nov 30 11:11	0° $\text{B}$	
minimum elong	7160 Sep 29 19:23	11° $\underline{\text{A}}$ 55'17	1°07'41	evening set	7166 Dec 05 11:58	0° $\text{B}$ 36'43	
max. Earth dist.	7160 Sep 29 17:58	11° $\underline{\text{A}}$ 54'50	10.19955 AU				
morning rise	7160 Oct 17 19:09	14° $\underline{\text{A}}$ 12'16		conjunction	7166 Dec 22 22:50	2° $\text{B}$ 46'57	1°51'58
retrograde	7161 Jan 30 03:03	22° $\underline{\text{A}}$ 13'48		minimum elong	7166 Dec 22 22:51	2° $\text{B}$ 46'58	1°52'02
opposition	7161 Apr 07 06:14	18° $\underline{\text{A}}$ 47'02	1°38'42	max. Earth dist.	7166 Dec 22 17:43	2° $\text{B}$ 45'21	10.43642 AU
min. Earth dist.	7161 Apr 07 07:29	18° $\underline{\text{A}}$ 46'46	8.19973 AU	morning rise	7167 Jan 09 05:54	4° $\text{B}$ 56'03	
direct	7161 Jun 13 15:59	15° $\underline{\text{A}}$ 19'24		retrograde	7167 Apr 20 04:59	12° $\text{B}$ 30'07	
evening set	7161 Sep 26 10:08	23° $\underline{\text{A}}$ 22'11		opposition	7167 Jun 26 17:56	9° $\text{B}$ 08'37	2°10'42
				min. Earth dist.	7167 Jun 26 21:48	9° $\text{B}$ 07'51	8.47272 AU
conjunction	7161 Oct 14 08:58	25° $\underline{\text{A}}$ 38'54	1°29'56	direct	7167 Sep 04 08:37	5° $\text{B}$ 42'13	
minimum elong	7161 Oct 14 08:55	25° $\underline{\text{A}}$ 38'53	1°29'59	evening set	7167 Dec 18 22:26	13° $\text{B}$ 31'01	
max. Earth dist.	7161 Oct 14 06:31	25° $\underline{\text{A}}$ 38'07	10.20315 AU				
morning rise	7161 Nov 01 06:58	27° $\underline{\text{A}}$ 55'20		conjunction	7168 Jan 05 06:39	15° $\text{B}$ 39'35	1°37'58
	7161 Nov 18 09:10	0° $\text{M}$		minimum elong	7168 Jan 05 06:42	15° $\text{B}$ 39'35	1°38'03
retrograde	7162 Feb 13 00:33	5° $\text{M}$ 54'25		max. Earth dist.	7168 Jan 05 01:51	15° $\text{B}$ 38'05	10.50793 AU
opposition	7162 Apr 21 00:05	2° $\text{M}$ 28'20	2°03'19	morning rise	7168 Jan 22 11:10	17° $\text{B}$ 47'00	
min. Earth dist.	7162 Apr 21 01:52	2° $\text{M}$ 27'58	8.21273 AU	retrograde	7168 May 02 02:08	25° $\text{B}$ 15'31	
	7162 May 24 23:50	30° $\text{R}$ $\underline{\text{A}}$		opposition	7168 Jul 08 22:54	21° $\text{B}$ 54'45	1°50'16
direct	7162 Jun 27 17:28	29° $\underline{\text{A}}$ 00'23		min. Earth dist.	7168 Jul 09 01:52	21° $\text{B}$ 54'11	8.54504 AU
	7162 Jul 31 06:13	0° $\text{M}$		direct	7168 Sep 16 21:42	18° $\text{B}$ 29'10	
evening set	7162 Oct 10 23:59	7° $\text{M}$ 04'30		evening set	7168 Dec 31 01:18	26° $\text{B}$ 11'56	
conjunction	7162 Oct 28 21:14	9° $\text{M}$ 20'27	1°47'05	conjunction	7169 Jan 17 07:08	28° $\text{B}$ 18'51	1°19'24
minimum elong	7162 Oct 28 21:12	9° $\text{M}$ 20'27	1°47'09	minimum elong	7169 Jan 17 07:10	28° $\text{B}$ 18'52	1°19'27
max. Earth dist.	7162 Oct 28 18:15	9° $\text{M}$ 19'30	10.22447 AU	max. Earth dist.	7169 Jan 17 03:34	28° $\text{B}$ 17'45	10.58088 AU
morning rise	7162 Nov 15 16:38	11° $\text{M}$ 35'52			7169 Jan 30 23:58	0° $\approx$	
	7162 Dec 14 13:16	15° $\text{M}$		morning rise	7169 Feb 03 09:17	0° $\approx$ 24'40	
retrograde	7163 Feb 26 18:48	19° $\text{M}$ 31'13		retrograde	7169 May 14 19:23	7° $\approx$ 48'05	
opposition	7163 May 04 17:16	16° $\text{M}$ 05'57	2°20'52	opposition	7169 Jul 22 00:30	4° $\approx$ 27'54	1°24'54
min. Earth dist.	7163 May 04 19:09	16° $\text{M}$ 05'34	8.24244 AU	min. Earth dist.	7169 Jul 22 02:23	4° $\approx$ 27'33	8.61697 AU
	7163 May 18 13:05	15° $\text{R}$ $\text{M}$		direct	7169 Sep 30 05:20	1° $\approx$ 03'11	
direct	7163 Jul 11 19:38	12° $\text{M}$ 37'53		evening set	7170 Jan 12 21:10	8° $\approx$ 39'44	
	7163 Sep 02 19:55	15° $\text{M}$					
evening set	7163 Oct 25 10:59	20° $\text{M}$ 41'37		conjunction	7170 Jan 30 00:39	10° $\approx$ 45'04	0°57'19
				minimum elong	7170 Jan 30 00:41	10° $\approx$ 45'04	0°57'22
conjunction	7163 Nov 12 06:01	22° $\text{M}$ 56'25	1°58'08	max. Earth dist.	7170 Jan 29 22:34	10° $\approx$ 44'25	10.65166 AU
minimum elong	7163 Nov 12 05:59	22° $\text{M}$ 56'25	1°58'12	morning rise	7170 Feb 16 00:36	12° $\approx$ 49'23	
max. Earth dist.	7163 Nov 12 02:46	22° $\text{M}$ 55'24	10.26130 AU		7170 Mar 06 19:20	15° $\approx$	
morning rise	7163 Nov 29 22:14	25° $\text{M}$ 10'26		retrograde	7170 May 27 08:27	20° $\approx$ 08'24	
	7164 Jan 11 23:31	0° $\text{A}$		opposition	7170 Aug 03 22:49	16° $\approx$ 48'40	0°56'01
retrograde	7164 Mar 11 09:46	3° $\text{A}$ 01'08		min. Earth dist.	7170 Aug 04 00:07	16° $\approx$ 48'25	8.68520 AU
	7164 May 12 13:11	30° $\text{R}$ $\text{M}$			7170 Aug 28 23:33	15° $\text{R}$ $\approx$	
opposition	7164 May 17 08:56	29° $\text{M}$ 36'45	2°30'25	direct	7170 Oct 13 08:23	13° $\approx$ 24'49	
min. Earth dist.	7164 May 17 11:19	29° $\text{M}$ 36'17	8.28602 AU		7170 Nov 26 16:49	15° $\approx$	
direct	7164 Jul 24 20:09	26° $\text{M}$ 08'49		evening set	7171 Jan 25 10:34	20° $\approx$ 55'18	
	7164 Oct 02 04:34	0° $\text{A}$					
evening set	7164 Nov 07 17:27	4° $\text{A}$ 10'37		conjunction	7171 Feb 11 11:40	22° $\approx$ 59'09	0°32'56
				minimum elong	7171 Feb 11 11:41	22° $\approx$ 59'09	0°32'59
conjunction	7164 Nov 25 09:54	6° $\text{A}$ 24'03	2°02'35	max. Earth dist.	7171 Feb 11 10:22	22° $\approx$ 58'45	10.71710 AU
minimum elong	7164 Nov 25 09:53	6° $\text{A}$ 24'03	2°02'40	morning rise	7171 Feb 28 09:45	25° $\approx$ 02'08	
max. Earth dist.	7164 Nov 25 06:04	6° $\text{A}$ 22'51	10.31060 AU		7171 Apr 16 23:27	0° $\text{H}$	
morning rise	7164 Dec 12 22:52	8° $\text{A}$ 36'29		retrograde	7171 Jun 08 18:59	2° $\text{H}$ 17'40	
retrograde	7165 Mar 24 22:08	16° $\text{A}$ 21'55			7171 Aug 02 22:53	30° $\text{R}$ $\approx$	
opposition	7165 May 30 22:31	12° $\text{A}$ 58'32	2°31'40	opposition	7171 Aug 16 18:14	28° $\approx$ 58'12	0°25'02
min. Earth dist.	7165 May 31 01:42	12° $\text{A}$ 57'53	8.34049 AU	min. Earth dist.	7171 Aug 16 19:17	28° $\approx$ 58'00	8.74683 AU
direct	7165 Aug 07 17:46	9° $\text{A}$ 30'55		direct	7171 Oct 26 06:09	25° $\approx$ 35'14	
evening set	7165 Nov 21 18:05	17° $\text{A}$ 29'31			7172 Jan 10 23:40	0° $\text{H}$	
				evening set	7172 Feb 06 18:10	3° $\text{H}$ 00'06	
conjunction	7165 Dec 09 07:46	19° $\text{A}$ 41'25	2°00'24				
minimum elong	7165 Dec 09 07:47	19° $\text{A}$ 41'25	2°00'29	conjunction	7172 Feb 23 16:57	5° $\text{H}$ 02'36	0°07'24

minimum elong	7172 Feb 23 16:58	5° $\text{H}$ 02'36	0°07'26	conjunction	7178 May 03 23:41	15° $\text{B}$ 43'49	-1°53'59
behind sun begin	7172 Feb 23 10:32	5° $\text{H}$ 00'40		minimum elong	7178 May 03 23:39	15° $\text{B}$ 43'49	1°54'02
behind sun end	7172 Feb 23 23:24	5° $\text{H}$ 04'32		max. Earth dist.	7178 May 04 04:12	15° $\text{B}$ 45'11	10.84872 AU
max. Earth dist.	7172 Feb 23 15:57	5° $\text{H}$ 02'19	10.77445 AU	morning rise	7178 May 20 18:03	17° $\text{B}$ 44'09	
morning rise	7172 Mar 11 13:33	7° $\text{H}$ 04'26		retrograde	7178 Sep 01 00:56	25° $\text{B}$ 05'33	
desc. node	7172 Jun 10 08:13	14° $\text{H}$ 12'43		opposition	7178 Nov 10 14:55	21° $\text{B}$ 43'55	-2°25'06
retrograde	7172 Jun 20 01:07	14° $\text{H}$ 17'33		min. Earth dist.	7178 Nov 10 10:24	21° $\text{B}$ 44'46	8.83310 AU
opposition	7172 Aug 28 10:52	10° $\text{H}$ 58'11	-0°06'38	direct	7179 Jan 18 24:00	18° $\text{B}$ 24'49	
min. Earth dist.	7172 Aug 28 11:12	10° $\text{H}$ 58'07	8.79922 AU	evening set	7179 Apr 29 06:40	25° $\text{B}$ 35'48	
direct	7172 Nov 06 23:41	7° $\text{H}$ 36'04					
evening set	7173 Feb 17 21:15	14° $\text{H}$ 56'04		conjunction	7179 May 16 00:13	27° $\text{B}$ 36'16	-2°01'18
				minimum elong	7179 May 16 00:12	27° $\text{B}$ 36'16	2°01'21
conjunction	7173 Mar 06 18:01	16° $\text{H}$ 57'24	-0°18'18	max. Earth dist.	7179 May 16 05:35	27° $\text{B}$ 37'53	10.81151 AU
minimum elong	7173 Mar 06 18:00	16° $\text{H}$ 57'24	0°18'17	morning rise	7179 Jun 01 20:13	29° $\text{B}$ 37'30	
max. Earth dist.	7173 Mar 06 17:53	16° $\text{H}$ 57'22	10.82125 AU		7179 Jun 05 00:42	0° $\text{II}$	
morning rise	7173 Mar 23 13:14	18° $\text{H}$ 58'16		retrograde	7179 Sep 13 18:28	7° $\text{II}$ 03'13	
retrograde	7173 Jul 02 07:12	26° $\text{H}$ 10'07		opposition	7179 Nov 23 05:24	3° $\text{II}$ 40'51	-2°31'02
opposition	7173 Sep 10 01:08	22° $\text{H}$ 50'42	-0°37'40	min. Earth dist.	7179 Nov 23 00:31	3° $\text{II}$ 41'46	8.78979 AU
min. Earth dist.	7173 Sep 10 00:03	22° $\text{H}$ 50'54	8.84012 AU	direct	7180 Jan 31 05:08	0° $\text{II}$ 21'39	
direct	7173 Nov 19 14:34	19° $\text{H}$ 29'24		evening set	7180 May 10 09:29	7° $\text{II}$ 34'37	
evening set	7174 Mar 01 20:48	26° $\text{H}$ 45'23					
				conjunction	7180 May 27 04:49	9° $\text{II}$ 36'09	-2°03'24
conjunction	7174 Mar 18 15:52	28° $\text{H}$ 45'49	-0°42'56	minimum elong	7180 May 27 04:49	9° $\text{II}$ 36'09	2°03'28
minimum elong	7174 Mar 18 15:51	28° $\text{H}$ 45'48	0°42'56	max. Earth dist.	7180 May 27 09:45	9° $\text{II}$ 37'39	10.76239 AU
max. Earth dist.	7174 Mar 18 17:34	28° $\text{H}$ 46'19	10.85554 AU	morning rise	7180 Jun 13 03:21	11° $\text{II}$ 38'39	
	7174 Mar 28 22:55	0° $\text{Y}$		retrograde	7180 Sep 25 13:46	19° $\text{II}$ 09'07	
morning rise	7174 Apr 04 09:52	0° $\text{Y}$ 45'57		opposition	7180 Dec 04 22:00	15° $\text{II}$ 45'58	-2°30'24
retrograde	7174 Jul 14 14:09	7° $\text{Y}$ 57'41		min. Earth dist.	7180 Dec 04 17:42	15° $\text{II}$ 46'47	8.73536 AU
opposition	7174 Sep 22 14:04	4° $\text{Y}$ 38'04	-1°06'51	direct	7181 Feb 11 12:19	12° $\text{II}$ 26'27	
min. Earth dist.	7174 Sep 22 11:38	4° $\text{Y}$ 38'31	8.86783 AU	evening set	7181 May 22 16:29	19° $\text{II}$ 42'17	
direct	7174 Dec 02 00:06	1° $\text{Y}$ 17'32					
evening set	7175 Mar 13 17:56	8° $\text{Y}$ 30'25		conjunction	7181 Jun 08 14:24	21° $\text{II}$ 45'15	-2°00'02
				minimum elong	7181 Jun 08 14:25	21° $\text{II}$ 45'15	2°00'07
conjunction	7175 Mar 30 11:33	10° $\text{Y}$ 30'12	-1°05'39	max. Earth dist.	7181 Jun 08 18:49	21° $\text{II}$ 46'35	10.70336 AU
minimum elong	7175 Mar 30 11:31	10° $\text{Y}$ 30'11	1°05'40	morning rise	7181 Jun 25 16:06	23° $\text{II}$ 49'19	
max. Earth dist.	7175 Mar 30 14:17	10° $\text{Y}$ 31'01	10.87592 AU		7181 Aug 27 18:48	0° $\text{S}$	
morning rise	7175 Apr 16 04:48	12° $\text{Y}$ 29'55		retrograde	7181 Oct 08 12:42	1° $\text{S}$ 24'48	
retrograde	7175 Jul 26 20:03	19° $\text{Y}$ 42'38			7181 Nov 20 01:21	30° $\text{R II}$	
opposition	7175 Oct 05 02:07	16° $\text{Y}$ 22'42	-1°33'07	opposition	7181 Dec 17 17:02	28° $\text{II}$ 00'50	-2°23'00
min. Earth dist.	7175 Oct 04 23:18	16° $\text{Y}$ 23'13	8.88124 AU	min. Earth dist.	7181 Dec 17 13:19	28° $\text{II}$ 01'33	8.67201 AU
direct	7175 Dec 14 06:36	13° $\text{Y}$ 02'47		direct	7182 Feb 24 00:01	24° $\text{II}$ 40'48	
evening set	7176 Mar 24 14:05	20° $\text{Y}$ 13'39			7182 May 17 23:15	0° $\text{S}$	
				evening set	7182 Jun 04 04:45	2° $\text{S}$ 00'17	
conjunction	7176 Apr 10 06:36	22° $\text{Y}$ 13'04	-1°25'33				
minimum elong	7176 Apr 10 06:34	22° $\text{Y}$ 13'04	1°25'35	conjunction	7182 Jun 21 06:07	4° $\text{S}$ 04'59	-1°51'09
max. Earth dist.	7176 Apr 10 09:23	22° $\text{Y}$ 13'54	10.88162 AU	minimum elong	7182 Jun 21 06:09	4° $\text{S}$ 05'00	1°51'14
morning rise	7176 Apr 26 23:44	24° $\text{Y}$ 12'40		max. Earth dist.	7182 Jun 21 10:36	4° $\text{S}$ 06'22	10.63670 AU
	7176 Jun 25 15:07	0° $\text{B}$		morning rise	7182 Jul 08 11:29	6° $\text{S}$ 10'53	
retrograde	7176 Aug 07 03:31	1° $\text{B}$ 27'22		retrograde	7182 Oct 21 17:33	13° $\text{S}$ 51'26	
	7176 Sep 19 19:28	30° $\text{R Y}$		opposition	7182 Dec 30 14:40	10° $\text{S}$ 26'38	-2°08'52
opposition	7176 Oct 16 13:44	28° $\text{Y}$ 07'00	-1°55'28	min. Earth dist.	7182 Dec 30 11:11	10° $\text{S}$ 27'18	8.60214 AU
min. Earth dist.	7176 Oct 16 10:56	28° $\text{Y}$ 07'31	8.87980 AU	direct	7183 Mar 08 13:48	7° $\text{S}$ 05'52	
direct	7176 Dec 25 12:52	24° $\text{Y}$ 47'30		evening set	7183 Jun 16 23:01	14° $\text{S}$ 29'43	
	7177 Mar 19 05:34	0° $\text{B}$					
evening set	7177 Apr 05 10:10	1° $\text{B}$ 57'26		conjunction	7183 Jul 04 04:25	16° $\text{S}$ 36'24	-1°36'55
				minimum elong	7183 Jul 04 04:28	16° $\text{S}$ 36'25	1°37'00
conjunction	7177 Apr 22 02:15	3° $\text{B}$ 56'50	-1°41'53	max. Earth dist.	7183 Jul 04 08:49	16° $\text{S}$ 37'46	10.56472 AU
minimum elong	7177 Apr 22 02:13	3° $\text{B}$ 56'49	1°41'56	morning rise	7183 Jul 21 13:45	18° $\text{S}$ 44'20	
max. Earth dist.	7177 Apr 22 05:21	3° $\text{B}$ 57'46	10.87243 AU	retrograde	7183 Nov 04 02:13	26° $\text{S}$ 29'48	
morning rise	7177 May 08 19:46	5° $\text{B}$ 56'38		opposition	7184 Jan 12 15:13	23° $\text{S}$ 04'13	-1°48'19
retrograde	7177 Aug 19 12:34	13° $\text{B}$ 14'16		min. Earth dist.	7184 Jan 12 11:59	23° $\text{S}$ 04'50	8.52805 AU
opposition	7177 Oct 29 01:50	9° $\text{B}$ 53'19	-2°13'03	direct	7184 Mar 20 07:24	19° $\text{S}$ 42'35	
min. Earth dist.	7177 Oct 28 22:23	9° $\text{B}$ 53'58	8.86353 AU	evening set	7184 Jun 29 00:04	27° $\text{S}$ 11'30	
direct	7178 Jan 06 17:57	6° $\text{B}$ 34'07					
evening set	7178 Apr 17 07:13	13° $\text{B}$ 44'05		conjunction	7184 Jul 16 09:38	29° $\text{S}$ 20'19	-1°17'45
	7178 Apr 27 22:05	15° $\text{B}$		minimum elong	7184 Jul 16 09:40	29° $\text{S}$ 20'19	1°17'50
				max. Earth dist.	7184 Jul 16 12:54	29° $\text{S}$ 21'20	10.48994 AU

	7184 Jul 21 17:26	0°♈	conjunction	7190 Oct 08 00:31	19°♊33'47	1°20'17
morning rise	7184 Aug 02 23:02	1°♈30'20	minimum elong	7190 Oct 08 00:29	19°♊33'46	1°20'19
retrograde	7184 Nov 16 15:16	9°♈20'30	max. Earth dist.	7190 Oct 07 22:00	19°♊32'59	10.20632 AU
opposition	7185 Jan 24 18:55	5°♈54'14 -1°22'03	morning rise	7190 Oct 25 23:13	21°♊50'19	
min. Earth dist.	7185 Jan 24 16:31	5°♈54'42 8.45290 AU	retrograde	7191 Feb 06 22:43	29°♊49'49	
direct	7185 Apr 02 05:10	2°♈31'38	opposition	7191 Apr 15 00:09	26°♊23'05	1°52'47
evening set	7185 Jul 12 08:20	10°♈06'11	min. Earth dist.	7191 Apr 15 02:13	26°♊22'40	8.20841 AU
			direct	7191 Jun 21 14:41	22°♊54'56	
conjunction	7185 Jul 29 21:59	12°♈17'08 -0°54'25		7191 Sep 26 19:06	0°♈	
minimum elong	7185 Jul 29 22:01	12°♈17'09 0°54'29	evening set	7191 Oct 04 14:26	0°♈57'48	
max. Earth dist.	7185 Jul 29 23:32	12°♈17'37 10.41630 AU				
morning rise	7185 Aug 16 15:21	14°♈29'14	conjunction	7191 Oct 22 12:31	3°♈14'03	1°39'53
	7185 Aug 20 20:31	15°♈	minimum elong	7191 Oct 22 12:28	3°♈14'02	1°39'56
retrograde	7185 Nov 30 08:45	22°♈23'34	max. Earth dist.	7191 Oct 22 08:53	3°♈12'53	10.21328 AU
opposition	7186 Feb 07 01:54	18°♈56'46 -0°51'08	morning rise	7191 Nov 09 09:03	5°♈29'52	
min. Earth dist.	7186 Feb 07 00:48	18°♈56'59 8.38133 AU	retrograde	7192 Feb 20 17:55	13°♈26'33	
direct	7186 Apr 15 06:55	15°♈33'04	opposition	7192 Apr 27 17:04	10°♈00'29	2°13'43
evening set	7186 Jul 25 23:54	23°♈13'33	min. Earth dist.	7192 Apr 27 20:09	9°♈59'52	8.22463 AU
			direct	7192 Jul 04 15:23	6°♈32'00	
conjunction	7186 Aug 12 17:19	25°♈26'29 -0°27'56	evening set	7192 Oct 18 02:05	14°♈35'37	
minimum elong	7186 Aug 12 17:21	25°♈26'29 0°27'58		7192 Oct 21 08:02	15°♈	
max. Earth dist.	7186 Aug 12 17:24	25°♈26'30 10.34846 AU				
morning rise	7186 Aug 30 14:04	27°♈40'26	conjunction	7192 Nov 04 22:08	16°♈50'59	1°53'49
	7186 Sep 19 03:19	0°♈	minimum elong	7192 Nov 04 22:06	16°♈50'58	1°53'53
retrograde	7186 Dec 14 04:35	5°♈38'07	max. Earth dist.	7192 Nov 04 17:25	16°♈49'29	10.23782 AU
opposition	7187 Feb 20 11:54	2°♈10'55 -0°17'02	morning rise	7192 Nov 22 15:57	19°♈05'40	
min. Earth dist.	7187 Feb 20 11:58	2°♈10'55 8.31785 AU	retrograde	7193 Mar 05 09:56	26°♈58'26	
	7187 Mar 21 23:47	30°♈♈	opposition	7193 May 11 09:01	23°♈33'09	2°27'03
direct	7187 Apr 28 15:02	28°♈46'06	min. Earth dist.	7193 May 11 12:36	23°♈32'26	8.25766 AU
	7187 Jun 04 19:14	0°♈	direct	7193 Jul 18 16:10	20°♈04'35	
evening set	7187 Aug 08 22:33	6°♈32'31	evening set	7193 Nov 01 10:24	28°♈07'18	
asc. node	7187 Aug 21 11:45	8°♈06'51		7193 Nov 16 08:29	0°♈♊	
conjunction	7187 Aug 26 19:03	8°♈47'07 0°00'25	conjunction	7193 Nov 19 04:00	0°♈♊21'26	2°01'22
minimum elong	7187 Aug 26 19:04	8°♈47'07 0°00'24	minimum elong	7193 Nov 19 03:59	0°♈♊21'26	2°01'27
behind sun begin	7187 Aug 26 11:48	8°♈44'51	max. Earth dist.	7193 Nov 18 22:54	0°♈♊19'49	10.27840 AU
behind sun end	7187 Aug 27 02:19	8°♈49'23	morning rise	7193 Dec 06 18:45	2°♈♊34'41	
max. Earth dist.	7187 Aug 26 18:09	8°♈46'53 10.29052 AU	retrograde	7194 Mar 18 22:25	10°♈♊22'34	
morning rise	7187 Sep 13 18:06	11°♈02'31	opposition	7194 May 24 23:07	6°♈♊58'12	2°32'11
retrograde	7187 Dec 28 01:22	19°♈02'31	min. Earth dist.	7194 May 25 02:33	6°♈♊57'30	8.30546 AU
opposition	7188 Mar 05 00:25	15°♈35'08 0°18'29	direct	7194 Aug 01 15:45	3°♈♊29'51	
min. Earth dist.	7188 Mar 05 01:09	15°♈34'59 8.26630 AU	evening set	7194 Nov 15 13:32	11°♈♊30'03	
direct	7188 May 11 04:18	12°♈09'16				
evening set	7188 Aug 22 03:16	20°♈01'13	conjunction	7194 Dec 03 04:32	13°♈♊42'43	2°02'17
			minimum elong	7194 Dec 03 04:32	13°♈♊42'43	2°02'21
conjunction	7188 Sep 09 01:54	22°♈17'03 0°29'00	max. Earth dist.	7194 Dec 02 23:48	13°♈♊41'13	10.33265 AU
minimum elong	7188 Sep 09 01:53	22°♈17'03 0°29'00	morning rise	7194 Dec 20 16:05	15°♈♊54'21	
max. Earth dist.	7188 Sep 09 00:41	22°♈16'40 10.24597 AU	retrograde	7195 Apr 01 06:09	23°♈♊36'45	
morning rise	7188 Sep 27 02:01	24°♈33'23	opposition	7195 Jun 07 11:05	20°♈♊13'22	2°29'06
	7188 Nov 15 20:11	0°♈♊	min. Earth dist.	7195 Jun 07 13:56	20°♈♊12'48	8.36531 AU
retrograde	7189 Jan 10 00:11	2°♈♊34'34	direct	7195 Aug 15 13:44	16°♈♊45'32	
	7189 Mar 07 16:02	30°♈♈	evening set	7195 Nov 29 10:04	24°♈♊41'47	
opposition	7189 Mar 18 15:07	29°♈07'10 0°53'20				
min. Earth dist.	7189 Mar 18 15:56	29°♈07'00 8.22972 AU	conjunction	7195 Dec 16 22:24	26°♈♊52'50	1°56'43
direct	7189 May 24 20:51	25°♈40'23	minimum elong	7195 Dec 16 22:25	26°♈♊52'50	1°56'48
	7189 Aug 05 14:07	0°♈♊	max. Earth dist.	7195 Dec 16 18:37	26°♈♊51'38	10.39757 AU
evening set	7189 Sep 05 12:37	3°♈♊37'06	morning rise	7196 Jan 03 06:50	29°♈♊02'44	
				7196 Jan 11 03:21	0°♈♊♈	
conjunction	7189 Sep 23 12:14	5°♈♊53'39 0°56'10	retrograde	7196 Apr 13 10:06	6°♈♊39'26	
minimum elong	7189 Sep 23 12:12	5°♈♊53'38 0°56'11	opposition	7196 Jun 19 20:17	3°♈♊17'02	2°18'17
max. Earth dist.	7189 Sep 23 10:36	5°♈♊53'07 10.21740 AU	min. Earth dist.	7196 Jun 19 22:43	3°♈♊16'34	8.43399 AU
morning rise	7189 Oct 11 12:13	8°♈♊10'22		7196 Aug 14 07:10	30°♈♈♊	
retrograde	7190 Jan 24 00:15	16°♈♊11'24	direct	7196 Aug 28 07:31	29°♈♊49'57	
opposition	7190 Apr 01 07:19	12°♈♊44'13 1°25'26		7196 Sep 11 06:37	0°♈♊♈	
min. Earth dist.	7190 Apr 01 08:33	12°♈♊43'58 8.21010 AU	evening set	7196 Dec 11 23:36	7°♈♊41'10	
direct	7190 Jun 07 15:50	9°♈♊16'38				
evening set	7190 Sep 20 01:08	17°♈♊17'07	conjunction	7196 Dec 29 09:17	9°♈♊50'33	1°45'15




























































































































minimum elong	7196 Dec 29 09:19	9° $\mathfrak{Z}$ 50'33	1°45'19	conjunction	7203 Mar 13 10:13	23° $\mathfrak{H}$ 27'27	-0°31'24
max. Earth dist.	7196 Dec 29 06:14	9° $\mathfrak{Z}$ 49'36	10.46968 AU	minimum elong	7203 Mar 13 10:12	23° $\mathfrak{H}$ 27'26	0°31'24
morning rise	7197 Jan 15 14:56	11° $\mathfrak{Z}$ 58'44		max. Earth dist.	7203 Mar 13 10:57	23° $\mathfrak{H}$ 27'40	10.85283 AU
retrograde	7197 Apr 26 10:13	19° $\mathfrak{Z}$ 29'43		morning rise	7203 Mar 30 04:44	25° $\mathfrak{H}$ 27'50	
opposition	7197 Jul 03 02:19	16° $\mathfrak{Z}$ 08'19	2°00'40		7203 May 12 09:54	0° $\mathfrak{Y}$	
min. Earth dist.	7197 Jul 03 04:55	16° $\mathfrak{Z}$ 07'48	8.50797 AU	retrograde	7203 Jul 09 04:50	2° $\mathfrak{Y}$ 39'20	
direct	7197 Sep 10 20:29	12° $\mathfrak{Z}$ 42'07			7203 Sep 08 03:59	30° $\mathfrak{R}$ $\mathfrak{H}$	
evening set	7197 Dec 25 05:53	20° $\mathfrak{Z}$ 27'37		opposition	7203 Sep 17 01:06	29° $\mathfrak{H}$ 20'26	-0°53'15
				min. Earth dist.	7203 Sep 17 00:13	29° $\mathfrak{H}$ 20'35	8.86860 AU
conjunction	7198 Jan 11 12:56	22° $\mathfrak{Z}$ 35'19	1°28'43	direct	7203 Nov 26 11:06	26° $\mathfrak{H}$ 00'06	
minimum elong	7198 Jan 11 12:58	22° $\mathfrak{Z}$ 35'20	1°28'47		7204 Feb 07 03:00	0° $\mathfrak{Y}$	
max. Earth dist.	7198 Jan 11 09:52	22° $\mathfrak{Z}$ 34'22	10.54524 AU	evening set	7204 Mar 07 12:53	3° $\mathfrak{Y}$ 14'15	
morning rise	7198 Jan 28 16:09	24° $\mathfrak{Z}$ 41'52					
	7198 Mar 20 03:56	0° $\mathfrak{A}$		conjunction	7204 Mar 24 07:01	5° $\mathfrak{Y}$ 14'13	-0°55'08
retrograde	7198 May 09 04:20	2° $\mathfrak{A}$ 07'28		minimum elong	7204 Mar 24 06:59	5° $\mathfrak{Y}$ 14'12	0°55'09
	7198 Jun 30 02:37	30° $\mathfrak{R}$ $\mathfrak{Z}$		max. Earth dist.	7204 Mar 24 07:59	5° $\mathfrak{Y}$ 14'30	10.88000 AU
opposition	7198 Jul 16 05:17	28° $\mathfrak{Z}$ 46'57	1°37'28	morning rise	7204 Apr 10 00:42	7° $\mathfrak{Y}$ 14'02	
min. Earth dist.	7198 Jul 16 07:46	28° $\mathfrak{Z}$ 46'28	8.58350 AU	retrograde	7204 Jul 20 09:49	14° $\mathfrak{Y}$ 26'00	
direct	7198 Sep 24 06:08	25° $\mathfrak{Z}$ 21'46		opposition	7204 Sep 28 13:37	11° $\mathfrak{Y}$ 06'47	-1°21'01
	7198 Dec 11 17:37	0° $\mathfrak{A}$		min. Earth dist.	7204 Sep 28 11:58	11° $\mathfrak{Y}$ 07'06	8.88789 AU
evening set	7199 Jan 07 04:53	3° $\mathfrak{A}$ 01'11		direct	7204 Dec 07 20:40	7° $\mathfrak{Y}$ 47'04	
				evening set	7205 Mar 19 09:40	14° $\mathfrak{Y}$ 58'46	
conjunction	7199 Jan 24 09:21	5° $\mathfrak{A}$ 07'14	1°08'09				
minimum elong	7199 Jan 24 09:23	5° $\mathfrak{A}$ 07'15	1°08'13	conjunction	7205 Apr 05 02:40	16° $\mathfrak{Y}$ 58'16	-1°16'27
max. Earth dist.	7199 Jan 24 06:34	5° $\mathfrak{A}$ 06'23	10.62049 AU	minimum elong	7205 Apr 05 02:37	16° $\mathfrak{Y}$ 58'15	1°16'29
morning rise	7199 Feb 10 10:26	7° $\mathfrak{A}$ 12'15		max. Earth dist.	7205 Apr 05 04:39	16° $\mathfrak{Y}$ 58'52	10.89057 AU
retrograde	7199 May 21 18:11	14° $\mathfrak{A}$ 33'09		morning rise	7205 Apr 21 19:44	18° $\mathfrak{Y}$ 57'49	
opposition	7199 Jul 29 05:03	11° $\mathfrak{A}$ 13'21	1°10'04	retrograde	7205 Aug 01 18:19	26° $\mathfrak{Y}$ 11'25	
min. Earth dist.	7199 Jul 29 06:41	11° $\mathfrak{A}$ 13'02	8.65701 AU	opposition	7205 Oct 11 01:34	22° $\mathfrak{Y}$ 51'44	-1°45'20
direct	7199 Oct 07 12:47	7° $\mathfrak{A}$ 49'14		min. Earth dist.	7205 Oct 10 23:04	22° $\mathfrak{Y}$ 52'12	8.89035 AU
	7200 Jan 16 17:27	15° $\mathfrak{A}$		direct	7205 Dec 20 04:17	19° $\mathfrak{Y}$ 32'28	
evening set	7200 Jan 19 21:12	15° $\mathfrak{A}$ 22'33		evening set	7206 Mar 31 06:00	26° $\mathfrak{Y}$ 42'47	
conjunction	7200 Feb 05 23:21	17° $\mathfrak{A}$ 27'02	0°44'43	conjunction	7206 Apr 16 22:19	28° $\mathfrak{Y}$ 42'09	-1°34'34
minimum elong	7200 Feb 05 23:22	17° $\mathfrak{A}$ 27'03	0°44'47	minimum elong	7206 Apr 16 22:17	28° $\mathfrak{Y}$ 42'08	1°34'37
max. Earth dist.	7200 Feb 05 21:38	17° $\mathfrak{A}$ 26'31	10.69199 AU	max. Earth dist.	7206 Apr 17 01:05	28° $\mathfrak{Y}$ 42'59	10.88451 AU
morning rise	7200 Feb 22 22:27	19° $\mathfrak{A}$ 30'37			7206 Apr 27 18:13	0° $\mathfrak{B}$	
retrograde	7200 Jun 02 06:36	26° $\mathfrak{A}$ 47'39		morning rise	7206 May 03 15:22	0° $\mathfrak{B}$ 41'47	
opposition	7200 Aug 10 01:37	23° $\mathfrak{A}$ 28'21	0°39'54	retrograde	7206 Aug 14 03:26	7° $\mathfrak{B}$ 58'01	
min. Earth dist.	7200 Aug 10 01:49	23° $\mathfrak{A}$ 28'19	8.72519 AU	opposition	7206 Oct 23 13:53	4° $\mathfrak{B}$ 37'41	-2°05'17
direct	7200 Oct 19 12:52	20° $\mathfrak{A}$ 05'20		min. Earth dist.	7206 Oct 23 11:01	4° $\mathfrak{B}$ 38'13	8.87660 AU
evening set	7201 Jan 31 07:34	27° $\mathfrak{A}$ 32'49		direct	7207 Jan 01 08:45	1° $\mathfrak{B}$ 18'38	
				evening set	7207 Apr 12 02:52	8° $\mathfrak{B}$ 28'36	
conjunction	7201 Feb 17 07:34	29° $\mathfrak{A}$ 35'54	0°19'35				
minimum elong	7201 Feb 17 07:35	29° $\mathfrak{A}$ 35'54	0°19'38	conjunction	7207 Apr 28 19:03	10° $\mathfrak{B}$ 28'09	-1°48'45
max. Earth dist.	7201 Feb 17 07:34	29° $\mathfrak{A}$ 35'54	10.75643 AU	minimum elong	7207 Apr 28 19:01	10° $\mathfrak{B}$ 28'09	1°48'49
	7201 Feb 20 14:49	0° $\mathfrak{H}$		max. Earth dist.	7207 Apr 28 21:31	10° $\mathfrak{B}$ 28'54	10.86281 AU
morning rise	7201 Mar 06 04:49	1° $\mathfrak{H}$ 38'13		morning rise	7207 May 15 12:55	12° $\mathfrak{B}$ 28'13	
retrograde	7201 Jun 14 15:47	8° $\mathfrak{H}$ 52'18			7207 Jun 06 23:59	15° $\mathfrak{B}$	
opposition	7201 Aug 22 19:33	5° $\mathfrak{H}$ 33'21	0°08'24	retrograde	7207 Aug 26 14:02	19° $\mathfrak{B}$ 47'56	
min. Earth dist.	7201 Aug 22 18:57	5° $\mathfrak{H}$ 33'28	8.78490 AU	opposition	7207 Nov 05 02:53	16° $\mathfrak{B}$ 26'47	-2°20'03
direct	7201 Nov 01 07:25	2° $\mathfrak{H}$ 11'22		min. Earth dist.	7207 Nov 05 00:23	16° $\mathfrak{B}$ 27'15	8.84774 AU
desc. node	7201 Nov 30 22:14	2° $\mathfrak{H}$ 54'24			7207 Nov 25 00:50	15° $\mathfrak{R}$ $\mathfrak{B}$	
evening set	7202 Feb 12 13:00	9° $\mathfrak{H}$ 33'35		direct	7208 Jan 13 14:30	13° $\mathfrak{B}$ 07'41	
					7208 Mar 01 10:04	15° $\mathfrak{B}$	
conjunction	7202 Mar 01 10:49	11° $\mathfrak{H}$ 35'24	-0°06'14	evening set	7208 Apr 23 01:30	20° $\mathfrak{B}$ 18'20	
minimum elong	7202 Mar 01 10:48	11° $\mathfrak{H}$ 35'24	0°06'12				
behind sun begin	7202 Mar 01 04:08	11° $\mathfrak{H}$ 33'24		conjunction	7208 May 09 18:20	22° $\mathfrak{B}$ 18'28	-1°58'24
behind sun end	7202 Mar 01 17:28	11° $\mathfrak{H}$ 37'23		minimum elong	7208 May 09 18:19	22° $\mathfrak{B}$ 18'28	1°58'28
max. Earth dist.	7202 Mar 01 11:37	11° $\mathfrak{H}$ 35'38	10.81086 AU	max. Earth dist.	7208 May 09 20:54	22° $\mathfrak{B}$ 19'14	10.82673 AU
morning rise	7202 Mar 18 06:28	13° $\mathfrak{H}$ 36'38		morning rise	7208 May 26 13:38	24° $\mathfrak{B}$ 19'19	
retrograde	7202 Jun 26 23:02	20° $\mathfrak{H}$ 48'52			7208 Jul 22 18:14	0° $\mathfrak{I}$	
opposition	7202 Sep 04 11:15	17° $\mathfrak{H}$ 30'03	-0°23'04	retrograde	7208 Sep 07 04:12	1° $\mathfrak{I}$ 43'09	
min. Earth dist.	7202 Sep 04 10:27	17° $\mathfrak{H}$ 30'12	8.83351 AU		7208 Oct 24 21:07	30° $\mathfrak{R}$ $\mathfrak{B}$	
direct	7202 Nov 13 23:26	14° $\mathfrak{H}$ 08'58		opposition	7208 Nov 16 16:53	28° $\mathfrak{B}$ 21'04	-2°28'58
evening set	7203 Feb 24 14:28	21° $\mathfrak{H}$ 26'41		min. Earth dist.	7208 Nov 16 14:14	28° $\mathfrak{B}$ 21'34	8.80517 AU
				direct	7209 Jan 24 21:05	25° $\mathfrak{B}$ 01'44	

	7209 Apr 15 13:24	0°♊		7215 Jun 29 19:53	15°♏
evening set	7209 May 05 02:47	2°♊14'01	evening set	7215 Jul 20 00:45	17°♏23'38
conjunction	7209 May 21 21:12	4°♊15'05 -2°03'01	conjunction	7215 Aug 06 16:44	19°♏35'56 -0°40'29
minimum elong	7209 May 21 21:12	4°♊15'05 2°03'05	minimum elong	7215 Aug 06 16:45	19°♏35'56 0°40'33
max. Earth dist.	7209 May 22 00:44	4°♊16'10 10.77789 AU	max. Earth dist.	7215 Aug 06 19:10	19°♏36'42 10.35914 AU
morning rise	7209 Jun 07 18:30	6°♊17'03	morning rise	7215 Aug 24 11:58	21°♏49'18
retrograde	7209 Sep 19 21:41	13°♊45'36	retrograde	7215 Dec 08 03:55	29°♏46'21
opposition	7209 Nov 29 08:46	10°♊22'30 -2°31'31	opposition	7216 Feb 14 16:18	26°♏18'43 -0°33'05
min. Earth dist.	7209 Nov 29 05:21	10°♊23'09 8.75071 AU	min. Earth dist.	7216 Feb 14 14:28	26°♏19'05 8.32769 AU
direct	7210 Feb 06 05:00	7°♊02'46	direct	7216 Apr 21 20:29	22°♏53'56
evening set	7210 May 17 07:43	14°♊17'34		7216 Jul 27 15:33	0°♐
			evening set	7216 Aug 01 20:28	0°♐38'21
conjunction	7210 Jun 03 04:31	16°♊19'58 -2°02'16	conjunction	7216 Aug 19 15:47	2°♐52'28 -0°12'50
minimum elong	7210 Jun 03 04:32	16°♊19'58 2°02'20	minimum elong	7216 Aug 19 15:48	2°♐52'28 0°12'52
max. Earth dist.	7210 Jun 03 08:58	16°♊21'19 10.71833 AU	behind sun begin	7216 Aug 19 11:24	2°♐51'05
morning rise	7210 Jun 20 04:34	18°♊23'24	behind sun end	7216 Aug 19 20:11	2°♐53'50
retrograde	7210 Oct 02 20:24	25°♊57'01	max. Earth dist.	7216 Aug 19 17:17	2°♐52'56 10.29906 AU
opposition	7210 Dec 12 02:49	22°♊32'54 -2°27'20	morning rise	7216 Sep 06 13:47	5°♐07'27
min. Earth dist.	7210 Dec 11 22:54	22°♊33'39 8.68658 AU	retrograde	7216 Dec 21 01:22	13°♐07'21
direct	7211 Feb 18 14:37	19°♊12'36	asc. node	7217 Feb 05 05:01	11°♐21'19
evening set	7211 May 29 17:39	26°♊30'47	opposition	7217 Feb 27 04:13	9°♐39'35 0°02'04
			min. Earth dist.	7217 Feb 27 03:06	9°♐39'48 8.27336 AU
conjunction	7211 Jun 15 17:27	28°♊34'50 -1°55'58	direct	7217 May 05 06:51	6°♐13'53
minimum elong	7211 Jun 15 17:29	28°♊34'51 1°56'03	evening set	7217 Aug 15 22:57	14°♐04'01
max. Earth dist.	7211 Jun 15 21:26	28°♊36'03 10.65053 AU			
	7211 Jun 27 08:19	0°♑	conjunction	7217 Sep 02 20:43	16°♐19'34 0°15'55
morning rise	7211 Jul 02 21:01	0°♑40'03	minimum elong	7217 Sep 02 20:43	16°♐19'34 0°15'54
retrograde	7211 Oct 15 23:56	8°♑18'49	max. Earth dist.	7217 Sep 02 20:44	16°♐19'34 10.25138 AU
opposition	7211 Dec 24 23:20	4°♑53'47 -2°16'20	morning rise	7217 Sep 20 20:31	18°♐35'44
min. Earth dist.	7211 Dec 24 20:00	4°♑54'26 8.61544 AU	retrograde	7218 Jan 04 01:04	26°♐37'20
direct	7212 Mar 02 01:33	1°♑32'44	opposition	7218 Mar 12 18:33	23°♐09'41 0°37'32
evening set	7212 Jun 10 09:17	8°♑55'09	min. Earth dist.	7218 Mar 12 18:41	23°♐09'39 8.23314 AU
			direct	7218 May 18 21:21	19°♐43'10
conjunction	7212 Jun 27 12:43	11°♑01'07 -1°44'11	evening set	7218 Aug 30 07:02	27°♐38'31
minimum elong	7212 Jun 27 12:45	11°♑01'08 1°44'17			
max. Earth dist.	7212 Jun 27 15:47	11°♑02'04 10.57735 AU	conjunction	7218 Sep 17 06:15	29°♐54'59 0°43'57
morning rise	7212 Jul 14 20:18	13°♑08'19	minimum elong	7218 Sep 17 06:13	29°♐54'58 0°43'58
retrograde	7212 Oct 28 05:41	20°♑52'15	max. Earth dist.	7218 Sep 17 04:56	29°♐54'34 10.21894 AU
opposition	7213 Jan 05 22:56	17°♑26'21 -1°58'42		7218 Sep 17 22:01	0°♑
min. Earth dist.	7213 Jan 05 20:23	17°♑26'51 8.54041 AU	morning rise	7218 Oct 05 06:37	2°♑11'48
direct	7213 Mar 14 18:13	14°♑04'27	retrograde	7219 Jan 18 01:25	10°♑13'49
evening set	7213 Jun 23 07:09	21°♑31'45	opposition	7219 Mar 26 10:50	6°♑46'31 1°11'11
			min. Earth dist.	7219 Mar 26 11:50	6°♑46'18 8.20939 AU
conjunction	7213 Jul 10 14:43	23°♑39'49 -1°27'14	direct	7219 Jun 01 16:20	3°♑19'20
minimum elong	7213 Jul 10 14:45	23°♑39'49 1°27'19	evening set	7219 Sep 13 19:04	11°♑18'59
max. Earth dist.	7213 Jul 10 17:24	23°♑40'39 10.50200 AU			
morning rise	7213 Jul 28 02:28	25°♑49'07	conjunction	7219 Oct 01 18:34	13°♑35'47 1°09'40
	7213 Sep 03 14:33	0°♒	minimum elong	7219 Oct 01 18:31	13°♑35'46 1°09'43
retrograde	7213 Nov 10 16:19	3°♒38'01	max. Earth dist.	7219 Oct 01 16:35	13°♑35'09 10.20366 AU
opposition	7214 Jan 19 01:39	0°♒11'21 -1°34'57	morning rise	7219 Oct 19 18:09	15°♑52'39
min. Earth dist.	7214 Jan 18 23:34	0°♒11'46 8.46496 AU	retrograde	7220 Feb 01 00:21	23°♑53'43
	7214 Jan 21 11:12	30°♒♑	opposition	7220 Apr 08 04:12	20°♑26'58 1°40'56
direct	7214 Mar 27 15:18	26°♑48'31	min. Earth dist.	7220 Apr 08 05:31	20°♑26'42 8.20351 AU
	7214 May 28 08:07	0°♒	direct	7220 Jun 14 15:51	16°♑59'19
evening set	7214 Jul 06 12:14	4°♒21'13	evening set	7220 Sep 27 08:57	25°♑01'55
conjunction	7214 Jul 24 00:09	6°♒31'27 -1°05'42	conjunction	7220 Oct 15 07:43	27°♑18'31 1°31'30
minimum elong	7214 Jul 24 00:12	6°♒31'28 1°05'46	minimum elong	7220 Oct 15 07:41	27°♑18'30 1°31'33
max. Earth dist.	7214 Jul 24 03:00	6°♒32'20 10.42803 AU	max. Earth dist.	7220 Oct 15 05:27	27°♑17'47 10.20653 AU
morning rise	7214 Aug 10 15:53	8°♒42'52	morning rise	7220 Nov 02 05:28	29°♑34'50
	7214 Oct 11 13:16	15°♒		7220 Nov 05 14:18	0°♓
retrograde	7214 Nov 24 08:13	16°♒36'12	retrograde	7221 Feb 13 21:20	7°♓33'36
	7215 Jan 07 17:32	15°♓♒	opposition	7221 Apr 21 21:50	4°♓07'32 2°04'57
opposition	7215 Feb 01 07:22	13°♒08'57 -1°05'59	min. Earth dist.	7221 Apr 21 23:14	4°♓07'15 8.21577 AU
min. Earth dist.	7215 Feb 01 05:16	13°♒09'22 8.39280 AU	direct	7221 Jun 28 16:14	0°♓39'36
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

























































































































evening set	7221 Oct 11 22:25	8° $\mathbb{M}$ 43'33		min. Earth dist.	7227 Jul 10 23:05	23° $\mathcal{Z}$ 30'56	8.54407 AU
				direct	7227 Sep 18 18:44	20° $\mathcal{Z}$ 05'55	
conjunction	7221 Oct 29 19:36	10° $\mathbb{M}$ 59'26	1°48'07	evening set	7228 Jan 01 22:32	27° $\mathcal{Z}$ 48'45	
minimum elong	7221 Oct 29 19:34	10° $\mathbb{M}$ 59'25	1°48'12				
max. Earth dist.	7221 Oct 29 17:10	10° $\mathbb{M}$ 58'39	10.22718 AU	conjunction	7228 Jan 19 04:23	29° $\mathcal{Z}$ 55'42	1°17'24
morning rise	7221 Nov 16 14:43	13° $\mathbb{M}$ 14'44		minimum elong	7228 Jan 19 04:26	29° $\mathcal{Z}$ 55'43	1°17'28
	7221 Nov 30 23:49	15° $\mathbb{M}$		max. Earth dist.	7228 Jan 19 01:11	29° $\mathcal{Z}$ 54'43	10.57913 AU
retrograde	7222 Feb 27 16:46	21° $\mathbb{M}$ 09'52			7228 Jan 19 18:18	0° $\approx$	
opposition	7222 May 05 14:55	17° $\mathbb{M}$ 44'37	2°21'49	morning rise	7228 Feb 05 06:24	2° $\approx$ 01'33	
min. Earth dist.	7222 May 05 16:42	17° $\mathbb{M}$ 44'16	8.24496 AU	retrograde	7228 May 15 17:29	9° $\approx$ 25'12	
	7222 Jun 13 22:28	15° $\mathbb{R}$ $\mathbb{M}$		opposition	7228 Jul 22 22:18	6° $\approx$ 05'03	1°22'16
direct	7222 Jul 12 16:46	14° $\mathbb{M}$ 16'35		min. Earth dist.	7228 Jul 23 00:32	6° $\approx$ 04'37	8.61441 AU
	7222 Aug 10 08:59	15° $\mathbb{M}$		direct	7228 Oct 01 02:45	2° $\approx$ 40'22	
evening set	7222 Oct 26 09:20	22° $\mathbb{M}$ 20'10		evening set	7229 Jan 13 18:36	10° $\approx$ 17'05	
conjunction	7222 Nov 13 04:14	24° $\mathbb{M}$ 34'56	1°58'37	conjunction	7229 Jan 30 22:01	12° $\approx$ 22'29	0°55'03
minimum elong	7222 Nov 13 04:12	24° $\mathbb{M}$ 34'55	1°58'41	minimum elong	7229 Jan 30 22:03	12° $\approx$ 22'30	0°55'06
max. Earth dist.	7222 Nov 13 01:06	24° $\mathbb{M}$ 33'56	10.26375 AU	max. Earth dist.	7229 Jan 30 19:31	12° $\approx$ 21'43	10.64836 AU
morning rise	7222 Nov 30 20:13	26° $\mathbb{M}$ 48'51		morning rise	7229 Feb 16 21:59	14° $\approx$ 26'52	
	7222 Dec 27 19:55	0° $\mathcal{Z}$			7229 Feb 21 13:02	15° $\approx$	
retrograde	7223 Mar 13 08:34	4° $\mathcal{Z}$ 39'17		retrograde	7229 May 28 07:05	21° $\approx$ 46'14	
opposition	7223 May 19 06:30	1° $\mathcal{Z}$ 14'57	2°30'39	opposition	7229 Aug 04 20:57	18° $\approx$ 26'31	0°53'05
min. Earth dist.	7223 May 19 09:21	1° $\mathcal{Z}$ 14'23	8.28854 AU	min. Earth dist.	7229 Aug 04 23:06	18° $\approx$ 26'07	8.68119 AU
	7223 Jun 04 04:11	30° $\mathbb{R}$ $\mathbb{M}$		direct	7229 Oct 14 05:19	15° $\approx$ 02'43	
direct	7223 Jul 26 16:48	27° $\mathbb{M}$ 47'00		evening set	7230 Jan 26 08:19	22° $\approx$ 33'30	
	7223 Sep 16 05:51	0° $\mathcal{Z}$					
evening set	7223 Nov 09 15:36	5° $\mathcal{Z}$ 48'39		conjunction	7230 Feb 12 09:18	24° $\approx$ 37'26	0°30'28
				minimum elong	7230 Feb 12 09:19	24° $\approx$ 37'26	0°30'31
conjunction	7223 Nov 27 07:48	8° $\mathcal{Z}$ 02'00	2°02'30	max. Earth dist.	7230 Feb 12 07:00	24° $\approx$ 36'44	10.71242 AU
minimum elong	7223 Nov 27 07:48	8° $\mathcal{Z}$ 02'00	2°02'35	morning rise	7230 Mar 01 07:31	26° $\approx$ 40'31	
max. Earth dist.	7223 Nov 27 03:23	8° $\mathcal{Z}$ 00'36	10.31320 AU		7230 Mar 31 01:40	0° $\mathcal{H}$	
morning rise	7223 Dec 14 20:39	10° $\mathcal{Z}$ 14'21		retrograde	7230 Jun 09 16:18	3° $\mathcal{H}$ 56'30	
retrograde	7224 Mar 25 18:59	17° $\mathcal{Z}$ 59'28		opposition	7230 Aug 17 16:45	0° $\mathcal{H}$ 37'02	0°21'56
opposition	7224 May 31 20:05	14° $\mathcal{Z}$ 36'07	2°31'12	min. Earth dist.	7230 Aug 17 18:06	0° $\mathcal{H}$ 36'47	8.74150 AU
min. Earth dist.	7224 May 31 23:58	14° $\mathcal{Z}$ 35'21	8.34308 AU		7230 Aug 25 21:01	30° $\mathbb{R}$ $\approx$	
direct	7224 Aug 08 16:29	11° $\mathcal{Z}$ 08'29		direct	7230 Oct 27 04:16	27° $\approx$ 14'06	
evening set	7224 Nov 22 15:46	19° $\mathcal{Z}$ 06'53			7230 Dec 25 15:39	0° $\mathcal{H}$	
				evening set	7231 Feb 07 16:14	4° $\mathcal{H}$ 39'22	
conjunction	7224 Dec 10 05:14	21° $\mathcal{Z}$ 18'41	1°59'45				
minimum elong	7224 Dec 10 05:15	21° $\mathcal{Z}$ 18'41	1°59'50	conjunction	7231 Feb 24 15:00	6° $\mathcal{H}$ 41'57	0°04'52
max. Earth dist.	7224 Dec 09 23:46	21° $\mathcal{Z}$ 16'58	10.37210 AU	minimum elong	7231 Feb 24 15:00	6° $\mathcal{H}$ 41'57	0°04'54
morning rise	7224 Dec 27 15:08	23° $\mathcal{Z}$ 29'24		behind sun begin	7231 Feb 24 08:08	6° $\mathcal{H}$ 39'53	
	7225 Mar 03 02:18	0° $\mathcal{Z}$		behind sun end	7231 Feb 24 21:52	6° $\mathcal{H}$ 44'00	
retrograde	7225 Apr 08 00:16	1° $\mathcal{Z}$ 08'59		max. Earth dist.	7231 Feb 24 13:52	6° $\mathcal{H}$ 41'38	10.76852 AU
	7225 May 14 13:59	30° $\mathbb{R}$ $\mathcal{Z}$		morning rise	7231 Mar 13 11:37	8° $\mathcal{H}$ 43'53	
opposition	7225 Jun 14 07:06	27° $\mathcal{Z}$ 46'36	2°23'43	desc. node	7231 May 05 20:00	14° $\mathcal{H}$ 07'21	
min. Earth dist.	7225 Jun 14 11:23	27° $\mathcal{Z}$ 45'45	8.40549 AU	retrograde	7231 Jun 22 00:25	15° $\mathcal{H}$ 57'35	
direct	7225 Aug 22 13:29	24° $\mathcal{Z}$ 19'31		opposition	7231 Aug 30 09:52	12° $\mathcal{H}$ 38'11	-0°09'46
	7225 Nov 17 14:35	0° $\mathcal{Z}$		min. Earth dist.	7231 Aug 30 09:41	12° $\mathcal{H}$ 38'13	8.79273 AU
evening set	7225 Dec 06 09:20	2° $\mathcal{Z}$ 13'33		direct	7231 Nov 08 23:41	9° $\mathcal{H}$ 16'06	
				evening set	7232 Feb 19 19:39	16° $\mathcal{H}$ 36'30	
conjunction	7225 Dec 23 20:08	4° $\mathcal{Z}$ 23'45	1°50'48				
minimum elong	7225 Dec 23 20:10	4° $\mathcal{Z}$ 23'45	1°50'52	conjunction	7232 Mar 07 16:30	18° $\mathcal{H}$ 37'57	-0°20'50
max. Earth dist.	7225 Dec 23 14:27	4° $\mathcal{Z}$ 21'58	10.43781 AU	minimum elong	7232 Mar 07 16:29	18° $\mathcal{H}$ 37'57	0°20'49
morning rise	7226 Jan 10 03:12	6° $\mathcal{Z}$ 32'48		max. Earth dist.	7232 Mar 07 17:10	18° $\mathcal{H}$ 38'10	10.81428 AU
retrograde	7226 Apr 21 02:10	14° $\mathcal{Z}$ 06'47		morning rise	7232 Mar 24 11:38	20° $\mathcal{H}$ 38'56	
opposition	7226 Jun 27 15:11	10° $\mathcal{Z}$ 45'17	2°08'58	retrograde	7232 Jul 03 07:56	27° $\mathcal{H}$ 51'24	
min. Earth dist.	7226 Jun 27 18:49	10° $\mathcal{Z}$ 44'34	8.47338 AU	opposition	7232 Sep 11 00:39	24° $\mathcal{H}$ 31'56	-0°40'43
direct	7226 Sep 05 06:19	7° $\mathcal{Z}$ 18'55		min. Earth dist.	7232 Sep 10 23:04	24° $\mathcal{H}$ 32'13	8.83275 AU
evening set	7226 Dec 19 19:40	15° $\mathcal{Z}$ 07'39		direct	7232 Nov 20 12:30	21° $\mathcal{H}$ 10'39	
				evening set	7233 Mar 02 19:41	28° $\mathcal{H}$ 27'03	
conjunction	7227 Jan 06 03:57	17° $\mathcal{Z}$ 16'13	1°36'21		7233 Mar 15 19:07	0° $\mathcal{Y}$	
minimum elong	7227 Jan 06 03:59	17° $\mathcal{Z}$ 16'14	1°36'26				
max. Earth dist.	7227 Jan 05 23:23	17° $\mathcal{Z}$ 14'48	10.50784 AU	conjunction	7233 Mar 19 14:46	0° $\mathcal{Y}$ 27'36	-0°45'20
morning rise	7227 Jan 23 08:22	19° $\mathcal{Z}$ 23'38		minimum elong	7233 Mar 19 14:44	0° $\mathcal{Y}$ 27'36	0°45'20
retrograde	7227 May 03 23:53	26° $\mathcal{Z}$ 52'13		max. Earth dist.	7233 Mar 19 16:47	0° $\mathcal{Y}$ 28'13	10.84781 AU
opposition	7227 Jul 10 20:22	23° $\mathcal{Z}$ 31'28	1°48'02	morning rise	7233 Apr 05 08:44	2° $\mathcal{Y}$ 27'52	

retrograde	7233 Jul 15 13:57	9°♈40'14		retrograde	7239 Sep 27 15:12	20°♊57'42	
opposition	7233 Sep 23 14:05	6°♈20'33	-1°09'41	opposition	7239 Dec 07 00:11	17°♊34'26	-2°29'46
min. Earth dist.	7233 Sep 23 11:57	6°♈20'57	8.85988 AU	min. Earth dist.	7239 Dec 06 19:58	17°♊35'14	8.72989 AU
direct	7233 Dec 02 22:38	3°♈00'00		direct	7240 Feb 13 15:09	14°♊14'48	
evening set	7234 Mar 14 17:21	10°♈13'22		evening set	7240 May 23 18:08	21°♊30'53	
conjunction	7234 Mar 31 10:51	12°♈13'15	-1°07'49	conjunction	7240 Jun 09 16:23	23°♊33'57	-1°59'12
minimum elong	7234 Mar 31 10:49	12°♈13'14	1°07'50	minimum elong	7240 Jun 09 16:24	23°♊33'58	1°59'17
max. Earth dist.	7234 Mar 31 13:04	12°♈13'55	10.86777 AU	max. Earth dist.	7240 Jun 09 21:34	23°♊35'33	10.69852 AU
morning rise	7234 Apr 17 04:12	14°♈13'05		morning rise	7240 Jun 26 18:19	25°♊38'09	
retrograde	7234 Jul 27 21:03	21°♈26'27			7240 Aug 06 01:29	0°♊	
opposition	7234 Oct 06 02:39	18°♈06'26	-1°35'36	retrograde	7240 Oct 09 15:35	3°♊13'52	
min. Earth dist.	7234 Oct 06 00:14	18°♈06'53	8.87305 AU		7240 Dec 16 14:04	30°♊	
direct	7234 Dec 15 06:55	14°♈46'27		opposition	7240 Dec 18 19:10	29°♊49'48	-2°21'38
evening set	7235 Mar 26 13:52	21°♈57'48		min. Earth dist.	7240 Dec 18 14:48	29°♊50'38	8.66787 AU
conjunction	7235 Apr 12 06:22	23°♈57'19	-1°27'23	direct	7241 Feb 25 01:58	26°♊29'41	
minimum elong	7235 Apr 12 06:20	23°♈57'19	1°27'25		7241 May 01 18:23	0°♊	
max. Earth dist.	7235 Apr 12 09:06	23°♈58'09	10.87340 AU	evening set	7241 Jun 05 06:40	3°♊49'20	
morning rise	7235 Apr 28 23:35	25°♈57'03		conjunction	7241 Jun 22 08:24	5°♊54'08	-1°49'45
	7235 Jun 05 18:47	0°♊		minimum elong	7241 Jun 22 08:26	5°♊54'09	1°49'50
retrograde	7235 Aug 09 03:41	3°♊12'24		max. Earth dist.	7241 Jun 22 14:01	5°♊55'52	10.63334 AU
	7235 Oct 16 19:26	30°♊		morning rise	7241 Jul 09 13:56	8°♊00'08	
opposition	7235 Oct 18 14:42	29°♈51'54	-1°57'30	retrograde	7241 Oct 22 20:01	15°♊40'48	
min. Earth dist.	7235 Oct 18 11:33	29°♈52'30	8.87170 AU	opposition	7241 Dec 31 16:53	12°♊15'55	-2°06'48
direct	7235 Dec 27 12:53	26°♈32'21		min. Earth dist.	7241 Dec 31 12:25	12°♊16'48	8.59970 AU
	7236 Mar 03 04:37	0°♊		direct	7242 Mar 09 15:46	8°♊55'08	
evening set	7236 Apr 06 10:17	3°♊42'43		evening set	7242 Jun 18 01:10	16°♊19'02	
conjunction	7236 Apr 23 02:32	5°♊42'13	-1°43'18	conjunction	7242 Jul 05 06:49	18°♊25'49	-1°35'00
minimum elong	7236 Apr 23 02:30	5°♊42'13	1°43'21	minimum elong	7242 Jul 05 06:51	18°♊25'49	1°35'05
max. Earth dist.	7236 Apr 23 06:38	5°♊43'27	10.86440 AU	max. Earth dist.	7242 Jul 05 11:47	18°♊27'21	10.56335 AU
morning rise	7236 May 09 20:03	7°♊42'08		morning rise	7242 Jul 22 16:23	20°♊33'48	
	7236 Aug 17 18:03	15°♊		retrograde	7242 Nov 05 05:06	28°♊19'13	
retrograde	7236 Aug 20 13:55	15°♊00'24		opposition	7243 Jan 13 17:27	24°♊53'36	-1°45'40
	7236 Aug 23 10:01	15°♊		min. Earth dist.	7243 Jan 13 13:43	24°♊54'20	8.52785 AU
opposition	7236 Oct 30 03:05	11°♊39'18	-2°14'30	direct	7243 Mar 22 09:18	21°♊31'56	
min. Earth dist.	7236 Oct 29 22:40	11°♊40'08	8.85570 AU	evening set	7243 Jul 01 02:26	29°♊00'47	
direct	7237 Jan 07 19:31	8°♊20'02			7243 Jul 09 03:36	0°♊	
	7237 Apr 14 00:08	15°♊		conjunction	7243 Jul 18 12:10	1°♊09'37	-1°15'25
evening set	7237 Apr 18 07:51	15°♊30'24		minimum elong	7243 Jul 18 12:13	1°♊09'38	1°15'29
conjunction	7237 May 05 00:26	17°♊30'15	-1°54'54	max. Earth dist.	7243 Jul 18 15:09	1°♊10'33	10.49101 AU
minimum elong	7237 May 05 00:24	17°♊30'15	1°54'57	morning rise	7243 Aug 05 01:55	3°♊19'41	
max. Earth dist.	7237 May 05 05:39	17°♊31'50	10.84104 AU	retrograde	7243 Nov 18 18:11	11°♊09'33	
morning rise	7237 May 21 18:51	19°♊30'43		opposition	7244 Jan 26 20:56	7°♊43'19	-1°18'57
retrograde	7237 Sep 02 04:25	26°♊52'38		min. Earth dist.	7244 Jan 26 18:51	7°♊43'43	8.45505 AU
opposition	7237 Nov 11 16:28	23°♊30'52	-2°25'54	direct	7244 Apr 03 06:29	4°♊20'39	
min. Earth dist.	7237 Nov 11 11:32	23°♊31'48	8.82574 AU	evening set	7244 Jul 13 10:44	11°♊55'03	
direct	7238 Jan 20 00:16	20°♊11'42		conjunction	7244 Jul 31 00:33	14°♊05'59	-0°51'46
evening set	7238 Apr 30 07:43	27°♊23'01		minimum elong	7244 Jul 31 00:35	14°♊06'00	0°51'50
conjunction	7238 May 17 01:18	29°♊23'35	-2°01'39	max. Earth dist.	7244 Jul 31 01:48	14°♊06'22	10.41944 AU
minimum elong	7238 May 17 01:18	29°♊23'35	2°01'43		7244 Aug 07 05:32	15°♊	
max. Earth dist.	7238 May 17 06:27	29°♊25'09	10.80450 AU	morning rise	7244 Aug 17 18:10	16°♊18'04	
	7238 May 22 01:47	0°♊		retrograde	7244 Dec 01 10:14	24°♊11'59	
morning rise	7238 Jun 02 21:32	1°♊24'58		opposition	7245 Feb 08 03:39	20°♊45'13	-0°47'44
retrograde	7238 Sep 14 19:49	8°♊51'07		min. Earth dist.	7245 Feb 08 02:51	20°♊45'23	8.38522 AU
opposition	7238 Nov 24 07:23	5°♊28'38	-2°31'07	direct	7245 Apr 16 09:28	17°♊21'31	
min. Earth dist.	7238 Nov 24 02:43	5°♊29'31	8.78323 AU	evening set	7245 Jul 27 02:04	25°♊01'47	
direct	7239 Feb 01 05:38	2°♊09'20		conjunction	7245 Aug 13 19:41	27°♊14'40	-0°25'07
evening set	7239 May 12 10:47	9°♊22'36		minimum elong	7245 Aug 13 19:42	27°♊14'41	0°25'10
conjunction	7239 May 29 06:15	11°♊24'15	-2°03'10	max. Earth dist.	7245 Aug 13 20:05	27°♊14'48	10.35301 AU
minimum elong	7239 May 29 06:16	11°♊24'15	2°03'15	morning rise	7245 Aug 31 16:29	29°♊28'33	
max. Earth dist.	7239 May 29 11:02	11°♊25'42	10.75637 AU		7245 Sep 04 23:17	0°♊	
morning rise	7239 Jun 15 05:06	13°♊26'52		retrograde	7245 Dec 15 04:37	7°♊25'47	

opposition	7246 Feb 21 13:17	3° $\mathbb{M}$ 58'40	-0°13'31	conjunction	7251 Nov 06 22:28	18° $\mathbb{M}$ 34'23	1°54'39
min. Earth dist.	7246 Feb 21 13:09	3° $\mathbb{M}$ 58'41	8.32293 AU	minimum elong	7251 Nov 06 22:26	18° $\mathbb{M}$ 34'22	1°54'43
direct	7246 Apr 29 17:52	0° $\mathbb{M}$ 33'54		max. Earth dist.	7251 Nov 06 17:16	18° $\mathbb{M}$ 32'44	10.24356 AU
asc. node	7246 Jul 16 06:31	5° $\mathbb{M}$ 24'55		morning rise	7251 Nov 24 16:06	20° $\mathbb{M}$ 48'56	
evening set	7246 Aug 10 00:35	8° $\mathbb{M}$ 20'01		retrograde	7252 Mar 06 09:09	28° $\mathbb{M}$ 41'16	
				opposition	7252 May 12 08:27	25° $\mathbb{M}$ 16'07	2°27'41
conjunction	7246 Aug 27 21:15	10° $\mathbb{M}$ 34'34	0°03'17	min. Earth dist.	7252 May 12 11:54	25° $\mathbb{M}$ 15'25	8.26306 AU
minimum elong	7246 Aug 27 21:16	10° $\mathbb{M}$ 34'34	0°03'15	direct	7252 Jul 19 16:35	21° $\mathbb{M}$ 47'38	
behind sun begin	7246 Aug 27 14:01	10° $\mathbb{M}$ 32'18		evening set	7252 Nov 02 10:24	29° $\mathbb{M}$ 50'04	
behind sun end	7246 Aug 28 04:30	10° $\mathbb{M}$ 36'50			7252 Nov 03 18:21	0° $\mathbb{M}$	
max. Earth dist.	7246 Aug 27 21:06	10° $\mathbb{M}$ 34'31	10.29602 AU	conjunction	7252 Nov 20 03:54	2° $\mathbb{M}$ 04'05	2°01'35
morning rise	7246 Sep 14 20:14	12° $\mathbb{M}$ 49'52		minimum elong	7252 Nov 20 03:53	2° $\mathbb{M}$ 04'05	2°01'40
retrograde	7246 Dec 29 02:40	20° $\mathbb{M}$ 49'24		max. Earth dist.	7252 Nov 19 23:04	2° $\mathbb{M}$ 02'33	10.28338 AU
opposition	7247 Mar 07 01:24	17° $\mathbb{M}$ 22'05	0°21'54	morning rise	7252 Dec 07 18:23	4° $\mathbb{M}$ 17'13	
min. Earth dist.	7247 Mar 07 01:35	17° $\mathbb{M}$ 22'02	8.27213 AU	retrograde	7253 Mar 19 20:55	12° $\mathbb{M}$ 04'45	
direct	7247 May 13 05:13	13° $\mathbb{M}$ 56'17		opposition	7253 May 25 22:19	8° $\mathbb{M}$ 40'28	2°32'04
evening set	7247 Aug 24 05:12	21° $\mathbb{M}$ 47'56		min. Earth dist.	7253 May 26 01:29	8° $\mathbb{M}$ 39'50	8.30996 AU
				direct	7253 Aug 02 16:13	5° $\mathbb{M}$ 12'12	
conjunction	7247 Sep 11 03:52	24° $\mathbb{M}$ 03'42	0°31'39	evening set	7253 Nov 16 13:04	13° $\mathbb{M}$ 12'07	
minimum elong	7247 Sep 11 03:50	24° $\mathbb{M}$ 03'41	0°31'39				
max. Earth dist.	7247 Sep 11 03:02	24° $\mathbb{M}$ 03'26	10.25202 AU	conjunction	7253 Dec 04 04:01	15° $\mathbb{M}$ 24'41	2°01'53
morning rise	7247 Sep 29 03:48	26° $\mathbb{M}$ 19'54		minimum elong	7253 Dec 04 04:01	15° $\mathbb{M}$ 24'41	2°01'58
	7247 Oct 30 15:36	0° $\mathbb{M}$		max. Earth dist.	7253 Dec 03 23:39	15° $\mathbb{M}$ 23'19	10.33662 AU
retrograde	7248 Jan 12 02:09	4° $\mathbb{M}$ 20'35		morning rise	7253 Dec 21 15:18	17° $\mathbb{M}$ 36'12	
opposition	7248 Mar 19 15:47	0° $\mathbb{M}$ 53'17	0°56'28	retrograde	7254 Apr 02 05:42	25° $\mathbb{M}$ 18'20	
min. Earth dist.	7248 Mar 19 16:30	0° $\mathbb{M}$ 53'08	8.23594 AU	opposition	7254 Jun 08 10:07	21° $\mathbb{M}$ 55'00	2°28'15
	7248 Mar 30 17:20	30° $\mathbb{R}$ $\mathbb{M}$		min. Earth dist.	7254 Jun 08 13:13	21° $\mathbb{M}$ 54'23	8.36866 AU
direct	7248 May 25 20:55	27° $\mathbb{M}$ 26'34		direct	7254 Aug 16 12:20	18° $\mathbb{M}$ 27'12	
	7248 Jul 19 12:02	0° $\mathbb{M}$		evening set	7254 Nov 30 09:21	26° $\mathbb{M}$ 23'12	
evening set	7248 Sep 06 14:19	5° $\mathbb{M}$ 23'02					
				conjunction	7254 Dec 17 21:33	28° $\mathbb{M}$ 34'11	1°55'45
conjunction	7248 Sep 24 13:46	7° $\mathbb{M}$ 39'26	0°58'31	minimum elong	7254 Dec 17 21:35	28° $\mathbb{M}$ 34'12	1°55'50
minimum elong	7248 Sep 24 13:44	7° $\mathbb{M}$ 39'26	0°58'33	max. Earth dist.	7254 Dec 17 17:32	28° $\mathbb{M}$ 32'56	10.40027 AU
max. Earth dist.	7248 Sep 24 11:44	7° $\mathbb{M}$ 38'48	10.22370 AU		7254 Dec 29 07:33	0° $\mathbb{M}$	
morning rise	7248 Oct 12 13:33	9° $\mathbb{M}$ 56'02		morning rise	7255 Jan 04 05:48	0° $\mathbb{M}$ 44'01	
retrograde	7249 Jan 25 01:09	17° $\mathbb{M}$ 56'33		retrograde	7255 Apr 15 09:46	8° $\mathbb{M}$ 20'27	
opposition	7249 Apr 02 07:44	14° $\mathbb{M}$ 29'31	1°28'07	opposition	7255 Jun 21 19:13	4° $\mathbb{M}$ 58'07	2°16'46
min. Earth dist.	7249 Apr 02 09:29	14° $\mathbb{M}$ 29'09	8.21649 AU	min. Earth dist.	7255 Jun 21 22:33	4° $\mathbb{M}$ 57'28	8.43602 AU
direct	7249 Jun 08 16:54	11° $\mathbb{M}$ 02'01		direct	7255 Aug 30 05:33	1° $\mathbb{M}$ 31'00	
evening set	7249 Sep 21 02:28	19° $\mathbb{M}$ 02'14		evening set	7255 Dec 13 22:34	9° $\mathbb{M}$ 22'02	
conjunction	7249 Oct 09 01:35	21° $\mathbb{M}$ 18'45	1°22'13	conjunction	7255 Dec 31 08:03	11° $\mathbb{M}$ 31'22	1°43'47
minimum elong	7249 Oct 09 01:32	21° $\mathbb{M}$ 18'44	1°22'15	minimum elong	7255 Dec 31 08:05	11° $\mathbb{M}$ 31'23	1°43'52
max. Earth dist.	7249 Oct 08 22:06	21° $\mathbb{M}$ 17'39	10.21270 AU	max. Earth dist.	7255 Dec 31 03:58	11° $\mathbb{M}$ 30'06	10.47102 AU
morning rise	7249 Oct 27 00:08	23° $\mathbb{M}$ 35'09		morning rise	7256 Jan 17 13:39	13° $\mathbb{M}$ 39'32	
	7249 Dec 27 18:31	0° $\mathbb{M}$		retrograde	7256 Apr 27 07:49	21° $\mathbb{M}$ 10'21	
retrograde	7250 Feb 07 22:14	1° $\mathbb{M}$ 34'09		opposition	7256 Jul 04 01:14	17° $\mathbb{M}$ 48'57	1°58'35
	7250 Mar 22 15:00	30° $\mathbb{R}$ $\mathbb{M}$		min. Earth dist.	7256 Jul 04 04:32	17° $\mathbb{M}$ 48'18	8.50865 AU
opposition	7250 Apr 16 00:16	28° $\mathbb{M}$ 07'35	1°54'52	direct	7256 Sep 11 20:00	14° $\mathbb{M}$ 22'43	
min. Earth dist.	7250 Apr 16 03:09	28° $\mathbb{M}$ 07'00	8.21479 AU	evening set	7256 Dec 26 04:26	22° $\mathbb{M}$ 08'05	
direct	7250 Jun 22 15:28	24° $\mathbb{M}$ 39'30					
	7250 Sep 13 01:45	0° $\mathbb{M}$		conjunction	7257 Jan 12 11:21	24° $\mathbb{M}$ 15'45	1°26'50
evening set	7250 Oct 05 15:22	2° $\mathbb{M}$ 42'07		minimum elong	7257 Jan 12 11:24	24° $\mathbb{M}$ 15'46	1°26'54
				max. Earth dist.	7257 Jan 12 07:24	24° $\mathbb{M}$ 14'31	10.54522 AU
conjunction	7250 Oct 23 13:12	4° $\mathbb{M}$ 58'13	1°41'18	morning rise	7257 Jan 29 14:39	26° $\mathbb{M}$ 22'19	
minimum elong	7250 Oct 23 13:09	4° $\mathbb{M}$ 58'13	1°41'21		7257 Mar 02 18:28	0° $\mathbb{M}$	
max. Earth dist.	7250 Oct 23 08:30	4° $\mathbb{M}$ 56'43	10.21951 AU	retrograde	7257 May 10 01:46	3° $\mathbb{M}$ 47'53	
morning rise	7250 Nov 10 09:38	7° $\mathbb{M}$ 13'54		opposition	7257 Jul 17 04:05	0° $\mathbb{M}$ 27'19	1°34'56
	7251 Feb 08 04:29	15° $\mathbb{M}$		min. Earth dist.	7257 Jul 17 06:31	0° $\mathbb{M}$ 26'51	8.58276 AU
retrograde	7251 Feb 21 17:28	15° $\mathbb{M}$ 10'08			7257 Jul 23 01:42	30° $\mathbb{R}$ $\mathbb{M}$	
	7251 Mar 07 06:47	15° $\mathbb{R}$ $\mathbb{M}$		direct	7257 Sep 25 06:50	27° $\mathbb{M}$ 02'06	
opposition	7251 Apr 29 16:49	11° $\mathbb{M}$ 44'12	2°15'06		7257 Nov 25 15:47	0° $\mathbb{M}$	
min. Earth dist.	7251 Apr 29 20:25	11° $\mathbb{M}$ 43'28	8.23068 AU	evening set	7258 Jan 08 03:16	4° $\mathbb{M}$ 41'27	
direct	7251 Jul 06 15:46	8° $\mathbb{M}$ 15'47					
	7251 Oct 09 08:10	15° $\mathbb{M}$		conjunction	7258 Jan 25 07:46	6° $\mathbb{M}$ 47'30	1°05'57
evening set	7251 Oct 20 02:37	16° $\mathbb{M}$ 19'09		minimum elong	7258 Jan 25 07:48	6° $\mathbb{M}$ 47'31	1°06'00

max. Earth dist.	7258 Jan 25 04:58	6°  39	10.61905 AU	conjunction	7264 Apr 06 02:10	18°  26	-1°18'27
morning rise	7258 Feb 11 08:49	8°  31		minimum elong	7264 Apr 06 02:08	18°  25	1°18'29
	7258 Apr 14 23:14	15°  31		max. Earth dist.	7264 Apr 06 04:54	18°  15	10.88560 AU
retrograde	7258 May 22 17:38	16°  31		morning rise	7264 Apr 22 19:12	20°  03	
	7258 Jun 30 09:28	15°  31		retrograde	7264 Aug 02 19:00	27°  04	
opposition	7258 Jul 30 03:48	12°  38	1°07'11	opposition	7264 Oct 12 02:07	24°  19	-1°47'33
min. Earth dist.	7258 Jul 30 04:57	12°  25	8.65480 AU	min. Earth dist.	7264 Oct 11 23:26	24°  49	8.88569 AU
direct	7258 Oct 08 11:08	9°  30		direct	7264 Dec 21 02:35	21°  02	
	7259 Jan 03 03:37	15°  30		evening set	7265 Apr 01 05:53	28°  36	
evening set	7259 Jan 20 19:33	17°  48			7265 Apr 14 07:30	0°  8	
conjunction	7259 Feb 06 21:46	19°  21	0°42'17	conjunction	7265 Apr 17 22:06	0°  00	-1°36'10
minimum elong	7259 Feb 06 21:47	19°  21	0°42'21	minimum elong	7265 Apr 17 22:04	0°  00	1°36'13
max. Earth dist.	7259 Feb 06 20:39	19°  00	10.68911 AU	max. Earth dist.	7265 Apr 18 00:32	0°  44	10.88005 AU
morning rise	7259 Feb 23 20:44	21°  57		morning rise	7265 May 04 15:17	2°  43	
retrograde	7259 Jun 04 05:27	28°  10		retrograde	7265 Aug 15 03:47	9°  22	
opposition	7259 Aug 12 00:41	25°  48	0°36'49	opposition	7265 Oct 24 14:43	6°  00	-2°06'58
min. Earth dist.	7259 Aug 12 00:51	25°  46	8.72162 AU	min. Earth dist.	7265 Oct 24 12:18	6°  27	8.87238 AU
direct	7259 Oct 21 11:01	21°  45		direct	7266 Jan 02 09:13	3°  56	
evening set	7260 Feb 02 05:56	29°  19		evening set	7266 Apr 13 03:03	10°  12	
	7260 Feb 08 17:46	0°  19					
conjunction	7260 Feb 19 05:53	1°  27	0°17'02	conjunction	7266 Apr 29 19:13	12°  12'49	-1°49'53
minimum elong	7260 Feb 19 05:54	1°  27	0°17'04	minimum elong	7266 Apr 29 19:11	12°  12'48	1°49'56
max. Earth dist.	7260 Feb 19 05:53	1°  27	10.75227 AU	max. Earth dist.	7266 Apr 29 21:34	12°  13'31	10.85875 AU
morning rise	7260 Mar 07 03:06	3°  49		morning rise	7266 May 16 13:13	14°  12'58	
retrograde	7260 Jun 15 15:03	10°  13			7266 May 23 06:34	15°  8	
opposition	7260 Aug 23 18:54	7°  11	0°05'14	retrograde	7266 Aug 27 15:17	21°  06	
min. Earth dist.	7260 Aug 23 18:51	7°  12	8.78025 AU	opposition	7266 Nov 06 04:01	18°  11'55	-2°21'08
desc. node	7260 Oct 25 01:03	3°  29		min. Earth dist.	7266 Nov 06 01:23	18°  12'25	8.84390 AU
direct	7260 Nov 02 06:44	3°  09			7267 Jan 02 18:32	15°  8	
evening set	7261 Feb 13 11:37	11°  32		direct	7267 Jan 14 15:22	14°  52'52	
					7267 Jan 26 10:39	15°  8	
conjunction	7261 Mar 02 09:18	13°  25	-0°08'47	evening set	7267 Apr 25 01:58	22°  03'47	
minimum elong	7261 Mar 02 09:17	13°  25	0°08'46				
behind sun begin	7261 Mar 02 03:11	13°  14'36		conjunction	7267 May 11 18:59	24°  03'59	-1°59'00
behind sun end	7261 Mar 02 15:23	13°  18'14		minimum elong	7267 May 11 18:58	24°  03'59	1°59'04
max. Earth dist.	7261 Mar 02 09:24	13°  16'27	10.80577 AU	max. Earth dist.	7267 May 11 22:26	24°  05'02	10.82305 AU
morning rise	7261 Mar 19 05:04	15°  43		morning rise	7267 May 28 14:21	26°  04'55	
retrograde	7261 Jun 27 22:05	22°  20			7267 Jul 03 17:02	0°  2	
opposition	7261 Sep 05 10:48	19°  27	-0°26'11	retrograde	7267 Sep 09 05:20	3°  29'11	
min. Earth dist.	7261 Sep 05 10:21	19°  11'32	8.82813 AU	opposition	7267 Nov 18 18:15	0°  07'05	-2°29'22
direct	7261 Nov 14 21:57	15°  19		min. Earth dist.	7267 Nov 18 14:48	0°  07'44	8.80172 AU
evening set	7262 Feb 25 13:20	23°  18			7267 Nov 20 07:43	30°  8	
				direct	7268 Jan 26 22:06	26°  47'48	
conjunction	7262 Mar 14 09:02	25°  07	-0°33'54		7268 Mar 30 03:52	0°  2	
minimum elong	7262 Mar 14 09:01	25°  07	0°33'53	evening set	7268 May 06 03:38	4°  00'20	
max. Earth dist.	7262 Mar 14 09:41	25°  09'19	10.84725 AU				
morning rise	7262 Mar 31 03:36	27°  35		conjunction	7268 May 22 22:17	6°  01'31	-2°03'03
	7262 Apr 25 13:28	0°  0		minimum elong	7268 May 22 22:17	6°  01'31	2°03'07
retrograde	7262 Jul 10 03:37	4°  0		max. Earth dist.	7268 May 23 02:37	6°  02'50	10.77463 AU
opposition	7262 Sep 18 00:59	1°  0		morning rise	7268 Jun 08 19:42	8°  03'34	
min. Earth dist.	7262 Sep 17 23:28	1°  0		retrograde	7268 Sep 21 00:51	15°  03'28	
	7262 Oct 02 05:00	30°  8		opposition	7268 Nov 30 10:19	12°  09'23	-2°31'11
direct	7262 Nov 27 11:22	27°  12		min. Earth dist.	7268 Nov 30 06:18	12°  10'09	8.74771 AU
	7263 Jan 20 08:16	0°  0		direct	7269 Feb 07 05:55	8°  0	
evening set	7263 Mar 09 12:00	4°  0		evening set	7269 May 18 09:00	16°  0	
conjunction	7263 Mar 26 06:10	6°  0		conjunction	7269 Jun 04 05:55	18°  0	
minimum elong	7263 Mar 26 06:09	6°  0		minimum elong	7269 Jun 04 05:56	18°  0	
max. Earth dist.	7263 Mar 26 08:15	6°  0		max. Earth dist.	7269 Jun 04 10:12	18°  0	
morning rise	7263 Apr 11 23:45	8°  0		morning rise	7269 Jun 21 06:14	20°  0	
retrograde	7263 Jul 22 11:17	16°  0		retrograde	7269 Oct 03 23:32	27°  0	
opposition	7263 Sep 30 13:53	12°  0		opposition	7269 Dec 13 04:38	24°  0	
min. Earth dist.	7263 Sep 30 11:17	12°  0		min. Earth dist.	7269 Dec 13 00:54	24°  0	
direct	7263 Dec 09 21:05	9°  0		direct	7270 Feb 19 14:35	21°  0	
evening set	7264 Mar 20 09:09	16°  0		evening set	7270 May 30 19:13	28°  0	
					7270 Jun 13 16:46	0°  0	

conjunction	7270 Jun 16 19:10	0° $\mathring{O}$ 22'48	-1°54'49	opposition	7276 Feb 29 05:14	11° $\mathring{M}$ 27'03	0°05'32
minimum elong	7270 Jun 16 19:12	0° $\mathring{O}$ 22'48	1°54'55	min. Earth dist.	7276 Feb 29 04:50	11° $\mathring{M}$ 27'08	8.27690 AU
max. Earth dist.	7270 Jun 16 22:42	0° $\mathring{O}$ 23'52	10.64866 AU	direct	7276 May 06 07:44	8° $\mathring{M}$ 01'17	
morning rise	7270 Jul 03 23:06	2° $\mathring{O}$ 28'07		evening set	7276 Aug 17 00:48	15° $\mathring{M}$ 51'13	
retrograde	7270 Oct 17 01:00	10° $\mathring{O}$ 07'03					
opposition	7270 Dec 26 01:22	6° $\mathring{O}$ 42'03	-2°14'35	conjunction	7276 Sep 03 22:34	18° $\mathring{M}$ 06'40	0°18'39
min. Earth dist.	7270 Dec 25 22:24	6° $\mathring{O}$ 42'37	8.61402 AU	minimum elong	7276 Sep 03 22:33	18° $\mathring{M}$ 06'40	0°18'38
direct	7271 Mar 04 03:35	3° $\mathring{O}$ 21'00		max. Earth dist.	7276 Sep 03 21:56	18° $\mathring{M}$ 06'28	10.25523 AU
evening set	7271 Jun 12 11:01	10° $\mathring{O}$ 43'33		morning rise	7276 Sep 21 22:23	20° $\mathring{M}$ 22'45	
				retrograde	7277 Jan 05 01:33	28° $\mathring{M}$ 23'50	
conjunction	7271 Jun 29 14:46	12° $\mathring{O}$ 49'37	-1°42'30	opposition	7277 Mar 13 19:12	24° $\mathring{M}$ 56'11	0°40'48
minimum elong	7271 Jun 29 14:48	12° $\mathring{O}$ 49'37	1°42'36	min. Earth dist.	7277 Mar 13 19:41	24° $\mathring{M}$ 56'05	8.23727 AU
max. Earth dist.	7271 Jun 29 18:09	12° $\mathring{O}$ 50'39	10.57647 AU	direct	7277 May 19 23:11	21° $\mathring{M}$ 29'36	
morning rise	7271 Jul 16 22:40	14° $\mathring{O}$ 56'54		evening set	7277 Aug 31 08:24	29° $\mathring{M}$ 24'41	
retrograde	7271 Oct 30 07:38	22° $\mathring{O}$ 40'54			7277 Sep 05 01:13	0° $\mathring{O}$	
opposition	7272 Jan 08 00:54	19° $\mathring{O}$ 15'01	-1°56'20				
min. Earth dist.	7272 Jan 07 22:13	19° $\mathring{O}$ 15'32	8.54003 AU	conjunction	7277 Sep 18 07:37	1° $\mathring{O}$ 41'02	0°46'27
direct	7272 Mar 15 20:44	15° $\mathring{O}$ 53'07		minimum elong	7277 Sep 18 07:36	1° $\mathring{O}$ 41'01	0°46'28
evening set	7272 Jun 24 09:09	23° $\mathring{O}$ 20'27		max. Earth dist.	7277 Sep 18 06:25	1° $\mathring{O}$ 40'39	10.22325 AU
				morning rise	7277 Oct 06 07:52	3° $\mathring{O}$ 57'44	
conjunction	7272 Jul 11 17:05	25° $\mathring{O}$ 28'36	-1°25'05	retrograde	7278 Jan 19 00:25	11° $\mathring{O}$ 59'14	
minimum elong	7272 Jul 11 17:08	25° $\mathring{O}$ 28'37	1°25'10	opposition	7278 Mar 27 11:00	8° $\mathring{O}$ 31'55	1°14'04
max. Earth dist.	7272 Jul 11 20:43	25° $\mathring{O}$ 29'44	10.50214 AU	min. Earth dist.	7278 Mar 27 11:45	8° $\mathring{O}$ 31'45	8.21384 AU
morning rise	7272 Jul 29 04:59	27° $\mathring{O}$ 37'58		direct	7278 Jun 02 18:36	5° $\mathring{O}$ 04'42	
	7272 Aug 18 10:19	0° $\mathring{O}$		evening set	7278 Sep 14 20:07	13° $\mathring{O}$ 04'01	
retrograde	7272 Nov 11 19:12	5° $\mathring{O}$ 26'47					
opposition	7273 Jan 20 03:24	2° $\mathring{O}$ 00'08	-1°32'03	conjunction	7278 Oct 02 19:37	15° $\mathring{O}$ 20'43	1°11'48
min. Earth dist.	7273 Jan 20 00:37	2° $\mathring{O}$ 00'41	8.46562 AU	minimum elong	7278 Oct 02 19:34	15° $\mathring{O}$ 20'42	1°11'50
	7273 Feb 16 07:12	30° $\mathring{R}$ $\mathring{O}$		max. Earth dist.	7278 Oct 02 18:06	15° $\mathring{O}$ 20'14	10.20814 AU
direct	7273 Mar 28 16:31	28° $\mathring{O}$ 37'18		morning rise	7278 Oct 20 18:58	17° $\mathring{O}$ 37'25	
	7273 May 07 06:47	0° $\mathring{O}$		retrograde	7279 Feb 01 23:15	25° $\mathring{O}$ 37'59	
evening set	7273 Jul 07 14:21	6° $\mathring{O}$ 09'59		opposition	7279 Apr 10 03:53	22° $\mathring{O}$ 11'13	1°43'17
				min. Earth dist.	7279 Apr 10 04:52	22° $\mathring{O}$ 11'01	8.20799 AU
conjunction	7273 Jul 25 02:32	8° $\mathring{O}$ 20'15	-1°03'12	direct	7279 Jun 16 15:59	18° $\mathring{O}$ 43'33	
minimum elong	7273 Jul 25 02:34	8° $\mathring{O}$ 20'15	1°03'16	evening set	7279 Sep 29 09:39	26° $\mathring{O}$ 45'49	
max. Earth dist.	7273 Jul 25 05:57	8° $\mathring{O}$ 21'19	10.42921 AU				
morning rise	7273 Aug 11 18:22	10° $\mathring{O}$ 31'41		conjunction	7279 Oct 17 08:19	29° $\mathring{O}$ 02'18	1°33'09
	7273 Sep 20 23:12	15° $\mathring{O}$		minimum elong	7279 Oct 17 08:17	29° $\mathring{O}$ 02'18	1°33'12
retrograde	7273 Nov 25 10:31	18° $\mathring{O}$ 24'49		max. Earth dist.	7279 Oct 17 06:22	29° $\mathring{O}$ 01'41	10.21093 AU
	7274 Feb 01 20:51	15° $\mathring{R}$ $\mathring{O}$			7279 Oct 24 21:12	0° $\mathring{M}$	
opposition	7274 Feb 02 09:01	14° $\mathring{O}$ 57'35	-1°02'43	morning rise	7279 Nov 04 05:45	1° $\mathring{M}$ 18'28	
min. Earth dist.	7274 Feb 02 06:27	14° $\mathring{O}$ 58'05	8.39451 AU	retrograde	7280 Feb 15 21:59	9° $\mathring{M}$ 16'45	
direct	7274 Apr 10 17:01	11° $\mathring{O}$ 33'45		opposition	7280 Apr 22 21:17	5° $\mathring{M}$ 50'43	2°06'38
	7274 Jun 13 19:39	15° $\mathring{O}$		min. Earth dist.	7280 Apr 22 22:44	5° $\mathring{M}$ 50'25	8.22009 AU
evening set	7274 Jul 21 02:51	19° $\mathring{O}$ 12'09		direct	7280 Jun 29 14:53	2° $\mathring{M}$ 22'45	
				evening set	7280 Oct 12 22:37	10° $\mathring{M}$ 26'24	
conjunction	7274 Aug 07 18:56	21° $\mathring{O}$ 24'27	-0°37'45				
minimum elong	7274 Aug 07 18:58	21° $\mathring{O}$ 24'27	0°37'48	conjunction	7280 Oct 30 19:36	12° $\mathring{M}$ 42'10	1°49'13
max. Earth dist.	7274 Aug 07 21:06	21° $\mathring{O}$ 25'07	10.36138 AU	minimum elong	7280 Oct 30 19:33	12° $\mathring{M}$ 42'09	1°49'17
morning rise	7274 Aug 25 14:21	23° $\mathring{O}$ 37'48		max. Earth dist.	7280 Oct 30 16:57	12° $\mathring{M}$ 41'19	10.23141 AU
	7274 Oct 27 01:26	0° $\mathring{M}$		morning rise	7280 Nov 17 14:27	14° $\mathring{M}$ 57'20	
retrograde	7274 Dec 09 05:15	1° $\mathring{M}$ 34'32			7280 Nov 17 23:00	15° $\mathring{M}$	
	7275 Jan 21 20:33	30° $\mathring{R}$ $\mathring{O}$		retrograde	7281 Feb 28 16:38	22° $\mathring{M}$ 52'02	
opposition	7275 Feb 15 17:44	28° $\mathring{O}$ 06'55	-0°29'37	opposition	7281 May 06 14:10	19° $\mathring{M}$ 26'51	2°22'47
min. Earth dist.	7275 Feb 15 16:09	28° $\mathring{O}$ 07'14	8.33040 AU	min. Earth dist.	7281 May 06 16:34	19° $\mathring{M}$ 26'22	8.24918 AU
direct	7275 Apr 23 22:06	24° $\mathring{O}$ 42'06		direct	7281 Jul 13 16:08	15° $\mathring{M}$ 58'48	
	7275 Jul 14 10:54	0° $\mathring{M}$		evening set	7281 Oct 27 09:08	24° $\mathring{M}$ 02'07	
evening set	7275 Aug 03 22:34	2° $\mathring{M}$ 26'20					
				conjunction	7281 Nov 14 03:46	26° $\mathring{M}$ 16'45	1°59'06
conjunction	7275 Aug 21 17:53	4° $\mathring{M}$ 40'24	-0°10'01	minimum elong	7281 Nov 14 03:45	26° $\mathring{M}$ 16'45	1°59'10
minimum elong	7275 Aug 21 17:54	4° $\mathring{M}$ 40'25	0°10'03	max. Earth dist.	7281 Nov 13 23:51	26° $\mathring{M}$ 15'30	10.26802 AU
behind sun begin	7275 Aug 21 12:05	4° $\mathring{M}$ 38'36		morning rise	7281 Dec 01 19:40	28° $\mathring{M}$ 30'35	
behind sun end	7275 Aug 21 23:43	4° $\mathring{M}$ 42'14			7281 Dec 14 00:42	0° $\mathring{X}$	
max. Earth dist.	7275 Aug 21 18:31	4° $\mathring{M}$ 40'36	10.30223 AU	retrograde	7282 Mar 14 06:34	6° $\mathring{X}$ 20'36	
morning rise	7275 Sep 08 16:03	6° $\mathring{M}$ 55'21		opposition	7282 May 20 05:30	2° $\mathring{X}$ 56'21	2°30'52
retrograde	7275 Dec 23 03:03	14° $\mathring{M}$ 54'47		min. Earth dist.	7282 May 20 08:57	2° $\mathring{X}$ 55'39	8.29299 AU
asc. node	7276 Jan 01 08:45	14° $\mathring{M}$ 50'12			7282 Jul 03 02:58	30° $\mathring{R}$ $\mathring{M}$	

direct	7282 Jul 27 17:19	29°  28'24		evening set	7289 Jan 27 06:06	24°  12'11	
	7282 Aug 21 06:13	0°  0					
evening set	7282 Nov 10 15:00	7°  29'45		conjunction	7289 Feb 13 07:04	26°  16'08	0°28'00
				minimum elong	7289 Feb 13 07:05	26°  16'08	0°28'03
conjunction	7282 Nov 28 06:59	9°  42'59	2°02'23	max. Earth dist.	7289 Feb 13 04:20	26°  15'18	10.70993 AU
minimum elong	7282 Nov 28 06:59	9°  42'58	2°02'27	morning rise	7289 Mar 02 05:19	28°  19'16	
max. Earth dist.	7282 Nov 28 01:52	9°  41'21	10.31788 AU		7289 Mar 16 15:14	0°  0	
morning rise	7282 Dec 15 19:47	11°  55'13		retrograde	7289 Jun 10 14:57	5°  35'38	
retrograde	7283 Mar 27 16:22	19°  39'55		opposition	7289 Aug 18 15:17	2°  16'12	0°18'50
opposition	7283 Jun 02 18:49	16°  16'37	2°30'41	min. Earth dist.	7289 Aug 18 16:18	2°  16'00	8.73800 AU
min. Earth dist.	7283 Jun 02 22:43	16°  15'50	8.34798 AU		7289 Sep 20 12:07	30°  00	
direct	7283 Aug 10 16:25	12°  49'00		direct	7289 Oct 28 03:43	28°  53'19	
evening set	7283 Nov 24 14:36	20°  46'58			7289 Dec 04 01:24	0°  0	
				evening set	7290 Feb 08 14:17	6°  18'52	
conjunction	7283 Dec 12 03:55	22°  58'40	1°59'04				
minimum elong	7283 Dec 12 03:56	22°  58'40	1°59'08	conjunction	7290 Feb 25 13:07	8°  21'32	0°02'19
max. Earth dist.	7283 Dec 11 22:23	22°  56'55	10.37711 AU	minimum elong	7290 Feb 25 13:07	8°  21'32	0°02'21
morning rise	7283 Dec 29 13:42	25°  09'16		behind sun begin	7290 Feb 25 06:05	8°  19'25	
	7284 Feb 11 12:57	0°  0		behind sun end	7290 Feb 25 20:09	8°  23'39	
retrograde	7284 Apr 08 22:27	2°  48'25		max. Earth dist.	7290 Feb 25 12:25	8°  21'21	10.76403 AU
	7284 Jun 08 01:06	30°  00		morning rise	7290 Mar 14 09:38	10°  23'32	
opposition	7284 Jun 15 05:32	29°  26'04	2°22'31	desc. node	7290 Mar 30 13:06	12°  15'19	
min. Earth dist.	7284 Jun 15 09:20	29°  25'19	8.41035 AU	retrograde	7290 Jun 23 00:34	17°  37'43	
direct	7284 Aug 23 12:23	25°  59'02		opposition	7290 Aug 31 08:47	14°  18'19	-0°12'53
	7284 Nov 03 04:57	0°  0		min. Earth dist.	7290 Aug 31 08:23	14°  18'24	8.78727 AU
evening set	7284 Dec 07 07:35	3°  52'37		direct	7290 Nov 09 21:02	10°  56'18	
				evening set	7291 Feb 20 18:06	18°  17'04	
conjunction	7284 Dec 24 18:22	6°  02'44	1°49'35				
minimum elong	7284 Dec 24 18:23	6°  02'44	1°49'40	conjunction	7291 Mar 09 14:56	20°  18'37	-0°23'20
max. Earth dist.	7284 Dec 24 13:13	6°  01'07	10.44234 AU	minimum elong	7291 Mar 09 14:55	20°  18'37	0°23'19
morning rise	7285 Jan 11 01:16	8°  11'41		max. Earth dist.	7291 Mar 09 15:44	20°  18'51	10.80793 AU
retrograde	7285 Apr 22 00:00	15°  34'52		morning rise	7291 Mar 26 09:59	22°  19'42	
opposition	7285 Jun 28 13:21	12°  32'53	2°07'10	retrograde	7291 Jul 05 07:24	29°  32'46	
min. Earth dist.	7285 Jun 28 16:45	12°  32'13	8.47728 AU	opposition	7291 Sep 13 00:12	26°  13'15	-0°43'44
direct	7285 Sep 06 04:50	8°  57'35		min. Earth dist.	7291 Sep 12 23:04	26°  13'28	8.82562 AU
evening set	7285 Dec 20 17:34	16°  34'00		direct	7291 Nov 22 10:57	22°  51'59	
					7292 Mar 02 12:28	0°  0	
conjunction	7286 Jan 07 01:51	18°  35'43	1°34'41	evening set	7292 Mar 03 18:32	0°  08'51	
minimum elong	7286 Jan 07 01:53	18°  35'43	1°34'46				
max. Earth dist.	7286 Jan 06 21:35	18°  35'11	10.51103 AU	conjunction	7292 Mar 20 13:29	2°  09'30	-0°47'42
morning rise	7286 Jan 24 06:05	21°  30'17		minimum elong	7292 Mar 20 13:28	2°  09'29	0°47'43
retrograde	7286 May 04 22:04	28°  30'17		max. Earth dist.	7292 Mar 20 14:45	2°  09'53	10.83993 AU
opposition	7286 Jul 11 18:28	25°  30'36	1°45'45	morning rise	7292 Apr 06 07:35	4°  09'54	
min. Earth dist.	7286 Jul 11 21:46	25°  30'57	8.54637 AU	retrograde	7292 Jul 16 14:18	11°  22'56	
direct	7286 Sep 19 16:46	21°  34'07		opposition	7292 Sep 24 14:07	8°  03'12	-1°12'29
evening set	7287 Jan 02 20:21	29°  32'47		min. Earth dist.	7292 Sep 24 12:39	8°  03'28	8.85141 AU
	7287 Jan 07 09:36	0°  0		direct	7292 Dec 03 22:05	4°  42'35	
				evening set	7293 Mar 15 16:43	11°  56'29	
conjunction	7287 Jan 20 02:04	1°  33'43	1°15'22				
minimum elong	7287 Jan 20 02:06	1°  33'44	1°15'27	conjunction	7293 Apr 01 10:09	13°  56'28	-1°09'56
max. Earth dist.	7287 Jan 19 22:13	1°  32'32	10.58051 AU	minimum elong	7293 Apr 01 10:07	13°  56'28	1°09'59
morning rise	7287 Feb 06 04:01	3°  39'33		max. Earth dist.	7293 Apr 01 11:56	13°  57'00	10.85869 AU
retrograde	7287 May 17 16:02	11°  30'12		morning rise	7293 Apr 18 03:37	15°  56'28	
opposition	7287 Jul 24 20:31	7°  43'08	1°19'35	retrograde	7293 Jul 28 20:37	23°  10'33	
min. Earth dist.	7287 Jul 24 23:41	7°  42'31	8.61484 AU	opposition	7293 Oct 07 03:05	19°  50'25	-1°38'03
direct	7287 Oct 02 23:44	4°  18'31		min. Earth dist.	7293 Oct 07 00:33	19°  50'53	8.86353 AU
evening set	7288 Jan 15 16:22	11°  55'15		direct	7293 Dec 16 06:26	16°  50'22	
				evening set	7294 Mar 27 13:43	23°  56'17	
conjunction	7288 Feb 01 19:36	14°  00'39	0°52'45				
minimum elong	7288 Feb 01 19:38	14°  00'39	0°52'49	conjunction	7294 Apr 13 06:18	25°  41'56	-1°29'11
max. Earth dist.	7288 Feb 01 16:02	13°  59'33	10.64783 AU	minimum elong	7294 Apr 13 06:16	25°  41'55	1°29'14
	7288 Feb 09 21:11	15°  00		max. Earth dist.	7294 Apr 13 09:40	25°  42'57	10.86344 AU
morning rise	7288 Feb 18 19:38	16°  05'04		morning rise	7294 Apr 29 23:30	27°  41'48	
retrograde	7288 May 29 03:58	23°  52'37			7294 May 20 07:51	0°  0	
opposition	7288 Aug 05 19:18	20°  44'58	0°50'08	retrograde	7294 Aug 10 05:22	4°  57'56	
min. Earth dist.	7288 Aug 05 21:52	20°  44'29	8.67971 AU	opposition	7294 Oct 19 15:45	1°  37'17	-1°59'28
direct	7288 Oct 15 04:07	16°  41'13		min. Earth dist.	7294 Oct 19 11:49	1°  38'01	8.86146 AU
































































































































	7294 Nov 11 06:02	30° $\Upsilon$	opposition	7301 Jan 02 20:22	14° $\Theta$ 08'13 -2°04'38
direct	7294 Dec 28 14:31	28° $\Upsilon$ 17'40	min. Earth dist.	7301 Jan 02 15:32	14° $\Theta$ 09'09 8.59375 AU
	7295 Feb 12 07:37	0° $\mathcal{B}$	direct	7301 Mar 11 18:33	10° $\Theta$ 47'20
evening set	7295 Apr 08 10:39	5° $\mathcal{B}$ 28'33	evening set	7301 Jun 20 04:48	18° $\Theta$ 11'33
conjunction	7295 Apr 25 03:00	7° $\mathcal{B}$ 28'14 -1°44'40	conjunction	7301 Jul 07 10:39	20° $\Theta$ 18'27 -1°32'57
minimum elong	7295 Apr 25 02:58	7° $\mathcal{B}$ 28'13 1°44'43	minimum elong	7301 Jul 07 10:41	20° $\Theta$ 18'28 1°33'03
max. Earth dist.	7295 Apr 25 07:48	7° $\mathcal{B}$ 29'41 10.85391 AU	max. Earth dist.	7301 Jul 07 15:26	20° $\Theta$ 19'56 10.55860 AU
morning rise	7295 May 11 20:31	9° $\mathcal{B}$ 28'18	morning rise	7301 Jul 24 20:37	22° $\Theta$ 26'36
	7295 Jul 06 08:12	15° $\mathcal{B}$		7301 Oct 22 22:14	0° $\mathcal{Q}$
retrograde	7295 Aug 22 17:17	16° $\mathcal{B}$ 47'19	retrograde	7301 Nov 07 09:53	0° $\mathcal{Q}$ 12'10
	7295 Oct 10 12:16	15° $\mathcal{R}\mathcal{B}$		7301 Nov 22 20:25	30° $\mathcal{R}\mathcal{B}$
opposition	7295 Nov 01 04:44	13° $\mathcal{B}$ 26'05 -2°15'55	opposition	7302 Jan 15 21:12	26° $\Theta$ 46'31 -1°42'52
min. Earth dist.	7295 Oct 31 23:57	13° $\mathcal{B}$ 26'58 8.84516 AU	min. Earth dist.	7302 Jan 15 17:35	26° $\Theta$ 47'13 8.52439 AU
direct	7296 Jan 09 19:28	10° $\mathcal{B}$ 06'43	direct	7302 Mar 24 11:56	23° $\Theta$ 24'46
	7296 Mar 30 03:50	15° $\mathcal{B}$		7302 Jun 25 19:11	0° $\mathcal{Q}$
evening set	7296 Apr 19 08:55	17° $\mathcal{B}$ 17'36	evening set	7302 Jul 03 06:23	0° $\mathcal{Q}$ 53'49
conjunction	7296 May 06 01:31	19° $\mathcal{B}$ 17'37 -1°55'46	conjunction	7302 Jul 20 16:23	3° $\mathcal{Q}$ 02'45 -1°12'56
minimum elong	7296 May 06 01:30	19° $\mathcal{B}$ 17'36 1°55'49	minimum elong	7302 Jul 20 16:25	3° $\mathcal{Q}$ 02'46 1°13'00
max. Earth dist.	7296 May 06 06:26	19° $\mathcal{B}$ 19'06 10.83049 AU	max. Earth dist.	7302 Jul 20 19:37	3° $\mathcal{Q}$ 03'45 10.48908 AU
morning rise	7296 May 22 20:09	21° $\mathcal{B}$ 18'15	morning rise	7302 Aug 07 06:30	5° $\mathcal{Q}$ 12'55
retrograde	7296 Sep 03 06:01	28° $\mathcal{B}$ 40'52	retrograde	7302 Nov 20 21:15	13° $\mathcal{Q}$ 02'44
opposition	7296 Nov 12 18:33	25° $\mathcal{B}$ 18'57 -2°26'40	opposition	7303 Jan 29 00:41	9° $\mathcal{Q}$ 36'28 -1°15'39
min. Earth dist.	7296 Nov 12 13:59	25° $\mathcal{B}$ 19'49 8.81531 AU	min. Earth dist.	7303 Jan 28 22:33	9° $\mathcal{Q}$ 36'53 8.45462 AU
direct	7297 Jan 21 00:39	21° $\mathcal{B}$ 59'39	direct	7303 Apr 06 11:06	6° $\mathcal{Q}$ 13'45
evening set	7297 May 01 09:20	29° $\mathcal{B}$ 11'32	evening set	7303 Jul 16 14:52	13° $\mathcal{Q}$ 48'11
	7297 May 08 03:46	0° $\mathcal{I}$		7303 Jul 26 07:31	15° $\mathcal{Q}$
conjunction	7297 May 18 03:01	1° $\mathcal{I}$ 12'16 -2°01'58	conjunction	7303 Aug 03 05:01	15° $\mathcal{Q}$ 59'10 -0°48'58
minimum elong	7297 May 18 03:00	1° $\mathcal{I}$ 12'16 2°02'02	minimum elong	7303 Aug 03 05:03	15° $\mathcal{Q}$ 59'11 0°49'02
max. Earth dist.	7297 May 18 07:49	1° $\mathcal{I}$ 13'43 10.79428 AU	max. Earth dist.	7303 Aug 03 07:09	15° $\mathcal{Q}$ 59'50 10.42044 AU
morning rise	7297 Jun 03 23:32	3° $\mathcal{I}$ 13'49	morning rise	7303 Aug 20 22:50	18° $\mathcal{Q}$ 11'16
retrograde	7297 Sep 15 22:14	10° $\mathcal{I}$ 40'38	retrograde	7303 Dec 04 12:59	26° $\mathcal{Q}$ 04'56
opposition	7297 Nov 25 09:57	7° $\mathcal{I}$ 17'58 -2°31'10	opposition	7304 Feb 11 07:09	22° $\mathcal{Q}$ 38'11 -0°44'08
min. Earth dist.	7297 Nov 25 05:26	7° $\mathcal{I}$ 18'50 8.77330 AU	min. Earth dist.	7304 Feb 11 05:50	22° $\mathcal{Q}$ 38'27 8.38747 AU
direct	7298 Feb 02 08:41	3° $\mathcal{I}$ 58'32	direct	7304 Apr 18 14:08	19° $\mathcal{Q}$ 14'29
evening set	7298 May 13 12:49	11° $\mathcal{I}$ 12'17	evening set	7304 Jul 29 06:17	26° $\mathcal{Q}$ 54'38
conjunction	7298 May 30 08:34	13° $\mathcal{I}$ 14'07 -2°02'52	conjunction	7304 Aug 16 00:08	29° $\mathcal{Q}$ 07'31 -0°22'09
minimum elong	7298 May 30 08:35	13° $\mathcal{I}$ 14'07 2°02'57	minimum elong	7304 Aug 16 00:09	29° $\mathcal{Q}$ 07'31 0°22'12
max. Earth dist.	7298 May 30 14:03	13° $\mathcal{I}$ 15'47 10.74685 AU	max. Earth dist.	7304 Aug 16 01:32	29° $\mathcal{Q}$ 07'58 10.35629 AU
morning rise	7298 Jun 16 07:38	15° $\mathcal{I}$ 16'56		7304 Aug 22 23:12	0° $\mathcal{P}$
retrograde	7298 Sep 28 18:43	22° $\mathcal{I}$ 48'20	morning rise	7304 Sep 02 20:56	1° $\mathcal{P}$ 21'22
opposition	7298 Dec 08 03:08	19° $\mathcal{I}$ 24'54 -2°29'03	retrograde	7304 Dec 17 08:58	9° $\mathcal{P}$ 18'14
min. Earth dist.	7298 Dec 07 22:15	19° $\mathcal{I}$ 25'50 8.72086 AU	opposition	7305 Feb 23 16:30	5° $\mathcal{P}$ 51'09 -0°09'48
direct	7299 Feb 14 17:25	16° $\mathcal{I}$ 05'09	min. Earth dist.	7305 Feb 23 15:38	5° $\mathcal{P}$ 51'19 8.32717 AU
evening set	7299 May 25 20:44	23° $\mathcal{I}$ 21'39	direct	7305 May 01 20:27	2° $\mathcal{P}$ 26'25
			asc. node	7305 Jun 08 19:44	3° $\mathcal{P}$ 43'15
conjunction	7299 Jun 11 19:21	25° $\mathcal{I}$ 24'55 -1°58'18	evening set	7305 Aug 12 04:41	10° $\mathcal{P}$ 12'21
minimum elong	7299 Jun 11 19:23	25° $\mathcal{I}$ 24'55 1°58'24			
max. Earth dist.	7299 Jun 12 01:41	25° $\mathcal{I}$ 26'51 10.69010 AU	conjunction	7305 Aug 30 01:27	12° $\mathcal{P}$ 26'50 0°06'15
morning rise	7299 Jun 28 21:30	27° $\mathcal{I}$ 29'16	minimum elong	7305 Aug 30 01:26	12° $\mathcal{P}$ 26'50 0°06'13
	7299 Jul 20 19:30	0° $\Theta$	behind sun begin	7305 Aug 29 18:32	12° $\mathcal{P}$ 24'41
retrograde	7299 Oct 11 19:08	5° $\Theta$ 05'28	behind sun end	7305 Aug 30 08:19	12° $\mathcal{P}$ 28'59
opposition	7299 Dec 20 22:22	1° $\Theta$ 41'14 -2°20'10	max. Earth dist.	7305 Aug 30 01:46	12° $\mathcal{P}$ 26'56 10.30104 AU
min. Earth dist.	7299 Dec 20 17:02	1° $\Theta$ 42'16 8.66014 AU	morning rise	7305 Sep 17 00:20	14° $\mathcal{P}$ 42'03
	7300 Jan 12 21:48	30° $\mathcal{R}\mathcal{I}$	retrograde	7305 Dec 31 06:42	22° $\mathcal{P}$ 41'07
direct	7300 Feb 27 04:44	28° $\mathcal{I}$ 21'01	opposition	7306 Mar 09 04:21	19° $\mathcal{P}$ 13'54 0°25'30
	7300 Apr 12 03:50	0° $\Theta$	min. Earth dist.	7306 Mar 09 04:18	19° $\mathcal{P}$ 13'55 8.27791 AU
evening set	7300 Jun 07 09:51	5° $\Theta$ 41'03	direct	7306 May 15 08:07	15° $\mathcal{P}$ 48'10
			evening set	7306 Aug 26 09:06	23° $\mathcal{P}$ 39'35
conjunction	7300 Jun 24 11:53	7° $\Theta$ 46'02 -1°48'15			
minimum elong	7300 Jun 24 11:55	7° $\Theta$ 46'03 1°48'21	conjunction	7306 Sep 13 07:41	25° $\mathcal{P}$ 55'13 0°34'28
max. Earth dist.	7300 Jun 24 17:53	7° $\Theta$ 47'53 10.62646 AU	minimum elong	7306 Sep 13 07:40	25° $\mathcal{P}$ 55'13 0°34'28
morning rise	7300 Jul 11 17:43	9° $\Theta$ 52'12	max. Earth dist.	7306 Sep 13 06:26	25° $\mathcal{P}$ 54'49 10.25838 AU
retrograde	7300 Oct 25 00:38	17° $\Theta$ 33'11	morning rise	7306 Oct 01 07:35	28° $\mathcal{P}$ 11'19

	7306 Oct 16 06:18	0°♄	conjunction	7312 Dec 06 04:40	17°♄10'00	2°01'26
retrograde	7307 Jan 14 04:48	6°♄11'26	minimum elong	7312 Dec 06 04:40	17°♄10'00	2°01'31
opposition	7307 Mar 22 18:23	2°♄44'17 0°59'46	max. Earth dist.	7312 Dec 05 23:52	17°♄08'29	10.34235 AU
min. Earth dist.	7307 Mar 22 19:36	2°♄44'02 8.24284 AU	morning rise	7312 Dec 23 15:46	19°♄21'23	
	7307 Apr 30 21:46	30°♄♂	retrograde	7313 Apr 04 06:33	27°♄03'03	
direct	7307 May 29 00:09	29°♄17'38	opposition	7313 Jun 10 10:27	23°♄39'48	2°27'19
	7307 Jun 25 23:47	0°♄	min. Earth dist.	7313 Jun 10 14:27	23°♄39'00	8.37375 AU
evening set	7307 Sep 09 17:59	7°♄13'50	direct	7313 Aug 18 12:20	20°♄12'01	
			evening set	7313 Dec 02 09:45	28°♄07'38	
conjunction	7307 Sep 27 17:13	9°♄30'05 1°01'00		7313 Dec 17 10:43	0°♄	
minimum elong	7307 Sep 27 17:11	9°♄30'04 1°01'02				
max. Earth dist.	7307 Sep 27 14:11	9°♄29'07 10.23096 AU	conjunction	7313 Dec 19 21:44	0°♄18'31	1°54'44
morning rise	7307 Oct 15 16:55	11°♄46'31	minimum elong	7313 Dec 19 21:45	0°♄18'32	1°54'48
retrograde	7308 Jan 28 02:54	19°♄46'26	max. Earth dist.	7313 Dec 19 16:35	0°♄16'54	10.40463 AU
opposition	7308 Apr 04 09:53	16°♄19'34 1°30'54	morning rise	7314 Jan 06 05:57	2°♄28'16	
min. Earth dist.	7308 Apr 04 12:22	16°♄19'04 8.22410 AU	retrograde	7314 Apr 17 08:05	10°♄04'20	
direct	7308 Jun 10 19:33	12°♄52'09	opposition	7314 Jun 23 19:15	6°♄42'02	2°15'10
evening set	7308 Sep 23 05:38	20°♄52'02	min. Earth dist.	7314 Jun 23 23:19	6°♄41'13	8.43963 AU
			direct	7314 Sep 01 07:14	3°♄14'54	
conjunction	7308 Oct 11 04:30	23°♄08'23 1°24'14	evening set	7314 Dec 15 22:30	11°♄05'38	
minimum elong	7308 Oct 11 04:27	23°♄08'23 1°24'17				
max. Earth dist.	7308 Oct 11 00:18	23°♄07'03 10.22048 AU	conjunction	7315 Jan 02 07:50	13°♄14'52	1°42'14
morning rise	7308 Oct 29 02:55	25°♄24'36	minimum elong	7315 Jan 02 07:52	13°♄14'53	1°42'19
	7308 Dec 08 12:20	0°♄	max. Earth dist.	7315 Jan 02 02:45	13°♄13'17	10.47379 AU
retrograde	7309 Feb 10 00:02	3°♄23'01	morning rise	7315 Jan 19 13:27	15°♄22'59	
	7309 Apr 17 09:17	30°♄♄	retrograde	7315 Apr 30 06:34	22°♄53'34	
opposition	7309 Apr 18 02:00	29°♄56'36 1°57'01	opposition	7315 Jul 07 01:08	19°♄32'09	1°56'24
min. Earth dist.	7309 Apr 18 05:08	29°♄55'58 8.22273 AU	min. Earth dist.	7315 Jul 07 04:23	19°♄31'30	8.51054 AU
direct	7309 Jun 24 17:55	26°♄28'37	direct	7315 Sep 14 21:28	16°♄05'53	
	7309 Aug 29 02:22	0°♄	evening set	7315 Dec 29 03:53	23°♄50'59	
evening set	7309 Oct 07 17:53	4°♄30'50				
			conjunction	7316 Jan 15 10:47	25°♄58'37	1°24'51
conjunction	7309 Oct 25 15:34	6°♄46'46 1°42'45	minimum elong	7316 Jan 15 10:49	25°♄58'38	1°24'56
minimum elong	7309 Oct 25 15:32	6°♄46'45 1°42'49	max. Earth dist.	7316 Jan 15 06:50	25°♄57'24	10.54625 AU
max. Earth dist.	7309 Oct 25 10:46	6°♄45'14 10.22743 AU	morning rise	7316 Feb 01 13:59	28°♄05'08	
morning rise	7309 Nov 12 11:47	9°♄02'16		7316 Feb 17 19:55	0°♄	
	7310 Jan 07 10:36	15°♄	retrograde	7316 May 12 02:01	5°♄30'38	
retrograde	7310 Feb 23 17:56	16°♄57'55	opposition	7316 Jul 19 03:54	2°♄09'59	1°32'17
	7310 Apr 13 02:04	15°♄♄	min. Earth dist.	7316 Jul 19 05:56	2°♄09'36	8.58286 AU
opposition	7310 May 01 18:04	13°♄32'07 2°16'30		7316 Aug 18 13:21	30°♄♄	
min. Earth dist.	7310 May 01 21:22	13°♄31'27 8.23851 AU	direct	7316 Sep 27 06:19	28°♄44'45	
direct	7310 Jul 08 18:41	10°♄03'49		7316 Nov 05 08:27	0°♄	
	7310 Sep 25 21:15	15°♄	evening set	7317 Jan 10 02:30	6°♄23'54	
evening set	7310 Oct 22 04:41	18°♄06'46				
			conjunction	7317 Jan 27 07:03	8°♄29'58	1°03'39
conjunction	7310 Nov 09 00:26	20°♄21'50 1°55'29	minimum elong	7317 Jan 27 07:05	8°♄29'59	1°03'43
minimum elong	7310 Nov 09 00:24	20°♄21'50 1°55'33	max. Earth dist.	7317 Jan 27 04:42	8°♄29'14	10.61829 AU
max. Earth dist.	7310 Nov 08 19:37	20°♄20'18 10.25114 AU	morning rise	7317 Feb 13 07:59	10°♄34'59	
morning rise	7310 Nov 26 17:44	22°♄36'12		7317 Mar 26 00:17	15°♄	
	7311 Feb 14 20:33	0°♄♄	retrograde	7317 May 24 16:59	17°♄56'00	
retrograde	7311 Mar 09 09:21	0°♄27'59		7317 Jul 26 22:26	15°♄♄	
	7311 Apr 01 02:32	30°♄♄	opposition	7317 Aug 01 03:35	14°♄36'02	1°04'13
opposition	7311 May 15 09:16	27°♄02'57 2°28'18	min. Earth dist.	7317 Aug 01 04:53	14°♄35'48	8.65311 AU
min. Earth dist.	7311 May 15 12:29	27°♄02'18 8.27031 AU	direct	7317 Oct 10 10:43	11°♄11'51	
direct	7311 Jul 22 18:24	23°♄34'35		7317 Dec 19 22:03	15°♄	
	7311 Oct 23 05:54	0°♄♄	evening set	7318 Jan 22 18:48	18°♄45'07	
evening set	7311 Nov 05 11:54	1°♄36'35				
			conjunction	7318 Feb 08 20:57	20°♄49'41	0°39'46
conjunction	7311 Nov 23 05:17	3°♄50'27 2°01'46	minimum elong	7318 Feb 08 20:59	20°♄49'41	0°39'49
minimum elong	7311 Nov 23 05:16	3°♄50'27 2°01'51	max. Earth dist.	7318 Feb 08 19:42	20°♄49'18	10.68656 AU
max. Earth dist.	7311 Nov 23 00:42	3°♄49'00 10.29020 AU	morning rise	7318 Feb 25 19:53	22°♄53'18	
morning rise	7311 Dec 10 19:26	6°♄03'24		7318 May 22 20:56	0°♄♄	
retrograde	7312 Mar 21 22:05	13°♄50'27	retrograde	7318 Jun 06 05:32	0°♄10'42	
opposition	7312 May 27 22:56	10°♄26'16 2°31'53		7318 Jun 20 15:24	30°♄♄	
min. Earth dist.	7312 May 28 02:29	10°♄25'33 8.31628 AU	opposition	7318 Aug 14 00:43	26°♄51'16	0°33'38
direct	7312 Aug 04 16:06	6°♄58'04	min. Earth dist.	7318 Aug 14 01:40	26°♄51'05	8.71822 AU
evening set	7312 Nov 18 13:55	14°♄57'32	direct	7318 Oct 23 10:43	23°♄28'09	

	7319 Jan 27 07:22	0°♄	opposition	7324 Oct 26 16:48	8°♄09'28 -2°08'42
evening set	7319 Feb 04 05:18	0°♄55'48	min. Earth dist.	7324 Oct 26 14:17	8°♄09'56 8.86665 AU
			direct	7325 Jan 04 10:24	4°♄50'25
conjunction	7319 Feb 21 05:04	2°♄58'58 0°14'23	evening set	7325 Apr 15 04:24	12°♄01'02
minimum elong	7319 Feb 21 05:04	2°♄58'58 0°14'26			
behind sun begin	7319 Feb 21 01:47	2°♄57'58	conjunction	7325 May 01 20:41	14°♄00'45 -1°51'01
behind sun end	7319 Feb 21 08:22	2°♄59'57	minimum elong	7325 May 01 20:39	14°♄00'45 1°51'05
max. Earth dist.	7319 Feb 21 04:09	2°♄58'41 10.74810 AU	max. Earth dist.	7325 May 01 23:52	14°♄01'43 10.85317 AU
morning rise	7319 Mar 10 02:21	5°♄01'23		7325 May 10 01:36	15°♄
retrograde	7319 Jun 18 14:40	12°♄16'06	morning rise	7325 May 18 14:42	16°♄01'00
opposition	7319 Aug 26 19:13	8°♄56'58 0°01'58	retrograde	7325 Aug 29 17:23	23°♄21'42
min. Earth dist.	7319 Aug 26 19:38	8°♄56'54 8.77539 AU	opposition	7325 Nov 08 06:24	20°♄00'29 -2°22'12
desc. node	7319 Sep 19 04:48	7°♄15'48	min. Earth dist.	7325 Nov 08 02:54	20°♄01'09 8.83856 AU
direct	7319 Nov 05 06:18	5°♄34'52	direct	7326 Jan 16 17:31	16°♄41'28
evening set	7320 Feb 16 11:06	12°♄57'28	evening set	7326 Apr 27 03:46	23°♄52'46
conjunction	7320 Mar 04 08:42	14°♄59'24 -0°11'26	conjunction	7326 May 13 20:57	25°♄53'05 -1°59'35
minimum elong	7320 Mar 04 08:42	14°♄59'24 0°11'24	minimum elong	7326 May 13 20:56	25°♄53'05 1°59'39
behind sun begin	7320 Mar 04 03:32	14°♄57'51	max. Earth dist.	7326 May 14 01:18	25°♄54'24 10.81788 AU
behind sun end	7320 Mar 04 13:51	15°♄00'57	morning rise	7326 May 30 16:20	27°♄54'07
max. Earth dist.	7320 Mar 04 08:30	14°♄59'21 10.80028 AU		7326 Jun 18 00:51	0°♄
morning rise	7320 Mar 21 04:32	17°♄00'48	retrograde	7326 Sep 11 09:52	5°♄18'56
retrograde	7320 Jun 29 21:27	24°♄13'52	opposition	7326 Nov 20 21:05	1°♄56'49 -2°29'44
opposition	7320 Sep 07 11:18	20°♄54'51 -0°29'24	min. Earth dist.	7326 Nov 20 16:57	1°♄57'36 8.79684 AU
min. Earth dist.	7320 Sep 07 10:28	20°♄55'01 8.82209 AU		7326 Dec 18 09:26	30°♄
direct	7320 Nov 16 23:13	17°♄33'41	direct	7327 Jan 29 00:21	28°♄37'35
evening set	7321 Feb 27 13:05	24°♄51'58	evening set	7327 Mar 10 11:08	0°♄
				7327 May 09 05:54	5°♄50'27
conjunction	7321 Mar 16 08:50	26°♄52'53 -0°36'26	conjunction	7327 May 26 00:39	7°♄51'45 -2°03'02
minimum elong	7321 Mar 16 08:49	26°♄52'52 0°36'26	minimum elong	7327 May 26 00:39	7°♄51'45 2°03'07
max. Earth dist.	7321 Mar 16 10:12	26°♄53'17 10.84074 AU	max. Earth dist.	7327 May 26 04:58	7°♄53'03 10.77004 AU
morning rise	7321 Apr 02 03:20	28°♄53'26	morning rise	7327 Jun 11 22:19	9°♄53'57
	7321 Apr 11 16:30	0°♄	retrograde	7327 Sep 24 04:58	17°♄23'16
retrograde	7321 Jul 12 05:44	6°♄05'57	opposition	7327 Dec 03 13:30	14°♄00'13 -2°30'48
opposition	7321 Sep 20 01:50	2°♄46'51 -0°59'14	min. Earth dist.	7327 Dec 03 09:35	14°♄00'57 8.74347 AU
min. Earth dist.	7321 Sep 19 23:36	2°♄47'16 8.85616 AU	direct	7328 Feb 10 06:39	10°♄40'33
	7321 Nov 03 02:11	30°♄	evening set	7328 May 20 11:48	17°♄55'55
direct	7321 Nov 29 11:46	29°♄26'30			
	7321 Dec 25 11:58	0°♄			
evening set	7322 Mar 11 12:11	6°♄41'16	conjunction	7328 Jun 06 08:51	19°♄58'31 -2°01'04
			minimum elong	7328 Jun 06 08:52	19°♄58'31 2°01'09
conjunction	7322 Mar 28 06:20	8°♄41'24 -0°59'46	max. Earth dist.	7328 Jun 06 12:38	19°♄59'40 10.71181 AU
minimum elong	7322 Mar 28 06:19	8°♄41'23 0°59'47	morning rise	7328 Jun 23 09:30	22°♄02'11
max. Earth dist.	7322 Mar 28 09:07	8°♄42'14 10.86751 AU	retrograde	7328 Oct 06 02:05	29°♄36'22
morning rise	7322 Apr 13 23:50	10°♄41'23	opposition	7328 Dec 15 07:59	26°♄12'20 -2°25'08
retrograde	7322 Jul 24 12:53	17°♄54'25	min. Earth dist.	7328 Dec 15 04:39	26°♄12'59 8.68081 AU
opposition	7322 Oct 02 15:15	14°♄35'02 -1°26'23	direct	7329 Feb 21 18:03	22°♄52'03
min. Earth dist.	7322 Oct 02 12:30	14°♄35'33 8.87575 AU		7329 May 31 10:27	0°♄
direct	7322 Dec 11 20:28	11°♄15'19	evening set	7329 Jun 01 22:19	0°♄10'44
evening set	7323 Mar 23 09:47	18°♄27'36			
conjunction	7323 Apr 09 02:40	20°♄27'14 -1°20'29	conjunction	7329 Jun 18 22:34	2°♄14'59 -1°53'35
minimum elong	7323 Apr 09 02:37	20°♄27'13 1°20'31	minimum elong	7329 Jun 18 22:36	2°♄15'00 1°53'41
max. Earth dist.	7323 Apr 09 05:17	20°♄28'01 10.87894 AU	max. Earth dist.	7329 Jun 19 02:27	2°♄16'11 10.64578 AU
morning rise	7323 Apr 25 19:47	22°♄26'58	morning rise	7329 Jul 06 02:46	4°♄20'24
retrograde	7323 Aug 05 20:35	29°♄41'34	retrograde	7329 Oct 19 04:42	11°♄59'36
opposition	7323 Oct 15 03:57	26°♄21'44 -1°49'50	opposition	7329 Dec 28 04:53	8°♄34'36 -2°12'42
min. Earth dist.	7323 Oct 15 01:33	26°♄22'11 8.87940 AU	min. Earth dist.	7329 Dec 28 01:38	8°♄35'14 8.61165 AU
direct	7323 Dec 24 04:05	23°♄02'26	direct	7330 Mar 06 07:39	5°♄13'34
	7324 Apr 01 09:14	0°♄	evening set	7330 Jun 14 14:21	12°♄36'16
evening set	7324 Apr 03 06:50	0°♄13'22			
conjunction	7324 Apr 19 23:01	2°♄12'52 -1°37'48	conjunction	7330 Jul 01 18:30	14°♄42'26 -1°40'43
minimum elong	7324 Apr 19 22:59	2°♄12'51 1°37'51	minimum elong	7330 Jul 01 18:32	14°♄42'27 1°40'48
max. Earth dist.	7324 Apr 20 01:21	2°♄13'34 10.87403 AU	max. Earth dist.	7330 Jul 01 22:54	14°♄43'47 10.57470 AU
morning rise	7324 May 06 16:21	4°♄12'41	morning rise	7330 Jul 19 02:35	16°♄49'49
retrograde	7324 Aug 17 05:46	11°♄29'53	retrograde	7330 Nov 01 12:21	24°♄33'55
			opposition	7331 Jan 10 04:26	21°♄08'02 -1°53'47
			min. Earth dist.	7331 Jan 10 00:58	21°♄08'43 8.53884 AU

direct	7331 Mar 18 23:27	17°♄46'08	minimum elong	7336 Sep 20 10:56	3°♄31'16	0°49'05
evening set	7331 Jun 27 12:54	25°♄13'34	max. Earth dist.	7336 Sep 20 10:22	3°♄31'05	10.22792 AU
			morning rise	7336 Oct 08 10:58	5°♄47'49	
conjunction	7331 Jul 14 21:10	27°♄21'48 -1°22'48	retrograde	7337 Jan 21 02:27	13°♄48'45	
minimum elong	7331 Jul 14 21:13	27°♄21'48 1°22'53	opposition	7337 Mar 29 12:54	10°♄21'24	1°17'05
max. Earth dist.	7331 Jul 15 01:21	27°♄23'06 10.50160 AU	min. Earth dist.	7337 Mar 29 13:15	10°♄21'20	8.21872 AU
morning rise	7331 Aug 01 09:17	29°♄31'14	direct	7337 Jun 04 20:26	6°♄54'08	
	7331 Aug 05 08:36	0°♄	evening set	7337 Sep 16 22:59	14°♄53'05	
retrograde	7331 Nov 14 23:03	7°♄19'58				
opposition	7332 Jan 23 06:49	3°♄53'20 -1°28'59	conjunction	7337 Oct 04 22:24	17°♄09'40	1°14'01
min. Earth dist.	7332 Jan 23 03:34	3°♄53'58 8.46571 AU	minimum elong	7337 Oct 04 22:21	17°♄09'39	1°14'03
direct	7332 Mar 30 19:59	0°♄30'28	max. Earth dist.	7337 Oct 04 21:01	17°♄09'13	10.21310 AU
evening set	7332 Jul 09 18:20	8°♄03'10	morning rise	7337 Oct 22 21:30	19°♄26'13	
			retrograde	7338 Feb 04 01:57	27°♄26'12	
conjunction	7332 Jul 27 06:41	10°♄13'29 -1°00'32	opposition	7338 Apr 12 05:23	23°♄59'25	1°45'43
minimum elong	7332 Jul 27 06:43	10°♄13'30 1°00'36	min. Earth dist.	7338 Apr 12 06:36	23°♄59'11	8.21301 AU
max. Earth dist.	7332 Jul 27 09:44	10°♄14'26 10.42999 AU	direct	7338 Jun 18 17:04	20°♄31'41	
morning rise	7332 Aug 13 22:47	12°♄24'58	evening set	7338 Oct 01 12:05	28°♄33'38	
	7332 Sep 04 23:27	15°♄		7338 Oct 12 21:44	0°♄	
retrograde	7332 Nov 27 14:30	20°♄17'51				
opposition	7333 Feb 04 12:22	16°♄50'38 -0°59'15	conjunction	7338 Oct 19 10:33	0°♄49'58	1°34'51
min. Earth dist.	7333 Feb 04 10:04	16°♄51'06 8.39591 AU	minimum elong	7338 Oct 19 10:30	0°♄49'57	1°34'55
	7333 Feb 28 23:52	15°♄	max. Earth dist.	7338 Oct 19 07:57	0°♄49'08	10.21589 AU
direct	7333 Apr 12 20:08	13°♄26'46	morning rise	7338 Nov 06 07:48	3°♄06'00	
	7333 May 24 21:06	15°♄	retrograde	7339 Feb 17 22:58	11°♄03'42	
evening set	7333 Jul 23 06:49	21°♄05'04	opposition	7339 Apr 25 22:24	7°♄37'42	2°08'23
			min. Earth dist.	7339 Apr 26 00:39	7°♄37'15	8.22499 AU
conjunction	7333 Aug 09 22:59	23°♄17'22 -0°34'52	direct	7339 Jul 02 17:10	4°♄09'42	
minimum elong	7333 Aug 09 23:01	23°♄17'22 0°34'55	evening set	7339 Oct 16 00:34	12°♄13'04	
max. Earth dist.	7333 Aug 10 00:28	23°♄17'50 10.36347 AU				
morning rise	7333 Aug 27 18:39	25°♄30'44	conjunction	7339 Nov 02 21:14	14°♄28'40	1°50'19
	7333 Oct 06 20:18	0°♄	minimum elong	7339 Nov 02 21:12	14°♄28'40	1°50'24
retrograde	7333 Dec 11 09:10	3°♄27'05	max. Earth dist.	7339 Nov 02 17:30	14°♄27'29	10.23616 AU
opposition	7334 Feb 17 20:54	29°♄59'29 -0°25'58		7339 Nov 06 23:36	15°♄	
	7334 Feb 17 18:22	30°♄	morning rise	7339 Nov 20 15:56	16°♄43'42	
min. Earth dist.	7334 Feb 17 19:53	29°♄59'42 8.33309 AU	retrograde	7340 Mar 02 16:21	24°♄37'55	
direct	7334 Apr 26 01:03	26°♄34'36	opposition	7340 May 08 14:58	21°♄12'48	2°23'45
	7334 Jun 28 22:50	0°♄	min. Earth dist.	7340 May 08 18:03	21°♄12'11	8.25386 AU
evening set	7334 Aug 06 02:27	4°♄18'41	direct	7340 Jul 15 18:09	17°♄44'45	
			evening set	7340 Oct 29 10:31	25°♄47'48	
conjunction	7334 Aug 23 21:55	6°♄32'42 -0°07'04				
minimum elong	7334 Aug 23 21:56	6°♄32'42 0°07'06	conjunction	7340 Nov 16 04:54	28°♄02'18	1°59'34
behind sun begin	7334 Aug 23 15:14	6°♄30'37	minimum elong	7340 Nov 16 04:52	28°♄02'18	1°59'39
behind sun end	7334 Aug 24 04:38	6°♄34'48	max. Earth dist.	7340 Nov 16 00:14	28°♄00'50	10.27260 AU
max. Earth dist.	7334 Aug 23 22:17	6°♄32'49 10.30551 AU		7340 Dec 01 17:22	0°♄	
morning rise	7334 Sep 10 20:13	8°♄47'37	morning rise	7340 Dec 03 20:41	0°♄16'00	
asc. node	7334 Nov 25 07:49	15°♄59'37	retrograde	7341 Mar 16 06:26	8°♄05'38	
retrograde	7334 Dec 25 05:05	16°♄46'33	opposition	7341 May 22 05:59	4°♄41'27	2°31'03
opposition	7335 Mar 03 07:58	13°♄18'49 0°09'11	min. Earth dist.	7341 May 22 09:24	4°♄40'46	8.29757 AU
min. Earth dist.	7335 Mar 03 07:47	13°♄18'51 8.28067 AU	direct	7341 Jul 29 18:33	1°♄13'33	
direct	7335 May 09 12:16	9°♄52'58	evening set	7341 Nov 12 15:53	9°♄14'37	
evening set	7335 Aug 20 04:30	17°♄42'41				
			conjunction	7341 Nov 30 07:45	11°♄27'45	2°02'13
conjunction	7335 Sep 07 02:24	19°♄58'03 0°21'31	minimum elong	7341 Nov 30 07:45	11°♄27'45	2°02'18
minimum elong	7335 Sep 07 02:23	19°♄58'03 0°21'31	max. Earth dist.	7341 Nov 30 02:48	11°♄26'10	10.32255 AU
max. Earth dist.	7335 Sep 07 02:07	19°♄57'58 10.25938 AU	morning rise	7341 Dec 17 20:25	13°♄39'53	
morning rise	7335 Sep 25 02:09	22°♄14'02	retrograde	7342 Mar 29 16:25	21°♄24'12	
	7335 Dec 22 17:30	0°♄	opposition	7342 Jun 04 19:01	18°♄00'58	2°30'05
retrograde	7336 Jan 08 02:44	0°♄14'34	min. Earth dist.	7342 Jun 04 22:20	18°♄00'18	8.35279 AU
	7336 Jan 24 14:16	30°♄	direct	7342 Aug 12 17:22	14°♄33'26	
opposition	7336 Mar 15 21:32	26°♄46'54 0°44'13	evening set	7342 Nov 26 15:05	22°♄31'03	
min. Earth dist.	7336 Mar 15 21:39	26°♄46'53 8.24175 AU				
direct	7336 May 22 02:56	23°♄20'17	conjunction	7342 Dec 14 04:21	24°♄42'38	1°58'18
	7336 Aug 23 06:58	0°♄	minimum elong	7342 Dec 14 04:22	24°♄42'38	1°58'23
evening set	7336 Sep 02 11:43	1°♄15'01	max. Earth dist.	7342 Dec 13 23:36	24°♄41'08	10.38214 AU
			morning rise	7342 Dec 31 13:53	26°♄53'07	
conjunction	7336 Sep 20 10:58	3°♄31'16 0°49'04		7343 Jan 27 06:16	0°♄	

retrograde	7343 Apr 11 21:53	4°  31'53		behind sun end	7349 Feb 27 19:14	10°  06'13	
opposition	7343 Jun 18 05:31	1°  09'34	2°21'13	max. Earth dist.	7349 Feb 27 11:35	10°  03'58	10.76092 AU
min. Earth dist.	7343 Jun 18 08:57	1°  08'53	8.41543 AU	morning rise	7349 Mar 16 08:38	12°  06'10	
	7343 Jul 03 04:47	30°  R 		retrograde	7349 Jun 25 00:14	19°  20'45	
direct	7343 Aug 26 13:10	27°  42'36		opposition	7349 Sep 02 08:54	16°  01'21	-0°16'06
	7343 Oct 18 12:00	0° 		min. Earth dist.	7349 Sep 02 09:04	16°  01'19	8.78318 AU
evening set	7343 Dec 10 07:32	5°  35'46		direct	7349 Nov 11 20:21	12°  39'22	
				evening set	7350 Feb 22 17:34	20°  00'25	
conjunction	7343 Dec 27 18:13	7°  34'54	1°48'16				
minimum elong	7343 Dec 27 18:15	7°  34'57	1°48'21	conjunction	7350 Mar 11 14:14	22°  02'01	-0°25'55
max. Earth dist.	7343 Dec 27 13:32	7°  34'18	10.44736 AU	minimum elong	7350 Mar 11 14:13	22°  02'01	0°25'55
morning rise	7344 Jan 14 00:54	9°  35'37		max. Earth dist.	7350 Mar 11 14:13	22°  02'01	10.80288 AU
retrograde	7344 Apr 24 00:20	17°  32'56		morning rise	7350 Mar 28 09:22	24°  03'11	
opposition	7344 Jun 30 13:10	14°  30'32	2°05'15		7350 May 29 00:00	0° 	
min. Earth dist.	7344 Jun 30 17:00	14°  30'54	8.48198 AU	retrograde	7350 Jul 07 08:32	1°  16'46	
direct	7344 Sep 08 03:59	10°  34'01			7350 Aug 16 16:41	30°  R 	
evening set	7344 Dec 22 17:00	18°  32'19		opposition	7350 Sep 15 00:51	27°  05'14	-0°46'49
				min. Earth dist.	7350 Sep 15 00:26	27°  05'19	8.81969 AU
conjunction	7345 Jan 09 01:08	20°  36'46	1°32'55	direct	7350 Nov 24 10:53	24°  03'58	
minimum elong	7345 Jan 09 01:10	20°  36'46	1°33'00		7351 Feb 18 07:02	0° 	
max. Earth dist.	7345 Jan 08 20:19	20°  35'16	10.51522 AU	evening set	7351 Mar 06 18:18	1°  05'31	
morning rise	7345 Jan 26 05:20	22°  34'03					
	7345 Apr 21 18:28	0° 		conjunction	7351 Mar 23 13:08	3°  05'54	-0°50'08
retrograde	7345 May 06 21:35	0°  12'13		minimum elong	7351 Mar 23 13:07	3°  05'53	0°50'09
	7345 May 22 01:43	30°  R 		max. Earth dist.	7351 Mar 23 13:49	3°  05'40	10.83315 AU
opposition	7345 Jul 13 18:03	26°  35'13	1°43'19	morning rise	7351 Apr 09 07:19	5°  05'42	
min. Earth dist.	7345 Jul 13 22:14	26°  35'07	8.54990 AU	retrograde	7351 Jul 19 14:18	13°  08'04	
direct	7345 Sep 21 15:38	23°  32'11		opposition	7351 Sep 27 15:12	9°  08'13	-1°15'19
	7345 Dec 26 04:54	0° 		min. Earth dist.	7351 Sep 27 13:43	9°  08'30	8.84387 AU
evening set	7346 Jan 04 19:32	1°  08'38		direct	7351 Dec 06 22:27	6°  07'35	
				evening set	7352 Mar 17 16:54	13°  04'54	
conjunction	7346 Jan 22 01:04	3°  08'30	1°13'14				
minimum elong	7346 Jan 22 01:06	3°  08'31	1°13'18	conjunction	7352 Apr 03 10:25	15°  04'20	-1°12'07
max. Earth dist.	7346 Jan 21 20:06	3°  08'58	10.58323 AU	minimum elong	7352 Apr 03 10:23	15°  04'19	1°12'09
morning rise	7346 Feb 08 03:05	5°  08'21		max. Earth dist.	7352 Apr 03 12:39	15°  04'40	10.85039 AU
retrograde	7346 May 19 13:28	12°  08'44		morning rise	7352 Apr 20 03:51	17°  04'20	
opposition	7346 Jul 26 19:58	9°  08'24	1°16'46	retrograde	7352 Jul 30 22:12	24°  05'53	
min. Earth dist.	7346 Jul 26 23:29	9°  08'24	8.61669 AU	opposition	7352 Oct 09 04:29	21°  06'37	-1°40'31
direct	7346 Oct 05 00:24	6°  08'00		min. Earth dist.	7352 Oct 09 01:21	21°  06'12	8.85458 AU
evening set	7347 Jan 17 15:19	13°  08'36		direct	7352 Dec 18 08:25	18°  06'30	
	7347 Jan 29 00:32	15° 		evening set	7353 Mar 29 14:28	25°  07'53	
conjunction	7347 Feb 03 18:30	15°  08'42	0°50'20	conjunction	7353 Apr 15 07:08	27°  07'28	-1°31'00
minimum elong	7347 Feb 03 18:32	15°  08'42	0°50'25	minimum elong	7353 Apr 15 07:06	27°  07'28	1°31'02
max. Earth dist.	7347 Feb 03 14:29	15°  08'41	10.64873 AU	max. Earth dist.	7353 Apr 15 11:03	27°  07'29	10.85384 AU
morning rise	7347 Feb 20 18:31	17°  08'46		morning rise	7353 May 02 00:17	29°  07'28	
retrograde	7347 Jun 01 03:56	25°  08'06			7353 May 06 11:22	0° 	
opposition	7347 Aug 08 18:54	21°  08'46	0°47'03	retrograde	7353 Aug 12 08:58	6°  08'45	
min. Earth dist.	7347 Aug 08 21:04	21°  08'46	8.67962 AU	opposition	7353 Oct 21 17:42	3°  08'24	-2°01'28
direct	7347 Oct 18 04:12	18°  08'23		min. Earth dist.	7353 Oct 21 13:35	3°  08'25	8.85136 AU
evening set	7348 Jan 30 04:55	25°  08'54		direct	7353 Dec 30 14:46	0°  08'05	
				evening set	7354 Apr 10 11:59	7°  08'16	
conjunction	7348 Feb 16 05:56	27°  08'58	0°25'25				
minimum elong	7348 Feb 16 05:57	27°  08'58	0°25'29	conjunction	7354 Apr 27 04:17	9°  08'16	-1°46'02
max. Earth dist.	7348 Feb 16 03:41	27°  08'57	10.70886 AU	minimum elong	7354 Apr 27 04:15	9°  08'16	1°46'06
	7348 Mar 03 23:47	0° 		max. Earth dist.	7354 Apr 27 08:45	9°  08'17	10.84337 AU
morning rise	7348 Mar 04 04:05	0°  08'01		morning rise	7354 May 13 21:55	11°  08'16	
retrograde	7348 Jun 12 15:27	7°  08'17			7354 Jun 17 02:59	15° 	
opposition	7348 Aug 20 15:05	3°  08'58	0°15'37	retrograde	7354 Aug 24 19:14	18°  08'36	
min. Earth dist.	7348 Aug 20 15:52	3°  08'58	8.73590 AU	opposition	7354 Nov 03 07:18	15°  08'14	-2°17'19
direct	7348 Oct 30 02:05	0°  08'35		min. Earth dist.	7354 Nov 03 03:00	15°  08'15	8.83432 AU
evening set	7349 Feb 10 13:23	8°  08'01			7354 Nov 06 14:02	15°  08'08	
desc. node	7349 Feb 22 00:25	9°  08'24		direct	7355 Jan 11 20:34	11°  08'55	
					7355 Mar 15 02:50	15° 	
conjunction	7349 Feb 27 12:13	10°  08'04	-0°00'23	evening set	7355 Apr 22 10:48	19°  08'06	
minimum elong	7349 Feb 27 12:13	10°  08'04	0°00'22				
behind sun begin	7349 Feb 27 05:12	10°  08'02		conjunction	7355 May 09 03:27	21°  08'06	-1°56'37

minimum elong	7355 May 09 03:26	21°♄06'57	1°56'41	minimum elong	7361 Jul 21 22:22	5°♄00'06	1°10'23
max. Earth dist.	7355 May 09 07:49	21°♄08'16	10.81944 AU	max. Earth dist.	7361 Jul 22 02:34	5°♄01'25	10.48309 AU
morning rise	7355 May 25 22:21	23°♄07'46		morning rise	7361 Aug 08 12:41	7°♄10'24	
	7355 Aug 12 06:05	0°♄			7361 Nov 18 21:45	15°♄	
retrograde	7355 Sep 06 08:48	0°♄31'07		retrograde	7361 Nov 22 03:13	15°♄00'33	
	7355 Oct 01 18:15	30°♄			7361 Nov 25 08:43	15°♄	
opposition	7355 Nov 15 21:35	27°♄09'02	-2°27'24	opposition	7362 Jan 30 06:10	11°♄34'14	-1°12'10
min. Earth dist.	7355 Nov 15 17:20	27°♄09'50	8.80413 AU	min. Earth dist.	7362 Jan 30 03:15	11°♄34'48	8.45002 AU
direct	7356 Jan 24 03:52	23°♄49'33		direct	7362 Apr 07 16:33	8°♄11'28	
	7356 Apr 24 15:25	0°♄			7362 Jul 11 12:17	15°♄	
evening set	7356 May 03 11:46	1°♄02'02		evening set	7362 Jul 17 20:52	15°♄46'13	
conjunction	7356 May 20 05:42	3°♄02'58	-2°02'14	conjunction	7362 Aug 04 11:24	17°♄57'20	-0°45'59
minimum elong	7356 May 20 05:42	3°♄02'57	2°02'19	minimum elong	7362 Aug 04 11:26	17°♄57'21	0°46'03
max. Earth dist.	7356 May 20 10:55	3°♄04'32	10.78300 AU	max. Earth dist.	7362 Aug 04 14:52	17°♄58'25	10.41729 AU
morning rise	7356 Jun 06 02:25	5°♄04'43		morning rise	7362 Aug 22 05:21	20°♄09'33	
retrograde	7356 Sep 18 02:07	12°♄32'15		retrograde	7362 Dec 05 19:59	28°♄03'17	
opposition	7356 Nov 27 13:22	9°♄09'24	-2°31'10	opposition	7363 Feb 12 12:41	24°♄36'31	-0°40'19
min. Earth dist.	7356 Nov 27 08:24	9°♄10'20	8.76201 AU	min. Earth dist.	7363 Feb 12 10:24	24°♄36'58	8.38575 AU
direct	7357 Feb 04 11:24	5°♄49'49		direct	7363 Apr 20 18:51	21°♄12'47	
evening set	7357 May 15 15:52	13°♄04'10		evening set	7363 Jul 31 12:47	28°♄53'09	
					7363 Aug 09 12:12	0°♄	
conjunction	7357 Jun 01 11:56	15°♄06'12	-2°02'32	conjunction	7363 Aug 18 06:49	1°♄06'05	-0°19'00
minimum elong	7357 Jun 01 11:57	15°♄06'12	2°02'37	minimum elong	7363 Aug 18 06:50	1°♄06'05	0°19'02
max. Earth dist.	7357 Jun 01 18:18	15°♄08'08	10.73560 AU	max. Earth dist.	7363 Aug 18 08:40	1°♄06'40	10.35582 AU
morning rise	7357 Jun 18 11:08	17°♄09'12		morning rise	7363 Sep 05 03:42	3°♄19'58	
retrograde	7357 Sep 30 23:08	24°♄41'20		retrograde	7363 Dec 19 15:17	11°♄16'42	
opposition	7357 Dec 10 07:04	21°♄17'42	-2°28'16	opposition	7364 Feb 25 21:57	7°♄49'40	-0°05'52
min. Earth dist.	7357 Dec 10 01:24	21°♄18'47	8.70979 AU	min. Earth dist.	7364 Feb 25 20:50	7°♄49'53	8.32787 AU
direct	7358 Feb 16 21:06	17°♄57'49		asc. node	7364 Apr 28 18:30	4°♄25'57	
evening set	7358 May 28 00:27	25°♄14'54		direct	7364 May 03 02:02	4°♄24'56	
				evening set	7364 Aug 13 11:22	12°♄10'59	
conjunction	7358 Jun 13 23:20	27°♄18'23	-1°57'20	conjunction	7364 Aug 31 08:07	14°♄25'28	0°09'24
minimum elong	7358 Jun 13 23:22	27°♄18'23	1°57'26	minimum elong	7364 Aug 31 08:06	14°♄25'27	0°09'23
max. Earth dist.	7358 Jun 14 05:56	27°♄20'24	10.67933 AU	behind sun begin	7364 Aug 31 02:02	14°♄23'34	
morning rise	7358 Jul 01 01:47	29°♄22'58		behind sun end	7364 Aug 31 14:10	14°♄27'21	
	7358 Jul 06 06:38	0°♄		max. Earth dist.	7364 Aug 31 08:01	14°♄25'26	10.30279 AU
retrograde	7358 Oct 14 01:13	6°♄59'48		morning rise	7364 Sep 18 07:03	16°♄40'39	
opposition	7358 Dec 23 02:51	3°♄35'25	-2°18'36	retrograde	7365 Jan 01 12:18	24°♄39'27	
min. Earth dist.	7358 Dec 22 21:19	3°♄36'29	8.64978 AU	opposition	7365 Mar 10 09:46	21°♄12'20	0°29'21
direct	7359 Mar 01 07:55	0°♄15'04		min. Earth dist.	7365 Mar 10 10:06	21°♄12'16	8.28065 AU
evening set	7359 Jun 09 14:14	7°♄35'40		direct	7365 May 16 13:29	17°♄46'37	
				evening set	7365 Aug 27 15:44	25°♄38'02	
conjunction	7359 Jun 26 16:31	9°♄40'51	-1°46'39	conjunction	7365 Sep 14 14:13	27°♄53'38	0°37'27
minimum elong	7359 Jun 26 16:33	9°♄40'52	1°46'46	minimum elong	7365 Sep 14 14:11	27°♄53'37	0°37'28
max. Earth dist.	7359 Jun 26 22:05	9°♄42'34	10.61670 AU	max. Earth dist.	7365 Sep 14 12:16	27°♄53'00	10.26201 AU
morning rise	7359 Jul 13 22:50	11°♄47'16			7365 Oct 01 07:05	0°♄	
retrograde	7359 Oct 27 06:34	19°♄28'47		morning rise	7365 Oct 02 14:08	0°♄09'39	
opposition	7360 Jan 05 01:17	16°♄03'43	-2°02'20	retrograde	7366 Jan 15 10:33	8°♄09'24	
min. Earth dist.	7360 Jan 04 20:48	16°♄04'35	8.58463 AU	opposition	7366 Mar 23 23:38	4°♄42'23	1°03'17
direct	7360 Mar 12 22:04	12°♄42'42		min. Earth dist.	7366 Mar 24 01:20	4°♄42'02	8.24732 AU
evening set	7360 Jun 21 09:49	20°♄07'30		direct	7366 May 30 05:35	1°♄15'46	
				evening set	7366 Sep 11 00:34	9°♄11'52	
conjunction	7360 Jul 08 15:59	22°♄14'36	-1°30'48	conjunction	7366 Sep 28 23:42	11°♄28'02	1°03'39
minimum elong	7360 Jul 08 16:02	22°♄14'37	1°30'54	minimum elong	7366 Sep 28 23:40	11°♄28'01	1°03'41
max. Earth dist.	7360 Jul 08 20:47	22°♄16'05	10.55037 AU	max. Earth dist.	7366 Sep 28 20:21	11°♄26'58	10.23616 AU
morning rise	7360 Jul 26 02:22	24°♄22'57		morning rise	7366 Oct 16 23:18	13°♄44'20	
	7360 Sep 18 02:06	0°♄		retrograde	7367 Jan 29 07:50	21°♄43'46	
retrograde	7360 Nov 08 14:17	2°♄08'59		opposition	7367 Apr 06 14:45	18°♄17'02	1°33'53
	7360 Dec 31 08:46	30°♄		min. Earth dist.	7367 Apr 06 17:14	18°♄16'32	8.22999 AU
opposition	7361 Jan 17 02:26	28°♄43'15	-1°39'54	direct	7367 Jun 13 01:44	14°♄49'41	
min. Earth dist.	7361 Jan 16 22:48	28°♄43'58	8.51715 AU	evening set	7367 Sep 25 11:54	22°♄49'24	
direct	7361 Mar 25 17:54	25°♄21'25					
	7361 Jun 09 21:17	0°♄					
evening set	7361 Jul 04 11:55	2°♄50'58					
conjunction	7361 Jul 21 22:19	5°♄00'05	-1°10'18				

conjunction	7367 Oct 13 10:42	25° <u>♌</u> 05'36	1°26'23	direct	7373 Sep 02 10:49	5° <u>♈</u> 05'06	
minimum elong	7367 Oct 13 10:39	25° <u>♌</u> 05'35	1°26'26	evening set	7373 Dec 17 00:53	12° <u>♈</u> 55'14	
max. Earth dist.	7367 Oct 13 06:48	25° <u>♌</u> 04'22	10.22692 AU				
morning rise	7367 Oct 31 08:50	27° <u>♌</u> 21'39		conjunction	7374 Jan 03 10:10	15° <u>♈</u> 04'21	1°40'33
	7367 Nov 22 09:25	0° <u>♍</u>		minimum elong	7374 Jan 03 10:12	15° <u>♈</u> 04'22	1°40'38
retrograde	7368 Feb 12 03:43	5° <u>♍</u> 19'31		max. Earth dist.	7374 Jan 03 05:11	15° <u>♈</u> 02'48	10.47990 AU
opposition	7368 Apr 19 06:36	1° <u>♍</u> 53'14	1°59'18	morning rise	7374 Jan 20 15:39	17° <u>♈</u> 12'20	
min. Earth dist.	7368 Apr 19 09:15	1° <u>♍</u> 52'42	8.22971 AU	retrograde	7374 May 01 08:37	24° <u>♈</u> 42'25	
	7368 May 13 21:07	30° <u>♏</u>		opposition	7374 Jul 08 03:21	21° <u>♈</u> 20'59	1°54'01
direct	7368 Jun 26 00:22	28° <u>♏</u> 25'21		min. Earth dist.	7374 Jul 08 06:15	21° <u>♈</u> 20'25	8.51587 AU
	7368 Aug 07 13:57	0° <u>♍</u>		direct	7374 Sep 15 23:56	17° <u>♈</u> 54'45	
evening set	7368 Oct 08 23:36	6° <u>♍</u> 27'14		evening set	7374 Dec 30 05:42	25° <u>♈</u> 39'18	
conjunction	7368 Oct 26 21:11	8° <u>♍</u> 43'00	1°44'17	conjunction	7375 Jan 16 12:34	27° <u>♈</u> 46'50	1°22'44
minimum elong	7368 Oct 26 21:08	8° <u>♍</u> 42'59	1°44'21	minimum elong	7375 Jan 16 12:36	27° <u>♈</u> 46'51	1°22'48
max. Earth dist.	7368 Oct 26 17:02	8° <u>♍</u> 41'41	10.23479 AU	max. Earth dist.	7375 Jan 16 09:08	27° <u>♈</u> 45'46	10.55084 AU
morning rise	7368 Nov 13 17:02	10° <u>♍</u> 58'18		morning rise	7375 Feb 02 15:33	29° <u>♈</u> 53'15	
	7368 Dec 18 13:29	15° <u>♍</u>			7375 Feb 03 13:53	0° <u>♏</u>	
retrograde	7369 Feb 24 22:05	18° <u>♍</u> 53'22		retrograde	7375 May 14 03:15	7° <u>♏</u> 18'23	
opposition	7369 May 02 22:19	15° <u>♍</u> 27'43	2°17'59	opposition	7375 Jul 21 05:55	3° <u>♏</u> 57'43	1°29'26
min. Earth dist.	7369 May 03 01:16	15° <u>♍</u> 27'07	8.24623 AU	min. Earth dist.	7375 Jul 21 08:10	3° <u>♏</u> 57'17	8.58658 AU
	7369 May 08 15:29	15° <u>♏</u>		direct	7375 Sep 29 08:40	0° <u>♏</u> 32'28	
direct	7369 Jul 09 22:54	11° <u>♍</u> 59'30		evening set	7376 Jan 12 03:52	8° <u>♏</u> 11'12	
	7369 Sep 08 04:54	15° <u>♍</u>					
evening set	7369 Oct 23 09:54	20° <u>♍</u> 02'00		conjunction	7376 Jan 29 08:18	10° <u>♏</u> 17'10	1°01'11
conjunction	7369 Nov 10 05:30	22° <u>♍</u> 16'54	1°56'20	minimum elong	7376 Jan 29 08:20	10° <u>♏</u> 17'11	1°01'16
minimum elong	7369 Nov 10 05:28	22° <u>♍</u> 16'54	1°56'25	max. Earth dist.	7376 Jan 29 05:46	10° <u>♏</u> 16'23	10.62117 AU
max. Earth dist.	7369 Nov 10 00:58	22° <u>♍</u> 15'28	10.25910 AU	morning rise	7376 Feb 15 09:08	12° <u>♏</u> 22'07	
morning rise	7369 Nov 27 22:28	24° <u>♍</u> 31'04			7376 Mar 09 06:04	15° <u>♏</u>	
	7370 Jan 17 07:54	0° <u>♏</u>		retrograde	7376 May 25 18:55	19° <u>♏</u> 42'55	
retrograde	7370 Mar 10 14:24	2° <u>♏</u> 22'12		opposition	7376 Aug 02 05:25	16° <u>♏</u> 22'56	1°01'02
	7370 May 03 09:08	30° <u>♏</u>		min. Earth dist.	7376 Aug 02 07:30	16° <u>♏</u> 22'32	8.65510 AU
opposition	7370 May 16 13:08	28° <u>♍</u> 57'18	2°28'55		7376 Aug 20 19:13	15° <u>♏</u>	
min. Earth dist.	7370 May 16 16:41	28° <u>♍</u> 56'35	8.27841 AU	direct	7376 Oct 11 12:16	12° <u>♏</u> 58'43	
direct	7370 Jul 23 21:36	25° <u>♍</u> 29'00			7376 Nov 30 19:05	15° <u>♏</u>	
	7370 Oct 07 14:28	0° <u>♏</u>		evening set	7377 Jan 23 19:52	20° <u>♏</u> 31'41	
evening set	7370 Nov 06 16:33	3° <u>♏</u> 30'30		conjunction	7377 Feb 09 21:50	22° <u>♏</u> 36'12	0°37'06
conjunction	7370 Nov 24 09:40	5° <u>♏</u> 44'12	2°01'56	minimum elong	7377 Feb 09 21:51	22° <u>♏</u> 36'12	0°37'10
minimum elong	7370 Nov 24 09:40	5° <u>♏</u> 44'12	2°02'01	max. Earth dist.	7377 Feb 09 19:34	22° <u>♏</u> 35'30	10.68761 AU
max. Earth dist.	7370 Nov 24 04:35	5° <u>♏</u> 42'35	10.29833 AU	morning rise	7377 Feb 26 20:48	24° <u>♏</u> 39'48	
morning rise	7370 Dec 11 23:36	7° <u>♏</u> 56'58			7377 Apr 19 21:06	0° <u>♏</u>	
retrograde	7371 Mar 24 01:37	15° <u>♏</u> 43'19		retrograde	7377 Jun 07 05:55	1° <u>♏</u> 57'07	
opposition	7371 May 30 02:28	12° <u>♏</u> 19'16	2°31'38		7377 Jul 27 11:40	30° <u>♏</u>	
min. Earth dist.	7371 May 30 06:48	12° <u>♏</u> 18'23	8.32433 AU	opposition	7377 Aug 15 02:22	28° <u>♏</u> 37'38	0°30'16
direct	7371 Aug 06 20:17	8° <u>♏</u> 51'07		min. Earth dist.	7377 Aug 15 03:57	28° <u>♏</u> 37'20	8.71832 AU
evening set	7371 Nov 20 17:46	16° <u>♏</u> 50'02		direct	7377 Oct 24 12:08	25° <u>♏</u> 14'29	
					7378 Jan 12 10:55	0° <u>♏</u>	
conjunction	7371 Dec 08 08:13	19° <u>♏</u> 02'17	2°00'55	evening set	7378 Feb 05 06:10	2° <u>♏</u> 42'01	
minimum elong	7371 Dec 08 08:13	19° <u>♏</u> 02'18	2°01'00	conjunction	7378 Feb 22 05:49	4° <u>♏</u> 45'09	0°11'38
max. Earth dist.	7371 Dec 08 02:26	19° <u>♏</u> 00'28	10.35023 AU	minimum elong	7378 Feb 22 05:49	4° <u>♏</u> 45'09	0°11'41
morning rise	7371 Dec 25 19:12	21° <u>♏</u> 13'31		behind sun begin	7378 Feb 22 00:47	4° <u>♏</u> 43'38	
retrograde	7372 Apr 05 07:31	28° <u>♏</u> 54'33		behind sun end	7378 Feb 22 10:52	4° <u>♏</u> 46'40	
opposition	7372 Jun 11 13:34	25° <u>♏</u> 31'23	2°26'15	max. Earth dist.	7378 Feb 22 04:15	4° <u>♏</u> 44'41	10.74721 AU
min. Earth dist.	7372 Jun 11 18:04	25° <u>♏</u> 30'30	8.38135 AU	morning rise	7378 Mar 11 03:07	6° <u>♏</u> 47'34	
direct	7372 Aug 19 17:36	22° <u>♏</u> 03'38		retrograde	7378 Jun 19 14:58	14° <u>♏</u> 02'26	
evening set	7372 Dec 03 12:49	29° <u>♏</u> 58'40		desc. node	7378 Aug 10 19:51	11° <u>♏</u> 58'33	
	7372 Dec 03 17:09	0° <u>♏</u>		opposition	7378 Aug 27 20:51	10° <u>♏</u> 43'14	-0°01'26
conjunction	7372 Dec 21 00:37	2° <u>♏</u> 09'23	1°53'35	min. Earth dist.	7378 Aug 27 21:03	10° <u>♏</u> 43'12	8.77351 AU
minimum elong	7372 Dec 21 00:38	2° <u>♏</u> 09'23	1°53'39	direct	7378 Nov 06 09:04	7° <u>♏</u> 21'07	
max. Earth dist.	7372 Dec 20 18:47	2° <u>♏</u> 07'33	10.41186 AU	evening set	7379 Feb 17 11:52	14° <u>♏</u> 43'44	
morning rise	7373 Jan 07 08:46	4° <u>♏</u> 18'59		conjunction	7379 Mar 06 09:29	16° <u>♏</u> 45'41	-0°14'10
retrograde	7373 Apr 18 10:01	11° <u>♏</u> 54'29		minimum elong	7379 Mar 06 09:28	16° <u>♏</u> 45'41	0°14'08
opposition	7373 Jun 24 21:50	8° <u>♏</u> 32'12	2°13'23	behind sun begin	7379 Mar 06 05:55	16° <u>♏</u> 44'37	
min. Earth dist.	7373 Jun 25 01:48	8° <u>♏</u> 31'25	8.44632 AU	behind sun end	7379 Mar 06 13:01	16° <u>♏</u> 46'44	

max. Earth dist.	7379 Mar 06 09:42	16° $\text{H}$ 45'45	10.79744 AU		7385 Jun 02 16:48	0° $\text{II}$
morning rise	7379 Mar 23 05:12	18° $\text{H}$ 47'05		retrograde	7385 Sep 12 14:58	7° $\text{II}$ 12'06
retrograde	7379 Jul 02 00:27	26° $\text{H}$ 00'30		opposition	7385 Nov 22 01:17	3° $\text{II}$ 49'59 -2°30'03
opposition	7379 Sep 09 13:07	22° $\text{H}$ 41'24 -0°32'43		min. Earth dist.	7385 Nov 21 21:20	3° $\text{II}$ 50'44 8.78962 AU
min. Earth dist.	7379 Sep 09 11:48	22° $\text{H}$ 41'39	8.81834 AU	direct	7386 Jan 30 02:05	0° $\text{II}$ 30'46
direct	7379 Nov 19 00:47	19° $\text{H}$ 20'14		evening set	7386 May 10 09:28	7° $\text{II}$ 44'08
evening set	7380 Feb 29 13:56	26° $\text{H}$ 38'39				
conjunction	7380 Mar 17 09:42	28° $\text{H}$ 39'37 -0°39'03		conjunction	7386 May 27 04:18	9° $\text{II}$ 45'34 -2°02'57
minimum elong	7380 Mar 17 09:41	28° $\text{H}$ 39'37 0°39'04		minimum elong	7386 May 27 04:18	9° $\text{II}$ 45'34 2°03'03
max. Earth dist.	7380 Mar 17 11:30	28° $\text{H}$ 40'09	10.83612 AU	max. Earth dist.	7386 May 27 08:08	9° $\text{II}$ 46'43 10.76288 AU
	7380 Mar 28 12:46	0° $\text{Y}$		morning rise	7386 Jun 13 02:17	11° $\text{II}$ 47'56
morning rise	7380 Apr 03 04:07	0° $\text{Y}$ 40'14		retrograde	7386 Sep 25 08:49	19° $\text{II}$ 17'54
retrograde	7380 Jul 13 07:44	7° $\text{Y}$ 53'12		opposition	7386 Dec 04 18:12	15° $\text{II}$ 54'49 -2°30'20
opposition	7380 Sep 21 03:56	4° $\text{Y}$ 34'02 -1°02'20		min. Earth dist.	7386 Dec 04 14:38	15° $\text{II}$ 55'30 8.73641 AU
min. Earth dist.	7380 Sep 21 01:50	4° $\text{Y}$ 34'26	8.85081 AU	direct	7387 Feb 11 11:20	12° $\text{II}$ 35'09
direct	7380 Nov 30 12:01	1° $\text{Y}$ 13'41		evening set	7387 May 22 15:57	19° $\text{II}$ 51'00
evening set	7381 Mar 12 13:26	8° $\text{Y}$ 28'46		conjunction	7387 Jun 08 13:19	21° $\text{II}$ 53'47 -2°00'21
conjunction	7381 Mar 29 07:28	10° $\text{Y}$ 28'58 -1°02'09		minimum elong	7387 Jun 08 13:20	21° $\text{II}$ 53'48 2°00'27
minimum elong	7381 Mar 29 07:27	10° $\text{Y}$ 28'57 1°02'11		max. Earth dist.	7387 Jun 08 17:19	21° $\text{II}$ 55'01 10.70498 AU
max. Earth dist.	7381 Mar 29 09:46	10° $\text{Y}$ 29'39	10.86151 AU	morning rise	7387 Jun 25 14:17	23° $\text{II}$ 57'38
morning rise	7381 Apr 15 01:02	12° $\text{Y}$ 29'02			7387 Aug 25 16:29	0° $\text{E}$
retrograde	7381 Jul 25 15:13	19° $\text{Y}$ 42'39		retrograde	7387 Oct 08 07:57	1° $\text{E}$ 32'23
opposition	7381 Oct 03 17:44	16° $\text{Y}$ 23'13 -1°29'08			7387 Nov 21 20:38	30° $\text{R}$ $\text{II}$
min. Earth dist.	7381 Oct 03 15:34	16° $\text{Y}$ 23'37	8.86936 AU	opposition	7387 Dec 17 12:57	28° $\text{II}$ 08'19 -2°23'52
direct	7381 Dec 12 22:25	13° $\text{Y}$ 03'29		min. Earth dist.	7387 Dec 17 09:24	28° $\text{II}$ 09'00 8.67422 AU
evening set	7382 Mar 24 11:23	20° $\text{Y}$ 16'10		direct	7388 Feb 23 22:39	24° $\text{II}$ 48'02
conjunction	7382 Apr 10 04:10	22° $\text{Y}$ 15'53 -1°22'32			7388 May 15 20:43	0° $\text{E}$
minimum elong	7382 Apr 10 04:08	22° $\text{Y}$ 15'52 1°22'35		evening set	7388 Jun 03 03:05	2° $\text{E}$ 07'09
max. Earth dist.	7382 Apr 10 06:23	22° $\text{Y}$ 16'33	10.87227 AU	conjunction	7388 Jun 20 03:46	4° $\text{E}$ 11'35 -1°52'14
morning rise	7382 Apr 26 21:24	24° $\text{Y}$ 15'43		minimum elong	7388 Jun 20 03:48	4° $\text{E}$ 11'36 1°52'20
	7382 Jun 24 15:06	0° $\text{B}$		max. Earth dist.	7388 Jun 20 08:37	4° $\text{E}$ 13'04 10.63952 AU
retrograde	7382 Aug 06 23:20	1° $\text{B}$ 30'57		morning rise	7388 Jul 07 08:11	6° $\text{E}$ 17'11
	7382 Sep 20 14:05	30° $\text{R}$ $\text{Y}$		retrograde	7388 Oct 20 11:03	13° $\text{E}$ 56'50
opposition	7382 Oct 16 06:56	28° $\text{Y}$ 11'04 -1°52'07		opposition	7388 Dec 29 10:11	10° $\text{E}$ 31'47 -2°10'41
min. Earth dist.	7382 Oct 16 04:26	28° $\text{Y}$ 11'32	8.87266 AU	min. Earth dist.	7388 Dec 29 06:05	10° $\text{E}$ 32'35 8.60579 AU
direct	7382 Dec 25 06:09	24° $\text{Y}$ 51'46		direct	7389 Mar 07 11:59	7° $\text{E}$ 10'45
	7383 Mar 18 08:03	0° $\text{B}$		evening set	7389 Jun 15 19:42	14° $\text{E}$ 33'51
evening set	7383 Apr 05 08:44	2° $\text{B}$ 03'05		conjunction	7389 Jul 03 00:12	16° $\text{E}$ 40'11 -1°38'46
conjunction	7383 Apr 22 01:00	4° $\text{B}$ 02'40 -1°39'26		minimum elong	7389 Jul 03 00:14	16° $\text{E}$ 40'12 1°38'51
minimum elong	7383 Apr 22 00:58	4° $\text{B}$ 02'40 1°39'29		max. Earth dist.	7389 Jul 03 05:10	16° $\text{E}$ 41'43 10.56938 AU
max. Earth dist.	7383 Apr 22 04:03	4° $\text{B}$ 03'35	10.86720 AU	morning rise	7389 Jul 20 08:33	18° $\text{E}$ 47'43
morning rise	7383 May 08 18:22	6° $\text{B}$ 02'36		retrograde	7389 Nov 02 18:23	26° $\text{E}$ 32'10
retrograde	7383 Aug 19 08:40	13° $\text{B}$ 20'28		opposition	7390 Jan 11 10:05	23° $\text{E}$ 06'14 -1°51'03
opposition	7383 Oct 28 20:07	9° $\text{B}$ 59'57 -2°10'25		min. Earth dist.	7390 Jan 11 06:07	23° $\text{E}$ 07'01 8.53413 AU
min. Earth dist.	7383 Oct 28 16:48	10° $\text{B}$ 00'35	8.85979 AU	direct	7390 Mar 20 04:54	19° $\text{E}$ 44'19
direct	7384 Jan 06 13:43	6° $\text{B}$ 40'55		evening set	7390 Jun 28 18:51	27° $\text{E}$ 12'04
evening set	7384 Apr 16 06:51	13° $\text{B}$ 51'58		conjunction	7390 Jul 16 03:22	29° $\text{E}$ 20'26 -1°20'20
	7384 Apr 25 19:15	15° $\text{B}$		minimum elong	7390 Jul 16 03:25	29° $\text{E}$ 20'27 1°20'25
conjunction	7384 May 02 23:16	15° $\text{B}$ 51'48 -1°52'09		max. Earth dist.	7390 Jul 16 07:18	29° $\text{E}$ 21'39 10.49766 AU
minimum elong	7384 May 02 23:15	15° $\text{B}$ 51'48 1°52'12			7390 Jul 21 10:59	0° $\text{Q}$
max. Earth dist.	7384 May 03 03:19	15° $\text{B}$ 53'02	10.84614 AU	morning rise	7390 Aug 02 15:52	1° $\text{Q}$ 30'01
morning rise	7384 May 19 17:17	17° $\text{B}$ 52'10		retrograde	7390 Nov 16 06:27	9° $\text{Q}$ 18'54
retrograde	7384 Aug 30 22:49	25° $\text{B}$ 13'31		opposition	7391 Jan 24 12:41	5° $\text{Q}$ 52'15 -1°25'40
opposition	7384 Nov 09 10:00	21° $\text{B}$ 52'16 -2°23'16		min. Earth dist.	7391 Jan 24 09:39	5° $\text{Q}$ 52'51 8.46251 AU
min. Earth dist.	7384 Nov 09 05:57	21° $\text{B}$ 53'02	8.83146 AU	direct	7391 Apr 02 00:37	2° $\text{Q}$ 29'19
direct	7385 Jan 17 20:14	18° $\text{B}$ 33'16		evening set	7391 Jul 12 00:45	10° $\text{Q}$ 02'16
evening set	7385 Apr 28 06:49	25° $\text{B}$ 45'01		conjunction	7391 Jul 29 13:20	12° $\text{Q}$ 12'41 -0°57'40
conjunction	7385 May 15 00:03	27° $\text{B}$ 45'28 -2°00'08		minimum elong	7391 Jul 29 13:22	12° $\text{Q}$ 12'41 0°57'44
minimum elong	7385 May 15 00:02	27° $\text{B}$ 45'28 2°00'12		max. Earth dist.	7391 Jul 29 15:52	12° $\text{Q}$ 13'28 10.42769 AU
max. Earth dist.	7385 May 15 04:17	27° $\text{B}$ 46'45	10.81067 AU	morning rise	7391 Aug 16 05:49	14° $\text{Q}$ 24'16
morning rise	7385 May 31 19:37	29° $\text{B}$ 46'40		retrograde	7391 Aug 21 03:36	15° $\text{Q}$
					7391 Nov 29 21:04	22° $\text{Q}$ 17'07



opposition	7392 Feb 06 18:19	18° $\Omega$ 49'54	-0°55'31	max. Earth dist.	7397 Oct 20 12:18	2° $\mathbb{M}$ 44'00	10.22186 AU
min. Earth dist.	7392 Feb 06 16:28	18° $\Omega$ 50'16	8.39443 AU	morning rise	7397 Nov 07 12:59	5° $\mathbb{M}$ 00'59	
direct	7392 Apr 14 01:59	15° $\Omega$ 25'57		retrograde	7398 Feb 19 02:06	12° $\mathbb{M}$ 58'03	
evening set	7392 Jul 24 13:27	23° $\Omega$ 04'25		opposition	7398 Apr 27 02:25	9° $\mathbb{M}$ 32'07	2°10'15
				min. Earth dist.	7398 Apr 27 05:13	9° $\mathbb{M}$ 31'32	8.23122 AU
conjunction	7392 Aug 11 05:52	25° $\Omega$ 16'45	-0°31'44	direct	7398 Jul 03 22:05	6° $\mathbb{M}$ 04'05	
minimum elong	7392 Aug 11 05:54	25° $\Omega$ 16'46	0°31'47	evening set	7398 Oct 17 05:37	14° $\mathbb{M}$ 07'03	
max. Earth dist.	7392 Aug 11 07:32	25° $\Omega$ 17'16	10.36291 AU		7398 Oct 24 06:19	15° $\mathbb{M}$	
morning rise	7392 Aug 29 01:44	27° $\Omega$ 30'09					
	7392 Sep 19 04:26	0° $\mathbb{M}$		conjunction	7398 Nov 04 02:02	16° $\mathbb{M}$ 22'30	1°51'30
retrograde	7392 Dec 12 14:07	5° $\mathbb{M}$ 26'21		minimum elong	7398 Nov 04 02:00	16° $\mathbb{M}$ 22'30	1°51'35
opposition	7393 Feb 19 02:44	1° $\mathbb{M}$ 58'44	-0°22'00	max. Earth dist.	7398 Nov 03 21:41	16° $\mathbb{M}$ 21'07	10.24247 AU
min. Earth dist.	7393 Feb 19 01:38	1° $\mathbb{M}$ 58'58	8.33341 AU	morning rise	7398 Nov 21 20:33	18° $\mathbb{M}$ 37'21	
	7393 Mar 17 09:59	30° $\mathbb{R}$ $\Omega$		retrograde	7399 Mar 04 19:32	26° $\mathbb{M}$ 30'57	
direct	7393 Apr 27 08:32	28° $\Omega$ 33'47		opposition	7399 May 10 18:26	23° $\mathbb{M}$ 05'54	2°24'46
	7393 Jun 06 14:36	0° $\mathbb{M}$		min. Earth dist.	7399 May 10 21:31	23° $\mathbb{M}$ 05'17	8.26023 AU
evening set	7393 Aug 07 09:10	6° $\mathbb{M}$ 17'52		direct	7399 Jul 17 22:45	19° $\mathbb{M}$ 37'53	
				evening set	7399 Oct 31 14:50	27° $\mathbb{M}$ 40'32	
conjunction	7393 Aug 25 04:54	8° $\mathbb{M}$ 31'55	-0°03'52				
minimum elong	7393 Aug 25 04:53	8° $\mathbb{M}$ 31'55	0°03'54	conjunction	7399 Nov 18 09:04	29° $\mathbb{M}$ 54'53	2°00'03
behind sun begin	7393 Aug 24 21:41	8° $\mathbb{M}$ 29'40		minimum elong	7399 Nov 18 09:03	29° $\mathbb{M}$ 54'52	2°00'08
behind sun end	7393 Aug 25 12:04	8° $\mathbb{M}$ 34'10		max. Earth dist.	7399 Nov 18 04:32	29° $\mathbb{M}$ 53'26	10.27895 AU
max. Earth dist.	7393 Aug 25 06:03	8° $\mathbb{M}$ 32'15	10.30670 AU		7399 Nov 19 01:11	0° $\mathbb{Z}$	
morning rise	7393 Sep 12 03:11	10° $\mathbb{M}$ 46'47		morning rise	7399 Dec 06 00:34	2° $\mathbb{Z}$ 08'24	
asc. node	7393 Oct 14 20:48	14° $\mathbb{M}$ 33'16		retrograde	7400 Mar 18 08:52	9° $\mathbb{Z}$ 57'30	
retrograde	7393 Dec 26 10:09	18° $\mathbb{M}$ 45'26		opposition	7400 May 24 09:05	6° $\mathbb{Z}$ 33'23	2°31'12
opposition	7394 Mar 04 13:35	15° $\mathbb{M}$ 17'39	0°13'08	min. Earth dist.	7400 May 24 12:00	6° $\mathbb{Z}$ 32'48	8.30389 AU
min. Earth dist.	7394 Mar 04 12:49	15° $\mathbb{M}$ 17'49	8.28273 AU	direct	7400 Jul 31 22:57	3° $\mathbb{Z}$ 05'34	
direct	7394 May 10 18:32	11° $\mathbb{M}$ 51'46		evening set	7400 Nov 14 19:27	11° $\mathbb{Z}$ 06'13	
evening set	7394 Aug 21 11:14	19° $\mathbb{M}$ 41'20					
				conjunction	7400 Dec 02 11:15	13° $\mathbb{Z}$ 19'12	2°02'00
conjunction	7394 Sep 08 09:16	21° $\mathbb{M}$ 56'41	0°24'38	minimum elong	7400 Dec 02 11:15	13° $\mathbb{Z}$ 19'12	2°02'05
minimum elong	7394 Sep 08 09:14	21° $\mathbb{M}$ 56'41	0°24'38	max. Earth dist.	7400 Dec 02 07:00	13° $\mathbb{Z}$ 17'52	10.32888 AU
max. Earth dist.	7394 Sep 08 09:42	21° $\mathbb{M}$ 56'49	10.26218 AU	morning rise	7400 Dec 19 23:36	15° $\mathbb{Z}$ 31'11	
morning rise	7394 Sep 26 08:54	24° $\mathbb{M}$ 12'35		retrograde	7401 Mar 31 18:45	23° $\mathbb{Z}$ 15'02	
	7394 Nov 19 09:34	0° $\mathbb{Z}$		opposition	7401 Jun 06 21:47	19° $\mathbb{Z}$ 51'53	2°29'24
retrograde	7395 Jan 09 09:19	2° $\mathbb{Z}$ 12'40		min. Earth dist.	7401 Jun 07 00:52	19° $\mathbb{Z}$ 51'16	8.35915 AU
	7395 Mar 02 08:26	30° $\mathbb{R}$ $\mathbb{M}$		direct	7401 Aug 14 20:46	16° $\mathbb{Z}$ 24'27	
opposition	7395 Mar 18 02:48	28° $\mathbb{M}$ 44'59	0°47'57	evening set	7401 Nov 28 18:09	24° $\mathbb{Z}$ 21'37	
min. Earth dist.	7395 Mar 18 02:30	28° $\mathbb{M}$ 45'02	8.24530 AU				
direct	7395 May 24 07:47	25° $\mathbb{M}$ 18'17		conjunction	7401 Dec 16 07:19	26° $\mathbb{Z}$ 33'05	1°57'26
	7395 Aug 08 12:14	0° $\mathbb{Z}$		minimum elong	7401 Dec 16 07:20	26° $\mathbb{Z}$ 33'05	1°57'31
evening set	7395 Sep 04 18:21	3° $\mathbb{Z}$ 12'50		max. Earth dist.	7401 Dec 16 02:55	26° $\mathbb{Z}$ 31'42	10.38866 AU
				morning rise	7402 Jan 02 16:36	28° $\mathbb{Z}$ 43'25	
conjunction	7395 Sep 22 17:30	5° $\mathbb{Z}$ 28'59	0°51'55		7402 Jan 13 05:38	0° $\mathbb{Z}$	
minimum elong	7395 Sep 22 17:28	5° $\mathbb{Z}$ 28'58	0°51'56	retrograde	7402 Apr 14 01:09	6° $\mathbb{Z}$ 21'41	
max. Earth dist.	7395 Sep 22 16:57	5° $\mathbb{Z}$ 28'48	10.23205 AU	opposition	7402 Jun 20 07:58	2° $\mathbb{Z}$ 59'28	2°19'46
morning rise	7395 Oct 10 17:18	7° $\mathbb{Z}$ 45'23		min. Earth dist.	7402 Jun 20 11:47	2° $\mathbb{Z}$ 58'42	8.42209 AU
retrograde	7396 Jan 23 08:11	15° $\mathbb{Z}$ 45'45			7402 Aug 05 10:45	30° $\mathbb{R}$ $\mathbb{Z}$	
opposition	7396 Mar 30 17:50	12° $\mathbb{Z}$ 18'25	1°20'21	direct	7402 Aug 28 14:37	29° $\mathbb{Z}$ 32'34	
min. Earth dist.	7396 Mar 30 18:23	12° $\mathbb{Z}$ 18'18	8.22346 AU		7402 Sep 20 18:46	0° $\mathbb{Z}$	
direct	7396 Jun 06 01:47	8° $\mathbb{Z}$ 51'05		evening set	7402 Dec 12 10:01	7° $\mathbb{Z}$ 25'12	
evening set	7396 Sep 18 05:10	16° $\mathbb{Z}$ 49'45					
				conjunction	7402 Dec 29 20:29	9° $\mathbb{Z}$ 35'05	1°46'50
conjunction	7396 Oct 06 04:20	19° $\mathbb{Z}$ 06'10	1°16'25	minimum elong	7402 Dec 29 20:31	9° $\mathbb{Z}$ 35'06	1°46'55
minimum elong	7396 Oct 06 04:17	19° $\mathbb{Z}$ 06'09	1°16'28	max. Earth dist.	7402 Dec 29 15:21	9° $\mathbb{Z}$ 33'29	10.45411 AU
max. Earth dist.	7396 Oct 06 02:16	19° $\mathbb{Z}$ 05'30	10.21830 AU	morning rise	7403 Jan 16 03:02	11° $\mathbb{Z}$ 43'48	
morning rise	7396 Oct 24 03:15	21° $\mathbb{Z}$ 22'33		retrograde	7403 Apr 27 01:40	19° $\mathbb{Z}$ 16'35	
retrograde	7397 Feb 05 05:58	29° $\mathbb{Z}$ 21'54		opposition	7403 Jul 03 15:20	15° $\mathbb{Z}$ 55'16	2°03'09
opposition	7397 Apr 13 09:54	25° $\mathbb{Z}$ 55'11	1°48'21	min. Earth dist.	7403 Jul 03 19:50	15° $\mathbb{Z}$ 54'23	8.48861 AU
min. Earth dist.	7397 Apr 13 11:48	25° $\mathbb{Z}$ 54'47	8.21869 AU	direct	7403 Sep 11 06:28	12° $\mathbb{Z}$ 29'04	
direct	7397 Jun 19 22:58	22° $\mathbb{Z}$ 27'23		evening set	7403 Dec 25 18:43	20° $\mathbb{Z}$ 16'35	
	7397 Sep 28 20:15	0° $\mathbb{M}$					
evening set	7397 Oct 02 17:41	0° $\mathbb{M}$ 28'59		conjunction	7404 Jan 12 02:36	22° $\mathbb{Z}$ 24'53	1°31'00
				minimum elong	7404 Jan 12 02:39	22° $\mathbb{Z}$ 24'54	1°31'05
conjunction	7397 Oct 20 15:53	2° $\mathbb{M}$ 45'09	1°36'41	max. Earth dist.	7404 Jan 11 20:53	22° $\mathbb{Z}$ 23'06	10.52149 AU
minimum elong	7397 Oct 20 15:50	2° $\mathbb{M}$ 45'08	1°36'45	morning rise	7404 Jan 29 06:48	24° $\mathbb{Z}$ 32'04	

	7404 Mar 21 14:12	0°♊	conjunction	7410 Mar 25 14:28	5°♊42'04 -0°52'39
retrograde	7404 May 08 21:19	1°♊59'50	minimum elong	7410 Mar 25 14:26	5°♊42'04 0°52'40
	7404 Jun 27 23:23	30°♊♎	max. Earth dist.	7410 Mar 25 15:21	5°♊42'20 10.82712 AU
opposition	7404 Jul 15 19:49	28°♎39'17 1°40'42	morning rise	7410 Apr 11 08:35	7°♊42'40
min. Earth dist.	7404 Jul 16 00:11	28°♎38'26 8.55558 AU	retrograde	7410 Jul 21 17:23	14°♊56'56
direct	7404 Sep 23 19:12	25°♎13'56	opposition	7410 Sep 29 17:47	11°♊36'59 -1°18'16
	7404 Dec 12 07:37	0°♊	min. Earth dist.	7410 Sep 29 15:48	11°♊37'22 8.83684 AU
evening set	7405 Jan 06 20:41	2°♊55'57	direct	7410 Dec 09 01:38	8°♊16'20
			evening set	7411 Mar 20 18:38	15°♊31'01
conjunction	7405 Jan 24 02:09	5°♊02'43 1°10'56			
minimum elong	7405 Jan 24 02:11	5°♊02'44 1°11'01	conjunction	7411 Apr 06 12:13	17°♊31'14 -1°14'20
max. Earth dist.	7405 Jan 23 20:50	5°♊01'05 10.58814 AU	minimum elong	7411 Apr 06 12:11	17°♊31'13 1°14'23
morning rise	7405 Feb 10 04:08	7°♊08'26	max. Earth dist.	7411 Apr 06 15:02	17°♊32'05 10.84239 AU
retrograde	7405 May 21 14:57	14°♊31'47	morning rise	7411 Apr 23 05:35	19°♊31'27
opposition	7405 Jul 28 21:23	11°♊11'49 1°13'45	retrograde	7411 Aug 03 02:43	26°♊46'54
min. Earth dist.	7405 Jul 29 00:36	11°♊11'11 8.62064 AU	opposition	7411 Oct 12 07:35	23°♊26'31 -1°43'04
direct	7405 Oct 07 02:42	7°♊47'22	min. Earth dist.	7411 Oct 12 04:22	23°♊27'07 8.84576 AU
	7406 Jan 16 08:51	15°♊	direct	7411 Dec 21 09:53	20°♊06'21
evening set	7406 Jan 19 16:10	15°♊23'42	evening set	7412 Mar 31 16:47	27°♊19'12
conjunction	7406 Feb 05 19:21	17°♊29'02 0°47'47	conjunction	7412 Apr 17 09:25	29°♊19'07 -1°32'51
minimum elong	7406 Feb 05 19:23	17°♊29'03 0°47'51	minimum elong	7412 Apr 17 09:23	29°♊19'06 1°32'54
max. Earth dist.	7406 Feb 05 15:40	17°♊27'54 10.65167 AU	max. Earth dist.	7412 Apr 17 12:57	29°♊20'11 10.84421 AU
morning rise	7406 Feb 22 19:14	19°♊33'24		7412 Apr 23 01:05	0°♎
retrograde	7406 Jun 03 05:34	26°♊53'02	morning rise	7412 May 04 02:40	1°♎19'16
opposition	7406 Aug 10 20:21	23°♊33'27 0°43'47	retrograde	7412 Aug 14 12:02	8°♎36'51
min. Earth dist.	7406 Aug 10 22:24	23°♊33'03 8.68141 AU	opposition	7412 Oct 23 21:23	5°♎15'55 -2°03'30
direct	7406 Oct 20 04:32	20°♊09'54	min. Earth dist.	7412 Oct 23 17:52	5°♎16'35 8.84110 AU
evening set	7407 Feb 01 05:39	27°♊40'41	direct	7413 Jan 01 16:52	1°♎56'06
			evening set	7413 Apr 12 14:55	9°♎08'06
conjunction	7407 Feb 18 06:36	29°♊44'39 0°22'43			
minimum elong	7407 Feb 18 06:37	29°♊44'40 0°22'46	conjunction	7413 Apr 29 07:11	11°♎08'03 -1°47'25
max. Earth dist.	7407 Feb 18 04:27	29°♊44'00 10.70954 AU	minimum elong	7413 Apr 29 07:09	11°♎08'02 1°47'29
	7407 Feb 20 08:49	0°♎	max. Earth dist.	7413 Apr 29 10:58	11°♎09'11 10.83250 AU
morning rise	7407 Mar 07 04:36	1°♎47'48	morning rise	7413 May 16 01:02	13°♎08'27
retrograde	7407 Jun 15 16:48	9°♎04'36		7413 Jun 01 06:02	15°♎
opposition	7407 Aug 23 16:45	5°♎45'12 0°12'15	retrograde	7413 Aug 26 23:43	20°♎29'01
min. Earth dist.	7407 Aug 23 18:09	5°♎44'56 8.73544 AU	opposition	7413 Nov 05 11:35	17°♎07'27 -2°18'44
direct	7407 Nov 02 03:24	2°♎22'28	min. Earth dist.	7413 Nov 05 07:42	17°♎08'11 8.82300 AU
desc. node	7408 Jan 15 18:16	6°♎34'56		7413 Dec 06 02:09	15°♎♎
evening set	7408 Feb 13 14:14	9°♎48'10	direct	7414 Jan 14 00:39	13°♎47'50
				7414 Feb 21 00:25	15°♎
conjunction	7408 Mar 01 12:54	11°♎50'53 -0°03'12	evening set	7414 Apr 24 14:17	20°♎59'55
minimum elong	7408 Mar 01 12:54	11°♎50'53 0°03'10			
behind sun begin	7408 Mar 01 05:54	11°♎48'47	conjunction	7414 May 11 07:05	23°♎00'16 -1°57'27
behind sun end	7408 Mar 01 19:55	11°♎53'00	minimum elong	7414 May 11 07:04	23°♎00'16 1°57'32
max. Earth dist.	7408 Mar 01 11:23	11°♎50'29 10.75932 AU	max. Earth dist.	7414 May 11 11:45	23°♎01'41 10.80772 AU
morning rise	7408 Mar 18 09:23	13°♎52'59	morning rise	7414 May 28 02:08	25°♎01'17
retrograde	7408 Jun 27 02:16	21°♎07'51		7414 Jul 15 01:31	0°♎♎
opposition	7408 Sep 04 10:43	17°♎48'28 -0°19'28	retrograde	7414 Sep 08 13:49	2°♎25'30
min. Earth dist.	7408 Sep 04 11:46	17°♎48'16 8.78049 AU		7414 Nov 05 10:03	30°♎♎
direct	7408 Nov 13 21:37	14°♎26'30	opposition	7414 Nov 18 02:28	29°♎03'13 -2°28'06
evening set	7409 Feb 24 18:37	21°♎47'43	min. Earth dist.	7414 Nov 17 21:47	29°♎04'06 8.79216 AU
			direct	7415 Jan 26 07:55	25°♎43'38
conjunction	7409 Mar 13 15:10	23°♎49'22 -0°28'36		7415 Apr 10 10:06	0°♎♎
minimum elong	7409 Mar 13 15:09	23°♎49'22 0°28'36	evening set	7415 May 06 15:53	2°♎56'45
max. Earth dist.	7409 Mar 13 14:17	23°♎49'06 10.79905 AU			
morning rise	7409 Mar 30 10:23	25°♎50'36	conjunction	7415 May 23 10:07	4°♎57'53 -2°02'28
	7409 May 08 02:32	0°♎♎	minimum elong	7415 May 23 10:07	4°♎57'53 2°02'33
retrograde	7409 Jul 09 09:10	3°♎04'38	max. Earth dist.	7415 May 23 16:14	4°♎59'44 10.77079 AU
	7409 Sep 13 19:20	30°♎♎	morning rise	7415 Jun 09 06:59	6°♎59'51
opposition	7409 Sep 17 02:58	29°♎45'03 -0°50'02	retrograde	7415 Sep 21 07:57	14°♎28'15
min. Earth dist.	7409 Sep 17 02:44	29°♎45'05 8.81475 AU	opposition	7415 Nov 30 18:45	11°♎05'12 -2°31'05
direct	7409 Nov 26 12:26	26°♎23'46	min. Earth dist.	7415 Nov 30 13:04	11°♎06'17 8.74971 AU
	7410 Feb 03 00:21	0°♎♎	direct	7416 Feb 07 16:25	7°♎45'30
evening set	7410 Mar 08 19:36	3°♎41'17	evening set	7416 May 17 20:48	15°♎00'31

conjunction	7416 Jun 03 17:07	17°II02'47	-2°02'07			7422 Jul 25 23:43	0°II	
minimum elong	7416 Jun 03 17:08	17°II02'48	2°02'13	evening set		7422 Aug 02 21:39	0°II	57'42
max. Earth dist.	7416 Jun 03 23:40	17°II04'47	10.72326 AU					
morning rise	7416 Jun 20 16:35	19°II06'02		conjunction		7422 Aug 20 15:48	3°II	10'43 -0°15'39
retrograde	7416 Oct 03 07:06	26°II38'58		minimum elong		7422 Aug 20 15:49	3°II	10'43 0°15'41
opposition	7416 Dec 12 12:59	23°II15'10	-2°27'23	behind sun begin		7422 Aug 20 14:44	3°II	10'23
min. Earth dist.	7416 Dec 12 07:12	23°II16'17	8.69756 AU	behind sun end		7422 Aug 20 16:53	3°II	11'03
direct	7417 Feb 19 01:07	19°II55'10		max. Earth dist.		7422 Aug 20 17:24	3°II	11'13 10.35422 AU
evening set	7417 May 30 06:07	27°II12'56		morning rise		7422 Sep 07 12:54	5°II	24'39
				retrograde		7422 Dec 21 23:36	13°II	21'17
conjunction	7417 Jun 16 05:13	29°II16'38	-1°56'15	opposition		7423 Feb 28 05:46	9°II	54'17 -0°01'41
minimum elong	7417 Jun 16 05:14	29°II16'39	1°56'21	min. Earth dist.		7423 Feb 28 04:57	9°II	54'27 8.32769 AU
max. Earth dist.	7417 Jun 16 11:16	29°II18'30	10.66738 AU	asc. node		7423 Mar 18 07:44	8°II	29'45
	7417 Jun 22 03:01	0°II		direct		7423 May 06 09:41	6°II	29'30
morning rise	7417 Jul 03 08:05	1°II	21'29	evening set		7423 Aug 16 20:27	14°II	15'42
retrograde	7417 Oct 16 08:06	8°II	59'04					
opposition	7417 Dec 25 09:25	5°II	34'33 -2°16'54	conjunction		7423 Sep 03 17:13	16°II	30'11 0°12'44
min. Earth dist.	7417 Dec 25 04:16	5°II	35'33 8.63818 AU	minimum elong		7423 Sep 03 17:13	16°II	30'11 0°12'43
direct	7418 Mar 03 13:06	2°II	14'02	behind sun begin		7423 Sep 03 12:44	16°II	28'47
evening set	7418 Jun 11 20:30	9°II	35'20	behind sun end		7423 Sep 03 21:42	16°II	31'35
				max. Earth dist.		7423 Sep 03 16:41	16°II	30'01 10.30386 AU
conjunction	7418 Jun 28 23:08	11°II	40'46 -1°44'56	morning rise		7423 Sep 21 16:18	18°II	45'22
minimum elong	7418 Jun 28 23:10	11°II	40'47 1°45'02	retrograde		7424 Jan 04 20:55	26°II	43'54
max. Earth dist.	7418 Jun 29 04:39	11°II	42'28 10.60567 AU	opposition		7424 Mar 12 17:31	23°II	16'51 0°33'24
morning rise	7418 Jul 16 05:53	13°II	47'25	min. Earth dist.		7424 Mar 12 18:09	23°II	16'43 8.28286 AU
retrograde	7418 Oct 29 12:50	21°II	29'38	direct		7424 May 18 21:21	19°II	51'07
opposition	7419 Jan 07 08:16	18°II	04'26 -1°59'51	evening set		7424 Aug 30 00:42	27°II	42'34
min. Earth dist.	7419 Jan 07 03:48	18°II	05'18 8.57420 AU					
direct	7419 Mar 16 05:37	14°II	43'17	conjunction		7424 Sep 16 23:12	29°II	58'05 0°40'36
evening set	7419 Jun 24 16:50	22°II	08'45	minimum elong		7424 Sep 16 23:10	29°II	58'04 0°40'36
				max. Earth dist.		7424 Sep 16 21:18	29°II	57'29 10.26520 AU
conjunction	7419 Jul 11 23:30	24°II	16'06 -1°28'29			7424 Sep 17 05:15	0°II	
minimum elong	7419 Jul 11 23:33	24°II	16'07 1°28'35	morning rise		7424 Oct 04 23:04	2°II	14'03
max. Earth dist.	7419 Jul 12 05:07	24°II	17'50 10.54074 AU	retrograde		7425 Jan 17 17:29	10°II	13'24
morning rise	7419 Jul 29 10:12	26°II	24'40	opposition		7425 Mar 26 07:09	6°II	46'28 1°06'58
	7419 Aug 30 03:39	0°II		min. Earth dist.		7425 Mar 26 08:40	6°II	46'10 8.25145 AU
retrograde	7419 Nov 11 22:37	4°II	11'16	direct		7425 Jun 01 14:48	3°II	19'53
opposition	7420 Jan 20 09:38	0°II	45'27 -1°36'45	evening set		7425 Sep 13 09:25	11°II	15'53
min. Earth dist.	7420 Jan 20 05:20	0°II	46'17 8.50842 AU					
	7420 Jan 30 03:11	30°II		conjunction		7425 Oct 01 08:34	13°II	31'57 1°06'25
direct	7420 Mar 28 00:37	27°II	23'32	minimum elong		7425 Oct 01 08:31	13°II	31'56 1°06'27
	7420 May 22 12:11	0°II		max. Earth dist.		7425 Oct 01 05:50	13°II	31'05 10.24107 AU
evening set	7420 Jul 06 19:39	4°II	53'40	morning rise		7425 Oct 19 07:56	15°II	48'07
				retrograde		7426 Jan 31 14:16	23°II	47'05
conjunction	7420 Jul 24 06:29	7°II	03'00 -1°07'30	opposition		7426 Apr 08 21:56	20°II	20'27 1°37'00
minimum elong	7420 Jul 24 06:31	7°II	03'01 1°07'34	min. Earth dist.		7426 Apr 08 23:51	20°II	20'04 8.23566 AU
max. Earth dist.	7420 Jul 24 11:51	7°II	04'40 10.47548 AU	direct		7426 Jun 15 10:11	16°II	53'09
morning rise	7420 Aug 10 21:04	9°II	13'31	evening set		7426 Sep 27 20:34	24°II	52'38
	7420 Oct 05 07:04	15°II						
retrograde	7420 Nov 24 12:20	17°II	04'04	conjunction		7426 Oct 15 19:16	27°II	08'43 1°28'37
	7421 Jan 14 17:34	15°II		minimum elong		7426 Oct 15 19:13	27°II	08'42 1°28'40
opposition	7421 Feb 01 13:45	13°II	37'42 -1°08'28	max. Earth dist.		7426 Oct 15 16:02	27°II	07'41 10.23316 AU
min. Earth dist.	7421 Feb 01 09:50	13°II	38'28 8.44373 AU	morning rise		7426 Nov 02 17:04	29°II	24'34
direct	7421 Apr 09 23:16	10°II	14'53			7426 Nov 07 11:33	0°II	
	7421 Jun 25 21:53	15°II		retrograde		7427 Feb 14 11:01	7°II	21'53
evening set	7421 Jul 20 05:12	17°II	50'07	opposition		7427 Apr 22 13:31	3°II	55'43 2°01'40
				min. Earth dist.		7427 Apr 22 15:55	3°II	55'14 8.23650 AU
conjunction	7421 Aug 06 19:59	20°II	01'22 -0°42'50	direct		7427 Jun 29 06:56	0°II	27'54
minimum elong	7421 Aug 06 20:01	20°II	01'23 0°42'53	evening set		7427 Oct 12 07:52	8°II	29'26
max. Earth dist.	7421 Aug 07 00:05	20°II	02'39 10.41252 AU					
morning rise	7421 Aug 24 14:10	22°II	13'42	conjunction		7427 Oct 30 05:12	10°II	45'03 1°45'52
	7421 Nov 26 03:36	0°II		minimum elong		7427 Oct 30 05:09	10°II	45'02 1°45'56
retrograde	7421 Dec 08 04:28	0°II	07'38	max. Earth dist.		7427 Oct 30 01:10	10°II	43'46 10.24201 AU
	7421 Dec 20 05:40	30°II		morning rise		7427 Nov 17 00:40	13°II	00'09
opposition	7422 Feb 14 20:31	26°II	40'50 -0°36'15			7427 Dec 03 12:17	15°II	
min. Earth dist.	7422 Feb 14 17:47	26°II	41'23 8.38257 AU	retrograde		7428 Feb 28 05:59	20°II	54'35
direct	7422 Apr 23 02:37	23°II	17'03	opposition		7428 May 05 04:59	17°II	29'03 2°19'29

min. Earth dist.	7428 May 05 08:17	17° $\mathbb{M}$ 28'23	8.25386 AU	retrograde	7434 May 16 07:39	9° $\approx$ 11'54	
	7428 Jun 08 12:40	15° $\mathbb{R}\mathbb{M}$		opposition	7434 Jul 23 10:19	5° $\approx$ 51'15	1°26'21
direct	7428 Jul 12 05:16	14° $\mathbb{M}$ 00'55		min. Earth dist.	7434 Jul 23 13:24	5° $\approx$ 50'40	8.59118 AU
	7428 Aug 14 19:26	15° $\mathbb{M}$		direct	7434 Oct 01 12:46	2° $\approx$ 26'01	
evening set	7428 Oct 25 17:36	22° $\mathbb{M}$ 02'59		evening set	7435 Jan 14 07:42	10° $\approx$ 04'18	
conjunction	7428 Nov 12 12:52	24° $\mathbb{M}$ 17'42	1°57'12	conjunction	7435 Jan 31 11:54	12° $\approx$ 10'11	0°58'32
minimum elong	7428 Nov 12 12:50	24° $\mathbb{M}$ 17'41	1°57'16	minimum elong	7435 Jan 31 11:56	12° $\approx$ 10'11	0°58'37
max. Earth dist.	7428 Nov 12 07:45	24° $\mathbb{M}$ 16'05	10.26702 AU	max. Earth dist.	7435 Jan 31 08:23	12° $\approx$ 09'06	10.62501 AU
morning rise	7428 Nov 30 05:35	26° $\mathbb{M}$ 31'41		morning rise	7435 Feb 17 12:42	14° $\approx$ 15'03	
	7428 Dec 29 21:36	0° $\mathbb{Z}$			7435 Feb 23 19:32	15° $\approx$	
retrograde	7429 Mar 12 20:01	4° $\mathbb{Z}$ 22'07		retrograde	7435 May 28 21:30	21° $\approx$ 35'36	
opposition	7429 May 18 19:24	0° $\mathbb{Z}$ 57'22	2°29'29	opposition	7435 Aug 05 09:37	18° $\approx$ 15'36	0°57'37
min. Earth dist.	7429 May 18 23:43	0° $\mathbb{Z}$ 56'30	8.28657 AU	min. Earth dist.	7435 Aug 05 12:13	18° $\approx$ 15'06	8.65817 AU
	7429 May 30 19:50	30° $\mathbb{R}\mathbb{M}$			7435 Oct 01 14:02	15° $\mathbb{R}\mathbb{M}$	
direct	7429 Jul 26 05:21	27° $\mathbb{M}$ 29'07		direct	7435 Oct 14 16:27	14° $\approx$ 51'23	
	7429 Sep 19 05:54	0° $\mathbb{Z}$			7435 Oct 27 19:13	15° $\approx$	
evening set	7429 Nov 08 23:39	5° $\mathbb{Z}$ 30'08		evening set	7436 Jan 26 23:07	22° $\approx$ 24'01	
conjunction	7429 Nov 26 16:27	7° $\mathbb{Z}$ 43'38	2°02'02	conjunction	7436 Feb 13 00:58	24° $\approx$ 28'27	0°34'14
minimum elong	7429 Nov 26 16:27	7° $\mathbb{Z}$ 43'38	2°02'07	minimum elong	7436 Feb 13 00:59	24° $\approx$ 28'28	0°34'18
max. Earth dist.	7429 Nov 26 10:21	7° $\mathbb{Z}$ 41'42	10.30659 AU	max. Earth dist.	7436 Feb 12 22:06	24° $\approx$ 27'35	10.68983 AU
morning rise	7429 Dec 14 06:13	9° $\mathbb{Z}$ 56'13		morning rise	7436 Feb 29 23:57	26° $\approx$ 32'02	
retrograde	7430 Mar 26 05:56	17° $\mathbb{Z}$ 41'53			7436 Apr 01 01:51	0° $\mathbb{H}$	
opposition	7430 Jun 01 08:19	14° $\mathbb{Z}$ 17'58	2°31'17	retrograde	7436 Jun 09 08:46	3° $\mathbb{H}$ 49'17	
min. Earth dist.	7430 Jun 01 13:06	14° $\mathbb{Z}$ 17'00	8.33258 AU	opposition	7436 Aug 17 06:18	0° $\mathbb{H}$ 29'45	0°26'40
direct	7430 Aug 09 04:03	10° $\mathbb{Z}$ 49'53		min. Earth dist.	7436 Aug 17 07:40	0° $\mathbb{H}$ 29'29	8.71964 AU
evening set	7430 Nov 23 00:12	18° $\mathbb{Z}$ 48'15			7436 Aug 23 19:16	30° $\mathbb{R}\mathbb{M}$	
conjunction	7430 Dec 10 14:23	21° $\mathbb{Z}$ 00'20	2°00'18	direct	7436 Oct 26 17:37	27° $\approx$ 06'36	
minimum elong	7430 Dec 10 14:24	21° $\mathbb{Z}$ 00'20	2°00'23		7436 Dec 26 12:54	0° $\mathbb{H}$	
max. Earth dist.	7430 Dec 10 08:04	20° $\mathbb{Z}$ 58'20	10.35835 AU	evening set	7437 Feb 07 09:10	4° $\mathbb{H}$ 33'55	
morning rise	7430 Dec 28 01:11	23° $\mathbb{Z}$ 11'22		conjunction	7437 Feb 24 08:49	6° $\mathbb{H}$ 37'02	0°08'42
	7431 Mar 08 13:00	0° $\mathbb{Z}$		minimum elong	7437 Feb 24 08:49	6° $\mathbb{H}$ 37'02	0°08'44
retrograde	7431 Apr 08 12:20	0° $\mathbb{Z}$ 51'46		behind sun begin	7437 Feb 24 02:42	6° $\mathbb{H}$ 35'12	
	7431 May 09 21:38	30° $\mathbb{R}\mathbb{Z}$		behind sun end	7437 Feb 24 14:56	6° $\mathbb{H}$ 38'52	
opposition	7431 Jun 14 18:59	27° $\mathbb{Z}$ 28'41	2°25'02	max. Earth dist.	7437 Feb 24 07:34	6° $\mathbb{H}$ 36'40	10.74759 AU
min. Earth dist.	7431 Jun 14 23:17	27° $\mathbb{Z}$ 27'50	8.38922 AU	morning rise	7437 Mar 13 06:00	8° $\mathbb{H}$ 39'25	
direct	7431 Aug 23 00:00	24° $\mathbb{Z}$ 01'01		retrograde	7437 Jun 21 19:26	15° $\mathbb{H}$ 54'22	
	7431 Nov 20 15:25	0° $\mathbb{Z}$		desc. node	7437 Jun 30 20:30	15° $\mathbb{H}$ 50'09	
evening set	7431 Dec 06 18:25	1° $\mathbb{Z}$ 55'26		opposition	7437 Aug 30 00:39	12° $\mathbb{H}$ 35'07	-0°05'04
conjunction	7431 Dec 24 06:06	4° $\mathbb{Z}$ 06'00	1°52'18	min. Earth dist.	7437 Aug 30 00:24	12° $\mathbb{H}$ 35'09	8.77292 AU
minimum elong	7431 Dec 24 06:08	4° $\mathbb{Z}$ 06'00	1°52'23	direct	7437 Nov 08 12:29	9° $\mathbb{H}$ 13'01	
max. Earth dist.	7431 Dec 24 00:34	4° $\mathbb{Z}$ 04'16	10.41944 AU	evening set	7438 Feb 19 14:46	16° $\mathbb{H}$ 35'33	
morning rise	7432 Jan 10 14:02	6° $\mathbb{Z}$ 15'26		conjunction	7438 Mar 08 12:21	18° $\mathbb{H}$ 37'30	-0°17'05
retrograde	7432 Apr 20 14:39	13° $\mathbb{Z}$ 50'20		minimum elong	7438 Mar 08 12:21	18° $\mathbb{H}$ 37'30	0°17'04
opposition	7432 Jun 27 02:51	10° $\mathbb{Z}$ 28'07	2°11'24	max. Earth dist.	7438 Mar 08 12:59	18° $\mathbb{H}$ 37'41	10.79589 AU
min. Earth dist.	7432 Jun 27 06:28	10° $\mathbb{Z}$ 27'24	8.45343 AU	morning rise	7438 Mar 25 07:56	20° $\mathbb{H}$ 38'55	
direct	7432 Sep 04 16:31	7° $\mathbb{Z}$ 01'05		retrograde	7438 Jul 04 03:58	27° $\mathbb{H}$ 52'33	
evening set	7432 Dec 19 05:46	14° $\mathbb{Z}$ 50'36		opposition	7438 Sep 11 17:09	24° $\mathbb{H}$ 33'24	-0°36'13
conjunction	7433 Jan 05 14:59	16° $\mathbb{Z}$ 59'36	1°38'41	min. Earth dist.	7438 Sep 11 16:02	24° $\mathbb{H}$ 33'37	8.81589 AU
minimum elong	7433 Jan 05 15:02	16° $\mathbb{Z}$ 59'36	1°38'47	direct	7438 Nov 21 03:17	21° $\mathbb{H}$ 12'15	
max. Earth dist.	7433 Jan 05 10:29	16° $\mathbb{Z}$ 58'11	10.48653 AU	evening set	7439 Mar 03 16:51	28° $\mathbb{H}$ 30'44	
morning rise	7433 Jan 22 20:14	19° $\mathbb{Z}$ 07'26			7439 Mar 16 03:23	0° $\mathbb{Y}$	
retrograde	7433 May 03 12:56	26° $\mathbb{Z}$ 37'02		conjunction	7439 Mar 20 12:28	0° $\mathbb{Y}$ 31'42	-0°41'49
opposition	7433 Jul 10 08:00	23° $\mathbb{Z}$ 15'38	1°51'25	minimum elong	7439 Mar 20 12:27	0° $\mathbb{Y}$ 31'42	0°41'50
min. Earth dist.	7433 Jul 10 11:08	23° $\mathbb{Z}$ 15'01	8.52186 AU	max. Earth dist.	7439 Mar 20 13:48	0° $\mathbb{Y}$ 32'06	10.83280 AU
direct	7433 Sep 18 05:06	19° $\mathbb{Z}$ 49'25		morning rise	7439 Apr 06 06:54	2° $\mathbb{Y}$ 32'22	
evening set	7434 Jan 01 10:05	27° $\mathbb{Z}$ 33'27		retrograde	7439 Jul 16 12:03	9° $\mathbb{Y}$ 45'44	
conjunction	7434 Jan 18 16:47	29° $\mathbb{Z}$ 40'52	1°20'25	opposition	7439 Sep 24 08:10	6° $\mathbb{Y}$ 26'31	-1°05'35
minimum elong	7434 Jan 18 16:49	29° $\mathbb{Z}$ 40'52	1°20'29	min. Earth dist.	7439 Sep 24 06:42	6° $\mathbb{Y}$ 26'47	8.84675 AU
max. Earth dist.	7434 Jan 18 13:08	29° $\mathbb{Z}$ 39'44	10.55616 AU	direct	7439 Dec 03 16:04	3° $\mathbb{Y}$ 06'08	
	7434 Jan 21 06:38	0° $\approx$		evening set	7440 Mar 14 16:34	10° $\mathbb{Y}$ 21'25	
morning rise	7434 Feb 04 19:36	1° $\approx$ 47'09		conjunction	7440 Mar 31 10:29	12° $\mathbb{Y}$ 21'40	-1°04'39

minimum elong	7440 Mar 31 10:27	12° $\Upsilon$ 21'39	1°04'41	minimum elong	7446 Jun 10 19:26	23° $\Pi$ 52'58	1°59'39
max. Earth dist.	7440 Mar 31 12:06	12° $\Upsilon$ 22'09	10.85673 AU	max. Earth dist.	7446 Jun 11 00:17	23° $\Pi$ 54'27	10.69790 AU
morning rise	7440 Apr 17 04:09	14° $\Upsilon$ 21'49		morning rise	7446 Jun 27 20:37	25° $\Pi$ 56'59	
retrograde	7440 Jul 27 19:02	21° $\Upsilon$ 35'54			7446 Aug 03 19:38	0° $\mathfrak{D}$	
opposition	7440 Oct 05 22:06	18° $\Upsilon$ 16'25	-1°32'00	retrograde	7446 Oct 10 15:14	3° $\mathfrak{D}$ 32'18	
min. Earth dist.	7440 Oct 05 20:05	18° $\Upsilon$ 16'47	8.86404 AU	opposition	7446 Dec 19 19:37	0° $\mathfrak{D}$ 08'11	-2°22'29
direct	7440 Dec 15 01:48	14° $\Upsilon$ 56'40		min. Earth dist.	7446 Dec 19 15:22	0° $\mathfrak{D}$ 08'59	8.66714 AU
evening set	7441 Mar 26 14:46	22° $\Upsilon$ 09'39			7446 Dec 21 14:10	30° $\mathfrak{R}\Pi$	
				direct	7447 Feb 26 04:25	26° $\Pi$ 47'52	
conjunction	7441 Apr 12 07:34	24° $\Upsilon$ 09'27	-1°24'40		7447 Apr 29 17:49	0° $\mathfrak{D}$	
minimum elong	7441 Apr 12 07:32	24° $\Upsilon$ 09'26	1°24'43	evening set	7447 Jun 06 09:31	4° $\mathfrak{D}$ 07'27	
max. Earth dist.	7441 Apr 12 10:12	24° $\Upsilon$ 10'14	10.86647 AU				
morning rise	7441 Apr 29 00:48	26° $\Upsilon$ 09'22		conjunction	7447 Jun 23 10:34	6° $\mathfrak{D}$ 12'05	-1°50'46
	7441 Jun 03 13:44	0° $\mathfrak{R}$		minimum elong	7447 Jun 23 10:36	6° $\mathfrak{D}$ 12'05	1°50'53
retrograde	7441 Aug 09 03:14	3° $\mathfrak{R}$ 25'11		max. Earth dist.	7447 Jun 23 15:50	6° $\mathfrak{D}$ 13'41	10.63254 AU
opposition	7441 Oct 18 11:37	0° $\mathfrak{R}$ 05'12	-1°54'29	morning rise	7447 Jul 10 15:18	8° $\mathfrak{D}$ 17'51	
min. Earth dist.	7441 Oct 18 08:22	0° $\mathfrak{R}$ 05'49	8.86660 AU	retrograde	7447 Oct 23 19:07	15° $\mathfrak{D}$ 58'00	
	7441 Oct 19 15:27	30° $\mathfrak{R}\Upsilon$		opposition	7448 Jan 01 17:15	12° $\mathfrak{D}$ 32'55	-2°08'30
direct	7441 Dec 27 10:55	26° $\Upsilon$ 45'55		min. Earth dist.	7448 Jan 01 12:50	12° $\mathfrak{D}$ 33'46	8.59893 AU
	7442 Mar 01 17:12	0° $\mathfrak{R}$		direct	7448 Mar 09 18:27	9° $\mathfrak{D}$ 11'50	
evening set	7442 Apr 07 12:26	3° $\mathfrak{R}$ 57'33		evening set	7448 Jun 18 02:50	16° $\mathfrak{D}$ 35'24	
conjunction	7442 Apr 24 04:47	5° $\mathfrak{R}$ 57'14	-1°41'06	conjunction	7448 Jul 05 07:36	18° $\mathfrak{D}$ 41'55	-1°36'41
minimum elong	7442 Apr 24 04:45	5° $\mathfrak{R}$ 57'14	1°41'09	minimum elong	7448 Jul 05 07:38	18° $\mathfrak{D}$ 41'55	1°36'47
max. Earth dist.	7442 Apr 24 08:48	5° $\mathfrak{R}$ 58'27	10.86094 AU	max. Earth dist.	7448 Jul 05 12:07	18° $\mathfrak{D}$ 43'18	10.56282 AU
morning rise	7442 May 10 22:06	7° $\mathfrak{R}$ 57'15		morning rise	7448 Jul 22 16:21	20° $\mathfrak{D}$ 49'39	
	7442 Aug 03 19:50	15° $\mathfrak{R}$		retrograde	7448 Nov 05 03:30	28° $\mathfrak{D}$ 34'30	
retrograde	7442 Aug 21 15:41	15° $\mathfrak{R}$ 15'43		opposition	7449 Jan 13 17:36	25° $\mathfrak{D}$ 08'33	-1°48'09
	7442 Sep 08 13:06	15° $\mathfrak{R}\mathfrak{R}$		min. Earth dist.	7449 Jan 13 13:57	25° $\mathfrak{D}$ 09'16	8.52788 AU
opposition	7442 Oct 31 01:12	11° $\mathfrak{R}$ 55'07	-2°12'10	direct	7449 Mar 22 11:01	21° $\mathfrak{D}$ 46'33	
min. Earth dist.	7442 Oct 30 21:14	11° $\mathfrak{R}$ 55'51	8.85348 AU	evening set	7449 Jul 01 02:34	29° $\mathfrak{D}$ 14'45	
direct	7443 Jan 08 18:14	8° $\mathfrak{R}$ 36'04			7449 Jul 07 06:29	0° $\mathfrak{Q}$	
	7443 Apr 12 16:39	15° $\mathfrak{R}$					
evening set	7443 Apr 19 11:02	15° $\mathfrak{R}$ 47'25		conjunction	7449 Jul 18 11:23	1° $\mathfrak{Q}$ 23'16	-1°17'43
				minimum elong	7449 Jul 18 11:25	1° $\mathfrak{Q}$ 23'17	1°17'49
conjunction	7443 May 06 03:30	17° $\mathfrak{R}$ 47'22	-1°53'17	max. Earth dist.	7449 Jul 18 14:50	1° $\mathfrak{Q}$ 24'21	10.49196 AU
minimum elong	7443 May 06 03:29	17° $\mathfrak{R}$ 47'22	1°53'20	morning rise	7449 Aug 05 00:19	3° $\mathfrak{Q}$ 33'03	
max. Earth dist.	7443 May 06 07:38	17° $\mathfrak{R}$ 48'37	10.83973 AU	retrograde	7449 Nov 18 14:42	11° $\mathfrak{Q}$ 22'14	
morning rise	7443 May 22 21:40	19° $\mathfrak{R}$ 47'52		opposition	7450 Jan 26 20:33	7° $\mathfrak{Q}$ 55'34	-1°22'09
retrograde	7443 Sep 03 04:30	27° $\mathfrak{R}$ 09'45		min. Earth dist.	7450 Jan 26 17:56	7° $\mathfrak{Q}$ 56'05	8.45733 AU
opposition	7443 Nov 12 15:25	23° $\mathfrak{R}$ 48'26	-2°24'18	direct	7450 Apr 04 08:15	4° $\mathfrak{Q}$ 32'33	
min. Earth dist.	7443 Nov 12 11:34	23° $\mathfrak{R}$ 49'10	8.82495 AU	evening set	7450 Jul 14 08:59	12° $\mathfrak{Q}$ 05'55	
direct	7444 Jan 20 23:13	20° $\mathfrak{R}$ 29'24					
evening set	7444 Apr 30 11:31	27° $\mathfrak{R}$ 41'33		conjunction	7450 Jul 31 21:57	14° $\mathfrak{Q}$ 16'29	-0°54'38
				minimum elong	7450 Jul 31 21:59	14° $\mathfrak{Q}$ 16'29	0°54'42
conjunction	7444 May 17 04:47	29° $\mathfrak{R}$ 42'07	-2°00'39	max. Earth dist.	7450 Aug 01 00:42	14° $\mathfrak{Q}$ 17'20	10.42318 AU
minimum elong	7444 May 17 04:47	29° $\mathfrak{R}$ 42'07	2°00'44		7450 Aug 06 17:22	15° $\mathfrak{Q}$	
max. Earth dist.	7444 May 17 08:22	29° $\mathfrak{R}$ 43'12	10.80401 AU	morning rise	7450 Aug 18 14:46	16° $\mathfrak{Q}$ 28'12	
	7444 May 19 15:53	0° $\Pi$		retrograde	7450 Dec 02 04:27	24° $\mathfrak{Q}$ 21'16	
morning rise	7444 Jun 03 00:39	1° $\Pi$ 43'28		opposition	7451 Feb 09 02:17	20° $\mathfrak{Q}$ 54'01	-0°51'34
retrograde	7444 Sep 14 19:54	9° $\Pi$ 09'28		min. Earth dist.	7451 Feb 09 00:22	20° $\mathfrak{Q}$ 54'24	8.39058 AU
opposition	7444 Nov 24 07:08	5° $\Pi$ 47'18	-2°30'19	direct	7451 Apr 17 10:58	17° $\mathfrak{Q}$ 29'59	
min. Earth dist.	7444 Nov 24 03:41	5° $\Pi$ 47'57	8.78280 AU	evening set	7451 Jul 27 22:16	25° $\mathfrak{Q}$ 08'48	
direct	7445 Feb 01 07:45	2° $\Pi$ 28'03					
evening set	7445 May 12 14:37	9° $\Pi$ 41'51		conjunction	7451 Aug 14 15:03	27° $\mathfrak{Q}$ 21'16	-0°28'26
				minimum elong	7451 Aug 14 15:04	27° $\mathfrak{Q}$ 21'17	0°28'28
conjunction	7445 May 29 09:41	11° $\Pi$ 43'26	-2°02'50	max. Earth dist.	7451 Aug 14 17:31	27° $\mathfrak{Q}$ 22'03	10.35976 AU
minimum elong	7445 May 29 09:41	11° $\Pi$ 43'27	2°02'55	morning rise	7451 Sep 01 11:02	29° $\mathfrak{Q}$ 34'45	
max. Earth dist.	7445 May 29 13:38	11° $\Pi$ 44'38	10.75594 AU		7451 Sep 04 21:38	0° $\mathfrak{P}$	
morning rise	7445 Jun 15 07:55	13° $\Pi$ 45'58		retrograde	7451 Dec 15 22:45	7° $\mathfrak{P}$ 31'01	
retrograde	7445 Sep 27 15:53	21° $\Pi$ 16'32		opposition	7452 Feb 22 10:44	4° $\mathfrak{P}$ 03'23	-0°17'49
opposition	7445 Dec 07 00:28	17° $\Pi$ 53'24	-2°29'47	min. Earth dist.	7452 Feb 22 09:00	4° $\mathfrak{P}$ 03'44	8.33102 AU
min. Earth dist.	7445 Dec 06 20:45	17° $\Pi$ 54'06	8.72936 AU	direct	7452 Apr 29 16:29	0° $\mathfrak{P}$ 38'22	
direct	7446 Feb 13 17:23	14° $\Pi$ 33'43		evening set	7452 Aug 09 18:22	8° $\mathfrak{P}$ 22'43	
evening set	7446 May 24 21:40	21° $\Pi$ 49'59					
				conjunction	7452 Aug 27 14:16	10° $\mathfrak{P}$ 36'49	-0°00'25
conjunction	7446 Jun 10 19:25	23° $\Pi$ 52'57	-1°59'33	minimum elong	7452 Aug 27 14:16	10° $\mathfrak{P}$ 36'49	0°00'26

behind sun begin	7452 Aug 27 07:01	10° $\mathbb{M}$ 34'33		direct	7458 Jul 20 06:58	21° $\mathbb{M}$ 39'25	
behind sun end	7452 Aug 27 21:32	10° $\mathbb{M}$ 39'05		evening set	7458 Nov 02 22:30	29° $\mathbb{M}$ 41'43	
max. Earth dist.	7452 Aug 27 16:06	10° $\mathbb{M}$ 37'20	10.30508 AU		7458 Nov 05 09:16	0° $\mathbb{M}$	
asc. node	7452 Sep 01 20:55	11° $\mathbb{M}$ 16'48					
morning rise	7452 Sep 14 12:34	12° $\mathbb{M}$ 51'44		conjunction	7458 Nov 20 16:36	1° $\mathbb{M}$ 55'55	2°00'31
retrograde	7452 Dec 28 19:54	20° $\mathbb{M}$ 50'19		minimum elong	7458 Nov 20 16:35	1° $\mathbb{M}$ 55'54	2°00'36
opposition	7453 Mar 06 21:39	17° $\mathbb{M}$ 22'31	0°17'19	max. Earth dist.	7458 Nov 20 12:41	1° $\mathbb{M}$ 54'40	10.28476 AU
min. Earth dist.	7453 Mar 06 20:26	17° $\mathbb{M}$ 22'46	8.28196 AU	morning rise	7458 Dec 08 07:44	4° $\mathbb{M}$ 09'16	
direct	7453 May 13 01:50	13° $\mathbb{M}$ 56'35		retrograde	7459 Mar 20 15:29	11° $\mathbb{M}$ 57'49	
evening set	7453 Aug 23 20:38	21° $\mathbb{M}$ 46'19		opposition	7459 May 26 15:29	8° $\mathbb{M}$ 33'47	2°31'17
				min. Earth dist.	7459 May 26 18:16	8° $\mathbb{M}$ 33'14	8.30993 AU
conjunction	7453 Sep 10 18:40	24° $\mathbb{M}$ 01'40	0°27'56	direct	7459 Aug 03 05:16	5° $\mathbb{M}$ 06'01	
minimum elong	7453 Sep 10 18:39	24° $\mathbb{M}$ 01'39	0°27'56	evening set	7459 Nov 17 02:25	13° $\mathbb{M}$ 06'13	
max. Earth dist.	7453 Sep 10 19:03	24° $\mathbb{M}$ 01'47	10.26221 AU				
morning rise	7453 Sep 28 18:17	26° $\mathbb{M}$ 17'33		conjunction	7459 Dec 04 18:00	15° $\mathbb{M}$ 19'04	2°01'43
	7453 Oct 30 16:29	0° $\mathbb{M}$		minimum elong	7459 Dec 04 18:00	15° $\mathbb{M}$ 19'04	2°01'48
retrograde	7454 Jan 11 17:54	4° $\mathbb{M}$ 17'25		max. Earth dist.	7459 Dec 04 14:00	15° $\mathbb{M}$ 17'49	10.33518 AU
opposition	7454 Mar 20 10:49	0° $\mathbb{M}$ 49'44	0°51'53	morning rise	7459 Dec 22 06:03	17° $\mathbb{M}$ 30'53	
min. Earth dist.	7454 Mar 20 10:44	0° $\mathbb{M}$ 49'45	8.24616 AU	retrograde	7460 Apr 02 01:36	25° $\mathbb{M}$ 14'12	
	7454 Mar 30 18:17	30° $\mathbb{R}$ $\mathbb{M}$		opposition	7460 Jun 08 03:54	21° $\mathbb{M}$ 51'09	2°28'34
direct	7454 May 26 16:20	27° $\mathbb{M}$ 22'58		min. Earth dist.	7460 Jun 08 07:24	21° $\mathbb{M}$ 50'28	8.36573 AU
	7454 Jul 20 23:28	0° $\mathbb{M}$		direct	7460 Aug 16 02:13	18° $\mathbb{M}$ 23'47	
evening set	7454 Sep 07 03:54	5° $\mathbb{M}$ 17'37		evening set	7460 Nov 30 00:31	26° $\mathbb{M}$ 20'28	
conjunction	7454 Sep 25 02:54	7° $\mathbb{M}$ 33'42	0°54'55	conjunction	7460 Dec 17 13:24	28° $\mathbb{M}$ 31'47	1°56'26
minimum elong	7454 Sep 25 02:52	7° $\mathbb{M}$ 33'41	0°54'56	minimum elong	7460 Dec 17 13:26	28° $\mathbb{M}$ 31'47	1°56'31
max. Earth dist.	7454 Sep 25 01:34	7° $\mathbb{M}$ 33'16	10.23364 AU	max. Earth dist.	7460 Dec 17 08:36	28° $\mathbb{M}$ 30'16	10.39562 AU
morning rise	7454 Oct 13 02:38	9° $\mathbb{M}$ 50'02			7460 Dec 29 06:59	0° $\mathbb{M}$	
retrograde	7455 Jan 25 15:49	17° $\mathbb{M}$ 50'02		morning rise	7461 Jan 03 22:33	0° $\mathbb{M}$ 41'59	
opposition	7455 Apr 03 01:36	14° $\mathbb{M}$ 22'45	1°23'48	retrograde	7461 Apr 15 05:53	8° $\mathbb{M}$ 19'39	
min. Earth dist.	7455 Apr 03 02:50	14° $\mathbb{M}$ 22'30	8.22584 AU	opposition	7461 Jun 21 13:40	4° $\mathbb{M}$ 57'33	2°18'07
direct	7455 Jun 09 10:14	10° $\mathbb{M}$ 55'20		min. Earth dist.	7461 Jun 21 17:54	4° $\mathbb{M}$ 56'43	8.42946 AU
evening set	7455 Sep 21 14:29	18° $\mathbb{M}$ 53'58		direct	7461 Aug 29 21:22	1° $\mathbb{M}$ 30'43	
				evening set	7461 Dec 13 15:44	9° $\mathbb{M}$ 22'48	
conjunction	7455 Oct 09 13:25	21° $\mathbb{M}$ 10'17	1°18'58	conjunction	7461 Dec 31 01:57	11° $\mathbb{M}$ 32'30	1°45'13
minimum elong	7455 Oct 09 13:22	21° $\mathbb{M}$ 10'16	1°19'00	minimum elong	7461 Dec 31 01:59	11° $\mathbb{M}$ 32'31	1°45'18
max. Earth dist.	7455 Oct 09 10:32	21° $\mathbb{M}$ 09'22	10.22132 AU	max. Earth dist.	7461 Dec 30 20:19	11° $\mathbb{M}$ 30'44	10.46196 AU
morning rise	7455 Oct 27 12:12	23° $\mathbb{M}$ 26'33		morning rise	7462 Jan 17 08:26	13° $\mathbb{M}$ 41'04	
	7455 Dec 30 10:04	0° $\mathbb{M}$		retrograde	7462 Apr 28 04:55	21° $\mathbb{M}$ 13'14	
retrograde	7456 Feb 08 13:18	1° $\mathbb{M}$ 25'27		opposition	7462 Jul 04 20:37	17° $\mathbb{M}$ 51'59	2°00'48
	7456 Mar 20 03:04	30° $\mathbb{R}$ $\mathbb{M}$		min. Earth dist.	7462 Jul 05 00:59	17° $\mathbb{M}$ 51'08	8.49678 AU
opposition	7456 Apr 15 17:26	27° $\mathbb{M}$ 58'46	1°51'08	direct	7462 Sep 12 13:55	14° $\mathbb{M}$ 25'51	
min. Earth dist.	7456 Apr 15 19:39	27° $\mathbb{M}$ 58'19	8.22241 AU	evening set	7462 Dec 26 23:35	22° $\mathbb{M}$ 12'40	
direct	7456 Jun 22 07:16	24° $\mathbb{M}$ 30'55					
	7456 Sep 13 22:47	0° $\mathbb{M}$		conjunction	7463 Jan 13 07:19	24° $\mathbb{M}$ 20'47	1°28'53
evening set	7456 Oct 05 02:26	2° $\mathbb{M}$ 32'20		minimum elong	7463 Jan 13 07:21	24° $\mathbb{M}$ 20'48	1°28'58
				max. Earth dist.	7463 Jan 13 01:41	24° $\mathbb{M}$ 19'02	10.52986 AU
conjunction	7456 Oct 23 00:26	4° $\mathbb{M}$ 48'22	1°38'37	morning rise	7463 Jan 30 11:23	26° $\mathbb{M}$ 27'48	
minimum elong	7456 Oct 23 00:24	4° $\mathbb{M}$ 48'22	1°38'41		7463 Mar 02 15:49	0° $\mathbb{M}$	
max. Earth dist.	7456 Oct 22 20:42	4° $\mathbb{M}$ 47'11	10.22610 AU	retrograde	7463 May 11 01:50	3° $\mathbb{M}$ 54'59	
morning rise	7456 Nov 09 21:20	7° $\mathbb{M}$ 04'05		opposition	7463 Jul 18 00:36	0° $\mathbb{M}$ 34'28	1°37'48
	7457 Feb 18 00:09	15° $\mathbb{M}$		min. Earth dist.	7463 Jul 18 04:21	0° $\mathbb{M}$ 33'44	8.56378 AU
retrograde	7457 Feb 21 08:52	15° $\mathbb{M}$ 00'37			7463 Jul 25 11:18	30° $\mathbb{R}$ $\mathbb{M}$	
	7457 Feb 24 17:27	15° $\mathbb{R}$ $\mathbb{M}$		direct	7463 Sep 26 00:32	27° $\mathbb{M}$ 09'12	
opposition	7457 Apr 29 09:32	11° $\mathbb{M}$ 34'43	2°12'12		7463 Nov 25 00:30	0° $\mathbb{M}$	
min. Earth dist.	7457 Apr 29 12:04	11° $\mathbb{M}$ 34'12	8.23600 AU	evening set	7464 Jan 09 00:47	4° $\mathbb{M}$ 50'28	
direct	7457 Jul 06 06:45	8° $\mathbb{M}$ 06'41					
	7457 Oct 10 03:50	15° $\mathbb{M}$		conjunction	7464 Jan 26 06:12	6° $\mathbb{M}$ 57'07	1°08'26
evening set	7457 Oct 19 13:52	16° $\mathbb{M}$ 09'23		minimum elong	7464 Jan 26 06:14	6° $\mathbb{M}$ 57'07	1°08'31
				max. Earth dist.	7464 Jan 26 01:34	6° $\mathbb{M}$ 55'41	10.59603 AU
conjunction	7457 Nov 06 10:11	18° $\mathbb{M}$ 24'41	1°52'43	morning rise	7464 Feb 12 07:59	9° $\mathbb{M}$ 02'41	
minimum elong	7457 Nov 06 10:09	18° $\mathbb{M}$ 24'40	1°52'48		7464 Apr 12 00:50	15° $\mathbb{M}$	
max. Earth dist.	7457 Nov 06 06:13	18° $\mathbb{M}$ 23'25	10.24765 AU	retrograde	7464 May 22 18:55	16° $\mathbb{M}$ 25'31	
morning rise	7457 Nov 24 04:22	20° $\mathbb{M}$ 39'23			7464 Jul 03 15:17	15° $\mathbb{R}$ $\mathbb{M}$	
retrograde	7458 Mar 07 01:16	28° $\mathbb{M}$ 32'24		opposition	7464 Jul 30 01:41	13° $\mathbb{M}$ 05'35	1°10'28
opposition	7458 May 13 01:04	25° $\mathbb{M}$ 07'25	2°25'48	min. Earth dist.	7464 Jul 30 04:42	13° $\mathbb{M}$ 05'00	8.62788 AU
min. Earth dist.	7458 May 13 03:41	25° $\mathbb{M}$ 06'53	8.26575 AU				

direct	7464 Oct 08 06:38	9° $\approx$ 41'13	min. Earth dist.	7470 Oct 13 09:45	25° $\Upsilon$ 20'11	8.83954 AU
	7465 Jan 01 02:09	15° $\approx$	direct	7470 Dec 22 13:15	21° $\Upsilon$ 59'31	
evening set	7465 Jan 20 19:44	17° $\approx$ 16'57	evening set	7471 Apr 02 20:25	29° $\Upsilon$ 12'43	
				7471 Apr 09 11:23	0° $\mathcal{B}$	
conjunction	7465 Feb 06 22:50	19° $\approx$ 22'10 0°45'01				
minimum elong	7465 Feb 06 22:51	19° $\approx$ 22'10 0°45'05	conjunction	7471 Apr 19 12:57	1° $\mathcal{B}$ 12'44 -1°34'43	
max. Earth dist.	7465 Feb 06 19:20	19° $\approx$ 21'05 10.65817 AU	minimum elong	7471 Apr 19 12:55	1° $\mathcal{B}$ 12'43 1°34'46	
morning rise	7465 Feb 23 22:31	21° $\approx$ 26'25	max. Earth dist.	7471 Apr 19 15:32	1° $\mathcal{B}$ 13'30 10.83686 AU	
retrograde	7465 Jun 04 08:55	28° $\approx$ 45'41	morning rise	7471 May 06 06:24	3° $\mathcal{B}$ 13'00	
opposition	7465 Aug 12 00:23	25° $\approx$ 26'09 0°40'16	retrograde	7471 Aug 16 17:05	10° $\mathcal{B}$ 31'15	
min. Earth dist.	7465 Aug 12 03:02	25° $\approx$ 25'39 8.68700 AU	opposition	7471 Oct 26 02:25	7° $\mathcal{B}$ 10'13 -2°05'31	
direct	7465 Oct 21 08:58	22° $\approx$ 02'41	min. Earth dist.	7471 Oct 25 23:32	7° $\mathcal{B}$ 10'46 8.83275 AU	
evening set	7466 Feb 02 08:54	29° $\approx$ 33'02	direct	7472 Jan 03 21:42	3° $\mathcal{B}$ 50'20	
	7466 Feb 06 02:47	0° $\mathcal{H}$	evening set	7472 Apr 13 19:02	11° $\mathcal{B}$ 02'49	
conjunction	7466 Feb 19 09:37	1° $\mathcal{H}$ 36'54 0°19'49	conjunction	7472 Apr 30 11:23	13° $\mathcal{B}$ 02'54 -1°48'47	
minimum elong	7466 Feb 19 09:37	1° $\mathcal{H}$ 36'55 0°19'52	minimum elong	7472 Apr 30 11:22	13° $\mathcal{B}$ 02'54 1°48'51	
max. Earth dist.	7466 Feb 19 06:40	1° $\mathcal{H}$ 36'01 10.71412 AU	max. Earth dist.	7472 Apr 30 15:03	13° $\mathcal{B}$ 04'01 10.82312 AU	
morning rise	7466 Mar 08 07:34	3° $\mathcal{H}$ 39'58		7472 May 16 17:36	15° $\mathcal{B}$	
retrograde	7466 Jun 16 20:28	10° $\mathcal{H}$ 56'35	morning rise	7472 May 17 05:21	15° $\mathcal{B}$ 03'29	
opposition	7466 Aug 24 20:41	7° $\mathcal{H}$ 37'15 0°08'39	retrograde	7472 Aug 28 04:49	22° $\mathcal{B}$ 24'49	
min. Earth dist.	7466 Aug 24 22:55	7° $\mathcal{H}$ 36'49 8.73898 AU	opposition	7472 Nov 06 16:58	19° $\mathcal{B}$ 03'06 -2°20'05	
direct	7466 Nov 03 06:40	4° $\mathcal{H}$ 14'35	min. Earth dist.	7472 Nov 06 12:57	19° $\mathcal{B}$ 03'52 8.81274 AU	
desc. node	7466 Dec 05 06:10	5° $\mathcal{H}$ 04'49	direct	7473 Jan 15 05:08	15° $\mathcal{B}$ 43'24	
evening set	7467 Feb 14 17:13	11° $\mathcal{H}$ 40'00	evening set	7473 Apr 25 18:56	22° $\mathcal{B}$ 56'06	
conjunction	7467 Mar 03 15:41	13° $\mathcal{H}$ 42'40 -0°06'06	conjunction	7473 May 12 11:58	24° $\mathcal{B}$ 56'38 -1°58'15	
minimum elong	7467 Mar 03 15:41	13° $\mathcal{H}$ 42'40 0°06'04	minimum elong	7473 May 12 11:57	24° $\mathcal{B}$ 56'38 1°58'20	
behind sun begin	7467 Mar 03 08:59	13° $\mathcal{H}$ 40'39	max. Earth dist.	7473 May 12 17:14	24° $\mathcal{B}$ 58'14 10.79658 AU	
behind sun end	7467 Mar 03 22:23	13° $\mathcal{H}$ 44'41	morning rise	7473 May 29 07:05	26° $\mathcal{B}$ 57'50	
max. Earth dist.	7467 Mar 03 13:16	13° $\mathcal{H}$ 41'58 10.76173 AU		7473 Jun 25 10:05	0° $\mathcal{I}$	
morning rise	7467 Mar 20 12:11	15° $\mathcal{H}$ 44'43	retrograde	7473 Sep 09 20:39	4° $\mathcal{I}$ 22'56	
retrograde	7467 Jun 29 04:32	22° $\mathcal{H}$ 59'37	opposition	7473 Nov 19 08:28	1° $\mathcal{I}$ 00'29 -2°28'43	
opposition	7467 Sep 06 14:35	19° $\mathcal{H}$ 40'14 -0°23'00	min. Earth dist.	7473 Nov 19 03:14	1° $\mathcal{I}$ 01'29 8.78032 AU	
min. Earth dist.	7467 Sep 06 15:49	19° $\mathcal{H}$ 40'01 8.78175 AU		7473 Dec 02 21:05	30° $\mathcal{R}$ $\mathcal{B}$	
direct	7467 Nov 16 01:32	16° $\mathcal{H}$ 18'20	direct	7474 Jan 27 13:38	27° $\mathcal{B}$ 40'49	
evening set	7468 Feb 26 21:27	23° $\mathcal{H}$ 39'27		7474 Mar 21 17:44	0° $\mathcal{I}$	
			evening set	7474 May 07 21:13	4° $\mathcal{I}$ 54'36	
conjunction	7468 Mar 14 18:00	25° $\mathcal{H}$ 41'05 -0°31'25	conjunction	7474 May 24 15:39	6° $\mathcal{I}$ 55'58 -2°02'37	
minimum elong	7468 Mar 14 17:59	25° $\mathcal{H}$ 41'05 0°31'24	minimum elong	7474 May 24 15:39	6° $\mathcal{I}$ 55'58 2°02'43	
max. Earth dist.	7468 Mar 14 17:07	25° $\mathcal{H}$ 40'49 10.79904 AU	max. Earth dist.	7474 May 24 21:49	6° $\mathcal{I}$ 57'50 10.75831 AU	
morning rise	7468 Mar 31 13:08	27° $\mathcal{H}$ 42'18	morning rise	7474 Jun 10 12:44	8° $\mathcal{I}$ 58'09	
	7468 Apr 20 16:25	0° $\Upsilon$	retrograde	7474 Sep 22 16:35	16° $\mathcal{I}$ 27'28	
retrograde	7468 Jul 10 13:12	4° $\Upsilon$ 56'34	opposition	7474 Dec 02 01:26	13° $\mathcal{I}$ 04'17 -2°30'55	
opposition	7468 Sep 18 06:50	1° $\Upsilon$ 36'57 -0°53'23	min. Earth dist.	7474 Dec 01 19:48	13° $\mathcal{I}$ 05'21 8.73673 AU	
min. Earth dist.	7468 Sep 18 06:17	1° $\Upsilon$ 37'03 8.81348 AU	direct	7475 Feb 08 21:12	9° $\mathcal{I}$ 44'26	
	7468 Oct 10 17:10	30° $\mathcal{R}$ $\mathcal{H}$	evening set	7475 May 20 03:01	17° $\mathcal{I}$ 00'14	
direct	7468 Nov 27 17:19	28° $\mathcal{H}$ 15'43				
	7469 Jan 13 03:54	0° $\Upsilon$				
evening set	7469 Mar 09 22:37	5° $\Upsilon$ 33'17	conjunction	7475 Jun 05 23:31	19° $\mathcal{I}$ 02'44 -2°01'36	
conjunction	7469 Mar 26 17:29	7° $\Upsilon$ 34'06 -0°55'14	minimum elong	7475 Jun 05 23:32	19° $\mathcal{I}$ 02'44 2°01'42	
minimum elong	7469 Mar 26 17:27	7° $\Upsilon$ 34'06 0°55'16	max. Earth dist.	7475 Jun 06 05:20	19° $\mathcal{I}$ 04'30 10.70992 AU	
max. Earth dist.	7469 Mar 26 18:41	7° $\Upsilon$ 34'28 10.82452 AU	morning rise	7475 Jun 22 23:24	21° $\mathcal{I}$ 06'16	
morning rise	7469 Apr 12 11:28	9° $\Upsilon$ 34'43	retrograde	7475 Oct 05 14:30	28° $\mathcal{I}$ 40'05	
retrograde	7469 Jul 22 22:29	16° $\Upsilon$ 49'21	opposition	7475 Dec 14 20:13	25° $\mathcal{I}$ 16'09 -2°26'22	
opposition	7469 Sep 30 21:55	13° $\Upsilon$ 29'23 -1°21'17	min. Earth dist.	7475 Dec 14 15:01	25° $\mathcal{I}$ 17'09 8.68395 AU	
min. Earth dist.	7469 Sep 30 19:59	13° $\Upsilon$ 29'44 8.83298 AU	direct	7476 Feb 21 06:50	21° $\mathcal{I}$ 55'58	
direct	7469 Dec 10 04:03	10° $\Upsilon$ 08'44	evening set	7476 May 31 13:05	29° $\mathcal{I}$ 14'36	
evening set	7470 Mar 21 21:57	17° $\Upsilon$ 23'37		7476 Jun 06 19:29	0° $\mathcal{G}$	
conjunction	7470 Apr 07 15:25	19° $\Upsilon$ 23'54 -1°16'37	conjunction	7476 Jun 17 12:31	1° $\mathcal{G}$ 18'35 -1°55'03	
minimum elong	7470 Apr 07 15:23	19° $\Upsilon$ 23'53 1°16'40	minimum elong	7476 Jun 17 12:32	1° $\mathcal{G}$ 18'35 1°55'10	
max. Earth dist.	7470 Apr 07 17:47	19° $\Upsilon$ 24'36 10.83728 AU	max. Earth dist.	7476 Jun 17 18:12	1° $\mathcal{G}$ 20'19 10.65369 AU	
morning rise	7470 Apr 24 08:48	21° $\Upsilon$ 24'11	morning rise	7476 Jul 04 15:50	3° $\mathcal{G}$ 23'42	
retrograde	7470 Aug 04 06:51	28° $\Upsilon$ 40'10	retrograde	7476 Oct 17 15:57	11° $\mathcal{G}$ 02'12	
opposition	7470 Oct 13 12:14	25° $\Upsilon$ 19'43 -1°45'38	opposition	7476 Dec 26 17:19	7° $\mathcal{G}$ 37'32 -2°15'03	
			min. Earth dist.	7476 Dec 26 12:24	7° $\mathcal{G}$ 38'29 8.62446 AU	

direct	7477 Mar 04 21:15	4°☾16'51		max. Earth dist.	7482 Sep 05 05:05	18°☾41'27	10.30187 AU
evening set	7477 Jun 13 04:13	11°☾38'59		morning rise	7482 Sep 23 04:13	20°☾56'40	
				retrograde	7483 Jan 06 06:33	28°☾55'06	
conjunction	7477 Jun 30 07:21	13°☾44'44 -1°43'05		opposition	7483 Mar 15 03:51	25°☾28'04 0°37'42	
minimum elong	7477 Jun 30 07:23	13°☾44'45 1°43'11		min. Earth dist.	7483 Mar 15 04:05	25°☾28'01 8.28234 AU	
max. Earth dist.	7477 Jun 30 13:32	13°☾46'38 10.59214 AU		direct	7483 May 21 09:34	22°☾02'17	
morning rise	7477 Jul 17 14:27	15°☾51'41		evening set	7483 Sep 01 12:36	29°☾53'55	
retrograde	7477 Oct 30 22:43	23°☾34'46			7483 Sep 02 08:13	0°☾	
opposition	7478 Jan 08 16:47	20°☾09'24 -1°57'12					
min. Earth dist.	7478 Jan 08 11:45	20°☾10'23 8.56096 AU		conjunction	7483 Sep 19 11:11	2°☾09'26 0°43'56	
direct	7478 Mar 17 13:15	16°☾48'07		minimum elong	7483 Sep 19 11:09	2°☾09'25 0°43'57	
evening set	7478 Jun 26 01:31	24°☾14'24		max. Earth dist.	7483 Sep 19 10:12	2°☾09'07 10.26594 AU	
				morning rise	7483 Oct 07 10:53	4°☾25'19	
conjunction	7478 Jul 13 08:42	26°☾22'02 -1°26'01		retrograde	7484 Jan 20 03:34	12°☾24'27	
minimum elong	7478 Jul 13 08:45	26°☾22'03 1°26'07		opposition	7484 Mar 27 17:26	8°☾57'34 1°10'52	
max. Earth dist.	7478 Jul 13 15:12	26°☾24'03 10.52802 AU		min. Earth dist.	7484 Mar 27 18:14	8°☾57'24 8.25348 AU	
morning rise	7478 Jul 30 19:46	28°☾30'55		direct	7484 Jun 03 01:22	5°☾30'58	
	7478 Aug 12 07:54	0°☾		evening set	7484 Sep 14 21:18	13°☾26'58	
retrograde	7478 Nov 13 09:10	6°☾18'17					
opposition	7479 Jan 21 18:40	2°☾52'19 -1°33'23		conjunction	7484 Oct 02 20:24	15°☾42'59 1°09'20	
min. Earth dist.	7479 Jan 21 13:37	2°☾53'18 8.49635 AU		minimum elong	7484 Oct 02 20:22	15°☾42'58 1°09'22	
	7479 Mar 06 15:21	30°☾		max. Earth dist.	7484 Oct 02 18:28	15°☾42'22 10.24418 AU	
direct	7479 Mar 30 08:32	29°☾30'16		morning rise	7484 Oct 20 19:30	17°☾59'02	
	7479 Apr 22 20:53	0°☾		retrograde	7485 Feb 02 01:49	25°☾57'37	
evening set	7479 Jul 09 05:20	7°☾01'14		opposition	7485 Apr 10 08:07	22°☾31'03 1°40'17	
				min. Earth dist.	7485 Apr 10 09:40	22°☾30'44 8.23989 AU	
conjunction	7479 Jul 26 16:34	9°☾10'50 -1°04'31		direct	7485 Jun 16 19:43	19°☾03'46	
minimum elong	7479 Jul 26 16:36	9°☾10'51 1°04'35		evening set	7485 Sep 29 08:20	27°☾03'07	
max. Earth dist.	7479 Jul 26 22:11	9°☾12'36 10.46431 AU					
morning rise	7479 Aug 13 07:32	11°☾21'37		conjunction	7485 Oct 17 06:51	29°☾19'04 1°30'57	
	7479 Sep 14 06:42	15°☾		minimum elong	7485 Oct 17 06:48	29°☾19'03 1°31'01	
retrograde	7479 Nov 26 22:51	19°☾12'48		max. Earth dist.	7485 Oct 17 03:41	29°☾18'04 10.23833 AU	
opposition	7480 Feb 03 23:22	15°☾46'20 -1°04'32			7485 Oct 22 15:33	0°☾	
min. Earth dist.	7480 Feb 03 19:10	15°☾47'10 8.43363 AU		morning rise	7485 Nov 04 04:21	1°☾34'47	
	7480 Feb 13 19:23	15°☾		retrograde	7486 Feb 15 21:59	9°☾31'32	
direct	7480 Apr 11 08:19	12°☾23'25		opposition	7486 Apr 23 23:30	6°☾05'30 2°04'08	
	7480 Jun 05 16:45	15°☾		min. Earth dist.	7486 Apr 24 02:14	6°☾04'57 8.24261 AU	
evening set	7480 Jul 21 15:41	19°☾59'23		direct	7486 Jun 30 17:17	2°☾37'43	
				evening set	7486 Oct 13 19:23	10°☾39'01	
conjunction	7480 Aug 08 06:44	22°☾10'52 -0°39'28					
minimum elong	7480 Aug 08 06:45	22°☾10'52 0°39'32		conjunction	7486 Oct 31 16:21	12°☾54'25 1°47'30	
max. Earth dist.	7480 Aug 08 10:37	22°☾12'05 10.40383 AU		minimum elong	7486 Oct 31 16:19	12°☾54'25 1°47'34	
morning rise	7480 Aug 26 01:17	24°☾23'25		max. Earth dist.	7486 Oct 31 11:42	12°☾52'57 10.24888 AU	
	7480 Oct 17 21:12	0°☾			7486 Nov 17 05:35	15°☾	
retrograde	7480 Dec 09 16:03	2°☾17'46		morning rise	7486 Nov 18 11:33	15°☾09'21	
	7481 Feb 01 13:37	30°☾		retrograde	7487 Mar 01 14:52	23°☾03'07	
opposition	7481 Feb 16 06:39	28°☾50'56 -0°31'57		opposition	7487 May 07 14:41	19°☾37'45 2°21'00	
min. Earth dist.	7481 Feb 16 04:03	28°☾51'27 8.37548 AU		min. Earth dist.	7487 May 07 18:33	19°☾36'58 8.26150 AU	
direct	7481 Apr 24 11:42	25°☾27'02		direct	7487 Jul 14 16:44	16°☾09'40	
	7481 Jul 08 10:49	0°☾		evening set	7487 Oct 28 04:29	24°☾11'21	
evening set	7481 Aug 04 08:49	3°☾08'15					
				conjunction	7487 Nov 14 23:23	26°☾25'51 1°58'02	
conjunction	7481 Aug 22 03:12	5°☾21'24 -0°12'06		minimum elong	7487 Nov 14 23:21	26°☾25'50 1°58'07	
minimum elong	7481 Aug 22 03:12	5°☾21'24 0°12'08		max. Earth dist.	7487 Nov 14 17:34	26°☾24'00 10.27525 AU	
behind sun begin	7481 Aug 21 22:22	5°☾19'54		morning rise	7487 Dec 02 15:52	28°☾39'37	
behind sun end	7481 Aug 22 08:02	5°☾22'54			7487 Dec 13 15:02	0°☾	
max. Earth dist.	7481 Aug 22 04:51	5°☾21'55 10.34891 AU		retrograde	7488 Mar 14 04:17	6°☾29'22	
morning rise	7481 Sep 09 00:36	7°☾35'29		opposition	7488 May 20 04:43	3°☾04'45 2°30'00	
retrograde	7481 Dec 23 10:41	15°☾32'15		min. Earth dist.	7488 May 20 09:12	3°☾03'51 8.29536 AU	
asc. node	7482 Jan 31 03:03	14°☾16'23			7488 Jul 06 13:33	30°☾	
opposition	7482 Mar 01 16:07	12°☾05'13 0°02'45		direct	7488 Jul 27 15:48	29°☾36'36	
min. Earth dist.	7482 Mar 01 15:20	12°☾05'22 8.32412 AU			7488 Aug 17 17:02	0°☾	
direct	7482 May 07 20:15	8°☾40'20		evening set	7488 Nov 10 09:43	7°☾37'03	
evening set	7482 Aug 18 08:05	16°☾26'54					
				conjunction	7488 Nov 28 02:16	9°☾50'22 2°02'04	
conjunction	7482 Sep 05 05:04	18°☾41'26 0°16'17		minimum elong	7488 Nov 28 02:16	9°☾50'21 2°02'10	
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





















































































































morning rise	7488 Dec 15 15:48	12° $\mathbb{A}$ 02'44		retrograde	7495 Jun 11 15:40	5° $\mathbb{H}$ 47'30	
retrograde	7489 Mar 27 14:19	19° $\mathbb{A}$ 47'40		opposition	7495 Aug 19 12:40	2° $\mathbb{H}$ 27'56	0°22'51
opposition	7489 Jun 02 17:07	16° $\mathbb{A}$ 23'53	2°30'49	min. Earth dist.	7495 Aug 19 13:38	2° $\mathbb{H}$ 27'45	8.72269 AU
min. Earth dist.	7489 Jun 02 21:31	16° $\mathbb{A}$ 23'00	8.34197 AU		7495 Sep 24 22:58	30° $\mathbb{R}$ $\approx$	
direct	7489 Aug 10 13:50	12° $\mathbb{A}$ 55'54		direct	7495 Oct 28 23:29	29° $\approx$ 04'50	
evening set	7489 Nov 24 09:33	20° $\mathbb{A}$ 53'38			7495 Dec 01 11:38	0° $\mathbb{H}$	
				evening set	7496 Feb 09 14:29	6° $\mathbb{H}$ 31'47	
conjunction	7489 Dec 11 23:35	23° $\mathbb{A}$ 05'32	1°59'33				
minimum elong	7489 Dec 11 23:36	23° $\mathbb{A}$ 05'32	1°59'39	conjunction	7496 Feb 26 14:04	8° $\mathbb{H}$ 34'51	0°05'35
max. Earth dist.	7489 Dec 11 17:42	23° $\mathbb{A}$ 03'40	10.36787 AU	minimum elong	7496 Feb 26 14:05	8° $\mathbb{H}$ 34'51	0°05'38
morning rise	7489 Dec 29 10:05	25° $\mathbb{A}$ 16'22		behind sun begin	7496 Feb 26 07:18	8° $\mathbb{H}$ 32'49	
	7490 Feb 10 02:01	0° $\mathbb{B}$		behind sun end	7496 Feb 26 20:51	8° $\mathbb{H}$ 36'53	
retrograde	7490 Apr 09 20:03	2° $\mathbb{B}$ 56'01		max. Earth dist.	7496 Feb 26 13:11	8° $\mathbb{H}$ 34'36	10.74961 AU
	7490 Jun 10 11:11	30° $\mathbb{R}$ $\mathbb{A}$		morning rise	7496 Mar 14 11:05	10° $\mathbb{H}$ 37'11	
opposition	7490 Jun 16 03:16	29° $\mathbb{A}$ 33'04	2°23'39	desc. node	7496 May 17 11:14	16° $\mathbb{H}$ 44'36	
min. Earth dist.	7490 Jun 16 07:10	29° $\mathbb{A}$ 32'18	8.39863 AU	retrograde	7496 Jun 23 00:57	17° $\mathbb{H}$ 52'05	
direct	7490 Aug 24 09:25	26° $\mathbb{A}$ 05'31		opposition	7496 Aug 31 06:48	14° $\mathbb{H}$ 32'48	-0°08'53
	7490 Nov 02 22:33	0° $\mathbb{B}$		min. Earth dist.	7496 Aug 31 06:50	14° $\mathbb{H}$ 32'47	8.77387 AU
evening set	7490 Dec 08 02:57	3° $\mathbb{B}$ 59'15		direct	7496 Nov 09 17:53	11° $\mathbb{H}$ 10'43	
				evening set	7497 Feb 20 19:56	18° $\mathbb{H}$ 33'04	
conjunction	7490 Dec 25 14:29	6° $\mathbb{B}$ 09'37	1°50'51				
minimum elong	7490 Dec 25 14:31	6° $\mathbb{B}$ 09'38	1°50'57	conjunction	7497 Mar 09 17:20	20° $\mathbb{H}$ 34'59	-0°20'08
max. Earth dist.	7490 Dec 25 09:30	6° $\mathbb{B}$ 08'04	10.42871 AU	minimum elong	7497 Mar 09 17:20	20° $\mathbb{H}$ 34'59	0°20'07
morning rise	7491 Jan 11 22:05	8° $\mathbb{B}$ 18'52		max. Earth dist.	7497 Mar 09 17:26	20° $\mathbb{H}$ 35'01	10.79575 AU
retrograde	7491 Apr 22 22:11	15° $\mathbb{B}$ 53'07		morning rise	7497 Mar 26 12:52	22° $\mathbb{H}$ 36'23	
opposition	7491 Jun 29 10:49	12° $\mathbb{B}$ 30'59	2°09'13	retrograde	7497 Jul 05 09:45	29° $\mathbb{H}$ 50'09	
min. Earth dist.	7491 Jun 29 14:37	12° $\mathbb{B}$ 30'14	8.46238 AU	opposition	7497 Sep 12 23:21	26° $\mathbb{H}$ 30'58	-0°39'53
direct	7491 Sep 07 01:01	9° $\mathbb{B}$ 04'03		min. Earth dist.	7497 Sep 12 23:01	26° $\mathbb{H}$ 31'01	8.81471 AU
evening set	7491 Dec 21 13:26	16° $\mathbb{B}$ 52'52		direct	7497 Nov 22 09:30	23° $\mathbb{H}$ 09'47	
					7498 Feb 28 21:44	0° $\mathbb{Y}$	
conjunction	7492 Jan 07 22:27	19° $\mathbb{B}$ 01'42	1°36'39	evening set	7498 Mar 04 21:54	0° $\mathbb{Y}$ 28'14	
minimum elong	7492 Jan 07 22:29	19° $\mathbb{B}$ 01'42	1°36'44				
max. Earth dist.	7492 Jan 07 17:48	19° $\mathbb{B}$ 00'15	10.49509 AU	conjunction	7498 Mar 21 17:19	2° $\mathbb{Y}$ 29'12	-0°44'42
morning rise	7492 Jan 25 03:29	21° $\mathbb{B}$ 09'21		minimum elong	7498 Mar 21 17:17	2° $\mathbb{Y}$ 29'12	0°44'43
retrograde	7492 May 04 20:31	28° $\mathbb{B}$ 38'21		max. Earth dist.	7498 Mar 21 17:47	2° $\mathbb{Y}$ 29'21	10.83056 AU
opposition	7492 Jul 11 15:32	25° $\mathbb{B}$ 17'02	1°48'34	morning rise	7498 Apr 07 11:47	4° $\mathbb{Y}$ 29'54	
min. Earth dist.	7492 Jul 11 19:25	25° $\mathbb{B}$ 16'17	8.52989 AU	retrograde	7498 Jul 17 17:25	11° $\mathbb{Y}$ 43'33	
direct	7492 Sep 19 12:00	21° $\mathbb{B}$ 50'54		opposition	7498 Sep 25 14:29	8° $\mathbb{Y}$ 24'15	-1°08'57
evening set	7493 Jan 02 17:05	29° $\mathbb{B}$ 34'16		min. Earth dist.	7498 Sep 25 13:19	8° $\mathbb{Y}$ 24'28	8.84355 AU
	7493 Jan 06 05:45	0° $\approx$		direct	7498 Dec 04 21:26	5° $\mathbb{Y}$ 03'52	
				evening set	7499 Mar 16 21:39	12° $\mathbb{Y}$ 19'15	
conjunction	7493 Jan 19 23:31	1° $\approx$ 41'32	1°17'54				
minimum elong	7493 Jan 19 23:34	1° $\approx$ 41'33	1°17'58	conjunction	7499 Apr 02 15:32	14° $\mathbb{Y}$ 19'32	-1°07'14
max. Earth dist.	7493 Jan 19 18:54	1° $\approx$ 40'07	10.56358 AU	minimum elong	7499 Apr 02 15:30	14° $\mathbb{Y}$ 19'31	1°07'16
morning rise	7493 Feb 06 02:17	3° $\approx$ 47'42		max. Earth dist.	7499 Apr 02 17:13	14° $\mathbb{Y}$ 20'02	10.85258 AU
retrograde	7493 May 17 12:48	11° $\approx$ 11'56		morning rise	7499 Apr 19 09:12	16° $\mathbb{Y}$ 19'44	
opposition	7493 Jul 24 17:19	7° $\approx$ 51'21	1°23'00	retrograde	7499 Jul 30 00:40	23° $\mathbb{Y}$ 34'17	
min. Earth dist.	7493 Jul 24 20:57	7° $\approx$ 50'39	8.59788 AU	opposition	7499 Oct 08 04:28	20° $\mathbb{Y}$ 14'41	-1°34'57
direct	7493 Oct 02 20:40	4° $\approx$ 26'09		min. Earth dist.	7499 Oct 08 01:59	20° $\mathbb{Y}$ 15'09	8.85905 AU
evening set	7494 Jan 15 14:03	12° $\approx$ 03'53		direct	7499 Dec 17 08:38	16° $\mathbb{Y}$ 54'55	
				evening set	7500 Mar 28 20:04	24° $\mathbb{Y}$ 08'09	
conjunction	7494 Feb 01 18:02	14° $\approx$ 09'38	0°55'41				
minimum elong	7494 Feb 01 18:04	14° $\approx$ 09'38	0°55'46	conjunction	7500 Apr 14 12:58	26° $\mathbb{Y}$ 08'01	-1°26'51
max. Earth dist.	7494 Feb 01 13:50	14° $\approx$ 08'20	10.63092 AU	minimum elong	7500 Apr 14 12:56	26° $\mathbb{Y}$ 08'00	1°26'54
	7494 Feb 08 14:03	15° $\approx$		max. Earth dist.	7500 Apr 14 16:22	26° $\mathbb{Y}$ 09'02	10.86069 AU
morning rise	7494 Feb 18 18:47	16° $\approx$ 14'23		morning rise	7500 May 01 06:08	28° $\mathbb{Y}$ 08'00	
retrograde	7494 May 30 02:39	23° $\approx$ 34'36			7500 May 17 13:38	0° $\mathbb{B}$	
opposition	7494 Aug 06 16:18	20° $\approx$ 14'36	0°53'57	retrograde	7500 Aug 11 11:22	5° $\mathbb{B}$ 24'23	
min. Earth dist.	7494 Aug 06 18:41	20° $\approx$ 14'09	8.66317 AU	opposition	7500 Oct 20 18:17	2° $\mathbb{B}$ 04'18	-1°56'53
direct	7494 Oct 16 01:06	16° $\approx$ 50'27		min. Earth dist.	7500 Oct 20 14:33	2° $\mathbb{B}$ 05'00	8.86025 AU
evening set	7495 Jan 28 04:46	24° $\approx$ 22'36			7500 Nov 19 16:04	30° $\mathbb{R}$ $\mathbb{Y}$	
				direct	7500 Dec 29 17:01	28° $\mathbb{Y}$ 45'00	
conjunction	7495 Feb 14 06:33	26° $\approx$ 26'56	0°31'11		7501 Feb 06 16:23	0° $\mathbb{B}$	
minimum elong	7495 Feb 14 06:34	26° $\approx$ 26'57	0°31'14	evening set	7501 Apr 09 18:11	5° $\mathbb{B}$ 56'56	
max. Earth dist.	7495 Feb 14 03:58	26° $\approx$ 26'09	10.69390 AU				
morning rise	7495 Mar 03 05:22	28° $\approx$ 30'25		conjunction	7501 Apr 26 10:32	7° $\mathbb{B}$ 56'43	-1°42'48
	7495 Mar 15 23:34	0° $\mathbb{H}$		minimum elong	7501 Apr 26 10:30	7° $\mathbb{B}$ 56'42	1°42'51

max. Earth dist.	7501 Apr 26 14:40	7° <b>8</b> 57'58	10.85416 AU	max. Earth dist.	7507 Jul 08 21:22	20° <b>5</b> 50'23	10.55539 AU
morning rise	7501 May 13 03:54	9° <b>8</b> 56'51		morning rise	7507 Jul 26 02:41	22° <b>5</b> 57'08	
	7501 Jul 01 09:03	15° <b>8</b>			7507 Oct 10 12:49	0° <b>9</b>	
retrograde	7501 Aug 23 22:54	17° <b>8</b> 15'53		retrograde	7507 Nov 08 13:26	0° <b>9</b> 42'27	
	7501 Oct 18 16:30	15° <b>8</b>			7507 Dec 07 18:15	30° <b>8</b> <b>5</b>	
opposition	7501 Nov 02 08:22	13° <b>8</b> 55'11	-2°13'55	opposition	7508 Jan 17 03:24	27° <b>5</b> 16'30	-1°45'01
min. Earth dist.	7501 Nov 02 04:33	13° <b>8</b> 55'54	8.84650 AU	min. Earth dist.	7508 Jan 17 00:13	27° <b>5</b> 17'07	8.52080 AU
direct	7502 Jan 10 22:56	10° <b>8</b> 36'06		direct	7508 Mar 24 20:30	23° <b>5</b> 54'26	
	7502 Mar 27 18:26	15° <b>8</b>			7508 Jun 21 21:42	0° <b>9</b>	
evening set	7502 Apr 21 17:14	17° <b>8</b> 47'49		evening set	7508 Jul 03 12:43	1° <b>9</b> 23'12	
conjunction	7502 May 08 09:41	19° <b>8</b> 47'52	-1°54'24	conjunction	7508 Jul 20 21:58	3° <b>9</b> 31'57	-1°14'54
minimum elong	7502 May 08 09:39	19° <b>8</b> 47'51	1°54'28	minimum elong	7508 Jul 20 22:00	3° <b>9</b> 31'57	1°14'59
max. Earth dist.	7502 May 08 13:22	19° <b>8</b> 48'58	10.83260 AU	max. Earth dist.	7508 Jul 21 01:42	3° <b>9</b> 33'06	10.48544 AU
morning rise	7502 May 25 04:05	21° <b>8</b> 48'29		morning rise	7508 Aug 07 11:17	5° <b>9</b> 41'54	
retrograde	7502 Sep 05 11:31	29° <b>8</b> 10'59		retrograde	7508 Nov 21 00:30	13° <b>9</b> 31'31	
opposition	7502 Nov 14 23:00	25° <b>8</b> 49'34	-2°25'18	opposition	7509 Jan 29 06:45	10° <b>9</b> 04'49	-1°18'23
min. Earth dist.	7502 Nov 14 19:35	25° <b>8</b> 50'12	8.81772 AU	min. Earth dist.	7509 Jan 29 03:56	10° <b>9</b> 05'23	8.45138 AU
direct	7503 Jan 23 06:44	22° <b>8</b> 30'28		direct	7509 Apr 06 19:14	6° <b>9</b> 41'46	
evening set	7503 May 03 18:08	29° <b>8</b> 43'00		evening set	7509 Jul 16 19:44	14° <b>9</b> 15'37	
	7503 May 06 03:20	0° <b>9</b>			7509 Jul 22 19:58	15° <b>9</b>	
conjunction	7503 May 20 11:36	1° <b>9</b> 43'44	-2°01'08	conjunction	7509 Aug 03 09:11	16° <b>9</b> 26'22	-0°51'23
minimum elong	7503 May 20 11:35	1° <b>9</b> 43'44	2°01'13	minimum elong	7509 Aug 03 09:13	16° <b>9</b> 26'23	0°51'26
max. Earth dist.	7503 May 20 15:13	1° <b>9</b> 44'49	10.79659 AU	max. Earth dist.	7509 Aug 03 12:48	16° <b>9</b> 27'30	10.41795 AU
morning rise	7503 Jun 06 07:42	3° <b>9</b> 45'13		morning rise	7509 Aug 21 02:15	18° <b>9</b> 38'16	
retrograde	7503 Sep 18 04:23	11° <b>9</b> 11'51		retrograde	7509 Dec 04 16:30	26° <b>9</b> 31'37	
opposition	7503 Nov 27 15:01	7° <b>9</b> 49'35	-2°30'30	opposition	7510 Feb 11 12:44	23° <b>9</b> 04'21	-0°47'21
min. Earth dist.	7503 Nov 27 11:29	7° <b>9</b> 50'15	8.77520 AU	min. Earth dist.	7510 Feb 11 10:07	23° <b>9</b> 04'52	8.38611 AU
direct	7504 Feb 04 15:08	4° <b>9</b> 30'17		direct	7510 Apr 19 20:32	19° <b>9</b> 40'18	
evening set	7504 May 14 21:50	11° <b>9</b> 44'32		evening set	7510 Jul 30 09:45	27° <b>9</b> 19'32	
conjunction	7504 May 31 17:14	13° <b>9</b> 46'18	-2°02'37	conjunction	7510 Aug 17 02:53	29° <b>9</b> 32'08	-0°24'55
minimum elong	7504 May 31 17:14	13° <b>9</b> 46'18	2°02'43	minimum elong	7510 Aug 17 02:54	29° <b>9</b> 32'09	0°24'57
max. Earth dist.	7504 May 31 21:58	13° <b>9</b> 47'44	10.74811 AU	max. Earth dist.	7510 Aug 17 05:54	29° <b>9</b> 33'05	10.35612 AU
morning rise	7504 Jun 17 15:38	15° <b>9</b> 49'00			7510 Aug 20 19:31	0° <b>9</b> <b>9</b>	
retrograde	7504 Sep 30 00:36	23° <b>9</b> 20'13		morning rise	7510 Sep 03 23:01	1° <b>9</b> 45'44	
opposition	7504 Dec 09 08:46	19° <b>9</b> 56'59	-2°29'06	retrograde	7510 Dec 18 10:55	9° <b>9</b> 42'07	
min. Earth dist.	7504 Dec 09 04:22	19° <b>9</b> 57'50	8.72138 AU	opposition	7511 Feb 24 21:17	6° <b>9</b> 14'29	-0°13'23
direct	7505 Feb 16 00:49	16° <b>9</b> 37'17		min. Earth dist.	7511 Feb 24 19:08	6° <b>9</b> 14'55	8.32828 AU
evening set	7505 May 27 05:35	23° <b>9</b> 54'04		direct	7511 May 03 02:32	2° <b>9</b> 49'26	
conjunction	7505 Jun 13 03:40	25° <b>9</b> 57'14	-1°58'38	asc. node	7511 Jul 19 05:54	7° <b>9</b> 37'33	
minimum elong	7505 Jun 13 03:41	25° <b>9</b> 57'14	1°58'45	evening set	7511 Aug 13 06:21	10° <b>9</b> 34'09	
max. Earth dist.	7505 Jun 13 08:58	25° <b>9</b> 58'51	10.68982 AU	conjunction	7511 Aug 31 02:23	12° <b>9</b> 48'20	0°03'16
morning rise	7505 Jun 30 05:07	28° <b>9</b> 01'27		minimum elong	7511 Aug 31 02:22	12° <b>9</b> 48'20	0°03'15
	7505 Jul 17 05:56	0° <b>9</b>		behind sun begin	7511 Aug 30 19:07	12° <b>9</b> 46'04	
retrograde	7505 Oct 13 01:28	5° <b>9</b> 37'25		behind sun end	7511 Aug 31 09:37	12° <b>9</b> 50'35	
opposition	7505 Dec 22 04:31	2° <b>9</b> 13'14	-2°20'57	max. Earth dist.	7511 Aug 31 03:59	12° <b>9</b> 48'48	10.30325 AU
min. Earth dist.	7505 Dec 21 23:54	2° <b>9</b> 14'07	8.65906 AU	morning rise	7511 Sep 18 00:46	15° <b>9</b> 03'17	
	7506 Jan 22 18:25	30° <b>8</b> <b>9</b>		retrograde	7512 Jan 01 07:09	23° <b>9</b> 01'49	
direct	7506 Feb 28 12:30	28° <b>9</b> 52'53		opposition	7512 Mar 09 08:20	19° <b>9</b> 34'04	0°21'44
	7506 Apr 05 11:55	0° <b>9</b>		min. Earth dist.	7512 Mar 09 07:20	19° <b>9</b> 34'16	8.28110 AU
evening set	7506 Jun 08 18:11	6° <b>9</b> 13'00		direct	7512 May 15 12:54	16° <b>9</b> 08'04	
conjunction	7506 Jun 25 19:32	8° <b>9</b> 17'50	-1°49'09	evening set	7512 Aug 26 08:44	23° <b>9</b> 58'03	
minimum elong	7506 Jun 25 19:34	8° <b>9</b> 17'51	1°49'16	conjunction	7512 Sep 13 06:44	26° <b>9</b> 13'24	0°31'24
max. Earth dist.	7506 Jun 26 00:21	8° <b>9</b> 19'19	10.62459 AU	minimum elong	7512 Sep 13 06:43	26° <b>9</b> 13'23	0°31'24
morning rise	7506 Jul 13 00:43	10° <b>9</b> 23'51		max. Earth dist.	7512 Sep 13 06:28	26° <b>9</b> 13'19	10.26231 AU
retrograde	7506 Oct 26 06:17	18° <b>9</b> 04'34		morning rise	7512 Oct 01 06:24	28° <b>9</b> 29'16	
opposition	7507 Jan 04 02:41	14° <b>9</b> 39'27	-2°06'07		7512 Oct 13 16:42	0° <b>9</b> <b>9</b>	
min. Earth dist.	7507 Jan 03 22:36	14° <b>9</b> 40'15	8.59114 AU	retrograde	7513 Jan 14 04:46	6° <b>9</b> 28'56	
direct	7507 Mar 13 01:56	11° <b>9</b> 18'18		opposition	7513 Mar 22 21:26	3° <b>9</b> 01'18	0°56'01
evening set	7507 Jun 21 12:20	18° <b>9</b> 42'27		min. Earth dist.	7513 Mar 22 21:53	3° <b>9</b> 01'13	8.24724 AU
conjunction	7507 Jul 08 17:26	20° <b>9</b> 49'10	-1°34'25		7513 May 07 11:24	30° <b>8</b> <b>9</b>	
minimum elong	7507 Jul 08 17:28	20° <b>9</b> 49'11	1°34'31	direct	7513 May 29 03:02	29° <b>9</b> 34'28	
					7513 Jun 19 18:35	0° <b>9</b> <b>9</b>	

evening set	7513 Sep 09 16:03	7° <u>♄</u> 29'12		min. Earth dist.	7519 Jun 11 16:21	23° <u>♄</u> 55'20	8.37285 AU
				direct	7519 Aug 19 12:20	20° <u>♄</u> 28'48	
conjunction	7513 Sep 27 14:58	9° <u>♄</u> 45'14	0°58'03	evening set	7519 Dec 03 09:07	28° <u>♄</u> 24'57	
minimum elong	7513 Sep 27 14:56	9° <u>♄</u> 45'13	0°58'05		7519 Dec 16 02:46	0° <u>♄</u>	
max. Earth dist.	7513 Sep 27 13:06	9° <u>♄</u> 44'38	10.23562 AU				
morning rise	7513 Oct 15 14:40	12° <u>♄</u> 01'31		conjunction	7519 Dec 20 21:43	0° <u>♄</u> 36'05	1°55'18
retrograde	7514 Jan 28 02:40	20° <u>♄</u> 01'07		minimum elong	7519 Dec 20 21:44	0° <u>♄</u> 36'05	1°55'24
opposition	7514 Apr 05 11:56	16° <u>♄</u> 33'52	1°27'24	max. Earth dist.	7519 Dec 20 16:18	0° <u>♄</u> 34'22	10.40293 AU
min. Earth dist.	7514 Apr 05 13:25	16° <u>♄</u> 33'34	8.22872 AU	morning rise	7520 Jan 07 06:45	2° <u>♄</u> 46'07	
direct	7514 Jun 11 21:25	13° <u>♄</u> 06'23		retrograde	7520 Apr 17 11:59	10° <u>♄</u> 23'12	
evening set	7514 Sep 24 02:24	21° <u>♄</u> 04'59		opposition	7520 Jun 23 21:36	7° <u>♄</u> 01'11	2°16'17
				min. Earth dist.	7520 Jun 24 01:41	7° <u>♄</u> 00'23	8.43696 AU
conjunction	7514 Oct 12 01:14	23° <u>♄</u> 21'11	1°21'35	direct	7520 Sep 01 07:22	3° <u>♄</u> 34'25	
minimum elong	7514 Oct 12 01:12	23° <u>♄</u> 21'11	1°21'38	evening set	7520 Dec 15 23:35	11° <u>♄</u> 25'53	
max. Earth dist.	7514 Oct 11 22:23	23° <u>♄</u> 20'17	10.22492 AU				
morning rise	7514 Oct 29 23:49	25° <u>♄</u> 37'20		conjunction	7521 Jan 02 09:39	13° <u>♄</u> 35'26	1°43'26
	7514 Dec 07 06:33	0° <u>♄</u>		minimum elong	7521 Jan 02 09:41	13° <u>♄</u> 35'27	1°43'32
retrograde	7515 Feb 10 22:38	3° <u>♄</u> 35'43		max. Earth dist.	7521 Jan 02 04:16	13° <u>♄</u> 33'45	10.46979 AU
opposition	7515 Apr 19 03:26	0° <u>♄</u> 09'04	1°54'00	morning rise	7521 Jan 19 16:00	15° <u>♄</u> 43'50	
min. Earth dist.	7515 Apr 19 05:19	0° <u>♄</u> 08'41	8.22675 AU	retrograde	7521 Apr 30 12:20	23° <u>♄</u> 15'25	
	7515 Apr 21 00:02	30° <u>♄</u>		opposition	7521 Jul 07 04:08	19° <u>♄</u> 54'12	1°58'14
direct	7515 Jun 25 19:10	26° <u>♄</u> 41'11		min. Earth dist.	7521 Jul 07 07:46	19° <u>♄</u> 53'29	8.50485 AU
	7515 Aug 27 22:07	0° <u>♄</u>		direct	7521 Sep 14 21:47	16° <u>♄</u> 28'10	
evening set	7515 Oct 08 13:49	4° <u>♄</u> 42'23		evening set	7521 Dec 29 06:46	24° <u>♄</u> 14'15	
conjunction	7515 Oct 26 11:41	6° <u>♄</u> 58'16	1°40'35	conjunction	7522 Jan 15 14:24	26° <u>♄</u> 22'13	1°26'34
minimum elong	7515 Oct 26 11:39	6° <u>♄</u> 58'15	1°40'39	minimum elong	7522 Jan 15 14:27	26° <u>♄</u> 22'14	1°26'40
max. Earth dist.	7515 Oct 26 08:35	6° <u>♄</u> 57'16	10.23102 AU	max. Earth dist.	7522 Jan 15 09:40	26° <u>♄</u> 20'45	10.53825 AU
morning rise	7515 Nov 13 08:12	9° <u>♄</u> 13'47		morning rise	7522 Feb 01 18:13	28° <u>♄</u> 29'04	
	7516 Jan 05 22:22	15° <u>♄</u>			7522 Feb 14 12:18	0° <u>♄</u>	
retrograde	7516 Feb 24 17:33	17° <u>♄</u> 09'46		retrograde	7522 May 13 08:11	5° <u>♄</u> 55'37	
	7516 Apr 15 18:31	15° <u>♄</u>		opposition	7522 Jul 20 07:44	2° <u>♄</u> 35'08	1°34'40
opposition	7516 May 01 19:08	13° <u>♄</u> 43'53	2°14'10	min. Earth dist.	7522 Jul 20 11:02	2° <u>♄</u> 34'29	8.57219 AU
min. Earth dist.	7516 May 01 21:08	13° <u>♄</u> 43'29	8.24149 AU		7522 Aug 27 07:37	30° <u>♄</u>	
direct	7516 Jul 08 17:44	10° <u>♄</u> 15'50		direct	7522 Sep 28 08:05	29° <u>♄</u> 09'57	
	7516 Sep 23 23:22	15° <u>♄</u>			7522 Oct 30 00:43	0° <u>♄</u>	
evening set	7516 Oct 22 00:38	18° <u>♄</u> 18'09		evening set	7523 Jan 11 07:13	6° <u>♄</u> 50'27	
conjunction	7516 Nov 08 20:47	20° <u>♄</u> 33'18	1°53'56	conjunction	7523 Jan 28 12:29	8° <u>♄</u> 56'55	1°05'44
minimum elong	7516 Nov 08 20:45	20° <u>♄</u> 33'17	1°54'00	minimum elong	7523 Jan 28 12:32	8° <u>♄</u> 56'56	1°05'49
max. Earth dist.	7516 Nov 08 17:23	20° <u>♄</u> 32'13	10.25360 AU	max. Earth dist.	7523 Jan 28 08:23	8° <u>♄</u> 55'39	10.60437 AU
morning rise	7516 Nov 26 14:35	22° <u>♄</u> 47'47		morning rise	7523 Feb 14 14:02	11° <u>♄</u> 02'20	
	7517 Feb 10 07:26	0° <u>♄</u>			7523 Mar 22 08:07	15° <u>♄</u>	
retrograde	7517 Mar 09 10:54	0° <u>♄</u> 40'11		retrograde	7523 May 26 00:59	18° <u>♄</u> 24'37	
	7517 Apr 05 18:35	30° <u>♄</u>		opposition	7523 Aug 02 08:28	15° <u>♄</u> 04'44	1°06'57
opposition	7517 May 15 10:13	27° <u>♄</u> 15'14	2°26'48	min. Earth dist.	7523 Aug 02 11:51	15° <u>♄</u> 04'05	8.63586 AU
min. Earth dist.	7517 May 15 12:51	27° <u>♄</u> 14'42	8.27207 AU		7523 Aug 03 09:04	15° <u>♄</u>	
direct	7517 Jul 22 15:34	23° <u>♄</u> 47'14		direct	7523 Oct 11 13:46	11° <u>♄</u> 40'26	
	7517 Oct 21 08:14	0° <u>♄</u>			7523 Dec 16 00:54	15° <u>♄</u>	
evening set	7517 Nov 05 08:39	1° <u>♄</u> 49'04		evening set	7524 Jan 24 01:32	19° <u>♄</u> 15'30	
conjunction	7517 Nov 23 02:29	4° <u>♄</u> 03'06	2°00'55	conjunction	7524 Feb 10 04:24	21° <u>♄</u> 20'33	0°42'03
minimum elong	7517 Nov 23 02:28	4° <u>♄</u> 03'06	2°01'01	minimum elong	7524 Feb 10 04:25	21° <u>♄</u> 20'33	0°42'08
max. Earth dist.	7517 Nov 22 22:29	4° <u>♄</u> 01'50	10.29136 AU	max. Earth dist.	7524 Feb 10 00:21	21° <u>♄</u> 19'19	10.66561 AU
morning rise	7517 Dec 10 17:18	6° <u>♄</u> 16'16		morning rise	7524 Feb 27 04:01	23° <u>♄</u> 24'40	
retrograde	7518 Mar 23 00:52	14° <u>♄</u> 04'07			7524 May 08 14:00	0° <u>♄</u>	
opposition	7518 May 29 00:15	10° <u>♄</u> 40'10	2°31'17	retrograde	7524 Jun 06 14:51	0° <u>♄</u> 43'32	
min. Earth dist.	7518 May 29 03:39	10° <u>♄</u> 39'30	8.31673 AU		7524 Jul 06 01:55	30° <u>♄</u>	
direct	7518 Aug 05 14:08	7° <u>♄</u> 12'24		opposition	7524 Aug 14 06:46	27° <u>♄</u> 24'03	0°36'32
evening set	7518 Nov 19 11:50	15° <u>♄</u> 12'07		min. Earth dist.	7524 Aug 14 10:07	27° <u>♄</u> 23'25	8.69375 AU
				direct	7524 Oct 23 14:59	24° <u>♄</u> 00'39	
conjunction	7518 Dec 07 03:04	17° <u>♄</u> 24'47	2°01'19		7525 Jan 22 16:10	0° <u>♄</u>	
minimum elong	7518 Dec 07 03:04	17° <u>♄</u> 24'47	2°01'25	evening set	7525 Feb 04 14:18	1° <u>♄</u> 30'29	
max. Earth dist.	7518 Dec 06 22:22	17° <u>♄</u> 23'18	10.34215 AU				
morning rise	7518 Dec 24 14:54	19° <u>♄</u> 36'26		conjunction	7525 Feb 21 14:46	3° <u>♄</u> 34'14	0°16'44
retrograde	7519 Apr 05 08:32	27° <u>♄</u> 19'05		minimum elong	7525 Feb 21 14:46	3° <u>♄</u> 34'14	0°16'47
opposition	7519 Jun 11 12:18	23° <u>♄</u> 56'08	2°27'36	max. Earth dist.	7525 Feb 21 10:59	3° <u>♄</u> 33'05	10.71999 AU

morning rise	7525 Mar 10 12:41	5° $\text{H}$ 37'12		max. Earth dist.	7531 May 03 21:26	15° $\text{B}$ 03'19	10.81566 AU
retrograde	7525 Jun 19 00:29	12° $\text{H}$ 53'35		morning rise	7531 May 20 11:14	17° $\text{B}$ 02'45	
opposition	7525 Aug 27 02:45	9° $\text{H}$ 34'17	0°04'50	retrograde	7531 Aug 31 12:33	24° $\text{B}$ 24'47	
min. Earth dist.	7525 Aug 27 05:08	9° $\text{H}$ 33'50	8.74393 AU	opposition	7531 Nov 09 23:55	21° $\text{B}$ 02'58	-2°21'25
desc. node	7525 Oct 23 10:26	6° $\text{H}$ 20'16		min. Earth dist.	7531 Nov 09 19:29	21° $\text{B}$ 03'48	8.80434 AU
direct	7525 Nov 05 13:24	6° $\text{H}$ 11'43		direct	7532 Jan 18 12:14	17° $\text{B}$ 43'13	
evening set	7526 Feb 16 22:15	13° $\text{H}$ 36'48		evening set	7532 Apr 28 01:12	24° $\text{B}$ 56'23	
conjunction	7526 Mar 05 20:36	15° $\text{H}$ 39'22	-0°09'10	conjunction	7532 May 14 18:22	26° $\text{B}$ 57'06	-1°59'00
minimum elong	7526 Mar 05 20:36	15° $\text{H}$ 39'22	0°09'08	minimum elong	7532 May 14 18:21	26° $\text{B}$ 57'06	1°59'05
behind sun begin	7526 Mar 05 14:37	15° $\text{H}$ 37'34		max. Earth dist.	7532 May 14 23:40	26° $\text{B}$ 58'42	10.78726 AU
behind sun end	7526 Mar 06 02:36	15° $\text{H}$ 41'10		morning rise	7532 May 31 13:36	28° $\text{B}$ 58'28	
max. Earth dist.	7526 Mar 05 18:11	15° $\text{H}$ 38'39	10.76562 AU		7532 Jun 09 08:05	0° $\text{II}$	
morning rise	7526 Mar 22 16:59	17° $\text{H}$ 41'20		retrograde	7532 Sep 12 05:57	6° $\text{II}$ 24'18	
retrograde	7526 Jul 01 10:31	24° $\text{H}$ 56'15		opposition	7532 Nov 21 15:57	3° $\text{II}$ 01'45	-2°29'16
opposition	7526 Sep 08 20:37	21° $\text{H}$ 36'53	-0°26'43	min. Earth dist.	7532 Nov 21 10:50	3° $\text{II}$ 02'43	8.77018 AU
min. Earth dist.	7526 Sep 08 21:20	21° $\text{H}$ 36'45	8.78455 AU		7533 Jan 10 22:28	30° $\text{R}$ 8	
direct	7526 Nov 18 08:16	18° $\text{H}$ 15'06		direct	7533 Jan 29 18:52	29° $\text{B}$ 41'59	
evening set	7527 Mar 01 02:16	25° $\text{H}$ 35'59			7533 Feb 17 12:09	0° $\text{II}$	
conjunction	7527 Mar 17 22:46	27° $\text{H}$ 37'35	-0°34'21	evening set	7533 May 10 04:03	6° $\text{II}$ 56'21	
minimum elong	7527 Mar 17 22:45	27° $\text{H}$ 37'35	0°34'21	conjunction	7533 May 26 22:35	8° $\text{II}$ 57'53	-2°02'43
max. Earth dist.	7527 Mar 17 22:26	27° $\text{H}$ 37'29	10.80067 AU	minimum elong	7533 May 26 22:35	8° $\text{II}$ 57'53	2°02'48
morning rise	7527 Apr 03 17:44	29° $\text{H}$ 38'46		max. Earth dist.	7533 May 27 03:56	8° $\text{II}$ 59'31	10.74749 AU
	7527 Apr 06 17:45	0° $\text{Y}$		morning rise	7533 Jun 12 20:00	11° $\text{II}$ 00'18	
retrograde	7527 Jul 13 19:55	6° $\text{Y}$ 53'11		retrograde	7533 Sep 25 00:21	18° $\text{II}$ 30'25	
opposition	7527 Sep 21 12:53	3° $\text{Y}$ 33'35	-0°56'51	opposition	7533 Dec 04 09:29	15° $\text{II}$ 07'05	-2°30'38
min. Earth dist.	7527 Sep 21 12:16	3° $\text{Y}$ 33'42	8.81395 AU	min. Earth dist.	7533 Dec 04 04:34	15° $\text{II}$ 08'01	8.72529 AU
direct	7527 Nov 30 21:55	0° $\text{Y}$ 12'28		direct	7534 Feb 11 03:49	11° $\text{II}$ 47'06	
evening set	7528 Mar 12 03:35	7° $\text{Y}$ 29'58		evening set	7534 May 22 10:28	19° $\text{II}$ 03'35	
conjunction	7528 Mar 28 22:19	9° $\text{Y}$ 30'47	-0°57'56	conjunction	7534 Jun 08 07:16	21° $\text{II}$ 06'19	-2°01'00
minimum elong	7528 Mar 28 22:17	9° $\text{Y}$ 30'47	0°57'58	minimum elong	7534 Jun 08 07:17	21° $\text{II}$ 06'19	2°01'06
max. Earth dist.	7528 Mar 28 23:09	9° $\text{Y}$ 31'02	10.82375 AU	max. Earth dist.	7534 Jun 08 12:34	21° $\text{II}$ 07'56	10.69802 AU
morning rise	7528 Apr 14 16:15	11° $\text{Y}$ 31'25		morning rise	7534 Jun 25 07:34	23° $\text{II}$ 10'05	
retrograde	7528 Jul 25 04:03	18° $\text{Y}$ 46'22			7534 Sep 07 21:38	0° $\text{B}$	
opposition	7528 Oct 03 04:04	15° $\text{Y}$ 26'23	-1°24'23	retrograde	7534 Oct 07 22:42	0° $\text{B}$ 44'44	
min. Earth dist.	7528 Oct 03 02:52	15° $\text{Y}$ 26'37	8.83105 AU		7534 Nov 07 08:07	30° $\text{R}$ II	
direct	7528 Dec 12 09:16	12° $\text{Y}$ 05'48		opposition	7534 Dec 17 04:43	27° $\text{II}$ 20'38	-2°25'14
evening set	7529 Mar 24 03:06	19° $\text{Y}$ 20'49		min. Earth dist.	7534 Dec 16 23:56	27° $\text{II}$ 21'33	8.67158 AU
conjunction	7529 Apr 09 20:24	21° $\text{Y}$ 21'07	-1°18'58	direct	7535 Feb 23 15:51	24° $\text{II}$ 00'17	
minimum elong	7529 Apr 09 20:22	21° $\text{Y}$ 21'06	1°19'01		7535 May 23 14:58	0° $\text{B}$	
max. Earth dist.	7529 Apr 09 21:46	21° $\text{Y}$ 21'32	10.83414 AU	evening set	7535 Jun 03 21:15	1° $\text{B}$ 19'38	
morning rise	7529 Apr 26 13:52	23° $\text{Y}$ 21'28		conjunction	7535 Jun 20 21:10	3° $\text{B}$ 23'54	-1°53'45
	7529 Jul 09 21:59	0° $\text{B}$		minimum elong	7535 Jun 20 21:12	3° $\text{B}$ 23'55	1°53'52
retrograde	7529 Aug 06 13:18	0° $\text{B}$ 37'54		max. Earth dist.	7535 Jun 21 03:13	3° $\text{B}$ 25'46	10.64100 AU
	7529 Sep 03 13:51	30° $\text{R}$ Y		morning rise	7535 Jul 08 00:50	5° $\text{B}$ 29'18	
opposition	7529 Oct 15 18:42	27° $\text{Y}$ 17'26	-1°48'16	retrograde	7535 Oct 21 02:23	13° $\text{B}$ 08'36	
min. Earth dist.	7529 Oct 15 16:53	27° $\text{Y}$ 17'46	8.83529 AU	opposition	7535 Dec 30 02:18	9° $\text{B}$ 43'45	-2°13'04
direct	7529 Dec 24 19:10	23° $\text{Y}$ 57'14		min. Earth dist.	7535 Dec 29 21:04	9° $\text{B}$ 44'46	8.61148 AU
	7530 Mar 25 22:10	0° $\text{B}$		direct	7536 Mar 07 05:06	6° $\text{B}$ 22'55	
evening set	7530 Apr 05 01:42	1° $\text{B}$ 10'42		evening set	7536 Jun 15 13:12	13° $\text{B}$ 45'49	
conjunction	7530 Apr 21 18:14	3° $\text{B}$ 10'47	-1°36'36	conjunction	7536 Jul 02 16:49	15° $\text{B}$ 51'50	-1°41'07
minimum elong	7530 Apr 21 18:12	3° $\text{B}$ 10'46	1°36'40	minimum elong	7536 Jul 02 16:52	15° $\text{B}$ 51'51	1°41'13
max. Earth dist.	7530 Apr 21 20:35	3° $\text{B}$ 11'30	10.83149 AU	max. Earth dist.	7536 Jul 02 23:37	15° $\text{B}$ 53'56	10.57904 AU
morning rise	7530 May 08 11:45	5° $\text{B}$ 11'09		morning rise	7536 Jul 20 00:15	17° $\text{B}$ 59'04	
retrograde	7530 Aug 18 23:13	12° $\text{B}$ 30'00		retrograde	7536 Nov 02 09:15	25° $\text{B}$ 42'58	
opposition	7530 Oct 28 09:09	9° $\text{B}$ 08'53	-2°07'32	opposition	7537 Jan 11 02:22	22° $\text{B}$ 17'25	-1°54'25
min. Earth dist.	7530 Oct 28 06:08	9° $\text{B}$ 09'27	8.82634 AU	min. Earth dist.	7537 Jan 10 20:47	22° $\text{B}$ 18'30	8.54783 AU
direct	7531 Jan 06 03:44	5° $\text{B}$ 48'59		direct	7537 Mar 19 22:03	18° $\text{B}$ 55'57	
evening set	7531 Apr 17 00:44	13° $\text{B}$ 01'51		evening set	7537 Jun 28 11:25	26° $\text{B}$ 23'02	
conjunction	7531 May 03 17:15	15° $\text{B}$ 02'03	-1°50'09	conjunction	7537 Jul 15 19:01	28° $\text{B}$ 30'59	-1°23'27
minimum elong	7531 May 03 17:14	15° $\text{B}$ 02'03	1°50'12	minimum elong	7537 Jul 15 19:03	28° $\text{B}$ 31'00	1°23'33
	7531 May 03 10:27	15° $\text{B}$		max. Earth dist.	7537 Jul 16 01:27	28° $\text{B}$ 32'59	10.51511 AU

	7537 Jul 27 19:00	0°♎	direct	7543 Jun 06 12:43	7°♎46'15	
morning rise	7537 Aug 02 06:30	0°♎40'08	evening set	7543 Sep 18 11:20	15°♎42'32	
retrograde	7537 Nov 15 20:26	8°♎28'15				
opposition	7538 Jan 24 04:55	5°♎02'08 -1°29'54	conjunction	7543 Oct 06 10:17	17°♎58'29	1°12'18
min. Earth dist.	7538 Jan 23 23:53	5°♎03'07 8.48373 AU	minimum elong	7543 Oct 06 10:14	17°♎58'28	1°12'20
direct	7538 Apr 01 18:10	1°♎39'54	max. Earth dist.	7543 Oct 06 08:15	17°♎57'51	10.24458 AU
evening set	7538 Jul 11 16:12	9°♎11'41	morning rise	7543 Oct 24 09:10	20°♎14'30	
			retrograde	7544 Feb 05 14:42	28°♎12'51	
conjunction	7538 Jul 29 03:47	11°♎21'35 -1°01'26	opposition	7544 Apr 12 20:20	24°♎46'22	1°43'36
minimum elong	7538 Jul 29 03:49	11°♎21'35 1°01'30	min. Earth dist.	7544 Apr 12 22:12	24°♎45'59	8.24145 AU
max. Earth dist.	7538 Jul 29 08:48	11°♎23'09 10.45226 AU	direct	7544 Jun 19 08:32	21°♎19'04	
morning rise	7538 Aug 15 19:16	13°♎32'39	evening set	7544 Oct 01 22:16	29°♎18'33	
	7538 Aug 27 23:23	15°♎		7544 Oct 07 10:41	0°♎	
retrograde	7538 Nov 29 11:30	21°♎24'28				
opposition	7539 Feb 06 10:13	17°♎57'54 -1°00'29	conjunction	7544 Oct 19 20:31	1°♎34'25	1°33'18
min. Earth dist.	7539 Feb 06 06:29	17°♎58'38 8.42225 AU	minimum elong	7544 Oct 19 20:28	1°♎34'24	1°33'22
	7539 Mar 24 02:09	15°♎♎	max. Earth dist.	7544 Oct 19 16:42	1°♎33'12	10.24087 AU
direct	7539 Apr 14 17:47	14°♎34'47	morning rise	7544 Nov 06 17:51	3°♎50'02	
	7539 May 06 08:06	15°♎	retrograde	7545 Feb 18 09:42	11°♎46'27	
evening set	7539 Jul 25 03:30	22°♎11'36	opposition	7545 Apr 26 11:41	8°♎20'33	2°06'35
			min. Earth dist.	7545 Apr 26 14:56	8°♎19'53	8.24618 AU
conjunction	7539 Aug 11 18:52	24°♎23'19 -0°36'01	direct	7545 Jul 03 06:37	4°♎52'46	
minimum elong	7539 Aug 11 18:54	24°♎23'20 0°36'04	evening set	7545 Oct 16 09:13	12°♎54'04	
max. Earth dist.	7539 Aug 11 22:33	24°♎24'28 10.39341 AU		7545 Nov 02 00:28	15°♎	
morning rise	7539 Aug 29 13:50	26°♎36'08				
	7539 Sep 27 23:58	0°♎	conjunction	7545 Nov 03 05:54	15°♎09'21	1°49'06
retrograde	7539 Dec 13 03:59	4°♎31'00	minimum elong	7545 Nov 03 05:52	15°♎09'20	1°49'11
opposition	7540 Feb 19 18:01	1°♎04'06 -0°27'32	max. Earth dist.	7545 Nov 03 00:37	15°♎07'40	10.25332 AU
min. Earth dist.	7540 Feb 19 15:32	1°♎04'36 8.36622 AU	morning rise	7545 Nov 21 00:54	17°♎24'08	
	7540 Mar 04 08:08	30°♎♎	retrograde	7546 Mar 04 02:22	25°♎17'28	
direct	7540 Apr 26 23:25	27°♎40'02	opposition	7546 May 10 02:38	21°♎52'14	2°22'28
	7540 Jun 18 00:11	0°♎	min. Earth dist.	7546 May 10 06:35	21°♎51'26	8.26682 AU
evening set	7540 Aug 06 21:25	5°♎22'00	direct	7546 Jul 17 05:36	18°♎24'13	
			evening set	7546 Oct 30 17:53	26°♎25'43	
conjunction	7540 Aug 24 16:07	7°♎35'21 -0°08'28				
minimum elong	7540 Aug 24 16:07	7°♎35'21 0°08'30	conjunction	7546 Nov 17 12:33	28°♎40'05	1°58'49
behind sun begin	7540 Aug 24 09:47	7°♎33'23	minimum elong	7546 Nov 17 12:31	28°♎40'04	1°58'54
behind sun end	7540 Aug 24 22:27	7°♎37'20	max. Earth dist.	7546 Nov 17 06:46	28°♎38'15	10.28132 AU
max. Earth dist.	7540 Aug 24 18:30	7°♎36'05 10.34108 AU		7546 Nov 28 01:08	0°♎♎	
morning rise	7540 Sep 11 13:43	9°♎49'35	morning rise	7546 Dec 05 04:44	0°♎♎53'41	
asc. node	7540 Dec 15 15:45	17°♎41'04	retrograde	7547 Mar 17 15:55	8°♎♎42'55	
retrograde	7540 Dec 25 22:04	17°♎46'43	opposition	7547 May 23 16:31	5°♎♎18'27	2°30'25
opposition	7541 Mar 04 03:55	14°♎19'37 0°07'18	min. Earth dist.	7547 May 23 20:28	5°♎♎17'40	8.30213 AU
min. Earth dist.	7541 Mar 04 02:32	14°♎19'53 8.31788 AU	direct	7547 Jul 31 04:43	1°♎♎50'25	
direct	7541 May 10 09:08	10°♎54'36	evening set	7547 Nov 13 22:25	9°♎♎50'31	
evening set	7541 Aug 20 21:20	18°♎41'43				
			conjunction	7547 Dec 01 14:48	12°♎♎03'39	2°02'00
conjunction	7541 Sep 07 18:35	20°♎56'23 0°19'54	minimum elong	7547 Dec 01 14:48	12°♎♎03'39	2°02'05
minimum elong	7541 Sep 07 18:34	20°♎56'22 0°19'54	max. Earth dist.	7547 Dec 01 09:12	12°♎♎01'53	10.32316 AU
max. Earth dist.	7541 Sep 07 19:44	20°♎56'44 10.29716 AU	morning rise	7547 Dec 19 03:59	14°♎♎15'52	
morning rise	7541 Sep 25 17:44	23°♎11'40	retrograde	7548 Mar 30 01:11	22°♎♎00'14	
	7541 Dec 03 04:01	0°♎	opposition	7548 Jun 05 04:37	18°♎♎36'35	2°30'11
retrograde	7542 Jan 08 19:03	1°♎10'13	min. Earth dist.	7548 Jun 05 08:27	18°♎♎35'49	8.34986 AU
	7542 Feb 14 17:30	30°♎♎	direct	7548 Aug 13 02:28	15°♎♎08'45	
opposition	7542 Mar 17 15:50	27°♎43'08 0°42'06	evening set	7548 Nov 26 21:37	23°♎♎05'59	
min. Earth dist.	7542 Mar 17 15:16	27°♎43'15 8.27914 AU				
direct	7542 May 23 21:24	24°♎17'16	conjunction	7548 Dec 14 11:31	25°♎♎17'43	1°58'40
	7542 Aug 17 04:27	0°♎	minimum elong	7548 Dec 14 11:32	25°♎♎17'43	1°58'45
evening set	7542 Sep 04 02:25	2°♎09'16	max. Earth dist.	7548 Dec 14 06:18	25°♎♎16'04	10.37623 AU
			morning rise	7548 Dec 31 21:40	27°♎♎28'21	
conjunction	7542 Sep 22 01:04	4°♎24'50 0°47'20		7549 Jan 22 06:07	0°♎♎	
minimum elong	7542 Sep 22 01:02	4°♎24'49 0°47'21	retrograde	7549 Apr 12 07:22	5°♎♎07'24	
max. Earth dist.	7542 Sep 22 00:43	4°♎24'43 10.26399 AU	opposition	7549 Jun 18 14:25	1°♎♎44'36	2°22'03
morning rise	7542 Oct 10 00:36	6°♎40'44	min. Earth dist.	7549 Jun 18 18:23	1°♎♎43'49	8.40725 AU
retrograde	7543 Jan 22 17:35	14°♎39'47		7549 Jul 11 16:30	30°♎♎♎	
opposition	7543 Mar 31 05:31	11°♎12'54 1°14'51	direct	7549 Aug 26 20:39	28°♎♎17'11	
min. Earth dist.	7543 Mar 31 06:02	11°♎12'47 8.25280 AU		7549 Oct 11 07:36	0°♎♎	

evening set	7549 Dec 10 14:21	6°  10'19	direct	7555 Nov 13 02:41	13°  14'21
			evening set	7556 Feb 24 03:16	20°  36'15
conjunction	7549 Dec 28 01:39	8°  20'32 1°49'13			
minimum elong	7549 Dec 28 01:41	8°  20'32 1°49'18	conjunction	7556 Mar 12 00:26	22°  38'04 -0°23'21
max. Earth dist.	7549 Dec 27 20:36	8°  18'57 10.43759 AU	minimum elong	7556 Mar 12 00:25	22°  38'04 0°23'20
morning rise	7550 Jan 14 09:00	10°  29'35	max. Earth dist.	7556 Mar 11 23:40	22°  37'50 10.79900 AU
retrograde	7550 Apr 25 09:11	18°  03'11	morning rise	7556 Mar 28 19:58	24°  39'24
opposition	7550 Jul 01 21:40	14°  41'12 2°06'46		7556 May 20 16:38	0°  Y
min. Earth dist.	7550 Jul 02 02:01	14°  40'21 8.47130 AU	retrograde	7556 Jul 07 16:50	1°  Y53'03
direct	7550 Sep 09 11:27	11°  14'24		7556 Aug 26 13:04	30°  R  H
evening set	7550 Dec 23 23:58	19°  02'32	opposition	7556 Sep 15 07:42	28°  33'47 -0°43'43
			min. Earth dist.	7556 Sep 15 07:45	28°  33'47 8.81703 AU
conjunction	7551 Jan 10 08:40	21°  11'10 1°34'23	direct	7556 Nov 24 17:28	25°  H12'37
minimum elong	7551 Jan 10 08:42	21°  11'11 1°34'28		7557 Feb 12 23:10	0°  Y
max. Earth dist.	7551 Jan 10 03:23	21°  09'32 10.50404 AU	evening set	7557 Mar 07 04:57	2°  Y30'45
morning rise	7551 Jan 27 13:35	23°  18'41			
	7551 Apr 08 09:59	0°  ≈	conjunction	7557 Mar 24 00:13	4°  Y31'39 -0°47'41
retrograde	7551 May 08 04:43	0°  ≈47'03	minimum elong	7557 Mar 24 00:12	4°  Y31'38 0°47'42
	7551 Jun 07 10:33	30°  R  Z	max. Earth dist.	7557 Mar 24 00:35	4°  Y31'46 10.83184 AU
opposition	7551 Jul 15 01:57	27°  Z25'51 1°45'26	morning rise	7557 Apr 09 18:37	6°  Y32'17
min. Earth dist.	7551 Jul 15 06:07	27°  Z25'02 8.53870 AU	retrograde	7557 Jul 19 23:58	13°  Y46'01
direct	7551 Sep 22 23:48	23°  Z59'49	opposition	7557 Sep 27 22:39	10°  Y26'37 -1°12'26
	7551 Dec 22 15:11	0°  ≈	min. Earth dist.	7557 Sep 27 21:06	10°  Y26'54 8.84383 AU
evening set	7552 Jan 06 02:46	1°  ≈42'28	direct	7557 Dec 07 06:30	7°  Y06'13
			evening set	7558 Mar 19 04:30	14°  Y21'26
conjunction	7552 Jan 23 08:59	3°  ≈49'33 1°15'08			
minimum elong	7552 Jan 23 09:01	3°  ≈49'33 1°15'13	conjunction	7558 Apr 04 22:22	16°  Y21'41 -1°09'53
max. Earth dist.	7552 Jan 23 03:57	3°  ≈48'00 10.57218 AU	minimum elong	7558 Apr 04 22:20	16°  Y21'40 1°09'55
morning rise	7552 Feb 09 11:41	5°  ≈55'33	max. Earth dist.	7558 Apr 05 00:40	16°  Y22'22 10.85180 AU
retrograde	7552 May 19 21:24	13°  ≈19'14	morning rise	7558 Apr 21 15:53	18°  Y21'52
opposition	7552 Jul 27 03:06	9°  ≈58'42 1°19'22	retrograde	7558 Aug 01 10:07	25°  Y36'37
min. Earth dist.	7552 Jul 27 06:24	9°  ≈58'04 8.60609 AU	opposition	7558 Oct 10 12:39	22°  Y16'55 -1°37'57
direct	7552 Oct 05 08:11	6°  ≈33'35	min. Earth dist.	7558 Oct 10 09:45	22°  Y17'27 8.85734 AU
evening set	7553 Jan 17 22:58	14°  ≈10'36	direct	7558 Dec 19 16:28	18°  Y57'09
	7553 Jan 24 18:13	15°  ≈	evening set	7559 Mar 31 02:58	26°  Y10'18
conjunction	7553 Feb 04 02:51	16°  ≈16'12 0°52'35			
minimum elong	7553 Feb 04 02:53	16°  ≈16'12 0°52'40	conjunction	7559 Apr 16 19:48	28°  Y10'12 -1°29'03
max. Earth dist.	7553 Feb 03 23:04	16°  ≈15'02 10.63869 AU	minimum elong	7559 Apr 16 19:46	28°  Y10'11 1°29'07
morning rise	7553 Feb 21 03:25	18°  ≈20'48	max. Earth dist.	7559 Apr 16 23:16	28°  Y11'15 10.85801 AU
retrograde	7553 Jun 01 12:03	25°  ≈40'33		7559 May 02 02:19	0°  Z
opposition	7553 Aug 09 01:39	22°  ≈20'33 0°50'00	morning rise	7559 May 03 12:58	0°  Z10'14
min. Earth dist.	7553 Aug 09 03:30	22°  ≈20'12 8.67031 AU	retrograde	7559 Aug 13 19:28	7°  Z26'54
direct	7553 Oct 18 10:23	18°  ≈56'29	opposition	7559 Oct 23 02:33	4°  Z06'45 -1°59'17
evening set	7554 Jan 30 13:03	26°  ≈27'56	min. Earth dist.	7559 Oct 22 23:08	4°  Z07'23 8.85679 AU
			direct	7559 Dec 31 23:17	0°  Z47'24
conjunction	7554 Feb 16 14:42	28°  ≈32'08 0°27'54	evening set	7560 Apr 11 01:20	7°  Z59'29
minimum elong	7554 Feb 16 14:42	28°  ≈32'09 0°27'58			
max. Earth dist.	7554 Feb 16 12:45	28°  ≈31'33 10.70041 AU	conjunction	7560 Apr 27 17:34	9°  Z59'17 -1°44'28
	7554 Feb 28 15:14	0°  H	minimum elong	7560 Apr 27 17:32	9°  Z59'17 1°44'32
morning rise	7554 Mar 05 13:16	0°  H35'29	max. Earth dist.	7560 Apr 27 21:00	10°  Z00'19 10.84998 AU
retrograde	7554 Jun 13 23:23	7°  H52'12	morning rise	7560 May 14 11:06	11°  Z59'29
opposition	7554 Aug 21 21:43	4°  H32'37 0°18'46		7560 Jun 10 11:10	15°  Z
min. Earth dist.	7554 Aug 21 22:46	4°  H32'25 8.72846 AU	retrograde	7560 Aug 25 06:19	19°  Z18'57
direct	7554 Oct 31 08:08	1°  H09'34	opposition	7560 Nov 03 16:49	15°  Z58'10 -2°15'37
evening set	7555 Feb 11 22:13	8°  H35'56	min. Earth dist.	7560 Nov 03 13:34	15°  Z58'46 8.84181 AU
				7560 Nov 16 19:10	15°  R  Z
conjunction	7555 Feb 28 21:34	10°  H38'51 0°02'16	direct	7561 Jan 12 07:16	12°  Z39'02
minimum elong	7555 Feb 28 21:35	10°  H38'51 0°02'19		7561 Mar 07 06:06	15°  Z
behind sun begin	7555 Feb 28 14:32	10°  H36'45	evening set	7561 Apr 23 00:37	19°  Z50'57
behind sun end	7555 Mar 01 04:38	10°  H40'58			
max. Earth dist.	7555 Feb 28 20:29	10°  H38'34 10.75460 AU	conjunction	7561 May 09 17:06	21°  Z51'05 -1°55'27
morning rise	7555 Mar 17 18:29	12°  H41'06	minimum elong	7561 May 09 17:05	21°  Z51'04 1°55'32
desc. node	7555 Apr 02 05:47	14°  H28'26	max. Earth dist.	7561 May 09 20:41	21°  Z52'10 10.82749 AU
retrograde	7555 Jun 26 09:14	19°  H55'45	morning rise	7561 May 26 11:40	23°  Z51'48
opposition	7555 Sep 03 15:29	16°  H36'26 -0°12'55		7561 Jul 29 14:03	0°  II
min. Earth dist.	7555 Sep 03 16:13	16°  H36'18 8.77805 AU	retrograde	7561 Sep 06 20:25	1°  II14'46
				7561 Oct 16 22:57	30°  R  Z

opposition	7561 Nov 16 07:45	27° <b>♄</b> 53'15 -2°26'13	opposition	7568 Jan 31 17:55	12° <b>♄</b> 17'05 -1°14'28
min. Earth dist.	7561 Nov 16 04:14	27° <b>♄</b> 53'54 8.81229 AU	min. Earth dist.	7568 Jan 31 14:33	12° <b>♄</b> 17'45 8.44351 AU
direct	7562 Jan 24 14:57	24° <b>♄</b> 34'07	direct	7568 Apr 08 05:16	8° <b>♄</b> 54'01
	7562 Apr 19 14:56	0° <b>♄</b>		7568 Jul 06 00:32	15° <b>♄</b>
evening set	7562 May 05 01:46	1° <b>♄</b> 46'54	evening set	7568 Jul 18 07:47	16° <b>♄</b> 28'33
conjunction	7562 May 21 19:29	3° <b>♄</b> 47'44 -2°01'31	conjunction	7568 Aug 04 21:38	18° <b>♄</b> 39'32 -0°48'00
minimum elong	7562 May 21 19:29	3° <b>♄</b> 47'44 2°01'37	minimum elong	7568 Aug 04 21:40	18° <b>♄</b> 39'32 0°48'04
max. Earth dist.	7562 May 21 23:52	3° <b>♄</b> 49'04 10.79075 AU	max. Earth dist.	7568 Aug 05 01:38	18° <b>♄</b> 40'47 10.41054 AU
morning rise	7562 Jun 07 15:43	5° <b>♄</b> 49'21	morning rise	7568 Aug 22 14:57	20° <b>♄</b> 51'38
retrograde	7562 Sep 19 13:22	13° <b>♄</b> 16'31	retrograde	7568 Dec 06 05:41	28° <b>♄</b> 45'27
opposition	7562 Nov 28 23:59	9° <b>♄</b> 54'09 -2°30'34	opposition	7569 Feb 13 00:25	25° <b>♄</b> 18'12 -0°42'59
min. Earth dist.	7562 Nov 28 19:49	9° <b>♄</b> 54'56 8.76894 AU	min. Earth dist.	7569 Feb 12 21:28	25° <b>♄</b> 18'47 8.37927 AU
direct	7563 Feb 05 23:36	6° <b>♄</b> 34'49	direct	7569 Apr 21 07:34	21° <b>♄</b> 54'06
evening set	7563 May 17 06:05	13° <b>♄</b> 49'26	evening set	7569 Jul 31 22:40	29° <b>♄</b> 34'00
				7569 Aug 04 10:51	0° <b>♄</b>
conjunction	7563 Jun 03 01:46	15° <b>♄</b> 51'22 -2°02'18	conjunction	7569 Aug 18 16:03	1° <b>♄</b> 46'48 -0°21'16
minimum elong	7563 Jun 03 01:46	15° <b>♄</b> 51'22 2°02'24	minimum elong	7569 Aug 18 16:04	1° <b>♄</b> 46'48 0°21'18
max. Earth dist.	7563 Jun 03 06:50	15° <b>♄</b> 52'55 10.74135 AU	max. Earth dist.	7569 Aug 18 18:43	1° <b>♄</b> 47'38 10.35002 AU
morning rise	7563 Jun 20 00:22	17° <b>♄</b> 54'13	morning rise	7569 Sep 05 12:28	4° <b>♄</b> 00'33
retrograde	7563 Oct 02 11:09	25° <b>♄</b> 26'00	retrograde	7569 Dec 19 24:00	11° <b>♄</b> 57'15
opposition	7563 Dec 11 18:01	22° <b>♄</b> 02'44 -2°28'17	opposition	7570 Feb 26 09:19	8° <b>♄</b> 29'40 -0°08'47
min. Earth dist.	7563 Dec 11 13:25	22° <b>♄</b> 03'37 8.71416 AU	min. Earth dist.	7570 Feb 26 07:30	8° <b>♄</b> 30'01 8.32296 AU
direct	7564 Feb 18 09:14	18° <b>♄</b> 43'00	direct	7570 May 04 14:09	5° <b>♄</b> 04'32
evening set	7564 May 28 14:30	26° <b>♄</b> 00'16	asc. node	7570 Jun 01 01:58	5° <b>♄</b> 45'30
			evening set	7570 Aug 14 19:59	12° <b>♄</b> 49'51
conjunction	7564 Jun 14 12:48	28° <b>♄</b> 03'37 -1°57'36	conjunction	7570 Sep 01 16:08	15° <b>♄</b> 04'10 0°06'59
minimum elong	7564 Jun 14 12:49	28° <b>♄</b> 03'38 1°57'43	minimum elong	7570 Sep 01 16:08	15° <b>♄</b> 04'10 0°06'57
max. Earth dist.	7564 Jun 14 17:29	28° <b>♄</b> 05'03 10.68221 AU	behind sun begin	7570 Sep 01 09:24	15° <b>♄</b> 02'03
	7564 Jun 30 11:44	0° <b>♄</b>	behind sun end	7570 Sep 01 22:52	15° <b>♄</b> 06'16
morning rise	7564 Jul 01 14:38	0° <b>♄</b> 08'03	max. Earth dist.	7570 Sep 01 16:59	15° <b>♄</b> 04'25 10.29884 AU
retrograde	7564 Oct 14 12:56	7° <b>♄</b> 44'38	morning rise	7570 Sep 19 14:47	17° <b>♄</b> 19'14
opposition	7564 Dec 23 14:21	4° <b>♄</b> 20'25 -2°19'15	retrograde	7571 Jan 02 20:36	25° <b>♄</b> 17'54
min. Earth dist.	7564 Dec 23 10:12	4° <b>♄</b> 21'13 8.65106 AU	opposition	7571 Mar 11 20:41	21° <b>♄</b> 50'12 0°26'18
direct	7565 Mar 01 20:08	1° <b>♄</b> 00'03	min. Earth dist.	7571 Mar 11 20:17	21° <b>♄</b> 50'17 8.27763 AU
evening set	7565 Jun 10 03:44	8° <b>♄</b> 20'45	direct	7571 May 18 00:56	18° <b>♄</b> 24'07
			evening set	7571 Aug 28 22:47	26° <b>♄</b> 14'34
conjunction	7565 Jun 27 05:23	10° <b>♄</b> 25'48 -1°47'26	conjunction	7571 Sep 15 20:50	28° <b>♄</b> 29'58 0°34'59
minimum elong	7565 Jun 27 05:25	10° <b>♄</b> 25'49 1°47'33	minimum elong	7571 Sep 15 20:48	28° <b>♄</b> 29'58 0°34'59
max. Earth dist.	7565 Jun 27 09:31	10° <b>♄</b> 27'04 10.61642 AU	max. Earth dist.	7571 Sep 15 20:15	28° <b>♄</b> 29'47 10.25982 AU
morning rise	7565 Jul 14 11:03	12° <b>♄</b> 32'03		7571 Sep 27 17:37	0° <b>♄</b>
retrograde	7565 Oct 27 16:22	20° <b>♄</b> 13'24	morning rise	7571 Oct 03 20:33	0° <b>♄</b> 45'54
opposition	7566 Jan 05 13:02	16° <b>♄</b> 48'17 -2°03'35	retrograde	7572 Jan 16 17:47	8° <b>♄</b> 45'31
min. Earth dist.	7566 Jan 05 09:31	16° <b>♄</b> 48'58 8.58275 AU	opposition	7572 Mar 24 09:54	5° <b>♄</b> 17'55 1°00'16
direct	7566 Mar 14 12:04	13° <b>♄</b> 27'06	min. Earth dist.	7572 Mar 24 10:26	5° <b>♄</b> 17'49 8.24582 AU
evening set	7566 Jun 22 22:42	20° <b>♄</b> 51'54	direct	7572 May 30 16:22	1° <b>♄</b> 51'01
			evening set	7572 Sep 11 06:14	9° <b>♄</b> 46'03
conjunction	7566 Jul 10 04:17	22° <b>♄</b> 58'53 -1°32'02	conjunction	7572 Sep 29 05:12	12° <b>♄</b> 02'05 1°01'17
minimum elong	7566 Jul 10 04:19	22° <b>♄</b> 58'54 1°32'08	minimum elong	7572 Sep 29 05:10	12° <b>♄</b> 02'04 1°01'18
max. Earth dist.	7566 Jul 10 08:16	23° <b>♄</b> 00'07 10.54703 AU	max. Earth dist.	7572 Sep 29 03:44	12° <b>♄</b> 01'37 10.23520 AU
morning rise	7566 Jul 27 13:58	25° <b>♄</b> 07'05	morning rise	7572 Oct 17 04:47	14° <b>♄</b> 18'20
	7566 Sep 10 19:19	0° <b>♄</b>	retrograde	7573 Jan 29 14:20	22° <b>♄</b> 17'44
retrograde	7566 Nov 10 00:37	2° <b>♄</b> 53'02	opposition	7573 Apr 07 00:19	18° <b>♄</b> 50'30 1°31'06
	7567 Jan 11 13:18	30° <b>♄</b> 00'00	min. Earth dist.	7573 Apr 07 01:22	18° <b>♄</b> 50'17 8.22936 AU
opposition	7567 Jan 18 14:06	29° <b>♄</b> 27'04 -1°41'44	direct	7573 Jun 13 11:40	15° <b>♄</b> 22'58
min. Earth dist.	7567 Jan 18 10:55	29° <b>♄</b> 27'41 8.51245 AU	evening set	7573 Sep 25 16:36	23° <b>♄</b> 21'39
direct	7567 Mar 27 07:21	26° <b>♄</b> 04'58			
	7567 Jun 04 12:28	0° <b>♄</b>			
evening set	7567 Jul 05 23:56	3° <b>♄</b> 34'26			
conjunction	7567 Jul 23 09:43	5° <b>♄</b> 43'25 -1°11'58	conjunction	7573 Oct 13 15:25	25° <b>♄</b> 37'48 1°24'16
minimum elong	7567 Jul 23 09:45	5° <b>♄</b> 43'26 1°12'03	minimum elong	7573 Oct 13 15:23	25° <b>♄</b> 37'47 1°24'19
max. Earth dist.	7567 Jul 23 14:06	5° <b>♄</b> 44'47 10.47729 AU	max. Earth dist.	7573 Oct 13 13:18	25° <b>♄</b> 37'08 10.22649 AU
morning rise	7567 Aug 09 23:20	7° <b>♄</b> 53'37	morning rise	7573 Oct 31 13:42	27° <b>♄</b> 53'50
	7567 Oct 25 06:12	15° <b>♄</b>		7573 Nov 17 22:35	0° <b>♄</b>
retrograde	7567 Nov 23 13:37	15° <b>♄</b> 43'47	retrograde	7574 Feb 12 10:49	5° <b>♄</b> 51'52
	7567 Dec 23 00:44	15° <b>♄</b> 00'00			

opposition	7574 Apr 20 15:39	2° $\mathbb{M}$ 25'12	1°56'54	morning rise	7580 Jan 22 01:47	17° $\mathbb{Z}$ 52'05	
min. Earth dist.	7574 Apr 20 17:02	2° $\mathbb{M}$ 24'55	8.22928 AU	retrograde	7580 May 01 21:23	25° $\mathbb{Z}$ 23'00	
	7574 May 23 16:54	30° $\mathbb{R}$ $\mathbb{A}$		opposition	7580 Jul 08 14:01	22° $\mathbb{Z}$ 01'52	1°55'27
direct	7574 Jun 27 07:48	28° $\mathbb{A}$ 57'16		min. Earth dist.	7580 Jul 08 17:09	22° $\mathbb{Z}$ 01'15	8.51360 AU
	7574 Jul 31 17:10	0° $\mathbb{M}$		direct	7580 Sep 16 08:22	18° $\mathbb{Z}$ 35'56	
evening set	7574 Oct 10 03:47	6° $\mathbb{M}$ 58'21		evening set	7580 Dec 30 16:16	26° $\mathbb{Z}$ 21'16	
conjunction	7574 Oct 28 01:29	9° $\mathbb{M}$ 14'08	1°42'34	conjunction	7581 Jan 16 23:45	28° $\mathbb{Z}$ 29'03	1°24'04
minimum elong	7574 Oct 28 01:26	9° $\mathbb{M}$ 14'07	1°42'38	minimum elong	7581 Jan 16 23:48	28° $\mathbb{Z}$ 29'03	1°24'10
max. Earth dist.	7574 Oct 27 22:53	9° $\mathbb{M}$ 13'18	10.23436 AU	max. Earth dist.	7581 Jan 16 19:43	28° $\mathbb{Z}$ 27'48	10.54745 AU
morning rise	7574 Nov 14 21:36	11° $\mathbb{M}$ 29'29			7581 Jan 29 06:13	0° $\approx$	
	7574 Dec 14 19:32	15° $\mathbb{M}$		morning rise	7581 Feb 03 03:19	0° $\approx$ 35'42	
retrograde	7575 Feb 26 06:34	19° $\mathbb{M}$ 24'57		retrograde	7581 May 14 17:17	8° $\approx$ 01'35	
opposition	7575 May 04 07:09	15° $\mathbb{M}$ 59'05	2°16'08	opposition	7581 Jul 21 17:09	4° $\approx$ 41'10	1°31'18
min. Earth dist.	7575 May 04 09:08	15° $\mathbb{M}$ 58'41	8.24569 AU	min. Earth dist.	7581 Jul 21 20:37	4° $\approx$ 40'30	8.58170 AU
	7575 May 16 14:52	15° $\mathbb{R}$ $\mathbb{M}$		direct	7581 Sep 29 17:44	1° $\approx$ 16'04	
direct	7575 Jul 11 05:22	12° $\mathbb{M}$ 30'59		evening set	7582 Jan 12 15:58	8° $\approx$ 55'46	
	7575 Sep 03 13:33	15° $\mathbb{M}$					
evening set	7575 Oct 24 14:02	20° $\mathbb{M}$ 33'00		conjunction	7582 Jan 29 20:57	11° $\approx$ 02'02	1°02'50
				minimum elong	7582 Jan 29 20:59	11° $\approx$ 02'03	1°02'55
conjunction	7575 Nov 11 09:52	22° $\mathbb{M}$ 48'00	1°55'06	max. Earth dist.	7582 Jan 29 16:37	11° $\approx$ 00'42	10.61410 AU
minimum elong	7575 Nov 11 09:50	22° $\mathbb{M}$ 47'59	1°55'12	morning rise	7582 Feb 15 22:22	13° $\approx$ 07'15	
max. Earth dist.	7575 Nov 11 06:23	22° $\mathbb{M}$ 46'53	10.25853 AU		7582 Mar 03 23:30	15° $\approx$	
morning rise	7575 Nov 29 03:21	25° $\mathbb{M}$ 02'18		retrograde	7582 May 27 08:59	20° $\approx$ 28'53	
	7576 Jan 12 16:02	0° $\mathbb{A}$		opposition	7582 Aug 03 17:28	17° $\approx$ 09'04	1°03'12
retrograde	7576 Mar 10 22:58	2° $\mathbb{A}$ 54'04		min. Earth dist.	7582 Aug 03 21:19	17° $\approx$ 08'19	8.64556 AU
	7576 May 10 12:24	30° $\mathbb{R}$ $\mathbb{M}$			7582 Sep 03 03:16	15° $\mathbb{R}$ $\approx$	
opposition	7576 May 16 21:54	29° $\mathbb{M}$ 29'08	2°27'44	direct	7582 Oct 12 22:34	13° $\approx$ 44'52	
min. Earth dist.	7576 May 17 01:01	29° $\mathbb{M}$ 28'31	8.27774 AU		7582 Nov 21 03:18	15° $\approx$	
direct	7576 Jul 24 04:05	26° $\mathbb{M}$ 01'04		evening set	7583 Jan 25 09:22	21° $\approx$ 19'07	
	7576 Oct 02 16:51	0° $\mathbb{A}$					
evening set	7576 Nov 06 21:20	4° $\mathbb{A}$ 02'29		conjunction	7583 Feb 11 11:57	23° $\approx$ 23'59	0°38'55
				minimum elong	7583 Feb 11 11:59	23° $\approx$ 23'59	0°38'59
conjunction	7576 Nov 24 14:50	6° $\mathbb{A}$ 16'20	2°01'15	max. Earth dist.	7583 Feb 11 07:18	23° $\approx$ 22'33	10.67502 AU
minimum elong	7576 Nov 24 14:49	6° $\mathbb{A}$ 16'20	2°01'21	morning rise	7583 Feb 28 11:33	25° $\approx$ 27'56	
max. Earth dist.	7576 Nov 24 10:09	6° $\mathbb{A}$ 14'51	10.29762 AU		7583 Apr 11 17:42	0° $\mathbb{H}$	
morning rise	7576 Dec 12 05:26	8° $\mathbb{A}$ 29'20		retrograde	7583 Jun 08 20:55	2° $\mathbb{H}$ 46'17	
retrograde	7577 Mar 24 10:25	16° $\mathbb{A}$ 16'28			7583 Aug 09 08:19	30° $\mathbb{R}$ $\approx$	
opposition	7577 May 30 11:29	12° $\mathbb{A}$ 52'34	2°31'09	opposition	7583 Aug 16 15:12	29° $\approx$ 26'52	0°32'35
min. Earth dist.	7577 May 30 15:20	12° $\mathbb{A}$ 51'48	8.32351 AU	min. Earth dist.	7583 Aug 16 18:29	29° $\approx$ 26'14	8.70264 AU
direct	7577 Aug 07 03:32	9° $\mathbb{A}$ 24'47		direct	7583 Oct 26 00:30	26° $\approx$ 03'35	
evening set	7577 Nov 20 23:48	17° $\mathbb{A}$ 23'58			7584 Jan 05 22:44	0° $\mathbb{H}$	
				evening set	7584 Feb 06 21:28	3° $\mathbb{H}$ 32'45	
conjunction	7577 Dec 08 14:43	19° $\mathbb{A}$ 36'26	2°00'49				
minimum elong	7577 Dec 08 14:43	19° $\mathbb{A}$ 36'26	2°00'55	conjunction	7584 Feb 23 21:48	5° $\mathbb{H}$ 36'19	0°13'31
max. Earth dist.	7577 Dec 08 09:25	19° $\mathbb{A}$ 34'45	10.34935 AU	minimum elong	7584 Feb 23 21:49	5° $\mathbb{H}$ 36'20	0°13'34
morning rise	7577 Dec 26 02:22	21° $\mathbb{A}$ 47'54		behind sun begin	7584 Feb 23 17:50	5° $\mathbb{H}$ 35'08	
retrograde	7578 Apr 06 18:05	29° $\mathbb{A}$ 29'51		behind sun end	7584 Feb 24 01:47	5° $\mathbb{H}$ 37'31	
opposition	7578 Jun 12 23:02	26° $\mathbb{A}$ 06'57	2°26'28	max. Earth dist.	7584 Feb 23 18:05	5° $\mathbb{H}$ 35'12	10.72816 AU
min. Earth dist.	7578 Jun 13 02:58	26° $\mathbb{A}$ 06'10	8.38038 AU	morning rise	7584 Mar 11 19:36	7° $\mathbb{H}$ 39'09	
direct	7578 Aug 21 00:32	22° $\mathbb{A}$ 39'37		retrograde	7584 Jun 20 08:19	14° $\mathbb{H}$ 55'13	
	7578 Nov 30 00:51	0° $\mathbb{Z}$		opposition	7584 Aug 28 10:40	11° $\mathbb{H}$ 35'58	0°00'52
evening set	7578 Dec 04 20:11	0° $\mathbb{Z}$ 35'09		min. Earth dist.	7584 Aug 28 12:34	11° $\mathbb{H}$ 35'36	8.75119 AU
				desc. node	7584 Sep 07 18:56	10° $\mathbb{H}$ 49'24	
conjunction	7578 Dec 22 08:34	2° $\mathbb{Z}$ 46'06	1°54'01	direct	7584 Nov 06 22:26	8° $\mathbb{H}$ 13'33	
minimum elong	7578 Dec 22 08:36	2° $\mathbb{Z}$ 46'07	1°54'08	evening set	7585 Feb 18 04:58	15° $\mathbb{H}$ 38'05	
max. Earth dist.	7578 Dec 22 03:21	2° $\mathbb{Z}$ 44'28	10.41080 AU				
morning rise	7579 Jan 08 17:23	4° $\mathbb{Z}$ 55'57		conjunction	7585 Mar 07 03:16	17° $\mathbb{H}$ 40'34	-0°12'20
retrograde	7579 Apr 19 21:57	12° $\mathbb{Z}$ 32'22		minimum elong	7585 Mar 07 03:15	17° $\mathbb{H}$ 40'33	0°12'19
opposition	7579 Jun 26 07:56	9° $\mathbb{Z}$ 10'23	2°14'15	behind sun begin	7585 Mar 06 22:32	17° $\mathbb{H}$ 39'08	
min. Earth dist.	7579 Jun 26 11:17	9° $\mathbb{Z}$ 09'44	8.44507 AU	behind sun end	7585 Mar 07 07:59	17° $\mathbb{H}$ 41'58	
direct	7579 Sep 03 18:16	5° $\mathbb{Z}$ 43'43		max. Earth dist.	7585 Mar 07 01:20	17° $\mathbb{H}$ 39'59	10.77186 AU
evening set	7579 Dec 18 09:44	13° $\mathbb{Z}$ 34'28		morning rise	7585 Mar 23 23:24	19° $\mathbb{H}$ 42'25	
				retrograde	7585 Jul 02 18:24	26° $\mathbb{H}$ 57'11	
conjunction	7580 Jan 04 19:42	15° $\mathbb{Z}$ 43'51	1°41'29	opposition	7585 Sep 10 04:24	23° $\mathbb{H}$ 37'54	-0°30'33
minimum elong	7580 Jan 04 19:45	15° $\mathbb{Z}$ 43'52	1°41'35	min. Earth dist.	7585 Sep 10 05:00	23° $\mathbb{H}$ 37'47	8.78967 AU
max. Earth dist.	7580 Jan 04 15:17	15° $\mathbb{Z}$ 42'28	10.47827 AU	direct	7585 Nov 19 14:41	20° $\mathbb{H}$ 16'16	



evening set	7586 Mar 02 08:44	27° $\text{K}$ 36'47	conjunction	7592 May 28 06:42	11° $\text{II}$ 02'55 -2°02'42
			minimum elong	7592 May 28 06:42	11° $\text{II}$ 02'55 2°02'48
conjunction	7586 Mar 19 05:04	29° $\text{K}$ 38'18 -0°37'22	max. Earth dist.	7592 May 28 11:22	11° $\text{II}$ 04'20 10.73748 AU
minimum elong	7586 Mar 19 05:03	29° $\text{K}$ 38'18 0°37'23	morning rise	7592 Jun 14 04:27	13° $\text{II}$ 05'31
max. Earth dist.	7586 Mar 19 04:34	29° $\text{K}$ 38'09 10.80461 AU	retrograde	7592 Sep 26 09:33	20° $\text{II}$ 36'23
	7586 Mar 22 04:43	0° $\text{Y}$	opposition	7592 Dec 05 18:40	17° $\text{II}$ 12'54 -2°30'12
morning rise	7586 Apr 04 23:54	1° $\text{Y}$ 39'26	min. Earth dist.	7592 Dec 05 14:14	17° $\text{II}$ 13'45 8.71449 AU
retrograde	7586 Jul 15 02:53	8° $\text{Y}$ 53'54	direct	7593 Feb 12 13:12	13° $\text{II}$ 52'48
opposition	7586 Sep 22 20:40	5° $\text{Y}$ 34'22 -1°00'24	evening set	7593 May 23 19:00	21° $\text{II}$ 09'52
min. Earth dist.	7586 Sep 22 20:43	5° $\text{Y}$ 34'22 8.81670 AU			
direct	7586 Dec 02 04:59	2° $\text{Y}$ 13'22	conjunction	7593 Jun 09 16:10	23° $\text{II}$ 12'51 -2°00'16
evening set	7587 Mar 14 10:00	9° $\text{Y}$ 30'43	minimum elong	7593 Jun 09 16:11	23° $\text{II}$ 12'51 2°00'23
			max. Earth dist.	7593 Jun 09 21:47	23° $\text{II}$ 14'34 10.68657 AU
conjunction	7587 Mar 31 04:32	11° $\text{Y}$ 31'29 -1°00'40	morning rise	7593 Jun 26 16:45	25° $\text{II}$ 16'51
minimum elong	7587 Mar 31 04:30	11° $\text{Y}$ 31'28 1°00'42		7593 Aug 09 20:26	0° $\text{E}$
max. Earth dist.	7587 Mar 31 04:22	11° $\text{Y}$ 31'26 10.82524 AU	retrograde	7593 Oct 09 09:30	2° $\text{E}$ 52'18
morning rise	7587 Apr 16 22:31	13° $\text{Y}$ 32'06		7593 Dec 11 15:13	30° $\text{R}$ $\text{II}$
retrograde	7587 Jul 27 11:47	20° $\text{Y}$ 47'15	opposition	7593 Dec 18 14:23	29° $\text{II}$ 28'00 -2°23'56
opposition	7587 Oct 05 11:46	17° $\text{Y}$ 27'19 -1°27'31	min. Earth dist.	7593 Dec 18 09:19	29° $\text{II}$ 28'59 8.65955 AU
min. Earth dist.	7587 Oct 05 11:18	17° $\text{Y}$ 27'24 8.83130 AU	direct	7594 Feb 25 00:36	26° $\text{II}$ 07'30
direct	7587 Dec 14 16:39	14° $\text{Y}$ 06'48		7594 May 05 10:45	0° $\text{E}$
evening set	7588 Mar 25 09:33	21° $\text{Y}$ 21'50	evening set	7594 Jun 05 06:33	3° $\text{E}$ 27'32
conjunction	7588 Apr 11 02:46	23° $\text{Y}$ 22'08 -1°21'18	conjunction	7594 Jun 22 06:56	5° $\text{E}$ 32'04 -1°52'19
minimum elong	7588 Apr 11 02:44	23° $\text{Y}$ 22'07 1°21'21	minimum elong	7594 Jun 22 06:57	5° $\text{E}$ 32'04 1°52'27
max. Earth dist.	7588 Apr 11 03:39	23° $\text{Y}$ 22'24 10.83308 AU	max. Earth dist.	7594 Jun 22 13:30	5° $\text{E}$ 34'05 10.62849 AU
morning rise	7588 Apr 27 20:17	25° $\text{Y}$ 22'31	morning rise	7594 Jul 09 10:54	7° $\text{E}$ 37'43
	7588 Jun 10 20:53	0° $\text{E}$	retrograde	7594 Oct 22 13:11	15° $\text{E}$ 17'50
retrograde	7588 Aug 07 19:57	2° $\text{E}$ 39'19	opposition	7594 Dec 31 12:28	11° $\text{E}$ 52'47 -2°10'55
	7588 Oct 07 21:31	30° $\text{R}$ $\text{Y}$	min. Earth dist.	7594 Dec 31 06:49	11° $\text{E}$ 53'52 8.59859 AU
opposition	7588 Oct 17 02:29	29° $\text{Y}$ 18'49 -1°50'52	direct	7595 Mar 09 14:37	8° $\text{E}$ 31'46
min. Earth dist.	7588 Oct 17 00:42	29° $\text{Y}$ 19'10 8.83294 AU	evening set	7595 Jun 17 23:28	15° $\text{E}$ 55'25
direct	7588 Dec 26 02:18	25° $\text{Y}$ 58'41			
	7589 Mar 08 10:14	0° $\text{E}$	conjunction	7595 Jul 05 03:27	18° $\text{E}$ 01'44 -1°39'00
evening set	7589 Apr 06 08:17	3° $\text{E}$ 12'18	minimum elong	7595 Jul 05 03:30	18° $\text{E}$ 01'45 1°39'07
			max. Earth dist.	7595 Jul 05 10:01	18° $\text{E}$ 03'46 10.56593 AU
conjunction	7589 Apr 23 00:53	5° $\text{E}$ 12'26 -1°38'28	morning rise	7595 Jul 22 11:18	20° $\text{E}$ 09'15
minimum elong	7589 Apr 23 00:51	5° $\text{E}$ 12'25 1°38'31	retrograde	7595 Nov 04 21:36	27° $\text{E}$ 53'55
max. Earth dist.	7589 Apr 23 03:42	5° $\text{E}$ 13'17 10.82781 AU	opposition	7596 Jan 13 13:07	24° $\text{E}$ 28'11 -1°51'27
morning rise	7589 May 09 18:19	7° $\text{E}$ 12'51	min. Earth dist.	7596 Jan 13 07:40	24° $\text{E}$ 29'15 8.53459 AU
retrograde	7589 Aug 20 07:42	14° $\text{E}$ 32'14	direct	7596 Mar 21 07:42	21° $\text{E}$ 06'30
opposition	7589 Oct 29 17:11	11° $\text{E}$ 11'04 -2°09'29	evening set	7596 Jun 29 22:33	28° $\text{E}$ 34'24
min. Earth dist.	7589 Oct 29 13:43	11° $\text{E}$ 11'43 8.82145 AU		7596 Jul 11 13:03	0° $\text{E}$
direct	7590 Jan 07 11:57	7° $\text{E}$ 51'11			
	7590 Apr 17 17:09	15° $\text{E}$	conjunction	7596 Jul 17 06:29	0° $\text{E}$ 42'39 -1°20'44
evening set	7590 Apr 18 07:40	15° $\text{E}$ 04'18	minimum elong	7596 Jul 17 06:31	0° $\text{E}$ 42'39 1°20'50
			max. Earth dist.	7596 Jul 17 12:06	0° $\text{E}$ 44'23 10.50201 AU
conjunction	7590 May 05 00:17	17° $\text{E}$ 04'37 -1°51'26	morning rise	7596 Aug 03 18:30	2° $\text{E}$ 52'06
minimum elong	7590 May 05 00:15	17° $\text{E}$ 04'36 1°51'30	retrograde	7596 Nov 17 09:28	10° $\text{E}$ 40'57
max. Earth dist.	7590 May 05 04:34	17° $\text{E}$ 05'55 10.80958 AU	opposition	7597 Jan 25 16:23	7° $\text{E}$ 14'40 -1°26'14
morning rise	7590 May 21 18:19	19° $\text{E}$ 05'25	min. Earth dist.	7597 Jan 25 11:56	7° $\text{E}$ 15'33 8.47083 AU
retrograde	7590 Sep 01 22:33	26° $\text{E}$ 28'03	direct	7597 Apr 03 04:14	3° $\text{E}$ 52'12
opposition	7590 Nov 11 08:16	23° $\text{E}$ 06'09 -2°22'39	evening set	7597 Jul 13 04:11	11° $\text{E}$ 24'51
min. Earth dist.	7590 Nov 11 04:02	23° $\text{E}$ 06'57 8.79718 AU			
direct	7591 Jan 19 18:41	19° $\text{E}$ 46'22	conjunction	7597 Jul 30 16:11	13° $\text{E}$ 35'01 -0°58'13
evening set	7591 Apr 30 08:38	26° $\text{E}$ 59'56	minimum elong	7597 Jul 30 16:13	13° $\text{E}$ 35'02 0°58'17
			max. Earth dist.	7597 Jul 30 20:53	13° $\text{E}$ 36'29 10.43986 AU
conjunction	7591 May 17 01:51	29° $\text{E}$ 00'46 -1°59'40		7597 Aug 11 01:17	15° $\text{E}$
minimum elong	7591 May 17 01:50	29° $\text{E}$ 00'46 1°59'45	morning rise	7597 Aug 17 08:09	15° $\text{E}$ 46'23
max. Earth dist.	7591 May 17 06:19	29° $\text{E}$ 02'08 10.77905 AU	retrograde	7597 Nov 30 23:40	23° $\text{E}$ 38'53
	7591 May 25 05:25	0° $\text{II}$	opposition	7598 Feb 07 22:15	20° $\text{E}$ 12'10 -0°56'16
morning rise	7591 Jun 02 21:21	1° $\text{II}$ 02'19	min. Earth dist.	7598 Feb 07 18:44	20° $\text{E}$ 12'52 8.41040 AU
retrograde	7591 Sep 14 14:03	8° $\text{II}$ 28'48	direct	7598 Apr 16 06:11	16° $\text{E}$ 48'52
opposition	7591 Nov 24 00:39	5° $\text{II}$ 06'09 -2°29'42	evening set	7598 Jul 26 16:31	24° $\text{E}$ 26'33
min. Earth dist.	7591 Nov 23 20:21	5° $\text{II}$ 06'58 8.76103 AU			
direct	7592 Feb 01 02:16	1° $\text{II}$ 46'17	conjunction	7598 Aug 13 08:21	26° $\text{E}$ 38'32 -0°32'27
evening set	7592 May 11 12:00	9° $\text{II}$ 01'12	minimum elong	7598 Aug 13 08:22	26° $\text{E}$ 38'33 0°32'30

max. Earth dist.	7598 Aug 13 12:31	26° $\Omega$ 39'51	10.38238 AU
morning rise	7598 Aug 31 03:36	28° $\Omega$ 51'35	
	7598 Sep 09 13:46	0° $\mathbb{M}$	
retrograde	7598 Dec 14 16:18	6° $\mathbb{M}$ 47'02	
opposition	7599 Feb 21 06:28	3° $\mathbb{M}$ 20'02	-0°22'58
min. Earth dist.	7599 Feb 21 03:31	3° $\mathbb{M}$ 20'37	8.35620 AU
	7599 Apr 20 18:48	30° $\mathbb{R}$ $\delta$ $\Omega$	
direct	7599 Apr 29 12:28	29° $\delta$ 55'50	
	7599 May 08 04:27	0° $\mathbb{M}$	
evening set	7599 Aug 09 11:21	7° $\mathbb{M}$ 38'37	
conjunction	7599 Aug 27 06:25	9° $\mathbb{M}$ 52'11	-0°04'44
minimum elong	7599 Aug 27 06:25	9° $\mathbb{M}$ 52'11	0°04'46
behind sun begin	7599 Aug 26 23:19	9° $\mathbb{M}$ 49'59	
behind sun end	7599 Aug 27 13:31	9° $\mathbb{M}$ 54'24	
max. Earth dist.	7599 Aug 27 09:51	9° $\mathbb{M}$ 53'14	10.33230 AU
morning rise	7599 Sep 14 04:06	12° $\mathbb{M}$ 06'36	
asc. node	7599 Oct 28 23:58	17° $\mathbb{M}$ 03'44	
retrograde	7599 Dec 28 12:39	20° $\mathbb{M}$ 04'09	
opposition	7600 Mar 05 16:52	16° $\mathbb{M}$ 36'59	0°11'57
min. Earth dist.	7600 Mar 05 14:35	16° $\mathbb{M}$ 37'27	8.31065 AU
direct	7600 May 11 21:14	13° $\mathbb{M}$ 11'53	
evening set	7600 Aug 22 12:00	20° $\mathbb{M}$ 59'37	
conjunction	7600 Sep 09 09:25	23° $\mathbb{M}$ 14'25	0°23'36
minimum elong	7600 Sep 09 09:24	23° $\mathbb{M}$ 14'25	0°23'36
max. Earth dist.	7600 Sep 09 11:22	23° $\mathbb{M}$ 15'02	10.29159 AU
morning rise	7600 Sep 27 08:33	25° $\mathbb{M}$ 29'49	
	7600 Nov 06 05:43	0° $\underline{\Omega}$	
retrograde	7601 Jan 10 10:09	3° $\underline{\Omega}$ 28'32	
opposition	7601 Mar 19 05:10	0° $\underline{\Omega}$ 01'25	0°46'34
min. Earth dist.	7601 Mar 19 04:10	0° $\underline{\Omega}$ 01'37	8.27532 AU
	7601 Mar 19 12:08	30° $\mathbb{R}$ $\mathbb{M}$	
direct	7601 May 25 10:11	26° $\mathbb{M}$ 35'27	
	7601 Jul 28 07:01	0° $\underline{\Omega}$	
evening set	7601 Sep 05 17:41	4° $\underline{\Omega}$ 27'55	
conjunction	7601 Sep 23 16:18	6° $\underline{\Omega}$ 43'31	0°50'46
minimum elong	7601 Sep 23 16:16	6° $\underline{\Omega}$ 43'30	0°50'47
max. Earth dist.	7601 Sep 23 15:51	6° $\underline{\Omega}$ 43'22	10.26174 AU
morning rise	7601 Oct 11 15:47	8° $\underline{\Omega}$ 59'26	