































































































































retrograde	9100 Feb 24 21:31	25° \mathbb{M} 22'37	min. Earth dist.	9106 Jun 08 03:30	21° \mathbb{X} 22'00	17.42630 AU
opposition	9100 May 10 09:25	23° \mathbb{M} 19'32 0°56'48	direct	9106 Aug 22 00:48	19° \mathbb{X} 18'10	
min. Earth dist.	9100 May 10 20:34	23° \mathbb{M} 18'20 17.62167 AU	evening set	9106 Nov 24 19:03	22° \mathbb{X} 44'15	
direct	9100 Jul 24 08:15	21° \mathbb{M} 15'38				
evening set	9100 Oct 26 02:13	24° \mathbb{M} 37'13	conjunction	9106 Dec 11 10:05	23° \mathbb{X} 45'55 0°33'24	
			minimum elong	9106 Dec 11 10:05	23° \mathbb{X} 45'55 0°33'40	
conjunction	9100 Nov 11 17:50	25° \mathbb{M} 38'09 0°50'07	max. Earth dist.	9106 Dec 10 18:26	23° \mathbb{X} 43'29 19.41806 AU	
minimum elong	9100 Nov 11 17:50	25° \mathbb{M} 38'09 0°50'20	morning rise	9106 Dec 27 23:18	24° \mathbb{X} 47'20	
max. Earth dist.	9100 Nov 11 03:28	25° \mathbb{M} 35'56 19.59870 AU	retrograde	9107 Mar 30 16:13	28° \mathbb{X} 10'06	
morning rise	9100 Nov 28 09:11	26° \mathbb{M} 39'03	opposition	9107 Jun 12 13:43	26° \mathbb{X} 07'09 0°35'13	
	9101 Feb 24 07:50	0° \mathbb{X}	min. Earth dist.	9107 Jun 13 03:20	26° \mathbb{X} 05'40 17.41137 AU	
retrograde	9101 Mar 01 19:04	0° \mathbb{X} 00'50	direct	9107 Aug 26 23:54	24° \mathbb{X} 01'53	
	9101 Mar 07 07:57	30° $\mathbb{R}\mathbb{M}$	evening set	9107 Nov 29 22:53	27° \mathbb{X} 28'30	
opposition	9101 May 15 05:08	27° \mathbb{M} 57'40 0°54'45				
min. Earth dist.	9101 May 15 17:04	27° \mathbb{M} 56'22 17.57717 AU	conjunction	9107 Dec 16 13:32	28° \mathbb{X} 30'11 0°29'40	
direct	9101 Jul 29 05:39	25° \mathbb{M} 53'25	minimum elong	9107 Dec 16 13:32	28° \mathbb{X} 30'11 0°29'56	
evening set	9101 Oct 31 03:50	29° \mathbb{M} 15'53	max. Earth dist.	9107 Dec 15 21:55	28° \mathbb{X} 27'45 19.40538 AU	
	9101 Nov 12 05:25	0° \mathbb{X}	morning rise	9108 Jan 02 02:11	29° \mathbb{X} 31'36	
				9108 Jan 09 23:33	0° \mathbb{Z}	
conjunction	9101 Nov 16 19:44	0° \mathbb{X} 17'00 0°48'05	retrograde	9108 Apr 03 17:26	2° \mathbb{Z} 54'23	
minimum elong	9101 Nov 16 19:44	0° \mathbb{X} 17'00 0°48'20	opposition	9108 Jun 16 12:39	0° \mathbb{Z} 51'34 0°30'58	
max. Earth dist.	9101 Nov 16 05:59	0° \mathbb{X} 14'53 19.55619 AU	min. Earth dist.	9108 Jun 17 01:28	0° \mathbb{Z} 50'10 17.40076 AU	
morning rise	9101 Dec 03 10:47	1° \mathbb{X} 18'03		9108 Jul 06 20:06	30° $\mathbb{R}\mathbb{X}$	
retrograde	9102 Mar 06 18:04	4° \mathbb{X} 40'05	direct	9108 Aug 31 02:15	28° \mathbb{X} 46'14	
opposition	9102 May 20 01:22	2° \mathbb{X} 36'52 0°52'20		9108 Oct 23 17:03	0° \mathbb{Z}	
min. Earth dist.	9102 May 20 13:20	2° \mathbb{X} 35'33 17.53678 AU	evening set	9108 Dec 04 02:59	2° \mathbb{Z} 13'17	
direct	9102 Aug 03 04:16	0° \mathbb{X} 32'21				
evening set	9102 Nov 05 06:15	3° \mathbb{X} 55'38	conjunction	9108 Dec 20 17:11	3° \mathbb{Z} 14'58 0°25'45	
			minimum elong	9108 Dec 20 17:11	3° \mathbb{Z} 14'58 0°26'02	
conjunction	9102 Nov 21 21:58	4° \mathbb{X} 56'53 0°45'44	max. Earth dist.	9108 Dec 20 01:27	3° \mathbb{Z} 12'31 19.39681 AU	
minimum elong	9102 Nov 21 21:58	4° \mathbb{X} 56'53 0°45'58	morning rise	9109 Jan 06 05:07	4° \mathbb{Z} 16'22	
max. Earth dist.	9102 Nov 21 06:40	4° \mathbb{X} 54'32 19.51814 AU	retrograde	9109 Apr 08 16:24	7° \mathbb{Z} 39'05	
morning rise	9102 Dec 08 12:54	5° \mathbb{X} 58'03	opposition	9109 Jun 21 11:58	5° \mathbb{Z} 36'23 0°26'29	
retrograde	9103 Mar 11 16:42	9° \mathbb{X} 20'19	min. Earth dist.	9109 Jun 22 01:59	5° \mathbb{Z} 34'51 17.39431 AU	
opposition	9103 May 24 22:04	7° \mathbb{X} 17'04 0°49'33	direct	9109 Sep 05 02:17	3° \mathbb{Z} 30'59	
min. Earth dist.	9103 May 25 10:49	7° \mathbb{X} 15'41 17.50128 AU	evening set	9109 Dec 09 07:05	6° \mathbb{Z} 58'22	
direct	9103 Aug 08 02:15	5° \mathbb{X} 12'17				
evening set	9103 Nov 10 08:52	8° \mathbb{X} 36'22	conjunction	9109 Dec 25 20:44	8° \mathbb{Z} 00'03 0°21'38	
max. Earth dist.	9103 Nov 26 10:05	9° \mathbb{X} 35'31 19.48520 AU	minimum elong	9109 Dec 25 20:44	8° \mathbb{Z} 00'03 0°21'55	
			max. Earth dist.	9109 Dec 25 04:30	7° \mathbb{Z} 57'31 19.39241 AU	
conjunction	9103 Nov 27 00:40	9° \mathbb{X} 37'46 0°43'04	morning rise	9110 Jan 11 08:05	9° \mathbb{Z} 01'23	
minimum elong	9103 Nov 27 00:40	9° \mathbb{X} 37'46 0°43'20	retrograde	9110 Apr 13 17:18	12° \mathbb{Z} 23'59	
morning rise	9103 Dec 13 15:09	10° \mathbb{X} 39'01	opposition	9110 Jun 26 11:27	10° \mathbb{Z} 21'23 0°21'48	
retrograde	9104 Mar 15 16:49	14° \mathbb{X} 01'28	min. Earth dist.	9110 Jun 27 00:34	10° \mathbb{Z} 19'57 17.39179 AU	
opposition	9104 May 28 19:18	11° \mathbb{X} 58'15 0°46'25	direct	9110 Sep 10 05:47	8° \mathbb{Z} 15'56	
min. Earth dist.	9104 May 29 07:30	11° \mathbb{X} 56'55 17.47094 AU	evening set	9110 Dec 14 11:04	11° \mathbb{Z} 43'34	
direct	9104 Aug 12 01:36	9° \mathbb{X} 53'17	max. Earth dist.	9110 Dec 30 08:29	12° \mathbb{Z} 42'44 19.39182 AU	
evening set	9104 Nov 14 11:50	13° \mathbb{X} 18'05				
max. Earth dist.	9104 Nov 30 11:50	14° \mathbb{X} 17'10 19.45758 AU	conjunction	9110 Dec 31 00:11	12° \mathbb{Z} 45'11 0°17'23	
			minimum elong	9110 Dec 31 00:11	12° \mathbb{Z} 45'11 0°17'39	
conjunction	9104 Dec 01 03:22	14° \mathbb{X} 19'35 0°40'07	morning rise	9111 Jan 16 10:38	13° \mathbb{Z} 46'27	
minimum elong	9104 Dec 01 03:22	14° \mathbb{X} 19'35 0°40'22	retrograde	9111 Apr 18 15:45	17° \mathbb{Z} 08'52	
morning rise	9104 Dec 17 17:35	15° \mathbb{X} 20'55	opposition	9111 Jul 01 11:15	15° \mathbb{Z} 06'22 0°16'59	
retrograde	9105 Mar 20 16:08	18° \mathbb{X} 43'32	min. Earth dist.	9111 Jul 02 01:18	15° \mathbb{Z} 04'50 17.39325 AU	
opposition	9105 Jun 02 17:04	16° \mathbb{X} 40'22 0°42'59	direct	9111 Sep 15 06:46	13° \mathbb{Z} 00'54	
min. Earth dist.	9105 Jun 03 06:09	16° \mathbb{X} 38'56 17.44606 AU	evening set	9111 Dec 19 14:52	16° \mathbb{Z} 28'39	
direct	9105 Aug 17 00:01	14° \mathbb{X} 35'15	max. Earth dist.	9112 Jan 04 10:54	17° \mathbb{Z} 27'39 19.39547 AU	
evening set	9105 Nov 19 15:12	18° \mathbb{X} 00'44				
			conjunction	9112 Jan 05 03:13	17° \mathbb{Z} 30'12 0°13'00	
conjunction	9105 Dec 06 06:38	19° \mathbb{X} 02'20 0°36'53	minimum elong	9112 Jan 05 03:13	17° \mathbb{Z} 30'12 0°13'17	
minimum elong	9105 Dec 06 06:38	19° \mathbb{X} 02'20 0°37'09	behind sun begin	9112 Jan 04 23:24	17° \mathbb{Z} 29'37	
max. Earth dist.	9105 Dec 05 15:36	19° \mathbb{X} 00'00 19.43539 AU	behind sun end	9112 Jan 05 07:03	17° \mathbb{Z} 30'47	
morning rise	9105 Dec 22 20:22	20° \mathbb{X} 03'43	morning rise	9112 Jan 21 13:02	18° \mathbb{Z} 31'22	
retrograde	9106 Mar 25 17:01	23° \mathbb{X} 26'26	retrograde	9112 Apr 22 16:03	21° \mathbb{Z} 53'33	
opposition	9106 Jun 07 15:03	21° \mathbb{X} 23'22 0°39'14	opposition	9112 Jul 05 11:00	19° \mathbb{Z} 51'08 0°12'03	

min. Earth dist.	9112 Jul 05 23:59	19°  49'43	17.39901 AU	direct	9117 Oct 13 20:58	11°  19'48	
direct	9112 Sep 19 11:00	17°  45'38		evening set	9118 Jan 17 03:43	14°  46'17	
evening set	9112 Dec 23 18:07	21°  31'24			9118 Jan 20 21:25	15° 	
conjunction	9113 Jan 09 05:56	22°  14'51	0°08'33	conjunction	9118 Feb 02 11:05	15°  46'51	-0°13'59
minimum elong	9113 Jan 09 05:55	22°  14'51	0°08'48	minimum elong	9118 Feb 02 11:04	15°  46'51	0°13'47
behind sun begin	9113 Jan 09 00:08	22°  13'58		behind sun begin	9118 Feb 02 07:34	15°  46'19	
behind sun end	9113 Jan 09 11:42	22°  15'44		behind sun end	9118 Feb 02 14:35	15°  47'23	
max. Earth dist.	9113 Jan 08 14:55	22°  12'31	19.40338 AU	max. Earth dist.	9118 Feb 01 23:31	15°  45'03	19.51694 AU
morning rise	9113 Jan 25 14:47	23°  15'54		morning rise	9118 Feb 18 15:33	16°  47'00	
retrograde	9113 Apr 27 13:56	26°  37'47		retrograde	9118 May 21 05:32	20°  06'44	
opposition	9113 Jul 10 10:56	24°  35'28	0°07'02	opposition	9118 Aug 03 08:48	18°  05'03	-0°17'53
min. Earth dist.	9113 Jul 11 00:25	24°  34'00	17.40911 AU	min. Earth dist.	9118 Aug 03 17:56	18°  04'04	17.53564 AU
direct	9113 Sep 24 12:42	22°  29'57		direct	9118 Oct 18 20:56	15°  59'59	
evening set	9113 Dec 28 21:15	25°  57'39		evening set	9119 Jan 22 03:40	19°  25'58	
conjunction	9114 Jan 14 08:08	26°  58'58	0°04'03	conjunction	9119 Feb 07 10:13	20°  26'19	-0°18'15
minimum elong	9114 Jan 14 08:07	26°  58'58	0°04'19	minimum elong	9119 Feb 07 10:13	20°  26'19	0°18'04
behind sun begin	9114 Jan 14 01:31	26°  57'57		max. Earth dist.	9119 Feb 07 00:51	20°  24'52	19.55547 AU
behind sun end	9114 Jan 14 14:43	26°  59'58		morning rise	9119 Feb 23 13:37	21°  26'13	
max. Earth dist.	9114 Jan 13 16:33	26°  56'32	19.41587 AU	retrograde	9119 May 26 03:42	24°  45'28	
morning rise	9114 Jan 30 16:17	27°  59'52		opposition	9119 Aug 08 07:55	22°  43'59	-0°22'35
	9114 Mar 08 04:31	0° 		min. Earth dist.	9119 Aug 08 15:52	22°  43'08	17.57638 AU
retrograde	9114 May 02 13:17	1°  21'24		direct	9119 Oct 23 22:39	20°  39'11	
	9114 Jun 29 09:57	30°  R 		evening set	9120 Jan 27 03:08	24°  04'35	
opposition	9114 Jul 15 10:35	29°  19'10	0°01'59	conjunction	9120 Feb 12 08:35	25°  04'41	-0°22'24
min. Earth dist.	9114 Jul 15 23:00	29°  17'49	17.42397 AU	minimum elong	9120 Feb 12 08:35	25°  04'41	0°22'13
direct	9114 Sep 29 16:11	27°  13'39		max. Earth dist.	9120 Feb 11 23:34	25°  03'17	19.59843 AU
desc. node	9114 Dec 04 15:31	29°  01'47		morning rise	9120 Feb 28 11:10	26°  04'20	
	9114 Dec 22 11:22	0° 		retrograde	9120 May 29 23:25	29°  23'04	
evening set	9115 Jan 02 23:43	0°  41'11		opposition	9120 Aug 12 06:44	27°  21'48	-0°27'06
conjunction	9115 Jan 19 09:56	1°  42'21	-0°00'34	min. Earth dist.	9120 Aug 12 14:04	27°  21'02	17.62142 AU
minimum elong	9115 Jan 19 09:55	1°  42'21	0°00'20	direct	9120 Oct 27 22:10	25°  17'16	
behind sun begin	9115 Jan 19 03:15	1°  41'20		evening set	9121 Jan 31 01:43	28°  42'02	
behind sun end	9115 Jan 19 16:36	1°  43'22		conjunction	9121 Feb 16 06:20	29°  41'52	-0°26'23
max. Earth dist.	9115 Jan 18 20:14	1°  40'13	19.43315 AU	minimum elong	9121 Feb 16 06:20	29°  41'52	0°26'14
morning rise	9115 Feb 04 17:01	2°  43'05		max. Earth dist.	9121 Feb 15 23:05	29°  40'44	19.64524 AU
retrograde	9115 May 07 11:23	6°  04'12			9121 Feb 21 03:11	0° 	
opposition	9115 Jul 20 10:27	4°  02'05	-0°03'05	morning rise	9121 Mar 04 07:57	0°  41'16	
min. Earth dist.	9115 Jul 20 22:41	4°  00'45	17.44375 AU	retrograde	9121 Jun 03 20:19	3°  59'27	
direct	9115 Oct 04 17:57	1°  56'36		opposition	9121 Aug 17 05:18	1°  58'24	-0°31'26
evening set	9116 Jan 08 01:36	5°  23'51		min. Earth dist.	9121 Aug 17 11:15	1°  57'46	17.66968 AU
conjunction	9116 Jan 24 10:46	6°  24'50	-0°05'09		9121 Oct 17 22:12	30°  R 	
minimum elong	9116 Jan 24 10:45	6°  24'50	0°04'55	direct	9121 Nov 01 23:57	29°  54'10	
behind sun begin	9116 Jan 24 04:14	6°  23'50			9121 Nov 16 22:22	0° 	
behind sun end	9116 Jan 24 17:17	6°  25'49		evening set	9122 Feb 04 23:45	3°  18'11	
max. Earth dist.	9116 Jan 23 20:57	6°  22'41	19.45563 AU	conjunction	9122 Feb 21 03:18	4°  17'45	-0°30'11
morning rise	9116 Feb 09 17:07	7°  25'24		minimum elong	9122 Feb 21 03:17	4°  17'45	0°30'03
retrograde	9116 May 11 09:50	10°  46'05		max. Earth dist.	9122 Feb 20 20:31	4°  16'42	19.69488 AU
opposition	9116 Jul 24 10:05	8°  44'04	-0°08'06	morning rise	9122 Mar 09 04:02	5°  16'53	
min. Earth dist.	9116 Jul 24 21:03	8°  42'53	17.46899 AU	retrograde	9122 Jun 08 14:37	8°  34'30	
direct	9116 Oct 08 19:27	6°  38'40		opposition	9122 Aug 22 03:35	6°  33'39	-0°35'33
evening set	9117 Jan 12 02:52	10°  05'34		min. Earth dist.	9122 Aug 22 09:17	6°  33'03	17.72069 AU
conjunction	9117 Jan 28 11:18	11°  06'21	-0°09'36	direct	9122 Nov 06 22:52	4°  29'41	
minimum elong	9117 Jan 28 11:18	11°  06'21	0°09'22	evening set	9123 Feb 09 20:54	7°  52'57	
behind sun begin	9117 Jan 28 05:42	11°  05'30		conjunction	9123 Feb 25 23:33	8°  52'12	-0°33'46
behind sun end	9117 Jan 28 16:53	11°  07'12		minimum elong	9123 Feb 25 23:32	8°  52'12	0°33'40
max. Earth dist.	9117 Jan 27 23:41	11°  04'33	19.48357 AU	max. Earth dist.	9123 Feb 25 18:06	8°  51'22	19.74700 AU
morning rise	9117 Feb 13 16:34	12°  06'42		morning rise	9123 Mar 13 23:23	9°  51'04	
	9117 Apr 15 01:26	15° 		retrograde	9123 Jun 13 10:17	13°  08'05	
retrograde	9117 May 16 08:13	15°  26'56		opposition	9123 Aug 27 01:33	11°  07'26	-0°39'25
	9117 Jun 17 05:25	15°  R 		min. Earth dist.	9123 Aug 27 05:32	11°  07'01	17.77371 AU
opposition	9117 Jul 29 09:29	13°  25'04	-0°13'03	direct	9123 Nov 11 23:59	9°  03'46	
min. Earth dist.	9117 Jul 29 19:41	13°  23'58	17.49960 AU				

evening set	9124 Feb 14 17:10	12° ✕ 26'08	max. Earth dist.	9130 Mar 28 23:18	10° Υ 05'32	20.14547 AU
			morning rise	9130 Apr 13 15:33	11° Υ 02'05	
conjunction	9124 Mar 01 18:50	13° ✕ 25'07 -0°37'08	retrograde	9130 Jul 14 02:27	14° Υ 14'38	
minimum elong	9124 Mar 01 18:50	13° ✕ 25'07 0°37'02	opposition	9130 Sep 27 20:32	12° Υ 14'51	-0°58'05
max. Earth dist.	9124 Mar 01 14:14	13° ✕ 24'25 19.80082 AU	min. Earth dist.	9130 Sep 27 17:52	12° Υ 15'08	18.17601 AU
morning rise	9124 Mar 17 17:51	14° ✕ 23'43	direct	9130 Dec 13 23:50	10° Υ 13'07	
retrograde	9124 Jun 17 03:23	17° ✕ 40'07	evening set	9131 Mar 17 13:41	13° Υ 28'25	
opposition	9124 Aug 30 23:08	15° ✕ 39'37 -0°43'01				
min. Earth dist.	9124 Aug 31 03:04	15° ✕ 39'13 17.82832 AU	conjunction	9131 Apr 02 09:45	14° Υ 25'21	-0°52'59
direct	9124 Nov 15 21:45	13° ✕ 36'14	minimum elong	9131 Apr 02 09:44	14° Υ 25'20	0°53'02
evening set	9125 Feb 18 12:39	16° ✕ 57'42	max. Earth dist.	9131 Apr 02 13:04	14° Υ 25'51	20.20665 AU
			morning rise	9131 Apr 18 04:20	15° Υ 22'04	
conjunction	9125 Mar 06 13:26	17° ✕ 56'23 -0°40'15	retrograde	9131 Jul 18 17:45	18° Υ 34'01	
minimum elong	9125 Mar 06 13:26	17° ✕ 56'23 0°40'11	opposition	9131 Oct 02 13:56	16° Υ 34'23	-0°59'24
max. Earth dist.	9125 Mar 06 09:44	17° ✕ 55'49 19.85603 AU	min. Earth dist.	9131 Oct 02 08:56	16° Υ 34'54	18.23767 AU
morning rise	9125 Mar 22 11:42	18° ✕ 54'42	direct	9131 Dec 18 18:07	14° Υ 33'01	
retrograde	9125 Jun 21 21:49	22° ✕ 10'27	evening set	9132 Mar 21 02:33	17° Υ 47'16	
opposition	9125 Sep 04 19:58	20° ✕ 10'07 -0°46'20				
min. Earth dist.	9125 Sep 04 22:07	20° ✕ 09'54 17.88396 AU	conjunction	9132 Apr 05 22:09	18° Υ 43'57	-0°54'02
direct	9125 Nov 20 21:24	18° ✕ 07'00	minimum elong	9132 Apr 05 22:09	18° Υ 43'57	0°54'07
evening set	9126 Feb 23 07:18	21° ✕ 27'30	max. Earth dist.	9132 Apr 06 03:40	18° Υ 44'46	20.26857 AU
			morning rise	9132 Apr 21 16:14	19° Υ 40'26	
conjunction	9126 Mar 11 07:13	22° ✕ 25'53 -0°43'06	retrograde	9132 Jul 22 06:28	22° Υ 51'49	
minimum elong	9126 Mar 11 07:12	22° ✕ 25'53 0°43'03	opposition	9132 Oct 06 06:54	20° Υ 52'23	-1°00'23
max. Earth dist.	9126 Mar 11 04:39	22° ✕ 25'30 19.91209 AU	min. Earth dist.	9132 Oct 06 01:38	20° Υ 52'55	18.29977 AU
morning rise	9126 Mar 27 04:39	23° ✕ 23'56	direct	9132 Dec 22 09:19	18° Υ 51'23	
retrograde	9126 Jun 26 13:43	26° ✕ 39'03	evening set	9133 Mar 25 14:52	22° Υ 04'38	
opposition	9126 Sep 09 16:36	24° ✕ 38'50 -0°49'20				
min. Earth dist.	9126 Sep 09 18:46	24° ✕ 38'36 17.94050 AU	conjunction	9133 Apr 10 09:48	23° Υ 01'02	-0°54'47
direct	9126 Nov 25 17:54	22° ✕ 35'59	minimum elong	9133 Apr 10 09:48	23° Υ 01'02	0°54'53
evening set	9127 Feb 28 00:49	25° ✕ 55'28	max. Earth dist.	9133 Apr 10 15:37	23° Υ 01'54	20.33074 AU
			morning rise	9133 Apr 26 03:40	23° Υ 57'17	
conjunction	9127 Mar 15 23:51	26° ✕ 53'33 -0°45'40	retrograde	9133 Jul 26 20:36	27° Υ 08'09	
minimum elong	9127 Mar 15 23:51	26° ✕ 53'33 0°45'38	opposition	9133 Oct 10 23:06	25° Υ 08'53	-1°01'02
max. Earth dist.	9127 Mar 15 22:06	26° ✕ 53'17 19.96906 AU	min. Earth dist.	9133 Oct 10 15:52	25° Υ 09'37	18.36177 AU
morning rise	9127 Mar 31 20:41	27° ✕ 51'19	direct	9133 Dec 27 02:10	23° Υ 08'16	
	9127 May 11 22:25	0° Υ	evening set	9134 Mar 30 02:20	26° Υ 20'31	
retrograde	9127 Jul 01 06:52	1° Υ 05'47				
	9127 Aug 22 23:12	30° ✕	conjunction	9134 Apr 14 20:55	27° Υ 16'41	-0°55'13
opposition	9127 Sep 14 12:28	29° ✕ 05'40 -0°52'02	minimum elong	9134 Apr 14 20:55	27° Υ 16'41	0°55'20
min. Earth dist.	9127 Sep 14 12:32	29° ✕ 05'40 17.99782 AU	max. Earth dist.	9134 Apr 15 04:50	27° Υ 17'52	20.39237 AU
direct	9127 Nov 30 16:05	27° ✕ 03'04	morning rise	9134 Apr 30 14:20	28° Υ 12'43	
	9128 Feb 26 14:53	0° Υ		9134 Jun 03 11:22	0° ♄	
evening set	9128 Mar 03 17:25	0° Υ 21'31	retrograde	9134 Jul 31 08:58	1° ♄ 23'04	
				9134 Sep 30 15:53	30° ✕ Υ	
conjunction	9128 Mar 19 15:43	1° Υ 19'19 -0°47'57	opposition	9134 Oct 15 15:04	29° Υ 23'59	-1°01'20
minimum elong	9128 Mar 19 15:43	1° Υ 19'19 0°47'57	min. Earth dist.	9134 Oct 15 07:40	29° Υ 24'45	18.42293 AU
max. Earth dist.	9128 Mar 19 15:38	1° Υ 19'18 20.02677 AU	direct	9134 Dec 31 16:43	27° Υ 23'46	
morning rise	9128 Apr 04 11:50	2° Υ 16'48		9135 Mar 24 06:55	0° ♄	
retrograde	9128 Jul 04 21:14	5° Υ 30'37	evening set	9135 Apr 03 13:07	0° ♄ 35'01	
opposition	9128 Sep 18 07:44	3° Υ 30'36 -0°54'23				
min. Earth dist.	9128 Sep 18 07:45	3° Υ 30'36 18.05609 AU	conjunction	9135 Apr 19 07:08	1° ♄ 30'57	-0°55'22
direct	9128 Dec 04 10:44	1° Υ 28'15	minimum elong	9135 Apr 19 07:08	1° ♄ 30'57	0°55'30
evening set	9129 Mar 08 09:06	4° Υ 45'39	max. Earth dist.	9135 Apr 19 15:07	1° ♄ 32'08	20.45291 AU
			morning rise	9135 May 05 00:30	2° ♄ 26'47	
conjunction	9129 Mar 24 06:35	5° Υ 43'09 -0°49'56	retrograde	9135 Aug 04 22:01	5° ♄ 36'39	
minimum elong	9129 Mar 24 06:35	5° Υ 43'09 0°49'57	opposition	9135 Oct 20 06:21	3° ♄ 37'43	-1°01'19
max. Earth dist.	9129 Mar 24 07:12	5° Υ 43'14 20.08560 AU	min. Earth dist.	9135 Oct 19 21:19	3° ♄ 38'39	18.48269 AU
morning rise	9129 Apr 09 02:13	6° Υ 40'22	direct	9136 Jan 05 07:58	1° ♄ 37'52	
retrograde	9129 Jul 09 13:19	9° Υ 53'32	evening set	9136 Apr 06 23:16	4° ♄ 48'09	
opposition	9129 Sep 23 02:20	7° Υ 53'37 -0°56'24				
min. Earth dist.	9129 Sep 23 00:02	7° Υ 53'52 18.11547 AU	conjunction	9136 Apr 22 17:04	5° ♄ 43'52	-0°55'12
direct	9129 Dec 09 07:02	5° Υ 51'34	minimum elong	9136 Apr 22 17:04	5° ♄ 43'52	0°55'21
evening set	9130 Mar 12 23:47	9° Υ 07'55	max. Earth dist.	9136 Apr 23 02:54	5° ♄ 45'20	20.51158 AU
			morning rise	9136 May 08 10:07	6° ♄ 39'30	
conjunction	9130 Mar 28 20:36	10° Υ 05'07 -0°51'37	retrograde	9136 Aug 08 09:23	9° ♄ 48'53	
minimum elong	9130 Mar 28 20:36	10° Υ 05'07 0°51'40	opposition	9136 Oct 23 21:03	7° ♄ 50'07	-1°00'58

min. Earth dist.	9136 Oct 23 12:01	7°8'51"02	18.54019 AU	direct	9143 Feb 03 23:40	0°II'38"16	
direct	9137 Jan 08 22:11	5°8'50"37		evening set	9143 May 06 05:55	3°II'42"26	
evening set	9137 Apr 11 08:56	8°8'59"57					
				conjunction	9143 May 21 22:50	4°II'36"57	-0°46'22
conjunction	9137 Apr 27 02:17	9°8'55"27	-0°54'45	minimum elong	9143 May 21 22:50	4°II'36"57	0°46'36
minimum elong	9137 Apr 27 02:17	9°8'55"27	0°54'56	max. Earth dist.	9143 May 22 11:51	4°II'38"51	20.83527 AU
max. Earth dist.	9137 Apr 27 11:45	9°8'56"51	20.56780 AU	morning rise	9143 Jun 06 16:45	5°II'31"37	
morning rise	9137 May 12 19:24	10°8'50"54		retrograde	9143 Sep 07 06:33	8°II'38"18	
retrograde	9137 Aug 12 21:09	13°8'59"51		opposition	9143 Nov 23 13:51	6°II'39"44	-0°50'05
opposition	9137 Oct 28 11:19	12°8'01"11	-1°00'17	min. Earth dist.	9143 Nov 23 00:18	6°II'41"05	18.85292 AU
min. Earth dist.	9137 Oct 28 01:01	12°8'02"13	18.59501 AU	direct	9144 Feb 08 08:48	4°II'41"44	
direct	9138 Jan 13 11:50	10°8'01"59		evening set	9144 May 09 11:40	7°II'45"13	
evening set	9138 Apr 15 17:47	13°8'10"24					
				conjunction	9144 May 25 04:53	8°II'39"40	-0°44'07
conjunction	9138 May 01 11:03	14°8'05"42	-0°54'01	minimum elong	9144 May 25 04:53	8°II'39"40	0°44'22
minimum elong	9138 May 01 11:02	14°8'05"42	0°54'12	max. Earth dist.	9144 May 25 19:37	8°II'41"48	20.86936 AU
max. Earth dist.	9138 May 01 22:10	14°8'07"21	20.62092 AU	morning rise	9144 Jun 09 22:55	9°II'34"15	
	9138 May 16 21:06	15°8'		retrograde	9144 Sep 10 13:58	12°II'40"40	
morning rise	9138 May 17 03:57	15°8'00"59		min. Earth dist.	9144 Nov 26 10:20	10°II'43"32	18.88563 AU
retrograde	9138 Aug 17 07:28	18°8'09"30		opposition	9144 Nov 27 00:22	10°II'42"07	-0°47'27
opposition	9138 Nov 02 01:11	16°8'10"55	-0°59'19	direct	9145 Feb 11 18:17	8°II'44"19	
min. Earth dist.	9138 Nov 01 14:49	16°8'11"58	18.64642 AU	evening set	9145 May 13 17:15	11°II'47"12	
	9138 Dec 03 10:35	15°8'					
direct	9139 Jan 18 01:30	14°8'12"00		conjunction	9145 May 29 10:28	12°II'41"32	-0°41'39
	9139 Mar 03 00:36	15°8'		minimum elong	9145 May 29 10:28	12°II'41"32	0°41'54
evening set	9139 Apr 20 02:15	17°8'19"30		max. Earth dist.	9145 May 30 00:42	12°II'43"36	20.90079 AU
				morning rise	9145 Jun 14 05:03	13°II'36"04	
conjunction	9139 May 05 19:12	18°8'14"37	-0°53'01	retrograde	9145 Sep 14 23:14	16°II'42"19	
minimum elong	9139 May 05 19:12	18°8'14"37	0°53'12	opposition	9145 Dec 01 10:43	14°II'43"48	-0°44'37
max. Earth dist.	9139 May 06 05:44	18°8'16"10	20.67062 AU	min. Earth dist.	9145 Nov 30 20:08	14°II'45"15	18.91570 AU
morning rise	9139 May 21 12:20	19°8'09"45		direct	9146 Feb 16 02:02	12°II'46"11	
retrograde	9139 Aug 21 18:05	22°8'17"51		evening set	9146 May 17 22:16	15°II'48"30	
opposition	9139 Nov 06 14:19	20°8'19"18	-0°58'01				
min. Earth dist.	9139 Nov 06 03:00	20°8'20"27	18.69435 AU	conjunction	9146 Jun 02 15:54	16°II'42"47	-0°38'59
direct	9140 Jan 22 13:39	18°8'20"37		minimum elong	9146 Jun 02 15:54	16°II'42"47	0°39'15
evening set	9140 Apr 23 09:55	21°8'27"14		max. Earth dist.	9146 Jun 03 07:48	16°II'45"05	20.92933 AU
				morning rise	9146 Jun 18 10:44	17°II'37"16	
conjunction	9140 May 09 02:58	22°8'22"11	-0°51'44	retrograde	9146 Sep 19 07:10	20°II'43"23	
minimum elong	9140 May 09 02:58	22°8'22"11	0°51'57	opposition	9146 Dec 05 20:43	18°II'44"55	-0°41'33
max. Earth dist.	9140 May 09 15:03	22°8'23"57	20.71666 AU	min. Earth dist.	9146 Dec 05 05:40	18°II'46"25	18.94259 AU
morning rise	9140 May 24 20:04	23°8'17"10		direct	9147 Feb 20 10:47	16°II'47"30	
retrograde	9140 Aug 25 03:04	26°8'24"51		evening set	9147 May 22 03:26	19°II'49"20	
opposition	9140 Nov 10 03:00	24°8'26"20	-0°56'27				
min. Earth dist.	9140 Nov 09 15:35	24°8'27"29	18.73852 AU	conjunction	9147 Jun 06 21:11	20°II'43"34	-0°36'08
direct	9141 Jan 26 02:05	22°8'27"50		minimum elong	9147 Jun 06 21:11	20°II'43"34	0°36'25
evening set	9141 Apr 27 17:11	25°8'33"35		max. Earth dist.	9147 Jun 07 12:21	20°II'45"45	20.95462 AU
				morning rise	9147 Jun 22 16:40	21°II'38"02	
conjunction	9141 May 13 10:00	26°8'28"22	-0°50'11	retrograde	9147 Sep 23 15:56	24°II'44"04	
minimum elong	9141 May 13 10:00	26°8'28"22	0°50'25	opposition	9147 Dec 10 06:18	22°II'45"38	-0°38'18
max. Earth dist.	9141 May 13 21:35	26°8'30"04	20.75917 AU	min. Earth dist.	9147 Dec 09 15:11	22°II'47"08	18.96616 AU
morning rise	9141 May 29 03:25	27°8'23"14		direct	9148 Feb 24 17:22	20°II'48"24	
	9141 Jul 25 11:45	0°II'		evening set	9148 May 25 08:19	23°II'49"49	
retrograde	9141 Aug 29 13:01	0°II'30"32					
	9141 Oct 04 11:12	30°8'		conjunction	9148 Jun 10 02:36	24°II'44"01	-0°33'07
opposition	9141 Nov 14 15:05	28°8'32"00	-0°54'35	minimum elong	9148 Jun 10 02:36	24°II'44"01	0°33'24
min. Earth dist.	9141 Nov 14 02:47	28°8'33"14	18.77947 AU	max. Earth dist.	9148 Jun 10 19:04	24°II'46"24	20.97624 AU
direct	9142 Jan 30 12:49	26°8'33"40		morning rise	9148 Jun 25 22:25	25°II'38"29	
evening set	9142 May 01 23:45	29°8'38"36		retrograde	9148 Sep 27 00:14	28°II'44"28	
	9142 May 08 04:37	0°II'		opposition	9148 Dec 13 15:43	26°II'46"05	-0°34'52
				min. Earth dist.	9148 Dec 13 00:22	26°II'47"37	18.98568 AU
conjunction	9142 May 17 16:45	0°II'33"15	-0°48'24	direct	9149 Feb 28 01:27	24°II'49"02	
minimum elong	9142 May 17 16:45	0°II'33"15	0°48'39	evening set	9149 May 29 13:18	27°II'50"06	
max. Earth dist.	9142 May 18 06:07	0°II'35"13	20.79857 AU				
morning rise	9142 Jun 02 10:12	1°II'28"01		conjunction	9149 Jun 14 07:44	28°II'44"17	-0°29'57
retrograde	9142 Sep 02 20:51	4°II'34"58		minimum elong	9149 Jun 14 07:45	28°II'44"17	0°30'15
opposition	9142 Nov 19 02:44	2°II'36"25	-0°52'28	max. Earth dist.	9149 Jun 14 23:10	28°II'46"30	20.99369 AU
min. Earth dist.	9142 Nov 18 13:59	2°II'37"42	18.81745 AU	morning rise	9149 Jun 30 04:15	29°II'38"44	

	9149 Jul 06 13:09	0°♄		retrograde	9155 Oct 26 12:31	26°♄46'15	
retrograde	9149 Oct 01 08:49	2°♄44'46		opposition	9156 Jan 12 04:54	24°♄47'19	-0°07'11
min. Earth dist.	9149 Dec 17 09:58	0°♄47'54	19.00093 AU	min. Earth dist.	9156 Jan 11 16:20	24°♄48'34	18.98400 AU
opposition	9149 Dec 18 01:02	0°♄46'23	-0°31'17	direct	9156 Mar 27 22:44	22°♄50'20	
	9150 Jan 06 22:19	30°♄II		evening set	9156 Jun 26 01:44	25°♄50'24	
direct	9150 Mar 04 07:45	28°♄II49'28					
	9150 Apr 27 01:35	0°♄		conjunction	9156 Jul 12 00:10	26°♄44'56	-0°04'38
evening set	9150 Jun 02 18:13	1°♄50'15		minimum elong	9156 Jul 12 00:09	26°♄44'56	0°04'54
				behind sun begin	9156 Jul 11 17:43	26°♄44'02	
conjunction	9150 Jun 18 13:15	2°♄44'26	-0°26'38	behind sun end	9156 Jul 12 06:36	26°♄45'50	
minimum elong	9150 Jun 18 13:15	2°♄44'26	0°26'55	max. Earth dist.	9156 Jul 12 14:12	26°♄46'56	20.97499 AU
max. Earth dist.	9150 Jun 19 05:39	2°♄46'48	21.00653 AU	morning rise	9156 Jul 28 01:08	27°♄39'51	
morning rise	9150 Jul 04 10:10	3°♄38'55			9156 Sep 15 16:01	0°♄	
retrograde	9150 Oct 05 17:17	6°♄44'59		retrograde	9156 Oct 29 22:09	0°♄46'47	
opposition	9150 Dec 22 10:04	4°♄46'37	-0°27'32		9156 Dec 14 08:39	30°♄R♄	
min. Earth dist.	9150 Dec 21 18:58	4°♄48'08	19.01123 AU	opposition	9157 Jan 15 13:05	28°♄47'41	-0°02'54
direct	9151 Mar 08 14:57	2°♄49'49		min. Earth dist.	9157 Jan 15 00:16	28°♄48'58	18.96523 AU
evening set	9151 Jun 06 23:20	5°♄50'20		direct	9157 Apr 01 06:06	26°♄50'36	
				evening set	9157 Jun 30 07:32	29°♄50'46	
conjunction	9151 Jun 22 18:41	6°♄44'33	-0°23'11		9157 Jul 03 01:11	0°♄	
minimum elong	9151 Jun 22 18:41	6°♄44'33	0°23'29				
max. Earth dist.	9151 Jun 23 09:36	6°♄46'41	21.01425 AU	conjunction	9157 Jul 16 06:27	0°♄45'24	-0°00'44
morning rise	9151 Jul 08 16:23	7°♄39'04		minimum elong	9157 Jul 16 06:26	0°♄45'24	0°00'58
retrograde	9151 Oct 10 02:04	10°♄45'13		behind sun begin	9157 Jul 15 23:50	0°♄44'29	
opposition	9151 Dec 26 19:01	8°♄46'48	-0°23'40	behind sun end	9157 Jul 16 13:02	0°♄46'20	
min. Earth dist.	9151 Dec 26 04:39	8°♄48'15	19.01627 AU	max. Earth dist.	9157 Jul 16 19:08	0°♄47'13	20.95454 AU
direct	9152 Mar 11 21:20	6°♄50'03		morning rise	9157 Aug 01 08:19	1°♄40'28	
evening set	9152 Jun 10 04:24	9°♄50'23		asc. node	9157 Sep 21 17:12	4°♄04'13	
				retrograde	9157 Nov 03 06:51	4°♄47'41	
conjunction	9152 Jun 26 00:25	10°♄44'38	-0°19'38	opposition	9158 Jan 19 21:27	2°♄48'24	0°01'23
minimum elong	9152 Jun 26 00:25	10°♄44'38	0°19'54	min. Earth dist.	9158 Jan 19 09:34	2°♄49'36	18.94320 AU
max. Earth dist.	9152 Jun 26 15:57	10°♄46'51	21.01645 AU	direct	9158 Apr 05 11:05	0°♄51'13	
morning rise	9152 Jul 11 22:34	11°♄39'12		evening set	9158 Jul 04 13:37	3°♄51'33	
retrograde	9152 Oct 13 10:30	14°♄45'26					
opposition	9152 Dec 30 03:39	12°♄46'57	-0°19'40	conjunction	9158 Jul 20 13:24	4°♄46'20	0°03'15
min. Earth dist.	9152 Dec 29 13:20	12°♄48'23	19.01560 AU	minimum elong	9158 Jul 20 13:24	4°♄46'20	0°03'00
direct	9153 Mar 16 04:04	10°♄50'12		behind sun begin	9158 Jul 20 06:48	4°♄45'25	
evening set	9153 Jun 14 09:41	13°♄50'23		behind sun end	9158 Jul 20 20:00	4°♄47'15	
				max. Earth dist.	9158 Jul 21 02:51	4°♄48'15	20.93090 AU
conjunction	9153 Jun 30 06:06	14°♄44'41	-0°15'59	morning rise	9158 Aug 05 15:52	5°♄41'31	
minimum elong	9153 Jun 30 06:06	14°♄44'41	0°16'16	retrograde	9158 Nov 07 17:11	8°♄49'04	
max. Earth dist.	9153 Jun 30 20:02	14°♄46'40	21.01317 AU	opposition	9159 Jan 24 05:38	6°♄49'39	0°05'41
morning rise	9153 Jul 16 05:05	15°♄39'19		min. Earth dist.	9159 Jan 23 17:29	6°♄50'53	18.91795 AU
retrograde	9153 Oct 17 19:10	18°♄45'41		direct	9159 Apr 09 18:42	4°♄52'22	
opposition	9154 Jan 03 12:18	16°♄47'04	-0°15'35	evening set	9159 Jul 08 20:16	7°♄52'57	
min. Earth dist.	9154 Jan 02 22:52	16°♄48'24	19.00972 AU				
direct	9154 Mar 20 10:18	14°♄50'16		conjunction	9159 Jul 24 20:36	8°♄47'52	0°07'07
evening set	9154 Jun 18 14:43	17°♄50'20		minimum elong	9159 Jul 24 20:36	8°♄47'52	0°06'53
				behind sun begin	9159 Jul 24 14:27	8°♄47'01	
conjunction	9154 Jul 04 11:54	18°♄44'42	-0°12'15	behind sun end	9159 Jul 25 02:46	8°♄48'44	
minimum elong	9154 Jul 04 11:54	18°♄44'42	0°12'32	max. Earth dist.	9159 Jul 25 08:30	8°♄49'34	20.90415 AU
behind sun begin	9154 Jul 04 07:37	18°♄44'06		morning rise	9159 Aug 10 00:02	9°♄43'13	
behind sun end	9154 Jul 04 16:11	18°♄45'18		retrograde	9159 Nov 12 02:40	12°♄51'09	
max. Earth dist.	9154 Jul 05 02:36	18°♄46'48	21.00481 AU	opposition	9160 Jan 28 14:06	10°♄51'35	0°09'57
morning rise	9154 Jul 20 11:26	19°♄39'25		min. Earth dist.	9160 Jan 28 03:08	10°♄52'42	18.88970 AU
retrograde	9154 Oct 22 04:02	22°♄45'55		direct	9160 Apr 12 23:51	8°♄54'11	
opposition	9155 Jan 07 20:42	20°♄47'09	-0°11'24	evening set	9160 Jul 12 03:12	11°♄55'06	
min. Earth dist.	9155 Jan 07 07:09	20°♄48'31	18.99892 AU				
direct	9155 Mar 24 17:18	18°♄50'17		conjunction	9160 Jul 28 04:25	12°♄50'11	0°10'57
evening set	9155 Jun 22 20:13	21°♄50'18		minimum elong	9160 Jul 28 04:25	12°♄50'11	0°10'44
				behind sun begin	9160 Jul 27 23:19	12°♄49'28	
conjunction	9155 Jul 08 17:50	22°♄44'44	-0°08'28	behind sun end	9160 Jul 28 09:31	12°♄50'54	
minimum elong	9155 Jul 08 17:51	22°♄44'44	0°08'43	max. Earth dist.	9160 Jul 28 16:51	12°♄51'58	20.87434 AU
behind sun begin	9155 Jul 08 12:07	22°♄43'56		morning rise	9160 Aug 13 08:25	13°♄45'41	
behind sun end	9155 Jul 08 23:34	22°♄45'32			9160 Sep 05 16:48	15°♄	
max. Earth dist.	9155 Jul 09 07:06	22°♄46'38	20.99188 AU	retrograde	9160 Nov 15 13:21	16°♄54'02	
morning rise	9155 Jul 24 18:17	23°♄39'34			9161 Jan 29 15:09	15°♄♄	

opposition	9161 Jan 31 22:35	14°Ω54'22	0°14'11	min. Earth dist.	9167 Feb 26 02:26	9°♄35'31	18.59563 AU
min. Earth dist.	9161 Jan 31 11:24	14°Ω55'30	18.85828 AU	direct	9167 May 12 07:01	7°♄36'19	
direct	9161 Apr 17 07:46	12°Ω56'52		evening set	9167 Aug 10 22:34	10°♄41'13	
	9161 Jun 28 11:22	15°Ω					
evening set	9161 Jul 16 10:52	15°Ω58'10		conjunction	9167 Aug 27 05:00	11°♄37'46	0°35'42
				minimum elong	9167 Aug 27 05:00	11°♄37'46	0°35'35
conjunction	9161 Aug 01 12:39	16°Ω53'25	0°14'45	max. Earth dist.	9167 Aug 27 09:09	11°♄38'22	20.56788 AU
minimum elong	9161 Aug 01 12:39	16°Ω53'25	0°14'32	morning rise	9167 Sep 12 14:21	12°♄34'45	
behind sun begin	9161 Aug 01 09:46	16°Ω53'01		retrograde	9167 Dec 16 01:45	15°♄46'54	
behind sun end	9161 Aug 01 15:32	16°Ω53'49		opposition	9168 Mar 01 18:33	13°♄46'03	0°41'14
max. Earth dist.	9161 Aug 01 23:25	16°Ω54'58	20.84144 AU	min. Earth dist.	9168 Mar 01 15:13	13°♄46'24	18.53944 AU
morning rise	9161 Aug 17 17:35	17°Ω49'06		direct	9168 May 15 15:54	11°♄47'06	
retrograde	9161 Nov 20 00:05	20°Ω57'56		evening set	9168 Aug 14 10:43	14°♄52'45	
opposition	9162 Feb 05 07:29	18°Ω58'08	0°18'22				
min. Earth dist.	9162 Feb 04 21:44	18°Ω59'08	18.82384 AU	conjunction	9168 Aug 30 18:03	15°♄49'33	0°38'42
direct	9162 Apr 21 13:27	17°Ω00'31		minimum elong	9168 Aug 30 18:02	15°♄49'33	0°38'37
evening set	9162 Jul 20 18:56	20°Ω02'17		max. Earth dist.	9168 Aug 30 22:00	15°♄50'08	20.51051 AU
				morning rise	9168 Sep 16 03:56	16°♄46'45	
conjunction	9162 Aug 05 21:40	20°Ω57'44	0°18'29	retrograde	9168 Dec 19 16:13	19°♄59'31	
minimum elong	9162 Aug 05 21:40	20°Ω57'44	0°18'18	opposition	9169 Mar 06 05:26	17°♄58'26	0°44'28
max. Earth dist.	9162 Aug 06 08:43	20°Ω59'19	20.80535 AU	min. Earth dist.	9169 Mar 06 02:04	17°♄58'47	18.48105 AU
morning rise	9162 Aug 22 03:13	21°Ω53'36		direct	9169 May 20 03:08	15°♄59'10	
retrograde	9162 Nov 24 11:35	25°Ω02'56		evening set	9169 Aug 18 23:50	19°♄05'37	
opposition	9163 Feb 09 16:29	23°Ω03'02	0°22'29				
min. Earth dist.	9163 Feb 09 06:47	23°Ω04'01	18.78592 AU	conjunction	9169 Sep 04 07:46	20°♄02'41	0°41'30
direct	9163 Apr 25 21:38	21°Ω05'18		minimum elong	9169 Sep 04 07:46	20°♄02'41	0°41'27
evening set	9163 Jul 25 04:01	24°Ω07'36		max. Earth dist.	9169 Sep 04 09:55	20°♄02'59	20.45130 AU
				morning rise	9169 Sep 20 18:26	21°♄00'08	
conjunction	9163 Aug 10 07:19	25°Ω03'14	0°22'09	retrograde	9169 Dec 24 05:01	24°♄13'31	
minimum elong	9163 Aug 10 07:19	25°Ω03'14	0°21'58	opposition	9170 Mar 10 16:49	22°♄12'11	0°47'29
max. Earth dist.	9163 Aug 10 16:16	25°Ω04'31	20.76559 AU	min. Earth dist.	9170 Mar 10 15:22	22°♄12'20	18.42128 AU
morning rise	9163 Aug 26 13:45	25°Ω59'19		direct	9170 May 24 12:30	20°♄12'35	
retrograde	9163 Nov 28 23:15	29°Ω09'11		evening set	9170 Aug 23 13:34	23°♄19'54	
opposition	9164 Feb 14 01:49	27°Ω09'09	0°26'30				
min. Earth dist.	9164 Feb 13 18:00	27°Ω09'57	18.74430 AU	conjunction	9170 Sep 08 22:24	24°♄17'13	0°44'06
direct	9164 Apr 29 04:16	25°Ω11'14		minimum elong	9170 Sep 08 22:24	24°♄17'13	0°44'03
evening set	9164 Jul 28 13:35	28°Ω14'08		max. Earth dist.	9170 Sep 09 00:15	24°♄17'30	20.39105 AU
				morning rise	9170 Sep 25 09:37	25°♄14'55	
conjunction	9164 Aug 13 17:48	29°Ω09'59	0°25'44	retrograde	9170 Dec 28 20:53	28°♄28'56	
minimum elong	9164 Aug 13 17:48	29°Ω09'59	0°25'35	opposition	9171 Mar 15 04:29	26°♄27'23	0°50'15
max. Earth dist.	9164 Aug 14 02:37	29°Ω11'16	20.72197 AU	min. Earth dist.	9171 Mar 15 02:55	26°♄27'33	18.36063 AU
	9164 Aug 28 04:37	0°♄		direct	9171 May 29 00:55	24°♄27'27	
morning rise	9164 Aug 30 00:50	0°♄06'16		evening set	9171 Aug 28 04:16	27°♄35'40	
retrograde	9164 Dec 02 11:47	3°♄16'42					
opposition	9165 Feb 17 11:30	1°♄16'31	0°30'25	conjunction	9171 Sep 13 13:41	28°♄33'16	0°46'27
min. Earth dist.	9165 Feb 17 03:51	1°♄17'18	18.69860 AU	minimum elong	9171 Sep 13 13:41	28°♄33'16	0°46'27
	9165 Mar 23 05:04	30°♄Ω		max. Earth dist.	9171 Sep 13 13:53	28°♄33'18	20.33007 AU
direct	9165 May 03 13:05	29°Ω18'24		morning rise	9171 Sep 30 01:32	29°♄31'14	
	9165 Jun 12 20:47	0°♄			9171 Oct 08 12:39	0°♄	
evening set	9165 Aug 01 23:52	2°♄21'55		retrograde	9172 Jan 02 10:43	2°♄45'53	
				opposition	9172 Mar 18 16:42	0°♄44'08	0°52'45
conjunction	9165 Aug 18 04:43	3°♄18'00	0°29'11	min. Earth dist.	9172 Mar 18 17:00	0°♄44'07	18.29964 AU
minimum elong	9165 Aug 18 04:43	3°♄18'00	0°29'02		9172 Apr 05 13:49	30°♄♄	
max. Earth dist.	9165 Aug 18 11:18	3°♄18'57	20.67425 AU	direct	9172 Jun 01 11:13	28°♄43'53	
morning rise	9165 Sep 03 12:37	4°♄14'30			9172 Jul 26 09:19	0°♄	
retrograde	9165 Dec 06 23:55	7°♄25'31		evening set	9172 Aug 31 19:39	1°♄53'03	
opposition	9166 Feb 21 21:41	5°♄25'07	0°34'11				
min. Earth dist.	9166 Feb 21 16:04	5°♄25'42	18.64894 AU	conjunction	9172 Sep 17 05:52	2°♄50'56	0°48'34
direct	9166 May 07 21:08	3°♄26'46		minimum elong	9172 Sep 17 05:52	2°♄50'56	0°48'34
evening set	9166 Aug 06 10:48	6°♄30'57		max. Earth dist.	9172 Sep 17 05:37	2°♄50'53	20.26916 AU
				morning rise	9172 Oct 03 18:14	3°♄49'08	
conjunction	9166 Aug 22 16:36	7°♄27'16	0°32'31	retrograde	9173 Jan 06 04:02	7°♄04'27	
minimum elong	9166 Aug 22 16:36	7°♄27'16	0°32'24	opposition	9173 Mar 23 05:24	5°♄02'32	0°54'58
max. Earth dist.	9166 Aug 22 22:53	7°♄28'10	20.62274 AU	min. Earth dist.	9173 Mar 23 05:27	5°♄02'32	18.23884 AU
morning rise	9166 Sep 08 01:07	8°♄24'00		direct	9173 Jun 06 00:19	3°♄01'58	
retrograde	9166 Dec 11 13:26	11°♄35'34		evening set	9173 Sep 05 11:54	6°♄12'08	
opposition	9167 Feb 26 07:50	9°♄34'58	0°37'48				

conjunction	9173 Sep 21 22:44	7° <u>♂</u> 10'17	0°50'25	retrograde	9180 Feb 07 15:48	8° <u>♂</u> 04'57	
minimum elong	9173 Sep 21 22:44	7° <u>♂</u> 10'17	0°50'26	opposition	9180 Apr 22 15:36	6° <u>♂</u> 02'14	1°01'20
max. Earth dist.	9173 Sep 21 21:08	7° <u>♂</u> 10'02	20.20851 AU	min. Earth dist.	9180 Apr 22 23:43	6° <u>♂</u> 01'21	17.82601 AU
morning rise	9173 Oct 08 11:41	8° <u>♂</u> 08'45		direct	9180 Jul 06 07:49	3° <u>♂</u> 59'34	
retrograde	9174 Jan 10 19:54	11° <u>♂</u> 24'44		evening set	9180 Oct 07 08:07	7° <u>♂</u> 17'10	
opposition	9174 Mar 27 18:49	9° <u>♂</u> 22'40	0°56'53				
min. Earth dist.	9174 Mar 27 20:41	9° <u>♂</u> 22'28	18.17850 AU	conjunction	9180 Oct 23 22:42	8° <u>♂</u> 17'13	0°54'56
direct	9174 Jun 10 11:54	7° <u>♂</u> 21'49		minimum elong	9180 Oct 23 22:42	8° <u>♂</u> 17'13	0°55'06
evening set	9174 Sep 10 05:08	10° <u>♂</u> 33'01		max. Earth dist.	9180 Oct 23 12:09	8° <u>♂</u> 15'37	19.79747 AU
				morning rise	9180 Nov 09 14:00	9° <u>♂</u> 17'24	
conjunction	9174 Sep 26 16:43	11° <u>♂</u> 31'26	0°51'59	retrograde	9181 Feb 11 13:25	12° <u>♂</u> 37'35	
minimum elong	9174 Sep 26 16:43	11° <u>♂</u> 31'26	0°52'02	opposition	9181 Apr 27 09:07	10° <u>♂</u> 34'42	1°00'48
max. Earth dist.	9174 Sep 26 14:20	11° <u>♂</u> 31'05	20.14853 AU	min. Earth dist.	9181 Apr 27 17:41	10° <u>♂</u> 33'47	17.76966 AU
morning rise	9174 Oct 13 06:08	12° <u>♂</u> 30'10		direct	9181 Jul 11 03:36	8° <u>♂</u> 31'41	
retrograde	9175 Jan 15 14:44	15° <u>♂</u> 46'49		evening set	9181 Oct 12 07:20	11° <u>♂</u> 50'17	
opposition	9175 Apr 01 08:32	13° <u>♂</u> 44'39	0°58'29				
min. Earth dist.	9175 Apr 01 10:23	13° <u>♂</u> 44'27	18.11879 AU	conjunction	9181 Oct 28 22:26	12° <u>♂</u> 50'36	0°54'15
direct	9175 Jun 15 02:07	11° <u>♂</u> 43'31		minimum elong	9181 Oct 28 22:26	12° <u>♂</u> 50'36	0°54'27
evening set	9175 Sep 14 23:24	14° <u>♂</u> 55'46		max. Earth dist.	9181 Oct 28 11:38	12° <u>♂</u> 48'57	19.74194 AU
				morning rise	9181 Nov 14 13:42	13° <u>♂</u> 50'59	
conjunction	9175 Oct 01 11:33	15° <u>♂</u> 54'29	0°53'16		9181 Dec 04 19:56	15° <u>♂</u>	
minimum elong	9175 Oct 01 11:33	15° <u>♂</u> 54'29	0°53'19	retrograde	9182 Feb 16 09:28	17° <u>♂</u> 11'37	
max. Earth dist.	9175 Oct 01 07:56	15° <u>♂</u> 53'57	20.08904 AU	opposition	9182 May 02 03:18	15° <u>♂</u> 08'37	0°59'52
morning rise	9175 Oct 18 01:22	16° <u>♂</u> 53'29		min. Earth dist.	9182 May 02 13:10	15° <u>♂</u> 07'33	17.71519 AU
retrograde	9176 Jan 20 08:17	20° <u>♂</u> 10'47			9182 May 05 10:53	15° <u>♂</u>	
opposition	9176 Apr 04 23:09	18° <u>♂</u> 08'31	0°59'46	direct	9182 Jul 15 21:53	13° <u>♂</u> 05'15	
min. Earth dist.	9176 Apr 05 02:55	18° <u>♂</u> 08'07	18.05961 AU		9182 Sep 22 00:24	15° <u>♂</u>	
direct	9176 Jun 18 14:51	16° <u>♂</u> 07'08		evening set	9182 Oct 17 07:27	16° <u>♂</u> 24'51	
evening set	9176 Sep 18 18:25	19° <u>♂</u> 20'27					
				conjunction	9182 Nov 02 22:41	17° <u>♂</u> 25'22	0°53'13
conjunction	9176 Oct 05 07:09	20° <u>♂</u> 19'27	0°54'15	minimum elong	9182 Nov 02 22:41	17° <u>♂</u> 25'22	0°53'25
minimum elong	9176 Oct 05 07:08	20° <u>♂</u> 19'27	0°54'21	max. Earth dist.	9182 Nov 02 09:58	17° <u>♂</u> 23'26	19.68880 AU
max. Earth dist.	9176 Oct 05 02:21	20° <u>♂</u> 18'44	20.03011 AU	morning rise	9182 Nov 19 14:09	18° <u>♂</u> 25'58	
morning rise	9176 Oct 21 21:23	21° <u>♂</u> 18'42		retrograde	9183 Feb 21 07:30	21° <u>♂</u> 47'01	
retrograde	9177 Jan 24 04:45	24° <u>♂</u> 36'40		opposition	9183 May 06 21:51	19° <u>♂</u> 43'53	0°58'33
opposition	9177 Apr 09 14:17	22° <u>♂</u> 34'18	1°00'42	min. Earth dist.	9183 May 07 08:13	19° <u>♂</u> 42'45	17.66352 AU
min. Earth dist.	9177 Apr 09 18:16	22° <u>♂</u> 33'52	18.00083 AU	direct	9183 Jul 20 18:59	17° <u>♂</u> 40'09	
direct	9177 Jun 23 06:53	20° <u>♂</u> 32'37		evening set	9183 Oct 22 07:59	21° <u>♂</u> 00'44	
evening set	9177 Sep 23 14:35	23° <u>♂</u> 47'02					
				conjunction	9183 Nov 07 23:35	22° <u>♂</u> 01'29	0°51'50
conjunction	9177 Oct 10 03:52	24° <u>♂</u> 46'19	0°54'55	minimum elong	9183 Nov 07 23:35	22° <u>♂</u> 01'29	0°52'04
minimum elong	9177 Oct 10 03:52	24° <u>♂</u> 46'19	0°55'01	max. Earth dist.	9183 Nov 07 11:12	21° <u>♂</u> 59'35	19.63865 AU
max. Earth dist.	9177 Oct 09 21:53	24° <u>♂</u> 45'25	19.97132 AU	morning rise	9183 Nov 24 14:51	23° <u>♂</u> 02'14	
morning rise	9177 Oct 26 18:23	25° <u>♂</u> 45'49		retrograde	9184 Feb 26 04:31	26° <u>♂</u> 23'40	
retrograde	9178 Jan 28 23:18	29° <u>♂</u> 04'23		opposition	9184 May 10 17:04	24° <u>♂</u> 20'27	0°56'50
opposition	9178 Apr 14 06:07	27° <u>♂</u> 01'55	1°01'17	min. Earth dist.	9184 May 11 04:08	24° <u>♂</u> 19'14	17.61514 AU
min. Earth dist.	9178 Apr 14 12:06	27° <u>♂</u> 01'17	17.94218 AU	direct	9184 Jul 24 15:11	22° <u>♂</u> 16'25	
direct	9178 Jun 27 21:20	24° <u>♂</u> 59'56		evening set	9184 Oct 26 09:04	25° <u>♂</u> 37'55	
evening set	9178 Sep 28 11:40	28° <u>♂</u> 15'26		max. Earth dist.	9184 Nov 11 10:37	26° <u>♂</u> 36'42	19.59227 AU
conjunction	9178 Oct 15 01:26	29° <u>♂</u> 14'58	0°55'16	conjunction	9184 Nov 12 00:40	26° <u>♂</u> 38'51	0°50'07
minimum elong	9178 Oct 15 01:26	29° <u>♂</u> 14'58	0°55'23	minimum elong	9184 Nov 12 00:40	26° <u>♂</u> 38'51	0°50'21
max. Earth dist.	9178 Oct 14 17:38	29° <u>♂</u> 13'48	19.91282 AU	morning rise	9184 Nov 28 16:03	27° <u>♂</u> 39'46	
	9178 Oct 27 12:59	0° <u>♂</u>			9185 Jan 12 15:44	0° <u>♂</u>	
morning rise	9178 Oct 31 16:20	0° <u>♂</u> 14'43		retrograde	9185 Mar 02 02:45	1° <u>♂</u> 01'34	
retrograde	9179 Feb 02 20:31	3° <u>♂</u> 33'52			9185 Apr 20 18:32	30° <u>♂</u>	
opposition	9179 Apr 18 22:31	1° <u>♂</u> 31'16	1°01'30	opposition	9185 May 15 12:49	28° <u>♂</u> 58'15	0°54'45
min. Earth dist.	9179 Apr 19 04:55	1° <u>♂</u> 30'35	17.88382 AU	min. Earth dist.	9185 May 16 00:20	28° <u>♂</u> 57'00	17.57092 AU
	9179 May 28 22:32	30° <u>♂</u>		direct	9185 Jul 29 13:08	26° <u>♂</u> 53'56	
direct	9179 Jul 02 15:21	29° <u>♂</u> 28'57			9185 Oct 26 21:05	0° <u>♂</u>	
	9179 Aug 05 21:09	0° <u>♂</u>		evening set	9185 Oct 31 10:44	0° <u>♂</u> 16'20	
evening set	9179 Oct 03 09:29	2° <u>♂</u> 45'30					
				conjunction	9185 Nov 17 02:36	1° <u>♂</u> 17'28	0°48'04
conjunction	9179 Oct 19 23:45	3° <u>♂</u> 45'19	0°55'16	minimum elong	9185 Nov 17 02:36	1° <u>♂</u> 17'28	0°48'18
minimum elong	9179 Oct 19 23:45	3° <u>♂</u> 45'19	0°55'25	max. Earth dist.	9185 Nov 16 13:13	1° <u>♂</u> 15'24	19.55021 AU
max. Earth dist.	9179 Oct 19 15:06	3° <u>♂</u> 44'00	19.85459 AU	morning rise	9185 Dec 03 17:38	2° <u>♂</u> 18'31	
morning rise	9179 Nov 05 14:43	4° <u>♂</u> 45'17		retrograde	9186 Mar 07 01:09	5° <u>♂</u> 40'35	

opposition	9186 May 20 08:56	3° \mathring{A} 37'16	0°52'17	max. Earth dist.	9192 Dec 20 08:53	4° \mathring{B} 15'07	19.39245 AU
min. Earth dist.	9186 May 20 20:39	3° \mathring{A} 36'00	17.53118 AU				
direct	9186 Aug 03 11:10	1° \mathring{A} 32'42		conjunction	9192 Dec 21 00:42	4° \mathring{B} 17'35	0°25'32
evening set	9186 Nov 05 13:06	4° \mathring{A} 55'59		minimum elong	9192 Dec 21 00:42	4° \mathring{B} 17'35	0°25'48
				morning rise	9193 Jan 06 12:43	5° \mathring{B} 19'00	
conjunction	9186 Nov 22 04:48	5° \mathring{A} 57'15	0°45'41	retrograde	9193 Apr 09 00:57	8° \mathring{B} 41'52	
minimum elong	9186 Nov 22 04:48	5° \mathring{A} 57'15	0°45'57	opposition	9193 Jun 21 20:07	6° \mathring{B} 39'10	0°26'13
max. Earth dist.	9186 Nov 21 13:54	5° \mathring{A} 54'58	19.51299 AU	min. Earth dist.	9193 Jun 22 10:07	6° \mathring{B} 37'38	17.38965 AU
morning rise	9186 Dec 08 19:45	6° \mathring{A} 58'26		direct	9193 Sep 05 10:02	4° \mathring{B} 33'47	
retrograde	9187 Mar 11 23:50	10° \mathring{A} 20'47		evening set	9193 Dec 09 14:39	8° \mathring{B} 01'15	
opposition	9187 May 25 05:45	8° \mathring{A} 17'29	0°49'28				
min. Earth dist.	9187 May 25 18:01	8° \mathring{A} 16'09	17.49659 AU	conjunction	9193 Dec 26 04:22	9° \mathring{B} 02'57	0°21'24
direct	9187 Aug 08 09:37	6° \mathring{A} 12'43		minimum elong	9193 Dec 26 04:22	9° \mathring{B} 02'57	0°21'41
evening set	9187 Nov 10 15:37	9° \mathring{A} 36'49		max. Earth dist.	9193 Dec 25 12:18	9° \mathring{B} 00'27	19.38751 AU
				morning rise	9194 Jan 11 15:45	10° \mathring{B} 04'19	
conjunction	9187 Nov 27 07:24	10° \mathring{A} 38'14	0°42'59	retrograde	9194 Apr 14 01:35	13° \mathring{B} 27'02	
minimum elong	9187 Nov 27 07:24	10° \mathring{A} 38'14	0°43'15	opposition	9194 Jun 26 19:31	11° \mathring{B} 24'24	0°21'31
max. Earth dist.	9187 Nov 26 17:24	10° \mathring{A} 36'04	19.48098 AU	min. Earth dist.	9194 Jun 27 08:35	11° \mathring{B} 22'59	17.38671 AU
morning rise	9187 Dec 13 21:54	11° \mathring{A} 39'31		direct	9194 Sep 10 13:06	9° \mathring{B} 18'58	
retrograde	9188 Mar 16 00:04	15° \mathring{A} 02'05		evening set	9194 Dec 14 18:41	12° \mathring{B} 46'38	
opposition	9188 May 29 03:01	12° \mathring{A} 58'52	0°46'19				
min. Earth dist.	9188 May 29 14:59	12° \mathring{A} 57'34	17.46711 AU	conjunction	9194 Dec 31 07:50	13° \mathring{B} 48'17	0°17'07
direct	9188 Aug 12 09:00	10° \mathring{A} 53'58		minimum elong	9194 Dec 31 07:50	13° \mathring{B} 48'17	0°17'24
evening set	9188 Nov 14 18:51	14° \mathring{A} 18'50		max. Earth dist.	9194 Dec 30 16:12	13° \mathring{B} 45'51	19.38671 AU
				morning rise	9195 Jan 16 18:23	14° \mathring{B} 49'34	
conjunction	9188 Dec 01 10:21	15° \mathring{A} 20'21	0°40'00	retrograde	9195 Apr 18 23:51	18° \mathring{B} 12'03	
minimum elong	9188 Dec 01 10:21	15° \mathring{A} 20'21	0°40'17	opposition	9195 Jul 01 19:22	16° \mathring{B} 09'31	0°16'41
max. Earth dist.	9188 Nov 30 19:09	15° \mathring{A} 18'00	19.45413 AU	min. Earth dist.	9195 Jul 02 09:19	16° \mathring{B} 08'00	17.38816 AU
morning rise	9188 Dec 18 00:36	16° \mathring{A} 21'43		direct	9195 Sep 15 15:05	14° \mathring{B} 04'00	
retrograde	9189 Mar 20 23:23	19° \mathring{A} 44'29		evening set	9195 Dec 19 22:18	17° \mathring{B} 31'46	
opposition	9189 Jun 03 00:44	17° \mathring{A} 41'22	0°42'51				
min. Earth dist.	9189 Jun 03 13:37	17° \mathring{A} 39'58	17.44284 AU	conjunction	9196 Jan 05 10:44	18° \mathring{B} 33'19	0°12'43
direct	9189 Aug 17 07:40	15° \mathring{A} 36'20		minimum elong	9196 Jan 05 10:44	18° \mathring{B} 33'19	0°12'59
evening set	9189 Nov 19 22:21	19° \mathring{A} 01'56		behind sun begin	9196 Jan 05 06:43	18° \mathring{B} 32'42	
				behind sun end	9196 Jan 05 14:45	18° \mathring{B} 33'56	
conjunction	9189 Dec 06 13:47	20° \mathring{A} 03'33	0°36'45	max. Earth dist.	9196 Jan 04 18:49	18° \mathring{B} 30'50	19.39052 AU
minimum elong	9189 Dec 06 13:47	20° \mathring{A} 03'33	0°37'02	morning rise	9196 Jan 21 20:38	19° \mathring{B} 34'31	
max. Earth dist.	9189 Dec 05 23:08	20° \mathring{A} 01'16	19.43227 AU	retrograde	9196 Apr 22 23:40	22° \mathring{B} 56'44	
morning rise	9189 Dec 23 03:32	21° \mathring{A} 04'58		opposition	9196 Jul 05 19:06	20° \mathring{B} 54'15	0°11'43
retrograde	9190 Mar 26 01:01	24° \mathring{A} 27'51		min. Earth dist.	9196 Jul 06 07:49	20° \mathring{B} 52'52	17.39425 AU
opposition	9190 Jun 07 22:56	22° \mathring{A} 24'51	0°39'04	direct	9196 Sep 19 18:45	18° \mathring{B} 48'41	
min. Earth dist.	9190 Jun 08 11:24	22° \mathring{A} 23'29	17.42315 AU	evening set	9196 Dec 24 01:39	22° \mathring{B} 16'26	
direct	9190 Aug 22 07:59	20° \mathring{A} 19'44					
evening set	9190 Nov 25 02:20	23° \mathring{A} 45'57		conjunction	9197 Jan 09 13:30	23° \mathring{B} 17'53	0°08'15
				minimum elong	9197 Jan 09 13:30	23° \mathring{B} 17'53	0°08'32
conjunction	9190 Dec 11 17:20	24° \mathring{A} 47'38	0°33'14	behind sun begin	9197 Jan 09 07:38	23° \mathring{B} 17'00	
minimum elong	9190 Dec 11 17:20	24° \mathring{A} 47'38	0°33'31	behind sun end	9197 Jan 09 19:21	23° \mathring{B} 18'47	
max. Earth dist.	9190 Dec 11 01:44	24° \mathring{A} 45'12	19.41475 AU	max. Earth dist.	9197 Jan 08 22:48	23° \mathring{B} 15'36	19.39897 AU
morning rise	9190 Dec 28 06:35	25° \mathring{A} 49'05		morning rise	9197 Jan 25 22:27	24° \mathring{B} 18'57	
retrograde	9191 Mar 31 00:35	29° \mathring{A} 12'02		retrograde	9197 Apr 27 21:39	27° \mathring{B} 40'49	
opposition	9191 Jun 12 21:40	27° \mathring{A} 09'09	0°35'02	opposition	9197 Jul 10 18:51	25° \mathring{B} 38'25	0°06'41
min. Earth dist.	9191 Jun 13 11:16	27° \mathring{A} 07'40	17.40787 AU	min. Earth dist.	9197 Jul 11 08:07	25° \mathring{B} 36'59	17.40516 AU
direct	9191 Aug 27 07:43	25° \mathring{A} 03'56		direct	9197 Sep 24 20:52	23° \mathring{B} 32'49	
evening set	9191 Nov 30 06:23	28° \mathring{A} 30'40		evening set	9197 Dec 29 04:44	27° \mathring{B} 00'28	
conjunction	9191 Dec 16 21:04	29° \mathring{A} 32'23	0°29'29	conjunction	9198 Jan 14 15:40	28° \mathring{B} 01'47	0°03'44
minimum elong	9191 Dec 16 21:04	29° \mathring{A} 32'23	0°29'47	minimum elong	9198 Jan 14 15:41	28° \mathring{B} 01'47	0°03'59
max. Earth dist.	9191 Dec 16 05:35	29° \mathring{A} 29'59	19.40160 AU	behind sun begin	9198 Jan 14 09:03	28° \mathring{B} 00'46	
	9191 Dec 24 06:03	0° \mathring{B}		behind sun end	9198 Jan 14 22:18	28° \mathring{B} 02'48	
morning rise	9192 Jan 02 09:43	0° \mathring{B} 33'50		max. Earth dist.	9198 Jan 14 00:37	27° \mathring{B} 59'26	19.41250 AU
retrograde	9192 Apr 04 01:58	3° \mathring{B} 56'47		morning rise	9198 Jan 30 23:56	29° \mathring{B} 02'42	
opposition	9192 Jun 16 20:40	1° \mathring{B} 54'00	0°30'44		9198 Feb 16 04:41	0° \mathring{B}	
min. Earth dist.	9192 Jun 17 09:32	1° \mathring{B} 52'35	17.39671 AU	retrograde	9198 May 02 21:02	2° \mathring{B} 24'12	
	9192 Aug 10 17:55	30° \mathring{R} \mathring{A}		opposition	9198 Jul 15 18:34	0° \mathring{B} 21'52	0°01'37
direct	9192 Aug 31 09:09	29° \mathring{A} 48'42		min. Earth dist.	9198 Jul 16 06:27	0° \mathring{B} 20'35	17.42128 AU
	9192 Sep 20 21:25	0° \mathring{B}			9198 Jul 24 05:30	30° \mathring{R} \mathring{B}	
evening set	9192 Dec 04 10:28	3° \mathring{B} 15'51		direct	9198 Sep 30 00:08	28° \mathring{B} 16'16	

desc. node	9198 Nov 08 05:22	28° ♁ 56'29	max. Earth dist.	9204 Feb 12 07:12	26° ♁ 05'20	19.60391 AU
	9198 Dec 03 12:08	0° ♁	morning rise	9204 Feb 28 18:55	27° ♁ 06'24	
evening set	9199 Jan 03 07:04	1° ♁ 43'43		9204 Apr 29 23:56	0° ♁	
			retrograde	9204 May 30 07:52	0° ♁ 25'08	
conjunction	9199 Jan 19 17:18	2° ♁ 44'52 -0°00'55		9204 Jun 30 05:46	30° ♁	
minimum elong	9199 Jan 19 17:19	2° ♁ 44'52 0°00'40	opposition	9204 Aug 12 14:46	28° ♁ 23'56 -0°27'30	
behind sun begin	9199 Jan 19 10:37	2° ♁ 43'51	min. Earth dist.	9204 Aug 12 21:54	28° ♁ 23'11	17.62694 AU
behind sun end	9199 Jan 20 00:00	2° ♁ 45'53	direct	9204 Oct 28 06:05	26° ♁ 19'29	
max. Earth dist.	9199 Jan 19 04:10	2° ♁ 42'50 19.43124 AU	evening set	9205 Jan 31 09:28	29° ♁ 44'13	
morning rise	9199 Feb 05 00:29	3° ♁ 45'37		9205 Feb 04 17:09	0° ♁	
retrograde	9199 May 07 18:44	7° ♁ 06'42				
opposition	9199 Jul 20 18:23	5° ♁ 04'29 -0°03'27	conjunction	9205 Feb 16 14:10	0° ♁ 44'03 -0°26'44	
min. Earth dist.	9199 Jul 21 06:07	5° ♁ 03'13 17.44278 AU	minimum elong	9205 Feb 16 14:09	0° ♁ 44'03 0°26'35	
direct	9199 Oct 05 01:33	2° ♁ 58'57	max. Earth dist.	9205 Feb 16 06:54	0° ♁ 42'56 19.65067 AU	
evening set	9200 Jan 08 09:04	6° ♁ 26'07	morning rise	9205 Mar 04 15:50	1° ♁ 43'27	
			retrograde	9205 Jun 04 04:31	5° ♁ 01'38	
conjunction	9200 Jan 24 18:16	7° ♁ 27'05 -0°05'29	opposition	9205 Aug 17 13:18	3° ♁ 00'40 -0°31'50	
minimum elong	9200 Jan 24 18:17	7° ♁ 27'05 0°05'15	min. Earth dist.	9205 Aug 17 19:23	3° ♁ 00'01 17.67494 AU	
behind sun begin	9200 Jan 24 11:48	7° ♁ 26'06	direct	9205 Nov 02 06:52	0° ♁ 56'30	
behind sun end	9200 Jan 25 00:46	7° ♁ 28'04	evening set	9206 Feb 05 07:40	4° ♁ 20'31	
max. Earth dist.	9200 Jan 24 05:00	7° ♁ 25'01 19.45562 AU				
morning rise	9200 Feb 10 00:42	8° ♁ 27'38	conjunction	9206 Feb 21 11:16	5° ♁ 20'05 -0°30'32	
retrograde	9200 May 11 17:42	11° ♁ 48'17	minimum elong	9206 Feb 21 11:16	5° ♁ 20'04 0°30'24	
opposition	9200 Jul 24 17:53	9° ♁ 46'13 -0°08'29	max. Earth dist.	9206 Feb 21 04:13	5° ♁ 18'59 19.69989 AU	
min. Earth dist.	9200 Jul 25 04:10	9° ♁ 45'06 17.47000 AU	morning rise	9206 Mar 09 12:06	6° ♁ 19'13	
direct	9200 Oct 09 03:39	7° ♁ 40'47	retrograde	9206 Jun 08 23:37	9° ♁ 36'50	
evening set	9201 Jan 12 10:16	11° ♁ 07'37	opposition	9206 Aug 22 11:44	7° ♁ 36'04 -0°35'57	
			min. Earth dist.	9206 Aug 22 17:26	7° ♁ 35'28 17.72536 AU	
conjunction	9201 Jan 28 18:48	12° ♁ 08'24 -0°09'57	direct	9206 Nov 07 06:13	5° ♁ 32'11	
minimum elong	9201 Jan 28 18:48	12° ♁ 08'24 0°09'44	evening set	9207 Feb 10 04:47	8° ♁ 55'25	
behind sun begin	9201 Jan 28 13:19	12° ♁ 07'34				
behind sun end	9201 Jan 29 00:17	12° ♁ 09'14	conjunction	9207 Feb 26 07:30	9° ♁ 54'41 -0°34'07	
max. Earth dist.	9201 Jan 28 07:41	12° ♁ 06'41 19.48557 AU	minimum elong	9207 Feb 26 07:30	9° ♁ 54'41 0°34'00	
morning rise	9201 Feb 14 00:10	13° ♁ 08'45	max. Earth dist.	9207 Feb 26 01:58	9° ♁ 53'50 19.75125 AU	
	9201 Mar 19 11:59	15° ♁	morning rise	9207 Mar 14 07:24	10° ♁ 53'33	
retrograde	9201 May 16 15:17	16° ♁ 28'56	retrograde	9207 Jun 13 19:19	14° ♁ 10'35	
	9201 Jul 16 19:13	15° ♁	opposition	9207 Aug 27 09:41	12° ♁ 10'00 -0°39'49	
opposition	9201 Jul 29 17:22	14° ♁ 27'04 -0°13'26	min. Earth dist.	9207 Aug 27 13:55	12° ♁ 09'33 17.77750 AU	
min. Earth dist.	9201 Jul 30 03:09	14° ♁ 26'01 17.50250 AU	direct	9207 Nov 12 06:59	10° ♁ 06'23	
direct	9201 Oct 14 04:25	12° ♁ 21'50	evening set	9208 Feb 15 01:14	13° ♁ 28'46	
	9202 Jan 03 20:30	15° ♁				
evening set	9202 Jan 17 11:09	15° ♁ 48'15	conjunction	9208 Mar 02 02:58	14° ♁ 27'45 -0°37'29	
			minimum elong	9208 Mar 02 02:57	14° ♁ 27'45 0°37'23	
conjunction	9202 Feb 02 18:34	16° ♁ 48'49 -0°14'20	max. Earth dist.	9208 Mar 01 21:59	14° ♁ 26'59 19.80414 AU	
minimum elong	9202 Feb 02 18:34	16° ♁ 48'49 0°14'07	morning rise	9208 Mar 18 02:04	15° ♁ 26'21	
behind sun begin	9202 Feb 02 15:19	16° ♁ 48'19	retrograde	9208 Jun 17 12:15	18° ♁ 42'46	
behind sun end	9202 Feb 02 21:49	16° ♁ 49'18	opposition	9208 Aug 31 07:05	16° ♁ 42'19 -0°43'24	
max. Earth dist.	9202 Feb 02 07:22	16° ♁ 47'05 19.52066 AU	min. Earth dist.	9208 Aug 31 11:14	16° ♁ 41'53 17.83119 AU	
morning rise	9202 Feb 18 23:08	17° ♁ 48'57	direct	9208 Nov 16 05:14	14° ♁ 38'58	
retrograde	9202 May 21 13:28	21° ♁ 08'41	evening set	9209 Feb 18 20:44	18° ♁ 00'27	
opposition	9202 Aug 03 16:38	19° ♁ 07'01 -0°18'16				
min. Earth dist.	9202 Aug 04 01:18	19° ♁ 06'05 17.54000 AU	conjunction	9209 Mar 06 21:37	18° ♁ 59'08 -0°40'35	
direct	9202 Oct 19 05:33	17° ♁ 02'00	minimum elong	9209 Mar 06 21:36	18° ♁ 59'08 0°40'30	
evening set	9203 Jan 22 11:14	20° ♁ 27'57	max. Earth dist.	9209 Mar 06 17:46	18° ♁ 58'33 19.85846 AU	
			morning rise	9209 Mar 22 19:56	19° ♁ 57'27	
conjunction	9203 Feb 07 17:51	21° ♁ 28'17 -0°18'36	retrograde	9209 Jun 22 06:34	23° ♁ 13'13	
minimum elong	9203 Feb 07 17:51	21° ♁ 28'17 0°18'25	opposition	9209 Sep 05 03:59	21° ♁ 12'55 -0°46'42	
max. Earth dist.	9203 Feb 07 08:47	21° ♁ 26'53 19.56037 AU	min. Earth dist.	9209 Sep 05 06:25	21° ♁ 12'40 17.88599 AU	
morning rise	9203 Feb 23 21:21	22° ♁ 28'11	direct	9209 Nov 21 05:15	19° ♁ 09'50	
retrograde	9203 May 26 10:48	25° ♁ 47'25	evening set	9210 Feb 23 15:16	22° ♁ 30'20	
opposition	9203 Aug 08 15:50	23° ♁ 46'01 -0°22'58				
min. Earth dist.	9203 Aug 08 23:39	23° ♁ 45'10 17.58165 AU	conjunction	9210 Mar 11 15:14	23° ♁ 28'43 -0°43'26	
direct	9203 Oct 24 06:02	21° ♁ 41'17	minimum elong	9210 Mar 11 15:14	23° ♁ 28'43 0°43'23	
evening set	9204 Jan 27 10:41	25° ♁ 06'39	max. Earth dist.	9210 Mar 11 12:25	23° ♁ 28'18 19.91381 AU	
			morning rise	9210 Mar 27 12:46	24° ♁ 26'46	
conjunction	9204 Feb 12 16:12	26° ♁ 06'44 -0°22'45	retrograde	9210 Jun 26 21:45	27° ♁ 41'53	
minimum elong	9204 Feb 12 16:12	26° ♁ 06'44 0°22'35	opposition	9210 Sep 10 00:29	25° ♁ 41'40 -0°49'42	

min. Earth dist.	9210 Sep 10 02:48	25° ✕ 41'26	17.94203 AU	conjunction	9217 Apr 10 17:53	24° Υ 04'02	-0°54'59
direct	9210 Nov 26 01:54	23° ✕ 38'50		minimum elong	9217 Apr 10 17:53	24° Υ 04'02	0°55'04
evening set	9211 Feb 28 08:47	26° ✕ 58'19		max. Earth dist.	9217 Apr 10 23:44	24° Υ 04'54	20.33693 AU
				morning rise	9217 Apr 26 11:48	25° Υ 00'16	
conjunction	9211 Mar 16 07:55	27° ✕ 56'24	-0°45'59	retrograde	9217 Jul 27 04:52	28° Υ 11'04	
minimum elong	9211 Mar 16 07:55	27° ✕ 56'24	0°45'58	opposition	9217 Oct 11 06:43	26° Υ 11'51	-1°01'14
max. Earth dist.	9211 Mar 16 06:15	27° ✕ 56'09	19.97053 AU	min. Earth dist.	9217 Oct 10 23:33	26° Υ 12'35	18.36797 AU
morning rise	9211 Apr 01 04:48	28° ✕ 54'10		direct	9217 Dec 27 09:55	24° Υ 11'17	
	9211 Apr 20 10:49	0° Υ		evening set	9218 Mar 30 10:18	27° Υ 23'30	
retrograde	9211 Jul 01 14:50	2° Υ 08'36					
opposition	9211 Sep 14 20:12	0° Υ 08'30	-0°52'22	conjunction	9218 Apr 15 04:56	28° Υ 19'39	-0°55'24
min. Earth dist.	9211 Sep 14 20:22	0° Υ 08'29	17.99940 AU	minimum elong	9218 Apr 15 04:56	28° Υ 19'39	0°55'32
	9211 Sep 18 05:55	30° ✕ ✕		max. Earth dist.	9218 Apr 15 12:38	28° Υ 20'48	20.39846 AU
direct	9211 Nov 30 23:50	28° ✕ 05'54		morning rise	9218 Apr 30 22:25	29° Υ 15'41	
	9212 Feb 07 19:18	0° Υ			9218 May 13 23:01	0° ✕	
evening set	9212 Mar 04 01:16	1° Υ 24'21		retrograde	9218 Jul 31 16:07	2° ✕ 25'57	
				opposition	9218 Oct 15 22:42	0° ✕ 26'55	-1°01'31
conjunction	9212 Mar 19 23:38	2° Υ 22'08	-0°48'15	min. Earth dist.	9218 Oct 15 15:33	0° ✕ 27'38	18.42884 AU
minimum elong	9212 Mar 19 23:37	2° Υ 22'08	0°48'15		9218 Oct 27 01:01	30° ✕ Υ	
max. Earth dist.	9212 Mar 19 23:34	2° Υ 22'07	20.02857 AU	direct	9219 Jan 01 00:50	28° Υ 26'42	
morning rise	9212 Apr 04 19:50	3° Υ 19'38			9219 Mar 04 06:11	0° ✕	
retrograde	9212 Jul 05 04:55	6° Υ 33'25		evening set	9219 Apr 03 21:15	1° ✕ 37'55	
opposition	9212 Sep 18 15:30	4° Υ 33'24	-0°54'43				
min. Earth dist.	9212 Sep 18 15:24	4° Υ 33'25	18.05829 AU	conjunction	9219 Apr 19 15:20	2° ✕ 33'50	-0°55'31
direct	9212 Dec 04 18:45	2° Υ 31'04		minimum elong	9219 Apr 19 15:20	2° ✕ 33'50	0°55'39
evening set	9213 Mar 08 16:56	5° Υ 48'28		max. Earth dist.	9219 Apr 19 23:01	2° ✕ 34'59	20.45850 AU
				morning rise	9219 May 05 08:44	3° ✕ 29'39	
conjunction	9213 Mar 24 14:29	6° Υ 45'57	-0°50'13	retrograde	9219 Aug 05 05:55	6° ✕ 39'25	
minimum elong	9213 Mar 24 14:28	6° Υ 45'57	0°50'15	opposition	9219 Oct 20 13:54	4° ✕ 40'31	-1°01'28
max. Earth dist.	9213 Mar 24 15:25	6° Υ 46'06	20.08825 AU	min. Earth dist.	9219 Oct 20 05:06	4° ✕ 41'25	18.48788 AU
morning rise	9213 Apr 09 10:08	7° Υ 43'11		direct	9220 Jan 05 16:09	2° ✕ 40'39	
retrograde	9213 Jul 09 20:53	10° Υ 56'19		evening set	9220 Apr 07 07:26	5° ✕ 50'54	
opposition	9213 Sep 23 09:58	8° Υ 56'26	-0°56'42				
min. Earth dist.	9213 Sep 23 07:29	8° Υ 56'41	18.11870 AU	conjunction	9220 Apr 23 01:17	6° ✕ 46'35	-0°55'20
direct	9213 Dec 09 14:19	6° Υ 54'24		minimum elong	9220 Apr 23 01:17	6° ✕ 46'35	0°55'30
evening set	9214 Mar 13 07:40	10° Υ 10'45		max. Earth dist.	9220 Apr 23 10:35	6° ✕ 47'58	20.51623 AU
				morning rise	9220 May 08 18:23	7° ✕ 42'13	
conjunction	9214 Mar 29 04:33	11° Υ 07'57	-0°51'52	retrograde	9220 Aug 08 16:18	10° ✕ 51'30	
minimum elong	9214 Mar 29 04:33	11° Υ 07'57	0°51'54	opposition	9220 Oct 24 04:45	8° ✕ 52'44	-1°01'05
max. Earth dist.	9214 Mar 29 07:24	11° Υ 08'23	20.14933 AU	min. Earth dist.	9220 Oct 23 20:09	8° ✕ 53'36	18.54427 AU
morning rise	9214 Apr 13 23:34	12° Υ 04'55		direct	9221 Jan 09 05:38	6° ✕ 53'12	
retrograde	9214 Jul 14 10:24	15° Υ 17'26		evening set	9221 Apr 11 17:05	10° ✕ 02'28	
opposition	9214 Sep 28 04:10	13° Υ 17'42	-0°58'21				
min. Earth dist.	9214 Sep 28 01:20	13° Υ 18'00	18.18048 AU	conjunction	9221 Apr 27 10:29	10° ✕ 57'57	-0°54'52
direct	9214 Dec 14 07:36	11° Υ 16'02		minimum elong	9221 Apr 27 10:29	10° ✕ 57'57	0°55'02
evening set	9215 Mar 17 21:27	14° Υ 31'19		max. Earth dist.	9221 Apr 27 19:27	10° ✕ 59'17	20.57116 AU
				morning rise	9221 May 13 03:37	11° ✕ 53'24	
conjunction	9215 Apr 02 17:37	15° Υ 28'14	-0°53'13		9221 Aug 03 19:52	15° ✕	
minimum elong	9215 Apr 02 17:37	15° Υ 28'14	0°53'17	retrograde	9221 Aug 13 04:50	15° ✕ 02'14	
max. Earth dist.	9215 Apr 02 21:15	15° Υ 28'47	20.21166 AU		9221 Aug 22 13:07	15° ✕ ✕	
morning rise	9215 Apr 18 12:17	16° Υ 24'57		opposition	9221 Oct 28 18:58	13° ✕ 03'33	-1°00'23
retrograde	9215 Jul 19 01:44	19° Υ 36'53		min. Earth dist.	9221 Oct 28 09:00	13° ✕ 04'33	18.59764 AU
opposition	9215 Oct 02 21:33	17° Υ 37'19	-0°59'40	direct	9222 Jan 13 20:04	11° ✕ 04'17	
min. Earth dist.	9215 Oct 02 16:26	17° Υ 37'50	18.24309 AU	evening set	9222 Apr 16 02:00	14° ✕ 12'38	
direct	9215 Dec 19 01:23	15° Υ 35'59			9222 Apr 29 13:40	15° ✕	
evening set	9216 Mar 21 10:29	18° Υ 50'15					
				conjunction	9222 May 01 19:18	15° ✕ 07'56	-0°54'06
conjunction	9216 Apr 06 06:09	19° Υ 46'54	-0°54'15	minimum elong	9222 May 01 19:18	15° ✕ 07'56	0°54'18
minimum elong	9216 Apr 06 06:08	19° Υ 46'54	0°54'20	max. Earth dist.	9222 May 02 05:50	15° ✕ 09'29	20.62283 AU
max. Earth dist.	9216 Apr 06 11:40	19° Υ 47'44	20.27436 AU	morning rise	9222 May 17 12:15	16° ✕ 03'12	
morning rise	9216 Apr 22 00:17	20° Υ 43'23		retrograde	9222 Aug 17 14:30	19° ✕ 11'35	
retrograde	9216 Jul 22 14:05	23° Υ 54'43		opposition	9222 Nov 02 08:46	17° ✕ 12'58	-0°59'23
opposition	9216 Oct 06 14:23	21° Υ 55'21	-1°00'37	min. Earth dist.	9222 Nov 01 22:56	17° ✕ 13'58	18.64763 AU
min. Earth dist.	9216 Oct 06 09:13	21° Υ 55'52	18.30580 AU	direct	9223 Jan 18 08:29	15° ✕ 13'58	
direct	9216 Dec 22 17:24	19° Υ 54'24		evening set	9223 Apr 20 10:16	18° ✕ 21'24	
evening set	9217 Mar 25 22:52	23° Υ 07'38					
				conjunction	9223 May 06 03:18	19° ✕ 16'30	-0°53'04

minimum elong	9223 May 06 03:18	19° 8 16'30	0°53'16	opposition	9229 Dec 01 17:35	15° II 44'49	-0°44'28
max. Earth dist.	9223 May 06 13:26	19° 8 17'59	20.67122 AU	min. Earth dist.	9229 Dec 01 02:54	15° II 46'17	18.91810 AU
morning rise	9223 May 21 20:28	20° 8 11'37		direct	9230 Feb 16 09:30	13° II 47'15	
retrograde	9223 Aug 22 01:40	23° 8 19'35		evening set	9230 May 18 05:48	16° II 49'38	
opposition	9223 Nov 06 21:50	21° 8 20'59	-0°58'04				
min. Earth dist.	9223 Nov 06 10:49	21° 8 22'06	18.69437 AU	conjunction	9230 Jun 02 23:26	17° II 43'56	-0°38'51
direct	9224 Jan 22 21:36	19° 8 22'12		minimum elong	9230 Jun 02 23:26	17° II 43'56	0°39'08
evening set	9224 Apr 23 17:51	22° 8 28'44		max. Earth dist.	9230 Jun 03 15:12	17° II 46'12	20.93196 AU
				morning rise	9230 Jun 18 18:15	18° II 38'25	
conjunction	9224 May 09 10:56	23° 8 23'41	-0°51'45	retrograde	9230 Sep 19 14:26	21° II 44'32	
minimum elong	9224 May 09 10:56	23° 8 23'41	0°51'58	opposition	9230 Dec 06 03:31	19° II 46'08	-0°41'23
max. Earth dist.	9224 May 09 22:45	23° 8 25'25	20.71630 AU	min. Earth dist.	9230 Dec 05 12:41	19° II 47'37	18.94538 AU
morning rise	9224 May 25 04:03	24° 8 18'40		direct	9231 Feb 20 17:35	17° II 48'47	
retrograde	9224 Aug 25 10:29	27° 8 26'13		evening set	9231 May 22 10:54	20° II 50'40	
opposition	9224 Nov 10 10:16	25° 8 27'38	-0°56'27				
min. Earth dist.	9224 Nov 09 23:14	25° 8 28'44	18.73795 AU	conjunction	9231 Jun 07 04:40	21° II 44'54	-0°35'58
direct	9225 Jan 26 09:08	23° 8 29'03		minimum elong	9231 Jun 07 04:40	21° II 44'54	0°36'16
evening set	9225 Apr 28 01:00	26° 8 34'45		max. Earth dist.	9231 Jun 07 19:38	21° II 47'04	20.95748 AU
				morning rise	9231 Jun 23 00:08	22° II 39'22	
conjunction	9225 May 13 17:52	27° 8 29'32	-0°50'11	retrograde	9231 Sep 23 23:40	25° II 45'25	
minimum elong	9225 May 13 17:52	27° 8 29'32	0°50'25	opposition	9231 Dec 10 13:11	23° II 47'03	-0°38'07
max. Earth dist.	9225 May 14 05:24	27° 8 31'13	20.75858 AU	min. Earth dist.	9231 Dec 09 22:07	23° II 48'33	18.96894 AU
morning rise	9225 May 29 11:17	28° 8 24'23		direct	9232 Feb 25 00:51	21° II 49'52	
	9225 Jun 28 20:31	0° II		evening set	9232 May 25 15:52	24° II 51'21	
retrograde	9225 Aug 29 20:17	1° II 31'35					
	9225 Nov 03 15:05	30° 8		conjunction	9232 Jun 10 10:06	25° II 45'33	-0°32'56
opposition	9225 Nov 14 22:17	29° 8 33'00	-0°54'34	minimum elong	9232 Jun 10 10:06	25° II 45'33	0°33'14
min. Earth dist.	9225 Nov 14 09:59	29° 8 34'14	18.77900 AU	max. Earth dist.	9232 Jun 11 02:15	25° II 47'52	20.97885 AU
direct	9226 Jan 30 20:25	27° 8 34'36		morning rise	9232 Jun 26 05:51	26° II 40'00	
	9226 Apr 20 10:50	0° II		retrograde	9232 Sep 27 07:05	29° II 45'59	
evening set	9226 May 02 07:22	0° II 39'31		opposition	9232 Dec 13 22:33	27° II 47'40	-0°34'40
				min. Earth dist.	9232 Dec 13 07:35	27° II 49'09	18.98803 AU
conjunction	9226 May 18 00:22	1° II 34'10	-0°48'21	direct	9233 Feb 28 08:24	25° II 50'38	
minimum elong	9226 May 18 00:22	1° II 34'10	0°48'36	evening set	9233 May 29 20:57	28° II 51'44	
max. Earth dist.	9226 May 18 13:49	1° II 36'08	20.79834 AU				
morning rise	9226 Jun 02 17:50	2° II 28'55		conjunction	9233 Jun 14 15:22	29° II 45'55	-0°29'45
retrograde	9226 Sep 03 04:54	5° II 35'48		minimum elong	9233 Jun 14 15:22	29° II 45'55	0°30'02
opposition	9226 Nov 19 09:49	3° II 37'14	-0°52'24	max. Earth dist.	9233 Jun 15 06:23	29° II 48'05	20.99569 AU
min. Earth dist.	9226 Nov 18 21:11	3° II 38'30	18.81757 AU		9233 Jun 18 16:58	0° III	
direct	9227 Feb 04 06:51	1° II 39'03		morning rise	9233 Jun 30 11:49	0° III 40'23	
evening set	9227 May 06 13:33	4° II 43'14		retrograde	9233 Oct 01 16:21	3° III 46'22	
				opposition	9233 Dec 18 07:52	1° III 48'02	-0°31'03
conjunction	9227 May 22 06:29	5° II 37'46	-0°46'18	min. Earth dist.	9233 Dec 17 17:04	1° III 49'30	19.00247 AU
minimum elong	9227 May 22 06:29	5° II 37'46	0°46'34		9234 Feb 13 16:41	30° 8 II	
max. Earth dist.	9227 May 22 19:34	5° II 39'40	20.83579 AU	direct	9234 Mar 04 14:53	29° II 51'07	
morning rise	9227 Jun 07 00:22	6° II 32'25			9234 Mar 23 07:30	0° III	
retrograde	9227 Sep 07 13:38	9° II 39'03		evening set	9234 Jun 03 01:48	2° III 51'54	
opposition	9227 Nov 23 20:40	7° II 40'30	-0°49'59				
min. Earth dist.	9227 Nov 23 07:01	7° II 41'52	18.85387 AU	conjunction	9234 Jun 18 20:49	3° III 46'05	-0°26'25
direct	9228 Feb 08 16:09	5° II 42'31		minimum elong	9234 Jun 18 20:49	3° III 46'05	0°26'43
evening set	9228 May 09 19:13	8° II 46'03		max. Earth dist.	9234 Jun 19 12:44	3° III 48'22	21.00748 AU
				morning rise	9234 Jul 04 17:41	4° III 40'34	
conjunction	9228 May 25 12:26	9° II 40'29	-0°44'01	retrograde	9234 Oct 06 00:12	7° III 46'34	
minimum elong	9228 May 25 12:26	9° II 40'29	0°44'17	opposition	9234 Dec 22 16:58	5° III 48'12	-0°27'17
max. Earth dist.	9228 May 26 03:11	9° II 42'38	20.87073 AU	min. Earth dist.	9234 Dec 22 02:23	5° III 49'39	19.01151 AU
morning rise	9228 Jun 10 06:29	10° II 35'04		direct	9235 Mar 08 22:38	3° III 51'21	
retrograde	9228 Sep 10 21:55	13° II 41'28		evening set	9235 Jun 07 06:57	6° III 51'52	
opposition	9228 Nov 27 07:17	11° II 42'59	-0°47'20				
min. Earth dist.	9228 Nov 26 17:20	11° II 44'23	18.88740 AU	conjunction	9235 Jun 23 02:18	7° III 46'03	-0°22'57
direct	9229 Feb 12 01:24	9° II 45'13		minimum elong	9235 Jun 23 02:18	7° III 46'03	0°23'14
evening set	9229 May 14 00:39	12° II 48'08		max. Earth dist.	9235 Jun 23 16:42	7° III 48'07	21.01387 AU
				morning rise	9235 Jul 08 23:56	8° III 40'34	
conjunction	9229 May 29 17:53	13° II 42'29	-0°41'32	retrograde	9235 Oct 10 09:03	11° III 46'37	
minimum elong	9229 May 29 17:53	13° II 42'29	0°41'49	min. Earth dist.	9235 Dec 26 11:43	9° III 49'34	19.01521 AU
max. Earth dist.	9229 May 30 08:08	13° II 44'33	20.90292 AU	opposition	9235 Dec 27 01:45	9° III 48'10	-0°23'23
morning rise	9229 Jun 14 12:27	14° II 37'01		direct	9236 Mar 12 04:27	7° III 51'19	
retrograde	9229 Sep 15 06:41	17° II 43'16		evening set	9236 Jun 10 11:56	10° III 51'37	

conjunction	9236 Jun 26 07:57	11°☿45'51 -0°19'23	asc. node	9241 Aug 22 17:21	3°♄47'10	
minimum elong	9236 Jun 26 07:57	11°☿45'51 0°19'40	retrograde	9241 Nov 03 13:05	5°♄46'54	
max. Earth dist.	9236 Jun 26 23:06	11°☿48'01 21.01487 AU	opposition	9242 Jan 20 04:00	3°♄47'37	0°01'44
morning rise	9236 Jul 12 06:04	12°☿40'24	min. Earth dist.	9242 Jan 19 15:45	3°♄48'52	18.94486 AU
retrograde	9236 Oct 13 16:59	15°☿46'31	direct	9242 Apr 05 18:46	1°♄50'26	
opposition	9236 Dec 30 10:26	13°☿47'57 -0°19'22	evening set	9242 Jul 04 20:35	4°♄50'46	
min. Earth dist.	9236 Dec 29 20:35	13°☿49'20 19.01354 AU				
direct	9237 Mar 16 12:19	11°☿51'05	conjunction	9242 Jul 20 20:17	5°♄45'32	0°03'34
evening set	9237 Jun 14 16:57	14°☿51'12	minimum elong	9242 Jul 20 20:18	5°♄45'32	0°03'20
			behind sun begin	9242 Jul 20 13:43	5°♄44'37	
conjunction	9237 Jun 30 13:21	15°☿45'28 -0°15'42	behind sun end	9242 Jul 21 02:53	5°♄46'27	
minimum elong	9237 Jun 30 13:21	15°☿45'28 0°16'00	max. Earth dist.	9242 Jul 21 09:56	5°♄47'29	20.93328 AU
behind sun begin	9237 Jun 30 12:31	15°☿45'21	morning rise	9242 Aug 05 22:42	6°♄40'42	
behind sun end	9237 Jun 30 14:10	15°☿45'35	retrograde	9242 Nov 07 22:51	9°♄48'13	
max. Earth dist.	9237 Jul 01 03:09	15°☿47'27 21.01088 AU	opposition	9243 Jan 24 12:16	7°♄48'51	0°06'02
morning rise	9237 Jul 16 12:18	16°☿40'06	min. Earth dist.	9243 Jan 23 23:55	7°♄50'06	18.92101 AU
retrograde	9237 Oct 18 01:46	19°☿46'20	direct	9243 Apr 10 00:59	5°♄51'36	
opposition	9238 Jan 03 19:02	17°☿47'36 -0°15'16	evening set	9243 Jul 09 03:16	8°♄52'12	
min. Earth dist.	9238 Jan 03 05:42	17°☿48'56 19.00731 AU				
direct	9238 Mar 20 18:00	15°☿50'40	conjunction	9243 Jul 25 03:31	9°♄47'07	0°07'26
evening set	9238 Jun 18 22:01	18°☿50'41	minimum elong	9243 Jul 25 03:31	9°♄47'07	0°07'12
			behind sun begin	9243 Jul 24 21:25	9°♄46'15	
conjunction	9238 Jul 04 19:09	19°☿45'01 -0°11'58	behind sun end	9243 Jul 25 09:37	9°♄47'58	
minimum elong	9238 Jul 04 19:09	19°☿45'01 0°12'15	max. Earth dist.	9243 Jul 25 15:31	9°♄48'49	20.90785 AU
behind sun begin	9238 Jul 04 14:43	19°☿44'24	morning rise	9243 Aug 10 06:50	10°♄42'27	
behind sun end	9238 Jul 04 23:35	19°☿45'38	retrograde	9243 Nov 12 08:59	13°♄50'22	
max. Earth dist.	9238 Jul 05 09:52	19°☿47'07 21.00248 AU	opposition	9244 Jan 28 20:40	11°♄50'54	0°10'19
morning rise	9238 Jul 20 18:38	20°☿39'43	min. Earth dist.	9244 Jan 28 09:23	11°♄52'02	18.89396 AU
retrograde	9238 Oct 22 09:50	23°☿46'06	direct	9244 Apr 13 06:37	9°♄53'34	
opposition	9239 Jan 08 03:16	21°☿47'13 -0°11'05	evening set	9244 Jul 12 10:16	12°♄54'32	
min. Earth dist.	9239 Jan 07 13:55	21°☿48'34 18.99689 AU				
direct	9239 Mar 25 01:09	19°☿50'14	conjunction	9244 Jul 28 11:24	13°♄49'36	0°11'16
evening set	9239 Jun 23 03:23	22°☿50'12	minimum elong	9244 Jul 28 11:24	13°♄49'36	0°11'03
			behind sun begin	9244 Jul 28 06:26	13°♄48'54	
conjunction	9239 Jul 09 00:58	23°☿44'37 -0°08'10	behind sun end	9244 Jul 28 16:22	13°♄50'18	
minimum elong	9239 Jul 09 00:58	23°☿44'37 0°08'27	max. Earth dist.	9244 Jul 28 23:58	13°♄51'24	20.87911 AU
behind sun begin	9239 Jul 08 19:10	23°☿43'49	morning rise	9244 Aug 13 15:18	14°♄45'06	
behind sun end	9239 Jul 09 06:45	23°☿45'26		9244 Aug 18 02:12	15°♄	
max. Earth dist.	9239 Jul 09 14:19	23°☿46'32 20.99024 AU	retrograde	9244 Nov 15 20:18	17°♄53'28	
morning rise	9239 Jul 25 01:20	24°☿39'25	opposition	9245 Feb 01 05:18	15°♄53'55	0°14'33
retrograde	9239 Oct 26 18:52	27°☿46'01	min. Earth dist.	9245 Jan 31 18:04	15°♄55'03	18.86341 AU
opposition	9240 Jan 12 11:33	25°☿46'59 -0°06'51		9245 Feb 24 04:24	15°♄	
min. Earth dist.	9240 Jan 11 22:46	25°☿48'16 18.98290 AU	direct	9245 Apr 17 13:41	13°♄56'31	
direct	9240 Mar 28 06:48	23°☿49'55		9245 Jun 07 01:13	15°♄	
evening set	9240 Jun 26 08:45	26°☿49'56	evening set	9245 Jul 16 17:53	16°♄57'53	
conjunction	9240 Jul 12 07:06	27°☿44'28 -0°04'20	conjunction	9245 Aug 01 19:34	17°♄53'07	0°15'04
minimum elong	9240 Jul 12 07:06	27°☿44'27 0°04'36	minimum elong	9245 Aug 01 19:34	17°♄53'07	0°14'52
behind sun begin	9240 Jul 12 00:38	27°☿43'33	behind sun begin	9245 Aug 01 17:01	17°♄52'46	
behind sun end	9240 Jul 12 13:34	27°☿45'22	behind sun end	9245 Aug 01 22:08	17°♄53'29	
max. Earth dist.	9240 Jul 12 21:20	27°☿46'30 20.97445 AU	max. Earth dist.	9245 Aug 02 06:22	17°♄54'40	20.84681 AU
morning rise	9240 Jul 28 07:59	28°☿39'22	morning rise	9245 Aug 18 00:25	18°♄48'49	
	9240 Aug 22 22:54	0°♄	retrograde	9245 Nov 20 06:56	21°♄57'41	
retrograde	9240 Oct 30 03:27	1°♄46'12	opposition	9246 Feb 05 14:17	19°♄58'01	0°18'44
	9241 Jan 10 11:04	30°♄	min. Earth dist.	9246 Feb 05 04:31	19°♄59'01	18.82925 AU
opposition	9241 Jan 15 19:42	29°☿47'03 -0°02'34	direct	9246 Apr 21 19:30	18°♄00'32	
min. Earth dist.	9241 Jan 15 06:44	29°☿48'22 18.96540 AU	evening set	9246 Jul 21 02:09	21°♄02'22	
direct	9241 Apr 01 13:07	27°☿49'56				
	9241 Jun 15 04:31	0°♄	conjunction	9246 Aug 06 04:47	21°♄57'48	0°18'49
evening set	9241 Jun 30 14:36	0°♄50'04	minimum elong	9246 Aug 06 04:46	21°♄57'48	0°18'37
			max. Earth dist.	9246 Aug 06 15:44	21°♄59'23	20.81062 AU
conjunction	9241 Jul 16 13:26	1°♄44'42 -0°00'25	morning rise	9246 Aug 22 10:12	22°♄53'40	
minimum elong	9241 Jul 16 13:26	1°♄44'42 0°00'41	retrograde	9246 Nov 24 19:39	26°♄03'03	
behind sun begin	9241 Jul 16 06:51	1°♄43'47	opposition	9247 Feb 09 23:16	24°♄03'17	0°22'51
behind sun end	9241 Jul 16 20:02	1°♄45'37	min. Earth dist.	9247 Feb 09 13:54	24°♄04'14	18.79091 AU
max. Earth dist.	9241 Jul 17 02:17	1°♄46'32 20.95544 AU	direct	9247 Apr 26 03:50	22°♄05'39	
morning rise	9241 Aug 01 15:14	2°♄39'44	evening set	9247 Jul 25 11:17	25°♄08'01	

conjunction	9247 Aug 10 14:29	26°03'39	0°22'30	retrograde	9253 Dec 24 11:53	25°14'03	
minimum elong	9247 Aug 10 14:28	26°03'39	0°22'19	opposition	9254 Mar 10 23:44	23°12'42	0°47'50
max. Earth dist.	9247 Aug 10 23:09	26°04'54	20.77013 AU	min. Earth dist.	9254 Mar 10 22:05	23°12'52	18.42194 AU
morning rise	9247 Aug 26 20:48	26°05'44		direct	9254 May 24 19:44	21°13'04	
	9247 Nov 09 12:18	0°17		evening set	9254 Aug 23 20:27	24°12'21	
retrograde	9247 Nov 29 06:26	0°17'09'39					
	9247 Dec 19 03:30	30°08'02		conjunction	9254 Sep 09 05:12	25°17'40	0°44'24
opposition	9248 Feb 14 08:47	28°09'43	0°26'53	minimum elong	9254 Sep 09 05:11	25°17'40	0°44'22
min. Earth dist.	9248 Feb 14 01:14	28°10'30	18.74827 AU	max. Earth dist.	9254 Sep 09 07:12	25°17'57	20.39195 AU
direct	9248 Apr 29 10:21	26°11'54		morning rise	9254 Sep 25 16:17	26°15'21	
evening set	9248 Jul 28 20:44	29°14'50		retrograde	9254 Dec 29 03:19	29°29'19	
	9248 Aug 10 23:13	0°17		opposition	9255 Mar 15 11:20	27°27'46	0°50'35
				min. Earth dist.	9255 Mar 15 09:34	27°27'57	18.36185 AU
conjunction	9248 Aug 14 00:51	0°17'10'41	0°26'04	direct	9255 May 29 07:34	25°27'49	
minimum elong	9248 Aug 14 00:51	0°17'10'41	0°25'54	evening set	9255 Aug 28 11:09	28°13'00	
max. Earth dist.	9248 Aug 14 09:25	0°17'11'55	20.72525 AU				
morning rise	9248 Aug 30 07:45	1°06'58		conjunction	9255 Sep 13 20:28	29°33'35	0°46'45
retrograde	9248 Dec 02 19:36	4°17'26		minimum elong	9255 Sep 13 20:28	29°33'35	0°46'43
opposition	9249 Feb 17 18:30	2°17'18	0°30'47	max. Earth dist.	9255 Sep 13 20:43	29°33'37	20.33167 AU
min. Earth dist.	9249 Feb 17 11:16	2°18'03	18.70118 AU		9255 Sep 21 07:47	0°02	
direct	9249 May 03 20:13	0°19'16		morning rise	9255 Sep 30 08:15	0°31'31	
evening set	9249 Aug 02 07:06	3°22'48		retrograde	9256 Jan 02 17:58	3°46'09	
				opposition	9256 Mar 18 23:45	1°44'24	0°53'04
conjunction	9249 Aug 18 11:51	4°18'52	0°29'32	min. Earth dist.	9256 Mar 18 23:44	1°44'24	18.30159 AU
minimum elong	9249 Aug 18 11:50	4°18'52	0°29'23		9256 May 08 01:13	30°08'17	
max. Earth dist.	9249 Aug 18 18:04	4°19'46	20.67621 AU	direct	9256 Jun 01 18:03	29°44'10	
morning rise	9249 Sep 03 19:39	5°15'22			9256 Jun 26 04:43	0°02	
retrograde	9249 Dec 07 06:55	8°26'23		evening set	9256 Sep 01 02:23	2°53'18	
opposition	9250 Feb 22 04:33	6°26'01	0°34'34				
min. Earth dist.	9250 Feb 21 23:14	6°26'34	18.65032 AU	conjunction	9256 Sep 17 12:33	3°51'09	0°48'51
direct	9250 May 08 03:44	4°27'41		minimum elong	9256 Sep 17 12:32	3°51'09	0°48'51
evening set	9250 Aug 06 17:54	7°31'52		max. Earth dist.	9256 Sep 17 12:39	3°51'10	20.27146 AU
				morning rise	9256 Oct 04 00:48	4°49'21	
conjunction	9250 Aug 22 23:37	8°28'10	0°32'52	retrograde	9257 Jan 06 11:09	8°04'40	
minimum elong	9250 Aug 22 23:36	8°28'10	0°32'44	opposition	9257 Mar 23 12:33	6°02'45	0°55'16
max. Earth dist.	9250 Aug 23 05:43	8°29'03	20.62366 AU	min. Earth dist.	9257 Mar 23 12:20	6°02'47	18.24143 AU
morning rise	9250 Sep 08 08:01	9°24'53		direct	9257 Jun 06 07:12	4°02'14	
retrograde	9250 Dec 11 20:14	12°36'27		evening set	9257 Sep 05 18:51	7°12'22	
opposition	9251 Feb 26 14:45	10°35'51	0°38'11				
min. Earth dist.	9251 Feb 26 09:36	10°36'23	18.59617 AU	conjunction	9257 Sep 22 05:35	8°10'31	0°50'41
direct	9251 May 12 14:31	8°37'12		minimum elong	9257 Sep 22 05:34	8°10'30	0°50'42
evening set	9251 Aug 11 05:33	11°42'05		max. Earth dist.	9257 Sep 22 04:05	8°10'17	20.21137 AU
				morning rise	9257 Oct 08 18:27	9°08'58	
conjunction	9251 Aug 27 11:51	12°38'37	0°36'02	retrograde	9258 Jan 11 03:04	12°24'58	
minimum elong	9251 Aug 27 11:51	12°38'37	0°35'56	opposition	9258 Mar 28 01:57	10°22'57	0°57'10
max. Earth dist.	9251 Aug 27 15:50	12°39'12	20.56818 AU	min. Earth dist.	9258 Mar 28 03:43	10°22'46	18.18152 AU
morning rise	9251 Sep 12 21:05	13°35'34		direct	9258 Jun 10 18:46	8°22'09	
retrograde	9251 Dec 16 08:22	16°47'43		evening set	9258 Sep 10 12:09	11°33'20	
opposition	9252 Mar 02 01:22	14°46'51	0°41'36				
min. Earth dist.	9252 Mar 01 22:02	14°47'12	18.53962 AU	conjunction	9258 Sep 26 23:39	12°31'46	0°52'14
direct	9252 May 15 23:00	12°47'53		minimum elong	9258 Sep 26 23:39	12°31'46	0°52'17
evening set	9252 Aug 14 17:43	15°53'30		max. Earth dist.	9258 Sep 26 21:32	12°31'27	20.15161 AU
				morning rise	9258 Oct 13 12:58	13°30'29	
conjunction	9252 Aug 31 00:56	16°50'18	0°39'02	retrograde	9259 Jan 15 22:02	16°47'10	
minimum elong	9252 Aug 31 00:56	16°50'18	0°38'57	opposition	9259 Apr 01 15:53	14°45'03	0°58'45
max. Earth dist.	9252 Aug 31 04:55	16°50'52	20.51069 AU	min. Earth dist.	9259 Apr 01 17:42	14°44'51	18.12176 AU
morning rise	9252 Sep 16 10:43	17°47'29		direct	9259 Jun 15 09:22	12°44'00	
retrograde	9252 Dec 19 22:31	21°00'13		evening set	9259 Sep 15 06:29	15°56'16	
opposition	9253 Mar 06 12:16	18°59'06	0°44'50				
min. Earth dist.	9253 Mar 06 08:51	18°59'27	18.48133 AU	conjunction	9259 Oct 01 18:29	16°54'58	0°53'30
direct	9253 May 20 10:11	16°59'48		minimum elong	9259 Oct 01 18:29	16°54'58	0°53'36
evening set	9253 Aug 19 06:42	20°06'14		max. Earth dist.	9259 Oct 01 14:47	16°54'25	20.09172 AU
				morning rise	9259 Oct 18 08:14	17°53'57	
conjunction	9253 Sep 04 14:32	21°03'16	0°41'49	retrograde	9260 Jan 20 15:21	21°11'19	
minimum elong	9253 Sep 04 14:32	21°03'16	0°41'45	opposition	9260 Apr 05 06:37	19°09'06	1°00'01
max. Earth dist.	9253 Sep 04 16:38	21°03'34	20.45174 AU	min. Earth dist.	9260 Apr 05 10:33	19°08'41	18.06189 AU
morning rise	9253 Sep 21 01:07	22°00'42		direct	9260 Jun 18 22:36	17°07'46	

evening set	9260 Sep 19 01:43	20° <u>♏</u> 21'08		conjunction	9266 Nov 03 05:34	18° <u>♏</u> 26'29	0°53'17
				minimum elong	9266 Nov 03 05:34	18° <u>♏</u> 26'29	0°53'30
conjunction	9260 Oct 05 14:22	21° <u>♏</u> 20'07	0°54'28	max. Earth dist.	9266 Nov 02 17:09	18° <u>♏</u> 24'35	19.68465 AU
minimum elong	9260 Oct 05 14:22	21° <u>♏</u> 20'07	0°54'33	morning rise	9266 Nov 19 21:00	19° <u>♏</u> 27'05	
max. Earth dist.	9260 Oct 05 09:30	21° <u>♏</u> 19'23	20.03181 AU	retrograde	9267 Feb 21 14:30	22° <u>♏</u> 48'12	
morning rise	9260 Oct 22 04:30	22° <u>♏</u> 19'21		opposition	9267 May 07 05:21	20° <u>♏</u> 45'01	0°58'35
retrograde	9261 Jan 24 11:37	25° <u>♏</u> 37'23		min. Earth dist.	9267 May 07 15:25	20° <u>♏</u> 43'55	17.65947 AU
opposition	9261 Apr 09 21:49	23° <u>♏</u> 35'03	1°00'56	direct	9267 Jul 21 01:43	18° <u>♏</u> 41'17	
min. Earth dist.	9261 Apr 10 01:59	23° <u>♏</u> 34'36	18.00187 AU	evening set	9267 Oct 22 14:43	22° <u>♏</u> 01'52	
direct	9261 Jun 23 14:31	21° <u>♏</u> 33'25					
evening set	9261 Sep 23 21:54	24° <u>♏</u> 47'51		conjunction	9267 Nov 08 06:15	23° <u>♏</u> 02'37	0°51'52
				minimum elong	9267 Nov 08 06:15	23° <u>♏</u> 02'37	0°52'05
conjunction	9261 Oct 10 11:06	25° <u>♏</u> 47'07	0°55'07	max. Earth dist.	9267 Nov 07 18:09	23° <u>♏</u> 00'46	19.63477 AU
minimum elong	9261 Oct 10 11:06	25° <u>♏</u> 47'07	0°55'15	morning rise	9267 Nov 24 21:29	24° <u>♏</u> 03'23	
max. Earth dist.	9261 Oct 10 04:44	25° <u>♏</u> 46'10	19.97160 AU	retrograde	9268 Feb 26 12:00	27° <u>♏</u> 24'53	
morning rise	9261 Oct 27 01:34	26° <u>♏</u> 46'37		opposition	9268 May 11 00:34	25° <u>♏</u> 21'37	0°56'50
	9262 Jan 15 04:40	0° <u>♏</u>		min. Earth dist.	9268 May 11 11:25	25° <u>♏</u> 20'26	17.61157 AU
retrograde	9262 Jan 29 06:38	0° <u>♏</u> 05'15		direct	9268 Jul 24 22:30	23° <u>♏</u> 17'35	
	9262 Feb 12 10:36	30° <u>♏</u>		evening set	9268 Oct 26 15:54	26° <u>♏</u> 39'05	
opposition	9262 Apr 14 13:50	28° <u>♏</u> 02'48	1°01'30				
min. Earth dist.	9262 Apr 14 20:07	28° <u>♏</u> 02'08	17.94166 AU	conjunction	9268 Nov 12 07:27	27° <u>♏</u> 40'02	0°50'06
direct	9262 Jun 28 05:40	26° <u>♏</u> 00'50		minimum elong	9268 Nov 12 07:27	27° <u>♏</u> 40'02	0°50'21
evening set	9262 Sep 28 18:57	29° <u>♏</u> 16'21		max. Earth dist.	9268 Nov 11 17:46	27° <u>♏</u> 37'56	19.58906 AU
	9262 Oct 10 23:25	0° <u>♏</u>		morning rise	9268 Nov 28 22:47	28° <u>♏</u> 40'57	
					9268 Dec 22 03:37	0° <u>♏</u>	
conjunction	9262 Oct 15 08:40	0° <u>♏</u> 15'53	0°55'26	retrograde	9269 Mar 02 09:40	2° <u>♏</u> 02'48	
minimum elong	9262 Oct 15 08:39	0° <u>♏</u> 15'53	0°55'34	opposition	9269 May 15 20:10	29° <u>♏</u> 59'28	0°54'43
max. Earth dist.	9262 Oct 15 00:45	0° <u>♏</u> 14'41	19.91153 AU		9269 May 15 15:17	30° <u>♏</u>	
morning rise	9262 Oct 31 23:28	1° <u>♏</u> 15'38		min. Earth dist.	9269 May 16 07:14	29° <u>♏</u> 58'16	17.56816 AU
retrograde	9263 Feb 03 03:30	4° <u>♏</u> 34'50		direct	9269 Jul 29 20:17	27° <u>♏</u> 55'08	
opposition	9263 Apr 19 06:08	2° <u>♏</u> 32'14	1°01'41		9269 Oct 09 00:14	0° <u>♏</u>	
min. Earth dist.	9263 Apr 19 12:42	2° <u>♏</u> 31'32	17.88180 AU	evening set	9269 Oct 31 17:33	1° <u>♏</u> 17'34	
direct	9263 Jul 02 22:56	0° <u>♏</u> 29'55					
evening set	9263 Oct 03 16:45	3° <u>♏</u> 46'29		conjunction	9269 Nov 17 09:23	2° <u>♏</u> 18'41	0°48'01
				minimum elong	9269 Nov 17 09:23	2° <u>♏</u> 18'41	0°48'17
conjunction	9263 Oct 20 06:56	4° <u>♏</u> 46'17	0°55'25	max. Earth dist.	9269 Nov 16 20:21	2° <u>♏</u> 16'41	19.54791 AU
minimum elong	9263 Oct 20 06:56	4° <u>♏</u> 46'17	0°55'34	morning rise	9269 Dec 04 00:24	3° <u>♏</u> 19'45	
max. Earth dist.	9263 Oct 19 22:05	4° <u>♏</u> 44'57	19.85199 AU	retrograde	9270 Mar 07 08:18	6° <u>♏</u> 41'54	
morning rise	9263 Nov 05 21:53	5° <u>♏</u> 46'16		opposition	9270 May 20 16:27	4° <u>♏</u> 38'34	0°52'13
retrograde	9264 Feb 07 23:32	9° <u>♏</u> 06'00		min. Earth dist.	9270 May 21 03:52	4° <u>♏</u> 37'19	17.52937 AU
opposition	9264 Apr 22 23:16	7° <u>♏</u> 03'15	1°01'29	direct	9270 Aug 03 18:22	2° <u>♏</u> 34'01	
min. Earth dist.	9264 Apr 23 07:34	7° <u>♏</u> 02'22	17.82290 AU	evening set	9270 Nov 05 19:53	5° <u>♏</u> 57'18	
direct	9264 Jul 06 15:47	5° <u>♏</u> 00'35					
evening set	9264 Oct 07 15:08	8° <u>♏</u> 18'11		conjunction	9270 Nov 22 11:33	6° <u>♏</u> 58'35	0°45'36
				minimum elong	9270 Nov 22 11:33	6° <u>♏</u> 58'35	0°45'52
conjunction	9264 Oct 24 05:42	9° <u>♏</u> 18'14	0°55'03	max. Earth dist.	9270 Nov 21 20:58	6° <u>♏</u> 56'20	19.51164 AU
minimum elong	9264 Oct 24 05:42	9° <u>♏</u> 18'14	0°55'14	morning rise	9270 Dec 09 02:30	7° <u>♏</u> 59'46	
max. Earth dist.	9264 Oct 23 19:19	9° <u>♏</u> 16'40	19.79396 AU	retrograde	9271 Mar 12 07:09	11° <u>♏</u> 22'11	
morning rise	9264 Nov 09 20:58	10° <u>♏</u> 18'26		opposition	9271 May 25 13:13	9° <u>♏</u> 18'53	0°49'22
retrograde	9265 Feb 11 20:43	13° <u>♏</u> 38'41		min. Earth dist.	9271 May 26 01:02	9° <u>♏</u> 17'36	17.49561 AU
opposition	9265 Apr 27 16:45	11° <u>♏</u> 35'47	1°00'55	direct	9271 Aug 08 16:51	7° <u>♏</u> 14'09	
min. Earth dist.	9265 Apr 28 01:16	11° <u>♏</u> 34'51	17.76580 AU	evening set	9271 Nov 10 22:33	10° <u>♏</u> 38'16	
direct	9265 Jul 11 10:29	9° <u>♏</u> 32'44					
evening set	9265 Oct 12 14:22	12° <u>♏</u> 51'21		conjunction	9271 Nov 27 14:19	11° <u>♏</u> 39'41	0°42'53
				minimum elong	9271 Nov 27 14:19	11° <u>♏</u> 39'41	0°43'11
conjunction	9265 Oct 29 05:23	13° <u>♏</u> 51'40	0°54'20	max. Earth dist.	9271 Nov 27 00:35	11° <u>♏</u> 37'33	19.48031 AU
minimum elong	9265 Oct 29 05:23	13° <u>♏</u> 51'40	0°54'31	morning rise	9271 Dec 14 04:50	12° <u>♏</u> 40'58	
max. Earth dist.	9265 Oct 28 18:39	13° <u>♏</u> 50'02	19.73788 AU	retrograde	9272 Mar 16 07:19	16° <u>♏</u> 03'36	
morning rise	9265 Nov 14 20:38	14° <u>♏</u> 52'04		opposition	9272 May 29 10:30	14° <u>♏</u> 00'23	0°46'11
	9265 Nov 17 02:12	15° <u>♏</u>		min. Earth dist.	9272 May 29 22:22	13° <u>♏</u> 59'06	17.46658 AU
retrograde	9266 Feb 16 17:27	18° <u>♏</u> 12'46		direct	9272 Aug 12 15:59	11° <u>♏</u> 55'31	
opposition	9266 May 02 10:46	16° <u>♏</u> 09'43	0°59'57	evening set	9272 Nov 15 01:47	15° <u>♏</u> 20'23	
min. Earth dist.	9266 May 02 20:40	16° <u>♏</u> 08'39	17.71103 AU				
	9266 May 30 23:14	15° <u>♏</u>		conjunction	9272 Dec 01 17:17	16° <u>♏</u> 21'54	0°39'52
direct	9266 Jul 16 05:26	14° <u>♏</u> 06'20		minimum elong	9272 Dec 01 17:17	16° <u>♏</u> 21'54	0°40'09
	9266 Aug 30 14:52	15° <u>♏</u>		max. Earth dist.	9272 Dec 01 02:05	16° <u>♏</u> 19'33	19.45360 AU
evening set	9266 Oct 17 14:22	17° <u>♏</u> 25'56		morning rise	9272 Dec 18 07:35	17° <u>♏</u> 23'17	

retrograde	9273 Mar 21 07:01	20° \mathring{A} 46'06		evening set	9279 Dec 20 05:10	18° \mathring{B} 32'03	
opposition	9273 Jun 03 08:21	18° \mathring{A} 42'58	0°42'41				
min. Earth dist.	9273 Jun 03 21:05	18° \mathring{A} 41'34	17.44210 AU	conjunction	9280 Jan 05 17:40	19° \mathring{B} 33'38	0°12'24
direct	9273 Aug 17 14:59	16° \mathring{A} 37'56		minimum elong	9280 Jan 05 17:40	19° \mathring{B} 33'38	0°12'43
evening set	9273 Nov 20 05:24	20° \mathring{A} 03'31		behind sun begin	9280 Jan 05 13:29	19° \mathring{B} 32'59	
				behind sun end	9280 Jan 05 21:51	19° \mathring{B} 34'16	
conjunction	9273 Dec 06 20:50	21° \mathring{A} 05'08	0°36'35	max. Earth dist.	9280 Jan 05 01:57	19° \mathring{B} 31'10	19.38379 AU
minimum elong	9273 Dec 06 20:50	21° \mathring{A} 05'08	0°36'52	morning rise	9280 Jan 22 03:39	20° \mathring{B} 34'50	
max. Earth dist.	9273 Dec 06 06:09	21° \mathring{A} 02'51	19.43116 AU	retrograde	9280 Apr 23 07:35	23° \mathring{B} 57'04	
morning rise	9273 Dec 23 10:35	22° \mathring{A} 06'33		opposition	9280 Jul 06 02:23	21° \mathring{B} 54'28	0°11'22
retrograde	9274 Mar 26 08:05	25° \mathring{A} 29'28		min. Earth dist.	9280 Jul 06 14:59	21° \mathring{B} 53'06	17.38755 AU
opposition	9274 Jun 08 06:33	23° \mathring{A} 26'26	0°38'53	direct	9280 Sep 20 01:58	19° \mathring{B} 48'48	
min. Earth dist.	9274 Jun 08 19:06	23° \mathring{A} 25'04	17.42161 AU	evening set	9280 Dec 24 08:24	23° \mathring{B} 16'32	
direct	9274 Aug 22 15:47	21° \mathring{A} 21'18					
evening set	9274 Nov 25 09:27	24° \mathring{A} 47'28		conjunction	9281 Jan 09 20:18	24° \mathring{B} 18'01	0°07'55
max. Earth dist.	9274 Dec 11 08:32	25° \mathring{A} 46'40	19.41268 AU	minimum elong	9281 Jan 09 20:19	24° \mathring{B} 18'01	0°08'12
				behind sun begin	9281 Jan 09 14:22	24° \mathring{B} 17'06	
conjunction	9274 Dec 12 00:27	25° \mathring{A} 49'09	0°33'02	behind sun end	9281 Jan 10 02:16	24° \mathring{B} 18'55	
minimum elong	9274 Dec 12 00:27	25° \mathring{A} 49'09	0°33'20	max. Earth dist.	9281 Jan 09 05:45	24° \mathring{B} 15'45	19.39244 AU
morning rise	9274 Dec 28 13:45	26° \mathring{A} 50'36		morning rise	9281 Jan 26 05:22	25° \mathring{B} 19'05	
	9275 Mar 09 05:00	0° \mathring{B}		retrograde	9281 Apr 28 04:50	28° \mathring{B} 41'01	
retrograde	9275 Mar 31 07:31	0° \mathring{B} 13'34		opposition	9281 Jul 11 02:14	26° \mathring{B} 38'30	0°06'19
	9275 Apr 22 15:35	30° \mathring{R} \mathring{A}		min. Earth dist.	9281 Jul 11 15:17	26° \mathring{B} 37'05	17.39895 AU
opposition	9275 Jun 13 05:23	28° \mathring{A} 10'36	0°34'48	direct	9281 Sep 25 03:04	24° \mathring{B} 32'50	
min. Earth dist.	9275 Jun 13 18:57	28° \mathring{A} 09'07	17.40521 AU	evening set	9281 Dec 29 11:23	28° \mathring{B} 00'30	
direct	9275 Aug 27 15:17	26° \mathring{A} 05'20					
evening set	9275 Nov 30 13:20	29° \mathring{A} 32'00		conjunction	9282 Jan 14 22:22	29° \mathring{B} 01'50	0°03'23
	9275 Dec 08 03:33	0° \mathring{B}		minimum elong	9282 Jan 14 22:23	29° \mathring{B} 01'50	0°03'40
				behind sun begin	9282 Jan 14 15:44	29° \mathring{B} 00'49	
conjunction	9275 Dec 17 04:04	0° \mathring{B} 33'43	0°29'16	behind sun end	9282 Jan 15 05:02	29° \mathring{B} 02'51	
minimum elong	9275 Dec 17 04:04	0° \mathring{B} 33'43	0°29'33	max. Earth dist.	9282 Jan 14 07:49	28° \mathring{B} 59'34	19.40672 AU
max. Earth dist.	9275 Dec 16 12:31	0° \mathring{B} 31'18	19.39829 AU		9282 Jan 30 12:38	0° $\mathring{\approx}$	
morning rise	9276 Jan 02 16:46	1° \mathring{B} 35'11		morning rise	9282 Jan 31 06:42	0° $\mathring{\approx}$ 02'46	
retrograde	9276 Apr 04 09:03	4° \mathring{B} 58'07		retrograde	9282 May 03 04:33	3° $\mathring{\approx}$ 24'20	
opposition	9276 Jun 17 04:24	2° \mathring{B} 55'14	0°30'28	opposition	9282 Jul 16 01:51	1° $\mathring{\approx}$ 21'56	0°01'14
min. Earth dist.	9276 Jun 17 17:22	2° \mathring{B} 53'49	17.39273 AU	min. Earth dist.	9282 Jul 16 13:17	1° $\mathring{\approx}$ 20'42	17.41611 AU
direct	9276 Aug 31 17:43	0° \mathring{B} 49'52			9282 Aug 19 10:38	30° \mathring{R} \mathring{B}	
evening set	9276 Dec 04 17:32	4° \mathring{B} 16'57		direct	9282 Sep 30 07:10	29° \mathring{B} 16'19	
				desc. node	9282 Oct 11 21:23	29° \mathring{B} 19'56	
conjunction	9276 Dec 21 07:48	5° \mathring{B} 18'40	0°25'17		9282 Nov 10 04:52	0° $\mathring{\approx}$	
minimum elong	9276 Dec 21 07:48	5° \mathring{B} 18'40	0°25'35	evening set	9283 Jan 03 13:47	2° $\mathring{\approx}$ 43'49	
max. Earth dist.	9276 Dec 20 15:39	5° \mathring{B} 16'09	19.38787 AU	max. Earth dist.	9283 Jan 19 11:24	3° $\mathring{\approx}$ 43'01	19.42680 AU
morning rise	9277 Jan 06 19:53	6° \mathring{B} 20'06					
retrograde	9277 Apr 09 07:47	9° \mathring{B} 42'57		conjunction	9283 Jan 20 00:06	3° $\mathring{\approx}$ 45'00	-0°01'17
opposition	9277 Jun 22 03:41	7° \mathring{B} 40'09	0°25'56	minimum elong	9283 Jan 20 00:06	3° $\mathring{\approx}$ 45'00	0°01'01
min. Earth dist.	9277 Jun 22 17:45	7° \mathring{B} 38'36	17.38449 AU	behind sun begin	9283 Jan 19 17:24	3° $\mathring{\approx}$ 43'59	
direct	9277 Sep 05 17:42	5° \mathring{B} 34'40		behind sun end	9283 Jan 20 06:48	3° $\mathring{\approx}$ 46'01	
evening set	9277 Dec 09 21:40	9° \mathring{B} 02'04		morning rise	9283 Feb 05 07:21	4° $\mathring{\approx}$ 45'45	
				retrograde	9283 May 08 01:52	8° $\mathring{\approx}$ 06'56	
conjunction	9277 Dec 26 11:26	10° \mathring{B} 03'46	0°21'07	opposition	9283 Jul 21 01:40	6° $\mathring{\approx}$ 04'43	-0°03'51
minimum elong	9277 Dec 26 11:26	10° \mathring{B} 03'46	0°21'25	min. Earth dist.	9283 Jul 21 13:02	6° $\mathring{\approx}$ 03'29	17.43916 AU
max. Earth dist.	9277 Dec 25 19:23	10° \mathring{B} 01'16	19.38186 AU	direct	9283 Oct 05 08:19	3° $\mathring{\approx}$ 59'12	
morning rise	9278 Jan 11 22:53	11° \mathring{B} 05'09		evening set	9284 Jan 08 15:42	7° $\mathring{\approx}$ 26'27	
retrograde	9278 Apr 14 09:04	14° \mathring{B} 27'51					
opposition	9278 Jun 27 03:07	12° \mathring{B} 25'07	0°21'13	conjunction	9284 Jan 25 01:02	8° $\mathring{\approx}$ 27'27	-0°05'51
min. Earth dist.	9278 Jun 27 16:13	12° \mathring{B} 23'41	17.38062 AU	minimum elong	9284 Jan 25 01:01	8° $\mathring{\approx}$ 27'27	0°05'36
direct	9278 Sep 10 21:07	10° \mathring{B} 19'33		behind sun begin	9284 Jan 24 18:35	8° $\mathring{\approx}$ 26'28	
evening set	9278 Dec 15 01:32	13° \mathring{B} 47'10		behind sun end	9284 Jan 25 07:27	8° $\mathring{\approx}$ 28'26	
				max. Earth dist.	9284 Jan 24 12:18	8° $\mathring{\approx}$ 25'28	19.45287 AU
conjunction	9278 Dec 31 14:43	14° \mathring{B} 48'49	0°16'49	morning rise	9284 Feb 10 07:34	9° $\mathring{\approx}$ 28'02	
minimum elong	9278 Dec 31 14:43	14° \mathring{B} 48'49	0°17'07	retrograde	9284 May 12 00:56	12° $\mathring{\approx}$ 48'49	
max. Earth dist.	9278 Dec 30 22:59	14° \mathring{B} 46'22	19.38030 AU	opposition	9284 Jul 25 01:14	10° $\mathring{\approx}$ 46'46	-0°08'53
morning rise	9279 Jan 17 01:21	15° \mathring{B} 50'08		min. Earth dist.	9284 Jul 25 11:01	10° $\mathring{\approx}$ 45'43	17.46801 AU
retrograde	9279 Apr 19 07:07	19° \mathring{B} 12'37		direct	9284 Oct 09 10:38	8° $\mathring{\approx}$ 41'25	
opposition	9279 Jul 02 02:52	17° \mathring{B} 09'57	0°16'20	evening set	9285 Jan 12 17:06	12° $\mathring{\approx}$ 08'21	
min. Earth dist.	9279 Jul 02 16:46	17° \mathring{B} 08'26	17.38153 AU				
direct	9279 Sep 15 21:46	15° \mathring{B} 04'20		conjunction	9285 Jan 29 01:43	13° $\mathring{\approx}$ 09'10	-0°10'18

minimum elong	9285 Jan 29 01:42	13°09'09" 0°10'04"	evening set	9291 Feb 10 12:17	9°57'42"
behind sun begin	9285 Jan 28 20:20	13°08'20"			
behind sun end	9285 Jan 29 07:05	13°09'59"	conjunction	9291 Feb 26 15:07	10°56'58" -0°34'30"
max. Earth dist.	9285 Jan 28 15:04	13°07'31" 19.48437 AU	minimum elong	9291 Feb 26 15:06	10°56'58" 0°34'23"
morning rise	9285 Feb 14 07:09	14°09'32"	max. Earth dist.	9291 Feb 26 09:31	10°56'06" 19.75140 AU
	9285 Feb 28 12:33	15°00'	morning rise	9291 Mar 14 15:05	11°55'50"
retrograde	9285 May 16 22:44	17°29'51"	retrograde	9291 Jun 14 02:18	15°12'49"
opposition	9285 Jul 30 00:41	15°28'03" -0°13'50"	opposition	9291 Aug 27 17:06	13°12'11" -0°40'14"
min. Earth dist.	9285 Jul 30 10:17	15°27'02" 17.50194 AU	min. Earth dist.	9291 Aug 27 21:34	13°11'43" 17.77736 AU
	9285 Aug 09 23:45	15°00'	direct	9291 Nov 12 14:35	11°08'31"
direct	9285 Oct 14 11:23	13°22'55"	evening set	9292 Feb 15 08:41	14°30'51"
	9285 Dec 15 21:36	15°00'			
evening set	9286 Jan 17 18:09	16°49'27"	conjunction	9292 Mar 02 10:30	15°29'50" -0°37'51"
			minimum elong	9292 Mar 02 10:30	15°29'50" 0°37'45"
conjunction	9286 Feb 03 01:39	17°50'02" -0°14'42"	max. Earth dist.	9292 Mar 02 05:14	15°29'01" 19.80371 AU
minimum elong	9286 Feb 03 01:38	17°50'02" 0°14'29"	morning rise	9292 Mar 18 09:44	16°28'25"
behind sun begin	9286 Feb 02 22:43	17°49'35"	retrograde	9292 Jun 17 19:52	19°44'46"
behind sun end	9286 Feb 03 04:34	17°50'29"	opposition	9292 Aug 31 14:32	17°44'15" -0°43'49"
max. Earth dist.	9286 Feb 02 14:50	17°48'21" 19.52072 AU	min. Earth dist.	9292 Aug 31 18:41	17°43'49" 17.83047 AU
morning rise	9286 Feb 19 06:19	18°50'12"	direct	9292 Nov 16 12:55	15°40'49"
retrograde	9286 May 21 21:10	22°10'03"	evening set	9293 Feb 19 04:06	19°02'13"
opposition	9286 Aug 04 00:05	20°08'29" -0°18'41"			
min. Earth dist.	9286 Aug 04 08:27	20°07'35" 17.54048 AU	conjunction	9293 Mar 07 05:06	20°00'54" -0°40'57"
direct	9286 Oct 19 12:09	18°03'34"	minimum elong	9293 Mar 07 05:05	20°00'54" 0°40'54"
evening set	9287 Jan 22 18:15	21°29'36"	max. Earth dist.	9293 Mar 07 01:15	20°00'19" 19.85753 AU
			morning rise	9293 Mar 23 03:29	20°59'13"
conjunction	9287 Feb 08 00:57	22°29'57" -0°18'59"	retrograde	9293 Jun 22 13:28	24°14'53"
minimum elong	9287 Feb 08 00:57	22°29'57" 0°18'46"	opposition	9293 Sep 05 11:18	22°14'29" -0°47'06"
max. Earth dist.	9287 Feb 07 16:15	22°28'36" 19.56118 AU	min. Earth dist.	9293 Sep 05 13:48	22°14'13" 17.88494 AU
morning rise	9287 Feb 24 04:31	23°29'53"	direct	9293 Nov 21 12:30	20°11'18"
retrograde	9287 May 26 18:51	26°49'13"	evening set	9294 Feb 23 22:38	23°31'43"
opposition	9287 Aug 08 23:22	24°47'53" -0°23'23"			
min. Earth dist.	9287 Aug 09 07:12	24°47'02" 17.58268 AU	conjunction	9294 Mar 11 22:41	24°30'05" -0°43'47"
direct	9287 Oct 24 13:00	22°43'14"	minimum elong	9294 Mar 11 22:41	24°30'05" 0°43'44"
evening set	9288 Jan 27 17:59	26°08'39"	max. Earth dist.	9294 Mar 11 19:46	24°29'39" 19.91279 AU
			morning rise	9294 Mar 27 20:21	25°28'08"
conjunction	9288 Feb 12 23:34	27°08'46" -0°23'08"	retrograde	9294 Jun 27 05:29	28°43'08"
minimum elong	9288 Feb 12 23:34	27°08'46" 0°22'57"	opposition	9294 Sep 10 07:45	26°42'50" -0°50'05"
max. Earth dist.	9288 Feb 12 14:39	27°07'23" 19.60504 AU	min. Earth dist.	9294 Sep 10 09:52	26°42'37" 17.94117 AU
morning rise	9288 Feb 29 02:21	28°08'27"	direct	9294 Nov 26 09:13	24°39'54"
	9288 Apr 02 21:19	0°00'	evening set	9295 Feb 28 15:57	27°59'18"
retrograde	9288 May 30 15:42	1°27'15"			
	9288 Jul 30 11:29	30°00'	conjunction	9295 Mar 16 15:12	28°57'23" -0°46'20"
opposition	9288 Aug 12 22:12	29°26'06" -0°27'56"	minimum elong	9295 Mar 16 15:12	28°57'23" 0°46'18"
min. Earth dist.	9288 Aug 13 05:16	29°25'21" 17.62810 AU	max. Earth dist.	9295 Mar 16 13:47	28°57'10" 19.96993 AU
direct	9288 Oct 28 13:09	27°21'41"	morning rise	9295 Apr 01 12:10	29°55'08"
	9289 Jan 18 13:12	0°00'		9295 Apr 02 20:53	0°00'
evening set	9289 Jan 31 16:52	0°46'28"	retrograde	9295 Jul 01 22:03	3°09'30"
			opposition	9295 Sep 15 03:26	1°09'19" -0°52'44"
conjunction	9289 Feb 16 21:39	1°46'18" -0°27'07"	min. Earth dist.	9295 Sep 15 03:24	1°09'19" 17.99918 AU
minimum elong	9289 Feb 16 21:38	1°46'18" 0°26'57"		9295 Oct 14 14:38	30°00'
max. Earth dist.	9289 Feb 16 14:30	1°45'12" 19.65174 AU	direct	9295 Dec 01 07:09	29°06'39"
morning rise	9289 Mar 04 23:23	2°45'43"		9296 Jan 16 07:36	0°00'
retrograde	9289 Jun 04 12:13	6°03'56"	evening set	9296 Mar 04 08:33	2°25'02"
opposition	9289 Aug 17 20:54	4°02'59" -0°32'16"			
min. Earth dist.	9289 Aug 18 03:09	4°02'19" 17.67589 AU	conjunction	9296 Mar 20 06:59	3°22'49" -0°48'34"
direct	9289 Nov 02 14:11	1°58'50"	minimum elong	9296 Mar 20 06:58	3°22'49" 0°48'35"
evening set	9290 Feb 05 15:04	5°22'51"	max. Earth dist.	9296 Mar 20 06:56	3°22'49" 20.02884 AU
			morning rise	9296 Apr 05 03:16	4°20'19"
conjunction	9290 Feb 21 18:43	6°22'25" -0°30'55"	retrograde	9296 Jul 05 12:37	7°34'02"
minimum elong	9290 Feb 21 18:42	6°22'25" 0°30'46"	opposition	9296 Sep 18 22:34	5°34'00" -0°55'03"
max. Earth dist.	9290 Feb 21 11:32	6°21'19" 19.70059 AU	min. Earth dist.	9296 Sep 18 22:12	5°34'02" 18.05914 AU
morning rise	9290 Mar 09 19:38	7°21'34"	direct	9296 Dec 05 01:47	3°31'39"
retrograde	9290 Jun 09 07:23	10°39'11"	evening set	9297 Mar 09 00:15	6°49'01"
opposition	9290 Aug 22 19:16	8°38'23" -0°36'22"			
min. Earth dist.	9290 Aug 23 00:58	8°37'47" 17.72582 AU	conjunction	9297 Mar 24 21:54	7°46'31" -0°50'31"
direct	9290 Nov 07 13:54	6°34'29"	minimum elong	9297 Mar 24 21:54	7°46'31" 0°50'31"

max. Earth dist.	9297 Mar 24 23:04	7° Υ 46'41	20.08970 AU	min. Earth dist.	9303 Oct 21 13:10	5° δ 44'02	18.48926 AU
morning rise	9297 Apr 09 17:37	8° Υ 43'44		direct	9304 Jan 06 22:56	3° δ 43'23	
retrograde	9297 Jul 10 04:27	11° Υ 56'51		evening set	9304 Apr 08 15:34	6° δ 53'43	
opposition	9297 Sep 23 17:08	9° Υ 56'59	-0°57'01				
min. Earth dist.	9297 Sep 23 14:27	9° Υ 57'16	18.12069 AU	conjunction	9304 Apr 24 09:27	7° δ 49'26	-0°55'30
direct	9297 Dec 09 21:59	7° Υ 55'00		minimum elong	9304 Apr 24 09:27	7° δ 49'26	0°55'39
evening set	9298 Mar 13 14:56	11° Υ 11'21		max. Earth dist.	9304 Apr 24 18:17	7° δ 50'45	20.51693 AU
				morning rise	9304 May 10 02:35	8° δ 45'04	
conjunction	9298 Mar 29 11:53	12° Υ 08'34	-0°52'09	retrograde	9304 Aug 10 00:45	11° δ 54'24	
minimum elong	9298 Mar 29 11:53	12° Υ 08'34	0°52'12	opposition	9304 Oct 25 12:24	9° δ 55'42	-1°01'15
max. Earth dist.	9298 Mar 29 14:44	12° Υ 09'00	20.15185 AU	min. Earth dist.	9304 Oct 25 04:19	9° δ 56'31	18.54429 AU
morning rise	9298 Apr 14 07:00	13° Υ 05'32		direct	9305 Jan 10 13:14	7° δ 56'12	
retrograde	9298 Jul 14 17:58	16° Υ 18'04		evening set	9305 Apr 13 01:18	11° δ 05'34	
opposition	9298 Sep 28 11:21	14° Υ 18'24	-0°58'39				
min. Earth dist.	9298 Sep 28 08:25	14° Υ 18'42	18.18340 AU	conjunction	9305 Apr 28 18:47	12° δ 01'04	-0°55'00
direct	9298 Dec 14 14:40	12° Υ 16'47		minimum elong	9305 Apr 28 18:47	12° δ 01'04	0°55'11
evening set	9299 Mar 18 04:55	15° Υ 32'08		max. Earth dist.	9305 Apr 29 03:23	12° δ 02'20	20.57052 AU
				morning rise	9305 May 14 11:56	12° δ 56'31	
conjunction	9299 Apr 03 01:11	16° Υ 29'04	-0°53'29		9305 Jun 24 02:31	15° δ	
minimum elong	9299 Apr 03 01:10	16° Υ 29'04	0°53'32	retrograde	9305 Aug 14 12:57	16° δ 05'22	
max. Earth dist.	9299 Apr 03 04:54	16° Υ 29'38	20.21492 AU		9305 Oct 07 07:56	15° δ	
morning rise	9299 Apr 18 19:54	17° Υ 25'47		opposition	9305 Oct 30 02:40	14° δ 06'43	-1°00'31
retrograde	9299 Jul 19 09:13	20° Υ 37'45		min. Earth dist.	9305 Oct 29 17:01	14° δ 07'42	18.59633 AU
opposition	9299 Oct 03 04:41	18° Υ 38'17	-0°59'56	direct	9306 Jan 15 03:07	12° δ 07'28	
min. Earth dist.	9299 Oct 02 23:38	18° Υ 38'48	18.24656 AU		9306 Apr 12 19:03	15° δ	
direct	9299 Dec 19 08:55	16° Υ 37'03		evening set	9306 Apr 17 10:04	15° δ 15'51	
evening set	9300 Mar 22 18:04	19° Υ 51'24					
				conjunction	9306 May 03 03:27	16° δ 11'09	-0°54'12
conjunction	9300 Apr 07 13:48	20° Υ 48'04	-0°54'30	minimum elong	9306 May 03 03:27	16° δ 11'09	0°54'24
minimum elong	9300 Apr 07 13:48	20° Υ 48'04	0°54'35	max. Earth dist.	9306 May 03 13:35	16° δ 12'39	20.62096 AU
max. Earth dist.	9300 Apr 07 19:08	20° Υ 48'52	20.27794 AU	morning rise	9306 May 18 20:27	17° δ 06'26	
morning rise	9300 Apr 23 08:02	21° Υ 44'34		retrograde	9306 Aug 18 22:23	20° δ 14'49	
retrograde	9300 Jul 23 22:00	24° Υ 55'58		opposition	9306 Nov 03 16:25	18° δ 16'11	-0°59'29
opposition	9300 Oct 07 21:46	22° Υ 56'42	-1°00'53	min. Earth dist.	9306 Nov 03 06:57	18° δ 17'08	18.64527 AU
min. Earth dist.	9300 Oct 07 16:47	22° Υ 57'13	18.30938 AU	direct	9307 Jan 19 16:46	16° δ 17'09	
direct	9300 Dec 24 00:16	20° Υ 55'52		evening set	9307 Apr 21 18:22	19° δ 24'35	
evening set	9301 Mar 27 06:32	24° Υ 09'12					
				conjunction	9307 May 07 11:28	20° δ 19'42	-0°53'08
conjunction	9301 Apr 12 01:37	25° Υ 05'36	-0°55'12	minimum elong	9307 May 07 11:28	20° δ 19'42	0°53'21
minimum elong	9301 Apr 12 01:37	25° Υ 05'36	0°55'19	max. Earth dist.	9307 May 07 21:25	20° δ 21'10	20.66856 AU
max. Earth dist.	9301 Apr 12 07:25	25° Υ 06'28	20.34036 AU	morning rise	9307 May 23 04:40	21° δ 14'50	
morning rise	9301 Apr 27 19:34	26° Υ 01'52		retrograde	9307 Aug 23 09:27	24° δ 22'45	
retrograde	9301 Jul 28 12:17	29° Υ 12'44		opposition	9307 Nov 08 05:15	22° δ 24'07	-0°58'08
opposition	9301 Oct 12 14:11	27° Υ 13'39	-1°01'29	min. Earth dist.	9307 Nov 07 18:20	22° δ 25'13	18.69155 AU
min. Earth dist.	9301 Oct 12 07:15	27° Υ 14'22	18.37118 AU	direct	9308 Jan 24 05:14	20° δ 25'15	
direct	9301 Dec 28 17:05	25° Υ 13'11		evening set	9308 Apr 25 01:56	23° δ 31'48	
evening set	9302 Mar 31 18:15	28° Υ 25'31					
				conjunction	9308 May 10 19:02	24° δ 26'45	-0°51'47
conjunction	9302 Apr 16 12:55	29° Υ 21'41	-0°55'36	minimum elong	9308 May 10 19:02	24° δ 26'45	0°52'02
minimum elong	9302 Apr 16 12:55	29° Υ 21'41	0°55'44	max. Earth dist.	9308 May 11 06:40	24° δ 28'27	20.71350 AU
max. Earth dist.	9302 Apr 16 20:17	29° Υ 22'47	20.40135 AU	morning rise	9308 May 26 12:10	25° δ 21'44	
	9302 Apr 27 05:55	0° δ		retrograde	9308 Aug 26 17:38	28° δ 29'14	
morning rise	9302 May 02 06:27	0° δ 17'43		opposition	9308 Nov 11 17:47	26° δ 30'36	-0°56'29
retrograde	9302 Aug 02 00:36	3° δ 28'04		min. Earth dist.	9308 Nov 11 06:49	26° δ 31'42	18.73535 AU
opposition	9302 Oct 17 06:16	1° δ 29'09	-1°01'44	direct	9309 Jan 27 17:10	24° δ 31'56	
min. Earth dist.	9302 Oct 16 23:31	1° δ 29'50	18.43136 AU	evening set	9309 Apr 29 08:57	27° δ 37'38	
	9302 Nov 27 09:05	30° δ					
direct	9303 Jan 02 07:36	29° Υ 29'02		conjunction	9309 May 15 01:50	28° δ 32'25	-0°50'11
	9303 Feb 06 10:33	0° δ		minimum elong	9309 May 15 01:50	28° δ 32'25	0°50'26
evening set	9303 Apr 05 05:13	2° δ 40'22		max. Earth dist.	9309 May 15 13:24	28° δ 34'07	20.75626 AU
				morning rise	9309 May 30 19:15	29° δ 27'16	
conjunction	9303 Apr 20 23:24	3° δ 36'17	-0°55'42		9309 Jun 09 12:52	0° δ	
minimum elong	9303 Apr 20 23:23	3° δ 36'17	0°55'52	retrograde	9309 Aug 31 04:08	2° δ 34'25	
max. Earth dist.	9303 Apr 21 06:50	3° δ 37'24	20.46048 AU	opposition	9309 Nov 16 05:43	0° δ 35'47	-0°54'33
morning rise	9303 May 06 16:50	4° δ 32'08		min. Earth dist.	9309 Nov 15 17:13	0° δ 37'02	18.77709 AU
retrograde	9303 Aug 06 13:46	7° δ 41'58			9309 Dec 01 07:30	30° δ	
opposition	9303 Oct 21 21:35	5° δ 43'10	-1°01'40	direct	9310 Feb 01 04:11	28° δ 37'19	

	9310 Mar 31 15:43	0°♊			9316 Aug 14 21:14	0°♊
evening set	9310 May 03 15:26	1°♊42'14		retrograde	9316 Sep 28 15:49	0°♊48'17
					9316 Nov 13 23:02	30°♊♊
conjunction	9310 May 19 08:27	2°♊36'53 -0°48'20		opposition	9316 Dec 15 06:13	28°♊49'58 -0°34'26
minimum elong	9310 May 19 08:27	2°♊36'53 0°48'36		min. Earth dist.	9316 Dec 14 15:46	28°♊51'24 18.98765 AU
max. Earth dist.	9310 May 19 21:48	2°♊38'50 20.79685 AU		direct	9317 Mar 01 16:34	26°♊52'56
morning rise	9310 Jun 04 01:55	3°♊31'38		evening set	9317 May 31 05:13	29°♊54'04
retrograde	9310 Sep 04 11:36	6°♊38'27			9317 Jun 01 23:19	0°♊
opposition	9310 Nov 20 17:10	4°♊39'52 -0°52'22				
min. Earth dist.	9310 Nov 20 04:32	4°♊41'08 18.81659 AU		conjunction	9317 Jun 15 23:39	0°♊48'15 -0°29'31
direct	9311 Feb 05 14:14	2°♊41'38		minimum elong	9317 Jun 15 23:39	0°♊48'15 0°29'50
evening set	9311 May 07 21:34	5°♊45'48		max. Earth dist.	9317 Jun 16 14:15	0°♊50'21 20.99472 AU
				morning rise	9317 Jul 01 20:04	1°♊42'42
conjunction	9311 May 23 14:33	6°♊40'20 -0°46'15		retrograde	9317 Oct 03 00:25	4°♊48'41
minimum elong	9311 May 23 14:33	6°♊40'20 0°46'31		opposition	9317 Dec 19 15:35	2°♊50'20 -0°30'47
max. Earth dist.	9311 May 24 03:37	6°♊42'14 20.83526 AU		min. Earth dist.	9317 Dec 19 01:06	2°♊51'47 19.00084 AU
morning rise	9311 Jun 08 08:27	7°♊35'00		direct	9318 Mar 05 23:41	0°♊53'23
retrograde	9311 Sep 08 21:45	10°♊41'33		evening set	9318 Jun 04 10:11	3°♊54'13
opposition	9311 Nov 25 04:06	8°♊43'00 -0°49'55				
min. Earth dist.	9311 Nov 24 14:19	8°♊44'23 18.85372 AU		conjunction	9318 Jun 20 05:12	4°♊48'24 -0°26'09
direct	9312 Feb 09 23:44	6°♊44'59		minimum elong	9318 Jun 20 05:12	4°♊48'24 0°26'27
evening set	9312 May 11 03:14	9°♊48'30		max. Earth dist.	9318 Jun 20 20:33	4°♊50'36 21.00517 AU
				morning rise	9318 Jul 06 02:02	5°♊42'52
conjunction	9312 May 26 20:27	10°♊42'57 -0°43'56		retrograde	9318 Oct 07 08:12	8°♊48'51
minimum elong	9312 May 26 20:27	10°♊42'57 0°44'13		min. Earth dist.	9318 Dec 23 10:30	6°♊51'52 19.00856 AU
max. Earth dist.	9312 May 27 11:09	10°♊45'05 20.87094 AU		opposition	9318 Dec 24 00:33	6°♊50'28 -0°26'59
morning rise	9312 Jun 11 14:29	11°♊37'31		direct	9319 Mar 10 06:49	4°♊53'33
retrograde	9312 Sep 12 05:04	14°♊43'52		evening set	9319 Jun 08 15:12	7°♊54'06
opposition	9312 Nov 28 14:42	12°♊45'23 -0°47'14				
min. Earth dist.	9312 Nov 28 00:55	12°♊46'46 18.88790 AU		conjunction	9319 Jun 24 10:33	8°♊48'18 -0°22'40
direct	9313 Feb 13 08:37	10°♊47'36		minimum elong	9319 Jun 24 10:33	8°♊48'18 0°22'59
evening set	9313 May 15 08:46	13°♊50'31		max. Earth dist.	9319 Jun 25 00:31	8°♊50'18 21.01038 AU
				morning rise	9319 Jul 10 08:11	9°♊42'49
conjunction	9313 May 31 02:02	14°♊44'52 -0°41'25		retrograde	9319 Oct 11 16:50	12°♊48'50
minimum elong	9313 May 31 02:02	14°♊44'52 0°41'42		opposition	9319 Dec 28 09:22	10°♊50'20 -0°23'04
max. Earth dist.	9313 May 31 16:16	14°♊46'56 20.90369 AU		min. Earth dist.	9319 Dec 27 19:31	10°♊51'43 19.01124 AU
morning rise	9313 Jun 15 20:35	15°♊39'24		direct	9320 Mar 13 13:35	8°♊53'25
retrograde	9313 Sep 16 14:49	18°♊45'35		evening set	9320 Jun 11 19:58	11°♊53'45
min. Earth dist.	9313 Dec 02 10:24	16°♊48'37 18.91901 AU				
opposition	9313 Dec 03 01:03	16°♊47'09 -0°44'20		conjunction	9320 Jun 27 15:57	12°♊47'59 -0°19'05
direct	9314 Feb 17 17:02	14°♊49'34		minimum elong	9320 Jun 27 15:57	12°♊47'59 0°19'23
evening set	9314 May 19 13:53	17°♊51'58		max. Earth dist.	9320 Jun 28 06:50	12°♊50'07 21.01061 AU
				morning rise	9320 Jul 13 14:02	13°♊42'32
conjunction	9314 Jun 04 07:32	18°♊46'15 -0°38'42		retrograde	9320 Oct 15 00:11	16°♊48'38
minimum elong	9314 Jun 04 07:32	18°♊46'15 0°39'00		opposition	9320 Dec 31 17:57	14°♊50'01 -0°19'02
max. Earth dist.	9314 Jun 04 23:11	18°♊48'31 20.93292 AU		min. Earth dist.	9320 Dec 31 04:18	14°♊51'23 19.00916 AU
morning rise	9314 Jun 20 02:21	19°♊40'44		direct	9321 Mar 17 20:10	12°♊53'05
retrograde	9314 Sep 20 22:41	22°♊46'48		evening set	9321 Jun 16 00:58	15°♊53'13
opposition	9314 Dec 07 11:05	20°♊48'26 -0°41'13				
min. Earth dist.	9314 Dec 06 20:37	20°♊49'52 18.94627 AU		conjunction	9321 Jul 01 21:19	16°♊47'30 -0°15'23
direct	9315 Feb 22 01:15	18°♊51'04		minimum elong	9321 Jul 01 21:19	16°♊47'30 0°15'42
evening set	9315 May 23 19:08	21°♊52'59		behind sun begin	9321 Jul 01 19:47	16°♊47'17
				behind sun end	9321 Jul 01 22:52	16°♊47'43
conjunction	9315 Jun 08 12:55	22°♊47'13 -0°35'48		max. Earth dist.	9321 Jul 02 11:03	16°♊49'28 21.00657 AU
minimum elong	9315 Jun 08 12:55	22°♊47'13 0°36'06		morning rise	9321 Jul 17 20:14	17°♊42'07
max. Earth dist.	9315 Jun 09 03:41	22°♊49'21 20.95821 AU		retrograde	9321 Oct 19 09:00	20°♊48'21
morning rise	9315 Jun 24 08:20	23°♊41'41		opposition	9322 Jan 05 02:23	18°♊49'34 -0°14'54
retrograde	9315 Sep 25 07:39	26°♊47'41		min. Earth dist.	9322 Jan 04 12:54	18°♊50'55 19.00324 AU
opposition	9315 Dec 11 20:40	24°♊49'21 -0°37'55		direct	9322 Mar 22 02:17	16°♊52'35
min. Earth dist.	9315 Dec 11 05:53	24°♊50'49 18.96940 AU		evening set	9322 Jun 20 05:51	19°♊52'38
direct	9316 Feb 26 08:47	22°♊52'09				
evening set	9316 May 27 00:12	25°♊53'40		conjunction	9322 Jul 06 02:57	20°♊46'59 -0°11'38
				minimum elong	9322 Jul 06 02:57	20°♊46'59 0°11'56
conjunction	9316 Jun 11 18:25	26°♊47'52 -0°32'44		behind sun begin	9322 Jul 05 22:22	20°♊46'21
minimum elong	9316 Jun 11 18:25	26°♊47'52 0°33'02		behind sun end	9322 Jul 06 07:32	20°♊47'38
max. Earth dist.	9316 Jun 12 10:13	26°♊50'09 20.97893 AU		max. Earth dist.	9322 Jul 06 17:41	20°♊49'06 20.99872 AU
morning rise	9316 Jun 27 14:09	27°♊42'19		morning rise	9322 Jul 22 02:23	21°♊41'41

retrograde	9322 Oct 23 16:53	24° \mathring{O} 48'04	direct	9328 Apr 14 14:09	10° \mathring{O} 55'54	
opposition	9323 Jan 09 10:38	22° \mathring{O} 49'10 -0°10'43	evening set	9328 Jul 13 17:56	13° \mathring{O} 56'52	
min. Earth dist.	9323 Jan 08 21:13	22° \mathring{O} 50'31 18.99357 AU				
direct	9323 Mar 26 08:47	20° \mathring{O} 52'09	conjunction	9328 Jul 29 18:58	14° \mathring{O} 51'56	0°11'40
evening set	9323 Jun 24 11:09	23° \mathring{O} 52'10	minimum elong	9328 Jul 29 18:59	14° \mathring{O} 51'56	0°11'25
			behind sun begin	9328 Jul 29 14:10	14° \mathring{O} 51'15	
conjunction	9323 Jul 10 08:40	24° \mathring{O} 46'35 -0°07'49	behind sun end	9328 Jul 29 23:47	14° \mathring{O} 52'36	
minimum elong	9323 Jul 10 08:40	24° \mathring{O} 46'35 0°08'06	max. Earth dist.	9328 Jul 30 07:38	14° \mathring{O} 53'45	20.88156 AU
behind sun begin	9323 Jul 10 02:47	24° \mathring{O} 45'46		9328 Aug 01 02:56	15° \mathring{O}	
behind sun end	9323 Jul 10 14:33	24° \mathring{O} 47'24	morning rise	9328 Aug 14 22:47	15° \mathring{O} 47'25	
max. Earth dist.	9323 Jul 10 22:10	24° \mathring{O} 48'31 20.98741 AU	retrograde	9328 Nov 17 03:01	18° \mathring{O} 55'46	
morning rise	9323 Jul 26 08:57	25° \mathring{O} 41'23	opposition	9329 Feb 02 12:41	16° \mathring{O} 56'15	0°14'59
retrograde	9323 Oct 28 01:50	28° \mathring{O} 47'58	min. Earth dist.	9329 Feb 02 01:40	16° \mathring{O} 57'22	18.86604 AU
opposition	9324 Jan 13 18:45	26° \mathring{O} 48'57 -0°06'27		9329 Apr 12 07:54	15° \mathring{R} \mathring{O}	
min. Earth dist.	9324 Jan 13 05:40	26° \mathring{O} 50'16 18.98065 AU	direct	9329 Apr 18 21:27	14° \mathring{O} 58'53	
direct	9324 Mar 29 13:53	24° \mathring{O} 51'52		9329 Apr 25 11:33	15° \mathring{O}	
evening set	9324 Jun 27 16:30	27° \mathring{O} 51'57	evening set	9329 Jul 18 01:46	18° \mathring{O} 00'15	
conjunction	9324 Jul 13 14:48	28° \mathring{O} 46'28 -0°03'59	conjunction	9329 Aug 03 03:22	18° \mathring{O} 55'29	0°15'28
minimum elong	9324 Jul 13 14:48	28° \mathring{O} 46'28 0°04'16	minimum elong	9329 Aug 03 03:22	18° \mathring{O} 55'29	0°15'15
behind sun begin	9324 Jul 13 08:18	28° \mathring{O} 45'34	behind sun begin	9329 Aug 03 01:16	18° \mathring{O} 55'11	
behind sun end	9324 Jul 13 21:18	28° \mathring{O} 47'23	behind sun end	9329 Aug 03 05:28	18° \mathring{O} 55'46	
max. Earth dist.	9324 Jul 14 05:13	28° \mathring{O} 48'32 20.97283 AU	max. Earth dist.	9329 Aug 03 14:02	18° \mathring{O} 57'00	20.84948 AU
morning rise	9324 Jul 29 15:37	29° \mathring{O} 41'22	morning rise	9329 Aug 19 08:06	19° \mathring{O} 51'08	
	9324 Aug 04 05:54	0° \mathring{O}	retrograde	9329 Nov 21 14:37	22° \mathring{O} 59'59	
retrograde	9324 Oct 31 10:38	2° \mathring{O} 48'13	opposition	9330 Feb 06 21:38	21° \mathring{O} 00'20	0°19'11
opposition	9325 Jan 17 02:57	0° \mathring{O} 49'06 -0°02'10	min. Earth dist.	9330 Feb 06 11:59	21° \mathring{O} 01'19	18.83188 AU
min. Earth dist.	9325 Jan 16 13:53	0° \mathring{O} 50'25 18.96441 AU	direct	9330 Apr 23 03:54	19° \mathring{O} 02'49	
	9325 Feb 07 01:17	30° \mathring{R} \mathring{O}	evening set	9330 Jul 22 10:04	22° \mathring{O} 04'39	
direct	9325 Apr 02 20:46	28° \mathring{O} 51'59				
	9325 May 25 09:04	0° \mathring{O}	conjunction	9330 Aug 07 12:36	23° \mathring{O} 00'04	0°19'13
evening set	9325 Jul 01 22:12	1° \mathring{O} 52'09	minimum elong	9330 Aug 07 12:36	23° \mathring{O} 00'04	0°19'02
			max. Earth dist.	9330 Aug 07 23:17	23° \mathring{O} 01'36	20.81302 AU
conjunction	9325 Jul 17 20:59	2° \mathring{O} 46'47 -0°00'02	morning rise	9330 Aug 23 17:55	23° \mathring{O} 55'55	
minimum elong	9325 Jul 17 21:00	2° \mathring{O} 46'47 0°00'17	retrograde	9330 Nov 26 01:45	27° \mathring{O} 05'14	
behind sun begin	9325 Jul 17 14:26	2° \mathring{O} 45'52	opposition	9331 Feb 11 06:48	25° \mathring{O} 05'27	0°23'18
behind sun end	9325 Jul 18 03:34	2° \mathring{O} 47'42	min. Earth dist.	9331 Feb 10 21:40	25° \mathring{O} 06'23	18.79306 AU
max. Earth dist.	9325 Jul 18 10:06	2° \mathring{O} 48'39 20.95509 AU	direct	9331 Apr 27 11:38	23° \mathring{O} 07'47	
asc. node	9325 Jul 19 18:13	2° \mathring{O} 53'17	evening set	9331 Jul 26 19:08	26° \mathring{O} 10'07	
morning rise	9325 Aug 02 22:44	3° \mathring{O} 41'49				
retrograde	9325 Nov 04 20:24	6° \mathring{O} 48'59	conjunction	9331 Aug 11 22:14	27° \mathring{O} 05'43	0°22'54
opposition	9326 Jan 21 11:17	4° \mathring{O} 49'45 0°02'08	minimum elong	9331 Aug 11 22:14	27° \mathring{O} 05'43	0°22'43
min. Earth dist.	9326 Jan 20 22:46	4° \mathring{O} 51'01 18.94508 AU	max. Earth dist.	9331 Aug 12 06:35	27° \mathring{O} 06'55	20.77195 AU
direct	9326 Apr 07 01:33	2° \mathring{O} 52'34	morning rise	9331 Aug 28 04:27	28° \mathring{O} 01'46	
evening set	9326 Jul 06 04:17	5° \mathring{O} 52'57		9331 Oct 06 13:14	0° \mathring{R}	
			retrograde	9331 Nov 30 13:43	1° \mathring{R} 11'36	
conjunction	9326 Jul 22 03:57	6° \mathring{O} 47'43 0°03'57		9332 Jan 26 09:21	30° \mathring{R} \mathring{O}	
minimum elong	9326 Jul 22 03:56	6° \mathring{O} 47'43 0°03'41	opposition	9332 Feb 15 16:17	29° \mathring{O} 11'37	0°27'20
behind sun begin	9326 Jul 21 21:23	6° \mathring{O} 46'48	min. Earth dist.	9332 Feb 15 08:44	29° \mathring{O} 12'24	18.74979 AU
behind sun end	9326 Jul 22 10:30	6° \mathring{O} 48'38	direct	9332 Apr 30 19:06	27° \mathring{O} 13'44	
max. Earth dist.	9326 Jul 22 17:45	6° \mathring{O} 49'41 20.93406 AU		9332 Jul 25 06:03	0° \mathring{R}	
morning rise	9326 Aug 07 06:15	7° \mathring{O} 42'53	evening set	9332 Jul 30 04:35	0° \mathring{R} 16'36	
retrograde	9326 Nov 09 05:57	10° \mathring{O} 50'23				
opposition	9327 Jan 25 19:27	8° \mathring{O} 51'04 0°06'27	conjunction	9332 Aug 15 08:38	1° \mathring{R} 12'25	0°26'29
min. Earth dist.	9327 Jan 25 07:09	8° \mathring{O} 52'18 18.92232 AU	minimum elong	9332 Aug 15 08:38	1° \mathring{R} 12'25	0°26'19
direct	9327 Apr 11 08:41	6° \mathring{O} 53'50	max. Earth dist.	9332 Aug 15 16:59	1° \mathring{R} 13'38	20.72657 AU
evening set	9327 Jul 10 10:58	9° \mathring{O} 54'29	morning rise	9332 Aug 31 15:26	2° \mathring{R} 08'40	
			retrograde	9332 Dec 04 01:44	5° \mathring{R} 19'01	
conjunction	9327 Jul 26 11:09	10° \mathring{O} 49'23 0°07'49	opposition	9333 Feb 19 01:57	3° \mathring{R} 18'50	0°31'14
minimum elong	9327 Jul 26 11:09	10° \mathring{O} 49'23 0°07'34	min. Earth dist.	9333 Feb 18 18:47	3° \mathring{R} 19'34	18.70238 AU
behind sun begin	9327 Jul 26 05:08	10° \mathring{O} 48'32	direct	9333 May 05 03:42	1° \mathring{R} 20'43	
behind sun end	9327 Jul 26 17:10	10° \mathring{O} 50'13	evening set	9333 Aug 03 14:43	4° \mathring{R} 24'09	
max. Earth dist.	9327 Jul 26 23:19	10° \mathring{O} 51'07 20.90966 AU				
morning rise	9327 Aug 11 14:24	11° \mathring{O} 44'42	conjunction	9333 Aug 19 19:23	5° \mathring{R} 20'11	0°29'56
retrograde	9327 Nov 13 16:39	14° \mathring{O} 52'37	minimum elong	9333 Aug 19 19:23	5° \mathring{R} 20'11	0°29'47
opposition	9328 Jan 30 03:59	12° \mathring{O} 53'12 0°10'44	max. Earth dist.	9333 Aug 20 01:34	5° \mathring{R} 21'04	20.67743 AU
min. Earth dist.	9328 Jan 29 16:38	12° \mathring{O} 54'21 18.89614 AU	morning rise	9333 Sep 05 03:08	6° \mathring{R} 16'39	

retrograde	9333 Dec 08 13:55	9° $\overline{17}$ 27'33		evening set	9340 Sep 02 09:27	3° $\underline{53}$ '56	
opposition	9334 Feb 23 11:58	7° $\overline{17}$ 27'07	0°35'01				
min. Earth dist.	9334 Feb 23 06:28	7° $\overline{17}$ 27'41	18.65162 AU	conjunction	9340 Sep 18 19:30	4° $\underline{51}$ '47	0°49'10
direct	9334 May 09 11:47	5° $\overline{17}$ 28'43		minimum elong	9340 Sep 18 19:30	4° $\underline{51}$ '47	0°49'10
evening set	9334 Aug 08 01:27	8° $\overline{17}$ 32'48		max. Earth dist.	9340 Sep 18 19:57	4° $\underline{51}$ '50	20.27939 AU
				morning rise	9340 Oct 05 07:39	5° $\underline{49}$ '58	
conjunction	9334 Aug 24 07:04	9° $\overline{17}$ 29'05	0°33'16	retrograde	9341 Jan 07 18:33	9° $\underline{45}$ '19	
minimum elong	9334 Aug 24 07:03	9° $\overline{17}$ 29'05	0°33'09	opposition	9341 Mar 24 19:45	7° $\underline{43}$ '34	0°55'37
max. Earth dist.	9334 Aug 24 13:19	9° $\overline{17}$ 29'59	20.62518 AU	min. Earth dist.	9341 Mar 24 19:27	7° $\underline{43}$ '36	18.24966 AU
morning rise	9334 Sep 09 15:21	10° $\overline{17}$ 25'46		direct	9341 Jun 07 14:14	5° $\underline{43}$ '13	
retrograde	9334 Dec 13 03:15	13° $\overline{17}$ 37'13		evening set	9341 Sep 07 01:55	8° $\underline{41}$ '23	
opposition	9335 Feb 27 21:58	11° $\overline{17}$ 36'34	0°38'37				
min. Earth dist.	9335 Feb 27 16:44	11° $\overline{17}$ 37'06	18.59804 AU	conjunction	9341 Sep 23 12:32	9° $\underline{41}$ '30	0°50'59
direct	9335 May 13 21:26	9° $\overline{17}$ 37'52		minimum elong	9341 Sep 23 12:32	9° $\underline{41}$ '30	0°51'02
evening set	9335 Aug 12 12:59	12° $\overline{17}$ 42'40		max. Earth dist.	9341 Sep 23 11:01	9° $\underline{41}$ '17	20.21977 AU
				morning rise	9341 Oct 10 01:20	10° $\underline{40}$ '57	
conjunction	9335 Aug 28 19:10	13° $\overline{17}$ 39'10	0°36'25	retrograde	9342 Jan 12 10:23	13° $\underline{42}$ '00	
minimum elong	9335 Aug 28 19:10	13° $\overline{17}$ 39'10	0°36'19	opposition	9342 Mar 29 09:19	11° $\underline{42}$ '08	0°57'30
max. Earth dist.	9335 Aug 28 23:22	13° $\overline{17}$ 39'47	20.57050 AU	min. Earth dist.	9342 Mar 29 11:04	11° $\underline{42}$ '57	18.18988 AU
morning rise	9335 Sep 14 04:19	14° $\overline{17}$ 36'06		direct	9342 Jun 12 01:55	9° $\underline{42}$ '31	
retrograde	9335 Dec 17 15:34	17° $\overline{17}$ 48'09		evening set	9342 Sep 11 19:18	12° $\underline{43}$ '44	
opposition	9336 Mar 03 08:36	15° $\overline{17}$ 47'16	0°42'02				
min. Earth dist.	9336 Mar 03 04:59	15° $\overline{17}$ 47'38	18.54247 AU	conjunction	9342 Sep 28 06:40	13° $\underline{43}$ '08	0°52'32
direct	9336 May 17 05:58	13° $\overline{17}$ 48'17		minimum elong	9342 Sep 28 06:40	13° $\underline{43}$ '08	0°52'36
evening set	9336 Aug 16 00:53	16° $\overline{17}$ 53'50		max. Earth dist.	9342 Sep 28 04:33	13° $\underline{43}$ '50	20.15971 AU
				morning rise	9342 Oct 14 19:51	14° $\underline{43}$ '51	
conjunction	9336 Sep 01 08:00	17° $\overline{17}$ 50'35	0°39'24	retrograde	9343 Jan 17 05:20	17° $\underline{48}$ '35	
minimum elong	9336 Sep 01 08:00	17° $\overline{17}$ 50'35	0°39'19	opposition	9343 Apr 02 23:15	15° $\underline{46}$ '37	0°59'04
max. Earth dist.	9336 Sep 01 12:26	17° $\overline{17}$ 51'14	20.51407 AU	min. Earth dist.	9343 Apr 03 01:13	15° $\underline{46}$ '24	18.12949 AU
morning rise	9336 Sep 17 17:40	18° $\overline{17}$ 47'45		direct	9343 Jun 16 16:40	13° $\underline{45}$ '42	
retrograde	9336 Dec 21 06:19	22° $\overline{17}$ 00'26		evening set	9343 Sep 16 13:46	16° $\underline{45}$ '59	
opposition	9337 Mar 07 19:29	19° $\overline{17}$ 59'19	0°45'14				
min. Earth dist.	9337 Mar 07 15:52	19° $\overline{17}$ 59'42	18.48531 AU	conjunction	9343 Oct 03 01:38	17° $\underline{45}$ '40	0°53'47
direct	9337 May 21 17:00	18° $\overline{17}$ 00'03		minimum elong	9343 Oct 03 01:38	17° $\underline{45}$ '40	0°53'52
evening set	9337 Aug 20 13:53	21° $\overline{17}$ 06'25		max. Earth dist.	9343 Oct 02 21:31	17° $\underline{45}$ '03	20.09890 AU
				morning rise	9343 Oct 19 15:18	18° $\underline{45}$ '38	
conjunction	9337 Sep 05 21:36	22° $\overline{17}$ 03'27	0°42'11	retrograde	9344 Jan 21 22:41	22° $\underline{41}$ '30	
minimum elong	9337 Sep 05 21:36	22° $\overline{17}$ 03'27	0°42'07	opposition	9344 Apr 06 14:06	20° $\underline{41}$ '55	1°00'19
max. Earth dist.	9337 Sep 06 00:02	22° $\overline{17}$ 03'48	20.45632 AU	min. Earth dist.	9344 Apr 06 18:13	20° $\underline{41}$ '28	18.06843 AU
morning rise	9337 Sep 22 08:05	23° $\overline{17}$ 00'52		direct	9344 Jun 20 05:44	18° $\underline{40}$ '41	
retrograde	9337 Dec 25 19:11	26° $\overline{17}$ 14'11		evening set	9344 Sep 20 08:51	21° $\underline{42}$ '01	
opposition	9338 Mar 12 06:48	24° $\overline{17}$ 12'52	0°48'13				
min. Earth dist.	9338 Mar 12 04:53	24° $\overline{17}$ 13'04	18.42718 AU	conjunction	9344 Oct 06 21:26	22° $\underline{42}$ '59	0°54'44
direct	9338 May 26 02:08	22° $\overline{17}$ 13'18		minimum elong	9344 Oct 06 21:26	22° $\underline{42}$ '59	0°54'51
evening set	9338 Aug 25 03:32	25° $\overline{17}$ 20'34		max. Earth dist.	9344 Oct 06 16:22	22° $\underline{42}$ '13	20.03758 AU
				morning rise	9344 Oct 23 11:29	23° $\underline{42}$ '12	
conjunction	9338 Sep 10 12:10	26° $\overline{17}$ 17'51	0°44'45	retrograde	9345 Jan 25 19:14	26° $\underline{43}$ '14	
minimum elong	9338 Sep 10 12:10	26° $\overline{17}$ 17'51	0°44'42	opposition	9345 Apr 11 05:22	24° $\underline{43}$ '57	1°01'13
max. Earth dist.	9338 Sep 10 14:38	26° $\overline{17}$ 18'13	20.39779 AU	min. Earth dist.	9345 Apr 11 09:41	24° $\underline{43}$ '29	18.00682 AU
morning rise	9338 Sep 26 23:09	27° $\overline{17}$ 15'31		direct	9345 Jun 24 22:22	22° $\underline{43}$ '52	
	9338 Nov 26 03:45	0° $\underline{43}$		evening set	9345 Sep 25 05:07	25° $\underline{44}$ '44	
retrograde	9338 Dec 30 11:07	0° $\underline{43}$ 29'30					
	9339 Feb 03 03:57	30° \overline{R} $\overline{17}$		conjunction	9345 Oct 11 18:12	26° $\underline{48}$ '59	0°55'22
opposition	9339 Mar 16 18:33	28° $\overline{17}$ 28'01	0°50'57	minimum elong	9345 Oct 11 18:12	26° $\underline{48}$ '59	0°55'28
min. Earth dist.	9339 Mar 16 16:32	28° $\overline{17}$ 28'13	18.36831 AU	max. Earth dist.	9345 Oct 11 11:22	26° $\underline{47}$ '57	19.97578 AU
direct	9339 May 30 14:34	26° $\overline{17}$ 28'11		morning rise	9345 Oct 28 08:36	27° $\underline{48}$ '28	
evening set	9339 Aug 29 18:05	29° $\overline{17}$ 36'21			9345 Dec 09 23:36	0° $\overline{17}$	
	9339 Sep 05 12:56	0° $\underline{43}$		retrograde	9346 Jan 30 13:15	1° $\overline{17}$ 07'03	
					9346 Mar 24 11:45	30° \overline{R} $\underline{43}$	
conjunction	9339 Sep 15 03:16	0° $\underline{43}$ 33'55	0°47'05	opposition	9346 Apr 15 21:14	29° $\underline{43}$ '04'37	1°01'45
minimum elong	9339 Sep 15 03:16	0° $\underline{43}$ 33'55	0°47'04	min. Earth dist.	9346 Apr 16 03:42	29° $\underline{43}$ '55	17.94510 AU
max. Earth dist.	9339 Sep 15 03:49	0° $\underline{43}$ 34'00	20.33868 AU	direct	9346 Jun 29 12:51	27° $\underline{43}$ '02'39	
morning rise	9339 Oct 01 14:58	1° $\underline{43}$ 31'51			9346 Sep 24 21:55	0° $\overline{17}$	
retrograde	9340 Jan 04 01:08	4° $\underline{46}$ '31		evening set	9346 Sep 30 02:03	0° $\overline{17}$ 18'04	
opposition	9340 Mar 20 06:58	2° $\underline{44}$ '53	0°53'25				
min. Earth dist.	9340 Mar 20 06:42	2° $\underline{44}$ '55	18.30911 AU	conjunction	9346 Oct 16 15:42	1° $\overline{17}$ 17'35	0°55'39
direct	9340 Jun 03 00:47	0° $\underline{44}$ '47		minimum elong	9346 Oct 16 15:42	1° $\overline{17}$ 17'35	0°55'48

max. Earth dist.	9346 Oct 16 07:42	1° 16 16'23	19.91435 AU		9353 Jun 09 18:48	30° 18 18	
morning rise	9346 Nov 02 06:25	2° 16 17'18		direct	9353 Jul 31 02:55	28° 16 54'58	
retrograde	9347 Feb 04 10:47	5° 16 36'27			9353 Sep 19 05:29	0° 16	
opposition	9347 Apr 20 13:35	3° 16 33'49	1°01'55	evening set	9353 Nov 02 00:13	2° 16 17'20	
min. Earth dist.	9347 Apr 20 20:09	3° 16 33'07	17.88404 AU				
direct	9347 Jul 04 07:06	1° 16 31'29		conjunction	9353 Nov 18 16:01	3° 16 18'28	0°48'01
evening set	9347 Oct 04 23:39	4° 16 47'56		minimum elong	9353 Nov 18 16:01	3° 16 18'28	0°48'17
				max. Earth dist.	9353 Nov 18 03:17	3° 16 16'30	19.55069 AU
conjunction	9347 Oct 21 13:44	5° 16 47'42	0°55'37	morning rise	9353 Dec 05 07:01	4° 16 19'31	
minimum elong	9347 Oct 21 13:44	5° 16 47'42	0°55'47	retrograde	9354 Mar 08 15:43	7° 16 41'41	
max. Earth dist.	9347 Oct 21 04:42	5° 16 46'20	19.85379 AU	opposition	9354 May 21 23:44	5° 16 38'24	0°52'12
morning rise	9347 Nov 07 04:39	6° 16 47'39		min. Earth dist.	9354 May 22 11:05	5° 16 37'10	17.53234 AU
retrograde	9348 Feb 09 05:33	10° 16 07'20		direct	9354 Aug 05 00:34	3° 16 33'56	
opposition	9348 Apr 24 06:39	8° 16 04'31	1°01'41	evening set	9354 Nov 07 02:37	6° 16 57'13	
min. Earth dist.	9348 Apr 24 15:00	8° 16 03'37	17.82432 AU				
direct	9348 Jul 07 23:18	6° 16 01'48		conjunction	9354 Nov 23 18:15	7° 16 58'30	0°45'35
evening set	9348 Oct 08 22:04	9° 16 19'16		minimum elong	9354 Nov 23 18:16	7° 16 58'30	0°45'52
				max. Earth dist.	9354 Nov 23 03:57	7° 16 56'17	19.51476 AU
conjunction	9348 Oct 25 12:34	10° 16 19'18	0°55'13	morning rise	9354 Dec 10 09:13	8° 16 59'41	
minimum elong	9348 Oct 25 12:34	10° 16 19'18	0°55'24	retrograde	9355 Mar 13 14:56	12° 16 22'10	
max. Earth dist.	9348 Oct 25 02:18	10° 16 17'45	19.79513 AU	opposition	9355 May 26 20:35	10° 16 18'56	0°49'19
morning rise	9348 Nov 11 03:46	11° 16 19'28		min. Earth dist.	9355 May 27 08:15	10° 16 17'40	17.49867 AU
retrograde	9349 Feb 13 03:33	14° 16 39'39		direct	9355 Aug 09 23:21	8° 16 14'18	
opposition	9349 Apr 28 23:59	12° 16 36'39	1°01'05	evening set	9355 Nov 12 05:14	11° 16 38'26	
min. Earth dist.	9349 Apr 29 08:21	12° 16 35'45	17.76681 AU				
direct	9349 Jul 12 18:55	10° 16 33'33		conjunction	9355 Nov 28 21:00	12° 16 39'51	0°42'49
evening set	9349 Oct 13 21:14	13° 16 52'03		minimum elong	9355 Nov 28 21:00	12° 16 39'51	0°43'06
				max. Earth dist.	9355 Nov 28 07:27	12° 16 37'46	19.48316 AU
conjunction	9349 Oct 30 12:10	14° 16 52'20	0°54'28	morning rise	9355 Dec 15 11:31	13° 16 41'09	
minimum elong	9349 Oct 30 12:09	14° 16 52'20	0°54'41	retrograde	9356 Mar 17 14:36	17° 16 03'53	
max. Earth dist.	9349 Oct 30 01:26	14° 16 50'42	19.73881 AU	opposition	9356 May 30 18:00	15° 16 00'44	0°46'06
	9349 Nov 01 14:28	15° 16		min. Earth dist.	9356 May 31 06:04	14° 16 59'25	17.46905 AU
morning rise	9349 Nov 16 03:23	15° 16 52'43		direct	9356 Aug 13 22:50	12° 16 55'58	
retrograde	9350 Feb 17 23:18	19° 16 13'20		evening set	9356 Nov 16 08:40	16° 16 20'52	
opposition	9350 May 03 18:06	17° 16 10'13	1°00'05	max. Earth dist.	9356 Dec 02 08:52	17° 16 20'02	19.45555 AU
min. Earth dist.	9350 May 04 03:54	17° 16 09'09	17.71200 AU				
direct	9350 Jul 17 12:45	15° 16 06'46		conjunction	9356 Dec 03 00:09	17° 16 22'24	0°39'47
evening set	9350 Oct 18 21:03	18° 16 26'15		minimum elong	9356 Dec 03 00:09	17° 16 22'24	0°40'05
				morning rise	9356 Dec 19 14:28	18° 16 23'47	
conjunction	9350 Nov 04 12:10	19° 16 26'46	0°53'23	retrograde	9357 Mar 22 14:19	21° 16 46'42	
minimum elong	9350 Nov 04 12:10	19° 16 26'46	0°53'36	opposition	9357 Jun 04 15:48	19° 16 43'37	0°42'33
max. Earth dist.	9350 Nov 04 00:07	19° 16 24'55	19.68569 AU	min. Earth dist.	9357 Jun 05 04:40	19° 16 42'13	17.44343 AU
morning rise	9350 Nov 21 03:33	20° 16 27'20		direct	9357 Aug 18 22:29	17° 16 38'40	
retrograde	9351 Feb 22 21:50	23° 16 48'24		evening set	9357 Nov 21 12:21	21° 16 04'17	
opposition	9351 May 08 12:36	21° 16 45'10	0°58'41				
min. Earth dist.	9351 May 08 22:20	21° 16 44'06	17.66070 AU	conjunction	9357 Dec 08 03:47	22° 16 05'55	0°36'27
direct	9351 Jul 22 09:37	19° 16 41'23		minimum elong	9357 Dec 08 03:47	22° 16 05'55	0°36'45
evening set	9351 Oct 23 21:27	23° 16 01'52		max. Earth dist.	9357 Dec 07 13:02	22° 16 03'37	19.43175 AU
				morning rise	9357 Dec 24 17:32	23° 16 07'21	
conjunction	9351 Nov 09 12:55	24° 16 02'36	0°51'56	retrograde	9358 Mar 27 15:11	26° 16 30'21	
minimum elong	9351 Nov 09 12:55	24° 16 02'36	0°52'11	opposition	9358 Jun 09 14:11	24° 16 27'21	0°38'43
max. Earth dist.	9351 Nov 09 01:04	24° 16 00'47	19.63626 AU	min. Earth dist.	9358 Jun 10 03:02	24° 16 25'57	17.42144 AU
morning rise	9351 Nov 26 04:08	25° 16 03'21		direct	9358 Aug 23 23:00	22° 16 22'16	
retrograde	9352 Feb 27 18:36	28° 16 24'48		evening set	9358 Nov 26 16:16	25° 16 48'28	
opposition	9352 May 12 07:48	26° 16 21'30	0°56'54				
min. Earth dist.	9352 May 12 18:29	26° 16 20'21	17.61340 AU	conjunction	9358 Dec 13 07:15	26° 16 50'09	0°32'53
direct	9352 Jul 26 05:07	24° 16 17'27		minimum elong	9358 Dec 13 07:15	26° 16 50'09	0°33'11
evening set	9352 Oct 27 22:31	27° 16 38'53		max. Earth dist.	9358 Dec 12 15:08	26° 16 47'39	19.41168 AU
				morning rise	9358 Dec 29 20:36	27° 16 51'37	
conjunction	9352 Nov 13 14:03	28° 16 39'49	0°50'09		9359 Feb 07 12:06	0° 16	
minimum elong	9352 Nov 13 14:03	28° 16 39'49	0°50'24	retrograde	9359 Apr 01 15:10	1° 16 31'44	
max. Earth dist.	9352 Nov 13 00:46	28° 16 37'46	19.59124 AU		9359 May 26 14:09	30° 16	
morning rise	9352 Nov 30 05:24	29° 16 40'44		opposition	9359 Jun 14 12:56	29° 16 11'44	0°34'36
	9352 Dec 05 15:03	0° 16		min. Earth dist.	9359 Jun 15 02:39	29° 16 10'14	17.40341 AU
retrograde	9353 Mar 03 17:35	3° 16 02'35		direct	9359 Aug 28 23:18	27° 16 06'29	
opposition	9353 May 17 03:31	0° 16 59'15	0°54'44		9359 Nov 22 14:12	0° 16	
min. Earth dist.	9353 May 17 14:11	0° 16 58'05	17.57064 AU	evening set	9359 Dec 01 20:13	0° 16 33'11	

conjunction	9359 Dec 18 10:59	1°33'54" 0°29'04"	behind sun begin	9366 Jan 15 22:20	0°00'12"3	
minimum elong	9359 Dec 18 11:00	1°33'54" 0°29'23"	behind sun end	9366 Jan 16 11:41	0°00'03"25	
max. Earth dist.	9359 Dec 17 19:23	1°33'22"28 19.39571 AU	max. Earth dist.	9366 Jan 15 14:50	0°00'00"12	19.40188 AU
morning rise	9360 Jan 03 23:43	2°33'26"23	morning rise	9366 Feb 01 13:24	1°00'03"21	
retrograde	9360 Apr 05 16:02	5°33'59"24	retrograde	9366 May 04 11:16	4°00'24"56	
opposition	9360 Jun 18 11:50	3°33'56"30 0°30'14"	opposition	9366 Jul 17 09:01	2°00'22"27	0°00'05"1
min. Earth dist.	9360 Jun 19 01:02	3°33'55"03 17.38944 AU	min. Earth dist.	9366 Jul 17 19:58	2°00'21"16	17.41174 AU
direct	9360 Sep 02 00:23	1°33'51"07	desc. node	9366 Sep 15 12:14	0°00'23"33	
evening set	9360 Dec 06 00:22	5°33'18"12	direct	9366 Oct 01 13:48	0°00'16"46	
			evening set	9367 Jan 04 20:14	3°00'44"14	
conjunction	9360 Dec 22 14:39	6°33'19"56 0°25'03"				
minimum elong	9360 Dec 22 14:39	6°33'19"56 0°25'22"	conjunction	9367 Jan 21 06:38	4°00'45"26	-0°01'38"
max. Earth dist.	9360 Dec 21 22:15	6°33'17"23 19.38393 AU	minimum elong	9367 Jan 21 06:37	4°00'45"26	0°01'22"
morning rise	9361 Jan 08 02:50	7°33'21"24	behind sun begin	9367 Jan 20 23:55	4°00'44"24	
retrograde	9361 Apr 10 15:40	10°33'44"19	behind sun end	9367 Jan 21 13:19	4°00'46"27	
opposition	9361 Jun 23 11:08	8°33'41"26 0°25'40"	max. Earth dist.	9367 Jan 20 18:11	4°00'43"30	19.42294 AU
min. Earth dist.	9361 Jun 24 01:15	8°33'39"54 17.37996 AU	morning rise	9367 Feb 06 13:59	5°00'46"12	
direct	9361 Sep 07 01:25	6°33'35"55	retrograde	9367 May 09 09:01	9°00'07"25	
evening set	9361 Dec 11 04:22	10°33'03"19	opposition	9367 Jul 22 08:49	7°00'05"08	-0°04'15"
			min. Earth dist.	9367 Jul 22 19:53	7°00'03"56	17.43572 AU
conjunction	9361 Dec 27 18:11	11°33'05"02 0°20'52"	direct	9367 Oct 06 14:57	4°00'59"36	
minimum elong	9361 Dec 27 18:11	11°33'05"02 0°21'11"	evening set	9368 Jan 09 22:20	8°00'26"50	
max. Earth dist.	9361 Dec 27 02:14	11°33'02"33 19.37683 AU				
morning rise	9362 Jan 13 05:40	12°33'06"26	conjunction	9368 Jan 26 07:45	9°00'27"51	-0°06'12"
retrograde	9362 Apr 15 15:53	15°33'29"11	minimum elong	9368 Jan 26 07:45	9°00'27"50	0°05'56"
opposition	9362 Jun 28 10:27	13°33'26"21 0°20'55"	behind sun begin	9368 Jan 26 01:22	9°00'26"52	
min. Earth dist.	9362 Jun 28 23:34	13°33'24"56 17.37519 AU	behind sun end	9368 Jan 26 14:08	9°00'28"49	
direct	9362 Sep 12 03:53	11°33'20"44	max. Earth dist.	9368 Jan 25 19:17	9°00'25"54	19.44983 AU
evening set	9362 Dec 16 08:14	14°33'48"19	morning rise	9368 Feb 11 14:23	10°00'28"26	
			retrograde	9368 May 13 08:17	13°00'49"15	
conjunction	9363 Jan 01 21:27	15°33'49"59 0°16'32"	opposition	9368 Jul 26 08:15	11°00'47"10	-0°09'17"
minimum elong	9363 Jan 01 21:27	15°33'49"59 0°16'51"	min. Earth dist.	9368 Jul 26 17:46	11°00'46"09	17.46522 AU
max. Earth dist.	9363 Jan 01 05:39	15°33'47"31 19.37461 AU	direct	9368 Oct 10 17:25	9°00'41'48"	
morning rise	9363 Jan 18 08:11	16°33'51"18	evening set	9369 Jan 13 23:53	13°00'08'45"	
retrograde	9363 Apr 20 14:21	20°33'13'50"				
opposition	9363 Jul 03 10:06	18°33'11'03" 0°16'01"	conjunction	9369 Jan 30 08:34	14°00'09'34"	-0°10'41"
min. Earth dist.	9363 Jul 03 23:52	18°33'09'33" 17.37570 AU	minimum elong	9369 Jan 30 08:34	14°00'09'34"	0°10'26"
direct	9363 Sep 17 05:27	16°33'05'20"	behind sun begin	9369 Jan 30 03:20	14°00'08'47"	
evening set	9363 Dec 21 11:39	19°33'33'01"	behind sun end	9369 Jan 30 13:48	14°00'10'22"	
max. Earth dist.	9364 Jan 06 08:52	20°33'32'13" 19.37791 AU	max. Earth dist.	9369 Jan 29 22:00	14°00'07'56"	19.48175 AU
				9369 Feb 12 20:56	15°00'00'00"	
conjunction	9364 Jan 07 00:15	20°33'34'37" 0°12'06"	morning rise	9369 Feb 15 14:06	15°00'09'58"	
minimum elong	9364 Jan 07 00:15	20°33'34'37" 0°12'23"	retrograde	9369 May 18 05:50	18°00'30'20"	
behind sun begin	9364 Jan 06 19:54	20°33'33'57"	opposition	9369 Jul 31 07:54	16°00'28'30"	-0°14'15"
behind sun end	9364 Jan 07 04:37	20°33'35'17"	min. Earth dist.	9369 Jul 31 17:29	16°00'27'29"	17.49938 AU
morning rise	9364 Jan 23 10:19	21°33'35'50"		9369 Sep 07 11:04	15°00'00'00"	
retrograde	9364 Apr 24 13:59	24°33'58'05"	direct	9369 Oct 15 18:13	14°00'23'22"	
opposition	9364 Jul 07 09:39	22°33'55'22" 0°11'01"		9369 Nov 22 06:52	15°00'00'00"	
min. Earth dist.	9364 Jul 07 21:58	22°33'54'01" 17.38174 AU	evening set	9370 Jan 19 00:58	17°00'49'54"	
direct	9364 Sep 21 08:47	20°33'49'36"				
evening set	9364 Dec 25 14:57	24°33'17'18"	conjunction	9370 Feb 04 08:32	18°00'50'30"	-0°15'05"
			minimum elong	9370 Feb 04 08:31	18°00'50'30"	0°14'51"
conjunction	9365 Jan 11 02:54	25°33'18'47" 0°07'36"	behind sun begin	9370 Feb 04 05:57	18°00'50'06"	
minimum elong	9365 Jan 11 02:53	25°33'18'47" 0°07'53"	behind sun end	9370 Feb 04 11:06	18°00'50'53"	
behind sun begin	9365 Jan 10 20:52	25°33'17'52"	max. Earth dist.	9370 Feb 03 21:43	18°00'48'49"	19.51807 AU
behind sun end	9365 Jan 11 08:55	25°33'19'42"	morning rise	9370 Feb 20 13:17	19°00'50'41"	
max. Earth dist.	9365 Jan 10 12:30	25°33'16'32" 19.38682 AU	retrograde	9370 May 23 04:21	23°00'10'35"	
morning rise	9365 Jan 27 12:01	26°33'19'52"	opposition	9370 Aug 05 07:19	21°00'08'59"	-0°19'07"
retrograde	9365 Apr 29 11:52	29°33'41'48"	min. Earth dist.	9370 Aug 05 15:36	21°00'08'05"	17.53769 AU
opposition	9365 Jul 12 09:20	27°33'39'11" 0°05'56"	direct	9370 Oct 20 19:52	19°00'04'03"	
min. Earth dist.	9365 Jul 12 22:04	27°33'37'48" 17.39368 AU	evening set	9371 Jan 24 01:18	22°00'30'07"	
direct	9365 Sep 26 10:38	25°33'33'26"				
evening set	9365 Dec 30 17:56	29°33'01'03"	conjunction	9371 Feb 09 08:05	23°00'30'29"	-0°19'22"
	9366 Jan 15 13:37	0°00'00'00"	minimum elong	9371 Feb 09 08:05	23°00'30'29"	0°19'10"
			max. Earth dist.	9371 Feb 08 23:15	23°00'29'07"	19.55814 AU
conjunction	9366 Jan 16 05:01	0°00'02'24" 0°03'03"	morning rise	9371 Feb 25 11:44	24°00'30'26"	
minimum elong	9366 Jan 16 05:00	0°00'02'24" 0°03'19"	retrograde	9371 May 28 01:33	27°00'49'49"	

opposition	9371 Aug 10 06:35	25° 48 '27 -0°23'50	conjunction	9378 Mar 13 05:44	25° 31 '02 -0°44'08
min. Earth dist.	9371 Aug 10 14:39	25° 47 '35 17.57940 AU	minimum elong	9378 Mar 13 05:43	25° 31 '02 0°44'06
direct	9371 Oct 25 20:20	23° 43 '46	max. Earth dist.	9378 Mar 13 03:10	25° 30 '38 19.90938 AU
evening set	9372 Jan 29 01:05	27° 09 '14	morning rise	9378 Mar 29 03:29	26° 29 '05
			retrograde	9378 Jun 28 12:44	29° 44 '08
conjunction	9372 Feb 14 06:46	28° 09 '21 -0°23'32	opposition	9378 Sep 11 14:52	27° 43 '48 -0°50'28
minimum elong	9372 Feb 14 06:45	28° 09 '21 0°23'20	min. Earth dist.	9378 Sep 11 16:35	27° 43 '37 17.93865 AU
max. Earth dist.	9372 Feb 13 21:34	28° 07 '56 19.60141 AU	direct	9378 Nov 27 15:56	25° 40 '51
morning rise	9372 Mar 01 09:39	29° 09 '03	evening set	9379 Mar 01 23:03	29° 00 '18
	9372 Mar 15 19:59	0° 00 '			
retrograde	9372 May 31 22:51	2° 27 '54	conjunction	9379 Mar 17 22:23	29° 58 '24 -0°46'40
opposition	9372 Aug 14 05:34	0° 26 '44 -0°28'22	minimum elong	9379 Mar 17 22:23	29° 58 '23 0°46'38
min. Earth dist.	9372 Aug 14 12:38	0° 25 '59 17.62411 AU	max. Earth dist.	9379 Mar 17 21:34	29° 58 '16 19.96838 AU
	9372 Aug 24 18:26	30° 08 '		9379 Mar 18 08:56	0° 00 '
direct	9372 Oct 29 20:43	28° 22 '17	morning rise	9379 Apr 02 19:24	0° 56 '10
	9372 Dec 31 17:52	0° 00 '	retrograde	9379 Jul 03 05:33	4° 10 '33
evening set	9373 Feb 02 00:02	1° 47 '06	opposition	9379 Sep 16 10:24	2° 10 '23 -0°53'06
			min. Earth dist.	9379 Sep 16 10:03	2° 10 '25 17.99871 AU
conjunction	9373 Feb 18 04:54	2° 46 '58 -0°27'31	direct	9379 Dec 02 14:06	0° 07 '44
minimum elong	9373 Feb 18 04:54	2° 46 '58 0°27'22	evening set	9380 Mar 05 15:41	3° 26 '10
max. Earth dist.	9373 Feb 17 21:34	2° 45 '50 19.64736 AU			
morning rise	9373 Mar 06 06:42	3° 46 '24	conjunction	9380 Mar 21 14:10	4° 23 '58 -0°48'54
retrograde	9373 Jun 05 19:27	7° 04 '40	minimum elong	9380 Mar 21 14:10	4° 23 '58 0°48'53
opposition	9373 Aug 19 04:15	5° 03 '42 -0°32'42	max. Earth dist.	9380 Mar 21 14:28	4° 24 '01 20.02945 AU
min. Earth dist.	9373 Aug 19 10:42	5° 03 '00 17.67118 AU	morning rise	9380 Apr 06 10:33	5° 21 '28
direct	9373 Nov 03 21:19	2° 59 '30	retrograde	9380 Jul 06 19:45	8° 35 '13
evening set	9374 Feb 06 22:19	6° 23 '35	opposition	9380 Sep 20 05:37	6° 35 '13 -0°55'24
			min. Earth dist.	9380 Sep 20 04:49	6° 35 '18 18.06076 AU
conjunction	9374 Feb 23 02:04	7° 23 '09 -0°31'19	direct	9380 Dec 06 08:41	4° 32 '56
minimum elong	9374 Feb 23 02:03	7° 23 '09 0°31'11	evening set	9381 Mar 10 07:19	7° 50 '21
max. Earth dist.	9374 Feb 22 18:37	7° 22 '00 19.69560 AU			
morning rise	9374 Mar 11 03:05	8° 22 '20	conjunction	9381 Mar 26 05:04	8° 47 '51 -0°50'49
retrograde	9374 Jun 10 14:51	11° 40 '00	minimum elong	9381 Mar 26 05:04	8° 47 '51 0°50'51
opposition	9374 Aug 24 02:35	9° 39 '11 -0°36'49	max. Earth dist.	9381 Mar 26 06:46	8° 48 '06 20.09226 AU
min. Earth dist.	9374 Aug 24 08:15	9° 38 '35 17.72060 AU	morning rise	9381 Apr 11 00:50	9° 45 '05
direct	9374 Nov 08 20:25	7° 35 '14	retrograde	9381 Jul 11 11:48	12° 58 '12
evening set	9375 Feb 11 19:24	10° 58 '29	opposition	9381 Sep 25 00:10	10° 58 '25 -0°57'21
			min. Earth dist.	9381 Sep 24 21:13	10° 58 '43 18.12406 AU
conjunction	9375 Feb 27 22:22	11° 57 '47 -0°34'54	direct	9381 Dec 11 04:38	8° 56 '29
minimum elong	9375 Feb 27 22:21	11° 57 '47 0°34'46	evening set	9382 Mar 14 22:12	12° 12 '53
max. Earth dist.	9375 Feb 27 16:48	11° 56 '56 19.74604 AU			
morning rise	9375 Mar 15 22:26	12° 56 '41	conjunction	9382 Mar 30 19:13	13° 10 '06 -0°52'26
retrograde	9375 Jun 15 10:33	16° 13 '43	minimum elong	9382 Mar 30 19:13	13° 10 '06 0°52'29
opposition	9375 Aug 29 00:27	14° 13 '02 -0°40'40	max. Earth dist.	9382 Mar 30 22:13	13° 10 '33 20.15596 AU
min. Earth dist.	9375 Aug 29 05:01	14° 12 '33 17.77192 AU	morning rise	9382 Apr 15 14:25	14° 07 '04
direct	9375 Nov 13 21:09	12° 09 '20	retrograde	9382 Jul 16 01:24	17° 19 '36
evening set	9376 Feb 16 15:51	15° 31 '42	opposition	9382 Sep 29 18:21	15° 20 '00 -0°58'58
			min. Earth dist.	9382 Sep 29 15:14	15° 20 '19 18.18809 AU
conjunction	9376 Mar 03 17:46	16° 30 '42 -0°38'15	direct	9382 Dec 15 21:33	13° 18 '27
minimum elong	9376 Mar 03 17:46	16° 30 '42 0°38'09	evening set	9383 Mar 19 12:09	16° 33 '49
max. Earth dist.	9376 Mar 03 12:28	16° 29 '53 19.79837 AU			
morning rise	9376 Mar 19 17:07	17° 29 '20	conjunction	9383 Apr 04 08:31	17° 30 '45 -0°53'44
retrograde	9376 Jun 19 03:23	20° 45 '42	minimum elong	9383 Apr 04 08:31	17° 30 '45 0°53'50
opposition	9376 Sep 01 21:40	18° 45 '09 -0°44'14	max. Earth dist.	9383 Apr 04 12:29	17° 31 '21 20.22003 AU
min. Earth dist.	9376 Sep 02 01:42	18° 44 '43 17.82535 AU	morning rise	9383 Apr 20 03:18	18° 27 '29
direct	9376 Nov 17 19:20	16° 41 '40	retrograde	9383 Jul 20 16:48	21° 39 '25
evening set	9377 Feb 20 11:14	20° 03 '06	opposition	9383 Oct 04 11:49	19° 40 '01 -1°00'13
			min. Earth dist.	9383 Oct 04 06:44	19° 40 '32 18.25191 AU
conjunction	9377 Mar 08 12:20	21° 01 '49 -0°41'20	direct	9383 Dec 20 15:58	17° 38 '51
minimum elong	9377 Mar 08 12:20	21° 01 '48 0°41'15	evening set	9384 Mar 23 01:28	20° 53 '11
max. Earth dist.	9377 Mar 08 08:53	21° 01 '17 19.85283 AU			
morning rise	9377 Mar 24 10:48	22° 00 '09	conjunction	9384 Apr 07 21:14	21° 49 '51 -0°54'44
retrograde	9377 Jun 23 21:36	25° 15 '51	minimum elong	9384 Apr 07 21:14	21° 49 '51 0°54'50
opposition	9377 Sep 06 18:30	23° 15 '24 -0°47'31	max. Earth dist.	9384 Apr 08 02:25	21° 50 '38 20.28342 AU
min. Earth dist.	9377 Sep 06 20:53	23° 15 '09 17.88080 AU	morning rise	9384 Apr 23 15:31	22° 46 '20
direct	9377 Nov 22 19:25	21° 12 '11	retrograde	9384 Jul 24 05:21	25° 57 '41
evening set	9378 Feb 25 05:37	24° 32 '38	opposition	9384 Oct 08 04:52	23° 58 '29 -1°01'09

min. Earth dist.	9384 Oct 07 23:57	23° Υ 58'59	18.31488 AU	direct	9391 Jan 19 22:57	17° \mathcal{B} 17'34	
direct	9384 Dec 24 07:32	21° Υ 57'41		evening set	9391 Apr 22 01:47	20° \mathcal{B} 24'58	
evening set	9385 Mar 27 14:04	25° Υ 10'59					
				conjunction	9391 May 07 18:56	21° \mathcal{B} 20'04	-0°53'13
conjunction	9385 Apr 12 09:13	26° Υ 07'24	-0°55'26	minimum elong	9391 May 07 18:56	21° \mathcal{B} 20'04	0°53'27
minimum elong	9385 Apr 12 09:13	26° Υ 07'23	0°55'33	max. Earth dist.	9391 May 08 04:55	21° \mathcal{B} 21'32	20.67004 AU
max. Earth dist.	9385 Apr 12 14:54	26° Υ 08'15	20.34576 AU	morning rise	9391 May 23 12:09	22° \mathcal{B} 15'11	
morning rise	9385 Apr 28 03:11	27° Υ 03'38		retrograde	9391 Aug 23 15:48	25° \mathcal{B} 23'00	
	9385 Jul 05 06:19	0° \mathcal{B}		opposition	9391 Nov 08 12:04	23° \mathcal{B} 24'22	-0°58'12
retrograde	9385 Jul 28 20:06	0° \mathcal{B} 14'26		min. Earth dist.	9391 Nov 08 01:10	23° \mathcal{B} 25'28	18.69330 AU
	9385 Aug 21 19:14	30° $\mathcal{R}\Upsilon$		direct	9392 Jan 24 12:13	21° \mathcal{B} 25'28	
opposition	9385 Oct 12 21:21	28° Υ 15'24	-1°01'43	evening set	9392 Apr 25 09:16	24° \mathcal{B} 32'00	
min. Earth dist.	9385 Oct 12 14:34	28° Υ 16'05	18.37638 AU				
direct	9385 Dec 29 00:50	26° Υ 14'57		conjunction	9392 May 11 02:23	25° \mathcal{B} 26'57	-0°51'51
evening set	9386 Apr 01 01:45	29° Υ 27'14		minimum elong	9392 May 11 02:23	25° \mathcal{B} 26'57	0°52'06
	9386 Apr 10 07:49	0° \mathcal{B}		max. Earth dist.	9392 May 11 14:03	25° \mathcal{B} 28'40	20.71558 AU
				morning rise	9392 May 26 19:32	26° \mathcal{B} 21'55	
conjunction	9386 Apr 16 20:28	0° \mathcal{B} 23'23	-0°55'49	retrograde	9392 Aug 27 00:51	29° \mathcal{B} 29'22	
minimum elong	9386 Apr 16 20:28	0° \mathcal{B} 23'23	0°55'57	opposition	9392 Nov 12 00:33	27° \mathcal{B} 30'45	-0°56'32
max. Earth dist.	9386 Apr 17 03:25	0° \mathcal{B} 24'25	20.40620 AU	min. Earth dist.	9392 Nov 11 13:39	27° \mathcal{B} 31'51	18.73789 AU
morning rise	9386 May 02 14:03	1° \mathcal{B} 19'25		direct	9393 Jan 27 23:07	25° \mathcal{B} 32'06	
retrograde	9386 Aug 02 07:24	4° \mathcal{B} 29'41		evening set	9393 Apr 29 16:20	28° \mathcal{B} 37'49	
opposition	9386 Oct 17 13:26	2° \mathcal{B} 30'46	-1°01'57				
min. Earth dist.	9386 Oct 17 06:58	2° \mathcal{B} 31'26	18.43580 AU	conjunction	9393 May 15 09:17	29° \mathcal{B} 32'36	-0°50'13
direct	9387 Jan 02 15:13	0° \mathcal{B} 30'39		minimum elong	9393 May 15 09:17	29° \mathcal{B} 32'36	0°50'29
evening set	9387 Apr 05 12:53	3° \mathcal{B} 41'55		max. Earth dist.	9393 May 15 21:00	29° \mathcal{B} 34'19	20.75928 AU
					9393 May 23 04:32	0° \mathcal{B}	
conjunction	9387 Apr 21 07:07	4° \mathcal{B} 37'50	-0°55'53	morning rise	9393 May 31 02:42	0° \mathcal{B} 27'28	
minimum elong	9387 Apr 21 07:07	4° \mathcal{B} 37'50	0°56'02	retrograde	9393 Aug 31 11:05	3° \mathcal{B} 34'35	
max. Earth dist.	9387 Apr 21 14:10	4° \mathcal{B} 38'53	20.46442 AU	opposition	9393 Nov 16 12:28	1° \mathcal{B} 36'01	-0°54'34
morning rise	9387 May 07 00:34	5° \mathcal{B} 33'39		min. Earth dist.	9393 Nov 15 23:52	1° \mathcal{B} 37'17	18.78059 AU
retrograde	9387 Aug 06 21:00	8° \mathcal{B} 43'23			9394 Jan 01 22:27	30° $\mathcal{R}\mathcal{B}$	
opposition	9387 Oct 22 04:36	6° \mathcal{B} 44'35	-1°01'51	direct	9394 Feb 01 10:19	29° \mathcal{B} 37'37	
min. Earth dist.	9387 Oct 21 20:30	6° \mathcal{B} 45'24	18.49266 AU		9394 Mar 03 06:17	0° \mathcal{B}	
direct	9388 Jan 07 07:16	4° \mathcal{B} 44'45		evening set	9394 May 03 22:43	2° \mathcal{B} 42'34	
evening set	9388 Apr 08 23:16	7° \mathcal{B} 55'02					
				conjunction	9394 May 19 15:47	3° \mathcal{B} 37'14	-0°48'20
conjunction	9388 Apr 24 17:12	8° \mathcal{B} 50'44	-0°55'40	minimum elong	9394 May 19 15:48	3° \mathcal{B} 37'14	0°48'36
minimum elong	9388 Apr 24 17:12	8° \mathcal{B} 50'44	0°55'51	max. Earth dist.	9394 May 20 05:10	3° \mathcal{B} 39'11	20.80081 AU
max. Earth dist.	9388 Apr 25 01:27	8° \mathcal{B} 51'58	20.51980 AU	morning rise	9394 Jun 04 09:18	4° \mathcal{B} 31'59	
morning rise	9388 May 10 10:23	9° \mathcal{B} 46'22		retrograde	9394 Sep 04 19:39	7° \mathcal{B} 38'48	
retrograde	9388 Aug 10 07:12	12° \mathcal{B} 55'35		opposition	9394 Nov 20 24:00	5° \mathcal{B} 40'19	-0°52'21
opposition	9388 Oct 25 19:29	10° \mathcal{B} 56'51	-1°01'25	min. Earth dist.	9394 Nov 20 11:27	5° \mathcal{B} 41'34	18.82089 AU
min. Earth dist.	9388 Oct 25 11:46	10° \mathcal{B} 57'38	18.54664 AU	direct	9395 Feb 05 20:29	3° \mathcal{B} 42'10	
direct	9389 Jan 10 20:18	8° \mathcal{B} 57'17		evening set	9395 May 08 04:56	6° \mathcal{B} 46'25	
evening set	9389 Apr 13 08:49	12° \mathcal{B} 06'35					
				conjunction	9395 May 23 21:58	7° \mathcal{B} 40'57	-0°46'13
conjunction	9389 Apr 29 02:22	13° \mathcal{B} 02'03	-0°55'08	minimum elong	9395 May 23 21:58	7° \mathcal{B} 40'57	0°46'31
minimum elong	9389 Apr 29 02:22	13° \mathcal{B} 02'03	0°55'20	max. Earth dist.	9395 May 24 11:04	7° \mathcal{B} 42'52	20.83988 AU
max. Earth dist.	9389 Apr 29 10:41	13° \mathcal{B} 03'17	20.57244 AU	morning rise	9395 Jun 08 15:51	8° \mathcal{B} 35'37	
morning rise	9389 May 14 19:33	13° \mathcal{B} 57'30		retrograde	9395 Sep 09 05:17	11° \mathcal{B} 42'12	
	9389 Jun 02 15:55	15° \mathcal{B}		opposition	9395 Nov 25 10:51	9° \mathcal{B} 43'46	-0°49'52
retrograde	9389 Aug 14 19:21	17° \mathcal{B} 06'14		min. Earth dist.	9395 Nov 24 21:03	9° \mathcal{B} 45'09	18.85854 AU
opposition	9389 Oct 30 09:38	15° \mathcal{B} 07'32	-1°00'40	direct	9396 Feb 10 06:04	7° \mathcal{B} 45'52	
min. Earth dist.	9389 Oct 30 00:14	15° \mathcal{B} 08'29	18.59789 AU	evening set	9396 May 11 10:43	10° \mathcal{B} 49'29	
	9389 Nov 02 12:11	15° $\mathcal{R}\mathcal{B}$					
direct	9390 Jan 15 11:17	13° \mathcal{B} 08'12		conjunction	9396 May 27 03:58	11° \mathcal{B} 43'55	-0°43'53
	9390 Mar 25 04:41	15° \mathcal{B}		minimum elong	9396 May 27 03:58	11° \mathcal{B} 43'55	0°44'10
evening set	9390 Apr 17 17:38	16° \mathcal{B} 16'32		max. Earth dist.	9396 May 27 18:29	11° \mathcal{B} 46'02	20.87593 AU
				morning rise	9396 Jun 11 22:01	12° \mathcal{B} 38'31	
conjunction	9390 May 03 11:03	17° \mathcal{B} 11'49	-0°54'19	retrograde	9396 Sep 12 13:19	15° \mathcal{B} 44'53	
minimum elong	9390 May 03 11:03	17° \mathcal{B} 11'49	0°54'33	opposition	9396 Nov 28 21:38	13° \mathcal{B} 46'32	-0°47'10
max. Earth dist.	9390 May 03 20:54	17° \mathcal{B} 13'16	20.62234 AU	min. Earth dist.	9396 Nov 28 08:03	13° \mathcal{B} 47'54	18.89292 AU
morning rise	9390 May 19 04:06	18° \mathcal{B} 07'05		direct	9397 Feb 13 15:23	11° \mathcal{B} 48'52	
retrograde	9390 Aug 19 04:54	21° \mathcal{B} 15'21		evening set	9397 May 15 16:14	14° \mathcal{B} 51'53	
opposition	9390 Nov 03 23:12	19° \mathcal{B} 16'41	-0°59'35				
min. Earth dist.	9390 Nov 03 14:02	19° \mathcal{B} 17'36	18.64665 AU	conjunction	9397 May 31 09:31	15° \mathcal{B} 46'14	-0°41'20

minimum elong	9397 May 31 09:31	15° Π 46'14	0°41'39	opposition	9403 Dec 29 16:14	11° \mathfrak{D} 51'47	-0°22'47
max. Earth dist.	9397 May 31 23:35	15° Π 48'16	20.90865 AU	min. Earth dist.	9403 Dec 29 02:35	11° \mathfrak{D} 53'09	19.00852 AU
morning rise	9397 Jun 16 04:04	16° Π 40'46		direct	9404 Mar 14 21:06	9° \mathfrak{D} 54'45	
retrograde	9397 Sep 16 22:58	19° Π 47'00		evening set	9404 Jun 13 03:28	12° \mathfrak{D} 55'00	
opposition	9397 Dec 03 08:02	17° Π 48'41	-0°44'13				
min. Earth dist.	9397 Dec 02 17:31	17° Π 50'08	18.92376 AU	conjunction	9404 Jun 28 23:24	13° \mathfrak{D} 49'13	-0°18'48
direct	9398 Feb 18 00:02	15° Π 51'13		minimum elong	9404 Jun 28 23:25	13° \mathfrak{D} 49'13	0°19'08
evening set	9398 May 19 21:35	18° Π 53'42		max. Earth dist.	9404 Jun 29 14:09	13° \mathfrak{D} 51'20	21.00774 AU
				morning rise	9404 Jul 14 21:26	14° \mathfrak{D} 43'45	
conjunction	9398 Jun 04 15:12	19° Π 48'00	-0°38'36	retrograde	9404 Oct 16 06:50	17° \mathfrak{D} 49'44	
minimum elong	9398 Jun 04 15:12	19° Π 48'00	0°38'54	min. Earth dist.	9405 Jan 01 11:23	15° \mathfrak{D} 52'20	19.00632 AU
max. Earth dist.	9398 Jun 05 06:25	19° Π 50'12	20.93737 AU	opposition	9405 Jan 02 00:47	15° \mathfrak{D} 51'00	-0°18'43
morning rise	9398 Jun 20 10:01	20° Π 42'29		direct	9405 Mar 19 04:05	13° \mathfrak{D} 53'57	
retrograde	9398 Sep 21 06:14	23° Π 48'35		evening set	9405 Jun 17 08:16	16° \mathfrak{D} 54'01	
opposition	9398 Dec 07 18:01	21° Π 50'19	-0°41'05				
min. Earth dist.	9398 Dec 07 04:01	21° Π 51'43	18.95032 AU	conjunction	9405 Jul 03 04:36	17° \mathfrak{D} 48'17	-0°15'06
direct	9399 Feb 22 08:19	19° Π 53'02		minimum elong	9405 Jul 03 04:36	17° \mathfrak{D} 48'17	0°15'24
evening set	9399 May 24 02:55	22° Π 55'02		behind sun begin	9405 Jul 03 02:35	17° \mathfrak{D} 48'00	
				behind sun end	9405 Jul 03 06:36	17° \mathfrak{D} 48'34	
conjunction	9399 Jun 08 20:41	23° Π 49'16	-0°35'40	max. Earth dist.	9405 Jul 03 18:21	17° \mathfrak{D} 50'15	21.00382 AU
minimum elong	9399 Jun 08 20:41	23° Π 49'16	0°35'59	morning rise	9405 Jul 19 03:26	18° \mathfrak{D} 42'53	
max. Earth dist.	9399 Jun 09 10:59	23° Π 51'20	20.96170 AU	retrograde	9405 Oct 20 15:36	21° \mathfrak{D} 49'00	
morning rise	9399 Jun 24 16:04	24° Π 43'43		opposition	9406 Jan 06 09:07	19° \mathfrak{D} 50'08	-0°14'35
retrograde	9399 Sep 25 16:02	27° Π 49'44		min. Earth dist.	9406 Jan 05 19:35	19° \mathfrak{D} 51'29	19.00069 AU
opposition	9399 Dec 12 03:47	25° Π 51'28	-0°37'45	direct	9406 Mar 23 10:03	17° \mathfrak{D} 53'02	
min. Earth dist.	9399 Dec 11 13:20	25° Π 52'55	18.97223 AU	evening set	9406 Jun 21 13:10	20° \mathfrak{D} 53'02	
direct	9400 Feb 26 16:12	23° Π 54'20					
evening set	9400 May 28 07:57	26° Π 55'53		conjunction	9406 Jul 07 10:12	21° \mathfrak{D} 47'22	-0°11'20
				minimum elong	9406 Jul 07 10:12	21° \mathfrak{D} 47'22	0°11'38
conjunction	9400 Jun 13 02:08	27° Π 50'05	-0°32'34	behind sun begin	9406 Jul 07 05:28	21° \mathfrak{D} 46'42	
minimum elong	9400 Jun 13 02:08	27° Π 50'05	0°32'54	behind sun end	9406 Jul 07 14:55	21° \mathfrak{D} 48'01	
max. Earth dist.	9400 Jun 13 17:19	27° Π 52'17	20.98097 AU	max. Earth dist.	9406 Jul 08 00:51	21° \mathfrak{D} 49'27	20.99642 AU
morning rise	9400 Jun 28 21:50	28° Π 44'32		morning rise	9406 Jul 23 09:33	22° \mathfrak{D} 42'03	
	9400 Jul 22 15:00	0° \mathfrak{D}		retrograde	9406 Oct 24 23:18	25° \mathfrak{D} 48'19	
retrograde	9400 Sep 29 22:42	1° \mathfrak{D} 50'29		opposition	9407 Jan 10 17:10	23° \mathfrak{D} 49'21	-0°10'22
	9400 Dec 13 07:09	30° \mathfrak{R} Π		min. Earth dist.	9407 Jan 10 03:54	23° \mathfrak{D} 50'41	18.99160 AU
opposition	9400 Dec 16 13:23	29° Π 52'12	-0°34'14	direct	9407 Mar 27 16:14	21° \mathfrak{D} 52'15	
min. Earth dist.	9400 Dec 15 23:31	29° Π 53'35	18.98886 AU	evening set	9407 Jun 25 18:24	24° \mathfrak{D} 52'14	
direct	9401 Mar 03 00:01	27° Π 55'09					
	9401 May 15 04:02	0° \mathfrak{D}		conjunction	9407 Jul 11 15:53	25° \mathfrak{D} 46'39	-0°07'30
evening set	9401 Jun 01 13:04	0° \mathfrak{D} 56'18		minimum elong	9407 Jul 11 15:53	25° \mathfrak{D} 46'39	0°07'48
				behind sun begin	9407 Jul 11 09:56	25° \mathfrak{D} 45'49	
conjunction	9401 Jun 17 07:30	1° \mathfrak{D} 50'29	-0°29'20	behind sun end	9407 Jul 11 21:50	25° \mathfrak{D} 47'29	
minimum elong	9401 Jun 17 07:30	1° \mathfrak{D} 50'29	0°29'39	max. Earth dist.	9407 Jul 12 05:21	25° \mathfrak{D} 48'34	20.98579 AU
max. Earth dist.	9401 Jun 17 21:33	1° \mathfrak{D} 52'30	20.99508 AU	morning rise	9407 Jul 27 16:05	26° \mathfrak{D} 41'26	
morning rise	9401 Jul 03 03:53	2° \mathfrak{D} 44'56		retrograde	9407 Oct 29 08:33	29° \mathfrak{D} 47'57	
retrograde	9401 Oct 04 08:06	5° \mathfrak{D} 50'50		opposition	9408 Jan 15 01:22	27° \mathfrak{D} 48'53	-0°06'06
opposition	9401 Dec 20 22:39	3° \mathfrak{D} 52'28	-0°30'33	min. Earth dist.	9408 Jan 14 12:09	27° \mathfrak{D} 50'13	18.97936 AU
min. Earth dist.	9401 Dec 20 08:34	3° \mathfrak{D} 53'52	19.00036 AU	direct	9408 Mar 30 22:03	25° \mathfrak{D} 51'45	
direct	9402 Mar 07 07:13	1° \mathfrak{D} 55'27		evening set	9408 Jun 28 23:36	28° \mathfrak{D} 51'49	
evening set	9402 Jun 05 17:52	4° \mathfrak{D} 56'15					
				conjunction	9408 Jul 14 21:49	29° \mathfrak{D} 46'19	-0°03'39
conjunction	9402 Jun 21 12:53	5° \mathfrak{D} 50'26	-0°25'56	minimum elong	9408 Jul 14 21:50	29° \mathfrak{D} 46'19	0°03'56
minimum elong	9402 Jun 21 12:53	5° \mathfrak{D} 50'26	0°26'16	behind sun begin	9408 Jul 14 15:19	29° \mathfrak{D} 45'25	
max. Earth dist.	9402 Jun 22 03:44	5° \mathfrak{D} 52'34	21.00395 AU	behind sun end	9408 Jul 15 04:22	29° \mathfrak{D} 47'14	
morning rise	9402 Jul 07 09:43	6° \mathfrak{D} 44'54		max. Earth dist.	9408 Jul 15 12:12	29° \mathfrak{D} 48'23	20.97185 AU
retrograde	9402 Oct 08 14:53	9° \mathfrak{D} 50'47			9408 Jul 18 20:59	0° Ω	
opposition	9402 Dec 25 07:38	7° \mathfrak{D} 52'19	-0°26'44	morning rise	9408 Jul 30 22:36	0° Ω 41'13	
min. Earth dist.	9402 Dec 24 18:07	7° \mathfrak{D} 53'40	19.00666 AU	retrograde	9408 Nov 01 16:58	3° Ω 48'01	
direct	9403 Mar 11 14:39	5° \mathfrak{D} 55'19		opposition	9409 Jan 18 09:37	1° Ω 48'53	-0°01'48
evening set	9403 Jun 09 22:45	8° \mathfrak{D} 55'47		min. Earth dist.	9409 Jan 17 20:38	1° Ω 50'12	18.96372 AU
					9409 Mar 17 00:53	30° \mathfrak{R} \mathfrak{D}	
conjunction	9403 Jun 25 18:05	9° \mathfrak{D} 49'59	-0°22'26	direct	9409 Apr 04 03:45	29° \mathfrak{D} 51'45	
minimum elong	9403 Jun 25 18:05	9° \mathfrak{D} 49'59	0°22'44		9409 Apr 22 01:55	0° Ω	
max. Earth dist.	9403 Jun 26 07:50	9° \mathfrak{D} 51'57	21.00800 AU	asc. node	9409 Jun 17 23:10	2° Ω 02'21	
morning rise	9403 Jul 11 15:38	10° \mathfrak{D} 44'29		evening set	9409 Jul 03 05:25	2° Ω 51'57	
retrograde	9403 Oct 12 23:35	13° \mathfrak{D} 50'23					

conjunction	9409 Jul 19 04:11	3°Ω46'34	0°00'20	retrograde	9414 Nov 27 08:57	28°Ω06'00	
minimum elong	9409 Jul 19 04:10	3°Ω46'34	0°00'02	opposition	9415 Feb 12 13:45	26°Ω06'13	0°23'45
behind sun begin	9409 Jul 18 22:38	3°Ω45'48		min. Earth dist.	9415 Feb 12 05:05	26°Ω07'07	18.78876 AU
behind sun end	9409 Jul 19 09:43	3°Ω47'20		direct	9415 Apr 28 18:50	24°Ω08'33	
max. Earth dist.	9409 Jul 19 17:12	3°Ω48'26	20.95466 AU	evening set	9415 Jul 28 02:28	27°Ω10'56	
morning rise	9409 Aug 04 05:50	4°Ω41'36					
retrograde	9409 Nov 06 02:58	7°Ω48'45		conjunction	9415 Aug 13 05:30	28°Ω06'33	0°23'18
opposition	9410 Jan 22 17:52	5°Ω49'31	0°02'32	minimum elong	9415 Aug 13 05:30	28°Ω06'33	0°23'07
min. Earth dist.	9410 Jan 22 05:17	5°Ω50'47	18.94483 AU	max. Earth dist.	9415 Aug 13 13:33	28°Ω07'42	20.76707 AU
direct	9410 Apr 08 09:36	3°Ω52'21		morning rise	9415 Aug 29 11:39	29°Ω02'36	
evening set	9410 Jul 07 11:30	6°Ω52'47			9415 Sep 16 02:37	0°൬	
				retrograde	9415 Dec 01 20:25	2°൬12'29	
conjunction	9410 Jul 23 11:05	7°Ω47'33	0°04'18	opposition	9416 Feb 16 23:15	0°൬12'28	0°27'46
minimum elong	9410 Jul 23 11:05	7°Ω47'33	0°04'02	min. Earth dist.	9416 Feb 16 15:54	0°൬13'14	18.74437 AU
behind sun begin	9410 Jul 23 04:33	7°Ω46'38			9416 Feb 22 01:18	30°℞Ω	
behind sun end	9410 Jul 23 17:37	7°Ω48'27		direct	9416 May 02 01:33	28°Ω14'33	
max. Earth dist.	9410 Jul 24 00:45	7°Ω49'30	20.93392 AU		9416 Jul 07 04:16	0°൬	
morning rise	9410 Aug 08 13:20	8°Ω42'42		evening set	9416 Jul 31 11:41	1°൬17'28	
retrograde	9410 Nov 10 12:30	11°Ω50'14					
opposition	9411 Jan 27 02:14	9°Ω50'57	0°06'51	conjunction	9416 Aug 16 15:39	2°൬13'17	0°26'53
min. Earth dist.	9411 Jan 26 14:08	9°Ω52'11	18.92215 AU	minimum elong	9416 Aug 16 15:39	2°൬13'17	0°26'42
direct	9411 Apr 12 15:29	7°Ω53'46		max. Earth dist.	9416 Aug 16 23:54	2°൬14'28	20.72081 AU
evening set	9411 Jul 11 18:12	10°Ω54'29		morning rise	9416 Sep 01 22:23	3°൬09'33	
				retrograde	9416 Dec 05 08:40	6°൬19'56	
conjunction	9411 Jul 27 18:17	11°Ω49'22	0°08'11	opposition	9417 Feb 20 08:54	4°൬19'42	0°31'41
minimum elong	9411 Jul 27 18:18	11°Ω49'22	0°07'55	min. Earth dist.	9417 Feb 20 01:59	4°൬20'24	18.69638 AU
behind sun begin	9411 Jul 27 12:21	11°Ω48'33		direct	9417 May 06 10:54	2°൬21'31	
behind sun end	9411 Jul 28 00:14	11°Ω50'12		evening set	9417 Aug 04 21:49	5°൬25'00	
max. Earth dist.	9411 Jul 28 06:19	11°Ω51'06	20.90936 AU				
morning rise	9411 Aug 12 21:25	12°Ω44'42		conjunction	9417 Aug 21 02:24	6°൬21'02	0°30'20
	9411 Sep 28 23:57	15°Ω		minimum elong	9417 Aug 21 02:24	6°൬21'02	0°30'11
retrograde	9411 Nov 14 23:05	15°Ω52'40		max. Earth dist.	9417 Aug 21 08:35	6°൬21'56	20.67140 AU
	9412 Jan 02 06:58	15°℞Ω		morning rise	9417 Sep 06 10:04	7°൬17'31	
opposition	9412 Jan 31 10:48	13°Ω53'18	0°11'09	retrograde	9417 Dec 09 20:50	10°൬28'26	
min. Earth dist.	9412 Jan 30 23:32	13°Ω54'26	18.89559 AU	opposition	9418 Feb 24 18:44	8°൬27'57	0°35'26
direct	9412 Apr 15 21:20	11°Ω56'02		min. Earth dist.	9418 Feb 24 13:12	8°൬28'31	18.64572 AU
evening set	9412 Jul 15 01:21	14°Ω57'06		direct	9418 May 10 18:44	6°൬29'29	
	9412 Jul 15 21:54	15°Ω		evening set	9418 Aug 09 08:26	9°൬33'36	
conjunction	9412 Jul 31 02:18	15°Ω52'10	0°12'02	conjunction	9418 Aug 25 13:57	10°൬29'53	0°33'39
minimum elong	9412 Jul 31 02:17	15°Ω52'10	0°11'48	minimum elong	9418 Aug 25 13:57	10°൬29'53	0°33'31
behind sun begin	9412 Jul 30 21:39	15°Ω51'31		max. Earth dist.	9418 Aug 25 20:22	10°൬30'49	20.61950 AU
behind sun end	9412 Jul 31 06:56	15°Ω52'49		morning rise	9418 Sep 10 22:09	11°൬26'35	
max. Earth dist.	9412 Jul 31 14:38	15°Ω53'56	20.88062 AU	retrograde	9418 Dec 14 09:27	14°൬38'03	
morning rise	9412 Aug 16 05:59	16°Ω47'39		opposition	9419 Mar 01 04:52	12°൬37'20	0°39'02
retrograde	9412 Nov 18 10:00	19°Ω56'05		min. Earth dist.	9419 Feb 28 23:33	12°൬37'53	18.59276 AU
opposition	9413 Feb 03 19:36	17°Ω56'37	0°15'24	direct	9419 May 15 04:30	10°൬38'36	
min. Earth dist.	9413 Feb 03 08:58	17°Ω57'42	18.86461 AU	evening set	9419 Aug 13 19:47	13°൬43'24	
direct	9413 Apr 20 04:24	15°Ω59'16					
evening set	9413 Jul 19 09:09	19°Ω00'44		conjunction	9419 Aug 30 01:52	14°൬39'55	0°36'48
				minimum elong	9419 Aug 30 01:52	14°൬39'55	0°36'42
conjunction	9413 Aug 04 10:41	19°Ω55'58	0°15'51	max. Earth dist.	9419 Aug 30 06:18	14°൬40'33	20.56567 AU
minimum elong	9413 Aug 04 10:41	19°Ω55'58	0°15'38	morning rise	9419 Sep 15 10:54	15°൬36'50	
behind sun begin	9413 Aug 04 09:12	19°Ω55'46		retrograde	9419 Dec 18 22:38	18°൬48'55	
behind sun end	9413 Aug 04 12:10	19°Ω56'11		opposition	9420 Mar 04 15:29	16°൬47'58	0°42'26
max. Earth dist.	9413 Aug 04 20:58	19°Ω57'27	20.84742 AU	min. Earth dist.	9420 Mar 04 11:28	16°൬48'23	18.53825 AU
morning rise	9413 Aug 20 15:20	20°Ω51'38		direct	9420 May 18 13:21	14°൬48'56	
retrograde	9413 Nov 22 21:12	24°Ω00'33		evening set	9420 Aug 17 07:46	17°൬54'30	
opposition	9414 Feb 08 04:40	22°Ω00'56	0°19'37				
min. Earth dist.	9414 Feb 07 19:16	22°Ω01'54	18.82908 AU	conjunction	9420 Sep 02 14:47	18°൬51'15	0°39'46
direct	9414 Apr 24 10:20	20°Ω03'26		minimum elong	9420 Sep 02 14:47	18°൬51'15	0°39'41
evening set	9414 Jul 23 17:29	23°Ω05'21		max. Earth dist.	9420 Sep 02 19:31	18°൬51'57	20.51047 AU
				morning rise	9420 Sep 19 00:20	19°൬48'25	
conjunction	9414 Aug 08 19:56	24°Ω00'46	0°19'37	retrograde	9420 Dec 22 12:07	23°൬01'06	
minimum elong	9414 Aug 08 19:56	24°Ω00'46	0°19'25	opposition	9421 Mar 09 02:19	20°൬59'57	0°45'38
max. Earth dist.	9414 Aug 09 06:10	24°Ω02'15	20.80946 AU	min. Earth dist.	9421 Mar 08 22:22	21°൬00'22	18.48248 AU
morning rise	9414 Aug 25 01:09	24°Ω56'37		direct	9421 May 22 23:43	19°൬00'39	

evening set	9421 Aug 21 20:41	22° <u>00</u> 07'01		max. Earth dist.	9427 Oct 04 04:23	18° <u>05</u> 56'40	20.10017 AU
				morning rise	9427 Oct 20 22:15	19° <u>05</u> 56'16	
conjunction	9421 Sep 07 04:19	23° <u>00</u> 04'02	0°42'32	retrograde	9428 Jan 23 05:52	23° <u>05</u> 13'40	
minimum elong	9421 Sep 07 04:19	23° <u>00</u> 04'02	0°42'28	opposition	9428 Apr 07 21:34	21° <u>01</u> 11'33	1°00'37
max. Earth dist.	9421 Sep 07 07:01	23° <u>00</u> 04'26	20.45425 AU	min. Earth dist.	9428 Apr 08 01:49	21° <u>01</u> 11'06	18.06919 AU
morning rise	9421 Sep 23 14:43	24° <u>00</u> 01'27		direct	9428 Jun 21 13:28	19° <u>01</u> 10'20	
retrograde	9421 Dec 27 02:19	27° <u>00</u> 14'47		evening set	9428 Sep 21 16:05	22° <u>01</u> 23'37	
opposition	9422 Mar 13 13:46	25° <u>00</u> 13'27	0°48'36				
min. Earth dist.	9422 Mar 13 11:19	25° <u>00</u> 13'42	18.42588 AU	conjunction	9428 Oct 08 04:36	23° <u>01</u> 22'35	0°55'00
direct	9422 May 27 09:33	23° <u>00</u> 13'52		minimum elong	9428 Oct 08 04:36	23° <u>01</u> 22'35	0°55'05
evening set	9422 Aug 26 10:21	26° <u>00</u> 21'07		max. Earth dist.	9428 Oct 07 23:32	23° <u>01</u> 21'49	20.03787 AU
				morning rise	9428 Oct 24 18:33	24° <u>01</u> 21'47	
conjunction	9422 Sep 11 18:52	27° <u>00</u> 18'24	0°45'06	retrograde	9429 Jan 27 01:44	27° <u>01</u> 39'49	
minimum elong	9422 Sep 11 18:52	27° <u>00</u> 18'24	0°45'04	opposition	9429 Apr 12 12:44	25° <u>01</u> 37'31	1°01'29
max. Earth dist.	9422 Sep 11 21:44	27° <u>00</u> 18'49	20.39724 AU	min. Earth dist.	9429 Apr 12 17:12	25° <u>01</u> 37'03	18.00667 AU
morning rise	9422 Sep 28 05:42	28° <u>00</u> 16'03		direct	9429 Jun 26 05:55	23° <u>01</u> 35'57	
	9422 Oct 31 07:53	0° <u>01</u>		evening set	9429 Sep 26 12:16	26° <u>01</u> 50'18	
retrograde	9422 Dec 31 17:26	1° <u>01</u> 30'02					
	9423 Mar 05 09:57	30° <u>01</u>		conjunction	9429 Oct 13 01:16	27° <u>01</u> 49'32	0°55'36
opposition	9423 Mar 18 01:29	29° <u>01</u> 28'33	0°51'20	minimum elong	9429 Oct 13 01:15	27° <u>01</u> 49'32	0°55'44
min. Earth dist.	9423 Mar 17 23:06	29° <u>01</u> 28'48	18.36851 AU	max. Earth dist.	9429 Oct 12 18:18	27° <u>01</u> 48'29	19.97530 AU
direct	9423 May 31 20:56	27° <u>01</u> 28'44		morning rise	9429 Oct 29 15:37	28° <u>01</u> 49'00	
	9423 Aug 20 02:28	0° <u>01</u>			9429 Nov 19 19:42	0° <u>01</u>	
evening set	9423 Aug 31 01:01	0° <u>01</u> 36'54		retrograde	9430 Jan 31 20:16	2° <u>01</u> 07'37	
				opposition	9430 Apr 17 04:42	0° <u>01</u> 05'09	1°02'00
conjunction	9423 Sep 16 10:05	1° <u>01</u> 34'27	0°47'25	min. Earth dist.	9430 Apr 17 11:15	0° <u>01</u> 04'27	17.94433 AU
minimum elong	9423 Sep 16 10:05	1° <u>01</u> 34'27	0°47'24		9430 Apr 19 04:49	30° <u>01</u>	
max. Earth dist.	9423 Sep 16 10:55	1° <u>01</u> 34'34	20.33960 AU	direct	9430 Jun 30 21:07	28° <u>01</u> 03'12	
morning rise	9423 Oct 02 21:41	2° <u>01</u> 32'22			9430 Sep 07 18:36	0° <u>01</u>	
retrograde	9424 Jan 05 08:41	5° <u>01</u> 47'03		evening set	9430 Oct 01 09:02	1° <u>01</u> 18'36	
opposition	9424 Mar 21 13:59	3° <u>01</u> 45'26	0°53'47				
min. Earth dist.	9424 Mar 21 13:21	3° <u>01</u> 45'30	18.31062 AU	conjunction	9430 Oct 17 22:36	2° <u>01</u> 18'06	0°55'52
direct	9424 Jun 04 07:44	1° <u>01</u> 45'22		minimum elong	9430 Oct 17 22:36	2° <u>01</u> 18'06	0°56'01
evening set	9424 Sep 03 16:22	4° <u>01</u> 54'30		max. Earth dist.	9430 Oct 17 14:50	2° <u>01</u> 16'56	19.91337 AU
				morning rise	9430 Nov 03 13:14	3° <u>01</u> 17'49	
conjunction	9424 Sep 20 02:20	5° <u>01</u> 52'20	0°49'29	retrograde	9431 Feb 05 16:58	6° <u>01</u> 37'00	
minimum elong	9424 Sep 20 02:20	5° <u>01</u> 52'20	0°49'30	opposition	9431 Apr 21 20:59	4° <u>01</u> 34'22	1°02'08
max. Earth dist.	9424 Sep 20 03:08	5° <u>01</u> 52'27	20.28136 AU	min. Earth dist.	9431 Apr 22 03:29	4° <u>01</u> 33'40	17.88297 AU
morning rise	9424 Oct 06 14:23	6° <u>01</u> 50'31		direct	9431 Jul 05 14:39	2° <u>01</u> 32'02	
retrograde	9425 Jan 09 01:48	10° <u>01</u> 05'53		evening set	9431 Oct 06 06:41	5° <u>01</u> 48'29	
opposition	9425 Mar 26 02:56	8° <u>01</u> 04'09	0°55'57				
min. Earth dist.	9425 Mar 26 02:31	8° <u>01</u> 04'12	18.25190 AU	conjunction	9431 Oct 22 20:40	6° <u>01</u> 48'15	0°55'48
direct	9425 Jun 08 20:45	6° <u>01</u> 03'51		minimum elong	9431 Oct 22 20:40	6° <u>01</u> 48'15	0°55'59
evening set	9425 Sep 08 09:04	9° <u>01</u> 14'00		max. Earth dist.	9431 Oct 22 11:42	6° <u>01</u> 46'54	19.85273 AU
				morning rise	9431 Nov 08 11:33	7° <u>01</u> 48'12	
conjunction	9425 Sep 24 19:33	10° <u>01</u> 12'07	0°51'18	retrograde	9432 Feb 10 12:51	11° <u>01</u> 07'56	
minimum elong	9425 Sep 24 19:32	10° <u>01</u> 12'07	0°51'20	opposition	9432 Apr 25 14:00	9° <u>01</u> 05'07	1°01'53
max. Earth dist.	9425 Sep 24 18:04	10° <u>01</u> 11'54	20.22211 AU	min. Earth dist.	9432 Apr 25 22:17	9° <u>01</u> 04'14	17.82337 AU
morning rise	9425 Oct 11 08:14	11° <u>01</u> 10'33		direct	9432 Jul 09 07:02	7° <u>01</u> 02'25	
retrograde	9426 Jan 13 18:03	14° <u>01</u> 26'37		evening set	9432 Oct 10 04:57	10° <u>01</u> 19'54	
opposition	9426 Mar 30 16:29	12° <u>01</u> 24'47	0°57'50				
min. Earth dist.	9426 Mar 30 18:16	12° <u>01</u> 24'36	18.19217 AU	conjunction	9432 Oct 26 19:25	11° <u>01</u> 19'56	0°55'22
direct	9426 Jun 13 08:49	10° <u>01</u> 24'12		minimum elong	9432 Oct 26 19:25	11° <u>01</u> 19'56	0°55'35
evening set	9426 Sep 13 02:32	13° <u>01</u> 35'24		max. Earth dist.	9432 Oct 26 09:32	11° <u>01</u> 18'26	19.79433 AU
				morning rise	9432 Nov 12 10:34	12° <u>01</u> 20'07	
conjunction	9426 Sep 29 13:49	14° <u>01</u> 33'48	0°52'50		9433 Jan 06 02:36	15° <u>01</u>	
minimum elong	9426 Sep 29 13:49	14° <u>01</u> 33'48	0°52'53	retrograde	9433 Feb 14 10:32	15° <u>01</u> 40'21	
max. Earth dist.	9426 Sep 29 11:46	14° <u>01</u> 33'29	20.16176 AU		9433 Mar 26 06:54	15° <u>01</u> 00	
morning rise	9426 Oct 16 02:53	15° <u>01</u> 32'29		opposition	9433 Apr 30 07:25	13° <u>01</u> 37'23	1°01'14
retrograde	9427 Jan 18 12:44	18° <u>01</u> 49'14		min. Earth dist.	9433 Apr 30 15:31	13° <u>01</u> 36'30	17.76625 AU
opposition	9427 Apr 04 06:38	16° <u>01</u> 47'16	0°59'23	direct	9433 Jul 14 01:59	11° <u>01</u> 34'19	
min. Earth dist.	9427 Apr 04 08:43	16° <u>01</u> 47'02	18.13119 AU	evening set	9433 Oct 15 04:07	14° <u>01</u> 52'50	
direct	9427 Jun 17 23:49	14° <u>01</u> 46'23			9433 Oct 17 04:15	15° <u>01</u>	
evening set	9427 Sep 17 20:54	17° <u>01</u> 58'38					
				conjunction	9433 Oct 31 18:57	15° <u>01</u> 53'07	0°54'36
conjunction	9427 Oct 04 08:40	18° <u>01</u> 57'18	0°54'04	minimum elong	9433 Oct 31 18:57	15° <u>01</u> 53'07	0°54'49
minimum elong	9427 Oct 04 08:40	18° <u>01</u> 57'18	0°54'09	max. Earth dist.	9433 Oct 31 08:26	15° <u>01</u> 51'31	19.73854 AU

morning rise	9433 Nov 17 10:08	16° \mathbb{M} 53'30	direct	9440 Aug 15 06:00	13° \mathbb{X} 58'41	
retrograde	9434 Feb 19 07:06	20° \mathbb{M} 14'12	evening set	9440 Nov 17 16:03	17° \mathbb{X} 23'33	
opposition	9434 May 05 01:29	18° \mathbb{M} 11'07 1°00'12				
min. Earth dist.	9434 May 05 11:02	18° \mathbb{M} 10'05 17.71215 AU	conjunction	9440 Dec 04 07:31	18° \mathbb{X} 25'05 0°39'41	
direct	9434 Jul 18 19:49	16° \mathbb{M} 07'43	minimum elong	9440 Dec 04 07:31	18° \mathbb{X} 25'05 0°40'00	
evening set	9434 Oct 20 03:55	19° \mathbb{M} 27'15	max. Earth dist.	9440 Dec 03 16:01	18° \mathbb{X} 22'41 19.45737 AU	
			morning rise	9440 Dec 20 21:51	19° \mathbb{X} 26'28	
conjunction	9434 Nov 05 19:01	20° \mathbb{M} 27'46 0°53'28	retrograde	9441 Mar 23 22:20	22° \mathbb{X} 49'24	
minimum elong	9434 Nov 05 19:01	20° \mathbb{M} 27'46 0°53'43	opposition	9441 Jun 05 23:51	20° \mathbb{X} 46'18 0°42'27	
max. Earth dist.	9434 Nov 05 07:25	20° \mathbb{M} 25'59 19.68630 AU	min. Earth dist.	9441 Jun 06 12:39	20° \mathbb{X} 44'55 17.44466 AU	
morning rise	9434 Nov 22 10:21	21° \mathbb{M} 28'21	direct	9441 Aug 20 06:15	18° \mathbb{X} 41'22	
retrograde	9435 Feb 24 05:10	24° \mathbb{M} 49'30	evening set	9441 Nov 22 19:44	22° \mathbb{X} 06'55	
opposition	9435 May 09 20:06	22° \mathbb{M} 46'18 0°58'47				
min. Earth dist.	9435 May 10 05:18	22° \mathbb{M} 45'18 17.66183 AU	conjunction	9441 Dec 09 11:09	23° \mathbb{X} 08'32 0°36'20	
direct	9435 Jul 23 16:13	20° \mathbb{M} 42'37	minimum elong	9441 Dec 09 11:09	23° \mathbb{X} 08'32 0°36'39	
evening set	9435 Oct 25 04:13	24° \mathbb{M} 03'08	max. Earth dist.	9441 Dec 08 20:15	23° \mathbb{X} 06'13 19.43235 AU	
			morning rise	9441 Dec 26 00:53	24° \mathbb{X} 09'58	
conjunction	9435 Nov 10 19:38	25° \mathbb{M} 03'52 0°52'00	retrograde	9442 Mar 28 22:49	27° \mathbb{X} 32'58	
minimum elong	9435 Nov 10 19:38	25° \mathbb{M} 03'52 0°52'15	opposition	9442 Jun 10 22:12	25° \mathbb{X} 29'55 0°38'34	
max. Earth dist.	9435 Nov 10 08:06	25° \mathbb{M} 02'06 19.63792 AU	min. Earth dist.	9442 Jun 11 11:10	25° \mathbb{X} 28'30 17.42143 AU	
morning rise	9435 Nov 27 10:52	26° \mathbb{M} 04'38	direct	9442 Aug 25 06:58	23° \mathbb{X} 24'49	
retrograde	9436 Feb 29 02:40	29° \mathbb{M} 26'11	evening set	9442 Nov 27 23:45	26° \mathbb{X} 50'55	
opposition	9436 May 13 15:24	27° \mathbb{M} 22'58 0°56'58				
min. Earth dist.	9436 May 14 01:43	27° \mathbb{M} 21'51 17.61556 AU	conjunction	9442 Dec 14 14:44	27° \mathbb{X} 52'36 0°32'43	
direct	9436 Jul 27 11:49	25° \mathbb{M} 19'02	minimum elong	9442 Dec 14 14:44	27° \mathbb{X} 52'36 0°33'03	
evening set	9436 Oct 29 05:26	28° \mathbb{M} 40'30	max. Earth dist.	9442 Dec 13 22:21	27° \mathbb{X} 50'03 19.41116 AU	
			morning rise	9442 Dec 31 04:07	28° \mathbb{X} 54'04	
conjunction	9436 Nov 14 20:57	29° \mathbb{M} 41'26 0°50'11		9443 Jan 19 00:29	0° \mathbb{Z}	
minimum elong	9436 Nov 14 20:57	29° \mathbb{M} 41'26 0°50'27	retrograde	9443 Apr 02 22:19	2° \mathbb{Z} 17'05	
max. Earth dist.	9436 Nov 14 08:03	29° \mathbb{M} 39'27 19.59388 AU	opposition	9443 Jun 15 20:55	0° \mathbb{Z} 14'04 0°34'25	
	9436 Nov 19 21:43	0° \mathbb{X}	min. Earth dist.	9443 Jun 16 10:33	0° \mathbb{Z} 12'34 17.40238 AU	
morning rise	9436 Dec 01 12:16	0° \mathbb{X} 42'22		9443 Jun 21 05:57	30° \mathbb{R} \mathbb{X}	
retrograde	9437 Mar 05 01:11	4° \mathbb{X} 04'19	direct	9443 Aug 30 07:13	28° \mathbb{X} 08'45	
opposition	9437 May 18 11:04	2° \mathbb{X} 01'04 0°54'46		9443 Nov 05 01:31	0° \mathbb{Z}	
min. Earth dist.	9437 May 18 21:19	1° \mathbb{X} 59'57 17.57364 AU	evening set	9443 Dec 03 03:35	1° \mathbb{Z} 35'21	
	9437 Jul 21 17:36	30° \mathbb{R} \mathbb{M}				
direct	9437 Aug 01 10:00	29° \mathbb{M} 56'54	conjunction	9443 Dec 19 18:24	2° \mathbb{Z} 37'05 0°28'53	
	9437 Aug 12 02:08	0° \mathbb{X}	minimum elong	9443 Dec 19 18:24	2° \mathbb{Z} 37'05 0°29'12	
evening set	9437 Nov 03 07:14	3° \mathbb{X} 19'20	max. Earth dist.	9443 Dec 19 02:48	2° \mathbb{Z} 34'39 19.39426 AU	
			morning rise	9444 Jan 05 07:11	3° \mathbb{Z} 38'32	
conjunction	9437 Nov 19 22:59	4° \mathbb{X} 20'27 0°48'02	retrograde	9444 Apr 06 23:32	7° \mathbb{Z} 01'31	
minimum elong	9437 Nov 19 22:59	4° \mathbb{X} 20'27 0°48'19	opposition	9444 Jun 19 19:51	4° \mathbb{Z} 58'31 0°30'01	
max. Earth dist.	9437 Nov 19 10:28	4° \mathbb{X} 18'31 19.55398 AU	min. Earth dist.	9444 Jun 20 09:07	4° \mathbb{Z} 57'05 17.38759 AU	
morning rise	9437 Dec 06 14:00	5° \mathbb{X} 21'31	direct	9444 Sep 03 09:17	2° \mathbb{Z} 53'04	
retrograde	9438 Mar 09 23:35	8° \mathbb{X} 43'48	evening set	9444 Dec 07 07:44	6° \mathbb{Z} 20'03	
opposition	9438 May 23 07:29	6° \mathbb{X} 40'36 0°52'12				
min. Earth dist.	9438 May 23 18:43	6° \mathbb{X} 39'23 17.53575 AU	conjunction	9444 Dec 23 22:01	7° \mathbb{Z} 21'47 0°24'50	
direct	9438 Aug 06 07:16	4° \mathbb{X} 36'15	minimum elong	9444 Dec 23 22:01	7° \mathbb{Z} 21'47 0°25'10	
evening set	9438 Nov 08 09:38	7° \mathbb{X} 59'33	max. Earth dist.	9444 Dec 23 05:33	7° \mathbb{Z} 19'13 19.38182 AU	
max. Earth dist.	9438 Nov 24 11:06	8° \mathbb{X} 58'39 19.51812 AU	morning rise	9445 Jan 09 10:15	8° \mathbb{Z} 23'14	
			retrograde	9445 Apr 11 22:13	11° \mathbb{Z} 46'06	
conjunction	9438 Nov 25 01:14	9° \mathbb{X} 00'50 0°45'33	opposition	9445 Jun 24 18:58	9° \mathbb{Z} 43'08 0°25'24	
minimum elong	9438 Nov 25 01:14	9° \mathbb{X} 00'50 0°45'51	min. Earth dist.	9445 Jun 25 08:59	9° \mathbb{Z} 41'37 17.37765 AU	
morning rise	9438 Dec 11 16:12	10° \mathbb{X} 02'02	direct	9445 Sep 08 09:31	7° \mathbb{Z} 37'32	
retrograde	9439 Mar 14 22:59	13° \mathbb{X} 24'36	evening set	9445 Dec 12 11:39	11° \mathbb{Z} 04'50	
opposition	9439 May 28 04:26	11° \mathbb{X} 21'26 0°49'17	max. Earth dist.	9445 Dec 28 09:50	12° \mathbb{Z} 04'06 19.37446 AU	
min. Earth dist.	9439 May 28 15:56	11° \mathbb{X} 20'11 17.50183 AU				
direct	9439 Aug 11 06:56	9° \mathbb{X} 16'54	conjunction	9445 Dec 29 01:31	12° \mathbb{Z} 06'33 0°20'37	
evening set	9439 Nov 13 12:32	12° \mathbb{X} 41'01	minimum elong	9445 Dec 29 01:31	12° \mathbb{Z} 06'33 0°20'56	
			morning rise	9446 Jan 14 13:03	13° \mathbb{Z} 07'56	
conjunction	9439 Nov 30 04:16	13° \mathbb{X} 42'27 0°42'46	retrograde	9446 Apr 16 23:34	16° \mathbb{Z} 30'39	
minimum elong	9439 Nov 30 04:16	13° \mathbb{X} 42'27 0°43'05	opposition	9446 Jun 29 18:18	14° \mathbb{Z} 27'44 0°20'37	
max. Earth dist.	9439 Nov 29 14:38	13° \mathbb{X} 40'20 19.48595 AU	min. Earth dist.	9446 Jun 30 07:19	14° \mathbb{Z} 26'18 17.37284 AU	
morning rise	9439 Dec 16 18:46	14° \mathbb{X} 43'44	direct	9446 Sep 13 12:21	12° \mathbb{Z} 22'01	
retrograde	9440 Mar 18 22:31	18° \mathbb{X} 06'31	evening set	9446 Dec 17 15:17	15° \mathbb{Z} 49'31	
opposition	9440 Jun 01 01:53	16° \mathbb{X} 03'25 0°46'02				
min. Earth dist.	9440 Jun 01 14:05	16° \mathbb{X} 02'05 17.47143 AU	conjunction	9447 Jan 03 04:32	16° \mathbb{Z} 51'11 0°16'15	

minimum elong	9447 Jan 03 04:32	16° \mathfrak{Z} 51'11	0°16'34	retrograde	9452 May 14 16:16	14° \approx 50'56	
max. Earth dist.	9447 Jan 02 12:56	16° \mathfrak{Z} 48'45	19.37240 AU	opposition	9452 Jul 27 15:55	12° \approx 48'56	-0°09'43
morning rise	9447 Jan 19 15:21	17° \mathfrak{Z} 52'31		min. Earth dist.	9452 Jul 28 01:26	12° \approx 47'54	17.46661 AU
retrograde	9447 Apr 21 21:35	21° \mathfrak{Z} 15'01		direct	9452 Oct 12 00:48	10° \approx 43'39	
opposition	9447 Jul 04 17:53	19° \mathfrak{Z} 12'09	0°15'41	evening set	9453 Jan 15 07:08	14° \approx 10'39	
min. Earth dist.	9447 Jul 05 07:25	19° \mathfrak{Z} 10'41	17.37373 AU		9453 Jan 28 14:18	15° \approx	
direct	9447 Sep 18 12:48	17° \mathfrak{Z} 06'22					
evening set	9447 Dec 22 18:47	20° \mathfrak{Z} 34'00		conjunction	9453 Jan 31 15:51	15° \approx 11'29	-0°11'04
				minimum elong	9453 Jan 31 15:51	15° \approx 11'29	0°10'49
conjunction	9448 Jan 08 07:26	21° \mathfrak{Z} 35'36	0°11'48	behind sun begin	9453 Jan 31 10:46	15° \approx 10'43	
minimum elong	9448 Jan 08 07:26	21° \mathfrak{Z} 35'36	0°12'07	behind sun end	9453 Jan 31 20:56	15° \approx 12'16	
behind sun begin	9448 Jan 08 02:55	21° \mathfrak{Z} 34'54		max. Earth dist.	9453 Jan 31 05:16	15° \approx 09'51	19.48288 AU
behind sun end	9448 Jan 08 11:56	21° \mathfrak{Z} 36'17		morning rise	9453 Feb 16 21:28	16° \approx 11'54	
max. Earth dist.	9448 Jan 07 16:30	21° \mathfrak{Z} 33'16	19.37628 AU	retrograde	9453 May 19 13:23	19° \approx 32'21	
morning rise	9448 Jan 24 17:31	22° \mathfrak{Z} 36'49		opposition	9453 Aug 01 15:32	17° \approx 30'35	-0°14'42
retrograde	9448 Apr 25 22:15	25° \mathfrak{Z} 59'04		min. Earth dist.	9453 Aug 02 01:20	17° \approx 29'31	17.50019 AU
opposition	9448 Jul 08 17:16	23° \mathfrak{Z} 56'18	0°10'40	direct	9453 Oct 17 01:32	15° \approx 25'30	
min. Earth dist.	9448 Jul 09 05:20	23° \mathfrak{Z} 54'59	17.38056 AU	evening set	9454 Jan 20 08:17	18° \approx 52'05	
direct	9448 Sep 22 16:13	21° \mathfrak{Z} 50'31					
evening set	9448 Dec 26 22:05	25° \mathfrak{Z} 18'11		conjunction	9454 Feb 05 15:56	19° \approx 52'42	-0°15'29
				minimum elong	9454 Feb 05 15:56	19° \approx 52'42	0°15'16
conjunction	9449 Jan 12 10:03	26° \mathfrak{Z} 19'41	0°07'16	behind sun begin	9454 Feb 05 13:52	19° \approx 52'23	
minimum elong	9449 Jan 12 10:03	26° \mathfrak{Z} 19'41	0°07'34	behind sun end	9454 Feb 05 17:59	19° \approx 53'01	
behind sun begin	9449 Jan 12 03:57	26° \mathfrak{Z} 18'45		max. Earth dist.	9454 Feb 05 05:02	19° \approx 51'01	19.51842 AU
behind sun end	9449 Jan 12 16:09	26° \mathfrak{Z} 20'37		morning rise	9454 Feb 21 20:46	20° \approx 52'54	
max. Earth dist.	9449 Jan 11 19:55	26° \mathfrak{Z} 17'29	19.38616 AU	retrograde	9454 May 24 12:12	24° \approx 12'52	
morning rise	9449 Jan 28 19:15	27° \mathfrak{Z} 20'47		opposition	9454 Aug 06 14:59	22° \approx 11'18	-0°19'34
	9449 Mar 22 07:08	0° \approx		min. Earth dist.	9454 Aug 06 23:20	22° \approx 10'24	17.53753 AU
retrograde	9449 Apr 30 19:36	0° \approx 42'45		direct	9454 Oct 22 03:26	20° \approx 06'24	
	9449 Jun 10 07:55	30° \mathfrak{R} \mathfrak{Z}		evening set	9455 Jan 25 08:31	23° \approx 32'29	
opposition	9449 Jul 13 17:02	28° \mathfrak{Z} 40'07	0°05'34				
min. Earth dist.	9449 Jul 14 05:27	28° \mathfrak{Z} 38'46	17.39356 AU	conjunction	9455 Feb 10 15:24	24° \approx 32'52	-0°19'47
direct	9449 Sep 27 16:51	26° \mathfrak{Z} 34'23		minimum elong	9455 Feb 10 15:24	24° \approx 32'52	0°19'34
	9449 Dec 31 11:39	0° \approx		max. Earth dist.	9455 Feb 10 06:23	24° \approx 31'28	19.55736 AU
evening set	9450 Jan 01 00:57	0° \approx 02'02		morning rise	9455 Feb 26 19:09	25° \approx 32'49	
				retrograde	9455 May 29 08:58	28° \approx 52'16	
conjunction	9450 Jan 17 12:06	1° \approx 03'23	0°02'42	opposition	9455 Aug 11 14:17	26° \approx 50'53	-0°24'18
minimum elong	9450 Jan 17 12:06	1° \approx 03'23	0°03'00	min. Earth dist.	9455 Aug 11 22:37	26° \approx 50'00	17.57796 AU
behind sun begin	9450 Jan 17 05:24	1° \approx 02'22		direct	9455 Oct 27 03:39	24° \approx 46'12	
behind sun end	9450 Jan 17 18:47	1° \approx 04'24		evening set	9456 Jan 30 08:23	28° \approx 11'40	
max. Earth dist.	9450 Jan 16 22:25	1° \approx 01'15	19.40228 AU				
morning rise	9450 Feb 02 20:32	2° \approx 04'20		conjunction	9456 Feb 15 14:09	29° \approx 11'48	-0°23'57
retrograde	9450 May 05 19:45	5° \approx 25'59		minimum elong	9456 Feb 15 14:09	29° \approx 11'48	0°23'46
opposition	9450 Jul 18 16:39	3° \approx 23'33	0°00'27	max. Earth dist.	9456 Feb 15 04:42	29° \approx 10'21	19.59926 AU
min. Earth dist.	9450 Jul 19 03:20	3° \approx 22'24	17.41257 AU		9456 Feb 28 13:35	0° \mathfrak{H}	
desc. node	9450 Aug 19 16:47	2° \approx 06'19		morning rise	9456 Mar 02 17:08	0° \mathfrak{H} 11'31	
direct	9450 Oct 02 20:48	1° \approx 17'57		retrograde	9456 Jun 02 06:36	3° \mathfrak{H} 30'23	
evening set	9451 Jan 06 03:25	4° \approx 45'27		opposition	9456 Aug 15 13:06	1° \mathfrak{H} 29'10	-0°28'50
				min. Earth dist.	9456 Aug 15 20:17	1° \mathfrak{H} 28'24	17.62126 AU
conjunction	9451 Jan 22 13:51	5° \approx 46'40	-0°02'00		9456 Sep 23 11:02	30° \mathfrak{R} \approx	
minimum elong	9451 Jan 22 13:51	5° \approx 46'40	0°01'44	direct	9456 Oct 31 04:35	29° \approx 24'41	
behind sun begin	9451 Jan 22 07:08	5° \approx 45'38			9456 Dec 07 04:00	0° \mathfrak{H}	
behind sun end	9451 Jan 22 20:34	5° \approx 47'41		evening set	9457 Feb 03 07:21	2° \mathfrak{H} 49'29	
max. Earth dist.	9451 Jan 22 01:37	5° \approx 44'46	19.42415 AU				
morning rise	9451 Feb 07 21:18	6° \approx 47'27		conjunction	9457 Feb 19 12:19	3° \mathfrak{H} 49'21	-0°27'57
retrograde	9451 May 10 16:46	10° \approx 08'45		minimum elong	9457 Feb 19 12:19	3° \mathfrak{H} 49'21	0°27'46
opposition	9451 Jul 23 16:21	8° \approx 06'32	-0°04'39	max. Earth dist.	9457 Feb 19 04:47	3° \mathfrak{H} 48'11	19.64383 AU
min. Earth dist.	9451 Jul 24 03:24	8° \approx 05'20	17.43715 AU	morning rise	9457 Mar 07 14:13	4° \mathfrak{H} 48'48	
direct	9451 Oct 07 21:37	6° \approx 01'05		retrograde	9457 Jun 07 02:24	8° \mathfrak{H} 07'04	
evening set	9452 Jan 11 05:32	9° \approx 28'23		opposition	9457 Aug 20 11:48	6° \mathfrak{H} 06'00	-0°33'11
				min. Earth dist.	9457 Aug 20 18:32	6° \mathfrak{H} 05'17	17.66702 AU
conjunction	9452 Jan 27 15:02	10° \approx 29'24	-0°06'35	direct	9457 Nov 05 04:37	4° \mathfrak{H} 01'44	
minimum elong	9452 Jan 27 15:02	10° \approx 29'24	0°06'19	evening set	9458 Feb 08 05:29	7° \mathfrak{H} 25'45	
behind sun begin	9452 Jan 27 08:42	10° \approx 28'27					
behind sun end	9452 Jan 27 21:21	10° \approx 30'22		conjunction	9458 Feb 24 09:19	8° \mathfrak{H} 25'21	-0°31'44
max. Earth dist.	9452 Jan 27 02:47	10° \approx 27'30	19.45133 AU	minimum elong	9458 Feb 24 09:19	8° \mathfrak{H} 25'21	0°31'35
morning rise	9452 Feb 12 21:45	11° \approx 30'02		max. Earth dist.	9458 Feb 24 01:40	8° \mathfrak{H} 24'10	19.69087 AU

morning rise	9458 Mar 12 10:28	9° $\mathbf{\text{H}}$ 24'32	direct	9464 Dec 07 15:23	5° $\mathbf{\text{Y}}$ 33'20
retrograde	9458 Jun 11 22:20	12° $\mathbf{\text{H}}$ 42'10	evening set	9465 Mar 11 14:34	8° $\mathbf{\text{Y}}$ 50'48
opposition	9458 Aug 25 10:01	10° $\mathbf{\text{H}}$ 41'13 -0°37'17			
min. Earth dist.	9458 Aug 25 15:43	10° $\mathbf{\text{H}}$ 40'37 17.71535 AU	conjunction	9465 Mar 27 12:25	9° $\mathbf{\text{Y}}$ 48'19 -0°51'09
direct	9458 Nov 10 04:54	8° $\mathbf{\text{H}}$ 37'08	minimum elong	9465 Mar 27 12:25	9° $\mathbf{\text{Y}}$ 48'19 0°51'10
evening set	9459 Feb 13 02:37	12° $\mathbf{\text{H}}$ 00'20	max. Earth dist.	9465 Mar 27 14:19	9° $\mathbf{\text{Y}}$ 48'36 20.09090 AU
			morning rise	9465 Apr 12 08:14	10° $\mathbf{\text{Y}}$ 45'34
conjunction	9459 Mar 01 05:41	12° $\mathbf{\text{H}}$ 59'39 -0°35'19	retrograde	9465 Jul 12 19:43	13° $\mathbf{\text{Y}}$ 58'43
minimum elong	9459 Mar 01 05:41	12° $\mathbf{\text{H}}$ 59'39 0°35'12	opposition	9465 Sep 26 07:17	11° $\mathbf{\text{Y}}$ 58'57 -0°57'42
max. Earth dist.	9459 Mar 01 00:04	12° $\mathbf{\text{H}}$ 58'47 19.74041 AU	min. Earth dist.	9465 Sep 26 04:19	11° $\mathbf{\text{Y}}$ 59'16 18.12307 AU
morning rise	9459 Mar 17 05:51	13° $\mathbf{\text{H}}$ 58'33	direct	9465 Dec 12 11:34	9° $\mathbf{\text{Y}}$ 57'04
retrograde	9459 Jun 16 16:30	17° $\mathbf{\text{H}}$ 15'31	evening set	9466 Mar 16 05:27	13° $\mathbf{\text{Y}}$ 13'31
opposition	9459 Aug 30 07:37	15° $\mathbf{\text{H}}$ 14'42 -0°41'08			
min. Earth dist.	9459 Aug 30 12:24	15° $\mathbf{\text{H}}$ 14'12 17.76605 AU	conjunction	9466 Apr 01 02:32	14° $\mathbf{\text{Y}}$ 10'45 -0°52'45
direct	9459 Nov 15 04:33	13° $\mathbf{\text{H}}$ 10'51	minimum elong	9466 Apr 01 02:32	14° $\mathbf{\text{Y}}$ 10'45 0°52'49
evening set	9460 Feb 17 23:00	16° $\mathbf{\text{H}}$ 33'09	max. Earth dist.	9466 Apr 01 05:30	14° $\mathbf{\text{Y}}$ 11'12 20.15528 AU
			morning rise	9466 Apr 16 21:50	15° $\mathbf{\text{Y}}$ 07'45
conjunction	9460 Mar 05 01:00	17° $\mathbf{\text{H}}$ 32'09 -0°38'39	retrograde	9466 Jul 17 09:27	18° $\mathbf{\text{Y}}$ 20'20
minimum elong	9460 Mar 05 00:59	17° $\mathbf{\text{H}}$ 32'09 0°38'33	opposition	9466 Oct 01 01:32	16° $\mathbf{\text{Y}}$ 20'47 -0°59'18
max. Earth dist.	9460 Mar 04 19:36	17° $\mathbf{\text{H}}$ 31'19 19.79240 AU	min. Earth dist.	9466 Sep 30 22:27	16° $\mathbf{\text{Y}}$ 21'06 18.18761 AU
morning rise	9460 Mar 21 00:27	18° $\mathbf{\text{H}}$ 30'47	direct	9466 Dec 17 04:43	14° $\mathbf{\text{Y}}$ 19'17
retrograde	9460 Jun 20 10:41	21° $\mathbf{\text{H}}$ 47'05	evening set	9467 Mar 20 19:39	17° $\mathbf{\text{Y}}$ 34'44
opposition	9460 Sep 03 04:53	19° $\mathbf{\text{H}}$ 46'22 -0°44'41			
min. Earth dist.	9460 Sep 03 08:42	19° $\mathbf{\text{H}}$ 45'58 17.81946 AU	conjunction	9467 Apr 05 16:06	18° $\mathbf{\text{Y}}$ 31'41 -0°54'02
direct	9460 Nov 19 03:20	17° $\mathbf{\text{H}}$ 42'44	minimum elong	9467 Apr 05 16:06	18° $\mathbf{\text{Y}}$ 31'41 0°54'07
evening set	9461 Feb 21 18:14	21° $\mathbf{\text{H}}$ 04'07	max. Earth dist.	9467 Apr 05 20:07	18° $\mathbf{\text{Y}}$ 32'17 20.21967 AU
			morning rise	9467 Apr 21 10:55	19° $\mathbf{\text{Y}}$ 28'25
conjunction	9461 Mar 09 19:25	22° $\mathbf{\text{H}}$ 02'49 -0°41'43	retrograde	9467 Jul 22 00:29	22° $\mathbf{\text{Y}}$ 40'24
minimum elong	9461 Mar 09 19:25	22° $\mathbf{\text{H}}$ 02'49 0°41'40	opposition	9467 Oct 05 18:56	20° $\mathbf{\text{Y}}$ 41'04 -1°00'33
max. Earth dist.	9461 Mar 09 16:11	22° $\mathbf{\text{H}}$ 02'19 19.84712 AU	min. Earth dist.	9467 Oct 05 14:04	20° $\mathbf{\text{Y}}$ 41'34 18.25162 AU
morning rise	9461 Mar 25 17:57	23° $\mathbf{\text{H}}$ 01'09	direct	9467 Dec 21 23:18	18° $\mathbf{\text{Y}}$ 39'57
retrograde	9461 Jun 25 03:42	26° $\mathbf{\text{H}}$ 16'48	evening set	9468 Mar 24 09:07	21° $\mathbf{\text{Y}}$ 54'23
opposition	9461 Sep 08 01:37	24° $\mathbf{\text{H}}$ 16'14 -0°47'57			
min. Earth dist.	9461 Sep 08 03:49	24° $\mathbf{\text{H}}$ 16'00 17.87550 AU	conjunction	9468 Apr 09 04:56	22° $\mathbf{\text{Y}}$ 51'05 -0°55'01
direct	9461 Nov 24 02:11	22° $\mathbf{\text{H}}$ 12'52	minimum elong	9468 Apr 09 04:56	22° $\mathbf{\text{Y}}$ 51'05 0°55'08
evening set	9462 Feb 26 12:42	25° $\mathbf{\text{H}}$ 33'17	max. Earth dist.	9468 Apr 09 09:53	22° $\mathbf{\text{Y}}$ 51'49 20.28313 AU
			morning rise	9468 Apr 24 23:17	23° $\mathbf{\text{Y}}$ 47'34
conjunction	9462 Mar 14 12:53	26° $\mathbf{\text{H}}$ 31'41 -0°44'31	retrograde	9468 Jul 25 13:05	26° $\mathbf{\text{Y}}$ 59'00
minimum elong	9462 Mar 14 12:53	26° $\mathbf{\text{H}}$ 31'41 0°44'28	opposition	9468 Oct 09 12:08	24° $\mathbf{\text{Y}}$ 59'51 -1°01'27
max. Earth dist.	9462 Mar 14 10:22	26° $\mathbf{\text{H}}$ 31'18 19.90459 AU	min. Earth dist.	9468 Oct 09 07:26	25° $\mathbf{\text{Y}}$ 00'20 18.31454 AU
morning rise	9462 Mar 30 10:44	27° $\mathbf{\text{H}}$ 29'44	direct	9468 Dec 25 15:06	22° $\mathbf{\text{Y}}$ 59'06
	9462 May 19 17:02	0° $\mathbf{\text{Y}}$	evening set	9469 Mar 28 21:42	26° $\mathbf{\text{Y}}$ 12'30
retrograde	9462 Jun 29 20:16	0° $\mathbf{\text{Y}}$ 44'45			
	9462 Aug 11 07:58	30° $\mathbf{\text{R}}$ $\mathbf{\text{H}}$	conjunction	9469 Apr 13 16:56	27° $\mathbf{\text{Y}}$ 08'55 -0°55'42
opposition	9462 Sep 12 21:51	28° $\mathbf{\text{H}}$ 44'19 -0°50'53	minimum elong	9469 Apr 13 16:56	27° $\mathbf{\text{Y}}$ 08'55 0°55'49
min. Earth dist.	9462 Sep 12 23:09	28° $\mathbf{\text{H}}$ 44'11 17.93449 AU	max. Earth dist.	9469 Apr 13 22:34	27° $\mathbf{\text{Y}}$ 09'46 20.34524 AU
direct	9462 Nov 28 22:58	26° $\mathbf{\text{H}}$ 41'17	morning rise	9469 Apr 29 10:56	28° $\mathbf{\text{Y}}$ 05'11
evening set	9463 Mar 03 06:04	0° $\mathbf{\text{Y}}$ 00'43		9469 Jun 05 00:58	0° $\mathbf{\text{B}}$
	9463 Mar 03 01:15	0° $\mathbf{\text{Y}}$	retrograde	9469 Jul 30 03:16	1° $\mathbf{\text{B}}$ 16'03
				9469 Sep 26 06:10	30° $\mathbf{\text{R}}$ $\mathbf{\text{Y}}$
conjunction	9463 Mar 19 05:32	0° $\mathbf{\text{Y}}$ 58'50 -0°47'01	opposition	9469 Oct 14 04:39	29° $\mathbf{\text{Y}}$ 17'03 -1°02'00
minimum elong	9463 Mar 19 05:31	0° $\mathbf{\text{Y}}$ 58'50 0°47'01	min. Earth dist.	9469 Oct 13 22:08	29° $\mathbf{\text{Y}}$ 17'43 18.37565 AU
max. Earth dist.	9463 Mar 19 04:58	0° $\mathbf{\text{Y}}$ 58'44 19.96485 AU	direct	9469 Dec 30 08:00	27° $\mathbf{\text{Y}}$ 16'38
morning rise	9463 Apr 04 02:37	1° $\mathbf{\text{Y}}$ 56'36		9470 Mar 24 23:07	0° $\mathbf{\text{B}}$
retrograde	9463 Jul 04 12:46	5° $\mathbf{\text{Y}}$ 10'59	evening set	9470 Apr 02 09:34	0° $\mathbf{\text{B}}$ 29'01
opposition	9463 Sep 17 17:29	3° $\mathbf{\text{Y}}$ 10'46 -0°53'30			
min. Earth dist.	9463 Sep 17 16:55	3° $\mathbf{\text{Y}}$ 10'49 17.99576 AU	conjunction	9470 Apr 18 04:20	1° $\mathbf{\text{B}}$ 25'11 -0°56'03
direct	9463 Dec 03 20:22	1° $\mathbf{\text{Y}}$ 08'05	minimum elong	9470 Apr 18 04:20	1° $\mathbf{\text{B}}$ 25'11 0°56'12
evening set	9464 Mar 06 22:47	4° $\mathbf{\text{Y}}$ 26'32	max. Earth dist.	9470 Apr 18 10:56	1° $\mathbf{\text{B}}$ 26'10 20.40521 AU
			morning rise	9470 May 03 21:59	2° $\mathbf{\text{B}}$ 21'14
conjunction	9464 Mar 22 21:20	5° $\mathbf{\text{Y}}$ 24'21 -0°49'14	retrograde	9470 Aug 03 15:01	5° $\mathbf{\text{B}}$ 31'32
minimum elong	9464 Mar 22 21:20	5° $\mathbf{\text{Y}}$ 24'21 0°49'15	opposition	9470 Oct 18 20:36	3° $\mathbf{\text{B}}$ 32'40 -1°02'13
max. Earth dist.	9464 Mar 22 21:41	5° $\mathbf{\text{Y}}$ 24'24 20.02710 AU	min. Earth dist.	9470 Oct 18 14:27	3° $\mathbf{\text{B}}$ 33'17 18.43455 AU
morning rise	9464 Apr 07 17:48	6° $\mathbf{\text{Y}}$ 21'52	direct	9471 Jan 03 22:38	1° $\mathbf{\text{B}}$ 32'33
retrograde	9464 Jul 08 03:49	9° $\mathbf{\text{Y}}$ 35'37	evening set	9471 Apr 06 20:38	4° $\mathbf{\text{B}}$ 43'54
opposition	9464 Sep 21 12:38	7° $\mathbf{\text{Y}}$ 35'37 -0°55'46			
min. Earth dist.	9464 Sep 21 11:35	7° $\mathbf{\text{Y}}$ 35'44 18.05891 AU	conjunction	9471 Apr 22 14:58	5° $\mathbf{\text{B}}$ 39'50 -0°56'06

minimum elong	9471 Apr 22 14:58	5°839'50	0°56'17	max. Earth dist.	9477 May 17 04:40	0°II36'14	20.76131 AU
max. Earth dist.	9471 Apr 22 21:53	5°840'52	20.46289 AU	morning rise	9477 Jun 01 10:14	1°II29'21	
morning rise	9471 May 08 08:28	6°835'40		retrograde	9477 Sep 01 18:43	4°II36'26	
retrograde	9471 Aug 08 04:03	9°845'25		opposition	9477 Nov 17 19:32	2°II37'55	-0°54'37
opposition	9471 Oct 23 11:52	7°846'38	-1°02'05	min. Earth dist.	9477 Nov 17 06:45	2°II39'12	18.78310 AU
min. Earth dist.	9471 Oct 23 04:00	7°847'26	18.49085 AU	direct	9478 Feb 02 17:45	0°II39'31	
direct	9472 Jan 08 14:04	5°846'47		evening set	9478 May 05 06:24	3°II44'30	
evening set	9472 Apr 10 06:54	8°857'07					
conjunction	9472 Apr 26 00:54	9°852'49	-0°55'51	conjunction	9478 May 20 23:29	4°II39'09	-0°48'22
minimum elong	9472 Apr 26 00:54	9°852'49	0°56'02	minimum elong	9478 May 20 23:29	4°II39'09	0°48'40
max. Earth dist.	9472 Apr 26 08:56	9°854'01	20.51781 AU	max. Earth dist.	9478 May 21 12:45	4°II41'05	20.80377 AU
morning rise	9472 May 11 18:09	10°848'27		morning rise	9478 Jun 05 17:01	5°II33'54	
retrograde	9472 Aug 11 14:30	13°857'40		retrograde	9478 Sep 06 02:27	8°II40'41	
opposition	9472 Oct 27 02:41	11°858'56	-1°01'37	opposition	9478 Nov 22 06:59	6°II42'15	-0°52'22
min. Earth dist.	9472 Oct 26 19:08	11°859'42	18.54458 AU	min. Earth dist.	9478 Nov 21 18:34	6°II43'29	18.82421 AU
direct	9473 Jan 12 03:58	9°859'20		direct	9479 Feb 07 02:58	4°II44'07	
evening set	9473 Apr 14 16:26	13°808'39		evening set	9479 May 09 12:41	7°II48'23	
conjunction	9473 Apr 30 10:05	14°804'08	-0°55'18	conjunction	9479 May 25 05:45	8°II42'55	-0°46'13
minimum elong	9473 Apr 30 10:05	14°804'08	0°55'32	minimum elong	9479 May 25 05:45	8°II42'55	0°46'31
max. Earth dist.	9473 Apr 30 18:29	14°805'23	20.57045 AU	max. Earth dist.	9479 May 25 18:52	8°II44'50	20.84347 AU
morning rise	9473 May 16 03:18	14°859'35		morning rise	9479 Jun 09 23:38	9°II37'35	
retrograde	9473 May 16 06:11	15°8		retrograde	9479 Sep 10 12:52	12°II44'07	
opposition	9473 Aug 16 02:49	18°808'17		opposition	9479 Nov 26 18:04	10°II45'46	-0°49'52
min. Earth dist.	9473 Oct 31 16:45	16°809'34	-1°00'50	min. Earth dist.	9479 Nov 26 04:21	10°II47'08	18.86226 AU
direct	9473 Oct 31 07:19	16°810'31	18.59611 AU	direct	9480 Feb 11 13:27	8°II47'53	
evening set	9473 Dec 01 06:55	15°88		evening set	9480 May 12 18:31	11°II51'30	
conjunction	9474 Jan 16 17:56	14°810'11		conjunction	9480 May 28 11:45	12°II45'57	-0°43'52
minimum elong	9474 Mar 02 14:30	15°8		minimum elong	9480 May 28 11:45	12°II45'57	0°44'11
max. Earth dist.	9474 Apr 19 01:06	17°818'32		max. Earth dist.	9480 May 29 02:07	12°II48'02	20.87969 AU
morning rise	9474 May 04 18:34	18°813'49	-0°54'27	morning rise	9480 Jun 13 05:48	13°II40'32	
retrograde	9474 May 04 18:34	18°813'49	0°54'41	retrograde	9480 Sep 13 20:42	16°II46'53	
opposition	9474 May 05 04:25	18°815'16	20.62089 AU	opposition	9480 Nov 30 04:59	14°II48'35	-0°47'07
min. Earth dist.	9474 May 20 11:41	19°809'06		min. Earth dist.	9480 Nov 29 15:45	14°II49'54	18.89662 AU
direct	9474 Aug 20 11:46	22°817'19		direct	9481 Feb 14 21:57	12°II50'57	
evening set	9474 Nov 05 06:20	20°818'38	-0°59'44	evening set	9481 May 17 00:16	15°II53'59	
conjunction	9474 Nov 04 21:02	20°819'34	18.64567 AU	conjunction	9481 Jun 01 17:34	16°II48'20	-0°41'17
minimum elong	9475 Jan 21 06:41	18°819'29		minimum elong	9481 Jun 01 17:34	16°II48'20	0°41'36
max. Earth dist.	9475 Apr 23 09:18	21°826'54		max. Earth dist.	9481 Jun 02 07:29	16°II50'21	20.91215 AU
morning rise	9475 May 09 02:30	22°822'00	-0°53'20	morning rise	9481 Jun 17 12:05	17°II42'51	
retrograde	9475 May 09 02:30	22°822'00	0°53'34	retrograde	9481 Sep 18 06:38	20°II49'03	
opposition	9475 May 09 12:39	22°823'30	20.66957 AU	opposition	9481 Dec 04 15:23	18°II50'48	-0°44'09
min. Earth dist.	9475 May 24 19:42	23°817'07		min. Earth dist.	9481 Dec 04 01:13	18°II52'13	18.92697 AU
direct	9475 Aug 24 23:29	26°824'55		direct	9482 Feb 19 07:19	16°II53'22	
evening set	9475 Nov 09 19:04	24°826'16	-0°58'19	evening set	9482 May 21 05:42	19°II55'52	
conjunction	9475 Nov 09 07:53	24°827'23	18.69345 AU	conjunction	9482 Jun 05 23:19	20°II50'10	-0°38'31
minimum elong	9476 Jan 25 19:17	22°827'21		minimum elong	9482 Jun 05 23:20	20°II50'10	0°38'51
max. Earth dist.	9476 Apr 26 16:52	25°833'54		max. Earth dist.	9482 Jun 06 14:08	20°II52'18	20.94012 AU
morning rise	9476 May 12 10:00	26°828'51	-0°51'56	morning rise	9482 Jun 21 18:07	21°II44'38	
retrograde	9476 May 12 10:00	26°828'51	0°52'11	retrograde	9482 Sep 22 14:36	24°II50'43	
opposition	9476 May 12 21:38	26°830'33	20.71638 AU	opposition	9482 Dec 09 01:35	22°II52'30	-0°40'59
min. Earth dist.	9476 May 28 03:10	27°823'49		min. Earth dist.	9482 Dec 08 12:08	22°II53'50	18.95252 AU
direct	9476 Jul 23 23:28	0°II		direct	9483 Feb 23 15:25	20°II55'14	
evening set	9476 Aug 28 07:36	0°II31'13		evening set	9483 May 25 11:07	23°II57'15	
conjunction	9476 Oct 03 15:08	30°88		conjunction	9483 Jun 10 04:53	24°II51'29	-0°35'34
minimum elong	9476 Nov 13 07:37	28°832'38	-0°56'36	minimum elong	9483 Jun 10 04:53	24°II51'29	0°35'54
max. Earth dist.	9476 Nov 12 20:32	28°833'45	18.73933 AU	max. Earth dist.	9483 Jun 10 18:47	24°II53'29	20.96322 AU
morning rise	9477 Jan 29 06:13	26°834'00		morning rise	9483 Jun 26 00:12	25°II45'56	
retrograde	9477 Apr 30 23:49	29°839'43		retrograde	9483 Sep 26 23:42	28°II51'55	
opposition	9477 May 06 20:41	0°II		opposition	9483 Dec 13 11:20	26°II53'41	-0°37'37
conjunction	9477 May 16 16:49	0°II34'30	-0°50'16	min. Earth dist.	9483 Dec 12 21:17	26°II55'05	18.97303 AU
minimum elong	9477 May 16 16:49	0°II34'30	0°50'32	direct	9484 Feb 27 23:58	24°II56'32	
				evening set	9484 May 28 16:17	27°II58'07	

conjunction	9484 Jun 13 10:28	28° Π 52'19 -0°32'27	behind sun begin	9490 Jul 07 13:21	22° \mathfrak{D} 49'13	
minimum elong	9484 Jun 13 10:28	28° Π 52'19 0°32'46	behind sun end	9490 Jul 07 23:02	22° \mathfrak{D} 50'34	
max. Earth dist.	9484 Jun 14 01:02	28° Π 54'25 20.98106 AU	max. Earth dist.	9490 Jul 08 08:50	22° \mathfrak{D} 51'59	20.99581 AU
morning rise	9484 Jun 29 06:09	29° Π 46'46	morning rise	9490 Jul 23 17:31	23° \mathfrak{D} 44'35	
	9484 Jul 03 04:49	0° \mathfrak{D}	retrograde	9490 Oct 25 06:52	26° \mathfrak{D} 50'54	
retrograde	9484 Sep 30 07:26	2° \mathfrak{D} 52'40	min. Earth dist.	9491 Jan 10 11:29	24° \mathfrak{D} 53'19	18.99137 AU
opposition	9484 Dec 16 20:59	0° \mathfrak{D} 54'24 -0°34'04	opposition	9491 Jan 11 00:43	24° \mathfrak{D} 51'59	-0°10'02
min. Earth dist.	9484 Dec 16 07:37	0° \mathfrak{D} 55'44 18.98825 AU	direct	9491 Mar 27 23:56	22° \mathfrak{D} 54'55	
	9485 Jan 09 11:21	30° \mathfrak{K} Π	evening set	9491 Jun 26 02:20	25° \mathfrak{D} 55'00	
direct	9485 Mar 03 07:46	28° Π 57'20				
	9485 Apr 22 20:07	0° \mathfrak{D}	conjunction	9491 Jul 11 23:47	26° \mathfrak{D} 49'25	-0°07'12
evening set	9485 Jun 01 21:12	1° \mathfrak{D} 58'29	minimum elong	9491 Jul 11 23:47	26° \mathfrak{D} 49'25	0°07'30
			behind sun begin	9491 Jul 11 17:46	26° \mathfrak{D} 48'35	
conjunction	9485 Jun 17 15:40	2° \mathfrak{D} 52'41 -0°29'10	behind sun end	9491 Jul 12 05:48	26° \mathfrak{D} 50'15	
minimum elong	9485 Jun 17 15:41	2° \mathfrak{D} 52'41 0°29'30	max. Earth dist.	9491 Jul 12 13:25	26° \mathfrak{D} 51'22	20.98590 AU
max. Earth dist.	9485 Jun 18 05:20	2° \mathfrak{D} 54'39 20.99387 AU	morning rise	9491 Jul 27 23:55	27° \mathfrak{D} 44'12	
morning rise	9485 Jul 03 12:02	3° \mathfrak{D} 47'08		9491 Sep 13 13:32	0° \mathfrak{Q}	
retrograde	9485 Oct 04 16:00	6° \mathfrak{D} 53'00	retrograde	9491 Oct 29 16:28	0° \mathfrak{Q} 50'46	
opposition	9485 Dec 21 06:11	4° \mathfrak{D} 54'38 -0°30'22		9491 Dec 16 05:34	30° \mathfrak{K} \mathfrak{D}	
min. Earth dist.	9485 Dec 20 16:20	4° \mathfrak{D} 56'00 18.99859 AU	opposition	9492 Jan 15 08:56	28° \mathfrak{D} 51'47	-0°05'45
direct	9486 Mar 07 15:31	2° \mathfrak{D} 57'35	min. Earth dist.	9492 Jan 14 19:35	28° \mathfrak{D} 53'07	18.97977 AU
evening set	9486 Jun 06 02:02	5° \mathfrak{D} 58'24	direct	9492 Mar 31 05:20	26° \mathfrak{D} 54'42	
			evening set	9492 Jun 29 07:42	29° \mathfrak{D} 54'51	
conjunction	9486 Jun 21 21:02	6° \mathfrak{D} 52'35 -0°25'45		9492 Jun 30 20:24	0° \mathfrak{Q}	
minimum elong	9486 Jun 21 21:02	6° \mathfrak{D} 52'35 0°26'04	conjunction	9492 Jul 15 05:53	0° \mathfrak{Q} 49'22	-0°03'19
max. Earth dist.	9486 Jun 22 11:28	6° \mathfrak{D} 54'39 21.00183 AU	minimum elong	9492 Jul 15 05:53	0° \mathfrak{Q} 49'22	0°03'38
morning rise	9486 Jul 07 17:51	7° \mathfrak{D} 47'03	behind sun begin	9492 Jul 14 23:20	0° \mathfrak{Q} 48'27	
retrograde	9486 Oct 08 22:59	10° \mathfrak{D} 52'54	behind sun end	9492 Jul 15 12:26	0° \mathfrak{Q} 50'17	
opposition	9486 Dec 25 14:59	8° \mathfrak{D} 54'25 -0°26'30	max. Earth dist.	9492 Jul 15 20:15	0° \mathfrak{Q} 51'25	20.97254 AU
min. Earth dist.	9486 Dec 25 01:47	8° \mathfrak{D} 55'45 19.00434 AU	morning rise	9492 Jul 31 06:35	1° \mathfrak{Q} 44'16	
direct	9487 Mar 11 22:35	6° \mathfrak{D} 57'23	retrograde	9492 Nov 02 00:41	4° \mathfrak{Q} 51'07	
evening set	9487 Jun 10 06:52	9° \mathfrak{D} 57'55	opposition	9493 Jan 18 17:14	2° \mathfrak{Q} 52'02	-0°01'25
conjunction	9487 Jun 26 02:11	10° \mathfrak{D} 52'07 -0°22'12	min. Earth dist.	9493 Jan 18 04:25	2° \mathfrak{Q} 53'20	18.96461 AU
minimum elong	9487 Jun 26 02:11	10° \mathfrak{D} 52'07 0°22'33	direct	9493 Apr 04 11:37	0° \mathfrak{Q} 54'57	
max. Earth dist.	9487 Jun 26 15:48	10° \mathfrak{D} 54'04 21.00565 AU	asc. node	9493 May 17 02:07	1° \mathfrak{Q} 40'32	
morning rise	9487 Jul 11 23:42	11° \mathfrak{D} 46'37	evening set	9493 Jul 03 13:28	3° \mathfrak{Q} 55'14	
retrograde	9487 Oct 13 07:49	14° \mathfrak{D} 52'30	conjunction	9493 Jul 19 12:12	4° \mathfrak{Q} 49'51	0°00'41
opposition	9487 Dec 29 23:38	12° \mathfrak{D} 53'54 -0°22'32	minimum elong	9493 Jul 19 12:11	4° \mathfrak{Q} 49'51	0°00'25
min. Earth dist.	9487 Dec 29 09:56	12° \mathfrak{D} 55'16 19.00627 AU	behind sun begin	9493 Jul 19 05:37	4° \mathfrak{Q} 48'56	
direct	9488 Mar 15 05:29	10° \mathfrak{D} 56'51	behind sun end	9493 Jul 19 18:46	4° \mathfrak{Q} 50'46	
evening set	9488 Jun 13 11:27	13° \mathfrak{D} 57'10	max. Earth dist.	9493 Jul 20 01:16	4° \mathfrak{Q} 51'43	20.95566 AU
conjunction	9488 Jun 29 07:21	14° \mathfrak{D} 51'24 -0°18'34	morning rise	9493 Aug 04 13:48	5° \mathfrak{Q} 44'53	
minimum elong	9488 Jun 29 07:21	14° \mathfrak{D} 51'24 0°18'53	retrograde	9493 Nov 06 11:04	8° \mathfrak{Q} 52'04	
max. Earth dist.	9488 Jun 29 21:58	14° \mathfrak{D} 53'29 21.00569 AU	opposition	9494 Jan 23 01:35	6° \mathfrak{Q} 52'55	0°02'55
morning rise	9488 Jul 15 05:20	15° \mathfrak{D} 45'56	min. Earth dist.	9494 Jan 22 13:04	6° \mathfrak{Q} 54'10	18.94580 AU
retrograde	9488 Oct 16 14:25	18° \mathfrak{D} 51'56	direct	9494 Apr 08 17:00	4° \mathfrak{Q} 55'47	
opposition	9489 Jan 02 08:13	16° \mathfrak{D} 53'13 -0°18'27	evening set	9494 Jul 07 19:41	7° \mathfrak{Q} 56'16	
min. Earth dist.	9489 Jan 01 18:52	16° \mathfrak{D} 54'33 19.00458 AU	conjunction	9494 Jul 23 19:10	8° \mathfrak{Q} 51'02	0°04'40
direct	9489 Mar 19 11:51	14° \mathfrak{D} 56'10	minimum elong	9494 Jul 23 19:11	8° \mathfrak{Q} 51'02	0°04'23
evening set	9489 Jun 17 16:19	17° \mathfrak{D} 56'19	behind sun begin	9494 Jul 23 12:41	8° \mathfrak{Q} 50'07	
conjunction	9489 Jul 03 12:38	18° \mathfrak{D} 50'36 -0°14'50	behind sun end	9494 Jul 24 01:41	8° \mathfrak{Q} 51'56	
minimum elong	9489 Jul 03 12:38	18° \mathfrak{D} 50'36 0°15'10	max. Earth dist.	9494 Jul 24 08:38	8° \mathfrak{Q} 52'57	20.93474 AU
behind sun begin	9489 Jul 03 10:19	18° \mathfrak{D} 50'16	morning rise	9494 Aug 08 21:21	9° \mathfrak{Q} 46'11	
behind sun end	9489 Jul 03 14:57	18° \mathfrak{D} 50'55	retrograde	9494 Nov 10 20:06	12° \mathfrak{Q} 53'44	
max. Earth dist.	9489 Jul 04 02:25	18° \mathfrak{D} 52'34 21.00243 AU	opposition	9495 Jan 27 09:56	10° \mathfrak{Q} 54'30	0°07'15
morning rise	9489 Jul 19 11:25	19° \mathfrak{D} 45'12	min. Earth dist.	9495 Jan 26 22:14	10° \mathfrak{Q} 55'41	18.92273 AU
retrograde	9489 Oct 20 23:48	22° \mathfrak{D} 51'20	direct	9495 Apr 12 23:34	8° \mathfrak{Q} 57'20	
opposition	9490 Jan 06 16:27	20° \mathfrak{D} 52'31 -0°14'16	evening set	9495 Jul 12 02:30	11° \mathfrak{Q} 58'05	
min. Earth dist.	9490 Jan 06 02:47	20° \mathfrak{D} 53'53 18.99969 AU	conjunction	9495 Jul 28 02:33	12° \mathfrak{Q} 52'59	0°08'34
direct	9490 Mar 23 17:53	18° \mathfrak{D} 55'27	minimum elong	9495 Jul 28 02:32	12° \mathfrak{Q} 52'59	0°08'19
evening set	9490 Jun 21 21:11	21° \mathfrak{D} 55'32	behind sun begin	9495 Jul 27 20:42	12° \mathfrak{Q} 52'10	
conjunction	9490 Jul 07 18:11	22° \mathfrak{D} 49'53 -0°11'02	behind sun end	9495 Jul 28 08:23	12° \mathfrak{Q} 53'48	
minimum elong	9490 Jul 07 18:12	22° \mathfrak{D} 49'53 0°11'22	max. Earth dist.	9495 Jul 28 14:15	12° \mathfrak{Q} 54'39	20.90956 AU

morning rise	9495 Aug 13 05:34	13° Ω 48'18		max. Earth dist.	9501 Aug 22 16:23	7° η 23'43	20.66652 AU
	9495 Sep 04 17:03	15° Ω		morning rise	9501 Sep 07 17:40	8° η 19'16	
retrograde	9495 Nov 15 07:23	16° Ω 56'16		retrograde	9501 Dec 11 03:20	11° η 30'08	
	9496 Jan 30 12:02	15° κ Ω		opposition	9502 Feb 26 02:19	9° η 29'33	0°35'54
opposition	9496 Jan 31 18:38	14° Ω 56'54	0°11'35	min. Earth dist.	9502 Feb 25 20:32	9° η 30'09	18.64109 AU
min. Earth dist.	9496 Jan 31 07:37	14° Ω 58'01	18.89529 AU	direct	9502 May 12 02:49	7° η 30'59	
direct	9496 Apr 16 05:50	12° Ω 59'38		evening set	9502 Aug 10 16:06	10° η 35'04	
	9496 Jun 26 13:48	15° Ω					
evening set	9496 Jul 15 09:36	16° Ω 00'42		conjunction	9502 Aug 26 21:29	11° η 31'20	0°34'04
				minimum elong	9502 Aug 26 21:29	11° η 31'20	0°33'57
conjunction	9496 Jul 31 10:29	16° Ω 55'46	0°12'26	max. Earth dist.	9502 Aug 27 04:05	11° η 32'17	20.61515 AU
minimum elong	9496 Jul 31 10:29	16° Ω 55'46	0°12'11	morning rise	9502 Sep 12 05:33	12° η 28'01	
behind sun begin	9496 Jul 31 06:01	16° Ω 55'08		retrograde	9502 Dec 15 16:33	15° η 39'28	
behind sun end	9496 Jul 31 14:56	16° Ω 56'23		opposition	9503 Mar 02 12:21	13° η 38'41	0°39'29
max. Earth dist.	9496 Jul 31 22:18	16° Ω 57'27	20.87967 AU	min. Earth dist.	9503 Mar 02 06:54	13° η 39'15	18.58883 AU
morning rise	9496 Aug 16 14:07	17° Ω 51'14		direct	9503 May 16 12:06	11° η 39'52	
retrograde	9496 Nov 18 17:16	20° Ω 59'38		evening set	9503 Aug 15 03:27	14° η 44'41	
opposition	9497 Feb 04 03:32	19° Ω 00'08	0°15'51				
min. Earth dist.	9497 Feb 03 17:23	19° Ω 01'10	18.86293 AU	conjunction	9503 Aug 31 09:26	15° η 41'11	0°37'12
direct	9497 Apr 20 12:40	17° Ω 02'44		minimum elong	9503 Aug 31 09:25	15° η 41'11	0°37'06
evening set	9497 Jul 19 17:29	20° Ω 04'10		max. Earth dist.	9503 Aug 31 14:06	15° η 41'51	20.56221 AU
				morning rise	9503 Sep 16 18:21	16° η 38'06	
conjunction	9497 Aug 04 18:57	20° Ω 59'23	0°16'16	retrograde	9503 Dec 20 05:29	19° η 50'11	
minimum elong	9497 Aug 04 18:57	20° Ω 59'23	0°16'02	opposition	9504 Mar 05 22:56	17° η 49'12	0°42'53
max. Earth dist.	9497 Aug 05 04:44	21° Ω 00'47	20.84500 AU	min. Earth dist.	9504 Mar 05 18:37	17° η 49'39	18.53530 AU
morning rise	9497 Aug 20 23:31	21° Ω 55'02		direct	9504 May 19 20:10	15° η 50'08	
retrograde	9497 Nov 23 04:55	25° Ω 03'53		evening set	9504 Aug 18 15:17	18° η 55'44	
opposition	9498 Feb 08 12:27	23° Ω 04'11	0°20'04				
min. Earth dist.	9498 Feb 08 03:18	23° Ω 05'07	18.82591 AU	conjunction	9504 Sep 03 22:14	19° η 52'29	0°40'10
direct	9498 Apr 24 19:57	21° Ω 06'35		minimum elong	9504 Sep 03 22:13	19° η 52'29	0°40'05
evening set	9498 Jul 24 01:42	24° Ω 08'27		max. Earth dist.	9504 Sep 04 03:16	19° η 53'13	20.50803 AU
				morning rise	9504 Sep 20 07:41	20° η 49'39	
conjunction	9498 Aug 09 04:05	25° Ω 03'52	0°20'02	retrograde	9504 Dec 23 20:26	24° η 02'22	
minimum elong	9498 Aug 09 04:04	25° Ω 03'52	0°19'49	opposition	9505 Mar 10 09:52	22° η 01'14	0°46'04
max. Earth dist.	9498 Aug 09 13:52	25° Ω 05'16	20.80567 AU	min. Earth dist.	9505 Mar 10 05:48	22° η 01'39	18.48054 AU
morning rise	9498 Aug 25 09:14	25° Ω 59'42		direct	9505 May 24 06:53	20° η 01'57	
retrograde	9498 Nov 27 15:27	29° Ω 08'59		evening set	9505 Aug 23 04:17	23° η 08'22	
opposition	9499 Feb 12 21:37	27° Ω 09'05	0°24'13				
min. Earth dist.	9499 Feb 12 13:15	27° Ω 09'57	18.78442 AU	conjunction	9505 Sep 08 11:49	24° η 05'23	0°42'55
direct	9499 Apr 29 03:10	25° Ω 11'17		minimum elong	9505 Sep 08 11:49	24° η 05'23	0°42'52
evening set	9499 Jul 28 10:25	28° Ω 13'36		max. Earth dist.	9505 Sep 08 14:46	24° η 05'49	20.45283 AU
				morning rise	9505 Sep 24 22:07	25° η 02'48	
conjunction	9499 Aug 13 13:22	29° Ω 09'11	0°23'43	retrograde	9505 Dec 28 10:01	28° η 16'12	
minimum elong	9499 Aug 13 13:22	29° Ω 09'11	0°23'31	opposition	9506 Mar 14 21:14	26° η 14'54	0°49'01
max. Earth dist.	9499 Aug 13 21:16	29° Ω 10'19	20.76235 AU	min. Earth dist.	9506 Mar 14 18:36	26° η 15'11	18.42493 AU
	9499 Aug 28 06:31	0° η		direct	9506 May 28 16:02	24° η 15'23	
morning rise	9499 Aug 29 19:26	0° η 05'13		evening set	9506 Aug 27 17:58	27° η 22'43	
retrograde	9499 Dec 02 03:17	3° η 15'01					
opposition	9500 Feb 17 07:00	1° η 14'53	0°28'15	conjunction	9506 Sep 13 02:24	28° η 20'00	0°45'28
min. Earth dist.	9500 Feb 16 23:36	1° η 15'38	18.73940 AU	minimum elong	9506 Sep 13 02:24	28° η 20'00	0°45'25
	9500 Mar 22 05:57	30° κ Ω		max. Earth dist.	9506 Sep 13 05:32	28° η 20'28	20.39673 AU
direct	9500 May 03 11:00	29° Ω 16'49		morning rise	9506 Sep 29 13:09	29° η 17'40	
	9500 Jun 13 15:11	0° η			9506 Oct 12 03:53	0° Ω	
evening set	9500 Aug 01 19:38	2° η 19'40		retrograde	9507 Jan 02 02:01	2° Ω 31'45	
				opposition	9507 Mar 19 09:09	0° Ω 30'21	0°51'44
conjunction	9500 Aug 17 23:30	3° η 15'28	0°27'18	min. Earth dist.	9507 Mar 19 06:45	0° Ω 30'36	18.36832 AU
minimum elong	9500 Aug 17 23:30	3° η 15'28	0°27'08		9507 Mar 31 14:00	30° κ η	
max. Earth dist.	9500 Aug 18 07:41	3° η 16'39	20.71573 AU	direct	9507 Jun 02 04:08	28° η 30'37	
morning rise	9500 Sep 03 06:08	4° η 11'43			9507 Aug 01 02:14	0° Ω	
retrograde	9500 Dec 06 14:56	7° η 22'01		evening set	9507 Sep 01 08:34	1° Ω 38'52	
opposition	9501 Feb 21 16:29	5° η 21'40	0°32'09				
min. Earth dist.	9501 Feb 21 09:38	5° η 22'22	18.69136 AU	conjunction	9507 Sep 17 17:33	2° Ω 36'26	0°47'46
direct	9501 May 07 19:02	3° η 23'21		minimum elong	9507 Sep 17 17:32	2° Ω 36'26	0°47'46
evening set	9501 Aug 06 05:37	6° η 26'47		max. Earth dist.	9507 Sep 17 18:32	2° Ω 36'34	20.33965 AU
				morning rise	9507 Oct 04 05:04	3° Ω 34'21	
conjunction	9501 Aug 22 10:07	7° η 22'48	0°30'45	retrograde	9508 Jan 06 16:53	6° Ω 49'09	
minimum elong	9501 Aug 22 10:06	7° η 22'48	0°30'36	opposition	9508 Mar 22 21:45	4° Ω 47'38	0°54'10

min. Earth dist.	9508 Mar 22 21:05	4° <u>♂</u> 47'42	18.31075 AU	conjunction	9514 Oct 19 05:58	3° <u>♂</u> 20'38	0°56'06
direct	9508 Jun 05 14:49	2° <u>♂</u> 47'39		minimum elong	9514 Oct 19 05:58	3° <u>♂</u> 20'38	0°56'16
evening set	9508 Sep 05 00:09	5° <u>♂</u> 56'54		max. Earth dist.	9514 Oct 18 22:38	3° <u>♂</u> 19'31	19.91198 AU
				morning rise	9514 Nov 04 20:32	4° <u>♂</u> 20'19	
conjunction	9508 Sep 21 10:01	6° <u>♂</u> 54'44	0°49'50	retrograde	9515 Feb 07 00:31	7° <u>♂</u> 39'27	
minimum elong	9508 Sep 21 10:00	6° <u>♂</u> 54'44	0°49'50	opposition	9515 Apr 23 04:45	5° <u>♂</u> 36'43	1°02'22
max. Earth dist.	9508 Sep 21 10:50	6° <u>♂</u> 54'51	20.28141 AU	min. Earth dist.	9515 Apr 23 10:52	5° <u>♂</u> 36'03	17.88202 AU
morning rise	9508 Oct 07 21:57	7° <u>♂</u> 52'55		direct	9515 Jul 06 22:54	3° <u>♂</u> 34'20	
retrograde	9509 Jan 10 09:57	11° <u>♂</u> 08'24		evening set	9515 Oct 07 13:53	6° <u>♂</u> 50'39	
opposition	9509 Mar 27 10:41	9° <u>♂</u> 06'46	0°56'20				
min. Earth dist.	9509 Mar 27 10:27	9° <u>♂</u> 06'47	18.25180 AU	conjunction	9515 Oct 24 03:48	7° <u>♂</u> 50'24	0°56'00
direct	9509 Jun 10 04:22	7° <u>♂</u> 06'32		minimum elong	9515 Oct 24 03:47	7° <u>♂</u> 50'24	0°56'11
evening set	9509 Sep 09 16:53	10° <u>♂</u> 16'46		max. Earth dist.	9515 Oct 23 19:09	7° <u>♂</u> 49'06	19.85229 AU
				morning rise	9515 Nov 09 18:39	8° <u>♂</u> 50'20	
conjunction	9509 Sep 26 03:16	11° <u>♂</u> 14'53	0°51'38	retrograde	9516 Feb 11 19:17	12° <u>♂</u> 10'00	
minimum elong	9509 Sep 26 03:16	11° <u>♂</u> 14'53	0°51'41	opposition	9516 Apr 26 21:46	10° <u>♂</u> 07'06	1°02'06
max. Earth dist.	9509 Sep 26 01:32	11° <u>♂</u> 14'38	20.22169 AU	min. Earth dist.	9516 Apr 27 05:39	10° <u>♂</u> 06'15	17.82351 AU
morning rise	9509 Oct 12 15:53	12° <u>♂</u> 13'20		direct	9516 Jul 10 15:01	8° <u>♂</u> 04'21	
retrograde	9510 Jan 15 02:01	15° <u>♂</u> 29'30		evening set	9516 Oct 11 12:08	11° <u>♂</u> 21'42	
opposition	9510 Apr 01 00:26	13° <u>♂</u> 27'42	0°58'12				
min. Earth dist.	9510 Apr 01 02:16	13° <u>♂</u> 27'30	18.19141 AU	conjunction	9516 Oct 28 02:32	12° <u>♂</u> 21'43	0°55'33
direct	9510 Jun 14 16:46	11° <u>♂</u> 27'09		minimum elong	9516 Oct 28 02:32	12° <u>♂</u> 21'43	0°55'45
evening set	9510 Sep 14 10:15	14° <u>♂</u> 38'24		max. Earth dist.	9516 Oct 27 17:15	12° <u>♂</u> 20'18	19.79507 AU
				morning rise	9516 Nov 13 17:36	13° <u>♂</u> 21'52	
conjunction	9510 Sep 30 21:26	15° <u>♂</u> 36'48	0°53'09		9516 Dec 13 13:44	15° <u>♂</u>	
minimum elong	9510 Sep 30 21:26	15° <u>♂</u> 36'48	0°53'13	retrograde	9517 Feb 15 17:28	16° <u>♂</u> 42'02	
max. Earth dist.	9510 Sep 30 19:16	15° <u>♂</u> 36'29	20.16056 AU		9517 Apr 23 11:36	15° <u>♂</u>	
morning rise	9510 Oct 17 10:23	16° <u>♂</u> 35'30		opposition	9517 May 01 15:01	14° <u>♂</u> 38'59	1°01'25
retrograde	9511 Jan 19 20:17	19° <u>♂</u> 52'19		min. Earth dist.	9517 May 01 22:39	14° <u>♂</u> 38'10	17.76766 AU
opposition	9511 Apr 05 14:37	17° <u>♂</u> 50'21	0°59'44	direct	9517 Jul 15 10:11	12° <u>♂</u> 35'54	
min. Earth dist.	9511 Apr 05 16:43	17° <u>♂</u> 50'08	18.12961 AU		9517 Sep 30 16:36	15° <u>♂</u>	
direct	9511 Jun 19 07:49	15° <u>♂</u> 49'29		evening set	9517 Oct 16 11:13	15° <u>♂</u> 54'18	
evening set	9511 Sep 19 04:40	19° <u>♂</u> 01'44					
				conjunction	9517 Nov 02 01:57	16° <u>♂</u> 54'33	0°54'45
conjunction	9511 Oct 05 16:21	20° <u>♂</u> 00'24	0°54'22	minimum elong	9517 Nov 02 01:57	16° <u>♂</u> 54'33	0°54'59
minimum elong	9511 Oct 05 16:20	20° <u>♂</u> 00'24	0°54'27	max. Earth dist.	9517 Nov 01 15:51	16° <u>♂</u> 53'01	19.74065 AU
max. Earth dist.	9511 Oct 05 11:50	19° <u>♂</u> 59'44	20.09831 AU	morning rise	9517 Nov 18 17:06	17° <u>♂</u> 54'55	
morning rise	9511 Oct 22 05:53	20° <u>♂</u> 59'22		retrograde	9518 Feb 20 13:30	21° <u>♂</u> 15'34	
retrograde	9512 Jan 24 13:25	24° <u>♂</u> 16'47		opposition	9518 May 06 09:11	19° <u>♂</u> 12'26	1°00'21
opposition	9512 Apr 09 05:27	22° <u>♂</u> 14'38	1°00'56	min. Earth dist.	9518 May 06 18:19	19° <u>♂</u> 11'27	17.71498 AU
min. Earth dist.	9512 Apr 09 09:38	22° <u>♂</u> 14'11	18.06714 AU	direct	9518 Jul 20 03:49	17° <u>♂</u> 09'03	
direct	9512 Jun 22 21:35	20° <u>♂</u> 13'23		evening set	9518 Oct 21 10:51	20° <u>♂</u> 28'28	
evening set	9512 Sep 22 23:42	23° <u>♂</u> 26'39					
				conjunction	9518 Nov 07 01:53	21° <u>♂</u> 28'57	0°53'36
conjunction	9512 Oct 09 12:10	24° <u>♂</u> 25'36	0°55'16	minimum elong	9518 Nov 07 01:53	21° <u>♂</u> 28'57	0°53'50
minimum elong	9512 Oct 09 12:09	24° <u>♂</u> 25'36	0°55'24	max. Earth dist.	9518 Nov 06 14:58	21° <u>♂</u> 27'17	19.68981 AU
max. Earth dist.	9512 Oct 09 07:12	24° <u>♂</u> 24'51	20.03573 AU	morning rise	9518 Nov 23 17:10	22° <u>♂</u> 29'31	
morning rise	9512 Oct 26 02:03	25° <u>♂</u> 24'48		retrograde	9519 Feb 25 12:33	25° <u>♂</u> 50'39	
retrograde	9513 Jan 28 09:18	28° <u>♂</u> 42'50		opposition	9519 May 11 03:48	23° <u>♂</u> 47'28	0°58'54
opposition	9513 Apr 13 20:40	26° <u>♂</u> 40'28	1°01'47	min. Earth dist.	9519 May 11 12:33	23° <u>♂</u> 46'31	17.66596 AU
min. Earth dist.	9513 Apr 14 00:58	26° <u>♂</u> 40'01	18.00453 AU	direct	9519 Jul 25 00:10	21° <u>♂</u> 43'50	
direct	9513 Jun 27 14:10	24° <u>♂</u> 38'51		evening set	9519 Oct 26 11:19	25° <u>♂</u> 04'16	
evening set	9513 Sep 27 19:48	27° <u>♂</u> 53'08					
				conjunction	9519 Nov 12 02:40	26° <u>♂</u> 04'59	0°52'06
conjunction	9513 Oct 14 08:41	28° <u>♂</u> 52'21	0°55'51	minimum elong	9519 Nov 12 02:40	26° <u>♂</u> 04'59	0°52'22
minimum elong	9513 Oct 14 08:41	28° <u>♂</u> 52'21	0°55'59	max. Earth dist.	9519 Nov 11 15:31	26° <u>♂</u> 03'16	19.64262 AU
max. Earth dist.	9513 Oct 14 01:48	28° <u>♂</u> 51'19	19.97329 AU	morning rise	9519 Nov 28 17:52	27° <u>♂</u> 05'44	
morning rise	9513 Oct 30 22:59	29° <u>♂</u> 51'49			9520 Jan 29 11:28	0° <u>♂</u>	
	9513 Nov 02 07:00	0° <u>♂</u>		retrograde	9520 Mar 01 09:52	0° <u>♂</u> 27'17	
retrograde	9514 Feb 02 03:10	3° <u>♂</u> 10'23			9520 Apr 02 16:54	30° <u>♂</u>	
opposition	9514 Apr 18 12:28	1° <u>♂</u> 07'50	1°02'16	opposition	9520 May 14 23:04	28° <u>♂</u> 24'07	0°57'03
min. Earth dist.	9514 Apr 18 18:46	1° <u>♂</u> 07'10	17.94258 AU	min. Earth dist.	9520 May 15 09:14	28° <u>♂</u> 23'01	17.62070 AU
	9514 May 16 12:12	30° <u>♂</u>		direct	9520 Jul 28 19:18	26° <u>♂</u> 20'15	
direct	9514 Jul 02 04:54	29° <u>♂</u> 05'49		evening set	9520 Oct 30 12:37	29° <u>♂</u> 41'42	
	9514 Aug 16 21:18	0° <u>♂</u>			9520 Nov 04 13:55	0° <u>♂</u>	
evening set	9514 Oct 02 16:28	2° <u>♂</u> 21'08					
				conjunction	9520 Nov 16 04:05	0° <u>♂</u> 42'37	0°50'15

minimum elong	9520 Nov 16 04:05	0° \mathcal{R} 42'37	0°50'32			9527 Jul 18 17:18	30° \mathcal{R} \mathcal{R}	
max. Earth dist.	9520 Nov 15 15:38	0° \mathcal{R} 40'42	19.59932 AU	direct		9527 Aug 31 15:39	29° \mathcal{R} 11'23	
morning rise	9520 Dec 02 19:23	1° \mathcal{R} 43'33				9527 Oct 13 16:13	0° \mathcal{R}	
retrograde	9521 Mar 06 09:39	5° \mathcal{R} 05'31		evening set		9527 Dec 04 11:01	2° \mathcal{R} 37'59	
opposition	9521 May 19 18:53	3° \mathcal{R} 02'22	0°54'50	max. Earth dist.		9527 Dec 20 10:22	3° \mathcal{R} 37'18	19.39316 AU
min. Earth dist.	9521 May 20 05:00	3° \mathcal{R} 01'16	17.57916 AU					
direct	9521 Aug 02 16:56	0° \mathcal{R} 58'18		conjunction		9527 Dec 21 01:52	3° \mathcal{R} 39'43	0°28'44
evening set	9521 Nov 04 14:31	4° \mathcal{R} 20'43		minimum elong		9527 Dec 21 01:52	3° \mathcal{R} 39'43	0°29'05
				morning rise		9528 Jan 06 14:41	4° \mathcal{R} 41'12	
conjunction	9521 Nov 21 06:11	5° \mathcal{R} 21'50	0°48'04	retrograde		9528 Apr 08 06:43	8° \mathcal{R} 04'14	
minimum elong	9521 Nov 21 06:11	5° \mathcal{R} 21'50	0°48'22	opposition		9528 Jun 21 03:46	6° \mathcal{R} 01'14	0°29'50
max. Earth dist.	9521 Nov 20 17:47	5° \mathcal{R} 19'55	19.55939 AU	min. Earth dist.		9528 Jun 21 17:07	5° \mathcal{R} 59'47	17.38623 AU
morning rise	9521 Dec 07 21:09	6° \mathcal{R} 22'54		direct		9528 Sep 04 16:42	3° \mathcal{R} 55'47	
retrograde	9522 Mar 11 07:58	9° \mathcal{R} 45'13		evening set		9528 Dec 08 15:09	7° \mathcal{R} 22'47	
opposition	9522 May 24 15:23	7° \mathcal{R} 42'07	0°52'14					
min. Earth dist.	9522 May 25 02:47	7° \mathcal{R} 40'53	17.54092 AU	conjunction		9528 Dec 25 05:27	8° \mathcal{R} 24'31	0°24'39
direct	9522 Aug 07 14:30	5° \mathcal{R} 37'53		minimum elong		9528 Dec 25 05:27	8° \mathcal{R} 24'31	0°24'59
evening set	9522 Nov 09 17:07	9° \mathcal{R} 01'11		max. Earth dist.		9528 Dec 24 13:01	8° \mathcal{R} 21'57	19.38033 AU
				morning rise		9529 Jan 10 17:46	9° \mathcal{R} 25'59	
conjunction	9522 Nov 26 08:41	10° \mathcal{R} 02'28	0°45'34	retrograde		9529 Apr 13 06:47	12° \mathcal{R} 48'54	
minimum elong	9522 Nov 26 08:41	10° \mathcal{R} 02'28	0°45'54	opposition		9529 Jun 26 02:58	10° \mathcal{R} 45'55	0°25'11
max. Earth dist.	9522 Nov 25 18:34	10° \mathcal{R} 00'17	19.52287 AU	min. Earth dist.		9529 Jun 26 16:45	10° \mathcal{R} 44'25	17.37612 AU
morning rise	9522 Dec 12 23:37	11° \mathcal{R} 03'39		direct		9529 Sep 09 17:44	8° \mathcal{R} 40'18	
retrograde	9523 Mar 16 07:32	14° \mathcal{R} 26'17		evening set		9529 Dec 13 18:54	12° \mathcal{R} 07'35	
opposition	9523 May 29 12:24	12° \mathcal{R} 23'13	0°49'17					
min. Earth dist.	9523 May 29 23:57	12° \mathcal{R} 21'57	17.50606 AU	conjunction		9529 Dec 30 08:48	13° \mathcal{R} 09'19	0°20'24
direct	9523 Aug 12 13:37	10° \mathcal{R} 18'46		minimum elong		9529 Dec 30 08:48	13° \mathcal{R} 09'19	0°20'45
evening set	9523 Nov 14 20:00	13° \mathcal{R} 42'54		max. Earth dist.		9529 Dec 29 17:28	13° \mathcal{R} 06'55	19.37297 AU
				morning rise		9530 Jan 15 20:22	14° \mathcal{R} 10'43	
conjunction	9523 Dec 01 11:43	14° \mathcal{R} 44'19	0°42'45	retrograde		9530 Apr 18 06:50	17° \mathcal{R} 33'28	
minimum elong	9523 Dec 01 11:43	14° \mathcal{R} 44'19	0°43'04	opposition		9530 Jul 01 02:16	15° \mathcal{R} 30'32	0°20'22
max. Earth dist.	9523 Nov 30 21:55	14° \mathcal{R} 42'11	19.48953 AU	min. Earth dist.		9530 Jul 01 15:03	15° \mathcal{R} 29'08	17.37157 AU
morning rise	9523 Dec 18 02:14	15° \mathcal{R} 45'37		direct		9530 Sep 14 19:38	13° \mathcal{R} 24'49	
retrograde	9524 Mar 20 06:46	19° \mathcal{R} 08'28		evening set		9530 Dec 18 22:40	16° \mathcal{R} 52'18	
opposition	9524 Jun 02 10:00	17° \mathcal{R} 05'25	0°45'59					
min. Earth dist.	9524 Jun 02 22:28	17° \mathcal{R} 04'04	17.47431 AU	conjunction		9531 Jan 04 11:56	17° \mathcal{R} 53'59	0°16'01
direct	9524 Aug 16 13:30	15° \mathcal{R} 00'47		minimum elong		9531 Jan 04 11:56	17° \mathcal{R} 53'59	0°16'22
evening set	9524 Nov 18 23:36	18° \mathcal{R} 25'40		max. Earth dist.		9531 Jan 03 20:30	17° \mathcal{R} 51'34	19.37143 AU
				morning rise		9531 Jan 20 22:49	18° \mathcal{R} 55'19	
conjunction	9524 Dec 05 15:02	19° \mathcal{R} 27'12	0°39'39	retrograde		9531 Apr 23 05:51	22° \mathcal{R} 17'51	
minimum elong	9524 Dec 05 15:02	19° \mathcal{R} 27'12	0°39'58	opposition		9531 Jul 06 01:46	20° \mathcal{R} 14'58	0°15'25
max. Earth dist.	9524 Dec 04 23:22	19° \mathcal{R} 24'46	19.45954 AU	min. Earth dist.		9531 Jul 06 14:52	20° \mathcal{R} 13'33	17.37320 AU
morning rise	9524 Dec 22 05:22	20° \mathcal{R} 28'35		direct		9531 Sep 19 20:39	18° \mathcal{R} 09'12	
retrograde	9525 Mar 25 06:19	23° \mathcal{R} 51'35		evening set		9531 Dec 24 02:07	21° \mathcal{R} 36'49	
opposition	9525 Jun 07 07:53	21° \mathcal{R} 48'33	0°42'22					
min. Earth dist.	9525 Jun 07 20:45	21° \mathcal{R} 47'09	17.44611 AU	conjunction		9532 Jan 09 14:50	22° \mathcal{R} 38'25	0°11'32
direct	9525 Aug 21 13:59	19° \mathcal{R} 43'41		minimum elong		9532 Jan 09 14:50	22° \mathcal{R} 38'25	0°11'52
evening set	9525 Nov 24 03:16	23° \mathcal{R} 09'14		behind sun begin		9532 Jan 09 10:12	22° \mathcal{R} 37'42	
				behind sun end		9532 Jan 09 19:28	22° \mathcal{R} 39'07	
conjunction	9525 Dec 10 18:42	24° \mathcal{R} 10'52	0°36'15	max. Earth dist.		9532 Jan 09 00:20	22° \mathcal{R} 36'09	19.37621 AU
minimum elong	9525 Dec 10 18:42	24° \mathcal{R} 10'52	0°36'35	morning rise		9532 Jan 26 00:59	23° \mathcal{R} 39'39	
max. Earth dist.	9525 Dec 10 03:41	24° \mathcal{R} 08'32	19.43317 AU	retrograde		9532 Apr 27 05:44	27° \mathcal{R} 01'56	
morning rise	9525 Dec 27 08:27	25° \mathcal{R} 12'18		opposition		9532 Jul 10 01:18	24° \mathcal{R} 59'11	0°10'22
retrograde	9526 Mar 30 06:18	28° \mathcal{R} 35'22		min. Earth dist.		9532 Jul 10 12:57	24° \mathcal{R} 57'54	17.38097 AU
opposition	9526 Jun 12 06:17	26° \mathcal{R} 32'22	0°38'27	direct		9532 Sep 23 23:34	22° \mathcal{R} 53'25	
min. Earth dist.	9526 Jun 12 19:28	26° \mathcal{R} 30'55	17.42166 AU	evening set		9532 Dec 28 05:27	26° \mathcal{R} 21'05	
direct	9526 Aug 26 14:48	24° \mathcal{R} 27'18						
evening set	9526 Nov 29 07:06	27° \mathcal{R} 53'25		conjunction		9533 Jan 13 17:26	27° \mathcal{R} 22'34	0°07'00
				minimum elong		9533 Jan 13 17:26	27° \mathcal{R} 22'34	0°07'19
conjunction	9526 Dec 15 22:07	28° \mathcal{R} 55'06	0°32'36	behind sun begin		9533 Jan 13 11:17	27° \mathcal{R} 21'38	
minimum elong	9526 Dec 15 22:07	28° \mathcal{R} 55'06	0°32'56	behind sun end		9533 Jan 13 23:36	27° \mathcal{R} 23'31	
max. Earth dist.	9526 Dec 15 05:41	28° \mathcal{R} 52'33	19.41089 AU	max. Earth dist.		9533 Jan 13 03:31	27° \mathcal{R} 20'24	19.38705 AU
morning rise	9527 Jan 01 11:34	29° \mathcal{R} 56'34		morning rise		9533 Jan 30 02:44	28° \mathcal{R} 23'41	
	9527 Jan 02 10:07	0° \mathcal{R}				9533 Feb 27 10:00	0° \mathcal{R}	
retrograde	9527 Apr 04 06:20	3° \mathcal{R} 19'41		retrograde		9533 May 02 03:56	1° \mathcal{R} 45'41	
opposition	9527 Jun 17 04:59	1° \mathcal{R} 16'39	0°34'16			9533 Jul 08 12:53	30° \mathcal{R} \mathcal{R}	
min. Earth dist.	9527 Jun 17 18:35	1° \mathcal{R} 15'11	17.40163 AU	opposition		9533 Jul 15 01:02	29° \mathcal{R} 43'06	0°05'15

min. Earth dist.	9533 Jul 15 13:05	29°34'47"	17.39486 AU	evening set	9539 Jan 26 16:36	24°35'35"	
direct	9533 Sep 29 00:52	27°37'25"					
	9533 Dec 14 20:03	0°		conjunction	9539 Feb 11 23:32	25°35'59"	-0°20'11"
evening set	9534 Jan 02 08:25	1°05'02"		minimum elong	9539 Feb 11 23:32	25°35'59"	0°19'59"
				max. Earth dist.	9539 Feb 11 14:13	25°34'32"	19.55602 AU
conjunction	9534 Jan 18 19:38	2°06'24"	0°02'24"	morning rise	9539 Feb 28 03:21	26°35'56"	
minimum elong	9534 Jan 18 19:39	2°06'24"	0°02'42"	retrograde	9539 May 30 16:59	29°55'22"	
behind sun begin	9534 Jan 18 12:57	2°05'23"		opposition	9539 Aug 12 22:31	27°53'57"	-0°24'45"
behind sun end	9534 Jan 19 02:21	2°07'25"		min. Earth dist.	9539 Aug 13 07:11	27°53'01"	17.57605 AU
max. Earth dist.	9534 Jan 18 06:18	2°04'19"	19.40393 AU	direct	9539 Oct 28 12:22	25°49'13"	
morning rise	9534 Feb 04 04:10	3°07'22"		evening set	9540 Jan 31 16:30	29°14'40"	
retrograde	9534 May 07 03:39	6°29'03"			9540 Feb 12 23:09	0°	
opposition	9534 Jul 20 00:42	4°26'39"	0°00'06"				
min. Earth dist.	9534 Jul 20 11:10	4°25'31"	17.41440 AU	conjunction	9540 Feb 16 22:20	0°14'48"	-0°24'22"
desc. node	9534 Jul 27 06:41	4°07'52"		minimum elong	9540 Feb 16 22:20	0°14'48"	0°24'09"
direct	9534 Oct 04 04:00	2°21'05"		max. Earth dist.	9540 Feb 16 12:37	0°13'18"	19.59680 AU
evening set	9535 Jan 07 10:55	5°48'35"		morning rise	9540 Mar 04 01:24	1°14'32"	
				retrograde	9540 Jun 03 14:12	4°33'23"	
conjunction	9535 Jan 23 21:24	6°49'48"	-0°02'20"	opposition	9540 Aug 16 21:23	2°32'06"	-0°29'18"
minimum elong	9535 Jan 23 21:25	6°49'48"	0°02'03"	min. Earth dist.	9540 Aug 17 04:42	2°31'20"	17.61827 AU
behind sun begin	9535 Jan 23 14:42	6°48'47"		direct	9540 Nov 01 13:15	0°27'33"	
behind sun end	9535 Jan 24 04:08	6°50'49"		evening set	9541 Feb 04 15:20	3°52'20"	
max. Earth dist.	9535 Jan 23 09:11	6°47'54"	19.42604 AU				
morning rise	9535 Feb 09 04:59	7°50'36"		conjunction	9541 Feb 20 20:23	4°52'13"	-0°28'21"
retrograde	9535 May 12 01:30	11°11'56"		minimum elong	9541 Feb 20 20:22	4°52'13"	0°28'11"
opposition	9535 Jul 25 00:34	9°09'44"	-0°05'02"	max. Earth dist.	9541 Feb 20 12:41	4°51'01"	19.64038 AU
min. Earth dist.	9535 Jul 25 11:33	9°08'33"	17.43895 AU	morning rise	9541 Mar 08 22:20	5°51'40"	
direct	9535 Oct 09 05:10	7°04'19"		retrograde	9541 Jun 08 10:10	9°09'55"	
evening set	9536 Jan 12 13:15	10°31'36"		opposition	9541 Aug 21 19:59	7°08'47"	-0°33'38"
				min. Earth dist.	9541 Aug 22 02:59	7°08'03"	17.66320 AU
conjunction	9536 Jan 28 22:48	11°32'38"	-0°06'56"	direct	9541 Nov 06 13:27	5°04'26"	
minimum elong	9536 Jan 28 22:49	11°32'38"	0°06'39"	evening set	9542 Feb 09 13:29	8°28'27"	
behind sun begin	9536 Jan 28 16:33	11°31'41"					
behind sun end	9536 Jan 29 05:04	11°33'35"		conjunction	9542 Feb 25 17:24	9°28'03"	-0°32'09"
max. Earth dist.	9536 Jan 28 10:34	11°30'44"	19.45289 AU	minimum elong	9542 Feb 25 17:23	9°28'03"	0°32'00"
morning rise	9536 Feb 14 05:35	12°33'15"		max. Earth dist.	9542 Feb 25 09:38	9°26'51"	19.68682 AU
	9536 Apr 01 06:43	15°		morning rise	9542 Mar 13 18:38	10°27'15"	
retrograde	9536 May 16 00:51	15°54'10"		retrograde	9542 Jun 13 05:43	13°44'53"	
	9536 Jul 01 04:59	15°		opposition	9542 Aug 26 18:00	11°43'51"	-0°37'45"
opposition	9536 Jul 29 00:07	13°52'11"	-0°10'07"	min. Earth dist.	9542 Aug 26 23:41	11°43'15"	17.71118 AU
min. Earth dist.	9536 Jul 29 09:39	13°51'09"	17.46786 AU	direct	9542 Nov 11 12:24	9°39'42"	
direct	9536 Oct 13 08:24	11°46'55"		evening set	9543 Feb 14 10:26	13°02'53"	
	9537 Jan 12 19:15	15°					
evening set	9537 Jan 16 15:02	15°13'53"		conjunction	9543 Mar 02 13:37	14°02'12"	-0°35'43"
				minimum elong	9543 Mar 02 13:37	14°02'12"	0°35'36"
conjunction	9537 Feb 01 23:48	16°14'44"	-0°11'26"	max. Earth dist.	9543 Mar 02 08:08	14°01'22"	19.73625 AU
minimum elong	9537 Feb 01 23:48	16°14'44"	0°11'11"	morning rise	9543 Mar 18 13:52	15°01'07"	
behind sun begin	9537 Feb 01 18:52	16°13'59"		retrograde	9543 Jun 18 00:54	18°18'06"	
behind sun end	9537 Feb 02 04:44	16°15'29"		opposition	9543 Aug 31 15:38	16°17'13"	-0°41'34"
max. Earth dist.	9537 Feb 01 12:58	16°13'03"	19.48373 AU	min. Earth dist.	9543 Aug 31 20:26	16°16'42"	17.76205 AU
morning rise	9537 Feb 18 05:29	17°15'09"		direct	9543 Nov 16 12:27	14°13'17"	
retrograde	9537 May 20 21:59	20°35'36"		evening set	9544 Feb 19 06:46	17°35'35"	
opposition	9537 Aug 02 23:55	18°33'49"	-0°15'07"				
min. Earth dist.	9537 Aug 03 09:51	18°32'45"	17.50058 AU	conjunction	9544 Mar 06 08:49	18°34'37"	-0°39'03"
direct	9537 Oct 18 09:20	16°28'44"		minimum elong	9544 Mar 06 08:49	18°34'37"	0°38'58"
evening set	9538 Jan 21 16:10	19°55'17"		max. Earth dist.	9544 Mar 06 03:36	18°33'49"	19.78869 AU
				morning rise	9544 Mar 22 08:21	19°33'15"	
conjunction	9538 Feb 06 23:52	20°55'54"	-0°15'52"	retrograde	9544 Jun 21 18:20	22°49'35"	
minimum elong	9538 Feb 06 23:52	20°55'54"	0°15'38"	opposition	9544 Sep 04 12:43	20°48'49"	-0°45'07"
behind sun begin	9538 Feb 06 22:24	20°55'40"		min. Earth dist.	9544 Sep 04 16:15	20°48'27"	17.81620 AU
behind sun end	9538 Feb 07 01:19	20°56'07"		direct	9544 Nov 20 10:11	18°45'09"	
max. Earth dist.	9538 Feb 06 12:48	20°54'11"	19.51827 AU	evening set	9545 Feb 23 02:01	22°06'33"	
morning rise	9538 Feb 23 04:46	21°56'06"					
retrograde	9538 May 25 20:32	25°16'04"		conjunction	9545 Mar 11 03:17	23°05'17"	-0°42'06"
opposition	9538 Aug 07 23:21	23°14'27"	-0°20'00"	minimum elong	9545 Mar 11 03:17	23°05'17"	0°42'02"
min. Earth dist.	9538 Aug 08 07:49	23°13'33"	17.53679 AU	max. Earth dist.	9545 Mar 11 00:26	23°04'50"	19.84442 AU
direct	9538 Oct 23 11:50	21°09'33"		morning rise	9545 Mar 27 01:52	24°03'38"	

retrograde	9545 Jun 26 12:28	27° H 19'18	evening set	9552 Mar 25 17:03	22° Y 57'41
opposition	9545 Sep 09 09:26	25° H 18'44 -0°48'22			
min. Earth dist.	9545 Sep 09 11:28	25° H 18'31 17.87344 AU	conjunction	9552 Apr 10 12:54	23° Y 54'22 -0°55'17
direct	9545 Nov 25 09:34	23° H 15'23	minimum elong	9552 Apr 10 12:54	23° Y 54'22 0°55'24
evening set	9546 Feb 27 20:21	26° H 35'49	max. Earth dist.	9552 Apr 10 17:27	23° Y 55'03 20.28292 AU
			morning rise	9552 Apr 26 07:19	24° Y 50'51
conjunction	9546 Mar 15 20:37	27° H 34'15 -0°44'53	retrograde	9552 Jul 26 21:06	28° Y 02'14
minimum elong	9546 Mar 15 20:37	27° H 34'15 0°44'51	opposition	9552 Oct 10 19:49	26° Y 03'02 -1°01'43
max. Earth dist.	9546 Mar 15 18:21	27° H 33'54 19.90317 AU	min. Earth dist.	9552 Oct 10 15:15	26° Y 03'30 18.31395 AU
morning rise	9546 Mar 31 18:35	28° H 32'20	direct	9552 Dec 26 22:52	24° Y 02'13
	9546 Apr 26 22:48	0° Y	evening set	9553 Mar 30 05:42	27° Y 15'35
retrograde	9546 Jul 01 04:24	1° Y 47'23			
	9546 Sep 09 00:55	30° R H	conjunction	9553 Apr 15 01:02	28° Y 12'01 -0°55'56
opposition	9546 Sep 14 05:36	29° H 46'59 -0°51'17	minimum elong	9553 Apr 15 01:02	28° Y 12'01 0°56'04
min. Earth dist.	9546 Sep 14 06:36	29° H 46'53 17.93363 AU	max. Earth dist.	9553 Apr 15 06:25	28° Y 12'49 20.34422 AU
direct	9546 Nov 30 05:55	27° H 43'58	morning rise	9553 Apr 30 19:04	29° Y 08'16
	9547 Feb 14 01:05	0° Y		9553 May 16 00:54	0° B
evening set	9547 Mar 04 13:49	1° Y 03'28	retrograde	9553 Jul 31 11:07	2° B 19'03
			opposition	9553 Oct 15 12:17	0° B 19'59 -1°02'15
conjunction	9547 Mar 20 13:22	2° Y 01'36 -0°47'22	min. Earth dist.	9553 Oct 15 05:59	0° B 20'37 18.37423 AU
minimum elong	9547 Mar 20 13:22	2° Y 01'36 0°47'21		9553 Oct 23 16:50	30° R Y
max. Earth dist.	9547 Mar 20 13:09	2° Y 01'34 19.96454 AU	direct	9553 Dec 31 16:37	28° Y 19'29
morning rise	9547 Apr 05 10:31	2° Y 59'24		9554 Mar 06 08:38	0° B
retrograde	9547 Jul 05 21:01	6° Y 13'48	evening set	9554 Apr 03 17:29	1° B 31'47
opposition	9547 Sep 19 01:03	4° Y 13'38 -0°53'52			
min. Earth dist.	9547 Sep 19 00:31	4° Y 13'42 17.99587 AU	conjunction	9554 Apr 19 12:19	2° B 27'58 -0°56'16
direct	9547 Dec 05 04:01	2° Y 11'00	minimum elong	9554 Apr 19 12:19	2° B 27'58 0°56'26
evening set	9548 Mar 08 06:36	5° Y 29'31	max. Earth dist.	9554 Apr 19 18:29	2° B 28'53 20.40342 AU
			morning rise	9554 May 05 06:04	3° B 24'00
conjunction	9548 Mar 24 05:14	6° Y 27'21 -0°49'34	retrograde	9554 Aug 04 22:27	6° B 34'12
minimum elong	9548 Mar 24 05:14	6° Y 27'21 0°49'34	opposition	9554 Oct 20 04:14	4° B 35'14 -1°02'26
max. Earth dist.	9548 Mar 24 05:37	6° Y 27'25 20.02759 AU	min. Earth dist.	9554 Oct 19 22:15	4° B 35'50 18.43243 AU
morning rise	9548 Apr 09 01:48	7° Y 24'53	direct	9555 Jan 05 06:48	2° B 35'00
retrograde	9548 Jul 09 11:59	10° Y 38'41	evening set	9555 Apr 08 04:31	5° B 46'16
opposition	9548 Sep 22 20:18	8° Y 38'43 -0°56'08			
min. Earth dist.	9548 Sep 22 19:09	8° Y 38'50 18.05965 AU	conjunction	9555 Apr 23 22:56	6° B 42'12 -0°56'17
direct	9548 Dec 08 22:44	6° Y 36'28	minimum elong	9555 Apr 23 22:56	6° B 42'12 0°56'28
evening set	9549 Mar 12 22:18	9° Y 53'59	max. Earth dist.	9555 Apr 24 05:44	6° B 43'12 20.46057 AU
			morning rise	9555 May 09 16:28	7° B 38'01
conjunction	9549 Mar 28 20:14	10° Y 51'31 -0°51'28	retrograde	9555 Aug 09 11:13	10° B 47'39
minimum elong	9549 Mar 28 20:14	10° Y 51'31 0°51'30	opposition	9555 Oct 24 19:17	8° B 48'45 -1°02'17
max. Earth dist.	9549 Mar 28 22:18	10° Y 51'50 20.09176 AU	min. Earth dist.	9555 Oct 24 11:33	8° B 49'32 18.48847 AU
morning rise	9549 Apr 13 16:07	11° Y 48'47	direct	9556 Jan 09 23:09	6° B 48'46
retrograde	9549 Jul 14 03:35	15° Y 01'57	evening set	9556 Apr 11 14:44	9° B 59'01
opposition	9549 Sep 27 14:56	13° Y 02'14 -0°58'03			
min. Earth dist.	9549 Sep 27 12:06	13° Y 02'31 18.12397 AU	conjunction	9556 Apr 27 08:47	10° B 54'43 -0°56'01
direct	9549 Dec 13 19:10	11° Y 00'22	minimum elong	9556 Apr 27 08:47	10° B 54'43 0°56'14
evening set	9550 Mar 17 13:22	14° Y 16'51	max. Earth dist.	9556 Apr 27 16:41	10° B 55'53 20.51562 AU
			morning rise	9556 May 13 02:06	11° B 50'20
conjunction	9550 Apr 02 10:31	15° Y 14'06 -0°53'03	retrograde	9556 Aug 12 21:20	14° B 59'26
minimum elong	9550 Apr 02 10:31	15° Y 14'06 0°53'06	opposition	9556 Oct 28 10:03	13° B 00'35 -1°01'47
max. Earth dist.	9550 Apr 02 13:14	15° Y 14'30 20.15611 AU	min. Earth dist.	9556 Oct 28 02:27	13° B 01'21 18.54272 AU
morning rise	9550 Apr 18 05:53	16° Y 11'05	direct	9557 Jan 13 11:51	11° B 00'51
retrograde	9550 Jul 18 17:30	19° Y 23'40	evening set	9557 Apr 16 00:03	14° B 10'06
opposition	9550 Oct 02 09:05	17° Y 24'08 -0°59'37		9557 Apr 30 04:07	15° B
min. Earth dist.	9550 Oct 02 06:04	17° Y 24'26 18.18834 AU			
direct	9550 Dec 18 12:17	15° Y 22'38	conjunction	9557 May 01 17:45	15° B 05'34 -0°55'26
evening set	9551 Mar 22 03:34	18° Y 38'05	minimum elong	9557 May 01 17:45	15° B 05'34 0°55'39
			max. Earth dist.	9557 May 02 02:27	15° B 06'52 20.56911 AU
conjunction	9551 Apr 07 00:08	19° Y 35'03 -0°54'19	morning rise	9557 May 17 11:00	16° B 01'01
minimum elong	9551 Apr 07 00:07	19° Y 35'03 0°54'25	retrograde	9557 Aug 17 09:05	19° B 09'36
max. Earth dist.	9551 Apr 07 04:00	19° Y 35'38 20.22015 AU	opposition	9557 Nov 01 24:00	17° B 10'48 -1°00'58
morning rise	9551 Apr 22 18:59	20° Y 31'47	min. Earth dist.	9557 Nov 01 14:23	17° B 11'47 18.59544 AU
retrograde	9551 Jul 23 08:19	23° Y 43'45	direct	9558 Jan 18 02:29	15° B 11'21
opposition	9551 Oct 07 02:38	21° Y 44'24 -1°00'51	evening set	9558 Apr 20 08:48	18° B 19'38
min. Earth dist.	9551 Oct 06 21:58	21° Y 44'53 18.25181 AU			
direct	9551 Dec 23 07:12	19° Y 43'16	conjunction	9558 May 06 02:16	19° B 14'55 -0°54'33

minimum elong	9558 May 06 02:16	19° 8 14'55	0°54'48	opposition	9564 Dec 01 12:03	15° II 50'28	-0°47'04
max. Earth dist.	9558 May 06 12:17	19° 8 16'24	20.62103 AU	min. Earth dist.	9564 Nov 30 23:04	15° II 51'46	18.90389 AU
morning rise	9558 May 21 19:25	20° 8 10'11		direct	9565 Feb 16 04:58	13° II 52'56	
retrograde	9558 Aug 21 18:41	23° 8 18'19		evening set	9565 May 18 08:00	16° II 56'00	
opposition	9558 Nov 06 13:21	21° 8 19'36	-0°59'50				
min. Earth dist.	9558 Nov 06 03:53	21° 8 20'33	18.64672 AU	conjunction	9565 Jun 03 01:20	17° II 50'21	-0°41'14
direct	9559 Jan 22 13:36	19° 8 20'24		minimum elong	9565 Jun 03 01:20	17° II 50'21	0°41'34
evening set	9559 Apr 24 16:56	22° 8 27'49		max. Earth dist.	9565 Jun 03 14:55	17° II 52'20	20.91913 AU
				morning rise	9565 Jun 18 19:49	18° II 44'52	
conjunction	9559 May 10 10:12	23° 8 22'55	-0°53'24	retrograde	9565 Sep 19 15:02	21° II 51'03	
minimum elong	9559 May 10 10:12	23° 8 22'55	0°53'40	opposition	9565 Dec 05 22:28	19° II 52'55	-0°44'05
max. Earth dist.	9559 May 10 20:45	23° 8 24'28	20.67157 AU	min. Earth dist.	9565 Dec 05 08:32	19° II 54'18	18.93352 AU
morning rise	9559 May 26 03:24	24° 8 18'01		direct	9566 Feb 20 14:22	17° II 55'33	
retrograde	9559 Aug 26 05:40	27° 8 25'44		evening set	9566 May 22 13:34	20° II 58'05	
opposition	9559 Nov 11 02:09	25° 8 27'07	-0°58'23				
min. Earth dist.	9559 Nov 10 14:44	25° 8 28'16	18.69636 AU	conjunction	9566 Jun 07 07:10	21° II 52'22	-0°38'26
direct	9560 Jan 27 02:23	23° 8 28'13		minimum elong	9566 Jun 07 07:10	21° II 52'22	0°38'46
evening set	9560 Apr 28 00:23	26° 8 34'47		max. Earth dist.	9566 Jun 07 21:18	21° II 54'25	20.94613 AU
				morning rise	9566 Jun 23 01:56	22° II 46'50	
conjunction	9560 May 13 17:33	27° 8 29'43	-0°51'59	retrograde	9566 Sep 23 21:51	25° II 52'52	
minimum elong	9560 May 13 17:33	27° 8 29'43	0°52'16	opposition	9566 Dec 10 08:33	23° II 54'44	-0°40'53
max. Earth dist.	9560 May 14 05:25	27° 8 31'28	20.72019 AU	min. Earth dist.	9566 Dec 09 19:34	23° II 56'01	18.95794 AU
morning rise	9560 May 29 10:45	28° 8 24'41		direct	9567 Feb 24 22:36	21° II 57'30	
	9560 Jun 28 15:29	0° II		evening set	9567 May 26 18:57	24° II 59'31	
retrograde	9560 Aug 29 15:03	1° II 32'03					
	9560 Nov 03 13:10	30° 8 8		conjunction	9567 Jun 11 12:45	25° II 53'45	-0°35'27
opposition	9560 Nov 14 14:41	29° 8 33'32	-0°56'39	minimum elong	9567 Jun 11 12:45	25° II 53'45	0°35'48
min. Earth dist.	9560 Nov 14 03:29	29° 8 34'40	18.74397 AU	max. Earth dist.	9567 Jun 12 02:10	25° II 55'41	20.96804 AU
direct	9561 Jan 30 12:47	27° 8 34'57		morning rise	9567 Jun 27 08:03	26° II 48'11	
	9561 Apr 20 02:42	0° II		retrograde	9567 Sep 28 07:42	29° II 54'05	
evening set	9561 May 02 07:27	0° II 40'42		opposition	9567 Dec 14 18:22	27° II 55'54	-0°37'29
				min. Earth dist.	9567 Dec 14 04:38	27° II 57'16	18.97719 AU
conjunction	9561 May 18 00:31	1° II 35'29	-0°50'18	direct	9568 Feb 29 07:32	25° II 58'45	
minimum elong	9561 May 18 00:31	1° II 35'29	0°50'36	evening set	9568 May 29 23:54	29° II 00'17	
max. Earth dist.	9561 May 18 12:41	1° II 37'16	20.76671 AU				
morning rise	9561 Jun 02 17:56	2° II 30'20		conjunction	9568 Jun 14 18:05	29° II 54'29	-0°32'19
retrograde	9561 Sep 03 01:45	5° II 37'23		minimum elong	9568 Jun 14 18:05	29° II 54'29	0°32'40
opposition	9561 Nov 19 02:30	3° II 38'59	-0°54'38	max. Earth dist.	9568 Jun 15 08:12	29° II 56'31	20.98471 AU
min. Earth dist.	9561 Nov 18 13:38	3° II 40'16	18.78914 AU		9568 Jun 16 08:17	0° III	
direct	9562 Feb 03 23:44	1° II 40'40		morning rise	9568 Jun 30 13:47	0° III 48'55	
evening set	9562 May 06 14:01	4° II 45'41		retrograde	9568 Oct 01 13:57	3° III 54'43	
				opposition	9568 Dec 18 03:58	1° III 56'26	-0°33'55
conjunction	9562 May 22 07:08	5° II 40'21	-0°48'22	min. Earth dist.	9568 Dec 17 15:03	1° III 57'43	18.99142 AU
minimum elong	9562 May 22 07:08	5° II 40'21	0°48'40		9569 Feb 27 10:00	30° 8 II	
max. Earth dist.	9562 May 22 20:24	5° II 42'17	20.81035 AU	direct	9569 Mar 04 15:02	29° II 59'20	
morning rise	9562 Jun 07 00:41	6° II 35'05			9569 Mar 09 18:34	0° III	
retrograde	9562 Sep 07 10:18	9° II 41'51		evening set	9569 Jun 03 04:49	3° III 00'26	
opposition	9562 Nov 23 14:06	7° II 43'33	-0°52'22				
min. Earth dist.	9562 Nov 23 01:44	7° II 44'48	18.83118 AU	conjunction	9569 Jun 18 23:18	3° III 54'36	-0°29'01
direct	9563 Feb 08 09:48	5° II 45'32		minimum elong	9569 Jun 18 23:19	3° III 54'36	0°29'21
evening set	9563 May 10 20:20	8° II 49'51		max. Earth dist.	9569 Jun 19 12:50	3° III 56'33	20.99676 AU
				morning rise	9569 Jul 04 19:38	4° III 49'02	
conjunction	9563 May 26 13:25	9° II 44'23	-0°46'12	retrograde	9569 Oct 05 23:07	7° III 54'46	
minimum elong	9563 May 26 13:25	9° II 44'23	0°46'32	opposition	9569 Dec 22 12:58	5° III 56'22	-0°30'11
max. Earth dist.	9563 May 27 02:34	9° II 46'18	20.85070 AU	min. Earth dist.	9569 Dec 21 23:21	5° III 57'44	19.00132 AU
morning rise	9563 Jun 11 07:15	10° II 39'02		direct	9570 Mar 08 22:58	3° III 59'16	
retrograde	9563 Sep 11 20:52	13° II 45'35		evening set	9570 Jun 07 09:33	7° III 00'01	
min. Earth dist.	9563 Nov 27 11:26	11° II 48'43	18.86962 AU				
opposition	9563 Nov 28 01:07	11° II 47'21	-0°49'50	conjunction	9570 Jun 23 04:31	7° III 54'12	-0°25'34
direct	9564 Feb 12 19:38	9° II 49'35		minimum elong	9570 Jun 23 04:31	7° III 54'12	0°25'56
evening set	9564 May 14 02:19	12° II 53'16		max. Earth dist.	9570 Jun 23 18:49	7° III 56'15	21.00454 AU
				morning rise	9570 Jul 09 01:18	8° III 48'38	
conjunction	9564 May 29 19:32	13° II 47'42	-0°43'49	retrograde	9570 Oct 10 05:34	11° III 54'22	
minimum elong	9564 May 29 19:32	13° II 47'42	0°44'08	opposition	9570 Dec 26 21:53	9° III 55'51	-0°26'19
max. Earth dist.	9564 May 30 09:33	13° II 49'45	20.88707 AU	min. Earth dist.	9570 Dec 26 08:54	9° III 57'09	19.00718 AU
morning rise	9564 Jun 14 13:34	14° II 42'17		direct	9571 Mar 13 05:41	7° III 58'45	
retrograde	9564 Sep 15 04:36	17° II 48'37		evening set	9571 Jun 11 14:12	10° III 59'13	

conjunction	9571 Jun 27 09:30	11°☿53'23 -0°22'01	opposition	9577 Jan 20 00:17	3°♄52'43 -0°01'06
minimum elong	9571 Jun 27 09:30	11°☿53'23 0°22'21	direct	9577 Apr 05 18:50	1°♄55'42
max. Earth dist.	9571 Jun 27 23:15	11°☿55'22 21.00866 AU	asc. node	9577 Apr 21 15:12	2°♄02'10
morning rise	9571 Jul 13 06:57	12°☿47'52	evening set	9577 Jul 04 21:04	4°♄56'00
retrograde	9571 Oct 14 14:23	15°☿53'39			
opposition	9571 Dec 31 06:29	13°☿55'01 -0°22'19	conjunction	9577 Jul 20 19:44	5°♄50'38 0°01'00
min. Earth dist.	9571 Dec 30 16:43	13°☿56'24 19.00956 AU	minimum elong	9577 Jul 20 19:44	5°♄50'38 0°00'41
direct	9572 Mar 16 12:44	11°☿57'56	behind sun begin	9577 Jul 20 13:09	5°♄49'43
evening set	9572 Jun 14 18:52	14°☿58'11	behind sun end	9577 Jul 21 02:20	5°♄51'33
			max. Earth dist.	9577 Jul 21 08:32	5°♄52'27 20.96005 AU
conjunction	9572 Jun 30 14:43	15°☿52'23 -0°18'21	morning rise	9577 Aug 05 21:14	6°♄45'39
minimum elong	9572 Jun 30 14:43	15°☿52'23 0°18'43	retrograde	9577 Nov 07 18:44	9°♄52'50
max. Earth dist.	9572 Jul 01 05:17	15°☿54'28 21.00928 AU	opposition	9578 Jan 24 08:34	7°♄53'46 0°03'15
morning rise	9572 Jul 16 12:40	16°☿46'55	min. Earth dist.	9578 Jan 23 20:19	7°♄55'00 18.94970 AU
retrograde	9572 Oct 17 21:39	19°☿52'47	direct	9578 Apr 10 01:05	5°♄56'42
opposition	9573 Jan 03 15:00	17°☿54'04 -0°18'12	evening set	9578 Jul 09 03:25	8°♄57'15
min. Earth dist.	9573 Jan 03 01:46	17°☿55'24 19.00851 AU			
direct	9573 Mar 20 18:48	15°☿57'00	conjunction	9578 Jul 25 02:51	9°♄52'00 0°04'59
evening set	9573 Jun 18 23:37	18°☿57'06	minimum elong	9578 Jul 25 02:49	9°♄52'00 0°04'42
			behind sun begin	9578 Jul 24 20:21	9°♄51'06
conjunction	9573 Jul 04 19:55	19°☿51'22 -0°14'37	behind sun end	9578 Jul 25 09:18	9°♄52'55
minimum elong	9573 Jul 04 19:56	19°☿51'22 0°14'57	max. Earth dist.	9578 Jul 25 15:45	9°♄53'51 20.93801 AU
behind sun begin	9573 Jul 04 17:22	19°☿51'00	morning rise	9578 Aug 10 04:54	10°♄47'09
behind sun end	9573 Jul 04 22:29	19°☿51'43	retrograde	9578 Nov 12 03:35	13°♄54'44
max. Earth dist.	9573 Jul 05 09:46	19°☿53'21 21.00667 AU	opposition	9579 Jan 28 17:10	11°♄55'34 0°07'37
morning rise	9573 Jul 20 18:39	20°☿45'57	min. Earth dist.	9579 Jan 28 06:00	11°♄56'42 18.92525 AU
retrograde	9573 Oct 22 06:37	23°☿52'00	direct	9579 Apr 14 07:08	9°♄58'27
opposition	9574 Jan 07 23:19	21°☿53'12 -0°14'01	evening set	9579 Jul 13 10:10	12°♄59'16
min. Earth dist.	9574 Jan 07 09:31	21°☿54'34 19.00418 AU			
direct	9574 Mar 25 01:15	19°☿56'08	conjunction	9579 Jul 29 10:08	13°♄54'10 0°08'54
evening set	9574 Jun 23 04:33	22°☿56'11	minimum elong	9579 Jul 29 10:08	13°♄54'10 0°08'37
			behind sun begin	9579 Jul 29 04:22	13°♄53'21
conjunction	9574 Jul 09 01:29	23°☿50'31 -0°10'48	behind sun end	9579 Jul 29 15:54	13°♄54'58
minimum elong	9574 Jul 09 01:29	23°☿50'31 0°11'08	max. Earth dist.	9579 Jul 29 21:25	13°♄55'46 20.91119 AU
behind sun begin	9574 Jul 08 20:33	23°☿49'49	morning rise	9579 Aug 14 13:04	14°♄49'28
behind sun end	9574 Jul 09 06:24	23°☿51'12		9579 Aug 17 16:27	15°♄
max. Earth dist.	9574 Jul 09 15:56	23°☿52'35 21.00051 AU	retrograde	9579 Nov 16 14:32	17°♄57'28
morning rise	9574 Jul 25 00:44	24°☿45'11	opposition	9580 Feb 02 01:55	15°♄58'10 0°11'57
retrograde	9574 Oct 26 14:21	27°☿51'26	min. Earth dist.	9580 Feb 01 15:17	15°♄59'14 18.89594 AU
opposition	9575 Jan 12 07:32	25°☿52'34 -0°09'46		9580 Feb 27 02:24	15°♄
min. Earth dist.	9575 Jan 11 18:26	25°☿53'53 18.99624 AU	direct	9580 Apr 17 13:35	14°♄00'55
direct	9575 Mar 29 06:57	23°☿55'32		9580 Jun 05 05:06	15°♄
evening set	9575 Jun 27 09:46	26°☿55'36	evening set	9580 Jul 16 17:25	17°♄02'03
conjunction	9575 Jul 13 07:11	27°☿50'00 -0°06'56	conjunction	9580 Aug 01 18:12	17°♄57'07 0°12'47
minimum elong	9575 Jul 13 07:11	27°☿50'00 0°07'16	minimum elong	9580 Aug 01 18:12	17°♄57'07 0°12'32
behind sun begin	9575 Jul 13 01:07	27°☿49'09	behind sun begin	9580 Aug 01 13:55	17°♄56'31
behind sun end	9575 Jul 13 13:15	27°☿50'51	behind sun end	9580 Aug 01 22:29	17°♄57'43
max. Earth dist.	9575 Jul 13 20:43	27°☿51'56 20.99092 AU	max. Earth dist.	9580 Aug 02 05:26	17°♄58'43 20.87932 AU
morning rise	9575 Jul 29 07:14	28°☿44'46	morning rise	9580 Aug 17 21:45	18°♄52'35
	9575 Aug 22 01:11	0°♄	retrograde	9580 Nov 20 00:17	22°♄01'00
retrograde	9575 Oct 31 00:00	1°♄51'17	opposition	9581 Feb 05 10:44	20°♄01'31 0°16'15
	9576 Jan 13 11:42	30°♄☿	min. Earth dist.	9581 Feb 05 01:12	20°♄02'29 18.86162 AU
opposition	9576 Jan 16 15:52	29°☿52'21 -0°05'27	direct	9581 Apr 21 20:36	18°♄04'07
min. Earth dist.	9576 Jan 16 02:28	29°☿53'42 18.98479 AU	evening set	9581 Jul 21 01:07	21°♄05'36
direct	9576 Apr 01 13:11	27°☿55'20			
	9576 Jun 13 10:57	0°♄	conjunction	9581 Aug 06 02:34	22°♄00'50 0°16'38
evening set	9576 Jun 30 15:06	0°♄55'29	minimum elong	9581 Aug 06 02:33	22°♄00'50 0°16'23
			max. Earth dist.	9581 Aug 06 11:57	22°♄02'10 20.84282 AU
conjunction	9576 Jul 16 13:14	1°♄50'00 -0°03'02	morning rise	9581 Aug 22 07:02	22°♄56'29
minimum elong	9576 Jul 16 13:14	1°♄50'00 0°03'21	retrograde	9581 Nov 24 11:36	26°♄05'20
behind sun begin	9576 Jul 16 06:40	1°♄49'05	opposition	9582 Feb 09 19:41	24°♄05'38 0°20'29
behind sun end	9576 Jul 16 19:47	1°♄50'55	min. Earth dist.	9582 Feb 09 10:51	24°♄06'32 18.82293 AU
max. Earth dist.	9576 Jul 17 03:18	1°♄52'00 20.97749 AU	direct	9582 Apr 26 03:01	22°♄08'01
morning rise	9576 Aug 01 13:53	2°♄44'53	evening set	9582 Jul 25 09:12	25°♄09'55
retrograde	9576 Nov 03 08:16	5°♄51'43			
min. Earth dist.	9577 Jan 19 11:46	3°♄53'59 18.96933 AU	conjunction	9582 Aug 10 11:29	26°♄05'20 0°20'24

minimum elong	9582 Aug 10 11:29	26°Ω05'20	0°20'11	opposition	9589 Mar 10 17:01	23°♊02'49	0°46'27
max. Earth dist.	9582 Aug 10 20:57	26°Ω06'41	20.80205 AU	min. Earth dist.	9589 Mar 10 12:57	23°♊03'15	18.47729 AU
morning rise	9582 Aug 26 16:32	27°Ω01'10		direct	9589 May 24 13:42	21°♊03'31	
	9582 Nov 08 08:19	0°♊		evening set	9589 Aug 23 11:33	24°♊09'59	
retrograde	9582 Nov 28 21:58	0°♊10'29					
	9582 Dec 19 17:30	30°♋Ω		conjunction	9589 Sep 08 18:59	25°♊07'00	0°43'16
opposition	9583 Feb 14 04:44	28°Ω10'34	0°24'37	minimum elong	9589 Sep 08 18:59	25°♊07'00	0°43'12
min. Earth dist.	9583 Feb 13 20:46	28°Ω11'22	18.78031 AU	max. Earth dist.	9589 Sep 08 21:59	25°♊07'26	20.44969 AU
direct	9583 Apr 30 10:58	26°Ω12'43		morning rise	9589 Sep 25 05:13	26°♊04'25	
evening set	9583 Jul 29 17:54	29°Ω15'04		retrograde	9589 Dec 28 17:40	29°♊17'52	
	9583 Aug 11 19:07	0°♊		opposition	9590 Mar 15 04:34	27°♊16'34	0°49'24
				min. Earth dist.	9590 Mar 15 01:48	27°♊16'51	18.42176 AU
conjunction	9583 Aug 14 20:47	0°♊10'40	0°24'05	direct	9590 May 28 23:56	25°♊17'02	
minimum elong	9583 Aug 14 20:47	0°♊10'40	0°23'54	evening set	9590 Aug 28 01:13	28°♊24'24	
max. Earth dist.	9583 Aug 15 04:34	0°♊11'47	20.75794 AU				
morning rise	9583 Aug 31 02:44	1°♊06'42		conjunction	9590 Sep 13 09:32	29°♊21'41	0°45'48
retrograde	9583 Dec 03 10:09	4°♊16'32		minimum elong	9590 Sep 13 09:31	29°♊21'41	0°45'47
opposition	9584 Feb 18 14:03	2°♊16'22	0°28'39	max. Earth dist.	9590 Sep 13 12:40	29°♊22'09	20.39339 AU
min. Earth dist.	9584 Feb 18 06:43	2°♊17'07	18.73480 AU		9590 Sep 24 06:30	0°♋	
direct	9584 May 03 17:56	0°♊18'15		morning rise	9590 Sep 29 20:11	0°♋19'21	
evening set	9584 Aug 02 02:59	3°♊21'09		retrograde	9591 Jan 02 08:49	3°♋33'29	
				opposition	9591 Mar 19 16:35	1°♋32'04	0°52'06
conjunction	9584 Aug 18 06:46	4°♊16'57	0°27'40	min. Earth dist.	9591 Mar 19 14:21	1°♋32'18	18.36470 AU
minimum elong	9584 Aug 18 06:46	4°♊16'57	0°27'30		9591 Apr 30 10:59	30°♋♊	
max. Earth dist.	9584 Aug 18 14:49	4°♊18'07	20.71102 AU	direct	9591 Jun 02 11:09	29°♊32'19	
morning rise	9584 Sep 03 13:19	5°♊13'12			9591 Jul 04 23:22	0°♋	
retrograde	9584 Dec 06 21:28	8°♊23'32		evening set	9591 Sep 01 16:04	2°♋40'37	
opposition	9585 Feb 21 23:35	6°♊23'09	0°32'34				
min. Earth dist.	9585 Feb 21 16:53	6°♊23'50	18.68666 AU	conjunction	9591 Sep 18 00:55	3°♋38'10	0°48'06
direct	9585 May 08 02:12	4°♊24'48		minimum elong	9591 Sep 18 00:55	3°♋38'10	0°48'05
evening set	9585 Aug 06 12:56	7°♊28'17		max. Earth dist.	9591 Sep 18 01:42	3°♋38'17	20.33559 AU
				morning rise	9591 Oct 04 12:21	4°♋36'06	
conjunction	9585 Aug 22 17:20	8°♊24'18	0°31'07	retrograde	9592 Jan 07 00:36	7°♋50'57	
minimum elong	9585 Aug 22 17:20	8°♊24'18	0°30'59	opposition	9592 Mar 23 05:14	5°♋49'23	0°54'32
max. Earth dist.	9585 Aug 22 23:35	8°♊25'12	20.66187 AU	min. Earth dist.	9592 Mar 23 04:43	5°♋49'26	18.30614 AU
morning rise	9585 Sep 08 00:47	9°♊20'46		direct	9592 Jun 05 22:24	3°♋49'22	
retrograde	9585 Dec 11 10:39	12°♊31'40		evening set	9592 Sep 05 07:41	6°♋58'38	
opposition	9586 Feb 26 09:17	10°♊31'03	0°36'19				
min. Earth dist.	9586 Feb 26 03:23	10°♊31'39	18.63659 AU	conjunction	9592 Sep 21 17:27	7°♋56'29	0°50'09
direct	9586 May 12 10:20	8°♊32'26		minimum elong	9592 Sep 21 17:27	7°♋56'29	0°50'11
evening set	9586 Aug 10 23:24	11°♊36'35		max. Earth dist.	9592 Sep 21 18:00	7°♋56'34	20.27606 AU
				morning rise	9592 Oct 08 05:18	8°♋54'40	
conjunction	9586 Aug 27 04:42	12°♊32'51	0°34'25	retrograde	9593 Jan 10 17:39	12°♋10'12	
minimum elong	9586 Aug 27 04:42	12°♊32'51	0°34'17	opposition	9593 Mar 27 18:24	10°♋08'29	0°56'41
max. Earth dist.	9586 Aug 27 11:15	12°♊33'48	20.61084 AU	min. Earth dist.	9593 Mar 27 18:30	10°♋08'28	18.24566 AU
morning rise	9586 Sep 12 12:40	13°♊29'32		direct	9593 Jun 10 11:37	8°♋08'11	
retrograde	9586 Dec 15 22:53	16°♊41'01		evening set	9593 Sep 10 00:26	11°♋18'26	
opposition	9587 Mar 02 19:28	14°♊40'12	0°39'53				
min. Earth dist.	9587 Mar 02 14:01	14°♊40'46	18.58476 AU	conjunction	9593 Sep 26 10:42	12°♋16'33	0°51'56
direct	9587 May 16 18:50	12°♊41'22		minimum elong	9593 Sep 26 10:42	12°♋16'33	0°51'59
evening set	9587 Aug 15 10:34	15°♊46'12		max. Earth dist.	9593 Sep 26 08:38	12°♋16'15	20.21472 AU
				morning rise	9593 Oct 12 23:14	13°♋15'01	
conjunction	9587 Aug 31 16:29	16°♊42'42	0°37'34	retrograde	9594 Jan 15 09:49	16°♋31'13	
minimum elong	9587 Aug 31 16:29	16°♊42'42	0°37'27	opposition	9594 Apr 01 08:07	14°♋29'19	0°58'31
max. Earth dist.	9587 Aug 31 21:15	16°♊43'24	20.55838 AU	min. Earth dist.	9594 Apr 01 10:08	14°♋29'06	18.18362 AU
morning rise	9587 Sep 17 01:20	17°♊39'38		direct	9594 Jun 15 00:13	12°♋28'41	
retrograde	9587 Dec 20 13:10	20°♊51'45		evening set	9594 Sep 14 17:48	15°♋39'57	
opposition	9588 Mar 06 06:07	18°♊50'45	0°43'17				
min. Earth dist.	9588 Mar 06 01:34	18°♊51'13	18.53169 AU	conjunction	9594 Oct 01 04:55	16°♋38'21	0°53'26
direct	9588 May 20 04:11	16°♊51'40		minimum elong	9594 Oct 01 04:55	16°♋38'21	0°53'31
evening set	9588 Aug 18 22:33	19°♊57'17		max. Earth dist.	9594 Oct 01 02:35	16°♋38'00	20.15207 AU
				morning rise	9594 Oct 17 17:47	17°♋37'04	
conjunction	9588 Sep 04 05:23	20°♊54'03	0°40'31	retrograde	9595 Jan 20 04:03	20°♋53'54	
minimum elong	9588 Sep 04 05:23	20°♊54'03	0°40'25	opposition	9595 Apr 05 22:20	18°♋51'49	1°00'03
max. Earth dist.	9588 Sep 04 10:27	20°♊54'47	20.50462 AU	min. Earth dist.	9595 Apr 06 00:41	18°♋51'34	18.12050 AU
morning rise	9588 Sep 20 14:46	21°♊51'13		direct	9595 Jun 19 15:25	16°♋50'52	
retrograde	9588 Dec 24 02:33	25°♊03'58		evening set	9595 Sep 19 12:02	20°♋03'07	

conjunction	9595 Oct 05 23:38	21° <u>♄</u> 01'48	0°54'38	morning rise	9601 Nov 19 00:18	18° <u>♄</u> 57'05
minimum elong	9595 Oct 05 23:38	21° <u>♄</u> 01'48	0°54'44			
max. Earth dist.	9595 Oct 05 19:02	21° <u>♄</u> 01'07	20.08872 AU			
morning rise	9595 Oct 22 13:08	22° <u>♄</u> 00'46				
retrograde	9596 Jan 24 20:52	25° <u>♄</u> 18'16				
opposition	9596 Apr 09 13:10	23° <u>♄</u> 15'59	1°01'13			
min. Earth dist.	9596 Apr 09 17:25	23° <u>♄</u> 15'32	18.05714 AU			
direct	9596 Jun 23 05:17	21° <u>♄</u> 14'38				
evening set	9596 Sep 23 07:05	24° <u>♄</u> 27'56				
conjunction	9596 Oct 09 19:28	25° <u>♄</u> 26'54	0°55'31			
minimum elong	9596 Oct 09 19:28	25° <u>♄</u> 26'54	0°55'38			
max. Earth dist.	9596 Oct 09 14:39	25° <u>♄</u> 26'10	20.02548 AU			
morning rise	9596 Oct 26 09:16	26° <u>♄</u> 26'07				
retrograde	9597 Jan 28 16:14	29° <u>♄</u> 44'12				
opposition	9597 Apr 14 04:14	27° <u>♄</u> 41'44	1°02'03			
min. Earth dist.	9597 Apr 14 08:35	27° <u>♄</u> 41'16	17.99416 AU			
direct	9597 Jun 27 21:59	25° <u>♄</u> 40'02				
evening set	9597 Sep 28 03:07	28° <u>♄</u> 54'22				
conjunction	9597 Oct 14 15:55	29° <u>♄</u> 53'37	0°56'04			
minimum elong	9597 Oct 14 15:55	29° <u>♄</u> 53'37	0°56'14			
max. Earth dist.	9597 Oct 14 09:08	29° <u>♄</u> 52'35	19.96297 AU			
	9597 Oct 16 10:24	0° <u>♄</u>				
morning rise	9597 Oct 31 06:11	0° <u>♄</u> 53'05				
retrograde	9598 Feb 02 10:16	4° <u>♄</u> 11'46				
opposition	9598 Apr 18 20:08	2° <u>♄</u> 09'07	1°02'30			
min. Earth dist.	9598 Apr 19 02:16	2° <u>♄</u> 08'28	17.93242 AU			
direct	9598 Jul 02 13:04	0° <u>♄</u> 07'03				
evening set	9598 Oct 02 23:36	3° <u>♄</u> 22'26				
conjunction	9598 Oct 19 13:03	4° <u>♄</u> 21'56	0°56'17			
minimum elong	9598 Oct 19 13:02	4° <u>♄</u> 21'56	0°56'27			
max. Earth dist.	9598 Oct 19 06:09	4° <u>♄</u> 20'54	19.90207 AU			
morning rise	9598 Nov 05 03:32	5° <u>♄</u> 21'39				
retrograde	9599 Feb 07 06:59	8° <u>♄</u> 40'55				
opposition	9599 Apr 23 12:27	6° <u>♄</u> 38'07	1°02'34			
min. Earth dist.	9599 Apr 23 18:18	6° <u>♄</u> 37'29	17.87252 AU			
direct	9599 Jul 07 06:47	4° <u>♄</u> 35'41				
evening set	9599 Oct 07 21:10	7° <u>♄</u> 52'07				
conjunction	9599 Oct 24 10:59	8° <u>♄</u> 51'53	0°56'09			
minimum elong	9599 Oct 24 10:59	8° <u>♄</u> 51'53	0°56'21			
max. Earth dist.	9599 Oct 24 02:37	8° <u>♄</u> 50'37	19.84329 AU			
morning rise	9599 Nov 10 01:48	9° <u>♄</u> 51'51				
retrograde	9600 Feb 12 02:39	13° <u>♄</u> 11'39				
opposition	9600 Apr 27 05:25	11° <u>♄</u> 08'43	1°02'15			
min. Earth dist.	9600 Apr 27 12:56	11° <u>♄</u> 07'54	17.81516 AU			
direct	9600 Jul 10 22:53	9° <u>♄</u> 05'57				
evening set	9600 Oct 11 19:26	12° <u>♄</u> 23'26				
conjunction	9600 Oct 28 09:47	13° <u>♄</u> 23'28	0°55'40			
minimum elong	9600 Oct 28 09:47	13° <u>♄</u> 23'28	0°55'54			
max. Earth dist.	9600 Oct 28 01:03	13° <u>♄</u> 22'09	19.78740 AU			
morning rise	9600 Nov 14 00:48	14° <u>♄</u> 23'39				
	9600 Nov 24 10:58	15° <u>♄</u>				
retrograde	9601 Feb 16 00:54	17° <u>♄</u> 43'59				
opposition	9601 May 01 22:53	15° <u>♄</u> 40'57	1°01'33			
min. Earth dist.	9601 May 02 06:00	15° <u>♄</u> 40'11	17.76079 AU			
	9601 May 18 01:21	15° <u>♄</u>				
direct	9601 Jul 15 17:56	13° <u>♄</u> 37'53				
	9601 Sep 10 11:16	15° <u>♄</u>				
evening set	9601 Oct 16 18:32	16° <u>♄</u> 56'25				
conjunction	9601 Nov 02 09:12	17° <u>♄</u> 56'41	0°54'51			
minimum elong	9601 Nov 02 09:12	17° <u>♄</u> 56'41	0°55'05			
max. Earth dist.	9601 Nov 01 23:29	17° <u>♄</u> 55'13	19.73460 AU			