




























































































































evening set	6100 Jan 24 01:37	19° \approx 30'10		conjunction	6106 Feb 21 21:38	3° \mathbb{H} 10'54	0°32'52
				minimum elong	6106 Feb 21 21:38	3° \mathbb{H} 10'54	0°32'53
conjunction	6100 Feb 08 12:00	20° \approx 04'42	0°48'28	max. Earth dist.	6106 Feb 21 12:57	3° \mathbb{H} 10'05	31.22889 AU
minimum elong	6100 Feb 08 12:00	20° \approx 04'42	0°48'30	morning rise	6106 Mar 09 05:47	3° \mathbb{H} 45'20	
max. Earth dist.	6100 Feb 07 22:45	20° \approx 03'28	31.27751 AU	retrograde	6106 Jun 04 23:44	5° \mathbb{H} 39'14	
morning rise	6100 Feb 23 20:47	20° \approx 39'07		opposition	6106 Aug 23 10:06	4° \mathbb{H} 16'36	0°33'37
retrograde	6100 May 22 10:58	22° \approx 32'29		min. Earth dist.	6106 Aug 23 18:42	4° \mathbb{H} 16'01	29.22545 AU
opposition	6100 Aug 09 07:53	21° \approx 10'16	0°50'29	direct	6106 Nov 12 00:45	2° \mathbb{H} 52'35	
min. Earth dist.	6100 Aug 09 19:41	21° \approx 09'28	29.27476 AU	evening set	6107 Feb 08 21:53	4° \mathbb{H} 47'17	
direct	6100 Oct 29 04:25	19° \approx 46'14					
evening set	6101 Jan 26 11:29	21° \approx 41'19		conjunction	6107 Feb 24 06:57	5° \mathbb{H} 21'48	0°30'04
				minimum elong	6107 Feb 24 06:57	5° \mathbb{H} 21'48	0°30'05
conjunction	6101 Feb 10 21:43	22° \approx 15'52	0°46'01	max. Earth dist.	6107 Feb 23 22:18	5° \mathbb{H} 20'59	31.22201 AU
minimum elong	6101 Feb 10 21:43	22° \approx 15'52	0°46'02	morning rise	6107 Mar 11 15:12	5° \mathbb{H} 56'15	
max. Earth dist.	6101 Feb 10 09:04	22° \approx 14'41	31.27102 AU	retrograde	6107 Jun 07 12:39	7° \mathbb{H} 50'16	
morning rise	6101 Feb 26 06:20	22° \approx 50'17		opposition	6107 Aug 25 22:35	6° \mathbb{H} 27'35	0°30'37
retrograde	6101 May 24 20:12	24° \approx 43'45		min. Earth dist.	6107 Aug 26 05:37	6° \mathbb{H} 27'07	29.21899 AU
opposition	6101 Aug 11 20:18	23° \approx 21'29	0°47'50	direct	6107 Nov 14 11:34	5° \mathbb{H} 03'38	
min. Earth dist.	6101 Aug 12 08:48	23° \approx 20'38	29.26759 AU	evening set	6108 Feb 11 07:28	6° \mathbb{H} 58'18	
direct	6101 Oct 31 16:04	21° \approx 57'28					
evening set	6102 Jan 28 21:24	23° \approx 52'30		conjunction	6108 Feb 26 16:32	7° \mathbb{H} 32'49	0°27'14
				minimum elong	6108 Feb 26 16:33	7° \mathbb{H} 32'49	0°27'15
conjunction	6102 Feb 13 07:26	24° \approx 27'02	0°43'30	max. Earth dist.	6108 Feb 26 09:36	7° \mathbb{H} 32'10	31.21585 AU
minimum elong	6102 Feb 13 07:26	24° \approx 27'02	0°43'31	morning rise	6108 Mar 13 00:38	8° \mathbb{H} 07'17	
max. Earth dist.	6102 Feb 12 19:18	24° \approx 25'54	31.26330 AU	retrograde	6108 Jun 09 00:11	10° \mathbb{H} 01'26	
morning rise	6102 Feb 28 15:57	25° \approx 01'27		opposition	6108 Aug 27 11:10	8° \mathbb{H} 38'43	0°27'33
retrograde	6102 May 27 06:22	26° \approx 54'59		min. Earth dist.	6108 Aug 27 18:13	8° \mathbb{H} 38'14	29.21307 AU
opposition	6102 Aug 14 08:30	25° \approx 32'40	0°45'06	direct	6108 Nov 15 23:29	7° \mathbb{H} 14'49	
min. Earth dist.	6102 Aug 14 19:41	25° \approx 31'54	29.25918 AU	evening set	6109 Feb 12 17:08	9° \mathbb{H} 09'27	
direct	6102 Nov 03 05:05	24° \approx 08'38					
evening set	6103 Jan 31 07:17	26° \approx 03'36		conjunction	6109 Feb 28 02:01	9° \mathbb{H} 43'59	0°24'21
				minimum elong	6109 Feb 28 02:01	9° \mathbb{H} 43'59	0°24'21
conjunction	6103 Feb 15 17:04	26° \approx 38'08	0°40'55	max. Earth dist.	6109 Feb 27 19:19	9° \mathbb{H} 43'21	31.21016 AU
minimum elong	6103 Feb 15 17:04	26° \approx 38'08	0°40'56	morning rise	6109 Mar 15 10:13	10° \mathbb{H} 18'27	
max. Earth dist.	6103 Feb 15 05:01	26° \approx 37'00	31.25452 AU	retrograde	6109 Jun 11 12:58	12° \mathbb{H} 12'44	
morning rise	6103 Mar 03 01:32	27° \approx 12'34		opposition	6109 Aug 29 23:42	10° \mathbb{H} 50'00	0°24'27
retrograde	6103 May 29 17:08	29° \approx 06'10		min. Earth dist.	6109 Aug 30 05:00	10° \mathbb{H} 49'39	29.20729 AU
opposition	6103 Aug 16 20:59	27° \approx 43'46	0°42'19	direct	6109 Nov 18 11:03	9° \mathbb{H} 26'10	
min. Earth dist.	6103 Aug 17 08:18	27° \approx 43'00	29.25022 AU	evening set	6110 Feb 15 02:51	11° \mathbb{H} 20'47	
direct	6103 Nov 05 15:22	26° \approx 19'43					
evening set	6104 Feb 02 16:51	28° \approx 14'36		conjunction	6110 Mar 02 11:37	11° \mathbb{H} 55'19	0°21'26
				minimum elong	6110 Mar 02 11:37	11° \mathbb{H} 55'19	0°21'26
conjunction	6104 Feb 18 02:34	28° \approx 49'07	0°38'17	max. Earth dist.	6110 Mar 02 05:44	11° \mathbb{H} 54'46	31.20419 AU
minimum elong	6104 Feb 18 02:34	28° \approx 49'07	0°38'19	morning rise	6110 Mar 17 19:45	12° \mathbb{H} 29'48	
max. Earth dist.	6104 Feb 17 16:05	28° \approx 48'08	31.24550 AU	retrograde	6110 Jun 13 23:50	14° \mathbb{H} 24'15	
morning rise	6104 Mar 04 10:52	29° \approx 23'34		opposition	6110 Sep 01 12:30	13° \mathbb{H} 01'29	0°21'18
	6104 Mar 21 17:43	0° \mathbb{H}		min. Earth dist.	6110 Sep 01 18:14	13° \mathbb{H} 01'06	29.20114 AU
retrograde	6104 May 31 02:16	1° \mathbb{H} 17'15		direct	6110 Nov 20 22:38	11° \mathbb{H} 37'43	
	6104 Aug 15 03:59	30° \mathbb{R}		evening set	6111 Feb 17 12:41	13° \mathbb{H} 32'19	
opposition	6104 Aug 18 09:22	29° \approx 54'45	0°39'29				
min. Earth dist.	6104 Aug 18 19:24	29° \approx 54'04	29.24118 AU	conjunction	6111 Mar 04 21:21	14° \mathbb{H} 06'51	0°18'29
direct	6104 Nov 07 04:12	28° \approx 30'43		minimum elong	6111 Mar 04 21:22	14° \mathbb{H} 06'51	0°18'28
	6105 Jan 23 04:30	0° \mathbb{H}		max. Earth dist.	6111 Mar 04 16:22	14° \mathbb{H} 06'23	31.19779 AU
evening set	6105 Feb 04 02:37	0° \mathbb{H} 25'31		morning rise	6111 Mar 20 05:28	14° \mathbb{H} 41'21	
				retrograde	6111 Jun 16 11:36	16° \mathbb{H} 35'56	
conjunction	6105 Feb 19 12:01	1° \mathbb{H} 00'02	0°35'36	opposition	6111 Sep 04 01:19	15° \mathbb{H} 13'09	0°18'08
minimum elong	6105 Feb 19 12:01	1° \mathbb{H} 00'02	0°35'37	min. Earth dist.	6111 Sep 04 05:33	15° \mathbb{H} 12'51	29.19422 AU
max. Earth dist.	6105 Feb 19 01:22	0° \mathbb{H} 59'02	31.23676 AU	direct	6111 Nov 23 11:40	13° \mathbb{H} 49'26	
morning rise	6105 Mar 06 20:23	1° \mathbb{H} 34'28		evening set	6112 Feb 19 22:31	15° \mathbb{H} 44'00	
retrograde	6105 Jun 02 13:47	3° \mathbb{H} 28'15					
opposition	6105 Aug 20 21:37	2° \mathbb{H} 05'40	0°36'35	conjunction	6112 Mar 06 07:01	16° \mathbb{H} 18'33	0°15'30
min. Earth dist.	6105 Aug 21 06:52	2° \mathbb{H} 05'03	29.23291 AU	minimum elong	6112 Mar 06 07:01	16° \mathbb{H} 18'33	0°15'30
direct	6105 Nov 09 13:28	0° \mathbb{H} 41'38		behind sun begin	6112 Mar 06 05:03	16° \mathbb{H} 18'22	
evening set	6106 Feb 06 12:15	2° \mathbb{H} 36'23		behind sun end	6112 Mar 06 08:59	16° \mathbb{H} 18'43	
				max. Earth dist.	6112 Mar 06 02:00	16° \mathbb{H} 18'05	31.19030 AU

morning rise	6112 Mar 21 15:13	16° $\mathbf{\text{H}}$ 53'04		conjunction	6118 Mar 19 17:53	29° $\mathbf{\text{H}}$ 30'02	-0°02'49
retrograde	6112 Jun 17 23:27	18° $\mathbf{\text{H}}$ 47'48		minimum elong	6118 Mar 19 17:53	29° $\mathbf{\text{H}}$ 30'02	0°02'49
opposition	6112 Sep 05 14:18	17° $\mathbf{\text{H}}$ 24'58	0°14'56	behind sun begin	6118 Mar 19 11:30	29° $\mathbf{\text{H}}$ 29'28	
min. Earth dist.	6112 Sep 05 18:49	17° $\mathbf{\text{H}}$ 24'40	29.18620 AU	behind sun end	6118 Mar 20 00:16	29° $\mathbf{\text{H}}$ 30'37	
direct	6112 Nov 24 22:13	16° $\mathbf{\text{H}}$ 01'19		max. Earth dist.	6118 Mar 19 17:06	29° $\mathbf{\text{H}}$ 30'00	31.12393 AU
evening set	6113 Feb 21 08:26	17° $\mathbf{\text{H}}$ 55'51			6118 Apr 01 24:00	0° $\mathbf{\text{Y}}$	
				morning rise	6118 Apr 04 02:25	0° $\mathbf{\text{Y}}$ 04'40	
conjunction	6113 Mar 08 16:59	18° $\mathbf{\text{H}}$ 30'23	0°12'30	retrograde	6118 Jul 01 21:33	2° $\mathbf{\text{Y}}$ 00'09	
minimum elong	6113 Mar 08 16:59	18° $\mathbf{\text{H}}$ 30'23	0°12'30	opposition	6118 Sep 19 19:50	0° $\mathbf{\text{Y}}$ 36'49	-0°04'34
behind sun begin	6113 Mar 08 12:45	18° $\mathbf{\text{H}}$ 30'00		min. Earth dist.	6118 Sep 19 19:10	0° $\mathbf{\text{Y}}$ 36'51	29.11849 AU
behind sun end	6113 Mar 08 21:13	18° $\mathbf{\text{H}}$ 30'46			6118 Oct 13 04:19	30° $\mathbf{\text{R}}$ $\mathbf{\text{H}}$	
max. Earth dist.	6113 Mar 08 13:12	18° $\mathbf{\text{H}}$ 30'03	31.18158 AU	direct	6118 Dec 08 18:38	29° $\mathbf{\text{H}}$ 13'11	
morning rise	6113 Mar 24 01:05	19° $\mathbf{\text{H}}$ 04'56			6119 Jan 31 17:16	0° $\mathbf{\text{Y}}$	
retrograde	6113 Jun 20 09:24	20° $\mathbf{\text{H}}$ 59'48		evening set	6119 Mar 06 19:30	1° $\mathbf{\text{Y}}$ 07'25	
opposition	6113 Sep 08 03:04	19° $\mathbf{\text{H}}$ 36'55	0°11'42				
min. Earth dist.	6113 Sep 08 06:40	19° $\mathbf{\text{H}}$ 36'40	29.17664 AU	conjunction	6119 Mar 22 03:42	1° $\mathbf{\text{Y}}$ 42'00	-0°05'52
direct	6113 Nov 27 10:59	18° $\mathbf{\text{H}}$ 13'17		minimum elong	6119 Mar 22 03:42	1° $\mathbf{\text{Y}}$ 42'00	0°05'52
evening set	6114 Feb 23 18:30	20° $\mathbf{\text{H}}$ 07'46		behind sun begin	6119 Mar 21 21:34	1° $\mathbf{\text{Y}}$ 41'27	
				behind sun end	6119 Mar 22 09:49	1° $\mathbf{\text{Y}}$ 42'33	
conjunction	6114 Mar 11 02:50	20° $\mathbf{\text{H}}$ 42'20	0°09'29	max. Earth dist.	6119 Mar 22 03:56	1° $\mathbf{\text{Y}}$ 42'01	31.11328 AU
minimum elong	6114 Mar 11 02:49	20° $\mathbf{\text{H}}$ 42'20	0°09'30	morning rise	6119 Apr 06 12:18	2° $\mathbf{\text{Y}}$ 16'39	
behind sun begin	6114 Mar 10 21:27	20° $\mathbf{\text{H}}$ 41'50		retrograde	6119 Jul 04 09:18	4° $\mathbf{\text{Y}}$ 12'16	
behind sun end	6114 Mar 11 08:11	20° $\mathbf{\text{H}}$ 42'49		opposition	6119 Sep 22 08:55	2° $\mathbf{\text{Y}}$ 48'52	-0°07'50
max. Earth dist.	6114 Mar 10 22:24	20° $\mathbf{\text{H}}$ 41'56	31.17136 AU	min. Earth dist.	6119 Sep 22 08:15	2° $\mathbf{\text{Y}}$ 48'55	29.10845 AU
morning rise	6114 Mar 26 11:07	21° $\mathbf{\text{H}}$ 16'53		direct	6119 Dec 11 06:35	1° $\mathbf{\text{Y}}$ 25'17	
retrograde	6114 Jun 22 21:34	23° $\mathbf{\text{H}}$ 11'53		evening set	6120 Mar 08 05:12	3° $\mathbf{\text{Y}}$ 19'28	
opposition	6114 Sep 10 16:05	21° $\mathbf{\text{H}}$ 48'55	0°08'28				
min. Earth dist.	6114 Sep 10 19:16	21° $\mathbf{\text{H}}$ 48'42	29.16579 AU	conjunction	6120 Mar 23 13:29	3° $\mathbf{\text{Y}}$ 54'04	-0°08'53
direct	6114 Nov 29 20:45	20° $\mathbf{\text{H}}$ 25'18		minimum elong	6120 Mar 23 13:29	3° $\mathbf{\text{Y}}$ 54'04	0°08'53
evening set	6115 Feb 26 04:14	22° $\mathbf{\text{H}}$ 19'44		behind sun begin	6120 Mar 23 07:58	3° $\mathbf{\text{Y}}$ 53'34	
				behind sun end	6120 Mar 23 19:01	3° $\mathbf{\text{Y}}$ 54'34	
conjunction	6115 Mar 13 12:40	22° $\mathbf{\text{H}}$ 54'17	0°06'28	max. Earth dist.	6120 Mar 23 15:07	3° $\mathbf{\text{Y}}$ 54'12	31.10380 AU
minimum elong	6115 Mar 13 12:40	22° $\mathbf{\text{H}}$ 54'17	0°06'27	morning rise	6120 Apr 07 22:11	4° $\mathbf{\text{Y}}$ 28'44	
behind sun begin	6115 Mar 13 06:37	22° $\mathbf{\text{H}}$ 53'45		retrograde	6120 Jul 05 22:18	6° $\mathbf{\text{Y}}$ 24'30	
behind sun end	6115 Mar 13 18:42	22° $\mathbf{\text{H}}$ 54'50		opposition	6120 Sep 23 21:51	5° $\mathbf{\text{Y}}$ 01'03	-0°11'05
max. Earth dist.	6115 Mar 13 09:54	22° $\mathbf{\text{H}}$ 54'04	31.15989 AU	min. Earth dist.	6120 Sep 23 19:18	5° $\mathbf{\text{Y}}$ 01'13	29.09930 AU
morning rise	6115 Mar 28 20:51	23° $\mathbf{\text{H}}$ 28'52		direct	6120 Dec 12 19:59	3° $\mathbf{\text{Y}}$ 37'31	
retrograde	6115 Jun 25 07:54	25° $\mathbf{\text{H}}$ 23'59		evening set	6121 Mar 10 15:11	5° $\mathbf{\text{Y}}$ 31'41	
opposition	6115 Sep 13 05:08	24° $\mathbf{\text{H}}$ 00'56	0°05'13				
min. Earth dist.	6115 Sep 13 07:59	24° $\mathbf{\text{H}}$ 00'44	29.15380 AU	conjunction	6121 Mar 25 23:21	6° $\mathbf{\text{Y}}$ 06'18	-0°11'55
direct	6115 Dec 02 08:31	22° $\mathbf{\text{H}}$ 37'18		minimum elong	6121 Mar 25 23:21	6° $\mathbf{\text{Y}}$ 06'18	0°11'55
evening set	6116 Feb 28 14:08	24° $\mathbf{\text{H}}$ 31'40		behind sun begin	6121 Mar 25 18:51	6° $\mathbf{\text{Y}}$ 05'53	
				behind sun end	6121 Mar 26 03:51	6° $\mathbf{\text{Y}}$ 06'42	
conjunction	6116 Mar 14 22:22	25° $\mathbf{\text{H}}$ 06'14	0°03'25	max. Earth dist.	6121 Mar 26 01:13	6° $\mathbf{\text{Y}}$ 06'28	31.09496 AU
minimum elong	6116 Mar 14 22:23	25° $\mathbf{\text{H}}$ 06'14	0°03'26	morning rise	6121 Apr 10 08:16	6° $\mathbf{\text{Y}}$ 40'59	
behind sun begin	6116 Mar 14 16:02	25° $\mathbf{\text{H}}$ 05'39		retrograde	6121 Jul 08 10:26	8° $\mathbf{\text{Y}}$ 36'54	
behind sun end	6116 Mar 15 04:45	25° $\mathbf{\text{H}}$ 06'48		opposition	6121 Sep 26 10:48	7° $\mathbf{\text{Y}}$ 13'24	-0°14'19
max. Earth dist.	6116 Mar 14 19:29	25° $\mathbf{\text{H}}$ 06'00	31.14773 AU	min. Earth dist.	6121 Sep 26 08:13	7° $\mathbf{\text{Y}}$ 13'35	29.09081 AU
morning rise	6116 Mar 30 06:49	25° $\mathbf{\text{H}}$ 40'49		direct	6121 Dec 15 06:40	5° $\mathbf{\text{Y}}$ 49'55	
retrograde	6116 Jun 26 20:59	27° $\mathbf{\text{H}}$ 36'03		evening set	6122 Mar 13 01:04	7° $\mathbf{\text{Y}}$ 44'04	
opposition	6116 Sep 14 17:57	26° $\mathbf{\text{H}}$ 12'54	0°01'57				
min. Earth dist.	6116 Sep 14 19:29	26° $\mathbf{\text{H}}$ 12'48	29.14159 AU	conjunction	6122 Mar 28 09:24	8° $\mathbf{\text{Y}}$ 18'42	-0°14'55
direct	6116 Dec 03 19:30	24° $\mathbf{\text{H}}$ 49'16		minimum elong	6122 Mar 28 09:24	8° $\mathbf{\text{Y}}$ 18'42	0°14'55
evening set	6117 Mar 01 23:52	26° $\mathbf{\text{H}}$ 43'34		behind sun begin	6122 Mar 28 06:48	8° $\mathbf{\text{Y}}$ 18'28	
				behind sun end	6122 Mar 28 12:01	8° $\mathbf{\text{Y}}$ 18'56	
conjunction	6117 Mar 17 08:13	27° $\mathbf{\text{H}}$ 18'08	0°00'19	max. Earth dist.	6122 Mar 28 13:00	8° $\mathbf{\text{Y}}$ 19'02	31.08665 AU
minimum elong	6117 Mar 17 08:12	27° $\mathbf{\text{H}}$ 18'08	0°00'18	morning rise	6122 Apr 12 18:18	8° $\mathbf{\text{Y}}$ 53'25	
behind sun begin	6117 Mar 17 01:50	27° $\mathbf{\text{H}}$ 17'34		retrograde	6122 Jul 10 20:48	10° $\mathbf{\text{Y}}$ 49'28	
behind sun end	6117 Mar 17 14:34	27° $\mathbf{\text{H}}$ 18'43		opposition	6122 Sep 28 23:54	9° $\mathbf{\text{Y}}$ 25'57	-0°17'32
max. Earth dist.	6117 Mar 17 06:52	27° $\mathbf{\text{H}}$ 18'05	31.13548 AU	min. Earth dist.	6122 Sep 28 20:01	9° $\mathbf{\text{Y}}$ 26'13	29.08250 AU
morning rise	6117 Apr 01 16:36	27° $\mathbf{\text{H}}$ 52'45		direct	6122 Dec 17 19:25	8° $\mathbf{\text{Y}}$ 02'31	
desc. node	6117 Apr 22 18:10	28° $\mathbf{\text{H}}$ 36'50		evening set	6123 Mar 15 11:06	9° $\mathbf{\text{Y}}$ 56'38	
retrograde	6117 Jun 29 08:41	29° $\mathbf{\text{H}}$ 48'06					
opposition	6117 Sep 17 06:57	28° $\mathbf{\text{H}}$ 24'50	-0°01'19	conjunction	6123 Mar 30 19:18	10° $\mathbf{\text{Y}}$ 31'17	-0°17'55
min. Earth dist.	6117 Sep 17 08:23	28° $\mathbf{\text{H}}$ 24'45	29.12960 AU	minimum elong	6123 Mar 30 19:18	10° $\mathbf{\text{Y}}$ 31'17	0°17'56
direct	6117 Dec 06 07:21	27° $\mathbf{\text{H}}$ 01'12		max. Earth dist.	6123 Mar 30 22:36	10° $\mathbf{\text{Y}}$ 31'35	31.07834 AU
evening set	6118 Mar 04 09:40	28° $\mathbf{\text{H}}$ 55'28		morning rise	6123 Apr 15 04:31	11° $\mathbf{\text{Y}}$ 06'02	

retrograde	6123 Jul 13 09:25	13° Υ 02'15	minimum elong	6130 Apr 14 19:41	26° Υ 01'31 0°37'57
opposition	6123 Oct 01 13:07	11° Υ 38'40 -0°20'43	max. Earth dist.	6130 Apr 15 03:30	26° Υ 02'16 30.99983 AU
min. Earth dist.	6123 Oct 01 08:40	11° Υ 38'59 29.07412 AU	morning rise	6130 Apr 30 06:12	26° Υ 36'26
direct	6123 Dec 20 05:40	10° Υ 15'17	retrograde	6130 Jul 29 00:44	28° Υ 33'27
evening set	6124 Mar 16 21:10	12° Υ 09'23	opposition	6130 Oct 17 09:37	27° Υ 09'15 -0°42'00
			min. Earth dist.	6130 Oct 17 01:10	27° Υ 09'50 28.99437 AU
conjunction	6124 Apr 01 05:35	12° Υ 44'03 -0°20'53	direct	6131 Jan 04 15:44	25° Υ 45'49
minimum elong	6124 Apr 01 05:34	12° Υ 44'03 0°20'54	evening set	6131 Apr 01 20:59	27° Υ 39'35
max. Earth dist.	6124 Apr 01 10:33	12° Υ 44'30 31.06961 AU			
morning rise	6124 Apr 16 14:46	13° Υ 18'49	conjunction	6131 Apr 17 06:05	28° Υ 14'20 -0°40'37
retrograde	6124 Jul 14 20:30	15° Υ 15'10	minimum elong	6131 Apr 17 06:05	28° Υ 14'20 0°40'38
opposition	6124 Oct 03 02:13	13° Υ 51'33 -0°23'53	max. Earth dist.	6131 Apr 17 15:50	28° Υ 15'15 30.98880 AU
min. Earth dist.	6124 Oct 02 21:31	13° Υ 51'53 29.06501 AU	morning rise	6131 May 02 16:42	28° Υ 49'16
direct	6124 Dec 21 17:36	12° Υ 28'12		6131 Jun 07 11:40	0° \mathcal{B}
evening set	6125 Mar 19 07:29	14° Υ 22'16	retrograde	6131 Jul 31 12:03	0° \mathcal{B} 46'24
				6131 Sep 26 00:40	30° $\mathcal{R}\Upsilon$
conjunction	6125 Apr 03 15:49	14° Υ 56'56 -0°23'50	opposition	6131 Oct 19 22:44	29° Υ 22'09 -0°44'49
minimum elong	6125 Apr 03 15:49	14° Υ 56'56 0°23'51	min. Earth dist.	6131 Oct 19 12:44	29° Υ 22'50 28.98395 AU
max. Earth dist.	6125 Apr 03 20:24	14° Υ 57'22 31.06008 AU	direct	6132 Jan 07 04:56	27° Υ 58'44
morning rise	6125 Apr 19 01:20	15° Υ 31'44	evening set	6132 Apr 03 07:26	29° Υ 52'28
retrograde	6125 Jul 17 09:30	17° Υ 28'14		6132 Apr 06 16:29	0° \mathcal{B}
opposition	6125 Oct 05 15:27	16° Υ 04'33 -0°27'01			
min. Earth dist.	6125 Oct 05 09:44	16° Υ 04'56 29.05495 AU	conjunction	6132 Apr 18 16:31	0° \mathcal{B} 27'14 -0°43'13
direct	6125 Dec 24 04:18	14° Υ 41'12	minimum elong	6132 Apr 18 16:31	0° \mathcal{B} 27'14 0°43'14
evening set	6126 Mar 21 17:42	16° Υ 35'14	max. Earth dist.	6132 Apr 19 02:06	0° \mathcal{B} 28'09 30.97906 AU
			morning rise	6132 May 04 03:33	1° \mathcal{B} 02'12
conjunction	6126 Apr 06 02:11	17° Υ 09'55 -0°26'44	retrograde	6132 Aug 02 01:18	2° \mathcal{B} 59'27
minimum elong	6126 Apr 06 02:11	17° Υ 09'55 0°26'45	opposition	6132 Oct 21 11:44	1° \mathcal{B} 35'09 -0°47'35
max. Earth dist.	6126 Apr 06 07:52	17° Υ 10'27 31.04929 AU	min. Earth dist.	6132 Oct 21 01:01	1° \mathcal{B} 35'53 28.97495 AU
morning rise	6126 Apr 21 11:45	17° Υ 44'44	direct	6133 Jan 08 15:30	0° \mathcal{B} 11'46
retrograde	6126 Jul 19 21:05	19° Υ 41'22	evening set	6133 Apr 05 17:46	2° \mathcal{B} 05'29
opposition	6126 Oct 08 04:50	18° Υ 17'35 -0°30'07			
min. Earth dist.	6126 Oct 07 23:26	18° Υ 17'58 29.04359 AU	conjunction	6133 Apr 21 03:10	2° \mathcal{B} 40'17 -0°45'47
direct	6126 Dec 26 15:37	16° Υ 54'15	minimum elong	6133 Apr 21 03:10	2° \mathcal{B} 40'17 0°45'48
evening set	6127 Mar 24 04:02	18° Υ 48'13	max. Earth dist.	6133 Apr 21 14:41	2° \mathcal{B} 41'23 30.97057 AU
			morning rise	6133 May 06 14:17	3° \mathcal{B} 15'17
conjunction	6127 Apr 08 12:35	19° Υ 22'55 -0°29'36	retrograde	6133 Aug 04 12:39	5° \mathcal{B} 12'41
minimum elong	6127 Apr 08 12:35	19° Υ 22'55 0°29'38	opposition	6133 Oct 24 00:53	3° \mathcal{B} 48'20 -0°50'17
max. Earth dist.	6127 Apr 08 18:25	19° Υ 23'28 31.03749 AU	min. Earth dist.	6133 Oct 23 13:30	3° \mathcal{B} 49'07 28.96698 AU
morning rise	6127 Apr 23 22:25	19° Υ 57'45	direct	6134 Jan 11 03:36	2° \mathcal{B} 25'00
retrograde	6127 Jul 22 10:29	21° Υ 54'29	evening set	6134 Apr 08 04:12	4° \mathcal{B} 18'43
opposition	6127 Oct 10 18:03	20° Υ 30'36 -0°33'10			
min. Earth dist.	6127 Oct 10 11:03	20° Υ 31'05 29.03132 AU	conjunction	6134 Apr 23 13:38	4° \mathcal{B} 53'32 -0°48'16
direct	6127 Dec 29 03:02	19° Υ 07'14	minimum elong	6134 Apr 23 13:38	4° \mathcal{B} 53'32 0°48'17
evening set	6128 Mar 25 14:17	21° Υ 01'09	max. Earth dist.	6134 Apr 24 01:12	4° \mathcal{B} 54'38 30.96315 AU
			morning rise	6134 May 09 01:09	5° \mathcal{B} 28'34
conjunction	6128 Apr 09 22:56	21° Υ 35'51 -0°32'26	retrograde	6134 Aug 07 01:43	7° \mathcal{B} 26'07
minimum elong	6128 Apr 09 22:56	21° Υ 35'51 0°32'27	opposition	6134 Oct 26 14:05	6° \mathcal{B} 01'45 -0°52'54
max. Earth dist.	6128 Apr 10 05:19	21° Υ 36'27 31.02482 AU	min. Earth dist.	6134 Oct 26 01:26	6° \mathcal{B} 02'37 28.95999 AU
morning rise	6128 Apr 25 09:00	22° Υ 10'43	direct	6135 Jan 13 13:55	4° \mathcal{B} 38'28
retrograde	6128 Jul 23 22:58	24° Υ 07'32	evening set	6135 Apr 10 14:45	6° \mathcal{B} 32'12
opposition	6128 Oct 12 07:21	22° Υ 43'33 -0°36'10			
min. Earth dist.	6128 Oct 12 00:46	22° Υ 44'00 29.01853 AU	conjunction	6135 Apr 26 00:27	7° \mathcal{B} 07'02 -0°50'41
direct	6128 Dec 30 15:17	21° Υ 20'09	minimum elong	6135 Apr 26 00:27	7° \mathcal{B} 07'02 0°50'43
evening set	6129 Mar 28 00:31	23° Υ 14'00	max. Earth dist.	6135 Apr 26 13:24	7° \mathcal{B} 08'16 30.95634 AU
			morning rise	6135 May 11 12:09	7° \mathcal{B} 42'06
conjunction	6129 Apr 12 09:21	23° Υ 48'43 -0°35'13	retrograde	6135 Aug 09 13:34	9° \mathcal{B} 39'47
minimum elong	6129 Apr 12 09:21	23° Υ 48'43 0°35'14	opposition	6135 Oct 29 03:20	8° \mathcal{B} 15'25 -0°55'27
max. Earth dist.	6129 Apr 12 16:58	23° Υ 49'26 31.01207 AU	min. Earth dist.	6135 Oct 28 14:52	8° \mathcal{B} 16'16 28.95343 AU
morning rise	6129 Apr 27 19:33	24° Υ 23'36	direct	6136 Jan 16 00:16	6° \mathcal{B} 52'11
retrograde	6129 Jul 26 12:14	26° Υ 20'30	evening set	6136 Apr 12 01:26	8° \mathcal{B} 45'55
opposition	6129 Oct 14 20:20	24° Υ 56'25 -0°39'06			
min. Earth dist.	6129 Oct 14 12:02	24° Υ 56'59 29.00596 AU	conjunction	6136 Apr 27 11:20	9° \mathcal{B} 20'47 -0°53'01
direct	6130 Jan 02 04:42	23° Υ 32'59	minimum elong	6136 Apr 27 11:20	9° \mathcal{B} 20'47 0°53'03
evening set	6130 Mar 30 10:53	25° Υ 26'47	max. Earth dist.	6136 Apr 28 00:33	9° \mathcal{B} 22'02 30.94988 AU
			morning rise	6136 May 12 23:22	9° \mathcal{B} 55'52
conjunction	6130 Apr 14 19:41	26° Υ 01'31 -0°37'56	retrograde	6136 Aug 11 03:42	11° \mathcal{B} 53'43

opposition	6136 Oct 30 16:29	10°829'20 -0°57'55	conjunction	6143 May 13 18:08	25°800'01 -1°07'03
min. Earth dist.	6136 Oct 30 02:33	10°830'17 28.94686 AU	minimum elong	6143 May 13 18:08	25°800'01 1°07'05
direct	6137 Jan 17 10:53	9°806'08	max. Earth dist.	6143 May 14 10:11	25°801'32 30.88853 AU
evening set	6137 Apr 14 12:20	10°859'53	morning rise	6143 May 29 08:28	25°835'18
			retrograde	6143 Aug 28 00:07	27°833'40
conjunction	6137 Apr 29 22:22	11°834'46 -0°55'17	opposition	6143 Nov 16 12:40	26°808'49 -1°12'34
minimum elong	6137 Apr 29 22:21	11°834'46 0°55'19	min. Earth dist.	6143 Nov 15 20:01	26°809'58 28.88511 AU
max. Earth dist.	6137 Apr 30 11:52	11°836'03 30.94295 AU	direct	6144 Feb 03 00:53	24°845'30
morning rise	6137 May 15 10:40	12°809'54	evening set	6144 Apr 29 17:41	26°839'03
retrograde	6137 Aug 13 17:02	14°807'52			
opposition	6137 Nov 02 05:46	12°843'27 -1°00'18	conjunction	6144 May 15 05:38	27°814'05 -1°08'40
min. Earth dist.	6137 Nov 01 16:32	12°844'21 28.93968 AU	minimum elong	6144 May 15 05:37	27°814'05 1°08'42
direct	6138 Jan 19 22:41	11°820'17	max. Earth dist.	6144 May 15 22:58	27°815'44 30.88081 AU
evening set	6138 Apr 16 23:18	13°814'03	morning rise	6144 May 30 20:15	27°849'24
			retrograde	6144 Aug 29 11:45	29°847'50
conjunction	6138 May 02 09:38	13°848'57 -0°57'28	min. Earth dist.	6144 Nov 17 09:10	28°824'04 28.87806 AU
minimum elong	6138 May 02 09:38	13°848'57 0°57'30	opposition	6144 Nov 18 01:43	28°822'55 -1°14'15
max. Earth dist.	6138 May 02 23:57	13°850'19 30.93537 AU	direct	6145 Feb 04 12:05	26°859'36
morning rise	6138 May 17 22:09	14°824'06	evening set	6145 May 02 04:51	28°853'08
	6138 Jun 03 17:55	15°8			
retrograde	6138 Aug 16 07:34	16°822'10	conjunction	6145 May 17 17:05	29°828'11 -1°10'11
	6138 Nov 03 09:45	15°88	minimum elong	6145 May 17 17:05	29°828'11 1°10'13
opposition	6138 Nov 04 19:01	14°857'43 -1°02'35	max. Earth dist.	6145 May 18 10:47	29°829'52 30.87446 AU
min. Earth dist.	6138 Nov 04 04:29	14°858'43 28.93158 AU		6145 May 31 18:08	0°II
direct	6139 Jan 22 11:33	13°834'34	morning rise	6145 Jun 02 08:04	0°II03'31
	6139 Apr 06 06:33	15°8	retrograde	6145 Sep 01 01:16	2°II02'01
evening set	6139 Apr 19 10:20	15°828'18	opposition	6145 Nov 20 14:35	0°II37'05 -1°15'50
			min. Earth dist.	6145 Nov 19 20:27	0°II38'20 28.87235 AU
conjunction	6139 May 04 20:47	16°803'14 -0°59'34		6145 Dec 13 18:17	30°R8
minimum elong	6139 May 04 20:46	16°803'14 0°59'36	direct	6146 Feb 06 23:16	29°813'46
max. Earth dist.	6139 May 05 10:39	16°804'33 30.92670 AU		6146 Mar 31 18:08	0°II
morning rise	6139 May 20 09:45	16°838'25	evening set	6146 May 04 16:10	1°II07'17
retrograde	6139 Aug 18 20:50	18°836'35			
opposition	6139 Nov 07 08:23	17°812'03 -1°04'47	conjunction	6146 May 20 04:40	1°II42'22 -1°11'36
min. Earth dist.	6139 Nov 06 18:27	17°813'01 28.92248 AU	minimum elong	6146 May 20 04:40	1°II42'22 1°11'38
direct	6140 Jan 24 22:34	15°848'53	max. Earth dist.	6146 May 20 22:53	1°II44'06 30.86927 AU
evening set	6140 Apr 20 21:21	17°842'35	morning rise	6146 Jun 04 20:04	2°II17'45
			retrograde	6146 Sep 03 13:41	4°II16'19
conjunction	6140 May 06 08:15	18°817'32 -1°01'35	min. Earth dist.	6146 Nov 22 09:59	2°II52'35 28.86780 AU
minimum elong	6140 May 06 08:14	18°817'32 1°01'36	opposition	6146 Nov 23 03:41	2°II51'21 -1°17'17
max. Earth dist.	6140 May 06 23:22	18°818'58 30.91716 AU	direct	6147 Feb 09 10:05	1°II28'04
morning rise	6140 May 21 21:25	18°852'44	evening set	6147 May 07 03:25	3°II21'35
retrograde	6140 Aug 20 09:44	20°850'57			
opposition	6140 Nov 08 21:23	19°826'21 -1°06'53	conjunction	6147 May 22 16:23	3°II56'42 -1°12'55
min. Earth dist.	6140 Nov 08 06:34	19°827'22 28.91258 AU	minimum elong	6147 May 22 16:23	3°II56'42 1°12'57
direct	6141 Jan 26 12:40	18°803'08	max. Earth dist.	6147 May 23 11:38	3°II58'32 30.86524 AU
evening set	6141 Apr 23 08:30	19°856'48	morning rise	6147 Jun 07 08:06	4°II32'06
			retrograde	6147 Sep 06 03:40	6°II30'45
conjunction	6141 May 08 19:29	20°831'47 -1°03'30	opposition	6147 Nov 25 16:35	5°II05'47 -1°18'37
minimum elong	6141 May 08 19:29	20°831'47 1°03'32	min. Earth dist.	6147 Nov 24 21:31	5°II07'06 28.86406 AU
max. Earth dist.	6141 May 09 09:58	20°833'09 30.90716 AU	direct	6148 Feb 11 21:56	3°II42'31
morning rise	6141 May 24 09:10	21°807'00	evening set	6148 May 08 15:03	5°II36'04
retrograde	6141 Aug 23 00:11	23°805'16			
opposition	6141 Nov 11 10:34	21°840'34 -1°08'53	conjunction	6148 May 24 04:13	6°II11'13 -1°14'06
min. Earth dist.	6141 Nov 10 19:30	21°841'36 28.90271 AU	minimum elong	6148 May 24 04:13	6°II11'12 1°14'08
direct	6142 Jan 29 00:44	20°817'19	max. Earth dist.	6148 May 24 23:06	6°II13'00 30.86169 AU
evening set	6142 Apr 25 19:23	22°810'56	morning rise	6148 Jun 08 20:27	6°II46'38
			retrograde	6148 Sep 07 17:36	8°II45'23
conjunction	6142 May 11 06:47	22°845'56 -1°05'19	min. Earth dist.	6148 Nov 26 11:09	7°II21'41 28.86072 AU
minimum elong	6142 May 11 06:47	22°845'56 1°05'21	opposition	6148 Nov 27 05:30	7°II20'25 -1°19'50
max. Earth dist.	6142 May 11 22:58	22°847'28 30.89739 AU	direct	6149 Feb 13 08:17	5°II57'10
morning rise	6142 May 26 20:38	23°821'11	evening set	6149 May 11 02:40	7°II50'45
retrograde	6142 Aug 25 11:11	25°819'30			
opposition	6142 Nov 13 23:43	23°854'43 -1°10'47	conjunction	6149 May 26 16:20	8°II25'55 -1°15'11
min. Earth dist.	6142 Nov 13 08:06	23°855'48 28.89331 AU	minimum elong	6149 May 26 16:20	8°II25'55 1°15'13
direct	6143 Jan 31 13:41	22°831'26	max. Earth dist.	6149 May 27 12:25	8°II27'50 30.85830 AU
evening set	6143 Apr 28 06:34	24°825'00	morning rise	6149 Jun 11 08:47	9°II01'23

retrograde	6149 Sep 10 07:45	11°II00'11		minimum elong	6156 Jun 11 06:38	24°II10'55	1°19'32
opposition	6149 Nov 29 18:27	9°II35'14	-1°20'56	max. Earth dist.	6156 Jun 12 03:13	24°II12'52	30.81882 AU
min. Earth dist.	6149 Nov 28 23:22	9°II36'33	28.85711 AU	morning rise	6156 Jun 27 02:05	24°II46'35	
direct	6150 Feb 15 21:52	8°II12'01		retrograde	6156 Sep 26 03:35	26°II45'30	
evening set	6150 May 13 14:28	10°II05'38		opposition	6156 Dec 15 11:46	25°II20'18	-1°25'06
				min. Earth dist.	6156 Dec 14 15:53	25°II21'41	28.81741 AU
conjunction	6150 May 29 04:19	10°II40'49	-1°16'09	direct	6157 Mar 03 08:31	23°II56'51	
minimum elong	6150 May 29 04:18	10°II40'49	1°16'11	evening set	6157 May 29 02:21	25°II50'25	
max. Earth dist.	6150 May 29 23:24	10°II42'38	30.85440 AU				
morning rise	6150 Jun 13 21:20	11°II16'19		conjunction	6157 Jun 13 19:04	26°II25'48	-1°19'38
retrograde	6150 Sep 12 23:11	13°II15'12		minimum elong	6157 Jun 13 19:04	26°II25'48	1°19'40
opposition	6150 Dec 02 07:33	11°II50'14	-1°21'54	max. Earth dist.	6157 Jun 14 15:16	26°II27'43	30.81479 AU
min. Earth dist.	6150 Dec 01 12:45	11°II51'32	28.85289 AU	morning rise	6157 Jun 29 15:04	27°II01'29	
direct	6151 Feb 18 09:40	10°II27'01		retrograde	6157 Sep 28 16:46	29°II00'25	
evening set	6151 May 16 02:22	12°II20'38		min. Earth dist.	6157 Dec 17 05:05	27°II36'31	28.81416 AU
				opposition	6157 Dec 18 00:22	27°II35'11	-1°25'11
conjunction	6151 May 31 16:45	12°II55'52	-1°17'00	direct	6158 Mar 05 18:50	26°II11'42	
minimum elong	6151 May 31 16:45	12°II55'52	1°17'02	evening set	6158 May 31 14:14	28°II05'17	
max. Earth dist.	6151 Jun 01 12:48	12°II57'46	30.84957 AU				
morning rise	6151 Jun 16 10:02	13°II31'24		conjunction	6158 Jun 16 07:35	28°II40'41	-1°19'39
retrograde	6151 Sep 15 11:23	15°II30'18		minimum elong	6158 Jun 16 07:35	28°II40'41	1°19'41
opposition	6151 Dec 04 20:26	14°II05'19	-1°22'45	max. Earth dist.	6158 Jun 17 05:07	28°II42'44	30.81226 AU
min. Earth dist.	6151 Dec 04 01:45	14°II06'37	28.84748 AU	morning rise	6158 Jul 02 03:53	29°II16'25	
direct	6152 Feb 20 22:35	12°II42'06			6158 Jul 22 22:22	0°☾	
evening set	6152 May 17 14:24	14°II35'43		retrograde	6158 Oct 01 06:25	1°☾15'20	
					6158 Dec 14 14:26	30°☿II	
conjunction	6152 Jun 02 05:06	15°II10'58	-1°17'44	opposition	6158 Dec 20 12:47	29°II50'05	-1°25'08
minimum elong	6152 Jun 02 05:06	15°II10'58	1°17'47	min. Earth dist.	6158 Dec 19 16:35	29°II51'30	28.81226 AU
max. Earth dist.	6152 Jun 03 00:10	15°II12'47	30.84374 AU	direct	6159 Mar 08 08:13	28°II26'37	
morning rise	6152 Jun 17 22:57	15°II46'32			6159 May 24 18:36	0°☾	
retrograde	6152 Sep 17 01:41	17°II45'27		evening set	6159 Jun 03 02:33	0°☾20'12	
opposition	6152 Dec 06 09:19	16°II20'26	-1°23'29				
min. Earth dist.	6152 Dec 05 14:22	16°II21'45	28.84121 AU	conjunction	6159 Jun 18 20:11	0°☾55'39	-1°19'33
direct	6153 Feb 22 10:34	14°II57'10		minimum elong	6159 Jun 18 20:11	0°☾55'39	1°19'35
evening set	6153 May 20 02:17	16°II50'46		max. Earth dist.	6159 Jun 19 16:50	0°☾57'36	30.81106 AU
				morning rise	6159 Jul 04 17:07	1°☾31'23	
conjunction	6153 Jun 04 17:25	17°II26'03	-1°18'21	retrograde	6159 Oct 03 21:10	3°☾30'19	
minimum elong	6153 Jun 04 17:25	17°II26'03	1°18'24	min. Earth dist.	6159 Dec 22 05:10	2°☾06'28	28.81171 AU
max. Earth dist.	6153 Jun 05 13:15	17°II27'56	30.83704 AU	opposition	6159 Dec 23 01:07	2°☾05'05	-1°24'57
morning rise	6153 Jun 20 11:35	18°II01'38		direct	6160 Mar 09 19:19	0°☾41'35	
retrograde	6153 Sep 19 13:54	20°II00'35		evening set	6160 Jun 04 14:48	2°☾35'13	
opposition	6153 Dec 08 22:09	18°II35'30	-1°24'04				
min. Earth dist.	6153 Dec 08 03:50	18°II36'46	28.83438 AU	conjunction	6160 Jun 20 09:02	3°☾10'41	-1°19'19
direct	6154 Feb 24 22:33	17°II12'11		minimum elong	6160 Jun 20 09:02	3°☾10'41	1°19'22
evening set	6154 May 22 14:13	19°II05'46		max. Earth dist.	6160 Jun 21 06:53	3°☾12'45	30.81097 AU
				morning rise	6160 Jul 06 06:15	3°☾46'28	
conjunction	6154 Jun 07 05:46	19°II41'04	-1°18'51	retrograde	6160 Oct 05 09:58	5°☾45'23	
minimum elong	6154 Jun 07 05:46	19°II41'04	1°18'54	opposition	6160 Dec 24 13:29	4°☾20'10	-1°24'39
max. Earth dist.	6154 Jun 08 01:26	19°II42'56	30.83035 AU	min. Earth dist.	6160 Dec 23 17:29	4°☾21'34	28.81195 AU
morning rise	6154 Jun 23 00:24	20°II16'41		direct	6161 Mar 12 07:39	2°☾56'41	
retrograde	6154 Sep 22 03:05	22°II15'37		evening set	6161 Jun 07 03:11	4°☾50'21	
opposition	6154 Dec 11 10:47	20°II50'29	-1°24'33				
min. Earth dist.	6154 Dec 10 15:24	20°II51'50	28.82788 AU	conjunction	6161 Jun 22 21:44	5°☾25'50	-1°18'58
direct	6155 Feb 27 10:22	19°II27'07		minimum elong	6161 Jun 22 21:44	5°☾25'50	1°19'00
evening set	6155 May 25 02:13	21°II20'41		max. Earth dist.	6161 Jun 23 18:41	5°☾27'49	30.81156 AU
				morning rise	6161 Jul 08 19:30	6°☾01'39	
conjunction	6155 Jun 09 18:08	21°II56'01	-1°19'14	retrograde	6161 Oct 08 01:37	8°☾00'33	
minimum elong	6155 Jun 09 18:08	21°II56'01	1°19'16	min. Earth dist.	6161 Dec 26 05:41	6°☾36'47	28.81269 AU
max. Earth dist.	6155 Jun 10 14:00	21°II57'54	30.82406 AU	opposition	6161 Dec 27 01:51	6°☾35'22	-1°24'12
morning rise	6155 Jun 25 13:15	22°II31'40		direct	6162 Mar 14 20:05	5°☾11'54	
retrograde	6155 Sep 24 14:25	24°II30'36		evening set	6162 Jun 09 15:44	7°☾05'35	
opposition	6155 Dec 13 23:28	23°II05'25	-1°24'53				
min. Earth dist.	6155 Dec 13 04:49	23°II06'43	28.82208 AU	conjunction	6162 Jun 25 10:48	7°☾41'07	-1°18'30
direct	6156 Feb 29 21:16	21°II42'00		minimum elong	6162 Jun 25 10:48	7°☾41'07	1°18'32
evening set	6156 May 26 14:12	23°II35'34		max. Earth dist.	6162 Jun 26 08:21	7°☾43'09	30.81218 AU
				morning rise	6162 Jul 11 08:55	8°☾16'57	
conjunction	6156 Jun 11 06:39	24°II10'55	-1°19'30	retrograde	6162 Oct 10 14:28	10°☾15'51	

opposition	6162 Dec 29 14:13	8°  50'40	-1°23'38	max. Earth dist.	6169 Jul 12 03:12	23°  28'42	30.80680 AU
min. Earth dist.	6162 Dec 28 19:02	8°  52'01	28.81315 AU	morning rise	6169 Jul 27 08:19	24°  02'48	
direct	6163 Mar 17 08:27	7°  27'12		retrograde	6169 Oct 26 08:05	26°  01'14	
evening set	6163 Jun 12 04:25	9°  20'53		min. Earth dist.	6170 Jan 13 08:37	24°  37'14	28.80820 AU
				opposition	6170 Jan 14 02:29	24°  35'59	-1°16'11
conjunction	6163 Jun 27 23:58	9°  56'27	-1°17'54	direct	6170 Apr 01 18:29	23°  12'08	
minimum elong	6163 Jun 27 23:58	9°  56'27	1°17'56	evening set	6170 Jun 27 21:42	25°  05'52	
max. Earth dist.	6163 Jun 28 20:41	9°  58'25	30.81241 AU				
morning rise	6163 Jul 13 22:35	10°  32'19		conjunction	6170 Jul 13 20:27	25°  41'35	-1°10'33
retrograde	6163 Oct 13 04:25	12°  31'10		minimum elong	6170 Jul 13 20:27	25°  41'35	1°10'35
min. Earth dist.	6163 Dec 31 06:50	11°  07'23	28.81293 AU	max. Earth dist.	6170 Jul 14 15:23	25°  43'22	30.80876 AU
opposition	6164 Jan 01 02:30	11°  06'01	-1°22'56	morning rise	6170 Jul 29 22:06	26°  17'34	
direct	6164 Mar 18 20:42	9°  42'30		retrograde	6170 Oct 28 23:24	28°  15'57	
evening set	6164 Jun 13 17:15	11°  36'12		opposition	6171 Jan 16 14:07	26°  50'43	-1°14'38
				min. Earth dist.	6171 Jan 15 20:03	26°  51'59	28.81096 AU
conjunction	6164 Jun 29 13:12	12°  11'47	-1°17'11	direct	6171 Apr 04 06:44	25°  26'51	
minimum elong	6164 Jun 29 13:12	12°  11'47	1°17'13	evening set	6171 Jun 30 10:31	27°  20'36	
max. Earth dist.	6164 Jun 30 09:26	12°  13'42	30.81164 AU				
morning rise	6164 Jul 15 12:14	12°  47'40		conjunction	6171 Jul 16 09:50	27°  56'22	-1°09'03
retrograde	6164 Oct 14 16:11	14°  46'29		minimum elong	6171 Jul 16 09:50	27°  56'22	1°09'05
opposition	6165 Jan 02 14:46	13°  21'18	-1°22'06	max. Earth dist.	6171 Jul 17 05:31	27°  58'13	30.81221 AU
min. Earth dist.	6165 Jan 01 20:28	13°  22'35	28.81175 AU	morning rise	6171 Aug 01 11:47	28°  32'22	
direct	6165 Mar 21 07:51	11°  57'45			6171 Sep 17 19:23	0° 	
evening set	6165 Jun 16 05:57	13°  51'27		retrograde	6171 Oct 31 11:44	0°  130'41	
					6171 Dec 14 23:56	30°  R 	
conjunction	6165 Jul 02 02:28	14°  27'03	-1°16'22	min. Earth dist.	6172 Jan 18 08:30	29°  06'43	28.81509 AU
minimum elong	6165 Jul 02 02:28	14°  27'03	1°16'24	opposition	6172 Jan 19 01:49	29°  05'30	-1°12'59
max. Earth dist.	6165 Jul 02 22:40	14°  28'58	30.81026 AU	direct	6172 Apr 05 19:00	27°  41'38	
morning rise	6165 Jul 18 01:53	15°  02'57		evening set	6172 Jul 01 23:28	29°  35'27	
retrograde	6165 Oct 17 05:43	17°  01'41			6172 Jul 12 23:56	0° 	
min. Earth dist.	6166 Jan 04 07:52	15°  37'49	28.81007 AU				
opposition	6166 Jan 05 02:53	15°  36'29	-1°21'10	conjunction	6172 Jul 17 23:11	0°  11'13	-1°07'27
direct	6166 Mar 23 19:46	14°  12'52		minimum elong	6172 Jul 17 23:11	0°  11'13	1°07'29
evening set	6166 Jun 18 18:39	16°  06'33		max. Earth dist.	6172 Jul 18 18:12	0°  13'00	30.81713 AU
				morning rise	6172 Aug 03 01:35	0°  47'15	
conjunction	6166 Jul 04 15:32	16°  42'11	-1°15'25	retrograde	6172 Nov 02 02:02	2°  145'30	
minimum elong	6166 Jul 04 15:32	16°  42'11	1°15'28	opposition	6173 Jan 20 13:20	1°  120'23	-1°11'13
max. Earth dist.	6166 Jul 05 10:53	16°  44'00	30.80850 AU	min. Earth dist.	6173 Jan 19 19:24	1°  21'39	28.82056 AU
morning rise	6166 Jul 20 15:31	17°  18'06			6173 Mar 25 01:18	30°  R 	
retrograde	6166 Oct 19 17:37	19°  16'46		direct	6173 Apr 08 06:56	29°  56'33	
opposition	6167 Jan 07 15:02	17°  51'32	-1°20'06		6173 Apr 22 07:37	0° 	
min. Earth dist.	6167 Jan 06 21:15	17°  52'47	28.80841 AU	evening set	6173 Jul 04 12:31	1°  150'24	
direct	6167 Mar 26 06:29	16°  27'50					
evening set	6167 Jun 21 07:23	18°  21'31		conjunction	6173 Jul 20 12:38	2°  126'12	-1°05'45
				minimum elong	6173 Jul 20 12:39	2°  126'12	1°05'46
conjunction	6167 Jul 07 04:54	18°  57'10	-1°14'22	max. Earth dist.	6173 Jul 21 07:32	2°  127'59	30.82305 AU
minimum elong	6167 Jul 07 04:54	18°  57'10	1°14'24	morning rise	6173 Aug 05 15:24	3°  102'16	
max. Earth dist.	6167 Jul 08 01:00	18°  59'04	30.80706 AU	retrograde	6173 Nov 04 14:44	5°  100'28	
morning rise	6167 Jul 23 05:11	19°  33'07		min. Earth dist.	6174 Jan 22 08:23	3°  136'35	28.82685 AU
retrograde	6167 Oct 22 05:58	21°  31'41		opposition	6174 Jan 23 01:01	3°  135'25	-1°09'20
min. Earth dist.	6168 Jan 09 08:32	20°  07'43	28.80721 AU	direct	6174 Apr 10 17:48	2°  111'36	
opposition	6168 Jan 10 02:47	20°  06'26	-1°18'55	evening set	6174 Jul 07 01:33	4°  105'30	
direct	6168 Mar 27 19:22	18°  42'41					
evening set	6168 Jun 22 20:15	20°  36'22		conjunction	6174 Jul 23 02:14	4°  141'21	-1°03'56
				minimum elong	6174 Jul 23 02:14	4°  141'21	1°03'58
conjunction	6168 Jul 08 18:04	21°  12'03	-1°13'12	max. Earth dist.	6174 Jul 23 20:53	4°  143'06	30.82962 AU
minimum elong	6168 Jul 08 18:04	21°  12'03	1°13'15	morning rise	6174 Aug 08 05:20	5°  117'25	
max. Earth dist.	6168 Jul 09 12:57	21°  13'49	30.80633 AU	retrograde	6174 Nov 07 04:59	7°  115'33	
morning rise	6168 Jul 24 18:55	21°  48'00		opposition	6175 Jan 25 12:33	5°  150'35	-1°07'20
retrograde	6168 Oct 23 19:38	23°  46'30		min. Earth dist.	6175 Jan 24 19:29	5°  151'48	28.83329 AU
opposition	6169 Jan 11 14:41	22°  21'14	-1°17'36	direct	6175 Apr 13 05:25	4°  126'47	
min. Earth dist.	6169 Jan 10 20:55	22°  22'29	28.80710 AU	evening set	6175 Jul 09 15:01	6°  120'45	
direct	6169 Mar 30 06:04	20°  57'25					
evening set	6169 Jun 25 08:49	22°  51'08		conjunction	6175 Jul 25 15:59	6°  156'36	-1°02'02
				minimum elong	6175 Jul 25 16:00	6°  156'36	1°02'03
conjunction	6169 Jul 11 07:14	23°  26'50	-1°11'56	max. Earth dist.	6175 Jul 26 09:23	6°  158'14	30.83583 AU
minimum elong	6169 Jul 11 07:14	23°  26'50	1°11'57	morning rise	6175 Aug 10 19:32	7°  132'42	

retrograde	6175 Nov 09 16:15	9°Ω30'46		evening set	6182 Jul 25 12:27	22°Ω05'11	
min. Earth dist.	6176 Jan 27 08:43	8°Ω06'57	28.83923 AU				
opposition	6176 Jan 28 00:07	8°Ω05'52	-1°05'15	conjunction	6182 Aug 10 16:16	22°Ω41'08	-0°46'16
direct	6176 Apr 14 15:53	6°Ω42'03		minimum elong	6182 Aug 10 16:16	22°Ω41'08	0°46'18
evening set	6176 Jul 11 04:22	8°Ω36'03		max. Earth dist.	6182 Aug 11 05:44	22°Ω42'23	30.86753 AU
				morning rise	6182 Aug 26 21:53	23°Ω17'15	
conjunction	6176 Jul 27 05:55	9°Ω11'55	-1°00'02	retrograde	6182 Nov 25 08:51	25°Ω14'26	
minimum elong	6176 Jul 27 05:55	9°Ω11'55	1°00'04	opposition	6183 Feb 12 07:07	23°Ω49'37	-0°48'06
max. Earth dist.	6176 Jul 27 23:23	9°Ω13'33	30.84138 AU	min. Earth dist.	6183 Feb 11 19:38	23°Ω50'26	28.87110 AU
morning rise	6176 Aug 12 09:39	9°Ω48'01		direct	6183 May 01 04:25	22°Ω25'25	
retrograde	6176 Nov 11 04:20	11°Ω46'00		evening set	6183 Jul 28 01:49	24°Ω19'28	
opposition	6177 Jan 29 11:39	10°Ω21'08	-1°03'04				
min. Earth dist.	6177 Jan 28 20:16	10°Ω22'13	28.84421 AU	conjunction	6183 Aug 13 06:02	24°Ω55'26	-0°43'43
direct	6177 Apr 17 04:10	8°Ω57'17		minimum elong	6183 Aug 13 06:02	24°Ω55'26	0°43'44
evening set	6177 Jul 13 17:43	10°Ω51'18		max. Earth dist.	6183 Aug 13 19:06	24°Ω56'39	30.87443 AU
				morning rise	6183 Aug 29 11:51	25°Ω31'33	
conjunction	6177 Jul 29 19:31	11°Ω27'12	-0°57'56	retrograde	6183 Nov 27 22:05	27°Ω28'36	
minimum elong	6177 Jul 29 19:32	11°Ω27'12	0°57'57	opposition	6184 Feb 14 17:56	26°Ω03'50	-0°45'20
max. Earth dist.	6177 Jul 30 11:10	11°Ω28'40	30.84598 AU	min. Earth dist.	6184 Feb 14 05:49	26°Ω04'42	28.87857 AU
morning rise	6177 Aug 14 23:46	12°Ω03'18		direct	6184 May 02 17:00	24°Ω39'37	
retrograde	6177 Nov 13 17:26	14°Ω01'11		evening set	6184 Jul 29 15:16	26°Ω33'42	
opposition	6178 Jan 31 23:14	12°Ω36'20	-1°00'47				
min. Earth dist.	6178 Jan 31 08:55	12°Ω37'20	28.84845 AU	conjunction	6184 Aug 14 19:42	27°Ω09'40	-0°41'06
direct	6178 Apr 19 14:16	11°Ω12'25		minimum elong	6184 Aug 14 19:42	27°Ω09'40	0°41'08
evening set	6178 Jul 16 07:03	13°Ω06'27		max. Earth dist.	6184 Aug 15 07:54	27°Ω10'49	30.88256 AU
				morning rise	6184 Aug 31 01:48	27°Ω45'48	
conjunction	6178 Aug 01 09:27	13°Ω42'21	-0°55'45	retrograde	6184 Nov 29 09:27	29°Ω42'45	
minimum elong	6178 Aug 01 09:27	13°Ω42'21	0°55'48	opposition	6185 Feb 16 05:02	28°Ω18'03	-0°42'30
max. Earth dist.	6178 Aug 02 01:27	13°Ω43'51	30.84991 AU	min. Earth dist.	6185 Feb 15 18:11	28°Ω18'49	28.88737 AU
morning rise	6178 Aug 17 13:52	14°Ω18'28		direct	6185 May 05 03:14	26°Ω53'49	
	6178 Sep 06 12:11	15°Ω		evening set	6185 Aug 01 04:27	28°Ω47'57	
retrograde	6178 Nov 16 05:00	16°Ω16'12					
	6179 Jan 29 07:53	15°RΩ		conjunction	6185 Aug 17 09:21	29°Ω23'56	-0°38'25
opposition	6179 Feb 03 10:30	14°Ω51'22	-0°58'24	minimum elong	6185 Aug 17 09:21	29°Ω23'56	0°38'26
min. Earth dist.	6179 Feb 02 20:46	14°Ω52'20	28.85209 AU	max. Earth dist.	6185 Aug 17 21:56	29°Ω25'06	30.89198 AU
direct	6179 Apr 22 03:01	13°Ω27'24		morning rise	6185 Sep 02 15:33	0°R00'04	
	6179 Jul 08 20:18	15°Ω			6185 Sep 02 14:53	0°R	
evening set	6179 Jul 18 20:32	15°Ω21'25		retrograde	6185 Dec 01 21:36	1°R56'54	
				opposition	6186 Feb 18 15:55	0°R32'17	-0°39'36
conjunction	6179 Aug 03 23:12	15°Ω57'20	-0°53'30	min. Earth dist.	6186 Feb 18 04:56	0°R33'04	28.89708 AU
minimum elong	6179 Aug 03 23:13	15°Ω57'20	0°53'31		6186 Mar 10 04:37	30°RΩ	
max. Earth dist.	6179 Aug 04 13:27	15°Ω58'40	30.85360 AU	direct	6186 May 07 15:05	29°Ω08'05	
morning rise	6179 Aug 20 04:06	16°Ω33'27			6186 Jul 03 07:14	0°R	
retrograde	6179 Nov 18 19:02	18°Ω31'03		evening set	6186 Aug 03 18:05	1°R02'16	
opposition	6180 Feb 05 21:46	17°Ω06'13	-0°55'57				
min. Earth dist.	6180 Feb 05 08:21	17°Ω07'09	28.85582 AU	conjunction	6186 Aug 19 23:07	1°R38'16	-0°35'40
direct	6180 Apr 23 15:33	15°Ω42'10		minimum elong	6186 Aug 19 23:07	1°R38'16	0°35'42
evening set	6180 Jul 20 09:49	17°Ω36'12		max. Earth dist.	6186 Aug 20 10:02	1°R39'17	30.90200 AU
				morning rise	6186 Sep 05 05:40	2°R14'24	
conjunction	6180 Aug 05 12:57	18°Ω12'07	-0°51'10	retrograde	6186 Dec 04 10:11	4°R11'09	
minimum elong	6180 Aug 05 12:57	18°Ω12'07	0°51'12	opposition	6187 Feb 21 02:46	2°R46'38	-0°36'38
max. Earth dist.	6180 Aug 06 03:37	18°Ω13'29	30.85740 AU	min. Earth dist.	6187 Feb 20 16:57	2°R47'20	28.90723 AU
morning rise	6180 Aug 21 17:57	18°Ω48'14		direct	6187 May 10 00:31	1°R22'26	
retrograde	6180 Nov 20 06:14	20°Ω45'42		evening set	6187 Aug 06 07:43	3°R16'42	
opposition	6181 Feb 07 08:58	19°Ω20'51	-0°53'25				
min. Earth dist.	6181 Feb 06 20:37	19°Ω21'43	28.85987 AU	conjunction	6187 Aug 22 13:10	3°R52'42	-0°32'53
direct	6181 Apr 26 03:54	17°Ω56'45		minimum elong	6187 Aug 22 13:10	3°R52'42	0°32'53
evening set	6181 Jul 22 23:09	19°Ω50'47		max. Earth dist.	6187 Aug 23 00:15	3°R53'43	30.91200 AU
				morning rise	6187 Sep 07 19:41	4°R28'50	
conjunction	6181 Aug 08 02:36	20°Ω26'43	-0°48'45	retrograde	6187 Dec 06 21:19	6°R25'29	
minimum elong	6181 Aug 08 02:36	20°Ω26'43	0°48'46	opposition	6188 Feb 23 13:40	5°R01'04	-0°33'37
max. Earth dist.	6181 Aug 08 16:13	20°Ω27'59	30.86199 AU	min. Earth dist.	6188 Feb 23 04:38	5°R01'42	28.91688 AU
morning rise	6181 Aug 24 07:59	21°Ω02'50		direct	6188 May 11 12:44	3°R36'52	
retrograde	6181 Nov 22 20:27	23°Ω00'09		evening set	6188 Aug 07 21:26	5°R31'12	
opposition	6182 Feb 09 19:59	21°Ω35'19	-0°50'48				
min. Earth dist.	6182 Feb 09 07:12	21°Ω36'13	28.86494 AU	conjunction	6188 Aug 24 02:57	6°R07'12	-0°30'02
direct	6182 Apr 28 16:28	20°Ω11'08		minimum elong	6188 Aug 24 02:57	6°R07'12	0°30'03

max. Earth dist.	6188 Aug 24 11:53	6° $\mathring{\text{N}}$ 08'02	30.92130 AU	opposition	6195 Mar 10 16:16	20° $\mathring{\text{N}}$ 39'51	-0°11'27
morning rise	6188 Sep 09 09:45	6° $\mathring{\text{N}}$ 43'20		min. Earth dist.	6195 Mar 10 12:24	20° $\mathring{\text{N}}$ 40'07	28.96643 AU
retrograde	6188 Dec 08 10:38	8° $\mathring{\text{N}}$ 39'53		direct	6195 May 28 02:17	19° $\mathring{\text{N}}$ 15'20	
opposition	6189 Feb 25 00:33	7° $\mathring{\text{N}}$ 15'32	-0°30'33	evening set	6195 Aug 24 20:38	21° $\mathring{\text{N}}$ 09'49	
min. Earth dist.	6189 Feb 24 16:08	7° $\mathring{\text{N}}$ 16'08	28.92572 AU				
direct	6189 May 14 00:25	5° $\mathring{\text{N}}$ 51'19		conjunction	6195 Sep 10 03:26	21° $\mathring{\text{N}}$ 45'50	-0°09'14
evening set	6189 Aug 10 11:07	7° $\mathring{\text{N}}$ 45'42		minimum elong	6195 Sep 10 03:26	21° $\mathring{\text{N}}$ 45'50	0°09'14
				behind sun begin	6195 Sep 09 21:54	21° $\mathring{\text{N}}$ 45'21	
conjunction	6189 Aug 26 17:00	8° $\mathring{\text{N}}$ 21'43	-0°27'09	behind sun end	6195 Sep 10 08:57	21° $\mathring{\text{N}}$ 46'20	
minimum elong	6189 Aug 26 17:00	8° $\mathring{\text{N}}$ 21'43	0°27'09	max. Earth dist.	6195 Sep 10 06:30	21° $\mathring{\text{N}}$ 46'06	30.97052 AU
max. Earth dist.	6189 Aug 27 01:51	8° $\mathring{\text{N}}$ 22'32	30.92954 AU	morning rise	6195 Sep 26 10:38	22° $\mathring{\text{N}}$ 21'53	
morning rise	6189 Sep 11 23:46	8° $\mathring{\text{N}}$ 57'50		retrograde	6195 Dec 24 22:38	24° $\mathring{\text{N}}$ 17'25	
retrograde	6189 Dec 10 21:45	10° $\mathring{\text{N}}$ 54'16		opposition	6196 Mar 12 02:44	22° $\mathring{\text{N}}$ 53'18	-0°08'12
opposition	6190 Feb 27 11:26	9° $\mathring{\text{N}}$ 29'58	-0°27'26	min. Earth dist.	6196 Mar 11 23:41	22° $\mathring{\text{N}}$ 53'31	28.97501 AU
min. Earth dist.	6190 Feb 27 04:34	9° $\mathring{\text{N}}$ 30'27	28.93339 AU	direct	6196 May 29 12:00	21° $\mathring{\text{N}}$ 28'45	
direct	6190 May 16 12:12	8° $\mathring{\text{N}}$ 05'43		evening set	6196 Aug 26 09:51	23° $\mathring{\text{N}}$ 23'16	
evening set	6190 Aug 13 00:50	10° $\mathring{\text{N}}$ 00'08					
				conjunction	6196 Sep 11 16:54	23° $\mathring{\text{N}}$ 59'16	-0°06'12
conjunction	6190 Aug 29 06:54	10° $\mathring{\text{N}}$ 36'09	-0°24'13	minimum elong	6196 Sep 11 16:54	23° $\mathring{\text{N}}$ 59'16	0°06'13
minimum elong	6190 Aug 29 06:54	10° $\mathring{\text{N}}$ 36'09	0°24'14	behind sun begin	6196 Sep 11 10:40	23° $\mathring{\text{N}}$ 58'43	
max. Earth dist.	6190 Aug 29 13:59	10° $\mathring{\text{N}}$ 36'48	30.93684 AU	behind sun end	6196 Sep 11 23:08	23° $\mathring{\text{N}}$ 59'49	
morning rise	6190 Sep 14 13:54	11° $\mathring{\text{N}}$ 12'16		max. Earth dist.	6196 Sep 11 20:33	23° $\mathring{\text{N}}$ 59'34	30.97972 AU
retrograde	6190 Dec 13 11:42	13° $\mathring{\text{N}}$ 08'33		morning rise	6196 Sep 27 23:53	24° $\mathring{\text{N}}$ 35'18	
opposition	6191 Mar 01 22:09	11° $\mathring{\text{N}}$ 44'18	-0°24'18	retrograde	6196 Dec 26 08:05	26° $\mathring{\text{N}}$ 30'42	
min. Earth dist.	6191 Mar 01 15:23	11° $\mathring{\text{N}}$ 44'46	28.94019 AU	opposition	6197 Mar 14 13:09	25° $\mathring{\text{N}}$ 06'39	-0°04'56
direct	6191 May 19 01:07	10° $\mathring{\text{N}}$ 20'00		min. Earth dist.	6197 Mar 14 10:25	25° $\mathring{\text{N}}$ 06'50	28.98482 AU
evening set	6191 Aug 15 14:33	12° $\mathring{\text{N}}$ 14'26		direct	6197 Jun 01 00:14	23° $\mathring{\text{N}}$ 42'05	
				evening set	6197 Aug 28 23:21	25° $\mathring{\text{N}}$ 36'38	
conjunction	6191 Aug 31 20:50	12° $\mathring{\text{N}}$ 50'27	-0°21'16				
minimum elong	6191 Aug 31 20:50	12° $\mathring{\text{N}}$ 50'27	0°21'16	conjunction	6197 Sep 14 06:19	26° $\mathring{\text{N}}$ 12'38	-0°03'09
max. Earth dist.	6191 Sep 01 03:17	12° $\mathring{\text{N}}$ 51'03	30.94323 AU	minimum elong	6197 Sep 14 06:18	26° $\mathring{\text{N}}$ 12'38	0°03'09
morning rise	6191 Sep 17 03:49	13° $\mathring{\text{N}}$ 26'33		behind sun begin	6197 Sep 13 23:44	26° $\mathring{\text{N}}$ 12'03	
retrograde	6191 Dec 15 23:41	15° $\mathring{\text{N}}$ 22'42		behind sun end	6197 Sep 14 12:52	26° $\mathring{\text{N}}$ 13'13	
opposition	6192 Mar 03 08:50	13° $\mathring{\text{N}}$ 58'28	-0°21'07	max. Earth dist.	6197 Sep 14 08:16	26° $\mathring{\text{N}}$ 12'45	30.99028 AU
min. Earth dist.	6192 Mar 03 03:50	13° $\mathring{\text{N}}$ 58'49	28.94637 AU	morning rise	6197 Sep 30 13:25	26° $\mathring{\text{N}}$ 48'39	
direct	6192 May 20 13:39	12° $\mathring{\text{N}}$ 34'07		retrograde	6197 Dec 28 20:01	28° $\mathring{\text{N}}$ 43'56	
evening set	6192 Aug 17 04:08	14° $\mathring{\text{N}}$ 28'34		opposition	6198 Mar 16 23:24	27° $\mathring{\text{N}}$ 19'57	-0°01'39
				min. Earth dist.	6198 Mar 16 20:53	27° $\mathring{\text{N}}$ 20'08	28.99600 AU
conjunction	6192 Sep 02 10:37	15° $\mathring{\text{N}}$ 04'35	-0°18'17	direct	6198 Jun 03 10:31	25° $\mathring{\text{N}}$ 55'23	
minimum elong	6192 Sep 02 10:37	15° $\mathring{\text{N}}$ 04'35	0°18'18	evening set	6198 Aug 31 12:45	27° $\mathring{\text{N}}$ 50'00	
max. Earth dist.	6192 Sep 02 16:12	15° $\mathring{\text{N}}$ 05'06	30.94942 AU				
morning rise	6192 Sep 18 17:41	15° $\mathring{\text{N}}$ 40'40		conjunction	6198 Sep 16 19:54	28° $\mathring{\text{N}}$ 25'59	-0°00'01
retrograde	6192 Dec 17 12:25	17° $\mathring{\text{N}}$ 36'40		minimum elong	6198 Sep 16 19:55	28° $\mathring{\text{N}}$ 25'59	0°00'01
opposition	6193 Mar 05 19:22	16° $\mathring{\text{N}}$ 12'27	-0°17'55	behind sun begin	6198 Sep 16 15:19	28° $\mathring{\text{N}}$ 25'36	
min. Earth dist.	6193 Mar 05 14:02	16° $\mathring{\text{N}}$ 12'49	28.95253 AU	behind sun end	6198 Sep 17 00:31	28° $\mathring{\text{N}}$ 26'22	
direct	6193 May 23 03:01	14° $\mathring{\text{N}}$ 48'03		max. Earth dist.	6198 Sep 16 22:15	28° $\mathring{\text{N}}$ 26'08	31.00186 AU
evening set	6193 Aug 19 17:35	16° $\mathring{\text{N}}$ 42'30		asc. node	6198 Sep 18 13:30	28° $\mathring{\text{N}}$ 29'51	
				morning rise	6198 Oct 03 02:49	29° $\mathring{\text{N}}$ 01'59	
conjunction	6193 Sep 05 00:09	17° $\mathring{\text{N}}$ 18'31	-0°15'17		6198 Nov 01 04:41	0° $\mathring{\text{N}}$	
minimum elong	6193 Sep 05 00:09	17° $\mathring{\text{N}}$ 18'31	0°15'17	retrograde	6198 Dec 31 06:28	0° $\mathring{\text{N}}$ 57'09	
behind sun begin	6193 Sep 04 22:28	17° $\mathring{\text{N}}$ 18'22			6199 Mar 03 08:03	30° $\mathring{\text{N}}$	
behind sun end	6193 Sep 05 01:50	17° $\mathring{\text{N}}$ 18'40		opposition	6199 Mar 19 09:48	29° $\mathring{\text{N}}$ 33'16	0°01'37
max. Earth dist.	6193 Sep 05 04:41	17° $\mathring{\text{N}}$ 18'56	30.95569 AU	min. Earth dist.	6199 Mar 19 08:39	29° $\mathring{\text{N}}$ 33'21	29.00780 AU
morning rise	6193 Sep 21 07:19	17° $\mathring{\text{N}}$ 54'36		direct	6199 Jun 05 21:07	28° $\mathring{\text{N}}$ 08'43	
retrograde	6193 Dec 19 23:29	19° $\mathring{\text{N}}$ 50'26			6199 Sep 01 12:42	0° $\mathring{\text{N}}$	
opposition	6194 Mar 08 05:59	18° $\mathring{\text{N}}$ 26'14	-0°14'42	evening set	6199 Sep 03 02:20	0° $\mathring{\text{N}}$ 03'23	
min. Earth dist.	6194 Mar 08 02:11	18° $\mathring{\text{N}}$ 26'30	28.95911 AU				
direct	6194 May 25 13:49	17° $\mathring{\text{N}}$ 01'47		conjunction	6199 Sep 19 09:24	0° $\mathring{\text{N}}$ 39'21	0°03'07
evening set	6194 Aug 22 07:03	18° $\mathring{\text{N}}$ 56'15		minimum elong	6199 Sep 19 09:24	0° $\mathring{\text{N}}$ 39'21	0°03'08
				behind sun begin	6199 Sep 19 02:50	0° $\mathring{\text{N}}$ 38'46	
conjunction	6194 Sep 07 13:54	19° $\mathring{\text{N}}$ 32'16	-0°12'16	behind sun end	6199 Sep 19 15:58	0° $\mathring{\text{N}}$ 39'56	
minimum elong	6194 Sep 07 13:54	19° $\mathring{\text{N}}$ 32'16	0°12'17	max. Earth dist.	6199 Sep 19 10:09	0° $\mathring{\text{N}}$ 39'23	31.01384 AU
behind sun begin	6194 Sep 07 09:37	19° $\mathring{\text{N}}$ 31'53		morning rise	6199 Oct 05 16:18	1° $\mathring{\text{N}}$ 15'20	
behind sun end	6194 Sep 07 18:10	19° $\mathring{\text{N}}$ 32'39		retrograde	6200 Jan 02 19:12	3° $\mathring{\text{N}}$ 10'24	
max. Earth dist.	6194 Sep 07 18:30	19° $\mathring{\text{N}}$ 32'41	30.96265 AU	opposition	6200 Mar 21 20:03	1° $\mathring{\text{N}}$ 46'36	0°04'54
morning rise	6194 Sep 23 20:59	20° $\mathring{\text{N}}$ 08'20		min. Earth dist.	6200 Mar 21 18:53	1° $\mathring{\text{N}}$ 46'41	29.01973 AU
retrograde	6194 Dec 22 11:31	22° $\mathring{\text{N}}$ 04'00		direct	6200 Jun 08 09:40	0° $\mathring{\text{N}}$ 22'03	

evening set	6200 Sep 05 15:53	2° <u>♁</u> 16'47		direct	6206 Jun 22 10:22	13° <u>♁</u> 39'59	
				evening set	6206 Sep 20 00:26	15° <u>♁</u> 34'51	
conjunction	6200 Sep 21 22:59	2° <u>♁</u> 52'45	0°06'10				
minimum elong	6200 Sep 21 22:59	2° <u>♁</u> 52'45	0°06'11	conjunction	6206 Oct 06 07:04	16° <u>♁</u> 10'43	0°24'04
behind sun begin	6200 Sep 21 16:44	2° <u>♁</u> 52'12		minimum elong	6206 Oct 06 07:03	16° <u>♁</u> 10'43	0°24'05
behind sun end	6200 Sep 22 05:14	2° <u>♁</u> 53'18		max. Earth dist.	6206 Oct 06 00:51	16° <u>♁</u> 10'09	31.07874 AU
max. Earth dist.	6200 Sep 21 23:14	2° <u>♁</u> 52'46	31.02544 AU	morning rise	6206 Oct 22 12:44	16° <u>♁</u> 46'30	
morning rise	6200 Oct 08 05:39	3° <u>♁</u> 28'42		retrograde	6207 Jan 19 01:20	18° <u>♁</u> 40'37	
retrograde	6201 Jan 05 06:25	5° <u>♁</u> 23'40		opposition	6207 Apr 06 19:50	17° <u>♁</u> 17'08	0°27'15
opposition	6201 Mar 24 06:31	3° <u>♁</u> 59'56	0°08'10	min. Earth dist.	6207 Apr 07 00:33	17° <u>♁</u> 16'48	29.08301 AU
min. Earth dist.	6201 Mar 24 07:10	3° <u>♁</u> 59'53	29.03104 AU	direct	6207 Jun 24 20:45	15° <u>♁</u> 52'21	
direct	6201 Jun 10 21:39	2° <u>♁</u> 35'23		evening set	6207 Sep 22 13:32	17° <u>♁</u> 47'15	
evening set	6201 Sep 08 05:19	4° <u>♁</u> 30'09					
				conjunction	6207 Oct 08 20:07	18° <u>♁</u> 23'06	0°26'57
conjunction	6201 Sep 24 12:26	5° <u>♁</u> 06'06	0°09'12	minimum elong	6207 Oct 08 20:07	18° <u>♁</u> 23'06	0°26'58
minimum elong	6201 Sep 24 12:26	5° <u>♁</u> 06'06	0°09'13	max. Earth dist.	6207 Oct 08 14:24	18° <u>♁</u> 22'34	31.08726 AU
behind sun begin	6201 Sep 24 06:54	5° <u>♁</u> 05'37		morning rise	6207 Oct 25 01:20	18° <u>♁</u> 58'51	
behind sun end	6201 Sep 24 17:58	5° <u>♁</u> 06'36		retrograde	6208 Jan 21 10:32	20° <u>♁</u> 52'51	
max. Earth dist.	6201 Sep 24 11:27	5° <u>♁</u> 06'01	31.03634 AU	opposition	6208 Apr 08 05:58	19° <u>♁</u> 29'25	0°30'18
morning rise	6201 Oct 10 19:02	5° <u>♁</u> 42'02		min. Earth dist.	6208 Apr 08 11:51	19° <u>♁</u> 29'00	29.09202 AU
retrograde	6202 Jan 07 18:58	7° <u>♁</u> 36'52		direct	6208 Jun 26 07:12	18° <u>♁</u> 04'36	
opposition	6202 Mar 26 16:51	6° <u>♁</u> 13'12	0°11'25	evening set	6208 Sep 24 02:40	19° <u>♁</u> 59'32	
min. Earth dist.	6202 Mar 26 17:27	6° <u>♁</u> 13'09	29.04133 AU				
direct	6202 Jun 13 11:03	4° <u>♁</u> 48'37		conjunction	6208 Oct 10 08:59	20° <u>♁</u> 35'21	0°29'47
evening set	6202 Sep 10 18:59	6° <u>♁</u> 43'26		minimum elong	6208 Oct 10 08:58	20° <u>♁</u> 35'21	0°29'48
				max. Earth dist.	6208 Oct 10 01:59	20° <u>♁</u> 34'42	31.09691 AU
conjunction	6202 Sep 27 02:00	7° <u>♁</u> 19'22	0°12'14	morning rise	6208 Oct 26 14:03	21° <u>♁</u> 11'05	
minimum elong	6202 Sep 27 01:59	7° <u>♁</u> 19'22	0°12'14	retrograde	6209 Jan 22 22:05	23° <u>♁</u> 04'58	
behind sun begin	6202 Sep 26 21:40	7° <u>♁</u> 18'59		opposition	6209 Apr 10 15:59	21° <u>♁</u> 41'36	0°33'19
behind sun end	6202 Sep 27 06:18	7° <u>♁</u> 19'45		min. Earth dist.	6209 Apr 10 21:20	21° <u>♁</u> 41'13	29.10233 AU
max. Earth dist.	6202 Sep 26 23:34	7° <u>♁</u> 19'09	31.04603 AU	direct	6209 Jun 28 19:28	20° <u>♁</u> 16'47	
morning rise	6202 Oct 13 08:25	7° <u>♁</u> 55'16		evening set	6209 Sep 26 15:37	22° <u>♁</u> 11'46	
retrograde	6203 Jan 10 06:24	9° <u>♁</u> 49'58					
opposition	6203 Mar 29 03:10	8° <u>♁</u> 26'21	0°14'38	conjunction	6209 Oct 12 21:51	22° <u>♁</u> 47'34	0°32'35
min. Earth dist.	6203 Mar 29 05:37	8° <u>♁</u> 26'10	29.05059 AU	minimum elong	6209 Oct 12 21:51	22° <u>♁</u> 47'34	0°32'36
direct	6203 Jun 15 22:08	7° <u>♁</u> 01'44		max. Earth dist.	6209 Oct 12 14:56	22° <u>♁</u> 46'55	31.10777 AU
evening set	6203 Sep 13 08:27	8° <u>♁</u> 56'34		morning rise	6209 Oct 29 02:32	23° <u>♁</u> 23'16	
				retrograde	6210 Jan 25 08:25	25° <u>♁</u> 17'03	
conjunction	6203 Sep 29 15:30	9° <u>♁</u> 32'29	0°15'14	opposition	6210 Apr 13 02:10	23° <u>♁</u> 53'46	0°36'16
minimum elong	6203 Sep 29 15:30	9° <u>♁</u> 32'29	0°15'15	min. Earth dist.	6210 Apr 13 08:53	23° <u>♁</u> 53'18	29.11382 AU
behind sun begin	6203 Sep 29 13:45	9° <u>♁</u> 32'20		direct	6210 Jul 01 06:54	22° <u>♁</u> 28'58	
behind sun end	6203 Sep 29 17:15	9° <u>♁</u> 32'38		evening set	6210 Sep 29 04:43	24° <u>♁</u> 24'01	
max. Earth dist.	6203 Sep 29 12:42	9° <u>♁</u> 32'14	31.05485 AU				
morning rise	6203 Oct 15 21:41	10° <u>♁</u> 08'22		conjunction	6210 Oct 15 10:44	24° <u>♁</u> 59'47	0°35'20
retrograde	6204 Jan 12 18:17	12° <u>♁</u> 02'54		minimum elong	6210 Oct 15 10:43	24° <u>♁</u> 59'47	0°35'21
opposition	6204 Mar 30 13:25	10° <u>♁</u> 39'19	0°17'50	max. Earth dist.	6210 Oct 15 03:04	24° <u>♁</u> 59'05	31.11984 AU
min. Earth dist.	6204 Mar 30 16:08	10° <u>♁</u> 39'08	29.05893 AU	morning rise	6210 Oct 31 15:10	25° <u>♁</u> 35'28	
direct	6204 Jun 17 11:27	9° <u>♁</u> 14'41		retrograde	6211 Jan 27 20:21	27° <u>♁</u> 29'10	
evening set	6204 Sep 14 21:49	11° <u>♁</u> 09'31		opposition	6211 Apr 15 12:06	26° <u>♁</u> 05'59	0°39'11
				min. Earth dist.	6211 Apr 15 18:23	26° <u>♁</u> 05'33	29.12621 AU
conjunction	6204 Oct 01 04:39	11° <u>♁</u> 45'25	0°18'13	direct	6211 Jul 03 19:31	24° <u>♁</u> 41'13	
minimum elong	6204 Oct 01 04:38	11° <u>♁</u> 45'25	0°18'13	evening set	6211 Oct 01 17:51	26° <u>♁</u> 36'20	
max. Earth dist.	6204 Oct 01 00:05	11° <u>♁</u> 45'00	31.06291 AU				
morning rise	6204 Oct 17 10:44	12° <u>♁</u> 21'16		conjunction	6211 Oct 17 23:34	27° <u>♁</u> 12'06	0°38'01
retrograde	6205 Jan 14 05:00	14° <u>♁</u> 15'40		minimum elong	6211 Oct 17 23:34	27° <u>♁</u> 12'06	0°38'03
opposition	6205 Apr 01 23:41	12° <u>♁</u> 52'07	0°21'01	max. Earth dist.	6211 Oct 17 15:03	27° <u>♁</u> 11'19	31.13243 AU
min. Earth dist.	6205 Apr 02 03:29	12° <u>♁</u> 51'51	29.06690 AU	morning rise	6211 Nov 03 03:40	27° <u>♁</u> 47'44	
direct	6205 Jun 19 21:59	11° <u>♁</u> 27'25		retrograde	6212 Jan 30 08:03	29° <u>♁</u> 41'23	
evening set	6205 Sep 17 11:04	13° <u>♁</u> 22'16		opposition	6212 Apr 16 22:20	28° <u>♁</u> 18'18	0°42'01
				min. Earth dist.	6212 Apr 17 06:06	28° <u>♁</u> 17'45	29.13897 AU
conjunction	6205 Oct 03 17:57	13° <u>♁</u> 58'09	0°21'10	direct	6212 Jul 05 06:20	26° <u>♁</u> 53'35	
minimum elong	6205 Oct 03 17:57	13° <u>♁</u> 58'09	0°21'11	evening set	6212 Oct 03 06:44	28° <u>♁</u> 48'45	
max. Earth dist.	6205 Oct 03 13:39	13° <u>♁</u> 57'46	31.07075 AU				
morning rise	6205 Oct 19 23:41	14° <u>♁</u> 33'59		conjunction	6212 Oct 19 12:18	29° <u>♁</u> 24'30	0°40'40
retrograde	6206 Jan 16 14:09	16° <u>♁</u> 28'14		minimum elong	6212 Oct 19 12:18	29° <u>♁</u> 24'30	0°40'41
opposition	6206 Apr 04 09:44	15° <u>♁</u> 04'43	0°24'09	max. Earth dist.	6212 Oct 19 03:40	29° <u>♁</u> 23'42	31.14505 AU
min. Earth dist.	6206 Apr 04 14:15	15° <u>♁</u> 04'24	29.07471 AU	morning rise	6212 Nov 04 16:00	0° <u>♁</u> 00'06	

	6212 Nov 04 14:54	0° $\overline{\text{M}}$	min. Earth dist.	6219 May 03 10:54	13° $\overline{\text{M}}$ 42'22	29.20305 AU
retrograde	6213 Jan 31 20:19	1° $\overline{\text{M}}$ 53'40	direct	6219 Jul 21 15:57	12° $\overline{\text{M}}$ 18'27	
opposition	6213 Apr 19 08:29	0° $\overline{\text{M}}$ 30'41 0°44'49	evening set	6219 Oct 20 01:04	14° $\overline{\text{M}}$ 13'45	
min. Earth dist.	6213 Apr 19 16:31	0° $\overline{\text{M}}$ 30'07 29.15123 AU				
	6213 May 08 00:51	30° $\overline{\text{R}}$ 2	conjunction	6219 Nov 05 04:27	14° $\overline{\text{M}}$ 49'17 0°57'12	
direct	6213 Jul 07 19:57	29° $\overline{\text{A}}$ 05'59	minimum elong	6219 Nov 05 04:27	14° $\overline{\text{M}}$ 49'17 0°57'14	
	6213 Sep 04 17:31	0° $\overline{\text{M}}$	max. Earth dist.	6219 Nov 04 13:46	14° $\overline{\text{M}}$ 47'55 31.20610 AU	
evening set	6213 Oct 05 19:56	1° $\overline{\text{M}}$ 01'14		6219 Nov 10 00:12	15° $\overline{\text{M}}$	
			morning rise	6219 Nov 21 05:28	15° $\overline{\text{M}}$ 24'38	
conjunction	6213 Oct 22 01:06	1° $\overline{\text{M}}$ 36'57 0°43'14	retrograde	6220 Feb 16 18:29	17° $\overline{\text{M}}$ 17'26	
minimum elong	6213 Oct 22 01:06	1° $\overline{\text{M}}$ 36'57 0°43'16	opposition	6220 May 04 07:45	15° $\overline{\text{M}}$ 54'43 1°02'12	
max. Earth dist.	6213 Oct 21 14:41	1° $\overline{\text{M}}$ 35'59 31.15684 AU	min. Earth dist.	6220 May 04 20:24	15° $\overline{\text{M}}$ 53'50 29.20998 AU	
morning rise	6213 Nov 07 04:33	2° $\overline{\text{M}}$ 12'31		6220 Jun 08 20:32	15° $\overline{\text{R}}$ $\overline{\text{M}}$	
retrograde	6214 Feb 03 07:02	4° $\overline{\text{M}}$ 06'00	direct	6220 Jul 23 04:33	14° $\overline{\text{M}}$ 29'49	
opposition	6214 Apr 21 18:37	2° $\overline{\text{M}}$ 43'06 0°47'32		6220 Sep 04 18:51	15° $\overline{\text{M}}$	
min. Earth dist.	6214 Apr 22 03:47	2° $\overline{\text{M}}$ 42'27 29.16263 AU	evening set	6220 Oct 21 13:25	16° $\overline{\text{M}}$ 25'08	
direct	6214 Jul 10 06:41	1° $\overline{\text{M}}$ 18'24				
evening set	6214 Oct 08 09:00	3° $\overline{\text{M}}$ 13'41	conjunction	6220 Nov 06 16:26	17° $\overline{\text{M}}$ 00'37 0°59'15	
			minimum elong	6220 Nov 06 16:25	17° $\overline{\text{M}}$ 00'37 0°59'16	
conjunction	6214 Oct 24 14:04	3° $\overline{\text{M}}$ 49'23 0°45'45	max. Earth dist.	6220 Nov 06 01:12	16° $\overline{\text{M}}$ 59'13 31.21324 AU	
minimum elong	6214 Oct 24 14:04	3° $\overline{\text{M}}$ 49'23 0°45'46	morning rise	6220 Nov 22 17:00	17° $\overline{\text{M}}$ 35'56	
max. Earth dist.	6214 Oct 24 03:39	3° $\overline{\text{M}}$ 48'25 31.16754 AU	retrograde	6221 Feb 18 05:08	19° $\overline{\text{M}}$ 28'38	
morning rise	6214 Nov 09 17:00	4° $\overline{\text{M}}$ 24'55	opposition	6221 May 06 17:59	18° $\overline{\text{M}}$ 05'57 1°04'20	
retrograde	6215 Feb 05 16:33	6° $\overline{\text{M}}$ 18'17	min. Earth dist.	6221 May 07 07:42	18° $\overline{\text{M}}$ 04'59 29.21765 AU	
opposition	6215 Apr 24 04:55	4° $\overline{\text{M}}$ 55'28 0°50'11	direct	6221 Jul 25 15:56	16° $\overline{\text{M}}$ 41'02	
min. Earth dist.	6215 Apr 24 15:01	4° $\overline{\text{M}}$ 54'45 29.17263 AU	evening set	6221 Oct 24 01:49	18° $\overline{\text{M}}$ 36'21	
direct	6215 Jul 12 19:16	3° $\overline{\text{M}}$ 30'46				
evening set	6215 Oct 10 22:04	5° $\overline{\text{M}}$ 26'04	conjunction	6221 Nov 09 04:33	19° $\overline{\text{M}}$ 11'49 1°01'12	
			minimum elong	6221 Nov 09 04:33	19° $\overline{\text{M}}$ 11'49 1°01'14	
conjunction	6215 Oct 27 02:39	6° $\overline{\text{M}}$ 01'44 0°48'11	max. Earth dist.	6221 Nov 08 13:37	19° $\overline{\text{M}}$ 10'27 31.22135 AU	
minimum elong	6215 Oct 27 02:39	6° $\overline{\text{M}}$ 01'44 0°48'13	morning rise	6221 Nov 25 04:38	19° $\overline{\text{M}}$ 47'05	
max. Earth dist.	6215 Oct 26 14:09	6° $\overline{\text{M}}$ 00'35 31.17692 AU	retrograde	6222 Feb 20 16:06	21° $\overline{\text{M}}$ 39'43	
morning rise	6215 Nov 12 05:20	6° $\overline{\text{M}}$ 37'14	opposition	6222 May 09 04:02	20° $\overline{\text{M}}$ 17'04 1°06'23	
retrograde	6216 Feb 08 03:50	8° $\overline{\text{M}}$ 30'30	min. Earth dist.	6222 May 09 17:33	20° $\overline{\text{M}}$ 16'08 29.22617 AU	
opposition	6216 Apr 25 15:07	7° $\overline{\text{M}}$ 07'43 0°52'45	direct	6222 Jul 28 05:35	18° $\overline{\text{M}}$ 52'10	
min. Earth dist.	6216 Apr 26 01:32	7° $\overline{\text{M}}$ 06'59 29.18150 AU	evening set	6222 Oct 26 14:20	20° $\overline{\text{M}}$ 47'32	
direct	6216 Jul 14 05:50	5° $\overline{\text{M}}$ 42'59				
evening set	6216 Oct 12 10:55	7° $\overline{\text{M}}$ 38'18	conjunction	6222 Nov 11 16:33	21° $\overline{\text{M}}$ 22'58 1°03'05	
			minimum elong	6222 Nov 11 16:32	21° $\overline{\text{M}}$ 22'58 1°03'07	
conjunction	6216 Oct 28 15:21	8° $\overline{\text{M}}$ 13'56 0°50'34	max. Earth dist.	6222 Nov 11 00:28	21° $\overline{\text{M}}$ 21'29 31.23034 AU	
minimum elong	6216 Oct 28 15:21	8° $\overline{\text{M}}$ 13'56 0°50'35	morning rise	6222 Nov 27 16:17	21° $\overline{\text{M}}$ 58'12	
max. Earth dist.	6216 Oct 28 03:02	8° $\overline{\text{M}}$ 12'48 31.18516 AU	retrograde	6223 Feb 23 02:52	23° $\overline{\text{M}}$ 50'46	
morning rise	6216 Nov 13 17:29	8° $\overline{\text{M}}$ 49'24	opposition	6223 May 11 14:16	22° $\overline{\text{M}}$ 28'11 1°08'20	
retrograde	6217 Feb 09 12:26	10° $\overline{\text{M}}$ 42'33	min. Earth dist.	6223 May 12 04:12	22° $\overline{\text{M}}$ 27'13 29.23566 AU	
opposition	6217 Apr 28 01:21	9° $\overline{\text{M}}$ 19'48 0°55'14	direct	6223 Jul 30 16:14	21° $\overline{\text{M}}$ 03'19	
min. Earth dist.	6217 Apr 28 13:19	9° $\overline{\text{M}}$ 18'57 29.18927 AU	evening set	6223 Oct 29 02:30	22° $\overline{\text{M}}$ 58'44	
direct	6217 Jul 16 16:40	7° $\overline{\text{M}}$ 55'02				
evening set	6217 Oct 14 23:44	9° $\overline{\text{M}}$ 50'21	conjunction	6223 Nov 14 04:28	23° $\overline{\text{M}}$ 34'08 1°04'51	
			minimum elong	6223 Nov 14 04:28	23° $\overline{\text{M}}$ 34'08 1°04'54	
conjunction	6217 Oct 31 03:46	10° $\overline{\text{M}}$ 25'57 0°52'51	max. Earth dist.	6223 Nov 13 13:10	23° $\overline{\text{M}}$ 32'43 31.24006 AU	
minimum elong	6217 Oct 31 03:46	10° $\overline{\text{M}}$ 25'57 0°52'53	morning rise	6223 Nov 30 03:36	24° $\overline{\text{M}}$ 09'20	
max. Earth dist.	6217 Oct 30 13:51	10° $\overline{\text{M}}$ 24'39 31.19257 AU	retrograde	6224 Feb 25 12:25	26° $\overline{\text{M}}$ 01'51	
morning rise	6217 Nov 16 05:41	11° $\overline{\text{M}}$ 01'23	opposition	6224 May 13 00:33	24° $\overline{\text{M}}$ 39'23 1°10'11	
retrograde	6218 Feb 11 22:34	12° $\overline{\text{M}}$ 54'24	min. Earth dist.	6224 May 13 15:03	24° $\overline{\text{M}}$ 38'22 29.24545 AU	
opposition	6218 Apr 30 11:26	11° $\overline{\text{M}}$ 31'40 0°57'39	direct	6224 Aug 01 04:42	23° $\overline{\text{M}}$ 14'33	
min. Earth dist.	6218 Apr 30 23:11	11° $\overline{\text{M}}$ 30'50 29.19634 AU	evening set	6224 Oct 30 14:54	25° $\overline{\text{M}}$ 10'00	
direct	6218 Jul 19 05:02	10° $\overline{\text{M}}$ 06'51				
evening set	6218 Oct 17 12:27	12° $\overline{\text{M}}$ 02'09	conjunction	6224 Nov 15 16:18	25° $\overline{\text{M}}$ 45'24 1°06'32	
			minimum elong	6224 Nov 15 16:17	25° $\overline{\text{M}}$ 45'24 1°06'35	
conjunction	6218 Nov 02 16:14	12° $\overline{\text{M}}$ 37'44 0°55'04	max. Earth dist.	6224 Nov 14 23:24	25° $\overline{\text{M}}$ 43'50 31.24986 AU	
minimum elong	6218 Nov 02 16:14	12° $\overline{\text{M}}$ 37'44 0°55'06	morning rise	6224 Dec 01 15:08	26° $\overline{\text{M}}$ 20'34	
max. Earth dist.	6218 Nov 02 02:13	12° $\overline{\text{M}}$ 36'26 31.19931 AU	retrograde	6225 Feb 26 23:59	28° $\overline{\text{M}}$ 13'02	
morning rise	6218 Nov 18 17:36	13° $\overline{\text{M}}$ 13'07	opposition	6225 May 15 10:42	26° $\overline{\text{M}}$ 50'39 1°11'56	
	6219 Jan 26 14:47	15° $\overline{\text{M}}$	min. Earth dist.	6225 May 16 01:13	26° $\overline{\text{M}}$ 49'39 29.25514 AU	
retrograde	6219 Feb 14 07:39	15° $\overline{\text{M}}$ 06'02	direct	6225 Aug 03 15:06	25° $\overline{\text{M}}$ 25'52	
	6219 Mar 05 06:58	15° $\overline{\text{R}}$ $\overline{\text{M}}$	evening set	6225 Nov 02 03:08	27° $\overline{\text{M}}$ 21'23	
opposition	6219 May 02 21:38	13° $\overline{\text{M}}$ 43'18 0°59'58	max. Earth dist.	6225 Nov 17 11:48	27° $\overline{\text{M}}$ 55'13 31.25907 AU	

conjunction	6225 Nov 18 04:18	27° \mathbb{M} 56'45	1°08'08	morning rise	6231 Dec 17 21:32	11° \mathbb{X} 39'17	
minimum elong	6225 Nov 18 04:18	27° \mathbb{M} 56'45	1°08'10	retrograde	6232 Mar 13 22:35	13° \mathbb{X} 31'25	
morning rise	6225 Dec 04 02:32	28° \mathbb{M} 31'53		opposition	6232 May 30 11:48	12° \mathbb{X} 09'14	1°21'06
	6226 Jan 22 07:38	0° \mathbb{X}		min. Earth dist.	6232 May 31 06:08	12° \mathbb{X} 07'58	29.29132 AU
retrograde	6226 Mar 01 08:48	0° \mathbb{X} 24'20		direct	6232 Aug 19 00:25	10° \mathbb{X} 44'23	
	6226 Apr 09 05:51	30° \mathbb{K} \mathbb{M}		evening set	6232 Nov 17 15:01	12° \mathbb{X} 39'59	
opposition	6226 May 17 21:10	29° \mathbb{M} 02'01	1°13'34				
min. Earth dist.	6226 May 18 13:08	29° \mathbb{M} 00'55	29.26385 AU	conjunction	6232 Dec 03 13:13	13° \mathbb{X} 15'07	1°16'21
direct	6226 Aug 06 01:57	27° \mathbb{M} 37'16		minimum elong	6232 Dec 03 13:12	13° \mathbb{X} 15'07	1°16'23
evening set	6226 Nov 04 15:31	29° \mathbb{M} 32'49		max. Earth dist.	6232 Dec 02 17:37	13° \mathbb{X} 13'18	31.29202 AU
	6226 Nov 17 00:15	0° \mathbb{X}		morning rise	6232 Dec 19 08:12	13° \mathbb{X} 50'01	
				retrograde	6233 Mar 16 07:55	15° \mathbb{X} 42'05	
conjunction	6226 Nov 20 16:07	0° \mathbb{X} 08'09	1°09'37	opposition	6233 Jun 01 22:11	14° \mathbb{X} 19'55	1°21'58
minimum elong	6226 Nov 20 16:07	0° \mathbb{X} 08'09	1°09'39	min. Earth dist.	6233 Jun 02 16:50	14° \mathbb{X} 18'37	29.29433 AU
max. Earth dist.	6226 Nov 19 22:08	0° \mathbb{X} 06'29	31.26719 AU	direct	6233 Aug 21 13:49	12° \mathbb{X} 55'03	
morning rise	6226 Dec 06 14:00	0° \mathbb{X} 43'16		evening set	6233 Nov 20 02:38	14° \mathbb{X} 50'37	
retrograde	6227 Mar 03 19:02	2° \mathbb{X} 35'40		max. Earth dist.	6233 Dec 05 03:31	15° \mathbb{X} 23'49	31.29544 AU
opposition	6227 May 20 07:29	1° \mathbb{X} 13'26	1°15'06				
min. Earth dist.	6227 May 20 23:09	1° \mathbb{X} 12'20	29.27134 AU	conjunction	6233 Dec 06 00:14	15° \mathbb{X} 25'44	1°17'06
	6227 Jul 12 19:34	30° \mathbb{K} \mathbb{M}		minimum elong	6233 Dec 06 00:14	15° \mathbb{X} 25'44	1°17'08
direct	6227 Aug 08 13:41	29° \mathbb{M} 48'41		morning rise	6233 Dec 21 18:56	16° \mathbb{X} 00'35	
	6227 Sep 04 01:13	0° \mathbb{X}		retrograde	6234 Mar 18 19:21	17° \mathbb{X} 52'37	
evening set	6227 Nov 07 03:44	1° \mathbb{X} 44'16		opposition	6234 Jun 04 08:40	16° \mathbb{X} 30'27	1°22'42
max. Earth dist.	6227 Nov 22 09:53	2° \mathbb{X} 17'54	31.27390 AU	min. Earth dist.	6234 Jun 05 02:36	16° \mathbb{X} 29'13	29.29828 AU
				direct	6234 Aug 24 01:29	15° \mathbb{X} 05'34	
conjunction	6227 Nov 23 04:00	2° \mathbb{X} 19'35	1°11'00	evening set	6234 Nov 22 14:00	17° \mathbb{X} 01'09	
minimum elong	6227 Nov 23 04:00	2° \mathbb{X} 19'35	1°11'02				
morning rise	6227 Dec 09 01:17	2° \mathbb{X} 54'39		conjunction	6234 Dec 08 11:18	17° \mathbb{X} 36'14	1°17'44
retrograde	6228 Mar 05 04:18	4° \mathbb{X} 47'01		minimum elong	6234 Dec 08 11:18	17° \mathbb{X} 36'14	1°17'46
opposition	6228 May 21 18:04	3° \mathbb{X} 24'49	1°16'32	max. Earth dist.	6234 Dec 07 15:40	17° \mathbb{X} 34'25	31.29980 AU
min. Earth dist.	6228 May 22 11:17	3° \mathbb{X} 23'38	29.27745 AU	morning rise	6234 Dec 24 05:21	18° \mathbb{X} 11'04	
direct	6228 Aug 09 23:44	2° \mathbb{X} 00'05		retrograde	6235 Mar 21 03:25	20° \mathbb{X} 03'04	
evening set	6228 Nov 08 15:45	3° \mathbb{X} 55'41		opposition	6235 Jun 06 19:16	18° \mathbb{X} 40'56	1°23'19
				min. Earth dist.	6235 Jun 07 14:00	18° \mathbb{X} 39'39	29.30313 AU
conjunction	6228 Nov 24 15:35	4° \mathbb{X} 30'57	1°12'17	direct	6235 Aug 26 12:54	17° \mathbb{X} 16'05	
minimum elong	6228 Nov 24 15:35	4° \mathbb{X} 30'57	1°12'19	evening set	6235 Nov 25 01:25	19° \mathbb{X} 11'40	
max. Earth dist.	6228 Nov 23 20:42	4° \mathbb{X} 29'12	31.27935 AU				
morning rise	6228 Dec 10 12:30	5° \mathbb{X} 06'00		conjunction	6235 Dec 10 22:09	19° \mathbb{X} 46'44	1°18'15
retrograde	6229 Mar 07 14:54	6° \mathbb{X} 58'19		minimum elong	6235 Dec 10 22:09	19° \mathbb{X} 46'44	1°18'18
opposition	6229 May 24 04:28	5° \mathbb{X} 36'09	1°17'50	max. Earth dist.	6235 Dec 10 01:54	19° \mathbb{X} 44'51	31.30520 AU
min. Earth dist.	6229 May 24 21:17	5° \mathbb{X} 34'59	29.28217 AU	morning rise	6235 Dec 26 15:55	20° \mathbb{X} 21'32	
direct	6229 Aug 12 11:56	4° \mathbb{X} 11'23		retrograde	6236 Mar 22 13:06	22° \mathbb{X} 13'31	
evening set	6229 Nov 11 03:51	6° \mathbb{X} 07'00		opposition	6236 Jun 08 05:46	20° \mathbb{X} 51'26	1°23'49
max. Earth dist.	6229 Nov 26 07:28	6° \mathbb{X} 40'25	31.28341 AU	min. Earth dist.	6236 Jun 08 23:29	20° \mathbb{X} 50'13	29.30883 AU
				direct	6236 Aug 28 00:00	19° \mathbb{X} 26'37	
conjunction	6229 Nov 27 03:14	6° \mathbb{X} 42'14	1°13'27	evening set	6236 Nov 26 12:37	21° \mathbb{X} 22'13	
minimum elong	6229 Nov 27 03:14	6° \mathbb{X} 42'14	1°13'29				
morning rise	6229 Dec 12 23:41	7° \mathbb{X} 17'15		conjunction	6236 Dec 12 09:01	21° \mathbb{X} 57'15	1°18'40
retrograde	6230 Mar 10 01:33	9° \mathbb{X} 09'31		minimum elong	6236 Dec 12 09:01	21° \mathbb{X} 57'15	1°18'43
opposition	6230 May 26 14:52	7° \mathbb{X} 47'21	1°19'02	max. Earth dist.	6236 Dec 11 13:17	21° \mathbb{X} 55'25	31.31102 AU
min. Earth dist.	6230 May 27 08:59	7° \mathbb{X} 46'06	29.28580 AU	morning rise	6236 Dec 28 02:16	22° \mathbb{X} 32'02	
direct	6230 Aug 14 23:32	6° \mathbb{X} 22'34		retrograde	6237 Mar 24 22:19	24° \mathbb{X} 24'01	
evening set	6230 Nov 13 15:46	8° \mathbb{X} 18'11		opposition	6237 Jun 10 16:29	23° \mathbb{X} 01'59	1°24'12
				min. Earth dist.	6237 Jun 11 11:19	23° \mathbb{X} 00'42	29.31470 AU
conjunction	6230 Nov 29 14:48	8° \mathbb{X} 53'23	1°14'31	direct	6237 Aug 30 09:25	21° \mathbb{X} 37'13	
minimum elong	6230 Nov 29 14:48	8° \mathbb{X} 53'23	1°14'34	evening set	6237 Nov 28 23:59	23° \mathbb{X} 32'50	
max. Earth dist.	6230 Nov 28 19:15	8° \mathbb{X} 51'34	31.28662 AU				
morning rise	6230 Dec 15 10:44	9° \mathbb{X} 28'21		conjunction	6237 Dec 14 19:55	24° \mathbb{X} 07'50	1°18'58
retrograde	6231 Mar 12 12:16	11° \mathbb{X} 20'33		minimum elong	6237 Dec 14 19:55	24° \mathbb{X} 07'50	1°19'00
opposition	6231 May 29 01:20	9° \mathbb{X} 58'23	1°20'08	max. Earth dist.	6237 Dec 13 23:55	24° \mathbb{X} 05'58	31.31677 AU
min. Earth dist.	6231 May 29 19:25	9° \mathbb{X} 57'08	29.28860 AU	morning rise	6237 Dec 30 12:46	24° \mathbb{X} 42'35	
direct	6231 Aug 17 13:33	8° \mathbb{X} 33'34		retrograde	6238 Mar 27 08:27	26° \mathbb{X} 34'34	
evening set	6231 Nov 16 03:30	10° \mathbb{X} 29'11		opposition	6238 Jun 13 03:04	25° \mathbb{X} 12'36	1°24'28
max. Earth dist.	6231 Dec 01 05:22	11° \mathbb{X} 02'26	31.28924 AU	min. Earth dist.	6238 Jun 13 21:14	25° \mathbb{X} 11'21	29.32008 AU
				direct	6238 Sep 01 21:11	23° \mathbb{X} 47'52	
conjunction	6231 Dec 02 01:58	11° \mathbb{X} 04'21	1°15'29	evening set	6238 Dec 01 11:22	25° \mathbb{X} 43'30	
minimum elong	6231 Dec 02 01:58	11° \mathbb{X} 04'21	1°15'32	max. Earth dist.	6238 Dec 16 10:15	26° \mathbb{X} 16'34	31.32170 AU

conjunction	6238 Dec 17 06:49	26° \mathring{A} 18'28	1°19'09	opposition	6245 Jun 28 07:39	10° \mathring{B} 26'16	1°22'55
minimum elong	6238 Dec 17 06:49	26° \mathring{A} 18'28	1°19'12	min. Earth dist.	6245 Jun 29 02:38	10° \mathring{B} 24'58	29.32803 AU
morning rise	6239 Jan 01 23:13	26° \mathring{A} 53'12		direct	6245 Sep 17 08:47	9° \mathring{B} 01'33	
retrograde	6239 Mar 29 19:04	28° \mathring{A} 45'12		evening set	6245 Dec 16 16:16	10° \mathring{B} 57'04	
opposition	6239 Jun 15 14:00	27° \mathring{A} 23'16	1°24'36				
min. Earth dist.	6239 Jun 16 09:06	27° \mathring{A} 21'57	29.32464 AU	conjunction	6246 Jan 01 08:51	11° \mathring{B} 31'53	1°17'19
direct	6239 Sep 04 07:51	25° \mathring{A} 58'33		minimum elong	6246 Jan 01 08:51	11° \mathring{B} 31'53	1°17'21
evening set	6239 Dec 03 22:28	27° \mathring{A} 54'11		max. Earth dist.	6245 Dec 31 12:24	11° \mathring{B} 29'58	31.32691 AU
				morning rise	6246 Jan 16 22:26	12° \mathring{B} 06'26	
conjunction	6239 Dec 19 17:34	28° \mathring{A} 29'08	1°19'14	retrograde	6246 Apr 13 16:47	13° \mathring{B} 58'26	
minimum elong	6239 Dec 19 17:34	28° \mathring{A} 29'08	1°19'16	opposition	6246 Jun 30 18:45	12° \mathring{B} 36'27	1°22'14
max. Earth dist.	6239 Dec 18 21:29	28° \mathring{A} 27'16	31.32566 AU	min. Earth dist.	6246 Jul 01 14:21	12° \mathring{B} 35'07	29.32761 AU
morning rise	6240 Jan 04 09:28	29° \mathring{A} 03'50		direct	6246 Sep 19 18:27	11° \mathring{B} 11'45	
	6240 Feb 01 10:44	0° \mathring{B}		evening set	6246 Dec 19 02:54	13° \mathring{B} 07'16	
retrograde	6240 Mar 31 05:23	0° \mathring{B} 55'51					
	6240 May 31 22:11	30° \mathring{R} \mathring{A}		conjunction	6247 Jan 03 19:04	13° \mathring{B} 42'02	1°16'37
opposition	6240 Jun 17 00:55	29° \mathring{A} 33'56	1°24'37	minimum elong	6247 Jan 03 19:04	13° \mathring{B} 42'02	1°16'39
min. Earth dist.	6240 Jun 17 19:56	29° \mathring{A} 32'37	29.32787 AU	max. Earth dist.	6247 Jan 02 23:04	13° \mathring{B} 40'10	31.32702 AU
direct	6240 Sep 05 20:47	28° \mathring{A} 09'14		morning rise	6247 Jan 19 08:19	14° \mathring{B} 16'35	
	6240 Dec 03 03:38	0° \mathring{B}		retrograde	6247 Apr 16 02:33	16° \mathring{B} 08'36	
evening set	6240 Dec 05 09:47	0° \mathring{B} 04'53		opposition	6247 Jul 03 05:52	14° \mathring{B} 46'39	1°21'25
max. Earth dist.	6240 Dec 20 07:04	0° \mathring{B} 37'49	31.32824 AU	min. Earth dist.	6247 Jul 04 00:04	14° \mathring{B} 45'24	29.32812 AU
				direct	6247 Sep 22 06:07	13° \mathring{B} 21'58	
conjunction	6240 Dec 21 04:19	0° \mathring{B} 39'48	1°19'11	evening set	6247 Dec 21 13:19	15° \mathring{B} 17'29	
minimum elong	6240 Dec 21 04:19	0° \mathring{B} 39'48	1°19'14	max. Earth dist.	6248 Jan 05 09:07	15° \mathring{B} 50'22	31.32803 AU
morning rise	6241 Jan 05 19:56	1° \mathring{B} 14'28					
retrograde	6241 Apr 02 16:28	3° \mathring{B} 06'29		conjunction	6248 Jan 06 05:04	15° \mathring{B} 52'14	1°15'48
opposition	6241 Jun 19 11:43	1° \mathring{B} 44'34	1°24'31	minimum elong	6248 Jan 06 05:04	15° \mathring{B} 52'14	1°15'50
min. Earth dist.	6241 Jun 20 07:02	1° \mathring{B} 43'15	29.32988 AU	morning rise	6248 Jan 21 18:00	16° \mathring{B} 26'46	
direct	6241 Sep 08 07:20	0° \mathring{B} 19'53		retrograde	6248 Apr 17 13:07	18° \mathring{B} 18'51	
evening set	6241 Dec 07 20:54	2° \mathring{B} 15'31		opposition	6248 Jul 04 17:05	16° \mathring{B} 56'55	1°20'30
				min. Earth dist.	6248 Jul 05 11:31	16° \mathring{B} 55'39	29.32961 AU
conjunction	6241 Dec 23 15:12	2° \mathring{B} 50'25	1°19'02	direct	6248 Sep 23 16:00	15° \mathring{B} 32'18	
minimum elong	6241 Dec 23 15:12	2° \mathring{B} 50'25	1°19'04	evening set	6248 Dec 22 23:45	17° \mathring{B} 27'48	
max. Earth dist.	6241 Dec 22 18:44	2° \mathring{B} 48'31	31.32952 AU				
morning rise	6242 Jan 08 06:15	3° \mathring{B} 25'03		conjunction	6249 Jan 07 15:15	18° \mathring{B} 02'33	1°14'53
retrograde	6242 Apr 05 02:16	5° \mathring{B} 17'03		minimum elong	6249 Jan 07 15:15	18° \mathring{B} 02'33	1°14'55
opposition	6242 Jun 21 22:45	3° \mathring{B} 55'09	1°24'18	max. Earth dist.	6249 Jan 06 20:27	18° \mathring{B} 00'48	31.32985 AU
min. Earth dist.	6242 Jun 22 18:36	3° \mathring{B} 53'47	29.33044 AU	morning rise	6249 Jan 23 03:47	18° \mathring{B} 37'04	
direct	6242 Sep 10 20:59	2° \mathring{B} 30'28		retrograde	6249 Apr 19 23:25	20° \mathring{B} 29'12	
evening set	6242 Dec 10 08:01	4° \mathring{B} 26'05		opposition	6249 Jul 07 04:10	19° \mathring{B} 07'19	1°19'27
max. Earth dist.	6242 Dec 25 04:01	4° \mathring{B} 58'56	31.32957 AU	min. Earth dist.	6249 Jul 07 22:07	19° \mathring{B} 06'05	29.33144 AU
				direct	6249 Sep 26 03:37	17° \mathring{B} 42'45	
conjunction	6242 Dec 26 01:42	5° \mathring{B} 00'57	1°18'46	evening set	6249 Dec 25 10:21	19° \mathring{B} 38'17	
minimum elong	6242 Dec 26 01:42	5° \mathring{B} 00'57	1°18'49	max. Earth dist.	6250 Jan 09 05:52	20° \mathring{B} 11'12	31.33173 AU
morning rise	6243 Jan 10 16:31	5° \mathring{B} 35'34					
retrograde	6243 Apr 07 13:53	7° \mathring{B} 27'33		conjunction	6250 Jan 10 01:19	20° \mathring{B} 13'01	1°13'51
opposition	6243 Jun 24 09:41	6° \mathring{B} 05'38	1°23'57	minimum elong	6250 Jan 10 01:19	20° \mathring{B} 13'01	1°13'53
min. Earth dist.	6243 Jun 25 04:57	6° \mathring{B} 04'19	29.33003 AU	morning rise	6250 Jan 25 13:39	20° \mathring{B} 47'31	
direct	6243 Sep 13 09:06	4° \mathring{B} 40'56		retrograde	6250 Apr 22 11:03	22° \mathring{B} 39'44	
evening set	6243 Dec 12 18:51	6° \mathring{B} 36'32		opposition	6250 Jul 09 15:30	21° \mathring{B} 17'52	1°18'17
				min. Earth dist.	6250 Jul 10 09:12	21° \mathring{B} 16'40	29.33324 AU
conjunction	6243 Dec 28 12:17	7° \mathring{B} 11'22	1°18'24	direct	6250 Sep 28 13:22	19° \mathring{B} 53'23	
minimum elong	6243 Dec 28 12:18	7° \mathring{B} 11'22	1°18'26	evening set	6250 Dec 27 20:40	21° \mathring{B} 48'55	
max. Earth dist.	6243 Dec 27 15:34	7° \mathring{B} 09'27	31.32877 AU				
morning rise	6244 Jan 13 02:33	7° \mathring{B} 45'58		conjunction	6251 Jan 12 11:25	22° \mathring{B} 23'37	1°12'42
retrograde	6244 Apr 08 22:14	9° \mathring{B} 37'57		minimum elong	6251 Jan 12 11:25	22° \mathring{B} 23'37	1°12'45
opposition	6244 Jun 25 20:44	8° \mathring{B} 16'01	1°23'30	max. Earth dist.	6251 Jan 11 17:18	22° \mathring{B} 21'56	31.33321 AU
min. Earth dist.	6244 Jun 26 16:54	8° \mathring{B} 14'38	29.32902 AU	morning rise	6251 Jan 27 23:15	22° \mathring{B} 58'07	
direct	6244 Sep 14 21:01	6° \mathring{B} 51'18		retrograde	6251 Apr 24 21:44	24° \mathring{B} 50'24	
evening set	6244 Dec 14 05:36	8° \mathring{B} 46'51		opposition	6251 Jul 12 03:04	23° \mathring{B} 28'34	1°17'01
				min. Earth dist.	6251 Jul 12 21:01	23° \mathring{B} 27'20	29.33427 AU
conjunction	6244 Dec 29 22:32	9° \mathring{B} 21'40	1°17'55	direct	6251 Oct 01 02:54	22° \mathring{B} 04'08	
minimum elong	6244 Dec 29 22:32	9° \mathring{B} 21'40	1°17'57	evening set	6251 Dec 30 07:14	23° \mathring{B} 59'40	
max. Earth dist.	6244 Dec 29 01:22	9° \mathring{B} 19'42	31.32777 AU				
morning rise	6245 Jan 14 12:36	9° \mathring{B} 56'15		conjunction	6252 Jan 14 21:27	24° \mathring{B} 34'22	1°11'27
retrograde	6245 Apr 11 07:47	11° \mathring{B} 48'13		minimum elong	6252 Jan 14 21:27	24° \mathring{B} 34'22	1°11'29

max. Earth dist.	6252 Jan 14 02:23	24° $\overline{3}$ 32'35	31.33383 AU	min. Earth dist.	6258 Jul 28 04:58	8° \approx 42'13	29.30796 AU
morning rise	6252 Jan 30 09:09	25° $\overline{3}$ 08'50		direct	6258 Oct 16 12:56	7° \approx 18'55	
retrograde	6252 Apr 26 10:19	27° $\overline{3}$ 01'11		evening set	6259 Jan 14 06:55	9° \approx 14'06	
opposition	6252 Jul 13 14:28	25° $\overline{3}$ 39'21	1°15'37				
min. Earth dist.	6252 Jul 14 07:37	25° $\overline{3}$ 38'11	29.33433 AU	conjunction	6259 Jan 29 18:52	9° \approx 48'41	1°00'01
direct	6252 Oct 02 14:51	24° $\overline{3}$ 14'58		minimum elong	6259 Jan 29 18:53	9° \approx 48'41	1°00'03
evening set	6252 Dec 31 17:36	26° $\overline{3}$ 10'29		max. Earth dist.	6259 Jan 29 01:54	9° \approx 47'06	31.30477 AU
				morning rise	6259 Feb 14 04:49	10° \approx 23'05	
conjunction	6253 Jan 16 07:37	26° $\overline{3}$ 45'10	1°10'06	retrograde	6259 May 12 07:59	12° \approx 15'46	
minimum elong	6253 Jan 16 07:37	26° $\overline{3}$ 45'10	1°10'09	opposition	6259 Jul 30 00:39	10° \approx 53'37	1°03'04
max. Earth dist.	6253 Jan 15 13:27	26° $\overline{3}$ 43'28	31.33314 AU	min. Earth dist.	6259 Jul 30 15:57	10° \approx 52'34	29.30278 AU
morning rise	6253 Jan 31 18:54	27° $\overline{3}$ 19'38		direct	6259 Oct 18 23:02	9° \approx 29'13	
retrograde	6253 Apr 28 19:26	29° $\overline{3}$ 12'02		evening set	6260 Jan 16 16:46	11° \approx 24'23	
opposition	6253 Jul 16 02:11	27° $\overline{3}$ 50'12	1°14'08				
min. Earth dist.	6253 Jul 16 20:17	27° $\overline{3}$ 48'58	29.33288 AU	conjunction	6260 Feb 01 04:38	11° \approx 58'57	0°58'02
direct	6253 Oct 05 02:48	26° $\overline{3}$ 25'51		minimum elong	6260 Feb 01 04:38	11° \approx 58'57	0°58'03
evening set	6254 Jan 03 04:07	28° $\overline{3}$ 21'20		max. Earth dist.	6260 Jan 31 13:28	11° \approx 57'32	31.30001 AU
				morning rise	6260 Feb 16 14:12	12° \approx 33'21	
conjunction	6254 Jan 18 17:40	28° $\overline{3}$ 56'00	1°08'39	retrograde	6260 May 13 18:25	14° \approx 26'06	
minimum elong	6254 Jan 18 17:41	28° $\overline{3}$ 56'00	1°08'41	opposition	6260 Jul 31 12:28	13° \approx 03'56	1°00'54
max. Earth dist.	6254 Jan 17 22:59	28° $\overline{3}$ 54'15	31.33100 AU	min. Earth dist.	6260 Aug 01 03:29	13° \approx 02'54	29.29838 AU
morning rise	6254 Feb 03 04:46	29° $\overline{3}$ 30'27		direct	6260 Oct 20 11:37	11° \approx 39'35	
	6254 Feb 17 03:49	0° \approx		evening set	6261 Jan 18 02:44	13° \approx 34'43	
retrograde	6254 May 01 05:48	1° \approx 22'54					
opposition	6254 Jul 18 13:46	0° \approx 01'02	1°12'32	conjunction	6261 Feb 02 14:12	14° \approx 09'17	0°55'57
min. Earth dist.	6254 Jul 19 06:48	29° $\overline{3}$ 59'53	29.32991 AU	minimum elong	6261 Feb 02 14:12	14° \approx 09'17	0°55'59
	6254 Jul 19 05:01	30° \overline{R} $\overline{3}$		max. Earth dist.	6261 Feb 01 22:41	14° \approx 07'50	31.29610 AU
direct	6254 Oct 07 15:30	28° $\overline{3}$ 36'41		morning rise	6261 Feb 17 23:46	14° \approx 43'41	
	6254 Dec 21 08:17	0° \approx			6261 Feb 25 13:05	15° \approx	
evening set	6255 Jan 05 14:30	0° \approx 32'08		retrograde	6261 May 16 07:07	16° \approx 36'32	
max. Earth dist.	6255 Jan 20 09:27	1° \approx 05'04	31.32727 AU	opposition	6261 Aug 03 00:18	15° \approx 14'21	0°58'38
				min. Earth dist.	6261 Aug 03 13:54	15° \approx 13'26	29.29470 AU
conjunction	6255 Jan 21 03:47	1° \approx 06'47	1°07'07		6261 Aug 11 20:47	15° \overline{R} \approx	
minimum elong	6255 Jan 21 03:47	1° \approx 06'47	1°07'09	direct	6261 Oct 22 22:55	13° \approx 50'04	
morning rise	6255 Feb 05 14:32	1° \approx 41'13			6261 Dec 29 15:26	15° \approx	
retrograde	6255 May 03 15:44	3° \approx 33'43		evening set	6262 Jan 20 12:34	15° \approx 45'12	
opposition	6255 Jul 21 01:37	2° \approx 11'49	1°10'50				
min. Earth dist.	6255 Jul 21 19:28	2° \approx 10'36	29.32554 AU	conjunction	6262 Feb 04 23:52	16° \approx 19'46	0°53'47
direct	6255 Oct 10 02:27	0° \approx 47'28		minimum elong	6262 Feb 04 23:52	16° \approx 19'46	0°53'48
evening set	6256 Jan 08 00:39	2° \approx 42'50		max. Earth dist.	6262 Feb 04 09:47	16° \approx 18'26	31.29255 AU
				morning rise	6262 Feb 20 09:06	16° \approx 54'09	
conjunction	6256 Jan 23 13:39	3° \approx 17'28	1°05'28	retrograde	6262 May 18 16:59	18° \approx 47'08	
minimum elong	6256 Jan 23 13:39	3° \approx 17'28	1°05'30	opposition	6262 Aug 05 12:23	17° \approx 24'57	0°56'17
max. Earth dist.	6256 Jan 22 19:42	3° \approx 15'47	31.32237 AU	min. Earth dist.	6262 Aug 06 02:25	17° \approx 24'00	29.29117 AU
morning rise	6256 Feb 08 00:12	3° \approx 51'54		direct	6262 Oct 25 10:25	16° \approx 00'44	
retrograde	6256 May 05 00:58	5° \approx 44'25		evening set	6263 Jan 22 22:31	17° \approx 55'52	
opposition	6256 Jul 22 13:18	4° \approx 22'28	1°09'02				
min. Earth dist.	6256 Jul 23 06:02	4° \approx 21'19	29.31999 AU	conjunction	6263 Feb 07 09:29	18° \approx 30'25	0°51'33
direct	6256 Oct 11 15:05	2° \approx 58'05		minimum elong	6263 Feb 07 09:29	18° \approx 30'25	0°51'35
evening set	6257 Jan 09 10:52	4° \approx 53'24		max. Earth dist.	6263 Feb 06 19:33	18° \approx 29'07	31.28909 AU
				morning rise	6263 Feb 22 18:39	19° \approx 04'49	
conjunction	6257 Jan 24 23:30	5° \approx 28'00	1°03'45	retrograde	6263 May 21 04:21	20° \approx 57'55	
minimum elong	6257 Jan 24 23:30	5° \approx 28'01	1°03'47	opposition	6263 Aug 08 00:26	19° \approx 35'44	0°53'51
max. Earth dist.	6257 Jan 24 05:20	5° \approx 26'18	31.31647 AU	min. Earth dist.	6263 Aug 08 12:56	19° \approx 34'53	29.28747 AU
morning rise	6257 Feb 09 09:52	6° \approx 02'26		direct	6263 Oct 27 22:53	18° \approx 11'36	
retrograde	6257 May 07 10:52	7° \approx 54'59		evening set	6264 Jan 25 08:20	20° \approx 06'43	
opposition	6257 Jul 25 00:57	6° \approx 32'57	1°07'08				
min. Earth dist.	6257 Jul 25 17:58	6° \approx 31'48	29.31395 AU	conjunction	6264 Feb 09 19:06	20° \approx 41'16	0°49'14
direct	6257 Oct 14 01:08	5° \approx 08'33		minimum elong	6264 Feb 09 19:07	20° \approx 41'16	0°49'15
evening set	6258 Jan 11 20:55	7° \approx 03'48		max. Earth dist.	6264 Feb 09 05:48	20° \approx 40'01	31.28504 AU
				morning rise	6264 Feb 25 04:06	21° \approx 15'41	
conjunction	6258 Jan 27 09:21	7° \approx 38'24	1°01'56	retrograde	6264 May 22 15:18	23° \approx 08'54	
minimum elong	6258 Jan 27 09:21	7° \approx 38'24	1°01'57	opposition	6264 Aug 09 12:42	21° \approx 46'43	0°51'20
max. Earth dist.	6258 Jan 26 16:36	7° \approx 36'50	31.31043 AU	min. Earth dist.	6264 Aug 10 01:48	21° \approx 45'50	29.28306 AU
morning rise	6258 Feb 11 19:22	8° \approx 12'48		direct	6264 Oct 29 09:43	20° \approx 22'38	
retrograde	6258 May 09 20:22	10° \approx 05'25		evening set	6265 Jan 26 18:17	22° \approx 17'44	
opposition	6258 Jul 27 12:47	8° \approx 43'19	1°05'09				

conjunction	6265 Feb 11 04:51	22° 52 '17	0°46'51	retrograde	6271 Jun 07 19:18	8° 27 '39	
minimum elong	6265 Feb 11 04:51	22° 52 '17	0°46'52	opposition	6271 Aug 26 03:23	7° 05 '00	0°31'55
max. Earth dist.	6265 Feb 10 16:09	22° 51 '06	31.28015 AU	min. Earth dist.	6271 Aug 26 12:44	7° 04 '21	29.22208 AU
morning rise	6265 Feb 26 13:41	23° 26 '42		direct	6271 Nov 14 17:13	5° 40 '59	
retrograde	6265 May 25 01:08	25° 20 '02		evening set	6272 Feb 11 14:54	7° 35 '42	
opposition	6265 Aug 12 00:47	23° 57 '51	0°48'45				
min. Earth dist.	6265 Aug 12 12:42	23° 57 '02	29.27746 AU	conjunction	6272 Feb 27 00:08	8° 10 '13	0°28'29
direct	6265 Oct 31 22:08	22° 33 '49		minimum elong	6272 Feb 27 00:08	8° 10 '13	0°28'29
evening set	6266 Jan 29 04:21	24° 28 '54		max. Earth dist.	6272 Feb 26 15:22	8° 09 '24	31.21747 AU
				morning rise	6272 Mar 13 08:27	8° 44 '40	
conjunction	6266 Feb 13 14:36	25° 03 '27	0°44'23	retrograde	6272 Jun 09 07:22	10° 38 '42	
minimum elong	6266 Feb 13 14:36	25° 03 '27	0°44'24	opposition	6272 Aug 27 15:45	9° 15 '59	0°28'56
max. Earth dist.	6266 Feb 13 01:33	25° 02 '13	31.27392 AU	min. Earth dist.	6272 Aug 27 23:06	9° 15 '29	29.21332 AU
morning rise	6266 Feb 28 23:22	25° 37 '52		direct	6272 Nov 16 06:30	7° 52 '00	
retrograde	6266 May 27 11:51	27° 31 '20		evening set	6273 Feb 13 00:34	9° 46 '40	
opposition	6266 Aug 14 13:15	26° 09 '06	0°46'05				
min. Earth dist.	6266 Aug 15 01:23	26° 08 '17	29.27060 AU	conjunction	6273 Feb 28 09:39	10° 21 '12	0°25'40
direct	6266 Nov 03 07:59	24° 45 '06		minimum elong	6273 Feb 28 09:39	10° 21 '12	0°25'41
evening set	6267 Jan 31 14:09	26° 40 '08		max. Earth dist.	6273 Feb 28 01:47	10° 20 '28	31.20918 AU
				morning rise	6273 Mar 15 17:54	10° 55 '40	
conjunction	6267 Feb 16 00:19	27° 14 '41	0°41'52	retrograde	6273 Jun 11 18:57	12° 49 '49	
minimum elong	6267 Feb 16 00:19	27° 14 '41	0°41'54	opposition	6273 Aug 30 04:15	11° 27 '02	0°25'54
max. Earth dist.	6267 Feb 15 12:35	27° 13 '35	31.26635 AU	min. Earth dist.	6273 Aug 30 11:40	11° 26 '32	29.20556 AU
morning rise	6267 Mar 03 08:51	27° 49 '07		direct	6273 Nov 18 17:52	10° 03 '05	
retrograde	6267 May 29 21:46	29° 42 '41		evening set	6274 Feb 15 10:11	11° 57 '44	
opposition	6267 Aug 17 01:42	28° 20 '24	0°43'22				
min. Earth dist.	6267 Aug 17 13:14	28° 19 '37	29.26221 AU	conjunction	6274 Mar 02 19:12	12° 32 '15	0°22'49
direct	6267 Nov 05 19:27	26° 56 '25		minimum elong	6274 Mar 02 19:13	12° 32 '15	0°22'49
evening set	6268 Feb 03 00:09	28° 51 '24		max. Earth dist.	6274 Mar 02 12:40	12° 31 '39	31.20194 AU
				morning rise	6274 Mar 18 03:23	13° 06 '44	
conjunction	6268 Feb 18 09:59	29° 25 '56	0°39'18	retrograde	6274 Jun 14 04:54	15° 01 '01	
minimum elong	6268 Feb 18 09:59	29° 25 '56	0°39'19	opposition	6274 Sep 01 16:50	13° 38 '13	0°22'49
max. Earth dist.	6268 Feb 17 21:38	29° 24 '47	31.25738 AU	min. Earth dist.	6274 Sep 01 22:26	13° 37 '50	29.19855 AU
morning rise	6268 Mar 04 18:36	0° 00 '23		direct	6274 Nov 21 06:18	12° 14 '19	
	6268 Mar 04 14:25	0° 00 '		evening set	6275 Feb 17 19:49	14° 08 '55	
retrograde	6268 May 31 09:49	1° 54 '03					
opposition	6268 Aug 18 13:58	0° 31 '41	0°40'35	conjunction	6275 Mar 05 04:36	14° 43 '27	0°19'55
min. Earth dist.	6268 Aug 19 01:00	0° 30 '56	29.25270 AU	minimum elong	6275 Mar 05 04:36	14° 43 '27	0°19'56
	6268 Sep 07 12:52	30° 00 '		max. Earth dist.	6275 Mar 04 22:12	14° 42 '51	31.19519 AU
direct	6268 Nov 07 05:47	29° 07 '42		morning rise	6275 Mar 20 12:53	15° 17 '57	
	6269 Jan 04 00:04	0° 00 '		retrograde	6275 Jun 16 16:01	17° 12 '22	
evening set	6269 Feb 04 09:54	1° 02 '37		opposition	6275 Sep 04 05:33	15° 49 '32	0°19'43
				min. Earth dist.	6275 Sep 04 10:57	15° 49 '10	29.19199 AU
conjunction	6269 Feb 19 19:45	1° 37 '09	0°36'40	direct	6275 Nov 23 16:31	14° 25 '42	
minimum elong	6269 Feb 19 19:45	1° 37 '09	0°36'41	evening set	6276 Feb 20 05:29	16° 20 '15	
max. Earth dist.	6269 Feb 19 08:56	1° 36 '08	31.24736 AU				
morning rise	6269 Mar 07 04:08	2° 11 '35		conjunction	6276 Mar 06 14:19	16° 54 '48	0°17'00
retrograde	6269 Jun 02 20:31	4° 05 '20		minimum elong	6276 Mar 06 14:19	16° 54 '48	0°17'00
opposition	6269 Aug 21 02:26	2° 42 '53	0°37'45	max. Earth dist.	6276 Mar 06 09:39	16° 54 '22	31.18863 AU
min. Earth dist.	6269 Aug 21 13:21	2° 42 '08	29.24227 AU	morning rise	6276 Mar 21 22:28	17° 29 '19	
direct	6269 Nov 09 18:26	1° 18 '53		retrograde	6276 Jun 18 02:17	19° 23 '52	
evening set	6270 Feb 06 19:40	3° 13 '43		opposition	6276 Sep 05 18:07	18° 01 '01	0°16'34
				min. Earth dist.	6276 Sep 05 22:42	18° 00 '42	29.18522 AU
conjunction	6270 Feb 22 05:09	3° 48 '15	0°33'59	direct	6276 Nov 25 04:12	16° 37 '14	
minimum elong	6270 Feb 22 05:09	3° 48 '15	0°33'59	evening set	6277 Feb 21 15:24	18° 31 '47	
max. Earth dist.	6270 Feb 21 18:09	3° 47 '13	31.23690 AU				
morning rise	6270 Mar 09 13:37	4° 22 '42		conjunction	6277 Mar 08 23:57	19° 06 '19	0°14'03
retrograde	6270 Jun 05 09:03	6° 16 '32		minimum elong	6277 Mar 08 23:57	19° 06 '19	0°14'04
opposition	6270 Aug 23 14:50	4° 53 '58	0°34'51	behind sun begin	6277 Mar 08 20:39	19° 06 '01	
min. Earth dist.	6270 Aug 24 00:09	4° 53 '20	29.23186 AU	behind sun end	6277 Mar 09 03:16	19° 06 '37	
direct	6270 Nov 12 05:32	3° 29 '57		max. Earth dist.	6277 Mar 08 18:53	19° 05 '51	31.18169 AU
evening set	6271 Feb 09 05:18	5° 24 '44		morning rise	6277 Mar 24 08:17	19° 40 '51	
				retrograde	6277 Jun 20 14:53	21° 35 '34	
conjunction	6271 Feb 24 14:44	5° 59 '16	0°31'16	opposition	6277 Sep 08 06:56	20° 12 '40	0°13'24
minimum elong	6271 Feb 24 14:44	5° 59 '16	0°31'17	min. Earth dist.	6277 Sep 08 10:48	20° 12 '24	29.17802 AU
max. Earth dist.	6271 Feb 24 05:18	5° 58 '23	31.22668 AU	direct	6277 Nov 27 14:18	18° 48 '56	
morning rise	6271 Mar 11 23:00	6° 33 '43		evening set	6278 Feb 24 01:08	20° 43 '27	

conjunction	6278 Mar 11 09:44	21° $\mathbf{\text{H}}$ 18'00	0°11'05	minimum elong	6283 Mar 22 10:52	2° $\mathbf{\text{Y}}$ 17'34	0°04'05
minimum elong	6278 Mar 11 09:44	21° $\mathbf{\text{H}}$ 18'00	0°11'05	behind sun begin	6283 Mar 22 04:33	2° $\mathbf{\text{Y}}$ 17'00	
behind sun begin	6278 Mar 11 04:54	21° $\mathbf{\text{H}}$ 17'34		behind sun end	6283 Mar 22 17:11	2° $\mathbf{\text{Y}}$ 18'09	
behind sun end	6278 Mar 11 14:35	21° $\mathbf{\text{H}}$ 18'27		max. Earth dist.	6283 Mar 22 10:25	2° $\mathbf{\text{Y}}$ 17'33	31.12028 AU
max. Earth dist.	6278 Mar 11 06:17	21° $\mathbf{\text{H}}$ 17'42	31.17397 AU	morning rise	6283 Apr 06 19:25	2° $\mathbf{\text{Y}}$ 52'13	
morning rise	6278 Mar 26 17:53	21° $\mathbf{\text{H}}$ 52'33		retrograde	6283 Jul 04 14:11	4° $\mathbf{\text{Y}}$ 47'41	
retrograde	6278 Jun 23 01:48	23° $\mathbf{\text{H}}$ 47'25		opposition	6283 Sep 22 12:38	3° $\mathbf{\text{Y}}$ 24'20	-0°05'54
opposition	6278 Sep 10 19:55	22° $\mathbf{\text{H}}$ 24'28	0°10'12	min. Earth dist.	6283 Sep 22 12:19	3° $\mathbf{\text{Y}}$ 24'21	29.11453 AU
min. Earth dist.	6278 Sep 10 23:40	22° $\mathbf{\text{H}}$ 24'13	29.16976 AU	direct	6283 Dec 11 14:16	2° $\mathbf{\text{Y}}$ 00'41	
direct	6278 Nov 30 02:00	21° $\mathbf{\text{H}}$ 00'48		evening set	6284 Mar 08 12:25	3° $\mathbf{\text{Y}}$ 54'55	
evening set	6279 Feb 26 11:09	22° $\mathbf{\text{H}}$ 55'17					
conjunction	6279 Mar 13 19:32	23° $\mathbf{\text{H}}$ 29'50	0°08'06	conjunction	6284 Mar 23 20:38	4° $\mathbf{\text{Y}}$ 29'30	-0°07'04
minimum elong	6279 Mar 13 19:33	23° $\mathbf{\text{H}}$ 29'50	0°08'07	minimum elong	6284 Mar 23 20:39	4° $\mathbf{\text{Y}}$ 29'30	0°07'05
behind sun begin	6279 Mar 13 13:50	23° $\mathbf{\text{H}}$ 29'19		behind sun begin	6284 Mar 23 14:43	4° $\mathbf{\text{Y}}$ 28'58	
behind sun end	6279 Mar 14 01:16	23° $\mathbf{\text{H}}$ 30'21		behind sun end	6284 Mar 24 02:35	4° $\mathbf{\text{Y}}$ 30'03	
max. Earth dist.	6279 Mar 13 15:41	23° $\mathbf{\text{H}}$ 29'30	31.16523 AU	max. Earth dist.	6284 Mar 23 20:18	4° $\mathbf{\text{Y}}$ 29'29	31.10906 AU
morning rise	6279 Mar 29 03:52	24° $\mathbf{\text{H}}$ 04'24		morning rise	6284 Apr 08 05:24	5° $\mathbf{\text{Y}}$ 04'10	
retrograde	6279 Jun 25 15:04	25° $\mathbf{\text{H}}$ 59'24		retrograde	6284 Jul 06 01:43	6° $\mathbf{\text{Y}}$ 59'46	
opposition	6279 Sep 13 08:46	24° $\mathbf{\text{H}}$ 36'24	0°07'00	opposition	6284 Sep 24 01:29	5° $\mathbf{\text{Y}}$ 36'20	-0°09'06
min. Earth dist.	6279 Sep 13 11:12	24° $\mathbf{\text{H}}$ 36'14	29.16042 AU	min. Earth dist.	6284 Sep 24 00:48	5° $\mathbf{\text{Y}}$ 36'23	29.10391 AU
direct	6279 Dec 02 12:29	23° $\mathbf{\text{H}}$ 12'44		direct	6284 Dec 13 01:06	4° $\mathbf{\text{Y}}$ 12'43	
evening set	6280 Feb 28 21:00	25° $\mathbf{\text{H}}$ 07'11		evening set	6285 Mar 10 22:13	6° $\mathbf{\text{Y}}$ 06'54	
conjunction	6280 Mar 15 05:28	25° $\mathbf{\text{H}}$ 41'45	0°05'06	conjunction	6285 Mar 26 06:36	6° $\mathbf{\text{Y}}$ 41'31	-0°10'04
minimum elong	6280 Mar 15 05:27	25° $\mathbf{\text{H}}$ 41'45	0°05'06	minimum elong	6285 Mar 26 06:35	6° $\mathbf{\text{Y}}$ 41'31	0°10'03
behind sun begin	6280 Mar 14 23:14	25° $\mathbf{\text{H}}$ 41'11		behind sun begin	6285 Mar 26 01:24	6° $\mathbf{\text{Y}}$ 41'03	
behind sun end	6280 Mar 15 11:41	25° $\mathbf{\text{H}}$ 42'19		behind sun end	6285 Mar 26 11:47	6° $\mathbf{\text{Y}}$ 41'59	
max. Earth dist.	6280 Mar 15 02:37	25° $\mathbf{\text{H}}$ 41'31	31.15517 AU	max. Earth dist.	6285 Mar 26 08:15	6° $\mathbf{\text{Y}}$ 41'39	31.09893 AU
morning rise	6280 Mar 30 13:46	26° $\mathbf{\text{H}}$ 16'20		morning rise	6285 Apr 10 15:17	7° $\mathbf{\text{Y}}$ 16'11	
retrograde	6280 Jun 27 02:25	28° $\mathbf{\text{H}}$ 11'28		retrograde	6285 Jul 08 12:26	9° $\mathbf{\text{Y}}$ 11'56	
opposition	6280 Sep 14 21:48	26° $\mathbf{\text{H}}$ 48'23	0°03'46	opposition	6285 Sep 26 14:29	7° $\mathbf{\text{Y}}$ 48'27	-0°12'19
min. Earth dist.	6280 Sep 15 00:43	26° $\mathbf{\text{H}}$ 48'11	29.14972 AU	min. Earth dist.	6285 Sep 26 12:30	7° $\mathbf{\text{Y}}$ 48'35	29.09426 AU
direct	6280 Dec 04 00:16	25° $\mathbf{\text{H}}$ 24'45		direct	6285 Dec 15 13:19	6° $\mathbf{\text{Y}}$ 24'52	
evening set	6281 Mar 02 06:57	27° $\mathbf{\text{H}}$ 19'08		evening set	6286 Mar 13 08:04	8° $\mathbf{\text{Y}}$ 19'02	
conjunction	6281 Mar 17 15:19	27° $\mathbf{\text{H}}$ 53'42	0°02'05	conjunction	6286 Mar 28 16:17	8° $\mathbf{\text{Y}}$ 53'39	-0°13'03
minimum elong	6281 Mar 17 15:19	27° $\mathbf{\text{H}}$ 53'42	0°02'05	minimum elong	6286 Mar 28 16:17	8° $\mathbf{\text{Y}}$ 53'39	0°13'04
behind sun begin	6281 Mar 17 08:56	27° $\mathbf{\text{H}}$ 53'08		behind sun begin	6286 Mar 28 12:21	8° $\mathbf{\text{Y}}$ 53'17	
behind sun end	6281 Mar 17 21:43	27° $\mathbf{\text{H}}$ 54'17		behind sun end	6286 Mar 28 20:13	8° $\mathbf{\text{Y}}$ 54'00	
max. Earth dist.	6281 Mar 17 12:49	27° $\mathbf{\text{H}}$ 53'32	31.14402 AU	max. Earth dist.	6286 Mar 28 17:58	8° $\mathbf{\text{Y}}$ 53'48	31.08987 AU
morning rise	6281 Apr 01 23:44	28° $\mathbf{\text{H}}$ 28'18		morning rise	6286 Apr 13 01:16	9° $\mathbf{\text{Y}}$ 28'21	
retrograde	6281 May 22 17:42	0° $\mathbf{\text{Y}}$		retrograde	6286 Jul 11 00:56	11° $\mathbf{\text{Y}}$ 24'15	
opposition	6281 Jun 29 15:23	0° $\mathbf{\text{Y}}$ 23'33		opposition	6286 Sep 29 03:34	10° $\mathbf{\text{Y}}$ 00'43	-0°15'30
min. Earth dist.	6281 Aug 07 15:40	30° $\mathbf{\text{R}}$ $\mathbf{\text{H}}$		min. Earth dist.	6286 Sep 29 00:30	10° $\mathbf{\text{Y}}$ 00'56	29.08574 AU
direct	6281 Sep 17 10:37	29° $\mathbf{\text{H}}$ 00'23	0°00'33	direct	6286 Dec 17 23:31	8° $\mathbf{\text{Y}}$ 37'12	
min. Earth dist.	6281 Sep 17 11:56	29° $\mathbf{\text{H}}$ 00'17	29.13806 AU	evening set	6287 Mar 15 17:55	10° $\mathbf{\text{Y}}$ 31'20	
desc. node	6281 Nov 19 02:43	27° $\mathbf{\text{H}}$ 41'41		conjunction	6287 Mar 31 02:19	11° $\mathbf{\text{Y}}$ 05'58	-0°16'01
direct	6281 Dec 06 13:35	27° $\mathbf{\text{H}}$ 36'44		minimum elong	6287 Mar 31 02:19	11° $\mathbf{\text{Y}}$ 05'58	0°16'01
evening set	6282 Mar 04 16:50	29° $\mathbf{\text{H}}$ 31'05		behind sun begin	6287 Mar 31 01:14	11° $\mathbf{\text{Y}}$ 05'52	
	6282 Mar 17 13:23	0° $\mathbf{\text{Y}}$		behind sun end	6287 Mar 31 03:24	11° $\mathbf{\text{Y}}$ 06'04	
conjunction	6282 Mar 20 01:10	0° $\mathbf{\text{Y}}$ 05'39	-0°01'02	max. Earth dist.	6287 Mar 31 05:56	11° $\mathbf{\text{Y}}$ 06'18	31.08168 AU
minimum elong	6282 Mar 20 01:08	0° $\mathbf{\text{Y}}$ 05'39	0°01'03	morning rise	6287 Apr 15 11:17	11° $\mathbf{\text{Y}}$ 40'41	
behind sun begin	6282 Mar 19 18:45	0° $\mathbf{\text{Y}}$ 05'05		retrograde	6287 Jul 13 11:39	13° $\mathbf{\text{Y}}$ 36'45	
behind sun end	6282 Mar 20 07:32	0° $\mathbf{\text{Y}}$ 06'14		opposition	6287 Oct 01 16:36	12° $\mathbf{\text{Y}}$ 13'11	-0°18'40
max. Earth dist.	6282 Mar 19 23:14	0° $\mathbf{\text{Y}}$ 05'33	31.13208 AU	min. Earth dist.	6287 Oct 01 13:05	12° $\mathbf{\text{Y}}$ 13'26	29.07786 AU
morning rise	6282 Apr 04 09:39	0° $\mathbf{\text{Y}}$ 40'16		direct	6287 Dec 20 10:29	10° $\mathbf{\text{Y}}$ 49'44	
retrograde	6282 Jul 02 03:42	2° $\mathbf{\text{Y}}$ 35'38		evening set	6288 Mar 17 03:57	12° $\mathbf{\text{Y}}$ 43'50	
opposition	6282 Sep 19 23:42	1° $\mathbf{\text{Y}}$ 12'22	-0°02'40	conjunction	6288 Apr 01 12:17	13° $\mathbf{\text{Y}}$ 18'29	-0°18'58
min. Earth dist.	6282 Sep 20 01:15	1° $\mathbf{\text{Y}}$ 12'15	29.12613 AU	minimum elong	6288 Apr 01 12:17	13° $\mathbf{\text{Y}}$ 18'29	0°18'59
	6282 Nov 12 11:13	30° $\mathbf{\text{R}}$ $\mathbf{\text{H}}$		max. Earth dist.	6288 Apr 01 15:53	13° $\mathbf{\text{Y}}$ 18'49	31.07409 AU
direct	6282 Dec 09 01:17	29° $\mathbf{\text{H}}$ 48'43		morning rise	6288 Apr 16 21:32	13° $\mathbf{\text{Y}}$ 53'15	
	6283 Jan 04 02:06	0° $\mathbf{\text{Y}}$		retrograde	6288 Jul 15 01:13	15° $\mathbf{\text{Y}}$ 49'28	
evening set	6283 Mar 07 02:30	1° $\mathbf{\text{Y}}$ 42'59		opposition	6288 Oct 03 05:40	14° $\mathbf{\text{Y}}$ 25'52	-0°21'49
conjunction	6283 Mar 22 10:53	2° $\mathbf{\text{Y}}$ 17'35	-0°04'05	min. Earth dist.	6288 Oct 03 00:37	14° $\mathbf{\text{Y}}$ 26'13	29.07035 AU
				direct	6288 Dec 21 20:08	13° $\mathbf{\text{Y}}$ 02'28	

evening set	6289 Mar 19 14:00	14° Υ 56'34	retrograde	6295 Jul 31 17:47	1° \mathcal{B} 22'08
				6295 Oct 18 21:39	30° $\mathcal{R}\Upsilon$
conjunction	6289 Apr 03 22:24	15° Υ 31'14 -0°21'53	opposition	6295 Oct 20 02:33	29° Υ 58'01 -0°42'44
minimum elong	6289 Apr 03 22:24	15° Υ 31'14 0°21'54	min. Earth dist.	6295 Oct 19 18:01	29° Υ 58'36 28.99778 AU
max. Earth dist.	6289 Apr 04 03:15	15° Υ 31'41 31.06644 AU	direct	6296 Jan 07 09:12	28° Υ 34'39
morning rise	6289 Apr 19 07:42	16° Υ 06'01		6296 Mar 21 08:39	0° \mathcal{B}
retrograde	6289 Jul 17 13:16	18° Υ 02'24	evening set	6296 Apr 03 14:29	0° \mathcal{B} 28'28
opposition	6289 Oct 05 18:56	16° Υ 38'46 -0°24'56			
min. Earth dist.	6289 Oct 05 14:11	16° Υ 39'06 29.06261 AU	conjunction	6296 Apr 18 23:37	1° \mathcal{B} 03'13 -0°41'17
direct	6289 Dec 24 07:32	15° Υ 15'25	minimum elong	6296 Apr 18 23:37	1° \mathcal{B} 03'13 0°41'19
evening set	6290 Mar 22 00:14	17° Υ 09'31	max. Earth dist.	6296 Apr 19 08:52	1° \mathcal{B} 04'06 30.99154 AU
			morning rise	6296 May 04 10:17	1° \mathcal{B} 38'10
conjunction	6290 Apr 06 08:41	17° Υ 44'11 -0°24'47	retrograde	6296 Aug 02 04:07	3° \mathcal{B} 35'20
minimum elong	6290 Apr 06 08:40	17° Υ 44'11 0°24'49	opposition	6296 Oct 21 15:44	2° \mathcal{B} 11'07 -0°45'30
max. Earth dist.	6290 Apr 06 14:03	17° Υ 44'41 31.05855 AU	min. Earth dist.	6296 Oct 21 06:44	2° \mathcal{B} 11'44 28.98596 AU
morning rise	6290 Apr 21 18:09	18° Υ 18'59	direct	6297 Jan 08 21:12	0° \mathcal{B} 47'44
retrograde	6290 Jul 20 03:37	20° Υ 15'31	evening set	6297 Apr 06 00:53	2° \mathcal{B} 41'30
opposition	6290 Oct 08 08:09	18° Υ 51'51 -0°28'01			
min. Earth dist.	6290 Oct 08 01:50	18° Υ 52'17 29.05435 AU	conjunction	6297 Apr 21 10:02	3° \mathcal{B} 16'16 -0°43'50
direct	6290 Dec 26 20:10	17° Υ 28'32	minimum elong	6297 Apr 21 10:02	3° \mathcal{B} 16'16 0°43'51
evening set	6291 Mar 24 10:31	19° Υ 22'37	max. Earth dist.	6297 Apr 21 19:24	3° \mathcal{B} 17'10 30.98025 AU
			morning rise	6297 May 06 21:01	3° \mathcal{B} 51'14
conjunction	6291 Apr 08 18:59	19° Υ 57'18 -0°27'39	retrograde	6297 Aug 04 17:35	5° \mathcal{B} 48'31
minimum elong	6291 Apr 08 18:59	19° Υ 57'18 0°27'40	opposition	6297 Oct 24 04:52	4° \mathcal{B} 24'14 -0°48'13
max. Earth dist.	6291 Apr 09 00:39	19° Υ 57'50 31.04972 AU	min. Earth dist.	6297 Oct 23 18:12	4° \mathcal{B} 24'58 28.97528 AU
morning rise	6291 Apr 24 04:41	20° Υ 32'08	direct	6298 Jan 11 07:37	3° \mathcal{B} 00'51
retrograde	6291 Jul 22 16:47	22° Υ 28'48	evening set	6298 Apr 08 11:20	4° \mathcal{B} 54'35
opposition	6291 Oct 10 21:34	21° Υ 05'05 -0°31'04			
min. Earth dist.	6291 Oct 10 15:50	21° Υ 05'28 29.04505 AU	conjunction	6298 Apr 23 20:41	5° \mathcal{B} 29'23 -0°46'20
direct	6291 Dec 29 07:15	19° Υ 41'47	minimum elong	6298 Apr 23 20:41	5° \mathcal{B} 29'23 0°46'22
evening set	6292 Mar 25 20:55	21° Υ 35'50	max. Earth dist.	6298 Apr 24 07:24	5° \mathcal{B} 30'24 30.97007 AU
			morning rise	6298 May 09 07:52	6° \mathcal{B} 04'23
conjunction	6292 Apr 10 05:35	22° Υ 10'32 -0°30'29	retrograde	6298 Aug 07 05:18	8° \mathcal{B} 01'47
minimum elong	6292 Apr 10 05:34	22° Υ 10'32 0°30'30	opposition	6298 Oct 26 18:08	6° \mathcal{B} 37'26 -0°50'51
max. Earth dist.	6292 Apr 10 12:09	22° Υ 11'10 31.03980 AU	min. Earth dist.	6298 Oct 26 07:28	6° \mathcal{B} 38'10 28.96576 AU
morning rise	6292 Apr 25 15:21	22° Υ 45'23	direct	6299 Jan 13 18:47	5° \mathcal{B} 14'04
retrograde	6292 Jul 24 04:51	24° Υ 42'10	evening set	6299 Apr 10 21:46	7° \mathcal{B} 07'48
opposition	6292 Oct 12 10:41	23° Υ 18'22 -0°34'04			
min. Earth dist.	6292 Oct 12 03:39	23° Υ 18'51 29.03440 AU	conjunction	6299 Apr 26 07:20	7° \mathcal{B} 42'37 -0°48'45
direct	6292 Dec 30 20:44	21° Υ 55'05	minimum elong	6299 Apr 26 07:20	7° \mathcal{B} 42'37 0°48'47
evening set	6293 Mar 28 07:28	23° Υ 49'05	max. Earth dist.	6299 Apr 26 18:53	7° \mathcal{B} 43'42 30.96119 AU
			morning rise	6299 May 11 18:48	8° \mathcal{B} 17'38
conjunction	6293 Apr 12 16:04	24° Υ 23'48 -0°33'15	retrograde	6299 Aug 09 19:25	10° \mathcal{B} 15'10
minimum elong	6293 Apr 12 16:04	24° Υ 23'48 0°33'16	opposition	6299 Oct 29 07:14	8° \mathcal{B} 50'47 -0°53'24
max. Earth dist.	6293 Apr 12 22:10	24° Υ 24'23 31.02852 AU	min. Earth dist.	6299 Oct 28 18:46	8° \mathcal{B} 51'38 28.95735 AU
morning rise	6293 Apr 28 02:11	24° Υ 58'41	direct	6300 Jan 16 06:33	7° \mathcal{B} 27'27
retrograde	6293 Jul 26 18:15	26° Υ 55'33	evening set	6300 Apr 13 08:25	9° \mathcal{B} 21'11
opposition	6293 Oct 15 00:07	25° Υ 31'40 -0°37'01			
min. Earth dist.	6293 Oct 14 17:12	25° Υ 32'08 29.02265 AU	conjunction	6300 Apr 28 18:06	9° \mathcal{B} 56'02 -0°51'07
direct	6294 Jan 02 08:48	24° Υ 08'21	minimum elong	6300 Apr 28 18:05	9° \mathcal{B} 56'02 0°51'09
evening set	6294 Mar 30 17:41	26° Υ 02'17	max. Earth dist.	6300 Apr 29 06:07	9° \mathcal{B} 57'10 30.95311 AU
			morning rise	6300 May 14 05:53	10° \mathcal{B} 31'05
conjunction	6294 Apr 15 02:34	26° Υ 37'01 -0°35'59	retrograde	6300 Aug 12 08:37	12° \mathcal{B} 28'45
minimum elong	6294 Apr 15 02:34	26° Υ 37'01 0°36'01	opposition	6300 Oct 31 20:24	11° \mathcal{B} 04'21 -0°55'53
max. Earth dist.	6294 Apr 15 10:19	26° Υ 37'45 31.01632 AU	min. Earth dist.	6300 Oct 31 08:19	11° \mathcal{B} 05'10 28.94971 AU
morning rise	6294 Apr 30 12:44	27° Υ 11'55	direct	6301 Jan 18 16:46	9° \mathcal{B} 41'03
retrograde	6294 Jul 29 05:29	29° Υ 08'53	evening set	6301 Apr 15 19:03	11° \mathcal{B} 34'48
opposition	6294 Oct 17 13:25	27° Υ 44'53 -0°39'54			
min. Earth dist.	6294 Oct 17 05:35	27° Υ 45'25 29.01012 AU	conjunction	6301 May 01 05:02	12° \mathcal{B} 09'40 -0°53'24
direct	6295 Jan 04 22:20	26° Υ 21'33	minimum elong	6301 May 01 05:02	12° \mathcal{B} 09'40 0°53'25
evening set	6295 Apr 02 04:09	28° Υ 15'25	max. Earth dist.	6301 May 01 18:24	12° \mathcal{B} 10'56 30.94579 AU
			morning rise	6301 May 16 17:00	12° \mathcal{B} 44'45
conjunction	6295 Apr 17 13:00	28° Υ 50'09 -0°38'40	retrograde	6301 Aug 14 22:05	14° \mathcal{B} 42'33
minimum elong	6295 Apr 17 13:00	28° Υ 50'09 0°38'40	opposition	6301 Nov 03 09:36	13° \mathcal{B} 18'08 -0°58'17
max. Earth dist.	6295 Apr 17 20:29	28° Υ 50'52 31.00376 AU	min. Earth dist.	6301 Nov 02 19:56	13° \mathcal{B} 19'04 28.94252 AU
morning rise	6295 May 02 23:35	29° Υ 25'05	direct	6302 Jan 21 05:51	11° \mathcal{B} 54'53
	6295 May 19 08:15	0° \mathcal{B}	evening set	6302 Apr 18 05:50	13° \mathcal{B} 48'39

conjunction	6302 May 03 15:52	14° 8 23'32 -0°55'36		6308 Jul 23 22:21	0° II
minimum elong	6302 May 03 15:52	14° 8 23'32 0°55'38	retrograde	6308 Aug 30 16:07	0° II 23'08
max. Earth dist.	6302 May 04 04:57	14° 8 24'47 30.93862 AU		6308 Oct 08 11:29	30° R 8
morning rise	6302 May 19 04:17	14° 8 58'40	opposition	6308 Nov 19 06:02	28° 8 58'18 -1°12'27
	6302 May 19 18:47	15° 8	min. Earth dist.	6308 Nov 18 13:40	28° 8 59'26 28.87858 AU
retrograde	6302 Aug 17 13:05	16° 8 56'36	direct	6309 Feb 05 17:07	27° 8 34'59
opposition	6302 Nov 05 22:59	15° 8 32'09 -1°00'36	evening set	6309 May 03 11:36	29° 8 28'35
min. Earth dist.	6302 Nov 05 09:31	15° 8 33'05 28.93539 AU		6309 May 17 09:14	0° II
	6302 Nov 25 23:50	15° R 8			
direct	6303 Jan 23 17:33	14° 8 08'58	conjunction	6309 May 18 23:29	0° II 03'38 -1°08'31
	6303 Mar 20 12:27	15° 8	minimum elong	6309 May 18 23:29	0° II 03'38 1°08'33
evening set	6303 Apr 20 16:44	16° 8 02'43	max. Earth dist.	6309 May 19 15:50	0° II 05'11 30.87344 AU
			morning rise	6309 Jun 03 14:10	0° II 38'57
conjunction	6303 May 06 03:10	16° 8 37'39 -0°57'43	retrograde	6309 Sep 02 04:42	2° II 37'26
minimum elong	6303 May 06 03:10	16° 8 37'39 0°57'44	opposition	6309 Nov 21 19:09	1° II 12'31 -1°14'04
max. Earth dist.	6303 May 06 17:43	16° 8 39'02 30.93122 AU	min. Earth dist.	6309 Nov 21 03:10	1° II 13'37 28.86983 AU
morning rise	6303 May 21 15:42	17° 8 12'48		6310 Jan 13 16:10	30° R 8
retrograde	6303 Aug 20 01:32	19° 8 10'51	direct	6310 Feb 08 02:59	29° 8 49'10
opposition	6303 Nov 08 12:06	17° 8 46'24 -1°02'49		6310 Mar 05 07:42	0° II
min. Earth dist.	6303 Nov 07 21:59	17° 8 47'22 28.92765 AU	evening set	6310 May 05 22:38	1° II 42'44
direct	6304 Jan 26 06:47	16° 8 23'13			
evening set	6304 Apr 22 03:56	18° 8 17'00	conjunction	6310 May 21 10:58	2° II 17'48 -1°09'59
			minimum elong	6310 May 21 10:58	2° II 17'48 1°10'01
conjunction	6304 May 07 14:25	18° 8 51'56 -0°59'45	max. Earth dist.	6310 May 22 04:41	2° II 19'29 30.86537 AU
minimum elong	6304 May 07 14:25	18° 8 51'56 0°59'48	morning rise	6310 Jun 06 01:55	2° II 53'09
max. Earth dist.	6304 May 08 04:12	18° 8 53'15 30.92307 AU	retrograde	6310 Sep 04 18:18	4° II 51'40
morning rise	6304 May 23 03:26	19° 8 27'08	opposition	6310 Nov 24 08:03	3° II 26'42 -1°15'34
retrograde	6304 Aug 21 15:00	21° 8 25'18	min. Earth dist.	6310 Nov 23 14:27	3° II 27'55 28.86244 AU
min. Earth dist.	6304 Nov 09 11:08	20° 8 01'46 28.91908 AU	direct	6311 Feb 10 16:29	2° II 03'20
opposition	6304 Nov 10 01:26	20° 8 00'47 -1°04'57	evening set	6311 May 08 10:02	3° II 56'54
direct	6305 Jan 27 17:53	18° 8 37'37			
evening set	6305 Apr 24 14:56	20° 8 31'22	conjunction	6311 May 23 22:32	4° II 31'59 -1°11'20
			minimum elong	6311 May 23 22:32	4° II 31'59 1°11'21
conjunction	6305 May 10 01:48	21° 8 06'21 -1°01'42	max. Earth dist.	6311 May 24 15:56	4° II 33'38 30.85867 AU
minimum elong	6305 May 10 01:48	21° 8 06'21 1°01'43	morning rise	6311 Jun 08 14:01	5° II 07'22
max. Earth dist.	6305 May 10 16:49	21° 8 07'46 30.91383 AU	retrograde	6311 Sep 07 09:01	7° II 05'56
morning rise	6305 May 25 14:58	21° 8 41'34	opposition	6311 Nov 26 20:54	5° II 40'55 -1°16'58
retrograde	6305 Aug 24 02:14	23° 8 39'49	min. Earth dist.	6311 Nov 26 03:25	5° II 42'08 28.85656 AU
opposition	6305 Nov 12 14:47	22° 8 15'15 -1°06'58	direct	6312 Feb 13 03:34	4° II 17'33
min. Earth dist.	6305 Nov 12 00:29	22° 8 16'14 28.90932 AU	evening set	6312 May 09 21:17	6° II 11'07
direct	6306 Jan 30 06:42	20° 8 52'04			
evening set	6306 Apr 27 02:08	22° 8 45'47	conjunction	6312 May 25 10:18	6° II 46'14 -1°12'34
			minimum elong	6312 May 25 10:18	6° II 46'14 1°12'37
conjunction	6306 May 12 13:12	23° 8 20'46 -1°03'33	max. Earth dist.	6312 May 26 05:22	6° II 48'03 30.85343 AU
minimum elong	6306 May 12 13:11	23° 8 20'46 1°03'36	morning rise	6312 Jun 10 01:59	7° II 21'38
max. Earth dist.	6306 May 13 03:45	23° 8 22'09 30.90378 AU	retrograde	6312 Sep 08 21:32	9° II 20'16
morning rise	6306 May 28 02:50	23° 8 56'01	opposition	6312 Nov 28 09:45	7° II 55'14 -1°18'14
retrograde	6306 Aug 26 16:27	25° 8 54'20	min. Earth dist.	6312 Nov 27 15:17	7° II 56'31 28.85190 AU
opposition	6306 Nov 15 03:57	24° 8 29'41 -1°08'54	direct	6313 Feb 14 16:28	6° II 31'53
min. Earth dist.	6306 Nov 14 12:41	24° 8 30'44 28.89901 AU	evening set	6313 May 12 08:42	8° II 25'27
direct	6307 Feb 01 17:56	23° 8 06'28			
evening set	6307 Apr 29 13:14	25° 8 00'08	conjunction	6313 May 27 21:53	9° II 00'35 -1°13'43
			minimum elong	6313 May 27 21:53	9° II 00'35 1°13'45
conjunction	6307 May 15 00:37	25° 8 35'08 -1°05'18	max. Earth dist.	6313 May 28 16:31	9° II 02'21 30.84939 AU
minimum elong	6307 May 15 00:37	25° 8 35'08 1°05'20	morning rise	6313 Jun 12 14:07	9° II 36'02
max. Earth dist.	6307 May 15 16:03	25° 8 36'36 30.89321 AU	retrograde	6313 Sep 11 12:12	11° II 34'44
morning rise	6307 May 30 14:34	26° 8 10'25	opposition	6313 Nov 30 22:44	10° II 09'41 -1°19'23
retrograde	6307 Aug 29 02:59	28° 8 08'47	min. Earth dist.	6313 Nov 30 03:57	10° II 10'59 28.84841 AU
opposition	6307 Nov 17 17:08	26° 8 44'02 -1°10'44	direct	6314 Feb 17 03:39	8° II 46'21
min. Earth dist.	6307 Nov 17 02:18	26° 8 45'04 28.88849 AU	evening set	6314 May 14 20:12	10° II 39'56
direct	6308 Feb 04 05:39	25° 8 20'46			
evening set	6308 May 01 00:23	27° 8 14'24	conjunction	6314 May 30 09:52	11° II 15'06 -1°14'44
			minimum elong	6314 May 30 09:52	11° II 15'06 1°14'47
conjunction	6308 May 16 12:04	27° 8 49'25 -1°06'58	max. Earth dist.	6314 May 31 05:58	11° II 17'01 30.84619 AU
minimum elong	6308 May 16 12:04	27° 8 49'25 1°07'00	morning rise	6314 Jun 15 02:22	11° II 50'35
max. Earth dist.	6308 May 17 04:01	27° 8 50'56 30.88293 AU	retrograde	6314 Sep 14 00:56	13° II 49'21
morning rise	6308 Jun 01 02:20	28° 8 24'43	opposition	6314 Dec 03 11:36	12° II 24'18 -1°20'25

min. Earth dist.	6314 Dec 02 16:50	12° Π 25'36	28.84546 AU	morning rise	6321 Jun 30 19:43	27° Π 35'31	
direct	6315 Feb 19 16:32	11° Π 01'00		retrograde	6321 Sep 29 21:40	29° Π 34'27	
evening set	6315 May 17 07:57	12° Π 54'36		min. Earth dist.	6321 Dec 18 09:38	28° Π 10'36	28.81437 AU
				opposition	6321 Dec 19 05:08	28° Π 09'14	-1°24'10
conjunction	6315 Jun 01 21:55	13° Π 29'48	-1°15'38	direct	6322 Mar 07 02:16	26° Π 45'47	
minimum elong	6315 Jun 01 21:55	13° Π 29'48	1°15'41	evening set	6322 Jun 01 19:59	28° Π 39'23	
max. Earth dist.	6315 Jun 02 17:26	13° Π 31'39	30.84341 AU				
morning rise	6315 Jun 17 14:57	14° Π 05'19		conjunction	6322 Jun 17 12:45	29° Π 14'46	-1°18'44
retrograde	6315 Sep 16 15:39	16° Π 04'08		minimum elong	6322 Jun 17 12:45	29° Π 14'46	1°18'47
min. Earth dist.	6315 Dec 05 05:02	14° Π 40'27	28.84264 AU	max. Earth dist.	6322 Jun 18 08:46	29° Π 16'40	30.81180 AU
opposition	6315 Dec 06 00:29	14° Π 39'07	-1°21'20	morning rise	6322 Jul 03 08:48	29° Π 50'28	
direct	6316 Feb 22 03:55	13° Π 15'49			6322 Jul 07 16:58	0° Θ	
evening set	6316 May 18 19:49	15° Π 09'27		retrograde	6322 Oct 02 12:44	1° Θ 49'24	
				opposition	6322 Dec 21 17:36	0° Θ 24'10	-1°24'11
conjunction	6316 Jun 03 10:09	15° Π 44'41	-1°16'26	min. Earth dist.	6322 Dec 20 22:05	0° Θ 25'31	28.81108 AU
minimum elong	6316 Jun 03 10:09	15° Π 44'41	1°16'29		6323 Jan 05 08:47	30° \mathbb{R} Π	
max. Earth dist.	6316 Jun 04 06:11	15° Π 46'35	30.84023 AU	direct	6323 Mar 09 13:50	29° Π 00'40	
morning rise	6316 Jun 19 03:29	16° Π 20'13			6323 May 08 19:32	0° Θ	
retrograde	6316 Sep 18 03:01	18° Π 19'06		evening set	6323 Jun 04 08:05	0° Θ 54'17	
opposition	6316 Dec 07 13:25	16° Π 54'05	-1°22'07				
min. Earth dist.	6316 Dec 06 18:47	16° Π 55'22	28.83918 AU	conjunction	6323 Jun 20 01:26	1° Θ 29'42	-1°18'42
direct	6317 Feb 23 15:25	15° Π 30'48		minimum elong	6323 Jun 20 01:26	1° Θ 29'42	1°18'44
evening set	6317 May 21 07:47	17° Π 24'26		max. Earth dist.	6323 Jun 20 22:45	1° Θ 31'43	30.80907 AU
				morning rise	6323 Jul 05 21:47	2° Θ 05'26	
conjunction	6317 Jun 05 22:33	17° Π 59'42	-1°17'07	retrograde	6323 Oct 05 02:04	4° Θ 04'20	
minimum elong	6317 Jun 05 22:33	17° Π 59'42	1°17'09	min. Earth dist.	6323 Dec 23 10:29	2° Θ 40'27	28.80901 AU
max. Earth dist.	6317 Jun 06 18:26	18° Π 01'35	30.83646 AU	opposition	6323 Dec 24 06:03	2° Θ 39'06	-1°24'06
morning rise	6317 Jun 21 16:18	18° Π 35'16		direct	6324 Mar 11 03:22	1° Θ 15'36	
retrograde	6317 Sep 20 17:00	20° Π 34'11		evening set	6324 Jun 05 20:16	3° Θ 09'13	
min. Earth dist.	6317 Dec 09 06:45	19° Π 10'30	28.83494 AU				
opposition	6317 Dec 10 02:18	19° Π 09'09	-1°22'46	conjunction	6324 Jun 21 13:57	3° Θ 44'40	-1°18'33
direct	6318 Feb 26 02:55	17° Π 45'51		minimum elong	6324 Jun 21 13:57	3° Θ 44'40	1°18'36
evening set	6318 May 23 19:48	19° Π 39'29		max. Earth dist.	6324 Jun 22 10:42	3° Θ 46'38	30.80778 AU
				morning rise	6324 Jul 07 10:49	4° Θ 20'25	
conjunction	6318 Jun 08 10:54	20° Π 14'47	-1°17'40	retrograde	6324 Oct 06 16:17	6° Θ 19'20	
minimum elong	6318 Jun 08 10:54	20° Π 14'47	1°17'43	opposition	6324 Dec 25 18:25	4° Θ 54'05	-1°23'52
max. Earth dist.	6318 Jun 09 06:30	20° Π 16'38	30.83170 AU	min. Earth dist.	6324 Dec 24 22:05	4° Θ 55'30	28.80843 AU
morning rise	6318 Jun 24 05:10	20° Π 50'22		direct	6325 Mar 13 14:59	3° Θ 30'35	
retrograde	6318 Sep 23 05:33	22° Π 49'19		evening set	6325 Jun 08 08:31	5° Θ 24'13	
opposition	6318 Dec 12 15:16	21° Π 24'14	-1°23'19				
min. Earth dist.	6318 Dec 11 20:51	21° Π 25'31	28.82982 AU	conjunction	6325 Jun 24 02:41	5° Θ 59'42	-1°18'16
direct	6319 Feb 28 13:03	20° Π 00'55		minimum elong	6325 Jun 24 02:41	5° Θ 59'42	1°18'19
evening set	6319 May 26 07:49	21° Π 54'32		max. Earth dist.	6325 Jun 25 00:11	6° Θ 01'44	30.80780 AU
				morning rise	6325 Jul 09 23:56	6° Θ 35'29	
conjunction	6319 Jun 10 23:28	22° Π 29'51	-1°18'07	retrograde	6325 Oct 09 04:11	8° Θ 34'23	
minimum elong	6319 Jun 10 23:28	22° Π 29'51	1°18'09	min. Earth dist.	6325 Dec 27 11:07	7° Θ 10'33	28.80909 AU
max. Earth dist.	6319 Jun 11 19:39	22° Π 31'46	30.82635 AU	opposition	6325 Dec 28 06:52	7° Θ 09'10	-1°23'30
morning rise	6319 Jun 26 18:04	23° Π 05'28		direct	6326 Mar 16 02:41	5° Θ 45'41	
retrograde	6319 Sep 25 18:53	25° Π 04'25		evening set	6326 Jun 10 20:48	7° Θ 39'20	
min. Earth dist.	6319 Dec 14 08:28	23° Π 40'38	28.82425 AU				
opposition	6319 Dec 15 03:48	23° Π 39'18	-1°23'43	conjunction	6326 Jun 26 15:28	8° Θ 14'51	-1°17'52
direct	6320 Mar 02 02:28	22° Π 15'55		minimum elong	6326 Jun 26 15:28	8° Θ 14'51	1°17'55
evening set	6320 May 27 19:57	24° Π 09'32		max. Earth dist.	6326 Jun 27 12:56	8° Θ 16'53	30.80910 AU
				morning rise	6326 Jul 12 13:12	8° Θ 50'40	
conjunction	6320 Jun 12 11:52	24° Π 44'53	-1°18'26	retrograde	6326 Oct 11 19:02	10° Θ 49'33	
minimum elong	6320 Jun 12 11:52	24° Π 44'53	1°18'29	opposition	6326 Dec 30 19:09	9° Θ 24'22	-1°23'01
max. Earth dist.	6320 Jun 13 07:16	24° Π 46'43	30.82079 AU	min. Earth dist.	6326 Dec 29 22:29	9° Θ 25'49	28.81071 AU
morning rise	6320 Jun 28 07:02	25° Π 20'31		direct	6327 Mar 18 14:14	8° Θ 00'54	
retrograde	6320 Sep 27 09:01	27° Π 19'28		evening set	6327 Jun 13 09:24	9° Θ 54'35	
opposition	6320 Dec 16 16:33	25° Π 54'18	-1°24'00				
min. Earth dist.	6320 Dec 15 21:50	25° Π 55'36	28.81896 AU	conjunction	6327 Jun 29 04:27	10° Θ 30'08	-1°17'21
direct	6321 Mar 04 13:25	24° Π 30'52		minimum elong	6327 Jun 29 04:27	10° Θ 30'08	1°17'23
evening set	6321 May 30 07:48	26° Π 24'29		max. Earth dist.	6327 Jun 30 01:41	10° Θ 32'08	30.81091 AU
				morning rise	6327 Jul 15 02:39	11° Θ 05'58	
conjunction	6321 Jun 15 00:17	26° Π 59'51	-1°18'39	retrograde	6327 Oct 14 06:55	13° Θ 04'52	
minimum elong	6321 Jun 15 00:17	26° Π 59'51	1°18'41	opposition	6328 Jan 02 07:26	11° Θ 39'43	-1°22'23
max. Earth dist.	6321 Jun 15 21:03	27° Π 01'49	30.81580 AU	min. Earth dist.	6328 Jan 01 12:05	11° Θ 41'05	28.81268 AU

direct	6328 Mar 20 00:14	10°☾16'15		retrograde	6334 Oct 30 03:39	28°☾51'51	
evening set	6328 Jun 14 22:02	12°☾09'59		opposition	6335 Jan 17 20:16	27°☾26'39	-1°14'37
				min. Earth dist.	6335 Jan 17 03:13	27°☾27'51	28.81240 AU
conjunction	6328 Jun 30 17:38	12°☾45'33	-1°16'43	direct	6335 Apr 05 13:38	26°☾02'50	
minimum elong	6328 Jun 30 17:38	12°☾45'33	1°16'46	evening set	6335 Jul 01 15:58	27°☾56'34	
max. Earth dist.	6328 Jul 01 15:11	12°☾47'35	30.81290 AU				
morning rise	6328 Jul 16 16:09	13°☾21'25		conjunction	6335 Jul 17 14:48	28°☾32'18	-1°09'04
retrograde	6328 Oct 15 19:43	15°☾20'17		minimum elong	6335 Jul 17 14:48	28°☾32'18	1°09'06
opposition	6329 Jan 03 19:41	13°☾55'11	-1°21'38	max. Earth dist.	6335 Jul 18 09:37	28°☾34'04	30.81222 AU
min. Earth dist.	6329 Jan 02 23:42	13°☾56'35	28.81441 AU	morning rise	6335 Aug 02 16:23	29°☾08'18	
direct	6329 Mar 22 12:56	12°☾31'43			6335 Aug 27 20:33	0°♈	
evening set	6329 Jun 17 10:46	14°☾25'28		retrograde	6335 Nov 01 18:11	1°♏06'38	
					6336 Jan 09 05:56	30°♑☾	
conjunction	6329 Jul 03 06:40	15°☾01'03	-1°15'58	opposition	6336 Jan 20 07:52	29°☾41'26	-1°13'03
minimum elong	6329 Jul 03 06:40	15°☾01'03	1°15'59	min. Earth dist.	6336 Jan 19 14:01	29°☾42'41	28.81351 AU
max. Earth dist.	6329 Jul 04 03:00	15°☾02'58	30.81427 AU	direct	6336 Apr 07 01:57	28°☾17'35	
morning rise	6329 Jul 19 05:46	15°☾36'56			6336 Jun 27 23:40	0°♈	
retrograde	6329 Oct 18 09:03	17°☾35'48		evening set	6336 Jul 03 04:54	0°♈11'20	
opposition	6330 Jan 06 08:07	16°☾10'42	-1°20'46				
min. Earth dist.	6330 Jan 05 13:20	16°☾12'01	28.81540 AU	conjunction	6336 Jul 19 04:08	0°♈47'06	-1°07'33
direct	6330 Mar 24 22:57	14°☾47'11		minimum elong	6336 Jul 19 04:08	0°♈47'06	1°07'35
evening set	6330 Jun 19 23:37	16°☾40'58		max. Earth dist.	6336 Jul 19 22:48	0°♈48'51	30.81394 AU
				morning rise	6336 Aug 04 06:07	1°♈23'06	
conjunction	6330 Jul 05 20:11	17°☾16'35	-1°15'05	retrograde	6336 Nov 03 05:35	3°♈21'22	
minimum elong	6330 Jul 05 20:11	17°☾16'35	1°15'08	opposition	6337 Jan 21 19:40	1°♈56'11	-1°11'21
max. Earth dist.	6330 Jul 06 16:58	17°☾18'32	30.81474 AU	min. Earth dist.	6337 Jan 21 02:55	1°♈57'22	28.81601 AU
morning rise	6330 Jul 21 19:34	17°☾52'29		direct	6337 Apr 09 12:26	0°♈32'19	
retrograde	6330 Oct 20 21:59	19°☾51'16		evening set	6337 Jul 05 17:39	2°♈26'06	
opposition	6331 Jan 08 20:14	18°☾26'10	-1°19'46				
min. Earth dist.	6331 Jan 08 01:23	18°☾27'29	28.81527 AU	conjunction	6337 Jul 21 17:27	3°♈01'52	-1°05'55
direct	6331 Mar 27 11:42	17°☾02'37		minimum elong	6337 Jul 21 17:27	3°♈01'52	1°05'57
evening set	6331 Jun 22 12:37	18°☾56'23		max. Earth dist.	6337 Jul 22 12:31	3°♈03'40	30.81726 AU
				morning rise	6337 Aug 06 19:47	3°♈37'54	
conjunction	6331 Jul 08 09:30	19°☾32'01	-1°14'06	retrograde	6337 Nov 05 18:09	5°♈36'06	
minimum elong	6331 Jul 08 09:30	19°☾32'01	1°14'08	opposition	6338 Jan 24 07:16	4°♈10'58	-1°09'34
max. Earth dist.	6331 Jul 09 04:42	19°☾33'50	30.81425 AU	min. Earth dist.	6338 Jan 23 13:42	4°♈12'12	28.81993 AU
morning rise	6331 Jul 24 09:30	20°☾07'57		direct	6338 Apr 12 00:44	2°♈47'05	
retrograde	6331 Oct 23 12:25	22°☾06'39		evening set	6338 Jul 08 06:46	4°♈40'54	
opposition	6332 Jan 11 08:26	20°☾41'31	-1°18'40				
min. Earth dist.	6332 Jan 10 14:16	20°☾42'48	28.81445 AU	conjunction	6338 Jul 24 06:53	5°♈16'42	-1°04'11
direct	6332 Mar 28 23:34	19°☾17'54		minimum elong	6338 Jul 24 06:54	5°♈16'42	1°04'14
evening set	6332 Jun 24 01:20	21°☾11'40		max. Earth dist.	6338 Jul 25 00:59	5°♈18'24	30.82186 AU
				morning rise	6338 Aug 09 09:44	5°♈52'45	
conjunction	6332 Jul 09 22:49	21°☾47'19	-1°13'00	retrograde	6338 Nov 08 06:53	7°♈50'53	
minimum elong	6332 Jul 09 22:49	21°☾47'19	1°13'03	opposition	6339 Jan 26 18:51	6°♈25'48	-1°07'39
max. Earth dist.	6332 Jul 10 18:48	21°☾49'12	30.81316 AU	min. Earth dist.	6339 Jan 26 02:20	6°♈26'58	28.82516 AU
morning rise	6332 Jul 25 23:04	22°☾23'16		direct	6339 Apr 14 09:52	5°♈01'55	
retrograde	6332 Oct 25 00:59	24°☾21'53		evening set	6339 Jul 10 19:49	6°♈55'48	
opposition	6333 Jan 12 20:30	22°☾56'43	-1°17'26				
min. Earth dist.	6333 Jan 12 02:47	22°☾57'58	28.81323 AU	conjunction	6339 Jul 26 20:32	7°♈31'37	-1°02'22
direct	6333 Mar 31 13:09	21°☾33'02		minimum elong	6339 Jul 26 20:32	7°♈31'37	1°02'23
evening set	6333 Jun 26 14:14	23°☾26'47		max. Earth dist.	6339 Jul 27 15:17	7°♈33'23	30.82761 AU
				morning rise	6339 Aug 11 23:36	8°♈07'41	
conjunction	6333 Jul 12 12:05	24°☾02'28	-1°11'48	retrograde	6339 Nov 10 19:18	10°♈05'46	
minimum elong	6333 Jul 12 12:05	24°☾02'28	1°11'50	opposition	6340 Jan 29 06:22	8°♈40'46	-1°05'39
max. Earth dist.	6333 Jul 13 06:56	24°☾04'14	30.81217 AU	min. Earth dist.	6340 Jan 28 13:39	8°♈41'57	28.83115 AU
morning rise	6333 Jul 28 12:54	24°☾38'25		direct	6340 Apr 15 21:50	7°♈16'55	
retrograde	6333 Oct 27 15:14	26°☾36'57		evening set	6340 Jul 12 08:59	9°♈10'51	
opposition	6334 Jan 15 08:23	25°☾11'45	-1°16'05				
min. Earth dist.	6334 Jan 14 14:27	25°☾13'01	28.81248 AU	conjunction	6340 Jul 28 09:57	9°♈46'41	-1°00'26
direct	6334 Apr 03 01:02	23°☾48'00		minimum elong	6340 Jul 28 09:57	9°♈46'41	1°00'28
evening set	6334 Jun 29 03:04	25°☾41'44		max. Earth dist.	6340 Jul 29 03:12	9°♈48'18	30.83387 AU
				morning rise	6340 Aug 13 13:30	10°♈22'46	
conjunction	6334 Jul 15 01:27	26°☾17'26	-1°10'29	retrograde	6340 Nov 12 09:05	12°♈20'48	
minimum elong	6334 Jul 15 01:27	26°☾17'26	1°10'32	opposition	6341 Jan 30 17:58	10°♈55'52	-1°03'32
max. Earth dist.	6334 Jul 15 20:43	26°☾19'15	30.81167 AU	min. Earth dist.	6341 Jan 30 02:03	10°♈56'59	28.83749 AU
morning rise	6334 Jul 31 02:37	26°☾53'25		direct	6341 Apr 18 08:49	9°♈32'01	

evening set	6341 Jul 14 22:15	11° Ω 26'00		max. Earth dist.	6347 Aug 14 23:02	25° Ω 32'42	30.86615 AU
				morning rise	6347 Aug 30 16:02	26° Ω 07'39	
conjunction	6341 Jul 30 23:47	12° Ω 01'52 -0°58'25		retrograde	6347 Nov 29 03:22	28° Ω 04'50	
minimum elong	6341 Jul 30 23:47	12° Ω 01'52 0°58'27		opposition	6348 Feb 16 00:52	26° Ω 40'02 -0°46'20	
max. Earth dist.	6341 Jul 31 17:31	12° Ω 03'32 30.84003 AU		min. Earth dist.	6348 Feb 15 13:35	26° Ω 40'50 28.86912 AU	
morning rise	6341 Aug 16 03:31	12° Ω 37'58		direct	6348 May 03 21:33	25° Ω 15'49	
retrograde	6341 Nov 14 21:30	14° Ω 35'56		evening set	6348 Jul 30 19:45	27° Ω 09'53	
opposition	6342 Feb 02 05:27	13° Ω 11'03 -1°01'20					
min. Earth dist.	6342 Feb 01 14:22	13° Ω 12'07 28.84332 AU		conjunction	6348 Aug 15 23:58	27° Ω 45'50 -0°42'04	
direct	6342 Apr 20 21:31	11° Ω 47'11		minimum elong	6348 Aug 15 23:58	27° Ω 45'50 0°42'06	
evening set	6342 Jul 17 11:44	13° Ω 41'13		max. Earth dist.	6348 Aug 16 13:09	27° Ω 47'04 30.87184 AU	
				morning rise	6348 Sep 01 05:42	28° Ω 21'58	
conjunction	6342 Aug 02 13:35	14° Ω 17'07 -0°56'19			6348 Oct 27 13:31	0° Υ	
minimum elong	6342 Aug 02 13:35	14° Ω 17'07 0°56'20		retrograde	6348 Nov 30 13:58	0° Υ 19'01	
max. Earth dist.	6342 Aug 03 05:30	14° Ω 18'36 30.84557 AU			6349 Jan 04 00:02	30° Υ Ω	
morning rise	6342 Aug 18 17:48	14° Ω 53'13		opposition	6349 Feb 17 11:48	28° Ω 54'14 -0°43'35	
	6342 Aug 21 20:28	15° Ω		min. Earth dist.	6349 Feb 17 00:14	28° Ω 55'03 28.87539 AU	
retrograde	6342 Nov 17 11:58	16° Ω 51'06		direct	6349 May 06 10:08	27° Ω 29'59	
opposition	6343 Feb 04 16:57	15° Ω 26'15 -0°59'02		evening set	6349 Aug 02 09:11	29° Ω 24'03	
min. Earth dist.	6343 Feb 04 02:09	15° Ω 27'18 28.84839 AU					
	6343 Feb 20 11:33	15° Υ Ω		conjunction	6349 Aug 18 13:33	0° Υ 00'00 -0°39'28	
direct	6343 Apr 23 09:00	14° Ω 02'21		minimum elong	6349 Aug 18 13:33	0° Υ 00'00 0°39'29	
	6343 Jun 22 02:18	15° Ω			6349 Aug 18 13:28	0° Υ	
evening set	6343 Jul 20 01:09	15° Ω 56'25		max. Earth dist.	6349 Aug 19 01:16	0° Υ 01'06 30.87889 AU	
				morning rise	6349 Sep 03 19:40	0° Υ 36'08	
conjunction	6343 Aug 05 03:27	16° Ω 32'19 -0°54'07		retrograde	6349 Dec 03 01:55	2° Υ 33'03	
minimum elong	6343 Aug 05 03:27	16° Ω 32'19 0°54'08		opposition	6350 Feb 19 22:40	1° Υ 08'18 -0°40'45	
max. Earth dist.	6343 Aug 05 19:13	16° Ω 33'48 30.85010 AU		min. Earth dist.	6350 Feb 19 11:41	1° Υ 09'05 28.88323 AU	
morning rise	6343 Aug 21 07:51	17° Ω 08'26			6350 Apr 07 19:51	30° Υ Ω	
retrograde	6343 Nov 20 00:47	19° Ω 06'11		direct	6350 May 08 20:18	29° Ω 44'01	
opposition	6344 Feb 07 04:21	17° Ω 41'22 -0°56'39			6350 Jun 08 14:00	0° Υ	
min. Earth dist.	6344 Feb 06 14:57	17° Ω 42'19 28.85249 AU		evening set	6350 Aug 04 22:29	1° Υ 38'07	
direct	6344 Apr 24 22:17	16° Ω 17'25					
evening set	6344 Jul 21 14:31	18° Ω 11'29		conjunction	6350 Aug 21 03:21	2° Υ 14'06 -0°36'48	
				minimum elong	6350 Aug 21 03:21	2° Υ 14'06 0°36'49	
conjunction	6344 Aug 06 17:13	18° Ω 47'25 -0°51'51		max. Earth dist.	6350 Aug 21 15:46	2° Υ 15'15 30.88744 AU	
minimum elong	6344 Aug 06 17:13	18° Ω 47'25 0°51'53		morning rise	6350 Sep 06 09:30	2° Υ 50'13	
max. Earth dist.	6344 Aug 07 07:48	18° Ω 48'46 30.85407 AU		retrograde	6350 Dec 05 13:08	4° Υ 47'01	
morning rise	6344 Aug 22 21:59	19° Ω 23'32		opposition	6351 Feb 22 09:33	3° Υ 22'20 -0°37'52	
retrograde	6344 Nov 21 15:08	21° Ω 21'09		min. Earth dist.	6351 Feb 21 23:06	3° Υ 23'05 28.89238 AU	
opposition	6345 Feb 08 15:35	19° Ω 56'20 -0°54'11		direct	6351 May 11 07:58	1° Υ 58'03	
min. Earth dist.	6345 Feb 08 01:54	19° Ω 57'18 28.85621 AU		evening set	6351 Aug 07 11:55	3° Υ 52'11	
direct	6345 Apr 27 11:33	18° Ω 32'19					
evening set	6345 Jul 24 03:51	20° Ω 26'23		conjunction	6351 Aug 23 16:54	4° Υ 28'10 -0°34'04	
				minimum elong	6351 Aug 23 16:54	4° Υ 28'10 0°34'05	
conjunction	6345 Aug 09 06:54	21° Ω 02'19 -0°49'31		max. Earth dist.	6351 Aug 24 03:51	4° Υ 29'11 30.89731 AU	
minimum elong	6345 Aug 09 06:54	21° Ω 02'19 0°49'32		morning rise	6351 Sep 08 23:22	5° Υ 04'17	
max. Earth dist.	6345 Aug 09 20:56	21° Ω 03'38 30.85769 AU		retrograde	6351 Dec 08 02:36	7° Υ 00'59	
morning rise	6345 Aug 25 11:58	21° Ω 38'27		opposition	6352 Feb 24 20:19	5° Υ 36'23 -0°34'55	
retrograde	6345 Nov 24 02:24	23° Ω 35'56		min. Earth dist.	6352 Feb 24 09:54	5° Υ 37'07 28.90277 AU	
opposition	6346 Feb 11 02:53	22° Ω 11'06 -0°51'38		direct	6352 May 12 18:49	4° Υ 12'06	
min. Earth dist.	6346 Feb 10 14:48	22° Ω 11'57 28.85989 AU		evening set	6352 Aug 09 01:20	6° Υ 06'18	
direct	6346 Apr 29 22:56	20° Ω 47'02					
evening set	6346 Jul 26 17:12	22° Ω 41'05		conjunction	6352 Aug 25 06:41	6° Υ 42'18 -0°31'17	
				minimum elong	6352 Aug 25 06:41	6° Υ 42'18 0°31'18	
conjunction	6346 Aug 11 20:43	23° Ω 17'02 -0°47'06		max. Earth dist.	6352 Aug 25 17:51	6° Υ 43'20 30.90806 AU	
minimum elong	6346 Aug 11 20:44	23° Ω 17'02 0°47'07		morning rise	6352 Sep 10 13:11	7° Υ 18'25	
max. Earth dist.	6346 Aug 12 10:32	23° Ω 18'19 30.86163 AU		retrograde	6352 Dec 09 14:41	9° Υ 15'01	
morning rise	6346 Aug 28 02:01	23° Ω 53'09		opposition	6353 Feb 26 07:10	7° Υ 50'30 -0°31'55	
retrograde	6346 Nov 26 15:09	25° Ω 50'28		min. Earth dist.	6353 Feb 25 22:07	7° Υ 51'09 28.91373 AU	
opposition	6347 Feb 13 13:46	24° Ω 25'40 -0°49'01		direct	6353 May 15 07:16	6° Υ 26'14	
min. Earth dist.	6347 Feb 13 01:18	24° Ω 26'33 28.86402 AU		evening set	6353 Aug 11 14:51	8° Υ 20'30	
direct	6347 May 02 11:44	23° Ω 01'31					
evening set	6347 Jul 29 06:40	24° Ω 55'34		conjunction	6353 Aug 27 20:26	8° Υ 56'30 -0°28'28	
				minimum elong	6353 Aug 27 20:26	8° Υ 56'30 0°28'28	
conjunction	6347 Aug 14 10:23	25° Ω 31'32 -0°44'37		max. Earth dist.	6353 Aug 28 06:14	8° Υ 57'25 30.91915 AU	
minimum elong	6347 Aug 14 10:24	25° Ω 31'32 0°44'38		morning rise	6353 Sep 13 03:10	9° Υ 32'37	

retrograde	6353 Dec 12 04:43	11° 10 29'07		direct	6360 May 30 17:01	22° 10 04'21	
opposition	6354 Feb 28 17:56	10° 10 04'42	-0°28'53	evening set	6360 Aug 27 14:02	23° 10 58'49	
min. Earth dist.	6354 Feb 28 08:47	10° 10 05'21	28.92459 AU				
direct	6354 May 17 20:05	8° 10 40'27		conjunction	6360 Sep 12 20:45	24° 10 34'48	-0°07'49
evening set	6354 Aug 14 04:38	10° 10 34'46		minimum elong	6360 Sep 12 20:46	24° 10 34'48	0°07'49
				behind sun begin	6360 Sep 12 14:51	24° 10 34'17	
conjunction	6354 Aug 30 10:25	11° 10 10'47	-0°25'36	behind sun end	6360 Sep 13 02:40	24° 10 35'20	
minimum elong	6354 Aug 30 10:25	11° 10 10'47	0°25'36	max. Earth dist.	6360 Sep 12 23:56	24° 10 35'04	30.97896 AU
max. Earth dist.	6354 Aug 30 19:20	11° 10 11'36	30.92959 AU	morning rise	6360 Sep 29 03:53	25° 10 10'51	
morning rise	6354 Sep 15 17:12	11° 10 46'54		retrograde	6360 Dec 27 14:09	27° 10 06'23	
retrograde	6354 Dec 14 16:35	13° 10 43'17		opposition	6361 Mar 15 20:12	25° 10 42'19	-0°06'41
opposition	6355 Mar 03 04:45	12° 10 18'57	-0°25'47	min. Earth dist.	6361 Mar 15 16:44	25° 10 42'33	28.98338 AU
min. Earth dist.	6355 Mar 02 21:35	12° 10 19'27	28.93464 AU	direct	6361 Jun 02 03:49	24° 10 17'48	
direct	6355 May 20 07:17	10° 10 54'41		evening set	6361 Aug 30 03:22	26° 10 12'18	
evening set	6355 Aug 16 18:18	12° 10 49'03					
				conjunction	6361 Sep 15 10:19	26° 10 48'17	-0°04'49
conjunction	6355 Sep 02 00:22	13° 10 25'04	-0°22'41	minimum elong	6361 Sep 15 10:19	26° 10 48'17	0°04'49
minimum elong	6355 Sep 02 00:22	13° 10 25'04	0°22'42	behind sun begin	6361 Sep 15 03:53	26° 10 47'43	
max. Earth dist.	6355 Sep 02 08:28	13° 10 25'49	30.93924 AU	behind sun end	6361 Sep 15 16:45	26° 10 48'52	
morning rise	6355 Sep 18 07:14	14° 10 01'10		max. Earth dist.	6361 Sep 15 13:47	26° 10 48'34	30.98796 AU
retrograde	6355 Dec 17 06:02	15° 10 57'26		morning rise	6361 Oct 01 17:17	27° 10 24'19	
opposition	6356 Mar 04 15:31	14° 10 33'09	-0°22'40	retrograde	6361 Dec 30 00:41	29° 10 19'43	
min. Earth dist.	6356 Mar 04 08:18	14° 10 33'40	28.94370 AU	opposition	6362 Mar 18 06:39	27° 10 55'41	-0°03'27
direct	6356 May 21 20:20	13° 10 08'53		min. Earth dist.	6362 Mar 18 04:23	27° 10 55'51	28.99291 AU
evening set	6356 Aug 18 07:53	15° 10 03'17		direct	6362 Jun 04 16:31	26° 10 31'09	
				evening set	6362 Sep 01 16:52	28° 10 25'42	
conjunction	6356 Sep 03 14:02	15° 10 39'18	-0°19'45				
minimum elong	6356 Sep 03 14:02	15° 10 39'18	0°19'46	conjunction	6362 Sep 17 23:48	29° 10 01'40	-0°01'47
max. Earth dist.	6356 Sep 03 20:34	15° 10 39'54	30.94782 AU	minimum elong	6362 Sep 17 23:49	29° 10 01'40	0°01'46
morning rise	6356 Sep 19 21:03	16° 10 15'24		behind sun begin	6362 Sep 17 17:13	29° 10 01'05	
retrograde	6356 Dec 18 18:11	18° 10 11'31		behind sun end	6362 Sep 18 06:24	29° 10 02'15	
opposition	6357 Mar 07 02:20	16° 10 47'17	-0°19'30	max. Earth dist.	6362 Sep 18 02:00	29° 10 01'48	30.99815 AU
min. Earth dist.	6357 Mar 06 20:45	16° 10 47'41	28.95193 AU	morning rise	6362 Oct 04 06:48	29° 10 37'40	
direct	6357 May 24 06:37	15° 10 22'59			6362 Oct 14 19:28	0° 10 00	
evening set	6357 Aug 20 21:27	17° 10 17'24		retrograde	6363 Jan 01 13:19	1° 10 32'56	
				opposition	6363 Mar 20 16:52	0° 10 08'58	-0°00'13
conjunction	6357 Sep 06 03:57	17° 10 53'25	-0°16'48	min. Earth dist.	6363 Mar 20 14:08	0° 10 09'10	29.00368 AU
minimum elong	6357 Sep 06 03:57	17° 10 53'25	0°16'48		6363 Mar 26 00:11	30° 10 00	
max. Earth dist.	6357 Sep 06 10:20	17° 10 54'00	30.95576 AU	asc. node	6363 Apr 14 08:26	29° 10 28'52	
morning rise	6357 Sep 22 10:55	18° 10 29'30		direct	6363 Jun 07 04:58	28° 10 44'26	
retrograde	6357 Dec 21 04:36	20° 10 25'28			6363 Aug 16 08:59	0° 10 00	
opposition	6358 Mar 09 12:50	19° 10 01'17	-0°16'20	evening set	6363 Sep 04 06:18	0° 10 39'01	
min. Earth dist.	6358 Mar 09 07:33	19° 10 01'40	28.95953 AU				
direct	6358 May 26 19:29	17° 10 36'56		conjunction	6363 Sep 20 13:18	1° 10 14'59	0°01'22
evening set	6358 Aug 23 11:09	19° 10 31'22		minimum elong	6363 Sep 20 13:18	1° 10 14'59	0°01'21
				behind sun begin	6363 Sep 20 06:42	1° 10 14'24	
conjunction	6358 Sep 08 17:39	20° 10 07'22	-0°13'49	behind sun end	6363 Sep 20 19:53	1° 10 15'34	
minimum elong	6358 Sep 08 17:39	20° 10 07'22	0°13'49	max. Earth dist.	6363 Sep 20 15:12	1° 10 15'06	31.00948 AU
behind sun begin	6358 Sep 08 14:21	20° 10 07'05		morning rise	6363 Oct 06 20:09	1° 10 50'58	
behind sun end	6358 Sep 08 20:57	20° 10 07'40		retrograde	6364 Jan 04 00:47	3° 10 46'07	
max. Earth dist.	6358 Sep 08 22:04	20° 10 07'46	30.96327 AU	opposition	6364 Mar 22 03:20	2° 10 22'14	0°03'01
morning rise	6358 Sep 25 00:48	20° 10 43'27		min. Earth dist.	6364 Mar 22 02:05	2° 10 22'19	29.01560 AU
retrograde	6358 Dec 23 15:56	22° 10 39'17		direct	6364 Jun 08 15:57	0° 10 57'42	
opposition	6359 Mar 11 23:23	21° 10 15'08	-0°13'08	evening set	6364 Sep 05 19:33	2° 10 52'20	
min. Earth dist.	6359 Mar 11 19:04	21° 10 15'26	28.96707 AU				
direct	6359 May 29 05:40	19° 10 50'43		conjunction	6364 Sep 22 02:39	3° 10 28'18	0°04'25
evening set	6359 Aug 26 00:32	21° 10 45'10		minimum elong	6364 Sep 22 02:38	3° 10 28'18	0°04'25
				behind sun begin	6364 Sep 21 20:10	3° 10 27'44	
conjunction	6359 Sep 11 07:18	22° 10 21'11	-0°10'49	behind sun end	6364 Sep 22 09:06	3° 10 28'52	
minimum elong	6359 Sep 11 07:18	22° 10 21'11	0°10'50	max. Earth dist.	6364 Sep 22 04:05	3° 10 28'24	31.02191 AU
behind sun begin	6359 Sep 11 02:20	22° 10 20'44		morning rise	6364 Oct 08 09:25	4° 10 04'16	
behind sun end	6359 Sep 11 12:15	22° 10 21'37		retrograde	6365 Jan 05 14:11	5° 10 59'18	
max. Earth dist.	6359 Sep 11 12:09	22° 10 21'37	30.97084 AU	opposition	6365 Mar 24 13:36	4° 10 35'31	0°06'15
morning rise	6359 Sep 27 14:16	22° 10 57'14		min. Earth dist.	6365 Mar 24 12:09	4° 10 35'37	29.02818 AU
retrograde	6359 Dec 26 02:10	24° 10 52'55		direct	6365 Jun 11 05:24	3° 10 11'00	
opposition	6360 Mar 13 09:53	23° 10 28'48	-0°09'55	evening set	6365 Sep 08 09:09	5° 10 05'42	
min. Earth dist.	6360 Mar 13 06:21	23° 10 29'03	28.97479 AU				

conjunction	6365 Sep 24 16:08	5° <u>♁</u> 41'39	0°07'25	minimum elong	6371 Oct 09 00:35	19° <u>♁</u> 00'20	0°25'05
minimum elong	6365 Sep 24 16:08	5° <u>♁</u> 41'39	0°07'25	max. Earth dist.	6371 Oct 08 18:33	18° <u>♁</u> 59'46	31.09270 AU
behind sun begin	6365 Sep 24 10:08	5° <u>♁</u> 41'08		morning rise	6371 Oct 25 06:07	19° <u>♁</u> 36'06	
behind sun end	6365 Sep 24 22:08	5° <u>♁</u> 42'11		retrograde	6372 Jan 21 18:37	21° <u>♁</u> 30'14	
max. Earth dist.	6365 Sep 24 16:17	5° <u>♁</u> 41'40	31.03454 AU	opposition	6372 Apr 08 13:33	20° <u>♁</u> 06'49	0°28'17
morning rise	6365 Oct 10 22:51	6° <u>♁</u> 17'36		min. Earth dist.	6372 Apr 08 18:10	20° <u>♁</u> 06'29	29.09647 AU
retrograde	6366 Jan 08 02:06	8° <u>♁</u> 12'32		direct	6372 Jun 26 14:23	18° <u>♁</u> 42'06	
opposition	6366 Mar 26 23:54	6° <u>♁</u> 48'50	0°09'29	evening set	6372 Sep 24 07:05	20° <u>♁</u> 36'58	
min. Earth dist.	6366 Mar 27 00:05	6° <u>♁</u> 48'49	29.04081 AU				
direct	6366 Jun 13 16:15	5° <u>♁</u> 24'20		conjunction	6372 Oct 10 13:33	21° <u>♁</u> 12'47	0°27'54
evening set	6366 Sep 10 22:42	7° <u>♁</u> 19'06		minimum elong	6372 Oct 10 13:33	21° <u>♁</u> 12'47	0°27'55
				max. Earth dist.	6372 Oct 10 07:10	21° <u>♁</u> 12'12	31.10014 AU
conjunction	6366 Sep 27 05:48	7° <u>♁</u> 55'02	0°10'25	morning rise	6372 Oct 26 18:47	21° <u>♁</u> 48'32	
minimum elong	6366 Sep 27 05:47	7° <u>♁</u> 55'02	0°10'26	retrograde	6373 Jan 23 04:55	23° <u>♁</u> 42'32	
behind sun begin	6366 Sep 27 00:40	7° <u>♁</u> 54'35		opposition	6373 Apr 10 23:46	22° <u>♁</u> 19'08	0°31'17
behind sun end	6366 Sep 27 10:54	7° <u>♁</u> 55'29		min. Earth dist.	6373 Apr 11 06:00	22° <u>♁</u> 18'42	29.10414 AU
max. Earth dist.	6366 Sep 27 05:39	7° <u>♁</u> 55'02	31.04685 AU	direct	6373 Jun 29 01:45	20° <u>♁</u> 54'22	
morning rise	6366 Oct 13 12:14	8° <u>♁</u> 30'57		evening set	6373 Sep 26 20:12	22° <u>♁</u> 49'15	
retrograde	6367 Jan 10 12:53	10° <u>♁</u> 25'46					
opposition	6367 Mar 29 10:15	9° <u>♁</u> 02'10	0°12'41	conjunction	6373 Oct 13 02:33	23° <u>♁</u> 25'03	0°30'41
min. Earth dist.	6367 Mar 29 10:52	9° <u>♁</u> 02'07	29.05261 AU	minimum elong	6373 Oct 13 02:33	23° <u>♁</u> 25'03	0°30'41
direct	6367 Jun 16 05:03	7° <u>♁</u> 37'40		max. Earth dist.	6373 Oct 12 19:37	23° <u>♁</u> 24'25	31.10811 AU
evening set	6367 Sep 13 12:16	9° <u>♁</u> 32'28		morning rise	6373 Oct 29 07:31	24° <u>♁</u> 00'46	
				retrograde	6374 Jan 25 17:00	25° <u>♁</u> 54'37	
conjunction	6367 Sep 29 19:07	10° <u>♁</u> 08'23	0°13'24	opposition	6374 Apr 13 09:41	24° <u>♁</u> 31'16	0°34'14
minimum elong	6367 Sep 29 19:08	10° <u>♁</u> 08'23	0°13'24	min. Earth dist.	6374 Apr 13 15:34	24° <u>♁</u> 30'51	29.11243 AU
behind sun begin	6367 Sep 29 15:31	10° <u>♁</u> 08'04		direct	6374 Jul 01 15:29	23° <u>♁</u> 06'28	
behind sun end	6367 Sep 29 22:44	10° <u>♁</u> 08'42		evening set	6374 Sep 29 09:21	25° <u>♁</u> 01'24	
max. Earth dist.	6367 Sep 29 16:51	10° <u>♁</u> 08'11	31.05810 AU				
morning rise	6367 Oct 16 01:31	10° <u>♁</u> 44'17		conjunction	6374 Oct 15 15:25	25° <u>♁</u> 37'10	0°33'25
retrograde	6368 Jan 13 00:39	12° <u>♁</u> 38'59		minimum elong	6374 Oct 15 15:24	25° <u>♁</u> 37'10	0°33'26
opposition	6368 Mar 30 20:40	11° <u>♁</u> 15'26	0°15'52	max. Earth dist.	6374 Oct 15 07:33	25° <u>♁</u> 36'27	31.11682 AU
min. Earth dist.	6368 Mar 30 22:21	11° <u>♁</u> 15'19	29.06338 AU	morning rise	6374 Oct 31 20:06	26° <u>♁</u> 12'51	
direct	6368 Jun 17 15:26	9° <u>♁</u> 50'55		retrograde	6375 Jan 28 04:05	28° <u>♁</u> 06'36	
evening set	6368 Sep 15 01:43	11° <u>♁</u> 45'44		opposition	6375 Apr 15 19:52	26° <u>♁</u> 43'17	0°37'08
				min. Earth dist.	6375 Apr 16 02:49	26° <u>♁</u> 42'48	29.12184 AU
conjunction	6368 Oct 01 08:42	12° <u>♁</u> 21'39	0°16'22	direct	6375 Jul 04 02:36	25° <u>♁</u> 18'29	
minimum elong	6368 Oct 01 08:41	12° <u>♁</u> 21'39	0°16'23	evening set	6375 Oct 01 22:07	27° <u>♁</u> 13'27	
max. Earth dist.	6368 Oct 01 06:26	12° <u>♁</u> 21'27	31.06820 AU				
morning rise	6368 Oct 17 14:45	12° <u>♁</u> 57'31		conjunction	6375 Oct 18 04:05	27° <u>♁</u> 49'12	0°36'06
retrograde	6369 Jan 14 10:32	14° <u>♁</u> 52'04		minimum elong	6375 Oct 18 04:05	27° <u>♁</u> 49'12	0°36'07
opposition	6369 Apr 02 06:58	13° <u>♁</u> 28'34	0°19'02	max. Earth dist.	6375 Oct 17 20:35	27° <u>♁</u> 48'31	31.12680 AU
min. Earth dist.	6369 Apr 02 09:53	13° <u>♁</u> 28'22	29.07283 AU	morning rise	6375 Nov 03 08:23	28° <u>♁</u> 24'51	
direct	6369 Jun 20 02:56	12° <u>♁</u> 04'01			6375 Dec 28 09:05	0° <u>♂</u>	
evening set	6369 Sep 17 15:17	13° <u>♁</u> 58'51		retrograde	6376 Jan 30 14:19	0° <u>♂</u> 18'29	
					6376 Mar 04 04:26	30° <u>♂</u> <u>♁</u>	
conjunction	6369 Oct 03 22:03	14° <u>♁</u> 34'44	0°19'18	opposition	6376 Apr 17 05:55	28° <u>♁</u> 55'16	0°39'58
minimum elong	6369 Oct 03 22:03	14° <u>♁</u> 34'44	0°19'18	min. Earth dist.	6376 Apr 17 12:45	28° <u>♁</u> 54'47	29.13233 AU
max. Earth dist.	6369 Oct 03 17:37	14° <u>♁</u> 34'20	31.07717 AU	direct	6376 Jul 05 15:14	27° <u>♁</u> 30'29	
morning rise	6369 Oct 20 04:06	15° <u>♁</u> 10'35		evening set	6376 Oct 03 11:07	29° <u>♁</u> 25'29	
retrograde	6370 Jan 16 21:37	17° <u>♁</u> 05'00					
opposition	6370 Apr 04 17:13	15° <u>♁</u> 41'32	0°22'09	conjunction	6376 Oct 19 16:44	0° <u>♂</u> 01'14	0°38'44
min. Earth dist.	6370 Apr 04 20:32	15° <u>♁</u> 41'18	29.08132 AU	minimum elong	6376 Oct 19 16:44	0° <u>♂</u> 01'14	0°38'46
direct	6370 Jun 22 14:13	14° <u>♁</u> 16'56		max. Earth dist.	6376 Oct 19 07:43	0° <u>♂</u> 00'24	31.13787 AU
evening set	6370 Sep 20 04:40	16° <u>♁</u> 11'46			6376 Oct 19 03:25	0° <u>♂</u>	
				morning rise	6376 Nov 04 20:51	0° <u>♂</u> 36'51	
conjunction	6370 Oct 06 11:27	16° <u>♁</u> 47'39	0°22'12	retrograde	6377 Feb 01 02:00	2° <u>♂</u> 30'24	
minimum elong	6370 Oct 06 11:27	16° <u>♁</u> 47'39	0°22'14	opposition	6377 Apr 19 15:54	1° <u>♂</u> 07'16	0°42'45
max. Earth dist.	6370 Oct 06 06:58	16° <u>♁</u> 47'14	31.08513 AU	min. Earth dist.	6377 Apr 19 23:19	1° <u>♂</u> 06'45	29.14392 AU
morning rise	6370 Oct 22 17:06	17° <u>♁</u> 23'27			6377 Jun 04 21:41	30° <u>♂</u> <u>♂</u> <u>♁</u>	
retrograde	6371 Jan 19 06:51	19° <u>♁</u> 17'43		direct	6377 Jul 08 01:22	29° <u>♁</u> 42'31	
opposition	6371 Apr 07 03:28	17° <u>♁</u> 54'17	0°25'14		6377 Aug 09 19:09	0° <u>♂</u>	
min. Earth dist.	6371 Apr 07 08:22	17° <u>♁</u> 53'56	29.08898 AU	evening set	6377 Oct 06 00:02	1° <u>♂</u> 37'35	
direct	6371 Jun 25 02:13	16° <u>♁</u> 29'38					
evening set	6371 Sep 22 18:01	18° <u>♁</u> 24'29		conjunction	6377 Oct 22 05:35	2° <u>♂</u> 13'19	0°41'19
				minimum elong	6377 Oct 22 05:35	2° <u>♂</u> 13'19	0°41'20
conjunction	6371 Oct 09 00:35	19° <u>♁</u> 00'20	0°25'04	max. Earth dist.	6377 Oct 21 21:04	2° <u>♂</u> 12'32	31.14967 AU

morning rise	6377 Nov 07 09:13	2°M48'55	direct	6384 Jul 23 10:08	15°M06'44	
retrograde	6378 Feb 03 11:45	4°M42'23	evening set	6384 Oct 21 17:52	17°M02'01	
opposition	6378 Apr 22 02:01	3°M19'22 0°45'28				
min. Earth dist.	6378 Apr 22 10:26	3°M18'47 29.15574 AU	conjunction	6384 Nov 06 21:17	17°M37'33 0°57'24	
direct	6378 Jul 10 12:28	1°M54'39	minimum elong	6384 Nov 06 21:17	17°M37'33 0°57'27	
evening set	6378 Oct 08 13:06	3°M49'47	max. Earth dist.	6384 Nov 06 07:03	17°M36'14 31.21238 AU	
			morning rise	6384 Nov 22 22:12	18°M12'53	
conjunction	6378 Oct 24 18:12	4°M25'29 0°43'49	retrograde	6385 Feb 18 12:36	20°M05'41	
minimum elong	6378 Oct 24 18:12	4°M25'29 0°43'52	opposition	6385 May 07 00:58	18°M43'00 1°02'23	
max. Earth dist.	6378 Oct 24 07:53	4°M24'32 31.16142 AU	min. Earth dist.	6385 May 07 14:08	18°M42'05 29.21590 AU	
morning rise	6378 Nov 09 21:36	5°M01'03	direct	6385 Jul 25 23:18	17°M18'08	
retrograde	6379 Feb 05 22:23	6°M54'28	evening set	6385 Oct 24 06:28	19°M13'26	
opposition	6379 Apr 24 12:05	5°M31'32 0°48'07				
min. Earth dist.	6379 Apr 24 20:39	5°M30'56 29.16732 AU	conjunction	6385 Nov 09 09:23	19°M48'55 0°59'24	
direct	6379 Jul 12 23:11	4°M06'50	minimum elong	6385 Nov 09 09:23	19°M48'55 0°59'25	
evening set	6379 Oct 11 02:02	6°M02'02	max. Earth dist.	6385 Nov 08 17:38	19°M47'28 31.21873 AU	
			morning rise	6385 Nov 25 10:00	20°M24'13	
conjunction	6379 Oct 27 07:00	6°M37'43 0°46'16	retrograde	6386 Feb 21 00:11	22°M16'54	
minimum elong	6379 Oct 27 06:59	6°M37'43 0°46'18	opposition	6386 May 09 11:05	20°M54'13 1°04'28	
max. Earth dist.	6379 Oct 26 20:46	6°M36'47 31.17249 AU	min. Earth dist.	6386 May 10 00:36	20°M53'17 29.22255 AU	
morning rise	6379 Nov 12 09:51	7°M13'15	direct	6386 Jul 28 11:01	19°M29'19	
retrograde	6380 Feb 08 07:18	9°M06'35	evening set	6386 Oct 26 18:42	21°M24'37	
opposition	6380 Apr 25 22:21	7°M43'45 0°50'42				
min. Earth dist.	6380 Apr 26 08:31	7°M43'02 29.17797 AU	conjunction	6386 Nov 11 21:24	22°M00'04 1°01'17	
direct	6380 Jul 14 10:07	6°M19'03	minimum elong	6386 Nov 11 21:24	22°M00'04 1°01'20	
evening set	6380 Oct 12 14:56	8°M14'17	max. Earth dist.	6386 Nov 11 06:29	21°M58'42 31.22559 AU	
			morning rise	6386 Nov 27 21:24	22°M35'20	
conjunction	6380 Oct 28 19:31	8°M49'56 0°48'39	retrograde	6387 Feb 23 08:49	24°M27'55	
minimum elong	6380 Oct 28 19:31	8°M49'56 0°48'41	opposition	6387 May 11 21:16	23°M05'16 1°06'27	
max. Earth dist.	6380 Oct 28 07:39	8°M48'51 31.18262 AU	min. Earth dist.	6387 May 12 11:23	23°M04'17 29.22982 AU	
morning rise	6380 Nov 13 22:10	9°M25'27	direct	6387 Jul 30 23:16	21°M40'21	
retrograde	6381 Feb 09 18:49	11°M18'41	evening set	6387 Oct 29 07:03	23°M35'38	
opposition	6381 Apr 28 08:29	9°M55'54 0°53'12				
min. Earth dist.	6381 Apr 28 18:29	9°M55'12 29.18747 AU	conjunction	6387 Nov 14 09:12	24°M11'03 1°03'06	
direct	6381 Jul 16 21:15	8°M31'12	minimum elong	6387 Nov 14 09:12	24°M11'03 1°03'08	
evening set	6381 Oct 15 03:54	10°M26'28	max. Earth dist.	6387 Nov 13 17:02	24°M09'34 31.23345 AU	
			morning rise	6387 Nov 30 08:56	24°M46'17	
conjunction	6381 Oct 31 08:14	11°M02'06 0°50'57	retrograde	6388 Feb 25 19:00	26°M38'47	
minimum elong	6381 Oct 31 08:13	11°M02'06 0°50'58	opposition	6388 May 13 07:18	25°M16'10 1°08'20	
max. Earth dist.	6381 Oct 30 19:42	11°M00'56 31.19139 AU	min. Earth dist.	6388 May 13 20:54	25°M15'14 29.23834 AU	
morning rise	6381 Nov 16 10:22	11°M37'34	direct	6388 Aug 01 10:03	23°M51'15	
retrograde	6382 Feb 12 04:33	13°M30'42	evening set	6388 Oct 30 19:07	25°M46'34	
opposition	6382 Apr 30 18:41	12°M07'58 0°55'38				
min. Earth dist.	6382 May 01 06:31	12°M07'08 29.19573 AU	conjunction	6388 Nov 15 21:04	26°M21'58 1°04'49	
direct	6382 Jul 19 08:40	10°M43'14	minimum elong	6388 Nov 15 21:04	26°M21'58 1°04'52	
evening set	6382 Oct 17 16:44	12°M38'31	max. Earth dist.	6388 Nov 15 05:39	26°M20'32 31.24244 AU	
			morning rise	6388 Dec 01 20:13	26°M57'09	
conjunction	6382 Nov 02 20:46	13°M14'07 0°53'11	retrograde	6389 Feb 27 03:29	28°M49'36	
minimum elong	6382 Nov 02 20:45	13°M14'07 0°53'14	opposition	6389 May 15 17:32	27°M27'03 1°10'07	
max. Earth dist.	6382 Nov 02 07:27	13°M12'53 31.19915 AU	min. Earth dist.	6389 May 16 08:13	27°M26'02 29.24780 AU	
morning rise	6382 Nov 18 22:32	13°M49'32	direct	6389 Aug 03 20:32	26°M02'10	
	6382 Dec 25 15:17	15°M	evening set	6389 Nov 02 07:23	27°M57'31	
retrograde	6383 Feb 14 16:02	15°M42'34				
	6383 Apr 08 04:11	15°RM	conjunction	6389 Nov 18 08:50	28°M32'53 1°06'26	
opposition	6383 May 03 04:49	14°M19'51 0°57'58	minimum elong	6389 Nov 18 08:50	28°M32'53 1°06'28	
min. Earth dist.	6383 May 03 16:31	14°M19'02 29.20296 AU	max. Earth dist.	6389 Nov 17 16:24	28°M31'22 31.25233 AU	
direct	6383 Jul 21 22:39	12°M55'05	morning rise	6389 Dec 04 07:39	29°M08'03	
evening set	6383 Oct 20 05:21	14°M50'23		6389 Dec 30 03:04	0°Z	
	6383 Oct 24 15:31	15°M	retrograde	6390 Mar 01 14:29	1°Z00'26	
				6390 May 04 18:56	30°RM	
conjunction	6383 Nov 05 08:59	15°M25'56 0°55'20	opposition	6390 May 18 03:35	29°M37'59 1°11'48	
minimum elong	6383 Nov 05 08:58	15°M25'56 0°55'22	min. Earth dist.	6390 May 18 17:36	29°M37'01 29.25789 AU	
max. Earth dist.	6383 Nov 04 18:36	15°M24'37 31.20595 AU	direct	6390 Aug 06 07:07	28°M13'08	
morning rise	6383 Nov 21 10:22	16°M01'19		6390 Oct 31 19:55	0°Z	
retrograde	6384 Feb 17 02:35	17°M54'15	evening set	6390 Nov 04 19:33	0°Z08'32	
opposition	6384 May 04 15:01	16°M31'32 1°00'13				
min. Earth dist.	6384 May 05 03:59	16°M30'38 29.20960 AU	conjunction	6390 Nov 20 20:38	0°Z43'53 1°07'58	

minimum elong	6390 Nov 20 20:38	0°♂43'53	1°08'01	evening set	6397 Nov 20 07:17	15°♂26'28	
max. Earth dist.	6390 Nov 20 04:08	0°♂42'22	31.26241 AU	max. Earth dist.	6397 Dec 05 09:46	15°♂59'48	31.30597 AU
morning rise	6390 Dec 06 18:54	1°♂19'01					
retrograde	6391 Mar 04 00:03	3°♂11'23		conjunction	6397 Dec 06 05:28	16°♂01'37	1°15'47
opposition	6391 May 20 13:57	1°♂49'01	1°13'22	minimum elong	6397 Dec 06 05:28	16°♂01'37	1°15'49
min. Earth dist.	6391 May 21 05:25	1°♂47'57	29.26795 AU	morning rise	6397 Dec 22 00:29	16°♂36'30	
direct	6391 Aug 08 17:39	0°♂24'13		retrograde	6398 Mar 18 23:33	18°♂28'34	
evening set	6391 Nov 07 07:32	2°♂19'40		opposition	6398 Jun 04 14:57	17°♂06'29	1°21'20
				min. Earth dist.	6398 Jun 05 09:53	17°♂05'10	29.30813 AU
conjunction	6391 Nov 23 08:13	2°♂54'59	1°09'24	direct	6398 Aug 24 05:26	15°♂41'41	
minimum elong	6391 Nov 23 08:12	2°♂54'59	1°09'26	evening set	6398 Nov 22 18:53	17°♂37'14	
max. Earth dist.	6391 Nov 22 15:21	2°♂53'25	31.27220 AU				
morning rise	6391 Dec 09 06:04	3°♂30'04		conjunction	6398 Dec 08 16:32	18°♂12'20	1°16'29
retrograde	6392 Mar 05 11:10	5°♂22'25		minimum elong	6398 Dec 08 16:32	18°♂12'20	1°16'32
opposition	6392 May 22 00:16	4°♂00'08	1°14'50	max. Earth dist.	6398 Dec 07 20:07	18°♂10'27	31.30894 AU
min. Earth dist.	6392 May 22 15:29	3°♂59'05	29.27727 AU	morning rise	6398 Dec 24 11:14	18°♂47'12	
direct	6392 Aug 10 06:31	2°♂35'22		retrograde	6399 Mar 21 09:53	20°♂39'12	
evening set	6392 Nov 08 19:44	4°♂30'52		opposition	6399 Jun 07 01:26	19°♂17'07	1°22'01
				min. Earth dist.	6399 Jun 07 19:20	19°♂15'53	29.31126 AU
conjunction	6392 Nov 24 19:56	5°♂06'09	1°10'43	direct	6399 Aug 26 16:14	17°♂52'19	
minimum elong	6392 Nov 24 19:56	5°♂06'09	1°10'46	evening set	6399 Nov 25 06:11	19°♂47'51	
max. Earth dist.	6392 Nov 24 02:02	5°♂04'30	31.28091 AU	max. Earth dist.	6399 Dec 10 07:21	20°♂21'03	31.31228 AU
morning rise	6392 Dec 10 17:21	5°♂41'13					
retrograde	6393 Mar 07 22:04	7°♂33'32		conjunction	6399 Dec 11 03:27	20°♂22'55	1°17'04
opposition	6393 May 24 10:35	6°♂11'18	1°16'12	minimum elong	6399 Dec 11 03:27	20°♂22'55	1°17'06
min. Earth dist.	6393 May 25 03:01	6°♂10'10	29.28550 AU	morning rise	6399 Dec 26 21:37	20°♂57'45	
direct	6393 Aug 12 17:11	4°♂46'34		retrograde	6400 Mar 22 18:20	22°♂49'44	
evening set	6393 Nov 11 07:50	6°♂42'06		opposition	6400 Jun 08 12:03	21°♂27'39	1°22'35
				min. Earth dist.	6400 Jun 09 06:52	21°♂26'21	29.31509 AU
conjunction	6393 Nov 27 07:44	7°♂17'22	1°11'57	direct	6400 Aug 28 02:58	20°♂02'51	
minimum elong	6393 Nov 27 07:44	7°♂17'22	1°11'59	evening set	6400 Nov 26 17:34	21°♂58'23	
max. Earth dist.	6393 Nov 26 13:54	7°♂15'43	31.28843 AU				
morning rise	6393 Dec 13 04:36	7°♂52'23		conjunction	6400 Dec 12 14:25	22°♂33'25	1°17'32
retrograde	6394 Mar 10 08:25	9°♂44'40		minimum elong	6400 Dec 12 14:25	22°♂33'25	1°17'35
opposition	6394 May 26 21:05	8°♂22'30	1°17'27	max. Earth dist.	6400 Dec 11 18:32	22°♂31'34	31.31657 AU
min. Earth dist.	6394 May 27 13:48	8°♂21'20	29.29223 AU	morning rise	6400 Dec 28 08:10	23°♂08'13	
direct	6394 Aug 15 06:19	6°♂57'46		retrograde	6401 Mar 25 04:22	25°♂00'11	
evening set	6394 Nov 13 19:55	8°♂53'20		opposition	6401 Jun 10 22:27	23°♂38'08	1°23'02
				min. Earth dist.	6401 Jun 11 16:28	23°♂36'54	29.31970 AU
conjunction	6394 Nov 29 19:12	9°♂28'34	1°13'04	direct	6401 Aug 30 14:53	22°♂13'21	
minimum elong	6394 Nov 29 19:12	9°♂28'34	1°13'07	evening set	6401 Nov 29 04:59	24°♂08'54	
max. Earth dist.	6394 Nov 28 23:45	9°♂26'46	31.29445 AU	max. Earth dist.	6401 Dec 14 05:03	24°♂42'02	31.32157 AU
morning rise	6394 Dec 15 15:43	10°♂03'33					
retrograde	6395 Mar 12 20:27	11°♂55'47		conjunction	6401 Dec 15 01:20	24°♂43'55	1°17'54
opposition	6395 May 29 07:34	10°♂33'39	1°18'36	minimum elong	6401 Dec 15 01:20	24°♂43'55	1°17'56
min. Earth dist.	6395 May 30 00:42	10°♂32'28	29.29770 AU	morning rise	6401 Dec 30 18:41	25°♂18'41	
direct	6395 Aug 17 18:20	9°♂08'56		retrograde	6402 Mar 27 15:08	27°♂10'39	
evening set	6395 Nov 16 07:45	11°♂04'30		opposition	6402 Jun 13 09:09	25°♂48'39	1°23'21
max. Earth dist.	6395 Dec 01 11:56	11°♂37'57	31.29924 AU	min. Earth dist.	6402 Jun 14 03:39	25°♂47'22	29.32506 AU
				direct	6402 Sep 02 00:34	24°♂23'54	
conjunction	6395 Dec 02 06:48	11°♂39'42	1°14'05	evening set	6402 Dec 01 16:07	26°♂19'28	
minimum elong	6395 Dec 02 06:48	11°♂39'42	1°14'07				
morning rise	6395 Dec 18 02:42	12°♂14'39		conjunction	6402 Dec 17 12:08	26°♂54'27	1°18'09
retrograde	6396 Mar 14 05:20	14°♂06'50		minimum elong	6402 Dec 17 12:08	26°♂54'27	1°18'12
opposition	6396 May 30 18:01	12°♂44'44	1°19'37	max. Earth dist.	6402 Dec 16 16:43	26°♂52'39	31.32705 AU
min. Earth dist.	6396 May 31 12:09	12°♂43'29	29.30188 AU	morning rise	6403 Jan 02 04:57	27°♂29'12	
direct	6396 Aug 19 06:57	11°♂20'00		retrograde	6403 Mar 30 01:25	29°♂21'10	
evening set	6396 Nov 17 19:38	13°♂15'34		opposition	6403 Jun 15 19:52	27°♂59'13	1°23'33
				min. Earth dist.	6403 Jun 16 14:14	27°♂57'58	29.33043 AU
conjunction	6396 Dec 03 18:07	13°♂50'44	1°14'59	direct	6403 Sep 04 13:36	26°♂34'31	
minimum elong	6396 Dec 03 18:07	13°♂50'44	1°15'03	evening set	6403 Dec 04 03:27	28°♂30'07	
max. Earth dist.	6396 Dec 02 21:46	13°♂48'51	31.30299 AU				
morning rise	6396 Dec 19 13:46	14°♂25'39		conjunction	6403 Dec 19 22:53	29°♂05'05	1°18'17
retrograde	6397 Mar 16 15:26	16°♂17'46		minimum elong	6403 Dec 19 22:53	29°♂05'05	1°18'19
opposition	6397 Jun 02 04:26	14°♂55'41	1°20'32	max. Earth dist.	6403 Dec 19 02:19	29°♂03'10	31.33229 AU
min. Earth dist.	6397 Jun 02 22:13	14°♂54'27	29.30525 AU	morning rise	6404 Jan 04 15:25	29°♂39'48	
direct	6397 Aug 21 18:28	13°♂30'55			6404 Jan 14 03:03	0°♂	

retrograde	6404 Mar 31 13:51	1°33'146		max. Earth dist.	6411 Jan 03 03:50	14°316'59	31.33670 AU
opposition	6404 Jun 17 06:31	0°309'52	1°23'38				
min. Earth dist.	6404 Jun 18 00:55	0°308'36	29.33546 AU	conjunction	6411 Jan 04 01:06	14°318'57	1°16'06
	6404 Jun 23 06:38	30°308'36		minimum elong	6411 Jan 04 01:06	14°318'57	1°16'10
direct	6404 Sep 06 01:19	28°308'36		morning rise	6411 Jan 19 14:50	14°353'31	
	6404 Nov 15 19:44	0°308'36		retrograde	6411 Apr 16 09:54	16°345'30	
evening set	6404 Dec 05 14:37	0°340'49		opposition	6411 Jul 03 11:33	15°323'33	1°20'55
				min. Earth dist.	6411 Jul 04 07:14	15°322'12	29.33625 AU
conjunction	6404 Dec 21 09:49	1°315'45	1°18'18	direct	6411 Sep 22 09:22	13°358'52	
minimum elong	6404 Dec 21 09:49	1°315'45	1°18'21	evening set	6411 Dec 21 19:02	15°354'19	
max. Earth dist.	6404 Dec 20 14:05	1°313'55	31.33679 AU				
morning rise	6405 Jan 06 01:46	1°350'27		conjunction	6412 Jan 06 11:22	16°329'05	1°15'22
retrograde	6405 Apr 02 22:59	3°342'26		minimum elong	6412 Jan 06 11:22	16°329'05	1°15'24
opposition	6405 Jun 19 17:26	2°320'33	1°23'36	max. Earth dist.	6412 Jan 05 15:21	16°327'13	31.33440 AU
min. Earth dist.	6405 Jun 20 12:43	2°319'14	29.33933 AU	morning rise	6412 Jan 22 00:39	17°303'37	
direct	6405 Sep 08 13:48	0°355'55		retrograde	6412 Apr 17 19:39	18°355'37	
evening set	6405 Dec 08 01:55	2°351'33		opposition	6412 Jul 04 22:32	17°333'39	1°20'04
				min. Earth dist.	6412 Jul 05 17:44	17°332'20	29.33418 AU
conjunction	6405 Dec 23 20:29	3°326'27	1°18'13	direct	6412 Sep 23 22:20	16°308'58	
minimum elong	6405 Dec 23 20:29	3°326'27	1°18'15	evening set	6412 Dec 23 05:40	18°304'25	
max. Earth dist.	6405 Dec 22 23:31	3°324'30	31.34006 AU				
morning rise	6406 Jan 08 12:10	4°301'07		conjunction	6413 Jan 07 21:27	18°339'09	1°14'31
retrograde	6406 Apr 05 09:56	5°353'06		minimum elong	6413 Jan 07 21:27	18°339'09	1°14'34
opposition	6406 Jun 22 04:18	4°331'16	1°23'27	max. Earth dist.	6413 Jan 07 00:46	18°337'14	31.33279 AU
min. Earth dist.	6406 Jun 22 23:03	4°329'59	29.34193 AU	morning rise	6413 Jan 23 10:32	19°313'40	
direct	6406 Sep 11 01:36	3°306'38		retrograde	6413 Apr 20 07:59	21°305'42	
evening set	6406 Dec 10 13:01	5°302'15		opposition	6413 Jul 07 09:40	19°343'44	1°19'06
max. Earth dist.	6406 Dec 25 10:56	5°335'15	31.34186 AU	min. Earth dist.	6413 Jul 08 04:08	19°342'28	29.33309 AU
				direct	6413 Sep 26 09:45	18°319'04	
conjunction	6406 Dec 26 07:19	5°337'09	1°18'00	evening set	6413 Dec 25 16:01	20°314'31	
minimum elong	6406 Dec 26 07:19	5°337'09	1°18'04				
morning rise	6407 Jan 10 22:26	6°311'47		conjunction	6414 Jan 10 07:34	20°349'15	1°13'34
retrograde	6407 Apr 07 18:59	8°303'46		minimum elong	6414 Jan 10 07:35	20°349'15	1°13'35
opposition	6407 Jun 24 15:25	6°341'56	1°23'10	max. Earth dist.	6414 Jan 09 12:28	20°347'28	31.33213 AU
min. Earth dist.	6407 Jun 25 11:19	6°340'34	29.34305 AU	morning rise	6414 Jan 25 20:08	21°323'45	
direct	6407 Sep 13 13:12	5°317'19		retrograde	6414 Apr 22 17:12	23°315'50	
evening set	6407 Dec 12 24:00	7°312'54		opposition	6414 Jul 09 20:57	21°353'52	1°18'01
				min. Earth dist.	6414 Jul 10 15:34	21°352'36	29.33279 AU
conjunction	6407 Dec 28 17:49	7°347'46	1°17'42	direct	6414 Sep 28 21:41	20°329'16	
minimum elong	6407 Dec 28 17:49	7°347'46	1°17'44	evening set	6414 Dec 28 02:29	22°324'43	
max. Earth dist.	6407 Dec 27 20:39	7°345'48	31.34230 AU				
morning rise	6408 Jan 13 08:41	8°322'23		conjunction	6415 Jan 12 17:31	22°359'26	1°12'30
retrograde	6408 Apr 09 05:18	10°314'22		minimum elong	6415 Jan 12 17:32	22°359'26	1°12'33
opposition	6408 Jun 26 02:21	8°352'31	1°22'47	max. Earth dist.	6415 Jan 11 21:57	22°357'37	31.33231 AU
min. Earth dist.	6408 Jun 26 21:24	8°351'13	29.34269 AU	morning rise	6415 Jan 28 05:57	23°333'55	
direct	6408 Sep 15 00:59	7°327'54		retrograde	6415 Apr 25 04:32	25°326'04	
evening set	6408 Dec 14 10:59	9°323'27		opposition	6415 Jul 12 08:06	24°304'09	1°16'50
max. Earth dist.	6408 Dec 29 07:13	9°356'19	31.34125 AU	min. Earth dist.	6415 Jul 13 01:32	24°302'57	29.33319 AU
				direct	6415 Oct 01 09:18	22°339'36	
conjunction	6408 Dec 30 04:26	9°358'18	1°17'16	evening set	6415 Dec 30 12:42	24°335'04	
minimum elong	6408 Dec 30 04:26	9°358'18	1°17'19	max. Earth dist.	6416 Jan 14 09:07	25°308'03	31.33274 AU
morning rise	6409 Jan 14 18:51	10°332'54					
retrograde	6409 Apr 11 13:52	12°324'53		conjunction	6416 Jan 15 03:32	25°309'46	1°11'20
opposition	6409 Jun 28 13:22	11°303'00	1°22'16	minimum elong	6416 Jan 15 03:32	25°309'46	1°11'22
min. Earth dist.	6409 Jun 29 09:35	11°301'37	29.34111 AU	morning rise	6416 Jan 30 15:32	25°344'15	
direct	6409 Sep 17 11:40	9°338'21		retrograde	6416 Apr 26 14:22	27°336'28	
evening set	6409 Dec 16 21:52	11°333'53		opposition	6416 Jul 13 19:31	26°314'34	1°15'32
				min. Earth dist.	6416 Jul 14 13:42	26°313'20	29.33353 AU
conjunction	6410 Jan 01 14:56	12°308'42	1°16'45	direct	6416 Oct 02 21:00	24°350'06	
minimum elong	6410 Jan 01 14:56	12°308'42	1°16'47	evening set	6416 Dec 31 23:09	26°345'34	
max. Earth dist.	6409 Dec 31 17:59	12°306'45	31.33928 AU				
morning rise	6410 Jan 17 04:59	12°343'16		conjunction	6417 Jan 16 13:31	27°320'15	1°10'03
retrograde	6410 Apr 13 23:25	14°335'15		minimum elong	6417 Jan 16 13:31	27°320'15	1°10'06
opposition	6410 Jul 01 00:25	13°313'21	1°21'39	max. Earth dist.	6417 Jan 15 18:52	27°318'31	31.33296 AU
min. Earth dist.	6410 Jul 01 19:52	13°312'01	29.33870 AU	morning rise	6417 Feb 01 01:18	27°354'43	
direct	6410 Sep 19 23:38	11°348'40		retrograde	6417 Apr 29 01:00	29°347'01	
evening set	6410 Dec 19 08:30	13°344'10		opposition	6417 Jul 16 06:48	28°325'09	1°14'07

min. Earth dist.	6417 Jul 16 23:48	28°32'59"	29.33335 AU	conjunction	6424 Feb 01 10:49	12°34'32"	0°58'30"
direct	6417 Oct 05 08:49	27°30'43"		minimum elong	6424 Feb 01 10:49	12°34'32"	0°58'31"
evening set	6418 Jan 03 09:34	28°35'11"		max. Earth dist.	6424 Jan 31 17:45	12°32'56"	31.30515 AU
				morning rise	6424 Feb 16 20:54	13°08'57"	
conjunction	6418 Jan 18 23:36	29°30'52"	1°08'41"		6424 May 04 05:13	15°	
minimum elong	6418 Jan 18 23:36	29°30'52"	1°08'43"	retrograde	6424 May 14 01:31	15°01'37"	
max. Earth dist.	6418 Jan 18 05:08	29°29'08"	31.33232 AU		6424 May 23 21:00	15°R	
	6418 Feb 01 00:46	0°		opposition	6424 Jul 31 16:34	13°39'28"	1°01'27"
morning rise	6418 Feb 03 11:01	0°05'20"		min. Earth dist.	6424 Aug 01 07:49	13°38'26"	29.30251 AU
retrograde	6418 May 01 09:54	1°57'42"		direct	6424 Oct 20 16:19	12°15'04"	
opposition	6418 Jul 18 18:29	0°35'50"	1°12'36"	evening set	6425 Jan 18 08:33	14°10'13"	
min. Earth dist.	6418 Jul 19 12:17	0°34'38"	29.33228 AU				
	6418 Aug 10 10:05	30°R3		conjunction	6425 Feb 02 20:29	14°44'48"	0°56'30"
direct	6418 Oct 07 19:04	29°31'28"		minimum elong	6425 Feb 02 20:29	14°44'48"	0°56'32"
	6418 Dec 02 15:41	0°		max. Earth dist.	6425 Feb 02 04:48	14°43'20"	31.29915 AU
evening set	6419 Jan 05 19:48	1°06'54"			6425 Feb 09 14:48	15°	
				morning rise	6425 Feb 18 06:13	15°19'11"	
conjunction	6419 Jan 21 09:32	1°41'34"	1°07'13"	retrograde	6425 May 16 11:41	17°11'56"	
minimum elong	6419 Jan 21 09:32	1°41'34"	1°07'15"	opposition	6425 Aug 03 04:27	15°49'43"	0°59'16"
max. Earth dist.	6419 Jan 20 15:37	1°39'54"	31.33072 AU	min. Earth dist.	6425 Aug 03 19:55	15°48'40"	29.29698 AU
morning rise	6419 Feb 05 20:39	2°16'01"			6425 Sep 04 18:17	15°R	
retrograde	6419 May 03 19:28	4°08'28"		direct	6425 Oct 23 04:33	14°25'21"	
opposition	6419 Jul 21 06:06	2°46'35"	1°10'59"		6425 Dec 08 21:22	15°	
min. Earth dist.	6419 Jul 21 23:05	2°45'26"	29.32993 AU	evening set	6426 Jan 20 18:28	16°20'27"	
direct	6419 Oct 10 06:28	1°22'14"					
evening set	6420 Jan 08 06:14	3°17'39"		conjunction	6426 Feb 05 06:04	16°55'01"	0°54'25"
				minimum elong	6426 Feb 05 06:04	16°55'01"	0°54'26"
conjunction	6420 Jan 23 19:32	3°52'18"	1°05'39"	max. Earth dist.	6426 Feb 04 14:51	16°53'35"	31.29424 AU
minimum elong	6420 Jan 23 19:33	3°52'19"	1°05'41"	morning rise	6426 Feb 20 15:40	17°29'25"	
max. Earth dist.	6420 Jan 23 01:04	3°50'35"	31.32770 AU	retrograde	6426 May 18 22:21	19°22'14"	
morning rise	6420 Feb 08 06:29	4°26'45"		opposition	6426 Aug 05 16:20	18°00'00"	0°57'00"
retrograde	6420 May 05 06:28	6°19'15"		min. Earth dist.	6426 Aug 06 05:53	17°59'04"	29.29248 AU
opposition	6420 Jul 22 17:38	4°57'21"	1°09'16"	direct	6426 Oct 25 16:47	16°35'40"	
min. Earth dist.	6420 Jul 23 10:59	4°56'11"	29.32631 AU	evening set	6427 Jan 23 04:11	18°30'44"	
direct	6420 Oct 11 15:51	3°33'01"					
evening set	6421 Jan 09 16:30	5°28'24"		conjunction	6427 Feb 07 15:32	19°05'17"	0°52'16"
				minimum elong	6427 Feb 07 15:33	19°05'17"	0°52'18"
conjunction	6421 Jan 25 05:38	6°03'02"	1°04'00"	max. Earth dist.	6427 Feb 07 01:01	19°03'56"	31.29019 AU
minimum elong	6421 Jan 25 05:38	6°03'02"	1°04'03"	morning rise	6427 Feb 23 00:58	19°39'41"	
max. Earth dist.	6421 Jan 24 12:10	6°01'23"	31.32340 AU	retrograde	6427 May 21 07:55	21°32'37"	
morning rise	6421 Feb 09 16:12	6°37'28"		opposition	6427 Aug 08 04:21	20°10'22"	0°54'39"
retrograde	6421 May 07 16:18	8°30'01"		min. Earth dist.	6427 Aug 08 18:09	20°09'26"	29.28883 AU
opposition	6421 Jul 25 05:23	7°08'04"	1°07'27"	direct	6427 Oct 28 03:04	18°46'06"	
min. Earth dist.	6421 Jul 25 22:29	7°06'54"	29.32123 AU	evening set	6428 Jan 25 14:00	20°41'09"	
direct	6421 Oct 14 04:59	5°43'43"		max. Earth dist.	6428 Feb 09 11:50	21°14'27"	31.28686 AU
evening set	6422 Jan 12 02:45	7°39'03"					
				conjunction	6428 Feb 10 01:11	21°15'42"	0°50'01"
conjunction	6422 Jan 27 15:24	8°13'40"	1°02'15"	minimum elong	6428 Feb 10 01:11	21°15'42"	0°50'02"
minimum elong	6422 Jan 27 15:24	8°13'40"	1°02'17"	morning rise	6428 Feb 25 10:25	21°50'06"	
max. Earth dist.	6422 Jan 26 21:07	8°11'57"	31.31783 AU	retrograde	6428 May 22 17:41	23°43'09"	
morning rise	6422 Feb 12 01:53	8°48'05"		opposition	6428 Aug 09 16:11	22°20'54"	0°52'13"
retrograde	6422 May 10 04:35	10°40'41"		min. Earth dist.	6428 Aug 10 04:46	22°20'03"	29.28548 AU
opposition	6422 Jul 27 17:06	9°18'40"	1°05'32"	direct	6428 Oct 29 14:33	20°56'42"	
min. Earth dist.	6422 Jul 28 09:36	9°17'33"	29.31524 AU	evening set	6429 Jan 26 23:59	22°51'45"	
direct	6422 Oct 16 15:56	7°54'18"					
evening set	6423 Jan 14 12:43	9°49'34"		conjunction	6429 Feb 11 10:47	23°26'18"	0°47'42"
max. Earth dist.	6423 Jan 29 08:27	10°22'36"	31.31152 AU	minimum elong	6429 Feb 11 10:47	23°26'18"	0°47'44"
				max. Earth dist.	6429 Feb 10 21:17	23°25'02"	31.28354 AU
conjunction	6423 Jan 30 01:16	10°24'11"	1°00'25"	morning rise	6429 Feb 26 19:58	24°00'43"	
minimum elong	6423 Jan 30 01:16	10°24'11"	1°00'28"	retrograde	6429 May 25 05:22	25°53'53"	
morning rise	6423 Feb 14 11:22	10°58'35"		opposition	6429 Aug 12 04:23	24°31'39"	0°49'42"
retrograde	6423 May 12 13:46	12°51'14"		min. Earth dist.	6429 Aug 12 16:50	24°30'48"	29.28210 AU
opposition	6423 Jul 30 04:52	11°29'08"	1°03'32"	direct	6429 Oct 31 23:50	23°07'31"	
min. Earth dist.	6423 Jul 30 21:35	11°28'00"	29.30875 AU	evening set	6430 Jan 29 09:43	25°02'33"	
direct	6423 Oct 19 03:46	10°04'45"					
evening set	6424 Jan 16 22:41	11°59'57"		conjunction	6430 Feb 13 20:26	25°37'06"	0°45'19"
				minimum elong	6430 Feb 13 20:26	25°37'06"	0°45'20"

max. Earth dist.	6430 Feb 13 08:28	25° \approx 35'59	31.27989 AU	retrograde	6436 Jun 09 12:06	11° \mathbb{H} 12'53	
morning rise	6430 Mar 01 05:19	26° \approx 11'31		opposition	6436 Aug 27 19:11	9° \mathbb{H} 50'19	0°30'18
retrograde	6430 May 27 15:38	28° \approx 04'49		min. Earth dist.	6436 Aug 28 04:45	9° \mathbb{H} 49'40	29.22875 AU
opposition	6430 Aug 14 16:40	26° \approx 42'35	0°47'07	direct	6436 Nov 16 10:46	8° \mathbb{H} 26'22	
min. Earth dist.	6430 Aug 15 04:36	26° \approx 41'47	29.27799 AU	evening set	6437 Feb 13 06:54	10° \mathbb{H} 21'07	
direct	6430 Nov 03 12:02	25° \approx 18'32					
evening set	6431 Jan 31 19:45	27° \approx 13'33		conjunction	6437 Feb 28 16:17	10° \mathbb{H} 55'40	0°26'59
				minimum elong	6437 Feb 28 16:17	10° \mathbb{H} 55'40	0°27'00
conjunction	6431 Feb 16 06:04	27° \approx 48'06	0°42'52	max. Earth dist.	6437 Feb 28 07:37	10° \mathbb{H} 54'51	31.22354 AU
minimum elong	6431 Feb 16 06:04	27° \approx 48'06	0°42'54	morning rise	6437 Mar 16 00:35	11° \mathbb{H} 30'07	
max. Earth dist.	6431 Feb 15 17:26	27° \approx 46'55	31.27540 AU	retrograde	6437 Jun 11 21:59	13° \mathbb{H} 24'10	
morning rise	6431 Mar 03 14:59	28° \approx 22'31		opposition	6437 Aug 30 07:42	12° \mathbb{H} 01'31	0°27'20
	6431 Apr 29 07:01	0° \mathbb{H}		min. Earth dist.	6437 Aug 30 15:40	12° \mathbb{H} 00'59	29.21867 AU
retrograde	6431 May 30 04:41	0° \mathbb{H} 15'57		direct	6437 Nov 18 23:29	10° \mathbb{H} 37'35	
	6431 Jun 30 20:26	30° \mathbb{R} \approx		evening set	6438 Feb 15 16:34	12° \mathbb{H} 32'16	
opposition	6431 Aug 17 04:53	28° \approx 53'42	0°44'27				
min. Earth dist.	6431 Aug 17 16:06	28° \approx 52'57	29.27301 AU	conjunction	6438 Mar 03 01:40	13° \mathbb{H} 06'49	0°24'11
direct	6431 Nov 05 21:59	27° \approx 29'42		minimum elong	6438 Mar 03 01:40	13° \mathbb{H} 06'49	0°24'11
evening set	6432 Feb 03 05:37	29° \approx 24'43		max. Earth dist.	6438 Mar 02 17:09	13° \mathbb{H} 06'01	31.21389 AU
				morning rise	6438 Mar 18 10:03	13° \mathbb{H} 41'17	
conjunction	6432 Feb 18 15:54	29° \approx 59'16	0°40'21	retrograde	6438 Jun 14 09:28	15° \mathbb{H} 35'27	
minimum elong	6432 Feb 18 15:54	29° \approx 59'16	0°40'21	opposition	6438 Sep 01 20:19	14° \mathbb{H} 12'44	0°24'19
max. Earth dist.	6432 Feb 18 04:35	29° \approx 58'12	31.26971 AU	min. Earth dist.	6438 Sep 02 03:41	14° \mathbb{H} 12'14	29.20958 AU
	6432 Feb 18 23:49	0° \mathbb{H}		direct	6438 Nov 21 09:30	12° \mathbb{H} 48'49	
morning rise	6432 Mar 05 00:33	0° \mathbb{H} 33'41		evening set	6439 Feb 18 02:11	14° \mathbb{H} 43'27	
retrograde	6432 May 31 14:57	2° \mathbb{H} 27'15					
opposition	6432 Aug 18 17:20	1° \mathbb{H} 04'58	0°41'44	conjunction	6439 Mar 05 11:20	15° \mathbb{H} 18'00	0°21'21
min. Earth dist.	6432 Aug 19 04:55	1° \mathbb{H} 04'11	29.26654 AU	minimum elong	6439 Mar 05 11:20	15° \mathbb{H} 18'00	0°21'22
	6432 Oct 03 08:27	30° \mathbb{R} \approx		max. Earth dist.	6439 Mar 05 04:46	15° \mathbb{H} 17'23	31.20526 AU
direct	6432 Nov 07 09:18	29° \approx 41'01		morning rise	6439 Mar 20 19:33	15° \mathbb{H} 52'29	
	6432 Dec 11 15:53	0° \mathbb{H}		retrograde	6439 Jun 16 18:57	17° \mathbb{H} 46'46	
evening set	6433 Feb 04 15:39	1° \mathbb{H} 36'00		opposition	6439 Sep 04 08:47	16° \mathbb{H} 24'00	0°21'16
				min. Earth dist.	6439 Sep 04 15:10	16° \mathbb{H} 23'34	29.20132 AU
conjunction	6433 Feb 20 01:35	2° \mathbb{H} 10'33	0°37'46	direct	6439 Nov 23 21:23	15° \mathbb{H} 00'08	
minimum elong	6433 Feb 20 01:35	2° \mathbb{H} 10'33	0°37'48	evening set	6440 Feb 20 11:57	16° \mathbb{H} 54'44	
max. Earth dist.	6433 Feb 19 13:49	2° \mathbb{H} 09'26	31.26259 AU				
morning rise	6433 Mar 07 10:15	2° \mathbb{H} 44'59		conjunction	6440 Mar 06 20:49	17° \mathbb{H} 29'16	0°18'29
retrograde	6433 Jun 03 03:49	4° \mathbb{H} 38'39		minimum elong	6440 Mar 06 20:49	17° \mathbb{H} 29'16	0°18'29
opposition	6433 Aug 21 05:43	3° \mathbb{H} 16'20	0°38'57	max. Earth dist.	6440 Mar 06 14:02	17° \mathbb{H} 28'39	31.19746 AU
min. Earth dist.	6433 Aug 21 16:03	3° \mathbb{H} 15'38	29.25864 AU	morning rise	6440 Mar 22 05:13	18° \mathbb{H} 03'47	
direct	6433 Nov 09 22:00	1° \mathbb{H} 52'24		retrograde	6440 Jun 18 07:36	19° \mathbb{H} 58'12	
evening set	6434 Feb 07 01:35	3° \mathbb{H} 47'21		opposition	6440 Sep 05 21:22	18° \mathbb{H} 35'23	0°18'11
				min. Earth dist.	6440 Sep 06 02:32	18° \mathbb{H} 35'02	29.19381 AU
conjunction	6434 Feb 22 11:25	4° \mathbb{H} 21'53	0°35'09	direct	6440 Nov 25 06:38	17° \mathbb{H} 11'34	
minimum elong	6434 Feb 22 11:25	4° \mathbb{H} 21'53	0°35'09	evening set	6441 Feb 21 21:32	19° \mathbb{H} 06'08	
max. Earth dist.	6434 Feb 22 00:34	4° \mathbb{H} 20'52	31.25395 AU				
morning rise	6434 Mar 09 19:54	4° \mathbb{H} 56'20		conjunction	6441 Mar 09 06:26	19° \mathbb{H} 40'41	0°15'35
retrograde	6434 Jun 05 15:24	6° \mathbb{H} 50'06		minimum elong	6441 Mar 09 06:26	19° \mathbb{H} 40'41	0°15'35
opposition	6434 Aug 23 18:20	5° \mathbb{H} 27'42	0°36'07	behind sun begin	6441 Mar 09 04:35	19° \mathbb{H} 40'31	
min. Earth dist.	6434 Aug 24 05:14	5° \mathbb{H} 26'58	29.24938 AU	behind sun end	6441 Mar 09 08:17	19° \mathbb{H} 40'51	
direct	6434 Nov 12 10:33	4° \mathbb{H} 03'47		max. Earth dist.	6441 Mar 09 01:28	19° \mathbb{H} 40'14	31.19008 AU
evening set	6435 Feb 09 11:21	5° \mathbb{H} 58'40		morning rise	6441 Mar 24 14:39	20° \mathbb{H} 15'12	
				retrograde	6441 Jun 20 18:12	22° \mathbb{H} 09'47	
conjunction	6435 Feb 24 21:00	6° \mathbb{H} 33'12	0°32'28	opposition	6441 Sep 08 10:11	20° \mathbb{H} 46'56	0°15'03
minimum elong	6435 Feb 24 21:01	6° \mathbb{H} 33'12	0°32'29	min. Earth dist.	6441 Sep 08 15:14	20° \mathbb{H} 46'35	29.18648 AU
max. Earth dist.	6435 Feb 24 10:30	6° \mathbb{H} 32'13	31.24427 AU	direct	6441 Nov 27 17:44	19° \mathbb{H} 23'10	
morning rise	6435 Mar 12 05:30	7° \mathbb{H} 07'40		evening set	6442 Feb 24 07:23	21° \mathbb{H} 17'42	
retrograde	6435 Jun 08 02:24	9° \mathbb{H} 01'31					
opposition	6435 Aug 26 06:45	7° \mathbb{H} 39'03	0°33'14	conjunction	6442 Mar 11 16:03	21° \mathbb{H} 52'15	0°12'39
min. Earth dist.	6435 Aug 26 16:02	7° \mathbb{H} 38'25	29.23919 AU	minimum elong	6442 Mar 11 16:04	21° \mathbb{H} 52'15	0°12'39
direct	6435 Nov 14 23:26	6° \mathbb{H} 15'07		behind sun begin	6442 Mar 11 11:55	21° \mathbb{H} 51'53	
evening set	6436 Feb 11 21:10	8° \mathbb{H} 09'56		behind sun end	6442 Mar 11 20:13	21° \mathbb{H} 52'38	
				max. Earth dist.	6442 Mar 11 11:10	21° \mathbb{H} 51'49	31.18286 AU
conjunction	6436 Feb 27 06:38	8° \mathbb{H} 44'28	0°29'45	morning rise	6442 Mar 27 00:25	22° \mathbb{H} 26'47	
minimum elong	6436 Feb 27 06:38	8° \mathbb{H} 44'28	0°29'45	retrograde	6442 Jun 23 07:48	24° \mathbb{H} 21'31	
max. Earth dist.	6436 Feb 26 20:31	8° \mathbb{H} 43'31	31.23381 AU	opposition	6442 Sep 10 22:55	22° \mathbb{H} 58'37	0°11'55
morning rise	6436 Mar 13 15:05	9° \mathbb{H} 18'56		min. Earth dist.	6442 Sep 11 02:25	22° \mathbb{H} 58'23	29.17913 AU

direct	6442 Nov 30 05:31	21° \mathbf{H} 34'54		conjunction	6448 Mar 24 03:25	5° \mathbf{Y} 04'05	-0°05'17
evening set	6443 Feb 26 17:07	23° \mathbf{H} 29'26		minimum elong	6448 Mar 24 03:24	5° \mathbf{Y} 04'04	0°05'18
				behind sun begin	6448 Mar 23 21:12	5° \mathbf{Y} 03'31	
conjunction	6443 Mar 14 01:47	24° \mathbf{H} 03'59	0°09'43	behind sun end	6448 Mar 24 09:36	5° \mathbf{Y} 04'38	
minimum elong	6443 Mar 14 01:47	24° \mathbf{H} 03'59	0°09'43	max. Earth dist.	6448 Mar 24 02:40	5° \mathbf{Y} 04'02	31.12111 AU
behind sun begin	6443 Mar 13 20:29	24° \mathbf{H} 03'31		morning rise	6448 Apr 08 11:58	5° \mathbf{Y} 38'43	
behind sun end	6443 Mar 14 07:05	24° \mathbf{H} 04'28		retrograde	6448 Jul 06 04:31	7° \mathbf{Y} 34'12	
max. Earth dist.	6443 Mar 13 21:59	24° \mathbf{H} 03'39	31.17519 AU	opposition	6448 Sep 24 04:46	6° \mathbf{Y} 10'52	-0°07'10
morning rise	6443 Mar 29 10:06	24° \mathbf{H} 38'32		min. Earth dist.	6448 Sep 24 05:26	6° \mathbf{Y} 10'50	29.11449 AU
retrograde	6443 Jun 25 20:03	26° \mathbf{H} 33'25		direct	6448 Dec 13 06:08	4° \mathbf{Y} 47'15	
opposition	6443 Sep 13 11:54	25° \mathbf{H} 10'28	0°08'45	evening set	6449 Mar 11 04:49	6° \mathbf{Y} 41'28	
min. Earth dist.	6443 Sep 13 15:50	25° \mathbf{H} 10'12	29.17113 AU				
direct	6443 Dec 02 17:05	23° \mathbf{H} 46'49		conjunction	6449 Mar 26 13:06	7° \mathbf{Y} 16'05	-0°08'14
evening set	6444 Feb 29 03:04	25° \mathbf{H} 41'18		minimum elong	6449 Mar 26 13:06	7° \mathbf{Y} 16'04	0°08'15
				behind sun begin	6449 Mar 26 07:24	7° \mathbf{Y} 15'34	
conjunction	6444 Mar 15 11:39	26° \mathbf{H} 15'52	0°06'46	behind sun end	6449 Mar 26 18:47	7° \mathbf{Y} 16'35	
minimum elong	6444 Mar 15 11:38	26° \mathbf{H} 15'52	0°06'45	max. Earth dist.	6449 Mar 26 12:12	7° \mathbf{Y} 16'00	31.10804 AU
behind sun begin	6444 Mar 15 05:39	26° \mathbf{H} 15'20		morning rise	6449 Apr 10 21:54	7° \mathbf{Y} 50'44	
behind sun end	6444 Mar 15 17:38	26° \mathbf{H} 16'25		retrograde	6449 Jul 08 17:03	9° \mathbf{Y} 46'21	
max. Earth dist.	6444 Mar 15 08:17	26° \mathbf{H} 15'35	31.16678 AU	opposition	6449 Sep 26 17:47	8° \mathbf{Y} 22'55	-0°10'20
morning rise	6444 Mar 30 20:00	26° \mathbf{H} 50'26		min. Earth dist.	6449 Sep 26 17:11	8° \mathbf{Y} 22'57	29.10173 AU
retrograde	6444 Jun 27 08:09	28° \mathbf{H} 45'26		direct	6449 Dec 15 15:59	6° \mathbf{Y} 59'17	
opposition	6444 Sep 15 00:40	27° \mathbf{H} 22'28	0°05'34	evening set	6450 Mar 13 14:38	8° \mathbf{Y} 53'27	
min. Earth dist.	6444 Sep 15 03:03	27° \mathbf{H} 22'18	29.16211 AU				
direct	6444 Dec 04 05:39	25° \mathbf{H} 58'50		conjunction	6450 Mar 28 23:02	9° \mathbf{Y} 28'04	-0°11'11
evening set	6445 Mar 02 13:08	27° \mathbf{H} 53'18		minimum elong	6450 Mar 28 23:02	9° \mathbf{Y} 28'04	0°11'12
				behind sun begin	6450 Mar 28 18:15	9° \mathbf{Y} 27'38	
conjunction	6445 Mar 17 21:33	28° \mathbf{H} 27'52	0°03'48	behind sun end	6450 Mar 29 03:50	9° \mathbf{Y} 28'30	
minimum elong	6445 Mar 17 21:34	28° \mathbf{H} 27'52	0°03'48	max. Earth dist.	6450 Mar 29 00:02	9° \mathbf{Y} 28'09	31.09559 AU
behind sun begin	6445 Mar 17 15:13	28° \mathbf{H} 27'18		morning rise	6450 Apr 13 07:48	10° \mathbf{Y} 02'45	
behind sun end	6445 Mar 18 03:54	28° \mathbf{H} 28'26		retrograde	6450 Jul 11 03:41	11° \mathbf{Y} 58'29	
max. Earth dist.	6445 Mar 17 18:18	28° \mathbf{H} 27'36	31.15711 AU	opposition	6450 Sep 29 06:49	10° \mathbf{Y} 34'58	-0°13'29
morning rise	6445 Apr 02 05:59	29° \mathbf{H} 02'27		min. Earth dist.	6450 Sep 29 05:48	10° \mathbf{Y} 35'02	29.08983 AU
	6445 Apr 30 13:06	0° \mathbf{Y}		direct	6450 Dec 18 03:14	9° \mathbf{Y} 11'21	
retrograde	6445 Jun 29 19:52	0° \mathbf{Y} 57'36		evening set	6451 Mar 16 00:31	11° \mathbf{Y} 05'29	
	6445 Sep 01 16:19	30° \mathbf{R} \mathbf{H}					
opposition	6445 Sep 17 13:49	29° \mathbf{H} 34'33	0°02'23	conjunction	6451 Mar 31 08:51	11° \mathbf{Y} 40'06	-0°14'07
min. Earth dist.	6445 Sep 17 16:37	29° \mathbf{H} 34'22	29.15188 AU	minimum elong	6451 Mar 31 08:51	11° \mathbf{Y} 40'06	0°14'08
direct	6445 Dec 06 17:22	28° \mathbf{H} 10'57		behind sun begin	6451 Mar 31 05:35	11° \mathbf{Y} 39'48	
	6446 Mar 02 12:32	0° \mathbf{Y}		behind sun end	6451 Mar 31 12:07	11° \mathbf{Y} 40'23	
evening set	6446 Mar 04 22:59	0° \mathbf{Y} 05'22		max. Earth dist.	6451 Mar 31 10:15	11° \mathbf{Y} 40'13	31.08433 AU
				morning rise	6451 Apr 15 17:51	12° \mathbf{Y} 14'48	
conjunction	6446 Mar 20 07:29	0° \mathbf{Y} 39'56	0°00'46	retrograde	6451 Jul 13 17:20	14° \mathbf{Y} 10'41	
minimum elong	6446 Mar 20 07:29	0° \mathbf{Y} 39'56	0°00'46	opposition	6451 Oct 01 19:43	12° \mathbf{Y} 47'06	-0°16'38
behind sun begin	6446 Mar 20 01:06	0° \mathbf{Y} 39'22		min. Earth dist.	6451 Oct 01 16:50	12° \mathbf{Y} 47'17	29.07914 AU
behind sun end	6446 Mar 20 13:52	0° \mathbf{Y} 40'31		direct	6451 Dec 20 14:40	11° \mathbf{Y} 23'30	
max. Earth dist.	6446 Mar 20 05:26	0° \mathbf{Y} 39'49	31.14624 AU	evening set	6452 Mar 17 10:25	13° \mathbf{Y} 17'37	
morning rise	6446 Apr 04 15:53	1° \mathbf{Y} 14'33					
desc. node	6446 Jun 19 17:58	3° \mathbf{Y} 07'12		conjunction	6452 Apr 01 18:48	13° \mathbf{Y} 52'15	-0°17'02
retrograde	6446 Jul 02 07:04	3° \mathbf{Y} 09'48		minimum elong	6452 Apr 01 18:48	13° \mathbf{Y} 52'15	0°17'03
opposition	6446 Sep 20 02:51	1° \mathbf{Y} 46'41	-0°00'48	max. Earth dist.	6452 Apr 01 21:30	13° \mathbf{Y} 52'30	31.07410 AU
min. Earth dist.	6446 Sep 20 04:26	1° \mathbf{Y} 46'34	29.14025 AU	morning rise	6452 Apr 17 03:51	14° \mathbf{Y} 26'59	
direct	6446 Dec 09 06:52	0° \mathbf{Y} 23'05		retrograde	6452 Jul 15 05:45	16° \mathbf{Y} 23'01	
evening set	6447 Mar 07 09:04	2° \mathbf{Y} 17'26		opposition	6452 Oct 03 08:44	14° \mathbf{Y} 59'22	-0°19'45
				min. Earth dist.	6452 Oct 03 05:53	14° \mathbf{Y} 59'34	29.06949 AU
conjunction	6447 Mar 22 17:24	2° \mathbf{Y} 52'02	-0°02'18	direct	6452 Dec 22 01:24	13° \mathbf{Y} 35'49	
minimum elong	6447 Mar 22 17:24	2° \mathbf{Y} 52'02	0°02'18	evening set	6453 Mar 19 20:21	15° \mathbf{Y} 29'56	
behind sun begin	6447 Mar 22 11:00	2° \mathbf{Y} 51'27					
behind sun end	6447 Mar 22 23:48	2° \mathbf{Y} 52'36		conjunction	6453 Apr 04 04:47	16° \mathbf{Y} 04'35	-0°19'56
max. Earth dist.	6447 Mar 22 14:59	2° \mathbf{Y} 51'51	31.13405 AU	minimum elong	6453 Apr 04 04:47	16° \mathbf{Y} 04'35	0°19'57
morning rise	6447 Apr 07 02:02	3° \mathbf{Y} 26'39		max. Earth dist.	6453 Apr 04 08:30	16° \mathbf{Y} 04'55	31.06504 AU
retrograde	6447 Jul 04 18:54	5° \mathbf{Y} 22'02		morning rise	6453 Apr 19 13:59	16° \mathbf{Y} 39'20	
opposition	6447 Sep 22 15:46	3° \mathbf{Y} 58'48	-0°03'59	retrograde	6453 Jul 17 18:37	18° \mathbf{Y} 35'31	
min. Earth dist.	6447 Sep 22 17:16	3° \mathbf{Y} 58'42	29.12766 AU	opposition	6453 Oct 05 21:46	17° \mathbf{Y} 11'51	-0°22'50
direct	6447 Dec 11 17:31	2° \mathbf{Y} 35'11		min. Earth dist.	6453 Oct 05 16:52	17° \mathbf{Y} 12'11	29.06079 AU
evening set	6448 Mar 08 18:55	4° \mathbf{Y} 29'29		direct	6453 Dec 24 13:24	15° \mathbf{Y} 48'21	
				evening set	6454 Mar 22 06:20	17° \mathbf{Y} 42'27	

conjunction	6454 Apr 06 14:44	18° Υ 17'07 -0°22'49	retrograde	6460 Aug 02 08:36	4° \mathcal{B} 08'02
minimum elong	6454 Apr 06 14:44	18° Υ 17'07 0°22'50	opposition	6460 Oct 21 18:19	2° \mathcal{B} 43'58 -0°43'21
max. Earth dist.	6454 Apr 06 18:55	18° Υ 17'30 31.05660 AU	min. Earth dist.	6460 Oct 21 09:29	2° \mathcal{B} 44'34 28.99299 AU
morning rise	6454 Apr 22 00:09	18° Υ 51'54	direct	6461 Jan 09 00:11	1° \mathcal{B} 20'36
retrograde	6454 Jul 20 07:40	20° Υ 48'15	evening set	6461 Apr 06 06:45	3° \mathcal{B} 14'28
opposition	6454 Oct 08 10:58	19° Υ 24'32 -0°25'54			
min. Earth dist.	6454 Oct 08 06:13	19° Υ 24'51 29.05265 AU	conjunction	6461 Apr 21 15:51	3° \mathcal{B} 49'15 -0°41'50
direct	6454 Dec 27 01:08	18° Υ 01'06	minimum elong	6461 Apr 21 15:51	3° \mathcal{B} 49'15 0°41'52
evening set	6455 Mar 24 16:24	19° Υ 55'11	max. Earth dist.	6461 Apr 22 00:30	3° \mathcal{B} 50'04 30.98674 AU
			morning rise	6461 May 07 02:35	4° \mathcal{B} 24'12
conjunction	6455 Apr 09 00:59	20° Υ 29'53 -0°25'40	retrograde	6461 Aug 04 20:29	6° \mathcal{B} 21'25
minimum elong	6455 Apr 09 00:58	20° Υ 29'53 0°25'40	opposition	6461 Oct 24 07:40	4° \mathcal{B} 57'13 -0°46'04
max. Earth dist.	6455 Apr 09 06:41	20° Υ 30'25 31.04856 AU	min. Earth dist.	6461 Oct 23 23:06	4° \mathcal{B} 57'48 28.98103 AU
morning rise	6455 Apr 24 10:27	21° Υ 04'41	direct	6462 Jan 11 10:47	3° \mathcal{B} 33'50
retrograde	6455 Jul 22 20:30	23° Υ 01'10	evening set	6462 Apr 08 17:05	5° \mathcal{B} 27'38
opposition	6455 Oct 10 23:54	21° Υ 37'27 -0°28'56			
min. Earth dist.	6455 Oct 10 17:49	21° Υ 37'52 29.04452 AU	conjunction	6462 Apr 24 02:22	6° \mathcal{B} 02'26 -0°44'20
direct	6455 Dec 29 14:34	20° Υ 14'04	minimum elong	6462 Apr 24 02:22	6° \mathcal{B} 02'26 0°44'22
evening set	6456 Mar 26 02:44	22° Υ 08'09	max. Earth dist.	6462 Apr 24 12:01	6° \mathcal{B} 03'20 30.97511 AU
			morning rise	6462 May 09 13:21	6° \mathcal{B} 37'24
conjunction	6456 Apr 10 11:13	22° Υ 42'51 -0°28'28	retrograde	6462 Aug 07 09:45	8° \mathcal{B} 34'42
minimum elong	6456 Apr 10 11:13	22° Υ 42'51 0°28'30	opposition	6462 Oct 26 20:48	7° \mathcal{B} 10'25 -0°48'43
max. Earth dist.	6456 Apr 10 16:38	22° Υ 43'22 31.04030 AU	min. Earth dist.	6462 Oct 26 10:17	7° \mathcal{B} 11'08 28.96980 AU
morning rise	6456 Apr 25 21:00	23° Υ 17'41	direct	6463 Jan 13 23:14	5° \mathcal{B} 47'00
retrograde	6456 Jul 24 08:57	25° Υ 14'20	evening set	6463 Apr 11 03:39	7° \mathcal{B} 40'47
opposition	6456 Oct 12 13:11	23° Υ 50'34 -0°31'55			
min. Earth dist.	6456 Oct 12 07:01	23° Υ 50'59 29.03611 AU	conjunction	6463 Apr 26 12:59	8° \mathcal{B} 15'35 -0°46'46
direct	6456 Dec 31 01:05	22° Υ 27'14	minimum elong	6463 Apr 26 12:59	8° \mathcal{B} 15'35 0°46'48
evening set	6457 Mar 28 12:54	24° Υ 21'18	max. Earth dist.	6463 Apr 26 22:58	8° \mathcal{B} 16'31 30.96431 AU
			morning rise	6463 May 12 00:17	8° \mathcal{B} 50'35
conjunction	6457 Apr 12 21:37	24° Υ 56'01 -0°31'14	retrograde	6463 Aug 09 23:09	10° \mathcal{B} 47'59
minimum elong	6457 Apr 12 21:37	24° Υ 56'01 0°31'15	opposition	6463 Oct 29 09:55	9° \mathcal{B} 23'37 -0°51'17
max. Earth dist.	6457 Apr 13 04:38	24° Υ 56'41 31.03144 AU	min. Earth dist.	6463 Oct 28 23:30	9° \mathcal{B} 24'19 28.95971 AU
morning rise	6457 Apr 28 07:24	25° Υ 30'53	direct	6464 Jan 16 10:49	8° \mathcal{B} 00'12
retrograde	6457 Jul 26 19:26	27° Υ 27'40	evening set	6464 Apr 12 14:07	9° \mathcal{B} 53'57
opposition	6457 Oct 15 02:32	26° Υ 03'51 -0°34'51			
min. Earth dist.	6457 Oct 14 19:41	26° Υ 04'19 29.02678 AU	conjunction	6464 Apr 27 23:46	10° \mathcal{B} 28'47 -0°49'08
direct	6458 Jan 02 14:09	24° Υ 40'33	minimum elong	6464 Apr 27 23:46	10° \mathcal{B} 28'47 0°49'11
evening set	6458 Mar 30 23:26	26° Υ 34'35	max. Earth dist.	6464 Apr 28 11:27	10° \mathcal{B} 29'53 30.95483 AU
			morning rise	6464 May 13 11:10	11° \mathcal{B} 03'48
conjunction	6458 Apr 15 08:05	27° Υ 09'19 -0°33'58	retrograde	6464 Aug 11 12:21	13° \mathcal{B} 01'19
minimum elong	6458 Apr 15 08:05	27° Υ 09'19 0°33'59	opposition	6464 Oct 30 23:02	11° \mathcal{B} 36'53 -0°53'47
max. Earth dist.	6458 Apr 15 14:30	27° Υ 09'55 31.02165 AU	min. Earth dist.	6464 Oct 30 10:57	11° \mathcal{B} 37'43 28.95082 AU
morning rise	6458 Apr 30 18:14	27° Υ 44'12	direct	6465 Jan 18 00:07	10° \mathcal{B} 13'30
retrograde	6458 Jul 29 08:56	29° Υ 41'07	evening set	6465 Apr 15 00:39	12° \mathcal{B} 07'14
opposition	6458 Oct 17 15:47	28° Υ 17'14 -0°37'45			
min. Earth dist.	6458 Oct 17 08:13	28° Υ 17'45 29.01651 AU	conjunction	6465 Apr 30 10:19	12° \mathcal{B} 42'05 -0°51'26
direct	6459 Jan 05 00:40	26° Υ 53'56	minimum elong	6465 Apr 30 10:19	12° \mathcal{B} 42'05 0°51'28
evening set	6459 Apr 02 09:50	28° Υ 47'55	max. Earth dist.	6465 Apr 30 21:58	12° \mathcal{B} 43'11 30.94655 AU
			morning rise	6465 May 15 22:10	13° \mathcal{B} 17'08
conjunction	6459 Apr 17 18:45	29° Υ 22'40 -0°36'39		6465 Jul 14 23:19	15° \mathcal{B}
minimum elong	6459 Apr 17 18:45	29° Υ 22'40 0°36'40	retrograde	6465 Aug 14 01:32	15° \mathcal{B} 14'47
max. Earth dist.	6459 Apr 18 02:26	29° Υ 23'23 31.01072 AU		6465 Sep 13 16:46	15° \mathcal{R} \mathcal{B}
morning rise	6459 May 03 05:00	29° Υ 57'35	opposition	6465 Nov 02 12:20	13° \mathcal{B} 50'19 -0°56'12
	6459 May 04 07:09	0° \mathcal{B}	min. Earth dist.	6465 Nov 01 23:56	13° \mathcal{B} 51'10 28.94321 AU
retrograde	6459 Jul 31 19:42	1° \mathcal{B} 54'36	direct	6466 Jan 20 10:42	12° \mathcal{B} 26'58
opposition	6459 Oct 20 05:08	0° \mathcal{B} 30'37 -0°40'35	evening set	6466 Apr 17 11:15	14° \mathcal{B} 20'41
min. Earth dist.	6459 Oct 19 21:41	0° \mathcal{B} 31'08 29.00503 AU			
	6459 Nov 08 08:07	30° \mathcal{R} Υ	conjunction	6466 May 02 21:17	14° \mathcal{B} 55'34 -0°53'40
direct	6460 Jan 07 12:52	29° Υ 07'18	minimum elong	6466 May 02 21:17	14° \mathcal{B} 55'34 0°53'42
	6460 Mar 04 11:41	0° \mathcal{B}	max. Earth dist.	6466 May 03 10:49	14° \mathcal{B} 56'51 30.93938 AU
evening set	6460 Apr 03 20:19	1° \mathcal{B} 01'14		6466 May 04 19:58	15° \mathcal{B}
			morning rise	6466 May 18 09:15	15° \mathcal{B} 30'39
conjunction	6460 Apr 19 05:16	1° \mathcal{B} 35'59 -0°39'16	retrograde	6466 Aug 16 13:21	17° \mathcal{B} 28'24
minimum elong	6460 Apr 19 05:15	1° \mathcal{B} 35'59 0°39'18	opposition	6466 Nov 05 01:26	16° \mathcal{B} 03'56 -0°58'32
max. Earth dist.	6460 Apr 19 12:55	1° \mathcal{B} 36'43 30.99892 AU	min. Earth dist.	6466 Nov 04 12:10	16° \mathcal{B} 04'50 28.93643 AU
morning rise	6460 May 04 15:48	2° \mathcal{B} 10'56		6466 Dec 19 04:56	15° \mathcal{R} \mathcal{B}

direct	6467 Jan 22 23:47	14° 8 40'38	conjunction	6473 May 18 04:35	0° II 35'38 -1°06'50
	6467 Feb 25 17:42	15° 8	minimum elong	6473 May 18 04:35	0° II 35'38 1°06'52
evening set	6467 Apr 19 22:05	16° 8 34'22	max. Earth dist.	6473 May 18 20:47	0° II 37'10 30.88622 AU
			morning rise	6473 Jun 02 18:49	1° II 10'56
conjunction	6467 May 05 08:11	17° 8 09'16 -0°55'49	retrograde	6473 Sep 01 10:22	3° II 09'25
minimum elong	6467 May 05 08:11	17° 8 09'16 0°55'51	opposition	6473 Nov 20 22:10	1° II 44'40 -1°12'17
max. Earth dist.	6467 May 05 21:20	17° 8 10'31 30.93297 AU	min. Earth dist.	6473 Nov 20 06:08	1° II 45'46 28.88174 AU
morning rise	6467 May 20 20:37	17° 8 44'23	direct	6474 Feb 07 08:50	0° II 21'25
retrograde	6467 Aug 19 03:48	19° 8 42'16	evening set	6474 May 05 04:13	2° II 15'06
opposition	6467 Nov 07 14:38	18° 8 17'47 -1°00'48			
min. Earth dist.	6467 Nov 07 00:34	18° 8 18'45 28.93027 AU	conjunction	6474 May 20 16:07	2° II 50'10 -1°08'20
direct	6468 Jan 25 10:26	16° 8 54'32	minimum elong	6474 May 20 16:07	2° II 50'10 1°08'22
evening set	6468 Apr 21 08:53	18° 8 48'17	max. Earth dist.	6474 May 21 07:53	2° II 51'40 30.87639 AU
			morning rise	6474 Jun 05 06:53	3° II 25'30
conjunction	6468 May 06 19:17	19° 8 23'12 -0°57'52	retrograde	6474 Sep 03 23:56	5° II 24'01
minimum elong	6468 May 06 19:17	19° 8 23'12 0°57'55	opposition	6474 Nov 23 11:13	3° II 59'11 -1°13'50
max. Earth dist.	6468 May 07 09:53	19° 8 24'36 30.92675 AU	min. Earth dist.	6474 Nov 22 19:20	4° II 00'17 28.87229 AU
morning rise	6468 May 22 07:52	19° 8 58'22	direct	6475 Feb 09 19:48	2° II 35'54
retrograde	6468 Aug 20 15:03	21° 8 56'24	evening set	6475 May 07 15:28	4° II 29'33
opposition	6468 Nov 09 03:56	20° 8 31'54 -1°02'57			
min. Earth dist.	6468 Nov 08 13:56	20° 8 32'52 28.92404 AU	conjunction	6475 May 23 03:51	5° II 04'39 -1°09'43
direct	6469 Jan 26 22:24	19° 8 08'42	minimum elong	6475 May 23 03:51	5° II 04'38 1°09'46
evening set	6469 Apr 23 19:59	21° 8 02'28	max. Earth dist.	6475 May 23 21:14	5° II 06'18 30.86722 AU
			morning rise	6475 Jun 07 18:48	5° II 40'00
conjunction	6469 May 09 06:32	21° 8 37'24 -0°59'51	retrograde	6475 Sep 06 13:03	7° II 38'33
minimum elong	6469 May 09 06:32	21° 8 37'24 0°59'53	min. Earth dist.	6475 Nov 25 07:32	6° II 14'48 28.86360 AU
max. Earth dist.	6469 May 09 21:01	21° 8 38'47 30.92045 AU	opposition	6475 Nov 26 00:13	6° II 13'39 -1°15'16
morning rise	6469 May 24 19:30	22° 8 12'36	direct	6476 Feb 12 10:04	4° II 50'20
retrograde	6469 Aug 23 04:42	24° 8 10'45	evening set	6476 May 09 02:48	6° II 43'58
opposition	6469 Nov 11 17:11	22° 8 46'15 -1°05'01			
min. Earth dist.	6469 Nov 11 02:06	22° 8 47'17 28.91749 AU	conjunction	6476 May 24 15:20	7° II 19'05 -1°11'01
direct	6470 Jan 29 09:11	21° 8 23'05	minimum elong	6476 May 24 15:20	7° II 19'05 1°11'04
evening set	6470 Apr 26 07:06	23° 8 16'51	max. Earth dist.	6476 May 25 08:19	7° II 20'42 30.85913 AU
			morning rise	6476 Jun 09 06:48	7° II 54'28
conjunction	6470 May 11 17:55	23° 8 51'50 -1°01'44	retrograde	6476 Sep 08 03:33	9° II 53'04
minimum elong	6470 May 11 17:55	23° 8 51'50 1°01'47	opposition	6476 Nov 27 13:14	8° II 28'07 -1°16'35
max. Earth dist.	6470 May 12 08:56	23° 8 53'15 30.91334 AU	min. Earth dist.	6476 Nov 26 19:46	8° II 29'19 28.85623 AU
morning rise	6470 May 27 07:11	24° 8 27'03	direct	6477 Feb 13 21:46	7° II 04'46
retrograde	6470 Aug 25 17:06	26° 8 25'20	evening set	6477 May 11 14:09	8° II 58'23
opposition	6470 Nov 14 06:34	25° 8 00'47 -1°06'59			
min. Earth dist.	6470 Nov 13 16:16	25° 8 01'46 28.90993 AU	conjunction	6477 May 27 03:08	9° II 33'31 -1°12'12
direct	6471 Jan 31 19:16	23° 8 37'38	minimum elong	6477 May 27 03:08	9° II 33'31 1°12'15
evening set	6471 Apr 28 18:24	25° 8 31'24	max. Earth dist.	6477 May 27 21:36	9° II 35'17 30.85232 AU
			morning rise	6477 Jun 11 18:51	10° II 08'57
conjunction	6471 May 14 05:32	26° 8 06'24 -1°03'32	retrograde	6477 Sep 10 14:41	12° II 07'36
minimum elong	6471 May 14 05:32	26° 8 06'24 1°03'34	min. Earth dist.	6477 Nov 29 08:37	10° II 43'49 28.85011 AU
max. Earth dist.	6471 May 14 20:47	26° 8 07'51 30.90525 AU	opposition	6477 Nov 30 02:13	10° II 42'36 -1°17'48
morning rise	6471 May 29 19:05	26° 8 41'39	direct	6478 Feb 16 10:04	9° II 19'15
retrograde	6471 Aug 28 06:59	28° 8 40'00	evening set	6478 May 14 01:36	11° II 12'52
opposition	6471 Nov 16 19:40	27° 8 15'25 -1°08'51			
min. Earth dist.	6471 Nov 16 04:08	27° 8 16'30 28.90123 AU	conjunction	6478 May 29 14:54	11° II 48'01 -1°13'16
direct	6472 Feb 03 07:45	25° 8 52'15	minimum elong	6478 May 29 14:54	11° II 48'01 1°13'19
evening set	6472 Apr 30 05:44	27° 8 46'01	max. Earth dist.	6478 May 30 09:22	11° II 49'46 30.84694 AU
			morning rise	6478 Jun 14 07:07	12° II 23'28
conjunction	6472 May 15 17:03	28° 8 21'02 -1°05'14	retrograde	6478 Sep 13 04:19	14° II 22'10
minimum elong	6472 May 15 17:03	28° 8 21'02 1°05'16	opposition	6478 Dec 02 15:06	12° II 57'09 -1°18'53
max. Earth dist.	6472 May 16 08:00	28° 8 22'27 30.89600 AU	min. Earth dist.	6478 Dec 01 20:18	12° II 58'27 28.84530 AU
morning rise	6472 May 31 07:03	28° 8 56'18	direct	6479 Feb 18 21:26	11° II 33'49
	6472 Jul 01 19:26	0° II	evening set	6479 May 16 13:11	13° II 27'25
retrograde	6472 Aug 29 20:51	0° II 54'44			
	6472 Oct 30 20:22	30° 8 8	conjunction	6479 Jun 01 02:50	14° II 02'36 -1°14'14
opposition	6472 Nov 18 09:01	29° 8 30'04 -1°10'37	minimum elong	6479 Jun 01 02:49	14° II 02'36 1°14'17
min. Earth dist.	6472 Nov 17 18:10	29° 8 31'05 28.89166 AU	max. Earth dist.	6479 Jun 01 22:03	14° II 04'26 30.84252 AU
direct	6473 Feb 04 19:26	28° 8 06'52	morning rise	6479 Jun 16 19:24	14° II 38'05
evening set	6473 May 02 16:49	0° II 00'35	retrograde	6479 Sep 15 16:40	16° II 36'51
	6473 May 02 10:27	0° II	min. Earth dist.	6479 Dec 04 09:48	15° II 13'05 28.84138 AU
			opposition	6479 Dec 05 04:00	15° II 11'49 -1°19'51

direct	6480 Feb 21 07:51	13° Π 48'30		max. Earth dist.	6486 Jun 17 13:37	29° Π 49'36	30.81174 AU
evening set	6480 May 18 00:49	15° Π 42'07			6486 Jun 22 03:30	0° \mathfrak{S}	
				morning rise	6486 Jul 02 12:56	0° \mathfrak{S} 23'22	
conjunction	6480 Jun 02 14:52	16° Π 17'20 -1°15'05		retrograde	6486 Oct 01 15:43	2° \mathfrak{S} 22'18	
minimum elong	6480 Jun 02 14:52	16° Π 17'20 1°15'08		opposition	6486 Dec 20 21:47	0° \mathfrak{S} 57'05 -1°23'10	
max. Earth dist.	6480 Jun 03 10:37	16° Π 19'12 30.83906 AU		min. Earth dist.	6486 Dec 20 03:10	0° \mathfrak{S} 58'23 28.80966 AU	
morning rise	6480 Jun 18 07:49	16° Π 52'50			6487 Jan 27 09:51	30° \mathfrak{R} Π	
retrograde	6480 Sep 17 06:01	18° Π 51'39		direct	6487 Mar 08 20:45	29° Π 33'37	
opposition	6480 Dec 06 16:52	17° Π 26'38 -1°20'42			6487 Apr 17 03:51	0° \mathfrak{S}	
min. Earth dist.	6480 Dec 05 21:21	17° Π 27'59 28.83813 AU		evening set	6487 Jun 03 13:06	1° \mathfrak{S} 27'15	
direct	6481 Feb 22 19:54	16° Π 03'19					
evening set	6481 May 20 12:35	17° Π 56'57		conjunction	6487 Jun 19 05:57	2° \mathfrak{S} 02'39 -1°17'47	
				minimum elong	6487 Jun 19 05:57	2° \mathfrak{S} 02'39 1°17'49	
conjunction	6481 Jun 05 02:54	18° Π 32'12 -1°15'49		max. Earth dist.	6487 Jun 20 01:40	2° \mathfrak{S} 04'31 30.80637 AU	
minimum elong	6481 Jun 05 02:54	18° Π 32'12 1°15'52		morning rise	6487 Jul 05 01:56	2° \mathfrak{S} 38'21	
max. Earth dist.	6481 Jun 05 22:25	18° Π 34'03 30.83585 AU		retrograde	6487 Oct 04 05:55	4° \mathfrak{S} 37'16	
morning rise	6481 Jun 20 20:22	19° Π 07'44		opposition	6487 Dec 23 10:10	3° \mathfrak{S} 12'01 -1°23'09	
retrograde	6481 Sep 19 19:15	21° Π 06'37		min. Earth dist.	6487 Dec 22 14:44	3° \mathfrak{S} 13'22 28.80476 AU	
min. Earth dist.	6481 Dec 08 11:18	19° Π 42'53 28.83497 AU		direct	6488 Mar 10 08:49	1° \mathfrak{S} 48'30	
opposition	6481 Dec 09 05:55	19° Π 41'35 -1°21'26		evening set	6488 Jun 05 01:16	3° \mathfrak{S} 42'08	
direct	6482 Feb 25 06:24	18° Π 18'17					
evening set	6482 May 23 00:31	20° Π 11'57		conjunction	6488 Jun 20 18:33	4° \mathfrak{S} 17'34 -1°17'42	
				minimum elong	6488 Jun 20 18:33	4° \mathfrak{S} 17'34 1°17'44	
conjunction	6482 Jun 07 15:22	20° Π 47'13 -1°16'26		max. Earth dist.	6488 Jun 21 14:55	4° \mathfrak{S} 19'30 30.80193 AU	
minimum elong	6482 Jun 07 15:23	20° Π 47'13 1°16'29		morning rise	6488 Jul 06 14:56	4° \mathfrak{S} 53'18	
max. Earth dist.	6482 Jun 08 11:43	20° Π 49'09 30.83251 AU		retrograde	6488 Oct 05 18:11	6° \mathfrak{S} 52'12	
morning rise	6482 Jun 23 09:06	21° Π 22'47		opposition	6488 Dec 24 22:42	5° \mathfrak{S} 26'55 -1°23'00	
retrograde	6482 Sep 22 08:55	23° Π 21'43		min. Earth dist.	6488 Dec 24 03:55	5° \mathfrak{S} 28'14 28.80104 AU	
opposition	6482 Dec 11 18:38	21° Π 56'40 -1°22'01		direct	6489 Mar 12 19:48	4° \mathfrak{S} 03'22	
min. Earth dist.	6482 Dec 10 23:15	21° Π 58'01 28.83126 AU		evening set	6489 Jun 07 13:20	5° \mathfrak{S} 57'00	
direct	6483 Feb 27 18:49	20° Π 33'22					
evening set	6483 May 25 12:44	22° Π 27'03		conjunction	6489 Jun 23 07:07	6° \mathfrak{S} 32'27 -1°17'30	
				minimum elong	6489 Jun 23 07:07	6° \mathfrak{S} 32'27 1°17'32	
conjunction	6483 Jun 10 03:49	23° Π 02'20 -1°16'56		max. Earth dist.	6489 Jun 24 03:52	6° \mathfrak{S} 34'25 30.79902 AU	
minimum elong	6483 Jun 10 03:49	23° Π 02'20 1°16'59		morning rise	6489 Jul 09 03:56	7° \mathfrak{S} 08'13	
max. Earth dist.	6483 Jun 10 23:05	23° Π 04'10 30.82836 AU		retrograde	6489 Oct 08 06:46	9° \mathfrak{S} 07'06	
morning rise	6483 Jun 25 22:07	23° Π 37'56		opposition	6489 Dec 27 11:02	7° \mathfrak{S} 41'49 -1°22'43	
retrograde	6483 Sep 24 23:23	25° Π 36'54		min. Earth dist.	6489 Dec 26 14:59	7° \mathfrak{S} 43'13 28.79883 AU	
opposition	6483 Dec 14 07:37	24° Π 11'50 -1°22'30		direct	6490 Mar 15 07:57	6° \mathfrak{S} 18'14	
min. Earth dist.	6483 Dec 13 13:00	24° Π 13'08 28.82673 AU		evening set	6490 Jun 10 01:41	8° \mathfrak{S} 11'53	
direct	6484 Mar 01 05:53	22° Π 48'30					
evening set	6484 May 27 00:40	24° Π 42'11		conjunction	6490 Jun 25 19:49	8° \mathfrak{S} 47'22 -1°17'11	
				minimum elong	6490 Jun 25 19:49	8° \mathfrak{S} 47'22 1°17'13	
conjunction	6484 Jun 11 16:19	25° Π 17'30 -1°17'19		max. Earth dist.	6490 Jun 26 16:20	8° \mathfrak{S} 49'18 30.79750 AU	
minimum elong	6484 Jun 11 16:19	25° Π 17'30 1°17'23		morning rise	6490 Jul 11 17:10	9° \mathfrak{S} 23'09	
max. Earth dist.	6484 Jun 12 12:37	25° Π 19'26 30.82332 AU		retrograde	6490 Oct 10 18:57	11° \mathfrak{S} 22'02	
morning rise	6484 Jun 27 10:52	25° Π 53'08		opposition	6490 Dec 29 23:20	9° \mathfrak{S} 56'45 -1°22'19	
retrograde	6484 Sep 26 13:08	27° Π 52'05		min. Earth dist.	6490 Dec 29 04:04	9° \mathfrak{S} 58'06 28.79814 AU	
opposition	6484 Dec 15 20:28	26° Π 26'59 -1°22'51		direct	6491 Mar 17 17:45	8° \mathfrak{S} 33'10	
min. Earth dist.	6484 Dec 15 01:35	26° Π 28'18 28.82122 AU		evening set	6491 Jun 12 13:56	10° \mathfrak{S} 26'51	
direct	6485 Mar 03 20:01	25° Π 03'37					
evening set	6485 May 29 12:52	26° Π 57'17		conjunction	6491 Jun 28 08:41	11° \mathfrak{S} 02'21 -1°16'44	
				minimum elong	6491 Jun 28 08:41	11° \mathfrak{S} 02'21 1°16'48	
conjunction	6485 Jun 14 04:49	27° Π 32'38 -1°17'35		max. Earth dist.	6491 Jun 29 06:09	11° \mathfrak{S} 04'23 30.79760 AU	
minimum elong	6485 Jun 14 04:48	27° Π 32'38 1°17'39		morning rise	6491 Jul 14 06:20	11° \mathfrak{S} 38'10	
max. Earth dist.	6485 Jun 15 00:00	27° Π 34'27 30.81762 AU		retrograde	6491 Oct 13 08:13	13° \mathfrak{S} 37'02	
morning rise	6485 Jun 29 23:58	28° Π 08'17		opposition	6492 Jan 01 11:34	12° \mathfrak{S} 11'47 -1°21'47	
	6485 Sep 08 02:06	0° \mathfrak{S}		min. Earth dist.	6491 Dec 31 15:16	12° \mathfrak{S} 13'13 28.79884 AU	
retrograde	6485 Sep 29 03:43	0° \mathfrak{S} 07'14		direct	6492 Mar 19 05:07	10° \mathfrak{S} 48'13	
	6485 Oct 20 07:14	30° \mathfrak{R} Π		evening set	6492 Jun 14 02:17	12° \mathfrak{S} 41'55	
opposition	6485 Dec 18 09:10	28° Π 42'05 -1°23'04					
min. Earth dist.	6485 Dec 17 14:16	28° Π 43'24 28.81542 AU		conjunction	6492 Jun 29 21:19	13° \mathfrak{S} 17'27 -1°16'11	
direct	6486 Mar 06 07:53	27° Π 18'39		minimum elong	6492 Jun 29 21:19	13° \mathfrak{S} 17'27 1°16'14	
evening set	6486 Jun 01 00:57	29° Π 12'18		max. Earth dist.	6492 Jun 30 18:04	13° \mathfrak{S} 19'25 30.79895 AU	
				morning rise	6492 Jul 15 19:34	13° \mathfrak{S} 53'18	
conjunction	6486 Jun 16 17:27	29° Π 47'41 -1°17'45		retrograde	6492 Oct 14 22:03	15° \mathfrak{S} 52'10	
minimum elong	6486 Jun 16 17:27	29° Π 47'41 1°17'48		opposition	6493 Jan 02 23:59	14° \mathfrak{S} 26'57 -1°21'07	

min. Earth dist.	6493 Jan 02 04:18	14° $\overline{028}$ '20	28.80077 AU	morning rise	6499 Aug 01 19:31	29° $\overline{040}$ '59	
direct	6493 Mar 21 15:49	13° $\overline{003}$ '23			6499 Aug 10 14:44	0° $\overline{000}$	
evening set	6493 Jun 16 14:45	14° $\overline{057}$ '07		retrograde	6499 Oct 31 20:34	1° $\overline{039}$ '26	
				opposition	6500 Jan 19 12:45	0° $\overline{014}$ '16	-1°13'06
conjunction	6493 Jul 02 10:25	15° $\overline{032}$ '42	-1°15'31	min. Earth dist.	6500 Jan 18 19:46	0° $\overline{015}$ '28	28.80976 AU
minimum elong	6493 Jul 02 10:25	15° $\overline{032}$ '42	1°15'34		6500 Jan 28 00:36	30° $\overline{000}$	
max. Earth dist.	6493 Jul 03 08:18	15° $\overline{034}$ '45	30.80127 AU	direct	6500 Apr 07 05:20	28° $\overline{050}$ '28	
morning rise	6493 Jul 18 08:57	16° $\overline{008}$ '33			6500 Jun 12 01:31	0° $\overline{000}$	
retrograde	6493 Oct 17 11:45	18° $\overline{007}$ '25		evening set	6500 Jul 03 08:41	0° $\overline{044}$ '15	
opposition	6494 Jan 05 12:08	16° $\overline{042}$ '15	-1°20'20				
min. Earth dist.	6494 Jan 04 16:20	16° $\overline{043}$ '38	28.80327 AU	conjunction	6500 Jul 19 07:35	1° $\overline{019}$ '59	-1°07'38
direct	6494 Mar 24 04:56	15° $\overline{018}$ '41		minimum elong	6500 Jul 19 07:35	1° $\overline{019}$ '59	1°07'40
evening set	6494 Jun 19 03:32	17° $\overline{012}$ '28		max. Earth dist.	6500 Jul 20 02:51	1° $\overline{021}$ '48	30.80971 AU
				morning rise	6500 Aug 04 09:06	1° $\overline{055}$ '59	
conjunction	6494 Jul 04 23:31	17° $\overline{048}$ '04	-1°14'43	retrograde	6500 Nov 03 09:00	3° $\overline{054}$ '21	
minimum elong	6494 Jul 04 23:31	17° $\overline{048}$ '04	1°14'46	min. Earth dist.	6501 Jan 21 06:46	2° $\overline{030}$ '25	28.81101 AU
max. Earth dist.	6494 Jul 05 20:03	17° $\overline{050}$ '01	30.80390 AU	opposition	6501 Jan 22 00:31	2° $\overline{029}$ '10	-1°11'30
morning rise	6494 Jul 20 22:39	18° $\overline{023}$ '58		direct	6501 Apr 09 17:28	1° $\overline{005}$ '18	
retrograde	6494 Oct 20 02:25	20° $\overline{022}$ '49		evening set	6501 Jul 05 21:43	2° $\overline{059}$ '05	
min. Earth dist.	6495 Jan 07 04:55	18° $\overline{059}$ '02	28.80585 AU				
opposition	6495 Jan 08 00:23	18° $\overline{057}$ '40	-1°19'25	conjunction	6501 Jul 21 20:55	3° $\overline{034}$ '50	-1°06'05
direct	6495 Mar 26 16:01	17° $\overline{034}$ '07		minimum elong	6501 Jul 21 20:55	3° $\overline{034}$ '50	1°06'08
evening set	6495 Jun 21 16:18	19° $\overline{027}$ '56		max. Earth dist.	6501 Jul 22 15:09	3° $\overline{036}$ '33	30.81151 AU
				morning rise	6501 Aug 06 22:58	4° $\overline{010}$ '51	
conjunction	6495 Jul 07 12:49	20° $\overline{003}$ '34	-1°13'49	retrograde	6501 Nov 05 21:11	6° $\overline{009}$ '07	
minimum elong	6495 Jul 07 12:49	20° $\overline{003}$ '34	1°13'51	opposition	6502 Jan 24 12:11	4° $\overline{043}$ '56	-1°09'47
max. Earth dist.	6495 Jul 08 09:53	20° $\overline{005}$ '33	30.80612 AU	min. Earth dist.	6502 Jan 23 19:20	4° $\overline{045}$ '08	28.81350 AU
morning rise	6495 Jul 23 12:12	20° $\overline{039}$ '28		direct	6502 Apr 12 04:01	3° $\overline{020}$ '03	
retrograde	6495 Oct 22 15:37	22° $\overline{038}$ '17		evening set	6502 Jul 08 10:36	5° $\overline{013}$ '50	
opposition	6496 Jan 10 12:37	21° $\overline{013}$ '10	-1°18'23				
min. Earth dist.	6496 Jan 09 17:52	21° $\overline{014}$ '29	28.80769 AU	conjunction	6502 Jul 24 10:26	5° $\overline{049}$ '36	-1°04'26
direct	6496 Mar 28 04:57	19° $\overline{049}$ '36		minimum elong	6502 Jul 24 10:26	5° $\overline{049}$ '36	1°04'28
evening set	6496 Jun 23 05:14	21° $\overline{043}$ '25		max. Earth dist.	6502 Jul 25 05:37	5° $\overline{051}$ '24	30.81465 AU
				morning rise	6502 Aug 09 12:42	6° $\overline{025}$ '38	
conjunction	6496 Jul 09 02:09	22° $\overline{019}$ '05	-1°12'47	retrograde	6502 Nov 08 09:20	8° $\overline{023}$ '49	
minimum elong	6496 Jul 09 02:09	22° $\overline{019}$ '05	1°12'50	opposition	6503 Jan 26 23:47	6° $\overline{058}$ '40	-1°07'58
max. Earth dist.	6496 Jul 09 21:59	22° $\overline{020}$ '57	30.80769 AU	min. Earth dist.	6503 Jan 26 06:42	6° $\overline{059}$ '52	28.81725 AU
morning rise	6496 Jul 25 02:04	22° $\overline{055}$ '01		direct	6503 Apr 14 16:26	5° $\overline{034}$ '44	
retrograde	6496 Oct 24 07:10	24° $\overline{053}$ '45		evening set	6503 Jul 10 23:37	7° $\overline{028}$ '34	
min. Earth dist.	6497 Jan 11 05:51	23° $\overline{029}$ '58	28.80881 AU				
opposition	6497 Jan 12 00:47	23° $\overline{028}$ '38	-1°17'14	conjunction	6503 Jul 26 23:42	8° $\overline{004}$ '21	-1°02'41
direct	6497 Mar 30 17:59	22° $\overline{005}$ '02		minimum elong	6503 Jul 26 23:42	8° $\overline{004}$ '21	1°02'44
evening set	6497 Jun 25 18:05	23° $\overline{058}$ '51		max. Earth dist.	6503 Jul 27 17:38	8° $\overline{006}$ '02	30.81918 AU
				morning rise	6503 Aug 12 02:30	8° $\overline{040}$ '23	
conjunction	6497 Jul 11 15:31	24° $\overline{034}$ '32	-1°11'40	retrograde	6503 Nov 10 23:15	10° $\overline{038}$ '31	
minimum elong	6497 Jul 11 15:31	24° $\overline{034}$ '32	1°11'42	opposition	6504 Jan 29 11:24	9° $\overline{013}$ '24	-1°06'03
max. Earth dist.	6497 Jul 12 11:21	24° $\overline{036}$ '24	30.80837 AU	min. Earth dist.	6504 Jan 28 18:27	9° $\overline{014}$ '35	28.82253 AU
morning rise	6497 Jul 27 15:51	25° $\overline{010}$ '29		direct	6504 Apr 16 02:52	7° $\overline{049}$ '28	
retrograde	6497 Oct 26 19:12	27° $\overline{009}$ '09		evening set	6504 Jul 12 12:35	9° $\overline{043}$ '19	
opposition	6498 Jan 14 12:59	25° $\overline{044}$ '01	-1°15'58				
min. Earth dist.	6498 Jan 13 19:23	25° $\overline{045}$ '15	28.80915 AU	conjunction	6504 Jul 28 13:15	10° $\overline{019}$ '08	-1°00'51
direct	6498 Apr 02 06:08	24° $\overline{020}$ '21		minimum elong	6504 Jul 28 13:15	10° $\overline{019}$ '08	1°00'53
evening set	6498 Jun 28 07:01	26° $\overline{014}$ '09		max. Earth dist.	6504 Jul 29 07:59	10° $\overline{020}$ '54	30.82512 AU
				morning rise	6504 Aug 13 16:16	10° $\overline{055}$ '12	
conjunction	6498 Jul 14 04:58	26° $\overline{049}$ '51	-1°10'25	retrograde	6504 Nov 12 12:04	12° $\overline{053}$ '15	
minimum elong	6498 Jul 14 04:59	26° $\overline{049}$ '51	1°10'28	opposition	6505 Jan 30 22:57	11° $\overline{028}$ '12	-1°04'01
max. Earth dist.	6498 Jul 15 00:20	26° $\overline{051}$ '40	30.80864 AU	min. Earth dist.	6505 Jan 30 06:30	11° $\overline{029}$ '21	28.82903 AU
morning rise	6498 Jul 30 05:43	27° $\overline{025}$ '49		direct	6505 Apr 18 15:21	10° $\overline{004}$ '17	
retrograde	6498 Oct 29 08:20	29° $\overline{024}$ '22		evening set	6505 Jul 15 01:44	11° $\overline{058}$ '11	
min. Earth dist.	6499 Jan 16 06:35	28° $\overline{000}$ '30	28.80929 AU				
opposition	6499 Jan 17 00:46	27° $\overline{059}$ '13	-1°14'35	conjunction	6505 Jul 31 02:46	12° $\overline{034}$ '02	-0°58'54
direct	6499 Apr 04 18:46	26° $\overline{035}$ '29		minimum elong	6505 Jul 31 02:46	12° $\overline{034}$ '02	0°58'57
evening set	6499 Jun 30 19:59	28° $\overline{029}$ '17		max. Earth dist.	6505 Jul 31 20:22	12° $\overline{035}$ '41	30.83228 AU
				morning rise	6505 Aug 16 06:17	13° $\overline{010}$ '06	
conjunction	6499 Jul 16 18:18	29° $\overline{005}$ '00	-1°09'05		6505 Oct 23 23:21	15° $\overline{000}$	
minimum elong	6499 Jul 16 18:18	29° $\overline{005}$ '00	1°09'08	retrograde	6505 Nov 15 03:30	15° $\overline{008}$ '05	
max. Earth dist.	6499 Jul 17 13:02	29° $\overline{006}$ '46	30.80883 AU		6505 Dec 07 08:41	15° $\overline{000}$	

opposition	6506 Feb 02 10:26	13° Ω 43'07	-1°01'54	conjunction	6512 Aug 16 03:25	28° Ω 19'41	-0°43'00
min. Earth dist.	6506 Feb 01 17:48	13° Ω 44'17	28.83650 AU	minimum elong	6512 Aug 16 03:25	28° Ω 19'41	0°43'01
direct	6506 Apr 21 03:55	12° Ω 19'13		max. Earth dist.	6512 Aug 16 15:47	28° Ω 20'50	30.87347 AU
evening set	6506 Jul 17 15:04	14° Ω 13'11		morning rise	6512 Sep 01 09:03	28° Ω 55'49	
					6512 Oct 03 17:32	0° Υ	
conjunction	6506 Aug 02 16:31	14° Ω 49'04	-0°56'52	retrograde	6512 Nov 30 18:54	0° Υ 53'04	
minimum elong	6506 Aug 02 16:31	14° Ω 49'04	0°56'54		6513 Jan 29 14:09	30° Υ δ	
max. Earth dist.	6506 Aug 03 10:11	14° Ω 50'43	30.83986 AU	opposition	6513 Feb 17 17:52	29° Ω 28'21	-0°44'36
	6506 Aug 07 13:13	15° Ω		min. Earth dist.	6513 Feb 17 06:22	29° Ω 29'10	28.87605 AU
morning rise	6506 Aug 18 20:17	15° Ω 25'09		direct	6513 May 06 12:18	28° Ω 04'13	
retrograde	6506 Nov 17 15:41	17° Ω 23'04		evening set	6513 Aug 02 13:04	29° Ω 58'20	
opposition	6507 Feb 04 21:54	15° Ω 58'11	-0°59'40		6513 Aug 03 07:27	0° Υ	
min. Earth dist.	6507 Feb 04 06:47	15° Ω 59'15	28.84410 AU				
	6507 Mar 14 21:07	15° Υ δ		conjunction	6513 Aug 18 17:15	0° Υ 34'17	-0°40'28
direct	6507 Apr 23 15:35	14° Ω 34'19		minimum elong	6513 Aug 18 17:16	0° Υ 34'17	0°40'29
	6507 Jun 01 14:27	15° Ω		max. Earth dist.	6513 Aug 19 06:06	0° Υ 35'29	30.87827 AU
evening set	6507 Jul 20 04:27	16° Ω 28'20		morning rise	6513 Sep 03 22:58	1° Υ 10'25	
				retrograde	6513 Dec 03 05:57	3° Υ 07'31	
conjunction	6507 Aug 05 06:20	17° Ω 04'14	-0°54'45	opposition	6514 Feb 20 04:54	1° Υ 42'48	-0°41'51
minimum elong	6507 Aug 05 06:20	17° Ω 04'14	0°54'47	min. Earth dist.	6514 Feb 19 18:08	1° Υ 43'34	28.88116 AU
max. Earth dist.	6507 Aug 05 23:08	17° Ω 05'48	30.84743 AU	direct	6514 May 09 01:18	0° Υ 18'37	
morning rise	6507 Aug 21 10:25	17° Ω 40'20		evening set	6514 Aug 05 02:31	2° Υ 12'44	
retrograde	6507 Nov 20 06:04	19° Ω 38'11					
opposition	6508 Feb 07 09:22	18° Ω 13'22	-0°57'22	conjunction	6514 Aug 21 06:54	2° Υ 48'42	-0°37'51
min. Earth dist.	6508 Feb 06 17:58	18° Ω 14'27	28.85132 AU	minimum elong	6514 Aug 21 06:54	2° Υ 48'42	0°37'52
direct	6508 Apr 25 04:05	16° Ω 49'30		max. Earth dist.	6514 Aug 21 18:18	2° Υ 49'45	30.88394 AU
evening set	6508 Jul 21 17:51	18° Ω 43'34		morning rise	6514 Sep 06 12:56	3° Υ 24'49	
				retrograde	6514 Dec 05 19:31	5° Υ 21'46	
conjunction	6508 Aug 06 20:04	19° Ω 19'29	-0°52'33	opposition	6515 Feb 22 15:43	3° Υ 57'05	-0°39'02
minimum elong	6508 Aug 06 20:04	19° Ω 19'29	0°52'34	min. Earth dist.	6515 Feb 22 04:44	3° Υ 57'51	28.88740 AU
max. Earth dist.	6508 Aug 07 11:50	19° Ω 20'57	30.85417 AU	direct	6515 May 11 13:49	2° Υ 32'50	
morning rise	6508 Aug 23 00:31	19° Ω 55'36		evening set	6515 Aug 07 15:52	4° Υ 26'58	
retrograde	6508 Nov 21 19:17	21° Ω 53'22					
opposition	6509 Feb 08 21:00	20° Ω 28'35	-0°54'58	conjunction	6515 Aug 23 20:36	5° Υ 02'56	-0°35'11
min. Earth dist.	6509 Feb 08 07:19	20° Ω 29'33	28.85759 AU	minimum elong	6515 Aug 23 20:36	5° Υ 02'56	0°35'13
direct	6509 Apr 27 14:53	19° Ω 04'43		max. Earth dist.	6515 Aug 24 08:16	5° Υ 04'01	30.89075 AU
evening set	6509 Jul 24 07:20	20° Ω 58'48		morning rise	6515 Sep 09 02:43	5° Υ 39'03	
				retrograde	6515 Dec 08 06:50	7° Υ 35'53	
conjunction	6509 Aug 09 10:05	21° Ω 34'44	-0°50'16	opposition	6516 Feb 25 02:42	6° Υ 11'13	-0°36'10
minimum elong	6509 Aug 09 10:05	21° Ω 34'44	0°50'19	min. Earth dist.	6516 Feb 24 16:54	6° Υ 11'55	28.89491 AU
max. Earth dist.	6509 Aug 10 01:28	21° Ω 36'10	30.86000 AU	direct	6516 May 13 01:19	4° Υ 46'56	
morning rise	6509 Aug 25 14:46	22° Ω 10'51		evening set	6516 Aug 09 05:05	6° Υ 41'05	
retrograde	6509 Nov 24 07:34	24° Ω 08'30					
opposition	6510 Feb 11 08:14	22° Ω 43'46	-0°52'29	conjunction	6516 Aug 25 10:08	7° Υ 17'04	-0°32'29
min. Earth dist.	6510 Feb 10 18:28	22° Ω 44'44	28.86279 AU	minimum elong	6516 Aug 25 10:08	7° Υ 17'04	0°32'29
direct	6510 Apr 30 03:14	21° Ω 19'50		max. Earth dist.	6516 Aug 25 21:08	7° Υ 18'05	30.89909 AU
evening set	6510 Jul 26 20:58	23° Ω 13'57		morning rise	6516 Sep 10 16:31	7° Υ 53'11	
				retrograde	6516 Dec 09 20:56	9° Υ 49'52	
conjunction	6510 Aug 11 23:57	23° Ω 49'53	-0°47'55	opposition	6517 Feb 26 13:29	8° Υ 25'16	-0°33'14
minimum elong	6510 Aug 11 23:57	23° Ω 49'53	0°47'56	min. Earth dist.	6517 Feb 26 03:07	8° Υ 26'00	28.90383 AU
max. Earth dist.	6510 Aug 12 13:37	23° Ω 51'10	30.86481 AU	direct	6517 May 15 14:19	7° Υ 00'58	
morning rise	6510 Aug 28 05:02	24° Ω 26'01		evening set	6517 Aug 11 18:35	8° Υ 55'09	
retrograde	6510 Nov 26 18:56	26° Ω 23'32					
opposition	6511 Feb 13 19:38	24° Ω 58'49	-0°49'56	conjunction	6517 Aug 27 23:51	9° Υ 31'09	-0°29'43
min. Earth dist.	6511 Feb 13 07:18	24° Ω 59'41	28.86732 AU	minimum elong	6517 Aug 27 23:51	9° Υ 31'09	0°29'44
direct	6511 May 02 14:03	23° Ω 34'50		max. Earth dist.	6517 Aug 28 10:15	9° Υ 32'06	30.90859 AU
evening set	6511 Jul 29 10:14	25° Ω 28'56		morning rise	6517 Sep 13 06:24	10° Υ 07'15	
				retrograde	6517 Dec 12 09:30	12° Υ 03'50	
conjunction	6511 Aug 14 13:44	26° Ω 04'53	-0°45'30	opposition	6518 Mar 01 00:17	10° Υ 39'17	-0°30'15
minimum elong	6511 Aug 14 13:44	26° Ω 04'53	0°45'32	min. Earth dist.	6518 Feb 28 15:25	10° Υ 39'55	28.91388 AU
max. Earth dist.	6511 Aug 15 03:49	26° Ω 06'12	30.86914 AU	direct	6518 May 18 01:32	9° Υ 15'00	
morning rise	6511 Aug 30 18:56	26° Ω 41'01		evening set	6518 Aug 14 08:03	11° Υ 09'14	
retrograde	6511 Nov 29 06:04	28° Ω 38'24					
opposition	6512 Feb 16 06:49	27° Ω 13'41	-0°47'18	conjunction	6518 Aug 30 13:40	11° Υ 45'14	-0°26'54
min. Earth dist.	6512 Feb 15 18:42	27° Ω 14'32	28.87149 AU	minimum elong	6518 Aug 30 13:40	11° Υ 45'14	0°26'55
direct	6512 May 04 02:05	25° Ω 49'38		max. Earth dist.	6518 Aug 30 23:51	11° Υ 46'11	30.91911 AU
evening set	6512 Jul 30 23:44	27° Ω 43'44		morning rise	6518 Sep 15 20:16	12° Υ 21'21	

retrograde	6518 Dec 14 21:49	14° \mathring{M} 17'48		opposition	6525 Mar 16 03:00	26° \mathring{M} 17'03	-0°08'26
opposition	6519 Mar 03 10:59	12° \mathring{M} 53'21	-0°27'13	min. Earth dist.	6525 Mar 15 23:53	26° \mathring{M} 17'16	28.97670 AU
min. Earth dist.	6519 Mar 03 01:53	12° \mathring{M} 54'00	28.92451 AU	direct	6525 Jun 02 10:15	24° \mathring{M} 52'35	
direct	6519 May 20 14:04	11° \mathring{M} 29'05		evening set	6525 Aug 30 07:10	26° \mathring{M} 47'03	
evening set	6519 Aug 16 21:34	13° \mathring{M} 23'22					
conjunction	6519 Sep 02 03:14	13° \mathring{M} 59'21	-0°24'03	conjunction	6525 Sep 15 13:55	27° \mathring{M} 23'02	-0°06'27
minimum elong	6519 Sep 02 03:14	13° \mathring{M} 59'21	0°24'05	minimum elong	6525 Sep 15 13:55	27° \mathring{M} 23'02	0°06'28
max. Earth dist.	6519 Sep 02 11:54	14° \mathring{M} 00'10	30.92979 AU	behind sun begin	6525 Sep 15 07:44	27° \mathring{M} 22'29	
morning rise	6519 Sep 18 10:03	14° \mathring{M} 35'28		behind sun end	6525 Sep 15 20:07	27° \mathring{M} 23'35	
retrograde	6519 Dec 17 09:41	16° \mathring{M} 31'49		max. Earth dist.	6525 Sep 15 17:12	27° \mathring{M} 23'19	30.98047 AU
opposition	6520 Mar 04 21:50	15° \mathring{M} 07'28	-0°24'09	morning rise	6525 Oct 01 20:57	27° \mathring{M} 59'04	
min. Earth dist.	6520 Mar 04 14:12	15° \mathring{M} 08'00	28.93516 AU	retrograde	6525 Dec 30 08:15	29° \mathring{M} 54'36	
direct	6520 May 22 00:17	13° \mathring{M} 43'11		opposition	6526 Mar 18 13:14	28° \mathring{M} 30'30	-0°05'14
evening set	6520 Aug 18 11:09	15° \mathring{M} 37'31		min. Earth dist.	6526 Mar 18 09:51	28° \mathring{M} 30'44	28.98430 AU
				direct	6526 Jun 04 23:43	27° \mathring{M} 05'59	
conjunction	6520 Sep 03 17:12	16° \mathring{M} 13'32	-0°21'10	evening set	6526 Sep 01 20:39	29° \mathring{M} 00'29	
minimum elong	6520 Sep 03 17:12	16° \mathring{M} 13'32	0°21'10				
max. Earth dist.	6520 Sep 04 01:55	16° \mathring{M} 14'20	30.94014 AU	conjunction	6526 Sep 18 03:28	29° \mathring{M} 36'28	-0°03'29
morning rise	6520 Sep 19 23:57	16° \mathring{M} 49'38		minimum elong	6526 Sep 18 03:27	29° \mathring{M} 36'28	0°03'28
retrograde	6520 Dec 18 21:08	18° \mathring{M} 45'52		behind sun begin	6526 Sep 17 20:54	29° \mathring{M} 35'53	
opposition	6521 Mar 07 08:30	17° \mathring{M} 21'35	-0°21'03	behind sun end	6526 Sep 18 10:00	29° \mathring{M} 37'02	
min. Earth dist.	6521 Mar 07 01:28	17° \mathring{M} 22'05	28.94503 AU	max. Earth dist.	6526 Sep 18 06:06	29° \mathring{M} 36'39	30.98831 AU
direct	6521 May 24 12:01	15° \mathring{M} 57'18			6526 Sep 28 17:41	0° \mathring{A}	
evening set	6521 Aug 21 00:57	17° \mathring{M} 51'40		morning rise	6526 Oct 04 10:24	0° \mathring{A} 12'28	
				retrograde	6527 Jan 01 20:01	2° \mathring{A} 07'51	
conjunction	6521 Sep 06 07:02	18° \mathring{M} 27'40	-0°18'16	opposition	6527 Mar 20 23:42	0° \mathring{A} 43'47	-0°02'03
minimum elong	6521 Sep 06 07:02	18° \mathring{M} 27'40	0°18'17	min. Earth dist.	6527 Mar 20 21:46	0° \mathring{A} 43'55	28.99265 AU
max. Earth dist.	6521 Sep 06 13:32	18° \mathring{M} 28'16	30.94957 AU		6527 Apr 17 03:13	30° \mathring{R} \mathring{M}	
morning rise	6521 Sep 22 14:02	19° \mathring{M} 03'46		direct	6527 Jun 07 11:31	29° \mathring{M} 19'15	
retrograde	6521 Dec 21 09:22	20° \mathring{M} 59'53			6527 Jul 27 16:50	0° \mathring{A}	
opposition	6522 Mar 09 19:16	19° \mathring{M} 35'39	-0°17'55	evening set	6527 Sep 04 09:48	1° \mathring{A} 13'45	
min. Earth dist.	6522 Mar 09 13:10	19° \mathring{M} 36'05	28.95400 AU				
direct	6522 May 26 22:15	18° \mathring{M} 11'20		conjunction	6527 Sep 20 16:44	1° \mathring{A} 49'43	-0°00'26
evening set	6522 Aug 23 14:33	20° \mathring{M} 05'44		minimum elong	6527 Sep 20 16:44	1° \mathring{A} 49'43	0°00'27
				behind sun begin	6527 Sep 20 10:10	1° \mathring{A} 49'08	
conjunction	6522 Sep 08 20:56	20° \mathring{M} 41'44	-0°15'20	behind sun end	6527 Sep 20 23:18	1° \mathring{A} 50'18	
minimum elong	6522 Sep 08 20:56	20° \mathring{M} 41'44	0°15'19	max. Earth dist.	6527 Sep 20 19:13	1° \mathring{A} 49'53	30.99722 AU
behind sun begin	6522 Sep 08 19:19	20° \mathring{M} 41'36		morning rise	6527 Oct 06 23:36	2° \mathring{A} 25'42	
behind sun end	6522 Sep 08 22:34	20° \mathring{M} 41'53		asc. node	6527 Nov 11 17:35	3° \mathring{A} 35'00	
max. Earth dist.	6522 Sep 09 03:27	20° \mathring{M} 42'20	30.95798 AU	retrograde	6528 Jan 04 07:32	4° \mathring{A} 20'57	
morning rise	6522 Sep 25 03:47	21° \mathring{M} 17'49		opposition	6528 Mar 22 09:58	2° \mathring{A} 56'56	0°01'09
retrograde	6522 Dec 23 19:31	23° \mathring{M} 13'47		min. Earth dist.	6528 Mar 22 07:34	2° \mathring{A} 57'06	29.00207 AU
opposition	6523 Mar 12 05:55	21° \mathring{M} 49'37	-0°14'46	direct	6528 Jun 09 00:31	1° \mathring{A} 32'22	
min. Earth dist.	6523 Mar 12 01:00	21° \mathring{M} 49'57	28.96192 AU	evening set	6528 Sep 05 23:13	3° \mathring{A} 26'54	
direct	6523 May 29 10:47	20° \mathring{M} 25'15					
evening set	6523 Aug 26 04:12	22° \mathring{M} 19'41		conjunction	6528 Sep 22 06:05	4° \mathring{A} 02'52	0°02'38
				minimum elong	6528 Sep 22 06:05	4° \mathring{A} 02'52	0°02'39
conjunction	6523 Sep 11 10:37	22° \mathring{M} 55'40	-0°12'23	behind sun begin	6528 Sep 21 23:30	4° \mathring{A} 02'17	
minimum elong	6523 Sep 11 10:37	22° \mathring{M} 55'40	0°12'23	behind sun end	6528 Sep 22 12:40	4° \mathring{A} 03'27	
behind sun begin	6523 Sep 11 06:24	22° \mathring{M} 55'18		max. Earth dist.	6528 Sep 22 07:19	4° \mathring{A} 02'55	31.00728 AU
behind sun end	6523 Sep 11 14:51	22° \mathring{M} 56'03		morning rise	6528 Oct 08 12:57	4° \mathring{A} 38'50	
max. Earth dist.	6523 Sep 11 15:10	22° \mathring{M} 56'05	30.96571 AU	retrograde	6529 Jan 05 19:10	6° \mathring{A} 33'57	
morning rise	6523 Sep 27 17:40	23° \mathring{M} 31'44		opposition	6529 Mar 24 20:13	5° \mathring{A} 10'00	0°04'20
retrograde	6523 Dec 26 08:20	25° \mathring{M} 27'34		min. Earth dist.	6529 Mar 24 18:54	5° \mathring{A} 10'05	29.01292 AU
opposition	6524 Mar 13 16:26	24° \mathring{M} 03'25	-0°11'36	direct	6529 Jun 11 10:49	3° \mathring{A} 45'25	
min. Earth dist.	6524 Mar 13 11:40	24° \mathring{M} 03'45	28.96943 AU	evening set	6529 Sep 08 12:29	5° \mathring{A} 39'59	
direct	6524 May 30 22:48	22° \mathring{M} 39'00					
evening set	6524 Aug 27 17:37	24° \mathring{M} 33'27		conjunction	6529 Sep 24 19:33	6° \mathring{A} 15'57	0°05'37
				minimum elong	6529 Sep 24 19:33	6° \mathring{A} 15'57	0°05'37
conjunction	6524 Sep 13 00:17	25° \mathring{M} 09'27	-0°09'25	behind sun begin	6529 Sep 24 13:14	6° \mathring{A} 15'23	
minimum elong	6524 Sep 13 00:17	25° \mathring{M} 09'27	0°09'24	behind sun end	6529 Sep 25 01:53	6° \mathring{A} 16'31	
behind sun begin	6524 Sep 12 18:49	25° \mathring{M} 08'58		max. Earth dist.	6529 Sep 24 21:12	6° \mathring{A} 16'04	31.01880 AU
behind sun end	6524 Sep 13 05:46	25° \mathring{M} 09'56		morning rise	6529 Oct 11 02:13	6° \mathring{A} 51'54	
max. Earth dist.	6524 Sep 13 04:44	25° \mathring{M} 09'50	30.97303 AU	retrograde	6530 Jan 08 06:24	8° \mathring{A} 46'53	
morning rise	6524 Sep 29 07:15	25° \mathring{M} 45'30		opposition	6530 Mar 27 06:29	7° \mathring{A} 23'02	0°07'31
retrograde	6524 Dec 27 18:57	27° \mathring{M} 41'11		min. Earth dist.	6530 Mar 27 05:22	7° \mathring{A} 23'07	29.02494 AU
				direct	6530 Jun 13 22:28	5° \mathring{A} 58'28	

evening set	6530 Sep 11 01:53	7° <u>♂</u> 53'05		conjunction	6536 Oct 10 16:44	21° <u>♂</u> 47'22	0°25'57
				minimum elong	6536 Oct 10 16:44	21° <u>♂</u> 47'22	0°25'58
conjunction	6530 Sep 27 08:45	8° <u>♂</u> 29'02	0°08'34	max. Earth dist.	6536 Oct 10 11:40	21° <u>♂</u> 46'54	31.10039 AU
minimum elong	6530 Sep 27 08:45	8° <u>♂</u> 29'02	0°08'36	morning rise	6536 Oct 26 22:09	22° <u>♂</u> 23'08	
behind sun begin	6530 Sep 27 03:02	8° <u>♂</u> 28'32		retrograde	6537 Jan 23 11:47	24° <u>♂</u> 17'16	
behind sun end	6530 Sep 27 14:28	8° <u>♂</u> 29'33		opposition	6537 Apr 11 06:08	22° <u>♂</u> 53'54	0°29'12
max. Earth dist.	6530 Sep 27 08:46	8° <u>♂</u> 29'02	31.03138 AU	min. Earth dist.	6537 Apr 11 10:34	22° <u>♂</u> 53'35	29.10477 AU
morning rise	6530 Oct 13 15:25	9° <u>♂</u> 04'59		direct	6537 Jun 29 08:19	21° <u>♂</u> 29'14	
retrograde	6531 Jan 10 17:30	10° <u>♂</u> 59'52		evening set	6537 Sep 26 23:32	23° <u>♂</u> 24'06	
opposition	6531 Mar 29 16:43	9° <u>♂</u> 36'06	0°10'42				
min. Earth dist.	6531 Mar 29 16:09	9° <u>♂</u> 36'08	29.03797 AU	conjunction	6537 Oct 13 05:52	23° <u>♂</u> 59'55	0°28'44
direct	6531 Jun 16 08:24	8° <u>♂</u> 11'33		minimum elong	6537 Oct 13 05:52	23° <u>♂</u> 59'55	0°28'45
evening set	6531 Sep 13 15:10	10° <u>♂</u> 06'14		max. Earth dist.	6537 Oct 12 23:13	23° <u>♂</u> 59'19	31.10898 AU
				morning rise	6537 Oct 29 11:05	24° <u>♂</u> 35'39	
conjunction	6531 Sep 29 22:10	10° <u>♂</u> 42'10	0°11'32	retrograde	6538 Jan 25 23:22	26° <u>♂</u> 29'39	
minimum elong	6531 Sep 29 22:10	10° <u>♂</u> 42'10	0°11'32	opposition	6538 Apr 13 16:20	25° <u>♂</u> 06'18	0°32'09
behind sun begin	6531 Sep 29 17:31	10° <u>♂</u> 41'45		min. Earth dist.	6538 Apr 13 22:06	25° <u>♂</u> 05'53	29.11335 AU
behind sun end	6531 Sep 30 02:50	10° <u>♂</u> 42'35		direct	6538 Jul 01 19:35	23° <u>♂</u> 41'36	
max. Earth dist.	6531 Sep 29 22:33	10° <u>♂</u> 42'12	31.04458 AU	evening set	6538 Sep 29 12:32	25° <u>♂</u> 36'28	
morning rise	6531 Oct 16 04:32	11° <u>♂</u> 18'05					
retrograde	6532 Jan 13 02:48	13° <u>♂</u> 12'52		conjunction	6538 Oct 15 18:49	26° <u>♂</u> 12'16	0°31'28
opposition	6532 Mar 31 02:58	11° <u>♂</u> 49'13	0°13'51	minimum elong	6538 Oct 15 18:49	26° <u>♂</u> 12'15	0°31'30
min. Earth dist.	6532 Mar 31 03:32	11° <u>♂</u> 49'11	29.05117 AU	max. Earth dist.	6538 Oct 15 12:26	26° <u>♂</u> 11'40	31.11750 AU
direct	6532 Jun 17 19:52	10° <u>♂</u> 24'42		morning rise	6538 Oct 31 23:38	26° <u>♂</u> 47'57	
evening set	6532 Sep 15 04:37	12° <u>♂</u> 19'26		retrograde	6539 Jan 28 09:44	28° <u>♂</u> 41'48	
				opposition	6539 Apr 16 02:25	27° <u>♂</u> 18'29	0°35'02
conjunction	6532 Oct 01 11:28	12° <u>♂</u> 55'21	0°14'28	min. Earth dist.	6539 Apr 16 08:32	27° <u>♂</u> 18'03	29.12193 AU
minimum elong	6532 Oct 01 11:28	12° <u>♂</u> 55'21	0°14'29	direct	6539 Jul 04 08:24	25° <u>♂</u> 53'45	
behind sun begin	6532 Oct 01 08:46	12° <u>♂</u> 55'07		evening set	6539 Oct 02 01:39	27° <u>♂</u> 48'37	
behind sun end	6532 Oct 01 14:09	12° <u>♂</u> 55'35					
max. Earth dist.	6532 Oct 01 09:51	12° <u>♂</u> 55'13	31.05768 AU	conjunction	6539 Oct 18 07:35	28° <u>♂</u> 24'23	0°34'09
morning rise	6532 Oct 17 17:50	13° <u>♂</u> 31'15		minimum elong	6539 Oct 18 07:35	28° <u>♂</u> 24'23	0°34'10
retrograde	6533 Jan 14 15:15	15° <u>♂</u> 25'55		max. Earth dist.	6539 Oct 17 23:35	28° <u>♂</u> 23'39	31.12633 AU
opposition	6533 Apr 02 13:14	14° <u>♂</u> 02'21	0°16'59	morning rise	6539 Nov 03 12:16	29° <u>♂</u> 00'04	
min. Earth dist.	6533 Apr 02 14:01	14° <u>♂</u> 02'18	29.06396 AU		6539 Dec 03 19:44	0° <u>♂</u>	
direct	6533 Jun 20 06:41	12° <u>♂</u> 37'50		retrograde	6540 Jan 30 20:16	0° <u>♂</u> 53'47	
evening set	6533 Sep 17 18:07	14° <u>♂</u> 32'37			6540 Mar 30 15:00	30° <u>♂</u> 12'41	
				opposition	6540 Apr 17 12:25	29° <u>♂</u> 30'30	0°37'53
conjunction	6533 Oct 04 00:59	15° <u>♂</u> 08'31	0°17'23	min. Earth dist.	6540 Apr 17 18:56	29° <u>♂</u> 30'02	29.13122 AU
minimum elong	6533 Oct 04 00:58	15° <u>♂</u> 08'31	0°17'23	direct	6540 Jul 05 18:58	28° <u>♂</u> 05'43	
max. Earth dist.	6533 Oct 03 23:03	15° <u>♂</u> 08'21	31.06988 AU	evening set	6540 Oct 03 14:32	0° <u>♂</u> 00'37	
morning rise	6533 Oct 20 07:00	15° <u>♂</u> 44'24			6540 Oct 03 07:39	0° <u>♂</u>	
retrograde	6534 Jan 17 01:07	17° <u>♂</u> 38'57					
opposition	6534 Apr 04 23:32	16° <u>♂</u> 15'28	0°20'06	conjunction	6540 Oct 19 20:28	0° <u>♂</u> 36'22	0°36'47
min. Earth dist.	6534 Apr 05 02:12	16° <u>♂</u> 15'16	29.07566 AU	minimum elong	6540 Oct 19 20:28	0° <u>♂</u> 36'22	0°36'49
direct	6534 Jun 22 17:24	14° <u>♂</u> 50'55		max. Earth dist.	6540 Oct 19 13:03	0° <u>♂</u> 35'41	31.13595 AU
evening set	6534 Sep 20 07:35	16° <u>♂</u> 45'45		morning rise	6540 Nov 05 00:41	1° <u>♂</u> 12'00	
				retrograde	6541 Feb 01 04:57	3° <u>♂</u> 05'36	
conjunction	6534 Oct 06 14:19	17° <u>♂</u> 21'37	0°20'16	opposition	6541 Apr 19 22:33	1° <u>♂</u> 42'23	0°40'40
minimum elong	6534 Oct 06 14:19	17° <u>♂</u> 21'37	0°20'18	min. Earth dist.	6541 Apr 20 05:53	1° <u>♂</u> 41'52	29.14129 AU
max. Earth dist.	6534 Oct 06 10:51	17° <u>♂</u> 21'19	31.08109 AU	direct	6541 Jul 08 06:29	0° <u>♂</u> 17'36	
morning rise	6534 Oct 22 20:13	17° <u>♂</u> 57'28		evening set	6541 Oct 06 03:36	2° <u>♂</u> 12'32	
retrograde	6535 Jan 19 13:31	19° <u>♂</u> 51'53					
opposition	6535 Apr 07 09:47	18° <u>♂</u> 28'27	0°23'10	conjunction	6541 Oct 22 09:08	2° <u>♂</u> 48'15	0°39'22
min. Earth dist.	6535 Apr 07 12:23	18° <u>♂</u> 28'16	29.08629 AU	minimum elong	6541 Oct 22 09:08	2° <u>♂</u> 48'15	0°39'23
direct	6535 Jun 25 07:05	17° <u>♂</u> 03'53		max. Earth dist.	6541 Oct 22 00:09	2° <u>♂</u> 47'25	31.14660 AU
evening set	6535 Sep 22 20:51	18° <u>♂</u> 58'43		morning rise	6541 Nov 07 13:11	3° <u>♂</u> 23'51	
				retrograde	6542 Feb 03 16:30	5° <u>♂</u> 17'21	
conjunction	6535 Oct 09 03:29	19° <u>♂</u> 34'35	0°23'08	opposition	6542 Apr 22 08:30	3° <u>♂</u> 54'13	0°43'24
minimum elong	6535 Oct 09 03:29	19° <u>♂</u> 34'35	0°23'08	min. Earth dist.	6542 Apr 22 15:29	3° <u>♂</u> 53'43	29.15251 AU
max. Earth dist.	6535 Oct 08 23:08	19° <u>♂</u> 34'11	31.09112 AU	direct	6542 Jul 10 16:45	2° <u>♂</u> 29'26	
morning rise	6535 Oct 25 09:08	20° <u>♂</u> 10'23		evening set	6542 Oct 08 16:27	4° <u>♂</u> 24'26	
retrograde	6536 Jan 22 00:21	22° <u>♂</u> 04'41					
opposition	6536 Apr 08 20:08	20° <u>♂</u> 41'16	0°26'12	conjunction	6542 Oct 24 21:53	5° <u>♂</u> 00'08	0°41'53
min. Earth dist.	6536 Apr 09 00:33	20° <u>♂</u> 40'58	29.09592 AU	minimum elong	6542 Oct 24 21:53	5° <u>♂</u> 00'08	0°41'55
direct	6536 Jun 26 18:58	19° <u>♂</u> 16'40		max. Earth dist.	6542 Oct 24 13:14	4° <u>♂</u> 59'20	31.15825 AU
evening set	6536 Sep 24 10:09	21° <u>♂</u> 11'31		morning rise	6542 Nov 10 01:26	5° <u>♂</u> 35'42	

retrograde	6543 Feb 06 01:45	7° ℓ 29'08		evening set	6549 Oct 24 10:12	19° ℓ 48'48	
opposition	6543 Apr 24 18:42	6° ℓ 06'05	0°46'03				
min. Earth dist.	6543 Apr 25 03:03	6° ℓ 05'30	29.16459 AU	conjunction	6549 Nov 09 13:34	20° ℓ 24'19	0°57'35
direct	6543 Jul 13 02:46	4° ℓ 41'21		minimum elong	6549 Nov 09 13:34	20° ℓ 24'19	0°57'37
evening set	6543 Oct 11 05:14	6° ℓ 36'24		max. Earth dist.	6549 Nov 08 23:28	20° ℓ 23'01	31.22785 AU
				morning rise	6549 Nov 25 14:24	20° ℓ 59'39	
conjunction	6543 Oct 27 10:21	7° ℓ 12'04	0°44'20	retrograde	6550 Feb 21 05:12	22° ℓ 52'28	
minimum elong	6543 Oct 27 10:21	7° ℓ 12'04	0°44'22	opposition	6550 May 09 17:48	21° ℓ 29'53	1°02'32
max. Earth dist.	6543 Oct 27 00:42	7° ℓ 11'11	31.17065 AU	min. Earth dist.	6550 May 10 07:20	21° ℓ 28'57	29.23122 AU
morning rise	6543 Nov 12 13:41	7° ℓ 47'37		direct	6550 Jul 28 15:50	20° ℓ 05'09	
retrograde	6544 Feb 08 13:35	9° ℓ 40'58		evening set	6550 Oct 26 22:47	22° ℓ 00'26	
opposition	6544 Apr 26 04:42	8° ℓ 18'02	0°48'39	max. Earth dist.	6550 Nov 11 09:54	22° ℓ 34'28	31.23373 AU
min. Earth dist.	6544 Apr 26 12:45	8° ℓ 17'29	29.17701 AU				
direct	6544 Jul 14 15:39	6° ℓ 53'21		conjunction	6550 Nov 12 01:39	22° ℓ 35'55	0°59'30
evening set	6544 Oct 12 18:12	8° ℓ 48'28		minimum elong	6550 Nov 12 01:39	22° ℓ 35'55	0°59'33
				morning rise	6550 Nov 28 02:14	23° ℓ 11'13	
conjunction	6544 Oct 28 23:03	9° ℓ 24'07	0°46'44	retrograde	6551 Feb 23 16:22	25° ℓ 03'55	
minimum elong	6544 Oct 28 23:03	9° ℓ 24'07	0°46'46	opposition	6551 May 12 03:52	23° ℓ 41'21	1°04'33
max. Earth dist.	6544 Oct 28 12:47	9° ℓ 23'11	31.18286 AU	min. Earth dist.	6551 May 12 17:06	23° ℓ 40'26	29.23699 AU
morning rise	6544 Nov 14 01:58	9° ℓ 59'38		direct	6551 Jul 31 02:29	22° ℓ 16'33	
retrograde	6545 Feb 10 00:18	11° ℓ 52'56		evening set	6551 Oct 29 10:59	24° ℓ 11'50	
opposition	6545 Apr 28 14:49	10° ℓ 30'05	0°51'10				
min. Earth dist.	6545 Apr 29 00:37	10° ℓ 29'24	29.18904 AU	conjunction	6551 Nov 14 13:39	24° ℓ 47'17	1°01'20
direct	6545 Jul 17 02:39	9° ℓ 05'26		minimum elong	6551 Nov 14 13:39	24° ℓ 47'17	1°01'23
evening set	6545 Oct 15 07:09	11° ℓ 00'37		max. Earth dist.	6551 Nov 13 22:15	24° ℓ 45'52	31.23935 AU
				morning rise	6551 Nov 30 13:41	25° ℓ 22'33	
conjunction	6545 Oct 31 11:46	11° ℓ 36'15	0°49'03	retrograde	6552 Feb 26 00:02	27° ℓ 15'09	
minimum elong	6545 Oct 31 11:46	11° ℓ 36'15	0°49'05	opposition	6552 May 13 14:04	25° ℓ 52'35	1°06'27
max. Earth dist.	6545 Oct 31 00:49	11° ℓ 35'15	31.19443 AU	min. Earth dist.	6552 May 14 04:42	25° ℓ 51'34	29.24274 AU
morning rise	6545 Nov 16 14:17	12° ℓ 11'44		direct	6552 Aug 01 13:12	24° ℓ 27'45	
retrograde	6546 Feb 12 11:47	14° ℓ 04'57		evening set	6552 Oct 30 23:21	26° ℓ 23'00	
opposition	6546 May 01 01:00	12° ℓ 42'12	0°53'36	max. Earth dist.	6552 Nov 15 09:20	26° ℓ 56'55	31.24535 AU
min. Earth dist.	6546 May 01 10:48	12° ℓ 41'31	29.20000 AU				
direct	6546 Jul 19 15:31	11° ℓ 17'33		conjunction	6552 Nov 16 01:33	26° ℓ 58'26	1°03'05
evening set	6546 Oct 17 20:01	13° ℓ 12'48		minimum elong	6552 Nov 16 01:33	26° ℓ 58'26	1°03'07
max. Earth dist.	6546 Nov 02 11:42	13° ℓ 47'15	31.20469 AU	morning rise	6552 Dec 02 01:15	27° ℓ 33'39	
				retrograde	6553 Feb 27 10:01	29° ℓ 26'09	
conjunction	6546 Nov 03 00:12	13° ℓ 48'24	0°51'18	opposition	6553 May 16 00:02	28° ℓ 03'35	1°08'16
minimum elong	6546 Nov 03 00:11	13° ℓ 48'24	0°51'21	min. Earth dist.	6553 May 16 13:58	28° ℓ 02'37	29.24905 AU
morning rise	6546 Nov 19 02:22	14° ℓ 23'51		direct	6553 Aug 04 01:40	26° ℓ 38'43	
	6546 Dec 06 12:49	15° ℓ		evening set	6553 Nov 02 11:36	28° ℓ 33'59	
retrograde	6547 Feb 14 23:52	16° ℓ 16'59					
	6547 Apr 30 01:32	15° ℓ		conjunction	6553 Nov 18 13:25	29° ℓ 09'23	1°04'44
opposition	6547 May 03 11:18	14° ℓ 54'18	0°55'58	minimum elong	6553 Nov 18 13:25	29° ℓ 09'23	1°04'47
min. Earth dist.	6547 May 03 22:24	14° ℓ 53'31	29.20972 AU	max. Earth dist.	6553 Nov 17 21:07	29° ℓ 07'52	31.25202 AU
direct	6547 Jul 22 03:07	13° ℓ 29'39		morning rise	6553 Dec 04 12:36	29° ℓ 44'34	
	6547 Oct 08 12:18	15° ℓ			6553 Dec 11 18:28	0° ♂	
evening set	6547 Oct 20 08:46	15° ℓ 24'56		retrograde	6554 Mar 01 19:40	1° ♂ 36'59	
				opposition	6554 May 18 10:18	0° ♂ 14'27	1°09'59
conjunction	6547 Nov 05 12:47	16° ℓ 00'30	0°53'29	min. Earth dist.	6554 May 19 01:16	0° ♂ 13'25	29.25636 AU
minimum elong	6547 Nov 05 12:47	16° ℓ 00'30	0°53'31		6554 May 27 03:01	30° ℓ	
max. Earth dist.	6547 Nov 05 00:17	15° ℓ 59'21	31.21368 AU	direct	6554 Aug 06 11:44	28° ℓ 49'34	
morning rise	6547 Nov 21 14:28	16° ℓ 35'55			6554 Oct 13 23:05	0° ♂	
retrograde	6548 Feb 17 10:25	18° ℓ 28'57		evening set	6554 Nov 04 23:33	0° ♂ 44'52	
opposition	6548 May 04 21:26	17° ℓ 06'19	0°58'15	max. Earth dist.	6554 Nov 20 08:51	1° ♂ 18'43	31.25988 AU
min. Earth dist.	6548 May 05 09:14	17° ℓ 05'30	29.21799 AU				
direct	6548 Jul 23 16:33	15° ℓ 41'39		conjunction	6554 Nov 21 01:02	1° ♂ 20'13	1°06'18
evening set	6548 Oct 21 21:37	17° ℓ 36'57		minimum elong	6554 Nov 21 01:02	1° ♂ 20'13	1°06'21
max. Earth dist.	6548 Nov 06 10:44	18° ℓ 11'10	31.22133 AU	morning rise	6554 Dec 06 23:46	1° ♂ 55'21	
				retrograde	6555 Mar 04 06:12	3° ♂ 47'43	
conjunction	6548 Nov 07 01:11	18° ℓ 12'30	0°55'34	opposition	6555 May 20 20:27	2° ♂ 25'15	1°11'36
minimum elong	6548 Nov 07 01:10	18° ℓ 12'30	0°55'37	min. Earth dist.	6555 May 21 10:48	2° ♂ 24'15	29.26462 AU
morning rise	6548 Nov 23 02:36	18° ℓ 47'52		direct	6555 Aug 09 00:24	1° ♂ 00'23	
retrograde	6549 Feb 18 20:50	20° ℓ 40'48		evening set	6555 Nov 07 11:40	2° ♂ 55'42	
opposition	6549 May 07 07:36	19° ℓ 18'12	1°00'26				
min. Earth dist.	6549 May 07 19:59	19° ℓ 17'20	29.22513 AU	conjunction	6555 Nov 23 12:41	3° ♂ 31'01	1°07'46
direct	6549 Jul 26 03:44	17° ℓ 53'30		minimum elong	6555 Nov 23 12:40	3° ♂ 31'01	1°07'49

max. Earth dist.	6555 Nov 22 19:36	3°♊29'27	31.26853 AU	conjunction	6562 Dec 08 21:11	18°♊47'23	1°15'10
morning rise	6555 Dec 09 11:02	4°♊06'08		minimum elong	6562 Dec 08 21:11	18°♊47'23	1°15'13
retrograde	6556 Mar 05 17:50	5°♊58'27		max. Earth dist.	6562 Dec 08 01:05	18°♊45'31	31.31276 AU
opposition	6556 May 22 06:32	4°♊36'03	1°13'07	morning rise	6562 Dec 24 16:18	19°♊22'16	
min. Earth dist.	6556 May 22 21:41	4°♊35'00	29.27363 AU	retrograde	6563 Mar 21 14:51	21°♊14'19	
direct	6556 Aug 10 11:31	3°♊11'13		opposition	6563 Jun 07 07:19	19°♊52'13	1°20'38
evening set	6556 Nov 08 23:42	5°♊06'35		min. Earth dist.	6563 Jun 08 02:07	19°♊50'55	29.31474 AU
max. Earth dist.	6556 Nov 24 07:55	5°♊40'21	31.27759 AU	direct	6563 Aug 26 18:55	18°♊27'26	
				evening set	6563 Nov 25 10:33	20°♊22'56	
conjunction	6556 Nov 25 00:27	5°♊41'53	1°09'08				
minimum elong	6556 Nov 25 00:27	5°♊41'53	1°09'11	conjunction	6563 Dec 11 08:19	20°♊58'01	1°15'48
morning rise	6556 Dec 10 22:15	6°♊16'57		minimum elong	6563 Dec 11 08:19	20°♊58'01	1°15'52
retrograde	6557 Mar 08 04:02	8°♊09'14		max. Earth dist.	6563 Dec 10 12:19	20°♊56'10	31.31519 AU
opposition	6557 May 24 16:49	6°♊46'54	1°14'31	morning rise	6563 Dec 27 03:00	21°♊32'53	
min. Earth dist.	6557 May 25 08:22	6°♊45'50	29.28252 AU	retrograde	6564 Mar 23 00:44	23°♊24'52	
direct	6557 Aug 13 00:40	5°♊22'07		opposition	6564 Jun 08 17:35	22°♊02'47	1°21'16
evening set	6557 Nov 11 11:50	7°♊17'32		min. Earth dist.	6564 Jun 09 11:55	22°♊01'31	29.31696 AU
				direct	6564 Aug 28 07:41	20°♊37'58	
conjunction	6557 Nov 27 11:58	7°♊52'48	1°10'24	evening set	6564 Nov 26 22:04	22°♊33'27	
minimum elong	6557 Nov 27 11:58	7°♊52'48	1°10'27				
max. Earth dist.	6557 Nov 26 17:57	7°♊51'08	31.28622 AU	conjunction	6564 Dec 12 19:19	23°♊08'31	1°16'20
morning rise	6557 Dec 13 09:25	8°♊27'51		minimum elong	6564 Dec 12 19:19	23°♊08'31	1°16'23
retrograde	6558 Mar 10 15:04	10°♊20'05		max. Earth dist.	6564 Dec 11 22:30	23°♊06'35	31.31744 AU
opposition	6558 May 27 03:07	8°♊57'50	1°15'49	morning rise	6564 Dec 28 13:37	23°♊43'21	
min. Earth dist.	6558 May 27 18:53	8°♊56'44	29.29088 AU	retrograde	6565 Mar 25 12:17	25°♊35'18	
direct	6558 Aug 15 11:29	7°♊33'04		opposition	6565 Jun 11 04:07	24°♊13'12	1°21'47
evening set	6558 Nov 13 23:46	9°♊28'31		min. Earth dist.	6565 Jun 11 22:50	24°♊11'54	29.31952 AU
				direct	6565 Aug 30 19:08	22°♊48'22	
conjunction	6558 Nov 29 23:39	10°♊03'46	1°11'33	evening set	6565 Nov 29 09:14	24°♊43'51	
minimum elong	6558 Nov 29 23:39	10°♊03'46	1°11'37	max. Earth dist.	6565 Dec 14 10:25	25°♊17'04	31.32026 AU
max. Earth dist.	6558 Nov 29 06:12	10°♊02'09	31.29400 AU				
morning rise	6558 Dec 15 20:29	10°♊38'47		conjunction	6565 Dec 15 06:09	25°♊18'53	1°16'46
retrograde	6559 Mar 13 00:03	12°♊30'59		minimum elong	6565 Dec 15 06:09	25°♊18'53	1°16'49
opposition	6559 May 29 13:33	11°♊08'48	1°17'00	morning rise	6565 Dec 30 23:53	25°♊53'40	
min. Earth dist.	6559 May 30 06:26	11°♊07'38	29.29811 AU	retrograde	6566 Mar 27 21:49	27°♊45'36	
direct	6559 Aug 17 23:32	9°♊44'03		opposition	6566 Jun 13 14:41	26°♊23'31	1°22'10
evening set	6559 Nov 16 11:44	11°♊39'32		min. Earth dist.	6566 Jun 14 09:16	26°♊22'14	29.32272 AU
				direct	6566 Sep 02 08:21	24°♊58'42	
conjunction	6559 Dec 02 11:04	12°♊14'45	1°12'37	evening set	6566 Dec 01 20:31	26°♊54'11	
minimum elong	6559 Dec 02 11:04	12°♊14'45	1°12'40				
max. Earth dist.	6559 Dec 01 15:59	12°♊12'59	31.30064 AU	conjunction	6566 Dec 17 16:51	27°♊29'11	1°17'05
morning rise	6559 Dec 18 07:38	12°♊49'44		minimum elong	6566 Dec 17 16:51	27°♊29'11	1°17'08
retrograde	6560 Mar 14 11:29	14°♊41'54		max. Earth dist.	6566 Dec 16 20:16	27°♊27'16	31.32402 AU
opposition	6560 May 30 23:54	13°♊19'45	1°18'05	morning rise	6567 Jan 02 10:17	28°♊03'57	
min. Earth dist.	6560 May 31 16:29	13°♊18'37	29.30408 AU	retrograde	6567 Mar 30 08:46	29°♊55'51	
direct	6560 Aug 19 10:30	11°♊55'01		opposition	6567 Jun 16 01:09	28°♊33'48	1°22'27
evening set	6560 Nov 17 23:38	13°♊50'31		min. Earth dist.	6567 Jun 16 19:11	28°♊32'33	29.32710 AU
				direct	6567 Sep 04 18:54	27°♊09'00	
conjunction	6560 Dec 03 22:40	14°♊25'42	1°13'34	evening set	6567 Dec 04 07:32	29°♊04'30	
minimum elong	6560 Dec 03 22:40	14°♊25'42	1°13'37	max. Earth dist.	6567 Dec 19 08:18	29°♊37'41	31.32883 AU
max. Earth dist.	6560 Dec 03 03:43	14°♊23'57	31.30582 AU				
morning rise	6560 Dec 19 18:36	15°♊00'40		conjunction	6567 Dec 20 03:39	29°♊39'29	1°17'17
retrograde	6561 Mar 16 19:26	16°♊52'47		minimum elong	6567 Dec 20 03:39	29°♊39'29	1°17'20
opposition	6561 Jun 02 10:22	15°♊30'41	1°19'03		6567 Dec 29 08:54	0°♊	
min. Earth dist.	6561 Jun 03 04:31	15°♊29'25	29.30865 AU	morning rise	6568 Jan 04 20:31	0°♊14'13	
direct	6561 Aug 21 21:14	14°♊05'56		retrograde	6568 Mar 31 18:03	2°♊06'07	
evening set	6561 Nov 20 11:31	16°♊01'26		opposition	6568 Jun 17 11:48	0°♊44'07	1°22'36
				min. Earth dist.	6568 Jun 18 06:25	0°♊42'50	29.33220 AU
conjunction	6561 Dec 06 10:02	16°♊36'36	1°14'25		6568 Jul 15 14:46	30°♊♊	
minimum elong	6561 Dec 06 10:02	16°♊36'36	1°14'28	direct	6568 Sep 06 07:38	29°♊19'22	
max. Earth dist.	6561 Dec 05 14:10	16°♊34'45	31.30984 AU		6568 Oct 27 07:35	0°♊	
morning rise	6561 Dec 22 05:38	17°♊11'31		evening set	6568 Dec 05 18:45	1°♊14'54	
retrograde	6562 Mar 19 05:22	19°♊03'36					
opposition	6562 Jun 04 20:48	17°♊41'30	1°19'54	conjunction	6568 Dec 21 14:16	1°♊49'51	1°17'22
min. Earth dist.	6562 Jun 05 14:22	17°♊40'18	29.31208 AU	minimum elong	6568 Dec 21 14:16	1°♊49'51	1°17'25
direct	6562 Aug 24 09:19	16°♊16'45		max. Earth dist.	6568 Dec 20 18:01	1°♊47'58	31.33424 AU
evening set	6562 Nov 22 23:03	18°♊12'15		morning rise	6569 Jan 06 06:53	2°♊24'34	

retrograde	6569 Apr 03 05:43	4°316'28		minimum elong	6576 Jan 06 16:22	17°303'29	1°14'58
opposition	6569 Jun 19 22:20	2°354'32	1°22'39	max. Earth dist.	6576 Jan 05 19:04	17°301'31	31.34940 AU
min. Earth dist.	6569 Jun 20 16:05	2°353'19	29.33767 AU	morning rise	6576 Jan 22 06:15	17°338'03	
direct	6569 Sep 08 19:00	1°329'50		retrograde	6576 Apr 18 03:14	19°330'01	
evening set	6569 Dec 08 05:50	3°325'23		opposition	6576 Jul 05 03:03	18°308'08	1°19'37
max. Earth dist.	6569 Dec 23 05:27	3°358'30	31.33960 AU	min. Earth dist.	6576 Jul 05 22:12	18°306'49	29.34902 AU
				direct	6576 Sep 24 01:47	16°343'31	
conjunction	6569 Dec 24 01:03	4°300'19	1°17'21	evening set	6576 Dec 23 10:18	18°338'57	
minimum elong	6569 Dec 24 01:03	4°300'19	1°17'24	max. Earth dist.	6577 Jan 07 06:39	19°311'51	31.34708 AU
morning rise	6570 Jan 08 17:05	4°335'00					
retrograde	6570 Apr 05 13:42	6°326'56		conjunction	6577 Jan 08 02:42	19°313'43	1°14'08
opposition	6570 Jun 22 09:14	5°305'03	1°22'34	minimum elong	6577 Jan 08 02:42	19°313'43	1°14'11
min. Earth dist.	6570 Jun 23 04:08	5°303'45	29.34287 AU	morning rise	6577 Jan 23 16:03	19°348'15	
direct	6570 Sep 11 05:37	3°340'24		retrograde	6577 Apr 20 12:33	21°340'13	
evening set	6570 Dec 10 16:50	5°335'57		opposition	6577 Jul 07 14:13	20°318'18	1°18'44
				min. Earth dist.	6577 Jul 08 09:54	20°316'58	29.34657 AU
conjunction	6570 Dec 26 11:33	6°310'52	1°17'13	direct	6577 Sep 26 15:05	18°353'41	
minimum elong	6570 Dec 26 11:33	6°310'52	1°17'16	evening set	6577 Dec 25 20:55	20°349'05	
max. Earth dist.	6570 Dec 25 15:33	6°309'00	31.34448 AU				
morning rise	6571 Jan 11 03:18	6°345'32		conjunction	6578 Jan 10 12:47	21°323'49	1°13'15
retrograde	6571 Apr 07 23:27	8°337'28		minimum elong	6578 Jan 10 12:47	21°323'49	1°13'18
opposition	6571 Jun 24 20:01	7°315'38	1°22'22	max. Earth dist.	6578 Jan 09 16:11	21°321'54	31.34480 AU
min. Earth dist.	6571 Jun 25 14:10	7°314'23	29.34720 AU	morning rise	6578 Jan 26 01:57	21°358'20	
direct	6571 Sep 13 17:06	5°351'01		retrograde	6578 Apr 22 23:59	23°350'19	
evening set	6571 Dec 13 03:58	7°346'34		opposition	6578 Jul 10 01:19	22°328'23	1°17'44
				min. Earth dist.	6578 Jul 10 19:37	22°327'08	29.34454 AU
conjunction	6571 Dec 28 22:16	8°321'28	1°16'58	direct	6578 Sep 29 03:02	21°303'45	
minimum elong	6571 Dec 28 22:16	8°321'28	1°17'01	evening set	6578 Dec 28 07:12	22°359'08	
max. Earth dist.	6571 Dec 28 02:01	8°319'35	31.34817 AU				
morning rise	6572 Jan 13 13:34	8°356'06		conjunction	6579 Jan 12 22:49	23°333'51	1°12'16
retrograde	6572 Apr 09 09:14	10°348'04		minimum elong	6579 Jan 12 22:49	23°333'51	1°12'18
opposition	6572 Jun 26 06:54	9°326'15	1°22'03	max. Earth dist.	6579 Jan 12 03:16	23°332'02	31.34305 AU
min. Earth dist.	6572 Jun 27 02:11	9°324'55	29.35033 AU	morning rise	6579 Jan 28 11:32	24°308'21	
direct	6572 Sep 15 02:09	8°301'39		retrograde	6579 Apr 25 08:09	26°300'23	
evening set	6572 Dec 14 15:03	9°357'12		opposition	6579 Jul 12 12:36	24°338'26	1°16'38
				min. Earth dist.	6579 Jul 13 07:30	24°337'08	29.34321 AU
conjunction	6572 Dec 30 09:00	10°332'04	1°16'37	direct	6579 Oct 01 14:01	23°313'50	
minimum elong	6572 Dec 30 09:00	10°332'04	1°16'40	evening set	6579 Dec 30 17:39	25°309'12	
max. Earth dist.	6572 Dec 29 12:53	10°330'12	31.35060 AU				
morning rise	6573 Jan 14 23:52	11°306'41		conjunction	6580 Jan 15 08:51	25°343'54	1°11'10
retrograde	6573 Apr 11 19:04	12°358'39		minimum elong	6580 Jan 15 08:51	25°343'54	1°11'13
opposition	6573 Jun 28 17:55	11°336'51	1°21'37	max. Earth dist.	6580 Jan 14 13:31	25°342'06	31.34222 AU
min. Earth dist.	6573 Jun 29 12:47	11°335'33	29.35193 AU	morning rise	6580 Jan 30 21:19	26°318'23	
direct	6573 Sep 17 15:05	10°312'16		retrograde	6580 Apr 26 17:47	28°310'28	
evening set	6573 Dec 17 02:02	12°307'48		opposition	6580 Jul 13 23:39	26°348'32	1°15'24
				min. Earth dist.	6580 Jul 14 17:11	26°347'20	29.34265 AU
conjunction	6574 Jan 01 19:27	12°342'38	1°16'09	direct	6580 Oct 03 01:27	25°323'59	
minimum elong	6574 Jan 01 19:27	12°342'38	1°16'13	evening set	6581 Jan 01 04:03	27°319'21	
max. Earth dist.	6573 Dec 31 22:23	12°340'40	31.35145 AU				
morning rise	6574 Jan 17 10:00	13°317'14		conjunction	6581 Jan 16 18:53	27°354'04	1°09'59
retrograde	6574 Apr 14 06:25	15°309'13		minimum elong	6581 Jan 16 18:53	27°354'04	1°10'01
opposition	6574 Jul 01 05:01	13°347'23	1°21'04	max. Earth dist.	6581 Jan 15 23:53	27°352'17	31.34197 AU
min. Earth dist.	6574 Jul 02 00:20	13°346'04	29.35216 AU	morning rise	6581 Feb 01 07:01	28°328'32	
direct	6574 Sep 20 01:47	12°322'48			6581 Mar 25 02:42	0°≈	
evening set	6574 Dec 19 12:52	14°318'19		retrograde	6581 Apr 29 03:56	0°≈20'41	
max. Earth dist.	6575 Jan 03 09:49	14°351'15	31.35100 AU		6581 Jun 04 05:32	30°R3	
				opposition	6581 Jul 16 11:03	28°358'47	1°14'05
conjunction	6575 Jan 04 06:02	14°353'07	1°15'35	min. Earth dist.	6581 Jul 17 05:02	28°357'33	29.34263 AU
minimum elong	6575 Jan 04 06:02	14°353'07	1°15'39	direct	6581 Oct 05 10:06	27°334'18	
morning rise	6575 Jan 19 20:06	15°327'42		evening set	6582 Jan 03 14:14	29°329'41	
retrograde	6575 Apr 16 15:52	17°319'40			6582 Jan 17 06:08	0°≈	
opposition	6575 Jul 03 16:01	15°357'49	1°20'24	max. Earth dist.	6582 Jan 18 10:42	0°≈02'40	31.34205 AU
min. Earth dist.	6575 Jul 04 11:36	15°356'29	29.35101 AU				
direct	6575 Sep 22 14:34	14°333'14		conjunction	6582 Jan 19 04:46	0°≈04'22	1°08'41
evening set	6575 Dec 21 23:43	16°328'42		minimum elong	6582 Jan 19 04:46	0°≈04'22	1°08'44
				morning rise	6582 Feb 03 16:34	0°≈38'50	
conjunction	6576 Jan 06 16:22	17°303'29	1°14'55	retrograde	6582 May 01 13:49	2°≈31'04	

opposition	6582 Jul 18 22:28	1°09'12	1°12'38	evening set	6589 Jan 18 14:06	14°44'39	
min. Earth dist.	6582 Jul 19 15:35	1°08'02	29.34250 AU		6589 Jan 25 12:41	15°	
	6582 Sep 06 13:13	30°08'		max. Earth dist.	6589 Feb 02 09:23	15°17'40	31.31520 AU
direct	6582 Oct 07 22:30	29°34'47					
	6582 Nov 07 17:16	0°		conjunction	6589 Feb 03 02:22	15°19'15	0°56'59
evening set	6583 Jan 06 00:37	1°40'10		minimum elong	6589 Feb 03 02:23	15°19'15	0°57'00
				morning rise	6589 Feb 18 12:28	15°53'40	
conjunction	6583 Jan 21 14:42	2°14'50	1°07'17	retrograde	6589 May 16 16:59	17°46'22	
minimum elong	6583 Jan 21 14:42	2°14'50	1°07'20	opposition	6589 Aug 03 08:17	16°24'18	0°59'48
max. Earth dist.	6583 Jan 20 20:03	2°13'06	31.34174 AU	min. Earth dist.	6589 Aug 03 23:56	16°23'14	29.31159 AU
morning rise	6583 Feb 06 02:19	2°49'18			6589 Oct 22 14:34	15°08'	
retrograde	6583 May 04 01:44	4°41'38		direct	6589 Oct 23 09:25	14°59'59	
opposition	6583 Jul 21 09:51	3°19'47	1°11'06		6589 Oct 24 04:13	15°	
min. Earth dist.	6583 Jul 22 03:04	3°18'37	29.34193 AU	evening set	6590 Jan 20 23:58	16°55'09	
direct	6583 Oct 10 08:00	1°55'25					
evening set	6584 Jan 08 10:53	3°50'49		conjunction	6590 Feb 05 11:56	17°29'44	0°54'58
max. Earth dist.	6584 Jan 23 07:18	4°23'51	31.34067 AU	minimum elong	6590 Feb 05 11:56	17°29'44	0°55'00
				max. Earth dist.	6590 Feb 04 19:20	17°28'10	31.30724 AU
conjunction	6584 Jan 24 00:48	4°25'29	1°05'47	morning rise	6590 Feb 20 21:51	18°04'08	
minimum elong	6584 Jan 24 00:48	4°25'29	1°05'50	retrograde	6590 May 19 03:00	19°56'53	
morning rise	6584 Feb 08 12:00	4°59'56		opposition	6590 Aug 05 20:14	18°34'44	0°57'37
retrograde	6584 May 05 11:39	6°52'21		min. Earth dist.	6590 Aug 06 12:03	18°33'40	29.30384 AU
opposition	6584 Jul 22 21:30	5°30'30	1°09'27	direct	6590 Oct 25 19:37	17°10'25	
min. Earth dist.	6584 Jul 23 14:47	5°29'19	29.34019 AU	evening set	6591 Jan 23 09:49	19°05'30	
direct	6584 Oct 11 19:48	4°06'11					
evening set	6585 Jan 09 21:18	6°01'35		conjunction	6591 Feb 07 21:36	19°40'04	0°52'53
				minimum elong	6591 Feb 07 21:36	19°40'04	0°52'55
conjunction	6585 Jan 25 10:41	6°36'13	1°04'12	max. Earth dist.	6591 Feb 07 06:20	19°38'38	31.29977 AU
minimum elong	6585 Jan 25 10:41	6°36'13	1°04'14	morning rise	6591 Feb 23 07:15	20°14'28	
max. Earth dist.	6585 Jan 24 16:19	6°34'30	31.33833 AU	retrograde	6591 May 21 11:52	22°07'17	
morning rise	6585 Feb 09 21:45	7°10'40		opposition	6591 Aug 08 07:56	20°45'05	0°55'21
retrograde	6585 May 07 23:53	9°03'10		min. Earth dist.	6591 Aug 08 22:27	20°44'05	29.29666 AU
opposition	6585 Jul 25 09:10	7°41'19	1°07'42	direct	6591 Oct 28 08:09	19°20'45	
min. Earth dist.	6585 Jul 26 01:50	7°40'11	29.33720 AU	evening set	6592 Jan 25 19:47	21°15'47	
direct	6585 Oct 14 06:45	6°17'02					
evening set	6586 Jan 12 07:33	8°12'25		conjunction	6592 Feb 10 07:10	21°50'21	0°50'43
				minimum elong	6592 Feb 10 07:10	21°50'21	0°50'45
conjunction	6586 Jan 27 20:46	8°47'03	1°02'31	max. Earth dist.	6592 Feb 09 15:42	21°48'54	31.29311 AU
minimum elong	6586 Jan 27 20:46	8°47'03	1°02'34	morning rise	6592 Feb 25 16:45	22°24'45	
max. Earth dist.	6586 Jan 27 03:31	8°45'26	31.33456 AU	retrograde	6592 May 22 23:01	24°17'39	
morning rise	6586 Feb 12 07:25	9°21'29		opposition	6592 Aug 09 19:52	22°55'23	0°53'00
retrograde	6586 May 10 10:30	11°14'03		min. Earth dist.	6592 Aug 10 09:47	22°54'27	29.29054 AU
opposition	6586 Jul 27 21:00	9°52'10	1°05'52	direct	6592 Oct 29 17:25	21°31'05	
min. Earth dist.	6586 Jul 28 14:18	9°50'59	29.33267 AU	evening set	6593 Jan 27 05:27	23°26'05	
direct	6586 Oct 16 20:16	8°27'54					
evening set	6587 Jan 14 17:48	10°23'15		conjunction	6593 Feb 11 16:44	24°00'39	0°48'29
				minimum elong	6593 Feb 11 16:45	24°00'39	0°48'30
conjunction	6587 Jan 30 06:36	10°57'52	1°00'45	max. Earth dist.	6593 Feb 11 03:09	23°59'22	31.28743 AU
minimum elong	6587 Jan 30 06:36	10°57'52	1°00'47	morning rise	6593 Feb 27 02:00	24°35'03	
max. Earth dist.	6587 Jan 29 12:39	10°56'11	31.32939 AU	retrograde	6593 May 25 08:44	26°28'03	
morning rise	6587 Feb 14 17:11	11°32'17		opposition	6593 Aug 12 07:53	25°05'46	0°50'34
retrograde	6587 May 12 22:33	13°24'55		min. Earth dist.	6593 Aug 12 21:15	25°04'52	29.28515 AU
opposition	6587 Jul 30 08:41	12°02'59	1°03'56	direct	6593 Nov 01 04:44	23°41'31	
min. Earth dist.	6587 Jul 31 00:51	12°01'53	29.32670 AU	evening set	6594 Jan 29 15:20	25°36'30	
direct	6587 Oct 19 08:42	10°38'43					
evening set	6588 Jan 17 03:58	12°34'01		conjunction	6594 Feb 14 02:13	26°11'02	0°46'10
				minimum elong	6594 Feb 14 02:13	26°11'02	0°46'12
conjunction	6588 Feb 01 16:34	13°08'37	0°58'54	max. Earth dist.	6594 Feb 13 12:22	26°09'45	31.28248 AU
minimum elong	6588 Feb 01 16:34	13°08'37	0°58'57	morning rise	6594 Mar 01 11:30	26°45'27	
max. Earth dist.	6588 Jan 31 23:15	13°07'00	31.32272 AU	retrograde	6594 May 27 21:18	28°38'34	
morning rise	6588 Feb 17 02:49	13°43'02		opposition	6594 Aug 14 19:51	27°16'16	0°48'04
	6588 Mar 28 17:13	15°		min. Earth dist.	6594 Aug 15 08:01	27°15'27	29.28042 AU
retrograde	6588 May 14 07:06	15°35'42		direct	6594 Nov 03 15:08	25°52'04	
	6588 Jul 01 16:34	15°08'		evening set	6595 Feb 01 01:00	27°47'03	
opposition	6588 Jul 31 20:29	14°13'43	1°01'55				
min. Earth dist.	6588 Aug 01 13:31	14°12'33	29.31947 AU	conjunction	6595 Feb 16 11:49	28°21'35	0°43'47
direct	6588 Oct 20 20:29	12°49'26		minimum elong	6595 Feb 16 11:50	28°21'35	0°43'48

max. Earth dist.	6595 Feb 15 23:35	28° 28 20'27	31.27777 AU	min. Earth dist.	6601 Aug 31 19:32	12° 12 33'11	29.22811 AU
morning rise	6595 Mar 03 20:50	28° 28 56'00		direct	6601 Nov 20 00:27	11° 11 09'52	
	6595 Apr 05 03:26	0° 0					
retrograde	6595 May 30 08:20	0° 0 49'15					
	6595 Jul 27 10:20	30° 30					
opposition	6595 Aug 17 08:01	29° 29 26'56	0°45'29				
min. Earth dist.	6595 Aug 17 20:26	29° 29 26'05	29.27560 AU				
direct	6595 Nov 06 03:25	28° 28 02'48					
evening set	6596 Feb 03 10:53	29° 29 57'46					
	6596 Feb 04 11:16	0° 0					
conjunction	6596 Feb 18 21:21	0° 0 32'18	0°41'21				
minimum elong	6596 Feb 18 21:21	0° 0 32'18	0°41'22				
max. Earth dist.	6596 Feb 18 08:55	0° 0 31'09	31.27287 AU				
morning rise	6596 Mar 05 06:21	1° 1 06'44					
retrograde	6596 May 31 20:53	3° 3 00'06					
opposition	6596 Aug 18 20:05	1° 1 37'46	0°42'51				
min. Earth dist.	6596 Aug 19 07:01	1° 1 37'02	29.27036 AU				
direct	6596 Nov 07 15:05	0° 0 13'42					
evening set	6597 Feb 04 20:46	2° 2 08'40					
conjunction	6597 Feb 20 07:05	2° 2 43'12	0°38'51				
minimum elong	6597 Feb 20 07:05	2° 2 43'12	0°38'51				
max. Earth dist.	6597 Feb 19 19:28	2° 2 42'07	31.26721 AU				
morning rise	6597 Mar 07 15:52	3° 3 17'38					
retrograde	6597 Jun 03 07:05	5° 5 11'08					
opposition	6597 Aug 21 08:35	3° 3 48'48	0°40'08				
min. Earth dist.	6597 Aug 21 20:07	3° 3 48'01	29.26430 AU				
direct	6597 Nov 10 02:35	2° 2 24'47					
evening set	6598 Feb 07 06:34	4° 4 19'43					
conjunction	6598 Feb 22 16:40	4° 4 54'16	0°36'17				
minimum elong	6598 Feb 22 16:40	4° 4 54'16	0°36'18				
max. Earth dist.	6598 Feb 22 05:35	4° 4 53'13	31.26068 AU				
morning rise	6598 Mar 10 01:23	5° 5 28'42					
retrograde	6598 Jun 05 18:11	7° 7 22'19					
opposition	6598 Aug 23 20:55	5° 5 59'57	0°37'22				
min. Earth dist.	6598 Aug 24 07:06	5° 5 59'16	29.25706 AU				
direct	6598 Nov 12 15:32	4° 4 35'59					
evening set	6599 Feb 09 16:32	6° 6 30'54					
conjunction	6599 Feb 25 02:25	7° 7 05'27	0°33'40				
minimum elong	6599 Feb 25 02:25	7° 7 05'27	0°33'41				
max. Earth dist.	6599 Feb 24 15:16	7° 7 04'24	31.25276 AU				
morning rise	6599 Mar 12 11:05	7° 7 39'53					
retrograde	6599 Jun 08 05:14	9° 9 33'38					
opposition	6599 Aug 26 09:18	8° 8 11'13	0°34'33				
min. Earth dist.	6599 Aug 26 19:57	8° 8 10'30	29.24855 AU				
direct	6599 Nov 15 01:58	6° 6 47'17					
evening set	6600 Feb 12 02:26	8° 8 42'09					
conjunction	6600 Feb 27 12:15	9° 9 16'41	0°31'00				
minimum elong	6600 Feb 27 12:15	9° 9 16'41	0°31'02				
max. Earth dist.	6600 Feb 27 02:11	9° 9 15'45	31.24364 AU				
morning rise	6600 Mar 14 20:44	9° 9 51'09					
retrograde	6600 Jun 10 14:40	11° 11 45'00					
opposition	6600 Aug 28 21:46	10° 10 22'31	0°31'41				
min. Earth dist.	6600 Aug 29 07:24	10° 10 21'52	29.23869 AU				
direct	6600 Nov 17 14:50	8° 8 58'35					
evening set	6601 Feb 14 12:16	10° 10 53'24					
conjunction	6601 Mar 01 21:45	11° 11 27'56	0°28'18				
minimum elong	6601 Mar 01 21:45	11° 11 27'56	0°28'19				
max. Earth dist.	6601 Mar 01 11:16	11° 11 26'57	31.23335 AU				
morning rise	6601 Mar 17 06:20	12° 12 02'24					
retrograde	6601 Jun 13 01:59	13° 13 56'22					
opposition	6601 Aug 31 10:20	12° 12 33'48	0°28'46				