

opposition	6100 Jan 12 17:23	23°☾09'11 -13°55'09	conjunction	6106 Jul 18 01:41	29°☾15'22 -12°16'52
min. Earth dist.	6100 Jan 12 09:26	23°☾09'33 48.16816 AU	minimum elong	6106 Jul 18 01:52	29°☾15'22 12°16'54
direct	6100 Apr 04 12:50	22°☾10'49	max. Earth dist.	6106 Jul 18 02:21	29°☾15'24 49.73631 AU
evening set	6100 Jul 04 10:28	23°☾26'10	morning rise	6106 Jul 27 06:08	29°☾27'49
				6106 Aug 21 11:27	0°♂
conjunction	6100 Jul 11 19:10	23°☾36'07 -13°17'32	retrograde	6106 Oct 28 12:45	0°♂44'04
minimum elong	6100 Jul 11 19:22	23°☾36'08 13°17'34		6107 Jan 06 07:42	30°♂☾
max. Earth dist.	6100 Jul 12 02:15	23°☾36'31 50.08899 AU	opposition	6107 Jan 19 23:54	29°☾44'50 -12°41'47
morning rise	6100 Jul 19 04:57	23°☾46'09	min. Earth dist.	6107 Jan 20 00:25	29°☾44'49 47.74559 AU
retrograde	6100 Oct 22 06:39	25°☾04'32	direct	6107 Apr 11 16:10	28°☾46'15
opposition	6101 Jan 13 21:39	24°☾05'24 -13°45'21	evening set	6107 Jul 09 21:10	29°☾59'19
min. Earth dist.	6101 Jan 13 15:10	24°☾05'42 48.12046 AU		6107 Jul 10 09:18	0°♂
direct	6101 Apr 05 14:05	23°☾07'01			
evening set	6101 Jul 05 07:45	24°☾22'00	conjunction	6107 Jul 19 06:50	0°♂12'04 -12°06'02
			minimum elong	6107 Jul 19 07:01	0°♂12'05 12°06'03
conjunction	6101 Jul 13 00:09	24°☾32'24 -13°07'58	max. Earth dist.	6107 Jul 19 05:27	0°♂11'59 49.66048 AU
minimum elong	6101 Jul 13 00:20	24°☾32'24 13°08'00	morning rise	6107 Jul 28 17:51	0°♂24'53
max. Earth dist.	6101 Jul 13 07:23	24°☾32'48 50.04102 AU	retrograde	6107 Oct 29 17:52	1°♂40'48
morning rise	6101 Jul 20 17:29	24°☾42'51	opposition	6108 Jan 21 04:16	0°♂41'31 -12°30'27
retrograde	6101 Oct 23 12:46	26°☾00'51	min. Earth dist.	6108 Jan 21 05:32	0°♂41'27 47.66613 AU
opposition	6102 Jan 15 01:58	25°☾01'43 -13°35'18		6108 Mar 02 03:18	30°♂☾
min. Earth dist.	6102 Jan 14 20:17	25°☾01'59 48.06939 AU	direct	6108 Apr 11 19:20	29°☾42'50
direct	6102 Apr 06 16:27	24°☾03'21		6108 May 22 02:15	0°♂
evening set	6102 Jul 06 05:18	25°☾17'59	evening set	6108 Jul 09 20:01	0°♂55'38
conjunction	6102 Jul 14 04:57	25°☾28'47 -12°58'09	conjunction	6108 Jul 19 12:05	1°♂08'44 -11°54'58
minimum elong	6102 Jul 14 05:09	25°☾28'48 12°58'11	minimum elong	6108 Jul 19 12:16	1°♂08'45 11°55'00
max. Earth dist.	6102 Jul 14 10:26	25°☾29'06 49.98958 AU	max. Earth dist.	6108 Jul 19 09:49	1°♂08'36 49.58027 AU
morning rise	6102 Jul 22 05:44	25°☾39'39	morning rise	6108 Jul 29 05:29	1°♂21'55
retrograde	6102 Oct 24 17:17	26°☾57'17	retrograde	6108 Oct 29 20:55	2°♂37'32
opposition	6103 Jan 16 06:18	25°☾58'10 -13°25'01	opposition	6109 Jan 21 08:40	1°♂38'10 -12°18'53
min. Earth dist.	6103 Jan 16 01:18	25°☾58'24 48.01457 AU	min. Earth dist.	6109 Jan 21 11:49	1°♂38'01 47.58266 AU
direct	6103 Apr 07 19:46	24°☾59'47	direct	6109 Apr 13 01:07	0°♂39'25
evening set	6103 Jul 07 03:11	26°☾14'06	evening set	6109 Jul 10 19:07	1°♂51'57
conjunction	6103 Jul 15 10:06	26°☾25'19 -12°48'08	conjunction	6109 Jul 20 17:20	2°♂05'24 -11°43'42
minimum elong	6103 Jul 15 10:17	26°☾25'19 12°48'10	minimum elong	6109 Jul 20 17:31	2°♂05'24 11°43'43
max. Earth dist.	6103 Jul 15 14:29	26°☾25'33 49.93384 AU	max. Earth dist.	6109 Jul 20 14:30	2°♂05'14 49.49657 AU
morning rise	6103 Jul 23 18:09	26°☾36'35	morning rise	6109 Jul 30 16:49	2°♂18'56
retrograde	6103 Oct 25 19:11	27°☾53'52	retrograde	6109 Oct 31 00:29	3°♂34'16
opposition	6104 Jan 17 10:38	26°☾54'45 -13°14'32	opposition	6110 Jan 22 13:01	2°♂34'50 -12°07'04
min. Earth dist.	6104 Jan 17 07:46	26°☾54'53 47.95512 AU	min. Earth dist.	6110 Jan 22 16:00	2°♂34'42 47.49588 AU
direct	6104 Apr 08 03:17	25°☾56'20	direct	6110 Apr 14 07:33	1°♂36'00
evening set	6104 Jul 07 01:30	27°☾10'21	evening set	6110 Jul 11 18:13	2°♂48'17
conjunction	6104 Jul 15 15:21	27°☾21'57 -12°37'55	conjunction	6110 Jul 21 22:25	3°♂02'05 -11°32'11
minimum elong	6104 Jul 15 15:33	27°☾21'57 12°37'57	minimum elong	6110 Jul 21 22:36	3°♂02'06 11°32'13
max. Earth dist.	6104 Jul 15 18:45	27°☾22'08 49.87331 AU	max. Earth dist.	6110 Jul 21 17:47	3°♂01'50 49.40966 AU
morning rise	6104 Jul 24 06:18	27°☾33'37	morning rise	6110 Aug 01 04:09	3°♂15'59
retrograde	6104 Oct 25 23:50	28°☾50'34	retrograde	6110 Nov 01 08:07	4°♂31'03
opposition	6105 Jan 17 14:59	27°☾51'25 -13°03'49	opposition	6111 Jan 23 17:36	3°♂31'34 -11°55'01
min. Earth dist.	6105 Jan 17 12:30	27°☾51'32 47.89051 AU	min. Earth dist.	6111 Jan 23 22:07	3°♂31'22 47.40615 AU
direct	6105 Apr 09 09:21	26°☾52'58	direct	6111 Apr 15 10:45	2°♂32'40
evening set	6105 Jul 07 23:48	28°☾06'39	evening set	6111 Jul 12 17:37	3°♂44'43
conjunction	6105 Jul 16 20:23	28°☾18'39 -12°27'29	conjunction	6111 Jul 23 03:53	3°♂58'53 -11°20'26
minimum elong	6105 Jul 16 20:34	28°☾18'39 12°27'31	minimum elong	6111 Jul 23 04:05	3°♂58'53 11°20'28
max. Earth dist.	6105 Jul 16 21:26	28°☾18'42 49.80740 AU	max. Earth dist.	6111 Jul 22 23:29	3°♂58'38 49.31993 AU
morning rise	6105 Jul 25 18:16	28°☾30'43	morning rise	6111 Aug 02 15:27	4°♂13'07
retrograde	6105 Oct 27 07:19	29°☾47'19	retrograde	6111 Nov 02 14:24	5°♂27'57
opposition	6106 Jan 18 19:33	28°☾48'08 -12°52'55	opposition	6112 Jan 24 22:00	4°♂28'25 -11°42'43
min. Earth dist.	6106 Jan 18 19:04	28°☾48'10 47.82061 AU	min. Earth dist.	6112 Jan 25 03:04	4°♂28'11 47.31359 AU
direct	6106 Apr 10 12:15	27°☾49'37	direct	6112 Apr 15 13:43	3°♂29'27
evening set	6106 Jul 08 22:21	29°☾03'00	evening set	6112 Jul 12 17:18	4°♂41'19

conjunction	6112 Jul 23 09:14	4°Ω55'49 -11°08'27	direct	6119 Apr 22 21:20	10°Ω13'52	
minimum elong	6112 Jul 23 09:24	4°Ω55'49 11°08'29	evening set	6119 Jul 18 20:28	11°Ω24'49	
max. Earth dist.	6112 Jul 23 03:07	4°Ω55'28 49.22754 AU	max. Earth dist.	6119 Jul 30 11:30	11°Ω40'46	48.47262 AU
morning rise	6112 Aug 03 02:41	5°Ω10'24				
retrograde	6112 Nov 02 20:54	6°Ω25'00	conjunction	6119 Jul 31 01:52	11°Ω41'36	-9°38'11
opposition	6113 Jan 25 02:35	5°Ω25'27 -11°30'09	minimum elong	6119 Jul 31 02:03	11°Ω41'36	9°38'13
min. Earth dist.	6113 Jan 25 08:07	5°Ω25'11 47.21839 AU	morning rise	6119 Aug 12 08:49	11°Ω58'29	
direct	6113 Apr 16 16:18	4°Ω26'26	retrograde	6119 Nov 10 10:42	13°Ω11'58	
evening set	6113 Jul 13 16:52	5°Ω38'08	opposition	6120 Feb 01 12:40	12°Ω12'02	-9°55'43
			min. Earth dist.	6120 Feb 02 02:19	12°Ω11'23	46.43781 AU
conjunction	6113 Jul 24 14:34	5°Ω52'58 -10°56'14	direct	6120 Apr 23 04:43	11°Ω12'30	
minimum elong	6113 Jul 24 14:46	5°Ω52'58 10°56'16	evening set	6120 Jul 18 21:49	12°Ω23'20	
max. Earth dist.	6113 Jul 24 07:48	5°Ω52'34 49.13223 AU				
morning rise	6113 Aug 04 13:47	6°Ω07'53	conjunction	6120 Jul 31 07:59	12°Ω40'25	-9°24'24
retrograde	6113 Nov 03 23:39	7°Ω22'18	minimum elong	6120 Jul 31 08:10	12°Ω40'26	9°24'25
opposition	6114 Jan 26 07:21	6°Ω22'43 -11°17'21	max. Earth dist.	6120 Jul 30 15:31	12°Ω39'28	48.34602 AU
min. Earth dist.	6114 Jan 26 14:28	6°Ω22'23 47.12011 AU	morning rise	6120 Aug 12 19:57	12°Ω57'37	
direct	6114 Apr 17 23:17	5°Ω23'39	retrograde	6120 Nov 10 18:03	14°Ω10'59	
evening set	6114 Jul 14 16:53	6°Ω35'12	opposition	6121 Feb 01 17:55	13°Ω10'56	-9°41'19
			min. Earth dist.	6121 Feb 02 09:24	13°Ω10'12	46.30790 AU
conjunction	6114 Jul 25 20:10	6°Ω50'22 -10°43'46	direct	6121 Apr 24 09:39	12°Ω11'16	
minimum elong	6114 Jul 25 20:21	6°Ω50'23 10°43'48	evening set	6121 Jul 19 23:02	13°Ω22'00	
max. Earth dist.	6114 Jul 25 12:52	6°Ω49'57 49.03383 AU				
morning rise	6114 Aug 06 00:52	7°Ω05'38	conjunction	6121 Aug 01 14:07	13°Ω39'24	-9°10'24
retrograde	6114 Nov 05 04:26	8°Ω19'53	minimum elong	6121 Aug 01 14:17	13°Ω39'24	9°10'26
opposition	6115 Jan 27 11:55	7°Ω20'17 -11°04'19	max. Earth dist.	6121 Jul 31 21:44	13°Ω38'27	48.21566 AU
min. Earth dist.	6115 Jan 27 19:13	7°Ω19'56 47.01836 AU	morning rise	6121 Aug 14 06:41	13°Ω56'53	
direct	6115 Apr 19 05:19	6°Ω21'10		6121 Oct 11 23:54	15°Ω	
evening set	6115 Jul 15 17:12	7°Ω32'35	retrograde	6121 Nov 12 01:53	15°Ω10'09	
				6121 Dec 13 06:43	15°RΩ	
conjunction	6115 Jul 27 01:51	7°Ω48'06 -10°31'05	opposition	6122 Feb 02 23:08	14°Ω09'59	-9°26'39
minimum elong	6115 Jul 27 02:03	7°Ω48'06 10°31'07	min. Earth dist.	6122 Feb 03 15:09	14°Ω09'13	46.17444 AU
max. Earth dist.	6115 Jul 26 16:22	7°Ω47'33 48.93144 AU	direct	6122 Apr 25 13:09	13°Ω10'11	
morning rise	6115 Aug 07 12:13	8°Ω03'42	evening set	6122 Jul 21 00:46	14°Ω20'51	
retrograde	6115 Nov 06 13:09	9°Ω17'48				
opposition	6116 Jan 28 16:47	8°Ω18'09 -10°51'02	conjunction	6122 Aug 02 20:20	14°Ω38'32	-8°56'10
min. Earth dist.	6116 Jan 29 02:11	8°Ω17'43 46.91233 AU	minimum elong	6122 Aug 02 20:31	14°Ω38'33	8°56'11
direct	6116 Apr 19 07:52	7°Ω19'00	max. Earth dist.	6122 Aug 02 02:09	14°Ω37'29	48.08210 AU
evening set	6116 Jul 15 17:41	8°Ω30'17	morning rise	6122 Aug 15 17:41	14°Ω56'20	
				6122 Aug 18 10:35	15°Ω	
conjunction	6116 Jul 27 07:48	8°Ω46'07 -10°18'10	retrograde	6122 Nov 13 10:46	16°Ω09'29	
minimum elong	6116 Jul 27 07:59	8°Ω46'08 10°18'11	opposition	6123 Feb 04 04:21	15°Ω09'13	-9°11'45
max. Earth dist.	6116 Jul 26 21:51	8°Ω45'33 48.82435 AU	min. Earth dist.	6123 Feb 04 21:01	15°Ω08'25	46.03807 AU
morning rise	6116 Aug 07 23:21	9°Ω02'03		6123 Feb 12 05:12	15°RΩ	
retrograde	6116 Nov 06 19:42	10°Ω16'00	direct	6123 Apr 26 15:29	14°Ω09'17	
opposition	6117 Jan 28 21:38	9°Ω16'19 -10°37'33		6123 Jul 07 00:30	15°Ω	
min. Earth dist.	6117 Jan 29 07:57	9°Ω15'49 46.80123 AU	evening set	6123 Jul 22 02:35	15°Ω19'54	
direct	6117 Apr 20 12:04	8°Ω17'05	max. Earth dist.	6123 Aug 03 07:52	15°Ω36'47	47.94556 AU
evening set	6117 Jul 16 18:31	9°Ω28'16				
			conjunction	6123 Aug 04 02:48	15°Ω37'53	-8°41'41
conjunction	6117 Jul 28 13:42	9°Ω44'25 -10°05'03	minimum elong	6123 Aug 04 02:58	15°Ω37'53	8°41'42
minimum elong	6117 Jul 28 13:54	9°Ω44'26 10°05'05	morning rise	6123 Aug 17 04:40	15°Ω55'58	
max. Earth dist.	6117 Jul 28 01:31	9°Ω43'43 48.71220 AU	retrograde	6123 Nov 14 14:38	17°Ω09'01	
morning rise	6117 Aug 09 10:35	10°Ω00'40	opposition	6124 Feb 05 09:49	16°Ω08'39	-8°56'35
retrograde	6117 Nov 08 02:46	11°Ω14'27	min. Earth dist.	6124 Feb 06 03:57	16°Ω07'47	45.89880 AU
opposition	6118 Jan 30 02:37	10°Ω14'42 -10°23'50	direct	6124 Apr 26 22:36	15°Ω08'36	
min. Earth dist.	6118 Jan 30 13:59	10°Ω14'10 46.68505 AU	evening set	6124 Jul 22 04:40	16°Ω19'10	
direct	6118 Apr 21 14:58	9°Ω15'23				
evening set	6118 Jul 17 19:17	10°Ω26'27	conjunction	6124 Aug 04 09:18	16°Ω37'27	-8°26'57
			minimum elong	6124 Aug 04 09:28	16°Ω37'28	8°26'58
conjunction	6118 Jul 29 19:42	10°Ω42'55 -9°51'44	max. Earth dist.	6124 Aug 03 13:56	16°Ω36'19	47.80638 AU
minimum elong	6118 Jul 29 19:52	10°Ω42'56 9°51'44	morning rise	6124 Aug 17 15:31	16°Ω55'50	
max. Earth dist.	6118 Jul 29 06:18	10°Ω42'09 48.59480 AU	retrograde	6124 Nov 14 18:24	18°Ω08'50	
morning rise	6118 Aug 10 21:42	10°Ω59'29	opposition	6125 Feb 05 15:12	17°Ω08'21	-8°41'09
retrograde	6118 Nov 09 07:03	12°Ω13'08	min. Earth dist.	6125 Feb 06 09:13	17°Ω07'29	45.75687 AU
opposition	6119 Jan 31 07:47	11°Ω13'17 -10°09'53	direct	6125 Apr 28 06:23	16°Ω08'11	
min. Earth dist.	6119 Jan 31 21:12	11°Ω12'39 46.56371 AU	evening set	6125 Jul 23 07:02	17°Ω18'44	

conjunction	6125 Aug 05 15:53	17°♏37'19 -8°11'58	direct	6132 May 04 21:58	23°♏15'08
minimum elong	6125 Aug 05 16:02	17°♏37'19 8°11'59	evening set	6132 Jul 29 07:29	24°♏26'01
max. Earth dist.	6125 Aug 04 18:37	17°♏36'04 47.66440 AU			
morning rise	6125 Aug 19 02:33	17°♏55'59	conjunction	6132 Aug 12 19:16	24°♏46'33 -6°20'28
retrograde	6125 Nov 16 02:13	19°♏08'57	minimum elong	6132 Aug 12 19:25	24°♏46'33 6°20'30
opposition	6126 Feb 06 20:54	18°♏08'23 -8°25'27	max. Earth dist.	6132 Aug 11 12:44	24°♏44'44 46.55485 AU
min. Earth dist.	6126 Feb 07 16:42	18°♏07'26 45.61214 AU	morning rise	6132 Aug 27 08:47	25°♏07'11
direct	6126 Apr 29 11:18	17°♏08'06	retrograde	6132 Nov 23 10:12	26°♏20'15
evening set	6126 Jul 24 09:29	18°♏18'39	opposition	6133 Feb 13 16:01	25°♏18'49 -6°28'41
			min. Earth dist.	6133 Feb 14 19:50	25°♏17'27 44.47829 AU
conjunction	6126 Aug 06 22:43	18°♏37'31 -7°56'44	direct	6133 May 06 01:14	24°♏17'27
minimum elong	6126 Aug 06 22:53	18°♏37'32 7°56'46	evening set	6133 Jul 30 11:58	25°♏28'27
max. Earth dist.	6126 Aug 06 01:28	18°♏36'17 47.51938 AU	max. Earth dist.	6133 Aug 12 19:59	25°♏47'22 46.37870 AU
morning rise	6126 Aug 20 13:28	18°♏56'30			
retrograde	6126 Nov 17 09:22	20°♏09'26	conjunction	6133 Aug 14 03:12	25°♏49'14 -6°03'36
opposition	6127 Feb 08 02:39	19°♏08'47 -8°09'31	minimum elong	6133 Aug 14 03:20	25°♏49'14 6°03'36
min. Earth dist.	6127 Feb 08 22:59	19°♏07'48 45.46394 AU	morning rise	6133 Aug 28 19:56	26°♏10'08
direct	6127 Apr 30 16:50	18°♏08'23	retrograde	6133 Nov 24 17:13	27°♏23'16
evening set	6127 Jul 25 12:35	19°♏18'58	opposition	6134 Feb 14 22:44	26°♏21'39 -6°10'59
max. Earth dist.	6127 Aug 07 06:24	19°♏36'45 47.37060 AU	min. Earth dist.	6134 Feb 16 03:54	26°♏20'13 44.29946 AU
			direct	6134 May 07 08:27	25°♏20'07
conjunction	6127 Aug 08 05:45	19°♏38'07 -7°41'16	evening set	6134 Jul 31 16:42	26°♏31'13
minimum elong	6127 Aug 08 05:54	19°♏38'07 7°41'17	max. Earth dist.	6134 Aug 14 03:17	26°♏50'21 46.19962 AU
morning rise	6127 Aug 22 00:42	19°♏57'23			
retrograde	6127 Nov 18 19:20	21°♏10'18	conjunction	6134 Aug 15 11:11	26°♏52'16 -5°46'29
opposition	6128 Feb 09 08:26	20°♏09'34 -7°53'19	minimum elong	6134 Aug 15 11:18	26°♏52'17 5°46'30
min. Earth dist.	6128 Feb 10 06:01	20°♏08'31 45.31172 AU	morning rise	6134 Aug 30 07:09	27°♏13'26
direct	6128 Apr 30 19:38	19°♏09'02	retrograde	6134 Nov 25 23:05	28°♏26'39
evening set	6128 Jul 25 15:51	20°♏19'40	opposition	6135 Feb 16 05:29	27°♏24'53 -5°53'02
			min. Earth dist.	6135 Feb 17 10:41	27°♏23'26 44.11791 AU
conjunction	6128 Aug 08 13:04	20°♏39'06 -7°25'34	direct	6135 May 08 17:35	26°♏23'08
minimum elong	6128 Aug 08 13:13	20°♏39'07 7°25'36	evening set	6135 Aug 01 21:56	27°♏34'24
max. Earth dist.	6128 Aug 07 12:33	20°♏37'40 47.21721 AU	max. Earth dist.	6135 Aug 15 09:42	27°♏53'41 46.01780 AU
morning rise	6128 Aug 22 11:54	20°♏58'39			
retrograde	6128 Nov 19 02:35	22°♏11'35	conjunction	6135 Aug 16 19:24	27°♏55'43 -5°29'06
opposition	6129 Feb 09 14:36	21°♏10'44 -7°36'53	minimum elong	6135 Aug 16 19:32	27°♏55'43 5°29'06
min. Earth dist.	6129 Feb 10 14:08	21°♏09'35 45.15462 AU	morning rise	6135 Aug 31 18:30	28°♏17'08
direct	6129 May 02 01:55	20°♏10'04	retrograde	6135 Nov 27 06:37	29°♏30'28
evening set	6129 Jul 26 19:16	21°♏20'45	opposition	6136 Feb 17 12:28	28°♏28'32 -5°34'47
			min. Earth dist.	6136 Feb 18 19:23	28°♏27'00 43.93394 AU
conjunction	6129 Aug 09 20:20	21°♏40'28 -7°09'39	direct	6136 May 09 00:57	27°♏26'36
minimum elong	6129 Aug 09 20:29	21°♏40'29 7°09'40	evening set	6136 Aug 02 03:17	28°♏38'01
max. Earth dist.	6129 Aug 08 18:38	21°♏38'57 47.05894 AU	max. Earth dist.	6136 Aug 15 18:21	28°♏57'34 45.83375 AU
morning rise	6129 Aug 23 22:57	22°♏00'18			
retrograde	6129 Nov 20 08:12	23°♏13'15	conjunction	6136 Aug 17 03:52	28°♏59'36 -5°11'28
opposition	6130 Feb 10 20:48	22°♏12'16 -7°20'12	minimum elong	6136 Aug 17 03:59	28°♏59'36 5°11'29
min. Earth dist.	6130 Feb 11 20:38	22°♏11'06 44.99249 AU	morning rise	6136 Sep 01 05:43	29°♏21'16
direct	6130 May 03 09:29	21°♏11'26		6136 Oct 01 05:14	0°♐
evening set	6130 Jul 27 23:08	22°♏22'11	retrograde	6136 Nov 27 14:33	0°♐34'45
max. Earth dist.	6130 Aug 09 23:48	22°♏40'31 46.89550 AU		6137 Jan 25 02:37	30°♐♌
			opposition	6137 Feb 17 19:38	29°♏32'40 -5°16'17
conjunction	6130 Aug 11 03:51	22°♏42'10 -6°53'29	min. Earth dist.	6137 Feb 19 02:30	29°♏31'07 43.74776 AU
minimum elong	6130 Aug 11 03:59	22°♏42'11 6°53'32	direct	6137 May 10 08:05	28°♏30'34
morning rise	6130 Aug 25 10:19	23°♏02'17	evening set	6137 Aug 03 08:59	29°♏42'10
retrograde	6130 Nov 21 15:23	24°♏15'15		6137 Aug 15 18:18	0°♐
opposition	6131 Feb 12 03:07	23°♏14'08 -7°03'17	max. Earth dist.	6137 Aug 17 00:59	0°♐01'51 45.64753 AU
min. Earth dist.	6131 Feb 13 05:13	23°♏12'51 44.82542 AU			
direct	6131 May 04 16:06	22°♏13'08	conjunction	6137 Aug 18 12:12	0°♐03'59 -4°53'34
evening set	6131 Jul 29 03:09	23°♏23'56	minimum elong	6137 Aug 18 12:19	0°♐04'00 4°53'35
max. Earth dist.	6131 Aug 11 07:16	23°♏42'31 46.72731 AU	morning rise	6137 Sep 02 17:01	0°♐25'55
			retrograde	6137 Nov 29 02:42	1°♐39'34
conjunction	6131 Aug 12 11:38	23°♏44'12 -6°37'06	opposition	6138 Feb 19 03:03	0°♐37'20 -4°57'29
minimum elong	6131 Aug 12 11:46	23°♏44'13 6°37'07	min. Earth dist.	6138 Feb 20 10:55	0°♐35'44 43.55944 AU
morning rise	6131 Aug 26 21:32	24°♏04'34		6138 Mar 24 10:28	30°♐♌
retrograde	6131 Nov 22 23:33	25°♏17'35	direct	6138 May 11 11:46	29°♏35'03
opposition	6132 Feb 13 09:32	24°♏16'19 -6°46'07		6138 Jun 27 23:50	0°♐
min. Earth dist.	6132 Feb 14 12:14	24°♏15'00 44.65376 AU	evening set	6138 Aug 04 15:04	0°♐46'53

max. Earth dist.	6138 Aug 18 09:23	1° \mathring{M} 06'47	45.45880 AU	min. Earth dist.	6145 Feb 28 03:54	8° \mathring{M} 24'09	42.14002 AU
				direct	6145 May 18 18:56	7° \mathring{M} 22'18	
conjunction	6138 Aug 19 21:06	1° \mathring{M} 08'58	-4°35'25	evening set	6145 Aug 11 21:35	8° \mathring{M} 36'08	
minimum elong	6138 Aug 19 21:12	1° \mathring{M} 08'58	4°35'26	max. Earth dist.	6145 Aug 25 20:40	8° \mathring{M} 56'57	44.03136 AU
morning rise	6138 Sep 04 04:26	1° \mathring{M} 31'08					
retrograde	6138 Nov 30 13:21	2° \mathring{M} 44'58		conjunction	6145 Aug 27 17:59	8° \mathring{M} 59'48	-2°21'20
opposition	6139 Feb 20 10:33	1° \mathring{M} 42'35	-4°38'26	minimum elong	6145 Aug 27 18:02	8° \mathring{M} 59'48	2°21'22
min. Earth dist.	6139 Feb 21 19:48	1° \mathring{M} 40'55	43.36836 AU	morning rise	6145 Sep 12 15:25	9° \mathring{M} 23'34	
direct	6139 May 12 18:01	0° \mathring{M} 40'08		retrograde	6145 Dec 08 10:22	10° \mathring{M} 39'06	
evening set	6139 Aug 05 21:41	1° \mathring{M} 52'13		opposition	6146 Feb 27 21:39	9° \mathring{M} 35'16	-2°17'30
max. Earth dist.	6139 Aug 19 17:25	2° \mathring{M} 12'17	45.26713 AU	min. Earth dist.	6146 Mar 01 14:56	9° \mathring{M} 33'08	41.92273 AU
				direct	6146 May 20 04:56	8° \mathring{M} 31'07	
				evening set	6146 Aug 13 06:56	9° \mathring{M} 45'18	
conjunction	6139 Aug 21 06:13	2° \mathring{M} 14'32	-4°17'00	max. Earth dist.	6146 Aug 27 07:33	10° \mathring{M} 06'19	43.81340 AU
minimum elong	6139 Aug 21 06:19	2° \mathring{M} 14'33	4°17'01				
morning rise	6139 Sep 05 16:05	2° \mathring{M} 36'57					
retrograde	6139 Dec 01 23:19	3° \mathring{M} 50'59		conjunction	6146 Aug 29 04:50	10° \mathring{M} 09'11	-2°01'11
opposition	6140 Feb 21 18:15	2° \mathring{M} 48'27	-4°19'06	minimum elong	6146 Aug 29 04:54	10° \mathring{M} 09'11	2°01'11
min. Earth dist.	6140 Feb 23 03:48	2° \mathring{M} 46'46	43.17399 AU	morning rise	6146 Sep 14 03:32	10° \mathring{M} 33'09	
direct	6140 May 13 01:32	1° \mathring{M} 45'49		retrograde	6146 Dec 09 19:02	11° \mathring{M} 49'00	
evening set	6140 Aug 06 04:43	2° \mathring{M} 58'09		opposition	6147 Mar 01 06:49	10° \mathring{M} 44'55	-1°56'17
max. Earth dist.	6140 Aug 20 00:43	3° \mathring{M} 18'20	45.07154 AU	min. Earth dist.	6147 Mar 02 23:57	10° \mathring{M} 42'47	41.70319 AU
				direct	6147 May 21 15:43	9° \mathring{M} 40'30	
				evening set	6147 Aug 14 16:54	10° \mathring{M} 55'04	
conjunction	6140 Aug 21 15:32	3° \mathring{M} 20'43	-3°58'21	max. Earth dist.	6147 Aug 28 16:38	11° \mathring{M} 16'09	43.59331 AU
minimum elong	6140 Aug 21 15:37	3° \mathring{M} 20'44	3°58'21				
morning rise	6140 Sep 06 03:44	3° \mathring{M} 43'23					
retrograde	6140 Dec 02 06:24	4° \mathring{M} 57'39		conjunction	6147 Aug 30 15:52	11° \mathring{M} 19'09	-1°40'47
opposition	6141 Feb 22 02:20	3° \mathring{M} 54'56	-3°59'30	minimum elong	6147 Aug 30 15:54	11° \mathring{M} 19'09	1°40'48
min. Earth dist.	6141 Feb 23 14:05	3° \mathring{M} 53'07	42.97554 AU	morning rise	6147 Sep 15 15:50	11° \mathring{M} 43'19	
direct	6141 May 14 11:04	2° \mathring{M} 52'05		retrograde	6147 Dec 11 06:51	12° \mathring{M} 59'32	
evening set	6141 Aug 07 12:04	4° \mathring{M} 04'42		opposition	6148 Mar 01 16:28	11° \mathring{M} 55'12	-1°34'47
max. Earth dist.	6141 Aug 21 10:02	4° \mathring{M} 25'04	44.87175 AU	min. Earth dist.	6148 Mar 03 10:56	11° \mathring{M} 52'59	41.48189 AU
				direct	6148 May 21 23:23	10° \mathring{M} 50'31	
				evening set	6148 Aug 15 03:04	12° \mathring{M} 05'30	
conjunction	6141 Aug 23 01:14	4° \mathring{M} 27'29	-3°39'26	max. Earth dist.	6148 Aug 29 04:01	12° \mathring{M} 26'47	43.37146 AU
minimum elong	6141 Aug 23 01:20	4° \mathring{M} 27'30	3°39'28				
morning rise	6141 Sep 07 15:29	4° \mathring{M} 50'23					
retrograde	6141 Dec 03 14:06	6° \mathring{M} 04'53		conjunction	6148 Aug 31 03:11	12° \mathring{M} 29'47	-1°20'07
opposition	6142 Feb 23 10:31	5° \mathring{M} 01'58	-3°39'38	minimum elong	6148 Aug 31 03:13	12° \mathring{M} 29'47	1°20'07
min. Earth dist.	6142 Feb 24 22:42	5° \mathring{M} 00'08	42.77272 AU	morning rise	6148 Sep 16 03:55	12° \mathring{M} 54'08	
direct	6142 May 15 20:36	3° \mathring{M} 58'54		retrograde	6148 Dec 11 19:05	14° \mathring{M} 10'45	
evening set	6142 Aug 08 19:55	5° \mathring{M} 11'47		opposition	6149 Mar 03 02:24	13° \mathring{M} 06'12	-1°13'01
max. Earth dist.	6142 Aug 22 17:18	5° \mathring{M} 32'13	44.66754 AU	min. Earth dist.	6149 Mar 04 21:23	13° \mathring{M} 03'57	41.25896 AU
				direct	6149 May 23 07:41	12° \mathring{M} 01'15	
				evening set	6149 Aug 16 13:54	13° \mathring{M} 16'43	
conjunction	6142 Aug 24 11:02	5° \mathring{M} 34'48	-3°20'17	max. Earth dist.	6149 Aug 30 14:24	13° \mathring{M} 38'05	43.14822 AU
minimum elong	6142 Aug 24 11:07	5° \mathring{M} 34'49	3°20'18				
morning rise	6142 Sep 09 03:30	5° \mathring{M} 57'56					
retrograde	6142 Dec 05 02:16	7° \mathring{M} 12'40		conjunction	6149 Sep 01 14:45	13° \mathring{M} 41'11	-0°59'12
opposition	6143 Feb 24 19:01	6° \mathring{M} 09'32	-3°19'30	minimum elong	6149 Sep 01 14:46	13° \mathring{M} 41'11	0°59'13
min. Earth dist.	6143 Feb 26 08:50	6° \mathring{M} 07'37	42.56562 AU	morning rise	6149 Sep 17 16:23	14° \mathring{M} 05'43	
direct	6143 May 17 01:57	5° \mathring{M} 06'13		retrograde	6149 Dec 13 09:43	15° \mathring{M} 22'46	
evening set	6143 Aug 10 04:07	6° \mathring{M} 19'23		opposition	6150 Mar 04 12:30	14° \mathring{M} 17'59	-0°50'59
max. Earth dist.	6143 Aug 24 02:50	6° \mathring{M} 40'00	44.45899 AU	min. Earth dist.	6150 Mar 06 07:44	14° \mathring{M} 15'43	41.03470 AU
				direct	6150 May 24 15:15	13° \mathring{M} 12'47	
				evening set	6150 Aug 18 01:14	14° \mathring{M} 28'46	
conjunction	6143 Aug 25 21:18	6° \mathring{M} 42'38	-3°00'53	max. Earth dist.	6150 Sep 01 01:16	14° \mathring{M} 50'14	42.92321 AU
minimum elong	6143 Aug 25 21:22	6° \mathring{M} 42'38	3°00'55				
morning rise	6143 Sep 10 15:26	7° \mathring{M} 05'59					
retrograde	6143 Dec 06 12:45	8° \mathring{M} 20'58		conjunction	6150 Sep 03 02:46	14° \mathring{M} 53'25	-0°38'03
opposition	6144 Feb 26 03:37	7° \mathring{M} 17'37	-2°59'07	minimum elong	6150 Sep 03 02:47	14° \mathring{M} 53'25	0°38'03
min. Earth dist.	6144 Feb 27 18:42	7° \mathring{M} 15'37	42.35445 AU	morning rise	6150 Sep 19 04:54	15° \mathring{M} 18'09	
direct	6144 May 17 10:02	6° \mathring{M} 14'01		retrograde	6150 Dec 14 21:32	16° \mathring{M} 35'40	
evening set	6144 Aug 10 12:45	7° \mathring{M} 27'30		opposition	6151 Mar 05 23:06	15° \mathring{M} 30'40	-0°28'40
max. Earth dist.	6144 Aug 24 11:54	7° \mathring{M} 48'14	44.24681 AU	min. Earth dist.	6151 Mar 07 20:01	15° \mathring{M} 28'18	40.80849 AU
				direct	6151 May 26 02:21	14° \mathring{M} 25'14	
				evening set	6151 Aug 19 13:13	15° \mathring{M} 41'45	
conjunction	6144 Aug 26 07:36	7° \mathring{M} 50'58	-2°41'14	max. Earth dist.	6151 Sep 02 13:29	16° \mathring{M} 03'21	42.69601 AU
minimum elong	6144 Aug 26 07:40	7° \mathring{M} 50'58	2°41'15				
morning rise	6144 Sep 11 03:31	8° \mathring{M} 14'31					
retrograde	6144 Dec 07 00:17	9° \mathring{M} 29'46		conjunction	6151 Sep 04 15:13	16° \mathring{M} 06'35	-0°16'39
opposition	6145 Feb 26 12:27	8° \mathring{M} 26'10	-2°38'27	minimum elong	6151 Sep 04 15:14	16° \mathring{M} 06'35	0°16'39

morning rise	6151 Sep 20 17:38	16° <u>17</u> 31'29	direct	6158 Jun 03 10:50	23° <u>17</u> 17'57		
retrograde	6151 Dec 16 08:38	17° <u>17</u> 49'30	evening set	6158 Aug 28 18:00	24° <u>17</u> 39'02		
opposition	6152 Mar 06 09:47	16° <u>17</u> 44'18 -0°06'05	max. Earth dist.	6158 Sep 11 06:23	25° <u>17</u> 00'51	41.01439 AU	
min. Earth dist.	6152 Mar 08 06:50	16° <u>17</u> 41'54	40.57980 AU				
direct	6152 May 26 14:53	15° <u>17</u> 38'36	conjunction	6158 Sep 13 16:29	25° <u>17</u> 04'49	2°19'46	
asc. node	6152 Jun 12 11:05	15° <u>17</u> 42'07	minimum elong	6158 Sep 13 16:25	25° <u>17</u> 04'48	2°19'46	
evening set	6152 Aug 20 01:56	16° <u>17</u> 55'43	morning rise	6158 Sep 29 14:41	25° <u>17</u> 30'37		
max. Earth dist.	6152 Sep 02 23:52	17° <u>17</u> 17'19	42.46583 AU	retrograde	6158 Dec 25 11:35	26° <u>17</u> 52'49	
			opposition	6159 Mar 15 23:33	25° <u>17</u> 45'37	2°39'07	
conjunction	6152 Sep 05 03:59	17° <u>17</u> 20'43	0°05'06	min. Earth dist.	6159 Mar 18 03:53	25° <u>17</u> 42'44	38.88996 AU
minimum elong	6152 Sep 05 03:57	17° <u>17</u> 20'43	0°05'06	direct	6159 Jun 05 00:55	24° <u>17</u> 37'36	
behind sun begin	6152 Sep 04 21:38	17° <u>17</u> 20'20		evening set	6159 Aug 30 11:05	25° <u>17</u> 59'28	
behind sun end	6152 Sep 05 10:17	17° <u>17</u> 21'06		max. Earth dist.	6159 Sep 12 19:56	26° <u>17</u> 21'13	40.76438 AU
morning rise	6152 Sep 21 06:36	17° <u>17</u> 45'47					
retrograde	6152 Dec 16 22:01	19° <u>17</u> 04'20	conjunction	6159 Sep 15 07:50	26° <u>17</u> 25'19	2°42'59	
opposition	6153 Mar 07 21:05	17° <u>17</u> 58'54	0°16'45	minimum elong	6159 Sep 15 07:45	26° <u>17</u> 25'19	2°42'59
min. Earth dist.	6153 Mar 09 20:04	17° <u>17</u> 56'24	40.34801 AU	morning rise	6159 Oct 01 04:32	26° <u>17</u> 51'12	
direct	6153 May 28 00:04	16° <u>17</u> 52'56	retrograde	6159 Dec 27 04:17	28° <u>17</u> 14'08		
evening set	6153 Aug 21 14:54	18° <u>17</u> 10'38	opposition	6160 Mar 16 13:12	27° <u>17</u> 06'36	3°03'41	
max. Earth dist.	6153 Sep 04 12:41	18° <u>17</u> 32'21	42.23216 AU	min. Earth dist.	6160 Mar 18 18:29	27° <u>17</u> 03'39	38.64021 AU
			direct	6160 Jun 05 11:32	25° <u>17</u> 58'13		
conjunction	6153 Sep 06 17:05	18° <u>17</u> 35'48	0°26'55	evening set	6160 Aug 31 04:42	27° <u>17</u> 20'54	
minimum elong	6153 Sep 06 17:05	18° <u>17</u> 35'48	0°26'55	max. Earth dist.	6160 Sep 13 11:40	27° <u>17</u> 42'41	40.51349 AU
morning rise	6153 Sep 22 19:28	19° <u>17</u> 01'01					
retrograde	6153 Dec 18 10:43	20° <u>17</u> 20'08	conjunction	6160 Sep 15 23:44	27° <u>17</u> 46'49	3°06'23	
opposition	6154 Mar 09 08:41	19° <u>17</u> 14'27	0°39'51	minimum elong	6160 Sep 15 23:38	27° <u>17</u> 46'49	3°06'23
min. Earth dist.	6154 Mar 11 08:21	19° <u>17</u> 11'53	40.11252 AU	morning rise	6160 Oct 01 18:21	28° <u>17</u> 12'46	
direct	6154 May 29 11:08	18° <u>17</u> 08'11	retrograde	6160 Dec 27 20:35	29° <u>17</u> 36'29		
evening set	6154 Aug 23 04:49	19° <u>17</u> 26'31	opposition	6161 Mar 18 03:27	28° <u>17</u> 28'36	3°28'28	
max. Earth dist.	6154 Sep 06 00:13	19° <u>17</u> 48'13	41.99482 AU	min. Earth dist.	6161 Mar 20 09:22	28° <u>17</u> 25'36	38.38988 AU
			direct	6161 Jun 07 00:23	27° <u>17</u> 19'51		
conjunction	6154 Sep 08 06:37	19° <u>17</u> 51'49	0°49'02	evening set	6161 Sep 01 22:59	28° <u>17</u> 43'25	
minimum elong	6154 Sep 08 06:36	19° <u>17</u> 51'49	0°49'02	max. Earth dist.	6161 Sep 15 03:16	29° <u>17</u> 05'11	40.26228 AU
morning rise	6154 Sep 24 08:50	20° <u>17</u> 17'11					
retrograde	6154 Dec 20 03:28	21° <u>17</u> 36'51	conjunction	6161 Sep 17 15:51	29° <u>17</u> 09'23	3°29'59	
opposition	6155 Mar 10 20:29	20° <u>17</u> 30'54	1°03'13	minimum elong	6161 Sep 17 15:45	29° <u>17</u> 09'23	3°29'59
min. Earth dist.	6155 Mar 12 21:16	20° <u>17</u> 28'17	39.87352 AU	morning rise	6161 Oct 03 08:22	29° <u>17</u> 35'22	
direct	6155 May 30 20:06	19° <u>17</u> 24'19	retrograde	6161 Oct 19 01:33	0° <u>17</u> 00'00		
evening set	6155 Aug 24 19:16	20° <u>17</u> 43'18	opposition	6161 Dec 29 16:00	0° <u>17</u> 59'55		
max. Earth dist.	6155 Sep 07 12:57	21° <u>17</u> 05'02	41.75379 AU		6162 Mar 13 13:38	30° <u>17</u> 00'00	
			opposition	6162 Mar 19 18:01	29° <u>17</u> 51'43	3°53'27	
conjunction	6155 Sep 09 20:39	21° <u>17</u> 08'44	1°11'23	min. Earth dist.	6162 Mar 21 23:48	29° <u>17</u> 48'42	38.13933 AU
minimum elong	6155 Sep 09 20:37	21° <u>17</u> 08'44	1°11'23	direct	6162 Jun 08 14:19	28° <u>17</u> 42'36	
morning rise	6155 Sep 25 22:09	21° <u>17</u> 34'13			6162 Aug 30 09:01	0° <u>17</u> 00'00	
retrograde	6155 Dec 21 19:25	22° <u>17</u> 54'30	evening set	6162 Sep 03 18:16	0° <u>17</u> 07'07		
opposition	6156 Mar 11 08:49	21° <u>17</u> 48'15	1°26'49	max. Earth dist.	6162 Sep 16 18:47	0° <u>17</u> 28'47	40.01050 AU
min. Earth dist.	6156 Mar 13 11:19	21° <u>17</u> 45'31	39.63112 AU				
direct	6156 May 31 07:40	20° <u>17</u> 41'20	conjunction	6162 Sep 19 08:42	0° <u>17</u> 33'07	3°53'45	
evening set	6156 Aug 25 10:09	22° <u>17</u> 00'59	minimum elong	6162 Sep 19 08:35	0° <u>17</u> 33'07	3°53'44	
max. Earth dist.	6156 Sep 08 02:26	22° <u>17</u> 22'46	41.50971 AU	morning rise	6162 Oct 04 22:40	0° <u>17</u> 59'07	
			retrograde	6162 Dec 31 10:38	2° <u>17</u> 24'32		
conjunction	6156 Sep 10 10:48	22° <u>17</u> 26'33	1°33'58	opposition	6163 Mar 21 09:04	1° <u>17</u> 16'02	4°18'37
minimum elong	6156 Sep 10 10:45	22° <u>17</u> 26'32	1°33'57	min. Earth dist.	6163 Mar 23 16:32	1° <u>17</u> 12'55	37.88823 AU
morning rise	6156 Sep 26 11:29	22° <u>17</u> 52'09	direct	6163 Jun 10 04:43	0° <u>17</u> 06'33		
retrograde	6156 Dec 22 09:50	24° <u>17</u> 13'02	evening set	6163 Sep 05 14:21	1° <u>17</u> 32'04		
opposition	6157 Mar 12 21:18	23° <u>17</u> 06'28	1°50'41	max. Earth dist.	6163 Sep 18 12:18	1° <u>17</u> 53'43	39.75797 AU
min. Earth dist.	6157 Mar 14 23:48	23° <u>17</u> 03'44	39.38602 AU				
direct	6157 Jun 01 21:24	21° <u>17</u> 59'12	conjunction	6163 Sep 21 02:06	1° <u>17</u> 58'05	4°17'40	
evening set	6157 Aug 27 01:50	23° <u>17</u> 19'33	minimum elong	6163 Sep 21 01:58	1° <u>17</u> 58'05	4°17'41	
max. Earth dist.	6157 Sep 09 15:05	23° <u>17</u> 41'17	41.26300 AU	morning rise	6163 Oct 06 13:10	2° <u>17</u> 24'06	
			retrograde	6164 Jan 02 02:54	3° <u>17</u> 50'26		
conjunction	6157 Sep 12 01:23	23° <u>17</u> 45'14	1°56'45	opposition	6164 Mar 22 00:34	2° <u>17</u> 41'37	4°43'59
minimum elong	6157 Sep 12 01:20	23° <u>17</u> 45'14	1°56'46	min. Earth dist.	6164 Mar 24 07:53	2° <u>17</u> 38'29	37.63616 AU
morning rise	6157 Sep 28 01:03	24° <u>17</u> 10'56	direct	6164 Jun 10 21:18	1° <u>17</u> 31'47		
retrograde	6157 Dec 23 22:57	25° <u>17</u> 32'28	evening set	6164 Sep 06 11:19	2° <u>17</u> 58'20		
opposition	6158 Mar 14 10:15	24° <u>17</u> 25'35	2°14'47	max. Earth dist.	6164 Sep 19 04:00	3° <u>17</u> 19'48	39.50401 AU
min. Earth dist.	6158 Mar 16 14:34	24° <u>17</u> 22'43	39.13880 AU				

conjunction	6164 Sep 21 19:47	3° <u>♁</u> 24'21	4°41'45	evening set	6171 Sep 19 16:05	13° <u>♁</u> 40'16	
minimum elong	6164 Sep 21 19:38	3° <u>♁</u> 24'20	4°41'45	max. Earth dist.	6171 Sep 30 18:39	14° <u>♁</u> 00'14	37.68239 AU
morning rise	6164 Oct 07 03:46	3° <u>♁</u> 50'22					
retrograde	6165 Jan 02 20:48	5° <u>♁</u> 17'40		conjunction	6171 Oct 03 16:20	14° <u>♁</u> 05'31	7°33'23
opposition	6165 Mar 23 16:43	4° <u>♁</u> 08'31	5°09'31	minimum elong	6171 Oct 03 16:05	14° <u>♁</u> 05'30	7°33'24
min. Earth dist.	6165 Mar 26 01:35	4° <u>♁</u> 05'17	37.38259 AU	morning rise	6171 Oct 17 15:33	14° <u>♁</u> 30'43	
direct	6165 Jun 12 11:47	2° <u>♁</u> 58'19		retrograde	6172 Jan 14 20:46	16° <u>♁</u> 06'08	
evening set	6165 Sep 08 09:07	4° <u>♁</u> 25'56		opposition	6172 Apr 03 00:06	14° <u>♁</u> 54'18	8°11'45
max. Earth dist.	6165 Sep 20 22:26	4° <u>♁</u> 47'21	39.24815 AU	min. Earth dist.	6172 Apr 05 13:37	14° <u>♁</u> 50'38	35.56988 AU
				direct	6172 Jun 22 13:12	13° <u>♁</u> 41'01	
conjunction	6165 Sep 23 14:20	4° <u>♁</u> 51'56	5°05'58	evening set	6172 Sep 20 20:30	15° <u>♁</u> 17'43	
minimum elong	6165 Sep 23 14:10	4° <u>♁</u> 51'56	5°05'59	max. Earth dist.	6172 Oct 01 17:29	15° <u>♁</u> 37'27	37.42157 AU
morning rise	6165 Oct 08 18:36	5° <u>♁</u> 17'55					
retrograde	6166 Jan 04 14:20	6° <u>♁</u> 46'15		conjunction	6172 Oct 04 14:36	15° <u>♁</u> 42'44	7°58'04
opposition	6166 Mar 25 09:18	5° <u>♁</u> 36'45	5°35'12	minimum elong	6172 Oct 04 14:22	15° <u>♁</u> 42'42	7°58'04
min. Earth dist.	6166 Mar 27 18:52	5° <u>♁</u> 33'27	37.12702 AU	morning rise	6172 Oct 18 07:16	16° <u>♁</u> 07'40	
direct	6166 Jun 14 03:00	4° <u>♁</u> 26'09		retrograde	6173 Jan 15 18:22	17° <u>♁</u> 44'31	
evening set	6166 Sep 10 08:02	5° <u>♁</u> 54'54		opposition	6173 Apr 04 20:42	16° <u>♁</u> 32'16	8°37'59
max. Earth dist.	6166 Sep 22 15:41	6° <u>♁</u> 16'05	38.99030 AU	min. Earth dist.	6173 Apr 07 10:21	16° <u>♁</u> 28'34	35.31205 AU
				direct	6173 Jun 24 07:25	15° <u>♁</u> 18'33	
conjunction	6166 Sep 25 09:18	6° <u>♁</u> 20'50	5°30'20	evening set	6173 Sep 23 02:20	16° <u>♁</u> 56'48	
minimum elong	6166 Sep 25 09:08	6° <u>♁</u> 20'50	5°30'20	max. Earth dist.	6173 Oct 03 15:56	17° <u>♁</u> 16'10	37.16264 AU
morning rise	6166 Oct 10 09:52	6° <u>♁</u> 46'46					
retrograde	6167 Jan 06 11:20	8° <u>♁</u> 16'09		conjunction	6173 Oct 06 13:31	17° <u>♁</u> 21'31	8°22'42
opposition	6167 Mar 27 02:25	7° <u>♁</u> 06'18	6°01'03	minimum elong	6173 Oct 06 13:14	17° <u>♁</u> 21'30	8°22'42
min. Earth dist.	6167 Mar 29 12:43	7° <u>♁</u> 02'56	36.86958 AU	morning rise	6173 Oct 19 23:28	17° <u>♁</u> 46'12	
direct	6167 Jun 15 17:38	5° <u>♁</u> 55'16		retrograde	6174 Jan 17 19:39	19° <u>♁</u> 24'30	
evening set	6167 Sep 12 07:44	7° <u>♁</u> 25'12		opposition	6174 Apr 06 17:43	18° <u>♁</u> 11'53	9°04'10
max. Earth dist.	6167 Sep 24 10:11	7° <u>♁</u> 46'12	38.73035 AU	min. Earth dist.	6174 Apr 09 07:03	18° <u>♁</u> 08'10	35.05639 AU
				direct	6174 Jun 26 03:03	16° <u>♁</u> 57'42	
conjunction	6167 Sep 27 04:54	7° <u>♁</u> 51'04	5°54'48	evening set	6174 Sep 25 09:16	18° <u>♁</u> 37'36	
minimum elong	6167 Sep 27 04:43	7° <u>♁</u> 51'03	5°54'49	max. Earth dist.	6174 Oct 05 15:11	18° <u>♁</u> 56'35	36.90562 AU
morning rise	6167 Oct 12 01:04	8° <u>♁</u> 16'54					
retrograde	6168 Jan 08 07:55	9° <u>♁</u> 47'24		conjunction	6174 Oct 08 13:17	19° <u>♁</u> 02'01	8°47'15
opposition	6168 Mar 27 20:08	8° <u>♁</u> 37'10	6°27'01	minimum elong	6174 Oct 08 13:01	19° <u>♁</u> 02'00	8°47'16
min. Earth dist.	6168 Mar 30 07:53	8° <u>♁</u> 33'42	36.61040 AU	morning rise	6174 Oct 21 15:52	19° <u>♁</u> 26'22	
direct	6168 Jun 16 11:04	7° <u>♁</u> 25'42		retrograde	6175 Jan 19 21:28	21° <u>♁</u> 06'14	
evening set	6168 Sep 13 08:23	8° <u>♁</u> 56'52		opposition	6175 Apr 08 15:39	19° <u>♁</u> 53'14	9°30'16
max. Earth dist.	6168 Sep 25 05:56	9° <u>♁</u> 17'41	38.46905 AU	min. Earth dist.	6175 Apr 11 06:00	19° <u>♁</u> 49'26	34.80269 AU
				direct	6175 Jun 27 23:58	18° <u>♁</u> 38'38	
conjunction	6168 Sep 28 00:57	9° <u>♁</u> 22'37	6°19'21	evening set	6175 Sep 27 17:30	20° <u>♁</u> 20'16	
minimum elong	6168 Sep 28 00:45	9° <u>♁</u> 22'37	6°19'22	max. Earth dist.	6175 Oct 07 16:02	20° <u>♁</u> 38'51	36.65052 AU
morning rise	6168 Oct 12 16:30	9° <u>♁</u> 48'21					
retrograde	6169 Jan 09 06:21	11° <u>♁</u> 19'59		conjunction	6175 Oct 10 13:39	20° <u>♁</u> 44'19	9°11'41
opposition	6169 Mar 29 14:15	10° <u>♁</u> 09'21	6°53'07	minimum elong	6175 Oct 10 13:21	20° <u>♁</u> 44'18	9°11'42
min. Earth dist.	6169 Apr 01 01:45	10° <u>♁</u> 05'53	36.35024 AU	morning rise	6175 Oct 23 08:21	21° <u>♁</u> 08'17	
direct	6169 Jun 18 06:13	8° <u>♁</u> 57'27		retrograde	6176 Jan 22 00:04	22° <u>♁</u> 49'47	
evening set	6169 Sep 15 09:51	10° <u>♁</u> 29'54		opposition	6176 Apr 09 14:06	21° <u>♁</u> 36'25	9°56'14
max. Earth dist.	6169 Sep 27 00:45	10° <u>♁</u> 50'25	38.20680 AU	min. Earth dist.	6176 Apr 12 03:43	21° <u>♁</u> 32'39	34.55078 AU
				direct	6176 Jun 28 23:08	20° <u>♁</u> 21'23	
conjunction	6169 Sep 29 21:25	10° <u>♁</u> 55'31	6°44'00	evening set	6176 Sep 29 03:00	22° <u>♁</u> 04'50	
minimum elong	6169 Sep 29 21:12	10° <u>♁</u> 55'30	6°44'01	max. Earth dist.	6176 Oct 08 15:51	22° <u>♁</u> 22'51	36.39680 AU
morning rise	6169 Oct 14 08:00	11° <u>♁</u> 21'06					
retrograde	6170 Jan 11 03:09	12° <u>♁</u> 53'57		conjunction	6176 Oct 11 14:46	22° <u>♁</u> 28'28	9°35'59
opposition	6170 Mar 31 09:03	11° <u>♁</u> 42'55	7°19'17	minimum elong	6176 Oct 11 14:28	22° <u>♁</u> 28'27	9°36'00
min. Earth dist.	6170 Apr 02 22:12	11° <u>♁</u> 39'19	36.08962 AU	morning rise	6176 Oct 24 01:11	22° <u>♁</u> 52'02	
direct	6170 Jun 20 00:10	10° <u>♁</u> 30'33		retrograde	6177 Jan 23 02:13	24° <u>♁</u> 35'13	
evening set	6170 Sep 17 12:24	12° <u>♁</u> 04'21		opposition	6177 Apr 11 13:26	23° <u>♁</u> 21'28	10°22'05
max. Earth dist.	6170 Sep 28 22:28	12° <u>♁</u> 24'41	37.94434 AU	min. Earth dist.	6177 Apr 14 04:24	23° <u>♁</u> 17'35	34.30023 AU
				direct	6177 Jun 30 20:45	22° <u>♁</u> 06'00	
conjunction	6170 Oct 01 18:40	12° <u>♁</u> 29'48	7°08'41	evening set	6177 Oct 01 13:44	23° <u>♁</u> 51'20	
minimum elong	6170 Oct 01 18:27	12° <u>♁</u> 29'47	7°08'41	max. Earth dist.	6177 Oct 10 18:27	24° <u>♁</u> 08'52	36.14413 AU
morning rise	6170 Oct 15 23:38	12° <u>♁</u> 55'13					
retrograde	6171 Jan 12 22:36	14° <u>♁</u> 29'18		conjunction	6177 Oct 13 16:42	24° <u>♁</u> 14'30	10°00'06
opposition	6171 Apr 02 04:11	13° <u>♁</u> 17'52	7°45'30	minimum elong	6177 Oct 13 16:22	24° <u>♁</u> 14'29	10°00'07
min. Earth dist.	6171 Apr 04 17:01	13° <u>♁</u> 14'16	35.82922 AU	morning rise	6177 Oct 25 18:03	24° <u>♁</u> 37'35	
direct	6171 Jun 21 20:14	12° <u>♁</u> 05'03		retrograde	6178 Jan 25 04:06	26° <u>♁</u> 22'32	

opposition	6178 Apr 13 13:30	25° <u>08</u> '24	10°47'44	direct	6184 Jul 13 06:22	5° <u>09</u> '37	
min. Earth dist.	6178 Apr 16 04:14	25° <u>04</u> '30	34.05053 AU	evening set	6184 Oct 18 10:05	7° <u>10</u> '25	
direct	6178 Jul 02 21:30	23° <u>52</u> '29		max. Earth dist.	6184 Oct 24 04:33	7° <u>22</u> '14	34.41888 AU
evening set	6178 Oct 04 02:05	25° <u>39</u> '46					
max. Earth dist.	6178 Oct 12 19:33	25° <u>56</u> '35	35.89224 AU	conjunction	6184 Oct 27 03:14	7° <u>28</u> '18	12°40'30
				minimum elong	6184 Oct 27 02:53	7° <u>28</u> '16	12°40'32
conjunction	6178 Oct 15 19:23	26° <u>02</u> '24	10°24'01	morning rise	6184 Nov 04 19:01	7° <u>46</u> '05	
minimum elong	6178 Oct 15 19:05	26° <u>02</u> '23	10°24'02	retrograde	6185 Feb 07 19:43	9° <u>45</u> '37	
morning rise	6178 Oct 27 11:22	26° <u>24</u> '56		opposition	6185 Apr 26 11:09	8° <u>28</u> '25	13°38'12
retrograde	6179 Jan 27 08:15	28° <u>11</u> '44		min. Earth dist.	6185 Apr 29 01:56	8° <u>24</u> '20	32.35445 AU
opposition	6179 Apr 15 14:12	26° <u>57</u> '11	11°13'11	direct	6185 Jul 15 12:35	7° <u>09</u> '01	
min. Earth dist.	6179 Apr 18 05:42	26° <u>53</u> '13	33.80180 AU	evening set	6185 Oct 21 09:05	9° <u>12</u> '27	
direct	6179 Jul 04 19:41	25° <u>40</u> '47		max. Earth dist.	6185 Oct 26 11:55	9° <u>23</u> '03	34.18616 AU
evening set	6179 Oct 06 15:42	27° <u>30</u> '06					
max. Earth dist.	6179 Oct 14 23:26	27° <u>46</u> '18	35.64120 AU	conjunction	6185 Oct 29 11:05	9° <u>29</u> '13	13°01'30
				minimum elong	6185 Oct 29 10:42	9° <u>29</u> '11	13°01'31
conjunction	6179 Oct 17 22:59	27° <u>52</u> '08	10°47'42	morning rise	6185 Nov 06 11:54	9° <u>45</u> '52	
minimum elong	6179 Oct 17 22:38	27° <u>52</u> '07	10°47'43	retrograde	6186 Feb 10 04:38	11° <u>47</u> '56	
morning rise	6179 Oct 29 04:38	28° <u>14</u> '05		opposition	6186 Apr 28 17:28	10° <u>30</u> '19	14°00'27
	6180 Jan 15 22:31	0° <u>00</u> '		min. Earth dist.	6186 May 01 08:11	10° <u>26</u> '13	32.12740 AU
retrograde	6180 Jan 29 09:55	0° <u>02</u> '47		direct	6186 Jul 17 16:49	9° <u>10</u> '28	
	6180 Feb 12 01:41	30° <u>00</u> '		evening set	6186 Oct 24 10:16	11° <u>16</u> '42	
opposition	6180 Apr 16 15:53	28° <u>47</u> '49	11°38'22	max. Earth dist.	6186 Oct 28 22:30	11° <u>26</u> '07	33.95882 AU
min. Earth dist.	6180 Apr 19 07:46	28° <u>43</u> '47	33.55410 AU				
direct	6180 Jul 05 19:59	27° <u>30</u> '56		conjunction	6186 Oct 31 20:00	11° <u>32</u> '12	13°21'49
evening set	6180 Oct 08 06:41	29° <u>22</u> '20		minimum elong	6186 Oct 31 19:39	11° <u>32</u> '10	13°21'50
max. Earth dist.	6180 Oct 16 02:56	29° <u>37</u> '45	35.39156 AU	morning rise	6186 Nov 08 04:27	11° <u>47</u> '37	
				retrograde	6187 Feb 12 12:40	13° <u>52</u> '19	
conjunction	6180 Oct 19 02:58	29° <u>43</u> '42	11°11'04	opposition	6187 May 01 00:39	12° <u>34</u> '20	14°21'57
minimum elong	6180 Oct 19 02:38	29° <u>43</u> '41	11°11'06	min. Earth dist.	6187 May 03 14:39	12° <u>30</u> '15	31.90575 AU
	6180 Oct 27 08:56	0° <u>00</u> '		direct	6187 Jul 19 22:48	11° <u>14</u> '03	
morning rise	6180 Oct 29 21:54	0° <u>04</u> '59		evening set	6187 Oct 27 13:41	13° <u>23</u> '15	
retrograde	6181 Jan 30 15:13	1° <u>55</u> '40		max. Earth dist.	6187 Oct 31 08:04	13° <u>31</u> '13	33.73714 AU
opposition	6181 Apr 18 18:09	0° <u>40</u> '15	12°03'13				
min. Earth dist.	6181 Apr 21 09:42	0° <u>36</u> '13	33.30816 AU	conjunction	6187 Nov 03 05:34	13° <u>37</u> '21	13°41'22
	6181 May 16 14:27	30° <u>00</u> '		minimum elong	6187 Nov 03 05:11	13° <u>37</u> '19	13°41'24
direct	6181 Jul 07 20:50	29° <u>22</u> '51		morning rise	6187 Nov 09 20:23	13° <u>51</u> '21	
	6181 Aug 27 23:58	0° <u>00</u> '			6187 Dec 14 16:57	15° <u>00</u> '	
evening set	6181 Oct 10 23:06	1° <u>16</u> '27		retrograde	6188 Feb 15 00:29	15° <u>58</u> '53	
max. Earth dist.	6181 Oct 18 07:39	1° <u>31</u> '04	35.14370 AU		6188 Apr 20 00:00	15° <u>00</u> '	
				opposition	6188 May 02 08:41	14° <u>40</u> '33	14°42'38
conjunction	6181 Oct 21 07:58	1° <u>37</u> '05	11°34'06	min. Earth dist.	6188 May 04 21:44	14° <u>36</u> '30	31.68970 AU
minimum elong	6181 Oct 21 07:37	1° <u>37</u> '03	11°34'08	direct	6188 Jul 21 03:59	13° <u>19</u> '52	
morning rise	6181 Oct 31 15:20	1° <u>57</u> '37			6188 Oct 14 09:37	15° <u>00</u> '	
retrograde	6182 Feb 01 20:07	3° <u>50</u> '23		evening set	6188 Oct 29 19:38	15° <u>32</u> '14	
opposition	6182 Apr 20 21:12	2° <u>34</u> '30	12°27'43	max. Earth dist.	6188 Nov 01 19:42	15° <u>38</u> '38	33.52074 AU
min. Earth dist.	6182 Apr 23 13:45	2° <u>30</u> '23	33.06441 AU				
direct	6182 Jul 09 21:50	1° <u>16</u> '36		conjunction	6188 Nov 04 15:59	15° <u>44</u> '43	14°00'08
evening set	6182 Oct 13 17:17	3° <u>12</u> '30		minimum elong	6188 Nov 04 15:38	15° <u>44</u> '41	14°00'10
max. Earth dist.	6182 Oct 20 13:58	3° <u>26</u> '16	34.89852 AU	morning rise	6188 Nov 10 11:18	15° <u>57</u> '08	
				retrograde	6189 Feb 16 10:10	18° <u>07</u> '41	
conjunction	6182 Oct 23 13:42	3° <u>32</u> '18	11°56'44	opposition	6189 May 04 17:44	16° <u>49</u> '01	15°02'27
minimum elong	6182 Oct 23 13:21	3° <u>32</u> '16	11°56'46	min. Earth dist.	6189 May 07 06:56	16° <u>44</u> '56	31.47869 AU
morning rise	6182 Nov 02 08:43	3° <u>52</u> '01		direct	6189 Jul 23 10:25	15° <u>27</u> '56	
retrograde	6183 Feb 04 03:31	5° <u>46</u> '55		evening set	6189 Nov 02 05:17	17° <u>43</u> '43	
opposition	6183 Apr 23 00:59	4° <u>30</u> '35	12°51'45	max. Earth dist.	6189 Nov 04 07:44	17° <u>48</u> '15	33.30948 AU
min. Earth dist.	6183 Apr 25 16:27	4° <u>26</u> '31	32.82369 AU				
direct	6183 Jul 12 02:24	3° <u>12</u> '10		conjunction	6189 Nov 07 03:21	17° <u>54</u> '20	14°18'01
evening set	6183 Oct 16 12:46	5° <u>10</u> '27		minimum elong	6189 Nov 07 02:59	17° <u>54</u> '18	14°18'03
max. Earth dist.	6183 Oct 22 19:40	5° <u>23</u> '13	34.65656 AU	morning rise	6189 Nov 12 00:30	18° <u>04</u> '53	
				retrograde	6190 Feb 18 23:10	20° <u>18</u> '42	
conjunction	6183 Oct 25 20:02	5° <u>29</u> '21	12°18'53	opposition	6190 May 07 03:25	18° <u>59</u> '41	15°21'19
minimum elong	6183 Oct 25 19:40	5° <u>29</u> '19	12°18'55	min. Earth dist.	6190 May 09 15:21	18° <u>55</u> '40	31.27260 AU
morning rise	6183 Nov 04 01:58	5° <u>48</u> '09		direct	6190 Jul 25 20:17	17° <u>38</u> '12	
retrograde	6184 Feb 06 11:44	7° <u>45</u> '19		evening set	6190 Nov 05 20:04	19° <u>57</u> '51	
opposition	6184 Apr 24 05:42	6° <u>28</u> '32	13°15'16	max. Earth dist.	6190 Nov 06 20:18	20° <u>00</u> '02	33.10295 AU
min. Earth dist.	6184 Apr 26 21:47	6° <u>24</u> '24	32.58677 AU				

conjunction	6190 Nov 09 15:41	20° \mathbb{M} 06'09	14°34'59	direct	6198 Aug 13 04:43	6° \mathbb{A} 11'02	
minimum elong	6190 Nov 09 15:22	20° \mathbb{M} 06'08	14°35'01	max. Earth dist.	6198 Nov 26 11:31	8° \mathbb{A} 44'08	31.67437 AU
morning rise	6190 Nov 13 10:33	20° \mathbb{M} 14'25					
retrograde	6191 Feb 21 11:49	22° \mathbb{M} 31'54		conjunction	6198 Nov 28 19:34	8° \mathbb{A} 49'34	16°08'20
opposition	6191 May 09 14:18	21° \mathbb{M} 12'32	15°39'11	minimum elong	6198 Nov 28 19:25	8° \mathbb{A} 49'33	16°08'22
min. Earth dist.	6191 May 12 02:46	21° \mathbb{M} 08'28	31.07122 AU	retrograde	6199 Mar 12 20:28	11° \mathbb{A} 24'41	
direct	6191 Jul 28 05:15	19° \mathbb{M} 50'39		opposition	6199 May 28 09:17	10° \mathbb{A} 02'40	17°15'37
evening set	6191 Nov 09 21:19	22° \mathbb{M} 15'02		min. Earth dist.	6199 May 30 10:49	9° \mathbb{A} 59'12	29.68783 AU
max. Earth dist.	6191 Nov 09 10:42	22° \mathbb{M} 14'03	32.90143 AU	direct	6199 Aug 15 21:23	8° \mathbb{A} 37'49	
				max. Earth dist.	6199 Nov 29 08:09	11° \mathbb{A} 12'12	31.53419 AU
conjunction	6191 Nov 12 04:41	22° \mathbb{M} 20'06	14°50'57				
minimum elong	6191 Nov 12 04:21	22° \mathbb{M} 20'04	14°50'59	conjunction	6199 Dec 01 13:49	11° \mathbb{A} 17'25	16°13'29
morning rise	6191 Nov 14 11:20	22° \mathbb{M} 25'07		minimum elong	6199 Dec 01 13:40	11° \mathbb{A} 17'25	16°13'32
retrograde	6192 Feb 24 02:19	24° \mathbb{M} 47'11		retrograde	6200 Mar 15 14:07	13° \mathbb{A} 53'30	
opposition	6192 May 11 01:55	23° \mathbb{M} 27'28	15°55'57	opposition	6200 May 31 03:05	12° \mathbb{A} 31'16	17°20'31
min. Earth dist.	6192 May 13 12:42	23° \mathbb{M} 23'30	30.87475 AU	min. Earth dist.	6200 Jun 02 03:41	12° \mathbb{A} 27'52	29.55357 AU
direct	6192 Jul 29 17:18	22° \mathbb{M} 05'10		direct	6200 Aug 18 12:26	11° \mathbb{A} 06'12	
max. Earth dist.	6192 Nov 11 00:23	24° \mathbb{M} 29'59	32.70510 AU	max. Earth dist.	6200 Dec 02 05:27	13° \mathbb{A} 41'47	31.40423 AU
conjunction	6192 Nov 13 18:30	24° \mathbb{M} 36'05	15°05'52	conjunction	6200 Dec 04 08:36	13° \mathbb{A} 46'47	16°16'57
minimum elong	6192 Nov 13 18:12	24° \mathbb{M} 36'04	15°05'54	minimum elong	6200 Dec 04 08:31	13° \mathbb{A} 46'47	16°16'59
retrograde	6193 Feb 25 18:05	27° \mathbb{M} 04'29		retrograde	6201 Mar 18 09:10	16° \mathbb{A} 23'45	
opposition	6193 May 13 14:22	25° \mathbb{M} 44'24	16°11'34	opposition	6201 Jun 02 21:13	15° \mathbb{A} 01'20	17°23'35
min. Earth dist.	6193 May 16 01:16	25° \mathbb{M} 40'23	30.68370 AU	min. Earth dist.	6201 Jun 04 18:55	14° \mathbb{A} 58'07	29.42900 AU
direct	6193 Aug 01 05:01	24° \mathbb{M} 21'41		direct	6201 Aug 21 07:31	13° \mathbb{A} 36'04	
max. Earth dist.	6193 Nov 13 17:07	26° \mathbb{M} 48'03	32.51459 AU	max. Earth dist.	6201 Dec 05 02:27	16° \mathbb{A} 12'43	31.28398 AU
conjunction	6193 Nov 16 09:07	26° \mathbb{M} 54'01	15°19'37	conjunction	6201 Dec 07 03:58	16° \mathbb{A} 17'35	16°18'41
minimum elong	6193 Nov 16 08:49	26° \mathbb{M} 53'59	15°19'39	minimum elong	6201 Dec 07 03:53	16° \mathbb{A} 17'35	16°18'44
retrograde	6194 Feb 28 09:06	29° \mathbb{M} 23'39		retrograde	6202 Mar 21 04:22	18° \mathbb{A} 55'21	
opposition	6194 May 16 03:38	28° \mathbb{M} 03'13	16°25'56	opposition	6202 Jun 05 16:15	17° \mathbb{A} 32'46	17°24'47
min. Earth dist.	6194 May 18 13:02	27° \mathbb{M} 59'17	30.49842 AU	min. Earth dist.	6202 Jun 07 13:02	17° \mathbb{A} 29'37	29.31381 AU
direct	6194 Aug 03 19:33	26° \mathbb{M} 40'06		direct	6202 Aug 24 01:23	16° \mathbb{A} 07'20	
max. Earth dist.	6194 Nov 16 08:29	29° \mathbb{M} 07'47	32.33040 AU	max. Earth dist.	6202 Dec 08 01:13	18° \mathbb{A} 45'04	31.17333 AU
conjunction	6194 Nov 19 00:20	29° \mathbb{M} 13'47	15°32'10	conjunction	6202 Dec 09 23:46	18° \mathbb{A} 49'40	16°18'41
minimum elong	6194 Nov 19 00:05	29° \mathbb{M} 13'46	15°32'12	minimum elong	6202 Dec 09 23:45	18° \mathbb{A} 49'40	16°18'43
	6194 Dec 09 19:04	0° \mathbb{A}		retrograde	6203 Mar 24 00:27	21° \mathbb{A} 28'08	
retrograde	6195 Mar 03 01:08	1° \mathbb{A} 44'37		opposition	6203 Jun 08 11:45	20° \mathbb{A} 05'26	17°24'06
opposition	6195 May 18 17:37	0° \mathbb{A} 23'49	16°38'56	min. Earth dist.	6203 Jun 10 05:49	20° \mathbb{A} 02'28	29.20768 AU
min. Earth dist.	6195 May 21 02:20	0° \mathbb{A} 19'56	30.31982 AU	direct	6203 Aug 26 21:59	18° \mathbb{A} 39'50	
	6195 Jun 02 08:51	30° \mathbb{R} \mathbb{M}		max. Earth dist.	6203 Dec 10 22:41	21° \mathbb{A} 18'24	31.07204 AU
direct	6195 Aug 06 08:24	29° \mathbb{M} 00'19					
	6195 Oct 07 11:17	0° \mathbb{A}		conjunction	6203 Dec 12 19:55	21° \mathbb{A} 22'53	16°16'54
max. Earth dist.	6195 Nov 19 03:00	1° \mathbb{A} 29'30	32.15339 AU	minimum elong	6203 Dec 12 19:54	21° \mathbb{A} 22'53	16°16'57
conjunction	6195 Nov 21 16:20	1° \mathbb{A} 35'18	15°43'23	retrograde	6204 Mar 25 21:16	24° \mathbb{A} 01'59	
minimum elong	6195 Nov 21 16:04	1° \mathbb{A} 35'17	15°43'26	opposition	6204 Jun 10 07:51	22° \mathbb{A} 39'08	17°21'29
retrograde	6196 Mar 04 16:53	4° \mathbb{A} 07'17		min. Earth dist.	6204 Jun 12 00:32	22° \mathbb{A} 36'15	29.11080 AU
opposition	6196 May 20 08:31	2° \mathbb{A} 46'08	16°50'31	direct	6204 Aug 28 16:58	21° \mathbb{A} 13'24	
min. Earth dist.	6196 May 22 15:53	2° \mathbb{A} 42'19	30.14857 AU	max. Earth dist.	6204 Dec 12 22:35	23° \mathbb{A} 52'53	30.98031 AU
direct	6196 Aug 07 23:13	1° \mathbb{A} 22'15					
max. Earth dist.	6196 Nov 20 20:12	3° \mathbb{A} 52'42	31.98453 AU	conjunction	6204 Dec 14 16:23	23° \mathbb{A} 57'03	16°13'19
conjunction	6196 Nov 23 08:38	3° \mathbb{A} 58'28	15°53'13	minimum elong	6204 Dec 14 16:27	23° \mathbb{A} 57'04	16°13'21
minimum elong	6196 Nov 23 08:25	3° \mathbb{A} 58'27	15°53'15	retrograde	6205 Mar 28 17:50	26° \mathbb{A} 36'40	
retrograde	6197 Mar 07 10:47	6° \mathbb{A} 31'33		opposition	6205 Jun 13 04:19	25° \mathbb{A} 13'41	17°16'55
opposition	6197 May 23 00:02	5° \mathbb{A} 10'05	17°00'32	min. Earth dist.	6205 Jun 14 18:42	25° \mathbb{A} 10'59	29.02300 AU
min. Earth dist.	6197 May 25 05:25	5° \mathbb{A} 06'22	29.98574 AU	direct	6205 Aug 31 15:24	23° \mathbb{A} 47'51	
direct	6197 Aug 10 13:35	3° \mathbb{A} 45'50		max. Earth dist.	6205 Dec 15 20:30	26° \mathbb{A} 27'56	30.89815 AU
max. Earth dist.	6197 Nov 23 16:01	6° \mathbb{A} 17'40	31.82454 AU	conjunction	6205 Dec 17 13:06	26° \mathbb{A} 31'59	16°07'55
conjunction	6197 Nov 26 01:52	6° \mathbb{A} 23'14	16°01'34	minimum elong	6205 Dec 17 13:10	26° \mathbb{A} 32'00	16°07'58
minimum elong	6197 Nov 26 01:39	6° \mathbb{A} 23'13	16°01'36	retrograde	6206 Mar 31 14:50	29° \mathbb{A} 12'00	
retrograde	6198 Mar 10 01:54	8° \mathbb{A} 57'22		opposition	6206 Jun 16 01:00	27° \mathbb{A} 48'55	17°10'22
opposition	6198 May 25 16:19	7° \mathbb{A} 35'36	17°08'56	min. Earth dist.	6206 Jun 17 13:16	27° \mathbb{A} 46'21	28.94475 AU
min. Earth dist.	6198 May 27 20:36	7° \mathbb{A} 31'57	29.83191 AU	direct	6206 Sep 03 12:10	26° \mathbb{A} 22'59	
				max. Earth dist.	6206 Dec 18 21:08	29° \mathbb{A} 03'47	30.82596 AU

conjunction	6206 Dec 20 10:07	29° $\overline{\text{X}}$ 07'29	16°00'41	retrograde	6214 Apr 21 06:00	19° $\overline{\text{Z}}$ 57'17	
minimum elong	6206 Dec 20 10:14	29° $\overline{\text{X}}$ 07'30	16°00'43	opposition	6214 Jul 07 03:41	18° $\overline{\text{Z}}$ 34'18	15°06'41
	6207 Jan 11 14:44	0° $\overline{\text{Z}}$		min. Earth dist.	6214 Jul 07 17:24	18° $\overline{\text{Z}}$ 33'20	28.71880 AU
retrograde	6207 Apr 03 11:01	1° $\overline{\text{Z}}$ 47'48		direct	6214 Sep 24 18:14	17° $\overline{\text{Z}}$ 08'44	
opposition	6207 Jun 18 22:11	0° $\overline{\text{Z}}$ 24'37	17°01'51	evening set	6215 Jan 04 10:35	19° $\overline{\text{Z}}$ 38'12	
min. Earth dist.	6207 Jun 20 08:24	0° $\overline{\text{Z}}$ 22'12	28.87624 AU				
	6207 Jul 03 14:35	30° $\overline{\text{R}}$ $\overline{\text{X}}$		conjunction	6215 Jan 10 05:47	19° $\overline{\text{Z}}$ 52'08	13°57'03
direct	6207 Sep 06 10:19	28° $\overline{\text{X}}$ 58'36		minimum elong	6215 Jan 10 06:08	19° $\overline{\text{Z}}$ 52'10	13°57'05
	6207 Nov 06 21:08	0° $\overline{\text{Z}}$		max. Earth dist.	6215 Jan 09 16:48	19° $\overline{\text{Z}}$ 50'50	30.66682 AU
max. Earth dist.	6207 Dec 21 19:32	1° $\overline{\text{Z}}$ 39'48	30.76423 AU	morning rise	6215 Jan 16 01:19	20° $\overline{\text{Z}}$ 06'06	
				retrograde	6215 Apr 24 00:50	22° $\overline{\text{Z}}$ 31'23	
conjunction	6207 Dec 23 06:50	1° $\overline{\text{Z}}$ 43'21	15°51'36	opposition	6215 Jul 10 00:51	21° $\overline{\text{Z}}$ 08'33	14°42'48
minimum elong	6207 Dec 23 06:59	1° $\overline{\text{Z}}$ 43'22	15°51'39	min. Earth dist.	6215 Jul 10 12:13	21° $\overline{\text{Z}}$ 07'45	28.74384 AU
retrograde	6208 Apr 05 09:07	4° $\overline{\text{Z}}$ 23'51		direct	6215 Sep 27 14:34	19° $\overline{\text{Z}}$ 43'11	
opposition	6208 Jun 20 19:25	3° $\overline{\text{Z}}$ 00'36	16°51'19	evening set	6216 Jan 06 07:44	22° $\overline{\text{Z}}$ 09'53	
min. Earth dist.	6208 Jun 22 02:34	2° $\overline{\text{Z}}$ 58'23	28.81827 AU				
direct	6208 Sep 08 08:14	1° $\overline{\text{Z}}$ 34'31		conjunction	6216 Jan 13 01:08	22° $\overline{\text{Z}}$ 25'59	13°33'57
max. Earth dist.	6208 Dec 23 20:21	4° $\overline{\text{Z}}$ 16'13	30.71350 AU	minimum elong	6216 Jan 13 01:31	22° $\overline{\text{Z}}$ 26'01	13°34'00
				max. Earth dist.	6216 Jan 12 15:57	22° $\overline{\text{Z}}$ 25'04	30.70076 AU
conjunction	6208 Dec 25 03:48	4° $\overline{\text{Z}}$ 19'23	15°40'40	morning rise	6216 Jan 19 18:44	22° $\overline{\text{Z}}$ 42'07	
minimum elong	6208 Dec 25 04:00	4° $\overline{\text{Z}}$ 19'24	15°40'42	retrograde	6216 Apr 25 18:56	25° $\overline{\text{Z}}$ 04'43	
retrograde	6209 Apr 08 03:49	6° $\overline{\text{Z}}$ 59'58		opposition	6216 Jul 11 21:43	23° $\overline{\text{Z}}$ 42'02	14°17'17
opposition	6209 Jun 23 16:45	5° $\overline{\text{Z}}$ 36'40	16°38'47	min. Earth dist.	6216 Jul 12 06:08	23° $\overline{\text{Z}}$ 41'27	28.77951 AU
min. Earth dist.	6209 Jun 24 22:05	5° $\overline{\text{Z}}$ 34'35	28.77132 AU	direct	6216 Sep 29 13:57	22° $\overline{\text{Z}}$ 16'54	
direct	6209 Sep 11 05:50	4° $\overline{\text{Z}}$ 10'33		evening set	6217 Jan 07 06:44	24° $\overline{\text{Z}}$ 40'58	
max. Earth dist.	6209 Dec 26 19:28	6° $\overline{\text{Z}}$ 52'30	30.67458 AU				
				conjunction	6217 Jan 14 20:09	24° $\overline{\text{Z}}$ 59'00	13°09'24
conjunction	6209 Dec 28 00:33	6° $\overline{\text{Z}}$ 55'25	15°27'52	minimum elong	6217 Jan 14 20:31	24° $\overline{\text{Z}}$ 59'02	13°09'26
minimum elong	6209 Dec 28 00:46	6° $\overline{\text{Z}}$ 55'27	15°27'55	max. Earth dist.	6217 Jan 14 12:51	24° $\overline{\text{Z}}$ 58'16	30.74526 AU
retrograde	6210 Apr 11 00:42	9° $\overline{\text{Z}}$ 36'00		morning rise	6217 Jan 22 09:46	25° $\overline{\text{Z}}$ 17'03	
opposition	6210 Jun 26 14:10	8° $\overline{\text{Z}}$ 12'40	16°24'14	retrograde	6217 Apr 28 13:55	27° $\overline{\text{Z}}$ 37'06	
min. Earth dist.	6210 Jun 27 15:41	8° $\overline{\text{Z}}$ 10'52	28.73620 AU	opposition	6217 Jul 14 18:06	26° $\overline{\text{Z}}$ 14'35	13°50'16
direct	6210 Sep 14 04:24	6° $\overline{\text{Z}}$ 46'35		min. Earth dist.	6217 Jul 14 23:42	26° $\overline{\text{Z}}$ 14'12	28.82564 AU
				direct	6217 Oct 02 10:39	24° $\overline{\text{Z}}$ 49'40	
conjunction	6210 Dec 30 21:14	9° $\overline{\text{Z}}$ 31'21	15°13'14	evening set	6218 Jan 09 07:07	27° $\overline{\text{Z}}$ 11'13	
minimum elong	6210 Dec 30 21:29	9° $\overline{\text{Z}}$ 31'23	15°13'15				
max. Earth dist.	6210 Dec 29 19:58	9° $\overline{\text{Z}}$ 28'49	30.64791 AU	conjunction	6218 Jan 17 14:52	27° $\overline{\text{Z}}$ 30'59	12°43'30
retrograde	6211 Apr 13 20:17	12° $\overline{\text{Z}}$ 11'50		minimum elong	6218 Jan 17 15:15	27° $\overline{\text{Z}}$ 31'01	12°43'32
opposition	6211 Jun 29 11:47	10° $\overline{\text{Z}}$ 48'32	16°07'42	max. Earth dist.	6218 Jan 17 11:19	27° $\overline{\text{Z}}$ 30'38	30.80005 AU
min. Earth dist.	6211 Jun 30 11:13	10° $\overline{\text{Z}}$ 46'53	28.71339 AU	morning rise	6218 Jan 25 22:32	27° $\overline{\text{Z}}$ 50'46	
direct	6211 Sep 17 00:50	9° $\overline{\text{Z}}$ 22'30			6218 Apr 09 14:14	0° \approx	
evening set	6212 Jan 01 09:58	12° $\overline{\text{Z}}$ 03'53		retrograde	6218 May 01 06:55	0° \approx 08'22	
					6218 May 23 12:11	30° $\overline{\text{R}}$ $\overline{\text{Z}}$	
conjunction	6212 Jan 02 17:42	12° $\overline{\text{Z}}$ 07'05	14°56'46	opposition	6218 Jul 17 14:19	28° $\overline{\text{Z}}$ 46'02	13°21'48
minimum elong	6212 Jan 02 17:59	12° $\overline{\text{Z}}$ 07'07	14°56'49	min. Earth dist.	6218 Jul 17 17:42	28° $\overline{\text{Z}}$ 45'48	28.88165 AU
max. Earth dist.	6212 Jan 01 19:28	12° $\overline{\text{Z}}$ 04'51	30.63415 AU	direct	6218 Oct 05 08:32	27° $\overline{\text{Z}}$ 21'22	
morning rise	6212 Jan 04 02:00	12° $\overline{\text{Z}}$ 10'20		evening set	6219 Jan 11 08:17	29° $\overline{\text{Z}}$ 40'26	
retrograde	6212 Apr 15 16:02	14° $\overline{\text{Z}}$ 47'23			6219 Jan 19 14:50	0° \approx	
opposition	6212 Jul 01 09:09	13° $\overline{\text{Z}}$ 24'09	15°49'13				
min. Earth dist.	6212 Jul 02 04:28	13° $\overline{\text{Z}}$ 22'47	28.70312 AU	conjunction	6219 Jan 20 08:46	0° \approx 01'46	12°16'19
direct	6212 Sep 18 23:13	11° $\overline{\text{Z}}$ 58'15		minimum elong	6219 Jan 20 09:09	0° \approx 01'49	12°16'20
evening set	6213 Jan 01 03:34	14° $\overline{\text{Z}}$ 34'15		max. Earth dist.	6219 Jan 20 06:54	0° \approx 01'35	30.86480 AU
				morning rise	6219 Jan 29 09:18	0° \approx 23'07	
conjunction	6213 Jan 04 13:57	14° $\overline{\text{Z}}$ 42'32	14°38'32	retrograde	6219 May 04 01:50	2° \approx 38'22	
minimum elong	6213 Jan 04 14:15	14° $\overline{\text{Z}}$ 42'34	14°38'34	opposition	6219 Jul 20 10:04	1° \approx 16'13	12°52'02
max. Earth dist.	6213 Jan 03 18:58	14° $\overline{\text{Z}}$ 40'37	30.63299 AU	min. Earth dist.	6219 Jul 20 10:03	1° \approx 16'13	28.94764 AU
morning rise	6213 Jan 08 00:48	14° $\overline{\text{Z}}$ 50'52			6219 Sep 15 18:12	30° $\overline{\text{R}}$ $\overline{\text{Z}}$	
retrograde	6213 Apr 18 10:28	17° $\overline{\text{Z}}$ 22'34		direct	6219 Oct 08 06:28	29° $\overline{\text{Z}}$ 51'46	
opposition	6213 Jul 04 06:34	15° $\overline{\text{Z}}$ 59'27	15°28'51		6219 Oct 30 10:33	0° \approx	
min. Earth dist.	6213 Jul 04 23:48	15° $\overline{\text{Z}}$ 58'14	28.70512 AU	evening set	6220 Jan 13 10:06	2° \approx 08'27	
direct	6213 Sep 21 20:10	14° $\overline{\text{Z}}$ 33'42					
evening set	6214 Jan 02 16:23	17° $\overline{\text{Z}}$ 06'11		conjunction	6220 Jan 23 02:20	2° \approx 31'13	11°47'56
				minimum elong	6220 Jan 23 02:44	2° \approx 31'15	11°47'59
conjunction	6214 Jan 07 10:01	17° $\overline{\text{Z}}$ 17'36	14°18'36	max. Earth dist.	6220 Jan 23 04:21	2° \approx 31'25	30.93945 AU
minimum elong	6214 Jan 07 10:21	17° $\overline{\text{Z}}$ 17'38	14°18'39	morning rise	6220 Feb 01 18:18	2° \approx 53'58	
max. Earth dist.	6214 Jan 06 18:27	17° $\overline{\text{Z}}$ 16'02	30.64412 AU	retrograde	6220 May 05 17:01	5° \approx 06'57	
morning rise	6214 Jan 12 04:04	17° $\overline{\text{Z}}$ 29'02		opposition	6220 Jul 22 05:18	3° \approx 44'58	12°21'01

min. Earth dist.	6220 Jul 22 03:31	3° \approx 45'05	29.02349 AU	conjunction	6227 Feb 08 09:18	19° \approx 13'04	8°03'37
direct	6220 Oct 10 03:31	2° \approx 20'47		minimum elong	6227 Feb 08 09:37	19° \approx 13'06	8°03'38
evening set	6221 Jan 14 12:26	4° \approx 35'07		max. Earth dist.	6227 Feb 09 07:38	19° \approx 15'11	31.75284 AU
				morning rise	6227 Feb 21 10:20	19° \approx 42'27	
conjunction	6221 Jan 24 19:03	4° \approx 59'10	11°18'28	retrograde	6227 May 22 15:27	21° \approx 41'42	
minimum elong	6221 Jan 24 19:26	4° \approx 59'12	11°18'29	min. Earth dist.	6227 Aug 08 04:55	20° \approx 23'04	29.84819 AU
max. Earth dist.	6221 Jan 24 22:58	4° \approx 59'33	31.02414 AU	opposition	6227 Aug 09 03:09	20° \approx 21'36	8°17'44
morning rise	6221 Feb 04 01:30	5° \approx 23'12		direct	6227 Oct 28 09:17	18° \approx 59'50	
retrograde	6221 May 08 09:53	7° \approx 33'58		evening set	6228 Jan 28 11:18	20° \approx 59'52	
opposition	6221 Jul 24 23:52	6° \approx 12'11	11°48'52				
min. Earth dist.	6221 Jul 24 18:15	6° \approx 12'34	29.10948 AU	conjunction	6228 Feb 10 21:13	21° \approx 29'51	7°29'03
direct	6221 Oct 13 00:11	4° \approx 48'14		minimum elong	6228 Feb 10 21:32	21° \approx 29'53	7°29'05
evening set	6222 Jan 16 15:00	7° \approx 00'18		max. Earth dist.	6228 Feb 11 21:07	21° \approx 32'06	31.90837 AU
				morning rise	6228 Feb 24 06:37	21° \approx 59'46	
conjunction	6222 Jan 27 11:12	7° \approx 25'32	10°47'59	retrograde	6228 May 24 04:18	23° \approx 57'24	
minimum elong	6222 Jan 27 11:36	7° \approx 25'34	10°48'01	opposition	6228 Aug 10 17:20	22° \approx 37'37	7°40'31
max. Earth dist.	6222 Jan 27 18:54	7° \approx 26'17	31.11899 AU	min. Earth dist.	6228 Aug 09 16:13	22° \approx 39'17	30.00496 AU
morning rise	6222 Feb 07 06:59	7° \approx 50'43		direct	6228 Oct 29 23:18	21° \approx 16'17	
retrograde	6222 May 11 00:16	9° \approx 59'21		evening set	6229 Jan 29 15:05	23° \approx 14'34	
opposition	6222 Jul 27 18:02	8° \approx 37'46	11°15'41				
min. Earth dist.	6222 Jul 27 10:29	8° \approx 38'17	29.20598 AU	conjunction	6229 Feb 12 08:38	23° \approx 45'01	6°54'09
direct	6222 Oct 15 19:43	7° \approx 14'07		minimum elong	6229 Feb 12 08:55	23° \approx 45'03	6°54'10
evening set	6223 Jan 18 18:00	9° \approx 23'59		max. Earth dist.	6229 Feb 13 11:46	23° \approx 47'33	32.07177 AU
				morning rise	6229 Feb 26 01:18	24° \approx 15'25	
conjunction	6223 Jan 30 02:35	9° \approx 50'15	10°16'35	retrograde	6229 May 26 13:49	26° \approx 11'27	
minimum elong	6223 Jan 30 02:57	9° \approx 50'17	10°16'36	min. Earth dist.	6229 Aug 12 04:31	24° \approx 53'45	30.16924 AU
max. Earth dist.	6223 Jan 30 12:45	9° \approx 51'14	31.22462 AU	opposition	6229 Aug 13 07:02	24° \approx 52'01	7°03'02
morning rise	6223 Feb 10 10:46	10° \approx 16'28		direct	6229 Nov 01 13:49	23° \approx 31'06	
retrograde	6223 May 13 15:14	12° \approx 23'04		evening set	6230 Jan 31 19:06	25° \approx 27'42	
opposition	6223 Jul 30 11:30	11° \approx 01'43	10°41'33				
min. Earth dist.	6223 Jul 29 23:53	11° \approx 02'30	29.31340 AU	conjunction	6230 Feb 14 19:10	25° \approx 58'32	6°19'02
direct	6223 Oct 18 15:16	9° \approx 38'23		minimum elong	6230 Feb 14 19:26	25° \approx 58'33	6°19'03
evening set	6224 Jan 20 20:59	11° \approx 46'07		max. Earth dist.	6230 Feb 15 23:24	26° \approx 01'08	32.24218 AU
				morning rise	6230 Feb 28 18:38	26° \approx 29'18	
conjunction	6224 Feb 01 17:13	12° \approx 13'19	9°44'20	retrograde	6230 May 29 01:38	28° \approx 23'49	
minimum elong	6224 Feb 01 17:36	12° \approx 13'21	9°44'22	opposition	6230 Aug 15 19:56	27° \approx 04'43	6°25'21
max. Earth dist.	6224 Feb 02 06:43	12° \approx 14'37	31.34109 AU	min. Earth dist.	6230 Aug 14 14:17	27° \approx 06'39	30.34049 AU
morning rise	6224 Feb 13 12:58	12° \approx 40'29		direct	6230 Nov 04 04:35	25° \approx 44'12	
retrograde	6224 May 15 03:27	14° \approx 45'07		evening set	6231 Feb 02 23:01	27° \approx 39'10	
opposition	6224 Aug 01 04:28	13° \approx 24'02	10°06'34				
min. Earth dist.	6224 Jul 31 14:39	13° \approx 24'58	29.43187 AU	conjunction	6231 Feb 17 05:11	28° \approx 10'19	5°43'45
direct	6224 Oct 20 08:12	12° \approx 01'04		minimum elong	6231 Feb 17 05:25	28° \approx 10'21	5°43'46
evening set	6225 Jan 22 00:23	14° \approx 06'46		max. Earth dist.	6231 Feb 18 12:24	28° \approx 13'11	32.41900 AU
				morning rise	6231 Mar 03 10:29	28° \approx 41'24	
conjunction	6225 Feb 03 07:19	14° \approx 34'48	9°11'22		6231 Apr 14 19:34	0° \approx	
minimum elong	6225 Feb 03 07:39	14° \approx 34'50	9°11'23	retrograde	6231 May 31 11:06	0° \approx 34'27	
max. Earth dist.	6225 Feb 03 23:47	14° \approx 36'23	31.46843 AU		6231 Jul 19 02:57	30° \approx	
	6225 Feb 14 07:57	15° \approx		min. Earth dist.	6231 Aug 17 01:36	29° \approx 17'39	30.51816 AU
morning rise	6225 Feb 15 13:37	15° \approx 02'48		opposition	6231 Aug 18 08:20	29° \approx 15'40	5°47'34
retrograde	6225 May 17 15:42	17° \approx 05'33		direct	6231 Nov 06 19:16	27° \approx 55'33	
opposition	6225 Aug 03 20:29	15° \approx 44'47	9°30'52	evening set	6232 Feb 05 02:55	29° \approx 48'56	
min. Earth dist.	6225 Aug 03 03:18	15° \approx 45'56	29.56086 AU		6232 Feb 10 06:32	0° \approx	
	6225 Sep 02 04:44	15° \approx					
direct	6225 Oct 23 01:46	14° \approx 22'12		conjunction	6232 Feb 19 14:18	0° \approx 20'19	5°08'23
	6225 Dec 10 19:24	15° \approx		minimum elong	6232 Feb 19 14:30	0° \approx 20'20	5°08'24
evening set	6226 Jan 24 03:56	16° \approx 25'56		max. Earth dist.	6232 Feb 20 22:40	0° \approx 23'16	32.60189 AU
				morning rise	6232 Mar 05 00:58	0° \approx 51'38	
conjunction	6226 Feb 05 20:40	16° \approx 54'43	8°37'45	retrograde	6232 Jun 01 20:01	2° \approx 43'16	
minimum elong	6226 Feb 05 21:00	16° \approx 54'45	8°37'47	min. Earth dist.	6232 Aug 18 10:05	1° \approx 26'57	30.70182 AU
max. Earth dist.	6226 Feb 06 15:37	16° \approx 56'31	31.60586 AU	opposition	6232 Aug 19 19:46	1° \approx 24'47	5°09'46
morning rise	6226 Feb 18 12:53	17° \approx 23'27		direct	6232 Nov 08 09:09	0° \approx 05'02	
retrograde	6226 May 20 04:32	19° \approx 24'25		evening set	6233 Feb 06 06:45	1° \approx 56'54	
opposition	6226 Aug 06 12:09	18° \approx 03'58	8°54'33				
min. Earth dist.	6226 Aug 05 16:22	18° \approx 05'18	29.69997 AU	conjunction	6233 Feb 20 22:45	2° \approx 28'27	4°33'01
direct	6226 Oct 25 16:06	16° \approx 41'47		minimum elong	6233 Feb 20 22:56	2° \approx 28'28	4°33'02
evening set	6227 Jan 26 07:27	18° \approx 43'39		max. Earth dist.	6233 Feb 22 09:25	2° \approx 31'35	32.79041 AU
				morning rise	6233 Mar 07 14:01	2° \approx 59'56	

retrograde	6233 Jun 04 01:48	4°♄50'12		minimum elong	6240 Mar 06 12:55	16°♄33'59	0°30'18
min. Earth dist.	6233 Aug 20 19:38	3°♄34'15	30.89152 AU	max. Earth dist.	6240 Mar 08 13:37	16°♄38'08	34.28211 AU
opposition	6233 Aug 22 06:29	3°♄32'01	4°32'00	morning rise	6240 Mar 21 19:39	17°♄05'04	
direct	6233 Nov 10 21:06	2°♄12'38		retrograde	6240 Jun 17 10:45	18°♄47'43	
evening set	6234 Feb 08 10:27	4°♄03'02		min. Earth dist.	6240 Sep 03 12:56	17°♄34'47	32.39728 AU
				opposition	6240 Sep 05 13:46	17°♄31'46	0°14'26
conjunction	6234 Feb 23 06:27	4°♄34'41	3°57'43	direct	6240 Nov 25 10:31	16°♄15'11	
minimum elong	6234 Feb 23 06:37	4°♄34'42	3°57'44	desc. node	6241 Feb 02 15:34	17°♄22'01	
max. Earth dist.	6234 Feb 24 19:02	4°♄37'58	32.98492 AU	evening set	6241 Feb 21 08:31	17°♄57'18	
morning rise	6234 Mar 10 01:38	5°♄06'16					
retrograde	6234 Jun 06 07:14	6°♄55'13		conjunction	6241 Mar 08 15:46	18°♄28'12	-0°03'09
min. Earth dist.	6234 Aug 23 03:09	5°♄39'42	31.08741 AU	minimum elong	6241 Mar 08 15:46	18°♄28'12	0°03'09
opposition	6234 Aug 24 16:30	5°♄37'19	3°54'22	behind sun begin	6241 Mar 08 09:26	18°♄27'41	
direct	6234 Nov 13 09:52	4°♄18'18		behind sun end	6241 Mar 08 22:07	18°♄28'42	
evening set	6235 Feb 10 13:56	6°♄07'17		max. Earth dist.	6241 Mar 10 17:23	18°♄32'24	34.51639 AU
				morning rise	6241 Mar 23 22:34	18°♄59'03	
conjunction	6235 Feb 25 13:08	6°♄38'59	3°22'32	retrograde	6241 Jun 19 13:02	20°♄40'52	
minimum elong	6235 Feb 25 13:16	6°♄38'59	3°22'32	min. Earth dist.	6241 Sep 05 15:55	19°♄28'23	32.63317 AU
max. Earth dist.	6235 Feb 27 03:36	6°♄42'24	33.18551 AU	opposition	6241 Sep 07 18:50	19°♄25'16	-0°20'44
morning rise	6235 Mar 12 11:46	7°♄10'36		direct	6241 Nov 27 17:48	18°♄09'06	
retrograde	6235 Jun 08 13:06	8°♄58'20		evening set	6242 Feb 23 11:21	19°♄50'18	
min. Earth dist.	6235 Aug 25 10:16	7°♄43'14	31.29006 AU				
opposition	6235 Aug 27 01:52	7°♄40'43	3°16'55	conjunction	6242 Mar 10 18:03	20°♄20'55	-0°35'59
direct	6235 Nov 15 18:57	6°♄22'04		minimum elong	6242 Mar 10 18:02	20°♄20'55	0°35'59
evening set	6236 Feb 12 17:17	8°♄09'44		max. Earth dist.	6242 Mar 12 20:59	20°♄25'12	34.75377 AU
				morning rise	6242 Mar 26 00:30	20°♄51'31	
conjunction	6236 Feb 27 19:20	8°♄41'24	2°47'31	retrograde	6242 Jun 21 14:00	22°♄32'33	
minimum elong	6236 Feb 27 19:27	8°♄41'24	2°47'32	min. Earth dist.	6242 Sep 07 19:42	21°♄20'27	32.87223 AU
max. Earth dist.	6236 Feb 29 12:37	8°♄45'03	33.39274 AU	opposition	6242 Sep 09 23:35	21°♄17'18	-0°55'24
morning rise	6236 Mar 13 20:34	9°♄13'01		direct	6242 Nov 29 22:47	20°♄01'33	
retrograde	6236 Jun 09 16:25	10°♄59'35		evening set	6243 Feb 25 13:50	21°♄41'51	
min. Earth dist.	6236 Aug 26 16:54	9°♄44'53	31.49941 AU				
opposition	6236 Aug 28 10:18	9°♄42'17	2°39'43	conjunction	6243 Mar 12 19:45	22°♄12'10	-1°08'24
direct	6236 Nov 17 05:24	8°♄24'01		minimum elong	6243 Mar 12 19:43	22°♄12'10	1°08'24
evening set	6237 Feb 13 20:40	10°♄10'25		max. Earth dist.	6243 Mar 15 00:15	22°♄16'33	34.99377 AU
				morning rise	6243 Mar 28 01:13	22°♄42'27	
conjunction	6237 Mar 01 00:42	10°♄42'02	2°12'44	retrograde	6243 Jun 23 13:15	24°♄22'45	
minimum elong	6237 Mar 01 00:47	10°♄42'02	2°12'44	min. Earth dist.	6243 Sep 09 22:41	23°♄11'03	33.11355 AU
max. Earth dist.	6237 Mar 02 19:02	10°♄45'44	33.60646 AU	opposition	6243 Sep 12 03:36	23°♄07'50	-1°29'29
morning rise	6237 Mar 16 04:16	11°♄13'35		direct	6243 Dec 02 04:45	21°♄52'29	
retrograde	6237 Jun 11 22:28	12°♄59'04		evening set	6244 Feb 27 16:26	23°♄31'57	
min. Earth dist.	6237 Aug 28 21:52	11°♄44'51	31.71545 AU				
opposition	6237 Aug 30 18:07	11°♄42'05	2°02'48	conjunction	6244 Mar 13 20:52	24°♄01'55	-1°40'17
direct	6237 Nov 19 12:04	10°♄24'13		minimum elong	6244 Mar 13 20:48	24°♄01'55	1°40'17
evening set	6238 Feb 15 23:42	12°♄09'27		max. Earth dist.	6244 Mar 16 01:37	24°♄06'18	35.23561 AU
				morning rise	6244 Mar 29 01:13	24°♄31'53	
conjunction	6238 Mar 03 05:27	12°♄40'57	1°38'14	retrograde	6244 Jun 24 14:44	26°♄11'29	
minimum elong	6238 Mar 03 05:31	12°♄40'57	1°38'15	min. Earth dist.	6244 Sep 11 00:16	25°♄00'10	33.35688 AU
max. Earth dist.	6238 Mar 05 02:47	12°♄44'53	33.82636 AU	opposition	6244 Sep 13 06:50	24°♄56'53	-2°02'59
morning rise	6238 Mar 18 10:27	13°♄12'23		direct	6244 Dec 03 06:59	23°♄41'54	
retrograde	6238 Jun 14 01:48	14°♄56'53		evening set	6245 Feb 28 18:40	25°♄20'34	
min. Earth dist.	6238 Aug 31 04:08	13°♄43'03	31.93753 AU				
opposition	6238 Sep 02 01:23	13°♄40'13	1°26'15	conjunction	6245 Mar 15 21:31	25°♄50'11	-2°11'39
direct	6238 Nov 21 19:43	12°♄22'47		minimum elong	6245 Mar 15 21:27	25°♄50'10	2°11'40
evening set	6239 Feb 18 02:49	14°♄06'55		max. Earth dist.	6245 Mar 18 04:10	25°♄54'41	35.47912 AU
				morning rise	6245 Mar 31 00:01	26°♄19'47	
conjunction	6239 Mar 05 09:28	14°♄38'15	1°04'04	retrograde	6245 Jun 26 13:56	27°♄58'42	
minimum elong	6239 Mar 05 09:31	14°♄38'15	1°04'05	min. Earth dist.	6245 Sep 13 02:54	26°♄47'41	33.60186 AU
max. Earth dist.	6239 Mar 07 07:40	14°♄42'13	34.05185 AU	opposition	6245 Sep 15 09:36	26°♄44'25	-2°35'53
morning rise	6239 Mar 20 15:42	15°♄09'32		direct	6245 Dec 05 11:05	25°♄29'47	
retrograde	6239 Jun 16 07:10	16°♄53'04		evening set	6246 Mar 02 20:42	27°♄07'42	
min. Earth dist.	6239 Sep 02 07:40	15°♄39'45	32.16510 AU				
opposition	6239 Sep 04 07:49	15°♄36'46	0°50'07	conjunction	6246 Mar 17 21:15	27°♄36'54	-2°42'28
direct	6239 Nov 24 03:17	14°♄19'45		minimum elong	6246 Mar 17 21:10	27°♄36'54	2°42'28
evening set	6240 Feb 20 05:39	16°♄02'51		max. Earth dist.	6246 Mar 20 03:55	27°♄41'22	35.72427 AU
				morning rise	6246 Apr 01 21:47	28°♄06'06	
conjunction	6240 Mar 06 12:54	16°♄33'59	0°30'18	retrograde	6246 Jun 28 15:28	29°♄44'25	

min. Earth dist.	6246 Sep 15 02:48	28° $\mathbf{\text{X}}$ 33'47	33.84887 AU	conjunction	6253 Mar 29 04:44	9° $\mathbf{\text{Y}}$ 24'58	-6°01'07
opposition	6246 Sep 17 11:40	28° $\mathbf{\text{X}}$ 30'24	-3°08'09	minimum elong	6253 Mar 29 04:33	9° $\mathbf{\text{Y}}$ 24'57	6°01'08
direct	6246 Dec 07 12:47	27° $\mathbf{\text{X}}$ 16'07		max. Earth dist.	6253 Mar 31 19:00	9° $\mathbf{\text{Y}}$ 29'48	37.50553 AU
evening set	6247 Mar 04 22:27	28° $\mathbf{\text{X}}$ 53'19		morning rise	6253 Apr 12 04:47	9° $\mathbf{\text{Y}}$ 50'52	
				retrograde	6253 Jul 09 20:25	11° $\mathbf{\text{Y}}$ 26'00	
conjunction	6247 Mar 19 20:33	29° $\mathbf{\text{X}}$ 22'07	-3°12'42	min. Earth dist.	6253 Sep 26 17:29	10° $\mathbf{\text{Y}}$ 17'51	35.64672 AU
minimum elong	6247 Mar 19 20:27	29° $\mathbf{\text{X}}$ 22'06	3°12'42	opposition	6253 Sep 29 09:56	10° $\mathbf{\text{Y}}$ 14'09	-6°35'07
max. Earth dist.	6247 Mar 22 05:21	29° $\mathbf{\text{X}}$ 26'43	35.97145 AU	direct	6253 Dec 19 14:31	9° $\mathbf{\text{Y}}$ 02'27	
morning rise	6247 Apr 03 18:32	29° $\mathbf{\text{X}}$ 50'54		evening set	6254 Mar 17 05:23	10° $\mathbf{\text{Y}}$ 35'57	
	6247 Apr 08 14:50	0° $\mathbf{\text{Y}}$					
retrograde	6247 Jun 30 15:05	1° $\mathbf{\text{Y}}$ 28'37		conjunction	6254 Mar 31 00:27	11° $\mathbf{\text{Y}}$ 01'18	-6°26'57
min. Earth dist.	6247 Sep 17 04:03	0° $\mathbf{\text{Y}}$ 18'16	34.09839 AU	minimum elong	6254 Mar 31 00:16	11° $\mathbf{\text{Y}}$ 01'17	6°26'58
opposition	6247 Sep 19 13:11	0° $\mathbf{\text{Y}}$ 14'53	-3°39'46	max. Earth dist.	6254 Apr 02 16:08	11° $\mathbf{\text{Y}}$ 06'13	37.76579 AU
	6247 Sep 30 01:49	30° $\mathbf{\text{R}}$ $\mathbf{\text{X}}$		morning rise	6254 Apr 13 19:44	11° $\mathbf{\text{Y}}$ 26'41	
direct	6247 Dec 09 14:06	29° $\mathbf{\text{X}}$ 00'57		retrograde	6254 Jul 11 16:29	13° $\mathbf{\text{Y}}$ 01'31	
	6248 Feb 13 21:36	0° $\mathbf{\text{Y}}$		min. Earth dist.	6254 Sep 28 15:50	11° $\mathbf{\text{Y}}$ 53'37	35.90870 AU
evening set	6248 Mar 05 23:58	0° $\mathbf{\text{Y}}$ 37'29		opposition	6254 Oct 01 07:51	11° $\mathbf{\text{Y}}$ 49'58	-7°01'55
				direct	6254 Dec 21 12:04	10° $\mathbf{\text{Y}}$ 38'38	
conjunction	6248 Mar 20 19:11	1° $\mathbf{\text{Y}}$ 05'50	-3°42'20	evening set	6255 Mar 19 05:50	12° $\mathbf{\text{Y}}$ 11'45	
minimum elong	6248 Mar 20 19:03	1° $\mathbf{\text{Y}}$ 05'49	3°42'20				
max. Earth dist.	6248 Mar 23 04:39	1° $\mathbf{\text{Y}}$ 10'27	36.22126 AU	conjunction	6255 Apr 01 19:53	12° $\mathbf{\text{Y}}$ 36'32	-6°52'10
morning rise	6248 Apr 04 14:20	1° $\mathbf{\text{Y}}$ 34'11		minimum elong	6255 Apr 01 19:41	12° $\mathbf{\text{Y}}$ 36'32	6°52'11
retrograde	6248 Jul 01 12:16	3° $\mathbf{\text{Y}}$ 11'21		max. Earth dist.	6255 Apr 04 11:36	12° $\mathbf{\text{Y}}$ 41'25	38.02568 AU
min. Earth dist.	6248 Sep 18 02:42	2° $\mathbf{\text{Y}}$ 01'24	34.35064 AU	morning rise	6255 Apr 15 10:07	13° $\mathbf{\text{Y}}$ 01'22	
opposition	6248 Sep 20 13:56	1° $\mathbf{\text{Y}}$ 57'55	-4°10'43	retrograde	6255 Jul 13 11:16	14° $\mathbf{\text{Y}}$ 35'55	
direct	6248 Dec 10 17:20	0° $\mathbf{\text{Y}}$ 44'21		min. Earth dist.	6255 Sep 30 12:01	13° $\mathbf{\text{Y}}$ 28'21	36.16992 AU
evening set	6249 Mar 08 01:23	2° $\mathbf{\text{Y}}$ 20'16		opposition	6255 Oct 03 05:02	13° $\mathbf{\text{Y}}$ 24'40	-7°28'00
				direct	6255 Dec 23 11:27	12° $\mathbf{\text{Y}}$ 13'39	
conjunction	6249 Mar 22 17:16	2° $\mathbf{\text{Y}}$ 48'09	-4°11'21	evening set	6256 Mar 20 06:08	13° $\mathbf{\text{Y}}$ 46'25	
minimum elong	6249 Mar 22 17:08	2° $\mathbf{\text{Y}}$ 48'09	4°11'22				
max. Earth dist.	6249 Mar 25 04:03	2° $\mathbf{\text{Y}}$ 52'51	36.47367 AU	conjunction	6256 Apr 02 14:50	14° $\mathbf{\text{Y}}$ 10'39	-7°16'44
morning rise	6249 Apr 06 09:17	3° $\mathbf{\text{Y}}$ 16'03		minimum elong	6256 Apr 02 14:38	14° $\mathbf{\text{Y}}$ 10'39	7°16'44
retrograde	6249 Jul 03 09:08	4° $\mathbf{\text{Y}}$ 52'43		max. Earth dist.	6256 Apr 05 06:42	14° $\mathbf{\text{Y}}$ 15'31	38.28437 AU
min. Earth dist.	6249 Sep 20 02:03	3° $\mathbf{\text{Y}}$ 43'07	34.60582 AU	morning rise	6256 Apr 15 23:57	14° $\mathbf{\text{Y}}$ 34'56	
opposition	6249 Sep 22 14:11	3° $\mathbf{\text{Y}}$ 39'36	-4°41'00	retrograde	6256 Jul 14 05:54	16° $\mathbf{\text{Y}}$ 09'12	
direct	6249 Dec 12 19:08	2° $\mathbf{\text{Y}}$ 26'24		min. Earth dist.	6256 Oct 01 08:48	15° $\mathbf{\text{Y}}$ 01'54	36.42992 AU
evening set	6250 Mar 10 02:29	4° $\mathbf{\text{Y}}$ 01'45		opposition	6256 Oct 04 01:56	14° $\mathbf{\text{Y}}$ 58'13	-7°53'25
				direct	6256 Dec 24 09:14	13° $\mathbf{\text{Y}}$ 47'32	
conjunction	6250 Mar 24 14:55	4° $\mathbf{\text{Y}}$ 29'10	-4°39'45	evening set	6257 Mar 22 06:09	15° $\mathbf{\text{Y}}$ 19'57	
minimum elong	6250 Mar 24 14:47	4° $\mathbf{\text{Y}}$ 29'09	4°39'45				
max. Earth dist.	6250 Mar 27 03:12	4° $\mathbf{\text{Y}}$ 33'57	36.72890 AU	conjunction	6257 Apr 04 09:28	15° $\mathbf{\text{Y}}$ 43'37	-7°40'40
morning rise	6250 Apr 08 03:16	4° $\mathbf{\text{Y}}$ 56'35		minimum elong	6257 Apr 04 09:15	15° $\mathbf{\text{Y}}$ 43'36	7°40'42
retrograde	6250 Jul 05 04:24	6° $\mathbf{\text{Y}}$ 32'49		max. Earth dist.	6257 Apr 07 02:03	15° $\mathbf{\text{Y}}$ 48'30	38.54164 AU
min. Earth dist.	6250 Sep 22 00:44	5° $\mathbf{\text{Y}}$ 23'34	34.86354 AU	morning rise	6257 Apr 17 12:54	16° $\mathbf{\text{Y}}$ 07'19	
opposition	6250 Sep 24 13:55	5° $\mathbf{\text{Y}}$ 20'00	-5°10'35	retrograde	6257 Jul 15 21:56	17° $\mathbf{\text{Y}}$ 41'20	
direct	6250 Dec 14 21:12	4° $\mathbf{\text{Y}}$ 07'10		min. Earth dist.	6257 Oct 03 05:16	16° $\mathbf{\text{Y}}$ 34'17	36.68826 AU
evening set	6251 Mar 12 03:26	5° $\mathbf{\text{Y}}$ 42'00		opposition	6257 Oct 05 22:15	16° $\mathbf{\text{Y}}$ 30'37	-8°18'09
				direct	6257 Dec 26 08:01	15° $\mathbf{\text{Y}}$ 20'14	
conjunction	6251 Mar 26 11:50	6° $\mathbf{\text{Y}}$ 08'55	-5°07'31	evening set	6258 Mar 24 06:07	16° $\mathbf{\text{Y}}$ 52'20	
minimum elong	6251 Mar 26 11:41	6° $\mathbf{\text{Y}}$ 08'54	5°07'32				
max. Earth dist.	6251 Mar 29 00:30	6° $\mathbf{\text{Y}}$ 13'42	36.98632 AU	conjunction	6258 Apr 06 03:30	17° $\mathbf{\text{Y}}$ 15'24	-8°03'59
morning rise	6251 Apr 09 20:32	6° $\mathbf{\text{Y}}$ 35'52		minimum elong	6258 Apr 06 03:18	17° $\mathbf{\text{Y}}$ 15'23	8°04'00
retrograde	6251 Jul 07 01:55	8° $\mathbf{\text{Y}}$ 11'41		max. Earth dist.	6258 Apr 08 19:26	17° $\mathbf{\text{Y}}$ 20'12	38.79737 AU
min. Earth dist.	6251 Sep 23 22:19	7° $\mathbf{\text{Y}}$ 02'51	35.12347 AU	morning rise	6258 Apr 19 01:21	17° $\mathbf{\text{Y}}$ 38'31	
opposition	6251 Sep 26 13:10	6° $\mathbf{\text{Y}}$ 59'12	-5°39'28	retrograde	6258 Jul 17 15:57	19° $\mathbf{\text{Y}}$ 12'19	
direct	6251 Dec 16 19:36	5° $\mathbf{\text{Y}}$ 46'45		min. Earth dist.	6258 Oct 05 00:05	18° $\mathbf{\text{Y}}$ 05'32	36.94546 AU
evening set	6252 Mar 13 04:12	7° $\mathbf{\text{Y}}$ 21'06		opposition	6258 Oct 07 18:10	18° $\mathbf{\text{Y}}$ 01'50	-8°42'13
				direct	6258 Dec 28 03:48	16° $\mathbf{\text{Y}}$ 51'43	
conjunction	6252 Mar 27 08:35	7° $\mathbf{\text{Y}}$ 47'30	-5°34'38	evening set	6259 Mar 26 05:33	18° $\mathbf{\text{Y}}$ 23'30	
minimum elong	6252 Mar 27 08:25	7° $\mathbf{\text{Y}}$ 47'30	5°34'38				
max. Earth dist.	6252 Mar 29 23:11	7° $\mathbf{\text{Y}}$ 52'25	37.24545 AU	conjunction	6259 Apr 07 21:06	18° $\mathbf{\text{Y}}$ 46'00	-8°26'40
morning rise	6252 Apr 10 12:59	8° $\mathbf{\text{Y}}$ 13'56		minimum elong	6259 Apr 07 20:53	18° $\mathbf{\text{Y}}$ 45'59	8°26'42
retrograde	6252 Jul 07 21:56	9° $\mathbf{\text{Y}}$ 49'25		max. Earth dist.	6259 Apr 10 14:35	18° $\mathbf{\text{Y}}$ 50'53	39.05204 AU
min. Earth dist.	6252 Sep 24 21:00	8° $\mathbf{\text{Y}}$ 40'52	35.38473 AU	morning rise	6259 Apr 20 12:54	19° $\mathbf{\text{Y}}$ 08'31	
opposition	6252 Sep 27 11:45	8° $\mathbf{\text{Y}}$ 37'14	-6°07'39	retrograde	6259 Jul 19 09:23	20° $\mathbf{\text{Y}}$ 42'07	
direct	6252 Dec 17 18:22	7° $\mathbf{\text{Y}}$ 25'10		min. Earth dist.	6259 Oct 06 20:07	19° $\mathbf{\text{Y}}$ 35'31	37.20182 AU
evening set	6253 Mar 15 04:57	8° $\mathbf{\text{Y}}$ 59'05		opposition	6259 Oct 09 13:38	19° $\mathbf{\text{Y}}$ 31'52	-9°05'36

direct	6259 Dec 29 23:23	18° Υ 22'02			6266 May 30 00:53	0° \mathcal{B}
evening set	6260 Mar 27 05:02	19° Υ 53'33		retrograde	6266 Jul 29 03:41	0° \mathcal{B} 43'32
					6266 Sep 30 02:16	30° $\mathcal{R}\Upsilon$
conjunction	6260 Apr 08 14:16	20° Υ 15'27 -8°48'43		min. Earth dist.	6266 Oct 16 21:41	29° Υ 38'48 38.98627 AU
minimum elong	6260 Apr 08 14:04	20° Υ 15'26 8°48'44		opposition	6266 Oct 19 17:27	29° Υ 35'09 -11°30'22
max. Earth dist.	6260 Apr 11 07:19	20° Υ 20'16 39.30618 AU		direct	6267 Jan 09 02:41	28° Υ 27'28
morning rise	6260 Apr 20 23:52	20° Υ 37'22		evening set	6267 Apr 08 20:09	29° Υ 58'05
retrograde	6260 Jul 20 03:44	22° Υ 10'47			6267 Apr 09 23:25	0° \mathcal{B}
min. Earth dist.	6260 Oct 07 13:18	21° Υ 04'30 37.45790 AU				
opposition	6260 Oct 10 08:20	21° Υ 00'47 -9°28'17		conjunction	6267 Apr 19 04:12	0° \mathcal{B} 15'38 -11°05'35
direct	6260 Dec 30 16:58	19° Υ 51'14		minimum elong	6267 Apr 19 03:59	0° \mathcal{B} 15'37 11°05'36
evening set	6261 Mar 29 04:14	21° Υ 22'32		max. Earth dist.	6267 Apr 21 23:31	0° \mathcal{B} 20'25 41.07277 AU
				morning rise	6267 Apr 29 12:31	0° \mathcal{B} 33'13
conjunction	6261 Apr 10 07:03	21° Υ 43'49 -9°10'08		retrograde	6267 Jul 30 18:31	2° \mathcal{B} 06'16
minimum elong	6261 Apr 10 06:50	21° Υ 43'48 9°10'09		min. Earth dist.	6267 Oct 18 13:14	1° \mathcal{B} 01'50 39.23525 AU
max. Earth dist.	6261 Apr 13 01:07	21° Υ 48'40 39.56014 AU		opposition	6267 Oct 21 09:38	0° \mathcal{B} 58'09 -11°48'29
morning rise	6261 Apr 22 10:17	22° Υ 05'08			6267 Dec 14 14:09	30° $\mathcal{R}\Upsilon$
retrograde	6261 Jul 21 20:17	23° Υ 38'24		direct	6268 Jan 10 18:38	29° Υ 50'45
min. Earth dist.	6261 Oct 09 08:09	22° Υ 32'20 37.71405 AU			6268 Feb 06 14:48	0° \mathcal{B}
opposition	6261 Oct 12 02:56	22° Υ 28'39 -9°50'18		evening set	6268 Apr 09 18:33	1° \mathcal{B} 21'20
direct	6262 Jan 01 11:57	21° Υ 19'24				
evening set	6262 Mar 31 03:09	22° Υ 50'31		conjunction	6268 Apr 19 18:43	1° \mathcal{B} 38'15 -11°22'46
				minimum elong	6268 Apr 19 18:31	1° \mathcal{B} 38'14 11°22'48
conjunction	6262 Apr 11 23:22	23° Υ 11'12 -9°30'55		max. Earth dist.	6268 Apr 22 13:40	1° \mathcal{B} 42'58 41.31805 AU
minimum elong	6262 Apr 11 23:10	23° Υ 11'11 9°30'56		morning rise	6268 Apr 29 19:21	1° \mathcal{B} 55'11
max. Earth dist.	6262 Apr 14 18:01	23° Υ 16'04 39.81424 AU		retrograde	6268 Jul 31 08:40	3° \mathcal{B} 28'15
morning rise	6262 Apr 23 19:51	23° Υ 31'54		min. Earth dist.	6268 Oct 19 05:54	2° \mathcal{B} 23'59 39.48107 AU
retrograde	6262 Jul 23 10:51	25° Υ 05'04		opposition	6268 Oct 22 01:30	2° \mathcal{B} 20'22 -12°06'01
min. Earth dist.	6262 Oct 11 01:20	23° Υ 59'18 37.97011 AU		direct	6269 Jan 11 11:15	1° \mathcal{B} 13'14
opposition	6262 Oct 13 20:59	23° Υ 55'35 -10°11'37		evening set	6269 Apr 11 16:50	2° \mathcal{B} 43'48
direct	6263 Jan 03 07:59	22° Υ 46'38				
evening set	6263 Apr 02 02:03	24° Υ 17'36		conjunction	6269 Apr 21 09:04	3° \mathcal{B} 00'03 -11°39'24
				minimum elong	6269 Apr 21 08:52	3° \mathcal{B} 00'02 11°39'25
conjunction	6263 Apr 13 15:20	24° Υ 37'40 -9°51'04		max. Earth dist.	6269 Apr 24 04:12	3° \mathcal{B} 04'46 41.56010 AU
minimum elong	6263 Apr 13 15:06	24° Υ 37'39 9°51'05		morning rise	6269 May 01 01:28	3° \mathcal{B} 16'19
max. Earth dist.	6263 Apr 16 09:57	24° Υ 42'31 40.06811 AU		retrograde	6269 Aug 01 19:45	4° \mathcal{B} 49'25
morning rise	6263 Apr 25 05:08	24° Υ 57'46		min. Earth dist.	6269 Oct 20 21:58	3° \mathcal{B} 45'20 39.72336 AU
retrograde	6263 Jul 25 03:07	26° Υ 30'51		opposition	6269 Oct 23 17:05	3° \mathcal{B} 41'45 -12°22'59
min. Earth dist.	6263 Oct 12 18:20	25° Υ 25'23 38.22599 AU		direct	6270 Jan 13 05:53	2° \mathcal{B} 34'52
opposition	6263 Oct 15 14:37	25° Υ 21'39 -10°32'17		evening set	6270 Apr 13 14:56	4° \mathcal{B} 05'24
direct	6264 Jan 05 01:42	24° Υ 13'01				
evening set	6264 Apr 03 00:41	25° Υ 43'52		conjunction	6270 Apr 22 22:46	4° \mathcal{B} 20'59 -11°55'30
				minimum elong	6270 Apr 22 22:35	4° \mathcal{B} 20'59 11°55'31
conjunction	6264 Apr 14 07:06	26° Υ 03'18 -10°10'36		max. Earth dist.	6270 Apr 25 16:48	4° \mathcal{B} 25'36 41.79872 AU
minimum elong	6264 Apr 14 06:54	26° Υ 03'17 10°10'37		morning rise	6270 May 02 07:01	4° \mathcal{B} 36'36
max. Earth dist.	6264 Apr 17 02:54	26° Υ 08'13 40.32153 AU		retrograde	6270 Aug 03 09:38	6° \mathcal{B} 09'44
morning rise	6264 Apr 25 13:45	26° Υ 22'47		min. Earth dist.	6270 Oct 22 12:47	5° \mathcal{B} 05'51 39.96252 AU
retrograde	6264 Jul 25 17:02	27° Υ 55'50		opposition	6270 Oct 25 08:21	5° \mathcal{B} 02'16 -12°39'22
min. Earth dist.	6264 Oct 13 12:05	26° Υ 50'36 38.48095 AU		direct	6271 Jan 14 21:19	3° \mathcal{B} 55'36
opposition	6264 Oct 16 07:53	26° Υ 46'54 -10°52'17		evening set	6271 Apr 15 12:52	5° \mathcal{B} 26'07
direct	6265 Jan 05 20:41	25° Υ 38'36				
evening set	6265 Apr 04 23:18	27° Υ 09'21		conjunction	6271 Apr 24 12:22	5° \mathcal{B} 41'02 -12°11'03
				minimum elong	6271 Apr 24 12:10	5° \mathcal{B} 41'01 12°11'04
conjunction	6265 Apr 15 22:19	27° Υ 28'10 -10°29'31		max. Earth dist.	6271 Apr 27 07:16	5° \mathcal{B} 45'41 42.03442 AU
minimum elong	6265 Apr 15 22:06	27° Υ 28'09 10°29'32		morning rise	6271 May 03 12:05	5° \mathcal{B} 55'58
max. Earth dist.	6265 Apr 18 17:14	27° Υ 32'59 40.57381 AU		retrograde	6271 Aug 04 22:11	7° \mathcal{B} 29'09
morning rise	6265 Apr 26 21:47	27° Υ 47'01		min. Earth dist.	6271 Oct 24 04:43	6° \mathcal{B} 25'23 40.19897 AU
retrograde	6265 Jul 27 10:20	29° Υ 20'03		opposition	6271 Oct 26 23:06	6° \mathcal{B} 21'52 -12°55'10
min. Earth dist.	6265 Oct 15 03:53	28° Υ 15'08 38.73459 AU		direct	6272 Jan 16 13:53	5° \mathcal{B} 15'24
opposition	6265 Oct 18 00:45	28° Υ 11'24 -11°11'38		evening set	6272 Apr 16 10:51	6° \mathcal{B} 45'56
direct	6266 Jan 07 11:59	27° Υ 03'25				
evening set	6266 Apr 06 21:44	28° Υ 34'05		conjunction	6272 Apr 25 01:32	7° \mathcal{B} 00'10 -12°26'03
				minimum elong	6272 Apr 25 01:21	7° \mathcal{B} 00'09 12°26'05
conjunction	6266 Apr 17 13:26	28° Υ 52'16 -10°47'50		max. Earth dist.	6272 Apr 27 19:32	7° \mathcal{B} 04'44 42.26783 AU
minimum elong	6266 Apr 17 13:14	28° Υ 52'15 10°47'52		morning rise	6272 May 03 16:28	7° \mathcal{B} 14'26
max. Earth dist.	6266 Apr 20 09:24	28° Υ 57'08 40.82441 AU		retrograde	6272 Aug 05 13:22	8° \mathcal{B} 47'40
morning rise	6266 Apr 28 05:29	29° Υ 10'30		min. Earth dist.	6272 Oct 24 18:10	7° \mathcal{B} 44'07 40.43338 AU

opposition	6272 Oct 27 13:29	7° 8 40'34 -13°10'24	evening set	6279 Apr 28 20:41	15° 8 44'00
direct	6273 Jan 17 02:39	6° 8 34'19			
evening set	6273 Apr 18 08:33	8° 8 04'53	conjunction	6279 May 04 13:58	15° 8 53'08 -13°56'11
			minimum elong	6279 May 04 13:49	15° 8 53'08 13°56'12
conjunction	6273 Apr 26 14:17	8° 8 18'26 -12°40'31	max. Earth dist.	6279 May 07 07:53	15° 8 57'32 43.85400 AU
minimum elong	6273 Apr 26 14:06	8° 8 18'25 12°40'32	morning rise	6279 May 10 07:15	16° 8 02'17
max. Earth dist.	6273 Apr 29 08:48	8° 8 23'00 42.49939 AU	retrograde	6279 Aug 15 02:13	17° 8 36'54
morning rise	6273 May 04 20:18	8° 8 32'00	min. Earth dist.	6279 Nov 03 16:11	16° 8 34'41 42.02465 AU
retrograde	6273 Aug 07 03:37	10° 8 05'20	opposition	6279 Nov 06 10:04	16° 8 31'18 -14°41'25
min. Earth dist.	6273 Oct 26 09:02	9° 8 01'56 40.66624 AU	direct	6280 Jan 26 22:36	15° 8 26'41
opposition	6273 Oct 29 03:42	8° 8 58'26 -13°25'03	evening set	6280 Apr 29 19:40	16° 8 58'34
direct	6274 Jan 18 14:59	7° 8 52'24			
evening set	6274 Apr 20 06:23	9° 8 23'02	conjunction	6280 May 05 01:10	17° 8 06'53 -14°07'04
			minimum elong	6280 May 05 01:00	17° 8 06'53 14°07'06
conjunction	6274 Apr 28 02:56	9° 8 35'54 -12°54'25	max. Earth dist.	6280 May 07 18:03	17° 8 11'12 44.07010 AU
minimum elong	6274 Apr 28 02:45	9° 8 35'53 12°54'28	morning rise	6280 May 10 06:41	17° 8 15'12
max. Earth dist.	6274 Apr 30 21:45	9° 8 40'27 42.72970 AU	retrograde	6280 Aug 15 13:49	18° 8 50'10
morning rise	6274 May 05 23:33	9° 8 48'45	min. Earth dist.	6280 Nov 04 05:15	17° 8 48'06 42.24045 AU
retrograde	6274 Aug 08 13:59	11° 8 22'13	opposition	6280 Nov 06 22:20	17° 8 44'46 -14°52'22
min. Earth dist.	6274 Oct 27 22:22	10° 8 19'01 40.89767 AU	direct	6281 Jan 27 10:31	16° 8 40'23
opposition	6274 Oct 30 17:27	10° 8 15'31 -13°39'08	evening set	6281 May 01 19:23	18° 8 12'38
direct	6275 Jan 20 06:34	9° 8 09'42			
evening set	6275 Apr 22 04:06	10° 8 40'27	conjunction	6281 May 06 12:14	18° 8 20'05 -14°17'31
			minimum elong	6281 May 06 12:06	18° 8 20'05 14°17'33
conjunction	6275 Apr 29 15:05	10° 8 52'36 -13°07'48	max. Earth dist.	6281 May 09 05:21	18° 8 24'23 44.28212 AU
minimum elong	6275 Apr 29 14:55	10° 8 52'35 13°07'49	morning rise	6281 May 11 05:02	18° 8 27'32
max. Earth dist.	6275 May 02 09:14	10° 8 57'06 42.95857 AU	retrograde	6281 Aug 16 21:27	20° 8 02'53
morning rise	6275 May 07 02:18	11° 8 04'45	min. Earth dist.	6281 Nov 05 18:14	19° 8 00'57 42.45182 AU
retrograde	6275 Aug 10 01:20	12° 8 38'22	opposition	6281 Nov 08 10:17	18° 8 57'41 -15°02'52
min. Earth dist.	6275 Oct 29 11:39	11° 8 35'23 41.12770 AU	direct	6282 Jan 29 01:41	17° 8 53'30
opposition	6275 Nov 01 06:59	11° 8 31'52 -13°52'39	evening set	6282 May 03 20:00	19° 8 26'11
direct	6276 Jan 21 20:41	10° 8 26'18			
evening set	6276 Apr 23 01:56	11° 8 57'12	conjunction	6282 May 07 22:58	19° 8 32'41 -14°27'32
			minimum elong	6282 May 07 22:49	19° 8 32'40 14°27'34
conjunction	6276 Apr 30 03:14	12° 8 08'38 -13°20'39	max. Earth dist.	6282 May 10 14:20	19° 8 36'51 44.48993 AU
minimum elong	6276 Apr 30 03:03	12° 8 08'37 13°20'41	morning rise	6282 May 12 01:52	19° 8 39'11
max. Earth dist.	6276 May 02 22:20	12° 8 13'10 43.18588 AU	retrograde	6282 Aug 18 08:39	21° 8 15'01
morning rise	6276 May 07 04:33	12° 8 20'03	min. Earth dist.	6282 Nov 07 05:41	20° 8 13'15 42.65917 AU
retrograde	6276 Aug 10 11:37	13° 8 53'52	opposition	6282 Nov 09 21:55	20° 8 09'59 -15°12'54
min. Earth dist.	6276 Oct 30 01:42	12° 8 51'03 41.35580 AU	direct	6283 Jan 30 13:52	19° 8 05'59
opposition	6276 Nov 01 20:05	12° 8 47'35 -14°05'38	evening set	6283 May 05 22:04	20° 8 39'12
direct	6277 Jan 22 11:56	11° 8 42'16			
evening set	6277 Apr 24 23:59	13° 8 13'21	conjunction	6283 May 09 09:30	20° 8 44'39 -14°37'06
			minimum elong	6283 May 09 09:23	20° 8 44'39 14°37'09
conjunction	6277 May 01 14:59	13° 8 24'01 -13°32'59	morning rise	6283 May 12 20:50	20° 8 50'07
minimum elong	6277 May 01 14:49	13° 8 24'01 13°33'00	max. Earth dist.	6283 May 12 01:17	20° 8 48'50 44.69384 AU
max. Earth dist.	6277 May 04 09:02	13° 8 28'28 43.41125 AU	retrograde	6283 Aug 19 20:10	22° 8 26'31
morning rise	6277 May 08 06:04	13° 8 34'43	min. Earth dist.	6283 Nov 08 18:46	21° 8 24'49 42.86282 AU
	6277 Jul 15 23:12	15° 8	opposition	6283 Nov 11 09:22	21° 8 21'39 -15°22'29
retrograde	6277 Aug 12 00:43	15° 8 08'46	direct	6284 Feb 01 01:51	20° 8 17'50
	6277 Sep 08 14:20	15° 8	evening set	6284 May 07 02:53	21° 8 51'47
min. Earth dist.	6277 Oct 31 13:46	14° 8 06'12 41.58176 AU			
opposition	6277 Nov 03 09:01	14° 8 02'43 -14°18'04	conjunction	6284 May 09 19:46	21° 8 56'00 -14°46'14
direct	6278 Jan 24 00:08	12° 8 57'38	minimum elong	6284 May 09 19:38	21° 8 55'59 14°46'16
evening set	6278 Apr 26 22:00	14° 8 28'56	morning rise	6284 May 12 12:29	22° 8 00'13
			max. Earth dist.	6284 May 12 10:44	22° 8 00'06 44.89452 AU
conjunction	6278 May 03 02:28	14° 8 38'51 -13°44'49	retrograde	6284 Aug 20 06:49	23° 8 37'23
minimum elong	6278 May 03 02:17	14° 8 38'50 13°44'51	min. Earth dist.	6284 Nov 09 05:07	22° 8 35'53 43.06344 AU
max. Earth dist.	6278 May 05 21:01	14° 8 43'18 43.63411 AU	opposition	6284 Nov 11 20:17	22° 8 32'41 -15°31'36
morning rise	6278 May 09 07:00	14° 8 48'47	direct	6285 Feb 01 11:32	21° 8 29'02
	6278 May 16 08:18	15° 8	evening set	6285 May 09 14:17	23° 8 04'11
retrograde	6278 Aug 13 14:05	16° 8 23'06			
min. Earth dist.	6278 Nov 02 03:58	15° 8 20'40 41.80494 AU	conjunction	6285 May 11 05:43	23° 8 06'44 -14°54'56
opposition	6278 Nov 04 21:51	15° 8 17'16 -14°29'59	minimum elong	6285 May 11 05:36	23° 8 06'44 14°54'58
	6278 Nov 19 00:16	15° 8	morning rise	6285 May 12 20:59	23° 8 09'17
direct	6279 Jan 25 11:43	14° 8 12'26	max. Earth dist.	6285 May 13 20:15	23° 8 10'47 45.09246 AU
	6279 Mar 30 14:27	15° 8	retrograde	6285 Aug 21 17:52	24° 8 47'40

min. Earth dist.	6285 Nov 10 16:50	23° 8 46'16	43.26169 AU	max. Earth dist.	6293 May 22 18:33	2° II 19'11	46.58127 AU
opposition	6285 Nov 13 07:15	23° 8 43'07	-15°40'16	retrograde	6293 Aug 30 16:12	3° II 53'15	
direct	6286 Feb 02 20:26	22° 8 39'40		min. Earth dist.	6293 Nov 20 05:27	2° II 52'56	44.74568 AU
				opposition	6293 Nov 22 14:35	2° II 50'06	-16°33'51
conjunction	6286 May 12 15:29	24° 8 16'54	-15°03'10	direct	6294 Feb 12 07:18	1° II 48'07	
minimum elong	6286 May 12 15:22	24° 8 16'54	15°03'12				
max. Earth dist.	6286 May 15 06:31	24° 8 20'58	45.28827 AU	conjunction	6294 May 21 15:53	3° II 22'06	-15°54'19
retrograde	6286 Aug 23 01:15	25° 8 57'24		minimum elong	6294 May 21 15:51	3° II 22'06	15°54'21
min. Earth dist.	6286 Nov 12 03:47	24° 8 56'09	43.45763 AU	max. Earth dist.	6294 May 24 01:24	3° II 25'42	46.74954 AU
opposition	6286 Nov 14 17:52	24° 8 53'02	-15°48'27	retrograde	6294 Sep 01 01:18	4° II 59'30	
direct	6287 Feb 04 08:28	23° 8 49'45		min. Earth dist.	6294 Nov 21 14:23	3° II 59'19	44.91231 AU
				opposition	6294 Nov 23 23:38	3° II 56'30	-16°38'50
conjunction	6287 May 14 01:02	25° 8 26'33	-15°10'59	direct	6295 Feb 13 17:01	2° II 54'38	
minimum elong	6287 May 14 00:56	25° 8 26'33	15°11'01				
max. Earth dist.	6287 May 16 14:53	25° 8 30'32	45.48190 AU	conjunction	6295 May 23 00:16	4° II 28'13	-15°59'04
retrograde	6287 Aug 24 10:10	27° 8 06'38		minimum elong	6295 May 23 00:12	4° II 28'13	15°59'06
min. Earth dist.	6287 Nov 13 13:47	26° 8 05'34	43.65144 AU	max. Earth dist.	6295 May 25 09:05	4° II 31'45	46.91302 AU
opposition	6287 Nov 16 04:08	26° 8 02'26	-15°56'11	retrograde	6295 Sep 02 11:42	6° II 05'14	
direct	6288 Feb 05 19:22	24° 8 59'22		min. Earth dist.	6295 Nov 23 00:57	5° II 05'04	45.07452 AU
				opposition	6295 Nov 25 08:26	5° II 02'21	-16°43'27
conjunction	6288 May 14 10:30	26° 8 35'44	-15°18'21	direct	6296 Feb 15 00:48	4° II 00'36	
minimum elong	6288 May 14 10:25	26° 8 35'43	15°18'23				
max. Earth dist.	6288 May 17 01:00	26° 8 39'44	45.67328 AU	conjunction	6296 May 23 08:30	5° II 33'48	-16°03'28
retrograde	6288 Aug 24 19:01	28° 8 15'25		minimum elong	6296 May 23 08:29	5° II 33'48	16°03'30
min. Earth dist.	6288 Nov 14 01:18	27° 8 14'28	43.84273 AU	max. Earth dist.	6296 May 25 17:02	5° II 37'19	47.07251 AU
opposition	6288 Nov 16 14:22	27° 8 11'24	-16°03'29	retrograde	6296 Sep 02 19:23	7° II 10'26	
direct	6289 Feb 06 08:02	26° 8 08'32		min. Earth dist.	6296 Nov 23 09:46	6° II 10'22	45.23284 AU
				opposition	6296 Nov 25 16:59	6° II 07'40	-16°47'42
conjunction	6289 May 15 19:37	27° 8 44'29	-15°25'18	direct	6297 Feb 15 08:23	5° II 06'03	
minimum elong	6289 May 15 19:32	27° 8 44'28	15°25'21				
max. Earth dist.	6289 May 18 09:07	27° 8 48'24	45.86215 AU	conjunction	6297 May 24 16:15	6° II 38'53	-16°07'30
retrograde	6289 Aug 26 06:58	29° 8 23'46		minimum elong	6297 May 24 16:12	6° II 38'53	16°07'33
min. Earth dist.	6289 Nov 15 10:47	28° 8 23'02	44.03121 AU	max. Earth dist.	6297 May 26 23:25	6° II 42'18	47.22847 AU
opposition	6289 Nov 18 00:21	28° 8 19'58	-16°10'21	retrograde	6297 Sep 04 03:06	8° II 15'10	
direct	6290 Feb 07 16:31	27° 8 17'17		min. Earth dist.	6297 Nov 24 18:40	7° II 15'11	45.38805 AU
				opposition	6297 Nov 27 01:30	7° II 12'31	-16°51'34
conjunction	6290 May 17 04:41	28° 8 52'50	-15°31'51	direct	6298 Feb 16 16:43	6° II 11'01	
minimum elong	6290 May 17 04:37	28° 8 52'49	15°31'53				
max. Earth dist.	6290 May 19 17:48	28° 8 56'42	46.04794 AU	conjunction	6298 May 26 00:09	7° II 43'30	-16°11'11
	6290 Jul 04 16:05	0° II		minimum elong	6298 May 26 00:08	7° II 43'30	16°11'14
retrograde	6290 Aug 27 18:02	0° II 31'45		max. Earth dist.	6298 May 28 07:54	7° II 46'57	47.38154 AU
	6290 Oct 22 10:12	30° R 8		retrograde	6298 Sep 05 07:49	9° II 19'27	
min. Earth dist.	6290 Nov 16 22:05	29° 8 31'06	44.21644 AU	min. Earth dist.	6298 Nov 26 04:04	8° II 19'33	45.54032 AU
opposition	6290 Nov 19 10:13	29° 8 28'07	-16°16'47	opposition	6298 Nov 28 09:44	8° II 16'55	-16°55'05
direct	6291 Feb 09 00:00	28° 8 25'38		direct	6299 Feb 18 03:58	7° II 15'35	
conjunction	6291 May 18 13:45	0° II 00'47	-15°38'00	conjunction	6299 May 27 07:46	8° II 47'44	-16°14'31
minimum elong	6291 May 18 13:40	0° II 00'47	15°38'03	minimum elong	6299 May 27 07:45	8° II 47'44	16°14'33
	6291 May 18 01:20	0° II		max. Earth dist.	6299 May 29 14:05	8° II 51'04	47.53194 AU
max. Earth dist.	6291 May 21 02:44	0° II 04'38	46.23023 AU	retrograde	6299 Sep 06 16:24	10° II 23'21	
retrograde	6291 Aug 29 01:25	1° II 39'19		min. Earth dist.	6299 Nov 27 11:38	9° II 23'37	45.68988 AU
min. Earth dist.	6291 Nov 18 08:16	0° II 38'49	44.39756 AU	opposition	6299 Nov 29 17:45	9° II 20'59	-16°58'13
opposition	6291 Nov 20 19:48	0° II 35'52	-16°22'51	direct	6300 Feb 19 12:15	8° II 19'46	
	6291 Dec 22 21:22	30° R 8					
direct	6292 Feb 10 10:08	29° 8 33'34		conjunction	6300 May 28 15:15	9° II 51'37	-16°17'29
	6292 Mar 29 12:12	0° II		minimum elong	6300 May 28 15:14	9° II 51'37	16°17'32
				max. Earth dist.	6300 May 30 21:27	9° II 54'56	47.67950 AU
conjunction	6292 May 18 22:34	1° II 08'21	-15°43'47	retrograde	6300 Sep 08 02:09	11° II 26'57	
minimum elong	6292 May 18 22:31	1° II 08'20	15°43'49	min. Earth dist.	6300 Nov 28 21:12	10° II 27'16	45.83656 AU
max. Earth dist.	6292 May 21 09:39	1° II 12'04	46.40813 AU	opposition	6300 Dec 01 01:42	10° II 24'43	-17°00'59
retrograde	6292 Aug 29 09:12	2° II 46'30		direct	6301 Feb 20 19:21	9° II 23'41	
min. Earth dist.	6292 Nov 18 18:14	1° II 46'08	44.57414 AU				
opposition	6292 Nov 21 05:12	1° II 43'13	-16°28'32	conjunction	6301 May 29 22:41	10° II 55'13	-16°20'06
direct	6293 Feb 10 19:47	0° II 41'04		minimum elong	6301 May 29 22:41	10° II 55'13	16°20'08
				max. Earth dist.	6301 Jun 01 04:37	10° II 58'31	47.82429 AU
conjunction	6293 May 20 07:24	2° II 15'28	-15°49'14	retrograde	6301 Sep 09 09:36	12° II 30'16	
minimum elong	6293 May 20 07:20	2° II 15'28	15°49'16	min. Earth dist.	6301 Nov 30 04:52	11° II 30'45	45.98010 AU

opposition	6301 Dec 02 09:28	11°II28'12 -17°03'25	conjunction	6310 Jun 08 12:19	20°II15'02 -16°30'02
direct	6302 Feb 22 01:45	10°II27'19	minimum elong	6310 Jun 08 12:22	20°II15'02 16°30'04
			max. Earth dist.	6310 Jun 10 10:08	20°II17'45 48.93656 AU
conjunction	6302 May 31 05:48	11°II58'35 -16°22'23	retrograde	6310 Sep 18 20:35	21°II47'36
minimum elong	6302 May 31 05:48	11°II58'35 16°22'26	min. Earth dist.	6310 Dec 10 05:46	20°II48'37 47.07521 AU
max. Earth dist.	6302 Jun 02 10:16	12°II01'46 47.96574 AU	opposition	6310 Dec 12 01:20	20°II46'32 -17°11'21
retrograde	6302 Sep 10 17:12	13°II33'21	direct	6311 Mar 03 21:11	19°II46'37
min. Earth dist.	6302 Dec 01 13:32	12°II33'56 46.12015 AU			
opposition	6302 Dec 03 17:12	12°II31'27 -17°05'29	conjunction	6311 Jun 09 18:38	21°II15'26 -16°29'40
direct	6303 Feb 23 07:24	11°II30'43	minimum elong	6311 Jun 09 18:43	21°II15'26 16°29'42
			max. Earth dist.	6311 Jun 11 15:58	21°II18'07 49.04077 AU
conjunction	6303 Jun 01 13:09	13°II01'44 -16°24'22	retrograde	6311 Sep 20 03:19	22°II47'45
minimum elong	6303 Jun 01 13:10	13°II01'44 16°24'23	min. Earth dist.	6311 Dec 11 11:39	21°II48'52 47.17788 AU
max. Earth dist.	6303 Jun 03 17:47	13°II04'55 48.10339 AU	opposition	6311 Dec 13 07:28	21°II46'47 -17°10'43
retrograde	6303 Sep 11 22:11	14°II36'13	direct	6312 Mar 04 03:03	20°II46'58
min. Earth dist.	6303 Dec 02 22:29	13°II36'53 46.25592 AU			
opposition	6303 Dec 05 00:35	13°II34'28 -17°07'15	conjunction	6312 Jun 10 00:41	22°II15'33 -16°28'59
direct	6304 Feb 24 16:38	12°II33'54	minimum elong	6312 Jun 10 00:44	22°II15'33 16°29'01
			max. Earth dist.	6312 Jun 11 20:37	22°II18'08 49.14217 AU
conjunction	6304 Jun 01 20:17	14°II04'38 -16°26'01	retrograde	6312 Sep 20 11:41	23°II47'38
minimum elong	6304 Jun 01 20:17	14°II04'38 16°26'04	min. Earth dist.	6312 Dec 11 18:58	22°II48'48 47.27784 AU
max. Earth dist.	6304 Jun 03 23:01	14°II07'42 48.23658 AU	opposition	6312 Dec 13 13:47	22°II46'46 -17°09'46
retrograde	6304 Sep 12 05:01	15°II38'53	direct	6313 Mar 05 06:16	21°II47'03
min. Earth dist.	6304 Dec 03 06:03	14°II39'40 46.38696 AU			
opposition	6304 Dec 05 07:58	14°II37'16 -17°08'43	conjunction	6313 Jun 11 06:41	23°II15'25 -16°28'01
direct	6305 Feb 25 01:11	13°II36'49	minimum elong	6313 Jun 11 06:45	23°II15'25 16°28'04
			max. Earth dist.	6313 Jun 13 03:06	23°II18'02 49.24081 AU
conjunction	6305 Jun 03 03:14	15°II07'17 -16°27'24	retrograde	6313 Sep 21 16:04	24°II47'17
minimum elong	6305 Jun 03 03:16	15°II07'17 16°27'26	min. Earth dist.	6313 Dec 13 02:06	23°II48'30 47.37468 AU
max. Earth dist.	6305 Jun 05 05:18	15°II10'18 48.36472 AU	opposition	6313 Dec 14 19:59	23°II46'31 -17°08'31
retrograde	6305 Sep 13 13:52	16°II41'16	direct	6314 Mar 06 12:46	22°II46'55
min. Earth dist.	6305 Dec 04 15:32	15°II42'04 46.51278 AU			
opposition	6305 Dec 06 15:25	15°II39'46 -17°09'53	conjunction	6314 Jun 12 12:37	24°II15'05 -16°26'45
direct	6306 Feb 26 09:27	14°II39'27	minimum elong	6314 Jun 12 12:42	24°II15'05 16°26'48
			max. Earth dist.	6314 Jun 14 07:22	24°II17'36 49.33632 AU
conjunction	6306 Jun 04 10:17	16°II09'37 -16°28'30	retrograde	6314 Sep 22 21:13	25°II46'45
minimum elong	6306 Jun 04 10:18	16°II09'37 16°28'33	min. Earth dist.	6314 Dec 14 08:10	24°II48'05 47.46821 AU
max. Earth dist.	6306 Jun 06 11:22	16°II12'34 48.48779 AU	opposition	6314 Dec 16 01:57	24°II46'06 -17°06'59
retrograde	6306 Sep 14 22:52	17°II43'19	direct	6315 Mar 07 18:51	23°II46'36
min. Earth dist.	6306 Dec 05 22:56	16°II44'12 46.63340 AU			
opposition	6306 Dec 07 22:25	16°II41'56 -17°10'47	conjunction	6315 Jun 13 18:37	25°II14'35 -16°25'13
direct	6307 Feb 27 14:24	15°II41'42	minimum elong	6315 Jun 13 18:41	25°II14'35 16°25'17
			max. Earth dist.	6315 Jun 15 12:56	25°II17'04 49.42808 AU
conjunction	6307 Jun 05 17:00	17°II11'35 -16°29'19	retrograde	6315 Sep 24 03:08	26°II46'04
minimum elong	6307 Jun 05 17:03	17°II11'35 16°29'22	min. Earth dist.	6315 Dec 15 16:16	25°II47'26 47.55762 AU
max. Earth dist.	6307 Jun 07 16:22	17°II14'25 48.60585 AU	opposition	6315 Dec 17 07:59	25°II45'33 -17°05'10
retrograde	6307 Sep 16 06:31	18°II44'59	direct	6316 Mar 08 03:02	24°II46'10
min. Earth dist.	6307 Dec 07 07:13	17°II45'53 46.74938 AU			
opposition	6307 Dec 09 05:26	17°II43'41 -17°11'23	conjunction	6316 Jun 14 00:33	26°II13'58 -16°23'26
direct	6308 Feb 28 19:51	16°II43'32	minimum elong	6316 Jun 14 00:39	26°II13'58 16°23'27
			max. Earth dist.	6316 Jun 15 17:53	26°II16'23 49.51554 AU
conjunction	6308 Jun 05 23:39	18°II13'08 -16°29'52	retrograde	6316 Sep 24 10:52	27°II45'16
minimum elong	6308 Jun 05 23:41	18°II13'08 16°29'54	min. Earth dist.	6316 Dec 15 22:19	26°II46'43 47.64227 AU
max. Earth dist.	6308 Jun 07 23:09	18°II15'59 48.71955 AU	opposition	6316 Dec 17 13:47	26°II44'51 -17°03'05
retrograde	6308 Sep 16 08:48	19°II46'15	direct	6317 Mar 09 08:02	25°II45'34
min. Earth dist.	6308 Dec 07 15:02	18°II47'10 46.86118 AU			
opposition	6308 Dec 09 12:09	18°II45'01 -17°11'41	conjunction	6317 Jun 15 06:24	27°II13'12 -16°21'23
direct	6309 Mar 01 04:56	17°II44'57	minimum elong	6317 Jun 15 06:29	27°II13'12 16°21'26
			max. Earth dist.	6317 Jun 16 21:50	27°II15'30 49.59797 AU
conjunction	6309 Jun 07 06:03	19°II14'17 -16°30'06	retrograde	6317 Sep 25 19:08	28°II44'19
minimum elong	6309 Jun 07 06:07	19°II14'17 16°30'09	min. Earth dist.	6317 Dec 17 06:00	27°II45'47 47.72181 AU
max. Earth dist.	6309 Jun 09 03:56	19°II17'01 48.82964 AU	opposition	6317 Dec 18 19:44	27°II44'01 -17°00'46
retrograde	6309 Sep 17 13:34	20°II47'06	direct	6318 Mar 10 11:12	26°II44'49
min. Earth dist.	6309 Dec 08 21:31	19°II48'07 46.96970 AU			
opposition	6309 Dec 10 18:45	19°II45'57 -17°11'40	conjunction	6318 Jun 16 12:18	28°II12'16 -16°19'06
direct	6310 Mar 02 13:06	18°II45'58	minimum elong	6318 Jun 16 12:24	28°II12'16 16°19'09
			max. Earth dist.	6318 Jun 18 03:28	28°II14'32 49.67522 AU

retrograde	6318 Sep 26 22:30	29°II43'11		minimum elong	6326 Jun 24 07:30	5°☾57'10	15°51'55
min. Earth dist.	6318 Dec 18 12:57	28°II44'40	47.79592 AU	max. Earth dist.	6326 Jun 25 15:24	5°☾59'00	50.14800 AU
opposition	6318 Dec 20 01:29	28°II42'57	-16°58'13	retrograde	6326 Oct 04 16:23	7°☾26'49	
direct	6319 Mar 11 18:06	27°II43'50		opposition	6326 Dec 27 19:36	6°☾27'10	-16°28'25
				min. Earth dist.	6326 Dec 26 13:19	6°☾28'35	48.24967 AU
conjunction	6319 Jun 17 18:01	29°II11'06	-16°16'36	direct	6327 Mar 19 15:09	5°☾28'33	
minimum elong	6319 Jun 17 18:06	29°II11'06	16°16'38				
max. Earth dist.	6319 Jun 19 06:58	29°II13'15	49.74731 AU	conjunction	6327 Jun 25 12:33	6°☾54'41	-15°47'18
	6319 Jul 24 18:16	0°☾		minimum elong	6327 Jun 25 12:41	6°☾54'42	15°47'20
retrograde	6319 Sep 28 02:15	0°☾41'49		max. Earth dist.	6327 Jun 26 18:51	6°☾56'25	50.19186 AU
	6319 Dec 04 18:14	30°☾II		retrograde	6327 Oct 06 01:17	8°☾24'14	
min. Earth dist.	6319 Dec 19 18:59	29°II43'21	47.86518 AU	min. Earth dist.	6327 Dec 27 20:02	7°☾25'59	48.29068 AU
opposition	6319 Dec 21 06:56	29°II41'40	-16°55'25	opposition	6327 Dec 29 00:32	7°☾24'39	-16°23'31
direct	6320 Mar 12 00:44	28°II42'36		direct	6328 Mar 19 17:00	6°☾26'07	
	6320 Jun 11 00:15	0°☾					
conjunction	6320 Jun 17 23:38	0°☾09'41	-16°13'50	conjunction	6328 Jun 25 17:53	7°☾52'09	-15°42'31
minimum elong	6320 Jun 17 23:45	0°☾09'42	16°13'53	minimum elong	6328 Jun 25 18:00	7°☾52'10	15°42'33
max. Earth dist.	6320 Jun 19 12:13	0°☾11'49	49.81472 AU	max. Earth dist.	6328 Jun 26 23:56	7°☾53'52	50.23128 AU
retrograde	6320 Sep 28 07:36	1°☾40'14		retrograde	6328 Oct 06 05:38	9°☾21'35	
min. Earth dist.	6320 Dec 20 02:29	0°☾41'44	47.93005 AU	min. Earth dist.	6328 Dec 28 02:04	8°☾23'21	48.32675 AU
opposition	6320 Dec 21 12:31	0°☾40'08	-16°52'22	opposition	6328 Dec 29 05:27	8°☾22'05	-16°18'24
	6321 Jan 29 14:21	30°☾II		direct	6329 Mar 20 21:56	7°☾23'36	
direct	6321 Mar 13 08:15	29°II41'08		conjunction	6329 Jun 26 22:56	8°☾49'32	-15°37'30
	6321 Apr 24 02:16	0°☾		minimum elong	6329 Jun 26 23:05	8°☾49'32	15°37'32
				max. Earth dist.	6329 Jun 28 02:45	8°☾51'07	50.26561 AU
conjunction	6321 Jun 19 05:01	1°☾08'02	-16°10'50	retrograde	6329 Oct 07 09:13	10°☾18'51	
minimum elong	6321 Jun 19 05:07	1°☾08'03	16°10'52	min. Earth dist.	6329 Dec 29 07:51	9°☾20'37	48.35754 AU
max. Earth dist.	6321 Jun 20 16:50	1°☾10'07	49.87825 AU	opposition	6329 Dec 30 10:25	9°☾19'23	-16°13'04
retrograde	6321 Sep 29 13:41	2°☾38'25		direct	6330 Mar 22 02:23	8°☾20'56	
min. Earth dist.	6321 Dec 21 07:39	1°☾39'59	47.99122 AU				
opposition	6321 Dec 22 17:53	1°☾38'23	-16°49'03	conjunction	6330 Jun 28 04:14	9°☾46'47	-15°32'18
direct	6322 Mar 14 13:54	0°☾39'25		minimum elong	6330 Jun 28 04:22	9°☾46'47	15°32'20
				max. Earth dist.	6330 Jun 29 07:12	9°☾48'19	50.29439 AU
conjunction	6322 Jun 20 10:23	2°☾06'10	-16°07'34	retrograde	6330 Oct 08 12:29	11°☾15'58	
minimum elong	6322 Jun 20 10:30	2°☾06'11	16°07'37	opposition	6330 Dec 31 15:17	10°☾16'32	-16°07'31
max. Earth dist.	6322 Jun 21 20:45	2°☾08'09	49.93826 AU	min. Earth dist.	6330 Dec 30 14:58	10°☾17'40	48.38270 AU
retrograde	6322 Sep 30 21:57	3°☾36'23		direct	6331 Mar 23 09:29	9°☾18'06	
opposition	6322 Dec 23 23:10	2°☾36'24	-16°45'28				
min. Earth dist.	6322 Dec 22 14:19	2°☾37'57	48.04918 AU	conjunction	6331 Jun 29 09:27	10°☾43'50	-15°26'52
direct	6323 Mar 15 16:17	1°☾37'31		minimum elong	6331 Jun 29 09:37	10°☾43'51	15°26'55
				max. Earth dist.	6331 Jun 30 11:07	10°☾45'18	50.31787 AU
conjunction	6323 Jun 21 15:50	3°☾04'07	-16°04'02	retrograde	6331 Oct 09 17:15	12°☾12'54	
minimum elong	6323 Jun 21 15:56	3°☾04'08	16°04'04	opposition	6332 Jan 01 19:59	11°☾13'30	-16°01'45
max. Earth dist.	6323 Jun 23 02:28	3°☾06'07	49.99524 AU	min. Earth dist.	6331 Dec 31 19:50	11°☾14'37	48.40265 AU
retrograde	6323 Oct 02 02:06	4°☾34'10		direct	6332 Mar 23 15:41	10°☾15'04	
min. Earth dist.	6323 Dec 23 20:13	3°☾35'46	48.10398 AU				
opposition	6323 Dec 25 04:22	3°☾34'16	-16°41'36	conjunction	6332 Jun 29 14:20	11°☾40'40	-15°21'14
direct	6324 Mar 15 20:26	2°☾35'26		minimum elong	6332 Jun 29 14:28	11°☾40'41	15°21'17
				max. Earth dist.	6332 Jun 30 14:10	11°☾42'02	50.33630 AU
conjunction	6324 Jun 21 20:57	4°☾01'54	-16°00'14	retrograde	6332 Oct 10 00:31	13°☾09'37	
minimum elong	6324 Jun 21 21:05	4°☾01'55	16°00'17	min. Earth dist.	6333 Jan 01 02:24	12°☾11'16	48.41802 AU
max. Earth dist.	6324 Jun 23 05:56	4°☾03'48	50.04924 AU	opposition	6333 Jan 02 00:45	12°☾10'14	-15°55'46
retrograde	6324 Oct 02 06:32	5°☾31'48		direct	6333 Mar 24 19:16	11°☾11'48	
min. Earth dist.	6324 Dec 24 01:28	4°☾33'29	48.15586 AU				
opposition	6324 Dec 25 09:29	4°☾31'59	-16°37'28	conjunction	6333 Jun 30 19:23	12°☾37'19	-15°15'23
direct	6325 Mar 17 00:56	3°☾33'13		minimum elong	6333 Jun 30 19:33	12°☾37'19	15°15'26
				max. Earth dist.	6333 Jul 01 19:21	12°☾38'40	50.35056 AU
conjunction	6325 Jun 23 02:11	4°☾59'34	-15°56'10	retrograde	6333 Oct 11 05:06	14°☾06'08	
minimum elong	6325 Jun 23 02:19	4°☾59'35	15°56'13	min. Earth dist.	6334 Jan 02 07:44	13°☾07'46	48.42937 AU
max. Earth dist.	6325 Jun 24 10:55	5°☾01'27	50.10020 AU	opposition	6334 Jan 03 05:19	13°☾06'45	-15°49'32
retrograde	6325 Oct 03 09:41	6°☾29'21		direct	6334 Mar 25 22:55	12°☾08'20	
min. Earth dist.	6325 Dec 25 08:18	5°☾31'02	48.20455 AU				
opposition	6325 Dec 26 14:39	5°☾29'36	-16°33'05	conjunction	6334 Jul 02 00:13	13°☾33'46	-15°09'17
direct	6326 Mar 18 09:32	4°☾30'55		minimum elong	6334 Jul 02 00:21	13°☾33'46	15°09'19
				max. Earth dist.	6334 Jul 02 22:16	13°☾35'01	50.36118 AU
conjunction	6326 Jun 24 07:23	5°☾57'09	-15°51'51	retrograde	6334 Oct 12 10:01	15°☾02'29	

opposition	6335 Jan 04 09:52	14°03'07" -15°43'04"	retrograde	6341 Oct 18 18:11	21°036'14"
min. Earth dist.	6335 Jan 03 12:39	14°04'06" 48.43734 AU	opposition	6342 Jan 10 16:52	20°037'09" -14°50'58"
direct	6335 Mar 27 02:13	13°04'43"	min. Earth dist.	6342 Jan 10 02:22	20°037'50" 48.39818 AU
			direct	6342 Apr 02 12:05	19°038'57"
conjunction	6335 Jul 03 05:09	14°030'04" -15°02'57"	evening set	6342 Jul 04 12:35	20°057'17"
minimum elong	6335 Jul 03 05:19	14°030'04" 15°03'00"			
max. Earth dist.	6335 Jul 04 02:52	14°031'18" 50.36844 AU	conjunction	6342 Jul 09 15:06	21°04'12" -14°12'03"
retrograde	6335 Oct 13 12:15	15°058'43"	minimum elong	6342 Jul 09 15:18	21°04'12" 14°12'06"
opposition	6336 Jan 05 14:19	14°059'23" -15°36'21"	max. Earth dist.	6342 Jul 10 04:51	21°04'58" 50.32334 AU
min. Earth dist.	6336 Jan 04 18:46	15°00'17" 48.44207 AU	morning rise	6342 Jul 14 18:22	21°011'10"
direct	6336 Mar 27 09:26	14°00'59"	retrograde	6342 Oct 20 01:41	22°032'39"
evening set	6336 Jul 02 00:09	15°024'22"	opposition	6343 Jan 11 21:23	21°033'35" -14°42'39"
			min. Earth dist.	6343 Jan 11 08:59	21°034'10" 48.37458 AU
conjunction	6336 Jul 03 10:00	15°026'17" -14°56'22"	direct	6343 Apr 03 15:28	20°035'22"
minimum elong	6336 Jul 03 10:09	15°026'17" 14°56'24"	evening set	6343 Jul 05 07:51	21°053'08"
morning rise	6336 Jul 04 20:11	15°028'13"			
max. Earth dist.	6336 Jul 04 07:05	15°027'29" 50.37281 AU	conjunction	6343 Jul 10 20:09	22°00'36" -14°03'56"
retrograde	6336 Oct 13 17:13	16°054'52"	minimum elong	6343 Jul 10 20:19	22°00'36" 14°03'58"
opposition	6337 Jan 05 18:45	15°055'35" -15°29'23"	max. Earth dist.	6343 Jul 11 09:33	22°01'21" 50.29833 AU
min. Earth dist.	6337 Jan 04 22:57	15°056'30" 48.44387 AU	morning rise	6343 Jul 16 09:06	22°008'06"
direct	6337 Mar 28 14:58	14°057'13"	retrograde	6343 Oct 21 07:22	23°029'00"
evening set	6337 Jul 02 05:03	16°019'13"	opposition	6344 Jan 13 01:36	22°029'57" -14°34'07"
			min. Earth dist.	6344 Jan 12 14:10	22°030'28" 48.34579 AU
conjunction	6337 Jul 04 14:37	16°022'28" -14°49'33"	direct	6344 Apr 03 18:04	21°031'42"
minimum elong	6337 Jul 04 14:47	16°022'29" 14°49'36"	evening set	6344 Jul 05 03:34	22°048'56"
max. Earth dist.	6337 Jul 05 10:13	16°023'35" 50.37417 AU			
morning rise	6337 Jul 07 00:37	16°025'46"	conjunction	6344 Jul 11 00:56	22°056'55" -13°55'37"
retrograde	6337 Oct 15 01:53	17°051'01"	minimum elong	6344 Jul 11 01:08	22°056'56" 13°55'39"
opposition	6338 Jan 06 23:20	16°051'46" -15°22'10"	max. Earth dist.	6344 Jul 11 12:12	22°057'33" 50.26856 AU
min. Earth dist.	6338 Jan 06 05:04	16°052'37" 48.44267 AU	morning rise	6344 Jul 16 23:08	23°004'56"
direct	6338 Mar 29 16:33	15°053'27"	retrograde	6344 Oct 21 13:01	24°025'17"
evening set	6338 Jul 02 17:01	17°014'29"	opposition	6345 Jan 13 05:54	23°026'12" -14°25'23"
			min. Earth dist.	6345 Jan 12 19:09	23°026'42" 48.31262 AU
conjunction	6338 Jul 05 19:34	17°018'42" -14°42'30"	direct	6345 Apr 04 20:14	22°027'55"
minimum elong	6338 Jul 05 19:44	17°018'42" 14°42'32"	evening set	6345 Jul 05 23:28	23°044'40"
max. Earth dist.	6338 Jul 06 15:17	17°019'49" 50.37245 AU			
morning rise	6338 Jul 08 22:34	17°022'56"	conjunction	6345 Jul 12 05:43	23°053'08" -13°47'05"
retrograde	6338 Oct 16 06:40	18°047'12"	minimum elong	6345 Jul 12 05:53	23°053'09" 13°47'07"
min. Earth dist.	6339 Jan 07 10:02	17°048'50" 48.43803 AU	max. Earth dist.	6345 Jul 12 16:27	23°053'44" 50.23455 AU
opposition	6339 Jan 08 03:38	17°048'01" -15°14'42"	morning rise	6345 Jul 18 12:46	24°001'39"
direct	6339 Mar 30 20:25	16°049'44"	retrograde	6345 Oct 22 14:25	25°021'28"
evening set	6339 Jul 03 07:50	18°009'58"	opposition	6346 Jan 14 10:16	24°022'22" -14°16'24"
			min. Earth dist.	6346 Jan 14 01:17	24°022'47" 48.27548 AU
conjunction	6339 Jul 07 00:23	18°014'59" -14°35'12"	direct	6346 Apr 06 02:55	23°024'03"
minimum elong	6339 Jul 07 00:33	18°014'59" 14°35'15"	evening set	6346 Jul 06 20:02	24°040'19"
max. Earth dist.	6339 Jul 07 18:10	18°015'59" 50.36714 AU			
morning rise	6339 Jul 10 17:28	18°020'01"	conjunction	6346 Jul 13 10:37	24°049'15" -13°38'19"
retrograde	6339 Oct 17 10:35	19°043'28"	minimum elong	6346 Jul 13 10:48	24°049'16" 13°38'21"
opposition	6340 Jan 09 08:02	18°044'20" -15°07'00"	max. Earth dist.	6346 Jul 13 20:39	24°049'49" 50.19701 AU
min. Earth dist.	6340 Jan 08 15:15	18°045'06" 48.42957 AU	morning rise	6346 Jul 20 02:01	24°058'15"
direct	6340 Mar 30 23:37	17°046'05"	retrograde	6346 Oct 23 17:12	26°017'34"
evening set	6340 Jul 03 00:12	19°005'37"	opposition	6347 Jan 15 14:19	25°018'26" -14°07'11"
			min. Earth dist.	6347 Jan 15 05:17	25°018'52" 48.23499 AU
conjunction	6340 Jul 07 05:13	19°011'20" -14°27'42"	direct	6347 Apr 07 10:01	24°020'05"
minimum elong	6340 Jul 07 05:23	19°011'21" 14°27'44"	evening set	6347 Jul 07 16:45	25°035'55"
max. Earth dist.	6340 Jul 07 22:21	19°012'18" 50.35750 AU			
morning rise	6340 Jul 11 10:48	19°017'05"	conjunction	6347 Jul 14 15:25	25°045'18" -13°29'19"
retrograde	6340 Oct 17 13:17	20°039'49"	minimum elong	6347 Jul 14 15:36	25°045'19" 13°29'21"
opposition	6341 Jan 09 12:32	19°040'43" -14°59'06"	max. Earth dist.	6347 Jul 14 23:43	25°045'46" 50.15621 AU
min. Earth dist.	6341 Jan 08 21:45	19°041'24" 48.41642 AU	morning rise	6347 Jul 21 15:05	25°054'45"
direct	6341 Apr 01 06:23	18°042'30"	retrograde	6347 Oct 25 01:05	27°013'37"
evening set	6341 Jul 03 18:03	20°001'25"	opposition	6348 Jan 16 18:39	26°014'28" -13°57'44"
			min. Earth dist.	6348 Jan 16 11:09	26°014'49" 48.19149 AU
conjunction	6341 Jul 08 10:12	20°007'45" -14°19'59"	direct	6348 Apr 07 13:12	25°016'05"
minimum elong	6341 Jul 08 10:22	20°007'46" 14°20'01"	evening set	6348 Jul 07 13:38	26°031'29"
max. Earth dist.	6341 Jul 09 02:03	20°008'39" 50.34310 AU			
morning rise	6341 Jul 13 02:56	20°014'08"	conjunction	6348 Jul 14 20:13	26°041'19" -13°20'05"

minimum elong	6348 Jul 14 20:24	26° Ω 41'19	13°20'08	minimum elong	6354 Jul 21 02:30	2° Ω 19'06	12°19'56
max. Earth dist.	6348 Jul 15 04:48	26° Ω 41'48	50.11255 AU	max. Earth dist.	6354 Jul 21 03:06	2° Ω 19'09	49.77817 AU
morning rise	6348 Jul 22 03:41	26° Ω 51'12		morning rise	6354 Jul 30 04:49	2° Ω 31'25	
retrograde	6348 Oct 25 06:22	28° Ω 09'38		retrograde	6354 Oct 31 14:20	3° Ω 47'45	
opposition	6349 Jan 16 22:55	27° Ω 10'29	-13°48'02	opposition	6355 Jan 23 00:58	2° Ω 48'34	-12°44'58
min. Earth dist.	6349 Jan 16 15:47	27° Ω 10'48	48.14505 AU	min. Earth dist.	6355 Jan 23 00:19	2° Ω 48'36	47.78972 AU
direct	6349 Apr 08 16:44	26° Ω 12'04		direct	6355 Apr 14 15:14	1° Ω 50'02	
evening set	6349 Jul 08 10:54	27° Ω 27'05		evening set	6355 Jul 12 23:51	3° Ω 03'11	
conjunction	6349 Jul 16 01:00	27° Ω 37'20	-13°10'37	conjunction	6355 Jul 22 07:39	3° Ω 15'49	-12°09'08
minimum elong	6349 Jul 16 01:11	27° Ω 37'21	13°10'39	minimum elong	6355 Jul 22 07:51	3° Ω 15'50	12°09'11
max. Earth dist.	6349 Jul 16 07:53	27° Ω 37'44	50.06613 AU	max. Earth dist.	6355 Jul 22 07:27	3° Ω 15'48	49.70572 AU
morning rise	6349 Jul 23 16:09	27° Ω 47'39		morning rise	6355 Jul 31 16:44	3° Ω 28'30	
retrograde	6349 Oct 26 11:47	29° Ω 05'41		retrograde	6355 Nov 01 17:34	4° Ω 44'32	
opposition	6350 Jan 18 03:09	28° Ω 06'31	-13°38'06	opposition	6356 Jan 24 05:32	3° Ω 45'18	-12°33'42
min. Earth dist.	6350 Jan 17 20:35	28° Ω 06'49	48.09588 AU	min. Earth dist.	6356 Jan 24 06:54	3° Ω 45'15	47.71329 AU
direct	6350 Apr 09 18:49	27° Ω 08'06		direct	6356 Apr 14 20:51	2° Ω 46'43	
evening set	6350 Jul 09 08:18	28° Ω 22'45		evening set	6356 Jul 12 22:41	3° Ω 59'36	
conjunction	6350 Jul 17 05:56	28° Ω 33'26	-13°00'54	conjunction	6356 Jul 22 12:47	4° Ω 12'35	-11°58'10
minimum elong	6350 Jul 17 06:07	28° Ω 33'26	13°00'57	minimum elong	6356 Jul 22 12:58	4° Ω 12'36	11°58'12
max. Earth dist.	6350 Jul 17 12:19	28° Ω 33'47	50.01669 AU	max. Earth dist.	6356 Jul 22 11:33	4° Ω 12'31	49.62839 AU
morning rise	6350 Jul 25 04:36	28° Ω 44'10		morning rise	6356 Aug 01 04:06	4° Ω 25'39	
	6350 Oct 14 09:56	0° Ω		retrograde	6356 Nov 01 20:34	5° Ω 41'23	
retrograde	6350 Oct 27 14:26	0° Ω 01'49		opposition	6357 Jan 24 09:57	4° Ω 42'06	-12°22'14
	6350 Nov 09 21:18	30° κ Ω		min. Earth dist.	6357 Jan 24 11:29	4° Ω 42'02	47.63221 AU
opposition	6351 Jan 19 07:32	29° Ω 02'39	-13°27'54	direct	6357 Apr 16 03:57	3° Ω 43'27	
min. Earth dist.	6351 Jan 19 02:38	29° Ω 02'53	48.04342 AU	evening set	6357 Jul 13 21:44	4° Ω 56'04	
direct	6351 Apr 11 00:44	28° Ω 04'13					
evening set	6351 Jul 10 06:10	29° Ω 18'33		conjunction	6357 Jul 23 17:59	5° Ω 09'25	-11°46'59
conjunction	6351 Jul 18 10:55	29° Ω 29'38	-12°50'58	minimum elong	6357 Jul 23 18:10	5° Ω 09'25	11°47'02
minimum elong	6351 Jul 18 11:07	29° Ω 29'38	12°51'00	max. Earth dist.	6357 Jul 23 14:47	5° Ω 09'14	49.54656 AU
max. Earth dist.	6351 Jul 18 16:27	29° Ω 29'56	49.96389 AU	morning rise	6357 Aug 02 15:42	5° Ω 22'51	
morning rise	6351 Jul 26 16:44	29° Ω 40'47		retrograde	6357 Nov 03 04:10	6° Ω 38'17	
	6351 Aug 10 07:38	0° Ω		opposition	6358 Jan 25 14:27	5° Ω 38'58	-12°10'31
retrograde	6351 Oct 28 18:19	0° Ω 58'04		min. Earth dist.	6358 Jan 25 17:51	5° Ω 38'48	47.54705 AU
	6352 Jan 19 12:25	30° κ Ω		direct	6358 Apr 17 07:41	4° Ω 40'15	
opposition	6352 Jan 20 11:41	29° Ω 58'55	-13°17'30	evening set	6358 Jul 14 20:55	5° Ω 52'37	
min. Earth dist.	6352 Jan 20 06:52	29° Ω 59'08	47.98723 AU	conjunction	6358 Jul 24 23:21	6° Ω 06'19	-11°35'35
direct	6352 Apr 11 06:10	29° Ω 00'28		minimum elong	6358 Jul 24 23:32	6° Ω 06'19	11°35'37
	6352 Jun 29 05:09	0° Ω		max. Earth dist.	6358 Jul 24 20:11	6° Ω 06'08	49.46094 AU
evening set	6352 Jul 10 04:11	0° Ω 14'30		morning rise	6358 Aug 04 03:02	6° Ω 20'06	
conjunction	6352 Jul 18 15:55	0° Ω 25'58	-12°40'49	retrograde	6358 Nov 04 10:39	7° Ω 35'17	
minimum elong	6352 Jul 18 16:06	0° Ω 25'59	12°40'52	opposition	6359 Jan 26 18:54	6° Ω 35'54	-11°58'35
max. Earth dist.	6352 Jul 18 19:31	0° Ω 26'10	49.90691 AU	min. Earth dist.	6359 Jan 26 22:48	6° Ω 35'43	47.45819 AU
morning rise	6352 Jul 27 04:54	0° Ω 37'32		direct	6359 Apr 18 10:41	5° Ω 37'07	
retrograde	6352 Oct 29 01:30	1° Ω 54'30		evening set	6359 Jul 15 20:21	6° Ω 49'15	
opposition	6353 Jan 20 16:09	0° Ω 55'20	-13°06'51	conjunction	6359 Jul 26 04:34	7° Ω 03'18	-11°23'57
min. Earth dist.	6353 Jan 20 13:28	0° Ω 55'28	47.92664 AU	minimum elong	6359 Jul 26 04:45	7° Ω 03'19	11°24'00
	6353 Mar 26 08:59	30° κ Ω		max. Earth dist.	6359 Jul 25 23:34	7° Ω 03'01	49.37191 AU
direct	6353 Apr 12 09:40	29° Ω 56'53		morning rise	6359 Aug 05 14:18	7° Ω 17'26	
	6353 Apr 29 06:58	0° Ω		retrograde	6359 Nov 05 17:09	8° Ω 32'22	
evening set	6353 Jul 11 02:25	1° Ω 10'36		opposition	6360 Jan 27 23:21	7° Ω 32'56	-11°46'24
conjunction	6353 Jul 19 21:05	1° Ω 22'28	-12°30'28	min. Earth dist.	6360 Jan 28 03:59	7° Ω 32'43	47.36621 AU
minimum elong	6353 Jul 19 21:17	1° Ω 22'29	12°30'29	direct	6360 Apr 18 13:00	6° Ω 34'05	
max. Earth dist.	6353 Jul 20 00:21	1° Ω 22'39	49.84519 AU	evening set	6360 Jul 15 19:49	7° Ω 46'01	
morning rise	6353 Jul 28 16:51	1° Ω 34'25		conjunction	6360 Jul 26 09:57	8° Ω 00'24	-11°12'06
retrograde	6353 Oct 30 07:44	2° Ω 51'04		minimum elong	6360 Jul 26 10:08	8° Ω 00'25	11°12'07
opposition	6354 Jan 21 20:36	1° Ω 51'54	-12°56'01	max. Earth dist.	6360 Jul 26 04:24	8° Ω 00'06	49.27977 AU
min. Earth dist.	6354 Jan 21 18:49	1° Ω 51'59	47.86084 AU	morning rise	6360 Aug 06 01:30	8° Ω 14'53	
direct	6354 Apr 13 13:07	0° Ω 53'25		retrograde	6360 Nov 05 19:32	9° Ω 29'35	
evening set	6354 Jul 12 01:07	2° Ω 06'50		opposition	6361 Jan 28 04:00	8° Ω 30'06	-11°33'59
conjunction	6354 Jul 21 02:19	2° Ω 19'06	-12°19'54	min. Earth dist.	6361 Jan 28 10:01	8° Ω 29'49	47.27123 AU
				direct	6361 Apr 19 19:27	7° Ω 31'11	

evening set	6361 Jul 16 19:28	8° Ω 42'57			6367 Aug 13 07:46	15° Ω
				morning rise	6367 Aug 15 07:28	15° Ω 02'42
conjunction	6361 Jul 27 15:17	8° Ω 57'40 -10°59'59		retrograde	6367 Nov 13 12:08	16° Ω 16'13
minimum elong	6361 Jul 27 15:28	8° Ω 57'41 11°00'02		opposition	6368 Feb 04 14:01	15° Ω 16'19 -10°00'21
max. Earth dist.	6361 Jul 27 09:08	8° Ω 57'19 49.18489 AU		min. Earth dist.	6368 Feb 05 04:04	15° Ω 15'39 46.50093 AU
morning rise	6361 Aug 07 12:31	9° Ω 12'29			6368 Feb 19 01:12	15° Ω
retrograde	6361 Nov 06 22:54	10° Ω 26'59		direct	6368 Apr 26 05:50	14° Ω 16'50
opposition	6362 Jan 29 08:35	9° Ω 27'27 -11°21'18			6368 Jun 30 12:30	15° Ω
min. Earth dist.	6362 Jan 29 14:29	9° Ω 27'11 47.17339 AU		evening set	6368 Jul 21 23:49	15° Ω 27'38
direct	6362 Apr 21 01:51	8° Ω 28'29				
evening set	6362 Jul 17 19:28	9° Ω 40'04		conjunction	6368 Aug 03 08:23	15° Ω 44'37 -9°28'57
				minimum elong	6368 Aug 03 08:34	15° Ω 44'37 9°28'58
conjunction	6362 Jul 28 20:48	9° Ω 55'08 -10°47'39		max. Earth dist.	6368 Aug 02 17:28	15° Ω 43'45 48.40914 AU
minimum elong	6362 Jul 28 21:00	9° Ω 55'08 10°47'40		morning rise	6368 Aug 15 18:26	16° Ω 01'41
max. Earth dist.	6362 Jul 28 12:55	9° Ω 54'41 49.08693 AU		retrograde	6368 Nov 13 18:50	17° Ω 15'03
morning rise	6362 Aug 08 23:48	10° Ω 10'17		opposition	6369 Feb 04 19:07	16° Ω 15'03 -9°46'04
retrograde	6362 Nov 08 06:01	11° Ω 24'36		min. Earth dist.	6369 Feb 05 09:46	16° Ω 14'21 46.37178 AU
opposition	6363 Jan 30 13:16	10° Ω 25'02 -11°08'23		direct	6369 Apr 27 10:34	15° Ω 15'25
min. Earth dist.	6363 Jan 30 21:03	10° Ω 24'40 47.07241 AU		evening set	6369 Jul 23 01:13	16° Ω 26'07
direct	6363 Apr 22 06:11	9° Ω 26'00				
evening set	6363 Jul 18 19:36	10° Ω 37'26		conjunction	6369 Aug 04 14:25	16° Ω 43'23 -9°15'04
				minimum elong	6369 Aug 04 14:35	16° Ω 43'24 9°15'05
conjunction	6363 Jul 30 02:33	10° Ω 52'49 -10°35'05		max. Earth dist.	6369 Aug 03 21:24	16° Ω 42'25 48.27939 AU
minimum elong	6363 Jul 30 02:44	10° Ω 52'50 10°35'07		morning rise	6369 Aug 17 05:24	17° Ω 00'46
max. Earth dist.	6363 Jul 29 18:34	10° Ω 52'22 48.98563 AU		retrograde	6369 Nov 15 03:07	18° Ω 14'00
morning rise	6363 Aug 10 10:54	11° Ω 08'19		opposition	6370 Feb 06 00:20	17° Ω 13'52 -9°31'33
retrograde	6363 Nov 09 13:02	12° Ω 22'27		min. Earth dist.	6370 Feb 06 16:04	17° Ω 13'07 46.23870 AU
opposition	6364 Jan 31 18:01	11° Ω 22'51 -10°55'14		direct	6370 Apr 28 13:31	16° Ω 14'07
min. Earth dist.	6364 Feb 01 02:23	11° Ω 22'28 46.96771 AU		evening set	6370 Jul 24 02:48	17° Ω 24'44
direct	6364 Apr 22 10:06	10° Ω 23'46				
evening set	6364 Jul 18 19:58	11° Ω 35'04		conjunction	6370 Aug 05 20:47	17° Ω 42'18 -9°00'57
				minimum elong	6370 Aug 05 20:58	17° Ω 42'18 9°00'59
conjunction	6364 Jul 30 08:06	11° Ω 50'47 -10°22'17		max. Earth dist.	6370 Aug 05 03:04	17° Ω 41'16 48.14577 AU
minimum elong	6364 Jul 30 08:17	11° Ω 50'48 10°22'18		morning rise	6370 Aug 18 16:24	17° Ω 59'58
max. Earth dist.	6364 Jul 29 22:02	11° Ω 50'12 48.88036 AU		retrograde	6370 Nov 16 07:50	19° Ω 13'05
morning rise	6364 Aug 10 21:55	12° Ω 06'36		opposition	6371 Feb 07 05:32	18° Ω 12'50 -9°16'47
retrograde	6364 Nov 09 21:53	13° Ω 20'34		min. Earth dist.	6371 Feb 07 22:45	18° Ω 12'01 46.10203 AU
opposition	6365 Jan 31 22:54	12° Ω 20'56 -10°41'51		direct	6371 Apr 29 19:37	17° Ω 12'56
min. Earth dist.	6365 Feb 01 08:22	12° Ω 20'29 46.85876 AU		evening set	6371 Jul 25 04:38	18° Ω 23'30
direct	6365 Apr 23 11:16	11° Ω 21'46		max. Earth dist.	6371 Aug 06 08:43	18° Ω 40'17 48.00903 AU
evening set	6365 Jul 19 20:35	12° Ω 32'57				
				conjunction	6371 Aug 07 03:08	18° Ω 41'21 -8°46'36
conjunction	6365 Jul 31 14:05	12° Ω 48'59 -10°09'16		minimum elong	6371 Aug 07 03:18	18° Ω 41'22 8°46'37
minimum elong	6365 Jul 31 14:15	12° Ω 49'00 10°09'18		morning rise	6371 Aug 20 03:16	18° Ω 59'20
max. Earth dist.	6365 Jul 31 03:02	12° Ω 48'21 48.77030 AU		retrograde	6371 Nov 17 12:08	20° Ω 12'21
morning rise	6365 Aug 12 09:08	13° Ω 05'07		opposition	6372 Feb 08 10:50	19° Ω 11'59 -9°01'45
retrograde	6365 Nov 11 03:32	14° Ω 18'56		min. Earth dist.	6372 Feb 09 03:56	19° Ω 11'10 45.96247 AU
opposition	6366 Feb 02 03:53	13° Ω 19'14 -10°28'14		direct	6372 Apr 30 02:23	18° Ω 11'57
min. Earth dist.	6366 Feb 02 15:23	13° Ω 18'41 46.74473 AU		evening set	6372 Jul 25 06:29	19° Ω 22'28
direct	6366 Apr 24 15:59	12° Ω 19'58				
evening set	6366 Jul 20 21:34	13° Ω 31'02		conjunction	6372 Aug 07 09:22	19° Ω 40'37 -8°32'01
				minimum elong	6372 Aug 07 09:32	19° Ω 40'38 8°32'03
conjunction	6366 Aug 01 20:10	13° Ω 47'23 -9°56'02		max. Earth dist.	6372 Aug 06 13:20	19° Ω 39'27 47.86939 AU
minimum elong	6366 Aug 01 20:21	13° Ω 47'24 9°56'04		morning rise	6372 Aug 20 14:04	19° Ω 58'53
max. Earth dist.	6366 Aug 01 07:47	13° Ω 46'40 48.65515 AU		retrograde	6372 Nov 17 18:50	21° Ω 11'51
morning rise	6366 Aug 13 20:18	14° Ω 03'50		opposition	6373 Feb 08 16:25	20° Ω 11'23 -8°46'28
	6366 Oct 02 01:00	15° Ω		min. Earth dist.	6373 Feb 09 11:13	20° Ω 10'28 45.82027 AU
retrograde	6366 Nov 12 06:19	15° Ω 17'30		direct	6373 May 01 07:57	19° Ω 11'14
	6366 Dec 23 23:23	15° Ω		evening set	6373 Jul 26 08:38	20° Ω 21'43
opposition	6367 Feb 03 08:53	14° Ω 17'42 -10°14'24				
min. Earth dist.	6367 Feb 03 20:46	14° Ω 17'09 46.62542 AU		conjunction	6373 Aug 08 15:59	20° Ω 40'10 -8°17'10
direct	6367 Apr 25 23:41	13° Ω 18'20		minimum elong	6373 Aug 08 16:09	20° Ω 40'10 8°17'11
evening set	6367 Jul 21 22:39	14° Ω 29'17		max. Earth dist.	6373 Aug 07 20:06	20° Ω 39'00 47.72729 AU
max. Earth dist.	6367 Aug 02 11:28	14° Ω 45'05 48.53457 AU		morning rise	6373 Aug 22 00:52	20° Ω 58'43
				retrograde	6373 Nov 19 01:34	22° Ω 11'39
conjunction	6367 Aug 03 02:11	14° Ω 45'56 -9°42'36		opposition	6374 Feb 09 21:51	21° Ω 11'05 -8°30'56
minimum elong	6367 Aug 03 02:21	14° Ω 45'57 9°42'37		min. Earth dist.	6374 Feb 10 16:45	21° Ω 10'10 45.67555 AU

direct	6374 May 02 13:22	20°Ω10'49	retrograde	6380 Nov 26 09:02	29°Ω21'56
evening set	6374 Jul 27 11:10	21°Ω21'18	opposition	6381 Feb 16 16:34	28°Ω20'36 -6°35'00
			min. Earth dist.	6381 Feb 17 19:55	28°Ω19'15 44.55998 AU
conjunction	6374 Aug 09 22:37	21°Ω40'03 -8°02'04	direct	6381 May 09 02:07	27°Ω19'23
minimum elong	6374 Aug 09 22:47	21°Ω40'03 8°02'07	evening set	6381 Aug 02 12:24	28°Ω30'19
max. Earth dist.	6374 Aug 09 00:53	21°Ω38'47 47.58268 AU	max. Earth dist.	6381 Aug 15 20:08	28°Ω49'13 46.46127 AU
morning rise	6374 Aug 23 11:55	21°Ω58'54			
retrograde	6374 Nov 20 11:45	23°Ω11'48	conjunction	6381 Aug 17 02:15	28°Ω51'00 -6°09'44
opposition	6375 Feb 11 03:33	22°Ω11'09 -8°15'07	minimum elong	6381 Aug 17 02:23	28°Ω51'01 6°09'46
min. Earth dist.	6375 Feb 11 23:23	22°Ω10'12 45.52826 AU	morning rise	6381 Aug 31 17:40	29°Ω11'48
direct	6375 May 03 15:16	21°Ω10'47		6381 Oct 10 02:25	0°♊
evening set	6375 Jul 28 13:48	22°Ω21'18	retrograde	6381 Nov 27 15:56	0°♊24'55
max. Earth dist.	6375 Aug 10 07:16	22°Ω39'03 47.43510 AU		6382 Jan 15 17:45	30°♋
			opposition	6382 Feb 17 23:01	29°Ω23'25 -6°17'26
conjunction	6375 Aug 11 05:28	22°Ω40'21 -7°46'44	min. Earth dist.	6382 Feb 19 02:41	29°Ω22'04 44.38342 AU
minimum elong	6375 Aug 11 05:38	22°Ω40'21 7°46'45	direct	6382 May 10 09:57	28°Ω22'00
morning rise	6375 Aug 24 22:45	22°Ω59'29	evening set	6382 Aug 03 17:12	29°Ω33'03
retrograde	6375 Nov 21 19:26	24°Ω12'23	max. Earth dist.	6382 Aug 17 02:17	29°Ω52'06 46.28403 AU
opposition	6376 Feb 12 09:21	23°Ω11'40 -7°59'03			
min. Earth dist.	6376 Feb 13 06:40	23°Ω10'38 45.37774 AU	conjunction	6382 Aug 18 10:15	29°Ω54'00 -5°52'44
direct	6376 May 03 20:09	22°Ω11'11	minimum elong	6382 Aug 18 10:22	29°Ω54'01 5°52'45
evening set	6376 Jul 28 16:50	23°Ω21'46		6382 Aug 22 14:31	0°♊
			morning rise	6382 Sep 02 04:59	0°♊15'04
conjunction	6376 Aug 11 12:28	23°Ω41'05 -7°31'09	retrograde	6382 Nov 28 22:27	1°♊28'16
minimum elong	6376 Aug 11 12:37	23°Ω41'06 7°31'11	opposition	6383 Feb 19 05:52	0°♊26'35 -5°59'36
max. Earth dist.	6376 Aug 10 13:13	23°Ω39'43 47.28420 AU	min. Earth dist.	6383 Feb 20 11:28	0°♊25'07 44.20355 AU
morning rise	6376 Aug 25 09:44	24°Ω00'31		6383 Mar 14 09:22	30°♋
retrograde	6376 Nov 22 00:39	25°Ω13'26	direct	6383 May 11 17:55	29°Ω24'58
opposition	6377 Feb 12 15:12	24°Ω12'38 -7°42'44		6383 Jul 07 21:52	0°♊
min. Earth dist.	6377 Feb 13 12:48	24°Ω11'35 45.22356 AU	evening set	6383 Aug 04 22:04	0°♊36'08
direct	6377 May 05 03:13	23°Ω12'02	max. Earth dist.	6383 Aug 18 10:27	0°♊55'25 46.10377 AU
evening set	6377 Jul 29 20:11	24°Ω22'41			
			conjunction	6383 Aug 19 18:22	0°♊57'20 -5°35'29
conjunction	6377 Aug 12 19:38	24°Ω42'17 -7°15'20	minimum elong	6383 Aug 19 18:30	0°♊57'20 5°35'31
minimum elong	6377 Aug 12 19:48	24°Ω42'18 7°15'21	morning rise	6383 Sep 03 16:02	1°♊18'39
max. Earth dist.	6377 Aug 11 18:18	24°Ω40'47 47.12904 AU	retrograde	6383 Nov 30 04:45	2°♊31'56
morning rise	6377 Aug 26 20:53	25°Ω02'00	opposition	6384 Feb 20 12:42	1°♊30'05 -5°41'31
retrograde	6377 Nov 23 06:57	26°Ω14'58	min. Earth dist.	6384 Feb 21 18:15	1°♊28'37 44.02086 AU
opposition	6378 Feb 13 21:25	25°Ω14'03 -7°26'10	direct	6384 May 12 02:10	0°♊28'16
min. Earth dist.	6378 Feb 14 21:13	25°Ω12'53 45.06485 AU	evening set	6384 Aug 05 03:26	1°♊39'34
direct	6378 May 06 10:38	24°Ω13'20	max. Earth dist.	6384 Aug 18 16:45	1°♊58'59 45.92094 AU
evening set	6378 Jul 30 23:52	25°Ω24'02			
max. Earth dist.	6378 Aug 13 01:26	25°Ω42'24 46.96913 AU	conjunction	6384 Aug 20 02:33	2°♊01'01 -5°17'59
			minimum elong	6384 Aug 20 02:41	2°♊01'02 5°18'00
conjunction	6378 Aug 14 03:14	25°Ω43'55 -6°59'17	morning rise	6384 Sep 04 03:22	2°♊22'36
minimum elong	6378 Aug 14 03:23	25°Ω43'56 6°59'19	retrograde	6384 Nov 30 15:48	3°♊36'00
morning rise	6378 Aug 28 08:04	26°Ω03'55	opposition	6385 Feb 20 19:47	2°♊33'58 -5°23'08
retrograde	6378 Nov 24 14:51	27°Ω16'55	min. Earth dist.	6385 Feb 22 02:26	2°♊32'27 43.83593 AU
opposition	6379 Feb 15 03:33	26°Ω15'53 -7°09'22	direct	6385 May 13 06:15	1°♊31'57
min. Earth dist.	6379 Feb 16 04:00	26°Ω14'41 44.90118 AU	evening set	6385 Aug 06 08:55	2°♊43'25
direct	6379 May 07 16:30	25°Ω15'01	max. Earth dist.	6385 Aug 20 01:05	3°♊03'05 45.73580 AU
evening set	6379 Aug 01 03:57	26°Ω25'48			
max. Earth dist.	6379 Aug 14 06:31	26°Ω44'16 46.80433 AU	conjunction	6385 Aug 21 11:05	3°♊05'08 -5°00'13
			minimum elong	6385 Aug 21 11:12	3°♊05'08 5°00'15
conjunction	6379 Aug 15 10:47	26°Ω45'57 -6°43'01	morning rise	6385 Sep 05 14:36	3°♊26'57
minimum elong	6379 Aug 15 10:56	26°Ω45'57 6°43'02	retrograde	6385 Dec 02 02:03	4°♊40'30
morning rise	6379 Aug 29 19:24	27°Ω06'13	opposition	6386 Feb 22 03:09	3°♊38'18 -5°04'30
retrograde	6379 Nov 26 01:13	28°Ω19'15	min. Earth dist.	6386 Feb 23 10:46	3°♊36'43 43.64868 AU
opposition	6380 Feb 16 09:58	27°Ω18'05 -6°52'18	direct	6386 May 14 11:46	2°♊36'05
min. Earth dist.	6380 Feb 17 11:53	27°Ω16'49 44.73282 AU	evening set	6386 Aug 07 14:58	3°♊47'45
direct	6380 May 07 19:41	26°Ω17'03	max. Earth dist.	6386 Aug 21 08:46	4°♊07'35 45.54850 AU
evening set	6380 Aug 01 07:55	27°Ω27'54			
			conjunction	6386 Aug 22 19:48	4°♊09'43 -4°42'12
conjunction	6380 Aug 15 18:24	27°Ω48'19 -6°26'30	minimum elong	6386 Aug 22 19:55	4°♊09'43 4°42'12
minimum elong	6380 Aug 15 18:32	27°Ω48'19 6°26'31	morning rise	6386 Sep 07 02:04	4°♊31'46
max. Earth dist.	6380 Aug 14 13:21	27°Ω46'36 46.63482 AU	retrograde	6386 Dec 03 11:37	5°♊45'29
morning rise	6380 Aug 30 06:24	28°Ω08'51	opposition	6387 Feb 23 10:29	4°♊43'07 -4°45'34

min. Earth dist.	6387 Feb 24 18:13	4° \mathring{M} 41'32	43.45924 AU	morning rise	6393 Sep 15 12:39	12° \mathring{M} 22'01	
direct	6387 May 15 18:17	3° \mathring{M} 40'44		retrograde	6393 Dec 11 06:57	13° \mathring{M} 37'27	
evening set	6387 Aug 08 21:22	4° \mathring{M} 52'38		opposition	6394 Mar 02 21:10	12° \mathring{M} 33'46	-2°25'36
max. Earth dist.	6387 Aug 22 16:10	5° \mathring{M} 12'36	45.35863 AU	min. Earth dist.	6394 Mar 04 12:58	12° \mathring{M} 31'43	42.03013 AU
				direct	6394 May 23 05:42	11° \mathring{M} 29'50	
conjunction	6387 Aug 24 04:44	5° \mathring{M} 14'50	-4°23'55	evening set	6394 Aug 16 05:38	12° \mathring{M} 43'52	
minimum elong	6387 Aug 24 04:50	5° \mathring{M} 14'50	4°23'57	max. Earth dist.	6394 Aug 30 04:46	13° \mathring{M} 04'45	43.92081 AU
morning rise	6387 Sep 08 13:34	5° \mathring{M} 37'08					
retrograde	6387 Dec 04 19:07	6° \mathring{M} 51'02		conjunction	6394 Sep 01 02:41	13° \mathring{M} 07'39	-2°09'01
opposition	6388 Feb 24 18:17	5° \mathring{M} 48'31	-4°26'22	minimum elong	6394 Sep 01 02:45	13° \mathring{M} 07'39	2°09'01
min. Earth dist.	6388 Feb 26 03:52	5° \mathring{M} 46'50	43.26709 AU	morning rise	6394 Sep 17 00:53	13° \mathring{M} 31'32	
direct	6388 May 16 03:24	4° \mathring{M} 45'57		retrograde	6394 Dec 12 17:59	14° \mathring{M} 47'18	
evening set	6388 Aug 09 03:56	5° \mathring{M} 58'06		opposition	6395 Mar 04 06:23	13° \mathring{M} 43'23	-2°04'32
max. Earth dist.	6388 Aug 23 01:16	6° \mathring{M} 18'18	45.16581 AU	min. Earth dist.	6395 Mar 05 23:52	13° \mathring{M} 41'14	41.81075 AU
				direct	6395 May 24 13:29	12° \mathring{M} 39'10	
conjunction	6388 Aug 24 13:52	6° \mathring{M} 20'33	-4°05'23	evening set	6395 Aug 17 15:15	13° \mathring{M} 53'35	
minimum elong	6388 Aug 24 13:58	6° \mathring{M} 20'33	4°05'24	max. Earth dist.	6395 Aug 31 15:47	14° \mathring{M} 14'40	43.70051 AU
morning rise	6388 Sep 09 00:58	6° \mathring{M} 43'06					
retrograde	6388 Dec 05 02:40	7° \mathring{M} 57'13		conjunction	6395 Sep 02 13:44	14° \mathring{M} 17'34	-1°48'45
opposition	6389 Feb 25 02:10	6° \mathring{M} 54'33	-4°06'55	minimum elong	6395 Sep 02 13:47	14° \mathring{M} 17'35	1°48'45
min. Earth dist.	6389 Feb 26 12:01	6° \mathring{M} 52'50	43.07158 AU	morning rise	6395 Sep 18 12:59	14° \mathring{M} 41'39	
direct	6389 May 17 12:35	5° \mathring{M} 51'48		retrograde	6395 Dec 14 05:43	15° \mathring{M} 57'47	
evening set	6389 Aug 10 11:18	7° \mathring{M} 04'12		opposition	6396 Mar 04 15:57	14° \mathring{M} 53'37	-1°43'12
max. Earth dist.	6389 Aug 24 08:17	7° \mathring{M} 24'29	44.96916 AU	min. Earth dist.	6396 Mar 06 10:00	14° \mathring{M} 51'26	41.58886 AU
				direct	6396 May 24 21:07	13° \mathring{M} 49'08	
conjunction	6389 Aug 25 23:21	7° \mathring{M} 26'54	-3°46'37	evening set	6396 Aug 18 01:17	15° \mathring{M} 03'57	
minimum elong	6389 Aug 25 23:26	7° \mathring{M} 26'54	3°46'38	max. Earth dist.	6396 Sep 01 01:27	15° \mathring{M} 25'08	43.47806 AU
morning rise	6389 Sep 10 12:51	7° \mathring{M} 49'41					
retrograde	6389 Dec 06 14:12	9° \mathring{M} 04'03		conjunction	6396 Sep 03 00:45	15° \mathring{M} 28'09	-1°28'13
opposition	6390 Feb 26 10:17	8° \mathring{M} 01'12	-3°47'11	minimum elong	6396 Sep 03 00:48	15° \mathring{M} 28'09	1°28'14
min. Earth dist.	6390 Feb 27 21:59	7° \mathring{M} 59'24	42.87207 AU	morning rise	6396 Sep 19 01:11	15° \mathring{M} 52'25	
direct	6390 May 18 18:02	6° \mathring{M} 58'15		retrograde	6396 Dec 14 19:35	17° \mathring{M} 08'55	
evening set	6390 Aug 11 18:58	8° \mathring{M} 10'57		opposition	6397 Mar 06 01:43	16° \mathring{M} 04'31	-1°21'35
max. Earth dist.	6390 Aug 25 17:27	8° \mathring{M} 31'24	44.76806 AU	min. Earth dist.	6397 Mar 07 20:10	16° \mathring{M} 02'18	41.36513 AU
				direct	6397 May 26 04:02	14° \mathring{M} 59'46	
conjunction	6390 Aug 27 09:17	8° \mathring{M} 33'52	-3°27'35	evening set	6397 Aug 19 11:55	16° \mathring{M} 15'02	
minimum elong	6390 Aug 27 09:22	8° \mathring{M} 33'52	3°27'36	max. Earth dist.	6397 Sep 02 12:01	16° \mathring{M} 36'20	43.25367 AU
morning rise	6390 Sep 12 00:42	8° \mathring{M} 56'53					
retrograde	6390 Dec 08 00:48	10° \mathring{M} 11'30		conjunction	6397 Sep 04 12:20	16° \mathring{M} 39'25	-1°07'27
opposition	6391 Feb 27 18:44	9° \mathring{M} 08'29	-3°27'11	minimum elong	6397 Sep 04 12:22	16° \mathring{M} 39'25	1°07'28
min. Earth dist.	6391 Mar 01 07:40	9° \mathring{M} 06'36	42.66789 AU	morning rise	6397 Sep 20 13:31	17° \mathring{M} 03'53	
direct	6391 May 20 01:41	8° \mathring{M} 05'18		retrograde	6397 Dec 16 07:08	18° \mathring{M} 20'47	
evening set	6391 Aug 13 03:01	9° \mathring{M} 18'18		opposition	6398 Mar 07 11:47	17° \mathring{M} 16'08	-0°59'41
max. Earth dist.	6391 Aug 27 01:43	9° \mathring{M} 38'52	44.56241 AU	min. Earth dist.	6398 Mar 09 07:40	17° \mathring{M} 13'51	41.13971 AU
				direct	6398 May 27 15:15	16° \mathring{M} 11'07	
conjunction	6391 Aug 28 19:12	9° \mathring{M} 41'27	-3°08'19	evening set	6398 Aug 20 23:03	17° \mathring{M} 26'53	
minimum elong	6391 Aug 28 19:16	9° \mathring{M} 41'27	3°08'20	max. Earth dist.	6398 Sep 03 23:50	17° \mathring{M} 48'20	43.02779 AU
morning rise	6391 Sep 13 12:37	10° \mathring{M} 04'41					
retrograde	6391 Dec 09 12:43	11° \mathring{M} 19'33		conjunction	6398 Sep 06 00:15	17° \mathring{M} 51'27	-0°46'26
opposition	6392 Feb 29 03:19	10° \mathring{M} 16'20	-3°06'56	minimum elong	6398 Sep 06 00:16	17° \mathring{M} 51'27	0°46'27
min. Earth dist.	6392 Mar 01 16:56	10° \mathring{M} 14'25	42.45928 AU	morning rise	6398 Sep 22 02:03	18° \mathring{M} 16'05	
direct	6392 May 20 09:29	9° \mathring{M} 12'54		retrograde	6398 Dec 17 18:07	19° \mathring{M} 33'26	
evening set	6392 Aug 13 11:29	10° \mathring{M} 26'14		opposition	6399 Mar 08 22:07	18° \mathring{M} 28'34	-0°37'32
max. Earth dist.	6392 Aug 27 10:11	10° \mathring{M} 46'54	44.35226 AU	min. Earth dist.	6399 Mar 10 17:45	18° \mathring{M} 26'16	40.91278 AU
				direct	6399 May 29 03:37	17° \mathring{M} 23'16	
conjunction	6392 Aug 29 05:28	10° \mathring{M} 49'36	-2°48'48	evening set	6399 Aug 22 10:43	18° \mathring{M} 39'33	
minimum elong	6392 Aug 29 05:32	10° \mathring{M} 49'37	2°48'48	max. Earth dist.	6399 Sep 05 09:56	19° \mathring{M} 01'03	42.80014 AU
morning rise	6392 Sep 14 00:36	11° \mathring{M} 13'04					
retrograde	6392 Dec 09 22:54	12° \mathring{M} 28'13		conjunction	6399 Sep 07 12:16	19° \mathring{M} 04'18	-0°25'11
opposition	6393 Mar 01 12:11	11° \mathring{M} 24'46	-2°46'24	minimum elong	6399 Sep 07 12:16	19° \mathring{M} 04'19	0°25'10
min. Earth dist.	6393 Mar 03 03:55	11° \mathring{M} 22'44	42.24652 AU	morning rise	6399 Sep 23 14:34	19° \mathring{M} 29'08	
direct	6393 May 21 18:50	10° \mathring{M} 21'05		retrograde	6399 Dec 19 06:20	20° \mathring{M} 46'57	
evening set	6393 Aug 14 20:13	11° \mathring{M} 34'45		opposition	6400 Mar 09 08:51	19° \mathring{M} 41'51	-0°15'06
max. Earth dist.	6393 Aug 28 20:16	11° \mathring{M} 55'36	44.13828 AU	min. Earth dist.	6400 Mar 11 06:13	19° \mathring{M} 39'27	40.68408 AU
				direct	6400 May 29 13:21	18° \mathring{M} 36'18	
conjunction	6393 Aug 30 15:59	11° \mathring{M} 58'20	-2°29'02	evening set	6400 Aug 22 22:53	19° \mathring{M} 53'08	
minimum elong	6393 Aug 30 16:02	11° \mathring{M} 58'20	2°29'02	max. Earth dist.	6400 Sep 05 22:35	20° \mathring{M} 14'46	42.57040 AU

conjunction	6400 Sep 08 00:54	20° <u>18</u> '03	-0°03'43	opposition	6407 Mar 18 21:21	28° <u>19</u> '39'43	2°29'05
minimum elong	6400 Sep 08 00:53	20° <u>18</u> '03	0°03'44	min. Earth dist.	6407 Mar 21 01:36	28° <u>19</u> '36'51	39.00076 AU
behind sun begin	6400 Sep 07 18:26	20° <u>17</u> '40		direct	6407 Jun 07 21:07	27° <u>19</u> '31'51	
behind sun end	6400 Sep 08 07:20	20° <u>18</u> '27		evening set	6407 Sep 02 06:01	28° <u>19</u> '53'18	
morning rise	6400 Sep 24 03:15	20° <u>14</u> '30'03		max. Earth dist.	6407 Sep 15 16:39	29° <u>19</u> '15'05	40.87529 AU
asc. node	6400 Nov 08 19:04	21° <u>14</u> '41'31					
retrograde	6400 Dec 19 17:43	22° <u>10</u> '01'23		conjunction	6407 Sep 18 03:27	29° <u>19</u> '19'05	2°33'23
opposition	6401 Mar 10 19:48	20° <u>15</u> '56'03	0°07'35	minimum elong	6407 Sep 18 03:22	29° <u>19</u> '19'05	2°33'24
min. Earth dist.	6401 Mar 12 17:36	20° <u>15</u> '53'37	40.45300 AU	morning rise	6407 Oct 04 00:37	29° <u>19</u> '44'55	
direct	6401 May 31 00:07	19° <u>15</u> '50'14			6407 Oct 13 16:16	0° <u>19</u> '	
evening set	6401 Aug 24 11:51	21° <u>10</u> '07'38		retrograde	6407 Dec 29 24:00	1° <u>10</u> '07'32	
max. Earth dist.	6401 Sep 07 09:34	21° <u>10</u> '29'18	42.33794 AU	opposition	6408 Mar 19 10:55	0° <u>10</u> '00'04	2°53'31
					6408 Mar 19 12:00	30° <u>18</u> '	
conjunction	6401 Sep 09 13:47	21° <u>10</u> '32'43	0°18'08	min. Earth dist.	6408 Mar 21 15:55	29° <u>19</u> '57'08	38.75063 AU
minimum elong	6401 Sep 09 13:47	21° <u>10</u> '32'43	0°18'08	direct	6408 Jun 08 09:35	28° <u>19</u> '51'49	
morning rise	6401 Sep 25 16:19	21° <u>10</u> '57'52			6408 Aug 25 00:40	0° <u>10</u> '	
retrograde	6401 Dec 21 09:50	23° <u>10</u> '16'45		evening set	6408 Sep 02 23:19	0° <u>10</u> '14'03	
opposition	6402 Mar 12 07:11	22° <u>10</u> '11'10	0°30'32	max. Earth dist.	6408 Sep 16 07:29	0° <u>10</u> '35'50	40.62415 AU
min. Earth dist.	6402 Mar 14 06:06	22° <u>10</u> '08'40	40.21896 AU				
direct	6402 Jun 01 07:54	21° <u>10</u> '05'03		conjunction	6408 Sep 18 18:58	0° <u>10</u> '39'55	2°56'40
evening set	6402 Aug 26 01:25	22° <u>10</u> '23'04		minimum elong	6408 Sep 18 18:53	0° <u>10</u> '39'55	2°56'40
max. Earth dist.	6402 Sep 08 21:53	22° <u>10</u> '44'47	42.10195 AU	morning rise	6408 Oct 04 14:28	1° <u>10</u> '05'49	
				retrograde	6408 Dec 30 18:20	2° <u>10</u> '29'10	
conjunction	6402 Sep 11 03:17	22° <u>10</u> '48'18	0°40'06	opposition	6409 Mar 21 00:42	1° <u>10</u> '21'22	3°18'10
minimum elong	6402 Sep 11 03:15	22° <u>10</u> '48'18	0°40'05	min. Earth dist.	6409 Mar 23 05:37	1° <u>10</u> '18'26	38.49989 AU
morning rise	6402 Sep 27 05:24	23° <u>10</u> '13'35		direct	6409 Jun 09 22:23	0° <u>10</u> '12'45	
retrograde	6402 Dec 23 00:59	24° <u>10</u> '33'02		evening set	6409 Sep 04 17:22	1° <u>10</u> '35'51	
opposition	6403 Mar 13 18:57	23° <u>10</u> '27'10	0°53'45	max. Earth dist.	6409 Sep 17 22:21	1° <u>10</u> '57'35	40.37230 AU
min. Earth dist.	6403 Mar 15 19:36	23° <u>10</u> '24'34	39.98133 AU				
direct	6403 Jun 02 17:45	22° <u>10</u> '20'44		conjunction	6409 Sep 20 11:02	2° <u>10</u> '01'47	3°20'09
evening set	6403 Aug 27 15:33	23° <u>10</u> '39'23		minimum elong	6409 Sep 20 10:56	2° <u>10</u> '01'47	3°20'10
max. Earth dist.	6403 Sep 10 10:39	24° <u>10</u> '01'09	41.86250 AU	morning rise	6409 Oct 06 04:26	2° <u>10</u> '27'44	
				retrograde	6410 Jan 01 11:27	3° <u>10</u> '51'53	
conjunction	6403 Sep 12 17:01	24° <u>10</u> '04'45	1°02'18	opposition	6410 Mar 22 15:11	2° <u>10</u> '43'45	3°43'01
minimum elong	6403 Sep 12 16:59	24° <u>10</u> '04'45	1°02'19	min. Earth dist.	6410 Mar 24 21:33	2° <u>10</u> '40'43	38.24878 AU
morning rise	6403 Sep 28 18:42	24° <u>10</u> '30'11		direct	6410 Jun 11 12:09	1° <u>10</u> '34'46	
retrograde	6403 Dec 24 15:18	25° <u>10</u> '50'11		evening set	6410 Sep 06 12:09	2° <u>10</u> '58'48	
opposition	6404 Mar 14 07:01	24° <u>10</u> '44'02	1°17'13	max. Earth dist.	6410 Sep 19 15:12	3° <u>10</u> '20'33	40.12027 AU
min. Earth dist.	6404 Mar 16 07:51	24° <u>10</u> '41'24	39.74035 AU				
direct	6404 Jun 03 06:46	23° <u>10</u> '37'16		conjunction	6410 Sep 22 03:35	3° <u>10</u> '24'46	3°43'48
evening set	6404 Aug 28 06:12	24° <u>10</u> '56'34		minimum elong	6410 Sep 22 03:29	3° <u>10</u> '24'45	3°43'49
max. Earth dist.	6404 Sep 10 22:29	25° <u>10</u> '18'17	41.61958 AU	morning rise	6410 Oct 07 18:30	3° <u>10</u> '50'45	
				retrograde	6411 Jan 03 02:52	5° <u>10</u> '15'45	
conjunction	6404 Sep 13 06:58	25° <u>10</u> '22'04	1°24'45	opposition	6411 Mar 24 05:54	4° <u>10</u> '07'19	4°08'04
minimum elong	6404 Sep 13 06:55	25° <u>10</u> '22'04	1°24'44	min. Earth dist.	6411 Mar 26 11:47	4° <u>10</u> '04'17	37.99761 AU
morning rise	6404 Sep 29 08:00	25° <u>10</u> '47'36		direct	6411 Jun 13 04:12	2° <u>10</u> '57'59	
retrograde	6404 Dec 25 04:47	27° <u>10</u> '08'13		evening set	6411 Sep 08 07:51	4° <u>10</u> '22'58	
opposition	6405 Mar 15 19:34	26° <u>10</u> '01'45	1°40'56	max. Earth dist.	6411 Sep 21 06:25	4° <u>10</u> '44'36	39.86808 AU
min. Earth dist.	6405 Mar 17 22:22	25° <u>10</u> '58'59	39.49621 AU				
direct	6405 Jun 04 20:11	24° <u>10</u> '54'37		conjunction	6411 Sep 23 20:31	4° <u>10</u> '48'59	4°07'37
evening set	6405 Aug 29 21:29	26° <u>10</u> '14'36		minimum elong	6411 Sep 23 20:24	4° <u>10</u> '48'58	4°07'38
max. Earth dist.	6405 Sep 12 13:02	26° <u>10</u> '36'24	41.37371 AU	morning rise	6411 Oct 09 08:52	5° <u>10</u> '14'59	
				retrograde	6412 Jan 04 20:08	6° <u>10</u> '40'54	
conjunction	6405 Sep 14 21:32	26° <u>10</u> '40'13	1°47'25	opposition	6412 Mar 24 21:15	5° <u>10</u> '32'10	4°33'18
minimum elong	6405 Sep 14 21:29	26° <u>10</u> '40'13	1°47'25	min. Earth dist.	6412 Mar 27 04:24	5° <u>10</u> '29'03	37.74635 AU
morning rise	6405 Sep 30 21:29	27° <u>10</u> '05'52		direct	6412 Jun 13 17:32	4° <u>10</u> '22'29	
retrograde	6405 Dec 26 17:00	28° <u>10</u> '27'05		evening set	6412 Sep 09 04:07	5° <u>10</u> '48'30	
opposition	6406 Mar 17 08:12	27° <u>10</u> '20'18	2°04'53	max. Earth dist.	6412 Sep 22 00:16	6° <u>10</u> '10'08	39.61540 AU
min. Earth dist.	6406 Mar 19 11:13	27° <u>10</u> '17'31	39.24944 AU				
direct	6406 Jun 06 10:12	26° <u>10</u> '12'48		conjunction	6412 Sep 24 14:02	6° <u>10</u> '14'31	4°31'36
evening set	6406 Aug 31 13:35	27° <u>10</u> '33'30		minimum elong	6412 Sep 24 13:54	6° <u>10</u> '14'30	4°31'36
max. Earth dist.	6406 Sep 14 01:47	27° <u>10</u> '55'14	41.12544 AU	morning rise	6412 Oct 09 23:12	6° <u>10</u> '40'32	
				retrograde	6413 Jan 05 13:09	8° <u>10</u> '07'26	
conjunction	6406 Sep 16 12:19	27° <u>10</u> '59'12	2°10'18	opposition	6413 Mar 26 13:05	6° <u>10</u> '58'23	4°58'43
minimum elong	6406 Sep 16 12:15	27° <u>10</u> '59'12	2°10'17	min. Earth dist.	6413 Mar 28 20:39	6° <u>10</u> '55'13	37.49434 AU
morning rise	6406 Oct 02 11:11	28° <u>10</u> '24'57		direct	6413 Jun 15 07:37	5° <u>10</u> '48'21	
retrograde	6406 Dec 28 08:50	29° <u>10</u> '46'51		evening set	6413 Sep 11 01:40	7° <u>10</u> '15'27	

max. Earth dist.	6413 Sep 23 16:51	7° <u>0</u> 36'55	39.36168 AU	min. Earth dist.	6420 Apr 08 07:52	17° <u>0</u> 37'22	35.69263 AU
				direct	6420 Jun 25 07:01	16° <u>0</u> 28'00	
conjunction	6413 Sep 26 08:09	7° <u>0</u> 41'27	4°55'42	evening set	6420 Sep 23 10:04	18° <u>0</u> 04'00	
minimum elong	6413 Sep 26 08:00	7° <u>0</u> 41'26	4°55'43	max. Earth dist.	6420 Oct 04 09:56	18° <u>0</u> 23'53	37.54512 AU
morning rise	6413 Oct 11 14:06	8° <u>0</u> 07'27					
retrograde	6414 Jan 07 09:44	9° <u>0</u> 35'22		conjunction	6420 Oct 07 06:49	18° <u>0</u> 29'07	7°47'14
opposition	6414 Mar 28 05:17	8° <u>0</u> 26'01	5°24'17	minimum elong	6420 Oct 07 06:34	18° <u>0</u> 29'06	7°47'16
min. Earth dist.	6414 Mar 30 13:38	8° <u>0</u> 22'48	37.24116 AU	morning rise	6420 Oct 21 02:28	18° <u>0</u> 54'11	
direct	6414 Jun 16 21:01	7° <u>0</u> 15'37		retrograde	6421 Jan 18 12:39	20° <u>0</u> 30'26	
evening set	6414 Sep 13 00:02	8° <u>0</u> 43'51		opposition	6421 Apr 07 15:03	19° <u>0</u> 18'24	8°26'27
max. Earth dist.	6414 Sep 25 10:36	9° <u>0</u> 05'10	39.10618 AU	min. Earth dist.	6421 Apr 10 03:56	19° <u>0</u> 14'45	35.43416 AU
				direct	6421 Jun 27 01:52	18° <u>0</u> 04'55	
conjunction	6414 Sep 28 02:59	9° <u>0</u> 09'49	5°19'57	evening set	6421 Sep 25 15:20	19° <u>0</u> 42'26	
minimum elong	6414 Sep 28 02:49	9° <u>0</u> 09'48	5°19'58	max. Earth dist.	6421 Oct 06 08:04	20° <u>0</u> 01'58	37.28507 AU
morning rise	6414 Oct 13 05:04	9° <u>0</u> 35'46					
retrograde	6415 Jan 09 06:23	11° <u>0</u> 04'44		conjunction	6421 Oct 09 05:37	20° <u>0</u> 07'17	8°11'52
opposition	6415 Mar 29 22:18	9° <u>0</u> 55'03	5°50'01	minimum elong	6421 Oct 09 05:21	20° <u>0</u> 07'16	8°11'52
min. Earth dist.	6415 Apr 01 08:09	9° <u>0</u> 51'44	36.98615 AU	morning rise	6421 Oct 22 18:36	20° <u>0</u> 32'05	
direct	6415 Jun 18 13:11	8° <u>0</u> 44'16		retrograde	6422 Jan 20 12:56	22° <u>0</u> 09'46	
evening set	6415 Sep 14 23:14	10° <u>0</u> 13'41		opposition	6422 Apr 09 11:58	20° <u>0</u> 57'18	8°52'37
max. Earth dist.	6415 Sep 27 05:16	10° <u>0</u> 34'52	38.84890 AU	min. Earth dist.	6422 Apr 12 01:53	20° <u>0</u> 53'35	35.17717 AU
				direct	6422 Jun 28 21:23	19° <u>0</u> 43'22	
conjunction	6415 Sep 29 22:07	10° <u>0</u> 39'35	5°44'19	evening set	6422 Sep 27 21:47	21° <u>0</u> 22'28	
minimum elong	6415 Sep 29 21:56	10° <u>0</u> 39'34	5°44'19	max. Earth dist.	6422 Oct 08 07:59	21° <u>0</u> 41'41	37.02684 AU
morning rise	6415 Oct 14 20:09	11° <u>0</u> 05'27					
retrograde	6416 Jan 11 04:31	12° <u>0</u> 35'32		conjunction	6422 Oct 11 05:00	21° <u>0</u> 47'01	8°36'24
opposition	6416 Mar 30 15:42	11° <u>0</u> 25'29	6°15'52	minimum elong	6422 Oct 11 04:44	21° <u>0</u> 47'00	8°36'26
min. Earth dist.	6416 Apr 02 01:26	11° <u>0</u> 22'09	36.72941 AU	morning rise	6422 Oct 24 10:51	22° <u>0</u> 11'31	
direct	6416 Jun 19 07:14	10° <u>0</u> 14'18		retrograde	6423 Jan 22 13:50	23° <u>0</u> 50'41	
evening set	6416 Sep 15 23:29	11° <u>0</u> 44'56		opposition	6423 Apr 11 09:30	22° <u>0</u> 37'49	9°18'43
max. Earth dist.	6416 Sep 27 23:10	12° <u>0</u> 05'50	38.58976 AU	min. Earth dist.	6423 Apr 13 22:29	22° <u>0</u> 34'08	34.92219 AU
				direct	6423 Jun 30 19:27	21° <u>0</u> 23'26	
conjunction	6416 Sep 30 17:56	12° <u>0</u> 10'44	6°08'47	evening set	6423 Sep 30 05:15	23° <u>0</u> 04'13	
minimum elong	6416 Sep 30 17:45	12° <u>0</u> 10'43	6°08'48	max. Earth dist.	6423 Oct 10 06:44	23° <u>0</u> 22'56	36.77055 AU
morning rise	6416 Oct 15 11:34	12° <u>0</u> 36'31					
retrograde	6417 Jan 12 00:13	14° <u>0</u> 07'43		conjunction	6423 Oct 13 04:52	23° <u>0</u> 28'25	9°00'51
opposition	6417 Apr 01 09:39	12° <u>0</u> 57'18	6°41'51	minimum elong	6423 Oct 13 04:34	23° <u>0</u> 28'24	9°00'52
min. Earth dist.	6417 Apr 03 21:16	12° <u>0</u> 53'50	36.47118 AU	morning rise	6423 Oct 26 03:13	23° <u>0</u> 52'34	
direct	6417 Jun 21 00:27	11° <u>0</u> 45'41		retrograde	6424 Jan 24 15:12	25° <u>0</u> 33'19	
evening set	6417 Sep 18 00:38	13° <u>0</u> 17'35		opposition	6424 Apr 12 07:50	24° <u>0</u> 20'04	9°44'42
max. Earth dist.	6417 Sep 29 19:49	13° <u>0</u> 38'19	38.32925 AU	min. Earth dist.	6424 Apr 14 21:52	24° <u>0</u> 16'17	34.66933 AU
				direct	6424 Jul 01 16:28	23° <u>0</u> 05'14	
conjunction	6417 Oct 02 14:27	13° <u>0</u> 43'16	6°33'20	evening set	6424 Oct 01 14:05	24° <u>0</u> 47'46	
minimum elong	6417 Oct 02 14:14	13° <u>0</u> 43'15	6°33'21	max. Earth dist.	6424 Oct 11 08:32	25° <u>0</u> 06'08	36.51619 AU
morning rise	6417 Oct 17 03:06	14° <u>0</u> 08'55					
retrograde	6418 Jan 13 19:03	15° <u>0</u> 41'17		conjunction	6424 Oct 14 05:44	25° <u>0</u> 11'35	9°25'10
opposition	6418 Apr 03 04:09	14° <u>0</u> 30'29	7°07'56	minimum elong	6424 Oct 14 05:26	25° <u>0</u> 11'34	9°25'12
min. Earth dist.	6418 Apr 05 15:43	14° <u>0</u> 26'59	36.21183 AU	morning rise	6424 Oct 26 19:51	25° <u>0</u> 35'20	
direct	6418 Jun 22 20:23	13° <u>0</u> 18'25		retrograde	6425 Jan 25 15:56	27° <u>0</u> 17'44	
evening set	6418 Sep 20 02:52	14° <u>0</u> 51'37		opposition	6425 Apr 14 06:41	26° <u>0</u> 04'07	10°10'33
max. Earth dist.	6418 Oct 01 14:51	15° <u>0</u> 12'02	38.06784 AU	min. Earth dist.	6425 Apr 16 20:25	26° <u>0</u> 00'19	34.41823 AU
				direct	6425 Jul 03 15:44	24° <u>0</u> 48'51	
conjunction	6418 Oct 04 11:18	15° <u>0</u> 17'09	6°57'57	evening set	6425 Oct 04 00:25	26° <u>0</u> 33'14	
minimum elong	6418 Oct 04 11:05	15° <u>0</u> 17'08	6°57'59	max. Earth dist.	6425 Oct 13 08:41	26° <u>0</u> 50'59	36.26333 AU
morning rise	6418 Oct 18 18:50	15° <u>0</u> 42'38					
retrograde	6419 Jan 15 16:22	17° <u>0</u> 16'15		conjunction	6425 Oct 16 07:17	26° <u>0</u> 56'37	9°49'19
opposition	6419 Apr 04 23:09	16° <u>0</u> 05'02	7°34'05	minimum elong	6425 Oct 16 06:59	26° <u>0</u> 56'35	9°49'20
min. Earth dist.	6419 Apr 07 11:45	16° <u>0</u> 01'28	35.95213 AU	morning rise	6425 Oct 28 12:54	27° <u>0</u> 19'54	
direct	6419 Jun 24 12:57	14° <u>0</u> 52'30		retrograde	6426 Jan 27 19:10	29° <u>0</u> 04'03	
evening set	6419 Sep 22 05:56	16° <u>0</u> 27'05		opposition	6426 Apr 16 06:22	27° <u>0</u> 50'03	10°36'14
max. Earth dist.	6419 Oct 03 12:37	16° <u>0</u> 47'17	37.80617 AU	min. Earth dist.	6426 Apr 18 20:48	27° <u>0</u> 46'11	34.16853 AU
				direct	6426 Jul 05 12:46	26° <u>0</u> 34'21	
conjunction	6419 Oct 06 08:54	16° <u>0</u> 52'26	7°22'36	evening set	6426 Oct 06 11:56	28° <u>0</u> 20'40	
minimum elong	6419 Oct 06 08:39	16° <u>0</u> 52'24	7°22'36	max. Earth dist.	6426 Oct 15 11:18	28° <u>0</u> 37'52	36.01137 AU
morning rise	6419 Oct 20 10:32	17° <u>0</u> 17'43					
retrograde	6420 Jan 17 12:42	18° <u>0</u> 52'37		conjunction	6426 Oct 18 09:44	28° <u>0</u> 43'32	10°13'16
opposition	6420 Apr 05 18:51	17° <u>0</u> 41'00	8°00'16	minimum elong	6426 Oct 18 09:24	28° <u>0</u> 43'30	10°13'19

morning rise	6426 Oct 30 05:56	29° <u>06</u> '19		direct	6433 Jul 18 02:15	9° <u>00</u> '45'36	
	6426 Nov 29 14:21	0° <u>00</u> '		evening set	6433 Oct 23 14:15	11° <u>00</u> '47'49	
retrograde	6427 Jan 29 20:15	0° <u>00</u> '52'17		max. Earth dist.	6433 Oct 29 00:52	11° <u>00</u> '59'02	34.29212 AU
	6427 Apr 03 05:57	30° <u>00</u> ' <u>00</u> '					
opposition	6427 Apr 18 06:56	29° <u>00</u> '37'53	11°01'43	conjunction	6433 Oct 31 23:31	12° <u>00</u> '05'08	12°51'47
min. Earth dist.	6427 Apr 20 21:56	29° <u>00</u> '33'58	33.91966 AU	minimum elong	6433 Oct 31 23:10	12° <u>00</u> '05'06	12°51'49
direct	6427 Jul 07 11:42	28° <u>00</u> '21'44		morning rise	6433 Nov 09 07:26	12° <u>00</u> '22'20	
	6427 Oct 03 18:33	0° <u>00</u> '		retrograde	6434 Feb 12 15:40	14° <u>00</u> '23'17	
evening set	6427 Oct 09 01:01	0° <u>00</u> '10'03		opposition	6434 May 01 07:51	13° <u>00</u> '05'54	13°50'09
max. Earth dist.	6427 Oct 17 13:45	0° <u>00</u> '26'34	35.76036 AU	min. Earth dist.	6434 May 03 22:56	13° <u>00</u> '01'46	32.22972 AU
				direct	6434 Jul 20 06:47	11° <u>00</u> '46'18	
conjunction	6427 Oct 20 12:49	0° <u>00</u> '32'21	10°37'00	evening set	6434 Oct 26 14:23	13° <u>00</u> '51'14	
minimum elong	6427 Oct 20 12:29	0° <u>00</u> '32'20	10°37'01	max. Earth dist.	6434 Oct 31 09:14	14° <u>00</u> '01'12	34.06043 AU
morning rise	6427 Oct 31 23:15	0° <u>00</u> '54'34					
retrograde	6428 Feb 01 01:15	2° <u>00</u> '42'25		conjunction	6434 Nov 03 07:48	14° <u>00</u> '07'21	13°12'24
opposition	6428 Apr 19 08:07	1° <u>00</u> '27'38	11°26'57	minimum elong	6434 Nov 03 07:26	14° <u>00</u> '07'19	13°12'27
min. Earth dist.	6428 Apr 21 22:54	1° <u>00</u> '23'42	33.67183 AU	morning rise	6434 Nov 11 00:05	14° <u>00</u> '23'21	
direct	6428 Jul 08 11:20	0° <u>00</u> '11'00			6434 Nov 29 02:28	15° <u>00</u> '	
evening set	6428 Oct 10 15:17	2° <u>00</u> '01'23		retrograde	6435 Feb 15 01:54	16° <u>00</u> '26'54	
max. Earth dist.	6428 Oct 18 16:59	2° <u>00</u> '17'11	35.51018 AU	opposition	6435 May 03 14:35	15° <u>00</u> '09'06	14°11'59
				min. Earth dist.	6435 May 06 04:33	15° <u>00</u> '05'01	32.00380 AU
conjunction	6428 Oct 21 16:44	2° <u>00</u> '23'04	11°00'27		6435 May 09 09:12	15° <u>00</u> ' <u>00</u> '	
minimum elong	6428 Oct 21 16:23	2° <u>00</u> '23'03	11°00'30	direct	6435 Jul 22 10:45	13° <u>00</u> '49'02	
morning rise	6428 Nov 01 16:41	2° <u>00</u> '44'40			6435 Oct 01 02:43	15° <u>00</u> '	
retrograde	6429 Feb 02 05:40	4° <u>00</u> '34'29		evening set	6435 Oct 29 16:35	15° <u>00</u> '56'50	
opposition	6429 Apr 21 10:15	3° <u>00</u> '19'16	11°51'54	max. Earth dist.	6435 Nov 02 19:33	16° <u>00</u> '05'30	33.83435 AU
min. Earth dist.	6429 Apr 24 02:19	3° <u>00</u> '15'13	33.42504 AU				
direct	6429 Jul 10 11:24	2° <u>00</u> '02'09		conjunction	6435 Nov 05 17:06	16° <u>00</u> '11'37	13°32'17
evening set	6429 Oct 13 07:18	3° <u>00</u> '54'42		minimum elong	6435 Nov 05 16:45	16° <u>00</u> '11'35	13°32'19
max. Earth dist.	6429 Oct 20 22:02	4° <u>00</u> '09'46	35.26135 AU	morning rise	6435 Nov 12 16:27	16° <u>00</u> '26'19	
				retrograde	6436 Feb 17 10:05	18° <u>00</u> '32'35	
conjunction	6429 Oct 23 21:28	4° <u>00</u> '15'41	11°23'36	opposition	6436 May 04 22:16	17° <u>00</u> '14'23	14°33'02
minimum elong	6429 Oct 23 21:07	4° <u>00</u> '15'40	11°23'37	min. Earth dist.	6436 May 07 12:14	17° <u>00</u> '10'17	31.78361 AU
morning rise	6429 Nov 03 10:10	4° <u>00</u> '36'35		direct	6436 Jul 23 16:14	15° <u>00</u> '53'54	
retrograde	6430 Feb 04 12:06	6° <u>00</u> '28'25		evening set	6436 Oct 31 21:19	18° <u>00</u> '04'45	
opposition	6430 Apr 23 12:53	5° <u>00</u> '12'47	12°16'31	max. Earth dist.	6436 Nov 04 06:39	18° <u>00</u> '11'56	33.61431 AU
min. Earth dist.	6430 Apr 26 04:11	5° <u>00</u> '08'45	33.17986 AU				
direct	6430 Jul 12 15:04	3° <u>00</u> '55'10		conjunction	6436 Nov 07 03:07	18° <u>00</u> '18'01	13°51'23
evening set	6430 Oct 16 00:37	5° <u>00</u> '49'59		minimum elong	6436 Nov 07 02:45	18° <u>00</u> '17'59	13°51'26
max. Earth dist.	6430 Oct 23 02:17	6° <u>00</u> '04'07	35.01431 AU	morning rise	6436 Nov 13 07:53	18° <u>00</u> '31'13	
				retrograde	6437 Feb 18 21:56	20° <u>00</u> '40'23	
conjunction	6430 Oct 26 02:52	6° <u>00</u> '10'12	11°46'22	opposition	6437 May 07 06:41	19° <u>00</u> '21'50	14°53'13
minimum elong	6430 Oct 26 02:31	6° <u>00</u> '10'10	11°46'24	min. Earth dist.	6437 May 09 19:08	19° <u>00</u> '17'49	31.56923 AU
morning rise	6430 Nov 05 03:46	6° <u>00</u> '30'18		direct	6437 Jul 26 00:50	18° <u>00</u> '00'55	
retrograde	6431 Feb 06 19:44	8° <u>00</u> '24'16		evening set	6437 Nov 04 04:59	20° <u>00</u> '15'04	
opposition	6431 Apr 25 16:31	7° <u>00</u> '08'11	12°40'43	max. Earth dist.	6437 Nov 06 17:50	20° <u>00</u> '20'30	33.39981 AU
min. Earth dist.	6431 Apr 28 08:48	7° <u>00</u> '04'04	32.93698 AU				
direct	6431 Jul 14 18:00	5° <u>00</u> '50'04		conjunction	6437 Nov 09 14:05	20° <u>00</u> '26'36	14°09'38
evening set	6431 Oct 18 19:25	7° <u>00</u> '47'15		minimum elong	6437 Nov 09 13:44	20° <u>00</u> '26'34	14°09'40
max. Earth dist.	6431 Oct 25 09:40	8° <u>00</u> '00'34	34.76991 AU	morning rise	6437 Nov 14 22:14	20° <u>00</u> '38'05	
				retrograde	6438 Feb 21 09:41	22° <u>00</u> '50'23	
conjunction	6431 Oct 28 08:55	8° <u>00</u> '06'35	12°08'42	opposition	6438 May 09 16:05	21° <u>00</u> '31'28	15°12'28
minimum elong	6431 Oct 28 08:34	8° <u>00</u> '06'33	12°08'43	min. Earth dist.	6438 May 12 04:59	21° <u>00</u> '27'24	31.36032 AU
morning rise	6431 Nov 06 20:57	8° <u>00</u> '25'49		direct	6438 Jul 28 08:16	20° <u>00</u> '10'08	
retrograde	6432 Feb 09 01:57	10° <u>00</u> '22'01		evening set	6438 Nov 07 16:55	22° <u>00</u> '27'53	
opposition	6432 Apr 26 20:50	9° <u>00</u> '05'29	13°04'26	max. Earth dist.	6438 Nov 09 07:15	22° <u>00</u> '31'20	33.19083 AU
min. Earth dist.	6432 Apr 29 12:13	9° <u>00</u> '01'24	32.69708 AU				
direct	6432 Jul 15 23:01	7° <u>00</u> '46'53		conjunction	6438 Nov 12 01:54	22° <u>00</u> '37'22	14°26'58
evening set	6432 Oct 20 15:56	9° <u>00</u> '46'31		minimum elong	6438 Nov 12 01:33	22° <u>00</u> '37'20	14°27'01
max. Earth dist.	6432 Oct 26 15:43	9° <u>00</u> '58'44	34.52892 AU	morning rise	6438 Nov 16 10:01	22° <u>00</u> '46'47	
				retrograde	6439 Feb 23 23:09	25° <u>00</u> '02'31	
conjunction	6432 Oct 29 15:44	10° <u>00</u> '04'53	12°30'32	opposition	6439 May 12 02:24	23° <u>00</u> '43'15	15°30'44
minimum elong	6432 Oct 29 15:22	10° <u>00</u> '04'51	12°30'34	min. Earth dist.	6439 May 14 13:45	23° <u>00</u> '39'16	31.15663 AU
morning rise	6432 Nov 07 14:20	10° <u>00</u> '23'10		direct	6439 Jul 30 18:54	22° <u>00</u> '21'32	
retrograde	6433 Feb 10 09:22	12° <u>00</u> '21'41		evening set	6439 Nov 11 11:23	24° <u>00</u> '43'25	
opposition	6433 Apr 29 01:49	11° <u>00</u> '04'43	13°27'37	max. Earth dist.	6439 Nov 11 19:26	24° <u>00</u> '44'09	32.98706 AU
min. Earth dist.	6433 May 01 17:24	11° <u>00</u> '00'35	32.46113 AU				

conjunction	6439 Nov 14 14:20	24° \mathbb{M} 50'15	14°43'21	direct	6447 Aug 18 04:23	11° \mathbb{Z} 00'49	
minimum elong	6439 Nov 14 14:01	24° \mathbb{M} 50'13	14°43'22	max. Earth dist.	6447 Dec 01 15:00	13° \mathbb{Z} 34'36	31.59174 AU
morning rise	6439 Nov 17 16:35	24° \mathbb{M} 57'02					
retrograde	6440 Feb 26 14:19	27° \mathbb{M} 16'46		conjunction	6447 Dec 03 21:05	13° \mathbb{Z} 39'51	16°10'25
opposition	6440 May 13 13:37	25° \mathbb{M} 57'08	15°47'57	minimum elong	6447 Dec 03 20:56	13° \mathbb{Z} 39'50	16°10'27
min. Earth dist.	6440 May 16 01:03	25° \mathbb{M} 53'07	30.95813 AU	retrograde	6448 Mar 16 21:23	16° \mathbb{Z} 15'30	
direct	6440 Aug 01 05:24	24° \mathbb{M} 35'00		opposition	6448 Jun 01 11:37	14° \mathbb{Z} 53'18	17°17'30
max. Earth dist.	6440 Nov 13 10:53	26° \mathbb{M} 59'13	32.78860 AU	min. Earth dist.	6448 Jun 03 11:50	14° \mathbb{Z} 49'55	29.60818 AU
evening set	6440 Nov 15 06:49	27° \mathbb{M} 03'15		direct	6448 Aug 19 22:34	13° \mathbb{Z} 28'16	
				max. Earth dist.	6448 Dec 03 11:02	16° \mathbb{Z} 03'13	31.45703 AU
conjunction	6440 Nov 16 03:53	27° \mathbb{M} 05'12	14°58'41				
minimum elong	6440 Nov 16 03:34	27° \mathbb{M} 05'10	14°58'43	conjunction	6448 Dec 05 15:40	16° \mathbb{Z} 08'22	16°14'36
morning rise	6440 Nov 17 00:19	27° \mathbb{M} 07'05		minimum elong	6448 Dec 05 15:34	16° \mathbb{Z} 08'21	16°14'39
retrograde	6441 Feb 28 03:40	29° \mathbb{M} 33'00		retrograde	6449 Mar 19 16:37	18° \mathbb{Z} 44'56	
opposition	6441 May 16 01:35	28° \mathbb{M} 13'01	16°04'01	opposition	6449 Jun 04 05:31	17° \mathbb{Z} 22'32	17°21'21
min. Earth dist.	6441 May 18 11:57	28° \mathbb{M} 09'03	30.76480 AU	min. Earth dist.	6449 Jun 06 04:36	17° \mathbb{Z} 19'14	29.47937 AU
direct	6441 Aug 03 18:00	26° \mathbb{M} 50'28		direct	6449 Aug 22 15:36	15° \mathbb{Z} 57'19	
max. Earth dist.	6441 Nov 16 00:59	29° \mathbb{M} 16'03	32.59572 AU	max. Earth dist.	6449 Dec 06 09:30	18° \mathbb{Z} 33'32	31.33276 AU
conjunction	6441 Nov 18 18:06	29° \mathbb{M} 22'06	15°12'54	conjunction	6449 Dec 08 10:51	18° \mathbb{Z} 38'23	16°17'04
minimum elong	6441 Nov 18 17:48	29° \mathbb{M} 22'04	15°12'56	minimum elong	6449 Dec 08 10:45	18° \mathbb{Z} 38'23	16°17'06
	6441 Dec 05 22:13	0° \mathbb{Z}		retrograde	6450 Mar 22 11:58	21° \mathbb{Z} 15'48	
retrograde	6442 Mar 02 19:08	1° \mathbb{Z} 51'10		opposition	6450 Jun 07 00:09	19° \mathbb{Z} 53'15	17°23'20
opposition	6442 May 18 14:28	0° \mathbb{Z} 30'49	16°18'53	min. Earth dist.	6450 Jun 08 20:38	19° \mathbb{Z} 50'08	29.36044 AU
min. Earth dist.	6442 May 21 00:08	0° \mathbb{Z} 26'53	30.57722 AU	direct	6450 Aug 25 10:56	18° \mathbb{Z} 27'53	
	6442 Jun 06 20:43	30° \mathbb{R} \mathbb{M}		max. Earth dist.	6450 Dec 09 06:13	21° \mathbb{Z} 05'06	31.21856 AU
direct	6442 Aug 06 05:38	29° \mathbb{M} 07'52					
	6442 Oct 03 07:28	0° \mathbb{Z}		conjunction	6450 Dec 11 06:14	21° \mathbb{Z} 09'50	16°17'47
max. Earth dist.	6442 Nov 18 17:58	1° \mathbb{Z} 34'57	32.40886 AU	minimum elong	6450 Dec 11 06:11	21° \mathbb{Z} 09'50	16°17'51
conjunction	6442 Nov 21 09:02	1° \mathbb{Z} 40'52	15°25'56	retrograde	6451 Mar 25 09:10	23° \mathbb{Z} 48'02	
minimum elong	6442 Nov 21 08:45	1° \mathbb{Z} 40'50	15°26'00	opposition	6451 Jun 09 19:24	22° \mathbb{Z} 25'21	17°23'25
retrograde	6443 Mar 05 09:22	4° \mathbb{Z} 11'08		min. Earth dist.	6451 Jun 11 14:17	22° \mathbb{Z} 22'20	29.25128 AU
opposition	6443 May 21 04:14	2° \mathbb{Z} 50'27	16°32'27	direct	6451 Aug 28 05:01	20° \mathbb{Z} 59'50	
min. Earth dist.	6443 May 23 13:10	2° \mathbb{Z} 46'32	30.39573 AU	max. Earth dist.	6451 Dec 12 05:45	23° \mathbb{Z} 38'10	31.11421 AU
direct	6443 Aug 08 18:40	1° \mathbb{Z} 27'05		conjunction	6451 Dec 14 02:20	23° \mathbb{Z} 42'35	16°16'44
max. Earth dist.	6443 Nov 21 10:09	3° \mathbb{Z} 55'30	32.22881 AU	minimum elong	6451 Dec 14 02:19	23° \mathbb{Z} 42'35	16°16'47
conjunction	6443 Nov 24 00:35	4° \mathbb{Z} 01'24	15°37'43	retrograde	6452 Mar 27 05:32	26° \mathbb{Z} 21'27	
minimum elong	6443 Nov 24 00:19	4° \mathbb{Z} 01'22	15°37'45	opposition	6452 Jun 11 15:05	24° \mathbb{Z} 58'40	17°21'36
retrograde	6444 Mar 07 02:16	6° \mathbb{Z} 32'51		min. Earth dist.	6452 Jun 13 08:03	24° \mathbb{Z} 55'46	29.15142 AU
opposition	6444 May 22 18:30	5° \mathbb{Z} 11'48	16°44'38	direct	6452 Aug 30 01:49	23° \mathbb{Z} 33'02	
min. Earth dist.	6444 May 25 01:41	5° \mathbb{Z} 08'00	30.22127 AU	max. Earth dist.	6452 Dec 14 03:14	26° \mathbb{Z} 12'08	31.01950 AU
direct	6444 Aug 10 07:49	3° \mathbb{Z} 48'03		conjunction	6452 Dec 15 22:40	26° \mathbb{Z} 16'27	16°13'53
max. Earth dist.	6444 Nov 23 04:22	6° \mathbb{Z} 17'52	32.05616 AU	minimum elong	6452 Dec 15 22:42	26° \mathbb{Z} 16'28	16°13'57
conjunction	6444 Nov 25 16:55	6° \mathbb{Z} 23'38	15°48'08	retrograde	6453 Mar 30 02:36	28° \mathbb{Z} 55'54	
minimum elong	6444 Nov 25 16:41	6° \mathbb{Z} 23'36	15°48'11	opposition	6453 Jun 14 11:17	27° \mathbb{Z} 33'01	17°17'49
retrograde	6445 Mar 09 16:33	8° \mathbb{Z} 56'12		min. Earth dist.	6453 Jun 16 01:59	27° \mathbb{Z} 30'17	29.06091 AU
opposition	6445 May 25 09:47	7° \mathbb{Z} 34'49	16°55'19	direct	6453 Sep 01 21:52	26° \mathbb{Z} 07'16	
min. Earth dist.	6445 May 27 16:25	7° \mathbb{Z} 31'02	30.05439 AU	max. Earth dist.	6453 Dec 17 03:15	28° \mathbb{Z} 47'14	30.93432 AU
direct	6445 Aug 12 21:49	6° \mathbb{Z} 10'41		conjunction	6453 Dec 18 19:25	28° \mathbb{Z} 51'15	16°09'14
max. Earth dist.	6445 Nov 25 23:00	8° \mathbb{Z} 41'50	31.89189 AU	minimum elong	6453 Dec 18 19:28	28° \mathbb{Z} 51'15	16°09'16
conjunction	6445 Nov 28 09:44	8° \mathbb{Z} 47'28	15°57'06		6454 Jan 17 09:17	0° \mathbb{Z}	
minimum elong	6445 Nov 28 09:31	8° \mathbb{Z} 47'27	15°57'08	retrograde	6454 Apr 01 22:33	1° \mathbb{Z} 31'09	
retrograde	6446 Mar 12 10:01	11° \mathbb{Z} 21'07		opposition	6454 Jun 17 08:02	0° \mathbb{Z} 08'11	17°12'05
opposition	6446 May 28 01:36	9° \mathbb{Z} 59'25	17°04'25	min. Earth dist.	6454 Jun 18 21:09	0° \mathbb{Z} 05'33	28.97960 AU
min. Earth dist.	6446 May 30 05:39	9° \mathbb{Z} 55'48	29.89607 AU		6454 Jun 22 03:44	30° \mathbb{R} \mathbb{Z}	
direct	6446 Aug 15 13:56	8° \mathbb{Z} 34'57		direct	6454 Sep 04 18:41	28° \mathbb{Z} 42'21	
max. Earth dist.	6446 Nov 28 18:18	11° \mathbb{Z} 07'24	31.73675 AU	max. Earth dist.	6454 Nov 13 14:58	0° \mathbb{Z}	
conjunction	6446 Dec 01 03:12	11° \mathbb{Z} 12'54	16°04'34		6454 Dec 20 01:36	1° \mathbb{Z} 22'53	30.85895 AU
minimum elong	6446 Dec 01 03:02	11° \mathbb{Z} 12'52	16°04'37	conjunction	6454 Dec 21 16:12	1° \mathbb{Z} 26'45	16°02'45
retrograde	6447 Mar 15 02:48	13° \mathbb{Z} 47'34		minimum elong	6454 Dec 21 16:19	1° \mathbb{Z} 26'45	16°02'48
opposition	6447 May 30 18:21	12° \mathbb{Z} 25'35	17°11'50	retrograde	6455 Apr 04 20:52	4° \mathbb{Z} 07'00	
min. Earth dist.	6447 Jun 01 21:34	12° \mathbb{Z} 22'01	29.74717 AU	opposition	6455 Jun 20 04:54	2° \mathbb{Z} 43'56	17°04'22
				min. Earth dist.	6455 Jun 21 15:03	2° \mathbb{Z} 41'31	28.90794 AU

direct	6455 Sep 07 15:49	1°38'02		retrograde	6463 Apr 25 08:36	24°35'04	
max. Earth dist.	6455 Dec 23 01:44	3°35'10	30.79351 AU	opposition	6463 Jul 11 07:47	23°32'08	14°52'02
				min. Earth dist.	6463 Jul 11 20:21	23°32'15	28.73119 AU
conjunction	6455 Dec 24 13:10	4°30'43	15°54'26	direct	6463 Sep 28 23:01	22°30'38	
minimum elong	6455 Dec 24 13:17	4°30'44	15°54'29	evening set	6464 Jan 07 23:17	24°33'12	
retrograde	6456 Apr 06 15:31	6°34'13					
opposition	6456 Jun 22 02:12	5°32'05	16°54'41	conjunction	6464 Jan 14 08:38	24°34'40	13°42'55
min. Earth dist.	6456 Jun 23 11:01	5°31'45	28.84604 AU	minimum elong	6464 Jan 14 08:58	24°34'42	13°42'58
direct	6456 Sep 09 12:26	3°35'06		max. Earth dist.	6464 Jan 13 21:03	24°34'51	30.68421 AU
max. Earth dist.	6456 Dec 25 01:02	6°33'38	30.73851 AU	morning rise	6464 Jan 20 18:17	25°32'01	
				retrograde	6464 Apr 27 04:36	27°32'36	
conjunction	6456 Dec 26 10:09	6°38'58	15°44'17	opposition	6464 Jul 13 04:39	26°32'49	14°27'14
minimum elong	6456 Dec 26 10:20	6°38'59	15°44'19	min. Earth dist.	6464 Jul 13 14:03	26°32'10	28.76188 AU
retrograde	6457 Apr 09 12:05	9°31'34		direct	6464 Sep 30 20:29	24°37'33	
opposition	6457 Jun 24 23:23	7°35'22	16°43'00	evening set	6465 Jan 08 21:53	27°32'38	
min. Earth dist.	6457 Jun 26 04:49	7°35'17	28.79447 AU				
direct	6457 Sep 12 11:22	6°33'21		conjunction	6465 Jan 16 03:59	27°31'57	13°19'01
max. Earth dist.	6457 Dec 28 01:03	9°31'14	30.69431 AU	minimum elong	6465 Jan 16 04:22	27°31'59	13°19'02
				max. Earth dist.	6465 Jan 15 20:22	27°31'11	30.72372 AU
conjunction	6457 Dec 29 07:09	9°31'16	15°32'17	morning rise	6465 Jan 23 10:11	27°33'18	
minimum elong	6457 Dec 29 07:21	9°31'17	15°32'19	retrograde	6465 Apr 29 22:33	29°35'18	
retrograde	6458 Apr 12 07:50	11°35'53		opposition	6465 Jul 16 01:20	28°33'42	14°00'53
opposition	6458 Jun 27 20:59	10°32'38	16°29'19	min. Earth dist.	6465 Jul 16 08:42	28°33'12	28.80304 AU
min. Earth dist.	6458 Jun 29 00:43	10°33'40	28.75390 AU	direct	6465 Oct 03 18:33	27°31'04	
direct	6458 Sep 15 07:28	9°30'35		evening set	6466 Jan 10 21:55	29°33'12	
max. Earth dist.	6458 Dec 31 01:00	11°34'43	30.66183 AU				
				conjunction	6466 Jan 18 22:46	29°35'20	12°53'42
conjunction	6459 Jan 01 03:49	11°35'12	15°18'27	minimum elong	6466 Jan 18 23:08	29°35'22	12°53'44
minimum elong	6459 Jan 01 04:04	11°35'12	15°18'30	max. Earth dist.	6466 Jan 18 16:53	29°35'45	30.77374 AU
retrograde	6459 Apr 15 03:13	14°31'58			6466 Jan 22 03:55	0°33'	
opposition	6459 Jun 30 18:29	13°30'42	16°13'40	morning rise	6466 Jan 26 23:46	0°33'11	
min. Earth dist.	6459 Jul 01 18:22	13°30'00	28.72495 AU	retrograde	6466 May 02 18:35	2°33'00	
direct	6459 Sep 18 06:45	11°34'24		opposition	6466 Jul 18 21:40	1°33'07	13°33'03
max. Earth dist.	6460 Jan 03 00:25	14°32'45	30.64147 AU	min. Earth dist.	6466 Jul 19 01:30	1°33'07	28.85451 AU
					6466 Sep 03 21:15	30°33'	
conjunction	6460 Jan 04 00:28	14°32'19	15°02'48	direct	6466 Oct 06 16:42	29°34'25	
minimum elong	6460 Jan 04 00:43	14°32'21	15°02'51		6466 Nov 07 16:20	0°33'	
retrograde	6460 Apr 16 22:13	17°30'43		evening set	6467 Jan 12 22:47	2°33'02	
opposition	6460 Jul 02 15:54	15°34'27	15°56'03				
min. Earth dist.	6460 Jul 03 13:33	15°34'25	28.70827 AU	conjunction	6467 Jan 21 17:07	2°33'23	12°27'04
direct	6460 Sep 20 03:55	14°31'8		minimum elong	6467 Jan 21 17:30	2°33'23	12°27'06
evening set	6461 Jan 03 00:55	16°35'02		max. Earth dist.	6467 Jan 21 15:00	2°33'28	30.83382 AU
				morning rise	6467 Jan 30 11:19	2°33'44	
conjunction	6461 Jan 05 21:01	17°32'53	14°45'21	retrograde	6467 May 05 11:01	5°33'00	
minimum elong	6461 Jan 05 21:19	17°32'55	14°45'24	opposition	6467 Jul 21 17:43	3°33'26	13°03'51
max. Earth dist.	6461 Jan 05 00:50	17°33'00	30.63383 AU	min. Earth dist.	6467 Jul 21 19:55	3°33'17	28.91580 AU
morning rise	6461 Jan 08 17:39	17°33'09		direct	6467 Oct 09 13:52	2°33'13	
retrograde	6461 Apr 19 17:44	19°34'31		evening set	6468 Jan 15 00:39	4°33'13	
opposition	6461 Jul 05 13:19	18°31'50	15°36'32				
min. Earth dist.	6461 Jul 06 07:27	18°31'8	28.70385 AU	conjunction	6468 Jan 24 10:54	4°33'50	11°59'13
direct	6461 Sep 23 02:47	16°35'53		minimum elong	6468 Jan 24 11:17	4°33'52	11°59'15
evening set	6462 Jan 04 10:04	19°32'7		max. Earth dist.	6468 Jan 24 10:42	4°33'49	30.90377 AU
				morning rise	6468 Feb 02 21:05	5°33'16	
conjunction	6462 Jan 08 17:07	19°33'8	14°26'11	retrograde	6468 May 07 04:24	7°33'29	
minimum elong	6462 Jan 08 17:26	19°33'8	14°26'14	opposition	6468 Jul 23 12:57	6°33'07	12°33'23
max. Earth dist.	6462 Jan 07 23:24	19°33'14	30.63862 AU	min. Earth dist.	6468 Jul 23 11:32	6°33'08	28.98678 AU
morning rise	6462 Jan 13 00:37	19°34'8		direct	6468 Oct 11 11:16	4°33'43	
retrograde	6462 Apr 22 13:38	22°31'7		evening set	6469 Jan 16 02:58	6°33'59	
opposition	6462 Jul 08 10:40	20°35'45	15°15'10				
min. Earth dist.	6462 Jul 09 02:02	20°35'34	28.71171 AU	conjunction	6469 Jan 26 04:14	7°33'22	11°30'14
direct	6462 Sep 25 23:34	19°32'9		minimum elong	6469 Jan 26 04:38	7°33'22	11°30'16
evening set	6463 Jan 06 03:01	21°35'37		max. Earth dist.	6469 Jan 26 07:16	7°33'22	30.98328 AU
				morning rise	6469 Feb 05 05:13	7°33'46	
conjunction	6463 Jan 11 13:08	22°31'23	14°05'21	retrograde	6469 May 09 20:03	9°33'57	
minimum elong	6463 Jan 11 13:29	22°31'24	14°05'23	opposition	6469 Jul 26 08:00	8°33'36	12°01'45
max. Earth dist.	6463 Jan 10 23:37	22°31'18	30.65565 AU	min. Earth dist.	6469 Jul 26 04:53	8°33'36	29.06745 AU
morning rise	6463 Jan 16 23:33	22°32'54		direct	6469 Oct 14 06:42	7°33'12	

evening set	6470 Jan 18 05:38	9° \approx 25'11		max. Earth dist.	6476 Feb 13 08:10	24° \approx 01'35	31.82565 AU
				morning rise	6476 Feb 25 14:53	24° \approx 29'06	
conjunction	6470 Jan 28 20:39	9° \approx 49'58	11°00'12	retrograde	6476 May 25 14:52	26° \approx 27'25	
minimum elong	6470 Jan 28 21:02	9° \approx 50'00	11°00'15	min. Earth dist.	6476 Aug 11 04:15	25° \approx 08'57	29.92124 AU
max. Earth dist.	6470 Jan 29 02:13	9° \approx 50'31	31.07263 AU	opposition	6476 Aug 12 03:07	25° \approx 07'26	7°55'48
morning rise	6470 Feb 08 11:20	10° \approx 14'43		direct	6476 Oct 31 08:34	23° \approx 45'50	
retrograde	6470 May 12 11:16	12° \approx 24'18		evening set	6477 Jan 31 05:40	25° \approx 44'53	
opposition	6470 Jul 29 02:19	11° \approx 02'41	11°29'02				
min. Earth dist.	6470 Jul 28 19:34	11° \approx 03'09	29.15797 AU	conjunction	6477 Feb 13 20:17	26° \approx 15'11	7°08'28
direct	6470 Oct 17 03:04	9° \approx 38'57		minimum elong	6477 Feb 13 20:34	26° \approx 15'12	7°08'29
evening set	6471 Jan 20 08:31	11° \approx 49'49		max. Earth dist.	6477 Feb 14 21:11	26° \approx 17'30	31.98507 AU
				morning rise	6477 Feb 27 10:17	26° \approx 45'24	
conjunction	6471 Jan 31 12:26	12° \approx 15'41	10°29'14	retrograde	6477 May 28 03:39	28° \approx 42'05	
minimum elong	6471 Jan 31 12:49	12° \approx 15'44	10°29'16	opposition	6477 Aug 14 16:58	27° \approx 22'26	7°18'26
max. Earth dist.	6471 Jan 31 20:52	12° \approx 16'31	31.17193 AU	min. Earth dist.	6477 Aug 13 14:38	27° \approx 24'10	30.08189 AU
morning rise	6471 Feb 11 15:59	12° \approx 41'32		direct	6477 Nov 03 00:50	26° \approx 01'15	
retrograde	6471 May 15 00:23	14° \approx 49'03		evening set	6478 Feb 02 09:25	27° \approx 58'35	
opposition	6471 Jul 31 20:03	13° \approx 27'38	10°55'21				
min. Earth dist.	6471 Jul 31 11:05	13° \approx 28'14	29.25895 AU	conjunction	6478 Feb 16 07:09	28° \approx 29'18	6°33'27
direct	6471 Oct 19 21:07	12° \approx 04'11		minimum elong	6478 Feb 16 07:25	28° \approx 29'19	6°33'29
evening set	6472 Jan 22 11:39	14° \approx 12'53		max. Earth dist.	6478 Feb 17 11:17	28° \approx 31'54	32.15224 AU
				morning rise	6478 Mar 02 04:01	28° \approx 59'56	
conjunction	6472 Feb 03 03:31	14° \approx 39'45	9°57'23		6478 Apr 01 06:34	0° \approx	
minimum elong	6472 Feb 03 03:53	14° \approx 39'47	9°57'25	retrograde	6478 May 30 14:05	0° \approx 55'04	
max. Earth dist.	6472 Feb 03 15:18	14° \approx 40'53	31.28181 AU		6478 Aug 01 13:51	30° \approx	
	6472 Feb 11 21:59	15° \approx		min. Earth dist.	6478 Aug 16 02:42	29° \approx 37'33	30.25021 AU
morning rise	6472 Feb 14 18:49	15° \approx 06'34		opposition	6478 Aug 17 06:20	29° \approx 35'44	6°40'51
retrograde	6472 May 16 13:08	17° \approx 12'04		direct	6478 Nov 05 15:54	28° \approx 14'58	
opposition	6472 Aug 02 13:08	15° \approx 50'54	10°20'47		6479 Jan 30 14:07	0° \approx	
min. Earth dist.	6472 Aug 02 00:54	15° \approx 51'44	29.37049 AU	evening set	6479 Feb 04 13:27	0° \approx 10'38	
	6472 Sep 05 05:30	15° \approx					
direct	6472 Oct 21 15:42	14° \approx 27'46		conjunction	6479 Feb 18 17:22	0° \approx 41'41	5°58'14
	6472 Dec 05 09:21	15° \approx		minimum elong	6479 Feb 18 17:36	0° \approx 41'42	5°58'15
evening set	6473 Jan 23 15:00	16° \approx 34'23		max. Earth dist.	6479 Feb 19 23:00	0° \approx 44'25	32.32659 AU
				morning rise	6479 Mar 04 20:32	1° \approx 12'40	
conjunction	6473 Feb 04 17:48	17° \approx 02'07	9°24'46	retrograde	6479 Jun 01 23:26	3° \approx 06'18	
minimum elong	6473 Feb 04 18:10	17° \approx 02'10	9°24'47	opposition	6479 Aug 19 18:40	1° \approx 47'18	6°03'06
max. Earth dist.	6473 Feb 05 07:58	17° \approx 03'29	31.40226 AU	min. Earth dist.	6479 Aug 18 12:03	1° \approx 49'18	30.42546 AU
morning rise	6473 Feb 16 20:11	17° \approx 29'49		direct	6479 Nov 08 06:41	0° \approx 26'54	
retrograde	6473 May 19 02:53	19° \approx 33'25		evening set	6480 Feb 06 17:25	2° \approx 20'59	
opposition	6473 Aug 05 05:38	18° \approx 12'30	9°45'26				
min. Earth dist.	6473 Aug 04 14:17	18° \approx 13'32	29.49297 AU	conjunction	6480 Feb 21 02:55	2° \approx 52'18	5°22'55
direct	6473 Oct 24 07:25	16° \approx 49'42		minimum elong	6480 Feb 21 03:08	2° \approx 52'20	5°22'56
evening set	6474 Jan 25 18:28	18° \approx 54'20		max. Earth dist.	6480 Feb 22 10:42	2° \approx 55'13	32.50726 AU
				morning rise	6480 Mar 06 11:39	3° \approx 23'33	
conjunction	6474 Feb 07 07:34	19° \approx 22'51	8°51'28	retrograde	6480 Jun 03 06:59	5° \approx 15'45	
minimum elong	6474 Feb 07 07:55	19° \approx 22'53	8°51'30	min. Earth dist.	6480 Aug 19 22:35	3° \approx 59'08	30.60712 AU
max. Earth dist.	6474 Feb 08 01:33	19° \approx 24'34	31.53348 AU	opposition	6480 Aug 21 06:34	3° \approx 57'04	5°25'18
morning rise	6474 Feb 19 19:54	19° \approx 51'19		direct	6480 Nov 09 19:13	2° \approx 37'04	
retrograde	6474 May 21 14:41	21° \approx 53'04		evening set	6481 Feb 07 21:19	4° \approx 29'36	
opposition	6474 Aug 07 21:31	20° \approx 32'27	9°09'24				
min. Earth dist.	6474 Aug 07 03:37	20° \approx 33'39	29.62597 AU	conjunction	6481 Feb 22 11:43	5° \approx 01'06	4°47'33
direct	6474 Oct 27 01:38	19° \approx 10'02		minimum elong	6481 Feb 22 11:55	5° \approx 01'08	4°47'33
evening set	6475 Jan 27 22:02	21° \approx 12'43		max. Earth dist.	6481 Feb 23 21:30	5° \approx 04'10	32.69394 AU
				morning rise	6481 Mar 09 01:14	5° \approx 32'33	
conjunction	6475 Feb 09 20:21	21° \approx 41'56	8°17'35	retrograde	6481 Jun 05 13:30	7° \approx 23'22	
minimum elong	6475 Feb 09 20:40	21° \approx 41'58	8°17'36	min. Earth dist.	6481 Aug 22 07:25	6° \approx 07'11	30.79464 AU
max. Earth dist.	6475 Feb 10 16:08	21° \approx 43'48	31.67485 AU	opposition	6481 Aug 23 17:39	6° \approx 04'59	4°47'32
morning rise	6475 Feb 22 18:10	22° \approx 11'04		direct	6481 Nov 12 08:39	4° \approx 45'22	
retrograde	6475 May 24 04:28	24° \approx 11'04		evening set	6482 Feb 10 01:14	6° \approx 36'24	
opposition	6475 Aug 10 12:40	22° \approx 50'45	8°32'50				
min. Earth dist.	6475 Aug 09 15:19	22° \approx 52'11	29.76904 AU	conjunction	6482 Feb 24 19:43	7° \approx 08'03	4°12'13
direct	6475 Oct 29 17:17	21° \approx 28'45		minimum elong	6482 Feb 24 19:54	7° \approx 08'04	4°12'15
evening set	6476 Jan 30 01:42	23° \approx 29'35		max. Earth dist.	6482 Feb 26 06:58	7° \approx 11'13	32.88622 AU
				morning rise	6482 Mar 11 13:36	7° \approx 39'37	
conjunction	6476 Feb 12 08:44	23° \approx 59'23	7°43'13	retrograde	6482 Jun 07 20:42	9° \approx 29'07	
minimum elong	6476 Feb 12 09:02	23° \approx 59'24	7°43'15	min. Earth dist.	6482 Aug 24 15:40	8° \approx 13'21	30.98824 AU

opposition	6482 Aug 26 04:02	8° ✕ 11'02	4°09'51	behind sun end	6489 Mar 10 12:20	21° ✕ 07'07	
direct	6482 Nov 14 18:48	6° ✕ 51'46		max. Earth dist.	6489 Mar 12 08:16	21° ✕ 10'52	34.40086 AU
evening set	6483 Feb 12 04:44	8° ✕ 41'23		morning rise	6489 Mar 25 14:23	21° ✕ 37'42	
				retrograde	6489 Jun 21 03:27	23° ✕ 19'55	
conjunction	6483 Feb 27 02:59	9° ✕ 13'05	3°36'59	desc. node	6489 Jul 06 01:26	23° ✕ 16'38	
minimum elong	6483 Feb 27 03:08	9° ✕ 13'06	3°36'59	min. Earth dist.	6489 Sep 07 06:26	22° ✕ 07'15	32.51745 AU
max. Earth dist.	6483 Feb 28 17:02	9° ✕ 16'29	33.08438 AU	opposition	6489 Sep 09 08:24	22° ✕ 04'10	-0°06'15
morning rise	6483 Mar 14 00:20	9° ✕ 44'43		direct	6489 Nov 29 06:51	20° ✕ 47'49	
retrograde	6483 Jun 10 01:24	11° ✕ 32'58		evening set	6490 Feb 25 02:45	22° ✕ 29'30	
min. Earth dist.	6483 Aug 26 23:43	10° ✕ 17'35	31.18785 AU				
opposition	6483 Aug 28 13:38	10° ✕ 15'10	3°32'19	conjunction	6490 Mar 12 10:00	23° ✕ 00'16	-0°22'27
direct	6483 Nov 17 06:24	8° ✕ 56'17		minimum elong	6490 Mar 12 09:59	23° ✕ 00'16	0°22'26
evening set	6484 Feb 14 08:23	10° ✕ 44'33		max. Earth dist.	6490 Mar 14 12:48	23° ✕ 04'34	34.63803 AU
				morning rise	6490 Mar 27 16:39	23° ✕ 31'01	
conjunction	6484 Feb 29 09:24	11° ✕ 16'15	3°01'54	retrograde	6490 Jun 23 03:41	25° ✕ 12'25	
minimum elong	6484 Feb 29 09:32	11° ✕ 16'16	3°01'55	min. Earth dist.	6490 Sep 09 10:09	24° ✕ 00'11	32.75630 AU
max. Earth dist.	6484 Mar 02 00:26	11° ✕ 19'43	33.28848 AU	opposition	6490 Sep 11 13:16	23° ✕ 57'03	-0°41'07
morning rise	6484 Mar 15 09:53	11° ✕ 47'54		direct	6490 Dec 01 13:05	22° ✕ 41'08	
retrograde	6484 Jun 11 08:24	13° ✕ 34'57		evening set	6491 Feb 27 05:30	24° ✕ 21'55	
min. Earth dist.	6484 Aug 28 05:31	12° ✕ 20'02	31.39399 AU				
opposition	6484 Aug 29 22:20	12° ✕ 17'27	2°55'01	conjunction	6491 Mar 14 11:52	24° ✕ 52'24	-0°55'03
direct	6484 Nov 18 14:47	10° ✕ 58'57		minimum elong	6491 Mar 14 11:50	24° ✕ 52'24	0°55'03
evening set	6485 Feb 15 11:44	12° ✕ 45'56		max. Earth dist.	6491 Mar 16 15:09	24° ✕ 56'42	34.87818 AU
				morning rise	6491 Mar 29 18:02	25° ✕ 22'51	
conjunction	6485 Mar 02 15:15	13° ✕ 17'36	2°27'02	retrograde	6491 Jun 25 06:22	27° ✕ 03'31	
minimum elong	6485 Mar 02 15:21	13° ✕ 17'36	2°27'02	min. Earth dist.	6491 Sep 11 12:31	25° ✕ 51'43	32.99808 AU
max. Earth dist.	6485 Mar 04 09:25	13° ✕ 21'18	33.49900 AU	opposition	6491 Sep 13 17:33	25° ✕ 48'30	-1°15'26
morning rise	6485 Mar 17 17:57	13° ✕ 49'12		direct	6491 Dec 03 16:19	24° ✕ 33'00	
retrograde	6485 Jun 13 12:40	15° ✕ 35'10		evening set	6492 Feb 29 08:03	26° ✕ 12'56	
min. Earth dist.	6485 Aug 30 12:37	14° ✕ 20'37	31.60678 AU				
opposition	6485 Sep 01 06:37	14° ✕ 17'59	2°18'00	conjunction	6492 Mar 15 13:23	26° ✕ 43'05	-1°27'09
direct	6485 Nov 20 23:37	12° ✕ 59'53		minimum elong	6492 Mar 15 13:20	26° ✕ 43'05	1°27'08
evening set	6486 Feb 17 14:58	14° ✕ 45'40		max. Earth dist.	6492 Mar 17 18:42	26° ✕ 47'32	35.12062 AU
				morning rise	6492 Mar 30 18:15	27° ✕ 13'13	
conjunction	6486 Mar 04 20:10	15° ✕ 17'13	1°52'26	retrograde	6492 Jun 26 06:45	28° ✕ 53'11	
minimum elong	6486 Mar 04 20:15	15° ✕ 17'14	1°52'27	min. Earth dist.	6492 Sep 12 16:03	27° ✕ 41'43	33.24188 AU
max. Earth dist.	6486 Mar 06 15:27	15° ✕ 21'00	33.71601 AU	opposition	6492 Sep 14 21:12	27° ✕ 38'30	-1°49'10
morning rise	6486 Mar 20 00:50	15° ✕ 48'44		direct	6492 Dec 04 20:54	26° ✕ 23'24	
retrograde	6486 Jun 15 18:37	17° ✕ 33'39		evening set	6493 Mar 02 10:38	28° ✕ 02'31	
min. Earth dist.	6486 Sep 01 16:51	16° ✕ 19'39	31.82614 AU				
opposition	6486 Sep 03 14:02	16° ✕ 16'49	1°41'18	conjunction	6493 Mar 17 14:14	28° ✕ 32'19	-1°58'43
direct	6486 Nov 23 08:59	14° ✕ 59'08		minimum elong	6493 Mar 17 14:10	28° ✕ 32'18	1°58'44
evening set	6487 Feb 19 18:05	16° ✕ 43'49		max. Earth dist.	6493 Mar 19 19:24	28° ✕ 36'43	35.36475 AU
				morning rise	6493 Apr 01 17:41	29° ✕ 02'05	
conjunction	6487 Mar 07 00:36	17° ✕ 15'14	1°18'08		6493 May 05 04:55	0° °	
minimum elong	6487 Mar 07 00:39	17° ✕ 15'15	1°18'08	retrograde	6493 Jun 28 09:32	0° ° 41'23	
max. Earth dist.	6487 Mar 08 22:35	17° ✕ 19'13	33.93907 AU		6493 Aug 24 06:52	30° ° 11'11	
morning rise	6487 Mar 22 06:30	17° ✕ 46'37		min. Earth dist.	6493 Sep 14 17:05	29° ✕ 30'19	33.48738 AU
retrograde	6487 Jun 17 23:07	19° ✕ 30'34		opposition	6493 Sep 17 00:17	29° ✕ 27'01	-2°22'19
min. Earth dist.	6487 Sep 03 22:30	18° ✕ 16'58	32.05157 AU	direct	6493 Dec 06 23:26	28° ✕ 12'16	
opposition	6487 Sep 05 20:44	18° ✕ 14'05	1°05'00	evening set	6494 Mar 04 12:47	29° ✕ 50'38	
direct	6487 Nov 25 16:59	16° ✕ 56'51			6494 Mar 09 09:13	0° °	
evening set	6488 Feb 21 21:05	18° ✕ 40'28					
				conjunction	6494 Mar 19 14:28	0° ° 20'02	-2°29'45
conjunction	6488 Mar 08 04:22	19° ✕ 11'43	0°44'12	minimum elong	6494 Mar 19 14:23	0° ° 20'02	2°29'45
minimum elong	6488 Mar 08 04:23	19° ✕ 11'43	0°44'13	max. Earth dist.	6494 Mar 21 21:27	0° ° 24'33	35.61017 AU
max. Earth dist.	6488 Mar 10 03:41	19° ✕ 15'46	34.16770 AU	morning rise	6494 Apr 03 15:55	0° ° 49'26	
morning rise	6488 Mar 23 11:02	19° ✕ 42'55		retrograde	6494 Jun 30 09:39	2° ° 28'05	
retrograde	6488 Jun 19 01:45	21° ✕ 25'58		min. Earth dist.	6494 Sep 16 19:40	1° ° 17'17	33.73431 AU
min. Earth dist.	6488 Sep 05 02:11	20° ✕ 12'52	32.28222 AU	opposition	6494 Sep 19 02:51	1° ° 14'00	-2°54'50
opposition	6488 Sep 07 02:47	20° ✕ 09'51	0°29'08		6494 Dec 03 22:24	30° ° 11'11	
direct	6488 Nov 27 01:11	18° ✕ 53'04		direct	6494 Dec 09 01:52	29° ✕ 59'37	
evening set	6489 Feb 22 24:00	20° ✕ 35'41			6494 Dec 14 08:23	0° °	
				evening set	6495 Mar 06 14:49	1° ° 37'14	
conjunction	6489 Mar 10 07:23	21° ✕ 06'43	0°10'42				
minimum elong	6489 Mar 10 07:23	21° ✕ 06'43	0°10'42	conjunction	6495 Mar 21 14:10	2° ° 06'13	-3°00'13
behind sun begin	6489 Mar 10 02:25	21° ✕ 06'19		minimum elong	6495 Mar 21 14:04	2° ° 06'13	3°00'13

max. Earth dist.	6495 Mar 23 21:35	2°♈10'43	35.85698 AU	conjunction	6502 Apr 02 20:01	13°♈49'26	-6°16'16
morning rise	6495 Apr 05 13:19	2°♈35'12		minimum elong	6502 Apr 02 19:51	13°♈49'26	6°16'17
retrograde	6495 Jul 02 07:53	4°♈13'13		max. Earth dist.	6502 Apr 05 10:35	13°♈54'17	37.63915 AU
min. Earth dist.	6495 Sep 18 19:30	3°♈02'48	33.98275 AU	morning rise	6502 Apr 16 17:19	14°♈15'03	
opposition	6495 Sep 21 04:26	2°♈59'25	-3°26'43	retrograde	6502 Jul 14 10:26	15°♈49'59	
direct	6495 Dec 11 06:48	1°♈45'22		min. Earth dist.	6502 Oct 01 09:10	14°♈41'56	35.78094 AU
evening set	6496 Mar 07 16:40	3°♈22'17		opposition	6502 Oct 04 01:08	14°♈38'16	-6°50'50
				direct	6502 Dec 24 07:58	13°♈26'43	
				evening set	6503 Mar 21 23:25	15°♈00'02	
conjunction	6496 Mar 22 13:10	3°♈50'50	-3°30'05				
minimum elong	6496 Mar 22 13:03	3°♈50'50	3°30'05				
max. Earth dist.	6496 Mar 24 21:43	3°♈55'24	36.10529 AU	conjunction	6503 Apr 04 15:35	15°♈25'05	-6°41'44
morning rise	6496 Apr 06 09:42	4°♈19'24		minimum elong	6503 Apr 04 15:24	15°♈25'04	6°41'44
retrograde	6496 Jul 03 05:55	5°♈56'50		max. Earth dist.	6503 Apr 07 06:36	15°♈29'55	37.89857 AU
min. Earth dist.	6496 Sep 19 19:57	4°♈46'42	34.23329 AU	morning rise	6503 Apr 18 08:07	15°♈50'09	
opposition	6496 Sep 22 05:42	4°♈43'18	-3°57'56	retrograde	6503 Jul 16 06:00	17°♈24'48	
direct	6496 Dec 12 09:39	3°♈29'34		min. Earth dist.	6503 Oct 03 06:18	16°♈17'03	36.04208 AU
evening set	6497 Mar 09 18:04	5°♈05'50		opposition	6503 Oct 05 22:33	16°♈13'24	-7°17'13
				direct	6503 Dec 26 05:54	15°♈02'12	
				evening set	6504 Mar 22 23:44	16°♈35'11	
conjunction	6497 Mar 24 11:35	5°♈33'56	-3°59'22				
minimum elong	6497 Mar 24 11:27	5°♈33'55	3°59'22				
max. Earth dist.	6497 Mar 26 21:40	5°♈38'35	36.35579 AU	conjunction	6504 Apr 05 10:52	16°♈59'40	-7°06'33
morning rise	6497 Apr 08 04:54	6°♈02'02		minimum elong	6504 Apr 05 10:41	16°♈59'39	7°06'34
retrograde	6497 Jul 05 01:48	7°♈38'56		max. Earth dist.	6504 Apr 08 02:46	17°♈04'33	38.15745 AU
min. Earth dist.	6497 Sep 21 19:31	6°♈29'09	34.48613 AU	morning rise	6504 Apr 18 22:04	17°♈24'11	
opposition	6497 Sep 24 06:20	6°♈25'41	-4°28'30	retrograde	6504 Jul 16 22:56	18°♈58'35	
direct	6497 Dec 14 12:55	5°♈12'18		min. Earth dist.	6504 Oct 04 03:24	17°♈51'07	36.30222 AU
evening set	6498 Mar 11 19:31	6°♈47'57		opposition	6504 Oct 06 19:37	17°♈47'29	-7°42'54
				direct	6504 Dec 27 05:01	16°♈36'37	
				evening set	6505 Mar 24 23:57	18°♈09'16	
conjunction	6498 Mar 26 09:25	7°♈15'34	-4°28'01				
minimum elong	6498 Mar 26 09:17	7°♈15'34	4°28'01				
max. Earth dist.	6498 Mar 28 19:54	7°♈20'14	36.60862 AU	conjunction	6505 Apr 07 05:29	18°♈33'11	-7°30'44
morning rise	6498 Apr 09 23:30	7°♈43'13		minimum elong	6505 Apr 07 05:17	18°♈33'11	7°30'45
retrograde	6498 Jul 06 23:21	9°♈19'38		max. Earth dist.	6505 Apr 09 20:41	18°♈37'59	38.41503 AU
min. Earth dist.	6498 Sep 23 17:40	8°♈10'13	34.74165 AU	morning rise	6505 Apr 20 11:26	18°♈57'09	
opposition	6498 Sep 26 06:19	8°♈06'40	-4°58'22	retrograde	6505 Jul 18 18:08	20°♈31'19	
direct	6498 Dec 16 12:25	6°♈53'38		min. Earth dist.	6505 Oct 05 23:03	19°♈24'11	36.56106 AU
evening set	6499 Mar 13 20:32	8°♈28'43		opposition	6505 Oct 08 16:18	19°♈20'30	-8°07'54
				direct	6505 Dec 29 01:08	18°♈09'58	
				evening set	6506 Mar 26 23:56	19°♈42'18	
conjunction	6499 Mar 28 06:52	8°♈55'52	-4°56'02				
minimum elong	6499 Mar 28 06:42	8°♈55'51	4°56'03				
max. Earth dist.	6499 Mar 30 19:29	9°♈00'39	36.86388 AU	conjunction	6506 Apr 08 23:57	20°♈05'39	-7°54'18
morning rise	6499 Apr 11 17:05	9°♈23'01		minimum elong	6506 Apr 08 23:45	20°♈05'38	7°54'19
retrograde	6499 Jul 08 19:44	10°♈59'00		max. Earth dist.	6506 Apr 11 16:26	20°♈10'30	38.67105 AU
min. Earth dist.	6499 Sep 25 16:57	9°♈49'53	34.99935 AU	morning rise	6506 Apr 22 00:09	20°♈29'01	
opposition	6499 Sep 28 05:49	9°♈46'20	-5°27'32	retrograde	6506 Jul 20 12:31	22°♈02'59	
direct	6499 Dec 18 12:17	8°♈33'40		min. Earth dist.	6506 Oct 07 20:01	20°♈56'02	36.81824 AU
evening set	6500 Mar 15 21:33	10°♈08'15		opposition	6506 Oct 10 12:25	20°♈52'25	-8°32'14
				direct	6506 Dec 30 21:00	19°♈42'11	
				evening set	6507 Mar 28 23:46	21°♈14'13	
conjunction	6500 Mar 30 03:39	10°♈34'53	-5°23'25				
minimum elong	6500 Mar 30 03:30	10°♈34'52	5°23'26				
max. Earth dist.	6500 Apr 01 16:13	10°♈39'38	37.12108 AU	conjunction	6507 Apr 10 17:49	21°♈36'59	-8°17'14
morning rise	6500 Apr 13 09:57	11°♈01'32		minimum elong	6507 Apr 10 17:36	21°♈36'58	8°17'16
retrograde	6500 Jul 10 18:10	12°♈37'08		max. Earth dist.	6507 Apr 13 09:35	21°♈41'45	38.92548 AU
min. Earth dist.	6500 Sep 27 13:46	11°♈28'25	35.25888 AU	morning rise	6507 Apr 23 12:12	21°♈59'47	
opposition	6500 Sep 30 04:38	11°♈24'47	-5°56'00	retrograde	6507 Jul 22 07:30	23°♈33'32	
direct	6500 Dec 20 09:40	10°♈12'29		min. Earth dist.	6507 Oct 09 14:15	22°♈26'53	37.07393 AU
evening set	6501 Mar 17 22:20	11°♈46'37		opposition	6507 Oct 12 07:58	22°♈23'13	-8°55'53
				direct	6508 Jan 01 15:40	21°♈13'16	
				evening set	6508 Mar 29 23:15	22°♈45'01	
conjunction	6501 Apr 01 00:07	12°♈12'43	-5°50'10				
minimum elong	6501 Mar 31 23:57	12°♈12'43	5°50'11				
max. Earth dist.	6501 Apr 03 14:20	12°♈17'34	37.37967 AU	conjunction	6508 Apr 11 11:11	23°♈07'12	-8°39'33
morning rise	6501 Apr 15 02:03	12°♈38'52		minimum elong	6508 Apr 11 10:58	23°♈07'11	8°39'35
retrograde	6501 Jul 12 14:45	14°♈14'07		max. Earth dist.	6508 Apr 14 03:51	23°♈12'00	39.17853 AU
min. Earth dist.	6501 Sep 29 12:31	13°♈05'41	35.51969 AU	morning rise	6508 Apr 23 23:29	23°♈29'24	
opposition	6501 Oct 02 03:14	13°♈02'05	-6°23'46	retrograde	6508 Jul 23 00:49	25°♈02'57	
direct	6501 Dec 22 08:18	11°♈50'09		min. Earth dist.	6508 Oct 10 09:56	23°♈56'29	37.32873 AU
evening set	6502 Mar 19 22:50	13°♈23'51		opposition	6508 Oct 13 03:12	23°♈52'52	-9°18'52

direct	6509 Jan 02 11:38	22° Υ 43'12	conjunction	6515 Apr 22 02:03	3° \mathcal{B} 10'30 -10°58'10
evening set	6509 Mar 31 22:34	24° Υ 14'43	minimum elong	6515 Apr 22 01:51	3° \mathcal{B} 10'30 10°58'12
			max. Earth dist.	6515 Apr 24 21:11	3° \mathcal{B} 15'17 40.94074 AU
conjunction	6509 Apr 13 04:12	24° Υ 36'17 -9°01'14	morning rise	6515 May 02 13:46	3° \mathcal{B} 28'22
minimum elong	6509 Apr 13 03:59	24° Υ 36'16 9°01'15	retrograde	6515 Aug 02 15:00	5° \mathcal{B} 01'23
max. Earth dist.	6509 Apr 15 21:17	24° Υ 41'05 39.43107 AU	min. Earth dist.	6515 Oct 21 09:36	3° \mathcal{B} 56'45 39.10332 AU
morning rise	6509 Apr 25 10:02	24° Υ 57'53	opposition	6515 Oct 24 05:29	3° \mathcal{B} 53'05 -11°40'55
retrograde	6509 Jul 24 16:11	26° Υ 31'16	direct	6516 Jan 13 15:44	2° \mathcal{B} 45'28
min. Earth dist.	6509 Oct 12 03:42	25° Υ 25'05 37.58315 AU	evening set	6516 Apr 12 13:04	4° \mathcal{B} 16'06
opposition	6509 Oct 14 21:53	25° Υ 21'25 -9°41'10			
direct	6510 Jan 04 08:17	24° Υ 12'01	conjunction	6516 Apr 22 16:41	4° \mathcal{B} 33'18 -11°15'33
evening set	6510 Apr 02 21:39	25° Υ 43'20	minimum elong	6516 Apr 22 16:28	4° \mathcal{B} 33'17 11°15'36
			max. Earth dist.	6516 Apr 25 12:10	4° \mathcal{B} 38'04 41.18816 AU
conjunction	6510 Apr 14 20:37	26° Υ 04'18 -9°22'17	morning rise	6516 May 02 20:28	4° \mathcal{B} 50'30
minimum elong	6510 Apr 14 20:24	26° Υ 04'17 9°22'19	retrograde	6516 Aug 03 03:23	6° \mathcal{B} 23'32
max. Earth dist.	6510 Apr 17 13:52	26° Υ 09'05 39.68338 AU	min. Earth dist.	6516 Oct 22 01:57	5° \mathcal{B} 19'07 39.35143 AU
morning rise	6510 Apr 26 20:04	26° Υ 25'17	opposition	6516 Oct 24 21:28	5° \mathcal{B} 15'29 -11°58'40
retrograde	6510 Jul 26 08:35	27° Υ 58'32	direct	6517 Jan 14 09:59	4° \mathcal{B} 08'09
min. Earth dist.	6510 Oct 13 21:16	26° Υ 52'37 37.83769 AU	evening set	6517 Apr 14 11:25	5° \mathcal{B} 38'45
opposition	6510 Oct 16 16:12	26° Υ 48'56 -10°02'47			
direct	6511 Jan 06 02:54	25° Υ 39'50	conjunction	6517 Apr 24 06:57	5° \mathcal{B} 55'17 -11°32'23
evening set	6511 Apr 04 20:34	27° Υ 10'58	minimum elong	6517 Apr 24 06:45	5° \mathcal{B} 55'16 11°32'24
			max. Earth dist.	6517 Apr 27 01:22	5° \mathcal{B} 59'58 41.43278 AU
conjunction	6511 Apr 16 12:55	27° Υ 31'18 -9°42'42	morning rise	6517 May 04 02:54	6° \mathcal{B} 11'51
minimum elong	6511 Apr 16 12:42	27° Υ 31'17 9°42'42	retrograde	6517 Aug 04 17:38	7° \mathcal{B} 44'54
max. Earth dist.	6511 Apr 19 07:29	27° Υ 36'09 39.93581 AU	min. Earth dist.	6517 Oct 23 17:18	6° \mathcal{B} 40'43 39.59664 AU
morning rise	6511 Apr 28 05:27	27° Υ 51'40	opposition	6517 Oct 26 13:14	6° \mathcal{B} 37'06 -12°15'49
retrograde	6511 Jul 27 21:42	29° Υ 24'50	direct	6518 Jan 16 01:51	5° \mathcal{B} 30'01
min. Earth dist.	6511 Oct 15 15:07	28° Υ 19'09 38.09213 AU	evening set	6518 Apr 16 09:30	7° \mathcal{B} 00'35
opposition	6511 Oct 18 09:52	28° Υ 15'29 -10°23'43			
direct	6512 Jan 07 23:18	27° Υ 06'41	conjunction	6518 Apr 25 21:04	7° \mathcal{B} 16'28 -11°48'39
evening set	6512 Apr 05 19:25	28° Υ 37'39	minimum elong	6518 Apr 25 20:51	7° \mathcal{B} 16'27 11°48'41
			max. Earth dist.	6518 Apr 28 16:12	7° \mathcal{B} 21'10 41.67423 AU
conjunction	6512 Apr 17 04:40	28° Υ 57'22 -10°02'29	morning rise	6518 May 05 08:49	7° \mathcal{B} 32'22
minimum elong	6512 Apr 17 04:27	28° Υ 57'21 10°02'31	retrograde	6518 Aug 06 06:27	9° \mathcal{B} 05'28
max. Earth dist.	6512 Apr 19 22:37	29° Υ 02'10 40.18816 AU	min. Earth dist.	6518 Oct 25 10:01	8° \mathcal{B} 01'25 39.83842 AU
morning rise	6512 Apr 28 14:21	29° Υ 17'07	opposition	6518 Oct 28 04:39	7° \mathcal{B} 57'52 -12°32'24
	6512 May 25 08:21	0° \mathcal{B}	direct	6519 Jan 17 19:09	6° \mathcal{B} 51'01
retrograde	6512 Jul 28 14:52	0° \mathcal{B} 50'13	evening set	6519 Apr 18 07:43	8° \mathcal{B} 21'35
	6512 Oct 04 13:39	30° \mathcal{R} Υ			
min. Earth dist.	6512 Oct 16 07:11	29° Υ 44'51 38.34645 AU	conjunction	6519 Apr 27 10:47	8° \mathcal{B} 36'47 -12°04'23
opposition	6512 Oct 19 03:18	29° Υ 41'08 -10°43'59	minimum elong	6519 Apr 27 10:36	8° \mathcal{B} 36'47 12°04'25
direct	6513 Jan 08 15:41	28° Υ 32'37	max. Earth dist.	6519 Apr 30 04:38	8° \mathcal{B} 41'23 41.91237 AU
	6513 Apr 05 16:53	0° \mathcal{B}	morning rise	6519 May 06 14:08	8° \mathcal{B} 52'02
evening set	6513 Apr 07 17:51	0° \mathcal{B} 03'28	retrograde	6519 Aug 07 21:43	10° \mathcal{B} 25'10
			min. Earth dist.	6519 Oct 27 00:09	9° \mathcal{B} 21'20 40.07695 AU
conjunction	6513 Apr 18 20:03	0° \mathcal{B} 22'34 -10°21'39	opposition	6519 Oct 29 19:26	9° \mathcal{B} 17'46 -12°48'24
minimum elong	6513 Apr 18 19:50	0° \mathcal{B} 22'33 10°21'40	direct	6520 Jan 19 08:50	8° \mathcal{B} 11'08
max. Earth dist.	6513 Apr 21 15:23	0° \mathcal{B} 27'25 40.44009 AU	evening set	6520 Apr 19 05:36	9° \mathcal{B} 41'42
morning rise	6513 Apr 29 22:34	0° \mathcal{B} 41'42			
retrograde	6513 Jul 30 07:39	2° \mathcal{B} 14'45	conjunction	6520 Apr 28 00:09	9° \mathcal{B} 56'15 -12°19'35
min. Earth dist.	6513 Oct 18 01:06	1° \mathcal{B} 09'35 38.60013 AU	minimum elong	6520 Apr 27 23:56	9° \mathcal{B} 56'14 12°19'38
opposition	6513 Oct 20 20:31	1° \mathcal{B} 05'56 -11°03'36	max. Earth dist.	6520 Apr 30 18:20	10° \mathcal{B} 00'50 42.14746 AU
	6513 Dec 28 00:40	30° \mathcal{R} Υ	morning rise	6520 May 06 18:58	10° \mathcal{B} 10'49
direct	6514 Jan 10 07:46	29° Υ 57'44	retrograde	6520 Aug 08 11:49	11° \mathcal{B} 44'00
	6514 Jan 23 12:29	0° \mathcal{B}	min. Earth dist.	6520 Oct 27 15:56	10° \mathcal{B} 40'18 40.31283 AU
evening set	6514 Apr 09 16:24	1° \mathcal{B} 28'28	opposition	6520 Oct 30 10:13	10° \mathcal{B} 36'48 -13°03'51
			direct	6521 Jan 19 22:34	9° \mathcal{B} 30'24
conjunction	6514 Apr 20 11:14	1° \mathcal{B} 46'56 -10°40'12	evening set	6521 Apr 21 03:24	11° \mathcal{B} 00'59
minimum elong	6514 Apr 20 11:01	1° \mathcal{B} 46'55 10°40'14			
max. Earth dist.	6514 Apr 23 06:16	1° \mathcal{B} 51'44 40.69122 AU	conjunction	6521 Apr 29 13:07	11° \mathcal{B} 14'51 -12°34'15
morning rise	6514 May 01 06:21	2° \mathcal{B} 05'26	minimum elong	6521 Apr 29 12:56	11° \mathcal{B} 14'50 12°34'17
retrograde	6514 Jul 31 23:19	3° \mathcal{B} 38'28	max. Earth dist.	6521 May 02 07:28	11° \mathcal{B} 19'25 42.38030 AU
min. Earth dist.	6514 Oct 19 16:41	2° \mathcal{B} 33'36 38.85261 AU	morning rise	6521 May 07 22:56	11° \mathcal{B} 28'43
opposition	6514 Oct 22 13:02	2° \mathcal{B} 29'54 -11°22'34	retrograde	6521 Aug 09 23:08	13° \mathcal{B} 02'00
direct	6515 Jan 11 23:49	1° \mathcal{B} 22'00	min. Earth dist.	6521 Oct 29 05:47	11° \mathcal{B} 58'30 40.54656 AU
evening set	6515 Apr 11 14:47	2° \mathcal{B} 52'40	opposition	6521 Nov 01 00:29	11° \mathcal{B} 54'59 -13°18'43

direct	6522 Jan 21 14:19	10°8'48"48	conjunction	6528 May 08 00:50	20°8'06"05 -14°02'06
evening set	6522 Apr 23 01:12	12°8'19"28	minimum elong	6528 May 08 00:41	20°8'06"04 14°02'08
			max. Earth dist.	6528 May 10 18:43	20°8'10"28 43.96002 AU
conjunction	6522 May 01 01:47	12°8'32"38 -12°48'22	morning rise	6528 May 13 11:50	20°8'14"47
minimum elong	6522 May 01 01:35	12°8'32"37 12°48'24	retrograde	6528 Aug 18 09:54	21°8'49"38
max. Earth dist.	6522 May 03 19:33	12°8'37"08 42.61124 AU	min. Earth dist.	6528 Nov 07 03:16	20°8'47"32 42.13085 AU
morning rise	6522 May 09 02:36	12°8'45"49	opposition	6528 Nov 09 20:14	20°8'44"12 -14°47'21
retrograde	6522 Aug 11 11:10	14°8'19"12	direct	6529 Jan 30 11:04	19°8'39"45
min. Earth dist.	6522 Oct 30 19:30	13°8'15"55 40.77877 AU	evening set	6529 May 04 13:00	21°8'11"55
opposition	6522 Nov 02 14:24	13°8'12"24 -13°33'01			
direct	6523 Jan 23 04:43	12°8'06"27	conjunction	6529 May 09 11:49	21°8'19"47 -14°12'41
evening set	6523 Apr 24 23:00	13°8'37"13	minimum elong	6529 May 09 11:40	21°8'19"47 14°12'44
			max. Earth dist.	6529 May 12 04:04	21°8'24"03 44.17478 AU
conjunction	6523 May 02 14:19	13°8'49"41 -13°01'57	morning rise	6529 May 14 10:38	21°8'27"40
minimum elong	6523 May 02 14:09	13°8'49"40 13°01'59	retrograde	6529 Aug 19 21:06	23°8'02"53
max. Earth dist.	6523 May 05 09:04	13°8'54"14 42.84079 AU	min. Earth dist.	6529 Nov 08 15:20	22°8'00"59 42.34515 AU
morning rise	6523 May 10 05:43	14°8'02"10	opposition	6529 Nov 11 08:23	21°8'57"39 -14°57'59
	6523 Jun 18 14:42	15°8'	direct	6530 Jan 31 23:51	20°8'53"25
retrograde	6523 Aug 12 21:43	15°8'35"43	evening set	6530 May 06 13:08	22°8'25"59
	6523 Oct 09 13:59	15°8'			
min. Earth dist.	6523 Nov 01 09:52	14°8'32"35 41.00938 AU	conjunction	6530 May 10 22:53	22°8'32"57 -14°22'51
opposition	6523 Nov 04 04:03	14°8'29"07 -13°46'45	minimum elong	6530 May 10 22:45	22°8'32"56 14°22'52
direct	6524 Jan 24 20:23	13°8'23"25	max. Earth dist.	6530 May 13 15:19	22°8'37"12 44.38522 AU
evening set	6524 Apr 25 20:48	14°8'54"19	morning rise	6530 May 15 08:35	22°8'39"55
	6524 Apr 29 08:53	15°8'	retrograde	6530 Aug 21 08:08	24°8'15"35
			min. Earth dist.	6530 Nov 10 05:00	23°8'13"45 42.55488 AU
conjunction	6524 May 03 02:21	15°8'06"04 -13°15'00	opposition	6530 Nov 12 20:12	23°8'10"32 -15°08'11
minimum elong	6524 May 03 02:10	15°8'06"03 13°15'02	direct	6531 Feb 02 13:01	22°8'06"29
max. Earth dist.	6524 May 05 20:08	15°8'10"32 43.06884 AU	evening set	6531 May 08 14:33	23°8'39"32
morning rise	6524 May 10 08:02	15°8'17"50			
retrograde	6524 Aug 13 11:01	16°8'51"35	conjunction	6531 May 12 09:40	23°8'45"30 -14°32'34
min. Earth dist.	6524 Nov 01 22:10	15°8'48"43 41.23846 AU	minimum elong	6531 May 12 09:32	23°8'45"29 14°32'37
opposition	6524 Nov 04 17:24	15°8'45"13 -13°59'55	max. Earth dist.	6531 May 15 00:48	23°8'49"38 44.59125 AU
	6524 Dec 14 13:30	15°8'	morning rise	6531 May 16 04:39	23°8'51"28
direct	6525 Jan 25 09:17	14°8'39"46	retrograde	6531 Aug 22 20:11	25°8'27"38
	6525 Mar 06 22:53	15°8'	min. Earth dist.	6531 Nov 11 16:17	24°8'25"58 42.76014 AU
evening set	6525 Apr 27 18:38	16°8'10"50	opposition	6531 Nov 14 07:42	24°8'22"45 -15°17'55
			direct	6532 Feb 03 23:24	23°8'18"53
conjunction	6525 May 04 14:17	16°8'21"52 -13°27'31	evening set	6532 May 09 17:36	24°8'52"32
minimum elong	6525 May 04 14:07	16°8'21"51 13°27'34			
max. Earth dist.	6525 May 07 08:54	16°8'26"21 43.29523 AU	conjunction	6532 May 12 19:57	24°8'57"23 -14°41'52
morning rise	6525 May 11 10:03	16°8'32"54	minimum elong	6532 May 12 19:50	24°8'57"22 14°41'54
retrograde	6525 Aug 15 01:13	18°8'06"52	morning rise	6532 May 15 22:11	25°8'02"14
min. Earth dist.	6525 Nov 03 12:28	17°8'04"10 41.46570 AU	max. Earth dist.	6532 May 15 10:31	25°8'01"28 44.79298 AU
opposition	6525 Nov 06 06:35	17°8'00"44 -14°12'33	retrograde	6532 Aug 23 08:44	26°8'39"02
direct	6526 Jan 26 20:53	15°8'55"33	min. Earth dist.	6532 Nov 12 04:48	25°8'37"27 42.96153 AU
evening set	6526 Apr 29 16:43	17°8'26"50	opposition	6532 Nov 14 19:07	25°8'34"17 -15°27'13
			direct	6533 Feb 04 08:14	24°8'30"35
conjunction	6526 May 06 01:58	17°8'37"06 -13°39'32	evening set	6533 May 12 00:57	26°8'05"07
minimum elong	6526 May 06 01:48	17°8'37"06 13°39'34			
max. Earth dist.	6526 May 08 20:04	17°8'41"33 43.51968 AU	conjunction	6533 May 14 06:13	26°8'08"35 -14°50'44
morning rise	6526 May 12 11:15	17°8'47"24	minimum elong	6533 May 14 06:06	26°8'08"34 14°50'47
retrograde	6526 Aug 16 14:31	19°8'21"37	morning rise	6533 May 16 11:18	26°8'12"02
min. Earth dist.	6526 Nov 05 00:46	18°8'19"10 41.69053 AU	max. Earth dist.	6533 May 16 20:56	26°8'12"39 44.99127 AU
opposition	6526 Nov 07 19:21	18°8'15"44 -14°24'39	retrograde	6533 Aug 24 16:54	27°8'49"44
direct	6527 Jan 28 07:21	17°8'10"48	min. Earth dist.	6533 Nov 13 16:12	26°8'48"16 43.15960 AU
evening set	6527 May 01 15:01	18°8'42"20	opposition	6533 Nov 16 06:04	26°8'45"09 -15°36'04
			direct	6534 Feb 05 20:27	25°8'41"35
conjunction	6527 May 07 13:25	18°8'51"51 -13°51'03			
minimum elong	6527 May 07 13:16	18°8'51"50 13°51'06	conjunction	6534 May 15 16:03	27°8'19"06 -14°59'09
max. Earth dist.	6527 May 10 06:57	18°8'56"13 43.74140 AU	minimum elong	6534 May 15 15:57	27°8'19"05 14°59'12
morning rise	6527 May 13 11:55	19°8'01"21	evening set	6534 May 15 00:13	27°8'18"04
retrograde	6527 Aug 18 01:59	20°8'35"53	morning rise	6534 May 16 07:42	27°8'20"07
min. Earth dist.	6527 Nov 06 14:05	19°8'33"36 41.91251 AU	max. Earth dist.	6534 May 18 05:31	27°8'23"04 45.18661 AU
opposition	6527 Nov 09 07:52	19°8'30"13 -14°36'14	retrograde	6534 Aug 26 01:07	28°8'59"47
direct	6528 Jan 29 19:51	18°8'25"32	min. Earth dist.	6534 Nov 15 02:48	27°8'58"28 43.35504 AU
evening set	6528 May 02 13:47	19°8'57"22	opposition	6534 Nov 17 16:50	27°8'55"20 -15°44'27

direct	6535 Feb 07 08:22	26° ♁ 51'57	min. Earth dist.	6542 Nov 24 15:03	7° ♁ 02'17	44.81433 AU
			opposition	6542 Nov 26 23:26	6° ♁ 59'30	-16°36'05
conjunction	6535 May 17 01:50	28° ♁ 28'59 -15°07'09	direct	6543 Feb 16 15:46	5° ♁ 57'33	
minimum elong	6535 May 17 01:43	28° ♁ 28'58 15°07'11				
max. Earth dist.	6535 May 19 16:03	28° ♁ 33'00 45.37945 AU	conjunction	6543 May 26 01:34	7° ♁ 31'24	-15°56'24
	6535 Jul 30 00:54	0° ♁	minimum elong	6543 May 26 01:31	7° ♁ 31'24	15°56'27
retrograde	6535 Aug 27 08:57	0° ♁ 09'14	max. Earth dist.	6543 May 28 10:38	7° ♁ 34'58	46.81637 AU
	6535 Sep 25 07:01	30° ♁	retrograde	6543 Sep 05 13:06	9° ♁ 08'37	
min. Earth dist.	6535 Nov 16 14:28	29° ♁ 08'00 43.54795 AU	min. Earth dist.	6543 Nov 26 00:12	8° ♁ 08'27	44.97806 AU
opposition	6535 Nov 19 03:18	29° ♁ 04'56 -15°52'23	opposition	6543 Nov 28 08:16	8° ♁ 05'42	-16°40'50
direct	6536 Feb 08 21:46	28° ♁ 01'43	direct	6544 Feb 17 23:21	7° ♁ 03'53	
conjunction	6536 May 17 11:20	29° ♁ 38'18 -15°14'42	conjunction	6544 May 26 09:45	8° ♁ 37'21	-16°00'56
minimum elong	6536 May 17 11:15	29° ♁ 38'17 15°14'45	minimum elong	6544 May 26 09:42	8° ♁ 37'21	16°00'59
max. Earth dist.	6536 May 20 00:29	29° ♁ 42'13 45.57008 AU	max. Earth dist.	6544 May 28 17:18	8° ♁ 40'49	46.97712 AU
	6536 May 31 16:14	0° ♁	retrograde	6544 Sep 05 20:52	10° ♁ 14'13	
retrograde	6536 Aug 27 19:53	1° ♁ 18'07	min. Earth dist.	6544 Nov 26 09:57	9° ♁ 14'06	45.13756 AU
min. Earth dist.	6536 Nov 16 23:58	0° ♁ 17'05 43.73858 AU	opposition	6544 Nov 28 17:07	9° ♁ 11'24	-16°45'13
opposition	6536 Nov 19 13:34	0° ♁ 14'00 -15°59'52	direct	6545 Feb 18 08:00	8° ♁ 09'44	
	6536 Dec 01 07:06	30° ♁				
direct	6537 Feb 09 07:31	29° ♁ 10'57	conjunction	6545 May 27 17:47	9° ♁ 42'50	-16°05'06
	6537 Apr 16 18:20	0° ♁	minimum elong	6545 May 27 17:46	9° ♁ 42'50	16°05'09
			max. Earth dist.	6545 May 30 01:48	9° ♁ 46'18	47.13393 AU
conjunction	6537 May 18 20:31	0° ♁ 47'06 -15°21'50	retrograde	6545 Sep 07 01:01	11° ♁ 19'20	
minimum elong	6537 May 18 20:25	0° ♁ 47'05 15°21'52	min. Earth dist.	6545 Nov 27 19:40	10° ♁ 19'17	45.29326 AU
max. Earth dist.	6537 May 21 09:38	0° ♁ 51'00 45.75830 AU	opposition	6545 Nov 30 01:42	10° ♁ 16'38	-16°49'14
retrograde	6537 Aug 29 06:45	2° ♁ 26'31	direct	6546 Feb 19 19:46	9° ♁ 15'05	
min. Earth dist.	6537 Nov 18 11:27	1° ♁ 25'35 43.92675 AU				
opposition	6537 Nov 20 23:48	1° ♁ 22'34 -16°06'55	conjunction	6546 May 29 01:39	10° ♁ 47'50	-16°08'56
direct	6538 Feb 10 16:14	0° ♁ 19'43	minimum elong	6546 May 29 01:37	10° ♁ 47'50	16°08'59
			max. Earth dist.	6546 May 31 08:07	10° ♁ 51'12	47.28742 AU
conjunction	6538 May 20 05:48	1° ♁ 55'26 -15°28'33	retrograde	6546 Sep 08 08:44	12° ♁ 23'59	
minimum elong	6538 May 20 05:43	1° ♁ 55'26 15°28'36	min. Earth dist.	6546 Nov 29 03:29	11° ♁ 24'04	45.44592 AU
max. Earth dist.	6538 May 22 18:57	1° ♁ 59'20 45.94403 AU	opposition	6546 Dec 01 09:50	11° ♁ 21'25	-16°52'53
retrograde	6538 Aug 30 15:17	3° ♁ 34'28	direct	6547 Feb 21 04:47	10° ♁ 19'59	
min. Earth dist.	6538 Nov 19 21:21	2° ♁ 33'42 44.11199 AU				
opposition	6538 Nov 22 09:30	2° ♁ 30'42 -16°13'32	conjunction	6547 May 30 09:22	11° ♁ 52'23	-16°12'23
direct	6539 Feb 12 01:31	1° ♁ 28'02	minimum elong	6547 May 30 09:22	11° ♁ 52'23	16°12'26
			max. Earth dist.	6547 Jun 01 15:54	11° ♁ 55'44	47.43801 AU
conjunction	6539 May 21 14:44	3° ♁ 03'23 -15°34'51	retrograde	6547 Sep 09 17:47	13° ♁ 28'13	
minimum elong	6539 May 21 14:39	3° ♁ 03'23 15°34'54	min. Earth dist.	6547 Nov 30 13:14	12° ♁ 28'21	45.59584 AU
max. Earth dist.	6539 May 24 02:27	3° ♁ 07'10 46.12666 AU	opposition	6547 Dec 02 18:05	12° ♁ 25'46	-16°56'10
retrograde	6539 Sep 01 00:24	4° ♁ 42'02	direct	6548 Feb 22 13:42	11° ♁ 24'29	
min. Earth dist.	6539 Nov 21 07:28	3° ♁ 41'25 44.29401 AU				
opposition	6539 Nov 23 19:15	3° ♁ 38'27 -16°19'44	conjunction	6548 May 30 16:50	12° ♁ 56'32	-16°15'30
direct	6540 Feb 13 10:31	2° ♁ 35'59	minimum elong	6548 May 30 16:49	12° ♁ 56'32	16°15'33
			max. Earth dist.	6548 Jun 01 23:05	12° ♁ 59'52	47.58615 AU
conjunction	6540 May 21 23:35	4° ♁ 10'57 -15°40'47	retrograde	6548 Sep 10 02:32	14° ♁ 32'03	
minimum elong	6540 May 21 23:31	4° ♁ 10'56 15°40'50	min. Earth dist.	6548 Nov 30 20:51	13° ♁ 32'20	45.74316 AU
max. Earth dist.	6540 May 24 11:43	4° ♁ 14'45 46.30574 AU	opposition	6548 Dec 03 02:02	13° ♁ 29'45	-16°59'04
retrograde	6540 Sep 01 07:30	5° ♁ 49'15	direct	6549 Feb 22 20:04	12° ♁ 28'36	
min. Earth dist.	6540 Nov 21 18:39	4° ♁ 48'44 44.47202 AU				
opposition	6540 Nov 24 04:51	4° ♁ 45'50 -16°25'33	conjunction	6549 Jun 01 00:10	14° ♁ 00'21	-16°18'14
direct	6541 Feb 13 22:06	3° ♁ 43'33	minimum elong	6549 Jun 01 00:11	14° ♁ 00'21	16°18'17
			max. Earth dist.	6549 Jun 03 05:18	14° ♁ 03'35	47.73171 AU
conjunction	6541 May 23 08:22	5° ♁ 18'09 -15°46'20	retrograde	6549 Sep 11 11:41	15° ♁ 35'32	
minimum elong	6541 May 23 08:18	5° ♁ 18'09 15°46'23	min. Earth dist.	6549 Dec 02 05:25	14° ♁ 35'55	45.88795 AU
max. Earth dist.	6541 May 25 18:49	5° ♁ 21'50 46.48071 AU	opposition	6549 Dec 04 09:53	14° ♁ 33'23	-17°01'37
retrograde	6541 Sep 02 17:07	6° ♁ 56'06	direct	6550 Feb 24 00:23	13° ♁ 32'23	
min. Earth dist.	6541 Nov 23 03:51	5° ♁ 55'45 44.64564 AU				
opposition	6541 Nov 25 14:09	5° ♁ 52'52 -16°31'00	conjunction	6550 Jun 02 07:34	15° ♁ 03'50	-16°20'38
direct	6542 Feb 15 07:52	4° ♁ 50'45	minimum elong	6550 Jun 02 07:33	15° ♁ 03'50	16°20'42
			max. Earth dist.	6550 Jun 04 13:05	15° ♁ 07'05	47.87464 AU
conjunction	6542 May 24 17:01	6° ♁ 24'59 -15°51'33	retrograde	6550 Sep 12 17:00	16° ♁ 38'44	
minimum elong	6542 May 24 16:58	6° ♁ 24'58 15°51'36	min. Earth dist.	6550 Dec 03 14:08	15° ♁ 39'12	46.02968 AU
max. Earth dist.	6542 May 27 02:56	6° ♁ 28'36 46.65095 AU	opposition	6550 Dec 05 17:33	15° ♁ 36'43	-17°03'48
retrograde	6542 Sep 04 04:34	8° ♁ 02'34	direct	6551 Feb 25 09:30	14° ♁ 35'52	

conjunction	6551 Jun 03 14:40	16°II07'01 -16°22'42	retrograde	6559 Sep 22 07:24	25°II53'56
minimum elong	6551 Jun 03 14:41	16°II07'01 16°22'45	min. Earth dist.	6559 Dec 13 13:33	24°II54'59 47.11155 AU
max. Earth dist.	6551 Jun 05 18:38	16°II10'11 48.01443 AU	opposition	6559 Dec 15 08:51	24°II52'56 -17°09'44
retrograde	6551 Sep 13 22:21	17°II41'38	direct	6560 Mar 06 01:39	23°II53'03
min. Earth dist.	6551 Dec 04 21:34	16°II42'16 46.16807 AU			
opposition	6551 Dec 07 01:01	16°II39'47 -17°05'39	conjunction	6560 Jun 12 03:00	25°II21'48 -16°28'02
direct	6552 Feb 26 18:32	15°II39'04	minimum elong	6560 Jun 12 03:05	25°II21'48 16°28'05
			max. Earth dist.	6560 Jun 13 23:56	25°II24'27 49.07634 AU
conjunction	6552 Jun 03 21:48	17°II09'57 -16°24'27	retrograde	6560 Sep 22 12:27	26°II54'00
minimum elong	6552 Jun 03 21:48	17°II09'57 16°24'30	min. Earth dist.	6560 Dec 13 20:31	25°II55'07 47.21215 AU
max. Earth dist.	6552 Jun 06 01:34	17°II13'06 48.15056 AU	opposition	6560 Dec 15 15:12	25°II53'06 -17°08'53
retrograde	6552 Sep 14 06:21	18°II44'18	direct	6561 Mar 07 08:04	24°II53'19
min. Earth dist.	6552 Dec 05 06:59	17°II44'58 46.30249 AU			
opposition	6552 Dec 07 08:34	17°II42'35 -17°07'11	conjunction	6561 Jun 13 08:59	26°II21'51 -16°27'10
direct	6553 Feb 27 03:40	16°II42'01	minimum elong	6561 Jun 13 09:02	26°II21'51 16°27'13
			max. Earth dist.	6561 Jun 15 04:19	26°II24'25 49.17571 AU
conjunction	6553 Jun 05 04:51	18°II12'37 -16°25'53	retrograde	6561 Sep 23 17:06	27°II53'51
minimum elong	6553 Jun 05 04:53	18°II12'37 16°25'56	min. Earth dist.	6561 Dec 15 02:53	26°II55'05 47.30988 AU
max. Earth dist.	6553 Jun 07 07:38	18°II15'41 48.28253 AU	opposition	6561 Dec 16 21:27	26°II53'04 -17°07'45
retrograde	6553 Sep 15 15:14	19°II46'42	direct	6562 Mar 08 14:39	25°II53'24
min. Earth dist.	6553 Dec 06 14:30	18°II47'29 46.43222 AU			
opposition	6553 Dec 08 15:51	18°II45'07 -17°08'25	conjunction	6562 Jun 14 15:05	27°II21'44 -16°26'01
direct	6554 Feb 28 10:06	17°II44'40	minimum elong	6562 Jun 14 15:10	27°II21'45 16°26'04
			max. Earth dist.	6562 Jun 16 10:25	27°II24'18 49.27199 AU
conjunction	6554 Jun 06 11:51	19°II15'00 -16°27'02	retrograde	6562 Sep 24 22:17	28°II53'33
minimum elong	6554 Jun 06 11:53	19°II15'00 16°27'05	min. Earth dist.	6562 Dec 16 10:39	27°II54'49 47.40433 AU
max. Earth dist.	6554 Jun 08 12:53	19°II17'57 48.40950 AU	opposition	6562 Dec 18 03:32	27°II52'53 -17°06'18
retrograde	6554 Sep 16 23:35	20°II48'48	direct	6563 Mar 09 23:27	26°II53'20
min. Earth dist.	6554 Dec 07 23:19	19°II49'37 46.55688 AU			
opposition	6554 Dec 09 23:02	19°II47'20 -17°09'21	conjunction	6563 Jun 15 21:04	28°II21'29 -16°24'34
direct	6555 Mar 01 15:27	18°II47'00	minimum elong	6563 Jun 15 21:08	28°II21'29 16°24'37
			max. Earth dist.	6563 Jun 17 15:25	28°II23'59 49.36506 AU
conjunction	6555 Jun 07 18:53	20°II17'03 -16°27'55	retrograde	6563 Sep 26 06:29	29°II53'07
minimum elong	6555 Jun 07 18:55	20°II17'04 16°27'59	min. Earth dist.	6563 Dec 17 16:33	28°II54'31 47.49522 AU
max. Earth dist.	6555 Jun 09 19:46	20°II19'59 48.53134 AU	opposition	6563 Dec 19 09:31	28°II52'35 -17°04'35
retrograde	6555 Sep 18 03:58	21°II50'34	direct	6564 Mar 10 05:05	27°II53'09
min. Earth dist.	6555 Dec 09 07:39	20°II51'25 46.67621 AU			
opposition	6555 Dec 11 06:07	20°II49'12 -17°10'01	conjunction	6564 Jun 16 02:48	29°II21'08 -16°22'51
direct	6556 Mar 01 23:18	19°II48'58	minimum elong	6564 Jun 16 02:53	29°II21'08 16°22'54
			max. Earth dist.	6564 Jun 17 19:51	29°II23'32 49.45422 AU
conjunction	6556 Jun 08 01:25	21°II18'44 -16°28'31		6564 Jul 14 15:26	0°☾
minimum elong	6556 Jun 08 01:28	21°II18'44 16°28'34	retrograde	6564 Sep 26 14:49	0°☾52'35
max. Earth dist.	6556 Jun 10 00:15	21°II21'32 48.64817 AU		6564 Dec 12 16:51	30°☿II
retrograde	6556 Sep 18 09:32	22°II51'57	min. Earth dist.	6564 Dec 18 00:23	29°II54'01 47.58201 AU
min. Earth dist.	6556 Dec 09 14:50	21°II52'53 46.79081 AU	opposition	6564 Dec 19 15:37	29°II52'10 -17°02'35
opposition	6556 Dec 11 13:04	21°II50'40 -17°10'24	direct	6565 Mar 11 08:39	28°II52'52
direct	6557 Mar 03 06:44	20°II50'31		6565 Jun 02 12:10	0°☾
conjunction	6557 Jun 09 08:03	22°II20'01 -16°28'50	conjunction	6565 Jun 17 08:51	0°☾20'40 -16°20'53
minimum elong	6557 Jun 09 08:05	22°II20'01 16°28'54	minimum elong	6565 Jun 17 08:56	0°☾20'41 16°20'55
max. Earth dist.	6557 Jun 11 06:42	22°II22'48 48.76046 AU	max. Earth dist.	6565 Jun 19 01:42	0°☾23'04 49.53899 AU
retrograde	6557 Sep 19 15:30	23°II52'58	retrograde	6565 Sep 27 19:45	1°☾51'57
min. Earth dist.	6557 Dec 10 23:33	22°II53'53 46.90118 AU	min. Earth dist.	6565 Dec 19 07:14	0°☾53'26 47.66390 AU
opposition	6557 Dec 12 19:50	22°II51'46 -17°10'28	opposition	6565 Dec 20 21:24	0°☾51'38 -17°00'20
direct	6558 Mar 04 15:33	21°II51'42		6566 Feb 14 04:03	30°☿II
			direct	6566 Mar 12 13:40	29°II52'26
conjunction	6558 Jun 10 14:32	23°II20'55 -16°28'52		6566 Apr 07 17:49	0°☾
minimum elong	6558 Jun 10 14:36	23°II20'55 16°28'55			
max. Earth dist.	6558 Jun 12 12:23	23°II23'39 48.86902 AU	conjunction	6566 Jun 18 14:43	1°☾20'05 -16°18'40
retrograde	6558 Sep 20 22:36	24°II53'37	minimum elong	6566 Jun 18 14:50	1°☾20'05 16°18'43
min. Earth dist.	6558 Dec 12 05:51	23°II54'38 47.00794 AU	max. Earth dist.	6566 Jun 20 05:13	1°☾22'19 49.61868 AU
opposition	6558 Dec 14 02:20	23°II52'30 -17°10'15	retrograde	6566 Sep 29 00:26	2°☾51'09
direct	6559 Mar 05 22:12	22°II52'31	min. Earth dist.	6566 Dec 20 13:50	1°☾52'42 47.74051 AU
			opposition	6566 Dec 22 03:13	1°☾50'57 -16°57'50
conjunction	6559 Jun 11 20:44	24°II21'30 -16°28'36	direct	6567 Mar 13 19:04	0°☾51'49
minimum elong	6559 Jun 11 20:46	24°II21'30 16°28'39			
max. Earth dist.	6559 Jun 13 17:19	24°II24'08 48.97412 AU	conjunction	6567 Jun 19 20:33	2°☾19'17 -16°16'13

minimum elong	6567 Jun 19 20:39	2°☾19'17	16°16'16	min. Earth dist.	6575 Dec 29 21:55	10°☾34'34	48.23784 AU
max. Earth dist.	6567 Jun 21 10:28	2°☾21'29	49.69284 AU	opposition	6575 Dec 31 02:57	10°☾33'13	-16°24'05
retrograde	6567 Sep 30 04:14	3°☾50'11		direct	6576 Mar 21 21:36	9°☾34'32	
min. Earth dist.	6567 Dec 21 21:45	2°☾51'41	47.81153 AU				
opposition	6567 Dec 23 09:00	2°☾50'02	-16°55'07	conjunction	6576 Jun 27 20:33	11°☾00'36	-15°43'02
direct	6568 Mar 14 03:01	1°☾50'58		minimum elong	6576 Jun 27 20:40	11°☾00'36	15°43'05
				max. Earth dist.	6576 Jun 29 01:55	11°☾02'17	50.17930 AU
conjunction	6568 Jun 20 02:17	3°☾18'14	-16°13'32	retrograde	6576 Oct 08 05:57	12°☾30'02	
minimum elong	6568 Jun 20 02:23	3°☾18'14	16°13'36	min. Earth dist.	6576 Dec 30 03:35	11°☾31'44	48.27599 AU
max. Earth dist.	6568 Jun 21 14:53	3°☾20'22	49.76183 AU	opposition	6576 Dec 31 07:53	11°☾30'25	-16°19'01
retrograde	6568 Sep 30 09:52	4°☾48'56		direct	6577 Mar 23 00:42	10°☾31'48	
min. Earth dist.	6568 Dec 22 03:26	3°☾50'30	47.87751 AU				
opposition	6568 Dec 23 14:32	3°☾48'51	-16°52'09	conjunction	6577 Jun 29 01:44	11°☾57'48	-15°38'06
direct	6569 Mar 15 10:37	2°☾49'49		minimum elong	6577 Jun 29 01:54	11°☾57'48	15°38'09
				max. Earth dist.	6577 Jun 30 06:49	11°☾59'28	50.21596 AU
conjunction	6569 Jun 21 07:46	4°☾16'53	-16°10'38	retrograde	6577 Oct 09 09:33	13°☾27'09	
minimum elong	6569 Jun 21 07:53	4°☾16'54	16°10'40	min. Earth dist.	6577 Dec 31 10:38	12°☾28'49	48.30945 AU
max. Earth dist.	6569 Jun 22 18:48	4°☾18'55	49.82596 AU	opposition	6578 Jan 01 12:53	12°☾27'36	-16°13'44
retrograde	6569 Oct 01 18:47	5°☾47'24		direct	6578 Mar 24 06:59	11°☾29'03	
min. Earth dist.	6569 Dec 23 10:42	4°☾48'55	47.93903 AU				
opposition	6569 Dec 24 20:07	4°☾47'21	-16°48'56	conjunction	6578 Jun 30 07:00	12°☾54'57	-15°32'56
direct	6570 Mar 16 14:28	3°☾48'21		minimum elong	6578 Jun 30 07:08	12°☾54'58	15°32'58
				max. Earth dist.	6578 Jul 01 10:32	12°☾56'32	50.24780 AU
conjunction	6570 Jun 22 13:23	5°☾15'15	-16°07'28	retrograde	6578 Oct 10 14:19	14°☾24'12	
minimum elong	6570 Jun 22 13:29	5°☾15'15	16°07'31	opposition	6579 Jan 02 17:34	13°☾24'44	-16°08'14
max. Earth dist.	6570 Jun 24 00:26	5°☾17'16	49.88599 AU	min. Earth dist.	6579 Jan 01 15:35	13°☾25'56	48.33776 AU
retrograde	6570 Oct 03 00:12	6°☾45'33		direct	6579 Mar 25 13:20	12°☾26'14	
min. Earth dist.	6570 Dec 24 16:38	5°☾47'04	47.99660 AU				
opposition	6570 Dec 26 01:18	5°☾45'32	-16°45'28	conjunction	6579 Jul 01 12:07	13°☾52'03	-15°27'33
direct	6571 Mar 17 18:34	4°☾46'35		minimum elong	6579 Jul 01 12:16	13°☾52'03	15°27'37
				max. Earth dist.	6579 Jul 02 13:46	13°☾53'31	50.27428 AU
conjunction	6571 Jun 23 18:41	6°☾13'18	-16°04'03	retrograde	6579 Oct 11 22:18	15°☾21'12	
minimum elong	6571 Jun 23 18:49	6°☾13'18	16°04'05	opposition	6580 Jan 03 22:33	14°☾21'46	-16°02'31
max. Earth dist.	6571 Jun 25 04:00	6°☾15'13	49.94249 AU	min. Earth dist.	6580 Jan 02 22:36	14°☾22'53	48.36075 AU
retrograde	6571 Oct 04 04:45	7°☾43'25		direct	6580 Mar 25 17:12	13°☾23'19	
min. Earth dist.	6571 Dec 25 22:14	6°☾44'58	48.05096 AU				
opposition	6571 Dec 27 06:36	6°☾43'27	-16°41'44	conjunction	6580 Jul 01 17:10	14°☾49'02	-15°21'58
direct	6572 Mar 17 23:09	5°☾44'32		minimum elong	6580 Jul 01 17:19	14°☾49'03	15°22'01
				max. Earth dist.	6580 Jul 02 18:36	14°☾50'29	50.29562 AU
conjunction	6572 Jun 23 23:53	7°☾11'05	-16°00'22	retrograde	6580 Oct 12 04:07	16°☾18'05	
minimum elong	6572 Jun 23 24:00	7°☾11'06	16°00'25	min. Earth dist.	6581 Jan 03 04:09	15°☾19'46	48.37861 AU
max. Earth dist.	6572 Jun 25 09:12	7°☾13'01	49.99583 AU	opposition	6581 Jan 04 03:17	15°☾18'41	-15°56'35
retrograde	6572 Oct 04 06:40	8°☾41'02		direct	6581 Mar 26 20:06	14°☾20'15	
min. Earth dist.	6572 Dec 26 05:01	7°☾42'34	48.10222 AU				
opposition	6572 Dec 27 11:54	7°☾41'07	-16°37'43	conjunction	6581 Jul 02 22:08	15°☾45'53	-15°16'10
direct	6573 Mar 19 07:25	6°☾42'15		minimum elong	6581 Jul 02 22:17	15°☾45'54	15°16'14
				max. Earth dist.	6581 Jul 03 21:26	15°☾47'13	50.31217 AU
conjunction	6573 Jun 25 05:11	8°☾08'40	-15°56'25	retrograde	6581 Oct 13 09:38	17°☾14'49	
minimum elong	6573 Jun 25 05:19	8°☾08'40	15°56'28	min. Earth dist.	6582 Jan 04 09:36	16°☾16'29	48.39209 AU
max. Earth dist.	6573 Jun 26 13:39	8°☾10'32	50.04639 AU	opposition	6582 Jan 05 07:50	16°☾15'27	-15°50'25
retrograde	6573 Oct 05 11:53	9°☾38'28		direct	6582 Mar 27 23:16	15°☾17'02	
min. Earth dist.	6573 Dec 27 09:43	8°☾40'04	48.15060 AU				
opposition	6573 Dec 28 16:51	8°☾38'36	-16°33'26	conjunction	6582 Jul 04 03:10	16°☾42'35	-15°10'09
direct	6574 Mar 20 13:35	7°☾39'47		minimum elong	6582 Jul 04 03:20	16°☾42'36	15°10'11
				max. Earth dist.	6582 Jul 05 02:08	16°☾43'53	50.32452 AU
conjunction	6574 Jun 26 10:20	9°☾06'04	-15°52'13	retrograde	6582 Oct 14 10:27	18°☾11'26	
minimum elong	6574 Jun 26 10:27	9°☾06'04	15°52'16	opposition	6583 Jan 06 12:28	17°☾12'05	-15°44'02
max. Earth dist.	6574 Jun 27 17:34	9°☾07'52	50.09394 AU	min. Earth dist.	6583 Jan 05 15:49	17°☾13'02	48.40159 AU
retrograde	6574 Oct 06 19:35	10°☾35'44		direct	6583 Mar 29 07:01	16°☾13'40	
opposition	6574 Dec 29 22:00	9°☾35'57	-16°28'53				
min. Earth dist.	6574 Dec 28 16:28	9°☾37'20	48.19595 AU	conjunction	6583 Jul 05 07:57	17°☾39'09	-15°03'53
direct	6575 Mar 21 17:24	8°☾37'12		minimum elong	6583 Jul 05 08:06	17°☾39'09	15°03'56
				max. Earth dist.	6583 Jul 06 05:59	17°☾40'24	50.33334 AU
conjunction	6575 Jun 27 15:29	10°☾03'22	-15°47'45	retrograde	6583 Oct 15 14:22	19°☾07'54	
minimum elong	6575 Jun 27 15:38	10°☾03'22	15°47'48	opposition	6584 Jan 07 16:56	18°☾08'35	-15°37'23
max. Earth dist.	6575 Jun 28 22:52	10°☾05'10	50.13840 AU	min. Earth dist.	6584 Jan 06 20:08	18°☾09'33	48.40775 AU
retrograde	6575 Oct 08 00:42	11°☾32'55		direct	6584 Mar 29 13:33	17°☾10'11	

evening set	6584 Jul 04 08:11	18°☾33'59		min. Earth dist.	6591 Jan 13 10:31	24°☾43'53	48.35804 AU
				opposition	6591 Jan 14 00:04	24°☾43'15	-14°44'05
conjunction	6584 Jul 05 12:45	18°☾35'36 -14°57'23		direct	6591 Apr 05 17:34	23°☾45'00	
minimum elong	6584 Jul 05 12:55	18°☾35'36 14°57'26		evening set	6591 Jul 07 12:19	25°☾02'54	
morning rise	6584 Jul 06 17:42	18°☾37'15					
max. Earth dist.	6584 Jul 06 09:31	18°☾36'47 50.33895 AU		conjunction	6591 Jul 12 22:50	25°☾10'17 -14°05'19	
retrograde	6584 Oct 15 22:11	20°☾04'18		minimum elong	6591 Jul 12 23:01	25°☾10'17 14°05'21	
opposition	6585 Jan 07 21:30	19°☾05'00 -15°30'30		max. Earth dist.	6591 Jul 13 12:04	25°☾11'01 50.28343 AU	
min. Earth dist.	6585 Jan 07 02:18	19°☾05'53 48.41094 AU		morning rise	6591 Jul 18 10:07	25°☾17'41	
direct	6585 Mar 30 17:15	18°☾06'37		retrograde	6591 Oct 23 11:41	26°☾38'43	
evening set	6585 Jul 04 11:10	19°☾28'54		opposition	6592 Jan 15 04:34	25°☾39'38 -14°35'35	
				min. Earth dist.	6592 Jan 14 16:08	25°☾40'13 48.33281 AU	
conjunction	6585 Jul 06 17:39	19°☾31'59 -14°50'38		direct	6592 Apr 05 19:31	24°☾41'22	
minimum elong	6585 Jul 06 17:48	19°☾31'59 14°50'41		evening set	6592 Jul 07 08:01	25°☾58'44	
max. Earth dist.	6585 Jul 07 14:30	19°☾33'10 50.34174 AU					
morning rise	6585 Jul 09 00:29	19°☾35'05		conjunction	6592 Jul 13 03:52	26°☾06'38 -13°57'02	
retrograde	6585 Oct 17 03:23	21°☾00'37		minimum elong	6592 Jul 13 04:02	26°☾06'38 13°57'06	
min. Earth dist.	6586 Jan 08 07:00	20°☾02'14 48.41113 AU		max. Earth dist.	6592 Jul 13 16:22	26°☾07'20 50.25669 AU	
opposition	6586 Jan 09 01:56	20°☾01'21 -15°23'21		morning rise	6592 Jul 19 00:28	26°☾14'34	
direct	6586 Mar 31 20:54	19°☾03'00		retrograde	6592 Oct 23 13:24	27°☾35'02	
evening set	6586 Jul 04 22:28	20°☾24'15		opposition	6593 Jan 15 09:00	26°☾35'56 -14°26'53	
				min. Earth dist.	6593 Jan 14 22:29	26°☾36'25 48.30223 AU	
conjunction	6586 Jul 07 22:24	20°☾28'19 -14°43'39		direct	6593 Apr 07 01:48	25°☾37'39	
minimum elong	6586 Jul 07 22:35	20°☾28'20 14°43'42		evening set	6593 Jul 08 04:12	26°☾54'30	
max. Earth dist.	6586 Jul 08 17:26	20°☾29'24 50.34159 AU					
morning rise	6586 Jul 10 22:50	20°☾32'25		conjunction	6593 Jul 14 08:48	27°☾02'53 -13°48'33	
retrograde	6586 Oct 18 08:53	21°☾56'53		minimum elong	6593 Jul 14 08:59	27°☾02'54 13°48'35	
opposition	6587 Jan 10 06:17	20°☾57'40 -15°15'58		max. Earth dist.	6593 Jul 14 20:02	27°☾03'31 50.22502 AU	
min. Earth dist.	6587 Jan 09 12:00	20°☾58'31 48.40839 AU		morning rise	6593 Jul 20 14:12	27°☾11'19	
direct	6587 Apr 01 22:13	19°☾59'21		retrograde	6593 Oct 24 16:03	28°☾31'15	
evening set	6587 Jul 05 12:53	21°☾19'46		opposition	6594 Jan 16 13:18	27°☾32'08 -14°17'58	
				min. Earth dist.	6594 Jan 16 03:00	27°☾32'37 48.26692 AU	
conjunction	6587 Jul 09 03:15	21°☾24'40 -14°36'26		direct	6594 Apr 08 08:17	26°☾33'48	
minimum elong	6587 Jul 09 03:25	21°☾24'40 14°36'28		evening set	6594 Jul 09 00:36	27°☾50'11	
max. Earth dist.	6587 Jul 09 22:09	21°☾25'44 50.33831 AU					
morning rise	6587 Jul 12 18:07	21°☾29'35		conjunction	6594 Jul 15 13:40	27°☾59'03 -13°39'51	
retrograde	6587 Oct 19 11:43	22°☾53'12		minimum elong	6594 Jul 15 13:50	27°☾59'03 13°39'54	
opposition	6588 Jan 11 10:49	21°☾54'01 -15°08'20		max. Earth dist.	6594 Jul 15 23:10	27°☾59'35 50.18874 AU	
min. Earth dist.	6588 Jan 10 18:08	21°☾54'47 48.40228 AU		morning rise	6594 Jul 22 03:37	28°☾07'57	
direct	6588 Apr 02 03:27	20°☾55'44		retrograde	6594 Oct 25 22:35	29°☾27'24	
evening set	6588 Jul 05 05:07	22°☾15'25		opposition	6595 Jan 17 17:37	28°☾28'15 -14°08'50	
				min. Earth dist.	6595 Jan 17 09:18	28°☾28'38 48.22742 AU	
conjunction	6588 Jul 09 07:59	22°☾21'01 -14°28'58		direct	6595 Apr 09 12:44	27°☾29'54	
minimum elong	6588 Jul 09 08:10	22°☾21'02 14°29'01		evening set	6595 Jul 09 21:23	28°☾45'49	
max. Earth dist.	6588 Jul 10 01:50	22°☾22'02 50.33162 AU					
morning rise	6588 Jul 13 11:26	22°☾26'39		conjunction	6595 Jul 16 18:36	28°☾55'08 -13°30'56	
retrograde	6588 Oct 19 15:07	23°☾49'32		minimum elong	6595 Jul 16 18:47	28°☾55'08 13°30'58	
opposition	6589 Jan 11 15:13	22°☾50'24 -15°00'27		max. Earth dist.	6595 Jul 17 04:06	28°☾55'40 50.14867 AU	
min. Earth dist.	6589 Jan 10 22:35	22°☾51'10 48.39236 AU		morning rise	6595 Jul 23 16:39	29°☾04'30	
direct	6589 Apr 03 09:31	21°☾52'08			6595 Sep 08 12:13	0°♂	
evening set	6589 Jul 05 22:36	23°☾11'11		retrograde	6595 Oct 27 03:24	0°♂23'28	
					6595 Dec 15 11:54	30°♂☾	
conjunction	6589 Jul 10 12:54	23°☾17'25 -14°21'17		opposition	6596 Jan 18 21:53	29°☾24'19 -13°59'29	
minimum elong	6589 Jul 10 13:04	23°☾17'26 14°21'20		min. Earth dist.	6596 Jan 18 13:49	29°☾24'41 48.18426 AU	
max. Earth dist.	6589 Jul 11 04:59	23°☾18'20 50.32061 AU		direct	6596 Apr 09 16:54	28°☾25'55	
morning rise	6589 Jul 15 03:50	23°☾23'42		evening set	6596 Jul 09 18:18	29°☾41'25	
retrograde	6589 Oct 20 21:58	24°☾45'56					
opposition	6590 Jan 12 19:38	23°☾46'49 -14°52'22		conjunction	6596 Jul 16 23:16	29°☾51'11 -13°21'48	
min. Earth dist.	6590 Jan 12 05:11	23°☾47'30 48.37786 AU		minimum elong	6596 Jul 16 23:26	29°☾51'11 13°21'50	
direct	6590 Apr 04 14:31	22°☾48'35		max. Earth dist.	6596 Jul 17 06:55	29°☾51'37 50.10522 AU	
evening set	6590 Jul 06 17:14	24°☾07'02			6596 Jul 23 11:47	0°♂	
				morning rise	6596 Jul 24 05:14	0°♂00'59	
conjunction	6590 Jul 11 18:01	24°☾13'51 -14°13'24		retrograde	6596 Oct 27 09:38	1°♂19'31	
minimum elong	6590 Jul 11 18:12	24°☾13'52 14°13'27		opposition	6597 Jan 19 02:14	0°♂20'21 -13°49'52	
max. Earth dist.	6590 Jul 12 09:43	24°☾14'45 50.30474 AU		min. Earth dist.	6597 Jan 18 18:58	0°♂20'41 48.13796 AU	
morning rise	6590 Jul 16 19:26	24°☾20'44			6597 Feb 06 16:21	30°♂☾	
retrograde	6590 Oct 22 04:41	25°☾42'20		direct	6597 Apr 10 18:30	29°☾21'56	

	6597 Jun 11 06:58	0°♏
evening set	6597 Jul 10 15:35	0°♏37'03
conjunction	6597 Jul 18 04:15	0°♏47'15 -13°12'25
minimum elong	6597 Jul 18 04:27	0°♏47'15 13°12'27
max. Earth dist.	6597 Jul 18 11:42	0°♏47'40 50.05859 AU
morning rise	6597 Jul 25 17:56	0°♏57'28
retrograde	6597 Oct 28 12:32	2°♏15'36
opposition	6598 Jan 20 06:29	1°♏16'26 -13°40'01
min. Earth dist.	6598 Jan 20 00:40	1°♏16'42 48.08851 AU
direct	6598 Apr 11 23:44	0°♏18'00
evening set	6598 Jul 11 13:10	1°♏32'46
conjunction	6598 Jul 19 09:11	1°♏43'22 -13°02'48
minimum elong	6598 Jul 19 09:21	1°♏43'23 13°02'51
max. Earth dist.	6598 Jul 19 15:37	1°♏43'44 50.00908 AU
morning rise	6598 Jul 27 06:12	1°♏54'01
retrograde	6598 Oct 29 15:56	3°♏11'47
opposition	6599 Jan 21 10:44	2°♏12'36 -13°29'56
min. Earth dist.	6599 Jan 21 04:45	2°♏12'53 48.03607 AU
direct	6599 Apr 13 04:59	1°♏14'10
evening set	6599 Jul 12 10:44	2°♏28'37
conjunction	6599 Jul 20 13:57	2°♏39'36 -12°52'58
minimum elong	6599 Jul 20 14:08	2°♏39'37 12°53'01
max. Earth dist.	6599 Jul 20 18:57	2°♏39'53 49.95635 AU
morning rise	6599 Jul 28 18:21	2°♏50'41
retrograde	6599 Oct 30 22:23	4°♏08'06
opposition	6600 Jan 22 15:13	3°♏08'56 -13°19'36
min. Earth dist.	6600 Jan 22 11:02	3°♏09'08 47.98036 AU
direct	6600 Apr 14 09:49	2°♏10'30
evening set	6600 Jul 13 08:43	3°♏24'37
conjunction	6600 Jul 21 19:02	3°♏36'01 -12°42'53
minimum elong	6600 Jul 21 19:13	3°♏36'02 12°42'56
max. Earth dist.	6600 Jul 22 00:03	3°♏36'18 49.90025 AU
morning rise	6600 Jul 30 06:22	3°♏47'30
retrograde	6600 Nov 01 05:32	5°♏04'35
opposition	6601 Jan 23 19:29	4°♏05'26 -13°09'03
min. Earth dist.	6601 Jan 23 15:52	4°♏05'36 47.92086 AU
direct	6601 Apr 15 12:31	3°♏06'59
evening set	6601 Jul 14 07:03	4°♏20'49
conjunction	6601 Jul 23 00:05	4°♏32'37 -12°32'36
minimum elong	6601 Jul 23 00:17	4°♏32'38 12°32'39
max. Earth dist.	6601 Jul 23 02:49	4°♏32'46 49.84005 AU
morning rise	6601 Jul 31 18:24	4°♏44'29
retrograde	6601 Nov 02 14:03	6°♏01'15