






























































































































evening set	15100 Feb 20 02:22	23° H 20'24		max. Earth dist.	15105 Aug 04 03:01	27° Ω 29'39	6.16288 AU
conjunction	15100 Mar 05 10:41	26° H 16'08	0°29'11	conjunction	15105 Aug 06 08:52	28° Ω 00'51	-0°33'12
minimum elong	15100 Mar 05 10:42	26° H 16'08	0°29'21	minimum elong	15105 Aug 06 08:52	28° Ω 00'51	0°33'48
max. Earth dist.	15100 Mar 07 01:33	26° H 37'29	6.35441 AU		15105 Aug 14 22:27	0° H	
morning rise	15100 Mar 18 18:15	29° H 11'13		morning rise	15105 Aug 19 06:50	1° H 00'19	
	15100 Mar 22 12:03	0° Y		retrograde	15105 Dec 24 08:32	20° H 02'10	
retrograde	15100 Jul 19 16:45	16° Y 33'24		opposition	15106 Feb 22 08:55	15° H 06'54	-0°47'13
opposition	15100 Sep 18 13:20	11° Y 34'03	0°34'46	min. Earth dist.	15106 Feb 23 16:25	14° H 56'34	4.07371 AU
min. Earth dist.	15100 Sep 17 19:48	11° Y 39'47	4.42288 AU	direct	15106 Apr 23 10:47	10° H 08'47	
direct	15100 Nov 18 21:50	6° Y 33'55		evening set	15106 Aug 28 03:14	29° H 37'18	
evening set	15101 Mar 23 19:52	23° Y 51'07			15106 Aug 29 17:16	0° Ω	
				max. Earth dist.	15106 Sep 08 19:36	2° Ω 25'25	5.99538 AU
conjunction	15101 Apr 06 00:12	26° Y 40'31	0°17'08	conjunction	15106 Sep 10 05:13	2° Ω 45'38	-0°26'58
minimum elong	15101 Apr 06 00:13	26° Y 40'31	0°16'47	minimum elong	15106 Sep 10 05:14	2° Ω 45'39	0°27'02
max. Earth dist.	15101 Apr 06 10:56	26° Y 46'16	6.47486 AU	morning rise	15106 Sep 23 08:17	5° Ω 54'50	
morning rise	15101 Apr 19 03:08	29° Y 29'08		retrograde	15107 Jan 31 09:45	26° Ω 08'58	
	15101 Apr 21 13:14	0° B		opposition	15107 Mar 31 19:48	21° Ω 11'37	-0°29'18
	15101 Jul 21 01:18	15° B		min. Earth dist.	15107 Apr 01 06:52	21° Ω 07'55	3.93371 AU
retrograde	15101 Aug 18 10:21	16° B 13'08		direct	15107 May 29 15:43	16° Ω 15'28	
	15101 Sep 15 16:30	15° R B			15107 Sep 06 22:19	0° M	
opposition	15101 Oct 18 13:56	11° B 16'30	0°13'14	evening set	15107 Oct 04 03:39	6° M 27'23	
min. Earth dist.	15101 Oct 18 16:35	11° B 15'38	4.50580 AU				
direct	15101 Dec 19 19:03	6° B 15'59		conjunction	15107 Oct 17 11:17	9° M 43'04	-0°10'06
	15102 Mar 12 22:02	15° B		minimum elong	15107 Oct 17 11:17	9° M 43'04	0°09'33
evening set	15102 Apr 23 05:56	23° B 16'01		behind sun begin	15107 Oct 17 04:24	9° M 38'52	
max. Earth dist.	15102 May 05 11:36	25° B 52'22	6.51463 AU	behind sun end	15107 Oct 17 18:10	9° M 47'16	
conjunction	15102 May 06 06:28	26° B 02'26	0°00'51	max. Earth dist.	15107 Oct 17 14:35	9° M 45'05	5.89755 AU
minimum elong	15102 May 06 06:27	26° B 02'25	0°00'06	morning rise	15107 Oct 30 20:23	12° M 59'42	
behind sun begin	15102 May 05 22:43	25° B 58'19			15107 Nov 08 03:01	15° M	
behind sun end	15102 May 06 14:12	26° B 06'32			15108 Jan 20 14:26	0° J	
morning rise	15102 May 19 05:33	28° B 48'08		retrograde	15108 Mar 10 11:18	3° J 52'16	
	15102 May 24 21:39	0° II		asc. node	15108 Apr 20 06:49	1° J 14'18	
desc. node	15102 May 26 04:59	0° II 16'27			15108 Apr 30 03:26	30° R M	
retrograde	15102 Sep 17 03:19	15° II 23'59		opposition	15108 May 08 14:17	28° M 52'10	0°01'33
opposition	15102 Nov 17 08:47	10° II 29'12	-0°11'16	min. Earth dist.	15108 May 07 23:39	28° M 57'07	3.89050 AU
min. Earth dist.	15102 Nov 18 06:04	10° II 22'23	4.50099 AU	direct	15108 Jul 05 17:05	23° M 56'54	
direct	15103 Jan 18 20:51	5° II 28'29			15108 Sep 06 04:34	0° J	
evening set	15103 May 23 07:38	22° II 36'08		evening set	15108 Nov 10 11:21	14° J 14'06	
max. Earth dist.	15103 Jun 03 12:21	25° II 00'59	6.46506 AU				
conjunction	15103 Jun 05 05:33	25° II 23'16	-0°15'41	conjunction	15108 Nov 23 23:10	17° J 31'05	0°11'15
minimum elong	15103 Jun 05 05:33	25° II 23'16	0°16'39	minimum elong	15108 Nov 23 23:10	17° J 31'05	0°12'11
morning rise	15103 Jun 18 01:52	28° II 09'51		behind sun begin	15108 Nov 23 17:34	17° J 27'41	
	15103 Jun 26 16:00	0° B		behind sun end	15108 Nov 24 04:45	17° J 34'28	
retrograde	15103 Oct 17 21:37	15° B 08'11		max. Earth dist.	15108 Nov 25 14:21	17° J 54'57	5.91331 AU
opposition	15103 Dec 17 23:26	10° B 14'15	-0°33'25	morning rise	15108 Dec 07 12:47	20° J 48'50	
min. Earth dist.	15103 Dec 19 10:21	10° B 03'03	4.40949 AU		15109 Jan 16 10:15	0° B	
direct	15104 Feb 18 04:22	5° B 13'39		retrograde	15109 Apr 17 08:10	11° B 22'35	
evening set	15104 Jun 22 01:51	22° B 52'56		min. Earth dist.	15109 Jun 14 05:57	6° B 31'44	3.96382 AU
max. Earth dist.	15104 Jul 02 14:54	25° B 13'25	6.33718 AU	opposition	15109 Jun 15 16:37	6° B 19'59	0°31'29
				direct	15109 Aug 12 22:36	1° B 23'40	
conjunction	15104 Jul 04 22:29	25° B 44'25	-0°28'23	evening set	15109 Dec 18 07:16	21° B 04'49	
minimum elong	15104 Jul 04 22:29	25° B 44'25	0°29'18	conjunction	15109 Dec 31 20:16	24° B 16'29	0°27'34
morning rise	15104 Jul 17 18:21	28° B 35'47		minimum elong	15109 Dec 31 20:15	24° B 16'28	0°28'30
	15104 Jul 24 02:58	0° Ω		max. Earth dist.	15110 Jan 03 06:50	24° B 51'03	6.03551 AU
	15104 Oct 19 07:34	15° Ω		morning rise	15110 Jan 14 10:19	27° B 28'19	
retrograde	15104 Nov 18 19:40	16° Ω 25'24			15110 Jan 25 08:01	0° \approx	
	15104 Dec 19 07:19	15° R Ω			15110 Apr 17 10:22	15° \approx	
opposition	15105 Jan 18 09:56	11° Ω 31'15	-0°47'25	retrograde	15110 May 22 17:04	16° \approx 58'15	
min. Earth dist.	15105 Jan 20 02:18	11° Ω 18'12	4.25253 AU		15110 Jun 26 20:46	15° R \approx	
direct	15105 Mar 20 19:17	6° Ω 31'25		min. Earth dist.	15110 Jul 19 22:17	12° \approx 08'03	4.12035 AU
	15105 Jun 07 14:35	15° Ω		opposition	15110 Jul 21 12:53	11° \approx 55'03	0°47'38
evening set	15105 Jul 24 10:46	25° Ω 01'42		direct	15110 Sep 18 18:04	6° \approx 56'57	

	15110 Dec 03 11:00	15°≈		conjunction	15116 Jul 09 08:15	0°Ω15'42	-0°29'37
evening set	15111 Jan 23 03:59	25°≈40'47		minimum elong	15116 Jul 09 08:15	0°Ω15'41	0°30'31
				morning rise	15116 Jul 22 04:11	3°Ω08'08	
conjunction	15111 Feb 05 15:13	28°≈43'42	0°33'08		15116 Sep 18 16:47	15°Ω	
minimum elong	15111 Feb 05 15:13	28°≈43'42	0°33'43	retrograde	15116 Nov 23 14:42	21°Ω07'56	
max. Earth dist.	15111 Feb 07 23:28	29°≈15'34	6.21125 AU	opposition	15117 Jan 23 03:37	16°Ω13'44	-0°48'22
	15111 Feb 11 05:56	0°✕		min. Earth dist.	15117 Jan 24 19:01	16°Ω00'59	4.22491 AU
morning rise	15111 Feb 19 02:22	1°✕46'16			15117 Feb 01 17:29	15°℞Ω	
retrograde	15111 Jun 24 06:45	20°✕01'01		direct	15117 Mar 25 07:52	11°Ω14'09	
min. Earth dist.	15111 Aug 22 09:47	15°✕09'48	4.29854 AU		15117 May 14 17:50	15°Ω	
opposition	15111 Aug 23 17:08	14°✕59'25	0°46'36	evening set	15117 Jul 29 04:20	29°Ω53'34	
direct	15111 Oct 23 02:32	9°✕59'59			15117 Jul 29 15:27	0°൬	
evening set	15112 Feb 25 15:01	27°✕49'27		max. Earth dist.	15117 Aug 08 22:36	2°൬23'39	6.13529 AU
	15112 Mar 06 14:15	0°Υ					
				conjunction	15117 Aug 11 02:44	2°൬54'04	-0°33'02
conjunction	15112 Mar 09 22:37	0°Υ43'58	0°27'53	minimum elong	15117 Aug 11 02:45	2°൬54'04	0°33'33
minimum elong	15112 Mar 09 22:38	0°Υ43'59	0°27'58	morning rise	15117 Aug 24 01:25	5°൬55'00	
max. Earth dist.	15112 Mar 11 08:42	1°Υ02'36	6.37778 AU	retrograde	15117 Dec 29 15:15	25°൬08'35	
morning rise	15112 Mar 23 05:31	3°Υ37'51		opposition	15118 Feb 27 12:39	20°൬13'04	-0°45'44
retrograde	15112 Jul 23 21:38	20°Υ52'18		min. Earth dist.	15118 Feb 28 17:54	20°൬03'26	4.04852 AU
opposition	15112 Sep 22 18:35	15°Υ53'24	0°32'06	direct	15118 Apr 28 10:24	15°൬15'15	
min. Earth dist.	15112 Sep 22 04:48	15°Υ57'53	4.44128 AU		15118 Aug 12 12:45	0°Ω	
direct	15112 Nov 23 07:47	10°Υ53'12		evening set	15118 Sep 02 05:45	4°Ω51'53	
evening set	15113 Mar 28 02:03	28°Υ06'00		max. Earth dist.	15118 Sep 14 04:47	7°Ω44'43	5.97527 AU
	15113 Apr 05 23:37	0°♁					
				conjunction	15118 Sep 15 08:39	8°Ω01'32	-0°25'07
conjunction	15113 Apr 10 05:50	0°♁54'44	0°15'01	minimum elong	15118 Sep 15 08:40	8°Ω01'33	0°25'05
minimum elong	15113 Apr 10 05:50	0°♁54'44	0°14'37	morning rise	15118 Sep 28 12:27	11°Ω12'02	
behind sun begin	15113 Apr 10 02:31	0°♁52'58			15119 Jan 05 14:40	0°ℳ	
behind sun end	15113 Apr 10 09:09	0°♁56'30		retrograde	15119 Feb 05 22:11	1°ℳ34'26	
max. Earth dist.	15113 Apr 10 12:04	0°♁58'03	6.48695 AU		15119 Mar 09 04:59	30°℞Ω	
morning rise	15113 Apr 23 08:12	3°♁42'41		opposition	15119 Apr 06 06:27	26°Ω36'44	-0°25'25
	15113 Jun 21 04:48	15°♁		min. Earth dist.	15119 Apr 06 13:52	26°Ω34'16	3.92113 AU
retrograde	15113 Aug 22 11:24	20°♁23'31		direct	15119 Jun 03 22:41	21°Ω40'51	
opposition	15113 Oct 22 16:21	15°♁27'12	0°09'52		15119 Aug 17 18:30	0°ℳ	
min. Earth dist.	15113 Oct 22 21:27	15°♁25'34	4.51106 AU	evening set	15119 Oct 09 12:48	11°ℳ55'48	
	15113 Oct 26 04:56	15°℞♁					
direct	15113 Dec 23 22:15	10°♁26'40		conjunction	15119 Oct 22 20:58	15°ℳ11'58	-0°07'07
	15114 Feb 19 18:51	15°♁		minimum elong	15119 Oct 22 20:59	15°ℳ11'58	0°06'31
desc. node	15114 Apr 02 20:51	22°♁22'43		behind sun begin	15119 Oct 22 13:11	15°ℳ07'12	
evening set	15114 Apr 27 09:16	27°♁26'17		behind sun end	15119 Oct 23 04:47	15°ℳ16'44	
max. Earth dist.	15114 May 09 11:42	0°Ⅱ01'00	6.51270 AU		15119 Oct 22 01:28	15°ℳ	
	15114 May 09 09:51	0°Ⅱ		max. Earth dist.	15119 Oct 23 04:55	15°ℳ16'49	5.89365 AU
				morning rise	15119 Nov 05 07:01	18°ℳ29'10	
conjunction	15114 May 10 09:26	0°Ⅱ12'36	-0°01'36		15119 Dec 25 20:45	0°♄	
minimum elong	15114 May 10 09:26	0°Ⅱ12'36	0°02'24	asc. node	15120 Mar 01 17:57	9°♄01'48	
behind sun begin	15114 May 10 01:25	0°Ⅱ08'20		retrograde	15120 Mar 15 20:45	9°♄21'50	
behind sun end	15114 May 10 17:27	0°Ⅱ16'51		min. Earth dist.	15120 May 13 06:06	4°♄27'41	3.89581 AU
morning rise	15114 May 23 07:55	2°Ⅱ58'12		opposition	15120 May 14 01:08	4°♄21'15	0°06'14
retrograde	15114 Sep 21 06:59	19°Ⅱ35'42			15120 Jun 22 22:45	30°℞ℳ	
opposition	15114 Nov 21 12:33	14°Ⅱ41'12	-0°14'38	direct	15120 Jul 11 02:56	29°ℳ25'52	
min. Earth dist.	15114 Nov 22 12:35	14°Ⅱ33'30	4.49201 AU		15120 Jul 29 08:47	0°♄	
direct	15115 Jan 23 00:42	9°Ⅱ40'31		evening set	15120 Nov 15 20:33	19°♄39'17	
evening set	15115 May 27 12:23	26°Ⅱ51'45					
max. Earth dist.	15115 Jun 07 12:22	29°Ⅱ14'37	6.44950 AU	conjunction	15120 Nov 29 08:44	22°♄55'45	0°14'03
				minimum elong	15120 Nov 29 08:43	22°♄55'44	0°15'00
conjunction	15115 Jun 09 09:53	29°Ⅱ39'20	-0°17'47	behind sun begin	15120 Nov 29 05:45	22°♄53'57	
minimum elong	15115 Jun 09 09:53	29°Ⅱ39'20	0°18'44	behind sun end	15120 Nov 29 11:41	22°♄57'32	
	15115 Jun 10 23:56	0°♅		max. Earth dist.	15120 Dec 01 03:58	23°♄22'00	5.92706 AU
morning rise	15115 Jun 22 06:11	2°♅26'29		morning rise	15120 Dec 12 22:31	26°♄12'52	
retrograde	15115 Oct 22 08:49	19°♅31'08			15120 Dec 28 21:13	0°♅	
opposition	15115 Dec 22 08:31	14°♅37'16	-0°36'01	retrograde	15121 Apr 22 11:12	16°♅38'45	
min. Earth dist.	15115 Dec 23 21:18	14°♅25'27	4.38823 AU	min. Earth dist.	15121 Jun 19 09:38	11°♅47'50	3.98404 AU
direct	15116 Feb 22 11:48	9°♅36'42		opposition	15121 Jun 20 20:55	11°♅35'52	0°34'46
evening set	15116 Jun 26 11:21	27°♅23'08		direct	15121 Aug 18 06:41	6°♅39'16	
max. Earth dist.	15116 Jul 07 00:17	29°♅44'20	6.31182 AU	evening set	15121 Dec 23 10:40	26°♅12'10	
	15116 Jul 08 04:15	0°Ω					

conjunction	15122 Jan 05 23:37	29°  22'37	0°29'02	conjunction	15127 Jun 13 16:40	4°  00'28	-0°19'50
minimum elong	15122 Jan 05 23:37	29°  22'37	0°29'55	minimum elong	15127 Jun 13 16:39	4°  00'27	0°20'48
	15122 Jan 08 15:20	0°  22		morning rise	15127 Jun 26 12:40	6°  048'12	
max. Earth dist.	15122 Jan 08 12:04	29°  58'05	6.06007 AU	retrograde	15127 Oct 26 21:57	23°  059'34	
morning rise	15122 Jan 19 13:18	2°  33'08		opposition	15127 Dec 26 20:26	19°  05'48	-0°38'28
	15122 Mar 19 08:40	15°  22		min. Earth dist.	15127 Dec 28 10:01	18°  053'44	4.36719 AU
retrograde	15122 May 27 09:14	21°  51'47		direct	15128 Feb 26 20:49	14°  05'27	
min. Earth dist.	15122 Jul 24 16:32	17°  01'44	4.14672 AU		15128 Jun 22 01:02	0°  02	
opposition	15122 Jul 26 07:20	16°  48'43	0°48'27	evening set	15128 Jun 30 23:27	1°  058'45	
	15122 Aug 09 03:24	15°  22		max. Earth dist.	15128 Jul 11 11:27	4°  020'14	6.28841 AU
direct	15122 Sep 23 15:49	11°  50'23					
	15122 Nov 08 03:29	15°  22		conjunction	15128 Jul 13 20:15	4°  052'15	-0°30'43
	15123 Jan 26 01:25	0°  22		minimum elong	15128 Jul 13 20:15	4°  052'15	0°31'34
evening set	15123 Jan 27 23:04	0°  25'33		morning rise	15128 Jul 26 16:33	7°  045'46	
					15128 Aug 29 04:57	15°  02	
conjunction	15123 Feb 10 09:42	3°  27'08	0°32'58	retrograde	15128 Nov 28 13:29	25°  055'07	
minimum elong	15123 Feb 10 09:42	3°  27'08	0°33'30	opposition	15129 Jan 27 23:45	21°  00'49	-0°49'03
max. Earth dist.	15123 Feb 12 13:57	3°  56'35	6.23711 AU	min. Earth dist.	15129 Jan 29 13:59	20°  048'24	4.20100 AU
morning rise	15123 Feb 23 20:24	6°  28'21		direct	15129 Mar 30 00:22	16°  01'30	
retrograde	15123 Jun 28 15:49	24°  33'13			15129 Jul 12 19:45	0°  00	
min. Earth dist.	15123 Aug 26 22:51	19°  41'20	4.32180 AU	evening set	15129 Aug 02 23:27	4°  048'33	
opposition	15123 Aug 28 03:14	19°  31'56	0°45'12	max. Earth dist.	15129 Aug 13 22:17	7°  022'00	6.11325 AU
direct	15123 Oct 27 17:24	14°  32'17					
	15124 Feb 19 14:07	0°  00		conjunction	15129 Aug 15 22:27	7°  050'13	-0°32'39
evening set	15124 Mar 01 02:08	2°  015'22		minimum elong	15129 Aug 15 22:27	7°  050'13	0°33'07
				morning rise	15129 Aug 28 21:30	10°  052'20	
conjunction	15124 Mar 14 09:23	5°  08'56	0°26'25		15129 Dec 22 07:45	0°  00	
minimum elong	15124 Mar 14 09:24	5°  08'57	0°26'25	retrograde	15130 Jan 03 21:03	0°  015'14	
max. Earth dist.	15124 Mar 15 16:45	5°  026'01	6.39683 AU		15130 Jan 16 09:03	30°  040'00	
morning rise	15124 Mar 27 15:33	8°  01'48		opposition	15130 Mar 04 16:38	25°  019'31	-0°43'56
retrograde	15124 Jul 28 00:19	25°  010'03		min. Earth dist.	15130 Mar 05 19:07	25°  010'48	4.03065 AU
opposition	15124 Sep 26 23:26	20°  011'31	0°29'17	direct	15130 May 03 09:33	20°  022'06	
min. Earth dist.	15124 Sep 26 11:32	20°  015'23	4.45502 AU		15130 Jul 24 19:35	0°  00	
direct	15124 Nov 27 14:16	15°  011'16		evening set	15130 Sep 07 07:47	10°  003'57	
	15125 Mar 21 04:08	0°  00		max. Earth dist.	15130 Sep 19 10:56	12°  0059'48	5.96326 AU
evening set	15125 Apr 01 08:26	2°  021'05					
				conjunction	15130 Sep 20 11:09	13°  014'28	-0°23'09
conjunction	15125 Apr 14 11:37	5°  009'18	0°12'48	minimum elong	15130 Sep 20 11:10	13°  014'28	0°23'01
minimum elong	15125 Apr 14 11:37	5°  009'18	0°12'20	morning rise	15130 Oct 03 15:53	16°  005'54	
behind sun begin	15125 Apr 14 06:20	5°  006'30			15130 Dec 04 18:24	0°  00	
behind sun end	15125 Apr 14 16:54	5°  012'07		retrograde	15131 Feb 11 05:45	6°  015'31	
max. Earth dist.	15125 Apr 14 12:57	5°  010'01	6.49449 AU	opposition	15131 Apr 11 14:28	1°  055'07	-0°21'29
morning rise	15125 Apr 27 13:26	7°  056'46		min. Earth dist.	15131 Apr 11 17:20	1°  054'09	3.91652 AU
	15125 Jun 01 05:59	15°  00			15131 Apr 26 08:24	30°  040'00	
retrograde	15125 Aug 26 15:43	24°  035'48		direct	15131 Jun 09 04:14	26°  0059'24	
opposition	15125 Oct 26 19:54	19°  039'49	0°06'24		15131 Jul 22 06:16	0°  00	
min. Earth dist.	15125 Oct 27 04:45	19°  036'59	4.51209 AU		15131 Oct 05 12:04	15°  00	
	15125 Dec 13 00:05	15°  00		evening set	15131 Oct 14 18:08	17°  015'14	
direct	15125 Dec 28 04:10	14°  039'14					
	15126 Jan 12 09:03	15°  00		conjunction	15131 Oct 28 02:58	20°  030'40	-0°04'15
desc. node	15126 Feb 06 22:21	17°  001'09		minimum elong	15131 Oct 28 02:56	20°  030'39	0°03'33
	15126 Apr 23 17:17	0°  00		behind sun begin	15131 Oct 27 18:42	20°  025'37	
evening set	15126 May 01 14:12	1°  039'36		behind sun end	15131 Oct 28 11:11	20°  035'42	
max. Earth dist.	15126 May 13 11:41	4°  011'55	6.50708 AU	max. Earth dist.	15131 Oct 28 16:53	20°  039'12	5.89699 AU
				morning rise	15131 Nov 10 13:25	23°  047'55	
conjunction	15126 May 14 13:57	4°  025'58	-0°04'01		15131 Dec 06 16:28	0°  00	
minimum elong	15126 May 14 13:57	4°  025'58	0°04'51	asc. node	15132 Jan 14 10:25	8°  001'28	
behind sun begin	15126 May 14 06:08	4°  021'48		retrograde	15132 Mar 21 02:11	14°  0037'59	
behind sun end	15126 May 14 21:46	4°  030'07		min. Earth dist.	15132 May 18 09:56	9°  0044'04	3.90673 AU
morning rise	15126 May 27 12:09	7°  011'40		opposition	15132 May 19 06:40	9°  0037'02	0°10'35
retrograde	15126 Sep 25 13:25	23°  015'14		direct	15132 Jul 16 09:38	4°  0041'35	
opposition	15126 Nov 25 18:27	18°  015'27	-0°18'00	evening set	15132 Nov 21 00:02	24°  0049'32	
min. Earth dist.	15126 Nov 26 20:08	18°  014'13	4.48027 AU				
direct	15127 Jan 27 05:13	13°  015'46		conjunction	15132 Dec 04 12:28	28°  005'16	0°16'35
	15127 May 26 04:45	0°  00		minimum elong	15132 Dec 04 12:28	28°  005'16	0°17'33
evening set	15127 May 31 19:12	1°  0012'17		max. Earth dist.	15132 Dec 06 11:30	28°  0033'41	5.94424 AU
max. Earth dist.	15127 Jun 11 18:24	3°  0035'14	6.43252 AU		15132 Dec 12 10:34	0°  00	

morning rise	15132 Dec 18 02:20	1°♄21'35			15139 May 09 17:54	0°♄	
retrograde	15133 Apr 27 07:16	21°♄38'38		evening set	15139 Jun 05 01:21	5°♄32'11	
min. Earth dist.	15133 Jun 24 05:54	16°♄48'04	4.00564 AU	max. Earth dist.	15139 Jun 15 21:29	7°♄54'03	6.41576 AU
opposition	15133 Jun 25 18:25	16°♄35'43	0°37'35				
direct	15133 Aug 23 06:07	11°♄38'55		conjunction	15139 Jun 17 22:33	8°♄20'54	-0°21'43
	15133 Dec 23 17:33	0°♄		minimum elong	15139 Jun 17 22:32	8°♄20'54	0°22'41
evening set	15133 Dec 28 07:50	1°♄03'51		morning rise	15139 Jun 30 18:35	11°♄09'15	
				retrograde	15139 Oct 31 10:12	28°♄27'00	
conjunction	15134 Jan 10 20:26	4°♄13'06	0°30'14	opposition	15139 Dec 31 07:27	23°♄33'06	-0°40'38
minimum elong	15134 Jan 10 20:26	4°♄13'06	0°31'05	min. Earth dist.	15140 Jan 01 20:58	23°♄21'01	4.34720 AU
max. Earth dist.	15134 Jan 13 06:44	4°♄47'07	6.08379 AU	direct	15140 Mar 02 04:44	18°♄32'45	
morning rise	15134 Jan 24 09:59	7°♄22'25			15140 Jun 05 04:47	0°♄	
	15134 Feb 27 18:09	15°♄		evening set	15140 Jul 05 10:14	6°♄32'16	
retrograde	15134 May 31 20:23	26°♄30'59		max. Earth dist.	15140 Jul 16 00:13	8°♄55'30	6.26649 AU
min. Earth dist.	15134 Jul 29 06:57	21°♄40'33	4.17030 AU				
opposition	15134 Jul 30 20:02	21°♄28'06	0°48'57	conjunction	15140 Jul 18 07:18	9°♄26'42	-0°31'35
direct	15134 Sep 28 08:26	16°♄29'33		minimum elong	15140 Jul 18 07:17	9°♄26'42	0°32'23
	15135 Jan 09 20:04	0°♄		morning rise	15140 Jul 31 03:38	12°♄21'08	
evening set	15135 Feb 01 12:25	4°♄57'35			15140 Aug 12 00:12	15°♄	
					15140 Nov 12 23:21	0°♄	
conjunction	15135 Feb 14 22:50	7°♄58'08	0°32'39	retrograde	15140 Dec 03 10:01	0°♄39'17	
minimum elong	15135 Feb 14 22:51	7°♄58'08	0°33'07		15140 Dec 23 18:38	30°♄	
max. Earth dist.	15135 Feb 17 01:26	8°♄26'31	6.25880 AU	opposition	15141 Feb 01 18:23	25°♄44'48	-0°49'20
morning rise	15135 Feb 28 08:52	10°♄58'12		min. Earth dist.	15141 Feb 03 08:07	25°♄32'32	4.17846 AU
retrograde	15135 Jul 02 20:20	28°♄55'12		direct	15141 Apr 03 15:10	20°♄45'41	
min. Earth dist.	15135 Aug 31 06:34	24°♄03'06	4.34006 AU		15141 Jun 24 15:09	0°♄	
opposition	15135 Sep 01 09:06	23°♄54'20	0°43'43	evening set	15141 Aug 07 16:54	9°♄39'45	
direct	15135 Nov 01 01:52	18°♄54'40		max. Earth dist.	15141 Aug 18 17:07	12°♄14'48	6.09175 AU
	15136 Feb 02 23:48	0°♄					
evening set	15136 Mar 05 09:47	6°♄33'16		conjunction	15141 Aug 20 16:12	12°♄42'31	-0°32'00
				minimum elong	15141 Aug 20 16:12	12°♄42'32	0°32'23
conjunction	15136 Mar 18 16:24	9°♄26'05	0°24'56	morning rise	15141 Sep 02 16:02	15°♄45'53	
minimum elong	15136 Mar 18 16:25	9°♄26'06	0°24'53		15141 Nov 10 02:55	0°♄	
max. Earth dist.	15136 Mar 19 18:21	9°♄40'11	6.41046 AU	retrograde	15142 Jan 08 23:48	5°♄18'02	
morning rise	15136 Mar 31 22:12	12°♄18'15		opposition	15142 Mar 09 18:51	0°♄21'58	-0°41'46
retrograde	15136 Aug 01 03:15	29°♄22'16		min. Earth dist.	15142 Mar 10 18:04	0°♄14'17	4.01200 AU
opposition	15136 Oct 01 01:51	24°♄24'08	0°26'30		15142 Mar 12 13:24	30°♄	
min. Earth dist.	15136 Sep 30 17:28	24°♄26'51	4.46347 AU	direct	15142 May 08 07:47	25°♄24'45	
direct	15136 Dec 01 19:34	19°♄23'48			15142 Jul 01 21:38	0°♄	
	15137 Mar 04 13:10	0°♄		evening set	15142 Sep 12 08:20	15°♄12'17	
evening set	15137 Apr 05 12:38	6°♄32'19					
				conjunction	15142 Sep 25 12:31	18°♄23'48	-0°20'57
conjunction	15137 Apr 18 15:32	9°♄20'18	0°10'39	minimum elong	15142 Sep 25 12:32	18°♄23'48	0°20'45
minimum elong	15137 Apr 18 15:33	9°♄20'18	0°10'06	max. Earth dist.	15142 Sep 24 17:59	18°♄12'32	5.94944 AU
behind sun begin	15137 Apr 18 09:06	9°♄16'53		morning rise	15142 Oct 08 17:54	21°♄36'14	
behind sun end	15137 Apr 18 21:59	9°♄23'43			15142 Nov 13 22:50	0°♄	
max. Earth dist.	15137 Apr 18 14:13	9°♄19'36	6.49735 AU	retrograde	15143 Feb 16 14:40	12°♄09'12	
morning rise	15137 May 01 16:48	12°♄07'29		opposition	15143 Apr 16 21:16	7°♄10'44	-0°17'19
	15137 May 15 09:45	15°♄		min. Earth dist.	15143 Apr 16 21:51	7°♄10'33	3.90908 AU
retrograde	15137 Aug 30 17:16	28°♄46'06		direct	15143 Jun 14 09:26	2°♄15'08	
opposition	15137 Oct 30 22:14	23°♄50'22	0°03'03		15143 Sep 18 00:45	15°♄	
min. Earth dist.	15137 Oct 31 08:25	23°♄47'06	4.50950 AU	evening set	15143 Oct 19 23:24	22°♄31'29	
desc. node	15137 Dec 17 21:11	19°♄08'34					
direct	15138 Jan 01 05:59	18°♄49'48		conjunction	15143 Nov 02 08:53	25°♄48'07	-0°01'13
	15138 Apr 07 06:00	0°♄		minimum elong	15143 Nov 02 08:52	25°♄48'07	0°00'28
evening set	15138 May 05 17:59	5°♄51'45		behind sun begin	15143 Nov 02 00:33	25°♄43'02	
				behind sun end	15143 Nov 02 17:12	25°♄53'11	
conjunction	15138 May 18 17:21	8°♄38'15	-0°06'19	max. Earth dist.	15143 Nov 03 03:37	25°♄59'35	5.89670 AU
minimum elong	15138 May 18 17:21	8°♄38'15	0°07'10	morning rise	15143 Nov 15 20:03	29°♄05'41	
behind sun begin	15138 May 18 09:59	8°♄34'19			15143 Nov 19 13:33	0°♄	
behind sun end	15138 May 19 00:43	8°♄42'11		asc. node	15143 Nov 25 07:04	1°♄22'48	
max. Earth dist.	15138 May 17 12:39	8°♄22'51	6.49924 AU	retrograde	15144 Mar 26 07:01	19°♄54'23	
morning rise	15138 May 31 15:11	11°♄24'07		opposition	15144 May 24 12:10	14°♄53'07	0°14'56
retrograde	15138 Sep 29 20:27	28°♄07'26		min. Earth dist.	15144 May 23 12:08	15°♄01'15	3.91383 AU
opposition	15138 Nov 29 24:00	23°♄13'12	-0°21'10	direct	15144 Jul 21 14:11	9°♄57'33	
min. Earth dist.	15138 Dec 01 04:02	23°♄04'14	4.46762 AU	evening set	15144 Nov 26 04:52	0°♄01'44	
direct	15139 Jan 31 10:37	18°♄12'32			15144 Nov 26 01:59	0°♄	

conjunction	15144 Dec 09 17:24	3°♂16'54	0°19'02	conjunction	15150 May 22 20:13	12°♂48'22	-0°08'35
minimum elong	15144 Dec 09 17:24	3°♂16'53	0°20'01	minimum elong	15150 May 22 20:13	12°♂48'22	0°09'27
max. Earth dist.	15144 Dec 11 17:47	3°♂46'01	5.95775 AU	behind sun begin	15150 May 22 13:33	12°♂44'49	
morning rise	15144 Dec 23 07:35	6°♂32'38		behind sun end	15150 May 23 02:53	12°♂51'56	
retrograde	15145 May 02 04:53	26°♂42'19		max. Earth dist.	15150 May 21 12:39	12°♂31'26	6.49668 AU
min. Earth dist.	15145 Jun 29 04:32	21°♂51'50	4.02391 AU	morning rise	15150 Jun 04 17:35	15°♂34'10	
opposition	15145 Jun 30 17:42	21°♂39'15	0°40'11		15150 Aug 25 08:01	0°♂	
direct	15145 Aug 28 08:26	16°♂42'11		retrograde	15150 Oct 03 23:44	2°♂19'07	
	15145 Dec 06 16:22	0°♂			15150 Nov 12 20:03	30°♂♂	
evening set	15146 Jan 02 07:20	6°♂00'20		opposition	15150 Dec 04 03:59	27°♂24'57	-0°24'10
				min. Earth dist.	15150 Dec 05 08:55	27°♂15'41	4.45974 AU
conjunction	15146 Jan 15 19:57	9°♂08'35	0°31'14	direct	15151 Feb 04 12:50	22°♂24'18	
minimum elong	15146 Jan 15 19:57	9°♂08'35	0°32'03		15151 Apr 21 17:26	0°♂	
max. Earth dist.	15146 Jan 18 07:17	9°♂43'02	6.10522 AU	evening set	15151 Jun 09 05:22	9°♂46'47	
morning rise	15146 Jan 29 09:00	12°♂16'44		max. Earth dist.	15151 Jun 20 00:22	12°♂08'26	6.40288 AU
	15146 Feb 10 07:46	15°♂					
	15146 May 08 05:58	0°♂		conjunction	15151 Jun 22 02:21	12°♂35'53	-0°23'25
retrograde	15146 Jun 05 10:36	1°♂15'47		minimum elong	15151 Jun 22 02:21	12°♂35'53	0°24'23
	15146 Jul 03 09:54	30°♂		morning rise	15151 Jul 04 22:08	15°♂24'39	
min. Earth dist.	15146 Aug 02 23:05	26°♂25'17	4.19279 AU		15151 Sep 22 07:33	0°♂	
opposition	15146 Aug 04 11:17	26°♂13'10	0°49'07	retrograde	15151 Nov 04 20:55	2°♂47'53	
direct	15146 Oct 03 03:17	21°♂14'30			15151 Dec 18 18:18	30°♂♂	
	15146 Dec 22 09:04	0°♂		opposition	15152 Jan 04 16:09	27°♂53'59	-0°42'29
evening set	15147 Feb 06 05:02	9°♂35'40		min. Earth dist.	15152 Jan 06 07:33	27°♂41'18	4.32979 AU
				direct	15152 Mar 06 11:56	22°♂53'44	
conjunction	15147 Feb 19 14:52	12°♂35'06	0°32'06		15152 May 17 14:16	0°♂	
minimum elong	15147 Feb 19 14:53	12°♂35'06	0°32'28	evening set	15152 Jul 09 18:10	10°♂58'54	
max. Earth dist.	15147 Feb 21 14:16	13°♂01'33	6.28061 AU	max. Earth dist.	15152 Jul 20 06:16	13°♂21'47	6.24563 AU
morning rise	15147 Mar 05 00:32	15°♂34'04					
	15147 May 20 10:23	0°♂		conjunction	15152 Jul 22 15:14	13°♂54'12	-0°32'13
retrograde	15147 Jul 07 02:59	3°♂22'53		minimum elong	15152 Jul 22 15:14	13°♂54'12	0°32'58
	15147 Aug 24 03:43	30°♂♂			15152 Jul 27 10:52	15°♂	
opposition	15147 Sep 05 17:34	28°♂22'22	0°41'53	morning rise	15152 Aug 04 11:57	16°♂49'37	
min. Earth dist.	15147 Sep 04 16:57	28°♂30'29	4.35984 AU		15152 Oct 08 16:30	0°♂	
direct	15147 Nov 05 13:41	23°♂22'38		retrograde	15152 Dec 08 02:32	5°♂16'42	
	15148 Jan 14 11:40	0°♂		opposition	15153 Feb 06 10:02	0°♂22'01	-0°49'16
evening set	15148 Mar 09 19:39	10°♂56'02		min. Earth dist.	15153 Feb 07 22:31	0°♂10'07	4.15548 AU
					15153 Feb 09 05:37	30°♂♂	
conjunction	15148 Mar 23 01:54	13°♂48'02	0°23'14	direct	15153 Apr 08 02:16	25°♂23'02	
minimum elong	15148 Mar 23 01:55	13°♂48'03	0°23'06		15153 Jun 02 20:31	0°♂	
max. Earth dist.	15148 Mar 24 02:04	14°♂01'07	6.42716 AU	evening set	15153 Aug 12 07:43	14°♂24'49	
morning rise	15148 Apr 05 06:54	16°♂39'17		max. Earth dist.	15153 Aug 23 11:39	17°♂02'49	6.06863 AU
	15148 Jun 16 03:59	0°♂					
retrograde	15148 Aug 05 05:49	3°♂37'55		conjunction	15153 Aug 25 07:40	17°♂28'52	-0°31'09
	15148 Sep 24 20:48	30°♂♂		minimum elong	15153 Aug 25 07:40	17°♂28'53	0°31'27
opposition	15148 Oct 05 06:05	28°♂40'11	0°23'28	morning rise	15153 Sep 07 08:01	20°♂33'31	
min. Earth dist.	15148 Oct 04 23:21	28°♂42'22	4.47622 AU		15153 Oct 19 13:29	0°♂	
direct	15148 Dec 06 02:20	23°♂39'55		retrograde	15154 Jan 14 03:12	10°♂15'54	
	15149 Feb 13 05:09	0°♂		opposition	15154 Mar 14 18:44	5°♂19'37	-0°39'20
evening set	15149 Apr 09 18:03	10°♂45'30		min. Earth dist.	15154 Mar 15 16:55	5°♂12'16	3.99075 AU
				direct	15154 May 13 04:28	0°♂22'36	
conjunction	15149 Apr 22 20:12	13°♂32'55	0°08'23	evening set	15154 Sep 17 07:21	20°♂17'17	
minimum elong	15149 Apr 22 20:13	13°♂32'56	0°07'47				
behind sun begin	15149 Apr 22 12:59	13°♂29'05		conjunction	15154 Sep 30 12:20	23°♂30'01	-0°18'39
behind sun end	15149 Apr 23 03:27	13°♂36'46		minimum elong	15154 Sep 30 12:21	23°♂30'02	0°18'22
max. Earth dist.	15149 Apr 22 14:15	13°♂29'45	6.50535 AU	max. Earth dist.	15154 Sep 29 21:00	23°♂20'41	5.93212 AU
	15149 Apr 29 15:19	15°♂		morning rise	15154 Oct 13 18:44	26°♂43'44	
morning rise	15149 May 05 21:02	16°♂19'37			15154 Oct 27 10:11	0°♂	
	15149 Jul 20 21:00	0°♂			15155 Jan 14 01:35	15°♂	
retrograde	15149 Sep 03 20:29	2°♂56'12		retrograde	15155 Feb 21 21:18	17°♂23'57	
	15149 Oct 19 01:44	30°♂♂			15155 Apr 01 21:07	15°♂♂	
desc. node	15149 Oct 29 20:06	28°♂40'42		opposition	15155 Apr 22 02:57	12°♂25'09	-0°13'06
opposition	15149 Nov 04 01:01	28°♂00'45	-0°00'20	min. Earth dist.	15155 Apr 21 23:32	12°♂26'17	3.89785 AU
min. Earth dist.	15149 Nov 04 14:19	27°♂56'28	4.51236 AU	direct	15155 Jun 19 10:34	7°♂29'39	
direct	15150 Jan 05 11:01	23°♂00'08			15155 Aug 28 21:51	15°♂	
	15150 Mar 19 17:51	0°♂		asc. node	15155 Oct 04 22:11	22°♂57'55	
evening set	15150 May 09 21:13	10°♂01'57		evening set	15155 Oct 25 04:37	27°♂49'14	

	15155 Nov 03 02:30	0°♌			15161 Apr 13 23:09	15°♏	
conjunction	15155 Nov 07 14:42	1°♌06'23	0°01'48	conjunction	15161 Apr 27 01:42	17°♏47'24	0°06'01
minimum elong	15155 Nov 07 14:42	1°♌06'23	0°02'35	minimum elong	15161 Apr 27 01:42	17°♏47'23	0°05'23
behind sun begin	15155 Nov 07 06:22	1°♌01'18		behind sun begin	15161 Apr 26 17:56	17°♏43'16	
behind sun end	15155 Nov 07 23:02	1°♌11'28		behind sun end	15161 Apr 27 09:27	17°♏51'30	
max. Earth dist.	15155 Nov 08 13:12	1°♌20'10	5.89270 AU	max. Earth dist.	15161 Apr 26 17:09	17°♏42'51	6.51155 AU
morning rise	15155 Nov 21 02:42	4°♌24'29		morning rise	15161 May 10 01:45	20°♏33'36	
retrograde	15156 Mar 31 12:53	25°♌13'27			15161 Jun 26 23:07	0°♐	
opposition	15156 May 29 18:09	20°♌11'48	0°19'07	retrograde	15161 Sep 07 22:52	7°♐08'49	
min. Earth dist.	15156 May 28 15:36	20°♌20'48	3.91750 AU	desc. node	15161 Sep 10 15:37	7°♐08'08	
direct	15156 Jul 26 20:51	15°♌16'04		opposition	15161 Nov 08 04:53	2°♐13'34	-0°03'50
	15156 Nov 08 20:30	0°♑		min. Earth dist.	15161 Nov 08 20:10	2°♐08'41	4.51221 AU
evening set	15156 Dec 01 10:56	5°♑17'49			15161 Nov 26 05:12	30°♑♏	
				direct	15162 Jan 09 15:26	27°♑12'58	
conjunction	15156 Dec 14 23:57	8°♑32'37	0°21'19		15162 Feb 23 02:41	0°♐	
minimum elong	15156 Dec 14 23:56	8°♑32'37	0°22'17	evening set	15162 May 14 01:47	14°♐15'32	
max. Earth dist.	15156 Dec 17 04:57	9°♑04'26	5.96880 AU	max. Earth dist.	15162 May 25 12:42	16°♐42'53	6.49003 AU
morning rise	15156 Dec 28 14:09	11°♑47'50					
	15157 Apr 03 06:15	0°♑		conjunction	15162 May 27 00:15	17°♐02'00	-0°10'52
retrograde	15157 May 07 05:25	1°♑50'46		minimum elong	15162 May 27 00:15	17°♐02'00	0°11'47
	15157 Jun 10 00:23	30°♑♑		behind sun begin	15162 May 26 18:39	16°♐59'00	
min. Earth dist.	15157 Jul 04 04:21	27°♑00'25	4.04091 AU	behind sun end	15162 May 27 05:51	17°♐05'00	
opposition	15157 Jul 05 18:19	26°♑47'35	0°42'26	morning rise	15162 Jun 08 21:21	19°♐47'55	
direct	15157 Sep 02 11:28	21°♑50'17			15162 Jul 30 15:50	0°♑	
	15157 Nov 16 23:26	0°♑		retrograde	15162 Oct 08 08:11	6°♑36'00	
evening set	15158 Jan 07 08:46	11°♑01'55		opposition	15162 Dec 08 10:44	1°♑41'56	-0°27'11
				min. Earth dist.	15162 Dec 09 18:41	1°♑31'42	4.44682 AU
conjunction	15158 Jan 20 21:05	14°♑09'05	0°32'00		15162 Dec 21 23:21	30°♑♐	
minimum elong	15158 Jan 20 21:05	14°♑09'05	0°32'46	direct	15163 Feb 08 19:57	26°♐41'15	
max. Earth dist.	15158 Jan 23 08:30	14°♑43'25	6.12636 AU		15163 Mar 29 04:06	0°♑	
	15158 Jan 24 13:14	15°♑		evening set	15163 Jun 13 12:09	14°♑08'07	
morning rise	15158 Feb 03 09:59	17°♑16'09		max. Earth dist.	15163 Jun 24 04:26	16°♑28'52	6.38452 AU
	15158 Apr 06 02:41	0°♒					
retrograde	15158 Jun 10 00:05	6°♒05'27		conjunction	15163 Jun 26 09:04	16°♑57'52	-0°25'06
min. Earth dist.	15158 Aug 07 15:49	1°♒14'59	4.21590 AU	minimum elong	15163 Jun 26 09:03	16°♑57'52	0°26'02
opposition	15158 Aug 09 03:59	1°♒02'53	0°48'55	morning rise	15163 Jul 09 04:49	19°♑47'20	
	15158 Aug 17 01:54	30°♒♑			15163 Aug 28 08:46	0°♒	
direct	15158 Oct 07 23:18	26°♒03'57		retrograde	15163 Nov 09 09:47	7°♒17'58	
	15158 Nov 28 13:50	0°♒		opposition	15164 Jan 09 04:48	2°♒23'59	-0°44'15
evening set	15159 Feb 10 22:41	14°♒17'39		min. Earth dist.	15164 Jan 10 19:58	2°♒11'21	4.30710 AU
					15164 Jan 28 14:55	30°♒♑	
conjunction	15159 Feb 24 08:08	17°♒15'55	0°31'18	direct	15164 Mar 10 20:29	27°♑23'49	
minimum elong	15159 Feb 24 08:08	17°♒15'55	0°31'37		15164 Apr 21 18:53	0°♒	
max. Earth dist.	15159 Feb 26 05:49	17°♒41'18	6.30378 AU		15164 Jul 11 14:16	15°♒	
morning rise	15159 Mar 09 17:03	20°♒13'37		evening set	15164 Jul 14 06:47	15°♒36'29	
	15159 Apr 26 07:34	0°♓		max. Earth dist.	15164 Jul 24 20:22	18°♒01'00	6.22032 AU
retrograde	15159 Jul 11 11:10	7°♓53'37					
min. Earth dist.	15159 Sep 09 04:51	3°♓00'45	4.38092 AU	conjunction	15164 Jul 27 04:07	18°♒32'55	-0°32'42
opposition	15159 Sep 10 03:13	2°♓53'24	0°39'45	minimum elong	15164 Jul 27 04:07	18°♒32'55	0°33'25
	15159 Oct 03 16:28	30°♒♒		morning rise	15164 Aug 09 01:07	21°♒29'31	
direct	15159 Nov 10 04:25	27°♒53'30			15164 Sep 17 05:29	0°♓	
	15159 Dec 17 22:58	0°♓		retrograde	15164 Dec 13 03:26	10°♓07'13	
evening set	15160 Mar 14 06:20	15°♓21'01		opposition	15165 Feb 11 07:44	5°♓12'24	-0°48'55
				min. Earth dist.	15165 Feb 12 20:08	5°♓00'31	4.12928 AU
conjunction	15160 Mar 27 11:51	18°♓12'04	0°21'21	direct	15165 Apr 12 20:46	0°♓13'40	
minimum elong	15160 Mar 27 11:52	18°♓12'04	0°21'09	evening set	15165 Aug 17 04:31	19°♓24'07	
max. Earth dist.	15160 Mar 28 07:29	18°♓22'39	6.44434 AU	max. Earth dist.	15165 Aug 28 10:53	22°♓04'28	6.04391 AU
morning rise	15160 Apr 09 16:19	21°♓02'24					
	15160 May 24 07:10	0°♔		conjunction	15165 Aug 30 05:04	22°♓29'34	-0°30'02
retrograde	15160 Aug 09 09:07	7°♔55'28		minimum elong	15165 Aug 30 05:05	22°♓29'35	0°30'15
opposition	15160 Oct 09 11:00	2°♔57'58	0°20'16	morning rise	15165 Sep 12 06:18	25°♓35'43	
min. Earth dist.	15160 Oct 09 07:02	2°♔59'16	4.48836 AU		15165 Oct 01 03:58	0°♕	
	15160 Nov 03 02:02	30°♒♓		retrograde	15166 Jan 19 11:02	15°♕28'49	
direct	15160 Dec 10 10:13	27°♓57'33		opposition	15166 Mar 20 01:10	10°♕32'16	-0°36'27
	15161 Jan 17 01:35	0°♔		min. Earth dist.	15166 Mar 20 19:28	10°♕26'12	3.97004 AU
evening set	15161 Apr 13 23:54	15°♔00'24		direct	15166 May 18 05:22	5°♕35'34	

evening set	15166 Sep 22 12:47	25°♏36'59		min. Earth dist.	15171 Sep 13 13:34	7°♑25'13	4.40274 AU
				direct	15171 Nov 14 14:31	2°♑18'27	
conjunction	15166 Oct 05 18:32	28°♏50'47 -0°16'04		evening set	15172 Mar 18 14:16	19°♑40'20	
minimum elong	15166 Oct 05 18:32	28°♏50'48 0°15'41					
behind sun begin	15166 Oct 05 16:37	28°♏49'37		conjunction	15172 Mar 31 19:16	22°♑30'32 0°19'26	
behind sun end	15166 Oct 05 20:28	28°♏51'58		minimum elong	15172 Mar 31 19:16	22°♑30'32 0°19'08	
max. Earth dist.	15166 Oct 05 08:14	28°♏44'30 5.91762 AU		max. Earth dist.	15172 Apr 01 10:56	22°♑38'58 6.46082 AU	
	15166 Oct 10 11:42	0°♏		morning rise	15172 Apr 13 22:58	25°♑19'58	
morning rise	15166 Oct 19 01:51	2°♏05'37			15172 May 06 07:48	0°♏	
	15166 Dec 15 22:18	15°♏		retrograde	15172 Aug 13 11:13	12°♏08'13	
retrograde	15167 Feb 27 09:12	22°♏51'37		opposition	15172 Oct 13 14:01	7°♏11'08 0°17'02	
opposition	15167 Apr 27 14:09	17°♏52'26 -0°08'31		min. Earth dist.	15172 Oct 13 13:21	7°♏11'21 4.49848 AU	
min. Earth dist.	15167 Apr 27 07:22	17°♏54'43 3.89138 AU		direct	15172 Dec 14 16:31	2°♏10'42	
	15167 May 20 11:09	15°♏♏			15173 Mar 28 22:38	15°♏	
direct	15167 Jun 24 20:15	12°♏57'04		evening set	15173 Apr 18 03:51	19°♏11'38	
	15167 Jul 29 22:56	15°♏					
asc. node	15167 Aug 11 00:27	16°♏32'55		conjunction	15173 May 01 05:01	21°♏58'18 0°03'40	
	15167 Oct 16 22:46	0°♏♏		minimum elong	15173 May 01 05:00	21°♏58'18 0°02'59	
evening set	15167 Oct 30 14:42	3°♏♏17'40		behind sun begin	15173 Apr 30 20:59	21°♏54'03	
				behind sun end	15173 May 01 13:00	22°♏02'33	
conjunction	15167 Nov 13 01:35	6°♏♏35'03 0°04'52		max. Earth dist.	15173 Apr 30 14:39	21°♏50'39 6.51448 AU	
minimum elong	15167 Nov 13 01:34	6°♏♏35'02 0°05'42		morning rise	15173 May 14 04:43	24°♏44'15	
behind sun begin	15167 Nov 12 17:34	6°♏♏30'10			15173 Jun 08 17:13	0°♏	
behind sun end	15167 Nov 13 09:34	6°♏♏39'55		desc. node	15173 Jul 24 00:46	7°♏♏44'02	
max. Earth dist.	15167 Nov 14 07:00	6°♏♏53'04 5.89523 AU		retrograde	15173 Sep 12 02:12	11°♏♏19'26	
morning rise	15167 Nov 26 14:00	9°♏♏53'15		opposition	15173 Nov 12 07:47	6°♏♏24'24 -0°07'16	
	15168 Mar 17 01:31	0°♏		min. Earth dist.	15173 Nov 13 02:17	6°♏♏18'28 4.50793 AU	
retrograde	15168 Apr 05 22:21	0°♏♏39'11		direct	15174 Jan 13 19:26	1°♏♏23'42	
	15168 Apr 25 15:04	30°♏♏♏		evening set	15174 May 18 05:31	18°♏♏28'29	
min. Earth dist.	15168 Jun 02 21:55	25°♏♏47'08 3.92893 AU		max. Earth dist.	15174 May 29 13:55	20°♏♏54'50 6.47878 AU	
opposition	15168 Jun 04 03:02	25°♏♏37'17 0°23'16					
direct	15168 Aug 01 06:33	20°♏♏41'28		conjunction	15174 May 31 03:52	21°♏♏15'17 -0°13'06	
	15168 Oct 20 08:35	0°♏		minimum elong	15174 May 31 03:51	21°♏♏15'17 0°14'03	
evening set	15168 Dec 06 19:02	10°♏♏37'39		behind sun begin	15174 May 30 23:51	21°♏♏13'08	
				behind sun end	15174 May 31 07:51	21°♏♏17'26	
conjunction	15168 Dec 20 08:01	13°♏♏51'35 0°23'30		morning rise	15174 Jun 13 00:32	24°♏♏01'30	
minimum elong	15168 Dec 20 08:00	13°♏♏51'35 0°24'27			15174 Jul 11 19:01	0°♏	
max. Earth dist.	15168 Dec 22 15:26	14°♏♏24'41 5.98773 AU		retrograde	15174 Oct 12 14:38	10°♏♏54'17	
morning rise	15169 Jan 02 22:22	17°♏♏05'53		opposition	15174 Dec 12 17:26	6°♏♏00'17 -0°30'05	
	15169 Mar 03 20:43	0°♏♏		min. Earth dist.	15174 Dec 14 02:37	5°♏♏49'40 4.42932 AU	
retrograde	15169 May 12 02:32	6°♏♏58'58		direct	15175 Feb 13 00:17	0°♏♏59'39	
min. Earth dist.	15169 Jul 09 03:17	2°♏♏09'06 4.06520 AU		evening set	15175 Jun 17 19:42	18°♏♏32'30	
opposition	15169 Jul 10 18:55	1°♏♏55'43 0°44'25		max. Earth dist.	15175 Jun 28 10:09	20°♏♏52'57 6.36186 AU	
	15169 Jul 25 11:58	30°♏♏♏					
direct	15169 Sep 07 14:36	26°♏♏58'11		conjunction	15175 Jun 30 16:29	21°♏♏23'05 -0°26'39	
	15169 Oct 21 15:47	0°♏♏		minimum elong	15175 Jun 30 16:29	21°♏♏23'05 0°27'34	
	15170 Jan 07 22:18	15°♏♏		morning rise	15175 Jul 13 12:22	24°♏♏13'29	
evening set	15170 Jan 12 09:14	16°♏♏00'55			15175 Aug 09 10:41	0°♏♏	
				retrograde	15175 Nov 14 03:26	11°♏♏53'09	
conjunction	15170 Jan 25 21:11	19°♏♏06'42 0°32'34		opposition	15176 Jan 13 19:30	6°♏♏59'07 -0°45'47	
minimum elong	15170 Jan 25 21:12	19°♏♏06'42 0°33'16		min. Earth dist.	15176 Jan 15 11:55	6°♏♏46'03 4.28063 AU	
max. Earth dist.	15170 Jan 28 07:43	19°♏♏40'18 6.15370 AU		direct	15176 Mar 15 08:54	1°♏♏59'04	
morning rise	15170 Feb 08 09:30	22°♏♏12'17			15176 Jun 24 20:37	15°♏♏	
	15170 Mar 16 04:41	0°♏♏		evening set	15176 Jul 18 21:18	20°♏♏20'24	
retrograde	15170 Jun 14 13:38	10°♏♏♏50'09		max. Earth dist.	15176 Jul 29 11:36	22°♏♏46'14 6.19221 AU	
min. Earth dist.	15170 Aug 12 08:47	5°♏♏59'15 4.24354 AU					
opposition	15170 Aug 13 18:55	5°♏♏47'52 0°48'26		conjunction	15176 Jul 31 19:03	23°♏♏18'09 -0°33'00	
direct	15170 Oct 12 20:03	0°♏♏48'46		minimum elong	15176 Jul 31 19:03	23°♏♏18'10 0°33'40	
evening set	15171 Feb 15 14:05	18°♏♏53'59		morning rise	15176 Aug 13 16:32	26°♏♏16'10	
					15176 Aug 30 04:36	0°♏♏	
conjunction	15171 Feb 28 22:58	21°♏♏50'57 0°30'22		retrograde	15176 Dec 18 05:09	15°♏♏05'27	
minimum elong	15171 Feb 28 22:58	21°♏♏50'58 0°30'36		opposition	15177 Feb 16 08:04	10°♏♏10'26 -0°48'15	
max. Earth dist.	15171 Mar 02 17:59	22°♏♏14'42 6.32941 AU		min. Earth dist.	15177 Feb 17 17:45	9°♏♏59'25 4.10199 AU	
morning rise	15171 Mar 14 07:14	24°♏♏47'20		direct	15177 Apr 17 15:16	5°♏♏11'59	
	15171 Apr 07 17:19	0°♏♏		evening set	15177 Aug 22 04:22	24°♏♏31'26	
retrograde	15171 Jul 15 15:02	12°♏♏18'18		max. Earth dist.	15177 Sep 02 15:33	27°♏♏15'31 6.02001 AU	
opposition	15171 Sep 14 10:11	7°♏♏18'27 0°37'28					

conjunction	15177 Sep 04 05:33	27° \mathbb{M} 38'16	-0°28'41	morning rise	15183 Mar 18 19:33	29° \mathbb{H} 16'03	
minimum elong	15177 Sep 04 05:34	27° \mathbb{M} 38'16	0°28'50		15183 Mar 22 04:26	0° \mathbb{Y}	
	15177 Sep 14 02:36	0° \mathbb{L}		retrograde	15183 Jul 19 21:12	16° \mathbb{Y} 39'30	
morning rise	15177 Sep 17 07:37	0° \mathbb{L} 45'52		opposition	15183 Sep 18 16:32	11° \mathbb{Y} 40'05	0°35'00
retrograde	15178 Jan 24 22:22	20° \mathbb{L} 49'07		min. Earth dist.	15183 Sep 17 23:32	11° \mathbb{Y} 45'38	4.42031 AU
opposition	15178 Mar 25 10:12	15° \mathbb{L} 52'10	-0°33'14	direct	15183 Nov 19 01:25	6° \mathbb{Y} 40'00	
min. Earth dist.	15178 Mar 26 01:24	15° \mathbb{L} 47'07	3.95206 AU	evening set	15184 Mar 22 21:48	23° \mathbb{Y} 57'42	
direct	15178 May 23 11:06	10° \mathbb{L} 55'42					
	15178 Sep 23 13:34	0° \mathbb{M}		conjunction	15184 Apr 05 02:17	26° \mathbb{Y} 47'15	0°17'23
evening set	15178 Sep 27 20:19	1° \mathbb{M} 02'19		minimum elong	15184 Apr 05 02:18	26° \mathbb{Y} 47'15	0°17'03
				max. Earth dist.	15184 Apr 05 13:40	26° \mathbb{Y} 53'21	6.47251 AU
conjunction	15178 Oct 11 03:01	4° \mathbb{M} 17'02	-0°13'20	morning rise	15184 Apr 18 05:26	29° \mathbb{Y} 36'03	
minimum elong	15178 Oct 11 03:01	4° \mathbb{M} 17'02	0°12'52		15184 Apr 20 02:28	0° \mathbb{B}	
behind sun begin	15178 Oct 10 21:53	4° \mathbb{M} 13'54			15184 Jul 18 16:07	15° \mathbb{B}	
behind sun end	15178 Oct 11 08:09	4° \mathbb{M} 20'10		retrograde	15184 Aug 17 13:20	16° \mathbb{B} 21'04	
max. Earth dist.	15178 Oct 10 23:48	4° \mathbb{M} 15'04	5.90758 AU		15184 Sep 16 09:08	15° \mathbb{R} \mathbb{B}	
morning rise	15178 Oct 24 11:06	7° \mathbb{M} 32'43		opposition	15184 Oct 17 17:23	11° \mathbb{B} 24'19	0°13'42
	15178 Nov 25 02:53	15° \mathbb{M}		min. Earth dist.	15184 Oct 17 19:04	11° \mathbb{B} 23'46	4.50384 AU
retrograde	15179 Mar 04 22:29	28° \mathbb{M} 21'52		direct	15184 Dec 18 20:48	6° \mathbb{B} 23'50	
opposition	15179 May 03 02:08	23° \mathbb{M} 22'14	-0°03'51		15185 Mar 11 06:52	15° \mathbb{B}	
min. Earth dist.	15179 May 02 15:38	23° \mathbb{M} 25'46	3.89069 AU	evening set	15185 Apr 22 08:44	23° \mathbb{B} 24'22	
asc. node	15179 Jun 18 14:50	18° \mathbb{M} 40'56					
direct	15179 Jun 30 06:30	18° \mathbb{M} 26'54		conjunction	15185 May 05 09:33	26° \mathbb{B} 10'56	0°01'13
	15179 Sep 28 10:14	0° \mathbb{X}		minimum elong	15185 May 05 09:33	26° \mathbb{B} 10'56	0°00'29
evening set	15179 Nov 05 00:54	8° \mathbb{X} 45'48		behind sun begin	15185 May 05 01:32	26° \mathbb{B} 06'40	
				behind sun end	15185 May 05 17:34	26° \mathbb{B} 15'11	
conjunction	15179 Nov 18 12:05	12° \mathbb{X} 02'57	0°07'51	max. Earth dist.	15185 May 04 16:23	26° \mathbb{B} 01'46	6.51321 AU
minimum elong	15179 Nov 18 12:05	12° \mathbb{X} 02'57	0°08'44	morning rise	15185 May 18 08:41	28° \mathbb{B} 56'45	
behind sun begin	15179 Nov 18 04:52	11° \mathbb{X} 58'34			15185 May 23 08:26	0° \mathbb{I}	
behind sun end	15179 Nov 18 19:17	12° \mathbb{X} 07'20		desc. node	15185 Jun 02 23:35	2° \mathbb{I} 12'47	
max. Earth dist.	15179 Nov 19 21:30	12° \mathbb{X} 23'22	5.90356 AU	retrograde	15185 Sep 16 06:53	15° \mathbb{I} 33'11	
morning rise	15179 Dec 02 01:08	15° \mathbb{X} 20'57		opposition	15185 Nov 16 12:27	10° \mathbb{I} 38'27	-0°10'42
	15180 Feb 07 18:58	0° \mathbb{B}		min. Earth dist.	15185 Nov 17 09:34	10° \mathbb{I} 31'42	4.50015 AU
retrograde	15180 Apr 11 02:51	6° \mathbb{B} 01'10		direct	15186 Jan 18 00:21	5° \mathbb{I} 37'49	
min. Earth dist.	15180 Jun 08 01:52	1° \mathbb{B} 09'48	3.94521 AU	evening set	15186 May 22 11:18	22° \mathbb{I} 45'48	
opposition	15180 Jun 09 10:07	0° \mathbb{B} 58'52	0°27'10	max. Earth dist.	15186 Jun 02 15:06	25° \mathbb{I} 10'13	6.46491 AU
	15180 Jun 16 17:15	30° \mathbb{R} \mathbb{X}					
direct	15180 Aug 06 14:23	26° \mathbb{X} 02'48		conjunction	15186 Jun 04 09:13	25° \mathbb{I} 33'00	-0°15'18
	15180 Sep 25 14:09	0° \mathbb{B}		minimum elong	15186 Jun 04 09:12	25° \mathbb{I} 33'00	0°16'15
evening set	15180 Dec 12 01:08	15° \mathbb{B} 51'46		morning rise	15186 Jun 17 05:52	28° \mathbb{I} 19'42	
					15186 Jun 25 01:22	0° \mathbb{D}	
conjunction	15180 Dec 25 14:07	19° \mathbb{B} 04'37	0°25'27	retrograde	15186 Oct 17 02:15	15° \mathbb{D} 18'10	
minimum elong	15180 Dec 25 14:06	19° \mathbb{B} 04'36	0°26'23	opposition	15186 Dec 17 03:07	10° \mathbb{D} 24'16	-0°32'54
max. Earth dist.	15180 Dec 27 22:58	19° \mathbb{B} 38'23	6.01008 AU	min. Earth dist.	15186 Dec 18 14:03	10° \mathbb{D} 13'04	4.41020 AU
morning rise	15181 Jan 08 04:15	22° \mathbb{B} 17'43		direct	15187 Feb 17 08:31	5° \mathbb{D} 23'43	
	15181 Feb 11 05:11	0° \mathbb{A}		evening set	15187 Jun 22 05:43	23° \mathbb{D} 02'59	
retrograde	15181 May 16 23:10	11° \mathbb{A} 59'59		max. Earth dist.	15187 Jul 02 20:05	25° \mathbb{D} 24'07	6.33906 AU
min. Earth dist.	15181 Jul 14 02:08	7° \mathbb{A} 09'45	4.09092 AU				
opposition	15181 Jul 15 16:48	6° \mathbb{A} 56'43	0°46'00	conjunction	15187 Jul 05 02:39	25° \mathbb{D} 54'30	-0°28'05
direct	15181 Sep 12 17:26	1° \mathbb{A} 58'54		minimum elong	15187 Jul 05 02:39	25° \mathbb{D} 54'30	0°28'59
	15181 Dec 21 18:34	15° \mathbb{A}		morning rise	15187 Jul 17 22:30	28° \mathbb{D} 45'50	
evening set	15182 Jan 17 07:06	20° \mathbb{A} 52'39			15187 Jul 23 12:51	0° \mathbb{Q}	
					15187 Oct 17 18:52	15° \mathbb{Q}	
conjunction	15182 Jan 30 18:46	23° \mathbb{A} 57'06	0°32'53	retrograde	15187 Nov 18 21:37	16° \mathbb{Q} 34'37	
minimum elong	15182 Jan 30 18:46	23° \mathbb{A} 57'06	0°33'31		15187 Dec 21 02:36	15° \mathbb{R} \mathbb{Q}	
max. Earth dist.	15182 Feb 02 04:51	24° \mathbb{A} 30'14	6.18043 AU	opposition	15188 Jan 18 12:46	11° \mathbb{Q} 40'35	-0°47'05
morning rise	15182 Feb 13 06:33	27° \mathbb{A} 01'17		min. Earth dist.	15188 Jan 20 04:04	11° \mathbb{Q} 27'54	4.25596 AU
	15182 Feb 26 14:25	0° \mathbb{H}		direct	15188 Mar 19 21:34	6° \mathbb{Q} 40'52	
retrograde	15182 Jun 18 23:16	15° \mathbb{H} 28'23			15188 Jun 05 22:54	15° \mathbb{Q}	
min. Earth dist.	15182 Aug 16 22:06	10° \mathbb{H} 37'30	4.26899 AU	evening set	15188 Jul 23 14:27	25° \mathbb{Q} 10'16	
opposition	15182 Aug 18 07:30	10° \mathbb{H} 26'24	0°47'38	max. Earth dist.	15188 Aug 03 06:51	27° \mathbb{Q} 38'10	6.16787 AU
direct	15182 Oct 17 11:47	5° \mathbb{H} 27'09					
evening set	15183 Feb 20 03:36	23° \mathbb{H} 24'59		conjunction	15188 Aug 05 12:24	28° \mathbb{Q} 09'11	-0°33'06
				minimum elong	15188 Aug 05 12:24	28° \mathbb{Q} 09'11	0°33'41
conjunction	15183 Mar 05 11:52	26° \mathbb{H} 20'49	0°29'15		15188 Aug 13 11:47	0° \mathbb{P}	
minimum elong	15183 Mar 05 11:52	26° \mathbb{H} 20'49	0°29'25	morning rise	15188 Aug 18 10:25	1° \mathbb{P} 08'27	
max. Earth dist.	15183 Mar 07 02:12	26° \mathbb{H} 41'54	6.35168 AU	retrograde	15188 Dec 23 10:19	20° \mathbb{P} 08'01	

opposition	15189 Feb 21 10:19	15° \mathbb{M} 12'50	-0°47'14	min. Earth dist.	15194 Aug 21 08:54	15° \mathbb{H} 03'47	4.29038 AU
min. Earth dist.	15189 Feb 22 17:56	15° \mathbb{M} 02'28	4.08015 AU	opposition	15194 Aug 22 15:18	14° \mathbb{H} 53'41	0°46'40
direct	15189 Apr 22 14:05	10° \mathbb{M} 14'44		direct	15194 Oct 22 00:04	9° \mathbb{H} 54'16	
evening set	15189 Aug 27 04:50	29° \mathbb{M} 40'55		evening set	15195 Feb 24 12:46	27° \mathbb{H} 46'22	
	15189 Aug 28 12:51	0° \mathbb{L}			15195 Mar 06 17:17	0° \mathbb{Y}	
max. Earth dist.	15189 Sep 07 22:04	2° \mathbb{L} 29'13	6.00302 AU				
				conjunction	15195 Mar 09 20:43	0° \mathbb{Y} 41'20	0°28'04
conjunction	15189 Sep 09 06:47	2° \mathbb{L} 48'51	-0°27'10	minimum elong	15195 Mar 09 20:44	0° \mathbb{Y} 41'21	0°28'09
minimum elong	15189 Sep 09 06:48	2° \mathbb{L} 48'52	0°27'13	max. Earth dist.	15195 Mar 11 08:26	1° \mathbb{Y} 00'54	6.36897 AU
morning rise	15189 Sep 22 09:29	5° \mathbb{L} 57'34		morning rise	15195 Mar 23 03:44	3° \mathbb{Y} 35'39	
retrograde	15190 Jan 30 07:39	26° \mathbb{L} 07'56		retrograde	15195 Jul 23 22:16	20° \mathbb{Y} 53'21	
opposition	15190 Mar 30 18:27	21° \mathbb{L} 10'42	-0°29'49	opposition	15195 Sep 22 19:20	15° \mathbb{Y} 54'20	0°32'32
min. Earth dist.	15190 Mar 31 05:54	21° \mathbb{L} 06'54	3.94202 AU	min. Earth dist.	15195 Sep 22 04:08	15° \mathbb{Y} 59'17	4.43267 AU
direct	15190 May 28 15:18	16° \mathbb{L} 14'34		direct	15195 Nov 23 05:39	10° \mathbb{Y} 54'11	
	15190 Sep 06 02:55	0° \mathbb{M}		evening set	15196 Mar 27 02:44	28° \mathbb{Y} 09'26	
evening set	15190 Oct 03 02:11	6° \mathbb{M} 23'13			15196 Apr 04 17:36	0° \mathbb{B}	
				conjunction	15196 Apr 09 06:41	0° \mathbb{B} 58'32	0°15'23
conjunction	15190 Oct 16 09:18	9° \mathbb{M} 38'19	-0°10'36	minimum elong	15196 Apr 09 06:42	0° \mathbb{B} 58'32	0°14'59
minimum elong	15190 Oct 16 09:19	9° \mathbb{M} 38'19	0°10'04	behind sun begin	15196 Apr 09 03:52	0° \mathbb{B} 57'01	
behind sun begin	15190 Oct 16 02:38	9° \mathbb{M} 34'15		behind sun end	15196 Apr 09 09:31	1° \mathbb{B} 00'02	
behind sun end	15190 Oct 16 15:59	9° \mathbb{M} 42'23		max. Earth dist.	15196 Apr 09 13:21	1° \mathbb{B} 02'05	6.47924 AU
max. Earth dist.	15190 Oct 16 10:14	9° \mathbb{M} 38'53	5.90541 AU	morning rise	15196 Apr 22 09:22	3° \mathbb{B} 46'53	
morning rise	15190 Oct 29 18:13	12° \mathbb{M} 54'26			15196 Jun 19 16:31	15° \mathbb{B}	
	15190 Nov 07 09:53	15° \mathbb{M}		retrograde	15196 Aug 21 16:15	20° \mathbb{B} 30'11	
	15191 Jan 20 08:54	0° \mathbb{Z}		opposition	15196 Oct 21 19:22	15° \mathbb{B} 33'47	0°10'28
retrograde	15191 Mar 10 04:50	3° \mathbb{Z} 43'25		min. Earth dist.	15196 Oct 22 00:32	15° \mathbb{B} 32'07	4.50478 AU
	15191 Apr 28 20:13	30° \mathbb{R} \mathbb{M}			15196 Oct 26 04:24	15° \mathbb{R} \mathbb{B}	
asc. node	15191 Apr 30 20:17	29° \mathbb{M} 44'14		direct	15196 Dec 23 01:03	10° \mathbb{B} 33'15	
opposition	15191 May 08 09:55	28° \mathbb{M} 43'22	0°00'38		15197 Feb 18 01:28	15° \mathbb{B}	
min. Earth dist.	15191 May 07 19:22	28° \mathbb{M} 48'17	3.89686 AU	desc. node	15197 Apr 12 16:33	24° \mathbb{B} 40'48	
direct	15191 Jul 05 13:46	23° \mathbb{M} 48'00		evening set	15197 Apr 26 12:16	27° \mathbb{B} 34'30	
	15191 Sep 06 22:41	0° \mathbb{Z}			15197 May 07 21:13	0° \mathbb{I}	
evening set	15191 Nov 10 06:35	14° \mathbb{Z} 02'56					
				conjunction	15197 May 09 12:39	0° \mathbb{I} 21'05	-0°01'10
conjunction	15191 Nov 23 18:08	17° \mathbb{Z} 19'34	0°10'38	minimum elong	15197 May 09 12:39	0° \mathbb{I} 21'05	0°01'57
minimum elong	15191 Nov 23 18:08	17° \mathbb{Z} 19'33	0°11'33	behind sun begin	15197 May 09 04:37	0° \mathbb{I} 16'49	
behind sun begin	15191 Nov 23 12:10	17° \mathbb{Z} 15'56		behind sun end	15197 May 09 20:41	0° \mathbb{I} 25'21	
behind sun end	15191 Nov 24 00:06	17° \mathbb{Z} 23'10		max. Earth dist.	15197 May 08 15:27	0° \mathbb{I} 09'45	6.50832 AU
max. Earth dist.	15191 Nov 25 07:50	17° \mathbb{Z} 42'31	5.91739 AU	morning rise	15197 May 22 11:29	3° \mathbb{I} 06'57	
morning rise	15191 Dec 07 07:19	20° \mathbb{Z} 36'56		retrograde	15197 Sep 20 11:12	19° \mathbb{I} 45'34	
	15192 Jan 17 03:59	0° \mathbb{B}		opposition	15197 Nov 20 16:29	14° \mathbb{I} 50'57	-0°14'00
retrograde	15192 Apr 16 02:57	11° \mathbb{B} 09'35		min. Earth dist.	15197 Nov 21 15:00	14° \mathbb{I} 43'44	4.48997 AU
min. Earth dist.	15192 Jun 13 02:40	6° \mathbb{B} 18'08	3.96492 AU	direct	15198 Jan 22 03:19	9° \mathbb{I} 50'15	
opposition	15192 Jun 14 11:20	6° \mathbb{B} 07'04	0°30'36	evening set	15198 May 26 16:29	27° \mathbb{I} 01'53	
direct	15192 Aug 11 18:53	1° \mathbb{B} 10'46		max. Earth dist.	15198 Jun 06 19:34	29° \mathbb{I} 26'21	6.45013 AU
evening set	15192 Dec 17 01:07	20° \mathbb{B} 51'43					
				conjunction	15198 Jun 08 14:18	29° \mathbb{I} 49'33	-0°17'22
conjunction	15192 Dec 30 14:05	24° \mathbb{B} 03'26	0°27'06	minimum elong	15198 Jun 08 14:17	29° \mathbb{I} 49'32	0°18'19
minimum elong	15192 Dec 30 14:04	24° \mathbb{B} 03'25	0°28'02		15198 Jun 09 09:34	0° \mathbb{E}	
max. Earth dist.	15193 Jan 02 00:29	24° \mathbb{B} 37'55	6.03356 AU	morning rise	15198 Jun 21 10:34	2° \mathbb{E} 36'42	
morning rise	15193 Jan 13 03:59	27° \mathbb{B} 15'19		retrograde	15198 Oct 21 12:06	19° \mathbb{E} 40'41	
	15193 Jan 25 00:10	0° \mathbb{A}		opposition	15198 Dec 21 12:09	14° \mathbb{E} 46'48	-0°35'27
	15193 Apr 18 01:31	15° \mathbb{A}		min. Earth dist.	15198 Dec 22 23:59	14° \mathbb{E} 35'19	4.39169 AU
retrograde	15193 May 21 12:44	16° \mathbb{A} 46'52		direct	15199 Feb 21 15:25	9° \mathbb{E} 46'19	
	15193 Jun 23 20:53	15° \mathbb{R} \mathbb{A}		evening set	15199 Jun 26 15:07	27° \mathbb{E} 31'26	
min. Earth dist.	15193 Jul 18 17:43	11° \mathbb{A} 56'49	4.11581 AU	max. Earth dist.	15199 Jul 07 04:00	29° \mathbb{E} 52'27	6.31785 AU
opposition	15193 Jul 20 08:35	11° \mathbb{A} 43'45	0°47'12		15199 Jul 07 17:29	0° \mathbb{Q}	
direct	15193 Sep 17 12:07	6° \mathbb{A} 45'44					
	15193 Dec 03 04:39	15° \mathbb{A}		conjunction	15199 Jul 09 11:54	0° \mathbb{Q} 23'44	-0°29'19
evening set	15194 Jan 21 23:18	25° \mathbb{A} 31'19		minimum elong	15199 Jul 09 11:53	0° \mathbb{Q} 23'44	0°30'12
				morning rise	15199 Jul 22 08:01	3° \mathbb{Q} 15'59	
conjunction	15194 Feb 04 10:26	28° \mathbb{A} 34'32	0°33'00		15199 Sep 18 04:51	15° \mathbb{Q}	
minimum elong	15194 Feb 04 10:26	28° \mathbb{A} 34'32	0°33'35	retrograde	15199 Nov 23 16:22	21° \mathbb{Q} 13'08	
max. Earth dist.	15194 Feb 06 16:31	29° \mathbb{A} 05'14	6.20451 AU	opposition	15200 Jan 23 05:12	16° \mathbb{Q} 18'55	-0°48'02
	15194 Feb 10 17:07	0° \mathbb{H}		min. Earth dist.	15200 Jan 24 20:07	16° \mathbb{Q} 06'18	4.23320 AU
morning rise	15194 Feb 17 21:50	1° \mathbb{H} 37'28			15200 Feb 02 11:28	15° \mathbb{R} \mathbb{Q}	
retrograde	15194 Jun 23 06:27	19° \mathbb{H} 55'21					

direct	15200 Mar 24 11:01	11°♏19'16		opposition	15205 Jul 25 02:06	16°♐34'45	0°48'06
	15200 May 13 06:58	15°♏			15205 Aug 06 01:34	15°♐	
evening set	15200 Jul 28 05:49	29°♏55'46		direct	15205 Sep 22 09:39	11°♐36'31	
	15200 Jul 28 13:10	0°♐			15205 Nov 08 13:02	15°♐	
max. Earth dist.	15200 Aug 08 01:27	2°♐26'15	6.14527 AU		15206 Jan 25 14:53	0°♐	
				evening set	15206 Jan 26 17:45	0°♐15'05	
conjunction	15200 Aug 10 04:17	2°♐55'49	-0°32'57				
minimum elong	15200 Aug 10 04:18	2°♐55'50	0°33'28	conjunction	15206 Feb 09 04:44	3°♐17'14	0°32'53
morning rise	15200 Aug 23 02:38	5°♐56'14		minimum elong	15206 Feb 09 04:44	3°♐17'14	0°33'25
retrograde	15200 Dec 28 12:16	25°♐05'17		max. Earth dist.	15206 Feb 11 10:24	3°♐47'33	6.22694 AU
opposition	15201 Feb 26 10:34	20°♐09'52	-0°45'49	morning rise	15206 Feb 22 15:29	6°♐18'58	
min. Earth dist.	15201 Feb 27 16:08	20°♐00'10	4.05953 AU	retrograde	15206 Jun 27 15:09	24°♐28'06	
direct	15201 Apr 27 09:24	15°♐12'03		min. Earth dist.	15206 Aug 25 20:14	19°♐36'34	4.31145 AU
	15201 Aug 11 21:58	0°♐		opposition	15206 Aug 27 01:33	19°♐26'52	0°45'22
evening set	15201 Sep 01 03:43	4°♐44'42		direct	15206 Oct 26 13:08	14°♐27'26	
max. Earth dist.	15201 Sep 13 00:03	7°♐35'33	5.98612 AU		15207 Feb 18 15:52	0°♐	
				evening set	15207 Mar 01 00:28	2°♐13'48	
conjunction	15201 Sep 14 06:08	7°♐53'42	-0°25'24				
minimum elong	15201 Sep 14 06:09	7°♐53'42	0°25'22	conjunction	15207 Mar 14 07:45	5°♐07'49	0°26'39
morning rise	15201 Sep 27 09:46	11°♐03'34		minimum elong	15207 Mar 14 07:46	5°♐07'49	0°26'39
	15202 Jan 06 15:13	0°♐		max. Earth dist.	15207 Mar 15 14:59	5°♐24'52	6.38734 AU
retrograde	15202 Feb 04 13:51	1°♐21'09		morning rise	15207 Mar 27 14:20	8°♐01'12	
	15202 Mar 05 13:24	30°♐		retrograde	15207 Jul 28 03:32	25°♐12'49	
opposition	15202 Apr 05 00:24	26°♐23'33	-0°26'07	opposition	15207 Sep 27 00:48	20°♐14'12	0°29'47
min. Earth dist.	15202 Apr 05 08:03	26°♐20'59	3.93066 AU	min. Earth dist.	15207 Sep 26 12:34	20°♐18'11	4.44742 AU
direct	15202 Jun 02 18:20	21°♐27'33		direct	15207 Nov 27 14:36	15°♐14'03	
	15202 Aug 17 19:07	0°♐			15208 Mar 19 20:17	0°♐	
evening set	15202 Oct 08 06:33	11°♐39'12		evening set	15208 Mar 31 09:14	2°♐25'48	
conjunction	15202 Oct 21 14:30	14°♐54'53	-0°07'44	conjunction	15208 Apr 13 12:47	5°♐14'20	0°13'13
minimum elong	15202 Oct 21 14:31	14°♐54'53	0°07'09	minimum elong	15208 Apr 13 12:48	5°♐14'20	0°12'45
behind sun begin	15202 Oct 21 06:52	14°♐50'13		behind sun begin	15208 Apr 13 07:48	5°♐11'41	
behind sun end	15202 Oct 21 22:09	14°♐59'33		behind sun end	15208 Apr 13 17:48	5°♐17'00	
	15202 Oct 21 22:53	15°♐		max. Earth dist.	15208 Apr 13 17:19	5°♐16'45	6.48967 AU
max. Earth dist.	15202 Oct 21 21:29	14°♐59'08	5.90092 AU	morning rise	15208 Apr 26 14:46	8°♐02'04	
morning rise	15202 Nov 04 00:01	18°♐11'32			15208 May 30 19:24	15°♐	
	15202 Dec 26 02:53	0°♐		retrograde	15208 Aug 25 17:35	24°♐42'25	
asc. node	15203 Mar 13 15:48	9°♐01'09		opposition	15208 Oct 25 22:19	19°♐46'19	0°07'05
retrograde	15203 Mar 15 12:53	9°♐01'31		min. Earth dist.	15208 Oct 26 04:42	19°♐44'16	4.51052 AU
opposition	15203 May 13 16:43	4°♐01'07	0°05'09		15208 Dec 14 17:17	15°♐	
min. Earth dist.	15203 May 13 00:13	4°♐06'41	3.89979 AU	direct	15208 Dec 27 04:34	14°♐45'50	
	15203 Jun 17 18:05	30°♐			15209 Jan 08 18:47	15°♐	
direct	15203 Jul 10 20:26	29°♐05'44		desc. node	15209 Feb 18 08:22	18°♐39'24	
	15203 Aug 02 21:39	0°♐			15209 Apr 22 06:34	0°♐	
evening set	15203 Nov 15 12:00	19°♐18'14		evening set	15209 Apr 30 16:09	1°♐46'08	
conjunction	15203 Nov 28 23:58	22°♐34'35	0°13'22	conjunction	15209 May 13 16:00	4°♐32'28	-0°03'30
minimum elong	15203 Nov 28 23:58	22°♐34'35	0°14'17	minimum elong	15209 May 13 16:00	4°♐32'28	0°04'19
behind sun begin	15203 Nov 28 20:06	22°♐32'15		behind sun begin	15209 May 13 08:08	4°♐28'17	
behind sun end	15203 Nov 29 03:49	22°♐36'55		behind sun end	15209 May 13 23:52	4°♐36'40	
max. Earth dist.	15203 Nov 30 17:56	23°♐00'04	5.92730 AU	max. Earth dist.	15209 May 12 16:03	4°♐19'40	6.50903 AU
morning rise	15203 Dec 12 13:31	25°♐51'37		morning rise	15209 May 26 14:19	7°♐18'08	
	15203 Dec 30 00:38	0°♐		retrograde	15209 Sep 24 15:38	23°♐57'13	
retrograde	15204 Apr 21 03:17	16°♐18'18		opposition	15209 Nov 24 20:14	19°♐02'47	-0°17'12
min. Earth dist.	15204 Jun 18 02:01	11°♐27'25	3.98076 AU	min. Earth dist.	15209 Nov 25 21:26	18°♐54'43	4.48549 AU
opposition	15204 Jun 19 12:51	11°♐15'38	0°33'52	direct	15210 Jan 26 07:59	14°♐02'07	
direct	15204 Aug 16 21:12	6°♐19'11			15210 May 24 23:30	0°♐	
evening set	15204 Dec 22 02:40	25°♐53'53		evening set	15210 May 30 20:05	1°♐15'27	
				max. Earth dist.	15210 Jun 10 19:14	3°♐38'09	6.44057 AU
conjunction	15205 Jan 04 15:25	29°♐04'36	0°28'36				
minimum elong	15205 Jan 04 15:25	29°♐04'36	0°29'28	conjunction	15210 Jun 12 17:29	4°♐03'19	-0°19'18
max. Earth dist.	15205 Jan 07 01:04	29°♐38'29	6.05356 AU	minimum elong	15210 Jun 12 17:29	4°♐03'19	0°20'15
	15205 Jan 08 13:41	0°♐		morning rise	15210 Jun 25 13:39	6°♐50'46	
morning rise	15205 Jan 18 05:16	2°♐15'30		retrograde	15210 Oct 25 19:57	23°♐58'56	
	15205 Mar 19 13:06	15°♐		opposition	15210 Dec 25 19:22	19°♐05'01	-0°37'44
retrograde	15205 May 26 05:00	21°♐37'46		min. Earth dist.	15210 Dec 27 07:53	18°♐53'17	4.37739 AU
min. Earth dist.	15205 Jul 23 12:15	16°♐47'29	4.13785 AU	direct	15211 Feb 25 20:19	14°♐04'31	

	15211 Jun 22 06:56	0°♎		minimum elong	15217 Jan 09 18:11	4°♊08'47	0°30'41
evening set	15211 Jun 30 21:32	1°♎54'10		max. Earth dist.	15217 Jan 12 06:29	4°♊44'05	6.07149 AU
max. Earth dist.	15211 Jul 11 11:03	4°♎16'04	6.29976 AU	morning rise	15217 Jan 23 07:42	7°♊18'42	
					15217 Feb 26 20:28	15°♊	
conjunction	15211 Jul 13 18:26	4°♎47'12	-0°30'19	retrograde	15217 May 30 22:59	26°♊32'07	
minimum elong	15211 Jul 13 18:26	4°♎47'12	0°31'09	min. Earth dist.	15217 Jul 28 07:15	21°♊41'53	4.15901 AU
morning rise	15211 Jul 26 14:28	7°♎40'09		opposition	15217 Jul 29 21:10	21°♊29'10	0°48'37
	15211 Aug 29 16:22	15°♎		direct	15217 Sep 27 07:57	16°♊30'43	
retrograde	15211 Nov 28 07:22	25°♎44'54			15218 Jan 08 14:09	0°♋	
opposition	15212 Jan 27 18:29	20°♎50'34	-0°48'37	evening set	15218 Jan 31 13:48	5°♋02'07	
min. Earth dist.	15212 Jan 29 09:45	20°♎37'50	4.21231 AU				
direct	15212 Mar 28 20:49	15°♎51'04		conjunction	15218 Feb 14 00:12	8°♋03'05	0°32'32
	15212 Jul 12 14:55	0°♐		minimum elong	15218 Feb 14 00:13	8°♋03'05	0°32'59
evening set	15212 Aug 01 18:12	4°♐34'20		max. Earth dist.	15218 Feb 16 03:37	8°♋31'59	6.24933 AU
max. Earth dist.	15212 Aug 12 13:43	7°♐05'32	6.12314 AU	morning rise	15218 Feb 27 10:36	11°♋03'39	
				retrograde	15218 Jul 02 00:22	29°♋03'45	
conjunction	15212 Aug 14 16:52	7°♐35'27	-0°32'34	min. Earth dist.	15218 Aug 30 09:24	24°♋11'51	4.33309 AU
minimum elong	15212 Aug 14 16:53	7°♐35'27	0°33'02	opposition	15218 Aug 31 13:08	24°♋02'41	0°43'45
morning rise	15212 Aug 27 15:55	10°♐37'05		direct	15218 Oct 31 04:34	19°♋03'01	
retrograde	15213 Jan 02 10:28	29°♐55'52			15219 Feb 01 08:02	0°♌	
opposition	15213 Mar 03 07:37	25°♐00'08	-0°44'08	evening set	15219 Mar 05 13:10	6°♌43'07	
min. Earth dist.	15213 Mar 04 11:01	24°♐51'06	4.03783 AU				
direct	15213 May 02 02:15	20°♐02'27		conjunction	15219 Mar 18 20:03	9°♌36'10	0°25'03
	15213 Jul 25 04:15	0°♍		minimum elong	15219 Mar 18 20:03	9°♌36'10	0°24'59
evening set	15213 Sep 05 23:32	9°♍42'18		max. Earth dist.	15219 Mar 20 01:31	9°♌52'12	6.40655 AU
max. Earth dist.	15213 Sep 18 01:26	12°♍37'10	5.96703 AU	morning rise	15219 Apr 01 01:46	12°♌28'29	
				retrograde	15219 Aug 01 07:37	29°♌33'29	
conjunction	15213 Sep 19 02:51	12°♍52'33	-0°23'31	opposition	15219 Oct 01 06:53	24°♌35'12	0°26'48
minimum elong	15213 Sep 19 02:52	12°♍52'34	0°23'23	min. Earth dist.	15219 Sep 30 20:31	24°♌38'34	4.46264 AU
morning rise	15213 Oct 02 07:10	16°♍03'40		direct	15219 Dec 01 23:47	19°♌34'59	
	15213 Dec 05 12:38	0°♎			15220 Mar 02 18:30	0°♍	
retrograde	15214 Feb 09 20:53	6°♎29'38		evening set	15220 Apr 04 16:32	6°♍43'00	
opposition	15214 Apr 10 04:16	1°♎31'41	-0°22'19				
min. Earth dist.	15214 Apr 10 10:01	1°♎29'46	3.91617 AU	conjunction	15220 Apr 17 19:19	9°♍30'53	0°10'57
	15214 Apr 21 18:57	30°♎♌		minimum elong	15220 Apr 17 19:20	9°♍30'53	0°10'25
direct	15214 Jun 07 19:29	26°♌35'50		behind sun begin	15220 Apr 17 13:02	9°♌27'32	
	15214 Jul 23 17:57	0°♎		behind sun end	15220 Apr 18 01:38	9°♌34'14	
	15214 Oct 05 17:00	15°♎		max. Earth dist.	15220 Apr 17 18:37	9°♌30'30	6.49955 AU
evening set	15214 Oct 13 09:26	16°♎51'53		morning rise	15220 Apr 30 20:50	12°♌18'02	
					15220 May 13 17:30	15°♌	
conjunction	15214 Oct 26 18:07	20°♎08'20	-0°04'54	retrograde	15220 Aug 29 22:01	28°♌55'44	
minimum elong	15214 Oct 26 18:08	20°♎08'20	0°04'13	opposition	15220 Oct 30 02:28	23°♌59'53	0°03'37
behind sun begin	15214 Oct 26 09:57	20°♎03'20		min. Earth dist.	15220 Oct 30 12:23	23°♌56'42	4.51438 AU
behind sun end	15214 Oct 27 02:19	20°♎13'20		desc. node	15220 Dec 26 13:09	19°♌01'31	
max. Earth dist.	15214 Oct 27 05:14	20°♎15'08	5.89250 AU	direct	15220 Dec 31 11:11	18°♌59'18	
morning rise	15214 Nov 09 04:33	23°♎25'47			15221 Apr 05 16:11	0°♏	
	15214 Dec 06 21:28	0°♏		evening set	15221 May 04 20:45	5°♏59'17	
asc. node	15215 Jan 25 10:34	9°♏45'14					
retrograde	15215 Mar 20 18:20	14°♏18'15		conjunction	15221 May 17 20:14	8°♏45'33	-0°05'52
opposition	15215 May 18 22:25	9°♏17'29	0°09'33	minimum elong	15221 May 17 20:15	8°♏45'33	0°06'43
min. Earth dist.	15215 May 18 02:08	9°♏24'20	3.89869 AU	behind sun begin	15221 May 17 12:46	8°♏41'34	
direct	15215 Jul 15 23:44	4°♏22'03		behind sun end	15221 May 18 03:43	8°♏49'32	
evening set	15215 Nov 20 17:48	24°♏33'55		max. Earth dist.	15221 May 16 16:56	8°♏30'56	6.50643 AU
				morning rise	15221 May 30 18:05	11°♏31'09	
conjunction	15215 Dec 04 06:06	27°♏50'09	0°15'57	retrograde	15221 Sep 28 20:22	28°♏11'58	
minimum elong	15215 Dec 04 06:05	27°♏50'08	0°16'54	opposition	15221 Nov 29 01:36	23°♏17'39	-0°20'27
max. Earth dist.	15215 Dec 06 02:31	28°♏17'03	5.93351 AU	min. Earth dist.	15221 Nov 30 04:06	23°♏09'10	4.47661 AU
	15215 Dec 13 04:46	0°♐		direct	15222 Jan 30 11:37	18°♏16'59	
morning rise	15215 Dec 17 20:07	1°♐07'01			15222 May 08 14:05	0°♑	
retrograde	15216 Apr 26 04:27	21°♐29'04		evening set	15222 Jun 04 01:57	5°♑33'39	
min. Earth dist.	15216 Jun 23 02:48	16°♐38'23	3.99341 AU	max. Earth dist.	15222 Jun 14 23:28	7°♑55'55	6.42589 AU
opposition	15216 Jun 24 14:55	16°♐26'08	0°36'49				
direct	15216 Aug 22 01:51	11°♐29'23		conjunction	15222 Jun 16 23:09	8°♑21'58	-0°21'13
	15216 Dec 22 23:56	0°♑		minimum elong	15222 Jun 16 23:08	8°♑21'58	0°22'11
evening set	15216 Dec 27 05:16	0°♑58'52		morning rise	15222 Jun 29 19:03	11°♑09'53	
				retrograde	15222 Oct 30 08:42	28°♑24'06	
conjunction	15217 Jan 09 18:11	4°♑08'47	0°29'51	opposition	15222 Dec 30 05:49	23°♑30'14	-0°39'57

min. Earth dist.	15222 Dec 31 20:26	23°☾17'49	4.35763 AU			15228 Dec 05 09:03	0°☿	
direct	15223 Mar 02 05:08	18°☾29'50		evening set		15229 Jan 01 08:42	6°☿05'48	
	15223 Jun 05 12:53	0°♈						
evening set	15223 Jul 05 07:59	6°♈26'04		conjunction		15229 Jan 14 21:15	9°☿14'25	0°30'56
max. Earth dist.	15223 Jul 15 19:28	8°♈47'36	6.27626 AU	minimum elong		15229 Jan 14 21:14	9°☿14'25	0°31'43
				max. Earth dist.		15229 Jan 17 09:32	9°☿49'30	6.09681 AU
conjunction	15223 Jul 18 04:54	9°♈20'04	-0°31'14	morning rise		15229 Jan 28 10:34	12°☿23'01	
minimum elong	15223 Jul 18 04:54	9°♈20'04	0°32'01			15229 Feb 08 21:32	15°☿	
morning rise	15223 Jul 31 01:20	12°♈14'06				15229 May 05 17:08	0°♊	
	15223 Aug 12 11:12	15°♈		retrograde		15229 Jun 04 13:12	1°♊25'00	
	15223 Nov 15 18:19	0°♋				15229 Jul 04 06:37	30°♋☿	
retrograde	15223 Dec 03 03:19	0°♋28'38		min. Earth dist.		15229 Aug 02 01:17	26°☿34'48	4.18633 AU
	15223 Dec 20 12:25	30°♋♈		opposition		15229 Aug 03 15:01	26°☿22'09	0°48'51
opposition	15224 Feb 01 13:01	25°♈34'09	-0°48'59	direct		15229 Oct 02 05:32	21°☿23'28	
min. Earth dist.	15224 Feb 03 03:06	25°♈21'45	4.18664 AU			15229 Dec 20 15:40	0°♋	
direct	15224 Apr 02 10:30	20°♈34'50		evening set		15230 Feb 05 08:11	9°♋46'00	
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conjunction	15224 Aug 19 11:22	12°♌29'10	-0°31'58	morning rise		15230 Mar 04 03:47	15°♋44'45	
minimum elong	15224 Aug 19 11:23	12°♌29'10	0°32'22			15230 May 18 03:52	0°♍	
morning rise	15224 Sep 01 10:54	15°♌32'10		retrograde		15230 Jul 06 08:13	3°♍34'42	
	15224 Nov 10 10:43	0°♎				15230 Aug 24 21:49	30°♎♋	
retrograde	15225 Jan 07 17:28	5°♎02'05		opposition		15230 Sep 04 22:36	28°♋34'00	0°41'55
opposition	15225 Mar 08 11:22	0°♎06'11	-0°42'02	min. Earth dist.		15230 Sep 03 21:20	28°♋42'19	4.35763 AU
	15225 Mar 09 06:07	30°♎♌		direct		15230 Nov 04 19:19	23°♋34'13	
min. Earth dist.	15225 Mar 09 13:22	29°♌57'37	4.01458 AU			15231 Jan 12 12:13	0°♏	
direct	15225 May 07 02:15	25°♌08'50		evening set		15231 Mar 09 23:20	11°♏07'28	
	15225 Jul 02 07:44	0°♏						
evening set	15225 Sep 11 02:18	14°♏56'23		conjunction		15231 Mar 23 05:30	13°♏59'28	0°23'22
max. Earth dist.	15225 Sep 23 08:24	17°♏54'34	5.94841 AU	minimum elong		15231 Mar 23 05:31	13°♏59'28	0°23'14
				max. Earth dist.		15231 Mar 24 06:03	14°♏12'45	6.42660 AU
conjunction	15225 Sep 24 06:21	18°♏07'53	-0°21'19	morning rise		15231 Apr 05 10:44	16°♏50'46	
minimum elong	15225 Sep 24 06:22	18°♏07'54	0°21'08			15231 Jun 14 22:29	0°♐	
morning rise	15225 Oct 07 11:43	21°♏20'20		retrograde		15231 Aug 05 09:53	3°♐49'26	
	15225 Nov 13 21:18	0°♑				15231 Sep 26 13:45	30°♑♏	
retrograde	15226 Feb 15 07:43	11°♑54'05		opposition		15231 Oct 05 10:55	28°♏51'27	0°23'48
opposition	15226 Apr 15 14:14	6°♑55'50	-0°18'06	min. Earth dist.		15231 Oct 05 03:34	28°♏53'50	4.47703 AU
min. Earth dist.	15226 Apr 15 15:25	6°♑55'26	3.90455 AU	direct		15231 Dec 06 07:00	23°♏51'05	
direct	15226 Jun 13 01:00	2°♑00'11				15232 Feb 12 06:10	0°♒	
	15226 Sep 17 18:50	15°♑		evening set		15232 Apr 08 21:22	10°♒55'50	
evening set	15226 Oct 18 18:36	22°♑19'26						
				conjunction		15232 Apr 21 23:48	13°♒43'14	0°08'41
conjunction	15226 Nov 01 03:59	25°♑36'25	-0°01'49	minimum elong		15232 Apr 21 23:48	13°♒43'14	0°08'05
minimum elong	15226 Nov 01 03:57	25°♑36'25	0°01'06	behind sun begin		15232 Apr 21 16:39	13°♒39'27	
behind sun begin	15226 Oct 31 19:37	25°♑31'19		behind sun end		15232 Apr 22 06:57	13°♒47'02	
behind sun end	15226 Nov 01 12:17	25°♑41'30		max. Earth dist.		15232 Apr 21 20:01	13°♒41'14	6.50731 AU
max. Earth dist.	15226 Nov 01 20:04	25°♑46'18	5.88921 AU			15232 Apr 27 23:37	15°♒	
morning rise	15226 Nov 14 15:10	28°♑54'22		morning rise		15232 May 05 00:34	16°♒29'51	
	15226 Nov 19 03:13	0°♓				15232 Jul 18 17:33	0°♒	
asc. node	15226 Dec 05 03:52	3°♓49'13		retrograde		15232 Sep 02 22:55	3°♒05'45	
retrograde	15227 Mar 26 04:19	19°♓46'50				15232 Oct 19 13:56	30°♒♒	
min. Earth dist.	15227 May 23 09:29	14°♓53'32	3.90424 AU	opposition		15232 Nov 03 04:49	28°♒10'11	0°00'11
opposition	15227 May 24 08:39	14°♓45'41	0°14'03	min. Earth dist.		15232 Nov 03 17:04	28°♒06'15	4.51513 AU
direct	15227 Jul 21 10:38	9°♓50'10		desc. node		15232 Nov 06 00:07	27°♒48'36	
evening set	15227 Nov 26 03:00	29°♓58'31		direct		15233 Jan 04 14:21	23°♒09'34	
	15227 Nov 26 05:28	0°♔				15233 Mar 18 00:03	0°♒	
				evening set		15233 May 09 00:18	10°♒10'16	
conjunction	15227 Dec 09 15:46	3°♔14'15	0°18'31					
minimum elong	15227 Dec 09 15:45	3°♔14'15	0°19'28	conjunction		15233 May 21 23:16	12°♒56'35	-0°08'11
max. Earth dist.	15227 Dec 11 17:42	3°♔44'23	5.94749 AU	minimum elong		15233 May 21 23:16	12°♒56'35	0°09'03
morning rise	15227 Dec 23 05:49	6°♔30'28		behind sun begin		15233 May 21 16:28	12°♒52'57	
retrograde	15228 May 01 07:43	26°♔44'31		behind sun end		15233 May 22 06:05	13°♒00'13	
min. Earth dist.	15228 Jun 28 05:10	21°♔54'08	4.01418 AU	max. Earth dist.		15233 May 20 15:18	12°♒39'26	6.50000 AU
opposition	15228 Jun 29 18:37	21°♔41'28	0°39'34	morning rise		15233 Jun 03 20:51	15°♒42'18	
direct	15228 Aug 27 08:00	16°♔44'31				15233 Aug 23 09:23	0°♕	





























































































































retrograde	15233 Oct 03 03:26	2°♊26'08		morning rise	15238 Nov 20 02:44	4°♊24'22	
	15233 Nov 13 00:29	30°♋II		retrograde	15239 Mar 31 14:16	25°♊13'54	
opposition	15233 Dec 03 06:46	27°♋II31'57	-0°23'34	opposition	15239 May 29 18:25	20°♊12'24	0°18'25
min. Earth dist.	15233 Dec 04 12:38	27°♋II22'23	4.46327 AU	min. Earth dist.	15239 May 28 16:21	20°♊21'13	3.91555 AU
direct	15234 Feb 03 17:14	22°♋II31'12		direct	15239 Jul 26 20:59	15°♊16'46	
	15234 Apr 20 05:19	0°♌			15239 Nov 08 18:48	0°♌	
evening set	15234 Jun 08 07:39	9°♌52'33		evening set	15239 Dec 01 11:33	5°♌19'20	
max. Earth dist.	15234 Jun 19 02:04	12°♌13'45	6.40648 AU				
				conjunction	15239 Dec 15 00:16	8°♌34'11	0°20'53
conjunction	15234 Jun 21 04:48	12°♌41'34	-0°23'02	minimum elong	15239 Dec 15 00:16	8°♌34'10	0°21'50
minimum elong	15234 Jun 21 04:47	12°♌41'33	0°23'59	max. Earth dist.	15239 Dec 17 04:17	9°♌05'25	5.96625 AU
morning rise	15234 Jul 04 00:42	15°♌30'14		morning rise	15239 Dec 28 14:32	11°♌49'31	
	15234 Sep 20 18:57	0°♍			15240 Apr 01 20:35	0°♍	
retrograde	15234 Nov 03 20:47	2°♍52'08		retrograde	15240 May 06 05:28	1°♍53'41	
	15234 Dec 18 10:14	30°♋♌			15240 Jun 09 13:00	30°♋♌	
opposition	15235 Jan 03 17:25	27°♌58'11	-0°41'59	min. Earth dist.	15240 Jul 03 04:53	27°♌03'40	4.03812 AU
min. Earth dist.	15235 Jan 05 08:01	27°♌45'45	4.33335 AU	opposition	15240 Jul 04 19:49	26°♌50'30	0°41'55
direct	15235 Mar 06 12:36	22°♌57'51		direct	15240 Sep 01 11:45	21°♌53'17	
	15235 May 17 07:28	0°♎			15240 Nov 15 17:27	0°♎	
evening set	15235 Jul 09 19:54	11°♎02'06		evening set	15241 Jan 06 09:42	11°♎05'44	
max. Earth dist.	15235 Jul 20 08:39	13°♎25'12	6.24896 AU				
				conjunction	15241 Jan 19 22:00	14°♎13'01	0°31'45
conjunction	15235 Jul 22 17:04	13°♎57'17	-0°31'58	minimum elong	15241 Jan 19 22:00	14°♎13'01	0°32'30
minimum elong	15235 Jul 22 17:04	13°♎57'17	0°32'43	max. Earth dist.	15241 Jan 22 09:32	14°♎47'26	6.12359 AU
	15235 Jul 27 07:19	15°♎			15241 Jan 23 07:16	15°♎	
morning rise	15235 Aug 04 13:44	16°♎52'34		morning rise	15241 Feb 02 10:48	17°♎20'11	
	15235 Oct 08 12:44	0°♏			15241 Apr 04 16:43	0°♏	
retrograde	15235 Dec 08 03:43	5°♏18'13		retrograde	15241 Jun 09 03:48	6°♏10'53	
opposition	15236 Feb 06 10:07	0°♏23'37	-0°49'04	min. Earth dist.	15241 Aug 06 19:03	1°♏20'14	4.21322 AU
min. Earth dist.	15236 Feb 08 00:10	0°♏11'14	4.15829 AU	opposition	15241 Aug 08 06:46	1°♏08'18	0°48'43
	15236 Feb 09 10:40	30°♋♎			15241 Aug 16 21:06	30°♋♎	
direct	15236 Apr 07 04:09	25°♎24'33		direct	15241 Oct 07 02:37	26°♎09'27	
	15236 Jun 01 17:49	0°♐			15241 Nov 26 23:43	0°♐	
evening set	15236 Aug 11 08:51	14°♐25'46		evening set	15242 Feb 10 00:21	14°♐23'44	
max. Earth dist.	15236 Aug 22 10:40	17°♐02'28	6.07072 AU				
				conjunction	15242 Feb 23 09:49	17°♐22'06	0°31'17
conjunction	15236 Aug 24 08:44	17°♐29'43	-0°31'09	minimum elong	15242 Feb 23 09:50	17°♐22'07	0°31'35
minimum elong	15236 Aug 24 08:45	17°♐29'44	0°31'27	max. Earth dist.	15242 Feb 25 08:31	17°♐48'03	6.30120 AU
morning rise	15236 Sep 06 09:08	20°♐34'17		morning rise	15242 Mar 08 18:51	20°♐19'58	
	15236 Oct 18 13:34	0°♑			15242 Apr 24 18:46	0°♑	
retrograde	15237 Jan 13 01:29	10°♑15'31		retrograde	15242 Jul 10 13:12	8°♑01'07	
opposition	15237 Mar 13 17:57	5°♑19'19	-0°39'34	min. Earth dist.	15242 Sep 08 06:59	3°♑08'32	4.37865 AU
min. Earth dist.	15237 Mar 14 15:49	5°♑12'06	3.99208 AU	opposition	15242 Sep 09 06:30	3°♑00'48	0°39'53
direct	15237 May 12 03:13	0°♑22'16			15242 Oct 03 23:59	30°♋♐	
evening set	15237 Sep 16 07:56	20°♑16'58		direct	15242 Nov 09 06:13	28°♐00'57	
					15242 Dec 15 20:43	0°♑	
conjunction	15237 Sep 29 12:45	23°♑29'36	-0°18'56	evening set	15243 Mar 14 08:37	15°♑28'54	
minimum elong	15237 Sep 29 12:46	23°♑29'37	0°18'39				
max. Earth dist.	15237 Sep 28 20:38	23°♑19'47	5.93261 AU	conjunction	15243 Mar 27 14:17	18°♑20'05	0°21'33
morning rise	15237 Oct 12 19:01	26°♑43'14		minimum elong	15243 Mar 27 14:18	18°♑20'05	0°21'20
	15237 Oct 26 11:18	0°♒		max. Earth dist.	15243 Mar 28 10:53	18°♑31'12	6.44251 AU
	15238 Jan 13 03:54	15°♒		morning rise	15243 Apr 09 18:45	21°♑10'31	
retrograde	15238 Feb 20 20:54	17°♒23'13			15243 May 23 15:13	0°♌	
	15238 Mar 31 17:51	15°♋♒		retrograde	15243 Aug 09 13:11	8°♌04'25	
opposition	15238 Apr 21 02:25	12°♒24'29	-0°13'41	opposition	15243 Oct 09 14:49	3°♌06'54	0°20'39
min. Earth dist.	15238 Apr 21 00:04	12°♒25'17	3.89733 AU	min. Earth dist.	15243 Oct 09 10:44	3°♌08'13	4.48694 AU
direct	15238 Jun 18 11:25	7°♒28'58			15243 Nov 04 16:42	30°♋♑	
	15238 Aug 27 23:02	15°♒		direct	15243 Dec 10 14:08	28°♑06'33	
asc. node	15238 Oct 12 14:00	25°♒00'27			15244 Jan 15 17:24	0°♌	
evening set	15238 Oct 24 04:56	27°♒49'05			15244 Apr 12 08:40	15°♌	
	15238 Nov 02 02:59	0°♊		evening set	15244 Apr 13 02:50	15°♌09'37	
conjunction	15238 Nov 06 15:03	1°♊06'17	0°01'21	conjunction	15244 Apr 26 04:39	17°♌56'42	0°06'21
minimum elong	15238 Nov 06 15:03	1°♊06'17	0°02'07	minimum elong	15244 Apr 26 04:38	17°♌56'42	0°05'43
behind sun begin	15238 Nov 06 06:42	1°♊01'12		behind sun begin	15244 Apr 25 20:56	17°♌52'36	
behind sun end	15238 Nov 06 23:23	1°♊11'23		behind sun end	15244 Apr 26 12:21	18°♌00'47	
max. Earth dist.	15238 Nov 07 14:23	1°♊20'36	5.89138 AU	max. Earth dist.	15244 Apr 25 19:11	17°♌51'40	6.51047 AU

morning rise	15244 May 09 05:04	20°♄43'03		15249 Oct 09 11:52	0°♄	
	15244 Jun 25 04:27	0°♄	morning rise	15249 Oct 18 01:48	2°♄05'21	
retrograde	15244 Sep 07 03:24	7°♄18'46		15249 Dec 15 01:37	15°♄	
desc. node	15244 Sep 17 16:16	7°♄08'23	retrograde	15250 Feb 26 06:56	22°♄47'54	
opposition	15244 Nov 07 08:43	2°♄23'28 -0°03'18	opposition	15250 Apr 26 12:00	17°♄48'47 -0°09'17	
min. Earth dist.	15244 Nov 08 00:05	2°♄18'31 4.51153 AU	min. Earth dist.	15250 Apr 26 05:53	17°♄50'51 3.89790 AU	
	15244 Nov 26 19:50	30°♄		15250 May 18 19:49	15°♄	
direct	15245 Jan 08 19:20	27°♄22'48	direct	15250 Jun 23 19:07	12°♄53'23	
	15245 Feb 20 19:54	0°♄		15250 Jul 29 12:04	15°♄	
evening set	15245 May 13 05:14	14°♄25'36	asc. node	15250 Aug 20 21:41	18°♄10'49	
max. Earth dist.	15245 May 24 17:55	16°♄53'51 6.48984 AU		15250 Oct 16 06:29	0°♄	
			evening set	15250 Oct 29 12:21	3°♄11'22	
conjunction	15245 May 26 04:03	17°♄12'12 -0°10'29				
minimum elong	15245 May 26 04:03	17°♄12'12 0°11'24	conjunction	15250 Nov 11 22:43	6°♄28'18 0°04'17	
behind sun begin	15245 May 25 22:14	17°♄09'05	minimum elong	15250 Nov 11 22:44	6°♄28'18 0°05'06	
behind sun end	15245 May 26 09:51	17°♄15'18	behind sun begin	15250 Nov 11 14:38	6°♄23'22	
morning rise	15245 Jun 08 01:10	19°♄58'10	behind sun end	15250 Nov 12 06:49	6°♄33'14	
	15245 Jul 28 19:41	0°♄	max. Earth dist.	15250 Nov 13 01:36	6°♄44'44 5.90035 AU	
retrograde	15245 Oct 07 10:39	6°♄46'18	morning rise	15250 Nov 25 11:02	9°♄46'08	
opposition	15245 Dec 07 14:14	1°♄52'15 -0°26'38		15251 Mar 19 09:20	0°♄	
min. Earth dist.	15245 Dec 08 21:13	1°♄42'19 4.44727 AU	retrograde	15251 Apr 05 16:27	0°♄29'59	
	15245 Dec 22 13:34	30°♄		15251 Apr 22 23:01	30°♄	
direct	15246 Feb 07 22:32	26°♄51'37	opposition	15251 Jun 03 23:06	25°♄28'06 0°22'22	
	15246 Mar 26 23:11	0°♄	min. Earth dist.	15251 Jun 02 18:06	25°♄37'56 3.93192 AU	
evening set	15246 Jun 12 16:08	14°♄18'31	direct	15251 Aug 01 02:38	20°♄32'15	
max. Earth dist.	15246 Jun 23 08:41	16°♄39'24 6.38567 AU		15251 Oct 21 00:08	0°♄	
			evening set	15251 Dec 06 14:34	10°♄27'27	
conjunction	15246 Jun 25 13:04	17°♄08'16 -0°24'46				
minimum elong	15246 Jun 25 13:03	17°♄08'16 0°25'41	conjunction	15251 Dec 20 03:23	13°♄41'15 0°22'59	
morning rise	15246 Jul 08 08:59	19°♄57'46	minimum elong	15251 Dec 20 03:22	13°♄41'15 0°23'54	
	15246 Aug 26 13:53	0°♄	max. Earth dist.	15251 Dec 22 09:13	14°♄13'26 5.98825 AU	
retrograde	15246 Nov 08 14:12	7°♄27'54	morning rise	15252 Jan 02 17:26	16°♄55'25	
opposition	15247 Jan 08 08:03	2°♄33'59 -0°43'50		15252 Mar 03 14:53	0°♄	
min. Earth dist.	15247 Jan 09 23:56	2°♄21'08 4.30909 AU	retrograde	15252 May 10 23:51	6°♄49'03	
	15247 Jan 29 05:57	30°♄	min. Earth dist.	15252 Jul 08 01:28	1°♄58'40 4.06313 AU	
direct	15247 Mar 11 01:13	27°♄33'51	opposition	15252 Jul 09 15:27	1°♄45'50 0°43'50	
	15247 Apr 20 12:06	0°♄		15252 Jul 23 00:33	30°♄	
	15247 Jul 11 01:04	15°♄	direct	15252 Sep 06 11:59	26°♄48'22	
evening set	15247 Jul 14 10:36	15°♄46'04		15252 Oct 21 17:27	0°♄	
max. Earth dist.	15247 Jul 24 23:57	18°♄10'21 6.22334 AU		15253 Jan 07 09:56	15°♄	
			evening set	15253 Jan 11 04:55	15°♄51'55	
conjunction	15247 Jul 27 08:05	18°♄42'27 -0°32'31				
minimum elong	15247 Jul 27 08:05	18°♄42'27 0°33'13	conjunction	15253 Jan 24 16:56	18°♄57'54 0°32'19	
morning rise	15247 Aug 09 05:08	21°♄38'58	minimum elong	15253 Jan 24 16:56	18°♄57'54 0°33'01	
	15247 Sep 16 15:25	0°♄	max. Earth dist.	15253 Jan 27 03:45	19°♄31'42 6.14929 AU	
retrograde	15247 Dec 13 04:11	10°♄15'07	morning rise	15253 Feb 07 05:16	22°♄03'43	
opposition	15248 Feb 11 09:45	5°♄20'23 -0°48'49		15253 Mar 15 16:09	0°♄	
min. Earth dist.	15248 Feb 12 21:01	5°♄08'53 4.13365 AU	retrograde	15253 Jun 13 11:12	10°♄43'56	
direct	15248 Apr 11 22:27	0°♄21'41	min. Earth dist.	15253 Aug 11 06:06	5°♄53'16 4.23744 AU	
evening set	15248 Aug 16 07:31	19°♄30'46	opposition	15253 Aug 12 17:00	5°♄41'38 0°48'20	
max. Earth dist.	15248 Aug 27 14:17	22°♄11'10 6.04948 AU	direct	15253 Oct 11 15:57	0°♄42'37	
			evening set	15254 Feb 14 11:49	18°♄49'54	
conjunction	15248 Aug 29 07:55	22°♄35'55 -0°30'07				
minimum elong	15248 Aug 29 07:55	22°♄35'55 0°30'20	conjunction	15254 Feb 27 20:45	21°♄47'12 0°30'26	
morning rise	15248 Sep 11 08:58	25°♄41'44	minimum elong	15254 Feb 27 20:46	21°♄47'12 0°30'41	
	15248 Sep 29 20:36	0°♄	max. Earth dist.	15254 Mar 01 14:44	22°♄10'26 6.32220 AU	
retrograde	15249 Jan 18 11:15	15°♄32'03	morning rise	15254 Mar 13 05:15	24°♄43'58	
opposition	15249 Mar 19 01:29	10°♄35'32 -0°36'48		15254 Apr 06 20:50	0°♄	
min. Earth dist.	15249 Mar 19 20:28	10°♄29'14 3.97649 AU	retrograde	15254 Jul 14 17:37	12°♄17'53	
direct	15249 May 17 07:58	5°♄38'46	opposition	15254 Sep 13 10:48	7°♄18'00 0°37'46	
evening set	15249 Sep 21 13:16	25°♄37'38	min. Earth dist.	15254 Sep 12 14:52	7°♄24'32 4.39506 AU	
			direct	15254 Nov 13 14:50	2°♄18'03	
conjunction	15249 Oct 04 18:52	28°♄51'01 -0°16'27	evening set	15255 Mar 18 14:23	19°♄42'11	
minimum elong	15249 Oct 04 18:53	28°♄51'02 0°16'05				
behind sun begin	15249 Oct 04 18:25	28°♄50'44	conjunction	15255 Mar 31 19:37	22°♄32'46 0°19'44	
behind sun end	15249 Oct 04 19:22	28°♄51'19	minimum elong	15255 Mar 31 19:38	22°♄32'47 0°19'27	
max. Earth dist.	15249 Oct 04 09:13	28°♄45'08 5.92446 AU	max. Earth dist.	15255 Apr 01 12:08	22°♄41'39 6.45330 AU	

morning rise	15255 Apr 13 23:37	25° Υ 22'37	direct	15261 May 22 08:07	10° Ω 49'04
	15255 May 06 02:26	0° \mathcal{B}		15261 Sep 23 02:25	0° \mathcal{M}
retrograde	15255 Aug 13 13:51	12° \mathcal{B} 13'29	evening set	15261 Sep 26 16:38	0° \mathcal{M} 52'12
opposition	15255 Oct 13 16:37	7° \mathcal{B} 16'17 0°17'34			
min. Earth dist.	15255 Oct 13 14:41	7° \mathcal{B} 16'55 4.49182 AU	conjunction	15261 Oct 09 22:47	4° \mathcal{M} 06'19 -0°13'50
direct	15255 Dec 14 16:47	2° \mathcal{B} 15'53	minimum elong	15261 Oct 09 22:47	4° \mathcal{M} 06'20 0°13'22
	15256 Mar 27 11:48	15° \mathcal{B}	behind sun begin	15261 Oct 09 18:02	4° \mathcal{M} 03'26
evening set	15256 Apr 17 06:19	19° \mathcal{B} 18'40	behind sun end	15261 Oct 10 03:33	4° \mathcal{M} 09'13
			max. Earth dist.	15261 Oct 09 16:35	4° \mathcal{M} 02'33 5.91580 AU
conjunction	15256 Apr 30 07:49	22° \mathcal{B} 05'39 0°04'05	morning rise	15261 Oct 23 06:40	7° \mathcal{M} 21'28
minimum elong	15256 Apr 30 07:49	22° \mathcal{B} 05'38 0°03'24		15261 Nov 24 19:59	15° \mathcal{M}
behind sun begin	15256 Apr 29 23:50	22° \mathcal{B} 01'24	retrograde	15262 Mar 03 14:00	28° \mathcal{M} 07'13
behind sun end	15256 Apr 30 15:48	22° \mathcal{B} 09'53	opposition	15262 May 01 19:31	23° \mathcal{M} 07'43 -0°04'48
max. Earth dist.	15256 Apr 29 19:45	21° \mathcal{B} 59'13 6.50932 AU	min. Earth dist.	15262 May 01 09:37	23° \mathcal{M} 11'03 3.89647 AU
morning rise	15256 May 13 07:39	24° \mathcal{B} 51'52	direct	15262 Jun 29 01:12	18° \mathcal{M} 12'20
	15256 Jun 07 04:10	0° \mathcal{I}	asc. node	15262 Jun 29 14:29	18° \mathcal{M} 12'22
desc. node	15256 Aug 01 15:32	9° \mathcal{I} 03'16		15262 Sep 28 08:45	0° \mathcal{X}
retrograde	15256 Sep 11 06:22	11° \mathcal{I} 28'36	evening set	15262 Nov 03 18:12	8° \mathcal{X} 29'30
opposition	15256 Nov 11 11:40	6° \mathcal{I} 33'34 -0°06'38			
min. Earth dist.	15256 Nov 12 05:25	6° \mathcal{I} 27'53 4.50461 AU	conjunction	15262 Nov 17 05:12	11° \mathcal{X} 46'24 0°07'11
direct	15257 Jan 12 22:47	1° \mathcal{I} 32'57	minimum elong	15262 Nov 17 05:11	11° \mathcal{X} 46'23 0°08'03
evening set	15257 May 17 09:41	18° \mathcal{I} 38'37	behind sun begin	15262 Nov 16 21:45	11° \mathcal{X} 41'53
max. Earth dist.	15257 May 28 17:57	21° \mathcal{I} 04'59 6.47759 AU	behind sun end	15262 Nov 17 12:36	11° \mathcal{X} 50'54
			max. Earth dist.	15262 Nov 18 13:15	12° \mathcal{X} 05'59 5.90636 AU
conjunction	15257 May 30 08:03	21° \mathcal{I} 25'31 -0°12'40	morning rise	15262 Nov 30 17:46	15° \mathcal{X} 04'06
minimum elong	15257 May 30 08:02	21° \mathcal{I} 25'31 0°13'36		15263 Feb 08 03:46	0° \mathcal{Z}
behind sun begin	15257 May 30 03:39	21° \mathcal{I} 23'10	retrograde	15263 Apr 10 20:17	5° \mathcal{Z} 43'54
behind sun end	15257 May 30 12:25	21° \mathcal{I} 27'52	min. Earth dist.	15263 Jun 07 21:00	0° \mathcal{Z} 51'56 3.94458 AU
morning rise	15257 Jun 12 05:05	24° \mathcal{I} 11'54	opposition	15263 Jun 09 02:59	0° \mathcal{Z} 41'46 0°26'12
	15257 Jul 10 02:31	0° \mathcal{E}		15263 Jun 14 06:42	30° \mathcal{R} \mathcal{X}
retrograde	15257 Oct 11 19:44	11° \mathcal{E} 04'49	direct	15263 Aug 06 08:25	25° \mathcal{X} 45'46
opposition	15257 Dec 11 21:40	6° \mathcal{E} 10'49 -0°29'29		15263 Sep 27 04:23	0° \mathcal{Z}
min. Earth dist.	15257 Dec 13 06:19	6° \mathcal{E} 00'21 4.43043 AU	evening set	15263 Dec 11 17:47	15° \mathcal{Z} 35'27
direct	15258 Feb 12 04:58	1° \mathcal{E} 10'12			
evening set	15258 Jun 16 23:52	18° \mathcal{E} 42'34	conjunction	15263 Dec 25 06:41	18° \mathcal{Z} 48'27 0°24'55
max. Earth dist.	15258 Jun 27 16:16	21° \mathcal{E} 03'58 6.36541 AU	minimum elong	15263 Dec 25 06:41	18° \mathcal{Z} 48'27 0°25'50
			max. Earth dist.	15263 Dec 27 14:59	19° \mathcal{Z} 21'55 6.00612 AU
conjunction	15258 Jun 29 20:54	21° \mathcal{E} 33'06 -0°26'18	morning rise	15264 Jan 07 20:43	22° \mathcal{Z} 01'44
minimum elong	15258 Jun 29 20:54	21° \mathcal{E} 33'06 0°27'12		15264 Feb 12 02:31	0° \approx
morning rise	15258 Jul 12 16:44	24° \mathcal{E} 23'22	retrograde	15264 May 15 17:54	11° \approx 46'28
	15258 Aug 07 20:27	0° Ω	min. Earth dist.	15264 Jul 12 20:29	6° \approx 56'28 4.08435 AU
retrograde	15258 Nov 13 04:50	12° Ω 01'24	opposition	15264 Jul 14 11:29	6° \approx 43'20 0°45'28
opposition	15259 Jan 12 22:17	7° Ω 07'24 -0°45'21	direct	15264 Sep 11 10:12	1° \approx 45'40
min. Earth dist.	15259 Jan 14 13:17	6° Ω 54'49 4.28665 AU		15264 Dec 21 10:23	15° \approx
direct	15259 Mar 15 11:27	2° Ω 07'26	evening set	15265 Jan 16 01:43	20° \approx 42'01
	15259 Jun 24 10:50	15° Ω			
evening set	15259 Jul 19 00:21	20° Ω 26'43	conjunction	15265 Jan 29 13:20	23° \approx 46'52 0°32'41
max. Earth dist.	15259 Jul 29 15:02	22° Ω 52'33 6.20021 AU	minimum elong	15265 Jan 29 13:20	23° \approx 46'52 0°33'19
			max. Earth dist.	15265 Jan 31 21:30	24° \approx 18'59 6.17186 AU
conjunction	15259 Jul 31 21:56	23° Ω 24'06 -0°32'50	morning rise	15265 Feb 12 01:21	26° \approx 51'31
minimum elong	15259 Jul 31 21:56	23° Ω 24'06 0°33'28		15265 Feb 26 02:11	0° \mathcal{H}
morning rise	15259 Aug 13 19:23	26° Ω 21'45	retrograde	15265 Jun 17 23:08	15° \mathcal{H} 22'33
	15259 Aug 29 22:02	0° \mathcal{M}	min. Earth dist.	15265 Aug 15 20:50	10° \mathcal{H} 31'24 4.25940 AU
retrograde	15259 Dec 18 05:25	15° \mathcal{M} 07'34	opposition	15265 Aug 17 05:28	10° \mathcal{H} 20'32 0°47'38
opposition	15260 Feb 16 08:07	10° \mathcal{M} 12'37 -0°48'10	direct	15265 Oct 16 08:58	5° \mathcal{H} 21'22
min. Earth dist.	15260 Feb 17 18:15	10° \mathcal{M} 01'27 4.11133 AU	evening set	15266 Feb 19 01:19	23° \mathcal{H} 22'21
direct	15260 Apr 16 17:51	5° \mathcal{M} 14'07			
evening set	15260 Aug 21 04:23	24° \mathcal{M} 30'16	conjunction	15266 Mar 04 09:56	26° \mathcal{H} 18'41 0°29'22
max. Earth dist.	15260 Sep 01 15:34	27° \mathcal{M} 13'58 6.02992 AU	minimum elong	15266 Mar 04 09:56	26° \mathcal{H} 18'42 0°29'32
			max. Earth dist.	15266 Mar 06 02:23	26° \mathcal{H} 40'59 6.34207 AU
conjunction	15260 Sep 03 05:28	27° \mathcal{M} 36'35 -0°28'50	morning rise	15266 Mar 17 17:44	29° \mathcal{H} 14'24
minimum elong	15260 Sep 03 05:29	27° \mathcal{M} 36'35 0°28'58		15266 Mar 21 05:26	0° \mathcal{Y}
	15260 Sep 13 05:50	0° Ω	retrograde	15266 Jul 18 22:02	16° \mathcal{Y} 41'22
morning rise	15260 Sep 16 07:09	0° Ω 43'35	opposition	15266 Sep 17 17:22	11° \mathcal{Y} 41'54 0°35'22
retrograde	15261 Jan 23 17:49	20° Ω 42'19	min. Earth dist.	15266 Sep 16 22:35	11° \mathcal{Y} 48'03 4.41178 AU
opposition	15261 Mar 24 06:35	15° Ω 45'31 -0°33'42	direct	15266 Nov 17 23:17	6° \mathcal{Y} 41'57
min. Earth dist.	15261 Mar 24 22:20	15° Ω 40'17 3.96173 AU	evening set	15267 Mar 22 22:35	24° \mathcal{Y} 02'00










































































































































































































conjunction	15267 Apr 05 03:10	26° Υ 51'52	0°17'43	conjunction	15272 Sep 07 23:13	2° Ω 28'20	-0°27'23
minimum elong	15267 Apr 05 03:11	26° Υ 51'53	0°17'23	minimum elong	15272 Sep 07 23:14	2° Ω 28'20	0°27'27
max. Earth dist.	15267 Apr 05 15:40	26° Υ 58'35	6.46605 AU	morning rise	15272 Sep 21 01:49	5° Ω 36'37	
morning rise	15267 Apr 18 06:35	29° Υ 41'00		retrograde	15273 Jan 28 20:07	25° Ω 44'11	
	15267 Apr 19 18:15	0° \mathcal{B}		opposition	15273 Mar 29 08:08	20° Ω 47'02	-0°30'28
	15267 Jul 17 12:39	15° \mathcal{B}		min. Earth dist.	15273 Mar 29 21:01	20° Ω 42'45	3.94506 AU
retrograde	15267 Aug 17 17:47	16° \mathcal{B} 28'00		direct	15273 May 27 06:27	15° Ω 50'41	
	15267 Sep 17 19:24	15° $\mathcal{R}\mathcal{B}$			15273 Sep 06 12:06	0° \mathcal{M}	
opposition	15267 Oct 17 20:20	11° \mathcal{B} 31'11	0°14'18	evening set	15273 Oct 01 17:06	5° \mathcal{M} 59'09	
min. Earth dist.	15267 Oct 17 21:32	11° \mathcal{B} 30'48	4.50010 AU				
direct	15267 Dec 18 23:38	6° \mathcal{B} 30'46		conjunction	15273 Oct 15 00:13	9° \mathcal{M} 14'15	-0°11'11
	15268 Mar 09 16:47	15° \mathcal{B}		minimum elong	15273 Oct 15 00:13	9° \mathcal{M} 14'15	0°10'40
evening set	15268 Apr 21 11:02	23° \mathcal{B} 31'52		behind sun begin	15273 Oct 14 17:49	9° \mathcal{M} 10'21	
				behind sun end	15273 Oct 15 06:37	9° \mathcal{M} 18'09	
conjunction	15268 May 04 11:59	26° \mathcal{B} 18'31	0°01'42	max. Earth dist.	15273 Oct 14 23:33	9° \mathcal{M} 13'51	5.90422 AU
minimum elong	15268 May 04 11:59	26° \mathcal{B} 18'31	0°00'58	morning rise	15273 Oct 28 08:47	12° \mathcal{M} 30'19	
behind sun begin	15268 May 04 03:57	26° \mathcal{B} 14'15			15273 Nov 07 16:39	15° \mathcal{M}	
behind sun end	15268 May 04 20:01	26° \mathcal{B} 22'47			15274 Jan 21 18:05	0° \mathcal{J}	
max. Earth dist.	15268 May 03 20:13	26° \mathcal{B} 10'07	6.51267 AU	retrograde	15274 Mar 08 21:24	3° \mathcal{J} 20'29	
morning rise	15268 May 17 11:24	29° \mathcal{B} 04'26			15274 Apr 24 11:52	30° $\mathcal{R}\mathcal{M}$	
	15268 May 21 20:29	0° \mathcal{I}		opposition	15274 May 07 00:35	28° \mathcal{M} 20'38	-0°00'24
desc. node	15268 Jun 13 02:19	4° \mathcal{I} 33'31		min. Earth dist.	15274 May 06 12:43	28° \mathcal{M} 24'38	3.89132 AU
retrograde	15268 Sep 15 09:12	15° \mathcal{I} 40'39		asc. node	15274 May 11 18:58	27° \mathcal{M} 42'09	
opposition	15268 Nov 15 15:12	10° \mathcal{I} 45'46	-0°09'59	direct	15274 Jul 04 05:01	23° \mathcal{M} 25'15	
min. Earth dist.	15268 Nov 16 10:25	10° \mathcal{I} 39'36	4.50301 AU		15274 Sep 07 14:52	0° \mathcal{J}	
direct	15269 Jan 17 02:19	5° \mathcal{I} 45'06		evening set	15274 Nov 08 22:56	13° \mathcal{J} 43'20	
evening set	15269 May 21 13:20	22° \mathcal{I} 51'39					
max. Earth dist.	15269 Jun 01 20:24	25° \mathcal{I} 17'33	6.47109 AU	conjunction	15274 Nov 22 10:30	17° \mathcal{J} 00'26	0°09'58
				minimum elong	15274 Nov 22 10:29	17° \mathcal{J} 00'26	0°10'51
conjunction	15269 Jun 03 11:27	25° \mathcal{I} 38'39	-0°14'48	behind sun begin	15274 Nov 22 04:09	16° \mathcal{J} 56'35	
minimum elong	15269 Jun 03 11:26	25° \mathcal{I} 38'39	0°15'44	behind sun end	15274 Nov 22 16:49	17° \mathcal{J} 04'16	
behind sun begin	15269 Jun 03 09:47	25° \mathcal{I} 37'45		max. Earth dist.	15274 Nov 23 22:41	17° \mathcal{J} 22'30	5.90811 AU
behind sun end	15269 Jun 03 13:06	25° \mathcal{I} 39'32		morning rise	15274 Dec 05 23:44	20° \mathcal{J} 18'18	
morning rise	15269 Jun 16 07:58	28° \mathcal{I} 25'06			15275 Jan 17 04:49	0° \mathcal{Z}	
	15269 Jun 23 17:42	0° \mathcal{E}		retrograde	15275 Apr 15 22:33	10° \mathcal{Z} 55'31	
retrograde	15269 Oct 16 01:41	15° \mathcal{E} 20'56		min. Earth dist.	15275 Jun 12 21:05	6° \mathcal{Z} 04'17	3.95314 AU
opposition	15269 Dec 16 03:45	10° \mathcal{E} 26'58	-0°32'09	opposition	15275 Jun 14 05:57	5° \mathcal{Z} 53'09	0°29'44
min. Earth dist.	15269 Dec 17 13:47	10° \mathcal{E} 16'04	4.41927 AU	direct	15275 Aug 11 10:57	0° \mathcal{Z} 56'58	
direct	15270 Feb 16 10:03	5° \mathcal{E} 26'22		evening set	15275 Dec 16 21:18	20° \mathcal{Z} 42'50	
evening set	15270 Jun 21 05:38	23° \mathcal{E} 02'16					
max. Earth dist.	15270 Jul 01 19:25	25° \mathcal{E} 22'45	6.35014 AU	conjunction	15275 Dec 30 10:14	23° \mathcal{Z} 55'11	0°26'38
				minimum elong	15275 Dec 30 10:14	23° \mathcal{Z} 55'10	0°27'32
conjunction	15270 Jul 04 02:21	25° \mathcal{E} 53'17	-0°27'39	max. Earth dist.	15276 Jan 01 19:10	24° \mathcal{Z} 28'55	6.02049 AU
minimum elong	15270 Jul 04 02:20	25° \mathcal{E} 53'17	0°28'32	morning rise	15276 Jan 13 00:24	27° \mathcal{Z} 07'47	
morning rise	15270 Jul 16 22:17	28° \mathcal{E} 44'09			15276 Jan 25 08:45	0° \approx	
	15270 Jul 22 16:03	0° \mathcal{O}			15276 Apr 17 11:03	15° \approx	
	15270 Oct 17 16:00	15° \mathcal{O}		retrograde	15276 May 20 13:55	16° \approx 44'56	
retrograde	15270 Nov 17 18:02	16° \mathcal{O} 28'31			15276 Jun 22 13:24	15° $\mathcal{R}\approx$	
	15270 Dec 18 20:14	15° $\mathcal{R}\mathcal{O}$		min. Earth dist.	15276 Jul 17 17:39	11° \approx 54'49	4.10277 AU
opposition	15271 Jan 17 09:37	11° \mathcal{O} 34'22	-0°46'32	opposition	15276 Jul 19 08:24	11° \approx 41'45	0°46'45
min. Earth dist.	15271 Jan 19 01:16	11° \mathcal{O} 21'33	4.26795 AU	direct	15276 Sep 16 10:55	6° \approx 43'49	
direct	15271 Mar 19 20:43	6° \mathcal{O} 34'24			15276 Dec 02 03:45	15° \approx	
	15271 Jun 06 13:51	15° \mathcal{O}		evening set	15277 Jan 20 23:35	25° \approx 33'45	
evening set	15271 Jul 23 10:37	24° \mathcal{O} 59'36					
max. Earth dist.	15271 Aug 03 02:52	27° \mathcal{O} 26'57	6.17952 AU	conjunction	15277 Feb 03 11:06	28° \approx 37'36	0°32'48
				minimum elong	15277 Feb 03 11:06	28° \approx 37'36	0°33'22
conjunction	15271 Aug 05 08:37	27° \mathcal{O} 57'59	-0°32'55	max. Earth dist.	15277 Feb 05 20:06	29° \approx 10'03	6.19281 AU
minimum elong	15271 Aug 05 08:37	27° \mathcal{O} 57'59	0°33'29		15277 Feb 09 11:57	0° \mathcal{H}	
	15271 Aug 14 03:55	0° \mathcal{M}		morning rise	15277 Feb 16 22:33	1° \mathcal{H} 41'06	
morning rise	15271 Aug 18 06:19	0° \mathcal{M} 56'38		retrograde	15277 Jun 22 10:49	20° \mathcal{H} 03'10	
retrograde	15271 Dec 23 01:27	19° \mathcal{M} 51'18		min. Earth dist.	15277 Aug 20 10:47	15° \mathcal{H} 12'05	4.28084 AU
opposition	15272 Feb 21 02:38	14° \mathcal{M} 56'09	-0°47'12	opposition	15277 Aug 21 18:58	15° \mathcal{H} 01'24	0°46'35
min. Earth dist.	15272 Feb 22 11:33	14° \mathcal{M} 45'22	4.09018 AU	direct	15277 Oct 21 01:30	10° \mathcal{H} 02'06	
direct	15272 Apr 21 07:33	9° \mathcal{M} 57'51		evening set	15278 Feb 23 16:20	27° \mathcal{H} 56'43	
evening set	15272 Aug 25 21:40	29° \mathcal{M} 20'52			15278 Mar 05 01:33	0° \mathcal{Y}	
	15272 Aug 28 15:24	0° \mathcal{L}					
max. Earth dist.	15272 Sep 06 10:50	2° \mathcal{L} 06'31	6.01009 AU	conjunction	15278 Mar 09 00:15	0° \mathcal{Y} 51'59	0°28'06

minimum elong	15278 Mar 09 00:16	0° Υ 52'00	0°28'10	minimum elong	15283 Aug 10 00:11	2° η 45'08	0°33'19
max. Earth dist.	15278 Mar 10 12:40	1° Υ 11'58	6.36221 AU	morning rise	15283 Aug 22 22:34	5° η 45'08	
morning rise	15278 Mar 22 07:37	3° Υ 46'40		retrograde	15283 Dec 28 04:06	24° η 50'48	
retrograde	15278 Jul 23 05:06	21° Υ 06'24		opposition	15284 Feb 26 03:22	19° η 55'24	-0°45'52
min. Earth dist.	15278 Sep 21 09:12	16° Υ 12'24	4.42899 AU	min. Earth dist.	15284 Feb 27 10:06	19° η 45'18	4.06535 AU
opposition	15278 Sep 22 01:04	16° Υ 07'13	0°32'43	direct	15284 Apr 26 03:34	14° η 57'19	
direct	15278 Nov 22 10:58	11° Υ 07'07			15284 Aug 11 19:35	0° $\underline{\Omega}$	
evening set	15279 Mar 27 07:13	28° Υ 22'45		evening set	15284 Aug 30 21:32	4° $\underline{\Omega}$ 28'40	
	15279 Apr 03 21:16	0° \mathcal{B}					
conjunction	15279 Apr 09 11:25	1° \mathcal{B} 11'56	0°15'36	conjunction	15284 Sep 12 23:59	7° $\underline{\Omega}$ 37'30	-0°25'39
minimum elong	15279 Apr 09 11:25	1° \mathcal{B} 11'56	0°15'12	minimum elong	15284 Sep 12 24:00	7° $\underline{\Omega}$ 37'31	0°25'37
behind sun begin	15279 Apr 09 08:56	1° \mathcal{B} 10'37		max. Earth dist.	15284 Sep 11 16:43	7° $\underline{\Omega}$ 18'40	5.98846 AU
behind sun end	15279 Apr 09 13:54	1° \mathcal{B} 13'16		morning rise	15284 Sep 26 03:16	10° $\underline{\Omega}$ 47'08	
max. Earth dist.	15279 Apr 09 21:30	1° \mathcal{B} 17'20	6.47889 AU		15285 Jan 08 15:11	0° \mathcal{M}	
morning rise	15279 Apr 22 14:06	4° \mathcal{B} 00'19		retrograde	15285 Feb 03 07:50	1° \mathcal{M} 04'02	
	15279 Jun 18 11:51	15° \mathcal{B}			15285 Feb 28 21:54	30° \mathcal{R} $\underline{\Omega}$	
retrograde	15279 Aug 21 20:23	20° \mathcal{B} 43'29		opposition	15285 Apr 03 16:35	26° $\underline{\Omega}$ 06'36	-0°26'46
opposition	15279 Oct 22 00:47	15° \mathcal{B} 46'57	0°10'54	min. Earth dist.	15285 Apr 04 02:59	26° $\underline{\Omega}$ 03'07	3.92901 AU
min. Earth dist.	15279 Oct 22 03:33	15° \mathcal{B} 46'04	4.50764 AU	direct	15285 Jun 01 11:36	21° $\underline{\Omega}$ 10'30	
	15279 Oct 28 03:07	15° \mathcal{R} \mathcal{B}			15285 Aug 17 21:25	0° \mathcal{M}	
direct	15279 Dec 23 05:02	10° \mathcal{B} 46'31		evening set	15285 Oct 07 00:28	11° \mathcal{M} 23'48	
	15280 Feb 16 17:49	15° \mathcal{B}		conjunction	15285 Oct 20 08:19	14° \mathcal{M} 39'43	-0°08'17
desc. node	15280 Apr 20 19:24	26° \mathcal{B} 44'34		minimum elong	15285 Oct 20 08:19	14° \mathcal{M} 39'43	0°07'42
evening set	15280 Apr 25 16:24	27° \mathcal{B} 46'16		behind sun begin	15285 Oct 20 00:49	14° \mathcal{M} 35'08	
	15280 May 06 03:42	0° \mathcal{I}		behind sun end	15285 Oct 20 15:49	14° \mathcal{M} 44'18	
conjunction	15280 May 08 16:47	0° \mathcal{I} 32'38	-0°00'47	max. Earth dist.	15285 Oct 20 12:13	14° \mathcal{M} 42'05	5.89538 AU
minimum elong	15280 May 08 16:48	0° \mathcal{I} 32'38	0°01'34		15285 Oct 21 17:23	15° \mathcal{M}	
behind sun begin	15280 May 08 08:46	0° \mathcal{I} 28'22		morning rise	15285 Nov 02 17:52	17° \mathcal{M} 56'38	
behind sun end	15280 May 09 00:49	0° \mathcal{I} 36'54			15285 Dec 26 00:17	0° \mathcal{J}	
max. Earth dist.	15280 May 07 21:26	0° \mathcal{I} 22'18	6.51418 AU	retrograde	15286 Mar 14 07:37	8° \mathcal{J} 49'29	
morning rise	15280 May 21 15:40	3° \mathcal{I} 18'18		asc. node	15286 Mar 22 21:22	8° \mathcal{J} 42'05	
retrograde	15280 Sep 19 14:48	19° \mathcal{I} 54'50		opposition	15286 May 12 11:19	3° \mathcal{J} 49'15	0°04'15
opposition	15280 Nov 19 19:59	15° \mathcal{I} 00'11	-0°13'22	min. Earth dist.	15286 May 11 18:56	3° \mathcal{J} 54'46	3.89113 AU
min. Earth dist.	15280 Nov 20 18:24	14° \mathcal{I} 53'01	4.49825 AU		15286 Jun 14 01:28	30° \mathcal{R} \mathcal{M}	
direct	15281 Jan 21 08:13	9° \mathcal{I} 59'31		direct	15286 Jul 09 13:00	28° \mathcal{M} 53'53	
evening set	15281 May 25 18:40	27° \mathcal{I} 08'13			15286 Aug 04 01:58	0° \mathcal{J}	
max. Earth dist.	15281 Jun 05 21:06	29° \mathcal{I} 32'03	6.46018 AU	evening set	15286 Nov 14 08:47	19° \mathcal{J} 10'36	
conjunction	15281 Jun 07 16:23	29° \mathcal{I} 55'29	-0°16'54	conjunction	15286 Nov 27 20:41	22° \mathcal{J} 27'28	0°12'48
minimum elong	15281 Jun 07 16:23	29° \mathcal{I} 55'29	0°17'50	minimum elong	15286 Nov 27 20:41	22° \mathcal{J} 27'27	0°13'43
	15281 Jun 08 00:44	0° \mathcal{E}		behind sun begin	15286 Nov 27 16:15	22° \mathcal{J} 24'46	
morning rise	15281 Jun 20 12:48	2° \mathcal{E} 42'17		behind sun end	15286 Nov 28 01:07	22° \mathcal{J} 30'09	
retrograde	15281 Oct 20 11:20	19° \mathcal{E} 42'48		max. Earth dist.	15286 Nov 29 12:37	22° \mathcal{J} 51'46	5.91660 AU
opposition	15281 Dec 20 12:21	14° \mathcal{E} 48'52	-0°34'45	morning rise	15286 Dec 11 10:21	25° \mathcal{J} 45'03	
min. Earth dist.	15281 Dec 21 23:33	14° \mathcal{E} 37'34	4.40277 AU		15286 Dec 29 07:30	0° \mathcal{Z}	
direct	15282 Feb 20 16:09	9° \mathcal{E} 48'17		retrograde	15287 Apr 21 03:30	16° \mathcal{Z} 16'35	
evening set	15282 Jun 25 14:12	27° \mathcal{E} 29'44		min. Earth dist.	15287 Jun 18 01:38	11° \mathcal{Z} 25'37	3.96932 AU
max. Earth dist.	15282 Jul 06 04:14	29° \mathcal{E} 50'58	6.32916 AU	opposition	15287 Jun 19 12:08	11° \mathcal{Z} 13'55	0°33'10
	15282 Jul 06 20:25	0° \mathcal{Q}		direct	15287 Aug 16 20:14	6° \mathcal{Z} 17'29	
conjunction	15282 Jul 08 11:05	0° \mathcal{Q} 21'36	-0°28'55	evening set	15287 Dec 22 03:02	25° \mathcal{Z} 56'22	
minimum elong	15282 Jul 08 11:05	0° \mathcal{Q} 21'36	0°29'47	conjunction	15288 Jan 04 16:03	29° \mathcal{Z} 07'40	0°28'13
morning rise	15282 Jul 21 06:57	3° \mathcal{Q} 13'19		minimum elong	15288 Jan 04 16:03	29° \mathcal{Z} 07'40	0°29'05
	15282 Sep 17 14:46	15° \mathcal{Q}		max. Earth dist.	15288 Jan 07 04:13	29° \mathcal{Z} 43'08	6.04284 AU
retrograde	15282 Nov 22 11:58	21° \mathcal{Q} 06'18			15288 Jan 08 08:52	0° \approx	
opposition	15283 Jan 22 01:26	16° \mathcal{Q} 12'08	-0°47'32	morning rise	15288 Jan 18 05:50	2° \approx 19'03	
min. Earth dist.	15283 Jan 23 17:26	15° \mathcal{Q} 59'11	4.24378 AU		15288 Mar 18 01:08	15° \approx	
	15283 Jan 31 10:20	15° \mathcal{R} \mathcal{Q}		retrograde	15288 May 25 09:31	21° \approx 45'21	
direct	15283 Mar 24 08:35	11° \mathcal{Q} 12'22		min. Earth dist.	15288 Jul 22 14:34	16° \approx 55'18	4.12882 AU
	15283 May 14 01:59	15° \mathcal{Q}		opposition	15288 Jul 24 05:32	16° \approx 42'12	0°47'44
evening set	15283 Jul 28 01:59	29° \mathcal{Q} 45'33			15288 Aug 06 04:17	15° \mathcal{R} \approx	
	15283 Jul 29 03:05	0° η		direct	15288 Sep 21 11:37	11° \approx 44'01	
max. Earth dist.	15283 Aug 07 18:17	2° η 13'50	6.15401 AU		15288 Nov 06 15:57	15° \approx	
conjunction	15283 Aug 10 00:11	2° η 45'08	-0°32'48	evening set	15289 Jan 24 00:44	0° \mathcal{H}	
					15289 Jan 25 21:06	0° \mathcal{H} 24'56	

conjunction	15289 Feb 08 07:59	3°  27'21	0°32'44			15294 Aug 28 10:54	15° 	
minimum elong	15289 Feb 08 08:00	3°  27'22	0°33'15	retrograde		15294 Nov 27 07:22	25°  47'48	
max. Earth dist.	15289 Feb 10 14:29	3°  58'10	6.22008 AU	opposition		15295 Jan 26 19:01	20°  53'29	-0°48'18
morning rise	15289 Feb 21 19:03	6°  29'27		min. Earth dist.		15295 Jan 28 10:08	20°  40'47	4.21565 AU
retrograde	15289 Jun 26 20:05	24°  40'39		direct		15295 Mar 28 21:21	15°  53'53	
min. Earth dist.	15289 Aug 25 00:43	19°  49'09	4.30696 AU			15295 Jul 12 12:09	0° 	
opposition	15289 Aug 26 07:02	19°  39'05	0°45'19	evening set		15295 Aug 01 19:39	4°  36'32	
direct	15289 Oct 25 17:53	14°  39'34		max. Earth dist.		15295 Aug 12 15:49	7°  07'58	6.12574 AU
	15290 Feb 16 20:43	0° 						
evening set	15290 Feb 28 04:55	2°  26'28		conjunction		15295 Aug 14 18:29	7°  37'35	-0°32'30
				minimum elong		15295 Aug 14 18:30	7°  37'36	0°32'57
conjunction	15290 Mar 13 12:25	5°  20'36	0°26'42	morning rise		15295 Aug 27 17:20	10°  39'04	
minimum elong	15290 Mar 13 12:26	5°  20'36	0°26'43	retrograde		15296 Jan 02 11:13	29°  56'39	
max. Earth dist.	15290 Mar 14 22:40	5°  39'18	6.38526 AU	opposition		15296 Mar 02 07:13	25°  01'06	-0°44'13
morning rise	15290 Mar 26 18:54	8°  14'02		min. Earth dist.		15296 Mar 03 12:21	24°  51'31	4.03949 AU
retrograde	15290 Jul 27 08:20	25°  25'59		direct		15296 May 01 03:10	20°  03'24	
opposition	15290 Sep 26 06:33	20°  27'10	0°29'59			15296 Jul 24 03:13	0° 	
min. Earth dist.	15290 Sep 25 16:50	20°  31'38	4.44732 AU	evening set		15296 Sep 05 00:33	9°  43'15	
direct	15290 Nov 26 19:58	15°  27'00		max. Earth dist.		15296 Sep 17 00:02	12°  43'42	5.96756 AU
	15291 Mar 19 01:00	0° 						
evening set	15291 Mar 31 13:46	2°  38'03		conjunction		15296 Sep 18 03:42	12°  43'25	-0°23'42
				minimum elong		15296 Sep 18 03:43	12°  43'26	0°23'35
conjunction	15291 Apr 13 17:11	5°  26'30	0°13'27	morning rise		15296 Oct 01 08:03	16°  44'30	
minimum elong	15291 Apr 13 17:12	5°  26'30	0°13'00			15296 Dec 04 11:28	0° 	
behind sun begin	15291 Apr 13 12:23	5°  23'56		retrograde		15297 Feb 08 19:43	6°  30'06	
behind sun end	15291 Apr 13 22:02	5°  29'04		opposition		15297 Apr 09 03:46	1°  32'19	-0°22'49
max. Earth dist.	15291 Apr 13 21:28	5°  28'46	6.49114 AU	min. Earth dist.		15297 Apr 09 09:10	1°  30'31	3.91565 AU
morning rise	15291 Apr 26 19:24	8°  14'12				15297 Apr 20 20:51	30°  41'28	
	15291 May 29 23:07	15° 		direct		15297 Jun 06 18:22	26°  43'28	
retrograde	15291 Aug 25 23:14	24°  53'59				15297 Jul 22 16:11	0° 	
opposition	15291 Oct 26 03:25	19°  57'44	0°07'32			15297 Oct 04 15:35	15° 	
min. Earth dist.	15291 Oct 26 10:07	19°  55'34	4.51315 AU	evening set		15297 Oct 12 10:23	16°  53'18	
	15291 Dec 21 20:31	15° 						
direct	15291 Dec 27 10:32	14°  57'09		conjunction		15297 Oct 25 18:54	20°  30'46	-0°05'18
	15292 Jan 02 00:58	15° 		minimum elong		15297 Oct 25 18:55	20°  30'46	0°04'38
desc. node	15292 Feb 26 20:30	20°  02'16		behind sun begin		15297 Oct 25 10:47	20°  30'46	
	15292 Apr 20 14:49	0° 		behind sun end		15297 Oct 26 03:03	20°  30'46	
evening set	15292 Apr 29 19:56	1°  11'56		max. Earth dist.		15297 Oct 26 04:51	20°  30'46	5.89106 AU
				morning rise		15297 Nov 08 05:12	23°  30'46	
conjunction	15292 May 12 20:00	4°  11'56	-0°03'09			15297 Dec 05 19:11	0° 	
minimum elong	15292 May 12 20:00	4°  11'56	0°03'57	asc. node		15298 Feb 01 02:42	10°  30'46	
behind sun begin	15292 May 12 12:05	4°  38'20		retrograde		15298 Mar 19 18:54	14°  30'46	
behind sun end	15292 May 13 03:55	4°  46'45		opposition		15298 May 17 22:57	9°  30'46	0°08'52
max. Earth dist.	15292 May 11 20:48	4°  30'09	6.51248 AU	min. Earth dist.		15298 May 17 03:32	9°  30'46	3.89631 AU
morning rise	15292 May 25 18:24	7°  28'07		direct		15298 Jul 15 01:15	4°  30'46	
retrograde	15292 Sep 23 17:59	24°  10'06		evening set		15298 Nov 19 18:59	24°  30'46	
opposition	15292 Nov 23 23:45	19°  11'32	-0°16'38					
min. Earth dist.	15292 Nov 24 23:52	19°  10'34	4.48950 AU	conjunction		15298 Dec 03 07:21	27°  30'46	0°15'31
direct	15293 Jan 25 10:24	14°  10'49		minimum elong		15298 Dec 03 07:20	27°  30'46	0°16'27
	15293 May 23 12:26	0° 		max. Earth dist.		15298 Dec 05 05:01	28°  30'46	5.93062 AU
evening set	15293 May 29 23:13	1°  22'55				15298 Dec 11 23:48	0° 	
max. Earth dist.	15293 Jun 09 23:29	3°  46'03	6.44484 AU	morning rise		15298 Dec 16 21:06	1°  30'46	
				retrograde		15299 Apr 26 07:49	21°  30'46	
conjunction	15293 Jun 11 20:44	4°  46'03	-0°18'55	min. Earth dist.		15299 Jun 23 04:53	16°  30'46	3.99029 AU
minimum elong	15293 Jun 11 20:44	4°  46'03	0°19'51	opposition		15299 Jun 24 16:58	16°  30'46	0°36'15
morning rise	15293 Jun 24 16:53	6°  57'57		direct		15299 Aug 22 03:21	11°  30'46	
retrograde	15293 Oct 24 22:46	24°  04'39				15299 Dec 22 15:10	0° 	
opposition	15293 Dec 24 21:28	19°  05'47	-0°37'11	evening set		15299 Dec 27 07:10	1°  30'46	
min. Earth dist.	15293 Dec 26 11:03	18°  05'47	4.38162 AU					
direct	15294 Feb 24 23:41	14°  05'15		conjunction		15300 Jan 09 19:51	4°  30'46	0°29'33
	15294 Jun 21 00:35	0° 		minimum elong		15300 Jan 09 19:51	4°  30'46	0°30'22
evening set	15294 Jun 29 23:48	1°  58'47		max. Earth dist.		15300 Jan 12 07:45	4°  30'46	6.06826 AU
max. Earth dist.	15294 Jul 10 11:22	4°  58'47	6.30365 AU	morning rise		15300 Jan 23 09:30	7°  30'46	
						15300 Feb 26 09:05	15° 	
conjunction	15294 Jul 12 20:40	4°  51'40	-0°30'02	retrograde		15300 May 31 00:57	26°  30'46	
minimum elong	15294 Jul 12 20:40	4°  51'40	0°30'51	min. Earth dist.		15300 Jul 28 09:46	21°  30'46	4.15601 AU
morning rise	15294 Jul 25 16:55	7°  44'32		opposition		15300 Jul 30 00:28	21°  30'46	0°48'20

direct	15300 Sep 27 10:08	16° \approx 38'38		minimum elong	15306 Jul 18 09:19	9° Ω 30'22	0°31'46
	15301 Jan 08 00:53	0° H		morning rise	15306 Jul 31 05:42	12° Ω 24'21	
evening set	15301 Jan 31 16:17	5° H 10'43			15306 Aug 11 21:13	15° Ω	
					15306 Nov 13 05:17	0° H	
conjunction	15301 Feb 14 02:48	8° H 11'49	0°32'27	retrograde	15306 Dec 03 07:23	0° H 37'54	
minimum elong	15301 Feb 14 02:49	8° H 11'49	0°32'53		15306 Dec 23 07:08	30° R δ Ω	
max. Earth dist.	15301 Feb 16 07:18	8° H 41'20	6.24681 AU	opposition	15307 Feb 01 16:09	25° Ω 43'30	-0°48'45
morning rise	15301 Feb 27 13:05	11° H 12'29		min. Earth dist.	15307 Feb 03 07:07	25° Ω 30'50	4.18938 AU
retrograde	15301 Jul 02 05:01	29° H 13'39		direct	15307 Apr 03 15:10	20° Ω 44'12	
opposition	15301 Aug 31 17:19	24° H 12'31	0°43'46		15307 Jun 24 20:35	0° H	
min. Earth dist.	15301 Aug 30 13:28	24° H 21'43	4.33103 AU	evening set	15307 Aug 07 16:03	9° H 35'17	
direct	15301 Oct 31 09:08	19° H 12'56		max. Earth dist.	15307 Aug 18 14:19	12° H 08'51	6.10108 AU
	15302 Jan 31 14:52	0° Y					
evening set	15302 Mar 05 16:21	6° Y 53'18		conjunction	15307 Aug 20 15:18	12° H 37'38	-0°31'57
				minimum elong	15307 Aug 20 15:18	12° H 37'38	0°32'20
conjunction	15302 Mar 18 23:09	9° Y 46'25	0°25'09	morning rise	15307 Sep 02 14:53	15° H 40'29	
minimum elong	15302 Mar 18 23:10	9° Y 46'25	0°25'06		15307 Nov 10 20:00	0° $\underline{\Omega}$	
max. Earth dist.	15302 Mar 20 04:22	10° Y 02'18	6.40486 AU	retrograde	15308 Jan 08 17:49	5° $\underline{\Omega}$ 08'25	
morning rise	15302 Apr 01 05:09	12° Y 38'52		opposition	15308 Mar 08 13:04	0° $\underline{\Omega}$ 12'35	-0°42'11
retrograde	15302 Aug 01 11:43	29° Y 44'35		min. Earth dist.	15308 Mar 09 14:02	0° $\underline{\Omega}$ 04'21	4.01911 AU
opposition	15302 Oct 01 11:25	24° Y 46'08	0°27'06		15308 Mar 10 03:14	30° R H	
min. Earth dist.	15302 Oct 01 00:43	24° Y 49'37	4.46143 AU	direct	15308 May 07 03:56	25° H 15'12	
direct	15302 Dec 02 03:51	19° Y 45'53			15308 Jul 01 19:28	0° $\underline{\Omega}$	
	15303 Mar 02 23:08	0° B		evening set	15308 Sep 11 04:52	15° $\underline{\Omega}$ 01'10	
evening set	15303 Apr 05 19:54	6° B 53'56		max. Earth dist.	15308 Sep 23 11:05	17° $\underline{\Omega}$ 59'13	5.95368 AU
conjunction	15303 Apr 18 23:00	9° B 41'55	0°11'13	conjunction	15308 Sep 24 08:42	18° $\underline{\Omega}$ 12'20	-0°21'35
minimum elong	15303 Apr 18 23:00	9° B 41'55	0°10'41	minimum elong	15308 Sep 24 08:42	18° $\underline{\Omega}$ 12'20	0°21'23
behind sun begin	15303 Apr 18 16:50	9° B 38'38		morning rise	15308 Oct 07 13:46	21° $\underline{\Omega}$ 24'24	
behind sun end	15303 Apr 19 05:11	9° B 45'12			15308 Nov 13 17:06	0° H	
max. Earth dist.	15303 Apr 19 00:14	9° B 42'34	6.49887 AU	retrograde	15309 Feb 15 07:31	11° H 55'28	
morning rise	15303 May 02 00:29	12° B 29'07		opposition	15309 Apr 15 14:24	6° H 57'13	-0°18'42
	15303 May 13 23:52	15° B		min. Earth dist.	15309 Apr 15 16:33	6° H 56'30	3.90999 AU
retrograde	15303 Aug 31 01:28	29° B 07'07		direct	15309 Jun 13 03:26	2° H 01'31	
opposition	15303 Oct 31 06:52	24° B 11'11	0°04'05		15309 Sep 17 19:34	15° H	
min. Earth dist.	15303 Oct 31 15:49	24° B 08'18	4.51418 AU	evening set	15309 Oct 18 18:33	22° H 18'30	
direct	15304 Jan 01 14:44	19° B 10'37					
desc. node	15304 Jan 04 19:39	19° B 11'33		conjunction	15309 Nov 01 03:48	25° H 35'08	-0°02'20
	15304 Apr 04 21:00	0° H		minimum elong	15309 Nov 01 03:47	25° H 35'07	0°01'37
evening set	15304 May 05 00:44	6° H 10'29		behind sun begin	15309 Oct 31 19:26	25° H 30'02	
max. Earth dist.	15304 May 16 20:26	8° H 41'53	6.50664 AU	behind sun end	15309 Nov 01 12:07	25° H 40'13	
				max. Earth dist.	15309 Nov 01 20:33	25° H 45'24	5.89426 AU
conjunction	15304 May 18 00:15	8° H 56'47	-0°05'31	morning rise	15309 Nov 14 14:34	28° H 52'39	
minimum elong	15304 May 18 00:15	8° H 56'47	0°06'21		15309 Nov 19 05:33	0° X	
behind sun begin	15304 May 17 16:42	8° H 52'46		asc. node	15309 Dec 14 18:41	5° X 59'58	
behind sun end	15304 May 18 07:48	9° H 00'48		retrograde	15310 Mar 26 02:44	19° X 42'45	
morning rise	15304 May 30 22:21	11° H 42'27		min. Earth dist.	15310 May 23 08:31	14° X 49'18	3.90821 AU
retrograde	15304 Sep 29 01:55	28° H 23'11		opposition	15310 May 24 07:01	14° X 41'42	0°13'13
opposition	15304 Nov 29 05:47	23° H 28'49	-0°19'54	direct	15310 Jul 21 09:28	9° X 46'12	
min. Earth dist.	15304 Nov 30 09:11	23° H 20'03	4.47713 AU	evening set	15310 Nov 26 00:54	29° X 53'01	
direct	15305 Jan 30 17:02	18° H 28'05			15310 Nov 26 12:31	0° B	
	15305 May 07 20:08	0° B					
evening set	15305 Jun 04 06:09	5° B 44'38		conjunction	15310 Dec 09 13:13	3° B 08'29	0°17'59
max. Earth dist.	15305 Jun 15 03:23	8° B 06'43	6.42674 AU	minimum elong	15310 Dec 09 13:12	3° B 08'29	0°18'56
				max. Earth dist.	15310 Dec 11 12:44	3° B 37'09	5.94953 AU
conjunction	15305 Jun 17 03:34	8° B 33'00	-0°20'52	morning rise	15310 Dec 23 03:12	6° B 24'32	
minimum elong	15305 Jun 17 03:33	8° B 33'00	0°21'49	retrograde	15311 May 02 03:45	26° B 38'11	
morning rise	15305 Jun 29 23:37	11° B 20'57		min. Earth dist.	15311 Jun 29 02:55	21° B 47'52	4.01408 AU
retrograde	15305 Oct 30 11:18	28° B 34'45		opposition	15311 Jun 30 16:23	21° B 35'11	0°38'53
opposition	15305 Dec 30 09:28	23° B 40'50	-0°39'29	direct	15311 Aug 28 05:20	16° B 38'16	
min. Earth dist.	15305 Dec 31 23:01	23° B 28'46	4.35899 AU		15311 Dec 06 17:41	0° \approx	
direct	15306 Mar 02 07:49	18° B 40'25		evening set	15312 Jan 02 05:48	5° \approx 59'44	
	15306 Jun 04 20:32	0° Ω					
evening set	15306 Jul 05 12:16	6° Ω 36'24		conjunction	15312 Jan 15 18:18	9° \approx 08'25	0°30'36
max. Earth dist.	15306 Jul 16 01:07	8° Ω 58'37	6.27824 AU	minimum elong	15312 Jan 15 18:18	9° \approx 08'24	0°31'23
				max. Earth dist.	15312 Jan 18 05:43	9° \approx 43'01	6.09464 AU
conjunction	15306 Jul 18 09:19	9° Ω 30'22	-0°30'59	morning rise	15312 Jan 29 07:26	12° \approx 17'04	

	15312 Feb 10 04:51	15°♊		max. Earth dist.	15317 Jun 19 08:08	12°♊26'56	6.40815 AU
	15312 May 06 11:19	0°♋					
retrograde	15312 Jun 04 13:33	1°♋20'42		conjunction	15317 Jun 21 09:50	12°♊54'11	-0°22'39
	15312 Jul 03 10:56	30°♋♊		minimum elong	15317 Jun 21 09:49	12°♊54'11	0°23'35
min. Earth dist.	15312 Aug 02 01:28	26°♋30'11	4.18231 AU	morning rise	15317 Jul 04 05:53	15°♊42'51	
opposition	15312 Aug 03 14:08	26°♋17'54	0°48'35		15317 Sep 19 09:15	0°♌	
direct	15312 Oct 02 04:46	21°♋19'19		retrograde	15317 Nov 04 01:55	3°♌03'55	
	15312 Dec 20 21:12	0°♋			15317 Dec 20 06:21	30°♋♊	
evening set	15313 Feb 05 06:24	9°♋43'16		opposition	15318 Jan 03 21:39	28°♊10'00	-0°41'29
				min. Earth dist.	15318 Jan 05 12:30	27°♊57'30	4.33716 AU
conjunction	15313 Feb 18 16:27	12°♋43'10	0°31'59	direct	15318 Mar 06 18:20	23°♊09'44	
minimum elong	15313 Feb 18 16:28	12°♋43'10	0°32'20		15318 May 16 09:43	0°♌	
max. Earth dist.	15313 Feb 20 18:03	13°♋10'54	6.27086 AU	evening set	15318 Jul 10 00:09	11°♌12'39	
morning rise	15313 Mar 04 02:16	15°♋42'36		max. Earth dist.	15318 Jul 20 13:02	13°♌35'39	6.25474 AU
	15313 May 18 04:36	0°♍					
retrograde	15313 Jul 06 08:21	3°♍35'08		conjunction	15318 Jul 22 21:23	14°♌07'39	-0°31'43
	15313 Aug 25 00:13	30°♋♋		minimum elong	15318 Jul 22 21:23	14°♌07'39	0°32'27
opposition	15313 Sep 04 23:22	28°♋34'23	0°42'05		15318 Jul 26 17:36	15°♌	
min. Earth dist.	15313 Sep 03 21:19	28°♋42'58	4.35125 AU	morning rise	15318 Aug 04 18:04	17°♌02'42	
direct	15313 Nov 04 17:58	23°♋34'42			15318 Oct 07 18:55	0°♎	
	15314 Jan 12 09:06	0°♍		retrograde	15318 Dec 08 03:46	5°♎25'44	
evening set	15314 Mar 09 23:41	11°♍09'59		opposition	15319 Feb 06 12:05	0°♎31'10	-0°48'50
				min. Earth dist.	15319 Feb 08 00:48	0°♎19'13	4.16588 AU
conjunction	15314 Mar 23 06:05	14°♍02'19	0°23'34		15319 Feb 10 12:00	30°♋♌	
minimum elong	15314 Mar 23 06:06	14°♍02'20	0°23'27	direct	15319 Apr 08 06:17	25°♌32'07	
max. Earth dist.	15314 Mar 24 07:25	14°♍16'03	6.42002 AU		15319 Jun 02 02:27	0°♎	
morning rise	15314 Apr 05 11:23	16°♍53'57		evening set	15319 Aug 12 11:07	14°♎30'42	
	15314 Jun 14 10:07	0°♏		max. Earth dist.	15319 Aug 23 13:22	17°♎07'21	6.07943 AU
retrograde	15314 Aug 05 13:43	3°♏55'09					
	15314 Sep 27 10:40	30°♋♍		conjunction	15319 Aug 25 10:49	17°♎34'12	-0°31'10
opposition	15314 Oct 05 13:47	28°♍57'10	0°24'14	minimum elong	15319 Aug 25 10:50	17°♎34'12	0°31'27
min. Earth dist.	15314 Oct 05 06:14	28°♍59'37	4.47075 AU	morning rise	15319 Sep 07 10:59	20°♎38'17	
direct	15314 Dec 06 09:12	23°♍56'56			15319 Oct 19 09:54	0°♏	
	15315 Feb 11 16:05	0°♏		retrograde	15320 Jan 14 00:30	10°♏15'35	
evening set	15315 Apr 09 23:56	11°♏03'30		opposition	15320 Mar 13 16:57	5°♏19'28	-0°39'47
				min. Earth dist.	15320 Mar 14 15:58	5°♏11'52	4.00103 AU
conjunction	15315 Apr 23 02:27	13°♏51'11	0°09'02	direct	15320 May 12 05:02	0°♏22'21	
minimum elong	15315 Apr 23 02:26	13°♏51'11	0°08'27	evening set	15320 Sep 16 06:47	20°♏13'45	
behind sun begin	15315 Apr 22 19:24	13°♏47'27					
behind sun end	15315 Apr 23 09:29	13°♏54'56		conjunction	15320 Sep 29 11:25	23°♏25'52	-0°19'17
max. Earth dist.	15315 Apr 22 22:14	13°♏48'58	6.50182 AU	minimum elong	15320 Sep 29 11:26	23°♏25'53	0°19'00
	15315 Apr 28 11:16	15°♏		max. Earth dist.	15320 Sep 28 18:50	23°♏15'47	5.94097 AU
morning rise	15315 May 06 03:37	16°♏38'09		morning rise	15320 Oct 12 17:16	26°♏38'55	
	15315 Jul 18 15:09	0°♐			15320 Oct 26 17:30	0°♐	
retrograde	15315 Sep 04 04:21	3°♐15'56			15321 Jan 14 01:46	15°♐	
	15315 Oct 22 04:03	30°♋♏		retrograde	15321 Feb 20 16:03	17°♐15'07	
opposition	15315 Nov 04 09:06	28°♏20'17	0°00'45		15321 Mar 30 09:09	15°♋♐	
min. Earth dist.	15315 Nov 04 20:59	28°♏16'28	4.51092 AU	opposition	15321 Apr 20 22:19	12°♐16'32	-0°14'27
desc. node	15315 Nov 16 05:16	26°♏50'26		min. Earth dist.	15321 Apr 20 20:49	12°♐17'02	3.90426 AU
direct	15316 Jan 05 18:00	23°♏19'43		direct	15321 Jun 18 08:03	7°♐21'00	
	15316 Mar 17 02:07	0°♐			15321 Aug 28 14:34	15°♐	
evening set	15316 May 09 04:24	10°♐21'37		evening set	15321 Oct 24 00:47	27°♐38'42	
max. Earth dist.	15316 May 20 22:07	12°♐52'15	6.49750 AU	asc. node	15321 Oct 24 00:58	27°♐38'48	
					15321 Nov 02 15:54	0°♑	
conjunction	15316 May 22 03:47	13°♐08'10	-0°07'46				
minimum elong	15316 May 22 03:46	13°♐08'09	0°08'38	conjunction	15321 Nov 06 10:25	0°♑55'29	0°00'44
behind sun begin	15316 May 21 20:49	13°♐04'27		minimum elong	15321 Nov 06 10:24	0°♑55'29	0°01'29
behind sun end	15316 May 22 10:43	13°♐11'52		behind sun begin	15321 Nov 06 02:04	0°♑50'23	
morning rise	15316 Jun 04 01:25	15°♐54'03		behind sun end	15321 Nov 06 18:45	1°♑00'34	
	15316 Aug 21 19:58	0°♑		max. Earth dist.	15321 Nov 07 06:30	1°♑07'47	5.89594 AU
retrograde	15316 Oct 03 07:20	2°♑38'34		morning rise	15321 Nov 19 21:57	4°♑13'13	
	15316 Nov 15 02:07	30°♋♐		retrograde	15322 Mar 31 07:13	25°♑01'12	
opposition	15316 Dec 03 11:26	27°♐44'22	-0°22'58	min. Earth dist.	15322 May 28 11:18	20°♑08'25	3.91716 AU
min. Earth dist.	15316 Dec 04 15:45	27°♐35'18	4.46281 AU	opposition	15322 May 29 12:49	19°♑59'47	0°17'27
direct	15317 Feb 03 20:42	22°♐43'45		direct	15322 Jul 26 15:41	15°♑04'07	
	15317 Apr 19 05:13	0°♑			15322 Nov 09 11:50	0°♒	
evening set	15317 Jun 08 12:41	10°♑05'11		evening set	15322 Dec 01 05:50	5°♒06'30	

conjunction	15322 Dec 14 18:29	8°  21'20	0°20'19			15328 Feb 20 14:20	0° 	
minimum elong	15322 Dec 14 18:28	8°  21'20	0°21'15	evening set		15328 May 13 08:40	14°  34'26	
max. Earth dist.	15322 Dec 16 21:04	8°  51'45	5.96488 AU	max. Earth dist.		15328 May 24 21:48	17°  02'51	6.49370 AU
morning rise	15322 Dec 28 08:26	11°  36'38						
	15323 Apr 04 12:45	0° 		conjunction		15328 May 26 07:26	17°  20'55	-0°10'01
retrograde	15323 May 07 02:09	1°  42'13		minimum elong		15328 May 26 07:25	17°  20'54	0°10'55
	15323 Jun 08 12:02	30°  R 		behind sun begin		15328 May 26 01:23	17°  21'40	
min. Earth dist.	15323 Jul 04 02:11	26°  51'42	4.03387 AU	behind sun end		15328 May 26 13:28	17°  24'08	
opposition	15323 Jul 05 15:25	26°  39'07	0°41'15	morning rise		15328 Jun 08 04:50	20°  20'48	
direct	15323 Sep 02 07:50	21°  34'58				15328 Jul 28 04:52	0° 	
	15323 Nov 17 10:55	0° 		retrograde		15328 Oct 07 13:25	6°  53'15	
evening set	15324 Jan 07 04:51	10°  56'08		opposition		15328 Dec 07 16:57	1°  59'05	-0°25'56
				min. Earth dist.		15328 Dec 08 23:13	1°  49'23	4.45429 AU
conjunction	15324 Jan 20 17:12	14°  53'44	0°31'26			15328 Dec 23 15:26	30°  R 	
minimum elong	15324 Jan 20 17:11	14°  53'44	0°32'11	direct		15329 Feb 08 02:28	26°  28'24	
max. Earth dist.	15324 Jan 23 04:51	14°  58'16	6.11690 AU			15329 Mar 26 05:29	0° 	
	15324 Jan 24 18:25	15° 		evening set		15329 Jun 12 17:56	14°  52'38	
morning rise	15324 Feb 03 06:04	17°  51'15		max. Earth dist.		15329 Jun 23 12:21	16°  54'11	6.39543 AU
	15324 Apr 05 05:34	0° 						
retrograde	15324 Jun 09 01:29	6°  R 		conjunction		15329 Jun 25 15:01	17°  52'02	-0°24'19
min. Earth dist.	15324 Aug 06 16:13	1°  R 	4.20503 AU	minimum elong		15329 Jun 25 15:00	17°  52'02	0°25'13
opposition	15324 Aug 08 04:49	1°  R 	0°48'32	morning rise		15329 Jul 08 10:47	20°  50'06	
	15324 Aug 16 01:40	30°  R 				15329 Aug 26 11:45	0° 	
direct	15324 Oct 06 22:22	26°  53'49		retrograde		15329 Nov 08 11:20	7°  R 	
	15324 Nov 27 11:14	0° 		opposition		15330 Jan 08 07:24	2°  R 	-0°43'13
evening set	15325 Feb 09 22:15	14°  R 	0°20'51	min. Earth dist.		15330 Jan 09 22:05	2°  R 	4.32091 AU
						15330 Jan 29 03:23	30°  R 	
conjunction	15325 Feb 23 07:49	17°  R 	0°31'18	direct		15330 Mar 11 01:11	27°  R 	0°33'09
minimum elong	15325 Feb 23 07:50	17°  R 	0°31'35			15330 Apr 20 16:48	0° 	
max. Earth dist.	15325 Feb 25 05:50	17°  R 	6.29232 AU			15330 Jul 11 08:05	15°  R 	
morning rise	15325 Mar 08 17:05	20°  R 	1°17'58	evening set		15330 Jul 14 09:12	15°  R 	
	15325 Apr 24 18:34	0° 		max. Earth dist.		15330 Jul 24 22:09	18°  R 	6.23597 AU
retrograde	15325 Jul 10 16:27	8°  R 						
min. Earth dist.	15325 Sep 08 08:28	3°  R 	4.36996 AU	conjunction		15330 Jul 27 06:27	18°  R 	-0°32'14
opposition	15325 Sep 09 07:36	3°  R 	0°40'06	minimum elong		15330 Jul 27 06:26	18°  R 	0°32'56
	15325 Oct 04 06:17	30°  R 		morning rise		15330 Aug 09 03:24	21°  R 	
direct	15325 Nov 09 06:49	28°  R 	0°22'28			15330 Sep 17 04:54	0° 	
	15325 Dec 15 13:32	0° 		retrograde		15330 Dec 12 22:55	10°  R 	
evening set	15326 Mar 14 09:24	15°  R 	0°32'57	opposition		15331 Feb 11 04:38	5°  R 	-0°48'35
				min. Earth dist.		15331 Feb 12 17:23	4°  R 	4.14563 AU
conjunction	15326 Mar 27 15:18	18°  R 	0°21'47	direct		15331 Apr 12 20:28	0° 	
minimum elong	15326 Mar 27 15:19	18°  R 	0°21'35	evening set		15331 Aug 17 02:04	19°  R 	
max. Earth dist.	15326 Mar 28 13:24	18°  R 	6.43490 AU	max. Earth dist.		15331 Aug 28 06:53	21°  R 	6.05946 AU
morning rise	15326 Apr 09 20:04	21°  R 						
	15326 May 23 03:59	0° 		conjunction		15331 Aug 30 02:22	22°  R 	-0°30'11
retrograde	15326 Aug 09 16:19	8°  R 		minimum elong		15331 Aug 30 02:23	22°  R 	0°30'24
opposition	15326 Oct 09 18:06	3°  R 	0°21'08	morning rise		15331 Sep 12 03:06	25°  R 	
min. Earth dist.	15326 Oct 09 12:14	3°  R 	4.48136 AU			15331 Oct 01 20:56	0° 	
	15326 Nov 06 01:01	30°  R 		retrograde		15332 Jan 19 01:22	15°  R 	
direct	15326 Dec 10 15:09	28°  R 	0°13'52	opposition		15332 Mar 18 16:19	10°  R 	-0°37'12
	15327 Jan 14 13:06	0° 		min. Earth dist.		15332 Mar 19 12:51	10°  R 	3.98326 AU
	15327 Apr 12 19:17	15°  R 		direct		15332 May 16 23:13	5°  R 	
evening set	15327 Apr 14 05:38	15°  R 	18'10	evening set		15332 Sep 21 05:04	25°  R 	
conjunction	15327 Apr 27 07:44	18°  R 	0°06'44	conjunction		15332 Oct 04 10:17	28°  R 	-0°16'55
minimum elong	15327 Apr 27 07:43	18°  R 	0°06'06	minimum elong		15332 Oct 04 10:18	28°  R 	0°16'34
behind sun begin	15327 Apr 27 00:06	18°  R 		max. Earth dist.		15332 Oct 03 20:12	28°  R 	5.92703 AU
behind sun end	15327 Apr 27 15:21	18°  R 	0°09'30			15332 Oct 10 16:24	0° 	
max. Earth dist.	15327 Apr 27 01:22	18°  R 	6.50777 AU	morning rise		15332 Oct 17 17:06	1°  R 	
morning rise	15327 May 10 08:13	20°  R 	51'57			15332 Dec 16 17:47	15°  R 	
	15327 Jun 25 10:49	0° 		retrograde		15333 Feb 25 20:26	22°  R 	
retrograde	15327 Sep 08 07:09	7°  R 	28'17	opposition		15333 Apr 26 02:09	17°  R 	-0°10'13
desc. node	15327 Sep 28 07:01	6°  R 	51'23	min. Earth dist.		15333 Apr 25 21:34	17°  R 	3.89574 AU
opposition	15327 Nov 08 12:45	2°  R 	32'55			15333 May 15 00:28	15°  R 	
min. Earth dist.	15327 Nov 09 02:47	2°  R 	22'25	direct		15333 Jun 23 09:47	12°  R 	
	15327 Nov 29 09:42	30°  R 				15333 Aug 01 08:34	15°  R 	
direct	15328 Jan 09 23:16	27°  R 	32'21	asc. node		15333 Sep 02 11:17	20°  R 	

	15333 Oct 17 10:10	0°♏		minimum elong	15339 May 01 13:31	22°♏21'39	0°03'42
evening set	15333 Oct 29 03:58	2°♏50'12		behind sun begin	15339 May 01 05:33	22°♏17'26	
				behind sun end	15339 May 01 21:29	22°♏25'53	
conjunction	15333 Nov 11 14:26	6°♏07'27	0°03'37	max. Earth dist.	15339 May 01 02:57	22°♏16'02	6.51277 AU
minimum elong	15333 Nov 11 14:26	6°♏07'27	0°04'26	morning rise	15339 May 14 13:32	25°♏07'47	
behind sun begin	15333 Nov 11 06:15	6°♏02'28			15339 Jun 07 02:45	0°♐	
behind sun end	15333 Nov 11 22:37	6°♏12'27		desc. node	15339 Aug 09 23:13	10°♐02'43	
max. Earth dist.	15333 Nov 12 15:55	6°♏23'04	5.89387 AU	retrograde	15339 Sep 12 10:48	11°♐43'05	
morning rise	15333 Nov 25 02:30	9°♏25'34		opposition	15339 Nov 12 17:09	6°♐47'54	-0°06'07
	15334 Mar 25 01:23	0°♑		min. Earth dist.	15339 Nov 13 09:11	6°♐42'45	4.51110 AU
retrograde	15334 Apr 05 12:06	0°♑13'11		direct	15340 Jan 14 03:55	1°♐47'15	
	15334 Apr 16 20:45	30°♑♏		evening set	15340 May 17 13:48	18°♐50'23	
opposition	15334 Jun 03 16:24	25°♏11'29	0°21'26	max. Earth dist.	15340 May 29 00:51	21°♐17'53	6.48669 AU
min. Earth dist.	15334 Jun 02 13:35	25°♏20'35	3.92174 AU				
direct	15334 Jul 31 19:39	20°♏15'43		conjunction	15340 May 30 12:20	21°♐36'59	-0°12'16
	15334 Oct 21 22:02	0°♑		minimum elong	15340 May 30 12:19	21°♐36'59	0°13'11
evening set	15334 Dec 06 09:26	10°♑15'38		behind sun begin	15340 May 30 07:37	21°♐34'27	
				behind sun end	15340 May 30 17:01	21°♐39'30	
conjunction	15334 Dec 19 22:21	13°♑30'06	0°22'27	morning rise	15340 Jun 12 09:13	24°♐22'58	
minimum elong	15334 Dec 19 22:21	13°♑30'06	0°23'22		15340 Jul 09 09:54	0°♑	
max. Earth dist.	15334 Dec 22 04:02	14°♑02'15	5.97549 AU	retrograde	15340 Oct 11 20:44	11°♑12'35	
morning rise	15335 Jan 02 12:34	16°♑44'58		opposition	15340 Dec 12 00:07	6°♑18'33	-0°28'51
	15335 Mar 05 03:11	0°♒		min. Earth dist.	15340 Dec 13 08:14	6°♑08'16	4.44146 AU
retrograde	15335 May 11 22:55	6°♒44'20		direct	15341 Feb 12 08:35	1°♑17'55	
min. Earth dist.	15335 Jul 08 22:43	1°♒54'22	4.04938 AU	evening set	15341 Jun 17 01:20	18°♑46'30	
opposition	15335 Jul 10 13:44	1°♒41'11	0°43'16	max. Earth dist.	15341 Jun 27 16:35	21°♑06'56	6.37747 AU
	15335 Jul 23 08:06	30°♑♒					
direct	15335 Sep 07 07:16	26°♑43'51		conjunction	15341 Jun 29 22:08	21°♑36'30	-0°25'53
	15335 Oct 23 01:56	0°♒		minimum elong	15341 Jun 29 22:07	21°♑36'30	0°26'47
	15336 Jan 08 08:41	15°♒		morning rise	15341 Jul 12 18:02	24°♑26'17	
evening set	15336 Jan 12 04:23	15°♒52'28			15341 Aug 07 17:57	0°♓	
				retrograde	15341 Nov 13 03:01	11°♓05'54	
conjunction	15336 Jan 25 16:28	18°♒59'07	0°32'03	opposition	15342 Jan 12 20:48	7°♓05'50	-0°44'47
minimum elong	15336 Jan 25 16:28	18°♒59'07	0°32'44	min. Earth dist.	15342 Jan 14 12:31	6°♓53'01	4.29872 AU
max. Earth dist.	15336 Jan 28 02:51	19°♒32'47	6.13582 AU	direct	15342 Mar 15 12:17	2°♓05'40	
morning rise	15336 Feb 08 05:07	22°♒05'39			15342 Jun 24 17:44	15°♓	
	15336 Mar 15 09:16	0°♓		evening set	15342 Jul 18 22:07	20°♓20'56	
retrograde	15336 Jun 13 16:30	10°♓51'03		max. Earth dist.	15342 Jul 29 12:18	22°♓46'03	6.21134 AU
min. Earth dist.	15336 Aug 11 09:14	6°♓00'20	4.22538 AU				
opposition	15336 Aug 12 20:14	5°♓48'38	0°48'09	conjunction	15342 Jul 31 19:46	23°♓17'50	-0°32'35
direct	15336 Oct 11 18:20	0°♓49'40		minimum elong	15342 Jul 31 19:46	23°♓17'50	0°33'13
evening set	15337 Feb 14 15:05	19°♓00'30		morning rise	15342 Aug 13 16:58	26°♓14'55	
					15342 Aug 30 09:05	0°♐	
conjunction	15337 Feb 28 00:22	21°♓58'19	0°30'24	retrograde	15342 Dec 17 22:32	14°♐56'17	
minimum elong	15337 Feb 28 00:22	21°♓58'19	0°30'38	opposition	15343 Feb 16 02:20	10°♐01'22	-0°48'01
max. Earth dist.	15337 Mar 01 21:41	22°♓23'27	6.31253 AU	min. Earth dist.	15343 Feb 17 13:41	9°♐49'49	4.12046 AU
morning rise	15337 Mar 13 08:59	24°♓55'33		direct	15343 Apr 17 12:52	5°♐02'40	
	15337 Apr 06 00:59	0°♑		evening set	15343 Aug 21 23:16	24°♐16'06	
retrograde	15337 Jul 14 23:14	12°♑32'30		max. Earth dist.	15343 Sep 02 06:38	26°♐57'20	6.03595 AU
opposition	15337 Sep 13 16:46	7°♑32'28	0°37'52				
min. Earth dist.	15337 Sep 12 18:27	7°♑39'48	4.38836 AU	conjunction	15343 Sep 04 00:03	27°♐22'01	-0°28'56
direct	15337 Nov 13 18:18	2°♑32'36		minimum elong	15343 Sep 04 00:03	27°♐22'01	0°29'05
evening set	15338 Mar 18 19:58	19°♑58'09			15343 Sep 15 01:20	0°♑	
				morning rise	15343 Sep 17 01:41	0°♑28'41	
conjunction	15338 Apr 01 01:13	22°♑48'53	0°19'52	retrograde	15344 Jan 24 08:58	20°♑25'04	
minimum elong	15338 Apr 01 01:14	22°♑48'53	0°19'35	opposition	15344 Mar 23 22:34	15°♑28'20	-0°34'10
max. Earth dist.	15338 Apr 01 19:19	22°♑58'38	6.45002 AU	min. Earth dist.	15344 Mar 24 16:00	15°♑22'32	3.96365 AU
morning rise	15338 Apr 14 05:23	25°♑38'54		direct	15344 May 22 01:45	10°♑31'37	
	15338 May 04 23:47	0°♒			15344 Sep 24 00:20	0°♐	
retrograde	15338 Aug 13 21:39	12°♒30'28		evening set	15344 Sep 26 10:07	0°♐35'02	
opposition	15338 Oct 13 23:33	7°♒33'10	0°17'53				
min. Earth dist.	15338 Oct 13 20:59	7°♒33'59	4.49194 AU	conjunction	15344 Oct 09 16:20	3°♐49'14	-0°14'18
direct	15338 Dec 15 00:11	2°♒32'48		minimum elong	15344 Oct 09 16:21	3°♐49'14	0°13'51
	15339 Mar 27 08:56	15°♒		behind sun begin	15344 Oct 09 12:00	3°♐46'35	
evening set	15339 Apr 18 11:59	19°♒34'47		behind sun end	15344 Oct 09 20:42	3°♐51'53	
				max. Earth dist.	15344 Oct 09 08:44	3°♐44'35	5.91356 AU
conjunction	15339 May 01 13:31	22°♒21'39	0°04'22	morning rise	15344 Oct 22 23:54	7°♐04'23	

	15344 Nov 25 19:18	15°♍		min. Earth dist.	15350 Oct 18 02:03	11°♏46'02	4.50210 AU
retrograde	15345 Mar 03 09:27	27°♍51'38		direct	15350 Dec 19 04:41	6°♏45'26	
opposition	15345 May 01 12:53	22°♍52'18	-0°05'39		15351 Mar 09 14:46	15°♏	
min. Earth dist.	15345 May 01 05:28	22°♍54'48	3.89011 AU	evening set	15351 Apr 22 16:09	23°♏45'28	
direct	15345 Jun 28 18:50	17°♍56'54					
asc. node	15345 Jul 10 10:11	18°♍10'55		conjunction	15351 May 05 17:07	26°♏31'59	0°02'00
	15345 Sep 29 04:05	0°♏		minimum elong	15351 May 05 17:07	26°♏31'59	0°01'17
evening set	15345 Nov 03 13:37	8°♏17'32		behind sun begin	15351 May 05 09:05	26°♏27'43	
				behind sun end	15351 May 06 01:10	26°♏36'15	
conjunction	15345 Nov 17 00:35	11°♏34'55	0°06'36	max. Earth dist.	15351 May 05 02:14	26°♏24'03	6.51604 AU
minimum elong	15345 Nov 17 00:35	11°♏34'55	0°07'28	morning rise	15351 May 18 16:36	29°♏17'48	
behind sun begin	15345 Nov 16 16:59	11°♏30'17			15351 May 22 00:28	0°♐	
behind sun end	15345 Nov 17 08:11	11°♏39'33		desc. node	15351 Jun 21 12:03	6°♐10'12	
max. Earth dist.	15345 Nov 18 06:45	11°♏53'23	5.89664 AU	retrograde	15351 Sep 16 14:49	15°♐52'56	
morning rise	15345 Nov 30 13:19	14°♏53'09		opposition	15351 Nov 16 20:19	10°♐58'01	-0°09'29
	15346 Feb 08 19:05	0°♑		min. Earth dist.	15351 Nov 17 15:58	10°♐51'43	4.50723 AU
retrograde	15346 Apr 10 18:30	5°♑37'32		direct	15352 Jan 18 08:28	5°♐57'20	
min. Earth dist.	15346 Jun 07 17:59	0°♑45'51	3.93290 AU	evening set	15352 May 21 17:37	23°♐02'30	
opposition	15346 Jun 09 00:26	0°♑35'32	0°25'26	max. Earth dist.	15352 Jun 01 23:31	25°♐27'39	6.47573 AU
	15346 Jun 13 09:39	30°♑♏					
direct	15346 Aug 06 03:29	25°♏39'36		conjunction	15352 Jun 03 15:44	25°♐49'21	-0°14'26
	15346 Sep 27 15:19	0°♑		minimum elong	15352 Jun 03 15:44	25°♐49'21	0°15'21
evening set	15346 Dec 11 17:13	15°♑34'11		behind sun begin	15352 Jun 03 13:19	25°♐48'03	
				behind sun end	15352 Jun 03 18:09	25°♐50'39	
conjunction	15346 Dec 25 06:08	18°♑47'46	0°24'29	morning rise	15352 Jun 16 12:29	28°♐35'41	
minimum elong	15346 Dec 25 06:07	18°♑47'46	0°25'24		15352 Jun 23 02:22	0°♑	
max. Earth dist.	15346 Dec 27 13:23	19°♑20'44	5.99387 AU	retrograde	15352 Oct 16 04:48	15°♑30'02	
morning rise	15347 Jan 07 20:22	22°♑01'43		opposition	15352 Dec 16 07:04	10°♑36'02	-0°31'36
	15347 Feb 11 23:32	0°♑		min. Earth dist.	15352 Dec 17 16:47	10°♑25'14	4.42402 AU
retrograde	15347 May 16 21:40	11°♑51'29		direct	15353 Feb 16 13:08	5°♑35'23	
min. Earth dist.	15347 Jul 13 23:02	7°♑01'24	4.07283 AU	evening set	15353 Jun 21 08:48	23°♑10'00	
opposition	15347 Jul 15 14:01	6°♑48'14	0°45'02	max. Earth dist.	15353 Jul 01 23:46	25°♑30'56	6.35473 AU
direct	15347 Sep 12 12:15	1°♑50'35					
	15347 Dec 21 22:53	15°♑		conjunction	15353 Jul 04 05:45	26°♑00'53	-0°27'19
evening set	15348 Jan 17 04:39	20°♑50'33		minimum elong	15353 Jul 04 05:44	26°♑00'53	0°28'12
				morning rise	15353 Jul 17 01:33	28°♑51'34	
conjunction	15348 Jan 30 16:33	23°♑55'55	0°32'29		15353 Jul 22 05:57	0°♒	
minimum elong	15348 Jan 30 16:33	23°♑55'55	0°33'05		15353 Oct 16 16:41	15°♒	
max. Earth dist.	15348 Feb 02 03:56	24°♑29'57	6.16226 AU	retrograde	15353 Nov 17 19:47	16°♒34'18	
morning rise	15348 Feb 13 04:34	27°♑01'00			15353 Dec 19 23:16	15°♒♒	
	15348 Feb 26 11:37	0°♓		opposition	15354 Jan 17 11:18	11°♒40'16	-0°46'08
retrograde	15348 Jun 18 04:58	15°♓35'14		min. Earth dist.	15354 Jan 19 03:38	11°♒27'14	4.27212 AU
min. Earth dist.	15348 Aug 16 00:41	10°♓44'31	4.25226 AU	direct	15354 Mar 19 22:43	6°♒40'17	
opposition	15348 Aug 17 11:11	10°♓33'02	0°47'29		15354 Jun 06 04:36	15°♒	
direct	15348 Oct 16 12:55	5°♓33'55		evening set	15354 Jul 23 12:56	25°♒04'30	
evening set	15349 Feb 19 06:39	23°♓36'24		max. Earth dist.	15354 Aug 03 02:59	27°♒30'32	6.18289 AU
conjunction	15349 Mar 04 15:09	26°♓32'54	0°29'21	conjunction	15354 Aug 05 10:48	28°♒02'44	-0°32'46
minimum elong	15349 Mar 04 15:10	26°♓32'55	0°29'30	minimum elong	15354 Aug 05 10:48	28°♒02'44	0°33'19
max. Earth dist.	15349 Mar 06 08:03	26°♓55'28	6.33760 AU		15354 Aug 13 22:05	0°♓	
morning rise	15349 Mar 17 23:14	29°♓28'51		morning rise	15354 Aug 18 08:40	1°♓01'17	
	15349 Mar 20 08:19	0°♓		retrograde	15354 Dec 23 01:49	19°♓54'39	
retrograde	15349 Jul 19 05:30	16°♓56'57		opposition	15355 Feb 21 03:00	14°♓59'33	-0°47'09
min. Earth dist.	15349 Sep 17 05:09	12°♓03'29	4.40978 AU	min. Earth dist.	15355 Feb 22 12:22	14°♓48'37	4.09243 AU
opposition	15349 Sep 18 00:13	11°♓57'14	0°35'29	direct	15355 Apr 22 08:27	10°♓01'08	
direct	15349 Nov 18 06:19	6°♓57'12		evening set	15355 Aug 26 23:14	29°♓24'00	
evening set	15350 Mar 23 04:11	24°♓17'07			15355 Aug 29 11:44	0°♔	
				max. Earth dist.	15355 Sep 07 12:47	2°♔09'47	6.01116 AU
conjunction	15350 Apr 05 08:58	27°♓07'01	0°17'53				
minimum elong	15350 Apr 05 08:59	27°♓07'01	0°17'33	conjunction	15355 Sep 09 00:54	2°♔31'26	-0°27'29
max. Earth dist.	15350 Apr 06 00:08	27°♓15'09	6.46626 AU	minimum elong	15355 Sep 09 00:55	2°♔31'27	0°27'33
morning rise	15350 Apr 18 12:21	29°♓56'07		morning rise	15355 Sep 22 03:14	5°♔39'36	
	15350 Apr 18 19:37	0°♔		retrograde	15356 Jan 29 21:41	25°♔46'37	
	15350 Jul 15 03:26	15°♔		opposition	15356 Mar 29 08:13	20°♔49'39	-0°30'50
retrograde	15350 Aug 17 22:42	16°♔42'50		min. Earth dist.	15356 Mar 29 22:42	20°♔44'50	3.94487 AU
	15350 Sep 20 16:38	15°♔♔		direct	15356 May 27 07:21	15°♔53'18	
opposition	15350 Oct 18 02:38	11°♔45'50	0°14'38		15356 Sep 06 08:09	0°♔	

evening set	15356 Oct 01 18:37	6° \mathbb{M} 02'25		15362 Apr 03 01:30	0° \mathcal{B}	
conjunction	15356 Oct 15 01:31	9° \mathbb{M} 17'31	-0°11'31	conjunction	15362 Apr 09 15:51	1° \mathcal{B} 24'56 0°15'48
minimum elong	15356 Oct 15 01:32	9° \mathbb{M} 17'31	0°11'01	minimum elong	15362 Apr 09 15:51	1° \mathcal{B} 24'56 0°15'25
behind sun begin	15356 Oct 14 19:17	9° \mathbb{M} 13'43		behind sun begin	15362 Apr 09 13:47	1° \mathcal{B} 23'49
behind sun end	15356 Oct 15 07:46	9° \mathbb{M} 21'20		behind sun end	15362 Apr 09 17:56	1° \mathcal{B} 26'03
max. Earth dist.	15356 Oct 14 22:51	9° \mathbb{M} 15'54	5.90273 AU	max. Earth dist.	15362 Apr 10 01:10	1° \mathcal{B} 29'55 6.47844 AU
morning rise	15356 Oct 28 10:06	12° \mathbb{M} 33'38		morning rise	15362 Apr 22 18:48	4° \mathcal{B} 13'23
	15356 Nov 07 12:11	15° \mathbb{M}			15362 Jun 17 08:21	15° \mathcal{B}
	15357 Jan 21 08:06	0° \mathcal{A}		retrograde	15362 Aug 22 02:47	20° \mathcal{B} 56'45
retrograde	15357 Mar 08 21:35	3° \mathcal{A} 24'24		opposition	15362 Oct 22 06:23	16° \mathcal{B} 00'04 0°11'17
	15357 Apr 25 01:37	30° $\mathcal{R}\mathbb{M}$		min. Earth dist.	15362 Oct 22 09:38	15° \mathcal{B} 59'01 4.50768 AU
opposition	15357 May 07 01:25	28° \mathbb{M} 24'40	-0°01'01		15362 Oct 30 01:54	15° $\mathcal{R}\mathcal{B}$
min. Earth dist.	15357 May 06 12:59	28° \mathbb{M} 28'51	3.88885 AU	direct	15362 Dec 23 11:12	10° \mathcal{B} 59'33
asc. node	15357 May 19 05:49	26° \mathbb{M} 48'02			15363 Feb 15 09:23	15° \mathcal{B}
direct	15357 Jul 04 04:31	23° \mathbb{M} 29'19		evening set	15363 Apr 26 20:56	27° \mathcal{B} 58'59
	15357 Sep 07 06:26	0° \mathcal{A}		desc. node	15363 Apr 29 17:52	28° \mathcal{B} 35'32
evening set	15357 Nov 09 00:52	13° \mathcal{A} 48'42			15363 May 06 08:31	0° \mathbb{I}
conjunction	15357 Nov 22 12:15	17° \mathcal{A} 05'54	0°09'33	conjunction	15363 May 09 21:33	0° \mathbb{I} 45'23 -0°00'27
minimum elong	15357 Nov 22 12:15	17° \mathcal{A} 05'53	0°10'25	minimum elong	15363 May 09 21:35	0° \mathbb{I} 45'24 0°01'13
behind sun begin	15357 Nov 22 05:43	17° \mathcal{A} 01'55		behind sun begin	15363 May 09 13:33	0° \mathbb{I} 41'08
behind sun end	15357 Nov 22 18:47	17° \mathcal{A} 09'52		behind sun end	15363 May 10 05:37	0° \mathbb{I} 49'40
max. Earth dist.	15357 Nov 23 23:08	17° \mathcal{A} 27'12	5.90494 AU	max. Earth dist.	15363 May 09 03:01	0° \mathbb{I} 35'30 6.51464 AU
morning rise	15357 Dec 06 01:25	20° \mathcal{A} 23'52		morning rise	15363 May 22 20:33	3° \mathbb{I} 31'06
	15358 Jan 16 18:54	0° \mathcal{B}		retrograde	15363 Sep 20 18:51	20° \mathbb{I} 07'27
retrograde	15358 Apr 16 01:15	11° \mathcal{B} 02'35		opposition	15363 Nov 21 00:57	15° \mathbb{I} 12'41 -0°12'51
min. Earth dist.	15358 Jun 13 00:15	6° \mathcal{B} 11'09	3.94947 AU	min. Earth dist.	15363 Nov 21 22:15	15° \mathbb{I} 05'51 4.49908 AU
opposition	15358 Jun 14 08:28	6° \mathcal{B} 00'13	0°29'09	direct	15364 Jan 22 11:40	10° \mathbb{I} 11'57
direct	15358 Aug 11 14:25	1° \mathcal{B} 04'04		evening set	15364 May 25 23:28	27° \mathbb{I} 20'21
evening set	15358 Dec 16 23:57	20° \mathcal{B} 51'12		max. Earth dist.	15364 Jun 06 03:07	29° \mathbb{I} 44'45 6.46132 AU
conjunction	15358 Dec 30 12:58	24° \mathcal{B} 03'43	0°26'18	conjunction	15364 Jun 07 21:21	0° \mathcal{B} 07'38 -0°16'34
minimum elong	15358 Dec 30 12:58	24° \mathcal{B} 03'43	0°27'11	minimum elong	15364 Jun 07 21:21	0° \mathcal{B} 07'38 0°17'28
max. Earth dist.	15359 Jan 01 23:44	24° \mathcal{B} 38'35	6.01680 AU		15364 Jun 07 07:15	0° \mathcal{B}
morning rise	15359 Jan 13 02:54	27° \mathcal{B} 16'26		morning rise	15364 Jun 20 17:49	2° \mathcal{B} 54'25
	15359 Jan 24 20:00	0° \mathcal{A}		retrograde	15364 Oct 20 16:47	19° \mathcal{B} 54'27
	15359 Apr 16 23:59	15° \mathcal{A}		opposition	15364 Dec 20 16:53	15° \mathcal{B} 00'32 -0°34'15
retrograde	15359 May 21 18:43	16° \mathcal{A} 55'08		min. Earth dist.	15364 Dec 22 04:55	14° \mathcal{B} 48'59 4.40409 AU
	15359 Jun 25 09:15	15° $\mathcal{R}\mathcal{A}$		direct	15365 Feb 20 21:35	9° \mathcal{B} 59'56
min. Earth dist.	15359 Jul 18 21:13	12° \mathcal{A} 05'10	4.09938 AU	evening set	15365 Jun 25 19:05	27° \mathcal{B} 41'06
opposition	15359 Jul 20 12:33	11° \mathcal{A} 51'56	0°46'23	max. Earth dist.	15365 Jul 06 07:35	0° \mathcal{B} 01'29 6.33064 AU
direct	15359 Sep 17 14:07	6° \mathcal{A} 54'04			15365 Jul 06 04:56	0° \mathcal{B}
	15359 Dec 02 08:50	15° \mathcal{A}				
evening set	15360 Jan 22 03:08	25° \mathcal{A} 44'45		conjunction	15365 Jul 08 15:58	0° \mathcal{B} 32'56 -0°28'38
conjunction	15360 Feb 04 14:26	28° \mathcal{A} 48'40	0°32'39	minimum elong	15365 Jul 08 15:57	0° \mathcal{B} 32'56 0°29'29
minimum elong	15360 Feb 04 14:26	28° \mathcal{A} 48'41	0°33'12	morning rise	15365 Jul 21 12:05	3° \mathcal{B} 24'40
max. Earth dist.	15360 Feb 06 23:06	29° \mathcal{A} 20'57	6.18982 AU		15365 Sep 16 17:40	15° \mathcal{B}
	15360 Feb 09 19:46	0° \mathcal{H}		retrograde	15365 Nov 22 15:29	21° \mathcal{B} 17'00
morning rise	15360 Feb 18 02:05	1° \mathcal{H} 52'21		opposition	15366 Jan 22 05:19	16° \mathcal{B} 22'49 -0°47'14
retrograde	15360 Jun 22 15:18	20° \mathcal{H} 15'35		min. Earth dist.	15366 Jan 23 20:45	16° \mathcal{B} 10'03 4.24554 AU
min. Earth dist.	15360 Aug 20 15:38	15° \mathcal{H} 24'27	4.27844 AU		15366 Feb 02 00:24	15° $\mathcal{R}\mathcal{B}$
opposition	15360 Aug 22 00:07	15° \mathcal{H} 13'39	0°46'30	direct	15366 Mar 24 12:15	11° \mathcal{B} 23'01
direct	15360 Oct 21 06:04	10° \mathcal{H} 14'19			15366 May 12 23:49	15° \mathcal{B}
evening set	15361 Feb 23 20:21	28° \mathcal{H} 09'13		evening set	15366 Jul 28 06:41	29° \mathcal{B} 55'56
	15361 Mar 04 06:50	0° \mathcal{Y}			15366 Jul 28 13:46	0° \mathcal{B}
				max. Earth dist.	15366 Aug 08 00:30	2° \mathcal{B} 24'58 6.15624 AU
conjunction	15361 Mar 09 04:30	1° \mathcal{Y} 04'36	0°28'08	conjunction	15366 Aug 10 05:04	2° \mathcal{B} 55'29 -0°32'42
minimum elong	15361 Mar 09 04:31	1° \mathcal{Y} 04'36	0°28'12	minimum elong	15366 Aug 10 05:04	2° \mathcal{B} 55'29 0°33'12
max. Earth dist.	15361 Mar 10 19:04	1° \mathcal{Y} 25'46	6.36056 AU	morning rise	15366 Aug 23 03:17	5° \mathcal{B} 55'21
morning rise	15361 Mar 22 11:45	3° \mathcal{Y} 59'19		retrograde	15366 Dec 28 08:06	24° \mathcal{B} 59'49
retrograde	15361 Jul 23 10:00	21° \mathcal{Y} 19'38		opposition	15367 Feb 26 06:32	20° \mathcal{B} 04'34 -0°45'53
opposition	15361 Sep 22 06:36	16° \mathcal{Y} 20'20	0°32'55	min. Earth dist.	15367 Feb 27 14:10	19° \mathcal{B} 54'11 4.06824 AU
min. Earth dist.	15361 Sep 21 13:43	16° \mathcal{Y} 25'51	4.42798 AU	direct	15367 Apr 27 07:53	15° \mathcal{B} 06'32
direct	15361 Nov 22 15:59	11° \mathcal{Y} 20'17			15367 Aug 12 08:36	0° \mathcal{B}
evening set	15362 Mar 27 11:46	28° \mathcal{Y} 35'45		evening set	15367 Sep 01 01:42	4° \mathcal{B} 37'04

max. Earth dist.	15367 Sep 12 19:14	7° <u>♄</u> 26'02	5.99191 AU		15373 Feb 16 13:01	0° <u>♁</u>	
				evening set	15373 Feb 28 05:59	2° <u>♁</u> 31'17	
conjunction	15367 Sep 14 03:56	7° <u>♄</u> 45'42	-0°25'48				
minimum elong	15367 Sep 14 03:57	7° <u>♄</u> 45'42	0°25'45	conjunction	15373 Mar 13 13:29	5° <u>♁</u> 25'41	0°26'49
morning rise	15367 Sep 27 07:14	10° <u>♄</u> 55'09		minimum elong	15373 Mar 13 13:30	5° <u>♁</u> 25'42	0°26'49
	15368 Jan 08 11:26	0° <u>♄</u>		max. Earth dist.	15373 Mar 14 23:00	5° <u>♁</u> 44'00	6.37972 AU
retrograde	15368 Feb 04 08:16	1° <u>♄</u> 10'07		morning rise	15373 Mar 26 20:18	8° <u>♁</u> 19'28	
	15368 Mar 02 05:16	30° <u>♄</u>		retrograde	15373 Jul 27 12:00	25° <u>♁</u> 33'44	
opposition	15368 Apr 03 18:32	26° <u>♄</u> 12'46	-0°27'11	opposition	15373 Sep 26 09:53	20° <u>♁</u> 34'51	0°30'18
min. Earth dist.	15368 Apr 04 04:02	26° <u>♄</u> 09'36	3.93300 AU	min. Earth dist.	15373 Sep 25 20:00	20° <u>♁</u> 39'23	4.44163 AU
direct	15368 Jun 01 13:40	21° <u>♄</u> 16'40		direct	15373 Nov 26 22:03	15° <u>♁</u> 34'45	
	15368 Aug 17 13:14	0° <u>♄</u>			15374 Mar 18 10:05	0° <u>♄</u>	
evening set	15368 Oct 07 02:55	11° <u>♄</u> 28'30		evening set	15374 Mar 31 16:36	2° <u>♄</u> 47'31	
conjunction	15368 Oct 20 10:31	14° <u>♄</u> 44'05	-0°08'40	conjunction	15374 Apr 13 20:23	5° <u>♄</u> 36'16	0°13'44
minimum elong	15368 Oct 20 10:31	14° <u>♄</u> 44'05	0°08'06	minimum elong	15374 Apr 13 20:24	5° <u>♄</u> 36'16	0°13'17
behind sun begin	15368 Oct 20 03:08	14° <u>♄</u> 39'35		behind sun begin	15374 Apr 13 15:47	5° <u>♄</u> 33'49	
behind sun end	15368 Oct 20 17:53	14° <u>♄</u> 48'36		behind sun end	15374 Apr 14 01:00	5° <u>♄</u> 38'44	
max. Earth dist.	15368 Oct 20 14:18	14° <u>♄</u> 46'23	5.89962 AU	max. Earth dist.	15374 Apr 14 02:41	5° <u>♄</u> 39'38	6.48587 AU
	15368 Oct 21 12:27	15° <u>♄</u>		morning rise	15374 Apr 26 22:38	8° <u>♄</u> 24'15	
morning rise	15368 Nov 02 19:45	18° <u>♄</u> 00'40			15374 May 29 04:32	15° <u>♄</u>	
	15368 Dec 25 19:23	0° <u>♄</u>		retrograde	15374 Aug 26 03:43	25° <u>♄</u> 05'55	
retrograde	15369 Mar 14 07:46	8° <u>♄</u> 51'33		opposition	15374 Oct 26 08:09	20° <u>♄</u> 09'38	0°08'01
asc. node	15369 Mar 31 04:18	8° <u>♄</u> 22'56		min. Earth dist.	15374 Oct 26 13:37	20° <u>♄</u> 07'52	4.50875 AU
opposition	15369 May 12 12:06	3° <u>♄</u> 51'21	0°03'32	direct	15374 Dec 27 13:33	15° <u>♄</u> 09'11	
min. Earth dist.	15369 May 11 20:44	3° <u>♄</u> 56'32	3.89490 AU	desc. node	15375 Mar 08 01:52	21° <u>♄</u> 40'55	
	15369 Jun 14 12:38	30° <u>♄</u>			15375 Apr 20 18:02	0° <u>♄</u>	
direct	15369 Jul 09 15:45	28° <u>♄</u> 55'58		evening set	15375 May 01 00:32	2° <u>♄</u> 09'31	
	15369 Aug 03 17:52	0° <u>♄</u>		max. Earth dist.	15375 May 13 01:33	4° <u>♄</u> 43'38	6.50931 AU
evening set	15369 Nov 14 09:06	19° <u>♄</u> 11'09					
conjunction	15369 Nov 27 20:55	22° <u>♄</u> 27'48	0°12'18	conjunction	15375 May 14 00:41	4° <u>♄</u> 55'59	-0°02'47
minimum elong	15369 Nov 27 20:54	22° <u>♄</u> 27'48	0°13'12	minimum elong	15375 May 14 00:40	4° <u>♄</u> 55'59	0°03'35
behind sun begin	15369 Nov 27 16:02	22° <u>♄</u> 24'51		behind sun begin	15375 May 13 16:43	4° <u>♄</u> 51'45	
behind sun end	15369 Nov 28 01:47	22° <u>♄</u> 30'44		behind sun end	15375 May 14 08:37	5° <u>♄</u> 00'13	
max. Earth dist.	15369 Nov 29 13:29	22° <u>♄</u> 52'28	5.91943 AU	morning rise	15375 May 26 23:24	7° <u>♄</u> 41'47	
morning rise	15369 Dec 11 10:12	25° <u>♄</u> 45'07		retrograde	15375 Sep 25 01:20	24° <u>♄</u> 20'43	
	15369 Dec 29 07:34	0° <u>♄</u>		opposition	15375 Nov 25 05:23	19° <u>♄</u> 26'11	-0°16'05
retrograde	15370 Apr 21 03:50	16° <u>♄</u> 15'40		min. Earth dist.	15375 Nov 26 05:47	19° <u>♄</u> 18'22	4.48781 AU
min. Earth dist.	15370 Jun 18 01:56	11° <u>♄</u> 24'39	3.97072 AU	direct	15376 Jan 26 16:38	14° <u>♄</u> 25'30	
opposition	15370 Jun 19 11:59	11° <u>♄</u> 13'07	0°32'27		15376 May 22 13:41	0° <u>♄</u>	
direct	15370 Aug 16 20:06	6° <u>♄</u> 16'47		evening set	15376 May 30 04:50	1° <u>♄</u> 38'02	
evening set	15370 Dec 22 02:18	25° <u>♄</u> 55'14		max. Earth dist.	15376 Jun 10 05:47	4° <u>♄</u> 01'32	6.44488 AU
conjunction	15371 Jan 04 14:59	29° <u>♄</u> 06'27	0°27'50	conjunction	15376 Jun 12 02:35	4° <u>♄</u> 25'53	-0°18'33
minimum elong	15371 Jan 04 14:58	29° <u>♄</u> 06'27	0°28'41	minimum elong	15376 Jun 12 02:34	4° <u>♄</u> 25'52	0°19'29
max. Earth dist.	15371 Jan 07 01:15	29° <u>♄</u> 40'48	6.04233 AU	morning rise	15376 Jun 24 22:54	7° <u>♄</u> 13'14	
	15371 Jan 08 09:51	0° <u>♄</u>		retrograde	15376 Oct 25 03:09	24° <u>♄</u> 19'40	
morning rise	15371 Jan 18 04:49	2° <u>♄</u> 17'51		opposition	15376 Dec 25 02:44	19° <u>♄</u> 25'45	-0°36'40
	15371 Mar 19 02:08	15° <u>♄</u>		min. Earth dist.	15376 Dec 26 14:40	19° <u>♄</u> 14'12	4.38362 AU
retrograde	15371 May 26 08:37	21° <u>♄</u> 45'02		direct	15377 Feb 25 03:53	14° <u>♄</u> 25'15	
min. Earth dist.	15371 Jul 23 14:55	16° <u>♄</u> 55'01	4.12657 AU		15377 Jun 20 03:47	0° <u>♄</u>	
opposition	15371 Jul 25 05:51	16° <u>♄</u> 41'54	0°47'20	evening set	15377 Jun 30 05:25	2° <u>♄</u> 13'05	
	15371 Aug 07 03:55	15° <u>♄</u>		max. Earth dist.	15377 Jul 10 19:02	4° <u>♄</u> 34'47	6.30759 AU
direct	15371 Sep 22 11:04	11° <u>♄</u> 43'49		conjunction	15377 Jul 13 02:23	5° <u>♄</u> 05'51	-0°29'44
	15371 Nov 07 15:47	15° <u>♄</u>		minimum elong	15377 Jul 13 02:23	5° <u>♄</u> 05'51	0°30'33
	15372 Jan 24 22:57	0° <u>♄</u>		morning rise	15377 Jul 25 22:33	7° <u>♄</u> 58'33	
evening set	15372 Jan 26 20:27	0° <u>♄</u> 25'35			15377 Aug 27 13:49	15° <u>♄</u>	
conjunction	15372 Feb 09 07:29	3° <u>♄</u> 28'13	0°32'36	retrograde	15377 Nov 27 11:52	25° <u>♄</u> 59'58	
minimum elong	15372 Feb 09 07:29	3° <u>♄</u> 28'13	0°33'07	opposition	15378 Jan 26 23:07	21° <u>♄</u> 05'42	-0°47'58
max. Earth dist.	15372 Feb 11 14:16	3° <u>♄</u> 59'14	6.21639 AU	min. Earth dist.	15378 Jan 28 14:44	20° <u>♄</u> 52'52	4.22139 AU
morning rise	15372 Feb 22 18:25	6° <u>♄</u> 30'28		direct	15378 Mar 29 03:06	16° <u>♄</u> 06'07	
retrograde	15372 Jun 26 22:53	24° <u>♄</u> 43'43			15378 Jul 11 21:01	0° <u>♄</u>	
min. Earth dist.	15372 Aug 25 02:46	19° <u>♄</u> 52'10	4.30220 AU	evening set	15378 Aug 01 23:52	4° <u>♄</u> 46'41	
opposition	15372 Aug 26 08:49	19° <u>♄</u> 42'13	0°45'19	max. Earth dist.	15378 Aug 12 18:49	7° <u>♄</u> 17'12	6.13280 AU
direct	15372 Oct 25 19:15	14° <u>♄</u> 42'50		conjunction	15378 Aug 14 22:34	7° <u>♄</u> 47'24	-0°32'24

minimum elong	15378 Aug 14 22:35	7° \mathbb{M} 47'24	0°32'50	max. Earth dist.	15384 Feb 16 06:01	8° \mathbb{H} 39'40	6.23899 AU
morning rise	15378 Aug 27 21:28	10° \mathbb{M} 48'33		morning rise	15384 Feb 27 11:49	11° \mathbb{H} 11'04	
	15378 Dec 28 01:59	0° \mathbb{L}		retrograde	15384 Jul 01 05:56	29° \mathbb{H} 15'32	
retrograde	15379 Jan 02 10:37	0° \mathbb{L} 02'48		opposition	15384 Aug 30 18:40	24° \mathbb{H} 14'20	0°43'50
	15379 Jan 07 19:41	30° \mathbb{R} \mathbb{M}		min. Earth dist.	15384 Aug 29 13:50	24° \mathbb{H} 23'52	4.32277 AU
opposition	15379 Mar 03 08:34	25° \mathbb{M} 07'15	-0°44'15	direct	15384 Oct 30 08:09	19° \mathbb{H} 14'49	
min. Earth dist.	15379 Mar 04 12:48	24° \mathbb{M} 57'58	4.04743 AU		15385 Jan 30 08:28	0° \mathbb{Y}	
direct	15379 May 02 05:10	20° \mathbb{M} 09'28		evening set	15385 Mar 04 17:32	6° \mathbb{Y} 57'46	
	15379 Jul 24 20:28	0° \mathbb{L}					
evening set	15379 Sep 06 02:11	9° \mathbb{L} 46'26		conjunction	15385 Mar 18 00:37	9° \mathbb{Y} 51'17	0°25'18
max. Earth dist.	15379 Sep 18 01:36	12° \mathbb{L} 39'30	5.97562 AU	minimum elong	15385 Mar 18 00:37	9° \mathbb{Y} 51'18	0°25'15
				max. Earth dist.	15385 Mar 19 07:00	10° \mathbb{Y} 07'51	6.39706 AU
conjunction	15379 Sep 19 05:07	12° \mathbb{L} 56'07	-0°23'54	morning rise	15385 Mar 31 06:44	12° \mathbb{Y} 44'08	
minimum elong	15379 Sep 19 05:08	12° \mathbb{L} 56'07	0°23'47	retrograde	15385 Jul 31 16:46	29° \mathbb{Y} 52'39	
morning rise	15379 Oct 02 09:06	16° \mathbb{L} 06'40		opposition	15385 Sep 30 15:20	24° \mathbb{Y} 54'13	0°27'27
	15379 Dec 05 11:36	0° \mathbb{M}		min. Earth dist.	15385 Sep 30 04:05	24° \mathbb{Y} 57'53	4.45481 AU
retrograde	15380 Feb 09 18:09	6° \mathbb{M} 28'32		direct	15385 Dec 01 06:59	19° \mathbb{Y} 54'07	
opposition	15380 Apr 09 02:20	1° \mathbb{M} 30'47	-0°23'21		15386 Mar 01 06:50	0° \mathbb{B}	
min. Earth dist.	15380 Apr 09 09:22	1° \mathbb{M} 28'26	3.92286 AU	evening set	15386 Apr 04 23:33	7° \mathbb{B} 03'56	
	15380 Apr 20 14:31	30° \mathbb{R} \mathbb{L}					
direct	15380 Jun 06 19:28	26° \mathbb{L} 34'50		conjunction	15386 Apr 18 02:42	9° \mathbb{B} 52'10	0°11'32
	15380 Jul 22 21:49	0° \mathbb{M}		minimum elong	15386 Apr 18 02:42	9° \mathbb{B} 52'10	0°11'00
	15380 Oct 04 21:02	15° \mathbb{M}		behind sun begin	15386 Apr 17 20:40	9° \mathbb{B} 48'58	
evening set	15380 Oct 12 08:47	16° \mathbb{M} 48'58		behind sun end	15386 Apr 18 08:43	9° \mathbb{B} 55'23	
				max. Earth dist.	15386 Apr 18 04:19	9° \mathbb{B} 53'02	6.49424 AU
conjunction	15380 Oct 25 17:07	20° \mathbb{M} 05'02	-0°05'47	morning rise	15386 May 01 04:33	12° \mathbb{B} 39'40	
minimum elong	15380 Oct 25 17:07	20° \mathbb{M} 05'02	0°05'08		15386 May 12 07:16	15° \mathbb{B}	
behind sun begin	15380 Oct 25 09:04	20° \mathbb{M} 00'07		retrograde	15386 Aug 30 07:28	29° \mathbb{B} 19'07	
behind sun end	15380 Oct 26 01:11	20° \mathbb{M} 09'57		opposition	15386 Oct 30 12:09	24° \mathbb{B} 23'06	0°04'36
max. Earth dist.	15380 Oct 26 02:42	20° \mathbb{M} 10'54	5.89669 AU	min. Earth dist.	15386 Oct 30 20:06	24° \mathbb{B} 20'33	4.51223 AU
morning rise	15380 Nov 08 03:01	23° \mathbb{M} 22'03		direct	15386 Dec 31 19:27	19° \mathbb{B} 22'38	
	15380 Dec 06 02:55	0° \mathbb{Z}		desc. node	15387 Jan 13 02:46	19° \mathbb{B} 36'17	
asc. node	15381 Feb 10 16:02	12° \mathbb{Z} 01'06			15387 Apr 04 00:14	0° \mathbb{I}	
retrograde	15381 Mar 19 15:35	14° \mathbb{Z} 12'53		evening set	15387 May 05 05:20	6° \mathbb{I} 22'42	
opposition	15381 May 17 19:35	9° \mathbb{Z} 12'19	0°08'01	max. Earth dist.	15387 May 17 04:37	8° \mathbb{I} 55'55	6.50792 AU
min. Earth dist.	15381 May 17 01:02	9° \mathbb{Z} 18'35	3.89979 AU				
direct	15381 Jul 14 22:07	4° \mathbb{Z} 16'54		conjunction	15387 May 18 05:11	9° \mathbb{I} 09'04	-0°05'07
evening set	15381 Nov 19 15:29	24° \mathbb{Z} 28'51		minimum elong	15387 May 18 05:11	9° \mathbb{I} 09'03	0°05'56
				behind sun begin	15387 May 17 21:32	9° \mathbb{I} 05'00	
conjunction	15381 Dec 03 03:28	27° \mathbb{Z} 45'02	0°14'57	behind sun end	15387 May 18 12:49	9° \mathbb{I} 13'07	
minimum elong	15381 Dec 03 03:27	27° \mathbb{Z} 45'01	0°15'52	morning rise	15387 May 31 03:17	11° \mathbb{I} 54'43	
behind sun begin	15381 Dec 03 02:29	27° \mathbb{Z} 44'26		retrograde	15387 Sep 29 05:07	28° \mathbb{I} 34'44	
behind sun end	15381 Dec 03 04:25	27° \mathbb{Z} 45'36		opposition	15387 Nov 29 10:21	23° \mathbb{I} 40'20	-0°19'17
max. Earth dist.	15381 Dec 04 22:02	28° \mathbb{Z} 10'50	5.93133 AU	min. Earth dist.	15387 Nov 30 11:40	23° \mathbb{I} 32'14	4.48180 AU
	15381 Dec 12 10:26	0° \mathbb{B}		direct	15388 Jan 30 20:58	18° \mathbb{I} 39'43	
morning rise	15381 Dec 16 17:12	1° \mathbb{B} 01'54			15388 May 06 03:21	0° \mathbb{C}	
retrograde	15382 Apr 26 03:03	21° \mathbb{B} 25'34		evening set	15388 Jun 03 10:13	5° \mathbb{C} 54'27	
min. Earth dist.	15382 Jun 23 01:54	16° \mathbb{B} 34'53	3.98822 AU	max. Earth dist.	15388 Jun 14 08:48	8° \mathbb{C} 17'02	6.43459 AU
opposition	15382 Jun 24 13:37	16° \mathbb{B} 22'46	0°35'30				
direct	15382 Aug 21 23:31	11° \mathbb{B} 26'09		conjunction	15388 Jun 16 07:33	8° \mathbb{C} 42'31	-0°20'27
	15382 Dec 23 00:33	0° \mathbb{A}		minimum elong	15388 Jun 16 07:32	8° \mathbb{C} 42'31	0°21'23
evening set	15382 Dec 27 03:37	0° \mathbb{A} 57'39		morning rise	15388 Jun 29 03:42	11° \mathbb{C} 30'12	
				retrograde	15388 Oct 29 13:39	28° \mathbb{C} 40'56	
conjunction	15383 Jan 09 16:20	4° \mathbb{A} 07'51	0°29'10	opposition	15388 Dec 29 11:41	23° \mathbb{C} 47'02	-0°38'52
minimum elong	15383 Jan 09 16:20	4° \mathbb{A} 07'51	0°29'58	min. Earth dist.	15388 Dec 31 01:25	23° \mathbb{C} 34'55	4.36945 AU
max. Earth dist.	15383 Jan 12 03:27	4° \mathbb{A} 42'31	6.06377 AU	direct	15389 Mar 01 12:19	18° \mathbb{C} 46'36	
morning rise	15383 Jan 23 05:49	7° \mathbb{A} 18'06			15389 Jun 03 14:44	0° \mathbb{O}	
	15383 Feb 26 17:53	15° \mathbb{A}		evening set	15389 Jul 04 13:28	6° \mathbb{O} 38'51	
retrograde	15383 May 31 01:16	26° \mathbb{A} 35'28		max. Earth dist.	15389 Jul 15 01:57	9° \mathbb{O} 00'29	6.29047 AU
min. Earth dist.	15383 Jul 28 09:38	21° \mathbb{A} 45'07	4.14957 AU				
opposition	15383 Jul 29 23:18	21° \mathbb{A} 32'28	0°47'59	conjunction	15389 Jul 17 10:28	9° \mathbb{O} 32'18	-0°30'40
direct	15383 Sep 27 08:48	16° \mathbb{A} 34'10		minimum elong	15389 Jul 17 10:28	9° \mathbb{O} 32'18	0°31'25
	15384 Jan 08 04:27	0° \mathbb{H}		morning rise	15389 Jul 30 06:46	12° \mathbb{O} 25'44	
evening set	15384 Jan 31 14:41	5° \mathbb{H} 08'29			15389 Aug 10 20:30	15° \mathbb{O}	
					15389 Nov 13 00:37	0° \mathbb{M}	
conjunction	15384 Feb 14 01:17	8° \mathbb{H} 09'58	0°32'21	retrograde	15389 Dec 02 02:31	0° \mathbb{M} 34'25	
minimum elong	15384 Feb 14 01:17	8° \mathbb{H} 09'59	0°32'46		15389 Dec 21 05:21	30° \mathbb{R} \mathbb{O}	

opposition	15390 Jan 31 13:50	25° Ω 39'59	-0°48'23	direct	15395 Oct 02 04:10	21° \approx 24'37	
min. Earth dist.	15390 Feb 02 04:02	25° Ω 27'35	4.20237 AU		15395 Dec 20 07:20	0° \mathbb{H}	
direct	15390 Apr 02 13:48	20° Ω 40'34		evening set	15396 Feb 05 09:17	9° \mathbb{H} 52'56	
	15390 Jun 24 06:41	0° \mathbb{H}					
evening set	15390 Aug 06 13:16	9° \mathbb{H} 27'11		conjunction	15396 Feb 18 19:29	12° \mathbb{H} 53'25	0°31'52
max. Earth dist.	15390 Aug 17 10:52	11° \mathbb{H} 59'55	6.11338 AU	minimum elong	15396 Feb 18 19:30	12° \mathbb{H} 53'26	0°32'14
				max. Earth dist.	15396 Feb 20 21:51	13° \mathbb{H} 21'40	6.25876 AU
conjunction	15390 Aug 19 12:18	12° \mathbb{H} 28'53	-0°31'54	morning rise	15396 Mar 03 05:33	15° \mathbb{H} 53'28	
minimum elong	15390 Aug 19 12:19	12° \mathbb{H} 28'54	0°32'16		15396 May 15 17:10	0° \mathbb{Y}	
morning rise	15390 Sep 01 11:36	15° \mathbb{H} 31'05		retrograde	15396 Jul 05 16:38	3° \mathbb{Y} 50'04	
	15390 Nov 10 23:07	0° $\underline{\Omega}$			15396 Aug 26 04:53	30° \mathbb{R} \mathbb{H}	
retrograde	15391 Jan 07 11:07	4° $\underline{\Omega}$ 54'02		min. Earth dist.	15396 Sep 03 03:06	28° \mathbb{H} 57'54	4.34159 AU
opposition	15391 Mar 08 06:13	29° \mathbb{H} 58'16	-0°42'21	opposition	15396 Sep 04 05:36	28° \mathbb{H} 49'10	0°42'05
	15391 Mar 08 00:58	30° \mathbb{R} \mathbb{H}		direct	15396 Nov 03 23:50	23° \mathbb{H} 49'29	
min. Earth dist.	15391 Mar 09 09:38	29° \mathbb{H} 49'14	4.02905 AU		15397 Jan 10 00:33	0° \mathbb{Y}	
direct	15391 May 07 00:19	25° \mathbb{H} 00'41		evening set	15397 Mar 09 05:42	11° \mathbb{Y} 27'09	
	15391 Jul 03 04:19	0° $\underline{\Omega}$					
evening set	15391 Sep 10 22:14	14° $\underline{\Omega}$ 43'35		conjunction	15397 Mar 22 12:16	14° \mathbb{Y} 19'49	0°23'38
max. Earth dist.	15391 Sep 23 01:29	17° $\underline{\Omega}$ 39'33	5.96008 AU	minimum elong	15397 Mar 22 12:16	14° \mathbb{Y} 19'49	0°23'30
				max. Earth dist.	15397 Mar 23 16:05	14° \mathbb{Y} 34'55	6.41343 AU
conjunction	15391 Sep 24 01:54	17° $\underline{\Omega}$ 54'21	-0°21'55	morning rise	15397 Apr 04 17:48	17° \mathbb{Y} 11'46	
minimum elong	15391 Sep 24 01:55	17° $\underline{\Omega}$ 54'21	0°21'44		15397 Jun 11 11:30	0° \mathbb{B}	
morning rise	15391 Oct 07 06:40	21° $\underline{\Omega}$ 05'59		retrograde	15397 Aug 04 20:45	4° \mathbb{B} 14'39	
	15391 Nov 14 21:20	0° \mathbb{M}			15397 Sep 29 07:05	30° \mathbb{R} \mathbb{Y}	
retrograde	15392 Feb 14 21:54	11° \mathbb{M} 34'40		opposition	15397 Oct 04 21:33	29° \mathbb{Y} 16'27	0°24'26
opposition	15392 Apr 14 05:05	6° \mathbb{M} 36'38	-0°19'29	min. Earth dist.	15397 Oct 04 11:51	29° \mathbb{Y} 19'37	4.46760 AU
min. Earth dist.	15392 Apr 14 08:58	6° \mathbb{M} 35'20	3.91198 AU	direct	15397 Dec 05 15:22	24° \mathbb{Y} 16'13	
direct	15392 Jun 11 17:55	1° \mathbb{M} 40'52			15398 Feb 08 22:31	0° \mathbb{B}	
	15392 Sep 17 23:55	15° \mathbb{M}		evening set	15398 Apr 09 07:00	11° \mathbb{B} 22'57	
evening set	15392 Oct 17 10:31	21° \mathbb{M} 58'13					
				conjunction	15398 Apr 22 09:40	14° \mathbb{B} 10'39	0°09'14
conjunction	15392 Oct 30 19:24	25° \mathbb{M} 14'51	-0°02'57	minimum elong	15398 Apr 22 09:40	14° \mathbb{B} 10'39	0°08'40
minimum elong	15392 Oct 30 19:25	25° \mathbb{M} 14'52	0°02'15	behind sun begin	15398 Apr 22 02:42	14° \mathbb{B} 06'57	
behind sun begin	15392 Oct 30 11:06	25° \mathbb{M} 09'47		behind sun end	15398 Apr 22 16:38	14° \mathbb{B} 14'21	
behind sun end	15392 Oct 31 03:44	25° \mathbb{M} 19'57		max. Earth dist.	15398 Apr 22 08:44	14° \mathbb{B} 10'09	6.50237 AU
max. Earth dist.	15392 Oct 31 07:43	25° \mathbb{M} 22'24	5.89146 AU		15398 Apr 26 06:00	15° \mathbb{B}	
morning rise	15392 Nov 13 06:12	28° \mathbb{M} 32'31		morning rise	15398 May 05 10:48	16° \mathbb{B} 57'35	
	15392 Nov 19 06:23	0° \mathbb{X}			15398 Jul 15 12:29	0° \mathbb{I}	
asc. node	15392 Dec 25 01:19	8° \mathbb{X} 13'40		retrograde	15398 Sep 03 10:57	3° \mathbb{I} 34'43	
retrograde	15393 Mar 24 19:04	19° \mathbb{X} 24'47			15398 Oct 24 00:45	30° \mathbb{R} \mathbb{B}	
opposition	15393 May 22 23:17	14° \mathbb{X} 23'54	0°12'16	opposition	15398 Nov 03 16:36	28° \mathbb{B} 38'57	0°01'08
min. Earth dist.	15393 May 22 02:01	14° \mathbb{X} 31'06	3.90082 AU	min. Earth dist.	15398 Nov 04 03:11	28° \mathbb{B} 35'33	4.51495 AU
direct	15393 Jul 20 01:28	9° \mathbb{X} 28'23		desc. node	15398 Nov 21 18:38	26° \mathbb{B} 24'39	
evening set	15393 Nov 24 18:52	29° \mathbb{X} 39'08		direct	15399 Jan 05 02:04	23° \mathbb{B} 38'24	
	15393 Nov 26 05:31	0° \mathbb{B}			15399 Mar 15 13:37	0° \mathbb{I}	
				evening set	15399 May 09 10:43	10° \mathbb{I} 38'21	
conjunction	15393 Dec 08 07:23	2° \mathbb{B} 55'11	0°17'24	max. Earth dist.	15399 May 21 04:35	13° \mathbb{I} 08'52	6.50464 AU
minimum elong	15393 Dec 08 07:22	2° \mathbb{B} 55'11	0°18'20				
max. Earth dist.	15393 Dec 10 05:56	3° \mathbb{B} 23'22	5.93863 AU	conjunction	15399 May 22 09:57	13° \mathbb{I} 24'36	-0°07'27
morning rise	15393 Dec 21 21:16	6° \mathbb{B} 11'47		minimum elong	15399 May 22 09:56	13° \mathbb{I} 24'36	0°08'18
retrograde	15394 May 01 03:07	26° \mathbb{B} 30'49		behind sun begin	15399 May 22 02:53	13° \mathbb{I} 20'50	
min. Earth dist.	15394 Jun 28 01:19	21° \mathbb{B} 40'07	4.00080 AU	behind sun end	15399 May 22 17:00	13° \mathbb{I} 28'21	
opposition	15394 Jun 29 13:24	21° \mathbb{B} 27'54	0°38'14	morning rise	15399 Jun 04 07:48	16° \mathbb{I} 10'14	
direct	15394 Aug 27 01:25	16° \mathbb{B} 31'06			15399 Aug 20 02:30	0° \mathbb{B}	
	15394 Dec 05 21:50	0° \approx		retrograde	15399 Oct 03 11:59	2° \mathbb{B} 52'04	
evening set	15395 Jan 01 04:10	5° \approx 57'48			15399 Nov 17 05:38	30° \mathbb{R} \mathbb{I}	
				opposition	15399 Dec 03 16:36	27° \mathbb{I} 57'44	-0°22'26
conjunction	15395 Jan 14 16:51	9° \approx 07'13	0°30'16	min. Earth dist.	15399 Dec 04 20:26	27° \mathbb{I} 48'49	4.47253 AU
minimum elong	15395 Jan 14 16:50	9° \approx 07'13	0°31'02	direct	15400 Feb 04 03:30	22° \mathbb{I} 57'00	
max. Earth dist.	15395 Jan 17 05:05	9° \approx 42'24	6.08033 AU		15400 Apr 18 06:33	0° \mathbb{B}	
morning rise	15395 Jan 28 06:14	12° \approx 16'39		evening set	15400 Jun 08 16:30	10° \mathbb{B} 14'58	
	15395 Feb 09 03:22	15° \approx		max. Earth dist.	15400 Jun 19 13:22	12° \mathbb{B} 37'04	6.41978 AU
	15395 May 05 16:26	0° \mathbb{H}					
retrograde	15395 Jun 04 15:52	1° \mathbb{H} 25'59		conjunction	15400 Jun 21 13:45	13° \mathbb{B} 03'31	-0°22'17
	15395 Jul 04 12:49	30° \mathbb{R} \approx		minimum elong	15400 Jun 21 13:45	13° \mathbb{B} 03'31	0°23'12
min. Earth dist.	15395 Aug 02 01:59	26° \approx 35'57	4.16851 AU	morning rise	15400 Jul 04 09:37	15° \mathbb{B} 51'40	
opposition	15395 Aug 03 16:18	26° \approx 23'06	0°48'19		15400 Sep 18 18:03	0° Ω	

retrograde	15400 Nov 04 00:39	3°♏08'23		retrograde	15406 May 07 03:45	1°♏43'59	
	15400 Dec 20 22:25	30°♏			15406 Jun 08 20:46	30°♏	
opposition	15401 Jan 03 22:47	28°♏14'26	-0°40'56	min. Earth dist.	15406 Jul 04 01:58	26°♏53'57	4.02093 AU
min. Earth dist.	15401 Jan 05 12:47	28°♏02'13	4.34993 AU	opposition	15406 Jul 05 16:25	26°♏40'57	0°40'44
direct	15401 Mar 06 20:21	23°♏14'03		direct	15406 Sep 02 05:55	21°♏43'57	
	15401 May 16 05:14	0°♏			15406 Nov 17 03:34	0°♏	
evening set	15401 Jul 10 00:35	11°♏12'39		evening set	15407 Jan 07 07:10	11°♏02'49	
max. Earth dist.	15401 Jul 20 12:47	13°♏34'51	6.26756 AU				
				conjunction	15407 Jan 20 19:32	14°♏11'00	0°31'11
conjunction	15401 Jul 22 21:35	14°♏07'01	-0°31'26	minimum elong	15407 Jan 20 19:32	14°♏11'00	0°31'54
minimum elong	15401 Jul 22 21:35	14°♏07'01	0°32'10	max. Earth dist.	15407 Jan 23 07:09	14°♏45'37	6.10494 AU
	15401 Jul 26 19:07	15°♏			15407 Jan 24 07:56	15°♏	
morning rise	15401 Aug 04 18:08	17°♏01'29		morning rise	15407 Feb 03 08:37	17°♏19'07	
	15401 Oct 08 04:21	0°♏			15407 Apr 05 08:28	0°♏	
retrograde	15401 Dec 08 00:38	5°♏19'36		retrograde	15407 Jun 10 08:39	6°♏17'32	
opposition	15402 Feb 06 08:55	0°♏25'01	-0°48'32	min. Earth dist.	15407 Aug 07 21:31	1°♏27'07	4.19499 AU
min. Earth dist.	15402 Feb 07 23:24	0°♏12'29	4.17748 AU	opposition	15407 Aug 09 10:19	1°♏14'48	0°48'20
	15402 Feb 09 13:49	30°♏			15407 Aug 18 20:24	30°♏	
direct	15402 Apr 08 06:10	25°♏25'43		direct	15407 Oct 08 03:32	26°♏16'05	
	15402 Jun 02 19:38	0°♏			15407 Nov 27 02:52	0°♏	
evening set	15402 Aug 12 07:38	14°♏20'30		evening set	15408 Feb 11 03:35	14°♏35'49	
max. Earth dist.	15402 Aug 23 07:40	16°♏55'28	6.08872 AU				
				conjunction	15408 Feb 24 13:24	17°♏35'01	0°31'14
conjunction	15402 Aug 25 07:17	17°♏23'31	-0°31'09	minimum elong	15408 Feb 24 13:24	17°♏35'01	0°31'31
minimum elong	15402 Aug 25 07:18	17°♏23'31	0°31'27	max. Earth dist.	15408 Feb 26 14:47	18°♏02'33	6.28497 AU
morning rise	15402 Sep 07 07:13	20°♏27'05		morning rise	15408 Mar 08 22:43	20°♏33'40	
	15402 Oct 20 06:32	0°♏			15408 Apr 23 12:26	0°♏	
retrograde	15403 Jan 13 16:35	10°♏00'35		retrograde	15408 Jul 10 23:08	8°♏20'28	
opposition	15403 Mar 14 10:00	5°♏04'33	-0°40'03	opposition	15408 Sep 09 15:05	3°♏19'55	0°40'08
min. Earth dist.	15403 Mar 15 10:26	4°♏56'29	4.00698 AU	min. Earth dist.	15408 Sep 08 13:41	3°♏28'17	4.36545 AU
direct	15403 May 12 22:20	0°♏07'14			15408 Oct 07 12:16	30°♏	
evening set	15403 Sep 17 01:03	19°♏57'19		direct	15408 Nov 09 12:22	28°♏20'10	
max. Earth dist.	15403 Sep 29 08:38	22°♏56'38	5.94273 AU		15408 Dec 12 20:46	0°♏	
				evening set	15409 Mar 14 16:12	15°♏51'17	
conjunction	15403 Sep 30 05:21	23°♏09'14	-0°19'38				
minimum elong	15403 Sep 30 05:22	23°♏09'14	0°19'22	conjunction	15409 Mar 27 22:04	18°♏42'54	0°21'53
morning rise	15403 Oct 13 11:07	26°♏22'07		minimum elong	15409 Mar 27 22:05	18°♏42'55	0°21'41
	15403 Oct 28 15:50	0°♏		max. Earth dist.	15409 Mar 28 21:11	18°♏55'24	6.43321 AU
	15404 Jan 17 08:12	15°♏		morning rise	15409 Apr 10 02:58	21°♏33'50	
retrograde	15404 Feb 21 08:21	16°♏58'03			15409 May 21 18:20	0°♏	
	15404 Mar 27 11:03	15°♏		retrograde	15409 Aug 10 00:51	8°♏30'30	
opposition	15404 Apr 20 14:56	11°♏59'37	-0°15'13	opposition	15409 Oct 10 01:57	3°♏32'43	0°21'23
min. Earth dist.	15404 Apr 20 15:12	11°♏59'31	3.90132 AU	min. Earth dist.	15409 Oct 09 19:58	3°♏34'40	4.48196 AU
direct	15404 Jun 18 01:27	7°♏03'57			15409 Nov 09 16:04	30°♏	
	15404 Aug 29 18:01	15°♏		direct	15409 Dec 10 23:46	28°♏32'25	
evening set	15404 Oct 23 19:12	27°♏23'58			15410 Jan 11 13:17	0°♏	
asc. node	15404 Nov 03 15:21	0°♏03'17			15410 Apr 11 16:08	15°♏	
	15404 Nov 03 10:00	0°♏		evening set	15410 Apr 14 12:05	15°♏35'54	
conjunction	15404 Nov 06 04:58	0°♏41'07	0°00'10	conjunction	15410 Apr 27 14:12	18°♏23'06	0°06'58
minimum elong	15404 Nov 06 04:57	0°♏41'06	0°00'54	minimum elong	15410 Apr 27 14:13	18°♏23'06	0°06'21
behind sun begin	15404 Nov 05 20:37	0°♏36'01		behind sun begin	15410 Apr 27 06:38	18°♏19'05	
behind sun end	15404 Nov 06 13:17	0°♏46'12		behind sun end	15410 Apr 27 21:48	18°♏27'08	
max. Earth dist.	15404 Nov 06 24:00	0°♏52'48	5.88886 AU	max. Earth dist.	15410 Apr 27 08:35	18°♏20'07	6.51019 AU
morning rise	15404 Nov 19 16:16	3°♏59'09		morning rise	15410 May 10 14:51	21°♏09'33	
retrograde	15405 Mar 31 05:49	24°♏50'59			15410 Jun 24 02:37	0°♏	
min. Earth dist.	15405 May 28 09:18	19°♏57'44	3.90673 AU	retrograde	15410 Sep 08 12:52	7°♏45'01	
opposition	15405 May 29 08:49	19°♏49'46	0°16'38	desc. node	15410 Oct 04 20:01	6°♏41'58	
direct	15405 Jul 26 11:13	14°♏54'11		opposition	15410 Nov 08 19:24	2°♏49'30	-0°02'15
	15405 Nov 09 20:13	0°♏		min. Earth dist.	15410 Nov 09 08:19	2°♏45'21	4.51585 AU
evening set	15405 Dec 01 03:47	5°♏01'24			15410 Dec 02 06:16	30°♏	
				direct	15411 Jan 10 05:18	27°♏48'54	
conjunction	15405 Dec 14 16:30	8°♏16'54	0°19'50		15411 Feb 18 08:44	0°♏	
minimum elong	15405 Dec 14 16:30	8°♏16'54	0°20'45	evening set	15411 May 14 14:11	14°♏49'33	
max. Earth dist.	15405 Dec 16 18:48	8°♏47'13	5.95235 AU	max. Earth dist.	15411 May 26 05:17	17°♏18'47	6.49849 AU
morning rise	15405 Dec 28 06:40	11°♏32'54					
	15406 Apr 04 08:55	0°♏		conjunction	15411 May 27 13:09	17°♏35'53	-0°09'42

minimum elong	15411 May 27 13:09	17° Π 35'53	0°10'35	behind sun begin	15416 Nov 11 08:35	6° \mathcal{A} 09'03	
behind sun begin	15411 May 27 06:57	17° Π 32'34		behind sun end	15416 Nov 12 01:03	6° \mathcal{A} 19'06	
behind sun end	15411 May 27 19:21	17° Π 39'12		max. Earth dist.	15416 Nov 12 17:00	6° \mathcal{A} 28'54	5.89050 AU
morning rise	15411 Jun 09 10:28	20° Π 21'36		morning rise	15416 Nov 25 04:56	9° \mathcal{A} 32'21	
	15411 Jul 28 01:56	0° \mathfrak{E}			15417 Mar 22 00:26	0° \mathfrak{Z}	
retrograde	15411 Oct 08 17:26	7° \mathfrak{E} 06'28		retrograde	15417 Apr 05 14:16	0° \mathfrak{Z} 21'22	
opposition	15411 Dec 08 21:47	2° \mathfrak{E} 12'19	-0°25'25		15417 Apr 20 03:44	30° \mathcal{R} \mathcal{A}	
min. Earth dist.	15411 Dec 10 03:56	2° \mathfrak{E} 02'40	4.45956 AU	opposition	15417 Jun 03 19:23	25° \mathcal{A} 19'43	0°20'51
	15411 Dec 26 17:56	30° \mathcal{R} Π		min. Earth dist.	15417 Jun 02 15:42	25° \mathcal{A} 29'06	3.91780 AU
direct	15412 Feb 09 07:48	27° Π 11'38		direct	15417 Jul 31 21:18	20° \mathcal{A} 23'59	
	15412 Mar 24 16:06	0° \mathfrak{E}			15417 Oct 21 07:53	0° \mathfrak{Z}	
evening set	15412 Jun 12 22:27	14° \mathfrak{E} 34'16		evening set	15417 Dec 06 13:07	10° \mathfrak{Z} 25'25	
max. Earth dist.	15412 Jun 23 15:26	16° \mathfrak{E} 54'55	6.40071 AU				
				conjunction	15417 Dec 20 01:53	13° \mathfrak{Z} 40'01	0°22'06
conjunction	15412 Jun 25 19:25	17° \mathfrak{E} 23'28	-0°23'59	minimum elong	15417 Dec 20 01:53	13° \mathfrak{Z} 40'01	0°23'00
minimum elong	15412 Jun 25 19:25	17° \mathfrak{E} 23'28	0°24'53	max. Earth dist.	15417 Dec 22 06:34	14° \mathfrak{Z} 11'37	5.97136 AU
morning rise	15412 Jul 08 15:25	20° \mathfrak{E} 12'23		morning rise	15418 Jan 02 16:05	16° \mathfrak{Z} 55'03	
	15412 Aug 25 16:47	0° \mathcal{O}			15418 Mar 04 06:23	0° \mathfrak{A}	
retrograde	15412 Nov 08 14:58	7° \mathcal{O} 36'50		retrograde	15418 May 12 04:19	6° \mathfrak{A} 56'09	
opposition	15413 Jan 08 10:30	2° \mathcal{O} 42'52	-0°42'47	min. Earth dist.	15418 Jul 09 04:11	2° \mathfrak{A} 05'57	4.04534 AU
min. Earth dist.	15413 Jan 10 01:58	2° \mathcal{O} 30'09	4.32573 AU	opposition	15418 Jul 10 18:40	1° \mathfrak{A} 52'56	0°42'51
	15413 Jan 30 17:26	30° \mathcal{R} \mathfrak{E}			15418 Jul 25 02:19	30° \mathcal{R} \mathfrak{Z}	
direct	15413 Mar 11 05:39	27° \mathfrak{E} 42'33		direct	15418 Sep 07 13:06	26° \mathfrak{Z} 55'36	
	15413 Apr 19 11:39	0° \mathcal{O}			15418 Oct 21 18:20	0° \mathfrak{A}	
	15413 Jul 10 20:47	15° \mathcal{O}			15419 Jan 07 14:55	15° \mathfrak{A}	
evening set	15413 Jul 14 12:20	15° \mathcal{O} 49'15		evening set	15419 Jan 12 08:52	16° \mathfrak{A} 05'14	
max. Earth dist.	15413 Jul 25 01:16	18° \mathcal{O} 12'43	6.24010 AU				
				conjunction	15419 Jan 25 21:04	19° \mathfrak{A} 12'04	0°31'51
conjunction	15413 Jul 27 09:45	18° \mathcal{O} 44'53	-0°32'02	minimum elong	15419 Jan 25 21:04	19° \mathfrak{A} 12'04	0°32'31
minimum elong	15413 Jul 27 09:45	18° \mathcal{O} 44'53	0°32'43	max. Earth dist.	15419 Jan 28 09:42	19° \mathfrak{A} 47'03	6.13230 AU
morning rise	15413 Aug 09 06:35	21° \mathcal{O} 40'38		morning rise	15419 Feb 08 09:34	22° \mathfrak{A} 18'42	
	15413 Sep 16 17:35	0° \mathcal{M}			15419 Mar 15 11:29	0° \mathcal{H}	
retrograde	15413 Dec 12 23:58	10° \mathcal{M} 10'05		retrograde	15419 Jun 14 22:22	11° \mathcal{H} 05'25	
opposition	15414 Feb 11 06:02	5° \mathcal{M} 15'25	-0°48'24	min. Earth dist.	15419 Aug 12 14:13	6° \mathcal{H} 14'59	4.22263 AU
min. Earth dist.	15414 Feb 12 19:10	5° \mathcal{M} 03'19	4.14885 AU	opposition	15419 Aug 14 02:26	6° \mathcal{H} 02'54	0°47'59
direct	15414 Apr 12 21:34	0° \mathcal{M} 16'25		direct	15419 Oct 12 23:13	1° \mathcal{H} 03'59	
evening set	15414 Aug 17 04:33	19° \mathcal{M} 20'52		evening set	15420 Feb 15 20:20	19° \mathcal{H} 15'09	
max. Earth dist.	15414 Aug 28 07:19	21° \mathcal{M} 58'27	6.06143 AU				
				conjunction	15420 Feb 29 05:28	22° \mathcal{H} 13'01	0°30'22
conjunction	15414 Aug 30 04:41	22° \mathcal{M} 25'21	-0°30'12	minimum elong	15420 Feb 29 05:28	22° \mathcal{H} 13'01	0°30'36
minimum elong	15414 Aug 30 04:41	22° \mathcal{M} 25'21	0°30'24	max. Earth dist.	15420 Mar 02 02:14	22° \mathcal{H} 37'51	6.31055 AU
morning rise	15414 Sep 12 05:29	25° \mathcal{M} 30'30		morning rise	15420 Mar 13 14:18	25° \mathcal{H} 10'22	
	15414 Oct 01 14:03	0° \mathfrak{L}			15420 Apr 05 01:31	0° \mathcal{Y}	
retrograde	15415 Jan 19 01:51	15° \mathfrak{L} 15'48		retrograde	15420 Jul 15 06:34	12° \mathcal{Y} 48'04	
opposition	15415 Mar 19 17:00	10° \mathfrak{L} 19'28	-0°37'26	opposition	15420 Sep 13 23:36	7° \mathcal{Y} 47'51	0°37'57
min. Earth dist.	15415 Mar 20 14:19	10° \mathfrak{L} 12'24	3.98366 AU	min. Earth dist.	15420 Sep 13 01:34	7° \mathcal{Y} 55'06	4.38716 AU
direct	15415 May 18 00:59	5° \mathfrak{L} 22'27		direct	15420 Nov 14 01:21	2° \mathcal{Y} 47'56	
evening set	15415 Sep 22 07:07	25° \mathfrak{L} 20'07		evening set	15421 Mar 19 01:28	20° \mathcal{Y} 13'21	
conjunction	15415 Oct 05 12:27	28° \mathfrak{L} 33'16	-0°17'11	conjunction	15421 Apr 01 06:55	23° \mathcal{Y} 04'09	0°20'00
minimum elong	15415 Oct 05 12:27	28° \mathfrak{L} 33'17	0°16'49	minimum elong	15421 Apr 01 06:56	23° \mathcal{Y} 04'09	0°19'43
max. Earth dist.	15415 Oct 04 22:39	28° \mathfrak{L} 24'52	5.92604 AU	max. Earth dist.	15421 Apr 02 03:03	23° \mathcal{Y} 15'00	6.44957 AU
	15415 Oct 11 10:32	0° \mathcal{M}		morning rise	15421 Apr 14 11:04	25° \mathcal{Y} 54'11	
morning rise	15415 Oct 18 18:59	1° \mathcal{M} 47'22			15421 May 03 23:37	0° \mathcal{B}	
	15415 Dec 17 08:42	15° \mathcal{M}		retrograde	15421 Aug 14 03:01	12° \mathcal{B} 45'55	
retrograde	15416 Feb 26 23:29	22° \mathcal{M} 29'49		opposition	15421 Oct 14 06:05	7° \mathcal{B} 48'28	0°18'11
opposition	15416 Apr 26 03:37	17° \mathcal{M} 30'59	-0°10'45	min. Earth dist.	15421 Oct 14 02:06	7° \mathcal{B} 49'46	4.49218 AU
min. Earth dist.	15416 Apr 26 00:21	17° \mathcal{M} 32'05	3.89347 AU	direct	15421 Dec 15 05:21	2° \mathcal{B} 48'07	
	15416 May 15 20:02	15° \mathcal{R} \mathcal{M}			15422 Mar 26 08:40	15° \mathcal{B}	
direct	15416 Jun 23 11:45	12° \mathcal{M} 35'30		evening set	15422 Apr 18 17:36	19° \mathcal{B} 49'41	
	15416 Jul 31 16:49	15° \mathcal{M}					
asc. node	15416 Sep 10 02:01	21° \mathcal{M} 42'45		conjunction	15422 May 01 19:09	22° \mathcal{B} 36'31	0°04'38
	15416 Oct 17 02:02	0° \mathcal{A}		minimum elong	15422 May 01 19:10	22° \mathcal{B} 36'32	0°03'59
evening set	15416 Oct 29 06:32	2° \mathcal{A} 56'44		behind sun begin	15422 May 01 11:14	22° \mathcal{B} 32'19	
				behind sun end	15422 May 02 03:06	22° \mathcal{B} 40'44	
conjunction	15416 Nov 11 16:49	6° \mathcal{A} 14'05	0°03'14	max. Earth dist.	15422 May 01 09:01	22° \mathcal{B} 31'08	6.51361 AU
minimum elong	15416 Nov 11 16:49	6° \mathcal{A} 14'05	0°04'02	morning rise	15422 May 14 19:17	25° \mathcal{B} 22'40	

	15422 Jun 06 02:54	0°♐	asc. node	15428 Jul 18 11:18	18°♑44'14	
desc. node	15422 Aug 16 15:38	10°♐51'25		15428 Sep 28 17:34	0°♑	
retrograde	15422 Sep 12 17:51	11°♐57'45	evening set	15428 Nov 03 16:28	8°♑24'34	
opposition	15422 Nov 12 23:23	7°♐02'31 -0°05'40				
min. Earth dist.	15422 Nov 13 15:58	6°♐57'12 4.51233 AU	conjunction	15428 Nov 17 03:12	11°♑41'43 0°06'10	
direct	15423 Jan 14 10:52	2°♐01'51	minimum elong	15428 Nov 17 03:11	11°♑41'42 0°07'01	
evening set	15423 May 18 19:20	19°♐04'28	behind sun begin	15428 Nov 16 19:28	11°♑37'00	
max. Earth dist.	15423 May 30 05:23	21°♐31'24 6.48812 AU	behind sun end	15428 Nov 17 10:53	11°♑46'24	
			max. Earth dist.	15428 Nov 18 08:30	11°♑59'39 5.89941 AU	
conjunction	15423 May 31 17:55	21°♐51'03 -0°11'57	morning rise	15428 Nov 30 15:39	14°♑59'40	
minimum elong	15423 May 31 17:55	21°♐51'03 0°12'51		15429 Feb 08 07:16	0°♑	
behind sun begin	15423 May 31 12:58	21°♐48'24	retrograde	15429 Apr 10 20:05	5°♑42'59	
behind sun end	15423 May 31 22:52	21°♐53'42	min. Earth dist.	15429 Jun 07 21:05	0°♑50'58 3.93481 AU	
morning rise	15423 Jun 13 15:05	24°♐37'04	opposition	15429 Jun 09 02:28	0°♑41'01 0°24'45	
	15423 Jul 09 11:50	0°♑		15429 Jun 14 03:55	30°♑♑	
retrograde	15423 Oct 13 02:16	11°♑26'16	direct	15429 Aug 06 07:04	25°♑45'06	
opposition	15423 Dec 13 05:33	6°♑32'10 -0°28'22		15429 Sep 27 03:33	0°♑	
min. Earth dist.	15423 Dec 14 13:17	6°♑21'59 4.44298 AU	evening set	15429 Dec 11 18:34	15°♑38'54	
direct	15424 Feb 13 13:20	1°♑31'26				
evening set	15424 Jun 17 06:48	18°♑59'44	conjunction	15429 Dec 25 07:28	18°♑52'25 0°24'05	
max. Earth dist.	15424 Jun 27 23:33	21°♑20'52 6.37903 AU	minimum elong	15429 Dec 25 07:27	18°♑52'25 0°24'58	
			max. Earth dist.	15429 Dec 27 15:37	19°♑25'55 5.99460 AU	
conjunction	15424 Jun 30 03:53	21°♑49'45 -0°25'35	morning rise	15430 Jan 07 21:24	22°♑06'14	
minimum elong	15424 Jun 30 03:52	21°♑49'45 0°26'28		15430 Feb 11 16:05	0°♑	
morning rise	15424 Jul 12 23:43	24°♑39'29	retrograde	15430 May 17 00:12	11°♑56'08	
	15424 Aug 06 22:15	0°♑	min. Earth dist.	15430 Jul 14 01:00	7°♑06'08 4.07219 AU	
retrograde	15424 Nov 13 07:52	12°♑12'29	opposition	15430 Jul 15 15:59	6°♑52'59 0°44'33	
opposition	15425 Jan 13 01:33	7°♑18'32 -0°44'25	direct	15430 Sep 12 13:33	1°♑55'27	
min. Earth dist.	15425 Jan 14 17:34	7°♑05'38 4.30034 AU		15430 Dec 21 14:57	15°♑	
direct	15425 Mar 15 16:56	2°♑18'24	evening set	15431 Jan 17 05:49	20°♑55'38	
	15425 Jun 23 23:26	15°♑				
evening set	15425 Jul 19 03:41	20°♑33'30	conjunction	15431 Jan 30 17:29	24°♑01'02 0°32'16	
max. Earth dist.	15425 Jul 29 16:25	22°♑57'48 6.21295 AU	minimum elong	15431 Jan 30 17:29	24°♑01'02 0°32'52	
			max. Earth dist.	15431 Feb 02 03:16	24°♑34'10 6.16008 AU	
conjunction	15425 Aug 01 01:14	23°♑30'21 -0°32'25	morning rise	15431 Feb 13 05:39	27°♑06'15	
minimum elong	15425 Aug 01 01:14	23°♑30'21 0°33'03		15431 Feb 26 02:54	0°♑	
morning rise	15425 Aug 13 22:38	26°♑27'26	retrograde	15431 Jun 19 07:36	15°♑41'56	
	15425 Aug 29 16:09	0°♑	min. Earth dist.	15431 Aug 17 03:56	10°♑51'05 4.24889 AU	
retrograde	15425 Dec 18 03:04	15°♑08'08	opposition	15431 Aug 18 14:05	10°♑39'42 0°47'21	
opposition	15426 Feb 16 06:35	10°♑13'18 -0°47'54	direct	15431 Oct 17 14:58	5°♑40'37	
min. Earth dist.	15426 Feb 17 17:55	10°♑01'44 4.12216 AU	evening set	15432 Feb 20 08:35	23°♑44'11	
direct	15426 Apr 17 17:32	5°♑14'35				
evening set	15426 Aug 22 04:28	24°♑27'51	conjunction	15432 Mar 04 17:22	26°♑40'56 0°29'23	
max. Earth dist.	15426 Sep 02 13:09	27°♑09'45 6.03798 AU	minimum elong	15432 Mar 04 17:23	26°♑40'57 0°29'31	
			max. Earth dist.	15432 Mar 06 11:42	27°♑04'19 6.33344 AU	
conjunction	15426 Sep 04 05:24	27°♑33'45 -0°28'59	morning rise	15432 Mar 18 01:24	29°♑37'05	
minimum elong	15426 Sep 04 05:25	27°♑33'45 0°29'08		15432 Mar 19 19:20	0°♑	
	15426 Sep 14 10:57	0°♑	retrograde	15432 Jul 19 09:50	17°♑07'03	
morning rise	15426 Sep 17 06:49	0°♑40'16	min. Earth dist.	15432 Sep 17 08:35	12°♑13'48 4.40519 AU	
retrograde	15427 Jan 24 13:27	20°♑35'31	opposition	15432 Sep 18 04:23	12°♑07'19 0°35'40	
opposition	15427 Mar 25 02:12	15°♑38'58 -0°34'26	direct	15432 Nov 18 09:10	7°♑07'25	
min. Earth dist.	15427 Mar 25 20:27	15°♑32'55 3.96618 AU	evening set	15433 Mar 23 07:56	24°♑28'40	
direct	15427 May 23 06:03	10°♑42'20				
	15427 Sep 24 12:17	0°♑	conjunction	15433 Apr 05 12:44	27°♑18'47 0°18'05	
evening set	15427 Sep 27 14:37	0°♑45'01	minimum elong	15433 Apr 05 12:44	27°♑18'47 0°17'46	
			max. Earth dist.	15433 Apr 06 02:50	27°♑26'22 6.46158 AU	
conjunction	15427 Oct 10 20:32	3°♑58'59 -0°14'35	morning rise	15433 Apr 18 16:28	0°♑08'11	
minimum elong	15427 Oct 10 20:32	3°♑59'00 0°14'09		15433 Apr 18 01:08	0°♑	
behind sun begin	15427 Oct 10 16:27	3°♑56'31		15433 Jul 13 03:05	15°♑	
behind sun end	15427 Oct 11 00:37	4°♑01'29	retrograde	15433 Aug 18 05:54	16°♑56'38	
max. Earth dist.	15427 Oct 10 11:31	3°♑53'29 5.91637 AU		15433 Sep 23 06:01	15°♑♑	
morning rise	15427 Oct 24 04:03	7°♑13'58	opposition	15433 Oct 18 08:15	11°♑59'34 0°15'01	
	15427 Nov 26 06:36	15°♑	min. Earth dist.	15433 Oct 18 08:06	11°♑59'37 4.49774 AU	
retrograde	15428 Mar 03 10:48	27°♑59'40	direct	15433 Dec 19 10:04	6°♑59'10	
opposition	15428 May 01 15:34	23°♑00'26 -0°06'14		15434 Mar 08 11:26	15°♑	
min. Earth dist.	15428 May 01 07:16	23°♑03'14 3.89307 AU	evening set	15434 Apr 22 21:15	24°♑00'21	
direct	15428 Jun 28 21:15	18°♑05'03				

conjunction	15434 May 05 22:31	26° ♄ 47'07	0°02'20	behind sun end	15439 Oct 16 08:34	9° ♎ 22'29	
minimum elong	15434 May 05 22:32	26° ♄ 47'07	0°01'37	max. Earth dist.	15439 Oct 15 23:22	9° ♎ 16'53	5.90895 AU
behind sun begin	15434 May 05 14:30	26° ♄ 42'51		morning rise	15439 Oct 29 10:41	12° ♎ 34'26	
behind sun end	15434 May 06 06:35	26° ♄ 51'24			15439 Nov 08 11:50	15° ♎	
max. Earth dist.	15434 May 05 08:55	26° ♄ 39'51	6.51244 AU		15440 Jan 22 11:18	0° ♊	
morning rise	15434 May 18 22:11	29° ♄ 33'09		retrograde	15440 Mar 08 20:15	3° ♊ 22'30	
	15434 May 21 00:53	0° ♈			15440 Apr 24 18:24	30° ♈ ♎	
desc. node	15434 Jun 29 05:11	7° ♈ 49'30		opposition	15440 May 07 00:27	28° ♎ 22'49	-0°01'43
retrograde	15434 Sep 16 20:42	16° ♈ 09'26		min. Earth dist.	15440 May 06 13:45	28° ♎ 26'25	3.89337 AU
opposition	15434 Nov 17 02:39	11° ♈ 14'24	-0°08'59	asc. node	15440 May 27 23:58	25° ♎ 42'44	
min. Earth dist.	15434 Nov 17 20:44	11° ♈ 08'36	4.50480 AU	direct	15440 Jul 04 05:49	23° ♎ 27'24	
direct	15435 Jan 18 12:36	6° ♈ 13'45			15440 Sep 07 11:34	0° ♊	
evening set	15435 May 23 00:02	23° ♈ 19'32		evening set	15440 Nov 08 23:36	13° ♊ 45'13	
max. Earth dist.	15435 Jun 03 07:52	25° ♈ 45'43	6.47477 AU				
conjunction	15435 Jun 04 22:21	26° ♈ 06'30	-0°14'05	conjunction	15440 Nov 22 10:54	17° ♊ 02'13	0°09'02
minimum elong	15435 Jun 04 22:21	26° ♈ 06'29	0°14'59	minimum elong	15440 Nov 22 10:53	17° ♊ 02'12	0°09'54
behind sun begin	15435 Jun 04 19:23	26° ♈ 04'54		behind sun begin	15440 Nov 22 04:07	16° ♊ 58'06	
behind sun end	15435 Jun 05 01:18	26° ♈ 08'05		behind sun end	15440 Nov 22 17:39	17° ♊ 06'19	
morning rise	15435 Jun 17 19:12	28° ♈ 52'55		max. Earth dist.	15440 Nov 23 21:34	17° ♊ 23'22	5.90731 AU
	15435 Jun 23 00:46	0° ♉		morning rise	15440 Dec 05 23:43	20° ♊ 19'57	
retrograde	15435 Oct 17 12:24	15° ♉ 47'19		retrograde	15441 Jan 17 01:05	0° ♈	
opposition	15435 Dec 17 13:34	10° ♉ 53'20	-0°31'06		15441 Apr 16 00:05	10° ♈ 58'03	
min. Earth dist.	15435 Dec 18 23:31	10° ♉ 42'27	4.42466 AU	min. Earth dist.	15441 Jun 12 23:16	6° ♈ 06'32	3.94948 AU
direct	15436 Feb 17 20:17	5° ♉ 52'41		opposition	15441 Jun 14 06:54	5° ♈ 55'49	0°28'24
evening set	15436 Jun 21 15:39	23° ♉ 27'01		direct	15441 Aug 11 12:29	0° ♈ 59'43	
max. Earth dist.	15436 Jul 02 05:54	25° ♉ 47'31	6.35699 AU	evening set	15441 Dec 16 22:16	20° ♈ 47'10	
conjunction	15436 Jul 04 12:35	26° ♉ 17'51	-0°27'01	conjunction	15441 Dec 30 10:59	23° ♈ 59'43	0°25'52
minimum elong	15436 Jul 04 12:35	26° ♉ 17'51	0°27'53	minimum elong	15441 Dec 30 10:58	23° ♈ 59'42	0°26'45
morning rise	15436 Jul 17 08:38	29° ♉ 08'30		max. Earth dist.	15442 Jan 01 19:14	24° ♈ 33'06	6.01423 AU
	15436 Jul 21 06:11	0° ♊		morning rise	15442 Jan 13 01:00	27° ♈ 12'33	
	15436 Oct 14 06:12	15° ♊			15442 Jan 25 00:31	0° ♈	
retrograde	15436 Nov 18 00:55	16° ♊ 50'02		retrograde	15442 Apr 17 08:16	15° ♈	
	15436 Dec 22 21:52	15° ♊ ♊			15442 May 21 17:30	16° ♈ 52'58	
opposition	15437 Jan 17 16:57	11° ♊ 55'56	-0°45'45		15442 Jun 25 00:32	15° ♊ ♈	
min. Earth dist.	15437 Jan 19 08:14	11° ♊ 43'14	4.27604 AU	min. Earth dist.	15442 Jul 18 21:08	12° ♈ 02'57	4.09467 AU
direct	15437 Mar 20 04:24	6° ♊ 55'54		opposition	15442 Jul 20 12:11	11° ♈ 49'47	0°45'56
	15437 Jun 05 02:35	15° ♊		direct	15442 Sep 17 12:57	6° ♈ 51'58	
evening set	15437 Jul 23 18:49	25° ♊ 18'43			15442 Dec 02 10:51	15° ♈	
max. Earth dist.	15437 Aug 03 10:50	27° ♊ 45'38	6.18831 AU	evening set	15443 Jan 22 02:28	25° ♈ 44'31	
conjunction	15437 Aug 05 16:49	28° ♊ 16'45	-0°32'35	conjunction	15443 Feb 04 13:57	28° ♈ 48'46	0°32'28
minimum elong	15437 Aug 05 16:49	28° ♊ 16'45	0°33'08	minimum elong	15443 Feb 04 13:57	28° ♈ 48'46	0°33'01
	15437 Aug 13 03:56	0° ♋		max. Earth dist.	15443 Feb 06 22:58	29° ♈ 21'18	6.18353 AU
morning rise	15437 Aug 18 14:28	1° ♋ 15'00			15443 Feb 09 18:52	0° ♈	
retrograde	15437 Dec 23 05:35	20° ♋ 05'45		morning rise	15443 Feb 18 01:30	1° ♈ 52'43	
opposition	15438 Feb 21 06:47	15° ♋ 10'42	-0°47'01	retrograde	15443 Jun 23 18:46	20° ♈ ♈ 18'54	
min. Earth dist.	15438 Feb 22 16:48	14° ♋ 59'34	4.09907 AU	min. Earth dist.	15443 Aug 21 17:53	15° ♈ ♈ 27'45	4.27121 AU
direct	15438 Apr 22 13:49	10° ♋ 12'15		opposition	15443 Aug 23 02:14	15° ♈ ♈ 17'01	0°46'26
evening set	15438 Aug 27 03:19	29° ♋ 32'40		direct	15443 Oct 22 07:18	10° ♈ ♈ 17'50	
	15438 Aug 29 01:20	0° ♌		evening set	15444 Feb 24 22:07	28° ♈ ♈ 15'06	
max. Earth dist.	15438 Sep 07 14:49	2° ♌ 17'01	6.01831 AU		15444 Mar 03 21:27	0° ♈	
conjunction	15438 Sep 09 04:43	2° ♌ 39'41	-0°27'33	conjunction	15444 Mar 09 06:18	1° ♈ 10'51	0°28'11
minimum elong	15438 Sep 09 04:43	2° ♌ 39'42	0°27'36	minimum elong	15444 Mar 09 06:18	1° ♈ 10'51	0°28'15
morning rise	15438 Sep 22 07:01	5° ♌ 47'28		max. Earth dist.	15444 Mar 10 20:27	1° ♈ 31'49	6.35293 AU
retrograde	15439 Jan 29 20:41	25° ♌ 50'58		morning rise	15444 Mar 22 13:56	4° ♈ 06'01	
opposition	15439 Mar 30 09:08	20° ♌ 54'01	-0°31'08	retrograde	15444 Jul 23 14:56	21° ♈ ♈ 29'20	
min. Earth dist.	15439 Mar 30 23:10	20° ♌ 49'21	3.95191 AU	opposition	15444 Sep 22 11:02	16° ♈ ♈ 29'59	0°33'08
direct	15439 May 28 09:07	15° ♌ 57'34		min. Earth dist.	15444 Sep 21 17:41	16° ♈ ♈ 35'39	4.42082 AU
	15439 Sep 07 05:28	0° ♍		direct	15444 Nov 22 18:50	11° ♈ ♈ 30'01	
evening set	15439 Oct 02 19:51	6° ♍ 04'08		evening set	15445 Mar 27 15:56	28° ♈ ♈ 47'40	
conjunction	15439 Oct 16 02:31	9° ♍ 18'48	-0°11'52		15445 Apr 02 07:18	0° ♈	
minimum elong	15439 Oct 16 02:31	9° ♍ 18'48	0°11'22	conjunction	15445 Apr 09 20:23	1° ♈ 37'12	0°16'01
behind sun begin	15439 Oct 15 20:28	9° ♍ 15'07		minimum elong	15445 Apr 09 20:24	1° ♈ 37'12	0°15'38
				behind sun begin	15445 Apr 09 18:51	1° ♈ 36'23	

behind sun end	15445 Apr 09 21:56	1°8'38"02			15451 Jan 11 10:43	0°8'	
max. Earth dist.	15445 Apr 10 08:19	1°8'43"36	6.47260 AU	retrograde	15451 Feb 04 01:13	0°8'54"06	
morning rise	15445 Apr 22 23:22	4°8'25"58			15451 Feb 27 12:54	30°8'25"	
	15445 Jun 16 04:10	15°8'		opposition	15451 Apr 04 10:57	25°25'56"52	-0°27'46"
retrograde	15445 Aug 22 08:42	21°8'11"18		min. Earth dist.	15451 Apr 04 23:29	25°25'52"42	3.93905 AU
opposition	15445 Oct 22 12:28	16°8'14"39	0°11'42"	direct	15451 Jun 02 08:47	21°25'00"36	
min. Earth dist.	15445 Oct 22 14:02	16°8'14"09	4.50387 AU		15451 Aug 19 16:14	0°8'	
	15445 Nov 01 06:40	15°8'8'		evening set	15451 Oct 07 19:54	11°8'10"57	
direct	15445 Dec 23 15:32	11°8'14"22					
	15446 Feb 13 18:27	15°8'		conjunction	15451 Oct 21 03:21	14°8'26"23	-0°09'12"
evening set	15446 Apr 27 02:52	28°8'14"43		minimum elong	15451 Oct 21 03:21	14°8'26"23	0°08'38"
	15446 May 05 08:51	0°8'11"		behind sun begin	15451 Oct 20 20:08	14°8'21"58	
desc. node	15446 May 07 20:32	0°8'31"52		behind sun end	15451 Oct 21 10:33	14°8'30"47	
max. Earth dist.	15446 May 09 09:50	0°8'51"49	6.51353 AU	max. Earth dist.	15451 Oct 21 04:25	14°8'27"02	5.90103 AU
					15451 Oct 23 10:11	15°8'	
conjunction	15446 May 10 03:32	1°8'01"15	-0°00'07"	morning rise	15451 Nov 03 12:18	17°8'42"46	
minimum elong	15446 May 10 03:30	1°8'01"14	0°00'52"		15451 Dec 28 00:09	0°8'25"	
behind sun begin	15446 May 09 19:29	0°8'56"58		retrograde	15452 Mar 14 00:32	8°8'33"41	
behind sun end	15446 May 10 11:32	1°8'05"30		asc. node	15452 Apr 10 14:52	7°8'18"28	
morning rise	15446 May 23 02:46	3°8'47"05		opposition	15452 May 12 04:11	3°8'33"42	0°02'37"
retrograde	15446 Sep 21 02:44	20°8'23"40		min. Earth dist.	15452 May 11 14:25	3°8'38"21	3.89149 AU
opposition	15446 Nov 21 07:30	15°8'28"55	-0°12'21"		15452 Jun 10 20:01	30°8'8'	
min. Earth dist.	15446 Nov 22 04:27	15°8'22"12	4.50104 AU	direct	15452 Jul 09 07:01	28°8'38"19	
direct	15447 Jan 22 19:00	10°8'28"19			15452 Aug 06 17:56	0°8'25"	
evening set	15447 May 27 05:19	27°8'35"47		evening set	15452 Nov 14 02:43	18°8'55"54	
max. Earth dist.	15447 Jun 07 10:33	0°8'00"53	6.46650 AU				
	15447 Jun 07 08:56	0°8'		conjunction	15452 Nov 27 14:20	22°8'12"53	0°11'43"
				minimum elong	15452 Nov 27 14:19	22°8'12"52	0°12'36"
conjunction	15447 Jun 09 03:21	0°8'22"57	-0°16'12"	behind sun begin	15452 Nov 27 09:00	22°8'09"39	
minimum elong	15447 Jun 09 03:21	0°8'22"56	0°17'05"	behind sun end	15452 Nov 27 19:38	22°8'16"06	
morning rise	15447 Jun 21 23:54	3°8'09"34		max. Earth dist.	15452 Nov 29 02:55	22°8'35"10	5.91150 AU
retrograde	15447 Oct 21 20:00	20°8'07"33		morning rise	15452 Dec 11 03:46	25°8'30"38	
opposition	15447 Dec 21 21:32	15°8'13"35	-0°33'42"		15452 Dec 30 00:58	0°8'25"	
min. Earth dist.	15447 Dec 23 07:33	15°8'02"41	4.41243 AU	retrograde	15453 Apr 20 23:42	16°8'05"26	
direct	15448 Feb 22 01:48	10°8'13"03		min. Earth dist.	15453 Jun 17 22:13	11°8'14"17	3.95921 AU
evening set	15448 Jun 25 23:08	27°8'51"17		opposition	15453 Jun 19 07:35	11°8'02"58	0°31'43"
	15448 Jul 05 15:23	0°8'12"		direct	15453 Aug 16 14:14	6°8'06"38	
max. Earth dist.	15448 Jul 06 13:47	0°8'12"29	6.34159 AU	evening set	15453 Dec 21 23:28	25°8'50"04	
conjunction	15448 Jul 08 19:59	0°8'42"40	-0°28'18"	conjunction	15454 Jan 04 12:26	29°8'02"00	0°27'26"
minimum elong	15448 Jul 08 19:59	0°8'42"40	0°29'08"	minimum elong	15454 Jan 04 12:26	29°8'02"00	0°28'16"
morning rise	15448 Jul 21 15:54	3°8'33"53		max. Earth dist.	15454 Jan 06 22:37	29°8'36"25	6.02869 AU
	15448 Sep 16 04:18	15°8'			15454 Jan 08 14:30	0°8'25"	
retrograde	15448 Nov 22 16:09	21°8'21"54		morning rise	15454 Jan 18 02:17	2°8'14"06	
opposition	15449 Jan 22 06:26	16°8'27"45	-0°46'48"		15454 Mar 19 01:55	15°8'	
min. Earth dist.	15449 Jan 23 22:31	16°8'14"47	4.25826 AU	retrograde	15454 May 26 12:04	21°8'47"08	
	15449 Feb 02 17:31	15°8'8'		min. Earth dist.	15454 Jul 23 16:24	16°8'56"58	4.11214 AU
direct	15449 Mar 24 15:46	11°8'27"55		opposition	15454 Jul 25 06:56	16°8'44"00	0°47'00"
	15449 May 12 14:02	15°8'			15454 Aug 07 11:02	15°8'25"	
evening set	15449 Jul 28 07:00	29°8'56"17		direct	15454 Sep 22 10:50	11°8'45"59	
	15449 Jul 28 13:29	0°8'12"			15454 Nov 07 06:42	15°8'	
max. Earth dist.	15449 Aug 07 22:40	2°8'23"41	6.16945 AU		15455 Jan 24 12:32	0°8'25"	
				evening set	15455 Jan 26 22:26	0°8'32"40	
conjunction	15449 Aug 10 05:06	2°8'55"11	-0°32'33"				
minimum elong	15449 Aug 10 05:06	2°8'55"11	0°33'03"	conjunction	15455 Feb 09 09:36	3°8'35"58	0°32'27"
morning rise	15449 Aug 23 03:15	5°8'54"25		minimum elong	15455 Feb 09 09:37	3°8'35"58	0°32'56"
retrograde	15449 Dec 28 01:29	24°8'53"25		max. Earth dist.	15455 Feb 11 17:37	4°8'07"46	6.20243 AU
opposition	15450 Feb 26 02:37	19°8'58"08	-0°45'51"	morning rise	15455 Feb 22 20:55	6°8'38"57	
min. Earth dist.	15450 Feb 27 10:15	19°8'47"45	4.08054 AU	retrograde	15455 Jun 28 04:15	24°8'57"09	
direct	15450 Apr 27 05:30	14°8'59"54		min. Earth dist.	15455 Aug 26 06:36	20°8'06"00	4.28996 AU
	15450 Aug 12 22:21	0°8'25"		opposition	15455 Aug 27 14:27	19°8'55"26	0°45'16"
evening set	15450 Aug 31 21:39	4°8'26"17		direct	15455 Oct 26 22:26	14°8'56"04	
					15456 Feb 16 12:24	0°8'25"	
conjunction	15450 Sep 13 23:41	7°8'34"19	-0°26'00"	evening set	15456 Feb 29 11:55	2°8'47"54	
minimum elong	15450 Sep 13 23:41	7°8'34"20	0°25'58"				
max. Earth dist.	15450 Sep 12 13:41	7°8'13"54	6.00185 AU	conjunction	15456 Mar 13 19:41	5°8'42"46	0°26'50"
morning rise	15450 Sep 27 02:33	10°8'43"09		minimum elong	15456 Mar 13 19:42	5°8'42"46	0°26'50"

max. Earth dist.	15456 Mar 15 07:34	6° Υ 02'25	6.37023 AU	direct	15462 May 02 03:29	19° \mathfrak{M} 59'18	
morning rise	15456 Mar 27 02:37	8° Υ 36'59			15462 Jul 25 15:23	0° \mathfrak{L}	
retrograde	15456 Jul 27 21:15	25° Υ 53'59		evening set	15462 Sep 05 21:40	9° \mathfrak{L} 33'25	
opposition	15456 Sep 26 18:21	20° Υ 54'57	0°30'26	max. Earth dist.	15462 Sep 17 17:46	12° \mathfrak{L} 24'15	5.98143 AU
min. Earth dist.	15456 Sep 26 03:16	20° Υ 59'52	4.43530 AU				
direct	15456 Nov 27 06:07	15° Υ 54'52		conjunction	15462 Sep 19 00:26	12° \mathfrak{L} 42'45	-0°24'09
	15457 Mar 17 01:11	0° \mathfrak{R}		minimum elong	15462 Sep 19 00:27	12° \mathfrak{L} 42'46	0°24'02
evening set	15457 Apr 01 00:44	3° \mathfrak{R} 08'48		morning rise	15462 Oct 02 04:12	15° \mathfrak{L} 52'56	
					15462 Dec 06 16:08	0° \mathfrak{M}	
conjunction	15457 Apr 14 04:31	5° \mathfrak{R} 57'41	0°13'52	retrograde	15463 Feb 09 10:44	6° \mathfrak{M} .12'40	
minimum elong	15457 Apr 14 04:31	5° \mathfrak{R} 57'41	0°13'25	opposition	15463 Apr 09 19:14	1° \mathfrak{M} .15'07	-0°23'58
behind sun begin	15457 Apr 14 00:01	5° \mathfrak{R} 55'17		min. Earth dist.	15463 Apr 10 03:47	1° \mathfrak{M} .12'16	3.92427 AU
behind sun end	15457 Apr 14 09:01	6° \mathfrak{R} 00'05			15463 Apr 19 06:51	30° \mathfrak{R} \mathfrak{L}	
max. Earth dist.	15457 Apr 14 11:56	6° \mathfrak{R} 01'39	6.48303 AU	direct	15463 Jun 07 11:58	26° \mathfrak{L} 19'05	
morning rise	15457 Apr 27 07:04	8° \mathfrak{R} 45'51			15463 Jul 25 12:13	0° \mathfrak{M}	
	15457 May 27 16:05	15° \mathfrak{R}			15463 Oct 06 16:32	15° \mathfrak{M}	
retrograde	15457 Aug 26 12:49	25° \mathfrak{R} 27'55		evening set	15463 Oct 13 03:13	16° \mathfrak{M} .33'53	
opposition	15457 Oct 26 17:19	20° \mathfrak{R} 31'26	0°08'18				
min. Earth dist.	15457 Oct 26 21:29	20° \mathfrak{R} 30'05	4.50950 AU	conjunction	15463 Oct 26 11:17	19° \mathfrak{M} .50'01	-0°06'18
direct	15457 Dec 27 22:47	15° \mathfrak{R} 30'57		minimum elong	15463 Oct 26 11:17	19° \mathfrak{M} .50'01	0°05'40
desc. node	15458 Mar 14 02:44	23° \mathfrak{R} 00'19		behind sun begin	15463 Oct 26 03:19	19° \mathfrak{M} .45'09	
	15458 Apr 19 09:49	0° \mathfrak{I}		behind sun end	15463 Oct 26 19:15	19° \mathfrak{M} .54'54	
evening set	15458 May 01 08:30	2° \mathfrak{I} 30'17		max. Earth dist.	15463 Oct 26 16:31	19° \mathfrak{M} .53'13	5.89339 AU
				morning rise	15463 Nov 08 21:10	23° \mathfrak{M} .07'11	
conjunction	15458 May 14 08:52	5° \mathfrak{I} 16'38	-0°02'32		15463 Dec 07 22:23	0° \mathfrak{J}	
minimum elong	15458 May 14 08:51	5° \mathfrak{I} 16'37	0°03'19	asc. node	15464 Feb 21 05:20	12° \mathfrak{J} 47'19	
behind sun begin	15458 May 14 00:53	5° \mathfrak{I} 12'23		retrograde	15464 Mar 19 10:32	14° \mathfrak{J} 00'22	
behind sun end	15458 May 14 16:49	5° \mathfrak{I} 20'51		opposition	15464 May 17 14:18	9° \mathfrak{J} 00'00	0°07'11
max. Earth dist.	15458 May 13 13:11	5° \mathfrak{I} 06'08	6.51368 AU	min. Earth dist.	15464 May 16 21:10	9° \mathfrak{J} 05'47	3.89202 AU
morning rise	15458 May 27 07:28	8° \mathfrak{I} 02'14		direct	15464 Jul 14 16:42	4° \mathfrak{J} 04'35	
retrograde	15458 Sep 25 06:49	24° \mathfrak{I} 39'21		evening set	15464 Nov 19 11:59	24° \mathfrak{J} 20'40	
opposition	15458 Nov 25 12:55	19° \mathfrak{I} 44'41	-0°15'39				
min. Earth dist.	15458 Nov 26 11:18	19° \mathfrak{I} 37'31	4.49547 AU	conjunction	15464 Dec 03 00:12	27° \mathfrak{J} 37'28	0°14'27
direct	15459 Jan 27 00:08	14° \mathfrak{I} 44'03		minimum elong	15464 Dec 03 00:11	27° \mathfrak{J} 37'28	0°15'21
	15459 May 22 14:03	0° \mathfrak{E}		behind sun begin	15464 Dec 02 21:48	27° \mathfrak{J} 36'01	
evening set	15459 May 31 11:14	1° \mathfrak{E} 53'39		behind sun end	15464 Dec 03 02:34	27° \mathfrak{J} 38'55	
max. Earth dist.	15459 Jun 11 13:04	4° \mathfrak{E} 17'20	6.45525 AU	max. Earth dist.	15464 Dec 04 18:26	28° \mathfrak{J} 03'09	5.92030 AU
					15464 Dec 12 18:55	0° \mathfrak{Z}	
conjunction	15459 Jun 13 08:50	4° \mathfrak{E} 41'04	-0°18'14	morning rise	15464 Dec 16 13:50	0° \mathfrak{Z} 54'54	
minimum elong	15459 Jun 13 08:49	4° \mathfrak{E} 41'03	0°19'08	retrograde	15465 Apr 26 05:14	21° \mathfrak{Z} 24'04	
morning rise	15459 Jun 26 05:11	7° \mathfrak{E} 28'01		min. Earth dist.	15465 Jun 23 02:39	16° \mathfrak{Z} 33'08	3.97526 AU
retrograde	15459 Oct 26 07:10	24° \mathfrak{E} 30'39		opposition	15465 Jun 24 13:15	16° \mathfrak{Z} 21'25	0°34'55
opposition	15459 Dec 26 07:00	19° \mathfrak{E} 36'41	-0°36'09	direct	15465 Aug 21 22:00	11° \mathfrak{Z} 24'57	
min. Earth dist.	15459 Dec 27 19:24	19° \mathfrak{E} 25'00	4.39590 AU		15465 Dec 22 19:06	0° \mathfrak{X}	
direct	15460 Feb 26 10:47	14° \mathfrak{E} 36'07		evening set	15465 Dec 27 04:41	1° \mathfrak{X} 01'40	
	15460 Jun 19 17:55	0° \mathfrak{O}					
evening set	15460 Jun 30 08:28	2° \mathfrak{O} 19'44		conjunction	15466 Jan 09 17:31	4° \mathfrak{X} 12'34	0°28'51
max. Earth dist.	15460 Jul 10 21:16	4° \mathfrak{O} 40'33	6.32085 AU	minimum elong	15466 Jan 09 17:30	4° \mathfrak{X} 12'34	0°29'39
				max. Earth dist.	15466 Jan 12 05:30	4° \mathfrak{X} 47'51	6.05032 AU
conjunction	15460 Jul 13 05:22	5° \mathfrak{O} 11'56	-0°29'27	morning rise	15466 Jan 23 07:16	7° \mathfrak{X} 23'34	
minimum elong	15460 Jul 13 05:22	5° \mathfrak{O} 11'56	0°30'14		15466 Feb 26 06:02	15° \mathfrak{X}	
morning rise	15460 Jul 26 01:25	8° \mathfrak{O} 04'02		retrograde	15466 May 31 05:41	26° \mathfrak{X} 46'17	
	15460 Aug 27 08:24	15° \mathfrak{O}		min. Earth dist.	15466 Jul 28 12:19	21° \mathfrak{X} 56'29	4.13722 AU
retrograde	15460 Nov 27 09:01	26° \mathfrak{O} 00'28		opposition	15466 Jul 30 03:47	21° \mathfrak{X} 43'14	0°47'44
opposition	15461 Jan 26 22:44	21° \mathfrak{O} 06'09	-0°47'35	direct	15466 Sep 27 10:37	16° \mathfrak{X} 45'03	
min. Earth dist.	15461 Jan 28 13:47	20° \mathfrak{O} 53'31	4.23465 AU		15467 Jan 07 07:20	0° \mathfrak{H}	
direct	15461 Mar 29 03:40	16° \mathfrak{O} 06'27		evening set	15467 Jan 31 19:45	5° \mathfrak{H} 23'13	
	15461 Jul 12 02:02	0° \mathfrak{M}					
evening set	15461 Aug 01 22:50	4° \mathfrak{M} 42'34		conjunction	15467 Feb 14 06:27	8° \mathfrak{H} 25'12	0°32'14
max. Earth dist.	15461 Aug 12 17:10	7° \mathfrak{M} 12'18	6.14486 AU	minimum elong	15467 Feb 14 06:27	8° \mathfrak{H} 25'12	0°32'40
				max. Earth dist.	15467 Feb 16 12:14	8° \mathfrak{H} 55'34	6.22886 AU
conjunction	15461 Aug 14 21:21	7° \mathfrak{M} 42'41	-0°32'18	morning rise	15467 Feb 27 17:09	11° \mathfrak{H} 26'47	
minimum elong	15461 Aug 14 21:22	7° \mathfrak{M} 42'41	0°32'44	retrograde	15467 Jul 02 15:31	29° \mathfrak{H} 34'37	
morning rise	15461 Aug 27 19:57	10° \mathfrak{M} 43'11		min. Earth dist.	15467 Aug 30 21:20	24° \mathfrak{H} 42'57	4.31534 AU
retrograde	15462 Jan 02 06:13	29° \mathfrak{M} 52'47		opposition	15467 Sep 01 02:38	24° \mathfrak{H} 33'15	0°43'49
opposition	15462 Mar 03 03:54	24° \mathfrak{M} 57'17	-0°44'19	direct	15467 Oct 31 16:09	19° \mathfrak{H} 33'45	
min. Earth dist.	15462 Mar 04 10:38	24° \mathfrak{M} 47'11	4.05688 AU		15468 Jan 29 22:55	0° \mathfrak{Y}	

evening set	15468 Mar 05 00:45	7° Υ 18'14		max. Earth dist.	15473 Aug 17 12:43	12° η 06'23	6.11628 AU
conjunction	15468 Mar 18 07:58	10° Υ 11'59	0°25'21	conjunction	15473 Aug 19 15:35	12° η 36'09	-0°31'51
minimum elong	15468 Mar 18 07:59	10° Υ 11'59	0°25'18	minimum elong	15473 Aug 19 15:35	12° η 36'10	0°32'12
max. Earth dist.	15468 Mar 19 16:48	10° Υ 29'52	6.39260 AU	morning rise	15473 Sep 01 14:49	15° η 38'12	
morning rise	15468 Mar 31 14:16	13° Υ 05'03			15473 Nov 10 09:57	0° Ω	
	15468 Jul 19 14:11	0° \mathcal{B}		retrograde	15474 Jan 07 11:57	4° Ω 59'48	
retrograde	15468 Aug 01 00:23	0° \mathcal{B} 14'37		opposition	15474 Mar 08 07:34	0° Ω 04'06	-0°42'27
	15468 Aug 13 10:52	30° $\mathcal{R}\Upsilon$			15474 Mar 08 20:01	30° $\mathcal{R}\eta$	
min. Earth dist.	15468 Sep 30 10:59	25° Υ 20'12	4.45320 AU	min. Earth dist.	15474 Mar 09 11:14	29° η 54'59	4.03056 AU
opposition	15468 Oct 01 00:06	25° Υ 15'56	0°27'37	direct	15474 May 07 00:59	25° η 06'25	
direct	15468 Dec 01 14:30	20° Υ 15'47			15474 Jul 02 16:31	0° Ω	
	15469 Feb 27 17:12	0° \mathcal{B}		evening set	15474 Sep 11 01:05	14° Ω 49'22	
evening set	15469 Apr 05 07:13	7° \mathcal{B} 25'18		max. Earth dist.	15474 Sep 23 02:09	17° Ω 44'03	5.95999 AU
conjunction	15469 Apr 18 10:29	10° \mathcal{B} 13'30	0°11'42	conjunction	15474 Sep 24 04:35	18° Ω 00'04	-0°22'06
minimum elong	15469 Apr 18 10:29	10° \mathcal{B} 13'30	0°11'11	minimum elong	15474 Sep 24 04:35	18° Ω 00'04	0°21'55
behind sun begin	15469 Apr 18 04:34	10° \mathcal{B} 10'21		morning rise	15474 Oct 07 09:21	21° Ω 11'41	
behind sun end	15469 Apr 18 16:25	10° \mathcal{B} 16'40			15474 Nov 14 13:17	0° \mathcal{M}	
max. Earth dist.	15469 Apr 18 14:34	10° \mathcal{B} 15'40	6.49523 AU	retrograde	15475 Feb 14 23:17	11° \mathcal{M} 40'21	
morning rise	15469 May 01 12:17	13° \mathcal{B} 00'57		opposition	15475 Apr 15 06:44	6° \mathcal{M} 42'23	-0°19'55
	15469 May 10 22:22	15° \mathcal{B}		min. Earth dist.	15475 Apr 15 11:26	6° \mathcal{M} 40'49	3.91015 AU
retrograde	15469 Aug 30 14:49	29° \mathcal{B} 39'46		direct	15475 Jun 12 20:40	1° \mathcal{M} 46'31	
opposition	15469 Oct 30 20:18	24° \mathcal{B} 43'38	0°04'57		15475 Sep 18 15:22	15° \mathcal{M}	
min. Earth dist.	15469 Oct 31 03:36	24° \mathcal{B} 41'17	4.51519 AU	evening set	15475 Oct 18 13:31	22° \mathcal{M} 05'04	
direct	15470 Jan 01 04:20	19° \mathcal{B} 43'09					
desc. node	15470 Jan 19 19:11	20° \mathcal{B} 14'05		conjunction	15475 Oct 31 22:30	25° \mathcal{M} 21'50	-0°03'18
	15470 Apr 02 14:40	0° Π		minimum elong	15475 Oct 31 22:31	25° \mathcal{M} 21'51	0°02'37
evening set	15470 May 05 12:18	6° Π 41'45		behind sun begin	15475 Oct 31 14:12	25° \mathcal{M} 16'46	
max. Earth dist.	15470 May 17 10:51	9° Π 14'29	6.51228 AU	behind sun end	15475 Nov 01 06:50	25° \mathcal{M} 26'56	
conjunction	15470 May 18 12:02	9° Π 27'56	-0°04'50	max. Earth dist.	15475 Nov 01 11:23	25° \mathcal{M} 29'44	5.88835 AU
minimum elong	15470 May 18 12:01	9° Π 27'55	0°05'38	morning rise	15475 Nov 14 09:01	28° \mathcal{M} 39'34	
behind sun begin	15470 May 18 04:20	9° Π 23'50			15475 Nov 19 21:28	0° \mathcal{X}	
behind sun end	15470 May 18 19:43	9° Π 32'01		asc. node	15476 Jan 01 20:26	9° \mathcal{X} 45'11	
morning rise	15470 May 31 10:22	12° Π 13'28		retrograde	15476 Mar 25 00:06	19° \mathcal{X} 33'13	
retrograde	15470 Sep 29 11:34	28° Π 51'58		min. Earth dist.	15476 May 22 06:28	14° \mathcal{X} 39'15	3.89677 AU
opposition	15470 Nov 29 16:55	23° Π 57'27	-0°18'49	opposition	15476 May 23 02:40	14° \mathcal{X} 32'25	0°11'42
min. Earth dist.	15470 Nov 30 18:20	23° Π 49'18	4.48702 AU	direct	15476 Jul 20 04:57	9° \mathcal{X} 36'56	
direct	15471 Jan 31 04:36	18° Π 56'43		evening set	15476 Nov 24 23:05	29° \mathcal{X} 49'23	
	15471 May 06 01:13	0° \mathcal{E}			15476 Nov 25 16:42	0° \mathcal{Z}	
evening set	15471 Jun 04 15:47	6° \mathcal{E} 09'38		conjunction	15476 Dec 08 11:28	3° \mathcal{Z} 05'37	0°17'03
max. Earth dist.	15471 Jun 15 15:17	8° \mathcal{E} 32'29	6.44020 AU	minimum elong	15476 Dec 08 11:28	3° \mathcal{Z} 05'37	0°17'58
conjunction	15471 Jun 17 13:21	8° \mathcal{E} 57'32	-0°20'08	max. Earth dist.	15476 Dec 10 09:48	3° \mathcal{Z} 33'40	5.93400 AU
minimum elong	15471 Jun 17 13:20	8° \mathcal{E} 57'32	0°21'03	morning rise	15476 Dec 22 01:27	6° \mathcal{Z} 22'26	
morning rise	15471 Jun 30 09:25	11° \mathcal{E} 45'00		retrograde	15477 May 01 07:44	26° \mathcal{Z} 43'19	
retrograde	15471 Oct 30 16:22	28° \mathcal{E} 53'44		min. Earth dist.	15477 Jun 28 05:23	21° \mathcal{Z} 53'01	3.99621 AU
opposition	15471 Dec 30 16:01	23° \mathcal{E} 59'47	-0°38'25	opposition	15477 Jun 29 18:37	21° \mathcal{Z} 40'25	0°37'47
min. Earth dist.	15472 Jan 01 05:11	23° \mathcal{E} 47'51	4.37506 AU	direct	15477 Aug 27 05:04	16° \mathcal{Z} 43'39	
direct	15472 Mar 01 16:39	18° \mathcal{E} 59'17			15477 Dec 05 02:23	0° \approx	
	15472 Jun 02 20:21	0° \mathcal{Q}		evening set	15478 Jan 01 09:41	6° \approx 11'51	
evening set	15472 Jul 04 17:54	6° \mathcal{Q} 49'51		conjunction	15478 Jan 14 22:16	9° \approx 21'26	0°30'01
max. Earth dist.	15472 Jul 15 05:51	9° \mathcal{Q} 11'02	6.29560 AU	minimum elong	15478 Jan 14 22:15	9° \approx 21'26	0°30'47
conjunction	15472 Jul 17 14:49	9° \mathcal{Q} 43'05	-0°30'25	max. Earth dist.	15478 Jan 17 09:54	9° \approx 56'18	6.07616 AU
minimum elong	15472 Jul 17 14:49	9° \mathcal{Q} 43'04	0°31'10	morning rise	15478 Jan 28 11:40	12° \approx 31'03	
morning rise	15472 Jul 30 11:09	12° \mathcal{Q} 36'18			15478 Feb 08 07:10	15° \approx	
	15472 Aug 10 06:01	15° \mathcal{Q}			15478 May 03 05:06	0° \mathcal{H}	
	15472 Nov 10 19:36	0° η		retrograde	15478 Jun 04 23:52	1° \mathcal{H} 42'01	
retrograde	15472 Dec 02 06:08	0° η 43'02			15478 Jul 07 14:39	30° $\mathcal{R}\approx$	
	15472 Dec 23 14:40	30° $\mathcal{R}\mathcal{Q}$		min. Earth dist.	15478 Aug 02 09:30	26° \approx 51'46	4.16498 AU
opposition	15473 Jan 31 16:33	25° \mathcal{Q} 48'38	-0°48'08	opposition	15478 Aug 03 23:22	26° \approx 39'03	0°48'05
min. Earth dist.	15473 Feb 02 08:16	25° \mathcal{Q} 35'44	4.20650 AU	direct	15478 Oct 02 11:51	21° \approx 40'34	
direct	15473 Apr 02 18:33	20° \mathcal{Q} 49'03			15478 Dec 19 02:50	0° \mathcal{H}	
	15473 Jun 23 17:54	0° η		evening set	15479 Feb 05 15:28	10° \mathcal{H} 09'36	
evening set	15473 Aug 06 16:27	9° η 34'34		conjunction	15479 Feb 19 01:48	13° \mathcal{H} 10'13	0°31'48

minimum elong	15479 Feb 19 01:48	13° K 10'13	0°32'08			15484 May 13 23:52	0° Q	
max. Earth dist.	15479 Feb 21 06:25	13° K 39'44	6.25612 AU	evening set		15484 Jul 09 06:41	11° Q 27'38	
morning rise	15479 Mar 04 11:49	16° K 10'22		max. Earth dist.		15484 Jul 19 19:12	13° Q 49'57	6.26907 AU
	15479 May 14 22:41	0° Y						
retrograde	15479 Jul 06 23:16	4° Y 07'55		conjunction		15484 Jul 22 03:56	14° Q 22'02	-0°31'13
	15479 Aug 29 19:41	30° R K		minimum elong		15484 Jul 22 03:56	14° Q 22'02	0°31'56
min. Earth dist.	15479 Sep 04 09:16	29° K 16'09	4.33996 AU			15484 Jul 24 22:59	15° Q	
opposition	15479 Sep 05 13:20	29° K 06'54	0°42'05	morning rise		15484 Aug 04 00:27	17° Q 16'27	
direct	15479 Nov 05 05:57	24° K 07'17				15484 Oct 05 22:14	0° M	
	15480 Jan 09 11:56	0° Y		retrograde		15484 Dec 07 05:23	5° M 33'56	
evening set	15480 Mar 09 12:29	11° Y 44'59		opposition		15485 Feb 05 13:54	0° M 39'29	-0°48'20
				min. Earth dist.		15485 Feb 07 04:15	0° M 27'01	4.17889 AU
conjunction	15480 Mar 22 19:01	14° Y 37'40	0°23'43			15485 Feb 10 15:37	30° R Q	
minimum elong	15480 Mar 22 19:02	14° Y 37'41	0°23'35	direct		15485 Apr 07 10:27	25° Q 40'14	
max. Earth dist.	15480 Mar 23 22:50	14° Y 52'47	6.41281 AU			15485 May 31 10:47	0° M	
morning rise	15480 Apr 05 00:41	17° Y 29'42		evening set		15485 Aug 11 13:45	14° M 35'02	
	15480 Jun 09 17:14	0° B		max. Earth dist.		15485 Aug 22 12:49	17° M 09'27	6.09002 AU
retrograde	15480 Aug 05 05:31	4° B 32'50						
	15480 Oct 01 23:01	30° R Y		conjunction		15485 Aug 24 13:17	17° M 38'00	-0°31'08
opposition	15480 Oct 05 05:25	29° Y 34'34	0°24'39	minimum elong		15485 Aug 24 13:18	17° M 38'00	0°31'24
min. Earth dist.	15480 Oct 04 20:08	29° Y 37'35	4.46780 AU	morning rise		15485 Sep 06 13:19	20° M 41'32	
direct	15480 Dec 05 23:58	24° Y 34'20				15485 Oct 18 08:23	0° A	
	15481 Feb 07 07:44	0° B		retrograde		15486 Jan 12 21:42	10° A 14'27	
evening set	15481 Apr 09 13:46	11° B 40'41		opposition		15486 Mar 13 14:41	5° A 18'31	-0°40'10
				min. Earth dist.		15486 Mar 14 15:24	5° A 10'20	4.00825 AU
conjunction	15481 Apr 22 16:31	14° B 28'23	0°09'27	direct		15486 May 12 03:53	0° A 21'11	
minimum elong	15481 Apr 22 16:31	14° B 28'23	0°08'53	evening set		15486 Sep 16 06:45	20° A 11'12	
behind sun begin	15481 Apr 22 09:37	14° B 24'43						
behind sun end	15481 Apr 22 23:25	14° B 32'03		conjunction		15486 Sep 29 11:09	23° A 23'03	-0°19'50
max. Earth dist.	15481 Apr 22 15:50	14° B 28'02	6.50320 AU	minimum elong		15486 Sep 29 11:10	23° A 23'04	0°19'34
	15481 Apr 25 03:42	15° B		max. Earth dist.		15486 Sep 28 15:37	23° A 11'11	5.94424 AU
morning rise	15481 May 05 17:49	17° B 15'20		morning rise		15486 Oct 12 16:38	26° A 35'47	
	15481 Jul 13 15:54	0° I				15486 Oct 26 22:19	0° M	
retrograde	15481 Sep 03 17:37	3° I 52'18				15487 Jan 14 14:28	15° M	
	15481 Oct 26 16:32	30° R B		retrograde		15487 Feb 20 13:41	17° M 10'44	
opposition	15481 Nov 03 23:54	28° B 56'26	0°01'31			15487 Mar 29 14:43	15° R M	
min. Earth dist.	15481 Nov 04 09:35	28° B 53'19	4.51633 AU	opposition		15487 Apr 20 19:14	12° M 12'26	-0°15'39
desc. node	15481 Nov 28 06:21	26° B 01'40		min. Earth dist.		15487 Apr 20 20:11	12° M 12'07	3.90317 AU
direct	15482 Jan 05 08:24	23° B 55'52		direct		15487 Jun 18 06:27	7° M 16'50	
	15482 Mar 14 01:47	0° I				15487 Aug 28 21:02	15° M	
evening set	15482 May 09 17:10	10° I 55'15		evening set		15487 Oct 24 00:07	27° M 36'11	
						15487 Nov 02 19:00	0° A	
conjunction	15482 May 22 16:38	13° I 41'30	-0°07'09					
minimum elong	15482 May 22 16:38	13° I 41'30	0°08'00	conjunction		15487 Nov 06 09:33	0° A 53'07	-0°00'13
behind sun begin	15482 May 22 09:29	13° I 37'42		minimum elong		15487 Nov 06 09:33	0° A 53'07	0°00'31
behind sun end	15482 May 22 23:46	13° I 45'19		behind sun begin		15487 Nov 06 01:13	0° A 48'02	
max. Earth dist.	15482 May 21 12:50	13° I 26'37	6.50647 AU	behind sun end		15487 Nov 06 17:52	0° A 58'12	
morning rise	15482 Jun 04 14:27	16° I 27'06		max. Earth dist.		15487 Nov 07 03:17	1° A 04'00	5.89073 AU
	15482 Aug 18 04:18	0° B		asc. node		15487 Nov 10 22:05	1° A 59'43	
retrograde	15482 Oct 03 18:05	3° B 08'26		morning rise		15487 Nov 19 20:49	4° A 11'01	
	15482 Nov 19 20:09	30° R I		retrograde		15488 Mar 30 07:50	25° A 01'47	
opposition	15482 Dec 03 23:05	28° I 14'06	-0°21'58	opposition		15488 May 28 12:37	20° A 00'36	0°16'01
min. Earth dist.	15482 Dec 05 02:51	28° I 05'14	4.47458 AU	min. Earth dist.		15488 May 27 12:13	20° A 08'51	3.90848 AU
direct	15483 Feb 04 10:03	23° I 13'25		direct		15488 Jul 25 14:24	15° A 05'01	
	15483 Apr 16 23:04	0° B				15488 Nov 08 06:16	0° B	
evening set	15483 Jun 08 22:55	10° B 30'52		evening set		15488 Nov 30 07:22	5° B 11'26	
max. Earth dist.	15483 Jun 19 18:27	12° B 52'12	6.42179 AU					
				conjunction		15488 Dec 13 19:52	8° B 26'46	0°19'27
conjunction	15483 Jun 21 20:08	13° B 19'21	-0°21'59	minimum elong		15488 Dec 13 19:51	8° B 26'46	0°20'21
minimum elong	15483 Jun 21 20:08	13° B 19'21	0°22'53	max. Earth dist.		15488 Dec 15 20:59	8° B 56'23	5.95359 AU
morning rise	15483 Jul 04 16:17	16° B 07'31		morning rise		15488 Dec 27 09:51	11° B 42'38	
	15483 Sep 17 01:09	0° Q				15489 Apr 01 23:49	0° A	
retrograde	15483 Nov 04 07:15	3° Q 23'36		retrograde		15489 May 06 07:33	1° A 53'26	
	15483 Dec 23 06:24	30° R B				15489 Jun 09 12:57	30° R B	
opposition	15484 Jan 04 04:25	28° B 29'41	-0°40'31	min. Earth dist.		15489 Jul 03 06:52	27° B 02'58	4.02117 AU
min. Earth dist.	15484 Jan 05 19:07	28° B 17'14	4.35169 AU	opposition		15489 Jul 04 20:08	26° B 50'22	0°40'12
direct	15484 Mar 06 02:56	23° B 29'14		direct		15489 Sep 01 11:18	21° B 53'20	

	15489 Nov 15 11:22	0°♊	retrograde	15494 Oct 08 01:15	7°♊25'24	
evening set	15490 Jan 06 10:01	11°♊11'59	opposition	15494 Dec 08 05:17	2°♊31'10	-0°24'57
			min. Earth dist.	15494 Dec 09 10:30	2°♊21'48	4.45906 AU
conjunction	15490 Jan 19 22:25	14°♊20'11 0°30'55		15494 Dec 28 20:29	30°♋♈	
minimum elong	15490 Jan 19 22:25	14°♊20'11 0°31'38	direct	15495 Feb 08 14:13	27°♈30'26	
max. Earth dist.	15490 Jan 22 11:12	14°♊55'29 6.10403 AU		15495 Mar 22 06:48	0°♈	
	15490 Jan 22 18:59	15°♊	evening set	15495 Jun 13 06:05	14°♈53'10	
morning rise	15490 Feb 02 11:18	17°♊28'18	max. Earth dist.	15495 Jun 24 01:28	17°♈15'01	6.40166 AU
	15490 Apr 03 13:14	0°♋				
retrograde	15490 Jun 09 12:36	6°♋27'26	conjunction	15495 Jun 26 03:22	17°♈42'25	-0°23'41
min. Earth dist.	15490 Aug 07 01:06	1°♋37'12 4.19304 AU	minimum elong	15495 Jun 26 03:21	17°♈42'25	0°24'33
opposition	15490 Aug 08 14:28	1°♋24'43 0°48'06	morning rise	15495 Jul 08 23:18	20°♈31'18	
	15490 Aug 19 07:37	30°♋♌		15495 Aug 24 07:26	0°♌	
direct	15490 Oct 07 06:23	26°♌26'04	retrograde	15495 Nov 08 21:48	7°♌55'05	
	15490 Nov 25 01:17	0°♋	opposition	15496 Jan 08 17:30	3°♌01'09	-0°42'22
evening set	15491 Feb 10 06:55	14°♋46'19	min. Earth dist.	15496 Jan 10 08:39	2°♌48'33	4.32826 AU
				15496 Feb 02 22:04	30°♋♈	
conjunction	15491 Feb 23 16:34	17°♋45'36 0°31'10	direct	15496 Mar 10 12:39	28°♈00'51	
minimum elong	15491 Feb 23 16:35	17°♋45'36 0°31'27		15496 Apr 15 23:57	0°♌	
max. Earth dist.	15491 Feb 25 16:30	18°♋12'21 6.28201 AU		15496 Jul 08 21:03	15°♌	
morning rise	15491 Mar 09 02:07	20°♋44'26	evening set	15496 Jul 13 19:52	16°♌06'43	
	15491 Apr 22 15:43	0°♍	max. Earth dist.	15496 Jul 24 08:04	18°♌29'41	6.24403 AU
retrograde	15491 Jul 11 05:21	8°♍32'44				
opposition	15491 Sep 09 20:21	3°♍32'05 0°40'12	conjunction	15496 Jul 26 17:09	19°♌02'10	-0°31'49
min. Earth dist.	15491 Sep 08 19:44	3°♍40'12 4.36184 AU	minimum elong	15496 Jul 26 17:09	19°♌02'10	0°32'29
	15491 Oct 09 21:02	30°♋♌	morning rise	15496 Aug 08 14:08	21°♌57'46	
direct	15491 Nov 09 17:23	28°♋32'19		15496 Sep 14 15:57	0°♎	
	15491 Dec 10 20:45	0°♍	retrograde	15496 Dec 12 05:28	10°♎25'23	
evening set	15492 Mar 13 20:33	16°♍04'25	opposition	15497 Feb 10 11:46	5°♎30'42	-0°48'11
			min. Earth dist.	15497 Feb 12 00:38	5°♎18'40	4.15398 AU
conjunction	15492 Mar 27 02:43	18°♍56'17 0°22'01	direct	15497 Apr 12 04:26	0°♎31'38	
minimum elong	15492 Mar 27 02:43	18°♍56'17 0°21'48	evening set	15497 Aug 16 10:32	19°♎34'17	
max. Earth dist.	15492 Mar 28 03:26	19°♍09'40 6.42927 AU	max. Earth dist.	15497 Aug 27 14:35	22°♎12'21	6.06747 AU
morning rise	15492 Apr 09 07:40	21°♍47'25				
	15492 May 19 16:52	0°♏	conjunction	15497 Aug 29 10:45	22°♎38'30	-0°30'10
retrograde	15492 Aug 09 06:32	8°♏45'36	minimum elong	15497 Aug 29 10:45	22°♎38'30	0°30'22
opposition	15492 Oct 09 08:09	3°♏47'43 0°21'40	morning rise	15497 Sep 11 11:16	25°♎43'17	
min. Earth dist.	15492 Oct 09 00:54	3°♏50'04 4.47808 AU		15497 Sep 29 22:03	0°♐	
	15492 Nov 11 19:26	30°♋♍	retrograde	15498 Jan 18 05:15	15°♐25'38	
direct	15492 Dec 10 03:58	28°♍47'27	opposition	15498 Mar 18 20:26	10°♐29'24	-0°37'33
	15493 Jan 07 20:05	0°♏	min. Earth dist.	15498 Mar 19 18:35	10°♐22'05	3.99018 AU
	15493 Apr 09 15:35	15°♏	direct	15498 May 17 05:34	5°♐32'22	
evening set	15493 Apr 13 18:01	15°♏51'58	evening set	15498 Sep 21 10:56	25°♐27'41	
conjunction	15493 Apr 26 20:13	18°♏39'20 0°07'13	conjunction	15498 Oct 04 15:52	28°♐40'25	-0°17'25
minimum elong	15493 Apr 26 20:14	18°♏39'20 0°06'37	minimum elong	15498 Oct 04 15:53	28°♐40'26	0°17'03
behind sun begin	15493 Apr 26 12:42	18°♏35'21	max. Earth dist.	15498 Oct 03 23:55	28°♐30'43	5.93220 AU
behind sun end	15493 Apr 27 03:45	18°♏43'20		15498 Oct 10 02:28	0°♑	
max. Earth dist.	15493 Apr 26 14:55	18°♏36'32 6.50674 AU	morning rise	15498 Oct 17 22:19	1°♑54'08	
morning rise	15493 May 09 21:03	21°♏25'59		15498 Dec 16 00:04	15°♑	
	15493 Jun 21 19:16	0°♒	retrograde	15499 Feb 25 22:51	22°♑33'41	
retrograde	15493 Sep 07 21:33	8°♒02'35	opposition	15499 Apr 26 04:43	17°♑34'58	-0°11'17
desc. node	15493 Oct 10 10:43	6°♒27'07	min. Earth dist.	15499 Apr 26 01:12	17°♑36'08	3.89862 AU
opposition	15493 Nov 08 02:40	3°♒07'02 -0°01'49		15499 May 16 11:37	15°♑♒	
min. Earth dist.	15493 Nov 08 15:56	3°♒02'47 4.51311 AU	direct	15499 Jun 23 13:22	12°♑39'26	
	15493 Dec 04 09:50	30°♋♏		15499 Jul 31 06:25	15°♑	
direct	15494 Jan 09 12:43	28°♏06'26	asc. node	15499 Sep 18 11:04	23°♑29'49	
	15494 Feb 14 19:18	0°♒		15499 Oct 16 23:21	0°♒	
evening set	15494 May 13 21:13	15°♒07'45	evening set	15499 Oct 29 07:46	2°♒58'55	
conjunction	15494 May 26 20:18	17°♒54'13 -0°09'24	conjunction	15499 Nov 11 17:47	6°♒15'58	0°02'48
minimum elong	15494 May 26 20:18	17°♒54'13 0°10'15	minimum elong	15499 Nov 11 17:48	6°♒15'58	0°03'35
behind sun begin	15494 May 26 13:57	17°♒50'49	behind sun begin	15499 Nov 11 09:32	6°♒10'55	
behind sun end	15494 May 27 02:39	17°♒57'36	behind sun end	15499 Nov 12 02:04	6°♒21'01	
max. Earth dist.	15494 May 25 12:04	17°♒36'55 6.49672 AU	max. Earth dist.	15499 Nov 12 16:44	6°♒30'02	5.89414 AU
morning rise	15494 Jun 08 17:56	20°♒40'06	morning rise	15499 Nov 25 05:32	9°♒33'54	
	15494 Jul 25 14:49	0°♓		15500 Mar 21 21:29	0°♓	

retrograde	15500 Apr 05 14:24	0°♄21'46		direct	15506 Jan 14 16:20	2°♄21'49	
	15500 Apr 20 06:11	30°♄21'46		evening set	15506 May 19 02:44	19°♄24'20	
opposition	15500 Jun 03 19:39	25°♄20'13	0°20'09	max. Earth dist.	15506 May 30 15:32	21°♄52'38	6.49065 AU
min. Earth dist.	15500 Jun 02 17:36	25°♄29'02	3.91930 AU				
direct	15500 Jul 31 23:04	20°♄24'30		conjunction	15506 Jun 01 01:26	22°♄10'52	-0°11'38
	15500 Oct 21 07:34	0°♄		minimum elong	15506 Jun 01 01:25	22°♄10'52	0°12'31
evening set	15500 Dec 06 13:01	10°♄25'38		behind sun begin	15506 May 31 20:16	22°♄08'06	
				behind sun end	15506 Jun 01 06:35	22°♄13'38	
conjunction	15500 Dec 20 01:45	13°♄40'14	0°21'40	morning rise	15506 Jun 13 22:38	24°♄56'50	
minimum elong	15500 Dec 20 01:44	13°♄40'14	0°22'33		15506 Jul 08 04:21	0°♄	
max. Earth dist.	15500 Dec 22 06:39	14°♄11'58	5.97063 AU	retrograde	15506 Oct 13 09:51	11°♄44'55	
morning rise	15501 Jan 02 15:41	16°♄55'14		opposition	15506 Dec 13 12:38	6°♄50'51	-0°27'53
	15501 Mar 04 04:43	0°♄		min. Earth dist.	15506 Dec 14 19:57	6°♄40'50	4.44873 AU
retrograde	15501 May 12 05:45	6°♄57'15		direct	15507 Feb 13 21:28	1°♄50'14	
min. Earth dist.	15501 Jul 09 05:01	2°♄07'08	4.04254 AU	evening set	15507 Jun 18 13:16	19°♄16'21	
opposition	15501 Jul 10 19:22	1°♄54'11	0°42'20	max. Earth dist.	15507 Jun 29 05:54	21°♄37'12	6.38775 AU
	15501 Jul 25 07:03	30°♄					
direct	15501 Sep 07 12:49	26°♄56'57		conjunction	15507 Jul 01 10:14	22°♄06'01	-0°25'17
	15501 Oct 21 14:18	0°♄		minimum elong	15507 Jul 01 10:13	22°♄06'01	0°26'09
	15502 Jan 07 10:59	15°♄		morning rise	15507 Jul 14 06:12	24°♄55'26	
evening set	15502 Jan 12 09:28	16°♄07'53			15507 Aug 06 23:11	0°♄	
				retrograde	15507 Nov 14 10:51	12°♄24'57	
conjunction	15502 Jan 25 21:27	19°♄14'53	0°31'36	opposition	15508 Jan 14 05:39	7°♄30'55	-0°43'59
minimum elong	15502 Jan 25 21:27	19°♄14'53	0°32'15	min. Earth dist.	15508 Jan 15 20:29	7°♄18'23	4.31159 AU
max. Earth dist.	15502 Jan 28 08:06	19°♄48'46	6.12753 AU	direct	15508 Mar 15 21:59	2°♄30'43	
morning rise	15502 Feb 08 10:07	22°♄21'48			15508 Jun 23 09:15	15°♄	
	15502 Mar 15 04:49	0°♄		evening set	15508 Jul 19 07:01	20°♄41'45	
retrograde	15502 Jun 15 01:13	11°♄11'01		max. Earth dist.	15508 Jul 29 21:23	23°♄06'30	6.22587 AU
min. Earth dist.	15502 Aug 12 17:19	6°♄20'27	4.21648 AU				
opposition	15502 Aug 14 05:06	6°♄08'29	0°47'48	conjunction	15508 Aug 01 04:33	23°♄38'01	-0°32'14
direct	15502 Oct 13 00:54	1°♄09'39		minimum elong	15508 Aug 01 04:33	23°♄38'01	0°32'51
evening set	15503 Feb 15 22:30	19°♄22'58		morning rise	15508 Aug 14 01:34	26°♄34'26	
					15508 Aug 29 07:41	0°♄	
conjunction	15503 Mar 01 07:54	22°♄21'12	0°30'20	retrograde	15508 Dec 18 01:40	15°♄09'45	
minimum elong	15503 Mar 01 07:55	22°♄21'12	0°30'34	opposition	15509 Feb 16 06:13	10°♄14'54	-0°47'45
max. Earth dist.	15503 Mar 03 06:17	22°♄46'58	6.30368 AU	min. Earth dist.	15509 Feb 17 18:34	10°♄03'02	4.13561 AU
morning rise	15503 Mar 14 16:43	25°♄18'54		direct	15509 Apr 17 19:28	5°♄16'04	
	15503 Apr 05 10:45	0°♄		evening set	15509 Aug 22 03:24	24°♄24'25	
retrograde	15503 Jul 16 12:04	12°♄59'28		max. Earth dist.	15509 Sep 02 08:42	27°♄03'53	6.05034 AU
min. Earth dist.	15503 Sep 14 05:32	8°♄06'49	4.38020 AU				
opposition	15503 Sep 15 04:30	7°♄59'16	0°38'04	conjunction	15509 Sep 04 03:56	27°♄29'35	-0°29'04
direct	15503 Nov 15 04:24	2°♄59'32		minimum elong	15509 Sep 04 03:57	27°♄29'35	0°29'13
evening set	15504 Mar 19 06:14	20°♄27'07			15509 Sep 14 17:19	0°♄	
				morning rise	15509 Sep 17 05:13	0°♄35'26	
conjunction	15504 Apr 01 11:42	23°♄18'14	0°20'09	retrograde	15510 Jan 24 05:59	20°♄25'26	
minimum elong	15504 Apr 01 11:43	23°♄18'14	0°19'52	opposition	15510 Mar 24 20:58	15°♄28'52	-0°34'48
max. Earth dist.	15504 Apr 02 07:13	23°♄28'46	6.44313 AU	min. Earth dist.	15510 Mar 25 15:58	15°♄22'34	3.97587 AU
morning rise	15504 Apr 14 16:13	26°♄08'39		direct	15510 May 23 02:32	10°♄31'59	
	15504 May 02 23:49	0°♄			15510 Sep 25 05:22	0°♄	
retrograde	15504 Aug 14 11:43	13°♄02'43		evening set	15510 Sep 27 09:32	0°♄31'34	
opposition	15504 Oct 14 12:58	8°♄05'16	0°18'29				
min. Earth dist.	15504 Oct 14 09:01	8°♄06'33	4.48696 AU	conjunction	15510 Oct 10 15:15	3°♄45'06	-0°15'00
direct	15504 Dec 15 11:39	3°♄05'01		minimum elong	15510 Oct 10 15:16	3°♄45'07	0°14'34
	15505 Mar 25 02:51	15°♄		behind sun begin	15510 Oct 10 11:38	3°♄42'54	
evening set	15505 Apr 19 00:13	20°♄08'04		behind sun end	15510 Oct 10 18:53	3°♄47'19	
				max. Earth dist.	15510 Oct 10 04:14	3°♄38'23	5.92223 AU
conjunction	15505 May 02 02:06	22°♄55'10	0°04'53	morning rise	15510 Oct 23 22:19	6°♄59'37	
minimum elong	15505 May 02 02:05	22°♄55'09	0°04'14		15510 Nov 27 03:47	15°♄	
behind sun begin	15505 May 01 18:10	22°♄50'57		retrograde	15511 Mar 04 04:10	27°♄43'19	
behind sun end	15505 May 02 10:00	22°♄59'21		opposition	15511 May 02 08:22	22°♄44'12	-0°07'04
max. Earth dist.	15505 May 01 18:06	22°♄50'55	6.51036 AU	min. Earth dist.	15511 May 02 03:12	22°♄45'57	3.89407 AU
morning rise	15505 May 15 02:18	25°♄41'29		direct	15511 Jun 29 15:55	17°♄48'41	
	15505 Jun 04 20:16	0°♄		asc. node	15511 Jul 30 07:22	19°♄23'10	
desc. node	15505 Aug 23 02:26	11°♄37'22			15511 Sep 30 16:40	0°♄	
retrograde	15505 Sep 13 01:01	12°♄17'34		evening set	15511 Nov 04 10:05	8°♄08'46	
opposition	15505 Nov 13 07:08	7°♄22'19	-0°05'16				
min. Earth dist.	15505 Nov 13 21:31	7°♄17'42	4.51174 AU	conjunction	15511 Nov 17 20:45	11°♄26'02	0°05'36

minimum elong	15511 Nov 17 20:45	11° ♊ 26'02	0°06'26	morning rise	15517 May 19 07:43	29° ♋ 56'59	
behind sun begin	15511 Nov 17 12:54	11° ♊ 21'15			15517 May 19 13:24	0° ♋	
behind sun end	15511 Nov 18 04:36	11° ♊ 30'50		desc. node	15517 Jul 04 00:17	9° ♋ 00'24	
max. Earth dist.	15511 Nov 19 00:07	11° ♊ 42'47	5.89548 AU	retrograde	15517 Sep 17 06:58	16° ♋ 32'30	
morning rise	15511 Dec 01 09:03	14° ♊ 44'09		opposition	15517 Nov 17 12:18	11° ♋ 37'24	-0°08'40
	15512 Feb 10 10:25	0° ♋		min. Earth dist.	15517 Nov 18 05:54	11° ♋ 31'45	4.50946 AU
retrograde	15512 Apr 10 16:12	5° ♋ 30'02		direct	15518 Jan 18 23:30	6° ♋ 36'48	
opposition	15512 Jun 08 21:15	0° ♋ 28'14	0°23'57	evening set	15518 May 23 08:17	23° ♋ 40'32	
min. Earth dist.	15512 Jun 07 16:52	0° ♋ 37'50	3.92654 AU	max. Earth dist.	15518 Jun 03 17:47	26° ♋ 07'21	6.48270 AU
	15512 Jun 12 08:48	30° ♋					
direct	15512 Aug 06 00:14	25° ♋ 32'21		conjunction	15518 Jun 05 06:42	26° ♋ 27'14	-0°13'50
	15512 Sep 28 05:29	0° ♋		minimum elong	15518 Jun 05 06:41	26° ♋ 27'14	0°14'42
evening set	15512 Dec 11 14:46	15° ♋ 30'08		behind sun begin	15518 Jun 05 03:23	26° ♋ 25'28	
				behind sun end	15518 Jun 05 10:00	26° ♋ 29'00	
conjunction	15512 Dec 25 03:35	18° ♋ 44'13	0°23'38	morning rise	15518 Jun 18 03:34	29° ♋ 13'22	
minimum elong	15512 Dec 25 03:34	18° ♋ 44'12	0°24'31		15518 Jun 21 18:52	0° ♋	
max. Earth dist.	15512 Dec 27 08:48	19° ♋ 16'03	5.98281 AU	retrograde	15518 Oct 17 17:22	16° ♋ 04'51	
morning rise	15513 Jan 07 17:50	21° ♋ 58'42		opposition	15518 Dec 17 20:24	11° ♋ 10'47	-0°30'40
	15513 Feb 11 23:53	0° ♋		min. Earth dist.	15518 Dec 19 04:27	11° ♋ 00'31	4.43539 AU
retrograde	15513 May 17 00:02	11° ♋ 54'06		direct	15519 Feb 18 03:00	6° ♋ 10'10	
min. Earth dist.	15513 Jul 14 00:46	7° ♋ 04'01	4.05828 AU	evening set	15519 Jun 22 21:18	23° ♋ 40'46	
opposition	15513 Jul 15 15:30	6° ♋ 50'56	0°44'07	max. Earth dist.	15519 Jul 03 13:20	26° ♋ 01'50	6.36975 AU
direct	15513 Sep 12 11:18	1° ♋ 53'25					
	15513 Dec 21 12:00	15° ♋		conjunction	15519 Jul 05 18:12	26° ♋ 31'05	-0°26'44
evening set	15514 Jan 17 06:29	20° ♋ 58'49		minimum elong	15519 Jul 05 18:12	26° ♋ 31'05	0°27'35
				morning rise	15519 Jul 18 14:03	29° ♋ 21'10	
conjunction	15514 Jan 30 18:30	24° ♋ 04'58	0°32'04		15519 Jul 21 12:47	0° ♋	
minimum elong	15514 Jan 30 18:30	24° ♋ 04'58	0°32'39		15519 Oct 13 23:47	15° ♋	
max. Earth dist.	15514 Feb 02 05:36	24° ♋ 38'58	6.14558 AU	retrograde	15519 Nov 19 03:07	16° ♋ 58'01	
morning rise	15514 Feb 13 06:45	27° ♋ 10'54			15519 Dec 25 07:57	15° ♋	
	15514 Feb 25 18:43	0° ♋		opposition	15520 Jan 18 19:42	12° ♋ 03'57	-0°45'20
retrograde	15514 Jun 19 14:16	15° ♋ 52'09		min. Earth dist.	15520 Jan 20 11:50	11° ♋ 51'00	4.28983 AU
min. Earth dist.	15514 Aug 17 08:06	11° ♋ 01'26	4.23506 AU	direct	15520 Mar 20 09:30	7° ♋ 03'54	
opposition	15514 Aug 18 18:51	10° ♋ 49'50	0°47'16		15520 Jun 04 16:39	15° ♋	
direct	15514 Oct 17 18:06	5° ♋ 50'51		evening set	15520 Jul 23 20:31	25° ♋ 22'02	
evening set	15515 Feb 20 13:51	23° ♋ 58'36		max. Earth dist.	15520 Aug 03 10:04	27° ♋ 47'07	6.20195 AU
conjunction	15515 Mar 05 22:43	26° ♋ 55'55	0°29'21	conjunction	15520 Aug 05 18:14	28° ♋ 19'23	-0°32'26
minimum elong	15515 Mar 05 22:44	26° ♋ 55'56	0°29'30	minimum elong	15520 Aug 05 18:14	28° ♋ 19'23	0°32'58
max. Earth dist.	15515 Mar 07 17:57	27° ♋ 19'50	6.32131 AU		15520 Aug 13 01:24	0° ♋	
morning rise	15515 Mar 19 07:12	29° ♋ 52'42		morning rise	15520 Aug 18 15:49	1° ♋ 17'00	
	15515 Mar 19 20:31	0° ♋		retrograde	15520 Dec 23 00:50	20° ♋ 02'30	
retrograde	15515 Jul 20 18:35	17° ♋ 26'35		opposition	15521 Feb 21 04:32	15° ♋ 07'27	-0°46'56
opposition	15515 Sep 19 12:46	12° ♋ 26'37	0°35'45	min. Earth dist.	15521 Feb 22 14:40	14° ♋ 56'17	4.11131 AU
min. Earth dist.	15515 Sep 18 15:42	12° ♋ 33'32	4.39567 AU	direct	15521 Apr 22 12:56	10° ♋ 08'52	
direct	15515 Nov 19 15:57	7° ♋ 26'42		evening set	15521 Aug 27 00:48	29° ♋ 25'18	
evening set	15516 Mar 23 16:07	24° ♋ 50'17			15521 Aug 29 11:21	0° ♋	
				max. Earth dist.	15521 Sep 07 11:01	2° ♋ 08'29	6.02798 AU
conjunction	15516 Apr 05 21:16	27° ♋ 40'45	0°18'11				
minimum elong	15516 Apr 05 21:16	27° ♋ 40'45	0°17'51	conjunction	15521 Sep 09 02:03	2° ♋ 31'47	-0°27'42
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	15516 Apr 16 16:09	0° ♋		morning rise	15521 Sep 22 03:57	5° ♋ 38'59	
morning rise	15516 Apr 19 01:02	0° ♋ 30'26		retrograde	15522 Jan 29 15:39	25° ♋ 38'47	
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retrograde	15516 Aug 18 15:14	17° ♋ 20'26		min. Earth dist.	15522 Mar 30 20:25	20° ♋ 36'19	3.95764 AU
	15516 Sep 27 10:17	15° ♋		direct	15522 May 28 05:55	15° ♋ 45'23	
opposition	15516 Oct 18 18:14	12° ♋ 23'15	0°15'13		15522 Sep 07 23:29	0° ♋	
min. Earth dist.	15516 Oct 18 15:55	12° ♋ 24'00	4.49513 AU	evening set	15522 Oct 02 14:45	5° ♋ 50'45	
direct	15516 Dec 19 18:47	7° ♋ 22'57					
	15517 Mar 06 14:28	15° ♋		conjunction	15522 Oct 15 21:16	9° ♋ 05'17	-0°12'19
evening set	15517 Apr 23 06:39	24° ♋ 24'13		minimum elong	15522 Oct 15 21:17	9° ♋ 05'17	0°11'50
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minimum elong	15517 May 06 07:51	27° ♋ 10'57	0°01'48	max. Earth dist.	15522 Oct 15 14:52	9° ♋ 01'23	5.91005 AU
behind sun begin	15517 May 05 23:49	27° ♋ 06'41		morning rise	15522 Oct 29 05:16	12° ♋ 20'48	
behind sun end	15517 May 06 15:54	27° ♋ 15'13			15522 Nov 09 05:10	15° ♋	
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
























































































































retrograde	15523 Mar 09 14:31	3°♏09'04		opposition	15528 Oct 22 21:45	16°♏37'36	0°11'59
	15523 Apr 23 18:34	30°♏12'46		min. Earth dist.	15528 Oct 22 22:31	16°♏37'21	4.50506 AU
opposition	15523 May 07 18:23	28°♏09'38	-0°02'31		15528 Nov 04 18:09	15°♏37'10	
min. Earth dist.	15523 May 07 09:05	28°♏12'46	3.88967 AU	direct	15528 Dec 24 01:12	11°♏37'10	
asc. node	15523 Jun 07 20:04	24°♏28'32			15529 Feb 11 06:25	15°♏37'10	
direct	15523 Jul 04 22:34	23°♏14'15		evening set	15529 Apr 27 10:58	28°♏36'26	
	15523 Sep 09 09:34	0°♏34'44			15529 May 04 00:24	0°♏34'44	
evening set	15523 Nov 09 19:15	13°♏34'44					
conjunction	15523 Nov 23 06:21	16°♏52'05	0°08'31	conjunction	15529 May 10 11:50	1°♏22'52	0°00'08
minimum elong	15523 Nov 23 06:20	16°♏52'04	0°09'21	minimum elong	15529 May 10 11:50	1°♏22'52	0°00'37
behind sun begin	15523 Nov 22 23:21	16°♏47'49		behind sun begin	15529 May 10 03:48	1°♏18'36	
behind sun end	15523 Nov 23 13:19	16°♏56'20		behind sun end	15529 May 10 19:51	1°♏27'07	
max. Earth dist.	15523 Nov 24 13:11	17°♏10'57	5.89919 AU	max. Earth dist.	15529 May 09 20:42	1°♏14'48	6.51684 AU
morning rise	15523 Dec 06 19:18	20°♏10'16		desc. node	15529 May 14 02:46	2°♏09'15	
	15524 Jan 18 12:13	0°♏34'44		morning rise	15529 May 23 10:59	4°♏08'33	
retrograde	15524 Apr 15 22:31	10°♏52'51		retrograde	15529 Sep 21 08:45	20°♏43'45	
min. Earth dist.	15524 Jun 12 21:44	6°♏01'13	3.93795 AU	opposition	15529 Nov 21 15:22	15°♏48'49	-0°11'56
opposition	15524 Jun 14 04:35	5°♏50'45	0°27'43	min. Earth dist.	15529 Nov 22 11:00	15°♏42'32	4.50589 AU
direct	15524 Aug 11 09:07	0°♏54'43		direct	15530 Jan 23 02:47	10°♏48'10	
evening set	15524 Dec 16 21:38	20°♏47'17		evening set	15530 May 27 12:17	27°♏53'45	
					15530 Jun 06 06:59	0°♏53'45	
conjunction	15524 Dec 30 10:40	24°♏00'35	0°25'31	max. Earth dist.	15530 Jun 07 17:26	0°♏18'37	6.47227 AU
minimum elong	15524 Dec 30 10:39	24°♏00'35	0°26'22	conjunction	15530 Jun 09 10:15	0°♏40'40	-0°15'53
max. Earth dist.	15525 Jan 01 19:20	24°♏34'20	6.00094 AU	minimum elong	15530 Jun 09 10:14	0°♏40'39	0°16'47
morning rise	15525 Jan 13 00:41	27°♏14'07		morning rise	15530 Jun 22 06:56	3°♏27'05	
	15525 Jan 24 20:40	0°♏56'20		retrograde	15530 Oct 22 02:16	20°♏23'01	
	15525 Apr 16 10:15	15°♏00'18		opposition	15530 Dec 22 03:27	15°♏28'59	-0°33'15
retrograde	15525 May 21 22:51	17°♏00'18		min. Earth dist.	15530 Dec 23 14:28	15°♏17'45	4.41848 AU
	15525 Jun 26 08:11	15°♏00'18		direct	15531 Feb 22 09:42	10°♏28'18	
min. Earth dist.	15525 Jul 19 00:20	12°♏10'16	4.08112 AU	evening set	15531 Jun 27 04:35	28°♏04'34	
opposition	15525 Jul 20 15:12	11°♏57'09	0°45'37		15531 Jul 05 21:12	0°♏04'34	
direct	15525 Sep 17 14:26	6°♏59'29		max. Earth dist.	15531 Jul 07 18:04	0°♏24'56	6.34741 AU
	15525 Dec 01 17:12	15°♏59'29					
evening set	15526 Jan 22 06:32	25°♏56'43		conjunction	15531 Jul 10 01:31	0°♏55'45	-0°28'02
				minimum elong	15531 Jul 10 01:31	0°♏55'45	0°28'51
conjunction	15526 Feb 04 18:06	29°♏01'34	0°32'19	morning rise	15531 Jul 22 21:29	3°♏46'45	
minimum elong	15526 Feb 04 18:07	29°♏01'34	0°32'52		15531 Sep 16 06:12	15°♏46'45	
max. Earth dist.	15526 Feb 07 04:27	29°♏34'56	6.17101 AU	retrograde	15531 Nov 23 18:18	21°♏32'32	
	15526 Feb 09 00:20	0°♏36'45		opposition	15532 Jan 23 10:02	16°♏38'20	-0°46'28
morning rise	15526 Feb 18 06:00	2°♏06'12		min. Earth dist.	15532 Jan 25 01:38	16°♏25'32	4.26345 AU
retrograde	15526 Jun 24 01:23	20°♏36'45			15532 Feb 05 07:50	15°♏25'32	
min. Earth dist.	15526 Aug 21 23:12	15°♏46'03	4.26089 AU	direct	15532 Mar 24 19:21	11°♏38'22	
opposition	15526 Aug 23 09:26	15°♏34'40	0°46'24		15532 May 11 12:16	15°♏38'22	
direct	15526 Oct 22 12:28	10°♏35'30		evening set	15532 Jul 28 11:08	0°♏05'18	
evening set	15527 Feb 25 05:17	28°♏35'24			15532 Jul 28 01:52	0°♏05'18	
	15527 Mar 03 15:29	0°♏35'24		max. Earth dist.	15532 Aug 08 02:52	2°♏32'33	6.17361 AU
conjunction	15527 Mar 10 13:40	1°♏31'31	0°28'12	conjunction	15532 Aug 10 09:15	3°♏04'01	-0°32'26
minimum elong	15527 Mar 10 13:41	1°♏31'31	0°28'16	minimum elong	15532 Aug 10 09:15	3°♏04'01	0°32'56
max. Earth dist.	15527 Mar 12 06:15	1°♏53'52	6.34560 AU	morning rise	15532 Aug 23 07:16	6°♏03'01	
morning rise	15527 Mar 23 21:21	4°♏27'00		retrograde	15532 Dec 28 05:02	25°♏00'21	
retrograde	15527 Jul 25 00:43	21°♏52'19		opposition	15533 Feb 26 04:53	20°♏05'08	-0°45'50
opposition	15527 Sep 23 20:24	16°♏52'45	0°33'16	min. Earth dist.	15533 Feb 27 14:24	19°♏54'08	4.08321 AU
min. Earth dist.	15527 Sep 23 01:58	16°♏58'47	4.41654 AU	direct	15533 Apr 27 09:34	15°♏06'45	
direct	15527 Nov 24 04:16	11°♏52'46			15533 Aug 12 14:07	0°♏06'45	
evening set	15528 Mar 28 00:31	29°♏10'49		evening set	15533 Sep 01 00:50	4°♏32'40	
	15528 Mar 31 20:35	0°♏10'49		max. Earth dist.	15533 Sep 12 14:51	7°♏19'03	6.00282 AU
conjunction	15528 Apr 10 04:56	2°♏00'23	0°16'10	conjunction	15533 Sep 14 02:51	7°♏40'39	-0°26'07
minimum elong	15528 Apr 10 04:56	2°♏00'24	0°15'47	minimum elong	15533 Sep 14 02:52	7°♏40'40	0°26'05
behind sun begin	15528 Apr 10 03:51	1°♏59'49		morning rise	15533 Sep 27 05:43	10°♏49'25	
behind sun end	15528 Apr 10 06:01	2°♏00'58			15534 Jan 10 06:59	0°♏49'25	
max. Earth dist.	15528 Apr 10 17:35	2°♏07'11	6.47124 AU	retrograde	15534 Feb 04 02:38	0°♏59'52	
morning rise	15528 Apr 23 08:11	4°♏49'15			15534 Feb 28 21:11	30°♏49'15	
	15528 Jun 14 05:24	15°♏49'15		opposition	15534 Apr 04 12:41	26°♏02'45	-0°28'07
retrograde	15528 Aug 22 17:36	21°♏34'31		min. Earth dist.	15534 Apr 05 01:24	25°♏58'31	3.93831 AU

direct	15534 Jun 02 09:32	21°♊06'25		direct	15539 Nov 28 13:37	16°♏15'46	
	15534 Aug 19 06:56	0°♌			15540 Mar 15 16:48	0°♏	
evening set	15534 Oct 07 23:21	11°♌17'47		evening set	15540 Apr 01 08:24	3°♏29'26	
conjunction	15534 Oct 21 06:35	14°♌33'15	-0°09'30	conjunction	15540 Apr 14 12:19	6°♏18'19	0°14'02
minimum elong	15534 Oct 21 06:35	14°♌33'15	0°08'57	minimum elong	15540 Apr 14 12:19	6°♏18'20	0°13'35
behind sun begin	15534 Oct 20 23:29	14°♌28'55		behind sun begin	15540 Apr 14 07:58	6°♏16'00	
behind sun end	15534 Oct 21 13:41	14°♌37'35		behind sun end	15540 Apr 14 16:41	6°♏20'39	
max. Earth dist.	15534 Oct 21 05:27	14°♌32'33	5.89861 AU	max. Earth dist.	15540 Apr 14 21:13	6°♏23'05	6.48381 AU
	15534 Oct 23 02:10	15°♌		morning rise	15540 Apr 27 14:50	9°♏06'28	
morning rise	15534 Nov 03 15:32	17°♌49'43			15540 May 26 05:50	15°♏	
	15534 Dec 27 12:02	0°♏		retrograde	15540 Aug 26 20:52	25°♏48'22	
retrograde	15535 Mar 15 03:30	8°♏41'49		opposition	15540 Oct 27 01:40	20°♏51'52	0°08'37
asc. node	15535 Apr 18 03:14	6°♏49'49		min. Earth dist.	15540 Oct 27 05:40	20°♏50'34	4.51101 AU
opposition	15535 May 13 07:16	3°♏41'55	0°02'05	direct	15540 Dec 28 07:41	15°♏51'26	
min. Earth dist.	15535 May 12 18:07	3°♏46'21	3.88760 AU	desc. node	15541 Mar 20 16:52	24°♏27'18	
	15535 Jun 13 11:33	30°♌			15541 Apr 18 02:40	0°♐	
direct	15535 Jul 10 10:41	28°♌46'31		evening set	15541 May 01 15:58	2°♐50'05	
	15535 Aug 06 08:44	0°♏					
evening set	15535 Nov 15 06:57	19°♏06'01		conjunction	15541 May 14 16:14	5°♐36'21	-0°02'17
conjunction	15535 Nov 28 18:41	22°♏23'14	0°11'22	minimum elong	15541 May 14 16:14	5°♐36'21	0°03'02
minimum elong	15535 Nov 28 18:40	22°♏23'14	0°12'13	behind sun begin	15541 May 14 08:14	5°♐32'07	
behind sun begin	15535 Nov 28 13:07	22°♏19'51		behind sun end	15541 May 15 00:13	5°♐40'36	
behind sun end	15535 Nov 29 00:14	22°♏26'37		max. Earth dist.	15541 May 13 19:31	5°♐25'19	6.51567 AU
max. Earth dist.	15535 Nov 30 08:21	22°♏46'13	5.90681 AU	morning rise	15541 May 27 15:07	8°♐21'58	
morning rise	15535 Dec 12 07:53	25°♏41'09		retrograde	15541 Sep 25 14:41	24°♐58'33	
	15535 Dec 30 10:31	0°♑		opposition	15541 Nov 25 20:29	20°♐03'49	-0°15'14
retrograde	15536 Apr 21 06:39	16°♑18'08		min. Earth dist.	15541 Nov 26 19:06	19°♐56'35	4.49773 AU
min. Earth dist.	15536 Jun 18 04:19	11°♑26'48	3.95420 AU	direct	15542 Jan 27 08:16	15°♐03'07	
opposition	15536 Jun 19 13:01	11°♑15'44	0°31'14		15542 May 21 10:05	0°♑	
direct	15536 Aug 16 19:32	6°♑19'29		evening set	15542 May 31 18:08	2°♑12'02	
evening set	15536 Dec 22 05:18	26°♑04'46		max. Earth dist.	15542 Jun 11 20:58	4°♑36'06	6.45762 AU
conjunction	15537 Jan 04 18:11	29°♑16'55	0°27'10	conjunction	15542 Jun 13 16:01	4°♑59'25	-0°17'56
minimum elong	15537 Jan 04 18:10	29°♑16'55	0°27'59	minimum elong	15542 Jun 13 16:01	4°♑59'25	0°18'49
max. Earth dist.	15537 Jan 07 04:50	29°♑51'38	6.02373 AU	morning rise	15542 Jun 26 12:21	7°♑46'19	
	15537 Jan 07 18:58	0°♒		retrograde	15542 Oct 26 12:20	24°♑48'09	
morning rise	15537 Jan 18 08:09	2°♒29'17		opposition	15542 Dec 26 13:20	19°♑54'11	-0°35'44
	15537 Mar 17 19:44	15°♒		min. Earth dist.	15542 Dec 28 01:06	19°♑42'43	4.39821 AU
retrograde	15537 May 26 18:19	22°♒04'17		direct	15543 Feb 26 16:33	14°♑53'37	
min. Earth dist.	15537 Jul 23 22:19	17°♒14'32	4.10778 AU		15543 Jun 19 17:04	0°♓	
opposition	15537 Jul 25 14:10	17°♒01'07	0°46'43	evening set	15543 Jul 01 15:15	2°♓36'44	
	15537 Aug 10 01:49	15°♒		max. Earth dist.	15543 Jul 12 03:45	4°♓57'21	6.32286 AU
direct	15537 Sep 22 16:26	12°♒03'11		conjunction	15543 Jul 14 12:08	5°♓28'53	-0°29'12
	15537 Nov 05 07:55	15°♒		minimum elong	15543 Jul 14 12:08	5°♓28'52	0°29'58
	15538 Jan 23 10:51	0°♈		morning rise	15543 Jul 27 08:19	8°♓20'56	
evening set	15538 Jan 27 05:25	0°♈51'04			15543 Aug 27 06:29	15°♓	
conjunction	15538 Feb 09 16:34	3°♈54'31	0°32'20	retrograde	15543 Nov 28 15:54	26°♓16'37	
minimum elong	15538 Feb 09 16:34	3°♈54'31	0°32'48	opposition	15544 Jan 28 04:28	21°♓22'23	-0°47'19
max. Earth dist.	15538 Feb 12 00:42	4°♈26'25	6.19903 AU	min. Earth dist.	15544 Jan 29 20:48	21°♓09'19	4.23611 AU
morning rise	15538 Feb 23 03:51	6°♈57'39		direct	15544 Mar 29 11:02	16°♓22'36	
retrograde	15538 Jun 28 13:57	25°♈17'10			15544 Jul 11 02:58	0°♎	
opposition	15538 Aug 27 23:04	20°♈15'23	0°45'12	evening set	15544 Aug 02 05:19	4°♎58'37	
min. Earth dist.	15538 Aug 26 15:29	20°♈25'52	4.28758 AU	max. Earth dist.	15544 Aug 12 22:46	7°♎27'48	6.14583 AU
direct	15538 Oct 27 07:42	15°♈16'05		conjunction	15544 Aug 15 03:57	7°♎58'44	-0°32'13
	15539 Feb 15 05:47	0°♏		minimum elong	15544 Aug 15 03:57	7°♎58'44	0°32'38
evening set	15539 Mar 01 19:25	3°♏08'12		morning rise	15544 Aug 28 02:33	10°♎59'13	
conjunction	15539 Mar 15 03:15	6°♏03'09	0°26'51		15544 Dec 24 05:51	0°♎	
minimum elong	15539 Mar 15 03:15	6°♏03'09	0°26'51	retrograde	15545 Jan 02 11:00	0°♎08'13	
max. Earth dist.	15539 Mar 16 16:31	6°♏23'34	6.36891 AU		15545 Jan 11 16:04	30°♌	
morning rise	15539 Mar 28 10:18	8°♏05'27		opposition	15545 Mar 03 09:05	25°♎12'51	-0°44'19
retrograde	15539 Jul 29 04:47	26°♏14'58		min. Earth dist.	15545 Mar 04 15:25	25°♎02'53	4.05762 AU
min. Earth dist.	15539 Sep 27 10:43	21°♏21'08	4.43504 AU	direct	15545 May 02 07:48	20°♎14'52	
opposition	15539 Sep 28 03:02	21°♏15'49	0°30'34		15545 Jul 24 15:05	0°♎	
				evening set	15545 Sep 06 04:16	9°♎49'11	

max. Earth dist.	15545 Sep 17 23:31	12°♏39'32	5.98206 AU	minimum elong	15551 Mar 19 13:08	10°♑26'25	0°25'21
				max. Earth dist.	15551 Mar 20 21:14	10°♑43'56	6.38957 AU
conjunction	15545 Sep 19 06:54	12°♏58'27	-0°24'16	morning rise	15551 Apr 01 19:35	13°♑19'39	
minimum elong	15545 Sep 19 06:54	12°♏58'28	0°24'09		15551 Jul 15 06:11	0°♐	
morning rise	15545 Oct 02 10:38	16°♏08'35		retrograde	15551 Aug 02 08:48	0°♐30'34	
	15545 Dec 05 11:11	0°♍			15551 Aug 20 07:58	30°♑♑	
retrograde	15546 Feb 09 15:29	6°♍27'49		opposition	15551 Oct 02 07:08	25°♑31'50	0°27'49
opposition	15546 Apr 10 00:25	1°♍30'19	-0°24'17	min. Earth dist.	15551 Oct 01 18:43	25°♑35'52	4.44994 AU
min. Earth dist.	15546 Apr 10 09:21	1°♍27'20	3.92485 AU	direct	15551 Dec 02 21:47	20°♑31'41	
	15546 Apr 21 11:23	30°♑♏			15552 Feb 27 12:37	0°♐	
direct	15546 Jun 07 18:28	26°♏34'15		evening set	15552 Apr 05 13:35	7°♐42'04	
	15546 Jul 23 23:26	0°♍					
	15546 Oct 05 21:42	15°♍		conjunction	15552 Apr 18 17:00	10°♐30'28	0°11'54
evening set	15546 Oct 13 09:22	16°♍49'00		minimum elong	15552 Apr 18 17:01	10°♐30'28	0°11'23
				behind sun begin	15552 Apr 18 11:11	10°♐27'22	
conjunction	15546 Oct 26 17:27	20°♍05'03	-0°06'35	behind sun end	15552 Apr 18 22:51	10°♐33'34	
minimum elong	15546 Oct 26 17:28	20°♍05'04	0°05'57	max. Earth dist.	15552 Apr 18 21:17	10°♐32'44	6.49197 AU
behind sun begin	15546 Oct 26 09:33	20°♍00'14		morning rise	15552 May 01 19:03	13°♐18'07	
behind sun end	15546 Oct 27 01:23	20°♍09'54			15552 May 09 20:05	15°♐	
max. Earth dist.	15546 Oct 26 23:58	20°♍09'02	5.89420 AU	retrograde	15552 Aug 30 22:20	29°♐58'06	
morning rise	15546 Nov 09 03:00	23°♍22'03		opposition	15552 Oct 31 03:58	25°♐01'53	0°05'18
	15546 Dec 07 02:08	0°♐		min. Earth dist.	15552 Oct 31 10:19	24°♐59'51	4.51234 AU
asc. node	15547 Feb 27 10:55	13°♐29'50		direct	15553 Jan 01 10:24	20°♐01'24	
retrograde	15547 Mar 20 16:49	14°♐14'32		desc. node	15553 Jan 26 07:40	20°♐55'59	
opposition	15547 May 18 19:35	9°♐14'13	0°06'39		15553 Apr 01 06:31	0°♐	
min. Earth dist.	15547 May 18 03:04	9°♐19'48	3.89302 AU	evening set	15553 May 05 19:47	7°♐00'49	
direct	15547 Jul 15 22:43	4°♐18'49					
evening set	15547 Nov 20 17:18	24°♐34'17		conjunction	15553 May 18 19:46	9°♐47'08	-0°04'34
				minimum elong	15553 May 18 19:47	9°♐47'09	0°05'22
conjunction	15547 Dec 04 05:12	27°♐50'55	0°14'05	behind sun begin	15553 May 18 12:03	9°♐43'02	
minimum elong	15547 Dec 04 05:11	27°♐50'55	0°14'58	behind sun end	15553 May 19 03:31	9°♐51'15	
behind sun begin	15547 Dec 04 02:10	27°♐49'05		max. Earth dist.	15553 May 17 20:25	9°♐34'39	6.51019 AU
behind sun end	15547 Dec 04 08:12	27°♐52'44		morning rise	15553 May 31 18:08	12°♐32'48	
max. Earth dist.	15547 Dec 05 22:46	28°♐16'11	5.92115 AU	retrograde	15553 Sep 29 19:48	29°♐11'58	
	15547 Dec 13 01:51	0°♐		opposition	15553 Nov 30 01:09	24°♐17'28	-0°18'24
morning rise	15547 Dec 17 18:47	1°♐08'14		min. Earth dist.	15553 Dec 01 02:06	24°♐09'29	4.48593 AU
retrograde	15548 Apr 26 08:39	21°♐36'53		direct	15554 Jan 31 12:26	19°♐16'48	
min. Earth dist.	15548 Jun 23 06:49	16°♐46'12	3.97580 AU		15554 May 04 16:04	0°♐	
opposition	15548 Jun 24 18:17	16°♐34'11	0°34'23	evening set	15554 Jun 05 00:08	6°♐30'02	
direct	15548 Aug 22 02:21	11°♐37'42		max. Earth dist.	15554 Jun 15 23:06	8°♐52'38	6.44024 AU
	15548 Dec 22 02:28	0°♐					
evening set	15548 Dec 27 09:17	1°♐13'59		conjunction	15554 Jun 17 21:41	9°♐17'59	-0°19'51
				minimum elong	15554 Jun 17 21:40	9°♐17'58	0°20'45
conjunction	15549 Jan 09 21:56	4°♐24'47	0°28'33	morning rise	15554 Jun 30 18:05	12°♐05'32	
minimum elong	15549 Jan 09 21:55	4°♐24'47	0°29'20	retrograde	15554 Oct 31 01:30	29°♐14'08	
max. Earth dist.	15549 Jan 12 08:41	4°♐59'22	6.05023 AU	opposition	15554 Dec 31 00:09	24°♐20'12	-0°38'01
morning rise	15549 Jan 23 11:32	7°♐35'44		min. Earth dist.	15555 Jan 01 13:22	24°♐08'14	4.37631 AU
	15549 Feb 25 11:19	15°♐		direct	15555 Mar 03 01:30	19°♐19'40	
retrograde	15549 May 31 11:43	26°♐58'44			15555 Jun 02 12:20	0°♐	
min. Earth dist.	15549 Jul 28 18:49	22°♐08'31	4.13622 AU	evening set	15555 Jul 06 02:17	7°♐09'55	
opposition	15549 Jul 30 09:08	21°♐55'38	0°47'25	max. Earth dist.	15555 Jul 16 15:28	9°♐31'40	6.29814 AU
direct	15549 Sep 27 17:11	16°♐57'25					
	15550 Jan 06 12:24	0°♐		conjunction	15555 Jul 18 23:26	10°♐03'07	-0°30'11
evening set	15550 Feb 01 00:08	5°♐35'44		minimum elong	15555 Jul 18 23:26	10°♐03'07	0°30'55
				morning rise	15555 Jul 31 19:42	12°♐56'15	
conjunction	15550 Feb 14 10:54	8°♐37'47	0°32'07		15555 Aug 10 02:28	15°♐	
minimum elong	15550 Feb 14 10:55	8°♐37'47	0°32'31	retrograde	15555 Nov 07 19:03	0°♐	
max. Earth dist.	15550 Feb 16 17:51	9°♐08'48	6.22694 AU		15555 Dec 03 12:19	1°♐01'43	
morning rise	15550 Feb 27 21:32	11°♐39'26			15555 Dec 29 05:50	30°♑♐	
retrograde	15550 Jul 02 20:35	29°♐48'17		opposition	15556 Feb 01 23:35	26°♐07'23	-0°47'50
min. Earth dist.	15550 Aug 31 02:18	24°♐56'53	4.31277 AU	min. Earth dist.	15556 Feb 03 14:33	25°♐54'45	4.21043 AU
opposition	15550 Sep 01 08:35	24°♐46'52	0°43'47	direct	15556 Apr 03 01:13	21°♐07'52	
direct	15550 Oct 31 20:20	19°♐47'24			15556 Jun 22 12:11	0°♐	
	15551 Jan 28 23:13	0°♑		evening set	15556 Aug 07 00:08	9°♐52'10	
evening set	15551 Mar 06 05:56	7°♑32'32		max. Earth dist.	15556 Aug 17 20:05	12°♐23'41	6.12125 AU
conjunction	15551 Mar 19 13:07	10°♑26'24	0°25'24	conjunction	15556 Aug 19 23:03	12°♐53'30	-0°31'45

minimum elong	15556 Aug 19 23:04	12° \mathbb{M} 53'30	0°32'06		15562 May 13 18:25	0° \mathbb{Y}	
morning rise	15556 Sep 01 22:18	15° \mathbb{M} 55'18		retrograde	15562 Jul 07 05:55	4° \mathbb{Y} 20'31	
	15556 Nov 09 01:24	0° $\underline{\mathbb{L}}$			15562 Aug 31 15:32	30° $\mathbb{R}\mathbb{H}$	
retrograde	15557 Jan 07 17:31	5° $\underline{\mathbb{L}}$ 14'40		opposition	15562 Sep 05 18:39	29° \mathbb{H} 19'26	0°42'06
opposition	15557 Mar 08 13:01	0° $\underline{\mathbb{L}}$ 19'01	-0°42'26	min. Earth dist.	15562 Sep 04 15:15	29° \mathbb{H} 28'30	4.33349 AU
min. Earth dist.	15557 Mar 09 17:03	0° $\underline{\mathbb{L}}$ 09'46	4.03615 AU	direct	15562 Nov 05 10:35	24° \mathbb{H} 19'52	
	15557 Mar 10 22:42	30° $\mathbb{R}\mathbb{M}$			15563 Jan 08 07:17	0° \mathbb{Y}	
direct	15557 May 07 08:05	25° \mathbb{M} 21'16		evening set	15563 Mar 10 17:09	11° \mathbb{Y} 59'34	
	15557 Jul 01 10:22	0° $\underline{\mathbb{L}}$					
evening set	15557 Sep 11 06:42	15° $\underline{\mathbb{L}}$ 02'17		conjunction	15563 Mar 24 00:00	14° \mathbb{Y} 52'37	0°23'48
max. Earth dist.	15557 Sep 23 08:35	17° $\underline{\mathbb{L}}$ 57'12	5.96579 AU	minimum elong	15563 Mar 24 00:01	14° \mathbb{Y} 52'37	0°23'39
				max. Earth dist.	15563 Mar 25 05:47	15° \mathbb{Y} 08'48	6.40634 AU
conjunction	15557 Sep 24 10:12	18° $\underline{\mathbb{L}}$ 12'41	-0°22'13	morning rise	15563 Apr 06 05:46	17° \mathbb{Y} 44'58	
minimum elong	15557 Sep 24 10:12	18° $\underline{\mathbb{L}}$ 12'42	0°22'03		15563 Jun 09 02:26	0° \mathbb{B}	
morning rise	15557 Oct 07 14:37	21° $\underline{\mathbb{L}}$ 23'55		retrograde	15563 Aug 06 12:28	4° \mathbb{B} 50'31	
	15557 Nov 13 21:09	0° \mathbb{M}			15563 Oct 05 12:32	30° $\mathbb{R}\mathbb{Y}$	
retrograde	15558 Feb 15 02:47	11° \mathbb{M} 49'50		opposition	15563 Oct 06 12:30	29° \mathbb{Y} 52'13	0°24'52
opposition	15558 Apr 15 09:59	6° \mathbb{M} 52'01	-0°20'17	min. Earth dist.	15563 Oct 06 01:39	29° \mathbb{Y} 55'44	4.46195 AU
min. Earth dist.	15558 Apr 15 15:37	6° \mathbb{M} 50'08	3.91561 AU	direct	15563 Dec 07 04:33	24° \mathbb{Y} 52'06	
direct	15558 Jun 13 00:42	1° \mathbb{M} 56'11			15564 Feb 06 14:23	0° \mathbb{B}	
	15558 Sep 18 04:18	15° \mathbb{M}		evening set	15564 Apr 09 20:45	12° \mathbb{B} 00'06	
evening set	15558 Oct 18 16:58	22° \mathbb{M} 12'50					
conjunction	15558 Nov 01 01:34	25° \mathbb{M} 29'16	-0°03'39	conjunction	15564 Apr 22 23:36	14° \mathbb{B} 48'03	0°09'39
minimum elong	15558 Nov 01 01:32	25° \mathbb{M} 29'15	0°02'58	minimum elong	15564 Apr 22 23:37	14° \mathbb{B} 48'03	0°09'05
behind sun begin	15558 Oct 31 17:15	25° \mathbb{M} 24'11		behind sun begin	15564 Apr 22 16:47	14° \mathbb{B} 44'25	
behind sun end	15558 Nov 01 09:50	25° \mathbb{M} 34'19		behind sun end	15564 Apr 23 06:27	14° \mathbb{B} 51'41	
max. Earth dist.	15558 Nov 01 12:01	25° \mathbb{M} 35'40	5.89268 AU	max. Earth dist.	15564 Apr 22 23:42	14° \mathbb{B} 48'06	6.49869 AU
morning rise	15558 Nov 14 11:56	28° \mathbb{M} 46'40			15564 Apr 23 21:58	15° \mathbb{B}	
	15558 Nov 19 12:40	0° \mathbb{X}		morning rise	15564 May 06 01:08	17° \mathbb{B} 35'16	
asc. node	15559 Jan 08 20:10	11° \mathbb{X} 14'14			15564 Jul 11 12:22	0° \mathbb{II}	
retrograde	15559 Mar 26 00:10	19° \mathbb{X} 38'34		retrograde	15564 Sep 04 03:53	4° \mathbb{II} 13'42	
min. Earth dist.	15559 May 23 07:56	14° \mathbb{X} 44'47	3.89952 AU		15564 Oct 29 20:51	30° $\mathbb{R}\mathbb{B}$	
opposition	15559 May 24 04:23	14° \mathbb{X} 37'52	0°11'04	opposition	15564 Nov 04 08:32	29° \mathbb{B} 17'51	0°01'51
direct	15559 Jul 21 06:24	9° \mathbb{X} 42'25		min. Earth dist.	15564 Nov 04 18:02	29° \mathbb{B} 14'48	4.51368 AU
evening set	15559 Nov 26 00:41	29° \mathbb{X} 54'05		desc. node	15564 Dec 04 04:16	25° \mathbb{B} 50'31	
	15559 Nov 26 10:30	0° \mathbb{Z}		direct	15565 Jan 05 16:57	24° \mathbb{B} 17'25	
conjunction	15559 Dec 09 12:52	3° \mathbb{Z} 10'11	0°16'38		15565 Mar 12 03:13	0° \mathbb{II}	
minimum elong	15559 Dec 09 12:52	3° \mathbb{Z} 10'10	0°17'32	evening set	15565 May 10 01:22	11° \mathbb{II} 17'19	
max. Earth dist.	15559 Dec 11 09:38	3° \mathbb{Z} 37'18	5.93492 AU	max. Earth dist.	15565 May 21 21:50	13° \mathbb{II} 49'08	6.50630 AU
morning rise	15559 Dec 23 02:36	6° \mathbb{Z} 26'53		conjunction	15565 May 23 00:56	14° \mathbb{II} 03'38	-0°06'54
retrograde	15560 May 01 10:02	26° \mathbb{Z} 48'01		minimum elong	15565 May 23 00:55	14° \mathbb{II} 03'38	0°07'44
min. Earth dist.	15560 Jun 28 08:53	21° \mathbb{Z} 57'15	3.99505 AU	behind sun begin	15565 May 22 17:42	13° \mathbb{II} 59'47	
opposition	15560 Jun 29 20:33	21° \mathbb{Z} 45'11	0°37'13	behind sun end	15565 May 23 08:09	14° \mathbb{II} 07'29	
direct	15560 Aug 27 08:12	16° \mathbb{Z} 48'28		morning rise	15565 Jun 04 23:00	16° \mathbb{II} 49'19	
	15560 Dec 04 18:20	0° \approx			15565 Aug 15 16:52	0° \mathbb{B}	
evening set	15561 Jan 01 11:04	6° \approx 17'18		retrograde	15565 Oct 04 02:34	3° \mathbb{B} 30'31	
					15565 Nov 23 05:47	30° $\mathbb{R}\mathbb{II}$	
conjunction	15561 Jan 14 23:43	9° \approx 27'02	0°29'43	opposition	15565 Dec 04 07:43	28° \mathbb{II} 36'07	-0°21'34
minimum elong	15561 Jan 14 23:43	9° \approx 27'01	0°30'28	min. Earth dist.	15565 Dec 05 09:46	28° \mathbb{II} 27'47	4.47738 AU
max. Earth dist.	15561 Jan 17 12:07	10° \approx 02'22	6.07306 AU	direct	15566 Feb 04 17:41	23° \mathbb{II} 35'29	
morning rise	15561 Jan 28 13:01	12° \approx 36'46			15566 Apr 15 03:38	0° \mathbb{B}	
	15561 Feb 07 22:13	15° \approx		evening set	15566 Jun 09 06:55	10° \mathbb{B} 51'40	
	15561 May 02 02:56	0° \mathbb{H}		max. Earth dist.	15566 Jun 20 05:47	13° \mathbb{B} 14'35	6.42779 AU
retrograde	15561 Jun 05 03:22	1° \mathbb{H} 49'34		conjunction	15566 Jun 22 04:21	13° \mathbb{B} 40'00	-0°21'43
	15561 Jul 09 00:04	30° $\mathbb{R}\mathbb{H}$		minimum elong	15566 Jun 22 04:21	13° \mathbb{B} 40'00	0°22'35
min. Earth dist.	15561 Aug 02 12:13	26° \approx 59'32	4.16035 AU	morning rise	15566 Jul 05 00:22	16° \mathbb{B} 27'55	
opposition	15561 Aug 04 02:33	26° \approx 46'40	0°47'48		15566 Sep 15 01:07	0° \mathbb{Q}	
direct	15561 Oct 02 13:24	21° \approx 48'19		retrograde	15566 Nov 04 12:52	3° \mathbb{Q} 41'29	
	15561 Dec 18 11:19	0° \mathbb{H}			15566 Dec 25 23:03	30° $\mathbb{R}\mathbb{B}$	
evening set	15562 Feb 05 18:15	10° \mathbb{H} 18'59		opposition	15567 Jan 04 11:04	28° \mathbb{B} 47'34	-0°40'07
				min. Earth dist.	15567 Jan 06 00:49	28° \mathbb{B} 35'26	4.36079 AU
conjunction	15562 Feb 19 04:29	13° \mathbb{H} 19'51	0°31'42	direct	15567 Mar 07 10:15	23° \mathbb{B} 47'10	
minimum elong	15562 Feb 19 04:29	13° \mathbb{H} 19'51	0°32'02		15567 May 13 15:12	0° \mathbb{Q}	
max. Earth dist.	15562 Feb 21 07:34	13° \mathbb{H} 48'34	6.25027 AU	evening set	15567 Jul 10 12:44	11° \mathbb{Q} 42'11	
morning rise	15562 Mar 04 14:44	16° \mathbb{H} 20'20		max. Earth dist.	15567 Jul 21 00:51	14° \mathbb{Q} 03'57	6.28059 AU

conjunction	15567 Jul 23 09:44	14°♎36'03	-0°31'01	minimum elong	15573 Jan 19 21:46	14°♏19'48	0°31'22
minimum elong	15567 Jul 23 09:43	14°♎36'03	0°31'43	max. Earth dist.	15573 Jan 22 08:42	14°♏54'09	6.09013 AU
	15567 Jul 25 04:09	15°♎			15573 Jan 22 18:45	15°♏	
morning rise	15567 Aug 05 06:16	17°♎29'57		morning rise	15573 Feb 02 11:02	17°♏28'42	
	15567 Oct 06 00:45	0°♐			15573 Apr 03 05:47	0°♑	
retrograde	15567 Dec 08 07:07	5°♐42'42		retrograde	15573 Jun 09 16:52	6°♑33'41	
opposition	15568 Feb 06 16:44	0°♐48'10	-0°48'05	min. Earth dist.	15573 Aug 07 04:17	1°♑43'23	4.17853 AU
min. Earth dist.	15568 Feb 08 06:57	0°♐35'44	4.19193 AU	opposition	15573 Aug 08 17:33	1°♑30'53	0°47'57
	15568 Feb 12 21:22	30°♑♎			15573 Aug 20 05:44	30°♑♏	
direct	15568 Apr 07 15:36	25°♑♎48'45		direct	15573 Oct 07 07:47	26°♏32'18	
	15568 May 30 18:29	0°♐			15573 Nov 24 05:59	0°♑	
evening set	15568 Aug 11 15:33	14°♐38'41		evening set	15574 Feb 10 10:49	14°♑57'28	
max. Earth dist.	15568 Aug 22 15:01	17°♐12'46	6.10342 AU				
conjunction	15568 Aug 24 15:01	17°♐40'58	-0°31'07	conjunction	15574 Feb 23 20:53	17°♑57'27	0°31'07
minimum elong	15568 Aug 24 15:01	17°♐40'58	0°31'23	minimum elong	15574 Feb 23 20:54	17°♑57'28	0°31'24
morning rise	15568 Sep 06 14:36	20°♐43'44		max. Earth dist.	15574 Feb 25 23:25	18°♑25'45	6.26829 AU
	15568 Oct 18 09:03	0°♑		morning rise	15574 Mar 09 06:31	20°♑56'57	
retrograde	15569 Jan 12 18:15	10°♑10'52			15574 Apr 21 13:57	0°♒	
opposition	15569 Mar 13 12:30	5°♑14'56	-0°40'21	retrograde	15574 Jul 11 13:56	8°♒50'03	
min. Earth dist.	15569 Mar 14 14:41	5°♑06'18	4.02057 AU	min. Earth dist.	15574 Sep 09 01:33	3°♒57'59	4.34994 AU
direct	15569 May 12 03:44	0°♑17'26		opposition	15574 Sep 10 03:53	3°♒49'19	0°40'16
evening set	15569 Sep 16 04:11	20°♑03'01			15574 Oct 13 11:08	30°♒♑	
max. Earth dist.	15569 Sep 28 08:40	23°♑00'00	5.95381 AU	direct	15574 Nov 09 22:32	28°♑49'41	
					15574 Dec 07 17:09	0°♒	
conjunction	15569 Sep 29 08:06	23°♑14'14	-0°20'09	evening set	15575 Mar 15 04:23	16°♒25'05	
minimum elong	15569 Sep 29 08:07	23°♑14'14	0°19'53	conjunction	15575 Mar 28 10:36	19°♒17'24	0°22'05
morning rise	15569 Oct 12 13:25	26°♑26'23		minimum elong	15575 Mar 28 10:36	19°♒17'24	0°21'52
	15569 Oct 27 11:44	0°♒		max. Earth dist.	15575 Mar 29 11:57	19°♒31'08	6.42000 AU
retrograde	15570 Jan 16 07:18	15°♒		morning rise	15575 Apr 10 15:58	22°♒09'01	
	15570 Feb 20 05:51	16°♒57'24			15575 May 19 00:58	0°♓	
opposition	15570 Mar 27 06:56	15°♒♒		retrograde	15575 Aug 10 18:21	9°♓09'58	
min. Earth dist.	15570 Apr 20 13:13	11°♒59'11	-0°16'21	opposition	15575 Oct 10 18:22	4°♓11'56	0°21'50
direct	15570 Apr 20 15:20	11°♒58'29	3.90862 AU	min. Earth dist.	15575 Oct 10 10:25	4°♓14'31	4.47198 AU
	15570 Jun 18 01:32	7°♒03'23			15575 Nov 18 12:45	30°♒♒	
evening set	15570 Aug 29 21:09	15°♒		direct	15575 Dec 11 13:37	29°♒11'43	
	15570 Oct 23 18:38	27°♒21'31			15576 Jan 03 19:08	0°♓	
	15570 Nov 03 13:32	0°♓		evening set	15576 Apr 08 00:55	15°♓	
conjunction	15570 Nov 06 03:56	0°♓38'19	-0°00'46		15576 Apr 14 03:49	16°♓17'32	
minimum elong	15570 Nov 06 03:55	0°♓38'18	0°00'04	conjunction	15576 Apr 27 06:19	19°♓05'05	0°07'22
behind sun begin	15570 Nov 05 20:15	0°♓33'37		minimum elong	15576 Apr 27 06:18	19°♓05'05	0°06'46
behind sun end	15570 Nov 06 11:34	0°♓42'58		behind sun begin	15576 Apr 26 22:48	19°♓01'06	
max. Earth dist.	15570 Nov 06 19:04	0°♓47'36	5.89150 AU	behind sun end	15576 Apr 27 13:48	19°♓09'04	
morning rise	15570 Nov 19 14:49	3°♓56'01		max. Earth dist.	15576 Apr 27 04:05	19°♓03'55	6.50424 AU
asc. node	15570 Nov 21 04:46	4°♓19'06		morning rise	15576 May 10 07:11	21°♓51'52	
retrograde	15571 Mar 31 03:10	24°♓47'27			15576 Jun 19 20:07	0°♔	
min. Earth dist.	15571 May 28 09:19	19°♓53'44	3.90424 AU	retrograde	15576 Sep 08 07:02	8°♔28'51	
opposition	15571 May 29 06:58	19°♓46'24	0°15'12	desc. node	15576 Oct 14 18:32	6°♔30'33	
direct	15571 Jul 26 09:44	14°♓50'49		opposition	15576 Nov 08 13:12	3°♔33'12	-0°01'34
	15571 Nov 09 22:46	0°♔		min. Earth dist.	15576 Nov 08 23:58	3°♔29'44	4.51434 AU
evening set	15571 Dec 01 02:34	4°♔59'48			15576 Dec 09 11:24	30°♒♓	
conjunction	15571 Dec 14 15:11	8°♔15'35	0°18'58	direct	15577 Jan 09 21:23	28°♓32'43	
minimum elong	15571 Dec 14 15:10	8°♔15'35	0°19'51		15577 Feb 10 14:29	0°♔	
max. Earth dist.	15571 Dec 16 15:22	8°♔44'41	5.94496 AU	evening set	15577 May 14 07:05	15°♔33'06	
morning rise	15571 Dec 28 05:08	11°♔31'52		max. Earth dist.	15577 May 26 00:38	18°♔03'33	6.50166 AU
	15572 Apr 02 23:25	0°♕		conjunction	15577 May 27 06:12	18°♔19'24	-0°09'11
retrograde	15572 May 06 07:08	1°♕47'13		minimum elong	15577 May 27 06:11	18°♔19'24	0°10'02
	15572 Jun 08 11:52	30°♒♔		behind sun begin	15577 May 26 23:45	18°♔15'58	
min. Earth dist.	15572 Jul 03 05:02	26°♔56'50	4.00936 AU	behind sun end	15577 May 27 12:37	18°♔22'50	
opposition	15572 Jul 04 18:08	26°♔44'18	0°39'41	morning rise	15577 Jun 09 03:48	21°♔05'05	
direct	15572 Sep 01 06:58	21°♔47'23			15577 Jul 23 18:01	0°♕	
	15572 Nov 15 17:43	0°♕		retrograde	15577 Oct 08 10:23	7°♕48'26	
evening set	15573 Jan 06 09:22	11°♕10'56		opposition	15577 Dec 08 14:20	2°♕54'12	-0°24'36
conjunction	15573 Jan 19 21:46	14°♕19'48	0°30'40	min. Earth dist.	15577 Dec 09 19:09	2°♕44'59	4.46734 AU
					15578 Jan 01 19:54	30°♒♔	

direct	15578 Feb 09 00:39	27°  53'33		direct	15583 Jul 31 17:08	20°  15'33	
	15578 Mar 19 05:19	0° 			15583 Oct 21 17:54	0° 	
evening set	15578 Jun 13 13:58	15°  13'16		evening set	15583 Dec 06 10:41	10°  20'53	
max. Earth dist.	15578 Jun 24 09:05	17°  34'41	6.41267 AU				
conjunction	15578 Jun 26 11:06	18°  02'04	-0°23'26	conjunction	15583 Dec 19 23:21	13°  36'03	0°21'15
minimum elong	15578 Jun 26 11:06	18°  02'04	0°24'18	minimum elong	15583 Dec 19 23:20	13°  36'03	0°22'06
morning rise	15578 Jul 09 07:09	20°  50'32		max. Earth dist.	15583 Dec 22 01:19	14°  30'07	5.95890 AU
	15578 Aug 23 00:29	0° 		morning rise	15584 Jan 02 13:35	16°  35'144	
retrograde	15578 Nov 09 02:02	8°  01'17			15584 Mar 03 04:42	0° 	
opposition	15579 Jan 08 22:52	3°  01'18	-0°41'58	retrograde	15584 May 11 07:10	6°  35'16	
min. Earth dist.	15579 Jan 10 13:03	3°  04'00	4.34128 AU	min. Earth dist.	15584 Jul 08 06:04	2°  35'06	4.02901 AU
	15579 Feb 05 17:01	30° 		opposition	15584 Jul 09 20:10	1°  35'13	0°41'55
direct	15579 Mar 11 19:03	28°  05'57			15584 Jul 24 14:15	30° 	
	15579 Apr 14 20:25	0° 		direct	15584 Sep 06 12:01	26°  35'02	
	15579 Jul 09 05:48	15° 			15584 Oct 20 05:13	0° 	
evening set	15579 Jul 15 00:08	16°  01'22		evening set	15585 Jan 06 00:55	15° 	
max. Earth dist.	15579 Jul 25 13:38	18°  04'34	6.25808 AU		15585 Jan 11 11:37	16°  35'07	
conjunction	15579 Jul 27 21:25	19°  01'23	-0°31'38	conjunction	15585 Jan 24 23:58	19°  35'25'1	0°31'25
minimum elong	15579 Jul 27 21:25	19°  01'23	0°32'17	minimum elong	15585 Jan 24 23:58	19°  35'25'1	0°32'03
morning rise	15579 Aug 09 18:02	22°  07'07		max. Earth dist.	15585 Jan 27 12:17	19°  35'749	6.11390 AU
	15579 Sep 15 04:32	0° 		morning rise	15585 Feb 07 12:42	22°  35'27	
retrograde	15579 Dec 13 05:01	10°  07'29'16			15585 Mar 13 11:57	0° 	
opposition	15580 Feb 11 12:15	5°  07'34'39	-0°48'00	retrograde	15585 Jun 14 08:45	11°  35'24'48	
min. Earth dist.	15580 Feb 13 02:16	5°  07'22'16	4.16793 AU	min. Earth dist.	15585 Aug 11 22:20	6°  35'34'27	4.20406 AU
direct	15580 Apr 12 06:50	0° 		opposition	15585 Aug 13 10:57	6°  35'22'12	0°47'43
evening set	15580 Aug 16 10:26	19°  07'33'23		direct	15585 Oct 12 05:10	1°  35'23'27	
max. Earth dist.	15580 Aug 27 10:58	22°  07'08'59	6.07992 AU	evening set	15586 Feb 15 04:49	19°  35'40'22	
conjunction	15580 Aug 29 10:15	22°  07'36'54	-0°30'13	conjunction	15586 Feb 28 14:15	22°  35'39'04	0°30'20
minimum elong	15580 Aug 29 10:15	22°  07'36'54	0°30'25	minimum elong	15586 Feb 28 14:15	22°  35'39'05	0°30'33
morning rise	15580 Sep 11 10:39	25°  07'41'02		max. Earth dist.	15586 Mar 02 13:39	23°  35'05'27	6.29344 AU
	15580 Sep 30 02:36	0° 		morning rise	15586 Mar 13 23:26	25°  35'37'17	
retrograde	15581 Jan 17 22:55	15°  07'18'23			15586 Apr 03 05:18	0° 	
opposition	15581 Mar 18 16:14	10°  07'22'12	-0°37'51	retrograde	15586 Jul 15 20:47	13°  35'20'59	
min. Earth dist.	15581 Mar 19 15:17	10°  07'14'35	3.99975 AU	opposition	15586 Sep 14 13:27	8°  35'20'30	0°38'10
direct	15581 May 17 03:06	5°  07'24'57		min. Earth dist.	15586 Sep 13 13:09	8°  35'28'30	4.37281 AU
evening set	15581 Sep 21 06:59	25°  07'17'23		direct	15586 Nov 14 12:18	3°  35'20'42	
conjunction	15581 Oct 04 11:48	28°  07'29'45	-0°17'47	evening set	15587 Mar 19 14:39	20°  35'49'43	
minimum elong	15581 Oct 04 11:49	28°  07'29'45	0°17'26	conjunction	15587 Apr 01 20:25	23°  35'41'02	0°20'16
max. Earth dist.	15581 Oct 03 18:04	28°  07'18'57	5.93790 AU	minimum elong	15587 Apr 01 20:26	23°  35'41'03	0°19'59
	15581 Oct 10 16:01	0° 		max. Earth dist.	15587 Apr 02 19:22	23°  35'53'26	6.43903 AU
morning rise	15581 Oct 17 17:50	1°  07'43'02		morning rise	15587 Apr 15 00:55	26°  35'31'37	
	15581 Dec 16 21:13	15° 			15587 May 01 11:50	0° 	
retrograde	15582 Feb 25 17:58	22°  07'20'42		retrograde	15587 Aug 14 20:27	13°  35'26'26	
opposition	15582 Apr 25 22:35	17°  07'22'09	-0°12'02	opposition	15587 Oct 14 22:44	8°  35'28'45	0°18'44
min. Earth dist.	15582 Apr 25 22:19	17°  07'22'14	3.89945 AU	min. Earth dist.	15587 Oct 14 16:57	8°  35'30'37	4.48591 AU
	15582 May 14 08:59	15° 		direct	15587 Dec 15 20:44	3°  35'28'28	
direct	15582 Jun 23 08:55	12°  07'26'30			15588 Mar 22 13:10	15° 	
	15582 Aug 01 19:51	15° 		evening set	15588 Apr 18 09:12	20°  35'30'59	
asc. node	15582 Sep 28 18:46	25°  07'36'18		conjunction	15588 May 01 10:58	23°  35'18'00	0°05'06
	15582 Oct 17 15:01	0° 		minimum elong	15588 May 01 10:58	23°  35'18'00	0°04'27
evening set	15582 Oct 29 02:46	2°  35'46'46		behind sun begin	15588 May 01 03:05	23°  35'13'48	
conjunction	15582 Nov 11 12:44	6°  35'03'58	0°02'16	behind sun end	15588 May 01 18:51	23°  35'22'11	
minimum elong	15582 Nov 11 12:44	6°  35'03'58	0°03'02	max. Earth dist.	15588 May 01 03:22	23°  35'13'57	6.51200 AU
behind sun begin	15582 Nov 11 04:25	5°  35'58'53		morning rise	15588 May 14 11:25	26°  35'04'17	
behind sun end	15582 Nov 11 21:02	6°  35'09'02			15588 Jun 02 08:33	0° 	
max. Earth dist.	15582 Nov 12 09:13	6°  35'16'32	5.89003 AU	desc. node	15588 Aug 27 21:49	12°  35'17'16	
morning rise	15582 Nov 25 00:21	9°  35'22'04		retrograde	15588 Sep 12 10:35	12°  35'39'25	
	15583 Mar 25 07:32	0° 		opposition	15588 Nov 12 16:13	7°  35'43'58	-0°04'53
retrograde	15583 Apr 05 11:27	0°  35'12'32		min. Earth dist.	15588 Nov 13 06:45	7°  35'39'18	4.51543 AU
	15583 Apr 16 14:43	30° 		direct	15589 Jan 14 02:55	2°  35'43'21	
opposition	15583 Jun 03 15:31	25°  35'11'13	0°19'24	evening set	15589 May 18 10:32	19°  35'44'11	
min. Earth dist.	15583 Jun 02 14:21	25° 35'19'43	3.91089 AU	max. Earth dist.	15589 May 30 00:08	22° 35'12'43	6.49581 AU

conjunction	15589 May 31 09:22	22°II30'33	-0°11'21	morning rise	15594 Nov 30 13:01	14°♂54'10	
minimum elong	15589 May 31 09:21	22°II30'33	0°12'13		15595 Feb 08 11:27	0°♂	
behind sun begin	15589 May 31 04:00	22°II27'41		retrograde	15595 Apr 10 21:01	5°♂42'15	
behind sun end	15589 May 31 14:42	22°II33'24		min. Earth dist.	15595 Jun 07 21:53	0°♂50'04	3.92118 AU
morning rise	15589 Jun 13 06:36	25°II16'19		opposition	15595 Jun 09 02:02	0°♂40'31	0°23'26
	15589 Jul 05 22:30	0°♂			15595 Jun 14 01:59	30°♂♂	
retrograde	15589 Oct 12 15:19	12°♂02'31		direct	15595 Aug 06 05:19	25°♂44'41	
opposition	15589 Dec 12 19:38	7°♂08'18	-0°27'26		15595 Sep 27 00:58	0°♂	
min. Earth dist.	15589 Dec 14 01:43	6°♂58'39	4.45482 AU	evening set	15595 Dec 11 20:14	15°♂44'41	
direct	15590 Feb 13 04:00	2°♂07'35		conjunction	15595 Dec 25 09:12	18°♂59'04	0°23'20
evening set	15590 Jun 17 19:39	19°♂31'40		minimum elong	15595 Dec 25 09:11	18°♂59'03	0°24'12
max. Earth dist.	15590 Jun 28 13:16	21°♂52'48	6.39416 AU	max. Earth dist.	15595 Dec 27 15:45	19°♂31'45	5.97736 AU
conjunction	15590 Jun 30 16:41	22°♂21'06	-0°25'00	morning rise	15596 Jan 07 23:15	22°♂13'46	
minimum elong	15590 Jun 30 16:40	22°♂21'05	0°25'51		15596 Feb 10 23:58	0°♂	
morning rise	15590 Jul 13 12:34	25°♂10'14		retrograde	15596 May 16 08:34	12°♂11'35	
	15590 Aug 05 01:51	0°♂		min. Earth dist.	15596 Jul 13 08:04	7°♂21'29	4.05319 AU
retrograde	15590 Nov 13 15:50	12°♂37'25		opposition	15596 Jul 14 22:44	7°♂08'26	0°43'47
opposition	15591 Jan 13 10:23	7°♂43'25	-0°43'36	direct	15596 Sep 11 17:57	2°♂11'02	
min. Earth dist.	15591 Jan 15 02:26	7°♂30'31	4.31771 AU		15596 Dec 19 08:12	15°♂	
direct	15591 Mar 16 04:10	2°♂43'08		evening set	15597 Jan 16 13:39	21°♂18'01	
	15591 Jun 22 17:00	15°♂		conjunction	15597 Jan 30 01:33	24°♂24'21	0°31'54
evening set	15591 Jul 19 11:52	20°♂52'23		minimum elong	15597 Jan 30 01:33	24°♂24'21	0°32'29
max. Earth dist.	15591 Jul 29 23:44	23°♂15'34	6.23112 AU	max. Earth dist.	15597 Feb 01 13:13	24°♂58'42	6.14113 AU
conjunction	15591 Aug 01 09:18	23°♂48'25	-0°32'04	morning rise	15597 Feb 12 13:57	27°♂30'32	
minimum elong	15591 Aug 01 09:18	23°♂48'25	0°32'39		15597 Feb 23 14:21	0°♂	
morning rise	15591 Aug 14 06:27	26°♂44'38		retrograde	15597 Jun 18 21:36	16°♂13'25	
	15591 Aug 28 18:27	0°♂		min. Earth dist.	15597 Aug 16 15:27	11°♂23'02	4.23167 AU
retrograde	15591 Dec 18 03:14	15°♂17'55		opposition	15597 Aug 18 03:28	11°♂11'01	0°47'08
opposition	15592 Feb 16 08:56	10°♂23'06	-0°47'37	direct	15597 Oct 17 01:34	6°♂12'06	
min. Earth dist.	15592 Feb 17 21:11	10°♂11'16	4.13955 AU	evening set	15598 Feb 19 21:47	24°♂20'31	
direct	15592 Apr 16 22:25	5°♂24'09		conjunction	15598 Mar 05 06:44	27°♂17'56	0°29'20
evening set	15592 Aug 21 06:53	24°♂31'39		minimum elong	15598 Mar 05 06:45	27°♂17'56	0°29'28
max. Earth dist.	15592 Sep 01 12:12	27°♂11'00	6.05271 AU	max. Earth dist.	15598 Mar 07 03:16	27°♂42'36	6.31925 AU
conjunction	15592 Sep 03 07:29	27°♂36'42	-0°29'07		15598 Mar 17 12:11	0°♂	
minimum elong	15592 Sep 03 07:29	27°♂36'43	0°29'15	morning rise	15598 Mar 18 15:07	0°♂14'47	
	15592 Sep 13 08:52	0°♂		retrograde	15598 Jul 20 04:10	17°♂49'24	
morning rise	15592 Sep 16 08:33	0°♂42'23		opposition	15598 Sep 18 22:09	12°♂49'23	0°35'50
retrograde	15593 Jan 23 09:24	20°♂31'30		min. Earth dist.	15598 Sep 18 00:44	12°♂56'24	4.39484 AU
opposition	15593 Mar 23 22:57	15°♂35'05	-0°35'03	direct	15598 Nov 19 01:41	7°♂49'32	
min. Earth dist.	15593 Mar 24 19:58	15°♂28'07	3.97634 AU	evening set	15599 Mar 24 00:20	25°♂12'52	
direct	15593 May 22 05:57	10°♂38'09		conjunction	15599 Apr 06 05:24	28°♂03'19	0°18'18
	15593 Sep 23 21:37	0°♂		minimum elong	15599 Apr 06 05:24	28°♂03'19	0°17'59
evening set	15593 Sep 26 12:49	0°♂38'15		max. Earth dist.	15599 Apr 06 23:04	28°♂12'49	6.45566 AU
conjunction	15593 Oct 09 18:28	3°♂51'51	-0°15'16		15599 Apr 15 06:20	0°♂	
minimum elong	15593 Oct 09 18:29	3°♂51'52	0°14'51	morning rise	15599 Apr 19 09:24	0°♂53'03	
behind sun begin	15593 Oct 09 15:10	3°♂49'51			15599 Jul 06 23:56	15°♂	
behind sun end	15593 Oct 09 21:48	3°♂53'53		retrograde	15599 Aug 18 23:57	17°♂43'01	
max. Earth dist.	15593 Oct 09 05:27	3°♂43'54	5.92074 AU		15599 Oct 01 03:23	15°♂♂	
morning rise	15593 Oct 23 01:31	7°♂06'25		opposition	15599 Oct 19 03:16	12°♂45'40	0°15'29
	15593 Nov 25 18:07	15°♂		min. Earth dist.	15599 Oct 19 00:39	12°♂46'31	4.49633 AU
retrograde	15594 Mar 03 06:38	27°♂50'49		direct	15599 Dec 20 03:57	7°♂45'20	
opposition	15594 May 01 10:53	22°♂51'53	-0°07'35		15600 Mar 03 19:38	15°♂	
min. Earth dist.	15594 May 01 05:46	22°♂53'37	3.89092 AU	evening set	15600 Apr 22 14:34	24°♂45'54	
direct	15594 Jun 28 17:10	17°♂56'25		conjunction	15600 May 05 16:00	27°♂32'37	0°02'45
asc. node	15594 Aug 05 10:32	20°♂17'11		minimum elong	15600 May 05 16:00	27°♂32'37	0°02'03
	15594 Sep 29 04:22	0°♂		behind sun begin	15600 May 05 07:58	27°♂28'21	
evening set	15594 Nov 03 14:14	8°♂18'24		behind sun end	15600 May 06 00:03	27°♂36'53	
conjunction	15594 Nov 17 00:42	11°♂35'50	0°05'15	max. Earth dist.	15600 May 05 05:35	27°♂27'04	6.51557 AU
minimum elong	15594 Nov 17 00:41	11°♂35'50	0°06'03		15600 May 17 04:44	0°♂	
behind sun begin	15594 Nov 16 16:46	11°♂31'00		morning rise	15600 May 18 15:46	0°♂18'34	
behind sun end	15594 Nov 17 08:37	11°♂40'40		desc. node	15600 Jul 08 22:53	10°♂19'37	
max. Earth dist.	15594 Nov 18 02:01	11°♂51'22	5.89098 AU	retrograde	15600 Sep 16 13:40	16°♂53'27	

opposition	15600 Nov 16 20:22	11° Π 58'15	-0°08'16
min. Earth dist.	15600 Nov 17 13:00	11° Π 52'55	4.51205 AU
direct	15601 Jan 18 07:18	6° Π 57'40	
evening set	15601 May 22 15:49	24° Π 00'26	
max. Earth dist.	15601 Jun 03 00:51	26° Π 26'56	6.48558 AU
conjunction	15601 Jun 04 14:10	26° Π 47'01	-0°13'32
minimum elong	15601 Jun 04 14:09	26° Π 47'00	0°14'24
behind sun begin	15601 Jun 04 10:30	26° Π 45'03	
behind sun end	15601 Jun 04 17:48	26° Π 48'58	
morning rise	15601 Jun 17 11:11	29° Π 33'04	
	15601 Jun 19 13:37	0° \mathfrak{S}	
retrograde	15601 Oct 17 01:13	16° \mathfrak{S} 23'37	
opposition	15601 Dec 17 03:32	11° \mathfrak{S} 29'30	-0°30'14
min. Earth dist.	15601 Dec 18 12:37	11° \mathfrak{S} 18'54	4.43822 AU