

superior conj	11600 Jan 08 21:31	25° $\text{Z}$ 51'03	1°18'40	morning set	11600 Dec 15 16:29	24° $\text{Z}$ 59'52	
minimum elong	11600 Jan 09 00:09	26° $\text{Z}$ 04'22	1°19'04		11600 Dec 18 01:18	0° $\text{Z}$	
	11600 Jan 10 23:25	0° $\approx$					
max. Earth dist.	11600 Jan 14 12:16	6° $\approx$ 51'26	1.36628 AU	superior conj	11600 Dec 22 20:18	10° $\text{Z}$ 08'40	1°31'56
evening rise	11600 Jan 18 07:11	13° $\approx$ 54'04		minimum elong	11600 Dec 22 22:01	10° $\text{Z}$ 17'41	1°32'34
desc. node	11600 Jan 19 21:40	16° $\approx$ 47'08		max. Earth dist.	11600 Dec 27 00:18	18° $\text{Z}$ 43'13	1.34693 AU
	11600 Jan 27 16:24	0° $\text{H}$		evening rise	11600 Dec 31 06:15	27° $\text{Z}$ 03'34	
	11600 Feb 18 01:38	0° $\text{Y}$			11601 Jan 01 19:35	0° $\approx$	
evening max el	11600 Feb 22 20:11	5° $\text{Y}$ 06'34	25°49'30	desc. node	11601 Jan 05 18:31	7° $\approx$ 11'57	
retrograde	11600 Mar 06 08:08	12° $\text{Y}$ 16'35			11601 Jan 20 00:34	0° $\text{H}$	
evening set	11600 Mar 12 09:11	9° $\text{Y}$ 47'59		evening max el	11601 Feb 04 09:39	18° $\text{H}$ 49'43	26°47'21
asc. node	11600 Mar 14 11:42	7° $\text{Y}$ 45'55		retrograde	11601 Feb 17 13:54	26° $\text{H}$ 12'23	
min. Earth dist.	11600 Mar 16 15:34	5° $\text{Y}$ 13'12	0.67332 AU	evening set	11601 Feb 24 01:31	23° $\text{H}$ 39'14	
inferior conj	11600 Mar 18 03:39	3° $\text{Y}$ 19'21	1°08'55	min. Earth dist.	11601 Feb 28 02:09	19° $\text{H}$ 38'28	0.66047 AU
minimum elong	11600 Mar 18 02:04	3° $\text{Y}$ 24'21	1°08'21	asc. node	11601 Mar 01 09:03	18° $\text{H}$ 08'17	
	11600 Mar 20 22:29	30° $\text{R}$ $\text{H}$		inferior conj	11601 Mar 02 02:14	17° $\text{H}$ 17'39	0°13'56
morning rise	11600 Mar 23 19:33	27° $\text{H}$ 30'11		minimum elong	11601 Mar 02 01:51	17° $\text{H}$ 18'47	0°14'00
direct	11600 Mar 27 03:08	26° $\text{H}$ 27'22		transit middle	11601 Mar 02 01:51	17° $\text{H}$ 18'47	0°14'00
	11600 Apr 02 18:26	0° $\text{Y}$		transit begin	11601 Mar 02 00:25	17° $\text{H}$ 22'59	
morning max el	11600 Apr 02 21:18	0° $\text{Y}$ 06'59	18°53'09	transit end	11601 Mar 02 03:17	17° $\text{H}$ 14'34	
desc. node	11600 Apr 16 23:05	19° $\text{Y}$ 10'29		morning rise	11601 Mar 08 03:25	11° $\text{H}$ 39'42	
greatest brilliancy	11600 Apr 16 18:31	18° $\text{Y}$ 53'04	-0.8m	direct	11601 Mar 11 00:43	10° $\text{H}$ 53'44	
	11600 Apr 23 23:19	0° $\text{B}$		morning max el	11601 Mar 17 10:53	14° $\text{H}$ 17'46	18°14'00
morning set	11600 Apr 25 08:17	2° $\text{B}$ 08'08			11601 Mar 28 22:38	0° $\text{Y}$	
max. Earth dist.	11600 May 09 21:15	24° $\text{B}$ 48'04	1.45497 AU	desc. node	11601 Apr 03 19:46	9° $\text{Y}$ 22'39	
				morning set	11601 Apr 05 17:00	12° $\text{Y}$ 24'21	
superior conj	11600 May 11 17:53	27° $\text{B}$ 43'05	-2°09'46		11601 Apr 16 18:06	0° $\text{B}$	
minimum elong	11600 May 11 13:21	27° $\text{B}$ 25'18	2°10'13				
	11600 May 13 04:43	0° $\text{II}$		superior conj	11601 Apr 21 00:48	6° $\text{B}$ 43'19	-1°47'50
evening rise	11600 May 26 20:34	21° $\text{II}$ 48'26		minimum elong	11601 Apr 20 15:30	6° $\text{B}$ 06'55	1°47'25
	11600 May 31 22:04	0° $\text{E}$		max. Earth dist.	11601 Apr 22 16:43	9° $\text{B}$ 19'30	1.45706 AU
asc. node	11600 Jun 10 09:32	14° $\text{E}$ 43'21			11601 May 05 23:01	0° $\text{II}$	
evening max el	11600 Jun 16 03:28	21° $\text{E}$ 51'59	18°30'48	evening rise	11601 May 07 01:48	1° $\text{II}$ 44'23	
retrograde	11600 Jun 22 14:50	25° $\text{E}$ 22'00		greatest brilliancy	11601 May 18 09:29	19° $\text{II}$ 15'45	-0.7m
evening set	11600 Jun 25 18:33	24° $\text{E}$ 25'59			11601 May 25 20:09	0° $\text{E}$	
inferior conj	11600 Jul 01 11:56	18° $\text{E}$ 52'31	2°57'24	asc. node	11601 May 28 06:37	3° $\text{E}$ 04'16	
minimum elong	11600 Jul 01 13:46	18° $\text{E}$ 46'58	2°56'23	evening max el	11601 May 30 12:49	5° $\text{E}$ 33'17	19°10'17
min. Earth dist.	11600 Jul 03 14:44	16° $\text{E}$ 20'18	0.65056 AU	retrograde	11601 Jun 06 11:13	9° $\text{E}$ 25'26	
morning rise	11600 Jul 07 07:57	12° $\text{E}$ 32'03		evening set	11601 Jun 09 23:28	8° $\text{E}$ 13'46	
direct	11600 Jul 13 20:41	9° $\text{E}$ 50'38		inferior conj	11601 Jun 15 10:18	2° $\text{E}$ 25'30	3°13'08
desc. node	11600 Jul 13 22:56	9° $\text{E}$ 50'40		minimum elong	11601 Jun 15 11:03	2° $\text{E}$ 23'05	3°12'20
morning max el	11600 Jul 27 08:24	17° $\text{E}$ 46'50	27°11'15	min. Earth dist.	11601 Jun 16 22:17	0° $\text{E}$ 29'21	0.66661 AU
	11600 Aug 06 13:59	0° $\text{O}$			11601 Jun 17 07:33	30° $\text{R}$ $\text{II}$	
	11600 Aug 25 16:23	0° $\text{P}$		morning rise	11601 Jun 20 22:05	26° $\text{II}$ 03'13	
morning set	11600 Aug 31 20:52	11° $\text{P}$ 31'30		direct	11601 Jun 27 02:35	23° $\text{II}$ 21'38	
max. Earth dist.	11600 Sep 05 07:16	20° $\text{P}$ 21'23	1.33469 AU	desc. node	11601 Jun 30 20:06	24° $\text{II}$ 10'43	
asc. node	11600 Sep 06 09:58	22° $\text{P}$ 38'30			11601 Jul 08 20:17	0° $\text{E}$	
				morning max el	11601 Jul 09 19:14	0° $\text{E}$ 56'58	26°05'33
superior conj	11600 Sep 09 05:58	28° $\text{P}$ 34'20	0°27'20		11601 Jul 31 14:12	0° $\text{O}$	
minimum elong	11600 Sep 09 04:38	28° $\text{P}$ 27'16	0°27'00	morning set	11601 Aug 14 19:26	24° $\text{O}$ 16'01	
	11600 Sep 09 22:07	0° $\text{O}$			11601 Aug 17 20:27	0° $\text{P}$	
evening rise	11600 Sep 16 10:17	13° $\text{O}$ 54'23		max. Earth dist.	11601 Aug 18 15:14	1° $\text{P}$ 30'25	1.35175 AU
	11600 Sep 24 12:13	0° $\text{M}$					
evening max el	11600 Oct 07 06:25	18° $\text{M}$ 04'23	22°00'07	superior conj	11601 Aug 24 01:33	12° $\text{P}$ 18'04	-0°02'05
desc. node	11600 Oct 09 20:05	20° $\text{M}$ 21'07		minimum elong	11601 Aug 24 01:40	12° $\text{P}$ 18'44	0°02'21
retrograde	11600 Oct 19 21:38	24° $\text{M}$ 21'23		behind sun begin	11601 Aug 23 19:41	11° $\text{P}$ 48'15	
evening set	11600 Oct 23 00:45	23° $\text{M}$ 59'28		behind sun end	11601 Aug 24 07:40	12° $\text{P}$ 49'15	
inferior conj	11600 Oct 31 21:38	20° $\text{M}$ 01'59	-5°32'33	asc. node	11601 Aug 24 06:42	12° $\text{P}$ 44'20	
minimum elong	11600 Oct 31 15:05	20° $\text{M}$ 11'11	5°31'07	evening rise	11601 Aug 31 18:31	28° $\text{P}$ 16'05	
min. Earth dist.	11600 Oct 31 11:08	20° $\text{M}$ 16'43	0.54676 AU		11601 Sep 01 14:41	0° $\text{O}$	
morning rise	11600 Nov 09 06:44	16° $\text{M}$ 14'54		evening max el	11601 Sep 19 05:17	28° $\text{O}$ 38'17	20°32'04
direct	11600 Nov 12 18:43	15° $\text{M}$ 47'54			11601 Sep 20 16:28	0° $\text{M}$	
morning max el	11600 Nov 24 21:46	21° $\text{M}$ 33'15	21°46'01	desc. node	11601 Sep 26 17:25	3° $\text{M}$ 35'48	
	11600 Dec 01 23:36	0° $\text{Z}$		retrograde	11601 Sep 30 09:14	4° $\text{M}$ 10'51	
asc. node	11600 Dec 03 10:46	2° $\text{Z}$ 10'44		evening set	11601 Oct 02 12:21	3° $\text{M}$ 59'37	

inferior conj	11601 Oct 11 14:07	0°♍03'45	-4°19'22	evening set	11602 Sep 13 01:40	14°♊30'54	
minimum elong	11601 Oct 11 04:08	0°♍18'13	4°16'11	desc. node	11602 Sep 13 14:48	14°♊24'16	
	11601 Oct 11 16:42	30°♋♊		inferior conj	11602 Sep 21 17:40	10°♊23'34	-2°31'28
min. Earth dist.	11601 Oct 12 19:10	29°♊21'38	0.54706 AU	minimum elong	11602 Sep 21 11:00	10°♊34'24	2°28'53
morning rise	11601 Oct 19 19:29	26°♊03'17		min. Earth dist.	11602 Sep 24 06:15	8°♊45'31	0.55672 AU
direct	11601 Oct 24 03:23	25°♊22'57		morning rise	11602 Sep 29 17:53	5°♊52'23	
	11601 Nov 04 08:17	0°♍		direct	11602 Oct 04 21:48	4°♊52'05	
morning max el	11601 Nov 06 11:11	1°♍51'05	23°31'47	morning max el	11602 Oct 18 21:58	11°♊55'27	25°17'30
asc. node	11601 Nov 20 07:42	20°♍31'02			11602 Nov 01 19:13	0°♍	
	11601 Nov 25 10:08	0°♊		asc. node	11602 Nov 07 04:33	9°♍26'51	
morning set	11601 Nov 30 04:07	9°♊47'21		morning set	11602 Nov 14 15:44	24°♍31'13	
					11602 Nov 17 04:21	0°♊	
superior conj	11601 Dec 07 01:39	24°♊43'20	1°38'21	superior conj	11602 Nov 21 11:03	9°♊26'34	1°38'27
minimum elong	11601 Dec 07 02:13	24°♊46'25	1°39'04	minimum elong	11602 Nov 21 10:30	9°♊23'32	1°39'07
	11601 Dec 09 12:45	0°♊		max. Earth dist.	11602 Nov 22 23:27	12°♊46'41	1.32074 AU
max. Earth dist.	11601 Dec 09 20:09	0°♊39'16	1.33153 AU	evening rise	11602 Nov 28 15:04	24°♊50'45	
evening rise	11601 Dec 14 17:58	10°♊45'36			11602 Dec 01 04:04	0°♊	
desc. node	11601 Dec 23 15:25	27°♊22'34		desc. node	11602 Dec 10 12:24	17°♊11'44	
	11601 Dec 25 04:02	0°♋			11602 Dec 18 17:27	0°♋	
	11602 Jan 15 16:11	0°♋		evening max el	11602 Dec 31 09:20	15°♋14'39	27°30'53
evening max el	11602 Jan 17 22:39	2°♋16'52	27°23'21	retrograde	11603 Jan 14 05:25	22°♋33'59	
retrograde	11602 Jan 31 13:23	9°♋41'34		evening set	11603 Jan 21 04:55	20°♋12'33	
evening set	11602 Feb 07 09:01	7°♋10'22		min. Earth dist.	11603 Jan 24 22:38	17°♋11'15	0.62489 AU
min. Earth dist.	11602 Feb 11 05:09	3°♋41'26	0.64411 AU	inferior conj	11603 Jan 27 20:08	14°♋25'56	-2°03'57
inferior conj	11602 Feb 13 16:44	1°♋02'38	-0°50'44	minimum elong	11603 Jan 28 00:18	14°♋15'59	2°01'41
minimum elong	11602 Feb 13 18:17	0°♋58'29	0°49'40	asc. node	11603 Feb 03 03:38	9°♋36'21	
	11602 Feb 14 16:26	30°♋♋		morning rise	11603 Feb 03 22:10	9°♋18'08	
asc. node	11602 Feb 16 06:21	28°♋25'54		direct	11603 Feb 06 04:24	8°♋54'46	
morning rise	11602 Feb 20 05:27	25°♋38'16		morning max el	11603 Feb 12 21:20	12°♋19'52	17°47'12
direct	11602 Feb 22 18:10	25°♋05'30			11603 Feb 24 21:25	0°♋	
morning max el	11602 Mar 01 03:55	28°♋25'06	17°51'49	morning set	11603 Feb 28 19:37	6°♋53'16	
	11602 Mar 02 15:35	0°♋		desc. node	11603 Mar 08 13:02	20°♋21'50	
morning set	11602 Mar 18 06:27	24°♋05'04		superior conj	11603 Mar 12 10:53	26°♋59'31	-0°29'34
desc. node	11602 Mar 21 16:25	29°♋48'07		minimum elong	11603 Mar 12 07:58	26°♋47'17	0°29'01
	11602 Mar 21 19:16	0°♎			11603 Mar 14 06:13	0°♎	
superior conj	11602 Mar 31 18:36	16°♎19'16	-1°11'17	max. Earth dist.	11603 Mar 19 05:13	8°♎05'48	1.43968 AU
minimum elong	11602 Mar 31 11:03	15°♎48'58	1°10'28	evening rise	11603 Mar 27 04:30	20°♎39'56	
max. Earth dist.	11602 Apr 05 12:03	23°♎50'23	1.45179 AU		11603 Apr 02 07:21	0°♎	
	11602 Apr 09 10:22	0°♎			11603 Apr 23 20:17	0°♎	
evening rise	11602 Apr 16 15:30	11°♎08'42		evening max el	11603 Apr 26 15:33	3°♎03'18	21°13'52
	11602 Apr 29 03:10	0°♎		asc. node	11603 May 02 00:58	7°♎16'38	
greatest brilliancy	11602 May 01 16:47	3°♎45'39	-0.6m	retrograde	11603 May 05 08:16	8°♎08'45	
evening max el	11602 May 13 17:01	19°♎17'47	20°05'31	evening set	11603 May 09 15:58	6°♎24'52	
asc. node	11602 May 15 03:45	20°♎40'00		inferior conj	11603 May 14 22:24	0°♎11'38	3°05'27
retrograde	11602 May 21 09:41	23°♎42'44		minimum elong	11603 May 14 21:08	0°♎16'03	3°04'41
evening set	11602 May 25 07:14	22°♎14'54			11603 May 15 01:45	30°♎♎	
inferior conj	11602 May 30 14:36	16°♎13'21	3°15'06	min. Earth dist.	11603 May 15 06:24	29°♎43'51	0.68521 AU
minimum elong	11602 May 30 14:15	16°♎14'32	3°14'23	morning rise	11603 May 20 02:05	23°♎55'51	
min. Earth dist.	11602 May 31 12:11	15°♎00'07	0.67827 AU	direct	11603 May 25 06:37	21°♎39'38	
morning rise	11602 Jun 04 20:56	9°♎53'08		morning max el	11603 Jun 04 15:09	27°♎48'57	23°13'29
direct	11602 Jun 10 14:16	7°♎20'46		desc. node	11603 Jun 04 14:10	27°♎46'29	
desc. node	11602 Jun 17 17:11	10°♎18'28			11603 Jun 06 16:40	0°♎	
morning max el	11602 Jun 22 05:04	14°♎18'56	24°42'57		11603 Jun 28 15:25	0°♎	
	11602 Jul 04 23:49	0°♎		morning set	11603 Jul 09 07:45	17°♎05'37	
	11602 Jul 24 10:44	0°♎		max. Earth dist.	11603 Jul 13 12:07	24°♎12'13	1.39592 AU
morning set	11602 Jul 28 00:41	6°♎11'22			11603 Jul 16 19:22	0°♎	
max. Earth dist.	11602 Jul 31 14:40	12°♎36'33	1.37284 AU	superior conj	11603 Jul 21 05:03	7°♎59'10	-1°08'42
superior conj	11602 Aug 07 10:30	25°♎29'18	-0°34'47	minimum elong	11603 Jul 21 09:51	8°♎21'23	1°08'36
minimum elong	11602 Aug 07 12:48	25°♎40'29	0°34'50	asc. node	11603 Jul 29 00:10	22°♎45'04	
	11602 Aug 09 17:40	0°♎		evening rise	11603 Jul 30 17:23	26°♎03'28	
asc. node	11602 Aug 11 03:24	2°♎47'34			11603 Aug 01 18:45	0°♎	
evening rise	11602 Aug 15 21:51	12°♎21'27		evening max el	11603 Aug 15 19:06	22°♎03'30	18°36'49
	11602 Aug 25 07:50	0°♎		retrograde	11603 Aug 23 19:40	26°♎05'05	
evening max el	11602 Sep 01 18:10	9°♎57'58	19°23'43	evening set	11603 Aug 25 19:22	25°♎51'04	
retrograde	11602 Sep 11 05:24	14°♎40'51					

desc. node	11603 Aug 31 12:12	23° $\cap$ 01'52	retrograde	11604 Aug 05 04:48	8° $\cap$ 19'46	
inferior conj	11603 Sep 02 17:24	21° $\cap$ 24'16 -0°41'29	evening set	11604 Aug 07 11:36	7° $\cap$ 57'41	
minimum elong	11603 Sep 02 15:44	21° $\cap$ 27'25 0°41'00	inferior conj	11604 Aug 14 14:46	3° $\cap$ 10'16 0°49'59	
min. Earth dist.	11603 Sep 05 22:31	18° $\cap$ 58'56 0.57382 AU	minimum elong	11604 Aug 14 16:20	3° $\cap$ 06'47 0°49'00	
morning rise	11603 Sep 10 08:40	16° $\cap$ 15'27	desc. node	11604 Aug 17 09:35	0° $\cap$ 42'17	
direct	11603 Sep 16 06:04	14° $\cap$ 49'05	min. Earth dist.	11604 Aug 17 22:19	0° $\cap$ 15'12 0.59535 AU	
morning max el	11603 Sep 30 13:23	22° $\cap$ 19'24 26°45'10		11604 Aug 18 05:36	30° $\cap$ 00	
	11603 Oct 07 08:43	0° $\cap$	morning rise	11604 Aug 21 17:50	27° $\cap$ 28'25	
asc. node	11603 Oct 25 01:21	28° $\cap$ 49'05	direct	11604 Aug 28 03:48	25° $\cap$ 33'15	
	11603 Oct 25 15:41	0° $\cap$		11604 Sep 07 16:23	0° $\cap$	
morning set	11603 Oct 30 01:42	9° $\cap$ 07'16	morning max el	11604 Sep 11 12:15	3° $\cap$ 23'24 27°40'38	
				11604 Oct 01 00:15	0° $\cap$	
superior conj	11603 Nov 05 22:29	24° $\cap$ 12'36 1°32'39	asc. node	11604 Oct 10 22:06	18° $\cap$ 29'51	
minimum elong	11603 Nov 05 21:01	24° $\cap$ 04'23 1°33'06	morning set	11604 Oct 13 08:13	23° $\cap$ 30'08	
max. Earth dist.	11603 Nov 06 07:28	25° $\cap$ 02'39 1.31481 AU		11604 Oct 16 09:03	0° $\cap$	
	11603 Nov 08 13:03	0° $\cap$	max. Earth dist.	11604 Oct 19 16:31	7° $\cap$ 17'42 1.31377 AU	
evening rise	11603 Nov 12 18:57	9° $\cap$ 12'18				
	11603 Nov 23 12:14	0° $\cap$	superior conj	11604 Oct 20 10:04	8° $\cap$ 55'18 1°21'13	
desc. node	11603 Nov 27 09:29	6° $\cap$ 30'59	minimum elong	11604 Oct 20 07:59	8° $\cap$ 43'45 1°21'23	
evening max el	11603 Dec 13 14:55	27° $\cap$ 29'59 27°05'00	evening rise	11604 Oct 27 03:16	23° $\cap$ 43'30	
	11603 Dec 16 11:54	0° $\cap$		11604 Oct 30 02:52	0° $\cap$	
retrograde	11603 Dec 27 12:56	4° $\cap$ 41'21	desc. node	11604 Nov 13 06:40	25° $\cap$ 08'14	
evening set	11604 Jan 03 09:50	2° $\cap$ 38'13		11604 Nov 16 17:53	0° $\cap$	
min. Earth dist.	11604 Jan 07 05:21	29° $\cap$ 56'37 0.60387 AU	evening max el	11604 Nov 24 12:48	8° $\cap$ 53'41 26°05'13	
	11604 Jan 07 03:40	30° $\cap$ 00	retrograde	11604 Dec 08 10:50	15° $\cap$ 57'18	
inferior conj	11604 Jan 10 09:04	27° $\cap$ 18'42 -3°22'04	evening set	11604 Dec 14 19:30	14° $\cap$ 21'03	
minimum elong	11604 Jan 10 15:59	27° $\cap$ 04'14 3°18'56	min. Earth dist.	11604 Dec 19 01:43	11° $\cap$ 45'39 0.58267 AU	
morning rise	11604 Jan 18 00:54	22° $\cap$ 30'54	inferior conj	11604 Dec 22 03:58	9° $\cap$ 31'09 -4°36'58	
direct	11604 Jan 20 03:36	22° $\cap$ 13'22	minimum elong	11604 Dec 22 12:17	9° $\cap$ 16'04 4°34'03	
asc. node	11604 Jan 21 00:53	22° $\cap$ 16'34	morning rise	11604 Dec 30 07:44	5° $\cap$ 05'46	
morning max el	11604 Jan 27 11:49	25° $\cap$ 53'22 18°01'13	direct	11605 Jan 01 11:10	4° $\cap$ 50'42	
	11604 Jan 30 23:49	0° $\cap$	asc. node	11605 Jan 06 22:04	6° $\cap$ 34'48	
morning set	11604 Feb 12 02:09	20° $\cap$ 29'39	morning max el	11605 Jan 09 19:41	8° $\cap$ 55'30 18°35'31	
	11604 Feb 17 05:57	0° $\cap$	morning set	11605 Jan 23 10:47	0° $\cap$	
				11605 Jan 25 20:51	4° $\cap$ 38'54	
superior conj	11604 Feb 22 03:42	8° $\cap$ 48'48 0°09'41				
minimum elong	11604 Feb 22 04:31	8° $\cap$ 52'23 0°09'54	superior conj	11605 Feb 03 17:34	21° $\cap$ 37'00 0°42'30	
behind sun begin	11604 Feb 21 22:15	8° $\cap$ 24'43	minimum elong	11605 Feb 03 20:12	21° $\cap$ 49'18 0°42'38	
behind sun end	11604 Feb 22 10:47	9° $\cap$ 20'00		11605 Feb 08 07:46	0° $\cap$	
desc. node	11604 Feb 23 09:39	11° $\cap$ 00'22	desc. node	11605 Feb 09 06:21	1° $\cap$ 40'26	
max. Earth dist.	11604 Feb 29 18:11	21° $\cap$ 50'32 1.42204 AU	max. Earth dist.	11605 Feb 11 02:24	4° $\cap$ 53'40 1.40083 AU	
	11604 Mar 05 18:09	0° $\cap$	evening rise	11605 Feb 15 05:47	11° $\cap$ 57'14	
evening rise	11604 Mar 06 06:52	0° $\cap$ 50'51		11605 Feb 26 14:34	0° $\cap$	
	11604 Mar 25 19:18	0° $\cap$		11605 Mar 21 08:25	0° $\cap$	
evening max el	11604 Apr 08 09:07	16° $\cap$ 49'32 22°31'07	evening max el	11605 Mar 21 23:36	0° $\cap$ 38'20 23°51'45	
asc. node	11604 Apr 17 22:16	22° $\cap$ 37'54	retrograde	11605 Apr 01 23:26	7° $\cap$ 06'42	
retrograde	11604 Apr 18 05:16	22° $\cap$ 38'19	asc. node	11605 Apr 04 19:36	6° $\cap$ 29'14	
evening set	11604 Apr 22 23:59	20° $\cap$ 39'10	evening set	11605 Apr 07 05:45	4° $\cap$ 54'01	
inferior conj	11604 Apr 28 07:39	14° $\cap$ 16'35 2°45'24		11605 Apr 11 12:38	30° $\cap$ 00	
minimum elong	11604 Apr 28 05:45	14° $\cap$ 23'14 2°44'33	min. Earth dist.	11605 Apr 11 23:22	29° $\cap$ 23'40 0.68533 AU	
min. Earth dist.	11604 Apr 28 02:49	14° $\cap$ 33'25 0.68751 AU	inferior conj	11605 Apr 12 16:28	28° $\cap$ 25'22 2°15'35	
morning rise	11604 May 03 11:23	8° $\cap$ 06'33	minimum elong	11605 Apr 12 14:18	28° $\cap$ 32'46 2°14'41	
direct	11604 May 08 02:32	6° $\cap$ 10'32	morning rise	11605 Apr 17 22:53	22° $\cap$ 22'12	
morning max el	11604 May 17 04:25	11° $\cap$ 27'45 21°46'03	direct	11605 Apr 22 01:01	20° $\cap$ 47'39	
desc. node	11604 May 21 11:03	16° $\cap$ 12'43	morning max el	11605 Apr 29 23:57	25° $\cap$ 18'16 20°27'45	
	11604 May 31 19:13	0° $\cap$		11605 May 04 04:37	0° $\cap$	
morning set	11604 Jun 18 12:55	26° $\cap$ 49'52	desc. node	11605 May 08 07:52	5° $\cap$ 21'37	
	11604 Jun 20 12:19	0° $\cap$		11605 May 25 04:07	0° $\cap$	
max. Earth dist.	11604 Jun 24 13:30	6° $\cap$ 37'23 1.41821 AU	morning set	11605 May 28 19:29	5° $\cap$ 35'47	
			max. Earth dist.	11605 Jun 06 21:16	19° $\cap$ 53'40 1.43707 AU	
superior conj	11604 Jul 02 04:34	19° $\cap$ 36'16 -1°40'18				
minimum elong	11604 Jul 02 11:10	20° $\cap$ 05'11 1°40'17	superior conj	11605 Jun 13 05:04	0° $\cap$ 12'55 -2°04'06	
	11604 Jul 08 00:39	0° $\cap$	minimum elong	11605 Jun 13 10:40	0° $\cap$ 36'09 2°04'31	
evening rise	11604 Jul 13 01:18	9° $\cap$ 11'34		11605 Jun 13 01:57	0° $\cap$	
asc. node	11604 Jul 14 21:00	12° $\cap$ 32'02	evening rise	11605 Jun 25 16:59	21° $\cap$ 34'36	
	11604 Jul 25 05:36	0° $\cap$		11605 Jun 30 13:03	0° $\cap$	
evening max el	11604 Jul 29 04:08	4° $\cap$ 45'36 18°10'36	asc. node	11605 Jul 01 17:56	2° $\cap$ 03'52	

evening max el	11605 Jul 12 17:22	17°Ω55'05	18°03'57	retrograde	11606 Jul 02 16:05	4°Ω45'24	
retrograde	11605 Jul 19 05:05	21°Ω16'27		evening set	11606 Jul 05 15:06	3°Ω58'03	
evening set	11605 Jul 21 19:55	20°Ω42'57			11606 Jul 10 07:06	30°R☿	
inferior conj	11605 Jul 28 06:58	15°Ω36'26	1°56'52	inferior conj	11606 Jul 11 13:50	28°☿34'07	2°40'53
minimum elong	11605 Jul 28 09:37	15°Ω29'40	1°55'30	minimum elong	11606 Jul 11 16:11	28°☿27'26	2°39'42
min. Earth dist.	11605 Jul 31 07:05	12°Ω34'13	0.61816 AU	min. Earth dist.	11606 Jul 14 01:08	25°☿46'06	0.63960 AU
morning rise	11605 Aug 03 20:56	9°Ω32'05		morning rise	11606 Jul 17 15:48	22°☿17'29	
desc. node	11605 Aug 04 06:56	9°Ω15'06		desc. node	11606 Jul 22 04:12	19°☿56'08	
direct	11605 Aug 10 13:08	7°Ω11'34		direct	11606 Jul 24 07:36	19°☿40'28	
morning max el	11605 Aug 24 17:35	15°Ω12'57	27°57'39	morning max el	11606 Aug 07 02:52	27°☿41'59	27°37'29
	11605 Sep 05 18:39	0°♊			11606 Aug 09 07:17	0°Ω	
	11605 Sep 23 14:17	0°♊			11606 Aug 30 12:30	0°♊	
morning set	11605 Sep 27 09:20	7°♊34'46		morning set	11606 Sep 11 02:38	21°♊14'57	
asc. node	11605 Sep 27 18:50	8°♊23'37		asc. node	11606 Sep 14 15:32	28°♊25'37	
max. Earth dist.	11605 Oct 02 22:44	19°♊21'51	1.31781 AU		11606 Sep 15 09:41	0°♊	
				max. Earth dist.	11606 Sep 15 22:22	1°♊06'24	1.32701 AU
superior conj	11605 Oct 04 19:57	23°♊29'31	1°04'22				
minimum elong	11605 Oct 04 17:43	23°♊17'11	1°04'14	superior conj	11606 Sep 19 02:11	7°♊49'45	0°42'19
	11605 Oct 07 18:43	0°♊		minimum elong	11606 Sep 19 00:19	7°♊39'45	0°42'00
evening rise	11605 Oct 11 14:03	8°♊19'12		evening rise	11606 Sep 26 01:25	22°♊54'22	
	11605 Oct 22 15:54	0°♊			11606 Sep 29 10:44	0°♊	
desc. node	11605 Oct 31 03:56	12°♊47'11		desc. node	11606 Oct 18 01:14	29°♊06'09	
evening max el	11605 Nov 06 02:40	19°♊28'21	24°37'50	evening max el	11606 Oct 18 13:12	29°♊35'42	22°57'13
retrograde	11605 Nov 19 21:09	26°♊22'02			11606 Oct 18 23:21	0°♊	
evening set	11605 Nov 25 05:35	25°♊18'22		retrograde	11606 Oct 31 18:22	6°♊10'01	
min. Earth dist.	11605 Nov 30 14:13	22°♊30'54	0.56395 AU	evening set	11606 Nov 04 17:08	5°♊36'07	
inferior conj	11605 Dec 03 02:26	20°♊55'32	-5°33'19	min. Earth dist.	11606 Nov 11 22:10	2°♊18'25	0.55080 AU
minimum elong	11605 Dec 03 08:12	20°♊46'22	5°31'50	inferior conj	11606 Nov 13 05:55	1°♊32'54	-5°49'10
morning rise	11605 Dec 11 12:59	16°♊51'31		minimum elong	11606 Nov 13 04:06	1°♊35'30	5°48'28
direct	11605 Dec 13 23:36	16°♊35'15			11606 Nov 16 00:27	30°R♊	
morning max el	11605 Dec 23 16:52	21°♊14'28	19°31'53	morning rise	11606 Nov 21 16:39	27°♊43'33	
asc. node	11605 Dec 24 19:11	22°♊21'03		direct	11606 Nov 24 18:10	27°♊21'36	
	11605 Dec 30 14:07	0°♊			11606 Dec 02 16:17	0°♊	
morning set	11606 Jan 09 23:40	19°♊08'39		morning max el	11606 Dec 06 00:24	2°♊42'05	20°51'01
	11606 Jan 15 09:04	0°♊		asc. node	11606 Dec 11 16:12	9°♊19'33	
					11606 Dec 23 10:41	0°♊	
superior conj	11606 Jan 17 23:30	5°♊09'17	1°07'40	morning set	11606 Dec 25 07:39	3°♊50'39	
minimum elong	11606 Jan 18 02:26	5°♊23'39	1°07'56				
max. Earth dist.	11606 Jan 24 08:19	17°♊15'51	1.37858 AU	superior conj	11607 Jan 01 17:12	19°♊13'31	1°25'09
desc. node	11606 Jan 27 03:05	22°♊17'53		minimum elong	11607 Jan 01 19:30	19°♊25'19	1°25'39
evening rise	11606 Jan 28 01:45	23°♊58'11		max. Earth dist.	11607 Jan 06 17:04	29°♊13'57	1.35769 AU
	11606 Jan 31 13:32	0°♊			11607 Jan 07 02:32	0°♊	
	11606 Feb 20 08:00	0°♊		evening rise	11607 Jan 10 16:01	6°♊45'54	
evening max el	11606 Mar 04 13:02	14°♊29'07	25°09'15	desc. node	11607 Jan 13 23:55	12°♊48'55	
retrograde	11606 Mar 16 13:28	21°♊27'31			11607 Jan 24 07:58	0°♊	
evening set	11606 Mar 22 07:40	19°♊03'55		evening max el	11607 Feb 15 02:41	28°♊18'14	26°16'20
asc. node	11606 Mar 22 16:57	18°♊43'36			11607 Feb 16 22:27	0°♊	
min. Earth dist.	11606 Mar 26 17:50	14°♊08'45	0.67887 AU	retrograde	11607 Feb 27 22:22	5°♊34'33	
inferior conj	11606 Mar 27 22:56	12°♊33'40	1°36'06	evening set	11607 Mar 06 04:00	3°♊03'42	
minimum elong	11606 Mar 27 20:58	12°♊40'05	1°35'20		11607 Mar 09 05:52	30°R♊	
morning rise	11606 Apr 02 10:37	6°♊38'40		asc. node	11607 Mar 09 14:16	29°♊35'43	
direct	11606 Apr 06 00:37	5°♊24'51		min. Earth dist.	11607 Mar 10 07:56	28°♊43'16	0.66835 AU
morning max el	11606 Apr 13 03:06	9°♊19'34	19°23'04	inferior conj	11607 Mar 12 01:02	26°♊37'18	0°46'49
desc. node	11606 Apr 25 04:36	25°♊01'16		minimum elong	11607 Mar 11 23:53	26°♊40'52	0°46'29
greatest brilliancy	11606 Apr 25 21:04	26°♊02'00	-0.7m	morning rise	11607 Mar 17 20:34	20°♊52'20	
	11606 Apr 28 12:50	0°♊		direct	11607 Mar 20 23:38	19°♊56'58	
morning set	11606 May 07 19:46	14°♊10'23		morning max el	11607 Mar 27 13:22	23°♊28'27	18°34'20
	11606 May 18 00:23	0°♊			11607 Apr 01 23:57	0°♊	
max. Earth dist.	11606 May 20 11:10	3°♊50'57	1.45040 AU	desc. node	11607 Apr 12 01:18	15°♊03'30	
				morning set	11607 Apr 17 12:39	23°♊39'02	
superior conj	11606 May 24 05:54	9°♊50'16	-2°13'19		11607 Apr 21 13:36	0°♊	
minimum elong	11606 May 24 05:50	9°♊49'59	2°14'00	max. Earth dist.	11607 May 03 05:45	18°♊16'12	1.45684 AU
	11606 Jun 05 15:45	0°♊					
evening rise	11606 Jun 07 11:23	3°♊00'55		superior conj	11607 May 03 14:41	18°♊51'06	-2°02'46
asc. node	11606 Jun 18 14:55	21°♊14'19		minimum elong	11607 May 03 07:22	18°♊22'30	2°02'51
	11606 Jun 25 00:10	0°♊			11607 May 10 17:24	0°♊	
evening max el	11606 Jun 26 07:17	1°♊22'40	18°15'56	evening rise	11607 May 19 05:37	13°♊27'05	

greatest brilliancy	11607 May 27 12:40	26° $\Pi$ 36'16	-0.8m		11608 Apr 13 06:19	0° $\mathcal{B}$	
	11607 May 29 16:56	0° $\mathfrak{D}$		max. Earth dist.	11608 Apr 15 02:07	2° $\mathcal{B}$ 51'56	1.45574 AU
asc. node	11607 Jun 05 11:57	9° $\mathfrak{D}$ 55'52		evening rise	11608 Apr 28 02:49	23° $\mathcal{B}$ 06'08	
evening max el	11607 Jun 09 18:59	15° $\mathfrak{D}$ 00'40	18°45'37		11608 May 02 14:20	0° $\Pi$	
retrograde	11607 Jun 16 09:53	18° $\mathfrak{D}$ 38'14		greatest brilliancy	11608 May 11 08:19	13° $\Pi$ 16'05	-0.7m
evening set	11607 Jun 19 17:16	17° $\mathfrak{D}$ 35'30		asc. node	11608 May 22 09:04	27° $\Pi$ 59'22	
inferior conj	11607 Jun 25 07:28	11° $\mathfrak{D}$ 55'39	3°05'54	evening max el	11608 May 23 02:17	28° $\Pi$ 43'59	19°31'58
minimum elong	11607 Jun 25 08:51	11° $\mathfrak{D}$ 51'19	3°05'00		11608 May 24 10:33	0° $\mathfrak{D}$	
min. Earth dist.	11607 Jun 27 03:57	9° $\mathfrak{D}$ 37'45	0.65794 AU	retrograde	11608 May 30 07:30	2° $\mathfrak{D}$ 48'47	
morning rise	11607 Jun 30 23:40	5° $\mathfrak{D}$ 34'07		evening set	11608 Jun 02 23:41	1° $\mathfrak{D}$ 30'03	
direct	11607 Jul 07 09:28	2° $\mathfrak{D}$ 51'25			11608 Jun 04 17:15	30° $\mathcal{R}\Pi$	
desc. node	11607 Jul 09 01:24	3° $\mathfrak{D}$ 01'08		inferior conj	11608 Jun 08 08:40	25° $\Pi$ 35'44	3°15'29
morning max el	11607 Jul 20 13:36	10° $\mathfrak{D}$ 39'53	26°46'02	minimum elong	11608 Jun 08 08:56	25° $\Pi$ 34'51	3°14'45
	11607 Aug 04 21:01	0° $\Omega$		min. Earth dist.	11608 Jun 09 14:20	23° $\Pi$ 57'39	0.67213 AU
	11607 Aug 23 01:11	0° $\mathfrak{P}$		morning rise	11608 Jun 13 17:48	19° $\Pi$ 14'06	
morning set	11607 Aug 25 09:00	4° $\mathfrak{P}$ 21'52		direct	11608 Jun 19 17:45	16° $\Pi$ 35'46	
max. Earth dist.	11607 Aug 29 12:31	12° $\mathfrak{P}$ 27'11	1.34137 AU	desc. node	11608 Jun 24 22:31	18° $\Pi$ 10'51	
asc. node	11607 Sep 01 12:13	18° $\mathfrak{P}$ 30'53		morning max el	11608 Jul 02 00:09	23° $\Pi$ 56'39	25°31'59
					11608 Jul 07 09:58	0° $\mathfrak{D}$	
superior conj	11607 Sep 03 02:21	21° $\mathfrak{P}$ 48'29	0°15'24		11608 Jul 28 06:28	0° $\Omega$	
minimum elong	11607 Sep 03 01:33	21° $\mathfrak{P}$ 44'18	0°15'03	morning set	11608 Aug 07 00:45	16° $\Omega$ 46'46	
behind sun begin	11607 Sep 02 23:31	21° $\mathfrak{P}$ 33'41		max. Earth dist.	11608 Aug 10 16:43	23° $\Omega$ 33'30	1.36036 AU
behind sun end	11607 Sep 03 03:35	21° $\mathfrak{P}$ 54'56			11608 Aug 14 01:13	0° $\mathfrak{P}$	
	11607 Sep 06 23:40	0° $\mathfrak{A}$					
evening rise	11607 Sep 10 11:23	7° $\mathfrak{A}$ 22'32		superior conj	11608 Aug 16 17:48	5° $\mathfrak{P}$ 19'15	-0°15'38
	11607 Sep 22 12:24	0° $\mathfrak{M}$		minimum elong	11608 Aug 16 18:47	5° $\mathfrak{P}$ 24'09	0°15'49
evening max el	11607 Sep 30 05:11	9° $\mathfrak{M}$ 49'50	21°20'36	behind sun begin	11608 Aug 16 17:33	5° $\mathfrak{P}$ 18'01	
desc. node	11607 Oct 04 22:36	13° $\mathfrak{M}$ 36'27		behind sun end	11608 Aug 16 20:00	5° $\mathfrak{P}$ 30'17	
retrograde	11607 Oct 12 06:23	15° $\mathfrak{M}$ 49'05		asc. node	11608 Aug 18 08:56	8° $\mathfrak{P}$ 36'08	
evening set	11607 Oct 14 21:33	15° $\mathfrak{M}$ 33'05		evening rise	11608 Aug 24 17:51	21° $\mathfrak{P}$ 38'20	
inferior conj	11607 Oct 23 22:20	11° $\mathfrak{M}$ 38'04	-5°07'42		11608 Aug 28 22:04	0° $\mathfrak{A}$	
minimum elong	11607 Oct 23 13:21	11° $\mathfrak{M}$ 50'40	5°05'25	evening max el	11608 Sep 11 09:48	20° $\mathfrak{A}$ 41'24	20°00'19
min. Earth dist.	11607 Oct 24 04:50	11° $\mathfrak{M}$ 28'57	0.54576 AU	desc. node	11608 Sep 20 19:58	25° $\mathfrak{A}$ 50'12	
morning rise	11607 Nov 01 05:55	7° $\mathfrak{M}$ 48'14		retrograde	11608 Sep 21 20:23	25° $\mathfrak{A}$ 53'03	
direct	11607 Nov 05 02:35	7° $\mathfrak{M}$ 16'07		evening set	11608 Sep 23 18:46	25° $\mathfrak{A}$ 43'10	
morning max el	11607 Nov 17 18:46	13° $\mathfrak{M}$ 19'36	22°29'52	inferior conj	11608 Oct 02 17:51	21° $\mathfrak{A}$ 43'19	-3°35'50
asc. node	11607 Nov 28 13:09	27° $\mathfrak{M}$ 13'41		minimum elong	11608 Oct 02 08:42	21° $\mathfrak{A}$ 57'08	3°32'33
	11607 Nov 30 04:53	0° $\mathfrak{X}$		min. Earth dist.	11608 Oct 04 13:37	20° $\mathfrak{A}$ 37'17	0.55010 AU
morning set	11607 Dec 09 18:30	18° $\mathfrak{X}$ 37'36		morning rise	11608 Oct 10 21:24	17° $\mathfrak{A}$ 31'36	
	11607 Dec 15 02:02	0° $\mathfrak{Z}$		direct	11608 Oct 15 13:43	16° $\mathfrak{A}$ 43'56	
				morning max el	11608 Oct 29 06:04	23° $\mathfrak{A}$ 27'34	24°17'55
superior conj	11607 Dec 16 19:05	3° $\mathfrak{Z}$ 39'07	1°35'27		11608 Nov 04 03:20	0° $\mathfrak{M}$	
minimum elong	11607 Dec 16 20:19	3° $\mathfrak{Z}$ 45'43	1°36'08	asc. node	11608 Nov 14 10:02	15° $\mathfrak{M}$ 50'07	
max. Earth dist.	11607 Dec 20 08:38	11° $\mathfrak{Z}$ 07'21	1.33993 AU		11608 Nov 21 15:45	0° $\mathfrak{X}$	
evening rise	11607 Dec 24 20:52	20° $\mathfrak{Z}$ 10'10		morning set	11608 Nov 23 06:20	3° $\mathfrak{X}$ 24'13	
	11607 Dec 30 02:32	0° $\mathfrak{A}$					
desc. node	11607 Dec 31 20:47	3° $\mathfrak{A}$ 08'27		superior conj	11608 Nov 30 02:25	18° $\mathfrak{X}$ 18'10	1°39'08
	11608 Jan 18 07:42	0° $\mathfrak{H}$		minimum elong	11608 Nov 30 02:30	18° $\mathfrak{X}$ 18'38	1°39'51
evening max el	11608 Jan 28 16:16	11° $\mathfrak{H}$ 56'21	27°05'42	max. Earth dist.	11608 Dec 02 07:55	23° $\mathfrak{X}$ 08'14	1.32636 AU
retrograde	11608 Feb 11 01:17	19° $\mathfrak{H}$ 20'02			11608 Dec 05 13:41	0° $\mathfrak{Z}$	
evening set	11608 Feb 17 16:49	16° $\mathfrak{H}$ 46'57		evening rise	11608 Dec 07 12:54	4° $\mathfrak{Z}$ 02'34	
min. Earth dist.	11608 Feb 21 15:28	13° $\mathfrak{H}$ 00'09	0.65398 AU	desc. node	11608 Dec 17 17:44	23° $\mathfrak{Z}$ 10'53	
inferior conj	11608 Feb 23 20:30	10° $\mathfrak{H}$ 30'43	-0°12'20		11608 Dec 21 20:11	0° $\mathfrak{A}$	
minimum elong	11608 Feb 23 20:51	10° $\mathfrak{H}$ 29'44	0°11'53	evening max el	11609 Jan 10 04:22	25° $\mathfrak{A}$ 11'53	27°30'16
transit middle	11608 Feb 23 20:51	10° $\mathfrak{H}$ 29'44	0°11'53		11609 Jan 16 04:36	0° $\mathfrak{H}$	
transit begin	11608 Feb 23 18:50	10° $\mathfrak{H}$ 35'26		retrograde	11609 Jan 23 21:39	2° $\mathfrak{H}$ 35'02	
transit end	11608 Feb 23 22:51	10° $\mathfrak{H}$ 24'03		evening set	11609 Jan 30 19:46	0° $\mathfrak{H}$ 06'37	
asc. node	11608 Feb 24 11:35	9° $\mathfrak{H}$ 48'20			11609 Jan 30 23:27	30° $\mathcal{R}\mathfrak{A}$	
morning rise	11608 Mar 01 02:19	4° $\mathfrak{H}$ 58'11		min. Earth dist.	11609 Feb 03 14:25	26° $\mathfrak{A}$ 50'29	0.63627 AU
direct	11608 Mar 03 19:52	4° $\mathfrak{H}$ 18'08		inferior conj	11609 Feb 06 06:38	24° $\mathfrak{A}$ 07'11	-1°20'54
morning max el	11608 Mar 10 04:44	7° $\mathfrak{H}$ 38'37	18°02'27	minimum elong	11609 Feb 06 09:14	24° $\mathfrak{A}$ 00'33	1°19'20
	11608 Mar 25 15:11	0° $\mathfrak{Y}$		asc. node	11609 Feb 10 08:54	20° $\mathfrak{A}$ 21'55	
morning set	11608 Mar 28 09:55	4° $\mathfrak{Y}$ 32'51		morning rise	11609 Feb 13 00:54	18° $\mathfrak{A}$ 49'48	
desc. node	11608 Mar 28 21:57	5° $\mathfrak{Y}$ 22'03		direct	11609 Feb 15 10:36	18° $\mathfrak{A}$ 21'30	
				morning max el	11609 Feb 21 22:23	21° $\mathfrak{A}$ 41'58	17°47'42
superior conj	11608 Apr 12 00:08	28° $\mathfrak{Y}$ 01'04	-1°33'33		11609 Feb 28 08:33	0° $\mathfrak{H}$	
minimum elong	11608 Apr 11 14:54	27° $\mathfrak{Y}$ 24'38	1°32'52	morning set	11609 Mar 10 10:13	16° $\mathfrak{H}$ 44'31	

desc. node	11609 Mar 15 18:35	25° $\Upsilon$ 51'30		desc. node	11610 Mar 02 15:13	16° $\Upsilon$ 28'12	
	11609 Mar 18 05:45	0° $\Upsilon$					
superior conj	11609 Mar 23 02:43	8° $\Upsilon$ 02'45	-0°53'40	superior conj	11610 Mar 04 05:47	19° $\Upsilon$ 14'09	-0°12'21
minimum elong	11609 Mar 22 21:05	7° $\Upsilon$ 39'43	0°52'55	minimum elong	11610 Mar 04 04:40	19° $\Upsilon$ 09'21	0°11'57
max. Earth dist.	11609 Mar 28 20:50	17° $\Upsilon$ 18'19	1.44736 AU	behind sun begin	11610 Mar 03 22:57	18° $\Upsilon$ 44'51	
	11609 Apr 05 23:38	0° $\Upsilon$		behind sun end	11610 Mar 04 10:23	19° $\Upsilon$ 33'48	
evening rise	11609 Apr 07 14:13	2° $\Upsilon$ 28'21			11610 Mar 10 16:03	0° $\Upsilon$	
	11609 Apr 26 04:02	0° $\Upsilon$		max. Earth dist.	11610 Mar 11 11:55	1° $\Upsilon$ 21'08	1.43272 AU
evening max el	11609 May 06 03:56	12° $\Upsilon$ 28'35	20°33'10	evening rise	11610 Mar 18 07:36	12° $\Upsilon$ 13'55	
asc. node	11609 May 09 06:16	15° $\Upsilon$ 11'58			11610 Mar 30 01:02	0° $\Upsilon$	
retrograde	11609 May 14 06:22	17° $\Upsilon$ 10'36		evening max el	11610 Apr 19 00:10	26° $\Upsilon$ 14'26	21°45'55
evening set	11609 May 18 08:06	15° $\Upsilon$ 35'50			11610 Apr 23 11:08	0° $\Upsilon$	
inferior conj	11609 May 23 14:45	9° $\Upsilon$ 28'48	3°12'20	asc. node	11610 Apr 26 03:32	1° $\Upsilon$ 18'47	
minimum elong	11609 May 23 13:59	9° $\Upsilon$ 31'27	3°11'37	retrograde	11610 Apr 28 04:33	1° $\Upsilon$ 38'46	
min. Earth dist.	11609 May 24 06:24	8° $\Upsilon$ 34'58	0.68175 AU		11610 May 02 11:01	30° $\Upsilon$	
morning rise	11609 May 28 19:36	3° $\Upsilon$ 10'06		evening set	11610 May 02 16:44	29° $\Upsilon$ 48'28	
direct	11609 Jun 03 07:28	0° $\Upsilon$ 44'07		inferior conj	11610 May 07 23:27	23° $\Upsilon$ 30'52	2°58'11
desc. node	11609 Jun 11 19:33	4° $\Upsilon$ 55'51		minimum elong	11610 May 07 21:52	23° $\Upsilon$ 36'22	2°57'22
morning max el	11609 Jun 14 10:01	7° $\Upsilon$ 23'06	24°05'10	min. Earth dist.	11610 May 08 01:58	23° $\Upsilon$ 22'06	0.68676 AU
	11609 Jul 02 01:27	0° $\Upsilon$		morning rise	11610 May 13 02:48	17° $\Upsilon$ 17'05	
morning set	11609 Jul 19 21:11	28° $\Upsilon$ 17'46		direct	11610 May 18 01:38	15° $\Upsilon$ 09'00	
	11609 Jul 20 20:50	0° $\Upsilon$		morning max el	11610 May 27 21:01	20° $\Upsilon$ 56'33	22°35'24
max. Earth dist.	11609 Jul 23 14:25	4° $\Upsilon$ 48'22	1.38256 AU	desc. node	11610 May 29 16:30	22° $\Upsilon$ 51'00	
					11610 Jun 04 14:57	0° $\Upsilon$	
superior conj	11609 Jul 30 21:06	18° $\Upsilon$ 13'38	-0°49'13		11610 Jun 25 07:04	0° $\Upsilon$	
minimum elong	11609 Jul 31 00:27	18° $\Upsilon$ 29'39	0°49'10	morning set	11610 Jun 30 17:25	8° $\Upsilon$ 42'41	
asc. node	11609 Aug 05 05:41	28° $\Upsilon$ 37'25		max. Earth dist.	11610 Jul 05 12:21	16° $\Upsilon$ 41'12	1.40567 AU
	11609 Aug 05 22:27	0° $\Upsilon$					
evening rise	11609 Aug 08 18:16	5° $\Upsilon$ 34'40		superior conj	11610 Jul 13 08:05	0° $\Upsilon$ 22'17	-1°22'42
	11609 Aug 23 01:13	0° $\Upsilon$		minimum elong	11610 Jul 13 13:50	0° $\Upsilon$ 48'16	1°22'34
evening max el	11609 Aug 25 04:08	2° $\Upsilon$ 20'51	19°01'08		11610 Jul 13 03:08	0° $\Upsilon$	
retrograde	11609 Sep 02 23:45	6° $\Upsilon$ 45'01		evening rise	11610 Jul 23 09:20	19° $\Upsilon$ 03'17	
evening set	11609 Sep 04 20:28	6° $\Upsilon$ 34'00		asc. node	11610 Jul 23 02:30	18° $\Upsilon$ 30'59	
desc. node	11609 Sep 07 17:20	5° $\Upsilon$ 37'44			11610 Jul 29 07:04	0° $\Upsilon$	
inferior conj	11609 Sep 13 05:21	2° $\Upsilon$ 19'02	-1°43'28	evening max el	11610 Aug 08 09:06	14° $\Upsilon$ 43'34	18°23'14
minimum elong	11609 Sep 13 00:53	2° $\Upsilon$ 26'46	1°41'44	retrograde	11610 Aug 15 22:02	18° $\Upsilon$ 31'19	
min. Earth dist.	11609 Sep 16 02:56	0° $\Upsilon$ 18'58	0.56319 AU	evening set	11610 Aug 18 00:34	18° $\Upsilon$ 14'20	
	11609 Sep 16 14:23	30° $\Upsilon$		inferior conj	11610 Aug 25 14:25	13° $\Upsilon$ 39'05	0°00'15
morning rise	11609 Sep 21 02:11	27° $\Upsilon$ 31'27		minimum elong	11610 Aug 25 14:25	13° $\Upsilon$ 39'05	0°00'02
direct	11609 Sep 26 13:46	26° $\Upsilon$ 20'41		transit middle	11610 Aug 25 14:25	13° $\Upsilon$ 39'05	0°00'02
	11609 Oct 06 10:24	0° $\Upsilon$		transit begin	11610 Aug 25 10:54	13° $\Upsilon$ 46'14	
morning max el	11609 Oct 10 18:22	3° $\Upsilon$ 37'24	25°58'05	transit end	11610 Aug 25 17:57	13° $\Upsilon$ 31'55	
	11609 Oct 29 14:54	0° $\Upsilon$		desc. node	11610 Aug 25 14:45	13° $\Upsilon$ 38'25	
asc. node	11609 Nov 01 06:52	4° $\Upsilon$ 58'09		min. Earth dist.	11610 Aug 28 22:19	10° $\Upsilon$ 58'12	0.58265 AU
morning set	11609 Nov 07 17:28	18° $\Upsilon$ 05'39		morning rise	11610 Sep 02 00:45	8° $\Upsilon$ 15'11	
	11609 Nov 13 03:50	0° $\Upsilon$		direct	11610 Sep 08 04:29	6° $\Upsilon$ 36'07	
				morning max el	11610 Sep 22 12:42	14° $\Upsilon$ 16'17	27°13'15
superior conj	11609 Nov 14 12:58	3° $\Upsilon$ 03'50	1°36'42		11610 Oct 05 03:22	0° $\Upsilon$	
minimum elong	11609 Nov 14 12:00	2° $\Upsilon$ 58'27	1°37'17	asc. node	11610 Oct 19 03:39	24° $\Upsilon$ 28'59	
max. Earth dist.	11609 Nov 15 13:27	5° $\Upsilon$ 19'24	1.31752 AU		11610 Oct 21 20:26	0° $\Upsilon$	
evening rise	11609 Nov 21 13:12	18° $\Upsilon$ 15'44		morning set	11610 Oct 23 02:10	2° $\Upsilon$ 36'28	
	11609 Nov 27 10:06	0° $\Upsilon$					
desc. node	11609 Dec 04 14:46	12° $\Upsilon$ 48'56		superior conj	11610 Oct 30 00:41	17° $\Upsilon$ 49'15	1°28'29
	11609 Dec 16 09:38	0° $\Upsilon$		minimum elong	11610 Oct 29 22:54	17° $\Upsilon$ 39'21	1°28'49
evening max el	11609 Dec 23 13:04	7° $\Upsilon$ 53'13	27°24'08	max. Earth dist.	11610 Oct 29 22:11	17° $\Upsilon$ 35'18	1.31369 AU
retrograde	11610 Jan 06 10:37	15° $\Upsilon$ 10'19			11610 Nov 04 13:01	0° $\Upsilon$	
evening set	11610 Jan 13 09:53	12° $\Upsilon$ 55'21		evening rise	11610 Nov 05 19:13	2° $\Upsilon$ 42'11	
min. Earth dist.	11610 Jan 17 03:28	10° $\Upsilon$ 03'47	0.61602 AU		11610 Nov 20 07:35	0° $\Upsilon$	
inferior conj	11610 Jan 20 04:23	7° $\Upsilon$ 19'23	-2°36'49	desc. node	11610 Nov 21 11:55	1° $\Upsilon$ 52'04	
minimum elong	11610 Jan 20 09:45	7° $\Upsilon$ 07'13	2°34'06	evening max el	11610 Dec 05 15:45	19° $\Upsilon$ 47'50	26°43'43
morning rise	11610 Jan 27 12:22	2° $\Upsilon$ 19'58		retrograde	11610 Dec 19 14:26	26° $\Upsilon$ 56'02	
asc. node	11610 Jan 28 06:11	2° $\Upsilon$ 08'33		evening set	11610 Dec 26 07:11	25° $\Upsilon$ 03'43	
direct	11610 Jan 29 16:32	1° $\Upsilon$ 59'39		min. Earth dist.	11610 Dec 30 05:56	22° $\Upsilon$ 26'24	0.59466 AU
morning max el	11610 Feb 05 15:07	5° $\Upsilon$ 30'07	17°50'49	inferior conj	11611 Jan 02 10:04	19° $\Upsilon$ 56'33	-3°54'58
morning set	11610 Feb 21 07:35	29° $\Upsilon$ 56'05		minimum elong	11611 Jan 02 17:52	19° $\Upsilon$ 41'09	3°51'45
	11610 Feb 21 08:27	0° $\Upsilon$		morning rise	11611 Jan 10 07:22	15° $\Upsilon$ 17'51	
				direct	11611 Jan 12 09:36	15° $\Upsilon$ 01'51	

asc. node	11611 Jan 15 03:24	15° $\text{♁}$ 30'38			11611 Dec 17 14:45	30° $\text{♁}$ 27'	
morning max el	11611 Jan 20 03:15	18° $\text{♁}$ 51'42	18°13'11	morning rise	11611 Dec 23 03:49	27° $\text{♁}$ 32'57	
	11611 Jan 28 05:40	0° $\text{♁}$		direct	11611 Dec 25 09:35	27° $\text{♁}$ 17'44	
morning set	11611 Feb 04 19:54	13° $\text{♁}$ 48'27			11612 Jan 01 10:46	0° $\text{♁}$	
	11611 Feb 13 12:15	0° $\text{♁}$		asc. node	11612 Jan 02 00:32	0° $\text{♁}$ 27'38	
				morning max el	11612 Jan 03 06:54	1° $\text{♁}$ 36'03	18°56'41
superior conj	11611 Feb 14 08:07	1° $\text{♁}$ 30'04	0°24'29	morning set	11612 Jan 19 18:26	28° $\text{♁}$ 07'39	
minimum elong	11611 Feb 14 09:56	1° $\text{♁}$ 38'15	0°24'37		11612 Jan 20 17:15	0° $\text{♁}$	
desc. node	11611 Feb 17 11:53	7° $\text{♁}$ 07'54					
max. Earth dist.	11611 Feb 21 22:37	14° $\text{♁}$ 48'27	1.41336 AU	superior conj	11612 Jan 28 05:20	14° $\text{♁}$ 38'15	0°54'08
evening rise	11611 Feb 26 18:21	22° $\text{♁}$ 48'21		minimum elong	11612 Jan 28 08:15	14° $\text{♁}$ 52'08	0°54'18
	11611 Mar 03 06:31	0° $\text{♁}$		max. Earth dist.	11612 Feb 04 05:47	27° $\text{♁}$ 34'40	1.39141 AU
	11611 Mar 24 01:42	0° $\text{♁}$		desc. node	11612 Feb 04 08:36	27° $\text{♁}$ 47'11	
evening max el	11611 Apr 01 16:19	10° $\text{♁}$ 02'27	23°05'24		11612 Feb 05 14:41	0° $\text{♁}$	
retrograde	11611 Apr 12 00:25	16° $\text{♁}$ 08'30		evening rise	11612 Feb 08 02:23	4° $\text{♁}$ 18'23	
asc. node	11611 Apr 13 00:51	16° $\text{♁}$ 03'36			11612 Feb 24 09:34	0° $\text{♁}$	
evening set	11611 Apr 16 23:59	14° $\text{♁}$ 03'35		evening max el	11612 Mar 14 06:15	23° $\text{♁}$ 52'48	24°25'32
inferior conj	11611 Apr 22 08:46	7° $\text{♁}$ 38'11	2°33'57		11612 Mar 22 17:09	0° $\text{♁}$	
minimum elong	11611 Apr 22 06:42	7° $\text{♁}$ 45'20	2°33'03	retrograde	11612 Mar 25 16:47	0° $\text{♁}$ 34'32	
min. Earth dist.	11611 Apr 21 22:46	8° $\text{♁}$ 12'48	0.68718 AU		11612 Mar 28 11:46	30° $\text{♁}$	
morning rise	11611 Apr 27 13:19	1° $\text{♁}$ 30'48		asc. node	11612 Mar 29 22:11	29° $\text{♁}$ 13'40	
	11611 Apr 30 05:03	30° $\text{♁}$		evening set	11612 Mar 31 04:17	28° $\text{♁}$ 16'47	
direct	11611 May 01 22:57	29° $\text{♁}$ 43'38		min. Earth dist.	11612 Apr 04 18:35	23° $\text{♁}$ 01'40	0.68316 AU
	11611 May 03 18:35	0° $\text{♁}$		inferior conj	11612 Apr 05 16:48	21° $\text{♁}$ 47'07	2°00'02
morning max el	11611 May 10 12:30	4° $\text{♁}$ 39'42	21°11'10	minimum elong	11612 Apr 05 14:39	21° $\text{♁}$ 54'20	1°59'09
desc. node	11611 May 16 13:21	11° $\text{♁}$ 37'06		morning rise	11612 Apr 11 01:09	15° $\text{♁}$ 47'26	
	11611 May 29 16:55	0° $\text{♁}$		direct	11612 Apr 14 22:05	14° $\text{♁}$ 21'49	
morning set	11611 Jun 10 11:51	17° $\text{♁}$ 58'46		morning max el	11612 Apr 22 11:13	18° $\text{♁}$ 35'05	19°58'23
max. Earth dist.	11611 Jun 17 16:18	29° $\text{♁}$ 29'01	1.42684 AU		11612 May 01 16:56	0° $\text{♁}$	
	11611 Jun 17 23:53	0° $\text{♁}$		desc. node	11612 May 02 10:08	1° $\text{♁}$ 00'15	
				morning set	11612 May 19 13:02	26° $\text{♁}$ 32'20	
superior conj	11611 Jun 24 22:16	11° $\text{♁}$ 35'10	-1°51'44		11612 May 21 18:51	0° $\text{♁}$	
minimum elong	11611 Jun 25 04:57	12° $\text{♁}$ 03'41	1°51'53	max. Earth dist.	11612 May 30 03:30	13° $\text{♁}$ 07'04	1.44357 AU
	11611 Jul 05 09:37	0° $\text{♁}$					
evening rise	11611 Jul 06 10:57	1° $\text{♁}$ 53'53		superior conj	11612 Jun 04 12:23	21° $\text{♁}$ 45'28	-2°10'11
asc. node	11611 Jul 09 23:23	8° $\text{♁}$ 12'32		minimum elong	11612 Jun 04 16:09	22° $\text{♁}$ 00'45	2°10'48
evening max el	11611 Jul 22 20:28	27° $\text{♁}$ 39'25	18°05'30		11612 Jun 09 12:38	0° $\text{♁}$	
	11611 Jul 25 19:42	0° $\text{♁}$		evening rise	11612 Jun 17 18:08	13° $\text{♁}$ 54'16	
retrograde	11611 Jul 29 14:07	1° $\text{♁}$ 06'01		asc. node	11612 Jun 25 20:19	27° $\text{♁}$ 36'12	
evening set	11611 Aug 01 00:27	0° $\text{♁}$ 39'18			11612 Jun 27 07:50	0° $\text{♁}$	
	11611 Aug 02 10:54	30° $\text{♁}$		evening max el	11612 Jul 05 10:21	10° $\text{♁}$ 57'30	18°06'46
inferior conj	11611 Aug 07 20:18	25° $\text{♁}$ 43'26	1°21'21	retrograde	11612 Jul 11 19:37	14° $\text{♁}$ 17'50	
minimum elong	11611 Aug 07 22:34	25° $\text{♁}$ 38'07	1°20'06	evening set	11612 Jul 14 13:57	13° $\text{♁}$ 38'35	
min. Earth dist.	11611 Aug 11 01:36	22° $\text{♁}$ 42'47	0.60512 AU	inferior conj	11612 Jul 20 19:14	8° $\text{♁}$ 24'07	2°18'07
desc. node	11611 Aug 12 12:07	21° $\text{♁}$ 28'57		minimum elong	11612 Jul 20 21:53	8° $\text{♁}$ 17'01	2°16'48
morning rise	11611 Aug 14 17:49	19° $\text{♁}$ 51'04		min. Earth dist.	11612 Jul 23 14:10	5° $\text{♁}$ 25'55	0.62758 AU
direct	11611 Aug 21 07:26	17° $\text{♁}$ 44'22		morning rise	11612 Jul 27 03:53	2° $\text{♁}$ 13'25	
morning max el	11611 Sep 04 14:22	25° $\text{♁}$ 39'34	27°52'39	desc. node	11612 Jul 29 09:26	0° $\text{♁}$ 50'27	
	11611 Sep 08 14:59	0° $\text{♁}$			11612 Jul 31 16:46	30° $\text{♁}$	
	11611 Sep 28 15:08	0° $\text{♁}$		direct	11612 Aug 02 20:31	29° $\text{♁}$ 45'03	
asc. node	11611 Oct 06 00:23	14° $\text{♁}$ 16'15			11612 Aug 05 01:55	0° $\text{♁}$	
morning set	11611 Oct 07 06:38	16° $\text{♁}$ 52'25		morning max el	11612 Aug 16 21:48	7° $\text{♁}$ 47'22	27°53'25
	11611 Oct 13 08:48	0° $\text{♁}$			11612 Sep 02 23:06	0° $\text{♁}$	
max. Earth dist.	11611 Oct 13 06:34	29° $\text{♁}$ 47'42	1.31491 AU		11612 Sep 19 19:20	0° $\text{♁}$	
				morning set	11612 Sep 20 04:41	0° $\text{♁}$ 47'15	
superior conj	11611 Oct 14 11:46	2° $\text{♁}$ 29'20	1°14'44	asc. node	11612 Sep 21 21:05	4° $\text{♁}$ 13'59	
minimum elong	11611 Oct 14 09:34	2° $\text{♁}$ 17'05	1°14'46	max. Earth dist.	11612 Sep 25 10:38	11° $\text{♁}$ 45'27	1.32115 AU
evening rise	11611 Oct 21 04:51	17° $\text{♁}$ 16'33					
	11611 Oct 27 09:29	0° $\text{♁}$		superior conj	11612 Sep 27 20:18	16° $\text{♁}$ 57'54	0°55'38
desc. node	11611 Nov 08 09:08	20° $\text{♁}$ 06'54		minimum elong	11612 Sep 27 18:08	16° $\text{♁}$ 46'09	0°55'24
	11611 Nov 16 13:40	0° $\text{♁}$			11612 Oct 03 19:13	0° $\text{♁}$	
evening max el	11611 Nov 17 10:15	0° $\text{♁}$ 50'06	25°30'45	evening rise	11612 Oct 04 16:04	1° $\text{♁}$ 52'33	
retrograde	11611 Dec 01 07:09	7° $\text{♁}$ 49'03			11612 Oct 19 20:00	0° $\text{♁}$	
evening set	11611 Dec 07 07:06	6° $\text{♁}$ 26'34		desc. node	11612 Oct 25 06:25	7° $\text{♁}$ 14'42	
min. Earth dist.	11611 Dec 11 22:31	3° $\text{♁}$ 48'24	0.57428 AU	evening max el	11612 Oct 28 21:37	11° $\text{♁}$ 08'28	23°55'27
inferior conj	11611 Dec 14 20:24	1° $\text{♁}$ 49'11	-5°04'22	retrograde	11612 Nov 11 11:38	17° $\text{♁}$ 55'36	
minimum elong	11611 Dec 15 04:16	1° $\text{♁}$ 35'43	5°01'57	evening set	11612 Nov 16 06:46	17° $\text{♁}$ 05'17	

min. Earth dist.	11612 Nov 22 08:10	14°♊07'16	0.55753 AU	min. Earth dist.	11613 Nov 03 15:15	23°♍35'12	0.54749 AU
inferior conj	11612 Nov 24 10:09	12°♊52'00	-5°46'18	inferior conj	11613 Nov 04 07:26	23°♍12'25	-5°38'52
minimum elong	11612 Nov 24 13:11	12°♊47'26	5°45'25	minimum elong	11613 Nov 04 02:00	23°♍20'04	5°37'43
morning rise	11612 Dec 02 21:33	8°♊55'57		morning rise	11613 Nov 12 17:00	19°♍25'17	
direct	11612 Dec 05 13:50	8°♊37'47		direct	11613 Nov 16 02:04	18°♍59'48	
morning max el	11612 Dec 15 22:26	13°♊33'22	20°02'56	morning max el	11613 Nov 28 00:06	24°♍38'55	21°31'14
asc. node	11612 Dec 18 21:35	16°♊46'20			11613 Dec 02 18:53	0°♊	
	11612 Dec 27 11:21	0°♊		asc. node	11613 Dec 05 18:34	4°♊10'17	
morning set	11613 Jan 02 23:44	12°♊43'31		morning set	11613 Dec 18 09:08	27°♊28'09	
					11613 Dec 19 14:04	0°♊	
superior conj	11613 Jan 10 16:44	28°♊25'38	1°16'01	superior conj	11613 Dec 25 14:17	12°♊40'12	1°30'22
minimum elong	11613 Jan 10 19:29	28°♊39'21	1°16'22	minimum elong	11613 Dec 25 16:10	12°♊50'01	1°30'58
	11613 Jan 11 11:40	0°♊					
max. Earth dist.	11613 Jan 16 12:27	9°♊44'59	1.36935 AU	max. Earth dist.	11613 Dec 29 23:21	21°♊37'11	1.34956 AU
evening rise	11613 Jan 20 06:29	16°♊39'58		evening rise	11614 Jan 03 03:21	29°♊44'15	
desc. node	11613 Jan 21 05:22	18°♊22'28			11614 Jan 03 06:41	0°♊	
	11613 Jan 28 00:27	0°♊		desc. node	11614 Jan 08 02:10	8°♊49'10	
	11613 Feb 17 20:20	0°♊			11614 Jan 21 04:00	0°♊	
evening max el	11613 Feb 24 19:34	7°♊43'24	25°39'28	evening max el	11614 Feb 07 09:02	21°♊28'20	26°39'59
retrograde	11613 Mar 09 04:44	14°♊51'04		retrograde	11614 Feb 20 11:24	28°♊50'00	
evening set	11613 Mar 15 04:03	12°♊23'31		evening set	11614 Feb 26 21:27	26°♊17'18	
asc. node	11613 Mar 16 19:30	10°♊50'13		min. Earth dist.	11614 Mar 02 22:54	22°♊11'26	0.66259 AU
min. Earth dist.	11613 Mar 19 11:20	7°♊43'32	0.67487 AU	asc. node	11614 Mar 03 16:50	21°♊18'42	
inferior conj	11613 Mar 20 21:39	5°♊54'14	1°16'24	inferior conj	11614 Mar 04 21:12	19°♊54'08	0°22'54
minimum elong	11613 Mar 20 19:57	5°♊59'40	1°15'47	minimum elong	11614 Mar 04 20:35	19°♊55'58	0°22'52
morning rise	11613 Mar 26 12:22	0°♊03'33		morning rise	11614 Mar 10 20:49	14°♊14'17	
	11613 Mar 26 14:37	30°♊		direct	11614 Mar 13 19:32	13°♊26'01	
direct	11613 Mar 29 21:32	28°♊58'02		morning max el	11614 Mar 20 06:27	16°♊51'45	18°18'45
	11613 Apr 02 08:09	0°♊			11614 Mar 30 03:44	0°♊	
morning max el	11613 Apr 05 17:41	2°♊41'16	19°00'26	desc. node	11614 Apr 06 03:29	11°♊00'24	
greatest brilliancy	11613 Apr 19 02:32	20°♊34'23	-0.7m	morning set	11614 Apr 08 22:26	15°♊27'38	
desc. node	11613 Apr 19 06:51	20°♊50'42			11614 Apr 18 02:11	0°♊	
	11613 Apr 25 06:15	0°♊					
morning set	11613 Apr 28 18:04	5°♊24'18		superior conj	11614 Apr 24 11:42	10°♊02'29	-1°52'18
max. Earth dist.	11613 May 12 19:56	27°♊19'38	1.45402 AU	minimum elong	11614 Apr 24 02:41	9°♊27'17	1°52'01
	11613 May 14 12:46	0°♊		max. Earth dist.	11614 Apr 25 14:59	11°♊49'09	1.45724 AU
					11614 May 07 06:27	0°♊	
superior conj	11613 May 15 04:54	1°♊03'29	-2°11'23	evening rise	11614 May 10 10:53	4°♊59'00	
minimum elong	11613 May 15 01:31	0°♊50'09	2°11'55	greatest brilliancy	11614 May 21 01:09	21°♊28'52	-0.8m
evening rise	11613 May 30 02:31	24°♊55'52			11614 May 26 19:12	0°♊	
	11613 Jun 02 05:09	0°♊		asc. node	11614 May 30 14:25	5°♊02'52	
asc. node	11613 Jun 12 17:20	16°♊35'52		evening max el	11614 Jun 02 09:36	8°♊11'19	19°03'23
evening max el	11613 Jun 18 23:35	24°♊30'20	18°26'19	retrograde	11614 Jun 09 05:50	11°♊59'16	
retrograde	11613 Jun 25 10:04	27°♊58'09		evening set	11614 Jun 12 16:47	10°♊49'59	
evening set	11613 Jun 28 12:30	27°♊04'30		inferior conj	11614 Jun 18 04:25	5°♊03'58	3°11'39
inferior conj	11613 Jul 04 07:10	21°♊33'27	2°53'34	minimum elong	11614 Jun 18 05:20	5°♊01'02	3°10'50
minimum elong	11613 Jul 04 09:09	21°♊27'33	2°52'31	min. Earth dist.	11614 Jun 19 18:38	3°♊01'47	0.66452 AU
min. Earth dist.	11613 Jul 06 12:13	18°♊56'36	0.64786 AU		11614 Jun 22 08:49	30°♊	
morning rise	11613 Jul 10 04:39	15°♊13'39		morning rise	11614 Jun 23 17:15	28°♊41'44	
desc. node	11613 Jul 16 06:41	12°♊33'47		direct	11614 Jun 29 23:16	25°♊59'27	
direct	11613 Jul 16 18:18	12°♊32'58		desc. node	11614 Jul 03 03:50	26°♊35'21	
morning max el	11613 Jul 30 08:16	20°♊31'17	27°18'54		11614 Jul 08 19:38	0°♊	
	11613 Aug 07 12:04	0°♊		morning max el	11614 Jul 12 19:05	3°♊38'47	26°16'38
	11613 Aug 27 01:32	0°♊			11614 Aug 01 19:51	0°♊	
morning set	11613 Sep 03 17:46	14°♊14'30		morning set	11614 Aug 17 18:31	27°♊05'42	
max. Earth dist.	11613 Sep 08 06:32	23°♊19'52	1.33252 AU		11614 Aug 19 07:34	0°♊	
asc. node	11613 Sep 08 17:47	24°♊17'54		max. Earth dist.	11614 Aug 21 16:01	4°♊31'39	1.34890 AU
	11613 Sep 11 11:07	0°♊					
superior conj	11613 Sep 12 00:13	1°♊09'32	0°31'27	superior conj	11614 Aug 26 21:07	14°♊58'00	0°02'41
minimum elong	11613 Sep 11 22:43	1°♊01'36	0°31'05	minimum elong	11614 Aug 26 20:59	14°♊57'19	0°02'23
evening rise	11613 Sep 19 03:04	16°♊25'10		behind sun begin	11614 Aug 26 15:04	14°♊27'04	
	11613 Sep 25 20:01	0°♊		behind sun end	11614 Aug 27 02:53	15°♊27'37	
evening max el	11613 Oct 10 09:04	21°♊13'21	22°14'37	asc. node	11614 Aug 26 14:30	14°♊24'07	
desc. node	11613 Oct 12 03:45	22°♊51'01		evening rise	11614 Sep 03 11:51	0°♊49'12	
retrograde	11613 Oct 23 04:33	27°♊35'36			11614 Sep 03 02:23	0°♊	
evening set	11613 Oct 26 12:26	27°♊11'04		evening max el	11614 Sep 20 15:29	0°♊	
					11614 Sep 22 06:06	1°♊42'12	20°44'05



desc. node	11614 Sep 29 01:07	6°♍27'00			11615 Aug 26 12:24	0°♌	
retrograde	11614 Oct 03 15:47	7°♍21'48		evening max el	11615 Sep 04 16:55	12°♌54'46	19°32'31
evening set	11614 Oct 05 21:28	7°♍09'41		retrograde	11615 Sep 14 09:57	17°♌44'51	
inferior conj	11614 Oct 14 23:30	3°♍14'37	-4°33'28	desc. node	11615 Sep 15 22:32	17°♌38'13	
minimum elong	11614 Oct 14 13:31	3°♍28'54	4°30'27	evening set	11615 Sep 16 06:28	17°♌35'03	
min. Earth dist.	11614 Oct 15 22:57	2°♍41'01	0.54642 AU	inferior conj	11615 Sep 25 00:37	13°♌29'55	-2°48'39
	11614 Oct 21 05:17	30°♌		minimum elong	11615 Sep 24 17:13	13°♌41'42	2°45'49
morning rise	11614 Oct 23 05:26	29°♌17'31		min. Earth dist.	11615 Sep 27 09:15	12°♌00'04	0.55477 AU
direct	11614 Oct 27 10:30	28°♌39'26		morning rise	11615 Oct 03 01:49	9°♌04'15	
	11614 Nov 02 10:05	0°♍		direct	11615 Oct 08 02:52	8°♌07'27	
morning max el	11614 Nov 09 14:34	5°♍01'28	23°15'33	morning max el	11615 Oct 22 01:11	15°♌05'39	25°02'29
asc. node	11614 Nov 22 15:30	22°♍24'24			11615 Nov 02 21:41	0°♍	
	11614 Nov 26 19:56	0°♌		asc. node	11615 Nov 09 12:22	11°♍15'34	
morning set	11614 Dec 02 20:38	12°♌15'54		morning set	11615 Nov 17 08:24	27°♍00'54	
					11615 Nov 18 17:37	0°♌	
superior conj	11614 Dec 09 18:50	27°♌13'00	1°37'47				
minimum elong	11614 Dec 09 19:35	27°♌17'02	1°38'30	superior conj	11615 Nov 24 03:48	11°♌55'30	1°38'49
	11614 Dec 11 01:59	0°♎		minimum elong	11615 Nov 24 03:25	11°♌53'23	1°39'30
max. Earth dist.	11614 Dec 12 18:07	3°♎32'36	1.33358 AU	max. Earth dist.	11615 Nov 25 20:34	15°♌38'58	1.32209 AU
evening rise	11614 Dec 17 13:26	13°♎22'18		evening rise	11615 Dec 01 09:22	27°♌24'40	
desc. node	11614 Dec 25 23:06	29°♎02'36			11615 Dec 02 15:51	0°♎	
	11614 Dec 26 12:18	0°♏		desc. node	11615 Dec 12 20:07	18°♎55'47	
	11615 Jan 16 04:56	0°♏			11615 Dec 19 19:06	0°♏	
evening max el	11615 Jan 20 22:19	4°♏58'56	27°19'39	evening max el	11616 Jan 03 09:31	18°♏02'05	27°31'43
retrograde	11615 Feb 03 11:46	12°♏23'26		retrograde	11616 Jan 17 04:52	25°♏22'13	
evening set	11615 Feb 10 06:24	9°♏51'38		evening set	11616 Jan 24 04:15	22°♏58'47	
min. Earth dist.	11615 Feb 14 03:11	6°♏18'04	0.64678 AU	min. Earth dist.	11616 Jan 27 22:08	19°♏53'51	0.62793 AU
inferior conj	11615 Feb 16 13:03	3°♏41'28	-0°40'21	inferior conj	11616 Jan 30 18:21	17°♏08'43	-1°52'23
minimum elong	11615 Feb 16 14:16	3°♏38'10	0°39'26	minimum elong	11616 Jan 30 22:06	16°♏59'38	1°50'19
asc. node	11615 Feb 18 14:08	1°♏32'46		asc. node	11616 Feb 05 11:25	12°♏32'28	
	11615 Feb 20 06:39	30°♏		morning rise	11616 Feb 06 18:20	11°♏58'19	
morning rise	11615 Feb 22 23:55	28°♏14'44		direct	11616 Feb 09 01:27	11°♏33'44	
direct	11615 Feb 25 13:49	27°♏40'11		morning max el	11616 Feb 15 16:42	14°♏57'11	17°46'45
	11615 Mar 02 20:53	0°♏			11616 Feb 26 05:02	0°♏	
morning max el	11615 Mar 03 23:05	0°♏59'43	17°53'58	morning set	11616 Mar 02 17:52	9°♏36'04	
morning set	11615 Mar 21 07:46	26°♏56'15		desc. node	11616 Mar 09 20:46	21°♏56'58	
	11615 Mar 23 03:54	0°♐					
desc. node	11615 Mar 24 00:07	1°♐23'56		superior conj	11616 Mar 14 15:26	0°♐00'15	-0°35'52
				minimum elong	11616 Mar 14 11:49	29°♏45'11	0°35'15
superior conj	11615 Apr 04 02:46	19°♐29'55	-1°17'21		11616 Mar 14 15:23	0°♐	
minimum elong	11615 Apr 03 18:39	18°♐57'28	1°16'33	max. Earth dist.	11616 Mar 21 04:32	10°♐41'26	1.44185 AU
max. Earth dist.	11615 Apr 08 10:40	26°♐21'37	1.45304 AU	evening rise	11616 Mar 29 14:09	23°♐53'38	
	11615 Apr 10 18:20	0°♑			11616 Apr 02 13:57	0°♑	
evening rise	11615 Apr 20 01:59	14°♑25'28			11616 Apr 23 14:43	0°♑	
	11615 Apr 30 08:08	0°♒		evening max el	11616 Apr 28 14:02	5°♒41'17	21°03'00
greatest brilliancy	11615 May 04 20:39	6°♒41'22	-0.6m	asc. node	11616 May 03 08:48	9°♒33'20	
evening max el	11615 May 16 14:40	21°♒55'42	19°56'27	retrograde	11616 May 07 02:51	10°♒40'29	
asc. node	11615 May 17 11:34	22°♒46'25		evening set	11616 May 11 09:01	8°♒58'50	
retrograde	11615 May 24 04:07	26°♒15'00		inferior conj	11616 May 16 15:25	2°♒47'07	3°07'37
evening set	11615 May 28 00:17	24°♒49'29		minimum elong	11616 May 16 14:17	2°♒51'06	3°06'51
inferior conj	11615 Jun 02 07:59	18°♒49'49	3°15'35	min. Earth dist.	11616 May 17 01:21	2°♒12'42	0.68445 AU
minimum elong	11615 Jun 02 07:47	18°♒50'28	3°14'51		11616 May 18 16:32	30°♒	
min. Earth dist.	11615 Jun 03 07:38	17°♒30'05	0.67682 AU	morning rise	11616 May 21 19:20	26°♒30'36	
morning rise	11615 Jun 07 14:58	12°♒29'16		direct	11616 May 27 01:46	24°♒11'48	
direct	11615 Jun 13 10:06	9°♒55'07		desc. node	11616 Jun 05 21:53	29°♒46'27	
desc. node	11615 Jun 20 00:54	12°♒28'47			11616 Jun 06 03:26	0°♒	
morning max el	11615 Jun 25 05:01	16°♒59'25	24°55'58	morning max el	11616 Jun 06 15:01	0°♒28'52	23°26'56
	11615 Jul 06 00:46	0°♓			11616 Jun 28 21:25	0°♓	
	11615 Jul 25 19:22	0°♑		morning set	11616 Jul 11 13:21	20°♓13'34	
morning set	11615 Jul 31 02:39	9°♑09'12		max. Earth dist.	11616 Jul 15 14:05	27°♓07'47	1.39247 AU
max. Earth dist.	11615 Aug 03 16:34	15°♑37'19	1.36953 AU		11616 Jul 17 05:19	0°♑	
superior conj	11615 Aug 10 07:54	28°♑14'56	-0°29'40	superior conj	11616 Jul 23 04:53	10°♑51'40	-1°03'37
minimum elong	11615 Aug 10 09:50	28°♑24'24	0°29'46	minimum elong	11616 Jul 23 09:19	11°♑12'21	1°03'30
	11615 Aug 11 05:16	0°♒		asc. node	11616 Jul 30 08:03	24°♑27'20	
asc. node	11615 Aug 13 11:14	4°♒28'23		evening rise	11616 Aug 01 13:03	28°♑04'11	
evening rise	11615 Aug 18 16:06	14°♒57'49			11616 Aug 02 04:44	0°♒	

evening max el	11616 Aug 17 16:15	24° $\cap$ 53'44	18°42'24	asc. node	11617 Jul 17 04:53	14° $\Omega$ 16'12	
retrograde	11616 Aug 25 21:28	29° $\cap$ 00'53			11617 Jul 26 05:04	0° $\cap$	
evening set	11616 Aug 27 20:12	28° $\cap$ 47'48		evening max el	11617 Aug 01 00:19	7° $\cap$ 31'02	18°13'16
desc. node	11616 Sep 01 19:55	26° $\cap$ 32'31		retrograde	11617 Aug 08 03:53	11° $\cap$ 08'21	
inferior conj	11616 Sep 04 21:06	24° $\cap$ 24'00	-0°57'15	evening set	11617 Aug 10 09:30	10° $\cap$ 47'45	
minimum elong	11616 Sep 04 18:45	24° $\cap$ 28'21	0°56'28	inferior conj	11617 Aug 17 15:23	6° $\cap$ 03'32	0°37'38
min. Earth dist.	11616 Sep 08 00:41	22° $\cap$ 04'46	0.57093 AU	minimum elong	11617 Aug 17 16:37	6° $\cap$ 00'52	0°36'49
morning rise	11616 Sep 12 13:56	19° $\cap$ 20'33		desc. node	11617 Aug 19 17:17	4° $\cap$ 14'52	
direct	11616 Sep 18 08:51	17° $\cap$ 58'25		min. Earth dist.	11617 Aug 20 23:23	3° $\cap$ 11'20	0.59197 AU
morning max el	11616 Oct 02 15:45	25° $\cap$ 25'20	26°33'55	morning rise	11617 Aug 24 20:21	0° $\cap$ 25'54	
	11616 Oct 06 22:30	0° $\Omega$			11617 Aug 25 15:28	30° $\mathbb{R}$ $\Omega$	
asc. node	11616 Oct 26 09:12	0° $\mathbb{M}$ .34'21		direct	11617 Aug 31 04:52	28° $\Omega$ 34'48	
	11616 Oct 26 02:09	0° $\mathbb{M}$ .			11617 Sep 05 23:44	0° $\cap$	
morning set	11616 Oct 31 18:45	11° $\mathbb{M}$ .38'33		morning max el	11617 Sep 14 13:32	6° $\cap$ 22'59	27°34'46
					11617 Oct 02 05:52	0° $\Omega$	
superior conj	11616 Nov 07 15:05	26° $\mathbb{M}$ .41'36	1°33'53	asc. node	11617 Oct 13 05:58	20° $\Omega$ 13'01	
minimum elong	11616 Nov 07 13:44	26° $\mathbb{M}$ .34'05	1°34'23	morning set	11617 Oct 16 01:56	26° $\Omega$ 04'04	
max. Earth dist.	11616 Nov 08 04:06	27° $\mathbb{M}$ .53'58	1.31536 AU		11617 Oct 17 22:11	0° $\mathbb{M}$ .	
	11616 Nov 09 02:47	0° $\mathbb{X}$		max. Earth dist.	11617 Oct 22 13:11	10° $\mathbb{M}$ .09'49	1.31356 AU
evening rise	11616 Nov 14 12:24	11° $\mathbb{X}$ .44'05					
	11616 Nov 23 20:05	0° $\mathbb{Z}$		superior conj	11617 Oct 23 02:47	11° $\mathbb{M}$ .25'35	1°23'19
desc. node	11616 Nov 28 17:13	8° $\mathbb{Z}$ 20'24		minimum elong	11617 Oct 23 00:46	11° $\mathbb{M}$ .14'24	1°23'32
	11616 Dec 15 05:46	0° $\approx$		evening rise	11617 Oct 29 20:12	26° $\mathbb{M}$ .14'33	
evening max el	11616 Dec 15 15:58	0° $\approx$ 24'22	27°11'02		11617 Oct 31 14:45	0° $\mathbb{X}$	
retrograde	11616 Dec 29 13:51	7° $\approx$ 37'19		desc. node	11617 Nov 15 14:23	27° $\mathbb{X}$ 05'17	
evening set	11617 Jan 05 11:42	5° $\approx$ 30'43			11617 Nov 17 14:17	0° $\mathbb{Z}$	
min. Earth dist.	11617 Jan 09 06:25	2° $\approx$ 47'03	0.60702 AU	evening max el	11617 Nov 27 15:07	11° $\mathbb{Z}$ 56'29	26°16'12
inferior conj	11617 Jan 12 09:41	0° $\approx$ 06'53	-3°10'11	retrograde	11617 Dec 11 13:32	19° $\mathbb{Z}$ 01'36	
minimum elong	11617 Jan 12 16:13	29° $\mathbb{Z}$ 52'55	3°07'08	evening set	11617 Dec 18 00:36	17° $\mathbb{Z}$ 20'56	
	11617 Jan 12 12:54	30° $\mathbb{R}$ $\mathbb{Z}$		min. Earth dist.	11617 Dec 22 04:24	14° $\mathbb{Z}$ 45'34	0.58570 AU
morning rise	11617 Jan 19 23:33	25° $\mathbb{Z}$ 16'06		inferior conj	11617 Dec 25 07:32	12° $\mathbb{Z}$ 26'28	-4°26'25
direct	11617 Jan 22 02:30	24° $\mathbb{Z}$ 57'58		minimum elong	11617 Dec 25 15:49	12° $\mathbb{Z}$ 11'05	4°23'21
asc. node	11617 Jan 22 08:41	24° $\mathbb{Z}$ 58'14		morning rise	11618 Jan 02 09:47	7° $\mathbb{Z}$ 57'41	
morning max el	11617 Jan 29 07:56	28° $\mathbb{Z}$ 35'06	17°57'56	direct	11618 Jan 04 12:37	7° $\mathbb{Z}$ 42'33	
	11617 Jan 30 16:01	0° $\approx$		asc. node	11618 Jan 09 05:51	9° $\mathbb{Z}$ 02'18	
morning set	11617 Feb 13 22:13	23° $\approx$ 06'44		morning max el	11618 Jan 12 17:05	11° $\mathbb{Z}$ 43'14	18°29'02
	11617 Feb 17 16:22	0° $\mathbb{X}$			11618 Jan 24 20:20	0° $\approx$	
				morning set	11618 Jan 28 15:24	7° $\approx$ 12'15	
superior conj	11617 Feb 24 04:51	11° $\mathbb{X}$ .40'22	0°04'05				
minimum elong	11617 Feb 24 05:13	11° $\mathbb{X}$ .41'58	0°04'20	superior conj	11618 Feb 06 15:54	24° $\approx$ 21'01	0°37'59
behind sun begin	11617 Feb 23 21:24	11° $\mathbb{X}$ 07'46		minimum elong	11618 Feb 06 18:23	24° $\approx$ 32'28	0°38'05
behind sun end	11617 Feb 24 13:01	12° $\mathbb{X}$ 16'05			11618 Feb 09 18:14	0° $\mathbb{X}$	
desc. node	11617 Feb 24 17:25	12° $\mathbb{X}$ 35'18		desc. node	11618 Feb 11 14:07	3° $\mathbb{X}$ 15'39	
max. Earth dist.	11617 Mar 03 18:08	24° $\mathbb{X}$ 31'32	1.42490 AU	max. Earth dist.	11618 Feb 14 02:47	7° $\mathbb{X}$ 40'39	1.40414 AU
	11617 Mar 07 02:34	0° $\mathbb{Y}$		evening rise	11618 Feb 18 09:40	14° $\mathbb{X}$ 55'53	
evening rise	11617 Mar 09 13:55	3° $\mathbb{Y}$ 57'27			11618 Feb 27 20:56	0° $\mathbb{Y}$	
	11617 Mar 26 22:19	0° $\mathbb{B}$			11618 Mar 21 21:26	0° $\mathbb{B}$	
evening max el	11617 Apr 11 08:11	19° $\mathbb{B}$ 27'12	22°19'14	evening max el	11618 Mar 24 23:00	3° $\mathbb{B}$ 15'40	23°39'44
asc. node	11617 Apr 20 06:05	25° $\mathbb{B}$ 07'10		retrograde	11618 Apr 04 18:55	9° $\mathbb{B}$ 38'41	
retrograde	11617 Apr 21 00:15	25° $\mathbb{B}$ 09'55		asc. node	11618 Apr 07 03:23	9° $\mathbb{B}$ 12'49	
evening set	11617 Apr 25 17:16	23° $\mathbb{B}$ 12'57		evening set	11618 Apr 09 23:26	7° $\mathbb{B}$ 27'59	
inferior conj	11617 May 01 00:36	16° $\mathbb{B}$ 51'29	2°49'06	inferior conj	11618 Apr 15 09:36	0° $\mathbb{B}$ 59'58	2°20'45
minimum elong	11617 Apr 30 22:46	16° $\mathbb{B}$ 57'51	2°48'15	minimum elong	11618 Apr 15 07:27	1° $\mathbb{B}$ 07'22	2°19'51
min. Earth dist.	11617 Apr 30 21:38	17° $\mathbb{B}$ 01'50	0.68744 AU	min. Earth dist.	11618 Apr 14 18:21	1° $\mathbb{B}$ 52'13	0.68598 AU
morning rise	11617 May 06 04:09	10° $\mathbb{B}$ 40'24			11618 Apr 16 03:11	30° $\mathbb{R}$ $\mathbb{Y}$	
direct	11617 May 10 21:14	8° $\mathbb{B}$ 41'17		morning rise	11618 Apr 20 15:26	24° $\mathbb{Y}$ 55'33	
morning max el	11617 May 20 03:40	14° $\mathbb{B}$ 06'26	21°58'36	direct	11618 Apr 24 19:29	23° $\mathbb{Y}$ 17'44	
desc. node	11617 May 23 18:47	18° $\mathbb{B}$ 05'00		morning max el	11618 May 02 22:02	27° $\mathbb{Y}$ 54'45	20°38'30
	11617 Jun 01 22:10	0° $\mathbb{I}$			11618 May 04 21:26	0° $\mathbb{B}$	
morning set	11617 Jun 21 22:25	0° $\mathbb{D}$ 08'16		desc. node	11618 May 10 15:36	7° $\mathbb{B}$ 08'10	
	11617 Jun 21 20:21	0° $\mathbb{D}$			11618 May 26 10:43	0° $\mathbb{I}$	
max. Earth dist.	11617 Jun 27 14:24	9° $\mathbb{D}$ 24'03	1.41504 AU	morning set	11618 Jun 01 07:32	9° $\mathbb{I}$ 00'08	
				max. Earth dist.	11618 Jun 09 20:49	22° $\mathbb{I}$ 31'39	1.43459 AU
superior conj	11617 Jul 05 07:28	22° $\mathbb{D}$ 36'58	-1°35'52		11618 Jun 14 10:43	0° $\mathbb{D}$	
minimum elong	11617 Jul 05 13:56	23° $\mathbb{D}$ 05'28	1°35'49				
	11617 Jul 09 10:39	0° $\Omega$		superior conj	11618 Jun 16 11:30	3° $\mathbb{D}$ 22'34	-2°01'16
evening rise	11617 Jul 15 22:57	11° $\Omega$ 57'49		minimum elong	11618 Jun 16 17:33	3° $\mathbb{D}$ 47'47	2°01'38

evening rise	11618 Jun 28 17:17	24°☿27'45		asc. node	11619 Jun 20 22:43	23°☿04'34	
	11618 Jul 01 20:50	0°♊			11619 Jun 25 16:14	0°♊	
asc. node	11618 Jul 04 01:46	3°♊50'26		evening max el	11619 Jun 29 03:10	4°♊02'28	18°13'00
evening max el	11618 Jul 15 13:09	20°♊36'58	18°03'49	retrograde	11619 Jul 05 11:43	7°♊24'01	
retrograde	11618 Jul 22 02:05	23°♊59'10		evening set	11619 Jul 08 09:34	6°♊38'45	
evening set	11618 Jul 24 15:45	23°♊27'32		inferior conj	11619 Jul 14 09:52	1°♊17'14	2°35'30
inferior conj	11618 Jul 31 04:58	18°♊23'50	1°48'14	minimum elong	11619 Jul 14 12:19	1°♊10'21	2°34'17
minimum elong	11618 Jul 31 07:34	18°♊17'20	1°46'53		11619 Jul 15 13:17	30°☿☿	
min. Earth dist.	11618 Aug 03 06:41	15°♊21'15	0.61478 AU	min. Earth dist.	11619 Jul 16 23:14	28°☿26'05	0.63658 AU
morning rise	11618 Aug 06 20:51	12°♊22'19		morning rise	11619 Jul 20 13:31	25°☿01'59	
desc. node	11618 Aug 06 14:37	12°♊33'11		desc. node	11619 Jul 24 11:53	22°☿52'24	
direct	11618 Aug 13 12:41	10°♊05'00		direct	11619 Jul 27 05:45	22°☿26'54	
morning max el	11618 Aug 27 17:51	18°♊05'15	27°57'37		11619 Aug 09 15:06	0°♊	
	11618 Sep 06 17:30	0°♎		morning max el	11619 Aug 10 02:38	0°♊28'42	27°42'42
	11618 Sep 25 00:46	0°♊			11619 Aug 31 19:20	0°♎	
morning set	11618 Sep 30 03:56	10°♊11'38		morning set	11619 Sep 13 22:30	23°♎55'25	
asc. node	11618 Sep 30 02:41	10°♊05'10		asc. node	11619 Sep 16 23:22	0°♊06'00	
max. Earth dist.	11618 Oct 05 19:57	22°♊15'57	1.31685 AU		11619 Sep 16 22:12	0°♊	
				max. Earth dist.	11619 Sep 18 20:50	4°♊03'53	1.32532 AU
superior conj	11618 Oct 07 13:00	26°♊01'29	1°07'18	superior conj	11619 Sep 21 19:51	10°♊23'45	0°46'00
minimum elong	11618 Oct 07 10:45	25°♊49'04	1°07'12	minimum elong	11619 Sep 21 17:54	10°♊13'11	0°45'41
	11618 Oct 09 08:09	0°♎		evening rise	11619 Sep 28 18:03	25°♊25'18	
evening rise	11618 Oct 14 06:42	10°♎49'59			11619 Sep 30 22:01	0°♎	
	11618 Oct 23 22:00	0°♎			11619 Oct 19 01:17	0°♎	
desc. node	11618 Nov 02 11:38	14°♎54'24		desc. node	11619 Oct 20 08:55	1°♎26'44	
evening max el	11618 Nov 09 06:08	22°♎38'04	24°52'13	evening max el	11619 Oct 21 16:37	2°♎46'55	23°12'21
retrograde	11618 Nov 23 01:34	29°♎33'14		retrograde	11619 Nov 04 00:24	9°♎24'47	
evening set	11618 Nov 28 14:21	28°♎24'48		evening set	11619 Nov 08 04:36	8°♎46'56	
min. Earth dist.	11618 Dec 03 17:58	25°♎40'16	0.56648 AU	min. Earth dist.	11619 Nov 15 02:06	5°♎34'56	0.55234 AU
inferior conj	11618 Dec 06 09:05	23°♎58'23	-5°26'53	inferior conj	11619 Nov 16 14:58	4°♎41'32	-5°50'13
minimum elong	11618 Dec 06 15:35	23°♎47'52	5°25'08	minimum elong	11619 Nov 16 14:29	4°♎42'13	5°49'34
morning rise	11618 Dec 14 19:02	19°♎51'13		morning rise	11619 Nov 25 02:02	0°♎50'51	
direct	11618 Dec 17 04:08	19°♎35'22		direct	11619 Nov 28 01:04	0°♎29'58	
morning max el	11618 Dec 26 16:03	24°♎09'05	19°21'57	morning max el	11619 Dec 09 01:35	5°♎43'46	20°37'49
asc. node	11618 Dec 27 02:57	24°♎35'56		asc. node	11619 Dec 13 23:59	11°♎24'03	
	11618 Dec 31 13:40	0°♏			11619 Dec 24 21:40	0°♏	
morning set	11619 Jan 12 17:12	21°♏39'28		morning set	11619 Dec 28 00:32	6°♏19'44	
	11619 Jan 16 21:05	0°♏					
superior conj	11619 Jan 20 19:42	7°♏47'16	1°04'20	superior conj	11620 Jan 04 11:49	21°♏46'57	1°22'58
minimum elong	11619 Jan 20 22:39	8°♏01'41	1°04'34	minimum elong	11620 Jan 04 14:16	21°♏59'21	1°23'26
max. Earth dist.	11619 Jan 27 08:49	20°♏08'22	1.38192 AU		11620 Jan 08 14:26	0°♏	
desc. node	11619 Jan 29 10:51	23°♏53'41		max. Earth dist.	11620 Jan 09 16:59	2°♏09'08	1.36067 AU
evening rise	11619 Jan 31 02:38	26°♏49'07		evening rise	11620 Jan 13 14:20	9°♏29'51	
	11619 Feb 01 22:46	0°♐		desc. node	11620 Jan 16 07:39	14°♏25'37	
	11619 Feb 21 09:32	0°♐			11620 Jan 25 14:25	0°♐	
evening max el	11619 Mar 07 12:34	17°♐06'42	24°58'09		11620 Feb 17 03:31	0°♐	
retrograde	11619 Mar 19 09:33	24°♐00'57		evening max el	11620 Feb 18 02:10	0°♐56'16	26°07'16
evening set	11619 Mar 25 02:00	21°♐38'53		retrograde	11620 Mar 01 19:11	8°♐10'24	
asc. node	11619 Mar 25 00:42	21°♐41'38		evening set	11620 Mar 07 23:16	5°♐40'16	
min. Earth dist.	11619 Mar 29 13:14	16°♐38'28	0.68015 AU	asc. node	11620 Mar 10 22:02	2°♐43'53	
inferior conj	11619 Mar 30 16:31	15°♐08'39	1°42'44	min. Earth dist.	11620 Mar 12 04:03	1°♐14'51	0.67018 AU
minimum elong	11619 Mar 30 14:30	15°♐15'20	1°41'56		11620 Mar 13 04:18	30°☿☿	
morning rise	11619 Apr 05 03:15	9°♐12'18		inferior conj	11620 Mar 13 19:24	29°♐13'02	0°54'56
direct	11619 Apr 08 19:03	7°♐55'23		minimum elong	11620 Mar 13 18:04	29°♐17'10	0°54'31
morning max el	11619 Apr 15 23:59	11°♐54'27	19°31'41	morning rise	11620 Mar 19 13:35	23°♐26'34	
desc. node	11619 Apr 27 12:21	26°♐43'47		direct	11620 Mar 22 18:15	22°♐28'36	
greatest brilliancy	11619 Apr 28 16:36	28°♐27'12	-0.7m	morning max el	11620 Mar 29 09:19	26°♐02'35	18°40'35
	11619 Apr 29 17:45	0°♑			11620 Apr 01 21:20	0°♐	
morning set	11619 May 11 07:19	17°♑32'28		desc. node	11620 Apr 13 09:02	16°♐42'57	
	11619 May 19 08:11	0°♑		morning set	11620 Apr 19 20:40	26°♐50'21	
max. Earth dist.	11619 May 23 10:08	6°♑24'48	1.44887 AU		11620 Apr 21 21:07	0°♑	
				max. Earth dist.	11620 May 05 04:33	20°♑48'16	1.45636 AU
superior conj	11619 May 27 15:41	13°♑08'18	-2°13'07	superior conj	11620 May 06 01:59	22°♑12'07	-2°05'40
minimum elong	11619 May 27 16:43	13°♑12'29	2°13'49	minimum elong	11620 May 05 19:33	21°♑46'58	2°05'54
	11619 Jun 06 23:59	0°☿			11620 May 11 01:15	0°♑	
evening rise	11619 Jun 10 15:08	6°☿03'14					

evening rise	11620 May 21 13:03	16° $\Pi$ 38'30		max. Earth dist.	11621 Apr 18 00:41	5° $\mathcal{B}$ 23'00	1.45637 AU
greatest brilliancy	11620 May 28 21:20	28° $\Pi$ 22'13	-0.9m	evening rise	11621 May 01 12:53	26° $\mathcal{B}$ 23'02	
	11620 May 29 22:04	0° $\mathcal{E}$			11621 May 03 21:00	0° $\Pi$	
asc. node	11620 Jun 06 19:45	11° $\mathcal{E}$ 51'04		greatest brilliancy	11621 May 14 02:59	15° $\Pi$ 40'00	-0.7m
evening max el	11620 Jun 11 15:21	17° $\mathcal{E}$ 39'13	18°40'02	asc. node	11621 May 24 16:53	0° $\mathcal{E}$ 01'06	
retrograde	11620 Jun 18 04:48	21° $\mathcal{E}$ 13'49			11621 May 24 16:29	0° $\mathcal{E}$	
evening set	11620 Jun 21 10:54	20° $\mathcal{E}$ 13'25		evening max el	11621 May 25 23:24	1° $\mathcal{E}$ 21'55	19°24'00
inferior conj	11620 Jun 27 02:08	14° $\mathcal{E}$ 35'41	3°03'10	retrograde	11621 Jun 02 02:06	5° $\mathcal{E}$ 22'10	
minimum elong	11620 Jun 27 03:41	14° $\mathcal{E}$ 30'54	3°02'13	evening set	11621 Jun 05 16:53	4° $\mathcal{E}$ 05'54	
min. Earth dist.	11620 Jun 29 00:48	12° $\mathcal{E}$ 12'38	0.65546 AU		11621 Jun 09 17:31	30° $\mathcal{R}$ $\Pi$	
morning rise	11620 Jul 02 19:38	8° $\mathcal{E}$ 14'25		inferior conj	11621 Jun 11 02:27	28° $\Pi$ 13'36	3°14'54
direct	11620 Jul 09 06:32	5° $\mathcal{E}$ 32'04		minimum elong	11621 Jun 11 02:54	28° $\Pi$ 12'09	3°14'08
desc. node	11620 Jul 10 09:06	5° $\mathcal{E}$ 36'21		min. Earth dist.	11621 Jun 12 10:18	26° $\Pi$ 29'05	0.67032 AU
morning max el	11620 Jul 22 13:27	13° $\mathcal{E}$ 23'22	26°55'21	morning rise	11621 Jun 16 12:28	21° $\Pi$ 51'35	
	11620 Aug 04 23:15	0° $\mathcal{Q}$		direct	11621 Jun 22 14:00	19° $\Pi$ 12'00	
	11620 Aug 23 11:19	0° $\mathcal{M}$		desc. node	11621 Jun 27 06:13	20° $\Pi$ 29'02	
morning set	11620 Aug 27 06:43	7° $\mathcal{M}$ 07'27		morning max el	11621 Jul 05 00:11	26° $\Pi$ 38'18	25°43'59
max. Earth dist.	11620 Aug 31 12:34	15° $\mathcal{M}$ 27'58	1.33894 AU		11621 Jul 08 03:01	0° $\mathcal{E}$	
asc. node	11620 Sep 02 20:04	20° $\mathcal{M}$ 10'47			11621 Jul 29 13:41	0° $\mathcal{Q}$	
				morning set	11621 Aug 10 00:57	19° $\mathcal{Q}$ 39'22	
superior conj	11620 Sep 04 21:04	24° $\mathcal{M}$ 25'35	0°19'46	max. Earth dist.	11621 Aug 13 18:05	26° $\mathcal{Q}$ 34'50	1.35729 AU
minimum elong	11620 Sep 04 20:04	24° $\mathcal{M}$ 20'18	0°19'24		11621 Aug 15 12:48	0° $\mathcal{M}$	
	11620 Sep 07 12:23	0° $\mathcal{A}$					
evening rise	11620 Sep 12 04:20	9° $\mathcal{A}$ 54'26		superior conj	11621 Aug 19 14:03	8° $\mathcal{M}$ 00'50	-0°10'44
	11620 Sep 22 14:36	0° $\mathcal{M}$		minimum elong	11621 Aug 19 14:42	8° $\mathcal{M}$ 04'10	0°10'57
evening max el	11620 Oct 02 07:02	12° $\mathcal{M}$ 56'43	21°34'06	behind sun begin	11621 Aug 19 10:08	7° $\mathcal{M}$ 41'06	
desc. node	11620 Oct 06 06:16	16° $\mathcal{M}$ 14'48		behind sun end	11621 Aug 19 19:17	8° $\mathcal{M}$ 27'16	
retrograde	11620 Oct 14 13:22	19° $\mathcal{M}$ 02'35		asc. node	11621 Aug 20 16:48	10° $\mathcal{M}$ 16'09	
evening set	11620 Oct 17 08:29	18° $\mathcal{M}$ 44'44		evening rise	11621 Aug 27 11:31	24° $\mathcal{M}$ 12'16	
inferior conj	11620 Oct 26 08:08	14° $\mathcal{M}$ 49'06	-5°17'45		11621 Aug 30 08:07	0° $\mathcal{A}$	
minimum elong	11620 Oct 25 23:52	15° $\mathcal{M}$ 00'41	5°15'46	evening max el	11621 Sep 14 09:35	23° $\mathcal{A}$ 41'23	20°10'57
min. Earth dist.	11620 Oct 26 08:38	14° $\mathcal{M}$ 48'24	0.54589 AU	desc. node	11621 Sep 23 03:39	28° $\mathcal{A}$ 50'18	
morning rise	11620 Nov 03 16:16	11° $\mathcal{M}$ 00'47		retrograde	11621 Sep 25 02:21	29° $\mathcal{A}$ 00'32	
direct	11620 Nov 07 09:52	10° $\mathcal{M}$ 30'36		evening set	11621 Sep 27 02:00	28° $\mathcal{A}$ 50'21	
morning max el	11620 Nov 19 21:40	16° $\mathcal{M}$ 27'41	22°14'21	inferior conj	11621 Oct 06 02:18	24° $\mathcal{A}$ 52'07	-3°51'52
asc. node	11620 Nov 29 20:57	29° $\mathcal{M}$ 10'26		minimum elong	11621 Oct 05 16:43	25° $\mathcal{A}$ 06'21	3°48'33
	11620 Nov 30 09:16	0° $\mathcal{X}$		min. Earth dist.	11621 Oct 07 17:09	23° $\mathcal{A}$ 54'21	0.54881 AU
morning set	11620 Dec 11 11:06	21° $\mathcal{X}$ 06'21		morning rise	11621 Oct 14 06:29	20° $\mathcal{A}$ 44'38	
	11620 Dec 15 15:14	0° $\mathcal{Z}$		direct	11621 Oct 18 19:49	19° $\mathcal{A}$ 59'41	
				morning max el	11621 Nov 01 09:35	26° $\mathcal{A}$ 38'14	24°01'59
superior conj	11620 Dec 18 12:42	6° $\mathcal{Z}$ 10'02	1°34'19		11621 Nov 04 15:21	0° $\mathcal{M}$	
minimum elong	11620 Dec 18 14:07	6° $\mathcal{Z}$ 17'33	1°34'59	asc. node	11621 Nov 16 17:52	17° $\mathcal{M}$ 41'02	
max. Earth dist.	11620 Dec 22 07:21	14° $\mathcal{Z}$ 02'03	1.34227 AU		11621 Nov 23 03:34	0° $\mathcal{X}$	
evening rise	11620 Dec 26 17:14	22° $\mathcal{Z}$ 49'11		morning set	11621 Nov 25 22:54	5° $\mathcal{X}$ 53'09	
	11620 Dec 30 12:40	0° $\mathcal{A}$					
desc. node	11621 Jan 02 04:31	4° $\mathcal{A}$ 47'15		superior conj	11621 Dec 02 19:24	20° $\mathcal{X}$ 47'31	1°38'58
	11621 Jan 18 07:18	0° $\mathcal{X}$		minimum elong	11621 Dec 02 19:40	20° $\mathcal{X}$ 48'54	1°39'42
evening max el	11621 Jan 30 15:42	14° $\mathcal{X}$ 36'29	26°59'44	max. Earth dist.	11621 Dec 05 05:24	26° $\mathcal{X}$ 00'39	1.32801 AU
retrograde	11621 Feb 12 23:07	22° $\mathcal{X}$ 00'01			11621 Dec 07 02:33	0° $\mathcal{Z}$	
evening set	11621 Feb 19 13:23	19° $\mathcal{X}$ 26'43		evening rise	11621 Dec 10 07:49	6° $\mathcal{Z}$ 37'49	
min. Earth dist.	11621 Feb 23 12:40	15° $\mathcal{X}$ 35'10	0.65634 AU	desc. node	11621 Dec 20 01:29	24° $\mathcal{Z}$ 52'37	
inferior conj	11621 Feb 25 16:02	13° $\mathcal{X}$ 08'29	-0°02'43		11621 Dec 23 02:23	0° $\mathcal{A}$	
minimum elong	11621 Feb 25 16:06	13° $\mathcal{X}$ 08'17	0°02'24	evening max el	11622 Jan 13 04:08	27° $\mathcal{A}$ 56'06	27°28'30
transit middle	11621 Feb 25 16:06	13° $\mathcal{X}$ 08'17	0°02'24		11622 Jan 15 11:13	0° $\mathcal{X}$	
transit begin	11621 Feb 25 13:09	13° $\mathcal{X}$ 16'44		retrograde	11622 Jan 26 20:42	5° $\mathcal{X}$ 20'11	
transit end	11621 Feb 25 19:03	12° $\mathcal{X}$ 59'51		evening set	11622 Feb 02 18:01	2° $\mathcal{X}$ 50'34	
asc. node	11621 Feb 25 19:22	12° $\mathcal{X}$ 58'56			11622 Feb 06 01:02	30° $\mathcal{R}$ $\mathcal{A}$	
morning rise	11621 Mar 03 20:10	7° $\mathcal{X}$ 34'04		min. Earth dist.	11622 Feb 06 13:06	29° $\mathcal{A}$ 30'07	0.63906 AU
direct	11621 Mar 06 15:01	6° $\mathcal{X}$ 52'02		inferior conj	11622 Feb 09 03:47	26° $\mathcal{A}$ 48'01	-1°09'55
morning max el	11621 Mar 13 00:10	10° $\mathcal{X}$ 13'26	18°06'09	minimum elong	11622 Feb 09 06:00	26° $\mathcal{A}$ 42'16	1°08'32
	11621 Mar 26 22:22	0° $\mathcal{Y}$		asc. node	11622 Feb 12 16:41	23° $\mathcal{A}$ 25'30	
desc. node	11621 Mar 31 05:42	6° $\mathcal{Y}$ 59'15		morning rise	11622 Feb 15 20:05	21° $\mathcal{A}$ 28'11	
morning set	11621 Mar 31 13:33	7° $\mathcal{Y}$ 31'12		direct	11622 Feb 18 06:46	20° $\mathcal{A}$ 58'26	
	11621 Apr 14 14:25	0° $\mathcal{B}$		morning max el	11622 Feb 24 17:42	24° $\mathcal{A}$ 18'26	17°48'45
					11622 Mar 01 09:43	0° $\mathcal{X}$	
superior conj	11621 Apr 15 10:11	1° $\mathcal{B}$ 17'49	-1°38'54	morning set	11622 Mar 13 10:11	19° $\mathcal{X}$ 32'13	
minimum elong	11621 Apr 15 00:48	0° $\mathcal{B}$ 40'53	1°38'18	desc. node	11622 Mar 18 02:20	27° $\mathcal{X}$ 27'09	

	11622 Mar 19 14:47	0°♿		superior conj	11623 Mar 07 08:49	22°♿10'15	-0°18'25
				minimum elong	11623 Mar 07 07:05	22°♿02'55	0°17'58
superior conj	11622 Mar 26 09:32	11°♿09'57	-1°00'01		11623 Mar 12 01:09	0°♿	
minimum elong	11622 Mar 26 03:10	10°♿44'11	0°59'13	max. Earth dist.	11623 Mar 14 11:18	3°♿57'40	1.43528 AU
max. Earth dist.	11622 Mar 31 19:34	19°♿50'46	1.44906 AU	evening rise	11623 Mar 21 16:18	15°♿24'33	
	11622 Apr 07 07:13	0°♿			11623 Mar 31 06:44	0°♿	
evening rise	11622 Apr 11 00:43	5°♿44'47		evening max el	11623 Apr 21 22:59	28°♿51'58	21°34'34
	11622 Apr 27 06:31	0°♿			11623 Apr 23 03:03	0°♿	
evening max el	11622 May 09 01:58	15°♿06'23	20°23'15	asc. node	11623 Apr 28 11:20	3°♿39'50	
asc. node	11622 May 11 14:06	17°♿22'11		retrograde	11623 Apr 30 23:15	4°♿09'38	
retrograde	11622 May 17 00:56	19°♿42'21		evening set	11623 May 05 09:51	2°♿21'34	
evening set	11622 May 21 01:09	18°♿10'04			11623 May 07 17:35	30°♿♿	
inferior conj	11622 May 26 08:00	12°♿04'54	3°13'33	inferior conj	11623 May 10 16:26	26°♿05'31	3°00'58
minimum elong	11622 May 26 07:23	12°♿07'02	3°12'49	minimum elong	11623 May 10 14:57	26°♿10'39	3°00'11
min. Earth dist.	11622 May 27 01:44	11°♿04'10	0.68063 AU	min. Earth dist.	11623 May 10 20:52	25°♿50'03	0.68634 AU
morning rise	11622 May 31 13:19	5°♿45'33		morning rise	11623 May 15 19:51	19°♿50'59	
direct	11622 Jun 06 03:06	3°♿17'11		direct	11623 May 20 20:41	17°♿39'55	
desc. node	11622 Jun 14 03:15	7°♿01'03		morning max el	11623 May 30 20:37	23°♿35'05	22°48'34
morning max el	11622 Jun 17 10:04	10°♿03'19	24°18'26	desc. node	11623 Jun 01 00:12	24°♿46'36	
	11622 Jul 03 05:17	0°♿			11623 Jun 05 12:33	0°♿	
	11622 Jul 22 06:13	0°♿			11623 Jun 26 14:19	0°♿	
morning set	11622 Jul 23 00:38	1°♿19'32		morning set	11623 Jul 04 00:41	11°♿54'31	
max. Earth dist.	11622 Jul 26 16:14	7°♿46'02	1.37912 AU	max. Earth dist.	11623 Jul 08 13:47	19°♿31'54	1.40229 AU
					11623 Jul 14 13:22	0°♿	
superior conj	11622 Aug 02 19:28	21°♿01'40	-0°44'03				
minimum elong	11622 Aug 02 22:26	21°♿15'58	0°44'02	superior conj	11623 Jul 16 09:11	3°♿17'48	-1°17'47
	11622 Aug 07 09:51	0°♿		minimum elong	11623 Jul 16 14:37	3°♿42'34	1°17'39
asc. node	11622 Aug 07 13:36	0°♿18'33		asc. node	11623 Jul 25 10:24	20°♿13'30	
evening rise	11622 Aug 11 13:04	8°♿12'17		evening rise	11623 Jul 26 05:46	21°♿45'32	
	11622 Aug 23 18:20	0°♿			11623 Jul 30 15:00	0°♿	
evening max el	11622 Aug 28 02:10	5°♿14'38	19°08'36	evening max el	11623 Aug 11 05:49	17°♿31'26	18°27'34
retrograde	11622 Sep 06 03:06	9°♿45'03		retrograde	11623 Aug 18 22:31	21°♿23'38	
evening set	11622 Sep 07 23:28	9°♿34'31		evening set	11623 Aug 21 00:03	21°♿07'45	
desc. node	11622 Sep 10 01:02	8°♿59'35		desc. node	11623 Aug 27 22:25	17°♿11'30	
inferior conj	11622 Sep 16 10:58	5°♿22'27	-2°00'26	inferior conj	11623 Aug 28 16:46	16°♿35'27	-0°14'12
minimum elong	11622 Sep 16 05:43	5°♿31'20	1°58'24	minimum elong	11623 Aug 28 16:13	16°♿36'32	0°14'14
min. Earth dist.	11622 Sep 19 05:46	3°♿29'47	0.56079 AU	transit middle	11623 Aug 28 16:13	16°♿36'32	0°14'14
morning rise	11622 Sep 24 09:02	0°♿40'37		transit begin	11623 Aug 28 14:32	16°♿39'52	
	11622 Sep 26 09:34	30°♿♿		transit end	11623 Aug 28 17:54	16°♿33'11	
direct	11622 Sep 29 18:04	29°♿33'32		min. Earth dist.	11623 Aug 31 23:58	13°♿59'38	0.57951 AU
	11622 Oct 03 02:41	0°♿		morning rise	11623 Sep 05 04:52	11°♿16'47	
morning max el	11622 Oct 13 21:16	6°♿45'54	25°44'21	direct	11623 Sep 11 06:35	9°♿42'07	
	11622 Oct 30 22:00	0°♿		morning max el	11623 Sep 25 14:28	17°♿18'47	27°04'09
asc. node	11622 Nov 03 14:43	6°♿44'55			11623 Oct 06 02:50	0°♿	
morning set	11622 Nov 10 10:16	20°♿35'31		asc. node	11623 Oct 21 11:31	26°♿12'43	
	11622 Nov 14 17:37	0°♿			11623 Oct 23 08:30	0°♿	
				morning set	11623 Oct 25 19:26	5°♿07'59	
superior conj	11622 Nov 17 05:37	5°♿32'32	1°37'26				
minimum elong	11622 Nov 17 04:48	5°♿27'58	1°38'04	superior conj	11623 Nov 01 17:16	20°♿18'03	1°30'06
max. Earth dist.	11622 Nov 18 10:11	8°♿10'20	1.31853 AU	minimum elong	11623 Nov 01 15:36	20°♿08'43	1°30'28
evening rise	11622 Nov 24 07:05	20°♿48'23		max. Earth dist.	11623 Nov 01 18:44	20°♿26'10	1.31400 AU
	11622 Nov 28 20:43	0°♿			11623 Nov 06 02:22	0°♿	
desc. node	11622 Dec 06 22:33	14°♿34'46		evening rise	11623 Nov 08 12:23	5°♿13'04	
	11622 Dec 17 05:09	0°♿			11623 Nov 21 12:29	0°♿	
evening max el	11622 Dec 26 13:36	10°♿43'15	27°27'14	desc. node	11623 Nov 23 19:40	3°♿43'36	
retrograde	11623 Jan 09 10:47	18°♿01'18		evening max el	11623 Dec 08 17:23	22°♿45'10	26°51'52
evening set	11623 Jan 16 10:13	15°♿43'57		retrograde	11623 Dec 22 15:51	29°♿54'15	
min. Earth dist.	11623 Jan 20 03:46	12°♿49'05	0.61914 AU	evening set	11623 Dec 29 10:14	27°♿58'07	
inferior conj	11623 Jan 23 03:34	10°♿04'03	-2°25'00	min. Earth dist.	11624 Jan 02 07:42	25°♿19'32	0.59785 AU
minimum elong	11623 Jan 23 08:31	9°♿52'38	2°22'27	inferior conj	11624 Jan 05 11:49	22°♿46'37	-3°43'24
morning rise	11623 Jan 30 09:28	5°♿01'35		minimum elong	11624 Jan 05 19:21	22°♿31'27	3°40'11
asc. node	11623 Jan 30 13:56	4°♿58'11		morning rise	11624 Jan 13 07:16	18°♿04'36	
direct	11623 Feb 01 14:16	4°♿40'19		direct	11624 Jan 15 09:35	17°♿48'07	
morning max el	11623 Feb 08 10:44	8°♿08'47	17°49'09	asc. node	11624 Jan 17 11:08	18°♿04'48	
	11623 Feb 22 17:55	0°♿		morning max el	11624 Jan 22 23:44	21°♿34'23	18°08'36
morning set	11623 Feb 24 04:49	2°♿35'47			11624 Jan 29 10:12	0°♿	
desc. node	11623 Mar 04 23:00	18°♿02'47		morning set	11624 Feb 07 15:13	16°♿22'52	

	11624 Feb 14 23:04	0°♄		superior conj	11625 Jan 30 02:37	17°♄18'16	0°50'09
				minimum elong	11625 Jan 30 05:27	17°♄31'42	0°50'16
superior conj	11624 Feb 17 07:55	4°♄17'02	0°19'21	desc. node	11625 Feb 05 16:23	29°♄21'41	
minimum elong	11624 Feb 17 09:24	4°♄23'43	0°19'29		11625 Feb 06 01:01	0°♄	
desc. node	11624 Feb 19 19:41	8°♄42'13		max. Earth dist.	11625 Feb 06 06:26	0°♄23'54	1.39468 AU
max. Earth dist.	11624 Feb 24 22:54	17°♄31'40	1.41644 AU	evening rise	11625 Feb 10 04:50	7°♄12'10	
evening rise	11624 Mar 01 00:02	25°♄50'43			11625 Feb 24 14:37	0°♄	
	11624 Mar 03 14:25	0°♄		evening max el	11625 Mar 17 05:39	26°♄29'14	24°13'48
	11624 Mar 24 01:44	0°♄			11625 Mar 21 04:55	0°♄	
evening max el	11624 Apr 03 15:38	12°♄39'43	22°53'21	retrograde	11625 Mar 28 12:28	3°♄06'31	
retrograde	11624 Apr 13 19:30	18°♄39'38		asc. node	11625 Apr 01 05:53	2°♄03'03	
asc. node	11624 Apr 14 08:35	18°♄38'13		evening set	11625 Apr 02 22:12	0°♄50'24	
evening set	11624 Apr 18 17:23	16°♄36'41			11625 Apr 03 19:59	30°♄	
min. Earth dist.	11624 Apr 23 17:32	10°♄40'43	0.68741 AU	min. Earth dist.	11625 Apr 07 13:35	25°♄30'03	0.68401 AU
inferior conj	11624 Apr 24 01:45	10°♄12'15	2°38'15	inferior conj	11625 Apr 08 10:03	24°♄21'00	2°05'48
minimum elong	11624 Apr 23 23:44	10°♄19'15	2°37'22	minimum elong	11625 Apr 08 07:53	24°♄28'19	2°04'56
morning rise	11624 Apr 29 05:57	4°♄03'58		morning rise	11625 Apr 13 17:40	18°♄20'07	
direct	11624 May 03 17:33	2°♄13'40		direct	11625 Apr 17 16:24	16°♄51'26	
morning max el	11624 May 12 11:15	7°♄16'49	21°23'09	morning max el	11625 Apr 25 08:50	21°♄10'30	20°08'23
desc. node	11624 May 17 21:05	13°♄26'03			11625 May 02 17:50	0°♄	
	11624 May 29 21:59	0°♄		desc. node	11625 May 04 17:52	2°♄44'13	
morning set	11624 Jun 12 22:47	21°♄20'12		morning set	11625 May 23 01:27	29°♄57'00	
	11624 Jun 18 08:32	0°♄			11625 May 23 02:14	0°♄	
max. Earth dist.	11624 Jun 19 16:58	2°♄12'35	1.42395 AU	max. Earth dist.	11625 Jun 02 03:03	15°♄43'32	1.44144 AU
superior conj	11624 Jun 27 02:42	14°♄39'20	-1°47'51	superior conj	11625 Jun 07 20:24	24°♄58'36	-2°08'22
minimum elong	11624 Jun 27 09:26	15°♄08'19	1°47'56	minimum elong	11625 Jun 08 00:56	25°♄17'07	2°08'54
	11624 Jul 05 19:13	0°♄			11625 Jun 10 21:31	0°♄	
evening rise	11624 Jul 08 09:40	4°♄42'29		evening rise	11625 Jun 20 19:55	16°♄50'59	
asc. node	11624 Jul 11 07:15	9°♄57'02		asc. node	11625 Jun 28 04:09	29°♄23'37	
	11624 Jul 24 07:32	0°♄			11625 Jun 28 12:55	0°♄	
evening max el	11624 Jul 24 16:25	0°♄22'26	18°06'51	evening max el	11625 Jul 08 06:06	13°♄37'27	18°05'23
retrograde	11624 Jul 31 12:17	3°♄51'24		retrograde	11625 Jul 14 16:03	16°♄57'56	
evening set	11624 Aug 02 21:22	3°♄26'21		evening set	11625 Jul 17 09:08	16°♄20'47	
	11624 Aug 08 05:13	30°♄		inferior conj	11625 Jul 23 16:22	11°♄09'01	2°10'55
inferior conj	11624 Aug 09 19:43	28°♄33'18	1°10'36	minimum elong	11625 Jul 23 19:02	11°♄01'58	2°09'35
minimum elong	11624 Aug 09 21:46	28°♄28'33	1°09'27	min. Earth dist.	11625 Jul 26 13:11	8°♄09'00	0.62432 AU
min. Earth dist.	11624 Aug 13 01:56	25°♄34'12	0.60171 AU	morning rise	11625 Jul 30 02:50	5°♄00'15	
desc. node	11624 Aug 13 19:45	24°♄56'01		desc. node	11625 Jul 31 17:04	3°♄58'47	
morning rise	11624 Aug 16 19:10	22°♄44'24		direct	11625 Aug 05 19:24	2°♄34'28	
direct	11624 Aug 23 07:39	20°♄41'43		morning max el	11625 Aug 19 22:00	10°♄36'50	27°55'41
morning max el	11624 Sep 06 15:11	28°♄35'07	27°49'16		11625 Sep 04 02:38	0°♄	
	11624 Sep 08 00:30	0°♄			11625 Sep 21 07:05	0°♄	
	11624 Sep 28 23:31	0°♄		morning set	11625 Sep 22 23:48	3°♄24'42	
asc. node	11624 Oct 07 08:16	15°♄57'46		asc. node	11625 Sep 24 04:59	5°♄54'21	
morning set	11624 Oct 09 00:37	19°♄26'12		max. Earth dist.	11625 Sep 28 08:22	14°♄40'05	1.31984 AU
	11624 Oct 13 22:31	0°♄					
max. Earth dist.	11624 Oct 15 03:28	2°♄39'48	1.31442 AU	superior conj	11625 Sep 30 13:34	19°♄29'33	0°58'52
				minimum elong	11625 Sep 30 11:22	19°♄17'31	0°58'41
superior conj	11624 Oct 16 04:32	4°♄58'49	1°17'10		11625 Oct 05 08:20	0°♄	
minimum elong	11624 Oct 16 02:22	4°♄46'46	1°17'15	evening rise	11625 Oct 07 08:40	4°♄22'14	
evening rise	11624 Oct 22 21:34	19°♄46'11			11625 Oct 20 20:40	0°♄	
	11624 Oct 27 19:52	0°♄		desc. node	11625 Oct 27 14:05	9°♄26'09	
desc. node	11624 Nov 09 16:50	22°♄06'32		evening max el	11625 Nov 01 01:08	14°♄18'20	24°10'32
	11624 Nov 15 19:31	0°♄		retrograde	11625 Nov 14 16:57	21°♄08'12	
evening max el	11624 Nov 19 13:03	3°♄54'35	25°43'19	evening set	11625 Nov 19 16:59	20°♄13'14	
retrograde	11624 Dec 03 10:19	10°♄55'04		min. Earth dist.	11625 Nov 25 12:04	17°♄19'19	0.55963 AU
evening set	11624 Dec 09 13:37	9°♄27'38		inferior conj	11625 Nov 27 17:58	15°♄56'45	-5°42'41
min. Earth dist.	11624 Dec 14 01:27	6°♄50'52	0.57713 AU	minimum elong	11625 Nov 27 22:05	15°♄50'26	5°41'38
inferior conj	11624 Dec 17 01:10	4°♄46'04	-4°55'09	morning rise	11625 Dec 06 05:15	11°♄58'09	
minimum elong	11624 Dec 17 09:17	4°♄31'53	4°52'32	direct	11625 Dec 08 19:20	11°♄40'48	
morning rise	11624 Dec 25 07:26	0°♄26'41		morning max el	11625 Dec 18 22:32	16°♄30'28	19°51'35
direct	11624 Dec 27 12:16	0°♄11'35		asc. node	11625 Dec 21 05:23	18°♄55'48	
asc. node	11625 Jan 03 08:17	2°♄47'59			11625 Dec 28 18:23	0°♄	
morning max el	11625 Jan 05 04:53	4°♄24'54	18°48'51	morning set	11626 Jan 05 16:55	15°♄12'39	
	11625 Jan 21 04:33	0°♄			11626 Jan 12 23:58	0°♄	
morning set	11625 Jan 21 12:26	0°♄38'32					

superior conj	11626 Jan 13 12:12	1°≈00'52	1°13'09		11626 Dec 21 02:36	0°☿	
minimum elong	11626 Jan 13 15:02	1°≈14'55	1°13'29				
max. Earth dist.	11626 Jan 19 12:39	12°≈37'48	1.37254 AU	superior conj	11626 Dec 28 08:29	15°☿11'57	1°28'37
evening rise	11626 Jan 23 06:11	19°≈26'54		minimum elong	11626 Dec 28 10:31	15°☿22'31	1°29'12
desc. node	11626 Jan 23 13:08	19°≈57'55		max. Earth dist.	11627 Jan 01 22:40	24°☿31'16	1.35235 AU
	11626 Jan 29 08:59	0°☿			11627 Jan 04 18:10	0°≈	
	11626 Feb 18 17:42	0°☿		evening rise	11627 Jan 06 00:50	2°≈25'34	
evening max el	11626 Feb 27 18:56	10°☿19'46	25°29'07	desc. node	11627 Jan 10 09:57	10°≈26'10	
retrograde	11626 Mar 12 01:14	17°☿24'39			11627 Jan 22 08:39	0°☿	
evening set	11626 Mar 17 22:45	14°☿58'21		evening max el	11627 Feb 10 08:31	24°☿06'19	26°32'06
asc. node	11626 Mar 19 03:12	13°☿52'43			11627 Feb 18 01:51	0°☿	
min. Earth dist.	11626 Mar 22 07:00	10°☿13'03	0.67636 AU	retrograde	11627 Feb 23 08:44	1°☿26'24	
inferior conj	11626 Mar 23 15:30	8°☿28'31	1°23'42		11627 Feb 28 04:18	30°☿☿	
minimum elong	11626 Mar 23 13:42	8°☿34'20	1°23'00	evening set	11627 Mar 01 17:14	28°☿54'17	
morning rise	11626 Mar 29 05:06	2°☿36'18		min. Earth dist.	11627 Mar 05 19:33	24°☿43'17	0.66468 AU
direct	11626 Apr 01 15:55	1°☿27'58		asc. node	11627 Mar 06 00:33	24°☿28'29	
morning max el	11626 Apr 08 14:10	5°☿15'01	19°08'00	inferior conj	11627 Mar 07 16:01	22°☿29'47	0°31'43
greatest brilliancy	11626 Apr 21 15:30	22°☿34'16	-0.7m	minimum elong	11627 Mar 07 15:11	22°☿32'16	0°31'33
desc. node	11626 Apr 21 14:36	22°☿30'55		morning rise	11627 Mar 13 14:08	16°☿48'01	
	11626 Apr 26 12:54	0°☿		direct	11627 Mar 16 14:20	15°☿57'21	
morning set	11626 May 02 04:19	8°☿41'22		morning max el	11627 Mar 23 02:06	19°☿24'56	18°23'50
	11626 May 15 20:55	0°☿			11627 Mar 31 07:43	0°☿	
max. Earth dist.	11626 May 15 18:28	29°☿50'21	1.45291 AU	desc. node	11627 Apr 08 11:17	12°☿38'03	
				morning set	11627 Apr 12 04:31	18°☿32'07	
superior conj	11626 May 18 15:37	4°☿22'41	-2°12'30		11627 Apr 19 10:22	0°☿	
minimum elong	11626 May 18 13:25	4°☿14'00	2°13'07				
evening rise	11626 Jun 02 07:50	28°☿01'11		superior conj	11627 Apr 27 22:46	13°☿21'31	-1°56'23
	11626 Jun 03 12:48	0°☿		minimum elong	11627 Apr 27 14:13	12°☿48'06	1°56'15
asc. node	11626 Jun 15 01:07	18°☿27'11		max. Earth dist.	11627 Apr 28 13:22	14°☿18'34	1.45723 AU
evening max el	11626 Jun 21 19:37	27°☿08'31	18°22'19		11627 May 08 14:14	0°☿	
	11626 Jun 25 16:50	0°☿		evening rise	11627 May 13 19:36	8°☿12'10	
retrograde	11626 Jun 28 05:22	0°☿34'20		greatest brilliancy	11627 May 23 15:39	23°☿36'55	-0.8m
	11626 Jun 30 17:06	30°☿☿			11627 May 27 20:54	0°☿	
evening set	11626 Jul 01 06:34	29°☿42'57		asc. node	11627 Jun 01 22:11	6°☿59'52	
inferior conj	11626 Jul 07 02:35	24°☿14'24	2°49'23	evening max el	11627 Jun 05 06:20	10°☿49'04	18°56'50
minimum elong	11626 Jul 07 04:43	24°☿08'11	2°48'16	retrograde	11627 Jun 12 00:30	14°☿33'02	
min. Earth dist.	11626 Jul 09 09:53	21°☿33'15	0.64505 AU	evening set	11627 Jun 15 10:13	13°☿26'04	
morning rise	11626 Jul 13 01:36	17°☿55'31		inferior conj	11627 Jun 20 22:40	7°☿42'17	3°09'53
desc. node	11626 Jul 18 14:19	15°☿19'48		minimum elong	11627 Jun 20 23:46	7°☿38'49	3°09'01
direct	11626 Jul 19 16:06	15°☿15'49		min. Earth dist.	11627 Jun 22 15:06	5°☿34'22	0.66230 AU
morning max el	11626 Aug 02 08:05	23°☿15'43	27°25'59	morning rise	11627 Jun 26 12:39	1°☿20'12	
	11626 Aug 08 07:47	0°☿			11627 Jun 28 07:30	30°☿☿	
	11626 Aug 28 10:16	0°☿		direct	11627 Jul 02 20:05	28°☿37'32	
morning set	11626 Sep 06 14:24	16°☿56'32		desc. node	11627 Jul 05 11:30	29°☿02'09	
max. Earth dist.	11626 Sep 11 05:34	26°☿17'40	1.33046 AU		11627 Jul 07 19:24	0°☿	
asc. node	11626 Sep 11 01:41	25°☿57'35		morning max el	11627 Jul 15 18:54	6°☿20'20	26°27'20
	11626 Sep 13 00:06	0°☿			11627 Aug 03 00:53	0°☿	
superior conj	11626 Sep 14 18:20	3°☿44'10	0°35'26	morning set	11627 Aug 20 17:15	29°☿53'43	
minimum elong	11626 Sep 14 16:42	3°☿35'25	0°35'05		11627 Aug 20 18:35	0°☿	
evening rise	11626 Sep 21 19:49	18°☿55'40		max. Earth dist.	11627 Aug 24 16:40	7°☿32'25	1.34620 AU
	11626 Sep 27 05:11	0°☿		asc. node	11627 Aug 28 22:24	16°☿03'43	
evening max el	11626 Oct 13 12:03	24°☿23'05	22°29'24	superior conj	11627 Aug 29 16:30	17°☿36'47	0°07'19
desc. node	11626 Oct 14 11:24	25°☿18'07		minimum elong	11627 Aug 29 16:06	17°☿34'45	0°07'01
	11626 Oct 21 19:55	0°☿		behind sun begin	11627 Aug 29 10:46	17°☿07'16	
retrograde	11626 Oct 26 11:22	0°☿50'00		behind sun end	11627 Aug 29 21:27	18°☿02'17	
evening set	11626 Oct 30 00:16	0°☿22'31			11627 Sep 04 14:37	0°☿	
	11626 Oct 31 06:57	30°☿☿		evening rise	11627 Sep 06 05:07	3°☿21'29	
min. Earth dist.	11626 Nov 06 19:26	26°☿53'19	0.54844 AU		11627 Sep 21 04:10	0°☿	
inferior conj	11626 Nov 07 17:12	26°☿22'31	-5°43'52	evening max el	11627 Sep 25 07:14	4°☿46'20	20°56'26
minimum elong	11626 Nov 07 13:00	26°☿28'28	5°42'56	desc. node	11627 Oct 01 08:46	9°☿14'00	
morning rise	11626 Nov 16 03:13	22°☿34'57		retrograde	11627 Oct 06 22:29	10°☿32'48	
direct	11626 Nov 19 09:33	22°☿10'48		evening set	11627 Oct 09 07:08	10°☿19'33	
morning max el	11626 Dec 01 02:14	27°☿43'35	21°16'46	inferior conj	11627 Oct 18 09:03	6°☿24'51	-4°46'37
	11626 Dec 03 07:18	0°☿		minimum elong	11627 Oct 17 23:15	6°☿38'45	4°43'48
asc. node	11626 Dec 08 02:25	6°☿10'54		min. Earth dist.	11627 Oct 19 02:43	5°☿59'48	0.54602 AU
morning set	11626 Dec 21 01:53	29°☿56'19		morning rise	11627 Oct 26 15:34	2°☿30'45	

direct	11627 Oct 30 17:46	1°♍54'47			11628 Nov 02 21:55	0°♍	
morning max el	11627 Nov 12 17:51	8°♍10'27	22°59'27	asc. node	11628 Nov 10 20:17	13°♍04'21	
asc. node	11627 Nov 24 23:23	24°♍18'08		morning set	11628 Nov 19 01:05	29°♍29'34	
	11627 Nov 28 04:50	0°♌			11628 Nov 19 06:45	0°♌	
morning set	11627 Dec 05 13:13	14°♌43'46					
				superior conj	11628 Nov 25 20:38	14°♌23'40	1°39'03
superior conj	11627 Dec 12 12:10	29°♌42'09	1°37'03	minimum elong	11628 Nov 25 20:24	14°♌22'27	1°39'45
minimum elong	11627 Dec 12 13:06	29°♌47'08	1°37'47	max. Earth dist.	11628 Nov 27 17:48	18°♌30'27	1.32346 AU
	11627 Dec 12 15:30	0°♋		evening rise	11628 Dec 03 03:49	29°♌57'58	
max. Earth dist.	11627 Dec 15 16:21	6°♋25'41	1.33573 AU		11628 Dec 03 04:13	0°♋	
evening rise	11627 Dec 20 09:11	15°♋58'52		desc. node	11628 Dec 14 03:51	20°♋38'27	
	11627 Dec 27 21:23	0°♊			11628 Dec 19 22:28	0°♊	
desc. node	11627 Dec 28 06:52	0°♊41'40		evening max el	11629 Jan 05 09:37	20°♊48'00	27°31'55
	11628 Jan 16 22:15	0°♑		retrograde	11629 Jan 19 04:14	28°♊09'11	
evening max el	11628 Jan 23 22:00	7°♑39'52	27°15'20	evening set	11629 Jan 26 03:20	25°♊43'50	
retrograde	11628 Feb 06 09:59	15°♑04'04		min. Earth dist.	11629 Jan 29 21:24	22°♊35'13	0.63089 AU
evening set	11628 Feb 13 03:36	12°♑31'47		inferior conj	11629 Feb 01 16:19	19°♊50'26	-1°41'00
min. Earth dist.	11628 Feb 17 01:03	8°♑53'35	0.64936 AU	minimum elong	11629 Feb 01 19:39	19°♊42'13	1°39'05
inferior conj	11628 Feb 19 09:13	6°♑19'21	-0°30'07	asc. node	11629 Feb 06 19:13	15°♊30'18	
minimum elong	11628 Feb 19 10:06	6°♑16'54	0°29'23	morning rise	11629 Feb 08 14:16	14°♊37'33	
asc. node	11628 Feb 20 21:55	4°♑40'30		direct	11629 Feb 10 22:16	14°♊11'43	
morning rise	11628 Feb 25 18:16	0°♑50'28		morning max el	11629 Feb 17 12:05	17°♊33'49	17°46'43
direct	11628 Feb 28 09:26	0°♑14'02			11629 Feb 26 11:42	0°♑	
morning max el	11628 Mar 05 18:21	3°♑33'39	17°56'34	morning set	11629 Mar 05 16:33	12°♑19'33	
morning set	11628 Mar 23 09:43	29°♑48'44		desc. node	11629 Mar 12 04:35	23°♑31'55	
	11628 Mar 23 12:26	0°♐			11629 Mar 16 00:42	0°♐	
desc. node	11628 Mar 25 07:56	2°♐59'48					
				superior conj	11629 Mar 17 20:37	3°♐02'10	-0°42'13
superior conj	11628 Apr 06 11:31	22°♐41'40	-1°23'17	minimum elong	11629 Mar 17 16:17	2°♐44'16	0°41'32
minimum elong	11628 Apr 06 02:54	22°♐07'26	1°22'30	max. Earth dist.	11629 Mar 24 03:48	13°♐15'55	1.44392 AU
max. Earth dist.	11628 Apr 10 09:24	28°♐52'33	1.45412 AU	evening rise	11629 Apr 02 00:07	27°♐07'37	
	11628 Apr 11 02:35	0°♏			11629 Apr 03 21:05	0°♏	
evening rise	11628 Apr 22 12:30	17°♏42'00			11629 Apr 24 12:42	0°♏	
	11628 Apr 30 13:52	0°♎		evening max el	11629 May 01 12:22	8°♎18'19	20°52'20
greatest brilliancy	11628 May 06 20:06	9°♎20'53	-0.6m	asc. node	11629 May 05 16:34	11°♎47'19	
evening max el	11628 May 18 12:13	24°♎33'06	19°47'37	retrograde	11629 May 09 21:26	13°♎11'23	
asc. node	11628 May 18 19:21	24°♎50'49		evening set	11629 May 14 02:04	11°♎32'04	
retrograde	11628 May 25 22:37	28°♎47'04		inferior conj	11629 May 19 08:30	5°♎21'54	3°09'30
evening set	11628 May 29 17:24	27°♎23'52		minimum elong	11629 May 19 07:29	5°♎25'25	3°08'45
inferior conj	11628 Jun 04 01:29	21°♎26'04	3°15'47	min. Earth dist.	11629 May 19 20:23	4°♎40'45	0.68361 AU
minimum elong	11628 Jun 04 01:27	21°♎26'09	3°15'03		11629 May 23 13:53	30°♎♌	
min. Earth dist.	11628 Jun 05 03:13	19°♎59'52	0.67527 AU	morning rise	11629 May 24 12:41	29°♎04'35	
morning rise	11628 Jun 09 09:10	15°♎05'09		direct	11629 May 29 21:00	26°♎43'16	
direct	11628 Jun 15 06:03	12°♎29'24			11629 Jun 06 04:29	0°♎	
desc. node	11628 Jun 21 08:37	14°♎40'30		desc. node	11629 Jun 08 05:37	1°♎46'53	
morning max el	11628 Jun 27 05:02	19°♎39'37	25°08'49	morning max el	11629 Jun 09 14:59	3°♎08'07	23°40'18
	11628 Jul 06 00:26	0°♍			11629 Jun 30 03:10	0°♍	
	11628 Jul 26 03:50	0°♌		morning set	11629 Jul 14 18:19	23°♍18'42	
morning set	11628 Aug 02 04:10	12°♌05'00		max. Earth dist.	11629 Jul 18 15:59	0°♌02'49	1.38900 AU
max. Earth dist.	11628 Aug 05 18:30	18°♌38'12	1.36629 AU		11629 Jul 18 15:21	0°♌	
	11628 Aug 11 17:04	0°♎					
				superior conj	11629 Jul 26 04:14	13°♌41'43	-0°58'29
superior conj	11628 Aug 12 05:01	0°♎58'50	-0°24'36	minimum elong	11629 Jul 26 08:18	14°♌00'46	0°58'24
minimum elong	11628 Aug 12 06:35	1°♎06'38	0°24'43	asc. node	11629 Aug 01 15:54	26°♌08'11	
asc. node	11628 Aug 14 19:08	6°♎08'26			11629 Aug 03 15:25	0°♎	
evening rise	11628 Aug 20 10:13	17°♎32'56		evening rise	11629 Aug 04 08:25	1°♎22'53	
	11628 Aug 26 19:16	0°♎		evening max el	11629 Aug 20 13:32	27°♎43'40	18°48'30
evening max el	11628 Sep 06 15:54	15°♎51'29	19°41'44		11629 Aug 23 06:21	0°♎	
retrograde	11628 Sep 16 14:57	20°♎49'00		retrograde	11629 Aug 28 23:37	1°♎56'38	
desc. node	11628 Sep 17 06:10	20°♎47'52		evening set	11629 Aug 30 21:31	1°♎44'23	
evening set	11628 Sep 18 11:54	20°♎39'16		desc. node	11629 Sep 04 03:33	0°♎00'18	
inferior conj	11628 Sep 27 07:59	16°♎36'05	-3°05'39		11629 Sep 04 03:45	30°♎♎	
minimum elong	11628 Sep 26 23:53	16°♎48'43	3°02'37	inferior conj	11629 Sep 08 01:16	27°♎23'41	-1°13'25
min. Earth dist.	11628 Sep 29 12:23	15°♎14'30	0.55300 AU	minimum elong	11629 Sep 07 22:12	27°♎29'14	1°12'18
morning rise	11628 Oct 05 10:04	12°♎15'35		min. Earth dist.	11629 Sep 11 03:01	25°♎10'50	0.56810 AU
direct	11628 Oct 10 08:07	11°♎22'09		morning rise	11629 Sep 15 19:32	22°♎25'40	
morning max el	11628 Oct 24 04:32	18°♎15'12	24°47'11	direct	11629 Sep 21 11:56	21°♎07'38	



morning max el	11629 Oct 05 18:16	28° $\text{M}$ 31'12	26°22'00	morning rise	11630 Aug 27 23:13	3° $\text{M}$ 23'46	
	11629 Oct 07 05:49	0° $\text{L}$		direct	11630 Sep 03 06:12	1° $\text{M}$ 36'45	
	11629 Oct 27 12:01	0° $\text{M}$		morning max el	11630 Sep 17 14:51	9° $\text{M}$ 22'33	27°28'02
asc. node	11629 Oct 28 17:05	2° $\text{M}$ 19'29			11630 Oct 03 10:19	0° $\text{L}$	
morning set	11629 Nov 03 11:42	14° $\text{M}$ 08'41		asc. node	11630 Oct 15 13:49	21° $\text{L}$ 55'50	
				morning set	11630 Oct 18 19:27	28° $\text{L}$ 36'39	
					11630 Oct 19 11:09	0° $\text{M}$	
superior conj	11629 Nov 10 07:40	29° $\text{M}$ 09'43	1°35'01				
minimum elong	11629 Nov 10 06:27	29° $\text{M}$ 02'56	1°35'33				
	11629 Nov 10 16:43	0° $\text{L}$		superior conj	11630 Oct 25 19:24	13° $\text{M}$ 54'50	1°25'18
max. Earth dist.	11629 Nov 11 00:42	0° $\text{L}$ 44'21	1.31600 AU	minimum elong	11630 Oct 25 17:28	13° $\text{M}$ 44'04	1°25'33
evening rise	11629 Nov 17 05:55	14° $\text{L}$ 15'15		max. Earth dist.	11630 Oct 25 09:41	13° $\text{M}$ 00'44	1.31350 AU
	11629 Nov 25 05:01	0° $\text{L}$		evening rise	11630 Nov 01 13:07	28° $\text{M}$ 44'51	
desc. node	11629 Dec 01 00:55	10° $\text{L}$ 08'04			11630 Nov 02 03:13	0° $\text{L}$	
	11629 Dec 15 11:44	0° $\text{M}$		desc. node	11630 Nov 17 22:04	29° $\text{L}$ 00'00	
evening max el	11629 Dec 18 16:49	3° $\text{M}$ 16'51	27°16'20		11630 Nov 18 13:58	0° $\text{L}$	
retrograde	11630 Jan 01 14:39	10° $\text{M}$ 31'27		evening max el	11630 Nov 30 17:11	14° $\text{L}$ 57'01	26°26'26
evening set	11630 Jan 08 13:10	8° $\text{M}$ 21'41		retrograde	11630 Dec 14 15:50	22° $\text{L}$ 03'20	
min. Earth dist.	11630 Jan 12 07:18	5° $\text{M}$ 35'33	0.61017 AU	evening set	11630 Dec 21 05:04	20° $\text{L}$ 18'27	
inferior conj	11630 Jan 15 09:55	2° $\text{M}$ 53'30	-2°58'19	min. Earth dist.	11630 Dec 25 06:51	17° $\text{L}$ 42'39	0.58882 AU
minimum elong	11630 Jan 15 16:04	2° $\text{M}$ 40'08	2°55'21	inferior conj	11630 Dec 28 10:32	15° $\text{L}$ 19'26	-4°15'29
	11630 Jan 18 23:51	30° $\text{R}$		minimum elong	11630 Dec 28 18:42	15° $\text{L}$ 03'55	4°12'21
morning rise	11630 Jan 22 21:45	27° $\text{L}$ 59'46		morning rise	11631 Jan 05 11:09	10° $\text{L}$ 47'09	
asc. node	11630 Jan 24 16:28	27° $\text{L}$ 41'29		direct	11631 Jan 07 13:36	10° $\text{L}$ 31'50	
direct	11630 Jan 25 01:03	27° $\text{L}$ 40'57		asc. node	11631 Jan 11 13:38	11° $\text{L}$ 30'32	
	11630 Jan 30 18:04	0° $\text{M}$		morning max el	11631 Jan 15 14:10	14° $\text{L}$ 28'36	18°23'02
morning max el	11630 Feb 01 03:55	1° $\text{M}$ 15'32	17°55'03		11631 Jan 26 05:09	0° $\text{M}$	
morning set	11630 Feb 16 18:33	25° $\text{M}$ 43'46		morning set	11631 Jan 31 10:05	9° $\text{M}$ 44'48	
	11630 Feb 19 02:46	0° $\text{L}$					
superior conj	11630 Feb 27 06:28	14° $\text{L}$ 32'31	-0°01'42	superior conj	11631 Feb 09 14:32	27° $\text{M}$ 04'40	0°33'19
minimum elong	11630 Feb 27 06:20	14° $\text{L}$ 31'58	0°01'25	minimum elong	11631 Feb 09 16:48	27° $\text{M}$ 15'05	0°33'25
behind sun begin	11630 Feb 26 22:09	13° $\text{L}$ 56'21			11631 Feb 11 05:02	0° $\text{L}$	
behind sun end	11630 Feb 27 14:31	15° $\text{L}$ 07'30		desc. node	11631 Feb 13 21:55	4° $\text{L}$ 50'00	
desc. node	11630 Feb 27 01:14	14° $\text{L}$ 09'46		max. Earth dist.	11631 Feb 17 02:59	10° $\text{L}$ 25'09	1.40742 AU
max. Earth dist.	11630 Mar 06 17:53	27° $\text{L}$ 10'33	1.42773 AU	evening rise	11631 Feb 21 13:58	17° $\text{L}$ 54'30	
	11630 Mar 08 11:21	0° $\text{L}$			11631 Mar 01 03:59	0° $\text{L}$	
evening rise	11630 Mar 12 21:26	7° $\text{L}$ 04'34			11631 Mar 22 15:12	0° $\text{L}$	
	11630 Mar 28 02:25	0° $\text{L}$		evening max el	11631 Mar 27 22:21	5° $\text{L}$ 52'13	23°27'44
evening max el	11630 Apr 14 07:09	22° $\text{L}$ 03'55	22°07'25	retrograde	11631 Apr 07 14:14	12° $\text{L}$ 09'30	
asc. node	11630 Apr 22 13:49	27° $\text{L}$ 33'13		asc. node	11631 Apr 09 11:06	11° $\text{L}$ 53'06	
retrograde	11630 Apr 23 19:10	27° $\text{L}$ 40'22		evening set	11631 Apr 12 17:00	10° $\text{L}$ 00'51	
evening set	11630 Apr 28 10:27	25° $\text{L}$ 45'42		min. Earth dist.	11631 Apr 17 13:15	4° $\text{L}$ 19'46	0.68650 AU
inferior conj	11630 May 03 17:31	19° $\text{L}$ 25'26	2°52'32	inferior conj	11631 Apr 18 02:39	3° $\text{L}$ 33'41	2°25'41
minimum elong	11630 May 03 15:46	19° $\text{L}$ 31'32	2°51'42	minimum elong	11631 Apr 18 00:31	3° $\text{L}$ 41'01	2°24'46
min. Earth dist.	11630 May 03 16:27	19° $\text{L}$ 29'10	0.68732 AU		11631 Apr 20 19:48	30° $\text{R}$	
morning rise	11630 May 08 20:57	13° $\text{L}$ 13'20		morning rise	11631 Apr 23 07:58	27° $\text{L}$ 28'06	
direct	11630 May 13 16:01	11° $\text{L}$ 11'04		direct	11631 Apr 27 13:57	25° $\text{L}$ 47'00	
morning max el	11630 May 23 02:59	16° $\text{L}$ 44'10	22°11'17		11631 May 05 07:43	0° $\text{L}$	
desc. node	11630 May 26 02:31	19° $\text{L}$ 57'22		morning max el	11631 May 05 20:14	0° $\text{L}$ 30'31	20°49'37
	11630 Jun 03 00:17	0° $\text{L}$		desc. node	11631 May 12 23:23	8° $\text{L}$ 54'51	
	11630 Jun 23 04:24	0° $\text{L}$			11631 May 27 17:08	0° $\text{L}$	
morning set	11630 Jun 25 07:17	3° $\text{L}$ 23'56		morning set	11631 Jun 04 19:24	12° $\text{L}$ 23'28	
max. Earth dist.	11630 Jun 30 15:11	12° $\text{L}$ 09'57	1.41178 AU	max. Earth dist.	11631 Jun 12 20:37	25° $\text{L}$ 10'24	1.43198 AU
					11631 Jun 15 19:35	0° $\text{L}$	
superior conj	11630 Jul 08 09:50	25° $\text{L}$ 35'14	-1°31'18	superior conj	11631 Jun 19 17:27	6° $\text{L}$ 30'25	-1°58'09
minimum elong	11630 Jul 08 16:05	26° $\text{L}$ 03'02	1°31'13	minimum elong	11631 Jun 19 23:48	6° $\text{L}$ 57'11	1°58'26
	11630 Jul 10 20:55	0° $\text{L}$		evening rise	11631 Jul 01 17:09	27° $\text{L}$ 19'09	
evening rise	11630 Jul 18 20:12	14° $\text{L}$ 41'59			11631 Jul 03 05:24	0° $\text{L}$	
asc. node	11630 Jul 19 12:43	15° $\text{L}$ 58'55		asc. node	11631 Jul 06 09:34	5° $\text{L}$ 35'42	
	11630 Jul 27 08:16	0° $\text{L}$		evening max el	11631 Jul 18 08:58	23° $\text{L}$ 18'42	18°04'03
evening max el	11630 Aug 03 20:35	10° $\text{L}$ 16'18	18°16'25	retrograde	11631 Jul 24 23:18	26° $\text{L}$ 42'05	
retrograde	11630 Aug 11 03:16	13° $\text{L}$ 57'02		evening set	11631 Jul 27 11:49	26° $\text{L}$ 12'12	
evening set	11630 Aug 13 07:43	13° $\text{L}$ 37'49		inferior conj	11631 Aug 03 03:17	21° $\text{L}$ 11'18	1°39'07
inferior conj	11630 Aug 20 16:22	8° $\text{L}$ 56'48	0°24'44	minimum elong	11631 Aug 03 05:48	21° $\text{L}$ 05'08	1°37'47
minimum elong	11630 Aug 20 17:12	8° $\text{L}$ 55'02	0°24'05	min. Earth dist.	11631 Aug 06 06:26	18° $\text{L}$ 08'53	0.61139 AU
desc. node	11630 Aug 22 00:53	7° $\text{L}$ 47'28		desc. node	11631 Aug 08 22:14	15° $\text{L}$ 53'28	
min. Earth dist.	11630 Aug 24 00:35	6° $\text{L}$ 08'05	0.58861 AU	morning rise	11631 Aug 09 21:08	15° $\text{L}$ 12'50	

direct	11631 Aug 16 12:22	12° $\Omega$ 59'02		morning rise	11632 Jul 22 11:34	27° $\mathfrak{G}$ 46'42	
morning max el	11631 Aug 30 18:11	20° $\Omega$ 57'42	27°56'44	desc. node	11632 Jul 25 19:33	25° $\mathfrak{G}$ 51'33	
	11631 Sep 07 14:06	0° $\mathfrak{M}$		direct	11632 Jul 29 04:05	25° $\mathfrak{G}$ 13'48	
	11631 Sep 26 10:52	0° $\mathfrak{L}$			11632 Aug 08 13:20	0° $\Omega$	
asc. node	11631 Oct 02 10:32	11° $\mathfrak{L}$ 46'17		morning max el	11632 Aug 12 02:33	3° $\Omega$ 15'47	27°47'08
morning set	11631 Oct 02 22:20	12° $\mathfrak{L}$ 47'05			11632 Sep 01 01:32	0° $\mathfrak{M}$	
max. Earth dist.	11631 Oct 08 17:04	25° $\mathfrak{L}$ 09'03	1.31603 AU	morning set	11632 Sep 15 18:10	26° $\mathfrak{M}$ 34'31	
					11632 Sep 17 10:41	0° $\mathfrak{L}$	
superior conj	11631 Oct 10 05:56	28° $\mathfrak{L}$ 32'15	1°10'05	asc. node	11632 Sep 18 07:15	1° $\mathfrak{L}$ 45'58	
minimum elong	11631 Oct 10 03:42	28° $\mathfrak{L}$ 19'50	1°10'02	max. Earth dist.	11632 Sep 20 19:06	7° $\mathfrak{L}$ 00'07	1.32374 AU
	11631 Oct 10 21:48	0° $\mathfrak{M}$					
evening rise	11631 Oct 16 23:19	13° $\mathfrak{M}$ 19'56		superior conj	11632 Sep 23 13:25	12° $\mathfrak{L}$ 56'34	0°49'33
	11631 Oct 25 05:41	0° $\mathfrak{X}$		minimum elong	11632 Sep 23 11:23	12° $\mathfrak{L}$ 45'30	0°49'16
desc. node	11631 Nov 04 19:16	16° $\mathfrak{X}$ 58'43		evening rise	11632 Sep 30 10:40	27° $\mathfrak{L}$ 55'23	
evening max el	11631 Nov 12 09:27	25° $\mathfrak{X}$ 45'57	25°06'09		11632 Oct 01 10:02	0° $\mathfrak{M}$	
	11631 Nov 17 17:56	0° $\mathfrak{Z}$			11632 Oct 18 13:41	0° $\mathfrak{X}$	
retrograde	11631 Nov 26 05:32	2° $\mathfrak{Z}$ 42'21		desc. node	11632 Oct 21 16:33	3° $\mathfrak{X}$ 44'03	
evening set	11631 Dec 01 22:26	1° $\mathfrak{Z}$ 29'03		evening max el	11632 Oct 23 20:04	5° $\mathfrak{X}$ 57'21	23°27'31
	11631 Dec 04 21:40	30° $\mathfrak{R}$ $\mathfrak{X}$		retrograde	11632 Nov 06 06:14	12° $\mathfrak{X}$ 38'40	
min. Earth dist.	11631 Dec 06 21:27	28° $\mathfrak{X}$ 47'05	0.56914 AU	evening set	11632 Nov 10 15:50	11° $\mathfrak{X}$ 56'36	
inferior conj	11631 Dec 09 15:11	26° $\mathfrak{X}$ 58'56	-5°19'33	min. Earth dist.	11632 Nov 17 05:59	8° $\mathfrak{X}$ 49'55	0.55398 AU
minimum elong	11631 Dec 09 22:18	26° $\mathfrak{X}$ 47'13	5°17'34	inferior conj	11632 Nov 18 23:43	7° $\mathfrak{X}$ 48'46	-5°50'02
morning rise	11631 Dec 18 00:23	22° $\mathfrak{X}$ 48'33		minimum elong	11632 Nov 19 00:33	7° $\mathfrak{X}$ 47'33	5°49'21
direct	11631 Dec 20 08:10	22° $\mathfrak{X}$ 32'59		morning rise	11632 Nov 27 11:01	3° $\mathfrak{X}$ 56'30	
asc. node	11631 Dec 29 10:45	26° $\mathfrak{X}$ 51'30		direct	11632 Nov 30 07:36	3° $\mathfrak{X}$ 36'39	
morning max el	11631 Dec 29 14:49	27° $\mathfrak{X}$ 01'14	19°12'35	morning max el	11632 Dec 11 02:28	8° $\mathfrak{X}$ 43'53	20°25'10
	11632 Jan 01 07:57	0° $\mathfrak{Z}$		asc. node	11632 Dec 15 07:50	13° $\mathfrak{X}$ 29'37	
morning set	11632 Jan 15 10:48	24° $\mathfrak{Z}$ 09'34			11632 Dec 25 07:55	0° $\mathfrak{Z}$	
	11632 Jan 18 09:08	0° $\mathfrak{A}$		morning set	11632 Dec 29 17:30	8° $\mathfrak{Z}$ 48'46	
superior conj	11632 Jan 23 16:06	10° $\mathfrak{A}$ 24'54	1°00'50	superior conj	11633 Jan 06 06:40	24° $\mathfrak{Z}$ 20'44	1°20'36
minimum elong	11632 Jan 23 19:04	10° $\mathfrak{A}$ 39'14	1°01'02	minimum elong	11633 Jan 06 09:14	24° $\mathfrak{Z}$ 33'40	1°21'03
max. Earth dist.	11632 Jan 30 09:22	22° $\mathfrak{A}$ 59'30	1.38525 AU		11633 Jan 09 02:32	0° $\mathfrak{A}$	
desc. node	11632 Jan 31 18:38	25° $\mathfrak{A}$ 28'39		max. Earth dist.	11633 Jan 11 17:05	5° $\mathfrak{A}$ 04'08	1.36366 AU
evening rise	11632 Feb 03 03:51	29° $\mathfrak{A}$ 39'57		evening rise	11633 Jan 15 12:59	12° $\mathfrak{A}$ 14'24	
	11632 Feb 03 08:29	0° $\mathfrak{H}$		desc. node	11633 Jan 17 15:24	16° $\mathfrak{A}$ 01'57	
	11632 Feb 22 12:24	0° $\mathfrak{Y}$			11633 Jan 25 21:32	0° $\mathfrak{H}$	
evening max el	11632 Mar 09 12:06	19° $\mathfrak{Y}$ 43'37	24°46'56		11633 Feb 16 15:43	0° $\mathfrak{Y}$	
retrograde	11632 Mar 21 05:30	26° $\mathfrak{Y}$ 33'35		evening max el	11633 Feb 20 01:37	3° $\mathfrak{Y}$ 33'51	25°57'51
asc. node	11632 Mar 26 08:25	24° $\mathfrak{Y}$ 37'00		retrograde	11633 Mar 04 15:56	10° $\mathfrak{Y}$ 45'51	
evening set	11632 Mar 26 20:13	24° $\mathfrak{Y}$ 13'00		evening set	11633 Mar 10 18:25	8° $\mathfrak{Y}$ 16'30	
min. Earth dist.	11632 Mar 31 08:31	19° $\mathfrak{Y}$ 07'28	0.68129 AU	asc. node	11633 Mar 13 05:48	5° $\mathfrak{Y}$ 50'55	
inferior conj	11632 Apr 01 10:01	17° $\mathfrak{Y}$ 42'57	1°49'10	min. Earth dist.	11633 Mar 15 00:03	3° $\mathfrak{Y}$ 46'04	0.67192 AU
minimum elong	11632 Apr 01 07:56	17° $\mathfrak{Y}$ 49'52	1°48'20	inferior conj	11633 Mar 16 13:39	1° $\mathfrak{Y}$ 48'28	1°02'52
morning rise	11632 Apr 06 19:51	11° $\mathfrak{Y}$ 45'23		minimum elong	11633 Mar 16 12:10	1° $\mathfrak{Y}$ 53'06	1°02'22
direct	11632 Apr 10 13:27	10° $\mathfrak{Y}$ 25'23			11633 Mar 18 00:58	30° $\mathfrak{R}$ $\mathfrak{H}$	
morning max el	11632 Apr 17 21:04	14° $\mathfrak{Y}$ 29'08	19°40'43	morning rise	11633 Mar 22 06:35	26° $\mathfrak{H}$ 00'33	
desc. node	11632 Apr 28 20:09	28° $\mathfrak{Y}$ 26'36		direct	11633 Mar 25 12:48	25° $\mathfrak{H}$ 00'00	
	11632 Apr 29 21:58	0° $\mathfrak{B}$		morning max el	11633 Apr 01 05:27	28° $\mathfrak{H}$ 36'49	18°47'11
greatest brilliancy	11632 Apr 30 14:56	1° $\mathfrak{B}$ 01'55	-0.6m		11633 Apr 02 13:25	0° $\mathfrak{Y}$	
morning set	11632 May 13 19:15	20° $\mathfrak{B}$ 55'27		desc. node	11633 Apr 15 16:52	18° $\mathfrak{Y}$ 22'47	
	11632 May 19 15:59	0° $\mathfrak{I}$		morning set	11633 Apr 23 05:20	0° $\mathfrak{B}$ 03'25	
max. Earth dist.	11632 May 25 09:28	8° $\mathfrak{I}$ 59'47	1.44719 AU		11633 Apr 23 04:27	0° $\mathfrak{B}$	
				max. Earth dist.	11633 May 08 03:20	23° $\mathfrak{B}$ 20'12	1.45571 AU
superior conj	11632 May 30 01:05	16° $\mathfrak{I}$ 25'04	-2°12'28	superior conj	11633 May 09 13:15	25° $\mathfrak{B}$ 33'02	-2°08'07
minimum elong	11632 May 30 03:11	16° $\mathfrak{I}$ 33'31	2°13'09	minimum elong	11633 May 09 07:49	25° $\mathfrak{B}$ 11'47	2°08'29
	11632 Jun 07 08:29	0° $\mathfrak{G}$			11633 May 12 09:14	0° $\mathfrak{I}$	
evening rise	11632 Jun 12 18:24	9° $\mathfrak{G}$ 03'59					
asc. node	11632 Jun 22 06:31	24° $\mathfrak{G}$ 53'35		evening rise	11633 May 24 20:00	19° $\mathfrak{I}$ 48'39	
	11632 Jun 25 14:28	0° $\Omega$		greatest brilliancy	11633 May 30 21:44	29° $\mathfrak{I}$ 34'35	-0.9m
evening max el	11632 Jun 30 23:02	6° $\Omega$ 42'02	18°10'25		11633 May 31 04:05	0° $\mathfrak{G}$	
retrograde	11632 Jul 07 07:35	10° $\Omega$ 02'47		asc. node	11633 Jun 09 03:34	13° $\mathfrak{G}$ 45'11	
evening set	11632 Jul 10 04:13	9° $\Omega$ 19'38		evening max el	11633 Jun 14 11:39	20° $\mathfrak{G}$ 17'46	18°34'50
inferior conj	11632 Jul 16 06:12	4° $\Omega$ 00'28	2°29'41	retrograde	11633 Jun 20 23:54	23° $\mathfrak{G}$ 49'46	
minimum elong	11632 Jul 16 08:44	3° $\Omega$ 53'27	2°28'24	evening set	11633 Jun 24 04:43	22° $\mathfrak{G}$ 51'44	
min. Earth dist.	11632 Jul 18 21:33	1° $\Omega$ 06'34	0.63352 AU	inferior conj	11633 Jun 29 21:04	17° $\mathfrak{G}$ 16'14	3°00'02
	11632 Jul 19 23:25	30° $\mathfrak{R}$ $\mathfrak{G}$		minimum elong	11633 Jun 29 22:47	17° $\mathfrak{G}$ 11'00	2°59'02

min. Earth dist.	11633 Jul 01 21:57	14°☿48'10	0.65291 AU	inferior conj	11634 Jun 13 20:23	0°☿51'40	3°13'58
morning rise	11633 Jul 05 15:55	10°☿55'19		minimum elong	11634 Jun 13 20:59	0°☿49'41	3°13'11
direct	11633 Jul 12 03:49	8°☿13'25			11634 Jun 14 12:12	30°☿II	
desc. node	11633 Jul 12 16:47	8°☿14'26		min. Earth dist.	11634 Jun 15 06:27	29°II00'48	0.66838 AU
morning max el	11633 Jul 25 13:22	16°☿07'25	27°04'06	morning rise	11634 Jun 19 07:19	24°II29'24	
	11633 Aug 06 00:11	0°♊		direct	11634 Jun 25 10:26	21°II48'43	
	11633 Aug 24 21:06	0°♊		desc. node	11634 Jun 29 13:57	22°II49'23	
morning set	11633 Aug 30 04:11	9°♊52'18		morning max el	11634 Jul 08 00:12	29°II20'07	25°55'41
max. Earth dist.	11633 Sep 03 12:26	18°♊28'15	1.33659 AU		11634 Jul 08 15:43	0°☿	
asc. node	11633 Sep 05 03:59	21°♊50'41			11634 Jul 30 20:20	0°♊	
				morning set	11634 Aug 13 00:48	22°♊31'19	
superior conj	11633 Sep 07 15:41	27°♊02'10	0°24'01	max. Earth dist.	11634 Aug 16 19:18	29°♊36'32	1.35427 AU
minimum elong	11633 Sep 07 14:29	26°♊55'50	0°23'41		11634 Aug 17 00:11	0°♊	
	11633 Sep 09 01:17	0°♊					
evening rise	11633 Sep 14 21:17	12°♊26'09		superior conj	11634 Aug 22 10:06	10°♊42'13	-0°05'53
	11633 Sep 23 19:26	0°♊		minimum elong	11634 Aug 22 10:28	10°♊44'04	0°06'08
evening max el	11633 Oct 05 09:15	16°♊04'43	21°48'02	behind sun begin	11634 Aug 22 04:46	10°♊15'17	
desc. node	11633 Oct 08 13:53	18°♊50'08		behind sun end	11634 Aug 22 16:09	11°♊12'55	
retrograde	11633 Oct 17 20:31	22°♊16'53		asc. node	11634 Aug 23 00:42	11°♊56'24	
evening set	11633 Oct 20 19:52	21°♊56'57		evening rise	11634 Aug 30 05:06	26°♊46'19	
inferior conj	11633 Oct 29 18:05	18°♊00'29	-5°26'33		11634 Aug 31 18:54	0°♊	
minimum elong	11633 Oct 29 10:41	18°♊10'50	5°24'52	evening max el	11634 Sep 17 09:47	26°♊43'21	20°22'06
min. Earth dist.	11633 Oct 29 12:38	18°♊08'06	0.54620 AU		11634 Sep 21 10:26	0°♊	
morning rise	11633 Nov 07 02:44	14°♊13'06		desc. node	11634 Sep 25 11:16	1°♊47'36	
direct	11633 Nov 10 17:16	13°♊44'44		retrograde	11634 Sep 28 08:37	2°♊09'47	
morning max el	11633 Nov 23 00:30	19°♊35'35	21°59'02	evening set	11634 Sep 30 09:58	1°♊59'07	
	11633 Dec 01 11:01	0°♊			11634 Oct 05 22:57	30°☿♊	
asc. node	11633 Dec 02 04:51	1°♊08'37		inferior conj	11634 Oct 09 11:10	28°♊02'19	-4°07'20
morning set	11633 Dec 14 03:46	23°♊35'23		minimum elong	11634 Oct 09 01:18	28°♊16'46	4°04'04
	11633 Dec 17 04:17	0°☿		min. Earth dist.	11634 Oct 10 20:52	27°♊12'55	0.54776 AU
				morning rise	11634 Oct 17 15:57	23°♊58'47	
superior conj	11633 Dec 21 06:30	8°☿41'39	1°33'01	direct	11634 Oct 22 02:24	23°♊16'21	
minimum elong	11633 Dec 21 08:06	8°☿50'01	1°33'40	morning max el	11634 Nov 04 13:08	29°♊49'32	23°45'51
max. Earth dist.	11633 Dec 25 06:15	16°☿57'01	1.34471 AU		11634 Nov 04 17:33	0°♊	
evening rise	11633 Dec 29 13:55	25°☿29'10		asc. node	11634 Nov 19 01:46	19°♊33'24	
	11633 Dec 31 23:12	0°♊			11634 Nov 24 14:42	0°♊	
desc. node	11634 Jan 04 12:15	6°♊25'43		morning set	11634 Nov 28 15:30	8°♊22'22	
	11634 Jan 19 08:33	0°♊					
evening max el	11634 Feb 02 15:09	17°♊16'14	26°53'13	superior conj	11634 Dec 05 12:30	23°♊17'27	1°38'40
retrograde	11634 Feb 15 20:54	24°♊39'25		minimum elong	11634 Dec 05 12:56	23°♊19'48	1°39'23
evening set	11634 Feb 22 09:46	22°♊06'05		max. Earth dist.	11634 Dec 08 03:04	28°♊53'41	1.32982 AU
min. Earth dist.	11634 Feb 26 09:45	18°♊09'38	0.65865 AU		11634 Dec 08 15:34	0°☿	
inferior conj	11634 Feb 28 11:23	15°♊45'56	0°06'42	evening rise	11634 Dec 13 02:58	9°☿14'04	
minimum elong	11634 Feb 28 11:12	15°♊46'30	0°06'53	desc. node	11634 Dec 22 09:11	26°☿33'49	
transit middle	11634 Feb 28 11:12	15°♊46'30	0°06'53		11634 Dec 24 09:27	0°♊	
transit begin	11634 Feb 28 08:31	15°♊54'16			11635 Jan 15 11:28	0°♊	
transit end	11634 Feb 28 13:52	15°♊38'44		evening max el	11635 Jan 16 03:52	0°♊39'47	27°26'01
asc. node	11634 Feb 28 03:09	16°♊09'55		retrograde	11635 Jan 29 19:31	8°♊04'23	
morning rise	11634 Mar 06 13:54	10°♊09'38		evening set	11635 Feb 05 15:57	5°♊33'51	
direct	11634 Mar 09 10:04	9°♊25'31		min. Earth dist.	11635 Feb 09 11:35	2°♊08'51	0.64181 AU
morning max el	11634 Mar 15 19:40	12°♊48'09	18°10'09		11635 Feb 11 12:41	30°☿♊	
	11634 Mar 28 04:55	0°♊		inferior conj	11635 Feb 12 00:38	29°♊28'21	-0°59'10
desc. node	11634 Apr 02 13:32	8°♊37'00		minimum elong	11635 Feb 12 02:28	29°♊23'30	0°57'56
morning set	11634 Apr 03 17:48	10°♊31'05		asc. node	11635 Feb 15 00:28	26°♊30'37	
	11634 Apr 15 22:32	0°☿		morning rise	11635 Feb 18 14:59	24°♊06'03	
				direct	11635 Feb 21 02:43	23°♊34'45	
superior conj	11634 Apr 18 20:34	4°♊35'22	-1°43'58	morning max el	11635 Feb 27 12:58	26°♊54'26	17°50'12
minimum elong	11634 Apr 18 11:10	3°♊58'31	1°43'28		11635 Mar 02 06:41	0°♊	
max. Earth dist.	11634 Apr 20 23:05	7°♊53'12	1.45685 AU	morning set	11635 Mar 16 10:36	22°♊21'19	
evening rise	11634 May 04 22:38	29°♊39'00		desc. node	11635 Mar 20 10:10	29°♊03'30	
	11634 May 05 04:02	0°♊			11635 Mar 20 23:41	0°♊	
greatest brilliancy	11634 May 16 20:44	18°II00'37	-0.7m				
	11634 May 25 08:28	0°☿		superior conj	11635 Mar 29 16:50	14°♊18'39	-1°06'17
asc. node	11634 May 27 00:40	2°☿01'28		minimum elong	11635 Mar 29 09:48	13°♊50'19	1°05'28
evening max el	11634 May 28 20:25	3°☿59'47	19°16'27	max. Earth dist.	11635 Apr 03 18:10	22°♊22'37	1.45060 AU
retrograde	11634 Jun 04 20:45	7°☿55'36			11635 Apr 08 14:53	0°♊	
evening set	11634 Jun 08 10:09	6°☿41'49		evening rise	11635 Apr 14 11:16	9°♊01'42	

	11635 Apr 28 10:02	0°♂		asc. node	11636 Apr 29 19:03	5°♂59'40	
evening max el	11635 May 11 23:51	17°♂44'30	20°13'37	retrograde	11636 May 02 17:49	6°♂41'12	
asc. node	11635 May 13 21:50	19°♂31'07		evening set	11636 May 07 02:53	4°♂55'22	
retrograde	11635 May 19 19:25	22°♂14'29			11636 May 11 10:29	30°♂♂	
evening set	11635 May 23 18:11	20°♂44'38		inferior conj	11636 May 12 09:22	28°♂40'52	3°03'33
inferior conj	11635 May 29 01:16	14°♂41'25	3°14'29	minimum elong	11636 May 12 08:00	28°♂45'36	3°02'46
minimum elong	11635 May 29 00:48	14°♂43'01	3°13'45	min. Earth dist.	11636 May 12 15:43	28°♂18'43	0.68580 AU
min. Earth dist.	11635 May 29 21:05	13°♂33'53	0.67940 AU	morning rise	11636 May 17 12:54	22°♂25'38	
morning rise	11635 Jun 03 07:07	8°♂21'33		direct	11636 May 22 15:44	20°♂11'44	
direct	11635 Jun 08 22:49	5°♂50'58		morning max el	11636 Jun 01 20:15	26°♂14'26	23°01'54
desc. node	11635 Jun 16 11:01	9°♂08'25		desc. node	11636 Jun 02 07:59	26°♂44'24	
morning max el	11635 Jun 20 10:03	12°♂43'48	24°31'40		11636 Jun 05 07:06	0°♂	
	11635 Jul 04 08:03	0°♂			11636 Jun 26 21:00	0°♂	
	11635 Jul 23 15:16	0°♂		morning set	11636 Jul 06 07:19	15°♂05'14	
morning set	11635 Jul 26 03:33	4°♂20'11		max. Earth dist.	11636 Jul 10 15:25	22°♂24'53	1.39890 AU
max. Earth dist.	11635 Jul 29 18:02	10°♂44'55	1.37573 AU		11636 Jul 14 23:23	0°♂	
superior conj	11635 Aug 05 17:28	23°♂49'09	-0°38'52	superior conj	11636 Jul 18 09:45	6°♂12'28	-1°12'47
minimum elong	11635 Aug 05 20:04	24°♂01'43	0°38'54	minimum elong	11636 Jul 18 14:51	6°♂35'52	1°12'39
	11635 Aug 08 21:18	0°♂		asc. node	11636 Jul 26 18:11	21°♂55'51	
asc. node	11635 Aug 09 21:26	1°♂59'37		evening rise	11636 Jul 28 01:51	24°♂27'23	
evening rise	11635 Aug 14 07:39	10°♂49'40			11636 Jul 30 23:49	0°♂	
	11635 Aug 24 17:25	0°♂		evening max el	11636 Aug 13 02:37	20°♂20'15	18°32'20
evening max el	11635 Aug 31 00:26	8°♂09'43	19°16'30	retrograde	11636 Aug 20 23:24	24°♂17'21	
retrograde	11635 Sep 09 06:49	12°♂46'41		evening set	11636 Aug 22 23:57	24°♂02'30	
evening set	11635 Sep 11 03:03	12°♂36'31		desc. node	11636 Aug 29 06:04	20°♂44'09	
desc. node	11635 Sep 12 08:40	12°♂18'55		inferior conj	11636 Aug 30 19:31	19°♂33'08	-0°29'07
inferior conj	11635 Sep 19 17:02	8°♂27'03	-2°17'36	minimum elong	11636 Aug 30 18:22	19°♂35'21	0°28'52
minimum elong	11635 Sep 19 11:00	8°♂37'03	2°15'14	min. Earth dist.	11636 Sep 03 01:44	17°♂02'48	0.57645 AU
min. Earth dist.	11635 Sep 22 08:39	6°♂42'09	0.55856 AU	morning rise	11636 Sep 07 09:20	14°♂19'45	
morning rise	11635 Sep 27 16:16	3°♂51'02		direct	11636 Sep 13 08:49	12°♂49'32	
direct	11635 Oct 02 22:38	2°♂47'33		morning max el	11636 Sep 27 16:24	20°♂22'43	26°54'16
morning max el	11635 Oct 17 00:14	9°♂55'07	25°30'06		11636 Oct 05 23:23	0°♂	
	11635 Nov 01 03:32	0°♂		asc. node	11636 Oct 22 19:23	27°♂57'29	
asc. node	11635 Nov 05 22:37	8°♂32'53			11636 Oct 23 19:56	0°♂	
morning set	11635 Nov 13 02:59	23°♂05'22		morning set	11636 Oct 27 12:34	7°♂39'37	
	11635 Nov 16 07:12	0°♂					
				superior conj	11636 Nov 03 09:48	22°♂47'03	1°31'34
superior conj	11635 Nov 19 22:17	8°♂01'24	1°38'03	minimum elong	11636 Nov 03 08:15	22°♂38'20	1°31'59
minimum elong	11635 Nov 19 21:37	7°♂57'41	1°38'42	max. Earth dist.	11636 Nov 03 15:17	23°♂17'37	1.31437 AU
max. Earth dist.	11635 Nov 21 07:00	11°♂01'41	1.31967 AU		11636 Nov 06 15:49	0°♂	
evening rise	11635 Nov 27 01:05	23°♂21'36		evening rise	11636 Nov 10 05:37	7°♂44'32	
	11635 Nov 30 07:48	0°♂			11636 Nov 21 18:32	0°♂	
desc. node	11635 Dec 09 06:11	16°♂19'43		desc. node	11636 Nov 25 03:18	5°♂34'29	
	11635 Dec 18 03:26	0°♂		evening max el	11636 Dec 10 18:50	25°♂42'05	26°59'20
evening max el	11635 Dec 29 14:00	13°♂32'37	27°29'33		11636 Dec 16 04:07	0°♂	
retrograde	11636 Jan 12 10:41	20°♂51'26		retrograde	11636 Dec 24 17:04	2°♂52'20	
evening set	11636 Jan 19 10:10	18°♂31'53		evening set	11636 Dec 31 12:52	0°♂52'25	
min. Earth dist.	11636 Jan 23 03:47	15°♂33'36	0.62222 AU		11637 Jan 01 22:34	30°♂♂	
inferior conj	11636 Jan 26 02:22	12°♂48'16	-2°13'18	min. Earth dist.	11637 Jan 04 09:12	28°♂12'22	0.60103 AU
minimum elong	11636 Jan 26 06:53	12°♂37'40	2°10'53	inferior conj	11637 Jan 07 13:11	25°♂36'38	-3°31'40
asc. node	11636 Feb 01 21:45	7°♂50'21		minimum elong	11637 Jan 07 20:23	25°♂21'49	3°28'29
morning rise	11636 Feb 02 06:11	7°♂42'54		morning rise	11637 Jan 15 06:42	20°♂51'29	
direct	11636 Feb 04 11:43	7°♂20'32		direct	11637 Jan 17 09:11	20°♂34'28	
morning max el	11636 Feb 11 06:12	10°♂47'08	17°47'55	asc. node	11637 Jan 18 18:58	20°♂42'23	
	11636 Feb 24 02:42	0°♂		morning max el	11637 Jan 24 20:03	24°♂17'17	18°04'29
morning set	11636 Feb 27 02:21	5°♂16'54			11637 Jan 29 11:30	0°♂	
desc. node	11636 Mar 06 06:47	19°♂38'03		morning set	11637 Feb 09 10:45	18°♂58'48	
					11637 Feb 15 09:37	0°♂	
superior conj	11636 Mar 09 12:20	25°♂08'16	-0°24'34	superior conj	11637 Feb 19 08:09	7°♂06'12	0°14'00
minimum elong	11636 Mar 09 09:58	24°♂58'15	0°24'04	minimum elong	11637 Feb 19 09:17	7°♂11'14	0°14'11
	11636 Mar 12 10:11	0°♂		behind sun begin	11637 Feb 19 05:41	6°♂55'14	
max. Earth dist.	11636 Mar 16 10:40	6°♂34'22	1.43769 AU	behind sun end	11637 Feb 19 12:53	7°♂27'13	
evening rise	11636 Mar 24 01:20	18°♂36'46		desc. node	11637 Feb 21 03:26	10°♂17'12	
	11636 Mar 31 12:41	0°♂		max. Earth dist.	11637 Feb 26 23:11	20°♂15'12	1.41947 AU
	11636 Apr 22 11:21	0°♂		evening rise	11637 Mar 04 06:13	28°♂55'12	
evening max el	11636 Apr 23 21:41	1°♂30'13	21°23'21				

	11637 Mar 04 22:24	0°♿				11638 Feb 25 20:07	0°♿		
	11637 Mar 25 02:57	0°♄		evening max el		11638 Mar 20 05:03	29°♿06'26	24°01'55	
evening max el	11637 Apr 06 14:51	15°♄17'35	22°41'17			11638 Mar 21 03:06	0°♄		
retrograde	11637 Apr 16 14:30	21°♄11'24		retrograde		11638 Mar 31 08:08	5°♄39'04		
asc. node	11637 Apr 16 16:20	21°♄11'23		asc. node		11638 Apr 03 13:40	4°♄50'56		
evening set	11637 Apr 21 10:42	19°♄10'27		evening set		11638 Apr 05 16:03	3°♄24'43		
inferior conj	11637 Apr 26 18:40	12°♄46'59	2°42'21			11638 Apr 08 19:51	30°♄♿		
minimum elong	11637 Apr 26 16:42	12°♄53'47	2°41'28	min. Earth dist.		11638 Apr 10 08:36	27°♿59'00	0.68480 AU	
min. Earth dist.	11637 Apr 26 12:16	13°♄09'14	0.68757 AU	inferior conj		11638 Apr 11 03:16	26°♿55'40	2°11'23	
morning rise	11637 May 01 22:36	6°♄37'46		minimum elong		11638 Apr 11 01:06	27°♿03'03	2°10'29	
direct	11637 May 06 12:07	4°♄44'23		morning rise		11638 Apr 16 10:13	20°♿53'32		
morning max el	11637 May 15 10:10	9°♄54'57	21°35'20	direct		11638 Apr 20 10:45	19°♿21'44		
desc. node	11637 May 20 04:51	15°♄16'49		morning max el		11638 Apr 28 06:38	23°♿46'53	20°18'39	
	11637 May 31 02:13	0°♄				11638 May 03 16:21	0°♄		
morning set	11637 Jun 16 09:11	24°♄40'54		desc. node		11638 May 07 01:39	4°♄29'48		
	11637 Jun 19 16:51	0°♄				11638 May 24 09:13	0°♄		
max. Earth dist.	11637 Jun 22 17:43	4°♄57'39	1.42096 AU	morning set		11638 May 26 13:50	3°♄22'18		
				max. Earth dist.		11638 Jun 05 02:30	18°♄20'37	1.43917 AU	
superior conj	11637 Jun 30 06:31	17°♄42'25	-1°43'46			11638 Jun 11 03:55	28°♄11'06	-2°06'09	
minimum elong	11637 Jun 30 13:13	18°♄11'30	1°43'47	superior conj		11638 Jun 11 09:05	28°♄32'26	2°06'39	
	11637 Jul 07 04:54	0°♄		minimum elong		11638 Jun 12 06:16	0°♄		
evening rise	11637 Jul 11 07:56	7°♄30'25				11638 Jun 23 21:11	19°♄47'02		
asc. node	11637 Jul 13 15:01	11°♄41'20		evening rise		11638 Jun 29 19:09	0°♄		
	11637 Jul 24 19:16	0°♄				11638 Jun 30 11:56	1°♄11'05		
evening max el	11637 Jul 27 12:23	3°♄06'23	18°08'40	asc. node		11638 Jun 30 11:56	1°♄11'05		
retrograde	11637 Aug 03 10:43	6°♄38'01		evening max el		11638 Jul 11 01:51	16°♄18'38	18°04'26	
evening set	11637 Aug 05 18:34	6°♄14'36		retrograde		11638 Jul 17 12:42	19°♄39'32		
inferior conj	11637 Aug 12 19:29	1°♄24'31	0°59'23	evening set		11638 Jul 20 04:32	19°♄04'25		
minimum elong	11637 Aug 12 21:17	1°♄20'26	0°58'19	inferior conj		11638 Jul 26 13:47	13°♄55'26	2°03'16	
	11637 Aug 14 08:40	30°♄♄		minimum elong		11638 Jul 26 16:28	13°♄48'31	2°01'54	
min. Earth dist.	11637 Aug 16 02:28	28°♄27'24	0.59829 AU	min. Earth dist.		11638 Jul 29 12:26	10°♄54'01	0.62100 AU	
desc. node	11637 Aug 16 03:27	28°♄25'19		morning rise		11638 Aug 02 02:07	7°♄48'55		
morning rise	11637 Aug 19 20:52	25°♄39'18		desc. node		11638 Aug 03 00:46	7°♄11'18		
direct	11637 Aug 26 08:04	23°♄40'38		direct		11638 Aug 08 18:32	5°♄25'52		
	11637 Sep 08 01:03	0°♄		morning max el		11638 Aug 22 22:13	13°♄27'56	27°57'09	
morning max el	11637 Sep 09 16:08	1°♄32'21	27°45'03			11638 Sep 05 04:31	0°♄		
	11637 Sep 30 06:51	0°♄				11638 Sep 22 18:17	0°♄		
asc. node	11637 Oct 09 16:06	17°♄40'11		morning set		11638 Sep 25 18:45	6°♄02'39		
morning set	11637 Oct 11 18:29	22°♄00'26		asc. node		11638 Sep 26 12:49	7°♄35'26		
	11637 Oct 15 11:57	0°♄		max. Earth dist.		11638 Oct 01 05:55	17°♄35'06	1.31866 AU	
max. Earth dist.	11637 Oct 18 00:15	5°♄32'19	1.31400 AU						
superior conj	11637 Oct 18 21:15	7°♄28'57	1°19'29	superior conj		11638 Oct 03 06:47	22°♄01'55	1°02'00	
minimum elong	11637 Oct 18 19:07	7°♄17'09	1°19'37	minimum elong		11638 Oct 03 04:33	21°♄49'41	1°01'51	
evening rise	11637 Oct 25 14:20	22°♄16'42				11638 Oct 06 21:34	0°♄		
	11637 Oct 29 06:48	0°♄		evening rise		11638 Oct 10 01:18	6°♄52'52		
desc. node	11637 Nov 12 00:29	24°♄05'36				11638 Oct 21 23:45	0°♄		
	11637 Nov 16 08:34	0°♄		desc. node		11638 Oct 29 21:45	11°♄36'23		
evening max el	11637 Nov 22 15:39	6°♄59'03	25°55'24	evening max el		11638 Nov 04 04:39	17°♄28'37	24°25'22	
retrograde	11637 Dec 06 13:20	14°♄01'17		retrograde		11638 Nov 17 22:02	24°♄20'42		
evening set	11637 Dec 12 19:40	12°♄29'01		evening set		11638 Nov 23 02:42	23°♄21'04		
min. Earth dist.	11637 Dec 17 04:19	9°♄53'11	0.58006 AU	min. Earth dist.		11638 Nov 28 15:56	20°♄30'47	0.56190 AU	
inferior conj	11637 Dec 20 05:32	7°♄43'03	-4°45'23	inferior conj		11638 Dec 01 01:23	19°♄01'12	-5°38'02	
minimum elong	11637 Dec 20 13:48	7°♄28'17	4°42'34	minimum elong		11638 Dec 01 06:28	18°♄53'15	5°36'44	
morning rise	11637 Dec 28 10:32	3°♄20'29		morning rise		11638 Dec 09 12:22	14°♄59'46		
direct	11637 Dec 30 14:31	3°♄05'27		direct		11638 Dec 12 00:29	14°♄43'04		
asc. node	11638 Jan 05 16:08	5°♄11'41		morning max el		11638 Dec 21 22:19	19°♄27'05	19°40'43	
morning max el	11638 Jan 08 02:42	7°♄14'04	18°41'30	asc. node		11638 Dec 23 13:14	21°♄07'40		
	11638 Jan 22 15:11	0°♄				11638 Dec 29 23:14	0°♄		
morning set	11638 Jan 24 06:38	3°♄10'56		morning set		11639 Jan 08 10:15	17°♄42'37		
						11639 Jan 14 12:11	0°♄		
superior conj	11638 Feb 02 00:16	20°♄00'23	0°45'56	superior conj		11639 Jan 16 07:56	3°♄37'22	1°10'08	
minimum elong	11638 Feb 02 03:01	20°♄13'14	0°46'04	minimum elong		11639 Jan 16 10:50	3°♄51'37	1°10'26	
	11638 Feb 07 11:19	0°♄		max. Earth dist.		11639 Jan 22 12:55	15°♄30'30	1.37579 AU	
desc. node	11638 Feb 08 00:06	0°♄56'49		desc. node		11639 Jan 25 20:52	21°♄33'35		
max. Earth dist.	11638 Feb 09 07:01	3°♄12'56	1.39800 AU	evening rise		11639 Jan 26 06:18	22°♄15'30		
evening rise	11638 Feb 13 07:49	10°♄08'20				11639 Jan 30 17:47	0°♄		

	11639 Feb 19 16:52	0°♿		evening rise	11640 Jan 08 22:37	5°♿08'08	
evening max el	11639 Mar 02 18:24	12°♿56'53	25°18'32	desc. node	11640 Jan 12 17:41	12°♿03'12	
retrograde	11639 Mar 14 21:38	19°♿58'28			11640 Jan 23 14:00	0°♿	
evening set	11639 Mar 20 17:21	17°♿33'35		evening max el	11640 Feb 13 08:03	26°♿44'54	26°23'52
asc. node	11639 Mar 21 11:02	16°♿53'57			11640 Feb 17 00:30	0°♿	
min. Earth dist.	11639 Mar 25 02:37	12°♿42'58	0.67775 AU	retrograde	11640 Feb 26 05:55	4°♿03'08	
inferior conj	11639 Mar 26 09:18	11°♿03'25	1°30'44	evening set	11640 Mar 03 12:53	1°♿31'40	
minimum elong	11639 Mar 26 07:24	11°♿09'35	1°30'00		11640 Mar 05 05:00	30°♿♿	
morning rise	11639 Mar 31 21:50	5°♿09'41		asc. node	11640 Mar 07 08:23	27°♿38'23	
direct	11639 Apr 04 10:21	3°♿58'25		min. Earth dist.	11640 Mar 07 16:04	27°♿15'36	0.66667 AU
morning max el	11639 Apr 11 10:49	7°♿49'31	19°15'57	inferior conj	11640 Mar 09 10:43	25°♿06'05	0°40'15
desc. node	11639 Apr 23 22:24	24°♿12'25		minimum elong	11640 Mar 09 09:42	25°♿09'12	0°40'00
greatest brilliancy	11639 Apr 24 07:09	24°♿44'58	-0.7m	morning rise	11640 Mar 15 07:24	19°♿22'33	
	11639 Apr 27 18:56	0°♿		direct	11640 Mar 18 09:08	18°♿29'22	
morning set	11639 May 05 15:06	12°♿00'47		morning max el	11640 Mar 24 21:53	21°♿58'58	18°29'20
	11639 May 17 04:51	0°♿			11640 Mar 31 09:45	0°♿	
max. Earth dist.	11639 May 18 17:09	2°♿22'31	1.45162 AU	desc. node	11640 Apr 09 19:04	14°♿16'49	
				morning set	11640 Apr 14 11:19	21°♿39'34	
superior conj	11639 May 22 02:06	7°♿42'13	-2°13'09		11640 Apr 19 18:14	0°♿	
minimum elong	11639 May 22 01:05	7°♿38'11	2°13'49	superior conj	11640 Apr 30 10:00	16°♿41'54	-2°00'06
	11639 Jun 04 20:39	0°♿		minimum elong	11640 Apr 30 02:04	16°♿10'54	2°00'05
evening rise	11639 Jun 05 12:40	1°♿06'05		max. Earth dist.	11640 Apr 30 11:57	16°♿49'31	1.45708 AU
asc. node	11639 Jun 17 08:56	20°♿18'42			11640 May 08 21:57	0°♿	
evening max el	11639 Jun 24 15:39	29°♿48'03	18°18'42	evening rise	11640 May 16 03:54	11°♿25'19	
	11639 Jun 24 20:32	0°♿		greatest brilliancy	11640 May 25 04:39	25°♿39'47	-0.8m
retrograde	11639 Jul 01 00:48	3°♿12'03			11640 May 28 00:10	0°♿	
evening set	11639 Jul 04 00:49	2°♿22'52		asc. node	11640 Jun 03 06:02	8°♿56'43	
inferior conj	11639 Jul 09 22:16	26°♿56'51	2°44'44	evening max el	11640 Jun 07 02:59	13°♿27'37	18°50'37
minimum elong	11639 Jul 10 00:31	26°♿50'20	2°43'35	retrograde	11640 Jun 13 19:18	17°♿07'57	
min. Earth dist.	11639 Jul 12 07:45	24°♿11'48	0.64215 AU	evening set	11640 Jun 17 03:45	16°♿03'16	
morning rise	11639 Jul 15 22:51	20°♿39'03		inferior conj	11640 Jun 22 17:06	10°♿21'35	3°07'42
desc. node	11639 Jul 20 22:03	18°♿10'15		minimum elong	11640 Jun 22 18:22	10°♿17'37	3°06'49
direct	11639 Jul 22 14:06	18°♿00'41		min. Earth dist.	11640 Jun 24 11:43	8°♿08'14	0.66002 AU
morning max el	11639 Aug 05 07:55	26°♿01'38	27°32'26	morning rise	11640 Jun 28 08:17	3°♿59'46	
	11639 Aug 08 23:58	0°♿		direct	11640 Jul 04 17:02	1°♿17'00	
	11639 Aug 29 18:14	0°♿		desc. node	11640 Jul 06 19:14	1°♿32'24	
morning set	11639 Sep 09 10:49	19°♿38'41		morning max el	11640 Jul 17 18:43	9°♿02'52	26°37'33
asc. node	11639 Sep 13 09:31	27°♿37'46			11640 Aug 03 04:51	0°♿	
max. Earth dist.	11639 Sep 14 04:24	29°♿15'54	1.32855 AU	morning set	11640 Aug 21 05:14	0°♿	
	11639 Sep 14 12:51	0°♿		max. Earth dist.	11640 Aug 22 15:36	2°♿41'08	
superior conj	11639 Sep 17 12:21	6°♿19'17	0°39'19	asc. node	11640 Aug 26 17:07	10°♿33'34	1.34360 AU
minimum elong	11639 Sep 17 10:35	6°♿09'48	0°38'59		11640 Aug 30 06:14	17°♿43'29	
evening rise	11639 Sep 24 12:34	21°♿26'52		superior conj	11640 Aug 31 11:38	20°♿15'15	0°11'52
	11639 Sep 28 15:16	0°♿		minimum elong	11640 Aug 31 11:01	20°♿12'00	0°11'32
evening max el	11639 Oct 16 15:15	27°♿33'58	22°44'19	behind sun begin	11640 Aug 31 06:56	19°♿50'49	
desc. node	11639 Oct 16 19:05	27°♿43'15		behind sun end	11640 Aug 31 15:06	20°♿33'12	
	11639 Oct 19 09:47	0°♿			11640 Sep 05 03:02	0°♿	
retrograde	11639 Oct 29 17:54	4°♿04'58		evening rise	11640 Sep 07 22:16	5°♿53'58	
evening set	11639 Nov 02 12:03	3°♿34'10			11640 Sep 20 23:51	0°♿	
min. Earth dist.	11639 Nov 09 23:35	0°♿11'18	0.54962 AU	evening max el	11640 Sep 27 08:38	7°♿51'45	21°09'12
	11639 Nov 10 07:32	30°♿♿		desc. node	11640 Oct 02 16:26	11°♿58'12	
inferior conj	11639 Nov 11 02:46	29°♿32'34	-5°47'25	retrograde	11640 Oct 09 05:16	13°♿45'04	
minimum elong	11639 Nov 10 23:52	29°♿36'43	5°46'38	evening set	11640 Oct 11 17:18	13°♿30'26	
morning rise	11639 Nov 19 13:12	25°♿44'10		inferior conj	11640 Oct 20 18:44	9°♿35'43	-4°58'42
direct	11639 Nov 22 16:54	25°♿21'14		minimum elong	11640 Oct 20 09:18	9°♿49'00	4°56'10
	11639 Dec 03 07:10	0°♿		min. Earth dist.	11640 Oct 21 06:29	9°♿19'10	0.54580 AU
morning max el	11639 Dec 04 04:03	0°♿47'31	21°02'44	morning rise	11640 Oct 29 01:48	5°♿44'07	
asc. node	11639 Dec 10 10:16	8°♿13'19		direct	11640 Nov 02 01:05	5°♿10'15	
	11639 Dec 22 14:36	0°♿		morning max el	11640 Nov 14 21:00	11°♿19'22	22°43'32
morning set	11639 Dec 23 18:43	2°♿25'09		asc. node	11640 Nov 26 07:13	26°♿13'07	
					11640 Nov 28 12:13	0°♿	
superior conj	11639 Dec 31 02:50	17°♿44'33	1°26'44	morning set	11640 Dec 07 05:49	17°♿12'17	
minimum elong	11639 Dec 31 05:02	17°♿55'50	1°27'15		11640 Dec 13 04:53	0°♿	
max. Earth dist.	11640 Jan 04 22:13	27°♿26'05	1.35519 AU	superior conj	11640 Dec 14 05:35	2°♿12'12	1°36'12
	11640 Jan 06 05:48	0°♿					

minimum elong	11640 Dec 14 06:41	2° $\text{Z}$ 18'06	1°36'54	minimum elong	11641 Nov 28 13:25	16° $\text{X}$ 52'23	1°39'51
max. Earth dist.	11640 Dec 17 14:47	9° $\text{Z}$ 19'51	1.33791 AU	max. Earth dist.	11641 Nov 30 15:09	21° $\text{X}$ 22'57	1.32494 AU
evening rise	11640 Dec 22 05:07	18° $\text{Z}$ 36'36			11641 Dec 04 16:44	0° $\text{Z}$	
	11640 Dec 28 06:50	0° $\approx$		evening rise	11641 Dec 05 22:24	2° $\text{Z}$ 32'21	
desc. node	11640 Dec 29 14:34	2° $\approx$ 20'53		desc. node	11641 Dec 16 11:32	22° $\text{Z}$ 20'56	
	11641 Jan 16 18:24	0° $\text{X}$			11641 Dec 21 02:58	0° $\approx$	
evening max el	11641 Jan 25 21:37	10° $\text{X}$ 21'04	27°10'27	evening max el	11642 Jan 08 09:32	23° $\approx$ 33'27	27°31'20
retrograde	11641 Feb 08 08:04	17° $\text{X}$ 45'01			11642 Jan 17 14:54	0° $\text{X}$	
evening set	11641 Feb 15 00:35	15° $\text{X}$ 12'18		retrograde	11642 Jan 22 03:26	0° $\text{X}$ 55'44	
min. Earth dist.	11641 Feb 18 22:39	11° $\text{X}$ 29'31	0.65187 AU		11642 Jan 26 10:20	30° $\text{X}$	
inferior conj	11641 Feb 21 05:10	8° $\text{X}$ 57'44	-0°20'07	evening set	11642 Jan 29 02:03	28° $\approx$ 28'38	
minimum elong	11641 Feb 21 05:45	8° $\text{X}$ 56'07	0°19'31	min. Earth dist.	11642 Feb 01 20:24	25° $\approx$ 16'05	0.63382 AU
asc. node	11641 Feb 22 05:44	7° $\text{X}$ 49'58		inferior conj	11642 Feb 04 13:56	22° $\approx$ 31'55	-1°29'43
morning rise	11641 Feb 27 12:27	3° $\text{X}$ 26'52		minimum elong	11642 Feb 04 16:51	22° $\approx$ 24'35	1°28'00
direct	11641 Mar 02 04:54	2° $\text{X}$ 48'30		asc. node	11642 Feb 09 02:59	18° $\approx$ 30'23	
morning max el	11641 Mar 08 13:41	6° $\text{X}$ 08'24	17°59'33	morning rise	11642 Feb 11 09:53	17° $\approx$ 16'36	
	11641 Mar 24 20:26	0° $\text{Y}$		direct	11642 Feb 13 18:47	16° $\approx$ 49'28	
morning set	11641 Mar 26 12:15	2° $\text{Y}$ 43'44		morning max el	11642 Feb 20 07:25	20° $\approx$ 10'32	17°47'04
desc. node	11641 Mar 27 15:42	4° $\text{Y}$ 36'33			11642 Feb 27 16:47	0° $\text{X}$	
				morning set	11642 Mar 08 15:38	15° $\text{X}$ 04'30	
superior conj	11641 Apr 09 20:47	25° $\text{Y}$ 55'45	-1°29'03	desc. node	11642 Mar 14 12:21	25° $\text{X}$ 07'13	
minimum elong	11641 Apr 09 11:47	25° $\text{Y}$ 20'07	1°28'19		11642 Mar 17 09:55	0° $\text{Y}$	
	11641 Apr 12 10:43	0° $\text{X}$					
max. Earth dist.	11641 Apr 13 08:11	1° $\text{X}$ 24'20	1.45508 AU	superior conj	11642 Mar 21 02:21	6° $\text{Y}$ 06'05	-0°48'34
evening rise	11641 Apr 25 22:57	20° $\text{X}$ 59'18		minimum elong	11642 Mar 20 21:18	5° $\text{Y}$ 45'20	0°47'51
	11641 May 01 19:56	0° $\text{II}$		max. Earth dist.	11642 Mar 27 02:50	15° $\text{Y}$ 49'38	1.44588 AU
greatest brilliancy	11641 May 09 17:11	11° $\text{II}$ 52'47	-0.7m	evening rise	11642 Apr 05 10:18	0° $\text{X}$ 22'35	
asc. node	11641 May 21 03:10	26° $\text{II}$ 54'30			11642 Apr 05 04:25	0° $\text{X}$	
evening max el	11641 May 21 09:37	27° $\text{II}$ 10'54	19°39'02		11642 Apr 25 12:49	0° $\text{II}$	
	11641 May 24 18:33	0° $\text{X}$		evening max el	11642 May 04 10:32	10° $\text{II}$ 55'20	20°41'53
retrograde	11641 May 28 17:08	1° $\text{X}$ 19'48		asc. node	11642 May 08 00:21	13° $\text{II}$ 59'42	
evening set	11641 Jun 01 10:32	29° $\text{II}$ 58'58		retrograde	11642 May 12 15:59	15° $\text{II}$ 42'23	
	11641 Jun 01 09:57	30° $\text{X}$ II		evening set	11642 May 16 19:03	14° $\text{II}$ 05'30	
inferior conj	11641 Jun 06 19:04	24° $\text{II}$ 03'01	3°15'40	inferior conj	11642 May 22 01:34	7° $\text{II}$ 56'57	3°11'10
minimum elong	11641 Jun 06 19:12	24° $\text{II}$ 02'34	3°14'56	minimum elong	11642 May 22 00:42	7° $\text{II}$ 59'59	3°10'25
min. Earth dist.	11641 Jun 07 22:54	22° $\text{II}$ 30'24	0.67364 AU	min. Earth dist.	11642 May 22 15:28	7° $\text{II}$ 08'59	0.68268 AU
morning rise	11641 Jun 12 03:31	17° $\text{II}$ 41'41		morning rise	11642 May 27 06:06	1° $\text{II}$ 38'50	
direct	11641 Jun 18 02:02	15° $\text{II}$ 04'33			11642 May 29 14:29	30° $\text{X}$ II	
desc. node	11641 Jun 23 16:20	16° $\text{II}$ 54'43		direct	11642 Jun 01 16:19	29° $\text{X}$ 15'01	
morning max el	11641 Jun 30 05:03	22° $\text{II}$ 20'32	25°21'22		11642 Jun 04 23:59	0° $\text{II}$	
	11641 Jul 06 22:05	0° $\text{X}$		desc. node	11642 Jun 10 13:22	3° $\text{II}$ 49'02	
	11641 Jul 27 11:47	0° $\text{X}$		morning max el	11642 Jun 12 14:58	5° $\text{II}$ 47'36	23°53'39
morning set	11641 Aug 05 05:10	14° $\text{X}$ 59'42			11642 Jul 01 08:19	0° $\text{X}$	
max. Earth dist.	11641 Aug 08 20:15	21° $\text{X}$ 39'36	1.36309 AU	morning set	11642 Jul 17 22:42	26° $\text{X}$ 22'29	
	11641 Aug 13 04:46	0° $\text{X}$			11642 Jul 20 01:08	0° $\text{X}$	
				max. Earth dist.	11642 Jul 21 17:46	2° $\text{X}$ 58'24	1.38551 AU
superior conj	11641 Aug 15 01:46	3° $\text{X}$ 42'00	-0°19'34				
minimum elong	11641 Aug 15 03:01	3° $\text{X}$ 48'10	0°19'44	superior conj	11642 Jul 29 03:12	16° $\text{X}$ 30'49	-0°53'21
asc. node	11641 Aug 17 02:58	7° $\text{X}$ 48'29		minimum elong	11642 Jul 29 06:52	16° $\text{X}$ 48'12	0°53'17
evening rise	11641 Aug 23 04:08	20° $\text{X}$ 07'49		asc. node	11642 Aug 03 23:43	27° $\text{X}$ 48'55	
	11641 Aug 28 03:33	0° $\text{X}$			11642 Aug 05 02:26	0° $\text{X}$	
evening max el	11641 Sep 09 15:08	18° $\text{X}$ 49'37	19°51'30	evening rise	11642 Aug 07 03:32	4° $\text{X}$ 01'03	
retrograde	11641 Sep 19 20:21	23° $\text{X}$ 54'46			11642 Aug 22 21:24	0° $\text{X}$	
desc. node	11641 Sep 19 13:48	23° $\text{X}$ 54'34		evening max el	11642 Aug 23 11:01	0° $\text{X}$ 34'56	18°55'08
evening set	11641 Sep 21 17:58	23° $\text{X}$ 44'59		retrograde	11642 Sep 01 02:12	4° $\text{X}$ 53'53	
inferior conj	11641 Sep 30 15:45	19° $\text{X}$ 43'40	-3°22'30	evening set	11642 Sep 02 23:22	4° $\text{X}$ 42'21	
minimum elong	11641 Sep 30 07:02	19° $\text{X}$ 57'01	3°19'17	desc. node	11642 Sep 06 11:12	3° $\text{X}$ 26'13	
min. Earth dist.	11641 Oct 02 15:38	18° $\text{X}$ 30'24	0.55135 AU	inferior conj	11642 Sep 11 05:55	0° $\text{X}$ 24'47	-1°29'58
morning rise	11641 Oct 08 18:37	15° $\text{X}$ 28'03		minimum elong	11642 Sep 11 02:05	0° $\text{X}$ 31'34	1°28'30
direct	11641 Oct 13 13:37	14° $\text{X}$ 37'47			11642 Sep 11 19:52	30° $\text{X}$ II	
morning max el	11641 Oct 27 07:59	21° $\text{X}$ 25'49	24°31'37	min. Earth dist.	11642 Sep 14 05:32	28° $\text{X}$ 18'42	0.56538 AU
	11641 Nov 03 18:35	0° $\text{X}$		morning rise	11642 Sep 19 01:33	25° $\text{X}$ 32'22	
asc. node	11641 Nov 13 04:05	14° $\text{X}$ 54'07		direct	11642 Sep 24 15:25	24° $\text{X}$ 18'16	
	11641 Nov 20 19:21	0° $\text{X}$			11642 Oct 07 01:45	0° $\text{X}$	
morning set	11641 Nov 21 17:41	1° $\text{X}$ 58'49		morning max el	11642 Oct 08 20:55	1° $\text{X}$ 38'18	26°09'25
					11642 Oct 28 20:54	0° $\text{X}$	
superior conj	11641 Nov 28 13:28	16° $\text{X}$ 52'40	1°39'08	asc. node	11642 Oct 31 00:53	4° $\text{X}$ 05'13	

morning set	11642 Nov 06 04:35	16° $\mathbb{M}$ 38'59		direct	11643 Sep 06 07:50	4° $\mathbb{M}$ 39'48	
	11642 Nov 12 06:32	0° $\mathbb{A}$		morning max el	11643 Sep 20 16:17	12° $\mathbb{M}$ 22'39	27°20'25
					11643 Oct 04 13:16	0° $\mathbb{A}$	
superior conj	11642 Nov 13 00:14	1° $\mathbb{A}$ 38'17	1°35'59	asc. node	11643 Oct 17 21:40	23° $\mathbb{A}$ 38'26	
minimum elong	11642 Nov 12 23:09	1° $\mathbb{A}$ 32'17	1°36'34		11643 Oct 20 23:54	0° $\mathbb{M}$	
max. Earth dist.	11642 Nov 13 21:17	3° $\mathbb{A}$ 35'03	1.31677 AU	morning set	11643 Oct 21 12:50	1° $\mathbb{M}$ 08'18	
evening rise	11642 Nov 19 23:31	16° $\mathbb{A}$ 47'08					
	11642 Nov 26 14:38	0° $\mathbb{B}$		superior conj	11643 Oct 28 11:59	16° $\mathbb{M}$ 23'28	1°27'07
desc. node	11642 Dec 03 08:34	11° $\mathbb{B}$ 55'01		minimum elong	11643 Oct 28 10:08	16° $\mathbb{M}$ 13'10	1°27'26
	11642 Dec 16 00:26	0° $\mathbb{A}$		max. Earth dist.	11643 Oct 28 06:09	15° $\mathbb{M}$ 50'56	1.31356 AU
evening max el	11642 Dec 21 17:28	6° $\mathbb{A}$ 08'23	27°20'50		11643 Nov 03 16:07	0° $\mathbb{A}$	
retrograde	11643 Jan 04 15:11	13° $\mathbb{A}$ 24'28		evening rise	11643 Nov 04 06:06	1° $\mathbb{A}$ 14'53	
evening set	11643 Jan 11 14:10	11° $\mathbb{A}$ 11'50			11643 Nov 19 16:05	0° $\mathbb{B}$	
min. Earth dist.	11643 Jan 15 07:57	8° $\mathbb{A}$ 22'50	0.61333 AU	desc. node	11643 Nov 20 05:43	0° $\mathbb{B}$ 53'02	
inferior conj	11643 Jan 18 09:43	5° $\mathbb{A}$ 39'20	-2°46'22	evening max el	11643 Dec 03 19:07	17° $\mathbb{B}$ 56'12	26°36'01
minimum elong	11643 Jan 18 15:27	5° $\mathbb{A}$ 26'37	2°43'34	retrograde	11643 Dec 17 17:51	25° $\mathbb{B}$ 03'29	
morning rise	11643 Jan 25 19:30	0° $\mathbb{A}$ 42'34		evening set	11643 Dec 24 09:01	23° $\mathbb{B}$ 14'35	
asc. node	11643 Jan 27 00:14	0° $\mathbb{A}$ 26'56		min. Earth dist.	11643 Dec 28 09:05	20° $\mathbb{B}$ 38'02	0.59195 AU
direct	11643 Jan 27 23:14	0° $\mathbb{A}$ 23'00		inferior conj	11643 Dec 31 13:05	18° $\mathbb{B}$ 11'07	-4°04'18
morning max el	11643 Feb 03 23:43	3° $\mathbb{A}$ 55'16	17°52'36	minimum elong	11643 Dec 31 21:05	17° $\mathbb{B}$ 55'36	4°01'06
morning set	11643 Feb 19 15:09	28° $\mathbb{A}$ 21'34		morning rise	11644 Jan 08 11:58	13° $\mathbb{B}$ 35'19	
	11643 Feb 20 12:53	0° $\mathbb{K}$		direct	11644 Jan 10 14:13	13° $\mathbb{B}$ 19'41	
desc. node	11643 Mar 01 08:59	15° $\mathbb{K}$ 44'07		asc. node	11644 Jan 13 21:26	14° $\mathbb{B}$ 00'35	
				morning max el	11644 Jan 18 11:00	17° $\mathbb{B}$ 12'42	18°17'31
superior conj	11643 Mar 02 08:32	17° $\mathbb{K}$ 25'57	-0°07'35		11644 Jan 27 12:44	0° $\mathbb{A}$	
minimum elong	11643 Mar 02 07:53	17° $\mathbb{K}$ 23'07	0°07'14	morning set	11644 Feb 03 04:58	12° $\mathbb{A}$ 17'41	
behind sun begin	11643 Mar 02 00:21	16° $\mathbb{K}$ 50'36					
behind sun end	11643 Mar 02 15:25	17° $\mathbb{K}$ 55'34		superior conj	11644 Feb 12 13:31	29° $\mathbb{A}$ 49'05	0°28'27
max. Earth dist.	11643 Mar 09 17:19	29° $\mathbb{K}$ 48'00	1.43046 AU	minimum elong	11644 Feb 12 15:33	29° $\mathbb{A}$ 58'19	0°28'35
	11643 Mar 09 20:15	0° $\mathbb{Y}$			11644 Feb 12 15:55	0° $\mathbb{K}$	
evening rise	11643 Mar 16 05:21	10° $\mathbb{Y}$ 12'52		desc. node	11644 Feb 16 05:38	6° $\mathbb{K}$ 23'44	
	11643 Mar 29 07:13	0° $\mathbb{B}$		max. Earth dist.	11644 Feb 20 03:13	13° $\mathbb{K}$ 09'03	1.41062 AU
evening max el	11643 Apr 17 06:03	24° $\mathbb{B}$ 40'59	21°55'47	evening rise	11644 Feb 24 18:44	20° $\mathbb{K}$ 54'08	
asc. node	11643 Apr 24 21:35	29° $\mathbb{B}$ 57'27			11644 Mar 01 11:27	0° $\mathbb{Y}$	
	11643 Apr 25 01:40	0° $\mathbb{I}$			11644 Mar 22 11:59	0° $\mathbb{B}$	
retrograde	11643 Apr 26 13:58	0° $\mathbb{I}$ 11'00		evening max el	11644 Mar 29 21:46	8° $\mathbb{B}$ 29'07	23°15'45
	11643 Apr 28 01:00	30° $\mathbb{K}$ $\mathbb{B}$		retrograde	11644 Apr 09 09:29	14° $\mathbb{B}$ 40'25	
evening set	11643 May 01 03:35	28° $\mathbb{B}$ 18'40		asc. node	11644 Apr 10 18:54	14° $\mathbb{B}$ 31'17	
inferior conj	11643 May 06 10:26	21° $\mathbb{B}$ 59'48	2°55'48	evening set	11644 Apr 14 10:31	12° $\mathbb{B}$ 33'46	
minimum elong	11643 May 06 08:47	22° $\mathbb{B}$ 05'34	2°54'58	inferior conj	11644 Apr 19 19:41	6° $\mathbb{B}$ 07'32	2°30'25
min. Earth dist.	11643 May 06 11:18	21° $\mathbb{B}$ 56'46	0.68706 AU	minimum elong	11644 Apr 19 17:35	6° $\mathbb{B}$ 14'47	2°29'30
morning rise	11643 May 11 13:48	15° $\mathbb{B}$ 46'44		min. Earth dist.	11644 Apr 19 08:07	6° $\mathbb{B}$ 47'28	0.68691 AU
direct	11643 May 16 10:53	13° $\mathbb{B}$ 41'19		morning rise	11644 Apr 25 00:33	0° $\mathbb{B}$ 00'57	
morning max el	11643 May 26 02:23	19° $\mathbb{B}$ 22'15	22°24'11		11644 Apr 25 01:02	30° $\mathbb{K}$ $\mathbb{Y}$	
desc. node	11643 May 28 10:19	21° $\mathbb{B}$ 51'10		direct	11644 Apr 29 08:31	28° $\mathbb{Y}$ 16'33	
	11643 Jun 04 00:57	0° $\mathbb{I}$			11644 May 04 02:27	0° $\mathbb{B}$	
	11643 Jun 24 12:10	0° $\mathbb{B}$		morning max el	11644 May 07 18:39	3° $\mathbb{B}$ 06'44	21°01'06
morning set	11643 Jun 28 15:37	6° $\mathbb{B}$ 38'24		desc. node	11644 May 14 07:09	10° $\mathbb{B}$ 42'18	
max. Earth dist.	11643 Jul 03 16:11	14° $\mathbb{B}$ 57'27	1.40850 AU		11644 May 27 23:07	0° $\mathbb{I}$	
				morning set	11644 Jun 07 07:02	15° $\mathbb{I}$ 46'22	
superior conj	11643 Jul 11 11:44	28° $\mathbb{B}$ 32'31	-1°26'35	max. Earth dist.	11644 Jun 14 20:52	27° $\mathbb{I}$ 51'17	1.42930 AU
minimum elong	11643 Jul 11 17:44	28° $\mathbb{B}$ 59'25	1°26'28		11644 Jun 16 04:25	0° $\mathbb{B}$	
	11643 Jul 12 07:12	0° $\mathbb{Q}$					
evening rise	11643 Jul 21 17:08	17° $\mathbb{Q}$ 25'18		superior conj	11644 Jun 21 22:54	9° $\mathbb{B}$ 37'04	-1°54'42
asc. node	11643 Jul 21 20:31	17° $\mathbb{Q}$ 41'11		minimum elong	11644 Jun 22 05:29	10° $\mathbb{B}$ 05'00	1°54'56
	11643 Jul 28 13:49	0° $\mathbb{M}$		evening rise	11644 Jul 03 16:38	0° $\mathbb{Q}$ 09'32	
evening max el	11643 Aug 06 17:00	13° $\mathbb{M}$ 02'13	18°19'56		11644 Jul 03 14:30	0° $\mathbb{Q}$	
retrograde	11643 Aug 14 02:58	16° $\mathbb{M}$ 46'37		asc. node	11644 Jul 07 17:24	7° $\mathbb{Q}$ 20'26	
evening set	11643 Aug 16 06:21	16° $\mathbb{M}$ 28'40		evening max el	11644 Jul 20 04:52	26° $\mathbb{Q}$ 00'44	18°04'37
inferior conj	11643 Aug 23 17:48	11° $\mathbb{M}$ 50'46	0°11'20	retrograde	11644 Jul 26 20:50	29° $\mathbb{Q}$ 25'39	
minimum elong	11643 Aug 23 18:11	11° $\mathbb{M}$ 49'57	0°10'52	evening set	11644 Jul 29 08:11	28° $\mathbb{Q}$ 57'28	
transit middle	11643 Aug 23 18:11	11° $\mathbb{M}$ 49'57	0°10'52	inferior conj	11644 Aug 05 02:00	23° $\mathbb{Q}$ 59'16	1°29'26
transit begin	11643 Aug 23 15:36	11° $\mathbb{M}$ 55'18		minimum elong	11644 Aug 05 04:23	23° $\mathbb{Q}$ 53'33	1°28'08
transit end	11643 Aug 23 20:47	11° $\mathbb{M}$ 44'36		min. Earth dist.	11644 Aug 08 06:22	20° $\mathbb{Q}$ 57'36	0.60805 AU
desc. node	11643 Aug 24 08:36	11° $\mathbb{M}$ 19'59		desc. node	11644 Aug 10 05:59	19° $\mathbb{Q}$ 15'55	
min. Earth dist.	11643 Aug 27 01:58	9° $\mathbb{M}$ 06'04	0.58537 AU	morning rise	11644 Aug 11 21:48	18° $\mathbb{Q}$ 04'00	
morning rise	11643 Aug 31 02:31	6° $\mathbb{M}$ 22'37		direct	11644 Aug 18 12:16	15° $\mathbb{Q}$ 53'57	



morning max el	11644 Sep 01 18:41	23° $\Omega$ 50'46	27°54'54	desc. node	11645 Jul 28 03:17	28° $\mathfrak{D}$ 53'33	
	11644 Sep 07 07:45	0° $\mathfrak{M}$		direct	11645 Aug 01 02:35	28° $\mathfrak{D}$ 01'14	
	11644 Sep 26 20:32	0° $\mathfrak{L}$			11645 Aug 07 14:05	0° $\Omega$	
asc. node	11644 Oct 03 18:24	13° $\mathfrak{L}$ 26'44		morning max el	11645 Aug 15 02:36	6° $\Omega$ 03'22	27°50'50
morning set	11644 Oct 04 16:35	15° $\mathfrak{L}$ 21'14			11645 Sep 02 06:56	0° $\mathfrak{M}$	
max. Earth dist.	11644 Oct 10 14:04	28° $\mathfrak{L}$ 00'55	1.31536 AU	morning set	11645 Sep 18 13:40	29° $\mathfrak{M}$ 12'37	
	11644 Oct 11 11:39	0° $\mathfrak{M}$			11645 Sep 18 23:02	0° $\mathfrak{L}$	
				asc. node	11645 Sep 20 15:07	3° $\mathfrak{L}$ 25'18	
superior conj	11644 Oct 11 22:50	1° $\mathfrak{M}$ 01'55	1°12'43	max. Earth dist.	11645 Sep 23 17:15	9° $\mathfrak{L}$ 55'31	1.32228 AU
minimum elong	11644 Oct 11 20:36	0° $\mathfrak{M}$ 49'34	1°12'44				
evening rise	11644 Oct 18 16:00	15° $\mathfrak{M}$ 49'12		superior conj	11645 Sep 26 06:55	15° $\mathfrak{L}$ 28'30	0°53'00
	11644 Oct 25 14:42	0° $\mathfrak{X}$		minimum elong	11645 Sep 26 04:49	15° $\mathfrak{L}$ 17'01	0°52'45
desc. node	11644 Nov 06 02:58	19° $\mathfrak{X}$ 00'42			11645 Oct 02 22:41	0° $\mathfrak{M}$	
evening max el	11644 Nov 14 12:39	28° $\mathfrak{X}$ 52'20	25°19'40	evening rise	11645 Oct 03 03:19	0° $\mathfrak{M}$ 24'58	
	11644 Nov 15 18:13	0° $\mathfrak{Z}$			11645 Oct 19 08:23	0° $\mathfrak{X}$	
retrograde	11644 Nov 28 09:12	5° $\mathfrak{Z}$ 50'04		desc. node	11645 Oct 24 00:16	5° $\mathfrak{X}$ 58'39	
evening set	11644 Dec 04 06:01	4° $\mathfrak{Z}$ 31'48		evening max el	11645 Oct 26 23:34	9° $\mathfrak{X}$ 06'58	23°42'37
min. Earth dist.	11644 Dec 09 00:46	1° $\mathfrak{Z}$ 52'06	0.57183 AU	retrograde	11645 Nov 09 11:53	15° $\mathfrak{X}$ 51'35	
inferior conj	11644 Dec 11 20:52	29° $\mathfrak{X}$ 57'56	-5°11'34	evening set	11645 Nov 14 02:43	15° $\mathfrak{X}$ 05'07	
minimum elong	11644 Dec 12 04:27	29° $\mathfrak{X}$ 45'11	5°09'19	min. Earth dist.	11645 Nov 20 09:51	12° $\mathfrak{X}$ 03'19	0.55578 AU
	11644 Dec 11 19:38	30° $\mathfrak{R}$ $\mathfrak{X}$		inferior conj	11645 Nov 22 08:09	10° $\mathfrak{X}$ 54'32	-5°48'35
morning rise	11644 Dec 20 05:11	25° $\mathfrak{X}$ 44'24		minimum elong	11645 Nov 22 10:13	10° $\mathfrak{X}$ 51'27	5°47'48
direct	11644 Dec 22 11:46	25° $\mathfrak{X}$ 29'04		morning rise	11645 Nov 30 19:35	7° $\mathfrak{X}$ 00'25	
asc. node	11644 Dec 30 18:35	29° $\mathfrak{X}$ 08'29		direct	11645 Dec 03 13:47	6° $\mathfrak{X}$ 41'32	
morning max el	11644 Dec 31 13:21	29° $\mathfrak{X}$ 51'56	19°03'49	morning max el	11645 Dec 14 03:07	11° $\mathfrak{X}$ 42'28	20°13'02
	11644 Dec 31 16:40	0° $\mathfrak{Z}$		asc. node	11645 Dec 17 15:40	15° $\mathfrak{X}$ 35'54	
morning set	11645 Jan 17 04:36	26° $\mathfrak{Z}$ 39'55			11645 Dec 26 17:19	0° $\mathfrak{Z}$	
	11645 Jan 18 21:00	0° $\approx$		morning set	11646 Jan 01 10:36	11° $\mathfrak{Z}$ 17'30	
superior conj	11645 Jan 25 12:51	13° $\approx$ 03'16	0°57'09	superior conj	11646 Jan 09 01:46	26° $\mathfrak{Z}$ 54'42	1°18'05
minimum elong	11645 Jan 25 15:47	13° $\approx$ 17'23	0°57'20	minimum elong	11646 Jan 09 04:26	27° $\mathfrak{Z}$ 08'06	1°18'28
max. Earth dist.	11645 Feb 01 10:08	25° $\approx$ 50'29	1.38856 AU		11646 Jan 10 14:51	0° $\approx$	
desc. node	11645 Feb 02 02:21	27° $\approx$ 02'51		max. Earth dist.	11646 Jan 14 17:17	7° $\approx$ 58'04	1.36670 AU
	11645 Feb 03 18:32	0° $\mathfrak{X}$		evening rise	11646 Jan 18 12:01	14° $\approx$ 59'22	
evening rise	11645 Feb 05 05:33	2° $\mathfrak{X}$ 31'46		desc. node	11646 Jan 19 23:07	17° $\approx$ 37'11	
	11645 Feb 22 16:18	0° $\mathfrak{Y}$			11646 Jan 27 05:22	0° $\mathfrak{X}$	
evening max el	11645 Mar 12 11:39	22° $\mathfrak{Y}$ 20'11	24°35'28		11646 Feb 17 08:35	0° $\mathfrak{Y}$	
retrograde	11645 Mar 24 01:21	29° $\mathfrak{Y}$ 05'45		evening max el	11646 Feb 23 01:01	6° $\mathfrak{Y}$ 10'31	25°48'03
asc. node	11645 Mar 28 16:15	27° $\mathfrak{Y}$ 29'52		retrograde	11646 Mar 07 12:36	13° $\mathfrak{Y}$ 20'16	
evening set	11645 Mar 29 14:21	26° $\mathfrak{Y}$ 46'39		evening set	11646 Mar 13 13:25	10° $\mathfrak{Y}$ 51'48	
min. Earth dist.	11645 Apr 03 03:43	21° $\mathfrak{Y}$ 35'58	0.68236 AU	asc. node	11646 Mar 15 13:36	8° $\mathfrak{Y}$ 55'55	
inferior conj	11645 Apr 04 03:27	20° $\mathfrak{Y}$ 16'48	1°55'20	min. Earth dist.	11646 Mar 17 19:55	6° $\mathfrak{Y}$ 16'18	0.67359 AU
minimum elong	11645 Apr 04 01:20	20° $\mathfrak{Y}$ 23'53	1°54'29	inferior conj	11646 Mar 19 07:46	4° $\mathfrak{Y}$ 23'02	1°10'31
morning rise	11645 Apr 09 12:27	14° $\mathfrak{Y}$ 18'04		minimum elong	11646 Mar 19 06:09	4° $\mathfrak{Y}$ 28'08	1°09'58
direct	11645 Apr 13 07:52	12° $\mathfrak{Y}$ 55'01			11646 Mar 23 03:43	30° $\mathfrak{R}$ $\mathfrak{X}$	
morning max el	11645 Apr 20 18:21	17° $\mathfrak{Y}$ 03'43	19°50'05	morning rise	11646 Mar 24 23:29	28° $\mathfrak{X}$ 33'39	
desc. node	11645 May 01 03:55	0° $\mathfrak{Z}$ 09'15		direct	11646 Mar 28 07:18	27° $\mathfrak{X}$ 30'27	
	11645 May 01 01:19	0° $\mathfrak{Z}$			11646 Apr 02 18:49	0° $\mathfrak{Y}$	
greatest brilliancy	11645 May 03 21:03	4° $\mathfrak{Z}$ 04'13	-0.6m	morning max el	11646 Apr 04 01:43	1° $\mathfrak{Y}$ 10'30	18°54'06
morning set	11645 May 17 07:26	24° $\mathfrak{Z}$ 18'51		greatest brilliancy	11646 Apr 17 20:27	19° $\mathfrak{Y}$ 46'11	-0.8m
	11645 May 20 23:46	0° $\mathfrak{I}$		desc. node	11646 Apr 18 00:36	20° $\mathfrak{Y}$ 01'58	
max. Earth dist.	11645 May 28 08:56	11° $\mathfrak{I}$ 35'02	1.44534 AU		11646 Apr 24 11:44	0° $\mathfrak{Z}$	
				morning set	11646 Apr 26 14:34	3° $\mathfrak{I}$ 17'20	
superior conj	11645 Jun 02 10:02	19° $\mathfrak{I}$ 40'14	-2°11'22	max. Earth dist.	11646 May 11 01:59	25° $\mathfrak{Z}$ 50'55	1.45489 AU
minimum elong	11645 Jun 02 13:06	19° $\mathfrak{I}$ 52'36	2°12'02				
	11645 Jun 08 17:15	0° $\mathfrak{D}$		superior conj	11646 May 13 00:21	28° $\mathfrak{Z}$ 52'48	-2°10'07
evening rise	11645 Jun 15 21:11	12° $\mathfrak{D}$ 03'01		minimum elong	11646 May 12 20:01	28° $\mathfrak{Z}$ 35'49	2°10'35
asc. node	11645 Jun 24 14:23	26° $\mathfrak{D}$ 41'43			11646 May 13 17:27	0° $\mathfrak{I}$	
	11645 Jun 26 16:20	0° $\Omega$		evening rise	11646 May 28 02:22	22° $\mathfrak{I}$ 56'29	
evening max el	11645 Jul 03 18:53	9° $\Omega$ 21'23	18°08'14		11646 Jun 01 10:57	0° $\mathfrak{D}$	
retrograde	11645 Jul 10 03:42	12° $\Omega$ 41'44		asc. node	11646 Jun 11 11:24	15° $\mathfrak{D}$ 37'54	
evening set	11645 Jul 12 23:06	12° $\Omega$ 00'42		evening max el	11646 Jun 17 07:51	22° $\mathfrak{D}$ 55'36	18°30'06
inferior conj	11645 Jul 19 02:49	6° $\Omega$ 43'58	2°23'21	retrograde	11646 Jun 23 19:05	26° $\mathfrak{D}$ 25'17	
minimum elong	11645 Jul 19 05:26	6° $\Omega$ 36'53	2°22'03	evening set	11646 Jun 26 22:36	25° $\mathfrak{D}$ 29'37	
min. Earth dist.	11645 Jul 21 20:06	3° $\Omega$ 47'38	0.63039 AU	inferior conj	11646 Jul 02 16:09	19° $\mathfrak{D}$ 56'29	2°56'30
morning rise	11645 Jul 25 09:57	0° $\Omega$ 31'46		minimum elong	11646 Jul 02 18:01	19° $\mathfrak{D}$ 50'52	2°55'29
	11645 Jul 26 03:48	30° $\mathfrak{R}$ $\mathfrak{D}$		min. Earth dist.	11646 Jul 04 19:17	17° $\mathfrak{D}$ 23'34	0.65020 AU

morning rise	11646 Jul 08 12:24	13°☿36'04		minimum elong	11647 Jun 16 15:09	3°☿26'37	3°11'57
direct	11646 Jul 15 01:14	10°☿54'46		min. Earth dist.	11647 Jun 18 02:40	1°☿32'05	0.66632 AU
desc. node	11646 Jul 15 00:30	10°☿54'46			11647 Jun 19 08:25	30°☿II	
morning max el	11646 Jul 28 13:17	18°☿51'19	27°12'22	morning rise	11647 Jun 22 02:18	27°☿II06'49	
	11646 Aug 06 23:36	0°☿		direct	11647 Jun 28 07:00	24°☿II25'11	
	11646 Aug 26 06:34	0°☿		desc. node	11647 Jul 01 21:39	25°☿II11'13	
morning set	11646 Sep 02 01:23	12°☿36'00			11647 Jul 08 21:55	0°☿	
max. Earth dist.	11646 Sep 06 12:05	21°☿27'47	1.33433 AU	morning max el	11647 Jul 11 00:06	2°☿01'10	26°07'07
asc. node	11646 Sep 07 11:50	23°☿29'54			11647 Aug 01 02:33	0°☿	
				morning set	11647 Aug 16 00:13	25°☿021'24	
superior conj	11646 Sep 10 10:07	29°☿37'47	0°28'13		11647 Aug 18 11:29	0°☿	
minimum elong	11646 Sep 10 08:45	29°☿30'31	0°27'52	max. Earth dist.	11647 Aug 19 20:14	2°☿37'17	1.35134 AU
	11646 Sep 10 14:19	0°☿					
evening rise	11646 Sep 17 14:12	14°☿57'09		superior conj	11647 Aug 25 05:51	13°☿22'11	-0°01'05
	11646 Sep 25 02:20	0°☿		minimum elong	11647 Aug 25 05:56	13°☿22'35	0°01'22
evening max el	11646 Oct 08 11:44	19°☿12'49	22°02'13	behind sun begin	11647 Aug 24 23:56	12°☿51'59	
desc. node	11646 Oct 10 21:36	21°☿22'00		behind sun end	11647 Aug 25 11:56	13°☿53'15	
retrograde	11646 Oct 21 03:36	25°☿30'38		asc. node	11647 Aug 25 08:32	13°☿35'52	
evening set	11646 Oct 24 07:26	25°☿08'21		evening rise	11647 Sep 01 22:30	29°☿19'11	
min. Earth dist.	11646 Nov 01 16:42	21°☿26'38	0.54679 AU		11647 Sep 02 06:24	0°☿	
inferior conj	11646 Nov 02 03:59	21°☿10'48	-5°33'57	evening max el	11647 Sep 20 10:18	29°☿45'46	20°33'44
minimum elong	11646 Nov 01 21:37	21°☿19'44	5°32'35		11647 Sep 20 16:06	0°☿	
morning rise	11646 Nov 10 13:08	17°☿23'47		desc. node	11647 Sep 27 18:59	4°☿40'50	
direct	11646 Nov 14 00:41	16°☿57'01		retrograde	11647 Oct 01 15:03	5°☿19'17	
morning max el	11646 Nov 26 03:06	22°☿41'38	21°43'56	evening set	11647 Oct 03 18:33	5°☿07'56	
	11646 Dec 02 09:26	0°☿		inferior conj	11647 Oct 12 20:19	1°☿12'12	-4°22'07
asc. node	11646 Dec 04 12:39	3°☿06'35		minimum elong	11647 Oct 12 10:19	1°☿26'40	4°18'57
morning set	11646 Dec 16 20:25	26°☿03'03		min. Earth dist.	11647 Oct 14 00:37	0°☿31'16	0.54696 AU
	11646 Dec 18 17:21	0°☿			11647 Oct 14 22:31	30°☿☿	
				morning rise	11647 Oct 21 01:42	27°☿12'16	
superior conj	11646 Dec 24 00:24	11°☿12'16	1°31'34	direct	11647 Oct 25 09:17	26°☿32'12	
minimum elong	11646 Dec 24 02:09	11°☿21'27	1°32'12		11647 Nov 04 01:22	0°☿	
max. Earth dist.	11646 Dec 28 05:11	19°☿50'16	1.34729 AU	morning max el	11647 Nov 07 16:34	2°☿59'31	23°29'34
evening rise	11647 Jan 01 10:48	28°☿08'30		asc. node	11647 Nov 21 09:33	21°☿25'15	
	11647 Jan 02 10:20	0°☿			11647 Nov 26 01:14	0°☿	
desc. node	11647 Jan 06 19:59	8°☿02'38		morning set	11647 Dec 01 08:01	10°☿50'10	
	11647 Jan 20 11:30	0°☿					
evening max el	11647 Feb 05 14:30	19°☿54'11	26°46'16	superior conj	11647 Dec 08 05:37	25°☿46'13	1°38'12
retrograde	11647 Feb 18 18:31	27°☿16'43		minimum elong	11647 Dec 08 06:13	25°☿49'31	1°38'56
evening set	11647 Feb 25 05:53	24°☿43'38			11647 Dec 10 04:55	0°☿	
min. Earth dist.	11647 Mar 01 06:38	20°☿42'10	0.66084 AU	max. Earth dist.	11647 Dec 11 00:48	1°☿45'34	1.33179 AU
asc. node	11647 Mar 02 10:55	19°☿19'31		evening rise	11647 Dec 15 22:15	11°☿49'32	
inferior conj	11647 Mar 03 06:30	18°☿21'44	0°15'51	desc. node	11647 Dec 24 16:55	28°☿13'38	
minimum elong	11647 Mar 03 06:04	18°☿23'02	0°15'54		11647 Dec 25 17:32	0°☿	
transit middle	11647 Mar 03 06:04	18°☿23'02	0°15'54		11648 Jan 15 20:54	0°☿	
transit begin	11647 Mar 03 05:41	18°☿24'07		evening max el	11648 Jan 19 03:32	3°☿21'38	27°22'54
transit end	11647 Mar 03 06:26	18°☿21'56		retrograde	11648 Feb 01 18:07	10°☿46'23	
morning rise	11647 Mar 09 07:26	12°☿43'31		evening set	11648 Feb 08 13:35	8°☿15'10	
direct	11647 Mar 12 04:57	11°☿57'14		min. Earth dist.	11648 Feb 12 09:49	4°☿45'36	0.64448 AU
morning max el	11647 Mar 18 15:11	15°☿21'25	18°14'33	inferior conj	11648 Feb 14 21:11	2°☿07'02	-0°48'34
	11647 Mar 29 10:53	0°☿		minimum elong	11648 Feb 14 22:40	2°☿03'03	0°47'32
desc. node	11647 Apr 04 21:15	10°☿13'35			11648 Feb 16 22:15	30°☿☿	
morning set	11647 Apr 06 22:36	13°☿31'38		asc. node	11648 Feb 17 08:13	29°☿36'02	
	11647 Apr 17 06:50	0°☿		morning rise	11648 Feb 21 09:37	26°☿42'21	
				direct	11648 Feb 23 22:30	26°☿09'20	
superior conj	11647 Apr 22 07:10	7°☿52'44	-1°48'42	morning max el	11648 Mar 01 08:09	29°☿28'52	17°52'04
minimum elong	11647 Apr 21 21:55	7°☿16'32	1°48'19		11648 Mar 01 20:29	0°☿	
max. Earth dist.	11647 Apr 23 21:21	10°☿22'02	1.45714 AU	morning set	11648 Mar 18 11:31	25°☿10'58	
	11647 May 06 11:32	0°☿			11648 Mar 21 08:36	0°☿	
evening rise	11647 May 08 07:58	2°☿53'11		desc. node	11648 Mar 21 17:54	0°☿38'47	
greatest brilliancy	11647 May 19 13:21	20°☿16'29	-0.7m				
	11647 May 26 05:42	0°☿		superior conj	11648 Apr 01 00:38	17°☿27'55	-1°12'27
asc. node	11647 May 29 08:29	4°☿00'11		minimum elong	11648 Mar 31 16:58	16°☿57'12	1°11'39
evening max el	11647 May 31 17:16	6°☿36'54	19°09'18	max. Earth dist.	11648 Apr 05 16:46	24°☿53'34	1.45198 AU
retrograde	11647 Jun 07 15:21	10°☿28'24			11648 Apr 08 22:53	0°☿	
evening set	11647 Jun 11 03:25	9°☿17'05		evening rise	11648 Apr 16 21:51	12°☿18'12	
inferior conj	11647 Jun 16 14:22	3°☿29'09	3°12'45		11648 Apr 28 14:39	0°☿	

greatest brilliancy	11648 May 01 22:45	4° $\Pi$ 54'09	-0.6m	asc. node	11649 May 02 02:51	8° $\Pi$ 17'09	
evening max el	11648 May 13 21:37	20° $\Pi$ 21'55	20°04'13	retrograde	11649 May 05 12:24	9° $\Pi$ 12'14	
asc. node	11648 May 15 05:38	21° $\Pi$ 38'04		evening set	11649 May 09 19:55	7° $\Pi$ 28'38	
retrograde	11648 May 21 13:49	24° $\Pi$ 46'01		inferior conj	11649 May 15 02:20	1° $\Pi$ 15'38	3°05'54
evening set	11648 May 25 11:10	23° $\Pi$ 18'30		minimum elong	11649 May 15 01:06	1° $\Pi$ 19'56	3°05'07
inferior conj	11648 May 30 18:34	17° $\Pi$ 17'14	3°15'10	min. Earth dist.	11649 May 15 10:36	0° $\Pi$ 46'53	0.68518 AU
minimum elong	11648 May 30 18:15	17° $\Pi$ 18'18	3°14'26		11649 May 16 00:10	30° $\mathbb{R}$ 8	
min. Earth dist.	11648 May 31 16:28	16° $\Pi$ 03'02	0.67808 AU	morning rise	11649 May 20 06:04	24° $\mathbb{S}$ 59'42	
morning rise	11648 Jun 05 01:01	10° $\Pi$ 56'57		direct	11649 May 25 10:51	22° $\mathbb{S}$ 43'09	
direct	11648 Jun 10 18:35	8° $\Pi$ 24'21		desc. node	11649 Jun 04 15:41	28° $\mathbb{S}$ 42'34	
desc. node	11648 Jun 17 18:42	11° $\Pi$ 16'33		morning max el	11649 Jun 04 20:02	28° $\mathbb{S}$ 53'30	23°15'17
morning max el	11648 Jun 22 09:57	15° $\Pi$ 23'25	24°44'46		11649 Jun 05 21:43	0° $\Pi$	
	11648 Jul 04 09:57	0° $\mathbb{S}$			11649 Jun 28 03:28	0° $\mathbb{S}$	
	11648 Jul 24 00:13	0° $\Omega$		morning set	11649 Jul 09 13:23	18° $\mathbb{S}$ 13'36	
morning set	11648 Jul 28 05:52	7° $\Omega$ 18'15		max. Earth dist.	11649 Jul 13 17:15	25° $\mathbb{S}$ 18'28	1.39549 AU
max. Earth dist.	11648 Jul 31 19:50	13° $\Omega$ 43'47	1.37240 AU		11649 Jul 16 09:31	0° $\Omega$	
superior conj	11648 Aug 07 15:05	26° $\Omega$ 34'35	-0°33'45	superior conj	11649 Jul 21 09:54	9° $\Omega$ 05'05	-1°07'44
minimum elong	11648 Aug 07 17:18	26° $\Omega$ 45'26	0°33'48	minimum elong	11649 Jul 21 14:39	9° $\Omega$ 27'02	1°07'36
	11648 Aug 09 08:58	0° $\mathbb{P}$		asc. node	11649 Jul 29 02:03	23° $\Omega$ 37'36	
asc. node	11648 Aug 11 05:16	3° $\mathbb{P}$ 39'49		evening rise	11649 Jul 30 21:40	27° $\Omega$ 07'44	
evening rise	11648 Aug 16 01:58	13° $\mathbb{P}$ 25'23			11649 Aug 01 09:33	0° $\mathbb{P}$	
	11648 Aug 24 20:30	0° $\mathbb{A}$		evening max el	11649 Aug 15 23:33	23° $\mathbb{P}$ 08'59	18°37'33
evening max el	11648 Sep 01 22:53	11° $\mathbb{A}$ 04'42	19°24'54	retrograde	11649 Aug 24 00:46	27° $\mathbb{P}$ 11'24	
retrograde	11648 Sep 11 10:55	15° $\mathbb{A}$ 48'35		evening set	11649 Aug 26 00:19	26° $\mathbb{P}$ 57'32	
evening set	11648 Sep 13 07:14	15° $\mathbb{A}$ 38'39		desc. node	11649 Aug 31 13:44	24° $\mathbb{P}$ 15'02	
desc. node	11648 Sep 13 16:21	15° $\mathbb{A}$ 34'14		inferior conj	11649 Sep 02 22:45	22° $\mathbb{P}$ 31'08	-0°44'30
inferior conj	11648 Sep 21 23:32	11° $\mathbb{A}$ 31'35	-2°34'45	minimum elong	11649 Sep 02 20:58	22° $\mathbb{P}$ 34'31	0°43'58
minimum elong	11648 Sep 21 16:43	11° $\mathbb{A}$ 42'37	2°32'06	min. Earth dist.	11649 Sep 06 03:40	20° $\mathbb{P}$ 06'38	0.57341 AU
min. Earth dist.	11648 Sep 24 11:34	9° $\mathbb{A}$ 54'41	0.55647 AU	morning rise	11649 Sep 10 14:12	17° $\mathbb{P}$ 23'07	
morning rise	11648 Sep 29 23:49	7° $\mathbb{A}$ 01'13		direct	11649 Sep 16 11:17	15° $\mathbb{P}$ 57'17	
direct	11648 Oct 05 03:25	6° $\mathbb{A}$ 01'20		morning max el	11649 Sep 30 18:35	23° $\mathbb{P}$ 27'09	26°43'45
morning max el	11648 Oct 19 03:17	13° $\mathbb{A}$ 03'51	25°15'27		11649 Oct 06 16:24	0° $\mathbb{A}$	
	11648 Nov 01 07:29	0° $\mathbb{M}$		asc. node	11649 Oct 25 03:13	29° $\mathbb{A}$ 42'04	
asc. node	11648 Nov 07 06:24	10° $\mathbb{M}$ 20'14			11649 Oct 25 06:52	0° $\mathbb{M}$	
morning set	11648 Nov 14 19:39	25° $\mathbb{M}$ 34'14		morning set	11649 Oct 30 05:41	10° $\mathbb{M}$ 10'48	
	11648 Nov 16 20:45	0° $\mathbb{X}$		superior conj	11649 Nov 06 02:23	25° $\mathbb{M}$ 15'45	1°32'55
superior conj	11648 Nov 21 14:58	10° $\mathbb{X}$ 29'26	1°38'31	minimum elong	11649 Nov 06 00:56	25° $\mathbb{M}$ 07'42	1°33'23
minimum elong	11648 Nov 21 14:27	10° $\mathbb{X}$ 26'36	1°39'12	max. Earth dist.	11649 Nov 06 11:57	26° $\mathbb{M}$ 09'03	1.31482 AU
max. Earth dist.	11648 Nov 23 03:57	13° $\mathbb{X}$ 52'45	1.32091 AU		11649 Nov 08 05:32	0° $\mathbb{X}$	
evening rise	11648 Nov 28 19:12	25° $\mathbb{X}$ 54'23		evening rise	11649 Nov 12 22:58	10° $\mathbb{X}$ 15'56	
	11648 Nov 30 19:29	0° $\mathbb{Z}$			11649 Nov 23 01:51	0° $\mathbb{Z}$	
desc. node	11648 Dec 10 13:56	18° $\mathbb{Z}$ 03'43		desc. node	11649 Nov 27 11:02	7° $\mathbb{Z}$ 24'25	
	11648 Dec 18 04:08	0° $\approx$		evening max el	11649 Dec 13 20:05	28° $\mathbb{Z}$ 37'21	27°06'01
evening max el	11648 Dec 31 14:19	16° $\approx$ 20'24	27°31'06		11649 Dec 15 08:34	0° $\approx$	
retrograde	11649 Jan 14 10:20	23° $\approx$ 39'55		retrograde	11649 Dec 27 18:05	5° $\approx$ 49'01	
evening set	11649 Jan 21 09:46	21° $\approx$ 18'16		evening set	11650 Jan 03 15:06	3° $\approx$ 45'25	
min. Earth dist.	11649 Jan 25 03:31	18° $\approx$ 16'29	0.62527 AU	min. Earth dist.	11650 Jan 07 10:30	1° $\approx$ 03'34	0.60425 AU
inferior conj	11649 Jan 28 00:52	15° $\approx$ 31'08	-2°01'37		11650 Jan 08 17:21	30° $\mathbb{R}$ 3	
minimum elong	11649 Jan 28 04:57	15° $\approx$ 21'22	1°59'25	inferior conj	11650 Jan 10 14:10	28° $\mathbb{Z}$ 25'18	-3°19'48
asc. node	11649 Feb 03 05:29	10° $\approx$ 44'14		minimum elong	11650 Jan 10 21:02	28° $\mathbb{Z}$ 10'55	3°16'41
morning rise	11649 Feb 04 02:35	10° $\approx$ 23'00		morning rise	11650 Jan 18 05:44	23° $\mathbb{Z}$ 37'05	
direct	11649 Feb 06 08:57	9° $\approx$ 59'28		direct	11650 Jan 20 08:26	23° $\mathbb{Z}$ 19'30	
morning max el	11649 Feb 13 01:37	13° $\approx$ 24'19	17°47'09	asc. node	11650 Jan 21 02:44	23° $\mathbb{Z}$ 21'52	
	11649 Feb 24 10:57	0° $\mathbb{X}$		morning max el	11650 Jan 27 16:16	26° $\mathbb{Z}$ 59'07	18°00'46
morning set	11649 Mar 01 00:18	7° $\mathbb{X}$ 58'28			11650 Jan 30 08:14	0° $\approx$	
desc. node	11649 Mar 08 14:32	21° $\mathbb{X}$ 12'37		morning set	11650 Feb 12 06:35	21° $\approx$ 34'44	
					11650 Feb 16 20:16	0° $\mathbb{X}$	
superior conj	11649 Mar 12 16:28	28° $\mathbb{X}$ 07'19	-0°30'50	superior conj	11650 Feb 22 08:53	9° $\mathbb{X}$ 56'03	0°08'32
minimum elong	11649 Mar 12 13:25	27° $\mathbb{X}$ 54'33	0°30'15	minimum elong	11650 Feb 22 09:36	9° $\mathbb{X}$ 59'14	0°08'44
	11649 Mar 13 19:29	0° $\mathbb{Y}$		behind sun begin	11650 Feb 22 02:55	9° $\mathbb{X}$ 29'41	
max. Earth dist.	11649 Mar 19 10:07	9° $\mathbb{Y}$ 10'18	1.43999 AU	behind sun end	11650 Feb 22 16:18	10° $\mathbb{X}$ 28'43	
evening rise	11649 Mar 27 10:47	21° $\mathbb{Y}$ 49'29		desc. node	11650 Feb 23 11:13	11° $\mathbb{X}$ 51'36	
	11649 Apr 01 19:13	0° $\mathbb{S}$		max. Earth dist.	11650 Mar 01 23:16	22° $\mathbb{X}$ 56'35	1.42246 AU
	11649 Apr 23 03:12	0° $\Pi$			11650 Mar 06 06:52	0° $\mathbb{Y}$	
evening max el	11649 Apr 26 20:17	4° $\Pi$ 07'46	21°12'15				

evening rise	11650 Mar 07 12:53	2°Υ00'10			11651 Feb 27 02:22	0°Υ	
	11650 Mar 26 05:35	0°Ϡ			11651 Mar 21 12:33	0°Ϡ	
evening max el	11650 Apr 09 13:58	17°Ϡ54'28	22°29'18	evening max el	11651 Mar 23 04:28	1°Ϡ43'08	23°50'01
retrograde	11650 Apr 19 09:30	23°Ϡ42'18		retrograde	11651 Apr 03 03:45	8°Ϡ10'48	
asc. node	11650 Apr 19 00:07	23°Ϡ41'35		asc. node	11651 Apr 05 21:27	7°Ϡ36'00	
evening set	11650 Apr 24 04:00	21°Ϡ43'26		evening set	11651 Apr 08 09:51	5°Ϡ58'22	
inferior conj	11650 Apr 29 11:36	15°Ϡ21'01	2°46'13	min. Earth dist.	11651 Apr 13 03:38	0°Ϡ27'15	0.68546 AU
minimum elong	11650 Apr 29 09:43	15°Ϡ27'35	2°45'20		11651 Apr 13 11:37	30°ϠΥ	
min. Earth dist.	11650 Apr 29 07:03	15°Ϡ36'54	0.68760 AU	inferior conj	11651 Apr 13 20:28	29°Υ29'48	2°16'43
morning rise	11650 May 04 15:19	9°Ϡ10'47		minimum elong	11651 Apr 13 18:18	29°Υ37'12	2°15'49
direct	11650 May 09 06:45	7°Ϡ14'19		morning rise	11651 Apr 19 02:47	23°Υ26'26	
morning max el	11650 May 18 09:16	12°Ϡ32'38	21°47'43	direct	11651 Apr 23 05:11	21°Υ51'26	
desc. node	11650 May 22 12:36	17°Ϡ07'35		morning max el	11651 May 01 04:38	26°Υ22'56	20°29'12
	11650 Jun 01 05:55	0°Π			11651 May 04 11:52	0°Ϡ	
morning set	11650 Jun 19 19:08	27°Π59'46		desc. node	11651 May 09 09:24	6°Ϡ15'25	
	11650 Jun 21 01:09	0°Ϡ			11651 May 25 16:05	0°Π	
max. Earth dist.	11650 Jun 25 18:30	7°Ϡ42'41	1.41784 AU	morning set	11651 May 30 02:08	6°Π47'09	
				max. Earth dist.	11651 Jun 08 02:06	20°Π58'17	1.43675 AU
superior conj	11650 Jul 03 09:52	20°Ϡ43'38	-1°39'28		11651 Jun 13 15:05	0°Ϡ	
minimum elong	11650 Jul 03 16:28	21°Ϡ12'31	1°39'27				
	11650 Jul 08 14:55	0°Ω		superior conj	11651 Jun 14 10:56	1°Ϡ22'09	-2°03'35
evening rise	11650 Jul 14 05:53	10°Ω16'56		minimum elong	11651 Jun 14 16:38	1°Ϡ45'50	2°04'01
asc. node	11650 Jul 15 22:54	13°Ω25'13		evening rise	11651 Jun 26 22:01	22°Ϡ41'37	
	11650 Jul 25 15:49	0°Π			11651 Jul 01 02:28	0°Ω	
evening max el	11650 Jul 30 08:28	5°Π50'37	18°10'56	asc. node	11651 Jul 02 19:49	2°Ω58'03	
retrograde	11650 Aug 06 09:32	9°Π25'14		evening max el	11651 Jul 13 21:41	19°Ω00'12	18°03'53
evening set	11650 Aug 08 16:09	9°Π03'24		retrograde	11651 Jul 20 09:34	22°Ω21'41	
inferior conj	11650 Aug 15 19:43	4°Π16'26	0°47'31	evening set	11651 Jul 23 00:12	21°Ω48'29	
minimum elong	11650 Aug 15 21:13	4°Π13'06	0°46'34	inferior conj	11651 Jul 29 11:34	16°Ω42'21	1°55'01
desc. node	11650 Aug 18 11:07	1°Π56'14		minimum elong	11651 Jul 29 14:13	16°Ω35'38	1°53'40
min. Earth dist.	11650 Aug 19 03:19	1°Π21'45	0.59486 AU	min. Earth dist.	11651 Aug 01 11:56	13°Ω40'04	0.61768 AU
	11650 Aug 20 20:26	30°ϠΩ		morning rise	11651 Aug 05 01:49	10°Ω38'24	
morning rise	11650 Aug 22 23:01	28°Ω35'11		desc. node	11651 Aug 05 08:27	10°Ω27'04	
direct	11650 Aug 29 08:49	26°Ω40'33		direct	11651 Aug 11 17:57	8°Ω18'20	
	11650 Sep 07 09:02	0°Π		morning max el	11651 Aug 25 22:31	16°Ω19'34	27°57'43
morning max el	11650 Sep 12 17:18	4°Π30'30	27°39'59		11651 Sep 06 04:45	0°Π	
	11650 Oct 01 13:17	0°Ω			11651 Sep 24 05:09	0°Ω	
asc. node	11650 Oct 11 23:59	19°Ω22'44		morning set	11651 Sep 28 13:31	8°Ω39'30	
morning set	11650 Oct 14 12:17	24°Ω34'14		asc. node	11651 Sep 28 20:43	9°Ω16'33	
	11650 Oct 17 01:17	0°Π		max. Earth dist.	11651 Oct 04 03:17	20°Ω28'59	1.31763 AU
max. Earth dist.	11650 Oct 20 20:59	8°Π24'23	1.31367 AU				
				superior conj	11651 Oct 05 23:54	24°Ω33'32	1°05'01
superior conj	11650 Oct 21 13:58	9°Π58'51	1°21'41	minimum elong	11651 Oct 05 21:40	24°Ω21'10	1°04'53
minimum elong	11650 Oct 21 11:54	9°Π47'22	1°21'51		11651 Oct 08 11:03	0°Π	
evening rise	11650 Oct 28 07:11	24°Π47'09		evening rise	11651 Oct 12 17:56	9°Π23'00	
	11650 Oct 30 18:27	0°Ϡ			11651 Oct 23 04:59	0°Ϡ	
desc. node	11650 Nov 14 08:13	26°Ϡ03'20		desc. node	11651 Nov 01 05:27	13°Ϡ44'21	
	11650 Nov 17 02:43	0°Ϡ		evening max el	11651 Nov 07 08:08	20°Ϡ37'56	24°39'57
evening max el	11650 Nov 25 18:07	10°Ϡ02'14	26°06'54	retrograde	11651 Nov 21 02:46	27°Ϡ31'46	
retrograde	11650 Dec 09 16:13	17°Ϡ06'08		evening set	11651 Nov 26 11:50	26°Ϡ27'25	
evening set	11650 Dec 16 01:14	15°Ϡ29'16		min. Earth dist.	11651 Dec 01 19:43	23°Ϡ40'23	0.56430 AU
min. Earth dist.	11650 Dec 20 07:06	12°Ϡ53'52	0.58307 AU	inferior conj	11651 Dec 04 08:21	22°Ϡ04'06	-5°32'20
inferior conj	11650 Dec 23 09:29	10°Ϡ38'43	-4°35'08	minimum elong	11651 Dec 04 14:16	21°Ϡ54'40	5°30'48
minimum elong	11650 Dec 23 17:48	10°Ϡ23'32	4°32'10	morning rise	11651 Dec 12 18:52	17°Ϡ59'37	
morning rise	11650 Dec 31 13:05	6°Ϡ12'51		direct	11651 Dec 15 05:13	17°Ϡ43'26	
direct	11651 Jan 02 16:23	5°Ϡ57'49		morning max el	11651 Dec 24 21:45	22°Ϡ21'56	19°30'24
asc. node	11651 Jan 07 23:56	7°Ϡ36'59		asc. node	11651 Dec 25 21:02	23°Ϡ20'35	
morning max el	11651 Jan 11 00:19	10°Ϡ02'04	18°34'33		11651 Dec 31 01:16	0°Ϡ	
	11651 Jan 24 01:21	0°≈		morning set	11652 Jan 11 03:40	20°Ϡ12'27	
morning set	11651 Jan 27 01:02	5°≈43'12			11652 Jan 16 00:25	0°≈	
superior conj	11651 Feb 04 22:17	22°≈42'51	0°41'34	superior conj	11652 Jan 19 03:53	6°≈14'07	1°06'57
minimum elong	11651 Feb 05 00:54	22°≈54'58	0°41'40	minimum elong	11652 Jan 19 06:49	6°≈28'29	1°07'13
	11651 Feb 08 21:54	0°Ϡ		max. Earth dist.	11652 Jan 25 13:18	18°≈22'40	1.37907 AU
desc. node	11651 Feb 10 07:54	2°Ϡ31'34		desc. node	11652 Jan 28 04:38	23°≈09'03	
max. Earth dist.	11651 Feb 12 07:24	5°Ϡ59'53	1.40132 AU	evening rise	11652 Jan 29 06:47	25°≈04'49	
evening rise	11651 Feb 16 11:17	13°Ϡ05'05			11652 Feb 01 02:58	0°Ϡ	

	11652 Feb 20 17:43	0°♿		evening rise	11653 Jan 10 20:41	7°♿51'41	
evening max el	11652 Mar 04 17:55	15°♿33'59	25°07'44	desc. node	11653 Jan 14 01:26	13°♿40'22	
retrograde	11652 Mar 16 17:53	22°♿31'50			11653 Jan 23 20:02	0°♿	
evening set	11652 Mar 22 11:50	20°♿08'26		evening max el	11653 Feb 15 07:34	29°♿23'29	26°15'08
asc. node	11652 Mar 22 18:48	19°♿53'18			11653 Feb 15 22:48	0°♿	
min. Earth dist.	11652 Mar 26 22:09	15°♿12'33	0.67906 AU	retrograde	11653 Feb 28 02:53	6°♿39'35	
inferior conj	11652 Mar 28 03:00	13°♿38'10	1°37'33	evening set	11653 Mar 06 08:19	4°♿08'50	
minimum elong	11652 Mar 28 01:01	13°♿44'39	1°36'47	asc. node	11653 Mar 09 16:07	0°♿47'47	
morning rise	11652 Apr 02 14:31	7°♿42'59			11653 Mar 10 08:17	30°♿♿	
direct	11652 Apr 06 04:47	6°♿28'41		min. Earth dist.	11653 Mar 10 12:21	29°♿47'45	0.66860 AU
morning max el	11652 Apr 13 07:36	10°♿24'01	19°24'15	inferior conj	11653 Mar 12 05:14	27°♿42'18	0°48'36
desc. node	11652 Apr 25 06:08	25°♿54'13		minimum elong	11653 Mar 12 04:02	27°♿46'00	0°48'14
greatest brilliancy	11652 Apr 26 00:54	27°♿03'22	-0.7m	morning rise	11653 Mar 18 00:32	21°♿57'08	
	11652 Apr 28 00:22	0°♿		direct	11653 Mar 21 03:51	21°♿01'22	
morning set	11652 May 08 02:21	15°♿21'35		morning max el	11653 Mar 27 17:45	24°♿33'09	18°35'13
	11652 May 17 12:45	0°♿			11653 Apr 01 09:11	0°♿	
max. Earth dist.	11652 May 20 16:01	4°♿55'33	1.45020 AU	desc. node	11653 Apr 12 02:49	15°♿56'00	
				morning set	11653 Apr 17 18:45	24°♿49'06	
superior conj	11652 May 24 12:15	11°♿00'56	-2°13'20		11653 Apr 21 01:55	0°♿	
minimum elong	11652 May 24 12:23	11°♿01'31	2°14'01	superior conj	11653 May 03 21:16	20°♿02'33	-2°03'21
	11652 Jun 05 04:46	0°♿		minimum elong	11653 May 03 14:06	19°♿34'34	2°03'29
evening rise	11652 Jun 07 16:56	4°♿09'33		max. Earth dist.	11653 May 03 10:36	19°♿20'50	1.45679 AU
asc. node	11652 Jun 18 16:48	22°♿09'30			11653 May 10 05:45	0°♿	
	11652 Jun 24 06:25	0°♿		evening rise	11653 May 19 11:43	14°♿37'21	
evening max el	11652 Jun 26 11:39	2°♿27'44	18°15'26	greatest brilliancy	11653 May 27 15:41	27°♿35'02	-0.8m
retrograde	11652 Jul 02 20:22	5°♿50'13			11653 May 29 04:44	0°♿	
evening set	11652 Jul 05 19:12	5°♿03'10		asc. node	11653 Jun 05 13:50	10°♿52'26	
	11652 Jul 11 10:57	30°♿♿		evening max el	11653 Jun 09 23:26	16°♿05'56	18°44'45
inferior conj	11652 Jul 11 18:10	29°♿39'35	2°39'41	retrograde	11653 Jun 16 14:07	19°♿43'01	
minimum elong	11652 Jul 11 20:32	29°♿32'51	2°38'29	evening set	11653 Jun 19 21:19	18°♿40'37	
min. Earth dist.	11652 Jul 14 05:45	26°♿51'07	0.63922 AU	inferior conj	11653 Jun 25 11:38	13°♿01'03	3°05'15
morning rise	11652 Jul 17 20:24	23°♿23'05		minimum elong	11653 Jun 25 13:04	12°♿56'36	3°04'19
desc. node	11652 Jul 22 05:43	21°♿03'59		min. Earth dist.	11653 Jun 27 08:26	10°♿42'24	0.65763 AU
direct	11652 Jul 24 12:14	20°♿46'23		morning rise	11653 Jul 01 04:04	6°♿39'30	
morning max el	11652 Aug 07 07:43	28°♿47'52	27°38'12	direct	11653 Jul 07 13:59	3°♿56'53	
	11652 Aug 08 11:41	0°♿		desc. node	11653 Jul 09 02:54	4°♿05'12	
	11652 Aug 30 01:34	0°♿		morning max el	11653 Jul 20 18:30	11°♿45'41	26°47'19
morning set	11652 Sep 11 06:57	22°♿19'43			11653 Aug 04 07:47	0°♿	
asc. node	11652 Sep 14 17:25	29°♿18'09			11653 Aug 22 15:33	0°♿	
	11652 Sep 15 01:30	0°♿		morning set	11653 Aug 25 13:36	5°♿27'38	
max. Earth dist.	11652 Sep 16 03:00	2°♿13'17	1.32679 AU	max. Earth dist.	11653 Aug 29 17:24	13°♿34'50	1.34106 AU
				asc. node	11653 Sep 01 14:07	19°♿23'34	
superior conj	11652 Sep 19 06:11	8°♿53'39	0°43'06	superior conj	11653 Sep 03 06:33	22°♿53'06	0°16'19
minimum elong	11652 Sep 19 04:19	8°♿43'32	0°42'47	minimum elong	11653 Sep 03 05:42	22°♿48'41	0°15'58
evening rise	11652 Sep 26 05:16	23°♿57'44		behind sun begin	11653 Sep 03 05:03	22°♿45'18	
	11652 Sep 29 02:12	0°♿		behind sun end	11653 Sep 03 06:21	22°♿52'03	
desc. node	11652 Oct 18 02:45	0°♿05'29			11653 Sep 06 15:37	0°♿	
	11652 Oct 18 00:35	0°♿		evening rise	11653 Sep 10 15:18	8°♿26'19	
evening max el	11652 Oct 18 18:34	0°♿44'45	22°59'19		11653 Sep 21 23:59	0°♿	
retrograde	11652 Nov 01 00:06	7°♿19'31		evening max el	11653 Sep 30 10:18	10°♿58'16	21°22'24
evening set	11652 Nov 04 23:39	6°♿45'03		desc. node	11653 Oct 05 00:06	14°♿39'26	
min. Earth dist.	11652 Nov 12 03:38	3°♿28'10	0.55097 AU	retrograde	11653 Oct 12 12:11	16°♿58'25	
inferior conj	11652 Nov 13 12:02	2°♿41'39	-5°49'37	evening set	11653 Oct 15 03:57	16°♿42'09	
minimum elong	11652 Nov 13 10:28	2°♿43'54	5°48'56	inferior conj	11653 Oct 24 04:31	12°♿47'06	-5°09'45
	11652 Nov 18 15:02	30°♿♿		minimum elong	11653 Oct 23 19:39	12°♿59'33	5°07'30
morning rise	11652 Nov 21 22:51	28°♿52'09		min. Earth dist.	11653 Oct 24 10:15	12°♿39'04	0.54575 AU
direct	11652 Nov 24 23:59	28°♿30'22		morning rise	11653 Nov 01 12:09	8°♿57'31	
	11652 Nov 30 23:05	0°♿		direct	11653 Nov 05 08:26	8°♿25'40	
morning max el	11652 Dec 06 05:29	3°♿50'03	20°49'12	morning max el	11653 Nov 18 00:04	14°♿28'22	22°27'47
asc. node	11652 Dec 11 18:04	10°♿16'46		asc. node	11653 Nov 28 15:01	28°♿09'25	
	11652 Dec 23 02:00	0°♿			11653 Nov 29 17:46	0°♿	
morning set	11652 Dec 25 11:34	4°♿54'16		morning set	11653 Dec 09 22:23	19°♿41'16	
					11653 Dec 14 18:06	0°♿	
superior conj	11653 Jan 01 21:21	20°♿17'44	1°24'40	superior conj	11653 Dec 16 23:05	4°♿43'03	1°35'10
minimum elong	11653 Jan 01 23:40	20°♿29'40	1°25'10				
	11653 Jan 06 17:36	0°♿					
max. Earth dist.	11653 Jan 06 22:00	0°♿21'28	1.35807 AU				

minimum elong	11653 Dec 17 00:22	4°♁49'51	1°35'53	asc. node	11654 Nov 15 11:55	16°♁45'06	
max. Earth dist.	11653 Dec 20 13:23	12°♁14'48	1.34019 AU		11654 Nov 22 07:23	0°♁	
evening rise	11653 Dec 25 01:16	21°♁15'19		morning set	11654 Nov 24 10:15	4°♁28'18	
	11653 Dec 29 16:39	0°♁					
desc. node	11653 Dec 31 22:18	4°♁00'19		superior conj	11654 Dec 01 06:23	19°♁22'14	1°39'05
	11654 Jan 17 16:47	0°♁		minimum elong	11654 Dec 01 06:30	19°♁22'54	1°39'49
evening max el	11654 Jan 28 21:07	13°♁01'56	27°04'55	max. Earth dist.	11654 Dec 03 12:33	24°♁15'47	1.32658 AU
retrograde	11654 Feb 11 05:57	20°♁25'42			11654 Dec 06 05:25	0°♁	
evening set	11654 Feb 17 21:17	17°♁52'36		evening rise	11654 Dec 08 17:09	5°♁07'33	
min. Earth dist.	11654 Feb 21 20:00	14°♁05'11	0.65433 AU	desc. node	11654 Dec 18 19:17	24°♁03'28	
inferior conj	11654 Feb 24 00:50	11°♁36'00	-0°10'17		11654 Dec 22 08:32	0°♁	
minimum elong	11654 Feb 24 01:08	11°♁35'12	0°09'51	evening max el	11655 Jan 11 09:17	26°♁18'05	27°30'02
transit middle	11654 Feb 24 01:08	11°♁35'12	0°09'51		11655 Jan 15 18:22	0°♁	
transit begin	11654 Feb 23 22:46	11°♁41'54		retrograde	11655 Jan 25 02:29	3°♁41'26	
transit end	11654 Feb 24 03:29	11°♁28'31		evening set	11655 Feb 01 00:28	1°♁12'53	
asc. node	11654 Feb 24 13:26	11°♁00'33			11655 Feb 02 13:39	30°♁	
morning rise	11654 Mar 02 06:25	6°♁03'14		min. Earth dist.	11655 Feb 04 19:11	27°♁56'09	0.63668 AU
direct	11654 Mar 05 00:09	5°♁22'54		inferior conj	11655 Feb 07 11:13	25°♁12'57	-1°18'38
morning max el	11654 Mar 11 09:02	8°♁43'25	18°02'55	minimum elong	11655 Feb 07 13:44	25°♁06'30	1°17'06
	11654 Mar 26 03:54	0°♁		asc. node	11655 Feb 11 10:43	21°♁32'22	
morning set	11654 Mar 29 15:20	5°♁40'42		morning rise	11655 Feb 14 05:11	19°♁55'13	
desc. node	11654 Mar 29 23:28	6°♁13'54		direct	11655 Feb 16 15:01	19°♁26'43	
				morning max el	11655 Feb 23 02:40	22°♁47'04	17°47'48
superior conj	11654 Apr 13 06:27	29°♁11'23	-1°34'35		11655 Feb 28 19:38	0°♁	
minimum elong	11654 Apr 12 21:11	28°♁34'50	1°33'56	morning set	11655 Mar 11 15:07	17°♁50'54	
	11654 Apr 13 18:47	0°♁		desc. node	11655 Mar 16 20:07	26°♁43'05	
max. Earth dist.	11654 Apr 16 06:51	3°♁55'57	1.45588 AU		11655 Mar 18 18:58	0°♁	
evening rise	11654 Apr 29 09:09	24°♁16'25					
	11654 May 03 02:20	0°♁		superior conj	11655 Mar 24 08:36	9°♁11'51	-0°54'55
greatest brilliancy	11654 May 12 12:34	14°♁19'11	-0.7m	minimum elong	11655 Mar 24 02:50	8°♁48'18	0°54'09
asc. node	11654 May 23 10:56	28°♁57'00		max. Earth dist.	11655 Mar 30 01:35	18°♁22'31	1.44766 AU
	11654 May 24 11:20	0°♁			11655 Apr 06 11:49	0°♁	
evening max el	11654 May 24 06:49	29°♁48'45	19°30'50	evening rise	11655 Apr 08 20:36	3°♁38'31	
retrograde	11654 May 31 11:40	3°♁52'51			11655 Apr 26 14:22	0°♁	
evening set	11654 Jun 04 03:40	2°♁34'27		evening max el	11655 May 07 08:35	13°♁33'10	20°31'45
	11654 Jun 06 21:12	30°♁		asc. node	11655 May 10 08:06	16°♁11'15	
inferior conj	11654 Jun 09 12:43	26°♁40'27	3°15'19	retrograde	11655 May 15 10:32	18°♁14'16	
minimum elong	11654 Jun 09 13:02	26°♁39'26	3°14'33	evening set	11655 May 19 12:03	16°♁39'50	
min. Earth dist.	11654 Jun 10 18:42	25°♁01'23	0.67188 AU	inferior conj	11655 May 24 18:43	10°♁33'04	3°12'34
morning rise	11654 Jun 14 22:00	20°♁18'41		minimum elong	11655 May 24 17:59	10°♁35'36	3°11'50
direct	11654 Jun 20 22:08	17°♁40'14		min. Earth dist.	11655 May 25 10:41	9°♁38'12	0.68162 AU
desc. node	11654 Jun 26 00:01	19°♁11'07		morning rise	11655 May 29 23:39	4°♁14'14	
morning max el	11654 Jul 03 05:06	25°♁01'59	25°33'41	direct	11655 Jun 04 11:47	1°♁47'55	
	11654 Jul 07 17:05	0°♁		desc. node	11655 Jun 12 21:04	5°♁53'19	
	11654 Jul 28 19:11	0°♁		morning max el	11655 Jun 15 14:57	8°♁27'58	24°07'00
morning set	11654 Aug 08 05:44	17°♁53'45			11655 Jul 02 12:33	0°♁	
max. Earth dist.	11654 Aug 11 21:51	24°♁41'41	1.35990 AU	morning set	11655 Jul 21 02:35	29°♁25'42	
	11654 Aug 14 16:17	0°♁			11655 Jul 21 10:32	0°♁	
				max. Earth dist.	11655 Jul 24 19:32	5°♁55'29	1.38205 AU
superior conj	11654 Aug 17 22:15	6°♁24'49	-0°14'37				
minimum elong	11654 Aug 17 23:09	6°♁29'23	0°14'48	superior conj	11655 Aug 01 01:49	19°♁19'48	-0°48'11
behind sun begin	11654 Aug 17 20:39	6°♁16'50		minimum elong	11655 Aug 01 05:06	19°♁35'29	0°48'09
behind sun end	11654 Aug 18 01:40	6°♁41'57		asc. node	11655 Aug 06 07:36	29°♁30'25	
asc. node	11654 Aug 19 10:50	9°♁29'06			11655 Aug 06 13:36	0°♁	
evening rise	11654 Aug 25 21:54	22°♁42'46		evening rise	11655 Aug 09 22:28	6°♁39'23	
	11654 Aug 29 12:52	0°♁			11655 Aug 23 08:30	0°♁	
evening max el	11654 Sep 12 14:42	21°♁49'37	20°01'49	evening max el	11655 Aug 26 08:48	3°♁28'03	19°02'13
desc. node	11654 Sep 21 21:28	26°♁58'28		retrograde	11655 Sep 04 05:12	7°♁53'09	
retrograde	11654 Sep 23 02:11	27°♁02'23		evening set	11655 Sep 06 01:51	7°♁42'13	
evening set	11654 Sep 25 00:45	26°♁52'27		desc. node	11655 Sep 08 18:53	6°♁50'27	
inferior conj	11654 Oct 03 23:59	22°♁52'51	-3°38'57	inferior conj	11655 Sep 14 11:06	3°♁27'40	-1°46'45
minimum elong	11654 Oct 03 14:45	23°♁06'46	3°35'40	minimum elong	11655 Sep 14 06:29	3°♁35'37	1°44'58
min. Earth dist.	11654 Oct 05 19:03	21°♁48'00	0.54990 AU	min. Earth dist.	11655 Sep 17 08:16	1°♁28'41	0.56283 AU
morning rise	11654 Oct 12 03:34	18°♁41'48			11655 Sep 19 16:56	30°♁	
direct	11654 Oct 16 19:32	17°♁54'28		morning rise	11655 Sep 22 08:02	28°♁40'58	
morning max el	11654 Oct 30 11:32	24°♁37'25	24°15'41	direct	11655 Sep 27 19:20	27°♁30'39	
	11654 Nov 04 10:24	0°♁			11655 Oct 05 21:13	0°♁	

morning max el	11655 Oct 11 23:43	4° $\Omega$ 46'42	25°56'10	desc. node	11656 Aug 25 16:15	14° $\Pi$ 53'13	
	11655 Oct 30 04:38	0° $\Pi$		min. Earth dist.	11656 Aug 29 03:29	12° $\Pi$ 06'09	0.58220 AU
asc. node	11655 Nov 02 08:46	5° $\Pi$ 52'10		morning rise	11656 Sep 02 06:13	9° $\Pi$ 23'12	
morning set	11655 Nov 08 21:25	19° $\Pi$ 09'33		direct	11656 Sep 08 09:43	7° $\Pi$ 44'42	
	11655 Nov 13 20:16	0° $\Sigma$		morning max el	11656 Sep 22 17:52	15° $\Pi$ 24'18	27°12'03
					11656 Oct 04 14:07	0° $\Omega$	
superior conj	11655 Nov 15 16:52	4° $\Sigma$ 07'29	1°36'51	asc. node	11656 Oct 19 05:35	25° $\Omega$ 22'18	
minimum elong	11655 Nov 15 15:56	4° $\Sigma$ 02'17	1°37'27		11656 Oct 21 12:10	0° $\Pi$	
max. Earth dist.	11655 Nov 16 17:56	6° $\Sigma$ 26'16	1.31768 AU	morning set	11656 Oct 23 06:11	3° $\Pi$ 40'24	
evening rise	11655 Nov 22 17:17	19° $\Sigma$ 19'58					
	11655 Nov 28 00:50	0° $\Sigma$		superior conj	11656 Oct 30 04:35	18° $\Pi$ 52'43	1°28'50
desc. node	11655 Dec 05 16:20	13° $\Sigma$ 41'57		minimum elong	11656 Oct 30 02:50	18° $\Pi$ 42'57	1°29'11
	11655 Dec 16 17:36	0° $\approx$		max. Earth dist.	11656 Oct 30 02:39	18° $\Pi$ 41'58	1.31371 AU
evening max el	11655 Dec 24 18:05	8° $\approx$ 59'39	27°24'34		11656 Nov 04 05:14	0° $\Sigma$	
retrograde	11656 Jan 07 15:35	16° $\approx$ 16'53		evening rise	11656 Nov 05 23:12	3° $\Sigma$ 45'57	
evening set	11656 Jan 14 14:50	14° $\approx$ 01'40			11656 Nov 19 19:53	0° $\Sigma$	
min. Earth dist.	11656 Jan 18 08:27	11° $\approx$ 09'35	0.61646 AU	desc. node	11656 Nov 21 13:28	2° $\Sigma$ 45'59	
inferior conj	11656 Jan 21 09:13	8° $\approx$ 25'04	-2°34'32	evening max el	11656 Dec 05 20:58	20° $\Sigma$ 55'25	26°44'56
minimum elong	11656 Jan 21 14:30	8° $\approx$ 13'03	2°31'51	retrograde	11656 Dec 19 19:36	28° $\Sigma$ 03'39	
morning rise	11656 Jan 28 16:55	3° $\approx$ 25'15		evening set	11656 Dec 26 12:33	26° $\Sigma$ 10'50	
asc. node	11656 Jan 29 07:59	3° $\approx$ 15'14		min. Earth dist.	11656 Dec 30 11:09	23° $\Sigma$ 33'19	0.59509 AU
direct	11656 Jan 30 21:09	3° $\approx$ 04'48		inferior conj	11657 Jan 02 15:17	21° $\Sigma$ 03'02	-3°52'52
morning max el	11656 Feb 06 19:26	6° $\approx$ 34'59	17°50'34	minimum elong	11657 Jan 02 23:03	20° $\Sigma$ 47'39	3°49'38
	11656 Feb 21 22:31	0° $\text{H}$		morning rise	11657 Jan 10 12:21	16° $\Sigma$ 23'50	
morning set	11656 Feb 22 12:05	1° $\text{H}$ 00'58		direct	11657 Jan 12 14:33	16° $\Sigma$ 07'48	
desc. node	11656 Mar 02 16:48	17° $\text{H}$ 19'23		asc. node	11657 Jan 15 05:14	16° $\Sigma$ 33'59	
				morning max el	11657 Jan 20 07:42	19° $\Sigma$ 57'08	18°12'30
superior conj	11656 Mar 04 11:08	20° $\text{H}$ 21'26	-0°13'33		11657 Jan 27 18:24	0° $\approx$	
minimum elong	11656 Mar 04 09:53	20° $\text{H}$ 16'09	0°13'10	morning set	11657 Feb 05 00:08	14° $\approx$ 52'30	
behind sun begin	11656 Mar 04 04:59	19° $\text{H}$ 55'09			11657 Feb 13 02:38	0° $\text{H}$	
behind sun end	11656 Mar 04 14:48	20° $\text{H}$ 37'07					
	11656 Mar 10 05:08	0° $\Upsilon$		superior conj	11657 Feb 14 13:00	2° $\text{H}$ 35'56	0°23'26
max. Earth dist.	11656 Mar 11 16:43	2° $\Upsilon$ 25'35	1.43307 AU	minimum elong	11657 Feb 14 14:45	2° $\text{H}$ 43'49	0°23'34
evening rise	11656 Mar 18 13:43	13° $\Upsilon$ 23'12		desc. node	11657 Feb 17 13:27	7° $\text{H}$ 58'51	
	11656 Mar 29 12:25	0° $\text{B}$		max. Earth dist.	11657 Feb 22 03:36	15° $\text{H}$ 53'56	1.41379 AU
evening max el	11656 Apr 19 04:57	27° $\text{B}$ 19'15	21°44'17	evening rise	11657 Feb 27 00:03	23° $\text{H}$ 56'21	
	11656 Apr 22 03:58	0° $\Pi$			11657 Mar 02 18:59	0° $\Upsilon$	
asc. node	11656 Apr 26 05:21	2° $\Pi$ 20'41			11657 Mar 23 10:44	0° $\text{B}$	
retrograde	11656 Apr 28 08:44	2° $\Pi$ 42'36		evening max el	11657 Apr 01 21:10	11° $\text{B}$ 07'05	23°03'41
evening set	11656 May 02 20:43	0° $\Pi$ 52'36		retrograde	11657 Apr 12 04:39	17° $\text{B}$ 12'14	
	11656 May 03 19:49	30° $\text{R}$ $\text{B}$		asc. node	11657 Apr 13 02:39	17° $\text{B}$ 08'16	
inferior conj	11656 May 08 03:24	24° $\text{B}$ 35'14	2°58'46	evening set	11657 Apr 17 04:00	15° $\text{B}$ 07'33	
minimum elong	11656 May 08 01:50	24° $\text{B}$ 40'39	2°57'58	min. Earth dist.	11657 Apr 22 02:57	9° $\text{B}$ 16'03	0.68725 AU
min. Earth dist.	11656 May 08 06:11	24° $\text{B}$ 25'28	0.68672 AU	inferior conj	11657 Apr 22 12:42	8° $\text{B}$ 42'18	2°34'52
morning rise	11656 May 13 06:46	18° $\text{B}$ 21'19		minimum elong	11657 Apr 22 10:39	8° $\text{B}$ 49'25	2°33'59
direct	11656 May 18 05:52	16° $\text{B}$ 12'49		morning rise	11657 Apr 27 17:12	2° $\text{B}$ 34'48	
morning max el	11656 May 28 01:54	22° $\text{B}$ 01'26	22°37'15	direct	11657 May 02 03:07	0° $\text{B}$ 47'10	
desc. node	11656 May 29 18:02	23° $\text{B}$ 46'43		morning max el	11657 May 10 17:15	5° $\text{B}$ 44'13	21°12'49
	11656 Jun 03 23:36	0° $\Pi$		desc. node	11657 May 16 14:53	12° $\text{B}$ 31'15	
	11656 Jun 24 19:27	0° $\text{C}$			11657 May 29 04:21	0° $\Pi$	
morning set	11656 Jun 30 23:23	9° $\text{C}$ 52'11		morning set	11657 Jun 10 18:19	19° $\Pi$ 09'18	
max. Earth dist.	11656 Jul 05 17:28	17° $\text{C}$ 47'34	1.40522 AU		11657 Jun 17 12:57	0° $\text{C}$	
	11656 Jul 12 17:19	0° $\Omega$		max. Earth dist.	11657 Jun 17 21:21	0° $\text{C}$ 34'19	1.42651 AU
superior conj	11656 Jul 13 13:13	1° $\Omega$ 29'32	-1°21'44	superior conj	11657 Jun 25 03:49	12° $\text{C}$ 43'10	-1°51'01
minimum elong	11656 Jul 13 18:55	1° $\Omega$ 55'19	1°21'38	minimum elong	11657 Jun 25 10:31	13° $\text{C}$ 11'50	1°51'10
asc. node	11656 Jul 23 04:25	19° $\Omega$ 24'14			11657 Jul 04 23:46	0° $\Omega$	
evening rise	11656 Jul 23 13:48	20° $\Omega$ 08'37		evening rise	11657 Jul 06 15:43	2° $\Omega$ 59'42	
	11656 Jul 28 20:53	0° $\Pi$		asc. node	11657 Jul 10 01:16	9° $\Omega$ 05'48	
evening max el	11656 Aug 08 13:34	15° $\Pi$ 49'35	18°23'49	evening max el	11657 Jul 23 00:47	28° $\Omega$ 44'03	18°05'36
retrograde	11656 Aug 16 03:01	19° $\Pi$ 37'59			11657 Jul 24 10:41	0° $\Pi$	
evening set	11656 Aug 18 05:24	19° $\Pi$ 21'10		retrograde	11657 Jul 29 18:43	2° $\Pi$ 10'57	
inferior conj	11656 Aug 25 19:41	14° $\Pi$ 46'18	-0°02'38	evening set	11657 Aug 01 04:52	1° $\Pi$ 44'29	
minimum elong	11656 Aug 25 19:34	14° $\Pi$ 46'31	0°02'52		11657 Aug 04 08:05	30° $\text{R}$ $\Omega$	
transit middle	11656 Aug 25 19:34	14° $\Pi$ 46'31	0°02'52	inferior conj	11657 Aug 08 01:05	26° $\Omega$ 48'59	1°19'09
transit begin	11656 Aug 25 16:05	14° $\Pi$ 53'33		minimum elong	11657 Aug 08 03:18	26° $\Omega$ 43'47	1°17'56
transit end	11656 Aug 25 23:03	14° $\Pi$ 39'29		min. Earth dist.	11657 Aug 11 06:30	23° $\Omega$ 48'32	0.60465 AU

desc. node	11657 Aug 12 13:36	22°♎41'52		minimum elong	11658 Jul 22 02:21	9°♎21'49	2°15'15
morning rise	11657 Aug 14 22:51	20°♎57'05		min. Earth dist.	11658 Jul 24 18:54	6°♎30'26	0.62714 AU
direct	11657 Aug 21 12:20	18°♎50'56		morning rise	11658 Jul 28 08:36	3°♎18'27	
morning max el	11657 Sep 04 19:22	26°♎45'53	27°52'20	desc. node	11658 Jul 30 10:54	1°♎59'45	
	11657 Sep 07 20:47	0°♎		direct	11658 Aug 04 01:13	0°♎50'25	
	11657 Sep 28 05:15	0°♎		morning max el	11658 Aug 18 02:42	8°♎52'45	27°53'49
asc. node	11657 Oct 06 02:20	15°♎08'53			11658 Sep 03 11:01	0°♎	
morning set	11657 Oct 07 10:45	17°♎56'16			11658 Sep 20 10:51	0°♎	
	11657 Oct 13 01:17	0°♎		morning set	11658 Sep 21 08:57	1°♎51'17	
max. Earth dist.	11657 Oct 13 11:04	0°♎54'01	1.31474 AU	asc. node	11658 Sep 22 23:01	5°♎06'11	
				max. Earth dist.	11658 Sep 26 15:13	12°♎51'42	1.32090 AU
superior conj	11657 Oct 14 15:42	3°♎32'34	1°15'16	superior conj	11658 Sep 29 00:17	18°♎01'08	0°56'20
minimum elong	11657 Oct 14 13:30	3°♎20'22	1°15'19	minimum elong	11658 Sep 28 22:07	17°♎49'19	0°56'07
evening rise	11657 Oct 21 08:44	18°♎19'47			11658 Oct 04 11:29	0°♎	
	11657 Oct 27 00:25	0°♎		evening rise	11658 Oct 05 19:57	2°♎55'29	
desc. node	11657 Nov 08 10:39	21°♎02'21			11658 Oct 20 06:55	0°♎	
	11657 Nov 15 16:16	0°♎		desc. node	11658 Oct 26 07:54	8°♎12'09	
evening max el	11657 Nov 17 15:41	1°♎58'59	25°32'45	evening max el	11658 Oct 30 03:05	12°♎17'35	23°57'43
retrograde	11657 Dec 01 12:38	8°♎58'13		retrograde	11658 Nov 12 17:24	19°♎05'11	
evening set	11657 Dec 07 13:06	7°♎34'59		evening set	11658 Nov 17 13:17	18°♎14'10	
min. Earth dist.	11657 Dec 12 03:57	4°♎57'06	0.57461 AU	min. Earth dist.	11658 Nov 23 13:43	15°♎16'48	0.55776 AU
inferior conj	11657 Dec 15 02:08	2°♎57'05	-5°02'48	inferior conj	11658 Nov 25 16:16	14°♎00'31	-5°45'54
minimum elong	11657 Dec 15 10:04	2°♎43'28	5°00'20	minimum elong	11658 Nov 25 19:30	13°♎55'36	5°44'58
	11657 Dec 19 20:17	30°♎		morning rise	11658 Dec 04 03:42	10°♎04'09	
morning rise	11657 Dec 23 09:26	28°♎40'25		direct	11658 Dec 06 19:36	9°♎46'08	
direct	11657 Dec 25 14:59	28°♎25'16		morning max el	11658 Dec 17 03:28	14°♎40'58	20°01'18
	11657 Dec 31 00:19	0°♎		asc. node	11658 Dec 19 23:29	17°♎44'37	
asc. node	11658 Jan 02 02:24	1°♎28'31			11658 Dec 28 01:13	0°♎	
morning max el	11658 Jan 03 11:38	2°♎42'53	18°55'31	morning set	11659 Jan 04 03:44	13°♎47'02	
morning set	11658 Jan 19 22:33	29°♎11'43					
	11658 Jan 20 08:22	0°♎		superior conj	11659 Jan 11 21:03	29°♎29'59	1°15'22
superior conj	11658 Jan 28 09:55	15°♎43'38	0°53'17	minimum elong	11659 Jan 11 23:49	29°♎43'46	1°15'44
minimum elong	11658 Jan 28 12:49	15°♎57'25	0°53'26		11659 Jan 12 03:04	0°♎	
desc. node	11658 Feb 04 10:09	28°♎38'18		max. Earth dist.	11659 Jan 17 17:29	10°♎52'01	1.36982 AU
max. Earth dist.	11658 Feb 04 10:55	28°♎41'41	1.39190 AU	evening rise	11659 Jan 21 11:24	17°♎45'57	
	11658 Feb 05 04:37	0°♎		desc. node	11659 Jan 22 06:55	19°♎13'20	
evening rise	11658 Feb 08 07:42	5°♎25'42			11659 Jan 28 13:33	0°♎	
	11658 Feb 23 20:44	0°♎			11659 Feb 18 04:19	0°♎	
evening max el	11658 Mar 15 11:07	24°♎57'21	24°23'47	evening max el	11659 Feb 26 00:24	8°♎47'34	25°37'57
	11658 Mar 21 16:34	0°♎		retrograde	11659 Mar 10 09:12	15°♎54'50	
retrograde	11658 Mar 26 21:07	1°♎38'26		evening set	11659 Mar 16 08:15	13°♎27'27	
asc. node	11658 Mar 30 23:58	0°♎21'30		asc. node	11659 Mar 17 21:18	12°♎00'17	
	11658 Mar 31 12:35	30°♎		min. Earth dist.	11659 Mar 20 15:39	8°♎46'44	0.67515 AU
evening set	11658 Apr 01 08:23	29°♎20'53		inferior conj	11659 Mar 22 01:44	6°♎58'01	1°18'01
min. Earth dist.	11658 Apr 05 22:49	24°♎05'01	0.68337 AU	minimum elong	11659 Mar 22 00:00	7°♎03'32	1°17'22
inferior conj	11658 Apr 06 20:48	22°♎51'14	2°01'18	morning rise	11659 Mar 27 16:18	1°♎07'08	
minimum elong	11658 Apr 06 18:39	22°♎58'28	2°00'25	direct	11659 Mar 31 01:42	0°♎01'12	
morning rise	11658 Apr 12 05:02	16°♎51'21		morning max el	11659 Apr 06 22:07	3°♎44'53	19°01'23
direct	11658 Apr 16 02:14	15°♎25'17		greatest brilliancy	11659 Apr 20 05:36	21°♎31'59	-0.7m
morning max el	11658 Apr 23 15:48	19°♎39'18	19°59'42	desc. node	11659 Apr 20 08:24	21°♎42'34	
	11658 May 02 03:07	0°♎			11659 Apr 25 18:30	0°♎	
desc. node	11658 May 03 11:40	1°♎53'14		morning set	11659 Apr 30 00:21	6°♎33'38	
morning set	11658 May 20 19:41	27°♎43'11		max. Earth dist.	11659 May 14 00:36	28°♎22'29	1.45389 AU
	11658 May 22 07:10	0°♎			11659 May 15 01:27	0°♎	
max. Earth dist.	11658 May 31 08:20	14°♎11'02	1.44333 AU	superior conj	11659 May 16 11:16	2°♎13'04	-2°11'37
superior conj	11658 Jun 05 18:25	22°♎54'33	-2°09'53	minimum elong	11659 May 16 08:06	2°♎00'35	2°12'12
minimum elong	11658 Jun 05 22:20	23°♎10'29	2°10'29	evening rise	11659 May 31 08:11	26°♎03'43	
	11658 Jun 10 01:56	0°♎			11659 Jun 02 18:08	0°♎	
evening rise	11658 Jun 18 23:21	15°♎01'09		asc. node	11659 Jun 13 19:10	17°♎30'21	
asc. node	11658 Jun 26 22:11	28°♎29'57		evening max el	11659 Jun 20 03:56	25°♎34'15	18°25'45
	11658 Jun 27 20:15	0°♎		retrograde	11659 Jun 26 14:18	29°♎01'46	
evening max el	11658 Jul 06 14:38	12°♎01'37	18°06'31	evening set	11659 Jun 29 16:33	28°♎08'27	
retrograde	11658 Jul 12 23:59	15°♎21'58		inferior conj	11659 Jul 05 11:24	22°♎37'46	2°52'38
evening set	11658 Jul 15 18:07	14°♎43'02		minimum elong	11659 Jul 05 13:25	22°♎31'48	2°51'33
inferior conj	11658 Jul 21 23:42	9°♎28'55	2°16'35	min. Earth dist.	11659 Jul 07 16:47	20°♎00'16	0.64745 AU



morning rise	11659 Jul 11 09:07	16°☿18'03			11660 Jun 23 14:58	30°☿II	
desc. node	11659 Jul 17 08:09	13°☿38'51	direct		11660 Jun 30 03:43	27°II03'04	
direct	11659 Jul 17 22:52	13°☿37'32	desc. node		11660 Jul 03 05:20	27°II36'19	
morning max el	11659 Jul 31 13:08	21°☿36'10	27°19'57		11660 Jul 07 14:55	0°☿	
	11659 Aug 07 20:41	0°♊		morning max el	11660 Jul 12 23:56	4°☿42'53	26°18'06
	11659 Aug 27 15:25	0°♊			11660 Aug 01 07:57	0°♊	
morning set	11659 Sep 04 22:13	15°♊19'11		morning set	11660 Aug 17 23:13	28°♊10'33	
max. Earth dist.	11659 Sep 09 11:19	24°♊26'42	1.33221 AU		11660 Aug 18 22:32	0°♊	
asc. node	11659 Sep 09 19:42	25°♊09'58		max. Earth dist.	11660 Aug 21 20:57	5°♊38'05	1.34855 AU
	11659 Sep 12 03:12	0°♊		asc. node	11660 Aug 26 16:23	15°♊15'39	
superior conj	11659 Sep 13 04:20	2°♊13'14	0°32'17	superior conj	11660 Aug 27 01:22	16°♊01'41	0°03'38
minimum elong	11659 Sep 13 02:48	2°♊05'06	0°31'57	minimum elong	11660 Aug 27 01:10	16°♊00'41	0°03'21
evening rise	11659 Sep 20 06:58	17°♊28'12		behind sun begin	11660 Aug 26 19:20	15°♊30'45	
	11659 Sep 26 10:38	0°♊		behind sun end	11660 Aug 27 07:01	16°♊30'41	
evening max el	11659 Oct 11 14:26	22°♊22'03	22°16'42		11660 Sep 02 18:18	0°♊	
desc. node	11659 Oct 13 05:13	23°♊51'19		evening rise	11660 Sep 03 15:47	1°♊51'52	
retrograde	11659 Oct 24 10:28	28°♊44'54			11660 Sep 19 21:27	0°♊	
evening set	11659 Oct 27 19:06	28°♊19'55		evening max el	11660 Sep 22 11:07	2°♊49'13	20°45'44
min. Earth dist.	11659 Nov 04 20:47	24°♊45'00	0.54760 AU	desc. node	11660 Sep 29 02:35	7°♊30'40	
inferior conj	11659 Nov 05 13:44	24°♊21'08	-5°40'04	retrograde	11660 Oct 03 21:33	8°♊29'42	
minimum elong	11659 Nov 05 08:31	24°♊28'30	5°38'56	evening set	11660 Oct 06 03:40	8°♊17'25	
morning rise	11659 Nov 13 23:22	20°♊33'57		inferior conj	11660 Oct 15 05:39	4°♊22'26	-4°36'01
direct	11659 Nov 17 08:03	20°♊08'38		minimum elong	11660 Oct 14 19:41	4°♊36'41	4°33'00
morning max el	11659 Nov 29 05:22	25°♊46'58	21°29'12	min. Earth dist.	11660 Oct 16 04:21	3°♊49'57	0.54636 AU
	11659 Dec 03 02:30	0°♊		morning rise	11660 Oct 23 11:37	0°♊25'46	
asc. node	11659 Dec 06 20:29	5°♊06'21			11660 Oct 25 08:01	30°☿♊	
morning set	11659 Dec 19 13:05	28°♊31'06		direct	11660 Oct 27 16:21	29°♊47'55	
	11659 Dec 20 06:03	0°♊			11660 Oct 29 23:59	0°♊	
superior conj	11659 Dec 26 18:25	13°♊43'39	1°29'57	morning max el	11660 Nov 09 19:54	6°♊09'07	23°13'24
minimum elong	11659 Dec 26 20:20	13°♊53'37	1°30'34	asc. node	11660 Nov 22 17:25	23°♊18'36	
max. Earth dist.	11659 Dec 31 04:13	22°♊43'52	1.34995 AU		11660 Nov 26 10:43	0°♊	
	11660 Jan 03 21:38	0°♊		morning set	11660 Dec 03 00:33	13°♊18'18	
evening rise	11660 Jan 04 07:58	0°♊49'05		superior conj	11660 Dec 09 22:49	28°♊15'33	1°37'36
desc. node	11660 Jan 09 03:44	9°♊39'56		minimum elong	11660 Dec 09 23:37	28°♊19'48	1°38'20
	11660 Jan 21 15:27	0°♊			11660 Dec 10 18:17	0°♊	
evening max el	11660 Feb 08 13:54	22°♊32'32	26°38'53	max. Earth dist.	11660 Dec 12 22:47	4°♊38'29	1.33382 AU
retrograde	11660 Feb 21 15:58	29°♊54'02		evening rise	11660 Dec 17 17:46	14°♊26'00	
evening set	11660 Feb 28 01:49	27°♊21'25		desc. node	11660 Dec 26 00:38	29°♊53'25	
min. Earth dist.	11660 Mar 03 03:23	23°♊14'50	0.66292 AU		11660 Dec 26 02:09	0°♊	
asc. node	11660 Mar 03 18:39	22°♊29'55			11661 Jan 15 11:34	0°♊	
inferior conj	11660 Mar 05 01:26	20°♊58'00	0°24'50	evening max el	11661 Jan 21 03:15	6°♊03'42	27°19'10
minimum elong	11660 Mar 05 00:46	20°♊59'58	0°24'45	retrograde	11661 Feb 03 16:32	13°♊28'17	
morning rise	11660 Mar 11 00:49	15°♊17'52		evening set	11661 Feb 10 10:59	10°♊56'29	
direct	11660 Mar 13 23:46	14°♊29'15		min. Earth dist.	11661 Feb 14 07:52	7°♊22'18	0.64710 AU
morning max el	11660 Mar 20 10:46	17°♊55'11	18°19'23	inferior conj	11661 Feb 16 17:32	4°♊45'55	-0°38'11
	11660 Mar 29 15:34	0°♊		minimum elong	11661 Feb 16 18:40	4°♊42'48	0°37'19
desc. node	11660 Apr 06 05:05	11°♊51'39		asc. node	11661 Feb 18 15:59	2°♊43'30	
morning set	11660 Apr 09 04:10	16°♊35'09			11661 Feb 21 21:50	30°☿♊	
	11660 Apr 17 14:55	0°♊		morning rise	11661 Feb 23 04:06	29°♊18'55	
superior conj	11660 Apr 24 18:07	11°♊11'59	-1°53'05	direct	11661 Feb 25 18:13	28°♊44'05	
minimum elong	11660 Apr 24 09:11	10°♊37'03	1°52'51		11661 Mar 01 14:48	0°♊	
max. Earth dist.	11660 Apr 25 19:40	12°♊51'49	1.45727 AU	morning max el	11661 Mar 04 03:24	2°♊03'36	17°54'21
	11660 May 06 19:03	0°♊		morning set	11661 Mar 21 13:02	28°♊02'48	
evening rise	11660 May 10 17:02	6°♊07'45			11661 Mar 22 17:12	0°♊	
greatest brilliancy	11660 May 21 04:49	22°♊28'46	-0.8m	desc. node	11661 Mar 24 01:44	2°♊15'03	
	11660 May 26 05:50	0°♊		superior conj	11661 Apr 04 09:01	20°♊39'12	-1°18'32
asc. node	11660 May 30 16:13	5°♊58'21		minimum elong	11661 Apr 04 00:48	20°♊06'25	1°17'43
evening max el	11660 Jun 02 14:03	9°♊14'57	19°02'25	max. Earth dist.	11661 Apr 08 15:31	27°♊25'14	1.45322 AU
retrograde	11660 Jun 09 09:58	13°♊02'17			11661 Apr 10 06:57	0°♊	
evening set	11660 Jun 12 20:45	11°♊53'19		evening rise	11661 Apr 20 08:29	15°♊35'22	
inferior conj	11660 Jun 18 08:29	6°♊07'38	3°11'13		11661 Apr 29 19:55	0°♊	
minimum elong	11660 Jun 18 09:27	6°♊04'34	3°10'22	greatest brilliancy	11661 May 05 01:36	7°♊45'57	-0.6m
min. Earth dist.	11660 Jun 19 23:01	4°♊04'37	0.66423 AU	evening max el	11661 May 16 19:18	22°♊59'42	19°55'06
morning rise	11660 Jun 23 21:31	29°♊45'22		asc. node	11661 May 17 13:23	23°♊43'47	

retrograde	11661 May 24 08:16	27° $\Pi$ 18'07		inferior conj	11662 May 17 19:23	3° $\Pi$ 50'22	3°07'58
evening set	11661 May 28 04:15	25° $\Pi$ 52'54		minimum elong	11662 May 17 18:16	3° $\Pi$ 54'14	3°07'13
inferior conj	11661 Jun 02 12:00	19° $\Pi$ 53'31	3°15'34	min. Earth dist.	11662 May 18 05:35	3° $\Pi$ 14'59	0.68441 AU
minimum elong	11661 Jun 02 11:50	19° $\Pi$ 54'02	3°14'49		11662 May 20 16:30	30° $\mathbb{R}$ 8	
min. Earth dist.	11661 Jun 03 11:58	18° $\Pi$ 32'48	0.67667 AU	morning rise	11662 May 22 23:21	27° $\mathbb{R}$ 33'42	
morning rise	11661 Jun 07 19:06	13° $\Pi$ 32'51		direct	11662 May 28 06:02	25° $\mathbb{R}$ 14'34	
direct	11661 Jun 13 14:29	10° $\Pi$ 58'30			11662 Jun 06 05:34	0° $\Pi$	
desc. node	11661 Jun 20 02:27	13° $\Pi$ 26'57		desc. node	11662 Jun 06 23:27	0° $\Pi$ 42'08	
morning max el	11661 Jun 25 09:56	18° $\Pi$ 03'32	24°57'41	morning max el	11662 Jun 07 19:57	1° $\Pi$ 32'42	23°28'43
	11661 Jul 05 10:31	0° $\mathcal{C}$			11662 Jun 29 09:29	0° $\mathcal{C}$	
	11661 Jul 25 08:52	0° $\mathcal{O}$		morning set	11662 Jul 12 18:55	21° $\mathcal{C}$ 20'34	
morning set	11661 Jul 31 07:44	10° $\mathcal{O}$ 15'00		max. Earth dist.	11662 Jul 16 19:11	28° $\mathcal{C}$ 13'11	1.39201 AU
max. Earth dist.	11661 Aug 03 21:42	16° $\mathcal{O}$ 43'42	1.36912 AU		11662 Jul 17 19:34	0° $\mathcal{O}$	
superior conj	11661 Aug 10 12:24	29° $\mathcal{O}$ 19'10	-0°28'39	superior conj	11662 Jul 24 09:42	11° $\mathcal{O}$ 56'41	-1°02'36
minimum elong	11661 Aug 10 14:16	29° $\mathcal{O}$ 28'19	0°28'45	minimum elong	11662 Jul 24 14:04	12° $\mathcal{O}$ 17'04	1°02'31
	11661 Aug 10 20:43	0° $\mathbb{P}$		asc. node	11662 Jul 31 09:54	25° $\mathcal{O}$ 18'54	
asc. node	11661 Aug 13 13:07	5° $\mathbb{P}$ 19'51		evening rise	11662 Aug 02 17:18	29° $\mathcal{O}$ 47'35	
evening rise	11661 Aug 18 20:10	16° $\mathbb{P}$ 00'44			11662 Aug 02 19:52	0° $\mathbb{P}$	
	11661 Aug 26 02:09	0° $\mathcal{L}$		evening max el	11662 Aug 18 20:44	25° $\mathbb{P}$ 58'43	18°43'15
evening max el	11661 Sep 04 21:37	14° $\mathcal{L}$ 00'36	19°33'45		11662 Aug 25 17:41	0° $\mathcal{L}$	
retrograde	11661 Sep 14 15:29	18° $\mathcal{L}$ 51'44		retrograde	11662 Aug 27 02:39	0° $\mathcal{L}$ 06'45	
desc. node	11661 Sep 15 23:59	18° $\mathcal{L}$ 46'30			11662 Aug 28 12:09	30° $\mathbb{R}$ 11	
evening set	11661 Sep 16 12:04	18° $\mathcal{L}$ 41'57		evening set	11662 Aug 29 01:15	29° $\mathbb{P}$ 53'48	
inferior conj	11661 Sep 25 06:29	14° $\mathcal{L}$ 37'04	-2°51'52	desc. node	11662 Sep 02 21:23	27° $\mathbb{P}$ 44'52	
minimum elong	11661 Sep 24 22:57	14° $\mathcal{L}$ 49'02	2°48'59	inferior conj	11662 Sep 06 02:33	25° $\mathbb{P}$ 30'27	-1°00'24
min. Earth dist.	11661 Sep 27 14:33	13° $\mathcal{L}$ 08'21	0.55452 AU	minimum elong	11662 Sep 06 00:04	25° $\mathbb{P}$ 35'02	0°59'32
morning rise	11661 Oct 03 07:45	10° $\mathcal{L}$ 12'10		min. Earth dist.	11662 Sep 09 05:53	23° $\mathbb{P}$ 12'07	0.57048 AU
direct	11661 Oct 08 08:27	9° $\mathcal{L}$ 15'48		morning rise	11662 Sep 13 19:32	20° $\mathbb{P}$ 27'50	
morning max el	11661 Oct 22 06:31	16° $\mathcal{L}$ 13'15	25°00'27	direct	11662 Sep 19 14:09	19° $\mathbb{P}$ 06'14	
	11661 Nov 02 09:15	0° $\mathbb{M}$		morning max el	11662 Oct 03 20:59	26° $\mathbb{P}$ 32'44	26°32'24
asc. node	11661 Nov 09 14:18	12° $\mathbb{M}$ 08'48			11662 Oct 07 04:15	0° $\mathcal{L}$	
morning set	11661 Nov 17 12:18	28° $\mathbb{M}$ 03'15			11662 Oct 26 17:09	0° $\mathbb{M}$	
	11661 Nov 18 10:00	0° $\mathcal{X}$		asc. node	11662 Oct 27 11:07	1° $\mathbb{M}$ 27'08	
				morning set	11662 Nov 01 22:43	12° $\mathbb{M}$ 41'28	
superior conj	11661 Nov 24 07:42	12° $\mathcal{X}$ 57'43	1°38'51	superior conj	11662 Nov 08 18:58	27° $\mathbb{M}$ 44'10	1°34'08
minimum elong	11661 Nov 24 07:21	12° $\mathcal{X}$ 55'48	1°39'33	minimum elong	11662 Nov 08 17:39	27° $\mathbb{M}$ 36'49	1°34'39
max. Earth dist.	11661 Nov 26 01:06	16° $\mathcal{X}$ 44'34	1.32222 AU	max. Earth dist.	11662 Nov 09 08:35	28° $\mathbb{M}$ 59'54	1.31541 AU
evening rise	11661 Dec 01 13:30	28° $\mathcal{X}$ 27'41			11662 Nov 09 19:24	0° $\mathcal{X}$	
	11661 Dec 02 07:33	0° $\mathcal{Z}$		evening rise	11662 Nov 15 16:24	12° $\mathcal{X}$ 47'08	
desc. node	11661 Dec 12 21:38	19° $\mathcal{Z}$ 47'04			11662 Nov 24 10:14	0° $\mathcal{Z}$	
	11661 Dec 19 06:32	0° $\approx$		desc. node	11662 Nov 29 18:43	9° $\mathcal{Z}$ 12'47	
evening max el	11662 Jan 03 14:31	19° $\approx$ 07'23	27°31'54		11662 Dec 15 08:10	0° $\approx$	
retrograde	11662 Jan 17 09:47	26° $\approx$ 27'46		evening max el	11662 Dec 16 21:03	1° $\approx$ 30'37	27°11'52
evening set	11662 Jan 24 09:06	24° $\approx$ 04'05		retrograde	11662 Dec 30 18:57	8° $\approx$ 43'52	
min. Earth dist.	11662 Jan 28 03:01	20° $\approx$ 58'40	0.62830 AU	evening set	11663 Jan 06 16:53	6° $\approx$ 36'51	
inferior conj	11662 Jan 30 23:04	18° $\approx$ 13'32	-1°50'08	min. Earth dist.	11663 Jan 10 11:31	3° $\approx$ 52'49	0.60746 AU
minimum elong	11662 Jan 31 02:44	18° $\approx$ 04'36	1°48'04	inferior conj	11663 Jan 13 14:43	1° $\approx$ 12'20	-3°07'55
asc. node	11662 Feb 05 13:18	13° $\approx$ 40'30		minimum elong	11663 Jan 13 21:11	0° $\approx$ 58'29	3°04'52
morning rise	11662 Feb 06 22:45	13° $\approx$ 02'47			11663 Jan 15 01:05	30° $\mathbb{R}$ 3	
direct	11662 Feb 09 05:59	12° $\approx$ 38'02		morning rise	11663 Jan 21 04:18	26° $\mathcal{Z}$ 21'09	
morning max el	11662 Feb 15 21:01	16° $\approx$ 01'16	17°46'45	direct	11663 Jan 23 07:17	26° $\mathcal{Z}$ 02'56	
	11662 Feb 25 18:18	0° $\mathcal{H}$		asc. node	11663 Jan 23 10:33	26° $\mathcal{Z}$ 03'00	
morning set	11662 Mar 03 22:38	10° $\mathcal{H}$ 41'03		morning max el	11663 Jan 30 12:20	29° $\mathcal{Z}$ 39'40	17°57'29
desc. node	11662 Mar 10 22:22	22° $\mathcal{H}$ 47'35			11663 Jan 30 20:28	0° $\approx$	
	11662 Mar 15 04:50	0° $\mathcal{Y}$		morning set	11663 Feb 15 02:38	24° $\approx$ 10'35	
					11663 Feb 18 06:53	0° $\mathcal{H}$	
superior conj	11662 Mar 15 21:09	1° $\mathcal{Y}$ 07'53	-0°37'08	superior conj	11663 Feb 25 10:01	12° $\mathcal{H}$ 46'25	0°02'55
minimum elong	11662 Mar 15 17:24	0° $\mathcal{Y}$ 52'17	0°36'30	minimum elong	11663 Feb 25 10:18	12° $\mathcal{H}$ 47'37	0°03'10
max. Earth dist.	11662 Mar 22 09:30	11° $\mathcal{Y}$ 45'31	1.44218 AU	behind sun begin	11663 Feb 25 02:21	12° $\mathcal{H}$ 12'48	
evening rise	11662 Mar 30 20:31	25° $\mathcal{Y}$ 02'51		behind sun end	11663 Feb 25 18:15	13° $\mathcal{H}$ 22'21	
	11662 Apr 03 02:08	0° $\mathcal{B}$		desc. node	11663 Feb 25 19:02	13° $\mathcal{H}$ 25'46	
	11662 Apr 23 23:21	0° $\Pi$		max. Earth dist.	11663 Mar 04 23:03	25° $\mathcal{H}$ 35'44	1.42534 AU
evening max el	11662 Apr 29 18:45	6° $\Pi$ 45'00	21°01'24		11663 Mar 07 15:40	0° $\mathcal{Y}$	
asc. node	11662 May 04 10:37	10° $\Pi$ 32'38		evening rise	11663 Mar 10 19:55	5° $\mathcal{Y}$ 05'30	
retrograde	11662 May 08 07:01	11° $\Pi$ 43'14					
evening set	11662 May 12 12:59	10° $\Pi$ 01'53					

	11663 Mar 27 09:17	0°♄				11664 Mar 21 03:58	0°♄		
evening max el	11663 Apr 12 12:59	20°♄30'55	22°17'30		evening max el	11664 Mar 25 03:50	4°♄19'26	23°38'06	
asc. node	11663 Apr 21 07:55	26°♄09'13			retrograde	11664 Apr 04 23:13	10°♄41'42		
retrograde	11663 Apr 22 04:29	26°♄12'44			asc. node	11664 Apr 07 05:12	10°♄18'04		
evening set	11663 Apr 26 21:16	24°♄16'03			evening set	11664 Apr 10 03:30	8°♄31'17		
inferior conj	11663 May 02 04:33	17°♄54'45	2°49'50		min. Earth dist.	11664 Apr 14 22:35	2°♄54'47	0.68604 AU	
minimum elong	11663 May 02 02:44	18°♄01'03	2°48'59		inferior conj	11664 Apr 15 13:34	2°♄03'24	2°21'51	
min. Earth dist.	11663 May 02 01:52	18°♄04'08	0.68747 AU		minimum elong	11664 Apr 15 11:25	2°♄10'46	2°20'56	
morning rise	11663 May 07 08:05	11°♄43'29				11664 Apr 17 02:10	30°♄♂		
direct	11663 May 12 01:26	9°♄43'55			morning rise	11664 Apr 20 19:19	25°♄58'49		
morning max el	11663 May 21 08:30	15°♄10'11	22°00'20		direct	11664 Apr 24 23:39	24°♄20'31		
desc. node	11663 May 24 20:22	18°♄59'11			morning max el	11664 May 03 02:44	28°♄58'29	20°40'05	
	11663 Jun 02 08:45	0°♄♂				11664 May 04 02:42	0°♄		
	11663 Jun 22 09:19	0°♄♂			desc. node	11664 May 10 17:11	8°♄01'22		
morning set	11663 Jun 23 04:36	1°♄♂17'11				11664 May 25 22:47	0°♄♂		
max. Earth dist.	11663 Jun 28 19:23	10°♄♂28'31	1.41461 AU		morning set	11664 Jun 01 14:14	10°♄♂10'56		
					max. Earth dist.	11664 Jun 10 01:49	23°♄♂36'09	1.43424 AU	
superior conj	11663 Jul 06 12:45	23°♄♂43'27	-1°35'00			11664 Jun 14 00:01	0°♄♂		
minimum elong	11663 Jul 06 19:12	24°♄♂11'52	1°34'57						
	11663 Jul 10 01:07	0°♄♂			superior conj	11664 Jun 16 17:22	4°♄♂31'07	-2°00'43	
evening rise	11663 Jul 17 03:31	13°♄♂02'22			minimum elong	11664 Jun 16 23:29	4°♄♂56'43	2°01'03	
asc. node	11663 Jul 18 06:44	15°♄♂08'17			evening rise	11664 Jun 28 22:18	25°♄♂34'02		
	11663 Jul 26 17:04	0°♄♂♂				11664 Jul 01 10:41	0°♄♂		
evening max el	11663 Aug 02 04:41	8°♄♂♂35'26	18°13'39		asc. node	11664 Jul 04 03:37	4°♄♂43'32		
retrograde	11663 Aug 09 08:41	12°♄♂♂13'16			evening max el	11664 Jul 15 17:30	21°♄♂41'25	18°03'45	
evening set	11663 Aug 11 14:05	11°♄♂♂52'54			retrograde	11664 Jul 22 06:36	25°♄♂03'43		
inferior conj	11663 Aug 18 20:23	7°♄♂♂09'07	0°35'04		evening set	11664 Jul 24 20:04	24°♄♂32'21		
minimum elong	11663 Aug 18 21:32	7°♄♂♂06'37	0°34'16		inferior conj	11664 Jul 31 09:38	19°♄♂29'02	1°46'19	
desc. node	11663 Aug 20 18:46	5°♄♂♂28'21			minimum elong	11664 Jul 31 12:13	19°♄♂22'37	1°44'58	
min. Earth dist.	11663 Aug 22 04:25	4°♄♂♂17'24	0.59150 AU		min. Earth dist.	11664 Aug 03 11:33	16°♄♂26'29	0.61434 AU	
morning rise	11663 Aug 26 01:35	1°♄♂♂32'09			desc. node	11664 Aug 06 16:06	13°♄♂44'55		
	11663 Aug 29 19:42	30°♄♂♂♂			morning rise	11664 Aug 07 01:48	13°♄♂27'55		
direct	11663 Sep 01 09:55	29°♄♂♂41'34			direct	11664 Aug 13 17:34	11°♄♂11'06		
	11663 Sep 04 01:23	0°♄♂♂			morning max el	11664 Aug 27 22:49	19°♄♂11'03	27°57'30	
morning max el	11663 Sep 15 18:35	7°♄♂♂29'24	27°33'56			11664 Sep 06 03:03	0°♄♂♂		
	11663 Oct 02 18:38	0°♄♂♂♂				11664 Sep 24 15:41	0°♄♂♂♂		
asc. node	11663 Oct 14 07:52	21°♄♂♂05'08			morning set	11664 Sep 30 08:05	11°♄♂♂14'57		
morning set	11663 Oct 17 05:57	27°♄♂♂07'03			asc. node	11664 Sep 30 04:35	10°♄♂♂56'59		
	11663 Oct 18 14:28	0°♄♂♂♂			max. Earth dist.	11664 Oct 06 00:26	23°♄♂♂21'31	1.31673 AU	
max. Earth dist.	11663 Oct 23 17:36	11°♄♂♂15'22	1.31352 AU						
superior conj	11663 Oct 24 06:39	12°♄♂♂28'01	1°23'45		superior conj	11664 Oct 07 16:56	27°♄♂♂04'05	1°07'53	
minimum elong	11663 Oct 24 04:39	12°♄♂♂16'55	1°23'58		minimum elong	11664 Oct 07 14:41	26°♄♂♂51'40	1°07'49	
evening rise	11663 Oct 31 00:05	27°♄♂♂17'07				11664 Oct 09 00:45	0°♄♂♂♂		
	11663 Nov 01 06:44	0°♄♂♂♂			evening rise	11664 Oct 14 10:33	11°♄♂♂52'23		
desc. node	11663 Nov 16 15:51	27°♄♂♂58'41				11664 Oct 23 11:59	0°♄♂♂♂		
	11663 Nov 18 00:42	0°♄♂♂			desc. node	11664 Nov 02 13:05	15°♄♂♂49'30		
evening max el	11663 Nov 28 20:20	13°♄♂♂03'23	26°17'41		evening max el	11664 Nov 09 11:31	23°♄♂♂45'55	24°54'13	
retrograde	11663 Dec 12 18:48	20°♄♂♂08'39				11664 Nov 19 01:26	0°♄♂♂♂		
evening set	11663 Dec 19 06:09	18°♄♂♂27'25			retrograde	11664 Nov 23 07:03	0°♄♂♂♂41'12		
min. Earth dist.	11663 Dec 23 09:40	15°♄♂♂51'58	0.58613 AU			11664 Nov 27 13:22	30°♄♂♂♂♂♂		
inferior conj	11663 Dec 26 12:53	13°♄♂♂32'18	-4°24'27		evening set	11664 Nov 28 20:25	29°♄♂♂32'05		
minimum elong	11663 Dec 26 21:10	13°♄♂♂16'53	4°21'23		min. Earth dist.	11664 Dec 03 23:23	26°♄♂♂47'56	0.56681 AU	
morning rise	11664 Jan 03 14:57	9°♄♂♂03'00			inferior conj	11664 Dec 06 14:51	25°♄♂♂05'14	-5°25'44	
direct	11664 Jan 05 17:41	8°♄♂♂47'53			minimum elong	11664 Dec 06 21:29	24°♄♂♂54'28	5°23'57	
asc. node	11664 Jan 10 07:44	10°♄♂♂03'27			morning rise	11664 Dec 15 00:45	20°♄♂♂57'37		
morning max el	11664 Jan 13 21:37	12°♄♂♂48'04	18°28'08		direct	11664 Dec 17 09:35	20°♄♂♂41'51		
	11664 Jan 25 10:50	0°♄♂♂♂			morning max el	11664 Dec 26 20:48	25°♄♂♂14'52	19°20'37	
morning set	11664 Jan 29 19:32	8°♄♂♂15'03			asc. node	11664 Dec 27 04:51	25°♄♂♂34'35		
						11664 Dec 30 23:16	0°♄♂♂♂		
superior conj	11664 Feb 07 20:36	25°♄♂♂25'26	0°37'01		morning set	11665 Jan 12 21:11	22°♄♂♂42'06		
minimum elong	11664 Feb 07 23:02	25°♄♂♂36'40	0°37'08			11665 Jan 16 12:37	0°♄♂♂♂		
	11664 Feb 10 08:42	0°♄♂♂♂							
desc. node	11664 Feb 12 15:41	4°♄♂♂05'40			superior conj	11665 Jan 21 00:04	8°♄♂♂50'58	1°03'35	
max. Earth dist.	11664 Feb 15 07:41	8°♄♂♂45'06	1.40459 AU		minimum elong	11665 Jan 21 03:02	9°♄♂♂05'21	1°03'49	
evening rise	11664 Feb 19 15:09	16°♄♂♂02'20			max. Earth dist.	11665 Jan 27 13:48	21°♄♂♂14'07	1.38237 AU	
	11664 Feb 28 09:14	0°♄♂♂♂			desc. node	11665 Jan 29 12:22	24°♄♂♂43'45		
					evening rise	11665 Jan 31 07:40	27°♄♂♂54'39		

	11665 Feb 01 12:35	0° $\text{H}$		desc. node	11666 Jan 16 09:10	15° $\approx$ 16'24	
	11665 Feb 20 20:00	0° $\text{Y}$			11666 Jan 25 02:54	0° $\text{H}$	
evening max el	11665 Mar 07 17:25	18° $\text{Y}$ 10'31	24°56'38		11666 Feb 16 07:26	0° $\text{Y}$	
retrograde	11665 Mar 19 13:55	25° $\text{Y}$ 04'15		evening max el	11666 Feb 18 07:03	2° $\text{Y}$ 00'51	26°05'55
evening set	11665 Mar 25 06:08	22° $\text{Y}$ 42'21		retrograde	11666 Mar 02 23:42	9° $\text{Y}$ 14'42	
asc. node	11665 Mar 25 02:32	22° $\text{Y}$ 49'54		evening set	11666 Mar 09 03:32	6° $\text{Y}$ 44'41	
min. Earth dist.	11665 Mar 29 17:31	17° $\text{Y}$ 41'15	0.68032 AU	asc. node	11666 Mar 11 23:51	3° $\text{Y}$ 55'03	
inferior conj	11665 Mar 30 20:33	16° $\text{Y}$ 12'10	1°44'10	min. Earth dist.	11666 Mar 13 08:26	2° $\text{Y}$ 18'35	0.67050 AU
minimum elong	11665 Mar 30 18:31	16° $\text{Y}$ 18'54	1°43'21	inferior conj	11666 Mar 14 23:33	0° $\text{Y}$ 17'17	0°56'42
morning rise	11665 Apr 05 07:08	10° $\text{Y}$ 15'38		minimum elong	11666 Mar 14 22:12	0° $\text{Y}$ 21'30	0°56'15
direct	11665 Apr 08 23:11	8° $\text{Y}$ 58'16			11666 Mar 15 05:07	30° $\text{R}$ $\text{H}$	
morning max el	11665 Apr 16 04:30	12° $\text{Y}$ 57'59	19°32'56	morning rise	11666 Mar 20 17:33	24° $\text{H}$ 30'37	
desc. node	11665 Apr 27 13:55	27° $\text{Y}$ 36'06		direct	11666 Mar 23 22:28	23° $\text{H}$ 32'15	
greatest brilliancy	11665 Apr 28 21:03	29° $\text{Y}$ 29'51	-0.7m	morning max el	11666 Mar 30 13:43	27° $\text{H}$ 06'32	18°41'26
	11665 Apr 29 05:15	0° $\text{B}$			11666 Apr 02 04:59	0° $\text{Y}$	
morning set	11665 May 11 13:56	18° $\text{B}$ 42'52		desc. node	11666 Apr 14 10:38	17° $\text{Y}$ 34'54	
	11665 May 18 20:45	0° $\text{II}$		morning set	11666 Apr 21 02:47	27° $\text{Y}$ 59'28	
max. Earth dist.	11665 May 23 15:01	7° $\text{II}$ 28'34	1.44866 AU		11666 Apr 22 09:36	0° $\text{B}$	
				max. Earth dist.	11666 May 06 09:17	21° $\text{B}$ 51'29	1.45633 AU
superior conj	11665 May 27 21:56	14° $\text{II}$ 17'48	-2°13'02				
minimum elong	11665 May 27 23:12	14° $\text{II}$ 22'49	2°13'44	superior conj	11666 May 07 08:27	23° $\text{B}$ 22'09	-2°06'10
	11665 Jun 06 13:16	0° $\text{B}$		minimum elong	11666 May 07 02:12	22° $\text{B}$ 57'42	2°06'26
evening rise	11665 Jun 10 20:36	7° $\text{B}$ 10'38			11666 May 11 13:53	0° $\text{II}$	
asc. node	11665 Jun 21 00:34	23° $\text{B}$ 58'27		evening rise	11666 May 22 18:58	17° $\text{II}$ 47'08	
	11665 Jun 25 01:39	0° $\text{Q}$		greatest brilliancy	11666 May 29 23:43	29° $\text{II}$ 17'20	-0.9m
evening max el	11665 Jun 29 07:32	5° $\text{Q}$ 06'35	18°12'35		11666 May 30 10:29	0° $\text{B}$	
retrograde	11665 Jul 05 16:04	8° $\text{Q}$ 28'00		asc. node	11666 Jun 07 21:35	12° $\text{B}$ 46'04	
evening set	11665 Jul 08 13:43	7° $\text{Q}$ 43'03		evening max el	11666 Jun 12 19:46	18° $\text{B}$ 43'16	18°39'17
inferior conj	11665 Jul 14 14:16	2° $\text{Q}$ 21'49	2°34'12	retrograde	11666 Jun 19 09:03	22° $\text{B}$ 17'28	
minimum elong	11665 Jul 14 16:44	2° $\text{Q}$ 14'54	2°32'58	evening set	11666 Jun 22 14:58	21° $\text{B}$ 17'25	
	11665 Jul 16 16:59	30° $\text{R}$ $\text{B}$		inferior conj	11666 Jun 28 06:21	15° $\text{B}$ 39'59	3°02'25
min. Earth dist.	11665 Jul 17 03:54	29° $\text{B}$ 30'18	0.63618 AU	minimum elong	11666 Jun 28 07:56	15° $\text{B}$ 35'06	3°01'27
morning rise	11665 Jul 20 18:11	26° $\text{B}$ 06'45		min. Earth dist.	11666 Jun 30 05:20	13° $\text{B}$ 16'11	0.65510 AU
desc. node	11665 Jul 24 13:23	24° $\text{B}$ 00'00		morning rise	11666 Jul 04 00:03	9° $\text{B}$ 18'43	
direct	11665 Jul 27 10:26	23° $\text{B}$ 32'00		direct	11666 Jul 10 11:03	6° $\text{B}$ 36'29	
	11665 Aug 08 16:48	0° $\text{Q}$		desc. node	11666 Jul 11 10:38	6° $\text{B}$ 39'52	
morning max el	11665 Aug 10 07:32	1° $\text{Q}$ 33'46	27°43'20	morning max el	11666 Jul 23 18:21	14° $\text{B}$ 28'13	26°56'37
	11665 Aug 31 08:18	0° $\text{P}$			11666 Aug 05 09:46	0° $\text{Q}$	
morning set	11665 Sep 14 02:50	24° $\text{P}$ 59'25			11666 Aug 24 01:41	0° $\text{P}$	
	11665 Sep 16 14:06	0° $\text{Q}$		morning set	11666 Aug 28 11:19	8° $\text{P}$ 12'35	
asc. node	11665 Sep 17 01:17	0° $\text{Q}$ 57'46		max. Earth dist.	11666 Sep 01 17:30	16° $\text{P}$ 35'14	1.33858 AU
max. Earth dist.	11665 Sep 19 01:28	5° $\text{Q}$ 09'59	1.32507 AU	asc. node	11666 Sep 03 21:58	21° $\text{P}$ 02'44	
superior conj	11665 Sep 21 23:53	11° $\text{Q}$ 26'54	0°46'45	superior conj	11666 Sep 06 01:17	25° $\text{P}$ 29'39	0°20'40
minimum elong	11665 Sep 21 21:55	11° $\text{Q}$ 16'13	0°46'28	minimum elong	11666 Sep 06 00:14	25° $\text{P}$ 24'08	0°20'19
evening rise	11665 Sep 28 21:56	26° $\text{Q}$ 27'59			11666 Sep 08 04:29	0° $\text{Q}$	
	11665 Sep 30 13:54	0° $\text{M}$		evening rise	11666 Sep 13 08:17	10° $\text{Q}$ 57'46	
	11665 Oct 18 07:11	0° $\text{J}$			11666 Sep 23 03:24	0° $\text{M}$	
desc. node	11665 Oct 20 10:22	2° $\text{J}$ 24'48		evening max el	11666 Oct 03 12:19	14° $\text{M}$ 05'22	21°36'06
evening max el	11665 Oct 21 22:03	3° $\text{J}$ 55'32	23°14'32	desc. node	11666 Oct 07 07:44	17° $\text{M}$ 17'01	
retrograde	11665 Nov 04 06:10	10° $\text{J}$ 33'54		retrograde	11666 Oct 15 19:21	20° $\text{M}$ 12'09	
evening set	11665 Nov 08 11:12	9° $\text{J}$ 55'26		evening set	11666 Oct 18 15:07	19° $\text{M}$ 53'59	
min. Earth dist.	11665 Nov 15 07:38	6° $\text{J}$ 44'14	0.55250 AU	inferior conj	11666 Oct 27 14:30	15° $\text{M}$ 58'16	-5°19'35
inferior conj	11665 Nov 16 21:09	5° $\text{J}$ 49'50	-5°50'30	minimum elong	11666 Oct 27 06:22	16° $\text{M}$ 09'39	5°17'39
minimum elong	11665 Nov 16 20:54	5° $\text{J}$ 50'10	5°49'49	min. Earth dist.	11666 Oct 27 14:09	15° $\text{M}$ 58'45	0.54591 AU
morning rise	11665 Nov 25 08:16	1° $\text{J}$ 58'59		morning rise	11666 Nov 04 22:41	12° $\text{M}$ 10'08	
direct	11665 Nov 28 06:55	1° $\text{J}$ 38'16		direct	11666 Nov 08 15:53	11° $\text{M}$ 40'11	
morning max el	11665 Dec 09 06:41	6° $\text{J}$ 51'16	20°36'03	morning max el	11666 Nov 21 03:03	17° $\text{M}$ 36'28	22°12'11
asc. node	11665 Dec 14 01:54	12° $\text{J}$ 21'12		asc. node	11666 Nov 30 22:53	0° $\text{J}$ 06'14	
	11665 Dec 24 12:48	0° $\text{B}$			11666 Nov 30 21:19	0° $\text{J}$	
morning set	11665 Dec 28 04:30	7° $\text{B}$ 23'02		morning set	11666 Dec 12 15:01	22° $\text{J}$ 09'41	
					11666 Dec 16 07:22	0° $\text{B}$	
superior conj	11666 Jan 04 16:03	22° $\text{B}$ 50'54	1°22'26				
minimum elong	11666 Jan 04 18:30	23° $\text{B}$ 03'26	1°22'54	superior conj	11666 Dec 19 16:47	7° $\text{B}$ 13'42	1°34'01
	11666 Jan 08 05:42	0° $\approx$		minimum elong	11666 Dec 19 18:14	7° $\text{B}$ 21'23	1°34'41
max. Earth dist.	11666 Jan 09 22:01	3° $\approx$ 16'27	1.36107 AU	max. Earth dist.	11666 Dec 23 12:11	15° $\text{B}$ 09'13	1.34261 AU
evening rise	11666 Jan 13 19:06	10° $\approx$ 35'26		evening rise	11666 Dec 27 21:44	23° $\text{B}$ 54'05	

	11666 Dec 31 03:09	0°♊				11667 Nov 23 19:03	0°♊	
desc. node	11667 Jan 03 06:02	5°♊38'18		morning set		11667 Nov 27 02:51	6°♊56'46	
	11667 Jan 18 17:20	0°♊						
evening max el	11667 Jan 31 20:34	15°♊41'13	26°58'48	superior conj		11667 Dec 03 23:24	21°♊51'08	1°38'53
retrograde	11667 Feb 14 03:45	23°♊04'45		minimum elong		11667 Dec 03 23:42	21°♊52'45	1°39'37
evening set	11667 Feb 20 17:49	20°♊31'28		max. Earth dist.		11667 Dec 06 10:04	27°♊07'38	1.32828 AU
min. Earth dist.	11667 Feb 24 17:12	16°♊39'15	0.65671 AU			11667 Dec 07 18:31	0°♊	
inferior conj	11667 Feb 26 20:20	14°♊12'54	-0°00'42	evening rise		11667 Dec 11 12:07	7°♊42'23	
minimum elong	11667 Feb 26 20:21	14°♊12'52	0°00'25	desc. node		11667 Dec 21 02:58	25°♊44'10	
transit middle	11667 Feb 26 20:21	14°♊12'52	0°00'25			11667 Dec 23 15:17	0°♊	
transit begin	11667 Feb 26 17:22	14°♊21'25		evening max el		11668 Jan 14 09:02	29°♊01'24	27°28'09
transit end	11667 Feb 26 23:19	14°♊04'20				11668 Jan 15 10:14	0°♊	
asc. node	11667 Feb 26 21:12	14°♊10'24		retrograde		11668 Jan 28 01:30	6°♊25'37	
morning rise	11667 Mar 05 00:14	8°♊38'14		evening set		11668 Feb 03 22:39	3°♊55'56	
direct	11667 Mar 07 19:16	7°♊55'54		min. Earth dist.		11668 Feb 07 17:49	0°♊34'49	0.63946 AU
morning max el	11667 Mar 14 04:28	11°♊17'25	18°06'39			11668 Feb 08 07:31	30°♊	
	11667 Mar 27 11:04	0°♊		inferior conj		11668 Feb 10 08:18	27°♊52'52	-1°07'44
desc. node	11667 Apr 01 07:19	7°♊50'48		minimum elong		11668 Feb 10 10:26	27°♊47'18	1°06'22
morning set	11667 Apr 01 19:03	8°♊38'27		asc. node		11668 Feb 13 18:34	24°♊35'21	
	11667 Apr 15 03:05	0°♊		morning rise		11668 Feb 17 00:19	22°♊32'43	
				direct		11668 Feb 19 11:09	22°♊02'45	
superior conj	11667 Apr 16 16:32	2°♊27'29	-1°39'53	morning max el		11668 Feb 25 21:58	25°♊22'39	17°48'55
minimum elong	11667 Apr 16 07:09	1°♊50'32	1°39'18			11668 Feb 29 19:31	0°♊	
max. Earth dist.	11667 Apr 19 05:23	6°♊26'06	1.45648 AU	morning set		11668 Mar 13 15:08	20°♊38'07	
evening rise	11667 May 02 19:10	27°♊32'27		desc. node		11668 Mar 18 03:56	28°♊18'28	
	11667 May 04 09:18	0°♊				11668 Mar 19 04:08	0°♊	
greatest brilliancy	11667 May 15 07:02	16°♊41'41	-0.7m					
	11667 May 24 22:39	0°♊		superior conj		11668 Mar 26 15:28	12°♊18'41	-1°01'14
asc. node	11667 May 25 18:41	0°♊57'35		minimum elong		11668 Mar 26 08:59	11°♊52'25	1°00'27
evening max el	11667 May 27 03:54	2°♊25'55	19°22'56	max. Earth dist.		11668 Apr 01 00:16	20°♊54'15	1.44929 AU
retrograde	11667 Jun 03 06:15	6°♊25'30				11668 Apr 06 19:34	0°♊	
evening set	11667 Jun 06 20:51	5°♊09'36		evening rise		11668 Apr 11 07:06	6°♊54'36	
	11667 Jun 11 17:33	30°♊				11668 Apr 26 17:23	0°♊	
inferior conj	11667 Jun 12 06:30	29°♊17'37	3°14'38	evening max el		11668 May 09 06:35	16°♊10'43	20°21'50
minimum elong	11667 Jun 12 06:59	29°♊16'03	3°13'52	asc. node		11668 May 11 15:53	18°♊20'51	
min. Earth dist.	11667 Jun 13 14:41	27°♊32'09	0.67003 AU	retrograde		11668 May 17 05:03	20°♊45'47	
morning rise	11667 Jun 17 16:40	22°♊55'31		evening set		11668 May 21 05:05	19°♊13'50	
direct	11667 Jun 23 18:24	20°♊15'49		inferior conj		11668 May 26 11:57	13°♊08'59	3°13'43
desc. node	11667 Jun 28 07:48	21°♊29'09		minimum elong		11668 May 26 11:22	13°♊10'59	3°12'58
morning max el	11667 Jul 06 05:08	27°♊43'00	25°45'41	min. Earth dist.		11668 May 27 06:00	12°♊07'13	0.68049 AU
	11667 Jul 08 08:51	0°♊		morning rise		11668 May 31 17:21	6°♊49'30	
	11667 Jul 30 02:19	0°♊		direct		11668 Jun 06 07:24	4°♊20'51	
morning set	11667 Aug 11 05:54	20°♊45'48		desc. node		11668 Jun 14 04:52	7°♊58'51	
max. Earth dist.	11667 Aug 14 23:12	27°♊42'32	1.35682 AU	morning max el		11668 Jun 17 14:58	11°♊07'55	24°20'16
	11667 Aug 16 03:53	0°♊				11668 Jul 02 16:05	0°♊	
						11668 Jul 21 19:52	0°♊	
superior conj	11667 Aug 20 18:28	9°♊05'55	-0°09'43	morning set		11668 Jul 23 05:56	2°♊26'46	
minimum elong	11667 Aug 20 19:04	9°♊08'56	0°09'56	max. Earth dist.		11668 Jul 26 21:19	8°♊52'47	1.37867 AU
behind sun begin	11667 Aug 20 14:10	8°♊44'14						
behind sun end	11667 Aug 20 23:59	9°♊33'41		superior conj		11668 Aug 03 00:06	22°♊07'10	-0°43'00
asc. node	11667 Aug 21 18:41	11°♊08'25		minimum elong		11668 Aug 03 03:00	22°♊21'08	0°43'01
evening rise	11667 Aug 28 15:34	25°♊16'17				11668 Aug 07 01:07	0°♊	
	11667 Aug 30 23:21	0°♊		asc. node		11668 Aug 07 15:25	1°♊10'42	
evening max el	11667 Sep 15 14:35	24°♊49'36	20°12'34	evening rise		11668 Aug 11 17:12	9°♊16'19	
desc. node	11667 Sep 24 05:08	29°♊57'35				11668 Aug 23 04:34	0°♊	
	11667 Sep 24 10:24	0°♊		evening max el		11668 Aug 28 06:48	6°♊21'07	19°09'41
retrograde	11667 Sep 26 08:15	0°♊09'49		retrograde		11668 Sep 06 08:30	10°♊52'30	
evening set	11667 Sep 28 08:08	29°♊59'34		evening set		11668 Sep 08 04:50	10°♊42'02	
	11667 Sep 28 07:07	30°♊		desc. node		11668 Sep 10 02:33	10°♊10'44	
inferior conj	11667 Oct 07 08:33	26°♊01'34	-3°54'55	inferior conj		11668 Sep 16 16:42	6°♊30'19	-2°03'45
minimum elong	11667 Oct 06 22:54	26°♊15'51	3°51'36	minimum elong		11668 Sep 16 11:18	6°♊39'26	2°01'37
min. Earth dist.	11667 Oct 08 22:40	25°♊05'01	0.54865 AU	min. Earth dist.		11668 Sep 19 11:05	4°♊38'44	0.56046 AU
morning rise	11667 Oct 15 12:45	21°♊54'42		morning rise		11668 Sep 24 14:51	1°♊49'23	
direct	11667 Oct 20 01:45	21°♊10'03		direct		11668 Sep 29 23:35	0°♊42'44	
morning max el	11667 Nov 02 15:04	27°♊47'50	23°59'40	morning max el		11668 Oct 14 02:35	7°♊54'26	25°42'28
	11667 Nov 04 19:34	0°♊				11668 Oct 30 11:17	0°♊	
asc. node	11667 Nov 17 19:49	18°♊35'59		asc. node		11668 Nov 03 16:39	7°♊38'46	

morning set	11668 Nov 10 14:12	21° $\mathbb{M}$ 39'00		morning set	11669 Oct 25 23:25	6° $\mathbb{M}$ 11'41	
	11668 Nov 14 10:04	0° $\mathbb{X}$					
superior conj	11668 Nov 17 09:32	6° $\mathbb{X}$ 35'49	1°37'34	superior conj	11669 Nov 01 21:08	21° $\mathbb{M}$ 21'20	1°30'24
minimum elong	11668 Nov 17 08:44	6° $\mathbb{X}$ 31'27	1°38'12	minimum elong	11669 Nov 01 19:29	21° $\mathbb{M}$ 12'08	1°30'48
max. Earth dist.	11668 Nov 18 14:41	9° $\mathbb{X}$ 16'51	1.31864 AU	max. Earth dist.	11669 Nov 01 23:10	21° $\mathbb{M}$ 32'40	1.31397 AU
evening rise	11668 Nov 24 11:10	21° $\mathbb{X}$ 52'20		evening rise	11669 Nov 05 18:40	0° $\mathbb{X}$	
	11668 Nov 28 11:44	0° $\mathbb{Z}$			11669 Nov 08 16:21	6° $\mathbb{X}$ 16'46	
desc. node	11668 Dec 06 24:00	15° $\mathbb{Z}$ 27'05		desc. node	11669 Nov 21 01:17	0° $\mathbb{Z}$	
	11668 Dec 16 14:18	0° $\approx$			11669 Nov 23 21:07	4° $\mathbb{Z}$ 37'16	
evening max el	11668 Dec 26 18:39	11° $\approx$ 49'50	27°27'41	evening max el	11669 Dec 08 22:36	23° $\mathbb{Z}$ 53'06	26°53'07
retrograde	11669 Jan 09 15:48	19° $\approx$ 08'04		retrograde	11669 Dec 17 19:35	0° $\approx$	
evening set	11669 Jan 16 15:12	16° $\approx$ 50'27			11669 Dec 22 21:03	1° $\approx$ 02'26	
min. Earth dist.	11669 Jan 20 08:45	13° $\approx$ 55'07	0.61954 AU	evening set	11669 Dec 27 19:30	30° $\mathbb{R}$ $\mathbb{Z}$	
inferior conj	11669 Jan 23 08:25	11° $\approx$ 09'58	-2°22'41	min. Earth dist.	11669 Dec 29 15:37	29° $\mathbb{Z}$ 05'47	
minimum elong	11669 Jan 23 13:17	10° $\approx$ 58'43	2°20'09	inferior conj	11670 Jan 02 12:55	26° $\mathbb{Z}$ 27'02	0.59825 AU
morning rise	11669 Jan 30 14:00	6° $\approx$ 07'06		minimum elong	11670 Jan 05 17:03	23° $\mathbb{Z}$ 53'40	-3°41'12
asc. node	11669 Jan 30 15:51	6° $\approx$ 05'39		morning rise	11670 Jan 06 00:32	23° $\mathbb{Z}$ 38'34	3°37'59
direct	11669 Feb 01 18:53	5° $\approx$ 45'41		direct	11670 Jan 13 12:14	19° $\mathbb{Z}$ 11'14	
morning max el	11669 Feb 08 15:04	9° $\approx$ 13'53	17°48'56	asc. node	11670 Jan 15 14:32	18° $\mathbb{Z}$ 54'42	
	11669 Feb 22 07:46	0° $\mathbb{X}$		morning max el	11670 Jan 17 13:05	19° $\mathbb{Z}$ 09'27	
morning set	11669 Feb 24 09:24	3° $\mathbb{X}$ 41'07			11670 Jan 23 04:12	22° $\mathbb{Z}$ 40'27	18°07'58
desc. node	11669 Mar 05 00:33	18° $\mathbb{X}$ 54'03		morning set	11670 Jan 28 21:42	0° $\approx$	
					11670 Feb 07 19:31	17° $\approx$ 27'43	
superior conj	11669 Mar 07 14:16	23° $\mathbb{X}$ 18'05	-0°19'39		11670 Feb 14 13:21	0° $\mathbb{X}$	
minimum elong	11669 Mar 07 12:24	23° $\mathbb{X}$ 10'12	0°19'12	superior conj	11670 Feb 17 12:53	5° $\mathbb{X}$ 23'47	0°18'13
	11669 Mar 11 14:15	0° $\mathbb{Y}$		minimum elong	11670 Feb 17 14:19	5° $\mathbb{X}$ 30'08	0°18'23
max. Earth dist.	11669 Mar 14 16:13	5° $\mathbb{Y}$ 02'39	1.43563 AU	desc. node	11670 Feb 19 21:10	9° $\mathbb{X}$ 33'19	
evening rise	11669 Mar 21 22:31	16° $\mathbb{Y}$ 34'20		max. Earth dist.	11670 Feb 25 03:57	18° $\mathbb{X}$ 37'53	1.41691 AU
	11669 Mar 30 18:15	0° $\mathbb{B}$		evening rise	11670 Mar 02 05:51	26° $\mathbb{X}$ 59'32	
evening max el	11669 Apr 22 03:46	29° $\mathbb{B}$ 57'00	21°32'53		11670 Mar 04 02:55	0° $\mathbb{Y}$	
	11669 Apr 22 04:58	0° $\mathbb{I}$			11670 Mar 24 11:16	0° $\mathbb{B}$	
asc. node	11669 Apr 28 13:09	4° $\mathbb{I}$ 41'29		evening max el	11670 Apr 04 20:28	13° $\mathbb{B}$ 44'33	22°51'34
retrograde	11669 May 01 03:24	5° $\mathbb{I}$ 13'37		retrograde	11670 Apr 14 23:43	19° $\mathbb{B}$ 43'33	
evening set	11669 May 05 13:49	3° $\mathbb{I}$ 25'51		asc. node	11670 Apr 15 10:27	19° $\mathbb{B}$ 42'36	
	11669 May 08 18:17	30° $\mathbb{R}$ $\mathbb{B}$		evening set	11670 Apr 19 21:23	17° $\mathbb{B}$ 40'49	
inferior conj	11669 May 10 20:22	27° $\mathbb{B}$ 10'02	3°01'31	inferior conj	11670 Apr 25 05:41	11° $\mathbb{B}$ 16'32	2°39'09
minimum elong	11669 May 10 18:55	27° $\mathbb{B}$ 15'05	3°00'43	minimum elong	11670 Apr 25 03:40	11° $\mathbb{B}$ 23'30	2°38'15
min. Earth dist.	11669 May 11 01:05	26° $\mathbb{B}$ 53'36	0.68632 AU	min. Earth dist.	11670 Apr 24 21:44	11° $\mathbb{B}$ 44'07	0.68752 AU
morning rise	11669 May 15 23:48	20° $\mathbb{B}$ 55'23		morning rise	11670 Apr 30 09:51	5° $\mathbb{B}$ 08'07	
direct	11669 May 21 00:55	18° $\mathbb{B}$ 43'55		direct	11670 May 04 21:42	3° $\mathbb{B}$ 17'22	
morning max el	11669 May 31 01:29	24° $\mathbb{B}$ 40'06	22°50'23	morning max el	11670 May 13 16:00	8° $\mathbb{B}$ 21'31	21°24'46
desc. node	11669 Jun 01 01:48	25° $\mathbb{B}$ 42'55		desc. node	11670 May 18 22:39	14° $\mathbb{B}$ 20'42	
	11669 Jun 04 20:09	0° $\mathbb{I}$			11670 May 30 09:07	0° $\mathbb{I}$	
	11669 Jun 26 02:32	0° $\mathbb{E}$		morning set	11670 Jun 14 05:07	22° $\mathbb{I}$ 30'35	
morning set	11669 Jul 04 06:30	13° $\mathbb{E}$ 03'30			11670 Jun 18 21:26	0° $\mathbb{E}$	
max. Earth dist.	11669 Jul 08 18:54	20° $\mathbb{E}$ 38'22	1.40190 AU	max. Earth dist.	11670 Jun 20 21:55	3° $\mathbb{E}$ 17'52	1.42357 AU
	11669 Jul 14 03:29	0° $\mathbb{O}$					
superior conj	11669 Jul 16 14:10	4° $\mathbb{O}$ 24'32	-1°16'49	superior conj	11670 Jun 28 08:08	15° $\mathbb{E}$ 47'17	-1°47'06
minimum elong	11669 Jul 16 19:34	4° $\mathbb{O}$ 49'04	1°16'41	minimum elong	11670 Jun 28 14:53	16° $\mathbb{E}$ 16'21	1°47'10
asc. node	11669 Jul 25 12:13	21° $\mathbb{O}$ 06'06			11670 Jul 06 09:20	0° $\mathbb{O}$	
evening rise	11669 Jul 26 10:08	22° $\mathbb{O}$ 50'24		evening rise	11670 Jul 09 14:21	5° $\mathbb{O}$ 48'23	
	11669 Jul 30 05:16	0° $\mathbb{M}$		asc. node	11670 Jul 12 09:04	10° $\mathbb{O}$ 50'19	
evening max el	11669 Aug 11 10:13	18° $\mathbb{M}$ 36'58	18°28'09		11670 Jul 24 11:59	0° $\mathbb{M}$	
retrograde	11669 Aug 19 03:28	22° $\mathbb{M}$ 29'50		evening max el	11670 Jul 25 20:43	1° $\mathbb{M}$ 27'33	18°07'03
evening set	11669 Aug 21 04:51	22° $\mathbb{M}$ 14'06		retrograde	11670 Aug 01 16:56	4° $\mathbb{M}$ 56'55	
desc. node	11669 Aug 27 23:56	18° $\mathbb{M}$ 25'17		evening set	11670 Aug 04 01:48	4° $\mathbb{M}$ 32'08	
inferior conj	11669 Aug 28 21:58	17° $\mathbb{M}$ 42'12	-0°17'05		11670 Aug 10 15:34	30° $\mathbb{R}$ $\mathbb{O}$	
minimum elong	11669 Aug 28 21:19	17° $\mathbb{M}$ 43'30	0°17'03	inferior conj	11670 Aug 11 00:31	29° $\mathbb{O}$ 39'28	1°08'22
min. Earth dist.	11669 Sep 01 05:03	15° $\mathbb{M}$ 07'08	0.57909 AU	minimum elong	11670 Aug 11 02:31	29° $\mathbb{O}$ 34'51	1°07'12
morning rise	11669 Sep 05 10:17	12° $\mathbb{M}$ 24'17		min. Earth dist.	11670 Aug 14 06:51	26° $\mathbb{O}$ 40'39	0.60122 AU
direct	11669 Sep 11 11:45	10° $\mathbb{M}$ 50'13		desc. node	11670 Aug 14 21:17	26° $\mathbb{O}$ 09'41	
morning max el	11669 Sep 25 19:35	18° $\mathbb{M}$ 26'23	27°02'56	morning rise	11670 Aug 18 00:14	23° $\mathbb{O}$ 51'07	
	11669 Oct 05 12:42	0° $\mathbb{U}$		direct	11670 Aug 24 12:33	21° $\mathbb{O}$ 48'57	
asc. node	11669 Oct 21 13:25	27° $\mathbb{U}$ 05'53		morning max el	11670 Sep 07 20:09	29° $\mathbb{O}$ 42'08	27°48'50
	11669 Oct 23 00:03	0° $\mathbb{M}$			11670 Sep 08 03:21	0° $\mathbb{M}$	
					11670 Sep 29 13:07	0° $\mathbb{U}$	

asc. node	11670 Oct 08 10:08	16°♄50'41		morning set	11671 Sep 24 04:01	4°♄29'25	
morning set	11670 Oct 10 04:43	20°♄30'38		asc. node	11671 Sep 25 06:49	6°♄46'52	
	11670 Oct 14 14:49	0°♄		max. Earth dist.	11671 Sep 29 12:56	15°♄47'08	1.31966 AU
max. Earth dist.	11670 Oct 16 07:57	3°♄46'44	1.31429 AU				
				superior conj	11671 Oct 01 17:31	20°♄33'28	0°59'33
superior conj	11670 Oct 17 08:26	6°♄02'39	1°17'40	minimum elong	11671 Oct 01 15:19	20°♄21'23	0°59'22
minimum elong	11670 Oct 17 06:17	5°♄50'39	1°17'46		11671 Oct 06 00:35	0°♄	
evening rise	11670 Oct 24 01:28	20°♄50'04		evening rise	11671 Oct 08 12:32	5°♄25'51	
	11670 Oct 28 10:59	0°♄			11671 Oct 21 08:32	0°♄	
desc. node	11670 Nov 10 18:18	23°♄02'09		desc. node	11671 Oct 28 15:34	10°♄23'38	
	11670 Nov 16 01:10	0°♄		evening max el	11671 Nov 02 06:33	15°♄27'37	24°12'38
evening max el	11670 Nov 20 18:25	5°♄03'47	25°45'11	retrograde	11671 Nov 15 22:36	22°♄17'44	
retrograde	11670 Dec 04 15:45	12°♄04'35		evening set	11671 Nov 20 23:17	21°♄22'06	
evening set	11670 Dec 10 19:31	10°♄36'28		min. Earth dist.	11671 Nov 26 17:32	18°♄28'42	0.55992 AU
min. Earth dist.	11670 Dec 15 06:52	7°♄59'53	0.57751 AU	inferior conj	11671 Nov 28 23:55	17°♄05'13	-5°42'06
inferior conj	11670 Dec 18 06:48	5°♄54'18	-4°53'28	minimum elong	11671 Nov 29 04:13	16°♄58'35	5°40'58
minimum elong	11670 Dec 18 14:59	5°♄39'58	4°50'47	morning rise	11671 Dec 07 11:11	13°♄06'13	
morning rise	11670 Dec 26 12:57	1°♄34'29		direct	11671 Dec 10 00:56	12°♄48'58	
direct	11670 Dec 28 17:36	1°♄19'26		morning max el	11671 Dec 20 03:27	17°♄37'59	19°50'05
asc. node	11671 Jan 04 10:12	3°♄49'52		asc. node	11671 Dec 22 07:16	19°♄54'38	
morning max el	11671 Jan 06 09:36	5°♄32'06	18°47'46		11671 Dec 29 07:26	0°♄	
	11671 Jan 21 19:25	0°♄		morning set	11672 Jan 06 20:55	16°♄16'28	
morning set	11671 Jan 22 16:35	1°♄43'11			11672 Jan 13 15:20	0°♄	
superior conj	11671 Jan 31 07:16	18°♄24'18	0°49'14	superior conj	11672 Jan 14 16:33	2°♄05'39	1°12'31
minimum elong	11671 Jan 31 10:05	18°♄37'36	0°49'22	minimum elong	11672 Jan 14 19:23	2°♄19'43	1°12'50
desc. node	11671 Feb 06 17:52	0°♄12'55		max. Earth dist.	11672 Jan 20 17:38	13°♄44'54	1.37298 AU
	11671 Feb 06 14:58	0°♄		evening rise	11672 Jan 24 11:08	20°♄33'23	
max. Earth dist.	11671 Feb 07 11:32	1°♄31'00	1.39519 AU	desc. node	11672 Jan 24 14:38	20°♄49'01	
evening rise	11671 Feb 11 10:14	8°♄20'07			11672 Jan 29 22:09	0°♄	
	11671 Feb 25 01:58	0°♄			11672 Feb 19 02:19	0°♄	
evening max el	11671 Mar 18 10:31	27°♄34'08	24°12'03	evening max el	11672 Feb 28 23:48	11°♄24'46	25°27'40
	11671 Mar 21 01:36	0°♄		retrograde	11672 Mar 12 05:42	18°♄29'17	
retrograde	11671 Mar 29 16:48	4°♄10'44		evening set	11672 Mar 18 02:58	16°♄03'10	
asc. node	11671 Apr 02 07:46	3°♄10'38		asc. node	11672 Mar 19 05:05	15°♄03'15	
evening set	11671 Apr 04 02:17	1°♄54'49		min. Earth dist.	11672 Mar 22 11:20	11°♄17'09	0.67656 AU
	11671 Apr 06 00:18	30°♄		inferior conj	11672 Mar 23 19:36	9°♄33'15	1°25'15
min. Earth dist.	11671 Apr 08 17:50	26°♄33'43	0.68420 AU	minimum elong	11672 Mar 23 17:46	9°♄39'10	1°24'33
inferior conj	11671 Apr 09 14:03	25°♄25'26	2°07'02	morning rise	11672 Mar 29 09:02	3°♄40'50	
minimum elong	11671 Apr 09 11:53	25°♄32'46	2°06'08	direct	11672 Apr 01 20:06	2°♄32'04	
morning rise	11671 Apr 14 21:34	19°♄24'22		morning max el	11672 Apr 08 18:39	6°♄19'40	19°09'05
direct	11671 Apr 18 20:33	17°♄55'15		desc. node	11672 Apr 21 16:10	23°♄23'53	
morning max el	11671 Apr 26 13:27	22°♄15'05	20°09'43	greatest brilliancy	11672 Apr 21 19:11	23°♄35'11	-0.7m
	11671 May 03 03:08	0°♄			11672 Apr 26 00:47	0°♄	
desc. node	11671 May 05 19:26	3°♄37'50		morning set	11672 May 02 10:47	9°♄52'17	
	11671 May 23 14:21	0°♄			11672 May 15 09:19	0°♄	
morning set	11671 May 24 08:03	1°♄08'07		max. Earth dist.	11672 May 15 23:15	0°♄54'39	1.45275 AU
max. Earth dist.	11671 Jun 03 07:50	16°♄47'49	1.44115 AU				
				superior conj	11672 May 18 22:02	5°♄33'32	-2°12'40
superior conj	11671 Jun 09 02:20	26°♄07'54	-2°07'59	minimum elong	11672 May 18 20:03	5°♄25'42	2°13'18
minimum elong	11671 Jun 09 07:00	26°♄27'00	2°08'32	evening rise	11672 Jun 02 13:31	29°♄10'07	
	11671 Jun 11 10:41	0°♄			11672 Jun 03 01:40	0°♄	
evening rise	11671 Jun 22 01:02	17°♄58'10		asc. node	11672 Jun 15 02:59	19°♄22'37	
asc. node	11671 Jun 29 05:59	0°♄17'46		evening max el	11672 Jun 21 24:00	28°♄13'36	18°21'46
	11671 Jun 29 01:43	0°♄			11672 Jun 24 01:12	0°♄	
evening max el	11671 Jul 09 10:23	14°♄42'21	18°05'13	retrograde	11672 Jun 28 09:39	1°♄39'06	
retrograde	11671 Jul 15 20:28	18°♄02'55		evening set	11672 Jul 01 10:40	0°♄48'04	
evening set	11671 Jul 18 13:20	17°♄26'05			11672 Jul 02 16:05	30°♄	
inferior conj	11671 Jul 24 20:52	12°♄14'41	2°09'18	inferior conj	11672 Jul 07 06:54	25°♄19'52	2°48'18
minimum elong	11671 Jul 24 23:32	12°♄07'40	2°07'57	minimum elong	11672 Jul 07 09:03	25°♄13'35	2°47'11
min. Earth dist.	11671 Jul 27 17:56	9°♄14'28	0.62385 AU	min. Earth dist.	11672 Jul 09 14:30	22°♄38'10	0.64465 AU
morning rise	11671 Jul 31 07:36	6°♄06'13		morning rise	11672 Jul 13 06:09	19°♄01'06	
desc. node	11671 Aug 01 18:37	5°♄09'27		desc. node	11672 Jul 18 15:53	16°♄26'37	
direct	11671 Aug 07 00:07	3°♄40'50		direct	11672 Jul 19 20:45	16°♄21'37	
morning max el	11671 Aug 21 02:54	11°♄43'11	27°55'57	morning max el	11672 Aug 02 12:59	24°♄21'40	27°26'53
	11671 Sep 04 13:48	0°♄			11672 Aug 07 14:59	0°♄	
	11671 Sep 21 22:16	0°♄			11672 Aug 27 23:43	0°♄	

morning set	11672 Sep 06 18:49	18° $\mathbb{M}$ 01'49			11673 Jul 05 06:08	0° $\mathfrak{G}$	
asc. node	11672 Sep 11 03:32	26° $\mathbb{M}$ 50'03		desc. node	11673 Jul 05 13:05	0° $\mathfrak{G}$ 04'44	
max. Earth dist.	11672 Sep 11 10:17	27° $\mathbb{M}$ 25'02	1.33020 AU	morning max el	11673 Jul 15 23:46	7° $\mathfrak{G}$ 25'27	26°28'41
	11672 Sep 12 15:59	0° $\mathfrak{L}$			11673 Aug 02 12:24	0° $\mathfrak{Q}$	
					11673 Aug 20 09:15	0° $\mathbb{M}$	
superior conj	11672 Sep 14 22:25	4° $\mathfrak{L}$ 48'29	0°36'16	morning set	11673 Aug 20 21:54	0° $\mathbb{M}$ 59'19	
minimum elong	11672 Sep 14 20:45	4° $\mathfrak{L}$ 39'34	0°35'55	max. Earth dist.	11673 Aug 24 21:33	8° $\mathbb{M}$ 39'38	1.34583 AU
evening rise	11672 Sep 21 23:42	19° $\mathfrak{L}$ 59'20		asc. node	11673 Aug 29 00:16	16° $\mathbb{M}$ 55'59	
	11672 Sep 26 20:06	0° $\mathbb{M}$					
evening max el	11672 Oct 13 17:24	25° $\mathbb{M}$ 32'17	22°31'28	superior conj	11673 Aug 29 20:43	18° $\mathbb{M}$ 41'13	0°08'16
desc. node	11672 Oct 14 12:54	26° $\mathbb{M}$ 18'30		minimum elong	11673 Aug 29 20:17	18° $\mathbb{M}$ 38'57	0°07'57
	11672 Oct 19 12:46	0° $\mathfrak{X}$		behind sun begin	11673 Aug 29 15:08	18° $\mathbb{M}$ 12'24	
retrograde	11672 Oct 26 17:09	1° $\mathfrak{X}$ 59'40		behind sun end	11673 Aug 30 01:26	19° $\mathbb{M}$ 05'32	
evening set	11672 Oct 30 06:52	1° $\mathfrak{X}$ 31'42			11673 Sep 04 06:28	0° $\mathfrak{L}$	
	11672 Nov 03 08:57	30° $\mathfrak{R}$ $\mathbb{M}$		evening rise	11673 Sep 06 09:02	4° $\mathfrak{L}$ 25'02	
min. Earth dist.	11672 Nov 07 00:57	28° $\mathbb{M}$ 03'21	0.54860 AU		11673 Sep 20 12:56	0° $\mathbb{M}$	
inferior conj	11672 Nov 07 23:25	27° $\mathbb{M}$ 31'33	-5°44'44	evening max el	11673 Sep 25 12:20	5° $\mathbb{M}$ 54'43	20°58'15
minimum elong	11672 Nov 07 19:26	27° $\mathbb{M}$ 37'11	5°43'49	desc. node	11673 Oct 01 10:17	10° $\mathbb{M}$ 18'20	
morning rise	11672 Nov 16 09:29	23° $\mathbb{M}$ 43'50		retrograde	11673 Oct 07 04:19	11° $\mathbb{M}$ 42'11	
direct	11672 Nov 19 15:27	23° $\mathbb{M}$ 19'51		evening set	11673 Oct 09 13:30	11° $\mathbb{M}$ 28'43	
morning max el	11672 Dec 01 07:24	28° $\mathbb{M}$ 51'50	21°14'50	inferior conj	11673 Oct 18 15:18	7° $\mathbb{M}$ 34'06	-4°49'02
	11672 Dec 02 10:59	0° $\mathfrak{X}$		minimum elong	11673 Oct 18 05:33	7° $\mathbb{M}$ 47'54	4°46'15
asc. node	11672 Dec 08 04:17	7° $\mathfrak{X}$ 07'41		min. Earth dist.	11673 Oct 19 08:10	7° $\mathbb{M}$ 10'11	0.54594 AU
	11672 Dec 20 18:18	0° $\mathfrak{Z}$		morning rise	11673 Oct 26 21:50	3° $\mathbb{M}$ 40'24	
morning set	11672 Dec 21 05:48	0° $\mathfrak{Z}$ 59'50		direct	11673 Oct 30 23:42	3° $\mathbb{M}$ 04'43	
				morning max el	11673 Nov 12 23:13	9° $\mathbb{M}$ 19'32	22°57'17
superior conj	11672 Dec 28 12:36	16° $\mathfrak{Z}$ 15'59	1°28'12	asc. node	11673 Nov 25 01:15	25° $\mathbb{M}$ 13'38	
minimum elong	11672 Dec 28 14:40	16° $\mathfrak{Z}$ 26'42	1°28'46		11673 Nov 27 18:48	0° $\mathfrak{X}$	
max. Earth dist.	11673 Jan 02 03:31	25° $\mathfrak{Z}$ 38'24	1.35270 AU	morning set	11673 Dec 05 17:08	15° $\mathfrak{X}$ 47'34	
	11673 Jan 04 09:05	0° $\approx$			11673 Dec 12 07:34	0° $\mathfrak{Z}$	
evening rise	11673 Jan 06 05:27	3° $\approx$ 31'06					
desc. node	11673 Jan 10 11:27	11° $\approx$ 17'26		superior conj	11673 Dec 12 16:10	0° $\mathfrak{Z}$ 46'08	1°36'51
	11673 Jan 21 20:15	0° $\mathfrak{H}$		minimum elong	11673 Dec 12 17:08	0° $\mathfrak{Z}$ 51'19	1°37'35
evening max el	11673 Feb 10 13:24	25° $\mathfrak{H}$ 11'36	26°31'02	max. Earth dist.	11673 Dec 15 21:06	7° $\mathfrak{Z}$ 33'19	1.33598 AU
	11673 Feb 16 09:50	0° $\mathfrak{Y}$		evening rise	11673 Dec 20 13:33	17° $\mathfrak{Z}$ 04'03	
retrograde	11673 Feb 23 13:20	2° $\mathfrak{Y}$ 31'33			11673 Dec 27 11:10	0° $\approx$	
evening set	11673 Mar 01 21:36	29° $\mathfrak{H}$ 59'34		desc. node	11673 Dec 28 08:22	1° $\approx$ 33'35	
	11673 Mar 01 21:24	30° $\mathfrak{R}$ $\mathfrak{H}$			11674 Jan 16 05:48	0° $\mathfrak{H}$	
min. Earth dist.	11673 Mar 06 00:02	25° $\mathfrak{H}$ 47'53	0.66495 AU	evening max el	11674 Jan 24 02:56	8° $\mathfrak{H}$ 45'53	27°14'43
asc. node	11673 Mar 06 02:27	25° $\mathfrak{H}$ 40'43		retrograde	11674 Feb 06 14:44	16° $\mathfrak{H}$ 10'08	
inferior conj	11673 Mar 07 20:16	23° $\mathfrak{H}$ 34'52	0°33'33	evening set	11674 Feb 13 08:09	13° $\mathfrak{H}$ 37'48	
minimum elong	11673 Mar 07 19:23	23° $\mathfrak{H}$ 37'29	0°33'23	min. Earth dist.	11674 Feb 17 05:41	9° $\mathfrak{H}$ 59'00	0.64972 AU
morning rise	11673 Mar 13 18:09	17° $\mathfrak{H}$ 52'52		inferior conj	11674 Feb 19 13:39	7° $\mathfrak{H}$ 25'01	-0°27'59
direct	11673 Mar 16 18:36	17° $\mathfrak{H}$ 01'49		minimum elong	11674 Feb 19 14:29	7° $\mathfrak{H}$ 22'45	0°27'17
morning max el	11673 Mar 23 06:28	20° $\mathfrak{H}$ 29'38	18°24'35	asc. node	11674 Feb 20 23:46	5° $\mathfrak{H}$ 52'42	
	11673 Mar 30 18:37	0° $\mathfrak{Y}$		morning rise	11674 Feb 25 22:25	1° $\mathfrak{H}$ 55'51	
desc. node	11673 Apr 08 12:51	13° $\mathfrak{Y}$ 30'26		direct	11674 Feb 28 13:47	1° $\mathfrak{H}$ 19'08	
morning set	11673 Apr 12 10:26	19° $\mathfrak{Y}$ 41'29		morning max el	11674 Mar 06 22:40	4° $\mathfrak{H}$ 38'44	17°56'58
	11673 Apr 18 22:48	0° $\mathfrak{B}$			11674 Mar 24 01:22	0° $\mathfrak{Y}$	
				morning set	11674 Mar 24 15:04	0° $\mathfrak{Y}$ 56'37	
superior conj	11673 Apr 28 05:18	14° $\mathfrak{B}$ 32'36	-1°57'08	desc. node	11674 Mar 26 09:30	3° $\mathfrak{Y}$ 51'54	
minimum elong	11673 Apr 27 20:52	13° $\mathfrak{B}$ 59'36	1°57'01				
max. Earth dist.	11673 Apr 28 18:10	15° $\mathfrak{B}$ 22'50	1.45726 AU	superior conj	11674 Apr 07 17:51	23° $\mathfrak{Y}$ 52'15	-1°24'25
	11673 May 08 02:35	0° $\mathbb{I}$		minimum elong	11674 Apr 07 09:09	23° $\mathfrak{Y}$ 17'44	1°23'40
evening rise	11673 May 14 01:45	9° $\mathbb{I}$ 22'14		max. Earth dist.	11674 Apr 11 14:18	29° $\mathfrak{Y}$ 57'18	1.45433 AU
greatest brilliancy	11673 May 23 19:03	24° $\mathbb{I}$ 36'51	-0.8m		11674 Apr 11 14:59	0° $\mathfrak{B}$	
	11673 May 27 07:59	0° $\mathfrak{G}$		evening rise	11674 Apr 23 19:00	18° $\mathfrak{B}$ 52'57	
asc. node	11673 Jun 02 00:04	7° $\mathfrak{G}$ 56'24			11674 May 01 01:36	0° $\mathbb{I}$	
evening max el	11673 Jun 05 10:48	11° $\mathfrak{G}$ 53'51	18°55'53	greatest brilliancy	11674 May 08 00:37	10° $\mathbb{I}$ 24'53	-0.6m
retrograde	11673 Jun 12 04:41	15° $\mathfrak{G}$ 37'13		evening max el	11674 May 19 16:50	25° $\mathbb{I}$ 37'57	19°46'17
evening set	11673 Jun 15 14:13	14° $\mathfrak{G}$ 30'33		asc. node	11674 May 19 21:13	25° $\mathbb{I}$ 48'55	
inferior conj	11673 Jun 21 02:48	8° $\mathfrak{G}$ 47'03	3°09'19	retrograde	11674 May 27 02:46	29° $\mathbb{I}$ 51'02	
minimum elong	11673 Jun 21 03:56	8° $\mathfrak{G}$ 43'29	3°08'27	evening set	11674 May 30 21:22	28° $\mathbb{I}$ 28'09	
min. Earth dist.	11673 Jun 22 19:33	6° $\mathfrak{G}$ 38'21	0.66205 AU	inferior conj	11674 Jun 05 05:30	22° $\mathbb{I}$ 30'36	3°15'42
morning rise	11673 Jun 26 16:59	2° $\mathfrak{G}$ 24'58		minimum elong	11674 Jun 05 05:31	22° $\mathbb{I}$ 30'34	3°14'57
	11673 Jun 30 21:22	30° $\mathfrak{R}$ $\mathbb{I}$		min. Earth dist.	11674 Jun 06 07:33	21° $\mathbb{I}$ 03'27	0.67512 AU
direct	11673 Jul 03 00:35	29° $\mathbb{I}$ 42'19		morning rise	11674 Jun 10 13:20	16° $\mathbb{I}$ 09'34	



direct	11674 Jun 16 10:25	13° $\Pi$ 33'40			11675 Jun 05 22:39	0° $\Pi$	
desc. node	11674 Jun 22 10:12	15° $\Pi$ 39'58		desc. node	11675 Jun 09 07:12	2° $\Pi$ 44'00	
morning max el	11674 Jun 28 09:58	20° $\Pi$ 44'38	25°10'29	morning max el	11675 Jun 10 19:55	4° $\Pi$ 13'03	23°42'11
	11674 Jul 06 09:15	0° $\mathfrak{E}$			11675 Jun 30 14:43	0° $\mathfrak{E}$	
	11674 Jul 26 16:56	0° $\Omega$		morning set	11675 Jul 15 23:53	24° $\mathfrak{E}$ 26'58	
morning set	11674 Aug 03 09:11	13° $\Omega$ 11'31			11675 Jul 19 05:14	0° $\Omega$	
max. Earth dist.	11674 Aug 06 23:34	19° $\Omega$ 45'21	1.36586 AU	max. Earth dist.	11675 Jul 19 21:09	1° $\Omega$ 09'44	1.38852 AU
	11674 Aug 12 08:18	0° $\mathfrak{M}$					
superior conj	11674 Aug 13 09:29	2° $\mathfrak{M}$ 03'53	-0°23'35	superior conj	11675 Jul 27 09:04	14° $\Omega$ 47'58	-0°57'28
minimum elong	11674 Aug 13 10:59	2° $\mathfrak{M}$ 11'21	0°23'43	minimum elong	11675 Jul 27 13:03	15° $\Omega$ 06'43	0°57'23
asc. node	11674 Aug 15 21:00	7° $\mathfrak{M}$ 00'44		asc. node	11675 Aug 02 17:46	27° $\Omega$ 00'51	
evening rise	11674 Aug 21 14:16	18° $\mathfrak{M}$ 36'45		evening rise	11675 Aug 04 06:28	0° $\mathfrak{M}$	
	11674 Aug 27 09:26	0° $\mathfrak{L}$		evening max el	11675 Aug 05 12:42	2° $\mathfrak{M}$ 27'32	
evening max el	11674 Sep 07 20:40	16° $\mathfrak{L}$ 58'37	19°43'05		11675 Aug 21 18:04	28° $\mathfrak{M}$ 49'58	18°49'23
retrograde	11674 Sep 17 20:35	21° $\mathfrak{L}$ 57'16		retrograde	11675 Aug 23 00:22	0° $\mathfrak{L}$	
desc. node	11674 Sep 18 07:41	21° $\mathfrak{L}$ 56'40		evening set	11675 Aug 30 04:53	3° $\mathfrak{L}$ 03'49	
evening set	11674 Sep 19 17:37	21° $\mathfrak{L}$ 47'32		desc. node	11675 Sep 01 02:39	2° $\mathfrak{L}$ 51'41	
inferior conj	11674 Sep 28 13:56	17° $\mathfrak{L}$ 44'38	-3°08'55		11675 Sep 05 05:05	1° $\mathfrak{L}$ 13'16	
minimum elong	11674 Sep 28 05:43	17° $\mathfrak{L}$ 57'25	3°05'49	inferior conj	11675 Sep 07 04:16	30° $\mathfrak{R}$ $\mathfrak{M}$	
min. Earth dist.	11674 Sep 30 17:42	16° $\mathfrak{L}$ 24'14	0.55272 AU	minimum elong	11675 Sep 09 06:48	28° $\mathfrak{M}$ 31'25	-1°16'37
morning rise	11674 Oct 06 16:04	13° $\mathfrak{L}$ 24'56		min. Earth dist.	11675 Sep 09 03:35	28° $\mathfrak{M}$ 37'13	1°15'26
direct	11674 Oct 11 13:45	12° $\mathfrak{L}$ 31'53		morning rise	11675 Sep 12 08:16	26° $\mathfrak{M}$ 19'31	0.56771 AU
morning max el	11674 Oct 25 09:54	19° $\mathfrak{L}$ 24'16	24°45'07	direct	11675 Sep 17 01:13	23° $\mathfrak{M}$ 34'15	
	11674 Nov 03 07:58	0° $\mathfrak{M}$		morning max el	11675 Sep 22 17:19	22° $\mathfrak{M}$ 16'42	
asc. node	11674 Nov 11 22:08	13° $\mathfrak{M}$ 58'42			11675 Oct 06 23:32	29° $\mathfrak{M}$ 39'45	26°20'19
	11674 Nov 19 22:45	0° $\mathfrak{J}$			11675 Oct 07 07:54	0° $\mathfrak{L}$	
morning set	11674 Nov 20 04:58	0° $\mathfrak{J}$ 33'16		asc. node	11675 Oct 28 02:30	0° $\mathfrak{M}$	
				morning set	11675 Oct 29 18:57	3° $\mathfrak{M}$ 12'59	
					11675 Nov 04 15:39	15° $\mathfrak{M}$ 12'21	
superior conj	11674 Nov 27 00:32	15° $\mathfrak{J}$ 27'13	1°39'02	superior conj	11675 Nov 11 11:32	0° $\mathfrak{J}$ 13'02	1°35'12
minimum elong	11674 Nov 27 00:21	15° $\mathfrak{J}$ 26'13	1°39'46	minimum elong	11675 Nov 11 10:21	0° $\mathfrak{J}$ 06'25	1°35'46
max. Earth dist.	11674 Nov 28 22:24	19° $\mathfrak{J}$ 37'39	1.32364 AU		11675 Nov 11 09:11	0° $\mathfrak{J}$	
	11674 Dec 03 19:49	0° $\mathfrak{Z}$		max. Earth dist.	11675 Nov 12 05:09	1° $\mathfrak{J}$ 50'53	1.31608 AU
evening rise	11674 Dec 04 07:58	1° $\mathfrak{Z}$ 02'22		evening rise	11675 Nov 18 09:55	15° $\mathfrak{J}$ 19'01	
desc. node	11674 Dec 15 05:20	21° $\mathfrak{Z}$ 30'40			11675 Nov 25 19:20	0° $\mathfrak{Z}$	
	11674 Dec 20 10:10	0° $\approx$		desc. node	11675 Dec 02 02:23	11° $\mathfrak{Z}$ 00'52	
evening max el	11675 Jan 06 14:32	21° $\approx$ 53'59	27°31'53		11675 Dec 15 16:53	0° $\approx$	
retrograde	11675 Jan 20 09:03	29° $\approx$ 15'22		evening max el	11675 Dec 19 21:49	4° $\approx$ 23'22	27°17'02
evening set	11675 Jan 27 08:04	26° $\approx$ 49'48		retrograde	11676 Jan 02 19:40	11° $\approx$ 38'12	
min. Earth dist.	11675 Jan 31 02:12	23° $\approx$ 40'37	0.63131 AU	evening set	11676 Jan 09 18:13	9° $\approx$ 28'04	
inferior conj	11675 Feb 02 20:56	20° $\approx$ 55'52	-1°38'42	min. Earth dist.	11676 Jan 13 12:19	6° $\approx$ 41'31	0.61061 AU
minimum elong	11675 Feb 03 00:11	20° $\approx$ 47'49	1°36'50	inferior conj	11676 Jan 16 14:50	3° $\approx$ 59'12	-2°56'01
asc. node	11675 Feb 07 21:05	16° $\approx$ 39'27		minimum elong	11676 Jan 16 20:54	3° $\approx$ 45'57	2°53'05
morning rise	11675 Feb 09 18:36	15° $\approx$ 42'39			11676 Jan 21 22:17	30° $\mathfrak{R}$ $\mathfrak{Z}$	
direct	11675 Feb 12 02:43	15° $\approx$ 16'38		morning rise	11676 Jan 24 02:24	29° $\mathfrak{Z}$ 05'02	
morning max el	11675 Feb 18 16:21	18° $\approx$ 38'31	17°46'43	asc. node	11676 Jan 25 18:20	28° $\mathfrak{Z}$ 47'05	
	11675 Feb 27 00:15	0° $\mathfrak{H}$		direct	11676 Jan 26 05:44	28° $\mathfrak{Z}$ 46'08	
morning set	11675 Mar 06 21:19	13° $\mathfrak{H}$ 25'13			11676 Jan 30 09:15	0° $\approx$	
desc. node	11675 Mar 13 06:07	24° $\mathfrak{H}$ 23'08		morning max el	11676 Feb 02 08:15	2° $\approx$ 20'21	17°54'39
	11675 Mar 16 14:00	0° $\mathfrak{Y}$		morning set	11676 Feb 17 22:56	26° $\approx$ 48'01	
					11676 Feb 19 17:04	0° $\mathfrak{H}$	
superior conj	11675 Mar 19 02:21	4° $\mathfrak{Y}$ 10'36	-0°43'27	superior conj	11676 Feb 28 11:37	15° $\mathfrak{H}$ 39'00	-0°02'53
minimum elong	11675 Mar 18 21:53	3° $\mathfrak{Y}$ 52'09	0°42'47	minimum elong	11676 Feb 28 11:23	15° $\mathfrak{H}$ 38'01	0°02'35
max. Earth dist.	11675 Mar 25 08:35	14° $\mathfrak{Y}$ 20'06	1.44422 AU	behind sun begin	11676 Feb 28 03:14	15° $\mathfrak{H}$ 02'35	
evening rise	11675 Apr 03 06:28	28° $\mathfrak{Y}$ 17'31		behind sun end	11676 Feb 28 19:33	16° $\mathfrak{H}$ 13'22	
	11675 Apr 04 09:10	0° $\mathfrak{B}$		desc. node	11676 Feb 28 02:42	15° $\mathfrak{H}$ 00'19	
	11675 Apr 24 22:00	0° $\Pi$		max. Earth dist.	11676 Mar 06 22:39	28° $\mathfrak{H}$ 14'45	1.42811 AU
evening max el	11675 May 02 17:03	9° $\Pi$ 22'54	20°50'48		11676 Mar 08 00:22	0° $\mathfrak{Y}$	
asc. node	11675 May 06 18:25	12° $\Pi$ 47'16		evening rise	11676 Mar 13 03:22	8° $\mathfrak{Y}$ 13'01	
retrograde	11675 May 11 01:36	14° $\Pi$ 15'07			11676 Mar 27 13:29	0° $\mathfrak{B}$	
evening set	11675 May 15 06:01	12° $\Pi$ 36'06		evening max el	11676 Apr 14 11:55	23° $\mathfrak{B}$ 08'21	22°05'48
inferior conj	11675 May 20 12:27	6° $\Pi$ 26'12	3°09'52	asc. node	11676 Apr 22 15:40	28° $\mathfrak{B}$ 35'35	
minimum elong	11675 May 20 11:28	6° $\Pi$ 29'35	3°09'05	retrograde	11676 Apr 23 23:21	28° $\mathfrak{B}$ 43'55	
min. Earth dist.	11675 May 21 00:38	5° $\Pi$ 44'01	0.68351 AU	evening set	11676 Apr 28 14:25	26° $\mathfrak{B}$ 49'33	
morning rise	11675 May 25 16:42	0° $\Pi$ 08'43		inferior conj	11676 May 03 21:27	20° $\mathfrak{B}$ 29'30	2°53'16
	11675 May 25 20:38	30° $\mathfrak{R}$ $\mathfrak{B}$					
direct	11675 May 31 01:15	27° $\mathfrak{B}$ 47'04					

minimum elong	11676 May 03 19:43	20° $\text{8}^{\circ}35'31''$	2°52'25		11677 Apr 21 22:19	30° $\text{8}^{\circ}\text{Y}$	
min. Earth dist.	11676 May 03 20:39	20° $\text{8}^{\circ}32'15''$	0.68728 AU	morning rise	11677 Apr 23 11:51	28° $\text{Y}^{\circ}32'00''$	
morning rise	11676 May 09 00:51	14° $\text{8}^{\circ}17'15''$		direct	11677 Apr 27 18:08	26° $\text{Y}^{\circ}50'24''$	
direct	11676 May 13 20:12	12° $\text{8}^{\circ}14'31''$			11677 May 04 08:08	0° $\text{8}^{\circ}$	
morning max el	11676 May 23 07:49	17° $\text{8}^{\circ}48'46''$	22°13'06	morning max el	11677 May 06 00:57	1° $\text{8}^{\circ}34'51''$	20°51'13
desc. node	11676 May 26 04:05	20° $\text{8}^{\circ}52'36''$		desc. node	11677 May 13 00:54	9° $\text{8}^{\circ}48'33''$	
	11676 Jun 02 10:06	0° $\text{II}^{\circ}$			11677 May 27 04:54	0° $\text{II}^{\circ}$	
	11676 Jun 22 17:01	0° $\text{6}^{\circ}$		morning set	11677 Jun 05 01:59	13° $\text{II}^{\circ}34'23''$	
morning set	11676 Jun 25 13:24	4° $\text{6}^{\circ}33'41''$		max. Earth dist.	11677 Jun 13 01:38	26° $\text{II}^{\circ}15'26''$	1.43165 AU
max. Earth dist.	11676 Jun 30 20:18	13° $\text{6}^{\circ}16'00''$	1.41136 AU		11677 Jun 15 08:44	0° $\text{6}^{\circ}$	
superior conj	11676 Jul 08 15:04	26° $\text{6}^{\circ}42'32''$	-1°30'23	superior conj	11677 Jun 19 23:10	7° $\text{6}^{\circ}38'58''$	-1°57'31
minimum elong	11676 Jul 08 21:17	27° $\text{6}^{\circ}10'13''$	1°30'18	minimum elong	11677 Jun 20 05:36	8° $\text{6}^{\circ}06'02''$	1°57'48
	11676 Jul 10 11:11	0° $\text{Q}^{\circ}$		evening rise	11677 Jul 01 22:04	28° $\text{6}^{\circ}25'28''$	
evening rise	11676 Jul 19 00:44	15° $\text{Q}^{\circ}47'17''$			11677 Jul 02 19:21	0° $\text{Q}^{\circ}$	
asc. node	11676 Jul 19 14:34	16° $\text{Q}^{\circ}51'44''$		asc. node	11677 Jul 06 11:26	6° $\text{Q}^{\circ}29'05''$	
	11676 Jul 26 21:06	0° $\text{P}^{\circ}$		evening max el	11677 Jul 18 13:19	24° $\text{Q}^{\circ}23'29''$	18°04'04
evening max el	11676 Aug 04 00:59	11° $\text{P}^{\circ}21'31''$	18°16'48	retrograde	11677 Jul 25 03:52	27° $\text{Q}^{\circ}47'01''$	
retrograde	11676 Aug 11 08:05	15° $\text{P}^{\circ}02'44''$		evening set	11677 Jul 27 16:11	27° $\text{Q}^{\circ}17'25''$	
evening set	11676 Aug 13 12:22	14° $\text{P}^{\circ}43'43''$		inferior conj	11677 Aug 03 08:01	22° $\text{Q}^{\circ}16'50''$	1°37'04
inferior conj	11676 Aug 20 21:26	10° $\text{P}^{\circ}03'06''$	0°22'06	minimum elong	11677 Aug 03 10:30	22° $\text{Q}^{\circ}10'46''$	1°35'45
minimum elong	11676 Aug 20 22:11	10° $\text{P}^{\circ}01'31''$	0°21'28	min. Earth dist.	11677 Aug 06 11:18	19° $\text{Q}^{\circ}14'34''$	0.61097 AU
desc. node	11676 Aug 22 02:28	9° $\text{P}^{\circ}01'26''$		desc. node	11677 Aug 08 23:48	17° $\text{Q}^{\circ}05'49''$	
min. Earth dist.	11676 Aug 24 05:39	7° $\text{P}^{\circ}14'56''$	0.58821 AU	morning rise	11677 Aug 10 02:08	16° $\text{Q}^{\circ}18'48''$	
morning rise	11676 Aug 28 04:32	4° $\text{P}^{\circ}30'45''$		direct	11677 Aug 16 17:18	14° $\text{Q}^{\circ}05'31''$	
direct	11676 Sep 03 11:20	2° $\text{P}^{\circ}44'15''$		morning max el	11677 Aug 30 23:09	22° $\text{Q}^{\circ}03'47''$	27°56'29
morning max el	11676 Sep 17 19:56	10° $\text{P}^{\circ}29'32''$	27°27'01		11677 Sep 06 22:31	0° $\text{P}^{\circ}$	
	11676 Oct 02 22:26	0° $\text{A}^{\circ}$			11677 Sep 26 01:30	0° $\text{A}^{\circ}$	
asc. node	11676 Oct 15 15:42	22° $\text{A}^{\circ}48'07''$		asc. node	11677 Oct 02 12:25	12° $\text{A}^{\circ}38'05''$	
morning set	11676 Oct 18 23:26	29° $\text{A}^{\circ}39'45''$		morning set	11677 Oct 03 02:28	13° $\text{A}^{\circ}50'29''$	
	11676 Oct 19 03:16	0° $\text{M}^{\circ}$		max. Earth dist.	11677 Oct 08 21:32	26° $\text{A}^{\circ}14'38''$	1.31593 AU
superior conj	11676 Oct 25 23:15	14° $\text{M}^{\circ}57'27''$	1°25'41	superior conj	11677 Oct 10 09:53	29° $\text{A}^{\circ}35'01''$	1°10'39
minimum elong	11676 Oct 25 21:21	14° $\text{M}^{\circ}46'47''$	1°25'57	minimum elong	11677 Oct 10 07:38	29° $\text{A}^{\circ}22'37''$	1°10'37
max. Earth dist.	11676 Oct 25 14:04	14° $\text{M}^{\circ}06'12''$	1.31346 AU		11677 Oct 10 14:24	0° $\text{M}^{\circ}$	
evening rise	11676 Nov 01 17:01	29° $\text{M}^{\circ}47'38''$		evening rise	11677 Oct 17 03:12	14° $\text{M}^{\circ}22'36''$	
	11676 Nov 01 19:19	0° $\text{X}^{\circ}$			11677 Oct 24 20:08	0° $\text{X}^{\circ}$	
desc. node	11676 Nov 17 23:33	29° $\text{X}^{\circ}53'34''$		desc. node	11677 Nov 04 20:47	17° $\text{X}^{\circ}53'56''$	
	11676 Nov 18 01:14	0° $\text{3}^{\circ}$		evening max el	11677 Nov 12 14:51	26° $\text{X}^{\circ}54'03''$	25°08'07
evening max el	11676 Nov 30 22:24	16° $\text{3}^{\circ}04'18''$	26°27'56		11677 Nov 16 07:05	0° $\text{3}^{\circ}$	
retrograde	11676 Dec 14 21:05	23° $\text{3}^{\circ}10'48''$		retrograde	11677 Nov 26 11:00	3° $\text{3}^{\circ}50'37''$	
evening set	11676 Dec 21 10:34	21° $\text{3}^{\circ}25'24''$		evening set	11677 Dec 02 04:29	2° $\text{3}^{\circ}36'38''$	
min. Earth dist.	11676 Dec 25 12:07	18° $\text{3}^{\circ}49'31''$	0.58918 AU		11677 Dec 06 23:46	30° $\text{R}^{\circ}\text{X}^{\circ}$	
inferior conj	11676 Dec 28 15:51	16° $\text{3}^{\circ}25'47''$	-4°13'31	min. Earth dist.	11677 Dec 07 02:53	29° $\text{X}^{\circ}55'01''$	0.56944 AU
minimum elong	11676 Dec 29 00:00	16° $\text{3}^{\circ}10'15''$	4°10'21	inferior conj	11677 Dec 09 20:56	28° $\text{X}^{\circ}06'06''$	-5°18'20
morning rise	11677 Jan 05 16:15	11° $\text{3}^{\circ}53'01''$		minimum elong	11677 Dec 10 04:08	27° $\text{X}^{\circ}54'10''$	5°16'17
direct	11677 Jan 07 18:36	11° $\text{3}^{\circ}37'41''$		morning rise	11677 Dec 18 06:03	23° $\text{X}^{\circ}55'18''$	
asc. node	11677 Jan 11 15:31	12° $\text{3}^{\circ}32'49''$		direct	11677 Dec 20 13:37	23° $\text{X}^{\circ}39'48''$	
morning max el	11677 Jan 15 18:40	15° $\text{3}^{\circ}34'00''$	18°22'14	asc. node	11677 Dec 29 12:38	27° $\text{X}^{\circ}50'53''$	
	11677 Jan 25 19:01	0° $\text{A}^{\circ}$		morning max el	11677 Dec 29 19:35	28° $\text{X}^{\circ}07'23''$	19°11'23
morning set	11677 Jan 31 14:16	10° $\text{A}^{\circ}48'30''$			11677 Dec 31 14:20	0° $\text{3}^{\circ}$	
				morning set	11678 Jan 15 14:52	25° $\text{3}^{\circ}12'56''$	
superior conj	11677 Feb 09 19:18	28° $\text{A}^{\circ}10'03''$	0°32'18		11678 Jan 18 00:32	0° $\text{A}^{\circ}$	
minimum elong	11677 Feb 09 21:31	28° $\text{A}^{\circ}20'14''$	0°32'25	superior conj	11678 Jan 23 20:35	11° $\text{A}^{\circ}29'25''$	1°00'03
	11677 Feb 10 19:24	0° $\text{H}^{\circ}$		minimum elong	11678 Jan 23 23:33	11° $\text{A}^{\circ}43'41''$	1°00'14
desc. node	11677 Feb 13 23:23	5° $\text{H}^{\circ}40'21''$		max. Earth dist.	11678 Jan 30 14:29	24° $\text{A}^{\circ}06'03''$	1.38570 AU
max. Earth dist.	11677 Feb 17 07:58	11° $\text{H}^{\circ}30'44''$	1.40785 AU	desc. node	11678 Jan 31 20:07	26° $\text{A}^{\circ}18'53''$	
evening rise	11677 Feb 21 19:32	19° $\text{H}^{\circ}01'59''$			11678 Feb 02 22:21	0° $\text{H}^{\circ}$	
	11677 Feb 28 16:16	0° $\text{Y}^{\circ}$		evening rise	11678 Feb 03 09:02	0° $\text{H}^{\circ}46'23''$	
	11677 Mar 21 22:50	0° $\text{8}^{\circ}$			11678 Feb 21 23:11	0° $\text{Y}^{\circ}$	
evening max el	11677 Mar 28 03:13	6° $\text{8}^{\circ}56'43''$	23°26'03	evening max el	11678 Mar 10 16:58	20° $\text{Y}^{\circ}47'46''$	24°45'16
retrograde	11677 Apr 07 18:31	13° $\text{8}^{\circ}13'10''$		retrograde	11678 Mar 22 09:51	27° $\text{Y}^{\circ}37'05''$	
asc. node	11677 Apr 09 12:58	12° $\text{8}^{\circ}58'29''$		asc. node	11678 Mar 27 10:18	25° $\text{Y}^{\circ}45'00''$	
evening set	11677 Apr 12 21:03	11° $\text{8}^{\circ}04'45''$		evening set	11678 Mar 28 00:20	25° $\text{Y}^{\circ}16'41''$	
min. Earth dist.	11677 Apr 17 17:28	5° $\text{8}^{\circ}22'57''$	0.68658 AU	min. Earth dist.	11678 Apr 01 12:47	20° $\text{Y}^{\circ}10'25''$	0.68151 AU
inferior conj	11677 Apr 18 06:36	4° $\text{8}^{\circ}37'43''$	2°26'43	inferior conj	11678 Apr 02 14:02	18° $\text{Y}^{\circ}46'38''$	1°50'30
minimum elong	11677 Apr 18 04:29	4° $\text{8}^{\circ}45'03''$	2°25'49				

minimum elong	11678 Apr 02 11:57	18° $\Upsilon$ 53'35	1°49'40	inferior conj	11679 Mar 17 17:47	2° $\Upsilon$ 52'08	1°04'32
morning rise	11678 Apr 07 23:45	12° $\Upsilon$ 48'53		minimum elong	11679 Mar 17 16:16	2° $\Upsilon$ 56'52	1°04'01
direct	11678 Apr 11 17:37	11° $\Upsilon$ 28'26			11679 Mar 20 03:07	30° $\Re$ $\Re$	
morning max el	11678 Apr 19 01:36	15° $\Upsilon$ 32'46	19°41'57	morning rise	11679 Mar 23 10:31	27° $\Re$ 04'01	
desc. node	11678 Apr 29 21:40	29° $\Upsilon$ 18'48		direct	11679 Mar 26 16:59	26° $\Re$ 03'04	
	11678 Apr 30 09:07	0° $\mathcal{B}$		morning max el	11679 Apr 02 09:51	29° $\Re$ 40'16	18°48'05
greatest brilliancy	11678 May 01 20:12	2° $\mathcal{B}$ 07'32	-0.6m		11679 Apr 02 17:48	0° $\Upsilon$	
morning set	11678 May 15 01:51	22° $\mathcal{B}$ 05'42		desc. node	11679 Apr 16 18:23	19° $\Upsilon$ 14'07	
	11678 May 20 04:31	0° $\Pi$			11679 Apr 23 16:59	0° $\mathcal{B}$	
max. Earth dist.	11678 May 26 14:15	10° $\Pi$ 03'07	1.44695 AU	morning set	11679 Apr 24 11:31	1° $\mathcal{B}$ 12'11	
				max. Earth dist.	11679 May 09 08:03	24° $\mathcal{B}$ 22'55	1.45564 AU
superior conj	11678 May 31 07:13	17° $\Pi$ 34'05	-2°12'19	superior conj	11679 May 10 19:40	26° $\mathcal{B}$ 42'26	-2°08'32
minimum elong	11678 May 31 09:30	17° $\Pi$ 43'17	2°13'00	minimum elong	11679 May 10 14:27	26° $\mathcal{B}$ 21'57	2°08'56
	11678 Jun 07 21:49	0° $\mathcal{B}$			11679 May 12 22:00	0° $\Pi$	
evening rise	11678 Jun 13 23:44	10° $\mathcal{B}$ 10'55		evening rise	11679 May 26 01:49	20° $\Pi$ 56'29	
asc. node	11678 Jun 23 08:24	25° $\mathcal{B}$ 47'27			11679 May 31 16:51	0° $\mathcal{B}$	
	11678 Jun 26 01:29	0° $\Omega$		greatest brilliancy	11679 May 31 10:17	29° $\Pi$ 33'41	-0.9m
evening max el	11678 Jul 02 03:22	7° $\Omega$ 46'09	18°10'07	asc. node	11679 Jun 10 05:26	14° $\mathcal{B}$ 39'43	
retrograde	11678 Jul 08 11:58	11° $\Omega$ 06'52		evening max el	11679 Jun 15 16:01	21° $\mathcal{B}$ 21'15	18°34'10
evening set	11678 Jul 11 08:25	10° $\Omega$ 24'02		retrograde	11679 Jun 22 04:07	24° $\mathcal{B}$ 52'54	
inferior conj	11678 Jul 17 10:38	5° $\Omega$ 05'12	2°28'16	evening set	11679 Jun 25 08:44	23° $\mathcal{B}$ 55'13	
minimum elong	11678 Jul 17 13:11	4° $\Omega$ 58'10	2°27'00	inferior conj	11679 Jul 01 01:15	18° $\mathcal{B}$ 20'03	2°59'14
min. Earth dist.	11678 Jul 20 02:15	2° $\Omega$ 10'58	0.63304 AU	minimum elong	11679 Jul 01 03:00	18° $\mathcal{B}$ 14'44	2°58'13
	11678 Jul 22 07:24	30° $\Re$ $\mathcal{B}$		min. Earth dist.	11679 Jul 03 02:28	15° $\mathcal{B}$ 51'15	0.65250 AU
morning rise	11678 Jul 23 16:16	28° $\mathcal{B}$ 51'39		morning rise	11679 Jul 06 20:19	11° $\mathcal{B}$ 59'08	
desc. node	11678 Jul 26 21:06	26° $\mathcal{B}$ 59'50		direct	11679 Jul 13 08:19	9° $\mathcal{B}$ 17'23	
direct	11678 Jul 30 08:46	26° $\mathcal{B}$ 19'08		desc. node	11679 Jul 13 18:20	9° $\mathcal{B}$ 17'59	
	11678 Aug 08 09:01	0° $\Omega$		morning max el	11679 Jul 26 18:16	17° $\mathcal{B}$ 11'52	27°05'21
morning max el	11678 Aug 13 07:28	4° $\Omega$ 21'10	27°47'46		11679 Aug 06 10:12	0° $\Omega$	
	11678 Sep 01 14:05	0° $\Re$			11679 Aug 25 11:21	0° $\Re$	
morning set	11678 Sep 16 22:31	27° $\Re$ 38'59		morning set	11679 Aug 31 08:44	10° $\Re$ 57'01	
	11678 Sep 18 02:24	0° $\mathcal{B}$		max. Earth dist.	11679 Sep 04 17:20	19° $\Re$ 35'14	1.33623 AU
asc. node	11678 Sep 19 09:08	2° $\mathcal{B}$ 37'51		asc. node	11679 Sep 06 05:50	22° $\Re$ 42'13	
max. Earth dist.	11678 Sep 21 23:51	8° $\mathcal{B}$ 07'04	1.32350 AU				
superior conj	11678 Sep 24 17:29	14° $\mathcal{B}$ 00'11	0°50'19	superior conj	11679 Sep 08 19:50	28° $\Re$ 05'49	0°24'56
minimum elong	11678 Sep 24 15:26	13° $\mathcal{B}$ 49'01	0°50'02	minimum elong	11679 Sep 08 18:36	27° $\Re$ 59'17	0°24'34
evening rise	11678 Oct 01 14:36	28° $\mathcal{B}$ 58'38			11679 Sep 09 17:26	0° $\mathcal{B}$	
	11678 Oct 02 02:04	0° $\Re$		evening rise	11679 Sep 16 01:13	13° $\mathcal{B}$ 29'05	
	11678 Oct 18 22:05	0° $\Re$			11679 Sep 24 09:07	0° $\Re$	
desc. node	11678 Oct 22 18:06	4° $\Re$ 42'14		evening max el	11679 Oct 06 14:33	17° $\Re$ 13'05	21°50'03
evening max el	11678 Oct 25 01:35	7° $\Re$ 06'25	23°29'41	desc. node	11679 Oct 09 15:28	19° $\Re$ 51'32	
retrograde	11678 Nov 07 12:01	13° $\Re$ 48'08		retrograde	11679 Oct 19 02:29	23° $\Re$ 26'02	
evening set	11678 Nov 11 22:26	13° $\Re$ 05'24		evening set	11679 Oct 22 02:32	23° $\Re$ 05'44	
min. Earth dist.	11678 Nov 18 11:32	9° $\Re$ 59'26	0.55423 AU	inferior conj	11679 Oct 31 00:27	19° $\Re$ 09'07	-5°28'07
inferior conj	11678 Nov 20 05:54	8° $\Re$ 57'13	-5°49'59	minimum elong	11679 Oct 30 17:13	19° $\Re$ 19'14	5°26'30
minimum elong	11678 Nov 20 06:58	8° $\Re$ 55'39	5°49'17	min. Earth dist.	11679 Oct 30 18:10	19° $\Re$ 17'54	0.54630 AU
morning rise	11678 Nov 28 17:17	5° $\Re$ 04'42		morning rise	11679 Nov 08 09:09	15° $\Re$ 21'48	
direct	11678 Dec 01 13:29	4° $\Re$ 44'59		direct	11679 Nov 11 23:16	14° $\Re$ 53'38	
morning max el	11678 Dec 12 07:35	9° $\Re$ 51'23	20°23'25	morning max el	11679 Nov 24 05:51	20° $\Re$ 43'37	21°56'50
asc. node	11678 Dec 16 09:42	14° $\Re$ 26'50			11679 Dec 01 21:58	0° $\Re$	
	11678 Dec 25 22:44	0° $\mathcal{B}$		asc. node	11679 Dec 03 06:42	2° $\Re$ 03'44	
morning set	11678 Dec 30 21:30	9° $\mathcal{B}$ 51'55		morning set	11679 Dec 15 07:40	24° $\Re$ 37'50	
					11679 Dec 17 20:30	0° $\mathcal{B}$	
superior conj	11679 Jan 07 10:57	25° $\mathcal{B}$ 24'36	1°20'03	superior conj	11679 Dec 22 10:35	9° $\mathcal{B}$ 44'26	1°32'41
minimum elong	11679 Jan 07 13:32	25° $\mathcal{B}$ 37'38	1°20'28	minimum elong	11679 Dec 22 12:12	9° $\mathcal{B}$ 52'59	1°33'20
	11679 Jan 09 17:57	0° $\approx$		max. Earth dist.	11679 Dec 26 11:01	18° $\mathcal{B}$ 02'58	1.34509 AU
max. Earth dist.	11679 Jan 12 22:07	6° $\approx$ 10'54	1.36410 AU	evening rise	11679 Dec 30 18:25	26° $\mathcal{B}$ 33'13	
evening rise	11679 Jan 16 17:50	13° $\approx$ 19'51			11680 Jan 01 14:02	0° $\approx$	
desc. node	11679 Jan 18 16:56	16° $\approx$ 52'18		desc. node	11680 Jan 05 13:48	7° $\approx$ 16'02	
	11679 Jan 26 10:23	0° $\Re$			11680 Jan 19 19:23	0° $\Re$	
	11679 Feb 16 21:48	0° $\Upsilon$		evening max el	11680 Feb 03 19:59	18° $\Re$ 20'00	26°52'18
evening max el	11679 Feb 21 06:29	4° $\Upsilon$ 37'54	25°56'26	retrograde	11680 Feb 17 01:31	25° $\Re$ 43'14	
retrograde	11679 Mar 05 20:24	11° $\Upsilon$ 49'34		evening set	11680 Feb 23 14:10	23° $\Re$ 09'58	
evening set	11679 Mar 11 22:39	9° $\Upsilon$ 20'18		min. Earth dist.	11680 Feb 27 14:15	19° $\Re$ 12'49	0.65894 AU
asc. node	11679 Mar 14 07:39	7° $\Upsilon$ 01'12		asc. node	11680 Feb 29 05:00	17° $\Re$ 20'37	
min. Earth dist.	11679 Mar 16 04:24	4° $\Upsilon$ 49'12	0.67222 AU				

inferior conj	11680 Feb 29 15:39	16° $\text{H}$ 49'30	0°08'39	desc. node	11680 Dec 22 10:44	27° $\text{Z}$ 24'45	
minimum elong	11680 Feb 29 15:25	16° $\text{H}$ 50'13	0°08'48		11680 Dec 23 22:52	0° $\approx$	
transit middle	11680 Feb 29 15:25	16° $\text{H}$ 50'13	0°08'48		11681 Jan 14 14:47	0° $\text{H}$	
transit begin	11680 Feb 29 12:56	16° $\text{H}$ 57'25		evening max el	11681 Jan 16 08:46	1° $\text{H}$ 44'17	27°25'39
transit end	11680 Feb 29 17:53	16° $\text{H}$ 43'02		retrograde	11681 Jan 30 00:19	9° $\text{H}$ 08'58	
morning rise	11680 Mar 06 17:56	11° $\text{H}$ 12'58		evening set	11681 Feb 05 20:35	6° $\text{H}$ 38'23	
direct	11680 Mar 09 14:17	10° $\text{H}$ 28'32		min. Earth dist.	11681 Feb 09 16:17	3° $\text{H}$ 12'46	0.64218 AU
morning max el	11680 Mar 15 23:58	13° $\text{H}$ 51'22	18°10'45	inferior conj	11681 Feb 12 05:08	0° $\text{H}$ 32'26	-0°56'57
	11680 Mar 27 17:29	0° $\text{Y}$		minimum elong	11681 Feb 12 06:54	0° $\text{H}$ 27'46	0°55'47
desc. node	11680 Apr 02 15:03	9° $\text{Y}$ 27'41			11681 Feb 12 17:27	30° $\text{R}$ $\approx$	
morning set	11680 Apr 03 23:23	11° $\text{Y}$ 38'08		asc. node	11681 Feb 15 02:19	27° $\approx$ 40'12	
	11680 Apr 15 11:18	0° $\text{B}$		morning rise	11681 Feb 18 19:12	25° $\approx$ 09'49	
				direct	11681 Feb 21 07:06	24° $\approx$ 38'16	
superior conj	11680 Apr 19 02:59	5° $\text{B}$ 44'52	-1°44'53	morning max el	11681 Feb 27 17:13	27° $\approx$ 57'53	17°50'24
minimum elong	11680 Apr 18 17:37	5° $\text{B}$ 08'05	1°44'25		11681 Mar 01 14:13	0° $\text{H}$	
max. Earth dist.	11680 Apr 21 03:48	8° $\text{B}$ 55'57	1.45689 AU	morning set	11681 Mar 16 15:38	23° $\text{H}$ 26'44	
	11680 May 04 16:31	0° $\text{II}$		desc. node	11681 Mar 20 11:41	29° $\text{H}$ 53'47	
evening rise	11680 May 05 04:55	0° $\text{II}$ 48'09			11681 Mar 20 13:10	0° $\text{Y}$	
greatest brilliancy	11680 May 17 00:43	19° $\text{II}$ 01'46	-0.7m				
	11680 May 24 17:05	0° $\text{B}$		superior conj	11681 Mar 29 22:50	15° $\text{Y}$ 26'54	-1°07'29
asc. node	11680 May 27 02:32	2° $\text{B}$ 57'37		minimum elong	11681 Mar 29 15:42	14° $\text{Y}$ 58'06	1°06'41
evening max el	11680 May 29 00:54	5° $\text{B}$ 03'31	19°15'23	max. Earth dist.	11681 Apr 03 22:55	23° $\text{Y}$ 25'37	1.45081 AU
retrograde	11680 Jun 05 00:54	8° $\text{B}$ 58'40			11681 Apr 08 03:29	0° $\text{B}$	
evening set	11680 Jun 08 14:07	7° $\text{B}$ 45'14		evening rise	11681 Apr 14 17:41	10° $\text{B}$ 10'58	
inferior conj	11680 Jun 14 00:26	1° $\text{B}$ 55'25	3°13'40		11681 Apr 27 21:28	0° $\text{II}$	
minimum elong	11680 Jun 14 01:05	1° $\text{B}$ 53'17	3°12'51	greatest brilliancy	11681 Apr 29 14:03	2° $\text{II}$ 28'12	-0.6m
	11680 Jun 15 11:57	30° $\text{R}$ $\text{II}$		evening max el	11681 May 12 04:29	18° $\text{II}$ 48'12	20°12'12
min. Earth dist.	11680 Jun 15 10:50	0° $\text{B}$ 03'35	0.66811 AU	asc. node	11681 May 13 23:43	20° $\text{II}$ 28'57	
morning rise	11680 Jun 19 11:32	25° $\text{II}$ 33'04		retrograde	11681 May 19 23:32	23° $\text{II}$ 17'15	
direct	11680 Jun 25 14:52	22° $\text{II}$ 52'15		evening set	11681 May 23 22:06	21° $\text{II}$ 47'42	
desc. node	11680 Jun 29 15:28	23° $\text{II}$ 49'31		inferior conj	11681 May 29 05:14	15° $\text{II}$ 44'47	3°14'35
	11680 Jul 07 19:26	0° $\text{B}$		minimum elong	11681 May 29 04:48	15° $\text{II}$ 46'16	3°13'50
morning max el	11680 Jul 08 05:06	0° $\text{B}$ 24'20	25°57'18	min. Earth dist.	11681 May 30 01:21	14° $\text{II}$ 36'16	0.67927 AU
	11680 Jul 30 08:52	0° $\text{Q}$		morning rise	11681 Jun 03 11:10	9° $\text{II}$ 24'48	
morning set	11680 Aug 13 05:38	23° $\text{Q}$ 36'41		direct	11681 Jun 09 03:08	6° $\text{II}$ 53'57	
	11680 Aug 16 15:18	0° $\text{P}$		desc. node	11681 Jun 16 12:30	10° $\text{II}$ 05'33	
max. Earth dist.	11680 Aug 17 00:18	0° $\text{P}$ 43'12	1.35385 AU	morning max el	11681 Jun 20 14:56	13° $\text{II}$ 47'37	24°33'26
					11681 Jul 03 18:41	0° $\text{B}$	
superior conj	11680 Aug 22 14:26	11° $\text{P}$ 46'15	-0°04'54		11681 Jul 23 04:59	0° $\text{Q}$	
minimum elong	11680 Aug 22 14:44	11° $\text{P}$ 47'46	0°05'08	morning set	11681 Jul 26 08:44	5° $\text{Q}$ 26'11	
behind sun begin	11680 Aug 22 08:55	11° $\text{P}$ 18'19		max. Earth dist.	11681 Jul 29 23:05	11° $\text{Q}$ 50'43	1.37530 AU
behind sun end	11680 Aug 22 20:32	12° $\text{P}$ 17'17					
asc. node	11680 Aug 23 02:34	12° $\text{P}$ 47'57		superior conj	11681 Aug 05 22:02	24° $\text{Q}$ 53'29	-0°37'52
evening rise	11680 Aug 30 09:04	27° $\text{P}$ 49'15		minimum elong	11681 Aug 06 00:34	25° $\text{Q}$ 05'43	0°37'53
	11680 Aug 31 10:31	0° $\text{Q}$			11681 Aug 08 12:45	0° $\text{P}$	
evening max el	11680 Sep 17 14:45	27° $\text{Q}$ 50'30	20°23'44	asc. node	11681 Aug 09 23:19	2° $\text{P}$ 51'09	
	11680 Sep 20 01:13	0° $\text{P}$		evening rise	11681 Aug 14 11:44	11° $\text{P}$ 52'32	
desc. node	11680 Sep 25 12:49	2° $\text{P}$ 53'01			11681 Aug 24 05:33	0° $\text{Q}$	
retrograde	11680 Sep 28 14:26	3° $\text{P}$ 17'57		evening max el	11681 Aug 31 05:03	9° $\text{Q}$ 15'15	19°17'38
evening set	11680 Sep 30 16:06	3° $\text{P}$ 07'11		retrograde	11681 Sep 09 12:13	13° $\text{Q}$ 53'13	
	11680 Oct 08 07:16	30° $\text{R}$ $\text{Q}$		evening set	11681 Sep 11 08:27	13° $\text{Q}$ 43'05	
inferior conj	11680 Oct 09 17:22	29° $\text{Q}$ 10'35	-4°10'14	desc. node	11681 Sep 12 10:10	13° $\text{Q}$ 28'19	
minimum elong	11680 Oct 09 07:28	29° $\text{Q}$ 25'04	4°06'57	inferior conj	11681 Sep 19 22:46	9° $\text{Q}$ 34'00	-2°20'51
min. Earth dist.	11680 Oct 11 02:20	28° $\text{Q}$ 22'21	0.54763 AU	minimum elong	11681 Sep 19 16:35	9° $\text{Q}$ 44'12	2°18'26
morning rise	11680 Oct 17 22:11	25° $\text{Q}$ 07'35		min. Earth dist.	11681 Sep 22 13:55	7° $\text{Q}$ 50'11	0.55822 AU
direct	11680 Oct 22 08:17	24° $\text{Q}$ 25'27		morning rise	11681 Sep 27 22:04	4° $\text{Q}$ 58'51	
	11680 Nov 03 17:04	0° $\text{P}$		direct	11681 Oct 03 04:09	3° $\text{Q}$ 55'49	
morning max el	11680 Nov 04 18:33	0° $\text{P}$ 57'50	23°43'34	morning max el	11681 Oct 17 05:31	11° $\text{Q}$ 02'46	25°28'14
asc. node	11680 Nov 19 03:37	20° $\text{P}$ 27'13			11681 Oct 31 16:21	0° $\text{P}$	
	11680 Nov 24 06:04	0° $\text{X}$		asc. node	11681 Nov 06 00:28	9° $\text{P}$ 25'48	
morning set	11680 Nov 28 19:23	9° $\text{X}$ 24'50		morning set	11681 Nov 13 06:55	24° $\text{P}$ 08'12	
					11681 Nov 15 23:42	0° $\text{X}$	
superior conj	11680 Dec 05 16:27	24° $\text{X}$ 20'00	1°38'32				
minimum elong	11680 Dec 05 16:56	24° $\text{X}$ 22'34	1°39'17	superior conj	11681 Nov 20 02:11	9° $\text{X}$ 04'03	1°38'08
	11680 Dec 08 07:46	0° $\text{Z}$		minimum elong	11681 Nov 20 01:33	9° $\text{X}$ 00'33	1°38'48
max. Earth dist.	11680 Dec 08 07:40	29° $\text{X}$ 59'32	1.33009 AU	max. Earth dist.	11681 Nov 21 11:32	12° $\text{X}$ 07'52	1.31977 AU
evening rise	11680 Dec 13 07:14	10° $\text{Z}$ 17'37		evening rise	11681 Nov 27 05:11	24° $\text{X}$ 25'02	

	11681 Nov 29 23:08	0°♁			11682 Nov 22 08:01	0°♁	
desc. node	11681 Dec 09 07:44	17°♁11'45		desc. node	11682 Nov 26 04:49	6°♁27'29	
	11681 Dec 17 13:40	0°♁		evening max el	11682 Dec 11 23:58	26°♁48'51	27°00'24
evening max el	11681 Dec 29 19:03	14°♁38'36	27°29'54		11682 Dec 15 18:31	0°♁	
retrograde	11682 Jan 12 15:39	21°♁57'34		retrograde	11682 Dec 25 22:11	3°♁59'22	
evening set	11682 Jan 19 15:07	19°♁37'46		evening set	11683 Jan 01 18:09	1°♁58'58	
min. Earth dist.	11682 Jan 23 08:45	16°♁38'59	0.62265 AU		11683 Jan 04 16:59	30°♁♁	
inferior conj	11682 Jan 26 07:12	13°♁53'35	-2°10'55	min. Earth dist.	11683 Jan 05 14:21	29°♁18'40	0.60148 AU
minimum elong	11682 Jan 26 11:38	13°♁43'09	2°08'33	inferior conj	11683 Jan 08 18:19	26°♁42'32	-3°29'26
asc. node	11682 Feb 01 23:34	8°♁57'55		minimum elong	11683 Jan 09 01:28	26°♁27'47	3°26'14
morning rise	11682 Feb 02 10:42	8°♁47'48		morning rise	11683 Jan 16 11:36	21°♁56'57	
direct	11682 Feb 04 16:21	8°♁25'18		direct	11683 Jan 18 14:05	21°♁39'53	
morning max el	11682 Feb 11 10:33	11°♁51'34	17°47'45	asc. node	11683 Jan 19 20:47	21°♁46'26	
	11682 Feb 23 16:30	0°♁		morning max el	11683 Jan 26 00:30	25°♁22'13	18°03'54
morning set	11682 Feb 27 07:01	6°♁21'39			11683 Jan 29 21:39	0°♁	
desc. node	11682 Mar 07 08:19	20°♁28'29		morning set	11683 Feb 10 15:06	20°♁02'36	
					11683 Feb 16 00:10	0°♁	
superior conj	11682 Mar 10 17:54	26°♁15'31	-0°25'50	superior conj	11683 Feb 20 13:12	8°♁11'58	0°12'53
minimum elong	11682 Mar 10 15:23	26°♁04'58	0°25'19	minimum elong	11683 Feb 20 14:15	8°♁16'37	0°13'04
	11682 Mar 12 23:35	0°♁		behind sun begin	11683 Feb 20 09:43	7°♁56'31	
max. Earth dist.	11682 Mar 17 15:36	7°♁38'25	1.43809 AU	behind sun end	11683 Feb 20 18:46	8°♁36'41	
evening rise	11682 Mar 25 07:38	19°♁45'47		desc. node	11683 Feb 22 04:59	11°♁07'25	
	11682 Apr 01 00:38	0°♁		max. Earth dist.	11683 Feb 28 04:08	21°♁19'40	1.41995 AU
	11682 Apr 22 17:15	0°♁			11683 Mar 05 11:20	0°♁	
evening max el	11682 Apr 25 02:26	2°♁33'58	21°21'41	evening rise	11683 Mar 05 12:04	0°♁02'54	
asc. node	11682 Apr 30 20:55	6°♁59'43			11683 Mar 25 13:20	0°♁	
retrograde	11682 May 03 21:59	7°♁43'56		evening max el	11683 Apr 07 19:39	16°♁21'11	22°39'34
evening set	11682 May 08 06:50	5°♁58'22		retrograde	11683 Apr 17 18:43	22°♁14'09	
	11682 May 13 08:43	30°♁♁		asc. node	11683 Apr 17 18:11	22°♁14'09	
inferior conj	11682 May 13 13:18	29°♁44'06	3°04'01	evening set	11683 Apr 22 14:43	20°♁13'26	
minimum elong	11682 May 13 11:58	29°♁48'44	3°03'14	inferior conj	11683 Apr 27 22:37	13°♁50'08	2°43'11
min. Earth dist.	11682 May 13 19:56	29°♁20'59	0.68579 AU	minimum elong	11683 Apr 27 20:40	13°♁56'53	2°42'18
morning rise	11682 May 18 16:52	23°♁28'44		min. Earth dist.	11683 Apr 27 16:28	14°♁11'29	0.68762 AU
direct	11682 May 23 19:59	21°♁14'29		morning rise	11683 May 03 02:31	7°♁40'46	
morning max el	11682 Jun 03 01:08	27°♁18'14	23°03'41	direct	11683 May 07 16:18	5°♁46'57	
desc. node	11682 Jun 03 09:29	27°♁39'27		morning max el	11683 May 16 14:58	10°♁58'36	21°37'00
	11682 Jun 05 13:40	0°♁		desc. node	11683 May 21 06:23	16°♁10'24	
	11682 Jun 27 09:21	0°♁			11683 May 31 13:23	0°♁	
morning set	11682 Jul 07 13:03	16°♁12'48		morning set	11683 Jun 17 15:30	25°♁50'18	
max. Earth dist.	11682 Jul 11 20:30	23°♁30'09	1.39846 AU		11683 Jun 20 05:55	0°♁	
	11682 Jul 15 13:42	0°♁		max. Earth dist.	11683 Jun 23 22:43	6°♁02'13	1.42052 AU
superior conj	11682 Jul 19 14:42	7°♁17'57	-1°11'48	superior conj	11683 Jul 01 11:56	18°♁49'25	-1°42'57
minimum elong	11682 Jul 19 19:44	7°♁41'06	1°11'41	minimum elong	11683 Jul 01 18:38	19°♁18'33	1°42'59
asc. node	11682 Jul 27 20:06	22°♁47'52			11683 Jul 07 19:17	0°♁	
evening rise	11682 Jul 29 06:11	25°♁31'08		evening rise	11683 Jul 12 12:36	8°♁35'28	
	11682 Jul 31 14:35	0°♁		asc. node	11683 Jul 14 16:56	12°♁34'06	
evening max el	11682 Aug 14 07:03	21°♁25'00	18°33'00		11683 Jul 25 04:12	0°♁	
retrograde	11682 Aug 22 04:27	25°♁22'52		evening max el	11683 Jul 28 16:45	4°♁11'01	18°08'58
evening set	11682 Aug 24 04:49	25°♁08'10		retrograde	11683 Aug 04 15:28	7°♁43'08	
desc. node	11682 Aug 30 07:33	21°♁56'56		evening set	11683 Aug 06 23:07	7°♁19'58	
inferior conj	11682 Sep 01 00:48	20°♁39'11	-0°32'06	inferior conj	11683 Aug 14 00:25	2°♁30'19	0°56'56
minimum elong	11682 Aug 31 23:32	20°♁41'38	0°31'48	minimum elong	11683 Aug 14 02:10	2°♁26'23	0°55'54
min. Earth dist.	11682 Sep 04 06:50	18°♁09'40	0.57599 AU		11683 Aug 16 19:15	30°♁♁	
morning rise	11682 Sep 08 14:48	15°♁26'37		desc. node	11683 Aug 17 04:56	29°♁39'01	
direct	11682 Sep 14 14:00	13°♁56'57		min. Earth dist.	11683 Aug 17 07:29	29°♁33'32	0.59779 AU
morning max el	11682 Sep 28 21:33	21°♁29'40	26°53'00	morning rise	11683 Aug 21 02:03	26°♁45'39	
	11682 Oct 06 08:14	0°♁		direct	11683 Aug 27 13:04	24°♁47'33	
asc. node	11682 Oct 23 21:15	28°♁49'54			11683 Sep 07 23:28	0°♁	
	11682 Oct 24 11:23	0°♁		morning max el	11683 Sep 10 21:12	2°♁39'00	27°44'26
morning set	11682 Oct 28 16:33	8°♁42'40			11683 Sep 30 20:17	0°♁	
superior conj	11682 Nov 04 13:41	23°♁49'41	1°31'51	asc. node	11683 Oct 10 18:01	18°♁32'30	
minimum elong	11682 Nov 04 12:09	23°♁41'07	1°32'18	morning set	11683 Oct 12 22:34	23°♁03'55	
max. Earth dist.	11682 Nov 04 19:46	24°♁23'34	1.31436 AU		11683 Oct 16 04:21	0°♁	
	11682 Nov 07 08:20	0°♁		max. Earth dist.	11683 Oct 19 04:45	6°♁38'24	1.31392 AU
evening rise	11682 Nov 11 09:35	8°♁47'35					

superior conj	11683 Oct 20 01:09	8°♍31'49	1°19'58	minimum elong	11684 Oct 03 08:30	22°♎52'22	1°02'30
minimum elong	11683 Oct 19 23:03	8°♍20'05	1°20'06		11684 Oct 06 14:06	0°♍	
evening rise	11683 Oct 26 18:15	23°♍19'38		evening rise	11684 Oct 10 05:10	7°♍55'19	
	11683 Oct 29 22:25	0°♌			11684 Oct 21 12:43	0°♌	
desc. node	11683 Nov 13 02:00	24°♌59'58		desc. node	11684 Oct 29 23:16	12°♌32'30	
	11683 Nov 16 16:42	0°♋		evening max el	11684 Nov 04 10:04	18°♌36'48	24°27'29
evening max el	11683 Nov 23 20:58	8°♋06'45	25°57'06	retrograde	11684 Nov 18 03:37	25°♌29'07	
retrograde	11683 Dec 07 18:43	15°♋09'12		evening set	11684 Nov 23 08:56	24°♌28'49	
evening set	11683 Dec 14 01:24	13°♋36'18		min. Earth dist.	11684 Nov 28 21:25	21°♌38'59	0.56217 AU
min. Earth dist.	11683 Dec 18 09:40	11°♋00'32	0.58046 AU	inferior conj	11684 Dec 01 07:16	20°♌08'34	-5°37'13
inferior conj	11683 Dec 21 11:02	8°♋49'41	-4°43'37	minimum elong	11684 Dec 01 12:31	20°♌00'20	5°35'53
minimum elong	11683 Dec 21 19:21	8°♋34'50	4°40'45	morning rise	11684 Dec 09 18:13	16°♌06'43	
morning rise	11683 Dec 29 15:54	4°♋26'39		direct	11684 Dec 12 06:01	15°♌50'07	
direct	11683 Dec 31 19:44	4°♋11'40		morning max el	11684 Dec 22 03:11	20°♌33'31	19°39'20
asc. node	11684 Jan 06 17:58	6°♋12'30		asc. node	11684 Dec 23 15:05	22°♌05'52	
morning max el	11684 Jan 09 07:20	8°♋19'42	18°40'30		11684 Dec 29 11:25	0°♋	
	11684 Jan 23 06:07	0°♊		morning set	11685 Jan 08 14:16	18°♋45'45	
morning set	11684 Jan 25 10:46	4°♊14'11			11685 Jan 14 03:42	0°♊	
superior conj	11684 Feb 03 04:56	21°♊05'08	0°45'01	superior conj	11685 Jan 16 12:19	4°♊41'33	1°09'27
minimum elong	11684 Feb 03 07:38	21°♊17'49	0°45'08	minimum elong	11685 Jan 16 15:12	4°♊55'50	1°09'45
	11684 Feb 08 01:38	0°♑		max. Earth dist.	11685 Jan 22 17:57	16°♊37'04	1.37621 AU
desc. node	11684 Feb 09 01:40	1°♑47'09		desc. node	11685 Jan 25 22:26	22°♊24'18	
max. Earth dist.	11684 Feb 10 12:01	4°♑18'23	1.39848 AU	evening rise	11685 Jan 26 11:19	23°♊21'33	
evening rise	11684 Feb 14 13:14	11°♑15'00			11685 Jan 30 07:16	0°♑	
	11684 Feb 26 08:01	0°♑			11685 Feb 19 02:21	0°♑	
	11684 Mar 20 05:47	0°♐		evening max el	11685 Mar 02 23:17	14°♑01'26	25°17'00
evening max el	11684 Mar 20 09:54	0°♐10'16	24°00'14	retrograde	11685 Mar 15 02:05	21°♑02'36	
retrograde	11684 Mar 31 12:28	6°♐42'14		evening set	11685 Mar 20 21:34	18°♑37'56	
asc. node	11684 Apr 03 15:30	5°♐57'08		asc. node	11685 Mar 21 12:50	18°♑03'55	
evening set	11684 Apr 05 20:08	4°♐28'06		min. Earth dist.	11685 Mar 25 06:57	13°♑46'35	0.67796 AU
	11684 Apr 09 19:27	30°♑♑		inferior conj	11685 Mar 26 13:23	12°♑07'43	1°32'16
min. Earth dist.	11684 Apr 10 12:51	29°♑01'40	0.68493 AU	minimum elong	11685 Mar 26 11:28	12°♑13'57	1°31'31
inferior conj	11684 Apr 11 07:16	27°♑59'06	2°12'33	morning rise	11685 Apr 01 01:46	6°♑13'47	
minimum elong	11684 Apr 11 05:06	28°♑06'30	2°11'39	direct	11685 Apr 04 14:33	5°♑02'04	
morning rise	11684 Apr 16 14:07	21°♑56'49		morning max el	11685 Apr 11 15:20	8°♑53'43	19°17'05
direct	11684 Apr 20 14:56	20°♑24'32		desc. node	11685 Apr 23 23:57	25°♑04'55	
morning max el	11684 Apr 28 11:18	24°♑50'34	20°20'03	greatest brilliancy	11685 Apr 24 11:17	25°♑46'55	-0.7m
	11684 May 03 00:50	0°♐			11685 Apr 27 06:45	0°♐	
desc. node	11684 May 07 03:12	5°♐22'31		morning set	11685 May 05 21:41	13°♐11'25	
	11684 May 23 21:29	0°♏			11685 May 16 17:24	0°♏	
morning set	11684 May 26 20:27	4°♏32'37		max. Earth dist.	11685 May 18 21:58	3°♏26'16	1.45150 AU
max. Earth dist.	11684 Jun 05 07:23	19°♏24'29	1.43887 AU	superior conj	11685 May 22 08:30	8°♏52'22	-2°13'14
superior conj	11684 Jun 11 09:48	29°♏19'25	-2°05'43	minimum elong	11685 May 22 07:43	8°♏49'13	2°13'54
minimum elong	11684 Jun 11 15:05	29°♏41'14	2°06'12		11685 Jun 04 09:47	0°♏	
	11684 Jun 11 19:38	0°♏		evening rise	11685 Jun 05 18:17	2°♏14'06	
evening rise	11684 Jun 24 02:15	20°♏53'13		asc. node	11685 Jun 17 10:49	21°♏13'07	
	11684 Jun 29 08:35	0°♏			11685 Jun 23 23:55	0°♏	
asc. node	11684 Jun 30 13:50	2°♏04'25		evening max el	11685 Jun 24 20:01	0°♏52'11	18°18'08
evening max el	11684 Jul 11 06:11	17°♏22'45	18°04'19	retrograde	11685 Jul 01 05:05	4°♏15'54	
retrograde	11684 Jul 17 17:10	20°♏43'43		evening set	11685 Jul 04 04:55	3°♏27'02	
evening set	11684 Jul 20 08:49	20°♏08'54			11685 Jul 08 08:07	30°♑♏	
inferior conj	11684 Jul 26 18:23	15°♏00'18	2°01'30	inferior conj	11685 Jul 10 02:36	28°♏01'20	2°43'37
minimum elong	11684 Jul 26 21:03	14°♏53'26	2°00'09	minimum elong	11685 Jul 10 04:52	27°♏54'46	2°42'26
min. Earth dist.	11684 Jul 29 17:15	11°♏58'47	0.62056 AU	min. Earth dist.	11685 Jul 12 12:23	25°♏15'47	0.64180 AU
morning rise	11684 Aug 02 06:59	8°♏54'08		morning rise	11685 Jul 16 03:26	21°♏43'41	
desc. node	11684 Aug 03 02:17	8°♏21'50		desc. node	11685 Jul 20 23:34	19°♏16'42	
direct	11684 Aug 08 23:21	6°♏31'30		direct	11685 Jul 22 18:46	19°♏05'34	
morning max el	11684 Aug 23 03:09	14°♏33'27	27°57'14	morning max el	11685 Aug 05 12:47	27°♏06'31	27°33'12
	11684 Sep 04 15:22	0°♏			11685 Aug 08 05:59	0°♏	
	11684 Sep 22 09:30	0°♏			11685 Aug 29 07:39	0°♏	
morning set	11684 Sep 25 22:56	7°♏06'06		morning set	11685 Sep 09 15:11	20°♏42'49	
asc. node	11684 Sep 26 14:45	8°♏27'18		asc. node	11685 Sep 13 11:28	28°♏29'43	
max. Earth dist.	11684 Oct 01 10:25	18°♏40'42	1.31850 AU		11685 Sep 14 04:51	0°♏	
superior conj	11684 Oct 03 10:44	23°♏04'38	1°02'39	max. Earth dist.	11685 Sep 14 09:04	0°♏22'01	1.32828 AU

superior conj	11685 Sep 17 16:24	7° $\Omega$ 22'33	0°40'07	asc. node	11686 Aug 31 08:10	18° $\eta$ 35'43	
minimum elong	11685 Sep 17 14:36	7° $\Omega$ 12'56	0°39'48				
evening rise	11685 Sep 24 16:27	22° $\Omega$ 29'35		superior conj	11686 Sep 01 15:52	21° $\eta$ 19'27	0°12'47
	11685 Sep 28 06:42	0° $\mathbb{M}$		minimum elong	11686 Sep 01 15:11	21° $\eta$ 15'56	0°12'28
desc. node	11685 Oct 16 20:35	28° $\mathbb{M}$ 42'22		behind sun begin	11686 Sep 01 11:29	20° $\eta$ 56'45	
evening max el	11685 Oct 16 20:38	28° $\mathbb{M}$ 42'29	22°46'27	behind sun end	11686 Sep 01 18:53	21° $\eta$ 35'08	
	11685 Oct 18 06:08	0° $\mathcal{A}$			11686 Sep 05 19:01	0° $\underline{\Omega}$	
retrograde	11685 Oct 29 23:40	5° $\mathcal{A}$ 13'59		evening rise	11686 Sep 09 02:11	6° $\underline{\Omega}$ 57'18	
evening set	11685 Nov 02 18:39	4° $\mathcal{A}$ 42'39			11686 Sep 21 10:37	0° $\mathbb{M}$	
min. Earth dist.	11685 Nov 10 05:05	1° $\mathcal{A}$ 20'40	0.54975 AU	evening max el	11686 Sep 28 13:48	9° $\mathbb{M}$ 00'14	21°11'06
inferior conj	11685 Nov 11 08:58	0° $\mathcal{A}$ 40'55	-5°48'07	desc. node	11686 Oct 03 17:56	13° $\mathbb{M}$ 01'47	
minimum elong	11685 Nov 11 06:17	0° $\mathcal{A}$ 44'44	5°47'20	retrograde	11686 Oct 10 11:12	14° $\mathbb{M}$ 54'34	
	11685 Nov 12 13:49	30° $\mathbb{R}\mathbb{M}$		evening set	11686 Oct 12 23:48	14° $\mathbb{M}$ 39'42	
morning rise	11685 Nov 19 19:27	26° $\mathbb{M}$ 52'24		inferior conj	11686 Oct 22 01:03	10° $\mathbb{M}$ 45'00	-5°00'59
direct	11685 Nov 22 22:47	26° $\mathbb{M}$ 29'38		minimum elong	11686 Oct 21 15:42	10° $\mathbb{M}$ 58'09	4°58'28
	11685 Dec 02 03:21	0° $\mathcal{A}$		min. Earth dist.	11686 Oct 22 11:57	10° $\mathbb{M}$ 29'40	0.54574 AU
morning max el	11685 Dec 04 09:11	1° $\mathcal{A}$ 55'08	21°00'52	morning rise	11686 Oct 30 08:10	6° $\mathbb{M}$ 53'48	
asc. node	11685 Dec 10 12:09	9° $\mathcal{A}$ 09'52		direct	11686 Nov 03 07:04	6° $\mathbb{M}$ 20'12	
	11685 Dec 22 06:11	0° $\mathcal{B}$		morning max el	11686 Nov 16 02:24	12° $\mathbb{M}$ 28'29	22°41'19
morning set	11685 Dec 23 22:38	3° $\mathcal{B}$ 28'19		asc. node	11686 Nov 27 09:06	27° $\mathbb{M}$ 08'47	
					11686 Nov 29 01:35	0° $\mathcal{A}$	
superior conj	11685 Dec 31 06:59	18° $\mathcal{B}$ 48'18	1°26'15	morning set	11686 Dec 08 09:42	18° $\mathcal{A}$ 15'51	
minimum elong	11685 Dec 31 09:12	18° $\mathcal{B}$ 59'43	1°26'48		11686 Dec 13 20:59	0° $\mathcal{B}$	
max. Earth dist.	11686 Jan 05 03:09	28° $\mathcal{B}$ 33'10	1.35555 AU				
	11686 Jan 05 20:55	0° $\approx$		superior conj	11686 Dec 15 09:35	3° $\mathcal{B}$ 15'57	1°35'57
evening rise	11686 Jan 09 03:17	6° $\approx$ 13'27		minimum elong	11686 Dec 15 10:44	3° $\mathcal{B}$ 22'03	1°36'40
desc. node	11686 Jan 12 19:13	12° $\approx$ 54'15		max. Earth dist.	11686 Dec 18 19:34	10° $\mathcal{B}$ 27'20	1.33822 AU
	11686 Jan 23 02:02	0° $\mathcal{H}$		evening rise	11686 Dec 23 09:31	19° $\mathcal{B}$ 41'32	
evening max el	11686 Feb 13 12:56	27° $\mathcal{H}$ 49'45	26°22'40		11686 Dec 28 20:55	0° $\approx$	
	11686 Feb 15 21:49	0° $\mathcal{Y}$		desc. node	11686 Dec 30 16:06	3° $\approx$ 12'34	
retrograde	11686 Feb 26 10:27	5° $\mathcal{Y}$ 07'44			11687 Jan 17 03:08	0° $\mathcal{H}$	
evening set	11686 Mar 04 17:12	2° $\mathcal{Y}$ 36'23		evening max el	11687 Jan 27 02:29	11° $\mathcal{H}$ 26'17	27°09'41
	11686 Mar 07 09:43	30° $\mathbb{R}\mathcal{H}$		retrograde	11687 Feb 09 12:42	18° $\mathcal{H}$ 50'15	
asc. node	11686 Mar 08 10:11	28° $\mathcal{H}$ 50'09		evening set	11687 Feb 16 05:03	16° $\mathcal{H}$ 17'29	
min. Earth dist.	11686 Mar 08 20:29	28° $\mathcal{H}$ 19'38	0.66697 AU	min. Earth dist.	11687 Feb 20 03:13	12° $\mathcal{H}$ 34'04	0.65225 AU
inferior conj	11686 Mar 10 14:54	26° $\mathcal{H}$ 10'37	0°42'05	inferior conj	11687 Feb 22 09:31	10° $\mathcal{H}$ 02'35	-0°18'01
minimum elong	11686 Mar 10 13:51	26° $\mathcal{H}$ 13'52	0°41'48	minimum elong	11687 Feb 22 10:02	10° $\mathcal{H}$ 01'08	0°17'29
morning rise	11686 Mar 16 11:22	20° $\mathcal{H}$ 26'51		asc. node	11687 Feb 23 07:32	9° $\mathcal{H}$ 01'37	
direct	11686 Mar 19 13:21	19° $\mathcal{H}$ 33'16		morning rise	11687 Feb 28 16:32	4° $\mathcal{H}$ 31'27	
morning max el	11686 Mar 26 02:14	23° $\mathcal{H}$ 03'08	18°30'07	direct	11687 Mar 03 09:11	3° $\mathcal{H}$ 52'48	
	11686 Mar 31 19:53	0° $\mathcal{Y}$		morning max el	11687 Mar 09 17:56	7° $\mathcal{H}$ 12'42	17°59'58
desc. node	11686 Apr 10 20:38	15° $\mathcal{Y}$ 08'48			11687 Mar 25 09:20	0° $\mathcal{Y}$	
morning set	11686 Apr 15 17:18	22° $\mathcal{Y}$ 48'36		morning set	11687 Mar 27 17:34	3° $\mathcal{Y}$ 50'59	
	11686 Apr 20 06:46	0° $\mathcal{B}$		desc. node	11687 Mar 28 17:15	5° $\mathcal{Y}$ 28'12	
superior conj	11686 May 01 16:32	17° $\mathcal{B}$ 52'23	-2°00'44	superior conj	11687 Apr 11 03:03	27° $\mathcal{Y}$ 05'37	-1°30'07
minimum elong	11686 May 01 08:44	17° $\mathcal{B}$ 21'54	2°00'46	minimum elong	11687 Apr 10 17:59	26° $\mathcal{Y}$ 29'48	1°29'24
max. Earth dist.	11686 May 01 16:44	17° $\mathcal{B}$ 53'08	1.45711 AU		11687 Apr 12 23:14	0° $\mathcal{B}$	
	11686 May 09 10:28	0° $\mathbb{I}$		max. Earth dist.	11687 Apr 14 12:57	2° $\mathcal{B}$ 28'09	1.45522 AU
evening rise	11686 May 17 09:59	12° $\mathbb{I}$ 34'35		evening rise	11687 Apr 27 05:19	22° $\mathcal{B}$ 09'25	
greatest brilliancy	11686 May 26 07:46	26° $\mathbb{I}$ 38'05	-0.8m		11687 May 02 07:54	0° $\mathbb{I}$	
	11686 May 28 11:56	0° $\mathcal{E}$		greatest brilliancy	11687 May 10 21:28	12° $\mathbb{I}$ 55'45	-0.7m
asc. node	11686 Jun 04 07:52	9° $\mathcal{E}$ 52'18		asc. node	11687 May 22 04:59	27° $\mathbb{I}$ 51'54	
evening max el	11686 Jun 08 07:24	14° $\mathcal{E}$ 31'43	18°49'43	evening max el	11687 May 22 14:09	28° $\mathbb{I}$ 15'20	19°37'49
retrograde	11686 Jun 14 23:27	18° $\mathcal{E}$ 11'31			11687 May 24 11:52	0° $\mathcal{E}$	
evening set	11686 Jun 18 07:44	17° $\mathcal{E}$ 07'09		retrograde	11687 May 29 21:16	2° $\mathcal{E}$ 23'29	
inferior conj	11686 Jun 23 21:14	11° $\mathcal{E}$ 25'46	3°07'08	evening set	11687 Jun 02 14:28	1° $\mathcal{E}$ 02'59	
minimum elong	11686 Jun 23 22:31	11° $\mathcal{E}$ 21'42	3°06'13		11687 Jun 03 20:38	30° $\mathbb{R}\mathbb{I}$	
min. Earth dist.	11686 Jun 25 16:09	9° $\mathcal{E}$ 11'38	0.65972 AU	inferior conj	11687 Jun 07 23:04	25° $\mathbb{I}$ 07'19	3°15'33
morning rise	11686 Jun 29 12:36	5° $\mathcal{E}$ 03'57		minimum elong	11687 Jun 07 23:15	25° $\mathbb{I}$ 06'43	3°14'47
direct	11686 Jul 05 21:30	2° $\mathcal{E}$ 21'15		min. Earth dist.	11687 Jun 09 03:13	23° $\mathbb{I}$ 33'44	0.67342 AU
desc. node	11686 Jul 07 20:45	2° $\mathcal{E}$ 34'55		morning rise	11687 Jun 13 07:39	18° $\mathbb{I}$ 45'52	
morning max el	11686 Jul 18 23:36	10° $\mathcal{E}$ 07'33	26°38'55	direct	11687 Jun 19 06:23	16° $\mathbb{I}$ 08'35	
	11686 Aug 03 16:06	0° $\mathcal{Q}$		desc. node	11687 Jun 24 17:51	17° $\mathbb{I}$ 54'20	
	11686 Aug 21 19:50	0° $\eta$		morning max el	11687 Jul 01 09:58	23° $\mathbb{I}$ 25'25	25°23'05
morning set	11686 Aug 23 20:15	3° $\eta$ 46'25			11687 Jul 07 06:00	0° $\mathcal{E}$	
max. Earth dist.	11686 Aug 27 22:02	11° $\eta$ 40'42	1.34321 AU		11687 Jul 28 00:41	0° $\mathcal{Q}$	

morning set	11687 Aug 06 10:09	16°♌06'13			11688 Jul 19 14:49	0°♌	
max. Earth dist.	11687 Aug 10 01:21	22°♌47'06	1.36265 AU	max. Earth dist.	11688 Jul 21 23:00	4°♌06'10	1.38507 AU
	11687 Aug 13 19:55	0°♍					
				superior conj	11688 Jul 29 07:58	17°♌37'22	-0°52'18
superior conj	11687 Aug 16 06:12	4°♍47'03	-0°18'34	minimum elong	11688 Jul 29 11:34	17°♌54'26	0°52'15
minimum elong	11687 Aug 16 07:23	4°♍52'53	0°18'43	asc. node	11688 Aug 04 01:36	28°♌42'01	
asc. node	11687 Aug 18 04:51	8°♍40'55			11688 Aug 04 17:30	0°♍	
evening rise	11687 Aug 24 08:10	21°♍11'42		evening rise	11688 Aug 07 07:47	5°♍06'01	
	11687 Aug 28 18:12	0°♎			11688 Aug 22 01:56	0°♎	
evening max el	11687 Sep 10 19:57	19°♎56'57	19°52'54	evening max el	11688 Aug 23 15:36	1°♎41'37	18°56'01
desc. node	11687 Sep 20 15:19	25°♎02'39		retrograde	11688 Sep 01 07:29	6°♎01'24	
retrograde	11687 Sep 21 02:04	25°♎03'13		evening set	11688 Sep 03 04:34	5°♎49'58	
evening set	11687 Sep 22 23:48	24°♎53'25		desc. node	11688 Sep 06 12:41	4°♎38'52	
inferior conj	11687 Oct 01 21:47	20°♎52'21	-3°25'36	inferior conj	11688 Sep 11 11:31	1°♎32'49	-1°33'11
minimum elong	11687 Oct 01 12:58	21°♎05'49	3°22'23	minimum elong	11688 Sep 11 07:33	1°♎39'49	1°31'40
min. Earth dist.	11687 Oct 03 21:00	19°♎40'16	0.55114 AU		11688 Sep 13 16:03	30°♏♍	
morning rise	11687 Oct 10 00:41	16°♎37'26		min. Earth dist.	11688 Sep 14 10:49	29°♍27'42	0.56507 AU
direct	11687 Oct 14 19:18	15°♎47'32		morning rise	11688 Sep 19 07:18	26°♍41'12	
morning max el	11687 Oct 28 13:22	22°♎34'52	24°29'25	direct	11688 Sep 24 20:53	25°♍27'34	
	11687 Nov 04 03:09	0°♐			11688 Oct 05 21:34	0°♎	
asc. node	11687 Nov 14 05:59	15°♐48'34		morning max el	11688 Oct 09 02:12	2°♎46'58	26°07'37
	11687 Nov 21 11:12	0°♑			11688 Oct 28 10:59	0°♐	
morning set	11687 Nov 22 21:34	3°♑02'10		asc. node	11688 Oct 31 02:49	4°♐58'57	
				morning set	11688 Nov 06 08:31	17°♐42'33	
superior conj	11687 Nov 29 17:22	17°♑55'56	1°39'06		11688 Nov 11 23:02	0°♑	
minimum elong	11687 Nov 29 17:22	17°♑55'52	1°39'50				
max. Earth dist.	11687 Dec 01 19:42	22°♑29'34	1.32516 AU	superior conj	11688 Nov 13 04:07	2°♑41'36	1°36'11
	11687 Dec 05 08:31	0°♒		minimum elong	11688 Nov 13 03:04	2°♑35'47	1°36'45
evening rise	11687 Dec 07 02:33	3°♒36'25		max. Earth dist.	11688 Nov 14 01:44	4°♑41'24	1.31687 AU
desc. node	11687 Dec 17 13:04	23°♒13'01		evening rise	11688 Nov 20 03:33	17°♑50'58	
	11687 Dec 21 15:13	0°♓			11688 Nov 26 05:15	0°♒	
evening max el	11688 Jan 09 14:24	24°♓38'56	27°31'14	desc. node	11688 Dec 03 10:07	12°♒47'58	
	11688 Jan 16 13:10	0°♔			11688 Dec 15 07:29	0°♓	
retrograde	11688 Jan 23 08:15	2°♔01'28		evening max el	11688 Dec 21 22:30	7°♓15'05	27°21'28
	11688 Jan 29 15:28	30°♕♓		retrograde	11689 Jan 04 20:14	14°♓31'24	
evening set	11688 Jan 30 06:45	29°♓34'12		evening set	11689 Jan 11 19:13	12°♓18'27	
min. Earth dist.	11688 Feb 03 01:09	26°♓21'05	0.63420 AU	min. Earth dist.	11689 Jan 15 12:58	9°♓29'02	0.61372 AU
inferior conj	11688 Feb 05 18:30	23°♓36'58	-1°27'29	inferior conj	11689 Jan 18 14:38	6°♓45'21	-2°44'07
minimum elong	11688 Feb 05 21:20	23°♓29'49	1°25'48	minimum elong	11689 Jan 18 20:16	6°♓32'45	2°41'19
asc. node	11688 Feb 10 04:49	19°♓39'42		morning rise	11689 Jan 26 00:07	1°♓48'10	
morning rise	11688 Feb 12 14:09	18°♓21'21		asc. node	11689 Jan 27 02:05	1°♓33'27	
direct	11688 Feb 14 23:11	17°♓54'02		direct	11689 Jan 28 03:53	1°♓28'30	
morning max el	11688 Feb 21 11:39	21°♓14'57	17°47'08	morning max el	11689 Feb 04 04:04	5°♓00'28	17°52'18
	11688 Feb 28 04:36	0°♕		morning set	11689 Feb 19 19:37	29°♓26'34	
morning set	11688 Mar 08 20:26	16°♕10'12			11689 Feb 20 03:01	0°♕	
desc. node	11688 Mar 14 13:54	25°♕58'34		desc. node	11689 Mar 01 10:33	16°♕35'27	
	11688 Mar 16 23:12	0°♖					
				superior conj	11689 Mar 02 13:49	18°♕33'17	-0°08'46
superior conj	11688 Mar 21 08:07	7°♖14'38	-0°49'49	minimum elong	11689 Mar 02 13:02	18°♕29'57	0°08'26
minimum elong	11688 Mar 21 02:55	6°♖53'21	0°49'05	behind sun begin	11689 Mar 02 05:50	17°♕58'53	
max. Earth dist.	11688 Mar 27 07:34	16°♖53'38	1.44610 AU	behind sun end	11689 Mar 02 20:15	19°♕00'57	
	11688 Apr 04 16:33	0°♗			11689 Mar 09 09:15	0°♖	
evening rise	11688 Apr 05 16:37	1°♗32'35		max. Earth dist.	11689 Mar 09 22:11	0°♖52'59	1.43082 AU
	11688 Apr 24 22:44	0°♘		evening rise	11689 Mar 16 11:24	11°♖22'09	
evening max el	11688 May 04 15:12	12°♘00'19	20°40'25		11689 Mar 28 18:24	0°♗	
asc. node	11688 May 08 02:10	14°♘59'39		evening max el	11689 Apr 17 10:50	25°♗45'59	21°54'09
retrograde	11688 May 12 20:09	16°♘46'32			11689 Apr 22 15:50	0°♘	
evening set	11688 May 16 23:00	15°♘09'58		asc. node	11689 Apr 24 23:25	0°♘59'52	
inferior conj	11688 May 22 05:32	9°♘01'42	3°11'25	retrograde	11689 Apr 26 18:11	1°♘15'02	
minimum elong	11688 May 22 04:41	9°♘04'37	3°10'41		11689 Apr 30 12:00	30°♙♗	
min. Earth dist.	11688 May 22 19:44	8°♘12'42	0.68253 AU	evening set	11689 May 01 07:34	29°♗23'00	
morning rise	11688 May 27 10:07	2°♘43'27		inferior conj	11689 May 06 14:22	23°♗04'21	2°56'24
direct	11688 Jun 01 20:35	0°♘19'17		minimum elong	11689 May 06 12:45	23°♗10'03	2°55'35
desc. node	11688 Jun 10 14:52	4°♘46'41		min. Earth dist.	11689 May 06 15:31	23°♗00'21	0.68704 AU
morning max el	11688 Jun 12 19:54	6°♘53'00	23°55'34	morning rise	11689 May 11 17:44	16°♗51'09	
	11688 Jun 30 19:28	0°♙		direct	11689 May 16 15:06	14°♗45'17	
morning set	11688 Jul 18 04:12	27°♙31'01		morning max el	11689 May 26 07:15	20°♗27'21	22°25'59



desc. node	11689 May 28 11:49	22°♄46'53	direct	11690 Apr 30 12:43	29°♑20'32	
	11689 Jun 03 10:00	0°♈		11690 May 03 09:12	0°♄	
	11689 Jun 24 00:33	0°♊	morning max el	11690 May 08 23:23	4°♄11'36	21°02'39
morning set	11689 Jun 28 21:38	7°♊48'14	desc. node	11690 May 15 08:42	11°♄36'44	
max. Earth dist.	11689 Jul 03 21:16	16°♊03'56 1.40808 AU		11690 May 28 10:34	0°♈	
			morning set	11690 Jun 08 13:30	16°♈57'21	
superior conj	11689 Jul 11 16:53	29°♊40'02 -1°25'39	max. Earth dist.	11690 Jun 16 01:46	28°♈56'23 1.42893 AU	
minimum elong	11689 Jul 11 22:50	0°♈06'46 1°25'33		11690 Jun 16 17:23	0°♊	
	11689 Jul 11 21:20	0°♈				
evening rise	11689 Jul 21 21:37	18°♈30'54	superior conj	11690 Jun 23 04:30	10°♊45'41 -1°54'03	
asc. node	11689 Jul 21 22:25	18°♈34'38	minimum elong	11690 Jun 23 11:07	11°♊13'49 1°54'15	
	11689 Jul 28 03:14	0°♈		11690 Jul 04 04:27	0°♈	
evening max el	11689 Aug 06 21:25	14°♈08'10 18°20'25	evening rise	11690 Jul 04 21:27	1°♈16'00	
retrograde	11689 Aug 14 07:51	17°♈53'07	asc. node	11690 Jul 08 19:16	8°♈14'18	
evening set	11689 Aug 16 11:04	17°♈35'21	evening max el	11690 Jul 21 09:12	27°♈06'12 18°04'46	
inferior conj	11689 Aug 23 22:57	12°♈57'52 0°08'31		11690 Jul 25 11:34	0°♈	
minimum elong	11689 Aug 23 23:14	12°♈57'15 0°08'08	retrograde	11690 Jul 28 01:28	0°♈31'26	
transit middle	11689 Aug 23 23:14	12°♈57'15 0°08'08	evening set	11690 Jul 30 12:37	0°♈03'31	
transit begin	11689 Aug 23 20:13	13°♈03'30		11690 Jul 30 16:18	30°♈♄	
transit end	11689 Aug 24 02:16	12°♈51'00	inferior conj	11690 Aug 06 06:46	25°♈05'40 1°27'17	
desc. node	11689 Aug 24 10:03	12°♈34'51	minimum elong	11690 Aug 06 09:07	25°♈00'03 1°26'01	
min. Earth dist.	11689 Aug 27 07:03	10°♈13'49 0.58493 AU	min. Earth dist.	11690 Aug 09 11:17	22°♈04'12 0.60753 AU	
morning rise	11689 Aug 31 07:54	7°♈30'27	desc. node	11690 Aug 11 07:27	20°♈29'40	
direct	11689 Sep 06 13:01	5°♈48'11	morning rise	11690 Aug 13 02:51	19°♈10'55	
morning max el	11689 Sep 20 21:23	13°♈30'33 27°19'21	direct	11690 Aug 19 17:10	17°♈01'25	
	11689 Oct 04 00:28	0°♈	morning max el	11690 Sep 02 23:40	24°♈57'56 27°54'41	
asc. node	11689 Oct 17 23:36	24°♈31'54		11690 Sep 07 14:24	0°♈	
	11689 Oct 20 15:42	0°♈		11690 Sep 27 10:36	0°♈	
morning set	11689 Oct 21 16:53	2°♈12'30	asc. node	11690 Oct 04 20:20	14°♈20'08	
			morning set	11690 Oct 05 20:44	16°♈26'04	
superior conj	11689 Oct 28 15:54	17°♈27'14 1°27'30	max. Earth dist.	11690 Oct 11 18:37	29°♈08'22 1.31523 AU	
minimum elong	11689 Oct 28 14:04	17°♈17'03 1°27'49		11690 Oct 12 03:59	0°♈	
max. Earth dist.	11689 Oct 28 10:36	16°♈57'39 1.31353 AU				
	11689 Nov 03 08:14	0°♈	superior conj	11690 Oct 13 02:47	2°♈06'07 1°13'17	
evening rise	11689 Nov 04 10:04	2°♈18'55	minimum elong	11690 Oct 13 00:34	1°♈53'48 1°13'18	
	11689 Nov 19 03:54	0°♈	evening rise	11690 Oct 19 19:55	16°♈53'23	
desc. node	11689 Nov 20 07:15	1°♈47'28		11690 Oct 26 05:16	0°♈	
evening max el	11689 Dec 04 00:23	19°♈04'36 26°37'25	desc. node	11690 Nov 07 04:28	19°♈56'57	
retrograde	11689 Dec 17 23:08	26°♈12'06		11690 Nov 15 17:19	0°♈	
evening set	11689 Dec 24 14:32	24°♈22'43	evening max el	11690 Nov 15 18:05	0°♈01'49 25°21'35	
min. Earth dist.	11689 Dec 28 14:24	21°♈46'02 0.59234 AU	retrograde	11690 Nov 29 14:41	6°♈59'42	
inferior conj	11689 Dec 31 18:26	19°♈18'38 -4°02'12	evening set	11690 Dec 05 12:02	5°♈40'44	
minimum elong	11690 Jan 01 02:24	19°♈03'08 3°58'59	min. Earth dist.	11690 Dec 10 06:14	3°♈01'18 0.57222 AU	
morning rise	11690 Jan 08 17:05	14°♈42'22	inferior conj	11690 Dec 13 02:37	1°♈06'19 -5°10'04	
direct	11690 Jan 10 19:16	14°♈26'43	minimum elong	11690 Dec 13 10:17	0°♈53'23 5°07'47	
asc. node	11690 Jan 13 23:19	15°♈04'31		11690 Dec 14 18:35	30°♈♄	
morning max el	11690 Jan 18 15:33	18°♈19'15 18°16'48	morning rise	11690 Dec 21 10:50	26°♈52'20	
	11690 Jan 27 01:47	0°♈	direct	11690 Dec 23 17:14	26°♈37'03	
morning set	11690 Feb 03 09:16	13°♈22'46	asc. node	11690 Dec 31 20:29	0°♈09'26	
	11690 Feb 12 06:10	0°♈		11690 Dec 31 16:07	0°♈	
superior conj	11690 Feb 12 18:27	0°♈55'56 0°27'24	morning max el	11691 Jan 01 18:07	0°♈59'12 19°02'35	
minimum elong	11690 Feb 12 20:25	1°♈04'53 0°27'31	morning set	11691 Jan 18 08:42	27°♈44'16	
desc. node	11690 Feb 16 07:14	7°♈15'29		11691 Jan 19 12:09	0°♈	
max. Earth dist.	11690 Feb 20 08:18	14°♈15'44 1.41110 AU	superior conj	11691 Jan 26 17:24	14°♈08'50 0°56'19	
evening rise	11690 Feb 25 00:28	22°♈03'05	minimum elong	11691 Jan 26 20:20	14°♈22'52 0°56'30	
	11690 Mar 01 23:41	0°♈	max. Earth dist.	11691 Feb 02 15:13	26°♈57'36 1.38906 AU	
	11690 Mar 22 20:22	0°♈	desc. node	11691 Feb 03 03:57	27°♈54'21	
evening max el	11690 Mar 31 02:38	9°♈34'18 23°13'57		11691 Feb 04 08:22	0°♈	
retrograde	11690 Apr 10 13:44	15°♈44'39	evening rise	11691 Feb 06 10:49	3°♈39'12	
asc. node	11690 Apr 11 20:42	15°♈36'48		11691 Feb 23 03:12	0°♈	
evening set	11690 Apr 15 14:34	13°♈38'15	evening max el	11691 Mar 13 16:31	23°♈25'09 24°33'47	
inferior conj	11690 Apr 20 23:39	7°♈12'09 2°31'23		11691 Mar 23 15:34	0°♈	
minimum elong	11690 Apr 20 21:34	7°♈19'22 2°30'28	retrograde	11691 Mar 25 05:42	0°♈10'03	
min. Earth dist.	11690 Apr 20 12:21	7°♈51'11 0.68704 AU		11691 Mar 26 18:29	30°♈♄	
morning rise	11690 Apr 26 04:28	1°♈05'24	asc. node	11691 Mar 29 18:03	28°♈38'26	
	11690 Apr 27 20:18	30°♈♄	evening set	11691 Mar 30 18:28	27°♈51'08	

min. Earth dist.	11691 Apr 04 07:58	22°♿39'45	0.68256 AU	min. Earth dist.	11692 Mar 18 00:15	7°♿20'10	0.67383 AU
inferior conj	11691 Apr 05 07:28	21°♿21'18	1°56'41	inferior conj	11692 Mar 19 11:52	5°♿27'30	1°12'11
minimum elong	11691 Apr 05 05:20	21°♿28'25	1°55'48	minimum elong	11692 Mar 19 10:14	5°♿32'41	1°11'35
morning rise	11691 Apr 10 16:21	15°♿22'26			11692 Mar 24 14:27	30°♿	
direct	11691 Apr 14 12:02	13°♿58'56		morning rise	11692 Mar 25 03:24	29°♿37'55	
morning max el	11691 Apr 21 22:55	18°♿08'19	19°51'21	direct	11692 Mar 28 11:26	28°♿34'19	
	11691 May 01 11:44	0°♿			11692 Apr 01 13:13	0°♿	
desc. node	11691 May 02 05:30	1°♿02'45		morning max el	11692 Apr 04 06:08	2°♿14'50	18°55'05
morning set	11691 May 18 14:04	25°♿30'07		greatest brilliancy	11692 Apr 17 22:35	20°♿40'58	-0.8m
	11691 May 21 11:59	0°♿		desc. node	11692 Apr 18 02:13	20°♿54'46	
max. Earth dist.	11691 May 29 13:45	12°♿39'29	1.44508 AU		11692 Apr 23 23:53	0°♿	
				morning set	11692 Apr 26 20:51	4°♿27'31	
superior conj	11691 Jun 03 16:07	20°♿50'01	-2°11'08	max. Earth dist.	11692 May 11 06:45	26°♿54'59	1.45478 AU
minimum elong	11691 Jun 03 19:21	21°♿03'06	2°11'48				
	11691 Jun 09 06:22	0°♿		superior conj	11692 May 13 06:48	0°♿03'31	-2°10'26
evening rise	11691 Jun 17 02:26	13°♿10'41		minimum elong	11692 May 13 02:41	29°♿47'20	2°10'57
asc. node	11691 Jun 25 16:12	27°♿36'10			11692 May 13 05:54	0°♿	
	11691 Jun 27 04:05	0°♿		evening rise	11692 May 28 08:10	24°♿05'32	
evening max el	11691 Jul 04 23:12	10°♿26'26	18°07'59		11692 May 31 23:36	0°♿	
retrograde	11691 Jul 11 08:06	13°♿46'48		asc. node	11692 Jun 11 13:12	16°♿33'09	
evening set	11691 Jul 14 03:17	13°♿06'05		evening max el	11692 Jun 17 12:12	24°♿00'10	18°29'25
inferior conj	11691 Jul 20 07:17	7°♿49'43	2°21'55	retrograde	11692 Jun 23 23:17	27°♿29'31	
minimum elong	11691 Jul 20 09:53	7°♿42'38	2°20'35	evening set	11692 Jun 27 02:37	26°♿34'12	
min. Earth dist.	11691 Jul 23 00:50	4°♿53'04	0.62988 AU	inferior conj	11692 Jul 02 20:21	21°♿01'23	2°55'39
morning rise	11691 Jul 26 14:40	1°♿37'44		minimum elong	11692 Jul 02 22:15	20°♿55'42	2°54'35
desc. node	11691 Jul 29 04:46	0°♿03'26		min. Earth dist.	11692 Jul 04 23:49	18°♿27'47	0.64985 AU
	11691 Jul 29 07:48	30°♿		morning rise	11692 Jul 08 16:49	14°♿41'00	
direct	11691 Aug 02 07:17	29°♿07'37		direct	11692 Jul 15 05:46	11°♿59'50	
	11691 Aug 06 12:31	0°♿		desc. node	11692 Jul 15 02:01	11°♿59'55	
morning max el	11691 Aug 16 07:31	7°♿09'52	27°51'23	morning max el	11692 Jul 28 18:09	19°♿56'41	27°13'26
	11691 Sep 02 18:49	0°♿			11692 Aug 06 08:35	0°♿	
morning set	11691 Sep 19 17:58	0°♿17'58			11692 Aug 25 20:26	0°♿	
	11691 Sep 19 14:24	0°♿		morning set	11692 Sep 02 05:50	13°♿41'05	
asc. node	11691 Sep 21 17:02	4°♿18'31		max. Earth dist.	11692 Sep 06 16:48	22°♿34'46	1.33401 AU
max. Earth dist.	11691 Sep 24 21:56	11°♿03'29	1.32204 AU	asc. node	11692 Sep 07 13:43	24°♿22'20	
					11692 Sep 10 06:18	0°♿	
superior conj	11691 Sep 27 10:56	16°♿33'00	0°53'43	superior conj	11692 Sep 10 14:12	0°♿41'49	0°29'04
minimum elong	11691 Sep 27 08:48	16°♿21'26	0°53'29	minimum elong	11692 Sep 10 12:47	0°♿34'22	0°28'44
	11691 Oct 03 14:40	0°♿		evening rise	11692 Sep 17 18:03	16°♿00'30	
evening rise	11691 Oct 04 07:12	1°♿29'07			11692 Sep 24 16:30	0°♿	
	11691 Oct 19 18:13	0°♿		evening max el	11692 Oct 08 16:59	20°♿21'43	22°04'17
desc. node	11691 Oct 25 01:43	6°♿57'15		desc. node	11692 Oct 10 23:02	22°♿23'09	
evening max el	11691 Oct 28 05:04	10°♿17'03	23°44'50	retrograde	11692 Oct 21 09:27	26°♿40'17	
retrograde	11691 Nov 10 17:38	17°♿02'01		evening set	11692 Oct 24 14:02	26°♿17'36	
evening set	11691 Nov 15 09:17	16°♿14'50		inferior conj	11692 Nov 02 10:14	22°♿19'58	-5°35'21
min. Earth dist.	11691 Nov 21 15:23	13°♿13'41	0.55608 AU	minimum elong	11692 Nov 02 04:03	22°♿28'39	5°34'00
inferior conj	11691 Nov 23 14:17	12°♿03'51	-5°48'20	min. Earth dist.	11692 Nov 01 22:12	22°♿36'52	0.54685 AU
minimum elong	11691 Nov 23 16:35	12°♿00'25	5°47'30	morning rise	11692 Nov 10 19:26	18°♿32'58	
morning rise	11691 Dec 02 01:47	8°♿09'22		direct	11692 Nov 14 06:35	18°♿06'25	
direct	11691 Dec 04 19:36	7°♿50'38		morning max el	11692 Nov 26 08:21	23°♿50'17	21°41'54
morning max el	11691 Dec 15 08:09	12°♿50'41	20°11'16		11692 Dec 01 18:21	0°♿	
asc. node	11691 Dec 18 17:34	16°♿34'30		asc. node	11692 Dec 04 14:34	4°♿03'11	
	11691 Dec 27 07:26	0°♿		morning set	11692 Dec 17 00:19	27°♿06'38	
morning set	11692 Jan 02 14:33	12°♿21'18			11692 Dec 18 09:15	0°♿	
				superior conj	11692 Dec 24 04:28	12°♿16'19	1°31'12
superior conj	11692 Jan 10 06:02	27°♿59'19	1°17'28	minimum elong	11692 Dec 24 06:16	12°♿25'40	1°31'50
minimum elong	11692 Jan 10 08:43	28°♿12'47	1°17'53	max. Earth dist.	11692 Dec 28 09:59	20°♿57'34	1.34763 AU
	11692 Jan 11 06:09	0°♿		evening rise	11693 Jan 01 15:20	29°♿13'56	
max. Earth dist.	11692 Jan 15 22:14	9°♿05'18	1.36717 AU		11693 Jan 02 01:01	0°♿	
evening rise	11692 Jan 19 16:53	16°♿05'34		desc. node	11693 Jan 06 21:30	8°♿54'08	
desc. node	11692 Jan 21 00:41	18°♿28'34			11693 Jan 19 22:26	0°♿	
	11692 Jan 27 18:16	0°♿		evening max el	11693 Feb 05 19:22	20°♿59'27	26°45'17
evening max el	11692 Feb 17 15:46	0°♿		retrograde	11693 Feb 18 23:09	28°♿21'56	
retrograde	11692 Mar 07 17:04	14°♿24'43		evening set	11693 Feb 25 10:17	25°♿48'56	
evening set	11692 Mar 13 17:38	11°♿56'23		min. Earth dist.	11693 Mar 01 11:08	21°♿46'46	0.66114 AU
asc. node	11692 Mar 15 15:25	10°♿06'50					

asc. node	11693 Mar 02 12:45	20° $\text{K}$ 31'50			11694 Jan 15 02:08	0° $\text{K}$	
inferior conj	11693 Mar 03 10:46	19° $\text{K}$ 26'46	0°17'48	evening max el	11694 Jan 19 08:26	4° $\text{K}$ 27'22	27°22'27
minimum elong	11693 Mar 03 10:17	19° $\text{K}$ 28'12	0°17'49	retrograde	11694 Feb 01 22:52	11° $\text{K}$ 52'09	
morning rise	11693 Mar 09 11:28	13° $\text{K}$ 48'17		evening set	11694 Feb 08 18:11	9° $\text{K}$ 20'53	
direct	11693 Mar 12 09:12	13° $\text{K}$ 01'39		min. Earth dist.	11694 Feb 12 14:30	5° $\text{K}$ 50'40	0.64487 AU
morning max el	11693 Mar 18 19:31	16° $\text{K}$ 26'02	18°15'12	inferior conj	11694 Feb 15 01:39	3° $\text{K}$ 12'19	-0°46'25
	11693 Mar 28 22:44	0° $\text{Y}$		minimum elong	11694 Feb 15 03:04	3° $\text{K}$ 08'31	0°45'24
desc. node	11693 Apr 04 22:51	11° $\text{Y}$ 05'58		asc. node	11694 Feb 17 10:05	0° $\text{K}$ 47'11	
morning set	11693 Apr 07 04:21	14° $\text{Y}$ 40'25			11694 Feb 18 06:37	30° $\text{K}$	
	11693 Apr 16 19:19	0° $\text{B}$		morning rise	11694 Feb 21 13:49	27° $\text{K}$ 47'17	
				direct	11694 Feb 24 02:53	27° $\text{K}$ 14'01	
superior conj	11693 Apr 22 13:42	9° $\text{B}$ 03'46	-1°49'34		11694 Mar 01 22:14	0° $\text{K}$	
minimum elong	11693 Apr 22 04:30	8° $\text{B}$ 27'46	1°49'13	morning max el	11694 Mar 02 12:26	0° $\text{K}$ 33'28	17°52'19
max. Earth dist.	11693 Apr 24 02:06	11° $\text{B}$ 26'06	1.45720 AU	morning set	11694 Mar 19 16:38	26° $\text{K}$ 17'37	
	11693 May 05 23:48	0° $\text{II}$			11694 Mar 21 21:48	0° $\text{Y}$	
evening rise	11693 May 08 14:16	4° $\text{II}$ 03'38		desc. node	11694 Mar 22 19:28	1° $\text{Y}$ 30'21	
greatest brilliancy	11693 May 19 17:13	21° $\text{II}$ 18'15	-0.8m				
	11693 May 25 15:24	0° $\text{E}$		superior conj	11694 Apr 02 06:43	18° $\text{Y}$ 37'14	-1°13'38
asc. node	11693 May 29 10:17	4° $\text{E}$ 56'55		minimum elong	11694 Apr 01 22:57	18° $\text{Y}$ 06'08	1°12'50
evening max el	11693 May 31 21:46	7° $\text{E}$ 41'43	19°08'12	max. Earth dist.	11694 Apr 06 21:32	25° $\text{Y}$ 57'24	1.45223 AU
retrograde	11693 Jun 07 19:30	11° $\text{E}$ 32'31			11694 Apr 09 11:20	0° $\text{B}$	
evening set	11693 Jun 11 07:23	10° $\text{E}$ 21'32		evening rise	11694 Apr 18 04:14	13° $\text{B}$ 28'11	
inferior conj	11693 Jun 16 18:26	4° $\text{E}$ 33'56	3°12'20		11694 Apr 29 02:10	0° $\text{II}$	
minimum elong	11693 Jun 16 19:16	4° $\text{E}$ 31'17	3°11'31	greatest brilliancy	11694 May 03 04:22	6° $\text{II}$ 01'32	-0.6m
min. Earth dist.	11693 Jun 18 07:05	2° $\text{E}$ 35'58	0.66610 AU	evening max el	11694 May 15 02:13	21° $\text{II}$ 26'15	20°02'54
	11693 Jun 20 11:05	30° $\text{K}$ $\text{II}$		asc. node	11694 May 16 07:27	22° $\text{II}$ 36'06	
morning rise	11693 Jun 22 06:33	28° $\text{II}$ 11'32		retrograde	11694 May 22 17:57	25° $\text{II}$ 49'27	
direct	11693 Jun 28 11:27	25° $\text{II}$ 29'49		evening set	11694 May 26 15:07	24° $\text{II}$ 22'14	
desc. node	11693 Jul 01 23:11	26° $\text{II}$ 12'53		inferior conj	11694 May 31 22:33	18° $\text{II}$ 21'15	3°15'10
	11693 Jul 07 21:13	0° $\text{E}$		minimum elong	11694 May 31 22:17	18° $\text{II}$ 22'11	3°14'27
morning max el	11693 Jul 11 04:59	3° $\text{E}$ 06'17	26°08'35	min. Earth dist.	11694 Jun 01 20:45	17° $\text{II}$ 06'06	0.67793 AU
	11693 Jul 31 14:37	0° $\text{Q}$		morning rise	11694 Jun 06 05:07	12° $\text{II}$ 00'53	
morning set	11693 Aug 16 04:58	26° $\text{Q}$ 27'08		direct	11694 Jun 11 22:55	9° $\text{II}$ 28'04	
	11693 Aug 18 02:21	0° $\text{P}$		desc. node	11694 Jun 18 20:16	12° $\text{II}$ 14'54	
max. Earth dist.	11693 Aug 20 01:09	3° $\text{P}$ 44'17	1.35096 AU	morning max el	11694 Jun 23 14:52	16° $\text{II}$ 28'00	24°46'32
					11694 Jul 04 19:53	0° $\text{E}$	
superior conj	11693 Aug 25 10:08	14° $\text{P}$ 26'37	-0°00'07		11694 Jul 24 13:37	0° $\text{Q}$	
minimum elong	11693 Aug 25 10:09	14° $\text{P}$ 26'45	0°00'24	morning set	11694 Jul 29 11:02	8° $\text{Q}$ 25'02	
behind sun begin	11693 Aug 25 04:09	13° $\text{P}$ 56'09		max. Earth dist.	11694 Aug 02 00:56	14° $\text{Q}$ 50'42	1.37194 AU
behind sun end	11693 Aug 25 16:09	14° $\text{P}$ 57'25					
asc. node	11693 Aug 25 10:24	14° $\text{P}$ 28'02		superior conj	11694 Aug 08 19:39	27° $\text{Q}$ 39'49	-0°32'43
	11693 Sep 01 22:05	0° $\text{A}$		minimum elong	11694 Aug 08 21:48	27° $\text{Q}$ 50'20	0°32'47
evening rise	11693 Sep 02 02:27	0° $\text{A}$ 22'34			11694 Aug 10 00:16	0° $\text{P}$	
	11693 Sep 19 18:31	0° $\text{M}$		asc. node	11694 Aug 12 07:08	4° $\text{P}$ 32'02	
evening max el	11693 Sep 20 15:16	0° $\text{M}$ 53'25	20°35'22	evening rise	11694 Aug 17 06:05	14° $\text{P}$ 29'16	
desc. node	11693 Sep 27 20:25	5° $\text{M}$ 45'51			11694 Aug 25 09:32	0° $\text{A}$	
retrograde	11693 Oct 01 20:48	6° $\text{M}$ 27'54		evening max el	11694 Sep 03 03:36	12° $\text{A}$ 11'29	19°26'07
evening set	11693 Oct 04 00:40	6° $\text{M}$ 16'25		retrograde	11694 Sep 12 16:27	16° $\text{A}$ 56'25	
inferior conj	11693 Oct 13 02:27	2° $\text{M}$ 20'53	-4°24'48	evening set	11694 Sep 14 12:47	16° $\text{A}$ 46'30	
minimum elong	11693 Oct 12 16:26	2° $\text{M}$ 35'20	4°21'39	desc. node	11694 Sep 14 17:49	16° $\text{A}$ 44'10	
min. Earth dist.	11693 Oct 14 06:01	1° $\text{M}$ 41'04	0.54682 AU	inferior conj	11694 Sep 23 05:23	12° $\text{A}$ 39'45	-2°38'02
	11693 Oct 17 07:55	30° $\text{K}$ $\text{A}$		minimum elong	11694 Sep 22 22:26	12° $\text{A}$ 50'58	2°35'20
morning rise	11693 Oct 21 07:51	28° $\text{A}$ 21'29		min. Earth dist.	11694 Sep 25 16:52	11° $\text{A}$ 03'59	0.55615 AU
direct	11693 Oct 25 15:07	27° $\text{A}$ 41'40		morning rise	11694 Oct 01 05:44	8° $\text{A}$ 10'15	
	11693 Nov 02 11:50	0° $\text{M}$		direct	11694 Oct 06 09:01	7° $\text{A}$ 10'47	
morning max el	11693 Nov 07 21:55	4° $\text{M}$ 08'17	23°27'26	morning max el	11694 Oct 20 08:38	14° $\text{A}$ 12'37	25°13'29
asc. node	11693 Nov 21 11:29	22° $\text{M}$ 20'26			11694 Nov 01 19:19	0° $\text{M}$	
	11693 Nov 25 16:01	0° $\text{X}$		asc. node	11694 Nov 08 08:20	11° $\text{M}$ 14'26	
morning set	11693 Dec 01 11:54	11° $\text{X}$ 53'38		morning set	11694 Nov 15 23:35	26° $\text{M}$ 37'53	
					11694 Nov 17 13:00	0° $\text{X}$	
superior conj	11693 Dec 08 09:34	26° $\text{X}$ 49'49	1°38'04				
minimum elong	11693 Dec 08 10:13	26° $\text{X}$ 53'19	1°38'48	superior conj	11694 Nov 22 18:52	11° $\text{X}$ 32'54	1°38'35
	11693 Dec 09 20:58	0° $\text{Z}$		minimum elong	11694 Nov 22 18:24	11° $\text{X}$ 30'17	1°39'16
max. Earth dist.	11693 Dec 11 05:28	2° $\text{Z}$ 52'47	1.33201 AU	max. Earth dist.	11694 Nov 24 08:32	14° $\text{X}$ 59'46	1.32104 AU
evening rise	11693 Dec 16 02:32	12° $\text{Z}$ 54'13		evening rise	11694 Nov 29 23:20	26° $\text{X}$ 58'38	
desc. node	11693 Dec 24 18:23	29° $\text{Z}$ 05'20			11694 Dec 01 10:52	0° $\text{Z}$	
	11693 Dec 25 06:58	0° $\text{A}$		desc. node	11694 Dec 11 15:24	18° $\text{Z}$ 56'00	

	11694 Dec 18 14:55	0°♊		evening max el	11695 Dec 15 01:10	29°♊43'49	27°06'55
evening max el	11695 Jan 01 19:19	17°♊26'44	27°31'17		11695 Dec 15 08:04	0°♊	
retrograde	11695 Jan 15 15:14	24°♊46'25		retrograde	11695 Dec 28 23:10	6°♊55'44	
evening set	11695 Jan 22 14:39	22°♊24'32		evening set	11696 Jan 04 20:16	4°♊51'42	
min. Earth dist.	11695 Jan 26 08:25	19°♊22'13	0.62572 AU	min. Earth dist.	11696 Jan 08 15:34	2°♊09'32	0.60466 AU
inferior conj	11695 Jan 29 05:37	16°♊36'49	-1°59'19		11696 Jan 11 05:29	30°♊♊	
minimum elong	11695 Jan 29 09:37	16°♊27'13	1°57'07	inferior conj	11696 Jan 11 19:12	29°♊30'57	-3°17'33
asc. node	11695 Feb 04 07:22	11°♊52'41		minimum elong	11696 Jan 12 01:59	29°♊16'40	3°14'27
morning rise	11695 Feb 05 07:03	11°♊28'18		morning rise	11696 Jan 19 10:30	24°♊42'20	
direct	11695 Feb 07 13:32	11°♊04'36		direct	11696 Jan 21 13:13	24°♊24'41	
morning max el	11695 Feb 14 05:56	14°♊29'07	17°47'01	asc. node	11696 Jan 22 04:37	24°♊26'21	
	11695 Feb 25 00:19	0°♊		morning max el	11696 Jan 28 20:40	28°♊03'54	18°00'19
morning set	11695 Mar 02 04:58	9°♊03'42			11696 Jan 30 15:32	0°♊	
desc. node	11695 Mar 09 16:06	22°♊03'42		morning set	11696 Feb 13 10:57	22°♊38'47	
					11696 Feb 17 10:44	0°♊	
superior conj	11695 Mar 13 22:03	29°♊15'03	-0°32'04	superior conj	11696 Feb 23 13:59	11°♊02'15	0°07'23
minimum elong	11695 Mar 13 18:51	29°♊01'44	0°31'30	minimum elong	11696 Feb 23 14:37	11°♊05'01	0°07'36
	11695 Mar 14 08:49	0°♊		behind sun begin	11696 Feb 23 07:34	10°♊33'56	
max. Earth dist.	11695 Mar 20 14:57	10°♊14'25	1.44037 AU	behind sun end	11696 Feb 23 21:40	11°♊36'02	
evening rise	11695 Mar 28 17:03	22°♊58'47		desc. node	11696 Feb 24 12:46	12°♊42'13	
	11695 Apr 02 07:11	0°♊		max. Earth dist.	11696 Mar 02 04:13	24°♊01'20	1.42286 AU
	11695 Apr 23 10:52	0°♊			11696 Mar 05 19:49	0°♊	
evening max el	11695 Apr 28 01:00	5°♊11'53	21°10'42	evening rise	11696 Mar 07 18:46	3°♊08'20	
asc. node	11695 May 03 04:41	9°♊17'13			11696 Mar 25 16:13	0°♊	
retrograde	11695 May 06 16:34	10°♊15'25		evening max el	11696 Apr 09 18:46	18°♊58'42	22°27'37
evening set	11695 May 10 23:53	8°♊32'05		asc. node	11696 Apr 19 01:57	24°♊44'31	
inferior conj	11695 May 16 06:17	2°♊19'18	3°06'18	retrograde	11696 Apr 19 13:44	24°♊45'40	
minimum elong	11695 May 16 05:05	2°♊23'30	3°05'31	evening set	11696 Apr 24 08:01	22°♊47'04	
min. Earth dist.	11695 May 16 14:51	1°♊49'34	0.68511 AU	inferior conj	11696 Apr 29 15:34	16°♊24'48	2°47'01
	11695 May 17 22:54	30°♊♊		minimum elong	11696 Apr 29 13:41	16°♊31'18	2°46'08
morning rise	11695 May 21 10:04	26°♊03'14		min. Earth dist.	11696 Apr 29 11:16	16°♊39'46	0.68761 AU
direct	11695 May 26 15:06	23°♊46'20		morning rise	11696 May 04 19:15	10°♊14'24	
desc. node	11695 Jun 05 17:16	29°♊38'36		direct	11696 May 09 10:57	8°♊17'31	
morning max el	11695 Jun 06 00:56	29°♊57'45	23°17'06	morning max el	11696 May 18 14:07	13°♊36'57	21°49'28
	11695 Jun 06 01:49	0°♊		desc. node	11696 May 22 14:11	18°♊02'09	
	11695 Jun 28 15:28	0°♊			11696 May 31 16:36	0°♊	
morning set	11695 Jul 10 19:03	19°♊21'40		morning set	11696 Jun 20 01:24	29°♊09'33	
max. Earth dist.	11695 Jul 14 22:24	26°♊24'46	1.39501 AU		11696 Jun 20 14:01	0°♊	
	11695 Jul 16 23:37	0°♊		max. Earth dist.	11696 Jun 25 23:36	8°♊48'08	1.41742 AU
superior conj	11695 Jul 22 14:49	10°♊11'10	-1°06'43	superior conj	11696 Jul 03 15:14	21°♊50'55	-1°38'38
minimum elong	11695 Jul 22 19:30	10°♊32'50	1°06'37	minimum elong	11696 Jul 03 21:49	22°♊19'46	1°38'36
asc. node	11695 Jul 30 03:54	24°♊29'54			11696 Jul 08 05:15	0°♊	
evening rise	11695 Aug 01 02:00	28°♊12'11		evening rise	11696 Jul 14 10:32	11°♊22'14	
	11695 Aug 02 00:25	0°♊		asc. node	11696 Jul 16 00:45	14°♊17'54	
evening max el	11695 Aug 17 04:04	24°♊14'44	18°38'19		11696 Jul 25 02:50	0°♊	
retrograde	11695 Aug 25 05:57	28°♊18'00		evening max el	11696 Jul 30 12:51	6°♊55'34	18°11'15
evening set	11695 Aug 27 05:20	28°♊04'16		retrograde	11696 Aug 06 14:20	10°♊30'38	
desc. node	11695 Sep 01 15:14	25°♊28'31		evening set	11696 Aug 08 20:44	10°♊09'02	
inferior conj	11695 Sep 04 04:11	23°♊38'15	-0°47'37	inferior conj	11696 Aug 16 00:43	5°♊22'29	0°45'00
minimum elong	11695 Sep 04 02:16	23°♊41'53	0°47'00	minimum elong	11696 Aug 16 02:09	5°♊19'19	0°44'05
min. Earth dist.	11695 Sep 07 08:52	21°♊14'39	0.57300 AU	desc. node	11696 Aug 18 12:37	3°♊10'15	
morning rise	11695 Sep 11 19:47	18°♊31'02		min. Earth dist.	11696 Aug 19 08:22	2°♊28'14	0.59441 AU
direct	11695 Sep 17 16:35	17°♊05'44			11696 Aug 22 16:18	30°♊♊	
morning max el	11695 Oct 01 23:48	24°♊35'02	26°42'14	morning rise	11696 Aug 23 04:16	29°♊41'50	
	11695 Oct 06 23:25	0°♊		direct	11696 Aug 29 13:54	27°♊47'44	
	11695 Oct 25 21:58	0°♊			11696 Sep 05 19:59	0°♊	
asc. node	11695 Oct 26 05:08	0°♊35'04		morning max el	11696 Sep 12 22:23	5°♊37'21	27°39'10
morning set	11695 Oct 31 09:39	11°♊14'03			11696 Oct 01 02:17	0°♊	
superior conj	11695 Nov 07 06:16	26°♊18'36	1°33'10	asc. node	11696 Oct 12 01:54	20°♊14'58	
minimum elong	11695 Nov 07 04:51	26°♊10'43	1°33'40	morning set	11696 Oct 14 16:20	25°♊37'27	
max. Earth dist.	11695 Nov 07 16:24	27°♊15'05	1.31488 AU		11696 Oct 16 17:37	0°♊	
	11695 Nov 08 22:05	0°♊		max. Earth dist.	11696 Oct 21 01:26	9°♊29'59	1.31364 AU
evening rise	11695 Nov 14 02:58	11°♊19'11		superior conj	11696 Oct 21 17:52	11°♊01'29	1°22'07
	11695 Nov 23 15:43	0°♊		minimum elong	11696 Oct 21 15:49	10°♊50'05	1°22'19
desc. node	11695 Nov 28 12:30	8°♊17'03					

evening rise	11696 Oct 28 11:07	25° $\mathbb{M}$ 49'52		evening rise	11697 Oct 12 21:48	10° $\mathbb{M}$ 25'34	
	11696 Oct 30 10:20	0° $\mathbb{A}$			11697 Oct 22 18:36	0° $\mathbb{A}$	
desc. node	11696 Nov 14 09:41	26° $\mathbb{A}$ 56'58		desc. node	11697 Nov 01 06:55	14° $\mathbb{A}$ 40'07	
	11696 Nov 16 12:24	0° $\mathbb{B}$		evening max el	11697 Nov 07 13:36	21° $\mathbb{A}$ 46'27	24°42'06
evening max el	11696 Nov 25 23:21	11° $\mathbb{B}$ 09'25	26°08'29	retrograde	11697 Nov 21 08:22	28° $\mathbb{A}$ 40'30	
retrograde	11696 Dec 09 21:31	18° $\mathbb{B}$ 13'30		evening set	11697 Nov 26 18:06	27° $\mathbb{A}$ 35'29	
evening set	11696 Dec 16 06:50	16° $\mathbb{B}$ 36'03		min. Earth dist.	11697 Dec 02 01:15	24° $\mathbb{A}$ 48'53	0.56459 AU
min. Earth dist.	11696 Dec 20 12:24	14° $\mathbb{B}$ 00'37	0.58343 AU	inferior conj	11697 Dec 04 14:16	23° $\mathbb{A}$ 11'45	-5°31'22
inferior conj	11696 Dec 23 14:53	11° $\mathbb{B}$ 44'53	-4°33'16	minimum elong	11697 Dec 04 20:20	23° $\mathbb{A}$ 02'03	5°29'46
minimum elong	11696 Dec 23 23:13	11° $\mathbb{B}$ 29'39	4°30'17	morning rise	11697 Dec 13 00:44	19° $\mathbb{A}$ 06'49	
morning rise	11696 Dec 31 18:18	7° $\mathbb{B}$ 18'33		direct	11697 Dec 15 10:49	18° $\mathbb{A}$ 50'44	
direct	11697 Jan 02 21:28	7° $\mathbb{B}$ 03'33		morning max el	11697 Dec 25 02:37	23° $\mathbb{A}$ 28'35	19°29'00
asc. node	11697 Jan 08 01:49	8° $\mathbb{B}$ 38'06		asc. node	11697 Dec 25 22:56	24° $\mathbb{A}$ 19'29	
morning max el	11697 Jan 11 04:52	11° $\mathbb{B}$ 07'17	18°33'42		11697 Dec 30 11:57	0° $\mathbb{B}$	
	11697 Jan 23 16:00	0° $\mathbb{A}$		morning set	11698 Jan 11 07:42	21° $\mathbb{B}$ 15'45	
morning set	11697 Jan 27 05:10	6° $\mathbb{A}$ 46'29			11698 Jan 15 15:55	0° $\mathbb{A}$	
superior conj	11697 Feb 05 02:59	23° $\mathbb{A}$ 47'45	0°40'36	superior conj	11698 Jan 19 08:18	7° $\mathbb{A}$ 18'27	1°06'13
minimum elong	11697 Feb 05 05:33	23° $\mathbb{A}$ 59'40	0°40'43	minimum elong	11698 Jan 19 11:14	7° $\mathbb{A}$ 32'49	1°06'29
	11697 Feb 08 12:16	0° $\mathbb{H}$		max. Earth dist.	11698 Jan 25 18:22	19° $\mathbb{A}$ 29'16	1.37952 AU
desc. node	11697 Feb 10 09:26	3° $\mathbb{H}$ 21'53		desc. node	11698 Jan 28 06:09	23° $\mathbb{A}$ 59'30	
max. Earth dist.	11697 Feb 12 12:25	7° $\mathbb{H}$ 05'20	1.40175 AU	evening rise	11698 Jan 29 11:53	26° $\mathbb{A}$ 11'04	
evening rise	11697 Feb 16 16:44	14° $\mathbb{H}$ 12'02			11698 Jan 31 16:38	0° $\mathbb{H}$	
	11697 Feb 26 14:26	0° $\mathbb{Y}$			11698 Feb 20 03:48	0° $\mathbb{Y}$	
	11697 Mar 20 17:51	0° $\mathbb{B}$		evening max el	11698 Mar 05 22:48	16° $\mathbb{Y}$ 38'17	25°06'06
evening max el	11697 Mar 23 09:18	2° $\mathbb{B}$ 47'13	23°48'19	retrograde	11698 Mar 17 22:17	23° $\mathbb{Y}$ 35'33	
retrograde	11697 Apr 03 08:03	9° $\mathbb{B}$ 14'10		evening set	11698 Mar 23 15:59	21° $\mathbb{Y}$ 12'21	
asc. node	11697 Apr 05 23:17	8° $\mathbb{B}$ 41'55		asc. node	11698 Mar 23 20:37	21° $\mathbb{Y}$ 02'22	
evening set	11697 Apr 08 13:54	7° $\mathbb{B}$ 01'59		min. Earth dist.	11698 Mar 28 02:26	16° $\mathbb{Y}$ 15'44	0.67930 AU
min. Earth dist.	11697 Apr 13 07:51	1° $\mathbb{B}$ 30'07	0.68559 AU	inferior conj	11698 Mar 29 07:03	14° $\mathbb{Y}$ 42'04	1°39'03
inferior conj	11697 Apr 14 00:26	0° $\mathbb{B}$ 33'31	2°17'53	minimum elong	11698 Mar 29 05:03	14° $\mathbb{Y}$ 48'36	1°38'14
minimum elong	11697 Apr 13 22:16	0° $\mathbb{B}$ 40'54	2°16'57	morning rise	11698 Apr 03 18:25	8° $\mathbb{Y}$ 46'41	
	11697 Apr 14 10:16	30° $\mathbb{R}$ $\mathbb{Y}$		direct	11698 Apr 07 08:58	7° $\mathbb{Y}$ 31'55	
morning rise	11697 Apr 19 06:40	24° $\mathbb{Y}$ 29'56		morning max el	11698 Apr 14 12:06	11° $\mathbb{Y}$ 27'47	19°25'24
direct	11697 Apr 23 09:21	22° $\mathbb{Y}$ 54'26		desc. node	11698 Apr 26 07:44	26° $\mathbb{Y}$ 46'37	
morning max el	11697 May 01 09:18	27° $\mathbb{Y}$ 26'50	20°30'41	greatest brilliancy	11698 Apr 27 05:12	28° $\mathbb{Y}$ 05'38	-0.7m
	11697 May 03 18:35	0° $\mathbb{B}$			11698 Apr 28 12:02	0° $\mathbb{B}$	
desc. node	11697 May 09 11:00	7° $\mathbb{B}$ 08'39		morning set	11698 May 09 08:54	16° $\mathbb{B}$ 31'47	
	11697 May 25 04:13	0° $\mathbb{II}$			11698 May 18 01:22	0° $\mathbb{II}$	
morning set	11697 May 30 08:45	7° $\mathbb{II}$ 57'31		max. Earth dist.	11698 May 21 20:47	5° $\mathbb{II}$ 58'46	1.45006 AU
max. Earth dist.	11697 Jun 08 06:58	22° $\mathbb{II}$ 02'04	1.43647 AU				
	11697 Jun 13 04:25	0° $\mathbb{E}$		superior conj	11698 May 25 18:32	12° $\mathbb{II}$ 10'18	-2°13'18
superior conj	11697 Jun 14 16:44	2° $\mathbb{E}$ 30'14	-2°03'05	minimum elong	11698 May 25 18:53	12° $\mathbb{II}$ 11'44	2°14'01
minimum elong	11697 Jun 14 22:32	2° $\mathbb{E}$ 54'20	2°03'30		11698 Jun 05 18:04	0° $\mathbb{E}$	
evening rise	11697 Jun 27 02:59	23° $\mathbb{E}$ 47'24		evening rise	11698 Jun 08 22:25	5° $\mathbb{E}$ 16'42	
	11697 Jun 30 16:12	0° $\mathbb{Q}$		asc. node	11698 Jun 19 18:35	23° $\mathbb{E}$ 03'03	
asc. node	11697 Jul 02 21:38	3° $\mathbb{Q}$ 50'51			11698 Jun 24 14:28	0° $\mathbb{Q}$	
evening max el	11697 Jul 14 01:59	20° $\mathbb{Q}$ 04'04	18°03'49	evening max el	11698 Jun 27 15:57	3° $\mathbb{Q}$ 31'18	18°14'58
retrograde	11697 Jul 20 14:02	23° $\mathbb{Q}$ 25'38		retrograde	11698 Jul 04 00:37	6° $\mathbb{Q}$ 53'34	
evening set	11697 Jul 23 04:28	22° $\mathbb{Q}$ 52'44		evening set	11698 Jul 06 23:17	6° $\mathbb{Q}$ 06'50	
inferior conj	11697 Jul 29 16:10	17° $\mathbb{Q}$ 46'58	1°53'13	inferior conj	11698 Jul 12 22:29	0° $\mathbb{Q}$ 43'33	2°38'28
minimum elong	11697 Jul 29 18:48	17° $\mathbb{Q}$ 40'19	1°51'51	minimum elong	11698 Jul 13 00:52	0° $\mathbb{Q}$ 36'47	2°37'16
min. Earth dist.	11697 Aug 01 16:45	14° $\mathbb{Q}$ 44'38	0.61723 AU		11698 Jul 13 13:47	30° $\mathbb{R}$ $\mathbb{E}$	
morning rise	11697 Aug 05 06:41	11° $\mathbb{Q}$ 43'25		min. Earth dist.	11698 Jul 15 10:22	27° $\mathbb{E}$ 54'37	0.63882 AU
desc. node	11697 Aug 05 09:58	11° $\mathbb{Q}$ 37'45		morning rise	11698 Jul 19 00:58	24° $\mathbb{E}$ 27'13	
direct	11697 Aug 11 22:47	9° $\mathbb{Q}$ 23'47		desc. node	11698 Jul 23 07:16	22° $\mathbb{E}$ 10'27	
morning max el	11697 Aug 26 03:26	17° $\mathbb{Q}$ 24'51	27°57'47	direct	11698 Jul 25 16:51	21° $\mathbb{E}$ 50'49	
	11697 Sep 05 14:54	0° $\mathbb{P}$		morning max el	11698 Aug 08 12:34	29° $\mathbb{E}$ 52'18	27°38'57
	11697 Sep 23 20:11	0° $\mathbb{A}$			11698 Aug 08 15:37	0° $\mathbb{Q}$	
morning set	11697 Sep 28 17:42	9° $\mathbb{A}$ 42'57		morning set	11698 Aug 30 14:46	0° $\mathbb{P}$	
asc. node	11697 Sep 28 22:37	10° $\mathbb{A}$ 08'16		asc. node	11698 Sep 12 11:17	23° $\mathbb{P}$ 23'31	
max. Earth dist.	11697 Oct 04 07:46	21° $\mathbb{A}$ 34'38	1.31744 AU		11698 Sep 15 19:17	0° $\mathbb{A}$ 09'30	
					11698 Sep 15 17:27	0° $\mathbb{A}$	
superior conj	11697 Oct 06 03:51	25° $\mathbb{A}$ 36'18	1°05'37	max. Earth dist.	11698 Sep 17 07:40	3° $\mathbb{A}$ 19'20	1.32649 AU
minimum elong	11697 Oct 06 01:37	25° $\mathbb{A}$ 23'55	1°05'32	superior conj	11698 Sep 20 10:13	9° $\mathbb{A}$ 56'37	0°43'52
	11697 Oct 08 03:37	0° $\mathbb{M}$		minimum elong	11698 Sep 20 08:19	9° $\mathbb{A}$ 46'22	0°43'34

evening rise	11698 Sep 27 09:07	25° $\Omega$ 00'14		superior conj	11699 Sep 04 10:45	23° $\Pi$ 56'42	0°17'14
	11698 Sep 29 17:57	0° $\mathbb{M}$		minimum elong	11699 Sep 04 09:51	23° $\Pi$ 52'02	0°16'53
	11698 Oct 18 04:01	0° $\mathbb{A}$			11699 Sep 07 07:45	0° $\Omega$	
desc. node	11698 Oct 19 04:13	1° $\mathbb{A}$ 04'02		evening rise	11699 Sep 11 19:14	9° $\Omega$ 29'07	
evening max el	11698 Oct 20 00:01	1° $\mathbb{A}$ 53'28	23°01'34		11699 Sep 22 12:15	0° $\mathbb{M}$	
retrograde	11698 Nov 02 05:56	8° $\mathbb{A}$ 28'43		evening max el	11699 Oct 01 15:30	12° $\mathbb{M}$ 06'12	21°24'20
evening set	11698 Nov 06 06:21	7° $\mathbb{A}$ 53'39		desc. node	11699 Oct 06 01:34	15° $\mathbb{M}$ 41'36	
min. Earth dist.	11698 Nov 13 09:09	4° $\mathbb{A}$ 37'40	0.55115 AU	retrograde	11699 Oct 13 18:07	18° $\mathbb{M}$ 07'17	
inferior conj	11698 Nov 14 18:18	3° $\mathbb{A}$ 50'01	-5°50'04	evening set	11699 Oct 16 10:30	17° $\mathbb{M}$ 50'43	
minimum elong	11698 Nov 14 16:58	3° $\mathbb{A}$ 51'56	5°49'22	inferior conj	11699 Oct 25 10:51	13° $\mathbb{M}$ 55'37	-5°11'44
morning rise	11698 Nov 23 05:11	0° $\mathbb{A}$ 00'22		minimum elong	11699 Oct 25 02:05	14° $\mathbb{M}$ 07'53	5°09'32
	11698 Nov 23 05:48	30° $\mathbb{R}\mathbb{M}$		min. Earth dist.	11699 Oct 25 15:44	13° $\mathbb{M}$ 48'45	0.54576 AU
direct	11698 Nov 26 05:55	29° $\mathbb{M}$ 38'45		morning rise	11699 Nov 02 18:32	10° $\mathbb{M}$ 06'17	
	11698 Nov 29 03:57	0° $\mathbb{A}$		direct	11699 Nov 06 14:23	9° $\mathbb{M}$ 34'42	
morning max el	11698 Dec 07 10:38	4° $\mathbb{A}$ 57'32	20°47'17	morning max el	11699 Nov 19 05:26	15° $\mathbb{M}$ 36'30	22°25'35
asc. node	11698 Dec 12 19:59	11° $\mathbb{A}$ 13'30		asc. node	11699 Nov 29 16:56	29° $\mathbb{M}$ 04'26	
	11698 Dec 23 17:24	0° $\mathbb{B}$			11699 Nov 30 06:34	0° $\mathbb{A}$	
morning set	11698 Dec 26 15:30	5° $\mathbb{B}$ 57'02		morning set	11699 Dec 11 02:18	20° $\mathbb{A}$ 43'52	
					11699 Dec 15 10:23	0° $\mathbb{B}$	
superior conj	11699 Jan 03 01:31	21° $\mathbb{B}$ 21'04	1°24'10	superior conj	11699 Dec 18 03:08	5° $\mathbb{B}$ 45'53	1°34'55
minimum elong	11699 Jan 03 03:52	21° $\mathbb{B}$ 33'08	1°24'40	minimum elong	11699 Dec 18 04:27	5° $\mathbb{B}$ 52'53	1°35'36
	11699 Jan 07 08:56	0° $\approx$		max. Earth dist.	11699 Dec 21 18:10	13° $\mathbb{B}$ 21'06	1.34054 AU
max. Earth dist.	11699 Jan 08 02:58	1° $\approx$ 28'07	1.35851 AU	evening rise	11699 Dec 26 05:43	22° $\mathbb{B}$ 19'21	
evening rise	11699 Jan 12 01:24	8° $\approx$ 56'33			11699 Dec 30 07:12	0° $\approx$	
desc. node	11699 Jan 15 02:55	14° $\approx$ 30'31		desc. node	11700 Jan 01 23:47	4° $\approx$ 50'35	
	11699 Jan 24 08:32	0° $\mathbb{H}$			11700 Jan 18 02:39	0° $\mathbb{H}$	
	11699 Feb 16 01:17	0° $\mathbb{Y}$		evening max el	11700 Jan 30 01:58	14° $\mathbb{H}$ 05'55	27°04'05
evening max el	11699 Feb 16 12:26	0° $\mathbb{Y}$ 27'22	26°13'50	retrograde	11700 Feb 12 10:35	21° $\mathbb{H}$ 29'42	
retrograde	11699 Mar 01 07:23	7° $\mathbb{Y}$ 43'10		evening set	11700 Feb 19 01:45	18° $\mathbb{H}$ 56'36	
evening set	11699 Mar 07 12:35	5° $\mathbb{Y}$ 12'31		min. Earth dist.	11700 Feb 23 00:32	15° $\mathbb{H}$ 08'31	0.65467 AU
asc. node	11699 Mar 10 17:58	1° $\mathbb{Y}$ 58'12		inferior conj	11700 Feb 25 05:10	12° $\mathbb{H}$ 39'39	-0°08'17
min. Earth dist.	11699 Mar 11 16:44	0° $\mathbb{Y}$ 50'44	0.66890 AU	minimum elong	11700 Feb 25 05:24	12° $\mathbb{H}$ 39'01	0°07'53
	11699 Mar 12 09:21	30° $\mathbb{R}\mathbb{H}$		transit middle	11700 Feb 25 05:24	12° $\mathbb{H}$ 39'01	0°07'53
inferior conj	11699 Mar 13 09:22	28° $\mathbb{H}$ 45'50	0°50'21	transit begin	11700 Feb 25 02:47	12° $\mathbb{H}$ 46'25	
minimum elong	11699 Mar 13 08:08	28° $\mathbb{H}$ 49'38	0°49'58	transit end	11700 Feb 25 08:00	12° $\mathbb{H}$ 31'37	
morning rise	11699 Mar 19 04:28	23° $\mathbb{H}$ 00'28		asc. node	11700 Feb 25 15:19	12° $\mathbb{H}$ 10'58	
direct	11699 Mar 22 08:02	22° $\mathbb{H}$ 04'18		morning rise	11700 Mar 03 10:29	7° $\mathbb{H}$ 06'38	
morning max el	11699 Mar 28 22:05	25° $\mathbb{H}$ 36'23	18°36'02	direct	11700 Mar 06 04:25	6° $\mathbb{H}$ 26'01	
	11699 Apr 01 18:12	0° $\mathbb{Y}$		morning max el	11700 Mar 12 13:18	9° $\mathbb{H}$ 46'36	18°03'24
desc. node	11699 Apr 13 04:24	16° $\mathbb{Y}$ 47'26			11700 Mar 26 16:54	0° $\mathbb{Y}$	
morning set	11699 Apr 19 00:47	25° $\mathbb{Y}$ 57'30		morning set	11700 Mar 30 20:44	6° $\mathbb{Y}$ 47'06	
	11699 Apr 21 14:33	0° $\mathbb{B}$		desc. node	11700 Mar 31 01:02	7° $\mathbb{Y}$ 04'38	
max. Earth dist.	11699 May 04 15:22	20° $\mathbb{B}$ 23'48	1.45675 AU		11700 Apr 14 07:34	0° $\mathbb{B}$	
superior conj	11699 May 05 03:45	21° $\mathbb{B}$ 12'16	-2°03'55	superior conj	11700 Apr 14 12:45	0° $\mathbb{B}$ 20'27	-1°35'37
minimum elong	11699 May 04 20:45	20° $\mathbb{B}$ 44'53	2°04'05	minimum elong	11700 Apr 14 03:28	29° $\mathbb{Y}$ 43'48	1°34'59
	11699 May 10 18:27	0° $\mathbb{H}$		max. Earth dist.	11700 Apr 17 11:34	4° $\mathbb{B}$ 58'39	1.45596 AU
evening rise	11699 May 20 17:42	15° $\mathbb{H}$ 45'52		evening rise	11700 Apr 30 15:30	25° $\mathbb{B}$ 25'37	
greatest brilliancy	11699 May 28 18:36	28° $\mathbb{H}$ 32'02	-0.8m		11700 May 03 14:39	0° $\mathbb{H}$	
	11699 May 29 17:01	0° $\mathbb{B}$		greatest brilliancy	11700 May 13 16:57	15° $\mathbb{H}$ 21'42	-0.7m
asc. node	11699 Jun 06 15:38	11° $\mathbb{B}$ 47'15		asc. node	11700 May 24 12:45	29° $\mathbb{H}$ 53'26	
evening max el	11699 Jun 11 03:51	17° $\mathbb{B}$ 09'37	18°43'55		11700 May 24 15:12	0° $\mathbb{B}$	
retrograde	11699 Jun 17 18:18	20° $\mathbb{B}$ 46'14		evening max el	11700 May 25 11:21	0° $\mathbb{B}$ 52'29	19°29'40
evening set	11699 Jun 21 01:18	19° $\mathbb{B}$ 44'11		retrograde	11700 Jun 01 15:49	4° $\mathbb{B}$ 55'55	
inferior conj	11699 Jun 26 15:47	14° $\mathbb{B}$ 04'54	3°04'33	evening set	11700 Jun 05 07:37	3° $\mathbb{B}$ 37'52	
minimum elong	11699 Jun 26 17:15	14° $\mathbb{B}$ 00'22	3°03'37		11700 Jun 08 22:35	30° $\mathbb{R}\mathbb{H}$	
min. Earth dist.	11699 Jun 28 12:53	11° $\mathbb{B}$ 45'31	0.65728 AU	inferior conj	11700 Jun 10 16:45	27° $\mathbb{H}$ 44'09	3°15'06
morning rise	11699 Jul 02 08:24	7° $\mathbb{B}$ 43'21		minimum elong	11700 Jun 10 17:06	27° $\mathbb{H}$ 43'01	3°14'20
direct	11699 Jul 08 18:28	5° $\mathbb{B}$ 00'51		min. Earth dist.	11700 Jun 11 23:03	26° $\mathbb{H}$ 04'08	0.67164 AU
desc. node	11699 Jul 10 04:28	5° $\mathbb{B}$ 07'54		morning rise	11700 Jun 16 02:10	21° $\mathbb{H}$ 22'17	
morning max el	11699 Jul 21 23:23	12° $\mathbb{B}$ 50'04	26°48'39	direct	11700 Jun 22 02:29	18° $\mathbb{H}$ 43'42	
	11699 Aug 04 18:42	0° $\mathbb{Q}$		desc. node	11700 Jun 27 01:36	20° $\mathbb{H}$ 10'36	
	11699 Aug 23 06:05	0° $\mathbb{H}$		morning max el	11700 Jul 04 10:01	26° $\mathbb{H}$ 06'13	25°35'22
morning set	11699 Aug 26 18:13	6° $\mathbb{H}$ 32'20			11700 Jul 08 00:01	0° $\mathbb{B}$	
max. Earth dist.	11699 Aug 30 22:19	14° $\mathbb{H}$ 41'34	1.34071 AU		11700 Jul 29 08:05	0° $\mathbb{Q}$	
asc. node	11699 Sep 02 15:58	20° $\mathbb{H}$ 14'57		morning set	11700 Aug 09 10:40	18° $\mathbb{Q}$ 59'16	

max. Earth dist.	11700 Aug 13 02:57	25°Ω48'23	1.35951 AU	morning set	11701 Jul 22 07:58	0°Ω32'42	
	11700 Aug 15 07:33	0°൬			11701 Jul 22 00:22	0°Ω	
				max. Earth dist.	11701 Jul 26 00:42	7°Ω01'54	1.38161 AU
superior conj	11700 Aug 19 02:38	7°൬28'51	-0°13'36				
minimum elong	11700 Aug 19 03:29	7°൬33'06	0°13'48	superior conj	11701 Aug 02 06:31	20°Ω24'56	-0°47'09
behind sun begin	11700 Aug 19 00:14	7°൬16'46		minimum elong	11701 Aug 02 09:44	20°Ω40'17	0°47'07
behind sun end	11700 Aug 19 06:45	7°൬49'26		asc. node	11701 Aug 07 09:26	0°൬22'02	
asc. node	11700 Aug 20 12:41	10°൬20'19			11701 Aug 07 04:58	0°൬	
evening rise	11700 Aug 27 01:56	23°൬45'37		evening rise	11701 Aug 11 02:40	7°൬42'59	
	11700 Aug 30 04:07	0°Ω			11701 Aug 23 17:28	0°Ω	
evening max el	11700 Sep 13 19:31	22°Ω55'51	20°03'13	evening max el	11701 Aug 27 13:24	4°Ω33'41	19°03'12
desc. node	11700 Sep 22 22:58	28°Ω04'30		retrograde	11701 Sep 05 10:31	8°Ω59'38	
retrograde	11700 Sep 24 07:51	28°Ω09'38		evening set	11701 Sep 07 07:07	8°Ω48'46	
evening set	11700 Sep 26 06:36	27°Ω59'39		desc. node	11701 Sep 09 20:23	8°Ω01'16	
inferior conj	11700 Oct 05 06:00	24°Ω00'18	-3°42'00	inferior conj	11701 Sep 15 16:45	4°Ω34'37	-1°50'02
minimum elong	11700 Oct 04 20:41	24°Ω14'18	3°38'40	minimum elong	11701 Sep 15 11:59	4°Ω42'48	1°48'10
min. Earth dist.	11700 Oct 07 00:26	22°Ω56'31	0.54973 AU	min. Earth dist.	11701 Sep 18 13:32	2°Ω36'39	0.56251 AU
morning rise	11700 Oct 13 09:36	19°Ω49'51			11701 Sep 23 03:22	30°ꠕ൬	
direct	11700 Oct 18 01:13	19°Ω02'50		morning rise	11701 Sep 23 13:48	29°൬48'45	
morning max el	11700 Oct 31 16:54	25°Ω45'08	24°13'35	direct	11701 Sep 29 00:50	28°൬38'51	
	11700 Nov 04 17:09	0°൬			11701 Oct 04 22:38	0°Ω	
asc. node	11700 Nov 16 13:50	17°൬38'33		morning max el	11701 Oct 13 04:59	5°Ω54'17	25°54'21
	11700 Nov 22 23:14	0°ꠕ			11701 Oct 30 18:27	0°൬	
morning set	11700 Nov 25 14:10	5°ꠕ30'42		asc. node	11701 Nov 03 10:39	6°൬44'52	
				morning set	11701 Nov 10 01:21	20°൬12'11	
					11701 Nov 14 12:54	0°ꠕ	
superior conj	11700 Dec 02 10:20	20°ꠕ24'39	1°39'01				
minimum elong	11700 Dec 02 10:29	20°ꠕ25'32	1°39'46	superior conj	11701 Nov 16 20:46	5°ꠕ09'54	1°36'59
max. Earth dist.	11700 Dec 04 17:08	25°ꠕ21'27	1.32674 AU	minimum elong	11701 Nov 16 19:51	5°ꠕ04'53	1°37'37
	11700 Dec 06 21:31	0°ꠕ		max. Earth dist.	11701 Nov 17 22:24	7°ꠕ31'48	1.31776 AU
evening rise	11700 Dec 09 21:22	6°ꠕ10'51		evening rise	11701 Nov 23 21:21	20°ꠕ23'00	
desc. node	11700 Dec 19 20:45	24°ꠕ54'13			11701 Nov 28 15:53	0°ꠕ	
	11700 Dec 22 21:24	0°≈		desc. node	11701 Dec 06 17:48	14°ꠕ33'38	
evening max el	11701 Jan 12 14:13	27°≈23'03	27°29'55		11701 Dec 17 02:17	0°≈	
	11701 Jan 15 13:24	0°ꠕ		evening max el	11701 Dec 25 23:08	10°≈05'39	27°25'10
retrograde	11701 Jan 26 07:23	4°ꠕ46'40		retrograde	11702 Jan 08 20:39	17°≈23'10	
evening set	11701 Feb 02 05:12	2°ꠕ18'00		evening set	11702 Jan 15 19:53	15°≈07'40	
	11701 Feb 04 23:23	30°ꠕ≈		min. Earth dist.	11702 Jan 19 13:29	12°≈15'09	0.61684 AU
min. Earth dist.	11701 Feb 05 23:58	29°≈00'41	0.63704 AU	inferior conj	11702 Jan 22 14:07	9°≈30'29	-2°32'12
inferior conj	11701 Feb 08 15:49	26°≈17'33	-1°16'23	minimum elong	11702 Jan 22 19:20	9°≈18'37	2°29'32
minimum elong	11701 Feb 08 18:16	26°≈11'17	1°14'53	morning rise	11702 Jan 29 21:31	4°≈30'15	
asc. node	11701 Feb 12 12:38	22°≈41'40		asc. node	11702 Jan 30 09:55	4°≈21'44	
morning rise	11701 Feb 15 09:30	20°≈59'30		direct	11702 Feb 01 01:50	4°≈09'42	
direct	11701 Feb 17 19:29	20°≈30'48		morning max el	11702 Feb 07 23:48	7°≈39'34	17°50'19
morning max el	11701 Feb 24 06:59	23°≈51'04	17°47'56		11702 Feb 22 12:41	0°ꠕ	
	11701 Mar 01 06:31	0°ꠕ		morning set	11702 Feb 23 16:40	2°ꠕ05'34	
morning set	11701 Mar 12 20:05	18°ꠕ56'24		desc. node	11702 Mar 04 18:19	18°ꠕ09'41	
desc. node	11701 Mar 17 21:40	27°ꠕ33'39					
	11701 Mar 19 08:28	0°ꠕ		superior conj	11702 Mar 06 16:33	21°ꠕ28'24	-0°14'48
				minimum elong	11702 Mar 06 15:11	21°ꠕ22'36	0°14'23
superior conj	11701 Mar 25 14:33	10°ꠕ20'11	-0°56'09	behind sun begin	11702 Mar 06 11:24	21°ꠕ06'24	
minimum elong	11701 Mar 25 08:38	9°ꠕ56'07	0°55'24	behind sun end	11702 Mar 06 18:59	21°ꠕ38'47	
max. Earth dist.	11701 Mar 31 06:26	19°ꠕ26'04	1.44790 AU		11702 Mar 11 18:26	0°ꠕ	
	11701 Apr 07 00:16	0°ꠕ		max. Earth dist.	11702 Mar 13 21:39	3°ꠕ29'51	1.43348 AU
evening rise	11701 Apr 10 03:02	4°ꠕ48'03		evening rise	11702 Mar 20 19:54	14°ꠕ32'00	
	11701 Apr 27 01:07	0°ꠕ			11702 Mar 31 00:04	0°ꠕ	
evening max el	11701 May 08 13:17	14°ꠕ37'14	20°30'17	evening max el	11702 Apr 21 09:43	28°ꠕ23'06	21°42'36
asc. node	11701 May 11 09:58	17°ꠕ09'53			11702 Apr 23 02:27	0°ꠕ	
retrograde	11701 May 16 14:43	19°ꠕ17'24		asc. node	11702 Apr 28 07:14	3°ꠕ21'32	
evening set	11701 May 20 16:02	17°ꠕ43'19		retrograde	11702 Apr 30 12:54	3°ꠕ45'26	
inferior conj	11701 May 25 22:43	11°ꠕ36'51	3°12'47	evening set	11702 May 05 00:41	1°ꠕ55'42	
minimum elong	11701 May 25 22:01	11°ꠕ39'15	3°12'02		11702 May 06 23:24	30°ꠕꠕ	
min. Earth dist.	11701 May 26 14:59	10°ꠕ40'56	0.68150 AU	inferior conj	11702 May 10 07:21	25°ꠕ38'35	2°59'22
morning rise	11701 May 31 03:43	5°ꠕ17'51		minimum elong	11702 May 10 05:49	25°ꠕ43'55	2°58'32
direct	11701 Jun 05 16:07	2°ꠕ51'14		min. Earth dist.	11702 May 10 10:26	25°ꠕ27'49	0.68673 AU
desc. node	11701 Jun 13 22:39	6°ꠕ50'24		morning rise	11702 May 15 10:44	19°ꠕ24'31	
morning max el	11701 Jun 16 19:55	9°ꠕ32'20	24°08'50	direct	11702 May 20 10:07	17°ꠕ15'36	
	11701 Jul 02 23:42	0°ꠕ					

morning max el	11702 May 30 06:46	23° $\text{♄}$ 05'16	22°39'01	direct	11703 May 04 07:19	1° $\text{♄}$ 50'04	
desc. node	11702 May 31 19:36	24° $\text{♄}$ 41'36		morning max el	11703 May 12 22:00	6° $\text{♄}$ 48'04	21°14'25
	11702 Jun 05 08:13	0° $\text{♄}$		desc. node	11703 May 18 16:28	13° $\text{♄}$ 24'56	
	11702 Jun 26 08:00	0° $\text{♄}$			11703 May 30 15:52	0° $\text{♄}$	
morning set	11702 Jul 03 05:17	11° $\text{♄}$ 00'28		morning set	11703 Jun 13 00:43	20° $\text{♄}$ 19'05	
max. Earth dist.	11702 Jul 07 22:29	18° $\text{♄}$ 52'38	1.40474 AU		11703 Jun 19 02:05	0° $\text{♄}$	
	11702 Jul 14 07:38	0° $\text{♄}$		max. Earth dist.	11703 Jun 20 02:18	1° $\text{♄}$ 38'41	1.42612 AU
superior conj	11702 Jul 15 18:16	2° $\text{♄}$ 35'40	-1°20'48	superior conj	11703 Jun 27 09:20	13° $\text{♄}$ 50'34	-1°50'18
minimum elong	11702 Jul 15 23:56	3° $\text{♄}$ 01'15	1°20'40	minimum elong	11703 Jun 27 16:04	14° $\text{♄}$ 19'23	1°50'26
asc. node	11702 Jul 25 06:15	20° $\text{♄}$ 16'21			11703 Jul 06 14:00	0° $\text{♄}$	
evening rise	11702 Jul 25 18:13	21° $\text{♄}$ 12'56		evening rise	11703 Jul 08 20:27	4° $\text{♄}$ 05'02	
	11702 Jul 30 11:02	0° $\text{♄}$		asc. node	11703 Jul 12 03:06	9° $\text{♄}$ 58'30	
evening max el	11702 Aug 10 18:00	16° $\text{♄}$ 54'49	18°24'27	evening max el	11703 Jul 25 05:06	29° $\text{♄}$ 48'34	18°05'47
retrograde	11702 Aug 18 08:01	20° $\text{♄}$ 43'55			11703 Jul 25 09:48	0° $\text{♄}$	
evening set	11702 Aug 20 10:13	20° $\text{♄}$ 27'17		retrograde	11703 Jul 31 23:22	3° $\text{♄}$ 15'51	
desc. node	11702 Aug 27 17:47	16° $\text{♄}$ 07'10		evening set	11703 Aug 03 09:18	2° $\text{♄}$ 49'39	
inferior conj	11702 Aug 28 00:55	15° $\text{♄}$ 52'50	-0°05'30		11703 Aug 07 21:58	30° $\text{♄}$	
minimum elong	11702 Aug 28 00:42	15° $\text{♄}$ 53'16	0°05'41	inferior conj	11703 Aug 10 05:53	27° $\text{♄}$ 54'32	1°16'58
transit middle	11702 Aug 28 00:42	15° $\text{♄}$ 53'16	0°05'41	minimum elong	11703 Aug 10 08:03	27° $\text{♄}$ 49'27	1°15'45
transit begin	11702 Aug 27 21:23	15° $\text{♄}$ 59'56		min. Earth dist.	11703 Aug 13 11:25	24° $\text{♄}$ 54'20	0.60413 AU
transit end	11702 Aug 28 04:01	15° $\text{♄}$ 46'35		desc. node	11703 Aug 14 15:10	23° $\text{♄}$ 54'45	
min. Earth dist.	11702 Aug 31 08:36	13° $\text{♄}$ 13'27	0.58172 AU	morning rise	11703 Aug 17 03:54	22° $\text{♄}$ 03'10	
morning rise	11702 Sep 04 11:40	10° $\text{♄}$ 30'34		direct	11703 Aug 23 17:13	19° $\text{♄}$ 57'35	
direct	11702 Sep 10 14:55	8° $\text{♄}$ 52'39		morning max el	11703 Sep 07 00:21	27° $\text{♄}$ 52'18	27°51'58
morning max el	11702 Sep 24 23:00	16° $\text{♄}$ 31'43	27°10'53		11703 Sep 09 01:40	0° $\text{♄}$	
	11702 Oct 06 00:39	0° $\text{♄}$			11703 Sep 29 19:11	0° $\text{♄}$	
asc. node	11702 Oct 21 07:26	26° $\text{♄}$ 14'51		asc. node	11703 Oct 08 04:09	16° $\text{♄}$ 00'56	
	11702 Oct 23 03:53	0° $\text{♄}$		morning set	11703 Oct 09 14:50	18° $\text{♄}$ 59'58	
morning set	11702 Oct 25 10:12	4° $\text{♄}$ 43'54			11703 Oct 14 17:44	0° $\text{♄}$	
				max. Earth dist.	11703 Oct 15 15:34	2° $\text{♄}$ 00'26	1.31466 AU
superior conj	11702 Nov 01 08:29	19° $\text{♄}$ 55'48	1°29'10	superior conj	11703 Oct 16 19:35	4° $\text{♄}$ 35'37	1°15'47
minimum elong	11702 Nov 01 06:45	19° $\text{♄}$ 46'10	1°29'33	minimum elong	11703 Oct 16 17:23	4° $\text{♄}$ 23'27	1°15'51
max. Earth dist.	11702 Nov 01 07:08	19° $\text{♄}$ 48'18	1.31372 AU	evening rise	11703 Oct 23 12:37	19° $\text{♄}$ 22'51	
	11702 Nov 05 21:34	0° $\text{♄}$			11703 Oct 28 15:31	0° $\text{♄}$	
evening rise	11702 Nov 08 03:10	4° $\text{♄}$ 49'22		desc. node	11703 Nov 10 12:08	21° $\text{♄}$ 57'15	
	11702 Nov 21 08:31	0° $\text{♄}$			11703 Nov 16 20:28	0° $\text{♄}$	
desc. node	11702 Nov 23 14:56	3° $\text{♄}$ 39'17		evening max el	11703 Nov 19 21:00	3° $\text{♄}$ 07'00	25°34'32
evening max el	11702 Dec 08 02:11	22° $\text{♄}$ 02'44	26°46'09	retrograde	11703 Dec 03 17:59	10° $\text{♄}$ 06'21	
retrograde	11702 Dec 22 00:49	29° $\text{♄}$ 11'05		evening set	11703 Dec 09 18:56	8° $\text{♄}$ 42'25	
evening set	11702 Dec 28 17:58	27° $\text{♄}$ 17'47		min. Earth dist.	11703 Dec 14 09:18	6° $\text{♄}$ 04'42	0.57503 AU
min. Earth dist.	11703 Jan 01 16:23	24° $\text{♄}$ 40'03	0.59554 AU	inferior conj	11703 Dec 17 07:43	4° $\text{♄}$ 03'57	-5°01'14
inferior conj	11703 Jan 04 20:32	22° $\text{♄}$ 09'20	-3°50'41	minimum elong	11703 Dec 17 15:43	3° $\text{♄}$ 50'11	4°58'43
minimum elong	11703 Jan 05 04:15	21° $\text{♄}$ 54'00	3°47'27		11703 Dec 24 18:43	30° $\text{♄}$	
morning rise	11703 Jan 12 17:22	17° $\text{♄}$ 29'39		morning rise	11703 Dec 25 14:54	29° $\text{♄}$ 46'49	
direct	11703 Jan 14 19:33	17° $\text{♄}$ 13'33		direct	11703 Dec 27 20:17	29° $\text{♄}$ 31'42	
asc. node	11703 Jan 17 07:07	17° $\text{♄}$ 37'17			11703 Dec 30 19:16	0° $\text{♄}$	
morning max el	11703 Jan 22 12:11	21° $\text{♄}$ 02'24	18°11'49	asc. node	11704 Jan 04 04:15	2° $\text{♄}$ 28'34	
	11703 Jan 29 06:49	0° $\text{♄}$		morning max el	11704 Jan 05 16:17	3° $\text{♄}$ 48'38	18°54'24
morning set	11703 Feb 07 04:25	15° $\text{♄}$ 56'26			11704 Jan 21 23:34	0° $\text{♄}$	
	11703 Feb 14 17:09	0° $\text{♄}$		morning set	11704 Jan 22 02:36	0° $\text{♄}$ 14'50	
superior conj	11703 Feb 16 17:57	3° $\text{♄}$ 41'42	0°22'21	superior conj	11704 Jan 30 14:27	16° $\text{♄}$ 48'06	0°52'26
minimum elong	11703 Feb 16 19:38	3° $\text{♄}$ 49'16	0°22'30	minimum elong	11704 Jan 30 17:19	17° $\text{♄}$ 01'46	0°52'34
desc. node	11703 Feb 19 14:58	8° $\text{♄}$ 49'08		desc. node	11704 Feb 06 11:39	29° $\text{♄}$ 28'29	
max. Earth dist.	11703 Feb 24 08:37	16° $\text{♄}$ 59'08	1.41427 AU	max. Earth dist.	11704 Feb 06 15:55	29° $\text{♄}$ 47'25	1.39235 AU
evening rise	11703 Mar 01 05:49	25° $\text{♄}$ 04'11			11704 Feb 06 18:45	0° $\text{♄}$	
	11703 Mar 04 07:39	0° $\text{♄}$		evening rise	11704 Feb 10 12:57	6° $\text{♄}$ 32'05	
	11703 Mar 24 20:11	0° $\text{♄}$			11704 Feb 25 08:10	0° $\text{♄}$	
evening max el	11703 Apr 04 02:01	12° $\text{♄}$ 11'09	23°01'54	evening max el	11704 Mar 16 15:58	26° $\text{♄}$ 01'32	24°22'10
retrograde	11703 Apr 14 08:53	18° $\text{♄}$ 15'22			11704 Mar 21 06:11	0° $\text{♄}$	
asc. node	11703 Apr 15 04:32	18° $\text{♄}$ 12'12		retrograde	11704 Mar 28 01:27	2° $\text{♄}$ 42'05	
evening set	11703 Apr 19 08:01	16° $\text{♄}$ 10'55		asc. node	11704 Apr 01 01:50	1° $\text{♄}$ 28'51	
inferior conj	11703 Apr 24 16:39	9° $\text{♄}$ 45'47	2°35'50	evening set	11704 Apr 02 12:29	0° $\text{♄}$ 24'43	
minimum elong	11703 Apr 24 14:37	9° $\text{♄}$ 52'52	2°34'55		11704 Apr 02 23:34	30° $\text{♄}$	
min. Earth dist.	11703 Apr 24 07:09	10° $\text{♄}$ 18'41	0.68736 AU	min. Earth dist.	11704 Apr 07 03:03	25° $\text{♄}$ 08'10	0.68348 AU
morning rise	11703 Apr 29 21:06	3° $\text{♄}$ 38'09					



inferior conj	11704 Apr 08 00:47	23° $\Upsilon$ 55'07	2°02'35	morning rise	11705 Mar 28 20:12	2° $\Upsilon$ 11'07	
minimum elong	11704 Apr 07 22:38	24° $\Upsilon$ 02'22	2°01'41	direct	11705 Apr 01 05:51	1° $\Upsilon$ 04'46	
morning rise	11704 Apr 13 08:54	17° $\Upsilon$ 55'05		morning max el	11705 Apr 08 02:33	4° $\Upsilon$ 48'58	19°02'26
direct	11704 Apr 17 06:22	16° $\Upsilon$ 28'34		desc. node	11705 Apr 21 09:55	22° $\Upsilon$ 34'50	
morning max el	11704 Apr 24 20:25	20° $\Upsilon$ 43'26	20°01'07	greatest brilliancy	11705 Apr 21 08:43	22° $\Upsilon$ 30'18	-0.7m
	11704 May 02 13:03	0° $\text{♄}$			11705 Apr 26 06:36	0° $\text{♄}$	
desc. node	11704 May 04 13:14	2° $\text{♄}$ 46'16		morning set	11705 May 01 06:45	7° $\text{♄}$ 43'55	
morning set	11704 May 22 02:26	28° $\text{♄}$ 54'28		max. Earth dist.	11705 May 15 05:22	29° $\text{♄}$ 26'15	1.45377 AU
	11704 May 22 19:26	0° $\text{♅}$			11705 May 15 13:58	0° $\text{♅}$	
max. Earth dist.	11704 Jun 01 13:16	15° $\text{♅}$ 15'33	1.44306 AU				
superior conj	11704 Jun 07 00:31	24° $\text{♅}$ 04'04	-2°09'33	superior conj	11705 May 17 17:43	3° $\text{♅}$ 23'31	-2°11'52
minimum elong	11704 Jun 07 04:36	24° $\text{♅}$ 20'39	2°10'10	minimum elong	11705 May 17 14:46	3° $\text{♅}$ 11'53	2°12'27
	11704 Jun 10 15:11	0° $\text{♆}$		evening rise	11705 Jun 01 13:56	27° $\text{♅}$ 12'20	
evening rise	11704 Jun 20 04:36	16° $\text{♆}$ 08'27			11705 Jun 03 07:01	0° $\text{♆}$	
asc. node	11704 Jun 28 00:02	29° $\text{♆}$ 23'52		asc. node	11705 Jun 14 21:02	18° $\text{♆}$ 25'23	
	11704 Jun 28 08:50	0° $\text{♇}$		evening max el	11705 Jun 21 08:18	26° $\text{♆}$ 38'36	18°25'06
evening max el	11704 Jul 07 18:57	13° $\text{♇}$ 06'06	18°06'14		11705 Jun 26 18:00	0° $\text{♇}$	
retrograde	11704 Jul 14 04:24	16° $\text{♇}$ 26'27		retrograde	11705 Jun 27 18:33	0° $\text{♇}$ 05'46	
evening set	11704 Jul 16 22:19	15° $\text{♇}$ 47'51			11705 Jun 28 18:56	30° $\text{♇}$	
inferior conj	11704 Jul 23 04:11	10° $\text{♇}$ 34'05	2°15'00	evening set	11705 Jun 30 20:36	29° $\text{♇}$ 12'48	
minimum elong	11704 Jul 23 06:50	10° $\text{♇}$ 27'01	2°13'40	inferior conj	11705 Jul 06 15:40	23° $\text{♇}$ 42'27	2°51'37
min. Earth dist.	11704 Jul 25 23:39	7° $\text{♇}$ 35'22	0.62670 AU	minimum elong	11705 Jul 06 17:42	23° $\text{♇}$ 36'25	2°50'32
morning rise	11704 Jul 29 13:22	4° $\text{♇}$ 23'52		min. Earth dist.	11705 Jul 08 21:22	21° $\text{♇}$ 04'19	0.64711 AU
desc. node	11704 Jul 31 12:28	3° $\text{♇}$ 09'31		morning rise	11705 Jul 12 13:36	17° $\text{♇}$ 22'49	
direct	11704 Aug 05 05:58	1° $\text{♇}$ 56'14		desc. node	11705 Jul 18 09:42	14° $\text{♇}$ 44'22	
morning max el	11704 Aug 19 07:38	9° $\text{♇}$ 58'34	27°54'09	direct	11705 Jul 19 03:27	14° $\text{♇}$ 42'28	
	11704 Sep 03 22:40	0° $\text{♈}$		morning max el	11705 Aug 01 18:01	22° $\text{♇}$ 41'16	27°20'54
	11704 Sep 21 02:14	0° $\text{♉}$			11705 Aug 08 04:50	0° $\text{♈}$	
morning set	11704 Sep 22 13:11	2° $\text{♉}$ 55'25			11705 Aug 28 05:09	0° $\text{♉}$	
asc. node	11704 Sep 24 00:52	5° $\text{♉}$ 58'05		morning set	11705 Sep 06 02:40	16° $\text{♉}$ 23'55	
max. Earth dist.	11704 Sep 27 19:47	13° $\text{♉}$ 58'04	1.32069 AU	max. Earth dist.	11705 Sep 10 16:02	25° $\text{♉}$ 33'18	1.33189 AU
				asc. node	11705 Sep 10 21:34	26° $\text{♉}$ 01'55	
					11705 Sep 12 19:13	0° $\text{♊}$	
superior conj	11704 Sep 30 04:14	19° $\text{♊}$ 04'26	0°57'01	superior conj	11705 Sep 14 08:25	3° $\text{♊}$ 16'59	0°33'08
minimum elong	11704 Sep 30 02:04	18° $\text{♊}$ 52'33	0°56'49	minimum elong	11705 Sep 14 06:52	3° $\text{♊}$ 08'40	0°32'47
	11704 Oct 05 03:47	0° $\text{♋}$		evening rise	11705 Sep 21 10:50	18° $\text{♊}$ 31'18	
evening rise	11704 Oct 06 23:47	3° $\text{♋}$ 58'25			11705 Sep 27 01:23	0° $\text{♋}$	
	11704 Oct 20 18:18	0° $\text{♌}$		evening max el	11705 Oct 12 19:46	23° $\text{♋}$ 31'03	22°18'52
desc. node	11704 Oct 27 09:24	9° $\text{♌}$ 09'26		desc. node	11705 Oct 14 06:44	24° $\text{♋}$ 52'00	
evening max el	11704 Oct 31 08:30	13° $\text{♌}$ 26'19	23°59'53	retrograde	11705 Oct 25 16:24	29° $\text{♋}$ 54'37	
retrograde	11704 Nov 13 23:03	20° $\text{♌}$ 14'17		evening set	11705 Oct 29 01:47	29° $\text{♋}$ 29'13	
evening set	11704 Nov 18 19:40	19° $\text{♌}$ 22'36		min. Earth dist.	11705 Nov 06 02:20	25° $\text{♋}$ 55'19	0.54766 AU
min. Earth dist.	11704 Nov 24 19:11	16° $\text{♌}$ 25'49	0.55803 AU	inferior conj	11705 Nov 06 20:03	25° $\text{♋}$ 30'23	-5°41'11
inferior conj	11704 Nov 26 22:15	15° $\text{♌}$ 08'33	-5°45'28	minimum elong	11705 Nov 06 15:02	25° $\text{♋}$ 37'26	5°40'06
minimum elong	11704 Nov 27 01:42	15° $\text{♌}$ 03'20	5°44'29	morning rise	11705 Nov 15 05:43	21° $\text{♋}$ 43'12	
morning rise	11704 Dec 05 09:43	11° $\text{♌}$ 11'50		direct	11705 Nov 18 14:01	21° $\text{♋}$ 18'05	
direct	11704 Dec 08 01:16	10° $\text{♌}$ 53'58		morning max el	11705 Nov 30 10:39	26° $\text{♋}$ 55'43	21°27'12
morning max el	11704 Dec 18 08:25	15° $\text{♌}$ 48'04	19°59'41		11705 Dec 03 08:42	0° $\text{♌}$	
asc. node	11704 Dec 21 01:20	18° $\text{♌}$ 42'36		asc. node	11705 Dec 07 22:21	6° $\text{♌}$ 03'02	
	11704 Dec 28 14:50	0° $\text{♍}$		morning set	11705 Dec 20 17:01	29° $\text{♌}$ 34'55	
morning set	11705 Jan 05 07:40	14° $\text{♍}$ 50'10			11705 Dec 20 21:49	0° $\text{♍}$	
	11705 Jan 12 18:30	0° $\text{♎}$					
superior conj	11705 Jan 13 01:18	0° $\text{♎}$ 34'00	1°14'45	superior conj	11705 Dec 27 22:32	14° $\text{♍}$ 47'58	1°29'34
minimum elong	11705 Jan 13 04:05	0° $\text{♎}$ 47'50	1°15'06	minimum elong	11705 Dec 28 00:29	14° $\text{♍}$ 58'06	1°30'09
max. Earth dist.	11705 Jan 18 22:24	11° $\text{♎}$ 58'31	1.37025 AU	max. Earth dist.	11706 Jan 01 09:08	23° $\text{♍}$ 51'42	1.35031 AU
evening rise	11705 Jan 22 16:15	18° $\text{♎}$ 51'38			11706 Jan 04 12:27	0° $\text{♎}$	
desc. node	11705 Jan 23 08:23	20° $\text{♎}$ 03'52		evening rise	11706 Jan 05 12:34	1° $\text{♎}$ 54'52	
	11705 Jan 29 02:43	0° $\text{♏}$		desc. node	11706 Jan 10 05:13	10° $\text{♎}$ 31'23	
	11705 Feb 18 12:36	0° $\text{♑}$			11706 Jan 22 02:48	0° $\text{♏}$	
evening max el	11705 Feb 27 05:13	9° $\text{♑}$ 51'58	25°36'32	evening max el	11706 Feb 09 18:48	23° $\text{♏}$ 37'55	26°37'46
retrograde	11705 Mar 11 13:38	16° $\text{♑}$ 58'58			11706 Feb 18 12:12	0° $\text{♑}$	
evening set	11705 Mar 17 12:27	14° $\text{♑}$ 31'44		retrograde	11706 Feb 22 20:35	0° $\text{♑}$ 59'13	
asc. node	11705 Mar 18 23:11	13° $\text{♑}$ 10'30			11706 Feb 26 21:14	30° $\text{♑}$	
min. Earth dist.	11705 Mar 21 19:58	9° $\text{♑}$ 50'18	0.67536 AU	evening set	11706 Mar 01 06:12	28° $\text{♑}$ 26'42	
inferior conj	11705 Mar 23 05:49	8° $\text{♑}$ 02'12	1°19'35	min. Earth dist.	11706 Mar 05 07:52	24° $\text{♑}$ 19'24	0.66326 AU
minimum elong	11705 Mar 23 04:04	8° $\text{♑}$ 07'48	1°18'56	asc. node	11706 Mar 05 20:30	23° $\text{♑}$ 42'12	

inferior conj	11706 Mar 07 05:41	22° <del>✕</del> 03'01	0°26'43	evening set	11707 Feb 12 15:32	12° <del>✕</del> 02'02	
minimum elong	11706 Mar 07 04:59	22° <del>✕</del> 05'08	0°26'37	min. Earth dist.	11707 Feb 16 12:31	8° <del>✕</del> 27'12	0.64751 AU
morning rise	11706 Mar 13 04:51	16° <del>✕</del> 22'36		inferior conj	11707 Feb 18 21:57	5° <del>✕</del> 51'06	-0°36'02
direct	11706 Mar 16 04:01	15° <del>✕</del> 33'38		minimum elong	11707 Feb 18 23:02	5° <del>✕</del> 48'10	0°35'12
morning max el	11706 Mar 22 15:06	18° <del>✕</del> 59'46	18°20'02	asc. node	11707 Feb 20 17:50	3° <del>✕</del> 54'54	
	11706 Mar 31 02:55	0° <del>Υ</del>		morning rise	11707 Feb 25 08:16	0° <del>✕</del> 23'48	
desc. node	11706 Apr 08 06:35	12° <del>Υ</del> 43'36			11707 Feb 26 11:20	30° <del>℞</del>	
morning set	11706 Apr 11 09:57	17° <del>Υ</del> 43'52		direct	11707 Feb 27 22:34	29° <del>≈</del> 48'41	
	11706 Apr 19 03:26	0° <del>♄</del>			11707 Mar 01 09:51	0° <del>✕</del>	
				morning max el	11707 Mar 06 07:40	3° <del>✕</del> 08'07	17°54'39
superior conj	11706 Apr 27 00:36	12° <del>♄</del> 22'36	-1°53'53	morning set	11707 Mar 23 18:12	29° <del>≈</del> 09'38	
minimum elong	11706 Apr 26 15:45	11° <del>♄</del> 48'01	1°53'40		11707 Mar 24 06:19	0° <del>Υ</del>	
max. Earth dist.	11706 Apr 28 00:23	13° <del>♄</del> 55'33	1.45734 AU	desc. node	11707 Mar 26 03:15	3° <del>Υ</del> 06'32	
	11706 May 08 07:26	0° <del>♄</del>					
evening rise	11706 May 12 23:13	7° <del>♄</del> 17'32		superior conj	11707 Apr 06 15:08	21° <del>Υ</del> 48'41	-1°19'39
greatest brilliancy	11706 May 23 08:28	23° <del>♄</del> 29'25	-0.8m	minimum elong	11707 Apr 06 06:50	21° <del>Υ</del> 15'33	1°18'53
	11706 May 27 16:33	0° <del>♄</del>		max. Earth dist.	11707 Apr 10 20:14	28° <del>Υ</del> 28'56	1.45342 AU
asc. node	11706 Jun 01 18:07	6° <del>♄</del> 54'51			11707 Apr 11 19:25	0° <del>♄</del>	
evening max el	11706 Jun 04 18:33	10° <del>♄</del> 19'30	19°01'27	evening rise	11707 Apr 22 14:51	16° <del>♄</del> 45'27	
retrograde	11706 Jun 11 14:09	14° <del>♄</del> 06'11			11707 May 01 07:35	0° <del>♄</del>	
evening set	11706 Jun 15 00:45	12° <del>♄</del> 57'33		greatest brilliancy	11707 May 07 06:36	8° <del>♄</del> 51'31	-0.6m
inferior conj	11706 Jun 20 12:36	7° <del>♄</del> 12'11	3°10'44	evening max el	11707 May 18 23:53	24° <del>♄</del> 04'19	19°53'51
minimum elong	11706 Jun 20 13:36	7° <del>♄</del> 09'00	3°09'52	asc. node	11707 May 19 15:15	24° <del>♄</del> 41'59	
min. Earth dist.	11706 Jun 22 03:27	5° <del>♄</del> 08'19	0.66396 AU	retrograde	11707 May 26 12:24	28° <del>♄</del> 21'57	
morning rise	11706 Jun 26 01:48	0° <del>♄</del> 49'53		evening set	11707 May 30 08:12	26° <del>♄</del> 57'02	
	11706 Jun 27 02:36	30° <del>℞</del> <del>♄</del>		inferior conj	11707 Jun 04 16:00	20° <del>♄</del> 57'56	3°15'33
direct	11706 Jul 02 08:11	28° <del>♄</del> 07'35		minimum elong	11707 Jun 04 15:53	20° <del>♄</del> 58'19	3°14'48
desc. node	11706 Jul 05 06:53	28° <del>♄</del> 38'16		min. Earth dist.	11707 Jun 05 16:16	19° <del>♄</del> 36'15	0.67646 AU
	11706 Jul 08 04:19	0° <del>♄</del>		morning rise	11707 Jun 09 23:13	14° <del>♄</del> 37'11	
morning max el	11706 Jul 15 04:49	5° <del>♄</del> 47'53	26°19'33	direct	11707 Jun 15 18:48	12° <del>♄</del> 02'39	
	11706 Aug 02 19:42	0° <del>♄</del>		desc. node	11707 Jun 22 04:00	14° <del>♄</del> 26'04	
morning set	11706 Aug 20 03:57	29° <del>♄</del> 16'20		morning max el	11707 Jun 27 14:51	19° <del>♄</del> 08'34	24°59'30
	11706 Aug 20 13:16	0° <del>♄</del>			11707 Jul 06 19:43	0° <del>♄</del>	
max. Earth dist.	11706 Aug 24 01:53	6° <del>♄</del> 45'20	1.34816 AU		11707 Jul 26 21:59	0° <del>♄</del>	
asc. node	11706 Aug 28 18:17	16° <del>♄</del> 07'59		morning set	11707 Aug 02 12:53	11° <del>♄</del> 22'22	
				max. Earth dist.	11707 Aug 06 02:53	17° <del>♄</del> 51'42	1.36866 AU
superior conj	11706 Aug 29 05:40	17° <del>♄</del> 06'19	0°04'36		11707 Aug 12 11:52	0° <del>♄</del>	
minimum elong	11706 Aug 29 05:25	17° <del>♄</del> 05'03	0°04'18	superior conj	11707 Aug 12 16:58	0° <del>♄</del> 25'02	-0°27'37
behind sun begin	11706 Aug 28 23:40	16° <del>♄</del> 35'33		minimum elong	11707 Aug 12 18:46	0° <del>♄</del> 33'50	0°27'42
behind sun end	11706 Aug 29 11:10	17° <del>♄</del> 34'37		asc. node	11707 Aug 15 15:02	6° <del>♄</del> 12'46	
	11706 Sep 04 10:07	0° <del>♄</del>		evening rise	11707 Aug 21 00:18	17° <del>♄</del> 05'19	
evening rise	11706 Sep 05 19:46	2° <del>♄</del> 55'33			11707 Aug 27 15:52	0° <del>♄</del>	
	11706 Sep 21 04:27	0° <del>♄</del>		evening max el	11707 Sep 07 02:25	15° <del>♄</del> 08'14	19°35'01
evening max el	11706 Sep 24 16:12	3° <del>♄</del> 57'36	20°47'29	retrograde	11707 Sep 16 21:07	20° <del>♄</del> 00'27	
desc. node	11706 Oct 01 04:07	8° <del>♄</del> 35'37		desc. node	11707 Sep 18 01:31	19° <del>♄</del> 56'27	
retrograde	11706 Oct 06 03:25	9° <del>♄</del> 39'03		evening set	11707 Sep 18 17:46	19° <del>♄</del> 50'39	
evening set	11706 Oct 08 10:00	9° <del>♄</del> 26'36		inferior conj	11707 Sep 27 12:27	15° <del>♄</del> 46'02	-2°55'10
inferior conj	11706 Oct 17 11:54	5° <del>♄</del> 31'43	-4°38'36	minimum elong	11707 Sep 27 04:47	15° <del>♄</del> 58'10	2°52'13
minimum elong	11706 Oct 17 01:57	5° <del>♄</del> 45'55	4°35'37	min. Earth dist.	11707 Sep 29 19:55	14° <del>♄</del> 18'29	0.55427 AU
min. Earth dist.	11706 Oct 18 09:49	5° <del>♄</del> 00'25	0.54626 AU	morning rise	11707 Oct 05 13:46	11° <del>♄</del> 21'55	
morning rise	11706 Oct 25 17:54	1° <del>♄</del> 35'35		direct	11707 Oct 10 14:07	10° <del>♄</del> 25'57	
direct	11706 Oct 29 22:17	0° <del>♄</del> 58'00		morning max el	11707 Oct 24 11:55	17° <del>♄</del> 22'38	24°58'22
morning max el	11706 Nov 12 01:18	7° <del>♄</del> 18'23	23°11'12		11707 Nov 03 20:01	0° <del>♄</del>	
asc. node	11706 Nov 24 19:17	24° <del>♄</del> 13'57		asc. node	11707 Nov 11 16:11	13° <del>♄</del> 03'13	
	11706 Nov 28 01:00	0° <del>♄</del>		morning set	11707 Nov 19 16:15	29° <del>♄</del> 07'08	
morning set	11706 Dec 05 04:28	14° <del>♄</del> 22'08			11707 Nov 20 02:06	0° <del>♄</del>	
				superior conj	11707 Nov 26 11:39	14° <del>♄</del> 01'27	1°38'52
superior conj	11706 Dec 12 02:50	29° <del>♄</del> 19'30	1°37'25	minimum elong	11707 Nov 26 11:20	13° <del>♄</del> 59'44	1°39'36
minimum elong	11706 Dec 12 03:40	29° <del>♄</del> 23'58	1°38'10	max. Earth dist.	11707 Nov 28 05:41	17° <del>♄</del> 51'40	1.32240 AU
	11706 Dec 12 10:22	0° <del>♄</del>		evening rise	11707 Dec 03 17:40	29° <del>♄</del> 32'11	
max. Earth dist.	11706 Dec 15 03:33	5° <del>♄</del> 46'08	1.33411 AU		11707 Dec 03 23:06	0° <del>♄</del>	
evening rise	11706 Dec 19 22:08	15° <del>♄</del> 31'06		desc. node	11707 Dec 14 23:09	20° <del>♄</del> 39'30	
	11706 Dec 27 15:50	0° <del>♄</del>			11707 Dec 20 17:55	0° <del>♄</del>	
desc. node	11706 Dec 28 02:09	0° <del>≈</del> 45'17		evening max el	11708 Jan 05 19:28	20° <del>≈</del> 13'35	27°31'56
	11707 Jan 16 18:27	0° <del>✕</del>		retrograde	11708 Jan 19 14:39	27° <del>≈</del> 34'08	
evening max el	11707 Jan 23 08:09	7° <del>✕</del> 09'18	27°18'33				
retrograde	11707 Feb 05 21:14	14° <del>✕</del> 33'52					

evening set	11708 Jan 26 13:53	25° $\approx$ 10'15		evening max el	11708 Dec 18 02:07	2° $\approx$ 37'43	27°12'45
min. Earth dist.	11708 Jan 30 07:50	22° $\approx$ 04'19	0.62872 AU	retrograde	11709 Jan 01 00:03	9° $\approx$ 51'20	
inferior conj	11708 Feb 02 03:44	19° $\approx$ 19'09	-1°47'48	evening set	11709 Jan 07 22:02	7° $\approx$ 43'55	
minimum elong	11708 Feb 02 07:19	19° $\approx$ 10'25	1°45'48	min. Earth dist.	11709 Jan 11 16:36	4° $\approx$ 59'33	0.60783 AU
asc. node	11708 Feb 07 15:09	14° $\approx$ 49'29		inferior conj	11709 Jan 14 19:43	2° $\approx$ 18'47	-3°05'39
morning rise	11708 Feb 09 03:08	14° $\approx$ 08'06		minimum elong	11709 Jan 15 02:07	2° $\approx$ 05'02	3°02'38
direct	11708 Feb 11 10:29	13° $\approx$ 43'10			11709 Jan 17 15:43	30° $\approx$ 8'3	
morning max el	11708 Feb 18 01:18	17° $\approx$ 06'10	17°46'43	morning rise	11709 Jan 22 09:02	27° $\approx$ 3'27'12	
	11708 Feb 27 07:10	0° $\approx$ 8'		direct	11709 Jan 24 12:01	27° $\approx$ 3'08'56	
morning set	11708 Mar 05 03:21	11° $\approx$ 46'46		asc. node	11709 Jan 24 12:24	27° $\approx$ 3'08'56	
desc. node	11708 Mar 11 23:53	23° $\approx$ 38'54			11709 Jan 30 21:14	0° $\approx$ 8'	
	11708 Mar 15 18:05	0° $\approx$ 9'		morning max el	11709 Jan 31 16:43	0° $\approx$ 45'20	17°57'06
				morning set	11709 Feb 16 07:03	25° $\approx$ 15'48	
					11709 Feb 18 21:05	0° $\approx$ 8'	
superior conj	11708 Mar 17 02:48	2° $\approx$ 16'13	-0°38'22	superior conj	11709 Feb 26 15:13	13° $\approx$ 53'58	0°01'44
minimum elong	11708 Mar 16 22:54	2° $\approx$ 00'05	0°37'44	minimum elong	11709 Feb 26 15:23	13° $\approx$ 54'41	0°02'00
max. Earth dist.	11708 Mar 23 14:19	12° $\approx$ 50'00	1.44248 AU	behind sun begin	11709 Feb 26 07:20	13° $\approx$ 19'27	
evening rise	11708 Apr 01 02:48	26° $\approx$ 12'44		behind sun end	11709 Feb 26 23:26	14° $\approx$ 29'49	
	11708 Apr 03 14:05	0° $\approx$ 8'		desc. node	11709 Feb 26 20:32	14° $\approx$ 17'08	
	11708 Apr 24 08:02	0° $\approx$ 11'		max. Earth dist.	11709 Mar 06 04:03	26° $\approx$ 41'38	1.42572 AU
evening max el	11708 Apr 30 23:26	7° $\approx$ 49'48	20°59'53		11709 Mar 08 04:28	0° $\approx$ 9'	
asc. node	11708 May 05 12:28	11° $\approx$ 33'04		evening rise	11709 Mar 12 01:55	6° $\approx$ 15'03	
retrograde	11708 May 09 11:10	12° $\approx$ 47'06			11709 Mar 27 19:56	0° $\approx$ 8'	
evening set	11708 May 13 16:56	11° $\approx$ 06'03		evening max el	11709 Apr 13 17:47	21° $\approx$ 36'07	22°15'45
inferior conj	11708 May 18 23:19	4° $\approx$ 54'47	3°08'22	asc. node	11709 Apr 22 09:44	27° $\approx$ 8'12'39	
minimum elong	11708 May 18 22:14	4° $\approx$ 58'32	3°07'35	retrograde	11709 Apr 23 08:41	27° $\approx$ 8'17'01	
min. Earth dist.	11708 May 19 09:49	4° $\approx$ 18'24	0.68432 AU	evening set	11709 Apr 28 01:14	25° $\approx$ 8'20'37	
	11708 May 22 18:34	30° $\approx$ 8'8		inferior conj	11709 May 03 08:29	18° $\approx$ 59'29	2°50'35
morning rise	11708 May 24 03:20	28° $\approx$ 37'57		minimum elong	11709 May 03 06:41	19° $\approx$ 05'44	2°49'43
direct	11708 May 29 10:17	26° $\approx$ 18'31		min. Earth dist.	11709 May 03 06:04	19° $\approx$ 07'55	0.68752 AU
	11708 Jun 06 04:58	0° $\approx$ 11'		morning rise	11709 May 08 12:00	12° $\approx$ 8'48'03	
desc. node	11708 Jun 08 01:00	1° $\approx$ 39'06		direct	11709 May 13 05:38	10° $\approx$ 8'48'02	
morning max el	11708 Jun 09 00:52	2° $\approx$ 37'45	23°30'34	morning max el	11709 May 22 13:21	16° $\approx$ 8'15'25	22°02'03
	11708 Jun 29 21:06	0° $\approx$ 6'		desc. node	11709 May 25 21:54	19° $\approx$ 8'54'42	
morning set	11708 Jul 14 00:29	22° $\approx$ 28'59			11709 Jun 02 18:44	0° $\approx$ 11'	
max. Earth dist.	11708 Jul 18 00:23	29° $\approx$ 20'24	1.39156 AU		11709 Jun 22 21:53	0° $\approx$ 6'	
	11708 Jul 18 09:26	0° $\approx$ 8'		morning set	11709 Jun 24 10:42	2° $\approx$ 27'09	
superior conj	11708 Jul 25 14:31	13° $\approx$ 03'04	-1°01'36	max. Earth dist.	11709 Jun 30 00:21	11° $\approx$ 34'18	1.41423 AU
minimum elong	11708 Jul 25 18:49	13° $\approx$ 02'31'0	1°01'30				
asc. node	11708 Aug 01 11:47	26° $\approx$ 01'52		superior conj	11709 Jul 07 17:58	24° $\approx$ 50'54	-1°34'08
	11708 Aug 03 10:47	0° $\approx$ 11'		minimum elong	11709 Jul 08 00:22	25° $\approx$ 19'14	1°34'05
evening rise	11708 Aug 03 21:34	0° $\approx$ 11'52'23			11709 Jul 10 15:17	0° $\approx$ 8'	
evening max el	11708 Aug 20 01:14	27° $\approx$ 04'55	18°44'03	evening rise	11709 Jul 18 08:02	14° $\approx$ 07'50	
	11708 Aug 23 19:34	0° $\approx$ 1'		asc. node	11709 Jul 19 08:35	16° $\approx$ 01'35	
retrograde	11708 Aug 28 07:50	1° $\approx$ 13'47			11709 Jul 27 05:14	0° $\approx$ 11'	
evening set	11708 Aug 30 06:17	1° $\approx$ 00'58		evening max el	11709 Aug 03 09:01	9° $\approx$ 40'48	18°14'02
	11708 Sep 02 02:23	30° $\approx$ 8'11		retrograde	11709 Aug 10 13:27	13° $\approx$ 19'06	
desc. node	11708 Sep 03 22:56	28° $\approx$ 58'06		evening set	11709 Aug 12 18:40	12° $\approx$ 11'58'57	
inferior conj	11708 Sep 07 08:01	26° $\approx$ 13'00	-1°03'30	inferior conj	11709 Aug 20 01:22	8° $\approx$ 15'35	0°32'30
minimum elong	11708 Sep 07 05:24	26° $\approx$ 14'24'9	1°02'35	minimum elong	11709 Aug 20 02:27	8° $\approx$ 13'15	0°31'45
min. Earth dist.	11708 Sep 10 11:04	24° $\approx$ 12'03'4	0.57012 AU	desc. node	11709 Aug 21 20:18	6° $\approx$ 14'23'3	
morning rise	11708 Sep 15 01:07	21° $\approx$ 13'6'10		min. Earth dist.	11709 Aug 23 09:26	5° $\approx$ 12'24'21	0.59105 AU
direct	11708 Sep 20 19:28	20° $\approx$ 15'04		morning rise	11709 Aug 27 06:49	2° $\approx$ 13'39'17	
morning max el	11708 Oct 05 02:13	27° $\approx$ 14'1'03	26°30'48	direct	11709 Sep 02 14:59	0° $\approx$ 14'49'11	
	11708 Oct 07 08:41	0° $\approx$ 1'		morning max el	11709 Sep 16 23:37	8° $\approx$ 13'36'40	27°33'05
	11708 Oct 27 07:50	0° $\approx$ 11'			11709 Oct 03 06:57	0° $\approx$ 1'	
asc. node	11708 Oct 28 13:00	2° $\approx$ 11'20'32		asc. node	11709 Oct 15 09:44	21° $\approx$ 1'58'03	
morning set	11708 Nov 03 02:40	13° $\approx$ 11'45'06		morning set	11709 Oct 18 09:57	28° $\approx$ 1'10'54	
					11709 Oct 19 06:31	0° $\approx$ 11'	
superior conj	11708 Nov 09 22:50	28° $\approx$ 11'47'25	1°34'21	superior conj	11709 Oct 25 10:30	13° $\approx$ 11'31'23	1°24'10
minimum elong	11708 Nov 09 21:33	28° $\approx$ 11'40'14	1°34'54	minimum elong	11709 Oct 25 08:32	13° $\approx$ 11'20'23	1°24'25
	11708 Nov 10 11:53	0° $\approx$ 1'		max. Earth dist.	11709 Oct 24 21:59	12° $\approx$ 11'21'37	1.31345 AU
max. Earth dist.	11708 Nov 10 13:00	0° $\approx$ 1'06'15	1.31545 AU	evening rise	11709 Nov 01 03:59	28° $\approx$ 11'20'38	
evening rise	11708 Nov 16 20:24	13° $\approx$ 1'50'51			11709 Nov 01 22:37	0° $\approx$ 1'	
	11708 Nov 25 00:21	0° $\approx$ 3'		desc. node	11709 Nov 17 17:23	28° $\approx$ 1'53'23	
desc. node	11708 Nov 30 20:14	10° $\approx$ 3'06'03					
	11708 Dec 15 11:32	0° $\approx$ 8'					

	11709 Nov 18 11:12	0°♄		evening max el	11710 Nov 11 16:59	24°♄55'34	24°56'18
evening max el	11709 Nov 30 01:35	14°♄11'38	26°19'17		11710 Nov 18 12:52	0°♄	
retrograde	11709 Dec 14 00:06	21°♄17'10		retrograde	11710 Nov 25 12:37	1°♄50'58	
evening set	11709 Dec 20 11:45	19°♄35'23		evening set	11710 Dec 01 02:35	0°♄41'09	
min. Earth dist.	11709 Dec 24 14:59	16°♄59'53	0.58649 AU		11710 Dec 02 15:10	30°♄♂	
inferior conj	11709 Dec 27 18:17	14°♄39'38	-4°22'34	min. Earth dist.	11710 Dec 06 04:52	27°♄57'23	0.56716 AU
minimum elong	11709 Dec 28 02:33	14°♄24'10	4°19'26	inferior conj	11710 Dec 08 20:42	26°♄13'49	-5°24'34
morning rise	11710 Jan 04 20:09	10°♄09'52		minimum elong	11710 Dec 09 03:28	26°♄02'49	5°22'43
direct	11710 Jan 06 22:46	9°♄54'45		morning rise	11710 Dec 17 06:33	22°♄05'42	
asc. node	11710 Jan 11 09:36	11°♄06'11		direct	11710 Dec 19 15:09	21°♄50'00	
morning max el	11710 Jan 15 02:10	13°♄54'26	18°27'18	morning max el	11710 Dec 29 01:38	26°♄22'18	19°19'15
	11710 Jan 26 00:51	0°♄		asc. node	11710 Dec 29 06:42	26°♄34'40	
morning set	11710 Jan 30 23:43	9°♄♂19'34			11711 Jan 01 07:25	0°♄	
				morning set	11711 Jan 15 01:13	23°♄46'13	
superior conj	11710 Feb 09 01:21	26°♄♂31'37	0°36'02		11711 Jan 18 03:55	0°♄♂	
minimum elong	11710 Feb 09 03:44	26°♄♂42'37	0°36'08				
	11710 Feb 10 22:54	0°♄♂		superior conj	11711 Jan 23 04:31	9°♄♂56'10	1°02'49
desc. node	11710 Feb 13 17:11	4°♄♂56'53		minimum elong	11711 Jan 23 07:29	10°♄♂10'31	1°03'03
max. Earth dist.	11710 Feb 16 12:41	9°♄♂51'33	1.40505 AU	max. Earth dist.	11711 Jan 29 18:51	22°♄♂21'17	1.38287 AU
evening rise	11710 Feb 20 20:42	17°♄♂10'37		desc. node	11711 Jan 31 13:54	25°♄♂34'59	
	11710 Feb 28 21:14	0°♄♂		evening rise	11711 Feb 02 12:49	29°♄♂01'43	
	11710 Mar 22 10:38	0°♄♂			11711 Feb 03 02:13	0°♄♂	
evening max el	11710 Mar 27 08:41	5°♄♂24'28	23°36'19	evening max el	11711 Feb 22 06:21	0°♄♂	
retrograde	11710 Apr 07 03:29	11°♄♂45'53		retrograde	11711 Mar 09 22:18	19°♄♂15'27	24°55'01
asc. node	11710 Apr 09 07:03	11°♄♂24'19		evening set	11711 Mar 21 18:17	26°♄♂08'32	
evening set	11710 Apr 12 07:32	9°♄♂35'44		asc. node	11711 Mar 27 10:16	23°♄♂46'49	
min. Earth dist.	11710 Apr 17 02:47	3°♄♂58'28	0.68619 AU	min. Earth dist.	11711 Mar 27 04:23	23°♄♂59'03	
inferior conj	11710 Apr 17 17:31	3°♄♂07'57	2°22'54	inferior conj	11711 Mar 31 21:47	18°♄♂45'00	0.68053 AU
minimum elong	11710 Apr 17 15:22	3°♄♂15'19	2°22'00	minimum elong	11711 Apr 02 00:35	17°♄♂16'38	1°45'32
morning rise	11710 Apr 20 02:24	30°♄♂♂		morning rise	11711 Apr 01 22:31	17°♄♂23'25	1°44'43
direct	11710 Apr 22 23:11	27°♄♂03'11		direct	11711 Apr 07 11:01	11°♄♂19'56	
	11710 Apr 27 03:48	25°♄♂24'24		morning max el	11711 Apr 11 03:21	10°♄♂02'06	
morning max el	11710 May 05 06:05	0°♄♂		desc. node	11711 Apr 18 09:01	14°♄♂02'25	19°34'08
desc. node	11710 May 05 07:24	0°♄♂03'14	20°41'34		11711 Apr 29 15:26	28°♄♂29'05	
	11710 May 12 18:42	8°♄♂55'25			11711 Apr 30 16:24	0°♄♂	
	11710 May 27 10:31	0°♄♂♂		greatest brilliancy	11711 May 01 01:26	0°♄♂33'08	-0.7m
morning set	11710 Jun 03 20:47	11°♄♂♂22'01		morning set	11711 May 13 20:32	19°♄♂54'02	
max. Earth dist.	11710 Jun 12 06:38	24°♄♂♂40'46	1.43393 AU		11711 May 20 09:06	0°♄♂♂	
	11710 Jun 15 13:03	0°♄♂♂		max. Earth dist.	11711 May 25 19:52	8°♄♂♂32'59	1.44845 AU
superior conj	11710 Jun 18 23:05	5°♄♂♂39'57	-2°00'08	superior conj	11711 May 30 04:11	15°♄♂♂27'59	-2°12'57
minimum elong	11710 Jun 19 05:17	6°♄♂♂05'53	2°00'29	minimum elong	11711 May 30 05:38	15°♄♂♂33'49	2°13'39
evening rise	11710 Jul 01 03:12	26°♄♂♂40'36			11711 Jun 08 02:22	0°♄♂♂	
	11710 Jul 03 00:24	0°♄♂♂		evening rise	11711 Jun 13 02:01	8°♄♂♂18'42	
asc. node	11710 Jul 06 05:29	5°♄♂♂37'26		asc. node	11711 Jun 23 02:26	24°♄♂♂53'11	
evening max el	11710 Jul 17 21:47	22°♄♂♂46'24	18°03'45		11711 Jun 26 11:35	0°♄♂♂	
retrograde	11710 Jul 24 11:04	26°♄♂♂08'53		evening max el	11711 Jul 01 11:51	6°♄♂♂11'22	18°12'10
evening set	11710 Jul 27 00:21	25°♄♂♂37'47		retrograde	11711 Jul 07 20:22	9°♄♂♂32'37	
inferior conj	11710 Aug 02 14:15	20°♄♂♂34'51	1°44'23	evening set	11711 Jul 10 17:50	8°♄♂♂48'00	
minimum elong	11710 Aug 02 16:49	20°♄♂♂28'30	1°43'03	inferior conj	11711 Jul 16 18:37	3°♄♂♂27'05	2°32'54
min. Earth dist.	11710 Aug 05 16:23	17°♄♂♂32'18	0.61385 AU	minimum elong	11711 Jul 16 21:06	3°♄♂♂20'09	2°31'39
desc. node	11710 Aug 08 17:37	14°♄♂♂57'12		min. Earth dist.	11711 Jul 19 08:32	0°♄♂♂35'11	0.63575 AU
morning rise	11710 Aug 09 06:42	14°♄♂♂34'11			11711 Jul 19 21:49	30°♄♂♂♂	
direct	11710 Aug 15 22:23	12°♄♂♂17'51		morning rise	11711 Jul 22 22:48	27°♄♂♂12'12	
morning max el	11710 Aug 30 03:43	20°♄♂♂17'34	27°57'29	desc. node	11711 Jul 26 14:55	25°♄♂♂08'21	
	11710 Sep 07 11:55	0°♄♂♂		direct	11711 Jul 29 15:05	24°♄♂♂37'48	
	11710 Sep 26 06:13	0°♄♂♂			11711 Aug 09 16:23	0°♄♂♂	
asc. node	11710 Oct 02 06:27	11°♄♂♂49'49		morning max el	11711 Aug 12 12:24	2°♄♂♂39'35	27°44'00
morning set	11710 Oct 02 12:13	12°♄♂♂19'34			11711 Sep 01 20:55	0°♄♂♂♂	
max. Earth dist.	11710 Oct 08 04:57	24°♄♂♂28'37	1.31655 AU	morning set	11711 Sep 16 07:08	26°♄♂♂04'08	
					11711 Sep 18 05:45	0°♄♂♂	
superior conj	11710 Oct 09 20:52	28°♄♂♂08'03	1°08'30	asc. node	11711 Sep 19 03:09	1°♄♂♂50'07	
minimum elong	11710 Oct 09 18:37	27°♄♂♂55'38	1°08'26	max. Earth dist.	11711 Sep 21 06:07	6°♄♂♂17'00	1.32485 AU
	11710 Oct 10 17:07	0°♄♂♂♂					
evening rise	11710 Oct 16 14:25	12°♄♂♂♂56'14		superior conj	11711 Sep 24 03:54	12°♄♂♂30'45	0°47'31
	11710 Oct 25 01:53	0°♄♂♂♂		minimum elong	11711 Sep 24 01:54	12°♄♂♂19'58	0°47'14
desc. node	11710 Nov 04 14:37	16°♄♂♂♂46'24		evening rise	11711 Oct 01 01:47	27°♄♂♂31'23	

	11711 Oct 02 05:42	0°♍		evening rise	11712 Sep 14 12:13	12°♌01'21	
	11711 Oct 19 13:59	0°♌			11712 Sep 23 16:29	0°♍	
desc. node	11711 Oct 22 11:55	3°♌23'42		evening max el	11712 Oct 04 17:30	15°♍13'48	21°37'58
evening max el	11711 Oct 24 03:27	5°♌04'40	23°16'40	desc. node	11712 Oct 08 09:16	18°♍19'06	
retrograde	11711 Nov 06 11:51	11°♌43'26		retrograde	11712 Oct 17 01:12	21°♍21'23	
evening set	11711 Nov 10 17:44	11°♌04'19		evening set	11712 Oct 19 21:37	21°♍02'54	
min. Earth dist.	11711 Nov 17 13:06	7°♌53'53	0.55272 AU	inferior conj	11712 Oct 28 20:45	17°♍07'06	-5°21'21
inferior conj	11711 Nov 19 03:15	6°♌58'27	-5°50'37	minimum elong	11712 Oct 28 12:46	17°♍18'16	5°19'27
minimum elong	11711 Nov 19 03:15	6°♌58'27	5°49'58	min. Earth dist.	11712 Oct 28 19:38	17°♍08'39	0.54596 AU
morning rise	11711 Nov 27 14:28	3°♌07'22		morning rise	11712 Nov 06 04:59	13°♍19'05	
direct	11711 Nov 30 12:44	2°♌46'49		direct	11712 Nov 09 21:47	12°♍49'23	
morning max el	11711 Dec 11 11:45	7°♌58'56	20°34'17	morning max el	11712 Nov 22 08:22	18°♍44'52	22°10'05
asc. node	11711 Dec 16 03:45	13°♌18'30			11712 Dec 01 08:56	0°♌	
	11711 Dec 26 03:45	0°♌		asc. node	11712 Dec 02 00:44	1°♌01'45	
morning set	11711 Dec 30 08:26	8°♌26'23		morning set	11712 Dec 13 18:55	23°♌12'51	
					11712 Dec 16 23:29	0°♌	
superior conj	11712 Jan 06 20:14	23°♌54'52	1°21'54	superior conj	11712 Dec 20 20:49	8°♌17'10	1°33'42
minimum elong	11712 Jan 06 22:43	24°♌07'30	1°22'22	minimum elong	11712 Dec 20 22:19	8°♌25'03	1°34'23
	11712 Jan 09 21:00	0°♌		max. Earth dist.	11712 Dec 24 16:56	16°♌15'58	1.34291 AU
max. Earth dist.	11712 Jan 12 02:56	4°♌23'23	1.36147 AU	evening rise	11712 Dec 29 02:11	24°♌58'46	
evening rise	11712 Jan 15 23:50	11°♌40'55			11712 Dec 31 17:42	0°♌	
desc. node	11712 Jan 18 10:42	16°♌07'27		desc. node	11713 Jan 04 07:35	6°♌29'37	
	11712 Jan 26 15:29	0°♌			11713 Jan 19 03:33	0°♌	
	11712 Feb 17 12:13	0°♌		evening max el	11713 Feb 02 01:26	16°♌46'10	26°57'59
evening max el	11712 Feb 20 11:54	3°♌05'30	26°04'40	retrograde	11713 Feb 15 08:26	24°♌09'46	
retrograde	11712 Mar 04 04:11	10°♌19'09		evening set	11713 Feb 21 22:17	21°♌36'28	
evening set	11712 Mar 10 07:49	7°♌49'13		min. Earth dist.	11713 Feb 25 21:44	17°♌43'37	0.65701 AU
asc. node	11712 Mar 13 01:43	5°♌06'16		asc. node	11713 Feb 27 23:04	15°♌22'11	
min. Earth dist.	11712 Mar 14 12:50	3°♌22'28	0.67072 AU	inferior conj	11713 Feb 28 00:40	15°♌17'34	0°01'18
inferior conj	11712 Mar 16 03:43	1°♌21'41	0°58'24	minimum elong	11713 Feb 28 00:38	15°♌17'42	0°01'33
minimum elong	11712 Mar 16 02:19	1°♌26'02	0°57'56	transit middle	11713 Feb 28 00:38	15°♌17'42	0°01'33
	11712 Mar 17 06:19	30°♌		transit begin	11713 Feb 27 21:40	15°♌26'14	
morning rise	11712 Mar 21 21:31	25°♌34'51		transit end	11713 Feb 28 03:35	15°♌09'12	
direct	11712 Mar 25 02:39	24°♌36'07		morning rise	11713 Mar 06 04:20	9°♌42'41	
morning max el	11712 Mar 31 18:07	28°♌10'45	18°42'22	direct	11713 Mar 08 23:34	9°♌00'02	
	11712 Apr 02 11:24	0°♌		morning max el	11713 Mar 15 08:47	12°♌21'40	18°07'11
desc. node	11712 Apr 15 12:09	18°♌27'03			11713 Mar 27 23:37	0°♌	
morning set	11712 Apr 22 08:59	29°♌09'22		desc. node	11713 Apr 02 08:49	8°♌42'14	
	11712 Apr 22 21:56	0°♌		morning set	11713 Apr 03 00:35	9°♌46'09	
max. Earth dist.	11712 May 07 14:07	22°♌55'46	1.45622 AU		11713 Apr 15 15:39	0°♌	
superior conj	11712 May 08 15:01	24°♌33'12	-2°06'40	superior conj	11713 Apr 17 22:55	3°♌37'37	-1°40'51
minimum elong	11712 May 08 08:57	24°♌09'27	2°06'58	minimum elong	11713 Apr 17 13:31	3°♌00'41	1°40'19
	11712 May 12 02:21	0°♌		max. Earth dist.	11713 Apr 20 10:09	7°♌29'49	1.45656 AU
evening rise	11712 May 24 00:59	18°♌56'53		evening rise	11713 May 04 01:29	28°♌42'25	
	11712 May 30 22:46	0°♌			11713 May 04 21:31	0°♌	
greatest brilliancy	11712 May 31 02:07	0°♌13'19	-0.9m	greatest brilliancy	11713 May 16 11:14	17°♌44'19	-0.7m
asc. node	11712 Jun 08 23:29	13°♌42'11			11713 May 25 05:48	0°♌	
evening max el	11712 Jun 14 00:13	19°♌48'17	18°38'30	asc. node	11713 May 26 20:35	1°♌54'42	
retrograde	11712 Jun 20 13:18	23°♌22'07		evening max el	11713 May 28 08:27	3°♌30'28	19°21'50
evening set	11712 Jun 23 19:01	22°♌22'24		retrograde	11713 Jun 04 10:27	7°♌29'22	
inferior conj	11712 Jun 29 10:34	16°♌45'17	3°01'39	evening set	11713 Jun 08 00:51	6°♌13'48	
minimum elong	11712 Jun 29 12:11	16°♌40'18	3°00'40	inferior conj	11713 Jun 13 10:35	0°♌22'08	3°14'22
min. Earth dist.	11712 Jul 01 09:52	14°♌20'45	0.65476 AU	minimum elong	11713 Jun 13 11:07	0°♌20'26	3°13'34
morning rise	11712 Jul 05 04:29	10°♌24'01			11713 Jun 13 17:20	30°♌	
direct	11712 Jul 11 15:36	7°♌41'53		min. Earth dist.	11713 Jun 14 19:05	28°♌35'43	0.66979 AU
desc. node	11712 Jul 12 12:08	7°♌44'27		morning rise	11713 Jun 18 20:54	23°♌59'56	
morning max el	11712 Jul 24 23:17	15°♌33'57	26°57'50	direct	11713 Jun 24 22:50	21°♌20'07	
	11712 Aug 05 19:51	0°♌		desc. node	11713 Jun 29 09:17	22°♌29'38	
	11712 Aug 24 15:50	0°♌		morning max el	11713 Jul 07 10:04	28°♌48'02	25°47'17
morning set	11712 Aug 29 15:53	9°♌18'07			11713 Jul 08 13:46	0°♌	
max. Earth dist.	11712 Sep 02 22:24	17°♌42'50	1.33828 AU		11713 Jul 30 14:48	0°♌	
asc. node	11712 Sep 04 23:52	21°♌55'10		morning set	11713 Aug 12 10:47	21°♌51'59	
superior conj	11712 Sep 07 05:28	26°♌34'01	0°21'34	max. Earth dist.	11713 Aug 16 04:16	28°♌49'59	1.35641 AU
minimum elong	11712 Sep 07 04:22	26°♌28'17	0°21'14		11713 Aug 16 18:54	0°♌	
	11712 Sep 08 20:30	0°♌					

superior conj	11713 Aug 21 22:51	10° $\mathbb{M}$ 10'43	-0°08'44	morning set	11714 Jul 25 11:14	3° $\Omega$ 33'50	
minimum elong	11713 Aug 21 23:23	10° $\mathbb{M}$ 13'26	0°08'56	max. Earth dist.	11714 Jul 29 02:24	9° $\Omega$ 59'15	1.37817 AU
behind sun begin	11713 Aug 21 18:13	9° $\mathbb{M}$ 47'20					
behind sun end	11713 Aug 22 04:34	10° $\mathbb{M}$ 39'34		superior conj	11714 Aug 05 04:45	23° $\Omega$ 12'33	-0°41'59
asc. node	11713 Aug 22 20:36	12° $\mathbb{M}$ 00'51		minimum elong	11714 Aug 05 07:35	23° $\Omega$ 26'10	0°41'59
evening rise	11713 Aug 29 19:35	26° $\mathbb{M}$ 19'58			11714 Aug 08 16:25	0° $\mathbb{M}$	
	11713 Aug 31 14:42	0° $\underline{\mathbb{M}}$		asc. node	11714 Aug 09 17:21	2° $\mathbb{M}$ 03'09	
evening max el	11713 Sep 16 19:31	25° $\underline{\mathbb{M}}$ 57'12	20°14'06	evening rise	11714 Aug 13 21:22	10° $\mathbb{M}$ 20'15	
	11713 Sep 22 05:34	0° $\mathbb{M}$			11714 Aug 24 15:33	0° $\underline{\mathbb{M}}$	
desc. node	11713 Sep 25 06:37	1° $\mathbb{M}$ 04'06		evening max el	11714 Aug 30 11:28	7° $\underline{\mathbb{M}}$ 27'44	19°10'49
retrograde	11713 Sep 27 14:01	1° $\mathbb{M}$ 18'26		retrograde	11714 Sep 08 13:57	12° $\underline{\mathbb{M}}$ 00'06	
evening set	11713 Sep 29 14:10	1° $\mathbb{M}$ 08'07		evening set	11714 Sep 10 10:15	11° $\underline{\mathbb{M}}$ 49'41	
	11713 Oct 03 07:24	30° $\mathbb{R}$ $\underline{\mathbb{M}}$		desc. node	11714 Sep 12 04:01	11° $\underline{\mathbb{M}}$ 21'58	
inferior conj	11713 Oct 08 14:41	27° $\underline{\mathbb{M}}$ 10'20	-3°57'54	inferior conj	11714 Sep 18 22:28	7° $\underline{\mathbb{M}}$ 38'21	-2°07'03
minimum elong	11713 Oct 08 04:59	27° $\underline{\mathbb{M}}$ 24'42	3°54'34	minimum elong	11714 Sep 18 16:55	7° $\underline{\mathbb{M}}$ 47'41	2°04'53
min. Earth dist.	11713 Oct 10 04:05	26° $\underline{\mathbb{M}}$ 14'57	0.54849 AU	min. Earth dist.	11714 Sep 21 16:23	5° $\underline{\mathbb{M}}$ 47'54	0.56011 AU
morning rise	11713 Oct 16 18:54	23° $\underline{\mathbb{M}}$ 04'04		morning rise	11714 Sep 26 20:44	2° $\underline{\mathbb{M}}$ 58'20	
direct	11713 Oct 21 07:35	22° $\underline{\mathbb{M}}$ 19'43		direct	11714 Oct 02 05:09	1° $\underline{\mathbb{M}}$ 52'08	
morning max el	11713 Nov 03 20:29	28° $\underline{\mathbb{M}}$ 56'49	23°57'28	morning max el	11714 Oct 16 07:53	9° $\underline{\mathbb{M}}$ 03'07	25°40'31
	11713 Nov 04 22:26	0° $\mathbb{M}$			11714 Nov 01 00:19	0° $\mathbb{M}$	
asc. node	11713 Nov 18 21:40	19° $\mathbb{M}$ 30'25		asc. node	11714 Nov 05 18:32	8° $\mathbb{M}$ 32'26	
	11713 Nov 24 10:27	0° $\mathbb{M}$		morning set	11714 Nov 12 18:08	22° $\mathbb{M}$ 42'26	
morning set	11713 Nov 28 06:45	8° $\mathbb{M}$ 00'10			11714 Nov 16 02:29	0° $\mathbb{M}$	
superior conj	11713 Dec 05 03:22	22° $\mathbb{M}$ 54'36	1°38'47	superior conj	11714 Nov 19 13:25	7° $\mathbb{M}$ 39'02	1°37'41
minimum elong	11713 Dec 05 03:42	22° $\mathbb{M}$ 56'26	1°39'33	minimum elong	11714 Nov 19 12:40	7° $\mathbb{M}$ 34'52	1°38'20
max. Earth dist.	11713 Dec 07 14:42	28° $\mathbb{M}$ 14'30	1.32850 AU	max. Earth dist.	11714 Nov 20 19:11	10° $\mathbb{M}$ 23'25	1.31880 AU
	11713 Dec 08 10:31	0° $\mathbb{M}$		evening rise	11714 Nov 26 15:16	22° $\mathbb{M}$ 56'13	
evening rise	11713 Dec 12 16:22	8° $\mathbb{M}$ 46'51			11714 Nov 30 02:53	0° $\mathbb{M}$	
desc. node	11713 Dec 22 04:32	26° $\mathbb{M}$ 36'10		desc. node	11714 Dec 09 01:32	16° $\mathbb{M}$ 19'29	
	11713 Dec 24 04:18	0° $\mathbb{M}$			11714 Dec 17 23:57	0° $\mathbb{M}$	
	11714 Jan 15 10:59	0° $\mathbb{M}$		evening max el	11714 Dec 28 23:38	12° $\mathbb{M}$ 55'49	27°28'00
evening max el	11714 Jan 15 13:58	0° $\mathbb{M}$ 07'08	27°27'52	retrograde	11715 Jan 11 20:44	20° $\mathbb{M}$ 14'07	
retrograde	11714 Jan 29 06:20	7° $\mathbb{M}$ 31'32		evening set	11715 Jan 18 20:06	17° $\mathbb{M}$ 56'16	
evening set	11714 Feb 05 03:21	5° $\mathbb{M}$ 01'45		min. Earth dist.	11715 Jan 22 13:42	15° $\mathbb{M}$ 00'24	0.62000 AU
min. Earth dist.	11714 Feb 08 22:35	1° $\mathbb{M}$ 40'00	0.63984 AU	inferior conj	11715 Jan 25 13:11	12° $\mathbb{M}$ 15'12	-2°20'22
	11714 Feb 10 13:17	30° $\mathbb{R}$ $\mathbb{M}$		minimum elong	11715 Jan 25 17:58	12° $\mathbb{M}$ 04'06	2°17'52
inferior conj	11714 Feb 11 12:51	28° $\mathbb{M}$ 58'12	-1°05'27	morning rise	11715 Feb 01 18:30	7° $\mathbb{M}$ 11'54	
minimum elong	11714 Feb 11 14:55	28° $\mathbb{M}$ 52'50	1°04'09	asc. node	11715 Feb 01 17:38	7° $\mathbb{M}$ 12'35	
asc. node	11714 Feb 14 20:22	25° $\mathbb{M}$ 46'00		direct	11715 Feb 03 23:29	6° $\mathbb{M}$ 50'20	
morning rise	11714 Feb 18 04:35	23° $\mathbb{M}$ 37'42		morning max el	11715 Feb 10 19:21	10° $\mathbb{M}$ 18'14	17°48'44
direct	11714 Feb 20 15:34	23° $\mathbb{M}$ 07'31			11715 Feb 23 21:43	0° $\mathbb{M}$	
morning max el	11714 Feb 27 02:16	26° $\mathbb{M}$ 27'19	17°49'06	morning set	11715 Feb 26 13:57	4° $\mathbb{M}$ 45'40	
	11714 Mar 02 04:24	0° $\mathbb{M}$		desc. node	11715 Mar 07 02:08	19° $\mathbb{M}$ 44'45	
morning set	11714 Mar 15 20:10	21° $\mathbb{M}$ 44'25					
desc. node	11714 Mar 20 05:30	29° $\mathbb{M}$ 09'44		superior conj	11715 Mar 09 19:42	24° $\mathbb{M}$ 25'03	-0°20'53
	11714 Mar 20 17:28	0° $\mathbb{M}$		minimum elong	11715 Mar 09 17:43	24° $\mathbb{M}$ 16'39	0°20'25
					11715 Mar 13 03:36	0° $\mathbb{M}$	
superior conj	11714 Mar 28 21:28	13° $\mathbb{M}$ 27'43	-1°02'28	max. Earth dist.	11715 Mar 16 21:01	6° $\mathbb{M}$ 06'26	1.43600 AU
minimum elong	11714 Mar 28 14:52	13° $\mathbb{M}$ 00'59	1°01'40	evening rise	11715 Mar 24 04:41	17° $\mathbb{M}$ 43'08	
max. Earth dist.	11714 Apr 03 05:04	21° $\mathbb{M}$ 58'04	1.44957 AU		11715 Apr 01 06:03	0° $\mathbb{M}$	
	11714 Apr 08 07:58	0° $\mathbb{M}$			11715 Apr 23 09:00	0° $\mathbb{M}$	
evening rise	11714 Apr 13 13:33	8° $\mathbb{M}$ 04'34		evening max el	11715 Apr 24 08:30	1° $\mathbb{M}$ 00'57	21°31'17
	11714 Apr 28 04:27	0° $\mathbb{M}$		asc. node	11715 Apr 30 14:57	5° $\mathbb{M}$ 42'00	
evening max el	11714 May 11 11:14	17° $\mathbb{M}$ 14'54	20°20'25	retrograde	11715 May 03 07:32	6° $\mathbb{M}$ 16'33	
asc. node	11714 May 13 17:45	19° $\mathbb{M}$ 19'20		evening set	11715 May 07 17:45	4° $\mathbb{M}$ 29'04	
retrograde	11714 May 19 09:12	21° $\mathbb{M}$ 49'02			11715 May 11 17:23	30° $\mathbb{R}$ $\mathbb{M}$	
evening set	11714 May 23 09:02	20° $\mathbb{M}$ 17'23		inferior conj	11715 May 13 00:16	28° $\mathbb{M}$ 13'31	3°02'03
inferior conj	11714 May 28 15:56	14° $\mathbb{M}$ 12'49	3°13'51	minimum elong	11715 May 12 22:51	28° $\mathbb{M}$ 18'27	3°01'14
minimum elong	11714 May 28 15:23	14° $\mathbb{M}$ 14'42	3°13'06	min. Earth dist.	11715 May 13 05:17	27° $\mathbb{M}$ 56'03	0.68627 AU
min. Earth dist.	11714 May 29 10:17	13° $\mathbb{M}$ 10'02	0.68037 AU	morning rise	11715 May 18 03:45	21° $\mathbb{M}$ 58'42	
morning rise	11714 Jun 02 21:26	7° $\mathbb{M}$ 53'13		direct	11715 May 23 05:09	19° $\mathbb{M}$ 46'51	
direct	11714 Jun 08 11:44	5° $\mathbb{M}$ 24'15		morning max el	11715 Jun 02 06:21	25° $\mathbb{M}$ 44'05	22°52'15
desc. node	11714 Jun 16 06:21	8° $\mathbb{M}$ 56'11		desc. node	11715 Jun 03 03:20	26° $\mathbb{M}$ 38'07	
morning max el	11714 Jun 19 19:53	12° $\mathbb{M}$ 12'17	24°22'04		11715 Jun 06 03:33	0° $\mathbb{M}$	
	11714 Jul 04 02:49	0° $\mathbb{M}$			11715 Jun 27 14:53	0° $\mathbb{M}$	
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

























































































































max. Earth dist.	11715 Jul 11 00:00	21° $\mathfrak{D}$ 44'06	1.40140 AU	max. Earth dist.	11716 Jun 22 02:59	4° $\mathfrak{D}$ 22'42	1.42319 AU
	11715 Jul 15 17:43	0° $\mathfrak{Q}$					
superior conj	11715 Jul 18 19:12	5° $\mathfrak{Q}$ 30'50	-1°15'50	superior conj	11716 Jun 29 13:35	16° $\mathfrak{D}$ 54'24	-1°46'19
minimum elong	11715 Jul 19 00:32	5° $\mathfrak{Q}$ 55'08	1°15'43	minimum elong	11716 Jun 29 20:20	17° $\mathfrak{D}$ 23'32	1°46'25
asc. node	11715 Jul 27 14:07	21° $\mathfrak{Q}$ 58'41		evening rise	11716 Jul 10 19:02	6° $\mathfrak{Q}$ 53'25	
evening rise	11715 Jul 28 14:31	23° $\mathfrak{Q}$ 54'53		asc. node	11716 Jul 13 10:56	11° $\mathfrak{Q}$ 42'52	
	11715 Jul 31 19:44	0° $\mathfrak{M}$			11716 Jul 24 18:51	0° $\mathfrak{M}$	
evening max el	11715 Aug 13 14:41	19° $\mathfrak{M}$ 42'33	18°28'51	evening max el	11716 Jul 27 01:02	2° $\mathfrak{M}$ 31'46	18°07'15
retrograde	11715 Aug 21 08:32	23° $\mathfrak{M}$ 36'12		retrograde	11716 Aug 02 21:35	6° $\mathfrak{M}$ 01'30	
evening set	11715 Aug 23 09:45	23° $\mathfrak{M}$ 20'38		evening set	11716 Aug 05 06:16	5° $\mathfrak{M}$ 36'58	
desc. node	11715 Aug 30 01:24	19° $\mathfrak{M}$ 39'28		inferior conj	11716 Aug 12 05:22	0° $\mathfrak{M}$ 44'41	1°06'02
inferior conj	11715 Aug 31 03:18	18° $\mathfrak{M}$ 49'08	-0°20'05	minimum elong	11716 Aug 12 07:19	0° $\mathfrak{M}$ 40'13	1°04'55
minimum elong	11715 Aug 31 02:31	18° $\mathfrak{M}$ 50'40	0°20'00		11716 Aug 13 00:45	30° $\mathfrak{R}$ $\mathfrak{Q}$	
min. Earth dist.	11715 Sep 03 10:13	16° $\mathfrak{M}$ 14'53	0.57861 AU	min. Earth dist.	11716 Aug 15 11:47	27° $\mathfrak{Q}$ 46'10	0.60075 AU
morning rise	11715 Sep 07 15:48	13° $\mathfrak{M}$ 32'03		desc. node	11716 Aug 15 22:46	27° $\mathfrak{Q}$ 22'33	
direct	11715 Sep 13 16:58	11° $\mathfrak{M}$ 58'35		morning rise	11716 Aug 19 05:20	24° $\mathfrak{Q}$ 56'50	
morning max el	11715 Sep 28 00:47	19° $\mathfrak{M}$ 34'13	27°01'37	direct	11716 Aug 25 17:30	22° $\mathfrak{Q}$ 55'14	
	11715 Oct 06 22:09	0° $\mathfrak{L}$			11716 Sep 08 05:15	0° $\mathfrak{M}$	
asc. node	11715 Oct 23 15:20	27° $\mathfrak{L}$ 58'57		morning max el	11716 Sep 09 01:11	0° $\mathfrak{M}$ 48'09	27°48'20
	11715 Oct 24 15:31	0° $\mathfrak{M}$			11716 Sep 30 02:52	0° $\mathfrak{L}$	
morning set	11715 Oct 28 03:24	7° $\mathfrak{M}$ 15'14		asc. node	11716 Oct 09 12:04	17° $\mathfrak{L}$ 42'43	
				morning set	11716 Oct 11 08:47	21° $\mathfrak{L}$ 33'41	
superior conj	11715 Nov 04 01:01	22° $\mathfrak{M}$ 24'23	1°30'43		11716 Oct 15 07:19	0° $\mathfrak{M}$	
minimum elong	11715 Nov 03 23:24	22° $\mathfrak{M}$ 15'20	1°31'08	max. Earth dist.	11716 Oct 17 12:24	4° $\mathfrak{M}$ 52'16	1.31417 AU
max. Earth dist.	11715 Nov 04 03:40	22° $\mathfrak{M}$ 39'10	1.31401 AU				
	11715 Nov 07 11:05	0° $\mathfrak{L}$		superior conj	11716 Oct 18 12:19	7° $\mathfrak{M}$ 05'05	1°18'10
evening rise	11715 Nov 10 20:19	7° $\mathfrak{L}$ 20'12		minimum elong	11716 Oct 18 10:11	6° $\mathfrak{M}$ 53'08	1°18'17
	11715 Nov 22 14:27	0° $\mathfrak{Z}$		evening rise	11716 Oct 25 05:21	21° $\mathfrak{M}$ 52'33	
desc. node	11715 Nov 25 22:37	5° $\mathfrak{Z}$ 30'27			11716 Oct 29 02:29	0° $\mathfrak{L}$	
evening max el	11715 Dec 11 03:45	24° $\mathfrak{Z}$ 59'57	26°54'10	desc. node	11716 Nov 11 19:48	23° $\mathfrak{L}$ 56'28	
	11715 Dec 17 17:19	0° $\mathfrak{A}$			11716 Nov 16 08:09	0° $\mathfrak{Z}$	
retrograde	11715 Dec 25 02:08	2° $\mathfrak{A}$ 09'20		evening max el	11716 Nov 21 23:45	6° $\mathfrak{Z}$ 11'29	25°47'02
evening set	11715 Dec 31 20:53	0° $\mathfrak{A}$ 12'11		retrograde	11716 Dec 05 21:09	13° $\mathfrak{Z}$ 12'36	
	11716 Jan 01 05:21	30° $\mathfrak{R}$ $\mathfrak{Z}$		evening set	11716 Dec 12 01:21	11° $\mathfrak{Z}$ 43'48	
min. Earth dist.	11716 Jan 04 18:04	27° $\mathfrak{Z}$ 33'10	0.59873 AU	min. Earth dist.	11716 Dec 16 12:14	9° $\mathfrak{Z}$ 07'22	0.57787 AU
inferior conj	11716 Jan 07 22:11	24° $\mathfrak{Z}$ 59'25	-3°39'02	inferior conj	11716 Dec 19 12:24	7° $\mathfrak{Z}$ 01'02	-4°51'47
minimum elong	11716 Jan 08 05:36	24° $\mathfrak{Z}$ 44'22	3°35'47	minimum elong	11716 Dec 19 20:37	6° $\mathfrak{Z}$ 46'36	4°49'03
morning rise	11716 Jan 15 17:07	20° $\mathfrak{Z}$ 16'30		morning rise	11716 Dec 27 18:24	2° $\mathfrak{Z}$ 40'48	
direct	11716 Jan 17 19:25	19° $\mathfrak{Z}$ 59'55		direct	11716 Dec 29 22:52	2° $\mathfrak{Z}$ 25'47	
asc. node	11716 Jan 19 14:53	20° $\mathfrak{Z}$ 12'49		asc. node	11717 Jan 05 12:03	4° $\mathfrak{Z}$ 50'23	
morning max el	11716 Jan 25 08:36	23° $\mathfrak{Z}$ 45'08	18°07'19	morning max el	11717 Jan 07 14:15	6° $\mathfrak{Z}$ 37'50	18°46'42
	11716 Jan 30 08:56	0° $\mathfrak{A}$			11717 Jan 22 10:27	0° $\mathfrak{A}$	
morning set	11716 Feb 09 23:45	18° $\mathfrak{A}$ 31'06		morning set	11717 Jan 23 20:41	2° $\mathfrak{A}$ 46'25	
	11716 Feb 16 03:56	0° $\mathfrak{H}$					
superior conj	11716 Feb 19 17:49	6° $\mathfrak{H}$ 29'05	0°17'09	superior conj	11717 Feb 01 11:51	19° $\mathfrak{A}$ 28'58	0°48'20
minimum elong	11716 Feb 19 19:09	6° $\mathfrak{H}$ 35'05	0°17'18	minimum elong	11717 Feb 01 14:39	19° $\mathfrak{A}$ 42'08	0°48'28
desc. node	11716 Feb 21 22:45	10° $\mathfrak{H}$ 23'39			11717 Feb 07 05:13	0° $\mathfrak{H}$	
max. Earth dist.	11716 Feb 27 08:52	19° $\mathfrak{H}$ 42'18	1.41735 AU	desc. node	11717 Feb 07 19:26	1° $\mathfrak{H}$ 03'20	
evening rise	11716 Mar 03 11:34	28° $\mathfrak{H}$ 06'51		max. Earth dist.	11717 Feb 08 16:35	2° $\mathfrak{H}$ 36'49	1.39566 AU
	11716 Mar 04 15:47	0° $\mathfrak{Y}$		evening rise	11717 Feb 12 15:35	9° $\mathfrak{H}$ 26'46	
	11716 Mar 24 21:20	0° $\mathfrak{B}$			11717 Feb 25 13:42	0° $\mathfrak{Y}$	
evening max el	11716 Apr 06 01:15	14° $\mathfrak{B}$ 48'18	22°49'53	evening max el	11717 Mar 19 15:22	28° $\mathfrak{Y}$ 38'06	24°10'20
retrograde	11716 Apr 16 03:55	20° $\mathfrak{B}$ 46'27			11717 Mar 21 01:35	0° $\mathfrak{B}$	
asc. node	11716 Apr 16 12:14	20° $\mathfrak{B}$ 45'53		retrograde	11717 Mar 30 21:07	5° $\mathfrak{B}$ 14'05	
evening set	11716 Apr 21 01:22	18° $\mathfrak{B}$ 43'57		asc. node	11717 Apr 03 09:33	4° $\mathfrak{B}$ 17'24	
inferior conj	11716 Apr 26 09:35	12° $\mathfrak{B}$ 19'49	2°40'01	evening set	11717 Apr 05 06:22	2° $\mathfrak{B}$ 58'22	
minimum elong	11716 Apr 26 07:36	12° $\mathfrak{B}$ 26'44	2°39'07		11717 Apr 08 01:52	30° $\mathfrak{R}$ $\mathfrak{Y}$	
min. Earth dist.	11716 Apr 26 01:53	12° $\mathfrak{B}$ 46'32	0.68755 AU	min. Earth dist.	11717 Apr 09 22:04	27° $\mathfrak{Y}$ 36'31	0.68436 AU
morning rise	11716 May 01 13:43	6° $\mathfrak{B}$ 11'16		inferior conj	11717 Apr 10 18:02	26° $\mathfrak{Y}$ 29'02	2°08'16
direct	11716 May 06 01:51	4° $\mathfrak{B}$ 20'05		minimum elong	11717 Apr 10 15:52	26° $\mathfrak{Y}$ 36'22	2°07'21
morning max el	11716 May 14 20:46	9° $\mathfrak{B}$ 25'17	21°26'28	morning rise	11717 Apr 16 01:27	20° $\mathfrak{Y}$ 27'47	
desc. node	11716 May 20 00:12	15° $\mathfrak{B}$ 14'25		direct	11717 Apr 20 00:42	18° $\mathfrak{Y}$ 58'12	
	11716 May 30 20:24	0° $\mathfrak{I}$		morning max el	11717 Apr 27 18:05	23° $\mathfrak{Y}$ 18'53	20°11'07
morning set	11716 Jun 15 11:29	23° $\mathfrak{I}$ 40'15			11717 May 03 12:17	0° $\mathfrak{B}$	
	11716 Jun 19 10:31	0° $\mathfrak{D}$		desc. node	11717 May 06 20:59	4° $\mathfrak{B}$ 30'36	
					11717 May 24 02:40	0° $\mathfrak{I}$	

morning set	11717 May 25 14:44	2° $\Pi$ 18'41		max. Earth dist.	11718 May 18 03:56	1° $\Pi$ 57'11	1.45263 AU
max. Earth dist.	11717 Jun 04 12:42	17° $\Pi$ 51'36	1.44090 AU				
superior conj	11717 Jun 10 08:20	27° $\Pi$ 16'28	-2°07'36	superior conj	11718 May 21 04:23	6° $\Pi$ 42'41	-2°12'49
minimum elong	11717 Jun 10 13:07	27° $\Pi$ 36'08	2°08'08	minimum elong	11718 May 21 02:37	6° $\Pi$ 35'43	2°13'28
	11717 Jun 12 00:03	0° $\mathfrak{D}$		evening rise	11718 Jun 04 19:07	0° $\mathfrak{D}$ 17'21	
evening rise	11717 Jun 23 06:11	19° $\mathfrak{D}$ 04'30			11718 Jun 04 14:54	0° $\mathfrak{D}$	
	11717 Jun 29 14:57	0° $\Omega$		asc. node	11718 Jun 17 04:50	20° $\mathfrak{D}$ 16'27	
asc. node	11717 Jun 30 07:50	1° $\Omega$ 10'54		evening max el	11718 Jun 24 04:21	29° $\mathfrak{D}$ 17'04	18°21'14
evening max el	11717 Jul 10 14:42	15° $\Omega$ 46'07	18°05'00		11718 Jun 24 22:29	0° $\Omega$	
retrograde	11717 Jul 17 00:53	19° $\Omega$ 06'43		retrograde	11718 Jun 30 13:54	2° $\Omega$ 42'16	
evening set	11717 Jul 19 17:34	18° $\Omega$ 30'11		evening set	11718 Jul 03 14:45	1° $\Omega$ 51'34	
inferior conj	11717 Jul 26 01:24	13° $\Omega$ 19'09	2°07'39		11718 Jul 06 02:33	30° $\mathfrak{R}\mathfrak{D}$	
minimum elong	11717 Jul 26 04:04	13° $\Omega$ 12'09	2°06'17	inferior conj	11718 Jul 09 11:10	26° $\mathfrak{D}$ 23'44	2°47'16
min. Earth dist.	11717 Jul 28 22:43	10° $\Omega$ 18'43	0.62343 AU	minimum elong	11718 Jul 09 13:21	26° $\mathfrak{D}$ 17'23	2°46'07
morning rise	11717 Aug 01 12:24	7° $\Omega$ 10'57		min. Earth dist.	11718 Jul 11 19:06	23° $\mathfrak{D}$ 41'26	0.64425 AU
desc. node	11717 Aug 02 20:06	6° $\Omega$ 19'06		morning rise	11718 Jul 15 10:40	20° $\mathfrak{D}$ 05'04	
direct	11717 Aug 08 04:54	4° $\Omega$ 45'55		desc. node	11718 Jul 20 17:23	17° $\mathfrak{D}$ 31'57	
morning max el	11717 Aug 22 07:49	12° $\Omega$ 48'11	27°56'10	direct	11718 Jul 22 01:21	17° $\mathfrak{D}$ 25'49	
	11717 Sep 05 01:09	0° $\mathfrak{M}$		morning max el	11718 Aug 04 17:51	25° $\mathfrak{D}$ 26'05	27°27'50
	11717 Sep 22 13:39	0° $\mathfrak{L}$			11718 Aug 08 22:07	0° $\Omega$	
morning set	11717 Sep 25 08:15	5° $\mathfrak{L}$ 32'43			11718 Aug 29 13:23	0° $\mathfrak{M}$	
asc. node	11717 Sep 26 08:46	7° $\mathfrak{L}$ 38'29		morning set	11718 Sep 08 23:16	19° $\mathfrak{M}$ 05'59	
max. Earth dist.	11717 Sep 30 17:27	16° $\mathfrak{L}$ 52'30	1.31943 AU	asc. node	11718 Sep 13 05:28	27° $\mathfrak{M}$ 41'41	
				max. Earth dist.	11718 Sep 13 15:02	28° $\mathfrak{M}$ 31'13	1.32988 AU
					11718 Sep 14 08:04	0° $\mathfrak{L}$	
superior conj	11717 Oct 02 21:30	21° $\mathfrak{L}$ 35'59	1°00'13				
minimum elong	11717 Oct 02 19:17	21° $\mathfrak{L}$ 23'51	1°00'03	superior conj	11718 Sep 17 02:32	5° $\mathfrak{L}$ 51'45	0°37'05
	11717 Oct 06 17:08	0° $\mathfrak{M}$		minimum elong	11718 Sep 17 00:51	5° $\mathfrak{L}$ 42'40	0°36'46
evening rise	11717 Oct 09 16:24	6° $\mathfrak{M}$ 28'07		evening rise	11718 Sep 24 03:38	21° $\mathfrak{L}$ 01'59	
	11717 Oct 21 21:03	0° $\mathfrak{J}$			11718 Sep 28 11:24	0° $\mathfrak{M}$	
desc. node	11717 Oct 29 17:04	11° $\mathfrak{J}$ 19'55		evening max el	11718 Oct 15 22:50	26° $\mathfrak{M}$ 40'54	22°33'38
evening max el	11717 Nov 03 12:01	16° $\mathfrak{J}$ 35'58	24°14'52	desc. node	11718 Oct 16 14:24	27° $\mathfrak{M}$ 17'58	
retrograde	11717 Nov 17 04:20	23° $\mathfrak{J}$ 26'28			11718 Oct 19 22:11	0° $\mathfrak{J}$	
evening set	11717 Nov 22 05:42	22° $\mathfrak{J}$ 30'10		retrograde	11718 Oct 28 23:04	3° $\mathfrak{J}$ 08'51	
min. Earth dist.	11717 Nov 27 23:03	19° $\mathfrak{J}$ 37'20	0.56015 AU	evening set	11718 Nov 01 13:35	2° $\mathfrak{J}$ 40'23	
inferior conj	11717 Nov 30 05:56	18° $\mathfrak{J}$ 12'54	-5°41'27		11718 Nov 07 20:44	30° $\mathfrak{R}\mathfrak{M}$	
minimum elong	11717 Nov 30 10:25	18° $\mathfrak{J}$ 05'58	5°40'17	min. Earth dist.	11718 Nov 09 06:32	29° $\mathfrak{M}$ 13'00	0.54870 AU
morning rise	11717 Dec 08 17:13	14° $\mathfrak{J}$ 13'32		inferior conj	11718 Nov 10 05:44	28° $\mathfrak{M}$ 40'07	-5°45'40
direct	11717 Dec 11 06:36	13° $\mathfrak{J}$ 56'26		minimum elong	11718 Nov 10 01:59	28° $\mathfrak{M}$ 45'26	5°44'45
morning max el	11717 Dec 21 08:25	18° $\mathfrak{J}$ 44'48	19°48'33	morning rise	11718 Nov 18 15:52	24° $\mathfrak{M}$ 52'19	
asc. node	11717 Dec 23 09:10	20° $\mathfrak{J}$ 52'46		direct	11718 Nov 21 21:26	24° $\mathfrak{M}$ 28'31	
	11717 Dec 29 20:18	0° $\mathfrak{Z}$		morning max el	11718 Dec 03 12:40	29° $\mathfrak{M}$ 59'43	21°12'52
morning set	11718 Jan 08 00:56	17° $\mathfrak{Z}$ 19'33			11718 Dec 03 12:47	0° $\mathfrak{J}$	
	11718 Jan 14 06:53	0° $\approx$		asc. node	11718 Dec 10 06:13	8° $\mathfrak{J}$ 04'00	
					11718 Dec 22 10:05	0° $\mathfrak{Z}$	
superior conj	11718 Jan 15 20:54	3° $\approx$ 09'41	1°11'49	morning set	11718 Dec 23 09:47	2° $\mathfrak{Z}$ 02'53	
minimum elong	11718 Jan 15 23:45	3° $\approx$ 23'48	1°12'09				
max. Earth dist.	11718 Jan 21 22:42	14° $\approx$ 51'33	1.37343 AU	superior conj	11718 Dec 30 16:47	17° $\mathfrak{Z}$ 19'33	1°27'45
evening rise	11718 Jan 25 16:07	21° $\approx$ 39'11		minimum elong	11718 Dec 30 18:53	17° $\mathfrak{Z}$ 30'25	1°28'20
desc. node	11718 Jan 25 16:11	21° $\approx$ 39'26		max. Earth dist.	11719 Jan 04 08:30	26° $\mathfrak{Z}$ 45'25	1.35310 AU
	11718 Jan 30 11:37	0° $\mathfrak{H}$			11719 Jan 06 00:15	0° $\approx$	
	11718 Feb 19 11:32	0° $\mathfrak{Y}$		evening rise	11719 Jan 08 10:08	4° $\approx$ 36'08	
evening max el	11718 Mar 02 04:40	12° $\mathfrak{Y}$ 28'43	25°26'05	desc. node	11719 Jan 12 13:00	12° $\approx$ 08'04	
retrograde	11718 Mar 14 10:09	19° $\mathfrak{Y}$ 32'44			11719 Jan 23 08:14	0° $\mathfrak{H}$	
evening set	11718 Mar 20 07:09	17° $\mathfrak{Y}$ 06'48		evening max el	11719 Feb 12 18:17	26° $\mathfrak{H}$ 15'47	26°29'49
asc. node	11718 Mar 21 06:55	16° $\mathfrak{Y}$ 12'40			11719 Feb 17 02:00	0° $\mathfrak{Y}$	
min. Earth dist.	11718 Mar 24 15:40	12° $\mathfrak{Y}$ 20'03	0.67685 AU	retrograde	11719 Feb 25 17:52	3° $\mathfrak{Y}$ 35'28	
inferior conj	11718 Mar 25 23:41	10° $\mathfrak{Y}$ 36'48	1°26'47	evening set	11719 Mar 04 01:57	1° $\mathfrak{Y}$ 03'34	
minimum elong	11718 Mar 25 21:50	10° $\mathfrak{Y}$ 42'46	1°26'04		11719 Mar 05 06:46	30° $\mathfrak{R}\mathfrak{H}$	
morning rise	11718 Mar 31 12:58	4° $\mathfrak{Y}$ 44'09		min. Earth dist.	11719 Mar 08 04:29	26° $\mathfrak{H}$ 51'10	0.66530 AU
direct	11718 Apr 04 00:17	3° $\mathfrak{Y}$ 34'56		asc. node	11719 Mar 08 04:16	26° $\mathfrak{H}$ 51'49	
morning max el	11718 Apr 10 23:07	7° $\mathfrak{Y}$ 23'02	19°10'06	inferior conj	11719 Mar 10 00:29	24° $\mathfrak{H}$ 38'40	0°35'26
desc. node	11718 Apr 23 17:43	24° $\mathfrak{Y}$ 15'33		minimum elong	11719 Mar 09 23:34	24° $\mathfrak{H}$ 41'26	0°35'13
greatest brilliancy	11718 Apr 23 22:56	24° $\mathfrak{Y}$ 35'01	-0.7m	morning rise	11719 Mar 15 22:10	18° $\mathfrak{H}$ 56'24	
	11718 Apr 27 12:56	0° $\mathfrak{B}$		direct	11719 Mar 18 22:50	18° $\mathfrak{H}$ 04'59	
morning set	11718 May 04 17:10	11° $\mathfrak{B}$ 01'33		morning max el	11719 Mar 25 10:48	21° $\mathfrak{H}$ 32'59	18°25'16
	11718 May 16 22:04	0° $\Pi$			11719 Apr 01 05:34	0° $\mathfrak{Y}$	



desc. node	11719 Apr 10 14:25	14°♿21'33			11720 Mar 24 14:35	0°♿	
morning set	11719 Apr 14 16:16	20°♿49'08		morning set	11720 Mar 25 20:20	2°♿02'58	
	11719 Apr 20 11:34	0°♿		desc. node	11720 Mar 27 11:04	4°♿42'47	
superior conj	11719 Apr 30 11:45	15°♿41'54	-1°57'49	superior conj	11720 Apr 09 00:04	25°♿01'17	-1°25'32
minimum elong	11719 Apr 30 03:24	15°♿09'19	1°57'45	minimum elong	11720 Apr 08 15:19	24°♿26'31	1°24'47
max. Earth dist.	11719 Apr 30 22:50	16°♿25'13	1.45730 AU		11720 Apr 12 03:41	0°♿	
	11719 May 09 15:17	0°♿		max. Earth dist.	11720 Apr 12 19:05	1°♿00'32	1.45447 AU
evening rise	11719 May 16 07:49	10°♿30'34		evening rise	11720 Apr 25 01:24	20°♿02'27	
greatest brilliancy	11719 May 25 22:27	25°♿35'29	-0.8m		11720 May 01 13:39	0°♿	
	11719 May 28 19:38	0°♿		greatest brilliancy	11720 May 09 05:10	11°♿28'03	-0.6m
asc. node	11719 Jun 04 01:53	8°♿51'21		asc. node	11720 May 20 23:01	26°♿45'52	
evening max el	11719 Jun 07 15:14	12°♿57'12	18°55'00	evening max el	11720 May 20 21:23	26°♿41'47	19°45'01
retrograde	11719 Jun 14 08:50	16°♿40'01			11720 May 25 01:34	0°♿	
evening set	11719 Jun 17 18:12	15°♿33'40		retrograde	11720 May 28 06:54	0°♿54'05	
inferior conj	11719 Jun 23 06:54	9°♿50'29	3°08'48		11720 May 31 08:08	30°♿♿	
minimum elong	11719 Jun 23 08:04	9°♿46'48	3°07'54	evening set	11720 Jun 01 01:18	29°♿31'32	
min. Earth dist.	11719 Jun 24 23:58	7°♿40'59	0.66173 AU	inferior conj	11720 Jun 06 09:30	23°♿34'16	3°15'35
morning rise	11719 Jun 28 21:16	3°♿28'24		minimum elong	11720 Jun 06 09:33	23°♿34'06	3°14'50
direct	11719 Jul 05 05:02	0°♿45'47		min. Earth dist.	11720 Jun 07 11:51	22°♿06'09	0.67492 AU
desc. node	11719 Jul 07 14:36	1°♿06'06		morning rise	11720 Jun 11 17:27	17°♿13'06	
morning max el	11719 Jul 18 04:37	8°♿29'24	26°30'08	direct	11720 Jun 17 14:45	14°♿37'05	
	11719 Aug 04 00:02	0°♿		desc. node	11720 Jun 23 11:42	16°♿38'36	
	11719 Aug 22 00:02	0°♿		morning max el	11720 Jun 29 14:52	21°♿48'51	25°12'13
morning set	11719 Aug 23 02:35	2°♿04'04			11720 Jul 06 17:58	0°♿	
max. Earth dist.	11719 Aug 27 02:30	9°♿46'13	1.34545 AU		11720 Jul 27 06:06	0°♿	
asc. node	11719 Aug 31 02:09	17°♿47'27		morning set	11720 Aug 04 14:12	14°♿17'23	
				max. Earth dist.	11720 Aug 08 04:43	20°♿52'16	1.36544 AU
superior conj	11719 Sep 01 00:58	19°♿44'51	0°09'12		11720 Aug 12 23:37	0°♿	
minimum elong	11719 Sep 01 00:29	19°♿42'18	0°08'54	superior conj	11720 Aug 14 13:55	3°♿08'14	-0°22'33
behind sun begin	11719 Aug 31 19:33	19°♿16'52		minimum elong	11720 Aug 14 15:22	3°♿15'23	0°22'42
behind sun end	11719 Sep 01 05:24	20°♿07'46		asc. node	11720 Aug 16 22:52	7°♿52'24	
	11719 Sep 05 22:32	0°♿		evening rise	11720 Aug 22 18:18	19°♿39'53	
evening rise	11719 Sep 08 12:59	5°♿27'45			11720 Aug 27 23:58	0°♿	
	11719 Sep 21 22:50	0°♿		evening max el	11720 Sep 09 01:26	18°♿04'55	19°44'24
evening max el	11719 Sep 27 17:26	7°♿02'06	21°00'01	retrograde	11720 Sep 19 02:12	23°♿04'39	
desc. node	11719 Oct 03 11:46	11°♿21'27		desc. node	11720 Sep 19 09:09	23°♿04'25	
retrograde	11719 Oct 09 10:09	12°♿50'29		evening set	11720 Sep 20 23:21	22°♿54'53	
evening set	11719 Oct 11 19:52	12°♿36'48		inferior conj	11720 Sep 29 19:54	18°♿52'14	-3°12'04
inferior conj	11719 Oct 20 21:32	8°♿42'11	-4°51'23	minimum elong	11720 Sep 29 11:33	19°♿05'10	3°08'56
minimum elong	11719 Oct 20 11:50	8°♿55'55	4°48'38	min. Earth dist.	11720 Oct 01 23:02	17°♿32'59	0.55251 AU
min. Earth dist.	11719 Oct 21 13:37	8°♿19'26	0.54591 AU	morning rise	11720 Oct 07 22:03	14°♿33'13	
morning rise	11719 Oct 29 04:07	4°♿48'52		direct	11720 Oct 12 19:24	13°♿40'34	
direct	11719 Nov 02 05:37	4°♿13'26		morning max el	11720 Oct 26 15:16	20°♿32'13	24°42'59
morning max el	11719 Nov 15 04:35	10°♿27'22	22°55'06		11720 Nov 03 17:50	0°♿	
asc. node	11719 Nov 27 03:10	26°♿08'04		asc. node	11720 Nov 13 00:03	14°♿52'07	
	11719 Nov 29 08:49	0°♿			11720 Nov 20 14:54	0°♿	
morning set	11719 Dec 07 21:02	16°♿49'57		morning set	11720 Nov 21 08:51	1°♿35'40	
	11719 Dec 13 23:55	0°♿					
superior conj	11719 Dec 14 20:10	1°♿48'41	1°36'39	superior conj	11720 Nov 28 04:25	16°♿29'32	1°39'03
minimum elong	11719 Dec 14 21:11	1°♿54'04	1°37'22	minimum elong	11720 Nov 28 04:17	16°♿28'44	1°39'47
max. Earth dist.	11719 Dec 18 01:48	8°♿39'14	1.33626 AU	max. Earth dist.	11720 Nov 30 02:56	20°♿43'16	1.32381 AU
evening rise	11719 Dec 22 17:55	18°♿07'44			11720 Dec 04 11:44	0°♿	
	11719 Dec 29 01:24	0°♿		evening rise	11720 Dec 05 12:07	2°♿05'29	
desc. node	11719 Dec 30 09:54	2°♿24'16		desc. node	11720 Dec 16 06:52	22°♿21'55	
	11720 Jan 17 14:17	0°♿			11720 Dec 20 22:21	0°♿	
evening max el	11720 Jan 26 07:49	9°♿50'15	27°14'06	evening max el	11721 Jan 07 19:28	22°♿59'04	27°31'56
retrograde	11720 Feb 08 19:26	17°♿14'33			11721 Jan 18 20:21	0°♿	
evening set	11720 Feb 15 12:41	14°♿42'13		retrograde	11721 Jan 21 13:56	0°♿20'44	
min. Earth dist.	11720 Feb 19 10:17	11°♿02'49	0.65005 AU		11721 Jan 24 05:26	30°♿♿	
inferior conj	11720 Feb 21 18:03	8°♿29'05	-0°25'52	evening set	11721 Jan 28 12:51	27°♿54'57	
minimum elong	11720 Feb 21 18:49	8°♿26'59	0°25'13	min. Earth dist.	11721 Feb 01 07:00	24°♿45'16	0.63166 AU
asc. node	11720 Feb 23 01:37	7°♿03'21		inferior conj	11721 Feb 04 01:34	22°♿00'32	-1°36'27
morning rise	11720 Feb 28 02:33	2°♿59'41		minimum elong	11721 Feb 04 04:44	21°♿52'40	1°34'37
direct	11720 Mar 01 18:07	2°♿22'40		asc. node	11721 Feb 08 22:56	17°♿47'59	
morning max el	11720 Mar 08 02:57	5°♿42'16	17°57'22	morning rise	11721 Feb 10 22:56	16°♿47'00	

direct	11721 Feb 13 07:11	16° $\approx$ 20'49		morning rise	11722 Jan 25 07:05	0° $\approx$ 10'28	
morning max el	11721 Feb 19 20:38	19° $\approx$ 42'33	17°46'48		11722 Jan 26 00:13	30° $\approx$ 30'	
	11721 Feb 27 12:42	0° $\approx$		asc. node	11722 Jan 26 20:11	29° $\approx$ 52'59	
morning set	11721 Mar 08 02:08	14° $\approx$ 30'28		direct	11722 Jan 27 10:27	29° $\approx$ 51'29	
desc. node	11721 Mar 14 07:41	25° $\approx$ 13'57			11722 Jan 28 20:17	0° $\approx$	
	11721 Mar 17 03:27	0° $\approx$		morning max el	11722 Feb 03 12:38	3° $\approx$ 25'22	17°54'19
				morning set	11722 Feb 19 03:25	27° $\approx$ 52'43	
superior conj	11721 Mar 20 08:08	5° $\approx$ 18'38	-0°44'43		11722 Feb 20 07:23	0° $\approx$	
minimum elong	11721 Mar 20 03:31	4° $\approx$ 59'39	0°44'02	desc. node	11722 Mar 01 04:20	15° $\approx$ 51'24	
max. Earth dist.	11721 Mar 26 13:30	15° $\approx$ 24'11	1.44450 AU				
evening rise	11721 Apr 04 12:51	29° $\approx$ 27'03		superior conj	11722 Mar 01 16:56	16° $\approx$ 46'05	-0°04'05
	11721 Apr 04 21:26	0° $\approx$		minimum elong	11722 Mar 01 16:35	16° $\approx$ 44'37	0°03'47
	11721 Apr 25 07:47	0° $\approx$		behind sun begin	11722 Mar 01 08:31	16° $\approx$ 09'36	
evening max el	11721 May 03 21:44	10° $\approx$ 26'52	20°49'13	behind sun end	11722 Mar 02 00:39	17° $\approx$ 19'33	
asc. node	11721 May 07 20:13	13° $\approx$ 46'25		max. Earth dist.	11722 Mar 09 03:36	29° $\approx$ 19'33	1.42852 AU
retrograde	11721 May 12 05:44	15° $\approx$ 18'09			11722 Mar 09 13:28	0° $\approx$	
evening set	11721 May 16 09:57	13° $\approx$ 39'28		evening rise	11722 Mar 15 09:30	9° $\approx$ 22'05	
inferior conj	11721 May 21 16:23	7° $\approx$ 29'46	3°10'07		11722 Mar 29 00:40	0° $\approx$	
minimum elong	11721 May 21 15:26	7° $\approx$ 33'03	3°09'22	evening max el	11722 Apr 16 16:43	24° $\approx$ 12'43	22°04'02
min. Earth dist.	11721 May 22 04:51	6° $\approx$ 46'37	0.68346 AU	asc. node	11722 Apr 24 17:28	29° $\approx$ 37'40	
morning rise	11721 May 26 20:42	1° $\approx$ 12'08		retrograde	11722 Apr 26 03:33	29° $\approx$ 47'18	
	11721 May 28 10:26	30° $\approx$ 30'		evening set	11722 Apr 30 18:24	27° $\approx$ 53'14	
direct	11721 Jun 01 05:31	28° $\approx$ 50'09		inferior conj	11722 May 06 01:23	21° $\approx$ 33'23	2°53'55
	11721 Jun 05 09:33	0° $\approx$		minimum elong	11722 May 05 23:41	21° $\approx$ 39'20	2°53'04
desc. node	11721 Jun 10 08:43	3° $\approx$ 40'19		min. Earth dist.	11722 May 06 00:53	21° $\approx$ 35'07	0.68733 AU
morning max el	11721 Jun 12 00:50	5° $\approx$ 17'13	23°43'57	morning rise	11722 May 11 04:47	15° $\approx$ 20'57	
	11721 Jul 01 02:22	0° $\approx$		direct	11722 May 16 00:25	13° $\approx$ 17'47	
morning set	11721 Jul 17 05:19	25° $\approx$ 33'53		morning max el	11722 May 25 12:40	18° $\approx$ 53'06	22°14'50
	11721 Jul 19 19:15	0° $\approx$		desc. node	11722 May 28 05:39	21° $\approx$ 47'33	
max. Earth dist.	11721 Jul 21 02:11	2° $\approx$ 15'21	1.38809 AU		11722 Jun 03 19:49	0° $\approx$	
					11722 Jun 24 05:42	0° $\approx$	
superior conj	11721 Jul 28 13:47	15° $\approx$ 52'55	-0°56'27	morning set	11722 Jun 27 19:27	5° $\approx$ 42'38	
minimum elong	11721 Jul 28 17:42	16° $\approx$ 11'22	0°56'23	max. Earth dist.	11722 Jul 03 01:16	14° $\approx$ 20'53	1.41096 AU
asc. node	11721 Aug 03 19:37	27° $\approx$ 52'38					
	11721 Aug 04 21:42	0° $\approx$		superior conj	11722 Jul 10 20:14	27° $\approx$ 49'05	-1°29'29
evening rise	11721 Aug 06 16:52	3° $\approx$ 30'57		minimum elong	11722 Jul 11 02:25	28° $\approx$ 16'37	1°29'24
evening max el	11721 Aug 22 22:33	29° $\approx$ 55'10	18°50'17		11722 Jul 12 01:31	0° $\approx$	
	11721 Aug 23 00:30	0° $\approx$		evening rise	11722 Jul 21 05:13	16° $\approx$ 51'52	
retrograde	11721 Aug 31 10:06	4° $\approx$ 09'53		asc. node	11722 Jul 21 16:25	17° $\approx$ 44'06	
evening set	11721 Sep 02 07:44	3° $\approx$ 57'53			11722 Jul 28 10:20	0° $\approx$	
desc. node	11721 Sep 06 06:31	2° $\approx$ 25'04		evening max el	11722 Aug 06 05:19	12° $\approx$ 26'16	18°17'15
	11721 Sep 10 00:03	30° $\approx$ 30'		retrograde	11722 Aug 13 12:54	16° $\approx$ 08'02	
inferior conj	11721 Sep 10 12:17	29° $\approx$ 38'04	-1°19'49	evening set	11722 Aug 15 17:00	15° $\approx$ 49'13	
minimum elong	11721 Sep 10 08:56	29° $\approx$ 44'06	1°18'33	inferior conj	11722 Aug 23 02:29	11° $\approx$ 09'02	0°19'24
min. Earth dist.	11721 Sep 13 13:28	27° $\approx$ 27'06	0.56731 AU	minimum elong	11722 Aug 23 03:09	11° $\approx$ 07'38	0°18'50
morning rise	11721 Sep 18 06:50	24° $\approx$ 41'45		desc. node	11722 Aug 24 03:55	10° $\approx$ 15'11	
direct	11721 Sep 23 22:38	23° $\approx$ 24'41		min. Earth dist.	11722 Aug 26 10:42	8° $\approx$ 21'25	0.58773 AU
	11721 Oct 07 08:36	0° $\approx$		morning rise	11722 Aug 30 09:48	5° $\approx$ 37'26	
morning max el	11721 Oct 08 04:45	0° $\approx$ 47'18	26°18'43	direct	11722 Sep 05 16:24	3° $\approx$ 51'28	
	11721 Oct 28 16:57	0° $\approx$		morning max el	11722 Sep 20 00:58	11° $\approx$ 36'23	27°26'06
asc. node	11721 Oct 30 20:51	4° $\approx$ 05'59			11722 Oct 04 10:15	0° $\approx$	
morning set	11721 Nov 05 19:35	16° $\approx$ 15'23		asc. node	11722 Oct 17 17:37	23° $\approx$ 40'52	
	11721 Nov 12 01:46	0° $\approx$			11722 Oct 20 19:15	0° $\approx$	
				morning set	11722 Oct 21 03:27	0° $\approx$ 43'15	
superior conj	11721 Nov 12 15:24	1° $\approx$ 15'47	1°35'25				
minimum elong	11721 Nov 12 14:15	1° $\approx$ 09'21	1°35'59	superior conj	11722 Oct 28 03:07	16° $\approx$ 00'29	1°26'04
max. Earth dist.	11721 Nov 13 09:36	2° $\approx$ 56'51	1.31612 AU	minimum elong	11722 Oct 28 01:14	15° $\approx$ 49'55	1°26'22
evening rise	11721 Nov 19 13:56	16° $\approx$ 22'19		max. Earth dist.	11722 Oct 27 18:30	15° $\approx$ 12'23	1.31341 AU
	11721 Nov 26 09:53	0° $\approx$			11722 Nov 03 11:26	0° $\approx$	
desc. node	11721 Dec 03 03:54	11° $\approx$ 53'24		evening rise	11722 Nov 03 20:55	0° $\approx$ 50'54	
	11721 Dec 15 22:56	0° $\approx$			11722 Nov 19 12:44	0° $\approx$	
evening max el	11721 Dec 21 02:53	5° $\approx$ 29'52	27°17'48	desc. node	11722 Nov 20 01:01	0° $\approx$ 47'24	
retrograde	11722 Jan 04 00:45	12° $\approx$ 45'04		evening max el	11722 Dec 03 03:38	17° $\approx$ 11'58	26°29'22
evening set	11722 Jan 10 23:20	10° $\approx$ 34'34		retrograde	11722 Dec 17 02:22	24° $\approx$ 18'36	
min. Earth dist.	11722 Jan 14 17:23	7° $\approx$ 47'36	0.61101 AU	evening set	11722 Dec 23 16:05	22° $\approx$ 32'40	
inferior conj	11722 Jan 17 19:49	5° $\approx$ 05'02	-2°53'43	min. Earth dist.	11722 Dec 27 17:24	19° $\approx$ 56'39	0.58962 AU
minimum elong	11722 Jan 18 01:48	4° $\approx$ 51'54	2°50'48	inferior conj	11722 Dec 30 21:11	17° $\approx$ 32'24	-4°11'27

minimum elong	11722 Dec 31 05:19	17°  16'51	4°08'16	inferior conj	11723 Dec 12 02:41	29°  13'43	-5°16'58
morning rise	11723 Jan 07 21:23	12°  59'05		minimum elong	11723 Dec 12 10:00	29°  01'35	5°14'52
direct	11723 Jan 09 23:39	12°  43'45		morning rise	11723 Dec 20 11:44	25°  02'27	
asc. node	11723 Jan 13 17:24	13°  35'21		direct	11723 Dec 22 19:04	24°  47'01	
morning max el	11723 Jan 17 23:11	16°  39'33	18°21'25	asc. node	11723 Dec 31 14:33	28°  50'45	
	11723 Jan 27 08:41	0° 		morning max el	11724 Jan 01 00:20	29°  13'52	19°10'05
morning set	11723 Feb 02 18:28	11°  52'14			11724 Jan 01 18:43	0° 	
				morning set	11724 Jan 17 18:54	26°  16'18	
superior conj	11723 Feb 12 00:06	29°  15'28	0°31'17		11724 Jan 19 15:53	0° 	
minimum elong	11723 Feb 12 02:16	29°  25'24	0°31'24				
	11723 Feb 12 09:51	0° 		superior conj	11724 Jan 26 01:02	12°  33'54	0°59'15
desc. node	11723 Feb 16 00:59	6°  31'06		minimum elong	11724 Jan 26 03:59	12°  48'07	0°59'27
max. Earth dist.	11723 Feb 19 12:56	12°  35'58	1.40832 AU	max. Earth dist.	11724 Feb 01 19:29	25°  12'17	1.38619 AU
evening rise	11723 Feb 24 01:07	20°  09'27		desc. node	11724 Feb 02 21:40	27°  09'38	
	11723 Mar 02 04:40	0° 			11724 Feb 04 12:16	0° 	
	11723 Mar 23 06:56	0° 		evening rise	11724 Feb 05 14:10	1°  52'43	
evening max el	11723 Mar 30 08:05	8°  01'07	23°24'22		11724 Feb 23 10:04	0° 	
retrograde	11723 Apr 09 22:48	14°  16'43		evening max el	11724 Mar 11 21:50	21°  52'08	24°43'44
asc. node	11723 Apr 11 14:47	14°  03'42		retrograde	11724 Mar 23 14:13	28°  40'53	
evening set	11723 Apr 15 01:06	12°  08'34		asc. node	11724 Mar 28 12:09	26°  53'20	
inferior conj	11723 Apr 20 10:35	5°  41'41	2°27'46	evening set	11724 Mar 29 04:29	26°  50'39	
minimum elong	11723 Apr 20 08:28	5°  48'58	2°26'51	min. Earth dist.	11724 Apr 02 17:03	21°  51'43	0.68166 AU
min. Earth dist.	11723 Apr 19 21:42	6°  26'02	0.68666 AU	inferior conj	11724 Apr 03 18:04	19°  50'38	1°51'54
	11723 Apr 25 04:19	30°  08'00		minimum elong	11724 Apr 03 15:58	19°  57'38	1°51'01
morning rise	11723 Apr 25 15:45	29°  35'49		morning rise	11724 Apr 09 03:39	13°  52'46	
direct	11723 Apr 29 22:19	27°  53'43		direct	11724 Apr 12 21:47	12°  31'52	
	11723 May 05 04:44	0° 		morning max el	11724 Apr 20 06:09	16°  36'53	19°43'15
morning max el	11723 May 08 05:41	2°  39'08	20°52'49	desc. node	11724 Apr 30 23:17	0°  11'53	
desc. node	11723 May 15 02:30	10°  42'30			11724 Apr 30 19:57	0° 	
	11723 May 28 16:37	0° 		greatest brilliancy	11724 May 03 00:58	3°  11'52	-0.6m
morning set	11723 Jun 07 08:37	14°  45'24		morning set	11724 May 16 08:31	23°  16'53	
max. Earth dist.	11723 Jun 15 06:39	27°  20'30	1.43129 AU		11724 May 20 16:52	0° 	
	11723 Jun 16 21:49	0° 		max. Earth dist.	11724 May 27 19:10	11°  07'43	1.44670 AU
superior conj	11723 Jun 22 04:56	8°  47'41	-1°56'53	superior conj	11724 Jun 01 13:26	18°  44'05	-2°12'08
minimum elong	11723 Jun 22 11:24	9°  15'01	1°57'09	minimum elong	11724 Jun 01 15:55	18°  54'04	2°12'49
evening rise	11723 Jul 04 02:59	29°  31'56			11724 Jun 08 10:58	0° 	
	11723 Jul 04 09:18	0° 		evening rise	11724 Jun 15 05:08	11°  18'51	
asc. node	11723 Jul 08 13:17	7°  22'31		asc. node	11724 Jun 24 10:14	26°  41'47	
evening max el	11723 Jul 20 17:40	25°  28'30	18°04'05		11724 Jun 26 12:44	0° 	
retrograde	11723 Jul 27 08:26	28°  52'15		evening max el	11724 Jul 03 07:44	8°  51'00	18°09'45
evening set	11723 Jul 29 20:34	28°  22'55		retrograde	11724 Jul 09 16:22	12°  11'39	
inferior conj	11723 Aug 05 12:44	23°  22'43	1°35'02	evening set	11724 Jul 12 12:36	11°  29'08	
minimum elong	11723 Aug 05 15:12	23°  16'44	1°33'43	inferior conj	11724 Jul 18 15:05	6°  10'37	2°26'53
min. Earth dist.	11723 Aug 08 16:12	20°  20'35	0.61050 AU	minimum elong	11724 Jul 18 17:39	6°  03'34	2°25'35
desc. node	11723 Aug 11 01:17	18°  18'43		min. Earth dist.	11724 Jul 21 06:57	3°  16'05	0.63264 AU
morning rise	11723 Aug 12 07:08	17°  25'09		morning rise	11724 Jul 24 20:58	29°  57'15	
direct	11723 Aug 18 22:12	15°  22'24			11724 Jul 24 19:32	30°  08'56	
morning max el	11723 Sep 02 04:08	23°  10'23	27°56'16	desc. node	11724 Jul 27 22:37	28°  08'56	
	11723 Sep 08 06:17	0° 		direct	11724 Jul 31 13:29	27°  52'06	
	11723 Sep 27 15:53	0° 			11724 Aug 08 00:00	0° 	
asc. node	11723 Oct 04 14:21	13°  30'45		morning max el	11724 Aug 14 12:23	5°  27'04	27°48'15
morning set	11723 Oct 05 06:36	14°  54'33			11724 Sep 02 02:22	0° 	
max. Earth dist.	11723 Oct 11 02:02	27°  21'10	1.31581 AU	morning set	11724 Sep 18 02:48	28°  43'19	
	11723 Oct 12 06:51	0° 			11724 Sep 18 18:00	0° 	
				asc. node	11724 Sep 20 11:03	3°  30'07	
superior conj	11723 Oct 12 13:48	0°  38'25	1°11'12	max. Earth dist.	11724 Sep 23 04:27	9°  13'34	1.32331 AU
minimum elong	11723 Oct 12 11:34	0°  26'02	1°11'13				
evening rise	11723 Oct 19 07:05	15°  25'55		superior conj	11724 Sep 25 21:29	15°  03'39	0°51'01
	11723 Oct 26 10:36	0° 		minimum elong	11724 Sep 25 19:25	14°  52'23	0°50'47
desc. node	11723 Nov 06 22:14	18°  49'29		evening rise	11724 Oct 02 18:28	0° 	
evening max el	11723 Nov 14 20:16	28°  42'45	25°10'04		11724 Oct 02 18:09	0° 	
	11723 Nov 17 01:07	0° 			11724 Oct 19 07:12	0° 	
retrograde	11723 Nov 28 16:27	4°  59'26		desc. node	11724 Oct 23 19:32	5°  40'02	
evening set	11723 Dec 04 10:30	3°  44'44		evening max el	11724 Oct 26 06:58	8°  15'09	23°31'48
min. Earth dist.	11723 Dec 09 08:19	1°  03'27	0.56982 AU	retrograde	11724 Nov 08 17:42	14°  47'20	
	11723 Dec 10 22:56	30°  08'47		evening set	11724 Nov 13 04:54	14°  13'58	

min. Earth dist.	11724 Nov 19 17:00	11° $\text{♁}$ 08'42	0.55443 AU	minimum elong	11725 Oct 31 23:38	20° $\text{♁}$ 28'09	5°28'05
inferior conj	11724 Nov 21 11:58	10° $\text{♁}$ 05'31	-5°50'00	min. Earth dist.	11725 Oct 31 23:39	20° $\text{♁}$ 28'09	0.54635 AU
minimum elong	11724 Nov 21 13:15	10° $\text{♁}$ 03'37	5°49'15	morning rise	11725 Nov 09 15:27	16° $\text{♁}$ 31'02	
morning rise	11724 Nov 29 23:23	6° $\text{♁}$ 12'47		direct	11725 Nov 13 05:10	16° $\text{♁}$ 03'05	
direct	11724 Dec 02 19:13	5° $\text{♁}$ 53'15		morning max el	11725 Nov 25 11:08	21° $\text{♁}$ 52'21	21°54'47
morning max el	11724 Dec 13 12:37	10° $\text{♁}$ 58'54	20°21'45		11725 Dec 02 08:04	0° $\text{♁}$	
asc. node	11724 Dec 17 11:37	15° $\text{♁}$ 24'39		asc. node	11725 Dec 04 08:37	3° $\text{♁}$ 00'08	
	11724 Dec 26 13:14	0° $\text{♁}$		morning set	11725 Dec 16 11:34	25° $\text{♁}$ 41'28	
morning set	11725 Jan 01 01:28	10° $\text{♁}$ 55'29			11725 Dec 18 12:27	0° $\text{♁}$	
superior conj	11725 Jan 08 15:11	26° $\text{♁}$ 28'56	1°19'28	superior conj	11725 Dec 23 14:38	10° $\text{♁}$ 48'31	1°32'21
minimum elong	11725 Jan 08 17:47	26° $\text{♁}$ 42'03	1°19'55	minimum elong	11725 Dec 23 16:18	10° $\text{♁}$ 57'14	1°33'00
	11725 Jan 10 09:16	0° $\text{♁}$		max. Earth dist.	11725 Dec 27 15:50	19° $\text{♁}$ 10'27	1.34541 AU
max. Earth dist.	11725 Jan 14 03:06	7° $\text{♁}$ 18'15	1.36449 AU	evening rise	11725 Dec 31 22:54	27° $\text{♁}$ 38'36	
evening rise	11725 Jan 17 22:38	14° $\text{♁}$ 25'48			11726 Jan 02 04:39	0° $\text{♁}$	
desc. node	11725 Jan 19 18:27	17° $\text{♁}$ 43'25		desc. node	11726 Jan 06 15:16	8° $\text{♁}$ 07'27	
	11725 Jan 26 23:09	0° $\text{♁}$			11726 Jan 20 06:01	0° $\text{♁}$	
	11725 Feb 17 04:11	0° $\text{♁}$		evening max el	11726 Feb 05 00:49	19° $\text{♁}$ 25'19	26°51'20
evening max el	11725 Feb 22 11:21	5° $\text{♁}$ 42'54	25°55'05	retrograde	11726 Feb 18 06:08	26° $\text{♁}$ 48'32	
retrograde	11725 Mar 07 00:55	12° $\text{♁}$ 54'20		evening set	11726 Feb 24 18:33	24° $\text{♁}$ 15'19	
evening set	11725 Mar 13 02:56	10° $\text{♁}$ 25'12		min. Earth dist.	11726 Feb 28 18:44	20° $\text{♁}$ 17'30	0.65929 AU
asc. node	11725 Mar 15 09:30	8° $\text{♁}$ 12'36		asc. node	11726 Mar 02 06:51	18° $\text{♁}$ 32'47	
min. Earth dist.	11725 Mar 17 08:46	5° $\text{♁}$ 53'25	0.67246 AU	inferior conj	11726 Mar 02 19:55	17° $\text{♁}$ 54'33	0°10'37
inferior conj	11725 Mar 18 21:55	3° $\text{♁}$ 56'53	1°06'14	minimum elong	11726 Mar 02 19:37	17° $\text{♁}$ 55'25	0°10'44
minimum elong	11725 Mar 18 20:23	4° $\text{♁}$ 01'43	1°05'41	transit middle	11726 Mar 02 19:37	17° $\text{♁}$ 55'25	0°10'44
	11725 Mar 22 07:45	30° $\text{♁}$		transit begin	11726 Mar 02 17:26	18° $\text{♁}$ 01'50	
morning rise	11725 Mar 24 14:29	28° $\text{♁}$ 08'35		transit end	11726 Mar 02 21:49	17° $\text{♁}$ 49'02	
direct	11725 Mar 27 21:12	27° $\text{♁}$ 07'14		morning rise	11726 Mar 08 21:58	12° $\text{♁}$ 17'45	
	11725 Apr 02 19:10	0° $\text{♁}$		direct	11726 Mar 11 18:31	11° $\text{♁}$ 33'00	
morning max el	11725 Apr 03 14:18	0° $\text{♁}$ 44'50	18°49'02	morning max el	11726 Mar 18 04:16	14° $\text{♁}$ 55'59	18°11'19
desc. node	11725 Apr 17 20:00	20° $\text{♁}$ 06'52			11726 Mar 29 05:37	0° $\text{♁}$	
	11725 Apr 24 05:12	0° $\text{♁}$		desc. node	11726 Apr 04 16:38	10° $\text{♁}$ 19'50	
morning set	11725 Apr 25 17:47	2° $\text{♁}$ 22'28		morning set	11726 Apr 06 04:59	12° $\text{♁}$ 46'18	
max. Earth dist.	11725 May 10 12:52	25° $\text{♁}$ 27'09	1.45555 AU		11726 Apr 16 23:49	0° $\text{♁}$	
superior conj	11725 May 12 02:12	27° $\text{♁}$ 53'26	-2°08'56	superior conj	11726 Apr 21 09:22	6° $\text{♁}$ 55'13	-1°45'47
minimum elong	11725 May 11 21:10	27° $\text{♁}$ 33'43	2°09'22	minimum elong	11726 Apr 21 00:01	6° $\text{♁}$ 18'34	1°45'21
	11725 May 13 10:27	0° $\text{♁}$		max. Earth dist.	11726 Apr 23 08:27	9° $\text{♁}$ 59'30	1.45700 AU
evening rise	11725 May 27 07:44	22° $\text{♁}$ 05'58			11726 May 06 04:47	0° $\text{♁}$	
	11725 Jun 01 05:22	0° $\text{♁}$		evening rise	11726 May 07 11:07	1° $\text{♁}$ 57'57	
asc. node	11725 Jun 11 07:15	15° $\text{♁}$ 35'19		greatest brilliancy	11726 May 19 04:34	20° $\text{♁}$ 03'19	-0.7m
evening max el	11725 Jun 16 20:27	22° $\text{♁}$ 26'11	18°33'27		11726 May 26 02:05	0° $\text{♁}$	
retrograde	11725 Jun 23 08:23	25° $\text{♁}$ 57'28		asc. node	11726 May 29 04:20	3° $\text{♁}$ 54'17	
evening set	11725 Jun 26 12:49	25° $\text{♁}$ 00'08		evening max el	11726 May 31 05:22	6° $\text{♁}$ 07'57	19°14'22
inferior conj	11725 Jul 02 05:30	19° $\text{♁}$ 25'17	2°58'23	retrograde	11726 Jun 07 05:02	10° $\text{♁}$ 02'28	
minimum elong	11725 Jul 02 07:17	19° $\text{♁}$ 19'53	2°57'21	evening set	11726 Jun 10 18:04	8° $\text{♁}$ 49'23	
min. Earth dist.	11725 Jul 04 07:02	16° $\text{♁}$ 55'46	0.65214 AU	inferior conj	11726 Jun 16 04:29	2° $\text{♁}$ 59'53	3°13'18
morning rise	11725 Jul 08 00:46	13° $\text{♁}$ 04'23		minimum elong	11726 Jun 16 05:10	2° $\text{♁}$ 57'38	3°12'30
direct	11725 Jul 14 12:53	10° $\text{♁}$ 22'46		min. Earth dist.	11726 Jun 17 15:13	1° $\text{♁}$ 07'08	0.66782 AU
desc. node	11725 Jul 14 19:52	10° $\text{♁}$ 23'03			11726 Jun 18 12:32	30° $\text{♁}$	
morning max el	11725 Jul 27 23:11	18° $\text{♁}$ 17'35	27°06'28	morning rise	11726 Jun 21 15:44	26° $\text{♁}$ 37'29	
	11725 Aug 06 19:38	0° $\text{♁}$		direct	11726 Jun 27 19:16	23° $\text{♁}$ 56'34	
	11725 Aug 26 01:18	0° $\text{♁}$		desc. node	11726 Jul 01 17:03	24° $\text{♁}$ 50'36	
morning set	11725 Sep 01 13:16	12° $\text{♁}$ 02'30			11726 Jul 08 21:30	0° $\text{♁}$	
max. Earth dist.	11725 Sep 05 22:11	20° $\text{♁}$ 42'47	1.33592 AU	morning max el	11726 Jul 10 10:00	1° $\text{♁}$ 29'25	25°58'56
asc. node	11725 Sep 07 07:44	23° $\text{♁}$ 34'41			11726 Jul 31 21:02	0° $\text{♁}$	
superior conj	11725 Sep 09 24:00	29° $\text{♁}$ 10'13	0°25'48	morning set	11726 Aug 15 10:29	24° $\text{♁}$ 43'17	
minimum elong	11725 Sep 09 22:43	29° $\text{♁}$ 03'29	0°25'28		11726 Aug 18 06:07	0° $\text{♁}$	
	11725 Sep 10 09:25	0° $\text{♁}$		max. Earth dist.	11726 Aug 19 05:19	1° $\text{♁}$ 51'02	1.35338 AU
evening rise	11725 Sep 17 05:08	14° $\text{♁}$ 32'46		superior conj	11726 Aug 24 18:47	12° $\text{♁}$ 51'32	-0°03'53
	11725 Sep 24 22:55	0° $\text{♁}$		minimum elong	11726 Aug 24 19:01	12° $\text{♁}$ 52'47	0°04'09
evening max el	11725 Oct 07 19:48	18° $\text{♁}$ 21'55	21°52'00	behind sun begin	11726 Aug 24 13:07	12° $\text{♁}$ 22'48	
desc. node	11725 Oct 10 16:53	20° $\text{♁}$ 53'06		behind sun end	11726 Aug 25 00:56	13° $\text{♁}$ 22'48	
retrograde	11725 Oct 20 08:22	24° $\text{♁}$ 35'37		asc. node	11726 Aug 25 04:26	13° $\text{♁}$ 40'36	
evening set	11725 Oct 23 09:05	24° $\text{♁}$ 14'58		evening rise	11726 Sep 01 13:04	28° $\text{♁}$ 53'30	
inferior conj	11725 Nov 01 06:41	20° $\text{♁}$ 18'16	-5°29'40		11726 Sep 02 01:59	0° $\text{♁}$	

evening max el	11726 Sep 19 19:47	28°♄59'16	20°25'26	asc. node	11727 Aug 12 01:08	3°♎43'43	
	11726 Sep 20 21:26	0°♍		evening rise	11727 Aug 16 15:50	12°♎57'01	
desc. node	11726 Sep 27 14:17	3°♍59'47			11727 Aug 25 17:48	0°♄	
retrograde	11726 Sep 30 20:19	4°♍27'45		evening max el	11727 Sep 02 09:45	10°♄22'40	19°18'52
evening set	11726 Oct 02 22:19	4°♍16'53		retrograde	11727 Sep 11 17:43	15°♄01'40	
inferior conj	11726 Oct 11 23:37	0°♍20'28	-4°13'07	evening set	11727 Sep 13 13:59	14°♄51'34	
minimum elong	11726 Oct 11 13:41	0°♍34'58	4°09'51	desc. node	11727 Sep 14 11:42	14°♄39'33	
	11726 Oct 12 13:36	30°♋♄		inferior conj	11727 Sep 22 04:37	10°♄42'50	-2°24'11
min. Earth dist.	11726 Oct 13 07:49	29°♄33'27	0.54749 AU	minimum elong	11727 Sep 21 22:17	10°♄53'14	2°21'41
morning rise	11726 Oct 20 04:27	26°♄18'03		min. Earth dist.	11727 Sep 24 19:15	9°♄00'11	0.55790 AU
direct	11726 Oct 24 14:12	25°♄36'12		morning rise	11727 Sep 30 04:00	6°♄08'34	
	11726 Nov 04 12:47	0°♍		direct	11727 Oct 05 09:45	5°♄06'00	
morning max el	11726 Nov 06 23:59	2°♍07'46	23°41'15	morning max el	11727 Oct 19 10:52	12°♄12'10	25°26'12
asc. node	11726 Nov 21 05:32	21°♍22'51			11727 Nov 02 04:33	0°♍	
	11726 Nov 25 20:58	0°♌		asc. node	11727 Nov 08 02:22	10°♍20'16	
morning set	11726 Nov 30 23:17	10°♌28'54		morning set	11727 Nov 15 10:49	25°♍12'06	
					11727 Nov 17 15:57	0°♌	
superior conj	11726 Dec 07 20:25	25°♌24'08	1°38'25	superior conj	11727 Nov 22 06:04	10°♌07'46	1°38'13
minimum elong	11726 Dec 07 20:56	25°♌26'55	1°39'10	minimum elong	11727 Nov 22 05:28	10°♌04'27	1°38'54
	11726 Dec 09 23:43	0°♎		max. Earth dist.	11727 Nov 23 16:03	13°♌14'58	1.31994 AU
max. Earth dist.	11726 Dec 10 12:19	1°♎07'07	1.33037 AU	evening rise	11727 Nov 29 09:17	25°♌29'27	
evening rise	11726 Dec 15 11:31	11°♎22'47			11727 Dec 01 14:22	0°♎	
desc. node	11726 Dec 24 12:11	28°♎16'44		desc. node	11727 Dec 11 09:12	18°♎04'17	
	11726 Dec 25 12:05	0°♏			11727 Dec 18 24:00	0°♏	
	11727 Jan 15 18:38	0°♏		evening max el	11728 Jan 01 00:02	15°♏45'04	27°30'08
evening max el	11727 Jan 18 13:39	2°♏50'06	27°25'11	retrograde	11728 Jan 14 20:33	23°♏04'07	
retrograde	11727 Feb 01 05:03	10°♏14'50		evening set	11728 Jan 21 19:58	20°♏44'04	
evening set	11727 Feb 08 01:09	7°♏44'14		min. Earth dist.	11728 Jan 25 13:38	17°♏44'47	0.62308 AU
min. Earth dist.	11727 Feb 11 20:58	4°♏17'56	0.64259 AU	inferior conj	11728 Jan 28 11:55	14°♏59'21	-2°08'38
inferior conj	11727 Feb 14 09:35	1°♏37'50	-0°54'48	minimum elong	11728 Jan 28 16:17	14°♏49'04	2°06'18
minimum elong	11727 Feb 14 11:16	1°♏33'20	0°53'38	asc. node	11728 Feb 04 01:27	10°♏05'54	
	11727 Feb 15 23:22	30°♋♏		morning rise	11728 Feb 04 15:08	9°♏53'11	
asc. node	11727 Feb 17 04:10	28°♏51'05		direct	11728 Feb 06 20:53	9°♏30'30	
morning rise	11727 Feb 20 23:22	26°♏14'53		morning max el	11728 Feb 13 14:49	12°♏56'31	17°47'36
direct	11727 Feb 23 11:26	25°♏43'05			11728 Feb 25 05:59	0°♏	
morning max el	11727 Mar 01 21:27	29°♏02'36	17°50'37	morning set	11728 Feb 29 11:36	7°♏27'05	
	11727 Mar 02 19:40	0°♏		desc. node	11728 Mar 08 09:52	21°♏19'54	
morning set	11727 Mar 18 20:39	24°♏33'22					
	11727 Mar 22 02:21	0°♐		superior conj	11728 Mar 11 23:22	27°♏23'30	-0°27'04
desc. node	11727 Mar 22 13:14	0°♐45'34		minimum elong	11728 Mar 11 20:44	27°♏12'25	0°26'33
					11728 Mar 13 12:46	0°♐	
superior conj	11727 Apr 01 04:50	16°♐36'15	-1°08'40	max. Earth dist.	11728 Mar 18 20:27	8°♐43'15	1.43840 AU
minimum elong	11727 Mar 31 21:34	16°♐07'01	1°07'53	evening rise	11728 Mar 26 13:50	20°♐55'39	
max. Earth dist.	11727 Apr 06 03:35	24°♐29'27	1.45106 AU		11728 Apr 01 12:20	0°♑	
	11727 Apr 09 15:49	0°♑			11728 Apr 22 23:33	0°♑	
evening rise	11727 Apr 17 00:03	11°♑21'11		evening max el	11728 Apr 26 07:10	3°♑39'07	21°20'05
	11727 Apr 29 08:42	0°♒		asc. node	11728 Apr 01 22:44	8°♑01'05	
greatest brilliancy	11727 May 01 23:20	3°♒49'13	-0.6m	retrograde	11728 May 05 02:08	8°♒48'07	
evening max el	11727 May 14 09:04	19°♒52'47	20°10'51	evening set	11728 May 09 10:47	7°♒02'50	
asc. node	11727 May 16 01:30	21°♒27'30		inferior conj	11728 May 14 17:13	0°♒48'46	3°04'30
retrograde	11727 May 22 03:37	24°♒20'56		minimum elong	11728 May 14 15:55	0°♒53'19	3°03'42
evening set	11727 May 26 02:01	22°♒51'41		min. Earth dist.	11728 May 15 00:08	0°♒24'43	0.68573 AU
inferior conj	11727 May 31 09:10	16°♒49'05	3°14'40		11728 May 15 07:15	30°♋♑	
minimum elong	11727 May 31 08:46	16°♒50'26	3°13'55	morning rise	11728 May 19 20:50	24°♑33'18	
min. Earth dist.	11727 Jun 01 05:36	15°♒39'32	0.67911 AU	direct	11728 May 25 00:12	22°♑18'41	
morning rise	11727 Jun 05 15:13	10°♒28'59		desc. node	11728 Jun 04 11:04	28°♑36'17	
direct	11727 Jun 11 07:25	7°♒57'53		morning max el	11728 Jun 04 06:02	28°♑23'32	23°05'34
desc. node	11727 Jun 18 14:07	11°♒04'00			11728 Jun 05 18:54	0°♒	
morning max el	11727 Jun 22 19:48	14°♒52'26	24°35'15		11728 Jun 27 21:13	0°♑	
	11727 Jul 05 04:47	0°♑		morning set	11728 Jul 08 18:48	17°♑21'58	
	11727 Jul 24 18:20	0°♒		max. Earth dist.	11728 Jul 13 01:42	24°♑37'24	1.39803 AU
morning set	11727 Jul 28 13:57	6°♒33'39			11728 Jul 16 03:38	0°♒	
max. Earth dist.	11727 Aug 01 04:12	12°♒58'09	1.37480 AU				
				superior conj	11728 Jul 20 19:39	8°♒24'57	-1°10'49
superior conj	11727 Aug 08 02:37	25°♒59'21	-0°36'49	minimum elong	11728 Jul 21 00:38	8°♒47'51	1°10'41
minimum elong	11727 Aug 08 05:04	26°♒11'15	0°36'52	asc. node	11728 Jul 28 21:55	23°♒40'50	
	11727 Aug 10 03:54	0°♓					

evening rise	11728 Jul 30 10:31	26°Ω36'22			11729 Jul 08 09:26	0°Ω	
	11728 Aug 01 05:09	0°൬		evening rise	11729 Jul 13 17:15	9°Ω41'18	
evening max el	11728 Aug 15 11:31	22°൬31'13	18°33'41	asc. node	11729 Jul 15 18:46	13°Ω27'22	
retrograde	11728 Aug 23 09:32	26°൬29'50			11729 Jul 25 13:54	0°൬	
evening set	11728 Aug 25 09:44	26°൬15'18		evening max el	11729 Jul 29 21:04	5°൬16'11	18°09'13
desc. node	11728 Aug 31 09:05	23°൬11'06		retrograde	11729 Aug 05 20:11	8°൬48'43	
inferior conj	11728 Sep 02 06:09	21°൬46'41	-0°35'07	evening set	11729 Aug 08 03:36	8°൬25'48	
minimum elong	11728 Sep 02 04:45	21°൬49'22	0°34'45	inferior conj	11729 Aug 15 05:18	3°൬36'33	0°54'33
min. Earth dist.	11728 Sep 05 11:59	19°൬18'01	0.57558 AU	minimum elong	11729 Aug 15 06:59	3°൬32'46	0°53'32
morning rise	11728 Sep 09 20:19	16°൬34'54		desc. node	11729 Aug 18 06:27	0°൬52'58	
direct	11728 Sep 15 19:15	15°൬05'48		min. Earth dist.	11729 Aug 18 12:28	0°൬40'06	0.59732 AU
morning max el	11728 Sep 30 02:45	22°൬37'59	26°51'37		11729 Aug 19 07:44	30°RΩ	
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asc. node	11728 Oct 24 23:09	29°Ω43'23		direct	11729 Aug 28 18:01	25°Ω54'51	
	11728 Oct 25 02:31	0°൬			11729 Sep 07 18:47	0°൬	
morning set	11728 Oct 29 20:32	9°൬46'37		morning max el	11729 Sep 12 02:14	3°൬46'05	27°43'52
					11729 Oct 01 09:23	0°Ω	
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minimum elong	11728 Nov 05 16:03	24°൬44'48	1°32'36	morning set	11729 Oct 14 02:41	24°Ω08'14	
max. Earth dist.	11728 Nov 06 00:14	25°൬30'21	1.31438 AU		11729 Oct 16 20:35	0°൬	
	11728 Nov 08 00:44	0°X		max. Earth dist.	11729 Oct 20 09:13	7°൬45'07	1.31378 AU
evening rise	11728 Nov 12 13:34	9°X51'32					
	11728 Nov 22 21:29	0°Z		superior conj	11729 Oct 21 05:05	9°൬35'33	1°20'25
desc. node	11728 Nov 27 06:18	7°Z21'01		minimum elong	11729 Oct 21 02:59	9°൬23'53	1°20'36
evening max el	11728 Dec 13 05:07	27°Z56'24	27°01'27	evening rise	11729 Oct 27 22:11	24°൬23'27	
	11728 Dec 15 13:02	0°≈			11729 Oct 30 13:57	0°X	
retrograde	11728 Dec 27 03:17	5°≈07'09		desc. node	11729 Nov 14 03:29	25°X55'12	
evening set	11729 Jan 02 23:25	3°≈06'16			11729 Nov 17 01:06	0°Z	
min. Earth dist.	11729 Jan 06 19:30	0°≈25'43	0.60188 AU	evening max el	11729 Nov 25 02:20	9°Z15'49	25°58'54
	11729 Jan 07 08:19	30°RZ		retrograde	11729 Dec 09 00:11	16°Z18'36	
inferior conj	11729 Jan 09 23:26	27°Z49'12	-3°27'11	evening set	11729 Dec 15 07:15	14°Z45'04	
minimum elong	11729 Jan 10 06:32	27°Z34'32	3°24'01	min. Earth dist.	11729 Dec 19 15:04	12°Z09'24	0.58081 AU
morning rise	11729 Jan 17 16:27	23°Z03'12		inferior conj	11729 Dec 22 16:38	9°Z57'49	-4°41'47
direct	11729 Jan 19 18:56	22°Z46'04		minimum elong	11729 Dec 23 00:58	9°Z42'52	4°38'53
asc. node	11729 Jan 20 22:42	22°Z51'27		morning rise	11729 Dec 30 21:20	5°Z34'21	
morning max el	11729 Jan 27 04:55	26°Z27'56	18°03'21	direct	11730 Jan 02 01:01	5°Z19'23	
	11729 Jan 30 06:34	0°≈		asc. node	11730 Jan 07 19:53	7°Z14'57	
morning set	11729 Feb 11 19:26	21°≈07'22		morning max el	11730 Jan 10 12:01	9°Z26'52	18°39'30
	11729 Feb 16 14:30	0°X			11730 Jan 23 20:41	0°≈	
				morning set	11730 Jan 26 14:58	5°≈18'59	
superior conj	11729 Feb 21 18:14	9°X18'47	0°11'45				
minimum elong	11729 Feb 21 19:12	9°X23'04	0°11'57	superior conj	11730 Feb 04 09:39	22°≈11'26	0°44'04
behind sun begin	11729 Feb 21 13:57	8°X59'50		minimum elong	11730 Feb 04 12:20	22°≈23'57	0°44'11
behind sun end	11729 Feb 22 00:26	9°X46'15			11730 Feb 08 15:43	0°X	
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max. Earth dist.	11729 Mar 01 09:07	22°X25'30	1.42037 AU	max. Earth dist.	11730 Feb 11 17:08	5°X25'28	1.39897 AU
	11729 Mar 06 00:02	0°Y		evening rise	11730 Feb 15 18:44	12°X23'16	
evening rise	11729 Mar 06 17:55	1°Y11'46			11730 Feb 26 19:42	0°Y	
	11729 Mar 25 23:30	0°X			11730 Mar 21 09:19	0°X	
evening max el	11729 Apr 09 00:27	17°X26'06	22°37'49	evening max el	11730 Mar 22 14:46	1°X15'18	23°58'27
retrograde	11729 Apr 18 22:56	23°X18'14		retrograde	11730 Apr 02 16:48	7°X46'29	
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inferior conj	11729 Apr 29 02:32	14°X54'37	2°44'01	min. Earth dist.	11730 Apr 12 17:06	0°X05'23	0.68512 AU
minimum elong	11729 Apr 29 00:37	15°X01'18	2°43'07		11730 Apr 12 18:41	30°RY	
min. Earth dist.	11729 Apr 28 20:40	15°X15'03	0.68768 AU	inferior conj	11730 Apr 13 11:16	29°Y03'39	2°13'45
morning rise	11729 May 04 06:25	8°X45'04		minimum elong	11730 Apr 13 09:05	29°Y11'02	2°12'49
direct	11729 May 08 20:28	6°X50'50		morning rise	11730 Apr 18 18:01	23°Y01'09	
morning max el	11729 May 17 19:46	12°X03'33	21°38'42	direct	11730 Apr 22 19:06	21°Y28'24	
desc. node	11729 May 22 07:57	17°X05'29		morning max el	11730 Apr 30 15:58	25°Y55'16	20°21'26
	11729 Jun 01 00:05	0°II			11730 May 04 08:24	0°X	
morning set	11729 Jun 18 21:46	27°II00'41		desc. node	11730 May 09 04:47	6°X16'21	
	11729 Jun 20 18:40	0°Ω			11730 May 25 09:29	0°II	
max. Earth dist.	11729 Jun 25 03:43	7°Ω07'50	1.42015 AU	morning set	11730 May 29 03:03	5°II43'43	
				max. Earth dist.	11730 Jun 07 12:12	20°II28'52	1.43859 AU
superior conj	11729 Jul 02 17:18	19°Ω57'17	-1°42'09		11730 Jun 13 08:46	0°Ω	
minimum elong	11729 Jul 02 24:00	20°Ω26'24	1°42'10				


































































































































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minimum elong	11730 Jun 13 21:04	0°☿50'47	2°05'44	evening rise		11731 Jun 07 23:48	3°☿22'08	
evening rise	11730 Jun 26 07:18	22°☿00'04		asc. node		11731 Jun 19 12:39	22°☿07'48	
	11730 Jun 30 21:56	0°♌				11731 Jun 25 05:26	0°♌	
asc. node	11730 Jul 02 15:40	2°♌58'16		evening max el		11731 Jun 27 00:22	1°♌56'46	18°17'41
evening max el	11730 Jul 13 10:29	18°♌27'31	18°04'12	retrograde		11731 Jul 03 09:22	5°♌20'15	
retrograde	11730 Jul 19 21:36	21°♌48'34		evening set		11731 Jul 06 09:01	4°♌31'43	
evening set	11730 Jul 22 13:03	21°♌14'02				11731 Jul 11 12:03	30°☿☿	
inferior conj	11730 Jul 28 22:56	16°♌05'50	1°59'45	inferior conj		11731 Jul 12 06:55	29°☿06'21	2°42'26
minimum elong	11730 Jul 29 01:36	15°♌59'00	1°58'24	minimum elong		11731 Jul 12 09:12	28°☿59'45	2°41'16
min. Earth dist.	11730 Jul 31 22:04	13°♌04'10	0.62009 AU	min. Earth dist.		11731 Jul 14 17:00	26°☿20'20	0.64137 AU
morning rise	11730 Aug 04 11:48	10°♌00'00		morning rise		11731 Jul 18 08:00	22°☿48'53	
desc. node	11730 Aug 05 03:49	9°♌33'00		desc. node		11731 Jul 23 01:06	20°☿23'49	
direct	11730 Aug 11 04:08	7°♌37'47		direct		11731 Jul 24 23:24	20°☿11'02	
morning max el	11730 Aug 25 08:05	15°♌39'39	27°57'25	morning max el		11731 Aug 07 17:38	28°☿12'05	27°34'04
	11730 Sep 06 01:43	0°♍				11731 Aug 09 10:59	0°♍	
	11730 Sep 24 00:27	0°♌				11731 Aug 30 20:47	0°♍	
morning set	11730 Sep 28 03:09	8°♌10'37		morning set		11731 Sep 11 19:34	21°♍47'46	
asc. node	11730 Sep 28 16:37	9°♌19'47		asc. node		11731 Sep 15 13:18	29°♍21'58	
max. Earth dist.	11730 Oct 03 14:58	19°♌47'32	1.31829 AU			11731 Sep 15 20:39	0°♌	
				max. Earth dist.		11731 Sep 16 13:46	1°♌29'11	1.32802 AU
superior conj	11730 Oct 05 14:42	24°♌08'26	1°03'17					
minimum elong	11730 Oct 05 12:27	23°♌56'07	1°03'10	superior conj		11731 Sep 19 20:27	8°♌26'37	0°40'55
	11730 Oct 08 06:28	0°♍		minimum elong		11731 Sep 19 18:38	8°♌16'50	0°40'37
evening rise	11730 Oct 12 09:02	8°♍58'53		evening rise		11731 Sep 26 20:19	23°♌33'05	
	11730 Oct 23 01:44	0°♎				11731 Sep 29 22:08	0°♍	
desc. node	11730 Nov 01 00:45	13°♎29'34		desc. node		11731 Oct 18 22:03	29°♍42'00	
evening max el	11730 Nov 06 15:33	19°♎46'19	24°29'39	evening max el		11731 Oct 19 02:02	29°♍51'45	22°48'35
retrograde	11730 Nov 20 09:18	26°♎38'52				11731 Oct 19 05:27	0°♎	
evening set	11730 Nov 25 15:16	25°♎37'53		retrograde		11731 Nov 01 05:26	6°♎23'41	
min. Earth dist.	11730 Dec 01 02:57	22°♎48'33	0.56246 AU	evening set		11731 Nov 05 01:17	5°♎51'46	
inferior conj	11730 Dec 03 13:15	21°♎17'13	-5°36'24	min. Earth dist.		11731 Nov 12 10:37	2°♎30'37	0.54994 AU
minimum elong	11730 Dec 03 18:40	21°♎08'42	5°34'59	inferior conj		11731 Nov 13 15:11	1°♎49'51	-5°48'43
morning rise	11730 Dec 12 00:11	17°♎14'55		minimum elong		11731 Nov 13 12:45	1°♎53'20	5°47'57
direct	11730 Dec 14 11:39	16°♎58'26				11731 Nov 16 23:08	30°☿♍	
morning max el	11730 Dec 24 08:07	21°♎41'09	19°37'51	morning rise		11731 Nov 22 01:45	28°♍01'09	
asc. node	11730 Dec 25 17:00	23°♎05'18		direct		11731 Nov 25 04:43	27°♍38'33	
	11730 Dec 30 22:53	0°☿				11731 Dec 02 17:28	0°♎	
morning set	11731 Jan 10 18:18	19°☿49'41		morning max el		11731 Dec 06 14:20	3°♎03'10	20°58'58
	11731 Jan 15 19:06	0°♏		asc. node		11731 Dec 12 14:01	10°♎06'48	
						11731 Dec 23 21:38	0°☿	
superior conj	11731 Jan 18 16:42	5°♏46'28	1°08'45	morning set		11731 Dec 26 02:34	4°☿31'38	
minimum elong	11731 Jan 18 19:37	6°♏00'45	1°09'02					
max. Earth dist.	11731 Jan 24 23:00	17°♏44'17	1.37669 AU	superior conj		11732 Jan 02 11:09	19°☿52'10	1°25'48
desc. node	11731 Jan 27 23:56	23°♏15'16		minimum elong		11732 Jan 02 13:24	20°☿03'43	1°26'20
evening rise	11731 Jan 28 16:21	24°♏28'13		max. Earth dist.		11732 Jan 07 08:02	29°☿40'08	1.35595 AU
	11731 Jan 31 20:44	0°♐				11732 Jan 07 12:06	0°♏	
	11731 Feb 20 11:58	0°♑		evening rise		11732 Jan 11 07:57	7°♏18'50	
evening max el	11731 Mar 05 04:10	15°♑06'08	25°15'28	desc. node		11732 Jan 14 20:43	13°♏45'04	
retrograde	11731 Mar 17 06:30	22°♑06'45				11732 Jan 24 14:13	0°♐	
evening set	11731 Mar 23 01:44	19°♑42'15		evening max el		11732 Feb 15 17:48	28°♐54'24	26°21'27
asc. node	11731 Mar 23 14:43	19°♑13'34				11732 Feb 16 21:34	0°♑	
min. Earth dist.	11731 Mar 27 11:16	14°♑50'11	0.67821 AU	retrograde		11732 Feb 28 14:59	6°♑12'06	
inferior conj	11731 Mar 28 17:28	13°♑12'00	1°33'46	evening set		11732 Mar 05 21:30	3°♑40'53	
minimum elong	11731 Mar 28 15:31	13°♑18'19	1°32'59	asc. node		11732 Mar 09 12:03	0°♑01'30	
morning rise	11731 Apr 03 05:41	7°♑17'51				11732 Mar 09 12:34	30°☿♐	
direct	11731 Apr 06 18:43	6°♑05'41		min. Earth dist.		11732 Mar 10 00:54	29°♐23'27	0.66725 AU
morning max el	11731 Apr 13 19:49	9°♑57'53	19°18'10	inferior conj		11732 Mar 11 19:06	27°♐14'56	0°43'53
desc. node	11731 Apr 26 01:31	25°♑57'36		minimum elong		11732 Mar 11 18:00	27°♐18'18	0°43'34
greatest brilliancy	11731 Apr 26 15:16	26°♑48'34	-0.7m	morning rise		11732 Mar 17 15:21	21°♐30'58	
	11731 Apr 28 18:28	0°♒		direct		11732 Mar 20 17:35	20°♐36'59	
morning set	11731 May 08 04:08	14°♒21'48		morning max el		11732 Mar 27 06:35	24°♐07'04	18°30'54
	11731 May 18 05:52	0°♓				11732 Apr 01 05:35	0°♑	
max. Earth dist.	11731 May 21 02:41	4°♓29'55	1.45132 AU	desc. node		11732 Apr 11 22:11	16°♑00'42	
				morning set		11732 Apr 16 23:16	23°♑57'27	
superior conj	11731 May 24 14:48	10°♓02'22	-2°13'17			11732 Apr 20 19:18	0°♒	
minimum elong	11731 May 24 14:13	10°♓00'03	2°13'59					

superior conj	11732 May 02 23:01	19°♄02'40	-2°01'22	morning set	11733 Mar 28 23:01	4°♄58'33	
minimum elong	11732 May 02 15:21	18°♄32'44	2°01'26	desc. node	11733 Mar 29 18:49	6°♄19'45	
max. Earth dist.	11732 May 02 21:28	18°♄56'39	1.45710 AU				
	11732 May 09 23:00	0°♄		superior conj	11733 Apr 12 09:26	28°♄15'51	-1°31'12
evening rise	11732 May 18 16:01	13°♄43'45		minimum elong	11733 Apr 12 00:20	27°♄39'51	1°30'31
greatest brilliancy	11732 May 27 10:56	27°♄36'40	-0.8m		11733 Apr 13 11:50	0°♄	
	11732 May 28 23:50	0°♄		max. Earth dist.	11733 Apr 15 17:51	3°♄32'21	1.45537 AU
asc. node	11732 Jun 05 09:41	10°♄47'54		evening rise	11733 Apr 28 11:47	23°♄19'47	
evening max el	11732 Jun 09 11:49	15°♄35'53	18°48'50		11733 May 02 19:58	0°♄	
retrograde	11732 Jun 16 03:36	19°♄15'08		greatest brilliancy	11733 May 12 01:41	13°♄58'14	-0.7m
evening set	11732 Jun 19 11:42	18°♄11'06		asc. node	11733 May 23 06:49	28°♄49'04	
inferior conj	11732 Jun 25 01:20	12°♄30'01	3°06'29	evening max el	11733 May 23 18:42	29°♄19'36	19°36'32
minimum elong	11732 Jun 25 02:40	12°♄25'50	3°05'34		11733 May 24 11:17	0°♄	
min. Earth dist.	11732 Jun 26 20:35	10°♄15'06	0.65942 AU	retrograde	11733 May 31 01:24	3°♄26'56	
morning rise	11732 Jun 30 16:54	6°♄08'10		evening set	11733 Jun 03 18:25	2°♄06'47	
direct	11732 Jul 07 01:57	3°♄25'33			11733 Jun 06 01:37	30°♄	
desc. node	11732 Jul 08 22:19	3°♄37'36		inferior conj	11733 Jun 09 03:05	26°♄11'22	3°15'23
morning max el	11732 Jul 20 04:26	11°♄12'11	26°40'14	minimum elong	11733 Jun 09 03:18	26°♄10'39	3°14'37
	11732 Aug 04 03:09	0°♄		min. Earth dist.	11733 Jun 10 07:33	24°♄36'50	0.67325 AU
	11732 Aug 22 10:22	0°♄		morning rise	11733 Jun 14 11:49	19°♄49'47	
morning set	11732 Aug 25 00:49	4°♄51'18		direct	11733 Jun 20 10:46	17°♄12'22	
max. Earth dist.	11732 Aug 29 02:55	12°♄47'34	1.34287 AU	desc. node	11733 Jun 25 19:26	18°♄53'47	
asc. node	11732 Sep 01 09:59	19°♄27'22		morning max el	11733 Jul 02 14:54	24°♄29'56	25°24'43
					11733 Jul 07 13:38	0°♄	
superior conj	11732 Sep 02 20:01	22°♄23'12	0°13'43		11733 Jul 28 13:38	0°♄	
minimum elong	11732 Sep 02 19:18	22°♄19'27	0°13'23	morning set	11733 Aug 07 15:04	17°♄11'52	
behind sun begin	11732 Sep 02 16:04	22°♄02'38		max. Earth dist.	11733 Aug 11 06:23	23°♄53'38	1.36224 AU
behind sun end	11732 Sep 02 22:32	22°♄36'17			11733 Aug 14 11:10	0°♄	
	11732 Sep 06 11:02	0°♄					
evening rise	11732 Sep 10 06:04	8°♄00'14		superior conj	11733 Aug 17 10:35	5°♄51'13	-0°17'33
	11732 Sep 21 22:04	0°♄		minimum elong	11733 Aug 17 11:42	5°♄56'44	0°17'44
evening max el	11732 Sep 29 18:53	10°♄07'55	21°12'55	asc. node	11733 Aug 19 06:42	9°♄32'27	
desc. node	11732 Oct 04 19:25	14°♄04'30		evening rise	11733 Aug 25 12:10	22°♄14'41	
retrograde	11732 Oct 11 16:59	16°♄03'12			11733 Aug 29 09:09	0°♄	
evening set	11732 Oct 14 06:10	15°♄48'04		evening max el	11733 Sep 12 00:43	21°♄03'24	19°54'18
inferior conj	11732 Oct 23 07:14	11°♄53'21	-5°03'07	desc. node	11733 Sep 21 16:49	26°♄09'40	
minimum elong	11732 Oct 22 21:59	12°♄06'22	5°00'39	retrograde	11733 Sep 22 07:43	26°♄10'44	
min. Earth dist.	11732 Oct 23 17:20	11°♄39'09	0.54572 AU	evening set	11733 Sep 24 05:35	26°♄00'56	
morning rise	11732 Oct 31 14:24	8°♄02'27		inferior conj	11733 Oct 03 03:45	22°♄00'07	-3°28'46
direct	11732 Nov 04 12:56	7°♄29'07		minimum elong	11733 Oct 02 18:50	22°♄13'43	3°25'29
morning max el	11732 Nov 17 07:42	13°♄36'35	22°39'12	min. Earth dist.	11733 Oct 05 02:20	20°♄49'10	0.55090 AU
asc. node	11732 Nov 28 10:58	28°♄03'43		morning rise	11733 Oct 11 06:41	17°♄45'54	
	11732 Nov 29 14:47	0°♄		direct	11733 Oct 16 00:58	16°♄56'21	
morning set	11732 Dec 09 13:35	19°♄18'46		morning max el	11733 Oct 29 18:43	23°♄43'02	24°27'20
	11732 Dec 14 13:13	0°♄			11733 Nov 04 11:12	0°♄	
				asc. node	11733 Nov 15 07:51	16°♄42'17	
superior conj	11732 Dec 16 13:35	4°♄19'07	1°35'43		11733 Nov 22 03:04	0°♄	
minimum elong	11732 Dec 16 14:46	4°♄25'25	1°36'26	morning set	11733 Nov 24 01:26	4°♄05'00	
max. Earth dist.	11732 Dec 20 00:18	11°♄34'00	1.33849 AU				
evening rise	11732 Dec 24 13:53	20°♄45'55		superior conj	11733 Nov 30 21:16	18°♄58'43	1°39'04
	11732 Dec 29 11:13	0°♄		minimum elong	11733 Nov 30 21:18	18°♄58'52	1°39'49
desc. node	11732 Dec 31 17:35	4°♄03'32		max. Earth dist.	11733 Dec 03 00:15	23°♄35'51	1.32532 AU
	11733 Jan 17 12:18	0°♄			11733 Dec 06 00:27	0°♄	
evening max el	11733 Jan 28 07:23	12°♄31'24	27°09'00	evening rise	11733 Dec 08 06:43	4°♄40'06	
retrograde	11733 Feb 10 17:24	19°♄55'28		desc. node	11733 Dec 18 14:31	24°♄04'21	
evening set	11733 Feb 17 09:34	17°♄22'40			11733 Dec 22 03:44	0°♄	
min. Earth dist.	11733 Feb 21 07:48	13°♄38'38	0.65256 AU	evening max el	11734 Jan 10 19:18	25°♄44'17	27°31'09
inferior conj	11733 Feb 23 13:53	11°♄07'26	-0°15'57		11734 Jan 15 23:50	0°♄	
minimum elong	11733 Feb 23 14:21	11°♄06'10	0°15'25	retrograde	11734 Jan 24 13:06	3°♄07'07	
transit middle	11733 Feb 23 14:21	11°♄06'10	0°15'25	evening set	11734 Jan 31 11:29	0°♄39'41	
transit begin	11733 Feb 23 13:32	11°♄08'25			11734 Feb 01 08:45	30°♄	
transit end	11733 Feb 23 15:09	11°♄03'54		min. Earth dist.	11734 Feb 04 05:56	27°♄25'59	0.63458 AU
asc. node	11733 Feb 24 09:23	10°♄13'14		inferior conj	11734 Feb 06 23:06	24°♄41'55	-1°25'13
morning rise	11733 Mar 01 20:38	5°♄36'03		minimum elong	11734 Feb 07 01:51	24°♄34'57	1°23'34
direct	11733 Mar 04 13:29	4°♄57'06		asc. node	11734 Feb 11 06:42	20°♄48'57	
morning max el	11733 Mar 10 22:15	8°♄17'04	18°00'29	morning rise	11734 Feb 13 18:28	19°♄25'59	
	11733 Mar 25 22:15	0°♄		direct	11734 Feb 16 03:37	18°♄58'28	



morning max el	11734 Feb 22 15:56	22° $\approx$ 19'15	17°47'14	morning max el	11735 Feb 06 08:25	6° $\approx$ 04'57	17°51'57
	11734 Feb 28 16:07	0° $\text{H}$			11735 Feb 21 17:18	0° $\text{H}$	
morning set	11734 Mar 11 01:19	17° $\text{H}$ 15'48		morning set	11735 Feb 22 00:06	0° $\text{H}$ 30'41	
desc. node	11734 Mar 16 15:25	26° $\text{H}$ 49'18		desc. node	11735 Mar 03 12:03	17° $\text{H}$ 25'36	
	11734 Mar 18 12:38	0° $\text{Y}$					
superior conj	11734 Mar 23 13:59	8° $\text{Y}$ 23'02	-0°51'04	superior conj	11735 Mar 04 19:06	19° $\text{H}$ 39'44	-0°09'59
minimum elong	11734 Mar 23 08:40	8° $\text{Y}$ 01'13	0°50'20	minimum elong	11735 Mar 04 18:13	19° $\text{H}$ 35'56	0°09'37
max. Earth dist.	11734 Mar 29 12:23	17° $\text{Y}$ 57'23	1.44639 AU	behind sun begin	11735 Mar 04 11:26	19° $\text{H}$ 06'40	
	11734 Apr 06 04:54	0° $\text{B}$		behind sun end	11735 Mar 05 01:01	20° $\text{H}$ 05'08	
evening rise	11734 Apr 07 23:03	2° $\text{B}$ 42'15			11735 Mar 10 22:32	0° $\text{Y}$	
	11734 Apr 26 09:08	0° $\text{II}$		max. Earth dist.	11735 Mar 12 03:01	1° $\text{Y}$ 56'47	1.43122 AU
evening max el	11734 May 06 19:53	13° $\text{II}$ 04'19	20°38'55	evening rise	11735 Mar 18 17:29	12° $\text{Y}$ 30'34	
asc. node	11734 May 10 04:01	15° $\text{II}$ 58'33			11735 Mar 30 05:57	0° $\text{B}$	
retrograde	11734 May 15 00:18	17° $\text{II}$ 49'37		evening max el	11735 Apr 19 15:38	26° $\text{B}$ 49'56	21°52'30
evening set	11734 May 19 02:58	16° $\text{II}$ 13'22			11735 Apr 23 05:49	0° $\text{II}$	
inferior conj	11734 May 24 09:30	10° $\text{II}$ 05'22	3°11'42	asc. node	11735 Apr 27 01:18	2° $\text{II}$ 01'09	
minimum elong	11734 May 24 08:41	10° $\text{II}$ 08'10	3°10'56	retrograde	11735 Apr 28 22:23	2° $\text{II}$ 18'00	
min. Earth dist.	11734 May 25 00:01	9° $\text{II}$ 15'20	0.68244 AU	evening set	11735 May 03 11:33	0° $\text{II}$ 26'16	
morning rise	11734 May 29 14:10	3° $\text{II}$ 46'57			11735 May 03 23:34	30° $\text{R}$ $\text{B}$	
direct	11734 Jun 04 00:53	1° $\text{II}$ 22'27		inferior conj	11735 May 08 18:20	24° $\text{B}$ 07'51	2°57'04
desc. node	11734 Jun 12 16:28	5° $\text{II}$ 43'28		minimum elong	11735 May 08 16:43	24° $\text{B}$ 13'28	2°56'13
morning max el	11734 Jun 15 00:50	7° $\text{II}$ 57'13	23°57'23	min. Earth dist.	11735 May 08 19:46	24° $\text{B}$ 02'52	0.68702 AU
	11734 Jul 02 06:50	0° $\text{D}$		morning rise	11735 May 13 21:42	17° $\text{B}$ 54'30	
morning set	11734 Jul 20 09:38	28° $\text{D}$ 38'05		direct	11735 May 18 19:21	15° $\text{B}$ 48'11	
	11734 Jul 21 04:43	0° $\text{O}$		morning max el	11735 May 28 12:08	21° $\text{B}$ 31'21	22°27'48
max. Earth dist.	11734 Jul 24 04:04	5° $\text{O}$ 12'00	1.38459 AU	desc. node	11735 May 30 13:24	23° $\text{B}$ 41'44	
					11735 Jun 04 19:06	0° $\text{II}$	
superior conj	11734 Jul 31 12:42	18° $\text{O}$ 42'31	-0°51'17		11735 Jun 25 13:10	0° $\text{D}$	
minimum elong	11734 Jul 31 16:14	18° $\text{O}$ 59'16	0°51'14	morning set	11735 Jul 01 03:39	8° $\text{D}$ 57'01	
asc. node	11734 Aug 06 03:27	29° $\text{O}$ 33'45		max. Earth dist.	11735 Jul 06 02:24	17° $\text{D}$ 09'23	1.40764 AU
	11734 Aug 06 08:48	0° $\text{N}$			11735 Jul 13 11:40	0° $\text{O}$	
evening rise	11734 Aug 09 11:59	6° $\text{N}$ 09'37		superior conj	11735 Jul 13 22:03	0° $\text{O}$ 46'31	-1°24'43
	11734 Aug 23 08:43	0° $\text{A}$		minimum elong	11735 Jul 14 03:58	1° $\text{O}$ 13'04	1°24'36
evening max el	11734 Aug 25 20:10	2° $\text{A}$ 47'18	18°57'01	evening rise	11735 Jul 24 02:07	19° $\text{O}$ 35'26	
retrograde	11734 Sep 03 12:48	7° $\text{A}$ 08'01		asc. node	11735 Jul 24 00:16	19° $\text{O}$ 26'46	
evening set	11734 Sep 05 09:48	6° $\text{A}$ 56'41			11735 Jul 29 17:08	0° $\text{N}$	
desc. node	11734 Sep 08 14:14	5° $\text{A}$ 50'25		evening max el	11735 Aug 09 01:50	15° $\text{N}$ 13'03	18°20'54
inferior conj	11734 Sep 13 17:08	2° $\text{A}$ 39'58	-1°36'26	retrograde	11735 Aug 16 12:45	18° $\text{N}$ 58'33	
minimum elong	11734 Sep 13 13:01	2° $\text{A}$ 47'12	1°34'50	evening set	11735 Aug 18 15:48	18° $\text{N}$ 40'57	
min. Earth dist.	11734 Sep 16 16:06	0° $\text{A}$ 35'51	0.56467 AU	inferior conj	11735 Aug 26 04:06	14° $\text{N}$ 03'53	0°05'47
	11734 Sep 17 13:44	30° $\text{R}$ $\text{N}$		minimum elong	11735 Aug 26 04:18	14° $\text{N}$ 03'29	0°05'25
morning rise	11734 Sep 21 13:01	27° $\text{N}$ 49'15		transit middle	11735 Aug 26 04:18	14° $\text{N}$ 03'29	0°05'25
direct	11734 Sep 27 02:18	26° $\text{N}$ 36'04		transit begin	11735 Aug 26 01:00	14° $\text{N}$ 10'16	
	11734 Oct 06 13:46	0° $\text{A}$		transit end	11735 Aug 26 07:36	13° $\text{N}$ 56'40	
morning max el	11734 Oct 11 07:29	3° $\text{A}$ 54'57	26°05'52	desc. node	11735 Aug 26 11:39	13° $\text{N}$ 48'20	
	11734 Oct 30 00:59	0° $\text{M}$		min. Earth dist.	11735 Aug 29 12:09	11° $\text{N}$ 20'29	0.58451 AU
asc. node	11734 Nov 02 04:41	5° $\text{M}$ 51'57		morning rise	11735 Sep 02 13:17	8° $\text{N}$ 37'13	
morning set	11734 Nov 08 12:27	18° $\text{M}$ 45'42		direct	11735 Sep 08 18:11	6° $\text{N}$ 55'30	
	11734 Nov 13 15:35	0° $\text{X}$		morning max el	11735 Sep 23 02:30	14° $\text{N}$ 37'20	27°18'14
superior conj	11734 Nov 15 08:00	3° $\text{X}$ 44'29	1°36'20		11735 Oct 05 11:42	0° $\text{A}$	
minimum elong	11734 Nov 15 06:59	3° $\text{X}$ 38'50	1°36'57	asc. node	11735 Oct 20 01:27	25° $\text{A}$ 23'48	
max. Earth dist.	11734 Nov 16 06:13	5° $\text{X}$ 47'36	1.31695 AU		11735 Oct 22 07:39	0° $\text{M}$	
evening rise	11734 Nov 22 07:36	18° $\text{X}$ 54'24		morning set	11735 Oct 23 20:52	3° $\text{M}$ 15'16	
	11734 Nov 27 20:05	0° $\text{Z}$					
desc. node	11734 Dec 05 11:36	13° $\text{Z}$ 40'10		superior conj	11735 Oct 30 19:46	18° $\text{M}$ 29'31	1°27'51
	11734 Dec 16 15:18	0° $\approx$		minimum elong	11735 Oct 30 17:58	18° $\text{M}$ 19'27	1°28'12
evening max el	11734 Dec 24 03:33	8° $\approx$ 21'14	27°22'04	max. Earth dist.	11735 Oct 30 15:01	18° $\text{M}$ 03'01	1.31354 AU
retrograde	11735 Jan 07 01:17	15° $\approx$ 37'45			11735 Nov 05 00:37	0° $\text{X}$	
evening set	11735 Jan 14 00:15	13° $\approx$ 24'29		evening rise	11735 Nov 06 14:00	3° $\text{X}$ 21'27	
min. Earth dist.	11735 Jan 17 18:00	10° $\approx$ 34'37	0.61417 AU		11735 Nov 20 16:19	0° $\text{Z}$	
inferior conj	11735 Jan 20 19:32	7° $\approx$ 50'43	-2°41'46	desc. node	11735 Nov 22 08:45	2° $\text{Z}$ 40'24	
minimum elong	11735 Jan 21 01:07	7° $\approx$ 38'15	2°39'00	evening max el	11735 Dec 06 05:34	20° $\text{Z}$ 11'12	26°38'44
morning rise	11735 Jan 28 04:45	2° $\approx$ 53'05		retrograde	11735 Dec 20 04:19	27° $\text{Z}$ 18'48	
asc. node	11735 Jan 29 03:58	2° $\approx$ 39'24		evening set	11735 Dec 26 19:56	25° $\text{Z}$ 28'55	
direct	11735 Jan 30 08:34	2° $\approx$ 33'18		min. Earth dist.	11735 Dec 30 19:38	22° $\text{Z}$ 52'04	0.59275 AU
				inferior conj	11736 Jan 02 23:40	20° $\text{Z}$ 24'14	-4°00'07

minimum elong	11736 Jan 03 07:36	20°♄08'45	3°56'53	minimum elong	11736 Dec 14 15:59	1°♄59'35	5°06'19
morning rise	11736 Jan 10 22:06	15°♄47'29			11736 Dec 17 19:16	30°♄♂	
direct	11736 Jan 13 00:14	15°♄31'48		morning rise	11736 Dec 22 16:22	27°♄58'17	
asc. node	11736 Jan 16 01:11	16°♄06'41		direct	11736 Dec 24 22:34	27°♄♂43'04	
morning max el	11736 Jan 20 20:01	19°♄23'50	18°16'04		11736 Dec 31 11:16	0°♄	
	11736 Jan 28 14:54	0°♄		asc. node	11737 Jan 01 22:20	1°♄08'39	
morning set	11736 Feb 05 13:28	14°♄25'52		morning max el	11737 Jan 02 22:47	2°♄04'34	19°01'27
	11736 Feb 13 20:47	0°♄		morning set	11737 Jan 19 12:45	28°♄47'03	
					11737 Jan 20 03:31	0°♄	
superior conj	11736 Feb 14 23:16	2°♄00'47	0°26'22	superior conj	11737 Jan 27 21:53	15°♄12'51	0°55'30
minimum elong	11736 Feb 15 01:11	2°♄09'27	0°26'29	minimum elong	11737 Jan 28 00:48	15°♄26'48	0°55'40
desc. node	11736 Feb 18 08:43	8°♄05'14		max. Earth dist.	11737 Feb 03 20:16	28°♄03'20	1.38949 AU
max. Earth dist.	11736 Feb 22 13:16	15°♄20'23	1.41153 AU	desc. node	11737 Feb 04 05:25	28°♄44'09	
evening rise	11736 Feb 27 06:05	23°♄10'02			11737 Feb 04 22:32	0°♄	
	11736 Mar 02 12:21	0°♄		evening rise	11737 Feb 07 16:00	4°♄45'07	
	11736 Mar 23 05:29	0°♄			11737 Feb 23 14:34	0°♄	
evening max el	11736 Apr 01 07:30	10°♄38'15	23°12'18	evening max el	11737 Mar 14 21:21	24°♄28'53	24°32'09
retrograde	11736 Apr 11 18:01	16°♄47'46			11737 Mar 21 23:10	0°♄	
asc. node	11736 Apr 12 22:36	16°♄41'06		retrograde	11737 Mar 26 10:02	1°♄13'12	
evening set	11736 Apr 16 18:37	14°♄41'35			11737 Mar 30 11:03	30°♄♂	
min. Earth dist.	11736 Apr 21 16:34	8°♄53'50	0.68708 AU	asc. node	11737 Mar 30 19:55	29°♄45'37	
inferior conj	11736 Apr 22 03:37	8°♄15'40	2°32'22	evening set	11737 Mar 31 22:34	28°♄54'29	
minimum elong	11736 Apr 22 01:33	8°♄22'52	2°31'27	min. Earth dist.	11737 Apr 05 12:12	23°♄42'24	0.68272 AU
morning rise	11736 Apr 27 08:22	2°♄08'49		inferior conj	11737 Apr 06 11:28	22°♄24'39	1°57'57
direct	11736 May 01 16:54	0°♄23'27		minimum elong	11737 Apr 06 09:20	22°♄31'48	1°57'05
morning max el	11736 May 10 04:09	5°♄15'32	21°04'20	morning rise	11737 Apr 11 20:14	16°♄25'38	
desc. node	11736 May 16 10:14	12°♄30'11		direct	11737 Apr 15 16:11	15°♄01'42	
	11736 May 28 22:12	0°♄		morning max el	11737 Apr 23 03:30	19°♄11'47	19°52'41
morning set	11736 Jun 09 20:07	18°♄07'58			11737 May 01 22:16	0°♄	
	11736 Jun 17 06:31	0°♄		desc. node	11737 May 03 07:00	1°♄54'51	
max. Earth dist.	11736 Jun 17 06:53	0°♄01'28	1.42856 AU	morning set	11737 May 19 20:43	26°♄40'26	
					11737 May 22 00:28	0°♄	
superior conj	11736 Jun 24 10:13	11°♄53'54	-1°53'20	max. Earth dist.	11737 May 30 18:36	13°♄42'59	1.44483 AU
minimum elong	11736 Jun 24 16:53	12°♄22'14	1°53'33				
	11736 Jul 04 18:37	0°♄		superior conj	11737 Jun 04 22:13	21°♄58'47	-2°10'53
evening rise	11736 Jul 06 02:21	2°♄22'00		minimum elong	11737 Jun 05 01:37	22°♄12'33	2°11'32
asc. node	11736 Jul 09 21:10	9°♄07'21			11737 Jun 09 19:45	0°♄	
evening max el	11736 Jul 22 13:35	28°♄10'49	18°04'49	evening rise	11737 Jun 18 07:42	14°♄17'19	
	11736 Jul 24 17:13	0°♄		asc. node	11737 Jun 26 18:05	28°♄29'43	
retrograde	11736 Jul 29 06:06	1°♄36'18			11737 Jun 27 16:26	0°♄	
evening set	11736 Jul 31 17:03	1°♄08'40		evening max el	11737 Jul 06 03:32	11°♄30'18	18°07'43
	11736 Aug 02 22:20	30°♄♂		retrograde	11737 Jul 12 12:30	14°♄50'41	
inferior conj	11736 Aug 07 11:34	26°♄11'08	1°25'07	evening set	11737 Jul 15 07:29	14°♄10'18	
minimum elong	11736 Aug 07 13:53	26°♄05'37	1°23'51	inferior conj	11737 Jul 21 11:45	8°♄54'17	2°20'22
min. Earth dist.	11736 Aug 10 16:12	23°♄09'53	0.60711 AU	minimum elong	11737 Jul 21 14:22	8°♄47'12	2°19'04
desc. node	11736 Aug 12 09:00	21°♄42'21		min. Earth dist.	11737 Jul 24 05:35	5°♄57'20	0.62943 AU
morning rise	11736 Aug 14 07:55	20°♄16'51		morning rise	11737 Jul 27 19:24	2°♄42'31	
direct	11736 Aug 20 22:08	18°♄07'52		desc. node	11737 Jul 30 06:18	1°♄12'12	
morning max el	11736 Sep 04 04:41	26°♄03'58	27°54'18	direct	11737 Aug 03 11:59	0°♄12'46	
	11736 Sep 07 20:47	0°♄		morning max el	11737 Aug 17 12:27	8°♄15'03	27°51'50
	11736 Sep 28 00:53	0°♄			11737 Sep 03 06:53	0°♄	
asc. node	11736 Oct 05 22:12	15°♄11'36		morning set	11737 Sep 20 05:59	0°♄	
morning set	11736 Oct 07 00:51	17°♄29'06			11737 Sep 20 22:15	1°♄21'48	
	11736 Oct 12 20:37	0°♄		asc. node	11737 Sep 22 18:55	5°♄10'02	
max. Earth dist.	11736 Oct 12 23:05	0°♄13'39	1.31515 AU	max. Earth dist.	11737 Sep 26 02:35	12°♄09'40	1.32181 AU
superior conj	11736 Oct 14 06:42	3°♄08'29	1°13'50	superior conj	11737 Sep 28 14:57	17°♄35'59	0°54'26
minimum elong	11736 Oct 14 04:29	2°♄56'12	1°13'52	minimum elong	11737 Sep 28 12:48	17°♄24'20	0°54'13
evening rise	11736 Oct 20 23:48	17°♄55'41			11737 Oct 04 06:59	0°♄	
	11736 Oct 26 20:20	0°♄		evening rise	11737 Oct 05 11:06	2°♄31'45	
desc. node	11736 Nov 08 05:58	20°♄51'21			11737 Oct 20 04:59	0°♄	
	11736 Nov 15 19:16	0°♄		desc. node	11737 Oct 26 03:15	7°♄54'29	
evening max el	11736 Nov 16 23:25	1°♄09'10	25°23'26	evening max el	11737 Oct 29 10:32	11°♄25'35	23°47'01
retrograde	11736 Nov 30 20:03	8°♄07'14		retrograde	11737 Nov 11 23:23	18°♄10'57	
evening set	11736 Dec 06 17:56	6°♄47'35		evening set	11737 Nov 16 15:47	17°♄23'07	
min. Earth dist.	11736 Dec 11 11:35	4°♄08'24	0.57255 AU	min. Earth dist.	11737 Nov 22 20:53	14°♄22'37	0.55631 AU
inferior conj	11736 Dec 14 08:14	2°♄12'41	-5°08'40				

inferior conj	11737 Nov 24 20:23	13°  11'45	-5°48'02	inferior conj	11738 Nov 04 16:36	23°  28'50	-5°36'40
minimum elong	11737 Nov 24 22:54	13°  07'59	5°47'12	minimum elong	11738 Nov 04 10:38	23°  37'14	5°35'21
morning rise	11737 Dec 03 07:55	9°  17'00		morning rise	11738 Nov 13 01:52	19°  41'48	
direct	11737 Dec 06 01:21	8°  58'25		direct	11738 Nov 16 12:35	19°  15'28	
morning max el	11737 Dec 16 13:12	13°  57'45	20°09'38	morning max el	11738 Nov 28 13:40	24°  58'29	21°39'44
asc. node	11737 Dec 19 19:24	17°  31'48			11738 Dec 03 02:35	0° 	
	11737 Dec 27 21:32	0° 		asc. node	11738 Dec 06 16:24	4°  58'48	
morning set	11738 Jan 03 18:32	13°  24'20		morning set	11738 Dec 19 04:13	28°  09'23	
					11738 Dec 20 01:16	0° 	
superior conj	11738 Jan 11 10:19	29°  03'10	1°16'53	superior conj	11738 Dec 26 08:34	13°  19'28	1°30'49
minimum elong	11738 Jan 11 13:01	29°  16'43	1°17'16	minimum elong	11738 Dec 26 10:23	13°  29'00	1°31'27
	11738 Jan 11 21:39	0° 			11738 Dec 26 10:23	13°  29'00	1°31'27
max. Earth dist.	11738 Jan 17 03:16	10°  12'05	1.36759 AU	max. Earth dist.	11738 Dec 30 14:48	22°  03'57	1.34804 AU
evening rise	11738 Jan 20 21:45	17°  11'05		evening rise	11739 Jan 03 19:53	0° 	
desc. node	11738 Jan 22 02:12	19°  18'55			11739 Jan 03 16:01	0° 	
	11738 Jan 28 07:25	0° 		desc. node	11739 Jan 08 23:02	9°  44'38	
	11738 Feb 17 23:36	0° 			11739 Jan 21 09:53	0° 	
evening max el	11738 Feb 25 10:42	8°  19'21	25°45'10	evening max el	11739 Feb 08 00:11	22°  03'21	26°44'13
retrograde	11738 Mar 09 21:31	15°  28'31		retrograde	11739 Feb 21 03:43	29°  05'46	
evening set	11738 Mar 15 21:51	13°  00'18		evening set	11739 Feb 27 14:37	26°  05'52	
asc. node	11738 Mar 17 17:14	11°  17'01		min. Earth dist.	11739 Mar 03 15:35	22°  04'58	0.66146 AU
min. Earth dist.	11738 Mar 20 04:35	8°  23'23	0.67411 AU	asc. node	11739 Mar 04 14:34	21°  04'43	
inferior conj	11738 Mar 21 15:58	6°  31'16	1°13'48	inferior conj	11739 Mar 05 14:59	20°  03'24	0°19'43
minimum elong	11738 Mar 21 14:18	6°  36'33	1°13'12	minimum elong	11739 Mar 05 14:27	20°  03'59	0°19'42
morning rise	11738 Mar 27 07:19	0°  41'29		morning rise	11739 Mar 11 15:26	14°  05'41	
	11738 Mar 28 15:55	30° 		direct	11739 Mar 14 13:23	14°  04'42	
direct	11738 Mar 30 15:36	29°  03'78		morning max el	11739 Mar 20 23:47	17°  02'17	18°15'50
	11738 Apr 01 16:37	0° 			11739 Mar 30 10:43	0° 	
morning max el	11738 Apr 06 10:34	3°  18'27	18°56'02	desc. node	11739 Apr 07 00:23	11°  05'52	
greatest brilliancy	11738 Apr 20 01:26	21°  37'36	-0.8m	morning set	11739 Apr 09 10:01	15°  04'44	
desc. node	11738 Apr 20 03:43	21°  46'15			11739 Apr 18 08:05	0° 	
	11738 Apr 25 12:15	0° 					
morning set	11738 Apr 29 03:08	5°  36'41		superior conj	11739 Apr 24 20:07	10°  13'16	-1°50'23
max. Earth dist.	11738 May 13 11:27	27°  05'45	1.45470 AU	minimum elong	11739 Apr 24 10:59	9°  37'30	1°50'06
	11738 May 14 18:37	0° 		max. Earth dist.	11739 Apr 26 06:44	12°  08'37	1.45724 AU
					11739 May 07 12:22	0° 	
superior conj	11738 May 15 13:12	1°  13'00	-2°10'45	evening rise	11739 May 10 20:27	5°  12'31	
minimum elong	11738 May 15 09:18	0°  57'39	2°11'16	greatest brilliancy	11739 May 21 20:59	22°  18'36	-0.8m
evening rise	11738 May 30 13:54	25°  13'14			11739 May 27 01:48	0° 	
	11738 Jun 02 12:34	0° 		asc. node	11739 May 31 12:08	5°  52'43	
asc. node	11738 Jun 13 15:04	17°  27'31		evening max el	11739 Jun 03 02:13	8°  45'23	19°07'13
evening max el	11738 Jun 19 16:33	25°  03'41	18°28'48	retrograde	11739 Jun 09 23:38	12°  35'34	
retrograde	11738 Jun 26 03:31	28°  32'41		evening set	11739 Jun 13 11:20	11°  24'54	
evening set	11738 Jun 29 06:39	27°  37'43		inferior conj	11739 Jun 18 22:30	5°  37'39	3°11'57
inferior conj	11738 Jul 05 00:34	22°  05'16	2°54'43	minimum elong	11739 Jun 18 23:21	5°  34'52	3°11'06
minimum elong	11738 Jul 05 02:30	21°  59'29	2°53'39	min. Earth dist.	11739 Jun 20 11:28	3°  38'46	0.66580 AU
min. Earth dist.	11738 Jul 07 04:22	19°  30'59	0.64945 AU		11739 Jun 23 15:36	30° 	
morning rise	11738 Jul 10 21:16	15°  44'56		morning rise	11739 Jun 24 10:47	29°  15'13	
direct	11738 Jul 17 10:20	13°  30'55		direct	11739 Jun 30 15:52	26°  13'27	
desc. node	11738 Jul 17 03:32	13°  30'41		desc. node	11739 Jul 04 00:42	27°  13'37	
morning max el	11738 Jul 30 23:02	21°  30'11	27°14'33		11739 Jul 08 18:14	0° 	
	11738 Aug 07 17:32	0° 		morning max el	11739 Jul 13 09:51	4°  50'30	26°10'10
	11738 Aug 27 10:23	0° 			11739 Aug 02 02:42	0° 	
morning set	11738 Sep 04 10:20	14°  45'38		morning set	11739 Aug 18 09:45	27°  32'39	
max. Earth dist.	11738 Sep 08 21:37	23°  41'28	1.33366 AU		11739 Aug 19 17:14	0° 	
asc. node	11738 Sep 09 15:35	25°  13'57		max. Earth dist.	11739 Aug 22 06:09	4°  51'18	1.35054 AU
	11738 Sep 11 22:24	0° 					
superior conj	11738 Sep 12 18:20	1°  45'22	0°29'57	superior conj	11739 Aug 27 14:27	15°  30'56	0°00'52
minimum elong	11738 Sep 12 16:53	1°  37'43	0°29'36	minimum elong	11739 Aug 27 14:25	15°  30'44	0°00'36
evening rise	11738 Sep 19 21:57	17°  03'23		behind sun begin	11739 Aug 27 08:25	15°  00'09	
	11738 Sep 26 07:01	0° 		behind sun end	11739 Aug 27 20:24	16°  01'23	
evening max el	11738 Oct 10 22:21	21°  30'26	22°06'25	asc. node	11739 Aug 27 12:18	15°  19'55	
desc. node	11738 Oct 13 00:35	23°  23'59			11739 Sep 03 13:53	0° 	
retrograde	11738 Oct 23 15:26	27°  49'42		evening rise	11739 Sep 04 06:25	1°  25'50	
evening set	11738 Oct 26 20:45	27°  46'36			11739 Sep 20 23:04	0° 	
min. Earth dist.	11738 Nov 04 03:46	23°  46'52	0.54696 AU	evening max el	11739 Sep 22 20:20	2°  01'20	20°37'07
				desc. node	11739 Sep 29 21:57	6°  51'00	

retrograde	11739 Oct 04 02:40	7° $\mathbb{M}$ 36'51		evening max el	11740 Sep 04 08:17	13° $\mathbb{A}$ 17'34	19°27'18
evening set	11739 Oct 06 06:59	7° $\mathbb{M}$ 25'12		retrograde	11740 Sep 13 21:56	18° $\mathbb{A}$ 03'31	
inferior conj	11739 Oct 15 08:45	3° $\mathbb{M}$ 29'48	-4°27'34	evening set	11740 Sep 15 18:19	17° $\mathbb{A}$ 53'38	
minimum elong	11739 Oct 14 22:44	3° $\mathbb{M}$ 44'14	4°24'25	desc. node	11740 Sep 15 19:21	17° $\mathbb{A}$ 53'10	
min. Earth dist.	11739 Oct 16 11:31	2° $\mathbb{M}$ 51'11	0.54673 AU	inferior conj	11740 Sep 24 11:12	13° $\mathbb{A}$ 47'12	-2°41'16
	11739 Oct 22 04:08	30° $\mathbb{R}$ $\mathbb{A}$		minimum elong	11740 Sep 24 04:07	13° $\mathbb{A}$ 58'36	2°38'31
morning rise	11739 Oct 23 14:11	29° $\mathbb{A}$ 30'55		min. Earth dist.	11740 Sep 26 22:09	12° $\mathbb{A}$ 12'34	0.55587 AU
direct	11739 Oct 27 21:05	28° $\mathbb{A}$ 51'23		morning rise	11740 Oct 02 11:37	9° $\mathbb{A}$ 18'32	
	11739 Nov 02 09:41	0° $\mathbb{M}$		direct	11740 Oct 07 14:35	8° $\mathbb{A}$ 19'30	
morning max el	11739 Nov 10 03:22	5° $\mathbb{M}$ 17'07	23°25'06	morning max el	11740 Oct 21 13:57	15° $\mathbb{A}$ 20'39	25°11'32
asc. node	11739 Nov 23 13:21	23° $\mathbb{M}$ 14'54			11740 Nov 02 06:59	0° $\mathbb{M}$	
	11739 Nov 27 06:46	0° $\mathbb{A}$		asc. node	11740 Nov 09 10:13	12° $\mathbb{M}$ 07'50	
morning set	11739 Dec 03 15:48	12° $\mathbb{A}$ 56'32		morning set	11740 Nov 17 03:31	27° $\mathbb{M}$ 40'52	
					11740 Nov 18 05:20	0° $\mathbb{A}$	
superior conj	11739 Dec 10 13:33	27° $\mathbb{A}$ 52'50	1°37'53	superior conj	11740 Nov 23 22:48	12° $\mathbb{A}$ 35'42	1°38'37
minimum elong	11739 Dec 10 14:15	27° $\mathbb{A}$ 56'33	1°38'39	minimum elong	11740 Nov 23 22:21	12° $\mathbb{A}$ 33'17	1°39'20
	11739 Dec 11 13:12	0° $\mathbb{B}$		max. Earth dist.	11740 Nov 25 13:05	16° $\mathbb{A}$ 06'02	1.32116 AU
max. Earth dist.	11739 Dec 13 10:09	3° $\mathbb{B}$ 59'12	1.33233 AU	evening rise	11740 Dec 01 03:29	28° $\mathbb{A}$ 02'14	
evening rise	11739 Dec 18 06:52	13° $\mathbb{B}$ 58'18			11740 Dec 02 02:28	0° $\mathbb{B}$	
desc. node	11739 Dec 26 19:56	29° $\mathbb{B}$ 56'26		desc. node	11740 Dec 12 16:56	19° $\mathbb{B}$ 47'58	
	11739 Dec 26 20:45	0° $\approx$			11740 Dec 19 02:08	0° $\approx$	
	11740 Jan 16 08:29	0° $\mathbb{H}$		evening max el	11741 Jan 03 00:19	18° $\approx$ 32'38	27°31'31
evening max el	11740 Jan 21 13:21	5° $\mathbb{H}$ 31'58	27°21'55	retrograde	11741 Jan 16 20:10	25° $\approx$ 52'32	
retrograde	11740 Feb 04 03:36	12° $\mathbb{H}$ 56'42		evening set	11741 Jan 23 19:32	23° $\approx$ 30'25	
evening set	11740 Feb 10 22:44	10° $\mathbb{H}$ 25'24		min. Earth dist.	11741 Jan 27 13:20	20° $\approx$ 27'37	0.62612 AU
min. Earth dist.	11740 Feb 14 19:09	6° $\mathbb{H}$ 54'32	0.64526 AU	inferior conj	11741 Jan 30 10:22	17° $\approx$ 42'11	-1°56'59
inferior conj	11740 Feb 17 06:05	4° $\mathbb{H}$ 16'26	-0°44'14	minimum elong	11741 Jan 30 14:18	17° $\approx$ 32'45	1°54'49
minimum elong	11740 Feb 17 07:26	4° $\mathbb{H}$ 12'49	0°43'17	asc. node	11741 Feb 05 09:13	13° $\approx$ 00'59	
asc. node	11740 Feb 19 11:55	1° $\mathbb{H}$ 57'16		morning rise	11741 Feb 06 11:31	12° $\approx$ 33'19	
	11740 Feb 21 18:42	30° $\mathbb{R}$ $\approx$		direct	11741 Feb 08 18:07	12° $\approx$ 09'27	
morning rise	11740 Feb 23 17:59	28° $\approx$ 51'05		morning max el	11741 Feb 15 10:15	15° $\approx$ 33'42	17°46'56
direct	11740 Feb 26 07:13	28° $\approx$ 17'32			11741 Feb 25 13:36	0° $\mathbb{H}$	
	11740 Mar 01 19:33	0° $\mathbb{H}$		morning set	11741 Mar 03 09:41	10° $\mathbb{H}$ 08'57	
morning max el	11740 Mar 03 16:41	1° $\mathbb{H}$ 36'57	17°52'36	desc. node	11741 Mar 10 17:39	22° $\mathbb{H}$ 54'32	
morning set	11740 Mar 20 21:44	27° $\mathbb{H}$ 23'25			11741 Mar 14 22:12	0° $\mathbb{Y}$	
	11740 Mar 22 11:12	0° $\mathbb{Y}$		superior conj	11741 Mar 15 03:40	0° $\mathbb{Y}$ 22'54	-0°33'20
desc. node	11740 Mar 23 21:01	2° $\mathbb{Y}$ 20'59		minimum elong	11741 Mar 15 00:21	0° $\mathbb{Y}$ 09'02	0°32'45
superior conj	11740 Apr 03 12:47	19° $\mathbb{Y}$ 45'49	-1°14'48	max. Earth dist.	11741 Mar 21 19:53	11° $\mathbb{Y}$ 18'50	1.44070 AU
minimum elong	11740 Apr 03 04:56	19° $\mathbb{Y}$ 14'19	1°14'00	evening rise	11741 Mar 29 23:22	24° $\mathbb{Y}$ 08'20	
max. Earth dist.	11740 Apr 08 02:16	27° $\mathbb{Y}$ 00'31	1.45239 AU		11741 Apr 02 19:12	0° $\mathbb{B}$	
	11740 Apr 09 23:58	0° $\mathbb{B}$			11741 Apr 23 19:02	0° $\mathbb{H}$	
evening rise	11740 Apr 19 10:39	14° $\mathbb{B}$ 37'39		evening max el	11741 Apr 29 05:44	6° $\mathbb{H}$ 16'14	21°09'05
	11740 Apr 29 13:53	0° $\mathbb{H}$		asc. node	11741 May 04 06:32	10° $\mathbb{H}$ 17'26	
greatest brilliancy	11740 May 04 10:05	7° $\mathbb{H}$ 09'00	-0.6m	retrograde	11741 May 07 20:44	11° $\mathbb{H}$ 18'50	
evening max el	11740 May 16 06:49	22° $\mathbb{H}$ 30'16	20°01'33	evening set	11741 May 12 03:51	9° $\mathbb{H}$ 35'46	
asc. node	11740 May 17 09:18	23° $\mathbb{H}$ 33'51		inferior conj	11741 May 17 10:14	3° $\mathbb{H}$ 23'13	3°06'43
retrograde	11740 May 23 22:03	26° $\mathbb{H}$ 52'36		minimum elong	11741 May 17 09:03	3° $\mathbb{H}$ 27'19	3°05'56
evening set	11740 May 27 19:03	25° $\mathbb{H}$ 25'41		min. Earth dist.	11741 May 17 19:04	2° $\mathbb{H}$ 52'32	0.68506 AU
inferior conj	11740 Jun 02 02:32	19° $\mathbb{H}$ 25'00	3°15'14		11741 May 19 22:33	30° $\mathbb{R}$ $\mathbb{B}$	
minimum elong	11740 Jun 02 02:17	19° $\mathbb{H}$ 25'49	3°14'28	morning rise	11741 May 22 14:03	27° $\mathbb{B}$ 07'01	
min. Earth dist.	11740 Jun 03 01:02	18° $\mathbb{H}$ 08'53	0.67776 AU	direct	11741 May 27 19:21	24° $\mathbb{B}$ 49'47	
morning rise	11740 Jun 07 09:11	13° $\mathbb{H}$ 04'31			11741 Jun 06 04:26	0° $\mathbb{H}$	
direct	11740 Jun 13 03:14	10° $\mathbb{H}$ 31'30		desc. node	11741 Jun 06 18:47	0° $\mathbb{H}$ 34'43	
desc. node	11740 Jun 19 21:47	13° $\mathbb{H}$ 12'58		morning max el	11741 Jun 07 05:51	1° $\mathbb{H}$ 02'17	23°18'55
morning max el	11740 Jun 24 19:46	17° $\mathbb{H}$ 32'16	24°48'19		11741 Jun 29 03:23	0° $\mathbb{B}$	
	11740 Jul 05 05:41	0° $\mathbb{B}$		morning set	11741 Jul 12 00:42	20° $\mathbb{B}$ 29'36	
	11740 Jul 25 03:02	0° $\mathbb{Q}$		max. Earth dist.	11741 Jul 16 03:33	27° $\mathbb{B}$ 30'57	1.39459 AU
morning set	11740 Jul 30 16:10	9° $\mathbb{Q}$ 31'20			11741 Jul 17 13:41	0° $\mathbb{Q}$	
max. Earth dist.	11740 Aug 03 06:04	15° $\mathbb{Q}$ 57'26	1.37152 AU	superior conj	11741 Jul 23 19:42	11° $\mathbb{Q}$ 17'00	-1°05'43
superior conj	11740 Aug 10 00:11	28° $\mathbb{Q}$ 44'32	-0°31'42	minimum elong	11741 Jul 24 00:18	11° $\mathbb{Q}$ 38'23	1°05'37
minimum elong	11740 Aug 10 02:16	28° $\mathbb{Q}$ 54'42	0°31'46	asc. node	11741 Jul 31 05:48	25° $\mathbb{Q}$ 22'16	
	11740 Aug 10 15:36	0° $\mathbb{H}$		evening rise	11741 Aug 02 06:18	29° $\mathbb{Q}$ 16'20	
asc. node	11740 Aug 13 09:01	5° $\mathbb{H}$ 23'54			11741 Aug 02 15:22	0° $\mathbb{H}$	
evening rise	11740 Aug 18 10:10	15° $\mathbb{H}$ 32'35		evening max el	11741 Aug 18 08:31	25° $\mathbb{H}$ 19'59	18°39'02
	11740 Aug 25 23:02	0° $\mathbb{A}$					

retrograde	11741 Aug 26 11:03	29° $\mathbb{M}$ 24'02			11742 Jul 26 14:20	0° $\mathbb{M}$	
evening set	11741 Aug 28 10:16	29° $\mathbb{M}$ 10'28		evening max el	11742 Aug 01 17:12	8° $\mathbb{M}$ 00'42	18°11'38
desc. node	11741 Sep 02 16:45	26° $\mathbb{M}$ 41'13		retrograde	11742 Aug 08 19:06	11° $\mathbb{M}$ 36'17	
inferior conj	11741 Sep 05 09:33	24° $\mathbb{M}$ 44'50	-0°50'39	evening set	11742 Aug 11 01:19	11° $\mathbb{M}$ 14'55	
minimum elong	11741 Sep 05 07:29	24° $\mathbb{M}$ 48'42	0°49'59	inferior conj	11742 Aug 18 05:41	6° $\mathbb{M}$ 28'49	0°42'27
min. Earth dist.	11741 Sep 08 14:01	22° $\mathbb{M}$ 22'04	0.57259 AU	minimum elong	11742 Aug 18 07:03	6° $\mathbb{M}$ 25'49	0°41'35
morning rise	11741 Sep 13 01:18	19° $\mathbb{M}$ 38'24		desc. node	11742 Aug 20 14:07	4° $\mathbb{M}$ 24'30	
direct	11741 Sep 18 21:49	18° $\mathbb{M}$ 13'37		min. Earth dist.	11742 Aug 21 13:24	3° $\mathbb{M}$ 34'59	0.59391 AU
morning max el	11741 Oct 03 04:58	25° $\mathbb{M}$ 42'28	26°40'50	morning rise	11742 Aug 25 09:28	0° $\mathbb{M}$ 48'48	
	11741 Oct 07 05:45	0° $\mathbb{L}$			11742 Aug 26 23:12	30° $\mathbb{R}$ $\mathbb{L}$	
	11741 Oct 26 12:57	0° $\mathbb{L}$		direct	11742 Aug 31 18:55	28° $\mathbb{L}$ 55'13	
asc. node	11741 Oct 27 07:02	1° $\mathbb{M}$ 27'58			11742 Sep 05 19:04	0° $\mathbb{M}$	
morning set	11741 Nov 01 13:37	12° $\mathbb{M}$ 17'20		morning max el	11742 Sep 15 03:27	6° $\mathbb{M}$ 44'35	27°38'27
					11742 Oct 02 14:56	0° $\mathbb{L}$	
superior conj	11741 Nov 08 10:09	27° $\mathbb{M}$ 21'31	1°33'26	asc. node	11742 Oct 14 03:47	21° $\mathbb{L}$ 07'53	
minimum elong	11741 Nov 08 08:45	27° $\mathbb{M}$ 13'46	1°33'56	morning set	11742 Oct 16 20:24	26° $\mathbb{L}$ 41'33	
max. Earth dist.	11741 Nov 08 20:51	28° $\mathbb{M}$ 21'09	1.31487 AU		11742 Oct 18 09:44	0° $\mathbb{M}$	
	11741 Nov 09 14:37	0° $\mathbb{J}$		max. Earth dist.	11742 Oct 23 05:54	10° $\mathbb{M}$ 36'42	1.31356 AU
evening rise	11741 Nov 15 06:57	12° $\mathbb{J}$ 22'32					
	11741 Nov 24 05:42	0° $\mathbb{Z}$		superior conj	11742 Oct 23 21:46	12° $\mathbb{M}$ 05'02	1°22'35
desc. node	11741 Nov 29 14:02	9° $\mathbb{Z}$ 10'13		minimum elong	11742 Oct 23 19:44	11° $\mathbb{M}$ 53'43	1°22'47
	11741 Dec 15 09:14	0° $\mathbb{A}$		evening rise	11742 Oct 30 15:02	26° $\mathbb{M}$ 53'33	
evening max el	11741 Dec 16 06:17	0° $\mathbb{A}$ 50'53	27°07'55		11742 Nov 01 02:07	0° $\mathbb{J}$	
retrograde	11741 Dec 30 04:19	8° $\mathbb{A}$ 03'11		desc. node	11742 Nov 16 11:12	27° $\mathbb{J}$ 51'51	
evening set	11742 Jan 06 01:32	5° $\mathbb{A}$ 58'43			11742 Nov 17 22:14	0° $\mathbb{Z}$	
min. Earth dist.	11742 Jan 09 20:42	3° $\mathbb{A}$ 16'17	0.60507 AU	evening max el	11742 Nov 28 04:40	12° $\mathbb{Z}$ 17'53	26°10'07
inferior conj	11742 Jan 13 00:19	0° $\mathbb{A}$ 37'18	-3°15'18	retrograde	11742 Dec 12 02:54	19° $\mathbb{Z}$ 22'12	
minimum elong	11742 Jan 13 07:02	0° $\mathbb{A}$ 23'07	3°12'11	evening set	11742 Dec 18 12:32	17° $\mathbb{Z}$ 44'09	
	11742 Jan 13 18:05	30° $\mathbb{R}$ $\mathbb{Z}$		min. Earth dist.	11742 Dec 22 17:45	15° $\mathbb{Z}$ 08'43	0.58385 AU
morning rise	11742 Jan 20 15:21	25° $\mathbb{Z}$ 48'18		inferior conj	11742 Dec 25 20:22	12° $\mathbb{Z}$ 52'19	-4°31'23
direct	11742 Jan 22 18:04	25° $\mathbb{Z}$ 30'35		minimum elong	11742 Dec 26 04:42	12° $\mathbb{Z}$ 37'02	4°28'20
asc. node	11742 Jan 23 06:29	25° $\mathbb{Z}$ 31'41		morning rise	11743 Jan 02 23:37	8° $\mathbb{Z}$ 25'30	
morning max el	11742 Jan 30 01:07	29° $\mathbb{Z}$ 09'22	17°59'48	direct	11743 Jan 05 02:37	8° $\mathbb{Z}$ 10'31	
	11742 Jan 30 20:48	0° $\mathbb{A}$		asc. node	11743 Jan 10 03:39	9° $\mathbb{Z}$ 40'22	
morning set	11742 Feb 14 15:21	23° $\mathbb{A}$ 43'21		morning max el	11743 Jan 13 09:29	12° $\mathbb{Z}$ 13'43	18°32'45
	11742 Feb 18 01:08	0° $\mathbb{H}$			11743 Jan 25 06:20	0° $\mathbb{A}$	
				morning set	11743 Jan 29 09:21	7° $\mathbb{A}$ 50'41	
superior conj	11742 Feb 24 19:06	12° $\mathbb{H}$ 08'53	0°06'14				
minimum elong	11742 Feb 24 19:39	12° $\mathbb{H}$ 11'16	0°06'27	superior conj	11743 Feb 07 07:43	24° $\mathbb{A}$ 53'32	0°39'39
behind sun begin	11742 Feb 24 12:18	11° $\mathbb{H}$ 38'54		minimum elong	11743 Feb 07 10:15	25° $\mathbb{A}$ 05'15	0°39'45
behind sun end	11742 Feb 25 03:00	12° $\mathbb{H}$ 43'33			11743 Feb 10 02:32	0° $\mathbb{H}$	
desc. node	11742 Feb 25 14:18	13° $\mathbb{H}$ 33'00		desc. node	11743 Feb 12 10:59	4° $\mathbb{H}$ 12'54	
max. Earth dist.	11742 Mar 04 09:11	25° $\mathbb{H}$ 06'29	1.42331 AU	max. Earth dist.	11743 Feb 14 17:26	8° $\mathbb{H}$ 11'30	1.40226 AU
	11742 Mar 07 08:46	0° $\mathbb{Y}$		evening rise	11743 Feb 18 22:15	15° $\mathbb{H}$ 19'47	
evening rise	11742 Mar 10 00:42	4° $\mathbb{Y}$ 16'54			11743 Feb 28 02:28	0° $\mathbb{Y}$	
	11742 Mar 27 02:55	0° $\mathbb{B}$			11743 Mar 21 23:47	0° $\mathbb{B}$	
evening max el	11742 Apr 11 23:34	20° $\mathbb{B}$ 02'56	22°25'53	evening max el	11743 Mar 25 14:08	3° $\mathbb{B}$ 51'42	23°46'34
asc. node	11742 Apr 21 03:49	25° $\mathbb{B}$ 47'21		retrograde	11743 Apr 05 12:21	10° $\mathbb{B}$ 17'50	
retrograde	11742 Apr 21 17:57	25° $\mathbb{B}$ 49'00		asc. node	11743 Apr 08 01:07	9° $\mathbb{B}$ 48'02	
evening set	11742 Apr 26 12:00	23° $\mathbb{B}$ 50'40		evening set	11743 Apr 10 17:57	8° $\mathbb{B}$ 05'53	
inferior conj	11742 May 01 19:30	17° $\mathbb{B}$ 28'33	2°47'45	min. Earth dist.	11743 Apr 15 12:05	2° $\mathbb{B}$ 33'15	0.68574 AU
minimum elong	11742 May 01 17:39	17° $\mathbb{B}$ 35'00	2°46'53	inferior conj	11743 Apr 16 04:24	1° $\mathbb{B}$ 37'30	2°18'58
min. Earth dist.	11742 May 01 15:28	17° $\mathbb{B}$ 42'35	0.68766 AU	minimum elong	11743 Apr 16 02:15	1° $\mathbb{B}$ 44'53	2°18'03
morning rise	11742 May 06 23:10	11° $\mathbb{B}$ 17'59			11743 Apr 17 09:15	30° $\mathbb{R}$ $\mathbb{Y}$	
direct	11742 May 11 15:08	9° $\mathbb{B}$ 20'40		morning rise	11743 Apr 21 10:33	25° $\mathbb{Y}$ 33'45	
morning max el	11742 May 20 18:55	14° $\mathbb{B}$ 41'12	21°51'07	direct	11743 Apr 25 13:31	23° $\mathbb{Y}$ 57'46	
desc. node	11742 May 24 15:41	18° $\mathbb{B}$ 56'32		morning max el	11743 May 03 13:57	28° $\mathbb{Y}$ 31'02	20°32'06
	11742 Jun 02 03:06	0° $\mathbb{I}$			11743 May 05 00:11	0° $\mathbb{B}$	
morning set	11742 Jun 22 07:35	0° $\mathbb{D}$ 19'06		desc. node	11743 May 11 12:31	8° $\mathbb{B}$ 02'03	
	11742 Jun 22 02:48	0° $\mathbb{D}$			11743 May 26 16:10	0° $\mathbb{I}$	
max. Earth dist.	11742 Jun 28 04:32	9° $\mathbb{D}$ 53'07	1.41698 AU	morning set	11743 Jun 01 15:17	9° $\mathbb{I}$ 08'09	
				max. Earth dist.	11743 Jun 10 11:46	23° $\mathbb{I}$ 06'14	1.43614 AU
superior conj	11742 Jul 05 20:32	22° $\mathbb{D}$ 58'06	-1°37'47		11743 Jun 14 17:34	0° $\mathbb{D}$	
minimum elong	11742 Jul 06 03:06	23° $\mathbb{D}$ 26'55	1°37'46				
	11742 Jul 09 19:30	0° $\mathbb{L}$		superior conj	11743 Jun 16 22:30	3° $\mathbb{D}$ 38'49	-2°02'34
evening rise	11742 Jul 16 15:07	12° $\mathbb{L}$ 27'30		minimum elong	11743 Jun 17 04:24	4° $\mathbb{D}$ 03'19	2°02'59
asc. node	11742 Jul 18 02:38	15° $\mathbb{L}$ 10'59		evening rise	11743 Jun 29 07:57	24° $\mathbb{D}$ 53'51	

	11743 Jul 02 05:51	0°♎			11744 Jun 24 23:11	0°♎	
asc. node	11743 Jul 04 23:31	4°♎44'38		evening max el	11744 Jun 28 20:18	4°♎36'11	18°14'30
evening max el	11743 Jul 16 06:17	21°♎08'51	18°03'47	retrograde	11744 Jul 05 04:55	7°♎58'16	
retrograde	11743 Jul 22 18:30	24°♎30'32		evening set	11744 Jul 08 03:24	7°♎11'50	
evening set	11743 Jul 25 08:45	23°♎57'55		inferior conj	11744 Jul 14 02:50	1°♎48'53	2°37'14
inferior conj	11743 Jul 31 20:46	18°♎52'33	1°51'21	minimum elong	11744 Jul 14 05:14	1°♎42'04	2°36'01
minimum elong	11743 Jul 31 23:23	18°♎45'57	1°50'00		11744 Jul 15 17:13	30°♎☿	
min. Earth dist.	11743 Aug 03 21:33	15°♎50'13	0.61675 AU	min. Earth dist.	11744 Jul 16 15:01	28°♎59'31	0.63841 AU
morning rise	11743 Aug 07 11:33	12°♎49'24		morning rise	11744 Jul 20 05:35	25°♎32'44	
desc. node	11743 Aug 07 11:28	12°♎49'33		desc. node	11744 Jul 24 08:44	23°♎18'28	
direct	11743 Aug 14 03:36	10°♎30'14		direct	11744 Jul 26 21:30	22°♎56'38	
morning max el	11743 Aug 28 08:20	18°♎31'07	27°57'48		11744 Aug 08 17:49	0°♎	
	11743 Sep 07 00:25	0°♎		morning max el	11744 Aug 09 17:25	0°♎58'05	27°39'39
	11743 Sep 25 10:55	0°♎			11744 Aug 31 03:34	0°♎	
morning set	11743 Sep 30 21:50	10°♎47'07		morning set	11744 Sep 13 15:36	24°♎28'20	
asc. node	11743 Oct 01 00:29	11°♎00'47			11744 Sep 16 09:09	0°♎	
max. Earth dist.	11743 Oct 06 12:15	22°♎41'06	1.31730 AU	asc. node	11744 Sep 16 21:11	1°♎02'06	
				max. Earth dist.	11744 Sep 18 12:20	4°♎26'24	1.32625 AU
superior conj	11743 Oct 08 07:46	26°♎39'47	1°06'15				
minimum elong	11743 Oct 08 05:31	26°♎27'23	1°06'10	superior conj	11744 Sep 21 14:14	11°♎00'32	0°44'39
	11743 Oct 09 20:02	0°♎		minimum elong	11744 Sep 21 12:18	10°♎50'10	0°44'21
evening rise	11743 Oct 15 01:39	11°♎28'50		evening rise	11744 Sep 28 12:58	26°♎03'40	
	11743 Oct 24 08:17	0°♎			11744 Sep 30 09:37	0°♎	
desc. node	11743 Nov 03 08:26	15°♎36'33			11744 Oct 18 08:45	0°♎	
evening max el	11743 Nov 09 18:58	22°♎55'09	24°44'06	desc. node	11744 Oct 20 05:43	2°♎03'12	
retrograde	11743 Nov 23 13:50	29°♎49'19		evening max el	11744 Oct 21 05:23	3°♎02'34	23°03'41
evening set	11743 Nov 29 00:11	28°♎43'38		retrograde	11744 Nov 03 11:37	9°♎38'14	
min. Earth dist.	11743 Dec 04 06:41	25°♎57'25	0.56492 AU	evening set	11744 Nov 07 12:52	9°♎02'34	
inferior conj	11743 Dec 06 20:02	24°♎19'28	-5°30'19	min. Earth dist.	11744 Nov 14 14:37	5°♎47'22	0.55134 AU
minimum elong	11743 Dec 07 02:15	24°♎09'32	5°28'41	inferior conj	11744 Nov 16 00:25	4°♎58'43	-5°50'25
morning rise	11743 Dec 15 06:29	20°♎14'06		minimum elong	11744 Nov 15 23:19	5°♎00'17	5°49'43
direct	11743 Dec 17 16:17	19°♎58'05		morning rise	11744 Nov 24 11:22	1°♎08'52	
morning max el	11743 Dec 27 07:23	24°♎35'16	19°27'40	direct	11744 Nov 27 11:45	0°♎47'24	
asc. node	11743 Dec 28 00:45	25°♎18'32		morning max el	11744 Dec 08 15:42	6°♎05'22	20°45'30
	11743 Dec 31 21:46	0°♎		asc. node	11744 Dec 13 21:49	12°♎10'41	
morning set	11744 Jan 13 11:42	22°♎19'18			11744 Dec 24 08:30	0°♎	
	11744 Jan 17 07:19	0°♎		morning set	11744 Dec 27 19:24	7°♎00'32	
superior conj	11744 Jan 21 12:41	8°♎23'05	1°05'29	superior conj	11745 Jan 04 05:40	22°♎25'12	1°23'40
minimum elong	11744 Jan 21 15:37	8°♎37'26	1°05'45	minimum elong	11745 Jan 04 08:03	22°♎37'23	1°24'10
max. Earth dist.	11744 Jan 27 23:20	20°♎35'54	1.37997 AU		11745 Jan 08 00:07	0°♎	
desc. node	11744 Jan 30 07:43	24°♎50'38		max. Earth dist.	11745 Jan 09 07:52	2°♎35'24	1.35888 AU
evening rise	11744 Jan 31 16:55	27°♎17'34		evening rise	11745 Jan 13 06:04	10°♎02'15	
	11744 Feb 02 06:15	0°♎		desc. node	11745 Jan 16 04:28	15°♎22'00	
	11744 Feb 21 13:55	0°♎			11745 Jan 24 20:52	0°♎	
evening max el	11744 Mar 07 03:39	17°♎43'07	25°04'35		11745 Feb 16 04:27	0°♎	
retrograde	11744 Mar 19 02:40	24°♎39'53		evening max el	11745 Feb 17 17:17	1°♎32'36	26°12'36
evening set	11744 Mar 24 20:08	22°♎16'53		retrograde	11745 Mar 02 11:53	8°♎48'11	
asc. node	11744 Mar 24 22:25	22°♎12'00		evening set	11745 Mar 08 16:51	6°♎17'37	
min. Earth dist.	11744 Mar 29 06:44	17°♎19'34	0.67949 AU	asc. node	11745 Mar 11 19:46	3°♎10'13	
inferior conj	11744 Mar 30 11:05	15°♎46'37	1°40'29	min. Earth dist.	11745 Mar 12 21:07	1°♎55'12	0.66916 AU
minimum elong	11744 Mar 30 09:05	15°♎53'12	1°39'41		11745 Mar 14 10:33	30°♎♂	
morning rise	11744 Apr 04 22:19	9°♎51'02		inferior conj	11745 Mar 14 13:32	29°♎50'48	0°52'08
direct	11744 Apr 08 13:08	8°♎35'49		minimum elong	11745 Mar 14 12:15	29°♎54'43	0°51'43
morning max el	11744 Apr 15 16:36	12°♎32'16	19°26'37	morning rise	11745 Mar 20 08:26	24°♎05'15	
desc. node	11744 Apr 27 09:16	27°♎39'37		direct	11745 Mar 23 12:14	23°♎08'41	
greatest brilliancy	11744 Apr 28 09:36	29°♎09'01	-0.7m	morning max el	11745 Mar 30 02:28	26°♎41'06	18°36'55
	11744 Apr 28 23:23	0°♎			11745 Apr 02 02:01	0°♎	
morning set	11744 May 10 15:31	17°♎43'02		desc. node	11745 Apr 14 05:57	17°♎39'59	
	11744 May 18 13:43	0°♎		morning set	11745 Apr 20 06:54	27°♎07'31	
max. Earth dist.	11744 May 23 01:37	7°♎03'10	1.44987 AU		11745 Apr 22 02:52	0°♎	
superior conj	11744 May 27 00:51	13°♎20'47	-2°13'18	superior conj	11745 May 06 10:17	22°♎23'23	-2°04'28
minimum elong	11744 May 27 01:25	13°♎23'03	2°14'00	minimum elong	11745 May 06 03:27	21°♎56'39	2°04'41
	11744 Jun 06 07:06	0°♎		max. Earth dist.	11745 May 05 20:13	21°♎28'19	1.45674 AU
evening rise	11744 Jun 10 03:55	6°♎25'03			11745 May 11 06:51	0°♎	
asc. node	11744 Jun 20 20:28	23°♎58'00		evening rise	11745 May 21 23:43	16°♎55'37	

greatest brilliancy	11745 May 29 21:16	29° $\Pi$ 29'08	-0.9m	evening rise	11746 May 01 21:54	26° $\mathcal{B}$ 36'24	
	11745 May 30 05:07	0° $\mathfrak{D}$			11746 May 04 02:40	0° $\Pi$	
asc. node	11745 Jun 07 17:29	12° $\mathfrak{D}$ 43'14		greatest brilliancy	11746 May 14 21:03	16° $\Pi$ 24'26	-0.7m
evening max el	11745 Jun 12 08:15	18° $\mathfrak{D}$ 14'19	18°43'04		11746 May 24 20:24	0° $\mathfrak{D}$	
retrograde	11745 Jun 18 22:29	21° $\mathfrak{D}$ 50'27		asc. node	11746 May 25 14:36	0° $\mathfrak{D}$ 50'59	
evening set	11745 Jun 22 05:19	20° $\mathfrak{D}$ 48'44		evening max el	11746 May 26 15:53	1° $\mathfrak{D}$ 57'21	19°28'28
inferior conj	11745 Jun 27 19:57	15° $\mathfrak{D}$ 09'44	3°03'53	retrograde	11746 Jun 02 19:59	6° $\mathfrak{D}$ 00'05	
minimum elong	11745 Jun 27 21:27	15° $\mathfrak{D}$ 05'06	3°02'55	evening set	11746 Jun 06 11:35	4° $\mathfrak{D}$ 42'23	
min. Earth dist.	11745 Jun 29 17:22	12° $\mathfrak{D}$ 49'35	0.65698 AU		11746 Jun 10 23:05	30° $\mathfrak{R}$ $\Pi$	
morning rise	11745 Jul 03 12:46	8° $\mathfrak{D}$ 48'09		inferior conj	11746 Jun 11 20:48	28° $\Pi$ 48'57	3°14'53
direct	11745 Jul 09 22:58	6° $\mathfrak{D}$ 05'46		minimum elong	11746 Jun 11 21:11	28° $\Pi$ 47'41	3°14'05
desc. node	11745 Jul 11 05:57	6° $\mathfrak{D}$ 11'38		min. Earth dist.	11746 Jun 13 03:25	27° $\Pi$ 07'58	0.67143 AU
morning max el	11745 Jul 23 04:17	13° $\mathfrak{D}$ 55'23	26°49'54	morning rise	11746 Jun 17 06:22	22° $\Pi$ 26'58	
	11745 Aug 05 05:10	0° $\Omega$		direct	11746 Jun 23 06:54	19° $\Pi$ 48'14	
	11745 Aug 23 20:21	0° $\mathfrak{M}$		desc. node	11746 Jun 28 03:07	21° $\Pi$ 11'05	
morning set	11745 Aug 27 22:47	7° $\mathfrak{M}$ 37'48		morning max el	11746 Jul 05 14:57	27° $\Pi$ 11'32	25°36'59
max. Earth dist.	11745 Sep 01 03:10	15° $\mathfrak{M}$ 48'58	1.34033 AU		11746 Jul 08 05:59	0° $\mathfrak{D}$	
asc. node	11745 Sep 03 17:54	21° $\mathfrak{M}$ 07'37			11746 Jul 29 20:37	0° $\Omega$	
				morning set	11746 Aug 10 15:35	20° $\Omega$ 05'51	
superior conj	11745 Sep 05 14:55	25° $\mathfrak{M}$ 01'06	0°18'08	max. Earth dist.	11746 Aug 14 07:58	26° $\Omega$ 55'51	1.35907 AU
minimum elong	11745 Sep 05 13:58	24° $\mathfrak{M}$ 56'12	0°17'48		11746 Aug 15 22:33	0° $\mathfrak{M}$	
	11745 Sep 07 23:42	0° $\mathfrak{L}$					
evening rise	11745 Sep 12 23:07	10° $\mathfrak{L}$ 32'44		superior conj	11746 Aug 20 07:03	8° $\mathfrak{M}$ 34'01	-0°12'37
	11745 Sep 23 00:41	0° $\mathfrak{M}$		minimum elong	11746 Aug 20 07:50	8° $\mathfrak{M}$ 37'57	0°12'48
evening max el	11745 Oct 02 20:42	13° $\mathfrak{M}$ 15'10	21°26'19	behind sun begin	11746 Aug 20 04:00	8° $\mathfrak{M}$ 18'46	
desc. node	11745 Oct 07 03:04	16° $\mathfrak{M}$ 44'45		behind sun end	11746 Aug 20 11:39	8° $\mathfrak{M}$ 57'10	
retrograde	11745 Oct 15 00:05	19° $\mathfrak{M}$ 17'14		asc. node	11746 Aug 21 14:36	11° $\mathfrak{M}$ 13'07	
evening set	11745 Oct 17 17:03	19° $\mathfrak{M}$ 00'24		evening rise	11746 Aug 28 05:57	24° $\mathfrak{M}$ 49'42	
inferior conj	11745 Oct 26 17:10	15° $\mathfrak{M}$ 05'14	-5°13'47		11746 Aug 30 19:13	0° $\mathfrak{L}$	
minimum elong	11745 Oct 26 08:32	15° $\mathfrak{M}$ 17'20	5°11'36	evening max el	11746 Sep 15 00:25	24° $\mathfrak{L}$ 03'50	20°04'45
min. Earth dist.	11745 Oct 26 21:12	14° $\mathfrak{M}$ 59'35	0.54573 AU	desc. node	11746 Sep 24 00:27	29° $\mathfrak{L}$ 12'11	
morning rise	11745 Nov 04 00:54	11° $\mathfrak{M}$ 16'12		retrograde	11746 Sep 25 13:39	29° $\mathfrak{L}$ 18'45	
direct	11745 Nov 07 20:20	10° $\mathfrak{M}$ 44'52		evening set	11746 Sep 27 12:35	29° $\mathfrak{L}$ 08'43	
morning max el	11745 Nov 20 10:48	16° $\mathfrak{M}$ 45'52	22°23'25	inferior conj	11746 Oct 06 12:07	25° $\mathfrak{L}$ 09'38	-3°45'03
asc. node	11745 Nov 30 18:48	0° $\mathfrak{X}$ 00'38		minimum elong	11746 Oct 06 02:43	25° $\mathfrak{L}$ 23'43	3°41'43
	11745 Nov 30 18:39	0° $\mathfrak{X}$		min. Earth dist.	11746 Oct 08 05:53	24° $\mathfrak{L}$ 07'00	0.54950 AU
morning set	11745 Dec 12 06:12	21° $\mathfrak{X}$ 47'55		morning rise	11746 Oct 14 15:44	20° $\mathfrak{L}$ 59'50	
	11745 Dec 16 02:23	0° $\mathfrak{Z}$		direct	11746 Oct 19 06:59	20° $\mathfrak{L}$ 13'10	
				morning max el	11746 Nov 01 22:19	26° $\mathfrak{L}$ 54'48	24°11'23
superior conj	11745 Dec 19 07:10	6° $\mathfrak{Z}$ 50'12	1°34'37		11746 Nov 04 22:13	0° $\mathfrak{M}$	
minimum elong	11745 Dec 19 08:31	6° $\mathfrak{Z}$ 57'23	1°35'20	asc. node	11746 Nov 17 15:44	18° $\mathfrak{M}$ 33'42	
max. Earth dist.	11745 Dec 22 22:59	14° $\mathfrak{Z}$ 29'07	1.34084 AU		11746 Nov 23 14:40	0° $\mathfrak{X}$	
evening rise	11745 Dec 27 10:09	23° $\mathfrak{Z}$ 24'55		morning set	11746 Nov 26 18:04	6° $\mathfrak{X}$ 34'43	
	11745 Dec 30 21:29	0° $\approx$					
desc. node	11746 Jan 03 01:21	5° $\approx$ 42'49		superior conj	11746 Dec 03 14:16	21° $\mathfrak{X}$ 28'39	1°38'57
	11746 Jan 18 12:17	0° $\mathfrak{X}$		minimum elong	11746 Dec 03 14:28	21° $\mathfrak{X}$ 29'44	1°39'43
evening max el	11746 Jan 31 06:51	15° $\mathfrak{X}$ 11'43	27°03'15	max. Earth dist.	11746 Dec 05 21:44	26° $\mathfrak{X}$ 28'53	1.32697 AU
retrograde	11746 Feb 13 15:15	22° $\mathfrak{X}$ 35'34			11746 Dec 07 13:23	0° $\mathfrak{Z}$	
evening set	11746 Feb 20 06:13	20° $\mathfrak{X}$ 02'27		evening rise	11746 Dec 11 01:35	7° $\mathfrak{Z}$ 15'44	
min. Earth dist.	11746 Feb 24 05:06	16° $\mathfrak{X}$ 13'43	0.65503 AU	desc. node	11746 Dec 20 22:18	25° $\mathfrak{Z}$ 46'44	
inferior conj	11746 Feb 26 09:31	13° $\mathfrak{X}$ 45'10	-0°06'12		11746 Dec 23 10:07	0° $\approx$	
minimum elong	11746 Feb 26 09:41	13° $\mathfrak{X}$ 44'42	0°05'51	evening max el	11747 Jan 13 19:07	28° $\approx$ 28'58	27°29'39
transit middle	11746 Feb 26 09:41	13° $\mathfrak{X}$ 44'42	0°05'51		11747 Jan 15 10:55	0° $\mathfrak{X}$	
transit begin	11746 Feb 26 06:54	13° $\mathfrak{X}$ 52'37		retrograde	11747 Jan 27 12:11	5° $\mathfrak{X}$ 52'45	
transit end	11746 Feb 26 12:28	13° $\mathfrak{X}$ 36'47		evening set	11747 Feb 03 09:52	3° $\mathfrak{X}$ 23'58	
asc. node	11746 Feb 26 17:07	13° $\mathfrak{X}$ 23'37		min. Earth dist.	11747 Feb 07 04:42	0° $\mathfrak{X}$ 06'01	0.63745 AU
morning rise	11746 Mar 04 14:34	8° $\mathfrak{X}$ 11'54			11747 Feb 07 07:07	30° $\mathfrak{R}$ $\approx$	
direct	11746 Mar 07 08:42	7° $\mathfrak{X}$ 30'59		inferior conj	11747 Feb 09 20:22	27° $\approx$ 22'59	-1°14'09
morning max el	11746 Mar 13 17:37	10° $\mathfrak{X}$ 51'39	18°03'54	minimum elong	11747 Feb 09 22:44	27° $\approx$ 16'54	1°12'41
	11746 Mar 27 05:26	0° $\mathfrak{Y}$		asc. node	11747 Feb 13 14:27	23° $\approx$ 51'57	
morning set	11746 Apr 01 02:14	7° $\mathfrak{Y}$ 55'24		morning rise	11747 Feb 16 13:46	22° $\approx$ 04'36	
desc. node	11746 Apr 01 02:37	7° $\mathfrak{Y}$ 56'58		direct	11747 Feb 18 23:52	21° $\approx$ 35'41	
	11746 Apr 14 20:00	0° $\mathfrak{B}$		morning max el	11747 Feb 25 11:15	24° $\approx$ 55'50	17°48'03
					11747 Mar 01 16:30	0° $\mathfrak{X}$	
superior conj	11746 Apr 15 19:10	1° $\mathfrak{B}$ 31'18	-1°36'38	morning set	11747 Mar 14 00:58	20° $\mathfrak{X}$ 02'36	
minimum elong	11746 Apr 15 09:50	0° $\mathfrak{B}$ 54'34	1°36'02	desc. node	11747 Mar 18 23:16	28° $\mathfrak{X}$ 25'24	
max. Earth dist.	11746 Apr 18 16:22	6° $\mathfrak{B}$ 03'04	1.45610 AU		11747 Mar 19 21:44	0° $\mathfrak{Y}$	

superior conj	11747 Mar 26 20:25	11° $\Upsilon$ 29'13	-0°57'23	minimum elong	11748 Mar 06 20:23	22° $\text{X}$ 29'23	0°15'35
minimum elong	11747 Mar 26 14:23	11° $\Upsilon$ 04'39	0°56'38	behind sun begin	11748 Mar 06 18:25	22° $\text{X}$ 21'01	
max. Earth dist.	11747 Apr 01 11:08	20° $\Upsilon$ 30'04	1.44814 AU	behind sun end	11748 Mar 06 22:20	22° $\text{X}$ 37'46	
	11747 Apr 07 12:29	0° $\text{B}$			11748 Mar 11 07:34	0° $\Upsilon$	
evening rise	11747 Apr 11 09:25	5° $\text{B}$ 58'21		max. Earth dist.	11748 Mar 14 02:27	4° $\Upsilon$ 34'24	1.43383 AU
	11747 Apr 27 11:43	0° $\Pi$		evening rise	11748 Mar 21 01:58	15° $\Upsilon$ 41'12	
evening max el	11747 May 09 17:57	15° $\Pi$ 42'17	20°28'52		11748 Mar 30 11:34	0° $\text{B}$	
asc. node	11747 May 12 11:47	18° $\Pi$ 09'26		evening max el	11748 Apr 21 14:29	29° $\text{B}$ 27'59	21°41'02
retrograde	11747 May 17 18:52	20° $\Pi$ 21'34			11748 Apr 22 03:24	0° $\Pi$	
evening set	11747 May 21 19:59	18° $\Pi$ 47'49		asc. node	11748 Apr 28 09:01	4° $\Pi$ 23'20	
inferior conj	11747 May 27 02:41	12° $\Pi$ 41'39	3°12'58	retrograde	11748 Apr 30 17:05	4° $\Pi$ 49'22	
minimum elong	11747 May 27 02:01	12° $\Pi$ 43'56	3°12'13	evening set	11748 May 05 04:39	2° $\Pi$ 59'54	
min. Earth dist.	11747 May 27 19:16	11° $\Pi$ 44'42	0.68134 AU		11748 May 08 00:47	30° $\text{R}$ $\text{B}$	
morning rise	11747 Jun 01 07:46	6° $\Pi$ 22'31		inferior conj	11748 May 10 11:16	26° $\text{B}$ 43'03	2°59'55
direct	11747 Jun 06 20:25	3° $\Pi$ 55'35		minimum elong	11748 May 10 09:46	26° $\text{B}$ 48'17	2°59'06
desc. node	11747 Jun 15 00:11	7° $\Pi$ 48'30		min. Earth dist.	11748 May 10 14:38	26° $\text{B}$ 31'18	0.68667 AU
morning max el	11747 Jun 18 00:52	10° $\Pi$ 37'44	24°10'44	morning rise	11748 May 15 14:40	20° $\text{B}$ 28'52	
	11747 Jul 03 10:23	0° $\text{E}$		direct	11748 May 20 14:20	18° $\text{B}$ 19'31	
	11747 Jul 22 13:52	0° $\Omega$		morning max el	11748 May 30 11:38	24° $\text{B}$ 10'19	22°40'53
morning set	11747 Jul 23 13:25	1° $\Omega$ 41'09		desc. node	11748 May 31 21:08	25° $\text{B}$ 37'39	
max. Earth dist.	11747 Jul 27 05:55	8° $\Omega$ 09'45	1.38115 AU		11748 Jun 04 16:02	0° $\Pi$	
					11748 Jun 25 20:10	0° $\text{E}$	
superior conj	11747 Aug 03 11:17	21° $\Omega$ 31'32	-0°46'05	morning set	11748 Jul 03 11:13	12° $\text{E}$ 10'05	
minimum elong	11747 Aug 03 14:25	21° $\Omega$ 46'34	0°46'04	max. Earth dist.	11748 Jul 08 03:39	19° $\text{E}$ 59'32	1.40431 AU
	11747 Aug 07 20:04	0° $\text{M}$			11748 Jul 13 21:40	0° $\Omega$	
asc. node	11747 Aug 08 11:22	1° $\text{M}$ 15'18					
evening rise	11747 Aug 12 06:54	8° $\text{M}$ 48'02		superior conj	11748 Jul 15 23:22	3° $\Omega$ 43'03	-1°19'49
	11747 Aug 24 03:02	0° $\text{A}$		minimum elong	11748 Jul 16 04:58	4° $\Omega$ 08'26	1°19'43
evening max el	11747 Aug 28 18:03	5° $\text{A}$ 40'51	19°04'11	asc. node	11748 Jul 25 08:08	21° $\Omega$ 09'38	
retrograde	11747 Sep 06 15:54	10° $\text{A}$ 07'41		evening rise	11748 Jul 25 22:39	22° $\Omega$ 18'26	
evening set	11747 Sep 08 12:26	9° $\text{A}$ 56'54			11748 Jul 30 01:07	0° $\text{M}$	
desc. node	11747 Sep 10 21:51	9° $\text{A}$ 13'35		evening max el	11748 Aug 10 22:26	18° $\text{M}$ 00'48	18°24'59
inferior conj	11747 Sep 16 22:27	5° $\text{A}$ 43'09	-1°53'18	retrograde	11748 Aug 18 12:58	21° $\text{M}$ 50'30	
minimum elong	11747 Sep 16 17:33	5° $\text{A}$ 51'34	1°51'23	evening set	11748 Aug 20 15:00	21° $\text{M}$ 34'02	
min. Earth dist.	11747 Sep 19 18:52	3° $\text{A}$ 46'14	0.56219 AU	desc. node	11748 Aug 27 19:15	17° $\text{M}$ 21'41	
morning rise	11747 Sep 24 19:37	0° $\text{A}$ 58'09		inferior conj	11748 Aug 28 06:08	16° $\text{M}$ 59'56	-0°08'24
	11747 Sep 28 02:06	30° $\text{R}$ $\text{M}$		minimum elong	11748 Aug 28 05:48	17° $\text{M}$ 00'35	0°08'31
direct	11747 Sep 30 06:23	29° $\text{M}$ 48'42		transit middle	11748 Aug 28 05:48	17° $\text{M}$ 00'35	0°08'31
	11747 Oct 02 10:47	0° $\text{A}$		transit begin	11748 Aug 28 02:48	17° $\text{M}$ 06'38	
morning max el	11747 Oct 14 10:19	7° $\text{A}$ 03'28	25°52'28	transit end	11748 Aug 28 08:49	16° $\text{M}$ 54'32	
	11747 Oct 31 07:45	0° $\text{M}$		min. Earth dist.	11748 Aug 31 13:42	14° $\text{M}$ 21'18	0.58133 AU
asc. node	11747 Nov 04 12:36	7° $\text{M}$ 39'10		morning rise	11748 Sep 04 17:06	11° $\text{M}$ 38'25	
morning set	11747 Nov 11 05:18	21° $\text{M}$ 16'10		direct	11748 Sep 10 20:08	10° $\text{M}$ 01'03	
	11747 Nov 15 05:17	0° $\text{X}$		morning max el	11748 Sep 25 04:08	17° $\text{M}$ 39'32	27°09'39
					11748 Oct 05 10:43	0° $\text{A}$	
superior conj	11747 Nov 18 00:40	6° $\text{X}$ 13'37	1°37'08	asc. node	11748 Oct 21 09:23	27° $\text{A}$ 08'12	
minimum elong	11747 Nov 17 23:48	6° $\text{X}$ 08'48	1°37'46		11748 Oct 22 19:28	0° $\text{M}$	
max. Earth dist.	11747 Nov 19 02:54	8° $\text{X}$ 38'45	1.31788 AU	morning set	11748 Oct 25 14:12	5° $\text{M}$ 47'36	
evening rise	11747 Nov 25 01:25	21° $\text{X}$ 27'18					
	11747 Nov 29 06:49	0° $\text{B}$		superior conj	11748 Nov 01 12:22	20° $\text{M}$ 59'04	1°29'30
desc. node	11747 Dec 07 19:19	15° $\text{B}$ 26'36		minimum elong	11748 Nov 01 10:39	20° $\text{M}$ 49'33	1°29'54
	11747 Dec 17 11:09	0° $\approx$		max. Earth dist.	11748 Nov 01 11:33	20° $\text{M}$ 54'31	1.31371 AU
evening max el	11747 Dec 27 04:08	11° $\approx$ 12'21	27°25'38		11748 Nov 05 13:53	0° $\text{X}$	
retrograde	11748 Jan 10 01:36	18° $\approx$ 29'59		evening rise	11748 Nov 08 07:07	5° $\text{X}$ 52'57	
evening set	11748 Jan 17 00:50	16° $\approx$ 14'13			11748 Nov 20 21:16	0° $\text{B}$	
min. Earth dist.	11748 Jan 20 18:27	13° $\approx$ 21'11	0.61728 AU	desc. node	11748 Nov 23 16:25	4° $\text{B}$ 33'01	
inferior conj	11748 Jan 23 18:57	10° $\approx$ 36'24	-2°29'55	evening max el	11748 Dec 08 07:23	23° $\text{B}$ 10'30	26°47'27
minimum elong	11748 Jan 24 00:05	10° $\approx$ 24'41	2°27'16		11748 Dec 19 11:21	0° $\approx$	
morning rise	11748 Jan 31 02:04	5° $\approx$ 35'43		retrograde	11748 Dec 22 05:59	0° $\approx$ 19'04	
asc. node	11748 Jan 31 11:45	5° $\approx$ 28'51			11748 Dec 24 23:43	30° $\text{R}$ $\text{B}$	
direct	11748 Feb 02 06:26	5° $\approx$ 15'02		evening set	11748 Dec 28 23:21	28° $\text{B}$ 25'17	
morning max el	11748 Feb 09 04:06	8° $\approx$ 44'36	17°50'02	min. Earth dist.	11749 Jan 01 21:36	25° $\text{B}$ 47'24	0.59591 AU
	11748 Feb 23 02:38	0° $\text{X}$		inferior conj	11749 Jan 05 01:45	23° $\text{B}$ 16'14	-3°48'33
morning set	11748 Feb 24 21:09	3° $\text{X}$ 10'30		minimum elong	11749 Jan 05 09:26	23° $\text{B}$ 00'57	3°45'18
desc. node	11748 Mar 04 19:53	19° $\text{X}$ 01'03		morning rise	11749 Jan 12 22:20	18° $\text{B}$ 36'08	
				direct	11749 Jan 15 00:31	18° $\text{B}$ 19'59	
superior conj	11748 Mar 06 21:51	22° $\text{X}$ 35'41	-0°15'59	asc. node	11749 Jan 17 08:59	18° $\text{B}$ 41'23	



morning max el	11749 Jan 22 16:39	22° $\text{☿}$ 08'20	18°11'11	morning max el	11750 Jan 05 20:59	4° $\text{☿}$ 55'19	18°53'18
	11749 Jan 28 18:35	0° $\text{☿}$			11750 Jan 21 14:35	0° $\text{☿}$	
morning set	11749 Feb 07 08:42	17° $\text{☿}$ 01'11		morning set	11750 Jan 22 06:42	1° $\text{☿}$ 18'58	
	11749 Feb 14 07:29	0° $\text{☿}$					
superior conj	11749 Feb 16 22:52	4° $\text{☿}$ 48'17	0°21'16	superior conj	11750 Jan 30 19:02	17° $\text{☿}$ 53'35	0°51'32
minimum elong	11749 Feb 17 00:29	4° $\text{☿}$ 55'32	0°21'24	minimum elong	11750 Jan 30 21:53	18° $\text{☿}$ 07'09	0°51'42
desc. node	11749 Feb 19 16:32	9° $\text{☿}$ 40'34		desc. node	11750 Feb 06 08:47	0° $\text{☿}$	
max. Earth dist.	11749 Feb 24 13:39	18° $\text{☿}$ 05'20	1.41471 AU	max. Earth dist.	11750 Feb 06 13:12	0° $\text{☿}$ 19'38	
evening rise	11749 Mar 01 11:34	26° $\text{☿}$ 12'52		evening rise	11750 Feb 06 21:02	0° $\text{☿}$ 54'23	1.39283 AU
	11749 Mar 03 20:09	0° $\text{☿}$			11750 Feb 10 18:17	7° $\text{☿}$ 39'29	
	11749 Mar 24 05:34	0° $\text{☿}$			11750 Feb 14 19:33	0° $\text{☿}$	
evening max el	11749 Apr 04 06:51	13° $\text{☿}$ 16'08	23°00'09	evening max el	11750 Mar 17 20:48	27° $\text{☿}$ 06'10	24°20'25
retrograde	11749 Apr 14 13:06	19° $\text{☿}$ 19'26		retrograde	11750 Mar 21 01:22	0° $\text{☿}$	
asc. node	11749 Apr 15 06:18	19° $\text{☿}$ 17'01		asc. node	11750 Mar 29 05:45	3° $\text{☿}$ 46'01	
evening set	11749 Apr 19 12:01	17° $\text{☿}$ 15'13		evening set	11750 Apr 02 03:38	2° $\text{☿}$ 36'29	
inferior conj	11749 Apr 24 20:36	10° $\text{☿}$ 50'15	2°36'44		11750 Apr 03 16:33	1° $\text{☿}$ 28'50	
minimum elong	11749 Apr 24 18:34	10° $\text{☿}$ 57'17	2°35'50		11750 Apr 05 05:12	30° $\text{☿}$	
min. Earth dist.	11749 Apr 24 11:21	11° $\text{☿}$ 22'14	0.68745 AU	min. Earth dist.	11750 Apr 08 07:16	26° $\text{☿}$ 11'32	0.68369 AU
morning rise	11749 Apr 30 00:59	4° $\text{☿}$ 42'27		inferior conj	11750 Apr 09 04:46	24° $\text{☿}$ 59'14	2°03'50
direct	11749 May 04 11:29	2° $\text{☿}$ 53'55		minimum elong	11750 Apr 09 02:36	25° $\text{☿}$ 06'30	2°02'56
morning max el	11749 May 13 02:45	7° $\text{☿}$ 52'52	21°16'03	morning rise	11750 Apr 14 12:47	18° $\text{☿}$ 59'02	
desc. node	11749 May 18 18:00	14° $\text{☿}$ 19'30		direct	11750 Apr 18 10:30	17° $\text{☿}$ 32'03	
	11749 May 30 03:02	0° $\text{☿}$		morning max el	11750 Apr 26 01:00	21° $\text{☿}$ 47'40	20°02'26
morning set	11749 Jun 13 07:08	21° $\text{☿}$ 29'50			11750 May 02 22:38	0° $\text{☿}$	
	11749 Jun 18 14:57	0° $\text{☿}$		desc. node	11750 May 05 14:48	3° $\text{☿}$ 39'28	
max. Earth dist.	11749 Jun 20 07:17	2° $\text{☿}$ 44'09	1.42575 AU	morning set	11750 May 23 09:00	0° $\text{☿}$ 05'10	
					11750 May 23 07:40	0° $\text{☿}$	
superior conj	11749 Jun 27 14:51	14° $\text{☿}$ 58'52	-1°49'34	max. Earth dist.	11750 Jun 02 18:03	16° $\text{☿}$ 19'25	1.44279 AU
minimum elong	11749 Jun 27 21:36	15° $\text{☿}$ 27'48	1°49'42				
	11749 Jul 06 04:03	0° $\text{☿}$		superior conj	11750 Jun 08 06:28	25° $\text{☿}$ 13'00	-2°09'14
evening rise	11749 Jul 09 01:11	5° $\text{☿}$ 11'11		minimum elong	11750 Jun 08 10:42	25° $\text{☿}$ 30'13	2°09'50
asc. node	11749 Jul 12 04:56	10° $\text{☿}$ 52'01			11750 Jun 11 04:24	0° $\text{☿}$	
	11749 Jul 24 12:44	0° $\text{☿}$		evening rise	11750 Jun 21 09:43	17° $\text{☿}$ 15'14	
evening max el	11749 Jul 25 09:26	0° $\text{☿}$ 53'49	18°05'58		11750 Jun 28 21:35	0° $\text{☿}$	
retrograde	11749 Aug 01 04:01	4° $\text{☿}$ 21'29		asc. node	11750 Jun 29 01:50	0° $\text{☿}$ 17'37	
evening set	11749 Aug 03 13:45	3° $\text{☿}$ 55'32		evening max el	11750 Jul 08 23:14	14° $\text{☿}$ 10'35	18°06'05
	11749 Aug 09 08:59	30° $\text{☿}$		retrograde	11750 Jul 15 08:47	17° $\text{☿}$ 30'59	
inferior conj	11749 Aug 10 10:42	29° $\text{☿}$ 00'47	1°14'42	evening set	11750 Jul 18 02:31	16° $\text{☿}$ 52'43	
minimum elong	11749 Aug 10 12:49	28° $\text{☿}$ 55'48	1°13'31	inferior conj	11750 Jul 24 08:40	11° $\text{☿}$ 39'20	2°13'27
min. Earth dist.	11749 Aug 13 16:21	26° $\text{☿}$ 00'49	0.60366 AU	minimum elong	11750 Jul 24 11:19	11° $\text{☿}$ 32'16	2°12'06
desc. node	11749 Aug 14 16:37	25° $\text{☿}$ 08'37		min. Earth dist.	11750 Jul 27 04:23	8° $\text{☿}$ 40'20	0.62619 AU
morning rise	11749 Aug 17 08:59	23° $\text{☿}$ 09'54		morning rise	11750 Jul 30 18:06	5° $\text{☿}$ 29'23	
direct	11749 Aug 23 22:08	21° $\text{☿}$ 04'52		desc. node	11750 Aug 01 13:56	4° $\text{☿}$ 19'33	
morning max el	11749 Sep 07 05:20	28° $\text{☿}$ 59'16	27°51'31	direct	11750 Aug 06 10:40	3° $\text{☿}$ 02'08	
	11749 Sep 08 05:21	0° $\text{☿}$		morning max el	11750 Aug 20 12:33	11° $\text{☿}$ 04'36	27°54'35
	11749 Sep 29 08:54	0° $\text{☿}$			11750 Sep 04 10:00	0° $\text{☿}$	
asc. node	11749 Oct 08 06:05	16° $\text{☿}$ 53'53			11750 Sep 21 17:27	0° $\text{☿}$	
morning set	11749 Oct 09 18:55	20° $\text{☿}$ 04'03		morning set	11750 Sep 23 17:27	4° $\text{☿}$ 00'13	
	11749 Oct 14 10:06	0° $\text{☿}$		asc. node	11750 Sep 25 02:46	6° $\text{☿}$ 50'49	
max. Earth dist.	11749 Oct 15 20:03	3° $\text{☿}$ 07'00	1.31456 AU	max. Earth dist.	11750 Sep 29 00:25	15° $\text{☿}$ 05'24	1.32046 AU
superior conj	11749 Oct 16 23:29	5° $\text{☿}$ 39'04	1°16'18	superior conj	11750 Oct 01 08:14	20° $\text{☿}$ 08'26	0°57'43
minimum elong	11749 Oct 16 21:18	5° $\text{☿}$ 26'57	1°16'24	minimum elong	11750 Oct 01 06:03	19° $\text{☿}$ 56'29	0°57'32
evening rise	11749 Oct 23 16:31	20° $\text{☿}$ 26'21			11750 Oct 05 20:01	0° $\text{☿}$	
	11749 Oct 28 06:41	0° $\text{☿}$		evening rise	11750 Oct 08 03:40	5° $\text{☿}$ 02'08	
desc. node	11749 Nov 10 13:37	22° $\text{☿}$ 52'31			11750 Oct 21 05:56	0° $\text{☿}$	
	11749 Nov 16 01:38	0° $\text{☿}$		desc. node	11750 Oct 28 10:52	10° $\text{☿}$ 07'11	
evening max el	11749 Nov 20 02:23	4° $\text{☿}$ 15'42	25°36'24	evening max el	11750 Nov 01 14:00	14° $\text{☿}$ 36'03	24°02'06
retrograde	11749 Dec 03 23:25	11° $\text{☿}$ 15'18		retrograde	11750 Nov 15 04:48	21° $\text{☿}$ 24'19	
evening set	11749 Dec 10 00:50	9° $\text{☿}$ 50'40		evening set	11750 Nov 20 02:10	20° $\text{☿}$ 31'55	
min. Earth dist.	11749 Dec 14 14:41	7° $\text{☿}$ 13'10	0.57538 AU	min. Earth dist.	11750 Nov 26 00:45	17° $\text{☿}$ 35'43	0.55834 AU
inferior conj	11749 Dec 17 13:21	5° $\text{☿}$ 11'39	-4°59'38	inferior conj	11750 Nov 28 04:21	16° $\text{☿}$ 17'27	-5°44'57
minimum elong	11749 Dec 17 21:25	4° $\text{☿}$ 57'44	4°57'04	minimum elong	11750 Nov 28 08:01	16° $\text{☿}$ 11'53	5°43'56
morning rise	11749 Dec 25 20:25	0° $\text{☿}$ 54'05		morning rise	11750 Dec 06 15:51	12° $\text{☿}$ 20'18	
direct	11749 Dec 28 01:37	0° $\text{☿}$ 39'01		direct	11750 Dec 09 07:01	12° $\text{☿}$ 02'35	
asc. node	11750 Jan 04 06:09	3° $\text{☿}$ 29'38		morning max el	11750 Dec 19 13:25	16° $\text{☿}$ 55'53	19°58'02
				asc. node	11750 Dec 22 03:14	19° $\text{☿}$ 41'16	

	11750 Dec 29 04:04	0°♁		morning max el	11751 Dec 01 15:54	28°♁03'48	21°25'09
morning set	11751 Jan 06 11:40	15°♁53'49			11751 Dec 03 13:41	0°♁	
	11751 Jan 13 09:57	0°♁		asc. node	11751 Dec 09 00:16	6°♁59'20	
				morning set	11751 Dec 21 20:56	0°♁37'52	
superior conj	11751 Jan 14 05:39	1°♁38'33	1°14'05		11751 Dec 21 13:40	0°♁	
minimum elong	11751 Jan 14 08:26	1°♁52'26	1°14'28				
max. Earth dist.	11751 Jan 20 03:25	13°♁05'31	1.37074 AU	superior conj	11751 Dec 29 02:39	15°♁51'23	1°29'09
evening rise	11751 Jan 23 21:13	19°♁57'52		minimum elong	11751 Dec 29 04:38	16°♁01'41	1°29'45
desc. node	11751 Jan 24 09:57	20°♁54'51		max. Earth dist.	11752 Jan 02 13:57	24°♁58'09	1.35070 AU
	11751 Jan 29 16:00	0°♁			11752 Jan 05 03:32	0°♁	
	11751 Feb 18 21:14	0°♁		evening rise	11752 Jan 06 17:10	2°♁59'42	
evening max el	11751 Feb 28 10:04	10°♁56'20	25°35'01	desc. node	11752 Jan 11 06:46	11°♁22'09	
retrograde	11751 Mar 12 18:05	18°♁02'57			11752 Jan 22 14:34	0°♁	
evening set	11751 Mar 18 16:39	15°♁35'54		evening max el	11752 Feb 10 23:40	24°♁42'19	26°36'42
asc. node	11751 Mar 20 00:59	14°♁20'41			11752 Feb 17 15:04	0°♁	
min. Earth dist.	11751 Mar 23 00:18	10°♁53'43	0.67562 AU	retrograde	11752 Feb 24 01:12	2°♁03'28	
inferior conj	11751 Mar 24 09:53	9°♁06'15	1°21'11		11752 Feb 29 19:28	30°♁	
minimum elong	11751 Mar 24 08:07	9°♁11'56	1°20'30	evening set	11752 Mar 01 10:34	29°♁31'04	
morning rise	11751 Mar 30 00:06	3°♁14'57		min. Earth dist.	11752 Mar 05 12:21	25°♁23'04	0.66354 AU
direct	11751 Apr 02 10:00	2°♁08'10		asc. node	11752 Mar 05 22:22	24°♁53'36	
morning max el	11751 Apr 09 06:59	5°♁52'52	19°03'27	inferior conj	11752 Mar 07 09:56	23°♁07'10	0°28'37
desc. node	11751 Apr 22 11:31	23°♁27'12		minimum elong	11752 Mar 07 09:11	23°♁09'25	0°28'28
greatest brilliancy	11751 Apr 22 12:08	23°♁29'29	-0.7m	morning rise	11752 Mar 13 08:52	17°♁26'30	
	11751 Apr 26 18:43	0°♁		direct	11752 Mar 16 08:15	16°♁37'10	
morning set	11751 May 02 13:07	8°♁53'45		morning max el	11752 Mar 22 19:27	20°♁03'31	18°20'45
	11751 May 16 02:33	0°♁			11752 Mar 30 14:13	0°♁	
max. Earth dist.	11751 May 16 10:02	0°♁29'23	1.45365 AU	desc. node	11752 Apr 08 08:12	13°♁35'18	
				morning set	11752 Apr 11 15:47	18°♁52'12	
superior conj	11751 May 19 00:07	4°♁33'28	-2°12'05		11752 Apr 18 16:06	0°♁	
minimum elong	11751 May 18 21:23	4°♁22'42	2°12'42				
evening rise	11751 Jun 02 19:36	28°♁20'24		superior conj	11752 Apr 27 07:09	13°♁32'58	-1°54'40
	11751 Jun 03 20:00	0°♁		minimum elong	11752 Apr 26 22:23	12°♁58'42	1°54'29
asc. node	11751 Jun 15 22:50	19°♁19'49		max. Earth dist.	11752 Apr 28 05:10	14°♁59'00	1.45734 AU
evening max el	11751 Jun 22 12:38	27°♁42'35	18°24'31		11752 May 07 19:55	0°♁	
	11751 Jun 25 08:01	0°♁		evening rise	11752 May 13 05:26	8°♁27'09	
retrograde	11751 Jun 28 22:46	1°♁09'27		greatest brilliancy	11752 May 23 12:07	24°♁29'47	-0.8m
evening set	11751 Jul 02 00:38	0°♁16'50			11752 May 27 03:37	0°♁	
	11751 Jul 02 11:48	30°♁		asc. node	11752 Jun 01 19:55	7°♁50'47	
inferior conj	11751 Jul 07 19:53	24°♁46'50	2°50'41	evening max el	11752 Jun 04 23:02	11°♁23'49	19°00'27
minimum elong	11751 Jul 07 21:57	24°♁40'43	2°49'33	retrograde	11752 Jun 11 18:18	15°♁09'50	
min. Earth dist.	11751 Jul 10 01:55	22°♁08'04	0.64670 AU	evening set	11752 Jun 15 04:44	14°♁01'31	
morning rise	11751 Jul 13 18:04	18°♁27'17		inferior conj	11752 Jun 20 16:43	8°♁16'29	3°10'14
desc. node	11751 Jul 19 11:14	15°♁49'42		minimum elong	11752 Jun 20 17:45	8°♁13'11	3°09'22
direct	11751 Jul 20 08:02	15°♁47'06		min. Earth dist.	11752 Jun 22 07:54	6°♁11'46	0.66368 AU
morning max el	11751 Aug 02 22:52	23°♁46'10	27°21'56	morning rise	11752 Jun 26 06:06	1°♁54'08	
	11751 Aug 08 12:35	0°♁			11752 Jun 29 01:30	30°♁	
	11751 Aug 28 18:48	0°♁		direct	11752 Jul 02 12:40	29°♁11'50	
morning set	11751 Sep 07 07:06	17°♁28'39		desc. node	11752 Jul 05 08:26	29°♁40'02	
asc. node	11751 Sep 11 23:27	26°♁53'54			11752 Jul 06 06:10	0°♁	
max. Earth dist.	11751 Sep 11 20:46	26°♁40'07	1.33156 AU	morning max el	11752 Jul 15 09:42	6°♁52'32	26°21'00
	11751 Sep 13 11:12	0°♁			11752 Aug 02 07:26	0°♁	
superior conj	11751 Sep 15 12:30	4°♁20'42	0°33'58	morning set	11752 Aug 20 08:40	0°♁21'33	
minimum elong	11751 Sep 15 10:55	4°♁12'14	0°33'38		11752 Aug 20 04:03	0°♁	
evening rise	11751 Sep 22 14:43	19°♁34'23		max. Earth dist.	11752 Aug 24 06:50	7°♁52'10	1.34779 AU
	11751 Sep 27 16:18	0°♁		asc. node	11752 Aug 28 20:09	16°♁59'40	
evening max el	11751 Oct 14 01:07	24°♁39'52	22°20'59	superior conj	11752 Aug 29 09:55	18°♁10'16	0°05'34
desc. node	11751 Oct 15 08:12	25°♁52'17		minimum elong	11752 Aug 29 09:38	18°♁08'45	0°05'16
	11751 Oct 21 16:30	0°♁		behind sun begin	11752 Aug 29 04:00	17°♁39'49	
retrograde	11751 Oct 26 22:14	1°♁04'02		behind sun end	11752 Aug 29 15:16	18°♁37'45	
evening set	11751 Oct 30 08:26	0°♁38'10			11752 Sep 04 02:04	0°♁	
	11751 Nov 01 09:38	30°♁		evening rise	11752 Sep 05 23:42	3°♁58'29	
min. Earth dist.	11751 Nov 07 07:53	27°♁05'13	0.54779 AU		11752 Sep 20 12:48	0°♁	
inferior conj	11751 Nov 08 02:20	26°♁39'12	-5°42'16	evening max el	11752 Sep 24 21:15	5°♁05'04	20°49'13
minimum elong	11751 Nov 07 21:33	26°♁45'57	5°41'12	desc. node	11752 Oct 01 05:35	9°♁39'28	
morning rise	11751 Nov 16 12:05	22°♁51'55		retrograde	11752 Oct 06 09:14	10°♁47'28	
direct	11751 Nov 19 20:00	22°♁27'00		evening set	11752 Oct 08 16:17	10°♁34'50	

inferior conj	11752 Oct 17 18:07	6° $\mathbb{M}$ 40'03	-4°41'05	min. Earth dist.	11753 Sep 30 01:14	15° $\mathbb{Q}$ 27'06	0.55397 AU
minimum elong	11752 Oct 17 08:12	6° $\mathbb{M}$ 54'11	4°38'08	morning rise	11753 Oct 05 19:41	12° $\mathbb{Q}$ 30'13	
min. Earth dist.	11752 Oct 18 15:15	6° $\mathbb{M}$ 09'54	0.54618 AU	direct	11753 Oct 10 19:41	11° $\mathbb{Q}$ 34'39	
morning rise	11752 Oct 26 00:08	2° $\mathbb{M}$ 44'23		morning max el	11753 Oct 24 17:15	18° $\mathbb{Q}$ 30'41	24°56'23
direct	11752 Oct 30 04:12	2° $\mathbb{M}$ 07'03			11753 Nov 03 06:38	0° $\mathbb{M}$	
morning max el	11752 Nov 12 06:40	8° $\mathbb{M}$ 26'36	23°09'01	asc. node	11753 Nov 11 18:05	13° $\mathbb{M}$ 56'51	
asc. node	11752 Nov 24 21:13	25° $\mathbb{M}$ 08'39		morning set	11753 Nov 19 20:11	0° $\mathbb{X}$ 10'11	
	11752 Nov 27 15:18	0° $\mathbb{X}$			11753 Nov 19 18:16	0° $\mathbb{X}$	
morning set	11752 Dec 05 08:22	15° $\mathbb{X}$ 24'54					
				superior conj	11753 Nov 26 15:34	15° $\mathbb{X}$ 04'22	1°38'55
superior conj	11752 Dec 12 06:49	0° $\mathbb{Z}$ 22'24	1°37'15	minimum elong	11753 Nov 26 15:17	15° $\mathbb{X}$ 02'51	1°39'38
minimum elong	11752 Dec 12 07:41	0° $\mathbb{Z}$ 27'03	1°37'59	max. Earth dist.	11753 Nov 28 10:16	18° $\mathbb{X}$ 58'10	1.32252 AU
	11752 Dec 12 02:39	0° $\mathbb{Z}$		evening rise	11753 Dec 03 21:50	0° $\mathbb{Z}$ 35'56	
max. Earth dist.	11752 Dec 15 08:15	6° $\mathbb{Z}$ 52'37	1.33436 AU		11753 Dec 03 14:51	0° $\mathbb{Z}$	
evening rise	11752 Dec 20 02:27	16° $\mathbb{Z}$ 35'08		desc. node	11753 Dec 15 00:38	21° $\mathbb{Z}$ 31'15	
	11752 Dec 27 05:51	0° $\approx$			11753 Dec 20 05:41	0° $\approx$	
desc. node	11752 Dec 28 03:40	1° $\approx$ 36'18		evening max el	11754 Jan 06 00:28	21° $\approx$ 19'24	27°32'02
	11753 Jan 16 02:08	0° $\mathbb{H}$		retrograde	11754 Jan 19 19:34	28° $\approx$ 40'12	
evening max el	11753 Jan 23 13:05	8° $\mathbb{H}$ 14'14	27°18'02	evening set	11754 Jan 26 18:44	26° $\approx$ 16'05	
retrograde	11753 Feb 06 01:59	15° $\mathbb{H}$ 38'50		min. Earth dist.	11754 Jan 30 12:42	23° $\approx$ 09'39	0.62914 AU
evening set	11753 Feb 12 20:07	13° $\mathbb{H}$ 06'57		inferior conj	11754 Feb 02 08:28	20° $\approx$ 24'26	-1°45'29
min. Earth dist.	11753 Feb 16 17:11	9° $\mathbb{H}$ 31'30	0.64787 AU	minimum elong	11754 Feb 02 11:58	20° $\approx$ 15'52	1°43'30
inferior conj	11753 Feb 19 02:25	6° $\mathbb{H}$ 55'39	-0°33'55	asc. node	11754 Feb 07 17:01	15° $\approx$ 58'15	
minimum elong	11753 Feb 19 03:26	6° $\mathbb{H}$ 52'53	0°33'06	morning rise	11754 Feb 09 07:34	15° $\approx$ 13'01	
asc. node	11753 Feb 20 19:44	5° $\mathbb{H}$ 05'45		direct	11754 Feb 11 15:03	14° $\approx$ 47'55	
morning rise	11753 Feb 25 12:27	1° $\mathbb{H}$ 28'03		morning max el	11754 Feb 18 05:37	18° $\approx$ 10'39	17°46'40
direct	11753 Feb 28 02:56	0° $\mathbb{H}$ 52'40			11754 Feb 26 19:59	0° $\mathbb{H}$	
morning max el	11753 Mar 06 11:58	4° $\mathbb{H}$ 12'02	17°54'58	morning set	11754 Mar 06 08:07	12° $\mathbb{H}$ 51'56	
morning set	11753 Mar 23 23:25	0° $\mathbb{Y}$ 16'01		desc. node	11754 Mar 13 01:28	24° $\mathbb{H}$ 29'44	
	11753 Mar 23 19:34	0° $\mathbb{Y}$			11754 Mar 16 07:34	0° $\mathbb{Y}$	
desc. node	11753 Mar 26 04:50	3° $\mathbb{Y}$ 57'35					
				superior conj	11754 Mar 18 08:31	3° $\mathbb{Y}$ 24'02	-0°39'37
superior conj	11753 Apr 06 21:19	22° $\mathbb{Y}$ 57'45	-1°20'48	minimum elong	11754 Mar 18 04:29	3° $\mathbb{Y}$ 07'21	0°39'00
minimum elong	11753 Apr 06 12:56	22° $\mathbb{Y}$ 24'18	1°20'02	max. Earth dist.	11754 Mar 24 19:11	13° $\mathbb{Y}$ 53'49	1.44284 AU
max. Earth dist.	11753 Apr 11 01:04	29° $\mathbb{Y}$ 32'31	1.45361 AU	evening rise	11754 Apr 02 09:10	27° $\mathbb{Y}$ 22'01	
	11753 Apr 11 08:04	0° $\mathbb{B}$			11754 Apr 04 02:20	0° $\mathbb{B}$	
evening rise	11753 Apr 22 21:17	17° $\mathbb{B}$ 55'07			11754 Apr 24 17:25	0° $\mathbb{B}$	
	11753 Apr 30 19:30	0° $\mathbb{B}$		evening max el	11754 May 02 04:09	8° $\mathbb{B}$ 53'29	20°58'17
greatest brilliancy	11753 May 07 11:30	9° $\mathbb{B}$ 55'54	-0.6m	asc. node	11754 May 06 14:18	12° $\mathbb{B}$ 32'16	
evening max el	11753 May 19 04:29	25° $\mathbb{B}$ 08'14	19°52'31	retrograde	11754 May 10 15:19	13° $\mathbb{B}$ 49'53	
asc. node	11753 May 19 17:06	25° $\mathbb{B}$ 39'16		evening set	11754 May 14 20:53	12° $\mathbb{B}$ 09'07	
retrograde	11753 May 26 16:33	29° $\mathbb{B}$ 25'01		inferior conj	11754 May 20 03:16	5° $\mathbb{B}$ 58'04	3°08'41
evening set	11753 May 30 12:10	28° $\mathbb{B}$ 00'25		minimum elong	11754 May 20 02:13	6° $\mathbb{B}$ 01'43	3°07'54
inferior conj	11753 Jun 04 20:00	22° $\mathbb{B}$ 01'33	3°15'28	min. Earth dist.	11754 May 20 14:03	5° $\mathbb{B}$ 20'41	0.68427 AU
minimum elong	11753 Jun 04 19:55	22° $\mathbb{B}$ 01'49	3°14'43		11754 May 24 23:07	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	11753 Jun 05 20:34	20° $\mathbb{B}$ 38'57	0.67631 AU	morning rise	11754 May 25 07:20	29° $\mathbb{B}$ 41'04	
morning rise	11753 Jun 10 03:21	15° $\mathbb{B}$ 40'43		direct	11754 Jun 30 14:31	27° $\mathbb{B}$ 21'18	
direct	11753 Jun 15 23:10	13° $\mathbb{B}$ 06'00			11754 Jun 06 01:39	0° $\mathbb{B}$	
desc. node	11753 Jun 22 05:32	15° $\mathbb{B}$ 24'23		desc. node	11754 Jun 09 02:33	2° $\mathbb{B}$ 34'58	
morning max el	11753 Jun 27 19:46	20° $\mathbb{B}$ 12'42	25°01'13	morning max el	11754 Jun 10 05:46	3° $\mathbb{B}$ 41'37	23°32'21
	11753 Jul 06 04:56	0° $\mathbb{E}$			11754 Jun 30 08:56	0° $\mathbb{E}$	
	11753 Jul 26 11:16	0° $\mathbb{Q}$		morning set	11754 Jul 15 06:03	23° $\mathbb{E}$ 36'09	
morning set	11753 Aug 02 17:57	12° $\mathbb{Q}$ 28'11			11754 Jul 18 23:32	0° $\mathbb{Q}$	
max. Earth dist.	11753 Aug 06 07:57	18° $\mathbb{Q}$ 57'56	1.36823 AU	max. Earth dist.	11754 Jul 19 05:28	0° $\mathbb{Q}$ 25'57	1.39109 AU
	11753 Aug 12 03:14	0° $\mathbb{P}$					
				superior conj	11754 Jul 26 19:20	14° $\mathbb{Q}$ 08'17	-1°00'35
superior conj	11753 Aug 12 21:28	1° $\mathbb{P}$ 29'20	-0°26'35	minimum elong	11754 Jul 26 23:34	14° $\mathbb{Q}$ 28'04	1°00'30
minimum elong	11753 Aug 12 23:11	1° $\mathbb{P}$ 37'49	0°26'42	asc. node	11754 Aug 02 13:39	27° $\mathbb{Q}$ 03'33	
asc. node	11753 Aug 15 16:54	7° $\mathbb{P}$ 04'17			11754 Aug 04 01:57	0° $\mathbb{P}$	
evening rise	11753 Aug 21 04:22	18° $\mathbb{P}$ 08'21		evening rise	11754 Aug 05 01:50	1° $\mathbb{P}$ 56'00	
	11753 Aug 27 06:05	0° $\mathbb{U}$		evening max el	11754 Aug 21 05:43	28° $\mathbb{P}$ 10'02	18°44'52
evening max el	11753 Sep 07 07:08	16° $\mathbb{U}$ 14'20	19°36'17		11754 Aug 23 07:59	0° $\mathbb{U}$	
retrograde	11753 Sep 17 02:42	21° $\mathbb{U}$ 07'38		retrograde	11754 Aug 29 13:01	2° $\mathbb{U}$ 19'47	
desc. node	11753 Sep 18 02:58	21° $\mathbb{U}$ 04'43		evening set	11754 Aug 31 11:19	2° $\mathbb{U}$ 07'05	
evening set	11753 Sep 18 23:24	20° $\mathbb{U}$ 57'51		desc. node	11754 Sep 05 00:23	0° $\mathbb{U}$ 10'20	
inferior conj	11753 Sep 27 18:20	16° $\mathbb{U}$ 53'31	-2°58'23		11754 Sep 05 07:06	30° $\mathbb{R}$ $\mathbb{P}$	
minimum elong	11753 Sep 27 10:32	17° $\mathbb{U}$ 05'49	2°55'24	inferior conj	11754 Sep 08 13:27	27° $\mathbb{P}$ 44'34	-1°06'41

minimum elong	11754 Sep 08 10:42	27° $\mathbb{M}$ 49'38	1°05'41	inferior conj	11755 Aug 21 06:26	9° $\mathbb{M}$ 21'28	0°29'51
min. Earth dist.	11754 Sep 11 16:16	25° $\mathbb{M}$ 28'00	0.56969 AU	minimum elong	11755 Aug 21 07:25	9° $\mathbb{M}$ 19'20	0°29'08
morning rise	11754 Sep 16 06:42	22° $\mathbb{M}$ 43'32		desc. node	11755 Aug 22 21:46	7° $\mathbb{M}$ 56'28	
direct	11754 Sep 22 00:44	21° $\mathbb{M}$ 22'56		min. Earth dist.	11755 Aug 24 14:30	6° $\mathbb{M}$ 30'47	0.59058 AU
morning max el	11754 Oct 06 07:26	28° $\mathbb{M}$ 48'28	26°29'16	morning rise	11755 Aug 28 12:06	3° $\mathbb{M}$ 45'51	
	11754 Oct 07 12:14	0° $\mathbb{L}$		direct	11755 Sep 03 20:06	1° $\mathbb{M}$ 56'18	
	11754 Oct 27 22:32	0° $\mathbb{M}$		morning max el	11755 Sep 18 04:42	9° $\mathbb{M}$ 43'23	27°32'09
asc. node	11754 Oct 29 14:53	3° $\mathbb{M}$ 13'15			11755 Oct 03 19:15	0° $\mathbb{L}$	
morning set	11754 Nov 04 06:37	14° $\mathbb{M}$ 48'01		asc. node	11755 Oct 16 11:39	22° $\mathbb{L}$ 50'14	
				morning set	11755 Oct 19 13:58	29° $\mathbb{L}$ 13'54	
superior conj	11754 Nov 11 02:42	29° $\mathbb{M}$ 49'59	1°34'35		11755 Oct 19 22:41	0° $\mathbb{M}$	
minimum elong	11754 Nov 11 01:27	29° $\mathbb{M}$ 42'58	1°35'08	max. Earth dist.	11755 Oct 26 02:24	13° $\mathbb{M}$ 27'06	1.31343 AU
	11754 Nov 11 04:30	0° $\mathbb{L}$					
max. Earth dist.	11754 Nov 11 17:28	1° $\mathbb{L}$ 12'05	1.31549 AU	superior conj	11755 Oct 26 14:23	14° $\mathbb{M}$ 33'51	1°24'34
evening rise	11754 Nov 18 00:24	14° $\mathbb{L}$ 53'53		minimum elong	11755 Oct 26 12:25	14° $\mathbb{M}$ 22'56	1°24'51
	11754 Nov 25 14:47	0° $\mathbb{L}$		evening rise	11755 Nov 02 07:53	29° $\mathbb{M}$ 23'14	
desc. node	11754 Dec 01 21:41	10° $\mathbb{L}$ 58'14			11755 Nov 02 14:46	0° $\mathbb{L}$	
	11754 Dec 15 16:20	0° $\mathbb{M}$		desc. node	11755 Nov 18 18:49	29° $\mathbb{L}$ 46'30	
evening max el	11754 Dec 19 07:10	3° $\mathbb{M}$ 43'50	27°13'33		11755 Nov 18 22:23	0° $\mathbb{L}$	
retrograde	11755 Jan 02 05:07	10° $\mathbb{M}$ 57'42		evening max el	11755 Dec 01 06:47	15° $\mathbb{L}$ 18'29	26°20'46
evening set	11755 Jan 09 03:08	8° $\mathbb{M}$ 49'54		retrograde	11755 Dec 15 05:20	22° $\mathbb{L}$ 24'09	
min. Earth dist.	11755 Jan 12 21:38	6° $\mathbb{M}$ 05'10	0.60827 AU	evening set	11755 Dec 21 17:15	20° $\mathbb{L}$ 41'49	
inferior conj	11755 Jan 16 00:41	3° $\mathbb{M}$ 24'05	-3°03'21	min. Earth dist.	11755 Dec 25 20:16	18° $\mathbb{L}$ 06'12	0.58689 AU
minimum elong	11755 Jan 16 07:01	3° $\mathbb{M}$ 10'27	3°00'20	inferior conj	11755 Dec 28 23:36	15° $\mathbb{L}$ 45'26	-4°20'34
	11755 Jan 20 10:12	30° $\mathbb{R}$ $\mathbb{L}$		minimum elong	11755 Dec 29 07:52	15° $\mathbb{L}$ 29'56	4°17'26
morning rise	11755 Jan 23 13:44	28° $\mathbb{L}$ 32'06		morning rise	11756 Jan 06 01:16	11° $\mathbb{L}$ 15'10	
direct	11755 Jan 25 16:45	28° $\mathbb{L}$ 13'44		direct	11756 Jan 08 03:47	11° $\mathbb{L}$ 00'03	
asc. node	11755 Jan 25 14:15	28° $\mathbb{L}$ 13'47		asc. node	11756 Jan 12 11:28	12° $\mathbb{L}$ 07'32	
	11755 Jan 30 17:03	0° $\mathbb{M}$		morning max el	11756 Jan 16 06:40	14° $\mathbb{L}$ 59'14	18°26'28
morning max el	11755 Feb 01 21:05	1° $\mathbb{M}$ 49'46	17°56'41		11756 Jan 26 14:59	0° $\mathbb{M}$	
morning set	11755 Feb 17 11:27	26° $\mathbb{M}$ 19'35		morning set	11756 Feb 01 03:52	10° $\mathbb{M}$ 22'32	
	11755 Feb 19 11:36	0° $\mathbb{L}$					
superior conj	11755 Feb 27 20:23	14° $\mathbb{L}$ 59'54	0°00'34	superior conj	11756 Feb 10 06:05	27° $\mathbb{M}$ 36'13	0°35'03
minimum elong	11755 Feb 27 20:27	15° $\mathbb{L}$ 00'13	0°00'49	minimum elong	11756 Feb 10 08:25	27° $\mathbb{M}$ 46'59	0°35'10
behind sun begin	11755 Feb 27 12:21	14° $\mathbb{L}$ 24'47			11756 Feb 11 13:28	0° $\mathbb{L}$	
behind sun end	11755 Feb 28 04:34	15° $\mathbb{L}$ 35'34		desc. node	11756 Feb 14 18:43	5° $\mathbb{L}$ 46'53	
desc. node	11755 Feb 27 22:05	15° $\mathbb{L}$ 07'23		max. Earth dist.	11756 Feb 17 17:37	10° $\mathbb{L}$ 56'14	1.40551 AU
max. Earth dist.	11755 Mar 07 08:55	27° $\mathbb{L}$ 45'38	1.42615 AU	evening rise	11756 Feb 22 02:12	18° $\mathbb{L}$ 17'16	
	11755 Mar 08 17:40	0° $\mathbb{Y}$			11756 Feb 29 09:41	0° $\mathbb{Y}$	
evening rise	11755 Mar 13 07:53	7° $\mathbb{Y}$ 22'56			11756 Mar 21 18:16	0° $\mathbb{L}$	
	11755 Mar 28 07:08	0° $\mathbb{L}$		evening max el	11756 Mar 27 13:30	6° $\mathbb{L}$ 28'05	23°34'38
evening max el	11755 Apr 14 22:33	22° $\mathbb{L}$ 39'43	22°14'05	retrograde	11756 Apr 07 07:44	12° $\mathbb{L}$ 48'43	
asc. node	11755 Apr 23 11:32	28° $\mathbb{L}$ 14'22		asc. node	11756 Apr 09 08:51	12° $\mathbb{L}$ 29'10	
retrograde	11755 Apr 24 12:53	28° $\mathbb{L}$ 19'42		evening set	11756 Apr 12 11:33	10° $\mathbb{L}$ 38'49	
evening set	11755 Apr 29 05:13	26° $\mathbb{L}$ 23'36		inferior conj	11756 Apr 17 21:28	4° $\mathbb{L}$ 11'11	2°24'01
inferior conj	11755 May 04 12:24	20° $\mathbb{L}$ 02'40	2°51'19	minimum elong	11756 Apr 17 19:19	4° $\mathbb{L}$ 18'32	2°23'04
minimum elong	11755 May 04 10:38	20° $\mathbb{L}$ 08'50	2°50'26	min. Earth dist.	11756 Apr 17 07:00	5° $\mathbb{L}$ 00'49	0.68628 AU
min. Earth dist.	11755 May 04 10:16	20° $\mathbb{L}$ 10'08	0.68753 AU		11756 Apr 21 03:48	30° $\mathbb{R}$ $\mathbb{Y}$	
morning rise	11755 May 09 15:55	13° $\mathbb{L}$ 51'04		morning rise	11756 Apr 23 03:03	28° $\mathbb{Y}$ 06'15	
direct	11755 May 14 09:50	11° $\mathbb{L}$ 50'36		direct	11756 Apr 27 07:57	26° $\mathbb{Y}$ 26'59	
morning max el	11755 May 23 18:11	17° $\mathbb{L}$ 19'08	22°03'48		11756 May 04 07:57	0° $\mathbb{L}$	
desc. node	11755 May 26 23:29	20° $\mathbb{L}$ 48'58		morning max el	11756 May 05 12:04	1° $\mathbb{L}$ 06'42	20°43'06
	11755 Jun 03 04:57	0° $\mathbb{L}$		desc. node	11756 May 12 20:19	9° $\mathbb{L}$ 48'34	
	11755 Jun 23 10:42	0° $\mathbb{L}$			11756 May 26 22:32	0° $\mathbb{L}$	
morning set	11755 Jun 25 16:51	3° $\mathbb{L}$ 36'08		morning set	11756 Jun 04 03:19	12° $\mathbb{L}$ 31'56	
max. Earth dist.	11755 Jul 01 05:24	12° $\mathbb{L}$ 39'12	1.41378 AU	max. Earth dist.	11756 Jun 12 11:31	25° $\mathbb{L}$ 44'32	1.43362 AU
					11756 Jun 15 02:21	0° $\mathbb{L}$	
superior conj	11755 Jul 08 23:13	25° $\mathbb{L}$ 57'30	-1°33'15	superior conj	11756 Jun 19 04:47	6° $\mathbb{L}$ 47'35	-1°59'33
minimum elong	11755 Jul 09 05:36	26° $\mathbb{L}$ 25'43	1°33'11	minimum elong	11756 Jun 19 11:03	7° $\mathbb{L}$ 13'50	1°59'53
	11755 Jul 11 05:40	0° $\mathbb{L}$		evening rise	11756 Jul 01 08:06	27° $\mathbb{L}$ 46'00	
evening rise	11755 Jul 19 12:36	15° $\mathbb{L}$ 12'30			11756 Jul 02 14:26	0° $\mathbb{L}$	
asc. node	11755 Jul 20 10:26	16° $\mathbb{L}$ 53'46		asc. node	11756 Jul 06 07:17	6° $\mathbb{L}$ 29'53	
	11755 Jul 27 18:00	0° $\mathbb{M}$		evening max el	11756 Jul 18 02:05	23° $\mathbb{L}$ 50'14	18°03'45
evening max el	11755 Aug 04 13:24	10° $\mathbb{M}$ 45'32	18°14'27	retrograde	11756 Jul 24 15:35	27° $\mathbb{L}$ 12'53	
retrograde	11755 Aug 11 18:17	14° $\mathbb{M}$ 24'20		evening set	11756 Jul 27 04:41	26° $\mathbb{L}$ 42'03	
evening set	11755 Aug 13 23:19	14° $\mathbb{M}$ 04'23		inferior conj	11756 Aug 02 18:55	21° $\mathbb{L}$ 39'28	1°42'28

minimum elong	11756 Aug 02 21:27	21° $\Omega$ 33'11	1°41'07	inferior conj	11757 Jul 16 23:01	4° $\Omega$ 31'18	2°31'35
min. Earth dist.	11756 Aug 05 21:13	18° $\Omega$ 37'00	0.61342 AU	minimum elong	11757 Jul 17 01:31	4° $\Omega$ 24'20	2°30'19
desc. node	11756 Aug 08 19:09	16° $\Omega$ 08'26		min. Earth dist.	11757 Jul 19 13:12	1° $\Omega$ 39'01	0.63537 AU
morning rise	11756 Aug 09 11:38	15° $\Omega$ 39'14			11757 Jul 21 03:58	30° $\mathcal{R}$ $\mathfrak{E}$	
direct	11756 Aug 16 03:15	13° $\Omega$ 23'23		morning rise	11757 Jul 23 03:27	28° $\mathfrak{E}$ 16'35	
morning max el	11756 Aug 30 08:38	21° $\Omega$ 22'47	27°57'20	desc. node	11757 Jul 26 16:28	26° $\mathfrak{E}$ 15'44	
	11756 Sep 06 20:47	0° $\mathfrak{M}$		direct	11757 Jul 29 19:45	25° $\mathfrak{E}$ 42'32	
	11756 Sep 25 20:58	0° $\underline{\mathfrak{A}}$			11757 Aug 08 14:08	0° $\Omega$	
asc. node	11756 Oct 02 08:21	12° $\underline{\mathfrak{A}}$ 41'18		morning max el	11757 Aug 12 17:18	3° $\Omega$ 44'17	27°44'35
morning set	11756 Oct 02 16:20	13° $\underline{\mathfrak{A}}$ 22'27			11757 Sep 01 09:40	0° $\mathfrak{M}$	
max. Earth dist.	11756 Oct 08 09:24	25° $\underline{\mathfrak{A}}$ 33'45	1.31641 AU	morning set	11757 Sep 16 11:27	27° $\mathfrak{M}$ 07'42	
					11757 Sep 17 21:35	0° $\underline{\mathfrak{A}}$	
superior conj	11756 Oct 10 00:46	29° $\underline{\mathfrak{A}}$ 10'18	1°09'04	asc. node	11757 Sep 19 05:02	2° $\underline{\mathfrak{A}}$ 41'28	
minimum elong	11756 Oct 09 22:31	28° $\underline{\mathfrak{A}}$ 57'52	1°09'02	max. Earth dist.	11757 Sep 21 10:46	7° $\underline{\mathfrak{A}}$ 22'50	1.32460 AU
	11756 Oct 10 09:45	0° $\mathfrak{M}$					
evening rise	11756 Oct 16 18:16	13° $\mathfrak{M}$ 58'21		superior conj	11757 Sep 24 07:55	13° $\underline{\mathfrak{A}}$ 33'31	0°48'15
	11756 Oct 24 16:19	0° $\mathfrak{A}$		minimum elong	11757 Sep 24 05:54	13° $\underline{\mathfrak{A}}$ 22'36	0°48'00
desc. node	11756 Nov 04 16:03	17° $\mathfrak{A}$ 41'12		evening rise	11757 Oct 01 05:39	28° $\underline{\mathfrak{A}}$ 33'45	
evening max el	11756 Nov 11 22:23	26° $\mathfrak{A}$ 03'19	24°58'21		11757 Oct 01 21:49	0° $\mathfrak{M}$	
	11756 Nov 16 19:59	0° $\mathfrak{Z}$			11757 Oct 18 22:00	0° $\mathfrak{A}$	
retrograde	11756 Nov 25 18:06	2° $\mathfrak{Z}$ 58'54		desc. node	11757 Oct 22 13:22	4° $\mathfrak{A}$ 21'22	
evening set	11756 Dec 01 08:40	1° $\mathfrak{Z}$ 48'24		evening max el	11757 Oct 24 08:54	6° $\mathfrak{A}$ 13'04	23°18'52
	11756 Dec 04 22:26	30° $\mathcal{R}$ $\mathfrak{A}$		retrograde	11757 Nov 06 17:39	12° $\mathfrak{A}$ 52'19	
min. Earth dist.	11756 Dec 06 10:18	29° $\mathfrak{A}$ 05'01	0.56746 AU	evening set	11757 Nov 11 00:19	12° $\mathfrak{A}$ 12'34	
inferior conj	11756 Dec 09 02:28	27° $\mathfrak{A}$ 20'38	-5°23'25	min. Earth dist.	11757 Nov 17 18:35	9° $\mathfrak{A}$ 02'56	0.55290 AU
minimum elong	11756 Dec 09 09:21	27° $\mathfrak{A}$ 09'25	5°21'30	inferior conj	11757 Nov 19 09:25	8° $\mathfrak{A}$ 06'26	-5°50'50
morning rise	11756 Dec 17 12:15	23° $\mathfrak{A}$ 12'06		minimum elong	11757 Nov 19 09:39	8° $\mathfrak{A}$ 06'06	5°50'07
direct	11756 Dec 19 20:37	22° $\mathfrak{A}$ 56'27		morning rise	11757 Nov 27 20:41	4° $\mathfrak{A}$ 15'10	
asc. node	11756 Dec 29 08:36	27° $\mathfrak{A}$ 33'30		direct	11757 Nov 30 18:34	3° $\mathfrak{A}$ 54'47	
morning max el	11756 Dec 29 06:23	27° $\mathfrak{A}$ 28'08	19°18'00	morning max el	11757 Dec 11 16:50	9° $\mathfrak{A}$ 06'05	20°32'31
	11756 Dec 31 14:44	0° $\mathfrak{Z}$		asc. node	11757 Dec 16 05:41	14° $\mathfrak{A}$ 15'31	
morning set	11757 Jan 15 05:16	24° $\mathfrak{Z}$ 49'10			11757 Dec 25 18:39	0° $\mathfrak{Z}$	
	11757 Jan 17 19:26	0° $\approx$		morning set	11757 Dec 30 12:23	9° $\mathfrak{Z}$ 29'15	
superior conj	11757 Jan 23 08:58	11° $\approx$ 00'15	1°02'03	superior conj	11758 Jan 07 00:27	24° $\mathfrak{Z}$ 58'25	1°21'22
minimum elong	11757 Jan 23 11:55	11° $\approx$ 14'34	1°02'17	minimum elong	11758 Jan 07 02:57	25° $\mathfrak{Z}$ 11'09	1°21'50
max. Earth dist.	11757 Jan 29 23:55	23° $\approx$ 27'29	1.38329 AU		11758 Jan 09 12:27	0° $\approx$	
desc. node	11757 Jan 31 15:25	26° $\approx$ 25'10		max. Earth dist.	11758 Jan 12 07:57	5° $\approx$ 30'14	1.36188 AU
evening rise	11757 Feb 02 17:56	0° $\mathfrak{H}$ 07'45		evening rise	11758 Jan 16 04:36	12° $\approx$ 46'05	
	11757 Feb 02 16:09	0° $\mathfrak{H}$		desc. node	11758 Jan 18 12:11	16° $\approx$ 57'41	
	11757 Feb 21 17:06	0° $\mathfrak{Y}$			11758 Jan 26 04:19	0° $\mathfrak{H}$	
evening max el	11757 Mar 10 03:12	20° $\mathfrak{Y}$ 19'43	24°53'24		11758 Feb 16 17:58	0° $\mathfrak{Y}$	
retrograde	11757 Mar 21 22:40	27° $\mathfrak{Y}$ 12'12		evening max el	11758 Feb 20 16:45	4° $\mathfrak{Y}$ 09'39	26°03'19
asc. node	11757 Mar 27 06:12	25° $\mathfrak{Y}$ 07'37		retrograde	11758 Mar 05 08:40	11° $\mathfrak{Y}$ 23'03	
evening set	11757 Mar 27 14:25	24° $\mathfrak{Y}$ 50'40		evening set	11758 Mar 11 12:05	8° $\mathfrak{Y}$ 53'12	
min. Earth dist.	11757 Apr 01 02:04	19° $\mathfrak{Y}$ 48'10	0.68073 AU	asc. node	11758 Mar 14 03:35	6° $\mathfrak{Y}$ 16'49	
inferior conj	11757 Apr 02 04:37	18° $\mathfrak{Y}$ 20'30	1°47'00	min. Earth dist.	11758 Mar 15 17:12	4° $\mathfrak{Y}$ 25'46	0.67101 AU
minimum elong	11757 Apr 02 02:33	18° $\mathfrak{Y}$ 27'20	1°46'08	inferior conj	11758 Mar 17 07:51	2° $\mathfrak{Y}$ 25'32	1°00'07
morning rise	11757 Apr 07 14:55	12° $\mathfrak{Y}$ 23'39		minimum elong	11758 Mar 17 06:25	2° $\mathfrak{Y}$ 29'59	0°59'38
direct	11757 Apr 11 07:32	11° $\mathfrak{Y}$ 05'20			11758 Mar 19 08:08	30° $\mathcal{R}$ $\mathfrak{H}$	
morning max el	11757 Apr 18 13:33	15° $\mathfrak{Y}$ 06'16	19°35'24	morning rise	11758 Mar 23 01:27	26° $\mathfrak{H}$ 38'30	
desc. node	11757 Apr 29 17:04	29° $\mathfrak{Y}$ 21'43		direct	11758 Mar 26 06:50	25° $\mathfrak{H}$ 39'22	
	11757 Apr 30 03:37	0° $\mathfrak{B}$		morning max el	11758 Apr 01 22:30	29° $\mathfrak{H}$ 14'22	18°43'16
greatest brilliancy	11757 May 01 06:07	1° $\mathfrak{B}$ 36'45	-0.6m		11758 Apr 02 16:30	0° $\mathfrak{Y}$	
morning set	11757 May 14 03:12	21° $\mathfrak{B}$ 04'36		desc. node	11758 Apr 16 13:45	19° $\mathfrak{Y}$ 18'49	
	11757 May 19 21:38	0° $\mathfrak{H}$			11758 Apr 23 10:27	0° $\mathfrak{B}$	
max. Earth dist.	11757 May 26 00:45	9° $\mathfrak{H}$ 36'44	1.44829 AU	morning set	11758 Apr 23 15:09	0° $\mathfrak{H}$ 18'23	
				max. Earth dist.	11758 May 08 18:54	23° $\mathfrak{B}$ 58'56	1.45618 AU
superior conj	11757 May 30 10:26	16° $\mathfrak{H}$ 37'23	-2°12'49	superior conj	11758 May 09 21:31	25° $\mathfrak{B}$ 43'07	-2°07'07
minimum elong	11757 May 30 12:06	16° $\mathfrak{H}$ 44'01	2°13'33	minimum elong	11758 May 09 15:38	25° $\mathfrak{B}$ 20'05	2°07'28
	11757 Jun 07 15:40	0° $\mathfrak{E}$			11758 May 12 15:02	0° $\mathfrak{H}$	
evening rise	11757 Jun 13 07:27	9° $\mathfrak{E}$ 25'52		evening rise	11758 May 25 06:55	20° $\mathfrak{H}$ 05'21	
asc. node	11757 Jun 23 04:14	25° $\mathfrak{E}$ 46'37			11758 May 31 11:23	0° $\mathfrak{E}$	
	11757 Jun 25 22:22	0° $\Omega$					
evening max el	11757 Jul 01 16:11	7° $\Omega$ 15'07	18°11'44	greatest brilliancy	11758 Jun 01 04:08	1° $\mathfrak{E}$ 06'47	-0.9m
retrograde	11757 Jul 08 00:41	10° $\Omega$ 36'13		asc. node	11758 Jun 10 01:17	14° $\mathfrak{E}$ 36'49	
evening set	11757 Jul 10 21:58	9° $\Omega$ 51'54		evening max el	11758 Jun 15 04:36	20° $\mathfrak{E}$ 51'59	18°37'43

retrograde	11758 Jun 21 17:30	24°☿25'23		asc. node	11759 May 27 22:24	2°☿51'05	
evening set	11758 Jun 24 23:02	23°☿26'02		evening max el	11759 May 29 12:57	4°☿34'26	19°20'44
inferior conj	11758 Jun 30 14:44	17°☿49'13	3°00'53	retrograde	11759 Jun 05 14:36	8°☿32'41	
minimum elong	11758 Jun 30 16:24	17°☿44'09	2°59'53	evening set	11759 Jun 09 04:48	7°☿17'28	
min. Earth dist.	11758 Jul 02 14:22	15°☿23'58	0.65441 AU	inferior conj	11759 Jun 14 14:38	1°☿26'08	3°14'04
morning rise	11758 Jul 06 08:52	11°☿27'57		minimum elong	11759 Jun 14 15:11	1°☿24'19	3°13'16
direct	11758 Jul 12 20:07	8°☿45'57			11759 Jun 15 16:55	30°☿II	
desc. node	11758 Jul 13 13:43	8°☿47'50		min. Earth dist.	11759 Jun 15 23:28	29°II38'45	0.66951 AU
morning max el	11758 Jul 26 04:11	16°☿38'27	26°59'05	morning rise	11759 Jun 20 01:05	25°II03'51	
	11758 Aug 06 06:00	0°♂		direct	11759 Jun 26 03:13	22°II23'54	
	11758 Aug 25 06:06	0°♂		desc. node	11759 Jun 30 10:52	23°II29'56	
morning set	11758 Aug 30 20:28	10°♂22'50		morning max el	11759 Jul 08 14:58	29°II52'35	25°48'56
max. Earth dist.	11758 Sep 04 03:16	18°♂49'29	1.33792 AU		11759 Jul 08 17:54	0°☿	
asc. node	11758 Sep 06 01:44	22°♂46'40			11759 Jul 31 03:16	0°♂	
				morning set	11759 Aug 13 15:40	22°♂57'51	
superior conj	11758 Sep 08 09:39	27°♂37'40	0°22'28		11759 Aug 17 09:56	0°♂	
minimum elong	11758 Sep 08 08:31	27°♂31'43	0°22'07	max. Earth dist.	11759 Aug 17 09:20	29°♂57'11	1.35600 AU
	11758 Sep 09 12:38	0°♂					
evening rise	11758 Sep 15 16:09	13°♂04'16		superior conj	11759 Aug 23 03:13	11°♂15'11	-0°07'42
	11758 Sep 24 06:01	0°♂		minimum elong	11759 Aug 23 03:42	11°♂17'35	0°07'57
evening max el	11758 Oct 05 22:46	16°♂22'07	21°39'58	behind sun begin	11759 Aug 22 22:18	10°♂50'21	
desc. node	11758 Oct 09 10:45	19°♂20'46		behind sun end	11759 Aug 23 09:06	11°♂44'52	
retrograde	11758 Oct 18 07:11	22°♂30'38		asc. node	11759 Aug 23 22:26	12°♂52'27	
evening set	11758 Oct 21 04:15	22°♂11'50		evening rise	11759 Aug 30 23:35	27°♂23'18	
inferior conj	11758 Oct 30 03:06	18°♂15'59	-5°23'06		11759 Sep 01 06:13	0°♂	
minimum elong	11758 Oct 29 19:16	18°♂26'57	5°21'15	evening max el	11759 Sep 18 00:25	27°♂04'22	20°15'37
min. Earth dist.	11758 Oct 30 01:10	18°♂18'41	0.54597 AU		11759 Sep 21 12:26	0°♂	
morning rise	11758 Nov 07 11:23	14°♂28'08		desc. node	11759 Sep 26 08:09	2°♂10'02	
direct	11758 Nov 11 03:44	13°♂58'42		retrograde	11759 Sep 28 19:45	2°♂26'36	
morning max el	11758 Nov 23 13:44	19°♂53'23	22°07'54	evening set	11759 Sep 30 20:11	2°♂16'11	
	11758 Dec 01 20:06	0°♂			11759 Oct 06 21:43	30°☿♂	
asc. node	11758 Dec 03 02:40	1°♂57'26		inferior conj	11759 Oct 09 20:48	28°♂18'39	-4°00'48
morning set	11758 Dec 14 22:51	24°♂15'55		minimum elong	11759 Oct 09 11:02	28°♂33'03	3°57'28
	11758 Dec 17 15:38	0°♂		min. Earth dist.	11759 Oct 11 09:31	27°♂24'22	0.54836 AU
				morning rise	11759 Oct 18 01:03	24°♂12'57	
superior conj	11758 Dec 22 00:53	9°♂20'33	1°33'24	direct	11759 Oct 22 13:24	23°♂28'54	
minimum elong	11758 Dec 22 02:25	9°♂28'36	1°34'04		11759 Nov 04 23:38	0°♂	
max. Earth dist.	11758 Dec 25 21:45	17°♂22'47	1.34326 AU	morning max el	11759 Nov 05 01:54	0°♂05'17	23°55'15
evening rise	11758 Dec 30 06:40	26°♂03'23		asc. node	11759 Nov 19 23:34	20°♂24'35	
	11759 Jan 01 08:25	0°♂			11759 Nov 25 01:49	0°♂	
desc. node	11759 Jan 05 09:02	7°♂20'12		morning set	11759 Nov 29 10:38	9°♂02'56	
	11759 Jan 19 14:09	0°♂					
evening max el	11759 Feb 03 06:16	17°♂50'30	26°57'03	superior conj	11759 Dec 06 07:18	23°♂57'26	1°38'42
retrograde	11759 Feb 16 13:04	25°♂14'07		minimum elong	11759 Dec 06 07:40	23°♂59'28	1°39'27
evening set	11759 Feb 23 02:42	22°♂40'50		max. Earth dist.	11759 Dec 08 19:16	29°♂20'35	1.32872 AU
min. Earth dist.	11759 Feb 27 02:14	18°♂47'18	0.65735 AU		11759 Dec 09 02:40	0°♂	
inferior conj	11759 Mar 01 04:58	16°♂21'36	0°03'16	evening rise	11759 Dec 13 20:36	9°♂50'36	
minimum elong	11759 Mar 01 04:51	16°♂21'53	0°03'29	desc. node	11759 Dec 23 05:59	27°♂27'11	
transit middle	11759 Mar 01 04:51	16°♂21'53	0°03'29		11759 Dec 24 17:36	0°♂	
transit begin	11759 Mar 01 01:57	16°♂30'15			11760 Jan 15 13:28	0°♂	
transit end	11759 Mar 01 07:45	16°♂13'32		evening max el	11760 Jan 16 18:51	1°♂12'08	27°27'36
asc. node	11759 Mar 01 00:57	16°♂33'10		retrograde	11760 Jan 30 11:08	8°♂36'41	
morning rise	11759 Mar 07 08:22	10°♂46'28		evening set	11760 Feb 06 07:59	6°♂06'50	
direct	11759 Mar 10 03:48	10°♂03'31		min. Earth dist.	11760 Feb 10 03:18	2°♂44'28	0.64020 AU
morning max el	11759 Mar 16 13:04	13°♂25'16	18°07'42	inferior conj	11760 Feb 12 17:22	0°♂02'48	-1°03'16
	11759 Mar 28 12:11	0°♂		minimum elong	11760 Feb 12 19:22	29°♂57'37	1°01'59
desc. node	11759 Apr 03 10:23	9°♂33'24			11760 Feb 12 18:27	30°☿♂	
morning set	11759 Apr 04 06:04	10°♂53'12		asc. node	11760 Feb 15 22:16	26°♂55'44	
	11759 Apr 16 04:23	0°♂		morning rise	11760 Feb 19 08:48	24°♂41'59	
				direct	11760 Feb 21 19:56	24°♂11'34	
superior conj	11759 Apr 19 05:17	4°♂47'10	-1°41'49	morning max el	11760 Feb 28 06:31	27°♂31'19	17°49'16
minimum elong	11759 Apr 18 19:53	4°♂10'15	1°41'17		11760 Mar 01 12:20	0°♂	
max. Earth dist.	11759 Apr 21 14:48	8°♂32'37	1.45663 AU	morning set	11760 Mar 16 01:07	22°♂50'11	
evening rise	11759 May 05 07:46	29°♂51'47		desc. node	11760 Mar 20 07:00	0°♂00'35	
	11759 May 05 09:54	0°♂			11760 Mar 20 06:52	0°♂	
greatest brilliancy	11759 May 17 15:25	18°♂46'29	-0.7m				
	11759 May 25 13:57	0°♂		superior conj	11760 Mar 29 03:24	14°♂36'19	-1°03'40

minimum elong	11760 Mar 28 20:40	14° $\Upsilon$ 09'06	1°02'54	evening rise	11761 Mar 24 10:52	18° $\Upsilon$ 52'31	
max. Earth dist.	11760 Apr 03 09:48	23° $\Upsilon$ 01'37	1.44976 AU		11761 Mar 31 17:47	0° $\mathcal{B}$	
	11760 Apr 07 20:24	0° $\mathcal{B}$			11761 Apr 22 14:06	0° $\Pi$	
evening rise	11760 Apr 13 19:55	9° $\mathcal{B}$ 14'20		evening max el	11761 Apr 24 13:15	2° $\Pi$ 05'27	21°29'38
	11760 Apr 27 15:34	0° $\Pi$		asc. node	11761 Apr 30 16:49	6° $\Pi$ 43'04	
evening max el	11760 May 11 15:53	18° $\Pi$ 19'30	20°19'03	retrograde	11761 May 03 11:41	7° $\Pi$ 20'03	
asc. node	11760 May 13 19:35	20° $\Pi$ 18'08		evening set	11761 May 07 21:42	5° $\Pi$ 32'50	
retrograde	11760 May 19 13:22	22° $\Pi$ 52'43			11761 May 12 15:58	30° $\mathcal{R}$ $\mathcal{B}$	
evening set	11760 May 23 12:59	21° $\Pi$ 21'25		inferior conj	11761 May 13 04:11	29° $\mathcal{B}$ 17'30	3°02'34
inferior conj	11760 May 28 19:54	15° $\Pi$ 17'09	3°13'59	minimum elong	11761 May 13 02:48	29° $\mathcal{B}$ 22'22	3°01'44
minimum elong	11760 May 28 19:23	15° $\Pi$ 18'55	3°13'14	min. Earth dist.	11761 May 13 09:29	28° $\mathcal{B}$ 59'05	0.68625 AU
min. Earth dist.	11760 May 29 14:34	14° $\Pi$ 13'22	0.68020 AU	morning rise	11761 May 18 07:41	23° $\mathcal{B}$ 02'35	
morning rise	11760 Jun 03 01:29	8° $\Pi$ 57'27		direct	11761 May 23 09:21	20° $\mathcal{B}$ 50'21	
direct	11760 Jun 08 16:03	6° $\Pi$ 28'12		morning max el	11761 Jun 02 11:12	26° $\mathcal{B}$ 48'37	22°54'03
desc. node	11760 Jun 16 07:54	9° $\Pi$ 54'14		desc. node	11761 Jun 03 04:52	27° $\mathcal{B}$ 33'57	
morning max el	11760 Jun 20 00:49	13° $\Pi$ 17'14	24°23'56		11761 Jun 05 10:10	0° $\Pi$	
	11760 Jul 03 13:14	0° $\mathcal{C}$			11761 Jun 27 03:00	0° $\mathcal{C}$	
	11760 Jul 22 22:59	0° $\mathcal{Q}$		morning set	11761 Jul 06 18:08	15° $\mathcal{C}$ 20'35	
morning set	11760 Jul 25 16:33	4° $\mathcal{Q}$ 41'23		max. Earth dist.	11761 Jul 11 05:03	22° $\mathcal{C}$ 50'10	1.40094 AU
max. Earth dist.	11760 Jul 29 07:36	11° $\mathcal{Q}$ 06'44	1.37774 AU		11761 Jul 15 07:46	0° $\mathcal{Q}$	
superior conj	11760 Aug 05 09:24	24° $\mathcal{Q}$ 18'19	-0°40'56	superior conj	11761 Jul 19 00:10	6° $\mathcal{Q}$ 37'22	-1°14'52
minimum elong	11760 Aug 05 12:10	24° $\mathcal{Q}$ 31'36	0°40'56	minimum elong	11761 Jul 19 05:26	7° $\mathcal{Q}$ 01'26	1°14'44
	11760 Aug 08 07:38	0° $\mathcal{P}$		asc. node	11761 Jul 27 15:57	22° $\mathcal{Q}$ 51'22	
asc. node	11760 Aug 09 19:10	2° $\mathcal{P}$ 55'21		evening rise	11761 Jul 28 18:51	24° $\mathcal{Q}$ 59'40	
evening rise	11760 Aug 14 01:31	11° $\mathcal{P}$ 24'30			11761 Jul 31 10:12	0° $\mathcal{P}$	
	11760 Aug 24 03:08	0° $\mathcal{A}$		evening max el	11761 Aug 13 19:07	20° $\mathcal{P}$ 48'22	18°29'31
evening max el	11760 Aug 30 16:07	8° $\mathcal{A}$ 34'16	19°11'51	retrograde	11761 Aug 21 13:34	24° $\mathcal{P}$ 42'47	
retrograde	11760 Sep 08 19:20	13° $\mathcal{A}$ 07'30		evening set	11761 Aug 23 14:37	24° $\mathcal{P}$ 27'23	
evening set	11760 Sep 10 15:38	12° $\mathcal{A}$ 57'08		desc. node	11761 Aug 30 02:55	20° $\mathcal{P}$ 53'36	
desc. node	11760 Sep 12 05:32	12° $\mathcal{A}$ 32'45		inferior conj	11761 Aug 31 08:35	19° $\mathcal{P}$ 56'16	-0°23'03
inferior conj	11760 Sep 19 04:12	8° $\mathcal{A}$ 46'08	-2°10'21	minimum elong	11761 Aug 31 07:41	19° $\mathcal{P}$ 58'01	0°22'54
minimum elong	11760 Sep 18 22:30	8° $\mathcal{A}$ 55'41	2°08'05	min. Earth dist.	11761 Sep 03 15:20	17° $\mathcal{P}$ 22'51	0.57815 AU
min. Earth dist.	11760 Sep 21 21:40	6° $\mathcal{A}$ 56'46	0.55985 AU	morning rise	11761 Sep 07 21:16	14° $\mathcal{P}$ 40'01	
morning rise	11760 Sep 27 02:33	4° $\mathcal{A}$ 06'58		direct	11761 Sep 13 22:10	13° $\mathcal{P}$ 07'06	
direct	11760 Oct 02 10:43	3° $\mathcal{A}$ 01'10		morning max el	11761 Sep 28 05:55	20° $\mathcal{P}$ 42'13	27°00'20
morning max el	11760 Oct 16 13:11	10° $\mathcal{A}$ 11'23	25°38'34		11761 Oct 06 07:01	0° $\mathcal{A}$	
	11760 Oct 31 13:11	0° $\mathcal{M}$		asc. node	11761 Oct 23 17:10	28° $\mathcal{A}$ 52'04	
asc. node	11760 Nov 05 20:23	9° $\mathcal{M}$ 25'42			11761 Oct 24 06:49	0° $\mathcal{M}$	
morning set	11760 Nov 12 22:02	23° $\mathcal{M}$ 45'24		morning set	11761 Oct 28 07:23	8° $\mathcal{M}$ 19'11	
	11760 Nov 15 18:57	0° $\mathcal{X}$		superior conj	11761 Nov 04 04:54	23° $\mathcal{M}$ 27'57	1°31'01
superior conj	11760 Nov 19 17:18	8° $\mathcal{X}$ 41'50	1°37'47	minimum elong	11761 Nov 04 03:19	23° $\mathcal{M}$ 19'02	1°31'28
minimum elong	11760 Nov 19 16:35	8° $\mathcal{X}$ 37'51	1°38'27	max. Earth dist.	11761 Nov 04 08:08	23° $\mathcal{M}$ 45'58	1.31403 AU
max. Earth dist.	11760 Nov 20 23:38	11° $\mathcal{X}$ 29'19	1.31893 AU		11761 Nov 07 03:27	0° $\mathcal{X}$	
evening rise	11760 Nov 26 19:20	23° $\mathcal{X}$ 59'42		evening rise	11761 Nov 11 00:19	8° $\mathcal{X}$ 24'09	
	11760 Nov 29 18:10	0° $\mathcal{Z}$			11761 Nov 22 03:40	0° $\mathcal{Z}$	
desc. node	11760 Dec 09 03:00	17° $\mathcal{Z}$ 11'28		desc. node	11761 Nov 26 00:06	6° $\mathcal{Z}$ 24'10	
	11760 Dec 17 09:58	0° $\mathcal{A}$		evening max el	11761 Dec 11 08:56	26° $\mathcal{Z}$ 07'46	26°55'17
evening max el	11760 Dec 29 04:38	14° $\mathcal{A}$ 01'54	27°28'26		11761 Dec 16 02:47	0° $\mathcal{A}$	
retrograde	11761 Jan 12 01:41	21° $\mathcal{A}$ 20'26		retrograde	11761 Dec 25 07:18	3° $\mathcal{A}$ 17'21	
evening set	11761 Jan 19 01:01	19° $\mathcal{A}$ 02'22		evening set	11762 Jan 01 02:13	1° $\mathcal{A}$ 19'43	
min. Earth dist.	11761 Jan 22 18:39	16° $\mathcal{A}$ 06'01	0.62038 AU		11762 Jan 03 04:26	30° $\mathcal{R}$ $\mathcal{Z}$	
inferior conj	11761 Jan 25 17:59	13° $\mathcal{A}$ 20'44	-2°18'03	min. Earth dist.	11762 Jan 04 23:15	28° $\mathcal{Z}$ 40'30	0.59915 AU
minimum elong	11761 Jan 25 22:41	13° $\mathcal{A}$ 09'48	2°15'35	inferior conj	11762 Jan 08 03:22	26° $\mathcal{Z}$ 06'20	-3°36'45
morning rise	11761 Feb 01 23:00	8° $\mathcal{A}$ 17'04		minimum elong	11762 Jan 08 10:44	25° $\mathcal{Z}$ 51'21	3°33'32
asc. node	11761 Feb 01 19:32	8° $\mathcal{A}$ 19'56		morning rise	11762 Jan 15 22:03	21° $\mathcal{Z}$ 22'59	
direct	11761 Feb 04 04:04	7° $\mathcal{A}$ 55'21		direct	11762 Jan 18 00:21	21° $\mathcal{Z}$ 06'20	
morning max el	11761 Feb 10 23:40	11° $\mathcal{A}$ 22'58	17°48'34	asc. node	11762 Jan 19 16:45	21° $\mathcal{Z}$ 17'31	
	11761 Feb 23 11:29	0° $\mathcal{H}$		morning max el	11762 Jan 25 13:04	24° $\mathcal{Z}$ 51'06	18°06'45
morning set	11761 Feb 26 18:33	5° $\mathcal{H}$ 50'45			11762 Jan 29 19:11	0° $\mathcal{A}$	
desc. node	11761 Mar 07 03:37	20° $\mathcal{H}$ 35'33		morning set	11762 Feb 10 04:07	19° $\mathcal{A}$ 36'04	
					11762 Feb 15 18:18	0° $\mathcal{H}$	
superior conj	11761 Mar 10 01:08	25° $\mathcal{H}$ 32'34	-0°22'07	superior conj	11762 Feb 19 22:52	7° $\mathcal{H}$ 36'01	0°16'01
minimum elong	11761 Mar 09 23:02	25° $\mathcal{H}$ 23'39	0°21'39	minimum elong	11762 Feb 20 00:08	7° $\mathcal{H}$ 41'40	0°16'11
	11761 Mar 12 16:52	0° $\mathcal{Y}$		desc. node	11762 Feb 22 00:16	11° $\mathcal{H}$ 14'48	
max. Earth dist.	11761 Mar 17 01:54	7° $\mathcal{Y}$ 11'04	1.43636 AU				

max. Earth dist.	11762 Feb 27 13:56	20° $\text{H}$ 48'26	1.41782 AU	max. Earth dist.	11763 Feb 09 21:34	3° $\text{H}$ 43'05	1.39616 AU
evening rise	11762 Mar 04 17:28	29° $\text{H}$ 15'50		evening rise	11763 Feb 13 20:57	10° $\text{H}$ 34'10	
	11762 Mar 05 04:27	0° $\text{Y}$			11763 Feb 26 01:22	0° $\text{Y}$	
	11762 Mar 25 07:17	0° $\text{B}$		evening max el	11763 Mar 20 20:12	29° $\text{Y}$ 42'47	24°08'39
evening max el	11762 Apr 07 06:05	15° $\text{B}$ 53'08	22°48'04		11763 Mar 21 03:11	0° $\text{B}$	
retrograde	11762 Apr 17 08:08	21° $\text{B}$ 50'19		retrograde	11763 Apr 01 01:27	6° $\text{B}$ 18'10	
asc. node	11762 Apr 17 14:05	21° $\text{B}$ 50'02		asc. node	11763 Apr 04 11:25	5° $\text{B}$ 24'43	
evening set	11762 Apr 22 05:22	19° $\text{B}$ 48'04		evening set	11763 Apr 06 10:28	4° $\text{B}$ 02'41	
inferior conj	11762 Apr 27 13:31	13° $\text{B}$ 24'04	2°40'54		11763 Apr 10 02:14	30° $\text{K}$ $\text{Y}$	
minimum elong	11762 Apr 27 11:33	13° $\text{B}$ 30'55	2°39'59	min. Earth dist.	11763 Apr 11 02:19	28° $\text{Y}$ 40'06	0.68449 AU
min. Earth dist.	11762 Apr 27 06:05	13° $\text{B}$ 49'53	0.68766 AU	inferior conj	11763 Apr 11 22:01	27° $\text{Y}$ 33'24	2°09'29
morning rise	11762 May 02 17:37	7° $\text{B}$ 15'21		minimum elong	11763 Apr 11 19:51	27° $\text{Y}$ 40'45	2°08'34
direct	11762 May 07 06:02	5° $\text{B}$ 23'44		morning rise	11763 Apr 17 05:20	21° $\text{Y}$ 31'59	
morning max el	11762 May 16 01:33	10° $\text{B}$ 29'56	21°28'06	direct	11763 Apr 21 04:51	20° $\text{Y}$ 01'56	
desc. node	11762 May 21 01:45	16° $\text{B}$ 09'00		morning max el	11763 Apr 28 22:43	24° $\text{Y}$ 23'31	20°12'33
	11762 May 31 07:23	0° $\text{II}$			11763 May 03 20:44	0° $\text{B}$	
morning set	11762 Jun 16 17:48	24° $\text{II}$ 50'27		desc. node	11763 May 07 22:34	5° $\text{B}$ 24'19	
	11762 Jun 19 23:22	0° $\text{E}$			11763 May 24 14:42	0° $\text{II}$	
max. Earth dist.	11762 Jun 23 07:56	5° $\text{E}$ 27'48	1.42279 AU	morning set	11763 May 26 21:25	3° $\text{II}$ 30'12	
				max. Earth dist.	11763 Jun 05 17:34	18° $\text{II}$ 56'17	1.44059 AU
superior conj	11762 Jun 30 19:00	18° $\text{E}$ 02'09	-1°45'34	superior conj	11763 Jun 11 14:19	28° $\text{II}$ 26'04	-2°07'11
minimum elong	11762 Jul 01 01:45	18° $\text{E}$ 31'21	1°45'38	minimum elong	11763 Jun 11 19:14	28° $\text{II}$ 46'17	2°07'44
	11762 Jul 07 13:49	0° $\text{O}$			11763 Jun 12 13:09	0° $\text{E}$	
evening rise	11762 Jul 11 23:42	7° $\text{O}$ 59'08		evening rise	11763 Jun 24 11:19	20° $\text{E}$ 11'54	
asc. node	11762 Jul 14 12:46	12° $\text{O}$ 36'09			11763 Jun 30 04:01	0° $\text{O}$	
	11762 Jul 25 02:55	0° $\text{M}$		asc. node	11763 Jul 01 09:41	2° $\text{O}$ 05'11	
evening max el	11762 Jul 28 05:22	3° $\text{M}$ 36'59	18°07'33	evening max el	11763 Jul 11 19:01	16° $\text{O}$ 51'14	18°04'51
retrograde	11762 Aug 04 02:17	7° $\text{M}$ 07'11		retrograde	11763 Jul 18 05:20	20° $\text{O}$ 11'54	
evening set	11762 Aug 06 10:46	6° $\text{M}$ 42'54		evening set	11763 Jul 20 21:49	19° $\text{O}$ 35'42	
inferior conj	11762 Aug 13 10:14	1° $\text{M}$ 51'03	1°03'43	inferior conj	11763 Jul 27 05:57	14° $\text{O}$ 25'03	2°05'57
minimum elong	11762 Aug 13 12:08	1° $\text{M}$ 46'43	1°02'37	minimum elong	11763 Jul 27 08:36	14° $\text{O}$ 18'06	2°04'36
	11762 Aug 15 10:34	30° $\text{K}$ $\text{O}$		min. Earth dist.	11763 Jul 30 03:32	11° $\text{O}$ 24'26	0.62294 AU
min. Earth dist.	11762 Aug 16 16:45	28° $\text{O}$ 52'49	0.60020 AU	morning rise	11763 Aug 02 17:13	8° $\text{O}$ 17'11	
desc. node	11762 Aug 17 00:19	28° $\text{O}$ 36'34		desc. node	11763 Aug 03 21:40	7° $\text{O}$ 30'17	
morning rise	11762 Aug 20 10:26	26° $\text{O}$ 03'45		direct	11763 Aug 09 09:41	5° $\text{O}$ 52'33	
direct	11762 Aug 26 22:25	24° $\text{O}$ 02'43		morning max el	11763 Aug 23 12:46	13° $\text{O}$ 54'48	27°56'27
	11762 Sep 08 04:51	0° $\text{M}$			11763 Sep 05 11:48	0° $\text{M}$	
morning max el	11762 Sep 10 06:13	1° $\text{M}$ 55'29	27°47'52		11763 Sep 23 04:37	0° $\text{E}$	
	11762 Sep 30 16:07	0° $\text{E}$		morning set	11763 Sep 26 12:29	6° $\text{E}$ 37'44	
asc. node	11762 Oct 10 13:54	18° $\text{E}$ 35'42		asc. node	11763 Sep 27 10:37	8° $\text{E}$ 31'19	
morning set	11762 Oct 12 12:53	22° $\text{E}$ 38'16		max. Earth dist.	11763 Oct 01 22:02	17° $\text{E}$ 59'54	1.31922 AU
	11762 Oct 15 23:31	0° $\text{M}$					
max. Earth dist.	11762 Oct 18 16:56	5° $\text{M}$ 59'39	1.31407 AU	superior conj	11763 Oct 04 01:28	22° $\text{E}$ 40'12	1°00'53
superior conj	11762 Oct 19 16:14	8° $\text{M}$ 09'02	1°18'40	minimum elong	11763 Oct 03 23:15	22° $\text{E}$ 28'01	1°00'44
minimum elong	11762 Oct 19 14:05	7° $\text{M}$ 57'09	1°18'48		11763 Oct 07 09:23	0° $\text{M}$	
evening rise	11762 Oct 26 09:15	22° $\text{M}$ 56'35		evening rise	11763 Oct 10 20:16	7° $\text{M}$ 32'02	
	11762 Oct 29 17:50	0° $\text{J}$			11763 Oct 22 09:31	0° $\text{J}$	
desc. node	11762 Nov 12 21:18	24° $\text{J}$ 51'58		desc. node	11763 Oct 30 18:34	12° $\text{J}$ 17'39	
	11762 Nov 16 15:30	0° $\text{B}$		evening max el	11763 Nov 04 17:29	17° $\text{J}$ 45'45	24°17'03
evening max el	11762 Nov 23 05:05	7° $\text{B}$ 20'25	25°48'46	retrograde	11763 Nov 18 09:59	24° $\text{J}$ 36'32	
retrograde	11762 Dec 07 02:32	14° $\text{B}$ 21'42		evening set	11763 Nov 23 12:05	23° $\text{J}$ 39'31	
evening set	11762 Dec 13 07:09	12° $\text{B}$ 52'12		min. Earth dist.	11763 Nov 29 04:36	20° $\text{J}$ 47'12	0.56047 AU
min. Earth dist.	11762 Dec 17 17:36	10° $\text{B}$ 15'52	0.57830 AU	inferior conj	11763 Dec 01 11:57	19° $\text{J}$ 21'48	-5°40'46
inferior conj	11762 Dec 20 17:58	8° $\text{B}$ 08'48	-4°50'03	minimum elong	11763 Dec 01 16:37	19° $\text{J}$ 14'34	5°39'32
minimum elong	11762 Dec 21 02:14	7° $\text{B}$ 54'15	4°47'16	morning rise	11763 Dec 09 23:14	15° $\text{J}$ 22'01	
morning rise	11762 Dec 28 23:51	3° $\text{B}$ 48'04		direct	11763 Dec 12 12:18	15° $\text{J}$ 05'02	
direct	11762 Dec 31 04:09	3° $\text{B}$ 33'07		morning max el	11763 Dec 22 13:22	19° $\text{J}$ 52'38	19°46'57
asc. node	11763 Jan 06 13:55	5° $\text{B}$ 51'56		asc. node	11763 Dec 24 11:02	21° $\text{J}$ 51'56	
morning max el	11763 Jan 08 18:55	7° $\text{B}$ 44'30	18°45'37		11763 Dec 30 08:29	0° $\text{B}$	
	11763 Jan 23 01:16	0° $\text{E}$		morning set	11764 Jan 09 04:55	18° $\text{B}$ 23'22	
morning set	11763 Jan 25 00:47	3° $\text{E}$ 50'27			11764 Jan 14 22:16	0° $\text{E}$	
superior conj	11763 Feb 02 16:29	20° $\text{E}$ 34'28	0°47'26	superior conj	11764 Jan 17 01:13	4° $\text{E}$ 14'26	1°11'10
minimum elong	11763 Feb 02 19:15	20° $\text{E}$ 47'29	0°47'34	minimum elong	11764 Jan 17 04:05	4° $\text{E}$ 28'34	1°11'29
	11763 Feb 07 19:22	0° $\text{H}$		max. Earth dist.	11764 Jan 23 03:38	15° $\text{E}$ 58'26	1.37392 AU
desc. node	11763 Feb 08 20:57	1° $\text{H}$ 54'16		evening rise	11764 Jan 26 21:05	22° $\text{E}$ 45'39	



desc. node	11764 Jan 26 17:41	22° $\approx$ 30'32		max. Earth dist.	11765 Jan 04 13:25	27° $\approx$ 53'25	1.35346 AU
	11764 Jan 31 00:59	0° $\approx$			11765 Jan 05 15:14	0° $\approx$	
	11764 Feb 19 20:46	0° $\approx$		evening rise	11765 Jan 08 14:46	5° $\approx$ 42'12	
evening max el	11764 Mar 02 09:32	13° $\approx$ 33'32	25°24'37	desc. node	11765 Jan 12 14:29	12° $\approx$ 59'41	
retrograde	11764 Mar 14 14:36	20° $\approx$ 37'09			11765 Jan 22 20:03	0° $\approx$	
evening set	11764 Mar 20 11:21	18° $\approx$ 11'25		evening max el	11765 Feb 12 23:12	27° $\approx$ 21'27	26°28'40
asc. node	11764 Mar 21 08:48	17° $\approx$ 22'53			11765 Feb 15 21:34	0° $\approx$	
min. Earth dist.	11764 Mar 24 19:59	13° $\approx$ 23'56	0.67705 AU	retrograde	11765 Feb 25 22:28	4° $\approx$ 40'54	
inferior conj	11764 Mar 26 03:46	11° $\approx$ 41'21	1°28'19	evening set	11765 Mar 04 06:18	2° $\approx$ 09'06	
minimum elong	11764 Mar 26 01:54	11° $\approx$ 47'24	1°27'35		11765 Mar 06 13:05	30° $\approx$ 8'4	
morning rise	11764 Mar 31 16:53	5° $\approx$ 48'31		asc. node	11765 Mar 08 06:08	28° $\approx$ 4'04'21	
direct	11764 Apr 04 04:27	4° $\approx$ 38'52		min. Earth dist.	11765 Mar 08 08:58	27° $\approx$ 56'01	0.66561 AU
morning max el	11764 Apr 11 03:35	8° $\approx$ 27'30	19°11'11	inferior conj	11765 Mar 10 04:43	25° $\approx$ 44'00	0°37'16
desc. node	11764 Apr 23 19:17	25° $\approx$ 08'29		minimum elong	11765 Mar 10 03:46	25° $\approx$ 46'53	0°37'02
greatest brilliancy	11764 Apr 24 02:25	25° $\approx$ 35'07	-0.7m	morning rise	11765 Mar 16 02:10	20° $\approx$ 4'01'29	
	11764 Apr 27 00:41	0° $\approx$		direct	11765 Mar 19 03:05	19° $\approx$ 4'09'40	
morning set	11764 May 04 23:39	12° $\approx$ 8'12'27		morning max el	11765 Mar 25 15:10	22° $\approx$ 37'54	18°26'00
	11764 May 16 10:26	0° $\approx$			11765 Mar 31 15:44	0° $\approx$	
max. Earth dist.	11764 May 18 08:43	3° $\approx$ 11'01'29	1.45248 AU	desc. node	11765 Apr 10 15:57	15° $\approx$ 14'06	
				morning set	11765 Apr 14 22:12	21° $\approx$ 15'58'43	
superior conj	11764 May 21 10:47	7° $\approx$ 11'53'29	-2°12'57		11765 Apr 19 23:57	0° $\approx$	
minimum elong	11764 May 21 09:15	7° $\approx$ 11'47'22	2°13'37				
	11764 Jun 04 03:48	0° $\approx$		superior conj	11765 Apr 30 18:18	16° $\approx$ 8'53'10	-1°58'32
evening rise	11764 Jun 05 00:47	1° $\approx$ 26'13		minimum elong	11765 Apr 30 10:04	16° $\approx$ 8'21'03	1°58'30
asc. node	11764 Jun 17 06:42	21° $\approx$ 11'44		max. Earth dist.	11765 May 01 03:39	17° $\approx$ 8'29'42	1.45734 AU
	11764 Jun 24 00:02	0° $\approx$			11765 May 09 03:36	0° $\approx$	
evening max el	11764 Jun 24 08:43	0° $\approx$ 21'58	18°20'38	evening rise	11765 May 16 13:59	11° $\approx$ 11'40'50	
retrograde	11764 Jun 30 18:10	3° $\approx$ 46'52		greatest brilliancy	11765 May 26 01:53	26° $\approx$ 11'35'42	-0.8m
evening set	11764 Jul 03 18:49	2° $\approx$ 56'28			11765 May 28 07:05	0° $\approx$	
	11764 Jul 07 09:15	30° $\approx$ 8'4		asc. node	11765 Jun 04 03:46	9° $\approx$ 47'57	
inferior conj	11764 Jul 09 15:28	27° $\approx$ 28'59	2°46'09	evening max el	11765 Jun 07 19:43	14° $\approx$ 2'02'10	18°54'01
minimum elong	11764 Jul 09 17:40	27° $\approx$ 22'34	2°45'00	retrograde	11765 Jun 14 13:01	17° $\approx$ 44'22	
min. Earth dist.	11764 Jul 11 23:42	24° $\approx$ 46'08	0.64390 AU	evening set	11765 Jun 17 22:12	16° $\approx$ 38'22	
morning rise	11764 Jul 15 15:12	21° $\approx$ 10'26		inferior conj	11765 Jun 23 11:02	10° $\approx$ 55'27	3°08'13
desc. node	11764 Jul 20 18:57	18° $\approx$ 38'45		minimum elong	11765 Jun 23 12:14	10° $\approx$ 51'39	3°07'18
direct	11764 Jul 22 05:58	18° $\approx$ 31'23		min. Earth dist.	11765 Jun 25 04:24	8° $\approx$ 45'10	0.66147 AU
morning max el	11764 Aug 04 22:42	26° $\approx$ 31'42	27°28'41	morning rise	11765 Jun 29 01:35	4° $\approx$ 33'20	
	11764 Aug 08 04:14	0° $\approx$		direct	11765 Jul 05 09:31	1° $\approx$ 50'47	
	11764 Aug 29 02:39	0° $\approx$		desc. node	11765 Jul 07 16:09	2° $\approx$ 09'06	
morning set	11764 Sep 09 03:39	20° $\approx$ 10'55		morning max el	11765 Jul 18 09:30	9° $\approx$ 34'46	26°31'29
asc. node	11764 Sep 13 07:20	28° $\approx$ 10'34'01			11765 Aug 03 11:11	0° $\approx$	
	11764 Sep 13 23:54	0° $\approx$			11765 Aug 21 14:32	0° $\approx$	
max. Earth dist.	11764 Sep 13 19:41	29° $\approx$ 10'38'04	1.32960 AU	morning set	11765 Aug 23 07:14	3° $\approx$ 10'09'45	
				max. Earth dist.	11765 Aug 27 07:23	10° $\approx$ 10'53'26	1.34510 AU
superior conj	11764 Sep 17 06:35	6° $\approx$ 11'55'45	0°37'54	asc. node	11765 Aug 31 04:02	18° $\approx$ 10'39'50	
minimum elong	11764 Sep 17 04:52	6° $\approx$ 11'46'31	0°37'34				
evening rise	11764 Sep 24 07:29	22° $\approx$ 11'05'22		superior conj	11765 Sep 01 05:12	20° $\approx$ 10'49'24	0°10'09
	11764 Sep 28 02:37	0° $\approx$		minimum elong	11765 Sep 01 04:39	20° $\approx$ 10'46'36	0°09'50
evening max el	11764 Oct 16 04:12	27° $\approx$ 11'50'12	22°35'48	behind sun begin	11765 Aug 31 23:59	20° $\approx$ 10'22'27	
desc. node	11764 Oct 16 15:54	28° $\approx$ 11'18'14		behind sun end	11765 Sep 01 09:20	21° $\approx$ 10'10'47	
	11764 Oct 18 14:31	0° $\approx$			11765 Sep 05 14:26	0° $\approx$	
retrograde	11764 Oct 29 04:55	4° $\approx$ 18'18'44		evening rise	11765 Sep 08 16:55	6° $\approx$ 11'21'23	
evening set	11764 Nov 01 20:12	3° $\approx$ 18'49'46			11765 Sep 21 09:09	0° $\approx$	
min. Earth dist.	11764 Nov 09 12:02	0° $\approx$ 23'20	0.54880 AU	evening max el	11765 Sep 27 22:30	8° $\approx$ 11'10'25	21°01'47
inferior conj	11764 Nov 10 11:58	29° $\approx$ 11'49'24	-5°46'29	desc. node	11765 Oct 03 13:16	12° $\approx$ 11'25'24	
minimum elong	11764 Nov 10 08:27	29° $\approx$ 11'54'23	5°45'37	retrograde	11765 Oct 09 15:59	13° $\approx$ 11'59'46	
	11764 Nov 10 04:30	30° $\approx$ 11'8'11		evening set	11765 Oct 12 02:11	13° $\approx$ 11'45'53	
morning rise	11764 Nov 18 22:10	26° $\approx$ 11'01'32		inferior conj	11765 Oct 21 03:44	9° $\approx$ 11'51'19	-4°53'44
direct	11764 Nov 22 03:22	25° $\approx$ 11'37'54		minimum elong	11765 Oct 20 18:05	10° $\approx$ 11'04'57	4°51'01
	11764 Dec 02 11:17	0° $\approx$		min. Earth dist.	11765 Oct 21 19:01	9° $\approx$ 11'29'42	0.54582 AU
morning max el	11764 Dec 03 17:51	1° $\approx$ 10'08'22	21°10'57	morning rise	11765 Oct 29 10:20	5° $\approx$ 11'58'27	
asc. node	11764 Dec 10 08:04	9° $\approx$ 10'01'13		direct	11765 Nov 02 11:28	5° $\approx$ 11'23'17	
	11764 Dec 22 01:33	0° $\approx$		morning max el	11765 Nov 15 09:54	11° $\approx$ 11'36'25	22°53'00
morning set	11764 Dec 23 13:43	3° $\approx$ 10'06'52		asc. node	11765 Nov 27 05:02	27° $\approx$ 11'03'44	
					11765 Nov 28 22:16	0° $\approx$	
superior conj	11764 Dec 30 20:55	18° $\approx$ 11'32'45	1°27'19	morning set	11765 Dec 08 00:56	17° $\approx$ 11'53'55	
minimum elong	11764 Dec 30 23:03	18° $\approx$ 11'35'06	1°27'53		11765 Dec 13 15:59	0° $\approx$	

superior conj	11765 Dec 15 00:10	2° $\text{S}$ 52'48	1°36'25	superior conj	11766 Nov 29 08:21	17° $\text{S}$ 33'26	1°39'02
minimum elong	11765 Dec 15 01:13	2° $\text{S}$ 58'24	1°37'10	minimum elong	11766 Nov 29 08:14	17° $\text{S}$ 32'51	1°39'47
max. Earth dist.	11765 Dec 18 06:34	9° $\text{S}$ 47'09	1.33651 AU	max. Earth dist.	11766 Dec 01 07:31	21° $\text{S}$ 50'39	1.32398 AU
evening rise	11765 Dec 22 22:16	19° $\text{S}$ 13'04			11766 Dec 05 03:26	0° $\text{S}$	
	11765 Dec 28 15:22	0° $\approx$		evening rise	11766 Dec 06 16:17	3° $\text{S}$ 10'13	
desc. node	11765 Dec 30 11:22	3° $\approx$ 16'12		desc. node	11766 Dec 17 08:20	23° $\text{S}$ 14'23	
	11766 Jan 16 22:40	0° $\text{H}$			11766 Dec 21 10:23	0° $\approx$	
evening max el	11766 Jan 26 12:42	10° $\text{H}$ 56'09	27°13'26	evening max el	11767 Jan 09 00:23	24° $\approx$ 05'22	27°31'52
retrograde	11766 Feb 09 00:06	18° $\text{H}$ 20'28			11767 Jan 17 01:16	0° $\text{H}$	
evening set	11766 Feb 15 17:12	15° $\text{H}$ 48'06		retrograde	11767 Jan 22 18:46	1° $\text{H}$ 27'14	
min. Earth dist.	11766 Feb 19 14:53	12° $\text{H}$ 08'04	0.65045 AU		11767 Jan 28 03:48	30° $\text{R}$ $\approx$	
inferior conj	11766 Feb 21 22:27	9° $\text{H}$ 34'35	-0°23'46	evening set	11767 Jan 29 17:35	29° $\approx$ 01'15	
minimum elong	11766 Feb 21 23:08	9° $\text{H}$ 32'40	0°23'08	min. Earth dist.	11767 Feb 02 11:46	25° $\approx$ 51'01	0.63208 AU
asc. node	11766 Feb 23 03:28	8° $\text{H}$ 15'25		inferior conj	11767 Feb 05 06:11	23° $\approx$ 06'16	-1°34'08
morning rise	11766 Feb 28 06:41	4° $\text{H}$ 04'55		minimum elong	11767 Feb 05 09:16	22° $\approx$ 58'35	1°32'21
direct	11766 Mar 02 22:27	3° $\text{H}$ 27'37		asc. node	11767 Feb 10 00:46	18° $\approx$ 57'42	
morning max el	11766 Mar 09 07:13	6° $\text{H}$ 47'08	17°57'44	morning rise	11767 Feb 12 03:16	17° $\approx$ 52'25	
	11766 Mar 25 03:28	0° $\text{Y}$		direct	11767 Feb 14 11:38	17° $\approx$ 26'03	
morning set	11766 Mar 27 01:36	3° $\text{Y}$ 10'25		morning max el	11767 Feb 21 00:54	20° $\approx$ 47'34	17°46'48
desc. node	11766 Mar 28 12:34	5° $\text{Y}$ 34'34			11767 Feb 28 00:37	0° $\text{H}$	
				morning set	11767 Mar 09 06:54	15° $\text{H}$ 36'24	
superior conj	11766 Apr 10 06:17	26° $\text{Y}$ 11'17	-1°26'37	desc. node	11767 Mar 15 09:11	26° $\text{H}$ 05'15	
minimum elong	11766 Apr 09 21:27	25° $\text{Y}$ 36'16	1°25'54		11767 Mar 17 16:43	0° $\text{Y}$	
	11766 Apr 12 16:09	0° $\text{S}$		superior conj	11767 Mar 21 13:51	6° $\text{Y}$ 27'14	-0°45'58
max. Earth dist.	11766 Apr 13 23:49	2° $\text{S}$ 04'32	1.45467 AU	minimum elong	11767 Mar 21 09:06	6° $\text{Y}$ 07'42	0°45'17
evening rise	11766 Apr 26 07:46	21° $\text{S}$ 12'45		max. Earth dist.	11767 Mar 27 18:16	16° $\text{Y}$ 28'27	1.44481 AU
	11766 May 02 01:30	0° $\text{II}$			11767 Apr 05 09:32	0° $\text{S}$	
greatest brilliancy	11766 May 10 09:40	12° $\text{II}$ 31'57	-0.6m	evening rise	11767 Apr 05 19:09	0° $\text{S}$ 36'57	
evening max el	11766 May 22 01:56	27° $\text{II}$ 46'22	19°43'47		11767 Apr 25 17:37	0° $\text{II}$	
asc. node	11766 May 22 00:53	27° $\text{II}$ 43'44		evening max el	11767 May 05 02:22	11° $\text{II}$ 31'25	20°47'45
	11766 May 24 14:16	0° $\text{S}$		asc. node	11767 May 08 22:04	14° $\text{II}$ 46'11	
retrograde	11766 May 29 11:01	1° $\text{S}$ 57'56		retrograde	11767 May 13 09:52	16° $\text{II}$ 21'47	
evening set	11766 Jun 02 05:15	0° $\text{S}$ 35'41		evening set	11767 May 17 13:52	14° $\text{II}$ 43'25	
	11766 Jun 02 23:08	30° $\text{R}$ $\text{II}$		inferior conj	11767 May 22 20:18	8° $\text{II}$ 33'58	3°10'28
inferior conj	11766 Jun 07 13:30	24° $\text{II}$ 38'42	3°15'30	minimum elong	11767 May 22 19:23	8° $\text{II}$ 37'08	3°09'40
minimum elong	11766 Jun 07 13:35	24° $\text{II}$ 38'24	3°14'43	min. Earth dist.	11767 May 23 09:05	7° $\text{II}$ 49'48	0.68334 AU
min. Earth dist.	11766 Jun 08 16:10	23° $\text{II}$ 09'38	0.67471 AU	morning rise	11767 May 28 00:41	2° $\text{II}$ 16'10	
morning rise	11766 Jun 12 21:35	18° $\text{II}$ 17'26			11767 Jun 01 06:05	30° $\text{R}$ $\text{S}$	
direct	11766 Jun 18 19:05	15° $\text{II}$ 41'15		direct	11767 Jun 02 09:46	29° $\text{S}$ 53'52	
desc. node	11766 Jun 24 13:15	17° $\text{II}$ 38'13			11767 Jun 03 14:14	0° $\text{II}$	
morning max el	11766 Jun 30 19:46	22° $\text{II}$ 53'52	25°13'57	desc. node	11767 Jun 11 10:15	4° $\text{II}$ 37'25	
	11766 Jul 07 02:01	0° $\text{S}$		morning max el	11767 Jun 13 05:44	6° $\text{II}$ 22'02	23°45'48
	11766 Jul 27 18:57	0° $\text{Q}$			11767 Jul 01 13:40	0° $\text{S}$	
morning set	11766 Aug 05 19:15	15° $\text{Q}$ 24'21		morning set	11767 Jul 18 10:48	26° $\text{S}$ 41'57	
max. Earth dist.	11766 Aug 09 09:50	22° $\text{Q}$ 00'01	1.36497 AU		11767 Jul 20 08:58	0° $\text{Q}$	
	11766 Aug 13 14:41	0° $\text{R}$		max. Earth dist.	11767 Jul 22 07:21	3° $\text{Q}$ 22'27	1.38762 AU
superior conj	11766 Aug 15 18:24	4° $\text{R}$ 13'44	-0°21'32	superior conj	11767 Jul 29 18:32	16° $\text{Q}$ 59'04	-0°55'26
minimum elong	11766 Aug 15 19:47	4° $\text{R}$ 20'33	0°21'40	minimum elong	11767 Jul 29 22:23	17° $\text{Q}$ 17'12	0°55'22
asc. node	11766 Aug 18 00:44	8° $\text{R}$ 45'04		asc. node	11767 Aug 04 21:28	28° $\text{Q}$ 45'21	
evening rise	11766 Aug 23 22:22	20° $\text{R}$ 44'12			11767 Aug 05 12:45	0° $\text{R}$	
	11766 Aug 28 14:27	0° $\text{Q}$		evening rise	11767 Aug 07 21:06	4° $\text{R}$ 35'35	
evening max el	11766 Sep 10 06:13	19° $\text{Q}$ 12'33	19°45'46		11767 Aug 23 03:36	0° $\text{Q}$	
retrograde	11766 Sep 20 07:52	24° $\text{Q}$ 13'25		evening max el	11767 Aug 24 03:06	1° $\text{Q}$ 01'37	18°51'11
desc. node	11766 Sep 20 10:40	24° $\text{Q}$ 13'23		retrograde	11767 Sep 01 15:21	5° $\text{Q}$ 17'11	
evening set	11766 Sep 22 05:07	24° $\text{Q}$ 03'39		evening set	11767 Sep 03 12:53	5° $\text{Q}$ 05'17	
inferior conj	11766 Oct 01 01:53	20° $\text{Q}$ 01'16	-3°15'18	desc. node	11767 Sep 07 08:05	3° $\text{Q}$ 37'49	
minimum elong	11766 Sep 30 17:26	20° $\text{Q}$ 14'20	3°12'07	inferior conj	11767 Sep 11 17:51	0° $\text{Q}$ 45'53	-1°22'59
min. Earth dist.	11766 Oct 03 04:24	18° $\text{Q}$ 43'09	0.55225 AU	minimum elong	11767 Sep 11 14:21	0° $\text{Q}$ 52'10	1°21'40
morning rise	11766 Oct 09 04:05	15° $\text{Q}$ 42'59			11767 Sep 12 19:17	30° $\text{R}$ $\text{R}$	
direct	11766 Oct 14 01:03	14° $\text{Q}$ 50'44		min. Earth dist.	11767 Sep 14 18:42	28° $\text{R}$ 35'54	0.56695 AU
morning max el	11766 Oct 27 20:39	21° $\text{Q}$ 41'42	24°40'52	morning rise	11767 Sep 19 12:31	25° $\text{R}$ 50'22	
	11766 Nov 04 02:42	0° $\text{R}$		direct	11767 Sep 25 04:03	24° $\text{R}$ 33'47	
asc. node	11766 Nov 14 01:54	15° $\text{R}$ 46'44			11767 Oct 07 06:42	0° $\text{Q}$	
	11766 Nov 21 06:42	0° $\text{S}$		morning max el	11767 Oct 09 10:01	1° $\text{Q}$ 55'50	26°16'58
morning set	11766 Nov 22 12:46	2° $\text{S}$ 39'41			11767 Oct 29 07:07	0° $\text{R}$	

asc. node	11767 Oct 31 22:42	4°♍59'17			11768 Oct 03 21:45	0°♎	
morning set	11767 Nov 06 23:30	17°♍18'50		asc. node	11768 Oct 17 19:29	24°♎33'28	
	11767 Nov 12 18:17	0°♎			11768 Oct 20 11:10	0°♍	
				morning set	11768 Oct 21 07:27	1°♍46'43	
superior conj	11767 Nov 13 19:16	2°♎18'55	1°35'36				
minimum elong	11767 Nov 13 18:08	2°♎12'39	1°36'12	superior conj	11768 Oct 28 07:00	17°♍03'30	1°26'27
max. Earth dist.	11767 Nov 14 14:01	4°♎03'03	1.31622 AU	minimum elong	11768 Oct 28 05:08	16°♍53'03	1°26'46
evening rise	11767 Nov 20 17:56	17°♎25'56		max. Earth dist.	11768 Oct 27 22:53	16°♍18'15	1.31341 AU
	11767 Nov 27 00:30	0°♎			11768 Nov 03 03:38	0°♎	
desc. node	11767 Dec 04 05:25	12°♎46'16		evening rise	11768 Nov 04 00:52	1°♎54'07	
	11767 Dec 16 05:39	0°♎			11768 Nov 19 00:36	0°♎	
evening max el	11767 Dec 22 07:54	6°♎36'24	27°18'31	desc. node	11768 Nov 20 02:34	1°♎41'18	
retrograde	11768 Jan 05 05:47	13°♎51'53		evening max el	11768 Dec 03 08:51	18°♎19'24	26°30'47
evening set	11768 Jan 12 04:23	11°♎41'03		retrograde	11768 Dec 17 07:36	25°♎26'12	
min. Earth dist.	11768 Jan 15 22:25	8°♎53'40	0.61139 AU	evening set	11768 Dec 23 21:34	23°♎39'47	
inferior conj	11768 Jan 19 00:43	6°♎10'54	-2°51'26	min. Earth dist.	11768 Dec 27 22:40	21°♎03'38	0.58999 AU
minimum elong	11768 Jan 19 06:38	5°♎57'53	2°48'32	inferior conj	11768 Dec 31 02:28	18°♎38'54	-4°09'28
morning rise	11768 Jan 26 11:42	1°♎15'55		minimum elong	11768 Dec 31 10:36	18°♎23'21	4°06'14
asc. node	11768 Jan 27 22:01	0°♎59'00		morning rise	11769 Jan 08 02:27	14°♎05'07	
direct	11768 Jan 28 15:06	0°♎56'51		direct	11769 Jan 10 04:40	13°♎49'45	
morning max el	11768 Feb 04 16:57	4°♎30'26	17°54'00	asc. node	11769 Jan 13 19:14	14°♎37'56	
morning set	11768 Feb 20 07:52	28°♎57'34		morning max el	11769 Jan 18 03:41	17°♎45'06	18°20'42
	11768 Feb 20 21:36	0°♎			11769 Jan 26 22:03	0°♎	
desc. node	11768 Mar 01 05:49	16°♎42'23		morning set	11769 Feb 02 22:42	12°♎56'20	
superior conj	11768 Mar 01 22:09	17°♎53'15	-0°05'17	superior conj	11769 Feb 12 04:55	0°♎21'19	0°30'16
minimum elong	11768 Mar 01 21:43	17°♎51'21	0°04'58	minimum elong	11769 Feb 12 07:02	0°♎30'58	0°30'23
behind sun begin	11768 Mar 01 13:47	17°♎16'59			11769 Feb 12 00:16	0°♎	
behind sun end	11768 Mar 02 05:39	18°♎25'38		desc. node	11769 Feb 16 02:29	7°♎21'51	
	11768 Mar 09 02:30	0°♎		max. Earth dist.	11769 Feb 19 17:57	13°♎41'51	1.40875 AU
max. Earth dist.	11768 Mar 09 08:29	0°♎24'35	1.42888 AU	evening rise	11769 Feb 24 06:45	21°♎17'27	
evening rise	11768 Mar 15 15:32	10°♎31'18			11769 Mar 01 17:01	0°♎	
	11768 Mar 28 11:49	0°♎			11769 Mar 22 15:15	0°♎	
evening max el	11768 Apr 16 21:30	25°♎17'37	22°02'21	evening max el	11769 Mar 30 12:57	9°♎05'54	23°22'36
	11768 Apr 22 23:00	0°♎		retrograde	11769 Apr 10 03:04	15°♎20'36	
asc. node	11768 Apr 24 19:19	0°♎40'16		asc. node	11769 Apr 11 16:38	15°♎09'07	
retrograde	11768 Apr 26 07:45	0°♎51'16		evening set	11769 Apr 15 05:08	13°♎12'43	
	11768 Apr 29 10:34	30°♎		min. Earth dist.	11769 Apr 20 01:55	7°♎29'26	0.68677 AU
evening set	11768 Apr 30 22:22	28°♎57'29		inferior conj	11769 Apr 20 14:32	6°♎45'58	2°28'46
inferior conj	11768 May 06 05:19	22°♎37'52	2°54'37	minimum elong	11769 Apr 20 12:25	6°♎53'14	2°27'51
minimum elong	11768 May 06 03:38	22°♎43'44	2°53'45	morning rise	11769 Apr 25 19:39	0°♎39'56	
min. Earth dist.	11768 May 06 05:06	22°♎38'37	0.68732 AU		11769 Apr 26 17:53	30°♎	
morning rise	11768 May 11 08:43	16°♎25'15		direct	11769 Apr 30 02:30	28°♎57'21	
direct	11768 May 16 04:38	14°♎21'37			11769 May 03 17:26	0°♎	
morning max el	11768 May 25 17:32	19°♎58'04	22°16'37	morning max el	11769 May 08 10:24	3°♎43'39	20°54'23
desc. node	11768 May 28 07:10	22°♎43'01		desc. node	11769 May 15 04:01	11°♎36'23	
	11768 Jun 03 05:04	0°♎			11769 May 28 04:13	0°♎	
	11768 Jun 23 18:08	0°♎		morning set	11769 Jun 07 15:08	15°♎56'03	
morning set	11768 Jun 28 01:30	6°♎52'20		max. Earth dist.	11769 Jun 15 11:34	28°♎25'10	1.43098 AU
max. Earth dist.	11768 Jul 03 06:19	15°♎26'54	1.41055 AU		11769 Jun 16 10:53	0°♎	
superior conj	11768 Jul 11 01:24	28°♎56'23	-1°28'34	superior conj	11769 Jun 22 10:35	9°♎55'55	-1°56'14
minimum elong	11768 Jul 11 07:33	29°♎23'46	1°28'29	minimum elong	11769 Jun 22 17:07	10°♎23'29	1°56'30
	11768 Jul 11 15:39	0°♎			11769 Jul 03 23:19	0°♎	
evening rise	11768 Jul 21 09:43	17°♎57'12		evening rise	11769 Jul 04 07:50	0°♎37'53	
asc. node	11768 Jul 21 18:17	18°♎37'12		asc. node	11769 Jul 08 15:10	8°♎15'53	
	11768 Jul 27 23:40	0°♎		evening max el	11769 Jul 20 21:58	26°♎33'02	18°04'08
evening max el	11768 Aug 06 09:44	13°♎31'49	18°17'42	retrograde	11769 Jul 27 12:58	29°♎57'01	
retrograde	11768 Aug 13 17:46	17°♎14'05		evening set	11769 Jul 30 00:55	29°♎27'56	
evening set	11768 Aug 15 21:41	16°♎55'28		inferior conj	11769 Aug 05 17:26	24°♎28'04	1°32'58
inferior conj	11768 Aug 23 07:36	12°♎15'41	0°16'42	minimum elong	11769 Aug 05 19:51	24°♎22'11	1°31'41
minimum elong	11768 Aug 23 08:10	12°♎14'29	0°16'10	min. Earth dist.	11769 Aug 08 21:04	21°♎26'03	0.61002 AU
desc. node	11768 Aug 24 05:28	11°♎29'32		desc. node	11769 Aug 11 02:49	19°♎31'00	
min. Earth dist.	11768 Aug 26 15:47	9°♎28'40	0.58732 AU	morning rise	11769 Aug 12 12:06	18°♎30'58	
morning rise	11768 Aug 30 15:09	6°♎44'48		direct	11769 Aug 19 03:03	16°♎18'45	
direct	11768 Sep 05 21:34	4°♎59'21		morning max el	11769 Sep 02 09:05	24°♎16'27	27°56'07
morning max el	11768 Sep 20 06:03	12°♎43'44	27°25'02		11769 Sep 07 13:38	0°♎	

	11769 Sep 27 06:12	0°♄			11770 Aug 07 07:41	0°♄	
asc. node	11769 Oct 04 16:14	14°♄23'02		morning max el	11770 Aug 15 17:17	6°♄32'22	27°48'49
morning set	11769 Oct 05 10:45	15°♄58'29			11770 Sep 02 14:36	0°♄	
max. Earth dist.	11769 Oct 11 06:34	28°♄27'34	1.31565 AU	morning set	11770 Sep 19 07:06	29°♄47'29	
	11769 Oct 11 23:20	0°♄			11770 Sep 19 09:35	0°♄	
				asc. node	11770 Sep 21 12:56	4°♄22'04	
superior conj	11769 Oct 12 17:45	1°♄41'43	1°11'47	max. Earth dist.	11770 Sep 24 09:05	10°♄20'05	1.32305 AU
minimum elong	11769 Oct 12 15:31	1°♄29'21	1°11'48				
evening rise	11769 Oct 19 10:59	16°♄29'10		superior conj	11770 Sep 27 01:29	16°♄06'58	0°51'46
	11769 Oct 26 01:16	0°♄		minimum elong	11770 Sep 26 23:24	15°♄55'37	0°51'31
desc. node	11769 Nov 06 23:47	19°♄45'23			11770 Oct 03 10:18	0°♄	
evening max el	11769 Nov 15 01:44	29°♄11'43	25°12'07	evening rise	11770 Oct 03 22:20	1°♄04'40	
	11769 Nov 15 22:35	0°♄			11770 Oct 19 16:57	0°♄	
retrograde	11769 Nov 28 21:59	6°♄08'34		desc. node	11770 Oct 24 21:05	6°♄38'07	
evening set	11769 Dec 04 16:36	4°♄53'09		evening max el	11770 Oct 27 12:25	9°♄24'07	23°34'01
min. Earth dist.	11769 Dec 09 13:47	2°♄12'13	0.57016 AU	retrograde	11770 Nov 09 23:27	16°♄06'45	
inferior conj	11769 Dec 12 08:29	0°♄21'39	-5°15'37	evening set	11770 Nov 14 11:28	15°♄22'42	
minimum elong	11769 Dec 12 15:54	0°♄09'19	5°13'28	min. Earth dist.	11770 Nov 20 22:31	12°♄18'11	0.55467 AU
	11769 Dec 12 21:31	30°♄		inferior conj	11770 Nov 22 18:07	11°♄13'56	-5°49'51
morning rise	11769 Dec 20 17:28	26°♄09'55		minimum elong	11770 Nov 22 19:38	11°♄11'41	5°49'06
direct	11769 Dec 23 00:34	25°♄54'33		morning rise	11770 Dec 01 05:37	7°♄20'56	
asc. node	11769 Dec 31 16:24	29°♄50'49		direct	11770 Dec 04 01:03	7°♄01'34	
	11769 Dec 31 20:23	0°♄		morning max el	11770 Dec 14 17:41	12°♄06'22	20°19'59
morning max el	11770 Jan 01 05:08	0°♄20'41	19°08'49	asc. node	11770 Dec 18 13:29	16°♄22'03	
morning set	11770 Jan 17 22:59	27°♄20'10			11770 Dec 27 03:38	0°♄	
	11770 Jan 19 07:10	0°♄		morning set	11771 Jan 02 05:25	11°♄58'30	
superior conj	11770 Jan 26 05:33	13°♄38'57	0°58'27	superior conj	11771 Jan 09 19:25	27°♄32'37	1°18'54
minimum elong	11770 Jan 26 08:30	13°♄53'07	0°58'38	minimum elong	11771 Jan 09 22:02	27°♄45'50	1°19'20
max. Earth dist.	11770 Feb 02 00:38	26°♄19'20	1.38666 AU		11771 Jan 11 00:45	0°♄	
desc. node	11770 Feb 02 23:13	28°♄00'29		max. Earth dist.	11771 Jan 15 08:03	8°♄24'45	1.36495 AU
	11770 Feb 04 02:12	0°♄		evening rise	11771 Jan 19 03:25	15°♄31'02	
evening rise	11770 Feb 05 19:24	2°♄59'40		desc. node	11771 Jan 20 19:59	18°♄33'58	
	11770 Feb 22 21:02	0°♄			11771 Jan 27 12:13	0°♄	
evening max el	11770 Mar 13 02:44	22°♄56'48	24°42'02		11771 Feb 17 11:24	0°♄	
retrograde	11770 Mar 24 18:34	29°♄44'54		evening max el	11771 Feb 23 16:10	6°♄46'48	25°53'43
asc. node	11770 Mar 29 13:59	28°♄01'47		retrograde	11771 Mar 08 05:23	13°♄58'01	
evening set	11770 Mar 30 08:36	27°♄24'51		evening set	11771 Mar 14 07:10	11°♄29'00	
min. Earth dist.	11770 Apr 03 21:19	22°♄17'12	0.68187 AU	asc. node	11771 Mar 16 11:20	9°♄22'50	
inferior conj	11770 Apr 04 22:06	20°♄54'51	1°53'13	min. Earth dist.	11771 Mar 18 13:07	6°♄56'31	0.67271 AU
minimum elong	11770 Apr 04 19:59	21°♄01'52	1°52'21	inferior conj	11771 Mar 20 02:02	5°♄00'32	1°07'53
morning rise	11770 Apr 10 07:32	14°♄56'48		minimum elong	11771 Mar 20 00:28	5°♄05'28	1°07'19
direct	11770 Apr 14 01:57	13°♄35'26			11771 Mar 24 15:49	30°♄	
morning max el	11770 Apr 21 10:43	17°♄41'07	19°44'31	morning rise	11771 Mar 25 18:24	29°♄12'03	
	11770 May 01 06:38	0°♄		direct	11771 Mar 29 01:20	28°♄10'19	
desc. node	11770 May 02 00:47	1°♄04'38			11771 Apr 02 16:36	0°♄	
greatest brilliancy	11770 May 04 06:19	4°♄18'14	-0.6m	morning max el	11771 Apr 04 18:41	1°♄48'20	18°49'58
morning set	11770 May 17 15:11	24°♄27'51		desc. node	11771 Apr 18 21:30	20°♄58'28	
	11770 May 21 05:14	0°♄		greatest brilliancy	11771 Apr 19 13:01	21°♄58'00	-0.8m
max. Earth dist.	11770 May 29 00:03	12°♄11'50	1.44650 AU		11771 Apr 24 17:35	0°♄	
				morning set	11771 Apr 27 00:00	3°♄31'44	
superior conj	11770 Jun 02 19:37	19°♄53'39	-2°11'56	max. Earth dist.	11771 May 11 17:35	26°♄30'22	1.45542 AU
minimum elong	11770 Jun 02 22:17	20°♄04'22	2°12'38				
	11770 Jun 09 00:12	0°♄		superior conj	11771 May 13 08:40	29°♄03'31	-2°09'19
evening rise	11770 Jun 16 10:29	12°♄26'11		minimum elong	11771 May 13 03:51	28°♄44'36	2°09'47
asc. node	11770 Jun 25 12:06	27°♄35'48			11771 May 13 23:04	0°♄	
	11770 Jun 27 00:29	0°♄		evening rise	11771 May 28 13:35	23°♄14'35	
evening max el	11770 Jul 04 12:03	9°♄55'10	18°09'23		11771 Jun 01 18:05	0°♄	
retrograde	11770 Jul 10 20:41	13°♄15'44		asc. node	11771 Jun 12 09:07	16°♄30'25	
evening set	11770 Jul 13 16:44	12°♄33'32		evening max el	11771 Jun 18 00:50	23°♄30'23	18°32'45
inferior conj	11770 Jul 19 19:29	7°♄15'20	2°25'28	retrograde	11771 Jun 24 12:37	27°♄01'20	
minimum elong	11770 Jul 19 22:03	7°♄08'17	2°24'10	evening set	11771 Jun 27 16:51	26°♄04'21	
min. Earth dist.	11770 Jul 22 11:38	4°♄20'26	0.63220 AU	inferior conj	11771 Jul 03 09:43	20°♄29'51	2°57'32
morning rise	11770 Jul 26 01:38	1°♄02'09		minimum elong	11771 Jul 03 11:31	20°♄24'22	2°56'29
	11770 Jul 27 14:29	30°♄		min. Earth dist.	11771 Jul 05 11:34	17°♄59'37	0.65176 AU
desc. node	11770 Jul 29 00:08	29°♄17'23		morning rise	11771 Jul 09 05:12	14°♄08'58	
direct	11770 Aug 01 18:09	28°♄30'22		direct	11771 Jul 15 17:24	11°♄27'27	

desc. node	11771 Jul 15 21:21	11°☿27'33			11772 Jun 19 14:04	30°♁II	
morning max el	11771 Jul 29 04:05	19°☿22'39	27°07'39	morning rise	11772 Jun 21 19:58	27°II41'25	
	11771 Aug 07 04:55	0°♁		direct	11772 Jun 27 23:42	25°II00'25	
	11771 Aug 26 15:17	0°♁		desc. node	11772 Jul 01 18:31	25°II51'09	
morning set	11771 Sep 02 17:47	13°♁07'24			11772 Jul 07 22:07	0°☿	
max. Earth dist.	11771 Sep 07 03:02	21°♁49'49	1.33561 AU	morning max el	11772 Jul 10 14:54	2°☿33'54	26°00'30
asc. node	11771 Sep 08 09:38	24°♁26'38			11772 Jul 31 09:16	0°♁	
				morning set	11772 Aug 15 15:17	25°♁48'40	
superior conj	11771 Sep 11 04:08	0°♁13'59	0°26'41		11772 Aug 17 21:04	0°♁	
minimum elong	11771 Sep 11 02:49	0°♁07'02	0°26'21	max. Earth dist.	11772 Aug 19 10:19	2°♁57'50	1.35302 AU
	11771 Sep 11 01:29	0°♁					
evening rise	11771 Sep 18 09:02	15°♁35'48		superior conj	11772 Aug 24 23:05	13°♁55'33	-0°02'55
	11771 Sep 25 13:05	0°♁		minimum elong	11772 Aug 24 23:16	13°♁56'31	0°03'10
evening max el	11771 Oct 09 01:03	19°♁30'10	21°53'59	behind sun begin	11772 Aug 24 17:18	13°♁26'10	
desc. node	11771 Oct 11 18:24	21°♁54'07		behind sun end	11772 Aug 25 05:15	14°♁26'54	
retrograde	11771 Oct 21 14:15	25°♁44'37		asc. node	11772 Aug 25 06:21	14°♁32'29	
evening set	11771 Oct 24 15:40	25°♁23'36		evening rise	11772 Sep 01 17:02	29°♁56'26	
min. Earth dist.	11771 Nov 02 05:09	21°♁37'45	0.54643 AU		11772 Sep 01 17:44	0°♁	
inferior conj	11771 Nov 02 12:58	21°♁26'48	-5°31'11		11772 Sep 19 22:14	0°♁	
minimum elong	11771 Nov 02 06:06	21°♁36'26	5°29'38	evening max el	11772 Sep 20 00:42	0°♁06'09	20°26'59
morning rise	11771 Nov 10 21:48	17°♁39'35		desc. node	11772 Sep 27 15:45	5°♁04'31	
direct	11771 Nov 14 11:07	17°♁11'52		retrograde	11772 Oct 01 02:02	5°♁35'33	
morning max el	11771 Nov 26 16:26	23°♁00'20	21°52'40	evening set	11772 Oct 03 04:22	5°♁24'34	
	11771 Dec 02 17:42	0°♁		inferior conj	11772 Oct 12 05:43	1°♁28'19	-4°15'55
asc. node	11771 Dec 05 10:28	3°♁55'27		minimum elong	11772 Oct 11 19:45	1°♁42'50	4°12'38
morning set	11771 Dec 17 15:28	26°♁44'06		min. Earth dist.	11772 Oct 13 13:12	0°♁42'25	0.54739 AU
	11771 Dec 19 04:34	0°☿			11772 Oct 14 18:55	30°♁♁	
				morning rise	11772 Oct 20 10:35	27°♁26'25	
superior conj	11771 Dec 24 18:42	11°☿51'30	1°31'59	direct	11772 Oct 24 20:02	26°♁44'49	
minimum elong	11771 Dec 24 20:23	12°☿00'24	1°32'39		11772 Nov 03 05:03	0°♁	
max. Earth dist.	11771 Dec 28 20:36	20°☿16'38	1.34577 AU	morning max el	11772 Nov 07 05:20	3°♁15'39	23°39'05
evening rise	11772 Jan 02 03:24	28°☿42'52		asc. node	11772 Nov 21 07:23	22°♁16'39	
	11772 Jan 02 19:34	0°♁			11772 Nov 25 12:02	0°♁	
desc. node	11772 Jan 07 16:49	8°♁58'06		morning set	11772 Dec 01 03:10	11°♁31'22	
	11772 Jan 20 17:12	0°♁					
evening max el	11772 Feb 06 05:39	20°♁29'19	26°50'23	superior conj	11772 Dec 08 00:22	26°♁26'43	1°38'17
retrograde	11772 Feb 19 10:46	27°♁52'30		minimum elong	11772 Dec 08 00:55	26°♁29'42	1°39'03
evening set	11772 Feb 25 22:57	25°♁19'19			11772 Dec 09 15:59	0°☿	
min. Earth dist.	11772 Feb 29 23:13	21°♁20'49	0.65959 AU	max. Earth dist.	11772 Dec 10 16:56	2°☿13'03	1.33059 AU
asc. node	11772 Mar 02 08:40	19°♁43'43		evening rise	11772 Dec 15 15:47	12°☿26'25	
inferior conj	11772 Mar 03 00:11	18°♁58'15	0°12'34	desc. node	11772 Dec 24 13:44	29°☿07'49	
minimum elong	11772 Mar 02 23:50	18°♁59'17	0°12'39		11772 Dec 25 01:45	0°♁	
transit middle	11772 Mar 02 23:50	18°♁59'17	0°12'39		11773 Jan 14 23:47	0°♁	
transit begin	11772 Mar 02 22:01	19°♁04'35		evening max el	11773 Jan 18 18:33	3°♁55'00	27°24'50
transit end	11772 Mar 03 01:39	18°♁53'59		retrograde	11773 Feb 01 09:51	11°♁19'52	
morning rise	11772 Mar 09 01:59	13°♁21'11		evening set	11773 Feb 08 05:47	8°♁49'13	
direct	11772 Mar 11 22:45	12°♁36'07		min. Earth dist.	11773 Feb 12 01:40	5°♁22'17	0.64294 AU
morning max el	11772 Mar 18 08:34	15°♁59'17	18°11'54	inferior conj	11773 Feb 14 14:05	2°♁42'23	-0°52'33
	11772 Mar 28 17:53	0°♁		minimum elong	11773 Feb 14 15:42	2°♁38'04	0°51'27
desc. node	11772 Apr 04 18:09	11°♁10'43		asc. node	11773 Feb 17 05:58	0°♁01'26	
morning set	11772 Apr 06 10:33	13°♁53'24			11773 Feb 17 06:36	30°♁♁	
	11772 Apr 16 12:35	0°♁		morning rise	11773 Feb 21 03:35	27°♁19'06	
				direct	11773 Feb 23 15:49	26°♁47'03	
superior conj	11772 Apr 21 15:46	8°♁04'42	-1°46'40		11773 Mar 01 23:04	0°♁	
minimum elong	11772 Apr 21 06:26	7°♁28'09	1°46'17	morning max el	11773 Mar 02 01:45	0°♁06'31	17°50'53
max. Earth dist.	11772 Apr 23 13:09	11°♁02'20	1.45702 AU	morning set	11773 Mar 19 01:45	25°♁39'21	
	11772 May 05 17:16	0°II			11773 Mar 21 15:47	0°♁	
evening rise	11772 May 07 17:22	3°II07'06		desc. node	11773 Mar 22 14:48	1°♁36'21	
greatest brilliancy	11772 May 19 08:39	21°II05'00	-0.7m				
	11772 May 25 11:46	0°☿		superior conj	11773 Apr 01 10:55	17°♁44'58	-1°09'53
asc. node	11772 May 29 06:12	4°☿50'29		minimum elong	11773 Apr 01 03:33	17°♁15'18	1°09'05
evening max el	11772 May 31 09:52	7°☿11'56	19°13'20	max. Earth dist.	11773 Apr 06 08:23	25°♁32'45	1.45129 AU
retrograde	11772 Jun 07 09:12	11°☿05'46			11773 Apr 09 04:25	0°♁	
evening set	11772 Jun 10 22:02	9°☿53'02		evening rise	11773 Apr 17 06:29	12°♁30'44	
inferior conj	11772 Jun 16 08:33	4°☿03'52	3°12'58		11773 Apr 28 20:17	0°II	
minimum elong	11772 Jun 16 09:16	4°☿01'31	3°12'07	greatest brilliancy	11773 May 02 07:00	5°II03'27	-0.6m
min. Earth dist.	11772 Jun 17 19:36	2°☿10'12	0.66755 AU	evening max el	11773 May 14 13:41	20°II56'35	20°09'28

asc. node	11773 May 16 03:20	22° $\Pi$ 25'12		evening set	11774 May 10 14:44	8° $\Pi$ 05'40	
retrograde	11773 May 22 07:44	25° $\Pi$ 23'49		inferior conj	11774 May 15 21:09	1° $\Pi$ 51'50	3°04'57
evening set	11773 May 26 05:57	23° $\Pi$ 54'53		minimum elong	11774 May 15 19:53	1° $\Pi$ 56'17	3°04'09
inferior conj	11773 May 31 13:09	17° $\Pi$ 52'34	3°14'45	min. Earth dist.	11774 May 16 04:21	1° $\Pi$ 26'48	0.68568 AU
minimum elong	11773 May 31 12:47	17° $\Pi$ 53'47	3°13'59		11774 May 17 05:34	30° $\mathbb{R}$ 8	
min. Earth dist.	11773 Jun 01 09:54	16° $\Pi$ 42'02	0.67897 AU	morning rise	11774 May 21 00:48	25° $\mathbb{B}$ 36'14	
morning rise	11773 Jun 05 19:18	11° $\Pi$ 32'22		direct	11774 May 26 04:27	23° $\mathbb{B}$ 21'16	
direct	11773 Jun 11 11:45	9° $\Pi$ 01'01		morning max el	11774 Jun 05 10:55	29° $\mathbb{B}$ 27'10	23°07'23
desc. node	11773 Jun 18 15:36	12° $\Pi$ 01'26		desc. node	11774 Jun 05 12:36	29° $\mathbb{B}$ 31'25	
morning max el	11773 Jun 23 00:42	15° $\Pi$ 56'26	24°37'02		11774 Jun 05 23:46	0° $\Pi$	
	11773 Jul 04 14:59	0° $\mathfrak{C}$			11774 Jun 28 09:25	0° $\mathfrak{C}$	
	11773 Jul 24 07:52	0° $\Omega$		morning set	11774 Jul 10 00:32	18° $\mathfrak{C}$ 29'36	
morning set	11773 Jul 28 19:09	7° $\Omega$ 39'57		max. Earth dist.	11774 Jul 14 06:49	25° $\mathfrak{C}$ 42'50	1.39752 AU
max. Earth dist.	11773 Aug 01 09:17	14° $\Omega$ 04'22	1.37435 AU		11774 Jul 16 17:50	0° $\Omega$	
superior conj	11773 Aug 08 07:11	27° $\Omega$ 04'01	-0°35'48	superior conj	11774 Jul 22 00:35	9° $\Omega$ 30'33	-1°09'49
minimum elong	11773 Aug 08 09:34	27° $\Omega$ 15'35	0°35'50	minimum elong	11774 Jul 22 05:30	9° $\Omega$ 53'11	1°09'42
	11773 Aug 09 19:16	0° $\mathbb{P}$		asc. node	11774 Jul 29 23:48	24° $\Omega$ 32'53	
asc. node	11773 Aug 12 03:02	4° $\mathbb{P}$ 35'34		evening rise	11774 Jul 31 14:51	27° $\Omega$ 40'16	
evening rise	11773 Aug 16 19:56	14° $\mathbb{P}$ 00'16			11774 Aug 01 20:02	0° $\mathbb{P}$	
	11773 Aug 25 06:46	0° $\mathfrak{L}$		evening max el	11774 Aug 16 16:00	23° $\mathbb{P}$ 36'34	18°34'29
evening max el	11773 Sep 02 14:25	11° $\mathfrak{L}$ 28'39	19°20'02	retrograde	11774 Aug 24 14:41	27° $\mathbb{P}$ 36'05	
retrograde	11773 Sep 11 23:11	16° $\mathfrak{L}$ 08'40		evening set	11774 Aug 26 14:44	27° $\mathbb{P}$ 21'41	
evening set	11773 Sep 13 19:27	15° $\mathfrak{L}$ 58'35		desc. node	11774 Sep 01 10:34	24° $\mathbb{P}$ 24'39	
desc. node	11773 Sep 14 13:09	15° $\mathfrak{L}$ 49'09		inferior conj	11774 Sep 03 11:33	22° $\mathbb{P}$ 53'31	-0°38'12
inferior conj	11773 Sep 22 10:25	11° $\mathfrak{L}$ 50'09	-2°27'27	minimum elong	11774 Sep 03 10:02	22° $\mathbb{P}$ 56'25	0°37'46
minimum elong	11773 Sep 22 03:56	12° $\mathfrak{L}$ 00'46	2°24'55	min. Earth dist.	11774 Sep 06 17:11	20° $\mathbb{P}$ 25'43	0.57509 AU
min. Earth dist.	11773 Sep 25 00:32	10° $\mathfrak{L}$ 08'38	0.55760 AU	morning rise	11774 Sep 11 01:54	17° $\mathbb{P}$ 42'34	
morning rise	11773 Sep 30 09:52	7° $\mathfrak{L}$ 16'46		direct	11774 Sep 17 00:31	16° $\mathbb{P}$ 14'04	
direct	11773 Oct 05 15:19	6° $\mathfrak{L}$ 14'37		morning max el	11774 Oct 01 07:59	23° $\mathbb{P}$ 45'48	26°50'12
morning max el	11773 Oct 19 16:09	13° $\mathfrak{L}$ 20'01	25°24'14		11774 Oct 06 23:43	0° $\mathfrak{L}$	
	11773 Nov 01 16:47	0° $\mathbb{M}$			11774 Oct 25 17:39	0° $\mathbb{M}$	
asc. node	11773 Nov 08 04:15	11° $\mathbb{M}$ 13'24		asc. node	11774 Oct 26 01:03	0° $\mathbb{M}$ 36'20	
morning set	11773 Nov 15 14:43	26° $\mathbb{M}$ 14'47		morning set	11774 Oct 31 00:32	10° $\mathbb{M}$ 50'02	
	11773 Nov 17 08:22	0° $\mathfrak{X}$		superior conj	11774 Nov 06 21:28	25° $\mathbb{M}$ 56'12	1°32'25
superior conj	11773 Nov 22 09:57	11° $\mathfrak{X}$ 10'17	1°38'18	minimum elong	11774 Nov 06 19:59	25° $\mathbb{M}$ 47'56	1°32'54
minimum elong	11773 Nov 22 09:24	11° $\mathfrak{X}$ 07'10	1°39'00	max. Earth dist.	11774 Nov 07 04:46	26° $\mathbb{M}$ 36'53	1.31443 AU
max. Earth dist.	11773 Nov 23 20:34	14° $\mathfrak{X}$ 20'49	1.32008 AU		11774 Nov 08 17:17	0° $\mathfrak{X}$	
evening rise	11773 Nov 29 13:23	26° $\mathfrak{X}$ 32'42		evening rise	11774 Nov 13 17:35	10° $\mathfrak{X}$ 54'57	
	11773 Dec 01 05:55	0° $\mathfrak{Z}$			11774 Nov 23 11:18	0° $\mathfrak{Z}$	
desc. node	11773 Dec 11 10:43	18° $\mathfrak{Z}$ 55'59		desc. node	11774 Nov 28 07:49	8° $\mathfrak{Z}$ 13'58	
	11773 Dec 18 10:55	0° $\approx$		evening max el	11774 Dec 14 10:16	29° $\mathfrak{Z}$ 03'07	27°02'24
evening max el	11774 Jan 01 05:01	16° $\approx$ 50'36	27°30'24		11774 Dec 15 11:02	0° $\approx$	
retrograde	11774 Jan 15 01:29	24° $\approx$ 09'48		retrograde	11774 Dec 28 08:24	6° $\approx$ 14'02	
evening set	11774 Jan 22 00:50	21° $\approx$ 49'33		evening set	11775 Jan 04 04:40	4° $\approx$ 12'38	
min. Earth dist.	11774 Jan 25 18:33	18° $\approx$ 49'45	0.62350 AU	min. Earth dist.	11775 Jan 08 00:39	1° $\approx$ 31'47	0.60237 AU
inferior conj	11774 Jan 28 16:41	16° $\approx$ 04'16	-2°06'19		11775 Jan 09 21:25	30° $\mathbb{R}$ 3	
minimum elong	11774 Jan 28 20:57	15° $\approx$ 54'09	2°04'00	inferior conj	11775 Jan 11 04:33	28° $\mathfrak{Z}$ 54'54	-3°24'57
asc. node	11774 Feb 04 03:16	11° $\approx$ 13'17		minimum elong	11775 Jan 11 11:35	28° $\mathfrak{Z}$ 40'19	3°21'45
morning rise	11774 Feb 04 19:36	10° $\approx$ 57'43		morning rise	11775 Jan 18 21:18	24° $\mathfrak{Z}$ 08'27	
direct	11774 Feb 07 01:29	10° $\approx$ 34'53		direct	11775 Jan 20 23:47	23° $\mathfrak{Z}$ 51'15	
morning max el	11774 Feb 13 19:07	14° $\approx$ 00'37	17°47'30	asc. node	11775 Jan 22 00:32	23° $\mathfrak{Z}$ 55'32	
	11774 Feb 24 19:37	0° $\mathfrak{H}$		morning max el	11775 Jan 28 09:20	27° $\mathfrak{Z}$ 32'37	18°02'47
morning set	11774 Mar 01 16:16	8° $\mathfrak{H}$ 31'42			11775 Jan 30 14:37	0° $\approx$	
desc. node	11774 Mar 09 11:26	22° $\mathfrak{H}$ 10'17		morning set	11775 Feb 12 23:45	22° $\approx$ 10'57	
					11775 Feb 17 05:06	0° $\mathfrak{H}$	
superior conj	11774 Mar 13 04:56	28° $\mathfrak{H}$ 30'37	-0°28'19	superior conj	11775 Feb 22 23:17	10° $\mathfrak{H}$ 24'25	0°10'38
minimum elong	11774 Mar 13 02:10	28° $\mathfrak{H}$ 18'59	0°27'47	minimum elong	11775 Feb 23 00:10	10° $\mathfrak{H}$ 28'19	0°10'49
	11774 Mar 14 02:16	0° $\mathbb{Y}$		behind sun begin	11775 Feb 22 18:21	10° $\mathfrak{H}$ 02'32	
max. Earth dist.	11774 Mar 20 01:20	9° $\mathbb{Y}$ 47'01	1.43878 AU	behind sun end	11775 Feb 23 05:59	10° $\mathfrak{H}$ 54'03	
evening rise	11774 Mar 27 20:06	22° $\mathbb{Y}$ 04'26		desc. node	11775 Feb 24 08:04	12° $\mathfrak{H}$ 48'51	
	11774 Apr 02 00:26	0° $\mathfrak{B}$		max. Earth dist.	11775 Mar 02 14:04	23° $\mathfrak{H}$ 29'51	1.42082 AU
	11774 Apr 23 07:05	0° $\Pi$			11775 Mar 06 13:08	0° $\mathbb{Y}$	
evening max el	11774 Apr 27 11:54	4° $\Pi$ 42'41	21°18'28	evening rise	11775 Mar 07 23:47	2° $\mathbb{Y}$ 19'23	
asc. node	11774 May 03 00:33	9° $\Pi$ 00'46			11775 Mar 26 10:12	0° $\mathfrak{B}$	
retrograde	11774 May 06 06:16	9° $\Pi$ 50'40					

evening max el	11775 Apr 10 05:16	18°♄29'44	22°36'06	evening max el	11776 Mar 22 19:37	2°♄19'06	23°56'47
asc. node	11775 Apr 19 21:51	24°♄20'45		retrograde	11776 Apr 02 21:07	8°♄49'41	
retrograde	11775 Apr 20 03:10	24°♄20'59		asc. node	11776 Apr 05 19:10	8°♄10'19	
evening set	11775 Apr 24 22:42	22°♄20'46		evening set	11776 Apr 08 04:18	6°♄36'02	
inferior conj	11775 Apr 30 06:29	15°♄57'45	2°44'49	min. Earth dist.	11776 Apr 12 21:20	1°♄08'03	0.68522 AU
minimum elong	11775 Apr 30 04:35	16°♄04'24	2°43'55	inferior conj	11776 Apr 13 15:14	0°♄07'09	2°14'53
min. Earth dist.	11775 Apr 30 00:52	16°♄17'18	0.68771 AU	minimum elong	11776 Apr 13 13:04	0°♄14'32	2°13'58
morning rise	11775 May 05 10:20	9°♄48'04			11776 Apr 13 17:20	30°♄	
direct	11775 May 10 00:39	7°♄53'23		morning rise	11776 Apr 18 21:54	24°♄04'28	
morning max el	11775 May 19 00:35	13°♄07'13	21°40'23	direct	11776 Apr 22 23:15	22°♄31'16	
desc. node	11775 May 23 09:30	17°♄59'13		morning max el	11776 Apr 30 20:37	26°♄59'02	20°22'56
	11775 Jun 01 11:01	0°♄			11776 May 03 15:32	0°♄	
morning set	11775 Jun 20 04:04	28°♄09'54		desc. node	11776 May 09 06:19	7°♄09'16	
	11775 Jun 21 07:40	0°♄			11776 May 24 21:39	0°♄	
max. Earth dist.	11775 Jun 26 08:44	8°♄12'22	1.41974 AU	morning set	11776 May 29 09:46	6°♄54'31	
				max. Earth dist.	11776 Jun 07 17:07	21°♄32'56	1.43828 AU
superior conj	11775 Jul 03 22:41	21°♄04'02	-1°41'19		11776 Jun 12 22:02	0°♄	
minimum elong	11775 Jul 04 05:22	21°♄33'09	1°41'21				
	11775 Jul 08 23:50	0°♄		superior conj	11776 Jun 13 21:37	1°♄37'12	-2°04'47
evening rise	11775 Jul 14 21:54	10°♄46'05		minimum elong	11776 Jun 14 03:08	1°♄59'58	2°05'15
asc. node	11775 Jul 16 20:38	14°♄19'42		evening rise	11776 Jun 26 12:25	23°♄06'31	
	11775 Jul 26 00:40	0°♄			11776 Jun 30 11:33	0°♄	
evening max el	11775 Jul 31 01:25	6°♄20'31	18°09'31	asc. node	11776 Jul 02 17:33	3°♄51'32	
retrograde	11775 Aug 07 00:56	9°♄53'30		evening max el	11776 Jul 13 14:49	19°♄31'41	18°04'02
evening set	11775 Aug 09 08:09	9°♄30'50		retrograde	11776 Jul 20 02:04	22°♄52'47	
inferior conj	11775 Aug 16 10:14	4°♄42'01	0°52'07	evening set	11776 Jul 22 17:19	22°♄18'33	
minimum elong	11775 Aug 16 11:51	4°♄38'23	0°51'07	inferior conj	11776 Jul 29 03:31	17°♄10'43	1°57'58
desc. node	11775 Aug 19 07:58	2°♄06'16		minimum elong	11776 Jul 29 06:10	17°♄03'56	1°56'36
min. Earth dist.	11775 Aug 19 17:28	1°♄45'57	0.59683 AU	min. Earth dist.	11776 Aug 01 02:53	14°♄08'56	0.61966 AU
	11775 Aug 21 23:08	30°♄		morning rise	11776 Aug 04 16:40	11°♄05'14	
morning rise	11775 Aug 23 12:21	28°♄58'31		desc. node	11776 Aug 05 05:18	10°♄43'45	
direct	11775 Aug 29 23:02	27°♄01'26		direct	11776 Aug 11 08:58	8°♄43'25	
	11775 Sep 07 10:22	0°♄		morning max el	11776 Aug 25 13:00	16°♄45'05	27°57'30
morning max el	11775 Sep 13 07:17	4°♄52'26	27°43'13		11776 Sep 05 12:01	0°♄	
	11775 Oct 01 22:31	0°♄			11776 Sep 23 15:31	0°♄	
asc. node	11775 Oct 12 21:49	20°♄17'30		morning set	11776 Sep 28 07:21	9°♄14'05	
morning set	11775 Oct 15 06:44	25°♄11'22		asc. node	11776 Sep 28 18:32	10°♄11'36	
	11775 Oct 17 12:56	0°♄		max. Earth dist.	11776 Oct 03 19:29	20°♄53'08	1.31811 AU
max. Earth dist.	11775 Oct 21 13:40	8°♄50'48	1.31371 AU				
				superior conj	11776 Oct 05 18:39	25°♄11'08	1°03'56
superior conj	11775 Oct 22 08:58	10°♄38'05	1°20'54	minimum elong	11776 Oct 05 16:24	24°♄58'48	1°03'49
minimum elong	11775 Oct 22 06:53	10°♄26'29	1°21'05		11776 Oct 07 23:02	0°♄	
evening rise	11775 Oct 29 02:04	25°♄26'02		evening rise	11776 Oct 12 12:54	10°♄01'19	
	11775 Oct 31 05:48	0°♄			11776 Oct 22 15:14	0°♄	
desc. node	11775 Nov 15 05:00	26°♄49'12		desc. node	11776 Nov 01 02:14	14°♄25'30	
	11775 Nov 17 10:29	0°♄		evening max el	11776 Nov 06 20:58	20°♄54'32	24°31'46
evening max el	11775 Nov 26 07:36	10°♄23'06	26°00'34	retrograde	11776 Nov 20 14:56	27°♄47'19	
retrograde	11775 Dec 10 05:31	17°♄26'08		evening set	11776 Nov 25 21:31	26°♄45'41	
evening set	11775 Dec 16 12:57	15°♄51'58		min. Earth dist.	11776 Dec 01 08:25	23°♄56'51	0.56274 AU
min. Earth dist.	11775 Dec 20 20:24	13°♄16'20	0.58121 AU	inferior conj	11776 Dec 03 19:08	22°♄24'37	-5°35'30
inferior conj	11775 Dec 23 22:07	11°♄04'04	-4°39'58	minimum elong	11776 Dec 04 00:43	22°♄15'49	5°34'03
minimum elong	11775 Dec 24 06:28	10°♄49'03	4°37'02	morning rise	11776 Dec 12 06:03	18°♄21'54	
morning rise	11776 Jan 01 02:40	6°♄40'09		direct	11776 Dec 14 17:13	18°♄05'31	
direct	11776 Jan 03 06:11	6°♄25'13		morning max el	11776 Dec 24 12:58	22°♄47'36	19°36'24
asc. node	11776 Jan 08 21:44	8°♄15'40		asc. node	11776 Dec 25 18:52	24°♄03'41	
morning max el	11776 Jan 11 16:37	10°♄32'07	18°38'30		11776 Dec 30 09:58	0°♄	
	11776 Jan 24 11:26	0°♄		morning set	11777 Jan 10 22:17	20°♄52'39	
morning set	11776 Jan 27 19:04	6°♄21'55			11777 Jan 15 10:39	0°♄	
superior conj	11776 Feb 05 14:17	23°♄15'53	0°43'09	superior conj	11777 Jan 18 21:03	6°♄50'26	1°08'02
minimum elong	11776 Feb 05 16:56	23°♄28'14	0°43'15	minimum elong	11777 Jan 18 23:57	7°♄04'44	1°08'19
	11776 Feb 09 06:09	0°♄		max. Earth dist.	11777 Jan 25 04:00	18°♄50'36	1.37713 AU
desc. node	11776 Feb 11 04:45	3°♄28'43		desc. node	11777 Jan 28 01:28	24°♄05'44	
max. Earth dist.	11776 Feb 12 22:04	6°♄30'26	1.39943 AU	evening rise	11777 Jan 28 21:21	25°♄34'01	
evening rise	11776 Feb 17 00:07	13°♄29'42			11777 Jan 31 10:25	0°♄	
	11776 Feb 27 07:50	0°♄			11777 Feb 19 22:00	0°♄	
	11776 Mar 20 14:19	0°♄		evening max el	11777 Mar 05 09:01	16°♄10'14	25°13'55

retrograde	11777 Mar 17 10:55	23°♈10'20			11778 Jan 24 02:30	0°♈	
evening set	11777 Mar 23 05:54	20°♈46'02			11778 Feb 15 23:02	0°♈	
asc. node	11777 Mar 23 16:31	20°♈22'42		evening max el	11778 Feb 15 22:40	29°♈59'06	26°20'09
min. Earth dist.	11777 Mar 27 15:34	15°♈53'14	0.67844 AU	retrograde	11778 Feb 28 19:29	7°♈16'31	
inferior conj	11777 Mar 28 21:30	14°♈15'45	1°35'15	evening set	11778 Mar 07 01:48	4°♈45'23	
minimum elong	11777 Mar 28 19:33	14°♈22'07	1°34'28	asc. node	11778 Mar 10 13:51	1°♈13'04	
morning rise	11777 Apr 03 09:34	8°♈21'23		min. Earth dist.	11778 Mar 11 05:19	0°♈27'15	0.66760 AU
direct	11777 Apr 06 22:53	7°♈08'45			11778 Mar 11 14:21	30°♈	
morning max el	11777 Apr 14 00:17	11°♈01'30	19°19'17	inferior conj	11778 Mar 12 23:16	28°♈19'16	0°45'43
desc. node	11777 Apr 26 03:03	26°♈49'41		minimum elong	11778 Mar 12 22:08	28°♈22'45	0°45'21
greatest brilliancy	11777 Apr 26 19:17	27°♈49'46	-0.7m	morning rise	11778 Mar 18 19:19	22°♈35'03	
	11777 Apr 28 06:13	0°♈		direct	11778 Mar 21 21:47	21°♈40'42	
morning set	11777 May 08 10:37	15°♈31'49		morning max el	11778 Mar 28 10:55	25°♈10'59	18°31'39
	11777 May 17 18:28	0°♈			11778 Apr 01 14:44	0°♈	
max. Earth dist.	11777 May 21 07:27	5°♈33'15	1.45118 AU	desc. node	11778 Apr 12 23:44	16°♈52'27	
				morning set	11778 Apr 18 05:12	25°♈06'01	
superior conj	11777 May 24 21:06	11°♈11'53	-2°13'20		11778 Apr 21 07:52	0°♈	
minimum elong	11777 May 24 20:45	11°♈10'27	2°14'02				
	11777 Jun 05 12:03	0°♈		superior conj	11778 May 04 05:27	20°♈12'34	-2°01'58
evening rise	11777 Jun 08 05:20	4°♈29'35		minimum elong	11778 May 03 21:56	19°♈43'11	2°02'05
asc. node	11777 Jun 19 14:30	23°♈01'50		max. Earth dist.	11778 May 04 02:09	19°♈59'41	1.45712 AU
	11777 Jun 24 12:48	0°♈			11778 May 10 11:35	0°♈	
evening max el	11777 Jun 27 04:42	3°♈00'37	18°17'11	evening rise	11778 May 19 22:00	14°♈52'29	
retrograde	11777 Jul 03 13:37	6°♈23'50		greatest brilliancy	11778 May 28 13:59	28°♈34'26	-0.8m
evening set	11777 Jul 06 13:06	5°♈35'37			11778 May 29 11:56	0°♈	
inferior conj	11777 Jul 12 11:13	0°♈10'35	2°41'18	asc. node	11778 Jun 06 11:30	11°♈43'07	
minimum elong	11777 Jul 12 13:32	0°♈03'56	2°40'06	evening max el	11778 Jun 10 16:13	16°♈39'42	18°48'00
	11777 Jul 12 14:54	30°♈		retrograde	11778 Jun 17 07:46	20°♈18'29	
min. Earth dist.	11777 Jul 14 21:36	27°♈24'04	0.64098 AU	evening set	11778 Jun 20 15:41	19°♈14'46	
morning rise	11777 Jul 18 12:33	23°♈53'15		inferior conj	11778 Jun 26 05:28	13°♈33'57	3°05'53
desc. node	11777 Jul 23 02:34	21°♈30'15		minimum elong	11778 Jun 26 06:50	13°♈29'40	3°04'56
direct	11777 Jul 25 04:01	21°♈15'41		min. Earth dist.	11778 Jun 28 01:01	11°♈18'17	0.65909 AU
morning max el	11777 Aug 07 22:30	29°♈16'48	27°34'53	morning rise	11778 Jul 01 21:13	7°♈12'07	
	11777 Aug 08 15:24	0°♈		direct	11778 Jul 08 06:24	4°♈29'34	
	11777 Aug 30 09:59	0°♈		desc. node	11778 Jul 09 23:47	4°♈40'04	
morning set	11777 Sep 11 23:57	22°♈51'57		morning max el	11778 Jul 21 09:16	12°♈16'38	26°41'36
asc. node	11777 Sep 15 15:14	0°♈13'50			11778 Aug 04 14:05	0°♈	
	11777 Sep 15 12:33	0°♈			11778 Aug 23 00:49	0°♈	
max. Earth dist.	11777 Sep 16 18:26	2°♈35'22	1.32772 AU	morning set	11778 Aug 26 05:27	5°♈56'25	
				max. Earth dist.	11778 Aug 30 07:49	13°♈54'35	1.34249 AU
superior conj	11777 Sep 20 00:31	9°♈29'55	0°41'43	asc. node	11778 Sep 02 11:54	20°♈19'24	
minimum elong	11777 Sep 19 22:41	9°♈20'01	0°41'25				
evening rise	11777 Sep 27 00:12	24°♈35'50		superior conj	11778 Sep 04 00:14	23°♈27'14	0°14'38
	11777 Sep 29 13:48	0°♈		minimum elong	11778 Sep 03 23:28	23°♈23'14	0°14'19
	11777 Oct 18 07:22	0°♈		behind sun begin	11778 Sep 03 20:49	23°♈09'27	
desc. node	11777 Oct 18 23:32	0°♈41'06		behind sun end	11778 Sep 04 02:07	23°♈37'02	
evening max el	11777 Oct 19 07:29	1°♈00'39	22°50'48		11778 Sep 07 03:04	0°♈	
retrograde	11777 Nov 01 11:18	7°♈33'08		evening rise	11778 Sep 11 10:00	9°♈03'28	
evening set	11777 Nov 05 07:58	7°♈00'40			11778 Sep 22 09:58	0°♈	
min. Earth dist.	11777 Nov 12 16:10	3°♈40'27	0.55007 AU	evening max el	11778 Oct 01 00:03	11°♈16'14	21°14'49
inferior conj	11777 Nov 13 21:27	2°♈58'37	-5°49'20	desc. node	11778 Oct 05 20:53	15°♈07'34	
minimum elong	11777 Nov 13 19:15	3°♈01'45	5°48'34	retrograde	11778 Oct 12 22:54	17°♈12'29	
	11777 Nov 19 17:21	30°♈		evening set	11778 Oct 15 12:40	16°♈57'06	
morning rise	11777 Nov 22 08:05	29°♈09'48		inferior conj	11778 Oct 24 13:33	13°♈02'22	-5°05'17
direct	11777 Nov 25 10:38	28°♈47'24		minimum elong	11778 Oct 24 04:23	13°♈15'16	5°02'51
	11777 Nov 30 20:16	0°♈		min. Earth dist.	11778 Oct 24 22:49	12°♈49'21	0.54569 AU
morning max el	11777 Dec 06 19:31	4°♈11'13	20°57'04	morning rise	11778 Nov 01 20:45	9°♈11'48	
asc. node	11777 Dec 12 15:54	11°♈03'44		direct	11778 Nov 05 18:53	8°♈38'44	
	11777 Dec 23 12:58	0°♈		morning max el	11778 Nov 18 13:05	14°♈45'21	22°37'00
morning set	11777 Dec 26 06:31	5°♈35'07		asc. node	11778 Nov 29 12:52	28°♈59'09	
					11778 Nov 30 03:36	0°♈	
superior conj	11778 Jan 02 15:19	20°♈56'12	1°25'18	morning set	11778 Dec 10 17:30	20°♈22'04	
minimum elong	11778 Jan 02 17:36	21°♈07'53	1°25'51		11778 Dec 15 05:24	0°♈	
	11778 Jan 07 03:19	0°♈					
max. Earth dist.	11778 Jan 07 13:03	0°♈47'45	1.35636 AU	superior conj	11778 Dec 17 17:37	5°♈22'38	1°35'28
evening rise	11778 Jan 11 12:39	8°♈24'26		minimum elong	11778 Dec 17 18:50	5°♈29'07	1°36'11
desc. node	11778 Jan 14 22:16	14°♈36'14		max. Earth dist.	11778 Dec 21 05:04	12°♈41'03	1.33881 AU



evening rise	11778 Dec 25 18:18	21° $\text{Z}$ 50'37		superior conj	11779 Dec 02 01:13	20° $\text{Z}$ 02'03	1°39'02
	11778 Dec 30 01:35	0° $\approx$		minimum elong	11779 Dec 02 01:17	20° $\text{Z}$ 02'24	1°39'47
desc. node	11779 Jan 01 19:07	4° $\approx$ 54'54		max. Earth dist.	11779 Dec 04 04:51	24° $\text{Z}$ 42'29	1.32554 AU
	11779 Jan 17 21:48	0° $\text{X}$			11779 Dec 06 16:24	0° $\text{Z}$	
evening max el	11779 Jan 29 12:14	13° $\text{X}$ 36'14	27°08'12	evening rise	11779 Dec 09 10:56	5° $\text{Z}$ 44'17	
retrograde	11779 Feb 11 22:03	21° $\text{X}$ 00'19		desc. node	11779 Dec 19 16:04	24° $\text{Z}$ 56'12	
evening set	11779 Feb 18 14:01	18° $\text{X}$ 27'30			11779 Dec 22 16:23	0° $\approx$	
min. Earth dist.	11779 Feb 22 12:21	14° $\text{X}$ 42'51	0.65294 AU	evening max el	11780 Jan 12 00:13	26° $\approx$ 49'48	27°31'00
inferior conj	11779 Feb 24 18:14	12° $\text{X}$ 11'55	-0°13'51		11780 Jan 15 16:25	0° $\text{X}$	
minimum elong	11779 Feb 24 18:37	12° $\text{X}$ 10'49	0°13'23	retrograde	11780 Jan 25 17:56	4° $\text{X}$ 12'52	
transit middle	11779 Feb 24 18:37	12° $\text{X}$ 10'49	0°13'23	evening set	11780 Feb 01 16:11	1° $\text{X}$ 45'17	
transit begin	11779 Feb 24 16:58	12° $\text{X}$ 15'27			11780 Feb 03 20:40	30° $\text{R}$ $\approx$	
transit end	11779 Feb 24 20:16	12° $\text{X}$ 06'11		min. Earth dist.	11780 Feb 05 10:42	28° $\approx$ 31'00	0.63496 AU
asc. node	11779 Feb 25 11:11	11° $\text{X}$ 24'38		inferior conj	11780 Feb 08 03:40	25° $\approx$ 47'01	-1°22'58
morning rise	11779 Mar 03 00:43	6° $\text{X}$ 40'18		minimum elong	11780 Feb 08 06:21	25° $\approx$ 40'13	1°21'21
direct	11779 Mar 05 17:46	6° $\text{X}$ 01'04		asc. node	11780 Feb 12 08:32	21° $\approx$ 58'30	
morning max el	11779 Mar 12 02:31	9° $\text{X}$ 21'03	18°00'54	morning rise	11780 Feb 14 22:45	20° $\approx$ 30'45	
	11779 Mar 26 11:09	0° $\text{Y}$		direct	11780 Feb 17 08:02	20° $\approx$ 03'04	
morning set	11779 Mar 30 04:21	6° $\text{Y}$ 05'27		morning max el	11780 Feb 23 20:13	23° $\approx$ 23'44	17°47'21
desc. node	11779 Mar 30 20:24	7° $\text{Y}$ 11'14			11780 Feb 29 03:05	0° $\text{X}$	
				morning set	11780 Mar 11 06:11	18° $\text{X}$ 21'38	
superior conj	11779 Apr 13 15:41	29° $\text{Y}$ 25'20	-1°32'15	desc. node	11780 Mar 16 17:02	27° $\text{X}$ 40'46	
minimum elong	11779 Apr 13 06:32	28° $\text{Y}$ 49'10	1°31'35		11780 Mar 18 02:01	0° $\text{Y}$	
	11779 Apr 14 00:28	0° $\text{Z}$		superior conj	11780 Mar 23 19:50	9° $\text{Y}$ 31'41	-0°52'18
max. Earth dist.	11779 Apr 16 22:33	4° $\text{Z}$ 35'38	1.45551 AU	minimum elong	11780 Mar 23 14:22	9° $\text{Y}$ 09'21	0°51'35
evening rise	11779 Apr 29 18:06	24° $\text{Z}$ 29'26		max. Earth dist.	11780 Mar 29 17:12	19° $\text{Y}$ 01'30	1.44665 AU
	11779 May 03 08:04	0° $\text{II}$			11780 Apr 05 17:09	0° $\text{Z}$	
greatest brilliancy	11779 May 13 06:01	15° $\text{II}$ 01'06	-0.7m	evening rise	11780 Apr 08 05:25	3° $\text{Z}$ 52'12	
asc. node	11779 May 24 08:36	29° $\text{II}$ 46'04			11780 Apr 25 19:33	0° $\text{II}$	
	11779 May 24 13:55	0° $\text{S}$		evening max el	11780 May 07 00:32	14° $\text{II}$ 08'49	20°37'25
evening max el	11779 May 24 23:13	0° $\text{S}$ 23'46	19°35'22	asc. node	11780 May 10 05:48	16° $\text{II}$ 57'47	
retrograde	11779 Jun 01 05:32	4° $\text{S}$ 30'24		retrograde	11780 May 15 04:27	18° $\text{II}$ 53'13	
evening set	11779 Jun 04 22:21	3° $\text{S}$ 10'35		evening set	11780 May 19 06:53	17° $\text{II}$ 17'18	
	11779 Jun 08 03:47	30° $\text{R}$ $\text{II}$		inferior conj	11780 May 24 13:26	11° $\text{II}$ 09'34	3°11'55
inferior conj	11779 Jun 10 07:05	27° $\text{II}$ 15'28	3°15'13	minimum elong	11780 May 24 12:40	11° $\text{II}$ 12'15	3°11'09
minimum elong	11779 Jun 10 07:21	27° $\text{II}$ 14'38	3°14'26	min. Earth dist.	11780 May 25 04:15	10° $\text{II}$ 18'31	0.68234 AU
min. Earth dist.	11779 Jun 11 11:52	25° $\text{II}$ 39'58	0.67300 AU	morning rise	11780 May 29 18:11	4° $\text{II}$ 51'00	
morning rise	11779 Jun 15 15:57	20° $\text{II}$ 53'46		direct	11780 Jun 04 05:10	2° $\text{II}$ 26'10	
direct	11779 Jun 21 15:06	18° $\text{II}$ 16'14		desc. node	11780 Jun 12 18:00	6° $\text{II}$ 40'49	
desc. node	11779 Jun 26 20:56	19° $\text{II}$ 53'21		morning max el	11780 Jun 15 05:45	9° $\text{II}$ 01'59	23°59'11
morning max el	11779 Jul 03 19:48	25° $\text{II}$ 34'41	25°26'27		11780 Jul 01 17:53	0° $\text{S}$	
	11779 Jul 07 20:40	0° $\text{S}$		morning set	11780 Jul 20 15:01	29° $\text{S}$ 45'34	
	11779 Jul 29 02:21	0° $\text{O}$			11780 Jul 20 18:23	0° $\text{O}$	
morning set	11779 Aug 08 20:03	18° $\text{O}$ 18'23		max. Earth dist.	11780 Jul 24 09:08	6° $\text{O}$ 18'35	1.38416 AU
max. Earth dist.	11779 Aug 12 11:33	25° $\text{O}$ 01'27	1.36179 AU				
	11779 Aug 15 02:14	0° $\text{P}$		superior conj	11780 Jul 31 17:23	19° $\text{O}$ 48'06	-0°50'15
superior conj	11779 Aug 18 15:02	6° $\text{P}$ 56'19	-0°16'33	minimum elong	11780 Jul 31 20:51	20° $\text{O}$ 04'32	0°50'13
minimum elong	11779 Aug 18 16:04	7° $\text{P}$ 01'30	0°16'43		11780 Aug 05 23:59	0° $\text{P}$	
asc. node	11779 Aug 20 08:36	10° $\text{P}$ 24'56		asc. node	11780 Aug 06 05:20	0° $\text{P}$ 26'12	
evening rise	11779 Aug 26 16:13	23° $\text{P}$ 18'39		evening rise	11780 Aug 09 16:09	7° $\text{P}$ 13'43	
	11779 Aug 30 00:06	0° $\text{Q}$			11780 Aug 22 16:48	0° $\text{Q}$	
evening max el	11779 Sep 13 05:35	22° $\text{Q}$ 10'57	19°55'45	evening max el	11780 Aug 26 00:43	3° $\text{Q}$ 53'25	18°57'58
desc. node	11779 Sep 22 18:16	27° $\text{Q}$ 17'36		retrograde	11780 Sep 03 18:06	8° $\text{Q}$ 14'59	
retrograde	11779 Sep 23 13:27	27° $\text{Q}$ 19'23		evening set	11780 Sep 05 14:59	8° $\text{Q}$ 03'45	
evening set	11779 Sep 25 11:29	27° $\text{Q}$ 09'32		desc. node	11780 Sep 08 15:41	7° $\text{Q}$ 02'14	
inferior conj	11779 Oct 04 09:50	23° $\text{Q}$ 08'57	-3°31'53	inferior conj	11780 Sep 13 22:43	3° $\text{Q}$ 47'27	-1°39'40
minimum elong	11779 Oct 04 00:49	23° $\text{Q}$ 22'39	3°28'35	minimum elong	11780 Sep 13 18:27	3° $\text{Q}$ 54'55	1°38'00
min. Earth dist.	11779 Oct 06 07:44	21° $\text{Q}$ 59'11	0.55072 AU	min. Earth dist.	11780 Sep 16 21:21	1° $\text{Q}$ 44'19	0.56431 AU
morning rise	11779 Oct 12 12:47	18° $\text{Q}$ 55'23			11780 Sep 19 16:19	30° $\text{R}$ $\text{P}$	
direct	11779 Oct 17 06:44	18° $\text{Q}$ 06'11		morning rise	11780 Sep 21 18:43	28° $\text{P}$ 57'35	
morning max el	11779 Oct 31 00:09	24° $\text{Q}$ 52'09	24°25'07	direct	11780 Sep 27 07:44	27° $\text{P}$ 44'50	
	11779 Nov 04 18:14	0° $\text{R}$			11780 Oct 04 23:31	0° $\text{Q}$	
asc. node	11779 Nov 16 09:46	17° $\text{R}$ 36'45		morning max el	11780 Oct 11 12:44	5° $\text{Q}$ 03'10	26°04'09
	11779 Nov 22 18:47	0° $\text{Z}$			11780 Oct 29 14:44	0° $\text{R}$	
morning set	11779 Nov 25 05:21	5° $\text{Z}$ 08'22		asc. node	11780 Nov 02 06:37	6° $\text{R}$ 45'41	
				morning set	11780 Nov 08 16:24	19° $\text{R}$ 49'12	

	11780 Nov 13 08:05	0°♊		morning max el	11781 Sep 23 07:34	15°♏44'43	27°17'12
					11781 Oct 04 22:21	0°♊	
superior conj	11780 Nov 15 11:54	4°♊47'45	1°36'30	asc. node	11781 Oct 20 03:23	26°♊17'09	
minimum elong	11780 Nov 15 10:55	4°♊42'17	1°37'08		11781 Oct 21 23:18	0°♏	
max. Earth dist.	11780 Nov 16 10:40	6°♊53'55	1.31701 AU	morning set	11781 Oct 24 00:52	4°♏19'08	
evening rise	11780 Nov 22 11:39	19°♊58'14					
	11780 Nov 27 10:57	0°♊		superior conj	11781 Oct 30 23:38	19°♏32'58	1°28'12
desc. node	11780 Dec 05 13:06	14°♊32'56		minimum elong	11781 Oct 30 21:51	19°♏23'01	1°28'35
	11780 Dec 15 23:27	0°♏		max. Earth dist.	11781 Oct 30 19:27	19°♏09'37	1.31348 AU
evening max el	11780 Dec 24 08:37	9°♏28'09	27°22'45		11781 Nov 04 16:49	0°♊	
retrograde	11781 Jan 07 06:22	16°♏44'59		evening rise	11781 Nov 06 17:56	4°♊25'13	
evening set	11781 Jan 14 05:20	14°♏31'26			11781 Nov 20 04:40	0°♊	
min. Earth dist.	11781 Jan 17 23:04	11°♏41'08	0.61454 AU	desc. node	11781 Nov 22 10:13	3°♊34'31	
inferior conj	11781 Jan 21 00:28	8°♏57'03	-2°39'29	evening max el	11781 Dec 06 10:50	21°♊19'29	26°40'09
minimum elong	11781 Jan 21 05:58	8°♏44'44	2°36'42	retrograde	11781 Dec 20 09:35	28°♊27'16	
morning rise	11781 Jan 28 09:23	3°♏59'01		evening set	11781 Dec 27 01:25	26°♊36'50	
asc. node	11781 Jan 29 05:50	3°♏46'30		min. Earth dist.	11781 Dec 31 00:54	23°♊59'53	0.59316 AU
direct	11781 Jan 30 13:15	3°♏39'07		inferior conj	11782 Jan 03 04:59	21°♊31'32	-3°58'00
morning max el	11781 Feb 06 12:47	7°♏10'29	17°51'41	minimum elong	11782 Jan 03 12:53	21°♊16'04	3°54'45
	11781 Feb 21 07:19	0°♏		morning rise	11782 Jan 11 03:11	16°♊54'17	
morning set	11781 Feb 22 04:40	1°♏36'16		direct	11782 Jan 13 05:16	16°♊38'34	
desc. node	11781 Mar 03 13:39	18°♏17'20		asc. node	11782 Jan 16 03:06	17°♊10'38	
				morning max el	11782 Jan 21 00:32	20°♊30'06	18°15'20
superior conj	11781 Mar 05 00:30	20°♏47'44	-0°11'12		11782 Jan 28 03:18	0°♏	
minimum elong	11781 Mar 04 23:30	20°♏43'25	0°10'51	morning set	11782 Feb 05 17:44	15°♏30'38	
behind sun begin	11781 Mar 04 17:14	20°♏16'28			11782 Feb 13 11:07	0°♏	
behind sun end	11781 Mar 05 05:46	21°♏10'20					
	11781 Mar 10 11:36	0°♏		superior conj	11782 Feb 15 04:10	3°♏07'19	0°25'18
max. Earth dist.	11781 Mar 12 07:58	3°♏02'17	1.43160 AU	minimum elong	11782 Feb 15 06:01	3°♏15'42	0°25'26
evening rise	11781 Mar 18 23:41	13°♏40'35		desc. node	11782 Feb 18 10:17	8°♏56'40	
	11781 Mar 29 17:16	0°♏		max. Earth dist.	11782 Feb 22 18:19	16°♏26'46	1.41200 AU
evening max el	11781 Apr 19 20:26	27°♏55'07	21°50'45	evening rise	11782 Feb 27 11:48	24°♏18'41	
	11781 Apr 22 01:57	0°♏			11782 Mar 03 00:47	0°♏	
asc. node	11781 Apr 27 03:04	3°♏03'28			11782 Mar 23 14:30	0°♏	
retrograde	11781 Apr 29 02:34	3°♏22'08		evening max el	11782 Apr 02 12:22	11°♏43'20	23°10'31
evening set	11781 May 03 15:32	1°♏30'42		retrograde	11782 Apr 12 22:16	17°♏51'56	
	11781 May 05 05:10	30°♏♌		asc. node	11782 Apr 14 00:24	17°♏46'21	
inferior conj	11781 May 08 22:16	25°♏12'32	2°57'40	evening set	11782 Apr 17 22:38	15°♏45'59	
minimum elong	11781 May 08 20:41	25°♏18'03	2°56'49	inferior conj	11782 Apr 23 07:35	9°♏20'13	2°33'20
min. Earth dist.	11781 May 08 23:59	25°♏06'32	0.68706 AU	minimum elong	11782 Apr 23 05:30	9°♏27'22	2°32'24
morning rise	11781 May 14 01:39	18°♏59'01		min. Earth dist.	11782 Apr 22 20:47	9°♏57'30	0.68720 AU
direct	11781 May 18 23:35	16°♏52'16		morning rise	11782 Apr 28 12:16	3°♏13'13	
morning max el	11781 May 28 17:00	22°♏36'26	22°29'33	direct	11782 May 02 21:05	1°♏27'23	
desc. node	11781 May 30 14:58	24°♏37'43		morning max el	11782 May 11 08:53	6°♏20'26	21°05'55
	11781 Jun 04 03:32	0°♏		desc. node	11782 May 17 11:49	13°♏24'50	
	11781 Jun 25 01:29	0°♏			11782 May 29 09:29	0°♏	
morning set	11781 Jul 01 09:36	10°♏06'18		morning set	11782 Jun 11 02:35	19°♏18'58	
max. Earth dist.	11781 Jul 06 07:24	18°♏15'11	1.40725 AU		11782 Jun 17 19:24	0°♏	
	11781 Jul 13 01:46	0°♏		max. Earth dist.	11782 Jun 18 11:52	1°♏06'56	1.42821 AU
superior conj	11781 Jul 14 03:08	1°♏53'28	-1°23'46	superior conj	11782 Jun 25 15:48	13°♏02'31	-1°52'39
minimum elong	11781 Jul 14 09:00	2°♏19'50	1°23'41	minimum elong	11782 Jun 25 22:30	13°♏31'01	1°52'50
evening rise	11781 Jul 24 06:32	20°♏40'25			11782 Jul 05 08:35	0°♏	
asc. node	11781 Jul 24 02:07	20°♏19'35		evening rise	11782 Jul 07 07:09	3°♏28'25	
	11781 Jul 29 07:01	0°♏		asc. node	11782 Jul 10 22:58	10°♏00'53	
evening max el	11781 Aug 09 06:13	16°♏18'27	18°21'25	evening max el	11782 Jul 23 17:53	29°♏16'04	18°04'54
retrograde	11781 Aug 16 17:37	20°♏04'32			11782 Jul 24 12:37	0°♏	
evening set	11781 Aug 18 20:30	19°♏47'07		retrograde	11782 Jul 30 10:40	2°♏41'51	
inferior conj	11781 Aug 26 09:13	15°♏10'26	0°02'59	evening set	11782 Aug 01 21:25	2°♏14'29	
minimum elong	11781 Aug 26 09:19	15°♏10'14	0°02'41		11782 Aug 05 15:12	30°♏♌	
transit middle	11781 Aug 26 09:19	15°♏10'14	0°02'41	inferior conj	11782 Aug 08 16:18	27°♏17'19	1°23'00
transit begin	11781 Aug 26 05:51	15°♏17'20		minimum elong	11782 Aug 08 18:35	27°♏11'55	1°21'44
transit end	11781 Aug 26 12:47	15°♏03'08		min. Earth dist.	11782 Aug 11 21:04	24°♏16'16	0.60662 AU
desc. node	11781 Aug 26 13:06	15°♏02'27		desc. node	11782 Aug 13 10:29	22°♏55'50	
min. Earth dist.	11781 Aug 29 17:13	12°♏27'41	0.58406 AU	morning rise	11782 Aug 15 12:55	21°♏23'31	
morning rise	11781 Sep 02 18:36	9°♏44'32		direct	11782 Aug 22 03:00	19°♏15'06	
direct	11781 Sep 08 23:18	8°♏03'22		morning max el	11782 Sep 05 09:39	27°♏10'58	27°54'02

	11782 Sep 08 02:01	0°♎	direct	11783 Aug 04 16:40	1°♏19'09	
	11782 Sep 28 14:43	0°♏	morning max el	11783 Aug 18 17:20	9°♏21'24	27°52'14
asc. node	11782 Oct 07 00:06	16°♏04'45		11783 Sep 03 18:26	0°♎	
morning set	11782 Oct 08 04:58	18°♏33'39		11783 Sep 20 21:15	0°♏	
	11782 Oct 13 12:55	0°♎	morning set	11783 Sep 22 02:29	2°♏26'30	
max. Earth dist.	11782 Oct 14 03:35	1°♎20'46	1.31501 AU	asc. node	11783 Sep 23 20:46	6°♏02'38
				max. Earth dist.	11783 Sep 27 07:09	13°♏16'37
						1.32163 AU
superior conj	11782 Oct 15 10:36	4°♎12'24	1°14'22			
minimum elong	11782 Oct 15 08:24	4°♎00'08	1°14'25	superior conj	11783 Sep 29 18:54	18°♏39'49
evening rise	11782 Oct 22 03:41	18°♎59'36		minimum elong	11783 Sep 29 16:45	18°♏28'06
	11782 Oct 27 11:12	0°♎			11783 Oct 04 23:09	0°♎
desc. node	11782 Nov 09 07:25	21°♎47'18		evening rise	11783 Oct 06 14:56	3°♎35'14
	11782 Nov 15 22:05	0°♎			11783 Oct 20 15:59	0°♎
evening max el	11782 Nov 18 04:49	2°♎18'34	25°25'24	desc. node	11783 Oct 27 04:41	8°♎52'14
retrograde	11782 Dec 02 01:29	9°♎16'50		evening max el	11783 Oct 30 15:53	12°♎34'36
evening set	11782 Dec 07 23:55	7°♎56'27		retrograde	11783 Nov 13 05:01	19°♎20'22
min. Earth dist.	11782 Dec 12 17:01	5°♎17'32	0.57293 AU	evening set	11783 Nov 17 22:09	18°♎31'52
inferior conj	11782 Dec 15 13:57	3°♎21'01	-5°07'07	min. Earth dist.	11783 Nov 24 02:19	15°♎31'59
minimum elong	11782 Dec 15 21:47	3°♎07'44	5°04'44	inferior conj	11783 Nov 26 02:21	14°♎20'10
	11782 Dec 21 05:53	30°♎		minimum elong	11783 Nov 26 05:05	14°♎16'04
morning rise	11782 Dec 23 22:00	29°♎06'09		morning rise	11783 Dec 04 13:56	10°♎25'07
direct	11782 Dec 26 04:00	28°♎50'59		direct	11783 Dec 07 07:00	10°♎06'41
	11782 Dec 30 19:24	0°♎		morning max el	11783 Dec 17 18:09	15°♎05'18
asc. node	11783 Jan 03 00:14	2°♎09'47		asc. node	11783 Dec 20 21:17	18°♎30'08
morning max el	11783 Jan 04 03:31	3°♎11'44	19°00'14		11783 Dec 28 11:11	0°♎
morning set	11783 Jan 20 16:49	29°♎51'18		morning set	11784 Jan 04 22:28	14°♎28'00
	11783 Jan 20 18:35	0°♎				
				superior conj	11784 Jan 12 14:33	0°♎07'40
superior conj	11783 Jan 29 02:25	16°♎18'20	0°54'38	minimum elong	11784 Jan 12 17:16	0°♎21'17
minimum elong	11783 Jan 29 05:19	16°♎32'12	0°54'49		11784 Jan 12 13:02	0°♎
max. Earth dist.	11783 Feb 05 01:19	29°♎10'21	1.38999 AU	max. Earth dist.	11784 Jan 18 08:12	11°♎19'10
desc. node	11783 Feb 05 06:58	29°♎35'29		evening rise	11784 Jan 22 02:34	18°♎17'12
	11783 Feb 05 12:28	0°♎		desc. node	11784 Jan 23 03:42	20°♎10'08
evening rise	11783 Feb 08 21:15	5°♎52'29			11784 Jan 28 20:28	0°♎
	11783 Feb 24 01:44	0°♎			11784 Feb 18 07:32	0°♎
evening max el	11783 Mar 16 02:13	25°♎33'47	24°30'30	evening max el	11784 Feb 26 15:33	9°♎24'22
	11783 Mar 21 08:24	0°♎		retrograde	11784 Mar 10 02:00	16°♎33'17
retrograde	11783 Mar 27 14:22	2°♎17'30		evening set	11784 Mar 16 02:05	14°♎05'12
asc. node	11783 Mar 31 21:45	0°♎53'55		asc. node	11784 Mar 17 19:05	12°♎28'06
evening set	11783 Apr 02 02:41	29°♎58'57		min. Earth dist.	11784 Mar 20 08:55	9°♎27'35
	11783 Apr 02 02:11	30°♎		inferior conj	11784 Mar 21 20:04	7°♎36'03
min. Earth dist.	11783 Apr 06 16:27	24°♎46'09	0.68289 AU	minimum elong	11784 Mar 21 18:23	7°♎41'25
inferior conj	11783 Apr 07 15:28	23°♎29'09	1°59'16	morning rise	11784 Mar 27 11:15	1°♎46'04
minimum elong	11783 Apr 07 13:20	23°♎36'19	1°58'22	direct	11784 Mar 30 19:46	0°♎41'39
morning rise	11783 Apr 13 00:07	17°♎29'58		morning max el	11784 Apr 06 15:00	4°♎23'07
direct	11783 Apr 16 20:19	16°♎05'35		greatest brilliancy	11784 Apr 20 03:52	22°♎33'50
morning max el	11783 Apr 24 08:03	20°♎16'24	19°54'00	desc. node	11784 Apr 20 05:18	22°♎39'15
	11783 May 02 08:11	0°♎			11784 Apr 25 00:15	0°♎
desc. node	11783 May 04 08:35	2°♎48'31		morning set	11784 Apr 29 09:30	6°♎47'31
morning set	11783 May 21 03:23	27°♎52'01		max. Earth dist.	11784 May 13 16:15	29°♎02'17
	11783 May 22 12:36	0°♎			11784 May 14 06:58	0°♎
max. Earth dist.	11783 May 31 23:28	14°♎47'47	1.44456 AU			
				superior conj	11784 May 15 19:43	2°♎24'18
superior conj	11783 Jun 06 04:19	23°♎08'54	-2°10'37	minimum elong	11784 May 15 16:01	2°♎09'47
minimum elong	11783 Jun 06 07:54	23°♎23'23	2°11'16	evening rise	11784 May 30 19:44	26°♎22'52
	11783 Jun 10 08:47	0°♎			11784 Jun 02 01:12	0°♎
evening rise	11783 Jun 19 12:59	15°♎25'20		asc. node	11784 Jun 13 16:53	18°♎23'17
asc. node	11783 Jun 27 19:53	29°♎24'11		evening max el	11784 Jun 19 20:57	26°♎09'02
	11783 Jun 28 04:41	0°♎		retrograde	11784 Jun 26 07:47	29°♎37'41
evening max el	11783 Jul 07 07:50	12°♎35'26	18°07'24	evening set	11784 Jun 29 10:44	28°♎43'05
retrograde	11783 Jul 13 16:52	15°♎55'48		inferior conj	11784 Jul 05 04:51	23°♎10'59
evening set	11783 Jul 16 11:39	15°♎15'45		minimum elong	11784 Jul 05 06:48	23°♎05'08
inferior conj	11783 Jul 22 16:12	10°♎00'04	2°18'54	min. Earth dist.	11784 Jul 07 08:57	20°♎36'02
minimum elong	11783 Jul 22 18:49	9°♎52'59	2°17'33	morning rise	11784 Jul 11 01:46	16°♎50'42
min. Earth dist.	11783 Jul 25 10:17	7°♎02'51	0.62900 AU	desc. node	11784 Jul 17 05:04	14°♎10'26
morning rise	11783 Jul 29 00:06	3°♎48'32		direct	11784 Jul 17 14:56	14°♎09'51
desc. node	11783 Jul 31 07:48	2°♎22'17		morning max el	11784 Jul 31 03:57	22°♎07'21
						27°15'34

	11784 Aug 07 01:37	0°♊		desc. node	11785 Jul 04 02:15	28°♊15'32	
	11784 Aug 26 23:57	0°♎			11785 Jul 07 10:31	0°♎	
morning set	11784 Sep 04 14:48	15°♎51'12		morning max el	11785 Jul 13 14:45	5°♎15'48	26°11'41
max. Earth dist.	11784 Sep 09 02:24	24°♎49'08	1.33339 AU		11785 Aug 01 14:25	0°♊	
asc. node	11784 Sep 09 17:27	26°♎06'33		morning set	11785 Aug 18 14:31	28°♊38'57	
	11784 Sep 11 14:16	0°♎			11785 Aug 19 07:53	0°♎	
				max. Earth dist.	11785 Aug 22 11:07	5°♎59'00	1.35012 AU
superior conj	11784 Sep 12 22:26	2°♎49'52	0°30'48				
minimum elong	11784 Sep 12 20:58	2°♎42'01	0°30'28	superior conj	11785 Aug 27 18:45	16°♎35'59	0°01'52
evening rise	11784 Sep 20 01:50	18°♎07'09		minimum elong	11785 Aug 27 18:40	16°♎35'31	0°01'35
	11784 Sep 25 21:34	0°♎		behind sun begin	11785 Aug 27 12:41	16°♎05'02	
evening max el	11784 Oct 11 03:37	22°♎39'22	22°08'23	behind sun end	11785 Aug 28 00:38	17°♎06'04	
desc. node	11784 Oct 13 02:01	24°♎24'56		asc. node	11785 Aug 27 14:09	16°♎12'30	
retrograde	11784 Oct 23 21:15	28°♎59'13			11785 Sep 03 05:34	0°♎	
evening set	11784 Oct 27 03:17	28°♎35'44		evening rise	11785 Sep 04 10:24	2°♎29'54	
inferior conj	11784 Nov 04 22:48	24°♎37'51	-5°37'54		11785 Sep 20 05:02	0°♎	
minimum elong	11784 Nov 04 17:01	24°♎45'58	5°36'38	evening max el	11785 Sep 23 01:24	3°♎10'02	20°38'51
min. Earth dist.	11784 Nov 04 09:14	24°♎56'55	0.54706 AU	desc. node	11785 Sep 29 23:24	7°♎56'41	
morning rise	11784 Nov 13 08:08	20°♎50'47		retrograde	11785 Oct 04 08:33	8°♎46'32	
direct	11784 Nov 16 18:28	20°♎24'37		evening set	11785 Oct 06 13:17	8°♎34'44	
morning max el	11784 Nov 28 18:53	26°♎06'55	21°37'45	inferior conj	11785 Oct 15 15:01	4°♎39'28	-4°30'14
	11784 Dec 02 09:37	0°♎		minimum elong	11785 Oct 15 05:00	4°♎53'53	4°27'06
asc. node	11784 Dec 06 18:18	5°♎55'20		min. Earth dist.	11785 Oct 16 17:00	4°♎02'03	0.54663 AU
morning set	11784 Dec 19 08:06	29°♎12'54		morning rise	11785 Oct 23 20:28	0°♎41'06	
	11784 Dec 19 17:05	0°♎		direct	11785 Oct 28 03:02	0°♎01'51	
				morning max el	11785 Nov 10 08:46	6°♎26'43	23°22'50
superior conj	11784 Dec 26 12:38	14°♎23'27	1°30'27	asc. node	11785 Nov 23 15:14	24°♎10'30	
minimum elong	11784 Dec 26 14:29	14°♎33'09	1°31'05		11785 Nov 26 21:06	0°♎	
max. Earth dist.	11784 Dec 30 19:35	23°♎11'10	1.34835 AU	morning set	11785 Dec 03 19:42	14°♎00'30	
	11785 Jan 03 06:52	0°♎					
evening rise	11785 Jan 04 00:24	1°♎23'49		superior conj	11785 Dec 10 17:33	28°♎56'55	1°37'45
desc. node	11785 Jan 09 00:30	10°♎36'02		minimum elong	11785 Dec 10 18:16	29°♎00'50	1°38'30
	11785 Jan 20 21:10	0°♎			11785 Dec 11 05:16	0°♎	
evening max el	11785 Feb 08 05:02	23°♎08'44	26°43'15	max. Earth dist.	11785 Dec 13 14:51	5°♎06'48	1.33260 AU
	11785 Feb 18 05:19	0°♎		evening rise	11785 Dec 18 11:12	15°♎03'31	
retrograde	11785 Feb 21 08:20	0°♎31'07			11785 Dec 26 10:23	0°♎	
	11785 Feb 24 07:16	30°♎		desc. node	11785 Dec 26 21:25	0°♎48'28	
evening set	11785 Feb 27 19:00	27°♎58'17			11786 Jan 15 15:00	0°♎	
min. Earth dist.	11785 Mar 03 20:05	23°♎54'42	0.66175 AU	evening max el	11786 Jan 21 18:16	6°♎37'57	27°21'23
asc. node	11785 Mar 04 16:26	22°♎55'05		retrograde	11786 Feb 04 08:22	14°♎02'43	
inferior conj	11785 Mar 05 19:14	21°♎35'34	0°21'38	evening set	11786 Feb 11 03:19	11°♎31'24	
minimum elong	11785 Mar 05 18:39	21°♎37'18	0°21'36	min. Earth dist.	11786 Feb 14 23:50	7°♎59'52	0.64564 AU
morning rise	11785 Mar 11 19:28	15°♎56'34		inferior conj	11786 Feb 17 10:33	5°♎22'01	-0°42'05
direct	11785 Mar 14 17:37	15°♎09'15		minimum elong	11786 Feb 17 11:49	5°♎18'35	0°41'09
morning max el	11785 Mar 21 04:08	18°♎34'02	18°16'30	asc. node	11786 Feb 19 13:46	3°♎08'55	
	11785 Mar 29 22:11	0°♎		morning rise	11786 Feb 23 22:09	29°♎56'21	
desc. node	11785 Apr 07 01:57	12°♎49'13			11786 Feb 23 18:53	30°♎	
morning set	11785 Apr 09 15:45	16°♎56'34		direct	11786 Feb 26 11:35	29°♎22'32	
	11785 Apr 17 20:33	0°♎			11786 Mar 01 04:22	0°♎	
				morning max el	11786 Mar 04 20:57	2°♎41'52	17°52'54
superior conj	11785 Apr 25 02:35	11°♎24'07	-1°51'15	morning set	11786 Mar 22 02:55	28°♎30'38	
minimum elong	11785 Apr 24 17:30	10°♎48'35	1°50'57		11786 Mar 23 00:18	0°♎	
max. Earth dist.	11785 Apr 26 11:28	13°♎32'40	1.45730 AU	desc. node	11786 Mar 24 22:36	3°♎12'58	
	11785 May 07 00:38	0°♊					
evening rise	11785 May 11 02:39	6°♊22'37		superior conj	11786 Apr 04 18:57	20°♎55'44	-1°15'58
greatest brilliancy	11785 May 22 00:39	23°♊19'37	-0.8m	minimum elong	11786 Apr 04 10:59	20°♎23'52	1°15'11
	11785 May 26 12:14	0°♎		max. Earth dist.	11786 Apr 09 07:03	28°♎04'44	1.45263 AU
asc. node	11785 May 31 13:57	6°♎49'25			11786 Apr 10 12:22	0°♎	
evening max el	11785 Jun 03 06:42	9°♎50'11	19°06'15	evening rise	11786 Apr 20 17:05	15°♎48'11	
retrograde	11785 Jun 10 03:48	13°♎39'43			11786 Apr 30 01:27	0°♊	
evening set	11785 Jun 13 15:20	12°♎29'24		greatest brilliancy	11786 May 05 15:21	8°♊15'29	-0.6m
inferior conj	11785 Jun 19 02:36	6°♎42'27	3°11'29	evening max el	11786 May 17 11:26	23°♊34'55	20°00'13
minimum elong	11785 Jun 19 03:30	6°♎39'34	3°10'39	asc. node	11786 May 18 11:07	24°♊32'05	
min. Earth dist.	11785 Jun 20 15:54	4°♎42'42	0.66552 AU	retrograde	11786 May 25 02:11	27°♊56'21	
morning rise	11785 Jun 24 15:04	0°♎19'59		evening set	11786 May 28 23:00	26°♊29'44	
	11785 Jun 25 00:26	30°♎		inferior conj	11786 Jun 03 06:32	20°♊29'19	3°15'12
direct	11785 Jun 30 20:21	27°♊38'11		minimum elong	11786 Jun 03 06:19	20°♊30'00	3°14'27

min. Earth dist.	11786 Jun 04 05:20	19° $\Pi$ 12'13	0.67760 AU	morning rise	11787 May 23 18:02	28° $\mathcal{B}$ 11'06	
morning rise	11786 Jun 08 13:18	14° $\Pi$ 08'44		direct	11787 May 28 23:35	25° $\mathcal{B}$ 53'31	
direct	11786 Jun 14 07:35	11° $\Pi$ 35'30			11787 Jun 06 05:00	0° $\Pi$	
desc. node	11786 Jun 20 23:22	14° $\Pi$ 11'45		desc. node	11787 Jun 07 20:23	1° $\Pi$ 31'26	
morning max el	11786 Jun 26 00:40	18° $\Pi$ 37'03	24°50'05	morning max el	11787 Jun 08 10:47	2° $\Pi$ 07'10	23°20'50
	11786 Jul 05 15:04	0° $\mathcal{E}$			11787 Jun 29 15:05	0° $\mathcal{E}$	
	11786 Jul 25 16:12	0° $\Omega$		morning set	11787 Jul 13 06:24	21° $\mathcal{E}$ 38'16	
morning set	11786 Jul 31 21:20	10° $\Omega$ 38'25		max. Earth dist.	11787 Jul 17 08:46	28° $\mathcal{E}$ 37'57	1.39411 AU
max. Earth dist.	11786 Aug 04 11:11	17° $\Omega$ 04'44	1.37103 AU		11787 Jul 18 03:35	0° $\Omega$	
superior conj	11786 Aug 11 04:44	29° $\Omega$ 50'06	-0°30'39	superior conj	11787 Jul 25 00:37	12° $\Omega$ 23'36	-1°04'42
minimum elong	11786 Aug 11 06:45	29° $\Omega$ 59'56	0°30'44	minimum elong	11787 Jul 25 05:10	12° $\Omega$ 44'42	1°04'36
	11786 Aug 11 06:46	0° $\mathcal{N}$		asc. node	11787 Aug 01 07:39	26° $\Omega$ 14'58	
asc. node	11786 Aug 14 10:53	6° $\mathcal{N}$ 16'24		evening rise	11787 Aug 03 10:38	0° $\mathcal{N}$ 21'15	
evening rise	11786 Aug 19 14:16	16° $\mathcal{N}$ 36'51			11787 Aug 03 06:14	0° $\mathcal{N}$	
	11786 Aug 26 12:36	0° $\underline{\Omega}$		evening max el	11787 Aug 19 13:02	26° $\mathcal{N}$ 26'13	18°39'49
evening max el	11786 Sep 05 13:03	14° $\underline{\Omega}$ 25'02	19°28'36		11787 Aug 24 18:24	0° $\underline{\Omega}$	
retrograde	11786 Sep 15 03:32	19° $\underline{\Omega}$ 12'07		retrograde	11787 Aug 27 16:15	0° $\underline{\Omega}$ 31'06	
evening set	11786 Sep 16 23:59	19° $\underline{\Omega}$ 02'14		evening set	11787 Aug 29 15:18	0° $\underline{\Omega}$ 17'40	
desc. node	11786 Sep 16 20:50	19° $\underline{\Omega}$ 03'34			11787 Aug 30 16:30	30° $\mathcal{R}$ $\mathcal{N}$	
inferior conj	11786 Sep 25 17:09	14° $\underline{\Omega}$ 56'08	-2°44'37	desc. node	11787 Sep 03 18:15	27° $\mathcal{N}$ 55'02	
minimum elong	11786 Sep 25 09:55	15° $\underline{\Omega}$ 07'43	2°41'48	inferior conj	11787 Sep 06 15:00	25° $\mathcal{N}$ 52'28	-0°53'48
min. Earth dist.	11786 Sep 28 03:31	13° $\underline{\Omega}$ 22'42	0.55556 AU	minimum elong	11787 Sep 06 12:49	25° $\mathcal{N}$ 56'34	0°53'04
morning rise	11786 Oct 03 17:38	10° $\underline{\Omega}$ 28'19		min. Earth dist.	11787 Sep 09 19:13	23° $\mathcal{N}$ 30'36	0.57217 AU
direct	11786 Oct 08 20:14	9° $\underline{\Omega}$ 29'45		morning rise	11787 Sep 14 06:55	20° $\mathcal{N}$ 46'51	
morning max el	11786 Oct 22 19:21	16° $\underline{\Omega}$ 30'09	25°09'25	direct	11787 Sep 20 03:09	19° $\mathcal{N}$ 22'36	
	11786 Nov 02 17:58	0° $\mathcal{M}$		morning max el	11787 Oct 04 10:14	26° $\mathcal{N}$ 50'57	26°39'18
asc. node	11786 Nov 10 12:07	13° $\mathcal{M}$ 02'21			11787 Oct 07 10:56	0° $\underline{\Omega}$	
morning set	11786 Nov 18 07:26	28° $\mathcal{M}$ 44'47			11787 Oct 27 03:41	0° $\mathcal{M}$	
	11786 Nov 18 21:26	0° $\mathcal{X}$		asc. node	11787 Oct 28 08:56	2° $\mathcal{M}$ 21'27	
superior conj	11786 Nov 25 02:42	13° $\mathcal{X}$ 39'26	1°38'41	morning set	11787 Nov 02 17:36	13° $\mathcal{M}$ 21'07	
minimum elong	11786 Nov 25 02:18	13° $\mathcal{X}$ 37'13	1°39'24	superior conj	11787 Nov 09 14:02	28° $\mathcal{M}$ 24'52	1°33'40
max. Earth dist.	11786 Nov 26 17:41	17° $\mathcal{X}$ 13'23	1.32136 AU	minimum elong	11787 Nov 09 12:40	28° $\mathcal{M}$ 17'18	1°34'12
evening rise	11786 Dec 02 07:38	29° $\mathcal{X}$ 06'44		max. Earth dist.	11787 Nov 10 01:20	29° $\mathcal{M}$ 27'50	1.31493 AU
	11786 Dec 02 18:00	0° $\mathcal{Z}$			11787 Nov 10 07:07	0° $\mathcal{X}$	
desc. node	11786 Dec 13 18:25	20° $\mathcal{Z}$ 40'17		evening rise	11787 Nov 16 10:57	13° $\mathcal{X}$ 26'18	
	11786 Dec 19 13:27	0° $\approx$			11787 Nov 24 19:48	0° $\mathcal{Z}$	
evening max el	11787 Jan 04 05:18	19° $\approx$ 38'46	27°31'34	desc. node	11787 Nov 30 15:29	10° $\mathcal{Z}$ 03'08	
retrograde	11787 Jan 18 01:01	26° $\approx$ 58'43			11787 Dec 15 11:58	0° $\approx$	
evening set	11787 Jan 25 00:19	24° $\approx$ 36'21		evening max el	11787 Dec 17 11:20	1° $\approx$ 57'38	27°08'45
min. Earth dist.	11787 Jan 28 18:11	21° $\approx$ 33'01	0.62657 AU	retrograde	11787 Dec 31 09:21	9° $\approx$ 10'10	
inferior conj	11787 Jan 31 15:03	18° $\approx$ 47'35	-1°54'41	evening set	11788 Jan 07 06:41	7° $\approx$ 05'15	
minimum elong	11787 Jan 31 18:53	18° $\approx$ 38'19	1°52'33	min. Earth dist.	11788 Jan 11 01:47	4° $\approx$ 22'29	0.60552 AU
asc. node	11787 Feb 06 11:05	14° $\approx$ 09'20		inferior conj	11788 Jan 14 05:19	1° $\approx$ 43'10	-3°13'00
morning rise	11787 Feb 07 15:54	13° $\approx$ 38'21		minimum elong	11788 Jan 14 11:59	1° $\approx$ 29'04	3°09'55
direct	11787 Feb 09 22:38	13° $\approx$ 14'19			11788 Jan 16 07:35	30° $\mathcal{R}$ $\mathcal{Z}$	
morning max el	11787 Feb 16 14:31	16° $\approx$ 38'17	17°46'51	morning rise	11788 Jan 21 20:06	26° $\mathcal{Z}$ 53'45	
	11787 Feb 26 02:39	0° $\mathcal{H}$		direct	11788 Jan 23 22:50	26° $\mathcal{Z}$ 35'58	
morning set	11787 Mar 04 14:21	11° $\mathcal{H}$ 14'12		asc. node	11788 Jan 24 08:22	26° $\mathcal{Z}$ 36'37	
desc. node	11787 Mar 11 19:13	23° $\mathcal{H}$ 45'46			11788 Jan 30 23:32	0° $\approx$	
	11787 Mar 15 11:33	0° $\mathcal{Y}$		morning max el	11788 Jan 31 05:28	0° $\approx$ 14'18	17°59'18
superior conj	11787 Mar 16 09:16	1° $\mathcal{Y}$ 30'47	-0°34'33	morning set	11788 Feb 15 19:39	24° $\approx$ 47'23	
minimum elong	11787 Mar 16 05:48	1° $\mathcal{Y}$ 16'22	0°33'59		11788 Feb 18 15:34	0° $\mathcal{H}$	
max. Earth dist.	11787 Mar 23 00:43	12° $\mathcal{Y}$ 23'08	1.44100 AU	superior conj	11788 Feb 26 00:10	13° $\mathcal{H}$ 15'03	0°05'05
evening rise	11787 Mar 31 05:38	25° $\mathcal{Y}$ 17'54		minimum elong	11788 Feb 26 00:36	13° $\mathcal{H}$ 17'00	0°05'19
	11787 Apr 03 07:12	0° $\mathcal{B}$		behind sun begin	11788 Feb 25 17:01	12° $\mathcal{H}$ 43'38	
	11787 Apr 24 03:34	0° $\Pi$		behind sun end	11788 Feb 26 08:12	13° $\mathcal{H}$ 50'18	
evening max el	11787 Apr 30 10:27	7° $\Pi$ 20'52	21°07'32	desc. node	11788 Feb 26 15:49	14° $\mathcal{H}$ 23'40	
asc. node	11787 May 05 08:21	11° $\Pi$ 17'51		max. Earth dist.	11788 Mar 04 14:01	26° $\mathcal{H}$ 10'56	1.42372 AU
retrograde	11787 May 09 00:53	12° $\Pi$ 22'32			11788 Mar 06 21:47	0° $\mathcal{Y}$	
evening set	11787 May 13 07:48	10° $\Pi$ 39'46		evening rise	11788 Mar 10 06:33	5° $\mathcal{Y}$ 25'01	
inferior conj	11787 May 18 14:10	4° $\Pi$ 27'26	3°07'08		11788 Mar 26 13:45	0° $\mathcal{B}$	
minimum elong	11787 May 18 13:01	4° $\Pi$ 31'25	3°06'20	evening max el	11788 Apr 12 04:19	21° $\mathcal{B}$ 07'06	22°24'12
min. Earth dist.	11787 May 18 23:17	3° $\Pi$ 55'46	0.68496 AU	asc. node	11788 Apr 21 05:38	26° $\mathcal{B}$ 50'07	
	11787 May 21 23:42	30° $\mathcal{R}$ $\mathcal{B}$		retrograde	11788 Apr 21 22:08	26° $\mathcal{B}$ 52'22	

evening set	11788 Apr 26 15:58	24° $\text{♄}$ 54'18		inferior conj	11789 Apr 16 08:21	2° $\text{♄}$ 41'26	2°20'06
inferior conj	11788 May 01 23:24	18° $\text{♄}$ 32'22	2°48'33	minimum elong	11789 Apr 16 06:12	2° $\text{♄}$ 48'49	2°19'09
minimum elong	11788 May 01 21:34	18° $\text{♄}$ 38'45	2°47'39		11789 Apr 18 08:55	30° $\text{♄}$	
min. Earth dist.	11788 May 01 19:39	18° $\text{♄}$ 45'27	0.68767 AU	morning rise	11789 Apr 21 14:25	26° $\text{♄}$ 37'30	
morning rise	11788 May 07 03:02	12° $\text{♄}$ 21'38		direct	11789 Apr 25 17:40	25° $\text{♄}$ 01'02	
direct	11788 May 11 19:16	10° $\text{♄}$ 23'52		morning max el	11789 May 03 18:36	29° $\text{♄}$ 35'09	20°33'34
morning max el	11788 May 20 23:43	15° $\text{♄}$ 45'33	21°52'53		11789 May 04 04:29	0° $\text{♄}$	
desc. node	11788 May 24 17:17	19° $\text{♄}$ 51'22		desc. node	11789 May 11 14:05	8° $\text{♄}$ 55'36	
	11788 Jun 01 13:24	0° $\text{♄}$			11789 May 26 04:07	0° $\text{♄}$	
	11788 Jun 21 15:31	0° $\text{♄}$		morning set	11789 Jun 01 21:52	10° $\text{♄}$ 18'43	
morning set	11788 Jun 22 13:47	1° $\text{♄}$ 28'47		max. Earth dist.	11789 Jun 10 16:37	24° $\text{♄}$ 10'21	1.43585 AU
max. Earth dist.	11788 Jun 28 09:34	10° $\text{♄}$ 58'27	1.41659 AU		11789 Jun 14 06:44	0° $\text{♄}$	
superior conj	11788 Jul 06 01:49	24° $\text{♄}$ 05'16	-1°36'56	superior conj	11789 Jun 17 04:17	4° $\text{♄}$ 47'11	-2°02'01
minimum elong	11788 Jul 06 08:22	24° $\text{♄}$ 34'01	1°36'54	minimum elong	11789 Jun 17 10:16	5° $\text{♄}$ 12'04	2°02'26
	11788 Jul 09 09:45	0° $\text{♄}$		evening rise	11789 Jun 29 12:54	25° $\text{♄}$ 59'56	
evening rise	11788 Jul 16 19:42	13° $\text{♄}$ 32'40			11789 Jul 01 19:38	0° $\text{♄}$	
asc. node	11788 Jul 18 04:27	16° $\text{♄}$ 03'34		asc. node	11789 Jul 05 01:19	5° $\text{♄}$ 37'40	
	11788 Jul 26 02:24	0° $\text{♄}$		evening max el	11789 Jul 16 10:34	22° $\text{♄}$ 13'05	18°03'44
evening max el	11788 Aug 01 21:32	9° $\text{♄}$ 05'26	18°11'57	retrograde	11789 Jul 22 22:57	25° $\text{♄}$ 34'52	
retrograde	11788 Aug 08 23:50	12° $\text{♄}$ 41'28		evening set	11789 Jul 25 13:01	25° $\text{♄}$ 02'31	
evening set	11788 Aug 11 05:51	12° $\text{♄}$ 20'19		inferior conj	11789 Aug 01 01:22	19° $\text{♄}$ 57'32	1°49'30
inferior conj	11788 Aug 18 10:38	7° $\text{♄}$ 34'37	0°39'58	minimum elong	11789 Aug 01 03:58	19° $\text{♄}$ 50'59	1°48'09
minimum elong	11788 Aug 18 11:55	7° $\text{♄}$ 31'47	0°39'07	min. Earth dist.	11789 Aug 04 02:22	16° $\text{♄}$ 55'09	0.61630 AU
desc. node	11788 Aug 20 15:39	5° $\text{♄}$ 38'05		morning rise	11789 Aug 07 16:25	13° $\text{♄}$ 54'45	
min. Earth dist.	11788 Aug 21 18:24	4° $\text{♄}$ 41'11	0.59347 AU	desc. node	11789 Aug 07 13:00	14° $\text{♄}$ 00'42	
morning rise	11788 Aug 25 14:39	1° $\text{♄}$ 55'12		direct	11789 Aug 14 08:25	11° $\text{♄}$ 36'01	
direct	11788 Aug 31 23:56	0° $\text{♄}$ 02'07		morning max el	11789 Aug 28 13:14	19° $\text{♄}$ 36'40	27°57'48
morning max el	11788 Sep 15 08:28	7° $\text{♄}$ 51'08	27°37'42		11789 Sep 06 09:48	0° $\text{♄}$	
	11788 Oct 02 03:31	0° $\text{♄}$			11789 Sep 25 01:42	0° $\text{♄}$	
asc. node	11788 Oct 14 05:41	22° $\text{♄}$ 00'13		morning set	11789 Oct 01 01:59	11° $\text{♄}$ 50'41	
morning set	11788 Oct 17 00:27	27° $\text{♄}$ 44'55		asc. node	11789 Oct 01 02:21	11° $\text{♄}$ 52'33	
	11788 Oct 18 01:55	0° $\text{♄}$		max. Earth dist.	11789 Oct 06 16:44	23° $\text{♄}$ 46'52	1.31711 AU
max. Earth dist.	11788 Oct 23 10:18	11° $\text{♄}$ 42'24	1.31345 AU	superior conj	11789 Oct 08 11:42	27° $\text{♄}$ 42'40	1°06'51
superior conj	11788 Oct 24 01:39	13° $\text{♄}$ 07'51	1°22'59	minimum elong	11789 Oct 08 09:27	27° $\text{♄}$ 30'16	1°06'48
minimum elong	11788 Oct 23 23:38	12° $\text{♄}$ 56'37	1°23'15		11789 Oct 09 12:35	0° $\text{♄}$	
evening rise	11788 Oct 30 18:55	27° $\text{♄}$ 56'28		evening rise	11789 Oct 15 05:30	12° $\text{♄}$ 31'33	
	11788 Oct 31 18:05	0° $\text{♄}$			11789 Oct 23 22:19	0° $\text{♄}$	
desc. node	11788 Nov 16 12:38	28° $\text{♄}$ 45'51		desc. node	11789 Nov 03 09:53	16° $\text{♄}$ 32'23	
	11788 Nov 17 08:39	0° $\text{♄}$		evening max el	11789 Nov 10 00:26	24° $\text{♄}$ 03'53	24°46'16
evening max el	11788 Nov 28 09:56	13° $\text{♄}$ 25'47	26°11'49		11789 Nov 18 18:20	0° $\text{♄}$	
retrograde	11788 Dec 12 08:17	20° $\text{♄}$ 30'24		retrograde	11789 Nov 23 19:27	0° $\text{♄}$ 58'16	
evening set	11788 Dec 18 18:13	18° $\text{♄}$ 51'46			11789 Nov 28 21:56	30° $\text{♄}$	
min. Earth dist.	11788 Dec 22 23:05	16° $\text{♄}$ 16'22	0.58420 AU	evening set	11789 Nov 29 06:26	29° $\text{♄}$ 51'53	
inferior conj	11788 Dec 26 01:49	13° $\text{♄}$ 59'19	-4°29'27	min. Earth dist.	11789 Dec 04 12:11	27° $\text{♄}$ 06'08	0.56520 AU
minimum elong	11788 Dec 26 10:10	13° $\text{♄}$ 43'57	4°26'23	inferior conj	11789 Dec 07 01:56	25° $\text{♄}$ 27'19	-5°29'19
morning rise	11789 Jan 03 04:53	9° $\text{♄}$ 32'01		minimum elong	11789 Dec 07 08:17	25° $\text{♄}$ 17'07	5°27'36
direct	11789 Jan 05 07:46	9° $\text{♄}$ 17'03		morning rise	11789 Dec 15 12:19	21° $\text{♄}$ 21'30	
asc. node	11789 Jan 10 05:33	10° $\text{♄}$ 42'27		direct	11789 Dec 17 21:51	21° $\text{♄}$ 05'35	
morning max el	11789 Jan 13 14:05	13° $\text{♄}$ 19'45	18°31'49	morning max el	11789 Dec 27 12:15	25° $\text{♄}$ 42'06	19°26'17
	11789 Jan 24 20:33	0° $\text{♄}$		asc. node	11789 Dec 28 02:40	26° $\text{♄}$ 17'50	
morning set	11789 Jan 29 13:30	8° $\text{♄}$ 54'36			11789 Dec 31 06:43	0° $\text{♄}$	
superior conj	11789 Feb 07 12:25	25° $\text{♄}$ 59'02	0°38'40	morning set	11790 Jan 13 15:45	23° $\text{♄}$ 22'48	
minimum elong	11789 Feb 07 14:54	26° $\text{♄}$ 10'33	0°38'47		11790 Jan 16 22:47	0° $\text{♄}$	
	11789 Feb 09 16:52	0° $\text{♄}$		superior conj	11790 Jan 21 17:07	9° $\text{♄}$ 27'37	1°04'44
desc. node	11789 Feb 12 12:28	5° $\text{♄}$ 03'33		minimum elong	11790 Jan 21 20:03	9° $\text{♄}$ 41'58	1°04'59
max. Earth dist.	11789 Feb 14 22:28	9° $\text{♄}$ 17'31	1.40273 AU	max. Earth dist.	11790 Jan 28 04:27	21° $\text{♄}$ 42'49	1.38045 AU
evening rise	11789 Feb 19 03:44	16° $\text{♄}$ 27'19		desc. node	11790 Jan 30 09:10	25° $\text{♄}$ 40'58	
	11789 Feb 27 14:36	0° $\text{♄}$		evening rise	11790 Jan 31 22:02	28° $\text{♄}$ 23'58	
	11789 Mar 21 06:22	0° $\text{♄}$			11790 Feb 01 20:03	0° $\text{♄}$	
evening max el	11789 Mar 25 18:59	4° $\text{♄}$ 56'06	23°44'49		11790 Feb 21 00:23	0° $\text{♄}$	
retrograde	11789 Apr 05 16:38	11° $\text{♄}$ 21'25		evening max el	11790 Mar 08 08:31	18° $\text{♄}$ 47'15	25°02'55
asc. node	11789 Apr 08 02:56	10° $\text{♄}$ 53'59		retrograde	11790 Mar 20 07:01	25° $\text{♄}$ 43'22	
evening set	11789 Apr 10 21:59	9° $\text{♄}$ 09'45		evening set	11790 Mar 26 00:16	23° $\text{♄}$ 20'33	
min. Earth dist.	11789 Apr 15 16:18	3° $\text{♄}$ 36'21	0.68589 AU	asc. node	11790 Mar 26 00:17	23° $\text{♄}$ 20'31	

min. Earth dist.	11790 Mar 30 11:00	18° $\Upsilon$ 22'30	0.67976 AU	asc. node	11791 Mar 12 21:38	4° $\Upsilon$ 20'45	
inferior conj	11790 Mar 31 15:07	16° $\Upsilon$ 50'16	1°41'55	min. Earth dist.	11791 Mar 14 01:30	2° $\Upsilon$ 58'23	0.66947 AU
minimum elong	11790 Mar 31 13:05	16° $\Upsilon$ 56'55	1°41'05	inferior conj	11791 Mar 15 17:41	0° $\Upsilon$ 54'29	0°53'52
morning rise	11790 Apr 06 02:12	10° $\Upsilon$ 54'30		minimum elong	11791 Mar 15 16:23	0° $\Upsilon$ 58'32	0°53'26
direct	11790 Apr 09 17:17	9° $\Upsilon$ 38'49			11791 Mar 16 11:27	30° $\Re$ $\text{H}$	
morning max el	11790 Apr 16 21:05	13° $\Upsilon$ 35'48	19°27'44	morning rise	11791 Mar 21 12:23	25° $\text{H}$ 08'45	
desc. node	11790 Apr 28 10:49	28° $\Upsilon$ 31'48		direct	11791 Mar 24 16:26	24° $\text{H}$ 11'48	
	11790 Apr 29 10:52	0° $\text{Z}$		morning max el	11791 Mar 31 06:50	27° $\text{H}$ 44'28	18°37'44
greatest brilliancy	11790 Apr 29 14:03	0° $\text{Z}$ 11'44	-0.7m		11791 Apr 02 09:13	0° $\Upsilon$	
morning set	11790 May 11 21:59	18° $\text{Z}$ 52'48		desc. node	11791 Apr 15 07:30	18° $\Upsilon$ 31'21	
	11790 May 19 02:18	0° $\text{II}$		morning set	11791 Apr 21 12:57	28° $\Upsilon$ 15'54	
max. Earth dist.	11790 May 24 06:19	8° $\text{II}$ 06'06	1.44971 AU		11791 Apr 22 15:30	0° $\text{Z}$	
				max. Earth dist.	11791 May 07 00:55	22° $\text{Z}$ 31'00	1.45670 AU
superior conj	11790 May 28 07:02	14° $\text{II}$ 29'47	-2°13'14	superior conj	11791 May 07 16:44	23° $\text{Z}$ 32'51	-2°05'00
minimum elong	11790 May 28 07:48	14° $\text{II}$ 32'52	2°13'59	minimum elong	11791 May 07 10:04	23° $\text{Z}$ 06'47	2°05'15
	11790 Jun 06 20:22	0° $\text{Z}$			11791 May 11 19:35	0° $\text{II}$	
evening rise	11790 Jun 11 09:19	7° $\text{Z}$ 32'00		evening rise	11791 May 23 05:39	18° $\text{II}$ 03'47	
asc. node	11790 Jun 21 22:16	24° $\text{Z}$ 51'38			11791 May 30 17:36	0° $\text{Z}$	
	11790 Jun 25 09:01	0° $\Omega$		greatest brilliancy	11791 May 31 00:05	0° $\text{Z}$ 25'36	-0.9m
evening max el	11790 Jun 30 00:36	5° $\Omega$ 39'55	18°14'06	asc. node	11791 Jun 08 19:18	13° $\text{Z}$ 37'53	
retrograde	11790 Jul 06 09:12	9° $\Omega$ 01'51		evening max el	11791 Jun 13 12:39	19° $\text{Z}$ 17'47	18°42'17
evening set	11790 Jul 09 07:30	8° $\Omega$ 15'44		retrograde	11791 Jun 20 02:40	22° $\text{Z}$ 53'29	
inferior conj	11790 Jul 15 07:10	2° $\Omega$ 53'06	2°35'59	evening set	11791 Jun 23 09:18	21° $\text{Z}$ 52'06	
minimum elong	11790 Jul 15 09:35	2° $\Omega$ 46'15	2°34'45	inferior conj	11791 Jun 29 00:05	16° $\text{Z}$ 13'26	3°03'10
	11790 Jul 17 20:50	30° $\Re$ $\text{Z}$		minimum elong	11791 Jun 29 01:37	16° $\text{Z}$ 08'41	3°02'12
min. Earth dist.	11790 Jul 17 19:37	0° $\Omega$ 03'20	0.63797 AU	min. Earth dist.	11791 Jun 30 21:50	13° $\text{Z}$ 52'31	0.65663 AU
morning rise	11790 Jul 21 10:09	26° $\text{Z}$ 37'08		morning rise	11791 Jul 04 17:07	9° $\text{Z}$ 51'49	
desc. node	11790 Jul 25 10:17	24° $\text{Z}$ 25'26		direct	11791 Jul 11 03:25	7° $\text{Z}$ 09'33	
direct	11790 Jul 28 02:07	24° $\text{Z}$ 01'22		desc. node	11791 Jul 12 07:33	7° $\text{Z}$ 14'23	
	11790 Aug 08 18:53	0° $\Omega$		morning max el	11791 Jul 24 09:08	14° $\text{Z}$ 59'35	26°51'12
morning max el	11790 Aug 10 22:15	2° $\Omega$ 02'52	27°40'26		11791 Aug 05 15:41	0° $\Omega$	
	11790 Aug 31 16:25	0° $\text{M}$			11791 Aug 24 10:43	0° $\text{M}$	
morning set	11790 Sep 14 19:57	25° $\text{M}$ 32'31		morning set	11791 Aug 29 03:21	8° $\text{M}$ 42'17	
	11790 Sep 17 00:56	0° $\text{Z}$		max. Earth dist.	11791 Sep 02 08:05	16° $\text{M}$ 55'39	1.33999 AU
asc. node	11790 Sep 17 23:02	1° $\text{Z}$ 53'38		asc. node	11791 Sep 04 19:43	21° $\text{M}$ 58'44	
max. Earth dist.	11790 Sep 19 17:00	5° $\text{Z}$ 32'49	1.32598 AU				
superior conj	11790 Sep 22 18:17	12° $\text{Z}$ 03'53	0°45'26	superior conj	11791 Sep 06 19:04	26° $\text{M}$ 04'29	0°19'03
minimum elong	11790 Sep 22 16:20	11° $\text{Z}$ 53'22	0°45'09	minimum elong	11791 Sep 06 18:06	25° $\text{M}$ 59'21	0°18'43
evening rise	11790 Sep 29 16:52	27° $\text{Z}$ 06'33			11791 Sep 08 15:51	0° $\text{Z}$	
	11790 Oct 01 01:31	0° $\text{M}$		evening rise	11791 Sep 14 03:02	11° $\text{Z}$ 35'21	
	11790 Oct 18 14:56	0° $\text{Z}$			11791 Sep 23 13:47	0° $\text{M}$	
desc. node	11790 Oct 21 07:12	3° $\text{Z}$ 01'44		evening max el	11791 Oct 04 01:52	14° $\text{M}$ 22'42	21°28'11
evening max el	11790 Oct 22 10:51	4° $\text{Z}$ 11'24	23°05'53	desc. node	11791 Oct 08 04:35	17° $\text{M}$ 46'23	
retrograde	11790 Nov 04 17:24	10° $\text{Z}$ 47'33		retrograde	11791 Oct 16 05:55	20° $\text{M}$ 25'38	
evening set	11790 Nov 08 19:31	10° $\text{Z}$ 11'15		evening set	11791 Oct 18 23:32	20° $\text{M}$ 08'30	
min. Earth dist.	11790 Nov 15 20:09	6° $\text{Z}$ 56'52	0.55153 AU	inferior conj	11791 Oct 27 23:25	16° $\text{M}$ 13'15	-5°15'38
inferior conj	11790 Nov 17 06:38	6° $\text{Z}$ 07'09	-5°50'46	minimum elong	11791 Oct 27 14:54	16° $\text{M}$ 25'11	5°13'32
minimum elong	11790 Nov 17 05:47	6° $\text{Z}$ 08'23	5°50'04	min. Earth dist.	11791 Oct 28 02:39	16° $\text{M}$ 08'43	0.54576 AU
morning rise	11790 Nov 25 17:39	2° $\text{Z}$ 17'07		morning rise	11791 Nov 05 07:11	12° $\text{M}$ 24'24	
direct	11790 Nov 28 17:40	1° $\text{Z}$ 55'49		direct	11791 Nov 09 02:15	11° $\text{M}$ 53'18	
morning max el	11790 Dec 09 20:50	7° $\text{Z}$ 12'55	20°43'40	morning max el	11791 Nov 21 16:07	17° $\text{M}$ 53'29	22°21'19
asc. node	11790 Dec 14 23:42	13° $\text{Z}$ 07'34			11791 Dec 01 06:44	0° $\text{Z}$	
	11790 Dec 24 23:37	0° $\text{Z}$		asc. node	11791 Dec 01 20:41	0° $\text{Z}$ 55'16	
morning set	11790 Dec 28 23:23	8° $\text{Z}$ 03'37		morning set	11791 Dec 13 10:06	22° $\text{Z}$ 50'16	
					11791 Dec 16 18:42	0° $\text{Z}$	
superior conj	11791 Jan 05 09:54	23° $\text{Z}$ 28'54	1°23'09	superior conj	11791 Dec 20 11:12	7° $\text{Z}$ 52'51	1°34'21
minimum elong	11791 Jan 05 12:18	23° $\text{Z}$ 41'11	1°23'39	minimum elong	11791 Dec 20 12:36	8° $\text{Z}$ 00'14	1°35'03
	11791 Jan 08 15:33	0° $\approx$		max. Earth dist.	11791 Dec 24 03:44	15° $\text{Z}$ 35'06	1.34113 AU
max. Earth dist.	11791 Jan 10 12:52	3° $\approx$ 42'15	1.35931 AU	evening rise	11791 Dec 28 14:35	24° $\text{Z}$ 28'46	
evening rise	11791 Jan 14 10:51	11° $\approx$ 07'31			11791 Dec 31 12:14	0° $\approx$	
desc. node	11791 Jan 17 05:57	16° $\approx$ 12'16		desc. node	11792 Jan 04 02:50	6° $\approx$ 33'02	
	11791 Jan 25 09:34	0° $\text{H}$			11792 Jan 18 22:39	0° $\text{H}$	
	11791 Feb 16 09:03	0° $\Upsilon$		evening max el	11792 Feb 01 11:44	16° $\text{H}$ 16'01	27°02'30
evening max el	11791 Feb 18 22:09	2° $\Upsilon$ 36'41	26°11'16	retrograde	11792 Feb 14 19:56	23° $\text{H}$ 39'59	
retrograde	11791 Mar 03 16:23	9° $\Upsilon$ 51'57		evening set	11792 Feb 21 10:42	21° $\text{H}$ 06'50	
evening set	11791 Mar 09 21:08	7° $\Upsilon$ 21'30					

min. Earth dist.	11792 Feb 25 09:39	17° $\text{K}$ 17'29	0.65532 AU		11792 Dec 07 05:35	0° $\text{Z}$	
inferior conj	11792 Feb 27 13:52	14° $\text{K}$ 49'15	-0°04'11	evening rise	11792 Dec 11 05:47	8° $\text{Z}$ 18'53	
minimum elong	11792 Feb 27 13:58	14° $\text{K}$ 48'56	0°03'51	desc. node	11792 Dec 20 23:47	26° $\text{Z}$ 37'27	
transit middle	11792 Feb 27 13:58	14° $\text{K}$ 48'56	0°03'51		11792 Dec 22 23:20	0° $\approx$	
transit begin	11792 Feb 27 11:04	14° $\text{K}$ 57'13		evening max el	11793 Jan 14 00:01	29° $\approx$ 33'43	27°29'31
transit end	11792 Feb 27 16:52	14° $\text{K}$ 40'41			11793 Jan 14 11:10	0° $\text{K}$	
asc. node	11792 Feb 27 19:00	14° $\text{K}$ 34'37		retrograde	11793 Jan 27 17:03	6° $\text{K}$ 57'49	
morning rise	11792 Mar 04 18:40	9° $\text{K}$ 15'45		evening set	11793 Feb 03 14:35	4° $\text{K}$ 28'55	
direct	11792 Mar 07 12:59	8° $\text{K}$ 34'32		min. Earth dist.	11793 Feb 07 09:28	1° $\text{K}$ 10'22	0.63778 AU
morning max el	11792 Mar 13 21:56	11° $\text{K}$ 55'19	18°04'27		11793 Feb 08 13:11	30° $\text{K}\approx$	
	11792 Mar 26 18:14	0° $\text{Y}$		inferior conj	11793 Feb 10 00:56	28° $\approx$ 27'26	-1°11'55
morning set	11792 Apr 01 07:45	9° $\text{Y}$ 02'34		minimum elong	11793 Feb 10 03:14	28° $\approx$ 21'32	1°10'29
desc. node	11792 Apr 01 04:09	8° $\text{Y}$ 47'54		asc. node	11793 Feb 13 16:21	25° $\approx$ 01'14	
	11792 Apr 14 08:45	0° $\text{B}$		morning rise	11793 Feb 16 18:02	23° $\approx$ 08'45	
				direct	11793 Feb 19 04:18	22° $\approx$ 39'38	
superior conj	11792 Apr 16 01:35	2° $\text{B}$ 41'02	-1°37'39	morning max el	11793 Feb 25 15:32	25° $\approx$ 59'41	17°48'13
minimum elong	11792 Apr 15 16:15	2° $\text{B}$ 04'15	1°37'05		11793 Mar 01 02:01	0° $\text{K}$	
max. Earth dist.	11792 Apr 18 21:13	7° $\text{B}$ 06'32	1.45619 AU	morning set	11793 Mar 14 05:57	21° $\text{K}$ 08'09	
evening rise	11792 May 02 04:19	27° $\text{B}$ 46'05		desc. node	11793 Mar 19 00:46	29° $\text{K}$ 15'50	
	11792 May 03 14:59	0° $\text{II}$			11793 Mar 19 11:15	0° $\text{Y}$	
greatest brilliancy	11792 May 15 01:09	17° $\text{II}$ 26'06	-0.7m				
	11792 May 24 03:15	0° $\text{G}$		superior conj	11793 Mar 27 02:23	12° $\text{Y}$ 37'38	-0°58'38
asc. node	11792 May 25 16:27	1° $\text{G}$ 47'29		minimum elong	11793 Mar 26 20:13	12° $\text{Y}$ 12'33	0°57'53
evening max el	11792 May 26 20:25	3° $\text{G}$ 01'14	19°27'16	max. Earth dist.	11793 Apr 01 15:57	21° $\text{Y}$ 33'36	1.44839 AU
retrograde	11792 Jun 03 00:09	7° $\text{G}$ 03'14			11793 Apr 07 01:00	0° $\text{B}$	
evening set	11792 Jun 06 15:33	5° $\text{G}$ 45'53		evening rise	11793 Apr 11 15:53	7° $\text{B}$ 07'58	
	11792 Jun 11 22:39	30° $\text{K}\text{II}$			11793 Apr 26 22:46	0° $\text{II}$	
inferior conj	11792 Jun 12 00:51	29° $\text{II}$ 52'45	3°14'38	evening max el	11793 May 09 22:36	16° $\text{II}$ 46'06	20°27'21
minimum elong	11792 Jun 12 01:16	29° $\text{II}$ 51'21	3°13'50	asc. node	11793 May 12 13:39	19° $\text{II}$ 07'47	
min. Earth dist.	11792 Jun 13 07:48	28° $\text{II}$ 10'49	0.67122 AU	retrograde	11793 May 17 23:01	21° $\text{II}$ 24'26	
morning rise	11792 Jun 17 10:34	23° $\text{II}$ 30'39		evening set	11793 May 21 23:56	19° $\text{II}$ 51'01	
direct	11792 Jun 23 11:19	20° $\text{II}$ 51'47		inferior conj	11793 May 27 06:39	13° $\text{II}$ 45'07	3°13'09
desc. node	11792 Jun 28 04:41	22° $\text{II}$ 10'46		minimum elong	11793 May 27 06:01	13° $\text{II}$ 47'17	3°12'22
morning max el	11792 Jul 05 19:53	28° $\text{II}$ 15'50	25°38'36	min. Earth dist.	11793 May 27 23:32	12° $\text{II}$ 47'08	0.68127 AU
	11792 Jul 07 11:35	0° $\text{G}$		morning rise	11793 Jun 01 11:49	7° $\text{II}$ 25'51	
	11792 Jul 29 09:19	0° $\text{Q}$		direct	11793 Jun 07 00:44	4° $\text{II}$ 58'36	
morning set	11792 Aug 10 20:28	21° $\text{Q}$ 11'10		desc. node	11793 Jun 15 01:44	8° $\text{II}$ 45'22	
max. Earth dist.	11792 Aug 14 13:01	28° $\text{Q}$ 02'20	1.35868 AU	morning max el	11793 Jun 18 05:46	11° $\text{II}$ 41'40	24°12'29
	11792 Aug 15 13:42	0° $\text{P}$			11793 Jul 02 21:20	0° $\text{G}$	
					11793 Jul 22 03:38	0° $\text{Q}$	
superior conj	11792 Aug 20 11:24	9° $\text{P}$ 37'53	-0°11'36	morning set	11793 Jul 23 18:43	2° $\text{Q}$ 47'29	
minimum elong	11792 Aug 20 12:08	9° $\text{P}$ 41'31	0°11'49	max. Earth dist.	11793 Jul 27 10:55	9° $\text{Q}$ 15'12	1.38070 AU
behind sun begin	11792 Aug 20 07:51	9° $\text{P}$ 20'03					
behind sun end	11792 Aug 20 16:24	10° $\text{P}$ 03'01		superior conj	11793 Aug 03 15:54	22° $\text{Q}$ 36'05	-0°45'05
asc. node	11792 Aug 21 16:26	12° $\text{P}$ 04'18		minimum elong	11793 Aug 03 18:59	22° $\text{Q}$ 50'46	0°45'03
evening rise	11792 Aug 28 09:57	25° $\text{P}$ 52'26			11793 Aug 07 11:27	0° $\text{P}$	
	11792 Aug 30 10:40	0° $\text{A}$		asc. node	11793 Aug 08 13:12	2° $\text{P}$ 06'40	
evening max el	11792 Sep 15 05:17	25° $\text{A}$ 10'15	20°06'13	evening rise	11793 Aug 12 11:02	9° $\text{P}$ 51'04	
	11792 Sep 22 17:22	0° $\text{M}$			11793 Aug 23 13:50	0° $\text{A}$	
desc. node	11792 Sep 24 01:59	0° $\text{M}$ 18'04		evening max el	11793 Aug 28 22:37	6° $\text{A}$ 46'15	19°05'14
retrograde	11792 Sep 25 19:22	0° $\text{M}$ 26'10		retrograde	11793 Sep 06 21:14	11° $\text{A}$ 14'02	
evening set	11792 Sep 27 18:31	0° $\text{M}$ 16'06		evening set	11793 Sep 08 17:43	11° $\text{A}$ 03'19	
	11792 Sep 29 00:06	30° $\text{K}\text{A}$		desc. node	11793 Sep 10 23:23	10° $\text{A}$ 23'56	
inferior conj	11792 Oct 06 18:11	26° $\text{A}$ 17'14	-3°48'04	inferior conj	11793 Sep 17 04:06	6° $\text{A}$ 49'59	-1°56'34
minimum elong	11792 Oct 06 08:42	26° $\text{A}$ 31'24	3°44'43	minimum elong	11793 Sep 16 23:03	6° $\text{A}$ 58'37	1°54'35
min. Earth dist.	11792 Oct 08 11:16	25° $\text{A}$ 15'45	0.54934 AU	min. Earth dist.	11793 Sep 20 00:08	4° $\text{A}$ 54'06	0.56182 AU
morning rise	11792 Oct 14 21:49	22° $\text{A}$ 08'03		morning rise	11793 Sep 25 01:22	2° $\text{A}$ 05'54	
direct	11792 Oct 19 12:44	21° $\text{A}$ 21'40		direct	11793 Sep 30 11:49	0° $\text{A}$ 56'54	
morning max el	11792 Nov 02 03:41	28° $\text{A}$ 02'36	24°09'12	morning max el	11793 Oct 14 15:34	8° $\text{A}$ 11'05	25°50'40
	11792 Nov 04 02:38	0° $\text{M}$			11793 Oct 30 21:05	0° $\text{M}$	
asc. node	11792 Nov 17 17:35	19° $\text{M}$ 27'02		asc. node	11793 Nov 04 14:26	8° $\text{M}$ 31'54	
	11792 Nov 23 06:18	0° $\text{J}$		morning set	11793 Nov 11 09:13	22° $\text{M}$ 18'58	
morning set	11792 Nov 26 21:56	7° $\text{J}$ 36'56			11793 Nov 14 21:49	0° $\text{J}$	
superior conj	11792 Dec 03 18:11	22° $\text{J}$ 30'53	1°38'53	superior conj	11793 Nov 18 04:32	7° $\text{J}$ 16'14	1°37'15
minimum elong	11792 Dec 03 18:25	22° $\text{J}$ 32'10	1°39'39	minimum elong	11793 Nov 18 03:42	7° $\text{J}$ 11'36	1°37'56
max. Earth dist.	11792 Dec 06 02:17	27° $\text{J}$ 34'22	1.32716 AU	max. Earth dist.	11793 Nov 19 07:23	9° $\text{J}$ 44'42	1.31797 AU



evening rise	11793 Nov 25 05:29	22° $\text{♄}$ 30'34		minimum elong	11794 Nov 02 14:31	21° $\text{♄}$ 52'13	1°30'15
	11793 Nov 28 22:02	0° $\text{♄}$		max. Earth dist.	11794 Nov 02 15:59	22° $\text{♄}$ 00'22	1.31372 AU
desc. node	11793 Dec 07 20:49	16° $\text{♄}$ 18'33			11794 Nov 06 06:21	0° $\text{♄}$	
	11793 Dec 16 20:40	0° $\text{♄}$		evening rise	11794 Nov 09 11:03	6° $\text{♄}$ 55'50	
evening max el	11793 Dec 27 09:11	12° $\text{♄}$ 18'24	27°26'09		11794 Nov 21 10:25	0° $\text{♄}$	
retrograde	11794 Jan 10 06:38	19° $\text{♄}$ 36'13		desc. node	11794 Nov 24 17:55	5° $\text{♄}$ 26'02	
evening set	11794 Jan 17 05:50	17° $\text{♄}$ 20'09		evening max el	11794 Dec 09 12:31	24° $\text{♄}$ 17'13	26°48'38
min. Earth dist.	11794 Jan 20 23:28	14° $\text{♄}$ 26'39	0.61771 AU		11794 Dec 17 11:40	0° $\text{♄}$	
inferior conj	11794 Jan 23 23:49	11° $\text{♄}$ 41'44	-2°27'32	retrograde	11794 Dec 23 11:05	1° $\text{♄}$ 25'54	
minimum elong	11794 Jan 24 04:52	11° $\text{♄}$ 30'10	2°24'56		11794 Dec 29 06:47	30° $\text{♄}$	
morning rise	11794 Jan 31 06:38	6° $\text{♄}$ 40'36		evening set	11794 Dec 30 04:40	29° $\text{♄}$ 31'36	
asc. node	11794 Jan 31 13:36	6° $\text{♄}$ 35'29		min. Earth dist.	11795 Jan 03 02:46	26° $\text{♄}$ 53'30	0.59637 AU
direct	11794 Feb 02 11:05	6° $\text{♄}$ 19'47		inferior conj	11795 Jan 06 06:56	24° $\text{♄}$ 21'55	-3°46'21
morning max el	11794 Feb 09 08:26	9° $\text{♄}$ 49'03	17°49'47	minimum elong	11795 Jan 06 14:34	24° $\text{♄}$ 06'41	3°43'06
	11794 Feb 22 16:41	0° $\text{♄}$		morning rise	11795 Jan 14 03:17	19° $\text{♄}$ 41'20	
morning set	11794 Feb 25 01:43	4° $\text{♄}$ 15'01		direct	11795 Jan 16 05:25	19° $\text{♄}$ 25'09	
desc. node	11794 Mar 05 21:24	19° $\text{♄}$ 51'20		asc. node	11795 Jan 18 10:49	19° $\text{♄}$ 44'20	
				morning max el	11795 Jan 23 21:04	23° $\text{♄}$ 12'58	18°10'30
superior conj	11794 Mar 08 03:17	23° $\text{♄}$ 42'39	-0°17'14		11795 Jan 29 06:08	0° $\text{♄}$	
minimum elong	11794 Mar 08 01:41	23° $\text{♄}$ 35'50	0°16'48	morning set	11795 Feb 08 12:55	18° $\text{♄}$ 04'26	
	11794 Mar 11 20:58	0° $\text{♄}$			11795 Feb 14 22:07	0° $\text{♄}$	
max. Earth dist.	11794 Mar 15 07:22	5° $\text{♄}$ 38'33	1.43422 AU				
evening rise	11794 Mar 22 08:11	16° $\text{♄}$ 50'06		superior conj	11795 Feb 18 03:45	5° $\text{♄}$ 53'23	0°20'12
	11794 Mar 30 23:22	0° $\text{♄}$		minimum elong	11795 Feb 18 05:17	6° $\text{♄}$ 00'18	0°20'21
	11794 Apr 22 06:45	0° $\text{♄}$		desc. node	11795 Feb 20 18:02	10° $\text{♄}$ 30'28	
evening max el	11794 Apr 22 19:16	0° $\text{♄}$ 32'01	21°39'20	max. Earth dist.	11795 Feb 25 18:34	19° $\text{♄}$ 09'45	1.41515 AU
asc. node	11794 Apr 29 10:54	5° $\text{♄}$ 24'10		evening rise	11795 Mar 02 17:14	27° $\text{♄}$ 19'59	
retrograde	11794 May 01 21:15	5° $\text{♄}$ 52'20			11795 Mar 04 09:01	0° $\text{♄}$	
evening set	11794 May 06 08:37	4° $\text{♄}$ 03'10			11795 Mar 24 15:32	0° $\text{♄}$	
	11794 May 10 00:19	30° $\text{♄}$		evening max el	11795 Apr 05 11:40	14° $\text{♄}$ 19'57	22°58'29
inferior conj	11794 May 11 15:12	27° $\text{♄}$ 46'32	3°00'29	retrograde	11795 Apr 15 17:20	20° $\text{♄}$ 22'27	
minimum elong	11794 May 11 13:43	27° $\text{♄}$ 51'41	2°59'38	asc. node	11795 Apr 16 08:10	20° $\text{♄}$ 20'39	
min. Earth dist.	11794 May 11 18:51	27° $\text{♄}$ 33'49	0.68667 AU	evening set	11795 Apr 20 16:02	18° $\text{♄}$ 18'27	
morning rise	11794 May 16 18:37	21° $\text{♄}$ 32'13		min. Earth dist.	11795 Apr 25 15:33	12° $\text{♄}$ 24'45	0.68747 AU
direct	11794 May 21 18:34	19° $\text{♄}$ 22'27		inferior conj	11795 Apr 26 00:32	11° $\text{♄}$ 53'40	2°37'40
morning max el	11794 May 31 16:30	25° $\text{♄}$ 14'17	22°42'41	minimum elong	11795 Apr 25 22:31	12° $\text{♄}$ 00'39	2°36'45
desc. node	11794 Jun 01 22:41	26° $\text{♄}$ 32'41		morning rise	11795 May 01 04:52	5° $\text{♄}$ 45'44	
	11794 Jun 04 23:43	0° $\text{♄}$		direct	11795 May 05 15:38	3° $\text{♄}$ 56'45	
	11794 Jun 26 08:35	0° $\text{♄}$		morning max el	11795 May 14 07:31	8° $\text{♄}$ 56'46	21°17'47
morning set	11794 Jul 04 17:06	13° $\text{♄}$ 18'21		desc. node	11795 May 19 19:32	15° $\text{♄}$ 13'10	
max. Earth dist.	11794 Jul 09 08:44	21° $\text{♄}$ 04'49	1.40388 AU		11795 May 30 14:20	0° $\text{♄}$	
	11794 Jul 14 11:55	0° $\text{♄}$		morning set	11795 Jun 14 13:39	22° $\text{♄}$ 40'16	
					11795 Jun 19 03:58	0° $\text{♄}$	
superior conj	11794 Jul 17 04:25	4° $\text{♄}$ 49'05	-1°18'52	max. Earth dist.	11795 Jun 21 12:22	3° $\text{♄}$ 49'19	1.42533 AU
minimum elong	11794 Jul 17 09:58	5° $\text{♄}$ 14'15	1°18'45				
asc. node	11794 Jul 26 09:59	22° $\text{♄}$ 01'37		superior conj	11795 Jun 28 20:26	16° $\text{♄}$ 06'52	-1°48'48
evening rise	11794 Jul 27 03:04	23° $\text{♄}$ 22'34		minimum elong	11795 Jun 29 03:13	16° $\text{♄}$ 35'55	1°48'56
	11794 Jul 30 15:34	0° $\text{♄}$			11795 Jul 06 18:15	0° $\text{♄}$	
evening max el	11794 Aug 12 02:50	19° $\text{♄}$ 05'34	18°25'32	evening rise	11795 Jul 10 06:00	6° $\text{♄}$ 17'04	
retrograde	11794 Aug 19 17:53	22° $\text{♄}$ 55'55		asc. node	11795 Jul 13 06:49	11° $\text{♄}$ 45'07	
evening set	11794 Aug 21 19:46	22° $\text{♄}$ 39'37			11795 Jul 24 18:27	0° $\text{♄}$	
desc. node	11794 Aug 28 20:47	18° $\text{♄}$ 34'52		evening max el	11795 Jul 26 13:47	1° $\text{♄}$ 58'40	18°06'07
inferior conj	11794 Aug 29 11:18	18° $\text{♄}$ 05'57	-0°11'14	retrograde	11795 Aug 02 08:42	5° $\text{♄}$ 26'41	
minimum elong	11794 Aug 29 10:52	18° $\text{♄}$ 06'49	0°11'19	evening set	11795 Aug 04 18:12	5° $\text{♄}$ 01'01	
transit middle	11794 Aug 29 10:52	18° $\text{♄}$ 06'49	0°11'19	inferior conj	11795 Aug 11 15:32	0° $\text{♄}$ 06'37	1°12'25
transit begin	11794 Aug 29 08:21	18° $\text{♄}$ 11'52		minimum elong	11795 Aug 11 17:37	0° $\text{♄}$ 01'46	1°11'14
transit end	11794 Aug 29 13:24	18° $\text{♄}$ 01'45			11795 Aug 11 18:23	30° $\text{♄}$	
min. Earth dist.	11794 Sep 01 18:46	15° $\text{♄}$ 28'02	0.58087 AU	min. Earth dist.	11795 Aug 14 21:18	27° $\text{♄}$ 06'57	0.60320 AU
morning rise	11794 Sep 05 22:29	12° $\text{♄}$ 45'13		desc. node	11795 Aug 15 18:09	26° $\text{♄}$ 22'02	
direct	11794 Sep 12 01:16	11° $\text{♄}$ 08'27		morning rise	11795 Aug 18 14:05	24° $\text{♄}$ 16'16	
morning max el	11794 Sep 26 09:14	18° $\text{♄}$ 46'26	27°08'29	direct	11795 Aug 25 03:06	22° $\text{♄}$ 11'46	
	11794 Oct 05 20:36	0° $\text{♄}$			11795 Sep 08 08:00	0° $\text{♄}$	
asc. node	11794 Oct 22 11:12	28° $\text{♄}$ 00'20		morning max el	11795 Sep 08 10:22	0° $\text{♄}$ 05'50	27°51'02
	11794 Oct 23 11:03	0° $\text{♄}$			11795 Sep 29 22:35	0° $\text{♄}$	
morning set	11794 Oct 26 18:09	6° $\text{♄}$ 50'36		asc. node	11795 Oct 09 07:56	17° $\text{♄}$ 45'51	
				morning set	11795 Oct 10 23:00	21° $\text{♄}$ 07'30	
superior conj	11794 Nov 02 16:12	22° $\text{♄}$ 01'36	1°29'49		11795 Oct 15 02:32	0° $\text{♄}$	

max. Earth dist.	11795 Oct 17 00:31	4°♍12'54	1.31449 AU	superior conj	11796 Oct 01 12:13	21°♊11'31	0°58'24
				minimum elong	11796 Oct 01 10:01	20°♊59'31	0°58'14
superior conj	11795 Oct 18 03:23	6°♍41'51	1°16'49		11796 Oct 05 12:27	0°♍	
minimum elong	11795 Oct 18 01:13	6°♍29'46	1°16'55	evening rise	11796 Oct 08 07:33	6°♍04'55	
evening rise	11795 Oct 24 20:23	21°♍29'08			11796 Oct 20 18:10	0°♊	
	11795 Oct 28 22:05	0°♊		desc. node	11796 Oct 28 12:23	11°♊04'04	
desc. node	11795 Nov 11 15:06	23°♊47'04		evening max el	11796 Nov 01 19:26	15°♊44'35	24°04'14
	11795 Nov 16 08:03	0°♊		retrograde	11796 Nov 15 10:29	22°♊33'12	
evening max el	11795 Nov 21 07:40	5°♊23'19	25°38'10	evening set	11796 Nov 20 08:33	21°♊40'08	
retrograde	11795 Dec 05 04:46	12°♊23'09		min. Earth dist.	11796 Nov 26 06:14	18°♊44'31	0.55858 AU
evening set	11795 Dec 11 06:38	10°♊57'52		inferior conj	11796 Nov 28 10:20	17°♊25'19	-5°44'26
min. Earth dist.	11795 Dec 15 20:00	8°♊20'32	0.57576 AU	minimum elong	11796 Nov 28 14:12	17°♊19'26	5°43'22
inferior conj	11795 Dec 18 18:55	6°♊18'15	-4°58'02	morning rise	11796 Dec 06 21:51	13°♊27'49	
minimum elong	11795 Dec 19 03:02	6°♊04'12	4°55'24	direct	11796 Dec 09 12:39	13°♊10'15	
morning rise	11795 Dec 27 01:53	2°♊00'17		morning max el	11796 Dec 19 18:23	18°♊02'54	19°56'30
direct	11795 Dec 29 06:53	1°♊45'16		asc. node	11796 Dec 22 05:04	20°♊39'14	
asc. node	11796 Jan 05 07:58	4°♊29'40			11796 Dec 28 17:03	0°♊	
morning max el	11796 Jan 07 01:37	6°♊00'55	18°52'11	morning set	11797 Jan 06 15:39	16°♊57'08	
	11796 Jan 22 05:42	0°♊			11797 Jan 13 01:27	0°♊	
morning set	11796 Jan 23 10:45	2°♊21'55					
				superior conj	11797 Jan 14 09:58	2°♊42'49	1°13'27
superior conj	11796 Jan 31 23:33	18°♊57'52	0°50'41	minimum elong	11797 Jan 14 12:46	2°♊56'45	1°13'48
minimum elong	11796 Feb 01 02:23	19°♊11'18	0°50'50	max. Earth dist.	11797 Jan 20 08:26	14°♊12'31	1.37115 AU
	11796 Feb 06 23:05	0°♊		evening rise	11797 Jan 24 02:08	21°♊03'54	
desc. node	11796 Feb 07 14:42	1°♊09'42		desc. node	11797 Jan 24 11:27	21°♊45'34	
max. Earth dist.	11796 Feb 08 01:59	1°♊59'47	1.39329 AU		11797 Jan 29 05:21	0°♊	
evening rise	11796 Feb 11 23:30	8°♊45'38			11797 Feb 18 06:08	0°♊	
	11796 Feb 25 07:16	0°♊		evening max el	11797 Feb 28 14:56	12°♊00'58	25°33'32
evening max el	11796 Mar 18 01:37	28°♊09'58	24°18'48	retrograde	11797 Mar 12 22:33	19°♊07'14	
	11796 Mar 20 00:17	0°♊		evening set	11797 Mar 18 20:52	16°♊40'20	
retrograde	11796 Mar 29 10:04	4°♊49'16		asc. node	11797 Mar 20 02:49	15°♊31'05	
asc. node	11796 Apr 02 05:29	3°♊43'18		min. Earth dist.	11797 Mar 23 04:38	11°♊57'25	0.67587 AU
evening set	11796 Apr 03 20:38	2°♊32'17		inferior conj	11797 Mar 24 13:59	10°♊10'35	1°22'45
	11796 Apr 06 07:38	30°♊		minimum elong	11797 Mar 24 12:12	10°♊16'22	1°22'04
min. Earth dist.	11796 Apr 08 11:29	27°♊14'17	0.68381 AU	morning rise	11797 Mar 30 04:02	4°♊19'04	
inferior conj	11796 Apr 09 08:45	26°♊02'43	2°05'05	direct	11797 Apr 02 14:11	3°♊11'51	
minimum elong	11796 Apr 09 06:35	26°♊10'00	2°04'10	morning max el	11797 Apr 09 11:27	6°♊57'04	19°04'29
morning rise	11796 Apr 14 16:39	20°♊02'22		greatest brilliancy	11797 Apr 22 15:43	24°♊29'31	-0.7m
direct	11796 Apr 18 14:38	18°♊34'57		desc. node	11797 Apr 22 13:03	24°♊19'27	
morning max el	11796 Apr 26 05:36	22°♊51'22	20°03'50		11797 Apr 26 06:45	0°♊	
	11796 May 02 08:00	0°♊		morning set	11797 May 02 19:31	10°♊03'54	
desc. node	11796 May 05 16:19	4°♊32'04			11797 May 15 15:05	0°♊	
	11796 May 22 19:56	0°♊		max. Earth dist.	11797 May 16 14:47	1°♊32'55	1.45355 AU
morning set	11796 May 23 15:41	1°♊15'55					
max. Earth dist.	11796 Jun 02 22:56	17°♊23'31	1.44249 AU	superior conj	11797 May 19 06:32	5°♊43'38	-2°12'17
				minimum elong	11797 May 19 04:01	5°♊33'43	2°12'55
superior conj	11796 Jun 08 12:30	26°♊22'02	-2°08'53	evening rise	11797 Jun 03 01:18	29°♊28'39	
minimum elong	11796 Jun 08 16:52	26°♊39'52	2°09'30		11797 Jun 03 08:58	0°♊	
	11796 Jun 10 17:39	0°♊		asc. node	11797 Jun 16 00:42	20°♊14'38	
evening rise	11796 Jun 21 14:56	18°♊22'10		evening max el	11797 Jun 22 17:01	28°♊46'52	18°23'57
	11796 Jun 28 10:33	0°♊			11797 Jun 24 01:04	0°♊	
asc. node	11796 Jun 29 03:43	1°♊11'28		retrograde	11797 Jun 29 03:03	2°♊13'25	
evening max el	11796 Jul 09 03:35	15°♊15'02	18°05'53	evening set	11797 Jul 02 04:44	1°♊21'08	
retrograde	11796 Jul 15 13:14	18°♊35'29			11797 Jul 04 02:08	30°♊	
evening set	11796 Jul 18 06:46	17°♊57'32		inferior conj	11797 Jul 08 00:11	25°♊51'30	2°49'38
inferior conj	11796 Jul 24 13:12	12°♊44'31	2°11'48	minimum elong	11797 Jul 08 02:17	25°♊45'18	2°48'31
minimum elong	11796 Jul 24 15:52	12°♊37'28	2°10'27	min. Earth dist.	11797 Jul 10 06:32	23°♊12'07	0.64631 AU
min. Earth dist.	11796 Jul 27 09:11	9°♊45'18	0.62575 AU	morning rise	11797 Jul 13 22:36	19°♊32'02	
morning rise	11796 Jul 30 22:54	6°♊34'49		desc. node	11797 Jul 19 12:46	16°♊55'29	
desc. node	11796 Aug 01 15:29	5°♊29'36		direct	11797 Jul 20 12:40	16°♊52'02	
direct	11796 Aug 06 15:26	4°♊07'58		morning max el	11797 Aug 03 03:46	24°♊51'20	27°22'55
morning max el	11796 Aug 20 17:30	12°♊10'21	27°54'51		11797 Aug 07 19:48	0°♊	
	11796 Sep 03 21:16	0°♊			11797 Aug 28 08:19	0°♊	
	11796 Sep 21 08:43	0°♊		morning set	11797 Sep 07 11:34	18°♊33'30	
morning set	11796 Sep 23 21:41	5°♊04'08		max. Earth dist.	11797 Sep 12 01:31	27°♊46'57	1.33125 AU
asc. node	11796 Sep 25 04:38	7°♊42'39		asc. node	11797 Sep 12 01:21	27°♊46'01	
max. Earth dist.	11796 Sep 29 05:00	16°♊11'33	1.32027 AU		11797 Sep 13 03:08	0°♊	

































































































































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minimum elong	11797 Sep 15 15:00	5°♌15'58	0°34'29				
evening rise	11797 Sep 22 18:37	20°♌37'40		superior conj	11798 Aug 30 14:14	19°♏15'07	0°06'32
	11797 Sep 27 07:24	0°♍		minimum elong	11798 Aug 30 13:53	19°♏13'18	0°06'14
evening max el	11797 Oct 14 06:31	25°♍48'59	22°23'07	behind sun begin	11798 Aug 30 08:23	18°♏45'04	
desc. node	11797 Oct 15 09:44	26°♍52'45		behind sun end	11798 Aug 30 19:22	19°♏41'35	
	11797 Oct 19 14:24	0°♎			11798 Sep 04 17:54	0°♏	
retrograde	11797 Oct 27 04:10	2°♎13'45		evening rise	11798 Sep 07 03:41	5°♏02'22	
evening set	11797 Oct 30 15:08	1°♎47'25			11798 Sep 20 21:49	0°♏	
	11797 Nov 04 07:28	30°♏		evening max el	11798 Sep 26 02:24	6°♏13'55	20°51'04
min. Earth dist.	11797 Nov 07 13:28	28°♏15'25	0.54790 AU	desc. node	11798 Oct 02 07:07	10°♏44'33	
inferior conj	11797 Nov 08 08:39	27°♏48'20	-5°43'18	retrograde	11798 Oct 07 15:10	11°♏57'22	
minimum elong	11797 Nov 08 04:05	27°♏54'47	5°42'15	evening set	11798 Oct 09 22:43	11°♏44'32	
morning rise	11797 Nov 16 18:28	24°♏00'59		inferior conj	11798 Oct 19 00:29	7°♏49'51	-4°43'41
direct	11797 Nov 20 01:58	23°♏36'15		minimum elong	11798 Oct 18 14:35	8°♏03'55	4°40'44
morning max el	11797 Dec 01 21:09	29°♏12'16	21°23'08	min. Earth dist.	11798 Oct 19 20:46	7°♏20'56	0.54609 AU
	11797 Dec 02 16:45	0°♐		morning rise	11798 Oct 27 06:32	3°♏54'39	
asc. node	11797 Dec 09 02:07	7°♐55'51		direct	11798 Oct 31 10:14	3°♏17'36	
	11797 Dec 21 05:22	0°♑		morning max el	11798 Nov 13 12:07	9°♏36'16	23°06'42
morning set	11797 Dec 22 00:51	1°♑41'19		asc. node	11798 Nov 25 23:05	26°♏04'13	
					11798 Nov 28 05:08	0°♐	
superior conj	11797 Dec 29 06:47	16°♑55'21	1°28'44	morning set	11798 Dec 06 12:17	16°♐28'43	
minimum elong	11797 Dec 29 08:48	17°♑05'48	1°29'20		11798 Dec 12 18:46	0°♑	
max. Earth dist.	11798 Jan 02 18:51	26°♑05'27	1.35109 AU				
	11798 Jan 04 18:35	0°♒		superior conj	11798 Dec 13 10:49	1°♑26'21	1°37'02
evening rise	11798 Jan 06 21:47	4°♒05'08		minimum elong	11798 Dec 13 11:44	1°♑31'13	1°37'48
desc. node	11798 Jan 11 08:16	12°♒13'15		max. Earth dist.	11798 Dec 16 13:00	8°♑00'12	1.33469 AU
	11798 Jan 22 02:22	0°♓		evening rise	11798 Dec 21 06:50	17°♑40'13	
evening max el	11798 Feb 11 04:32	25°♓47'09	26°35'32		11798 Dec 27 19:48	0°♒	
	11798 Feb 16 04:06	0°♑		desc. node	11798 Dec 29 05:10	2°♒28'02	
retrograde	11798 Feb 24 05:45	3°♑08'07			11799 Jan 16 10:06	0°♓	
evening set	11798 Mar 02 14:54	0°♑35'51		evening max el	11799 Jan 24 17:58	9°♓19'36	27°17'21
	11798 Mar 03 07:48	30°♓		retrograde	11799 Feb 07 06:40	16°♓44'06	
min. Earth dist.	11798 Mar 06 16:49	26°♓27'08	0.66388 AU	evening set	11799 Feb 14 00:38	14°♓12'11	
asc. node	11798 Mar 07 00:11	26°♓05'25		min. Earth dist.	11799 Feb 17 21:47	10°♓36'05	0.64828 AU
inferior conj	11798 Mar 08 14:09	24°♓11'43	0°30'29	inferior conj	11799 Feb 20 06:48	8°♓00'31	-0°31'46
minimum elong	11798 Mar 08 13:21	24°♓14'06	0°30'19	minimum elong	11799 Feb 20 07:45	7°♓57'56	0°31'01
morning rise	11798 Mar 14 12:51	18°♓30'48		asc. node	11799 Feb 21 21:33	6°♓16'59	
direct	11798 Mar 17 12:29	17°♓41'06		morning rise	11799 Feb 26 16:34	2°♓32'37	
morning max el	11798 Mar 23 23:46	21°♓07'38	18°21'25	direct	11799 Mar 01 07:14	1°♓56'57	
	11798 Mar 31 01:08	0°♑		morning max el	11799 Mar 07 16:12	5°♓16'17	17°55'17
desc. node	11798 Apr 09 09:43	14°♑27'01			11799 Mar 24 08:40	0°♑	
morning set	11798 Apr 12 21:36	20°♑00'37		morning set	11799 Mar 25 04:36	1°♑22'46	
	11798 Apr 19 04:42	0°♒		desc. node	11799 Mar 27 06:21	4°♑48'57	
superior conj	11798 Apr 28 13:37	14°♒43'13	-1°55'25	superior conj	11799 Apr 08 03:27	24°♑07'11	-1°21'55
minimum elong	11798 Apr 28 04:56	14°♒09'20	1°55'17	minimum elong	11799 Apr 07 18:59	23°♑33'26	1°21'10
max. Earth dist.	11798 Apr 29 09:49	16°♒02'10	1.45740 AU		11799 Apr 11 20:36	0°♒	
	11798 May 08 08:24	0°♓		max. Earth dist.	11799 Apr 12 05:49	0°♒36'15	1.45379 AU
evening rise	11798 May 14 11:35	9°♓36'29		evening rise	11799 Apr 24 03:39	19°♓05'09	
greatest brilliancy	11798 May 24 15:39	25°♓29'42	-0.8m		11799 May 01 07:18	0°♓	
	11798 May 27 14:53	0°♑		greatest brilliancy	11799 May 08 16:17	11°♓00'37	-0.6m
asc. node	11798 Jun 02 21:47	8°♑46'47		evening max el	11799 May 20 09:02	26°♓12'41	19°51'14
evening max el	11798 Jun 06 03:29	12°♑27'57	18°59'31	asc. node	11799 May 20 18:55	26°♓37'08	
retrograde	11798 Jun 12 22:27	16°♑13'23			11799 May 25 12:53	0°♑	
evening set	11798 Jun 16 08:43	15°♑05'24		retrograde	11799 May 27 20:39	0°♑28'38	
inferior conj	11798 Jun 21 20:48	9°♑20'40	3°09'46		11799 May 30 02:10	30°♓	
minimum elong	11798 Jun 21 21:52	9°♑17'16	3°08'52	evening set	11799 May 31 16:05	29°♓04'21	
min. Earth dist.	11798 Jun 23 12:19	7°♑15'06	0.66338 AU	inferior conj	11799 Jun 05 23:58	23°♓05'47	3°15'27
morning rise	11798 Jun 27 10:22	2°♑58'20		minimum elong	11799 Jun 05 23:55	23°♓05'55	3°14'40
direct	11798 Jul 03 17:06	0°♑16'01		min. Earth dist.	11799 Jun 07 00:50	21°♓42'13	0.67611 AU
desc. node	11798 Jul 06 09:58	0°♑41'54		morning rise	11799 Jun 11 07:26	16°♓44'49	
morning max el	11798 Jul 16 14:35	7°♑57'14	26°22'32	direct	11799 Jun 17 03:28	14°♓09'58	
	11798 Aug 02 18:55	0°♏		desc. node	11799 Jun 23 07:04	16°♓23'28	
	11798 Aug 20 18:39	0°♏		morning max el	11799 Jun 29 00:40	21°♓17'31	25°02'59
morning set	11798 Aug 21 13:26	1°♏27'31			11799 Jul 06 13:36	0°♑	
max. Earth dist.	11798 Aug 25 11:50	8°♏59'46	1.34735 AU		11799 Jul 27 00:16	0°♏	

morning set	11799 Aug 03 23:01	13°♎34'59			11800 Jul 19 13:15	0°♎	
max. Earth dist.	11799 Aug 07 13:05	20°♎05'30	1.36778 AU	max. Earth dist.	11800 Jul 20 10:37	1°♎33'05	1.39066 AU
	11799 Aug 12 18:21	0°♎					
superior conj	11799 Aug 14 01:57	2°♎34'37	-0°25'34	superior conj	11800 Jul 28 00:08	15°♎14'42	-0°59'34
minimum elong	11799 Aug 14 03:36	2°♎42'46	0°25'41	minimum elong	11800 Jul 28 04:18	15°♎34'11	0°59'29
asc. node	11799 Aug 16 18:45	7°♎56'43		asc. node	11800 Aug 03 15:30	27°♎56'30	
evening rise	11799 Aug 22 08:25	19°♎12'22		evening rise	11800 Aug 04 16:55	0°♎	
	11799 Aug 27 20:19	0°♎		evening max el	11800 Aug 06 06:05	3°♎00'48	
evening max el	11799 Sep 08 11:53	17°♎21'29	19°37'35		11800 Aug 22 10:12	29°♎16'11	18°45'40
retrograde	11799 Sep 18 08:18	22°♎15'53		retrograde	11800 Aug 23 04:37	0°♎	
desc. node	11799 Sep 19 04:31	22°♎13'51		evening set	11800 Aug 30 18:11	3°♎26'44	
evening set	11799 Sep 20 05:05	22°♎06'06		desc. node	11800 Sep 01 16:21	3°♎14'10	
inferior conj	11799 Sep 29 00:16	18°♎02'03	-3°01'36		11800 Sep 06 01:54	1°♎23'16	
minimum elong	11799 Sep 28 16:20	18°♎14'30	2°58'34	inferior conj	11800 Sep 08 05:03	30°♎	
min. Earth dist.	11799 Oct 01 06:32	16°♎36'49	0.55371 AU	minimum elong	11800 Sep 09 18:54	28°♎52'03	-1°09'46
morning rise	11799 Oct 07 01:40	13°♎39'32		min. Earth dist.	11800 Sep 09 16:00	28°♎57'21	1°08'43
direct	11799 Oct 12 01:20	12°♎44'23		morning rise	11800 Sep 12 21:27	26°♎36'22	0.56933 AU
morning max el	11799 Oct 25 22:37	19°♎39'42	24°54'18	direct	11800 Sep 17 12:17	23°♎51'48	
	11799 Nov 03 16:33	0°♎		morning max el	11800 Sep 23 06:03	22°♎31'41	
asc. node	11799 Nov 12 19:58	14°♎51'03			11800 Oct 07 12:38	29°♎56'43	26°27'41
	11799 Nov 20 10:16	0°♎			11800 Oct 07 14:00	0°♎	
morning set	11799 Nov 21 00:04	1°♎13'43		asc. node	11800 Oct 28 12:55	0°♎	
				morning set	11800 Oct 30 16:45	4°♎06'38	
superior conj	11799 Nov 27 19:28	16°♎07'44	1°38'55		11800 Nov 05 10:33	15°♎51'40	
minimum elong	11799 Nov 27 19:13	16°♎06'26	1°39'40		11800 Nov 11 20:59	0°♎	
max. Earth dist.	11799 Nov 29 14:50	20°♎05'02	1.32269 AU	superior conj	11800 Nov 12 06:34	0°♎53'18	1°34'48
	11799 Dec 04 06:33	0°♎		minimum elong	11800 Nov 12 05:20	0°♎46'27	1°35'22
evening rise	11799 Dec 05 01:57	1°♎40'06		max. Earth dist.	11800 Nov 12 21:52	2°♎18'27	1.31552 AU
desc. node	11799 Dec 16 02:10	22°♎23'36		evening rise	11800 Nov 19 04:23	15°♎57'40	
	11799 Dec 20 17:32	0°♎			11800 Nov 26 05:10	0°♎	
evening max el	11800 Jan 07 05:24	22°♎25'27	27°32'07	desc. node	11800 Dec 02 23:13	11°♎51'38	
retrograde	11800 Jan 21 00:24	29°♎46'30			11800 Dec 15 21:42	0°♎	
evening set	11800 Jan 27 23:31	27°♎22'09		evening max el	11800 Dec 20 12:14	4°♎51'00	27°14'25
min. Earth dist.	11800 Jan 31 17:31	24°♎15'12	0.62954 AU	retrograde	11801 Jan 03 10:13	12°♎05'15	
inferior conj	11800 Feb 03 13:07	21°♎29'59	-1°43'11	evening set	11801 Jan 10 08:17	9°♎57'03	
minimum elong	11800 Feb 03 16:32	21°♎21'35	1°41'14	min. Earth dist.	11801 Jan 14 02:42	7°♎11'59	0.60865 AU
asc. node	11800 Feb 08 18:51	17°♎07'22		inferior conj	11801 Jan 17 05:41	4°♎30'35	-3°01'05
morning rise	11800 Feb 10 11:56	16°♎18'15		minimum elong	11801 Jan 17 11:57	4°♎17'04	2°58'04
direct	11800 Feb 12 19:32	15°♎52'59			11801 Jan 23 17:28	30°♎	
morning max el	11800 Feb 19 09:53	19°♎15'28	17°46'38	morning rise	11801 Jan 24 18:27	29°♎38'13	
	11800 Feb 27 08:23	0°♎		direct	11801 Jan 26 21:29	29°♎19'46	
morning set	11800 Mar 07 12:50	13°♎57'39		asc. node	11801 Jan 26 16:06	29°♎19'59	
desc. node	11800 Mar 14 02:58	25°♎21'00			11801 Jan 29 23:23	0°♎	
	11800 Mar 16 20:51	0°♎		morning max el	11801 Feb 03 01:28	2°♎55'28	17°56'16
				morning set	11801 Feb 18 15:52	27°♎24'41	
superior conj	11800 Mar 19 14:10	4°♎32'28	-0°40'53		11801 Feb 20 01:48	0°♎	
minimum elong	11800 Mar 19 10:00	4°♎15'14	0°40'14	desc. node	11801 Feb 28 23:36	15°♎58'39	
max. Earth dist.	11800 Mar 26 00:00	14°♎58'25	1.44312 AU				
evening rise	11800 Apr 03 15:28	28°♎32'05		superior conj	11801 Mar 01 01:34	16°♎07'18	-0°00'39
	11800 Apr 04 14:21	0°♎		minimum elong	11801 Mar 01 01:32	16°♎07'07	0°00'22
	11800 Apr 25 02:44	0°♎		behind sun begin	11801 Feb 28 17:24	15°♎31'38	
evening max el	11800 May 03 08:50	9°♎58'27	20°56'44	behind sun end	11801 Mar 01 09:39	16°♎42'30	
asc. node	11800 May 07 16:08	13°♎32'43		max. Earth dist.	11801 Mar 08 13:50	28°♎51'06	1.42655 AU
retrograde	11800 May 11 19:27	14°♎53'58			11801 Mar 09 06:36	0°♎	
evening set	11800 May 16 00:49	13°♎13'31		evening rise	11801 Mar 14 13:51	8°♎32'16	
inferior conj	11800 May 21 07:12	7°♎02'42	3°09'03		11801 Mar 28 18:04	0°♎	
minimum elong	11800 May 21 06:10	7°♎06'15	3°08'15	evening max el	11801 Apr 16 03:19	23°♎44'37	22°12'21
min. Earth dist.	11800 May 21 18:16	6°♎24'20	0.68418 AU	asc. node	11801 Apr 24 13:23	29°♎17'19	
morning rise	11800 May 26 11:19	0°♎45'34		retrograde	11801 Apr 25 17:04	29°♎23'40	
	11800 May 27 09:38	30°♎		evening set	11801 Apr 30 09:10	27°♎27'52	
direct	11800 May 31 18:45	28°♎25'27		inferior conj	11801 May 05 16:19	21°♎07'06	2°51'59
	11800 Jun 05 15:49	0°♎		minimum elong	11801 May 05 14:34	21°♎13'12	2°51'07
desc. node	11800 Jun 10 04:03	3°♎32'10		min. Earth dist.	11801 May 05 14:27	21°♎13'37	0.68757 AU
morning max el	11800 Jun 11 10:41	4°♎46'54	23°34'12	morning rise	11801 May 10 19:49	14°♎55'20	
	11800 Jun 30 20:18	0°♎		direct	11801 May 15 14:01	12°♎54'25	
morning set	11800 Jul 16 11:36	24°♎44'39		morning max el	11801 May 24 23:00	18°♎24'03	22°05'30

desc. node	11801 May 28 00:57	21° $\text{♄}$ 44'13		desc. node	11802 May 14 21:48	10° $\text{♄}$ 42'37	
	11801 Jun 03 14:34	0° $\text{♄}$			11802 May 28 10:09	0° $\text{♄}$	
	11801 Jun 23 23:10	0° $\text{♄}$		morning set	11802 Jun 06 09:51	13° $\text{♄}$ 42'57	
morning set	11801 Jun 26 22:55	4° $\text{♄}$ 45'55		max. Earth dist.	11802 Jun 14 16:22	26° $\text{♄}$ 49'19	1.43329 AU
max. Earth dist.	11801 Jul 02 10:22	13° $\text{♄}$ 44'53	1.41337 AU		11802 Jun 16 15:19	0° $\text{♄}$	
superior conj	11801 Jul 10 04:25	27° $\text{♄}$ 04'55	-1°32'22	superior conj	11802 Jun 21 10:29	7° $\text{♄}$ 56'22	-1°58'58
minimum elong	11801 Jul 10 10:46	27° $\text{♄}$ 33'02	1°32'19	minimum elong	11802 Jun 21 16:49	8° $\text{♄}$ 22'56	1°59'17
	11801 Jul 11 19:46	0° $\text{♄}$		evening rise	11802 Jul 03 12:59	28° $\text{♄}$ 52'36	
evening rise	11801 Jul 20 17:06	16° $\text{♄}$ 17'58			11802 Jul 04 04:14	0° $\text{♄}$	
asc. node	11801 Jul 21 12:19	17° $\text{♄}$ 47'11		asc. node	11802 Jul 08 09:10	7° $\text{♄}$ 23'55	
	11801 Jul 28 06:51	0° $\text{♄}$		evening max el	11802 Jul 20 06:24	24° $\text{♄}$ 55'24	18°03'47
evening max el	11801 Aug 05 17:44	11° $\text{♄}$ 51'02	18°14'52	retrograde	11802 Jul 26 20:06	28° $\text{♄}$ 18'14	
retrograde	11801 Aug 12 23:03	15° $\text{♄}$ 30'20		evening set	11802 Jul 29 09:00	27° $\text{♄}$ 47'41	
evening set	11801 Aug 15 03:54	15° $\text{♄}$ 10'36		inferior conj	11802 Aug 04 23:34	22° $\text{♄}$ 45'28	1°40'28
inferior conj	11801 Aug 22 11:25	10° $\text{♄}$ 28'07	0°27'13	minimum elong	11802 Aug 05 02:05	22° $\text{♄}$ 39'15	1°39'09
minimum elong	11801 Aug 22 12:20	10° $\text{♄}$ 26'10	0°26'33	min. Earth dist.	11802 Aug 08 02:03	19° $\text{♄}$ 43'05	0.61293 AU
desc. node	11801 Aug 23 23:15	9° $\text{♄}$ 10'56		desc. node	11802 Aug 10 20:37	17° $\text{♄}$ 21'10	
min. Earth dist.	11801 Aug 25 19:31	7° $\text{♄}$ 37'54	0.59011 AU	morning rise	11802 Aug 11 16:33	16° $\text{♄}$ 45'41	
morning rise	11801 Aug 29 17:20	4° $\text{♄}$ 53'11		direct	11802 Aug 18 08:05	14° $\text{♄}$ 30'21	
direct	11801 Sep 05 01:08	3° $\text{♄}$ 04'09		morning max el	11802 Sep 01 13:33	22° $\text{♄}$ 29'30	27°57'16
morning max el	11801 Sep 19 09:44	10° $\text{♄}$ 50'54	27°31'19		11802 Sep 08 04:45	0° $\text{♄}$	
	11801 Oct 04 07:02	0° $\text{♄}$			11802 Sep 27 11:16	0° $\text{♄}$	
asc. node	11801 Oct 17 13:30	23° $\text{♄}$ 43'24		asc. node	11802 Oct 04 10:14	13° $\text{♄}$ 34'15	
morning set	11801 Oct 20 18:00	0° $\text{♄}$ 18'12		morning set	11802 Oct 04 20:29	14° $\text{♄}$ 27'03	
	11801 Oct 20 14:33	0° $\text{♄}$		max. Earth dist.	11802 Oct 10 13:54	26° $\text{♄}$ 40'44	1.31627 AU
superior conj	11801 Oct 27 18:16	15° $\text{♄}$ 37'40	1°24'59	superior conj	11802 Oct 12 04:42	0° $\text{♄}$ 14'15	1°09'40
minimum elong	11801 Oct 27 16:20	15° $\text{♄}$ 26'51	1°25'16	minimum elong	11802 Oct 12 02:27	0° $\text{♄}$ 01'50	1°09'39
max. Earth dist.	11801 Oct 27 06:50	14° $\text{♄}$ 33'56	1.31335 AU		11802 Oct 12 02:07	0° $\text{♄}$	
evening rise	11801 Nov 03 11:49	0° $\text{♄}$ 27'14		evening rise	11802 Oct 18 22:09	15° $\text{♄}$ 02'10	
	11801 Nov 03 06:44	0° $\text{♄}$			11802 Oct 26 06:37	0° $\text{♄}$	
	11801 Nov 19 09:30	0° $\text{♄}$		desc. node	11802 Nov 06 17:35	18° $\text{♄}$ 37'49	
desc. node	11801 Nov 19 20:22	0° $\text{♄}$ 41'34		evening max el	11802 Nov 14 03:48	27° $\text{♄}$ 12'37	25°00'20
evening max el	11801 Dec 02 12:05	16° $\text{♄}$ 27'19	26°22'21		11802 Nov 17 10:01	0° $\text{♄}$	
retrograde	11801 Dec 16 10:42	23° $\text{♄}$ 33'12		retrograde	11802 Nov 27 23:33	4° $\text{♄}$ 08'19	
evening set	11801 Dec 22 22:53	21° $\text{♄}$ 50'19		evening set	11802 Dec 03 14:44	2° $\text{♄}$ 57'07	
min. Earth dist.	11801 Dec 27 01:36	19° $\text{♄}$ 14'38	0.58728 AU	min. Earth dist.	11802 Dec 08 15:45	0° $\text{♄}$ 14'04	0.56782 AU
inferior conj	11801 Dec 30 05:01	16° $\text{♄}$ 53'18	-4°18'35		11802 Dec 09 00:34	30° $\text{♄}$ 27'14	
minimum elong	11801 Dec 30 13:17	16° $\text{♄}$ 37'46	4°15'24	inferior conj	11802 Dec 11 08:15	28° $\text{♄}$ 28'54	-5°22'09
morning rise	11802 Jan 07 06:29	12° $\text{♄}$ 22'31		minimum elong	11802 Dec 11 15:15	28° $\text{♄}$ 17'27	5°20'12
direct	11802 Jan 09 08:54	12° $\text{♄}$ 07'24		morning rise	11802 Dec 19 17:58	24° $\text{♄}$ 19'54	
asc. node	11802 Jan 13 13:17	13° $\text{♄}$ 10'52		direct	11802 Dec 22 02:07	24° $\text{♄}$ 04'19	
morning max el	11802 Jan 17 11:15	16° $\text{♄}$ 06'05	18°25'38	asc. node	11802 Dec 31 10:26	28° $\text{♄}$ 33'30	
	11802 Jan 27 04:33	0° $\text{♄}$		morning max el	11802 Dec 31 11:10	28° $\text{♄}$ 35'17	19°16'42
morning set	11802 Feb 02 08:07	11° $\text{♄}$ 27'31			11803 Jan 01 20:01	0° $\text{♄}$	
superior conj	11802 Feb 11 10:54	28° $\text{♄}$ 42'52	0°34'02	morning set	11803 Jan 17 09:19	25° $\text{♄}$ 53'14	
minimum elong	11802 Feb 11 13:12	28° $\text{♄}$ 53'25	0°34'08		11803 Jan 19 10:44	0° $\text{♄}$	
	11802 Feb 12 03:43	0° $\text{♄}$		superior conj	11803 Jan 25 13:25	12° $\text{♄}$ 05'24	1°01'17
desc. node	11802 Feb 15 20:17	6° $\text{♄}$ 38'32		minimum elong	11803 Jan 25 16:22	12° $\text{♄}$ 19'41	1°01'30
max. Earth dist.	11802 Feb 18 22:43	12° $\text{♄}$ 03'08	1.40600 AU	max. Earth dist.	11803 Feb 01 04:56	24° $\text{♄}$ 34'24	1.38377 AU
evening rise	11802 Feb 23 07:50	19° $\text{♄}$ 25'58		desc. node	11803 Feb 02 17:00	27° $\text{♄}$ 16'34	
	11802 Mar 01 21:49	0° $\text{♄}$			11803 Feb 04 05:58	0° $\text{♄}$	
	11802 Mar 23 01:53	0° $\text{♄}$		evening rise	11803 Feb 04 23:05	1° $\text{♄}$ 14'46	
evening max el	11802 Mar 29 18:22	7° $\text{♄}$ 33'15	23°32'51		11803 Feb 23 03:47	0° $\text{♄}$	
retrograde	11802 Apr 09 12:01	13° $\text{♄}$ 52'59		evening max el	11803 Mar 12 08:04	21° $\text{♄}$ 24'38	24°51'49
asc. node	11802 Apr 11 10:41	13° $\text{♄}$ 35'19		retrograde	11803 Mar 24 03:02	28° $\text{♄}$ 16'31	
evening set	11802 Apr 14 15:36	11° $\text{♄}$ 43'19		asc. node	11803 Mar 29 08:01	26° $\text{♄}$ 16'45	
min. Earth dist.	11802 Apr 19 11:14	6° $\text{♄}$ 04'33	0.68644 AU	evening set	11803 Mar 29 18:33	25° $\text{♄}$ 55'12	
inferior conj	11802 Apr 20 01:26	5° $\text{♄}$ 15'48	2°25'02	min. Earth dist.	11803 Apr 03 06:21	20° $\text{♄}$ 52'00	0.68092 AU
minimum elong	11802 Apr 19 23:18	5° $\text{♄}$ 23'07	2°24'06	inferior conj	11803 Apr 04 08:40	19° $\text{♄}$ 25'02	1°48'22
	11802 Apr 24 08:30	30° $\text{♄}$ 17'19		minimum elong	11803 Apr 04 06:35	19° $\text{♄}$ 31'55	1°47'31
morning rise	11802 Apr 25 06:57	29° $\text{♄}$ 10'40		morning rise	11803 Apr 09 18:50	13° $\text{♄}$ 28'01	
direct	11802 Apr 29 12:08	27° $\text{♄}$ 30'55		direct	11803 Apr 13 11:43	12° $\text{♄}$ 09'15	
	11802 May 05 06:02	0° $\text{♄}$		morning max el	11803 Apr 20 18:06	16° $\text{♄}$ 10'47	19°36'38
morning max el	11802 May 07 16:46	2° $\text{♄}$ 11'31	20°44'35	desc. node	11803 May 01 18:36	0° $\text{♄}$ 14'52	

	11803 May 01 14:28	0°♄			11804 Apr 02 19:04	0°♄	
greatest brilliancy	11803 May 03 10:51	2°♄41'23	-0.6m	morning max el	11804 Apr 03 02:54	0°♄18'52	18°44'11
morning set	11803 May 16 09:48	22°♄15'53		desc. node	11804 Apr 17 15:18	20°♄11'22	
	11803 May 21 09:54	0°♄			11804 Apr 23 22:42	0°♄	
max. Earth dist.	11803 May 28 05:34	10°♄41'11	1.44806 AU	morning set	11804 Apr 24 21:20	1°♄28'25	
				max. Earth dist.	11804 May 09 23:45	25°♄03'22	1.45610 AU
superior conj	11803 Jun 01 16:39	17°♄47'35	-2°12'43				
minimum elong	11803 Jun 01 18:30	17°♄55'01	2°13'26	superior conj	11804 May 11 04:02	26°♄54'03	-2°07'34
	11803 Jun 09 04:42	0°♄		minimum elong	11804 May 10 22:20	26°♄31'45	2°07'57
evening rise	11803 Jun 15 12:50	10°♄33'58			11804 May 13 03:28	0°♄	
asc. node	11803 Jun 25 06:07	26°♄41'33		evening rise	11804 May 26 12:51	21°♄14'49	
	11803 Jun 27 09:18	0°♄			11804 May 31 23:48	0°♄	
evening max el	11803 Jul 03 20:32	8°♄20'12	18°11'23	greatest brilliancy	11804 Jun 02 06:01	2°♄00'37	-0.9m
retrograde	11803 Jul 10 05:02	11°♄41'13		asc. node	11804 Jun 11 03:08	15°♄32'34	
evening set	11803 Jul 13 02:08	10°♄57'13		evening max el	11804 Jun 16 09:00	21°♄56'42	18°36'56
inferior conj	11803 Jul 19 03:25	5°♄36'56	2°30'14	retrograde	11804 Jun 22 21:43	25°♄29'40	
minimum elong	11803 Jul 19 05:56	5°♄29'57	2°28'58	evening set	11804 Jun 26 03:04	24°♄30'40	
min. Earth dist.	11803 Jul 21 17:53	2°♄44'17	0.63491 AU	inferior conj	11804 Jul 01 18:56	18°♄54'10	3°00'07
	11803 Jul 24 13:33	30°♄		minimum elong	11804 Jul 01 20:37	18°♄49'00	2°59'05
morning rise	11803 Jul 25 08:07	29°♄22'25		min. Earth dist.	11804 Jul 03 18:52	16°♄28'11	0.65408 AU
desc. node	11803 Jul 28 17:57	27°♄24'47		morning rise	11804 Jul 07 13:16	12°♄32'52	
direct	11803 Aug 01 00:25	26°♄48'44		direct	11804 Jul 14 00:38	9°♄50'59	
	11803 Aug 09 07:44	0°♄		desc. node	11804 Jul 14 15:12	9°♄52'17	
morning max el	11803 Aug 14 22:11	4°♄50'29	27°45'13	morning max el	11804 Jul 27 09:04	17°♄43'52	27°00'14
	11803 Sep 02 21:53	0°♄			11804 Aug 06 15:36	0°♄	
morning set	11803 Sep 18 15:45	28°♄12'48			11804 Aug 25 20:05	0°♄	
	11803 Sep 19 13:03	0°♄		morning set	11804 Sep 01 00:58	11°♄28'00	
asc. node	11803 Sep 21 06:57	3°♄34'25		max. Earth dist.	11804 Sep 05 08:04	19°♄56'40	1.33759 AU
max. Earth dist.	11803 Sep 23 15:27	8°♄30'26	1.32438 AU	asc. node	11804 Sep 07 03:39	23°♄39'12	
superior conj	11803 Sep 26 11:56	14°♄37'44	0°49'01	superior conj	11804 Sep 09 13:46	28°♄41'46	0°23'20
minimum elong	11803 Sep 26 09:54	14°♄26'43	0°48'46	minimum elong	11804 Sep 09 12:35	28°♄35'35	0°23'01
evening rise	11803 Oct 03 09:32	29°♄37'34			11804 Sep 10 04:37	0°♄	
	11803 Oct 03 13:43	0°♄		evening rise	11804 Sep 16 20:01	14°♄07'38	
	11803 Oct 20 06:27	0°♄			11804 Sep 24 19:41	0°♄	
desc. node	11803 Oct 24 14:53	5°♄20'15		evening max el	11804 Oct 07 03:58	17°♄30'46	21°41'57
evening max el	11803 Oct 26 14:19	7°♄22'31	23°20'59	desc. node	11804 Oct 10 12:13	20°♄22'43	
retrograde	11803 Nov 08 23:21	14°♄02'09		retrograde	11804 Oct 19 13:05	23°♄40'08	
evening set	11803 Nov 13 06:51	13°♄21'46		evening set	11804 Oct 22 10:47	23°♄21'00	
min. Earth dist.	11803 Nov 20 00:04	10°♄12'50	0.55315 AU	inferior conj	11804 Oct 31 09:21	19°♄25'04	-5°24'51
inferior conj	11803 Nov 21 15:32	9°♄15'18	-5°50'53	minimum elong	11804 Oct 31 01:40	19°♄35'49	5°23'01
minimum elong	11803 Nov 21 16:01	9°♄14'36	5°50'10	min. Earth dist.	11804 Oct 31 06:37	19°♄28'54	0.54599 AU
morning rise	11803 Nov 30 02:53	5°♄23'47		morning rise	11804 Nov 08 17:41	15°♄37'21	
direct	11803 Dec 03 00:24	5°♄03'33		direct	11804 Nov 12 09:37	15°♄08'10	
morning max el	11803 Dec 13 21:53	10°♄14'00	20°30'45	morning max el	11804 Nov 24 19:02	21°♄02'04	22°05'49
asc. node	11803 Dec 18 07:31	15°♄13'08			11804 Dec 02 06:34	0°♄	
	11803 Dec 27 09:14	0°♄		asc. node	11804 Dec 04 04:32	2°♄53'28	
morning set	11804 Jan 01 16:19	10°♄32'48		morning set	11804 Dec 16 02:43	25°♄19'26	
					11804 Dec 18 07:38	0°♄	
superior conj	11804 Jan 09 04:39	26°♄02'40	1°20'49				
minimum elong	11804 Jan 09 07:11	26°♄15'30	1°21'18	superior conj	11804 Dec 23 04:55	10°♄24'26	1°33'04
	11804 Jan 11 03:48	0°♄		minimum elong	11804 Dec 23 06:29	10°♄32'41	1°33'46
max. Earth dist.	11804 Jan 14 12:52	6°♄37'21	1.36229 AU	max. Earth dist.	11804 Dec 27 02:32	18°♄30'08	1.34357 AU
evening rise	11804 Jan 18 09:21	13°♄51'52		evening rise	11804 Dec 31 11:08	27°♄08'35	
desc. node	11804 Jan 20 13:46	17°♄49'06			11805 Jan 01 23:04	0°♄	
	11804 Jan 27 17:05	0°♄		desc. node	11805 Jan 06 10:36	8°♄11'56	
	11804 Feb 18 00:05	0°♄			11805 Jan 20 00:44	0°♄	
evening max el	11804 Feb 22 21:37	5°♄14'36	26°02'02	evening max el	11805 Feb 04 11:08	18°♄55'54	26°56'11
retrograde	11804 Mar 06 13:10	12°♄27'46		retrograde	11805 Feb 17 17:43	26°♄19'36	
evening set	11804 Mar 12 16:21	9°♄58'01		evening set	11805 Feb 24 07:08	23°♄46'21	
asc. node	11804 Mar 15 05:23	7°♄28'20		min. Earth dist.	11805 Feb 28 06:46	19°♄52'08	0.65767 AU
min. Earth dist.	11804 Mar 16 21:34	5°♄29'56	0.67124 AU	inferior conj	11805 Mar 02 09:16	17°♄26'47	0°05'18
inferior conj	11804 Mar 18 12:00	3°♄30'13	1°01'50	minimum elong	11805 Mar 02 09:07	17°♄27'15	0°05'29
minimum elong	11804 Mar 18 10:32	3°♄34'46	1°01'19	transit middle	11805 Mar 02 09:07	17°♄27'15	0°05'29
	11804 Mar 21 11:55	30°♄		transit begin	11805 Mar 02 06:19	17°♄35'18	
morning rise	11804 Mar 24 05:24	27°♄43'01		transit end	11805 Mar 02 11:54	17°♄19'11	
direct	11804 Mar 27 11:01	26°♄43'28		asc. node	11805 Mar 02 02:44	17°♄45'41	

morning rise	11805 Mar 08 12:25	11° $\text{K}$ 51'24		evening set	11806 Feb 07 12:36	7° $\text{K}$ 12'27	
direct	11805 Mar 11 08:03	11° $\text{K}$ 08'08		min. Earth dist.	11806 Feb 11 08:00	3° $\text{K}$ 49'27	0.64061 AU
morning max el	11805 Mar 17 17:23	14° $\text{K}$ 30'03	18°08'18	inferior conj	11806 Feb 13 21:52	1° $\text{K}$ 07'56	-1°01'03
	11805 Mar 29 00:24	0° $\text{Y}$		minimum elong	11806 Feb 13 23:46	1° $\text{K}$ 02'56	0°59'49
desc. node	11805 Apr 04 11:58	10° $\text{Y}$ 25'40			11806 Feb 15 00:09	30° $\text{R}$	
morning set	11805 Apr 05 11:41	12° $\text{Y}$ 01'40		asc. node	11806 Feb 17 00:04	28° $\approx$ 06'15	
	11805 Apr 16 16:53	0° $\text{S}$		morning rise	11806 Feb 20 13:00	25° $\approx$ 46'46	
				direct	11806 Feb 23 00:18	25° $\approx$ 16'07	
superior conj	11805 Apr 20 11:46	5° $\text{S}$ 58'06	-1°42'46	morning max el	11806 Mar 01 10:46	28° $\approx$ 35'46	17°49'27
minimum elong	11805 Apr 20 02:23	5° $\text{S}$ 21'13	1°42'17		11806 Mar 02 18:40	0° $\text{K}$	
max. Earth dist.	11805 Apr 22 19:35	9° $\text{S}$ 36'50	1.45674 AU	morning set	11806 Mar 18 06:06	23° $\text{K}$ 56'23	
	11805 May 05 22:05	0° $\text{II}$			11806 Mar 21 20:11	0° $\text{Y}$	
evening rise	11805 May 06 14:10	1° $\text{II}$ 02'23		desc. node	11806 Mar 22 08:34	0° $\text{Y}$ 52'01	
greatest brilliancy	11805 May 18 19:25	19° $\text{II}$ 48'39	-0.7m				
	11805 May 25 22:35	0° $\text{S}$		superior conj	11806 Mar 31 09:22	15° $\text{Y}$ 45'18	-1°04'53
asc. node	11805 May 29 00:14	3° $\text{S}$ 48'04		minimum elong	11806 Mar 31 02:31	15° $\text{Y}$ 17'37	1°04'06
evening max el	11805 May 30 17:27	5° $\text{S}$ 39'04	19°19'34	max. Earth dist.	11806 Apr 05 14:29	24° $\text{Y}$ 05'14	1.45001 AU
retrograde	11805 Jun 06 18:44	9° $\text{S}$ 36'35			11806 Apr 09 08:48	0° $\text{S}$	
evening set	11805 Jun 10 08:45	8° $\text{S}$ 21'43		evening rise	11806 Apr 16 02:19	10° $\text{S}$ 24'19	
inferior conj	11805 Jun 15 18:41	2° $\text{S}$ 30'41	3°13'46		11806 Apr 29 02:47	0° $\text{II}$	
minimum elong	11805 Jun 15 19:16	2° $\text{S}$ 28'45	3°12'56	evening max el	11806 May 13 20:31	19° $\text{II}$ 23'56	20°17'39
min. Earth dist.	11805 Jun 17 03:50	0° $\text{S}$ 42'21	0.66932 AU	asc. node	11806 May 15 21:23	21° $\text{II}$ 16'40	
	11805 Jun 17 17:05	30° $\text{R}$ $\text{II}$		retrograde	11806 May 21 17:28	23° $\text{II}$ 56'14	
morning rise	11805 Jun 21 05:17	26° $\text{II}$ 08'17		evening set	11806 May 25 16:55	22° $\text{II}$ 25'15	
direct	11805 Jun 27 07:38	23° $\text{II}$ 28'13		inferior conj	11806 May 30 23:51	16° $\text{II}$ 21'17	3°14'06
desc. node	11805 Jul 01 12:22	24° $\text{II}$ 30'40		minimum elong	11806 May 30 23:22	16° $\text{II}$ 22'55	3°13'20
	11805 Jul 08 20:41	0° $\text{S}$		min. Earth dist.	11806 May 31 18:50	15° $\text{II}$ 16'29	0.68005 AU
morning max el	11805 Jul 09 19:52	0° $\text{S}$ 57'31	25°50'29	morning rise	11806 Jun 05 05:32	10° $\text{II}$ 01'28	
	11805 Jul 31 15:33	0° $\text{Q}$		direct	11806 Jun 10 20:21	7° $\text{II}$ 31'56	
morning set	11805 Aug 14 20:30	24° $\text{Q}$ 03'43		desc. node	11806 Jun 18 09:26	10° $\text{II}$ 52'07	
	11805 Aug 18 00:50	0° $\text{P}$		morning max el	11806 Jun 22 05:43	14° $\text{II}$ 21'54	24°25'47
max. Earth dist.	11805 Aug 18 14:15	1° $\text{P}$ 03'56	1.35559 AU		11806 Jul 04 23:31	0° $\text{S}$	
					11806 Jul 24 12:25	0° $\text{Q}$	
superior conj	11805 Aug 24 07:32	12° $\text{P}$ 19'39	-0°06'45	morning set	11806 Jul 27 21:51	5° $\text{Q}$ 48'45	
minimum elong	11805 Aug 24 07:57	12° $\text{P}$ 21'45	0°06'58	max. Earth dist.	11806 Jul 31 12:44	12° $\text{Q}$ 13'44	1.37726 AU
behind sun begin	11805 Aug 24 02:22	11° $\text{P}$ 53'34					
behind sun end	11805 Aug 24 13:32	12° $\text{P}$ 49'59		superior conj	11806 Aug 07 14:03	25° $\text{Q}$ 23'58	-0°39'53
asc. node	11805 Aug 25 00:21	13° $\text{P}$ 44'48		minimum elong	11806 Aug 07 16:44	25° $\text{Q}$ 36'55	0°39'55
evening rise	11805 Sep 01 03:33	28° $\text{P}$ 26'41			11806 Aug 09 22:50	0° $\text{P}$	
	11805 Sep 01 21:44	0° $\text{Q}$		asc. node	11806 Aug 11 21:03	3° $\text{P}$ 47'53	
evening max el	11805 Sep 19 05:18	28° $\text{Q}$ 11'48	20°17'11	evening rise	11806 Aug 16 05:40	12° $\text{P}$ 28'39	
	11805 Sep 21 05:06	0° $\text{M}$			11806 Aug 25 15:14	0° $\text{Q}$	
desc. node	11805 Sep 27 09:36	3° $\text{M}$ 16'05		evening max el	11806 Sep 01 20:46	9° $\text{Q}$ 41'00	19°12'58
retrograde	11805 Sep 30 01:30	3° $\text{M}$ 35'05		retrograde	11806 Sep 11 00:45	14° $\text{Q}$ 15'11	
evening set	11805 Oct 02 02:11	3° $\text{M}$ 24'36		evening set	11806 Sep 12 21:02	14° $\text{Q}$ 04'52	
	11805 Oct 10 04:37	30° $\text{R}$ $\text{Q}$		desc. node	11806 Sep 14 07:00	13° $\text{Q}$ 43'44	
inferior conj	11805 Oct 11 02:53	29° $\text{Q}$ 27'18	-4°03'43	inferior conj	11806 Sep 21 09:57	9° $\text{Q}$ 54'16	-2°13'38
minimum elong	11805 Oct 10 17:04	29° $\text{Q}$ 41'46	4°00'23	minimum elong	11806 Sep 21 04:07	10° $\text{Q}$ 04'01	2°11'19
min. Earth dist.	11805 Oct 12 14:55	28° $\text{Q}$ 34'09	0.54816 AU	min. Earth dist.	11806 Sep 24 02:58	8° $\text{Q}$ 06'00	0.55950 AU
morning rise	11805 Oct 19 07:09	25° $\text{Q}$ 22'13		morning rise	11806 Sep 29 08:24	5° $\text{Q}$ 15'59	
direct	11805 Oct 23 19:08	24° $\text{Q}$ 38'29		direct	11806 Oct 04 16:16	4° $\text{Q}$ 10'39	
	11805 Nov 04 22:14	0° $\text{M}$		morning max el	11806 Oct 18 18:30	11° $\text{Q}$ 20'12	25°36'38
morning max el	11805 Nov 06 07:15	1° $\text{M}$ 14'11	23°53'05		11806 Nov 02 01:40	0° $\text{M}$	
asc. node	11805 Nov 21 01:28	21° $\text{M}$ 19'27		asc. node	11806 Nov 07 22:18	10° $\text{M}$ 19'46	
	11805 Nov 25 16:53	0° $\text{X}$		morning set	11806 Nov 15 01:57	24° $\text{M}$ 49'02	
morning set	11805 Nov 30 14:30	10° $\text{X}$ 06'24			11806 Nov 17 11:16	0° $\text{X}$	
superior conj	11805 Dec 07 11:13	25° $\text{X}$ 00'57	1°38'35	superior conj	11806 Nov 21 21:11	9° $\text{X}$ 45'14	1°37'53
minimum elong	11805 Dec 07 11:38	25° $\text{X}$ 03'12	1°39'22	minimum elong	11806 Nov 21 20:29	9° $\text{X}$ 41'26	1°38'34
	11805 Dec 09 18:42	0° $\text{S}$		max. Earth dist.	11806 Nov 23 04:10	12° $\text{X}$ 36'14	1.31906 AU
max. Earth dist.	11805 Dec 09 23:52	0° $\text{S}$ 27'34	1.32894 AU	evening rise	11806 Nov 28 23:24	25° $\text{X}$ 03'47	
evening rise	11805 Dec 15 00:49	10° $\text{S}$ 55'05			11806 Dec 01 09:27	0° $\text{S}$	
desc. node	11805 Dec 24 07:30	28° $\text{S}$ 19'08		desc. node	11806 Dec 11 04:30	18° $\text{S}$ 03'57	
	11805 Dec 25 06:52	0° $\approx$			11806 Dec 18 20:13	0° $\approx$	
	11806 Jan 15 16:54	0° $\text{K}$		evening max el	11806 Dec 31 09:37	15° $\approx$ 08'12	27°28'46
evening max el	11806 Jan 17 23:44	2° $\text{K}$ 17'43	27°27'16	retrograde	11807 Jan 14 06:36	22° $\approx$ 26'48	
retrograde	11806 Jan 31 15:55	9° $\text{K}$ 42'22		evening set	11807 Jan 21 05:55	20° $\approx$ 08'27	

min. Earth dist.	11807 Jan 24 23:35	17°  11'36	0.62084 AU			11808 Jan 06 21:32	30° 	
inferior conj	11807 Jan 27 22:46	14°  26'14	-2°15'45	min. Earth dist.	11808 Jan 07 04:23	29°  46'42	0.59955 AU	
minimum elong	11807 Jan 28 03:23	14°  15'28	2°13'17	inferior conj	11808 Jan 10 08:29	27°  12'08	-3°34'36	
asc. node	11807 Feb 03 21:22	9°  27'21		minimum elong	11808 Jan 10 15:48	26°  57'13	3°31'22	
morning rise	11807 Feb 04 03:29	9°  22'08		morning rise	11808 Jan 18 02:55	22°  28'23		
direct	11807 Feb 06 08:40	9°  00'17		direct	11808 Jan 20 05:12	22°  11'41		
morning max el	11807 Feb 13 03:56	12°  27'32	17°48'19	asc. node	11808 Jan 21 18:36	22°  21'17		
	11807 Feb 25 01:11	0° 		morning max el	11808 Jan 27 17:28	25°  55'58	18°06'11	
morning set	11807 Feb 28 23:04	6°  55'24			11808 Jan 31 04:48	0° 		
desc. node	11807 Mar 09 05:10	21°  26'26		morning set	11808 Feb 12 08:24	20°  39'55		
					11808 Feb 17 08:50	0° 		
superior conj	11807 Mar 12 06:32	26°  39'37	-0°23'20	superior conj	11808 Feb 22 03:50	8°  41'49	0°14'56	
minimum elong	11807 Mar 12 04:18	26°  30'11	0°22'52	minimum elong	11808 Feb 22 05:01	8°  47'06	0°15'05	
	11807 Mar 14 06:13	0° 		behind sun begin	11808 Feb 22 02:29	8°  35'48		
max. Earth dist.	11807 Mar 19 06:42	8°  15'02	1.43673 AU	behind sun end	11808 Feb 22 07:33	8°  58'24		
evening rise	11807 Mar 26 17:00	20°  01'22		desc. node	11808 Feb 24 01:50	12°  05'24		
	11807 Apr 02 05:38	0° 		max. Earth dist.	11808 Feb 29 18:54	21°  53'24	1.41824 AU	
	11807 Apr 23 20:16	0° 		evening rise	11808 Mar 05 23:13	0° 		
evening max el	11807 Apr 26 17:58	3°  09'41	21°28'05		11808 Mar 05 17:21	0° 		
asc. node	11807 May 02 18:36	7°  43'44			11808 Mar 25 17:34	0° 		
retrograde	11807 May 05 15:50	8°  23'20		evening max el	11808 Apr 08 10:54	16°  57'22	22°46'22	
evening set	11807 May 10 01:39	6°  36'23		retrograde	11808 Apr 18 12:21	22°  53'44		
inferior conj	11807 May 15 08:07	0°  21'18	3°03'03	asc. node	11808 Apr 18 15:53	22°  53'38		
minimum elong	11807 May 15 06:45	0°  26'03	3°02'14	evening set	11808 Apr 23 09:22	20°  51'44		
min. Earth dist.	11807 May 15 13:41	0°  01'54	0.68618 AU	inferior conj	11808 Apr 28 17:28	14°  27'52	2°41'45	
	11807 May 15 14:13	30° 		minimum elong	11808 Apr 28 15:30	14°  34'40	2°40'50	
morning rise	11807 May 20 11:38	24°  06'16		min. Earth dist.	11808 Apr 28 10:17	14°  52'47	0.68768 AU	
direct	11807 May 25 13:35	21°  53'39		morning rise	11808 May 03 21:31	8°  19'00		
morning max el	11807 Jun 04 16:05	27°  53'03	22°55'56	direct	11808 May 08 10:12	6°  26'57		
desc. node	11807 Jun 05 06:24	28°  29'41		morning max el	11808 May 17 06:21	11°  34'13	21°29'49	
	11807 Jun 06 16:06	0° 		desc. node	11808 May 22 03:18	17°  03'12		
	11807 Jun 28 15:04	0° 			11808 May 31 18:19	0° 		
morning set	11807 Jul 08 23:58	16°  29'20		morning set	11808 Jun 18 00:12	26°  00'45		
max. Earth dist.	11807 Jul 13 10:15	23°  56'41	1.40048 AU		11808 Jun 20 12:14	0° 		
	11807 Jul 16 21:49	0° 		max. Earth dist.	11808 Jun 24 13:01	6°  33'13	1.42239 AU	
superior conj	11807 Jul 21 05:11	7°  43'59	-1°13'52	superior conj	11808 Jul 02 00:29	19°  29'58	-1°44'46	
minimum elong	11807 Jul 21 10:24	8°  07'49	1°13'46	minimum elong	11808 Jul 02 07:15	19°  39'12	1°44'50	
asc. node	11807 Jul 29 17:48	23°  43'56			11808 Jul 08 04:01	0° 		
evening rise	11807 Jul 30 23:15	26°  04'29		evening rise	11808 Jul 13 04:26	9°  04'54		
	11807 Aug 02 00:49	0° 		asc. node	11808 Jul 15 14:38	13°  02'09		
evening max el	11807 Aug 15 23:35	21°  53'59	18°30'09		11808 Jul 25 12:13	0° 		
retrograde	11807 Aug 23 18:37	25°  49'06		evening max el	11808 Jul 29 09:44	4°  41'59	18°07'46	
evening set	11807 Aug 25 19:29	25°  33'51		retrograde	11808 Aug 05 07:02	8°  12'35		
desc. node	11807 Sep 01 04:24	22°  07'24		evening set	11808 Aug 07 15:18	7°  48'34		
inferior conj	11807 Sep 02 13:53	21°  03'05	-0°26'02	inferior conj	11808 Aug 14 15:10	2°  57'06	1°01'18	
minimum elong	11807 Sep 02 12:52	21°  05'04	0°25'49	minimum elong	11808 Aug 14 17:00	2°  52'54	1°00'14	
min. Earth dist.	11807 Sep 05 20:27	18°  30'30	0.57776 AU		11808 Aug 17 21:23	30° 		
morning rise	11807 Sep 10 02:46	15°  47'37		min. Earth dist.	11808 Aug 17 21:46	29°  59'11	0.59976 AU	
direct	11807 Sep 16 03:25	14°  47'15		desc. node	11808 Aug 18 01:47	29°  50'31		
morning max el	11807 Sep 30 11:05	21°  49'44	26°58'58	morning rise	11808 Aug 21 15:37	27°  10'19		
	11807 Oct 07 15:35	0° 		direct	11808 Aug 28 03:26	25°  09'48		
asc. node	11807 Oct 25 19:05	29°  44'51			11808 Sep 08 02:25	0° 		
	11807 Oct 25 22:08	0° 		morning max el	11808 Sep 11 11:17	3°  02'13	27°47'14	
morning set	11807 Oct 30 11:21	9°  22'13			11808 Oct 01 05:27	0° 		
superior conj	11807 Nov 06 08:46	24°  30'33	1°31'20	asc. node	11808 Oct 11 15:50	19°  42'59		
minimum elong	11807 Nov 06 07:12	24°  21'47	1°31'47	morning set	11808 Oct 13 16:58	23°  41'38		
max. Earth dist.	11807 Nov 06 12:33	24°  51'38	1.31406 AU		11808 Oct 16 15:55	0° 		
	11807 Nov 08 19:59	0° 		max. Earth dist.	11808 Oct 19 21:24	7°  05'24	1.31401 AU	
evening rise	11807 Nov 13 04:15	9°  27'07		superior conj	11808 Oct 20 20:09	9°  11'46	1°19'09	
	11807 Nov 23 17:16	0° 		minimum elong	11808 Oct 20 18:01	8°  59'56	1°19'18	
desc. node	11807 Nov 28 01:36	7°  31'04		evening rise	11808 Oct 27 13:11	23°  59'21		
evening max el	11807 Dec 13 14:03	27°  31'42	26°56'24		11808 Oct 30 09:33	0° 		
	11807 Dec 16 19:07	0° 		desc. node	11808 Nov 13 22:47	25°  46'07		
retrograde	11807 Dec 27 12:24	4°  24'14			11808 Nov 16 23:57	0° 		
evening set	11808 Jan 03 07:29	2°  26'08						



evening max el	11808 Nov 24 10:24	8° $\text{♁}$ 27'58	25°50'29	retrograde	11809 Nov 19 15:43	25° $\text{♁}$ 45'48	
retrograde	11808 Dec 08 07:55	15° $\text{♁}$ 29'29		evening set	11809 Nov 24 18:30	24° $\text{♁}$ 48'06	
evening set	11808 Dec 14 12:55	13° $\text{♁}$ 59'21		min. Earth dist.	11809 Nov 30 10:10	21° $\text{♁}$ 56'18	0.56077 AU
min. Earth dist.	11808 Dec 18 22:56	11° $\text{♁}$ 23'07	0.57864 AU	inferior conj	11809 Dec 02 17:59	20° $\text{♁}$ 29'58	-5°40'00
inferior conj	11808 Dec 21 23:30	9° $\text{♁}$ 15'22	-4°48'19	minimum elong	11809 Dec 02 22:51	20° $\text{♁}$ 22'25	5°38'44
minimum elong	11808 Dec 22 07:47	9° $\text{♁}$ 00'42	4°45'30	morning rise	11809 Dec 11 05:17	16° $\text{♁}$ 29'43	
morning rise	11808 Dec 30 05:14	4° $\text{♁}$ 54'12		direct	11809 Dec 13 17:59	16° $\text{♁}$ 12'52	
direct	11809 Jan 01 09:21	4° $\text{♁}$ 39'17		morning max el	11809 Dec 23 18:20	20° $\text{♁}$ 59'45	19°45'24
asc. node	11809 Jan 07 15:48	6° $\text{♁}$ 52'36		asc. node	11809 Dec 25 12:56	22° $\text{♁}$ 50'28	
morning max el	11809 Jan 09 23:33	8° $\text{♁}$ 50'08	18°44'39		11809 Dec 30 20:23	0° $\text{♁}$	
	11809 Jan 23 16:09	0° $\text{♁}$		morning set	11810 Jan 10 08:56	19° $\text{♁}$ 26'39	
morning set	11809 Jan 26 04:55	4° $\text{♁}$ 53'52			11810 Jan 15 13:50	0° $\text{♁}$	
superior conj	11809 Feb 03 21:07	21° $\text{♁}$ 39'21	0°46'31	superior conj	11810 Jan 18 05:36	5° $\text{♁}$ 18'41	1°10'28
minimum elong	11809 Feb 03 23:51	21° $\text{♁}$ 52'14	0°46'39	minimum elong	11810 Jan 18 08:28	5° $\text{♁}$ 32'51	1°10'47
	11809 Feb 08 09:42	0° $\text{♁}$		max. Earth dist.	11810 Jan 24 08:41	17° $\text{♁}$ 05'04	1.37439 AU
desc. node	11809 Feb 09 22:31	2° $\text{♁}$ 44'47		desc. node	11810 Jan 27 19:15	23° $\text{♁}$ 21'09	
max. Earth dist.	11809 Feb 11 02:40	4° $\text{♁}$ 49'09	1.39660 AU	evening rise	11810 Jan 28 02:06	23° $\text{♁}$ 51'41	
evening rise	11809 Feb 15 02:20	11° $\text{♁}$ 41'01			11810 Jan 31 14:36	0° $\text{♁}$	
	11809 Feb 26 13:16	0° $\text{♁}$			11810 Feb 20 06:28	0° $\text{♁}$	
	11809 Mar 21 06:30	0° $\text{♁}$		evening max el	11810 Mar 04 14:23	14° $\text{♁}$ 37'37	25°23'03
evening max el	11809 Mar 22 01:03	0° $\text{♁}$ 46'52	24°06'55	retrograde	11810 Mar 16 19:01	21° $\text{♁}$ 40'46	
retrograde	11809 Apr 02 05:46	7° $\text{♁}$ 21'34		evening set	11810 Mar 22 15:32	19° $\text{♁}$ 15'14	
asc. node	11809 Apr 05 13:13	6° $\text{♁}$ 31'18		asc. node	11810 Mar 23 10:35	18° $\text{♁}$ 32'23	
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min. Earth dist.	11809 Apr 12 06:32	29° $\text{♁}$ 42'58	0.68466 AU	minimum elong	11810 Mar 28 05:56	12° $\text{♁}$ 51'13	1°29'06
inferior conj	11809 Apr 13 02:00	28° $\text{♁}$ 37'03	2°10'41	morning rise	11810 Apr 02 20:47	6° $\text{♁}$ 52'01	
minimum elong	11809 Apr 12 23:50	28° $\text{♁}$ 44'24	2°09'45	direct	11810 Apr 06 08:37	5° $\text{♁}$ 41'56	
morning rise	11809 Apr 18 09:13	22° $\text{♁}$ 35'26		morning max el	11810 Apr 13 08:02	9° $\text{♁}$ 31'05	19°12'15
direct	11809 Apr 22 09:01	21° $\text{♁}$ 04'55		desc. node	11810 Apr 25 20:52	26° $\text{♁}$ 00'31	
morning max el	11809 Apr 30 03:22	25° $\text{♁}$ 27'20	20°13'55	greatest brilliancy	11810 Apr 26 06:23	26° $\text{♁}$ 36'01	-0.7m
	11809 May 04 04:53	0° $\text{♁}$			11810 Apr 28 12:39	0° $\text{♁}$	
desc. node	11809 May 09 00:07	6° $\text{♁}$ 17'07		morning set	11810 May 07 06:05	13° $\text{♁}$ 22'06	
	11809 May 25 02:56	0° $\text{♁}$			11810 May 17 23:06	0° $\text{♁}$	
morning set	11809 May 28 04:03	4° $\text{♁}$ 40'31		max. Earth dist.	11810 May 20 13:23	4° $\text{♁}$ 04'09	1.45236 AU
max. Earth dist.	11809 Jun 06 22:23	19° $\text{♁}$ 59'49	1.44032 AU	superior conj	11810 May 23 17:08	9° $\text{♁}$ 02'48	-2°13'03
superior conj	11809 Jun 12 20:13	29° $\text{♁}$ 34'23	-2°06'47	minimum elong	11810 May 23 15:48	8° $\text{♁}$ 57'35	2°13'45
minimum elong	11809 Jun 13 01:16	29° $\text{♁}$ 55'09	2°07'19		11810 Jun 05 17:00	0° $\text{♁}$	
	11809 Jun 13 02:27	0° $\text{♁}$		evening rise	11810 Jun 07 06:21	2° $\text{♁}$ 33'29	
evening rise	11809 Jun 25 16:24	21° $\text{♁}$ 18'02		asc. node	11810 Jun 19 08:30	22° $\text{♁}$ 05'27	
	11809 Jun 30 17:27	0° $\text{♁}$			11810 Jun 25 04:56	0° $\text{♁}$	
asc. node	11809 Jul 02 11:32	2° $\text{♁}$ 58'20		evening max el	11810 Jun 26 13:02	1° $\text{♁}$ 25'26	18°20'07
evening max el	11809 Jul 12 23:20	17° $\text{♁}$ 55'15	18°04'45	retrograde	11810 Jul 02 22:23	4° $\text{♁}$ 50'03	
retrograde	11809 Jul 19 09:47	21° $\text{♁}$ 15'58		evening set	11810 Jul 05 22:52	4° $\text{♁}$ 00'00	
evening set	11809 Jul 22 02:04	20° $\text{♁}$ 40'05			11810 Jul 10 13:09	30° $\text{♁}$	
inferior conj	11809 Jul 28 10:30	15° $\text{♁}$ 29'51	2°04'16	inferior conj	11810 Jul 11 19:44	28° $\text{♁}$ 32'51	2°45'06
minimum elong	11809 Jul 28 13:09	15° $\text{♁}$ 22'55	2°02'54	minimum elong	11810 Jul 11 21:57	28° $\text{♁}$ 26'23	2°43'56
min. Earth dist.	11809 Jul 31 08:20	12° $\text{♁}$ 29'02	0.62244 AU	min. Earth dist.	11810 Jul 14 04:17	25° $\text{♁}$ 49'25	0.64348 AU
morning rise	11809 Aug 03 22:02	9° $\text{♁}$ 22'18		morning rise	11810 Jul 17 19:42	22° $\text{♁}$ 14'27	
desc. node	11809 Aug 04 23:08	8° $\text{♁}$ 40'34		desc. node	11810 Jul 22 20:26	19° $\text{♁}$ 44'20	
direct	11809 Aug 10 14:29	6° $\text{♁}$ 58'04		direct	11810 Jul 24 10:34	19° $\text{♁}$ 35'37	
morning max el	11809 Aug 24 17:43	15° $\text{♁}$ 00'22	27°56'44	morning max el	11810 Aug 07 03:33	27° $\text{♁}$ 36'06	27°29'39
	11809 Sep 05 22:29	0° $\text{♁}$			11810 Aug 09 10:04	0° $\text{♁}$	
	11809 Sep 23 19:43	0° $\text{♁}$			11810 Aug 30 16:02	0° $\text{♁}$	
morning set	11809 Sep 27 16:44	7° $\text{♁}$ 41'49		morning set	11810 Sep 11 08:04	21° $\text{♁}$ 15'13	
asc. node	11809 Sep 28 12:33	9° $\text{♁}$ 23'25		asc. node	11810 Sep 15 09:13	29° $\text{♁}$ 25'43	
max. Earth dist.	11809 Oct 03 02:39	19° $\text{♁}$ 06'18	1.31900 AU		11810 Sep 15 15:51	0° $\text{♁}$	
				max. Earth dist.	11810 Sep 16 00:25	0° $\text{♁}$ 44'34	1.32926 AU
superior conj	11809 Oct 05 05:29	23° $\text{♁}$ 43'31	1°01'33	superior conj	11810 Sep 19 10:40	7° $\text{♁}$ 59'08	0°38'43
minimum elong	11809 Oct 05 03:15	23° $\text{♁}$ 31'17	1°01'25	minimum elong	11810 Sep 19 08:55	7° $\text{♁}$ 49'45	0°38'25
	11809 Oct 08 01:52	0° $\text{♁}$		evening rise	11810 Sep 26 11:21	23° $\text{♁}$ 08'11	
evening rise	11809 Oct 12 00:11	8° $\text{♁}$ 35'03			11810 Sep 29 18:07	0° $\text{♁}$	
	11809 Oct 22 22:32	0° $\text{♁}$		evening max el	11810 Oct 18 09:38	28° $\text{♁}$ 59'07	22°38'01
desc. node	11809 Oct 31 20:03	13° $\text{♁}$ 14'18		desc. node	11810 Oct 18 17:22	29° $\text{♁}$ 17'45	
evening max el	11809 Nov 05 23:00	18° $\text{♁}$ 54'46	24°19'14				

































































































































	11810 Oct 19 11:37	0°♊			11811 Sep 07 06:28	0°♎	
retrograde	11810 Oct 31 10:47	5°♊28'12		evening rise	11811 Sep 10 20:50	7°♎34'14	
evening set	11810 Nov 04 02:57	4°♊58'42			11811 Sep 22 20:19	0°♎	
min. Earth dist.	11810 Nov 11 17:37	1°♊33'13	0.54897 AU	evening max el	11811 Sep 30 03:38	9°♎18'10	21°03'37
inferior conj	11810 Nov 12 18:19	0°♊58'10	-5°47'17	desc. node	11811 Oct 05 14:43	13°♎28'32	
minimum elong	11810 Nov 12 15:02	1°♊02'50	5°46'25	retrograde	11811 Oct 11 21:52	15°♎08'30	
	11810 Nov 14 11:43	30°♎		evening set	11811 Oct 14 08:37	14°♎54'23	
morning rise	11810 Nov 21 04:36	27°♎10'10		inferior conj	11811 Oct 23 10:02	10°♎59'50	-4°56'02
direct	11810 Nov 24 09:24	26°♎46'44		minimum elong	11811 Oct 23 00:27	11°♎13'21	4°53'22
	11810 Dec 03 06:00	0°♊		min. Earth dist.	11811 Oct 24 00:28	10°♎39'26	0.54578 AU
morning max el	11810 Dec 05 23:06	2°♊16'18	21°08'53	morning rise	11811 Oct 31 16:41	7°♎07'22	
asc. node	11810 Dec 12 09:59	9°♊57'38		direct	11811 Nov 04 17:27	6°♎32'27	
	11810 Dec 23 17:10	0°♊		morning max el	11811 Nov 17 15:17	12°♎44'42	22°50'44
morning set	11810 Dec 25 17:38	4°♊09'35		asc. node	11811 Nov 29 06:56	27°♎58'32	
					11811 Nov 30 11:41	0°♊	
superior conj	11811 Jan 02 01:04	19°♊27'17	1°26'51	morning set	11811 Dec 10 04:49	18°♊56'31	
minimum elong	11811 Jan 02 03:13	19°♊38'27	1°27'26		11811 Dec 15 08:18	0°♊	
max. Earth dist.	11811 Jan 06 18:18	28°♊59'45	1.35391 AU				
	11811 Jan 07 06:33	0°♊		superior conj	11811 Dec 17 04:09	3°♊55'34	1°36'12
evening rise	11811 Jan 10 19:25	6°♊46'52		minimum elong	11811 Dec 17 05:14	4°♊01'21	1°36'56
desc. node	11811 Jan 14 16:02	13°♊50'05		max. Earth dist.	11811 Dec 20 11:19	10°♊53'32	1.33683 AU
	11811 Jan 24 08:23	0°♊		evening rise	11811 Dec 25 02:39	20°♊17'00	
evening max el	11811 Feb 15 04:03	28°♊25'18	26°27'28		11811 Dec 30 05:46	0°♊	
	11811 Feb 16 20:43	0°♊		desc. node	11812 Jan 01 12:53	4°♊06'52	
retrograde	11811 Feb 28 03:00	5°♊44'27			11812 Jan 18 07:54	0°♊	
evening set	11811 Mar 06 10:36	3°♊12'46		evening max el	11812 Jan 28 17:34	12°♊00'24	27°12'44
	11811 Mar 09 16:25	30°♊		retrograde	11812 Feb 11 04:45	19°♊24'43	
asc. node	11811 Mar 10 07:57	29°♊15'00		evening set	11812 Feb 17 21:41	16°♊52'17	
min. Earth dist.	11811 Mar 10 13:22	28°♊58'59	0.66592 AU	min. Earth dist.	11812 Feb 21 19:28	13°♊11'37	0.65081 AU
inferior conj	11811 Mar 12 08:54	26°♊47'28	0°39'07	inferior conj	11812 Feb 24 02:49	10°♊38'26	-0°21'41
minimum elong	11811 Mar 12 07:54	26°♊50'30	0°38'50	minimum elong	11812 Feb 24 03:27	10°♊36'41	0°21'05
morning rise	11811 Mar 18 06:08	21°♊04'44		asc. node	11812 Feb 25 05:18	9°♊25'53	
direct	11811 Mar 21 07:16	20°♊12'32		morning rise	11812 Mar 01 10:47	5°♊08'30	
morning max el	11811 Mar 27 19:29	23°♊41'01	18°26'44	direct	11812 Mar 04 02:45	4°♊30'55	
	11811 Apr 02 01:54	0°♊		morning max el	11812 Mar 10 11:29	7°♊50'25	17°58'07
desc. node	11811 Apr 12 17:32	16°♊05'22			11812 Mar 25 16:39	0°♊	
morning set	11811 Apr 17 04:05	23°♊06'36		morning set	11812 Mar 28 06:52	4°♊16'29	
	11811 Apr 21 12:41	0°♊		desc. node	11812 Mar 29 14:09	6°♊25'23	
superior conj	11811 May 03 00:46	18°♊02'48	-1°59'12	superior conj	11812 Apr 11 12:29	27°♊20'02	-1°27'43
minimum elong	11811 May 02 16:40	17°♊31'08	1°59'13	minimum elong	11812 Apr 11 03:35	26°♊44'48	1°27'00
max. Earth dist.	11811 May 03 08:22	18°♊32'29	1.45732 AU		11812 Apr 13 04:56	0°♊	
	11811 May 10 16:15	0°♊		max. Earth dist.	11812 Apr 15 04:35	3°♊07'32	1.45480 AU
evening rise	11811 May 18 20:05	12°♊49'33		evening rise	11812 Apr 27 14:08	22°♊21'58	
greatest brilliancy	11811 May 28 05:16	27°♊34'36	-0.8m		11812 May 02 13:40	0°♊	
	11811 May 29 18:59	0°♊		greatest brilliancy	11812 May 11 14:14	13°♊35'03	-0.6m
asc. node	11811 Jun 06 05:33	10°♊43'04		asc. node	11812 May 23 02:40	28°♊40'23	
evening max el	11811 Jun 10 00:08	15°♊05'53	18°53'07	evening max el	11812 May 23 06:28	28°♊50'00	19°42'32
retrograde	11811 Jun 16 17:09	18°♊47'31			11812 May 24 11:56	0°♊	
evening set	11811 Jun 20 02:09	17°♊41'50		retrograde	11812 May 30 15:08	3°♊00'48	
inferior conj	11811 Jun 25 15:07	11°♊59'14	3°07'39	evening set	11812 Jun 03 09:10	1°♊38'53	
minimum elong	11811 Jun 25 16:22	11°♊55'20	3°06'43		11812 Jun 05 05:33	30°♊	
min. Earth dist.	11811 Jun 27 08:49	9°♊48'08	0.66114 AU	inferior conj	11812 Jun 08 17:29	25°♊42'08	3°15'21
morning rise	11811 Jul 01 05:52	5°♊37'06		minimum elong	11812 Jun 08 17:36	25°♊41'43	3°14'35
direct	11811 Jul 07 13:57	2°♊54'36		min. Earth dist.	11812 Jun 09 20:26	24°♊12'09	0.67452 AU
desc. node	11811 Jul 09 17:39	3°♊11'00		morning rise	11812 Jun 14 01:41	19°♊20'46	
morning max el	11811 Jul 20 14:22	10°♊39'01	26°32'56	direct	11812 Jun 19 23:24	16°♊44'27	
	11811 Aug 04 22:26	0°♊		desc. node	11812 Jun 25 14:46	18°♊36'52	
	11811 Aug 23 05:08	0°♊		morning max el	11812 Jul 02 00:39	23°♊57'52	25°15'39
morning set	11811 Aug 25 11:54	4°♊14'40			11812 Jul 07 10:01	0°♊	
max. Earth dist.	11811 Aug 29 12:20	12°♊00'18	1.34472 AU		11812 Jul 28 07:59	0°♊	
asc. node	11811 Sep 02 05:54	19°♊31'24		morning set	11812 Aug 07 00:13	16°♊29'48	
				max. Earth dist.	11812 Aug 10 14:53	23°♊06'15	1.36457 AU
superior conj	11811 Sep 03 09:25	21°♊53'09	0°11'05		11812 Aug 14 05:58	0°♊	
minimum elong	11811 Sep 03 08:50	21°♊50'06	0°10'47				
behind sun begin	11811 Sep 03 04:27	21°♊27'28		superior conj	11812 Aug 16 22:49	5°♊17'41	-0°20'31
behind sun end	11811 Sep 03 13:12	22°♊12'45		minimum elong	11812 Aug 17 00:08	5°♊24'10	0°20'40

asc. node	11812 Aug 19 02:35	9° $\mathbb{M}$ 36'21			11813 Aug 06 04:02	0° $\mathbb{M}$	
evening rise	11812 Aug 25 02:23	21° $\mathbb{M}$ 46'56		evening rise	11813 Aug 09 01:18	5° $\mathbb{M}$ 39'01	
	11812 Aug 29 05:23	0° $\mathbb{L}$			11813 Aug 23 09:27	0° $\mathbb{L}$	
evening max el	11812 Sep 11 10:57	20° $\mathbb{L}$ 18'29	19°47'06	evening max el	11813 Aug 25 07:36	2° $\mathbb{L}$ 06'46	18°52'04
retrograde	11812 Sep 21 13:29	25° $\mathbb{L}$ 20'26		retrograde	11813 Sep 02 20:34	6° $\mathbb{L}$ 23'12	
desc. node	11812 Sep 21 12:05	25° $\mathbb{L}$ 20'25		evening set	11813 Sep 04 17:59	6° $\mathbb{L}$ 11'24	
evening set	11812 Sep 23 10:49	25° $\mathbb{L}$ 10'40		desc. node	11813 Sep 08 09:31	4° $\mathbb{L}$ 49'15	
inferior conj	11812 Oct 02 07:47	21° $\mathbb{L}$ 08'33	-3°18'26	inferior conj	11813 Sep 12 23:20	1° $\mathbb{L}$ 52'27	-1°26'13
minimum elong	11812 Oct 01 23:14	21° $\mathbb{L}$ 21'45	3°15'13	minimum elong	11813 Sep 12 19:42	1° $\mathbb{L}$ 58'57	1°24'48
min. Earth dist.	11812 Oct 04 09:43	19° $\mathbb{L}$ 51'33	0.55200 AU		11813 Sep 15 14:18	30° $\mathbb{R}$ $\mathbb{M}$	
morning rise	11812 Oct 10 10:01	16° $\mathbb{L}$ 51'00		min. Earth dist.	11813 Sep 15 23:55	29° $\mathbb{M}$ 43'21	0.56656 AU
direct	11812 Oct 15 06:37	15° $\mathbb{L}$ 59'07		morning rise	11813 Sep 20 18:08	26° $\mathbb{M}$ 57'45	
morning max el	11812 Oct 29 01:59	22° $\mathbb{L}$ 49'28	24°38'51	direct	11813 Sep 26 09:23	25° $\mathbb{M}$ 41'37	
	11812 Nov 04 11:22	0° $\mathbb{M}$			11813 Oct 07 02:23	0° $\mathbb{L}$	
asc. node	11812 Nov 15 03:48	16° $\mathbb{M}$ 40'18		morning max el	11813 Oct 10 15:14	3° $\mathbb{L}$ 03'13	26°15'21
	11812 Nov 21 22:40	0° $\mathbb{X}$			11813 Oct 29 21:16	0° $\mathbb{M}$	
morning set	11812 Nov 23 16:40	3° $\mathbb{X}$ 42'24		asc. node	11813 Nov 02 00:37	5° $\mathbb{M}$ 52'10	
				morning set	11813 Nov 08 03:27	18° $\mathbb{M}$ 21'46	
superior conj	11812 Nov 30 12:16	18° $\mathbb{X}$ 36'06	1°39'02		11813 Nov 13 10:53	0° $\mathbb{X}$	
minimum elong	11812 Nov 30 12:12	18° $\mathbb{X}$ 35'43	1°39'47	superior conj	11813 Nov 14 23:08	3° $\mathbb{X}$ 21'35	1°35'48
max. Earth dist.	11812 Dec 02 12:05	22° $\mathbb{X}$ 56'45	1.32412 AU	minimum elong	11813 Nov 14 22:03	3° $\mathbb{X}$ 15'30	1°36'25
	11812 Dec 05 19:25	0° $\mathbb{Z}$		max. Earth dist.	11813 Nov 15 18:29	5° $\mathbb{X}$ 08'58	1.31624 AU
evening rise	11812 Dec 07 20:27	4° $\mathbb{Z}$ 13'44		evening rise	11813 Nov 21 21:58	18° $\mathbb{X}$ 29'09	
desc. node	11812 Dec 18 09:49	24° $\mathbb{Z}$ 05'43			11813 Nov 27 15:20	0° $\mathbb{Z}$	
	11812 Dec 21 22:53	0° $\mathbb{A}$		desc. node	11813 Dec 05 06:52	13° $\mathbb{Z}$ 38'25	
evening max el	11813 Jan 10 05:20	25° $\mathbb{A}$ 10'48	27°31'52		11813 Dec 16 13:07	0° $\mathbb{A}$	
	11813 Jan 16 06:47	0° $\mathbb{H}$		evening max el	11813 Dec 23 12:58	7° $\mathbb{A}$ 42'51	27°19'15
retrograde	11813 Jan 23 23:40	2° $\mathbb{H}$ 33'01		retrograde	11814 Jan 06 10:53	14° $\mathbb{A}$ 58'38	
evening set	11813 Jan 30 22:23	0° $\mathbb{H}$ 06'50		evening set	11814 Jan 13 09:30	12° $\mathbb{A}$ 47'28	
	11813 Jan 31 02:15	30° $\mathbb{R}$ $\mathbb{A}$		min. Earth dist.	11814 Jan 17 03:28	9° $\mathbb{A}$ 59'41	0.61181 AU
min. Earth dist.	11813 Feb 03 16:36	26° $\mathbb{A}$ 56'04	0.63248 AU	inferior conj	11814 Jan 20 05:41	7° $\mathbb{A}$ 16'39	-2°49'06
inferior conj	11813 Feb 06 10:51	24° $\mathbb{A}$ 11'19	-1°31'51	minimum elong	11814 Jan 20 11:32	7° $\mathbb{A}$ 03'46	2°46'13
minimum elong	11813 Feb 06 13:52	24° $\mathbb{A}$ 03'49	1°30'05	morning rise	11814 Jan 27 16:24	2° $\mathbb{A}$ 21'15	
asc. node	11813 Feb 11 02:37	20° $\mathbb{A}$ 06'52		asc. node	11814 Jan 28 23:54	2° $\mathbb{A}$ 05'01	
morning rise	11813 Feb 13 07:39	18° $\mathbb{A}$ 57'09		direct	11814 Jan 29 19:50	2° $\mathbb{A}$ 02'05	
direct	11813 Feb 15 16:09	18° $\mathbb{A}$ 30'35		morning max el	11814 Feb 05 21:22	5° $\mathbb{A}$ 35'21	17°53'38
morning max el	11813 Feb 22 05:13	21° $\mathbb{A}$ 51'56	17°46'50		11814 Feb 21 11:55	0° $\mathbb{H}$	
	11813 Feb 28 12:22	0° $\mathbb{H}$		morning set	11814 Feb 21 12:22	0° $\mathbb{H}$ 02'01	
morning set	11813 Mar 10 11:45	16° $\mathbb{H}$ 41'49		desc. node	11814 Mar 03 07:24	17° $\mathbb{H}$ 33'00	
desc. node	11813 Mar 16 10:47	26° $\mathbb{H}$ 56'11					
	11813 Mar 18 06:14	0° $\mathbb{Y}$		superior conj	11814 Mar 04 03:28	19° $\mathbb{H}$ 00'00	-0°06'29
superior conj	11813 Mar 22 19:40	7° $\mathbb{Y}$ 35'24	-0°47'13	minimum elong	11814 Mar 04 02:54	18° $\mathbb{H}$ 57'35	0°06'10
minimum elong	11813 Mar 22 14:47	7° $\mathbb{Y}$ 15'20	0°46'33	behind sun begin	11814 Mar 03 19:11	18° $\mathbb{H}$ 24'08	
max. Earth dist.	11813 Mar 28 23:07	17° $\mathbb{Y}$ 32'12	1.44512 AU	behind sun end	11814 Mar 04 10:38	19° $\mathbb{H}$ 30'57	
	11813 Apr 05 21:54	0° $\mathbb{B}$			11814 Mar 10 15:46	0° $\mathbb{Y}$	
evening rise	11813 Apr 07 01:34	1° $\mathbb{B}$ 46'29		max. Earth dist.	11814 Mar 11 13:24	1° $\mathbb{Y}$ 28'56	1.42933 AU
	11813 Apr 26 03:54	0° $\mathbb{I}$		evening rise	11814 Mar 17 21:37	11° $\mathbb{Y}$ 39'52	
evening max el	11813 May 06 07:04	12° $\mathbb{I}$ 35'16	20°46'11		11814 Mar 29 23:18	0° $\mathbb{B}$	
asc. node	11813 May 09 23:52	15° $\mathbb{I}$ 45'02		evening max el	11814 Apr 19 02:17	26° $\mathbb{B}$ 21'28	22°00'40
retrograde	11813 May 14 14:01	17° $\mathbb{I}$ 24'42			11814 Apr 23 08:16	0° $\mathbb{I}$	
evening set	11813 May 18 17:49	15° $\mathbb{I}$ 46'39		asc. node	11814 Apr 26 21:08	1° $\mathbb{I}$ 41'38	
inferior conj	11813 May 24 00:15	9° $\mathbb{I}$ 37'28	3°10'43	retrograde	11814 Apr 28 11:57	1° $\mathbb{I}$ 54'07	
minimum elong	11813 May 23 23:22	9° $\mathbb{I}$ 40'31	3°09'56	evening set	11814 May 03 02:21	0° $\mathbb{I}$ 00'39	
min. Earth dist.	11813 May 24 13:20	8° $\mathbb{I}$ 52'15	0.68327 AU		11814 May 03 02:40	30° $\mathbb{R}$ $\mathbb{B}$	
morning rise	11813 May 29 04:42	3° $\mathbb{I}$ 19'29		inferior conj	11814 May 08 09:16	23° $\mathbb{B}$ 41'14	2°55'16
direct	11813 Jun 03 14:01	0° $\mathbb{I}$ 56'51		minimum elong	11814 May 08 07:36	23° $\mathbb{B}$ 47'01	2°54'23
desc. node	11813 Jun 12 11:49	5° $\mathbb{I}$ 33'50		min. Earth dist.	11814 May 08 09:20	23° $\mathbb{B}$ 41'00	0.68735 AU
morning max el	11813 Jun 14 10:39	7° $\mathbb{I}$ 26'05	23°47'35	morning rise	11814 May 13 12:40	17° $\mathbb{B}$ 28'28	
	11813 Jul 02 01:06	0° $\mathbb{D}$		direct	11814 May 18 08:53	15° $\mathbb{B}$ 24'24	
morning set	11813 Jul 19 16:15	27° $\mathbb{D}$ 48'54		morning max el	11814 May 27 22:24	21° $\mathbb{B}$ 01'56	22°18'21
	11813 Jul 20 22:53	0° $\mathbb{Q}$		desc. node	11814 May 30 08:46	23° $\mathbb{B}$ 37'43	
max. Earth dist.	11813 Jul 23 12:26	4° $\mathbb{Q}$ 28'10	1.38717 AU		11814 Jun 04 14:21	0° $\mathbb{I}$	
					11814 Jun 25 06:45	0° $\mathbb{D}$	
superior conj	11813 Jul 30 23:17	18° $\mathbb{Q}$ 04'04	-0°54'24	morning set	11814 Jun 30 07:32	8° $\mathbb{D}$ 01'00	
minimum elong	11813 Jul 31 03:04	18° $\mathbb{Q}$ 21'53	0°54'21	max. Earth dist.	11814 Jul 05 11:19	16° $\mathbb{D}$ 31'48	1.41009 AU
asc. node	11813 Aug 05 23:19	29° $\mathbb{Q}$ 36'57					

superior conj	11814 Jul 13 06:34	0°Ω02'47	-1°27'40	superior conj	11815 Jun 24 16:13	11°Ω03'44	-1°55'35
minimum elong	11814 Jul 13 12:40	0°Ω30'01	1°27'34	minimum elong	11815 Jun 24 22:48	11°Ω31'33	1°55'50
	11814 Jul 13 05:57	0°Ω			11815 Jul 05 13:25	0°Ω	
evening rise	11814 Jul 23 14:12	19°Ω01'44		evening rise	11815 Jul 06 12:41	1°Ω43'33	
asc. node	11814 Jul 23 20:07	19°Ω29'23		asc. node	11815 Jul 10 16:59	9°Ω08'38	
	11814 Jul 29 13:23	0°൬		evening max el	11815 Jul 23 02:17	27°Ω37'28	18°04'12
evening max el	11814 Aug 08 14:08	14°൬36'50	18°18'14		11815 Jul 26 03:05	0°൬	
retrograde	11814 Aug 15 22:39	18°൬19'40		retrograde	11815 Jul 29 17:32	1°൬01'43	
evening set	11814 Aug 18 02:24	18°൬01'14		evening set	11815 Aug 01 05:17	0°൬32'54	
inferior conj	11814 Aug 25 12:43	13°൬21'54	0°13'57		11815 Aug 02 09:48	30°ꠔ	
minimum elong	11814 Aug 25 13:12	13°൬20'53	0°13'28	inferior conj	11815 Aug 07 22:09	25°Ω33'23	1°30'56
transit middle	11814 Aug 25 13:12	13°൬20'53	0°13'28	minimum elong	11815 Aug 08 00:33	25°Ω27'35	1°29'38
transit begin	11814 Aug 25 11:16	13°൬24'55		min. Earth dist.	11815 Aug 11 01:56	22°Ω31'31	0.60956 AU
transit end	11814 Aug 25 15:07	13°൬16'52		desc. node	11815 Aug 13 04:21	20°Ω43'21	
desc. node	11814 Aug 26 06:57	12°൬43'34		morning rise	11815 Aug 14 17:05	19°Ω36'46	
min. Earth dist.	11814 Aug 28 20:52	10°൬35'31	0.58683 AU	direct	11815 Aug 21 07:55	17°Ω25'04	
morning rise	11814 Sep 01 20:29	7°൬51'46		morning max el	11815 Sep 04 14:00	25°Ω22'25	27°55'52
direct	11814 Sep 08 02:43	6°൬06'53			11815 Sep 08 20:23	0°൬	
morning max el	11814 Sep 22 11:09	13°൬50'50	27°24'03		11815 Sep 28 20:25	0°	
	11814 Oct 05 09:01	0°		asc. node	11815 Oct 06 18:06	15°	15'01
asc. node	11814 Oct 19 21:23	25°	26'06	morning set	11815 Oct 07 14:50	17°	01'55
	11814 Oct 22 03:01	0°		max. Earth dist.	11815 Oct 13 11:01	29°	33'25
morning set	11814 Oct 23 11:29	2°	50'12		11815 Oct 13 15:51	0°	
superior conj	11814 Oct 30 10:54	18°൬06'31	1°26'50	superior conj	11815 Oct 14 21:38	2°൬44'30	1°12'20
minimum elong	11814 Oct 30 09:03	17°൬56'10	1°27'11	minimum elong	11815 Oct 14 19:24	2°൬32'09	1°12'22
max. Earth dist.	11814 Oct 30 03:21	17°൬24'24	1.31338 AU	evening rise	11815 Oct 21 14:50	17°൬31'53	
	11814 Nov 04 19:54	0°			11815 Oct 27 16:11	0°	
evening rise	11814 Nov 06 04:48	2°	57'22	desc. node	11815 Nov 09 01:14	20°	40'18
	11814 Nov 20 12:44	0°			11815 Nov 16 22:53	0°	
desc. node	11814 Nov 22 04:00	2°	34'46	evening max el	11815 Nov 17 07:04	0°	19'40
evening max el	11814 Dec 05 14:06	19°	26'58	retrograde	11815 Dec 01 03:22	7°	16'41
retrograde	11814 Dec 19 12:51	26°	33'55	evening set	11815 Dec 06 22:33	6°	00'35
evening set	11814 Dec 26 03:04	24°	34'58	min. Earth dist.	11815 Dec 11 19:09	3°	19'56
min. Earth dist.	11814 Dec 30 03:58	22°	10'41	inferior conj	11815 Dec 14 14:08	1°	28'36
inferior conj	11815 Jan 02 07:48	19°	34'52	minimum elong	11815 Dec 14 21:39	1°	16'04
minimum elong	11815 Jan 02 15:54	19°	32'54		11815 Dec 16 20:45	30°ꠔ	
morning rise	11815 Jan 10 07:34	15°	11'10	morning rise	11815 Dec 22 23:02	27°	16'27
direct	11815 Jan 12 09:43	14°	35'47	direct	11815 Dec 25 05:56	27°	10'08
asc. node	11815 Jan 15 21:08	15°	34'03		11816 Jan 01 18:32	0°	
morning max el	11815 Jan 20 08:12	18°	35'03	asc. node	11816 Jan 02 18:17	0°	35'02
	11815 Jan 28 11:11	0°		morning max el	11816 Jan 03 09:49	1°	26'38
morning set	11815 Feb 05 02:56	14°	00'10	morning set	11816 Jan 20 03:02	28°	23'29
	11815 Feb 13 14:48	0°			11816 Jan 20 22:30	0°	
superior conj	11815 Feb 14 09:46	1°	26'51	superior conj	11816 Jan 28 10:02	14°	43'30
minimum elong	11815 Feb 14 11:49	1°	36'14	minimum elong	11816 Jan 28 12:58	14°	57'35
desc. node	11815 Feb 18 04:02	8°	12'23	max. Earth dist.	11816 Feb 04 05:40	27°	25'42
max. Earth dist.	11815 Feb 21 22:57	14°	47'10	desc. node	11816 Feb 05 00:44	28°	51'01
evening rise	11815 Feb 26 12:24	22°	42'50		11816 Feb 05 16:16	0°	
	11815 Mar 03 05:36	0°		evening rise	11816 Feb 08 00:35	4°	06'10
	11815 Mar 24 00:06	0°			11816 Feb 24 08:11	0°	
evening max el	11815 Apr 01 17:48	10°	10'01	evening max el	11816 Mar 14 07:37	24°	01'27
retrograde	11815 Apr 12 07:19	16°	23'50		11816 Mar 22 08:05	0°	
asc. node	11815 Apr 13 18:28	16°	13'46	retrograde	11816 Mar 25 22:57	0°	48'58
evening set	11815 Apr 17 09:10	14°	16'11		11816 Mar 29 07:10	30°ꠔ	
inferior conj	11815 Apr 22 18:30	7°	49'35	asc. node	11816 Mar 30 15:49	29°	10'13
minimum elong	11815 Apr 22 16:24	7°	56'49	evening set	11816 Mar 31 12:44	28°	29'06
min. Earth dist.	11815 Apr 22 06:09	8°	32'10	min. Earth dist.	11816 Apr 05 01:35	23°	20'46
morning rise	11815 Apr 27 23:33	1°	43'24	inferior conj	11816 Apr 06 02:07	21°	59'08
direct	11815 May 02 06:42	0°	00'21	minimum elong	11816 Apr 06 00:00	22°	06'11
morning max el	11815 May 10 15:07	4°	47'32	morning rise	11816 Apr 11 11:26	16°	00'57
desc. node	11815 May 17 05:38	12°	30'03	direct	11816 Apr 15 06:08	14°	39'07
	11815 May 29 15:54	0°		morning max el	11816 Apr 22 15:18	18°	45'31
morning set	11815 Jun 09 21:38	17°	06'09		11816 May 01 17:04	0°	
max. Earth dist.	11815 Jun 17 16:28	29°	29'26	desc. node	11816 May 03 02:24	1°	57'52
	11815 Jun 17 24:00	0°		greatest brilliancy	11816 May 05 11:46	5°	25'08

morning set	11816 May 18 21:54	25°♄39'12		desc. node	11817 Apr 19 23:04	21°♄51'02	
	11816 May 21 17:32	0°♄		greatest brilliancy	11817 Apr 20 01:14	21°♄59'20	-0.8m
max. Earth dist.	11816 May 30 05:00	13°♄16'25	1.44629 AU		11817 Apr 25 05:46	0°♄	
				morning set	11817 Apr 28 06:18	4°♄41'59	
superior conj	11816 Jun 04 01:50	21°♄03'33	-2°11'43	max. Earth dist.	11817 May 12 22:23	27°♄34'26	1.45537 AU
minimum elong	11816 Jun 04 04:40	21°♄15'01	2°12'26		11817 May 14 11:32	0°♄	
	11816 Jun 09 13:21	0°♄					
evening rise	11816 Jun 17 15:51	13°♄33'51		superior conj	11817 May 14 15:11	0°♄14'20	-2°09'41
asc. node	11816 Jun 26 13:55	28°♄29'45		minimum elong	11817 May 14 10:34	29°♄56'12	2°10'10
	11816 Jun 27 12:29	0°♄		evening rise	11817 May 29 19:27	24°♄23'40	
evening max el	11816 Jul 05 16:22	10°♄59'37	18°09'00		11817 Jun 02 06:45	0°♄	
retrograde	11816 Jul 12 01:03	14°♄20'05		asc. node	11817 Jun 13 10:56	17°♄25'32	
evening set	11816 Jul 14 20:54	13°♄38'14		evening max el	11817 Jun 19 05:12	24°♄34'42	18°32'00
inferior conj	11816 Jul 20 23:55	8°♄20'21	2°24'02	retrograde	11817 Jun 25 16:49	28°♄05'16	
minimum elong	11816 Jul 21 02:29	8°♄13'17	2°22'43	evening set	11817 Jun 28 20:51	27°♄08'38	
min. Earth dist.	11816 Jul 23 16:20	5°♄25'06	0.63180 AU	inferior conj	11817 Jul 04 13:54	21°♄34'28	2°56'38
morning rise	11816 Jul 27 06:19	2°♄07'20		minimum elong	11817 Jul 04 15:45	21°♄28'54	2°55'36
desc. node	11816 Jul 30 01:40	0°♄26'14		min. Earth dist.	11817 Jul 06 16:05	19°♄03'32	0.65143 AU
	11816 Jul 31 06:00	30°♄		morning rise	11817 Jul 10 09:37	15°♄13'36	
direct	11816 Aug 02 22:50	29°♄35'56		direct	11817 Jul 16 21:57	12°♄32'13	
	11816 Aug 05 18:23	0°♄		desc. node	11817 Jul 16 22:55	12°♄32'14	
morning max el	11816 Aug 16 22:11	7°♄37'55	27°49'17	morning max el	11817 Jul 30 08:58	20°♄27'46	27°08'45
	11816 Sep 03 02:37	0°♄			11817 Aug 07 13:51	0°♄	
morning set	11816 Sep 20 11:21	0°♄51'31			11817 Aug 27 05:07	0°♄	
	11816 Sep 20 01:04	0°♄		morning set	11817 Sep 03 22:17	14°♄12'23	
asc. node	11816 Sep 22 14:48	5°♄13'57		max. Earth dist.	11817 Sep 08 07:47	22°♄56'37	1.33526 AU
max. Earth dist.	11816 Sep 25 13:41	11°♄26'25	1.32284 AU	asc. node	11817 Sep 09 11:29	25°♄18'37	
					11817 Sep 11 17:28	0°♄	
superior conj	11816 Sep 28 05:28	17°♄10'10	0°52'29				
minimum elong	11816 Sep 28 03:21	16°♄58'44	0°52'16	superior conj	11817 Sep 12 08:15	1°♄17'55	0°27'33
	11816 Oct 04 02:31	0°♄		minimum elong	11817 Sep 12 06:54	1°♄10'46	0°27'13
evening rise	11816 Oct 05 02:10	2°♄07'29		evening rise	11817 Sep 19 12:55	16°♄39'02	
	11816 Oct 20 03:19	0°♄			11817 Sep 26 03:23	0°♄	
desc. node	11816 Oct 25 22:31	7°♄35'37		evening max el	11817 Oct 10 06:20	20°♄39'05	21°56'05
evening max el	11816 Oct 28 17:48	10°♄32'43	23°36'10	desc. node	11817 Oct 12 19:52	22°♄55'35	
retrograde	11816 Nov 11 05:08	17°♄15'46		retrograde	11817 Oct 22 20:11	26°♄54'24	
evening set	11816 Nov 15 17:55	16°♄31'03		evening set	11817 Oct 25 22:19	26°♄33'01	
min. Earth dist.	11816 Nov 22 03:56	13°♄27'12	0.55488 AU	inferior conj	11817 Nov 03 19:18	22°♄36'10	-5°32'39
inferior conj	11816 Nov 24 00:08	12°♄21'57	-5°49'47	minimum elong	11817 Nov 03 12:36	22°♄45'33	5°31'10
minimum elong	11816 Nov 24 01:53	12°♄19'22	5°48'59	min. Earth dist.	11817 Nov 03 10:41	22°♄48'14	0.54645 AU
morning rise	11816 Dec 02 11:41	8°♄28'41		morning rise	11817 Nov 12 04:10	18°♄49'02	
direct	11816 Dec 05 06:44	8°♄09'29		direct	11817 Nov 15 17:02	18°♄21'34	
morning max el	11816 Dec 15 22:39	13°♄13'31	20°18'21	morning max el	11817 Nov 27 21:45	24°♄09'17	21°50'34
asc. node	11816 Dec 19 15:22	17°♄19'39			11817 Dec 03 02:16	0°♄	
	11816 Dec 27 17:46	0°♄		asc. node	11817 Dec 06 12:21	4°♄51'57	
morning set	11817 Jan 03 09:20	13°♄01'42		morning set	11817 Dec 18 19:21	27°♄47'48	
					11817 Dec 19 20:26	0°♄	
superior conj	11817 Jan 10 23:37	28°♄36'38	1°18'19				
minimum elong	11817 Jan 11 02:15	28°♄49'56	1°18'45	superior conj	11817 Dec 25 22:45	12°♄55'36	1°31'39
	11817 Jan 11 16:12	0°♄		minimum elong	11817 Dec 26 00:29	13°♄04'40	1°32'18
max. Earth dist.	11817 Jan 16 13:00	9°♄31'48	1.36532 AU	max. Earth dist.	11817 Dec 30 01:24	21°♄24'08	1.34611 AU
evening rise	11817 Jan 20 08:12	16°♄36'41		evening rise	11818 Jan 03 07:54	29°♄48'18	
desc. node	11817 Jan 21 21:27	19°♄24'41			11818 Jan 03 10:20	0°♄	
	11817 Jan 28 01:14	0°♄		desc. node	11818 Jan 08 18:17	9°♄49'28	
	11817 Feb 17 18:50	0°♄			11818 Jan 21 04:15	0°♄	
evening max el	11817 Feb 24 21:00	7°♄51'35	25°52'22	evening max el	11818 Feb 07 10:29	21°♄34'33	26°49'23
retrograde	11817 Mar 09 09:50	15°♄02'37		retrograde	11818 Feb 20 15:22	28°♄57'41	
evening set	11817 Mar 15 11:24	12°♄33'42		evening set	11818 Feb 27 03:20	26°♄24'34	
asc. node	11817 Mar 17 13:10	10°♄33'52		min. Earth dist.	11818 Mar 03 03:42	22°♄25'22	0.65993 AU
min. Earth dist.	11817 Mar 19 17:27	8°♄00'33	0.67295 AU	asc. node	11818 Mar 04 10:31	20°♄55'48	
inferior conj	11817 Mar 21 06:08	6°♄05'07	1°09'33	inferior conj	11818 Mar 05 04:26	20°♄03'12	0°14'30
minimum elong	11817 Mar 21 04:33	6°♄10'09	1°08'58	minimum elong	11818 Mar 05 04:02	20°♄04'22	0°14'34
morning rise	11817 Mar 26 22:19	0°♄16'27		transit middle	11818 Mar 05 04:02	20°♄04'22	0°14'34
	11817 Mar 27 09:37	30°♄		transit begin	11818 Mar 05 02:48	20°♄07'59	
direct	11817 Mar 30 05:29	29°♄14'18		transit end	11818 Mar 05 05:16	20°♄00'46	
	11817 Apr 02 03:53	0°♄		morning rise	11818 Mar 11 06:00	14°♄25'53	
morning max el	11817 Apr 05 23:05	2°♄52'47	18°50'58	direct	11818 Mar 14 02:58	13°♄40'28	

morning max el	11818 Mar 20 12:51	17° $\text{X}$ 03'48	18°12'29	inferior conj	11819 Feb 16 18:32	3° $\text{X}$ 47'25	-0°50'24
	11818 Mar 30 05:43	0° $\text{Y}$		minimum elong	11819 Feb 16 20:05	3° $\text{X}$ 43'17	0°49'20
desc. node	11818 Apr 06 19:42	12° $\text{Y}$ 02'48		asc. node	11819 Feb 19 07:51	1° $\text{X}$ 12'04	
morning set	11818 Apr 08 16:11	15° $\text{Y}$ 01'46			11819 Feb 20 17:11	30° $\text{R}$ $\approx$	
	11818 Apr 18 01:06	0° $\text{B}$		morning rise	11819 Feb 23 07:45	28° $\approx$ 23'47	
				direct	11819 Feb 25 20:09	27° $\approx$ 51'29	
superior conj	11818 Apr 23 22:12	9° $\text{B}$ 15'22	-1°47'35		11819 Mar 02 22:20	0° $\text{X}$	
minimum elong	11818 Apr 23 12:55	8° $\text{B}$ 39'00	1°47'12	morning max el	11819 Mar 04 05:58	1° $\text{X}$ 10'54	17°51'07
max. Earth dist.	11818 Apr 25 17:49	12° $\text{B}$ 06'03	1.45710 AU	morning set	11819 Mar 21 06:46	26° $\text{X}$ 45'48	
	11818 May 07 05:31	0° $\text{II}$			11819 Mar 23 05:00	0° $\text{Y}$	
evening rise	11818 May 09 23:38	4° $\text{II}$ 17'17		desc. node	11819 Mar 24 16:20	2° $\text{Y}$ 27'53	
greatest brilliancy	11818 May 21 12:33	22° $\text{II}$ 06'50	-0.7m				
	11818 May 26 21:39	0° $\text{E}$		superior conj	11819 Apr 03 16:55	18° $\text{Y}$ 54'14	-1°11'03
asc. node	11818 May 31 08:00	5° $\text{E}$ 47'17		minimum elong	11819 Apr 03 09:26	18° $\text{Y}$ 24'09	1°10'17
evening max el	11818 Jun 02 14:21	8° $\text{E}$ 16'36	19°12'16	max. Earth dist.	11819 Apr 08 13:05	26° $\text{Y}$ 36'42	1.45146 AU
retrograde	11818 Jun 09 13:20	12° $\text{E}$ 09'45			11819 Apr 10 16:48	0° $\text{B}$	
evening set	11818 Jun 13 01:59	10° $\text{E}$ 57'22		evening rise	11819 Apr 19 12:51	13° $\text{B}$ 41'00	
inferior conj	11818 Jun 18 12:36	5° $\text{E}$ 08'33	3°12'33		11819 Apr 30 07:38	0° $\text{II}$	
minimum elong	11818 Jun 18 13:22	5° $\text{E}$ 06'04	3°11'43	greatest brilliancy	11819 May 04 14:34	6° $\text{II}$ 18'33	-0.6m
min. Earth dist.	11818 Jun 19 24:00	3° $\text{E}$ 13'57	0.66729 AU	evening max el	11819 May 16 18:19	22° $\text{II}$ 01'43	20°08'10
	11818 Jun 22 17:39	30° $\text{R}$ $\text{II}$		asc. node	11819 May 18 05:10	23° $\text{II}$ 24'10	
morning rise	11818 Jun 24 00:11	28° $\text{II}$ 46'01		retrograde	11819 May 24 11:53	26° $\text{II}$ 28'06	
direct	11818 Jun 30 04:07	26° $\text{II}$ 04'57		evening set	11819 May 28 09:55	24° $\text{II}$ 59'29	
desc. node	11818 Jul 03 20:05	26° $\text{II}$ 52'36		inferior conj	11819 Jun 02 17:08	18° $\text{II}$ 57'27	3°14'48
	11818 Jul 08 20:09	0° $\text{E}$		minimum elong	11819 Jun 02 16:49	18° $\text{II}$ 58'34	3°14'02
morning max el	11818 Jul 12 19:47	3° $\text{E}$ 39'01	26°02'03	min. Earth dist.	11819 Jun 03 14:11	17° $\text{II}$ 45'58	0.67876 AU
	11818 Aug 01 21:11	0° $\text{Q}$		morning rise	11819 Jun 07 23:23	12° $\text{II}$ 37'12	
morning set	11818 Aug 17 20:05	26° $\text{Q}$ 54'52		direct	11819 Jun 13 16:05	10° $\text{II}$ 05'36	
	11818 Aug 19 11:48	0° $\text{P}$		desc. node	11819 Jun 20 17:10	13° $\text{II}$ 00'31	
max. Earth dist.	11818 Aug 21 15:18	4° $\text{P}$ 05'23	1.35261 AU	morning max el	11819 Jun 25 05:39	17° $\text{II}$ 01'58	24°38'56
					11819 Jul 06 00:32	0° $\text{E}$	
superior conj	11818 Aug 27 03:25	15° $\text{P}$ 00'30	-0°01'55		11819 Jul 25 20:58	0° $\text{Q}$	
minimum elong	11818 Aug 27 03:32	15° $\text{P}$ 01'08	0°02'11	morning set	11819 Jul 31 00:25	8° $\text{Q}$ 48'03	
behind sun begin	11818 Aug 26 21:31	14° $\text{P}$ 30'33		max. Earth dist.	11819 Aug 03 14:32	15° $\text{Q}$ 12'48	1.37391 AU
behind sun end	11818 Aug 27 09:33	15° $\text{P}$ 31'46					
asc. node	11818 Aug 27 08:09	15° $\text{P}$ 24'38		superior conj	11819 Aug 10 11:50	28° $\text{Q}$ 10'28	-0°34'44
	11818 Sep 03 09:21	0° $\text{A}$		minimum elong	11819 Aug 10 14:09	28° $\text{Q}$ 21'41	0°34'47
evening rise	11818 Sep 03 21:01	1° $\text{A}$ 00'17			11819 Aug 11 10:19	0° $\text{P}$	
	11818 Sep 21 01:14	0° $\text{M}$		asc. node	11819 Aug 14 04:53	5° $\text{P}$ 28'31	
evening max el	11818 Sep 22 05:42	1° $\text{M}$ 14'19	20°28'37	evening rise	11819 Aug 19 00:07	15° $\text{P}$ 05'16	
desc. node	11818 Sep 29 17:16	6° $\text{M}$ 10'27			11819 Aug 26 19:47	0° $\text{A}$	
retrograde	11818 Oct 03 07:50	6° $\text{M}$ 44'43		evening max el	11819 Sep 04 19:09	12° $\text{A}$ 36'12	19°21'08
evening set	11818 Oct 05 10:32	6° $\text{M}$ 33'37		retrograde	11819 Sep 14 04:41	17° $\text{A}$ 17'09	
inferior conj	11818 Oct 14 11:55	2° $\text{M}$ 37'34	-4°18'40	evening set	11819 Sep 16 00:59	17° $\text{A}$ 07'06	
minimum elong	11818 Oct 14 01:55	2° $\text{M}$ 52'05	4°15'25	desc. node	11819 Sep 16 14:40	17° $\text{A}$ 00'05	
min. Earth dist.	11818 Oct 15 18:39	1° $\text{M}$ 52'50	0.54726 AU	inferior conj	11819 Sep 24 16:16	12° $\text{A}$ 58'57	-2°30'47
	11818 Oct 19 05:47	30° $\text{R}$ $\text{A}$		minimum elong	11819 Sep 24 09:39	13° $\text{A}$ 09'45	2°28'09
morning rise	11818 Oct 22 16:48	28° $\text{A}$ 36'14		min. Earth dist.	11819 Sep 27 05:51	11° $\text{A}$ 18'35	0.55736 AU
direct	11818 Oct 27 01:55	27° $\text{A}$ 54'56		morning rise	11819 Oct 02 15:48	8° $\text{A}$ 26'23	
	11818 Nov 03 13:26	0° $\text{M}$		direct	11819 Oct 07 20:58	7° $\text{A}$ 24'40	
morning max el	11818 Nov 09 10:44	4° $\text{M}$ 25'00	23°36'50	morning max el	11819 Oct 21 21:31	14° $\text{A}$ 29'14	25°22'10
asc. node	11818 Nov 23 09:16	23° $\text{M}$ 11'48			11819 Nov 03 04:24	0° $\text{M}$	
	11818 Nov 27 02:42	0° $\text{X}$		asc. node	11819 Nov 10 06:08	12° $\text{M}$ 07'33	
morning set	11818 Dec 03 07:02	12° $\text{X}$ 34'58		morning set	11819 Nov 17 18:39	27° $\text{M}$ 18'29	
					11819 Nov 19 00:35	0° $\text{X}$	
superior conj	11818 Dec 10 04:19	27° $\text{X}$ 30'24	1°38'10				
minimum elong	11818 Dec 10 04:54	27° $\text{X}$ 33'35	1°38'55	superior conj	11819 Nov 24 13:52	12° $\text{X}$ 13'47	1°38'22
	11818 Dec 11 08:04	0° $\text{B}$		minimum elong	11819 Nov 24 13:20	12° $\text{X}$ 10'52	1°39'05
max. Earth dist.	11818 Dec 12 21:35	3° $\text{B}$ 20'12	1.33086 AU	max. Earth dist.	11819 Nov 26 01:04	15° $\text{X}$ 27'33	1.32025 AU
evening rise	11818 Dec 17 20:03	13° $\text{B}$ 31'07		evening rise	11819 Dec 01 17:30	27° $\text{X}$ 36'57	
desc. node	11818 Dec 26 15:12	29° $\text{B}$ 59'32			11819 Dec 02 21:24	0° $\text{B}$	
	11818 Dec 26 15:18	0° $\approx$		desc. node	11819 Dec 13 12:12	19° $\text{B}$ 48'21	
	11819 Jan 16 05:27	0° $\text{X}$			11819 Dec 19 21:52	0° $\approx$	
evening max el	11819 Jan 20 23:26	5° $\text{X}$ 00'30	27°24'24	evening max el	11820 Jan 03 09:59	17° $\approx$ 56'52	27°30'39
retrograde	11819 Feb 03 14:35	12° $\text{X}$ 25'23		retrograde	11820 Jan 17 06:21	25° $\approx$ 16'14	
evening set	11819 Feb 10 10:21	9° $\text{X}$ 54'40		evening set	11820 Jan 24 05:41	22° $\approx$ 55'45	
min. Earth dist.	11819 Feb 14 06:20	6° $\text{X}$ 27'06	0.64333 AU	min. Earth dist.	11820 Jan 27 23:25	19° $\approx$ 55'28	0.62390 AU

inferior conj	11820 Jan 30 21:24	17°  09'56	-2°04'00	inferior conj	11821 Jan 12 09:40	0°  01'47	-3°22'39
minimum elong	11820 Jan 31 01:35	16°  59'59	2°01'44	minimum elong	11821 Jan 12 16:38	29°  47'18	3°19'30
asc. node	11820 Feb 06 05:09	12°  21'27			11821 Jan 12 10:31	30°  R $\overline{\text{S}}$	
morning rise	11820 Feb 07 00:02	12°  03'02		morning rise	11821 Jan 20 02:09	25°  S14'57	
direct	11820 Feb 09 06:02	11°  40'01		direct	11821 Jan 22 04:38	24°  S57'42	
morning max el	11820 Feb 15 23:24	15°  05'27	17°47'23	asc. node	11821 Jan 23 02:25	25°  S01'01	
	11820 Feb 26 08:54	0°  X		morning max el	11821 Jan 29 13:46	28°  S38'40	18°02'18
morning set	11820 Mar 02 20:53	9°  X37'05			11821 Jan 30 20:37	0°  ≈	
desc. node	11820 Mar 10 12:57	23°  X01'34		morning set	11821 Feb 14 04:09	23°  ≈16'14	
					11821 Feb 17 19:24	0°  X	
superior conj	11820 Mar 14 10:25	29°  X38'29	-0°29'32	superior conj	11821 Feb 24 04:24	11°  X31'48	0°09'29
minimum elong	11820 Mar 14 07:32	29°  X26'19	0°29'01	minimum elong	11821 Feb 24 05:11	11°  X35'18	0°09'41
	11820 Mar 14 15:33	0°  Y					
max. Earth dist.	11820 Mar 21 06:09	10°  Y51'35	1.43909 AU	behind sun begin	11821 Feb 23 22:52	11°  X07'21	
evening rise	11820 Mar 29 02:18	23°  Y14'03		behind sun end	11821 Feb 24 11:29	12°  X03'10	
	11820 Apr 02 12:16	0°  8		desc. node	11821 Feb 25 09:36	13°  X40'21	
	11820 Apr 23 14:45	0°  II		max. Earth dist.	11821 Mar 03 19:08	24°  X36'09	1.42124 AU
evening max el	11820 Apr 28 16:37	5°  II47'36	21°16'56		11821 Mar 07 01:53	0°  Y	
asc. node	11820 May 04 02:24	10°  II01'49		evening rise	11821 Mar 09 05:42	3°  Y28'46	
retrograde	11820 May 07 10:25	10°  II54'40			11821 Mar 26 20:35	0°  8	
evening set	11820 May 11 18:42	9°  II09'56		evening max el	11821 Apr 11 10:05	19°  834'55	22°34'20
inferior conj	11820 May 17 01:05	2°  II56'21	3°05'25	asc. node	11821 Apr 20 23:41	25°  824'44	
minimum elong	11820 May 16 23:50	3°  II00'41	3°04'36	retrograde	11821 Apr 21 07:23	25°  825'13	
min. Earth dist.	11820 May 17 08:34	2°  II30'20	0.68560 AU	evening set	11821 Apr 26 02:42	23°  825'16	
	11820 May 19 04:57	30°  R $\overline{\text{S}}$		inferior conj	11821 May 01 10:25	17°  802'24	2°45'39
morning rise	11820 May 22 04:46	26°  840'37		minimum elong	11821 May 01 08:31	17°  808'59	2°44'44
direct	11820 May 27 08:40	24°  825'18		min. Earth dist.	11821 May 01 05:04	17°  821'01	0.68778 AU
	11820 Jun 06 02:48	0°  II		morning rise	11821 May 06 14:14	10°  852'32	
morning max el	11820 Jun 06 15:48	0°  II32'18	23°09'16	direct	11821 May 11 04:50	8°  857'25	
desc. node	11820 Jun 06 14:10	0°  II28'10		morning max el	11821 May 20 05:23	14°  812'19	21°42'04
	11820 Jun 28 21:08	0°  S		desc. node	11821 May 24 11:05	18°  854'30	
morning set	11820 Jul 11 06:16	19°  S38'43			11821 Jun 01 21:24	0°  II	
max. Earth dist.	11820 Jul 15 12:00	26°  S50'05	1.39707 AU	morning set	11821 Jun 21 10:19	29°  II20'19	
	11820 Jul 17 07:40	0°  Q			11821 Jun 21 20:16	0°  S	
				max. Earth dist.	11821 Jun 27 13:43	9°  S18'06	1.41933 AU
superior conj	11820 Jul 23 05:31	10°  Q37'33	-1°08'49	superior conj	11821 Jul 05 04:01	22°  S11'57	-1°40'31
minimum elong	11820 Jul 23 10:22	10°  Q59'55	1°08'42	minimum elong	11821 Jul 05 10:42	22°  S41'04	1°40'31
asc. node	11820 Jul 31 01:39	25°  Q26'00			11821 Jul 09 13:54	0°  Q	
evening rise	11820 Aug 01 19:11	28°  Q45'33		evening rise	11821 Jul 16 02:30	11°  Q51'59	
	11820 Aug 02 10:43	0°  R		asc. node	11821 Jul 17 22:28	15°  Q13'10	
evening max el	11820 Aug 17 20:28	24°  R42'53	18°35'11		11821 Jul 26 11:44	0°  R	
retrograde	11820 Aug 25 19:48	28°  R43'12		evening max el	11821 Aug 01 05:45	7°  R26'08	18°09'52
evening set	11820 Aug 27 19:41	28°  R28'58		retrograde	11821 Aug 08 05:40	10°  R59'35	
desc. node	11820 Sep 02 12:05	25°  R38'48		evening set	11821 Aug 10 12:42	10°  R37'10	
inferior conj	11820 Sep 04 16:56	24°  R01'10	-0°41'16	inferior conj	11821 Aug 17 15:11	5°  R48'47	0°49'40
minimum elong	11820 Sep 04 15:17	24°  R04'18	0°40'46	minimum elong	11821 Aug 17 16:44	5°  R45'19	0°48'42
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	11820 Oct 07 06:19	0°  Q		direct	11821 Aug 31 04:02	28°  Q09'21	
	11820 Oct 26 08:32	0°  R			11821 Sep 06 18:08	0°  R	
asc. node	11820 Oct 27 02:56	1°  R29'50		morning max el	11821 Sep 14 12:21	6°  R00'08	27°42'34
morning set	11820 Nov 01 04:31	11°  R54'02			11821 Oct 02 11:08	0°  Q	
				asc. node	11821 Oct 13 23:40	21°  Q10'44	
superior conj	11820 Nov 08 01:22	26°  R59'48	1°32'40	morning set	11821 Oct 16 10:48	26°  Q15'57	
minimum elong	11820 Nov 07 23:54	26°  R51'41	1°33'12		11821 Oct 18 04:59	0°  R	
max. Earth dist.	11820 Nov 08 09:13	27°  R43'34	1.31446 AU	max. Earth dist.	11821 Oct 22 18:10	9°  R58'02	1.31363 AU
	11820 Nov 09 09:44	0°  X					
evening rise	11820 Nov 14 21:36	11°  X58'58		superior conj	11821 Oct 23 12:52	11°  R42'05	1°21'21
	11820 Nov 24 01:07	0°  S		minimum elong	11821 Oct 23 10:48	11°  R30'35	1°21'34
desc. node	11820 Nov 29 09:18	9°  S07'29		evening rise	11821 Oct 30 06:00	26°  R30'10	
	11820 Dec 15 10:53	0°  ≈			11821 Oct 31 21:29	0°  X	
evening max el	11820 Dec 15 15:24	0°  ≈10'46	27°03'25	desc. node	11821 Nov 16 06:28	27°  X44'28	
retrograde	11820 Dec 29 13:33	7°  ≈21'58			11821 Nov 17 19:56	0°  S	
evening set	11821 Jan 05 09:56	5°  ≈20'08		evening max el	11821 Nov 27 12:56	11°  S32'06	26°02'16
min. Earth dist.	11821 Jan 09 05:47	2°  ≈39'03	0.60275 AU				































































































































retrograde	11821 Dec 11 10:54	18° $\text{♄}$ 35'22		evening set	11822 Nov 28 03:50	27° $\text{♄}$ 55'10	
evening set	11821 Dec 17 18:42	17° $\text{♄}$ 00'33		min. Earth dist.	11822 Dec 03 13:57	25° $\text{♄}$ 06'47	0.56310 AU
min. Earth dist.	11821 Dec 22 01:47	14° $\text{♄}$ 24'57	0.58163 AU	inferior conj	11822 Dec 06 01:06	23° $\text{♄}$ 33'37	-5°34'35
inferior conj	11821 Dec 25 03:39	12° $\text{♄}$ 12'00	-4°38'08	minimum elong	11822 Dec 06 06:51	23° $\text{♄}$ 24'33	5°33'03
minimum elong	11821 Dec 25 12:02	11° $\text{♄}$ 56'54	4°35'08	morning rise	11822 Dec 14 12:01	19° $\text{♄}$ 30'25	
morning rise	11822 Jan 02 08:02	7° $\text{♄}$ 47'35		direct	11822 Dec 16 22:53	19° $\text{♄}$ 14'08	
direct	11822 Jan 04 11:24	7° $\text{♄}$ 32'42		morning max el	11822 Dec 26 17:52	23° $\text{♄}$ 55'27	19°34'51
asc. node	11822 Jan 09 23:37	9° $\text{♄}$ 18'08		asc. node	11822 Dec 27 20:44	25° $\text{♄}$ 03'28	
morning max el	11822 Jan 12 21:15	11° $\text{♄}$ 39'01	18°37'30		11822 Dec 31 20:01	0° $\text{♄}$	
	11822 Jan 25 01:47	0° $\text{♄}$		morning set	11823 Jan 13 02:16	21° $\text{♄}$ 56'38	
morning set	11822 Jan 28 23:13	7° $\text{♄}$ 26'24			11823 Jan 17 02:02	0° $\text{♄}$	
superior conj	11822 Feb 06 18:58	24° $\text{♄}$ 21'55	0°42'11	superior conj	11823 Jan 21 01:25	7° $\text{♄}$ 55'25	1°07'19
minimum elong	11822 Feb 06 21:35	24° $\text{♄}$ 34'05	0°42'19	minimum elong	11823 Jan 21 04:20	8° $\text{♄}$ 09'43	1°07'36
	11822 Feb 09 20:22	0° $\text{♄}$		max. Earth dist.	11823 Jan 27 08:58	19° $\text{♄}$ 57'33	1.37766 AU
desc. node	11822 Feb 12 06:15	4° $\text{♄}$ 19'52		desc. node	11823 Jan 30 02:57	24° $\text{♄}$ 56'46	
max. Earth dist.	11822 Feb 14 03:06	7° $\text{♄}$ 37'04	1.39993 AU	evening rise	11823 Jan 31 02:23	26° $\text{♄}$ 40'47	
evening rise	11822 Feb 18 05:34	14° $\text{♄}$ 37'42			11823 Feb 02 00:00	0° $\text{♄}$	
	11822 Feb 27 19:45	0° $\text{♄}$			11823 Feb 21 08:02	0° $\text{♄}$	
	11822 Mar 21 19:44	0° $\text{♄}$		evening max el	11823 Mar 07 13:52	17° $\text{♄}$ 14'55	25°12'20
evening max el	11822 Mar 25 00:26	3° $\text{♄}$ 23'57	23°55'02	retrograde	11823 Mar 19 15:18	24° $\text{♄}$ 14'27	
retrograde	11822 Apr 05 01:24	9° $\text{♄}$ 53'48		evening set	11823 Mar 25 10:02	21° $\text{♄}$ 50'22	
asc. node	11822 Apr 07 21:02	9° $\text{♄}$ 17'07		asc. node	11823 Mar 25 18:23	21° $\text{♄}$ 32'09	
evening set	11822 Apr 10 08:20	7° $\text{♄}$ 40'24		min. Earth dist.	11823 Mar 29 19:51	16° $\text{♄}$ 56'49	0.67866 AU
min. Earth dist.	11822 Apr 15 01:34	2° $\text{♄}$ 11'39	0.68538 AU	inferior conj	11823 Mar 31 01:32	15° $\text{♄}$ 20'03	1°36'42
inferior conj	11822 Apr 15 19:12	1° $\text{♄}$ 11'36	2°16'03	minimum elong	11823 Mar 30 23:34	15° $\text{♄}$ 26'28	1°35'54
minimum elong	11822 Apr 15 17:02	1° $\text{♄}$ 18'59	2°15'06	morning rise	11823 Apr 05 13:27	9° $\text{♄}$ 25'29	
	11822 Apr 16 16:22	30° $\text{♄}$		direct	11823 Apr 09 03:01	8° $\text{♄}$ 12'24	
morning rise	11822 Apr 21 01:45	25° $\text{♄}$ 08'43		morning max el	11823 Apr 16 04:43	12° $\text{♄}$ 05'41	19°20'24
direct	11822 Apr 25 03:23	23° $\text{♄}$ 35'01		desc. node	11823 Apr 28 04:36	27° $\text{♄}$ 42'32	
morning max el	11822 May 03 01:15	28° $\text{♄}$ 03'40	20°24'21	greatest brilliancy	11823 Apr 28 23:09	28° $\text{♄}$ 51'06	-0.7m
	11822 May 04 21:26	0° $\text{♄}$			11823 Apr 29 17:41	0° $\text{♄}$	
desc. node	11822 May 11 07:53	8° $\text{♄}$ 03'10		morning set	11823 May 10 17:07	16° $\text{♄}$ 42'31	
	11822 May 26 09:31	0° $\text{♄}$			11823 May 19 06:51	0° $\text{♄}$	
morning set	11822 May 31 16:21	8° $\text{♄}$ 05'39		max. Earth dist.	11823 May 23 12:11	6° $\text{♄}$ 37'10	1.45100 AU
max. Earth dist.	11822 Jun 09 21:52	22° $\text{♄}$ 37'13	1.43798 AU				
	11822 Jun 14 11:04	0° $\text{♄}$		superior conj	11823 May 27 03:24	12° $\text{♄}$ 22'08	-2°13'21
superior conj	11822 Jun 16 03:26	2° $\text{♄}$ 46'14	-2°04'17	minimum elong	11823 May 27 03:15	12° $\text{♄}$ 21'32	2°14'05
minimum elong	11822 Jun 16 09:03	3° $\text{♄}$ 09'29	2°04'46		11823 Jun 07 01:03	0° $\text{♄}$	
evening rise	11822 Jun 28 17:24	24° $\text{♄}$ 13'21		evening rise	11823 Jun 10 10:52	5° $\text{♄}$ 37'49	
	11822 Jul 02 01:01	0° $\text{♄}$		asc. node	11823 Jun 21 16:19	23° $\text{♄}$ 56'35	
asc. node	11822 Jul 04 19:21	4° $\text{♄}$ 45'28			11823 Jun 25 21:03	0° $\text{♄}$	
evening max el	11822 Jul 15 19:05	20° $\text{♄}$ 36'40	18°04'00	evening max el	11823 Jun 29 09:01	4° $\text{♄}$ 05'14	18°16'41
retrograde	11822 Jul 22 06:31	23° $\text{♄}$ 57'53		retrograde	11823 Jul 05 17:51	7° $\text{♄}$ 28'12	
evening set	11822 Jul 24 21:34	23° $\text{♄}$ 23'57		evening set	11823 Jul 08 17:09	6° $\text{♄}$ 40'18	
inferior conj	11822 Jul 31 08:05	18° $\text{♄}$ 16'32	1°56'12	inferior conj	11823 Jul 14 15:29	1° $\text{♄}$ 15'36	2°40'07
minimum elong	11822 Jul 31 10:43	18° $\text{♄}$ 09'47	1°54'50	minimum elong	11823 Jul 14 17:50	1° $\text{♄}$ 08'54	2°38'54
min. Earth dist.	11822 Aug 03 07:41	15° $\text{♄}$ 14'38	0.61914 AU		11823 Jul 15 17:49	30° $\text{♄}$	
morning rise	11822 Aug 06 21:29	12° $\text{♄}$ 11'26		min. Earth dist.	11823 Jul 17 02:11	28° $\text{♄}$ 28'35	0.64057 AU
desc. node	11822 Aug 07 06:51	11° $\text{♄}$ 55'25		morning rise	11823 Jul 20 17:04	24° $\text{♄}$ 58'25	
direct	11822 Aug 13 13:45	9° $\text{♄}$ 50'02		desc. node	11823 Jul 25 04:08	22° $\text{♄}$ 37'30	
morning max el	11822 Aug 27 17:54	17° $\text{♄}$ 51'39	27°57'42	direct	11823 Jul 27 08:36	22° $\text{♄}$ 21'07	
	11822 Sep 06 21:37	0° $\text{♄}$			11823 Aug 09 18:24	0° $\text{♄}$	
	11822 Sep 25 06:09	0° $\text{♄}$		morning max el	11823 Aug 10 03:18	0° $\text{♄}$ 22'15	27°35'42
morning set	11822 Sep 30 11:32	10° $\text{♄}$ 19'06			11823 Aug 31 22:50	0° $\text{♄}$	
asc. node	11822 Sep 30 20:22	11° $\text{♄}$ 04'29		morning set	11823 Sep 14 04:17	23° $\text{♄}$ 56'44	
max. Earth dist.	11822 Oct 06 00:02	22° $\text{♄}$ 00'35	1.31791 AU		11823 Sep 17 04:15	0° $\text{♄}$	
				asc. node	11823 Sep 17 17:03	1° $\text{♄}$ 05'57	
superior conj	11822 Oct 07 22:36	26° $\text{♄}$ 15'25	1°04'34	max. Earth dist.	11823 Sep 18 23:06	3° $\text{♄}$ 42'22	1.32745 AU
minimum elong	11822 Oct 07 20:21	26° $\text{♄}$ 03'03	1°04'29				
	11822 Oct 09 15:19	0° $\text{♄}$		superior conj	11823 Sep 22 04:32	10° $\text{♄}$ 33'48	0°42'31
evening rise	11822 Oct 14 16:46	11° $\text{♄}$ 05'23		minimum elong	11823 Sep 22 02:40	10° $\text{♄}$ 23'45	0°42'13
	11822 Oct 24 04:39	0° $\text{♄}$		evening rise	11823 Sep 29 04:02	25° $\text{♄}$ 39'11	
desc. node	11822 Nov 03 03:43	15° $\text{♄}$ 22'56			11823 Oct 01 05:25	0° $\text{♄}$	
evening max el	11822 Nov 09 02:27	22° $\text{♄}$ 04'32	24°33'57		11823 Oct 19 10:59	0° $\text{♄}$	
retrograde	11822 Nov 22 20:33	28° $\text{♄}$ 57'30		desc. node	11823 Oct 21 01:02	1° $\text{♄}$ 40'37	
				evening max el	11823 Oct 21 12:51	2° $\text{♄}$ 09'49	22°52'57



retrograde	11823 Nov 03 17:03	8° $\text{♄}$ 42'46		evening rise	11824 Sep 12 13:55	10° $\text{♄}$ 06'44	
evening set	11823 Nov 07 14:32	8° $\text{♄}$ 09'45			11824 Sep 22 22:18	0° $\text{♄}$	
min. Earth dist.	11823 Nov 14 21:38	4° $\text{♄}$ 50'24	0.55023 AU	evening max el	11824 Oct 02 05:09	12° $\text{♄}$ 24'16	21°16'38
inferior conj	11823 Nov 16 03:37	4° $\text{♄}$ 07'30	-5°49'50	desc. node	11824 Oct 06 22:24	16° $\text{♄}$ 10'21	
minimum elong	11823 Nov 16 01:40	4° $\text{♄}$ 10'18	5°49'05	retrograde	11824 Oct 14 04:43	18° $\text{♄}$ 21'27	
morning rise	11823 Nov 24 14:20	0° $\text{♄}$ 18'33		evening set	11824 Oct 16 19:04	18° $\text{♄}$ 05'47	
	11823 Nov 26 10:39	30° $\text{♄}$		inferior conj	11824 Oct 25 19:45	14° $\text{♄}$ 11'02	-5°07'22
direct	11823 Nov 27 16:31	29° $\text{♄}$ 56'18		minimum elong	11824 Oct 25 10:41	14° $\text{♄}$ 23'47	5°04'59
	11823 Nov 28 22:02	0° $\text{♄}$		min. Earth dist.	11824 Oct 26 04:14	13° $\text{♄}$ 59'08	0.54565 AU
morning max el	11823 Dec 09 00:38	5° $\text{♄}$ 19'18	20°55'11	morning rise	11824 Nov 03 02:59	10° $\text{♄}$ 20'46	
asc. node	11823 Dec 14 17:45	12° $\text{♄}$ 00'50		direct	11824 Nov 07 00:43	9° $\text{♄}$ 47'57	
	11823 Dec 25 04:09	0° $\text{♄}$		morning max el	11824 Nov 19 18:23	15° $\text{♄}$ 53'45	22°34'55
morning set	11823 Dec 28 10:26	6° $\text{♄}$ 38'37		asc. node	11824 Nov 30 14:42	29° $\text{♄}$ 54'25	
					11824 Nov 30 16:05	0° $\text{♄}$	
superior conj	11824 Jan 04 19:28	22° $\text{♄}$ 00'16	1°24'50	morning set	11824 Dec 11 21:23	21° $\text{♄}$ 25'22	
minimum elong	11824 Jan 04 21:46	22° $\text{♄}$ 12'05	1°25'22		11824 Dec 15 21:33	0° $\text{♄}$	
	11824 Jan 08 18:33	0° $\text{♄}$					
max. Earth dist.	11824 Jan 09 17:58	1° $\text{♄}$ 55'06	1.35675 AU	superior conj	11824 Dec 18 21:37	6° $\text{♄}$ 26'08	1°35'12
evening rise	11824 Jan 13 17:19	9° $\text{♄}$ 30'02		minimum elong	11824 Dec 18 22:52	6° $\text{♄}$ 32'50	1°35'56
desc. node	11824 Jan 16 23:44	15° $\text{♄}$ 27'15		max. Earth dist.	11824 Dec 22 09:49	13° $\text{♄}$ 48'10	1.33907 AU
	11824 Jan 25 14:53	0° $\text{♄}$		evening rise	11824 Dec 26 22:41	22° $\text{♄}$ 55'20	
	11824 Feb 17 01:46	0° $\text{♄}$			11824 Dec 30 16:00	0° $\text{♄}$	
evening max el	11824 Feb 18 03:33	1° $\text{♄}$ 04'06	26°18'57	desc. node	11825 Jan 02 20:36	5° $\text{♄}$ 46'12	
retrograde	11824 Mar 02 00:01	8° $\text{♄}$ 21'15			11825 Jan 18 07:30	0° $\text{♄}$	
evening set	11824 Mar 08 06:06	5° $\text{♄}$ 50'13		evening max el	11825 Jan 30 17:06	14° $\text{♄}$ 41'28	27°07'29
asc. node	11824 Mar 11 15:43	2° $\text{♄}$ 24'41		retrograde	11825 Feb 13 02:43	22° $\text{♄}$ 05'40	
min. Earth dist.	11824 Mar 12 09:44	1° $\text{♄}$ 31'25	0.66788 AU	evening set	11825 Feb 19 18:31	19° $\text{♄}$ 32'49	
	11824 Mar 13 15:42	30° $\text{♄}$		min. Earth dist.	11825 Feb 23 16:55	15° $\text{♄}$ 47'33	0.65328 AU
inferior conj	11824 Mar 14 03:27	29° $\text{♄}$ 23'56	0°47'28	inferior conj	11825 Feb 25 22:36	13° $\text{♄}$ 16'52	-0°11'48
minimum elong	11824 Mar 14 02:17	29° $\text{♄}$ 27'33	0°47'07	minimum elong	11825 Feb 25 22:56	13° $\text{♄}$ 15'56	0°11'21
morning rise	11824 Mar 19 23:17	23° $\text{♄}$ 39'32		transit middle	11825 Feb 25 22:56	13° $\text{♄}$ 15'56	0°11'21
direct	11824 Mar 23 02:00	22° $\text{♄}$ 44'46		transit begin	11825 Feb 25 20:49	13° $\text{♄}$ 21'55	
morning max el	11824 Mar 29 15:17	26° $\text{♄}$ 15'21	18°32'29	transit end	11825 Feb 26 01:03	13° $\text{♄}$ 09'59	
	11824 Apr 01 23:01	0° $\text{♄}$		asc. node	11825 Feb 26 13:04	12° $\text{♄}$ 36'24	
desc. node	11824 Apr 14 01:15	17° $\text{♄}$ 44'37		morning rise	11825 Mar 04 04:51	7° $\text{♄}$ 45'01	
morning set	11824 Apr 19 11:15	26° $\text{♄}$ 15'32		direct	11825 Mar 06 22:05	7° $\text{♄}$ 05'30	
	11824 Apr 21 20:17	0° $\text{♄}$		morning max el	11825 Mar 13 06:49	10° $\text{♄}$ 25'30	18°01'21
					11825 Mar 26 23:56	0° $\text{♄}$	
superior conj	11824 May 05 12:00	21° $\text{♄}$ 23'32	-2°02'35	morning set	11825 Mar 31 09:44	7° $\text{♄}$ 12'51	
minimum elong	11824 May 05 04:38	20° $\text{♄}$ 54'44	2°02'44	desc. node	11825 Mar 31 21:53	8° $\text{♄}$ 02'35	
max. Earth dist.	11824 May 05 07:00	21° $\text{♄}$ 03'58	1.45709 AU				
	11824 May 10 24:00	0° $\text{♄}$		superior conj	11825 Apr 14 21:59	0° $\text{♄}$ 35'15	-1°33'18
evening rise	11824 May 21 04:06	16° $\text{♄}$ 02'20		minimum elong	11825 Apr 14 12:48	29° $\text{♄}$ 58'58	1°32'40
greatest brilliancy	11824 May 29 17:08	29° $\text{♄}$ 33'19	-0.8m		11825 Apr 14 13:04	0° $\text{♄}$	
	11824 May 29 23:57	0° $\text{♄}$		max. Earth dist.	11825 Apr 18 03:19	5° $\text{♄}$ 39'24	1.45567 AU
asc. node	11824 Jun 07 13:22	12° $\text{♄}$ 39'13		evening rise	11825 May 01 00:29	25° $\text{♄}$ 39'27	
evening max el	11824 Jun 11 20:39	17° $\text{♄}$ 44'27	18°47'06		11825 May 03 20:11	0° $\text{♄}$	
retrograde	11824 Jun 18 11:57	21° $\text{♄}$ 22'43		greatest brilliancy	11825 May 14 10:19	16° $\text{♄}$ 03'54	-0.7m
evening set	11824 Jun 21 19:41	20° $\text{♄}$ 19'20			11825 May 24 18:38	0° $\text{♄}$	
inferior conj	11824 Jun 27 09:36	14° $\text{♄}$ 38'48	3°05'12	asc. node	11825 May 25 10:30	0° $\text{♄}$ 43'15	
minimum elong	11824 Jun 27 11:00	14° $\text{♄}$ 34'25	3°04'15	evening max el	11825 May 26 03:46	1° $\text{♄}$ 27'58	19°34'10
min. Earth dist.	11824 Jun 29 05:28	12° $\text{♄}$ 22'23	0.65879 AU	retrograde	11825 Jun 02 09:41	5° $\text{♄}$ 33'55	
morning rise	11824 Jul 03 01:34	8° $\text{♄}$ 16'56		evening set	11825 Jun 06 02:19	4° $\text{♄}$ 14'25	
direct	11824 Jul 09 10:53	5° $\text{♄}$ 34'29			11825 Jun 10 04:25	30° $\text{♄}$	
desc. node	11824 Jul 11 01:21	5° $\text{♄}$ 43'33		inferior conj	11825 Jun 11 11:08	28° $\text{♄}$ 19'35	3°15'02
morning max el	11824 Jul 22 14:10	13° $\text{♄}$ 21'54	26°42'54	minimum elong	11825 Jun 11 11:25	28° $\text{♄}$ 18'37	3°14'14
	11824 Aug 05 00:39	0° $\text{♄}$		min. Earth dist.	11825 Jun 12 16:14	26° $\text{♄}$ 43'07	0.67280 AU
	11824 Aug 23 15:07	0° $\text{♄}$		morning rise	11825 Jun 16 20:08	21° $\text{♄}$ 57'45	
morning set	11824 Aug 27 10:02	7° $\text{♄}$ 01'41		direct	11825 Jun 22 19:27	19° $\text{♄}$ 20'04	
max. Earth dist.	11824 Aug 31 12:41	15° $\text{♄}$ 01'39	1.34216 AU	desc. node	11825 Jun 27 22:28	20° $\text{♄}$ 53'01	
asc. node	11824 Sep 03 13:44	21° $\text{♄}$ 11'20		morning max el	11825 Jul 05 00:44	26° $\text{♄}$ 39'19	25°28'06
					11825 Jul 08 03:10	0° $\text{♄}$	
superior conj	11824 Sep 05 04:25	24° $\text{♄}$ 31'22	0°15'34		11825 Jul 29 15:03	0° $\text{♄}$	
minimum elong	11824 Sep 05 03:36	24° $\text{♄}$ 27'07	0°15'14	morning set	11825 Aug 10 01:01	19° $\text{♄}$ 24'29	
behind sun begin	11824 Sep 05 01:44	24° $\text{♄}$ 17'27		max. Earth dist.	11825 Aug 13 16:36	26° $\text{♄}$ 08'25	1.36135 AU
behind sun end	11824 Sep 05 05:27	24° $\text{♄}$ 36'48			11825 Aug 15 17:19	0° $\text{♄}$	
	11824 Sep 07 19:04	0° $\text{♄}$					

superior conj	11825 Aug 19 19:27	8° $\cap$ 00'57	-0°15'32	superior conj	11826 Aug 02 22:07	20° $\Omega$ 53'31	-0°49'14
minimum elong	11825 Aug 19 20:25	8° $\cap$ 05'50	0°15'42	minimum elong	11826 Aug 03 01:30	21° $\Omega$ 09'37	0°49'11
behind sun begin	11825 Aug 19 18:59	7° $\cap$ 58'38			11826 Aug 07 15:15	0° $\cap$	
behind sun end	11825 Aug 19 21:52	8° $\cap$ 13'02		asc. node	11826 Aug 08 07:13	1° $\cap$ 18'20	
asc. node	11825 Aug 21 10:28	11° $\cap$ 16'53		evening rise	11826 Aug 11 20:22	8° $\cap$ 17'38	
evening rise	11825 Aug 27 20:15	24° $\cap$ 22'09			11826 Aug 24 02:05	0° $\underline{\cap}$	
	11825 Aug 30 15:14	0° $\underline{\cap}$		evening max el	11826 Aug 28 05:19	4° $\underline{\cap}$ 59'30	18°58'58
evening max el	11825 Sep 14 10:25	23° $\underline{\cap}$ 18'04	19°57'12	retrograde	11826 Sep 05 23:25	9° $\underline{\cap}$ 21'58	
desc. node	11825 Sep 23 19:48	28° $\underline{\cap}$ 24'59		evening set	11826 Sep 07 20:15	9° $\underline{\cap}$ 10'48	
retrograde	11825 Sep 24 19:10	28° $\underline{\cap}$ 27'37		desc. node	11826 Sep 10 17:14	8° $\underline{\cap}$ 13'52	
evening set	11825 Sep 26 17:22	28° $\underline{\cap}$ 17'43		inferior conj	11826 Sep 16 04:21	4° $\underline{\cap}$ 54'55	-1°42'55
inferior conj	11825 Oct 05 15:53	24° $\underline{\cap}$ 17'25	-3°35'02	minimum elong	11826 Sep 15 23:56	5° $\underline{\cap}$ 02'38	1°41'11
minimum elong	11825 Oct 05 06:46	24° $\underline{\cap}$ 31'15	3°31'42	min. Earth dist.	11826 Sep 19 02:37	2° $\underline{\cap}$ 52'49	0.56394 AU
min. Earth dist.	11825 Oct 07 13:08	23° $\underline{\cap}$ 08'46	0.55047 AU	morning rise	11826 Sep 24 00:28	0° $\underline{\cap}$ 05'56	
morning rise	11825 Oct 13 18:51	20° $\underline{\cap}$ 04'32			11826 Sep 24 06:09	30° $\mathbb{R}$ $\cap$	
direct	11825 Oct 18 12:25	19° $\underline{\cap}$ 15'41		direct	11826 Sep 29 13:13	28° $\cap$ 53'37	
morning max el	11825 Nov 01 05:33	26° $\underline{\cap}$ 01'02	24°23'01		11826 Oct 04 20:55	0° $\underline{\cap}$	
	11825 Nov 05 00:22	0° $\mathbb{M}$		morning max el	11826 Oct 13 18:01	6° $\underline{\cap}$ 11'22	26°02'21
asc. node	11825 Nov 17 11:36	18° $\mathbb{M}$ 30'53			11826 Oct 31 04:19	0° $\mathbb{M}$	
	11825 Nov 23 10:22	0° $\mathbb{X}$		asc. node	11826 Nov 04 08:27	7° $\mathbb{M}$ 38'39	
morning set	11825 Nov 26 09:16	6° $\mathbb{X}$ 11'54		morning set	11826 Nov 10 20:20	20° $\mathbb{M}$ 52'21	
					11826 Nov 15 00:36	0° $\mathbb{X}$	
superior conj	11825 Dec 03 05:10	21° $\mathbb{X}$ 05'33	1°38'59	superior conj	11826 Nov 17 15:47	5° $\mathbb{X}$ 50'38	1°36'39
minimum elong	11825 Dec 03 05:16	21° $\mathbb{X}$ 06'07	1°39'46	minimum elong	11826 Nov 17 14:50	5° $\mathbb{X}$ 45'21	1°37'19
max. Earth dist.	11825 Dec 05 09:28	25° $\mathbb{X}$ 49'30	1.32570 AU	max. Earth dist.	11826 Nov 18 15:08	8° $\mathbb{X}$ 00'02	1.31712 AU
	11825 Dec 07 08:22	0° $\mathbb{Z}$		evening rise	11826 Nov 24 15:42	21° $\mathbb{X}$ 01'41	
evening rise	11825 Dec 10 15:10	6° $\mathbb{Z}$ 48'41			11826 Nov 29 02:02	0° $\mathbb{Z}$	
desc. node	11825 Dec 20 17:35	25° $\mathbb{Z}$ 48'14		desc. node	11826 Dec 07 14:37	15° $\mathbb{Z}$ 25'15	
	11825 Dec 23 05:08	0° $\approx$			11826 Dec 17 08:18	0° $\approx$	
evening max el	11826 Jan 13 05:10	27° $\approx$ 55'45	27°30'52	evening max el	11826 Dec 26 13:37	10° $\approx$ 34'09	27°23'17
	11826 Jan 15 12:31	0° $\mathbb{H}$		retrograde	11827 Jan 09 11:21	17° $\approx$ 51'10	
retrograde	11826 Jan 26 22:49	5° $\mathbb{H}$ 19'02		evening set	11827 Jan 16 10:19	15° $\approx$ 37'19	
evening set	11826 Feb 02 20:56	2° $\mathbb{H}$ 51'17		min. Earth dist.	11827 Jan 20 04:04	12° $\approx$ 46'31	0.61497 AU
	11826 Feb 06 05:46	30° $\mathbb{R}$ $\approx$		inferior conj	11827 Jan 23 05:19	10° $\approx$ 02'18	-2°37'08
min. Earth dist.	11826 Feb 06 15:29	29° $\approx$ 36'25	0.63538 AU	minimum elong	11827 Jan 23 10:44	9° $\approx$ 50'07	2°34'24
inferior conj	11826 Feb 09 08:18	26° $\approx$ 52'28	-1°20'39	morning rise	11827 Jan 30 13:57	5° $\approx$ 03'50	
minimum elong	11826 Feb 09 10:54	26° $\approx$ 45'52	1°19'05	asc. node	11827 Jan 31 07:39	4° $\approx$ 52'36	
asc. node	11826 Feb 13 10:22	23° $\approx$ 08'35		direct	11827 Feb 01 17:53	4° $\approx$ 43'50	
morning rise	11826 Feb 16 03:05	21° $\approx$ 35'52		morning max el	11827 Feb 08 17:06	8° $\approx$ 14'53	17°51'25
direct	11826 Feb 18 12:30	21° $\approx$ 07'59			11827 Feb 22 21:30	0° $\mathbb{H}$	
morning max el	11826 Feb 25 00:31	24° $\approx$ 28'30	17°47'24	morning set	11827 Feb 24 09:09	2° $\mathbb{H}$ 40'33	
	11826 Mar 01 13:28	0° $\mathbb{H}$		desc. node	11827 Mar 05 15:11	19° $\mathbb{H}$ 07'44	
morning set	11826 Mar 13 11:05	19° $\mathbb{H}$ 27'32					
desc. node	11826 Mar 18 18:32	28° $\mathbb{H}$ 31'43		superior conj	11827 Mar 07 05:49	21° $\mathbb{H}$ 54'23	-0°12'25
	11826 Mar 19 15:26	0° $\mathbb{Y}$		minimum elong	11827 Mar 07 04:42	21° $\mathbb{H}$ 49'35	0°12'03
superior conj	11826 Mar 26 01:42	10° $\mathbb{Y}$ 40'19	-0°53'33	behind sun begin	11827 Mar 06 23:04	21° $\mathbb{H}$ 25'24	
minimum elong	11826 Mar 25 20:06	10° $\mathbb{Y}$ 17'27	0°52'50	behind sun end	11827 Mar 07 10:20	22° $\mathbb{H}$ 13'43	
max. Earth dist.	11826 Mar 31 22:00	20° $\mathbb{Y}$ 05'23	1.44697 AU		11827 Mar 12 00:56	0° $\mathbb{Y}$	
	11826 Apr 07 05:31	0° $\mathbb{B}$		max. Earth dist.	11827 Mar 14 12:48	4° $\mathbb{Y}$ 06'16	1.43198 AU
evening rise	11826 Apr 10 11:50	5° $\mathbb{B}$ 01'59		evening rise	11827 Mar 21 05:47	14° $\mathbb{Y}$ 49'09	
	11826 Apr 27 06:16	0° $\mathbb{I}$			11827 Mar 31 04:55	0° $\mathbb{B}$	
evening max el	11826 May 09 05:12	15° $\mathbb{I}$ 12'55	20°35'56	evening max el	11827 Apr 22 01:12	28° $\mathbb{B}$ 59'10	21°49'06
asc. node	11826 May 12 07:41	17° $\mathbb{I}$ 56'40			11827 Apr 23 02:10	0° $\mathbb{I}$	
retrograde	11826 May 17 08:37	19° $\mathbb{I}$ 56'21		asc. node	11827 Apr 29 04:55	4° $\mathbb{I}$ 04'42	
evening set	11826 May 21 10:51	18° $\mathbb{I}$ 20'47		retrograde	11827 May 01 06:44	4° $\mathbb{I}$ 25'13	
inferior conj	11826 May 26 17:25	12° $\mathbb{I}$ 13'18	3°12'09	evening set	11827 May 05 19:30	2° $\mathbb{I}$ 34'04	
minimum elong	11826 May 26 16:40	12° $\mathbb{I}$ 15'52	3°11'22		11827 May 08 07:05	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	11826 May 27 08:32	11° $\mathbb{I}$ 21'13	0.68225 AU	inferior conj	11827 May 11 02:12	26° $\mathbb{B}$ 16'09	2°58'17
morning rise	11826 May 31 22:14	5° $\mathbb{I}$ 54'35		minimum elong	11827 May 11 00:39	26° $\mathbb{B}$ 21'35	2°57'25
direct	11826 Jun 06 09:28	3° $\mathbb{I}$ 29'27		min. Earth dist.	11827 May 11 04:12	26° $\mathbb{B}$ 09'09	0.68704 AU
desc. node	11826 Jun 14 19:32	7° $\mathbb{I}$ 37'41		morning rise	11827 May 16 05:35	20° $\mathbb{B}$ 02'29	
morning max el	11826 Jun 17 10:41	10° $\mathbb{I}$ 06'18	24°00'58	direct	11827 May 21 03:49	17° $\mathbb{B}$ 55'19	
	11826 Jul 03 04:56	0° $\mathbb{O}$		morning max el	11827 May 30 21:52	23° $\mathbb{B}$ 40'34	22°31'22
	11826 Jul 22 08:06	0° $\Omega$		desc. node	11827 Jun 01 16:30	25° $\mathbb{B}$ 32'41	
morning set	11826 Jul 22 20:26	0° $\Omega$ 52'46			11827 Jun 05 11:52	0° $\mathbb{I}$	
max. Earth dist.	11826 Jul 26 14:15	7° $\Omega$ 24'54	1.38368 AU		11827 Jun 26 13:54	0° $\mathbb{O}$	

morning set	11827 Jul 03 15:35	11°☿15'09		morning set	11828 Jun 12 09:03	20°♊28'54	
max. Earth dist.	11827 Jul 08 12:28	19°☿20'42	1.40680 AU		11828 Jun 18 08:30	0°☿	
	11827 Jul 14 15:58	0°♌		max. Earth dist.	11828 Jun 19 16:52	2°☿11'27	1.42788 AU
superior conj	11827 Jul 16 08:16	3°♌00'04	-1°22'50	superior conj	11828 Jun 26 21:22	14°☿09'56	-1°51'56
minimum elong	11827 Jul 16 14:05	3°♌26'14	1°22'43	minimum elong	11828 Jun 27 04:05	14°☿38'36	1°52'08
evening rise	11827 Jul 26 11:00	21°♌45'07			11828 Jul 05 22:48	0°♌	
asc. node	11827 Jul 26 04:01	21°♌12'11		evening rise	11828 Jul 08 11:55	4°♌33'38	
	11827 Jul 30 21:10	0°♍		asc. node	11828 Jul 12 00:50	10°♌53'35	
evening max el	11827 Aug 11 10:39	17°♍23'41	18°21'57		11828 Jul 24 14:13	0°♍	
retrograde	11827 Aug 18 22:34	21°♍10'23		evening max el	11828 Jul 24 22:10	0°♍20'04	18°05'00
evening set	11827 Aug 21 01:17	20°♍53'09		retrograde	11828 Jul 31 15:15	3°♍46'09	
inferior conj	11827 Aug 28 14:25	16°♍16'52	0°00'10	evening set	11828 Aug 03 01:48	3°♍19'02	
minimum elong	11827 Aug 28 14:24	16°♍16'52	0°00'06		11828 Aug 08 02:36	30°♌♌	
transit middle	11827 Aug 28 14:24	16°♍16'52	0°00'06	inferior conj	11828 Aug 09 21:03	28°♌22'14	1°20'49
transit begin	11827 Aug 28 10:53	16°♍24'03		minimum elong	11828 Aug 09 23:17	28°♌16'56	1°19'35
transit end	11827 Aug 28 17:55	16°♍09'40		min. Earth dist.	11828 Aug 13 01:57	25°♌21'21	0.60616 AU
desc. node	11827 Aug 28 14:37	16°♍16'26		desc. node	11828 Aug 14 11:59	24°♌08'01	
min. Earth dist.	11827 Aug 31 22:20	13°♍34'49	0.58362 AU	morning rise	11828 Aug 16 17:56	22°♌28'54	
morning rise	11827 Sep 05 00:01	10°♍51'44		direct	11828 Aug 23 07:52	20°♌21'01	
direct	11827 Sep 11 04:30	9°♍11'08		morning max el	11828 Sep 06 14:36	28°♌16'36	27°53'41
morning max el	11827 Sep 25 12:40	16°♍51'53	27°16'01		11828 Sep 08 06:50	0°♍	
	11827 Oct 06 08:49	0°♎			11828 Sep 29 04:43	0°♎	
asc. node	11827 Oct 22 05:15	27°♎09'27		asc. node	11828 Oct 08 01:59	16°♎56'28	
	11827 Oct 23 15:01	0°♏		morning set	11828 Oct 09 09:03	19°♎36'40	
morning set	11827 Oct 26 04:51	5°♏22'12			11828 Oct 14 05:27	0°♏	
				max. Earth dist.	11828 Oct 15 08:03	2°♏26'16	1.31488 AU
superior conj	11827 Nov 02 03:30	20°♏35'34	1°28'33	superior conj	11828 Oct 16 14:29	5°♏14'46	1°14'53
minimum elong	11827 Nov 02 01:44	20°♏25'44	1°28'57	minimum elong	11828 Oct 16 12:17	5°♏02'32	1°14'58
max. Earth dist.	11827 Nov 01 23:51	20°♏15'15	1.31350 AU	evening rise	11828 Oct 23 07:32	20°♏01'59	
	11827 Nov 06 09:16	0°♐			11828 Oct 28 02:30	0°♐	
evening rise	11827 Nov 08 21:52	5°♐28'04		desc. node	11828 Nov 10 08:56	22°♐41'57	
	11827 Nov 21 17:32	0°♑			11828 Nov 16 02:48	0°♑	
desc. node	11827 Nov 24 11:44	4°♑27'35		evening max el	11828 Nov 19 10:11	3°♑26'25	25°27'21
evening max el	11827 Dec 08 15:59	22°♑26'10	26°41'24	retrograde	11828 Dec 03 06:55	10°♑24'55	
retrograde	11827 Dec 22 14:43	29°♑34'01		evening set	11828 Dec 09 05:51	9°♑03'49	
evening set	11827 Dec 29 06:46	27°♑43'07		min. Earth dist.	11828 Dec 13 22:24	6°♑25'11	0.57326 AU
min. Earth dist.	11828 Jan 02 06:05	25°♑05'58	0.59356 AU	inferior conj	11828 Dec 16 19:37	4°♑27'52	-5°05'39
inferior conj	11828 Jan 05 10:10	22°♑37'11	-3°55'55	minimum elong	11828 Dec 17 03:31	4°♑14'26	5°03'11
minimum elong	11828 Jan 05 18:02	22°♑21'45	3°52'38	morning rise	11828 Dec 25 03:33	0°♑12'35	
morning rise	11828 Jan 13 08:08	17°♑59'28			11828 Dec 26 11:32	30°♌♐	
direct	11828 Jan 15 10:12	17°♑43'42		direct	11828 Dec 27 09:21	29°♐57'28	
asc. node	11828 Jan 18 04:53	18°♑13'02			11828 Dec 28 06:55	0°♑	
morning max el	11828 Jan 23 04:57	21°♑34'45	18°14'40	asc. node	11829 Jan 04 02:03	3°♑09'33	
	11828 Jan 29 15:35	0°♒		morning max el	11829 Jan 05 08:12	4°♑17'33	18°59'06
morning set	11828 Feb 07 21:57	16°♒33'59			11829 Jan 21 09:48	0°♒	
	11828 Feb 15 01:45	0°♓		morning set	11829 Jan 21 20:52	0°♒54'29	
superior conj	11828 Feb 17 09:00	4°♓12'27	0°24'16	superior conj	11829 Jan 30 06:56	17°♒22'51	0°53'48
minimum elong	11828 Feb 17 10:47	4°♓20'32	0°24'23	minimum elong	11829 Jan 30 09:49	17°♒36'37	0°53'58
desc. node	11828 Feb 20 11:48	9°♓46'48		desc. node	11829 Feb 06 08:29	0°♓25'48	
max. Earth dist.	11828 Feb 24 23:16	17°♓31'33	1.41242 AU		11829 Feb 06 02:42	0°♓	
evening rise	11828 Feb 29 17:27	25°♓25'55		max. Earth dist.	11829 Feb 06 06:26	0°♓16'41	1.39044 AU
	11828 Mar 03 13:32	0°♔		evening rise	11829 Feb 10 02:30	6°♓58'57	
	11828 Mar 24 00:03	0°♕			11829 Feb 24 13:15	0°♔	
evening max el	11828 Apr 03 17:11	12°♕47'20	23°08'48	evening max el	11829 Mar 17 07:04	26°♔37'58	24°28'48
retrograde	11828 Apr 14 02:29	18°♕55'02			11829 Mar 21 01:50	0°♕	
asc. node	11828 Apr 15 02:13	18°♕50'26		retrograde	11829 Mar 28 18:41	3°♕21'05	
evening set	11828 Apr 19 02:38	16°♕49'20		asc. node	11829 Apr 01 23:32	2°♕01'28	
inferior conj	11828 Apr 24 11:30	10°♕23'43	2°34'17	evening set	11829 Apr 03 06:46	1°♕02'42	
minimum elong	11828 Apr 24 09:26	10°♕30'49	2°33'21		11829 Apr 04 09:31	30°♌♔	
min. Earth dist.	11828 Apr 24 00:58	11°♕00'08	0.68727 AU	min. Earth dist.	11829 Apr 07 20:41	25°♔49'11	0.68308 AU
morning rise	11828 Apr 29 16:08	4°♕16'35		inferior conj	11829 Apr 08 19:27	24°♔32'55	2°00'34
direct	11828 May 04 01:15	2°♕30'17		minimum elong	11829 Apr 08 17:19	24°♔40'08	1°59'39
morning max el	11828 May 12 13:36	7°♕24'15	21°07'33	morning rise	11829 Apr 14 03:59	18°♔33'35	
desc. node	11828 May 18 13:20	14°♕18'18		direct	11829 Apr 18 00:27	17°♔08'44	
	11828 May 29 20:58	0°♖					

morning max el	11829 Apr 25 12:39	21°  20'19	19°55'21	greatest brilliancy	11830 Apr 22 06:31	23°  29'38	-0.8m
	11829 May 02 18:04	0° 			11830 Apr 26 12:33	0° 	
desc. node	11829 May 05 10:06	3°  41'04		morning set	11830 May 01 15:49	7°  56'45	
morning set	11829 May 22 10:04	29°  02'40			11830 May 15 19:39	0° 	
	11829 May 23 00:57	0° 		max. Earth dist.	11830 May 15 20:56	0°  04'59	1.45443 AU
max. Earth dist.	11829 Jun 02 04:21	15°  51'37	1.44435 AU				
				superior conj	11830 May 18 02:09	3°  33'57	-2°11'19
superior conj	11829 Jun 07 10:24	24°  17'48	-2°10'19	minimum elong	11830 May 17 22:41	3°  20'17	2°11'54
minimum elong	11829 Jun 07 14:08	24°  32'57	2°10'59	evening rise	11830 Jun 02 01:29	27°  30'47	
	11829 Jun 10 22:06	0° 			11830 Jun 03 14:12	0° 	
evening rise	11829 Jun 20 18:13	16°  31'57		asc. node	11830 Jun 15 18:44	19°  31'40	
asc. node	11829 Jun 28 21:44	0° 		evening max el	11830 Jun 22 01:19	27°  12'43	18°27'29
	11829 Jun 28 17:27	0° 			11830 Jun 25 17:53	0° 	
evening max el	11829 Jul 08 12:07	13°  39'04	18°07'06	retrograde	11830 Jun 28 12:01	0°  41'03	
retrograde	11829 Jul 14 21:13	16°  59'24			11830 Jul 01 04:57	30°  46'48	
evening set	11829 Jul 17 15:48	16°  19'41		evening set	11830 Jul 01 14:46	29°  46'48	
inferior conj	11829 Jul 23 20:38	11°  04'21	2°17'21	inferior conj	11830 Jul 07 09:04	24°  15'03	2°52'50
minimum elong	11829 Jul 23 23:16	10°  57'16	2°16'01	minimum elong	11830 Jul 07 11:03	24°  09'07	2°51'44
min. Earth dist.	11829 Jul 26 14:59	8°  06'49	0.62858 AU	min. Earth dist.	11830 Jul 09 13:31	21°  39'25	0.64869 AU
morning rise	11829 Jul 30 04:48	4°  53'00		morning rise	11830 Jul 13 06:13	17°  54'50	
desc. node	11829 Aug 01 09:19	3°  30'56		desc. node	11830 Jul 19 06:34	15°  15'08	
direct	11829 Aug 05 21:22	2°  24'00		direct	11830 Jul 19 19:29	15°  14'07	
morning max el	11829 Aug 19 22:14	10°  26'15	27°52'38	morning max el	11830 Aug 02 08:49	23°  11'55	27°16'39
	11829 Sep 04 06:11	0° 			11830 Aug 08 09:43	0° 	
	11829 Sep 21 12:42	0° 			11830 Aug 28 13:42	0° 	
morning set	11829 Sep 23 06:43	3°  29'54		morning set	11830 Sep 06 19:17	16°  55'40	
asc. node	11829 Sep 24 22:40	6°  54'05		max. Earth dist.	11830 Sep 11 07:12	25°  55'40	1.33307 AU
max. Earth dist.	11829 Sep 28 11:42	14°  22'12	1.32139 AU	asc. node	11830 Sep 11 19:21	26°  58'10	
					11830 Sep 13 06:20	0° 	
superior conj	11829 Sep 30 22:52	19°  42'25	0°55'50				
minimum elong	11829 Sep 30 20:42	19°  30'38	0°55'39	superior conj	11830 Sep 15 02:34	3°  53'18	0°31'39
	11829 Oct 05 15:35	0° 		minimum elong	11830 Sep 15 01:03	3°  45'16	0°31'20
evening rise	11829 Oct 07 18:47	4°  37'31		evening rise	11830 Sep 22 05:45	19°  49'55	
	11829 Oct 21 03:41	0° 			11830 Sep 27 12:31	0° 	
desc. node	11829 Oct 28 06:12	9°  49'15		evening max el	11830 Oct 13 08:58	23°  47'47	22°10'28
evening max el	11829 Oct 31 21:20	13°  43'04	23°51'22	desc. node	11830 Oct 15 03:33	25°  42'15	
retrograde	11829 Nov 14 10:45	20°  29'18			11830 Oct 24 05:46	0° 	
evening set	11829 Nov 19 04:39	19°  40'07		retrograde	11830 Oct 26 03:11	0°  48'19	
min. Earth dist.	11829 Nov 25 07:50	16°  40'55	0.55678 AU		11830 Oct 28 01:17	30°  46'48	
inferior conj	11829 Nov 27 08:27	15°  28'04	-5°47'23	evening set	11830 Oct 29 09:58	29°  44'25	
minimum elong	11829 Nov 27 11:24	15°  23'38	5°46'28	min. Earth dist.	11830 Nov 06 14:48	26°  46'36	0.54716 AU
morning rise	11829 Dec 05 20:04	11°  32'42		inferior conj	11830 Nov 07 05:08	25°  46'27	-5°39'09
direct	11829 Dec 08 12:45	11°  14'26		minimum elong	11830 Nov 06 23:34	25°  54'17	5°37'54
morning max el	11829 Dec 18 23:10	16°  12'17	20°06'22	morning rise	11830 Nov 15 14:32	21°  59'22	
asc. node	11829 Dec 21 23:09	19°  27'39		direct	11830 Nov 19 00:29	21°  33'25	
	11829 Dec 29 00:45	0° 		morning max el	11830 Dec 01 00:11	27°  14'56	21°35'40
morning set	11830 Jan 06 02:26	15°  30'51			11830 Dec 03 15:40	0° 	
	11830 Jan 13 04:37	0° 		asc. node	11830 Dec 08 20:10	6°  51'03	
					11830 Dec 21 09:02	0° 	
superior conj	11830 Jan 13 18:50	1°  11'21	1°15'39	morning set	11830 Dec 21 12:02	0°  15'39	
minimum elong	11830 Jan 13 21:33	1°  25'01	1°16'02				
max. Earth dist.	11830 Jan 19 13:11	12°  25'36	1.36845 AU	superior conj	11830 Dec 28 16:45	15°  32'41	1°30'03
evening rise	11830 Jan 23 07:26	19°  22'31		minimum elong	11830 Dec 28 18:38	15°  36'32	1°30'41
desc. node	11830 Jan 24 05:13	21°  00'23		max. Earth dist.	11831 Jan 02 00:26	24°  17'37	1.34875 AU
	11830 Jan 29 09:53	0° 			11831 Jan 04 22:01	0° 	
	11830 Feb 18 16:13	0° 		evening rise	11831 Jan 06 04:59	2°  28'24	
evening max el	11830 Feb 27 20:22	10°  28'08	25°42'20	desc. node	11831 Jan 11 02:03	11°  26'33	
retrograde	11830 Mar 12 06:27	17°  36'43			11831 Jan 22 08:59	0° 	
evening set	11830 Mar 18 06:17	15°  08'48		evening max el	11831 Feb 10 09:54	24°  12'41	26°42'10
asc. node	11830 Mar 19 20:54	13°  37'50			11831 Feb 17 22:30	0° 	
min. Earth dist.	11830 Mar 22 13:14	10°  30'26	0.67458 AU	retrograde	11831 Feb 23 12:55	1°  34'52	
inferior conj	11830 Mar 24 00:09	8°  39'31	1°17'02		11831 Feb 28 15:09	30°  46'48	
minimum elong	11830 Mar 23 22:26	8°  44'58	1°16'23	evening set	11831 Mar 01 23:22	29°  42'08	
morning rise	11830 Mar 29 15:09	2°  49'19		min. Earth dist.	11831 Mar 06 00:33	24°  17'50	0.66208 AU
direct	11830 Apr 01 23:55	1°  44'29		asc. node	11831 Mar 06 18:15	24°  05'57	
morning max el	11830 Apr 08 19:24	5°  26'26	18°58'03	inferior conj	11831 Mar 07 23:28	22°  39'09	0°23'32
desc. node	11830 Apr 22 06:48	23°  30'43		minimum elong	11831 Mar 07 22:51	22°  41'01	0°23'28

morning rise	11831 Mar 13 23:28	16° $\text{K}$ 59'53		inferior conj	11832 Feb 19 15:01	6° $\text{K}$ 26'21	-0°39'53
direct	11831 Mar 16 21:51	16° $\text{K}$ 12'12		minimum elong	11832 Feb 19 16:13	6° $\text{K}$ 23'05	0°39'01
morning max el	11831 Mar 23 08:25	19° $\text{K}$ 37'11	18°17'07	asc. node	11832 Feb 21 15:36	4° $\text{K}$ 19'25	
	11831 Mar 31 09:47	0° $\text{Y}$		morning rise	11832 Feb 26 02:21	1° $\text{K}$ 00'23	
desc. node	11831 Apr 09 03:29	13° $\text{Y}$ 40'02		direct	11832 Feb 28 15:57	0° $\text{K}$ 26'18	
morning set	11831 Apr 11 21:26	18° $\text{Y}$ 03'47		morning max el	11832 Mar 06 01:15	3° $\text{K}$ 45'34	17°53'13
	11831 Apr 19 09:22	0° $\text{Z}$		morning set	11832 Mar 23 08:05	29° $\text{K}$ 36'45	
					11832 Mar 23 13:39	0° $\text{Y}$	
superior conj	11831 Apr 27 09:00	12° $\text{Z}$ 33'28	-1°52'02	desc. node	11832 Mar 26 00:08	4° $\text{Y}$ 03'41	
minimum elong	11831 Apr 26 23:59	11° $\text{Z}$ 58'12	1°51'49				
max. Earth dist.	11831 Apr 28 16:08	14° $\text{Z}$ 35'09	1.45731 AU	superior conj	11832 Apr 06 01:05	22° $\text{Y}$ 04'34	-1°17'08
	11831 May 08 13:14	0° $\text{II}$		minimum elong	11832 Apr 05 17:01	21° $\text{Y}$ 32'20	1°16'22
evening rise	11831 May 13 08:50	7° $\text{II}$ 31'25		max. Earth dist.	11832 Apr 10 11:51	29° $\text{Y}$ 08'04	1.45280 AU
greatest brilliancy	11831 May 24 04:31	24° $\text{II}$ 20'20	-0.8m		11832 Apr 11 01:03	0° $\text{Z}$	
	11831 May 27 23:14	0° $\text{S}$		evening rise	11832 Apr 21 23:31	16° $\text{Z}$ 57'48	
asc. node	11831 Jun 02 15:48	7° $\text{S}$ 45'08			11832 Apr 30 13:17	0° $\text{II}$	
evening max el	11831 Jun 05 11:12	10° $\text{S}$ 54'01	19°05'17	greatest brilliancy	11832 May 06 20:44	9° $\text{II}$ 21'42	-0.6m
retrograde	11831 Jun 12 07:58	14° $\text{S}$ 42'54		evening max el	11832 May 18 16:03	24° $\text{II}$ 39'01	19°58'55
evening set	11831 Jun 15 19:19	13° $\text{S}$ 32'55		asc. node	11832 May 19 12:57	25° $\text{II}$ 29'43	
inferior conj	11831 Jun 21 06:41	7° $\text{S}$ 46'18	3°11'05	retrograde	11832 May 26 06:20	28° $\text{II}$ 59'37	
minimum elong	11831 Jun 21 07:37	7° $\text{S}$ 43'18	3°10'12	evening set	11832 May 30 02:58	27° $\text{II}$ 33'18	
min. Earth dist.	11831 Jun 22 20:18	5° $\text{S}$ 45'42	0.66521 AU	inferior conj	11832 Jun 04 10:32	21° $\text{II}$ 33'10	3°15'13
morning rise	11831 Jun 26 19:19	1° $\text{S}$ 23'49		minimum elong	11832 Jun 04 10:22	21° $\text{II}$ 33'44	3°14'26
	11831 Jun 28 16:11	30° $\text{K}$ $\text{II}$		min. Earth dist.	11832 Jun 05 09:39	20° $\text{II}$ 15'06	0.67741 AU
direct	11831 Jul 03 00:47	28° $\text{II}$ 41'59		morning rise	11832 Jun 09 17:25	15° $\text{II}$ 12'30	
desc. node	11831 Jul 06 03:46	29° $\text{II}$ 16'37		direct	11832 Jun 15 11:56	12° $\text{II}$ 39'04	
	11831 Jul 07 19:37	0° $\text{S}$		desc. node	11832 Jun 22 00:52	15° $\text{II}$ 10'01	
morning max el	11831 Jul 15 19:39	6° $\text{S}$ 20'10	26°13'14	morning max el	11832 Jun 27 05:36	19° $\text{II}$ 41'28	24°51'54
	11831 Aug 03 02:14	0° $\text{O}$			11832 Jul 06 00:20	0° $\text{S}$	
morning set	11831 Aug 20 19:17	29° $\text{O}$ 44'13			11832 Jul 26 05:25	0° $\text{O}$	
	11831 Aug 20 22:41	0° $\text{P}$		morning set	11832 Aug 02 02:29	11° $\text{O}$ 44'56	
max. Earth dist.	11831 Aug 24 16:08	7° $\text{P}$ 05'57	1.34976 AU	max. Earth dist.	11832 Aug 05 16:21	18° $\text{O}$ 11'47	1.37060 AU
					11832 Aug 11 22:01	0° $\text{P}$	
superior conj	11831 Aug 29 23:03	17° $\text{P}$ 39'58	0°02'50				
minimum elong	11831 Aug 29 22:55	17° $\text{P}$ 39'14	0°02'34	superior conj	11832 Aug 12 09:17	0° $\text{P}$ 55'01	-0°29'37
behind sun begin	11831 Aug 29 16:59	17° $\text{P}$ 08'58		minimum elong	11832 Aug 12 11:14	1° $\text{P}$ 04'31	0°29'42
behind sun end	11831 Aug 30 04:50	18° $\text{P}$ 09'34		asc. node	11832 Aug 15 12:46	7° $\text{P}$ 08'23	
asc. node	11831 Aug 29 16:02	17° $\text{P}$ 04'04		evening rise	11832 Aug 20 18:22	17° $\text{P}$ 40'24	
	11831 Sep 04 21:30	0° $\text{A}$			11832 Aug 27 02:38	0° $\text{A}$	
evening rise	11831 Sep 06 14:22	3° $\text{A}$ 32'51		evening max el	11832 Sep 06 17:46	15° $\text{A}$ 31'24	19°29'48
	11831 Sep 21 12:45	0° $\text{M}$		retrograde	11832 Sep 16 09:04	20° $\text{A}$ 19'30	
evening max el	11831 Sep 25 06:25	4° $\text{M}$ 17'10	20°40'28	desc. node	11832 Sep 17 22:20	20° $\text{A}$ 12'33	
desc. node	11831 Oct 02 00:56	9° $\text{M}$ 00'41		evening set	11832 Sep 18 05:34	20° $\text{A}$ 09'38	
retrograde	11831 Oct 06 14:19	9° $\text{M}$ 54'32		inferior conj	11832 Sep 26 23:01	16° $\text{A}$ 03'46	-2°47'51
evening set	11831 Oct 08 19:28	9° $\text{M}$ 42'35		minimum elong	11832 Sep 26 15:40	16° $\text{A}$ 15'32	2°44'59
inferior conj	11831 Oct 17 21:11	5° $\text{M}$ 47'24	-4°32'50	min. Earth dist.	11832 Sep 29 08:50	14° $\text{A}$ 31'29	0.55533 AU
minimum elong	11831 Oct 17 11:10	6° $\text{M}$ 01'47	4°29'43	morning rise	11832 Oct 04 23:34	11° $\text{A}$ 36'44	
min. Earth dist.	11831 Oct 18 22:26	5° $\text{M}$ 11'07	0.54658 AU	direct	11832 Oct 10 01:51	10° $\text{A}$ 38'35	
morning rise	11831 Oct 26 02:40	1° $\text{M}$ 49'31		morning max el	11832 Oct 24 00:41	17° $\text{A}$ 38'10	25°07'21
direct	11831 Oct 30 08:55	1° $\text{M}$ 10'30			11832 Nov 03 04:53	0° $\text{M}$	
morning max el	11831 Nov 12 14:08	7° $\text{M}$ 34'32	23°20'39	asc. node	11832 Nov 11 13:59	13° $\text{M}$ 55'34	
asc. node	11831 Nov 25 17:07	25° $\text{M}$ 04'27		morning set	11832 Nov 19 11:19	29° $\text{M}$ 47'21	
	11831 Nov 28 11:35	0° $\text{X}$			11832 Nov 19 13:41	0° $\text{X}$	
morning set	11831 Dec 05 23:36	15° $\text{X}$ 02'51					
				superior conj	11832 Nov 26 06:36	14° $\text{X}$ 41'52	1°38'43
superior conj	11831 Dec 12 21:31	29° $\text{X}$ 59'24	1°37'34	minimum elong	11832 Nov 26 06:14	14° $\text{X}$ 39'51	1°39'27
minimum elong	11831 Dec 12 22:17	0° $\text{Z}$ 03'32	1°38'20	max. Earth dist.	11832 Nov 27 22:11	18° $\text{X}$ 19'04	1.32152 AU
	11831 Dec 12 21:38	0° $\text{Z}$		evening rise	11832 Dec 03 11:45	0° $\text{Z}$ 09'57	
max. Earth dist.	11831 Dec 15 19:30	6° $\text{Z}$ 12'38	1.33285 AU		11832 Dec 03 09:49	0° $\text{Z}$	
evening rise	11831 Dec 20 15:31	16° $\text{Z}$ 07'06		desc. node	11832 Dec 14 19:58	21° $\text{Z}$ 31'56	
	11831 Dec 28 00:28	0° $\text{A}$			11832 Dec 20 01:14	0° $\text{A}$	
desc. node	11831 Dec 28 22:58	1° $\text{A}$ 39'18		evening max el	11833 Jan 05 10:16	20° $\text{A}$ 44'13	27°31'46
	11832 Jan 16 22:32	0° $\text{K}$		retrograde	11833 Jan 19 05:56	28° $\text{A}$ 04'27	
evening max el	11832 Jan 23 23:10	7° $\text{K}$ 42'35	27°20'57	evening set	11833 Jan 26 05:10	25° $\text{A}$ 41'52	
retrograde	11832 Feb 06 13:07	15° $\text{K}$ 07'27		min. Earth dist.	11833 Jan 29 23:02	22° $\text{A}$ 38'04	0.62694 AU
evening set	11832 Feb 13 07:54	12° $\text{K}$ 36'05		inferior conj	11833 Feb 01 19:46	19° $\text{A}$ 52'35	-1°52'23
min. Earth dist.	11832 Feb 17 04:31	9° $\text{K}$ 03'57	0.64598 AU	minimum elong	11833 Feb 01 23:32	19° $\text{A}$ 43'30	1°50'17

asc. node	11833 Feb 07 12:55	15° $\approx$ 17'31		inferior conj	11834 Jan 15 10:22	2° $\approx$ 49'15	-3°10'43
morning rise	11833 Feb 08 20:19	14° $\approx$ 43'02		minimum elong	11834 Jan 15 16:57	2° $\approx$ 35'16	3°07'38
direct	11833 Feb 11 03:10	14° $\approx$ 18'50			11834 Jan 19 00:16	30° $\approx$ 3	
morning max el	11833 Feb 17 18:50	17° $\approx$ 42'35	17°46'49	morning rise	11834 Jan 23 00:53	27° $\approx$ 59'25	
	11833 Feb 26 15:37	0° $\approx$		direct	11834 Jan 25 03:37	27° $\approx$ 34'33	
morning set	11833 Mar 05 19:05	12° $\approx$ 19'18		asc. node	11834 Jan 25 10:10	27° $\approx$ 34'52	
desc. node	11833 Mar 12 20:45	24° $\approx$ 36'25			11834 Jan 30 22:03	0° $\approx$	
	11833 Mar 16 01:02	0° $\approx$		morning max el	11834 Feb 01 09:52	1° $\approx$ 19'29	17°58'50
				morning set	11834 Feb 17 00:03	25° $\approx$ 51'47	
					11834 Feb 19 06:00	0° $\approx$	
superior conj	11833 Mar 17 14:54	2° $\approx$ 38'30	-0°35'50	superior conj	11834 Feb 27 05:20	14° $\approx$ 21'41	0°03'56
minimum elong	11833 Mar 17 11:19	2° $\approx$ 23'32	0°35'14	minimum elong	11834 Feb 27 05:40	14° $\approx$ 23'13	0°04'09
max. Earth dist.	11833 Mar 24 05:38	13° $\approx$ 27'22	1.44134 AU	behind sun begin	11834 Feb 26 21:54	13° $\approx$ 49'02	
evening rise	11833 Apr 01 11:57	26° $\approx$ 27'15		behind sun end	11834 Feb 27 13:27	14° $\approx$ 57'19	
	11833 Apr 03 19:22	0° $\approx$		desc. node	11834 Feb 27 17:24	15° $\approx$ 14'34	
	11833 Apr 24 12:40	0° $\approx$		max. Earth dist.	11834 Mar 06 18:59	27° $\approx$ 15'54	1.42417 AU
evening max el	11833 May 01 15:09	8° $\approx$ 24'49	21°05'55		11834 Mar 08 10:52	0° $\approx$	
asc. node	11833 May 06 10:11	12° $\approx$ 17'29		evening rise	11834 Mar 12 12:32	6° $\approx$ 33'39	
retrograde	11833 May 10 05:01	13° $\approx$ 25'30			11834 Mar 28 00:43	0° $\approx$	
evening set	11833 May 14 11:44	11° $\approx$ 43'01		evening max el	11834 Apr 14 09:07	22° $\approx$ 11'18	22°22'26
inferior conj	11833 May 19 18:06	5° $\approx$ 30'54	3°07'30	asc. node	11834 Apr 23 07:26	27° $\approx$ 52'42	
minimum elong	11833 May 19 16:59	5° $\approx$ 34'47	3°06'42	retrograde	11834 Apr 24 02:20	27° $\approx$ 55'39	
min. Earth dist.	11833 May 20 03:30	4° $\approx$ 58'15	0.68493 AU	evening set	11834 Apr 28 19:56	25° $\approx$ 57'51	
	11833 May 24 02:55	30° $\approx$ 8		inferior conj	11834 May 04 03:19	19° $\approx$ 36'05	2°49'16
morning rise	11833 May 24 22:00	29° $\approx$ 14'24		minimum elong	11834 May 04 01:30	19° $\approx$ 42'24	2°48'23
direct	11833 May 30 03:49	26° $\approx$ 56'30		min. Earth dist.	11834 May 03 23:50	19° $\approx$ 48'13	0.68773 AU
	11833 Jun 06 03:10	0° $\approx$		morning rise	11834 May 09 06:57	13° $\approx$ 25'10	
desc. node	11833 Jun 08 21:52	2° $\approx$ 27'12		direct	11834 May 13 23:27	11° $\approx$ 26'57	
morning max el	11833 Jun 09 15:40	3° $\approx$ 11'13	23°22'37	morning max el	11834 May 23 04:32	16° $\approx$ 49'46	21°54'34
	11833 Jun 30 02:53	0° $\approx$		desc. node	11834 May 26 18:47	20° $\approx$ 45'48	
morning set	11833 Jul 14 12:00	22° $\approx$ 45'48			11834 Jun 02 23:35	0° $\approx$	
max. Earth dist.	11833 Jul 18 13:51	29° $\approx$ 43'45	1.39362 AU		11834 Jun 23 04:14	0° $\approx$	
	11833 Jul 18 17:35	0° $\approx$		morning set	11834 Jun 24 19:56	2° $\approx$ 38'05	
superior conj	11833 Jul 26 05:27	13° $\approx$ 29'09	-1°03'42	max. Earth dist.	11834 Jun 30 14:29	12° $\approx$ 03'10	1.41617 AU
minimum elong	11833 Jul 26 09:55	13° $\approx$ 49'57	1°03'36	superior conj	11834 Jul 08 07:05	25° $\approx$ 12'07	-1°36'04
asc. node	11833 Aug 02 09:32	27° $\approx$ 07'13		minimum elong	11834 Jul 08 13:36	25° $\approx$ 40'49	1°36'03
	11833 Aug 03 21:15	0° $\approx$			11834 Jul 11 00:01	0° $\approx$	
evening rise	11833 Aug 04 14:53	1° $\approx$ 25'11		evening rise	11834 Jul 19 00:14	14° $\approx$ 37'34	
evening max el	11833 Aug 20 17:31	27° $\approx$ 31'47	18°40'40	asc. node	11834 Jul 20 06:20	16° $\approx$ 56'19	
	11833 Aug 23 18:00	0° $\approx$			11834 Jul 27 14:52	0° $\approx$	
retrograde	11833 Aug 28 21:25	1° $\approx$ 37'34		evening max el	11834 Aug 04 01:52	10° $\approx$ 10'16	18°12'20
evening set	11833 Aug 30 20:20	1° $\approx$ 24'17		retrograde	11834 Aug 11 04:36	13° $\approx$ 46'48	
	11833 Sep 03 09:11	30° $\approx$ 8		evening set	11834 Aug 13 10:24	13° $\approx$ 25'53	
desc. node	11833 Sep 04 19:43	29° $\approx$ 08'10		inferior conj	11834 Aug 20 15:35	8° $\approx$ 40'40	0°37'24
inferior conj	11833 Sep 07 20:27	26° $\approx$ 59'32	-0°56'57	minimum elong	11834 Aug 20 16:48	8° $\approx$ 38'00	0°36'36
minimum elong	11833 Sep 07 18:07	27° $\approx$ 03'52	0°56'08	desc. node	11834 Aug 22 17:06	6° $\approx$ 52'04	
min. Earth dist.	11833 Sep 11 00:25	24° $\approx$ 38'34	0.57171 AU	min. Earth dist.	11834 Aug 23 23:25	5° $\approx$ 47'41	0.59295 AU
morning rise	11833 Sep 15 12:30	21° $\approx$ 54'45		morning rise	11834 Aug 27 19:50	3° $\approx$ 01'56	
direct	11833 Sep 21 08:25	20° $\approx$ 31'04		direct	11834 Sep 03 04:56	1° $\approx$ 09'22	
morning max el	11833 Oct 05 15:28	27° $\approx$ 59'00	26°37'47	morning max el	11834 Sep 17 13:30	8° $\approx$ 58'09	27°36'58
	11833 Oct 07 15:10	0° $\approx$			11834 Oct 03 15:46	0° $\approx$	
	11833 Oct 27 18:19	0° $\approx$		asc. node	11834 Oct 16 07:33	22° $\approx$ 53'00	
asc. node	11833 Oct 29 10:48	3° $\approx$ 14'36		morning set	11834 Oct 19 04:28	28° $\approx$ 48'44	
morning set	11833 Nov 03 21:33	14° $\approx$ 24'41			11834 Oct 19 17:56	0° $\approx$	
superior conj	11833 Nov 10 17:54	29° $\approx$ 12'04	1°33'55	max. Earth dist.	11834 Oct 25 14:44	12° $\approx$ 48'52	1.31339 AU
minimum elong	11833 Nov 10 16:34	29° $\approx$ 12'03	1°34'28	superior conj	11834 Oct 26 05:30	14° $\approx$ 11'07	1°23'26
	11833 Nov 10 23:38	0° $\approx$		minimum elong	11834 Oct 26 03:30	13° $\approx$ 59'58	1°23'42
max. Earth dist.	11833 Nov 11 05:50	0° $\approx$ 34'29	1.31498 AU	evening rise	11834 Nov 01 22:49	28° $\approx$ 59'52	
evening rise	11833 Nov 17 14:58	14° $\approx$ 29'59			11834 Nov 02 10:03	0° $\approx$	
	11833 Nov 25 10:04	0° $\approx$		desc. node	11834 Nov 18 14:09	29° $\approx$ 40'19	
desc. node	11833 Dec 01 17:01	10° $\approx$ 56'19			11834 Nov 18 19:24	0° $\approx$	
	11833 Dec 15 15:55	0° $\approx$		evening max el	11834 Nov 30 15:09	14° $\approx$ 33'36	26°13'22
evening max el	11833 Dec 18 16:27	3° $\approx$ 04'35	27°09'37	retrograde	11834 Dec 14 13:32	21° $\approx$ 38'24	
retrograde	11834 Jan 01 14:28	10° $\approx$ 17'23		evening set	11834 Dec 20 23:48	19° $\approx$ 59'11	
evening set	11834 Jan 08 11:52	8° $\approx$ 12'01					
min. Earth dist.	11834 Jan 12 06:53	5° $\approx$ 28'54	0.60597 AU				

min. Earth dist.	11834 Dec 25 04:23	17° $\text{♄}$ 23'42	0.58465 AU			11835 Dec 03 17:01	30° $\text{♄}$ 8'27	
inferior conj	11834 Dec 28 07:13	15° $\text{♄}$ 06'02	-4°27'31	min. Earth dist.	11835 Dec 06 17:37	28° $\text{♄}$ 14'53	0.56554 AU	
minimum elong	11834 Dec 28 15:34	14° $\text{♄}$ 50'38	4°24'24	inferior conj	11835 Dec 09 07:45	26° $\text{♄}$ 35'12	-5°28'10	
morning rise	11835 Jan 05 10:06	10° $\text{♄}$ 38'15		minimum elong	11835 Dec 09 14:15	26° $\text{♄}$ 24'45	5°26'25	
direct	11835 Jan 07 12:52	10° $\text{♄}$ 23'17		morning rise	11835 Dec 17 18:07	22° $\text{♄}$ 28'55		
asc. node	11835 Jan 12 07:22	11° $\text{♄}$ 44'13		direct	11835 Dec 20 03:22	22° $\text{♄}$ 13'04		
morning max el	11835 Jan 15 18:37	14° $\text{♄}$ 25'25	18°30'53	morning max el	11835 Dec 29 17:02	26° $\text{♄}$ 48'53	19°24'53	
	11835 Jan 26 10:40	0° $\text{♄}$		asc. node	11835 Dec 30 04:30	27° $\text{♄}$ 17'08		
morning set	11835 Jan 31 17:37	9° $\text{♄}$ 58'03			11836 Jan 01 14:29	0° $\text{♄}$		
				morning set	11836 Jan 15 19:43	24° $\text{♄}$ 26'11		
					11836 Jan 18 14:13	0° $\text{♄}$		
superior conj	11835 Feb 09 17:06	27° $\text{♄}$ 04'04	0°37'43					
minimum elong	11835 Feb 09 19:32	27° $\text{♄}$ 15'23	0°37'49					
	11835 Feb 11 07:20	0° $\text{♄}$		superior conj	11836 Jan 23 21:28	10° $\text{♄}$ 32'03	1°03'59	
desc. node	11835 Feb 14 14:03	5° $\text{♄}$ 54'17		minimum elong	11836 Jan 24 00:25	10° $\text{♄}$ 46'22	1°04'15	
max. Earth dist.	11835 Feb 17 03:20	10° $\text{♄}$ 22'32	1.40321 AU	max. Earth dist.	11836 Jan 30 09:25	22° $\text{♄}$ 49'16	1.38092 AU	
evening rise	11835 Feb 21 09:11	17° $\text{♄}$ 34'21		desc. node	11836 Feb 01 10:44	26° $\text{♄}$ 31'58		
	11835 Mar 01 02:54	0° $\text{♄}$		evening rise	11836 Feb 03 03:03	29° $\text{♄}$ 30'12		
	11835 Mar 22 13:35	0° $\text{♄}$			11836 Feb 03 09:52	0° $\text{♄}$		
evening max el	11835 Mar 27 23:48	6° $\text{♄}$ 00'15	23°43'09		11836 Feb 22 10:57	0° $\text{♄}$		
retrograde	11835 Apr 07 20:54	12° $\text{♄}$ 24'50		evening max el	11836 Mar 09 13:22	19° $\text{♄}$ 51'45	25°01'24	
asc. node	11835 Apr 10 04:44	11° $\text{♄}$ 59'41		retrograde	11836 Mar 21 11:23	26° $\text{♄}$ 47'17		
evening set	11835 Apr 13 02:01	10° $\text{♄}$ 13'26		evening set	11836 Mar 27 04:24	24° $\text{♄}$ 24'40		
min. Earth dist.	11835 Apr 17 20:30	4° $\text{♄}$ 39'17	0.68598 AU	asc. node	11836 Mar 27 02:04	24° $\text{♄}$ 29'33		
inferior conj	11835 Apr 18 12:18	3° $\text{♄}$ 45'16	2°21'11	min. Earth dist.	11836 Mar 31 15:16	19° $\text{♄}$ 25'56	0.67994 AU	
minimum elong	11835 Apr 18 10:09	3° $\text{♄}$ 52'37	2°20'14	inferior conj	11836 Apr 01 19:08	17° $\text{♄}$ 54'23	1°43'21	
	11835 Apr 21 09:51	30° $\text{♄}$		minimum elong	11836 Apr 01 17:06	18° $\text{♄}$ 01'05	1°42'30	
morning rise	11835 Apr 23 18:16	27° $\text{♄}$ 41'09		morning rise	11836 Apr 07 06:05	11° $\text{♄}$ 58'27		
direct	11835 Apr 27 21:48	26° $\text{♄}$ 04'12		direct	11836 Apr 10 21:26	10° $\text{♄}$ 42'18		
	11835 May 05 07:00	0° $\text{♄}$		morning max el	11836 Apr 18 01:34	14° $\text{♄}$ 39'55	19°28'57	
morning max el	11835 May 05 23:16	0° $\text{♄}$ 39'15	20°35'06	desc. node	11836 Apr 29 12:22	29° $\text{♄}$ 24'39		
desc. node	11835 May 13 15:37	9° $\text{♄}$ 49'07			11836 Apr 29 22:03	0° $\text{♄}$		
	11835 May 27 15:58	0° $\text{♄}$		greatest brilliancy	11836 Apr 30 18:17	1° $\text{♄}$ 14'14	-0.7m	
morning set	11835 Jun 04 04:31	11° $\text{♄}$ 29'46		morning set	11836 May 13 04:33	20° $\text{♄}$ 03'42		
max. Earth dist.	11835 Jun 12 21:30	25° $\text{♄}$ 14'54	1.43551 AU		11836 May 19 14:41	0° $\text{♄}$		
	11835 Jun 15 19:48	0° $\text{♄}$		max. Earth dist.	11836 May 25 11:11	9° $\text{♄}$ 10'29	1.44951 AU	
superior conj	11835 Jun 19 10:07	5° $\text{♄}$ 56'06	-2°01'29	superior conj	11836 May 29 13:18	15° $\text{♄}$ 39'54	-2°13'11	
minimum elong	11835 Jun 19 16:11	6° $\text{♄}$ 21'22	2°01'53	minimum elong	11836 May 29 14:17	15° $\text{♄}$ 43'49	2°13'56	
evening rise	11835 Jul 01 17:54	27° $\text{♄}$ 06'36			11836 Jun 07 09:26	0° $\text{♄}$		
	11835 Jul 03 09:23	0° $\text{♄}$		evening rise	11836 Jun 12 14:47	8° $\text{♄}$ 40'03		
asc. node	11835 Jul 07 03:11	6° $\text{♄}$ 31'26		asc. node	11836 Jun 23 00:07	25° $\text{♄}$ 46'13		
evening max el	11835 Jul 18 14:53	23° $\text{♄}$ 17'56	18°03'40		11836 Jun 25 19:15	0° $\text{♄}$		
retrograde	11835 Jul 25 03:26	26° $\text{♄}$ 39'51		evening max el	11836 Jul 01 04:57	6° $\text{♄}$ 44'36	18°13'39	
evening set	11835 Jul 27 17:19	26° $\text{♄}$ 07'47		retrograde	11836 Jul 07 13:30	10° $\text{♄}$ 06'20		
inferior conj	11835 Aug 03 05:59	21° $\text{♄}$ 03'10	1°47'35	evening set	11836 Jul 10 11:37	9° $\text{♄}$ 20'33		
minimum elong	11835 Aug 03 08:34	20° $\text{♄}$ 56'41	1°46'15	inferior conj	11836 Jul 16 11:31	3° $\text{♄}$ 58'13	2°34'43	
min. Earth dist.	11835 Aug 06 07:12	18° $\text{♄}$ 00'46	0.61584 AU	minimum elong	11836 Jul 16 13:58	3° $\text{♄}$ 51'20	2°33'28	
morning rise	11835 Aug 09 21:19	15° $\text{♄}$ 00'49		min. Earth dist.	11836 Jul 19 00:15	1° $\text{♄}$ 08'03	0.63759 AU	
desc. node	11835 Aug 09 14:27	15° $\text{♄}$ 12'51			11836 Jul 20 02:05	30° $\text{♄}$		
direct	11835 Aug 16 13:16	12° $\text{♄}$ 42'33		morning rise	11836 Jul 22 14:46	27° $\text{♄}$ 42'24		
morning max el	11835 Aug 30 18:09	20° $\text{♄}$ 42'57	27°57'48	desc. node	11836 Jul 26 11:46	25° $\text{♄}$ 33'29		
	11835 Sep 07 18:36	0° $\text{♄}$		direct	11836 Jul 29 06:47	25° $\text{♄}$ 06'58		
	11835 Sep 26 16:15	0° $\text{♄}$			11836 Aug 08 17:39	0° $\text{♄}$		
morning set	11835 Oct 03 06:09	12° $\text{♄}$ 54'52		morning max el	11836 Aug 12 03:09	3° $\text{♄}$ 08'27	27°41'05	
asc. node	11835 Oct 03 04:16	12° $\text{♄}$ 45'12			11836 Sep 01 04:59	0° $\text{♄}$		
max. Earth dist.	11835 Oct 08 21:14	24° $\text{♄}$ 53'25	1.31696 AU	morning set	11836 Sep 16 00:16	26° $\text{♄}$ 37'02		
					11836 Sep 17 16:35	0° $\text{♄}$		
superior conj	11835 Oct 10 15:37	28° $\text{♄}$ 46'08	1°07'28	asc. node	11836 Sep 19 00:58	2° $\text{♄}$ 46'06		
minimum elong	11835 Oct 10 13:22	28° $\text{♄}$ 33'43	1°07'25	max. Earth dist.	11836 Sep 20 21:38	6° $\text{♄}$ 39'26	1.32573 AU	
	11835 Oct 11 05:00	0° $\text{♄}$						
evening rise	11835 Oct 17 09:21	13° $\text{♄}$ 34'49		superior conj	11836 Sep 23 22:18	13° $\text{♄}$ 07'34	0°46'11	
	11835 Oct 25 12:25	0° $\text{♄}$		minimum elong	11836 Sep 23 20:20	12° $\text{♄}$ 56'56	0°45'56	
desc. node	11835 Nov 05 11:22	17° $\text{♄}$ 28'39		evening rise	11836 Sep 30 20:43	28° $\text{♄}$ 09'46		
evening max el	11835 Nov 12 05:51	25° $\text{♄}$ 12'47	24°48'20		11836 Oct 01 17:25	0° $\text{♄}$		
	11835 Nov 18 13:00	0° $\text{♄}$			11836 Oct 18 22:02	0° $\text{♄}$		
retrograde	11835 Nov 26 01:00	2° $\text{♄}$ 07'18		desc. node	11836 Oct 22 08:40	4° $\text{♄}$ 00'38		
evening set	11835 Dec 01 12:34	1° $\text{♄}$ 00'14		evening max el	11836 Oct 23 16:16	5° $\text{♄}$ 20'39	23°08'05	

retrograde	11836 Nov 05 23:11	11°♊57'19		retrograde	11837 Oct 17 11:50	21°♍35'20	
evening set	11836 Nov 10 02:07	11°♊20'25		evening set	11837 Oct 20 06:04	21°♍17'54	
min. Earth dist.	11836 Nov 17 01:39	8°♊06'52	0.55167 AU	inferior conj	11837 Oct 29 05:41	17°♍22'38	-5°17'35
inferior conj	11836 Nov 18 12:49	7°♊16'08	-5°51'05	minimum elong	11837 Oct 28 21:18	17°♍34'23	5°15'30
minimum elong	11836 Nov 18 12:12	7°♊17'01	5°50'22	min. Earth dist.	11837 Oct 29 08:08	17°♍19'13	0.54572 AU
morning rise	11836 Nov 26 23:54	3°♊25'57		morning rise	11837 Nov 06 13:30	13°♍34'01	
direct	11836 Nov 29 23:31	3°♊04'50		direct	11837 Nov 10 08:09	13°♍03'12	
morning max el	11836 Dec 11 01:57	8°♊21'07	20°41'53	morning max el	11837 Nov 22 21:28	19°♍02'38	22°19'13
asc. node	11836 Dec 16 01:35	14°♊05'13			11837 Dec 01 17:59	0°♊	
	11836 Dec 25 14:24	0°♊		asc. node	11837 Dec 02 22:35	1°♊51'32	
morning set	11836 Dec 30 03:20	9°♊07'34		morning set	11837 Dec 14 14:01	23°♊54'15	
					11837 Dec 17 10:42	0°♊	
superior conj	11837 Jan 06 14:05	24°♊33'28	1°22'37	superior conj	11837 Dec 21 15:16	8°♊57'08	1°34'03
minimum elong	11837 Jan 06 16:31	24°♊45'53	1°23'08	minimum elong	11837 Dec 21 16:41	9°♊04'42	1°34'46
	11837 Jan 09 06:49	0°♊		max. Earth dist.	11837 Dec 25 08:33	16°♊42'57	1.34143 AU
max. Earth dist.	11837 Jan 11 17:53	4°♊50'16	1.35970 AU	evening rise	11837 Dec 29 19:03	25°♊34'17	
evening rise	11837 Jan 15 15:35	12°♊13'42			11838 Jan 01 02:45	0°♊	
desc. node	11837 Jan 18 07:31	17°♊03'57		desc. node	11838 Jan 05 04:22	7°♊24'59	
	11837 Jan 25 22:07	0°♊			11838 Jan 19 08:51	0°♊	
	11837 Feb 16 14:03	0°♊		evening max el	11838 Feb 02 16:35	17°♊21'32	27°01'36
evening max el	11837 Feb 20 03:02	3°♊42'00	26°09'57	retrograde	11838 Feb 16 00:35	24°♊45'31	
retrograde	11837 Mar 04 20:53	10°♊57'00		evening set	11838 Feb 22 15:08	22°♊12'21	
evening set	11837 Mar 11 01:26	8°♊26'38		min. Earth dist.	11838 Feb 26 14:11	18°♊22'22	0.65570 AU
asc. node	11837 Mar 13 23:26	5°♊32'51		inferior conj	11838 Feb 28 18:11	15°♊54'24	-0°02'08
min. Earth dist.	11837 Mar 15 05:54	4°♊02'51	0.66978 AU	minimum elong	11838 Feb 28 18:14	15°♊54'16	0°01'51
inferior conj	11837 Mar 16 21:52	1°♊59'29	0°55'39	transit middle	11838 Feb 28 18:14	15°♊54'16	0°01'51
minimum elong	11837 Mar 16 20:31	2°♊03'38	0°55'11	transit begin	11838 Feb 28 15:16	16°♊02'44	
	11837 Mar 18 13:26	30°♊		transit end	11838 Feb 28 21:12	15°♊45'48	
morning rise	11837 Mar 22 16:22	26°♊13'32		asc. node	11838 Feb 28 20:48	15°♊46'56	
direct	11837 Mar 25 20:39	25°♊16'12		morning rise	11838 Mar 06 22:44	10°♊20'40	
morning max el	11837 Apr 01 11:13	28°♊49'08	18°38'34	direct	11838 Mar 09 17:16	9°♊39'08	
	11837 Apr 02 14:39	0°♊		morning max el	11838 Mar 16 02:14	13°♊00'00	18°04'55
desc. node	11837 Apr 16 09:05	19°♊23'59			11838 Mar 28 06:41	0°♊	
morning set	11837 Apr 22 19:02	29°♊25'39		desc. node	11838 Apr 03 05:45	9°♊40'02	
	11837 Apr 23 03:48	0°♊		morning set	11838 Apr 03 13:11	10°♊10'19	
max. Earth dist.	11837 May 08 05:42	23°♊35'04	1.45670 AU		11838 Apr 15 21:18	0°♊	
superior conj	11837 May 08 23:14	24°♊43'40	-2°05'30	superior conj	11838 Apr 18 07:53	3°♊51'12	-1°38'38
minimum elong	11837 May 08 16:44	24°♊18'15	2°05'48	minimum elong	11838 Apr 17 22:32	3°♊14'22	1°38'05
	11837 May 12 08:00	0°♊		max. Earth dist.	11838 Apr 21 01:53	8°♊10'10	1.45633 AU
evening rise	11837 May 24 11:38	19°♊13'15		evening rise	11838 May 04 10:35	28°♊56'05	
	11837 May 31 05:55	0°♊			11838 May 05 03:08	0°♊	
greatest brilliancy	11837 Jun 01 02:46	1°♊22'33	-0.9m	greatest brilliancy	11838 May 17 05:19	18°♊28'46	-0.7m
asc. node	11837 Jun 09 21:09	14°♊33'34			11838 May 25 10:49	0°♊	
evening max el	11837 Jun 14 17:04	20°♊22'22	18°41'28	asc. node	11838 May 27 18:14	2°♊44'32	
retrograde	11837 Jun 21 06:53	23°♊57'38		evening max el	11838 May 29 00:55	4°♊05'44	19°26'10
evening set	11837 Jun 24 13:20	22°♊56'36		retrograde	11838 Jun 05 04:17	8°♊07'03	
inferior conj	11837 Jun 30 04:16	17°♊18'11	3°02'27	evening set	11838 Jun 08 19:30	6°♊50'03	
minimum elong	11837 Jun 30 05:50	17°♊13'21	3°01'27	inferior conj	11838 Jun 14 04:53	0°♊57'14	3°14'24
min. Earth dist.	11837 Jul 02 02:19	14°♊56'33	0.65631 AU	minimum elong	11838 Jun 14 05:20	0°♊55'43	3°13'35
morning rise	11837 Jul 05 21:30	10°♊56'35			11838 Jun 14 22:13	30°♊	
direct	11837 Jul 12 07:55	8°♊14'25		min. Earth dist.	11838 Jun 15 12:09	29°♊14'20	0.67096 AU
desc. node	11837 Jul 13 09:02	8°♊18'16		morning rise	11838 Jun 19 14:44	24°♊35'02	
morning max el	11837 Jul 25 14:01	16°♊04'49	26°52'26	direct	11838 Jun 25 15:40	21°♊56'03	
	11837 Aug 06 01:42	0°♊		desc. node	11838 Jun 30 06:13	23°♊11'14	
	11837 Aug 25 00:49	0°♊		morning max el	11838 Jul 08 00:48	29°♊20'57	25°40'17
morning set	11837 Aug 30 07:55	9°♊47'41			11838 Jul 08 15:59	0°♊	
max. Earth dist.	11837 Sep 03 12:56	18°♊02'53	1.33964 AU		11838 Jul 30 21:38	0°♊	
asc. node	11837 Sep 05 21:39	22°♊51'17		morning set	11838 Aug 13 01:25	22°♊17'59	
superior conj	11837 Sep 07 23:16	27°♊08'48	0°19'56	max. Earth dist.	11838 Aug 16 18:07	29°♊10'21	1.35821 AU
minimum elong	11837 Sep 07 22:14	27°♊03'26	0°19'37		11838 Aug 17 04:33	0°♊	
	11837 Sep 09 07:50	0°♊		superior conj	11838 Aug 22 15:49	10°♊43'21	-0°10'36
evening rise	11837 Sep 15 06:58	12°♊38'56		minimum elong	11838 Aug 22 16:29	10°♊46'39	0°10'48
	11837 Sep 24 03:00	0°♊		behind sun begin	11838 Aug 22 11:49	10°♊23'16	
evening max el	11837 Oct 05 07:03	15°♊31'25	21°30'07	behind sun end	11838 Aug 22 21:08	11°♊10'04	
desc. node	11837 Oct 09 06:02	18°♊48'57					



























































































































asc. node	11838 Aug 23 18:21	12° $\cap$ 57'11		minimum elong	11839 Aug 05 23:32	23° $\Omega$ 56'22	0°44'02
evening rise	11838 Aug 30 13:59	26° $\cap$ 56'46			11839 Aug 09 02:33	0° $\cap$	
	11838 Sep 01 01:56	0° $\underline{\Omega}$		asc. node	11839 Aug 10 15:02	2° $\cap$ 59'24	
evening max el	11838 Sep 17 10:12	26° $\underline{\Omega}$ 18'33	20°07'45	evening rise	11839 Aug 14 15:10	10° $\cap$ 55'32	
	11838 Sep 22 04:34	0° $\cap$			11839 Aug 25 00:59	0° $\underline{\Omega}$	
desc. node	11838 Sep 26 03:26	1° $\cap$ 25'40		evening max el	11839 Aug 31 03:13	7° $\underline{\Omega}$ 53'05	19°06'17
retrograde	11838 Sep 28 01:10	1° $\cap$ 35'32		retrograde	11839 Sep 09 02:35	12° $\underline{\Omega}$ 21'46	
evening set	11838 Sep 30 00:32	1° $\cap$ 25'24		evening set	11839 Sep 10 23:01	12° $\underline{\Omega}$ 11'06	
	11838 Oct 04 08:53	30° $\kappa$ $\underline{\Omega}$		desc. node	11839 Sep 13 00:51	11° $\underline{\Omega}$ 35'34	
inferior conj	11838 Oct 09 00:19	27° $\underline{\Omega}$ 26'47	-3°51'06	inferior conj	11839 Sep 19 09:47	7° $\underline{\Omega}$ 58'08	-1°59'50
minimum elong	11838 Oct 08 14:47	27° $\underline{\Omega}$ 41'02	3°47'44	minimum elong	11839 Sep 19 04:35	8° $\underline{\Omega}$ 07'00	1°57'46
min. Earth dist.	11838 Oct 10 16:42	26° $\underline{\Omega}$ 26'29	0.54916 AU	min. Earth dist.	11839 Sep 22 05:24	6° $\underline{\Omega}$ 03'20	0.56151 AU
morning rise	11838 Oct 17 03:59	23° $\underline{\Omega}$ 18'14		morning rise	11839 Sep 27 07:09	3° $\underline{\Omega}$ 14'56	
direct	11838 Oct 21 18:35	22° $\underline{\Omega}$ 32'11		direct	11839 Oct 02 17:19	2° $\underline{\Omega}$ 06'21	
morning max el	11838 Nov 04 09:08	29° $\underline{\Omega}$ 12'26	24°06'58	morning max el	11839 Oct 16 20:50	9° $\underline{\Omega}$ 19'49	25°48'46
	11838 Nov 05 04:49	0° $\cap$			11839 Nov 01 09:57	0° $\cap$	
asc. node	11838 Nov 19 19:31	20° $\cap$ 22'24		asc. node	11839 Nov 06 16:21	9° $\cap$ 26'00	
	11838 Nov 24 21:29	0° $\propto$		morning set	11839 Nov 13 13:06	23° $\cap$ 22'31	
morning set	11838 Nov 29 01:51	8° $\propto$ 41'01			11839 Nov 16 14:10	0° $\propto$	
superior conj	11838 Dec 05 22:08	23° $\propto$ 34'58	1°38'48	superior conj	11839 Nov 20 08:24	8° $\propto$ 19'35	1°37'23
minimum elong	11838 Dec 05 22:25	23° $\propto$ 36'28	1°39'35	minimum elong	11839 Nov 20 07:36	8° $\propto$ 15'08	1°38'04
max. Earth dist.	11838 Dec 08 06:55	28° $\propto$ 41'53	1.32740 AU	max. Earth dist.	11839 Nov 21 11:48	10° $\propto$ 51'06	1.31808 AU
	11838 Dec 08 21:32	0° $\propto$		evening rise	11839 Nov 27 09:31	23° $\propto$ 34'32	
evening rise	11838 Dec 13 10:02	9° $\propto$ 23'54			11839 Nov 30 13:11	0° $\propto$	
desc. node	11838 Dec 23 01:17	27° $\propto$ 29'45		desc. node	11839 Dec 09 22:18	17° $\propto$ 11'13	
	11838 Dec 24 12:21	0° $\approx$			11839 Dec 18 06:21	0° $\approx$	
	11839 Jan 15 12:30	0° $\propto$		evening max el	11839 Dec 29 14:11	13° $\approx$ 25'02	27°26'40
evening max el	11839 Jan 16 04:54	0° $\propto$ 39'45	27°29'14	retrograde	11840 Jan 12 11:37	20° $\approx$ 43'04	
retrograde	11839 Jan 29 21:50	8° $\propto$ 04'00		evening set	11840 Jan 19 10:47	18° $\approx$ 26'46	
evening set	11839 Feb 05 19:13	5° $\propto$ 34'59		min. Earth dist.	11840 Jan 23 04:25	15° $\approx$ 32'48	0.61808 AU
min. Earth dist.	11839 Feb 09 14:12	2° $\propto$ 15'48	0.63819 AU	inferior conj	11840 Jan 26 04:37	12° $\approx$ 47'46	-2°25'16
	11839 Feb 11 19:02	30° $\kappa$ $\approx$		minimum elong	11840 Jan 26 09:36	12° $\approx$ 36'21	2°22'40
inferior conj	11839 Feb 12 05:27	29° $\approx$ 33'00	-1°09'41	morning rise	11840 Feb 02 11:08	7° $\approx$ 46'15	
minimum elong	11839 Feb 12 07:40	29° $\approx$ 27'17	1°08'17	asc. node	11840 Feb 02 15:27	7° $\approx$ 42'59	
asc. node	11839 Feb 15 18:10	26° $\approx$ 11'49		direct	11840 Feb 04 15:41	7° $\approx$ 25'18	
morning rise	11839 Feb 18 22:16	24° $\approx$ 13'58		morning max el	11840 Feb 11 12:44	10° $\approx$ 54'18	17°49'35
direct	11839 Feb 21 08:40	23° $\approx$ 44'39			11840 Feb 24 06:24	0° $\propto$	
morning max el	11839 Feb 27 19:47	27° $\approx$ 04'35	17°48'21	morning set	11840 Feb 27 06:15	5° $\propto$ 20'34	
	11839 Mar 02 10:12	0° $\propto$		desc. node	11840 Mar 06 22:57	20° $\propto$ 43'02	
morning set	11839 Mar 16 10:51	22° $\propto$ 14'31					
desc. node	11839 Mar 21 02:21	0° $\Upsilon$ 07'41		superior conj	11840 Mar 09 08:40	24° $\propto$ 50'39	-0°18'27
	11839 Mar 21 00:32	0° $\Upsilon$		minimum elong	11840 Mar 09 06:57	24° $\propto$ 43'19	0°18'02
					11840 Mar 12 10:06	0° $\Upsilon$	
superior conj	11839 Mar 29 08:16	13° $\Upsilon$ 46'45	-0°59'51	max. Earth dist.	11840 Mar 16 12:14	6° $\Upsilon$ 43'49	1.43457 AU
minimum elong	11839 Mar 29 01:58	13° $\Upsilon$ 21'10	0°59'06	evening rise	11840 Mar 23 14:21	18° $\Upsilon$ 00'07	
max. Earth dist.	11839 Apr 03 20:39	22° $\Upsilon$ 37'38	1.44865 AU		11840 Mar 31 10:52	0° $\propto$	
	11839 Apr 08 13:16	0° $\propto$			11840 Apr 22 11:01	0° $\Pi$	
evening rise	11839 Apr 13 22:13	8° $\propto$ 18'07		evening max el	11840 Apr 24 00:02	1° $\Pi$ 37'18	21°37'39
	11839 Apr 28 09:40	0° $\Pi$		asc. node	11840 Apr 30 12:39	6° $\Pi$ 26'06	
evening max el	11839 May 12 03:12	17° $\Pi$ 50'47	20°25'57	retrograde	11840 May 03 01:23	6° $\Pi$ 56'35	
asc. node	11839 May 14 15:25	20° $\Pi$ 06'48		evening set	11840 May 07 12:33	5° $\Pi$ 07'42	
retrograde	11839 May 20 03:07	22° $\Pi$ 28'13			11840 May 11 23:20	30° $\kappa$ $\propto$	
evening set	11839 May 24 03:50	20° $\Pi$ 55'07		inferior conj	11840 May 12 19:07	28° $\propto$ 51'19	3°01'01
inferior conj	11839 May 29 10:34	14° $\Pi$ 49'31	3°13'18	minimum elong	11840 May 12 17:40	28° $\propto$ 56'23	3°00'11
minimum elong	11839 May 29 09:59	14° $\Pi$ 51'33	3°12'32	min. Earth dist.	11840 May 12 23:02	28° $\propto$ 37'36	0.68666 AU
min. Earth dist.	11839 May 30 03:47	13° $\Pi$ 50'31	0.68113 AU	morning rise	11840 May 17 22:33	22° $\propto$ 36'51	
morning rise	11839 Jun 03 15:50	8° $\Pi$ 30'07		direct	11840 May 22 22:47	20° $\propto$ 26'42	
direct	11839 Jun 09 05:00	6° $\Pi$ 02'34		morning max el	11840 Jun 01 21:21	26° $\propto$ 19'31	22°44'29
desc. node	11839 Jun 17 03:17	9° $\Pi$ 43'22		desc. node	11840 Jun 03 00:14	27° $\propto$ 29'07	
morning max el	11839 Jun 20 10:39	12° $\Pi$ 46'39	24°14'18		11840 Jun 05 06:24	0° $\Pi$	
	11839 Jul 04 07:45	0° $\propto$			11840 Jun 26 20:35	0° $\propto$	
	11839 Jul 23 17:01	0° $\Omega$		morning set	11840 Jul 05 22:56	14° $\propto$ 27'39	
morning set	11839 Jul 26 00:01	3° $\Omega$ 55'11		max. Earth dist.	11840 Jul 10 13:48	22° $\propto$ 11'22	1.40348 AU
max. Earth dist.	11839 Jul 29 16:00	10° $\Omega$ 22'23	1.38024 AU		11840 Jul 15 01:51	0° $\Omega$	
superior conj	11839 Aug 05 20:32	23° $\Omega$ 42'01	-0°44'02	superior conj	11840 Jul 18 09:25	5° $\Omega$ 56'07	-1°17'54

minimum elong	11840 Jul 18 14:55	6°Ω21'03	1°17'48	superior conj	11841 Jun 30 01:55	17°Ω15'01	-1°48'04
asc. node	11840 Jul 27 11:48	22°Ω54'35		minimum elong	11841 Jun 30 08:42	17°Ω44'10	1°48'11
evening rise	11840 Jul 28 07:25	24°Ω27'42			11841 Jul 07 08:17	0°Ω	
	11840 Jul 31 05:53	0°൬		evening rise	11841 Jul 11 10:42	7°Ω23'05	
evening max el	11840 Aug 13 07:14	20°൬11'22	18°26'07	asc. node	11841 Jul 14 08:38	12°Ω38'27	
retrograde	11840 Aug 20 22:49	24°൬02'23			11841 Jul 25 01:47	0°൬	
evening set	11840 Aug 23 00:32	23°൬46'15		evening max el	11841 Jul 27 18:04	3°൬03'43	18°06'17
desc. node	11840 Aug 29 22:15	19°൬49'05		retrograde	11841 Aug 03 13:18	6°൬32'05	
inferior conj	11840 Aug 30 16:30	19°൬12'57	-0°14'09	evening set	11841 Aug 05 22:36	6°൬06'41	
minimum elong	11840 Aug 30 15:58	19°൬14'02	0°14'09	inferior conj	11841 Aug 12 20:19	1°൬12'40	1°10'10
transit middle	11840 Aug 30 15:58	19°൬14'02	0°14'09	minimum elong	11841 Aug 12 22:21	1°൬07'57	1°09'01
transit begin	11840 Aug 30 14:15	19°൬17'26			11841 Aug 14 03:25	30°RΩ	
transit end	11840 Aug 30 17:40	19°൬10'37		min. Earth dist.	11841 Aug 16 02:11	28°Ω13'14	0.60271 AU
min. Earth dist.	11840 Sep 02 23:51	16°൬35'46	0.58046 AU	desc. node	11841 Aug 16 19:37	27°Ω35'37	
morning rise	11840 Sep 07 03:53	13°൬52'59		morning rise	11841 Aug 19 19:07	25°Ω22'49	
direct	11840 Sep 13 06:25	12°൬16'46		direct	11841 Aug 26 07:59	23°Ω18'52	
morning max el	11840 Sep 27 14:19	19°൬54'12	27°07'15		11841 Sep 08 08:57	0°൬	
	11840 Oct 06 05:49	0°Ω		morning max el	11841 Sep 09 15:21	1°൬12'44	27°50'39
asc. node	11840 Oct 23 13:07	28°Ω53'45			11841 Sep 30 11:58	0°Ω	
	11840 Oct 24 02:23	0°ℳ		asc. node	11841 Oct 10 09:50	18°Ω38'52	
morning set	11840 Oct 27 22:07	7°ℳ54'19		morning set	11841 Oct 12 03:06	22°Ω11'51	
					11841 Oct 15 18:47	0°ℳ	
superior conj	11840 Nov 03 20:03	23°ℳ04'55	1°30'09	max. Earth dist.	11841 Oct 18 05:00	5°ℳ19'49	1.31434 AU
minimum elong	11840 Nov 03 18:23	22°ℳ55'40	1°30'35				
max. Earth dist.	11840 Nov 03 20:24	23°ℳ06'50	1.31372 AU	superior conj	11841 Oct 19 07:17	7°ℳ45'35	1°17'19
	11840 Nov 06 22:43	0°✎		minimum elong	11841 Oct 19 05:07	7°ℳ33'33	1°17'27
evening rise	11840 Nov 10 14:59	7°✎59'30		evening rise	11841 Oct 26 00:17	22°ℳ32'54	
	11840 Nov 21 23:34	0°Ω			11841 Oct 29 13:26	0°✎	
desc. node	11840 Nov 25 19:23	6°Ω19'46		desc. node	11841 Nov 12 16:35	24°✎42'39	
evening max el	11840 Dec 10 17:42	25°Ω25'00	26°49'53		11841 Nov 16 14:54	0°Ω	
	11840 Dec 16 14:18	0°≈		evening max el	11841 Nov 22 13:03	6°Ω32'31	25°40'04
retrograde	11840 Dec 24 16:15	2°≈33'52		retrograde	11841 Dec 06 10:12	13°Ω32'37	
evening set	11840 Dec 31 10:01	0°≈39'04		evening set	11841 Dec 12 12:33	12°Ω06'37	
	11841 Jan 01 12:23	30°RΩ		min. Earth dist.	11841 Dec 17 01:25	9°Ω29'29	0.57613 AU
min. Earth dist.	11841 Jan 04 07:57	28°Ω00'48	0.59675 AU	inferior conj	11841 Dec 20 00:34	7°Ω26'25	-4°56'20
inferior conj	11841 Jan 07 12:07	25°Ω28'47	-3°44'12	minimum elong	11841 Dec 20 08:45	7°Ω12'13	4°53'40
minimum elong	11841 Jan 07 19:42	25°Ω13'35	3°40'56	morning rise	11841 Dec 28 07:25	3°Ω07'59	
morning rise	11841 Jan 15 08:13	20°Ω47'45		direct	11841 Dec 30 12:14	2°Ω53'01	
direct	11841 Jan 17 10:20	20°Ω31'32		asc. node	11842 Jan 06 09:52	5°Ω31'18	
asc. node	11841 Jan 19 12:42	20°Ω48'38		morning max el	11842 Jan 08 06:19	7°Ω08'00	18°51'04
morning max el	11841 Jan 25 01:30	24°Ω18'52	18°09'53		11842 Jan 22 20:32	0°≈	
	11841 Jan 29 16:43	0°≈		morning set	11842 Jan 24 14:52	3°≈26'20	
morning set	11841 Feb 09 17:12	19°≈09'14					
	11841 Feb 15 12:29	0°✎		superior conj	11842 Feb 02 04:10	20°≈03'39	0°49'47
				minimum elong	11842 Feb 02 06:58	20°≈16'58	0°49'56
superior conj	11841 Feb 19 08:41	7°✎00'06	0°19'07		11842 Feb 07 13:12	0°✎	
minimum elong	11841 Feb 19 10:09	7°✎06'41	0°19'16	desc. node	11842 Feb 08 16:15	2°✎01'05	
desc. node	11841 Feb 21 19:34	11°✎21'54		max. Earth dist.	11842 Feb 09 07:04	3°✎06'46	1.39379 AU
max. Earth dist.	11841 Feb 26 23:38	20°✎16'10	1.41559 AU	evening rise	11842 Feb 13 04:52	9°✎53'19	
evening rise	11841 Mar 03 23:01	28°✎28'51			11842 Feb 25 18:50	0°Υ	
	11841 Mar 04 21:38	0°Υ		evening max el	11842 Mar 20 06:28	29°Υ14'51	24°17'04
	11841 Mar 25 01:17	0°Ω			11842 Mar 21 01:02	0°Ω	
evening max el	11841 Apr 06 16:30	15°Ω25'07	22°56'41	retrograde	11842 Mar 31 14:24	5°Ω53'31	
retrograde	11841 Apr 16 21:33	21°Ω26'41		asc. node	11842 Apr 04 07:18	4°Ω51'05	
asc. node	11841 Apr 17 09:58	21°Ω25'25		evening set	11842 Apr 06 00:44	3°Ω36'45	
evening set	11841 Apr 21 20:02	19°Ω22'55			11842 Apr 09 08:37	30°RΥ	
inferior conj	11841 Apr 27 04:27	12°Ω58'15	2°38'33	min. Earth dist.	11842 Apr 10 15:44	28°Υ17'59	0.68398 AU
minimum elong	11841 Apr 27 02:27	13°Ω05'12	2°37'37	inferior conj	11842 Apr 11 12:44	27°Υ07'13	2°06'20
min. Earth dist.	11841 Apr 26 19:44	13°Ω28'29	0.68757 AU	minimum elong	11842 Apr 11 10:34	27°Υ14'30	2°05'24
morning rise	11841 May 02 08:45	6°Ω50'12		morning rise	11842 Apr 16 20:32	21°Υ06'40	
direct	11841 May 06 19:48	5°Ω00'45		direct	11842 Apr 20 18:47	19°Υ38'48	
morning max el	11841 May 15 12:16	10°Ω01'46	21°19'24	morning max el	11842 Apr 28 10:12	23°Υ56'02	20°05'11
desc. node	11841 May 20 21:06	16°Ω08'01			11842 May 03 16:41	0°Ω	
	11841 May 31 01:16	0°II		desc. node	11842 May 07 17:54	5°Ω25'46	
morning set	11841 Jun 15 20:01	23°II50'57			11842 May 24 08:00	0°II	
	11841 Jun 19 16:44	0°Ω		morning set	11842 May 25 22:22	2°II27'21	
max. Earth dist.	11841 Jun 22 17:21	4°Ω54'49	1.42499 AU	max. Earth dist.	11842 Jun 05 03:46	18°II28'00	1.44222 AU

superior conj	11842 Jun 10 18:32	27° $\Pi$ 31'39	-2°08'32		minimum elong	11843 May 21 10:41	6° $\Pi$ 45'12	2°13'09
minimum elong	11842 Jun 10 23:03	27° $\Pi$ 50'06	2°09'08			11843 Jun 04 21:51	0° $\Theta$	
	11842 Jun 12 06:43	0° $\Theta$			evening rise	11843 Jun 05 07:01	0° $\Theta$ 37'30	
evening rise	11842 Jun 23 20:07	19° $\Theta$ 29'35			asc. node	11843 Jun 18 02:32	21° $\Theta$ 09'47	
	11842 Jun 29 23:32	0° $\Omega$			evening max el	11843 Jun 24 21:25	29° $\Theta$ 51'51	18°23'23
asc. node	11842 Jul 01 05:32	2° $\Omega$ 05'30				11843 Jun 25 00:43	0° $\Omega$	
evening max el	11842 Jul 11 07:53	16° $\Omega$ 19'50	18°05'39		retrograde	11843 Jul 01 07:20	3° $\Omega$ 18'05	
retrograde	11842 Jul 17 17:38	19° $\Omega$ 40'19			evening set	11843 Jul 04 08:50	2° $\Omega$ 26'08	
evening set	11842 Jul 20 10:57	19° $\Omega$ 02'41				11843 Jul 07 10:20	30° $\mathcal{R}\Theta$	
inferior conj	11842 Jul 26 17:42	13° $\Omega$ 50'02	2°10'13		inferior conj	11843 Jul 10 04:29	26° $\Theta$ 56'52	2°48'35
minimum elong	11842 Jul 26 20:21	13° $\Omega$ 43'01	2°08'51		minimum elong	11843 Jul 10 06:37	26° $\Theta$ 50'37	2°47'27
min. Earth dist.	11842 Jul 29 13:56	10° $\Omega$ 50'34	0.62528 AU		min. Earth dist.	11843 Jul 12 11:09	24° $\Theta$ 16'54	0.64591 AU
morning rise	11842 Aug 02 03:39	7° $\Omega$ 40'37			morning rise	11843 Jul 16 03:08	20° $\Theta$ 37'31	
desc. node	11842 Aug 03 16:59	6° $\Omega$ 40'05			desc. node	11843 Jul 21 14:16	18° $\Theta$ 02'08	
direct	11842 Aug 08 20:10	5° $\Omega$ 14'07			direct	11843 Jul 22 17:18	17° $\Theta$ 57'43	
morning max el	11842 Aug 22 22:24	13° $\Omega$ 16'30	27°55'11		morning max el	11843 Aug 05 08:40	25° $\Theta$ 57'12	27°23'53
	11842 Sep 05 08:08	0° $\mathcal{M}$				11843 Aug 09 02:13	0° $\Omega$	
	11842 Sep 22 23:46	0° $\underline{\Omega}$				11843 Aug 29 21:36	0° $\mathcal{M}$	
morning set	11842 Sep 26 01:55	6° $\underline{\Omega}$ 08'44			morning set	11843 Sep 09 16:01	19° $\mathcal{M}$ 38'45	
asc. node	11842 Sep 27 06:31	8° $\underline{\Omega}$ 35'10			asc. node	11843 Sep 14 03:13	28° $\mathcal{M}$ 38'24	
max. Earth dist.	11842 Oct 01 09:34	17° $\underline{\Omega}$ 18'26	1.32006 AU		max. Earth dist.	11843 Sep 14 06:18	28° $\mathcal{M}$ 54'21	1.33099 AU
						11843 Sep 14 18:58	0° $\underline{\Omega}$	
superior conj	11842 Oct 03 16:11	22° $\underline{\Omega}$ 15'17	0°59'04					
minimum elong	11842 Oct 03 13:59	22° $\underline{\Omega}$ 03'13	0°58'56		superior conj	11843 Sep 17 20:44	6° $\underline{\Omega}$ 28'51	0°35'39
	11842 Oct 07 04:46	0° $\mathcal{M}$			minimum elong	11843 Sep 17 19:05	6° $\underline{\Omega}$ 20'01	0°35'20
evening rise	11842 Oct 10 11:24	7° $\mathcal{M}$ 08'22			evening rise	11843 Sep 24 22:31	21° $\underline{\Omega}$ 41'12	
	11842 Oct 22 06:33	0° $\mathcal{J}$				11843 Sep 28 22:35	0° $\mathcal{M}$	
desc. node	11842 Oct 30 13:51	12° $\mathcal{J}$ 01'28			evening max el	11843 Oct 16 11:52	26° $\mathcal{M}$ 57'57	22°25'10
evening max el	11842 Nov 04 00:52	16° $\mathcal{J}$ 53'50	24°06'24		desc. node	11843 Oct 17 11:11	27° $\mathcal{M}$ 52'53	
retrograde	11842 Nov 17 16:10	23° $\mathcal{J}$ 42'47				11843 Oct 20 01:36	0° $\mathcal{J}$	
evening set	11842 Nov 22 14:56	22° $\mathcal{J}$ 49'04			retrograde	11843 Oct 29 09:59	3° $\mathcal{J}$ 23'11	
min. Earth dist.	11842 Nov 28 11:44	19° $\mathcal{J}$ 54'00	0.55886 AU		evening set	11843 Nov 01 21:44	2° $\mathcal{J}$ 56'23	
inferior conj	11842 Nov 30 16:21	18° $\mathcal{J}$ 33'49	-5°43'52			11843 Nov 08 18:06	30° $\mathcal{R}\mathcal{M}$	
minimum elong	11842 Nov 30 20:24	18° $\mathcal{J}$ 27'38	5°42'45		min. Earth dist.	11843 Nov 09 18:58	29° $\mathcal{M}$ 25'16	0.54805 AU
morning rise	11842 Dec 09 03:54	14° $\mathcal{J}$ 35'57			inferior conj	11843 Nov 10 14:53	28° $\mathcal{M}$ 57'08	-5°44'16
direct	11842 Dec 11 18:20	14° $\mathcal{J}$ 18'31			minimum elong	11843 Nov 10 10:32	29° $\mathcal{M}$ 03'17	5°43'14
morning max el	11842 Dec 21 23:21	19° $\mathcal{J}$ 10'27	19°54'54		morning rise	11843 Nov 19 00:46	25° $\mathcal{M}$ 09'41	
asc. node	11842 Dec 24 06:59	21° $\mathcal{J}$ 37'56			direct	11843 Nov 22 07:54	24° $\mathcal{M}$ 45'07	
	11842 Dec 30 05:34	0° $\mathcal{Z}$				11843 Dec 03 17:37	0° $\mathcal{J}$	
morning set	11843 Jan 08 19:38	18° $\mathcal{Z}$ 00'41			morning max el	11843 Dec 04 02:21	0° $\mathcal{J}$ 20'19	21°21'08
	11843 Jan 14 16:57	0° $\approx$			asc. node	11843 Dec 11 04:01	8° $\mathcal{J}$ 52'18	
						11843 Dec 22 21:03	0° $\mathcal{Z}$	
superior conj	11843 Jan 16 14:16	3° $\approx$ 47'14	1°12'48		morning set	11843 Dec 24 04:46	2° $\mathcal{Z}$ 44'25	
minimum elong	11843 Jan 16 17:05	4° $\approx$ 01'13	1°13'09					
max. Earth dist.	11843 Jan 22 13:23	15° $\approx$ 19'14	1.37161 AU		superior conj	11843 Dec 31 10:54	17° $\mathcal{Z}$ 58'56	1°28'19
evening rise	11843 Jan 26 07:03	22° $\approx$ 09'56			minimum elong	11843 Dec 31 12:56	18° $\mathcal{Z}$ 09'32	1°28'55
desc. node	11843 Jan 26 13:00	22° $\approx$ 36'33			max. Earth dist.	11844 Jan 04 23:41	27° $\mathcal{Z}$ 12'13	1.35146 AU
	11843 Jan 30 18:47	0° $\mathcal{H}$				11844 Jan 06 09:45	0° $\approx$	
	11843 Feb 19 15:20	0° $\mathcal{Y}$			evening rise	11844 Jan 09 02:22	5° $\approx$ 10'09	
evening max el	11843 Mar 02 19:47	13° $\mathcal{Y}$ 05'29	25°32'07		desc. node	11844 Jan 13 09:48	13° $\approx$ 04'11	
retrograde	11843 Mar 15 03:02	20° $\mathcal{Y}$ 11'22				11844 Jan 23 14:22	0° $\mathcal{H}$	
evening set	11843 Mar 21 01:05	17° $\mathcal{Y}$ 44'39			evening max el	11844 Feb 13 09:24	26° $\mathcal{H}$ 51'49	26°34'29
asc. node	11843 Mar 22 04:40	16° $\mathcal{Y}$ 41'15				11844 Feb 16 22:28	0° $\mathcal{Y}$	
min. Earth dist.	11843 Mar 25 08:59	13° $\mathcal{Y}$ 01'01	0.67608 AU		retrograde	11844 Feb 26 10:20	4° $\mathcal{Y}$ 12'37	
inferior conj	11843 Mar 26 18:05	11° $\mathcal{Y}$ 14'48	1°24'21		evening set	11844 Mar 03 19:15	1° $\mathcal{Y}$ 40'26	
minimum elong	11843 Mar 26 16:16	11° $\mathcal{Y}$ 20'39	1°23'37			11844 Mar 05 15:16	30° $\mathcal{R}\mathcal{H}$	
morning rise	11843 Apr 01 07:57	5° $\mathcal{Y}$ 23'05			min. Earth dist.	11844 Mar 07 21:17	27° $\mathcal{H}$ 31'02	0.66417 AU
direct	11843 Apr 04 18:22	4° $\mathcal{Y}$ 15'27			asc. node	11844 Mar 08 02:03	27° $\mathcal{H}$ 17'01	
morning max el	11843 Apr 11 15:54	8° $\mathcal{Y}$ 01'12	19°05'32		inferior conj	11844 Mar 09 18:23	25° $\mathcal{H}$ 16'05	0°32'21
desc. node	11843 Apr 24 14:38	25° $\mathcal{Y}$ 12'06			minimum elong	11844 Mar 09 17:32	25° $\mathcal{H}$ 18'37	0°32'10
greatest brilliancy	11843 Apr 24 18:56	25° $\mathcal{Y}$ 28'12	-0.7m		morning rise	11844 Mar 15 16:52	19° $\mathcal{H}$ 34'55	
	11843 Apr 27 18:40	0° $\mathcal{B}$			direct	11844 Mar 18 16:43	18° $\mathcal{H}$ 44'51	
morning set	11843 May 05 01:57	11° $\mathcal{B}$ 14'18			morning max el	11844 Mar 25 04:06	22° $\mathcal{H}$ 11'36	18°22'07
	11843 May 17 03:32	0° $\mathcal{H}$				11844 Mar 31 11:45	0° $\mathcal{Y}$	
max. Earth dist.	11843 May 18 19:33	2° $\mathcal{H}$ 36'50	1.45336 AU		desc. node	11844 Apr 10 11:19	15° $\mathcal{Y}$ 18'54	
					morning set	11844 Apr 14 03:24	21° $\mathcal{Y}$ 09'00	
superior conj	11843 May 21 12:58	6° $\mathcal{H}$ 54'15	-2°12'28			11844 Apr 19 17:18	0° $\mathcal{B}$	

superior conj	11844 Apr 29 20:04	15°♄53'26	-1°56'10	superior conj	11845 Apr 09 09:43	25°♄16'55	-1°23'03
minimum elong	11844 Apr 29 11:30	15°♄19'55	1°56'04	minimum elong	11845 Apr 09 01:10	24°♄42'53	1°22'19
max. Earth dist.	11844 Apr 30 14:33	17°♄05'39	1.45742 AU		11845 Apr 12 09:13	0°♄	
	11844 May 08 20:51	0°♄		max. Earth dist.	11845 Apr 13 10:39	1°♄40'10	1.45400 AU
evening rise	11844 May 15 17:43	10°♄45'54		evening rise	11845 Apr 25 10:07	20°♄15'19	
greatest brilliancy	11844 May 25 19:13	26°♄29'51	-0.8m		11845 May 01 19:14	0°♄	
	11844 May 28 02:21	0°♄		greatest brilliancy	11845 May 09 20:56	12°♄04'26	-0.6m
asc. node	11844 Jun 03 23:36	9°♄42'44		evening max el	11845 May 21 13:37	27°♄16'46	19°49'54
evening max el	11844 Jun 07 07:57	13°♄32'18	18°58'35	asc. node	11845 May 21 20:43	27°♄34'25	
retrograde	11844 Jun 14 02:37	17°♄17'08			11845 May 24 18:18	0°♄	
evening set	11844 Jun 17 12:42	16°♄09'29		retrograde	11845 May 29 00:46	1°♄31'51	
inferior conj	11844 Jun 23 00:55	10°♄25'03	3°09'12	evening set	11845 Jun 01 20:01	0°♄07'53	
minimum elong	11844 Jun 23 02:01	10°♄21'32	3°08'19		11845 Jun 02 00:12	30°♄	
min. Earth dist.	11844 Jun 24 16:44	8°♄18'41	0.66309 AU	inferior conj	11845 Jun 07 03:57	24°♄09'34	3°15'21
morning rise	11844 Jun 28 14:40	4°♄02'42		minimum elong	11845 Jun 07 03:57	24°♄09'34	3°14'34
direct	11844 Jul 04 21:34	1°♄20'24		min. Earth dist.	11845 Jun 08 05:08	22°♄45'02	0.67595 AU
desc. node	11844 Jul 07 11:29	1°♄44'00		morning rise	11845 Jun 12 11:33	17°♄48'29	
morning max el	11844 Jul 17 19:27	9°♄02'03	26°23'58	direct	11845 Jun 18 07:48	15°♄13'28	
	11844 Aug 03 06:14	0°♄		desc. node	11845 Jun 24 08:38	17°♄22'10	
	11844 Aug 21 09:12	0°♄		morning max el	11845 Jun 30 05:34	22°♄21'48	25°04'42
morning set	11844 Aug 22 18:06	2°♄32'57			11845 Jul 06 22:06	0°♄	
max. Earth dist.	11844 Aug 26 16:45	10°♄06'50	1.34698 AU		11845 Jul 27 13:20	0°♄	
asc. node	11844 Aug 30 23:54	18°♄44'05		morning set	11845 Aug 05 04:04	14°♄41'06	
				max. Earth dist.	11845 Aug 08 18:10	21°♄12'11	1.36732 AU
superior conj	11844 Aug 31 18:28	20°♄19'21	0°07'29		11845 Aug 13 09:33	0°♄	
minimum elong	11844 Aug 31 18:04	20°♄17'16	0°07'11				
behind sun begin	11844 Aug 31 12:44	19°♄49'53		superior conj	11845 Aug 15 06:25	3°♄39'13	-0°24'32
behind sun end	11844 Aug 31 23:23	20°♄44'43		minimum elong	11845 Aug 15 08:00	3°♄47'02	0°24'40
	11844 Sep 05 09:49	0°♄		asc. node	11845 Aug 17 20:36	8°♄48'29	
evening rise	11844 Sep 08 07:37	6°♄05'39		evening rise	11845 Aug 23 12:27	20°♄15'42	
	11844 Sep 21 07:49	0°♄			11845 Aug 28 10:52	0°♄	
evening max el	11844 Sep 27 07:27	7°♄21'49	20°52'48	evening max el	11845 Sep 09 16:38	18°♄28'08	19°38'57
desc. node	11844 Oct 03 08:33	11°♄48'28		retrograde	11845 Sep 19 13:55	23°♄23'42	
retrograde	11844 Oct 08 20:58	13°♄06'13		desc. node	11845 Sep 20 05:57	23°♄22'25	
evening set	11844 Oct 11 05:02	12°♄53'10		evening set	11845 Sep 21 10:47	23°♄13'55	
inferior conj	11844 Oct 20 06:42	8°♄58'33	-4°46'06	inferior conj	11845 Sep 30 06:12	19°♄10'09	-3°04'53
minimum elong	11844 Oct 19 20:50	9°♄12'33	4°43'13	minimum elong	11845 Sep 29 22:09	19°♄22'47	3°01'47
min. Earth dist.	11844 Oct 21 02:13	8°♄30'46	0.54603 AU	min. Earth dist.	11845 Oct 02 11:52	17°♄46'06	0.55342 AU
morning rise	11844 Oct 28 12:46	5°♄03'46		morning rise	11845 Oct 08 07:39	14°♄48'25	
direct	11844 Nov 01 16:07	4°♄27'00		direct	11845 Oct 13 06:56	13°♄53'42	
morning max el	11844 Nov 14 17:28	10°♄44'47	23°04'31	morning max el	11845 Oct 27 03:59	20°♄48'21	24°52'12
asc. node	11844 Nov 27 00:58	26°♄59'12			11845 Nov 04 02:01	0°♄	
	11844 Nov 28 18:51	0°♄		asc. node	11845 Nov 13 21:51	15°♄45'04	
morning set	11844 Dec 07 16:10	17°♄31'52			11845 Nov 21 02:13	0°♄	
	11844 Dec 13 11:00	0°♄		morning set	11845 Nov 22 03:58	2°♄16'57	
superior conj	11844 Dec 14 14:48	2°♄29'39	1°36'51	superior conj	11845 Nov 28 23:21	17°♄10'50	1°38'56
minimum elong	11844 Dec 14 15:45	2°♄34'44	1°37'36	minimum elong	11845 Nov 28 23:09	17°♄09'44	1°39'41
max. Earth dist.	11844 Dec 17 17:42	9°♄07'00	1.33495 AU	max. Earth dist.	11845 Nov 30 19:24	21°♄11'45	1.32286 AU
evening rise	11844 Dec 22 11:11	18°♄44'42			11845 Dec 04 22:23	0°♄	
	11844 Dec 28 09:57	0°♄		evening rise	11845 Dec 06 06:06	2°♄44'01	
desc. node	11844 Dec 30 06:39	3°♄19'18		desc. node	11845 Dec 17 03:36	23°♄15'10	
	11845 Jan 16 18:32	0°♄			11845 Dec 21 05:42	0°♄	
evening max el	11845 Jan 25 22:53	10°♄24'56	27°16'46	evening max el	11846 Jan 08 10:19	23°♄31'00	27°32'07
retrograde	11845 Feb 08 11:23	17°♄49'31			11846 Jan 17 19:32	0°♄	
evening set	11845 Feb 15 05:11	15°♄17'34		retrograde	11846 Jan 22 05:14	0°♄52'14	
min. Earth dist.	11845 Feb 19 02:25	11°♄40'51	0.64863 AU		11846 Jan 26 09:54	30°♄	
inferior conj	11845 Feb 21 11:14	9°♄05'31	-0°29'38	evening set	11846 Jan 29 04:16	28°♄27'38	
minimum elong	11845 Feb 21 12:06	9°♄03'07	0°28'54	min. Earth dist.	11846 Feb 01 22:19	25°♄20'08	0.62998 AU
asc. node	11845 Feb 22 23:23	7°♄28'30		inferior conj	11846 Feb 04 17:45	22°♄34'56	-1°40'54
morning rise	11845 Feb 27 20:44	3°♄37'21		minimum elong	11846 Feb 04 21:05	22°♄26'43	1°38'59
direct	11845 Mar 02 11:36	3°♄01'23		asc. node	11846 Feb 09 20:42	18°♄15'56	
morning max el	11845 Mar 08 20:30	6°♄20'41	17°55'41	morning rise	11846 Feb 11 16:16	17°♄22'51	
	11845 Mar 24 21:45	0°♄		direct	11846 Feb 13 24:00	16°♄57'24	
morning set	11845 Mar 26 09:53	2°♄29'51		morning max el	11846 Feb 20 14:09	20°♄19'40	17°46'38
desc. node	11845 Mar 28 07:57	5°♄40'35			11846 Feb 27 20:41	0°♄	
				morning set	11846 Mar 08 17:35	15°♄02'43	

desc. node	11846 Mar 15 04:32	26° $\text{H}$ 11'47		morning set	11847 Feb 19 20:13	28° $\approx$ 28'26	
	11846 Mar 17 10:22	0° $\text{Y}$			11847 Feb 20 16:16	0° $\text{H}$	
superior conj	11846 Mar 20 19:52	5° $\text{Y}$ 40'14	-0°42'07	superior conj	11847 Mar 02 06:42	17° $\text{H}$ 13'13	-0°01'49
minimum elong	11846 Mar 20 15:34	5° $\text{Y}$ 22'27	0°41'30	minimum elong	11847 Mar 02 06:34	17° $\text{H}$ 12'37	0°01'32
max. Earth dist.	11846 Mar 27 04:50	16° $\text{Y}$ 02'08	1.44345 AU	behind sun begin	11847 Mar 01 22:26	16° $\text{H}$ 37'09	
evening rise	11846 Apr 04 21:48	29° $\text{Y}$ 41'18		behind sun end	11847 Mar 02 14:43	17° $\text{H}$ 48'01	
	11846 Apr 05 02:39	0° $\text{B}$		desc. node	11847 Mar 02 01:07	16° $\text{H}$ 48'50	
	11846 Apr 25 12:38	0° $\text{II}$			11847 Mar 09 19:53	0° $\text{Y}$	
evening max el	11846 May 04 13:30	11° $\text{II}$ 02'15	20°55'11	max. Earth dist.	11847 Mar 09 18:37	29° $\text{H}$ 54'46	1.42698 AU
asc. node	11846 May 08 17:55	14° $\text{II}$ 31'50		evening rise	11847 Mar 15 19:48	9° $\text{Y}$ 40'08	
retrograde	11846 May 12 23:35	15° $\text{II}$ 56'51			11847 Mar 29 05:27	0° $\text{B}$	
evening set	11846 May 17 04:45	14° $\text{II}$ 16'42		evening max el	11847 Apr 17 08:04	24° $\text{B}$ 48'15	22°10'41
inferior conj	11846 May 22 11:07	8° $\text{II}$ 06'08	3°09'23		11847 Apr 24 11:50	0° $\text{II}$	
minimum elong	11846 May 22 10:08	8° $\text{II}$ 09'33	3°08'35	asc. node	11847 Apr 25 15:12	0° $\text{II}$ 18'57	
min. Earth dist.	11846 May 22 22:29	7° $\text{II}$ 26'45	0.68409 AU	retrograde	11847 Apr 26 21:15	0° $\text{II}$ 26'25	
morning rise	11846 May 27 15:18	1° $\text{II}$ 48'49			11847 Apr 29 03:34	30° $\text{R}$ $\text{B}$	
	11846 May 30 09:20	30° $\text{R}$ $\text{B}$		evening set	11847 May 01 13:08	28° $\text{B}$ 30'55	
direct	11846 Jun 01 22:59	29° $\text{B}$ 28'23		inferior conj	11847 May 06 20:14	22° $\text{B}$ 10'21	2°52'43
	11846 Jun 04 16:42	0° $\text{II}$		minimum elong	11847 May 06 18:30	22° $\text{B}$ 16'23	2°51'50
desc. node	11846 Jun 11 05:39	4° $\text{II}$ 28'27		min. Earth dist.	11847 May 06 18:39	22° $\text{B}$ 15'52	0.68756 AU
morning max el	11846 Jun 12 15:36	5° $\text{II}$ 50'58	23°36'03	morning rise	11847 May 11 23:43	15° $\text{B}$ 58'25	
	11846 Jul 01 07:53	0° $\text{B}$		direct	11847 May 16 18:11	13° $\text{B}$ 57'03	
morning set	11846 Jul 17 17:10	25° $\text{B}$ 52'06		morning max el	11847 May 26 03:49	19° $\text{B}$ 27'49	22°07'17
	11846 Jul 20 03:10	0° $\text{Q}$		desc. node	11847 May 29 02:34	22° $\text{B}$ 38'46	
max. Earth dist.	11846 Jul 21 15:43	2° $\text{Q}$ 39'00	1.39017 AU		11847 Jun 04 00:17	0° $\text{II}$	
					11847 Jun 24 11:51	0° $\text{B}$	
superior conj	11846 Jul 29 04:57	16° $\text{Q}$ 20'10	-0°58'33	morning set	11847 Jun 28 05:01	5° $\text{B}$ 54'49	
minimum elong	11846 Jul 29 09:03	16° $\text{Q}$ 39'21	0°58'28	max. Earth dist.	11847 Jul 03 15:23	14° $\text{B}$ 49'45	1.41295 AU
asc. node	11846 Aug 04 17:19	28° $\text{Q}$ 48'18					
	11846 Aug 05 08:04	0° $\text{H}$		superior conj	11847 Jul 11 09:38	28° $\text{B}$ 11'24	-1°31'28
evening rise	11846 Aug 07 10:20	4° $\text{H}$ 04'41		minimum elong	11847 Jul 11 15:57	28° $\text{B}$ 39'24	1°31'25
	11846 Aug 23 06:07	0° $\text{Q}$			11847 Jul 12 10:04	0° $\text{Q}$	
evening max el	11846 Aug 23 14:43	0° $\text{Q}$ 21'52	18°46'35	evening rise	11847 Jul 21 21:38	17° $\text{Q}$ 22'29	
retrograde	11846 Aug 31 23:26	4° $\text{Q}$ 33'19		asc. node	11847 Jul 22 14:07	18° $\text{Q}$ 39'06	
evening set	11846 Sep 02 21:28	4° $\text{Q}$ 20'53			11847 Jul 28 20:14	0° $\text{H}$	
desc. node	11846 Sep 07 03:23	2° $\text{Q}$ 35'55		evening max el	11847 Aug 06 22:06	12° $\text{H}$ 55'32	18°15'16
inferior conj	11846 Sep 11 00:25	29° $\text{H}$ 59'14	-1°13'01	retrograde	11847 Aug 14 03:51	16° $\text{H}$ 35'20	
minimum elong	11846 Sep 10 21:23	0° $\text{Q}$ 04'47	1°11'52	evening set	11847 Aug 16 08:31	16° $\text{H}$ 15'48	
	11846 Sep 11 00:00	30° $\text{R}$ $\text{H}$		inferior conj	11847 Aug 23 16:28	11° $\text{H}$ 33'44	0°24'38
min. Earth dist.	11846 Sep 14 02:41	27° $\text{H}$ 44'32	0.56888 AU	minimum elong	11847 Aug 23 17:17	11° $\text{H}$ 31'58	0°23'58
morning rise	11846 Sep 18 17:57	24° $\text{H}$ 59'52		desc. node	11847 Aug 25 00:48	10° $\text{H}$ 24'17	
direct	11846 Sep 24 11:25	23° $\text{H}$ 40'16		min. Earth dist.	11847 Aug 27 00:35	8° $\text{H}$ 44'03	0.58967 AU
	11846 Oct 07 14:03	0° $\text{Q}$		morning rise	11847 Aug 30 22:36	5° $\text{H}$ 59'30	
morning max el	11846 Oct 08 17:54	1° $\text{Q}$ 04'51	26°26'03	direct	11847 Sep 06 06:13	4° $\text{H}$ 10'59	
	11846 Oct 29 03:13	0° $\text{H}$		morning max el	11847 Sep 20 14:47	11° $\text{H}$ 57'17	27°30'23
asc. node	11846 Oct 31 18:39	4° $\text{H}$ 59'51			11847 Oct 04 18:53	0° $\text{Q}$	
morning set	11846 Nov 06 14:29	16° $\text{H}$ 55'02		asc. node	11847 Oct 18 15:23	24° $\text{Q}$ 35'17	
	11846 Nov 12 13:32	0° $\text{J}$			11847 Oct 21 06:37	0° $\text{H}$	
				morning set	11847 Oct 21 22:01	1° $\text{H}$ 20'59	
superior conj	11846 Nov 13 10:26	1° $\text{J}$ 56'19	1°35'00				
minimum elong	11846 Nov 13 09:14	1° $\text{J}$ 49'38	1°35'36	superior conj	11847 Oct 28 22:08	16° $\text{H}$ 39'57	1°25'22
max. Earth dist.	11846 Nov 14 02:22	3° $\text{J}$ 24'52	1.31559 AU	minimum elong	11847 Oct 28 20:13	16° $\text{H}$ 29'14	1°25'42
evening rise	11846 Nov 20 08:24	17° $\text{J}$ 01'09		max. Earth dist.	11847 Oct 28 11:14	15° $\text{H}$ 39'10	1.31330 AU
	11846 Nov 26 19:48	0° $\text{B}$			11847 Nov 03 23:02	0° $\text{J}$	
desc. node	11846 Dec 04 00:38	12° $\text{B}$ 43'56		evening rise	11847 Nov 04 15:43	1° $\text{J}$ 29'42	
	11846 Dec 16 04:07	0° $\approx$			11847 Nov 19 21:21	0° $\text{B}$	
evening max el	11846 Dec 21 17:16	5° $\approx$ 57'19	27°15'08	desc. node	11847 Nov 20 21:49	1° $\text{B}$ 34'41	
retrograde	11847 Jan 04 15:15	13° $\approx$ 11'48		evening max el	11847 Dec 03 17:18	17° $\text{B}$ 34'19	26°23'53
evening set	11847 Jan 11 13:23	11° $\approx$ 03'12		retrograde	11847 Dec 17 16:00	24° $\text{B}$ 40'24	
min. Earth dist.	11847 Jan 15 07:45	8° $\approx$ 17'43	0.60912 AU	evening set	11847 Dec 24 04:26	22° $\text{B}$ 56'59	
inferior conj	11847 Jan 18 10:39	5° $\approx$ 36'01	-2°58'45	min. Earth dist.	11847 Dec 28 06:53	20° $\text{B}$ 21'15	0.58766 AU
minimum elong	11847 Jan 18 16:50	5° $\approx$ 22'37	2°55'46	inferior conj	11847 Dec 31 10:23	17° $\text{B}$ 59'20	-4°16'33
morning rise	11847 Jan 25 23:08	0° $\approx$ 43'13		minimum elong	11847 Dec 31 18:37	17° $\text{B}$ 43'48	4°13'22
asc. node	11847 Jan 27 17:59	0° $\approx$ 25'11		morning rise	11848 Jan 08 11:38	13° $\text{B}$ 28'04	
direct	11847 Jan 28 02:13	0° $\approx$ 24'42		direct	11848 Jan 10 13:57	13° $\text{B}$ 12'57	
morning max el	11847 Feb 04 05:49	3° $\approx$ 59'58	17°55'49	asc. node	11848 Jan 14 15:11	14° $\text{B}$ 12'42	

morning max el	11848 Jan 18 15:46	17°  11'09	18°24'48	morning max el	11848 Dec 31 15:57	29°  41'14	19°15'27
	11848 Jan 27 18:12	0° 		asc. node	11848 Dec 31 12:20	29°  32'35	
morning set	11848 Feb 03 12:17	12°  30'45			11848 Dec 31 23:36	0° 	
				morning set	11849 Jan 17 13:22	26°  56'17	
superior conj	11848 Feb 12 15:40	29°  47'47	0°33'01		11849 Jan 19 02:12	0° 	
minimum elong	11848 Feb 12 17:54	29°  58'05	0°33'09				
	11848 Feb 12 18:19	0° 		superior conj	11849 Jan 25 17:53	13°  09'36	1°00'29
desc. node	11848 Feb 16 21:46	7°  28'30		minimum elong	11849 Jan 25 20:49	13°  23'50	1°00'42
max. Earth dist.	11848 Feb 20 03:41	13°  08'12	1.40645 AU	max. Earth dist.	11849 Feb 01 10:04	25°  40'53	1.38422 AU
evening rise	11848 Feb 24 13:23	20°  32'59		desc. node	11849 Feb 02 18:28	28°  06'32	
	11848 Mar 01 10:22	0° 			11849 Feb 03 20:03	0° 	
	11848 Mar 22 10:16	0° 		evening rise	11849 Feb 05 04:14	2°  20'53	
evening max el	11848 Mar 29 23:14	8°  37'15	23°31'08		11849 Feb 22 14:52	0° 	
retrograde	11848 Apr 09 16:18	14°  56'08		evening max el	11849 Mar 12 12:56	22°  28'38	24°50'10
asc. node	11848 Apr 11 12:31	14°  40'16		retrograde	11849 Mar 24 07:23	29°  19'54	
evening set	11848 Apr 14 19:39	12°  46'43		asc. node	11849 Mar 29 09:53	27°  24'42	
min. Earth dist.	11848 Apr 19 15:27	7°  07'14	0.68654 AU	evening set	11849 Mar 29 22:41	26°  24'42	
inferior conj	11848 Apr 20 05:24	6°  19'20	2°26'07	min. Earth dist.	11849 Apr 03 10:37	21°  24'50	0.68115 AU
minimum elong	11848 Apr 20 03:16	6°  26'38	2°25'09	inferior conj	11849 Apr 04 12:41	20°  28'36	1°49'45
morning rise	11848 Apr 25 10:50	0°  14'03		minimum elong	11849 Apr 04 10:36	20°  35'31	1°48'53
	11848 Apr 25 18:09	30°  07'00		morning rise	11849 Apr 09 22:44	14°  31'24	
direct	11848 Apr 29 16:19	28°  33'47		direct	11849 Apr 13 15:53	13°  12'11	
	11848 May 03 22:55	0° 		morning max el	11849 Apr 20 22:38	17°  14'18	19°37'50
morning max el	11848 May 07 21:28	3°  15'19	20°46'09		11849 May 01 01:27	0° 	
desc. node	11848 May 14 23:24	11°  36'01		desc. node	11849 May 01 20:09	1°  07'04	
	11848 May 27 21:58	0° 		greatest brilliancy	11849 May 03 15:48	3°  45'42	-0.6m
morning set	11848 Jun 06 16:27	14°  53'21		morning set	11849 May 16 16:23	23°  25'53	
max. Earth dist.	11848 Jun 14 21:21	27°  53'45	1.43298 AU		11849 May 20 22:27	0° 	
	11848 Jun 16 04:29	0° 		max. Earth dist.	11849 May 28 10:22	11°  44'19	1.44788 AU
superior conj	11848 Jun 21 16:15	9°  04'28	-1°58'20	superior conj	11849 Jun 01 22:49	18°  56'25	-2°12'33
minimum elong	11848 Jun 21 22:39	9°  31'20	1°58'40	minimum elong	11849 Jun 02 00:52	19°  50'43	2°13'18
evening rise	11848 Jul 03 17:56	29°  58'26			11849 Jun 08 18:02	0° 	
	11848 Jul 03 18:17	0° 		evening rise	11849 Jun 15 18:12	11°  40'40	
asc. node	11848 Jul 08 11:00	8°  16'34		asc. node	11849 Jun 25 07:57	27°  34'51	
evening max el	11848 Jul 20 10:44	25°  59'33	18°03'45		11849 Jun 26 20:59	0° 	
retrograde	11848 Jul 27 00:37	29°  22'30		evening max el	11849 Jul 04 00:51	9°  23'45	18°11'01
evening set	11848 Jul 29 13:21	28°  52'13		retrograde	11849 Jul 10 09:22	12°  44'41	
inferior conj	11848 Aug 05 04:15	23°  50'20	1°38'30	evening set	11849 Jul 13 06:16	12°  40'01	
minimum elong	11848 Aug 05 06:45	23°  44'13	1°37'10	inferior conj	11849 Jul 19 07:48	6°  41'02	2°28'52
min. Earth dist.	11848 Aug 08 06:54	20°  48'02	0.61251 AU	minimum elong	11849 Jul 19 10:20	6°  34'01	2°27'36
desc. node	11848 Aug 10 22:11	18°  32'44		min. Earth dist.	11849 Jul 21 22:32	3°  48'01	0.63448 AU
morning rise	11848 Aug 11 21:31	17°  50'58		morning rise	11849 Jul 25 12:45	0° 	
direct	11848 Aug 18 12:58	15°  36'08			11849 Jul 26 03:17	30°  07'00	
morning max el	11848 Sep 01 18:30	23°  34'56	27°57'06	desc. node	11849 Jul 28 19:30	28°  32'17	
	11848 Sep 07 12:39	0° 		direct	11849 Aug 01 05:04	27°  53'22	
	11848 Sep 27 01:48	0° 			11849 Aug 07 20:47	0° 	
asc. node	11848 Oct 04 12:06	14°  25'34		morning max el	11849 Aug 15 03:04	5°  55'09	27°45'51
morning set	11848 Oct 05 00:37	15°  30'02			11849 Sep 02 10:18	0° 	
max. Earth dist.	11848 Oct 10 18:22	27°  45'57	1.31614 AU	morning set	11849 Sep 18 20:05	29°  16'35	
	11848 Oct 11 18:45	0° 			11849 Sep 19 04:44	0° 	
				asc. node	11849 Sep 21 08:49	4°  25'40	
superior conj	11848 Oct 12 08:38	1°  16'36	1°10'14	max. Earth dist.	11849 Sep 23 20:07	9°  36'24	1.32411 AU
minimum elong	11848 Oct 12 06:23	1°  04'11	1°10'14				
evening rise	11848 Oct 19 02:02	16°  04'24		superior conj	11849 Sep 26 15:58	15°  40'41	0°49'46
	11848 Oct 25 21:25	0° 		minimum elong	11849 Sep 26 13:55	15°  29'34	0°49'32
desc. node	11848 Nov 06 19:03	19°  32'36			11849 Oct 03 05:57	0° 	
evening max el	11848 Nov 14 09:13	28°  20'30	25°02'22	evening rise	11849 Oct 03 13:25	0°  40'06	
	11848 Nov 16 05:32	0° 			11849 Oct 19 15:56	0° 	
retrograde	11848 Nov 28 05:03	5°  31'62		desc. node	11849 Oct 24 16:22	6°  31'58	
evening set	11848 Dec 03 20:49	4°  30'42		evening max el	11849 Oct 26 19:46	8°  31'05	23°23'12
min. Earth dist.	11848 Dec 08 21:12	1°  32'15	0.56811 AU	retrograde	11849 Nov 09 05:08	15°  31'14	
	11848 Dec 10 23:22	30°  07'30		evening set	11849 Nov 13 13:27	14°  30'12	
inferior conj	11848 Dec 11 14:01	29°  35'52	-5°20'57	min. Earth dist.	11849 Nov 20 05:35	11°  22'03	0.55333 AU
minimum elong	11848 Dec 11 21:08	29°  24'11	5°18'55	inferior conj	11849 Nov 21 21:43	10°  23'28	-5°50'57
morning rise	11848 Dec 19 23:40	25°  26'26		minimum elong	11849 Nov 21 22:25	10°  22'26	5°50'13
direct	11848 Dec 22 07:34	25°  10'56		morning rise	11849 Nov 30 09:07	6°  31'46	

direct	11849 Dec 03 06:15	6° $\text{♁}$ 11'42		direct	11850 Nov 13 15:34	16° $\text{♁}$ 16'54	
morning max el	11849 Dec 14 03:00	11° $\text{♁}$ 21'23	20°29'00	morning max el	11850 Nov 26 00:21	22° $\text{♁}$ 10'01	22°03'40
asc. node	11849 Dec 18 09:24	16° $\text{♁}$ 10'15			11850 Dec 02 16:40	0° $\text{♁}$	
	11849 Dec 26 23:46	0° $\text{♁}$		asc. node	11850 Dec 05 06:24	3° $\text{♁}$ 48'35	
morning set	11850 Jan 01 20:18	11° $\text{♁}$ 35'56		morning set	11850 Dec 17 06:37	26° $\text{♁}$ 21'58	
					11850 Dec 18 23:48	0° $\text{♁}$	
superior conj	11850 Jan 09 08:54	27° $\text{♁}$ 06'29	1°20'16	superior conj	11850 Dec 24 08:58	11° $\text{♁}$ 27'19	1°32'45
minimum elong	11850 Jan 09 11:27	27° $\text{♁}$ 19'25	1°20'43	minimum elong	11850 Dec 24 10:34	11° $\text{♁}$ 35'44	1°33'26
	11850 Jan 10 19:19	0° $\text{♁}$		max. Earth dist.	11850 Dec 28 07:18	19° $\text{♁}$ 36'18	1.34391 AU
max. Earth dist.	11850 Jan 14 17:54	7° $\text{♁}$ 44'19	1.36271 AU	evening rise	11851 Jan 01 15:35	28° $\text{♁}$ 12'42	
evening rise	11850 Jan 18 14:09	14° $\text{♁}$ 57'17			11851 Jan 02 14:01	0° $\text{♁}$	
desc. node	11850 Jan 20 15:15	18° $\text{♁}$ 39'22		desc. node	11851 Jan 07 12:05	9° $\text{♁}$ 02'16	
	11850 Jan 27 06:07	0° $\text{♁}$			11851 Jan 20 11:50	0° $\text{♁}$	
	11850 Feb 17 07:02	0° $\text{♁}$		evening max el	11851 Feb 05 15:57	19° $\text{♁}$ 59'58	26°55'17
evening max el	11850 Feb 23 02:28	6° $\text{♁}$ 18'43	26°00'36	retrograde	11851 Feb 18 22:20	27° $\text{♁}$ 23'43	
retrograde	11850 Mar 07 17:38	13° $\text{♁}$ 31'34		evening set	11851 Feb 25 11:32	24° $\text{♁}$ 50'29	
evening set	11850 Mar 13 20:36	11° $\text{♁}$ 01'56		min. Earth dist.	11851 Mar 01 11:16	20° $\text{♁}$ 55'37	0.65798 AU
asc. node	11850 Mar 16 07:14	8° $\text{♁}$ 38'44		asc. node	11851 Mar 03 04:35	18° $\text{♁}$ 56'34	
min. Earth dist.	11850 Mar 18 01:55	6° $\text{♁}$ 33'10	0.67155 AU	inferior conj	11851 Mar 03 13:32	18° $\text{♁}$ 30'38	0°07'15
inferior conj	11850 Mar 19 16:08	4° $\text{♁}$ 33'57	1°03'31	minimum elong	11851 Mar 03 13:19	18° $\text{♁}$ 31'14	0°07'25
minimum elong	11850 Mar 19 14:38	4° $\text{♁}$ 38'37	1°02'59	transit middle	11851 Mar 03 13:19	18° $\text{♁}$ 31'14	0°07'25
	11850 Mar 23 18:22	30° $\text{♁}$		transit begin	11851 Mar 03 10:42	18° $\text{♁}$ 38'51	
morning rise	11850 Mar 25 09:21	28° $\text{♁}$ 46'34		transit end	11851 Mar 03 15:57	18° $\text{♁}$ 23'38	
direct	11850 Mar 28 15:12	27° $\text{♁}$ 46'39		morning rise	11851 Mar 09 16:26	12° $\text{♁}$ 54'59	
	11850 Apr 02 18:30	0° $\text{♁}$		direct	11851 Mar 12 12:16	12° $\text{♁}$ 11'25	
morning max el	11850 Apr 04 07:17	1° $\text{♁}$ 22'21	18°45'03	morning max el	11851 Mar 18 21:40	15° $\text{♁}$ 33'30	18°08'51
desc. node	11850 Apr 18 16:51	21° $\text{♁}$ 02'49			11851 Mar 29 12:46	0° $\text{♁}$	
	11850 Apr 24 11:12	0° $\text{♁}$		desc. node	11851 Apr 05 13:29	11° $\text{♁}$ 16'37	
morning set	11850 Apr 26 03:28	2° $\text{♁}$ 37'07		morning set	11851 Apr 06 17:13	13° $\text{♁}$ 08'45	
max. Earth dist.	11850 May 11 04:26	26° $\text{♁}$ 05'59	1.45606 AU		11851 Apr 17 05:38	0° $\text{♁}$	
superior conj	11850 May 12 10:27	28° $\text{♁}$ 03'28	-2°08'00	superior conj	11851 Apr 21 18:08	7° $\text{♁}$ 07'37	-1°43'42
minimum elong	11850 May 12 04:57	27° $\text{♁}$ 41'55	2°08'25	minimum elong	11851 Apr 21 08:46	6° $\text{♁}$ 30'49	1°43'15
	11850 May 13 16:11	0° $\text{♁}$		max. Earth dist.	11851 Apr 24 00:18	10° $\text{♁}$ 39'46	1.45680 AU
evening rise	11850 May 27 18:41	22° $\text{♁}$ 22'44			11851 May 06 10:30	0° $\text{♁}$	
	11850 Jun 01 12:35	0° $\text{♁}$		evening rise	11851 May 07 20:26	2° $\text{♁}$ 11'38	
greatest brilliancy	11850 Jun 03 07:36	2° $\text{♁}$ 52'04	-0.9m	greatest brilliancy	11851 May 19 23:23	20° $\text{♁}$ 49'58	-0.7m
asc. node	11850 Jun 12 04:58	16° $\text{♁}$ 26'56			11851 May 26 08:00	0° $\text{♁}$	
evening max el	11850 Jun 17 13:21	23° $\text{♁}$ 00'03	18°36'13	asc. node	11851 May 30 02:03	4° $\text{♁}$ 44'19	
retrograde	11850 Jun 24 01:54	26° $\text{♁}$ 32'39		evening max el	11851 May 31 21:56	6° $\text{♁}$ 42'55	19°18'29
evening set	11850 Jun 27 07:03	25° $\text{♁}$ 34'00		retrograde	11851 Jun 07 22:53	10° $\text{♁}$ 39'47	
inferior conj	11850 Jul 02 23:05	19° $\text{♁}$ 57'49	2°59'17	evening set	11851 Jun 11 12:42	9° $\text{♁}$ 25'16	
minimum elong	11850 Jul 03 00:49	19° $\text{♁}$ 52'34	2°58'16	inferior conj	11851 Jun 16 22:42	3° $\text{♁}$ 34'34	3°13'26
min. Earth dist.	11850 Jul 04 23:22	17° $\text{♁}$ 31'05	0.65371 AU	minimum elong	11851 Jun 16 23:20	3° $\text{♁}$ 32'30	3°12'36
morning rise	11850 Jul 08 17:39	13° $\text{♁}$ 36'31		min. Earth dist.	11851 Jun 18 08:12	1° $\text{♁}$ 45'17	0.66905 AU
direct	11850 Jul 15 05:05	10° $\text{♁}$ 54'46			11851 Jun 19 17:52	30° $\text{♁}$	
desc. node	11850 Jul 15 16:45	10° $\text{♁}$ 55'36		morning rise	11851 Jun 22 09:29	27° $\text{♁}$ 12'05	
morning max el	11850 Jul 28 13:55	18° $\text{♁}$ 48'05	27°01'28	direct	11851 Jun 28 12:02	24° $\text{♁}$ 31'55	
	11850 Aug 07 01:14	0° $\text{♁}$		desc. node	11851 Jul 02 13:54	25° $\text{♁}$ 30'57	
	11850 Aug 26 10:10	0° $\text{♁}$			11851 Jul 08 22:12	0° $\text{♁}$	
morning set	11850 Sep 02 05:29	12° $\text{♁}$ 32'29		morning max el	11851 Jul 11 00:46	2° $\text{♁}$ 01'57	25°52'06
max. Earth dist.	11850 Sep 06 12:56	21° $\text{♁}$ 03'23	1.33723 AU		11851 Aug 01 03:48	0° $\text{♁}$	
asc. node	11850 Sep 08 05:28	24° $\text{♁}$ 30'25		morning set	11851 Aug 16 01:19	25° $\text{♁}$ 09'20	
superior conj	11850 Sep 10 17:54	29° $\text{♁}$ 45'11	0°24'14		11851 Aug 18 15:44	0° $\text{♁}$	
minimum elong	11850 Sep 10 16:41	29° $\text{♁}$ 38'47	0°23'54	max. Earth dist.	11851 Aug 19 19:16	2° $\text{♁}$ 10'55	1.35518 AU
	11850 Sep 10 20:43	0° $\text{♁}$		superior conj	11851 Aug 25 11:52	13° $\text{♁}$ 23'54	-0°05'45
evening rise	11850 Sep 17 23:55	15° $\text{♁}$ 10'19		minimum elong	11851 Aug 25 12:13	13° $\text{♁}$ 25'42	0°05'59
	11850 Sep 25 09:47	0° $\text{♁}$		behind sun begin	11851 Aug 25 06:29	12° $\text{♁}$ 56'43	
evening max el	11850 Oct 08 09:12	18° $\text{♁}$ 38'47	21°43'57	behind sun end	11851 Aug 25 17:57	13° $\text{♁}$ 54'44	
desc. node	11850 Oct 11 13:44	21° $\text{♁}$ 23'55		asc. node	11851 Aug 26 02:10	14° $\text{♁}$ 36'23	
retrograde	11850 Oct 20 18:59	24° $\text{♁}$ 48'58		evening rise	11851 Sep 02 07:31	29° $\text{♁}$ 29'51	
evening set	11850 Oct 23 17:22	24° $\text{♁}$ 29'30			11851 Sep 02 13:22	0° $\text{♁}$	
inferior conj	11850 Nov 01 15:39	20° $\text{♁}$ 33'28	-5°26'27	evening max el	11851 Sep 20 10:14	29° $\text{♁}$ 19'03	20°18'46
minimum elong	11850 Nov 01 08:08	20° $\text{♁}$ 44'00	5°24'42		11851 Sep 21 03:15	0° $\text{♁}$	
min. Earth dist.	11850 Nov 01 12:06	20° $\text{♁}$ 38'26	0.54605 AU	desc. node	11851 Sep 28 11:06	4° $\text{♁}$ 21'44	
morning rise	11850 Nov 10 00:02	16° $\text{♁}$ 45'52					

retrograde	11851 Oct 01 07:16	4° $\mathbb{M}$ 43'18		retrograde	11852 Sep 11 06:06	15° $\mathbb{A}$ 21'55	
evening set	11851 Oct 03 08:15	4° $\mathbb{M}$ 32'43		evening set	11852 Sep 13 02:23	15° $\mathbb{A}$ 11'38	
inferior conj	11851 Oct 12 09:01	0° $\mathbb{M}$ 35'36	-4°06'37	desc. node	11852 Sep 14 08:30	14° $\mathbb{A}$ 53'30	
minimum elong	11851 Oct 11 23:10	0° $\mathbb{M}$ 50'05	4°03'16	inferior conj	11852 Sep 21 15:38	11° $\mathbb{A}$ 01'24	-2°16'54
	11851 Oct 13 09:10	30° $\mathbb{R}$ $\mathbb{A}$		minimum elong	11852 Sep 21 09:39	11° $\mathbb{A}$ 11'22	2°14'31
min. Earth dist.	11851 Oct 13 20:20	29° $\mathbb{A}$ 43'37	0.54806 AU	min. Earth dist.	11852 Sep 24 08:13	9° $\mathbb{A}$ 14'12	0.55917 AU
morning rise	11851 Oct 20 13:19	26° $\mathbb{A}$ 31'03		morning rise	11852 Sep 29 14:10	6° $\mathbb{A}$ 24'00	
direct	11851 Oct 25 00:59	25° $\mathbb{A}$ 47'35		direct	11852 Oct 04 21:44	5° $\mathbb{A}$ 19'06	
	11851 Nov 04 17:56	0° $\mathbb{M}$		morning max el	11852 Oct 18 23:44	12° $\mathbb{A}$ 28'00	25°34'46
morning max el	11851 Nov 07 12:37	2° $\mathbb{M}$ 22'29	23°50'49		11852 Nov 01 14:00	0° $\mathbb{M}$	
asc. node	11851 Nov 22 03:18	22° $\mathbb{M}$ 13'18		asc. node	11852 Nov 08 00:09	11° $\mathbb{M}$ 12'55	
	11851 Nov 26 07:59	0° $\mathbb{A}$		morning set	11852 Nov 15 05:50	25° $\mathbb{M}$ 51'58	
morning set	11851 Dec 01 18:22	11° $\mathbb{A}$ 08'53			11852 Nov 17 03:40	0° $\mathbb{A}$	
superior conj	11851 Dec 08 15:08	26° $\mathbb{A}$ 03'30	1°38'29	superior conj	11852 Nov 22 01:03	10° $\mathbb{A}$ 48'00	1°37'58
minimum elong	11851 Dec 08 15:35	26° $\mathbb{A}$ 05'57	1°39'16	minimum elong	11852 Nov 22 00:24	10° $\mathbb{A}$ 44'25	1°38'41
	11851 Dec 10 10:58	0° $\mathbb{B}$		max. Earth dist.	11852 Nov 23 08:39	13° $\mathbb{A}$ 42'19	1.31916 AU
max. Earth dist.	11851 Dec 11 04:25	1° $\mathbb{B}$ 33'18	1.32920 AU	evening rise	11852 Nov 29 03:29	26° $\mathbb{A}$ 07'17	
evening rise	11851 Dec 16 05:03	11° $\mathbb{B}$ 58'38			11852 Dec 01 00:55	0° $\mathbb{B}$	
desc. node	11851 Dec 25 08:59	29° $\mathbb{B}$ 09'59		desc. node	11852 Dec 11 05:59	18° $\mathbb{B}$ 55'58	
	11851 Dec 25 20:31	0° $\approx$			11852 Dec 18 06:53	0° $\approx$	
	11852 Jan 15 21:40	0° $\mathbb{H}$		evening max el	11852 Dec 31 14:39	16° $\approx$ 14'23	27°29'11
evening max el	11852 Jan 19 04:36	3° $\mathbb{H}$ 22'21	27°26'58	retrograde	11853 Jan 14 11:35	23° $\approx$ 33'10	
retrograde	11852 Feb 01 20:41	10° $\mathbb{H}$ 47'11		evening set	11853 Jan 21 10:51	21° $\approx$ 14'35	
evening set	11852 Feb 08 17:12	8° $\mathbb{H}$ 17'13		min. Earth dist.	11853 Jan 25 04:32	18° $\approx$ 17'15	0.62123 AU
min. Earth dist.	11852 Feb 12 12:41	4° $\mathbb{H}$ 53'34	0.64095 AU	inferior conj	11853 Jan 28 03:34	15° $\approx$ 31'49	-2°13'23
inferior conj	11852 Feb 15 02:20	2° $\mathbb{H}$ 12'15	-0°58'52	minimum elong	11853 Jan 28 08:06	15° $\approx$ 21'12	2°10'58
minimum elong	11852 Feb 15 04:10	2° $\mathbb{H}$ 07'25	0°57'40	asc. node	11853 Feb 03 23:13	10° $\approx$ 34'59	
	11852 Feb 17 06:41	30° $\mathbb{R}$ $\approx$		morning rise	11853 Feb 04 07:59	10° $\approx$ 27'18	
asc. node	11852 Feb 18 01:55	29° $\approx$ 15'53		direct	11853 Feb 06 13:15	10° $\approx$ 05'18	
morning rise	11852 Feb 21 17:11	26° $\approx$ 50'46		morning max el	11853 Feb 13 08:15	13° $\approx$ 32'18	17°48'11
direct	11852 Feb 24 04:39	26° $\approx$ 19'53			11853 Feb 24 14:46	0° $\mathbb{H}$	
morning max el	11852 Mar 01 15:00	29° $\approx$ 39'28	17°49'41	morning set	11853 Mar 01 03:43	8° $\mathbb{H}$ 00'40	
	11852 Mar 01 23:13	0° $\mathbb{H}$		desc. node	11853 Mar 09 06:42	22° $\mathbb{H}$ 17'21	
morning set	11852 Mar 18 11:06	25° $\mathbb{H}$ 02'08		superior conj	11853 Mar 12 12:04	27° $\mathbb{H}$ 47'26	-0°24'35
	11852 Mar 21 09:38	0° $\mathbb{Y}$		minimum elong	11853 Mar 12 09:42	27° $\mathbb{H}$ 37'28	0°24'06
desc. node	11852 Mar 22 10:05	1° $\mathbb{Y}$ 42'45			11853 Mar 13 19:35	0° $\mathbb{Y}$	
superior conj	11852 Mar 31 15:21	16° $\mathbb{Y}$ 53'54	-1°06'05	max. Earth dist.	11853 Mar 19 11:39	9° $\mathbb{Y}$ 19'53	1.43708 AU
minimum elong	11852 Mar 31 08:23	16° $\mathbb{Y}$ 25'45	1°05'19	evening rise	11853 Mar 26 23:18	21° $\mathbb{Y}$ 11'06	
max. Earth dist.	11852 Apr 05 19:14	25° $\mathbb{Y}$ 08'39	1.45022 AU		11853 Apr 01 17:30	0° $\mathbb{B}$	
	11852 Apr 08 21:21	0° $\mathbb{B}$			11853 Apr 23 03:08	0° $\mathbb{I}$	
evening rise	11852 Apr 16 08:44	11° $\mathbb{B}$ 34'02		evening max el	11853 Apr 26 22:45	4° $\mathbb{I}$ 14'20	21°26'23
	11852 Apr 28 14:12	0° $\mathbb{I}$		asc. node	11853 May 02 20:27	8° $\mathbb{I}$ 44'41	
evening max el	11852 May 14 01:07	20° $\mathbb{I}$ 27'59	20°16'12	retrograde	11853 May 05 19:59	9° $\mathbb{I}$ 26'56	
asc. node	11852 May 15 23:13	22° $\mathbb{I}$ 14'52		evening set	11853 May 10 05:36	7° $\mathbb{I}$ 40'15	
retrograde	11852 May 21 21:34	24° $\mathbb{I}$ 59'21		inferior conj	11853 May 15 12:02	1° $\mathbb{I}$ 25'24	3°03'34
evening set	11852 May 25 20:49	23° $\mathbb{I}$ 28'41		minimum elong	11853 May 15 10:42	1° $\mathbb{I}$ 30'03	3°02'43
inferior conj	11852 May 31 03:47	17° $\mathbb{I}$ 25'01	3°14'13	min. Earth dist.	11853 May 15 17:53	1° $\mathbb{I}$ 05'02	0.68618 AU
minimum elong	11852 May 31 03:21	17° $\mathbb{I}$ 26'32	3°13'26		11853 May 16 12:40	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	11852 May 31 23:04	16° $\mathbb{I}$ 19'12	0.67994 AU	morning rise	11853 May 20 15:36	25° $\mathbb{B}$ 10'14	
morning rise	11852 Jun 05 09:34	11° $\mathbb{I}$ 05'05		direct	11853 May 25 17:50	22° $\mathbb{B}$ 57'14	
direct	11852 Jun 11 00:39	8° $\mathbb{I}$ 35'17		morning max el	11853 Jun 04 20:58	28° $\mathbb{B}$ 57'41	22°57'45
desc. node	11852 Jun 18 10:58	11° $\mathbb{I}$ 49'44		desc. node	11853 Jun 05 07:58	29° $\mathbb{B}$ 25'41	
morning max el	11852 Jun 22 10:35	15° $\mathbb{I}$ 26'05	24°27'32		11853 Jun 05 21:06	0° $\mathbb{I}$	
	11852 Jul 04 09:43	0° $\mathbb{B}$			11853 Jun 28 03:05	0° $\mathbb{B}$	
	11852 Jul 24 01:53	0° $\mathbb{Q}$		morning set	11853 Jul 09 05:44	17° $\mathbb{B}$ 37'44	
morning set	11852 Jul 28 03:02	6° $\mathbb{Q}$ 55'08		max. Earth dist.	11853 Jul 13 15:22	25° $\mathbb{B}$ 02'45	1.40007 AU
max. Earth dist.	11852 Jul 31 17:45	13° $\mathbb{Q}$ 19'48	1.37684 AU		11853 Jul 16 11:52	0° $\mathbb{Q}$	
superior conj	11852 Aug 07 18:36	26° $\mathbb{Q}$ 28'39	-0°38'52	superior conj	11853 Jul 21 10:09	8° $\mathbb{Q}$ 50'12	-1°12'54
minimum elong	11852 Aug 07 21:13	26° $\mathbb{Q}$ 41'16	0°38'54	minimum elong	11853 Jul 21 15:18	9° $\mathbb{Q}$ 13'46	1°12'47
	11852 Aug 09 14:07	0° $\mathbb{P}$		asc. node	11853 Jul 29 19:39	24° $\mathbb{Q}$ 36'18	
asc. node	11852 Aug 11 22:53	4° $\mathbb{P}$ 39'34		evening rise	11853 Jul 31 03:36	27° $\mathbb{Q}$ 08'52	
evening rise	11852 Aug 16 09:45	13° $\mathbb{P}$ 31'52			11853 Aug 01 15:32	0° $\mathbb{P}$	
	11852 Aug 25 03:57	0° $\mathbb{A}$		evening max el	11853 Aug 16 04:00	22° $\mathbb{P}$ 59'12	18°30'46
evening max el	11852 Sep 02 01:21	10° $\mathbb{A}$ 46'45	19°14'04	retrograde	11853 Aug 23 23:36	26° $\mathbb{P}$ 55'03	



evening set	11853 Aug 26 00:19	26° $\mathbb{M}$ 39'58		evening max el	11854 Jul 30 14:05	5° $\mathbb{M}$ 47'18	18°08'00
desc. node	11853 Sep 01 05:56	23° $\mathbb{M}$ 20'40		retrograde	11854 Aug 06 11:45	9° $\mathbb{M}$ 18'20	
inferior conj	11853 Sep 02 19:07	22° $\mathbb{M}$ 09'36	-0°28'57	evening set	11854 Aug 08 19:48	8° $\mathbb{M}$ 54'35	
minimum elong	11853 Sep 02 18:00	22° $\mathbb{M}$ 11'49	0°28'42	inferior conj	11854 Aug 15 20:03	4° $\mathbb{M}$ 03'31	0°58'56
min. Earth dist.	11853 Sep 06 01:33	19° $\mathbb{M}$ 37'48	0.57731 AU	minimum elong	11854 Aug 15 21:50	3° $\mathbb{M}$ 59'28	0°57'52
morning rise	11853 Sep 10 08:12	16° $\mathbb{M}$ 54'56		min. Earth dist.	11854 Aug 19 02:45	1° $\mathbb{M}$ 05'57	0.59927 AU
direct	11853 Sep 16 08:35	15° $\mathbb{M}$ 23'09		desc. node	11854 Aug 19 03:20	1° $\mathbb{M}$ 04'41	
morning max el	11853 Sep 30 16:13	22° $\mathbb{M}$ 57'11	26°57'43		11854 Aug 20 10:34	30° $\mathbb{R}$ 0	
	11853 Oct 06 23:32	0° $\mathbb{L}$		morning rise	11854 Aug 22 20:46	28° $\mathbb{L}$ 17'18	
asc. node	11853 Oct 25 20:56	0° $\mathbb{M}$ 37'44		direct	11854 Aug 29 08:25	26° $\mathbb{L}$ 17'20	
	11853 Oct 25 13:17	0° $\mathbb{M}$			11854 Sep 07 20:29	0° $\mathbb{M}$	
morning set	11853 Oct 30 15:19	10° $\mathbb{M}$ 25'46		morning max el	11854 Sep 12 16:20	4° $\mathbb{M}$ 09'29	27°46'40
					11854 Oct 01 18:26	0° $\mathbb{L}$	
superior conj	11853 Nov 06 12:37	25° $\mathbb{M}$ 33'40	1°31'36	asc. node	11854 Oct 12 17:41	20° $\mathbb{L}$ 20'44	
minimum elong	11853 Nov 06 11:05	25° $\mathbb{M}$ 25'03	1°32'06	morning set	11854 Oct 14 21:03	24° $\mathbb{L}$ 45'50	
max. Earth dist.	11853 Nov 06 17:01	25° $\mathbb{M}$ 58'08	1.31404 AU		11854 Oct 17 08:06	0° $\mathbb{M}$	
	11853 Nov 08 12:28	0° $\mathbb{L}$		max. Earth dist.	11854 Oct 21 01:52	8° $\mathbb{M}$ 12'07	1.31392 AU
evening rise	11853 Nov 13 08:13	10° $\mathbb{L}$ 30'39					
	11853 Nov 23 06:55	0° $\mathbb{L}$		superior conj	11854 Oct 22 00:03	10° $\mathbb{M}$ 15'20	1°19'37
desc. node	11853 Nov 28 03:05	8° $\mathbb{L}$ 10'30		minimum elong	11854 Oct 21 21:56	10° $\mathbb{M}$ 03'34	1°19'48
evening max el	11853 Dec 13 19:12	28° $\mathbb{L}$ 21'50	26°57'32	evening rise	11854 Oct 28 17:04	25° $\mathbb{M}$ 02'58	
	11853 Dec 15 14:58	0° $\mathbb{L}$			11854 Oct 31 01:11	0° $\mathbb{L}$	
retrograde	11853 Dec 27 17:31	5° $\mathbb{L}$ 31'54		desc. node	11854 Nov 15 00:17	26° $\mathbb{L}$ 41'14	
evening set	11854 Jan 03 12:48	3° $\mathbb{L}$ 33'18			11854 Nov 17 08:41	0° $\mathbb{L}$	
min. Earth dist.	11854 Jan 07 09:33	0° $\mathbb{L}$ 53'38	0.59999 AU	evening max el	11854 Nov 25 15:43	9° $\mathbb{L}$ 36'29	25°52'14
	11854 Jan 08 12:22	30° $\mathbb{R}$ 0		retrograde	11854 Dec 09 13:19	16° $\mathbb{L}$ 38'16	
inferior conj	11854 Jan 10 13:39	28° $\mathbb{L}$ 18'39	-3°32'20	evening set	11854 Dec 15 18:42	15° $\mathbb{L}$ 07'29	
minimum elong	11854 Jan 10 20:55	28° $\mathbb{L}$ 03'48	3°29'06	min. Earth dist.	11854 Dec 20 04:18	12° $\mathbb{L}$ 31'22	0.57905 AU
morning rise	11854 Jan 18 07:50	23° $\mathbb{L}$ 34'28		inferior conj	11854 Dec 23 05:03	10° $\mathbb{L}$ 22'51	-4°46'34
direct	11854 Jan 20 10:07	23° $\mathbb{L}$ 17'43		minimum elong	11854 Dec 23 13:23	10° $\mathbb{L}$ 08'05	4°43'42
asc. node	11854 Jan 21 20:28	23° $\mathbb{L}$ 25'50		morning rise	11854 Dec 31 10:39	6° $\mathbb{L}$ 01'15	
morning max el	11854 Jan 27 21:55	27° $\mathbb{L}$ 01'28	18°05'35	direct	11855 Jan 02 14:37	5° $\mathbb{L}$ 46'22	
	11854 Jan 30 13:13	0° $\mathbb{L}$		asc. node	11855 Jan 08 17:39	7° $\mathbb{L}$ 54'09	
morning set	11854 Feb 12 12:42	21° $\mathbb{L}$ 44'14		morning max el	11855 Jan 11 04:12	9° $\mathbb{L}$ 56'36	18°43'35
	11854 Feb 16 23:19	0° $\mathbb{L}$			11855 Jan 24 06:48	0° $\mathbb{L}$	
				morning set	11855 Jan 27 09:01	5° $\mathbb{L}$ 57'44	
superior conj	11854 Feb 22 08:50	9° $\mathbb{L}$ 48'05	0°13'48				
minimum elong	11854 Feb 22 09:56	9° $\mathbb{L}$ 53'01	0°13'59	superior conj	11855 Feb 05 01:44	22° $\mathbb{L}$ 44'38	0°45'37
behind sun begin	11854 Feb 22 06:10	9° $\mathbb{L}$ 36'15		minimum elong	11855 Feb 05 04:26	22° $\mathbb{L}$ 57'21	0°45'44
behind sun end	11854 Feb 22 13:42	10° $\mathbb{L}$ 09'46			11855 Feb 08 24:00	0° $\mathbb{L}$	
desc. node	11854 Feb 24 03:20	12° $\mathbb{L}$ 56'03		desc. node	11855 Feb 11 00:00	3° $\mathbb{L}$ 35'31	
max. Earth dist.	11854 Mar 01 23:52	22° $\mathbb{L}$ 58'41	1.41869 AU	max. Earth dist.	11855 Feb 12 07:37	5° $\mathbb{L}$ 55'06	1.39709 AU
	11854 Mar 06 06:14	0° $\mathbb{Y}$		evening rise	11855 Feb 16 07:41	12° $\mathbb{L}$ 48'10	
evening rise	11854 Mar 07 05:02	1° $\mathbb{Y}$ 31'56			11855 Feb 27 01:11	0° $\mathbb{Y}$	
	11854 Mar 26 03:57	0° $\mathbb{L}$			11855 Mar 21 10:49	0° $\mathbb{L}$	
evening max el	11854 Apr 09 15:44	18° $\mathbb{L}$ 01'51	22°44'39	evening max el	11855 Mar 23 05:53	1° $\mathbb{L}$ 51'18	24°05'17
retrograde	11854 Apr 19 16:36	23° $\mathbb{L}$ 57'23		retrograde	11855 Apr 03 10:06	8° $\mathbb{L}$ 25'22	
asc. node	11854 Apr 19 17:45	23° $\mathbb{L}$ 57'22		asc. node	11855 Apr 06 15:06	7° $\mathbb{L}$ 38'08	
evening set	11854 Apr 24 13:24	21° $\mathbb{L}$ 55'37		evening set	11855 Apr 08 18:37	6° $\mathbb{L}$ 10'19	
inferior conj	11854 Apr 29 21:25	15° $\mathbb{L}$ 31'55	2°42'37	min. Earth dist.	11855 Apr 13 10:47	0° $\mathbb{L}$ 46'14	0.68478 AU
minimum elong	11854 Apr 29 19:28	15° $\mathbb{L}$ 38'40	2°41'41	inferior conj	11855 Apr 14 06:00	29° $\mathbb{Y}$ 41'06	2°11'52
min. Earth dist.	11854 Apr 29 14:30	15° $\mathbb{L}$ 55'56	0.68773 AU	minimum elong	11855 Apr 14 03:49	29° $\mathbb{Y}$ 48'28	2°10'55
morning rise	11854 May 05 01:26	9° $\mathbb{L}$ 22'55			11855 Apr 14 00:26	30° $\mathbb{R}$ 0	
direct	11854 May 09 14:23	7° $\mathbb{L}$ 30'26		morning rise	11855 Apr 19 13:06	23° $\mathbb{Y}$ 39'20	
morning max el	11854 May 18 11:09	12° $\mathbb{L}$ 38'48	21°31'31	direct	11855 Apr 23 13:09	22° $\mathbb{Y}$ 08'21	
desc. node	11854 May 23 04:51	17° $\mathbb{L}$ 57'46		morning max el	11855 May 01 07:59	26° $\mathbb{Y}$ 31'38	20°15'20
	11854 Jun 01 05:04	0° $\mathbb{L}$			11855 May 04 12:11	0° $\mathbb{L}$	
morning set	11854 Jun 19 06:35	27° $\mathbb{L}$ 11'16		desc. node	11855 May 10 01:39	7° $\mathbb{L}$ 10'32	
	11854 Jun 21 00:59	0° $\mathbb{L}$			11855 May 25 14:56	0° $\mathbb{L}$	
max. Earth dist.	11854 Jun 25 18:03	7° $\mathbb{L}$ 38'44	1.42197 AU	morning set	11855 May 29 10:42	5° $\mathbb{L}$ 51'49	
				max. Earth dist.	11855 Jun 08 03:16	21° $\mathbb{L}$ 04'31	1.43999 AU
superior conj	11854 Jul 03 05:57	20° $\mathbb{L}$ 18'02	-1°43'57		11855 Jun 13 15:30	0° $\mathbb{L}$	
minimum elong	11854 Jul 03 12:43	20° $\mathbb{L}$ 47'19	1°44'01				
	11854 Jul 08 18:08	0° $\mathbb{L}$		superior conj	11855 Jun 14 02:11	0° $\mathbb{L}$ 43'53	-2°06'20
evening rise	11854 Jul 14 09:09	10° $\mathbb{L}$ 10'55		minimum elong	11855 Jun 14 07:21	1° $\mathbb{L}$ 05'10	2°06'53
asc. node	11854 Jul 16 16:29	14° $\mathbb{L}$ 22'30		evening rise	11855 Jun 26 21:33	22° $\mathbb{L}$ 25'24	
	11854 Jul 25 22:19	0° $\mathbb{M}$			11855 Jul 01 06:44	0° $\mathbb{L}$	

asc. node	11855 Jul 03 13:24	3°Ω52'36		evening max el	11856 Jun 26 17:25	2°Ω30'35	18°19'35
evening max el	11855 Jul 14 03:40	19°Ω00'25	18°04'35	retrograde	11856 Jul 03 02:41	5°Ω54'55	
retrograde	11855 Jul 20 14:15	22°Ω21'13		evening set	11856 Jul 06 02:59	5°Ω05'11	
evening set	11855 Jul 23 06:20	21°Ω45'38			11856 Jul 11 16:34	30°℞☿	
inferior conj	11855 Jul 29 15:04	16°Ω35'47	2°02'31	inferior conj	11856 Jul 12 00:03	29°☿38'23	2°43'57
minimum elong	11855 Jul 29 17:43	16°Ω28'54	2°01'09	minimum elong	11856 Jul 12 02:18	29°☿31'52	2°42'46
min. Earth dist.	11855 Aug 01 13:09	13°Ω34'50	0.62199 AU	min. Earth dist.	11856 Jul 14 08:54	26°☿54'27	0.64309 AU
morning rise	11855 Aug 05 02:52	10°Ω28'33		morning rise	11856 Jul 18 00:16	23°☿20'07	
desc. node	11855 Aug 06 00:41	9°Ω52'00		desc. node	11856 Jul 22 21:58	20°☿51'45	
direct	11855 Aug 11 19:16	8°Ω04'45		direct	11856 Jul 24 15:13	20°☿41'33	
morning max el	11855 Aug 25 22:39	16°Ω06'54	27°56'52	morning max el	11856 Aug 07 08:26	28°☿42'06	27°30'30
	11855 Sep 06 08:38	0°♊			11856 Aug 08 14:32	0°Ω	
	11855 Sep 24 10:34	0°♊			11856 Aug 30 04:59	0°♊	
morning set	11855 Sep 28 20:55	8°♊46'14		morning set	11856 Sep 11 12:28	22°♊20'29	
asc. node	11855 Sep 29 14:23	10°♊15'49		asc. node	11856 Sep 15 11:05	0°♊18'18	
max. Earth dist.	11855 Oct 04 07:10	20°♊12'59	1.31887 AU		11856 Sep 15 07:32	0°♊	
				max. Earth dist.	11856 Sep 16 05:07	1°♊51'53	1.32901 AU
superior conj	11855 Oct 06 09:25	24°♊47'08	1°02'12	superior conj	11856 Sep 19 14:44	9°♊03'28	0°39'32
minimum elong	11855 Oct 06 07:11	24°♊34'53	1°02'05	minimum elong	11856 Sep 19 12:57	8°♊53'56	0°39'14
	11855 Oct 08 18:15	0°♊		evening rise	11856 Sep 26 15:14	24°♊11'54	
evening rise	11855 Oct 13 04:02	9°♊38'24			11856 Sep 29 09:33	0°♊	
	11855 Oct 23 11:43	0°♊			11856 Oct 18 11:33	0°♊	
desc. node	11855 Nov 01 21:33	14°♊11'13		evening max el	11856 Oct 18 14:59	0°♊08'23	22°40'05
evening max el	11855 Nov 07 04:23	20°♊03'36	24°21'17	desc. node	11856 Oct 18 18:52	0°♊17'48	
retrograde	11855 Nov 20 21:18	26°♊54'51		retrograde	11856 Oct 31 16:32	6°♊37'55	
evening set	11855 Nov 26 00:43	25°♊56'30		evening set	11856 Nov 04 09:31	6°♊07'54	
min. Earth dist.	11855 Dec 01 15:37	23°♊05'11	0.56105 AU	min. Earth dist.	11856 Nov 11 23:07	2°♊43'16	0.54913 AU
inferior conj	11855 Dec 03 23:51	21°♊37'59	-5°39'15	inferior conj	11856 Nov 13 00:29	2°♊07'13	-5°47'59
minimum elong	11855 Dec 04 04:53	21°♊30'09	5°37'56	minimum elong	11856 Nov 12 21:26	2°♊11'33	5°47'08
morning rise	11855 Dec 12 11:08	17°♊37'20			11856 Nov 16 22:44	30°♊♊	
direct	11855 Dec 14 23:31	17°♊20'36		morning rise	11856 Nov 21 10:50	28°♊19'05	
morning max el	11855 Dec 24 23:12	22°♊06'51	19°43'58	direct	11856 Nov 24 15:16	27°♊55'49	
asc. node	11855 Dec 26 14:45	23°♊49'11			11856 Dec 01 17:37	0°♊	
	11855 Dec 31 07:37	0°♊		morning max el	11856 Dec 06 04:13	3°♊24'33	21°06'59
morning set	11856 Jan 11 12:55	20°♊30'17		asc. node	11856 Dec 12 11:48	10°♊54'35	
	11856 Jan 16 05:17	0°♊			11856 Dec 23 08:29	0°♊	
superior conj	11856 Jan 19 09:56	6°♊23'20	1°09'47	morning set	11856 Dec 25 21:31	5°♊13'14	
minimum elong	11856 Jan 19 12:48	6°♊37'32	1°10'06	superior conj	11857 Jan 02 05:10	20°♊31'29	1°26'24
max. Earth dist.	11856 Jan 25 13:40	18°♊12'06	1.37481 AU	minimum elong	11857 Jan 02 07:21	20°♊42'47	1°26'58
desc. node	11856 Jan 28 20:44	24°♊12'12			11857 Jan 06 21:42	0°♊	
evening rise	11856 Jan 29 07:03	24°♊58'07		max. Earth dist.	11857 Jan 06 23:09	0°♊07'10	1.35427 AU
	11856 Feb 01 04:07	0°♊		evening rise	11857 Jan 11 00:01	7°♊52'35	
	11856 Feb 20 16:08	0°♊		desc. node	11857 Jan 14 17:31	14°♊41'30	
evening max el	11856 Mar 04 19:15	15°♊42'39	25°21'34		11857 Jan 23 20:31	0°♊	
retrograde	11856 Mar 16 23:27	22°♊45'23		evening max el	11857 Feb 15 08:53	29°♊30'36	26°26'18
evening set	11856 Mar 22 19:43	20°♊20'02			11857 Feb 15 21:09	0°♊	
asc. node	11856 Mar 23 12:26	19°♊42'42		retrograde	11857 Feb 28 07:31	6°♊49'34	
min. Earth dist.	11856 Mar 27 04:38	15°♊31'03	0.67752 AU	evening set	11857 Mar 06 14:54	4°♊18'00	
inferior conj	11856 Mar 28 11:54	13°♊49'50	1°31'22	asc. node	11857 Mar 10 09:46	0°♊27'11	
minimum elong	11856 Mar 28 10:00	13°♊56'01	1°30'36	min. Earth dist.	11857 Mar 10 17:47	0°♊03'33	0.66621 AU
morning rise	11856 Apr 03 00:41	7°♊56'33			11857 Mar 10 18:58	30°♊♊	
direct	11856 Apr 06 12:47	6°♊46'00		inferior conj	11857 Mar 12 13:04	27°♊52'32	0°40'55
morning max el	11856 Apr 13 12:31	10°♊35'43	19°13'23	minimum elong	11857 Mar 12 12:02	27°♊55'41	0°40'38
desc. node	11856 Apr 25 22:23	26°♊53'26		morning rise	11857 Mar 18 10:05	22°♊09'34	
greatest brilliancy	11856 Apr 26 10:17	27°♊37'46	-0.7m	direct	11857 Mar 21 11:28	21°♊16'58	
	11856 Apr 28 00:14	0°♊		morning max el	11857 Mar 27 23:48	24°♊45'40	18°27'31
morning set	11856 May 07 12:36	14°♊33'11			11857 Apr 01 11:06	0°♊	
	11856 May 17 11:26	0°♊		desc. node	11857 Apr 12 19:02	16°♊57'40	
max. Earth dist.	11856 May 20 18:11	5°♊08'35	1.45220 AU	morning set	11857 Apr 17 10:00	24°♊16'00	
					11857 Apr 21 01:05	0°♊	
superior conj	11856 May 23 23:32	10°♊13'41	-2°13'10	superior conj	11857 May 03 07:15	19°♊13'41	-1°59'52
minimum elong	11856 May 23 22:26	10°♊09'19	2°13'52	minimum elong	11857 May 02 23:16	18°♊42'32	1°59'55
	11856 Jun 05 05:53	0°♊		max. Earth dist.	11857 May 03 13:05	19°♊36'28	1.45735 AU
evening rise	11856 Jun 07 12:00	3°♊42'22			11857 May 10 04:36	0°♊	
asc. node	11856 Jun 19 10:22	23°♊00'50					
	11856 Jun 24 11:10	0°Ω					

evening rise	11857 May 19 02:08	13° $\Pi$ 59'16		evening rise	11858 Apr 28 20:30	23° $\mathcal{B}$ 32'28	
greatest brilliancy	11857 May 28 08:29	28° $\Pi$ 33'50	-0.8m		11858 May 03 01:33	0° $\Pi$	
	11857 May 29 06:45	0° $\mathcal{E}$		greatest brilliancy	11858 May 12 18:32	14° $\Pi$ 38'24	-0.6m
asc. node	11857 Jun 06 07:24	11° $\mathcal{E}$ 39'19		asc. node	11858 May 24 04:31	29° $\Pi$ 38'14	
evening max el	11857 Jun 10 04:33	16° $\mathcal{E}$ 10'29	18°52'14	evening max el	11858 May 24 11:00	29° $\Pi$ 54'42	19°41'18
retrograde	11857 Jun 16 21:18	19° $\mathcal{E}$ 51'35			11858 May 24 13:06	0° $\mathcal{E}$	
evening set	11857 Jun 20 06:08	18° $\mathcal{E}$ 46'13		retrograde	11858 May 31 19:15	4° $\mathcal{E}$ 04'44	
inferior conj	11857 Jun 25 19:14	13° $\mathcal{E}$ 03'55	3°07'04	evening set	11858 Jun 04 13:06	2° $\mathcal{E}$ 43'08	
minimum elong	11857 Jun 25 20:30	12° $\mathcal{E}$ 59'55	3°06'08		11858 Jun 07 08:46	30° $\mathcal{R}$ $\Pi$	
min. Earth dist.	11857 Jun 27 13:15	10° $\mathcal{E}$ 52'01	0.66083 AU	inferior conj	11858 Jun 09 21:28	26° $\Pi$ 46'39	3°15'15
morning rise	11857 Jul 01 10:10	6° $\mathcal{E}$ 41'47		minimum elong	11858 Jun 09 21:38	26° $\Pi$ 46'07	3°14'27
direct	11857 Jul 07 18:24	3° $\mathcal{E}$ 59'20		min. Earth dist.	11858 Jun 11 00:44	25° $\Pi$ 15'43	0.67430 AU
desc. node	11857 Jul 09 19:10	4° $\mathcal{E}$ 13'57		morning rise	11858 Jun 15 05:48	20° $\Pi$ 25'10	
morning max el	11857 Jul 20 19:13	11° $\mathcal{E}$ 44'12	26°34'22	direct	11858 Jun 21 03:44	17° $\Pi$ 48'42	
	11857 Aug 04 09:13	0° $\mathcal{Q}$		desc. node	11858 Jun 26 16:17	19° $\Pi$ 36'38	
	11857 Aug 22 19:24	0° $\mathcal{M}$		morning max el	11858 Jul 03 05:34	25° $\Pi$ 02'58	25°17'23
morning set	11857 Aug 25 16:34	5° $\mathcal{M}$ 20'45			11858 Jul 07 17:11	0° $\mathcal{E}$	
max. Earth dist.	11857 Aug 29 17:16	13° $\mathcal{M}$ 08'12	1.34430 AU		11858 Jul 28 20:38	0° $\mathcal{Q}$	
asc. node	11857 Sep 02 07:46	20° $\mathcal{M}$ 24'09		morning set	11858 Aug 08 05:13	17° $\mathcal{Q}$ 36'44	
				max. Earth dist.	11858 Aug 11 19:59	24° $\mathcal{Q}$ 14'04	1.36409 AU
superior conj	11857 Sep 03 13:39	22° $\mathcal{M}$ 58'07	0°12'02		11858 Aug 14 20:55	0° $\mathcal{M}$	
minimum elong	11857 Sep 03 13:00	22° $\mathcal{M}$ 54'48	0°11'43				
behind sun begin	11857 Sep 03 08:59	22° $\mathcal{M}$ 33'56		superior conj	11858 Aug 18 03:16	6° $\mathcal{M}$ 23'10	-0°19'31
behind sun end	11857 Sep 03 17:02	23° $\mathcal{M}$ 15'41		minimum elong	11858 Aug 18 04:30	6° $\mathcal{M}$ 29'20	0°19'39
	11857 Sep 06 22:18	0° $\mathcal{A}$		asc. node	11858 Aug 20 04:28	10° $\mathcal{M}$ 29'09	
evening rise	11857 Sep 11 00:45	8° $\mathcal{A}$ 38'19		evening rise	11858 Aug 26 06:25	22° $\mathcal{M}$ 51'15	
	11857 Sep 22 07:40	0° $\mathcal{M}$			11858 Aug 29 20:08	0° $\mathcal{A}$	
evening max el	11857 Sep 30 08:47	10° $\mathcal{M}$ 27'26	21°05'33	evening max el	11858 Sep 12 15:47	21° $\mathcal{A}$ 26'27	19°48'33
desc. node	11857 Oct 05 16:14	14° $\mathcal{M}$ 33'07		retrograde	11858 Sep 22 19:14	26° $\mathcal{A}$ 29'33	
retrograde	11857 Oct 12 03:48	16° $\mathcal{M}$ 18'49		desc. node	11858 Sep 22 13:38	26° $\mathcal{A}$ 29'24	
evening set	11857 Oct 14 15:07	16° $\mathcal{M}$ 04'28		evening set	11858 Sep 24 16:40	26° $\mathcal{A}$ 19'46	
inferior conj	11857 Oct 23 16:23	12° $\mathcal{M}$ 09'57	-4°58'23	inferior conj	11858 Oct 03 13:51	22° $\mathcal{A}$ 17'55	-3°21'39
minimum elong	11857 Oct 23 06:52	12° $\mathcal{M}$ 23'21	4°55'44	minimum elong	11858 Oct 03 05:11	22° $\mathcal{A}$ 31'16	3°18'24
min. Earth dist.	11857 Oct 24 05:57	11° $\mathcal{M}$ 50'47	0.54572 AU	min. Earth dist.	11858 Oct 05 15:06	21° $\mathcal{A}$ 02'09	0.55175 AU
morning rise	11857 Oct 31 23:04	8° $\mathcal{M}$ 17'53		morning rise	11858 Oct 11 16:07	18° $\mathcal{A}$ 01'08	
direct	11857 Nov 04 23:27	7° $\mathcal{M}$ 43'16		direct	11858 Oct 16 12:21	17° $\mathcal{A}$ 09'38	
morning max el	11857 Nov 17 20:42	13° $\mathcal{M}$ 54'39	22°48'27	morning max el	11858 Oct 30 07:25	23° $\mathcal{A}$ 59'18	24°36'39
asc. node	11857 Nov 29 08:45	28° $\mathcal{M}$ 54'36			11858 Nov 04 18:46	0° $\mathcal{M}$	
	11857 Nov 30 00:26	0° $\mathcal{X}$		asc. node	11858 Nov 16 05:39	17° $\mathcal{M}$ 35'06	
morning set	11857 Dec 10 08:42	20° $\mathcal{X}$ 00'45			11858 Nov 22 14:16	0° $\mathcal{X}$	
	11857 Dec 15 00:19	0° $\mathcal{Z}$		morning set	11858 Nov 24 20:34	4° $\mathcal{X}$ 46'28	
superior conj	11857 Dec 17 08:10	4° $\mathcal{Z}$ 59'59	1°35'57	superior conj	11858 Dec 01 16:11	19° $\mathcal{X}$ 40'02	1°39'00
minimum elong	11857 Dec 17 09:17	5° $\mathcal{Z}$ 05'58	1°36'42	minimum elong	11858 Dec 01 16:09	19° $\mathcal{X}$ 39'52	1°39'46
max. Earth dist.	11857 Dec 20 16:05	12° $\mathcal{Z}$ 01'39	1.33716 AU	max. Earth dist.	11858 Dec 03 16:41	24° $\mathcal{X}$ 04'15	1.32434 AU
evening rise	11857 Dec 25 07:02	21° $\mathcal{Z}$ 22'35			11858 Dec 06 11:14	0° $\mathcal{Z}$	
	11857 Dec 29 19:56	0° $\mathcal{A}$		evening rise	11858 Dec 09 00:38	5° $\mathcal{Z}$ 18'30	
desc. node	11858 Jan 01 14:24	4° $\mathcal{A}$ 59'03		desc. node	11858 Dec 19 11:22	24° $\mathcal{Z}$ 58'20	
	11858 Jan 17 17:00	0° $\mathcal{H}$			11858 Dec 22 11:20	0° $\mathcal{A}$	
evening max el	11858 Jan 28 22:27	13° $\mathcal{H}$ 06'13	27°11'57	evening max el	11859 Jan 11 10:14	26° $\mathcal{A}$ 16'47	27°31'44
retrograde	11858 Feb 11 09:24	20° $\mathcal{H}$ 30'29			11859 Jan 15 20:20	0° $\mathcal{H}$	
evening set	11858 Feb 18 02:10	17° $\mathcal{H}$ 58'02		retrograde	11859 Jan 25 04:28	3° $\mathcal{H}$ 39'12	
min. Earth dist.	11858 Feb 22 00:02	14° $\mathcal{H}$ 16'43	0.65121 AU	evening set	11859 Feb 01 03:05	1° $\mathcal{H}$ 12'50	
inferior conj	11858 Feb 24 07:10	11° $\mathcal{H}$ 43'49	-0°19'34		11859 Feb 02 17:00	30° $\mathcal{R}$ $\mathcal{A}$	
minimum elong	11858 Feb 24 07:44	11° $\mathcal{H}$ 42'15	0°19'01	min. Earth dist.	11859 Feb 04 21:22	28° $\mathcal{A}$ 01'28	0.63291 AU
asc. node	11858 Feb 25 07:07	10° $\mathcal{H}$ 37'59		inferior conj	11859 Feb 07 15:26	25° $\mathcal{A}$ 16'46	-1°29'33
morning rise	11858 Mar 02 14:53	6° $\mathcal{H}$ 13'37		minimum elong	11859 Feb 07 18:22	25° $\mathcal{A}$ 09'27	1°27'50
direct	11858 Mar 05 07:02	5° $\mathcal{H}$ 35'45		asc. node	11859 Feb 12 04:26	21° $\mathcal{A}$ 16'30	
morning max el	11858 Mar 11 15:44	8° $\mathcal{H}$ 55'15	17°58'31	morning rise	11859 Feb 14 11:56	20° $\mathcal{A}$ 02'16	
	11858 Mar 26 05:26	0° $\mathcal{Y}$		direct	11859 Feb 16 20:34	19° $\mathcal{A}$ 35'33	
morning set	11858 Mar 29 12:09	5° $\mathcal{Y}$ 24'05		morning max el	11859 Feb 23 09:28	22° $\mathcal{A}$ 56'41	17°46'51
desc. node	11858 Mar 30 15:39	7° $\mathcal{Y}$ 17'16			11859 Feb 28 23:30	0° $\mathcal{H}$	
				morning set	11859 Mar 11 16:31	17° $\mathcal{H}$ 47'36	
superior conj	11858 Apr 12 18:43	28° $\mathcal{Y}$ 30'15	-1°28'47	desc. node	11859 Mar 17 12:17	27° $\mathcal{H}$ 47'34	
minimum elong	11858 Apr 12 09:46	27° $\mathcal{Y}$ 54'48	1°28'07		11859 Mar 18 19:34	0° $\mathcal{Y}$	
	11858 Apr 13 17:24	0° $\mathcal{B}$					
max. Earth dist.	11858 Apr 16 09:21	4° $\mathcal{B}$ 11'47	1.45498 AU	superior conj	11859 Mar 24 01:23	8° $\mathcal{Y}$ 43'58	-0°48'27

minimum elong	11859 Mar 23 20:22	8° $\Upsilon$ 23'22	0°47'46	behind sun begin	11860 Mar 04 00:34	19° $\Upsilon$ 32'03	
max. Earth dist.	11859 Mar 30 03:50	18° $\Upsilon$ 36'19	1.44539 AU	behind sun end	11860 Mar 04 15:29	20° $\Upsilon$ 36'31	
	11859 Apr 06 10:05	0° $\Upsilon$			11860 Mar 10 04:53	0° $\Upsilon$	
evening rise	11859 Apr 08 07:52	2° $\Upsilon$ 56'29		max. Earth dist.	11860 Mar 11 18:14	2° $\Upsilon$ 33'48	1.42971 AU
	11859 Apr 26 14:05	0° $\Pi$		evening rise	11860 Mar 18 03:38	12° $\Upsilon$ 49'02	
evening max el	11859 May 07 11:43	13° $\Pi$ 40'10	20°44'43		11860 Mar 29 10:37	0° $\Upsilon$	
asc. node	11859 May 11 01:43	16° $\Pi$ 45'02		evening max el	11860 Apr 19 07:03	27° $\Upsilon$ 26'17	21°59'00
retrograde	11859 May 15 18:10	18° $\Pi$ 28'46			11860 Apr 22 02:21	0° $\Pi$	
evening set	11859 May 19 21:45	16° $\Pi$ 51'02		asc. node	11860 Apr 26 22:58	2° $\Pi$ 43'57	
inferior conj	11859 May 25 04:12	10° $\Pi$ 42'07	3°11'00	retrograde	11860 Apr 28 16:08	2° $\Pi$ 57'58	
minimum elong	11859 May 25 03:20	10° $\Pi$ 45'03	3°10'12	evening set	11860 May 03 06:19	1° $\Pi$ 04'48	
min. Earth dist.	11859 May 25 17:34	9° $\Pi$ 55'53	0.68314 AU		11860 May 04 10:05	30° $\Upsilon$	
morning rise	11859 May 30 08:42	4° $\Pi$ 23'59		inferior conj	11860 May 08 13:10	24° $\Upsilon$ 45'37	2°55'53
direct	11859 Jun 04 18:16	2° $\Pi$ 01'01		minimum elong	11860 May 08 11:33	24° $\Upsilon$ 51'18	2°55'01
desc. node	11859 Jun 13 13:19	6° $\Pi$ 31'24		min. Earth dist.	11860 May 08 13:31	24° $\Upsilon$ 44'23	0.68735 AU
morning max el	11859 Jun 15 15:34	8° $\Pi$ 31'24	23°49'29	morning rise	11860 May 13 16:35	18° $\Upsilon$ 32'41	
	11859 Jul 02 12:04	0° $\Upsilon$		direct	11860 May 18 13:04	16° $\Upsilon$ 28'10	
morning set	11859 Jul 20 21:46	28° $\Upsilon$ 57'28		morning max el	11860 May 28 03:13	22° $\Upsilon$ 06'48	22°20'07
	11859 Jul 21 12:25	0° $\Omega$		desc. node	11860 May 30 10:16	24° $\Upsilon$ 33'14	
max. Earth dist.	11859 Jul 24 17:36	5° $\Omega$ 35'36	1.38670 AU		11860 Jun 03 23:00	0° $\Pi$	
					11860 Jun 24 19:04	0° $\Upsilon$	
superior conj	11859 Aug 01 04:04	19° $\Omega$ 10'40	-0°53'23	morning set	11860 Jun 30 13:32	9° $\Upsilon$ 10'36	
minimum elong	11859 Aug 01 07:47	19° $\Omega$ 28'10	0°53'19	max. Earth dist.	11860 Jul 05 16:22	17° $\Upsilon$ 37'52	1.40969 AU
	11859 Aug 06 19:03	0° $\Pi$			11860 Jul 12 20:00	0° $\Omega$	
asc. node	11859 Aug 07 01:13	0° $\Pi$ 30'09					
evening rise	11859 Aug 10 05:34	6° $\Pi$ 44'02		superior conj	11860 Jul 13 11:43	1° $\Omega$ 10'02	-1°26'44
	11859 Aug 23 16:32	0° $\Omega$		minimum elong	11860 Jul 13 17:47	1° $\Omega$ 37'07	1°26'39
evening max el	11859 Aug 26 12:11	3° $\Omega$ 13'34	18°52'59	evening rise	11860 Jul 23 18:41	20° $\Omega$ 07'01	
retrograde	11859 Sep 04 01:52	7° $\Omega$ 30'51		asc. node	11860 Jul 23 22:01	20° $\Omega$ 22'37	
evening set	11859 Sep 05 23:10	7° $\Omega$ 19'10			11860 Jul 29 03:07	0° $\Pi$	
desc. node	11859 Sep 09 11:02	6° $\Omega$ 02'11		evening max el	11860 Aug 08 18:31	15° $\Pi$ 42'19	18°18'40
inferior conj	11859 Sep 14 04:56	3° $\Omega$ 00'37	-1°29'25	retrograde	11860 Aug 16 03:28	19° $\Pi$ 25'39	
minimum elong	11859 Sep 14 01:08	3° $\Omega$ 07'22	1°27'57	evening set	11860 Aug 18 07:04	19° $\Pi$ 07'24	
min. Earth dist.	11859 Sep 17 05:12	0° $\Omega$ 52'29	0.56620 AU	inferior conj	11860 Aug 25 17:47	14° $\Pi$ 28'29	0°11'14
	11859 Sep 18 12:52	30° $\Upsilon$		minimum elong	11860 Aug 25 18:11	14° $\Pi$ 27'40	0°10'48
morning rise	11859 Sep 21 23:51	28° $\Pi$ 06'46		transit middle	11860 Aug 25 18:11	14° $\Pi$ 27'40	0°10'48
direct	11859 Sep 27 14:49	26° $\Pi$ 51'04		transit begin	11860 Aug 25 15:35	14° $\Pi$ 33'04	
	11859 Oct 06 17:00	0° $\Omega$		transit end	11860 Aug 25 20:46	14° $\Pi$ 22'15	
morning max el	11859 Oct 11 20:31	4° $\Omega$ 12'06	26°13'38	desc. node	11860 Aug 26 08:27	13° $\Pi$ 57'48	
	11859 Oct 30 11:00	0° $\Pi$		min. Earth dist.	11860 Aug 29 01:55	11° $\Pi$ 42'40	0.58639 AU
asc. node	11859 Nov 03 02:30	6° $\Pi$ 45'57		morning rise	11860 Sep 02 01:47	8° $\Pi$ 59'03	
morning set	11859 Nov 09 07:24	19° $\Pi$ 25'44		direct	11860 Sep 08 07:50	7° $\Pi$ 14'42	
	11859 Nov 14 03:19	0° $\Upsilon$		morning max el	11860 Sep 22 16:14	14° $\Pi$ 58'12	27°23'06
					11860 Oct 04 19:54	0° $\Omega$	
superior conj	11859 Nov 16 03:02	4° $\Upsilon$ 25'15	1°35'58	asc. node	11860 Oct 19 23:17	26° $\Omega$ 19'09	
minimum elong	11859 Nov 16 01:59	4° $\Upsilon$ 19'21	1°36'36		11860 Oct 21 18:44	0° $\Pi$	
max. Earth dist.	11859 Nov 16 22:56	6° $\Upsilon$ 15'43	1.31633 AU	morning set	11860 Oct 23 15:31	3° $\Pi$ 54'08	
evening rise	11859 Nov 23 02:01	19° $\Upsilon$ 33'19					
	11859 Nov 28 06:07	0° $\Upsilon$		superior conj	11860 Oct 30 14:48	19° $\Pi$ 09'59	1°27'12
desc. node	11859 Dec 06 08:25	14° $\Upsilon$ 31'43		minimum elong	11860 Oct 30 12:58	18° $\Pi$ 59'45	1°27'34
	11859 Dec 16 20:57	0° $\approx$		max. Earth dist.	11860 Oct 30 07:47	18° $\Pi$ 30'51	1.31331 AU
evening max el	11859 Dec 24 18:01	8° $\approx$ 49'47	27°19'55		11860 Nov 04 12:08	0° $\Upsilon$	
retrograde	11860 Jan 07 15:56	16° $\approx$ 05'48		evening rise	11860 Nov 06 08:45	4° $\Upsilon$ 01'05	
evening set	11860 Jan 14 14:33	13° $\approx$ 54'18			11860 Nov 20 00:59	0° $\Upsilon$	
min. Earth dist.	11860 Jan 18 08:30	11° $\approx$ 06'06	0.61224 AU	desc. node	11860 Nov 22 05:33	3° $\Upsilon$ 29'12	
inferior conj	11860 Jan 21 10:37	8° $\approx$ 22'50	-2°46'47	evening max el	11860 Dec 05 19:23	20° $\Upsilon$ 35'23	26°33'43
minimum elong	11860 Jan 21 16:23	8° $\approx$ 10'05	2°43'55	retrograde	11860 Dec 19 18:10	27° $\Upsilon$ 42'31	
morning rise	11860 Jan 28 21:02	3° $\approx$ 27'00		evening set	11860 Dec 26 08:37	25° $\Upsilon$ 55'03	
asc. node	11860 Jan 30 01:43	3° $\approx$ 11'35		min. Earth dist.	11860 Dec 30 09:17	23° $\Upsilon$ 18'41	0.59079 AU
direct	11860 Jan 31 00:31	3° $\approx$ 07'45		inferior conj	11861 Jan 02 13:11	20° $\Upsilon$ 52'55	-4°05'17
morning max el	11860 Feb 07 01:42	6° $\approx$ 40'42	17°53'16	minimum elong	11861 Jan 02 21:15	20° $\Upsilon$ 37'23	4°02'01
	11860 Feb 22 02:02	0° $\Upsilon$		morning rise	11861 Jan 10 12:42	16° $\Upsilon$ 18'10	
morning set	11860 Feb 22 16:48	1° $\Upsilon$ 06'56		direct	11861 Jan 12 14:48	16° $\Upsilon$ 02'45	
desc. node	11860 Mar 03 08:56	18° $\Upsilon$ 24'13		asc. node	11861 Jan 15 22:58	16° $\Upsilon$ 44'19	
				morning max el	11861 Jan 20 12:46	19° $\Upsilon$ 57'05	18°19'09
superior conj	11860 Mar 04 08:41	20° $\Upsilon$ 07'11	-0°07'40		11861 Jan 27 23:46	0° $\approx$	
minimum elong	11860 Mar 04 08:01	20° $\Upsilon$ 04'19	0°07'21	morning set	11861 Feb 05 07:11	15° $\approx$ 05'01	

	11861 Feb 13 05:11	0° $\text{H}$		morning set	11862 Jan 20 07:07	29° $\text{Z}$ 27'35	
					11862 Jan 20 13:40	0° $\approx$	
superior conj	11861 Feb 14 14:38	2° $\text{H}$ 33'26	0°28'11				
minimum elong	11861 Feb 14 16:38	2° $\text{H}$ 42'33	0°28'17	superior conj	11862 Jan 28 14:33	15° $\approx$ 48'46	0°56'48
desc. node	11861 Feb 18 05:35	9° $\text{H}$ 03'50		minimum elong	11862 Jan 28 17:28	16° $\approx$ 02'47	0°56'59
max. Earth dist.	11861 Feb 22 04:03	15° $\text{H}$ 53'53	1.40972 AU	max. Earth dist.	11862 Feb 04 10:47	28° $\approx$ 32'49	1.38758 AU
evening rise	11861 Feb 26 18:06	23° $\text{H}$ 33'44		desc. node	11862 Feb 05 02:17	29° $\approx$ 42'09	
	11861 Mar 02 18:00	0° $\text{Y}$			11862 Feb 05 06:17	0° $\text{H}$	
	11861 Mar 23 08:58	0° $\text{B}$		evening rise	11862 Feb 08 05:48	5° $\text{H}$ 13'19	
evening max el	11861 Apr 01 22:40	11° $\text{B}$ 15'02	23°19'03		11862 Feb 23 19:23	0° $\text{Y}$	
retrograde	11861 Apr 12 11:33	17° $\text{B}$ 27'54		evening max el	11862 Mar 15 12:28	25° $\text{Y}$ 06'00	24°38'42
asc. node	11861 Apr 13 20:16	17° $\text{B}$ 19'11			11862 Mar 21 11:52	0° $\text{B}$	
evening set	11861 Apr 17 13:12	15° $\text{B}$ 20'28		retrograde	11862 Mar 27 03:16	1° $\text{B}$ 52'52	
inferior conj	11861 Apr 22 22:27	8° $\text{B}$ 54'01	2°30'46	asc. node	11862 Mar 31 17:36	0° $\text{B}$ 18'24	
minimum elong	11861 Apr 22 20:22	9° $\text{B}$ 01'14	2°29'50		11862 Apr 01 03:36	30° $\text{R}$ $\text{Y}$	
min. Earth dist.	11861 Apr 22 10:22	9° $\text{B}$ 35'43	0.68704 AU	evening set	11862 Apr 01 16:50	29° $\text{Y}$ 33'10	
morning rise	11861 Apr 28 03:27	2° $\text{B}$ 47'40		min. Earth dist.	11862 Apr 06 05:49	24° $\text{Y}$ 24'07	0.68226 AU
direct	11861 May 02 10:53	1° $\text{B}$ 04'08		inferior conj	11862 Apr 07 06:07	23° $\text{Y}$ 03'12	1°55'55
morning max el	11861 May 10 19:49	5° $\text{B}$ 52'12	20°57'26	minimum elong	11862 Apr 07 04:00	23° $\text{Y}$ 10'17	1°55'01
desc. node	11861 May 17 07:08	13° $\text{B}$ 24'09		morning rise	11862 Apr 12 15:19	17° $\text{Y}$ 04'52	
	11861 May 29 03:18	0° $\text{II}$		direct	11862 Apr 16 10:17	15° $\text{Y}$ 42'36	
morning set	11861 Jun 10 04:05	18° $\text{II}$ 16'48		morning max el	11862 Apr 23 19:50	19° $\text{Y}$ 49'36	19°47'05
	11861 Jun 17 12:56	0° $\text{S}$			11862 May 02 03:18	0° $\text{B}$	
max. Earth dist.	11861 Jun 17 21:22	0° $\text{S}$ 34'16	1.43031 AU	desc. node	11862 May 04 03:55	2° $\text{B}$ 50'41	
				greatest brilliancy	11862 May 06 17:39	6° $\text{B}$ 33'27	-0.6m
superior conj	11861 Jun 24 21:49	12° $\text{S}$ 12'01	-1°54'55	morning set	11862 May 20 04:28	26° $\text{B}$ 49'46	
minimum elong	11861 Jun 25 04:27	12° $\text{S}$ 40'03	1°55'11		11862 May 22 05:50	0° $\text{II}$	
	11861 Jul 05 03:24	0° $\text{O}$		max. Earth dist.	11862 May 31 09:45	14° $\text{II}$ 20'08	1.44606 AU
evening rise	11861 Jul 06 17:29	2° $\text{O}$ 49'38					
asc. node	11861 Jul 10 18:51	10° $\text{O}$ 02'10		superior conj	11862 Jun 05 07:53	22° $\text{II}$ 12'43	-2°11'30
evening max el	11861 Jul 23 06:35	28° $\text{O}$ 42'16	18°04'17	minimum elong	11862 Jun 05 10:54	22° $\text{II}$ 24'55	2°12'12
	11861 Jul 24 17:24	0° $\text{np}$			11862 Jun 10 02:30	0° $\text{S}$	
retrograde	11861 Jul 29 22:04	2° $\text{np}$ 06'45		evening rise	11862 Jun 18 21:05	14° $\text{S}$ 40'56	
evening set	11861 Aug 01 09:38	1° $\text{np}$ 38'12		asc. node	11862 Jun 27 15:45	29° $\text{S}$ 23'47	
	11861 Aug 04 07:04	30° $\text{R}$ $\text{O}$			11862 Jun 28 00:44	0° $\text{O}$	
inferior conj	11861 Aug 08 02:51	26° $\text{O}$ 39'01	1°28'49	evening max el	11862 Jul 06 20:39	12° $\text{O}$ 03'56	18°08'44
minimum elong	11861 Aug 08 05:13	26° $\text{O}$ 33'20	1°27'33	retrograde	11862 Jul 13 05:23	15° $\text{O}$ 24'25	
min. Earth dist.	11861 Aug 11 06:46	23° $\text{O}$ 37'19	0.60908 AU	evening set	11862 Jul 16 01:02	14° $\text{O}$ 42'53	
desc. node	11861 Aug 13 05:49	21° $\text{O}$ 56'06		inferior conj	11862 Jul 22 04:19	9° $\text{O}$ 25'21	2°22'35
morning rise	11861 Aug 14 22:03	20° $\text{O}$ 42'52		minimum elong	11862 Jul 22 06:54	9° $\text{O}$ 18'16	2°21'16
direct	11861 Aug 21 12:46	18° $\text{O}$ 31'41		min. Earth dist.	11862 Jul 24 21:00	6° $\text{O}$ 29'46	0.63133 AU
morning max el	11861 Sep 04 18:56	26° $\text{O}$ 28'45	27°55'41	morning rise	11862 Jul 28 10:59	3° $\text{O}$ 12'33	
	11861 Sep 08 02:19	0° $\text{np}$		desc. node	11862 Jul 31 03:08	1° $\text{O}$ 35'14	
	11861 Sep 28 10:24	0° $\text{S}$		direct	11862 Aug 04 03:28	0° $\text{O}$ 41'31	
asc. node	11861 Oct 06 20:00	16° $\text{S}$ 07'38		morning max el	11862 Aug 18 03:03	8° $\text{O}$ 43'34	27°49'51
morning set	11861 Oct 07 18:57	18° $\text{S}$ 05'58			11862 Sep 03 14:22	0° $\text{np}$	
	11861 Oct 13 08:15	0° $\text{ml}$			11862 Sep 20 16:24	0° $\text{S}$	
max. Earth dist.	11861 Oct 13 15:29	0° $\text{ml}$ 39'50	1.31539 AU	morning set	11862 Sep 21 15:37	1° $\text{S}$ 56'04	
				asc. node	11862 Sep 23 16:41	6° $\text{S}$ 06'24	
superior conj	11861 Oct 15 01:33	3° $\text{ml}$ 47'56	1°12'54	max. Earth dist.	11862 Sep 26 18:20	12° $\text{S}$ 33'29	1.32260 AU
minimum elong	11861 Oct 14 23:19	3° $\text{ml}$ 35'36	1°12'57				
evening rise	11861 Oct 21 18:43	18° $\text{ml}$ 35'17		superior conj	11862 Sep 29 09:27	18° $\text{S}$ 13'52	0°53'12
	11861 Oct 27 07:06	0° $\text{A}$		minimum elong	11862 Sep 29 07:19	18° $\text{S}$ 02'21	0°53'00
desc. node	11861 Nov 09 02:45	21° $\text{A}$ 36'12			11862 Oct 04 18:41	0° $\text{ml}$	
	11861 Nov 16 00:44	0° $\text{Z}$		evening rise	11862 Oct 06 06:01	3° $\text{ml}$ 10'51	
evening max el	11861 Nov 17 12:30	1° $\text{Z}$ 28'44	25°16'03		11862 Oct 20 14:04	0° $\text{A}$	
retrograde	11861 Dec 01 08:51	8° $\text{Z}$ 25'58		desc. node	11862 Oct 27 00:01	8° $\text{A}$ 33'40	
evening set	11861 Dec 07 04:36	7° $\text{Z}$ 09'10		evening max el	11862 Oct 29 23:15	11° $\text{A}$ 41'58	23°38'22
min. Earth dist.	11861 Dec 12 00:36	4° $\text{Z}$ 28'51	0.57082 AU	retrograde	11862 Nov 12 10:51	18° $\text{A}$ 25'24	
inferior conj	11861 Dec 14 19:54	2° $\text{Z}$ 36'41	-5°12'51	evening set	11862 Nov 17 00:26	17° $\text{A}$ 40'01	
minimum elong	11861 Dec 15 03:31	2° $\text{Z}$ 23'58	5°10'35	min. Earth dist.	11862 Nov 23 09:26	14° $\text{A}$ 36'49	0.55513 AU
	11861 Dec 19 01:25	30° $\text{R}$ $\text{A}$		inferior conj	11862 Nov 25 06:15	13° $\text{A}$ 30'32	-5°49'34
morning rise	11861 Dec 23 04:43	28° $\text{A}$ 24'07		minimum elong	11862 Nov 25 08:13	13° $\text{A}$ 27'36	5°48'45
direct	11861 Dec 25 11:24	28° $\text{A}$ 08'51		morning rise	11862 Dec 03 17:50	9° $\text{A}$ 36'58	
	11861 Dec 31 09:46	0° $\text{Z}$		direct	11862 Dec 06 12:31	9° $\text{A}$ 17'54	
asc. node	11862 Jan 02 20:08	1° $\text{Z}$ 50'51		morning max el	11862 Dec 17 03:41	14° $\text{A}$ 21'08	20°16'39
morning max el	11862 Jan 03 14:35	2° $\text{Z}$ 33'39	19°06'26	asc. node	11862 Dec 20 17:12	18° $\text{A}$ 17'24	

































































































































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morning set	11863 Jan 04 13:17	14°♄05'05						
				superior conj	11863 Dec 27 02:48	13°♄58'42	1°31'17	
superior conj	11863 Jan 12 03:53	29°♄40'48	1°17'44	minimum elong	11863 Dec 27 04:34	14°♄07'56	1°31'57	
minimum elong	11863 Jan 12 06:32	29°♄54'11	1°18'10	max. Earth dist.	11863 Dec 31 06:09	22°♄30'24	1.34643 AU	
	11863 Jan 12 07:41	0°♄			11864 Jan 04 01:23	0°♄		
max. Earth dist.	11863 Jan 17 17:59	10°♄38'44	1.36576 AU	evening rise	11864 Jan 04 12:23	0°♄52'45		
evening rise	11863 Jan 21 13:02	17°♄42'26		desc. node	11864 Jan 09 19:50	10°♄40'18		
desc. node	11863 Jan 22 23:01	20°♄15'38			11864 Jan 21 15:43	0°♄		
	11863 Jan 28 14:25	0°♄		evening max el	11864 Feb 08 15:20	22°♄39'06	26°48'29	
	11863 Feb 18 02:48	0°♄			11864 Feb 20 23:55	0°♄		
evening max el	11863 Feb 26 01:50	8°♄55'57	25°50'57	retrograde	11864 Feb 21 20:00	0°♄02'19		
retrograde	11863 Mar 10 14:18	16°♄06'40			11864 Feb 22 15:48	30°♄		
evening set	11863 Mar 16 15:37	13°♄37'52		evening set	11864 Feb 28 07:44	27°♄29'16		
asc. node	11863 Mar 18 14:57	11°♄44'27		min. Earth dist.	11864 Mar 03 08:13	23°♄29'23	0.66019 AU	
min. Earth dist.	11863 Mar 20 21:47	9°♄04'00	0.67321 AU	asc. node	11864 Mar 04 12:18	22°♄07'37		
inferior conj	11863 Mar 22 10:14	7°♄09'08	1°11'13	inferior conj	11864 Mar 05 08:43	21°♄07'36	0°16'29	
minimum elong	11863 Mar 22 08:37	7°♄14'16	1°10'35	minimum elong	11864 Mar 05 08:15	21°♄08'56	0°16'30	
morning rise	11863 Mar 28 02:14	1°♄20'16		morning rise	11864 Mar 11 10:01	15°♄30'02		
direct	11863 Mar 31 09:39	0°♄17'43		direct	11864 Mar 14 07:12	14°♄44'18		
morning max el	11863 Apr 07 03:29	3°♄56'38	18°51'54	morning max el	11864 Mar 20 17:10	18°♄07'50	18°13'11	
greatest brilliancy	11863 Apr 21 02:23	22°♄49'48	-0.8m		11864 Mar 29 17:30	0°♄		
desc. node	11863 Apr 21 00:37	22°♄43'03		desc. node	11864 Apr 06 21:16	12°♄54'27		
	11863 Apr 25 18:02	0°♄		morning set	11864 Apr 08 21:55	16°♄10'01		
morning set	11863 Apr 29 12:32	5°♄51'25			11864 Apr 17 13:45	0°♄		
max. Earth dist.	11863 May 14 03:08	28°♄37'48	1.45527 AU					
	11863 May 15 00:07	0°♄		superior conj	11864 Apr 24 04:45	10°♄25'55	-1°48'27	
				minimum elong	11864 Apr 23 19:30	9°♄49'43	1°48'08	
superior conj	11863 May 15 21:37	1°♄24'21	-2°10'01	max. Earth dist.	11864 Apr 25 22:36	13°♄09'41	1.45716 AU	
minimum elong	11863 May 15 17:12	1°♄07'02	2°10'33		11864 May 06 17:55	0°♄		
evening rise	11863 May 31 01:15	25°♄32'03		evening rise	11864 May 10 05:58	5°♄27'17		
	11863 Jun 02 19:33	0°♄		greatest brilliancy	11864 May 21 16:20	23°♄07'45	-0.7m	
asc. node	11863 Jun 14 12:44	18°♄20'18			11864 May 26 08:02	0°♄		
evening max el	11863 Jun 20 09:32	25°♄38'39	18°31'18	asc. node	11864 May 31 09:49	6°♄43'32		
retrograde	11863 Jun 26 21:01	29°♄08'50		evening max el	11864 Jun 02 18:51	9°♄20'49	19°11'09	
evening set	11863 Jun 30 00:51	28°♄12'35		retrograde	11864 Jun 09 17:29	13°♄13'15		
inferior conj	11863 Jul 05 18:05	22°♄38'44	2°55'48	evening set	11864 Jun 13 05:57	12°♄01'13		
minimum elong	11863 Jul 05 19:57	22°♄33'05	2°54'43	inferior conj	11864 Jun 18 16:40	6°♄12'42	3°12'11	
min. Earth dist.	11863 Jul 07 20:35	20°♄07'07	0.65107 AU	minimum elong	11864 Jun 18 17:28	6°♄10'06	3°11'19	
morning rise	11863 Jul 11 14:01	16°♄17'54		min. Earth dist.	11864 Jun 20 04:24	4°♄17'12	0.66708 AU	
direct	11863 Jul 18 02:28	13°♄36'39		morning rise	11864 Jun 24 04:26	29°♄50'07		
desc. node	11863 Jul 18 00:24	13°♄36'41			11864 Jun 24 00:01	30°♄		
morning max el	11863 Jul 31 13:49	21°♄32'33	27°09'50	direct	11864 Jun 30 08:34	27°♄08'57		
	11863 Aug 07 22:29	0°♄		desc. node	11864 Jul 03 21:35	27°♄53'32		
	11863 Aug 27 18:54	0°♄			11864 Jul 07 15:04	0°♄		
morning set	11863 Sep 05 02:43	15°♄16'52		morning max el	11864 Jul 13 00:40	4°♄43'31	26°03'32	
max. Earth dist.	11863 Sep 09 12:32	24°♄03'13	1.33495 AU		11864 Aug 01 09:11	0°♄		
asc. node	11863 Sep 10 13:21	26°♄10'29		morning set	11864 Aug 18 00:50	28°♄00'00		
	11863 Sep 12 09:29	0°♄		max. Earth dist.	11864 Aug 19 02:38	0°♄		
					11864 Aug 21 20:13	5°♄11'43	1.35225 AU	
superior conj	11863 Sep 13 12:19	2°♄21'21	0°28'24					
minimum elong	11863 Sep 13 10:56	2°♄14'01	0°28'05	superior conj	11864 Aug 27 07:41	16°♄04'16	-0°00'57	
evening rise	11863 Sep 20 16:45	17°♄41'46		minimum elong	11864 Aug 27 07:45	16°♄04'38	0°01'12	
	11863 Sep 26 18:00	0°♄		behind sun begin	11864 Aug 27 01:43	15°♄33'57		
evening max el	11863 Oct 11 11:32	21°♄47'08	21°58'04	behind sun end	11864 Aug 27 13:47	16°♄35'22		
desc. node	11863 Oct 13 21:20	23°♄56'08		asc. node	11864 Aug 27 10:02	16°♄16'17		
retrograde	11863 Oct 24 02:01	28°♄03'07			11864 Sep 03 01:12	0°♄		
evening set	11863 Oct 27 04:50	27°♄41'22		evening rise	11864 Sep 04 00:56	2°♄02'59		
min. Earth dist.	11863 Nov 04 16:08	23°♄57'31	0.54653 AU		11864 Sep 20 06:37	0°♄		
inferior conj	11863 Nov 05 01:30	23°♄44'24	-5°34'06	evening max el	11864 Sep 22 10:37	2°♄21'13	20°30'14	
minimum elong	11863 Nov 04 18:59	23°♄53'31	5°32'37	desc. node	11864 Sep 29 18:44	7°♄14'56		
morning rise	11863 Nov 13 10:25	19°♄57'16		retrograde	11864 Oct 03 13:34	7°♄52'35		
direct	11863 Nov 16 22:53	19°♄30'00		evening set	11864 Oct 05 16:37	7°♄41'21		
morning max el	11863 Nov 29 02:58	25°♄16'57	21°48'32	inferior conj	11864 Oct 14 18:01	3°♄45'29	-4°21'24	
	11863 Dec 03 10:14	0°♄		minimum elong	11864 Oct 14 08:01	4°♄00'01	4°18'09	
asc. node	11863 Dec 07 14:12	5°♄47'24		min. Earth dist.	11864 Oct 16 00:04	3°♄01'52	0.54714 AU	
morning set	11863 Dec 19 23:14	28°♄50'27			11864 Oct 22 04:18	30°♄		

morning rise	11864 Oct 22 22:56	29° $\Omega$ 44'41		min. Earth dist.	11865 Sep 27 11:09	12° $\Omega$ 27'09	0.55704 AU
direct	11864 Oct 27 07:43	29° $\Omega$ 03'39		morning rise	11865 Oct 02 21:42	9° $\Omega$ 34'42	
	11864 Nov 01 07:54	0° $\Pi$		direct	11865 Oct 08 02:32	8° $\Omega$ 33'26	
morning max el	11864 Nov 09 16:04	5° $\Pi$ 32'56	23°34'39	morning max el	11865 Oct 22 02:50	15° $\Omega$ 37'21	25°20'13
asc. node	11864 Nov 23 11:09	24° $\Pi$ 05'58			11865 Nov 02 15:54	0° $\Pi$	
	11864 Nov 26 17:24	0° $\mathcal{A}$		asc. node	11865 Nov 10 08:01	13° $\Pi$ 01'01	
morning set	11864 Dec 03 10:53	13° $\mathcal{A}$ 37'27		morning set	11865 Nov 17 22:34	28° $\Pi$ 21'29	
					11865 Nov 18 16:52	0° $\mathcal{A}$	
superior conj	11864 Dec 10 08:14	28° $\mathcal{A}$ 33'00	1°38'00				
minimum elong	11864 Dec 10 08:52	28° $\mathcal{A}$ 36'24	1°38'48	superior conj	11865 Nov 24 17:45	13° $\mathcal{A}$ 16'34	1°38'26
	11864 Dec 11 00:21	0° $\mathcal{B}$		minimum elong	11865 Nov 24 17:16	13° $\mathcal{A}$ 13'52	1°39'10
max. Earth dist.	11864 Dec 13 02:10	4° $\mathcal{B}$ 26'10	1.33108 AU	max. Earth dist.	11865 Nov 26 05:38	16° $\mathcal{A}$ 34'00	1.32038 AU
evening rise	11864 Dec 18 00:17	14° $\mathcal{B}$ 34'46		evening rise	11865 Dec 01 21:37	28° $\mathcal{A}$ 40'31	
	11864 Dec 26 05:11	0° $\approx$			11865 Dec 02 13:04	0° $\mathcal{B}$	
desc. node	11864 Dec 26 16:43	0° $\approx$ 50'38		desc. node	11865 Dec 13 13:44	20° $\mathcal{B}$ 40'19	
	11865 Jan 15 12:02	0° $\mathcal{H}$			11865 Dec 19 09:15	0° $\approx$	
evening max el	11865 Jan 21 04:20	6° $\mathcal{H}$ 05'26	27°24'03	evening max el	11866 Jan 03 15:00	19° $\approx$ 02'40	27°30'53
retrograde	11865 Feb 03 19:22	13° $\mathcal{H}$ 30'25		retrograde	11866 Jan 17 11:16	26° $\approx$ 22'09	
evening set	11865 Feb 10 14:58	10° $\mathcal{H}$ 59'39		evening set	11866 Jan 24 10:34	24° $\approx$ 01'24	
min. Earth dist.	11865 Feb 14 11:02	7° $\mathcal{H}$ 31'28	0.64367 AU	min. Earth dist.	11866 Jan 28 04:21	21° $\approx$ 00'36	0.62434 AU
inferior conj	11865 Feb 16 23:00	4° $\mathcal{H}$ 51'59	-0°48'13	inferior conj	11866 Jan 31 02:10	18° $\approx$ 15'01	-2°01'41
minimum elong	11865 Feb 17 00:29	4° $\mathcal{H}$ 48'02	0°47'11	minimum elong	11866 Jan 31 06:16	18° $\approx$ 05'15	1°59'26
asc. node	11865 Feb 19 09:40	2° $\mathcal{H}$ 22'31		asc. node	11866 Feb 06 06:59	13° $\approx$ 29'14	
	11865 Feb 22 10:41	30° $\mathcal{R}$ $\approx$		morning rise	11866 Feb 07 04:30	13° $\approx$ 07'43	
morning rise	11865 Feb 23 11:56	29° $\approx$ 28'02		direct	11866 Feb 09 10:36	12° $\approx$ 44'33	
direct	11865 Feb 26 00:31	28° $\approx$ 55'28		morning max el	11866 Feb 16 03:42	16° $\approx$ 09'40	17°47'14
	11865 Mar 01 14:12	0° $\mathcal{H}$			11866 Feb 25 22:12	0° $\mathcal{H}$	
morning max el	11865 Mar 04 10:15	2° $\mathcal{H}$ 14'50	17°51'24	morning set	11866 Mar 04 01:32	10° $\mathcal{H}$ 41'43	
morning set	11865 Mar 21 11:54	27° $\mathcal{H}$ 52'00		desc. node	11866 Mar 11 14:32	23° $\mathcal{H}$ 52'08	
	11865 Mar 22 18:23	0° $\mathcal{Y}$			11866 Mar 15 05:06	0° $\mathcal{Y}$	
desc. node	11865 Mar 24 17:53	3° $\mathcal{Y}$ 18'49					
				superior conj	11866 Mar 15 15:59	0° $\mathcal{Y}$ 45'39	-0°30'47
superior conj	11865 Apr 03 23:01	20° $\mathcal{Y}$ 03'13	-1°12'15	minimum elong	11866 Mar 15 12:57	0° $\mathcal{Y}$ 32'57	0°30'15
minimum elong	11865 Apr 03 15:26	19° $\mathcal{Y}$ 32'43	1°11'28	max. Earth dist.	11866 Mar 22 11:01	11° $\mathcal{Y}$ 55'24	1.43944 AU
max. Earth dist.	11865 Apr 08 17:55	27° $\mathcal{Y}$ 40'20	1.45168 AU	evening rise	11866 Mar 30 08:34	24° $\mathcal{Y}$ 22'58	
	11865 Apr 10 05:25	0° $\mathcal{B}$			11866 Apr 03 00:25	0° $\mathcal{B}$	
evening rise	11865 Apr 19 19:20	14° $\mathcal{B}$ 50'50			11866 Apr 23 23:17	0° $\Pi$	
	11865 Apr 29 19:20	0° $\Pi$		evening max el	11866 Apr 29 21:22	6° $\Pi$ 51'32	21°15'20
greatest brilliancy	11865 May 04 21:02	7° $\Pi$ 28'37	-0.6m	asc. node	11866 May 05 04:14	11° $\Pi$ 01'43	
evening max el	11865 May 16 22:58	23° $\Pi$ 05'46	20°06'46	retrograde	11866 May 08 14:36	11° $\Pi$ 57'40	
asc. node	11865 May 18 06:59	24° $\Pi$ 21'56		evening set	11866 May 12 22:40	10° $\Pi$ 13'11	
retrograde	11865 May 24 16:01	27° $\Pi$ 31'11		inferior conj	11866 May 18 05:02	3° $\Pi$ 59'49	3°05'49
evening set	11865 May 28 13:52	26° $\Pi$ 02'53		minimum elong	11866 May 18 03:49	4° $\Pi$ 04'03	3°05'01
inferior conj	11865 Jun 02 21:08	20° $\Pi$ 01'08	3°14'50	min. Earth dist.	11866 May 18 12:48	3° $\Pi$ 32'50	0.68553 AU
minimum elong	11865 Jun 02 20:50	20° $\Pi$ 02'07	3°14'03		11866 May 21 05:11	30° $\mathcal{R}$ $\mathcal{B}$	
min. Earth dist.	11865 Jun 03 18:29	18° $\Pi$ 48'40	0.67863 AU	morning rise	11866 May 23 08:46	27° $\mathcal{B}$ 43'57	
morning rise	11865 Jun 08 03:29	13° $\Pi$ 40'46		direct	11866 May 28 12:55	25° $\mathcal{B}$ 28'17	
direct	11865 Jun 13 20:26	11° $\Pi$ 08'56			11866 Jun 06 04:38	0° $\Pi$	
desc. node	11865 Jun 20 18:40	13° $\Pi$ 58'17		desc. node	11866 Jun 07 15:41	1° $\Pi$ 23'46	
morning max el	11865 Jun 25 10:34	18° $\Pi$ 06'07	24°40'41	morning max el	11866 Jun 07 20:44	1° $\Pi$ 36'24	23°11'07
	11865 Jul 05 10:16	0° $\mathcal{E}$			11866 Jun 29 09:04	0° $\mathcal{E}$	
	11865 Jul 25 10:21	0° $\Omega$		morning set	11866 Jul 12 12:01	20° $\mathcal{E}$ 46'41	
morning set	11865 Jul 31 05:37	9° $\Omega$ 54'18		max. Earth dist.	11866 Jul 16 17:11	27° $\mathcal{E}$ 56'04	1.39661 AU
max. Earth dist.	11865 Aug 03 19:38	16° $\Omega$ 19'04	1.37347 AU		11866 Jul 17 21:44	0° $\Omega$	
superior conj	11865 Aug 10 16:24	29° $\Omega$ 15'06	-0°33'42	superior conj	11866 Jul 24 10:29	11° $\Omega$ 43'27	-1°07'48
minimum elong	11865 Aug 10 18:38	29° $\Omega$ 25'58	0°33'46	minimum elong	11866 Jul 24 15:17	12° $\Omega$ 05'33	1°07'42
	11865 Aug 11 01:38	0° $\mathcal{H}$		asc. node	11866 Aug 01 03:32	26° $\Omega$ 18'06	
asc. node	11865 Aug 14 06:46	6° $\mathcal{H}$ 20'17		evening rise	11866 Aug 02 23:33	29° $\Omega$ 49'44	
evening rise	11865 Aug 19 04:13	16° $\mathcal{H}$ 08'29			11866 Aug 03 01:41	0° $\mathcal{H}$	
	11865 Aug 26 09:26	0° $\underline{\Omega}$		evening max el	11866 Aug 19 00:57	25° $\mathcal{H}$ 48'07	18°35'52
evening max el	11865 Sep 04 23:49	13° $\underline{\Omega}$ 42'12	19°22'19	retrograde	11866 Aug 27 00:55	29° $\mathcal{H}$ 49'11	
retrograde	11865 Sep 14 10:10	18° $\underline{\Omega}$ 24'11		evening set	11866 Aug 29 00:37	29° $\mathcal{H}$ 35'07	
evening set	11865 Sep 16 06:29	18° $\underline{\Omega}$ 14'10		desc. node	11866 Sep 03 13:34	26° $\mathcal{H}$ 51'49	
desc. node	11865 Sep 16 16:09	18° $\underline{\Omega}$ 09'25		inferior conj	11866 Sep 05 22:17	25° $\mathcal{H}$ 07'42	-0°44'19
inferior conj	11865 Sep 24 22:04	14° $\underline{\Omega}$ 06'23	-2°34'01	minimum elong	11866 Sep 05 20:31	25° $\mathcal{H}$ 11'04	0°43'46
minimum elong	11865 Sep 24 15:19	14° $\underline{\Omega}$ 17'23	2°31'22	min. Earth dist.	11866 Sep 09 03:30	22° $\mathcal{H}$ 41'36	0.57429 AU

morning rise	11866 Sep 13 12:59	19° $\cap$ 58'20		desc. node	11867 Aug 21 10:57	4° $\cap$ 35'02	
direct	11866 Sep 19 11:02	18° $\cap$ 30'55		min. Earth dist.	11867 Aug 22 03:31	3° $\cap$ 59'31	0.59586 AU
morning max el	11866 Oct 03 18:22	26° $\cap$ 01'33	26°47'18	morning rise	11867 Aug 25 22:46	1° $\cap$ 12'28	
	11866 Oct 07 12:28	0° $\Omega$			11867 Aug 28 10:37	30° $\mathbb{R}$ $\Omega$	
	11866 Oct 26 23:30	0° $\mathbb{M}$		direct	11867 Sep 01 09:05	29° $\Omega$ 16'28	
asc. node	11866 Oct 28 04:50	2° $\mathbb{M}$ 22'21			11867 Sep 05 10:44	0° $\cap$	
morning set	11866 Nov 02 08:28	12° $\mathbb{M}$ 56'49		morning max el	11867 Sep 15 17:26	7° $\cap$ 06'52	27°41'48
					11867 Oct 02 23:51	0° $\Omega$	
superior conj	11866 Nov 09 05:13	28° $\mathbb{M}$ 02'09	1°32'57	asc. node	11867 Oct 15 01:35	22° $\Omega$ 02'53	
minimum elong	11866 Nov 09 03:47	27° $\mathbb{M}$ 54'12	1°33'28	morning set	11867 Oct 17 14:51	27° $\Omega$ 19'03	
max. Earth dist.	11866 Nov 09 13:39	28° $\mathbb{M}$ 49'09	1.31452 AU		11867 Oct 18 21:14	0° $\mathbb{M}$	
	11866 Nov 10 02:22	0° $\mathbb{X}$		max. Earth dist.	11867 Oct 23 22:36	11° $\mathbb{M}$ 03'32	1.31360 AU
evening rise	11866 Nov 16 01:34	13° $\mathbb{X}$ 01'42					
	11866 Nov 24 15:21	0° $\mathbb{Z}$		superior conj	11867 Oct 24 16:45	12° $\mathbb{M}$ 44'33	1°21'48
desc. node	11866 Nov 30 10:48	9° $\mathbb{Z}$ 59'55		minimum elong	11867 Oct 24 14:42	12° $\mathbb{M}$ 33'07	1°22'02
	11866 Dec 15 13:04	0° $\approx$		evening rise	11867 Oct 31 09:54	27° $\mathbb{M}$ 32'41	
evening max el	11866 Dec 16 20:27	1° $\approx$ 16'43	27°04'20		11867 Nov 01 13:32	0° $\mathbb{X}$	
retrograde	11866 Dec 30 18:35	8° $\approx$ 28'11		desc. node	11867 Nov 17 07:57	28° $\mathbb{X}$ 38'00	
evening set	11867 Jan 06 15:05	6° $\approx$ 25'55			11867 Nov 18 06:19	0° $\mathbb{Z}$	
min. Earth dist.	11867 Jan 10 10:50	3° $\approx$ 44'32	0.60319 AU	evening max el	11867 Nov 28 18:09	12° $\mathbb{Z}$ 38'58	26°03'50
inferior conj	11867 Jan 13 14:41	1° $\approx$ 06'54	-3°20'26	retrograde	11867 Dec 12 16:11	19° $\mathbb{Z}$ 42'25	
minimum elong	11867 Jan 13 21:36	0° $\approx$ 52'30	3°17'16	evening set	11867 Dec 19 00:18	18° $\mathbb{Z}$ 07'02	
	11867 Jan 14 23:15	30° $\mathbb{R}$ $\mathbb{Z}$		min. Earth dist.	11867 Dec 23 07:03	15° $\mathbb{Z}$ 31'25	0.58201 AU
morning rise	11867 Jan 21 06:56	26° $\mathbb{Z}$ 19'40		inferior conj	11867 Dec 26 09:03	13° $\mathbb{Z}$ 17'52	-4°36'16
direct	11867 Jan 23 09:26	26° $\mathbb{Z}$ 02'21		minimum elong	11867 Dec 26 17:26	13° $\mathbb{Z}$ 02'41	4°33'15
asc. node	11867 Jan 24 04:14	26° $\mathbb{Z}$ 04'50		morning rise	11868 Jan 03 13:16	8° $\mathbb{Z}$ 52'59	
morning max el	11867 Jan 30 18:08	29° $\mathbb{Z}$ 42'51	18°01'46	direct	11868 Jan 05 16:29	8° $\mathbb{Z}$ 38'07	
	11867 Jan 31 01:01	0° $\approx$		asc. node	11868 Jan 11 01:27	10° $\mathbb{Z}$ 18'44	
morning set	11867 Feb 15 08:26	24° $\approx$ 19'27		morning max el	11868 Jan 14 01:48	12° $\mathbb{Z}$ 43'55	18°36'34
	11867 Feb 18 10:03	0° $\mathbb{X}$			11868 Jan 25 16:18	0° $\approx$	
				morning set	11868 Jan 30 03:18	8° $\approx$ 29'10	
superior conj	11867 Feb 25 09:23	12° $\mathbb{X}$ 37'03	0°08'23				
minimum elong	11867 Feb 25 10:06	12° $\mathbb{X}$ 40'10	0°08'34	superior conj	11868 Feb 07 23:36	25° $\approx$ 26'13	0°41'15
behind sun begin	11867 Feb 25 03:23	12° $\mathbb{X}$ 10'28		minimum elong	11868 Feb 08 02:10	25° $\approx$ 38'12	0°41'22
behind sun end	11867 Feb 25 16:49	13° $\mathbb{X}$ 09'48			11868 Feb 10 10:56	0° $\mathbb{X}$	
desc. node	11867 Feb 26 11:10	14° $\mathbb{X}$ 30'28		desc. node	11868 Feb 13 07:49	5° $\mathbb{X}$ 10'00	
max. Earth dist.	11867 Mar 04 23:58	25° $\mathbb{X}$ 39'56	1.42165 AU	max. Earth dist.	11868 Feb 15 08:02	8° $\mathbb{X}$ 42'00	1.40037 AU
	11867 Mar 07 15:06	0° $\mathbb{Y}$		evening rise	11868 Feb 19 10:56	15° $\mathbb{X}$ 43'58	
evening rise	11867 Mar 10 11:30	4° $\mathbb{Y}$ 35'59			11868 Feb 28 08:04	0° $\mathbb{Y}$	
	11867 Mar 27 07:33	0° $\mathbb{B}$			11868 Mar 21 02:17	0° $\mathbb{B}$	
evening max el	11867 Apr 12 14:51	20° $\mathbb{B}$ 38'29	22°32'42	evening max el	11868 Mar 25 05:14	4° $\mathbb{B}$ 27'31	23°53'22
retrograde	11867 Apr 22 11:35	26° $\mathbb{B}$ 28'00		retrograde	11868 Apr 05 05:41	10° $\mathbb{B}$ 56'39	
asc. node	11867 Apr 22 01:29	26° $\mathbb{B}$ 27'09		asc. node	11868 Apr 07 22:47	10° $\mathbb{B}$ 22'38	
evening set	11867 Apr 27 06:42	24° $\mathbb{B}$ 28'18		evening set	11868 Apr 10 12:22	8° $\mathbb{B}$ 43'30	
inferior conj	11867 May 02 14:20	18° $\mathbb{B}$ 05'36	2°46'26	min. Earth dist.	11868 Apr 15 05:45	3° $\mathbb{B}$ 13'59	0.68549 AU
minimum elong	11867 May 02 12:28	18° $\mathbb{B}$ 12'07	2°45'31	inferior conj	11868 Apr 15 23:08	2° $\mathbb{B}$ 14'46	2°17'11
min. Earth dist.	11867 May 02 09:16	18° $\mathbb{B}$ 23'17	0.68776 AU	minimum elong	11868 Apr 15 20:58	2° $\mathbb{B}$ 22'08	2°16'14
morning rise	11867 May 07 18:07	11° $\mathbb{B}$ 55'34			11868 Apr 17 15:30	30° $\mathbb{R}$ $\mathbb{Y}$	
direct	11867 May 12 08:59	10° $\mathbb{B}$ 00'02		morning rise	11868 Apr 21 05:36	26° $\mathbb{Y}$ 11'42	
morning max el	11867 May 21 10:12	15° $\mathbb{B}$ 16'06	21°43'51	direct	11868 Apr 25 07:31	24° $\mathbb{Y}$ 37'32	
desc. node	11867 May 25 12:37	19° $\mathbb{B}$ 48'26		morning max el	11868 May 03 05:52	29° $\mathbb{Y}$ 07'05	20°25'49
	11867 Jun 02 07:58	0° $\mathbb{I}$			11868 May 04 02:37	0° $\mathbb{B}$	
	11867 Jun 22 09:05	0° $\mathbb{E}$		desc. node	11868 May 11 09:26	8° $\mathbb{B}$ 55'55	
morning set	11867 Jun 22 16:40	0° $\mathbb{E}$ 30'09			11868 May 25 21:38	0° $\mathbb{I}$	
max. Earth dist.	11867 Jun 28 18:49	10° $\mathbb{E}$ 23'20	1.41887 AU	morning set	11868 May 31 22:57	9° $\mathbb{I}$ 15'49	
				max. Earth dist.	11868 Jun 10 02:43	23° $\mathbb{I}$ 40'52	1.43765 AU
superior conj	11867 Jul 06 09:27	23° $\mathbb{E}$ 19'20	-1°39'40		11868 Jun 14 00:19	0° $\mathbb{E}$	
minimum elong	11867 Jul 06 16:07	23° $\mathbb{E}$ 48'25	1°39'40				
	11867 Jul 10 04:10	0° $\Omega$		superior conj	11868 Jun 16 09:16	3° $\mathbb{E}$ 54'20	-2°03'48
evening rise	11867 Jul 17 07:12	12° $\Omega$ 57'22		minimum elong	11868 Jun 16 14:59	4° $\mathbb{E}$ 18'01	2°04'16
asc. node	11867 Jul 19 00:21	16° $\Omega$ 05'54		evening rise	11868 Jun 28 22:24	25° $\mathbb{E}$ 19'14	
	11867 Jul 26 23:33	0° $\cap$			11868 Jul 01 14:47	0° $\Omega$	
evening max el	11867 Aug 02 10:08	8° $\cap$ 31'01	18°10'09	asc. node	11868 Jul 04 21:11	5° $\Omega$ 38'26	
retrograde	11867 Aug 09 10:27	12° $\cap$ 04'56		evening max el	11868 Jul 15 23:24	21° $\Omega$ 40'45	18°03'57
evening set	11867 Aug 11 17:16	11° $\cap$ 42'45		retrograde	11868 Jul 22 10:59	25° $\Omega$ 02'03	
inferior conj	11867 Aug 18 20:10	6° $\cap$ 54'47	0°47'07	evening set	11868 Jul 25 01:51	24° $\Omega$ 28'25	
minimum elong	11867 Aug 18 21:39	6° $\cap$ 51'29	0°46'12	inferior conj	11868 Jul 31 12:41	19° $\Omega$ 21'23	1°54'22





































































































































minimum elong	11868 Jul 31 15:18	19° $\Omega$ 14'42	1°53'01	inferior conj	11869 Jul 14 19:48	2° $\Omega$ 19'35	2°38'57
min. Earth dist.	11868 Aug 03 12:30	16° $\Omega$ 19'26	0.61867 AU	minimum elong	11869 Jul 14 22:09	2° $\Omega$ 12'51	2°37'43
morning rise	11868 Aug 07 02:22	13° $\Omega$ 16'40			11869 Jul 16 20:44	30° $\mathbb{R}$ $\mathfrak{E}$	
desc. node	11868 Aug 07 08:18	13° $\Omega$ 06'25		min. Earth dist.	11869 Jul 17 06:47	29° $\mathfrak{E}$ 32'06	0.64016 AU
direct	11868 Aug 13 18:36	10° $\Omega$ 55'43		morning rise	11869 Jul 20 21:38	26° $\mathfrak{E}$ 02'35	
morning max el	11868 Aug 27 22:51	18° $\Omega$ 57'11	27°57'47	desc. node	11869 Jul 25 05:37	23° $\mathfrak{E}$ 43'57	
	11868 Sep 06 07:14	0° $\mathbb{M}$		direct	11869 Jul 27 13:12	23° $\mathfrak{E}$ 25'34	
	11868 Sep 24 20:58	0° $\underline{\mathfrak{A}}$			11869 Aug 08 20:29	0° $\Omega$	
morning set	11868 Sep 30 15:43	11° $\underline{\mathfrak{A}}$ 22'42		morning max el	11869 Aug 10 08:09	1° $\Omega$ 26'45	27°36'32
asc. node	11868 Sep 30 22:17	11° $\underline{\mathfrak{A}}$ 56'27			11869 Aug 31 11:46	0° $\mathbb{M}$	
max. Earth dist.	11868 Oct 06 04:33	23° $\underline{\mathfrak{A}}$ 06'27	1.31773 AU	morning set	11869 Sep 14 08:38	25° $\mathbb{M}$ 00'51	
					11869 Sep 16 20:03	0° $\underline{\mathfrak{A}}$	
superior conj	11868 Oct 08 02:33	27° $\underline{\mathfrak{A}}$ 18'18	1°05'11	asc. node	11869 Sep 17 18:57	1° $\underline{\mathfrak{A}}$ 57'46	
minimum elong	11868 Oct 08 00:18	27° $\underline{\mathfrak{A}}$ 05'56	1°05'08	max. Earth dist.	11869 Sep 19 03:47	4° $\underline{\mathfrak{A}}$ 48'42	1.32713 AU
	11868 Oct 09 07:52	0° $\mathbb{M}$					
evening rise	11868 Oct 14 20:38	12° $\mathbb{M}$ 08'02		superior conj	11869 Sep 22 08:35	11° $\underline{\mathfrak{A}}$ 37'05	0°43'17
	11868 Oct 23 18:36	0° $\mathfrak{A}$		minimum elong	11869 Sep 22 06:41	11° $\underline{\mathfrak{A}}$ 26'54	0°43'02
desc. node	11868 Nov 03 05:10	16° $\mathfrak{A}$ 18'44		evening rise	11869 Sep 29 07:54	26° $\underline{\mathfrak{A}}$ 41'58	
evening max el	11868 Nov 09 07:54	23° $\mathfrak{A}$ 13'00	24°36'05		11869 Sep 30 21:16	0° $\mathbb{M}$	
	11868 Nov 21 10:50	0° $\mathfrak{Z}$			11869 Oct 18 16:14	0° $\mathfrak{A}$	
retrograde	11868 Nov 23 02:09	0° $\mathfrak{Z}$ 06'10		desc. node	11869 Oct 21 02:29	2° $\mathfrak{A}$ 39'32	
	11868 Nov 24 17:36	30° $\mathbb{R}$ $\mathfrak{A}$		evening max el	11869 Oct 21 18:19	3° $\mathfrak{A}$ 18'53	22°55'14
evening set	11868 Nov 28 10:05	29° $\mathfrak{A}$ 03'08		retrograde	11869 Nov 03 22:54	9° $\mathfrak{A}$ 52'23	
min. Earth dist.	11868 Dec 03 19:28	26° $\mathfrak{A}$ 15'12	0.56340 AU	evening set	11869 Nov 07 21:16	9° $\mathfrak{A}$ 18'46	
inferior conj	11868 Dec 06 07:01	24° $\mathfrak{A}$ 41'10	-5°33'36	min. Earth dist.	11869 Nov 15 03:11	6° $\mathfrak{A}$ 00'20	0.55040 AU
minimum elong	11868 Dec 06 12:55	24° $\mathfrak{A}$ 31'50	5°32'02	inferior conj	11869 Nov 16 09:55	5° $\mathfrak{A}$ 16'19	-5°50'23
morning rise	11868 Dec 14 17:54	20° $\mathfrak{A}$ 37'32		minimum elong	11869 Nov 16 08:13	5° $\mathfrak{A}$ 18'46	5°49'36
direct	11868 Dec 17 04:28	20° $\mathfrak{A}$ 21'21		morning rise	11869 Nov 24 20:43	1° $\mathfrak{A}$ 27'12	
morning max el	11868 Dec 26 22:44	25° $\mathfrak{A}$ 01'58	19°33'25	direct	11869 Nov 27 22:30	1° $\mathfrak{A}$ 05'08	
asc. node	11868 Dec 27 22:35	26° $\mathfrak{A}$ 02'05		morning max el	11869 Dec 09 05:49	6° $\mathfrak{A}$ 27'15	20°53'14
	11868 Dec 31 05:33	0° $\mathfrak{Z}$		asc. node	11869 Dec 14 19:39	12° $\mathfrak{A}$ 57'50	
morning set	11869 Jan 13 06:17	22° $\mathfrak{Z}$ 59'43			11869 Dec 24 19:18	0° $\mathfrak{Z}$	
	11869 Jan 16 17:35	0° $\approx$		morning set	11869 Dec 28 14:22	7° $\mathfrak{Z}$ 41'42	
superior conj	11869 Jan 21 05:48	8° $\approx$ 59'33	1°06'35	superior conj	11870 Jan 04 23:38	23° $\mathfrak{Z}$ 03'56	1°24'19
minimum elong	11869 Jan 21 08:43	9° $\approx$ 13'51	1°06'52	minimum elong	11870 Jan 05 01:58	23° $\mathfrak{Z}$ 15'52	1°24'52
max. Earth dist.	11869 Jan 27 14:00	21° $\approx$ 03'58	1.37811 AU		11870 Jan 08 09:58	0° $\approx$	
desc. node	11869 Jan 30 04:30	25° $\approx$ 47'20		max. Earth dist.	11870 Jan 09 22:56	3° $\approx$ 02'04	1.35720 AU
evening rise	11869 Jan 31 07:25	27° $\approx$ 46'48		evening rise	11870 Jan 13 22:01	10° $\approx$ 35'14	
	11869 Feb 01 13:51	0° $\mathfrak{H}$		desc. node	11870 Jan 17 01:16	16° $\approx$ 17'53	
	11869 Feb 20 18:27	0° $\mathbb{Y}$			11870 Jan 25 03:32	0° $\mathfrak{H}$	
evening max el	11869 Mar 07 18:43	18° $\mathbb{Y}$ 19'04	25°10'44		11870 Feb 16 05:55	0° $\mathbb{Y}$	
retrograde	11869 Mar 19 19:40	25° $\mathbb{Y}$ 18'03		evening max el	11870 Feb 18 08:24	2° $\mathbb{Y}$ 08'13	26°17'37
evening set	11869 Mar 25 14:10	22° $\mathbb{Y}$ 54'10		retrograde	11870 Mar 03 04:30	9° $\mathbb{Y}$ 25'02	
asc. node	11869 Mar 25 20:08	22° $\mathbb{Y}$ 41'17		evening set	11870 Mar 09 10:21	6° $\mathbb{Y}$ 54'05	
min. Earth dist.	11869 Mar 30 00:08	17° $\mathbb{Y}$ 59'55	0.67891 AU	asc. node	11870 Mar 12 17:31	3° $\mathbb{Y}$ 35'26	
inferior conj	11869 Mar 31 05:34	16° $\mathbb{Y}$ 23'50	1°38'12	min. Earth dist.	11870 Mar 13 14:06	2° $\mathbb{Y}$ 34'36	0.66821 AU
minimum elong	11869 Mar 31 03:35	16° $\mathbb{Y}$ 30'20	1°37'22	inferior conj	11870 Mar 15 07:36	0° $\mathbb{Y}$ 27'39	0°49'16
morning rise	11869 Apr 05 17:20	10° $\mathbb{Y}$ 29'04		minimum elong	11870 Mar 15 06:23	0° $\mathbb{Y}$ 31'23	0°48'52
direct	11869 Apr 09 07:10	9° $\mathbb{Y}$ 15'31			11870 Mar 15 16:38	30° $\mathbb{R}$ $\mathfrak{H}$	
morning max el	11869 Apr 16 09:12	13° $\mathbb{Y}$ 09'20	19°21'32	morning rise	11870 Mar 21 03:13	24° $\mathfrak{H}$ 43'03	
desc. node	11869 Apr 28 06:10	28° $\mathbb{Y}$ 34'50		direct	11870 Mar 24 06:10	23° $\mathfrak{H}$ 47'54	
greatest brilliancy	11869 Apr 29 03:31	29° $\mathbb{Y}$ 53'34	-0.7m	morning max el	11870 Mar 30 19:36	27° $\mathfrak{H}$ 18'45	18°33'16
	11869 Apr 29 05:15	0° $\mathfrak{B}$			11870 Apr 02 06:40	0° $\mathbb{Y}$	
morning set	11869 May 10 23:36	17° $\mathfrak{B}$ 52'27		desc. node	11870 Apr 15 02:51	18° $\mathbb{Y}$ 36'16	
	11869 May 18 19:26	0° $\mathbb{I}$		morning set	11870 Apr 20 17:13	27° $\mathbb{Y}$ 23'52	
max. Earth dist.	11869 May 23 16:54	7° $\mathbb{I}$ 40'06	1.45087 AU		11870 Apr 22 08:54	0° $\mathfrak{B}$	
superior conj	11869 May 27 09:40	13° $\mathbb{I}$ 31'22	-2°13'21	superior conj	11870 May 06 18:28	22° $\mathfrak{B}$ 33'13	-2°03'10
minimum elong	11869 May 27 09:44	13° $\mathbb{I}$ 31'38	2°14'07	minimum elong	11870 May 06 11:14	22° $\mathfrak{B}$ 05'00	2°03'21
	11869 Jun 06 14:17	0° $\mathfrak{E}$		max. Earth dist.	11870 May 06 11:43	22° $\mathfrak{B}$ 06'54	1.45708 AU
evening rise	11869 Jun 10 16:20	6° $\mathfrak{E}$ 44'54			11870 May 11 12:39	0° $\mathbb{I}$	
asc. node	11869 Jun 21 18:06	24° $\mathfrak{E}$ 50'09		evening rise	11870 May 22 10:06	17° $\mathbb{I}$ 10'52	
	11869 Jun 25 06:31	0° $\Omega$			11870 May 30 12:17	0° $\mathfrak{E}$	
evening max el	11869 Jun 29 13:19	5° $\Omega$ 08'48	18°16'14	greatest brilliancy	11870 May 30 20:11	0° $\mathfrak{E}$ 30'57	-0.8m
retrograde	11869 Jul 05 22:06	8° $\Omega$ 31'34		asc. node	11870 Jun 08 15:08	13° $\mathfrak{E}$ 34'03	
evening set	11869 Jul 08 21:14	7° $\Omega$ 43'58		evening max el	11870 Jun 13 01:03	18° $\mathfrak{E}$ 48'07	18°46'15

retrograde	11870 Jun 19 16:07	22°  25'54		asc. node	11871 May 26 12:16	1°  39'52	
evening set	11870 Jun 22 23:39	21°  22'51		evening max el	11871 May 27 08:16	2°  31'53	19°32'59
inferior conj	11870 Jun 28 13:43	15°  42'38	3°04'34	retrograde	11871 Jun 03 13:49	6°  37'09	
minimum elong	11870 Jun 28 15:09	15°  38'09	3°03'36	evening set	11871 Jun 07 06:15	5°  18'00	
min. Earth dist.	11870 Jun 30 09:54	13°  25'25	0.65844 AU		11871 Jun 12 04:04	30°  R II	
morning rise	11870 Jul 04 05:52	9°  20'45		inferior conj	11871 Jun 12 15:08	29°  II23'27	3°14'49
direct	11870 Jul 10 15:20	6°  38'23		minimum elong	11871 Jun 12 15:27	29°  II22'22	3°14'01
desc. node	11870 Jul 12 02:52	6°  46'08		min. Earth dist.	11871 Jun 13 20:32	27°  II46'04	0.67256 AU
morning max el	11870 Jul 23 19:01	14°  26'18	26°44'18	morning rise	11871 Jun 18 00:16	23°  II01'32	
	11870 Aug 05 11:12	0°  Ω		direct	11871 Jun 23 23:48	20°  II23'42	
	11870 Aug 24 05:26	0°  ♍		desc. node	11871 Jun 29 00:02	21°  II52'38	
morning set	11870 Aug 28 14:41	8°  ♍06'50		morning max el	11871 Jul 06 05:37	27°  II43'47	25°29'47
max. Earth dist.	11870 Sep 01 17:38	16°  ♍08'49	1.34175 AU		11871 Jul 08 09:03	0°  ♍	
asc. node	11870 Sep 04 15:38	22°  ♍03'16			11871 Jul 30 03:40	0°  Ω	
				morning set	11871 Aug 11 05:57	20°  Ω30'24	
superior conj	11870 Sep 06 08:38	25°  ♍35'25	0°16'29	max. Earth dist.	11871 Aug 14 21:40	27°  Ω15'19	1.36094 AU
minimum elong	11870 Sep 06 07:46	25°  ♍30'56	0°16'10		11871 Aug 16 08:22	0°  ♍	
	11870 Sep 08 11:05	0°  ♎					
evening rise	11870 Sep 13 17:51	11°  ♎09'59		superior conj	11871 Aug 20 23:51	9°  ♍05'24	-0°14'31
	11870 Sep 23 11:02	0°  ♎		minimum elong	11871 Aug 21 00:45	9°  ♍09'58	0°14'42
evening max el	11870 Oct 03 10:23	13°  ♎32'51	21°18'37	behind sun begin	11871 Aug 20 22:09	8°  ♍56'57	
desc. node	11870 Oct 07 23:51	17°  ♎13'17		behind sun end	11871 Aug 21 03:22	9°  ♍22'59	
retrograde	11870 Oct 15 10:43	19°  ♎31'02		asc. node	11871 Aug 22 12:19	12°  ♍08'37	
evening set	11870 Oct 18 01:39	19°  ♎15'07		evening rise	11871 Aug 29 00:15	25°  ♍25'26	
inferior conj	11870 Oct 27 02:08	15°  ♎20'20	-5°09'29		11871 Aug 31 06:31	0°  ♎	
minimum elong	11870 Oct 26 17:10	15°  ♎32'55	5°07'09	evening max el	11871 Sep 15 15:14	24°  ♎24'50	19°58'37
min. Earth dist.	11870 Oct 27 09:44	15°  ♎09'40	0.54563 AU	desc. node	11871 Sep 24 21:16	29°  ♎31'47	
morning rise	11870 Nov 04 09:25	11°  ♎30'23		retrograde	11871 Sep 26 00:52	29°  ♎35'26	
direct	11870 Nov 08 06:45	10°  ♎57'50		evening set	11871 Sep 27 23:12	29°  ♎25'31	
morning max el	11870 Nov 20 23:49	17°  ♎02'46	22°32'40	inferior conj	11871 Oct 06 21:53	25°  ♎25'28	-3°38'03
	11870 Dec 01 04:09	0°  ♏		minimum elong	11871 Oct 06 12:42	25°  ♎39'24	3°34'43
asc. node	11870 Dec 01 16:39	0°  ♏50'08		min. Earth dist.	11871 Oct 08 18:31	24°  ♎17'56	0.55027 AU
morning set	11870 Dec 13 01:18	22°  ♏28'43		morning rise	11871 Oct 15 00:53	21°  ♎13'14	
	11870 Dec 16 13:44	0°  ♏		direct	11871 Oct 19 18:06	20°  ♎24'43	
				morning max el	11871 Nov 02 10:56	27°  ♎09'26	24°20'54
superior conj	11870 Dec 20 01:40	7°  ♏29'42	1°34'56		11871 Nov 05 05:33	0°  ♎	
minimum elong	11870 Dec 20 02:58	7°  ♏36'35	1°35'40	asc. node	11871 Nov 18 13:33	19°  ♎25'04	
max. Earth dist.	11870 Dec 23 14:39	14°  ♏55'24	1.33942 AU		11871 Nov 24 01:56	0°  ♏	
evening rise	11870 Dec 28 03:09	24°  ♏00'06		morning set	11871 Nov 27 13:11	7°  ♏14'57	
	11870 Dec 31 06:36	0°  ♏					
desc. node	11871 Jan 03 22:06	6°  ♏37'14		superior conj	11871 Dec 04 09:06	22°  ♏08'35	1°38'56
	11871 Jan 18 17:37	0°  ♏		minimum elong	11871 Dec 04 09:15	22°  ♏09'22	1°39'43
evening max el	11871 Jan 31 21:58	15°  ♏46'05	27°06'37	max. Earth dist.	11871 Dec 06 14:02	26°  ♏55'48	1.32587 AU
retrograde	11871 Feb 14 07:21	23°  ♏10'14			11871 Dec 08 00:28	0°  ♏	
evening set	11871 Feb 20 22:58	20°  ♏37'21		evening rise	11871 Dec 11 19:21	7°  ♏52'34	
min. Earth dist.	11871 Feb 24 21:28	16°  ♏51'25	0.65367 AU	desc. node	11871 Dec 21 19:04	26°  ♏39'44	
inferior conj	11871 Feb 27 02:56	14°  ♏21'04	-0°09'45		11871 Dec 23 18:09	0°  ♏	
minimum elong	11871 Feb 27 03:12	14°  ♏20'18	0°09'21	evening max el	11872 Jan 14 10:05	29°  ♏01'17	27°30'46
transit middle	11871 Feb 27 03:12	14°  ♏20'18	0°09'21		11872 Jan 15 11:23	0°  ♏	
transit begin	11871 Feb 27 00:46	14°  ♏27'11		retrograde	11872 Jan 28 03:42	6°  ♏24'52	
transit end	11871 Feb 27 05:39	14°  ♏13'25		evening set	11872 Feb 04 01:41	3°  ♏56'59	
asc. node	11871 Feb 27 14:54	13°  ♏47'28		min. Earth dist.	11872 Feb 07 20:16	0°  ♏41'33	0.63574 AU
morning rise	11871 Mar 05 08:55	8°  ♏48'57			11872 Feb 08 12:58	30°  ♏	
direct	11871 Mar 08 02:21	8°  ♏09'08		inferior conj	11872 Feb 10 12:54	27°  ♏57'39	-1°18'25
morning max el	11871 Mar 14 11:05	11°  ♏29'10	18°01'46	minimum elong	11872 Feb 10 15:26	27°  ♏51'13	1°16'52
	11871 Mar 27 12:47	0°  ♏		asc. node	11872 Feb 14 12:15	24°  ♏18'25	
morning set	11871 Apr 01 15:05	8°  ♏19'28		morning rise	11872 Feb 17 07:24	22°  ♏40'45	
desc. node	11871 Apr 01 23:29	8°  ♏53'52		direct	11872 Feb 19 16:58	22°  ♏12'39	
	11871 Apr 15 01:48	0°  ♏		morning max el	11872 Feb 26 04:49	25°  ♏33'02	17°47'30
					11872 Feb 29 23:10	0°  ♏	
superior conj	11871 Apr 16 04:15	1°  ♏44'28	-1°34'20	morning set	11872 Mar 13 15:58	20°  ♏33'25	
minimum elong	11871 Apr 15 19:01	1°  ♏08'04	1°33'42	desc. node	11872 Mar 18 20:06	29°  ♏23'01	
max. Earth dist.	11871 Apr 19 08:01	6°  ♏42'23	1.45578 AU		11872 Mar 19 04:52	0°  ♏	
evening rise	11871 May 02 06:48	26°  ♏48'52					
	11871 May 04 08:26	0°  ♏		superior conj	11872 Mar 26 07:34	11°  ♏49'00	-0°54'47
greatest brilliancy	11871 May 15 14:40	17°  ♏06'36	-0.7m	minimum elong	11872 Mar 26 01:50	11°  ♏25'37	0°54'04
	11871 May 25 00:52	0°  ♏		max. Earth dist.	11872 Apr 01 02:47	21°  ♏09'21	1.44723 AU

	11872 Apr 06 17:52	0°♄		evening rise	11873 Mar 21 11:55	15°♄58'38	
evening rise	11872 Apr 10 18:14	6°♄11'58			11873 Mar 30 16:28	0°♄	
	11872 Apr 26 17:01	0°♄		evening max el	11873 Apr 22 05:58	0°♄03'45	21°47'24
evening max el	11872 May 09 09:52	16°♄17'24	20°34'27		11873 Apr 22 04:29	0°♄	
asc. node	11872 May 12 09:29	18°♄55'45		asc. node	11873 Apr 29 06:45	5°♄06'16	
retrograde	11872 May 17 12:45	20°♄59'56		retrograde	11873 May 01 10:54	5°♄28'44	
evening set	11872 May 21 14:47	19°♄24'41		evening set	11873 May 05 23:27	3°♄37'53	
inferior conj	11872 May 26 21:22	13°♄17'30	3°12'20		11873 May 09 07:17	30°♄	
minimum elong	11872 May 26 20:39	13°♄19'56	3°11'33	inferior conj	11873 May 11 06:07	27°♄20'10	2°58'50
min. Earth dist.	11872 May 27 12:48	12°♄24'23	0.68214 AU	minimum elong	11873 May 11 04:35	27°♄25'31	2°57'58
morning rise	11872 Jun 01 02:15	6°♄58'37		min. Earth dist.	11873 May 11 08:24	27°♄12'11	0.68708 AU
direct	11872 Jun 06 13:45	4°♄33'11		morning rise	11873 May 16 09:32	21°♄06'21	
desc. node	11872 Jun 14 21:05	8°♄35'11		direct	11873 May 21 08:02	18°♄58'46	
morning max el	11872 Jun 17 15:36	11°♄11'03	24°02'46	morning max el	11873 May 31 02:41	24°♄45'04	22°33'05
	11872 Jul 02 15:42	0°♄		desc. node	11873 Jun 01 18:02	26°♄28'13	
	11872 Jul 21 21:39	0°♄			11873 Jun 04 19:36	0°♄	
morning set	11872 Jul 23 01:48	2°♄00'12			11873 Jun 26 02:08	0°♄	
max. Earth dist.	11872 Jul 26 19:22	8°♄31'34	1.38325 AU	morning set	11873 Jul 03 21:26	12°♄23'56	
				max. Earth dist.	11873 Jul 08 17:27	20°♄26'16	1.40637 AU
superior conj	11872 Aug 03 02:48	21°♄59'04	-0°48'11		11873 Jul 14 06:01	0°♄	
minimum elong	11872 Aug 03 06:07	22°♄14'50	0°48'10				
	11872 Aug 07 06:26	0°♄		superior conj	11873 Jul 16 13:19	4°♄06'42	-1°21'53
asc. node	11872 Aug 08 09:02	2°♄10'26		minimum elong	11873 Jul 16 19:04	4°♄32'40	1°21'47
evening rise	11872 Aug 12 00:32	9°♄21'37		asc. node	11873 Jul 26 05:49	22°♄04'46	
	11872 Aug 23 12:16	0°♄		evening rise	11873 Jul 26 15:24	22°♄49'54	
evening max el	11872 Aug 28 09:52	6°♄05'24	18°59'54		11873 Jul 30 11:22	0°♄	
retrograde	11872 Sep 06 04:40	10°♄28'43		evening max el	11873 Aug 11 15:01	18°♄29'09	18°22'30
evening set	11872 Sep 08 01:26	10°♄17'38		retrograde	11873 Aug 19 03:27	22°♄16'28	
desc. node	11872 Sep 10 18:42	9°♄25'06		evening set	11873 Aug 21 06:00	21°♄59'24	
inferior conj	11872 Sep 16 09:55	6°♄02'10	-1°46'08	inferior conj	11873 Aug 28 19:32	17°♄23'32	-0°02'40
minimum elong	11872 Sep 16 05:22	6°♄10'06	1°44'20	minimum elong	11873 Aug 28 19:26	17°♄23'45	0°02'52
min. Earth dist.	11872 Sep 19 07:51	4°♄01'01	0.56361 AU	transit middle	11873 Aug 28 19:26	17°♄23'45	0°02'52
morning rise	11872 Sep 24 06:09	1°♄14'00		transit begin	11873 Aug 28 15:58	17°♄30'48	
direct	11872 Sep 29 18:37	0°♄02'07		transit end	11873 Aug 28 22:54	17°♄16'41	
morning max el	11872 Oct 13 23:15	7°♄19'18	26°00'36	desc. node	11873 Aug 28 16:05	17°♄30'33	
	11872 Oct 30 17:41	0°♄		min. Earth dist.	11873 Sep 01 03:22	14°♄42'12	0.58316 AU
asc. node	11872 Nov 04 10:22	8°♄32'02		morning rise	11873 Sep 05 05:21	11°♄59'12	
morning set	11872 Nov 11 00:15	21°♄55'33		direct	11873 Sep 11 09:38	10°♄19'09	
	11872 Nov 14 17:05	0°♄		morning max el	11873 Sep 25 17:45	17°♄59'26	27°14'57
superior conj	11872 Nov 17 19:39	6°♄53'37	1°36'49		11873 Oct 05 18:43	0°♄	
minimum elong	11872 Nov 17 18:44	6°♄48'31	1°37'28	asc. node	11873 Oct 22 07:07	28°♄02'35	
max. Earth dist.	11872 Nov 18 19:34	9°♄06'08	1.31717 AU		11873 Oct 23 06:28	0°♄	
evening rise	11872 Nov 24 19:44	22°♄05'17		morning set	11873 Oct 26 08:51	6°♄26'08	
	11872 Nov 28 17:08	0°♄					
desc. node	11872 Dec 07 16:05	16°♄17'42		superior conj	11873 Nov 02 07:22	21°♄39'05	1°28'54
	11872 Dec 16 17:27	0°♄		minimum elong	11873 Nov 02 05:38	21°♄29'23	1°29'19
evening max el	11872 Dec 26 18:41	11°♄40'55	27°23'58	max. Earth dist.	11873 Nov 02 04:17	21°♄21'55	1.31347 AU
retrograde	11873 Jan 09 16:25	18°♄58'14			11873 Nov 06 01:34	0°♄	
evening set	11873 Jan 16 15:22	16°♄44'05		evening rise	11873 Nov 09 01:48	6°♄31'55	
min. Earth dist.	11873 Jan 20 09:06	13°♄52'53	0.61535 AU		11873 Nov 21 06:22	0°♄	
inferior conj	11873 Jan 23 10:15	11°♄08'27	-2°34'49	desc. node	11873 Nov 24 13:12	5°♄21'34	
minimum elong	11873 Jan 23 15:35	10°♄56'26	2°32'06	evening max el	11873 Dec 08 21:13	23°♄34'20	26°42'44
morning rise	11873 Jan 30 18:34	6°♄09'34			11873 Dec 18 15:46	0°♄	
asc. node	11873 Jan 31 09:33	5°♄59'44		retrograde	11873 Dec 22 19:56	0°♄42'23	
direct	11873 Feb 01 22:33	5°♄49'28			11873 Dec 26 22:15	30°♄	
morning max el	11873 Feb 08 21:28	9°♄20'13	17°51'07	evening set	11873 Dec 29 12:13	28°♄50'59	
	11873 Feb 22 11:28	0°♄		min. Earth dist.	11874 Jan 02 11:20	26°♄13'40	0.59398 AU
morning set	11873 Feb 24 13:41	3°♄45'45		inferior conj	11874 Jan 05 15:26	23°♄44'25	-3°53'42
desc. node	11873 Mar 05 16:43	19°♄58'56		minimum elong	11874 Jan 05 23:16	23°♄29'01	3°50'26
				morning rise	11874 Jan 13 13:10	19°♄06'13	
superior conj	11873 Mar 07 11:10	23°♄01'56	-0°13'38	direct	11874 Jan 15 15:13	18°♄50'25	
minimum elong	11873 Mar 07 09:56	22°♄56'38	0°13'16	asc. node	11874 Jan 18 06:45	19°♄17'08	
behind sun begin	11873 Mar 07 05:08	22°♄36'04		morning max el	11874 Jan 23 09:26	22°♄40'57	18°13'58
behind sun end	11873 Mar 07 14:44	23°♄17'11			11874 Jan 29 03:04	0°♄	
	11873 Mar 11 14:09	0°♄		morning set	11874 Feb 08 02:14	17°♄38'47	
max. Earth dist.	11873 Mar 14 17:45	5°♄11'26	1.43239 AU		11874 Feb 14 16:10	0°♄	

superior conj	11874 Feb 17 13:56	5° $\text{H}$ 19'04	0°23'11	minimum elong	11875 Jan 31 14:19	18° $\approx$ 41'44	0°53'07
minimum elong	11874 Feb 17 15:39	5° $\text{H}$ 26'50	0°23'19		11875 Feb 06 16:49	0° $\text{H}$	
desc. node	11874 Feb 20 13:21	10° $\text{H}$ 38'07		desc. node	11875 Feb 07 10:01	1° $\text{H}$ 16'54	
max. Earth dist.	11874 Feb 25 04:18	18° $\text{H}$ 37'45	1.41291 AU	max. Earth dist.	11875 Feb 07 11:26	1° $\text{H}$ 23'14	1.39089 AU
evening rise	11874 Mar 01 23:12	26° $\text{H}$ 34'36		evening rise	11875 Feb 11 07:44	8° $\text{H}$ 06'04	
	11874 Mar 04 02:08	0° $\text{Y}$			11875 Feb 25 00:41	0° $\text{Y}$	
	11874 Mar 24 09:35	0° $\text{B}$		evening max el	11875 Mar 18 11:55	27° $\text{Y}$ 42'51	24°27'10
evening max el	11874 Apr 04 22:01	13° $\text{B}$ 52'08	23°07'00		11875 Mar 20 23:01	0° $\text{B}$	
retrograde	11874 Apr 15 06:41	19° $\text{B}$ 58'53		retrograde	11875 Mar 29 23:01	4° $\text{B}$ 25'23	
asc. node	11874 Apr 16 04:02	19° $\text{B}$ 55'09		asc. node	11875 Apr 03 01:21	3° $\text{B}$ 09'36	
evening set	11874 Apr 20 06:38	17° $\text{B}$ 53'25		evening set	11875 Apr 04 10:52	2° $\text{B}$ 07'11	
min. Earth dist.	11874 Apr 25 05:09	12° $\text{B}$ 03'27	0.68739 AU		11875 Apr 06 13:24	30° $\text{R}$ $\text{Y}$	
inferior conj	11874 Apr 25 15:26	11° $\text{B}$ 27'56	2°35'14	min. Earth dist.	11875 Apr 09 00:54	26° $\text{Y}$ 52'59	0.68322 AU
minimum elong	11874 Apr 25 13:23	11° $\text{B}$ 35'00	2°34'17	inferior conj	11875 Apr 09 23:27	25° $\text{Y}$ 37'26	2°01'53
morning rise	11874 Apr 30 20:02	5° $\text{B}$ 20'38		minimum elong	11875 Apr 09 21:18	25° $\text{Y}$ 44'39	2°00'56
direct	11874 May 05 05:25	3° $\text{B}$ 33'54		morning rise	11875 Apr 15 07:52	19° $\text{Y}$ 37'57	
morning max el	11874 May 13 18:19	8° $\text{B}$ 28'46	21°09'07	direct	11875 Apr 19 04:36	18° $\text{Y}$ 12'39	
desc. node	11874 May 19 14:55	15° $\text{B}$ 12'42		morning max el	11875 Apr 26 17:15	22° $\text{Y}$ 25'01	19°56'44
	11874 May 30 08:10	0° $\text{II}$			11875 May 03 03:22	0° $\text{B}$	
morning set	11874 Jun 13 15:26	21° $\text{II}$ 39'16		desc. node	11875 May 06 11:42	4° $\text{B}$ 34'47	
	11874 Jun 18 21:21	0° $\text{B}$		morning set	11875 May 23 16:45	0° $\text{II}$ 14'20	
max. Earth dist.	11874 Jun 20 21:44	3° $\text{B}$ 16'15	1.42751 AU		11875 May 23 13:02	0° $\text{II}$	
				max. Earth dist.	11875 Jun 03 09:16	16° $\text{II}$ 56'34	1.44408 AU
superior conj	11874 Jun 28 02:52	15° $\text{B}$ 17'58	-1°51'14				
minimum elong	11874 Jun 28 09:38	15° $\text{B}$ 46'47	1°51'25	superior conj	11875 Jun 08 16:30	25° $\text{II}$ 27'48	-2°10'01
	11874 Jul 06 12:50	0° $\text{B}$		minimum elong	11875 Jun 08 20:23	25° $\text{II}$ 43'38	2°10'41
evening rise	11874 Jul 09 16:39	5° $\text{B}$ 39'34			11875 Jun 11 11:06	0° $\text{B}$	
asc. node	11874 Jul 13 02:38	11° $\text{B}$ 46'49		evening rise	11875 Jun 21 23:28	17° $\text{B}$ 39'46	
	11874 Jul 24 18:35	0° $\text{B}$			11875 Jun 29 06:06	0° $\text{B}$	
evening max el	11874 Jul 26 02:27	1° $\text{B}$ 25'04	18°05'10	asc. node	11875 Jun 29 23:33	1° $\text{B}$ 11'56	
retrograde	11874 Aug 01 19:50	4° $\text{B}$ 51'31		evening max el	11875 Jul 09 16:25	14° $\text{B}$ 44'10	18°06'51
evening set	11874 Aug 04 06:11	4° $\text{B}$ 24'40		retrograde	11875 Jul 16 01:37	18° $\text{B}$ 04'30	
	11874 Aug 10 12:16	30° $\text{R}$ $\text{B}$		evening set	11875 Jul 18 20:00	17° $\text{B}$ 25'06	
inferior conj	11874 Aug 11 01:47	29° $\text{B}$ 28'14	1°18'40	inferior conj	11875 Jul 25 01:06	12° $\text{B}$ 10'08	2°15'49
minimum elong	11874 Aug 11 03:59	29° $\text{B}$ 23'03	1°17'26	minimum elong	11875 Jul 25 03:44	12° $\text{B}$ 03'04	2°14'28
min. Earth dist.	11874 Aug 14 06:49	26° $\text{B}$ 27'35	0.60566 AU	min. Earth dist.	11875 Jul 27 19:43	9° $\text{B}$ 12'20	0.62813 AU
desc. node	11874 Aug 15 13:29	25° $\text{B}$ 21'24		morning rise	11875 Jul 31 09:33	5° $\text{B}$ 59'01	
morning rise	11874 Aug 17 22:55	23° $\text{B}$ 35'25		desc. node	11875 Aug 02 10:50	4° $\text{B}$ 41'16	
direct	11874 Aug 24 12:42	21° $\text{B}$ 28'05		direct	11875 Aug 07 02:05	3° $\text{B}$ 30'24	
morning max el	11874 Sep 07 19:32	29° $\text{B}$ 23'24	27°53'22	morning max el	11875 Aug 21 03:10	11° $\text{B}$ 32'41	27°53'01
	11874 Sep 08 10:07	0° $\text{B}$			11875 Sep 04 17:19	0° $\text{B}$	
	11874 Sep 29 18:17	0° $\text{B}$			11875 Sep 22 03:47	0° $\text{B}$	
asc. node	11874 Oct 09 03:49	17° $\text{B}$ 49'13		morning set	11875 Sep 24 10:56	4° $\text{B}$ 34'40	
morning set	11874 Oct 10 13:06	20° $\text{B}$ 40'53		asc. node	11875 Sep 26 00:31	7° $\text{B}$ 46'45	
	11874 Oct 14 21:43	0° $\text{B}$		max. Earth dist.	11875 Sep 29 16:18	15° $\text{B}$ 29'24	1.32119 AU
max. Earth dist.	11874 Oct 16 12:31	3° $\text{B}$ 33'05	1.31478 AU				
superior conj	11874 Oct 17 18:22	6° $\text{B}$ 18'20	1°15'25	superior conj	11875 Oct 02 02:49	20° $\text{B}$ 46'21	0°56'31
minimum elong	11874 Oct 17 16:10	6° $\text{B}$ 06'09	1°15'31	minimum elong	11875 Oct 02 00:38	20° $\text{B}$ 34'29	0°56'22
evening rise	11874 Oct 24 11:23	21° $\text{B}$ 05'34			11875 Oct 06 07:48	0° $\text{B}$	
	11874 Oct 28 17:42	0° $\text{B}$		evening rise	11875 Oct 08 22:37	5° $\text{B}$ 41'06	
desc. node	11874 Nov 11 10:23	23° $\text{B}$ 37'23			11875 Oct 21 15:29	0° $\text{B}$	
	11874 Nov 16 08:16	0° $\text{B}$		desc. node	11875 Oct 29 07:39	10° $\text{B}$ 46'58	
evening max el	11874 Nov 20 15:30	4° $\text{B}$ 35'02	25°29'10	evening max el	11875 Nov 02 02:43	14° $\text{B}$ 52'19	23°53'29
retrograde	11874 Dec 04 12:16	11° $\text{B}$ 33'42		retrograde	11875 Nov 15 16:24	21° $\text{B}$ 38'52	
evening set	11874 Dec 10 11:42	10° $\text{B}$ 11'55		evening set	11875 Nov 20 11:02	20° $\text{B}$ 49'01	
min. Earth dist.	11874 Dec 15 03:43	7° $\text{B}$ 33'29	0.57364 AU	min. Earth dist.	11875 Nov 26 13:17	17° $\text{B}$ 50'22	0.55705 AU
inferior conj	11874 Dec 18 01:12	5° $\text{B}$ 35'25	-5°04'05	inferior conj	11875 Nov 28 14:26	16° $\text{B}$ 36'34	-5°47'01
minimum elong	11874 Dec 18 09:11	5° $\text{B}$ 21'49	5°01'34	minimum elong	11875 Nov 28 17:35	16° $\text{B}$ 31'48	5°46'02
morning rise	11874 Dec 26 09:02	1° $\text{B}$ 19'41		morning rise	11875 Dec 07 02:05	12° $\text{B}$ 40'49	
direct	11874 Dec 28 14:39	1° $\text{B}$ 04'37		direct	11875 Dec 09 18:23	12° $\text{B}$ 22'43	
asc. node	11875 Jan 05 03:55	4° $\text{B}$ 10'14		morning max el	11875 Dec 20 04:06	17° $\text{B}$ 19'48	20°04'46
morning max el	11875 Jan 06 12:51	5° $\text{B}$ 24'03	18°57'59	asc. node	11875 Dec 23 01:01	20° $\text{B}$ 26'03	
	11875 Jan 22 00:49	0° $\text{B}$			11875 Dec 29 13:48	0° $\text{B}$	
morning set	11875 Jan 23 00:56	1° $\text{B}$ 58'24		morning set	11876 Jan 07 06:21	16° $\text{B}$ 34'24	
					11876 Jan 13 20:04	0° $\text{B}$	
superior conj	11875 Jan 31 11:27	18° $\text{B}$ 28'04	0°52'57	superior conj	11876 Jan 14 23:04	2° $\text{B}$ 15'47	1°15'02

minimum elong	11876 Jan 15 01:49	2°  29'31	1°15'25	superior conj	11876 Dec 28 20:50	16°  31'06	1°29'40
max. Earth dist.	11876 Jan 20 18:06	13°  32'36	1.36886 AU	minimum elong	11876 Dec 28 22:46	16°  41'07	1°30'17
evening rise	11876 Jan 24 12:15	20°  28'37		max. Earth dist.	11877 Jan 02 05:16	25°  25'23	1.34910 AU
desc. node	11876 Jan 25 06:43	21°  51'33			11877 Jan 04 12:57	0° 	
	11876 Jan 29 23:08	0° 		evening rise	11877 Jan 06 09:32	3°  34'15	
	11876 Feb 19 00:50	0° 		desc. node	11877 Jan 11 03:32	12°  18'14	
evening max el	11876 Feb 29 01:12	11°  33'09	25°40'58		11877 Jan 21 20:33	0° 	
retrograde	11876 Mar 12 10:55	18°  41'32		evening max el	11877 Feb 10 14:47	25°  18'24	26°41'07
evening set	11876 Mar 18 10:30	16°  41'35			11877 Feb 16 07:17	0° 	
asc. node	11876 Mar 19 22:44	14°  48'52		retrograde	11877 Feb 23 17:33	2°  40'29	
min. Earth dist.	11876 Mar 22 17:34	11°  34'42	0.67478 AU	evening set	11877 Mar 02 03:46	0°  07'51	
inferior conj	11876 Mar 24 04:15	9°  44'21	1°18'40		11877 Mar 02 07:38	30° 	
minimum elong	11876 Mar 24 02:30	9°  49'54	1°17'59	min. Earth dist.	11877 Mar 06 05:03	26°  02'51	0.66239 AU
morning rise	11876 Mar 29 19:03	3°  53'58		asc. node	11877 Mar 06 20:06	25°  18'42	
direct	11876 Apr 02 04:04	2°  48'44		inferior conj	11877 Mar 08 03:44	23°  44'36	0°25'27
morning max el	11876 Apr 08 23:51	6°  31'12	18°59'07	minimum elong	11877 Mar 08 03:03	23°  46'37	0°25'21
desc. node	11876 Apr 22 08:24	24°  42'50		morning rise	11877 Mar 14 03:29	18°  05'05	
greatest brilliancy	11876 Apr 22 09:32	24°  28'07	-0.8m	direct	11877 Mar 17 02:06	17°  17'02	
	11876 Apr 26 00:28	0° 		morning max el	11877 Mar 23 12:46	20°  42'13	18°17'48
morning set	11876 May 01 22:12	9°  07'38			11877 Mar 30 20:39	0° 	
	11876 May 15 08:00	0° 		desc. node	11877 Apr 09 05:04	14°  32'46	
max. Earth dist.	11876 May 16 01:44	1°  09'28	1.45433 AU	morning set	11877 Apr 12 03:15	19°  13'08	
					11877 Apr 18 21:48	0° 	
superior conj	11876 May 18 08:38	4°  45'04	-2°11'35	superior conj	11877 Apr 27 15:33	13°  44'54	-1°52'52
minimum elong	11876 May 18 05:22	4°  32'15	2°12'12	minimum elong	11877 Apr 27 06:37	13°  09'56	1°52'40
evening rise	11876 Jun 02 07:16	28°  40'05		max. Earth dist.	11877 Apr 28 20:54	15°  39'34	1.45739 AU
	11876 Jun 03 02:56	0° 			11877 May 08 01:28	0° 	
asc. node	11876 Jun 15 20:33	20°  13'04		evening rise	11877 May 13 15:07	8°  42'05	
evening max el	11876 Jun 22 05:41	28°  17'33	18°26'49	greatest brilliancy	11877 May 24 08:14	25°  12'45	-0.8m
	11876 Jun 24 04:30	0° 			11877 May 27 10:09	0° 	
retrograde	11876 Jun 28 16:15	1°  45'32		asc. node	11877 Jun 02 17:38	8°  41'59	
evening set	11876 Jul 01 18:49	0° 		evening max el	11877 Jun 05 15:41	11°  59'03	19°04'13
	11876 Jul 03 01:15	30° 		retrograde	11877 Jun 12 12:07	15°  47'15	
inferior conj	11876 Jul 07 13:19	25°  20'12	2°51'51	evening set	11877 Jun 15 23:18	14°  37'36	
minimum elong	11876 Jul 07 15:20	25°  14'12	2°50'44	inferior conj	11877 Jun 21 10:47	8°  51'19	3°10'35
min. Earth dist.	11876 Jul 09 18:05	22°  43'56	0.64836 AU	minimum elong	11877 Jun 21 11:46	8°  48'11	3°09'42
morning rise	11876 Jul 13 10:42	19°  00'03		min. Earth dist.	11877 Jun 23 00:44	6°  49'49	0.66498 AU
desc. node	11876 Jul 19 08:07	16°  21'01		morning rise	11877 Jun 26 23:36	2°  28'46	
direct	11876 Jul 20 00:05	16°  19'29			11877 Jul 01 09:30	30° 	
morning max el	11876 Aug 02 13:41	24°  17'29	27°17'36	direct	11877 Jul 03 05:16	29°  46'54	
	11876 Aug 07 17:03	0° 			11877 Jul 05 02:46	0° 	
	11876 Aug 28 03:08	0° 		desc. node	11877 Jul 06 05:20	0°  18'55	
morning set	11876 Sep 06 23:43	18°  00'45		morning max el	11877 Jul 16 00:32	7°  25'30	26°14'41
max. Earth dist.	11876 Sep 11 11:53	27°  02'32	1.33275 AU		11877 Aug 02 13:40	0° 	
asc. node	11876 Sep 11 21:13	27°  00'33			11877 Aug 20 13:13	0° 	
	11876 Sep 12 22:10	0° 		morning set	11877 Aug 21 00:02	0°  50'14	
				max. Earth dist.	11877 Aug 24 21:04	8°  13'18	1.34937 AU
superior conj	11876 Sep 15 06:38	4°  57'22	0°32'29	asc. node	11877 Aug 29 17:54	17°  05'31	
minimum elong	11876 Sep 15 05:05	4°  49'10	0°32'11				
evening rise	11876 Sep 22 09:36	20°  13'19		superior conj	11877 Aug 30 03:21	18°  04'48	0°03'49
	11876 Sep 27 03:26	0° 		minimum elong	11877 Aug 30 03:08	18°  04'45	0°03'31
evening max el	11876 Oct 13 14:16	24°  57'00	22°12'36	behind sun begin	11877 Aug 29 21:17	18°  04'49	
desc. node	11876 Oct 15 05:00	26°  26'12		behind sun end	11877 Aug 30 08:59	19°  04'45	
	11876 Oct 20 14:30	0° 			11877 Sep 04 13:17	0° 	
retrograde	11876 Oct 26 09:04	1°  18'16		evening rise	11877 Sep 06 18:20	4°  36'37	
evening set	11876 Oct 29 16:36	0° 			11877 Sep 20 21:13	0° 	
	11876 Nov 01 10:58	30° 		evening max el	11877 Sep 25 11:27	5°  25'30	20°42'11
inferior conj	11876 Nov 07 11:25	26°  55'54	-5°40'21	desc. node	11877 Oct 02 02:24	10°  05'47	
minimum elong	11876 Nov 07 06:03	27°  03'27	5°39'09	retrograde	11877 Oct 06 20:08	11°  03'53	
min. Earth dist.	11876 Nov 06 20:20	27°  17'07	0.54721 AU	evening set	11877 Oct 09 01:43	10°  05'14	
morning rise	11876 Nov 15 20:52	23°  08'49		inferior conj	11877 Oct 18 03:23	6°  56'46	-4°35'26
direct	11876 Nov 19 06:24	22°  43'05		minimum elong	11877 Oct 17 17:23	7°  11'06	4°32'21
morning max el	11876 Dec 01 05:26	28°  23'52	21°33'38	min. Earth dist.	11877 Oct 19 03:52	6°  21'38	0.54644 AU
	11876 Dec 02 19:48	0° 		morning rise	11877 Oct 26 08:54	2°  59'24	
asc. node	11876 Dec 08 22:03	7°  14'48'04		direct	11877 Oct 30 14:49	2°  20'40	
	11876 Dec 21 00:41	0° 		morning max el	11877 Nov 12 19:31	8°  43'57	23°18'27
morning set	11876 Dec 21 15:56	1°  19'35					

asc. node	11877 Nov 25 19:00	26°♍00'09			11878 Nov 03 15:01	0°♍	
	11877 Nov 28 01:30	0°♊		asc. node	11878 Nov 12 15:53	14°♍50'07	
morning set	11877 Dec 06 03:30	16°♊06'49			11878 Nov 20 05:39	0°♊	
	11877 Dec 12 13:43	0°♊		morning set	11878 Nov 20 15:14	0°♊51'17	
superior conj	11877 Dec 13 01:29	1°♊03'28	1°37'24	superior conj	11878 Nov 27 10:30	15°♊45'36	1°38'44
minimum elong	11877 Dec 13 02:18	1°♊07'49	1°38'10	minimum elong	11878 Nov 27 10:10	15°♊43'48	1°39'30
max. Earth dist.	11877 Dec 16 00:13	7°♊20'26	1.33312 AU	max. Earth dist.	11878 Nov 29 02:44	19°♊26'16	1.32168 AU
evening rise	11877 Dec 20 19:49	17°♊12'17			11878 Dec 04 01:28	0°♊	
	11877 Dec 27 14:19	0°♊		evening rise	11878 Dec 04 15:52	1°♊14'26	
desc. node	11877 Dec 29 00:25	2°♊31'12		desc. node	11878 Dec 15 21:24	22°♊24'14	
	11878 Jan 16 06:08	0°♊			11878 Dec 20 12:57	0°♊	
evening max el	11878 Jan 24 04:04	8°♊48'25	27°20'23	evening max el	11879 Jan 06 15:12	21°♊50'28	27°31'52
retrograde	11878 Feb 06 17:48	16°♊13'14		retrograde	11879 Jan 20 10:45	29°♊10'52	
evening set	11878 Feb 13 12:27	13°♊41'49		evening set	11879 Jan 27 09:57	26°♊48'03	
min. Earth dist.	11878 Feb 17 09:10	10°♊09'02	0.64639 AU	min. Earth dist.	11879 Jan 31 03:51	23°♊43'44	0.62738 AU
inferior conj	11878 Feb 19 19:26	7°♊31'41	-0°37'46	inferior conj	11879 Feb 03 00:26	20°♊58'12	-1°50'04
minimum elong	11878 Feb 19 20:34	7°♊28'37	0°36'54	minimum elong	11879 Feb 03 04:07	20°♊49'18	1°48'01
asc. node	11878 Feb 21 17:28	5°♊30'51		asc. node	11879 Feb 08 14:47	16°♊26'19	
morning rise	11878 Feb 26 06:30	2°♊05'23		morning rise	11879 Feb 10 00:42	15°♊48'19	
direct	11878 Feb 28 20:17	1°♊31'02		direct	11879 Feb 12 07:41	15°♊23'56	
morning max el	11878 Mar 07 05:29	4°♊50'14	17°53'29	morning max el	11879 Feb 18 23:05	18°♊47'23	17°46'43
	11878 Mar 24 02:44	0°♊			11879 Feb 27 04:11	0°♊	
morning set	11878 Mar 24 13:12	0°♊43'42		morning set	11879 Mar 06 23:43	13°♊24'41	
desc. node	11878 Mar 27 01:41	4°♊55'31		desc. node	11879 Mar 13 22:16	25°♊27'39	
					11879 Mar 16 14:24	0°♊	
superior conj	11878 Apr 07 07:10	23°♊14'14	-1°18'16	superior conj	11879 Mar 18 20:27	3°♊46'25	-0°37'03
minimum elong	11878 Apr 06 23:01	22°♊41'39	1°17'32	minimum elong	11879 Mar 18 16:44	3°♊30'55	0°36'28
max. Earth dist.	11878 Apr 11 16:35	0°♊12'10	1.45299 AU	max. Earth dist.	11879 Mar 25 10:23	14°♊31'30	1.44165 AU
	11878 Apr 11 13:30	0°♊		evening rise	11879 Apr 02 18:09	27°♊36'44	
evening rise	11878 Apr 23 05:54	18°♊08'13			11879 Apr 04 07:25	0°♊	
	11878 May 01 00:55	0°♊			11879 Apr 24 21:52	0°♊	
greatest brilliancy	11878 May 08 02:02	10°♊28'34	-0.6m	evening max el	11879 May 02 19:49	9°♊29'25	21°04'25
evening max el	11878 May 19 20:39	25°♊43'59	19°57'37	asc. node	11879 May 07 11:59	13°♊17'49	
asc. node	11878 May 20 14:47	26°♊28'09		retrograde	11879 May 11 09:09	14°♊29'15	
	11878 May 26 14:36	0°♊		evening set	11879 May 15 15:40	12°♊47'03	
retrograde	11878 May 27 10:28	0°♊03'45		inferior conj	11879 May 20 22:01	6°♊35'11	3°07'54
	11878 May 28 06:02	30°♊17'00		minimum elong	11879 May 20 20:55	6°♊38'58	3°07'05
evening set	11878 May 31 06:55	28°♊37'44		min. Earth dist.	11879 May 21 07:42	6°♊01'32	0.68480 AU
inferior conj	11878 Jun 05 14:31	22°♊37'53	3°15'12	morning rise	11879 May 26 01:58	0°♊18'32	
minimum elong	11878 Jun 05 14:23	22°♊38'19	3°14'25		11879 May 26 10:34	30°♊00'18	
min. Earth dist.	11878 Jun 06 13:56	21°♊18'52	0.67721 AU	direct	11879 May 31 08:01	28°♊00'18	
morning rise	11878 Jun 10 21:31	16°♊17'08			11879 Jun 05 20:24	0°♊	
direct	11878 Jun 16 16:16	13°♊43'31		desc. node	11879 Jun 09 23:27	3°♊24'10	
desc. node	11878 Jun 23 02:27	16°♊09'26		morning max el	11879 Jun 10 20:34	4°♊16'11	23°24'31
morning max el	11878 Jun 28 10:32	20°♊46'49	24°53'44		11879 Jun 30 14:18	0°♊	
	11878 Jul 06 09:01	0°♊		morning set	11879 Jul 15 17:38	23°♊54'34	
	11878 Jul 26 18:20	0°♊			11879 Jul 19 07:17	0°♊	
morning set	11878 Aug 03 07:41	12°♊52'35		max. Earth dist.	11879 Jul 19 19:03	0°♊51'03	1.39315 AU
max. Earth dist.	11878 Aug 06 21:33	19°♊19'51	1.37014 AU				
	11878 Aug 12 13:02	0°♊		superior conj	11879 Jul 27 10:19	14°♊35'50	-1°02'41
superior conj	11878 Aug 13 13:52	2°♊01'05	-0°28'34	minimum elong	11879 Jul 27 14:43	14°♊56'21	1°02'35
minimum elong	11878 Aug 13 15:44	2°♊10'14	0°28'40	asc. node	11879 Aug 03 11:20	27°♊59'57	
asc. node	11878 Aug 16 14:37	8°♊01'09			11879 Aug 04 12:08	0°♊	
evening rise	11878 Aug 21 22:30	18°♊45'07		evening rise	11879 Aug 05 19:11	2°♊30'14	
	11878 Aug 27 16:39	0°♊		evening max el	11879 Aug 21 22:01	28°♊38'05	18°41'26
evening max el	11878 Sep 07 22:31	16°♊38'58	19°31'01		11879 Aug 23 10:05	0°♊	
retrograde	11878 Sep 17 14:39	21°♊28'07		retrograde	11879 Aug 30 02:35	2°♊44'41	
desc. node	11878 Sep 18 23:49	21°♊22'36		evening set	11879 Sep 01 01:21	2°♊31'32	
evening set	11878 Sep 19 11:11	21°♊18'15		desc. node	11879 Sep 05 21:15	0°♊21'38	
inferior conj	11878 Sep 28 04:55	17°♊12'39	-2°51'09		11879 Sep 06 10:35	30°♊00'00	
minimum elong	11878 Sep 27 21:26	17°♊24'36	2°48'13	inferior conj	11879 Sep 09 01:53	28°♊07'10	-1°00'04
min. Earth dist.	11878 Sep 30 14:09	15°♊41'33	0.55506 AU	minimum elong	11879 Sep 08 23:25	28°♊11'44	0°59'11
morning rise	11878 Oct 06 05:32	12°♊46'28		min. Earth dist.	11879 Sep 12 05:36	25°♊47'04	0.57135 AU
direct	11878 Oct 11 07:29	11°♊48'43		morning rise	11879 Sep 16 18:06	23°♊03'08	
morning max el	11878 Oct 25 06:03	18°♊47'32	25°05'17	direct	11879 Sep 22 13:44	21°♊39'57	

morning max el	11879 Oct 06 20:41	29° $\mathbb{M}$ 07'19	26°36'11	morning rise	11880 Aug 28 01:06	4° $\mathbb{M}$ 09'08	
	11879 Oct 07 18:02	0° $\mathbb{L}$		direct	11880 Sep 03 10:02	2° $\mathbb{M}$ 17'05	
	11879 Oct 28 08:47	0° $\mathbb{M}$		morning max el	11880 Sep 17 18:34	10° $\mathbb{M}$ 05'30	27°36'05
asc. node	11879 Oct 30 12:39	4° $\mathbb{M}$ 07'48			11880 Oct 03 03:47	0° $\mathbb{L}$	
morning set	11879 Nov 05 01:29	15° $\mathbb{M}$ 28'06		asc. node	11880 Oct 16 09:23	23° $\mathbb{L}$ 45'35	
				morning set	11880 Oct 19 08:29	29° $\mathbb{L}$ 52'26	
					11880 Oct 19 09:55	0° $\mathbb{M}$	
superior conj	11879 Nov 11 21:45	0° $\mathbb{M}$ 31'06	1°34'08	superior conj	11880 Oct 26 09:23	15° $\mathbb{M}$ 14'17	1°23'51
minimum elong	11879 Nov 11 20:27	0° $\mathbb{M}$ 23'51	1°34'43	minimum elong	11880 Oct 26 07:24	15° $\mathbb{M}$ 03'14	1°24'09
	11879 Nov 11 16:10	0° $\mathbb{M}$		max. Earth dist.	11880 Oct 25 19:09	13° $\mathbb{M}$ 55'01	1.31335 AU
max. Earth dist.	11879 Nov 12 10:14	1° $\mathbb{M}$ 40'33	1.31504 AU	evening rise	11880 Nov 02 02:43	0° $\mathbb{M}$ 13'10	
evening rise	11879 Nov 18 18:56	15° $\mathbb{M}$ 33'26			11880 Nov 02 02:08	0° $\mathbb{M}$	
	11879 Nov 26 00:29	0° $\mathbb{L}$			11880 Nov 18 06:33	0° $\mathbb{L}$	
desc. node	11879 Dec 02 18:28	11° $\mathbb{L}$ 49'07		desc. node	11880 Nov 18 15:38	0° $\mathbb{L}$ 34'28	
	11879 Dec 15 20:53	0° $\mathbb{M}$		evening max el	11880 Nov 30 20:25	15° $\mathbb{L}$ 41'29	26°14'57
evening max el	11879 Dec 19 21:30	4° $\mathbb{M}$ 11'22	27°10'32	retrograde	11880 Dec 14 18:51	22° $\mathbb{L}$ 46'28	
retrograde	11880 Jan 02 19:33	11° $\mathbb{M}$ 24'30		evening set	11880 Dec 21 05:24	21° $\mathbb{L}$ 06'41	
evening set	11880 Jan 09 17:00	9° $\mathbb{M}$ 18'44		min. Earth dist.	11880 Dec 25 09:42	18° $\mathbb{L}$ 31'09	0.58502 AU
min. Earth dist.	11880 Jan 13 11:55	6° $\mathbb{M}$ 35'18	0.60634 AU	inferior conj	11880 Dec 28 12:37	16° $\mathbb{L}$ 12'55	-4°25'36
inferior conj	11880 Jan 16 15:21	3° $\mathbb{M}$ 55'20	-3°08'26	minimum elong	11880 Dec 28 20:58	15° $\mathbb{L}$ 57'28	4°22'27
minimum elong	11880 Jan 16 21:52	3° $\mathbb{M}$ 41'28	3°05'22	morning rise	11881 Jan 05 15:18	11° $\mathbb{L}$ 44'38	
	11880 Jan 21 23:58	30° $\mathbb{R}$		direct	11881 Jan 07 17:57	11° $\mathbb{L}$ 29'42	
morning rise	11880 Jan 24 05:35	29° $\mathbb{L}$ 05'07		asc. node	11881 Jan 12 09:14	12° $\mathbb{L}$ 46'24	
direct	11880 Jan 26 08:21	28° $\mathbb{L}$ 47'12		morning max el	11881 Jan 15 23:10	15° $\mathbb{L}$ 31'19	18°30'02
asc. node	11880 Jan 26 12:02	28° $\mathbb{L}$ 47'18			11881 Jan 26 00:30	0° $\mathbb{M}$	
	11880 Jan 30 12:28	0° $\mathbb{M}$		morning set	11881 Jan 31 21:47	11° $\mathbb{M}$ 02'04	
morning max el	11880 Feb 02 14:14	2° $\mathbb{M}$ 24'47	17°58'25				
morning set	11880 Feb 18 04:25	26° $\mathbb{M}$ 56'32		superior conj	11881 Feb 09 21:50	28° $\mathbb{M}$ 09'44	0°36'43
	11880 Feb 19 20:20	0° $\mathbb{M}$		minimum elong	11881 Feb 10 00:14	28° $\mathbb{M}$ 20'50	0°36'50
					11881 Feb 10 21:45	0° $\mathbb{M}$	
superior conj	11880 Feb 28 10:26	15° $\mathbb{M}$ 28'35	0°02'45	desc. node	11881 Feb 14 15:31	6° $\mathbb{M}$ 44'55	
minimum elong	11880 Feb 28 10:42	15° $\mathbb{M}$ 29'44	0°03'00	max. Earth dist.	11881 Feb 17 08:21	11° $\mathbb{M}$ 28'41	1.40366 AU
behind sun begin	11880 Feb 28 02:46	14° $\mathbb{M}$ 54'58		evening rise	11881 Feb 21 14:43	18° $\mathbb{M}$ 42'07	
behind sun end	11880 Feb 28 18:37	16° $\mathbb{M}$ 04'24			11881 Feb 28 15:11	0° $\mathbb{Y}$	
desc. node	11880 Feb 28 18:54	16° $\mathbb{M}$ 05'40			11881 Mar 21 21:07	0° $\mathbb{L}$	
max. Earth dist.	11880 Mar 06 23:56	28° $\mathbb{M}$ 21'21	1.42455 AU	evening max el	11881 Mar 28 04:38	7° $\mathbb{L}$ 04'51	23°41'22
	11880 Mar 07 23:52	0° $\mathbb{Y}$		retrograde	11881 Apr 08 01:09	13° $\mathbb{L}$ 28'37	
evening rise	11880 Mar 12 18:28	7° $\mathbb{Y}$ 42'36		asc. node	11881 Apr 10 06:35	13° $\mathbb{L}$ 05'35	
	11880 Mar 27 11:38	0° $\mathbb{L}$		evening set	11881 Apr 13 06:03	11° $\mathbb{L}$ 17'28	
evening max el	11880 Apr 14 13:53	23° $\mathbb{L}$ 16'06	22°20'43	min. Earth dist.	11881 Apr 18 00:43	5° $\mathbb{L}$ 42'33	0.68613 AU
asc. node	11880 Apr 23 09:15	28° $\mathbb{L}$ 55'47		inferior conj	11881 Apr 18 16:14	4° $\mathbb{L}$ 49'23	2°22'16
retrograde	11880 Apr 24 06:32	28° $\mathbb{L}$ 59'32		minimum elong	11881 Apr 18 14:06	4° $\mathbb{L}$ 56'44	2°21'19
evening set	11880 Apr 28 23:54	27° $\mathbb{L}$ 02'02			11881 Apr 22 13:08	30° $\mathbb{R}$	
inferior conj	11880 May 04 07:14	20° $\mathbb{L}$ 40'25	2°50'03	morning rise	11881 Apr 23 22:08	28° $\mathbb{Y}$ 45'04	
minimum elong	11880 May 04 05:26	20° $\mathbb{L}$ 46'40	2°49'08	direct	11881 Apr 28 01:57	27° $\mathbb{Y}$ 07'38	
min. Earth dist.	11880 May 04 04:01	20° $\mathbb{L}$ 51'37	0.68775 AU		11881 May 04 06:46	0° $\mathbb{L}$	
morning rise	11880 May 09 10:50	14° $\mathbb{L}$ 29'20		morning max el	11881 May 06 03:55	1° $\mathbb{L}$ 43'32	20°36'34
direct	11880 May 14 03:38	12° $\mathbb{L}$ 30'40		desc. node	11881 May 13 17:10	10° $\mathbb{L}$ 42'46	
morning max el	11880 May 23 09:22	17° $\mathbb{L}$ 54'37	21°56'19		11881 May 27 03:45	0° $\mathbb{L}$	
desc. node	11880 May 26 20:21	21° $\mathbb{L}$ 41'04		morning set	11881 Jun 04 11:03	12° $\mathbb{L}$ 40'19	
	11880 Jun 02 09:23	0° $\mathbb{L}$		max. Earth dist.	11881 Jun 13 02:16	26° $\mathbb{L}$ 18'50	1.43522 AU
	11880 Jun 22 16:44	0° $\mathbb{L}$			11881 Jun 15 08:52	0° $\mathbb{L}$	
morning set	11880 Jun 25 02:06	3° $\mathbb{L}$ 48'06		superior conj	11881 Jun 19 15:51	7° $\mathbb{L}$ 04'23	-2°00'55
max. Earth dist.	11880 Jun 30 19:31	13° $\mathbb{L}$ 08'59	1.41575 AU	minimum elong	11881 Jun 19 22:00	7° $\mathbb{L}$ 30'02	2°01'19
				evening rise	11881 Jul 01 22:48	28° $\mathbb{L}$ 12'38	
superior conj	11880 Jul 08 12:21	26° $\mathbb{L}$ 19'40	-1°35'12		11881 Jul 02 23:14	0° $\mathbb{L}$	
minimum elong	11880 Jul 08 18:51	26° $\mathbb{L}$ 48'16	1°35'10	asc. node	11881 Jul 07 05:00	7° $\mathbb{L}$ 24'39	
	11880 Jul 10 14:05	0° $\mathbb{L}$		evening max el	11881 Jul 18 19:10	24° $\mathbb{L}$ 22'22	18°03'40
evening rise	11880 Jul 19 04:47	15° $\mathbb{L}$ 43'07		retrograde	11881 Jul 25 07:54	27° $\mathbb{L}$ 44'26	
asc. node	11880 Jul 20 08:07	17° $\mathbb{L}$ 49'18		evening set	11881 Jul 27 21:35	27° $\mathbb{L}$ 12'39	
	11880 Jul 27 03:33	0° $\mathbb{M}$		inferior conj	11881 Aug 03 10:36	22° $\mathbb{L}$ 08'25	1°45'42
evening max el	11880 Aug 04 06:13	11° $\mathbb{M}$ 15'43	18°12'44	minimum elong	11881 Aug 03 13:09	22° $\mathbb{L}$ 02'00	1°44'21
retrograde	11880 Aug 11 09:23	14° $\mathbb{M}$ 52'43		min. Earth dist.	11881 Aug 06 12:01	19° $\mathbb{L}$ 06'01	0.61534 AU
evening set	11880 Aug 13 15:00	14° $\mathbb{M}$ 32'01		desc. node	11881 Aug 09 16:00	16° $\mathbb{L}$ 24'28	
inferior conj	11880 Aug 20 20:36	9° $\mathbb{M}$ 47'13	0°34'51	morning rise	11881 Aug 10 02:11	16° $\mathbb{L}$ 06'31	
minimum elong	11880 Aug 20 21:44	9° $\mathbb{M}$ 44'44	0°34'04				
desc. node	11880 Aug 22 18:39	8° $\mathbb{M}$ 06'30					
min. Earth dist.	11880 Aug 24 04:27	6° $\mathbb{M}$ 54'44	0.59249 AU				

direct	11881 Aug 16 18:04	13° $\Omega$ 48'43		morning rise	11882 Jul 23 19:21	28° $\Theta$ 46'59	
morning max el	11881 Aug 30 23:04	21° $\Omega$ 48'56	27°57'51	desc. node	11882 Jul 27 13:20	26° $\Theta$ 40'49	
	11881 Sep 07 03:02	0° $\Pi$		direct	11882 Jul 30 11:23	26° $\Theta$ 11'52	
	11881 Sep 26 06:41	0° $\Omega$			11882 Aug 08 13:59	0° $\Omega$	
morning set	11881 Oct 03 10:19	13° $\Omega$ 59'07		morning max el	11882 Aug 13 08:00	4° $\Omega$ 13'26	27°41'51
asc. node	11881 Oct 03 06:06	13° $\Omega$ 37'24			11882 Sep 01 17:30	0° $\Pi$	
max. Earth dist.	11881 Oct 09 01:46	26° $\Omega$ 00'05	1.31677 AU	morning set	11882 Sep 17 04:36	27° $\Pi$ 41'20	
					11882 Sep 18 08:13	0° $\Omega$	
superior conj	11881 Oct 10 19:34	29° $\Omega$ 49'44	1°08'04	asc. node	11882 Sep 20 02:47	3° $\Omega$ 37'44	
minimum elong	11881 Oct 10 17:19	29° $\Omega$ 37'19	1°08'03	max. Earth dist.	11882 Sep 22 02:20	7° $\Omega$ 46'09	1.32545 AU
	11881 Oct 10 21:26	0° $\Pi$					
evening rise	11881 Oct 17 13:14	14° $\Pi$ 38'17		superior conj	11882 Sep 25 02:19	14° $\Omega$ 10'58	0°46'58
	11881 Oct 25 02:43	0° $\Sigma$		minimum elong	11882 Sep 25 00:20	14° $\Omega$ 00'14	0°46'42
desc. node	11881 Nov 05 12:52	18° $\Sigma$ 25'03		evening rise	11882 Oct 02 00:35	29° $\Omega$ 12'43	
evening max el	11881 Nov 12 11:20	26° $\Sigma$ 22'06	24°50'27		11882 Oct 02 09:26	0° $\Pi$	
	11881 Nov 16 21:39	0° $\Sigma$			11882 Oct 19 06:09	0° $\Sigma$	
retrograde	11881 Nov 26 06:34	3° $\Sigma$ 16'45		desc. node	11882 Oct 23 10:12	4° $\Sigma$ 59'14	
evening set	11881 Dec 01 18:47	2° $\Sigma$ 08'59		evening max el	11882 Oct 24 21:43	6° $\Sigma$ 29'35	23°10'17
	11881 Dec 05 23:47	30° $\Sigma$ 29'50		retrograde	11882 Nov 07 04:58	13° $\Sigma$ 06'41	
min. Earth dist.	11881 Dec 06 23:08	29° $\Sigma$ 24'03	0.56589 AU	evening set	11882 Nov 11 08:44	12° $\Sigma$ 29'10	
inferior conj	11881 Dec 09 13:40	27° $\Sigma$ 43'28	-5°27'03	min. Earth dist.	11882 Nov 18 07:09	9° $\Sigma$ 16'27	0.55190 AU
minimum elong	11881 Dec 09 20:17	27° $\Sigma$ 32'46	5°25'13	inferior conj	11882 Nov 19 19:01	8° $\Sigma$ 24'37	-5°51'18
morning rise	11881 Dec 17 23:58	23° $\Sigma$ 36'42		minimum elong	11882 Nov 19 18:39	8° $\Sigma$ 25'09	5°50'35
direct	11881 Dec 20 09:00	23° $\Sigma$ 20'56		morning rise	11882 Nov 28 06:11	4° $\Sigma$ 34'13	
morning max el	11881 Dec 29 21:54	27° $\Sigma$ 56'01	19°23'28	direct	11882 Dec 01 05:26	4° $\Sigma$ 13'16	
asc. node	11881 Dec 30 06:23	28° $\Sigma$ 16'47		morning max el	11882 Dec 12 07:04	9° $\Sigma$ 28'40	20°40'01
	11881 Dec 31 20:48	0° $\Sigma$		asc. node	11882 Dec 17 03:27	15° $\Sigma$ 02'08	
morning set	11882 Jan 15 23:46	25° $\Sigma$ 29'50			11882 Dec 26 05:13	0° $\Sigma$	
	11882 Jan 18 05:38	0° $\approx$		morning set	11882 Dec 31 07:16	10° $\Sigma$ 10'26	
superior conj	11882 Jan 24 01:55	11° $\approx$ 36'46	1°03'14	superior conj	11883 Jan 07 18:17	25° $\Sigma$ 36'57	1°22'06
minimum elong	11882 Jan 24 04:51	11° $\approx$ 51'03	1°03'28	minimum elong	11883 Jan 07 20:44	25° $\Sigma$ 49'28	1°22'36
max. Earth dist.	11882 Jan 30 14:28	23° $\approx$ 55'56	1.38143 AU		11883 Jan 09 22:20	0° $\approx$	
desc. node	11882 Feb 01 12:14	27° $\approx$ 22'30		max. Earth dist.	11883 Jan 12 22:50	5° $\approx$ 56'49	1.36013 AU
	11882 Feb 02 23:48	0° $\text{X}$		evening rise	11883 Jan 16 20:18	13° $\approx$ 18'40	
evening rise	11882 Feb 03 08:11	0° $\text{X}$ 36'46		desc. node	11883 Jan 19 09:01	17° $\approx$ 54'14	
	11882 Feb 21 21:44	0° $\Upsilon$			11883 Jan 26 11:05	0° $\text{X}$	
evening max el	11882 Mar 10 18:15	20° $\Upsilon$ 56'05	24°59'45		11883 Feb 16 20:12	0° $\Upsilon$	
retrograde	11882 Mar 22 15:45	27° $\Upsilon$ 50'58		evening max el	11883 Feb 21 07:53	4° $\Upsilon$ 45'59	26°08'40
evening set	11882 Mar 28 08:31	25° $\Upsilon$ 28'33		retrograde	11883 Mar 06 01:22	12° $\Upsilon$ 00'43	
asc. node	11882 Mar 28 03:56	25° $\Upsilon$ 38'07		evening set	11883 Mar 12 05:42	9° $\Upsilon$ 30'27	
min. Earth dist.	11882 Apr 01 19:32	20° $\Upsilon$ 29'05	0.68017 AU	asc. node	11883 Mar 15 01:19	6° $\Upsilon$ 43'13	
inferior conj	11882 Apr 02 23:09	18° $\Upsilon$ 58'16	1°44'45	min. Earth dist.	11883 Mar 16 10:17	5° $\Upsilon$ 05'59	0.67004 AU
minimum elong	11882 Apr 02 21:07	19° $\Upsilon$ 05'00	1°43'54	inferior conj	11883 Mar 18 02:01	3° $\Upsilon$ 03'09	0°57'21
morning rise	11882 Apr 08 09:58	13° $\Upsilon$ 02'09		minimum elong	11883 Mar 18 00:38	3° $\Upsilon$ 07'25	0°56'52
direct	11882 Apr 12 01:35	11° $\Upsilon$ 45'32			11883 Mar 20 16:13	30° $\text{X}$	
morning max el	11882 Apr 19 06:04	15° $\Upsilon$ 43'42	19°30'08	morning rise	11883 Mar 23 20:19	27° $\text{X}$ 17'01	
	11882 Apr 30 09:12	0° $\text{X}$		direct	11883 Mar 27 00:50	26° $\text{X}$ 19'18	
desc. node	11882 Apr 30 13:55	0° $\text{X}$ 17'05		morning max el	11883 Apr 02 15:35	29° $\text{X}$ 52'35	18°39'26
greatest brilliancy	11882 May 01 22:35	2° $\text{X}$ 16'39	-0.7m		11883 Apr 02 18:36	0° $\Upsilon$	
morning set	11882 May 14 11:07	21° $\text{X}$ 14'03		desc. node	11883 Apr 17 10:36	20° $\Upsilon$ 15'26	
	11882 May 20 03:09	0° $\Pi$			11883 Apr 23 16:20	0° $\text{X}$	
max. Earth dist.	11882 May 26 15:58	10° $\Pi$ 13'57	1.44933 AU	morning set	11883 Apr 24 01:08	0° $\text{X}$ 34'30	
				max. Earth dist.	11883 May 09 10:30	24° $\text{X}$ 38'29	1.45660 AU
superior conj	11882 May 30 19:32	16° $\Pi$ 49'21	-2°13'07	superior conj	11883 May 10 05:44	25° $\text{X}$ 53'43	-2°06'02
minimum elong	11882 May 30 20:43	16° $\Pi$ 54'05	2°13'52	minimum elong	11883 May 09 23:25	25° $\text{X}$ 29'00	2°06'20
	11882 Jun 07 22:37	0° $\Theta$			11883 May 12 20:37	0° $\Pi$	
evening rise	11882 Jun 13 20:13	9° $\Theta$ 47'21		evening rise	11883 May 25 17:37	20° $\Pi$ 22'07	
asc. node	11882 Jun 24 01:58	26° $\Theta$ 40'08			11883 May 31 18:25	0° $\Theta$	
	11882 Jun 26 06:10	0° $\Omega$					
evening max el	11882 Jul 02 09:16	7° $\Omega$ 48'32	18°13'14	greatest brilliancy	11883 Jun 02 05:30	2° $\Theta$ 19'07	-0.9m
retrograde	11882 Jul 08 17:47	11° $\Omega$ 10'07		asc. node	11883 Jun 10 23:00	15° $\Theta$ 28'50	
evening set	11882 Jul 11 15:43	10° $\Omega$ 24'38		evening max el	11883 Jun 15 21:29	21° $\Theta$ 26'31	18°40'40
inferior conj	11882 Jul 17 15:51	5° $\Omega$ 02'37	2°33'26	retrograde	11883 Jun 22 11:06	25° $\Theta$ 01'21	
minimum elong	11882 Jul 17 18:18	4° $\Omega$ 55'43	2°32'11	evening set	11883 Jun 25 17:21	24° $\Theta$ 00'40	
min. Earth dist.	11882 Jul 20 04:52	2° $\Omega$ 12'01	0.63715 AU	inferior conj	11883 Jul 01 08:26	18° $\Theta$ 22'33	3°01'41
	11882 Jul 22 09:07	30° $\text{R}$ $\Theta$		minimum elong	11883 Jul 01 10:02	18° $\Theta$ 17'38	3°00'41



min. Earth dist.	11883 Jul 03 06:48	16°00'11	0.65596 AU	inferior conj	11884 Jun 14 08:54	2°00'48	3°14'07
morning rise	11883 Jul 07 01:52	12°00'56		minimum elong	11884 Jun 14 09:24	1°59'10	3°13'17
direct	11883 Jul 13 12:25	9°08'52		min. Earth dist.	11884 Jun 15 16:30	0°16'58	0.67074 AU
desc. node	11883 Jul 14 10:34	9°02'52			11884 Jun 15 21:44	30°R II	
morning max el	11883 Jul 26 18:55	17°09'40	26°53'43	morning rise	11884 Jun 19 18:54	25°II38'30	
	11883 Aug 06 11:37	0°0		direct	11884 Jun 25 20:02	22°II59'23	
	11883 Aug 25 14:57	0°0		desc. node	11884 Jun 30 07:43	24°II10'50	
morning set	11883 Aug 31 12:30	10°05'23			11884 Jul 07 19:43	0°0	
max. Earth dist.	11883 Sep 04 17:49	19°09'48	1.33932 AU	morning max el	11884 Jul 08 05:40	0°02'45	25°41'52
asc. node	11883 Sep 06 23:29	23°04'49			11884 Jul 30 10:07	0°0	
				morning set	11884 Aug 13 06:16	23°02'31	
superior conj	11883 Sep 09 03:26	28°01'23	0°20'51		11884 Aug 16 19:36	0°0	
minimum elong	11883 Sep 09 02:22	28°06'56	0°20'32	max. Earth dist.	11884 Aug 16 23:05	0°01'63	1.35781 AU
	11883 Sep 09 23:54	0°0					
evening rise	11883 Sep 16 10:52	13°04'51		superior conj	11884 Aug 22 20:09	11°04'05	-0°09'37
	11883 Sep 24 16:39	0°0		minimum elong	11884 Aug 22 20:45	11°05'05	0°09'49
evening max el	11883 Oct 06 12:14	16°03'19	21°32'01	behind sun begin	11884 Aug 22 15:47	11°02'50	
desc. node	11883 Oct 10 07:33	19°05'39		behind sun end	11884 Aug 23 01:43	12°01'50	
retrograde	11883 Oct 18 17:43	22°04'40		asc. node	11884 Aug 23 20:12	13°04'48	
evening set	11883 Oct 21 12:34	22°02'21		evening rise	11884 Aug 30 17:57	27°05'24	
inferior conj	11883 Oct 30 11:58	18°03'02	-5°19'23		11884 Aug 31 17:33	0°0	
minimum elong	11883 Oct 30 03:43	18°04'34	5°17'22	evening max el	11884 Sep 17 15:02	27°02'45	20°09'15
min. Earth dist.	11883 Oct 30 13:36	18°02'44	0.54576 AU		11884 Sep 20 15:23	0°0	
morning rise	11883 Nov 07 19:50	14°04'34		desc. node	11884 Sep 26 04:56	2°03'13	
direct	11883 Nov 11 14:02	14°01'20		retrograde	11884 Sep 28 06:50	2°04'25	
morning max el	11883 Nov 24 02:47	20°01'37	22°17'03	evening set	11884 Sep 30 06:26	2°03'24	
	11883 Dec 02 05:02	0°0			11884 Oct 06 19:25	30°R 0	
asc. node	11883 Dec 04 00:26	2°04'46		inferior conj	11884 Oct 09 06:21	28°03'42	-3°54'06
morning set	11883 Dec 15 17:54	24°05'49		minimum elong	11884 Oct 08 20:44	28°04'48	3°50'43
	11883 Dec 18 02:55	0°0		min. Earth dist.	11884 Oct 10 22:04	27°03'51	0.54896 AU
				morning rise	11884 Oct 17 10:01	24°02'29	
superior conj	11883 Dec 22 19:17	9°05'58	1°33'45	direct	11884 Oct 22 00:16	23°04'40	
minimum elong	11883 Dec 22 20:45	10°07'43	1°34'28		11884 Nov 04 05:44	0°0	
max. Earth dist.	11883 Dec 26 13:17	17°04'08	1.34176 AU	morning max el	11884 Nov 04 14:29	0°02'20	24°04'51
evening rise	11883 Dec 30 23:28	26°03'8		asc. node	11884 Nov 19 21:20	21°01'57	
	11884 Jan 01 17:37	0°0			11884 Nov 24 12:48	0°0	
desc. node	11884 Jan 06 05:52	8°01'52		morning set	11884 Nov 29 05:44	9°04'43	
	11884 Jan 19 19:40	0°0					
evening max el	11884 Feb 03 21:25	18°02'42	27°00'47	superior conj	11884 Dec 06 02:04	24°04'37	1°38'43
retrograde	11884 Feb 17 05:14	25°04'46		minimum elong	11884 Dec 06 02:23	24°04'39	1°39'31
evening set	11884 Feb 23 19:35	23°04'16		max. Earth dist.	11884 Dec 08 11:31	29°04'48	1.32757 AU
min. Earth dist.	11884 Feb 27 18:42	19°02'58	0.65602 AU		11884 Dec 08 13:44	0°0	
inferior conj	11884 Feb 29 22:30	16°05'19	-0°00'08	evening rise	11884 Dec 13 14:15	10°03'27	
minimum elong	11884 Feb 29 22:30	16°05'19	0°00'07	desc. node	11884 Dec 23 02:47	28°03'20	
transit middle	11884 Feb 29 22:30	16°05'19	0°00'07		11884 Dec 24 01:46	0°0	
transit begin	11884 Feb 29 19:31	17°06'52			11885 Jan 14 15:34	0°0	
transit end	11884 Mar 01 01:29	16°04'48		evening max el	11885 Jan 16 09:50	1°04'45	27°29'00
asc. node	11884 Feb 29 22:41	16°05'49		retrograde	11885 Jan 30 02:41	9°04'09	
morning rise	11884 Mar 07 02:48	11°04'20		evening set	11885 Feb 05 23:55	6°04'40	
direct	11884 Mar 09 21:31	10°04'23		min. Earth dist.	11885 Feb 09 18:57	3°04'20	0.63858 AU
morning max el	11884 Mar 16 06:31	14°03'28	18°05'24	inferior conj	11885 Feb 12 10:01	0°04'37	-1°07'23
	11884 Mar 27 19:18	0°0		minimum elong	11885 Feb 12 12:09	0°04'32	1°06'03
desc. node	11884 Apr 03 07:15	10°03'45			11885 Feb 13 00:42	30°R 0	
morning set	11884 Apr 03 18:38	11°03'17		asc. node	11885 Feb 15 19:59	27°02'21	
	11884 Apr 15 10:05	0°0		morning rise	11885 Feb 19 02:32	25°01'48	
				direct	11885 Feb 21 13:05	24°01'48	
superior conj	11884 Apr 18 14:12	5°00'26	-1°39'37	morning max el	11885 Feb 28 00:05	28°01'08	17°48'29
minimum elong	11884 Apr 18 04:51	4°02'35	1°39'06		11885 Mar 01 17:22	0°0	
max. Earth dist.	11884 Apr 21 06:36	9°01'30	1.45642 AU	morning set	11885 Mar 16 15:49	23°04'20	
evening rise	11884 May 04 16:54	0°02'05			11885 Mar 20 14:03	0°0	
	11884 May 04 15:32	0°0		desc. node	11885 Mar 21 03:52	0°05'58	
greatest brilliancy	11884 May 17 09:36	19°02'30	-0.7m				
	11884 May 24 19:25	0°0		superior conj	11885 Mar 29 14:13	14°05'55	-1°01'04
asc. node	11884 May 27 20:07	3°04'40		minimum elong	11885 Mar 29 07:48	14°05'29	1°00'20
evening max el	11884 May 29 05:25	5°09'21	19°25'01	max. Earth dist.	11885 Apr 04 01:27	23°04'41	1.44894 AU
retrograde	11884 Jun 05 08:25	9°01'00			11885 Apr 08 01:51	0°0	
evening set	11884 Jun 08 23:27	7°05'32		evening rise	11885 Apr 14 04:39	9°08'27	

	11885 Apr 27 20:59	0°♂		asc. node	11886 May 01 14:29	7°♂26'20	
evening max el	11885 May 12 07:51	18°♂54'26	20°24'29	retrograde	11886 May 04 05:31	7°♂59'07	
asc. node	11885 May 14 17:16	21°♂04'50		evening set	11886 May 08 16:30	6°♂10'31	
retrograde	11885 May 20 07:15	23°♂30'53		inferior conj	11886 May 13 23:01	29°♂54'23	3°01'34
evening set	11885 May 24 07:46	21°♂58'07		minimum elong	11886 May 13 21:36	29°♂59'20	3°00'43
inferior conj	11885 May 29 14:31	15°♂52'47	3°13'28		11886 May 13 21:25	30°♂♂	
minimum elong	11885 May 29 13:58	15°♂54'42	3°12'40	min. Earth dist.	11886 May 14 03:14	29°♂39'40	0.68664 AU
min. Earth dist.	11885 May 30 08:02	14°♂52'46	0.68103 AU	morning rise	11886 May 19 02:29	23°♂39'47	
morning rise	11885 Jun 03 19:53	9°♂33'15		direct	11886 May 24 03:00	21°♂29'14	
direct	11885 Jun 09 09:18	7°♂05'24		morning max el	11886 Jun 03 02:12	27°♂23'07	22°46'18
desc. node	11885 Jun 17 04:47	10°♂40'10		desc. node	11886 Jun 04 01:46	28°♂23'55	
morning max el	11885 Jun 20 15:33	13°♂50'26	24°16'04		11886 Jun 05 12:59	0°♂	
	11885 Jul 03 18:22	0°♂			11886 Jun 27 08:53	0°♂	
	11885 Jul 23 06:39	0°♂		morning set	11886 Jul 07 04:47	15°♂35'37	
morning set	11885 Jul 26 05:18	5°♂01'31		max. Earth dist.	11886 Jul 11 18:51	23°♂16'29	1.40300 AU
max. Earth dist.	11885 Jul 29 21:03	11°♂28'05	1.37978 AU		11886 Jul 15 16:02	0°♂	
superior conj	11885 Aug 06 01:10	24°♂46'38	-0°43'01	superior conj	11886 Jul 19 14:26	7°♂01'59	-1°16'56
minimum elong	11885 Aug 06 04:06	25°♂00'40	0°43'01	minimum elong	11886 Jul 19 19:53	7°♂26'41	1°16'49
	11885 Aug 08 17:54	0°♂		asc. node	11886 Jul 28 13:40	23°♂46'41	
asc. node	11885 Aug 10 16:55	3°♂50'58		evening rise	11886 Jul 29 11:48	25°♂31'45	
evening rise	11885 Aug 14 19:18	11°♂58'40			11886 Jul 31 20:32	0°♂	
	11885 Aug 24 13:01	0°♂		evening max el	11886 Aug 14 11:40	21°♂16'23	18°26'46
evening max el	11885 Aug 31 07:49	8°♂58'37	19°07'20	retrograde	11886 Aug 22 03:49	25°♂08'09	
retrograde	11885 Sep 09 07:55	13°♂28'13		evening set	11886 Aug 24 05:23	24°♂52'10	
evening set	11885 Sep 11 04:19	13°♂17'37		desc. node	11886 Aug 30 23:45	21°♂02'34	
desc. node	11885 Sep 13 02:21	12°♂45'44		inferior conj	11886 Aug 31 21:45	20°♂19'15	-0°17'04
inferior conj	11885 Sep 19 15:25	9°♂05'03	-2°03'06	minimum elong	11886 Aug 31 21:06	20°♂20'33	0°17'02
minimum elong	11885 Sep 19 10:04	9°♂14'08	2°00'57	min. Earth dist.	11886 Sep 04 04:58	17°♂42'53	0.57999 AU
min. Earth dist.	11885 Sep 22 10:38	7°♂11'18	0.56114 AU	morning rise	11886 Sep 08 09:20	15°♂00'06	
morning rise	11885 Sep 27 12:53	4°♂22'44		direct	11886 Sep 14 11:36	13°♂24'29	
direct	11885 Oct 02 22:48	3°♂14'34		morning max el	11886 Sep 28 19:27	21°♂01'20	27°06'00
morning max el	11885 Oct 17 02:05	10°♂27'26	25°46'58		11886 Oct 06 14:46	0°♂	
	11885 Oct 31 22:46	0°♂		asc. node	11886 Oct 24 14:58	29°♂46'05	
asc. node	11885 Nov 06 18:10	10°♂18'45			11886 Oct 24 17:46	0°♂	
morning set	11885 Nov 13 17:01	24°♂25'19		morning set	11886 Oct 29 02:05	8°♂57'21	
	11885 Nov 16 06:39	0°♂					
superior conj	11885 Nov 20 12:16	9°♂22'10	1°37'30	superior conj	11886 Nov 04 23:55	24°♂07'29	1°30'27
minimum elong	11885 Nov 20 11:30	9°♂17'55	1°38'12	minimum elong	11886 Nov 04 22:17	23°♂58'23	1°30'55
max. Earth dist.	11885 Nov 21 16:17	11°♂57'03	1.31818 AU	max. Earth dist.	11886 Nov 05 00:50	24°♂12'40	1.31374 AU
evening rise	11885 Nov 27 13:34	24°♂37'48			11886 Nov 07 15:16	0°♂	
	11885 Nov 30 04:36	0°♂		evening rise	11886 Nov 11 18:56	9°♂02'26	
desc. node	11885 Dec 09 23:47	18°♂03'06			11886 Nov 22 13:07	0°♂	
	11885 Dec 17 16:37	0°♂		desc. node	11886 Nov 26 20:53	7°♂12'37	
evening max el	11885 Dec 29 19:10	14°♂30'50	27°27'06	evening max el	11886 Dec 11 22:51	26°♂31'36	26°51'01
retrograde	11886 Jan 12 16:34	21°♂49'02			11886 Dec 16 03:05	0°♂	
evening set	11886 Jan 19 15:43	19°♂32'29		retrograde	11886 Dec 25 21:22	3°♂40'37	
min. Earth dist.	11886 Jan 23 09:23	16°♂38'01	0.61853 AU	evening set	11887 Jan 01 15:19	1°♂45'19	
inferior conj	11886 Jan 26 09:26	13°♂52'53	-2°22'53		11887 Jan 04 08:40	30°♂♂	
minimum elong	11886 Jan 26 14:20	13°♂41'37	2°20'20	min. Earth dist.	11887 Jan 05 13:06	29°♂06'51	0.59720 AU
morning rise	11886 Feb 02 15:39	8°♂50'56		inferior conj	11887 Jan 08 17:16	26°♂34'24	-3°42'01
asc. node	11886 Feb 02 17:15	8°♂49'41		minimum elong	11887 Jan 09 00:48	26°♂19'16	3°38'44
direct	11886 Feb 04 20:18	8°♂29'51		morning rise	11887 Jan 16 13:07	21°♂52'55	
morning max el	11886 Feb 11 17:02	11°♂58'31	17°49'21	direct	11887 Jan 18 15:14	21°♂36'38	
	11886 Feb 23 20:19	0°♂		asc. node	11887 Jan 20 14:30	21°♂51'45	
morning set	11886 Feb 27 10:48	6°♂24'50		morning max el	11887 Jan 26 05:55	25°♂23'28	18°09'15
desc. node	11886 Mar 08 00:28	21°♂33'12			11887 Jan 30 02:52	0°♂	
				morning set	11887 Feb 10 21:27	20°♂12'38	
					11887 Feb 16 03:10	0°♂	
superior conj	11886 Mar 10 14:05	25°♂57'19	-0°19'41	superior conj	11887 Feb 20 13:37	8°♂05'22	0°18'02
minimum elong	11886 Mar 10 12:14	25°♂49'28	0°19'15	minimum elong	11887 Feb 20 15:00	8°♂11'37	0°18'11
	11886 Mar 12 23:37	0°♂		desc. node	11887 Feb 22 21:05	12°♂11'55	
max. Earth dist.	11886 Mar 17 17:04	7°♂47'25	1.43498 AU	max. Earth dist.	11887 Feb 28 04:35	21°♂20'42	1.41604 AU
evening rise	11886 Mar 24 20:30	19°♂08'34		evening rise	11887 Mar 05 04:44	29°♂36'08	
	11886 Mar 31 22:51	0°♂			11887 Mar 05 10:39	0°♂	
	11886 Apr 22 16:59	0°♂			11887 Mar 25 11:38	0°♂	
evening max el	11886 Apr 25 04:45	2°♂40'50	21°36'02				

evening max el	11887 Apr 07 21:18	16°♄28'47	22°54'58	evening max el	11888 Mar 20 11:20	0°♄19'03	24°15'23
retrograde	11887 Apr 18 01:45	22°♄29'28		retrograde	11888 Mar 31 18:44	6°♄57'09	
asc. node	11887 Apr 18 11:47	22°♄28'38		asc. node	11888 Apr 04 09:07	5°♄58'09	
evening set	11887 Apr 23 00:01	20°♄25'56		evening set	11888 Apr 06 04:50	4°♄40'34	
inferior conj	11887 Apr 28 08:23	14°♄01'25	2°39'27		11888 Apr 10 08:19	30°♄♂	
minimum elong	11887 Apr 28 06:23	14°♄08'19	2°38'31	min. Earth dist.	11888 Apr 10 19:59	29°♄21'05	0.68412 AU
min. Earth dist.	11887 Apr 27 23:54	14°♄30'47	0.68763 AU	inferior conj	11888 Apr 11 16:44	28°♄11'05	2°07'33
morning rise	11887 May 03 12:38	7°♄53'13		minimum elong	11888 Apr 11 14:34	28°♄18'24	2°06'37
direct	11887 May 07 23:58	6°♄03'22		morning rise	11888 Apr 17 00:25	22°♄10'21	
morning max el	11887 May 16 17:01	11°♄05'22	21°21'03	direct	11888 Apr 20 22:56	20°♄42'02	
desc. node	11887 May 21 22:38	17°♄01'32		morning max el	11888 Apr 28 14:51	25°♄00'08	20°06'37
	11887 May 31 12:27	0°♄			11888 May 03 01:03	0°♄	
morning set	11887 Jun 17 02:23	25°♄00'26		desc. node	11888 May 07 19:25	6°♄18'39	
	11887 Jun 20 05:44	0°♄			11888 May 23 20:12	0°♄	
max. Earth dist.	11887 Jun 23 22:22	5°♄59'20	1.42461 AU	morning set	11888 May 26 05:06	3°♄38'20	
				max. Earth dist.	11888 Jun 05 08:42	19°♄32'13	1.44198 AU
superior conj	11887 Jul 01 07:22	18°♄22'03	-1°47'17				
minimum elong	11887 Jul 01 14:10	18°♄51'17	1°47'25	superior conj	11888 Jun 11 00:35	28°♄40'41	-2°08'08
	11887 Jul 07 22:34	0°♄		minimum elong	11888 Jun 11 05:14	28°♄59'43	2°08'45
evening rise	11887 Jul 12 15:24	8°♄28'03			11888 Jun 11 19:57	0°♄	
asc. node	11887 Jul 15 10:30	13°♄30'55		evening rise	11888 Jun 24 01:20	20°♄36'20	
	11887 Jul 25 10:45	0°♄			11888 Jun 29 12:50	0°♄	
evening max el	11887 Jul 28 22:24	4°♄07'51	18°06'29	asc. node	11888 Jul 01 07:25	2°♄58'58	
retrograde	11887 Aug 04 17:58	7°♄36'37		evening max el	11888 Jul 11 12:12	17°♄23'49	18°05'23
evening set	11887 Aug 07 03:04	7°♄11'27		retrograde	11888 Jul 17 22:03	20°♄44'18	
inferior conj	11887 Aug 14 01:09	2°♄17'50	1°07'53	evening set	11888 Jul 20 15:10	20°♄07'00	
minimum elong	11887 Aug 14 03:08	2°♄13'14	1°06'45	inferior conj	11888 Jul 26 22:12	14°♄54'43	2°08'32
	11887 Aug 16 12:37	30°♄♂		minimum elong	11888 Jul 27 00:51	14°♄47'43	2°07'11
min. Earth dist.	11887 Aug 17 07:07	29°♄18'40	0.60224 AU	min. Earth dist.	11888 Jul 29 18:42	11°♄55'02	0.62488 AU
desc. node	11887 Aug 17 21:10	28°♄48'20		morning rise	11888 Aug 02 08:26	8°♄45'32	
morning rise	11887 Aug 21 00:12	26°♄28'28		desc. node	11888 Aug 03 18:31	7°♄49'49	
direct	11887 Aug 27 12:55	24°♄25'05		direct	11888 Aug 09 00:57	6°♄19'25	
	11887 Sep 08 08:27	0°♄		morning max el	11888 Aug 23 03:20	14°♄21'44	27°55'25
morning max el	11887 Sep 10 20:21	2°♄18'40	27°50'09		11888 Sep 04 19:03	0°♄	
	11887 Oct 01 01:27	0°♄			11888 Sep 22 14:57	0°♄	
asc. node	11887 Oct 11 11:42	19°♄30'32		morning set	11888 Sep 26 06:08	7°♄12'09	
morning set	11887 Oct 13 07:09	23°♄14'44		asc. node	11888 Sep 27 08:25	9°♄26'45	
	11887 Oct 16 11:13	0°♄		max. Earth dist.	11888 Oct 01 14:05	18°♄23'57	1.31986 AU
max. Earth dist.	11887 Oct 19 09:27	6°♄25'13	1.31425 AU				
superior conj	11887 Oct 20 11:09	8°♄47'50	1°17'49	superior conj	11888 Oct 03 20:08	23°♄17'56	0°59'45
minimum elong	11887 Oct 20 09:00	8°♄35'51	1°17'58	minimum elong	11888 Oct 03 17:56	23°♄05'49	0°59'36
evening rise	11887 Oct 27 04:08	23°♄35'12			11888 Oct 06 21:18	0°♄	
	11887 Oct 30 05:09	0°♄		evening rise	11888 Oct 10 15:15	8°♄10'42	
desc. node	11887 Nov 13 18:06	25°♄36'50			11888 Oct 21 19:31	0°♄	
	11887 Nov 16 23:00	0°♄		desc. node	11888 Oct 30 15:22	12°♄57'57	
evening max el	11887 Nov 23 18:21	7°♄39'52	25°41'53	evening max el	11888 Nov 04 06:16	18°♄02'03	24°08'35
retrograde	11887 Dec 07 15:34	14°♄40'13		retrograde	11888 Nov 17 21:49	24°♄51'23	
evening set	11887 Dec 13 18:21	13°♄13'32		evening set	11888 Nov 22 21:18	23°♄56'59	
min. Earth dist.	11887 Dec 18 06:45	10°♄36'33	0.57648 AU	min. Earth dist.	11888 Nov 28 17:13	21°♄02'29	0.55909 AU
inferior conj	11887 Dec 21 06:07	8°♄32'46	-4°54'44	inferior conj	11888 Nov 30 22:19	19°♄41'23	-5°43'17
minimum elong	11887 Dec 21 14:21	8°♄18'27	4°52'00	minimum elong	11888 Dec 01 02:34	19°♄34'53	5°42'07
morning rise	11887 Dec 29 12:50	4°♄13'55		morning rise	11888 Dec 09 09:53	15°♄43'09	
direct	11887 Dec 31 17:28	3°♄59'00		direct	11888 Dec 11 23:58	15°♄25'51	
asc. node	11888 Jan 07 11:42	6°♄31'20		morning max el	11888 Dec 22 04:17	20°♄17'07	19°53'23
morning max el	11888 Jan 09 10:57	8°♄13'22	18°50'02	asc. node	11888 Dec 24 08:50	22°♄35'48	
	11888 Jan 23 11:31	0°♄			11888 Dec 29 17:47	0°♄	
morning set	11888 Jan 25 18:57	4°♄29'23		morning set	11889 Jan 08 23:36	19°♄03'37	
					11889 Jan 14 08:33	0°♄	
superior conj	11888 Feb 03 08:44	21°♄08'08	0°48'55	superior conj	11889 Jan 16 18:34	4°♄51'06	1°12'09
minimum elong	11888 Feb 03 11:31	21°♄21'20	0°49'03	minimum elong	11889 Jan 16 21:23	5°♄05'07	1°12'30
	11888 Feb 08 03:37	0°♄		max. Earth dist.	11889 Jan 22 18:21	16°♄25'38	1.37203 AU
desc. node	11888 Feb 09 17:46	2°♄51'14		evening rise	11889 Jan 26 11:57	23°♄15'33	
max. Earth dist.	11888 Feb 10 12:07	4°♄12'36	1.39422 AU	desc. node	11889 Jan 26 14:30	23°♄26'57	
evening rise	11888 Feb 14 10:10	10°♄59'49			11889 Jan 30 08:25	0°♄	
	11888 Feb 26 06:45	0°♄			11889 Feb 19 00:53	0°♄	
	11888 Mar 20 03:43	0°♄		evening max el	11889 Mar 03 00:38	14°♄09'41	25°30'38

retrograde	11889 Mar 15 07:28	21° $\Upsilon$ 15'14			11890 Jan 23 02:30	0° $\text{H}$	
evening set	11889 Mar 21 05:16	18° $\Upsilon$ 48'42		evening max el	11890 Feb 13 14:15	27° $\text{H}$ 56'25	26°33'20
asc. node	11889 Mar 22 06:30	17° $\Upsilon$ 51'04			11890 Feb 15 20:08	0° $\Upsilon$	
min. Earth dist.	11889 Mar 25 13:18	14° $\Upsilon$ 04'20	0.67632 AU	retrograde	11890 Feb 26 14:53	5° $\Upsilon$ 16'57	
inferior conj	11889 Mar 26 22:10	12° $\Upsilon$ 18'45	1°25'52	evening set	11890 Mar 04 23:34	2° $\Upsilon$ 44'51	
minimum elong	11889 Mar 26 20:19	12° $\Upsilon$ 24'41	1°25'09		11890 Mar 07 19:52	30° $\text{R}$ $\text{H}$	
morning rise	11889 Apr 01 11:51	6° $\Upsilon$ 26'49		min. Earth dist.	11890 Mar 09 01:43	28° $\text{H}$ 34'45	0.66450 AU
direct	11889 Apr 04 22:31	5° $\Upsilon$ 18'45		asc. node	11890 Mar 09 03:51	28° $\text{H}$ 28'28	
morning max el	11889 Apr 11 20:21	9° $\Upsilon$ 05'01	19°06'36	inferior conj	11890 Mar 10 22:35	26° $\text{H}$ 20'17	0°34'13
desc. node	11889 Apr 24 16:08	26° $\Upsilon$ 04'05		minimum elong	11890 Mar 10 21:42	26° $\text{H}$ 22'57	0°33'59
greatest brilliancy	11889 Apr 24 22:22	26° $\Upsilon$ 27'25	-0.7m	morning rise	11890 Mar 16 20:50	20° $\text{H}$ 38'51	
	11889 Apr 27 06:37	0° $\text{B}$		direct	11890 Mar 19 20:55	19° $\text{H}$ 48'24	
morning set	11889 May 05 08:23	12° $\text{B}$ 24'20		morning max el	11890 Mar 26 08:24	23° $\text{H}$ 15'22	18°22'48
	11889 May 16 16:06	0° $\text{II}$			11890 Mar 31 21:59	0° $\Upsilon$	
max. Earth dist.	11889 May 19 00:17	3° $\text{II}$ 40'04	1.45326 AU	desc. node	11890 Apr 11 12:48	16° $\Upsilon$ 10'20	
				morning set	11890 Apr 15 09:12	22° $\Upsilon$ 17'10	
superior conj	11889 May 21 19:24	8° $\text{II}$ 04'15	-2°12'39		11890 Apr 20 05:56	0° $\text{B}$	
minimum elong	11889 May 21 17:20	7° $\text{II}$ 56'05	2°13'20				
	11889 Jun 04 10:54	0° $\text{B}$		superior conj	11890 May 01 02:31	17° $\text{B}$ 03'28	-1°56'53
evening rise	11889 Jun 05 12:43	1° $\text{B}$ 45'33		minimum elong	11890 Apr 30 18:02	16° $\text{B}$ 30'20	1°56'50
asc. node	11889 Jun 18 04:24	22° $\text{B}$ 04'16		max. Earth dist.	11890 May 01 19:15	18° $\text{B}$ 08'49	1.45743 AU
	11889 Jun 24 04:20	0° $\Omega$			11890 May 09 09:21	0° $\text{II}$	
evening max el	11889 Jun 25 01:45	0° $\Omega$ 55'47	18°22'46	evening rise	11890 May 16 23:50	11° $\text{II}$ 55'07	
retrograde	11889 Jul 01 11:34	4° $\Omega$ 21'41		greatest brilliancy	11890 May 26 22:46	27° $\text{II}$ 29'50	-0.8m
evening set	11889 Jul 04 12:53	3° $\Omega$ 30'05			11890 May 28 13:59	0° $\text{B}$	
	11889 Jul 08 15:02	30° $\text{R}$ $\text{B}$		asc. node	11890 Jun 05 01:26	10° $\text{B}$ 38'38	
inferior conj	11889 Jul 10 08:45	28° $\text{B}$ 01'10	2°47'32	evening max el	11890 Jun 08 12:23	14° $\text{B}$ 36'31	18°57'39
minimum elong	11889 Jul 10 10:53	27° $\text{B}$ 54'51	2°46'23	retrograde	11890 Jun 15 06:46	18° $\text{B}$ 20'45	
min. Earth dist.	11889 Jul 12 15:44	25° $\text{B}$ 20'34	0.64554 AU	evening set	11890 Jun 18 16:41	17° $\text{B}$ 13'25	
morning rise	11889 Jul 16 07:38	21° $\text{B}$ 41'55		inferior conj	11890 Jun 24 05:00	11° $\text{B}$ 29'19	3°08'42
desc. node	11889 Jul 21 15:47	19° $\text{B}$ 07'47		minimum elong	11890 Jun 24 06:08	11° $\text{B}$ 25'41	3°07'47
direct	11889 Jul 22 21:53	19° $\text{B}$ 02'19		min. Earth dist.	11890 Jun 25 21:08	9° $\text{B}$ 22'08	0.66277 AU
morning max el	11889 Aug 05 13:32	27° $\text{B}$ 01'58	27°24'50	morning rise	11890 Jun 29 18:56	5° $\text{B}$ 06'57	
	11889 Aug 08 08:19	0° $\Omega$		direct	11890 Jul 06 02:01	2° $\text{B}$ 24'41	
	11889 Aug 29 10:58	0° $\text{M}$		desc. node	11890 Jul 08 12:59	2° $\text{B}$ 46'06	
morning set	11889 Sep 09 20:28	20° $\text{M}$ 43'15		morning max el	11890 Jul 19 00:19	10° $\text{B}$ 06'50	26°25'28
asc. node	11889 Sep 14 05:07	29° $\text{M}$ 30'14			11890 Aug 03 17:24	0° $\Omega$	
	11889 Sep 14 10:52	0° $\text{A}$			11890 Aug 21 23:40	0° $\text{M}$	
max. Earth dist.	11889 Sep 14 11:02	0° $\text{A}$ 00'47	1.33067 AU	morning set	11890 Aug 23 22:49	3° $\text{M}$ 38'33	
				max. Earth dist.	11890 Aug 27 21:44	11° $\text{M}$ 14'15	1.34661 AU
superior conj	11889 Sep 18 00:50	7° $\text{A}$ 32'23	0°36'29	asc. node	11890 Sep 01 01:47	19° $\text{M}$ 36'12	
minimum elong	11889 Sep 17 23:09	7° $\text{A}$ 23'24	0°36'10				
evening rise	11889 Sep 25 02:25	22° $\text{A}$ 44'06		superior conj	11890 Sep 01 22:44	21° $\text{M}$ 23'47	0°08'26
	11889 Sep 28 14:00	0° $\text{M}$		minimum elong	11890 Sep 01 22:16	21° $\text{M}$ 21'27	0°08'09
evening max el	11889 Oct 16 17:15	28° $\text{M}$ 06'47	22°27'19	behind sun begin	11890 Sep 01 17:09	20° $\text{M}$ 55'03	
desc. node	11889 Oct 17 12:42	28° $\text{M}$ 52'53		behind sun end	11890 Sep 02 03:24	21° $\text{M}$ 47'53	
	11889 Oct 18 19:25	0° $\text{A}$			11890 Sep 06 01:44	0° $\text{A}$	
retrograde	11889 Oct 29 15:54	4° $\text{A}$ 32'39		evening rise	11890 Sep 09 11:34	7° $\text{A}$ 09'07	
evening set	11889 Nov 02 04:25	4° $\text{A}$ 05'24			11890 Sep 21 18:30	0° $\text{M}$	
min. Earth dist.	11889 Nov 10 00:32	0° $\text{A}$ 35'17	0.54814 AU	evening max el	11890 Sep 28 12:32	8° $\text{M}$ 29'52	20°54'32
inferior conj	11889 Nov 10 21:12	0° $\text{A}$ 06'05	-5°45'13	desc. node	11890 Oct 04 10:05	12° $\text{M}$ 52'28	
minimum elong	11889 Nov 10 17:05	0° $\text{A}$ 11'54	5°44'13	retrograde	11890 Oct 10 02:49	14° $\text{M}$ 15'11	
	11889 Nov 11 01:30	30° $\text{R}$ $\text{M}$		evening set	11890 Oct 12 11:21	14° $\text{M}$ 01'57	
morning rise	11889 Nov 19 07:10	26° $\text{M}$ 18'34		inferior conj	11890 Oct 21 12:56	10° $\text{M}$ 07'22	-4°48'31
direct	11889 Nov 22 13:54	25° $\text{M}$ 54'13		minimum elong	11890 Oct 21 03:07	10° $\text{M}$ 21'17	4°45'39
	11889 Dec 02 15:16	0° $\text{A}$		min. Earth dist.	11890 Oct 22 07:39	9° $\text{M}$ 40'46	0.54600 AU
morning max el	11889 Dec 04 07:37	1° $\text{A}$ 28'39	21°19'07	morning rise	11890 Oct 29 19:04	6° $\text{M}$ 13'02	
asc. node	11889 Dec 11 05:52	9° $\text{A}$ 48'47		direct	11890 Nov 02 22:03	5° $\text{M}$ 36'31	
	11889 Dec 22 12:37	0° $\text{B}$		morning max el	11890 Nov 15 22:50	11° $\text{M}$ 53'25	23°02'16
morning set	11889 Dec 24 08:41	3° $\text{B}$ 47'43		asc. node	11890 Nov 28 02:49	27° $\text{M}$ 54'03	
					11890 Nov 29 08:19	0° $\text{A}$	
superior conj	11889 Dec 31 15:01	19° $\text{B}$ 02'44	1°27'52	morning set	11890 Dec 08 20:02	18° $\text{A}$ 34'53	
minimum elong	11889 Dec 31 17:06	19° $\text{B}$ 13'30	1°28'29		11890 Dec 14 03:16	0° $\text{B}$	
max. Earth dist.	11890 Jan 05 04:35	28° $\text{B}$ 19'28	1.35185 AU				
	11890 Jan 06 00:58	0° $\approx$		superior conj	11890 Dec 15 18:46	3° $\text{B}$ 32'47	1°36'37
evening rise	11890 Jan 09 06:58	6° $\approx$ 15'24		minimum elong	11890 Dec 15 19:45	3° $\text{B}$ 38'04	1°37'24
desc. node	11890 Jan 13 11:19	13° $\approx$ 55'13		max. Earth dist.	11890 Dec 18 22:23	10° $\text{B}$ 13'37	1.33524 AU

evening rise	11890 Dec 23 15:30	19° $\text{♄}$ 48'57			11891 Dec 05 14:18	0° $\text{♄}$	
	11890 Dec 29 00:14	0° $\text{♄}$		evening rise	11891 Dec 07 10:15	3° $\text{♄}$ 47'54	
desc. node	11890 Dec 31 08:12	4° $\text{♄}$ 10'41		desc. node	11891 Dec 18 05:09	24° $\text{♄}$ 07'18	
	11891 Jan 17 03:26	0° $\text{♄}$			11891 Dec 21 18:04	0° $\text{♄}$	
evening max el	11891 Jan 27 03:43	11° $\text{♄}$ 29'45	27°16'10	evening max el	11892 Jan 09 15:14	24° $\text{♄}$ 36'39	27°32'09
retrograde	11891 Feb 09 16:02	18° $\text{♄}$ 54'21			11892 Jan 16 16:21	0° $\text{♄}$	
evening set	11891 Feb 16 09:40	16° $\text{♄}$ 22'23		retrograde	11892 Jan 23 10:05	1° $\text{♄}$ 58'07	
min. Earth dist.	11891 Feb 20 07:00	12° $\text{♄}$ 45'02	0.64899 AU		11892 Jan 29 16:50	30° $\text{♄}$	
inferior conj	11891 Feb 22 15:36	10° $\text{♄}$ 09'58	-0°27'29	evening set	11892 Jan 30 09:01	29° $\text{♄}$ 33'20	
minimum elong	11891 Feb 22 16:25	10° $\text{♄}$ 07'44	0°26'49	min. Earth dist.	11892 Feb 03 03:06	26° $\text{♄}$ 25'20	0.63035 AU
asc. node	11891 Feb 24 01:10	8° $\text{♄}$ 39'28		inferior conj	11892 Feb 05 22:22	23° $\text{♄}$ 40'07	-1°38'36
morning rise	11891 Mar 01 00:50	4° $\text{♄}$ 41'32		minimum elong	11892 Feb 06 01:38	23° $\text{♄}$ 32'06	1°36'44
direct	11891 Mar 03 15:54	4° $\text{♄}$ 05'18		asc. node	11892 Feb 10 22:29	19° $\text{♄}$ 24'58	
morning max el	11891 Mar 10 00:43	7° $\text{♄}$ 24'32	17°56'01	morning rise	11892 Feb 12 20:36	18° $\text{♄}$ 27'45	
	11891 Mar 25 10:51	0° $\text{♄}$		direct	11892 Feb 15 04:27	18° $\text{♄}$ 02'08	
morning set	11891 Mar 27 15:03	3° $\text{♄}$ 36'19		morning max el	11892 Feb 21 18:25	21° $\text{♄}$ 24'13	17°46'40
desc. node	11891 Mar 29 09:27	6° $\text{♄}$ 31'43			11892 Feb 28 08:31	0° $\text{♄}$	
				morning set	11892 Mar 08 22:20	16° $\text{♄}$ 08'19	
superior conj	11891 Apr 10 15:49	26° $\text{♄}$ 26'04	-1°24'10	desc. node	11892 Mar 15 06:04	27° $\text{♄}$ 03'03	
minimum elong	11891 Apr 10 07:12	25° $\text{♄}$ 51'45	1°23'27		11892 Mar 16 23:46	0° $\text{♄}$	
	11891 Apr 12 21:49	0° $\text{♄}$		superior conj	11892 Mar 21 01:33	6° $\text{♄}$ 48'32	-0°43'23
max. Earth dist.	11891 Apr 14 15:21	2° $\text{♄}$ 43'34	1.45413 AU	minimum elong	11892 Mar 20 21:07	6° $\text{♄}$ 30'13	0°42'44
evening rise	11891 Apr 26 16:27	21° $\text{♄}$ 25'06		max. Earth dist.	11892 Mar 27 09:40	17° $\text{♄}$ 06'33	1.44373 AU
	11891 May 02 07:08	0° $\text{♄}$			11892 Apr 04 14:50	0° $\text{♄}$	
greatest brilliancy	11891 May 11 01:47	13° $\text{♄}$ 09'21	-0.6m	evening rise	11892 Apr 05 04:06	0° $\text{♄}$ 51'06	
asc. node	11891 May 22 22:33	28° $\text{♄}$ 32'14			11892 Apr 24 22:33	0° $\text{♄}$	
evening max el	11891 May 22 18:10	28° $\text{♄}$ 21'18	19°48'41	evening max el	11892 May 04 18:09	12° $\text{♄}$ 06'47	20°53'39
	11891 May 24 12:50	0° $\text{♄}$		asc. node	11892 May 08 19:44	15° $\text{♄}$ 31'40	
retrograde	11891 May 30 04:54	2° $\text{♄}$ 35'40		retrograde	11892 May 13 03:43	17° $\text{♄}$ 00'27	
evening set	11891 Jun 02 23:57	1° $\text{♄}$ 12'00		evening set	11892 May 17 08:40	15° $\text{♄}$ 20'37	
	11891 Jun 04 09:25	30° $\text{♄}$		inferior conj	11892 May 22 15:02	9° $\text{♄}$ 10'17	3°09'41
inferior conj	11891 Jun 08 07:56	25° $\text{♄}$ 13'58	3°15'17	minimum elong	11892 May 22 14:04	9° $\text{♄}$ 13'36	3°08'53
minimum elong	11891 Jun 08 07:58	25° $\text{♄}$ 13'52	3°14'29	min. Earth dist.	11892 May 23 02:41	8° $\text{♄}$ 29'54	0.68399 AU
min. Earth dist.	11891 Jun 09 09:26	23° $\text{♄}$ 48'30	0.67570 AU	morning rise	11892 May 27 19:16	2° $\text{♄}$ 52'48	
morning rise	11891 Jun 13 15:39	18° $\text{♄}$ 52'49		direct	11892 Jun 02 03:12	0° $\text{♄}$ 32'03	
direct	11891 Jun 19 12:07	16° $\text{♄}$ 17'38		desc. node	11892 Jun 11 07:07	5° $\text{♄}$ 25'17	
desc. node	11891 Jun 25 10:05	18° $\text{♄}$ 21'29		morning max el	11892 Jun 12 20:29	6° $\text{♄}$ 55'45	23°37'54
morning max el	11891 Jul 01 10:28	23° $\text{♄}$ 26'51	25°06'32		11892 Jun 30 19:07	0° $\text{♄}$	
	11891 Jul 07 05:57	0° $\text{♄}$		morning set	11892 Jul 17 22:40	27° $\text{♄}$ 00'10	
	11891 Jul 28 02:04	0° $\text{♄}$			11892 Jul 19 16:49	0° $\text{♄}$	
morning set	11891 Aug 06 09:09	15° $\text{♄}$ 48'17		max. Earth dist.	11892 Jul 21 20:50	3° $\text{♄}$ 45'47	1.38969 AU
max. Earth dist.	11891 Aug 09 23:23	22° $\text{♄}$ 20'23	1.36688 AU				
	11891 Aug 14 00:33	0° $\text{♄}$		superior conj	11892 Jul 29 09:43	17° $\text{♄}$ 26'15	-0°57'32
superior conj	11891 Aug 16 10:55	4° $\text{♄}$ 44'50	-0°23'31	minimum elong	11892 Jul 29 13:44	17° $\text{♄}$ 45'08	0°57'28
minimum elong	11891 Aug 16 12:26	4° $\text{♄}$ 52'19	0°23'37	asc. node	11892 Aug 04 19:12	29° $\text{♄}$ 41'12	
asc. node	11891 Aug 18 22:28	9° $\text{♄}$ 41'14			11892 Aug 04 23:04	0° $\text{♄}$	
evening rise	11891 Aug 24 16:32	21° $\text{♄}$ 20'04		evening rise	11892 Aug 07 14:32	5° $\text{♄}$ 09'12	
	11891 Aug 29 01:25	0° $\text{♄}$			11892 Aug 22 10:17	0° $\text{♄}$	
evening max el	11891 Sep 10 21:24	19° $\text{♄}$ 35'32	19°40'14	evening max el	11892 Aug 23 19:14	1° $\text{♄}$ 28'10	18°47'29
retrograde	11891 Sep 20 19:32	24° $\text{♄}$ 32'09		retrograde	11892 Sep 01 04:39	5° $\text{♄}$ 40'30	
desc. node	11891 Sep 21 07:27	24° $\text{♄}$ 31'27		evening set	11892 Sep 03 02:33	5° $\text{♄}$ 28'11	
evening set	11891 Sep 22 16:30	24° $\text{♄}$ 22'21		desc. node	11892 Sep 07 04:50	3° $\text{♄}$ 49'01	
inferior conj	11891 Oct 01 12:10	20° $\text{♄}$ 18'49	-3°08'05	inferior conj	11892 Sep 11 05:56	1° $\text{♄}$ 07'00	-1°16'12
minimum elong	11891 Oct 01 04:00	20° $\text{♄}$ 31'36	3°04'57	minimum elong	11892 Sep 11 02:45	1° $\text{♄}$ 12'46	1°15'00
min. Earth dist.	11891 Oct 03 17:13	18° $\text{♄}$ 55'56	0.55323 AU		11892 Sep 12 18:35	30° $\text{♄}$	
morning rise	11891 Oct 09 13:40	15° $\text{♄}$ 57'48		min. Earth dist.	11892 Sep 14 07:54	28° $\text{♄}$ 53'14	0.56848 AU
direct	11891 Oct 14 12:36	15° $\text{♄}$ 03'29		morning rise	11892 Sep 18 23:35	26° $\text{♄}$ 08'28	
morning max el	11891 Oct 28 09:21	21° $\text{♄}$ 57'19	24°50'01	direct	11892 Sep 24 16:46	24° $\text{♄}$ 49'21	
	11891 Nov 04 10:51	0° $\text{♄}$			11892 Oct 06 11:30	0° $\text{♄}$	
asc. node	11891 Nov 14 23:41	16° $\text{♄}$ 39'02		morning max el	11892 Oct 08 23:09	2° $\text{♄}$ 13'30	26°24'25
	11891 Nov 21 18:06	0° $\text{♄}$			11892 Oct 28 17:13	0° $\text{♄}$	
morning set	11891 Nov 23 07:51	3° $\text{♄}$ 20'10		asc. node	11892 Oct 31 20:31	5° $\text{♄}$ 53'34	
				morning set	11892 Nov 06 18:27	17° $\text{♄}$ 59'00	
superior conj	11891 Nov 30 03:15	18° $\text{♄}$ 13'56	1°38'56		11892 Nov 12 05:59	0° $\text{♄}$	
minimum elong	11891 Nov 30 03:05	18° $\text{♄}$ 13'03	1°39'42	superior conj	11892 Nov 13 14:19	2° $\text{♄}$ 59'58	1°35'13
max. Earth dist.	11891 Dec 01 23:55	22° $\text{♄}$ 18'02	1.32307 AU				

minimum elong	11892 Nov 13 13:09	2°♌53'28	1°35'50	superior conj	11893 Oct 29 02:01	17°♍43'57	1°25'47
max. Earth dist.	11892 Nov 14 06:50	4°♌31'46	1.31566 AU	minimum elong	11893 Oct 29 00:07	17°♍33'21	1°26'07
evening rise	11892 Nov 20 12:26	18°♌05'19			11893 Nov 03 15:06	0°♌	
	11892 Nov 26 10:25	0°♌		evening rise	11893 Nov 04 19:39	2°♌33'54	
desc. node	11892 Dec 04 02:11	13°♌37'24			11893 Nov 19 09:05	0°♌	
	11892 Dec 15 10:58	0°♌		desc. node	11893 Nov 20 23:19	2°♌29'36	
evening max el	11892 Dec 21 22:21	7°♌04'37	27°15'55	evening max el	11893 Dec 03 22:35	18°♌43'03	26°25'23
retrograde	11893 Jan 04 20:21	14°♌19'24		retrograde	11893 Dec 17 21:18	25°♌49'18	
evening set	11893 Jan 11 18:31	12°♌10'27		evening set	11893 Dec 24 10:01	24°♌05'20	
min. Earth dist.	11893 Jan 15 12:51	9°♌24'33	0.60953 AU	min. Earth dist.	11893 Dec 28 12:13	21°♌29'30	0.58811 AU
inferior conj	11893 Jan 18 15:39	6°♌42'36	-2°56'26	inferior conj	11893 Dec 31 15:47	19°♌07'00	-4°14'31
minimum elong	11893 Jan 18 21:45	6°♌29'20	2°53'28	minimum elong	11894 Jan 01 00:01	18°♌51'27	4°11'17
morning rise	11893 Jan 26 03:51	1°♌49'23		morning rise	11894 Jan 08 16:51	14°♌35'13	
asc. node	11893 Jan 27 19:46	1°♌31'42		direct	11894 Jan 10 19:05	14°♌20'05	
direct	11893 Jan 28 06:57	1°♌30'47		asc. node	11894 Jan 14 17:02	15°♌16'03	
morning max el	11893 Feb 04 10:13	5°♌05'44	17°55'27	morning max el	11894 Jan 18 20:20	18°♌17'44	18°23'55
morning set	11893 Feb 20 00:42	29°♌33'47			11894 Jan 27 07:17	0°♌	
	11893 Feb 20 06:27	0°♌		morning set	11894 Feb 03 16:29	13°♌35'18	
					11894 Feb 12 08:43	0°♌	
superior conj	11893 Mar 02 11:59	18°♌20'53	-0°03'01	superior conj	11894 Feb 12 20:27	0°♌53'57	0°32'01
minimum elong	11893 Mar 02 11:44	18°♌19'51	0°02'45	minimum elong	11894 Feb 12 22:39	1°♌04'00	0°32'08
behind sun begin	11893 Mar 02 03:39	17°♌44'35		desc. node	11894 Feb 16 23:21	8°♌19'57	
behind sun end	11893 Mar 02 19:50	18°♌55'01		max. Earth dist.	11894 Feb 20 08:38	14°♌14'09	1.40697 AU
desc. node	11893 Mar 02 02:42	17°♌40'29		evening rise	11894 Feb 24 18:58	21°♌41'10	
	11893 Mar 09 08:56	0°♌			11894 Mar 01 22:45	0°♌	
max. Earth dist.	11893 Mar 09 23:35	1°♌00'25	1.42740 AU		11894 Mar 22 18:42	0°♌	
evening rise	11893 Mar 16 01:53	10°♌49'49		evening max el	11894 Mar 31 04:05	9°♌42'06	23°29'24
	11893 Mar 28 16:35	0°♌		retrograde	11894 Apr 10 20:34	16°♌00'07	
evening max el	11893 Apr 17 12:52	25°♌53'15	22°08'55	asc. node	11894 Apr 12 14:19	15°♌45'59	
	11893 Apr 22 11:51	0°♌		evening set	11894 Apr 15 23:41	13°♌50'59	
asc. node	11893 Apr 25 16:59	1°♌21'43		inferior conj	11894 Apr 21 09:21	7°♌23'44	2°27'08
retrograde	11893 Apr 27 01:27	1°♌30'26		minimum elong	11894 Apr 21 07:14	7°♌31'01	2°26'10
	11893 May 01 04:34	30°♌		min. Earth dist.	11894 Apr 20 19:40	8°♌10'44	0.68666 AU
evening set	11893 May 01 17:06	29°♌35'13		morning rise	11894 Apr 26 14:44	1°♌18'17	
inferior conj	11893 May 07 00:09	23°♌14'52	2°53'23		11894 Apr 28 19:56	30°♌	
minimum elong	11893 May 06 22:27	23°♌20'48	2°52'30	direct	11894 Apr 30 20:29	29°♌37'33	
min. Earth dist.	11893 May 06 22:51	23°♌19'22	0.68762 AU		11894 May 02 23:16	0°♌	
morning rise	11893 May 12 03:38	17°♌02'43		morning max el	11894 May 09 02:09	4°♌19'58	20°47'40
direct	11893 May 16 22:24	15°♌00'54		desc. node	11894 May 16 00:56	12°♌30'14	
morning max el	11893 May 26 08:39	20°♌32'45	22°09'00		11894 May 28 09:28	0°♌	
desc. node	11893 May 29 04:05	23°♌34'10		morning set	11894 Jun 07 23:00	16°♌04'31	
	11893 Jun 03 09:25	0°♌		max. Earth dist.	11894 Jun 16 02:14	28°♌58'42	1.43262 AU
	11893 Jun 24 00:15	0°♌			11894 Jun 16 17:22	0°♌	
morning set	11893 Jun 28 11:05	7°♌04'25					
max. Earth dist.	11893 Jul 03 20:18	15°♌55'07	1.41253 AU	superior conj	11894 Jun 22 21:58	10°♌13'23	-1°57'43
				minimum elong	11894 Jun 23 04:25	10°♌40'32	1°58'03
superior conj	11893 Jul 11 14:49	29°♌18'37	-1°30'34		11894 Jul 04 08:07	0°♌	
minimum elong	11893 Jul 11 21:06	29°♌46'29	1°30'31	evening rise	11894 Jul 04 22:49	1°♌05'06	
	11893 Jul 12 00:08	0°♌		asc. node	11894 Jul 09 12:51	9°♌10'31	
evening rise	11893 Jul 22 02:06	18°♌27'45		evening max el	11894 Jul 21 15:02	27°♌04'50	18°03'48
asc. node	11893 Jul 22 15:59	19°♌32'21			11894 Jul 25 19:21	0°♌	
	11893 Jul 28 09:37	0°♌		retrograde	11894 Jul 28 05:08	0°♌28'01	
evening max el	11893 Aug 07 02:28	14°♌01'04	18°15'45	evening set	11894 Jul 30 17:41	29°♌57'59	
retrograde	11893 Aug 14 08:40	17°♌41'24			11894 Jul 30 15:35	30°♌	
evening set	11893 Aug 16 13:09	17°♌22'05		inferior conj	11894 Aug 06 08:56	24°♌56'29	1°36'28
inferior conj	11893 Aug 23 21:30	12°♌40'27	0°21'56	minimum elong	11894 Aug 06 11:23	24°♌50'27	1°35'09
minimum elong	11893 Aug 23 22:14	12°♌38'53	0°21'21	min. Earth dist.	11894 Aug 09 11:46	21°♌54'15	0.61200 AU
desc. node	11893 Aug 25 02:16	11°♌38'55		desc. node	11894 Aug 11 23:39	19°♌45'50	
min. Earth dist.	11893 Aug 27 05:38	9°♌51'19	0.58916 AU	morning rise	11894 Aug 13 02:27	18°♌57'35	
morning rise	11893 Aug 31 03:52	7°♌06'58		direct	11894 Aug 19 17:48	16°♌43'15	
direct	11893 Sep 06 11:18	5°♌18'59		morning max el	11894 Sep 02 23:26	24°♌41'49	27°57'02
morning max el	11893 Sep 20 19:51	13°♌04'57	27°29'33		11894 Sep 07 19:28	0°♌	
	11893 Oct 04 06:07	0°♌			11894 Sep 27 15:49	0°♌	
asc. node	11893 Oct 18 17:17	25°♌28'51		asc. node	11894 Oct 05 14:01	15°♌18'55	
	11893 Oct 20 22:18	0°♌		morning set	11894 Oct 06 04:47	16°♌34'55	
morning set	11893 Oct 22 02:03	2°♌25'28		max. Earth dist.	11894 Oct 11 22:55	28°♌53'25	1.31597 AU
max. Earth dist.	11893 Oct 28 15:41	16°♌46'21	1.31323 AU				

	11894 Oct 12 11:02	0°♄			11895 Sep 02 22:14	0°♄		
					11895 Sep 19 20:06	0°♄		
superior conj	11894 Oct 13 12:33	2°♄20'48	1°10'49	morning set	11895 Sep 20 00:21	0°♄21'15		
minimum elong	11894 Oct 13 10:19	2°♄08'24	1°10'50	asc. node	11895 Sep 22 10:42	5°♄18'20		
evening rise	11894 Oct 20 05:54	17°♄08'31		max. Earth dist.	11895 Sep 25 00:42	10°♄43'16	1.32388 AU	
	11894 Oct 26 11:59	0°♄						
desc. node	11894 Nov 07 20:32	20°♄29'15		superior conj	11895 Sep 27 19:56	16°♄44'30	0°50'29	
evening max el	11894 Nov 15 14:41	29°♄30'17	25°04'26	minimum elong	11895 Sep 27 17:52	16°♄33'17	0°50'16	
	11894 Nov 16 03:22	0°♄			11895 Oct 03 22:00	0°♄		
retrograde	11894 Nov 29 10:35	6°♄26'17		evening rise	11895 Oct 04 17:15	1°♄43'31		
evening set	11894 Dec 05 02:57	5°♄13'41			11895 Oct 20 01:46	0°♄		
min. Earth dist.	11894 Dec 10 02:40	2°♄31'24	0.56849 AU	desc. node	11895 Oct 25 17:50	7°♄16'27		
inferior conj	11894 Dec 12 19:51	0°♄44'33	-5°19'36	evening max el	11895 Oct 28 01:09	9°♄40'19	23°25'22	
minimum elong	11894 Dec 13 03:05	0°♄32'40	5°17'31	retrograde	11895 Nov 10 10:49	16°♄20'56		
	11894 Dec 13 23:11	30°♄♄		evening set	11895 Nov 14 19:56	15°♄39'16		
morning rise	11894 Dec 21 05:27	26°♄34'38		min. Earth dist.	11895 Nov 21 11:02	12°♄31'51	0.55352 AU	
direct	11894 Dec 23 13:06	26°♄19'12		inferior conj	11895 Nov 23 03:47	11°♄32'17	-5°50'59	
	11894 Dec 31 23:34	0°♄		minimum elong	11895 Nov 23 04:44	11°♄30'54	5°50'14	
asc. node	11895 Jan 01 14:12	0°♄33'10		morning rise	11895 Dec 01 15:15	7°♄40'21		
morning max el	11895 Jan 01 20:44	0°♄48'44	19°14'04	direct	11895 Dec 04 11:59	7°♄20'28		
morning set	11895 Jan 18 17:24	28°♄00'26		morning max el	11895 Dec 15 08:01	12°♄29'21	20°27'19	
	11895 Jan 19 17:24	0°♄		asc. node	11895 Dec 19 11:16	17°♄08'16		
					11895 Dec 27 13:52	0°♄		
superior conj	11895 Jan 26 22:20	14°♄14'52	0°59'41	morning set	11896 Jan 03 00:14	12°♄39'50		
minimum elong	11895 Jan 27 01:16	14°♄29'02	0°59'55					
max. Earth dist.	11895 Feb 02 15:07	26°♄48'01	1.38474 AU	superior conj	11896 Jan 10 13:06	28°♄11'07	1°19'42	
desc. node	11895 Feb 03 20:02	28°♄58'00		minimum elong	11896 Jan 10 15:41	28°♄24'08	1°20'10	
	11895 Feb 04 09:59	0°♄			11896 Jan 11 10:40	0°♄		
evening rise	11895 Feb 06 09:23	3°♄27'58		max. Earth dist.	11896 Jan 15 22:53	8°♄52'04	1.36310 AU	
	11895 Feb 23 01:50	0°♄		evening rise	11896 Jan 19 18:55	16°♄03'31		
evening max el	11895 Mar 13 17:48	23°♄33'29	24°48'32	desc. node	11896 Jan 21 16:47	19°♄31'00		
	11895 Mar 22 23:22	0°♄			11896 Jan 27 19:01	0°♄		
retrograde	11895 Mar 25 11:44	0°♄24'06			11896 Feb 17 14:05	0°♄		
	11895 Mar 27 20:49	30°♄♄		evening max el	11896 Feb 24 07:19	7°♄24'00	25°59'16	
asc. node	11895 Mar 30 11:41	28°♄33'31		retrograde	11896 Mar 07 22:08	14°♄36'40		
evening set	11895 Mar 31 02:48	28°♄03'07		evening set	11896 Mar 14 00:52	12°♄07'08		
min. Earth dist.	11895 Apr 04 14:53	22°♄58'31	0.68135 AU	asc. node	11896 Mar 16 09:02	9°♄50'34		
inferior conj	11895 Apr 05 16:42	21°♄32'59	1°51'07	min. Earth dist.	11896 Mar 18 06:17	7°♄37'40	0.67182 AU	
minimum elong	11895 Apr 05 14:36	21°♄39'57	1°50'13	inferior conj	11896 Mar 19 20:16	5°♄39'00	1°05'15	
morning rise	11895 Apr 11 02:37	15°♄35'39		minimum elong	11896 Mar 19 18:45	5°♄43'46	1°04'40	
direct	11895 Apr 14 20:02	14°♄15'58			11896 Mar 25 07:54	30°♄♄		
morning max el	11895 Apr 22 03:09	18°♄18'45	19°39'04	morning rise	11896 Mar 25 13:18	29°♄51'25		
	11895 May 01 11:57	0°♄		direct	11896 Mar 28 19:23	28°♄51'07		
desc. node	11895 May 02 21:43	2°♄00'21			11896 Apr 01 10:25	0°♄		
greatest brilliancy	11895 May 04 20:17	4°♄49'26	-0.6m	morning max el	11896 Apr 04 11:42	2°♄27'12	18°45'58	
morning set	11895 May 17 22:59	24°♄37'07		desc. node	11896 Apr 18 18:25	21°♄55'44		
	11895 May 21 10:40	0°♄			11896 Apr 23 23:20	0°♄		
max. Earth dist.	11895 May 29 15:15	12°♄49'03	1.44765 AU	morning set	11896 Apr 26 09:41	3°♄47'30		
				max. Earth dist.	11896 May 11 09:13	27°♄10'24	1.45601 AU	
superior conj	11895 Jun 03 05:00	20°♄06'36	-2°12'24					
minimum elong	11895 Jun 03 07:15	20°♄15'36	2°13'09	superior conj	11896 May 12 16:58	29°♄14'42	-2°08'25	
	11895 Jun 09 07:01	0°♄		minimum elong	11896 May 12 11:40	28°♄53'54	2°08'52	
evening rise	11895 Jun 16 23:35	12°♄48'48			11896 May 13 04:32	0°♄		
asc. node	11895 Jun 26 09:47	28°♄29'30		evening rise	11896 May 28 00:37	23°♄32'28		
	11895 Jun 27 08:40	0°♄			11896 Jun 01 01:03	0°♄		
evening max el	11895 Jul 05 05:10	10°♄28'42	18°10'37	greatest brilliancy	11896 Jun 03 08:42	3°♄43'01	-0.9m	
retrograde	11895 Jul 11 13:41	13°♄49'31		asc. node	11896 Jun 12 06:47	17°♄22'41		
evening set	11895 Jul 14 10:23	13°♄06'10		evening max el	11896 Jun 17 17:44	24°♄04'56	18°35'25	
inferior conj	11895 Jul 20 12:11	7°♄46'30	2°27'31	retrograde	11896 Jun 24 06:07	27°♄37'09		
minimum elong	11895 Jul 20 14:43	7°♄39'28	2°26'13	evening set	11896 Jun 27 11:04	26°♄38'51		
min. Earth dist.	11895 Jul 23 03:10	4°♄53'08	0.63407 AU	inferior conj	11896 Jul 03 03:16	21°♄02'59	2°58'29	
morning rise	11895 Jul 26 17:22	1°♄32'20		minimum elong	11896 Jul 03 05:02	20°♄57'38	2°57'26	
	11895 Jul 29 04:09	30°♄♄		min. Earth dist.	11896 Jul 05 03:52	18°♄35'32	0.65340 AU	
desc. node	11895 Jul 29 20:59	29°♄41'18		morning rise	11896 Jul 08 22:03	14°♄41'41		
direct	11895 Aug 02 09:43	28°♄59'21		direct	11896 Jul 15 09:36	12°♄00'02		
	11895 Aug 06 22:07	0°♄		desc. node	11896 Jul 15 18:14	12°♄00'29		
morning max el	11895 Aug 16 07:55	7°♄01'07	27°46'26	morning max el	11896 Jul 28 18:47	19°♄53'39	27°02'35	

	11896 Aug 06 10:12	0°♎		direct	11897 Jun 28 16:25	25°♐36'11	
	11896 Aug 25 23:56	0°♏		desc. node	11897 Jul 02 15:25	26°♐31'51	
morning set	11896 Sep 02 09:59	13°♏37'45			11897 Jul 07 21:30	0°♑	
max. Earth dist.	11896 Sep 06 17:43	22°♏10'30	1.33692 AU	morning max el	11897 Jul 11 05:38	3°♑06'56	25°53'40
asc. node	11896 Sep 08 07:22	25°♏22'55			11897 Jul 31 15:46	0°♒	
				morning set	11897 Aug 16 06:09	26°♒15'34	
superior conj	11896 Sep 10 22:01	0°♑49'20	0°25'06		11897 Aug 18 06:27	0°♓	
minimum elong	11896 Sep 10 20:46	0°♑42'44	0°24'47	max. Earth dist.	11897 Aug 20 00:15	3°♓18'20	1.35474 AU
	11896 Sep 10 12:38	0°♑					
evening rise	11896 Sep 18 03:47	16°♑13'45		superior conj	11897 Aug 25 16:12	14°♓28'50	-0°04'46
	11896 Sep 24 23:56	0°♒		minimum elong	11897 Aug 25 16:29	14°♓30'19	0°04'59
evening max el	11896 Oct 08 14:22	19°♒47'17	21°45'53	behind sun begin	11897 Aug 25 10:38	14°♓00'42	
desc. node	11896 Oct 11 15:10	22°♒25'29		behind sun end	11897 Aug 25 22:20	14°♓59'59	
retrograde	11896 Oct 21 00:48	25°♒58'19		asc. node	11897 Aug 26 04:03	15°♓28'56	
evening set	11896 Oct 23 23:51	25°♒38'31		evening rise	11897 Sep 02 11:29	0°♑33'41	
inferior conj	11896 Nov 01 21:50	21°♒42'26	-5°28'07		11897 Sep 02 04:57	0°♑	
minimum elong	11896 Nov 01 14:29	21°♒52'44	5°26'23		11897 Sep 20 04:29	0°♒	
min. Earth dist.	11896 Nov 01 17:32	21°♒48'27	0.54605 AU	evening max el	11897 Sep 20 15:11	0°♒27'08	20°20'23
morning rise	11896 Nov 10 06:16	17°♒54'57		desc. node	11897 Sep 28 12:33	5°♒28'03	
direct	11896 Nov 13 21:23	17°♒26'13		retrograde	11897 Oct 01 13:03	5°♒52'23	
morning max el	11896 Nov 26 05:36	23°♒18'39	22°01'40	evening set	11897 Oct 03 14:20	5°♒41'43	
	11896 Dec 02 01:47	0°♓		inferior conj	11897 Oct 12 15:10	1°♒44'49	-4°09'29
asc. node	11896 Dec 05 08:16	4°♓44'50		minimum elong	11897 Oct 12 05:16	1°♒59'21	4°06'09
morning set	11896 Dec 17 10:30	27°♓25'41		min. Earth dist.	11897 Oct 14 01:46	0°♒54'00	0.54788 AU
	11896 Dec 18 15:42	0°♑			11897 Oct 15 15:37	30°♒♑	
				morning rise	11897 Oct 20 19:29	27°♑40'53	
superior conj	11896 Dec 24 13:00	12°♑31'25	1°32'24	direct	11897 Oct 25 06:49	26°♑57'42	
minimum elong	11896 Dec 24 14:38	12°♑40'01	1°33'06		11897 Nov 03 08:20	0°♒	
max. Earth dist.	11896 Dec 28 12:04	20°♑43'49	1.34419 AU	morning max el	11897 Nov 07 18:01	3°♒31'54	23°48'37
evening rise	11897 Jan 01 20:02	29°♑18'05		asc. node	11897 Nov 22 05:11	23°♒08'32	
	11897 Jan 02 04:46	0°♒			11897 Nov 25 22:41	0°♓	
desc. node	11897 Jan 07 13:35	9°♒54'02		morning set	11897 Dec 01 22:15	12°♓12'45	
	11897 Jan 19 22:46	0°♓					
evening max el	11897 Feb 05 20:47	21°♓05'28	26°54'22	superior conj	11897 Dec 08 19:05	27°♓07'26	1°38'22
retrograde	11897 Feb 19 02:58	28°♓29'15		minimum elong	11897 Dec 08 19:34	27°♓10'06	1°39'09
evening set	11897 Feb 25 15:56	25°♓56'02			11897 Dec 10 03:01	0°♑	
min. Earth dist.	11897 Mar 01 15:45	22°♓00'31	0.65832 AU	max. Earth dist.	11897 Dec 11 09:04	2°♑40'47	1.32942 AU
asc. node	11897 Mar 03 06:23	20°♓09'04		evening rise	11897 Dec 16 09:18	13°♑03'35	
inferior conj	11897 Mar 03 17:49	19°♓35'51	0°09'16	desc. node	11897 Dec 25 10:30	0°♒02'12	
minimum elong	11897 Mar 03 17:33	19°♓36'37	0°09'22		11897 Dec 25 09:59	0°♒	
transit middle	11897 Mar 03 17:33	19°♓36'37	0°09'22		11898 Jan 15 02:48	0°♓	
transit begin	11897 Mar 03 15:09	19°♓43'36		evening max el	11898 Jan 19 09:30	4°♓28'22	27°26'36
transit end	11897 Mar 03 19:57	19°♓29'39		retrograde	11898 Feb 02 01:27	11°♓53'17	
morning rise	11897 Mar 09 20:29	13°♓59'57		evening set	11898 Feb 08 21:49	9°♓23'14	
direct	11897 Mar 12 16:30	13°♓16'04		min. Earth dist.	11898 Feb 12 17:24	5°♓58'57	0.64135 AU
morning max el	11897 Mar 19 01:58	16°♓38'17	18°09'24	inferior conj	11898 Feb 15 06:50	3°♓17'48	-0°56'38
	11897 Mar 29 00:41	0°♓		minimum elong	11898 Feb 15 08:35	3°♓13'10	0°55'28
desc. node	11897 Apr 05 15:03	12°♓08'50		asc. node	11898 Feb 18 03:43	0°♓27'01	
morning set	11897 Apr 06 22:46	14°♓17'00			11898 Feb 18 16:09	30°♒♒	
	11897 Apr 16 18:09	0°♓		morning rise	11898 Feb 21 21:24	27°♒55'58	
				direct	11898 Feb 24 09:01	27°♒24'51	
superior conj	11897 Apr 22 00:31	8°♓18'08	-1°44'37		11898 Mar 02 00:11	0°♓	
minimum elong	11897 Apr 21 15:09	7°♓41'24	1°44'12	morning max el	11898 Mar 02 19:15	0°♓44'20	17°49'52
max. Earth dist.	11897 Apr 24 04:59	11°♓43'37	1.45693 AU	morning set	11898 Mar 19 16:06	26°♓08'45	
	11897 May 05 22:43	0°♐			11898 Mar 21 22:53	0°♓	
evening rise	11897 May 08 02:41	3°♐21'41		desc. node	11898 Mar 23 11:40	2°♓34'32	
greatest brilliancy	11897 May 20 03:18	21°♐51'47	-0.7m				
	11897 May 25 17:40	0°♑		superior conj	11898 Apr 01 21:20	18°♓03'13	-1°07'17
asc. node	11897 May 30 03:51	5°♑41'04		minimum elong	11898 Apr 01 14:15	17°♓34'38	1°06'31
evening max el	11897 Jun 01 02:24	7°♑47'24	19°17'24	max. Earth dist.	11898 Apr 06 23:58	26°♓12'38	1.45049 AU
retrograde	11897 Jun 08 03:00	11°♑43'33			11898 Apr 09 09:45	0°♓	
evening set	11897 Jun 11 16:38	10°♑29'23		evening rise	11898 Apr 17 15:07	12°♓44'13	
inferior conj	11897 Jun 17 02:45	4°♑39'00	3°13'06		11898 Apr 29 01:33	0°♐	
minimum elong	11897 Jun 17 03:25	4°♑36'49	3°12'15	evening max el	11898 May 15 05:43	21°♐32'29	20°14'50
min. Earth dist.	11897 Jun 18 12:34	2°♑48'48	0.66880 AU	asc. node	11898 May 17 01:00	23°♐13'20	
	11897 Jun 20 20:19	30°♒♐		retrograde	11898 May 23 01:40	26°♐02'57	
morning rise	11897 Jun 22 13:40	28°♐16'27		evening set	11898 May 27 00:45	24°♐32'35	



inferior conj	11898 Jun 01 07:45	18° $\Pi$ 29'12	3°14'17	min. Earth dist.	11899 May 16 22:05	2° $\Pi$ 08'14	0.68611 AU
minimum elong	11898 Jun 01 07:20	18° $\Pi$ 30'36	3°13'30		11899 May 18 11:37	30° $\mathbb{R}$ $\mathcal{B}$	
min. Earth dist.	11898 Jun 02 03:20	17° $\Pi$ 22'24	0.67980 AU	morning rise	11899 May 21 19:33	26° $\mathcal{B}$ 14'17	
morning rise	11898 Jun 06 13:38	12° $\Pi$ 09'10		direct	11899 May 26 22:03	24° $\mathcal{B}$ 00'55	
direct	11898 Jun 12 04:57	9° $\Pi$ 39'06		morning max el	11899 Jun 06 01:51	0° $\Pi$ 02'25	22°59'37
desc. node	11898 Jun 19 12:31	12° $\Pi$ 47'51		desc. node	11899 Jun 06 09:31	0° $\Pi$ 21'52	
morning max el	11898 Jun 23 15:28	16° $\Pi$ 30'47	24°29'20		11899 Jun 06 00:54	0° $\Pi$	
	11898 Jul 04 19:34	0° $\mathcal{E}$			11899 Jun 28 14:57	0° $\mathcal{E}$	
	11898 Jul 24 15:08	0° $\mathcal{O}$		morning set	11899 Jul 10 11:32	18° $\mathcal{E}$ 46'31	
morning set	11898 Jul 29 08:16	8° $\mathcal{O}$ 02'22		max. Earth dist.	11899 Jul 14 20:33	26° $\mathcal{E}$ 09'23	1.39962 AU
max. Earth dist.	11898 Aug 01 22:50	14° $\mathcal{O}$ 26'48	1.37637 AU		11899 Jul 17 01:46	0° $\mathcal{O}$	
superior conj	11898 Aug 08 23:12	27° $\mathcal{O}$ 34'16	-0°37'50	superior conj	11899 Jul 22 15:08	9° $\mathcal{O}$ 56'50	-1°11'53
minimum elong	11898 Aug 09 01:45	27° $\mathcal{O}$ 46'33	0°37'52	minimum elong	11899 Jul 22 20:13	10° $\mathcal{O}$ 20'09	1°11'47
	11898 Aug 10 05:15	0° $\mathbb{P}$		asc. node	11899 Jul 30 21:31	25° $\mathcal{O}$ 29'03	
asc. node	11898 Aug 13 00:44	5° $\mathbb{P}$ 32'05		evening rise	11899 Aug 01 07:58	28° $\mathcal{O}$ 13'43	
evening rise	11898 Aug 17 13:52	14° $\mathbb{P}$ 36'05			11899 Aug 02 06:14	0° $\mathbb{P}$	
	11898 Aug 25 16:53	0° $\mathcal{A}$		evening max el	11899 Aug 17 08:27	24° $\mathbb{P}$ 04'59	18°31'26
evening max el	11898 Sep 03 06:02	11° $\mathcal{A}$ 53'40	19°15'12	retrograde	11899 Aug 25 04:40	28° $\mathbb{P}$ 01'35	
retrograde	11898 Sep 12 11:34	16° $\mathcal{A}$ 29'49		evening set	11899 Aug 27 05:13	27° $\mathbb{P}$ 46'39	
evening set	11898 Sep 14 07:50	16° $\mathcal{A}$ 19'34		desc. node	11899 Sep 02 07:24	24° $\mathbb{P}$ 34'36	
desc. node	11898 Sep 15 09:59	16° $\mathcal{A}$ 04'22		inferior conj	11899 Sep 04 00:27	23° $\mathbb{P}$ 16'40	-0°32'00
inferior conj	11898 Sep 22 21:25	12° $\mathcal{A}$ 09'39	-2°20'10	minimum elong	11899 Sep 03 23:12	23° $\mathbb{P}$ 19'06	0°31'40
minimum elong	11898 Sep 22 15:18	12° $\mathcal{A}$ 19'50	2°17'44	min. Earth dist.	11899 Sep 07 06:42	20° $\mathbb{P}$ 45'40	0.57691 AU
min. Earth dist.	11898 Sep 25 13:30	10° $\mathcal{A}$ 23'36	0.55888 AU	morning rise	11899 Sep 11 13:43	18° $\mathbb{P}$ 02'45	
morning rise	11898 Sep 30 20:03	7° $\mathcal{A}$ 33'08		direct	11899 Sep 17 13:48	16° $\mathbb{P}$ 31'33	
direct	11898 Oct 06 03:18	6° $\mathcal{A}$ 28'40		morning max el	11899 Oct 01 21:23	24° $\mathbb{P}$ 05'01	26°56'19
morning max el	11898 Oct 20 05:02	13° $\mathcal{A}$ 36'45	25°32'46		11899 Oct 07 06:49	0° $\mathcal{A}$	
	11898 Nov 02 01:53	0° $\mathbb{L}$			11899 Oct 26 04:19	0° $\mathbb{L}$	
asc. node	11898 Nov 09 02:03	12° $\mathbb{L}$ 06'52		asc. node	11899 Oct 26 22:52	1° $\mathbb{L}$ 30'51	
morning set	11898 Nov 16 09:44	26° $\mathbb{L}$ 55'19		morning set	11899 Oct 31 19:17	11° $\mathbb{L}$ 29'06	
	11898 Nov 17 19:56	0° $\mathcal{Z}$		superior conj	11899 Nov 07 16:29	26° $\mathbb{L}$ 36'33	1°31'54
superior conj	11898 Nov 23 04:55	11° $\mathcal{Z}$ 51'09	1°38'04	minimum elong	11899 Nov 07 14:58	26° $\mathbb{L}$ 28'04	1°32'24
minimum elong	11898 Nov 23 04:18	11° $\mathcal{Z}$ 47'45	1°38'47	max. Earth dist.	11899 Nov 07 21:27	27° $\mathbb{L}$ 04'14	1.31409 AU
max. Earth dist.	11898 Nov 24 13:07	14° $\mathcal{Z}$ 48'41	1.31932 AU		11899 Nov 09 05:01	0° $\mathcal{Z}$	
evening rise	11898 Nov 30 07:33	27° $\mathcal{Z}$ 11'07		evening rise	11899 Nov 14 12:11	11° $\mathcal{Z}$ 33'55	
	11898 Dec 01 16:25	0° $\mathcal{B}$			11899 Nov 23 20:50	0° $\mathcal{B}$	
desc. node	11898 Dec 12 07:30	19° $\mathcal{B}$ 48'15		desc. node	11899 Nov 29 04:35	9° $\mathcal{B}$ 03'26	
	11898 Dec 18 17:48	0° $\mathcal{A}$		evening max el	11899 Dec 15 00:19	29° $\mathcal{B}$ 28'32	26°58'34
evening max el	11899 Jan 01 19:37	17° $\mathcal{A}$ 20'23	27°29'30		11899 Dec 15 13:51	0° $\mathcal{A}$	
retrograde	11899 Jan 15 16:28	24° $\mathcal{A}$ 39'17		retrograde	11899 Dec 28 22:36	6° $\mathcal{A}$ 38'48	
evening set	11899 Jan 22 15:42	22° $\mathcal{A}$ 20'29		evening set	11900 Jan 04 18:02	4° $\mathcal{A}$ 39'42	
min. Earth dist.	11899 Jan 26 09:25	19° $\mathcal{A}$ 22'39	0.62163 AU	min. Earth dist.	11900 Jan 08 14:40	1° $\mathcal{A}$ 59'47	0.60039 AU
inferior conj	11899 Jan 29 08:18	16° $\mathcal{A}$ 37'09	-2°11'06		11900 Jan 11 01:30	30° $\mathcal{A}$ $\mathcal{B}$	
minimum elong	11899 Jan 29 12:45	16° $\mathcal{A}$ 26'42	2°08'43	inferior conj	11900 Jan 11 18:43	29° $\mathcal{A}$ 24'27	-3°30'09
asc. node	11899 Feb 05 01:02	11° $\mathcal{A}$ 42'30		minimum elong	11900 Jan 12 01:56	29° $\mathcal{A}$ 09'40	3°26'55
morning rise	11899 Feb 05 12:25	11° $\mathcal{A}$ 32'16		morning rise	11900 Jan 19 12:39	24° $\mathcal{A}$ 39'49	
direct	11899 Feb 07 17:48	11° $\mathcal{A}$ 10'05		direct	11900 Jan 21 14:56	24° $\mathcal{A}$ 23'01	
morning max el	11899 Feb 14 12:31	14° $\mathcal{A}$ 36'49	17°48'04	asc. node	11900 Jan 22 22:20	24° $\mathcal{A}$ 29'49	
	11899 Feb 25 04:13	0° $\mathcal{H}$		morning max el	11900 Jan 29 02:18	28° $\mathcal{A}$ 06'19	18°05'03
morning set	11899 Mar 02 08:18	9° $\mathcal{H}$ 05'41			11900 Jan 30 20:23	0° $\mathcal{A}$	
desc. node	11899 Mar 10 08:18	23° $\mathcal{H}$ 08'35		morning set	11900 Feb 13 17:00	22° $\mathcal{A}$ 48'13	
					11900 Feb 17 13:52	0° $\mathcal{H}$	
superior conj	11899 Mar 13 17:31	28° $\mathcal{H}$ 54'57	-0°25'49	superior conj	11900 Feb 23 13:49	10° $\mathcal{H}$ 54'07	0°12'42
minimum elong	11899 Mar 13 15:02	28° $\mathcal{H}$ 44'27	0°25'20	minimum elong	11900 Feb 23 14:50	10° $\mathcal{H}$ 58'40	0°12'52
	11899 Mar 14 08:58	0° $\mathcal{Y}$		behind sun begin	11900 Feb 23 10:13	10° $\mathcal{H}$ 38'04	
max. Earth dist.	11899 Mar 20 16:30	10° $\mathcal{Y}$ 24'17	1.43740 AU	behind sun end	11900 Feb 23 19:28	11° $\mathcal{H}$ 19'15	
evening rise	11899 Mar 28 05:29	22° $\mathcal{Y}$ 20'29		desc. node	11900 Feb 25 04:54	13° $\mathcal{H}$ 46'55	
	11899 Apr 02 05:23	0° $\mathcal{B}$		max. Earth dist.	11900 Mar 03 04:52	24° $\mathcal{H}$ 03'58	1.41907 AU
	11899 Apr 23 10:36	0° $\Pi$			11900 Mar 06 19:13	0° $\mathcal{Y}$	
evening max el	11899 Apr 28 03:29	5° $\Pi$ 18'59	21°24'47	evening rise	11900 Mar 08 10:50	2° $\mathcal{Y}$ 40'02	
asc. node	11899 May 03 22:14	9° $\Pi$ 45'34			11900 Mar 26 14:29	0° $\mathcal{B}$	
retrograde	11899 May 07 00:08	10° $\Pi$ 30'36		evening max el	11900 Apr 10 20:32	19° $\mathcal{B}$ 06'20	22°42'56
evening set	11899 May 11 09:33	8° $\Pi$ 44'12		retrograde	11900 Apr 20 20:48	25° $\mathcal{B}$ 01'00	
inferior conj	11899 May 16 15:58	2° $\Pi$ 29'34	3°04'01	asc. node	11900 Apr 20 19:33	25° $\mathcal{B}$ 00'59	
minimum elong	11899 May 16 14:39	2° $\Pi$ 34'08	3°03'11				

evening set	11900 Apr 25 17:23	22°♄59'28		evening set	11901 Apr 09 22:41	7°♄14'17	
inferior conj	11900 May 01 01:20	16°♄35'56	2°43'27	min. Earth dist.	11901 Apr 14 15:00	1°♄49'25	0.68493 AU
minimum elong	11900 Apr 30 23:24	16°♄42'37	2°42'31	inferior conj	11901 Apr 15 09:58	0°♄45'08	2°13'04
min. Earth dist.	11900 Apr 30 18:41	16°♄59'03	0.68777 AU	minimum elong	11901 Apr 15 07:48	0°♄52'29	2°12'06
morning rise	11900 May 06 05:19	10°♄26'45			11901 Apr 15 23:18	30°♄♂	
direct	11900 May 10 18:33	8°♄33'49		morning rise	11901 Apr 20 16:58	24°♄43'08	
morning max el	11900 May 19 15:57	13°♄43'17	21°33'14	direct	11901 Apr 24 17:17	23°♄11'42	
desc. node	11900 May 24 06:25	18°♄52'19		morning max el	11901 May 02 12:37	27°♄35'49	20°16'46
	11900 Jun 01 15:43	0°♄			11901 May 04 18:42	0°♄	
morning set	11900 Jun 20 12:55	28°♄21'19		desc. node	11901 May 11 03:13	8°♄03'55	
	11900 Jun 21 13:45	0°♄			11901 May 26 02:58	0°♄	
max. Earth dist.	11900 Jun 26 23:05	8°♄44'00	1.42161 AU	morning set	11901 May 30 17:22	7°♄02'40	
				max. Earth dist.	11901 Jun 09 08:05	22°♄08'26	1.43972 AU
					11901 Jun 14 04:39	0°♄	
superior conj	11900 Jul 04 11:22	21°♄25'29	-1°43'09				
minimum elong	11900 Jul 04 18:07	21°♄54'47	1°43'12	superior conj	11901 Jun 15 08:07	1°♄52'40	-2°05'54
	11900 Jul 09 08:19	0°♄		minimum elong	11901 Jun 15 13:24	2°♄14'28	2°06'26
evening rise	11900 Jul 15 13:48	11°♄16'16		evening rise	11901 Jun 28 02:38	23°♄31'54	
asc. node	11900 Jul 17 18:19	15°♄15'16			11901 Jul 01 20:16	0°♄	
	11900 Jul 26 09:16	0°♄		asc. node	11901 Jul 04 15:12	4°♄45'49	
evening max el	11900 Jul 31 18:23	6°♄51'52	18°08'13	evening max el	11901 Jul 15 07:56	20°♄04'31	18°04'25
retrograde	11900 Aug 07 16:25	10°♄23'17		retrograde	11901 Jul 21 18:39	23°♄25'21	
evening set	11900 Aug 10 00:16	9°♄59'47		evening set	11901 Jul 24 10:32	22°♄50'04	
inferior conj	11900 Aug 17 00:55	5°♄09'08	0°56'33	inferior conj	11901 Jul 30 19:35	17°♄40'36	2°00'49
minimum elong	11900 Aug 17 02:38	5°♄05'13	0°55'32	minimum elong	11901 Jul 30 22:13	17°♄33'44	1°59'26
desc. node	11900 Aug 20 04:48	2°♄18'06		min. Earth dist.	11901 Aug 02 17:55	14°♄39'28	0.62155 AU
min. Earth dist.	11900 Aug 20 07:42	2°♄11'52	0.59881 AU	morning rise	11901 Aug 06 07:39	11°♄33'41	
	11900 Aug 23 03:17	30°♄♂		desc. node	11901 Aug 07 02:10	11°♄02'26	
morning rise	11900 Aug 24 01:53	29°♄23'28		direct	11901 Aug 13 00:02	9°♄10'15	
direct	11900 Aug 30 13:22	27°♄24'00		morning max el	11901 Aug 27 03:32	17°♄12'18	27°57'03
	11900 Sep 07 10:09	0°♄			11901 Sep 06 18:45	0°♄	
morning max el	11900 Sep 13 21:21	5°♄15'57	27°46'07		11901 Sep 25 01:28	0°♄	
	11900 Oct 02 07:24	0°♄		morning set	11901 Sep 30 01:07	9°♄49'58	
asc. node	11900 Oct 13 19:37	21°♄13'16		asc. node	11901 Sep 30 16:17	11°♄07'47	
morning set	11900 Oct 16 01:07	25°♄49'23		max. Earth dist.	11901 Oct 05 11:41	21°♄18'56	1.31864 AU
	11900 Oct 18 00:20	0°♄					
max. Earth dist.	11900 Oct 22 06:19	9°♄18'08	1.31380 AU	superior conj	11901 Oct 07 13:22	25°♄50'07	1°02'50
				minimum elong	11901 Oct 07 11:07	25°♄37'50	1°02'45
superior conj	11900 Oct 23 03:57	11°♄18'17	1°20'05		11901 Oct 09 10:45	0°♄	
minimum elong	11900 Oct 23 01:51	11°♄06'36	1°20'18	evening rise	11901 Oct 14 07:53	10°♄41'08	
evening rise	11900 Oct 29 20:58	26°♄05'59			11901 Oct 24 01:17	0°♄	
	11900 Oct 31 17:01	0°♄		desc. node	11901 Nov 02 23:00	15°♄07'34	
desc. node	11900 Nov 16 01:45	27°♄35'41		evening max el	11901 Nov 08 09:50	21°♄12'24	24°23'30
	11900 Nov 17 18:05	0°♄		retrograde	11901 Nov 22 03:00	28°♄03'57	
evening max el	11900 Nov 26 21:02	10°♄44'39	25°54'03	evening set	11901 Nov 27 07:05	27°♄04'57	
retrograde	11900 Dec 10 18:43	17°♄46'46		min. Earth dist.	11901 Dec 02 21:08	24°♄14'10	0.56133 AU
evening set	11900 Dec 17 00:31	16°♄15'20		inferior conj	11901 Dec 05 05:51	22°♄46'00	-5°38'28
min. Earth dist.	11900 Dec 21 09:41	13°♄39'19	0.57941 AU	minimum elong	11901 Dec 05 11:04	22°♄37'53	5°37'04
inferior conj	11900 Dec 24 10:38	11°♄30'04	-4°44'45	morning rise	11901 Dec 13 17:08	18°♄44'57	
minimum elong	11900 Dec 24 18:59	11°♄15'13	4°41'51	direct	11901 Dec 16 05:11	18°♄28'20	
morning rise	11901 Jan 01 16:05	7°♄08'02		morning max el	11901 Dec 26 04:08	23°♄13'54	19°42'25
direct	11901 Jan 03 19:52	6°♄53'11		asc. node	11901 Dec 27 16:40	24°♄47'57	
asc. node	11901 Jan 09 19:33	8°♄55'35			11901 Dec 31 18:18	0°♄	
morning max el	11901 Jan 12 08:51	11°♄02'49	18°42'33	morning set	11902 Jan 12 16:54	21°♄33'25	
	11901 Jan 24 21:22	0°♄			11902 Jan 16 20:51	0°♄	
morning set	11901 Jan 28 13:09	7°♄01'31					
				superior conj	11902 Jan 20 14:16	7°♄27'24	1°09'05
superior conj	11901 Feb 06 06:22	23°♄49'54	0°44'41	minimum elong	11902 Jan 20 17:08	7°♄41'36	1°09'24
minimum elong	11901 Feb 06 09:02	24°♄02'28	0°44'49	max. Earth dist.	11902 Jan 26 18:39	19°♄18'29	1.37530 AU
	11901 Feb 09 14:22	0°♄		desc. node	11902 Jan 29 22:15	25°♄02'38	
desc. node	11901 Feb 12 01:34	4°♄26'22		evening rise	11902 Jan 30 12:01	26°♄03'54	
max. Earth dist.	11901 Feb 13 12:40	7°♄01'17	1.39756 AU		11902 Feb 01 17:54	0°♄	
evening rise	11901 Feb 17 13:05	13°♄55'24			11902 Feb 21 02:19	0°♄	
	11901 Feb 27 13:12	0°♄		evening max el	11902 Mar 07 00:05	16°♄46'31	25°20'02
	11901 Mar 01 16:02	0°♄		retrograde	11902 Mar 19 03:51	23°♄48'43	
evening max el	11901 Mar 24 10:43	2°♄55'42	24°03'32	evening set	11902 Mar 24 23:52	21°♄23'33	
retrograde	11901 Apr 04 14:25	9°♄29'06		asc. node	11902 Mar 25 14:14	20°♄51'40	
asc. node	11901 Apr 07 16:53	8°♄44'54					

min. Earth dist.	11902 Mar 29 08:55	16° $\Upsilon$ 33'51	0.67776 AU	retrograde	11903 Mar 02 12:00	7° $\Upsilon$ 53'12	
inferior conj	11902 Mar 30 15:56	14° $\Upsilon$ 53'18	1°32'54	evening set	11903 Mar 08 19:11	5° $\Upsilon$ 21'43	
minimum elong	11902 Mar 30 14:01	14° $\Upsilon$ 59'33	1°32'05	asc. node	11903 Mar 12 11:36	1° $\Upsilon$ 37'50	
morning rise	11902 Apr 05 04:34	8° $\Upsilon$ 59'48		min. Earth dist.	11903 Mar 12 22:11	1° $\Upsilon$ 06'34	0.66653 AU
direct	11902 Apr 08 16:55	7° $\Upsilon$ 48'48			11903 Mar 13 20:15	30° $\Re$ $\mathfrak{H}$	
morning max el	11902 Apr 15 16:57	11° $\Upsilon$ 39'04	19°14'26	inferior conj	11903 Mar 14 17:14	28° $\mathfrak{H}$ 56'04	0°42'44
desc. node	11902 Apr 27 23:57	27° $\Upsilon$ 45'32		minimum elong	11903 Mar 14 16:09	28° $\mathfrak{H}$ 59'21	0°42'24
greatest brilliancy	11902 Apr 28 13:53	28° $\Upsilon$ 37'19	-0.7m	morning rise	11903 Mar 20 14:02	23° $\mathfrak{H}$ 12'52	
	11902 Apr 29 12:01	0° $\mathfrak{B}$		direct	11903 Mar 23 15:40	22° $\mathfrak{H}$ 19'54	
morning set	11902 May 09 19:01	15° $\mathfrak{B}$ 42'52		morning max el	11903 Mar 30 04:07	25° $\mathfrak{H}$ 48'48	18°28'15
	11902 May 19 00:00	0° $\Pi$			11903 Apr 02 20:06	0° $\Upsilon$	
max. Earth dist.	11902 May 22 22:53	6° $\Pi$ 11'37	1.45201 AU	desc. node	11903 Apr 14 20:37	17° $\Upsilon$ 49'00	
				morning set	11903 Apr 19 15:52	25° $\Upsilon$ 23'48	
					11903 Apr 22 13:49	0° $\mathfrak{B}$	
superior conj	11902 May 26 05:51	11° $\Pi$ 23'12	-2°13'14				
minimum elong	11902 May 26 04:58	11° $\Pi$ 19'43	2°13'59				
	11902 Jun 06 19:01	0° $\mathfrak{E}$		superior conj	11903 May 05 13:40	20° $\mathfrak{B}$ 23'05	-2°00'31
evening rise	11902 Jun 09 17:33	4° $\mathfrak{E}$ 50'00		minimum elong	11903 May 05 05:49	19° $\mathfrak{B}$ 52'25	2°00'36
asc. node	11902 Jun 21 12:09	23° $\mathfrak{E}$ 54'53		max. Earth dist.	11903 May 05 17:45	20° $\mathfrak{B}$ 39'03	1.45732 AU
	11902 Jun 25 19:05	0° $\Omega$			11903 May 11 17:15	0° $\Pi$	
evening max el	11902 Jun 28 21:45	3° $\Omega$ 34'41	18°19'06	evening rise	11903 May 21 08:09	15° $\Pi$ 07'46	
retrograde	11902 Jul 05 06:55	6° $\Omega$ 58'45		greatest brilliancy	11903 May 30 11:51	29° $\Pi$ 32'36	-0.8m
evening set	11902 Jul 08 07:03	6° $\Omega$ 09'20			11903 May 30 18:54	0° $\mathfrak{E}$	
inferior conj	11902 Jul 14 04:20	0° $\Omega$ 42'54	2°42'50	asc. node	11903 Jun 08 09:10	12° $\mathfrak{E}$ 34'19	
minimum elong	11902 Jul 14 06:36	0° $\Omega$ 36'20	2°41'38	evening max el	11903 Jun 12 08:58	17° $\mathfrak{E}$ 14'14	18°51'23
	11902 Jul 14 19:07	30° $\Re$ $\mathfrak{E}$		retrograde	11903 Jun 19 01:28	20° $\mathfrak{E}$ 54'50	
min. Earth dist.	11902 Jul 16 13:30	27° $\mathfrak{E}$ 58'26	0.64265 AU	evening set	11903 Jun 22 10:07	19° $\mathfrak{E}$ 49'47	
morning rise	11902 Jul 20 04:47	24° $\mathfrak{E}$ 24'46		inferior conj	11903 Jun 27 23:20	14° $\mathfrak{E}$ 07'47	3°06'27
desc. node	11902 Jul 24 23:27	21° $\mathfrak{E}$ 58'15		minimum elong	11903 Jun 28 00:38	14° $\mathfrak{E}$ 03'39	3°05'31
direct	11902 Jul 26 19:49	21° $\mathfrak{E}$ 46'27		min. Earth dist.	11903 Jun 29 17:39	11° $\mathfrak{E}$ 55'07	0.66048 AU
morning max el	11902 Aug 09 13:17	29° $\mathfrak{E}$ 47'07	27°31'25	morning rise	11903 Jul 03 14:27	7° $\mathfrak{E}$ 45'39	
	11902 Aug 09 18:22	0° $\Omega$		direct	11903 Jul 09 22:50	5° $\mathfrak{E}$ 03'15	
	11902 Aug 31 18:00	0° $\mathfrak{N}$		desc. node	11903 Jul 11 20:42	5° $\mathfrak{E}$ 16'11	
morning set	11902 Sep 13 16:51	23° $\mathfrak{N}$ 25'00		morning max el	11903 Jul 23 00:03	12° $\mathfrak{E}$ 48'32	26°35'47
	11902 Sep 16 23:19	0° $\underline{\mathfrak{A}}$			11903 Aug 05 20:03	0° $\Omega$	
asc. node	11902 Sep 17 12:56	1° $\underline{\mathfrak{A}}$ 10'06			11903 Aug 24 09:49	0° $\mathfrak{N}$	
max. Earth dist.	11902 Sep 18 09:51	2° $\underline{\mathfrak{A}}$ 58'38	1.32874 AU	morning set	11903 Aug 27 21:11	6° $\mathfrak{N}$ 25'37	
				max. Earth dist.	11903 Aug 31 22:12	14° $\mathfrak{N}$ 15'03	1.34396 AU
superior conj	11902 Sep 21 18:48	10° $\underline{\mathfrak{A}}$ 07'03	0°40'20	asc. node	11903 Sep 04 09:36	21° $\mathfrak{N}$ 15'31	
minimum elong	11902 Sep 21 16:59	9° $\underline{\mathfrak{A}}$ 57'22	0°40'04				
evening rise	11902 Sep 28 19:07	25° $\underline{\mathfrak{A}}$ 14'53		superior conj	11903 Sep 05 17:51	24° $\mathfrak{N}$ 01'49	0°12'58
	11902 Oct 01 01:14	0° $\mathfrak{M}$		minimum elong	11903 Sep 05 17:10	23° $\mathfrak{N}$ 58'15	0°12'40
	11902 Oct 19 14:02	0° $\mathfrak{J}$		behind sun begin	11903 Sep 05 13:32	23° $\mathfrak{N}$ 39'28	
desc. node	11902 Oct 20 20:18	1° $\mathfrak{J}$ 16'56		behind sun end	11903 Sep 05 20:47	24° $\mathfrak{N}$ 17'02	
evening max el	11902 Oct 20 20:23	1° $\mathfrak{J}$ 17'09	22°42'13		11903 Sep 08 14:21	0° $\underline{\mathfrak{A}}$	
retrograde	11902 Nov 02 22:21	7° $\mathfrak{J}$ 47'09		evening rise	11903 Sep 13 04:41	9° $\underline{\mathfrak{A}}$ 41'08	
evening set	11902 Nov 06 16:09	7° $\mathfrak{J}$ 16'35			11903 Sep 23 19:54	0° $\mathfrak{M}$	
min. Earth dist.	11902 Nov 14 04:38	3° $\mathfrak{J}$ 52'50	0.54930 AU	evening max el	11903 Oct 02 13:52	11° $\mathfrak{M}$ 34'48	21°07'18
inferior conj	11902 Nov 15 06:44	3° $\mathfrak{J}$ 15'43	-5°48'41	desc. node	11903 Oct 07 17:40	15° $\mathfrak{M}$ 35'34	
minimum elong	11902 Nov 15 03:55	3° $\mathfrak{J}$ 19'44	5°47'50	retrograde	11903 Oct 14 09:34	17° $\mathfrak{M}$ 27'04	
	11902 Nov 21 21:22	30° $\Re$ $\mathfrak{M}$		evening set	11903 Oct 16 21:28	17° $\mathfrak{M}$ 12'28	
morning rise	11902 Nov 23 17:10	29° $\mathfrak{M}$ 27'26		inferior conj	11903 Oct 25 22:34	13° $\mathfrak{M}$ 17'56	-5°00'33
direct	11902 Nov 26 21:12	29° $\mathfrak{M}$ 04'21		minimum elong	11903 Oct 25 13:09	13° $\mathfrak{M}$ 31'13	4°57'57
	11902 Dec 01 15:25	0° $\mathfrak{J}$		min. Earth dist.	11903 Oct 26 11:22	12° $\mathfrak{M}$ 59'53	0.54572 AU
morning max el	11902 Dec 08 09:24	4° $\mathfrak{J}$ 32'13	21°05'01	morning rise	11903 Nov 03 05:18	9° $\mathfrak{M}$ 26'11	
asc. node	11902 Dec 14 13:42	11° $\mathfrak{J}$ 51'04		direct	11903 Nov 07 05:19	8° $\mathfrak{M}$ 51'50	
	11902 Dec 24 23:52	0° $\mathfrak{Z}$		morning max el	11903 Nov 20 02:01	15° $\mathfrak{M}$ 02'19	22°46'18
morning set	11902 Dec 28 01:27	6° $\mathfrak{Z}$ 16'02		asc. node	11903 Dec 01 10:39	29° $\mathfrak{M}$ 49'06	
					11903 Dec 01 13:17	0° $\mathfrak{J}$	
superior conj	11903 Jan 04 09:19	21° $\mathfrak{Z}$ 34'49	1°25'56	morning set	11903 Dec 12 12:35	21° $\mathfrak{J}$ 03'08	
minimum elong	11903 Jan 04 11:32	21° $\mathfrak{Z}$ 46'15	1°26'30		11903 Dec 16 16:41	0° $\mathfrak{Z}$	
	11903 Jan 08 13:07	0° $\approx$					
max. Earth dist.	11903 Jan 09 04:04	1° $\approx$ 13'47	1.35470 AU	superior conj	11903 Dec 19 12:09	6° $\mathfrak{Z}$ 02'35	1°35'43
evening rise	11903 Jan 13 04:40	8° $\approx$ 57'25		minimum elong	11903 Dec 19 13:19	6° $\mathfrak{Z}$ 08'46	1°36'28
desc. node	11903 Jan 16 19:01	15° $\approx$ 31'52		max. Earth dist.	11903 Dec 22 20:47	13° $\mathfrak{Z}$ 07'36	1.33743 AU
	11903 Jan 25 09:05	0° $\mathfrak{H}$		evening rise	11903 Dec 27 11:24	22° $\mathfrak{Z}$ 26'22	
	11903 Feb 16 23:41	0° $\Upsilon$			11903 Dec 31 10:34	0° $\approx$	
evening max el	11903 Feb 17 13:44	0° $\Upsilon$ 34'32	26°25'05	desc. node	11904 Jan 03 15:52	5° $\approx$ 49'29	

	11904 Jan 19 02:51	0°♄			11904 Dec 23 00:14	0°♄	
evening max el	11904 Jan 31 03:20	14°♄10'42	27°11'18	evening max el	11905 Jan 12 15:10	27°♄21'54	27°31'41
retrograde	11904 Feb 13 14:06	21°♄35'06		retrograde	11905 Jan 15 15:04	0°♄	
evening set	11904 Feb 20 06:40	19°♄02'36		retrograde	11905 Jan 26 09:21	4°♄44'35	
min. Earth dist.	11904 Feb 24 04:36	15°♄20'42	0.65153 AU	evening set	11905 Feb 02 07:50	2°♄18'02	
inferior conj	11904 Feb 26 11:33	12°♄48'04	-0°17'30		11905 Feb 05 03:21	30°♄	
minimum elong	11904 Feb 26 12:03	12°♄46'40	0°16'58	min. Earth dist.	11905 Feb 06 02:10	29°♄06'07	0.63329 AU
asc. node	11904 Feb 27 08:57	11°♄48'59		inferior conj	11905 Feb 08 20:04	26°♄21'27	-1°27'18
morning rise	11904 Mar 03 19:00	7°♄17'38		minimum elong	11905 Feb 08 22:55	26°♄14'19	1°25'36
direct	11904 Mar 06 11:21	6°♄39'28		asc. node	11905 Feb 13 06:19	22°♄25'24	
morning max el	11904 Mar 12 20:02	9°♄58'59	17°58'58	morning rise	11905 Feb 15 16:16	21°♄06'39	
	11904 Mar 26 18:27	0°♄		direct	11905 Feb 18 01:01	20°♄39'44	
morning set	11904 Mar 30 17:32	6°♄30'51		morning max el	11905 Feb 24 13:46	24°♄00'44	17°46'56
desc. node	11904 Mar 31 17:15	8°♄08'25			11905 Mar 01 10:21	0°♄	
				morning set	11905 Mar 12 21:23	18°♄52'52	
superior conj	11904 Apr 14 01:01	29°♄39'39	-1°29'53	desc. node	11905 Mar 18 13:51	28°♄38'11	
minimum elong	11904 Apr 13 16:01	29°♄04'00	1°29'13		11905 Mar 19 09:10	0°♄	
	11904 Apr 14 06:10	0°♄					
max. Earth dist.	11904 Apr 17 14:10	5°♄15'10	1.45513 AU	superior conj	11905 Mar 25 07:13	9°♄52'01	-0°49'42
evening rise	11904 Apr 30 02:56	24°♄42'06		minimum elong	11905 Mar 25 02:04	9°♄30'52	0°49'02
	11904 May 03 13:45	0°♄		max. Earth dist.	11905 Mar 31 08:43	19°♄40'02	1.44570 AU
greatest brilliancy	11904 May 13 22:56	15°♄41'01	-0.7m		11905 Apr 06 22:33	0°♄	
	11904 May 24 17:09	0°♄		evening rise	11905 Apr 09 14:17	4°♄05'51	
asc. node	11904 May 25 06:18	0°♄34'50			11905 Apr 27 00:47	0°♄	
evening max el	11904 May 25 15:33	0°♄58'28	19°40'02	evening max el	11905 May 08 16:23	14°♄43'48	20°43'10
retrograde	11904 Jun 01 23:23	5°♄07'43		asc. node	11905 May 12 03:31	17°♄43'33	
evening set	11904 Jun 05 17:02	3°♄46'27		retrograde	11905 May 16 22:19	19°♄31'28	
	11904 Jun 09 09:41	30°♄		evening set	11905 May 21 01:42	17°♄54'04	
inferior conj	11904 Jun 11 01:29	27°♄50'15	3°15'05	inferior conj	11905 May 26 08:09	11°♄45'22	3°11'14
minimum elong	11904 Jun 11 01:41	27°♄49'35	3°14'17	minimum elong	11905 May 26 07:20	11°♄48'12	3°10'26
min. Earth dist.	11904 Jun 12 05:04	26°♄18'20	0.67410 AU	min. Earth dist.	11905 May 26 21:50	10°♄58'07	0.68307 AU
morning rise	11904 Jun 16 09:57	21°♄28'37		morning rise	11905 May 31 12:43	5°♄27'05	
direct	11904 Jun 22 08:05	18°♄52'01		direct	11905 Jun 05 22:33	3°♄03'47	
desc. node	11904 Jun 27 17:52	20°♄35'37		desc. node	11905 Jun 14 14:54	7°♄27'47	
morning max el	11904 Jul 04 10:29	26°♄07'06	25°19'05	morning max el	11905 Jun 16 20:30	9°♄35'14	23°51'16
	11904 Jul 08 00:10	0°♄			11905 Jul 02 23:18	0°♄	
	11904 Jul 29 09:27	0°♄		morning set	11905 Jul 22 03:13	0°♄04'13	
morning set	11904 Aug 09 10:12	18°♄42'24			11905 Jul 22 02:13	0°♄	
max. Earth dist.	11904 Aug 13 01:05	25°♄20'45	1.36365 AU	max. Earth dist.	11905 Jul 25 22:38	6°♄41'02	1.38621 AU
	11904 Aug 15 12:04	0°♄					
				superior conj	11905 Aug 02 08:48	20°♄15'32	-0°52'21
superior conj	11904 Aug 19 07:41	7°♄27'21	-0°18'29	minimum elong	11905 Aug 02 12:26	20°♄32'43	0°52'18
minimum elong	11904 Aug 19 08:52	7°♄33'11	0°18'39		11905 Aug 07 10:20	0°♄	
asc. node	11904 Aug 21 06:17	11°♄20'28		asc. node	11905 Aug 08 03:02	1°♄21'35	
evening rise	11904 Aug 27 10:26	23°♄54'13		evening rise	11905 Aug 11 09:45	7°♄47'24	
	11904 Aug 30 11:18	0°♄			11905 Aug 24 01:18	0°♄	
evening max el	11904 Sep 13 20:34	22°♄32'52	19°49'57	evening max el	11905 Aug 27 16:44	4°♄19'06	18°53'59
desc. node	11904 Sep 23 15:06	27°♄36'35		retrograde	11905 Sep 05 07:11	8°♄37'20	
retrograde	11904 Sep 24 00:53	27°♄37'03		evening set	11905 Sep 07 04:22	8°♄25'45	
evening set	11904 Sep 25 22:28	27°♄27'15		desc. node	11905 Sep 10 12:32	7°♄13'52	
inferior conj	11904 Oct 04 19:51	23°♄25'39	-3°24'49	inferior conj	11905 Sep 15 10:31	4°♄07'41	-1°32'42
minimum elong	11904 Oct 04 11:04	23°♄39'08	3°21'32	minimum elong	11905 Sep 15 06:35	4°♄14'40	1°31'09
min. Earth dist.	11904 Oct 06 20:27	22°♄11'02	0.55151 AU	min. Earth dist.	11905 Sep 18 10:28	2°♄00'34	0.56576 AU
morning rise	11904 Oct 12 22:09	19°♄09'34			11905 Sep 21 16:27	30°♄	
direct	11904 Oct 17 18:02	18°♄18'26		morning rise	11905 Sep 23 05:33	29°♄14'44	
morning max el	11904 Oct 31 12:47	25°♄07'25	24°34'31	direct	11905 Sep 28 20:14	27°♄59'31	
	11904 Nov 05 01:50	0°♄			11905 Oct 06 01:05	0°♄	
asc. node	11904 Nov 17 07:33	18°♄28'41		morning max el	11905 Oct 13 01:48	5°♄20'05	26°11'56
	11904 Nov 23 06:02	0°♄			11905 Oct 31 00:42	0°♄	
morning set	11904 Nov 26 00:27	5°♄49'03		asc. node	11905 Nov 04 04:22	7°♄39'03	
				morning set	11905 Nov 10 11:21	20°♄29'00	
					11905 Nov 14 19:51	0°♄	
superior conj	11904 Dec 02 20:05	20°♄42'34	1°38'59				
minimum elong	11904 Dec 02 20:06	20°♄42'37	1°39'45				
max. Earth dist.	11904 Dec 04 21:14	25°♄10'13	1.32452 AU	superior conj	11905 Nov 17 06:56	5°♄28'13	1°36'09
	11904 Dec 07 03:21	0°♄		minimum elong	11905 Nov 17 05:54	5°♄22'30	1°36'48
evening rise	11904 Dec 10 04:48	6°♄21'53		max. Earth dist.	11905 Nov 18 03:26	7°♄22'05	1.31640 AU
desc. node	11904 Dec 20 12:49	25°♄49'19		evening rise	11905 Nov 24 06:03	20°♄36'51	

	11905 Nov 28 21:09	0°♄		superior conj	11906 Nov 01 18:39	20°♍12'36	1°27'34
desc. node	11905 Dec 07 09:52	15°♄23'54		minimum elong	11906 Nov 01 16:50	20°♍02'29	1°27'57
	11905 Dec 17 05:30	0°♌		max. Earth dist.	11906 Nov 01 12:12	19°♍36'39	1.31328 AU
evening max el	11905 Dec 25 23:04	9°♌56'07	27°20'33		11906 Nov 06 04:33	0°♌	
retrograde	11906 Jan 08 20:59	17°♌12'22		evening rise	11906 Nov 08 12:40	5°♌03'56	
evening set	11906 Jan 15 19:38	15°♌00'32			11906 Nov 21 13:42	0°♄	
min. Earth dist.	11906 Jan 19 13:34	12°♌11'52	0.61270 AU	desc. node	11906 Nov 24 07:00	4°♄22'20	
inferior conj	11906 Jan 22 15:34	9°♌28'22	-2°44'25	evening max el	11906 Dec 08 00:34	21°♄42'24	26°35'04
minimum elong	11906 Jan 22 21:15	9°♌15'45	2°41'35	retrograde	11906 Dec 21 23:23	28°♄49'39	
morning rise	11906 Jan 30 01:42	4°♌32'06		evening set	11906 Dec 28 14:03	27°♄01'39	
asc. node	11906 Jan 31 03:36	4°♌17'35		min. Earth dist.	11907 Jan 01 14:30	24°♄25'08	0.59122 AU
direct	11906 Feb 01 05:14	4°♌12'44		inferior conj	11907 Jan 04 18:27	21°♄58'53	-4°03'08
morning max el	11906 Feb 08 06:04	7°♌45'18	17°52'53	minimum elong	11907 Jan 05 02:29	21°♄43'21	3°59'53
	11906 Feb 22 16:19	0°♊		morning rise	11907 Jan 12 17:45	17°♄23'37	
morning set	11906 Feb 23 21:16	2°♊11'05		direct	11907 Jan 14 19:47	17°♄08'10	
desc. node	11906 Mar 05 10:28	19°♊14'31		asc. node	11907 Jan 18 00:49	17°♄46'42	
				morning max el	11907 Jan 22 17:13	21°♄02'00	18°18'22
superior conj	11906 Mar 06 13:59	21°♊13'39	-0°08'52		11907 Jan 29 12:15	0°♌	
minimum elong	11906 Mar 06 13:12	21°♊10'17	0°08'33	morning set	11907 Feb 07 11:22	16°♌08'16	
behind sun begin	11906 Mar 06 06:04	20°♊39'31			11907 Feb 14 19:51	0°♊	
behind sun end	11906 Mar 06 20:19	21°♊41'00					
	11906 Mar 11 18:17	0°♍		superior conj	11907 Feb 16 19:26	3°♊38'24	0°27'09
max. Earth dist.	11906 Mar 13 23:04	3°♍37'38	1.43015 AU	minimum elong	11907 Feb 16 21:22	3°♊47'14	0°27'16
evening rise	11906 Mar 20 09:43	13°♍57'26		desc. node	11907 Feb 20 07:06	9°♊53'53	
	11906 Mar 30 22:18	0°♄		max. Earth dist.	11907 Feb 24 08:59	16°♊58'37	1.41018 AU
evening max el	11906 Apr 21 11:50	28°♄30'02	21°57'18	evening rise	11907 Feb 28 23:41	24°♊40'46	
	11906 Apr 23 01:26	0°♈			11907 Mar 04 06:47	0°♍	
asc. node	11906 Apr 29 00:49	3°♈45'06			11907 Mar 24 18:26	0°♄	
retrograde	11906 Apr 30 20:19	4°♈00'43		evening max el	11907 Apr 04 03:30	12°♄18'57	23°17'22
evening set	11906 May 05 10:17	2°♈07'52		retrograde	11907 Apr 14 15:48	18°♄30'57	
	11906 May 07 12:57	30°♋♄		asc. node	11907 Apr 15 22:07	18°♄23'28	
inferior conj	11906 May 10 17:06	25°♄48'54	2°56'32	evening set	11907 Apr 19 17:13	16°♄23'46	
minimum elong	11906 May 10 15:30	25°♄54'31	2°55'38	min. Earth dist.	11907 Apr 24 14:33	10°♄38'18	0.68711 AU
min. Earth dist.	11906 May 10 17:45	25°♄46'40	0.68737 AU	inferior conj	11907 Apr 25 02:23	9°♄57'28	2°31'47
morning rise	11906 May 15 20:31	19°♄35'48		minimum elong	11907 Apr 25 00:19	10°♄04'39	2°30'49
direct	11906 May 20 17:17	17°♄30'52		morning rise	11907 Apr 30 07:19	3°♄51'00	
morning max el	11906 May 30 08:03	23°♄10'33	22°21'52	direct	11907 May 04 15:02	2°♄06'59	
desc. node	11906 Jun 01 11:51	25°♄27'57		morning max el	11907 May 13 00:32	6°♄56'03	20°59'05
	11906 Jun 05 07:38	0°♈		desc. node	11907 May 19 08:42	14°♄17'46	
	11906 Jun 26 07:35	0°♊			11907 May 30 14:48	0°♈	
morning set	11906 Jul 02 19:32	10°♊19'03		morning set	11907 Jun 12 10:39	19°♈27'16	
max. Earth dist.	11906 Jul 07 21:21	18°♊42'31	1.40926 AU		11907 Jun 19 01:57	0°♊	
	11906 Jul 14 10:15	0°♈		max. Earth dist.	11907 Jun 20 02:25	1°♊39'08	1.42995 AU
superior conj	11906 Jul 15 16:52	2°♈16'14	-1°25'49	superior conj	11907 Jun 27 03:30	13°♊20'09	-1°54'15
minimum elong	11906 Jul 15 22:53	2°♈43'09	1°25'43	minimum elong	11907 Jun 27 10:11	13°♊48'25	1°54'29
evening rise	11906 Jul 25 23:09	21°♈11'17			11907 Jul 06 17:29	0°♈	
asc. node	11906 Jul 25 23:50	21°♈14'29		evening rise	11907 Jul 08 22:22	3°♈55'34	
	11906 Jul 30 17:14	0°♍		asc. node	11907 Jul 12 20:41	10°♈55'05	
evening max el	11906 Aug 10 22:53	16°♍46'57	18°19'09	evening max el	11907 Jul 25 10:55	29°♈46'47	18°04'18
retrograde	11906 Aug 18 08:19	20°♍30'53			11907 Jul 25 16:21	0°♍	
evening set	11906 Aug 20 11:44	20°♍12'49		retrograde	11907 Aug 01 02:38	3°♍11'31	
inferior conj	11906 Aug 27 22:53	15°♍34'18	0°08'31	evening set	11907 Aug 03 14:00	2°♍43'13	
minimum elong	11906 Aug 27 23:10	15°♍33'42	0°08'07		11907 Aug 07 20:27	30°♋♈	
transit middle	11906 Aug 27 23:10	15°♍33'42	0°08'07	inferior conj	11907 Aug 10 07:34	27°♈44'24	1°26'44
transit begin	11906 Aug 27 20:09	15°♍39'58		minimum elong	11907 Aug 10 09:54	27°♈38'48	1°25'27
transit end	11906 Aug 28 02:11	15°♍27'25		min. Earth dist.	11907 Aug 13 11:38	24°♈42'51	0.60864 AU
desc. node	11906 Aug 28 09:58	15°♍11'12		desc. node	11907 Aug 15 07:20	23°♈08'37	
min. Earth dist.	11906 Aug 31 06:59	12°♍49'07	0.58592 AU	morning rise	11907 Aug 17 03:02	21°♈48'42	
morning rise	11906 Sep 04 07:06	10°♍05'40		direct	11907 Aug 23 17:39	19°♈38'03	
direct	11906 Sep 10 12:56	8°♍21'51		morning max el	11907 Sep 06 23:54	27°♈34'47	27°55'24
morning max el	11906 Sep 24 21:17	16°♍04'53	27°22'05		11907 Sep 09 07:35	0°♍	
	11906 Oct 06 06:37	0°♊			11907 Sep 30 00:23	0°♊	
asc. node	11906 Oct 22 01:08	27°♊11'18		asc. node	11907 Oct 08 21:51	16°♊59'25	
	11906 Oct 23 10:28	0°♍		morning set	11907 Oct 09 23:03	19°♊09'19	
morning set	11906 Oct 25 19:30	4°♍57'13			11907 Oct 15 00:44	0°♍	
				max. Earth dist.	11907 Oct 15 19:57	1°♍45'34	1.31528 AU

superior conj	11907 Oct 17 05:27	4°♍50'37	1°13'25	max. Earth dist.	11908 Sep 27 22:54	13°♊39'30	1.32236 AU
minimum elong	11907 Oct 17 03:13	4°♍38'18	1°13'30				
evening rise	11907 Oct 23 22:34	19°♍137'54		superior conj	11908 Sep 30 13:25	19°♊16'54	0°53'55
	11907 Oct 28 22:18	0°♊		minimum elong	11908 Sep 30 11:17	19°♊05'17	0°53'44
desc. node	11907 Nov 11 04:12	22°♊30'56			11908 Oct 05 11:01	0°♍	
	11907 Nov 17 04:30	0°♊		evening rise	11908 Oct 07 09:52	4°♍13'32	
evening max el	11907 Nov 19 17:50	2°♊36'39	25°17'59		11908 Oct 21 01:24	0°♊	
retrograde	11907 Dec 03 14:14	9°♊34'03		desc. node	11908 Oct 28 01:29	9°♊31'06	
evening set	11907 Dec 09 10:31	8°♊16'33		evening max el	11908 Oct 31 04:40	12°♊50'40	23°40'35
min. Earth dist.	11907 Dec 14 05:58	5°♊36'31	0.57116 AU	retrograde	11908 Nov 13 16:35	19°♊34'39	
inferior conj	11907 Dec 17 01:33	3°♊43'36	-5°11'26	evening set	11908 Nov 18 06:56	18°♊48'37	
minimum elong	11907 Dec 17 09:15	3°♊30'41	5°09'06	min. Earth dist.	11908 Nov 24 14:55	15°♊46'08	0.55531 AU
	11907 Dec 23 18:02	30°♋♊		inferior conj	11908 Nov 26 12:19	14°♊38'50	-5°49'24
morning rise	11907 Dec 25 10:17	29°♊30'35		minimum elong	11908 Nov 26 14:31	14°♊35'33	5°48'32
direct	11907 Dec 27 16:45	29°♊15'23		morning rise	11908 Dec 04 23:58	10°♊45'02	
	11907 Dec 31 11:14	0°♊		direct	11908 Dec 07 18:15	10°♊26'09	
asc. node	11908 Jan 04 21:59	2°♊50'26		morning max el	11908 Dec 18 08:43	15°♊28'40	20°15'00
morning max el	11908 Jan 05 19:16	3°♊39'28	19°05'14	asc. node	11908 Dec 21 19:03	19°♊15'13	
morning set	11908 Jan 22 11:08	0°♊30'38			11908 Dec 28 21:13	0°♊	
	11908 Jan 22 04:56	0°♊		morning set	11909 Jan 05 17:15	15°♊08'39	
					11909 Jan 12 23:10	0°♊	
superior conj	11908 Jan 30 19:00	16°♊53'03	0°55'59	superior conj	11909 Jan 13 08:08	0°♊45'11	1°17'08
minimum elong	11908 Jan 30 21:54	17°♊06'59	0°56'10	minimum elong	11909 Jan 13 10:48	0°♊58'37	1°17'33
max. Earth dist.	11908 Feb 06 15:48	29°♊38'54	1.38803 AU	max. Earth dist.	11909 Jan 18 23:00	11°♊46'07	1.36617 AU
	11908 Feb 06 20:31	0°♋		evening rise	11909 Jan 22 17:52	18°♊48'27	
desc. node	11908 Feb 07 03:45	0°♋32'20		desc. node	11909 Jan 24 00:29	21°♊06'29	
evening rise	11908 Feb 10 10:57	6°♋19'29			11909 Jan 29 03:38	0°♋	
	11908 Feb 25 06:51	0°♋			11909 Feb 18 11:02	0°♋	
evening max el	11908 Mar 16 17:17	26°♋10'04	24°37'05	evening max el	11909 Feb 27 06:41	10°♋00'42	25°49'29
	11908 Mar 21 02:49	0°♋		retrograde	11909 Mar 11 18:46	17°♋11'07	
retrograde	11908 Mar 28 07:34	2°♋56'22		evening set	11909 Mar 17 19:50	14°♋42'26	
asc. node	11908 Apr 01 19:26	1°♋26'00		asc. node	11909 Mar 19 16:47	12°♋55'19	
evening set	11908 Apr 02 20:55	0°♋36'51		min. Earth dist.	11909 Mar 22 02:07	10°♋07'53	0.67350 AU
	11908 Apr 03 13:13	30°♋♋		inferior conj	11909 Mar 23 14:20	8°♋13'34	1°12'52
min. Earth dist.	11908 Apr 07 10:03	25°♋27'06	0.68243 AU	minimum elong	11909 Mar 23 12:41	8°♋18'47	1°12'13
inferior conj	11908 Apr 08 10:06	24°♋06'54	1°57'15	morning rise	11909 Mar 29 06:09	2°♋24'29	
minimum elong	11908 Apr 08 07:58	24°♋14'01	1°56'19	direct	11909 Apr 01 13:49	1°♋21'32	
morning rise	11908 Apr 13 19:11	18°♋08'24		morning max el	11909 Apr 08 07:54	5°♋00'52	18°52'50
direct	11908 Apr 17 14:24	16°♋45'42		greatest brilliancy	11909 Apr 22 04:15	23°♋43'20	-0.8m
morning max el	11908 Apr 25 00:23	20°♋53'24	19°48'23	desc. node	11909 Apr 22 02:10	23°♋35'20	
	11908 May 02 13:20	0°♋			11909 Apr 26 06:13	0°♋	
desc. node	11908 May 05 05:27	3°♋43'22		morning set	11909 Apr 30 18:46	7°♋01'09	
greatest brilliancy	11908 May 07 23:56	7°♋42'58	-0.6m	max. Earth dist.	11909 May 15 07:50	29°♋41'11	1.45522 AU
morning set	11908 May 21 11:04	28°♋00'21			11909 May 15 12:38	0°♋	
	11908 May 22 18:09	0°♋					
max. Earth dist.	11908 Jun 01 14:36	15°♋24'01	1.44584 AU	superior conj	11909 May 17 04:02	2°♋34'29	-2°10'21
				minimum elong	11909 May 16 23:49	2°♋17'59	2°10'54
superior conj	11908 Jun 06 13:59	23°♋21'51	-2°11'15	evening rise	11909 Jun 01 07:01	26°♋40'29	
minimum elong	11908 Jun 06 17:10	23°♋34'46	2°11'58		11909 Jun 03 08:21	0°♋	
	11908 Jun 10 15:42	0°♋		asc. node	11909 Jun 15 14:33	19°♋15'05	
evening rise	11908 Jun 20 02:22	15°♋47'56		evening max el	11909 Jun 21 13:53	26°♋42'39	18°30'38
asc. node	11908 Jun 28 17:35	0°♋17'24			11909 Jun 26 13:08	0°♋	
	11908 Jun 28 13:18	0°♋		retrograde	11909 Jun 28 01:13	0°♋12'29	
evening max el	11908 Jul 08 00:57	13°♋07'57	18°08'24		11909 Jun 29 12:54	30°♋♋	
retrograde	11908 Jul 14 09:44	16°♋28'23		evening set	11909 Jul 01 04:53	29°♋16'34	
evening set	11908 Jul 17 05:11	15°♋47'11		inferior conj	11909 Jul 06 22:17	23°♋43'04	2°54'52
inferior conj	11908 Jul 23 08:44	10°♋29'58	2°21'06	minimum elong	11909 Jul 07 00:11	23°♋37'21	2°53'47
minimum elong	11908 Jul 23 11:19	10°♋22'53	2°19'47	min. Earth dist.	11909 Jul 09 01:07	21°♋10'45	0.65071 AU
min. Earth dist.	11908 Jul 26 01:41	7°♋34'05	0.63091 AU	morning rise	11909 Jul 12 18:27	17°♋22'16	
morning rise	11908 Jul 29 15:39	4°♋17'22		direct	11909 Jul 19 06:59	14°♋41'10	
desc. node	11908 Aug 01 04:40	2°♋43'55		desc. node	11909 Jul 19 01:57	14°♋41'19	
direct	11908 Aug 05 08:08	1°♋46'41		morning max el	11909 Aug 01 18:40	22°♋37'24	27°10'55
morning max el	11908 Aug 19 07:56	9°♋48'45	27°50'18		11909 Aug 08 06:43	0°♋	
	11908 Sep 04 02:05	0°♋			11909 Aug 28 08:34	0°♋	
	11908 Sep 21 07:47	0°♋		morning set	11909 Sep 06 07:12	16°♋21'40	
morning set	11908 Sep 22 19:52	2°♋59'56		max. Earth dist.	11909 Sep 10 17:19	25°♋10'01	1.33461 AU
asc. node	11908 Sep 24 18:32	6°♋58'02					

asc. node	11909 Sep 11 15:12	27° $\mathbb{M}$ 02'17		morning set	11910 Aug 20 05:38	29° $\Omega$ 06'08	
	11909 Sep 13 01:26	0° $\underline{\Omega}$			11910 Aug 20 17:15	0° $\mathbb{M}$	
superior conj	11909 Sep 14 16:26	3° $\underline{\Omega}$ 25'08	0°29'17	max. Earth dist.	11910 Aug 24 01:13	6° $\mathbb{M}$ 19'16	1.35182 AU
minimum elong	11909 Sep 14 15:01	3° $\underline{\Omega}$ 17'37	0°28'57	asc. node	11910 Aug 29 11:53	17° $\mathbb{M}$ 08'34	
evening rise	11909 Sep 21 20:39	18° $\underline{\Omega}$ 44'53		superior conj	11910 Aug 29 12:00	17° $\mathbb{M}$ 09'10	0°00'03
	11909 Sep 27 08:45	0° $\mathbb{M}$		minimum elong	11910 Aug 29 12:01	17° $\mathbb{M}$ 09'14	0°00'13
evening max el	11909 Oct 12 16:51	22° $\mathbb{M}$ 55'56	22°00'09	behind sun begin	11910 Aug 29 06:00	16° $\mathbb{M}$ 38'36	
desc. node	11909 Oct 14 22:50	24° $\mathbb{M}$ 57'13		behind sun end	11910 Aug 29 18:02	17° $\mathbb{M}$ 39'55	
retrograde	11909 Oct 25 07:58	29° $\mathbb{M}$ 12'40			11910 Sep 04 16:56	0° $\underline{\Omega}$	
evening set	11909 Oct 28 11:28	28° $\mathbb{M}$ 50'33		evening rise	11910 Sep 06 04:56	3° $\underline{\Omega}$ 06'52	
inferior conj	11909 Nov 06 07:48	24° $\mathbb{M}$ 53'30	-5°35'28		11910 Sep 21 13:09	0° $\mathbb{M}$	
minimum elong	11909 Nov 06 01:29	25° $\mathbb{M}$ 02'21	5°34'02	evening max el	11910 Sep 24 15:40	3° $\mathbb{M}$ 29'34	20°31'55
min. Earth dist.	11909 Nov 05 21:39	25° $\mathbb{M}$ 07'44	0.54658 AU	desc. node	11910 Oct 01 20:14	8° $\mathbb{M}$ 20'39	
morning rise	11909 Nov 14 16:47	21° $\mathbb{M}$ 06'25		retrograde	11910 Oct 05 19:24	9° $\mathbb{M}$ 01'54	
direct	11909 Nov 18 04:50	20° $\mathbb{M}$ 39'22		evening set	11910 Oct 07 22:51	8° $\mathbb{M}$ 50'32	
morning max el	11909 Nov 30 08:16	26° $\mathbb{M}$ 25'36	21°46'28	inferior conj	11910 Oct 17 00:16	4° $\mathbb{M}$ 54'49	-4°24'11
	11909 Dec 03 16:54	0° $\mathbb{M}$		minimum elong	11910 Oct 16 14:14	5° $\mathbb{M}$ 09'20	4°20'56
asc. node	11909 Dec 08 16:04	6° $\mathbb{M}$ 43'38		min. Earth dist.	11910 Oct 18 05:32	4° $\mathbb{M}$ 12'22	0.54704 AU
morning set	11909 Dec 21 03:08	29° $\mathbb{M}$ 53'55		morning rise	11910 Oct 25 05:12	0° $\mathbb{M}$ 54'32	
	11909 Dec 21 04:18	0° $\mathbb{M}$		direct	11910 Oct 29 13:38	0° $\mathbb{M}$ 13'47	
superior conj	11909 Dec 28 06:53	15° $\mathbb{M}$ 02'37	1°30'55	morning max el	11910 Nov 11 21:29	6° $\mathbb{M}$ 42'13	23°32'22
minimum elong	11909 Dec 28 08:41	15° $\mathbb{M}$ 12'01	1°31'35	asc. node	11910 Nov 25 13:02	25° $\mathbb{M}$ 01'02	
max. Earth dist.	11910 Jan 01 11:00	23° $\mathbb{M}$ 37'44	1.34679 AU		11910 Nov 28 07:43	0° $\mathbb{M}$	
	11910 Jan 04 16:23	0° $\approx$		morning set	11910 Dec 05 14:48	14° $\mathbb{M}$ 40'59	
evening rise	11910 Jan 05 16:56	1° $\approx$ 58'01		superior conj	11910 Dec 12 12:13	29° $\mathbb{M}$ 36'37	1°37'51
desc. node	11910 Jan 10 21:18	11° $\approx$ 31'24		minimum elong	11910 Dec 12 12:53	29° $\mathbb{M}$ 40'14	1°38'39
	11910 Jan 22 03:15	0° $\mathbb{M}$			11910 Dec 12 16:33	0° $\mathbb{M}$	
evening max el	11910 Feb 09 20:10	23° $\mathbb{M}$ 43'59	26°47'26	max. Earth dist.	11910 Dec 15 06:49	5° $\mathbb{M}$ 33'08	1.33137 AU
	11910 Feb 18 08:13	0° $\mathbb{M}$		evening rise	11910 Dec 20 04:36	15° $\mathbb{M}$ 39'28	
retrograde	11910 Feb 23 00:36	1° $\mathbb{M}$ 07'06			11910 Dec 27 19:02	0° $\approx$	
	11910 Feb 27 08:23	30° $\mathbb{M}$ 34'08		desc. node	11910 Dec 28 18:12	1° $\approx$ 42'10	
evening set	11910 Mar 01 12:06	28° $\mathbb{M}$ 34'08			11911 Jan 16 19:01	0° $\mathbb{M}$	
min. Earth dist.	11910 Mar 05 12:41	24° $\mathbb{M}$ 33'31	0.66054 AU	evening max el	11911 Jan 23 09:13	7° $\mathbb{M}$ 10'51	27°23'34
asc. node	11910 Mar 06 14:09	23° $\mathbb{M}$ 19'22		retrograde	11911 Feb 06 00:06	14° $\mathbb{M}$ 35'52	
inferior conj	11910 Mar 07 12:57	22° $\mathbb{M}$ 12'11	0°18'24	evening set	11911 Feb 12 19:32	12° $\mathbb{M}$ 05'05	
minimum elong	11910 Mar 07 12:27	22° $\mathbb{M}$ 13'39	0°18'24	min. Earth dist.	11911 Feb 16 15:42	8° $\mathbb{M}$ 36'15	0.64405 AU
morning rise	11910 Mar 13 14:01	16° $\mathbb{M}$ 34'20		inferior conj	11911 Feb 19 03:27	5° $\mathbb{M}$ 57'00	-0°46'03
direct	11910 Mar 16 11:25	15° $\mathbb{M}$ 48'15		minimum elong	11911 Feb 19 04:51	5° $\mathbb{M}$ 53'14	0°45'03
morning max el	11910 Mar 22 21:28	19° $\mathbb{M}$ 11'58	18°13'46	asc. node	11911 Feb 21 11:31	3° $\mathbb{M}$ 33'22	
	11910 Mar 31 05:00	0° $\mathbb{M}$		morning rise	11911 Feb 25 16:06	0° $\mathbb{M}$ 32'44	
desc. node	11910 Apr 08 22:49	13° $\mathbb{M}$ 46'10		direct	11911 Feb 28 04:52	29° $\approx$ 59'54	
morning set	11910 Apr 11 03:33	17° $\mathbb{M}$ 17'57			11911 Feb 28 01:38	30° $\mathbb{M}$ 33'00	
	11910 Apr 19 02:23	0° $\mathbb{M}$			11911 Feb 28 08:05	0° $\mathbb{M}$	
superior conj	11910 Apr 26 11:09	11° $\mathbb{M}$ 36'02	-1°49'19	morning max el	11911 Mar 06 14:29	3° $\mathbb{M}$ 19'12	17°51'40
minimum elong	11910 Apr 26 01:57	11° $\mathbb{M}$ 00'02	1°49'01	morning set	11911 Mar 23 16:59	28° $\mathbb{M}$ 58'36	
max. Earth dist.	11910 Apr 28 03:15	14° $\mathbb{M}$ 12'56	1.45723 AU		11911 Mar 24 07:37	0° $\mathbb{M}$	
	11910 May 08 06:17	0° $\mathbb{M}$		desc. node	11911 Mar 26 19:26	4° $\mathbb{M}$ 10'18	
evening rise	11910 May 12 12:10	6° $\mathbb{M}$ 36'50		superior conj	11911 Apr 06 05:05	21° $\mathbb{M}$ 12'34	-1°13'24
greatest brilliancy	11910 May 23 20:07	24° $\mathbb{M}$ 08'48	-0.7m	minimum elong	11911 Apr 05 21:23	20° $\mathbb{M}$ 41'39	1°12'40
	11910 May 27 18:41	0° $\mathbb{M}$		max. Earth dist.	11911 Apr 10 22:39	28° $\mathbb{M}$ 44'11	1.45188 AU
asc. node	11910 Jun 02 11:38	7° $\mathbb{M}$ 39'53			11911 Apr 11 17:54	0° $\mathbb{M}$	
evening max el	11910 Jun 04 23:18	10° $\mathbb{M}$ 25'05	19°10'09	evening rise	11911 Apr 22 01:44	16° $\mathbb{M}$ 01'05	
retrograde	11910 Jun 11 21:37	14° $\mathbb{M}$ 16'52			11911 May 01 06:54	0° $\mathbb{M}$	
evening set	11910 Jun 15 09:54	13° $\mathbb{M}$ 05'11		greatest brilliancy	11911 May 07 03:14	8° $\mathbb{M}$ 38'29	-0.6m
inferior conj	11910 Jun 20 20:43	7° $\mathbb{M}$ 17'00	3°11'46	evening max el	11911 May 19 03:33	24° $\mathbb{M}$ 10'23	20°05'25
minimum elong	11910 Jun 20 21:34	7° $\mathbb{M}$ 14'17	3°10'54	asc. node	11911 May 20 08:48	25° $\mathbb{M}$ 20'18	
min. Earth dist.	11910 Jun 22 08:46	5° $\mathbb{M}$ 20'36	0.66679 AU	retrograde	11911 May 26 20:07	28° $\mathbb{M}$ 34'56	
morning rise	11910 Jun 26 08:39	0° $\mathbb{M}$ 54'22		evening set	11911 May 30 17:47	27° $\mathbb{M}$ 06'55	
	11910 Jun 27 11:44	30° $\mathbb{M}$ 34'08		inferior conj	11911 Jun 05 01:05	21° $\mathbb{M}$ 05'30	3°14'53
direct	11910 Jul 02 12:59	28° $\mathbb{M}$ 13'09		minimum elong	11911 Jun 05 00:50	21° $\mathbb{M}$ 06'20	3°14'05
desc. node	11910 Jul 05 23:09	28° $\mathbb{M}$ 54'50		min. Earth dist.	11911 Jun 05 22:45	19° $\mathbb{M}$ 52'01	0.67847 AU
	11910 Jul 08 04:12	0° $\mathbb{M}$		morning rise	11911 Jun 10 07:33	14° $\mathbb{M}$ 45'00	
morning max el	11910 Jul 15 05:32	5° $\mathbb{M}$ 48'22	26°05'07	direct	11911 Jun 16 00:44	12° $\mathbb{M}$ 12'57	
	11910 Aug 02 20:53	0° $\Omega$		desc. node	11911 Jun 22 20:16	14° $\mathbb{M}$ 57'02	

morning max el	11911 Jun 27 15:26	19° $\Pi$ 10'56	24°42'29	morning max el	11912 Jun 09 01:38	2° $\Pi$ 41'46	23°12'57
	11911 Jul 06 19:29	0° $\mathfrak{E}$			11912 Jun 29 20:36	0° $\mathfrak{E}$	
	11911 Jul 26 23:26	0° $\mathcal{O}$		morning set	11912 Jul 13 17:41	21° $\mathfrak{E}$ 55'26	
morning set	11911 Aug 02 10:45	11° $\mathcal{O}$ 01'17		max. Earth dist.	11912 Jul 17 22:20	29° $\mathfrak{E}$ 03'01	1.39620 AU
max. Earth dist.	11911 Aug 06 00:44	17° $\mathcal{O}$ 26'19	1.37304 AU		11912 Jul 18 11:29	0° $\mathcal{O}$	
superior conj	11911 Aug 12 20:56	0° $\mathfrak{M}$ 20'28	-0°32'40	superior conj	11912 Jul 25 15:22	12° $\mathcal{O}$ 50'01	-1°06'48
minimum elong	11911 Aug 12 23:06	0° $\mathfrak{M}$ 31'00	0°32'44	minimum elong	11912 Jul 25 20:05	13° $\mathcal{O}$ 11'50	1°06'42
	11911 Aug 12 16:43	0° $\mathfrak{M}$		asc. node	11912 Aug 02 05:21	27° $\mathcal{O}$ 10'53	
asc. node	11911 Aug 16 08:36	7° $\mathfrak{M}$ 12'34			11912 Aug 03 16:30	0° $\mathfrak{M}$	
evening rise	11911 Aug 21 08:17	17° $\mathfrak{M}$ 12'27		evening rise	11912 Aug 04 03:50	0° $\mathfrak{M}$ 54'33	
	11911 Aug 27 23:10	0° $\mathfrak{L}$		evening max el	11912 Aug 20 05:22	26° $\mathfrak{M}$ 53'55	18°36'33
evening max el	11911 Sep 07 04:29	14° $\mathfrak{L}$ 48'54	19°23'29		11912 Aug 24 09:24	0° $\mathfrak{L}$	
retrograde	11911 Sep 16 15:37	19° $\mathfrak{L}$ 31'54		retrograde	11912 Aug 28 05:58	0° $\mathfrak{L}$ 55'45	
evening set	11911 Sep 18 11:58	19° $\mathfrak{L}$ 21'54		evening set	11912 Aug 30 05:31	0° $\mathfrak{L}$ 41'49	
desc. node	11911 Sep 18 17:41	19° $\mathfrak{L}$ 19'12			11912 Sep 01 06:53	30° $\mathfrak{R}$ $\mathfrak{M}$	
inferior conj	11911 Sep 27 03:51	15° $\mathfrak{L}$ 14'24	-2°37'17	desc. node	11912 Sep 04 15:06	28° $\mathfrak{M}$ 05'05	
minimum elong	11911 Sep 26 20:58	15° $\mathfrak{L}$ 25'36	2°34'33	inferior conj	11912 Sep 07 03:36	26° $\mathfrak{M}$ 14'48	-0°47'19
min. Earth dist.	11911 Sep 29 16:25	13° $\mathfrak{L}$ 36'17	0.55677 AU	minimum elong	11912 Sep 07 01:42	26° $\mathfrak{M}$ 18'25	0°46'43
morning rise	11911 Oct 05 03:33	10° $\mathfrak{L}$ 43'33		min. Earth dist.	11912 Sep 10 08:37	23° $\mathfrak{M}$ 49'32	0.57389 AU
direct	11911 Oct 10 08:04	9° $\mathfrak{L}$ 42'43		morning rise	11912 Sep 14 18:28	21° $\mathfrak{M}$ 06'13	
morning max el	11911 Oct 24 08:08	16° $\mathfrak{L}$ 45'54	25°18'14	direct	11912 Sep 20 16:14	19° $\mathfrak{M}$ 39'20	
	11911 Nov 04 02:53	0° $\mathfrak{M}$		morning max el	11912 Oct 04 23:31	27° $\mathfrak{M}$ 09'30	26°45'53
asc. node	11911 Nov 12 09:54	13° $\mathfrak{M}$ 54'54			11912 Oct 07 17:27	0° $\mathfrak{L}$	
morning set	11911 Nov 20 02:27	29° $\mathfrak{M}$ 24'50			11912 Oct 27 14:08	0° $\mathfrak{M}$	
	11911 Nov 20 09:01	0° $\mathfrak{X}$		asc. node	11912 Oct 29 06:41	3° $\mathfrak{M}$ 15'38	
				morning set	11912 Nov 03 12:24	14° $\mathfrak{M}$ 00'28	
superior conj	11911 Nov 26 21:38	14° $\mathfrak{X}$ 19'45	1°38'29	superior conj	11912 Nov 10 09:03	29° $\mathfrak{M}$ 05'25	1°33'11
minimum elong	11911 Nov 26 21:11	14° $\mathfrak{X}$ 17'14	1°39'14	minimum elong	11912 Nov 10 07:39	28° $\mathfrak{M}$ 57'37	1°33'45
max. Earth dist.	11911 Nov 28 10:08	17° $\mathfrak{X}$ 40'28	1.32051 AU		11912 Nov 10 18:51	0° $\mathfrak{X}$	
evening rise	11911 Dec 04 01:42	29° $\mathfrak{X}$ 44'26		max. Earth dist.	11912 Nov 10 18:04	29° $\mathfrak{M}$ 55'38	1.31452 AU
	11911 Dec 04 04:43	0° $\mathfrak{Z}$		evening rise	11912 Nov 17 05:30	14° $\mathfrak{X}$ 05'25	
desc. node	11911 Dec 15 15:12	21° $\mathfrak{Z}$ 32'31			11912 Nov 25 05:30	0° $\mathfrak{Z}$	
	11911 Dec 20 20:44	0° $\mathfrak{A}$		desc. node	11912 Dec 01 12:17	10° $\mathfrak{Z}$ 53'23	
evening max el	11912 Jan 05 19:59	20° $\mathfrak{A}$ 09'01	27°31'11		11912 Dec 15 16:05	0° $\mathfrak{A}$	
retrograde	11912 Jan 19 16:11	27° $\mathfrak{A}$ 28'44		evening max el	11912 Dec 18 01:33	2° $\mathfrak{A}$ 24'10	27°05'23
evening set	11912 Jan 26 15:26	25° $\mathfrak{A}$ 07'44		retrograde	11912 Dec 31 23:42	9° $\mathfrak{A}$ 35'59	
min. Earth dist.	11912 Jan 30 09:14	22° $\mathfrak{A}$ 06'29	0.62471 AU	evening set	11913 Jan 07 20:20	7° $\mathfrak{A}$ 33'15	
inferior conj	11912 Feb 02 06:54	19° $\mathfrak{A}$ 20'51	-1°59'21	min. Earth dist.	11913 Jan 11 15:57	4° $\mathfrak{A}$ 51'36	0.60359 AU
minimum elong	11912 Feb 02 10:56	19° $\mathfrak{A}$ 11'15	1°57'09	inferior conj	11913 Jan 14 19:46	2° $\mathfrak{A}$ 13'35	-3°18'10
asc. node	11912 Feb 08 08:52	14° $\mathfrak{A}$ 37'49		minimum elong	11913 Jan 15 02:37	1° $\mathfrak{A}$ 59'17	3°15'00
morning rise	11912 Feb 09 08:56	14° $\mathfrak{A}$ 13'13			11913 Jan 17 14:49	30° $\mathfrak{R}$ $\mathfrak{Z}$	
direct	11912 Feb 11 15:09	13° $\mathfrak{A}$ 49'53		morning rise	11913 Jan 22 11:45	27° $\mathfrak{Z}$ 25'58	
morning max el	11912 Feb 18 07:59	17° $\mathfrak{A}$ 14'45	17°47'10	direct	11913 Jan 24 14:15	27° $\mathfrak{Z}$ 08'36	
	11912 Feb 27 11:05	0° $\mathfrak{H}$		asc. node	11913 Jan 25 06:08	27° $\mathfrak{Z}$ 10'22	
morning set	11912 Mar 05 06:13	11° $\mathfrak{H}$ 47'36			11913 Jan 31 01:32	0° $\mathfrak{A}$	
desc. node	11912 Mar 12 16:02	24° $\mathfrak{H}$ 43'34		morning max el	11913 Jan 31 22:32	0° $\mathfrak{A}$ 48'40	18°01'16
	11912 Mar 15 18:24	0° $\mathfrak{Y}$		morning set	11913 Feb 16 12:46	25° $\mathfrak{A}$ 24'24	
					11913 Feb 19 00:23	0° $\mathfrak{H}$	
superior conj	11912 Mar 16 21:34	1° $\mathfrak{Y}$ 54'11	-0°32'03	superior conj	11913 Feb 26 14:28	13° $\mathfrak{H}$ 44'08	0°07'13
minimum elong	11912 Mar 16 18:24	1° $\mathfrak{Y}$ 40'56	0°31'30	minimum elong	11913 Feb 26 15:04	13° $\mathfrak{H}$ 46'50	0°07'26
max. Earth dist.	11912 Mar 23 15:59	13° $\mathfrak{Y}$ 00'49	1.43974 AU	behind sun begin	11913 Feb 26 08:01	13° $\mathfrak{H}$ 15'40	
evening rise	11912 Mar 31 14:52	25° $\mathfrak{Y}$ 33'21		behind sun end	11913 Feb 26 22:08	14° $\mathfrak{H}$ 17'56	
	11912 Apr 03 12:18	0° $\mathfrak{B}$		desc. node	11913 Feb 27 12:38	15° $\mathfrak{H}$ 21'37	
	11912 Apr 24 07:47	0° $\mathfrak{I}$		max. Earth dist.	11913 Mar 06 04:56	26° $\mathfrak{H}$ 45'48	1.42207 AU
evening max el	11912 May 01 02:07	7° $\mathfrak{I}$ 56'48	21°13'41		11913 Mar 08 04:00	0° $\mathfrak{Y}$	
asc. node	11912 May 06 06:03	12° $\mathfrak{I}$ 02'52		evening rise	11913 Mar 11 17:23	5° $\mathfrak{Y}$ 45'06	
retrograde	11912 May 09 18:45	13° $\mathfrak{I}$ 01'56			11913 Mar 27 18:13	0° $\mathfrak{B}$	
evening set	11912 May 14 02:37	11° $\mathfrak{I}$ 17'46		evening max el	11913 Apr 13 19:39	21° $\mathfrak{B}$ 43'32	22°30'56
inferior conj	11912 May 19 08:58	5° $\mathfrak{I}$ 04'36	3°06'16	asc. node	11913 Apr 23 03:21	27° $\mathfrak{B}$ 30'55	
minimum elong	11912 May 19 07:47	5° $\mathfrak{I}$ 08'44	3°05'26	retrograde	11913 Apr 23 15:48	27° $\mathfrak{B}$ 32'12	
min. Earth dist.	11912 May 19 17:00	4° $\mathfrak{I}$ 36'40	0.68550 AU	evening set	11913 Apr 28 10:40	25° $\mathfrak{B}$ 32'46	
	11912 May 23 07:46	30° $\mathfrak{R}$ $\mathfrak{B}$		inferior conj	11913 May 03 18:15	19° $\mathfrak{B}$ 10'14	2°47'13
morning rise	11912 May 24 12:44	28° $\mathfrak{B}$ 48'36		minimum elong	11913 May 03 16:24	19° $\mathfrak{B}$ 16'41	2°46'17
direct	11912 May 29 17:10	26° $\mathfrak{B}$ 32'34		min. Earth dist.	11913 May 03 13:27	19° $\mathfrak{B}$ 26'58	0.68782 AU
	11912 Jun 06 03:31	0° $\mathfrak{I}$					
desc. node	11912 Jun 08 17:15	2° $\mathfrak{I}$ 20'48					



morning rise	11913 May 08 22:01	13° $\text{8}^{\circ}00'01$		direct	11914 Apr 27 11:39	25° $\text{9}^{\circ}41'16$	
direct	11913 May 13 13:08	11° $\text{8}^{\circ}04'02$			11914 May 05 05:44	0° $\text{8}^{\circ}$	
morning max el	11913 May 22 15:00	16° $\text{8}^{\circ}21'13$	21°45'33	morning max el	11914 May 05 10:30	0° $\text{8}^{\circ}11'42$	20°27'16
desc. node	11913 May 26 14:07	20° $\text{8}^{\circ}43'42$		desc. node	11914 May 13 10:56	9° $\text{8}^{\circ}49'46$	
	11913 Jun 02 17:59	0° $\text{II}^{\circ}$			11914 May 27 09:23	0° $\text{II}^{\circ}$	
	11913 Jun 22 21:34	0° $\text{6}^{\circ}$		morning set	11914 Jun 03 05:33	10° $\text{II}^{\circ}27'11$	
morning set	11913 Jun 23 22:54	1° $\text{6}^{\circ}40'37$		max. Earth dist.	11914 Jun 12 07:32	24° $\text{II}^{\circ}45'39$	1.43732 AU
max. Earth dist.	11913 Jun 29 23:47	11° $\text{6}^{\circ}29'04$	1.41848 AU		11914 Jun 15 13:14	0° $\text{6}^{\circ}$	
superior conj	11913 Jul 07 14:47	24° $\text{6}^{\circ}27'18$	-1°38'49	superior conj	11914 Jun 18 15:07	5° $\text{6}^{\circ}03'44$	-2°03'17
minimum elong	11913 Jul 07 21:26	24° $\text{6}^{\circ}56'22$	1°38'50	minimum elong	11914 Jun 18 20:56	5° $\text{6}^{\circ}27'51$	2°03'45
	11913 Jul 10 18:10	0° $\text{9}^{\circ}$		evening rise	11914 Jul 01 03:25	26° $\text{6}^{\circ}26'27$	
evening rise	11913 Jul 18 11:47	14° $\text{9}^{\circ}03'18$			11914 Jul 03 04:19	0° $\text{9}^{\circ}$	
asc. node	11913 Jul 20 02:10	16° $\text{9}^{\circ}59'22$		asc. node	11914 Jul 06 23:02	6° $\text{9}^{\circ}32'43$	
	11913 Jul 27 11:36	0° $\text{9}^{\circ}$		evening max el	11914 Jul 18 03:42	22° $\text{9}^{\circ}46'04$	18°03'52
evening max el	11913 Aug 03 14:26	9° $\text{9}^{\circ}36'28$	18°10'26	retrograde	11914 Jul 24 15:25	26° $\text{9}^{\circ}07'28$	
retrograde	11913 Aug 10 15:09	13° $\text{9}^{\circ}10'50$		evening set	11914 Jul 27 06:06	25° $\text{9}^{\circ}34'07$	
evening set	11913 Aug 12 21:46	12° $\text{9}^{\circ}48'54$		inferior conj	11914 Aug 02 17:15	20° $\text{9}^{\circ}27'29$	1°52'31
inferior conj	11913 Aug 20 01:03	8° $\text{9}^{\circ}01'22$	0°44'40	minimum elong	11914 Aug 02 19:52	20° $\text{9}^{\circ}20'51$	1°51'10
minimum elong	11913 Aug 20 02:28	7° $\text{9}^{\circ}58'13$	0°43'46	min. Earth dist.	11914 Aug 05 17:18	17° $\text{9}^{\circ}25'28$	0.61820 AU
desc. node	11913 Aug 22 12:28	5° $\text{9}^{\circ}49'20$		morning rise	11914 Aug 09 07:12	14° $\text{9}^{\circ}23'09$	
min. Earth dist.	11913 Aug 23 08:29	5° $\text{9}^{\circ}06'27$	0.59539 AU	desc. node	11914 Aug 09 09:50	14° $\text{9}^{\circ}18'35$	
morning rise	11913 Aug 27 03:54	2° $\text{9}^{\circ}19'39$		direct	11914 Aug 15 23:23	12° $\text{9}^{\circ}02'38$	
direct	11913 Sep 02 14:03	0° $\text{9}^{\circ}24'09$		morning max el	11914 Aug 30 03:45	20° $\text{9}^{\circ}03'55$	27°57'51
morning max el	11913 Sep 16 22:26	8° $\text{9}^{\circ}14'17$	27°41'07		11914 Sep 07 16:05	0° $\text{9}^{\circ}$	
	11913 Oct 03 12:05	0° $\text{9}^{\circ}$			11914 Sep 26 11:25	0° $\text{9}^{\circ}$	
asc. node	11913 Oct 16 03:24	22° $\text{9}^{\circ}55'52$		morning set	11914 Oct 02 19:52	12° $\text{9}^{\circ}27'19$	
morning set	11913 Oct 18 18:53	28° $\text{9}^{\circ}23'24$		asc. node	11914 Oct 03 00:06	12° $\text{9}^{\circ}49'01$	
	11913 Oct 19 13:10	0° $\text{9}^{\circ}$		max. Earth dist.	11914 Oct 08 09:02	24° $\text{9}^{\circ}13'23$	1.31760 AU
max. Earth dist.	11913 Oct 25 03:01	12° $\text{9}^{\circ}10'21$	1.31351 AU				
superior conj	11913 Oct 25 20:37	13° $\text{9}^{\circ}48'20$	1°22'15	superior conj	11914 Oct 10 06:28	28° $\text{9}^{\circ}22'11$	1°05'49
minimum elong	11913 Oct 25 18:35	13° $\text{9}^{\circ}36'59$	1°22'30	minimum elong	11914 Oct 10 04:12	28° $\text{9}^{\circ}09'47$	1°05'46
evening rise	11913 Nov 01 13:46	28° $\text{9}^{\circ}36'33$			11914 Oct 11 00:13	0° $\text{9}^{\circ}$	
	11913 Nov 02 05:22	0° $\text{9}^{\circ}$		evening rise	11914 Oct 17 00:28	13° $\text{9}^{\circ}11'40$	
desc. node	11913 Nov 18 09:27	29° $\text{9}^{\circ}33'15$			11914 Oct 25 08:33	0° $\text{9}^{\circ}$	
	11913 Nov 18 16:39	0° $\text{9}^{\circ}$		desc. node	11914 Nov 05 06:41	17° $\text{9}^{\circ}15'35$	
evening max el	11913 Nov 29 23:25	13° $\text{9}^{\circ}47'46$	26°05'33	evening max el	11914 Nov 11 13:17	24° $\text{9}^{\circ}22'03$	24°38'05
retrograde	11913 Dec 13 21:33	20° $\text{9}^{\circ}51'29$			11914 Nov 19 13:43	0° $\text{9}^{\circ}$	
evening set	11913 Dec 20 06:00	19° $\text{9}^{\circ}15'30$		retrograde	11914 Nov 25 07:39	1° $\text{9}^{\circ}15'19$	
min. Earth dist.	11913 Dec 24 12:23	16° $\text{9}^{\circ}39'55$	0.58241 AU	evening set	11914 Nov 30 16:11	0° $\text{9}^{\circ}11'37$	
inferior conj	11913 Dec 27 14:32	14° $\text{9}^{\circ}25'40$	-4°34'23		11914 Dec 01 03:50	30° $\text{9}^{\circ}11'37$	
minimum elong	11913 Dec 27 22:56	14° $\text{9}^{\circ}10'25$	4°31'20	min. Earth dist.	11914 Dec 06 00:53	27° $\text{9}^{\circ}24'05$	0.56373 AU
morning rise	11914 Jan 04 18:35	10° $\text{9}^{\circ}00'19$		inferior conj	11914 Dec 08 12:48	25° $\text{9}^{\circ}49'14$	-5°32'37
direct	11914 Jan 06 21:39	9° $\text{9}^{\circ}45'28$		minimum elong	11914 Dec 08 18:51	25° $\text{9}^{\circ}39'38$	5°31'00
asc. node	11914 Jan 12 03:17	11° $\text{9}^{\circ}21'16$		morning rise	11914 Dec 16 23:40	21° $\text{9}^{\circ}45'07$	
morning max el	11914 Jan 15 06:24	13° $\text{9}^{\circ}50'42$	18°35'35	direct	11914 Dec 19 09:57	21° $\text{9}^{\circ}29'02$	
	11914 Jan 26 06:20	0° $\text{9}^{\circ}$		morning max el	11914 Dec 29 03:32	26° $\text{9}^{\circ}08'59$	19°32'02
morning set	11914 Jan 31 07:26	9° $\text{9}^{\circ}33'36$		asc. node	11914 Dec 30 00:23	27° $\text{9}^{\circ}01'17$	
					11915 Jan 01 13:53	0° $\text{9}^{\circ}$	
superior conj	11914 Feb 09 04:16	26° $\text{9}^{\circ}32'10$	0°40'18	morning set	11915 Jan 15 10:15	24° $\text{9}^{\circ}03'22$	
minimum elong	11914 Feb 09 06:48	26° $\text{9}^{\circ}43'57$	0°40'25		11915 Jan 18 09:00	0° $\text{9}^{\circ}$	
	11914 Feb 11 01:14	0° $\text{9}^{\circ}$		superior conj	11915 Jan 23 10:09	10° $\text{9}^{\circ}04'13$	1°05'53
desc. node	11914 Feb 14 09:18	6° $\text{9}^{\circ}01'09$		minimum elong	11915 Jan 23 13:04	10° $\text{9}^{\circ}18'31$	1°06'08
max. Earth dist.	11914 Feb 16 13:00	9° $\text{9}^{\circ}48'22$	1.40087 AU	max. Earth dist.	11915 Jan 29 18:57	22° $\text{9}^{\circ}10'44$	1.37856 AU
evening rise	11914 Feb 20 16:22	16° $\text{9}^{\circ}51'51$		desc. node	11915 Feb 01 06:01	26° $\text{9}^{\circ}38'23$	
	11914 Feb 28 20:10	0° $\text{9}^{\circ}$		evening rise	11915 Feb 02 12:25	28° $\text{9}^{\circ}53'15$	
	11914 Mar 22 09:00	0° $\text{8}^{\circ}$			11915 Feb 03 03:37	0° $\text{9}^{\circ}$	
evening max el	11914 Mar 27 10:04	5° $\text{8}^{\circ}32'21$	23°51'40		11915 Feb 22 04:51	0° $\text{9}^{\circ}$	
retrograde	11914 Apr 07 09:58	12° $\text{8}^{\circ}00'44$		evening max el	11915 Mar 09 23:33	19° $\text{9}^{\circ}23'51$	25°09'15
asc. node	11914 Apr 10 00:39	11° $\text{8}^{\circ}29'11$		retrograde	11915 Mar 22 00:03	26° $\text{9}^{\circ}22'20$	
evening set	11914 Apr 12 16:25	9° $\text{8}^{\circ}47'50$		evening set	11915 Mar 27 18:19	23° $\text{9}^{\circ}58'38$	
min. Earth dist.	11914 Apr 17 09:58	4° $\text{8}^{\circ}17'33$	0.68562 AU	asc. node	11915 Mar 27 21:59	23° $\text{9}^{\circ}50'46$	
inferior conj	11914 Apr 18 03:05	3° $\text{8}^{\circ}19'10$	2°18'18	min. Earth dist.	11915 Apr 01 04:25	19° $\text{9}^{\circ}03'40$	0.67909 AU
minimum elong	11914 Apr 18 00:55	3° $\text{8}^{\circ}26'32$	2°17'20	inferior conj	11915 Apr 02 09:36	17° $\text{9}^{\circ}28'18$	1°39'38
	11914 Apr 20 16:05	30° $\text{8}^{\circ}15'56$		minimum elong	11915 Apr 02 07:36	17° $\text{9}^{\circ}34'51$	1°38'48
morning rise	11914 Apr 23 09:28	27° $\text{9}^{\circ}15'56$		morning rise	11915 Apr 07 21:13	11° $\text{9}^{\circ}33'21$	

direct	11915 Apr 11 11:19	10°♿19'20			11916 Mar 17 18:20	30°♿♿	
morning max el	11915 Apr 18 13:40	14°♿13'45	19°22'43	morning rise	11916 Mar 22 07:11	25°♿47'35	
desc. node	11915 Apr 30 07:41	29°♿27'46		direct	11916 Mar 25 10:23	24°♿52'03	
	11915 Apr 30 16:27	0°♿		morning max el	11916 Mar 31 23:58	28°♿23'09	18°34'07
greatest brilliancy	11915 May 01 07:39	0°♿56'06	-0.7m		11916 Apr 02 12:48	0°♿	
morning set	11915 May 13 06:10	19°♿03'40		desc. node	11916 Apr 16 04:22	19°♿28'29	
	11915 May 20 07:42	0°♿		morning set	11916 Apr 21 23:15	28°♿33'23	
max. Earth dist.	11915 May 25 21:42	8°♿44'38	1.45064 AU		11916 Apr 22 21:16	0°♿	
				max. Earth dist.	11916 May 07 16:30	23°♿11'00	1.45705 AU
superior conj	11915 May 29 16:00	14°♿42'05	-2°13'22				
minimum elong	11915 May 29 16:17	14°♿43'12	2°14'07	superior conj	11916 May 08 00:56	23°♿43'57	-2°03'44
	11915 Jun 08 03:11	0°♿		minimum elong	11916 May 07 17:53	23°♿16'22	2°03'57
evening rise	11915 Jun 12 21:52	7°♿53'39			11916 May 12 01:03	0°♿	
asc. node	11915 Jun 23 19:59	25°♿45'33		evening rise	11916 May 23 16:05	18°♿20'22	
	11915 Jun 26 16:13	0°♿			11916 May 31 00:29	0°♿	
evening max el	11915 Jul 01 17:42	6°♿14'14	18°15'48	greatest brilliancy	11916 May 31 23:08	1°♿29'05	-0.8m
retrograde	11915 Jul 08 02:26	9°♿36'49		asc. node	11916 Jun 09 17:01	14°♿30'04	
evening set	11915 Jul 11 01:22	8°♿49'32		evening max el	11916 Jun 14 05:28	19°♿52'45	18°45'26
inferior conj	11915 Jul 17 00:10	3°♿25'29	2°37'41	retrograde	11916 Jun 20 20:18	23°♿30'03	
minimum elong	11915 Jul 17 02:33	3°♿18'42	2°36'27	evening set	11916 Jun 24 03:41	22°♿27'20	
min. Earth dist.	11915 Jul 19 11:25	0°♿37'35	0.63972 AU	inferior conj	11916 Jun 29 17:52	16°♿47'24	3°03'53
	11915 Jul 20 01:19	30°♿♿		minimum elong	11916 Jun 29 19:21	16°♿42'49	3°02'54
morning rise	11915 Jul 23 02:15	27°♿08'39		min. Earth dist.	11916 Jul 01 14:22	14°♿29'25	0.65812 AU
desc. node	11915 Jul 27 07:08	24°♿52'29		morning rise	11916 Jul 05 10:14	10°♿25'30	
direct	11915 Jul 29 17:53	24°♿31'57		direct	11916 Jul 11 19:48	7°♿43'14	
	11915 Aug 09 20:07	0°♿		desc. node	11916 Jul 13 04:23	7°♿49'45	
morning max el	11915 Aug 12 13:02	2°♿33'09	27°37'18	morning max el	11916 Jul 24 23:54	15°♿31'33	26°45'37
	11915 Sep 02 00:12	0°♿			11916 Aug 05 21:18	0°♿	
morning set	11915 Sep 16 13:00	26°♿06'16			11916 Aug 24 19:30	0°♿	
	11915 Sep 18 11:32	0°♿		morning set	11916 Aug 29 19:17	9°♿12'27	
asc. node	11915 Sep 19 20:48	2°♿50'29		max. Earth dist.	11916 Sep 02 22:33	17°♿16'29	1.34137 AU
max. Earth dist.	11915 Sep 21 08:30	5°♿56'26	1.32692 AU	asc. node	11916 Sep 05 17:30	22°♿55'45	
superior conj	11915 Sep 24 12:37	12°♿41'33	0°44'06	superior conj	11916 Sep 07 12:49	26°♿39'56	0°17'24
minimum elong	11915 Sep 24 10:43	12°♿31'15	0°43'49	minimum elong	11916 Sep 07 11:54	26°♿35'12	0°17'06
evening rise	11915 Oct 01 11:47	27°♿45'54			11916 Sep 09 03:00	0°♿	
	11915 Oct 02 13:00	0°♿		evening rise	11916 Sep 14 21:45	12°♿13'43	
	11915 Oct 19 22:30	0°♿			11916 Sep 24 00:00	0°♿	
desc. node	11915 Oct 23 04:00	3°♿39'06		evening max el	11916 Oct 04 15:34	14°♿41'44	21°20'33
evening max el	11915 Oct 23 23:41	4°♿28'14	22°57'17	desc. node	11916 Oct 09 01:22	18°♿16'34	
retrograde	11915 Nov 06 04:35	11°♿02'05		retrograde	11916 Oct 16 16:38	20°♿40'55	
evening set	11915 Nov 10 03:48	10°♿27'52		evening set	11916 Oct 19 08:12	20°♿24'42	
min. Earth dist.	11915 Nov 17 08:40	7°♿10'12	0.55062 AU	inferior conj	11916 Oct 28 08:27	16°♿29'54	-5°11'34
inferior conj	11915 Nov 18 16:04	6°♿25'12	-5°50'44	minimum elong	11916 Oct 27 23:36	16°♿42'19	5°09'15
minimum elong	11915 Nov 18 14:35	6°♿27'19	5°49'59	min. Earth dist.	11916 Oct 28 15:13	16°♿20'24	0.54560 AU
morning rise	11915 Nov 27 02:56	2°♿35'53		morning rise	11916 Nov 05 15:47	12°♿40'13	
direct	11915 Nov 30 04:22	2°♿13'58		direct	11916 Nov 09 12:42	12°♿07'57	
morning max el	11915 Dec 11 10:54	7°♿35'11	20°51'22	morning max el	11916 Nov 22 05:11	18°♿12'03	22°30'28
asc. node	11915 Dec 16 21:27	13°♿54'51			11916 Dec 01 15:40	0°♿	
	11915 Dec 26 10:13	0°♿		asc. node	11916 Dec 02 18:28	1°♿45'56	
morning set	11915 Dec 30 18:16	8°♿45'06		morning set	11916 Dec 14 05:12	23°♿32'30	
					11916 Dec 17 05:47	0°♿	
superior conj	11916 Jan 07 03:46	24°♿07'54	1°23'51				
minimum elong	11916 Jan 07 06:07	24°♿19'57	1°24'22	superior conj	11916 Dec 21 05:42	8°♿33'45	1°34'39
	11916 Jan 10 01:19	0°♿		minimum elong	11916 Dec 21 07:01	8°♿40'50	1°35'24
max. Earth dist.	11916 Jan 12 03:46	4°♿09'00	1.35758 AU	max. Earth dist.	11916 Dec 24 19:26	16°♿03'03	1.33974 AU
evening rise	11916 Jan 16 02:40	11°♿40'44		evening rise	11916 Dec 29 07:34	25°♿05'22	
desc. node	11916 Jan 19 02:47	17°♿09'07			11916 Dec 31 21:09	0°♿	
	11916 Jan 26 16:09	0°♿		desc. node	11917 Jan 04 23:39	7°♿29'05	
	11916 Feb 17 10:37	0°♿			11917 Jan 19 03:47	0°♿	
evening max el	11916 Feb 20 13:15	3°♿13'12	26°16'27	evening max el	11917 Feb 02 02:51	16°♿51'36	27°05'48
retrograde	11916 Mar 04 09:00	10°♿29'48		retrograde	11917 Feb 15 12:01	24°♿15'48	
evening set	11916 Mar 10 14:38	7°♿58'58		evening set	11917 Feb 22 03:27	21°♿42'53	
asc. node	11916 Mar 13 19:21	4°♿47'09		min. Earth dist.	11917 Feb 26 02:01	17°♿56'18	0.65403 AU
min. Earth dist.	11916 Mar 14 18:29	3°♿38'51	0.66846 AU	inferior conj	11917 Feb 28 07:17	15°♿26'15	-0°07'40
inferior conj	11916 Mar 16 11:45	1°♿32'23	0°51'01	minimum elong	11917 Feb 28 07:29	15°♿25'39	0°07'19
minimum elong	11916 Mar 16 10:30	1°♿36'14	0°50'36	transit middle	11917 Feb 28 07:29	15°♿25'39	0°07'19

transit begin	11917 Feb 28 04:49	15° $\text{K}$ 33'13		evening max el	11918 Jan 15 14:58	0° $\text{K}$ 06'56	27°30'30
transit end	11917 Feb 28 10:10	15° $\text{K}$ 18'07			11918 Jan 15 12:04	0° $\text{K}$	
asc. node	11917 Feb 28 16:42	14° $\text{K}$ 59'42		retrograde	11918 Jan 29 08:29	7° $\text{K}$ 30'41	
morning rise	11917 Mar 06 13:01	9° $\text{K}$ 53'53		evening set	11918 Feb 05 06:21	5° $\text{K}$ 02'39	
direct	11917 Mar 09 06:38	9° $\text{K}$ 13'46		min. Earth dist.	11918 Feb 09 01:01	1° $\text{K}$ 46'34	0.63619 AU
morning max el	11917 Mar 15 15:23	12° $\text{K}$ 33'52	18°02'15		11918 Feb 10 19:08	30° $\text{K}$	
	11917 Mar 28 01:20	0° $\text{Y}$		inferior conj	11918 Feb 11 17:27	29° $\approx$ 02'45	-1°16'07
morning set	11917 Apr 02 20:32	9° $\text{Y}$ 27'20		minimum elong	11918 Feb 11 19:53	28° $\approx$ 56'31	1°14'38
desc. node	11917 Apr 03 01:02	9° $\text{Y}$ 45'44		asc. node	11918 Feb 15 14:03	25° $\approx$ 28'16	
	11917 Apr 15 14:22	0° $\text{B}$		morning rise	11918 Feb 18 11:40	23° $\approx$ 45'30	
				direct	11918 Feb 20 21:22	23° $\approx$ 17'12	
superior conj	11917 Apr 17 10:36	2° $\text{B}$ 54'52	-1°35'21	morning max el	11918 Feb 27 09:04	26° $\approx$ 37'26	17°47'33
minimum elong	11917 Apr 17 01:21	2° $\text{B}$ 18'22	1°34'46		11918 Mar 02 07:58	0° $\text{K}$	
max. Earth dist.	11917 Apr 20 12:50	7° $\text{B}$ 46'36	1.45593 AU	morning set	11918 Mar 15 20:49	21° $\text{K}$ 39'01	
evening rise	11917 May 03 13:12	27° $\text{B}$ 59'16		desc. node	11918 Mar 20 21:38	0° $\text{Y}$ 14'03	
	11917 May 04 20:32	0° $\text{II}$			11918 Mar 20 18:19	0° $\text{Y}$	
greatest brilliancy	11917 May 16 18:50	18° $\text{II}$ 09'10	-0.7m				
	11917 May 25 08:00	0° $\text{E}$		superior conj	11918 Mar 28 13:23	12° $\text{Y}$ 57'22	-0°56'01
asc. node	11917 May 27 14:08	2° $\text{E}$ 37'09		minimum elong	11918 Mar 28 07:31	12° $\text{Y}$ 33'28	0°55'17
evening max el	11917 May 28 12:48	3° $\text{E}$ 36'20	19°31'46	max. Earth dist.	11918 Apr 03 07:26	22° $\text{Y}$ 12'41	1.44750 AU
retrograde	11917 Jun 04 17:58	7° $\text{E}$ 40'50			11918 Apr 08 06:17	0° $\text{B}$	
evening set	11917 Jun 08 10:12	6° $\text{E}$ 22'02		evening rise	11918 Apr 13 00:33	7° $\text{B}$ 21'33	
inferior conj	11917 Jun 13 19:09	0° $\text{E}$ 27'45	3°14'37		11918 Apr 28 03:57	0° $\text{II}$	
minimum elong	11917 Jun 13 19:31	0° $\text{E}$ 26'32	3°13'47	evening max el	11918 May 11 14:29	17° $\text{II}$ 21'38	20°33'01
	11917 Jun 14 03:31	30° $\text{K}$ $\text{II}$		asc. node	11918 May 14 11:19	19° $\text{II}$ 54'39	
min. Earth dist.	11917 Jun 15 00:53	28° $\text{II}$ 49'24	0.67236 AU	retrograde	11918 May 19 16:53	22° $\text{II}$ 03'18	
morning rise	11917 Jun 19 04:26	24° $\text{II}$ 05'42		evening set	11918 May 23 18:43	20° $\text{II}$ 28'22	
direct	11917 Jun 25 04:10	21° $\text{II}$ 27'44		inferior conj	11918 May 29 01:17	14° $\text{II}$ 21'29	3°12'34
desc. node	11917 Jun 30 01:33	22° $\text{II}$ 52'36		minimum elong	11918 May 29 00:37	14° $\text{II}$ 23'48	3°11'45
morning max el	11917 Jul 07 10:33	28° $\text{II}$ 48'37	25°31'26	min. Earth dist.	11918 May 29 17:02	13° $\text{II}$ 27'19	0.68200 AU
	11917 Jul 08 14:02	0° $\text{E}$		morning rise	11918 Jun 03 06:16	8° $\text{II}$ 02'27	
	11917 Jul 30 16:06	0° $\text{Q}$		direct	11918 Jun 08 18:01	5° $\text{II}$ 36'41	
morning set	11917 Aug 12 10:54	21° $\text{Q}$ 36'42		desc. node	11918 Jun 16 22:36	9° $\text{II}$ 32'29	
max. Earth dist.	11917 Aug 16 02:41	28° $\text{Q}$ 22'26	1.36046 AU	morning max el	11918 Jun 19 20:30	12° $\text{II}$ 15'37	24°04'39
	11917 Aug 16 23:17	0° $\text{M}$			11918 Jul 04 02:21	0° $\text{E}$	
					11918 Jul 23 11:09	0° $\text{Q}$	
superior conj	11917 Aug 22 04:15	10° $\text{M}$ 10'18	-0°13'31	morning set	11918 Jul 25 07:14	3° $\text{Q}$ 07'53	
minimum elong	11917 Aug 22 05:06	10° $\text{M}$ 14'32	0°13'42	max. Earth dist.	11918 Jul 29 00:28	9° $\text{Q}$ 38'15	1.38276 AU
behind sun begin	11917 Aug 22 01:45	9° $\text{M}$ 57'49					
behind sun end	11917 Aug 22 08:26	10° $\text{M}$ 31'16		superior conj	11918 Aug 05 07:32	23° $\text{Q}$ 04'54	-0°47'10
asc. node	11917 Aug 23 14:13	13° $\text{M}$ 01'02		minimum elong	11918 Aug 05 10:46	23° $\text{Q}$ 20'20	0°47'08
evening rise	11917 Aug 30 04:16	26° $\text{M}$ 29'12			11918 Aug 08 21:35	0° $\text{M}$	
	11917 Aug 31 21:48	0° $\text{A}$		asc. node	11918 Aug 10 10:56	3° $\text{M}$ 03'02	
evening max el	11917 Sep 16 20:07	25° $\text{A}$ 32'32	20°00'09	evening rise	11918 Aug 14 04:44	10° $\text{M}$ 25'55	
	11917 Sep 23 07:24	0° $\text{M}$			11918 Aug 24 23:07	0° $\text{A}$	
desc. node	11917 Sep 25 22:47	0° $\text{M}$ 39'24		evening max el	11918 Aug 30 14:28	7° $\text{A}$ 11'55	19°00'55
retrograde	11917 Sep 27 06:40	0° $\text{M}$ 44'16		retrograde	11918 Sep 08 10:01	11° $\text{A}$ 36'09	
evening set	11917 Sep 29 05:10	0° $\text{M}$ 34'19		evening set	11918 Sep 10 06:43	11° $\text{A}$ 25'09	
	11917 Oct 01 10:39	30° $\text{K}$ $\text{A}$		desc. node	11918 Sep 12 20:11	10° $\text{A}$ 36'57	
inferior conj	11917 Oct 08 04:00	26° $\text{A}$ 34'34	-3°41'13	inferior conj	11918 Sep 18 15:35	7° $\text{A}$ 10'06	-1°49'24
minimum elong	11917 Oct 07 18:42	26° $\text{A}$ 48'36	3°37'50	minimum elong	11918 Sep 18 10:52	7° $\text{A}$ 18'16	1°47'32
min. Earth dist.	11917 Oct 09 23:55	25° $\text{A}$ 28'14	0.55001 AU	min. Earth dist.	11918 Sep 21 13:10	5° $\text{A}$ 09'59	0.56324 AU
morning rise	11917 Oct 16 07:01	22° $\text{A}$ 23'03		morning rise	11918 Sep 26 11:55	2° $\text{A}$ 22'51	
direct	11917 Oct 20 23:52	21° $\text{A}$ 34'53		direct	11918 Oct 02 00:06	1° $\text{A}$ 11'26	
morning max el	11917 Nov 03 16:21	28° $\text{A}$ 18'58	24°18'42	morning max el	11918 Oct 16 04:32	8° $\text{A}$ 27'59	25°58'47
	11917 Nov 05 09:03	0° $\text{M}$			11918 Nov 01 06:42	0° $\text{M}$	
asc. node	11917 Nov 19 15:23	20° $\text{M}$ 19'48		asc. node	11918 Nov 06 12:14	9° $\text{M}$ 25'43	
	11917 Nov 24 17:12	0° $\text{J}$		morning set	11918 Nov 13 04:11	22° $\text{M}$ 59'11	
morning set	11917 Nov 28 17:05	8° $\text{J}$ 18'48			11918 Nov 16 09:29	0° $\text{J}$	
superior conj	11917 Dec 05 13:02	23° $\text{J}$ 12'23	1°38'52	superior conj	11918 Nov 19 23:32	7° $\text{J}$ 56'59	1°36'57
minimum elong	11917 Dec 05 13:13	23° $\text{J}$ 13'22	1°39'40	minimum elong	11918 Nov 19 22:39	7° $\text{J}$ 52'05	1°37'38
max. Earth dist.	11917 Dec 07 18:40	28° $\text{J}$ 03'13	1.32610 AU	max. Earth dist.	11918 Nov 21 00:03	10° $\text{J}$ 12'47	1.31728 AU
	11917 Dec 08 16:27	0° $\text{B}$		evening rise	11918 Nov 26 23:47	23° $\text{J}$ 09'13	
evening rise	11917 Dec 12 23:34	8° $\text{B}$ 57'16			11918 Nov 30 08:19	0° $\text{B}$	
desc. node	11917 Dec 22 20:34	27° $\text{B}$ 31'54		desc. node	11918 Dec 09 17:35	17° $\text{B}$ 10'18	
	11917 Dec 24 07:11	0° $\approx$			11918 Dec 18 03:01	0° $\approx$	

evening max el	11918 Dec 28 23:40	12° $\approx$ 47'16	27°24'27			11919 Nov 07 18:03	0° $\nearrow$	
retrograde	11919 Jan 11 21:23	20° $\approx$ 04'41		evening rise		11919 Nov 11 05:43	7° $\nearrow$ 34'48	
evening set	11919 Jan 18 20:20	17° $\approx$ 50'15				11919 Nov 22 19:36	0° $\searrow$	
min. Earth dist.	11919 Jan 22 14:04	14° $\approx$ 58'34	0.61582 AU	desc. node		11919 Nov 26 14:42	6° $\searrow$ 14'51	
inferior conj	11919 Jan 25 15:05	12° $\approx$ 13'58	-2°32'28	evening max el		11919 Dec 11 02:24	24° $\searrow$ 41'30	26°44'05
minimum elong	11919 Jan 25 20:20	12° $\approx$ 02'05	2°29'47			11919 Dec 18 06:03	0° $\approx$	
morning rise	11919 Feb 01 23:07	7° $\approx$ 14'38		retrograde		11919 Dec 25 01:06	1° $\approx$ 49'44	
asc. node	11919 Feb 02 11:21	7° $\approx$ 06'19		evening set		11919 Dec 31 17:36	29° $\searrow$ 57'50	
direct	11919 Feb 04 03:11	6° $\approx$ 54'24				11919 Dec 31 16:00	30° $\searrow$ 30	
morning max el	11919 Feb 11 01:45	10° $\approx$ 24'49	17°50'47	min. Earth dist.		11920 Jan 04 16:33	27° $\searrow$ 20'23	0.59437 AU
	11919 Feb 24 01:27	0° $\searrow$		inferior conj		11920 Jan 07 20:40	24° $\searrow$ 50'40	-3°51'35
morning set	11919 Feb 26 18:07	4° $\searrow$ 50'03		minimum elong		11920 Jan 08 04:28	24° $\searrow$ 35'18	3°48'17
desc. node	11919 Mar 07 18:14	20° $\searrow$ 49'30		morning rise		11920 Jan 15 18:09	20° $\searrow$ 12'02	
				direct		11920 Jan 17 20:10	19° $\searrow$ 56'11	
superior conj	11919 Mar 09 16:26	24° $\searrow$ 08'31	-0°14'50	asc. node		11920 Jan 20 08:34	20° $\searrow$ 20'24	
minimum elong	11919 Mar 09 15:05	24° $\searrow$ 02'43	0°14'27	morning max el		11920 Jan 25 13:54	23° $\searrow$ 46'13	18°13'17
behind sun begin	11919 Mar 09 11:23	23° $\searrow$ 46'55				11920 Jan 30 14:09	0° $\approx$	
behind sun end	11919 Mar 09 18:46	24° $\searrow$ 18'30		morning set		11920 Feb 10 06:28	18° $\approx$ 42'43	
	11919 Mar 13 03:33	0° $\Upsilon$				11920 Feb 16 06:45	0° $\searrow$	
max. Earth dist.	11919 Mar 16 22:30	6° $\Upsilon$ 15'13	1.43278 AU					
evening rise	11919 Mar 23 17:56	17° $\Upsilon$ 07'04		superior conj		11920 Feb 19 18:48	6° $\searrow$ 24'49	0°22'07
	11919 Apr 01 04:14	0° $\searrow$		minimum elong		11920 Feb 19 20:27	6° $\searrow$ 32'16	0°22'14
	11919 Apr 23 08:35	0° $\Pi$		desc. node		11920 Feb 22 14:52	11° $\searrow$ 28'41	
evening max el	11919 Apr 24 10:41	1° $\Pi$ 07'45	21°45'48	max. Earth dist.		11920 Feb 27 09:20	19° $\searrow$ 43'20	1.41336 AU
asc. node	11919 May 01 08:32	6° $\Pi$ 07'15		evening rise		11920 Mar 03 04:53	27° $\searrow$ 42'27	
retrograde	11919 May 03 15:01	6° $\Pi$ 31'45				11920 Mar 04 14:56	0° $\Upsilon$	
evening set	11919 May 08 03:22	4° $\Pi$ 41'11				11920 Mar 24 19:29	0° $\searrow$	
	11919 May 12 06:11	30° $\searrow$ 30		evening max el		11920 Apr 06 02:51	14° $\searrow$ 56'24	23°05'15
inferior conj	11919 May 13 10:00	28° $\searrow$ 23'43	2°59'25	retrograde		11920 Apr 16 10:54	21° $\searrow$ 02'15	
minimum elong	11919 May 13 08:30	28° $\searrow$ 28'59	2°58'33	asc. node		11920 Apr 17 05:49	20° $\searrow$ 59'19	
min. Earth dist.	11919 May 13 12:34	28° $\searrow$ 14'46	0.68703 AU	evening set		11920 Apr 21 10:38	18° $\searrow$ 57'00	
morning rise	11919 May 18 13:25	22° $\searrow$ 09'46		inferior conj		11920 Apr 26 19:21	12° $\searrow$ 31'40	2°36'09
direct	11919 May 23 12:12	20° $\searrow$ 01'46		minimum elong		11920 Apr 26 17:19	12° $\searrow$ 38'42	2°35'12
morning max el	11919 Jun 02 07:30	25° $\searrow$ 49'08	22°34'55	min. Earth dist.		11920 Apr 26 09:20	13° $\searrow$ 06'18	0.68749 AU
desc. node	11919 Jun 03 19:33	27° $\searrow$ 23'21		morning rise		11920 May 01 23:54	6° $\searrow$ 24'14	
	11919 Jun 06 02:55	0° $\Pi$		direct		11920 May 06 09:34	4° $\searrow$ 37'02	
	11919 Jun 27 14:23	0° $\searrow$		morning max el		11920 May 14 23:02	9° $\searrow$ 32'51	21°10'43
morning set	11919 Jul 06 03:21	13° $\searrow$ 32'40		desc. node		11920 May 20 16:24	16° $\searrow$ 06'26	
max. Earth dist.	11919 Jul 10 22:33	21° $\searrow$ 32'05	1.40594 AU			11920 May 30 19:23	0° $\Pi$	
	11919 Jul 15 20:06	0° $\Omega$		morning set		11920 Jun 14 21:50	22° $\Pi$ 49'17	
						11920 Jun 19 10:18	0° $\searrow$	
superior conj	11919 Jul 18 18:23	5° $\Omega$ 13'10	-1°20'56	max. Earth dist.		11920 Jun 22 02:42	4° $\searrow$ 20'55	1.42717 AU
minimum elong	11919 Jul 19 00:05	5° $\Omega$ 38'57	1°20'50					
asc. node	11919 Jul 28 07:41	22° $\Omega$ 57'16		superior conj		11920 Jun 29 08:23	16° $\searrow$ 25'32	-1°50'30
evening rise	11919 Jul 28 19:48	23° $\Omega$ 54'28		minimum elong		11920 Jun 29 15:10	16° $\searrow$ 54'30	1°50'41
	11919 Aug 01 01:45	0° $\Upsilon$				11920 Jul 07 02:59	0° $\Omega$	
evening max el	11919 Aug 13 19:25	19° $\Upsilon$ 34'12	18°23'02	evening rise		11920 Jul 10 21:24	6° $\Omega$ 45'00	
retrograde	11919 Aug 21 08:19	23° $\Upsilon$ 22'07		asc. node		11920 Jul 14 04:30	12° $\Omega$ 39'40	
evening set	11919 Aug 23 10:43	23° $\Upsilon$ 05'13				11920 Jul 25 01:19	0° $\Upsilon$	
desc. node	11919 Aug 30 17:36	18° $\Upsilon$ 44'04		evening max el		11920 Jul 27 06:45	2° $\Upsilon$ 29'23	18°05'17
inferior conj	11919 Aug 31 00:41	18° $\Upsilon$ 29'43	-0°05'29	retrograde		11920 Aug 03 00:26	5° $\Upsilon$ 56'08	
minimum elong	11919 Aug 31 00:28	18° $\Upsilon$ 30'08	0°05'38	evening set		11920 Aug 05 10:35	5° $\Upsilon$ 29'33	
transit middle	11919 Aug 31 00:28	18° $\Upsilon$ 30'08	0°05'38	inferior conj		11920 Aug 12 06:33	0° $\Upsilon$ 33'26	1°16'26
transit begin	11919 Aug 30 21:10	18° $\Upsilon$ 36'50		minimum elong		11920 Aug 12 08:42	0° $\Upsilon$ 28'22	1°15'14
transit end	11919 Aug 31 03:47	18° $\Upsilon$ 23'25				11920 Aug 12 20:41	30° $\searrow$ 30	
min. Earth dist.	11919 Sep 03 08:25	15° $\Upsilon$ 49'04	0.58274 AU	min. Earth dist.		11920 Aug 15 11:41	27° $\Omega$ 33'02	0.60521 AU
morning rise	11919 Sep 07 10:43	13° $\Upsilon$ 06'07		desc. node		11920 Aug 16 14:58	26° $\Omega$ 34'02	
direct	11919 Sep 13 14:46	11° $\Upsilon$ 26'37		morning rise		11920 Aug 19 03:56	24° $\Omega$ 41'06	
morning max el	11919 Sep 27 22:50	19° $\Upsilon$ 06'22	27°13'48	direct		11920 Aug 25 17:37	22° $\Omega$ 34'17	
	11919 Oct 07 04:26	0° $\Omega$				11920 Sep 08 12:31	0° $\Upsilon$	
asc. node	11919 Oct 24 09:00	28° $\Omega$ 55'01		morning max el		11920 Sep 09 00:29	0° $\Upsilon$ 29'15	27°52'59
	11919 Oct 24 21:59	0° $\Upsilon$				11920 Sep 30 07:57	0° $\Omega$	
morning set	11919 Oct 28 12:49	7° $\Upsilon$ 29'09		asc. node		11920 Oct 10 05:43	18° $\Omega$ 41'03	
				morning set		11920 Oct 11 17:11	21° $\Omega$ 44'00	
superior conj	11919 Nov 04 11:13	22° $\Upsilon$ 41'39	1°29'14			11920 Oct 15 14:11	0° $\Upsilon$	
minimum elong	11919 Nov 04 09:30	22° $\Upsilon$ 32'05	1°29'40	max. Earth dist.		11920 Oct 17 16:57	4° $\Upsilon$ 38'32	1.31466 AU
max. Earth dist.	11919 Nov 04 08:41	22° $\Upsilon$ 27'33	1.31345 AU					

superior conj	11920 Oct 18 22:15	7°♄20'50	1°15'56	minimum elong	11921 Oct 03 04:37	21°♄37'27	0°57'04
minimum elong	11920 Oct 18 20:04	7°♄08'41	1°16'03		11921 Oct 07 00:15	0°♄	
evening rise	11920 Oct 25 15:16	22°♄08'05		evening rise	11921 Oct 10 02:30	6°♄43'50	
	11920 Oct 29 09:14	0°♄			11921 Oct 22 03:52	0°♄	
desc. node	11920 Nov 12 11:54	24°♄32'03		desc. node	11921 Oct 30 09:10	11°♄44'05	
	11920 Nov 16 14:59	0°♄		evening max el	11921 Nov 03 08:12	16°♄01'04	23°55'42
evening max el	11920 Nov 21 20:51	5°♄42'56	25°31'06	retrograde	11921 Nov 16 22:09	22°♄48'00	
retrograde	11920 Dec 05 17:42	12°♄41'54		evening set	11921 Nov 21 17:31	21°♄57'28	
evening set	11920 Dec 11 17:37	11°♄19'27		min. Earth dist.	11921 Nov 27 18:49	18°♄59'27	0.55729 AU
min. Earth dist.	11920 Dec 16 09:06	8°♄41'16	0.57396 AU	inferior conj	11921 Nov 29 20:31	17°♄44'39	-5°46'33
inferior conj	11920 Dec 19 06:51	6°♄42'24	-5°02'32	minimum elong	11921 Nov 29 23:53	17°♄39'33	5°45'33
minimum elong	11920 Dec 19 14:54	6°♄28'39	4°59'58	morning rise	11921 Dec 08 08:12	13°♄48'34	
morning rise	11920 Dec 27 14:34	2°♄26'17		direct	11921 Dec 11 00:07	13°♄30'36	
direct	11920 Dec 29 19:59	2°♄11'16		morning max el	11921 Dec 21 09:07	18°♄26'58	20°03'09
asc. node	11921 Jan 06 05:45	5°♄10'24		asc. node	11921 Dec 24 02:51	21°♄23'48	
morning max el	11921 Jan 07 17:33	6°♄30'05	18°56'53		11921 Dec 30 02:38	0°♄	
	11921 Jan 22 15:53	0°♄		morning set	11922 Jan 08 10:22	17°♄37'35	
morning set	11921 Jan 24 05:02	3°♄01'52			11922 Jan 14 11:42	0°♄	
superior conj	11921 Feb 01 16:01	19°♄32'51	0°52'05	superior conj	11922 Jan 16 03:24	3°♄19'51	1°14'23
minimum elong	11921 Feb 01 18:52	19°♄46'25	0°52'15	minimum elong	11922 Jan 16 06:10	3°♄33'39	1°14'47
	11921 Feb 07 07:09	0°♄		max. Earth dist.	11922 Jan 21 23:09	14°♄39'23	1.36931 AU
desc. node	11921 Feb 08 11:33	2°♄07'21		evening rise	11922 Jan 25 17:12	21°♄34'21	
max. Earth dist.	11921 Feb 08 16:33	2°♄29'38	1.39136 AU	desc. node	11922 Jan 26 08:18	22°♄42'07	
evening rise	11921 Feb 12 13:01	9°♄12'47			11922 Jan 30 12:42	0°♄	
	11921 Feb 25 12:25	0°♄			11922 Feb 19 10:04	0°♄	
evening max el	11921 Mar 19 16:45	28°♄46'51	24°25'25	evening max el	11922 Mar 02 06:03	12°♄37'09	25°39'27
	11921 Mar 20 23:14	0°♄		retrograde	11922 Mar 14 15:22	19°♄45'08	
retrograde	11921 Mar 31 03:20	5°♄28'43		evening set	11922 Mar 20 14:42	17°♄17'30	
asc. node	11921 Apr 04 03:09	4°♄16'42		asc. node	11922 Mar 22 00:31	15°♄58'43	
evening set	11921 Apr 05 14:57	3°♄10'43		min. Earth dist.	11922 Mar 24 21:54	12°♄37'43	0.67506 AU
	11921 Apr 08 14:44	30°♄		inferior conj	11922 Mar 26 08:20	10°♄47'59	1°20'16
min. Earth dist.	11921 Apr 10 05:08	27°♄55'46	0.68344 AU	minimum elong	11922 Mar 26 06:34	10°♄53'37	1°19'33
inferior conj	11921 Apr 11 03:26	26°♄40'58	2°03'07	morning rise	11922 Mar 31 22:59	4°♄57'23	
minimum elong	11921 Apr 11 01:16	26°♄48'12	2°02'11	direct	11922 Apr 04 08:14	3°♄51'43	
morning rise	11921 Apr 16 11:44	20°♄41'17		morning max el	11922 Apr 11 04:17	7°♄34'40	19°00'05
direct	11921 Apr 20 08:44	19°♄15'34		desc. node	11922 Apr 24 09:56	25°♄15'27	
morning max el	11921 Apr 27 21:48	23°♄28'38	19°58'00	greatest brilliancy	11922 Apr 24 12:51	25°♄26'27	-0.7m
	11921 May 03 12:35	0°♄			11922 Apr 27 12:40	0°♄	
desc. node	11921 May 07 13:12	5°♄27'10		morning set	11922 May 04 04:30	10°♄16'45	
	11921 May 24 01:22	0°♄			11922 May 16 20:41	0°♄	
morning set	11921 May 24 23:19	1°♄24'20		max. Earth dist.	11922 May 18 06:25	2°♄12'04	1.45424 AU
max. Earth dist.	11921 Jun 04 14:01	17°♄59'40	1.44385 AU	superior conj	11922 May 20 15:01	5°♄54'23	-2°11'49
superior conj	11921 Jun 09 22:28	26°♄36'06	-2°09'43	minimum elong	11922 May 20 11:58	5°♄42'25	2°12'27
minimum elong	11921 Jun 10 02:31	26°♄52'33	2°10'22	evening rise	11922 Jun 04 12:57	29°♄47'33	
	11921 Jun 12 00:24	0°♄			11922 Jun 04 16:01	0°♄	
evening rise	11921 Jun 23 04:37	18°♄45'56		asc. node	11922 Jun 17 22:23	21°♄07'05	
	11921 Jun 29 19:13	0°♄		evening max el	11922 Jun 24 10:00	29°♄20'56	18°26'14
asc. node	11921 Jul 01 01:24	2°♄05'10			11922 Jun 25 02:24	0°♄	
evening max el	11921 Jul 10 20:42	15°♄47'47	18°06'38	retrograde	11922 Jun 30 20:28	2°♄48'34	
retrograde	11921 Jul 17 05:59	19°♄08'09		evening set	11922 Jul 03 22:50	1°♄55'01	
evening set	11921 Jul 20 00:10	18°♄29'04			11922 Jul 06 10:41	30°♄	
inferior conj	11921 Jul 26 05:33	13°♄14'28	2°14'15	inferior conj	11922 Jul 09 17:32	26°♄23'57	2°50'54
minimum elong	11921 Jul 26 08:11	13°♄07'24	2°12'55	minimum elong	11922 Jul 09 19:35	26°♄17'53	2°49'46
min. Earth dist.	11921 Jul 29 00:26	10°♄16'22	0.62765 AU	min. Earth dist.	11922 Jul 11 22:37	23°♄47'02	0.64796 AU
morning rise	11921 Aug 01 14:14	7°♄03'36		morning rise	11922 Jul 15 15:09	20°♄03'53	
desc. node	11921 Aug 03 12:18	5°♄50'15		desc. node	11922 Jul 21 09:37	17°♄25'40	
direct	11921 Aug 08 06:45	4°♄35'21		direct	11922 Jul 22 04:38	17°♄23'29	
morning max el	11921 Aug 22 08:03	12°♄37'42	27°53'27	morning max el	11922 Aug 04 18:32	25°♄21'47	27°18'40
	11921 Sep 05 04:33	0°♄			11922 Aug 09 00:14	0°♄	
	11921 Sep 22 19:01	0°♄			11922 Aug 29 16:41	0°♄	
morning set	11921 Sep 25 15:12	5°♄38'31		morning set	11922 Sep 09 04:09	19°♄04'55	
asc. node	11921 Sep 27 02:25	8°♄38'30		max. Earth dist.	11922 Sep 13 16:39	28°♄08'50	1.33243 AU
max. Earth dist.	11921 Sep 30 20:55	16°♄35'37	1.32095 AU	asc. node	11922 Sep 13 23:05	28°♄42'03	
					11922 Sep 14 14:09	0°♄	
superior conj	11921 Oct 03 06:48	21°♄49'23	0°57'14				

superior conj	11922 Sep 17 10:43	6°♌00'33	0°33'20	asc. node	11923 Aug 31 19:47	18°♏48'05	
minimum elong	11922 Sep 17 09:09	5°♌52'10	0°33'02				
evening rise	11922 Sep 24 13:28	21°♌15'51		superior conj	11923 Sep 01 07:35	19°♏48'26	0°04'45
	11922 Sep 28 18:43	0°♌		minimum elong	11923 Sep 01 07:20	19°♏47'08	0°04'29
evening max el	11922 Oct 15 19:35	26°♌05'09	22°14'41	behind sun begin	11923 Sep 01 01:34	19°♏17'40	
desc. node	11922 Oct 17 06:31	27°♌26'04		behind sun end	11923 Sep 01 13:05	20°♏16'40	
	11922 Oct 20 16:56	0°♌			11923 Sep 06 05:17	0°♌	
retrograde	11922 Oct 28 14:55	2°♌27'00		evening rise	11923 Sep 08 22:15	5°♌39'15	
evening set	11922 Oct 31 23:13	2°♌02'13			11923 Sep 22 06:55	0°♌	
	11922 Nov 06 04:39	30°♌		evening max el	11923 Sep 27 16:27	6°♌32'37	20°43'53
min. Earth dist.	11922 Nov 09 01:51	28°♌26'19	0.54734 AU	desc. node	11923 Oct 04 03:53	11°♌09'29	
inferior conj	11922 Nov 09 17:41	28°♌04'03	-5°41'29	retrograde	11923 Oct 09 01:54	12°♌11'56	
minimum elong	11922 Nov 09 12:32	28°♌11'18	5°40'18	evening set	11923 Oct 11 07:57	11°♌59'39	
morning rise	11922 Nov 18 03:12	24°♌16'52		inferior conj	11923 Oct 20 09:35	8°♌04'44	-4°38'00
direct	11922 Nov 21 12:20	23°♌51'20		minimum elong	11923 Oct 19 23:35	8°♌19'02	4°34'56
morning max el	11922 Dec 03 10:41	29°♌31'18	21°31'36	min. Earth dist.	11923 Oct 21 09:17	7°♌30'46	0.54638 AU
	11922 Dec 03 22:37	0°♌		morning rise	11923 Oct 28 15:08	4°♌07'50	
asc. node	11922 Dec 10 23:55	8°♌43'29		direct	11923 Nov 01 20:42	3°♌29'22	
	11922 Dec 22 16:33	0°♌		morning max el	11923 Nov 15 00:52	9°♌51'46	23°16'12
morning set	11922 Dec 23 19:50	2°♌21'55		asc. node	11923 Nov 27 20:52	26°♌54'12	
					11923 Nov 29 15:31	0°♌	
superior conj	11922 Dec 31 00:56	17°♌33'53	1°29'15	morning set	11923 Dec 08 07:21	17°♌09'00	
minimum elong	11922 Dec 31 02:53	17°♌44'04	1°29'54		11923 Dec 14 06:07	0°♌	
max. Earth dist.	11923 Jan 04 10:04	26°♌31'15	1.34946 AU				
	11923 Jan 06 04:17	0°♌		superior conj	11923 Dec 15 05:25	2°♌05'46	1°37'12
evening rise	11923 Jan 08 14:06	4°♌38'26		minimum elong	11923 Dec 15 06:16	2°♌10'19	1°38'00
desc. node	11923 Jan 13 05:07	13°♌08'40		max. Earth dist.	11923 Dec 18 04:50	8°♌26'06	1.33338 AU
	11923 Jan 23 08:42	0°♌		evening rise	11923 Dec 23 00:06	18°♌15'41	
evening max el	11923 Feb 12 19:38	26°♌22'20	26°40'06		11923 Dec 29 04:39	0°♌	
	11923 Feb 17 00:01	0°♌		desc. node	11923 Dec 31 01:59	3°♌21'59	
retrograde	11923 Feb 25 22:08	3°♌44'21			11924 Jan 17 14:40	0°♌	
evening set	11923 Mar 04 08:07	1°♌11'49		evening max el	11924 Jan 26 08:58	9°♌52'51	27°19'55
	11923 Mar 05 16:43	30°♌		retrograde	11924 Feb 08 22:32	17°♌17'43	
min. Earth dist.	11923 Mar 08 09:31	27°♌06'08	0.66267 AU	evening set	11924 Feb 15 17:01	14°♌46'16	
asc. node	11923 Mar 08 21:54	26°♌29'48		min. Earth dist.	11924 Feb 19 13:48	11°♌12'52	0.64672 AU
inferior conj	11923 Mar 10 07:58	24°♌48'20	0°27'22	inferior conj	11924 Feb 21 23:52	8°♌35'46	-0°35'36
minimum elong	11923 Mar 10 07:15	24°♌50'30	0°27'14	minimum elong	11924 Feb 22 00:56	8°♌32'52	0°34'48
morning rise	11923 Mar 16 07:29	19°♌08'34		asc. node	11924 Feb 23 19:17	6°♌41'15	
direct	11923 Mar 19 06:19	18°♌20'10		morning rise	11924 Feb 28 10:38	3°♌09'11	
morning max el	11923 Mar 25 17:05	21°♌45'33	18°18'29	direct	11924 Mar 02 00:37	2°♌34'33	
	11923 Apr 01 07:37	0°♌		morning max el	11924 Mar 08 09:44	5°♌53'44	17°53'50
desc. node	11923 Apr 11 06:37	15°♌23'53			11924 Mar 24 16:02	0°♌	
morning set	11923 Apr 14 09:02	20°♌20'54		morning set	11924 Mar 25 18:23	1°♌49'49	
	11923 Apr 20 10:34	0°♌		desc. node	11924 Mar 28 03:14	5°♌46'18	
superior conj	11923 Apr 29 22:03	14°♌54'45	-1°53'39	superior conj	11924 Apr 08 13:20	24°♌23'09	-1°19'26
minimum elong	11923 Apr 29 13:11	14°♌20'04	1°53'30	minimum elong	11924 Apr 08 05:06	23°♌50'13	1°18'41
max. Earth dist.	11923 May 01 01:37	16°♌42'28	1.45741 AU		11924 Apr 12 02:14	0°♌	
	11923 May 09 14:02	0°♌		max. Earth dist.	11924 Apr 12 21:26	1°♌15'41	1.45317 AU
evening rise	11923 May 15 21:20	9°♌51'14		evening rise	11924 Apr 24 12:22	19°♌17'54	
greatest brilliancy	11923 May 26 11:51	26°♌21'36	-0.8m		11924 May 01 12:53	0°♌	
	11923 May 28 21:34	0°♌		greatest brilliancy	11924 May 09 07:07	11°♌33'37	-0.6m
asc. node	11923 Jun 04 19:27	9°♌37'35		evening max el	11924 May 21 01:15	26°♌47'49	19°56'14
evening max el	11923 Jun 07 20:09	13°♌02'50	19°03'13	asc. node	11924 May 21 16:36	27°♌25'24	
retrograde	11923 Jun 14 16:15	16°♌50'23			11924 May 24 23:49	0°♌	
evening set	11923 Jun 18 03:15	15°♌41'04		retrograde	11924 May 28 14:35	1°♌06'41	
inferior conj	11923 Jun 23 14:52	9°♌55'06	3°10'07	evening set	11924 Jun 01 10:50	29°♌41'01	
minimum elong	11923 Jun 23 15:52	9°♌51'52	3°09'13		11924 Jun 01 00:01	30°♌	
min. Earth dist.	11923 Jun 25 05:08	7°♌52'46	0.66471 AU	inferior conj	11924 Jun 06 18:29	23°♌41'24	3°15'09
morning rise	11923 Jun 29 03:52	3°♌32'32		minimum elong	11924 Jun 06 18:23	23°♌41'43	3°14'21
direct	11923 Jul 05 09:42	0°♌50'38		min. Earth dist.	11924 Jun 07 18:12	22°♌21'27	0.67707 AU
desc. node	11923 Jul 08 06:49	1°♌20'07		morning rise	11924 Jun 12 01:36	17°♌20'33	
morning max el	11923 Jul 18 05:23	8°♌29'41	26°16'10	direct	11924 Jun 17 20:35	14°♌46'45	
	11923 Aug 04 01:13	0°♌		desc. node	11924 Jun 24 03:55	17°♌07'30	
	11923 Aug 22 03:53	0°♌		morning max el	11924 Jun 29 15:25	21°♌50'49	24°55'26
morning set	11923 Aug 23 04:44	1°♌55'08			11924 Jul 06 17:47	0°♌	
max. Earth dist.	11923 Aug 27 02:00	9°♌19'48	1.34900 AU		11924 Jul 27 07:28	0°♌	

morning set	11924 Aug 04 12:43	13°♎58'13			11925 Jul 01 01:54	0°♏	
max. Earth dist.	11924 Aug 08 02:36	20°♎25'57	1.36973 AU	morning set	11925 Jul 16 23:14	25°♏02'06	
	11924 Aug 13 04:17	0°♎			11925 Jul 19 21:11	0°♎	
				max. Earth dist.	11925 Jul 21 00:08	1°♎56'49	1.39271 AU
superior conj	11924 Aug 14 18:20	3°♎05'10	-0°27'34	superior conj	11925 Jul 28 15:09	15°♎41'19	-1°01'40
minimum elong	11924 Aug 14 20:08	3°♎14'00	0°27'39	minimum elong	11925 Jul 28 19:30	16°♎01'32	1°01'35
asc. node	11924 Aug 17 16:30	8°♎52'42		asc. node	11925 Aug 04 13:13	28°♎51'59	
evening rise	11924 Aug 23 02:31	19°♎47'52			11925 Aug 05 03:16	0°♎	
	11924 Aug 28 07:12	0°♎		evening rise	11925 Aug 06 23:26	3°♎34'03	
evening max el	11924 Sep 09 03:11	17°♎44'42	19°32'15	evening max el	11925 Aug 23 02:27	29°♎43'10	18°42'11
retrograde	11924 Sep 18 20:09	22°♎34'56			11925 Aug 23 09:20	0°♎	
desc. node	11924 Sep 20 01:15	22°♎30'42		retrograde	11925 Aug 31 07:43	3°♎50'35	
evening set	11924 Sep 20 16:44	22°♎25'05		evening set	11925 Sep 02 06:19	3°♎37'35	
inferior conj	11924 Sep 29 10:44	18°♎19'48	-2°54'21	desc. node	11925 Sep 06 22:40	1°♎33'56	
minimum elong	11924 Sep 29 03:07	18°♎31'56	2°51'23		11925 Sep 09 06:00	30°♎	
min. Earth dist.	11924 Oct 01 19:25	16°♎49'50	0.55476 AU	inferior conj	11925 Sep 10 07:15	29°♎13'39	-1°03'11
morning rise	11924 Oct 07 11:24	13°♎54'26		minimum elong	11925 Sep 10 04:40	29°♎18'27	1°02'14
direct	11924 Oct 12 13:00	12°♎57'08		min. Earth dist.	11925 Sep 13 10:46	26°♎54'25	0.57093 AU
morning max el	11924 Oct 26 11:21	19°♎55'20	25°03'18	morning rise	11925 Sep 17 23:38	24°♎10'27	
	11924 Nov 04 01:01	0°♎		direct	11925 Sep 23 18:58	22°♎47'46	
asc. node	11924 Nov 13 17:45	15°♎43'30			11925 Oct 07 19:43	0°♎	
	11924 Nov 20 21:43	0°♎		morning max el	11925 Oct 08 01:52	0°♎14'42	26°34'42
morning set	11924 Nov 21 19:07	1°♎54'01			11925 Oct 28 23:12	0°♎	
superior conj	11924 Nov 28 14:22	16°♎48'10	1°38'47	asc. node	11925 Oct 31 14:33	5°♎00'41	
minimum elong	11924 Nov 28 14:05	16°♎46'34	1°39'33	morning set	11925 Nov 06 05:25	16°♎31'09	
max. Earth dist.	11924 Nov 30 07:17	20°♎32'27	1.32181 AU		11925 Nov 12 08:46	0°♎	
	11924 Dec 04 17:22	0°♎		superior conj	11925 Nov 13 01:36	1°♎33'47	1°34'22
evening rise	11924 Dec 05 19:59	2°♎17'51		minimum elong	11925 Nov 13 00:20	1°♎26'42	1°34'57
desc. node	11924 Dec 16 22:55	23°♎16'00		max. Earth dist.	11925 Nov 13 14:40	2°♎46'29	1.31506 AU
	11924 Dec 21 01:07	0°♎		evening rise	11925 Nov 19 22:54	16°♎36'34	
evening max el	11925 Jan 07 20:10	22°♎56'04	27°32'02		11925 Nov 26 15:06	0°♎	
	11925 Jan 19 04:27	0°♎		desc. node	11925 Dec 03 19:57	12°♎41'44	
retrograde	11925 Jan 21 15:38	0°♎16'42			11925 Dec 16 02:51	0°♎	
	11925 Jan 24 01:12	30°♎		evening max el	11925 Dec 21 02:32	5°♎17'46	27°11'23
evening set	11925 Jan 28 14:47	27°♎53'38		retrograde	11926 Jan 04 00:36	12°♎31'12	
min. Earth dist.	11925 Feb 01 08:43	24°♎48'48	0.62779 AU	evening set	11926 Jan 10 22:08	10°♎25'01	
inferior conj	11925 Feb 04 05:08	22°♎03'15	-1°47'44	min. Earth dist.	11926 Jan 14 16:58	7°♎41'15	0.60679 AU
minimum elong	11925 Feb 04 08:44	21°♎54'31	1°45'43	inferior conj	11926 Jan 17 20:21	5°♎00'56	-3°06'09
asc. node	11925 Feb 09 16:35	17°♎34'47		minimum elong	11926 Jan 18 02:48	4°♎47'10	3°03'05
morning rise	11925 Feb 11 05:06	16°♎53'00		morning rise	11926 Jan 25 10:19	0°♎10'18	
direct	11925 Feb 13 12:12	16°♎28'28			11926 Jan 26 04:04	30°♎	
morning max el	11925 Feb 20 03:22	19°♎51'38	17°46'41	direct	11926 Jan 27 13:06	29°♎52'18	
	11925 Feb 27 16:38	0°♎		asc. node	11926 Jan 27 13:51	29°♎52'18	
morning set	11925 Mar 08 04:27	14°♎29'45			11926 Jan 28 21:44	0°♎	
desc. node	11925 Mar 14 23:51	26°♎18'30		morning max el	11926 Feb 03 18:36	3°♎29'29	17°57'57
	11925 Mar 17 03:57	0°♎		morning set	11926 Feb 19 08:47	28°♎00'22	
superior conj	11925 Mar 20 02:07	4°♎54'11	-0°38'19		11926 Feb 20 10:49	0°♎	
minimum elong	11925 Mar 19 22:16	4°♎38'09	0°37'43	superior conj	11926 Mar 01 15:33	16°♎34'37	0°01'36
max. Earth dist.	11925 Mar 26 15:17	15°♎35'35	1.44198 AU	minimum elong	11926 Mar 01 15:42	16°♎35'16	0°01'50
evening rise	11925 Apr 04 00:31	28°♎46'10		behind sun begin	11926 Mar 01 07:41	16°♎00'08	
	11925 Apr 04 19:42	0°♎		behind sun end	11926 Mar 01 23:43	17°♎10'19	
	11925 Apr 25 07:35	0°♎		desc. node	11926 Mar 01 20:28	16°♎56'08	
evening max el	11925 May 04 00:32	10°♎33'28	21°02'47	max. Earth dist.	11926 Mar 09 04:44	29°♎25'18	1.42498 AU
asc. node	11925 May 08 13:47	14°♎17'22			11926 Mar 09 13:09	0°♎	
retrograde	11925 May 12 13:18	15°♎32'21		evening rise	11926 Mar 15 00:21	8°♎50'28	
evening set	11925 May 16 19:37	13°♎50'28			11926 Mar 28 22:55	0°♎	
inferior conj	11925 May 22 01:56	7°♎38'49	3°08'14	evening max el	11926 Apr 16 18:39	24°♎19'56	22°19'05
minimum elong	11925 May 22 00:53	7°♎42'29	3°07'25	asc. node	11926 Apr 25 11:02	29°♎57'52	
min. Earth dist.	11925 May 22 11:55	7°♎04'10	0.68475 AU		11926 Apr 25 17:22	0°♎	
morning rise	11925 May 27 05:57	1°♎22'00		retrograde	11926 Apr 26 10:45	0°♎02'30	
	11925 May 29 02:44	30°♎			11926 Apr 27 03:49	30°♎	
direct	11925 Jun 01 12:15	29°♎03'26		evening set	11926 May 01 03:53	28°♎05'17	
	11925 Jun 05 04:57	0°♎		inferior conj	11926 May 06 11:09	21°♎43'53	2°50'45
desc. node	11925 Jun 11 00:57	4°♎20'13		minimum elong	11926 May 06 09:23	21°♎50'03	2°49'51
morning max el	11925 Jun 12 01:28	5°♎20'25	23°26'21				

min. Earth dist.	11926 May 06 08:14	21° $\text{8}$ 54'06	0.68774 AU	morning rise	11927 Apr 26 02:01	29° $\text{Y}$ 48'26	
morning rise	11926 May 11 14:44	15° $\text{8}$ 32'37		direct	11927 Apr 30 06:06	28° $\text{Y}$ 10'31	
direct	11926 May 16 07:48	13° $\text{8}$ 33'31			11927 May 05 02:19	0° $\text{8}$	
morning max el	11926 May 25 14:11	18° $\text{8}$ 58'39	21°58'06	morning max el	11927 May 08 08:35	2° $\text{8}$ 47'21	20°38'06
desc. node	11926 May 28 21:53	22° $\text{8}$ 35'32		desc. node	11927 May 15 18:44	11° $\text{8}$ 36'10	
	11926 Jun 03 19:10	0° $\text{II}$			11927 May 28 15:33	0° $\text{II}$	
	11926 Jun 24 05:19	0° $\text{6}$		morning set	11927 Jun 06 17:38	13° $\text{II}$ 50'54	
morning set	11926 Jun 27 08:20	4° $\text{6}$ 57'47		max. Earth dist.	11927 Jun 15 07:12	27° $\text{II}$ 23'18	1.43485 AU
max. Earth dist.	11926 Jul 03 00:35	14° $\text{6}$ 14'22	1.41529 AU		11927 Jun 16 21:55	0° $\text{6}$	
superior conj	11926 Jul 10 17:40	27° $\text{6}$ 26'58	-1°34'18	superior conj	11927 Jun 21 21:37	8° $\text{6}$ 12'52	-2°00'21
minimum elong	11926 Jul 11 00:08	27° $\text{6}$ 55'29	1°34'17	minimum elong	11927 Jun 22 03:51	8° $\text{6}$ 38'51	2°00'44
	11926 Jul 12 04:15	0° $\text{9}$		evening rise	11927 Jul 04 03:46	29° $\text{6}$ 18'57	
evening rise	11926 Jul 21 09:23	16° $\text{9}$ 48'27			11927 Jul 04 13:05	0° $\text{9}$	
asc. node	11926 Jul 22 09:59	18° $\text{9}$ 42'07		asc. node	11927 Jul 09 06:50	8° $\text{9}$ 17'58	
	11926 Jul 28 16:37	0° $\text{np}$		evening max el	11927 Jul 20 23:31	25° $\text{9}$ 27'11	18°03'41
evening max el	11926 Aug 06 10:36	12° $\text{np}$ 20'57	18°13'07	retrograde	11927 Jul 27 12:26	28° $\text{9}$ 49'24	
retrograde	11926 Aug 13 14:12	15° $\text{np}$ 58'27		evening set	11927 Jul 30 01:57	28° $\text{9}$ 17'54	
evening set	11926 Aug 15 19:37	15° $\text{np}$ 37'59		inferior conj	11927 Aug 05 15:17	23° $\text{9}$ 14'02	1°43'46
inferior conj	11926 Aug 23 01:38	10° $\text{np}$ 53'38	0°32'11	minimum elong	11927 Aug 05 17:49	23° $\text{9}$ 07'42	1°42'25
minimum elong	11926 Aug 23 02:42	10° $\text{np}$ 51'20	0°31'27	min. Earth dist.	11927 Aug 08 16:52	20° $\text{9}$ 11'43	0.61488 AU
desc. node	11926 Aug 24 20:05	9° $\text{np}$ 21'02		desc. node	11927 Aug 11 17:29	17° $\text{9}$ 36'47	
min. Earth dist.	11926 Aug 26 09:31	8° $\text{np}$ 01'38	0.59203 AU	morning rise	11927 Aug 12 07:08	17° $\text{9}$ 12'33	
morning rise	11926 Aug 30 06:22	5° $\text{np}$ 16'13		direct	11927 Aug 18 22:58	14° $\text{9}$ 55'15	
direct	11926 Sep 05 15:07	3° $\text{np}$ 24'43		morning max el	11927 Sep 02 04:00	22° $\text{9}$ 55'11	27°57'45
morning max el	11926 Sep 19 23:40	11° $\text{np}$ 12'44	27°35'13		11927 Sep 08 10:58	0° $\text{np}$	
	11926 Oct 04 15:35	0° $\text{a}$			11927 Sep 27 21:03	0° $\text{a}$	
asc. node	11926 Oct 18 11:18	24° $\text{a}$ 38'19		asc. node	11927 Oct 05 08:01	14° $\text{a}$ 29'45	
	11926 Oct 21 01:51	0° $\text{m}$		morning set	11927 Oct 05 14:28	15° $\text{a}$ 02'56	
morning set	11926 Oct 21 12:31	0° $\text{m}$ 56'02		max. Earth dist.	11927 Oct 11 06:15	27° $\text{a}$ 06'10	1.31666 AU
max. Earth dist.	11926 Oct 27 23:35	15° $\text{m}$ 01'08	1.31333 AU				
superior conj	11926 Oct 28 13:16	16° $\text{m}$ 17'18	1°24'16	superior conj	11927 Oct 12 23:30	0° $\text{m}$ 52'53	1°08'39
minimum elong	11926 Oct 28 11:18	16° $\text{m}$ 06'21	1°24'35	minimum elong	11927 Oct 12 21:15	0° $\text{m}$ 40'27	1°08'40
	11926 Nov 03 18:18	0° $\text{x}$			11927 Oct 12 13:55	0° $\text{m}$	
evening rise	11926 Nov 04 06:38	1° $\text{x}$ 06'19		evening rise	11927 Oct 19 17:07	15° $\text{m}$ 41'15	
	11926 Nov 19 18:05	0° $\text{z}$			11927 Oct 26 17:18	0° $\text{x}$	
desc. node	11926 Nov 20 17:06	1° $\text{z}$ 28'19		desc. node	11927 Nov 07 14:20	19° $\text{x}$ 20'39	
evening max el	11926 Dec 03 01:39	16° $\text{z}$ 49'00	26°16'28	evening max el	11927 Nov 14 16:44	27° $\text{x}$ 30'29	24°52'27
retrograde	11926 Dec 17 00:08	23° $\text{z}$ 54'09			11927 Nov 17 13:38	0° $\text{z}$	
evening set	11926 Dec 23 10:58	22° $\text{z}$ 13'49		retrograde	11927 Nov 28 12:02	4° $\text{z}$ 25'16	
min. Earth dist.	11926 Dec 27 14:59	19° $\text{z}$ 38'12	0.58544 AU	evening set	11927 Dec 04 00:52	3° $\text{z}$ 16'50	
inferior conj	11926 Dec 30 17:59	17° $\text{z}$ 19'24	-4°23'36	min. Earth dist.	11927 Dec 09 04:36	0° $\text{z}$ 32'16	0.56621 AU
minimum elong	11926 Dec 31 02:20	17° $\text{z}$ 03'55	4°20'26		11927 Dec 10 00:51	30° $\text{R}$ $\text{x}$	
morning rise	11927 Jan 07 20:30	12° $\text{z}$ 50'37		inferior conj	11927 Dec 11 19:26	28° $\text{x}$ 50'55	-5°25'53
direct	11927 Jan 09 23:01	12° $\text{z}$ 35'41		minimum elong	11927 Dec 12 02:12	28° $\text{x}$ 39'59	5°24'00
asc. node	11927 Jan 14 11:04	13° $\text{z}$ 48'13		morning rise	11927 Dec 20 05:42	24° $\text{x}$ 43'42	
morning max el	11927 Jan 18 03:42	16° $\text{z}$ 36'47	18°29'08	direct	11927 Dec 22 14:28	24° $\text{x}$ 28'01	
	11927 Jan 27 14:14	0° $\text{a}$		morning max el	11928 Jan 01 02:40	29° $\text{x}$ 02'25	19°22'10
morning set	11927 Feb 03 01:55	12° $\text{a}$ 05'27		asc. node	11928 Jan 01 08:14	29° $\text{x}$ 16'00	
					11928 Jan 02 01:28	0° $\text{z}$	
superior conj	11927 Feb 12 02:32	29° $\text{a}$ 14'43	0°35'45	morning set	11928 Jan 18 03:47	26° $\text{z}$ 33'16	
minimum elong	11927 Feb 12 04:53	29° $\text{a}$ 25'36	0°35'51		11928 Jan 19 21:04	0° $\text{a}$	
	11927 Feb 12 12:20	0° $\text{H}$		superior conj	11928 Jan 26 06:20	12° $\text{a}$ 41'18	1°02'28
desc. node	11927 Feb 16 17:06	7° $\text{H}$ 35'32		minimum elong	11928 Jan 26 09:16	12° $\text{a}$ 55'34	1°02'43
max. Earth dist.	11927 Feb 19 13:17	12° $\text{H}$ 33'51	1.40414 AU	max. Earth dist.	11928 Feb 01 19:30	25° $\text{a}$ 02'35	1.38186 AU
evening rise	11927 Feb 23 20:10	19° $\text{H}$ 49'04		desc. node	11928 Feb 03 13:48	28° $\text{a}$ 13'26	
	11927 Mar 02 03:41	0° $\text{Y}$			11928 Feb 04 13:47	0° $\text{H}$	
	11927 Mar 23 05:16	0° $\text{8}$		evening rise	11928 Feb 05 13:17	1° $\text{H}$ 43'14	
evening max el	11927 Mar 30 09:27	8° $\text{8}$ 08'49	23°39'43		11928 Feb 23 08:35	0° $\text{Y}$	
retrograde	11927 Apr 10 05:26	14° $\text{8}$ 31'47		evening max el	11928 Mar 11 23:07	22° $\text{Y}$ 00'50	24°58'10
asc. node	11927 Apr 12 08:21	14° $\text{8}$ 10'52		retrograde	11928 Mar 23 20:08	28° $\text{Y}$ 55'10	
evening set	11927 Apr 15 10:05	12° $\text{8}$ 20'52		asc. node	11928 Mar 29 05:43	26° $\text{Y}$ 47'21	
min. Earth dist.	11927 Apr 20 04:56	6° $\text{8}$ 45'13	0.68622 AU	evening set	11928 Mar 29 12:40	26° $\text{Y}$ 32'56	
inferior conj	11927 Apr 20 20:12	5° $\text{8}$ 52'55	2°23'21	min. Earth dist.	11928 Apr 02 23:50	21° $\text{Y}$ 32'46	0.68037 AU
minimum elong	11927 Apr 20 18:03	6° $\text{8}$ 00'15	2°22'23	inferior conj	11928 Apr 04 03:12	20° $\text{Y}$ 02'40	1°46'12
	11927 Apr 25 20:18	30° $\text{R}$ $\text{Y}$		minimum elong	11928 Apr 04 01:08	20° $\text{Y}$ 09'27	1°45'19



morning rise	11928 Apr 09 13:52	14° $\Upsilon$ 06'22		minimum elong	11929 Mar 19 04:43	4° $\Upsilon$ 12'01	0°58'34
direct	11928 Apr 13 05:46	12° $\Upsilon$ 49'17			11929 Mar 22 21:42	30° $\Re$ $\Re$	
morning max el	11928 Apr 20 10:35	16° $\Upsilon$ 48'02	19°31'22	morning rise	11929 Mar 25 00:14	28° $\Re$ 21'20	
	11928 Apr 30 20:05	0° $\mathcal{B}$		direct	11929 Mar 28 05:00	27° $\Re$ 23'13	
desc. node	11928 May 01 15:31	1° $\mathcal{B}$ 10'11			11929 Apr 02 19:19	0° $\Upsilon$	
greatest brilliancy	11928 May 03 03:13	3° $\mathcal{B}$ 20'39	-0.7m	morning max el	11929 Apr 03 19:57	0° $\Upsilon$ 56'50	18°40'19
morning set	11928 May 15 17:44	22° $\mathcal{B}$ 25'04		desc. node	11929 Apr 18 12:11	21° $\Upsilon$ 07'51	
	11928 May 20 15:30	0° $\Pi$			11929 Apr 24 04:40	0° $\mathcal{B}$	
max. Earth dist.	11928 May 27 20:48	11° $\Pi$ 18'04	1.44916 AU	morning set	11929 Apr 25 07:14	1° $\mathcal{B}$ 44'00	
				max. Earth dist.	11929 May 10 15:16	25° $\mathcal{B}$ 42'15	1.45658 AU
superior conj	11928 Jun 01 01:48	17° $\Pi$ 59'21	-2°13'01				
minimum elong	11928 Jun 01 03:12	18° $\Pi$ 04'55	2°13'47	superior conj	11929 May 11 12:13	27° $\mathcal{B}$ 04'11	-2°06'30
	11928 Jun 08 11:42	0° $\mathcal{E}$		minimum elong	11929 May 11 06:04	26° $\mathcal{B}$ 40'09	2°06'52
evening rise	11928 Jun 15 01:40	10° $\mathcal{E}$ 55'12			11929 May 13 09:07	0° $\Pi$	
asc. node	11928 Jun 25 03:46	27° $\mathcal{E}$ 34'19		evening rise	11929 May 26 23:32	21° $\Pi$ 31'08	
	11928 Jun 26 17:24	0° $\Omega$			11929 Jun 01 06:54	0° $\mathcal{E}$	
evening max el	11928 Jul 03 13:36	8° $\Omega$ 53'01	18°12'49	greatest brilliancy	11929 Jun 03 07:57	3° $\mathcal{E}$ 14'55	-0.9m
retrograde	11928 Jul 09 22:06	12° $\Omega$ 14'28		asc. node	11929 Jun 12 00:48	16° $\mathcal{E}$ 24'02	
evening set	11928 Jul 12 19:51	11° $\Omega$ 29'18		evening max el	11929 Jun 17 01:51	22° $\mathcal{E}$ 30'41	18°39'52
inferior conj	11928 Jul 18 20:14	6° $\Omega$ 07'35	2°32'09	retrograde	11929 Jun 23 15:16	26° $\mathcal{E}$ 05'06	
minimum elong	11928 Jul 18 22:42	6° $\Omega$ 00'39	2°30'52	evening set	11929 Jun 26 21:20	25° $\mathcal{E}$ 04'45	
min. Earth dist.	11928 Jul 21 09:32	3° $\Omega$ 16'35	0.63674 AU	inferior conj	11929 Jul 02 12:34	19° $\mathcal{E}$ 26'58	3°00'57
morning rise	11928 Jul 24 23:59	29° $\mathcal{E}$ 52'08		minimum elong	11929 Jul 02 14:12	19° $\mathcal{E}$ 21'56	2°59'56
	11928 Jul 24 19:59	30° $\Re$ $\mathcal{E}$		min. Earth dist.	11929 Jul 04 11:16	17° $\mathcal{E}$ 03'49	0.65561 AU
desc. node	11928 Jul 28 14:50	27° $\mathcal{E}$ 48'57		morning rise	11929 Jul 08 06:13	13° $\mathcal{E}$ 05'19	
direct	11928 Jul 31 16:02	27° $\mathcal{E}$ 17'21		direct	11929 Jul 14 16:53	10° $\mathcal{E}$ 23'22	
	11928 Aug 08 06:00	0° $\Omega$		desc. node	11929 Jul 15 12:05	10° $\mathcal{E}$ 25'38	
morning max el	11928 Aug 14 12:52	5° $\Omega$ 18'53	27°42'31	morning max el	11929 Jul 27 23:48	18° $\mathcal{E}$ 14'40	26°55'01
	11928 Sep 02 05:47	0° $\mathcal{M}$			11929 Aug 06 21:10	0° $\Omega$	
morning set	11928 Sep 18 08:56	28° $\mathcal{M}$ 45'52			11929 Aug 26 04:52	0° $\mathcal{M}$	
	11928 Sep 18 23:44	0° $\mathcal{L}$		morning set	11929 Sep 01 17:05	11° $\mathcal{M}$ 58'03	
asc. node	11928 Sep 21 04:42	4° $\mathcal{L}$ 30'04		max. Earth dist.	11929 Sep 05 22:42	20° $\mathcal{M}$ 17'17	1.33890 AU
max. Earth dist.	11928 Sep 23 07:00	8° $\mathcal{L}$ 52'58	1.32520 AU	asc. node	11929 Sep 08 01:23	24° $\mathcal{M}$ 35'14	
superior conj	11928 Sep 26 06:21	15° $\mathcal{L}$ 14'39	0°47'42	superior conj	11929 Sep 10 07:36	29° $\mathcal{M}$ 16'56	0°21'45
minimum elong	11928 Sep 26 04:21	15° $\mathcal{L}$ 03'48	0°47'29	minimum elong	11929 Sep 10 06:30	29° $\mathcal{M}$ 11'08	0°21'26
evening rise	11928 Oct 03 04:27	0° $\mathcal{M}$ 15'59			11929 Sep 10 15:49	0° $\mathcal{L}$	
	11928 Oct 03 01:28	0° $\mathcal{M}$		evening rise	11929 Sep 17 14:47	14° $\mathcal{L}$ 45'31	
	11928 Oct 19 14:58	0° $\mathcal{J}$			11929 Sep 25 06:23	0° $\mathcal{M}$	
desc. node	11928 Oct 24 11:38	5° $\mathcal{J}$ 57'45		evening max el	11929 Oct 07 17:29	17° $\mathcal{M}$ 48'33	21°34'04
evening max el	11928 Oct 26 03:08	7° $\mathcal{J}$ 38'43	23°12'27	desc. node	11929 Oct 11 09:00	20° $\mathcal{M}$ 53'21	
retrograde	11928 Nov 08 10:43	14° $\mathcal{J}$ 16'18		retrograde	11929 Oct 19 23:43	23° $\mathcal{M}$ 54'18	
evening set	11928 Nov 12 15:19	13° $\mathcal{J}$ 38'10		evening set	11929 Oct 22 19:13	23° $\mathcal{M}$ 36'15	
min. Earth dist.	11928 Nov 19 12:38	10° $\mathcal{J}$ 26'14	0.55209 AU	inferior conj	11929 Oct 31 18:20	19° $\mathcal{M}$ 40'54	-5°21'16
inferior conj	11928 Nov 21 01:11	9° $\mathcal{J}$ 33'21	-5°51'32	minimum elong	11929 Oct 31 10:14	19° $\mathcal{M}$ 52'14	5°19'16
minimum elong	11928 Nov 21 01:03	9° $\mathcal{J}$ 33'32	5°50'47	min. Earth dist.	11929 Oct 31 19:07	19° $\mathcal{M}$ 39'48	0.54574 AU
morning rise	11928 Nov 29 12:25	5° $\mathcal{J}$ 42'46		morning rise	11929 Nov 09 02:16	15° $\mathcal{M}$ 52'40	
direct	11928 Dec 02 11:17	5° $\mathcal{J}$ 22'00		direct	11929 Nov 12 20:01	15° $\mathcal{M}$ 22'22	
morning max el	11928 Dec 13 12:10	10° $\mathcal{J}$ 36'35	20°38'12	morning max el	11929 Nov 25 08:11	21° $\mathcal{M}$ 20'11	22°14'50
asc. node	11928 Dec 18 05:20	15° $\mathcal{J}$ 59'43			11929 Dec 02 15:08	0° $\mathcal{J}$	
	11928 Dec 26 19:42	0° $\mathcal{Z}$		asc. node	11929 Dec 05 02:20	3° $\mathcal{J}$ 43'01	
morning set	11929 Jan 01 11:12	11° $\mathcal{Z}$ 13'57		morning set	11929 Dec 16 21:48	26° $\mathcal{J}$ 00'48	
					11929 Dec 18 18:52	0° $\mathcal{Z}$	
superior conj	11929 Jan 08 22:28	26° $\mathcal{Z}$ 41'07	1°21'33	superior conj	11929 Dec 23 23:19	11° $\mathcal{Z}$ 04'14	1°33'26
minimum elong	11929 Jan 09 00:56	26° $\mathcal{Z}$ 53'44	1°22'04	minimum elong	11929 Dec 24 00:49	11° $\mathcal{Z}$ 12'11	1°34'09
	11929 Jan 10 13:46	0° $\approx$		max. Earth dist.	11929 Dec 27 18:07	18° $\mathcal{Z}$ 57'03	1.34212 AU
max. Earth dist.	11929 Jan 14 03:47	7° $\approx$ 04'11	1.36054 AU	evening rise	11930 Jan 01 03:56	27° $\mathcal{Z}$ 43'51	
evening rise	11929 Jan 18 01:02	14° $\approx$ 24'25			11930 Jan 02 08:18	0° $\approx$	
desc. node	11929 Jan 20 10:32	18° $\approx$ 45'21		desc. node	11930 Jan 07 07:21	9° $\approx$ 07'08	
	11929 Jan 26 23:57	0° $\Re$			11930 Jan 20 06:22	0° $\Re$	
	11929 Feb 17 02:39	0° $\Upsilon$		evening max el	11930 Feb 05 02:14	19° $\Re$ 30'53	26°59'50
evening max el	11929 Feb 22 12:44	5° $\Upsilon$ 50'48	26°07'20	retrograde	11930 Feb 18 09:49	26° $\Re$ 54'56	
retrograde	11929 Mar 07 05:50	13° $\Upsilon$ 05'16		evening set	11930 Feb 24 23:59	24° $\Re$ 21'47	
evening set	11929 Mar 13 09:56	10° $\Upsilon$ 35'06		min. Earth dist.	11930 Feb 28 23:13	20° $\Re$ 30'27	0.65641 AU
asc. node	11929 Mar 16 03:07	7° $\Upsilon$ 54'33		inferior conj	11930 Mar 03 02:46	18° $\Re$ 03'09	0°01'51
min. Earth dist.	11929 Mar 17 14:38	6° $\Upsilon$ 09'58	0.67034 AU	minimum elong	11930 Mar 03 02:43	18° $\Re$ 03'19	0°02'05
inferior conj	11929 Mar 19 06:08	4° $\Upsilon$ 07'38	0°59'05				

































































































































transit middle	11930 Mar 03 02:43	18° $\text{H}$ 03'19	0°02'05		11930 Dec 25 15:08	0° $\approx$	
transit begin	11930 Mar 02 23:45	18° $\text{H}$ 11'48			11931 Jan 15 19:29	0° $\text{H}$	
transit end	11930 Mar 03 05:40	17° $\text{H}$ 54'52		evening max el	11931 Jan 18 14:41	2° $\text{H}$ 50'34	27°28'44
asc. node	11930 Mar 03 00:29	18° $\text{H}$ 09'42		retrograde	11931 Feb 01 07:28	10° $\text{H}$ 15'10	
morning rise	11930 Mar 09 06:50	12° $\text{H}$ 28'54		evening set	11931 Feb 08 04:32	7° $\text{H}$ 45'58	
direct	11930 Mar 12 01:44	11° $\text{H}$ 46'47		min. Earth dist.	11931 Feb 11 23:38	4° $\text{H}$ 25'35	0.63897 AU
morning max el	11930 Mar 18 10:46	15° $\text{H}$ 07'50	18°05'53	inferior conj	11931 Feb 14 14:31	1° $\text{H}$ 42'59	-1°05'12
	11930 Mar 29 07:33	0° $\text{Y}$		minimum elong	11931 Feb 14 16:35	1° $\text{H}$ 37'38	1°03'53
desc. node	11930 Apr 05 08:48	11° $\text{Y}$ 22'42			11931 Feb 16 07:15	30° $\text{R}$ $\approx$	
morning set	11930 Apr 06 00:03	12° $\text{Y}$ 24'38		asc. node	11931 Feb 17 21:49	28° $\approx$ 32'06	
	11930 Apr 16 22:40	0° $\text{B}$		morning rise	11931 Feb 21 06:45	26° $\approx$ 23'17	
				direct	11931 Feb 23 17:27	25° $\approx$ 53'31	
superior conj	11930 Apr 20 20:31	6° $\text{B}$ 10'30	-1°40'35	morning max el	11931 Mar 02 04:18	29° $\approx$ 13'16	17°48'37
minimum elong	11930 Apr 20 11:08	5° $\text{B}$ 33'39	1°40'05		11931 Mar 02 22:33	0° $\text{H}$	
max. Earth dist.	11930 Apr 23 11:14	10° $\text{B}$ 16'30	1.45653 AU	morning set	11931 Mar 18 20:42	24° $\text{H}$ 26'17	
	11930 May 06 03:43	0° $\text{II}$			11931 Mar 22 03:22	0° $\text{Y}$	
evening rise	11930 May 06 23:10	1° $\text{II}$ 15'14		desc. node	11931 Mar 23 05:25	1° $\text{Y}$ 49'54	
greatest brilliancy	11930 May 19 13:41	20° $\text{II}$ 33'25	-0.7m				
	11930 May 26 04:19	0° $\text{E}$		superior conj	11931 Mar 31 20:04	16° $\text{Y}$ 04'03	-1°02'16
asc. node	11930 May 29 21:53	4° $\text{E}$ 37'43		minimum elong	11931 Mar 31 13:31	15° $\text{Y}$ 37'30	1°01'32
evening max el	11930 May 31 09:53	6° $\text{E}$ 13'47	19°23'54	max. Earth dist.	11931 Apr 06 06:06	24° $\text{Y}$ 44'49	1.44917 AU
retrograde	11930 Jun 07 12:32	10° $\text{E}$ 13'46			11931 Apr 09 14:11	0° $\text{B}$	
evening set	11930 Jun 11 03:21	8° $\text{E}$ 57'27		evening rise	11931 Apr 16 10:58	10° $\text{B}$ 37'40	
inferior conj	11930 Jun 16 12:54	3° $\text{E}$ 05'15	3°13'50		11931 Apr 29 08:05	0° $\text{II}$	
minimum elong	11930 Jun 16 13:26	3° $\text{E}$ 03'28	3°13'00	evening max el	11931 May 14 12:27	19° $\text{II}$ 59'16	20°23'06
min. Earth dist.	11930 Jun 17 20:49	1° $\text{E}$ 20'26	0.67048 AU	asc. node	11931 May 16 19:03	22° $\text{II}$ 03'55	
	11930 Jun 18 22:07	30° $\text{R}$ $\text{II}$		retrograde	11931 May 22 11:21	24° $\text{II}$ 34'50	
morning rise	11930 Jun 21 23:02	26° $\text{II}$ 42'50		evening set	11931 May 26 11:40	23° $\text{II}$ 02'24	
direct	11930 Jun 28 00:23	24° $\text{II}$ 03'35		inferior conj	11931 May 31 18:27	16° $\text{II}$ 57'23	3°13'34
desc. node	11930 Jul 02 09:15	25° $\text{II}$ 11'27		minimum elong	11931 May 31 17:56	16° $\text{II}$ 59'11	3°12'47
	11930 Jul 08 21:46	0° $\text{E}$		min. Earth dist.	11931 Jun 01 12:16	15° $\text{II}$ 56'21	0.68087 AU
morning max el	11930 Jul 10 10:32	1° $\text{E}$ 29'58	25°43'32	morning rise	11931 Jun 05 23:53	10° $\text{II}$ 37'44	
	11930 Jul 31 22:14	0° $\text{Q}$		direct	11931 Jun 11 13:34	8° $\text{II}$ 09'35	
morning set	11930 Aug 15 11:08	24° $\text{Q}$ 29'37		desc. node	11931 Jun 19 06:19	11° $\text{II}$ 38'27	
	11930 Aug 18 10:20	0° $\text{P}$		morning max el	11931 Jun 22 20:25	14° $\text{II}$ 55'36	24°17'55
max. Earth dist.	11930 Aug 19 04:05	1° $\text{P}$ 24'04	1.35737 AU		11931 Jul 05 04:23	0° $\text{E}$	
					11931 Jul 24 19:51	0° $\text{Q}$	
superior conj	11930 Aug 25 00:30	12° $\text{P}$ 52'08	-0°08'36	morning set	11931 Jul 28 10:36	6° $\text{Q}$ 09'24	
minimum elong	11930 Aug 25 01:02	12° $\text{P}$ 54'50	0°08'49	max. Earth dist.	11931 Aug 01 02:11	12° $\text{Q}$ 35'40	1.37934 AU
behind sun begin	11930 Aug 24 19:49	12° $\text{P}$ 28'32					
behind sun end	11930 Aug 25 06:16	13° $\text{P}$ 21'10		superior conj	11931 Aug 08 05:48	25° $\text{Q}$ 52'45	-0°41'58
asc. node	11930 Aug 25 22:02	14° $\text{P}$ 40'51		minimum elong	11931 Aug 08 08:39	26° $\text{Q}$ 06'26	0°41'59
evening rise	11930 Sep 01 21:56	29° $\text{P}$ 03'21			11931 Aug 10 08:56	0° $\text{P}$	
	11930 Sep 02 08:59	0° $\text{A}$		asc. node	11931 Aug 12 18:44	4° $\text{P}$ 43'42	
evening max el	11930 Sep 19 19:55	28° $\text{A}$ 32'51	20°10'48	evening rise	11931 Aug 16 23:26	13° $\text{P}$ 03'15	
	11930 Sep 21 09:39	0° $\text{L}$			11931 Aug 26 01:14	0° $\text{A}$	
desc. node	11930 Sep 28 06:24	3° $\text{L}$ 38'07		evening max el	11931 Sep 02 12:25	10° $\text{A}$ 05'28	19°08'22
retrograde	11930 Sep 30 12:36	3° $\text{L}$ 51'56		retrograde	11931 Sep 11 13:14	14° $\text{A}$ 35'56	
evening set	11930 Oct 02 12:26	3° $\text{L}$ 41'40		evening set	11931 Sep 13 09:38	14° $\text{A}$ 25'23	
	11930 Oct 11 01:24	30° $\text{R}$ $\text{A}$		desc. node	11931 Sep 15 03:48	13° $\text{A}$ 57'03	
inferior conj	11930 Oct 11 12:27	29° $\text{A}$ 43'34	-3°57'02	inferior conj	11931 Sep 21 21:05	10° $\text{A}$ 13'11	-2°06'21
minimum elong	11930 Oct 11 02:47	29° $\text{A}$ 57'57	3°53'39	minimum elong	11931 Sep 21 15:36	10° $\text{A}$ 22'29	2°04'09
min. Earth dist.	11930 Oct 13 03:30	28° $\text{A}$ 45'29	0.54878 AU	min. Earth dist.	11931 Sep 24 15:53	8° $\text{A}$ 20'28	0.56085 AU
morning rise	11930 Oct 19 16:09	25° $\text{A}$ 36'15		morning rise	11931 Sep 29 18:39	5° $\text{A}$ 31'42	
direct	11930 Oct 24 06:03	24° $\text{A}$ 50'49		direct	11931 Oct 05 04:18	4° $\text{A}$ 23'59	
	11930 Nov 05 03:35	0° $\text{L}$		morning max el	11931 Oct 19 07:20	11° $\text{A}$ 36'09	25°45'05
morning max el	11930 Nov 06 19:53	1° $\text{L}$ 29'45	24°02'37		11931 Nov 02 11:06	0° $\text{L}$	
asc. node	11930 Nov 21 23:15	22° $\text{L}$ 11'00		asc. node	11931 Nov 08 20:04	11° $\text{L}$ 12'45	
	11930 Nov 26 03:46	0° $\text{X}$		morning set	11931 Nov 15 20:55	25° $\text{L}$ 28'57	
morning set	11930 Dec 01 09:36	10° $\text{X}$ 47'18			11931 Nov 17 22:57	0° $\text{X}$	
superior conj	11930 Dec 08 05:59	25° $\text{X}$ 41'20	1°38'38	superior conj	11931 Nov 22 16:08	10° $\text{X}$ 25'35	1°37'37
minimum elong	11930 Dec 08 06:20	25° $\text{X}$ 43'16	1°39'25	minimum elong	11931 Nov 22 15:24	10° $\text{X}$ 21'31	1°38'20
	11930 Dec 10 05:49	0° $\text{Z}$		max. Earth dist.	11931 Nov 23 20:44	13° $\text{X}$ 03'40	1.31829 AU
max. Earth dist.	11930 Dec 10 16:04	0° $\text{Z}$ 54'57	1.32781 AU	evening rise	11931 Nov 29 17:37	25° $\text{X}$ 41'53	
evening rise	11930 Dec 15 18:27	11° $\text{Z}$ 32'08			11931 Dec 01 19:57	0° $\text{Z}$	
desc. node	11930 Dec 25 04:16	29° $\text{Z}$ 12'56		desc. node	11931 Dec 12 01:16	18° $\text{Z}$ 55'46	

	11931 Dec 19 02:59	0°♊		evening max el	11932 Dec 13 04:03	27°♊39'54	26°52'16
evening max el	11932 Jan 01 00:10	15°♊37'32	27°27'34		11932 Dec 15 20:10	0°♊	
retrograde	11932 Jan 14 21:31	22°♊55'55		retrograde	11932 Dec 27 02:33	4°♊49'10	
evening set	11932 Jan 21 20:39	20°♊39'06		evening set	11933 Jan 02 20:42	2°♊53'24	
min. Earth dist.	11932 Jan 25 14:20	17°♊44'10	0.61892 AU	min. Earth dist.	11933 Jan 06 18:19	0°♊14'44	0.59759 AU
inferior conj	11932 Jan 28 14:14	14°♊58'56	-2°20'35		11933 Jan 07 01:54	30°♊♊	
minimum elong	11932 Jan 28 19:03	14°♊47'50	2°18'03	inferior conj	11933 Jan 09 22:29	27°♊41'51	-3°39'45
morning rise	11932 Feb 04 20:10	9°♊56'34		minimum elong	11933 Jan 10 05:59	27°♊26'46	3°36'30
asc. node	11932 Feb 04 19:07	9°♊57'24		morning rise	11933 Jan 17 18:05	22°♊59'57	
direct	11932 Feb 07 00:53	9°♊35'21		direct	11933 Jan 19 20:13	22°♊43'36	
morning max el	11932 Feb 13 21:20	13°♊03'44	17°49'09	asc. node	11933 Jan 21 16:23	22°♊56'50	
	11932 Feb 25 09:52	0°♊		morning max el	11933 Jan 27 10:24	26°♊29'57	18°08'40
morning set	11932 Feb 29 15:21	7°♊30'15			11933 Jan 30 11:34	0°♊	
desc. node	11932 Mar 09 02:01	22°♊24'45		morning set	11933 Feb 12 01:48	21°♊17'59	
					11933 Feb 16 17:32	0°♊	
superior conj	11932 Mar 11 19:28	27°♊05'08	-0°20'54	superior conj	11933 Feb 21 18:39	9°♊12'39	0°16'55
minimum elong	11932 Mar 11 17:30	26°♊56'46	0°20'28	minimum elong	11933 Feb 21 19:58	9°♊18'33	0°17'04
	11932 Mar 13 12:53	0°♊		desc. node	11933 Feb 23 22:40	13°♊03'42	
max. Earth dist.	11932 Mar 18 21:57	8°♊52'34	1.43534 AU	max. Earth dist.	11933 Mar 01 09:40	22°♊27'22	1.41651 AU
evening rise	11932 Mar 26 02:39	20°♊18'17			11933 Mar 05 23:21	0°♊	
	11932 Apr 01 10:32	0°♊		evening rise	11933 Mar 06 10:35	0°♊45'28	
	11932 Apr 22 23:19	0°♊			11933 Mar 25 21:42	0°♊	
evening max el	11932 Apr 26 09:29	3°♊45'45	21°34'23	evening max el	11933 Apr 09 02:08	17°♊33'59	22°53'09
asc. node	11932 May 02 16:17	8°♊27'48		retrograde	11933 Apr 19 05:58	23°♊33'42	
retrograde	11932 May 05 09:39	9°♊03'01		asc. node	11933 Apr 19 13:35	23°♊33'14	
evening set	11932 May 09 20:26	7°♊14'41		evening set	11933 Apr 24 04:01	21°♊30'25	
inferior conj	11932 May 15 02:55	0°♊58'47	3°02'03	min. Earth dist.	11933 Apr 29 04:06	15°♊34'30	0.68775 AU
minimum elong	11932 May 15 01:32	1°♊03'39	3°01'12	inferior conj	11933 Apr 29 12:19	15°♊06'02	2°40'20
min. Earth dist.	11932 May 15 07:25	0°♊43'07	0.68663 AU	minimum elong	11933 Apr 29 10:20	15°♊12'53	2°39'23
	11932 May 15 19:49	30°♊♊		morning rise	11933 May 04 16:33	8°♊57'40	
morning rise	11932 May 20 06:25	24°♊44'04		direct	11933 May 09 04:08	7°♊07'22	
direct	11932 May 25 07:12	22°♊33'07		morning max el	11933 May 17 21:47	12°♊10'20	21°22'39
morning max el	11932 Jun 04 07:02	28°♊28'03	22°48'05	desc. node	11933 May 23 00:13	17°♊56'30	
desc. node	11932 Jun 05 03:18	29°♊20'11			11933 May 31 23:10	0°♊	
	11932 Jun 05 18:15	0°♊		morning set	11933 Jun 18 08:42	26°♊10'53	
	11932 Jun 27 20:45	0°♊			11933 Jun 20 18:25	0°♊	
morning set	11932 Jul 08 10:33	16°♊44'35		max. Earth dist.	11933 Jun 25 03:17	7°♊04'34	1.42425 AU
max. Earth dist.	11932 Jul 12 23:54	24°♊22'50	1.40258 AU				
	11932 Jul 16 05:53	0°♊		superior conj	11933 Jul 02 12:48	19°♊30'02	-1°46'33
superior conj	11932 Jul 20 19:25	8°♊08'49	-1°15'58	minimum elong	11933 Jul 02 19:37	19°♊59'21	1°46'39
minimum elong	11932 Jul 21 00:47	8°♊33'18	1°15'51		11933 Jul 08 12:35	0°♊	
asc. node	11932 Jul 29 15:29	24°♊39'36		evening rise	11933 Jul 13 20:05	9°♊33'59	
evening rise	11932 Jul 30 16:09	26°♊36'48		asc. node	11933 Jul 16 12:18	14°♊24'15	
	11932 Aug 01 11:02	0°♊			11933 Jul 25 20:22	0°♊	
evening max el	11932 Aug 15 16:03	22°♊22'13	18°27'23	evening max el	11933 Jul 30 02:41	5°♊13'01	18°06'42
retrograde	11932 Aug 23 08:46	26°♊14'39		retrograde	11933 Aug 05 22:36	8°♊42'12	
evening set	11932 Aug 25 10:10	25°♊58'50		evening set	11933 Aug 08 07:30	8°♊17'18	
desc. node	11932 Sep 01 01:13	22°♊16'42		inferior conj	11933 Aug 15 05:58	3°♊24'04	1°05'36
inferior conj	11932 Sep 02 02:57	21°♊26'18	-0°20'00	minimum elong	11933 Aug 15 07:53	3°♊19'36	1°04'29
minimum elong	11932 Sep 02 02:11	21°♊27'50	0°19'53	min. Earth dist.	11933 Aug 18 12:02	0°♊25'10	0.60174 AU
min. Earth dist.	11932 Sep 05 10:01	18°♊50'41	0.57955 AU	desc. node	11933 Aug 18 22:39	0°♊02'14	
morning rise	11932 Sep 09 14:43	16°♊07'56			11933 Aug 18 23:41	30°♊♊	
direct	11932 Sep 15 16:45	14°♊32'52		morning rise	11933 Aug 22 05:16	27°♊35'14	
morning max el	11932 Sep 30 00:33	22°♊09'13	27°04'50	direct	11933 Aug 28 17:48	25°♊32'22	
	11932 Oct 06 22:57	0°♊			11933 Sep 08 04:52	0°♊	
	11932 Oct 25 08:50	0°♊		morning max el	11933 Sep 12 01:20	3°♊25'44	27°49'43
asc. node	11932 Oct 25 16:51	0°♊39'35			11933 Oct 01 14:27	0°♊	
morning set	11932 Oct 30 06:05	10°♊01'29		asc. node	11933 Oct 12 13:34	20°♊23'37	
				morning set	11933 Oct 14 11:14	24°♊19'10	
superior conj	11932 Nov 06 03:48	25°♊11'14	1°30'46		11933 Oct 17 03:21	0°♊	
minimum elong	11932 Nov 06 02:11	25°♊02'15	1°31'15	max. Earth dist.	11933 Oct 20 13:56	7°♊32'14	1.31413 AU
max. Earth dist.	11932 Nov 06 05:17	25°♊19'31	1.31371 AU				
	11932 Nov 08 07:39	0°♊		superior conj	11933 Oct 21 15:03	9°♊51'38	1°18'18
evening rise	11932 Nov 12 22:54	10°♊06'34		minimum elong	11933 Oct 21 12:54	9°♊39'42	1°18'29
	11932 Nov 23 02:35	0°♊		evening rise	11933 Oct 28 08:02	24°♊39'04	
desc. node	11932 Nov 27 22:21	8°♊06'39			11933 Oct 30 20:41	0°♊	

desc. node	11933 Nov 14 19:33	26°♊32'15		desc. node	11934 Nov 01 16:48	13°♊55'24	
	11933 Nov 17 07:16	0°♊		evening max el	11934 Nov 06 11:43	19°♊11'38	24°10'44
evening max el	11933 Nov 24 23:42	8°♊48'53	25°43'43	retrograde	11934 Nov 20 03:29	26°♊01'12	
retrograde	11933 Dec 08 20:59	15°♊49'29		evening set	11934 Nov 25 03:40	25°♊06'07	
evening set	11933 Dec 15 00:12	14°♊22'08		min. Earth dist.	11934 Nov 30 22:44	22°♊12'07	0.55940 AU
min. Earth dist.	11933 Dec 19 12:07	11°♊45'19	0.57685 AU	inferior conj	11934 Dec 03 04:19	20°♊50'04	-5°42'39
inferior conj	11933 Dec 22 11:44	9°♊40'45	-4°53'00	minimum elong	11934 Dec 03 08:45	20°♊43'15	5°41'26
minimum elong	11933 Dec 22 20:00	9°♊26'20	4°50'14	morning rise	11934 Dec 11 15:53	16°♊51'24	
morning rise	11933 Dec 30 18:19	5°♊21'28		direct	11934 Dec 14 05:37	16°♊34'14	
direct	11934 Jan 01 22:46	5°♊06'35		morning max el	11934 Dec 24 09:12	21°♊24'45	19°51'48
asc. node	11934 Jan 08 13:35	7°♊33'04		asc. node	11934 Dec 26 10:43	23°♊34'47	
morning max el	11934 Jan 10 15:38	9°♊20'20	18°48'58		11934 Dec 31 05:15	0°♊	
	11934 Jan 24 02:10	0°♊		morning set	11935 Jan 11 03:34	20°♊07'19	
morning set	11934 Jan 26 23:05	5°♊33'47			11935 Jan 16 00:02	0°♊	
superior conj	11934 Feb 04 13:21	22°♊13'57	0°48'00	superior conj	11935 Jan 18 22:52	5°♊55'45	1°11'29
minimum elong	11934 Feb 04 16:07	22°♊27'00	0°48'09	minimum elong	11935 Jan 19 01:42	6°♊09'48	1°11'50
	11934 Feb 08 17:51	0°♊		max. Earth dist.	11935 Jan 24 23:18	17°♊32'34	1.37249 AU
desc. node	11934 Feb 10 19:19	3°♊42'36		evening rise	11935 Jan 28 16:53	24°♊21'55	
max. Earth dist.	11934 Feb 11 17:11	5°♊19'29	1.39470 AU	desc. node	11935 Jan 28 16:01	24°♊18'03	
evening rise	11934 Feb 15 15:32	12°♊07'29			11935 Jan 31 21:58	0°♊	
	11934 Feb 26 18:31	0°♊			11935 Feb 20 10:31	0°♊	
	11934 Mar 21 07:22	0°♊		evening max el	11935 Mar 05 05:28	15°♊14'28	25°29'10
evening max el	11934 Mar 22 16:11	1°♊23'56	24°13'41	retrograde	11935 Mar 17 11:54	22°♊19'39	
retrograde	11934 Apr 02 23:04	8°♊01'22		evening set	11935 Mar 23 09:28	19°♊53'17	
asc. node	11934 Apr 06 10:56	7°♊05'42		asc. node	11935 Mar 24 08:20	19°♊01'23	
evening set	11934 Apr 08 08:55	5°♊44'59		min. Earth dist.	11935 Mar 27 17:37	15°♊08'10	0.67653 AU
min. Earth dist.	11934 Apr 13 00:13	0°♊24'46	0.68429 AU	inferior conj	11935 Mar 29 02:14	13°♊23'16	1°27'27
	11934 Apr 13 07:34	30°♊		minimum elong	11935 Mar 29 00:22	13°♊29'16	1°26'41
inferior conj	11934 Apr 13 20:44	29°♊15'32	2°08'49	morning rise	11935 Apr 03 15:45	7°♊31'06	
minimum elong	11934 Apr 13 18:33	29°♊22'51	2°07'51	direct	11935 Apr 07 02:40	6°♊22'36	
morning rise	11934 Apr 19 04:18	23°♊14'38		morning max el	11935 Apr 14 00:48	10°♊09'24	19°07'40
direct	11934 Apr 23 03:05	21°♊45'51		desc. node	11935 Apr 26 17:45	26°♊57'06	
morning max el	11934 Apr 30 19:28	26°♊04'46	20°07'58	greatest brilliancy	11935 Apr 27 01:52	27°♊27'32	-0.7m
	11934 May 04 08:36	0°♊			11935 Apr 28 18:20	0°♊	
desc. node	11934 May 09 21:02	7°♊12'30		morning set	11935 May 07 14:48	13°♊34'57	
	11934 May 25 08:10	0°♊			11935 May 18 04:28	0°♊	
morning set	11934 May 28 11:42	4°♊49'35		max. Earth dist.	11935 May 21 05:01	4°♊44'04	1.45312 AU
max. Earth dist.	11934 Jun 07 13:31	20°♊36'42	1.44170 AU	superior conj	11935 May 24 01:48	9°♊14'51	-2°12'48
superior conj	11934 Jun 13 06:32	29°♊50'07	-2°07'45	minimum elong	11935 May 23 23:57	9°♊07'33	2°13'31
minimum elong	11934 Jun 13 11:19	0°♊09'44	2°08'22		11935 Jun 05 23:47	0°♊	
	11934 Jun 13 08:57	0°♊		evening rise	11935 Jun 07 18:23	2°♊54'13	
evening rise	11934 Jun 26 06:27	21°♊43'36		asc. node	11935 Jun 20 06:11	22°♊59'07	
	11934 Jul 01 02:00	0°♊			11935 Jun 25 09:54	0°♊	
asc. node	11934 Jul 03 09:12	3°♊53'01		evening max el	11935 Jun 27 06:05	2°♊00'21	18°22'09
evening max el	11934 Jul 13 16:29	18°♊28'48	18°05'14	retrograde	11935 Jul 03 15:47	5°♊25'57	
retrograde	11934 Jul 20 02:28	21°♊49'19		evening set	11935 Jul 06 16:55	4°♊34'40	
evening set	11934 Jul 22 19:23	21°♊12'20			11935 Jul 11 18:23	30°♊	
inferior conj	11934 Jul 29 02:43	16°♊00'28	2°06'54	inferior conj	11935 Jul 12 12:59	29°♊06'05	2°46'29
minimum elong	11934 Jul 29 05:22	15°♊53'29	2°05'32	minimum elong	11935 Jul 12 15:09	28°♊59'43	2°45'18
min. Earth dist.	11934 Jul 31 23:28	13°♊00'34	0.62439 AU	min. Earth dist.	11935 Jul 14 20:17	26°♊24'56	0.64518 AU
morning rise	11934 Aug 04 13:12	9°♊51'35		morning rise	11935 Jul 18 12:07	22°♊46'57	
desc. node	11934 Aug 05 20:01	9°♊00'46		desc. node	11935 Jul 23 17:20	20°♊14'10	
direct	11934 Aug 11 05:42	7°♊25'52		direct	11935 Jul 25 02:28	20°♊07'33	
morning max el	11934 Aug 25 08:15	15°♊28'13	27°55'44	morning max el	11935 Aug 07 18:21	28°♊07'16	27°25'43
	11934 Sep 06 05:18	0°♊			11935 Aug 09 13:26	0°♊	
	11934 Sep 24 05:44	0°♊			11935 Aug 31 00:03	0°♊	
morning set	11934 Sep 28 10:21	8°♊17'02		morning set	11935 Sep 12 00:49	21°♊47'53	
asc. node	11934 Sep 29 10:17	10°♊19'35		asc. node	11935 Sep 16 06:57	0°♊22'19	
max. Earth dist.	11934 Oct 03 18:40	19°♊31'16	1.31966 AU		11935 Sep 16 02:37	0°♊	
superior conj	11934 Oct 06 00:06	24°♊22'00	1°00'24	max. Earth dist.	11935 Sep 16 15:40	1°♊07'24	1.33040 AU
minimum elong	11934 Oct 05 21:52	24°♊09'50	1°00'18	superior conj	11935 Sep 20 04:51	8°♊36'04	0°37'17
	11934 Oct 08 13:35	0°♊		minimum elong	11935 Sep 20 03:08	8°♊26'55	0°37'00
evening rise	11934 Oct 12 19:07	9°♊14'28		evening rise	11935 Sep 27 06:14	23°♊47'10	
	11934 Oct 23 08:27	0°♊			11935 Sep 30 05:26	0°♊	

evening max el	11935 Oct 18 22:33	29° $\mathbb{M}$ 15'31	22°29'25	behind sun begin	11936 Sep 02 21:31	21° $\mathbb{M}$ 59'58	
desc. node	11935 Oct 19 14:08	29° $\mathbb{M}$ 52'41		behind sun end	11936 Sep 03 07:19	22° $\mathbb{M}$ 50'31	
	11935 Oct 19 17:18	0° $\mathbb{X}$			11936 Sep 06 17:40	0° $\mathbb{A}$	
retrograde	11935 Oct 31 21:38	5° $\mathbb{X}$ 41'56		evening rise	11936 Sep 10 15:28	8° $\mathbb{A}$ 12'11	
evening set	11935 Nov 04 10:58	5° $\mathbb{X}$ 14'12			11936 Sep 22 05:48	0° $\mathbb{M}$	
min. Earth dist.	11935 Nov 12 06:00	1° $\mathbb{X}$ 45'00	0.54826 AU	evening max el	11936 Sep 29 17:33	9° $\mathbb{M}$ 37'31	20°56'16
inferior conj	11935 Nov 13 03:22	1° $\mathbb{X}$ 14'46	-5°46'07	desc. node	11936 Oct 05 11:31	13° $\mathbb{M}$ 55'56	
minimum elong	11935 Nov 12 23:28	1° $\mathbb{X}$ 20'17	5°45'08	retrograde	11936 Oct 11 08:35	15° $\mathbb{M}$ 23'48	
	11935 Nov 15 09:10	30° $\mathbb{K}$ $\mathbb{M}$		evening set	11936 Oct 13 17:37	15° $\mathbb{M}$ 10'22	
morning rise	11935 Nov 21 13:24	27° $\mathbb{M}$ 27'11		inferior conj	11936 Oct 22 19:05	11° $\mathbb{M}$ 15'52	-4°50'53
direct	11935 Nov 24 19:45	27° $\mathbb{M}$ 03'00		minimum elong	11936 Oct 22 09:19	11° $\mathbb{M}$ 29'41	4°48'03
	11935 Dec 03 08:20	0° $\mathbb{X}$		min. Earth dist.	11936 Oct 23 13:00	10° $\mathbb{M}$ 50'25	0.54591 AU
morning max el	11935 Dec 06 12:46	2° $\mathbb{X}$ 36'40	21°17'11	morning rise	11936 Oct 31 01:15	7° $\mathbb{M}$ 21'59	
asc. node	11935 Dec 13 07:44	10° $\mathbb{X}$ 45'30		direct	11936 Nov 04 03:53	6° $\mathbb{M}$ 45'45	
	11935 Dec 24 04:03	0° $\mathbb{Z}$		morning max el	11936 Nov 17 04:08	13° $\mathbb{M}$ 01'51	23°00'08
morning set	11935 Dec 26 12:34	4° $\mathbb{Z}$ 50'59		asc. node	11936 Nov 29 04:41	28° $\mathbb{M}$ 49'15	
					11936 Nov 29 21:28	0° $\mathbb{X}$	
superior conj	11936 Jan 02 19:06	20° $\mathbb{Z}$ 06'32	1°27'27	morning set	11936 Dec 09 23:53	19° $\mathbb{X}$ 38'04	
minimum elong	11936 Jan 02 21:12	20° $\mathbb{Z}$ 17'26	1°28'03		11936 Dec 14 19:27	0° $\mathbb{Z}$	
max. Earth dist.	11936 Jan 07 09:24	29° $\mathbb{Z}$ 26'27	1.35220 AU				
	11936 Jan 07 16:11	0° $\approx$		superior conj	11936 Dec 16 22:43	4° $\mathbb{Z}$ 36'08	1°36'25
evening rise	11936 Jan 11 11:32	7° $\approx$ 20'41		minimum elong	11936 Dec 16 23:44	4° $\mathbb{Z}$ 41'36	1°37'11
desc. node	11936 Jan 15 12:47	14° $\approx$ 46'15		max. Earth dist.	11936 Dec 20 03:05	11° $\mathbb{Z}$ 20'43	1.33549 AU
	11936 Jan 24 14:41	0° $\mathbb{H}$		evening rise	11936 Dec 24 19:48	20° $\mathbb{Z}$ 53'28	
evening max el	11936 Feb 15 19:08	29° $\mathbb{H}$ 01'35	26°32'15		11936 Dec 29 14:32	0° $\approx$	
	11936 Feb 16 19:49	0° $\mathbb{Y}$		desc. node	11937 Jan 01 09:37	5° $\approx$ 01'52	
retrograde	11936 Feb 28 19:27	6° $\mathbb{Y}$ 21'58			11937 Jan 17 12:34	0° $\mathbb{H}$	
evening set	11936 Mar 06 03:55	3° $\mathbb{Y}$ 49'58		evening max el	11937 Jan 28 08:35	12° $\mathbb{H}$ 35'01	27°15'34
	11936 Mar 09 23:04	30° $\mathbb{K}$ $\mathbb{H}$		retrograde	11937 Feb 10 20:42	19° $\mathbb{H}$ 59'38	
asc. node	11936 Mar 10 05:42	29° $\mathbb{H}$ 40'34		evening set	11937 Feb 17 14:11	17° $\mathbb{H}$ 27'37	
min. Earth dist.	11936 Mar 10 06:10	29° $\mathbb{H}$ 39'11	0.66477 AU	min. Earth dist.	11937 Feb 21 11:36	13° $\mathbb{H}$ 49'39	0.64935 AU
inferior conj	11936 Mar 12 02:47	27° $\mathbb{H}$ 25'12	0°36'04	inferior conj	11937 Feb 23 19:59	11° $\mathbb{H}$ 14'50	-0°25'25
minimum elong	11936 Mar 12 01:52	27° $\mathbb{H}$ 28'00	0°35'50	minimum elong	11937 Feb 23 20:44	11° $\mathbb{H}$ 12'47	0°24'45
morning rise	11936 Mar 18 00:48	21° $\mathbb{H}$ 43'32		asc. node	11937 Feb 25 03:03	9° $\mathbb{H}$ 50'46	
direct	11936 Mar 21 01:08	20° $\mathbb{H}$ 52'41		morning rise	11937 Mar 02 04:56	5° $\mathbb{H}$ 46'08	
morning max el	11936 Mar 27 12:44	24° $\mathbb{H}$ 19'54	18°23'35	direct	11937 Mar 04 20:12	5° $\mathbb{H}$ 09'37	
	11936 Apr 01 07:31	0° $\mathbb{Y}$		morning max el	11937 Mar 11 04:58	8° $\mathbb{H}$ 28'48	17°56'24
desc. node	11936 Apr 12 14:23	17° $\mathbb{Y}$ 02'48			11937 Mar 25 23:50	0° $\mathbb{Y}$	
morning set	11936 Apr 16 15:08	23° $\mathbb{Y}$ 26'34		morning set	11937 Mar 28 20:18	4° $\mathbb{Y}$ 43'17	
	11936 Apr 20 18:24	0° $\mathbb{B}$		desc. node	11937 Mar 30 10:59	7° $\mathbb{Y}$ 23'10	
superior conj	11936 May 02 09:06	18° $\mathbb{B}$ 14'41	-1°57'37	superior conj	11937 Apr 11 22:02	27° $\mathbb{Y}$ 35'43	-1°25'16
minimum elong	11936 May 02 00:44	17° $\mathbb{B}$ 42'00	1°57'36	minimum elong	11937 Apr 11 13:20	27° $\mathbb{Y}$ 01'08	1°24'35
max. Earth dist.	11936 May 03 00:04	19° $\mathbb{B}$ 13'09	1.45746 AU		11937 Apr 13 10:26	0° $\mathbb{B}$	
	11936 May 09 21:42	0° $\mathbb{I}$		max. Earth dist.	11937 Apr 15 20:08	3° $\mathbb{B}$ 47'27	1.45431 AU
evening rise	11936 May 18 06:03	13° $\mathbb{I}$ 05'24		evening rise	11937 Apr 27 22:51	22° $\mathbb{B}$ 35'13	
greatest brilliancy	11936 May 28 02:13	28° $\mathbb{I}$ 29'58	-0.8m		11937 May 02 19:06	0° $\mathbb{I}$	
	11936 May 29 01:38	0° $\mathbb{E}$		greatest brilliancy	11937 May 12 06:23	14° $\mathbb{I}$ 13'17	-0.6m
asc. node	11936 Jun 06 03:14	11° $\mathbb{E}$ 34'50		evening max el	11937 May 23 22:44	29° $\mathbb{I}$ 25'40	19°47'25
evening max el	11936 Jun 09 16:51	15° $\mathbb{E}$ 41'13	18°56'38	asc. node	11937 May 24 00:22	29° $\mathbb{I}$ 29'45	
retrograde	11936 Jun 16 10:54	19° $\mathbb{E}$ 24'47			11937 May 24 12:44	0° $\mathbb{E}$	
evening set	11936 Jun 19 20:38	18° $\mathbb{E}$ 17'47		retrograde	11937 May 31 09:02	3° $\mathbb{E}$ 39'14	
inferior conj	11936 Jun 25 09:05	12° $\mathbb{E}$ 33'58	3°08'07	evening set	11937 Jun 04 03:54	2° $\mathbb{E}$ 15'54	
minimum elong	11936 Jun 25 10:16	12° $\mathbb{E}$ 30'14	3°07'11		11937 Jun 06 13:38	30° $\mathbb{K}$ $\mathbb{I}$	
min. Earth dist.	11936 Jun 27 01:33	10° $\mathbb{E}$ 25'58	0.66253 AU	inferior conj	11937 Jun 09 11:56	26° $\mathbb{I}$ 18'08	3°15'11
morning rise	11936 Jun 30 23:14	6° $\mathbb{E}$ 11'34		minimum elong	11937 Jun 09 12:00	26° $\mathbb{I}$ 17'53	3°14'22
direct	11936 Jul 07 06:28	3° $\mathbb{E}$ 29'19		min. Earth dist.	11937 Jun 10 13:44	24° $\mathbb{I}$ 51'42	0.67551 AU
desc. node	11936 Jul 09 14:33	3° $\mathbb{E}$ 48'42		morning rise	11937 Jun 14 19:46	19° $\mathbb{I}$ 56'51	
morning max el	11936 Jul 20 05:10	11° $\mathbb{E}$ 11'48	26°26'50	direct	11937 Jun 20 16:27	17° $\mathbb{I}$ 21'30	
	11936 Aug 04 04:22	0° $\mathbb{Q}$		desc. node	11937 Jun 26 11:40	19° $\mathbb{I}$ 20'45	
	11936 Aug 22 14:04	0° $\mathbb{M}$		morning max el	11937 Jul 02 15:23	24° $\mathbb{I}$ 31'35	25°08'18
morning set	11936 Aug 25 03:27	4° $\mathbb{M}$ 43'47			11937 Jul 07 13:31	0° $\mathbb{E}$	
max. Earth dist.	11936 Aug 29 02:36	12° $\mathbb{M}$ 21'03	1.34627 AU		11937 Jul 28 14:52	0° $\mathbb{Q}$	
asc. node	11936 Sep 02 03:36	20° $\mathbb{M}$ 28'01		morning set	11937 Aug 07 14:13	16° $\mathbb{Q}$ 54'48	
				max. Earth dist.	11937 Aug 11 04:29	23° $\mathbb{Q}$ 27'31	1.36643 AU
superior conj	11936 Sep 03 02:56	22° $\mathbb{M}$ 27'50	0°09'23		11937 Aug 14 15:36	0° $\mathbb{M}$	
minimum elong	11936 Sep 03 02:25	22° $\mathbb{M}$ 25'13	0°09'04				

superior conj	11937 Aug 17 15:24	5° $\mathbb{M}$ 49'50	-0°22'28	minimum elong	11938 Jul 31 18:30	18° $\Omega$ 50'46	0°56'26
minimum elong	11937 Aug 17 16:51	5° $\mathbb{M}$ 56'59	0°22'36	asc. node	11938 Aug 06 21:01	0° $\mathbb{M}$ 33'17	
asc. node	11937 Aug 20 00:18	10° $\mathbb{M}$ 33'08			11938 Aug 06 14:11	0° $\mathbb{M}$	
evening rise	11937 Aug 25 20:36	22° $\mathbb{M}$ 23'48		evening rise	11938 Aug 09 18:49	6° $\mathbb{M}$ 13'34	
	11937 Aug 29 16:14	0° $\underline{\mathbf{A}}$			11938 Aug 23 16:41	0° $\underline{\mathbf{A}}$	
evening max el	11937 Sep 12 02:09	20° $\underline{\mathbf{A}}$ 42'27	19°41'33	evening max el	11938 Aug 25 23:47	2° $\underline{\mathbf{A}}$ 34'09	18°48'20
retrograde	11937 Sep 22 01:11	25° $\underline{\mathbf{A}}$ 40'10		retrograde	11938 Sep 03 09:54	6° $\underline{\mathbf{A}}$ 47'21	
desc. node	11937 Sep 22 08:57	25° $\underline{\mathbf{A}}$ 39'52		evening set	11938 Sep 05 07:42	6° $\underline{\mathbf{A}}$ 35'09	
evening set	11937 Sep 23 22:12	25° $\underline{\mathbf{A}}$ 30'22		desc. node	11938 Sep 09 06:23	5° $\underline{\mathbf{A}}$ 01'30	
inferior conj	11937 Oct 02 18:07	21° $\underline{\mathbf{A}}$ 27'07	-3°11'19	inferior conj	11938 Sep 13 11:28	2° $\underline{\mathbf{A}}$ 14'22	-1°19'24
minimum elong	11937 Oct 02 09:49	21° $\underline{\mathbf{A}}$ 40'03	3°08'08	minimum elong	11938 Sep 13 08:09	2° $\underline{\mathbf{A}}$ 20'23	1°18'08
min. Earth dist.	11937 Oct 04 22:34	20° $\underline{\mathbf{A}}$ 05'23	0.55296 AU	min. Earth dist.	11938 Sep 16 13:09	0° $\underline{\mathbf{A}}$ 01'32	0.56812 AU
morning rise	11937 Oct 10 19:40	17° $\underline{\mathbf{A}}$ 06'53			11938 Sep 16 14:02	30° $\mathbb{R}$ $\mathbb{M}$	
direct	11937 Oct 15 18:13	16° $\underline{\mathbf{A}}$ 12'57		morning rise	11938 Sep 21 05:16	27° $\mathbb{M}$ 16'37	
morning max el	11937 Oct 29 14:43	23° $\underline{\mathbf{A}}$ 06'08	24°47'56	direct	11938 Sep 26 22:09	25° $\mathbb{M}$ 58'00	
	11937 Nov 04 19:01	0° $\mathbb{M}$			11938 Oct 07 06:02	0° $\underline{\mathbf{A}}$	
asc. node	11937 Nov 16 01:33	17° $\mathbb{M}$ 33'08		morning max el	11938 Oct 11 04:25	3° $\underline{\mathbf{A}}$ 21'33	26°22'42
	11937 Nov 22 09:52	0° $\mathbb{A}$			11938 Oct 30 07:12	0° $\mathbb{M}$	
morning set	11937 Nov 24 11:44	4° $\mathbb{A}$ 23'34		asc. node	11938 Nov 02 22:22	6° $\mathbb{M}$ 46'18	
				morning set	11938 Nov 08 22:22	19° $\mathbb{M}$ 01'57	
superior conj	11937 Dec 01 07:09	19° $\mathbb{A}$ 17'13	1°38'55		11938 Nov 13 22:35	0° $\mathbb{A}$	
minimum elong	11937 Dec 01 07:02	19° $\mathbb{A}$ 16'32	1°39'42	superior conj	11938 Nov 15 18:11	4° $\mathbb{A}$ 02'35	1°35'24
max. Earth dist.	11937 Dec 03 04:29	23° $\mathbb{A}$ 24'53	1.32323 AU	minimum elong	11938 Nov 15 17:03	3° $\mathbb{A}$ 56'15	1°36'02
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evening rise	11937 Dec 08 14:23	4° $\mathbb{B}$ 52'00		evening rise	11938 Nov 22 16:26	19° $\mathbb{A}$ 08'24	
desc. node	11937 Dec 19 06:36	24° $\mathbb{B}$ 59'04			11938 Nov 28 01:23	0° $\mathbb{B}$	
	11937 Dec 22 06:33	0° $\approx$		desc. node	11938 Dec 06 03:40	14° $\mathbb{B}$ 29'32	
evening max el	11938 Jan 10 20:09	25° $\approx$ 42'22	27°32'08		11938 Dec 16 18:48	0° $\approx$	
	11938 Jan 16 02:14	0° $\mathbb{H}$		evening max el	11938 Dec 24 03:22	8° $\approx$ 10'32	27°16'38
retrograde	11938 Jan 24 14:55	3° $\mathbb{H}$ 04'05		retrograde	11939 Jan 07 01:23	15° $\approx$ 25'35	
evening set	11938 Jan 31 13:47	0° $\mathbb{H}$ 39'05		evening set	11939 Jan 13 23:34	13° $\approx$ 16'17	
	11938 Feb 01 11:11	30° $\mathbb{R}$ $\approx$		min. Earth dist.	11939 Jan 17 17:51	10° $\approx$ 30'00	0.60994 AU
min. Earth dist.	11938 Feb 04 07:53	27° $\approx$ 30'31	0.63079 AU	inferior conj	11939 Jan 20 20:34	7° $\approx$ 47'49	-2°54'06
inferior conj	11938 Feb 07 03:01	24° $\approx$ 45'17	-1°36'18	minimum elong	11939 Jan 21 02:36	7° $\approx$ 34'39	2°51'10
minimum elong	11938 Feb 07 06:11	24° $\approx$ 37'26	1°34'28	morning rise	11939 Jan 28 08:29	2° $\approx$ 54'11	
asc. node	11938 Feb 12 00:21	20° $\approx$ 33'57		asc. node	11939 Jan 29 21:38	2° $\approx$ 36'55	
morning rise	11938 Feb 14 00:57	19° $\approx$ 32'35		direct	11939 Jan 30 11:37	2° $\approx$ 35'30	
direct	11938 Feb 16 08:56	19° $\approx$ 06'46		morning max el	11939 Feb 06 14:33	6° $\approx$ 10'08	17°55'05
morning max el	11938 Feb 22 22:41	22° $\approx$ 28'36	17°46'37		11939 Feb 21 20:50	0° $\mathbb{H}$	
	11938 Feb 28 20:01	0° $\mathbb{H}$		morning set	11939 Feb 22 05:06	0° $\mathbb{H}$ 37'44	
morning set	11938 Mar 11 03:03	17° $\mathbb{H}$ 13'27		desc. node	11939 Mar 04 04:13	18° $\mathbb{H}$ 30'46	
desc. node	11938 Mar 17 07:35	27° $\mathbb{H}$ 53'47					
	11938 Mar 18 13:17	0° $\mathbb{Y}$		superior conj	11939 Mar 04 17:10	19° $\mathbb{H}$ 27'07	-0°04'12
superior conj	11938 Mar 23 07:13	7° $\mathbb{Y}$ 56'19	-0°44'36	minimum elong	11939 Mar 04 16:49	19° $\mathbb{H}$ 25'35	0°03'55
minimum elong	11938 Mar 23 02:39	7° $\mathbb{Y}$ 37'28	0°43'58	behind sun begin	11939 Mar 04 08:48	18° $\mathbb{H}$ 50'46	
max. Earth dist.	11938 Mar 29 14:24	18° $\mathbb{Y}$ 10'02	1.44404 AU	behind sun end	11939 Mar 05 00:49	20° $\mathbb{H}$ 00'20	
	11938 Apr 06 03:10	0° $\mathbb{B}$			11939 Mar 10 22:17	0° $\mathbb{Y}$	
evening rise	11938 Apr 07 10:22	2° $\mathbb{B}$ 00'17		max. Earth dist.	11939 Mar 12 04:27	2° $\mathbb{Y}$ 04'33	1.42778 AU
	11938 Apr 26 08:50	0° $\mathbb{H}$		evening rise	11939 Mar 18 07:51	11° $\mathbb{Y}$ 57'58	
evening max el	11938 May 06 22:49	13° $\mathbb{H}$ 10'50	20°52'11		11939 Mar 30 04:04	0° $\mathbb{B}$	
asc. node	11938 May 10 21:34	16° $\mathbb{H}$ 30'59		evening max el	11939 Apr 19 17:38	26° $\mathbb{B}$ 57'17	22°07'17
retrograde	11938 May 15 07:52	18° $\mathbb{H}$ 03'38			11939 Apr 23 03:34	0° $\mathbb{H}$	
evening set	11938 May 19 12:37	16° $\mathbb{H}$ 24'06		asc. node	11939 Apr 27 18:50	2° $\mathbb{H}$ 23'31	
inferior conj	11938 May 24 18:58	10° $\mathbb{H}$ 14'01	3°10'01	retrograde	11939 Apr 29 05:39	2° $\mathbb{H}$ 33'32	
minimum elong	11938 May 24 18:03	10° $\mathbb{H}$ 17'13	3°09'11	evening set	11939 May 03 21:05	0° $\mathbb{H}$ 38'37	
min. Earth dist.	11938 May 25 06:56	9° $\mathbb{H}$ 32'36	0.68387 AU		11939 May 04 14:15	30° $\mathbb{R}$ $\mathbb{B}$	
morning rise	11938 May 29 23:16	3° $\mathbb{H}$ 56'23		inferior conj	11939 May 09 04:05	24° $\mathbb{B}$ 18'28	2°54'06
direct	11938 Jun 04 07:27	1° $\mathbb{H}$ 35'17		minimum elong	11939 May 09 02:24	24° $\mathbb{B}$ 24'20	2°53'11
desc. node	11938 Jun 13 08:42	6° $\mathbb{H}$ 21'57		min. Earth dist.	11939 May 09 03:04	24° $\mathbb{B}$ 22'00	0.68759 AU
morning max el	11938 Jun 15 01:24	8° $\mathbb{H}$ 00'09	23°39'46	morning rise	11939 May 14 07:33	18° $\mathbb{B}$ 06'10	
	11938 Jul 02 06:21	0° $\mathbb{B}$		direct	11939 May 19 02:36	16° $\mathbb{B}$ 03'54	
morning set	11938 Jul 20 04:14	28° $\mathbb{B}$ 08'05		morning max el	11939 May 28 13:30	21° $\mathbb{B}$ 36'56	22°10'49
	11938 Jul 21 06:31	0° $\Omega$		desc. node	11939 May 31 05:39	24° $\mathbb{B}$ 29'00	
max. Earth dist.	11938 Jul 24 02:01	4° $\Omega$ 52'30	1.38920 AU		11939 Jun 04 18:28	0° $\mathbb{H}$	
					11939 Jun 25 12:43	0° $\mathbb{B}$	
superior conj	11938 Jul 31 14:32	18° $\Omega$ 32'12	-0°56'30	morning set	11939 Jun 30 17:13	8° $\mathbb{B}$ 13'53	

































































































































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				minimum elong	11940 Jun 24 10:09	11°  48'26	1°57'24
superior conj	11939 Jul 13 20:04	0°  25'43	-1°29'40		11940 Jul 04 22:13	0°  2	
minimum elong	11939 Jul 14 02:19	0°  53'27	1°29'36	evening rise	11940 Jul 06 03:40	2°  10'28	
	11939 Jul 13 14:16	0°  2		asc. node	11940 Jul 10 14:41	10°  203'08	
evening rise	11939 Jul 24 06:40	19°  23'54		evening max el	11940 Jul 22 19:20	28°  208'50	18°03'51
asc. node	11939 Jul 24 17:50	20°  24'54			11940 Jul 25 00:11	0°  2	
	11939 Jul 29 23:19	0°  2		retrograde	11940 Jul 29 09:39	1°  232'15	
evening max el	11939 Aug 09 06:54	15°  206'24	18°16'12	evening set	11940 Jul 31 22:01	1°  202'29	
retrograde	11939 Aug 16 13:33	18°  247'14			11940 Aug 02 21:45	30°  2	
evening set	11939 Aug 18 17:52	18°  228'07		inferior conj	11940 Aug 07 13:36	26°  201'20	1°34'27
inferior conj	11939 Aug 26 02:38	13°  246'55	0°19'14	minimum elong	11940 Aug 07 16:02	25°  255'23	1°33'09
minimum elong	11939 Aug 26 03:17	13°  245'32	0°18'40	min. Earth dist.	11940 Aug 10 16:37	22°  259'12	0.61151 AU
desc. node	11939 Aug 27 03:48	12°  253'14		desc. node	11940 Aug 13 01:11	20°  257'33	
min. Earth dist.	11939 Aug 29 10:43	10°  258'23	0.58872 AU	morning rise	11940 Aug 14 07:24	20°  202'55	
morning rise	11939 Sep 02 09:14	8°  214'08		direct	11940 Aug 20 22:39	17°  249'05	
direct	11939 Sep 08 16:30	6°  226'40		morning max el	11940 Sep 04 04:22	25°  247'23	27°56'57
morning max el	11939 Sep 23 00:58	14°  212'09	27°28'31		11940 Sep 08 02:06	0°  2	
	11939 Oct 05 17:17	0°  2			11940 Sep 28 06:00	0°  2	
asc. node	11939 Oct 20 19:08	26°  220'57		asc. node	11940 Oct 06 15:53	16°  210'39	
	11939 Oct 22 14:09	0°  2		morning set	11940 Oct 07 08:56	17°  238'28	
morning set	11939 Oct 24 06:04	3°  228'38		max. Earth dist.	11940 Oct 13 03:26	29°  259'24	1.31580 AU
					11940 Oct 13 03:32	0°  2	
superior conj	11939 Oct 31 05:55	18°  246'37	1°26'09	superior conj	11940 Oct 14 16:29	3°  223'41	1°11'23
minimum elong	11939 Oct 31 04:02	18°  236'07	1°26'32	minimum elong	11940 Oct 14 14:15	3°  211'18	1°11'26
max. Earth dist.	11939 Oct 30 20:07	17°  251'59	1.31325 AU	evening rise	11940 Oct 21 09:47	18°  211'19	
	11939 Nov 05 07:30	0°  2			11940 Oct 27 02:59	0°  2	
evening rise	11939 Nov 06 23:35	3°  236'43		desc. node	11940 Nov 08 22:02	21°  242'34	
	11939 Nov 20 21:30	0°  2			11940 Nov 16 04:08	0°  2	
desc. node	11939 Nov 23 00:49	3°  222'47		evening max el	11940 Nov 16 20:08	0°  238'49	25°06'30
evening max el	11939 Dec 06 03:47	19°  249'54	26°26'47	retrograde	11940 Nov 30 16:06	7°  235'00	
retrograde	11939 Dec 20 02:31	26°  256'16		evening set	11940 Dec 06 09:04	6°  221'41	
evening set	11939 Dec 26 15:29	25°  211'47		min. Earth dist.	11940 Dec 11 08:08	3°  239'46	0.56883 AU
min. Earth dist.	11939 Dec 30 17:29	22°  235'47	0.58851 AU	inferior conj	11940 Dec 14 01:41	1°  252'03	-5°18'18
inferior conj	11940 Jan 02 21:04	20°  212'50	-4°12'28	minimum elong	11940 Dec 14 09:01	1°  239'57	5°16'08
minimum elong	11940 Jan 03 05:17	19°  257'16	4°09'14		11940 Dec 17 00:34	30°  2	
morning rise	11940 Jan 10 21:55	15°  240'34		morning rise	11940 Dec 22 11:12	27°  241'42	
direct	11940 Jan 13 00:05	15°  225'25		direct	11940 Dec 24 18:38	27°  242'20	
asc. node	11940 Jan 16 18:52	16°  217'51			11940 Dec 31 19:24	0°  2	
morning max el	11940 Jan 21 00:49	19°  222'35	18°23'09	asc. node	11941 Jan 02 16:03	1°  232'42	
	11940 Jan 28 20:22	0°  2		morning max el	11941 Jan 03 01:32	1°  255'08	19°12'46
morning set	11940 Feb 05 20:40	14°  238'34		morning set	11941 Jan 19 21:27	29°  203'43	
	11940 Feb 13 23:24	0°  2			11941 Jan 20 08:46	0°  2	
superior conj	11940 Feb 15 01:13	1°  258'56	0°31'00	superior conj	11941 Jan 28 02:48	15°  219'18	0°58'54
minimum elong	11940 Feb 15 03:21	2°  208'43	0°31'07	minimum elong	11941 Jan 28 05:43	15°  233'25	0°59'06
desc. node	11940 Feb 19 00:51	9°  209'58		max. Earth dist.	11941 Feb 03 20:12	27°  254'25	1.38523 AU
max. Earth dist.	11940 Feb 22 13:37	15°  219'15	1.40740 AU	desc. node	11941 Feb 04 21:32	29°  248'12	
evening rise	11940 Feb 27 00:31	22°  248'16			11941 Feb 05 00:10	0°  2	
	11940 Mar 02 11:26	0°  2		evening rise	11941 Feb 07 14:33	4°  234'18	
	11940 Mar 23 03:43	0°  2		evening max el	11941 Feb 23 13:10	0°  2	
evening max el	11940 Apr 01 08:54	10°  246'04	23°27'40		11941 Mar 14 22:40	24°  237'35	24°46'51
retrograde	11940 Apr 12 00:47	17°  203'14		retrograde	11941 Mar 21 17:22	0°  2	
asc. node	11940 Apr 13 16:09	16°  250'40			11941 Mar 26 16:05	1°  227'32	
evening set	11940 Apr 17 03:41	14°  254'20		asc. node	11941 Mar 31 02:59	30°  2	
min. Earth dist.	11940 Apr 21 23:52	9°  213'21	0.68677 AU	evening set	11941 Mar 31 13:30	29°  241'24	
inferior conj	11940 Apr 22 13:17	8°  227'14	2°28'10	min. Earth dist.	11941 Apr 01 06:54	29°  206'44	
minimum elong	11940 Apr 22 11:10	8°  234'30	2°27'12	inferior conj	11941 Apr 05 19:07	24°  201'25	0.68157 AU
morning rise	11940 Apr 27 18:36	2°  221'37		minimum elong	11941 Apr 06 20:42	22°  236'37	1°52'28
direct	11940 May 02 00:38	0°  240'24		morning rise	11941 Apr 06 18:35	22°  243'36	1°51'34
morning max el	11940 May 10 06:50	5°  223'42	20°49'13	direct	11941 Apr 12 06:29	16°  239'08	
desc. node	11940 May 17 02:29	13°  223'31		morning max el	11941 Apr 16 00:11	15°  218'59	
	11940 May 28 21:09	0°  2			11941 Apr 23 07:40	19°  222'23	19°40'19
morning set	11940 Jun 09 05:31	17°  214'29		desc. node	11941 May 01 22:28	0°  2	
	11940 Jun 17 06:28	0°  2		greatest brilliancy	11941 May 03 23:15	2°  252'40	
max. Earth dist.	11940 Jun 17 07:06	0°  202'31	1.43231 AU		11941 May 06 01:13	5°  253'50	-0.6m

morning set	11941 May 19 05:34	25°♄47'19		morning set	11942 Apr 28 15:49	4°♄56'06	
	11941 May 21 23:07	0°♄		max. Earth dist.	11942 May 13 13:55	28°♄13'06	1.45591 AU
max. Earth dist.	11941 May 30 20:03	13°♄52'23	1.44747 AU				
				superior conj	11942 May 14 23:24	0°♄24'11	-2°08'50
superior conj	11941 Jun 04 11:09	21°♄15'29	-2°12'13	minimum elong	11942 May 14 18:17	0°♄04'10	2°09'18
minimum elong	11941 Jun 04 13:35	21°♄25'13	2°12'59		11942 May 14 17:13	0°♄	
	11941 Jun 09 20:18	0°♄		evening rise	11942 May 30 06:27	24°♄40'32	
evening rise	11941 Jun 18 04:54	13°♄55'27			11942 Jun 02 13:53	0°♄	
asc. node	11941 Jun 27 11:36	29°♄22'47		greatest brilliancy	11942 Jun 05 09:13	4°♄30'17	-0.9m
	11941 Jun 27 20:56	0°♄		asc. node	11942 Jun 14 08:36	18°♄17'13	
evening max el	11941 Jul 06 09:26	11°♄32'08	18°10'15	evening max el	11942 Jun 19 22:05	25°♄08'30	18°34'42
retrograde	11941 Jul 12 17:58	14°♄52'51		retrograde	11942 Jun 26 10:18	28°♄40'21	
evening set	11941 Jul 15 14:29	14°♄09'50		evening set	11942 Jun 29 15:03	27°♄42'24	
inferior conj	11941 Jul 21 16:32	8°♄50'29	2°26'07	inferior conj	11942 Jul 05 07:26	22°♄06'52	2°57'38
minimum elong	11941 Jul 21 19:05	8°♄43'27	2°24'49	minimum elong	11942 Jul 05 09:13	22°♄01'26	2°56'35
min. Earth dist.	11941 Jul 24 07:48	5°♄56'43	0.63363 AU	min. Earth dist.	11942 Jul 07 08:20	19°♄38'42	0.65302 AU
morning rise	11941 Jul 27 21:58	2°♄36'30		morning rise	11942 Jul 11 02:25	15°♄45'35	
desc. node	11941 Jul 30 22:31	0°♄48'52		direct	11942 Jul 17 14:05	13°♄04'02	
direct	11941 Aug 03 14:19	0°♄03'52		desc. node	11942 Jul 17 19:46	13°♄04'14	
morning max el	11941 Aug 17 12:47	8°♄05'43	27°47'04	morning max el	11942 Jul 30 23:39	20°♄58'06	27°03'48
	11941 Sep 03 10:18	0°♄			11942 Aug 07 19:07	0°♄	
	11941 Sep 20 11:36	0°♄			11942 Aug 27 13:48	0°♄	
morning set	11941 Sep 21 04:38	1°♄25'03		morning set	11942 Sep 04 14:30	14°♄42'19	
asc. node	11941 Sep 23 12:32	6°♄09'41		max. Earth dist.	11942 Sep 08 22:32	23°♄17'05	1.33657 AU
max. Earth dist.	11941 Sep 26 05:21	11°♄49'28	1.32359 AU	asc. node	11942 Sep 10 09:12	26°♄14'20	
					11942 Sep 12 04:40	0°♄	
superior conj	11941 Sep 28 23:56	17°♄47'27	0°51'14	superior conj	11942 Sep 13 02:08	1°♄52'49	0°26'00
minimum elong	11941 Sep 28 21:51	17°♄36'08	0°51'01	minimum elong	11942 Sep 13 00:51	1°♄46'01	0°25'41
	11941 Oct 04 14:17	0°♄		evening rise	11942 Sep 20 07:40	17°♄16'30	
evening rise	11941 Oct 05 21:05	2°♄46'06			11942 Sep 26 14:28	0°♄	
	11941 Oct 20 12:21	0°♄		evening max el	11942 Oct 10 19:37	20°♄55'31	21°47'55
desc. node	11941 Oct 26 19:20	8°♄14'18		desc. node	11942 Oct 13 16:40	23°♄26'35	
evening max el	11941 Oct 29 06:38	10°♄49'14	23°27'41	retrograde	11942 Oct 23 06:44	27°♄07'22	
retrograde	11941 Nov 11 16:39	17°♄30'20		evening set	11942 Oct 26 06:28	26°♄47'13	
evening set	11941 Nov 16 02:35	16°♄48'00		inferior conj	11942 Nov 04 04:10	22°♄51'04	-5°29'41
min. Earth dist.	11941 Nov 22 16:33	13°♄41'23	0.55373 AU	minimum elong	11942 Nov 03 20:59	23°♄01'07	5°28'00
inferior conj	11941 Nov 24 10:00	12°♄40'41	-5°50'57	min. Earth dist.	11942 Nov 03 23:04	22°♄58'12	0.54610 AU
minimum elong	11941 Nov 24 11:11	12°♄38'57	5°50'10	morning rise	11942 Nov 12 12:40	19°♄03'39	
morning rise	11941 Dec 02 21:32	8°♄48'30		direct	11942 Nov 16 03:20	18°♄35'11	
direct	11941 Dec 05 17:51	8°♄28'48		morning max el	11942 Nov 28 10:56	24°♄26'48	21°59'30
morning max el	11941 Dec 16 13:07	13°♄36'49	20°25'29		11942 Dec 03 10:19	0°♄	
asc. node	11941 Dec 20 13:07	18°♄05'31		asc. node	11942 Dec 07 10:07	5°♄40'08	
	11941 Dec 28 03:57	0°♄		morning set	11942 Dec 19 14:23	28°♄28'23	
morning set	11942 Jan 04 04:10	13°♄42'42			11942 Dec 20 07:46	0°♄	
				superior conj	11942 Dec 26 17:03	13°♄34'29	1°32'04
superior conj	11942 Jan 11 17:19	29°♄14'41	1°19'08	minimum elong	11942 Dec 26 18:43	13°♄43'15	1°32'46
minimum elong	11942 Jan 11 19:55	29°♄27'47	1°19'35	max. Earth dist.	11942 Dec 30 16:51	21°♄50'10	1.34456 AU
	11942 Jan 12 02:17	0°♄			11943 Jan 03 19:52	0°♄	
max. Earth dist.	11942 Jan 17 03:52	9°♄58'44	1.36357 AU	evening rise	11943 Jan 04 00:32	0°♄22'25	
evening rise	11942 Jan 20 23:42	17°♄08'37		desc. node	11943 Jan 09 15:04	10°♄44'25	
desc. node	11942 Jan 22 18:15	20°♄21'05			11943 Jan 21 10:17	0°♄	
	11942 Jan 28 08:19	0°♄		evening max el	11943 Feb 08 01:36	22°♄09'26	26°53'25
	11942 Feb 17 22:05	0°♄		retrograde	11943 Feb 21 07:34	29°♄33'11	
evening max el	11942 Feb 25 12:08	8°♄27'39	25°57'51	evening set	11943 Feb 27 20:20	27°♄00'02	
retrograde	11942 Mar 10 02:33	15°♄40'00		min. Earth dist.	11943 Mar 03 20:14	23°♄03'48	0.65866 AU
evening set	11942 Mar 16 05:04	13°♄10'34		asc. node	11943 Mar 05 08:14	21°♄19'50	
asc. node	11942 Mar 18 10:52	11°♄00'21		inferior conj	11943 Mar 05 22:04	20°♄39'30	0°11'12
min. Earth dist.	11942 Mar 20 10:36	8°♄40'25	0.67211 AU	minimum elong	11943 Mar 05 21:45	20°♄40'25	0°11'17
inferior conj	11942 Mar 22 00:21	6°♄42'19	1°06'53	transit middle	11943 Mar 05 21:45	20°♄40'25	0°11'17
minimum elong	11942 Mar 21 22:48	6°♄47'10	1°06'18	transit begin	11943 Mar 05 19:39	20°♄46'32	
morning rise	11942 Mar 27 17:12	0°♄54'31		transit end	11943 Mar 05 23:51	20°♄34'19	
	11942 Mar 29 22:27	30°♄		morning rise	11943 Mar 12 00:30	15°♄03'21	
direct	11942 Mar 30 23:31	29°♄53'50		direct	11943 Mar 14 20:44	14°♄19'09	
	11942 Apr 01 00:55	0°♄		morning max el	11943 Mar 21 06:14	17°♄41'30	18°09'56
morning max el	11942 Apr 06 16:03	3°♄30'19	18°46'51		11943 Mar 30 12:46	0°♄	
desc. node	11942 Apr 20 19:55	22°♄47'00					
	11942 Apr 25 11:48	0°♄					



desc. node	11943 Apr 07 16:33	12° $\Upsilon$ 59'33		asc. node	11944 Feb 20 05:34	1° $\text{X}$ 37'20	
morning set	11943 Apr 09 04:17	15° $\Upsilon$ 23'48			11944 Feb 22 06:15	30° $\text{R}$	
	11943 Apr 18 07:00	0° $\text{B}$		morning rise	11944 Feb 24 01:38	29° $\approx$ 00'18	
				direct	11944 Feb 26 13:24	28° $\approx$ 28'57	
superior conj	11943 Apr 24 06:52	9° $\text{B}$ 27'19	-1°45'31		11944 Mar 01 19:57	0° $\text{X}$	
minimum elong	11943 Apr 23 21:32	8° $\text{B}$ 50'42	1°45'09	morning max el	11944 Mar 03 23:33	1° $\text{X}$ 48'23	17°50'06
max. Earth dist.	11943 Apr 26 09:37	12° $\text{B}$ 46'02	1.45699 AU	morning set	11944 Mar 20 21:10	27° $\text{X}$ 14'47	
	11943 May 07 11:14	0° $\text{II}$			11944 Mar 22 12:20	0° $\Upsilon$	
evening rise	11943 May 10 08:55	4° $\text{II}$ 30'37		desc. node	11944 Mar 24 13:11	3° $\Upsilon$ 25'16	
greatest brilliancy	11943 May 22 07:25	22° $\text{II}$ 53'21	-0.7m				
	11943 May 27 03:59	0° $\text{B}$		superior conj	11944 Apr 03 03:23	19° $\Upsilon$ 12'02	-1°08'29
asc. node	11943 Jun 01 05:41	6° $\text{B}$ 37'00		minimum elong	11944 Apr 02 20:11	18° $\Upsilon$ 42'59	1°07'45
evening max el	11943 Jun 03 06:52	8° $\text{B}$ 50'59	19°16'20	max. Earth dist.	11944 Apr 08 04:48	27° $\Upsilon$ 16'17	1.45072 AU
retrograde	11943 Jun 10 07:07	12° $\text{B}$ 46'28			11944 Apr 09 22:22	0° $\text{B}$	
evening set	11943 Jun 13 20:34	11° $\text{B}$ 32'39		evening rise	11944 Apr 18 21:34	13° $\text{B}$ 53'59	
inferior conj	11943 Jun 19 06:46	5° $\text{B}$ 42'36	3°12'45		11944 Apr 29 13:09	0° $\text{II}$	
minimum elong	11943 Jun 19 07:28	5° $\text{B}$ 40'18	3°11'53	evening max el	11944 May 16 10:22	22° $\text{II}$ 36'31	20°13'25
min. Earth dist.	11943 Jun 20 16:55	3° $\text{B}$ 51'28	0.66855 AU	asc. node	11944 May 18 02:51	24° $\text{II}$ 11'21	
	11943 Jun 24 00:45	30° $\text{R}$ $\text{II}$		retrograde	11944 May 24 05:48	27° $\text{II}$ 06'01	
morning rise	11943 Jun 24 17:51	29° $\text{II}$ 19'59		evening set	11944 May 28 04:41	25° $\text{II}$ 35'59	
direct	11943 Jun 30 20:48	26° $\text{II}$ 39'37		inferior conj	11944 Jun 02 11:43	19° $\text{II}$ 32'54	3°14'23
desc. node	11943 Jul 04 16:57	27° $\text{II}$ 32'05		minimum elong	11944 Jun 02 11:21	19° $\text{II}$ 34'10	3°13'34
	11943 Jul 08 18:26	0° $\text{B}$		min. Earth dist.	11944 Jun 03 07:37	18° $\text{II}$ 25'06	0.67968 AU
morning max el	11943 Jul 13 10:29	4° $\text{B}$ 11'00	25°55'14	morning rise	11944 Jun 07 17:42	13° $\text{II}$ 12'44	
	11943 Aug 02 03:51	0° $\Omega$		direct	11944 Jun 13 09:17	10° $\text{II}$ 42'25	
morning set	11943 Aug 18 10:56	27° $\Omega$ 20'39		desc. node	11944 Jun 20 14:03	13° $\text{II}$ 45'30	
	11943 Aug 19 21:19	0° $\text{II}$		morning max el	11944 Jun 24 20:22	17° $\text{II}$ 34'58	24°31'05
max. Earth dist.	11943 Aug 22 05:13	4° $\text{II}$ 24'43	1.35438 AU		11944 Jul 05 05:23	0° $\text{B}$	
					11944 Jul 25 04:28	0° $\Omega$	
superior conj	11943 Aug 27 20:29	15° $\text{II}$ 32'31	-0°03'47	morning set	11944 Jul 30 13:28	9° $\Omega$ 08'44	
minimum elong	11943 Aug 27 20:43	15° $\text{II}$ 33'44	0°04'01	max. Earth dist.	11944 Aug 03 03:55	15° $\Omega$ 33'05	1.37596 AU
behind sun begin	11943 Aug 27 14:47	15° $\text{II}$ 03'38					
behind sun end	11943 Aug 28 02:40	16° $\text{II}$ 03'53		superior conj	11944 Aug 10 03:47	28° $\Omega$ 38'58	-0°36'48
asc. node	11943 Aug 28 05:53	16° $\text{II}$ 20'13		minimum elong	11944 Aug 10 06:15	28° $\Omega$ 50'54	0°36'50
	11943 Sep 03 20:47	0° $\text{B}$			11944 Aug 10 20:30	0° $\text{II}$	
evening rise	11943 Sep 04 15:26	1° $\text{B}$ 36'18		asc. node	11944 Aug 14 02:36	6° $\text{II}$ 23'43	
	11943 Sep 21 08:41	0° $\text{II}$		evening rise	11944 Aug 18 17:59	15° $\text{II}$ 39'20	
evening max el	11943 Sep 22 20:03	1° $\text{II}$ 33'38	20°21'54		11944 Aug 26 06:21	0° $\text{B}$	
desc. node	11943 Sep 30 14:03	6° $\text{II}$ 32'41		evening max el	11944 Sep 04 10:39	12° $\text{B}$ 59'23	19°16'17
retrograde	11943 Oct 03 18:43	6° $\text{II}$ 59'51		retrograde	11944 Sep 13 16:56	17° $\text{B}$ 36'27	
evening set	11943 Oct 05 20:19	6° $\text{II}$ 49'04		evening set	11944 Sep 15 13:13	17° $\text{B}$ 26'14	
inferior conj	11943 Oct 14 21:13	2° $\text{II}$ 52'24	-4°12'18	desc. node	11944 Sep 16 11:30	17° $\text{B}$ 13'44	
minimum elong	11943 Oct 14 11:17	3° $\text{II}$ 06'58	4°08'57	inferior conj	11944 Sep 24 03:07	13° $\text{B}$ 16'39	-2°23'24
min. Earth dist.	11943 Oct 16 07:09	2° $\text{II}$ 02'39	0.54775 AU	minimum elong	11944 Sep 23 20:51	13° $\text{B}$ 27'02	2°20'54
	11943 Oct 20 02:08	30° $\text{R}$ $\text{B}$		min. Earth dist.	11944 Sep 26 18:44	11° $\text{B}$ 31'41	0.55858 AU
morning rise	11943 Oct 23 01:33	28° $\text{B}$ 49'01		morning rise	11944 Oct 02 01:50	8° $\text{B}$ 40'59	
direct	11943 Oct 27 12:34	28° $\text{B}$ 06'06		direct	11944 Oct 07 08:49	7° $\text{B}$ 36'56	
	11943 Nov 03 15:53	0° $\text{II}$		morning max el	11944 Oct 21 10:17	14° $\text{B}$ 44'20	25°30'54
morning max el	11943 Nov 09 23:21	4° $\text{II}$ 39'39	23°46'30		11944 Nov 02 13:40	0° $\text{II}$	
asc. node	11943 Nov 24 07:02	24° $\text{II}$ 02'11		asc. node	11944 Nov 10 03:53	12° $\text{II}$ 59'46	
	11943 Nov 27 13:31	0° $\text{X}$		morning set	11944 Nov 17 13:38	27° $\text{II}$ 58'01	
morning set	11943 Dec 04 02:08	13° $\text{X}$ 15'14			11944 Nov 18 12:16	0° $\text{X}$	
superior conj	11943 Dec 10 23:02	28° $\text{X}$ 10'01	1°38'14	superior conj	11944 Nov 24 08:48	12° $\text{X}$ 53'40	1°38'08
minimum elong	11943 Dec 10 23:33	28° $\text{X}$ 12'54	1°39'02	minimum elong	11944 Nov 24 08:13	12° $\text{X}$ 50'28	1°38'53
	11943 Dec 11 19:22	0° $\text{B}$		max. Earth dist.	11944 Nov 25 17:36	15° $\text{X}$ 54'32	1.31941 AU
max. Earth dist.	11943 Dec 13 13:40	3° $\text{B}$ 46'42	1.32961 AU	evening rise	11944 Dec 01 11:37	28° $\text{X}$ 14'23	
evening rise	11943 Dec 18 13:33	14° $\text{B}$ 07'12			11944 Dec 02 08:07	0° $\text{B}$	
	11943 Dec 26 23:52	0° $\approx$		desc. node	11944 Dec 13 09:00	20° $\text{B}$ 40'07	
desc. node	11943 Dec 27 11:59	0° $\approx$ 53'08			11944 Dec 19 05:05	0° $\approx$	
	11944 Jan 16 09:03	0° $\text{X}$		evening max el	11945 Jan 03 00:37	18° $\approx$ 26'21	27°29'53
evening max el	11944 Jan 21 14:25	5° $\text{X}$ 33'24	27°26'19	retrograde	11945 Jan 16 21:26	25° $\approx$ 45'30	
retrograde	11944 Feb 04 06:16	12° $\text{X}$ 58'28		evening set	11945 Jan 23 20:38	23° $\approx$ 26'27	
evening set	11944 Feb 11 02:28	10° $\text{X}$ 28'21		min. Earth dist.	11945 Jan 27 14:21	20° $\approx$ 28'09	0.62202 AU
min. Earth dist.	11944 Feb 14 22:07	7° $\text{X}$ 03'27	0.64170 AU	inferior conj	11945 Jan 30 13:06	17° $\approx$ 42'34	-2°08'44
inferior conj	11944 Feb 17 11:21	4° $\text{X}$ 22'29	-0°54'24	minimum elong	11945 Jan 30 17:29	17° $\approx$ 32'17	2°06'23
minimum elong	11944 Feb 17 13:02	4° $\text{X}$ 18'01	0°53'17	asc. node	11945 Feb 06 02:53	12° $\approx$ 50'15	

morning rise	11945 Feb 06 16:55	12° $\approx$ 37'18		morning rise	11946 Jan 20 17:31	25° $\approx$ 45'34	
direct	11945 Feb 08 22:25	12° $\approx$ 14'59		direct	11946 Jan 22 19:48	25° $\approx$ 28'42	
morning max el	11945 Feb 15 16:51	15° $\approx$ 41'24	17°47'55	asc. node	11946 Jan 24 00:09	25° $\approx$ 34'15	
	11945 Feb 25 17:35	0° $\approx$		morning max el	11946 Jan 30 06:43	29° $\approx$ 11'33	18°04'30
morning set	11945 Mar 03 12:57	10° $\approx$ 10'42			11946 Jan 31 01:37	0° $\approx$	
desc. node	11945 Mar 11 09:48	23° $\approx$ 59'07		morning set	11946 Feb 14 21:19	23° $\approx$ 52'25	
					11946 Feb 18 04:25	0° $\approx$	
superior conj	11945 Mar 14 23:03	0° $\approx$ 02'26	-0°27'04	superior conj	11946 Feb 24 18:51	12° $\approx$ 00'19	0°11'34
minimum elong	11945 Mar 14 20:26	29° $\approx$ 51'23	0°26'34	minimum elong	11946 Feb 24 19:47	12° $\approx$ 04'30	0°11'45
	11945 Mar 14 22:28	0° $\approx$		behind sun begin	11946 Feb 24 14:29	11° $\approx$ 40'53	
max. Earth dist.	11945 Mar 21 21:25	11° $\approx$ 28'38	1.43778 AU	behind sun end	11946 Feb 25 01:06	12° $\approx$ 28'05	
evening rise	11945 Mar 29 11:44	23° $\approx$ 29'41		desc. node	11946 Feb 26 06:26	14° $\approx$ 37'30	
	11945 Apr 02 17:26	0° $\approx$		max. Earth dist.	11946 Mar 04 09:51	25° $\approx$ 09'05	1.41953 AU
	11945 Apr 23 18:48	0° $\approx$			11946 Mar 07 08:17	0° $\approx$	
evening max el	11945 Apr 29 08:14	6° $\approx$ 23'01	21°23'09	evening rise	11946 Mar 09 16:40	3° $\approx$ 48'14	
asc. node	11945 May 05 00:06	10° $\approx$ 45'50			11946 Mar 27 01:12	0° $\approx$	
retrograde	11945 May 08 04:17	11° $\approx$ 33'38		evening max el	11946 Apr 12 01:20	20° $\approx$ 10'28	22°41'11
evening set	11945 May 12 13:30	9° $\approx$ 47'30		asc. node	11946 Apr 21 21:23	26° $\approx$ 04'08	
inferior conj	11945 May 17 19:54	3° $\approx$ 33'06	3°04'30	retrograde	11946 Apr 22 01:01	26° $\approx$ 04'14	
minimum elong	11945 May 17 18:38	3° $\approx$ 37'34	3°03'38	evening set	11946 Apr 26 21:22	24° $\approx$ 02'57	
min. Earth dist.	11945 May 18 02:19	3° $\approx$ 10'48	0.68610 AU	inferior conj	11946 May 02 05:16	17° $\approx$ 39'32	2°44'16
	11945 May 20 11:19	30° $\approx$		minimum elong	11946 May 02 03:21	17° $\approx$ 46'10	2°43'20
morning rise	11945 May 22 23:32	27° $\approx$		min. Earth dist.	11946 May 01 22:52	18° $\approx$ 01'46	0.68784 AU
direct	11945 May 28 02:17	25° $\approx$ 03'58		morning rise	11946 May 07 09:13	11° $\approx$ 30'13	
	11945 Jun 06 03:29	0° $\approx$		direct	11946 May 11 22:43	9° $\approx$ 36'51	
desc. node	11945 Jun 07 11:02	1° $\approx$ 17'23		morning max el	11946 May 20 20:43	14° $\approx$ 47'22	21°34'52
morning max el	11945 Jun 07 06:44	1° $\approx$ 06'29	23°01'23	desc. node	11946 May 25 07:56	19° $\approx$ 46'26	
	11945 Jun 29 02:53	0° $\approx$			11946 Jun 02 02:18	0° $\approx$	
morning set	11945 Jul 11 17:15	19° $\approx$ 54'27		morning set	11946 Jun 21 19:11	29° $\approx$ 30'55	
max. Earth dist.	11945 Jul 16 01:36	27° $\approx$ 14'58	1.39916 AU		11946 Jun 22 02:30	0° $\approx$	
	11945 Jul 17 15:46	0° $\approx$		max. Earth dist.	11946 Jun 28 04:04	9° $\approx$ 48'49	1.42120 AU
superior conj	11945 Jul 23 20:04	11° $\approx$ 02'43	-1°10'55	superior conj	11946 Jul 05 16:44	22° $\approx$ 32'41	-1°42'20
minimum elong	11945 Jul 24 01:05	11° $\approx$ 25'46	1°10'48	minimum elong	11946 Jul 05 23:29	23° $\approx$ 02'00	1°42'24
asc. node	11945 Jul 31 23:22	26° $\approx$ 02'17			11946 Jul 09 22:29	0° $\approx$	
evening rise	11945 Aug 02 12:17	29° $\approx$ 01'52		evening rise	11946 Jul 16 18:26	12° $\approx$ 21'29	
	11945 Aug 02 21:06	0° $\approx$		asc. node	11946 Jul 18 20:11	16° $\approx$ 08'08	
evening max el	11945 Aug 18 12:53	25° $\approx$ 10'18	18°32'08		11946 Jul 26 20:48	0° $\approx$	
retrograde	11945 Aug 26 09:44	29° $\approx$ 07'43		evening max el	11946 Aug 01 22:42	7° $\approx$ 56'35	18°08'30
evening set	11945 Aug 28 10:07	28° $\approx$ 52'56		retrograde	11946 Aug 08 21:06	11° $\approx$ 28'27	
desc. node	11945 Sep 03 08:55	25° $\approx$ 47'56		evening set	11946 Aug 11 04:45	11° $\approx$ 05'12	
inferior conj	11945 Sep 05 05:46	24° $\approx$ 23'21	-0°34'58	inferior conj	11946 Aug 18 05:47	6° $\approx$ 14'58	0°54'09
minimum elong	11945 Sep 05 04:23	24° $\approx$ 26'01	0°34'36	minimum elong	11946 Aug 18 07:27	6° $\approx$ 11'13	0°53'09
min. Earth dist.	11945 Sep 08 11:50	21° $\approx$ 53'11	0.57646 AU	desc. node	11946 Aug 21 06:20	3° $\approx$ 31'39	
morning rise	11945 Sep 12 19:12	19° $\approx$ 10'16		min. Earth dist.	11946 Aug 21 12:38	3° $\approx$ 18'02	0.59832 AU
direct	11945 Sep 18 19:00	17° $\approx$ 39'37		morning rise	11946 Aug 25 06:59	0° $\approx$ 29'52	
morning max el	11945 Oct 03 02:33	25° $\approx$ 12'35	26°54'58		11946 Aug 26 04:01	30° $\approx$	
	11945 Oct 07 13:25	0° $\approx$		direct	11946 Aug 31 18:18	28° $\approx$ 30'57	
	11945 Oct 26 19:13	0° $\approx$		morning max el	11946 Sep 06 15:04	0° $\approx$	
asc. node	11945 Oct 28 00:41	2° $\approx$ 23'32			11946 Sep 15 02:21	6° $\approx$ 22'39	27°45'30
morning set	11945 Nov 01 23:15	12° $\approx$ 32'30			11946 Oct 02 20:05	0° $\approx$	
superior conj	11945 Nov 08 20:21	27° $\approx$ 39'32	1°32'10	asc. node	11946 Oct 14 21:26	22° $\approx$ 05'31	
minimum elong	11945 Nov 08 18:52	27° $\approx$ 31'12	1°32'42	morning set	11946 Oct 17 05:08	26° $\approx$ 05'24	
max. Earth dist.	11945 Nov 09 01:55	28° $\approx$ 10'31	1.31411 AU		11946 Oct 18 16:29	0° $\approx$	
	11945 Nov 09 21:34	0° $\approx$		max. Earth dist.	11946 Oct 23 10:45	10° $\approx$ 24'14	1.31375 AU
evening rise	11945 Nov 15 16:09	12° $\approx$ 37'19		superior conj	11946 Oct 24 07:47	12° $\approx$ 21'12	1°20'34
	11945 Nov 24 10:53	0° $\approx$		minimum elong	11946 Oct 24 05:42	12° $\approx$ 09'34	1°20'47
desc. node	11945 Nov 30 06:06	9° $\approx$ 56'40		evening rise	11946 Oct 31 00:49	27° $\approx$ 08'56	
	11945 Dec 15 14:38	0° $\approx$			11946 Nov 01 08:55	0° $\approx$	
evening max el	11945 Dec 16 05:27	0° $\approx$ 35'35	26°59'37	desc. node	11946 Nov 17 03:16	28° $\approx$ 30'11	
retrograde	11945 Dec 30 03:43	7° $\approx$ 46'05			11946 Nov 18 04:02	0° $\approx$	
evening set	11946 Jan 05 23:18	5° $\approx$ 46'31		evening max el	11946 Nov 28 02:15	11° $\approx$ 52'11	25°55'41
min. Earth dist.	11946 Jan 09 19:47	3° $\approx$ 06'22	0.60082 AU	retrograde	11946 Dec 11 24:00	18° $\approx$ 54'31	
inferior conj	11946 Jan 12 23:50	0° $\approx$ 30'37	-3°27'53	evening set	11946 Dec 18 06:09	17° $\approx$ 22'27	
minimum elong	11946 Jan 13 06:59	0° $\approx$ 15'55	3°24'39	min. Earth dist.	11946 Dec 22 14:57	14° $\approx$ 34'27	0.57980 AU
	11946 Jan 13 14:47	30° $\approx$					

inferior conj	11946 Dec 25 16:03	12°  36'34	-4°43'00	minimum elong	11947 Dec 06 17:04	23°  45'23	5°36'11
minimum elong	11946 Dec 26 00:26	12°  21'37	4°40'03	morning rise	11947 Dec 14 22:59	19°  52'18	
morning rise	11947 Jan 02 21:21	8°  14'05		direct	11947 Dec 17 10:43	19°  35'47	
direct	11947 Jan 05 00:58	7°  35'16		morning max el	11947 Dec 27 08:57	24°  20'40	19°40'57
asc. node	11947 Jan 10 21:20	9°  35'26		asc. node	11947 Dec 28 18:28	25°  46'31	
morning max el	11947 Jan 13 13:24	12°  08'20	18°41'35		11948 Jan 01 04:11	0°  3	
	11947 Jan 25 11:52	0°  ≈		morning set	11948 Jan 13 20:49	22°  36'37	
morning set	11947 Jan 29 17:13	8°  ≈04'50			11948 Jan 17 12:22	0°  ≈	
superior conj	11947 Feb 07 10:57	24°  ≈54'45	0°43'47	superior conj	11948 Jan 21 18:32	8°  ≈31'35	1°08'24
minimum elong	11947 Feb 07 13:36	25°  ≈07'09	0°43'54	minimum elong	11948 Jan 21 21:25	8°  ≈45'48	1°08'42
	11947 Feb 10 04:50	0°  ✕		max. Earth dist.	11948 Jan 27 23:31	20°  ≈24'47	1.37572 AU
desc. node	11947 Feb 13 03:05	5°  ✕16'56		desc. node	11948 Jan 30 23:46	25°  ≈53'30	
max. Earth dist.	11947 Feb 14 17:36	8°  ✕06'53	1.39799 AU	evening rise	11948 Jan 31 16:55	27°  ≈09'53	
evening rise	11947 Feb 18 18:25	15°  ✕02'14			11948 Feb 02 07:38	0°  ✕	
	11947 Feb 28 01:21	0°  Υ			11948 Feb 21 12:29	0°  Υ	
	11947 Mar 21 22:00	0°  ♄		evening max el	11948 Mar 07 04:54	17°  Υ51'11	25°18'35
evening max el	11947 Mar 25 15:32	4°  ♄00'06	24°01'53	retrograde	11948 Mar 19 08:15	24°  Υ52'58	
retrograde	11947 Apr 05 18:43	10°  ♄32'55		evening set	11948 Mar 25 04:01	22°  Υ28'01	
asc. node	11947 Apr 08 18:42	9°  ♄51'35		asc. node	11948 Mar 25 16:03	22°  Υ01'30	
evening set	11947 Apr 11 02:45	8°  ♄18'19		min. Earth dist.	11948 Mar 29 13:11	17°  Υ37'36	0.67794 AU
min. Earth dist.	11947 Apr 15 19:13	2°  ♄52'43	0.68503 AU	inferior conj	11948 Mar 30 19:58	15°  Υ57'43	1°34'22
inferior conj	11947 Apr 16 13:55	1°  ♄49'15	2°14'13	minimum elong	11948 Mar 30 18:01	16°  Υ04'03	1°33'34
minimum elong	11947 Apr 16 11:45	1°  ♄56'36	2°13'16	morning rise	11948 Apr 05 08:25	10°  Υ04'02	
	11947 Apr 17 22:33	30°  ♄Υ		direct	11948 Apr 08 21:03	8°  Υ52'35	
morning rise	11947 Apr 21 20:49	25°  Υ47'04		morning max el	11948 Apr 15 21:23	12°  Υ43'24	19°15'36
direct	11947 Apr 25 21:25	24°  Υ15'09		desc. node	11948 Apr 28 01:26	28°  Υ38'16	
morning max el	11947 May 03 17:15	28°  Υ40'13	20°18'16	greatest brilliancy	11948 Apr 28 17:42	29°  Υ38'34	-0.7m
	11947 May 05 00:05	0°  ♄			11948 Apr 28 23:27	0°  ♄	
desc. node	11947 May 12 04:44	8°  ♄57'22		morning set	11948 May 10 01:32	16°  ♄53'50	
	11947 May 26 14:53	0°  ♄			11948 May 18 12:20	0°  ♄	
morning set	11947 Jun 01 00:04	8°  ♄14'06		max. Earth dist.	11948 May 23 03:41	7°  ♄15'50	1.45187 AU
max. Earth dist.	11947 Jun 10 12:58	23°  ♄13'06	1.43941 AU				
	11947 Jun 14 17:40	0°  ♄		superior conj	11948 May 26 12:13	12°  ♄33'47	-2°13'19
superior conj	11947 Jun 16 14:04	3°  ♄02'04	-2°05'26	minimum elong	11948 May 26 11:33	12°  ♄31'09	2°14'03
minimum elong	11947 Jun 16 19:29	3°  ♄24'21	2°05'58	evening rise	11948 Jun 06 07:57	0°  ♄	
evening rise	11947 Jun 29 07:44	24°  ♄39'02		asc. node	11948 Jun 09 23:09	5°  ♄58'29	
	11947 Jul 02 09:45	0°  ♄			11948 Jun 21 14:01	24°  ♄49'51	
asc. node	11947 Jul 05 17:04	5°  ♄39'52		evening max el	11948 Jun 25 03:49	0°  ♄	
evening max el	11947 Jul 16 12:14	21°  ♄09'20	18°04'15	retrograde	11948 Jun 29 02:05	4°  ♄39'15	18°18'32
retrograde	11947 Jul 22 23:05	24°  ♄30'14		evening set	11948 Jul 05 11:09	8°  ♄03'02	
evening set	11947 Jul 25 14:46	23°  ♄55'16		inferior conj	11948 Jul 08 11:06	7°  ♄13'57	
inferior conj	11947 Aug 01 00:08	18°  ♄46'10	1°59'01	minimum elong	11948 Jul 14 08:37	1°  ♄47'50	2°41'40
minimum elong	11947 Aug 01 02:46	18°  ♄39'21	1°57'40		11948 Jul 14 10:55	1°  ♄41'13	2°40'28
min. Earth dist.	11947 Aug 03 22:42	15°  ♄44'54	0.62111 AU	min. Earth dist.	11948 Jul 15 21:54	30°  ♄Υ	
morning rise	11947 Aug 07 12:28	12°  ♄39'36		morning rise	11948 Jul 16 18:05	29°  ♄02'51	0.64229 AU
desc. node	11947 Aug 08 03:40	12°  ♄13'45		desc. node	11948 Jul 20 09:19	25°  ♄29'50	
direct	11947 Aug 14 04:51	10°  ♄16'33		direct	11948 Jul 25 00:57	23°  ♄05'17	
morning max el	11947 Aug 28 08:27	18°  ♄18'27	27°57'11		11948 Jul 27 00:25	22°  ♄51'47	
	11947 Sep 07 04:21	0°  ♄		morning max el	11948 Aug 08 20:53	0°  ♄	
	11947 Sep 25 16:10	0°  ♄			11948 Aug 09 18:07	0°  ♄52'28	27°32'14
morning set	11947 Oct 01 05:17	10°  ♄54'07		morning set	11948 Aug 31 06:48	0°  ♄	
asc. node	11947 Oct 01 18:09	12°  ♄00'08			11948 Sep 13 21:13	24°  ♄29'42	
max. Earth dist.	11947 Oct 06 16:10	22°  ♄25'16	1.31848 AU	asc. node	11948 Sep 16 14:59	0°  ♄	
				max. Earth dist.	11948 Sep 17 14:50	2°  ♄02'29	
					11948 Sep 18 14:30	4°  ♄05'21	1.32844 AU
superior conj	11947 Oct 08 17:17	26°  ♄53'29	1°03'29	superior conj	11948 Sep 21 22:50	11°  ♄10'52	0°41'08
minimum elong	11947 Oct 08 15:02	26°  ♄41'10	1°03'24	minimum elong	11948 Sep 21 21:00	11°  ♄01'02	0°40'52
	11947 Oct 10 03:09	0°  ♄		evening rise	11948 Sep 28 22:57	26°  ♄18'07	
evening rise	11947 Oct 15 11:42	11°  ♄44'13			11948 Sep 30 16:55	0°  ♄	
	11947 Oct 24 14:59	0°  ♄			11948 Oct 18 18:04	0°  ♄	
desc. node	11947 Nov 04 00:30	16°  ♄04'15		desc. node	11948 Oct 20 21:48	2°  ♄16'46	
evening max el	11947 Nov 09 15:12	22°  ♄21'04	24°25'35	evening max el	11948 Oct 21 01:46	2°  ♄26'28	22°44'25
retrograde	11947 Nov 23 08:32	29°  ♄12'49		retrograde	11948 Nov 03 04:11	8°  ♄57'02	
evening set	11947 Nov 28 13:16	28°  ♄13'09		evening set	11948 Nov 06 22:48	8°  ♄25'57	
min. Earth dist.	11947 Dec 04 02:34	25°  ♄22'49	0.56163 AU	min. Earth dist.	11948 Nov 14 10:08	5°  ♄03'10	0.54941 AU
inferior conj	11947 Dec 06 11:41	23°  ♄53'47	-5°37'37				

inferior conj	11948 Nov 15 12:58	4° $\text{♊}$ 24'58	-5°49'20	evening set	11949 Oct 17 03:56	18° $\text{♍}$ 22'05	
minimum elong	11948 Nov 15 10:24	4° $\text{♊}$ 28'38	5°48'30	inferior conj	11949 Oct 26 04:52	14° $\text{♍}$ 27'34	-5°02'48
morning rise	11948 Nov 23 23:29	0° $\text{♊}$ 36'36		minimum elong	11949 Oct 25 19:31	14° $\text{♍}$ 40'43	5°00'14
direct	11948 Nov 27 03:08	0° $\text{♊}$ 13'42		min. Earth dist.	11949 Oct 26 16:50	14° $\text{♍}$ 10'41	0.54566 AU
morning max el	11948 Dec 08 14:34	5° $\text{♊}$ 40'47	21°03'05	morning rise	11949 Nov 03 11:39	10° $\text{♍}$ 36'11	
asc. node	11948 Dec 14 15:31	12° $\text{♊}$ 48'18		direct	11949 Nov 07 11:14	10° $\text{♍}$ 02'06	
	11948 Dec 24 14:55	0° $\text{♋}$		morning max el	11949 Nov 20 07:23	16° $\text{♍}$ 11'45	22°44'06
morning set	11948 Dec 28 05:21	7° $\text{♋}$ 19'52			11949 Dec 01 01:25	0° $\text{♊}$	
				asc. node	11949 Dec 01 12:30	0° $\text{♊}$ 45'01	
superior conj	11949 Jan 04 13:26	22° $\text{♋}$ 39'12	1°25'28	morning set	11949 Dec 12 16:29	22° $\text{♊}$ 07'07	
minimum elong	11949 Jan 04 15:41	22° $\text{♋}$ 50'46	1°26'02		11949 Dec 16 08:45	0° $\text{♋}$	
	11949 Jan 08 04:21	0° $\text{♌}$					
max. Earth dist.	11949 Jan 09 09:00	2° $\text{♌}$ 21'40	1.35509 AU	superior conj	11949 Dec 19 16:10	7° $\text{♋}$ 06'43	1°35'28
evening rise	11949 Jan 13 09:18	10° $\text{♌}$ 03'19		minimum elong	11949 Dec 19 17:22	7° $\text{♋}$ 13'06	1°36'14
desc. node	11949 Jan 16 20:33	16° $\text{♌}$ 23'33		max. Earth dist.	11949 Dec 23 01:34	14° $\text{♋}$ 15'28	1.33775 AU
	11949 Jan 24 21:29	0° $\text{♌}$		evening rise	11949 Dec 27 15:47	23° $\text{♋}$ 31'42	
	11949 Feb 16 02:53	0° $\text{♍}$			11949 Dec 31 00:59	0° $\text{♌}$	
evening max el	11949 Feb 17 18:36	1° $\text{♍}$ 39'50	26°23'52	desc. node	11950 Jan 03 17:25	6° $\text{♌}$ 41'34	
retrograde	11949 Mar 02 16:31	8° $\text{♍}$ 58'14			11950 Jan 18 12:37	0° $\text{♌}$	
evening set	11949 Mar 08 23:29	6° $\text{♍}$ 26'50		evening max el	11950 Jan 31 08:10	15° $\text{♌}$ 16'08	27°10'31
asc. node	11949 Mar 12 13:23	2° $\text{♍}$ 49'59		retrograde	11950 Feb 13 18:44	22° $\text{♌}$ 40'31	
min. Earth dist.	11949 Mar 13 02:36	2° $\text{♍}$ 11'00	0.66684 AU	evening set	11950 Feb 20 11:08	20° $\text{♌}$ 08'00	
inferior conj	11949 Mar 14 21:25	0° $\text{♍}$ 01'01	0°44'33	min. Earth dist.	11950 Feb 24 09:10	16° $\text{♌}$ 25'26	0.65193 AU
minimum elong	11949 Mar 14 20:18	0° $\text{♍}$ 04'25	0°44'12	inferior conj	11950 Feb 26 15:53	13° $\text{♌}$ 53'04	-0°15'23
	11949 Mar 14 21:45	30° $\text{♌}$		minimum elong	11950 Feb 26 16:20	13° $\text{♌}$ 51'51	0°14'55
morning rise	11949 Mar 20 18:00	24° $\text{♌}$ 17'35		transit middle	11950 Feb 26 16:20	13° $\text{♌}$ 51'51	0°14'55
direct	11949 Mar 23 19:51	23° $\text{♌}$ 24'14		transit begin	11950 Feb 26 15:14	13° $\text{♌}$ 54'54	
morning max el	11949 Mar 30 08:26	26° $\text{♌}$ 53'23	18°29'01	transit end	11950 Feb 26 17:25	13° $\text{♌}$ 48'47	
	11949 Apr 02 03:49	0° $\text{♍}$		asc. node	11950 Feb 27 10:45	13° $\text{♌}$ 00'52	
desc. node	11949 Apr 14 22:07	18° $\text{♍}$ 41'20		morning rise	11950 Mar 04 23:05	8° $\text{♌}$ 22'24	
morning set	11949 Apr 19 21:48	26° $\text{♍}$ 33'12		direct	11950 Mar 07 15:38	7° $\text{♌}$ 43'57	
	11949 Apr 22 02:12	0° $\text{♎}$		morning max el	11950 Mar 14 00:16	11° $\text{♌}$ 03'26	17°59'21
					11950 Mar 27 07:12	0° $\text{♍}$	
superior conj	11949 May 05 20:10	21° $\text{♎}$ 34'01	-2°01'09	morning set	11950 Mar 31 22:47	7° $\text{♍}$ 38'03	
minimum elong	11949 May 05 12:27	21° $\text{♎}$ 03'54	2°01'17	desc. node	11950 Apr 01 18:47	9° $\text{♍}$ 00'12	
max. Earth dist.	11949 May 05 22:32	21° $\text{♎}$ 43'16	1.45733 AU		11950 Apr 14 18:43	0° $\text{♎}$	
	11949 May 11 05:36	0° $\text{♏}$					
evening rise	11949 May 21 14:14	16° $\text{♏}$ 17'40		superior conj	11950 Apr 15 07:13	0° $\text{♎}$ 49'28	-1°30'55
	11949 May 30 06:51	0° $\text{♏}$		minimum elong	11950 Apr 14 22:09	0° $\text{♎}$ 13'37	1°30'17
greatest brilliancy	11949 May 30 15:03	0° $\text{♏}$ 31'57	-0.8m	max. Earth dist.	11950 Apr 18 18:50	6° $\text{♎}$ 18'50	1.45525 AU
asc. node	11949 Jun 08 11:02	13° $\text{♏}$ 30'38		evening rise	11950 May 01 09:15	25° $\text{♎}$ 52'16	
evening max el	11949 Jun 12 13:24	18° $\text{♏}$ 19'04	18°50'29		11950 May 04 01:43	0° $\text{♏}$	
retrograde	11949 Jun 19 05:38	21° $\text{♏}$ 59'07		greatest brilliancy	11950 May 15 03:30	16° $\text{♏}$ 45'22	-0.7m
evening set	11949 Jun 22 14:06	20° $\text{♏}$ 54'25			11950 May 24 22:26	0° $\text{♏}$	
inferior conj	11949 Jun 28 03:28	15° $\text{♏}$ 12'41	3°05'51	asc. node	11950 May 26 08:08	1° $\text{♏}$ 32'40	
minimum elong	11949 Jun 28 04:48	15° $\text{♏}$ 08'27	3°04'52	evening max el	11950 May 26 20:05	2° $\text{♏}$ 03'20	19°38'53
min. Earth dist.	11949 Jun 29 22:05	12° $\text{♏}$ 59'15	0.66018 AU	retrograde	11950 Jun 03 03:32	6° $\text{♏}$ 11'56	
morning rise	11949 Jul 03 18:47	8° $\text{♏}$ 50'33		evening set	11950 Jun 06 21:00	4° $\text{♏}$ 51'00	
direct	11949 Jul 10 03:18	6° $\text{♏}$ 08'13			11950 Jun 11 09:52	30° $\text{♏}$	
desc. node	11949 Jul 11 22:11	6° $\text{♏}$ 19'31		inferior conj	11950 Jun 12 05:29	28° $\text{♏}$ 55'06	3°14'57
morning max el	11949 Jul 23 04:56	13° $\text{♏}$ 53'55	26°37'10	minimum elong	11950 Jun 12 05:44	28° $\text{♏}$ 54'18	3°14'07
	11949 Aug 05 06:26	0° $\text{♐}$		min. Earth dist.	11950 Jun 13 09:24	27° $\text{♏}$ 22'13	0.67383 AU
	11949 Aug 23 23:57	0° $\text{♐}$		morning rise	11950 Jun 17 14:05	22° $\text{♏}$ 33'23	
morning set	11949 Aug 28 01:50	7° $\text{♐}$ 31'28		direct	11950 Jun 23 12:24	19° $\text{♏}$ 56'37	
max. Earth dist.	11949 Sep 01 03:07	15° $\text{♐}$ 22'40	1.34359 AU	desc. node	11950 Jun 28 19:20	21° $\text{♏}$ 35'52	
asc. node	11949 Sep 04 11:30	22° $\text{♐}$ 08'12		morning max el	11950 Jul 05 15:25	27° $\text{♏}$ 12'37	25°20'54
					11950 Jul 08 06:02	0° $\text{♏}$	
superior conj	11949 Sep 05 22:05	25° $\text{♐}$ 06'34	0°13'54		11950 Jul 29 21:49	0° $\text{♐}$	
minimum elong	11949 Sep 05 21:21	25° $\text{♐}$ 02'45	0°13'36	morning set	11950 Aug 10 15:16	19° $\text{♐}$ 49'59	
behind sun begin	11949 Sep 05 18:13	24° $\text{♐}$ 46'30		max. Earth dist.	11950 Aug 14 06:18	26° $\text{♐}$ 29'25	1.36320 AU
behind sun end	11949 Sep 06 00:28	25° $\text{♐}$ 19'00			11950 Aug 16 02:52	0° $\text{♐}$	
	11949 Sep 08 06:13	0° $\text{♑}$					
evening rise	11949 Sep 13 08:37	10° $\text{♑}$ 45'02		superior conj	11950 Aug 20 12:11	8° $\text{♐}$ 33'25	-0°17'27
	11949 Sep 23 08:17	0° $\text{♒}$		minimum elong	11950 Aug 20 13:18	8° $\text{♐}$ 38'55	0°17'36
evening max el	11949 Oct 02 19:01	12° $\text{♒}$ 43'40	21°09'10	asc. node	11950 Aug 22 08:12	12° $\text{♐}$ 13'44	
desc. node	11949 Oct 07 19:11	16° $\text{♒}$ 39'26		evening rise	11950 Aug 28 14:32	24° $\text{♐}$ 59'06	
retrograde	11949 Oct 14 15:29	18° $\text{♒}$ 36'55			11950 Aug 31 02:16	0° $\text{♑}$	

evening max el	11950 Sep 15 01:26	23° <u>♄</u> 41'06	19°51'20	evening max el	11951 Aug 28 21:18	5° <u>♄</u> 25'58	18°54'56
desc. node	11950 Sep 24 16:35	28° <u>♄</u> 45'25		retrograde	11951 Sep 06 12:27	9° <u>♄</u> 45'03	
retrograde	11950 Sep 25 06:37	28° <u>♄</u> 46'22		evening set	11951 Sep 08 09:34	9° <u>♄</u> 33'34	
evening set	11950 Sep 27 04:21	28° <u>♄</u> 36'32		desc. node	11951 Sep 11 14:01	8° <u>♄</u> 26'36	
inferior conj	11950 Oct 06 01:55	24° <u>♄</u> 35'11	-3°27'59	inferior conj	11951 Sep 16 16:07	5° <u>♄</u> 15'55	-1°35'55
minimum elong	11950 Oct 05 17:03	24° <u>♄</u> 48'47	3°24'40	minimum elong	11951 Sep 16 12:03	5° <u>♄</u> 23'08	1°34'18
min. Earth dist.	11950 Oct 08 01:53	23° <u>♄</u> 21'43	0.55133 AU	min. Earth dist.	11951 Sep 19 15:44	3° <u>♄</u> 09'47	0.56542 AU
morning rise	11950 Oct 14 04:15	20° <u>♄</u> 19'45		morning rise	11951 Sep 24 11:17	0° <u>♄</u> 23'48	
direct	11950 Oct 18 23:47	19° <u>♄</u> 28'59			11951 Sep 25 11:06	30° <u>♄</u>	
morning max el	11950 Nov 01 18:14	26° <u>♄</u> 17'14	24°32'18	direct	11951 Sep 30 01:42	29° <u>♄</u> 09'03	
	11950 Nov 05 07:26	0° <u>♄</u>			11951 Oct 04 17:05	0° <u>♄</u>	
asc. node	11950 Nov 18 09:25	19° <u>♄</u> 23'32		morning max el	11951 Oct 14 07:05	6° <u>♄</u> 29'01	26°10'09
	11950 Nov 23 21:28	0° <u>♄</u>			11951 Oct 31 14:00	0° <u>♄</u>	
morning set	11950 Nov 27 04:22	6° <u>♄</u> 53'02		asc. node	11951 Nov 05 06:16	8° <u>♄</u> 33'00	
				morning set	11951 Nov 11 15:17	21° <u>♄</u> 32'53	
					11951 Nov 15 12:14	0° <u>♄</u>	
superior conj	11950 Dec 04 00:02	21° <u>♄</u> 46'28	1°38'56	superior conj	11951 Nov 18 10:48	6° <u>♄</u> 31'49	1°36'19
minimum elong	11950 Dec 04 00:05	21° <u>♄</u> 46'44	1°39'44	minimum elong	11951 Nov 18 09:49	6° <u>♄</u> 26'17	1°36'59
max. Earth dist.	11950 Dec 06 01:49	26° <u>♄</u> 17'22	1.32474 AU	max. Earth dist.	11951 Nov 19 07:53	8° <u>♄</u> 28'45	1.31649 AU
	11950 Dec 07 19:19	0° <u>♄</u>		evening rise	11951 Nov 25 10:06	21° <u>♄</u> 40'59	
evening rise	11950 Dec 11 09:01	7° <u>♄</u> 26'36			11951 Nov 29 12:10	0° <u>♄</u>	
desc. node	11950 Dec 21 14:22	26° <u>♄</u> 41'50		desc. node	11951 Dec 08 11:24	16° <u>♄</u> 17'06	
	11950 Dec 23 13:03	0° <u>♄</u>			11951 Dec 17 14:19	0° <u>♄</u>	
evening max el	11951 Jan 13 20:04	28° <u>♄</u> 27'54	27°31'34	evening max el	11951 Dec 27 04:06	11° <u>♄</u> 03'10	27°21'13
	11951 Jan 15 12:25	0° <u>♄</u>		retrograde	11952 Jan 10 02:02	18° <u>♄</u> 19'42	
retrograde	11951 Jan 27 14:10	5° <u>♄</u> 50'48		evening set	11952 Jan 17 00:41	16° <u>♄</u> 07'33	
evening set	11951 Feb 03 12:32	3° <u>♄</u> 24'04		min. Earth dist.	11952 Jan 20 18:36	13° <u>♄</u> 18'27	0.61308 AU
	11951 Feb 07 11:40	30° <u>♄</u>		inferior conj	11952 Jan 23 02:28	10° <u>♄</u> 34'46	-2°42'07
min. Earth dist.	11951 Feb 07 06:55	0° <u>♄</u> 11'35	0.63369 AU	minimum elong	11952 Jan 24 02:05	10° <u>♄</u> 22'18	2°39'17
inferior conj	11951 Feb 10 00:38	27° <u>♄</u> 26'58	-1°25'00	morning rise	11952 Jan 31 06:19	5° <u>♄</u> 38'05	
minimum elong	11951 Feb 10 03:24	27° <u>♄</u> 20'00	1°23'22	asc. node	11952 Feb 01 05:25	5° <u>♄</u> 24'38	
asc. node	11951 Feb 14 08:06	23° <u>♄</u> 35'20		direct	11952 Feb 02 09:53	5° <u>♄</u> 18'38	
morning rise	11951 Feb 16 20:34	22° <u>♄</u> 11'50		morning max el	11952 Feb 09 10:24	8° <u>♄</u> 50'55	17°52'36
direct	11951 Feb 19 05:26	21° <u>♄</u> 44'43			11952 Feb 23 06:16	0° <u>♄</u>	
morning max el	11951 Feb 25 18:01	25° <u>♄</u> 05'35	17°46'59	morning set	11952 Feb 25 01:45	3° <u>♄</u> 16'35	
	11951 Mar 01 20:17	0° <u>♄</u>		desc. node	11952 Mar 05 12:01	20° <u>♄</u> 06'15	
morning set	11951 Mar 14 02:10	19° <u>♄</u> 58'48					
desc. node	11951 Mar 19 15:25	29° <u>♄</u> 29'48		superior conj	11952 Mar 06 19:17	22° <u>♄</u> 21'31	-0°10'05
	11951 Mar 19 22:32	0° <u>♄</u>		minimum elong	11952 Mar 06 18:23	22° <u>♄</u> 17'41	0°09'45
superior conj	11951 Mar 26 12:57	11° <u>♄</u> 00'38	-0°50'56	behind sun begin	11952 Mar 06 11:41	21° <u>♄</u> 48'46	
minimum elong	11951 Mar 26 07:41	10° <u>♄</u> 38'59	0°50'15	behind sun end	11952 Mar 07 01:05	22° <u>♄</u> 46'32	
max. Earth dist.	11951 Apr 01 13:26	20° <u>♄</u> 44'10	1.44596 AU		11952 Mar 11 07:25	0° <u>♄</u>	
	11951 Apr 07 10:48	0° <u>♄</u>		max. Earth dist.	11952 Mar 14 03:59	4° <u>♄</u> 43'16	1.43052 AU
evening rise	11951 Apr 10 20:34	5° <u>♄</u> 15'46		evening rise	11952 Mar 20 15:49	15° <u>♄</u> 07'19	
	11951 Apr 27 11:19	0° <u>♄</u>			11952 Mar 30 09:39	0° <u>♄</u>	
evening max el	11951 May 09 21:01	15° <u>♄</u> 48'33	20°41'44	evening max el	11952 Apr 21 16:36	29° <u>♄</u> 35'14	21°55'34
asc. node	11951 May 13 05:19	18° <u>♄</u> 43'10			11952 Apr 22 02:34	0° <u>♄</u>	
retrograde	11951 May 18 02:27	20° <u>♄</u> 35'19		asc. node	11952 Apr 29 02:35	4° <u>♄</u> 47'32	
evening set	11951 May 22 05:37	18° <u>♄</u> 58'15		retrograde	11952 May 01 00:28	5° <u>♄</u> 04'54	
inferior conj	11951 May 27 12:04	12° <u>♄</u> 49'50	3°11'31	evening set	11952 May 05 14:13	3° <u>♄</u> 12'20	
minimum elong	11951 May 27 11:17	12° <u>♄</u> 52'32	3°10'42		11952 May 08 13:59	30° <u>♄</u>	
min. Earth dist.	11951 May 28 02:03	12° <u>♄</u> 01'34	0.68293 AU	inferior conj	11952 May 10 21:01	26° <u>♄</u> 53'35	2°57'08
morning rise	11951 Jun 01 16:43	6° <u>♄</u> 31'24		minimum elong	11952 May 10 19:25	26° <u>♄</u> 59'08	2°56'15
direct	11951 Jun 07 02:48	4° <u>♄</u> 07'47		min. Earth dist.	11952 May 10 21:56	26° <u>♄</u> 50'22	0.68740 AU
desc. node	11951 Jun 15 16:25	8° <u>♄</u> 25'22		morning rise	11952 May 16 00:26	20° <u>♄</u> 40'20	
morning max el	11951 Jun 18 01:24	10° <u>♄</u> 40'22	23°53'08	direct	11952 May 20 21:29	18° <u>♄</u> 34'57	
	11951 Jul 03 10:00	0° <u>♄</u>		morning max el	11952 May 30 12:53	24° <u>♄</u> 15'40	22°23'37
	11951 Jul 22 15:36	0° <u>♄</u>		desc. node	11952 Jun 01 13:22	26° <u>♄</u> 23'51	
morning set	11951 Jul 23 08:40	1° <u>♄</u> 12'35			11952 Jun 04 15:24	0° <u>♄</u>	
max. Earth dist.	11951 Jul 27 03:48	7° <u>♄</u> 48'35	1.38574 AU		11952 Jun 25 19:42	0° <u>♄</u>	
				morning set	11952 Jul 03 01:29	11° <u>♄</u> 28'35	
superior conj	11951 Aug 03 13:32	21° <u>♄</u> 22'00	-0°51'19	max. Earth dist.	11952 Jul 08 02:18	19° <u>♄</u> 48'24	1.40884 AU
minimum elong	11951 Aug 03 17:06	21° <u>♄</u> 38'51	0°51'16		11952 Jul 14 00:09	0° <u>♄</u>	
	11951 Aug 08 01:20	0° <u>♄</u>					
asc. node	11951 Aug 09 04:55	2° <u>♄</u> 14'43		superior conj	11952 Jul 15 21:57	3° <u>♄</u> 23'27	-1°24'52
evening rise	11951 Aug 12 13:57	8° <u>♄</u> 52'18		minimum elong	11952 Jul 16 03:55	3° <u>♄</u> 50'11	1°24'48
	11951 Aug 24 10:44	0° <u>♄</u>					

evening rise	11952 Jul 26 03:34	22° $\Omega$ 16'34			11953 Jul 06 07:26	0° $\Omega$	
asc. node	11952 Jul 26 01:40	22° $\Omega$ 07'43		evening rise	11953 Jul 09 03:07	5° $\Omega$ 01'38	
	11952 Jul 30 07:14	0° $\mathbb{N}$		asc. node	11953 Jul 12 22:30	11° $\Omega$ 48'35	
evening max el	11952 Aug 11 03:15	17° $\mathbb{N}$ 52'43	18°19'41		11953 Jul 24 19:15	0° $\mathbb{N}$	
retrograde	11952 Aug 18 13:11	21° $\mathbb{N}$ 37'14		evening max el	11953 Jul 25 15:10	0° $\mathbb{N}$ 51'42	18°04'25
evening set	11952 Aug 20 16:26	21° $\mathbb{N}$ 19'21		retrograde	11953 Aug 01 07:09	4° $\mathbb{N}$ 16'44	
inferior conj	11952 Aug 28 03:59	16° $\mathbb{N}$ 41'14	0°05'43	evening set	11953 Aug 03 18:20	3° $\mathbb{N}$ 48'42	
minimum elong	11952 Aug 28 04:11	16° $\mathbb{N}$ 40'50	0°05'23		11953 Aug 09 06:39	30° $\mathbb{R}$ $\Omega$	
transit middle	11952 Aug 28 04:11	16° $\mathbb{N}$ 40'50	0°05'23	inferior conj	11953 Aug 10 12:15	28° $\Omega$ 50'15	1°24'37
transit begin	11952 Aug 28 00:53	16° $\mathbb{N}$ 47'39		minimum elong	11953 Aug 10 14:32	28° $\Omega$ 44'46	1°23'22
transit end	11952 Aug 28 07:28	16° $\mathbb{N}$ 34'00		min. Earth dist.	11953 Aug 13 16:28	25° $\Omega$ 48'51	0.60812 AU
desc. node	11952 Aug 28 11:26	16° $\mathbb{N}$ 25'47		desc. node	11953 Aug 15 08:48	24° $\Omega$ 21'42	
min. Earth dist.	11952 Aug 31 12:02	13° $\mathbb{N}$ 56'42	0.58545 AU	morning rise	11953 Aug 17 07:58	22° $\Omega$ 55'02	
morning rise	11952 Sep 04 12:25	11° $\mathbb{N}$ 13'22		direct	11953 Aug 23 22:27	20° $\Omega$ 44'56	
direct	11952 Sep 10 18:03	9° $\mathbb{N}$ 30'06		morning max el	11953 Sep 07 04:49	28° $\Omega$ 41'29	27°55'14
morning max el	11952 Sep 25 02:20	17° $\mathbb{N}$ 12'38	27°21'03		11953 Sep 08 11:36	0° $\mathbb{N}$	
	11952 Oct 05 16:41	0° $\underline{\Omega}$			11953 Sep 29 13:58	0° $\underline{\Omega}$	
asc. node	11952 Oct 22 03:02	28° $\underline{\Omega}$ 04'47		asc. node	11953 Oct 08 23:44	17° $\underline{\Omega}$ 52'31	
	11952 Oct 23 01:54	0° $\mathbb{M}$		morning set	11953 Oct 10 03:10	20° $\underline{\Omega}$ 13'55	
morning set	11952 Oct 25 23:29	6° $\mathbb{M}$ 01'20			11953 Oct 14 16:58	0° $\mathbb{M}$	
				max. Earth dist.	11953 Oct 16 00:28	2° $\mathbb{M}$ 52'52	1.31511 AU
superior conj	11952 Nov 01 22:30	21° $\mathbb{M}$ 16'17	1°27'56				
minimum elong	11952 Nov 01 20:43	21° $\mathbb{M}$ 06'17	1°28'20	superior conj	11953 Oct 17 09:20	5° $\mathbb{M}$ 54'34	1°13'59
max. Earth dist.	11952 Nov 01 16:37	20° $\mathbb{M}$ 43'25	1.31325 AU	minimum elong	11953 Oct 17 07:07	5° $\mathbb{M}$ 42'17	1°14'04
	11952 Nov 05 20:48	0° $\mathbb{X}$		evening rise	11953 Oct 24 02:26	20° $\mathbb{M}$ 41'51	
evening rise	11952 Nov 08 16:35	6° $\mathbb{X}$ 07'54			11953 Oct 28 13:23	0° $\mathbb{X}$	
	11952 Nov 21 02:24	0° $\mathbb{Z}$		desc. node	11953 Nov 11 05:41	23° $\mathbb{X}$ 27'11	
desc. node	11952 Nov 24 08:30	5° $\mathbb{Z}$ 16'46			11953 Nov 16 09:00	0° $\mathbb{Z}$	
evening max el	11952 Dec 08 05:48	22° $\mathbb{Z}$ 50'46	26°36'29	evening max el	11953 Nov 19 23:16	3° $\mathbb{Z}$ 46'16	25°20'00
retrograde	11952 Dec 22 04:37	29° $\mathbb{Z}$ 58'10		retrograde	11953 Dec 03 19:43	10° $\mathbb{Z}$ 43'51	
evening set	11952 Dec 28 19:32	28° $\mathbb{Z}$ 09'39		evening set	11953 Dec 09 16:34	9° $\mathbb{Z}$ 25'36	
min. Earth dist.	11953 Jan 01 19:46	25° $\mathbb{Z}$ 33'01	0.59164 AU	min. Earth dist.	11953 Dec 14 11:24	6° $\mathbb{Z}$ 45'53	0.57155 AU
inferior conj	11953 Jan 04 23:45	23° $\mathbb{Z}$ 06'14	-4°01'03	inferior conj	11953 Dec 17 07:19	4° $\mathbb{Z}$ 52'06	-5°09'55
minimum elong	11953 Jan 05 07:45	22° $\mathbb{Z}$ 50'43	3°57'45	minimum elong	11953 Dec 17 15:06	4° $\mathbb{Z}$ 39'01	5°07'32
morning rise	11953 Jan 12 22:50	18° $\mathbb{Z}$ 30'28		morning rise	11953 Dec 25 15:58	0° $\mathbb{Z}$ 38'37	
direct	11953 Jan 15 00:49	18° $\mathbb{Z}$ 15'00		direct	11953 Dec 27 22:13	0° $\mathbb{Z}$ 23'29	
asc. node	11953 Jan 18 02:40	18° $\mathbb{Z}$ 50'30		asc. node	11954 Jan 04 23:50	3° $\mathbb{Z}$ 51'27	
morning max el	11953 Jan 22 21:43	22° $\mathbb{Z}$ 08'17	18°17'35	morning max el	11954 Jan 06 00:01	4° $\mathbb{Z}$ 46'48	19°03'58
	11953 Jan 28 23:58	0° $\approx$			11954 Jan 21 19:57	0° $\approx$	
morning set	11953 Feb 07 15:35	17° $\approx$ 12'57		morning set	11954 Jan 22 15:11	1° $\approx$ 34'52	
	11953 Feb 14 10:17	0° $\mathbb{H}$					
superior conj	11953 Feb 17 00:16	4° $\mathbb{H}$ 44'48	0°26'06	superior conj	11954 Jan 30 23:31	17° $\approx$ 58'29	0°55'08
minimum elong	11953 Feb 17 02:09	4° $\mathbb{H}$ 53'21	0°26'13	minimum elong	11954 Jan 31 02:24	18° $\approx$ 12'20	0°55'20
desc. node	11953 Feb 20 08:38	10° $\mathbb{H}$ 45'17			11954 Feb 06 10:38	0° $\mathbb{H}$	
max. Earth dist.	11953 Feb 24 13:59	18° $\mathbb{H}$ 04'51	1.41066 AU	max. Earth dist.	11954 Feb 06 20:53	0° $\mathbb{H}$ 46'01	1.38856 AU
evening rise	11953 Mar 01 05:20	25° $\mathbb{H}$ 49'16		desc. node	11954 Feb 07 05:18	1° $\mathbb{H}$ 23'39	
	11953 Mar 03 19:20	0° $\mathbb{Y}$		evening rise	11954 Feb 10 16:11	7° $\mathbb{H}$ 26'47	
	11953 Mar 24 03:48	0° $\mathbb{B}$			11954 Feb 24 18:16	0° $\mathbb{Y}$	
evening max el	11953 Apr 04 08:19	13° $\mathbb{B}$ 23'52	23°15'34	evening max el	11954 Mar 17 22:08	27° $\mathbb{Y}$ 14'42	24°35'23
retrograde	11953 Apr 14 20:00	19° $\mathbb{B}$ 34'55			11954 Mar 20 22:38	0° $\mathbb{B}$	
asc. node	11953 Apr 15 23:53	19° $\mathbb{B}$ 28'36		retrograde	11954 Mar 29 11:52	4° $\mathbb{B}$ 00'19	
evening set	11953 Apr 19 21:12	17° $\mathbb{B}$ 27'59		asc. node	11954 Apr 02 21:14	2° $\mathbb{B}$ 34'01	
inferior conj	11953 Apr 25 06:18	11° $\mathbb{B}$ 01'49	2°32'43	evening set	11954 Apr 04 01:00	1° $\mathbb{B}$ 40'58	
minimum elong	11953 Apr 25 04:14	11° $\mathbb{B}$ 08'58	2°31'45		11954 Apr 05 18:17	30° $\mathbb{R}$ $\mathbb{Y}$	
min. Earth dist.	11953 Apr 24 18:43	11° $\mathbb{B}$ 41'46	0.68724 AU	min. Earth dist.	11954 Apr 08 14:16	26° $\mathbb{Y}$ 30'30	0.68264 AU
morning rise	11953 Apr 30 11:10	4° $\mathbb{B}$ 55'12		inferior conj	11954 Apr 09 14:05	25° $\mathbb{Y}$ 11'03	1°58'31
direct	11953 May 04 19:10	3° $\mathbb{B}$ 10'43		minimum elong	11954 Apr 09 11:56	25° $\mathbb{Y}$ 18'11	1°57'36
morning max el	11953 May 13 05:12	8° $\mathbb{B}$ 00'39	21°00'37	morning rise	11954 Apr 14 23:02	19° $\mathbb{Y}$ 12'23	
desc. node	11953 May 19 10:13	15° $\mathbb{B}$ 12'03		direct	11954 Apr 18 18:31	17° $\mathbb{Y}$ 49'13	
	11953 May 30 02:01	0° $\mathbb{I}$		morning max el	11954 Apr 26 04:54	21° $\mathbb{Y}$ 57'38	19°49'40
morning set	11953 Jun 12 17:04	20° $\mathbb{I}$ 37'54			11954 May 02 22:56	0° $\mathbb{B}$	
	11953 Jun 18 14:45	0° $\mathbb{G}$		desc. node	11954 May 06 06:59	4° $\mathbb{B}$ 36'28	
max. Earth dist.	11953 Jun 20 07:16	2° $\mathbb{G}$ 43'56	1.42961 AU	greatest brilliancy	11954 May 09 06:32	8° $\mathbb{B}$ 54'06	-0.6m
				morning set	11954 May 22 17:40	29° $\mathbb{B}$ 11'18	
superior conj	11953 Jun 27 09:03	14° $\mathbb{G}$ 28'25	-1°53'34		11954 May 23 06:20	0° $\mathbb{I}$	
minimum elong	11953 Jun 27 15:46	14° $\mathbb{G}$ 56'52	1°53'48	max. Earth dist.	11954 Jun 02 19:26	16° $\mathbb{I}$ 28'15	1.44559 AU

superior conj	11954 Jun 07 20:03	24° $\Pi$ 31'23	-2°11'01	minimum elong	11955 May 18 06:31	3° $\Pi$ 29'24	2°11'15
minimum elong	11954 Jun 07 23:25	24° $\Pi$ 45'00	2°11'43	evening rise	11955 Jun 02 12:51	27° $\Pi$ 49'27	
	11954 Jun 11 04:46	0° $\mathfrak{S}$			11955 Jun 03 21:06	0° $\mathfrak{S}$	
evening rise	11954 Jun 21 07:38	16° $\mathfrak{S}$ 55'20		asc. node	11955 Jun 16 16:23	20° $\mathfrak{S}$ 10'19	
	11954 Jun 29 01:54	0° $\Omega$		evening max el	11955 Jun 22 18:16	27° $\mathfrak{S}$ 47'14	18°29'57
asc. node	11954 Jun 29 19:24	1° $\Omega$ 11'32			11955 Jun 25 10:16	0° $\Omega$	
evening max el	11954 Jul 09 05:13	14° $\Omega$ 12'28	18°08'05	retrograde	11955 Jun 29 05:28	1° $\Omega$ 16'44	
retrograde	11954 Jul 15 14:04	17° $\Omega$ 32'52		evening set	11955 Jul 02 08:55	0° $\Omega$ 21'10	
evening set	11954 Jul 18 09:18	16° $\Omega$ 51'59			11955 Jul 02 22:20	30° $\mathfrak{R}$ $\mathfrak{S}$	
inferior conj	11954 Jul 24 13:07	11° $\Omega$ 35'07	2°19'39	inferior conj	11955 Jul 08 02:31	24° $\mathfrak{S}$ 48'00	2°53'58
minimum elong	11954 Jul 24 15:43	11° $\Omega$ 28'02	2°18'19	minimum elong	11955 Jul 08 04:27	24° $\mathfrak{S}$ 42'11	2°52'51
min. Earth dist.	11954 Jul 27 06:20	8° $\Omega$ 38'55	0.63046 AU	min. Earth dist.	11955 Jul 10 05:40	22° $\mathfrak{S}$ 15'00	0.65035 AU
morning rise	11954 Jul 30 20:17	5° $\Omega$ 22'43		morning rise	11955 Jul 13 22:54	18° $\mathfrak{S}$ 27'14	
desc. node	11954 Aug 02 06:08	3° $\Omega$ 53'15		direct	11955 Jul 20 11:33	15° $\mathfrak{S}$ 46'15	
direct	11954 Aug 06 12:46	2° $\Omega$ 52'24		desc. node	11955 Jul 20 03:25	15° $\mathfrak{S}$ 46'39	
morning max el	11954 Aug 20 12:48	10° $\Omega$ 54'31	27°50'50	morning max el	11955 Aug 02 23:32	23° $\mathfrak{S}$ 42'45	27°11'59
	11954 Sep 04 13:25	0° $\mathfrak{M}$			11955 Aug 08 14:22	0° $\Omega$	
	11954 Sep 21 22:57	0° $\underline{\Omega}$			11955 Aug 28 22:05	0° $\mathfrak{M}$	
morning set	11954 Sep 24 00:06	4° $\underline{\Omega}$ 04'26		morning set	11955 Sep 07 11:40	17° $\mathfrak{M}$ 26'36	
asc. node	11954 Sep 25 20:24	7° $\underline{\Omega}$ 50'28		max. Earth dist.	11955 Sep 11 22:05	26° $\mathfrak{M}$ 16'57	1.33432 AU
max. Earth dist.	11954 Sep 29 03:29	14° $\underline{\Omega}$ 46'19	1.32213 AU	asc. node	11955 Sep 12 17:05	27° $\mathfrak{M}$ 54'28	
					11955 Sep 13 17:19	0° $\underline{\Omega}$	
superior conj	11954 Oct 01 17:22	20° $\underline{\Omega}$ 20'32	0°54'38				
minimum elong	11954 Oct 01 15:14	20° $\underline{\Omega}$ 08'51	0°54'27	superior conj	11955 Sep 15 20:32	4° $\underline{\Omega}$ 28'59	0°30'07
	11954 Oct 06 03:16	0° $\mathfrak{M}$		minimum elong	11955 Sep 15 19:05	4° $\underline{\Omega}$ 21'16	0°29'50
evening rise	11954 Oct 08 13:41	5° $\mathfrak{M}$ 16'48		evening rise	11955 Sep 23 00:31	19° $\underline{\Omega}$ 48'01	
	11954 Oct 21 13:02	0° $\mathfrak{J}$			11955 Sep 27 23:41	0° $\mathfrak{M}$	
desc. node	11954 Oct 29 02:57	10° $\mathfrak{J}$ 28'59		evening max el	11955 Oct 13 22:05	24° $\mathfrak{M}$ 04'19	22°02'09
evening max el	11954 Nov 01 10:03	13° $\mathfrak{J}$ 59'45	23°42'45	desc. node	11955 Oct 16 00:18	25° $\mathfrak{M}$ 57'51	
retrograde	11954 Nov 14 22:15	20° $\mathfrak{J}$ 44'08			11955 Oct 23 12:48	0° $\mathfrak{J}$	
evening set	11954 Nov 19 13:22	19° $\mathfrak{J}$ 57'26		retrograde	11955 Oct 26 13:47	0° $\mathfrak{J}$ 21'44	
min. Earth dist.	11954 Nov 25 20:23	16° $\mathfrak{J}$ 55'36	0.55556 AU	evening set	11955 Oct 29 18:01	29° $\mathfrak{M}$ 59'14	
inferior conj	11954 Nov 27 18:22	15° $\mathfrak{J}$ 47'18	-5°49'07		11955 Oct 29 16:40	30° $\mathfrak{R}$ $\mathfrak{M}$	
minimum elong	11954 Nov 27 20:47	15° $\mathfrak{J}$ 43'42	5°48'14	min. Earth dist.	11955 Nov 07 03:08	26° $\mathfrak{M}$ 17'22	0.54665 AU
morning rise	11954 Dec 06 06:04	11° $\mathfrak{J}$ 53'11		inferior conj	11955 Nov 07 14:01	26° $\mathfrak{M}$ 02'06	-5°36'49
direct	11954 Dec 08 23:58	11° $\mathfrak{J}$ 34'28		minimum elong	11955 Nov 07 07:54	26° $\mathfrak{M}$ 10'41	5°35'25
morning max el	11954 Dec 19 13:42	16° $\mathfrak{J}$ 36'12	20°13'20	morning rise	11955 Nov 15 23:04	22° $\mathfrak{M}$ 15'01	
asc. node	11954 Dec 22 20:54	20° $\mathfrak{J}$ 13'12		direct	11955 Nov 19 10:44	21° $\mathfrak{M}$ 48'10	
	11954 Dec 29 10:29	0° $\mathfrak{Z}$		morning max el	11955 Dec 01 13:31	27° $\mathfrak{M}$ 33'41	21°44'26
morning set	11955 Jan 06 21:12	16° $\mathfrak{Z}$ 12'03			11955 Dec 03 22:25	0° $\mathfrak{J}$	
	11955 Jan 13 14:42	0° $\approx$		asc. node	11955 Dec 09 17:56	7° $\mathfrak{J}$ 39'33	
					11955 Dec 21 20:08	0° $\mathfrak{Z}$	
superior conj	11955 Jan 14 12:22	1° $\approx$ 49'22	1°16'32	morning set	11955 Dec 22 07:02	0° $\mathfrak{Z}$ 56'57	
minimum elong	11955 Jan 14 15:04	2° $\approx$ 02'53	1°16'57				
max. Earth dist.	11955 Jan 20 03:56	12° $\approx$ 52'59	1.36660 AU	superior conj	11955 Dec 29 10:57	16° $\mathfrak{Z}$ 06'06	1°30'32
evening rise	11955 Jan 23 22:40	19° $\approx$ 54'14		minimum elong	11955 Dec 29 12:47	16° $\mathfrak{Z}$ 15'40	1°31'12
desc. node	11955 Jan 25 02:03	21° $\approx$ 57'34		max. Earth dist.	11956 Jan 02 15:46	24° $\mathfrak{Z}$ 44'26	1.34711 AU
	11955 Jan 29 16:59	0° $\mathfrak{H}$			11956 Jan 05 07:30	0° $\approx$	
	11955 Feb 18 19:40	0° $\mathfrak{Y}$		evening rise	11956 Jan 06 21:26	3° $\approx$ 02'50	
evening max el	11955 Feb 28 11:30	11° $\mathfrak{Y}$ 05'12	25°48'07	desc. node	11956 Jan 11 22:51	12° $\approx$ 22'34	
retrograde	11955 Mar 12 23:14	18° $\mathfrak{Y}$ 15'22			11956 Jan 22 14:59	0° $\mathfrak{H}$	
evening set	11955 Mar 19 00:04	15° $\mathfrak{Y}$ 46'49		evening max el	11956 Feb 11 01:02	24° $\mathfrak{H}$ 48'48	26°46'29
asc. node	11955 Mar 20 18:35	14° $\mathfrak{Y}$ 06'00			11956 Feb 17 12:19	0° $\mathfrak{Y}$	
min. Earth dist.	11955 Mar 23 06:27	11° $\mathfrak{Y}$ 11'34	0.67373 AU	retrograde	11956 Feb 24 05:14	2° $\mathfrak{Y}$ 11'52	
inferior conj	11955 Mar 24 18:27	9° $\mathfrak{Y}$ 17'48	1°14'30		11956 Mar 01 05:35	30° $\mathfrak{R}$ $\mathfrak{H}$	
minimum elong	11955 Mar 24 16:46	9° $\mathfrak{Y}$ 23'07	1°13'50	evening set	11956 Mar 01 16:30	29° $\mathfrak{H}$ 38'58	
morning rise	11955 Mar 30 10:05	3° $\mathfrak{Y}$ 28'32		min. Earth dist.	11956 Mar 05 17:11	25° $\mathfrak{H}$ 37'42	0.66084 AU
direct	11955 Apr 02 17:59	2° $\mathfrak{Y}$ 25'12		asc. node	11956 Mar 06 15:58	24° $\mathfrak{H}$ 31'18	
morning max el	11955 Apr 09 12:19	6° $\mathfrak{Y}$ 04'59	18°53'49	inferior conj	11956 Mar 07 17:14	23° $\mathfrak{H}$ 16'44	0°20'22
desc. node	11955 Apr 23 03:43	24° $\mathfrak{Y}$ 27'41		minimum elong	11956 Mar 07 16:41	23° $\mathfrak{H}$ 18'22	0°20'19
greatest brilliancy	11955 Apr 23 06:10	24° $\mathfrak{Y}$ 37'02	-0.8m	morning rise	11956 Mar 13 18:03	17° $\mathfrak{H}$ 38'38	
	11955 Apr 26 18:20	0° $\mathfrak{B}$		direct	11956 Mar 16 15:40	16° $\mathfrak{H}$ 52'12	
morning set	11955 May 02 01:04	8° $\mathfrak{B}$ 11'09		morning max el	11956 Mar 23 01:48	20° $\mathfrak{H}$ 16'07	18°14'23
	11955 May 16 01:06	0° $\Pi$			11956 Mar 30 16:18	0° $\mathfrak{Y}$	
max. Earth dist.	11955 May 16 12:34	0° $\Pi$ 44'55	1.45509 AU	desc. node	11956 Apr 09 00:23	14° $\mathfrak{Y}$ 37'54	
				morning set	11956 Apr 11 09:14	18° $\mathfrak{Y}$ 25'59	
superior conj	11955 May 18 10:30	3° $\Pi$ 45'04	-2°10'40		11956 Apr 18 15:03	0° $\mathfrak{B}$	

superior conj	11956 Apr 26 17:35	12° <b>8</b> 46'10	-1°50'10	desc. node	11957 Mar 26 21:02	5° <b>Y</b> 01'46	
minimum elong	11956 Apr 26 08:26	12° <b>8</b> 10'23	1°49'54				
max. Earth dist.	11956 Apr 28 07:59	15° <b>8</b> 16'24	1.45731 AU	superior conj	11957 Apr 06 11:12	22° <b>Y</b> 21'48	-1°14'36
	11956 May 07 18:42	0° <b>II</b>		minimum elong	11957 Apr 06 03:24	21° <b>Y</b> 50'31	1°13'51
evening rise	11956 May 12 18:24	7° <b>II</b> 46'22		max. Earth dist.	11957 Apr 11 03:27	29° <b>Y</b> 47'53	1.45215 AU
greatest brilliancy	11956 May 23 23:55	25° <b>II</b> 09'42	-0.7m		11957 Apr 11 06:31	0° <b>8</b>	
	11956 May 27 05:39	0° <b>☾</b>		evening rise	11957 Apr 22 08:11	17° <b>8</b> 11'01	
asc. node	11956 Jun 02 13:28	8° <b>☾</b> 35'59			11957 Apr 30 18:42	0° <b>II</b>	
evening max el	11956 Jun 05 03:47	11° <b>☾</b> 29'12	19°09'07	greatest brilliancy	11957 May 07 08:54	9° <b>II</b> 45'47	-0.6m
retrograde	11956 Jun 12 01:46	15° <b>☾</b> 20'17		evening max el	11957 May 19 08:10	25° <b>II</b> 14'22	20°04'02
evening set	11956 Jun 15 13:52	14° <b>☾</b> 08'56		asc. node	11957 May 20 10:37	26° <b>II</b> 17'53	
inferior conj	11956 Jun 21 00:48	8° <b>☾</b> 21'04	3°11'20	retrograde	11957 May 27 00:14	29° <b>II</b> 37'59	
minimum elong	11956 Jun 21 01:41	8° <b>☾</b> 18'13	3°10'27	evening set	11957 May 30 21:43	28° <b>II</b> 10'17	
min. Earth dist.	11956 Jun 22 13:10	6° <b>☾</b> 23'47	0.66655 AU	inferior conj	11957 Jun 05 05:04	22° <b>II</b> 09'06	3°14'52
morning rise	11956 Jun 26 12:54	1° <b>☾</b> 58'22		minimum elong	11957 Jun 05 04:51	22° <b>II</b> 09'50	3°14'03
	11956 Jun 29 11:38	30° <b>8</b> <b>II</b>		min. Earth dist.	11957 Jun 06 03:02	20° <b>II</b> 54'40	0.67835 AU
direct	11956 Jul 02 17:26	29° <b>II</b> 17'06		morning rise	11957 Jun 10 11:38	15° <b>II</b> 48'31	
desc. node	11956 Jul 06 00:38	29° <b>II</b> 55'52		direct	11957 Jun 16 05:04	13° <b>II</b> 16'15	
	11956 Jul 06 04:56	0° <b>☾</b>		desc. node	11957 Jun 22 21:46	15° <b>II</b> 54'58	
morning max el	11956 Jul 15 10:25	6° <b>☾</b> 52'51	26°06'36	morning max el	11957 Jun 27 20:19	20° <b>II</b> 15'02	24°44'12
	11956 Aug 02 08:33	0° <b>♂</b>			11957 Jul 06 04:40	0° <b>☾</b>	
morning set	11956 Aug 20 10:23	0° <b>♂</b> 11'27			11957 Jul 26 12:37	0° <b>♂</b>	
	11956 Aug 20 07:55	0° <b>♂</b>		morning set	11957 Aug 02 15:54	12° <b>♂</b> 07'31	
max. Earth dist.	11956 Aug 24 06:08	7° <b>♂</b> 25'53	1.35142 AU	max. Earth dist.	11957 Aug 06 05:47	18° <b>♂</b> 32'32	1.37258 AU
					11957 Aug 12 07:56	0° <b>♂</b>	
superior conj	11956 Aug 29 16:17	18° <b>♂</b> 13'16	0°01'01				
minimum elong	11956 Aug 29 16:15	18° <b>♂</b> 13'01	0°00'46	superior conj	11957 Aug 13 01:29	1° <b>♂</b> 25'09	-0°31'39
behind sun begin	11956 Aug 29 10:14	17° <b>♂</b> 42'22		minimum elong	11957 Aug 13 03:34	1° <b>♂</b> 35'21	0°31'43
behind sun end	11956 Aug 29 22:16	18° <b>♂</b> 43'44		asc. node	11957 Aug 16 10:29	8° <b>♂</b> 04'27	
asc. node	11956 Aug 29 13:47	18° <b>♂</b> 00'28		evening rise	11957 Aug 21 12:22	18° <b>♂</b> 15'48	
	11956 Sep 04 08:48	0° <b>♂</b>			11957 Aug 27 13:18	0° <b>♂</b>	
evening rise	11956 Sep 06 08:52	4° <b>♂</b> 09'54		evening max el	11957 Sep 07 09:10	15° <b>♂</b> 55'10	19°24'42
	11956 Sep 20 21:09	0° <b>♂</b>		retrograde	11957 Sep 16 21:07	20° <b>♂</b> 39'14	
evening max el	11956 Sep 24 20:39	4° <b>♂</b> 37'01	20°33'35	evening set	11957 Sep 18 17:30	20° <b>♂</b> 29'15	
desc. node	11956 Oct 01 21:41	9° <b>♂</b> 25'19		desc. node	11957 Sep 18 19:06	20° <b>♂</b> 28'31	
retrograde	11956 Oct 06 01:11	10° <b>♂</b> 10'20		inferior conj	11957 Sep 27 09:40	16° <b>♂</b> 22'04	-2°40'33
evening set	11956 Oct 08 05:01	9° <b>♂</b> 58'50		minimum elong	11957 Sep 27 02:38	16° <b>♂</b> 33'27	2°37'46
inferior conj	11956 Oct 17 06:25	6° <b>♂</b> 03'17	-4°26'52	min. Earth dist.	11957 Sep 29 21:43	14° <b>♂</b> 45'05	0.55645 AU
minimum elong	11956 Oct 16 20:23	6° <b>♂</b> 17'47	4°23'38	morning rise	11957 Oct 05 09:26	11° <b>♂</b> 52'04	
min. Earth dist.	11956 Oct 18 10:57	5° <b>♂</b> 21'59	0.54689 AU	direct	11957 Oct 10 13:36	10° <b>♂</b> 51'39	
morning rise	11956 Oct 25 11:22	2° <b>♂</b> 03'33		morning max el	11957 Oct 24 13:26	17° <b>♂</b> 54'06	25°16'15
direct	11956 Oct 29 19:29	1° <b>♂</b> 23'03			11957 Nov 03 13:33	0° <b>♂</b>	
morning max el	11956 Nov 12 02:51	7° <b>♂</b> 50'46	23°30'13	asc. node	11957 Nov 12 11:47	14° <b>♂</b> 48'32	
asc. node	11956 Nov 25 14:54	25° <b>♂</b> 55'43		morning set	11957 Nov 20 06:21	0° <b>♂</b> 27'51	
	11956 Nov 27 21:55	0° <b>♂</b>			11957 Nov 20 01:09	0° <b>♂</b>	
morning set	11956 Dec 05 18:42	15° <b>♂</b> 44'14					
	11956 Dec 12 08:47	0° <b>♂</b>		superior conj	11957 Nov 27 01:31	15° <b>♂</b> 22'35	1°38'33
superior conj	11956 Dec 12 16:11	0° <b>♂</b> 39'59	1°37'42	minimum elong	11957 Nov 27 01:06	15° <b>♂</b> 20'17	1°39'18
minimum elong	11956 Dec 12 16:54	0° <b>♂</b> 43'49	1°38'30	max. Earth dist.	11957 Nov 28 14:39	18° <b>♂</b> 46'47	1.32066 AU
max. Earth dist.	11956 Dec 15 11:31	6° <b>♂</b> 40'08	1.33159 AU		11957 Dec 03 20:31	0° <b>♂</b>	
evening rise	11956 Dec 20 08:54	16° <b>♂</b> 43'57		evening rise	11957 Dec 04 05:48	0° <b>♂</b> 48'03	
	11956 Dec 27 09:02	0° <b>♂</b>		desc. node	11957 Dec 15 16:42	22° <b>♂</b> 24'21	
desc. node	11956 Dec 28 19:45	2° <b>♂</b> 33'53			11957 Dec 20 08:35	0° <b>♂</b>	
	11957 Jan 16 02:32	0° <b>♂</b>		evening max el	11958 Jan 06 00:56	21° <b>♂</b> 14'38	27°31'21
evening max el	11957 Jan 23 14:09	8° <b>♂</b> 16'24	27°23'07	retrograde	11958 Jan 19 21:03	28° <b>♂</b> 34'29	
retrograde	11957 Feb 06 04:52	15° <b>♂</b> 41'30		evening set	11958 Jan 26 20:15	26° <b>♂</b> 13'16	
evening set	11957 Feb 13 00:09	13° <b>♂</b> 10'39		min. Earth dist.	11958 Jan 30 14:04	23° <b>♂</b> 11'30	0.62515 AU
min. Earth dist.	11957 Feb 16 20:24	9° <b>♂</b> 41'10	0.64444 AU	inferior conj	11958 Feb 02 11:36	20° <b>♂</b> 25'49	-1°57'02
inferior conj	11957 Feb 19 07:57	7° <b>♂</b> 02'08	-0°43'49	minimum elong	11958 Feb 02 15:32	20° <b>♂</b> 16'23	1°54'51
minimum elong	11957 Feb 19 09:17	6° <b>♂</b> 58'34	0°42'52	asc. node	11958 Feb 08 10:39	15° <b>♂</b> 45'42	
asc. node	11957 Feb 21 13:19	4° <b>♂</b> 44'41		morning rise	11958 Feb 09 13:20	15° <b>♂</b> 17'49	
morning rise	11957 Feb 25 20:19	1° <b>♂</b> 37'32		direct	11958 Feb 11 19:41	14° <b>♂</b> 54'18	
direct	11957 Feb 28 09:16	1° <b>♂</b> 04'27		morning max el	11958 Feb 18 12:15	18° <b>♂</b> 18'54	17°47'04
morning max el	11957 Mar 06 18:47	4° <b>♂</b> 23'39	17°51'56		11958 Feb 26 23:59	0° <b>♂</b>	
morning set	11957 Mar 23 22:08	0° <b>Y</b> 05'09		morning set	11958 Mar 06 10:51	12° <b>♂</b> 52'19	
	11957 Mar 23 20:54	0° <b>Y</b>		desc. node	11958 Mar 13 17:38	25° <b>♂</b> 34'24	
					11958 Mar 16 07:59	0° <b>Y</b>	



superior conj	11958 Mar 18 03:07	3° $\Upsilon$ 01'28	-0°33'16		11959 Feb 19 14:58	0° $\text{H}$	
minimum elong	11958 Mar 17 23:50	2° $\Upsilon$ 47'41	0°32'45				
max. Earth dist.	11958 Mar 24 20:49	14° $\Upsilon$ 04'33	1.44009 AU	superior conj	11959 Feb 27 19:29	14° $\text{H}$ 49'44	0°06'06
evening rise	11958 Apr 01 21:07	26° $\Upsilon$ 42'18		minimum elong	11959 Feb 27 20:00	14° $\text{H}$ 52'03	0°06'18
	11958 Apr 04 00:32	0° $\text{B}$		behind sun begin	11959 Feb 27 12:40	14° $\text{H}$ 19'39	
	11958 Apr 24 17:03	0° $\Pi$		behind sun end	11959 Feb 28 03:21	15° $\text{H}$ 24'22	
evening max el	11958 May 02 06:49	9° $\Pi$ 00'37	21°12'06	desc. node	11959 Feb 28 14:12	16° $\text{H}$ 12'00	
asc. node	11958 May 07 07:49	13° $\Pi$ 02'28		max. Earth dist.	11959 Mar 07 09:49	27° $\text{H}$ 50'01	1.42247 AU
retrograde	11958 May 10 22:52	14° $\Pi$ 04'47			11959 Mar 08 17:16	0° $\Upsilon$	
evening set	11958 May 15 06:32	12° $\Pi$ 20'54		evening rise	11959 Mar 12 23:12	6° $\Upsilon$ 52'42	
inferior conj	11958 May 20 12:52	6° $\Pi$ 07'59	3°06'40		11959 Mar 28 05:21	0° $\text{B}$	
minimum elong	11958 May 20 11:43	6° $\Pi$ 12'00	3°05'50	evening max el	11959 Apr 15 00:24	22° $\text{B}$ 47'14	22°29'14
min. Earth dist.	11958 May 20 21:12	5° $\Pi$ 39'03	0.68543 AU	asc. node	11959 Apr 24 05:05	28° $\text{B}$ 33'15	
morning rise	11958 May 25 16:41	29° $\text{B}$ 51'49		retrograde	11959 Apr 24 19:59	28° $\text{B}$ 35'04	
	11958 May 25 13:03	30° $\text{R}$ $\text{B}$		evening set	11959 Apr 29 14:38	26° $\text{B}$ 35'54	
direct	11958 May 30 21:22	27° $\text{B}$ 35'28		inferior conj	11959 May 04 22:09	20° $\text{B}$ 13'32	2°48'00
	11958 Jun 05 23:25	0° $\Pi$		minimum elong	11959 May 04 20:19	20° $\text{B}$ 19'56	2°47'04
desc. node	11958 Jun 09 18:48	3° $\Pi$ 16'35		min. Earth dist.	11959 May 04 17:36	20° $\text{B}$ 29'21	0.68784 AU
morning max el	11958 Jun 10 06:31	3° $\Pi$ 45'45	23°14'48	morning rise	11959 May 10 01:53	14° $\text{B}$ 03'10	
	11958 Jun 30 08:20	0° $\text{B}$		direct	11959 May 14 17:17	12° $\text{B}$ 06'44	
morning set	11958 Jul 14 23:21	23° $\text{B}$ 03'14		morning max el	11959 May 23 19:47	17° $\text{B}$ 25'04	21°47'17
max. Earth dist.	11958 Jul 19 03:29	0° $\Omega$ 08'57	1.39572 AU	desc. node	11959 May 27 15:42	21° $\text{B}$ 37'57	
	11958 Jul 19 01:25	0° $\Omega$			11959 Jun 03 04:10	0° $\Pi$	
					11959 Jun 23 10:17	0° $\text{B}$	
superior conj	11958 Jul 26 20:16	13° $\Omega$ 55'46	-1°05'47	morning set	11959 Jun 25 05:06	2° $\text{B}$ 49'48	
minimum elong	11958 Jul 27 00:55	14° $\Omega$ 17'17	1°05'42	max. Earth dist.	11959 Jul 01 04:48	12° $\text{B}$ 33'51	1.41809 AU
asc. node	11958 Aug 03 07:13	28° $\Omega$ 02'57					
	11958 Aug 04 07:31	0° $\text{H}$		superior conj	11959 Jul 08 20:05	25° $\text{B}$ 33'57	-1°37'58
evening rise	11958 Aug 05 08:08	1° $\text{H}$ 58'37		minimum elong	11959 Jul 09 02:43	26° $\text{B}$ 02'57	1°37'58
evening max el	11958 Aug 21 09:50	27° $\text{H}$ 59'16	18°37'19		11959 Jul 11 08:26	0° $\Omega$	
	11958 Aug 23 18:14	0° $\text{B}$		evening rise	11959 Jul 19 16:22	15° $\Omega$ 07'56	
retrograde	11958 Aug 29 11:06	2° $\text{B}$ 01'57		asc. node	11959 Jul 21 03:58	17° $\Omega$ 51'26	
evening set	11958 Aug 31 10:29	1° $\text{B}$ 48'09			11959 Jul 28 00:20	0° $\text{H}$	
	11958 Sep 04 14:25	30° $\text{R}$ $\text{H}$		evening max el	11959 Aug 04 18:45	10° $\text{H}$ 40'38	18°10'44
desc. node	11958 Sep 05 16:32	29° $\text{H}$ 18'12		retrograde	11959 Aug 11 19:52	14° $\text{H}$ 15'25	
inferior conj	11958 Sep 08 09:00	27° $\text{H}$ 21'34	-0°50'28	evening set	11959 Aug 14 02:16	13° $\text{H}$ 53'44	
minimum elong	11958 Sep 08 06:58	27° $\text{H}$ 25'25	0°49'46	inferior conj	11959 Aug 21 05:58	9° $\text{H}$ 06'36	0°42'10
min. Earth dist.	11958 Sep 11 13:47	24° $\text{H}$ 57'10	0.57346 AU	minimum elong	11959 Aug 21 07:19	9° $\text{H}$ 03'37	0°41'19
morning rise	11958 Sep 16 00:01	22° $\text{H}$ 13'46		desc. node	11959 Aug 23 13:57	7° $\text{H}$ 02'28	
direct	11958 Sep 21 21:30	20° $\text{H}$ 47'26		min. Earth dist.	11959 Aug 24 13:28	6° $\text{H}$ 12'06	0.59495 AU
morning max el	11958 Oct 06 04:44	28° $\text{H}$ 17'07	26°44'24	morning rise	11959 Aug 28 09:04	3° $\text{H}$ 25'29	
	11958 Oct 07 21:32	0° $\text{B}$		direct	11959 Sep 03 19:04	1° $\text{H}$ 30'29	
	11958 Oct 28 04:46	0° $\text{H}$		morning max el	11959 Sep 18 03:27	9° $\text{H}$ 20'18	27°40'22
asc. node	11958 Oct 30 08:36	4° $\text{H}$ 08'32			11959 Oct 04 00:29	0° $\text{B}$	
morning set	11958 Nov 04 16:20	15° $\text{H}$ 03'28		asc. node	11959 Oct 17 05:19	23° $\text{B}$ 47'50	
	11958 Nov 11 11:28	0° $\text{B}$		morning set	11959 Oct 19 22:53	29° $\text{B}$ 26'04	
					11959 Oct 20 05:19	0° $\text{H}$	
superior conj	11958 Nov 11 12:54	0° $\text{B}$ 07'57	1°33'26	max. Earth dist.	11959 Oct 26 07:23	13° $\text{H}$ 15'23	1.31342 AU
minimum elong	11958 Nov 11 11:31	0° $\text{B}$ 00'19	1°34'01				
max. Earth dist.	11958 Nov 11 22:30	1° $\text{B}$ 01'32	1.31458 AU	superior conj	11959 Oct 27 00:27	14° $\text{H}$ 50'26	1°22'40
evening rise	11958 Nov 18 09:28	15° $\text{B}$ 08'22		minimum elong	11959 Oct 26 22:26	14° $\text{H}$ 39'10	1°22'57
	11958 Nov 25 19:59	0° $\text{B}$		evening rise	11959 Nov 02 17:37	29° $\text{H}$ 38'45	
desc. node	11958 Dec 02 13:44	11° $\text{B}$ 45'42			11959 Nov 02 21:35	0° $\text{B}$	
	11958 Dec 15 20:43	0° $\approx$		desc. node	11959 Nov 19 10:53	0° $\text{B}$ 26'36	
evening max el	11958 Dec 19 06:36	3° $\approx$ 30'17	27°06'17		11959 Nov 19 03:49	0° $\text{B}$	
retrograde	11959 Jan 02 04:44	10° $\approx$ 42'20		evening max el	11959 Dec 01 04:39	14° $\text{B}$ 54'49	26°07'14
evening set	11959 Jan 09 01:28	8° $\approx$ 39'07		retrograde	11959 Dec 15 02:52	21° $\text{B}$ 58'50	
min. Earth dist.	11959 Jan 12 21:00	5° $\approx$ 57'10	0.60402 AU	evening set	11959 Dec 21 11:39	20° $\text{B}$ 22'16	
inferior conj	11959 Jan 16 00:46	3° $\approx$ 18'49	-3°15'55	min. Earth dist.	11959 Dec 25 17:41	17° $\text{B}$ 46'41	0.58276 AU
minimum elong	11959 Jan 16 07:33	3° $\approx$ 04'35	3°12'46	inferior conj	11959 Dec 28 19:57	15° $\text{B}$ 31'47	-4°32'30
	11959 Jan 20 09:59	30° $\text{R}$ $\text{B}$		minimum elong	11959 Dec 29 04:22	15° $\text{B}$ 16'29	4°29'25
morning rise	11959 Jan 23 16:28	28° $\text{B}$ 30'46		morning rise	11960 Jan 05 23:50	11° $\text{B}$ 05'59	
direct	11959 Jan 25 18:59	28° $\text{B}$ 13'19		direct	11960 Jan 08 02:46	10° $\text{B}$ 51'10	
asc. node	11959 Jan 26 07:57	28° $\text{B}$ 14'30		asc. node	11960 Jan 13 05:10	12° $\text{B}$ 22'23	
	11959 Jan 30 21:07	0° $\approx$		morning max el	11960 Jan 16 10:57	14° $\text{B}$ 55'53	18°34'41
morning max el	11959 Feb 02 02:52	1° $\approx$ 52'58	18°00'47		11960 Jan 26 20:27	0° $\approx$	
morning set	11959 Feb 17 17:04	26° $\approx$ 27'53		morning set	11960 Feb 01 11:33	10° $\approx$ 36'44	

superior conj	11960 Feb 10 08:55	27° $\approx$ 36'53	0°39'20		11961 Jan 18 00:35	0° $\approx$	
minimum elong	11960 Feb 10 11:25	27° $\approx$ 48'30	0°39'28				
	11960 Feb 11 15:50	0° $\text{X}$		superior conj	11961 Jan 23 14:31	11° $\approx$ 08'06	1°05'07
desc. node	11960 Feb 15 10:49	6° $\text{X}$ 51'26		minimum elong	11961 Jan 23 17:26	11° $\approx$ 22'23	1°05'24
max. Earth dist.	11960 Feb 17 17:59	10° $\text{X}$ 53'40	1.40130 AU	max. Earth dist.	11961 Jan 29 23:59	23° $\approx$ 16'59	1.37902 AU
evening rise	11960 Feb 21 21:48	17° $\text{X}$ 58'40		desc. node	11961 Feb 01 07:31	27° $\approx$ 28'30	
	11960 Feb 29 08:35	0° $\text{Y}$		evening rise	11961 Feb 02 17:26	29° $\approx$ 58'57	
	11960 Mar 21 16:30	0° $\text{Z}$			11961 Feb 02 17:40	0° $\text{X}$	
evening max el	11960 Mar 27 14:54	6° $\text{Z}$ 36'29	23°49'56		11961 Feb 21 15:41	0° $\text{Y}$	
retrograde	11960 Apr 07 14:16	13° $\text{Z}$ 04'09		evening max el	11961 Mar 10 04:25	20° $\text{Y}$ 27'44	25°07'41
asc. node	11960 Apr 10 02:25	12° $\text{Z}$ 35'05		retrograde	11961 Mar 22 04:25	27° $\text{Y}$ 25'37	
evening set	11960 Apr 12 20:28	10° $\text{Z}$ 51'30		evening set	11961 Mar 27 22:27	25° $\text{Y}$ 02'06	
min. Earth dist.	11960 Apr 17 14:11	5° $\text{Z}$ 20'28	0.68574 AU	asc. node	11961 Mar 27 23:48	24° $\text{Y}$ 59'14	
inferior conj	11960 Apr 18 07:02	4° $\text{Z}$ 22'55	2°19'27	min. Earth dist.	11961 Apr 01 08:41	20° $\text{Y}$ 06'25	0.67932 AU
minimum elong	11960 Apr 18 04:53	4° $\text{Z}$ 30'17	2°18'28	inferior conj	11961 Apr 02 13:38	18° $\text{Y}$ 31'45	1°41'06
	11960 Apr 21 18:18	30° $\text{R}$ $\text{Y}$		minimum elong	11961 Apr 02 11:37	18° $\text{Y}$ 38'21	1°40'14
morning rise	11960 Apr 23 13:20	28° $\text{Y}$ 19'30		morning rise	11961 Apr 08 01:05	12° $\text{Y}$ 36'36	
direct	11960 Apr 27 15:48	26° $\text{Y}$ 44'21		direct	11961 Apr 11 15:28	11° $\text{Y}$ 22'07	
	11960 May 04 06:52	0° $\text{Z}$		morning max el	11961 Apr 18 18:08	15° $\text{Y}$ 17'06	19°23'52
morning max el	11960 May 05 15:09	1° $\text{Z}$ 15'41	20°28'46	desc. node	11961 Apr 30 09:15	0° $\text{Z}$ 19'53	
desc. node	11960 May 13 12:31	10° $\text{Z}$ 43'09			11961 Apr 30 03:49	0° $\text{Z}$	
	11960 May 26 21:18	0° $\text{II}$		greatest brilliancy	11961 May 01 11:40	1° $\text{Z}$ 57'04	-0.7m
morning set	11960 Jun 03 12:12	11° $\text{II}$ 37'51		morning set	11961 May 13 12:41	20° $\text{Z}$ 13'32	
max. Earth dist.	11960 Jun 12 12:25	25° $\text{II}$ 49'40	1.43705 AU		11961 May 19 20:16	0° $\text{II}$	
	11960 Jun 15 02:21	0° $\text{E}$		max. Earth dist.	11961 May 26 02:29	9° $\text{II}$ 47'47	1.45047 AU
superior conj	11960 Jun 18 20:59	6° $\text{E}$ 12'09	-2°02'46	superior conj	11961 May 29 22:17	15° $\text{II}$ 51'22	-2°13'20
minimum elong	11960 Jun 19 02:53	6° $\text{E}$ 36'41	2°03'13	minimum elong	11961 May 29 22:47	15° $\text{II}$ 53'20	2°14'07
evening rise	11960 Jul 01 08:27	27° $\text{E}$ 32'30			11961 Jun 07 16:23	0° $\text{E}$	
	11960 Jul 02 18:11	0° $\text{O}$		evening rise	11961 Jun 13 03:22	9° $\text{E}$ 00'53	
asc. node	11960 Jul 07 00:49	7° $\text{O}$ 25'25		asc. node	11961 Jun 23 21:46	26° $\text{E}$ 39'07	
evening max el	11960 Jul 18 07:59	23° $\text{O}$ 49'56	18°03'43		11961 Jun 26 02:56	0° $\text{O}$	
retrograde	11960 Jul 24 19:51	27° $\text{O}$ 11'23		evening max el	11961 Jul 01 22:02	7° $\text{O}$ 18'00	18°15'19
evening set	11960 Jul 27 10:21	26° $\text{O}$ 38'20		retrograde	11961 Jul 08 06:42	10° $\text{O}$ 40'22	
inferior conj	11960 Aug 02 21:50	21° $\text{O}$ 32'02	1°50'42	evening set	11961 Jul 11 05:28	9° $\text{O}$ 53'25	
minimum elong	11960 Aug 03 00:25	21° $\text{O}$ 25'28	1°49'20	inferior conj	11961 Jul 17 04:29	4° $\text{O}$ 29'41	2°36'28
min. Earth dist.	11960 Aug 05 22:06	18° $\text{O}$ 29'58	0.61780 AU	minimum elong	11961 Jul 17 06:53	4° $\text{O}$ 22'52	2°35'13
desc. node	11960 Aug 09 11:20	15° $\text{O}$ 29'21		min. Earth dist.	11961 Jul 19 16:02	1° $\text{O}$ 41'21	0.63931 AU
morning rise	11960 Aug 09 12:03	15° $\text{O}$ 28'05			11961 Jul 21 06:48	30° $\text{R}$ $\text{E}$	
direct	11960 Aug 16 04:12	13° $\text{O}$ 08'00		morning rise	11961 Jul 23 06:49	28° $\text{E}$ 13'01	
morning max el	11960 Aug 30 08:38	21° $\text{O}$ 08'59	27°57'50	desc. node	11961 Jul 27 08:39	25° $\text{E}$ 59'22	
	11960 Sep 07 01:03	0° $\text{P}$		direct	11961 Jul 29 22:29	25° $\text{E}$ 36'38	
	11960 Sep 26 02:07	0° $\text{A}$			11961 Aug 08 18:12	0° $\text{O}$	
morning set	11960 Oct 03 00:01	13° $\text{A}$ 30'18		morning max el	11961 Aug 12 17:54	3° $\text{O}$ 37'54	27°38'05
asc. node	11960 Oct 03 02:00	13° $\text{A}$ 40'32			11961 Sep 01 12:51	0° $\text{P}$	
max. Earth dist.	11960 Oct 08 13:29	25° $\text{A}$ 18'29	1.31742 AU	morning set	11961 Sep 16 17:23	27° $\text{P}$ 10'19	
					11961 Sep 18 03:14	0° $\text{A}$	
superior conj	11960 Oct 10 10:22	29° $\text{A}$ 24'28	1°06'25	asc. node	11961 Sep 19 22:40	3° $\text{A}$ 41'59	
minimum elong	11960 Oct 10 08:07	29° $\text{A}$ 12'04	1°06'24	max. Earth dist.	11961 Sep 21 13:11	7° $\text{A}$ 02'39	1.32666 AU
	11960 Oct 10 16:49	0° $\text{M}$		superior conj	11961 Sep 24 16:41	13° $\text{A}$ 44'46	0°44'52
evening rise	11960 Oct 17 04:19	14° $\text{M}$ 13'46		minimum elong	11961 Sep 24 14:45	13° $\text{A}$ 34'19	0°44'37
	11960 Oct 24 23:00	0° $\text{J}$		evening rise	11961 Oct 01 15:40	28° $\text{A}$ 48'36	
desc. node	11960 Nov 05 08:08	18° $\text{J}$ 10'51			11961 Oct 02 05:04	0° $\text{M}$	
evening max el	11960 Nov 11 18:42	25° $\text{J}$ 30'05	24°40'14		11961 Oct 19 06:08	0° $\text{J}$	
	11960 Nov 17 13:48	0° $\text{Z}$		desc. node	11961 Oct 23 05:27	4° $\text{J}$ 37'26	
retrograde	11960 Nov 25 13:16	2° $\text{Z}$ 23'36		evening max el	11961 Oct 24 05:08	5° $\text{J}$ 36'51	22°59'27
evening set	11960 Nov 30 22:24	1° $\text{Z}$ 19'15		retrograde	11961 Nov 06 10:24	12° $\text{J}$ 11'11	
	11960 Dec 03 18:16	30° $\text{R}$ $\text{J}$		evening set	11961 Nov 10 10:26	11° $\text{J}$ 36'23	
min. Earth dist.	11960 Dec 06 06:21	28° $\text{J}$ 32'12	0.56400 AU	min. Earth dist.	11961 Nov 17 14:12	8° $\text{J}$ 19'35	0.55079 AU
inferior conj	11960 Dec 08 18:41	26° $\text{J}$ 56'27	-5°31'38	inferior conj	11961 Nov 18 22:17	7° $\text{J}$ 33'31	-5°51'10
minimum elong	11960 Dec 09 00:53	26° $\text{J}$ 46'35	5°29'56	minimum elong	11961 Nov 18 21:04	7° $\text{J}$ 35'17	5°50'24
morning rise	11960 Dec 17 05:31	22° $\text{J}$ 51'55		morning rise	11961 Nov 27 09:15	3° $\text{J}$ 44'03	
direct	11960 Dec 19 15:30	22° $\text{J}$ 35'56		direct	11961 Nov 30 10:16	3° $\text{J}$ 22'20	
morning max el	11960 Dec 29 08:22	27° $\text{J}$ 15'14	19°30'38	morning max el	11961 Dec 11 16:04	8° $\text{J}$ 42'41	20°49'31
asc. node	11960 Dec 30 02:18	27° $\text{J}$ 59'58		asc. node	11961 Dec 16 23:22	14° $\text{J}$ 51'41	
	11960 Dec 31 21:17	0° $\text{Z}$			11961 Dec 26 01:08	0° $\text{Z}$	
morning set	11961 Jan 15 14:15	25° $\text{Z}$ 06'13					

































































































































morning set	11961 Dec 30 22:13	9° $\text{Z}$ 48'03		morning set	11962 Dec 15 09:05	24° $\text{Z}$ 34'55	
					11962 Dec 17 22:04	0° $\text{Z}$	
superior conj	11962 Jan 07 07:58	25° $\text{Z}$ 11'25	1°23'20	superior conj	11962 Dec 22 09:42	9° $\text{Z}$ 36'26	1°34'23
minimum elong	11962 Jan 07 10:21	25° $\text{Z}$ 23'36	1°23'51	minimum elong	11962 Dec 22 11:04	9° $\text{Z}$ 43'42	1°35'06
	11962 Jan 09 16:52	0° $\approx$		max. Earth dist.	11962 Dec 26 00:08	17° $\text{Z}$ 08'54	1.34005 AU
max. Earth dist.	11962 Jan 12 08:46	5° $\approx$ 15'51	1.35801 AU	evening rise	11962 Dec 30 11:58	26° $\text{Z}$ 09'11	
evening rise	11962 Jan 16 07:24	12° $\approx$ 45'47			11963 Jan 01 12:04	0° $\approx$	
desc. node	11962 Jan 19 04:17	17° $\approx$ 59'26		desc. node	11963 Jan 06 01:09	8° $\approx$ 19'29	
	11962 Jan 26 05:06	0° $\text{Y}$			11963 Jan 19 14:32	0° $\text{Y}$	
	11962 Feb 16 16:27	0° $\text{Y}$		evening max el	11963 Feb 03 07:41	17° $\text{Y}$ 55'47	27°05'04
evening max el	11962 Feb 20 18:05	4° $\text{Y}$ 17'08	26°15'08	retrograde	11963 Feb 16 16:40	25° $\text{Y}$ 20'04	
retrograde	11962 Mar 05 13:28	11° $\text{Y}$ 33'26		evening set	11963 Feb 23 07:54	22° $\text{Y}$ 47'08	
evening set	11962 Mar 11 18:54	9° $\text{Y}$ 02'41			11963 Feb 27 06:32	18° $\text{Y}$ 59'58	0.65434 AU
asc. node	11962 Mar 14 21:11	5° $\text{Y}$ 57'37		min. Earth dist.	11963 Mar 01 11:36	16° $\text{Y}$ 30'11	-0°05'39
min. Earth dist.	11962 Mar 15 22:52	4° $\text{Y}$ 41'52	0.66877 AU	inferior conj	11963 Mar 01 11:45	16° $\text{Y}$ 29'45	0°05'19
inferior conj	11962 Mar 17 15:55	2° $\text{Y}$ 35'56	0°52'47	minimum elong	11963 Mar 01 11:45	16° $\text{Y}$ 29'45	0°05'19
minimum elong	11962 Mar 17 14:37	2° $\text{Y}$ 39'54	0°52'20	transit middle	11963 Mar 01 11:45	16° $\text{Y}$ 29'45	0°05'19
	11962 Mar 19 20:37	30° $\text{R}$ $\text{H}$		transit begin	11963 Mar 01 08:56	16° $\text{Y}$ 37'46	
morning rise	11962 Mar 23 11:08	26° $\text{Y}$ 50'55		transit end	11963 Mar 01 14:35	16° $\text{Y}$ 21'45	
direct	11962 Mar 26 14:34	25° $\text{Y}$ 55'00		asc. node	11963 Mar 01 18:33	16° $\text{Y}$ 10'33	
morning max el	11962 Apr 02 04:18	29° $\text{Y}$ 26'21	18°34'54	morning rise	11963 Mar 07 17:05	10° $\text{Y}$ 57'36	
	11962 Apr 02 17:41	0° $\text{Y}$		direct	11963 Mar 10 10:54	10° $\text{Y}$ 17'12	
desc. node	11962 Apr 17 05:57	20° $\text{Y}$ 19'53		morning max el	11963 Mar 16 19:39	13° $\text{Y}$ 37'23	18°02'44
morning set	11962 Apr 23 05:13	29° $\text{Y}$ 41'33			11963 Mar 28 14:02	0° $\text{Y}$	
	11962 Apr 23 09:55	0° $\text{Z}$		morning set	11963 Apr 04 01:55	10° $\text{Y}$ 34'02	
				desc. node	11963 Apr 04 02:36	10° $\text{Y}$ 36'48	
superior conj	11962 May 09 07:22	24° $\text{Z}$ 53'25	-2°04'17		11963 Apr 16 03:09	0° $\text{Z}$	
minimum elong	11962 May 09 00:28	24° $\text{Z}$ 26'26	2°04'33	superior conj	11963 Apr 18 16:53	4° $\text{Z}$ 04'07	-1°36'22
max. Earth dist.	11962 May 08 21:11	24° $\text{Z}$ 13'37	1.45700 AU	minimum elong	11963 Apr 18 07:36	3° $\text{Z}$ 27'32	1°35'49
	11962 May 12 13:44	0° $\text{II}$		max. Earth dist.	11963 Apr 21 17:33	8° $\text{Z}$ 49'38	1.45602 AU
evening rise	11962 May 24 22:03	19° $\text{II}$ 28'43		evening rise	11963 May 04 19:30	29° $\text{Z}$ 08'36	
	11962 May 31 12:59	0° $\text{E}$			11963 May 05 08:50	0° $\text{II}$	
greatest brilliancy	11962 Jun 02 02:12	2° $\text{E}$ 26'41	-0.8m	greatest brilliancy	11963 May 17 23:08	19° $\text{II}$ 11'41	-0.7m
asc. node	11962 Jun 10 18:48	15° $\text{E}$ 24'52			11963 May 25 16:08	0° $\text{E}$	
evening max el	11962 Jun 15 09:52	20° $\text{E}$ 56'32	18°44'39	asc. node	11963 May 28 15:55	3° $\text{E}$ 33'40	
retrograde	11962 Jun 22 00:30	24° $\text{E}$ 33'25		evening max el	11963 May 29 17:19	4° $\text{E}$ 40'17	19°30'38
evening set	11962 Jun 25 07:41	23° $\text{E}$ 31'02		retrograde	11963 Jun 05 22:06	8° $\text{E}$ 44'06	
inferior conj	11962 Jun 30 22:01	17° $\text{E}$ 51'25	3°03'11	evening set	11963 Jun 09 14:08	7° $\text{E}$ 25'38	
minimum elong	11962 Jun 30 23:31	17° $\text{E}$ 46'44	3°02'11	inferior conj	11963 Jun 14 23:10	1° $\text{E}$ 31'41	3°14'22
min. Earth dist.	11962 Jul 02 18:50	15° $\text{E}$ 32'41	0.65774 AU	minimum elong	11963 Jun 14 23:34	1° $\text{E}$ 30'20	3°13'33
morning rise	11962 Jul 06 14:34	11° $\text{E}$ 29'31		min. Earth dist.	11963 Jun 16 05:13	29° $\text{II}$ 52'21	0.67209 AU
direct	11962 Jul 13 00:16	8° $\text{E}$ 47'21			11963 Jun 16 02:53	30° $\text{R}$ $\text{II}$	
desc. node	11962 Jul 14 05:56	8° $\text{E}$ 52'45		morning rise	11963 Jun 20 08:35	25° $\text{II}$ 09'30	
morning max el	11962 Jul 26 04:47	16° $\text{E}$ 36'07	26°47'00	direct	11963 Jun 26 08:31	22° $\text{II}$ 31'25	
	11962 Aug 06 07:21	0° $\text{O}$		desc. node	11963 Jul 01 03:05	23° $\text{II}$ 52'22	
	11962 Aug 25 09:37	0° $\text{O}$		morning max el	11963 Jul 08 15:27	29° $\text{II}$ 53'08	25°33'09
morning set	11962 Aug 30 23:54	10° $\text{O}$ 17'30			11963 Jul 08 18:09	0° $\text{E}$	
max. Earth dist.	11962 Sep 04 03:31	18° $\text{O}$ 23'44	1.34104 AU		11963 Jul 31 04:29	0° $\text{O}$	
asc. node	11962 Sep 06 19:20	23° $\text{O}$ 47'15		morning set	11963 Aug 13 15:50	22° $\text{O}$ 42'47	
				max. Earth dist.	11963 Aug 17 07:48	29° $\text{O}$ 29'52	1.36003 AU
superior conj	11962 Sep 08 17:01	27° $\text{O}$ 43'50	0°18'20		11963 Aug 17 14:11	0° $\text{O}$	
minimum elong	11962 Sep 08 16:04	27° $\text{O}$ 38'51	0°18'01	superior conj	11963 Aug 23 08:38	11° $\text{O}$ 14'55	-0°12'30
	11962 Sep 09 19:02	0° $\text{O}$		minimum elong	11963 Aug 23 09:25	11° $\text{O}$ 18'50	0°12'41
evening rise	11962 Sep 16 01:42	13° $\text{O}$ 16'48		behind sun begin	11963 Aug 23 05:31	10° $\text{O}$ 59'18	
	11962 Sep 24 13:30	0° $\text{O}$		behind sun end	11963 Aug 23 13:19	11° $\text{O}$ 38'23	
evening max el	11962 Oct 05 20:43	15° $\text{O}$ 49'33	21°22'22	asc. node	11963 Aug 24 16:01	13° $\text{O}$ 52'46	
desc. node	11962 Oct 10 02:51	19° $\text{O}$ 18'34		evening rise	11963 Aug 31 08:17	27° $\text{O}$ 32'39	
retrograde	11962 Oct 17 22:28	21° $\text{O}$ 49'36			11963 Sep 01 13:13	0° $\text{O}$	
evening set	11962 Oct 20 14:39	21° $\text{O}$ 33'06		evening max el	11963 Sep 18 00:58	26° $\text{O}$ 39'38	20°01'37
inferior conj	11962 Oct 29 14:42	17° $\text{O}$ 38'14	-5°13'28		11963 Sep 22 05:07	0° $\text{O}$	
minimum elong	11962 Oct 29 05:58	17° $\text{O}$ 50'29	5°11'13	desc. node	11963 Sep 27 00:14	1° $\text{O}$ 46'10	
min. Earth dist.	11962 Oct 29 20:40	17° $\text{O}$ 29'51	0.54566 AU	retrograde	11963 Sep 28 12:22	1° $\text{O}$ 52'23	
morning rise	11962 Nov 06 22:06	13° $\text{O}$ 48'45		evening set	11963 Sep 30 11:04	1° $\text{O}$ 42'23	
direct	11962 Nov 10 18:37	13° $\text{O}$ 16'45			11963 Oct 05 08:58	30° $\text{R}$ $\text{O}$	
morning max el	11962 Nov 23 10:31	19° $\text{O}$ 19'59	22°28'16	inferior conj	11963 Oct 09 10:04	27° $\text{O}$ 42'51	-3°44'15
	11962 Dec 02 03:03	0° $\text{Z}$					
asc. node	11962 Dec 03 20:22	2° $\text{Z}$ 40'47					

minimum elong	11963 Oct 09 00:42	27° $\Omega$ 56'59	3°40'51	minimum elong	11964 Sep 18 16:21	8° $\Omega$ 26'00	1°50'45
min. Earth dist.	11963 Oct 11 05:19	26° $\Omega$ 37'41	0.54987 AU	min. Earth dist.	11964 Sep 21 18:24	6° $\Omega$ 18'33	0.56284 AU
morning rise	11963 Oct 17 13:07	23° $\Omega$ 31'57		morning rise	11964 Sep 26 17:39	3° $\Omega$ 31'17	
direct	11963 Oct 22 05:39	22° $\Omega$ 44'07		direct	11964 Oct 02 05:31	2° $\Omega$ 20'19	
morning max el	11963 Nov 04 21:45	29° $\Omega$ 27'27	24°16'26	morning max el	11964 Oct 16 09:47	9° $\Omega$ 36'19	25°56'59
	11963 Nov 05 11:19	0° $\mathbb{M}$			11964 Oct 31 19:30	0° $\mathbb{M}$	
asc. node	11963 Nov 20 17:15	21° $\mathbb{M}$ 13'39		asc. node	11964 Nov 06 14:05	10° $\mathbb{M}$ 19'15	
	11963 Nov 25 08:33	0° $\mathcal{A}$		morning set	11964 Nov 13 08:05	24° $\mathbb{M}$ 02'43	
morning set	11963 Nov 29 20:56	9° $\mathcal{A}$ 21'24			11964 Nov 16 01:51	0° $\mathcal{A}$	
superior conj	11963 Dec 06 16:56	24° $\mathcal{A}$ 14'59	1°38'49	superior conj	11964 Nov 20 03:24	9° $\mathcal{A}$ 00'19	1°37'05
minimum elong	11963 Dec 06 17:09	24° $\mathcal{A}$ 16'11	1°39'36	minimum elong	11964 Nov 20 02:33	8° $\mathcal{A}$ 55'36	1°37'48
max. Earth dist.	11963 Dec 08 23:11	29° $\mathcal{A}$ 09'02	1.32633 AU	max. Earth dist.	11964 Nov 21 04:32	11° $\mathcal{A}$ 19'27	1.31738 AU
	11963 Dec 09 08:41	0° $\mathcal{B}$		evening rise	11964 Nov 27 03:50	24° $\mathcal{A}$ 13'12	
evening rise	11963 Dec 14 03:45	10° $\mathcal{B}$ 00'46			11964 Nov 29 23:35	0° $\mathcal{B}$	
desc. node	11963 Dec 23 22:03	28° $\mathcal{B}$ 22'56		desc. node	11964 Dec 09 19:03	18° $\mathcal{B}$ 02'49	
	11963 Dec 24 20:37	0° $\approx$			11964 Dec 17 12:55	0° $\approx$	
	11964 Jan 15 14:33	0° $\mathcal{H}$		evening max el	11964 Dec 29 04:42	13° $\approx$ 53'57	27°24'58
evening max el	11964 Jan 16 19:51	1° $\mathcal{H}$ 11'51	27°30'21	retrograde	11965 Jan 12 02:24	21° $\approx$ 11'34	
retrograde	11964 Jan 30 13:18	8° $\mathcal{H}$ 35'51		evening set	11965 Jan 19 01:20	18° $\approx$ 56'51	
evening set	11964 Feb 06 11:01	6° $\mathcal{H}$ 07'42		min. Earth dist.	11965 Jan 22 19:04	16° $\approx$ 04'41	0.61626 AU
min. Earth dist.	11964 Feb 10 05:45	2° $\mathcal{H}$ 51'02	0.63654 AU	inferior conj	11965 Jan 25 19:57	13° $\approx$ 19'56	-2°30'06
inferior conj	11964 Feb 12 21:59	0° $\mathcal{H}$ 07'20	-1°13'55	minimum elong	11965 Jan 26 01:08	13° $\approx$ 08'12	2°27'26
minimum elong	11964 Feb 13 00:21	0° $\mathcal{H}$ 01'16	1°12'27	morning rise	11965 Feb 02 03:42	8° $\approx$ 20'10	
	11964 Feb 13 00:51	30° $\mathcal{R}\approx$		asc. node	11965 Feb 02 13:12	8° $\approx$ 13'29	
asc. node	11964 Feb 16 15:54	26° $\approx$ 37'35		direct	11965 Feb 04 07:50	7° $\approx$ 59'48	
morning rise	11964 Feb 19 15:54	24° $\approx$ 49'46		morning max el	11965 Feb 11 06:05	11° $\approx$ 29'53	17°50'30
direct	11964 Feb 22 01:44	24° $\approx$ 21'17			11965 Feb 23 15:18	0° $\mathcal{H}$	
morning max el	11964 Feb 28 13:19	27° $\approx$ 41'26	17°47'43	morning set	11965 Feb 26 22:39	5° $\mathcal{H}$ 55'04	
	11964 Mar 01 15:45	0° $\mathcal{H}$		desc. node	11965 Mar 07 19:47	21° $\mathcal{H}$ 40'33	
morning set	11964 Mar 16 01:42	22° $\mathcal{H}$ 44'35					
	11964 Mar 20 07:50	0° $\mathcal{Y}$		superior conj	11965 Mar 09 21:49	25° $\mathcal{H}$ 15'56	-0°16'03
desc. node	11964 Mar 20 23:11	1° $\mathcal{Y}$ 04'59		minimum elong	11965 Mar 09 20:21	25° $\mathcal{H}$ 09'38	0°15'41
superior conj	11964 Mar 28 19:15	14° $\mathcal{Y}$ 05'46	-0°57'14	behind sun begin	11965 Mar 09 18:38	25° $\mathcal{H}$ 02'20	
minimum elong	11964 Mar 28 13:15	13° $\mathcal{Y}$ 41'22	0°56'32	behind sun end	11965 Mar 09 22:03	25° $\mathcal{H}$ 16'57	
max. Earth dist.	11964 Apr 03 12:14	23° $\mathcal{Y}$ 16'27	1.44775 AU		11965 Mar 12 16:54	0° $\mathcal{Y}$	
	11964 Apr 07 18:47	0° $\mathcal{B}$		max. Earth dist.	11965 Mar 17 03:21	7° $\mathcal{Y}$ 19'47	1.43320 AU
evening rise	11964 Apr 13 06:56	8° $\mathcal{B}$ 31'11		evening rise	11965 Mar 24 00:07	18° $\mathcal{Y}$ 16'27	
	11964 Apr 27 15:03	0° $\mathbb{I}$			11965 Mar 31 15:58	0° $\mathcal{B}$	
evening max el	11964 May 11 19:06	18° $\mathbb{I}$ 25'37	20°31'31	evening max el	11965 Apr 22 13:46	0° $\mathbb{I}$	
asc. node	11964 May 14 13:07	20° $\mathbb{I}$ 53'09			11965 Apr 24 15:27	2° $\mathbb{I}$ 12'11	21°44'05
retrograde	11964 May 19 20:59	23° $\mathbb{I}$ 06'20		asc. node	11965 May 01 10:21	7° $\mathbb{I}$ 08'32	
evening set	11964 May 23 22:36	21° $\mathbb{I}$ 31'45		retrograde	11965 May 03 19:09	7° $\mathbb{I}$ 35'07	
inferior conj	11964 May 29 05:13	15° $\mathbb{I}$ 25'07	3°12'43	evening set	11965 May 08 07:18	5° $\mathbb{I}$ 44'51	
minimum elong	11964 May 29 04:34	15° $\mathbb{I}$ 27'19	3°11'55		11965 May 13 04:37	30° $\mathcal{R}\mathcal{B}$	
min. Earth dist.	11964 May 29 21:15	14° $\mathbb{I}$ 29'56	0.68191 AU	inferior conj	11965 May 13 13:54	29° $\mathcal{B}$ 27'38	2°59'59
morning rise	11964 Jun 03 10:16	9° $\mathbb{I}$ 05'57		minimum elong	11965 May 13 12:25	29° $\mathcal{B}$ 32'48	2°59'05
direct	11964 Jun 08 22:17	6° $\mathbb{I}$ 39'50		min. Earth dist.	11965 May 13 16:46	29° $\mathcal{B}$ 17'40	0.68705 AU
desc. node	11964 Jun 17 00:09	10° $\mathbb{I}$ 29'35		morning rise	11965 May 18 17:20	23° $\mathcal{B}$ 13'32	
morning max el	11964 Jun 20 01:22	13° $\mathbb{I}$ 19'47	24°06'26	direct	11965 May 23 16:24	21° $\mathcal{B}$ 05'07	
	11964 Jul 03 12:55	0° $\mathcal{E}$		morning max el	11965 Jun 02 12:19	26° $\mathcal{B}$ 53'29	22°36'41
	11964 Jul 23 00:38	0° $\mathcal{Q}$		desc. node	11965 Jun 03 21:07	28° $\mathcal{B}$ 18'54	
morning set	11964 Jul 25 12:32	4° $\mathcal{Q}$ 14'43			11965 Jun 05 09:33	0° $\mathbb{I}$	
max. Earth dist.	11964 Jul 29 05:26	10° $\mathcal{Q}$ 44'05	1.38228 AU		11965 Jun 27 02:32	0° $\mathcal{E}$	
superior conj	11964 Aug 05 12:09	24° $\mathcal{Q}$ 09'57	-0°46'08	morning set	11965 Jul 06 09:13	14° $\mathcal{E}$ 41'15	
minimum elong	11964 Aug 05 15:19	24° $\mathcal{Q}$ 25'04	0°46'07	max. Earth dist.	11965 Jul 11 03:31	22° $\mathcal{E}$ 37'22	1.40550 AU
	11964 Aug 08 12:47	0° $\mathbb{N}$			11965 Jul 15 10:07	0° $\mathcal{Q}$	
asc. node	11964 Aug 10 12:44	3° $\mathbb{N}$ 54'51		superior conj	11965 Jul 18 23:24	6° $\mathcal{Q}$ 19'33	-1°19'59
evening rise	11964 Aug 14 08:51	11° $\mathbb{N}$ 29'29		minimum elong	11965 Jul 19 05:04	6° $\mathcal{Q}$ 45'07	1°19'53
	11964 Aug 24 10:41	0° $\mathcal{E}$		asc. node	11965 Jul 28 09:30	23° $\mathcal{Q}$ 49'35	
evening max el	11964 Aug 30 19:02	8° $\mathcal{E}$ 17'57	19°01'59	evening rise	11965 Jul 29 00:10	24° $\mathcal{Q}$ 58'56	
retrograde	11964 Sep 08 15:21	12° $\mathcal{E}$ 43'09			11965 Jul 31 16:12	0° $\mathbb{N}$	
evening set	11964 Sep 10 11:58	12° $\mathcal{E}$ 32'13		evening max el	11965 Aug 13 23:46	20° $\mathbb{N}$ 39'23	18°23'36
desc. node	11964 Sep 12 21:38	11° $\mathcal{E}$ 48'13		retrograde	11965 Aug 21 13:13	24° $\mathbb{N}$ 27'59	
inferior conj	11964 Sep 18 21:13	8° $\mathcal{E}$ 17'36	-1°52'43	evening set	11965 Aug 23 15:27	24° $\mathbb{N}$ 11'14	
				desc. node	11965 Aug 30 19:04	19° $\mathbb{N}$ 57'49	

inferior conj	11965 Aug 31 05:49	19° $\cap$ 36'10	-0°08'19	retrograde	11966 Aug 04 05:03	7° $\cap$ 01'39	
minimum elong	11965 Aug 31 05:30	19° $\cap$ 36'48	0°08'25	evening set	11966 Aug 06 15:00	6° $\cap$ 35'20	
transit middle	11965 Aug 31 05:30	19° $\cap$ 36'48	0°08'25	inferior conj	11966 Aug 13 11:20	1° $\cap$ 39'36	1°14'13
transit begin	11965 Aug 31 02:29	19° $\cap$ 42'54		minimum elong	11966 Aug 13 13:26	1° $\cap$ 34'39	1°13'02
transit end	11965 Aug 31 08:31	19° $\cap$ 30'42			11966 Aug 15 05:30	30° $\mathbb{R}$ 0	
min. Earth dist.	11965 Sep 03 13:29	16° $\cap$ 56'12	0.58224 AU	min. Earth dist.	11966 Aug 16 16:36	28° $\mathbb{Q}$ 39'25	0.60471 AU
morning rise	11965 Sep 07 16:02	14° $\cap$ 13'22		desc. node	11966 Aug 17 16:29	27° $\mathbb{Q}$ 47'40	
direct	11965 Sep 13 19:51	12° $\cap$ 34'28		morning rise	11966 Aug 20 08:59	25° $\mathbb{Q}$ 47'45	
morning max el	11965 Sep 28 03:53	20° $\cap$ 13'46	27°12'45	direct	11966 Aug 26 22:31	23° $\mathbb{Q}$ 41'30	
	11965 Oct 06 13:32	0° $\mathbb{L}$			11966 Sep 08 12:53	0° $\cap$	
asc. node	11965 Oct 24 10:51	29° $\mathbb{L}$ 48'04		morning max el	11966 Sep 10 05:29	1° $\cap$ 36'14	27°52'38
	11965 Oct 24 13:15	0° $\mathbb{L}$			11966 Sep 30 21:14	0° $\mathbb{L}$	
morning set	11965 Oct 28 16:48	8° $\mathbb{L}$ 33'02		asc. node	11966 Oct 11 07:34	19° $\mathbb{L}$ 33'50	
				morning set	11966 Oct 12 21:17	22° $\mathbb{L}$ 48'18	
superior conj	11965 Nov 04 15:04	23° $\mathbb{L}$ 45'05	1°29'33		11966 Oct 16 06:24	0° $\mathbb{L}$	
minimum elong	11965 Nov 04 13:22	23° $\mathbb{L}$ 35'38	1°30'01	max. Earth dist.	11966 Oct 18 21:26	5° $\mathbb{L}$ 45'25	1.31454 AU
max. Earth dist.	11965 Nov 04 13:09	23° $\mathbb{L}$ 34'22	1.31341 AU				
	11965 Nov 07 10:26	0° $\mathbb{L}$		superior conj	11966 Oct 20 02:09	8° $\mathbb{L}$ 24'28	1°16'26
evening rise	11965 Nov 11 09:39	8° $\mathbb{L}$ 38'34		minimum elong	11966 Oct 19 23:58	8° $\mathbb{L}$ 12'22	1°16'36
	11965 Nov 22 08:51	0° $\mathbb{L}$		evening rise	11966 Oct 26 19:08	23° $\mathbb{L}$ 11'43	
desc. node	11965 Nov 26 16:08	7° $\mathbb{L}$ 08'36			11966 Oct 30 00:39	0° $\mathbb{L}$	
evening max el	11965 Dec 11 07:35	25° $\mathbb{L}$ 49'21	26°45'20	desc. node	11966 Nov 13 13:20	25° $\mathbb{L}$ 27'25	
	11965 Dec 16 12:46	0° $\mathbb{L}$			11966 Nov 16 22:10	0° $\mathbb{L}$	
retrograde	11965 Dec 25 06:16	2° $\mathbb{L}$ 57'42		evening max el	11966 Nov 23 02:12	6° $\mathbb{L}$ 51'48	25°32'59
evening set	11965 Dec 31 22:59	1° $\mathbb{L}$ 05'16		retrograde	11966 Dec 06 23:06	13° $\mathbb{L}$ 50'58	
	11966 Jan 02 18:04	30° $\mathbb{L}$ 0		evening set	11966 Dec 12 23:31	12° $\mathbb{L}$ 27'49	
min. Earth dist.	11966 Jan 04 21:45	28° $\mathbb{L}$ 27'39	0.59484 AU	min. Earth dist.	11966 Dec 17 14:28	9° $\mathbb{L}$ 49'51	0.57434 AU
inferior conj	11966 Jan 08 01:54	25° $\mathbb{L}$ 57'27	-3°49'21	inferior conj	11966 Dec 20 12:30	7° $\mathbb{L}$ 50'12	-5°00'55
minimum elong	11966 Jan 08 09:39	25° $\mathbb{L}$ 42'08	3°46'04	minimum elong	11966 Dec 20 20:36	7° $\mathbb{L}$ 36'18	4°58'18
morning rise	11966 Jan 15 23:09	21° $\mathbb{L}$ 18'19		morning rise	11966 Dec 28 20:07	3° $\mathbb{L}$ 33'37	
direct	11966 Jan 18 01:08	21° $\mathbb{L}$ 02'25		direct	11966 Dec 31 01:20	3° $\mathbb{L}$ 18'40	
asc. node	11966 Jan 20 10:26	21° $\mathbb{L}$ 24'17		asc. node	11967 Jan 07 07:37	6° $\mathbb{L}$ 11'27	
morning max el	11966 Jan 25 18:21	24° $\mathbb{L}$ 51'54	18°12'33	morning max el	11967 Jan 08 22:14	7° $\mathbb{L}$ 36'46	18°55'42
	11966 Jan 30 00:26	0° $\mathbb{L}$			11967 Jan 23 06:45	0° $\mathbb{L}$	
morning set	11966 Feb 10 10:41	19° $\mathbb{L}$ 46'51		morning set	11967 Jan 25 09:05	4° $\mathbb{L}$ 05'44	
	11966 Feb 15 21:19	0° $\mathbb{L}$					
superior conj	11966 Feb 19 23:41	7° $\mathbb{L}$ 30'44	0°21'02	superior conj	11967 Feb 02 20:32	20° $\mathbb{L}$ 38'01	0°51'13
minimum elong	11966 Feb 20 01:16	7° $\mathbb{L}$ 37'52	0°21'11	minimum elong	11967 Feb 02 23:22	20° $\mathbb{L}$ 51'28	0°51'23
desc. node	11966 Feb 22 16:23	12° $\mathbb{L}$ 19'27			11967 Feb 07 21:24	0° $\mathbb{L}$	
max. Earth dist.	11966 Feb 27 14:17	20° $\mathbb{L}$ 48'40	1.41386 AU	desc. node	11967 Feb 09 13:02	2° $\mathbb{L}$ 58'13	
evening rise	11966 Mar 04 10:34	28° $\mathbb{L}$ 50'22		max. Earth dist.	11967 Feb 09 21:33	3° $\mathbb{L}$ 36'06	1.39186 AU
	11966 Mar 05 03:46	0° $\mathbb{L}$		evening rise	11967 Feb 13 18:16	10° $\mathbb{L}$ 19'48	
	11966 Mar 25 05:31	0° $\mathbb{L}$			11967 Feb 26 00:08	0° $\mathbb{L}$	
evening max el	11966 Apr 07 07:39	16° $\mathbb{L}$ 00'46	23°03'32	evening max el	11967 Mar 20 21:34	29° $\mathbb{L}$ 51'21	24°23'46
retrograde	11966 Apr 17 15:07	22° $\mathbb{L}$ 05'44			11967 Mar 21 01:04	0° $\mathbb{L}$	
asc. node	11966 Apr 18 07:39	22° $\mathbb{L}$ 03'30		retrograde	11967 Apr 01 07:39	6° $\mathbb{L}$ 32'40	
evening set	11966 Apr 22 14:38	20° $\mathbb{L}$ 00'43		asc. node	11967 Apr 05 05:00	5° $\mathbb{L}$ 24'16	
inferior conj	11966 Apr 27 23:16	13° $\mathbb{L}$ 35'32	2°37'05	evening set	11967 Apr 06 19:02	4° $\mathbb{L}$ 14'51	
minimum elong	11966 Apr 27 21:15	13° $\mathbb{L}$ 42'31	2°36'07		11967 Apr 10 14:57	30° $\mathbb{L}$ 0	
min. Earth dist.	11966 Apr 27 13:31	14° $\mathbb{L}$ 09'18	0.68756 AU	min. Earth dist.	11967 Apr 11 09:22	28° $\mathbb{L}$ 59'11	0.68359 AU
morning rise	11966 May 03 03:46	7° $\mathbb{L}$ 27'59		inferior conj	11967 Apr 12 07:25	27° $\mathbb{L}$ 45'08	2°04'23
direct	11966 May 07 13:43	5° $\mathbb{L}$ 40'20		minimum elong	11967 Apr 12 05:16	27° $\mathbb{L}$ 52'24	2°03'26
morning max el	11966 May 16 03:46	10° $\mathbb{L}$ 37'11	21°12'22	morning rise	11967 Apr 17 15:37	21° $\mathbb{L}$ 45'18	
desc. node	11966 May 21 18:00	17° $\mathbb{L}$ 00'46		direct	11967 Apr 21 12:52	20° $\mathbb{L}$ 19'08	
	11966 May 31 06:24	0° $\mathbb{L}$		morning max el	11967 Apr 29 02:23	24° $\mathbb{L}$ 33'00	19°59'20
morning set	11966 Jun 16 04:18	23° $\mathbb{L}$ 59'56			11967 May 03 21:05	0° $\mathbb{L}$	
	11966 Jun 19 23:04	0° $\mathbb{L}$		desc. node	11967 May 08 14:47	6° $\mathbb{L}$ 20'38	
max. Earth dist.	11966 Jun 23 07:44	5° $\mathbb{L}$ 26'17	1.42678 AU		11967 May 24 13:26	0° $\mathbb{L}$	
				morning set	11967 May 26 05:57	2° $\mathbb{L}$ 35'31	
superior conj	11966 Jun 30 13:57	17° $\mathbb{L}$ 33'49	-1°49'47	max. Earth dist.	11967 Jun 05 18:52	19° $\mathbb{L}$ 04'11	1.44358 AU
minimum elong	11966 Jun 30 20:46	18° $\mathbb{L}$ 02'55	1°49'56				
	11966 Jul 07 17:00	0° $\mathbb{L}$		superior conj	11967 Jun 11 04:30	27° $\mathbb{L}$ 45'40	-2°09'22
evening rise	11966 Jul 12 02:10	7° $\mathbb{L}$ 51'09		minimum elong	11967 Jun 11 08:42	28° $\mathbb{L}$ 02'46	2°10'03
asc. node	11966 Jul 15 06:19	13° $\mathbb{L}$ 32'59			11967 Jun 12 13:25	0° $\mathbb{L}$	
	11966 Jul 25 09:19	0° $\mathbb{L}$		evening rise	11967 Jun 24 09:51	19° $\mathbb{L}$ 53'25	
evening max el	11966 Jul 28 11:05	3° $\mathbb{L}$ 34'33	18°05'26		11967 Jun 30 08:12	0° $\mathbb{L}$	
				asc. node	11967 Jul 02 03:13	2° $\mathbb{L}$ 59'17	

evening max el	11967 Jul 12 01:00	16°Ω52'35	18°06'22	retrograde	11968 Jul 01 00:42	3°Ω52'59	
retrograde	11967 Jul 18 10:23	20°Ω12'58		evening set	11968 Jul 04 02:53	2°Ω59'46	
evening set	11967 Jul 21 04:22	19°Ω34'13			11968 Jul 07 16:39	30°℞☿	
inferior conj	11967 Jul 27 10:02	14°Ω19'58	2°12'40	inferior conj	11968 Jul 09 21:47	27°☿29'03	2°49'52
minimum elong	11967 Jul 27 12:40	14°Ω12'55	2°11'19	minimum elong	11968 Jul 09 23:51	27°☿22'55	2°48'44
min. Earth dist.	11967 Jul 30 05:10	11°Ω21'37	0.62723 AU	min. Earth dist.	11968 Jul 12 03:11	24°☿51'30	0.64762 AU
morning rise	11967 Aug 02 18:59	8°Ω09'20		morning rise	11968 Jul 15 19:38	21°☿09'03	
desc. node	11967 Aug 04 13:52	7°Ω00'27		desc. node	11968 Jul 21 11:10	18°☿31'46	
direct	11967 Aug 09 11:29	5°Ω41'26		direct	11968 Jul 22 09:13	18°☿28'49	
morning max el	11967 Aug 23 12:57	13°Ω43'45	27°53'46	morning max el	11968 Aug 04 23:24	26°☿27'19	27°19'36
	11967 Sep 05 15:19	0°♊			11968 Aug 08 06:26	0°Ω	
	11967 Sep 23 10:01	0°♊			11968 Aug 29 05:54	0°♊	
morning set	11967 Sep 26 19:25	6°♊42'51		morning set	11968 Sep 09 08:35	20°♊09'58	
asc. node	11967 Sep 28 04:16	9°♊30'45		max. Earth dist.	11968 Sep 13 21:21	29°♊15'44	1.33214 AU
max. Earth dist.	11967 Oct 02 01:27	17°♊42'03	1.32074 AU	asc. node	11968 Sep 14 00:56	29°♊34'17	
					11968 Sep 14 05:55	0°♊	
superior conj	11967 Oct 04 10:45	22°♊52'52	0°57'54				
minimum elong	11967 Oct 04 08:34	22°♊40'53	0°57'46	superior conj	11968 Sep 17 14:48	7°♊04'37	0°34'10
	11967 Oct 07 16:36	0°♊		minimum elong	11968 Sep 17 13:12	6°♊56'04	0°33'52
evening rise	11967 Oct 11 06:20	7°♊47'01		evening rise	11968 Sep 24 17:20	22°♊19'15	
	11967 Oct 22 16:27	0°♊			11968 Sep 28 09:57	0°♊	
desc. node	11967 Oct 31 10:38	12°♊41'27		evening max el	11968 Oct 16 00:53	27°♊14'10	22°16'45
evening max el	11967 Nov 04 13:36	17°♊10'06	23°57'53	desc. node	11968 Oct 17 07:59	28°♊26'38	
retrograde	11967 Nov 18 03:50	23°♊57'29			11968 Oct 19 05:46	0°♊	
evening set	11967 Nov 22 23:54	23°♊06'19		retrograde	11968 Oct 28 20:46	3°♊36'38	
min. Earth dist.	11967 Nov 29 00:17	20°♊08'54	0.55750 AU	evening set	11968 Nov 01 05:48	3°♊11'26	
inferior conj	11967 Dec 01 02:30	18°♊53'08	-5°46'09		11968 Nov 08 14:32	30°℞♊	
minimum elong	11967 Dec 01 06:04	18°♊47'43	5°45'05	inferior conj	11968 Nov 09 23:53	29°♊13'11	-5°42'35
morning rise	11967 Dec 09 14:13	14°♊56'45		minimum elong	11968 Nov 09 18:57	29°♊20'09	5°41'26
direct	11967 Dec 12 05:46	14°♊38'56		min. Earth dist.	11968 Nov 09 07:20	29°♊36'30	0.54740 AU
morning max el	11967 Dec 22 14:05	19°♊34'40	20°01'37	morning rise	11968 Nov 18 09:28	25°♊26'00	
asc. node	11967 Dec 25 04:44	22°♊22'28		direct	11968 Nov 21 18:12	25°♊00'38	
	11967 Dec 30 14:52	0°♊			11968 Dec 02 22:27	0°♊	
morning set	11968 Jan 09 14:21	18°♊41'32		morning max el	11968 Dec 03 15:53	0°♊39'55	21°29'40
	11968 Jan 15 03:09	0°♊		asc. node	11968 Dec 11 01:46	9°♊40'22	
					11968 Dec 22 08:03	0°♊	
superior conj	11968 Jan 17 07:41	4°♊24'43	1°13'45	morning set	11968 Dec 23 23:45	3°♊25'49	
minimum elong	11968 Jan 17 10:28	4°♊38'34	1°14'08				
max. Earth dist.	11968 Jan 23 04:09	15°♊46'57	1.36971 AU	superior conj	11968 Dec 31 05:02	18°♊38'18	1°28'51
evening rise	11968 Jan 26 22:05	22°♊40'56		minimum elong	11968 Dec 31 07:01	18°♊48'38	1°29'29
desc. node	11968 Jan 27 09:46	23°♊33'22		max. Earth dist.	11969 Jan 04 14:57	27°♊39'10	1.34979 AU
	11968 Jan 31 02:06	0°♊			11969 Jan 05 19:22	0°♊	
	11968 Feb 19 19:12	0°♊		evening rise	11969 Jan 08 18:40	5°♊44'18	
evening max el	11968 Mar 02 10:55	13°♊42'27	25°38'00	desc. node	11969 Jan 13 06:33	14°♊00'10	
retrograde	11968 Mar 14 19:52	20°♊50'07			11969 Jan 22 20:35	0°♊	
evening set	11968 Mar 20 18:56	18°♊22'39		evening max el	11969 Feb 13 00:29	27°♊27'53	26°39'01
asc. node	11968 Mar 22 02:22	17°♊09'50			11969 Feb 15 19:52	0°♊	
min. Earth dist.	11968 Mar 25 02:14	13°♊42'09	0.67532 AU	retrograde	11969 Feb 26 02:42	4°♊49'45	
inferior conj	11968 Mar 26 12:26	11°♊53'01	1°21'52	evening set	11969 Mar 04 12:28	2°♊17'18	
minimum elong	11968 Mar 26 10:39	11°♊58'44	1°21'08		11969 Mar 06 22:57	30°℞♊	
morning rise	11968 Apr 01 02:55	6°♊02'12		min. Earth dist.	11969 Mar 08 13:59	28°♊10'55	0.66301 AU
direct	11968 Apr 04 12:25	4°♊56'06		asc. node	11969 Mar 08 23:45	27°♊42'16	
morning max el	11968 Apr 11 08:45	8°♊39'33	19°01'05	inferior conj	11969 Mar 10 12:11	25°♊53'35	0°29'15
desc. node	11968 Apr 24 11:31	26°♊08'34		minimum elong	11969 Mar 10 11:25	25°♊55'53	0°29'05
greatest brilliancy	11968 Apr 24 16:03	26°♊25'41	-0.7m	morning rise	11969 Mar 16 11:29	20°♊13'32	
	11968 Apr 27 00:28	0°♊		direct	11969 Mar 19 10:32	19°♊24'46	
morning set	11968 May 04 10:53	11°♊27'31		morning max el	11969 Mar 25 21:23	22°♊50'20	18°19'09
	11968 May 16 09:01	0°♊			11969 Mar 31 17:50	0°♊	
max. Earth dist.	11968 May 18 11:11	3°♊16'22	1.45415 AU	desc. node	11969 Apr 11 08:09	16°♊16'16	
				morning set	11969 Apr 14 14:47	21°♊29'48	
superior conj	11968 May 20 21:27	7°♊05'18	-2°12'02		11969 Apr 19 23:03	0°♊	
minimum elong	11968 May 20 18:38	6°♊54'11	2°12'42				
	11968 Jun 04 04:48	0°♊		superior conj	11969 Apr 30 04:30	16°♊05'30	-1°54'26
evening rise	11968 Jun 04 18:42	0°☿56'37		minimum elong	11969 Apr 29 19:43	15°♊31'10	1°54'18
asc. node	11968 Jun 18 00:12	22°☿02'20		max. Earth dist.	11969 May 01 06:18	17°♊46'19	1.45749 AU
	11968 Jun 24 04:16	0°Ω			11969 May 09 02:20	0°♊	
evening max el	11968 Jun 24 14:23	0°Ω25'42	18°25'34	evening rise	11969 May 16 03:29	11°♊01'08	

greatest brilliancy	11969 May 26 15:22	27° $\Pi$ 22'02	-0.8m			11970 May 02 00:37	0° $\Pi$	
	11969 May 28 08:56	0° $\mathfrak{E}$		greatest brilliancy	11970 May 10 11:58	12° $\Pi$ 38'55	-0.6m	
asc. node	11969 Jun 04 21:16	10° $\mathfrak{E}$ 34'00		evening max el	11970 May 22 05:47	27° $\Pi$ 52'31	19°54'56	
evening max el	11969 Jun 08 00:35	14° $\mathfrak{E}$ 07'25	19°02'15	asc. node	11970 May 22 18:24	28° $\Pi$ 23'33		
retrograde	11969 Jun 14 20:23	17° $\mathfrak{E}$ 54'20			11970 May 24 14:35	0° $\mathfrak{E}$		
evening set	11969 Jun 18 07:12	16° $\mathfrak{E}$ 45'21		retrograde	11970 May 29 18:39	2° $\mathfrak{E}$ 10'32		
inferior conj	11969 Jun 23 18:56	10° $\mathfrak{E}$ 59'41	3°09'37	evening set	11970 Jun 02 14:44	0° $\mathfrak{E}$ 45'10		
minimum elong	11969 Jun 23 19:58	10° $\mathfrak{E}$ 56'20	3°08'42		11970 Jun 03 12:36	30° $\mathfrak{R}$ $\Pi$		
min. Earth dist.	11969 Jun 25 09:31	8° $\mathfrak{E}$ 56'31	0.66443 AU	inferior conj	11970 Jun 07 22:25	24° $\Pi$ 45'51	3°15'07	
morning rise	11969 Jun 29 08:07	4° $\mathfrak{E}$ 37'07		minimum elong	11970 Jun 07 22:22	24° $\Pi$ 46'01	3°14'18	
direct	11969 Jul 05 14:08	1° $\mathfrak{E}$ 55'13		min. Earth dist.	11970 Jun 08 22:27	23° $\Pi$ 24'55	0.67689 AU	
desc. node	11969 Jul 08 08:23	2° $\mathfrak{E}$ 22'20		morning rise	11970 Jun 13 05:40	18° $\Pi$ 24'52		
morning max el	11969 Jul 18 10:14	9° $\mathfrak{E}$ 34'47	26°17'39	direct	11970 Jun 19 00:52	15° $\Pi$ 50'54		
	11969 Aug 03 12:19	0° $\Omega$		desc. node	11970 Jun 25 05:29	18° $\Pi$ 06'50		
	11969 Aug 21 18:14	0° $\mathfrak{M}$		morning max el	11970 Jun 30 20:16	22° $\Pi$ 55'47	24°57'13	
morning set	11969 Aug 23 09:28	3° $\mathfrak{M}$ 01'17			11970 Jul 07 01:49	0° $\mathfrak{E}$		
max. Earth dist.	11969 Aug 27 06:55	10° $\mathfrak{M}$ 27'23	1.34858 AU		11970 Jul 27 20:13	0° $\Omega$		
asc. node	11969 Aug 31 21:37	19° $\mathfrak{M}$ 40'33		morning set	11970 Aug 05 17:47	15° $\Omega$ 05'16		
				max. Earth dist.	11970 Aug 09 07:43	21° $\Omega$ 33'40	1.36928 AU	
superior conj	11969 Sep 01 11:51	20° $\mathfrak{M}$ 53'25	0°05'44		11970 Aug 13 19:13	0° $\mathfrak{M}$		
minimum elong	11969 Sep 01 11:33	20° $\mathfrak{M}$ 51'50	0°05'27	superior conj	11970 Aug 15 22:48	4° $\mathfrak{M}$ 10'41	-0°26'32	
behind sun begin	11969 Sep 01 05:55	20° $\mathfrak{M}$ 22'57		minimum elong	11970 Aug 16 00:32	4° $\mathfrak{M}$ 19'10	0°26'38	
behind sun end	11969 Sep 01 17:11	21° $\mathfrak{M}$ 20'46		asc. node	11970 Aug 18 18:17	9° $\mathfrak{M}$ 45'10		
	11969 Sep 05 21:03	0° $\Omega$		evening rise	11970 Aug 24 06:34	20° $\mathfrak{M}$ 52'06		
evening rise	11969 Sep 09 02:12	6° $\Omega$ 43'16			11970 Aug 28 21:38	0° $\Omega$		
	11969 Sep 21 16:59	0° $\mathfrak{M}$		evening max el	11970 Sep 10 07:53	18° $\Omega$ 51'59	19°33'32	
evening max el	11969 Sep 27 21:31	7° $\mathfrak{M}$ 41'21	20°45'39	retrograde	11970 Sep 20 01:42	23° $\Omega$ 43'19		
desc. node	11969 Oct 04 05:23	12° $\mathfrak{M}$ 14'39		desc. node	11970 Sep 21 02:48	23° $\Omega$ 40'10		
retrograde	11969 Oct 09 07:45	13° $\mathfrak{M}$ 21'40		evening set	11970 Sep 21 22:21	23° $\Omega$ 33'28		
evening set	11969 Oct 11 14:15	13° $\mathfrak{M}$ 09'12		inferior conj	11970 Sep 30 16:37	19° $\Omega$ 28'28	-2°57'35	
inferior conj	11969 Oct 20 15:49	9° $\mathfrak{M}$ 14'24	-4°40'33	minimum elong	11970 Sep 30 08:53	19° $\Omega$ 40'46	2°54'34	
minimum elong	11969 Oct 20 05:51	9° $\mathfrak{M}$ 28'38	4°37'31	min. Earth dist.	11970 Oct 03 00:42	17° $\Omega$ 59'39	0.55451 AU	
min. Earth dist.	11969 Oct 21 14:44	8° $\mathfrak{M}$ 41'36	0.54628 AU	morning rise	11970 Oct 08 17:21	15° $\Omega$ 03'52		
morning rise	11969 Oct 28 21:24	5° $\mathfrak{M}$ 17'59		direct	11970 Oct 13 18:36	14° $\Omega$ 07'00		
direct	11969 Nov 02 02:37	4° $\mathfrak{M}$ 39'48		morning max el	11970 Oct 27 16:41	21° $\Omega$ 04'27	25°01'11	
morning max el	11969 Nov 15 06:14	11° $\mathfrak{M}$ 01'21	23°13'58		11970 Nov 04 10:09	0° $\mathfrak{M}$		
asc. node	11969 Nov 27 22:43	27° $\mathfrak{M}$ 49'53		asc. node	11970 Nov 14 19:35	16° $\mathfrak{M}$ 37'42		
	11969 Nov 29 04:55	0° $\mathfrak{X}$			11970 Nov 21 13:33	0° $\mathfrak{X}$		
morning set	11969 Dec 08 11:14	18° $\mathfrak{X}$ 13'00		morning set	11970 Nov 22 22:59	2° $\mathfrak{X}$ 57'30		
	11969 Dec 13 22:13	0° $\mathfrak{Z}$						
superior conj	11969 Dec 15 09:23	3° $\mathfrak{Z}$ 09'54	1°37'01	superior conj	11970 Nov 29 18:14	17° $\mathfrak{X}$ 51'30	1°38'47	
minimum elong	11969 Dec 15 10:17	3° $\mathfrak{Z}$ 14'39	1°37'49	minimum elong	11970 Nov 29 17:58	17° $\mathfrak{X}$ 50'06	1°39'35	
max. Earth dist.	11969 Dec 18 09:31	9° $\mathfrak{Z}$ 33'47	1.33366 AU	max. Earth dist.	11970 Dec 01 11:46	21° $\mathfrak{X}$ 39'08	1.32199 AU	
evening rise	11969 Dec 23 04:25	19° $\mathfrak{Z}$ 20'57			11970 Dec 05 09:12	0° $\mathfrak{Z}$		
	11969 Dec 28 18:43	0° $\approx$		evening rise	11970 Dec 07 00:04	3° $\mathfrak{Z}$ 21'56		
desc. node	11969 Dec 31 03:26	4° $\approx$ 13'55		desc. node	11970 Dec 18 00:24	24° $\mathfrak{Z}$ 08'12		
	11970 Jan 16 23:06	0° $\mathfrak{H}$			11970 Dec 21 13:18	0° $\approx$		
evening max el	11970 Jan 26 13:50	10° $\mathfrak{H}$ 58'43	27°19'20	evening max el	11971 Jan 09 01:04	24° $\approx$ 02'05	27°32'09	
retrograde	11970 Feb 09 03:13	18° $\mathfrak{H}$ 23'36			11971 Jan 17 05:38	0° $\mathfrak{H}$		
evening set	11970 Feb 15 21:31	15° $\mathfrak{H}$ 52'07		retrograde	11971 Jan 22 20:27	1° $\mathfrak{H}$ 22'56		
min. Earth dist.	11970 Feb 19 18:24	12° $\mathfrak{H}$ 18'05	0.64711 AU		11971 Jan 28 03:36	30° $\mathfrak{R}$ $\approx$		
inferior conj	11970 Feb 22 04:15	9° $\mathfrak{H}$ 41'13	-0°33'28	evening set	11971 Jan 29 19:32	28° $\approx$ 59'38		
minimum elong	11970 Feb 22 05:15	9° $\mathfrak{H}$ 38'30	0°32'41	min. Earth dist.	11971 Feb 02 13:30	25° $\approx$ 54'18	0.62816 AU	
asc. node	11970 Feb 23 21:06	7° $\mathfrak{H}$ 52'57		inferior conj	11971 Feb 05 09:46	23° $\approx$ 08'45	-1°45'27	
morning rise	11970 Feb 28 14:45	4° $\mathfrak{H}$ 14'20		minimum elong	11971 Feb 05 13:17	23° $\approx$ 00'11	1°43'28	
direct	11970 Mar 03 04:56	3° $\mathfrak{H}$ 39'25		asc. node	11971 Feb 10 18:25	18° $\approx$ 43'40		
morning max el	11970 Mar 09 13:58	6° $\mathfrak{H}$ 58'32	17°54'09	morning rise	11971 Feb 12 09:26	17° $\approx$ 58'11		
	11970 Mar 25 05:01	0° $\mathfrak{Y}$		direct	11971 Feb 14 16:38	17° $\approx$ 33'28		
morning set	11970 Mar 26 23:32	2° $\mathfrak{Y}$ 57'01		morning max el	11971 Feb 21 07:36	20° $\approx$ 56'26	17°46'41	
desc. node	11970 Mar 29 04:44	6° $\mathfrak{Y}$ 38'09			11971 Feb 28 04:35	0° $\mathfrak{H}$		
				morning set	11971 Mar 09 09:08	15° $\mathfrak{H}$ 35'33		
superior conj	11970 Apr 09 19:27	25° $\mathfrak{Y}$ 33'00	-1°20'33	desc. node	11971 Mar 16 01:20	27° $\mathfrak{H}$ 09'53		
minimum elong	11970 Apr 09 11:07	24° $\mathfrak{Y}$ 59'45	1°19'51		11971 Mar 17 17:17	0° $\mathfrak{Y}$		
	11970 Apr 12 14:42	0° $\mathfrak{B}$						
max. Earth dist.	11970 Apr 14 02:09	2° $\mathfrak{B}$ 19'48	1.45337 AU	superior conj	11971 Mar 21 07:45	6° $\mathfrak{Y}$ 02'43	-0°39'33	
evening rise	11970 Apr 25 18:44	20° $\mathfrak{B}$ 28'21		minimum elong	11971 Mar 21 03:45	5° $\mathfrak{Y}$ 46'07	0°38'58	

max. Earth dist.	11971 Mar 27 20:09	16°  40'33	1.44225 AU	desc. node	11972 Mar 01 21:56	17°  47'07	
evening rise	11971 Apr 05 06:48	29°  56'23			11972 Mar 09 02:14	0°  Y	
	11971 Apr 05 07:44	0°  8		max. Earth dist.	11972 Mar 09 09:39	0°  Y30'38	1.42535 AU
	11971 Apr 25 17:11	0°  II		evening rise	11972 Mar 15 06:17	9°  Y59'32	
evening max el	11971 May 05 05:13	11°  II38'37	21°01'13		11972 Mar 28 09:59	0°  8	
asc. node	11971 May 09 15:37	15°  II18'02		evening max el	11972 Apr 16 23:26	25°  824'56	22°17'21
retrograde	11971 May 13 17:26	16°  II36'36			11972 Apr 22 17:22	0°  II	
evening set	11971 May 17 23:32	14°  II55'00		asc. node	11972 Apr 25 12:54	1°  II01'03	
inferior conj	11971 May 23 05:51	8°  II43'34	3°08'37	retrograde	11972 Apr 26 14:56	1°  II06'38	
minimum elong	11971 May 23 04:49	8°  II47'08	3°07'46		11972 Apr 30 04:38	30°  R8	
min. Earth dist.	11971 May 23 16:07	8°  II07'58	0.68466 AU	evening set	11972 May 01 07:51	29°  809'42	
morning rise	11971 May 28 09:54	2°  II26'37		inferior conj	11972 May 06 15:04	22°  848'29	2°51'29
direct	11971 Jun 02 16:29	0°  II07'42		minimum elong	11972 May 06 13:19	22°  854'35	2°50'34
desc. node	11971 Jun 12 02:29	5°  II17'35		min. Earth dist.	11972 May 06 12:25	22°  857'43	0.68776 AU
morning max el	11971 Jun 13 06:23	6°  II25'50	23°28'13	morning rise	11972 May 11 18:38	16°  837'02	
	11971 Jul 01 13:03	0°  8		direct	11972 May 16 11:58	14°  837'29	
morning set	11971 Jul 18 04:49	26°  810'49		morning max el	11972 May 25 19:00	20°  803'43	21°59'51
	11971 Jul 20 10:45	0°  8		desc. node	11972 May 28 23:24	23°  830'58	
max. Earth dist.	11971 Jul 22 05:19	3°  804'09	1.39228 AU		11972 Jun 03 04:24	0°  II	
					11972 Jun 23 17:40	0°  8	
superior conj	11971 Jul 29 19:58	16°  847'55	-1°00'39	morning set	11972 Jun 27 14:29	6°  807'52	
minimum elong	11971 Jul 30 00:15	17°  807'49	1°00'34	max. Earth dist.	11972 Jul 03 05:33	15°  820'03	1.41491 AU
asc. node	11971 Aug 05 15:02	29°  844'52					
	11971 Aug 05 18:09	0°  8		superior conj	11972 Jul 10 22:55	28°  834'32	-1°33'26
evening rise	11971 Aug 08 03:42	4°  838'59		minimum elong	11972 Jul 11 05:22	29°  802'57	1°33'23
	11971 Aug 23 11:54	0°  8			11972 Jul 11 18:15	0°  8	
evening max el	11971 Aug 24 06:56	0°  849'25	18°42'58	evening rise	11972 Jul 21 13:56	17°  853'58	
retrograde	11971 Sep 01 12:52	4°  857'38		asc. node	11972 Jul 22 11:50	19°  835'19	
evening set	11971 Sep 03 11:19	4°  844'46			11972 Jul 28 05:51	0°  8	
desc. node	11971 Sep 08 00:13	2°  847'05		evening max el	11972 Aug 06 14:55	13°  826'13	18°13'27
inferior conj	11971 Sep 11 12:41	0°  821'14	-1°06'17	retrograde	11972 Aug 13 18:56	17°  804'11	
minimum elong	11971 Sep 11 09:58	0°  826'17	1°05'17	evening set	11972 Aug 16 00:10	16°  843'55	
	11971 Sep 12 00:07	30°  R8		inferior conj	11972 Aug 23 06:36	11°  859'59	0°29'38
min. Earth dist.	11971 Sep 14 15:56	28°  802'55	0.57057 AU	minimum elong	11972 Aug 23 07:35	11°  857'52	0°28'55
morning rise	11971 Sep 19 05:13	25°  818'50		desc. node	11972 Aug 24 21:37	10°  835'08	
direct	11971 Sep 25 00:17	23°  856'38		min. Earth dist.	11972 Aug 26 14:32	9°  808'26	0.59158 AU
	11971 Oct 07 19:07	0°  8		morning rise	11972 Aug 30 11:34	6°  823'15	
morning max el	11971 Oct 09 07:04	1°  823'03	26°33'05	direct	11972 Sep 05 20:09	4°  832'15	
	11971 Oct 29 13:19	0°  8		morning max el	11972 Sep 20 04:41	12°  819'54	27°34'25
asc. node	11971 Nov 01 16:23	5°  853'59			11972 Oct 04 03:04	0°  8	
morning set	11971 Nov 07 09:20	17°  834'43		asc. node	11972 Oct 18 13:09	25°  831'04	
	11971 Nov 13 01:15	0°  8			11972 Oct 20 17:39	0°  8	
				morning set	11972 Oct 21 16:33	2°  800'01	
superior conj	11971 Nov 14 05:26	2°  837'00	1°34'35	max. Earth dist.	11972 Oct 28 04:00	16°  807'35	1.31324 AU
minimum elong	11971 Nov 14 04:12	2°  830'05	1°35'12				
max. Earth dist.	11971 Nov 14 19:04	3°  852'49	1.31513 AU	superior conj	11972 Oct 28 17:09	17°  820'48	1°24'41
evening rise	11971 Nov 21 02:52	17°  840'14		minimum elong	11972 Oct 28 15:12	17°  809'57	1°25'01
	11971 Nov 27 05:45	0°  8			11972 Nov 03 10:27	0°  8	
desc. node	11971 Dec 04 21:27	13°  834'51		evening rise	11972 Nov 04 10:33	2°  809'58	
	11971 Dec 16 09:25	0°  8			11972 Nov 19 05:46	0°  8	
evening max el	11971 Dec 22 07:33	6°  824'35	27°12'14	desc. node	11972 Nov 20 18:37	2°  823'01	
retrograde	11972 Jan 05 05:39	13°  838'22		evening max el	11972 Dec 03 06:56	17°  857'30	26°18'06
evening set	11972 Jan 12 03:15	11°  831'47		retrograde	11972 Dec 17 05:31	25°  802'53	
min. Earth dist.	11972 Jan 15 22:01	8°  847'39	0.60717 AU	evening set	11972 Dec 23 16:37	23°  822'00	
inferior conj	11972 Jan 19 01:19	6°  807'02	-3°03'52	min. Earth dist.	11972 Dec 27 20:19	20°  846'23	0.58582 AU
minimum elong	11972 Jan 19 07:42	5°  853'22	3°00'49	inferior conj	11972 Dec 30 23:26	18°  826'56	-4°21'37
morning rise	11972 Jan 26 15:01	1°  816'01		minimum elong	11972 Dec 31 07:46	18°  811'25	4°18'25
direct	11972 Jan 28 17:49	0°  857'56		morning rise	11973 Jan 08 01:45	13°  857'40	
asc. node	11972 Jan 28 15:42	0°  857'58		direct	11973 Jan 10 04:09	13°  842'44	
morning max el	11972 Feb 04 22:56	4°  834'45	17°57'33	asc. node	11973 Jan 14 12:55	14°  851'08	
morning set	11972 Feb 20 13:08	29°  805'07		morning max el	11973 Jan 18 08:17	17°  843'20	18°28'15
	11972 Feb 21 01:06	0°  8			11973 Jan 27 03:30	0°  8	
				morning set	11973 Feb 03 06:07	13°  809'57	
superior conj	11972 Mar 01 20:40	17°  841'34	0°00'25				
minimum elong	11972 Mar 01 20:44	17°  841'51	0°00'41	superior conj	11973 Feb 12 07:18	0°  820'49	0°34'45
behind sun begin	11972 Mar 01 12:40	17°  806'32		minimum elong	11973 Feb 12 09:36	0°  831'28	0°34'51
behind sun end	11972 Mar 02 04:48	18°  817'04			11973 Feb 12 02:47	0°  8	



desc. node	11973 Feb 16 18:36	8° $\text{X}$ 26'36		minimum elong	11974 Jan 26 13:41	14° $\approx$ 00'14	1°01'56
max. Earth dist.	11973 Feb 19 18:19	13° $\text{X}$ 40'11	1.40462 AU	max. Earth dist.	11974 Feb 02 00:32	26° $\approx$ 09'21	1.38236 AU
evening rise	11973 Feb 24 01:44	20° $\text{X}$ 57'12		desc. node	11974 Feb 03 15:18	29° $\approx$ 04'10	
	11973 Mar 01 16:03	0° $\text{Y}$			11974 Feb 04 03:50	0° $\text{X}$	
	11973 Mar 22 13:32	0° $\text{B}$		evening rise	11974 Feb 05 18:22	2° $\text{X}$ 49'44	
evening max el	11973 Mar 30 14:19	9° $\text{B}$ 13'44	23°37'58		11974 Feb 22 19:38	0° $\text{Y}$	
retrograde	11973 Apr 10 09:43	15° $\text{B}$ 35'51		evening max el	11974 Mar 13 03:58	23° $\text{Y}$ 05'11	24°56'35
asc. node	11973 Apr 12 10:13	15° $\text{B}$ 16'52		retrograde	11974 Mar 25 00:29	29° $\text{Y}$ 58'54	
evening set	11973 Apr 15 14:08	13° $\text{B}$ 25'11		asc. node	11974 Mar 30 07:34	27° $\text{Y}$ 55'49	
min. Earth dist.	11973 Apr 20 09:09	7° $\text{B}$ 48'46	0.68635 AU	evening set	11974 Mar 30 16:48	27° $\text{Y}$ 36'50	
inferior conj	11973 Apr 21 00:09	6° $\text{B}$ 57'21	2°24'25	min. Earth dist.	11974 Apr 04 04:06	22° $\text{Y}$ 35'57	0.68057 AU
minimum elong	11973 Apr 20 22:01	7° $\text{B}$ 04'39	2°23'26	inferior conj	11974 Apr 05 07:14	21° $\text{Y}$ 06'34	1°47'34
morning rise	11973 Apr 26 05:53	0° $\text{B}$ 52'41		minimum elong	11974 Apr 05 05:09	21° $\text{Y}$ 13'24	1°46'41
	11973 Apr 27 13:31	30° $\text{R}$ $\text{Y}$		morning rise	11974 Apr 10 17:45	15° $\text{Y}$ 10'07	
direct	11973 Apr 30 10:17	29° $\text{Y}$ 14'16		direct	11974 Apr 14 09:55	13° $\text{Y}$ 52'35	
	11973 May 03 11:29	0° $\text{B}$		morning max el	11974 Apr 21 15:05	17° $\text{Y}$ 51'56	19°32'33
morning max el	11973 May 08 13:15	3° $\text{B}$ 52'00	20°39'36		11974 May 01 06:51	0° $\text{B}$	
desc. node	11973 May 15 20:15	12° $\text{B}$ 30'06		desc. node	11974 May 02 17:01	2° $\text{B}$ 02'43	
	11973 May 28 03:08	0° $\text{II}$		greatest brilliancy	11974 May 04 07:33	4° $\text{B}$ 23'19	-0.7m
morning set	11973 Jun 07 00:14	15° $\text{II}$ 02'05		morning set	11974 May 17 00:18	23° $\text{B}$ 35'42	
max. Earth dist.	11973 Jun 15 12:06	28° $\text{II}$ 28'08	1.43453 AU		11974 May 21 03:50	0° $\text{II}$	
	11973 Jun 16 10:49	0° $\text{E}$		max. Earth dist.	11974 May 29 01:35	12° $\text{II}$ 21'56	1.44890 AU
superior conj	11973 Jun 22 03:24	9° $\text{E}$ 21'50	-1°59'45	superior conj	11974 Jun 02 08:01	19° $\text{II}$ 09'10	-2°12'55
minimum elong	11973 Jun 22 09:42	9° $\text{E}$ 48'10	2°00'09	minimum elong	11974 Jun 02 09:37	19° $\text{II}$ 15'32	2°13'41
evening rise	11973 Jul 04 08:43	0° $\text{O}$ 25'38			11974 Jun 09 00:44	0° $\text{E}$	
	11973 Jul 04 02:54	0° $\text{O}$		evening rise	11974 Jun 16 07:05	12° $\text{E}$ 03'02	
asc. node	11973 Jul 09 08:42	9° $\text{O}$ 11'46		asc. node	11974 Jun 26 05:38	28° $\text{E}$ 28'53	
evening max el	11973 Jul 21 03:49	26° $\text{O}$ 32'09	18°03'39		11974 Jun 27 04:55	0° $\text{O}$	
retrograde	11973 Jul 27 16:54	29° $\text{O}$ 54'30		evening max el	11974 Jul 04 17:57	9° $\text{O}$ 57'51	18°12'27
evening set	11973 Jul 30 06:14	29° $\text{O}$ 23'16		retrograde	11974 Jul 11 02:27	13° $\text{O}$ 19'11	
inferior conj	11973 Aug 05 19:55	24° $\text{O}$ 19'46	1°41'47	evening set	11974 Jul 14 00:00	12° $\text{O}$ 34'21	
minimum elong	11973 Aug 05 22:25	24° $\text{O}$ 13'30	1°40'28	inferior conj	11974 Jul 20 00:37	7° $\text{O}$ 12'57	2°30'47
min. Earth dist.	11973 Aug 08 21:42	21° $\text{O}$ 17'28	0.61441 AU	minimum elong	11974 Jul 20 03:06	7° $\text{O}$ 05'59	2°29'31
desc. node	11973 Aug 11 19:01	18° $\text{O}$ 49'06		min. Earth dist.	11974 Jul 22 14:11	4° $\text{O}$ 21'36	0.63626 AU
morning rise	11973 Aug 12 12:02	18° $\text{O}$ 18'42		morning rise	11974 Jul 26 04:37	0° $\text{O}$ 57'42	
direct	11973 Aug 19 03:48	16° $\text{O}$ 01'53			11974 Jul 27 13:42	30° $\text{R}$ $\text{E}$	
morning max el	11973 Sep 02 08:56	24° $\text{O}$ 01'33	27°57'43	desc. node	11974 Jul 29 16:20	28° $\text{E}$ 57'37	
	11973 Sep 07 18:18	0° $\text{P}$		direct	11974 Aug 01 20:42	28° $\text{E}$ 23'16	
	11973 Sep 27 11:14	0° $\text{A}$			11974 Aug 07 14:38	0° $\text{O}$	
asc. node	11973 Oct 05 09:51	15° $\text{A}$ 22'07		morning max el	11974 Aug 15 17:45	6° $\text{O}$ 24'49	27°43'14
morning set	11973 Oct 05 18:37	16° $\text{A}$ 07'13			11974 Sep 02 17:47	0° $\text{P}$	
max. Earth dist.	11973 Oct 11 10:46	28° $\text{A}$ 12'50	1.31651 AU	morning set	11974 Sep 19 13:16	29° $\text{P}$ 50'47	
	11973 Oct 12 06:18	0° $\text{M}$			11974 Sep 19 15:07	0° $\text{A}$	
superior conj	11973 Oct 13 03:26	1° $\text{M}$ 56'28	1°09'15	asc. node	11974 Sep 22 06:33	5° $\text{A}$ 22'23	
minimum elong	11973 Oct 13 01:11	1° $\text{M}$ 44'03	1°09'16	max. Earth dist.	11974 Sep 24 11:42	10° $\text{A}$ 00'20	1.32498 AU
evening rise	11973 Oct 19 20:59	16° $\text{M}$ 44'41		superior conj	11974 Sep 27 10:23	16° $\text{A}$ 18'40	0°48'29
	11973 Oct 26 07:56	0° $\text{J}$		minimum elong	11974 Sep 27 08:21	16° $\text{A}$ 07'43	0°48'15
desc. node	11973 Nov 07 15:52	20° $\text{J}$ 16'58			11974 Oct 03 17:31	0° $\text{M}$	
evening max el	11973 Nov 14 22:10	28° $\text{J}$ 39'36	24°54'31	evening rise	11974 Oct 04 08:20	1° $\text{M}$ 19'33	
	11973 Nov 16 09:31	0° $\text{B}$			11974 Oct 20 00:28	0° $\text{J}$	
retrograde	11973 Nov 28 17:34	5° $\text{B}$ 34'32		desc. node	11974 Oct 25 13:09	6° $\text{J}$ 56'25	
evening set	11973 Dec 04 07:01	4° $\text{B}$ 25'24		evening max el	11974 Oct 27 08:33	8° $\text{J}$ 47'52	23°14'34
min. Earth dist.	11973 Dec 09 10:04	1° $\text{B}$ 41'14	0.56656 AU	retrograde	11974 Nov 09 16:25	15° $\text{J}$ 25'49	
inferior conj	11973 Dec 12 01:17	29° $\text{J}$ 59'02	-5°24'41	evening set	11974 Nov 13 21:52	14° $\text{J}$ 47'02	
minimum elong	11973 Dec 12 08:10	29° $\text{J}$ 47'52	5°22'44	min. Earth dist.	11974 Nov 20 18:08	11° $\text{J}$ 35'50	0.55234 AU
	11973 Dec 12 00:41	30° $\text{R}$ $\text{J}$		inferior conj	11974 Nov 22 07:19	10° $\text{J}$ 41'55	-5°51'38
morning rise	11973 Dec 20 11:30	25° $\text{J}$ 51'22		minimum elong	11974 Nov 22 07:26	10° $\text{J}$ 41'45	5°50'53
direct	11973 Dec 22 20:00	25° $\text{J}$ 35'46		morning rise	11974 Nov 30 18:40	6° $\text{J}$ 51'05	
asc. node	11974 Jan 01 10:05	0° $\text{B}$ 15'43		direct	11974 Dec 03 17:09	6° $\text{J}$ 30'29	
	11974 Jan 01 03:32	0° $\text{B}$		morning max el	11974 Dec 14 17:14	11° $\text{J}$ 44'10	20°36'23
morning max el	11974 Jan 01 07:29	0° $\text{B}$ 09'26	19°20'48	asc. node	11974 Dec 19 07:09	16° $\text{J}$ 56'46	
morning set	11974 Jan 18 07:49	27° $\text{B}$ 36'56			11974 Dec 27 10:04	0° $\text{B}$	
	11974 Jan 19 12:25	0° $\approx$		morning set	11975 Jan 02 15:07	12° $\text{B}$ 17'02	
superior conj	11974 Jan 26 10:46	13° $\approx$ 46'00	1°01'42	superior conj	11975 Jan 10 02:39	27° $\text{B}$ 44'51	1°21'02

minimum elong	11975 Jan 10 05:09	27° $\text{Z}$ 57'34	1°21'31	superior conj	11975 Dec 25 03:20	12° $\text{Z}$ 07'22	1°33'07
	11975 Jan 11 05:19	0° $\approx$		minimum elong	11975 Dec 25 04:52	12° $\text{Z}$ 15'30	1°33'51
max. Earth dist.	11975 Jan 15 08:42	8° $\approx$ 10'48	1.36097 AU	max. Earth dist.	11975 Dec 28 22:51	20° $\text{Z}$ 03'31	1.34243 AU
evening rise	11975 Jan 19 05:46	15° $\approx$ 29'40		evening rise	11976 Jan 02 08:22	28° $\text{Z}$ 48'14	
desc. node	11975 Jan 21 12:03	19° $\approx$ 36'02			11976 Jan 02 23:16	0° $\approx$	
	11975 Jan 27 13:03	0° $\text{H}$		desc. node	11976 Jan 08 08:52	9° $\approx$ 58'01	
	11975 Feb 17 09:49	0° $\text{Y}$			11976 Jan 20 17:30	0° $\text{H}$	
evening max el	11975 Feb 23 17:34	6° $\text{Y}$ 55'02	26°06'01	evening max el	11976 Feb 06 07:05	20° $\text{H}$ 35'31	26°59'00
retrograde	11975 Mar 08 10:19	14° $\text{Y}$ 09'16		retrograde	11976 Feb 19 14:28	27° $\text{H}$ 59'40	
evening set	11975 Mar 14 14:11	11° $\text{Y}$ 39'11		evening set	11976 Feb 26 04:25	25° $\text{H}$ 26'31	
asc. node	11975 Mar 17 04:56	9° $\text{Y}$ 05'16		min. Earth dist.	11976 Mar 01 03:43	21° $\text{H}$ 34'32	0.65671 AU
min. Earth dist.	11975 Mar 18 18:59	7° $\text{Y}$ 13'24	0.67061 AU	inferior conj	11976 Mar 03 07:04	19° $\text{H}$ 07'35	0°03'53
inferior conj	11975 Mar 20 10:16	5° $\text{Y}$ 11'34	1°00'47	minimum elong	11976 Mar 03 06:57	19° $\text{H}$ 07'55	0°04'04
minimum elong	11975 Mar 20 08:49	5° $\text{Y}$ 16'03	1°00'15	transit middle	11976 Mar 03 06:57	19° $\text{H}$ 07'55	0°04'04
	11975 Mar 25 07:39	30° $\text{R}$ $\text{H}$		transit begin	11976 Mar 03 04:04	19° $\text{H}$ 16'12	
morning rise	11975 Mar 26 04:10	29° $\text{H}$ 25'05		transit end	11976 Mar 03 09:50	18° $\text{H}$ 59'39	
direct	11975 Mar 29 09:11	28° $\text{H}$ 26'35		asc. node	11976 Mar 03 02:17	19° $\text{H}$ 21'21	
	11975 Apr 02 15:09	0° $\text{Y}$		morning rise	11976 Mar 09 10:52	13° $\text{H}$ 33'05	
morning max el	11975 Apr 05 00:19	2° $\text{Y}$ 00'31	18°41'10	direct	11976 Mar 12 05:59	12° $\text{H}$ 50'40	
desc. node	11975 Apr 19 13:42	21° $\text{Y}$ 59'33		morning max el	11976 Mar 18 15:04	16° $\text{H}$ 11'52	18°06'27
	11975 Apr 24 17:05	0° $\text{B}$			11976 Mar 28 19:47	0° $\text{Y}$	
morning set	11975 Apr 26 13:19	2° $\text{B}$ 52'58		desc. node	11976 Apr 05 10:21	12° $\text{Y}$ 14'05	
max. Earth dist.	11975 May 11 19:59	26° $\text{B}$ 45'31	1.45651 AU	morning set	11976 Apr 06 05:37	13° $\text{Y}$ 32'16	
					11976 Apr 16 11:23	0° $\text{B}$	
superior conj	11975 May 12 18:39	28° $\text{B}$ 14'09	-2°06'59	superior conj	11976 Apr 21 02:57	7° $\text{B}$ 20'36	-1°41'32
minimum elong	11975 May 12 12:41	27° $\text{B}$ 50'51	2°07'22	minimum elong	11976 Apr 20 17:34	6° $\text{B}$ 43'46	1°41'06
	11975 May 13 21:41	0° $\text{II}$		max. Earth dist.	11976 Apr 23 16:02	11° $\text{B}$ 20'08	1.45665 AU
evening rise	11975 May 28 05:26	22° $\text{II}$ 39'48			11976 May 05 16:04	0° $\text{II}$	
	11975 Jun 01 19:30	0° $\text{E}$		evening rise	11976 May 07 05:32	2° $\text{II}$ 25'05	
greatest brilliancy	11975 Jun 04 10:29	4° $\text{E}$ 10'51	-0.9m	greatest brilliancy	11976 May 19 17:40	21° $\text{II}$ 34'52	-0.7m
asc. node	11975 Jun 13 02:38	17° $\text{E}$ 19'10			11976 May 25 13:55	0° $\text{E}$	
evening max el	11975 Jun 18 06:13	23° $\text{E}$ 34'44	18°39'07	asc. node	11976 May 29 23:43	5° $\text{E}$ 34'06	
retrograde	11975 Jun 24 19:27	27° $\text{E}$ 08'45		evening max el	11976 May 31 14:22	7° $\text{E}$ 17'41	19°22'43
evening set	11975 Jun 28 01:20	26° $\text{E}$ 08'45		retrograde	11976 Jun 07 16:39	11° $\text{E}$ 16'55	
inferior conj	11975 Jul 03 16:44	20° $\text{E}$ 31'17	3°00'11	evening set	11976 Jun 11 07:17	10° $\text{E}$ 00'58	
minimum elong	11975 Jul 03 18:23	20° $\text{E}$ 26'10	2°59'08	inferior conj	11976 Jun 16 16:55	4° $\text{E}$ 09'02	3°13'33
min. Earth dist.	11975 Jul 05 15:44	18° $\text{E}$ 07'23	0.65525 AU	minimum elong	11976 Jun 16 17:29	4° $\text{E}$ 07'09	3°12'41
morning rise	11975 Jul 09 10:34	14° $\text{E}$ 09'38		min. Earth dist.	11976 Jun 18 01:10	2° $\text{E}$ 23'17	0.67027 AU
direct	11975 Jul 15 21:21	11° $\text{E}$ 27'47			11976 Jun 19 23:28	30° $\text{R}$ $\text{II}$	
desc. node	11975 Jul 16 13:36	11° $\text{E}$ 29'24		morning rise	11976 Jun 22 03:13	27° $\text{II}$ 46'32	
morning max el	11975 Jul 29 04:39	19° $\text{E}$ 19'30	26°56'15	direct	11976 Jun 28 04:46	25° $\text{II}$ 07'09	
	11975 Aug 07 06:28	0° $\text{Q}$		desc. node	11976 Jul 02 10:46	26° $\text{II}$ 11'26	
	11975 Aug 26 18:44	0° $\text{P}$			11976 Jul 07 22:25	0° $\text{E}$	
morning set	11975 Sep 02 21:36	13° $\text{P}$ 02'55		morning max el	11976 Jul 10 15:26	2° $\text{E}$ 34'15	25°45'07
max. Earth dist.	11975 Sep 07 03:34	21° $\text{P}$ 24'21	1.33857 AU		11976 Jul 31 10:26	0° $\text{Q}$	
asc. node	11975 Sep 09 03:13	25° $\text{P}$ 27'01		morning set	11976 Aug 15 15:58	25° $\text{Q}$ 34'59	
					11976 Aug 18 01:13	0° $\text{P}$	
superior conj	11975 Sep 11 11:43	0° $\text{Q}$ 20'41	0°22'39	max. Earth dist.	11976 Aug 19 09:02	2° $\text{P}$ 30'25	1.35693 AU
minimum elong	11975 Sep 11 10:35	0° $\text{Q}$ 14'39	0°22'20				
	11975 Sep 11 07:47	0° $\text{Q}$		superior conj	11976 Aug 25 04:50	13° $\text{P}$ 56'07	-0°07'38
evening rise	11975 Sep 18 18:39	15° $\text{Q}$ 48'30		minimum elong	11976 Aug 25 05:18	13° $\text{P}$ 58'30	0°07'50
	11975 Sep 25 20:31	0° $\text{M}$		behind sun begin	11976 Aug 24 23:51	13° $\text{P}$ 31'04	
evening max el	11975 Oct 08 22:39	18° $\text{M}$ 56'37	21°36'00	behind sun end	11976 Aug 25 10:45	14° $\text{P}$ 25'58	
desc. node	11975 Oct 12 10:30	21° $\text{M}$ 54'57		asc. node	11976 Aug 25 23:54	15° $\text{P}$ 32'30	
retrograde	11975 Oct 21 05:34	25° $\text{M}$ 03'12		evening rise	11976 Sep 02 01:52	0° $\text{Q}$ 06'12	
evening set	11975 Oct 24 01:43	24° $\text{M}$ 44'50			11976 Sep 02 00:40	0° $\text{Q}$	
inferior conj	11975 Nov 02 00:34	20° $\text{M}$ 49'23	-5°23'02	evening max el	11976 Sep 20 00:47	29° $\text{Q}$ 39'47	20°12'22
minimum elong	11975 Nov 01 16:37	21° $\text{M}$ 00'31	5°21'04		11976 Sep 20 09:03	0° $\text{M}$	
min. Earth dist.	11975 Nov 02 00:33	20° $\text{M}$ 49'25	0.54578 AU	desc. node	11976 Sep 28 07:53	4° $\text{M}$ 43'52	
morning rise	11975 Nov 10 08:33	17° $\text{M}$ 01'18		retrograde	11976 Sep 30 18:21	4° $\text{M}$ 59'54	
direct	11975 Nov 14 01:55	16° $\text{M}$ 31'15		evening set	11976 Oct 02 18:25	4° $\text{M}$ 49'34	
morning max el	11975 Nov 26 13:28	22° $\text{M}$ 28'16	22°12'43	inferior conj	11976 Oct 11 18:32	0° $\text{M}$ 51'42	-4°00'02
	11975 Dec 03 00:54	0° $\text{A}$		minimum elong	11976 Oct 11 08:48	1° $\text{M}$ 06'09	3°56'37
asc. node	11975 Dec 06 04:09	4° $\text{A}$ 38'07			11976 Oct 13 05:21	30° $\text{R}$ $\text{Q}$	
morning set	11975 Dec 18 01:40	27° $\text{A}$ 03'34		min. Earth dist.	11976 Oct 13 08:53	29° $\text{Q}$ 54'47	0.54858 AU
	11975 Dec 19 10:58	0° $\text{Z}$		morning rise	11976 Oct 19 22:15	26° $\text{Q}$ 45'01	

direct	11976 Oct 24 11:48	25°♄59'53		direct	11977 Oct 05 09:48	5°♄32'48	
	11976 Nov 03 22:26	0°♄		morning max el	11977 Oct 19 12:38	12°♄44'20	25°43'12
morning max el	11976 Nov 07 01:14	2°♄38'08	24°00'26		11977 Nov 01 23:17	0°♄	
asc. node	11976 Nov 22 01:04	23°♄05'00		asc. node	11977 Nov 08 21:55	12°♄06'00	
	11976 Nov 25 18:43	0°♄		morning set	11977 Nov 16 00:50	26°♄32'04	
morning set	11976 Dec 01 13:28	11°♄50'10			11977 Nov 17 15:17	0°♄	
superior conj	11976 Dec 08 09:53	26°♄44'14	1°38'31	superior conj	11977 Nov 22 20:01	11°♄28'30	1°37'43
minimum elong	11976 Dec 08 10:17	26°♄46'23	1°39'20	minimum elong	11977 Nov 22 19:19	11°♄24'38	1°38'27
	11976 Dec 09 22:03	0°♄		max. Earth dist.	11977 Nov 24 01:15	14°♄10'04	1.31841 AU
max. Earth dist.	11976 Dec 10 20:39	2°♄01'21	1.32803 AU	evening rise	11977 Nov 29 21:41	26°♄45'27	
evening rise	11976 Dec 15 22:39	12°♄36'01			11977 Dec 01 11:30	0°♄	
desc. node	11976 Dec 25 05:45	0°♄04'13		desc. node	11977 Dec 12 02:46	19°♄47'51	
	11976 Dec 25 04:47	0°♄			11977 Dec 18 13:51	0°♄	
	11977 Jan 15 00:33	0°♄		evening max el	11978 Jan 01 05:11	16°♄43'28	27°27'57
evening max el	11977 Jan 18 19:33	3°♄55'35	27°28'26	retrograde	11978 Jan 15 02:28	24°♄01'55	
retrograde	11977 Feb 01 12:14	11°♄20'20		evening set	11978 Jan 22 01:34	21°♄44'49	
evening set	11977 Feb 08 09:10	8°♄51'03		min. Earth dist.	11978 Jan 25 19:17	18°♄49'24	0.61939 AU
min. Earth dist.	11977 Feb 12 04:21	5°♄30'00	0.63937 AU	inferior conj	11978 Jan 28 19:03	16°♄04'02	-2°18'13
inferior conj	11977 Feb 14 19:01	2°♄47'33	-1°02'57	minimum elong	11978 Jan 28 23:47	15°♄53'06	2°15'43
minimum elong	11977 Feb 14 21:00	2°♄42'23	1°01'41	asc. node	11978 Feb 04 20:56	11°♄04'19	
asc. node	11977 Feb 17 23:37	29°♄41'57		morning rise	11978 Feb 05 00:41	11°♄01'14	
	11977 Feb 17 15:20	30°♄		direct	11978 Feb 07 05:30	10°♄39'52	
morning rise	11977 Feb 21 10:58	27°♄27'31		morning max el	11978 Feb 14 01:37	14°♄07'54	17°48'52
direct	11977 Feb 23 21:49	26°♄57'31			11978 Feb 24 23:34	0°♄	
	11977 Mar 02 01:24	0°♄		morning set	11978 Mar 01 19:52	8°♄34'23	
morning max el	11977 Mar 02 08:33	0°♄17'10	17°48'47	desc. node	11978 Mar 10 03:32	23°♄14'52	
morning set	11977 Mar 19 01:40	25°♄31'51					
	11977 Mar 21 16:53	0°♄		superior conj	11978 Mar 13 00:50	28°♄11'37	-0°22'08
desc. node	11977 Mar 23 06:56	2°♄40'30		minimum elong	11978 Mar 12 22:45	28°♄02'44	0°21'41
					11978 Mar 14 02:29	0°♄	
superior conj	11977 Apr 01 02:00	17°♄12'23	-1°03'29	max. Earth dist.	11978 Mar 20 02:45	9°♄56'00	1.43574 AU
minimum elong	11977 Mar 31 19:20	16°♄45'22	1°02'45	evening rise	11978 Mar 27 08:46	21°♄26'34	
max. Earth dist.	11977 Apr 06 10:48	25°♄47'53	1.44943 AU		11978 Apr 01 22:39	0°♄	
	11977 Apr 09 02:49	0°♄			11978 Apr 23 06:49	0°♄	
evening rise	11977 Apr 16 17:22	11°♄47'03		evening max el	11978 Apr 27 14:13	4°♄49'19	21°32'47
	11977 Apr 28 19:34	0°♄		asc. node	11978 May 03 18:07	9°♄27'52	
evening max el	11977 May 14 17:04	21°♄03'00	20°21'40	retrograde	11978 May 06 13:47	10°♄05'34	
asc. node	11977 May 16 20:53	23°♄01'54		evening set	11978 May 11 00:22	8°♄17'31	
retrograde	11977 May 22 15:27	25°♄37'38		inferior conj	11978 May 16 06:50	2°♄01'50	3°02'34
evening set	11977 May 26 15:35	24°♄05'30		minimum elong	11978 May 16 05:28	2°♄06'36	3°01'42
inferior conj	11977 May 31 22:24	18°♄00'48	3°13'43	min. Earth dist.	11978 May 16 11:36	1°♄45'12	0.68659 AU
minimum elong	11977 May 31 21:54	18°♄02'28	3°12'54		11978 May 17 18:09	30°♄	
min. Earth dist.	11977 Jun 01 16:32	16°♄58'44	0.68075 AU	morning rise	11978 May 21 10:21	25°♄47'00	
morning rise	11977 Jun 06 03:55	11°♄41'01		direct	11978 May 26 11:25	23°♄35'40	
direct	11977 Jun 11 17:51	9°♄12'35		morning max el	11978 Jun 05 11:53	29°♄31'41	22°49'54
desc. node	11977 Jun 19 07:50	12°♄35'34			11978 Jun 05 23:00	0°♄	
morning max el	11977 Jun 23 01:18	15°♄59'30	24°19'43	desc. node	11978 Jun 06 04:49	0°♄15'06	
	11977 Jul 04 14:35	0°♄			11978 Jun 28 08:53	0°♄	
	11977 Jul 24 09:18	0°♄		morning set	11978 Jul 09 16:22	17°♄52'32	
morning set	11977 Jul 28 15:53	7°♄15'59		max. Earth dist.	11978 Jul 14 05:03	25°♄28'23	1.40213 AU
max. Earth dist.	11977 Aug 01 07:13	13°♄41'33	1.37886 AU		11978 Jul 16 19:58	0°♄	
superior conj	11977 Aug 08 10:26	26°♄57'36	-0°40'57	superior conj	11978 Jul 22 00:26	9°♄14'40	-1°14'59
minimum elong	11977 Aug 08 13:13	27°♄10'57	0°40'57	minimum elong	11978 Jul 22 05:45	9°♄38'54	1°14'53
	11977 Aug 10 00:12	0°♄		asc. node	11978 Jul 30 17:22	25°♄31'36	
asc. node	11977 Aug 12 20:37	5°♄35'29		evening rise	11978 Jul 31 20:32	27°♄40'50	
evening rise	11977 Aug 17 03:34	14°♄06'37			11978 Aug 02 01:51	0°♄	
	11977 Aug 25 14:07	0°♄		evening max el	11978 Aug 16 20:29	23°♄27'02	18°27'59
evening max el	11977 Sep 02 17:02	11°♄11'27	19°09'29	retrograde	11978 Aug 24 13:45	27°♄20'11	
retrograde	11977 Sep 11 18:39	15°♄42'55		evening set	11978 Aug 26 14:59	27°♄04'32	
evening set	11977 Sep 13 15:00	15°♄32'25		desc. node	11978 Sep 02 02:45	23°♄29'43	
desc. node	11977 Sep 15 05:19	15°♄07'28		inferior conj	11978 Sep 03 08:12	22°♄32'22	-0°22'54
inferior conj	11977 Sep 22 02:49	11°♄20'37	-2°09'38	minimum elong	11978 Sep 03 07:19	22°♄34'07	0°22'45
minimum elong	11977 Sep 21 21:11	11°♄30'08	2°07'22	min. Earth dist.	11978 Sep 06 15:07	19°♄57'32	0.57913 AU
min. Earth dist.	11977 Sep 24 21:11	9°♄29'00	0.56047 AU	morning rise	11978 Sep 10 20:09	17°♄14'47	
morning rise	11977 Sep 30 00:28	6°♄40'04		direct	11978 Sep 16 21:56	15°♄40'17	

morning max el	11978 Oct 01 05:41	23° $\mathbb{M}$ 16'06	27°03'33	direct	11979 Aug 29 22:46	26° $\Omega$ 38'50	
	11978 Oct 07 06:55	0° $\mathbb{L}$			11979 Sep 07 22:12	0° $\mathbb{M}$	
	11978 Oct 26 00:03	0° $\mathbb{M}$		morning max el	11979 Sep 13 06:21	4° $\mathbb{M}$ 31'52	27°49'10
asc. node	11978 Oct 26 18:43	1° $\mathbb{M}$ 31'41			11979 Oct 02 03:36	0° $\mathbb{L}$	
morning set	11978 Oct 31 10:02	11° $\mathbb{M}$ 04'11		asc. node	11979 Oct 13 15:28	21° $\mathbb{L}$ 15'21	
				morning set	11979 Oct 15 15:19	25° $\mathbb{L}$ 22'09	
					11979 Oct 17 19:42	0° $\mathbb{M}$	
superior conj	11978 Nov 07 07:39	26° $\mathbb{M}$ 13'27	1°31'04	max. Earth dist.	11979 Oct 21 18:22	8° $\mathbb{M}$ 37'33	1.31405 AU
minimum elong	11978 Nov 07 06:04	26° $\mathbb{M}$ 04'37	1°31'34				
max. Earth dist.	11978 Nov 07 09:43	26° $\mathbb{M}$ 24'58	1.31373 AU				
	11978 Nov 09 00:18	0° $\mathbb{M}$		superior conj	11979 Oct 22 18:57	10° $\mathbb{M}$ 53'59	1°18'48
evening rise	11978 Nov 14 02:50	11° $\mathbb{M}$ 09'09		minimum elong	11979 Oct 22 16:49	10° $\mathbb{M}$ 42'07	1°18'59
	11978 Nov 23 16:34	0° $\mathbb{L}$		evening rise	11979 Oct 29 11:55	25° $\mathbb{M}$ 41'25	
desc. node	11978 Nov 28 23:54	8° $\mathbb{L}$ 59'21			11979 Oct 31 12:37	0° $\mathbb{M}$	
evening max el	11978 Dec 14 09:10	28° $\mathbb{L}$ 46'12	26°53'24	desc. node	11979 Nov 15 21:05	27° $\mathbb{M}$ 26'20	
	11978 Dec 15 17:38	0° $\mathbb{L}$			11979 Nov 17 16:34	0° $\mathbb{L}$	
retrograde	11978 Dec 28 07:38	5° $\mathbb{L}$ 55'40		evening max el	11979 Nov 26 04:59	9° $\mathbb{L}$ 56'07	25°45'28
evening set	11979 Jan 04 01:59	3° $\mathbb{L}$ 59'24		retrograde	11979 Dec 10 02:21	16° $\mathbb{L}$ 57'00	
min. Earth dist.	11979 Jan 07 23:28	1° $\mathbb{L}$ 20'32	0.59800 AU	evening set	11979 Dec 16 05:58	15° $\mathbb{L}$ 29'00	
	11979 Jan 09 15:53	30° $\mathbb{R}$ $\mathbb{L}$		min. Earth dist.	11979 Dec 20 17:26	12° $\mathbb{L}$ 52'19	0.57720 AU
inferior conj	11979 Jan 11 03:37	28° $\mathbb{L}$ 47'15	-3°37'35	inferior conj	11979 Dec 23 17:15	10° $\mathbb{L}$ 47'02	-4°51'19
minimum elong	11979 Jan 11 11:03	28° $\mathbb{L}$ 32'13	3°34'18	minimum elong	11979 Dec 24 01:34	10° $\mathbb{L}$ 32'30	4°48'30
morning rise	11979 Jan 18 22:58	24° $\mathbb{L}$ 04'54		morning rise	11979 Dec 31 23:42	6° $\mathbb{L}$ 27'20	
direct	11979 Jan 21 01:05	23° $\mathbb{L}$ 48'31		direct	11980 Jan 03 03:59	6° $\mathbb{L}$ 12'30	
asc. node	11979 Jan 22 18:11	24° $\mathbb{L}$ 00'00		asc. node	11980 Jan 09 15:24	8° $\mathbb{L}$ 33'14	
morning max el	11979 Jan 28 14:48	27° $\mathbb{L}$ 34'20	18°08'03	morning max el	11980 Jan 11 20:15	10° $\mathbb{L}$ 25'41	18°47'57
	11979 Jan 30 19:36	0° $\mathbb{L}$			11980 Jan 24 16:58	0° $\mathbb{L}$	
morning set	11979 Feb 13 06:03	22° $\mathbb{L}$ 21'15		morning set	11980 Jan 28 03:10	6° $\mathbb{L}$ 36'46	
	11979 Feb 17 08:15	0° $\mathbb{M}$					
superior conj	11979 Feb 22 23:34	10° $\mathbb{M}$ 17'49	0°15'50	superior conj	11980 Feb 05 17:56	23° $\mathbb{L}$ 18'21	0°47'07
minimum elong	11979 Feb 23 00:48	10° $\mathbb{M}$ 23'22	0°15'58	minimum elong	11980 Feb 05 20:40	23° $\mathbb{L}$ 31'16	0°47'15
desc. node	11979 Feb 25 00:11	13° $\mathbb{M}$ 53'41			11980 Feb 09 08:23	0° $\mathbb{M}$	
max. Earth dist.	11979 Mar 02 14:37	23° $\mathbb{M}$ 31'51	1.41693 AU	desc. node	11980 Feb 11 20:51	4° $\mathbb{M}$ 32'46	
	11979 Mar 06 12:30	0° $\mathbb{Y}$		max. Earth dist.	11980 Feb 12 22:12	6° $\mathbb{M}$ 25'02	1.39514 AU
evening rise	11979 Mar 07 16:18	1° $\mathbb{Y}$ 52'40		evening rise	11980 Feb 16 20:50	13° $\mathbb{M}$ 13'49	
	11979 Mar 26 08:22	0° $\mathbb{L}$			11980 Feb 27 06:40	0° $\mathbb{Y}$	
evening max el	11979 Apr 10 06:57	18° $\mathbb{L}$ 37'41	22°51'28	evening max el	11980 Mar 20 12:24	0° $\mathbb{L}$	
retrograde	11979 Apr 20 10:11	24° $\mathbb{L}$ 36'35			11980 Mar 22 21:00	2° $\mathbb{L}$ 27'42	24°12'00
asc. node	11979 Apr 20 15:24	24° $\mathbb{L}$ 36'21		retrograde	11980 Apr 03 03:22	9° $\mathbb{L}$ 04'30	
evening set	11979 Apr 25 08:01	22° $\mathbb{L}$ 33'31		asc. node	11980 Apr 06 12:44	8° $\mathbb{L}$ 12'05	
inferior conj	11979 Apr 30 16:15	16° $\mathbb{L}$ 09'17	2°41'11	evening set	11980 Apr 08 12:58	6° $\mathbb{L}$ 48'20	
minimum elong	11979 Apr 30 14:17	16° $\mathbb{L}$ 16'05	2°40'14	min. Earth dist.	11980 Apr 13 04:25	1° $\mathbb{L}$ 27'23	0.68445 AU
min. Earth dist.	11979 Apr 30 08:18	16° $\mathbb{L}$ 36'52	0.68778 AU	inferior conj	11980 Apr 14 00:41	0° $\mathbb{L}$ 18'54	2°09'59
morning rise	11979 May 05 20:26	10° $\mathbb{L}$ 00'47		minimum elong	11980 Apr 13 22:31	0° $\mathbb{L}$ 26'14	2°09'02
direct	11979 May 10 08:17	8° $\mathbb{L}$ 10'03			11980 Apr 14 06:17	30° $\mathbb{R}$ $\mathbb{Y}$	
morning max el	11979 May 19 02:33	13° $\mathbb{L}$ 14'05	21°24'21	morning rise	11980 Apr 19 08:10	24° $\mathbb{Y}$ 17'49	
desc. node	11979 May 24 01:43	18° $\mathbb{L}$ 50'04		direct	11980 Apr 23 07:13	22° $\mathbb{Y}$ 48'35	
	11979 Jun 01 10:04	0° $\mathbb{II}$		morning max el	11980 May 01 00:04	27° $\mathbb{Y}$ 08'19	20°09'20
morning set	11979 Jun 19 15:07	27° $\mathbb{II}$ 20'44			11980 May 03 15:43	0° $\mathbb{L}$	
	11979 Jun 21 07:17	0° $\mathbb{L}$		desc. node	11980 May 09 22:31	8° $\mathbb{L}$ 04'55	
max. Earth dist.	11979 Jun 26 08:21	8° $\mathbb{L}$ 09'27	1.42385 AU		11980 May 24 20:23	0° $\mathbb{II}$	
				morning set	11980 May 28 18:18	5° $\mathbb{II}$ 59'41	
superior conj	11979 Jul 03 18:19	20° $\mathbb{L}$ 37'27	-1°45'45	max. Earth dist.	11980 Jun 07 18:19	21° $\mathbb{II}$ 40'03	1.44144 AU
minimum elong	11979 Jul 04 01:08	21° $\mathbb{L}$ 06'49	1°45'51		11980 Jun 12 22:12	0° $\mathbb{L}$	
	11979 Jul 09 02:48	0° $\mathbb{L}$		superior conj	11980 Jun 13 12:27	0° $\mathbb{L}$ 58'18	-2°07'22
evening rise	11979 Jul 15 00:50	10° $\mathbb{L}$ 39'19		minimum elong	11980 Jun 13 17:22	1° $\mathbb{L}$ 18'28	2°07'57
asc. node	11979 Jul 17 14:12	15° $\mathbb{L}$ 17'00		evening rise	11980 Jun 26 11:33	22° $\mathbb{L}$ 49'35	
	11979 Jul 26 07:02	0° $\mathbb{M}$			11980 Jun 30 15:33	0° $\mathbb{L}$	
evening max el	11979 Jul 31 07:02	6° $\mathbb{M}$ 17'27	18°06'52	asc. node	11980 Jul 03 11:04	4° $\mathbb{L}$ 46'08	
retrograde	11979 Aug 07 03:18	9° $\mathbb{M}$ 47'00		evening max el	11980 Jul 13 20:46	19° $\mathbb{L}$ 32'26	18°05'04
evening set	11979 Aug 09 11:59	9° $\mathbb{M}$ 22'23		retrograde	11980 Jul 20 06:51	22° $\mathbb{L}$ 53'00	
inferior conj	11979 Aug 16 10:49	4° $\mathbb{M}$ 29'30	1°03'14	evening set	11980 Jul 22 23:35	22° $\mathbb{L}$ 16'20	
minimum elong	11979 Aug 16 12:42	4° $\mathbb{M}$ 25'11	1°02'09	inferior conj	11980 Jul 29 07:13	17° $\mathbb{L}$ 04'50	2°05'12
min. Earth dist.	11979 Aug 19 17:00	1° $\mathbb{M}$ 30'54	0.60130 AU	minimum elong	11980 Jul 29 09:51	16° $\mathbb{L}$ 57'53	2°03'51
desc. node	11979 Aug 20 00:08	1° $\mathbb{M}$ 15'26		min. Earth dist.	11980 Aug 01 04:14	14° $\mathbb{L}$ 04'43	0.62394 AU
	11979 Aug 21 13:06	30° $\mathbb{R}$ $\mathbb{L}$		morning rise	11980 Aug 04 17:58	10° $\mathbb{L}$ 56'15	
morning rise	11979 Aug 23 10:23	28° $\mathbb{L}$ 41'11		desc. node	11980 Aug 05 21:29	10° $\mathbb{L}$ 10'29	

direct	11980 Aug 11 10:25	8°Ω30'55		direct	11981 Jul 25 07:02	21°☿11'45	
morning max el	11980 Aug 25 13:09	16°Ω33'15	27°56'00	morning max el	11981 Aug 07 23:10	29°☿11'40	27°26'41
	11980 Sep 05 15:40	0°♊			11981 Aug 08 18:01	0°Ω	
	11980 Sep 23 20:44	0°♊			11981 Aug 30 13:11	0°♊	
morning set	11980 Sep 28 14:34	9°♊20'35		morning set	11981 Sep 12 05:12	22°♊52'07	
asc. node	11980 Sep 29 12:11	11°♊11'15			11981 Sep 15 18:26	0°♊	
max. Earth dist.	11980 Oct 03 23:13	20°♊37'02	1.31943 AU	asc. node	11981 Sep 16 08:50	1°♊14'05	
				max. Earth dist.	11981 Sep 16 20:21	2°♊13'43	1.33007 AU
superior conj	11980 Oct 06 04:04	25°♊24'46	1°01'05	superior conj	11981 Sep 20 08:54	9°♊39'23	0°38'06
minimum elong	11980 Oct 06 01:50	25°♊12'33	1°00'59	minimum elong	11981 Sep 20 07:10	9°♊30'06	0°37'50
	11980 Oct 08 06:07	0°♋			11981 Sep 27 10:05	24°♊49'55	
evening rise	11980 Oct 12 22:58	10°♋16'57		evening rise	11981 Sep 29 21:06	0°♋	
	11980 Oct 22 21:57	0°♋			11981 Oct 18 18:07	0°♋	
desc. node	11980 Nov 01 18:19	14°♋51'53			11981 Oct 19 03:56	0°♋24'16	22°31'36
evening max el	11980 Nov 06 17:10	20°♋20'09	24°12'56	evening max el	11981 Oct 19 15:38	0°♋52'20	
retrograde	11980 Nov 20 09:12	27°♋10'04		desc. node	11981 Nov 01 03:29	6°♋51'16	
evening set	11980 Nov 25 10:02	26°♋14'19		retrograde	11981 Nov 04 17:39	6°♋23'00	
min. Earth dist.	11980 Dec 01 04:14	23°♋20'54	0.55964 AU	evening set	11981 Nov 12 11:33	2°♋54'45	0.54840 AU
inferior conj	11980 Dec 03 10:19	21°♋57'54	-5°41'57	min. Earth dist.	11981 Nov 13 09:40	2°♋23'27	-5°46'58
minimum elong	11980 Dec 03 14:56	21°♋50'47	5°40'42	inferior conj	11981 Nov 13 06:00	2°♋28'38	5°46'00
morning rise	11980 Dec 11 21:53	17°♋58'51		minimum elong	11981 Nov 17 21:56	30°♋	
direct	11980 Dec 14 11:15	17°♋41'50			11981 Nov 21 19:46	28°♋35'45	
morning max el	11980 Dec 24 14:09	22°♋31'41	19°50'16	morning rise	11981 Nov 25 01:43	28°♋11'46	
asc. node	11980 Dec 26 12:31	24°♋32'54		direct	11981 Dec 01 17:38	0°♋	
	11980 Dec 30 16:19	0°♌			11981 Dec 06 17:58	3°♋44'34	21°15'09
morning set	11981 Jan 11 07:33	21°♌10'31		morning max el	11981 Dec 13 09:34	11°♋41'45	
	11981 Jan 15 15:38	0°♌		asc. node	11981 Dec 23 19:29	0°♌	
superior conj	11981 Jan 19 03:12	6°♌59'55	1°10'48	morning set	11981 Dec 26 16:28	5°♌53'53	
minimum elong	11981 Jan 19 06:03	7°♌14'00	1°11'08	superior conj	11982 Jan 02 23:13	21°♌09'56	1°26'59
max. Earth dist.	11981 Jan 25 04:21	18°♌39'23	1.37293 AU	minimum elong	11982 Jan 03 01:20	21°♌20'58	1°27'36
evening rise	11981 Jan 28 21:50	25°♌27'51			11982 Jan 07 07:35	0°♌	
desc. node	11981 Jan 28 17:34	25°♌08'46			11982 Jan 07 14:16	0°♌33'06	1.35262 AU
	11981 Jan 31 11:44	0°♍		max. Earth dist.	11982 Jan 11 16:09	8°♌25'34	
	11981 Feb 19 20:32	0°♍		evening rise	11982 Jan 15 14:20	15°♌37'04	
evening max el	11981 Mar 05 10:19	16°♍18'38	25°27'37	desc. node	11982 Jan 24 03:11	0°♍	
retrograde	11981 Mar 17 16:19	23°♍23'21			11982 Feb 15 21:35	0°♍	
evening set	11981 Mar 23 13:37	20°♍57'10			11982 Feb 15 23:57	0°♍05'45	26°31'05
asc. node	11981 Mar 24 10:05	20°♍11'03		evening max el	11982 Feb 28 23:58	7°♍25'54	
min. Earth dist.	11981 Mar 27 21:55	16°♍11'19	0.67681 AU	retrograde	11982 Mar 07 08:12	4°♍54'01	
inferior conj	11981 Mar 29 06:17	14°♍27'04	1°28'59	evening set	11982 Mar 11 07:27	0°♍51'45	
minimum elong	11981 Mar 29 04:24	14°♍33'08	1°28'12	asc. node	11982 Mar 11 10:34	0°♍42'32	0.66509 AU
morning rise	11981 Apr 03 19:38	8°♍34'40		min. Earth dist.	11982 Mar 12 00:51	30°♍	
direct	11981 Apr 07 06:48	7°♍25'44			11982 Mar 13 06:57	28°♍29'03	0°37'56
morning max el	11981 Apr 14 05:14	11°♍13'02	19°08'41	inferior conj	11982 Mar 13 05:59	28°♍32'00	0°37'39
desc. node	11981 Apr 26 19:15	27°♍48'59		minimum elong	11982 Mar 19 04:45	22°♍47'09	
greatest brilliancy	11981 Apr 27 05:44	28°♍28'11	-0.7m	morning rise	11982 Mar 22 05:18	21°♍55'56	
	11981 Apr 28 06:11	0°♎		direct	11982 Mar 28 17:01	25°♍23'21	18°24'18
morning set	11981 May 07 21:10	14°♎44'28		morning max el	11982 Apr 01 16:43	0°♎	
	11981 May 17 17:04	0°♎			11982 Apr 13 15:56	17°♎54'14	
max. Earth dist.	11981 May 21 09:41	5°♎46'52	1.45302 AU	desc. node	11982 Apr 17 20:56	24°♎34'35	
superior conj	11981 May 24 08:06	10°♎24'11	-2°12'56	morning set	11982 Apr 21 07:05	0°♎	
minimum elong	11981 May 24 06:29	10°♎17'45	2°13'40	superior conj	11982 May 03 15:32	19°♎24'28	-1°58'18
	11981 Jun 05 12:55	0°☿		minimum elong	11982 May 03 07:17	18°♎52'12	1°58'20
evening rise	11981 Jun 07 23:57	4°☿01'33		max. Earth dist.	11982 May 04 04:43	20°♎15'58	1.45747 AU
asc. node	11981 Jun 20 08:00	23°☿53'03			11982 May 10 10:15	0°♎	
	11981 Jun 24 17:20	0°Ω			11982 May 19 12:08	14°♎14'16	
evening max el	11981 Jun 27 10:23	3°Ω03'51	18°21'38	evening rise	11982 May 29 05:36	29°♎29'09	-0.8m
retrograde	11981 Jul 03 19:59	6°Ω29'08		greatest brilliancy	11982 May 29 13:36	0°☿	
evening set	11981 Jul 06 20:57	5°Ω38'11			11982 Jun 07 05:02	12°☿30'14	
inferior conj	11981 Jul 12 17:13	0°Ω09'57	2°45'25	asc. node	11982 Jun 10 21:15	16°☿45'03	18°55'43
minimum elong	11981 Jul 12 19:25	0°Ω03'31	2°44'14	evening max el	11982 Jun 17 15:01	20°☿28'05	
	11981 Jul 12 20:37	30°♏		retrograde	11982 Jun 21 00:35	19°☿21'23	
min. Earth dist.	11981 Jul 15 00:50	27°☿28'13	0.64478 AU	evening set	11982 Jun 26 13:09	13°☿37'54	3°07'35
morning rise	11981 Jul 18 16:35	23°☿50'56		inferior conj	11982 Jun 26 14:22	13°☿34'03	3°06'38
desc. node	11981 Jul 23 18:47	21°☿19'41		minimum elong			

min. Earth dist.	11982 Jun 28 05:56	11°☿29'04	0.66220 AU	inferior conj	11983 Jun 10 15:54	27°♄22'04	3°15'05
morning rise	11982 Jul 02 03:29	7°☿15'29		minimum elong	11983 Jun 10 16:00	27°♄21'42	3°14'15
direct	11982 Jul 08 10:53	4°☿33'16		min. Earth dist.	11983 Jun 11 17:59	25°♄54'42	0.67532 AU
desc. node	11982 Jul 10 16:00	4°☿50'41		morning rise	11983 Jun 15 23:51	21°♄00'41	
morning max el	11982 Jul 21 09:59	12°☿16'12	26°28'19	direct	11983 Jun 21 20:45	18°♄25'11	
	11982 Aug 04 15:13	0°♌		desc. node	11983 Jun 27 13:09	20°♄19'48	
	11982 Aug 23 04:25	0°♍		morning max el	11983 Jul 03 20:16	25°♄36'05	25°10'01
morning set	11982 Aug 26 08:06	5°♍49'04			11983 Jul 07 20:36	0°☿	
max. Earth dist.	11982 Aug 30 07:33	13°♍28'15	1.34587 AU		11983 Jul 29 03:35	0°♌	
asc. node	11982 Sep 03 05:29	21°♍20'06		morning set	11983 Aug 08 19:12	18°♌00'50	
				max. Earth dist.	11983 Aug 12 09:34	24°♌34'25	1.36602 AU
					11983 Aug 15 06:38	0°♍	
superior conj	11982 Sep 04 07:09	23°♍31'57	0°10'18				
minimum elong	11982 Sep 04 06:35	23°♍29'05	0°10'02	superior conj	11983 Aug 18 19:49	6°♍54'21	-0°21'28
behind sun begin	11982 Sep 04 01:57	23°♍05'12		minimum elong	11983 Aug 18 21:12	7°♍01'10	0°21'35
behind sun end	11982 Sep 04 11:13	23°♍53'01		asc. node	11983 Aug 21 02:10	11°♍25'09	
	11982 Sep 07 09:37	0°♎		evening rise	11983 Aug 27 00:36	23°♍27'04	
evening rise	11982 Sep 11 19:23	9°♎15'25			11983 Aug 30 07:14	0°♎	
	11982 Sep 22 17:37	0°♏		evening max el	11983 Sep 13 06:52	21°♎48'52	19°42'51
evening max el	11982 Sep 30 22:39	10°♏45'36	20°58'06	retrograde	11983 Sep 23 06:45	26°♎47'39	
desc. node	11982 Oct 06 12:59	14°♏59'37		desc. node	11983 Sep 23 10:23	26°♎47'35	
retrograde	11982 Oct 12 14:26	16°♏32'52		evening set	11983 Sep 25 03:52	26°♎37'52	
evening set	11982 Oct 15 00:00	16°♏19'13		inferior conj	11983 Oct 03 24:00	22°♎34'53	-3°14'26
inferior conj	11982 Oct 24 01:21	12°♏24'44	-4°53'17	minimum elong	11983 Oct 03 15:36	22°♎47'58	3°11'14
minimum elong	11982 Oct 23 15:39	12°♏38'28	4°50'28	min. Earth dist.	11983 Oct 06 03:51	21°♎14'17	0.55271 AU
min. Earth dist.	11982 Oct 24 18:27	12°♏00'30	0.54588 AU	morning rise	11983 Oct 12 01:35	18°♎15'24	
morning rise	11982 Nov 01 07:34	8°♏31'15		direct	11983 Oct 16 23:48	17°♎21'51	
direct	11982 Nov 05 09:51	7°♏55'17		morning max el	11983 Oct 30 20:03	24°♎14'25	24°45'53
morning max el	11982 Nov 18 09:30	14°♏10'29	22°57'51		11983 Nov 05 02:35	0°♏	
asc. node	11982 Nov 30 06:33	29°♏44'12		asc. node	11983 Nov 17 03:27	18°♏27'06	
	11982 Nov 30 10:21	0°♐			11983 Nov 23 01:35	0°♐	
morning set	11982 Dec 11 03:45	20°♐40'56		morning set	11983 Nov 25 15:38	5°♐26'38	
	11982 Dec 15 11:44	0°♑					
superior conj	11982 Dec 18 02:41	5°♑39'10	1°36'11	superior conj	11983 Dec 02 11:03	20°♐20'11	1°38'55
minimum elong	11982 Dec 18 03:45	5°♑44'50	1°36'58	minimum elong	11983 Dec 02 10:58	20°♐19'43	1°39'43
max. Earth dist.	11982 Dec 21 07:46	12°♑27'12	1.33582 AU	max. Earth dist.	11983 Dec 04 09:02	24°♐31'17	1.32338 AU
evening rise	11982 Dec 26 00:09	21°♑57'39			11983 Dec 06 22:15	0°♑	
	11982 Dec 30 05:05	0°♒		evening rise	11983 Dec 09 18:32	5°♑55'48	
desc. node	11983 Jan 02 11:11	5°♒53'03		desc. node	11983 Dec 20 08:07	25°♑50'59	
	11983 Jan 17 22:13	0°♓			11983 Dec 22 19:16	0°♒	
evening max el	11983 Jan 29 13:28	13°♓39'40	27°14'54	evening max el	11984 Jan 12 01:05	26°♒48'09	27°32'11
retrograde	11983 Feb 12 01:22	21°♓04'17			11984 Jan 15 18:22	0°♓	
evening set	11983 Feb 18 18:40	18°♓32'13		retrograde	11984 Jan 25 19:48	4°♓10'11	
min. Earth dist.	11983 Feb 22 16:10	14°♓53'38	0.64971 AU	evening set	11984 Feb 01 18:34	1°♓44'59	
inferior conj	11983 Feb 25 00:20	12°♓19'07	-0°23'17		11984 Feb 03 23:59	30°♒	
minimum elong	11983 Feb 25 01:01	12°♓17'14	0°22'41	min. Earth dist.	11984 Feb 05 12:43	28°♒35'54	0.63116 AU
asc. node	11983 Feb 26 04:49	11°♓01'42		inferior conj	11984 Feb 08 07:40	25°♒50'40	-1°34'00
morning rise	11983 Mar 03 09:01	6°♓50'09		minimum elong	11984 Feb 08 10:46	25°♒43'00	1°32'12
direct	11983 Mar 06 00:28	6°♓13'20		asc. node	11984 Feb 13 02:10	21°♒43'22	
morning max el	11983 Mar 12 09:12	9°♓32'32	17°56'48	morning rise	11984 Feb 15 05:18	20°♒37'39	
	11983 Mar 26 12:52	0°♔		direct	11984 Feb 17 13:24	20°♒11'40	
morning set	11983 Mar 30 01:33	5°♔49'51		morning max el	11984 Feb 24 02:58	23°♒33'19	17°46'40
desc. node	11983 Mar 31 12:33	8°♔14'27			11984 Feb 29 06:57	0°♓	
				morning set	11984 Mar 11 07:53	18°♓19'20	
superior conj	11983 Apr 13 04:14	28°♔45'01	-1°26'22	desc. node	11984 Mar 17 09:10	28°♓45'16	
minimum elong	11983 Apr 12 19:27	28°♔10'10	1°25'42		11984 Mar 18 02:44	0°♔	
	11983 Apr 13 23:08	0°♕		superior conj	11984 Mar 23 13:00	9°♔05'01	-0°45'52
max. Earth dist.	11983 Apr 17 00:56	4°♕51'04	1.45445 AU	minimum elong	11984 Mar 23 08:18	8°♔45'37	0°45'14
evening rise	11983 Apr 29 05:15	23°♕45'04		max. Earth dist.	11984 Mar 29 19:17	19°♔14'39	1.44432 AU
	11983 May 03 07:09	0°♖			11984 Apr 05 15:26	0°♕	
greatest brilliancy	11983 May 13 10:59	15°♖17'01	-0.6m	evening rise	11984 Apr 07 16:47	3°♕10'32	
	11983 May 24 15:39	0°☿			11984 Apr 25 19:08	0°♖	
evening max el	11983 May 25 03:16	0°☿29'49	19°46'07	evening max el	11984 May 07 03:31	14°♖15'35	20°50'35
asc. node	11983 May 25 02:09	0°☿26'58		asc. node	11984 May 10 23:21	17°♖30'46	
retrograde	11983 Jun 01 13:08	4°☿42'35		retrograde	11984 May 15 12:01	19°♖07'29	
evening set	11983 Jun 05 07:48	3°☿19'34		evening set	11984 May 19 16:34	17°♖28'16	
	11983 Jun 08 15:14	30°♗♖					

inferior conj	11984 May 24 22:55	11° $\Pi$ 18'26	3°10'17	retrograde	11985 Apr 29 09:51	3° $\Pi$ 37'13	
minimum elong	11984 May 24 22:02	11° $\Pi$ 21'31	3°09'28	evening set	11985 May 04 01:04	1° $\Pi$ 42'37	
min. Earth dist.	11984 May 25 11:11	10° $\Pi$ 36'00	0.68380 AU		11985 May 05 18:48	30° $\mathbb{R}$ 8	
morning rise	11984 May 30 03:16	5° $\Pi$ 00'38		inferior conj	11985 May 09 08:01	25° $\mathbb{B}$ 22'41	2°54'43
direct	11984 Jun 04 11:43	2° $\Pi$ 39'12		minimum elong	11985 May 09 06:21	25° $\mathbb{B}$ 28'29	2°53'49
desc. node	11984 Jun 13 10:13	7° $\Pi$ 19'08		min. Earth dist.	11985 May 09 07:17	25° $\mathbb{B}$ 25'14	0.68761 AU
morning max el	11984 Jun 15 06:20	9° $\Pi$ 05'08	23°41'36	morning rise	11985 May 14 11:29	19° $\mathbb{B}$ 10'14	
	11984 Jul 01 17:22	0° $\mathfrak{C}$		direct	11985 May 19 06:48	17° $\mathbb{B}$ 07'32	
morning set	11984 Jul 20 09:44	29° $\mathfrak{C}$ 15'58		morning max el	11985 May 28 18:20	22° $\mathbb{B}$ 41'40	22°12'33
	11984 Jul 20 20:06	0° $\Omega$		desc. node	11985 May 31 07:10	25° $\mathbb{B}$ 24'21	
max. Earth dist.	11984 Jul 24 07:07	5° $\Omega$ 58'58	1.38878 AU		11985 Jun 04 03:00	0° $\Pi$	
					11985 Jun 25 00:59	0° $\mathfrak{C}$	
superior conj	11984 Jul 31 19:19	19° $\Omega$ 38'03	-0°55'28	morning set	11985 Jun 30 23:18	9° $\mathfrak{C}$ 23'39	
minimum elong	11984 Jul 31 23:12	19° $\Omega$ 56'17	0°55'25	max. Earth dist.	11985 Jul 06 06:25	18° $\mathfrak{C}$ 06'34	1.41164 AU
	11984 Aug 06 05:16	0° $\mathbb{P}$			11985 Jul 13 04:15	0° $\Omega$	
asc. node	11984 Aug 06 22:54	1° $\mathbb{P}$ 25'46					
evening rise	11984 Aug 09 23:02	7° $\mathbb{P}$ 17'46		superior conj	11985 Jul 14 01:17	1° $\Omega$ 33'10	-1°28'44
	11984 Aug 23 00:37	0° $\underline{\mathfrak{A}}$		minimum elong	11985 Jul 14 07:29	2° $\Omega$ 00'45	1°28'41
evening max el	11984 Aug 26 04:15	3° $\underline{\mathfrak{A}}$ 39'51	18°49'10	evening rise	11985 Jul 24 11:10	20° $\Omega$ 38'23	
retrograde	11984 Sep 03 15:05	7° $\underline{\mathfrak{A}}$ 53'53		asc. node	11985 Jul 24 19:41	21° $\Omega$ 18'03	
evening set	11984 Sep 05 12:44	7° $\underline{\mathfrak{A}}$ 41'48			11985 Jul 29 13:05	0° $\mathbb{P}$	
desc. node	11984 Sep 09 07:50	6° $\underline{\mathfrak{A}}$ 13'35		evening max el	11985 Aug 09 11:16	16° $\mathbb{P}$ 12'05	18°16'39
inferior conj	11984 Sep 13 16:55	3° $\underline{\mathfrak{A}}$ 21'26	-1°22'33	retrograde	11985 Aug 16 18:23	19° $\mathbb{P}$ 53'27	
minimum elong	11984 Sep 13 13:28	3° $\underline{\mathfrak{A}}$ 27'41	1°21'13	evening set	11985 Aug 18 22:31	19° $\mathbb{P}$ 34'32	
min. Earth dist.	11984 Sep 16 18:22	1° $\underline{\mathfrak{A}}$ 09'29	0.56774 AU	inferior conj	11985 Aug 26 07:41	14° $\mathbb{P}$ 53'46	0°16'30
	11984 Sep 18 12:21	30° $\mathbb{R}$ 11		minimum elong	11985 Aug 26 08:15	14° $\mathbb{P}$ 52'35	0°16'00
morning rise	11984 Sep 21 10:51	28° $\mathbb{P}$ 24'31		transit middle	11985 Aug 26 08:15	14° $\mathbb{P}$ 52'35	0°16'00
direct	11984 Sep 27 03:27	27° $\mathbb{P}$ 06'21		transit begin	11985 Aug 26 07:45	14° $\mathbb{P}$ 53'38	
	11984 Oct 05 19:52	0° $\underline{\mathfrak{A}}$		transit end	11985 Aug 26 08:45	14° $\mathbb{P}$ 51'32	
morning max el	11984 Oct 11 09:37	4° $\underline{\mathfrak{A}}$ 29'26	26°21'07	desc. node	11985 Aug 27 05:15	14° $\mathbb{P}$ 07'58	
	11984 Oct 29 20:56	0° $\mathbb{M}$		min. Earth dist.	11985 Aug 29 15:47	12° $\mathbb{P}$ 05'49	0.58825 AU
asc. node	11984 Nov 03 00:16	7° $\mathbb{M}$ 39'47		morning rise	11985 Sep 02 14:31	9° $\mathbb{P}$ 21'43	
morning set	11984 Nov 09 02:18	20° $\mathbb{M}$ 05'24		direct	11985 Sep 08 21:36	7° $\mathbb{P}$ 34'48	
	11984 Nov 13 15:04	0° $\mathfrak{A}$		morning max el	11985 Sep 23 06:03	15° $\mathbb{P}$ 19'52	27°27'34
					11985 Oct 05 03:56	0° $\underline{\mathfrak{A}}$	
superior conj	11984 Nov 15 22:03	5° $\mathfrak{A}$ 05'44	1°35'36	asc. node	11985 Oct 20 21:02	27° $\underline{\mathfrak{A}}$ 14'17	
minimum elong	11984 Nov 15 20:56	4° $\mathfrak{A}$ 59'35	1°36'15		11985 Oct 22 05:43	0° $\mathbb{M}$	
max. Earth dist.	11984 Nov 16 15:41	6° $\mathfrak{A}$ 43'47	1.31577 AU	morning set	11985 Oct 24 10:05	4° $\mathbb{M}$ 32'49	
evening rise	11984 Nov 22 20:26	20° $\mathfrak{A}$ 12'04					
	11984 Nov 27 16:18	0° $\mathfrak{B}$		superior conj	11985 Oct 31 09:47	19° $\mathbb{M}$ 50'18	1°26'33
desc. node	11984 Dec 06 05:10	15° $\mathfrak{B}$ 22'30		minimum elong	11985 Oct 31 07:56	19° $\mathbb{M}$ 39'54	1°26'56
	11984 Dec 16 02:54	0° $\approx$		max. Earth dist.	11985 Oct 31 00:33	18° $\mathbb{M}$ 58'47	1.31321 AU
evening max el	11984 Dec 24 08:25	9° $\approx$ 17'34	27°17'27		11985 Nov 04 23:43	0° $\mathfrak{A}$	
retrograde	11985 Jan 07 06:30	16° $\approx$ 32'57		evening rise	11985 Nov 07 03:31	4° $\mathfrak{A}$ 40'37	
evening set	11985 Jan 14 04:42	14° $\approx$ 23'18			11985 Nov 20 09:51	0° $\mathfrak{B}$	
min. Earth dist.	11985 Jan 17 22:55	11° $\approx$ 36'39	0.61035 AU	desc. node	11985 Nov 23 02:18	4° $\mathfrak{B}$ 17'15	
inferior conj	11985 Jan 21 01:33	8° $\approx$ 54'09	-2°51'49	evening max el	11985 Dec 06 09:03	20° $\mathfrak{B}$ 58'19	26°28'16
minimum elong	11985 Jan 21 07:31	8° $\approx$ 41'07	2°48'52	retrograde	11985 Dec 20 07:48	28° $\mathfrak{B}$ 04'49	
morning rise	11985 Jan 28 13:12	4° $\approx$ 00'06		evening set	11985 Dec 26 21:01	26° $\mathfrak{B}$ 19'48	
asc. node	11985 Jan 29 23:30	3° $\approx$ 43'24		min. Earth dist.	11985 Dec 30 22:47	23° $\mathfrak{B}$ 43'43	0.58893 AU
direct	11985 Jan 30 16:22	3° $\approx$ 41'20		inferior conj	11986 Jan 03 02:26	21° $\mathfrak{B}$ 20'13	-4°10'23
morning max el	11985 Feb 06 18:56	7° $\approx$ 15'37	17°54'41	minimum elong	11986 Jan 03 10:37	21° $\mathfrak{B}$ 04'39	4°07'07
	11985 Feb 21 11:00	0° $\mathfrak{H}$		morning rise	11986 Jan 11 03:04	16° $\mathfrak{B}$ 47'26	
morning set	11985 Feb 22 09:32	1° $\mathfrak{H}$ 42'38		direct	11986 Jan 13 05:08	16° $\mathfrak{B}$ 32'16	
desc. node	11985 Mar 04 05:46	19° $\mathfrak{H}$ 22'00		asc. node	11986 Jan 16 20:43	17° $\mathfrak{B}$ 21'12	
				morning max el	11986 Jan 21 05:21	20° $\mathfrak{B}$ 28'54	18°22'19
					11986 Jan 28 08:47	0° $\approx$	
superior conj	11985 Mar 04 22:23	20° $\mathfrak{H}$ 34'12	-0°05'23	morning set	11986 Feb 06 00:52	15° $\approx$ 43'00	
minimum elong	11985 Mar 04 21:56	20° $\mathfrak{H}$ 32'15	0°05'06		11986 Feb 13 13:53	0° $\mathfrak{H}$	
behind sun begin	11985 Mar 04 14:04	19° $\mathfrak{H}$ 58'06					
behind sun end	11985 Mar 05 05:47	21° $\mathfrak{H}$ 06'19					
	11985 Mar 10 11:30	0° $\mathbb{Y}$		superior conj	11986 Feb 15 06:01	3° $\mathfrak{H}$ 05'01	0°29'59
max. Earth dist.	11985 Mar 12 09:19	3° $\mathbb{Y}$ 09'31	1.42820 AU	minimum elong	11986 Feb 15 08:06	3° $\mathfrak{H}$ 14'33	0°30'06
evening rise	11985 Mar 18 13:52	13° $\mathbb{Y}$ 07'01		desc. node	11986 Feb 19 02:25	10° $\mathfrak{H}$ 01'18	
	11985 Mar 29 15:28	0° $\mathbb{B}$		max. Earth dist.	11986 Feb 22 18:37	16° $\mathfrak{H}$ 25'20	1.40790 AU
evening max el	11985 Apr 19 22:26	28° $\mathbb{B}$ 01'56	22°05'36	evening rise	11986 Feb 27 06:07	23° $\mathfrak{H}$ 56'22	
	11985 Apr 22 00:41	0° $\Pi$			11986 Mar 02 23:59	0° $\mathbb{Y}$	
asc. node	11985 Apr 27 20:38	3° $\Pi$ 25'48			11986 Mar 23 12:47	0° $\mathbb{B}$	

evening max el	11986 Apr 02 13:44	11°♄50'44	23°25'56		11987 Feb 24 00:23	0°♃	
retrograde	11986 Apr 13 05:02	18°♄07'00		evening max el	11987 Mar 16 03:30	25°♃42'32	24°45'15
asc. node	11986 Apr 14 17:57	17°♄55'58			11987 Mar 21 04:29	0°♄	
evening set	11986 Apr 18 07:43	15°♄58'20		retrograde	11987 Mar 27 20:24	2°♄31'57	
min. Earth dist.	11986 Apr 23 04:05	10°♄16'37	0.68689 AU	asc. node	11987 Apr 01 15:17	0°♄50'16	
inferior conj	11986 Apr 23 17:14	9°♄31'23	2°29'10	evening set	11987 Apr 02 11:01	0°♄11'19	
minimum elong	11986 Apr 23 15:08	9°♄38'37	2°28'11		11987 Apr 02 16:13	30°♃	
morning rise	11986 Apr 28 22:28	3°♄25'37		min. Earth dist.	11987 Apr 06 23:21	25°♃05'19	0.68174 AU
direct	11986 May 03 04:47	1°♄43'55		inferior conj	11987 Apr 08 00:42	23°♃41'14	1°53'50
morning max el	11986 May 11 11:30	6°♄28'08	20°50'45	minimum elong	11987 Apr 07 22:35	23°♃48'15	1°52'55
desc. node	11986 May 18 04:02	14°♄17'37		morning rise	11987 Apr 13 10:21	17°♃43'35	
	11986 May 29 08:31	0°♄		direct	11987 Apr 17 04:19	16°♃22'59	
morning set	11986 Jun 10 12:02	18°♄25'27		morning max el	11987 Apr 24 12:12	20°♃27'02	19°41'37
	11986 Jun 17 19:17	0°♄			11987 May 02 08:26	0°♄	
max. Earth dist.	11986 Jun 18 12:00	1°♄07'33	1.43193 AU	desc. node	11987 May 05 00:49	3°♄46'12	
				greatest brilliancy	11987 May 07 06:19	6°♄59'54	-0.6m
superior conj	11986 Jun 25 09:18	12°♄29'49	-1°56'28	morning set	11987 May 20 12:13	26°♄58'55	
minimum elong	11986 Jun 25 15:53	12°♄57'31	1°56'45		11987 May 22 11:14	0°♄	
	11986 Jul 05 12:03	0°♄		max. Earth dist.	11987 Jun 01 00:54	14°♄57'09	1.44723 AU
evening rise	11986 Jul 07 08:32	3°♄17'10					
asc. node	11986 Jul 11 16:30	10°♄56'55		superior conj	11987 Jun 05 17:21	22°♄25'50	-2°12'03
evening max el	11986 Jul 23 23:39	29°♄14'16	18°03'54	minimum elong	11987 Jun 05 19:57	22°♄36'21	2°12'47
	11986 Jul 24 19:13	0°♄			11987 Jun 10 09:13	0°♄	
retrograde	11986 Jul 30 14:12	2°♄37'54		evening rise	11987 Jun 19 10:16	15°♄03'41	
evening set	11986 Aug 02 02:22	2°♄08'25			11987 Jun 28 09:04	0°♄	
	11986 Aug 05 14:26	30°♃		asc. node	11987 Jun 28 13:25	0°♄17'29	
inferior conj	11986 Aug 08 18:18	27°♄07'38	1°32'24	evening max el	11987 Jul 07 13:45	12°♄37'20	18°09'54
minimum elong	11986 Aug 08 20:42	27°♄01'46	1°31'06	retrograde	11987 Jul 13 22:20	15°♄58'01	
min. Earth dist.	11986 Aug 11 21:27	24°♄05'39	0.61103 AU	evening set	11987 Jul 16 18:38	15°♄15'19	
desc. node	11986 Aug 14 02:39	22°♄10'57		inferior conj	11987 Jul 22 20:57	9°♄56'18	2°24'43
morning rise	11986 Aug 15 12:21	21°♄09'41		minimum elong	11987 Jul 22 23:30	9°♄49'15	2°23'24
direct	11986 Aug 22 03:31	18°♄56'23		min. Earth dist.	11987 Jul 25 12:30	7°♄02'11	0.63319 AU
morning max el	11986 Sep 05 09:17	26°♄54'22	27°56'45	morning rise	11987 Jul 29 02:39	3°♄42'30	
	11986 Sep 08 07:31	0°♄		desc. node	11987 Jul 31 23:59	1°♄58'32	
	11986 Sep 28 19:46	0°♄		direct	11987 Aug 04 18:59	1°♄10'14	
asc. node	11986 Oct 07 17:44	17°♄03'32		morning max el	11987 Aug 18 17:40	9°♄12'06	27°47'38
morning set	11986 Oct 08 13:01	18°♄42'52			11987 Sep 03 21:47	0°♄	
	11986 Oct 13 19:49	0°♄			11987 Sep 21 02:45	0°♄	
max. Earth dist.	11986 Oct 14 07:54	1°♄06'14	1.31572 AU	morning set	11987 Sep 22 08:55	2°♄30'08	
				asc. node	11987 Sep 24 14:25	7°♄02'33	
superior conj	11986 Oct 15 20:23	4°♄27'25	1°11'57	max. Earth dist.	11987 Sep 27 09:59	12°♄56'59	1.32337 AU
minimum elong	11986 Oct 15 18:09	4°♄15'03	1°12'01				
evening rise	11986 Oct 22 13:38	19°♄14'57		superior conj	11987 Sep 30 03:55	18°♄51'37	0°51'57
	11986 Oct 27 17:56	0°♄		minimum elong	11987 Sep 30 01:49	18°♄40'13	0°51'46
desc. node	11986 Nov 09 23:30	22°♄20'25			11987 Oct 05 06:23	0°♄	
	11986 Nov 16 06:32	0°♄		evening rise	11987 Oct 07 00:56	3°♄49'53	
evening max el	11986 Nov 18 01:27	1°♄47'31	25°08'22		11987 Oct 20 23:11	0°♄	
retrograde	11986 Dec 01 21:27	8°♄43'47		desc. node	11987 Oct 27 20:46	9°♄12'41	
evening set	11986 Dec 07 15:00	7°♄29'49		evening max el	11987 Oct 30 12:00	11°♄58'36	23°29'47
min. Earth dist.	11986 Dec 12 13:30	4°♄48'10	0.56919 AU	retrograde	11987 Nov 12 22:18	18°♄40'06	
inferior conj	11986 Dec 15 07:20	2°♄59'42	-5°16'54	evening set	11987 Nov 17 09:02	17°♄57'06	
minimum elong	11986 Dec 15 14:46	2°♄47'24	5°14'43	min. Earth dist.	11987 Nov 23 21:59	14°♄51'10	0.55398 AU
	11986 Dec 20 08:30	30°♃		inferior conj	11987 Nov 25 16:03	13°♄49'27	-5°50'52
morning rise	11986 Dec 23 16:47	28°♄48'54		minimum elong	11987 Nov 25 17:27	13°♄47'22	5°50'03
direct	11986 Dec 26 00:01	28°♄33'35		morning rise	11987 Dec 04 03:39	9°♄57'00	
	11986 Dec 31 06:40	0°♄		direct	11987 Dec 06 23:36	9°♄37'27	
asc. node	11987 Jan 03 17:52	2°♄32'42		morning max el	11987 Dec 17 18:06	14°♄44'40	20°23'46
morning max el	11987 Jan 04 06:13	3°♄01'43	19°11'33	asc. node	11987 Dec 21 14:58	19°♄03'31	
	11987 Jan 20 23:57	0°♄			11987 Dec 28 17:35	0°♄	
morning set	11987 Jan 21 01:27	0°♄07'31		morning set	11988 Jan 05 08:04	14°♄46'20	
superior conj	11987 Jan 29 07:14	16°♄24'15	0°58'05	superior conj	11988 Jan 12 21:30	0°♄19'04	1°18'33
minimum elong	11987 Jan 29 10:09	16°♄38'19	0°58'18	minimum elong	11988 Jan 13 00:06	0°♄32'15	1°19'01
max. Earth dist.	11987 Feb 05 01:11	29°♄01'09	1.38566 AU		11988 Jan 12 17:44	0°♄	
desc. node	11987 Feb 05 23:05	0°♄39'31		max. Earth dist.	11988 Jan 18 08:46	11°♄05'58	1.36397 AU
	11987 Feb 05 14:16	0°♄		evening rise	11988 Jan 22 04:26	18°♄14'35	
evening rise	11987 Feb 08 19:40	5°♄41'10		desc. node	11988 Jan 23 19:47	21°♄12'32	



	11988 Jan 28 21:27	0° $\text{H}$			11989 Feb 17 23:23	0° $\text{Y}$	
	11988 Feb 18 06:01	0° $\text{Y}$		retrograde	11989 Feb 21 12:11	0° $\text{Y}$ 38'47	
evening max el	11988 Feb 26 16:57	9° $\text{Y}$ 32'46	25°56'32		11989 Feb 24 20:01	30° $\text{R}$ $\text{H}$	
retrograde	11988 Mar 10 07:01	16° $\text{Y}$ 44'55		evening set	11989 Feb 28 00:43	28° $\text{H}$ 05'40	
evening set	11988 Mar 16 09:17	14° $\text{Y}$ 15'35		min. Earth dist.	11989 Mar 04 00:44	24° $\text{H}$ 08'43	0.65902 AU
asc. node	11988 Mar 18 12:39	12° $\text{Y}$ 11'51		asc. node	11989 Mar 05 10:01	22° $\text{H}$ 32'27	
min. Earth dist.	11988 Mar 20 14:55	9° $\text{Y}$ 44'46	0.67234 AU	inferior conj	11989 Mar 06 02:20	21° $\text{H}$ 44'50	0°13'11
inferior conj	11988 Mar 22 04:27	7° $\text{Y}$ 47'11	1°08'35	minimum elong	11989 Mar 06 01:58	21° $\text{H}$ 45'54	0°13'14
minimum elong	11988 Mar 22 02:52	7° $\text{Y}$ 52'09	1°07'58	transit middle	11989 Mar 06 01:58	21° $\text{H}$ 45'54	0°13'14
morning rise	11988 Mar 27 21:06	1° $\text{Y}$ 59'13		transit begin	11989 Mar 06 00:18	21° $\text{H}$ 50'45	
direct	11988 Mar 31 03:39	0° $\text{Y}$ 58'08		transit end	11989 Mar 06 03:38	21° $\text{H}$ 41'03	
morning max el	11988 Apr 06 20:26	4° $\text{Y}$ 35'03	18°47'50	morning rise	11989 Mar 12 04:31	16° $\text{H}$ 08'24	
desc. node	11988 Apr 20 21:29	23° $\text{Y}$ 39'57		direct	11989 Mar 15 00:57	15° $\text{H}$ 23'52	
	11988 Apr 24 23:52	0° $\text{B}$		morning max el	11989 Mar 21 10:31	18° $\text{H}$ 46'22	18°10'30
morning set	11988 Apr 28 22:03	6° $\text{B}$ 06'29			11989 Mar 30 00:15	0° $\text{Y}$	
max. Earth dist.	11988 May 13 18:43	29° $\text{B}$ 17'32	1.45586 AU	desc. node	11989 Apr 07 18:08	13° $\text{Y}$ 52'03	
	11988 May 14 05:34	0° $\text{II}$		morning set	11989 Apr 09 09:52	16° $\text{Y}$ 32'19	
					11989 Apr 17 19:29	0° $\text{B}$	
superior conj	11988 May 15 05:52	1° $\text{II}$ 35'12	-2°09'12				
minimum elong	11988 May 15 00:57	1° $\text{II}$ 15'57	2°09'43	superior conj	11989 Apr 24 13:17	10° $\text{B}$ 38'10	-1°46'26
evening rise	11988 May 30 12:18	25° $\text{II}$ 49'54		minimum elong	11989 Apr 24 03:58	10° $\text{B}$ 01'40	1°46'05
	11988 Jun 02 02:26	0° $\text{E}$		max. Earth dist.	11989 Apr 26 14:17	13° $\text{B}$ 49'59	1.45709 AU
asc. node	11988 Jun 14 10:23	19° $\text{E}$ 12'40			11989 May 06 23:25	0° $\text{II}$	
evening max el	11988 Jun 20 02:26	26° $\text{E}$ 13'08	18°33'58	evening rise	11989 May 10 15:12	5° $\text{II}$ 41'01	
retrograde	11988 Jun 26 14:29	29° $\text{E}$ 44'35		greatest brilliancy	11989 May 22 11:17	23° $\text{II}$ 55'15	-0.7m
evening set	11988 Jun 29 19:03	28° $\text{E}$ 47'00			11989 May 26 14:17	0° $\text{E}$	
inferior conj	11988 Jul 05 11:36	23° $\text{E}$ 11'47	2°56'48	asc. node	11989 Jun 01 07:28	7° $\text{E}$ 33'53	
minimum elong	11988 Jul 05 13:25	23° $\text{E}$ 06'16	2°55'43	evening max el	11989 Jun 03 11:20	9° $\text{E}$ 55'44	19°15'15
min. Earth dist.	11988 Jul 07 12:50	20° $\text{E}$ 42'54	0.65268 AU	retrograde	11989 Jun 10 11:15	13° $\text{E}$ 50'32	
morning rise	11988 Jul 11 06:48	16° $\text{E}$ 50'31		evening set	11989 Jun 14 00:30	12° $\text{E}$ 37'04	
direct	11988 Jul 17 18:36	14° $\text{E}$ 09'05		inferior conj	11989 Jun 19 10:48	6° $\text{E}$ 47'19	3°12'22
desc. node	11988 Jul 17 21:16	14° $\text{E}$ 09'08		minimum elong	11989 Jun 19 11:33	6° $\text{E}$ 44'54	3°11'30
morning max el	11988 Jul 31 04:32	22° $\text{E}$ 03'34	27°04'58	min. Earth dist.	11989 Jun 20 21:17	4° $\text{E}$ 55'15	0.66831 AU
	11988 Aug 07 03:23	0° $\text{O}$		morning rise	11989 Jun 24 22:04	0° $\text{E}$ 24'37	
	11988 Aug 27 03:20	0° $\text{P}$			11989 Jun 25 09:37	30° $\text{R}$ $\text{II}$	
morning set	11988 Sep 04 19:01	15° $\text{P}$ 47'52		direct	11989 Jul 01 01:12	27° $\text{II}$ 44'09	
max. Earth dist.	11988 Sep 09 03:19	24° $\text{P}$ 24'34	1.33619 AU	desc. node	11989 Jul 04 18:28	28° $\text{II}$ 33'26	
asc. node	11988 Sep 10 11:05	27° $\text{P}$ 07'02			11989 Jul 07 10:29	0° $\text{E}$	
	11988 Sep 11 20:27	0° $\text{A}$		morning max el	11989 Jul 13 15:22	5° $\text{E}$ 16'08	25°56'48
					11989 Aug 01 15:32	0° $\text{O}$	
superior conj	11988 Sep 13 06:15	2° $\text{A}$ 57'18	0°26'51	morning set	11989 Aug 18 15:45	28° $\text{O}$ 26'59	
minimum elong	11988 Sep 13 04:56	2° $\text{A}$ 50'18	0°26'34		11989 Aug 19 11:52	0° $\text{P}$	
evening rise	11988 Sep 20 11:32	18° $\text{A}$ 20'16		max. Earth dist.	11989 Aug 22 10:10	5° $\text{P}$ 32'06	1.35393 AU
	11988 Sep 26 04:57	0° $\text{M}$					
evening max el	11988 Oct 11 00:54	22° $\text{M}$ 05'05	21°50'02	superior conj	11989 Aug 28 00:49	16° $\text{P}$ 37'36	-0°02'48
desc. node	11988 Oct 13 18:06	24° $\text{M}$ 28'44		minimum elong	11989 Aug 28 01:00	16° $\text{P}$ 38'29	0°03'02
retrograde	11988 Oct 23 12:44	28° $\text{M}$ 17'48		behind sun begin	11989 Aug 27 18:59	16° $\text{P}$ 08'02	
evening set	11988 Oct 26 13:09	27° $\text{M}$ 57'18		behind sun end	11989 Aug 28 07:00	17° $\text{P}$ 09'00	
inferior conj	11988 Nov 04 10:31	24° $\text{M}$ 01'05	-5°31'17	asc. node	11989 Aug 28 07:47	17° $\text{P}$ 12'56	
minimum elong	11988 Nov 04 03:30	24° $\text{M}$ 10'54	5°29'38		11989 Sep 03 12:25	0° $\text{A}$	
min. Earth dist.	11988 Nov 04 04:35	24° $\text{M}$ 09'23	0.54611 AU	evening rise	11989 Sep 04 19:24	2° $\text{A}$ 40'18	
morning rise	11988 Nov 12 19:04	20° $\text{M}$ 13'47			11989 Sep 20 14:08	0° $\text{M}$	
direct	11988 Nov 16 09:17	19° $\text{M}$ 45'33		evening max el	11989 Sep 23 01:02	2° $\text{M}$ 42'04	20°23'35
morning max el	11988 Nov 28 16:16	25° $\text{M}$ 36'26	21°57'21	desc. node	11989 Sep 30 15:31	7° $\text{M}$ 39'03	
	11988 Dec 02 17:26	0° $\text{J}$		retrograde	11989 Oct 04 00:33	8° $\text{M}$ 09'21	
asc. node	11988 Dec 07 11:59	6° $\text{J}$ 37'08		evening set	11989 Oct 06 02:29	7° $\text{M}$ 58'28	
morning set	11988 Dec 19 18:17	29° $\text{J}$ 32'36		inferior conj	11989 Oct 15 03:25	4° $\text{M}$ 02'03	-4°15'08
	11988 Dec 19 23:29	0° $\text{Z}$		minimum elong	11989 Oct 14 17:27	4° $\text{M}$ 16'37	4°11'48
				min. Earth dist.	11989 Oct 16 12:37	3° $\text{M}$ 13'28	0.54757 AU
superior conj	11988 Dec 26 21:07	14° $\text{Z}$ 39'05	1°31'43	morning rise	11989 Oct 23 07:47	29° $\text{A}$ 59'15	
minimum elong	11988 Dec 26 22:49	14° $\text{Z}$ 48'02	1°32'24		11989 Oct 23 06:49	30° $\text{R}$ $\text{A}$	
max. Earth dist.	11988 Dec 30 21:41	22° $\text{Z}$ 58'19	1.34492 AU	direct	11989 Oct 27 18:26	29° $\text{A}$ 16'40	
	11989 Jan 03 10:43	0° $\text{N}$			11989 Nov 01 03:49	0° $\text{M}$	
evening rise	11989 Jan 04 05:02	1° $\text{N}$ 28'22		morning max el	11989 Nov 10 04:46	5° $\text{M}$ 49'28	23°44'14
desc. node	11989 Jan 09 16:35	11° $\text{N}$ 36'27		asc. node	11989 Nov 24 08:56	24° $\text{M}$ 57'50	
	11989 Jan 20 21:33	0° $\text{H}$			11989 Nov 27 03:49	0° $\text{J}$	
evening max el	11989 Feb 08 06:27	23° $\text{H}$ 15'03	26°52'24	morning set	11989 Dec 04 06:02	14° $\text{J}$ 19'19	

superior conj	11989 Dec 11 02:59	29°♊14'11	1°38'07	superior conj	11990 Nov 25 12:42	13°♊57'20	1°38'13
minimum elong	11989 Dec 11 03:33	29°♊17'16	1°38'55	minimum elong	11990 Nov 25 12:09	13°♊54'21	1°38'58
	11989 Dec 11 11:27	0°♊		max. Earth dist.	11990 Nov 26 22:08	17°♊01'37	1.31956 AU
max. Earth dist.	11989 Dec 13 18:19	4°♊54'23	1.32989 AU	evening rise	11990 Dec 02 15:44	29°♊18'47	
evening rise	11989 Dec 18 17:50	15°♊12'23			11990 Dec 02 23:43	0°♊	
	11989 Dec 26 13:35	0°♊		desc. node	11990 Dec 14 10:28	21°♊32'37	
desc. node	11989 Dec 27 13:29	1°♊45'20			11990 Dec 19 16:25	0°♊	
	11990 Jan 15 15:36	0°♊		evening max el	11991 Jan 04 05:36	19°♊32'50	27°30'10
evening max el	11990 Jan 21 19:18	6°♊39'16	27°25'51	retrograde	11991 Jan 18 02:19	26°♊52'05	
retrograde	11990 Feb 04 11:01	14°♊04'20		evening set	11991 Jan 25 01:30	24°♊32'46	
evening set	11990 Feb 11 07:04	11°♊34'10		min. Earth dist.	11991 Jan 28 19:15	21°♊33'59	0.62246 AU
min. Earth dist.	11990 Feb 15 02:48	8°♊08'36	0.64213 AU	inferior conj	11991 Jan 31 17:51	18°♊48'20	-2°06'25
inferior conj	11990 Feb 17 15:49	5°♊27'50	-0°52'13	minimum elong	11991 Jan 31 22:08	18°♊38'13	2°04'06
minimum elong	11990 Feb 17 17:26	5°♊23'33	0°51'07	asc. node	11991 Feb 07 04:44	13°♊58'25	
asc. node	11990 Feb 20 07:24	2°♊48'20		morning rise	11991 Feb 07 21:22	13°♊42'41	
morning rise	11990 Feb 24 05:49	0°♊05'18		direct	11991 Feb 10 02:59	13°♊20'12	
	11990 Feb 24 11:08	30°♊		morning max el	11991 Feb 16 21:07	16°♊46'18	17°47'44
direct	11990 Feb 26 17:46	29°♊33'41			11991 Feb 26 06:38	0°♊	
	11990 Mar 01 00:19	0°♊		morning set	11991 Mar 04 17:31	11°♊15'54	
morning max el	11990 Mar 05 03:47	2°♊53'01	17°50'16	desc. node	11991 Mar 12 11:22	24°♊50'31	
morning set	11990 Mar 22 02:09	28°♊21'12			11991 Mar 15 11:53	0°♊	
	11990 Mar 23 01:35	0°♊		superior conj	11991 Mar 16 04:29	1°♊10'04	-0°28'17
desc. node	11990 Mar 25 14:46	4°♊17'05		minimum elong	11991 Mar 16 01:45	0°♊58'30	0°27'48
				max. Earth dist.	11991 Mar 23 02:14	12°♊33'09	1.43813 AU
superior conj	11990 Apr 04 09:21	20°♊21'12	-1°09'40	evening rise	11991 Mar 30 17:54	24°♊39'05	
minimum elong	11990 Apr 04 02:02	19°♊51'44	1°08'56		11991 Apr 03 05:24	0°♊	
max. Earth dist.	11990 Apr 09 09:28	28°♊20'03	1.45095 AU		11991 Apr 24 03:14	0°♊	
	11990 Apr 10 10:49	0°♊		evening max el	11991 Apr 30 12:56	7°♊27'37	21°21'34
evening rise	11990 Apr 20 03:55	15°♊04'08		asc. node	11991 May 06 01:52	11°♊46'33	
	11990 Apr 30 00:37	0°♊		retrograde	11991 May 09 08:24	12°♊37'17	
greatest brilliancy	11990 May 04 23:40	7°♊18'42	-0.6m	evening set	11991 May 13 17:26	10°♊51'25	
evening max el	11990 May 17 14:58	23°♊41'20	20°12'05	inferior conj	11991 May 18 23:48	4°♊37'15	3°04'56
asc. node	11990 May 19 04:38	25°♊09'59		minimum elong	11991 May 18 22:33	4°♊41'36	3°04'04
retrograde	11990 May 25 09:55	28°♊09'56		min. Earth dist.	11991 May 19 06:29	4°♊13'58	0.68604 AU
evening set	11990 May 29 08:37	26°♊40'13			11991 May 22 12:43	30°♊	
inferior conj	11990 Jun 03 15:41	20°♊37'26	3°14'25	morning rise	11991 May 24 03:28	28°♊21'42	
minimum elong	11990 Jun 03 15:20	20°♊38'34	3°13'37	direct	11991 May 29 06:29	26°♊07'37	
min. Earth dist.	11990 Jun 04 11:53	19°♊28'38	0.67949 AU		11991 Jun 06 03:44	0°♊	
morning rise	11990 Jun 08 21:45	14°♊17'10		morning max el	11991 Jun 08 11:35	2°♊11'14	23°03'14
direct	11990 Jun 14 13:35	11°♊46'36		desc. node	11991 Jun 08 12:36	2°♊13'48	
desc. node	11990 Jun 21 15:35	14°♊44'11			11991 Jun 29 14:31	0°♊	
morning max el	11990 Jun 26 01:16	18°♊40'05	24°32'57	morning set	11991 Jul 12 22:58	21°♊03'06	
	11990 Jul 05 14:39	0°♊		max. Earth dist.	11991 Jul 17 06:45	28°♊21'36	1.39872 AU
	11990 Jul 25 17:29	0°♊			11991 Jul 18 05:32	0°♊	
morning set	11990 Jul 31 18:45	10°♊16'31		superior conj	11991 Jul 25 00:59	12°♊09'16	-1°09'55
max. Earth dist.	11990 Aug 04 09:06	16°♊40'53	1.37550 AU	minimum elong	11991 Jul 25 05:57	12°♊32'03	1°09'49
				asc. node	11991 Aug 02 01:11	27°♊13'55	
superior conj	11990 Aug 11 08:25	29°♊45'06	-0°35'45		11991 Aug 03 11:52	0°♊	
minimum elong	11990 Aug 11 10:49	29°♊56'42	0°35'48	evening rise	11991 Aug 03 16:36	0°♊22'41	
	11990 Aug 11 11:30	0°♊		evening max el	11991 Aug 19 17:19	26°♊15'59	18°32'47
asc. node	11990 Aug 15 04:28	7°♊16'34			11991 Aug 25 16:24	0°♊	
evening rise	11990 Aug 19 22:08	16°♊44'00		retrograde	11991 Aug 27 14:45	0°♊14'07	
	11990 Aug 26 19:51	0°♊		evening set	11991 Aug 29 14:58	29°♊59'30	
evening max el	11990 Sep 05 15:20	14°♊06'38	19°17'24		11991 Aug 29 14:07	30°♊	
retrograde	11990 Sep 14 22:24	18°♊44'40		desc. node	11991 Sep 04 10:23	27°♊01'27	
evening set	11990 Sep 16 18:41	18°♊34'30		inferior conj	11991 Sep 06 11:02	25°♊30'16	-0°38'00
desc. node	11990 Sep 17 12:56	18°♊24'38		minimum elong	11991 Sep 06 09:32	25°♊33'09	0°37'32
inferior conj	11990 Sep 25 08:55	14°♊25'14	-2°26'43	min. Earth dist.	11991 Sep 09 16:55	23°♊00'54	0.57607 AU
minimum elong	11990 Sep 25 02:30	14°♊35'49	2°24'08	morning rise	11991 Sep 14 00:39	20°♊17'56	
min. Earth dist.	11990 Sep 28 00:03	12°♊41'23	0.55828 AU	direct	11991 Sep 20 00:12	18°♊47'48	
morning rise	11990 Oct 03 07:42	9°♊50'26		morning max el	11991 Oct 04 07:41	26°♊20'15	26°53'38
direct	11990 Oct 08 14:24	8°♊46'49			11991 Oct 07 19:10	0°♊	
morning max el	11990 Oct 22 15:37	15°♊53'30	25°28'56		11991 Oct 27 09:58	0°♊	
	11990 Nov 03 00:47	0°♊		asc. node	11991 Oct 29 02:36	3°♊16'46	
asc. node	11990 Nov 11 05:49	13°♊54'12		morning set	11991 Nov 03 03:13	13°♊36'00	
morning set	11990 Nov 18 17:34	29°♊01'55					
	11990 Nov 19 04:23	0°♊					

superior conj	11991 Nov 10 00:13	28° $\mathbb{M}$ 42'38	1°32'26	asc. node	11992 Oct 14 23:18	22° $\mathbb{A}$ 58'00	
minimum elong	11991 Nov 09 22:45	28° $\mathbb{M}$ 34'27	1°32'59	morning set	11992 Oct 17 09:10	27° $\mathbb{A}$ 56'27	
max. Earth dist.	11991 Nov 10 06:19	29° $\mathbb{M}$ 16'41	1.31410 AU		11992 Oct 18 08:34	0° $\mathbb{M}$	
	11991 Nov 10 14:06	0° $\mathbb{A}$		max. Earth dist.	11992 Oct 23 15:09	11° $\mathbb{M}$ 30'11	1.31364 AU
evening rise	11991 Nov 16 20:07	13° $\mathbb{A}$ 40'48					
	11991 Nov 25 01:02	0° $\mathbb{B}$		superior conj	11992 Oct 24 11:39	13° $\mathbb{M}$ 24'08	1°21'00
desc. node	11991 Dec 01 07:32	10° $\mathbb{B}$ 49'49		minimum elong	11992 Oct 24 09:34	13° $\mathbb{M}$ 12'35	1°21'16
	11991 Dec 15 16:54	0° $\mathbb{A}$		evening rise	11992 Oct 31 04:41	28° $\mathbb{M}$ 11'59	
evening max el	11991 Dec 17 10:34	1° $\mathbb{A}$ 42'58	27°00'44		11992 Nov 01 00:53	0° $\mathbb{A}$	
retrograde	11991 Dec 31 08:52	8° $\mathbb{A}$ 53'49		desc. node	11992 Nov 17 04:42	29° $\mathbb{A}$ 24'34	
evening set	11992 Jan 07 04:34	6° $\mathbb{A}$ 53'47			11992 Nov 17 14:21	0° $\mathbb{B}$	
min. Earth dist.	11992 Jan 11 00:55	4° $\mathbb{A}$ 13'25	0.60119 AU	evening max el	11992 Nov 28 07:33	13° $\mathbb{B}$ 00'21	25°57'28
inferior conj	11992 Jan 14 04:58	1° $\mathbb{A}$ 37'15	-3°25'37	retrograde	11992 Dec 12 05:23	20° $\mathbb{B}$ 02'59	
minimum elong	11992 Jan 14 12:03	1° $\mathbb{A}$ 22'38	3°22'24	evening set	11992 Dec 18 11:54	18° $\mathbb{B}$ 30'17	
	11992 Jan 16 05:29	30° $\mathbb{R}$ $\mathbb{B}$		min. Earth dist.	11992 Dec 22 20:17	15° $\mathbb{B}$ 54'24	0.58014 AU
morning rise	11992 Jan 21 22:22	26° $\mathbb{B}$ 51'50		inferior conj	11992 Dec 25 21:34	13° $\mathbb{B}$ 43'48	-4°41'10
direct	11992 Jan 24 00:40	26° $\mathbb{B}$ 34'54		minimum elong	11992 Dec 26 05:58	13° $\mathbb{B}$ 28'46	4°38'11
asc. node	11992 Jan 25 02:01	26° $\mathbb{B}$ 39'21		morning rise	11993 Jan 03 02:42	9° $\mathbb{B}$ 20'51	
	11992 Jan 31 03:57	0° $\mathbb{A}$		direct	11993 Jan 05 06:09	9° $\mathbb{B}$ 06'05	
morning max el	11992 Jan 31 11:09	0° $\mathbb{A}$ 17'18	18°03'58	asc. node	11993 Jan 10 23:13	10° $\mathbb{B}$ 58'10	
morning set	11992 Feb 16 01:40	24° $\mathbb{A}$ 57'16		morning max el	11993 Jan 13 18:01	13° $\mathbb{B}$ 14'37	18°40'37
	11992 Feb 18 18:49	0° $\mathbb{H}$			11993 Jan 25 02:06	0° $\mathbb{A}$	
				morning set	11993 Jan 29 21:21	9° $\mathbb{A}$ 08'50	
superior conj	11992 Feb 25 23:53	13° $\mathbb{H}$ 07'13	0°10'26				
minimum elong	11992 Feb 26 00:45	13° $\mathbb{H}$ 11'01	0°10'37	superior conj	11993 Feb 07 15:36	26° $\mathbb{A}$ 00'16	0°42'49
behind sun begin	11992 Feb 25 18:52	12° $\mathbb{H}$ 44'54		minimum elong	11993 Feb 07 18:13	26° $\mathbb{A}$ 12'30	0°42'58
behind sun end	11992 Feb 26 06:37	13° $\mathbb{H}$ 37'04			11993 Feb 09 19:16	0° $\mathbb{H}$	
desc. node	11992 Feb 27 07:58	15° $\mathbb{H}$ 28'50		desc. node	11993 Feb 13 04:35	6° $\mathbb{H}$ 07'48	
max. Earth dist.	11992 Mar 04 14:52	26° $\mathbb{H}$ 15'01	1.41996 AU	max. Earth dist.	11993 Feb 14 22:41	9° $\mathbb{H}$ 13'22	1.39847 AU
	11992 Mar 06 21:14	0° $\mathbb{Y}$		evening rise	11993 Feb 18 23:49	16° $\mathbb{H}$ 09'43	
evening rise	11992 Mar 09 22:32	4° $\mathbb{Y}$ 57'09			11993 Feb 27 13:31	0° $\mathbb{Y}$	
	11992 Mar 26 11:51	0° $\mathbb{B}$			11993 Mar 21 04:35	0° $\mathbb{B}$	
evening max el	11992 Apr 12 06:08	21° $\mathbb{B}$ 15'17	22°39'24	evening max el	11993 Mar 25 20:21	5° $\mathbb{B}$ 04'28	24°00'07
asc. node	11992 Apr 21 23:09	27° $\mathbb{B}$ 07'51		retrograde	11993 Apr 05 23:00	11° $\mathbb{B}$ 36'31	
retrograde	11992 Apr 22 05:12	27° $\mathbb{B}$ 08'09		asc. node	11993 Apr 08 20:29	10° $\mathbb{B}$ 57'58	
evening set	11992 Apr 27 01:21	25° $\mathbb{B}$ 07'08		evening set	11993 Apr 11 06:47	9° $\mathbb{B}$ 22'09	
inferior conj	11992 May 02 09:10	18° $\mathbb{B}$ 43'51	2°45'06	min. Earth dist.	11993 Apr 15 23:25	3° $\mathbb{B}$ 55'47	0.68522 AU
minimum elong	11992 May 02 07:17	18° $\mathbb{B}$ 50'26	2°44'08	inferior conj	11993 Apr 16 17:51	2° $\mathbb{B}$ 53'07	2°15'24
min. Earth dist.	11992 May 02 03:03	19° $\mathbb{B}$ 05'10	0.68792 AU	minimum elong	11993 Apr 16 15:42	3° $\mathbb{B}$ 00'29	2°14'24
morning rise	11992 May 07 13:06	12° $\mathbb{B}$ 34'20			11993 Apr 18 22:33	30° $\mathbb{R}$ $\mathbb{Y}$	
direct	11992 May 12 02:52	10° $\mathbb{B}$ 40'33		morning rise	11993 Apr 22 00:40	26° $\mathbb{Y}$ 50'45	
morning max el	11992 May 21 01:30	15° $\mathbb{B}$ 52'06	21°36'31	direct	11993 Apr 26 01:32	25° $\mathbb{Y}$ 18'22	
desc. node	11992 May 25 09:31	20° $\mathbb{B}$ 41'24		morning max el	11993 May 03 21:51	29° $\mathbb{Y}$ 44'16	20°19'37
	11992 Jun 01 12:32	0° $\mathbb{I}$			11993 May 04 04:09	0° $\mathbb{B}$	
	11992 Jun 21 15:05	0° $\mathbb{B}$		desc. node	11993 May 12 06:19	9° $\mathbb{B}$ 50'46	
morning set	11992 Jun 22 01:25	0° $\mathbb{B}$ 40'54			11993 May 26 02:51	0° $\mathbb{I}$	
max. Earth dist.	11992 Jun 28 09:00	10° $\mathbb{B}$ 54'01	1.42083 AU	morning set	11993 Jun 01 06:35	9° $\mathbb{I}$ 24'26	
				max. Earth dist.	11993 Jun 10 17:42	24° $\mathbb{I}$ 16'44	1.43914 AU
					11993 Jun 14 06:44	0° $\mathbb{B}$	
superior conj	11992 Jul 05 22:04	23° $\mathbb{B}$ 40'08	-1°41'32				
minimum elong	11992 Jul 06 04:49	24° $\mathbb{B}$ 09'27	1°41'35				
	11992 Jul 09 12:33	0° $\mathbb{Q}$		superior conj	11993 Jun 16 19:52	4° $\mathbb{B}$ 10'23	-2°04'58
evening rise	11992 Jul 16 23:02	13° $\mathbb{Q}$ 26'53		minimum elong	11993 Jun 17 01:23	4° $\mathbb{B}$ 33'10	2°05'30
asc. node	11992 Jul 18 21:58	17° $\mathbb{Q}$ 00'55		evening rise	11993 Jun 29 12:43	25° $\mathbb{B}$ 45'09	
	11992 Jul 26 08:44	0° $\mathbb{M}$			11993 Jul 01 23:24	0° $\mathbb{Q}$	
evening max el	11992 Aug 02 02:59	9° $\mathbb{M}$ 01'22	18°08'46	asc. node	11993 Jul 05 18:50	6° $\mathbb{Q}$ 32'57	
retrograde	11992 Aug 09 01:46	12° $\mathbb{M}$ 33'40		evening max el	11993 Jul 16 16:29	22° $\mathbb{Q}$ 13'30	18°04'11
evening set	11992 Aug 11 09:13	12° $\mathbb{M}$ 10'39		retrograde	11993 Jul 23 03:28	25° $\mathbb{Q}$ 34'27	
inferior conj	11992 Aug 18 10:39	7° $\mathbb{M}$ 20'49	0°51'45	evening set	11993 Jul 25 18:58	24° $\mathbb{Q}$ 59'48	
minimum elong	11992 Aug 18 12:15	7° $\mathbb{M}$ 17'13	0°50'47	inferior conj	11993 Aug 01 04:38	19° $\mathbb{Q}$ 51'05	1°57'18
desc. node	11992 Aug 21 07:48	4° $\mathbb{M}$ 45'20		minimum elong	11993 Aug 01 07:16	19° $\mathbb{Q}$ 44'19	1°55'56
min. Earth dist.	11992 Aug 21 17:35	4° $\mathbb{M}$ 24'13	0.59786 AU	min. Earth dist.	11993 Aug 04 03:27	16° $\mathbb{Q}$ 49'43	0.62062 AU
morning rise	11992 Aug 25 12:05	1° $\mathbb{M}$ 36'15		morning rise	11993 Aug 07 17:14	13° $\mathbb{Q}$ 44'53	
	11992 Aug 29 03:59	30° $\mathbb{R}$ $\mathbb{Q}$		desc. node	11993 Aug 08 05:10	13° $\mathbb{Q}$ 24'27	
direct	11992 Aug 31 23:14	29° $\mathbb{Q}$ 37'50		direct	11993 Aug 14 09:35	11° $\mathbb{Q}$ 22'15	
	11992 Sep 03 20:11	0° $\mathbb{M}$		morning max el	11993 Aug 28 13:19	19° $\mathbb{Q}$ 24'06	27°57'23
morning max el	11992 Sep 15 07:20	7° $\mathbb{M}$ 29'15	27°44'52		11993 Sep 06 13:41	0° $\mathbb{M}$	
	11992 Oct 02 08:36	0° $\mathbb{B}$			11993 Sep 25 06:46	0° $\mathbb{B}$	

morning set	11993 Oct 01 09:26	11°♏58'10		morning max el	11994 Aug 10 22:55	1°♏57'12	27°33'05
asc. node	11993 Oct 01 19:59	12°♏52'13			11994 Aug 31 19:34	0°♏	
max. Earth dist.	11993 Oct 06 20:41	23°♏31'40	1.31828 AU	morning set	11994 Sep 15 01:33	25°♏33'51	
					11994 Sep 17 06:40	0°♏	
superior conj	11993 Oct 08 21:12	27°♏56'49	1°04'07	asc. node	11994 Sep 18 16:38	2°♏53'58	
minimum elong	11993 Oct 08 18:57	27°♏44'28	1°04'04	max. Earth dist.	11994 Sep 19 19:10	5°♏11'44	1.32818 AU
	11993 Oct 09 19:35	0°♏					
evening rise	11993 Oct 15 15:33	12°♏47'18		superior conj	11994 Sep 23 02:50	12°♏14'06	0°41'56
	11993 Oct 24 04:56	0°♏		minimum elong	11994 Sep 23 00:59	12°♏04'08	0°41'40
desc. node	11993 Nov 04 01:57	17°♏00'42		evening rise	11994 Sep 30 02:46	27°♏20'48	
evening max el	11993 Nov 09 20:38	23°♏30'03	24°27'45		11994 Oct 01 08:48	0°♏	
	11993 Nov 20 11:46	0°♏			11994 Oct 18 23:48	0°♏	
retrograde	11993 Nov 23 14:08	0°♏22'00		desc. node	11994 Oct 21 23:16	3°♏15'31	
	11993 Nov 26 17:06	30°♏♏		evening max el	11994 Oct 22 07:06	3°♏34'49	22°46'32
evening set	11993 Nov 28 19:33	29°♏21'38		retrograde	11994 Nov 04 09:53	10°♏05'49	
min. Earth dist.	11993 Dec 04 08:04	26°♏31'46	0.56194 AU	evening set	11994 Nov 08 05:20	9°♏34'10	
inferior conj	11993 Dec 06 17:37	25°♏01'50	-5°36'46	min. Earth dist.	11994 Nov 15 15:36	6°♏12'13	0.54960 AU
minimum elong	11993 Dec 06 23:10	24°♏53'09	5°35'15	inferior conj	11994 Nov 16 19:08	5°♏33'00	-5°49'55
morning rise	11993 Dec 15 04:53	20°♏59'53		minimum elong	11994 Nov 16 16:47	5°♏36'20	5°49'05
direct	11993 Dec 17 16:19	20°♏43'29		morning rise	11994 Nov 25 05:43	1°♏44'28	
morning max el	11993 Dec 27 13:49	25°♏27'38	19°39'28	direct	11994 Nov 28 09:01	1°♏21'43	
asc. node	11993 Dec 28 20:21	26°♏45'25		morning max el	11994 Dec 09 19:41	6°♏47'56	21°01'12
	11993 Dec 31 13:11	0°♏		asc. node	11994 Dec 15 17:23	13°♏44'34	
morning set	11994 Jan 14 00:49	23°♏39'58			11994 Dec 25 06:06	0°♏	
	11994 Jan 17 03:54	0°♏		morning set	11994 Dec 29 09:14	8°♏22'22	
superior conj	11994 Jan 21 22:54	9°♏35'57	1°07'41	superior conj	11995 Jan 05 17:33	23°♏42'15	1°25'00
minimum elong	11994 Jan 22 01:47	9°♏50'10	1°08'00	minimum elong	11995 Jan 05 19:49	23°♏53'56	1°25'33
max. Earth dist.	11994 Jan 28 04:32	21°♏31'23	1.37620 AU		11995 Jan 08 19:54	0°♏	
desc. node	11994 Jan 31 01:16	26°♏44'04		max. Earth dist.	11995 Jan 10 13:49	3°♏27'43	1.35546 AU
evening rise	11994 Jan 31 21:56	28°♏16'03		evening rise	11995 Jan 14 13:55	11°♏07'52	
	11994 Feb 01 21:32	0°♏		desc. node	11995 Jan 17 22:02	17°♏13'44	
	11994 Feb 20 22:59	0°♏			11995 Jan 25 10:18	0°♏	
evening max el	11994 Mar 08 09:44	18°♏55'23	25°17'01		11995 Feb 16 07:30	0°♏	
retrograde	11994 Mar 20 12:37	25°♏56'38		evening max el	11995 Feb 18 23:28	2°♏44'02	26°22'45
evening set	11994 Mar 26 08:09	23°♏31'52		retrograde	11995 Mar 03 21:03	10°♏02'14	
asc. node	11994 Mar 26 17:52	23°♏10'38		evening set	11995 Mar 10 03:47	7°♏30'56	
min. Earth dist.	11994 Mar 30 17:28	18°♏40'43	0.67819 AU	asc. node	11995 Mar 13 15:15	4°♏00'54	
inferior conj	11994 Mar 31 24:00	17°♏01'33	1°35'52	min. Earth dist.	11995 Mar 14 07:00	3°♏14'27	0.66708 AU
minimum elong	11994 Mar 31 22:02	17°♏07'56	1°35'02	inferior conj	11995 Mar 16 01:35	1°♏04'57	0°46'20
morning rise	11994 Apr 06 12:18	11°♏07'39		minimum elong	11995 Mar 16 00:26	1°♏08'29	0°45'58
direct	11994 Apr 10 01:11	9°♏55'45			11995 Mar 16 23:06	30°♏♏	
morning max el	11994 Apr 17 01:50	13°♏47'05	19°16'42	morning rise	11995 Mar 21 21:57	25°♏21'20	
desc. node	11994 Apr 29 03:02	29°♏30'42		direct	11995 Mar 25 00:04	24°♏27'35	
	11994 Apr 29 10:57	0°♏		morning max el	11995 Mar 31 12:47	27°♏57'01	18°29'52
greatest brilliancy	11994 Apr 29 21:42	0°♏39'53	-0.7m		11995 Apr 02 10:46	0°♏	
morning set	11994 May 11 07:59	18°♏03'48		desc. node	11995 Apr 15 23:42	19°♏33'04	
	11994 May 19 00:51	0°♏		morning set	11995 Apr 21 03:49	27°♏42'04	
max. Earth dist.	11994 May 24 08:22	8°♏18'53	1.45172 AU		11995 Apr 22 14:47	0°♏	
superior conj	11994 May 27 18:31	13°♏43'21	-2°13'21	superior conj	11995 May 07 02:44	22°♏44'26	-2°01'48
minimum elong	11994 May 27 18:04	13°♏41'35	2°14'08	minimum elong	11995 May 06 19:10	22°♏14'52	2°01'57
	11994 Jun 06 21:03	0°♏		max. Earth dist.	11995 May 07 03:23	22°♏46'59	1.45730 AU
evening rise	11994 Jun 11 04:40	7°♏06'01			11995 May 11 18:09	0°♏	
asc. node	11994 Jun 22 15:47	25°♏43'43		evening rise	11995 May 22 20:22	17°♏27'01	
	11994 Jun 25 13:31	0°♏			11995 May 30 19:06	0°♏	
evening max el	11994 Jun 30 06:23	5°♏43'07	18°18'02	greatest brilliancy	11995 May 31 18:14	1°♏30'24	-0.8m
retrograde	11994 Jul 06 15:23	9°♏06'40		asc. node	11995 Jun 09 12:50	14°♏25'58	
evening set	11994 Jul 09 15:09	8°♏17'54		evening max el	11995 Jun 13 17:51	19°♏23'11	18°49'33
inferior conj	11994 Jul 15 12:53	2°♏52'07	2°40'32	retrograde	11995 Jun 20 09:48	23°♏02'40	
minimum elong	11994 Jul 15 15:11	2°♏45'27	2°39'18	evening set	11995 Jun 23 18:05	21°♏58'18	
min. Earth dist.	11994 Jul 17 22:39	0°♏06'38	0.64189 AU	inferior conj	11995 Jun 29 07:35	16°♏16'52	3°05'10
	11994 Jul 18 01:02	30°♏♏		minimum elong	11995 Jun 29 08:58	16°♏12'32	3°04'12
morning rise	11994 Jul 21 13:50	26°♏34'17		min. Earth dist.	11995 Jul 01 02:32	14°♏02'39	0.65989 AU
desc. node	11994 Jul 26 02:30	24°♏11'45		morning rise	11995 Jul 04 23:06	9°♏54'41	
direct	11994 Jul 28 05:00	23°♏56'28		direct	11995 Jul 11 07:47	7°♏12'27	
	11994 Aug 08 22:08	0°♏		desc. node	11995 Jul 12 23:45	7°♏22'16	

morning max el	11995 Jul 24 09:49	14°☿58'30	26°38'29			11996 Jun 12 09:10	30°♊II	
	11995 Aug 05 16:51	0°♊		min. Earth dist.		11996 Jun 13 13:44	28°♊25'01	0.67365 AU
	11995 Aug 24 14:13	0°♊		morning rise		11996 Jun 17 18:15	23°♊36'59	
morning set	11995 Aug 29 06:26	8°♊36'07		direct		11996 Jun 23 16:46	21°♊00'05	
max. Earth dist.	11995 Sep 02 08:01	16°♊29'16	1.34326 AU	desc. node		11996 Jun 28 20:54	22°♊35'07	
asc. node	11995 Sep 05 13:19	22°♊59'27		morning max el		11996 Jul 05 20:20	28°♊16'53	25°22'33
						11996 Jul 07 11:39	0°☿	
superior conj	11995 Sep 07 02:15	26°♊10'03	0°14'49			11996 Jul 29 10:26	0°♊	
minimum elong	11995 Sep 07 01:28	26°♊05'58	0°14'31	morning set		11996 Aug 10 20:14	20°♊55'32	
behind sun begin	11995 Sep 06 22:57	25°♊52'54		max. Earth dist.		11996 Aug 14 11:19	27°♊35'42	1.36278 AU
behind sun end	11995 Sep 07 03:59	26°♊19'03				11996 Aug 15 17:55	0°♊	
	11995 Sep 08 22:17	0°♊						
evening rise	11995 Sep 14 12:30	11°♊47'37		superior conj		11996 Aug 20 16:36	9°♊37'29	-0°16'26
	11995 Sep 23 21:19	0°♊		minimum elong		11996 Aug 20 17:39	9°♊42'40	0°16'36
evening max el	11995 Oct 04 00:06	13°♊50'58	21°10'58	asc. node		11996 Aug 22 10:02	13°♊04'59	
desc. node	11995 Oct 08 20:39	17°♊41'37		evening rise		11996 Aug 28 18:33	26°♊01'59	
retrograde	11995 Oct 15 21:18	19°♊45'08				11996 Aug 30 17:39	0°♊	
evening set	11995 Oct 18 10:18	19°♊30'03		evening max el		11996 Sep 15 06:13	24°♊47'25	19°52'44
inferior conj	11995 Oct 27 11:03	15°♊35'31	-5°04'54	desc. node		11996 Sep 24 18:04	29°♊52'10	
minimum elong	11995 Oct 27 01:48	15°♊48'32	5°02'23	retrograde		11996 Sep 25 12:18	29°♊53'47	
min. Earth dist.	11995 Oct 27 22:13	15°♊19'48	0.54564 AU	evening set		11996 Sep 27 10:08	29°♊43'56	
morning rise	11995 Nov 04 17:54	11°♊44'28		inferior conj		11996 Oct 06 07:54	25°♊42'52	-3°31'07
direct	11995 Nov 08 17:07	11°♊10'39		minimum elong		11996 Oct 05 22:55	25°♊56'35	3°27'46
morning max el	11995 Nov 21 12:42	17°♊19'27	22°41'57	min. Earth dist.		11996 Oct 08 07:15	24°♊30'31	0.55108 AU
	11995 Dec 01 13:31	0°♊		morning rise		11996 Oct 14 10:16	21°♊28'09	
asc. node	11995 Dec 02 14:22	1°♊39'38		direct		11996 Oct 19 05:25	20°♊37'45	
morning set	11995 Dec 13 20:20	23°♊09'25		morning max el		11996 Nov 01 23:36	27°♊25'24	24°30'12
	11995 Dec 17 01:04	0°♊				11996 Nov 04 12:23	0°♊	
				asc. node		11996 Nov 18 11:17	20°♊17'11	
superior conj	11995 Dec 20 20:07	8°♊09'14	1°35'13			11996 Nov 23 12:59	0°♊	
minimum elong	11995 Dec 20 21:21	8°♊15'48	1°35'59	morning set		11996 Nov 27 08:16	7°♊55'53	
max. Earth dist.	11995 Dec 24 06:16	15°♊21'31	1.33802 AU					
evening rise	11995 Dec 28 20:07	24°♊35'22		superior conj		11996 Dec 04 03:57	22°♊49'17	1°38'54
	11995 Dec 31 15:47	0°♊		minimum elong		11996 Dec 04 04:02	22°♊49'45	1°39'42
desc. node	11996 Jan 04 18:53	7°♊31'56		max. Earth dist.		11996 Dec 06 06:24	27°♊23'41	1.32490 AU
	11996 Jan 18 23:01	0°♊				11996 Dec 07 11:29	0°♊	
evening max el	11996 Feb 01 13:02	16°♊20'30	27°09'53	evening rise		11996 Dec 11 13:11	8°♊30'16	
retrograde	11996 Feb 14 23:23	23°♊45'00		desc. node		11996 Dec 21 15:50	27°♊33'06	
evening set	11996 Feb 21 15:38	21°♊12'25				11996 Dec 23 02:13	0°♊	
min. Earth dist.	11996 Feb 25 13:44	17°♊29'16	0.65223 AU	evening max el		11997 Jan 14 00:59	29°♊33'12	27°31'28
inferior conj	11996 Feb 27 20:15	14°♊57'10	-0°13'22			11997 Jan 14 12:22	0°♊	
minimum elong	11996 Feb 27 20:38	14°♊56'07	0°12'54	retrograde		11997 Jan 27 19:02	6°♊56'21	
transit middle	11996 Feb 27 20:38	14°♊56'07	0°12'54	evening set		11997 Feb 03 17:17	4°♊29'27	
transit begin	11996 Feb 27 18:51	15°♊01'07		min. Earth dist.		11997 Feb 07 11:42	1°♊16'24	0.63411 AU
transit end	11996 Feb 27 22:25	14°♊51'07				11997 Feb 08 18:26	30°♊	
asc. node	11996 Feb 28 12:38	14°♊11'39		inferior conj		11997 Feb 10 05:15	28°♊31'46	-1°22'43
morning rise	11996 Mar 05 03:11	9°♊26'15		minimum elong		11997 Feb 10 07:57	28°♊25'00	1°21'06
direct	11996 Mar 07 19:55	8°♊47'31		asc. node		11997 Feb 14 09:58	24°♊44'37	
morning max el	11996 Mar 14 04:33	12°♊07'03	17°59'49	morning rise		11997 Feb 17 00:53	23°♊16'18	
	11996 Mar 26 20:04	0°♊		direct		11997 Feb 19 09:54	22°♊49'00	
morning set	11996 Apr 01 04:09	8°♊44'47		morning max el		11997 Feb 25 22:18	26°♊09'41	17°47'01
desc. node	11996 Apr 01 20:19	9°♊51'07				11997 Mar 01 05:39	0°♊	
	11996 Apr 14 07:30	0°♊		morning set		11997 Mar 14 07:01	21°♊04'00	
				desc. node		11997 Mar 19 16:57	0°♊20'21	
superior conj	11996 Apr 15 13:31	1°♊58'52	-1°31'59			11997 Mar 19 12:09	0°♊	
minimum elong	11996 Apr 15 04:25	1°♊22'52	1°31'22					
max. Earth dist.	11996 Apr 18 23:41	7°♊22'23	1.45538 AU	superior conj		11997 Mar 26 18:46	12°♊08'36	-0°52'10
evening rise	11996 May 01 15:40	27°♊02'00		minimum elong		11997 Mar 26 13:22	11°♊46'25	0°51'30
	11996 May 03 13:58	0°♊		max. Earth dist.		11997 Apr 01 18:12	21°♊47'26	1.44625 AU
greatest brilliancy	11996 May 15 07:55	17°♊48'08	-0.7m			11997 Apr 06 23:21	0°♊	
	11996 May 24 05:18	0°☿		evening rise		11997 Apr 11 02:57	6°♊25'03	
asc. node	11996 May 26 09:59	2°☿29'26				11997 Apr 26 22:18	0°♊	
evening max el	11996 May 27 00:39	3°☿07'14	19°37'37	evening max el		11997 May 10 01:42	16°♊52'23	20°40'14
retrograde	11996 Jun 03 07:41	7°☿15'04		asc. node		11997 May 13 07:10	19°♊41'49	
evening set	11996 Jun 07 00:57	5°☿54'29		retrograde		11997 May 18 06:36	21°♊38'15	
inferior conj	11996 Jun 12 09:31	29°♊58'50	3°14'44	evening set		11997 May 22 09:34	20°♊01'30	
minimum elong	11996 Jun 12 09:47	29°♊57'55	3°13'54	inferior conj		11997 May 27 16:02	13°♊53'21	3°11'44

minimum elong	11997 May 27 15:17	13° $\Pi$ 55'56	3°10'54	inferior conj	11998 May 12 00:55	27° $\mathcal{B}$ 56'44	2°57'47
min. Earth dist.	11997 May 28 06:19	13° $\Pi$ 04'02	0.68282 AU	minimum elong	11998 May 11 23:21	28° $\mathcal{B}$ 02'10	2°56'52
morning rise	11997 Jun 01 20:44	7° $\Pi$ 34'45		min. Earth dist.	11998 May 12 02:07	27° $\mathcal{B}$ 52'30	0.68734 AU
direct	11997 Jun 07 07:05	5° $\Pi$ 10'48		morning rise	11998 May 17 04:20	21° $\mathcal{B}$ 43'20	
desc. node	11997 Jun 15 17:58	9° $\Pi$ 22'03		direct	11998 May 22 01:40	19° $\mathcal{B}$ 37'30	
morning max el	11997 Jun 18 06:19	11° $\Pi$ 44'28	23°54'58	morning max el	11998 May 31 17:43	25° $\mathcal{B}$ 19'24	22°25'29
	11997 Jul 02 20:53	0° $\mathfrak{E}$		desc. node	11998 Jun 02 14:56	27° $\mathcal{B}$ 18'34	
	11997 Jul 22 05:14	0° $\mathcal{Q}$			11998 Jun 04 23:08	0° $\Pi$	
morning set	11997 Jul 23 14:08	2° $\mathcal{Q}$ 19'46			11998 Jun 26 08:03	0° $\mathfrak{E}$	
max. Earth dist.	11997 Jul 27 08:55	8° $\mathcal{Q}$ 54'40	1.38526 AU	morning set	11998 Jul 04 07:32	12° $\mathfrak{E}$ 37'32	
				max. Earth dist.	11998 Jul 09 07:24	20° $\mathfrak{E}$ 53'56	1.40835 AU
					11998 Jul 14 14:15	0° $\mathcal{Q}$	
superior conj	11997 Aug 03 18:18	22° $\mathcal{Q}$ 27'17	-0°50'17				
minimum elong	11997 Aug 03 21:47	22° $\mathcal{Q}$ 43'48	0°50'14				
	11997 Aug 07 16:34	0° $\mathfrak{P}$		superior conj	11998 Jul 17 03:08	4° $\mathcal{Q}$ 30'09	-1°23'56
asc. node	11997 Aug 09 06:45	3° $\mathfrak{P}$ 06'23		minimum elong	11998 Jul 17 09:03	4° $\mathcal{Q}$ 56'42	1°23'50
evening rise	11997 Aug 12 18:11	9° $\mathfrak{P}$ 56'00		evening rise	11998 Jul 27 08:03	23° $\mathcal{Q}$ 21'21	
	11997 Aug 23 21:23	0° $\mathfrak{A}$		asc. node	11998 Jul 27 03:31	23° $\mathcal{Q}$ 00'02	
evening max el	11997 Aug 29 01:51	6° $\mathfrak{A}$ 31'33	18°55'51		11998 Jul 30 21:31	0° $\mathfrak{P}$	
retrograde	11997 Sep 06 17:43	10° $\mathfrak{A}$ 51'31		evening max el	11998 Aug 12 07:41	18° $\mathfrak{P}$ 58'03	18°20'13
evening set	11997 Sep 08 14:45	10° $\mathfrak{A}$ 40'07		retrograde	11998 Aug 19 18:07	22° $\mathfrak{P}$ 43'09	
desc. node	11997 Sep 11 15:30	9° $\mathfrak{A}$ 37'53		evening set	11998 Aug 21 21:11	22° $\mathfrak{P}$ 25'28	
inferior conj	11997 Sep 16 21:42	6° $\mathfrak{A}$ 22'54	-1°39'10	inferior conj	11998 Aug 29 09:10	17° $\mathfrak{P}$ 47'46	0°02'54
minimum elong	11997 Sep 16 17:28	6° $\mathfrak{A}$ 30'21	1°37'29	minimum elong	11998 Aug 29 09:16	17° $\mathfrak{P}$ 47'35	0°02'36
min. Earth dist.	11997 Sep 19 20:59	4° $\mathfrak{A}$ 17'45	0.56505 AU	transit middle	11998 Aug 29 09:16	17° $\mathfrak{P}$ 47'35	0°02'36
morning rise	11997 Sep 24 16:58	1° $\mathfrak{A}$ 31'39		transit begin	11998 Aug 29 05:48	17° $\mathfrak{P}$ 54'42	
direct	11997 Sep 30 07:06	0° $\mathfrak{A}$ 17'21		transit end	11998 Aug 29 12:43	17° $\mathfrak{P}$ 40'26	
morning max el	11997 Oct 14 12:19	7° $\mathfrak{A}$ 36'46	26°08'23	desc. node	11998 Aug 29 12:56	17° $\mathfrak{P}$ 40'00	
	11997 Oct 31 03:19	0° $\mathfrak{M}$		min. Earth dist.	11998 Sep 01 17:08	15° $\mathfrak{P}$ 03'57	0.58500 AU
asc. node	11997 Nov 05 08:06	9° $\mathfrak{M}$ 25'39		morning rise	11998 Sep 05 17:50	12° $\mathfrak{P}$ 20'40	
morning set	11997 Nov 11 19:12	22° $\mathfrak{M}$ 35'40		direct	11998 Sep 11 23:16	10° $\mathfrak{P}$ 37'59	
	11997 Nov 15 04:47	0° $\mathfrak{X}$		morning max el	11998 Sep 26 07:28	18° $\mathfrak{P}$ 19'58	27°19'54
					11998 Oct 06 02:36	0° $\mathfrak{A}$	
superior conj	11997 Nov 18 14:40	7° $\mathfrak{X}$ 34'21	1°36'28	asc. node	11998 Oct 23 04:52	28° $\mathfrak{A}$ 57'02	
minimum elong	11997 Nov 18 13:42	7° $\mathfrak{X}$ 29'00	1°37'10		11998 Oct 23 17:25	0° $\mathfrak{M}$	
max. Earth dist.	11997 Nov 19 12:19	9° $\mathfrak{X}$ 34'30	1.31659 AU	morning set	11998 Oct 27 03:28	7° $\mathfrak{M}$ 04'29	
evening rise	11997 Nov 25 14:06	22° $\mathfrak{X}$ 44'04					
	11997 Nov 29 03:28	0° $\mathfrak{Z}$		superior conj	11998 Nov 03 02:22	22° $\mathfrak{M}$ 18'57	1°28'16
desc. node	11997 Dec 08 12:51	17° $\mathfrak{Z}$ 08'54		minimum elong	11998 Nov 03 00:36	22° $\mathfrak{M}$ 09'05	1°28'43
	11997 Dec 16 23:53	0° $\mathfrak{A}$		max. Earth dist.	11998 Nov 02 21:02	21° $\mathfrak{M}$ 49'12	1.31329 AU
evening max el	11997 Dec 27 09:06	12° $\mathfrak{A}$ 08'54	27°21'48		11998 Nov 06 13:18	0° $\mathfrak{X}$	
retrograde	11998 Jan 10 07:01	19° $\mathfrak{A}$ 25'37		evening rise	11998 Nov 09 20:31	7° $\mathfrak{X}$ 10'48	
evening set	11998 Jan 17 05:40	17° $\mathfrak{A}$ 13'11			11998 Nov 21 15:36	0° $\mathfrak{Z}$	
min. Earth dist.	11998 Jan 20 23:35	14° $\mathfrak{A}$ 23'37	0.61353 AU	desc. node	11998 Nov 25 09:57	6° $\mathfrak{Z}$ 09'39	
inferior conj	11998 Jan 24 01:20	11° $\mathfrak{A}$ 39'44	-2°39'44	evening max el	11998 Dec 09 10:57	23° $\mathfrak{Z}$ 57'25	26°37'44
minimum elong	11998 Jan 24 06:51	11° $\mathfrak{A}$ 27'25	2°36'58		11998 Dec 18 04:59	0° $\mathfrak{A}$	
morning rise	11998 Jan 31 10:53	6° $\mathfrak{A}$ 42'37		retrograde	11998 Dec 23 09:44	1° $\mathfrak{A}$ 04'54	
asc. node	11998 Feb 01 07:14	6° $\mathfrak{A}$ 30'19			11998 Dec 28 12:01	30° $\mathfrak{R}$ $\mathfrak{Z}$	
direct	11998 Feb 02 14:31	6° $\mathfrak{A}$ 23'03		evening set	11998 Dec 30 00:53	29° $\mathfrak{Z}$ 15'55	
morning max el	11998 Feb 09 14:43	9° $\mathfrak{A}$ 55'00	17°52'16	min. Earth dist.	11999 Jan 03 00:58	26° $\mathfrak{Z}$ 39'04	0.59207 AU
	11998 Feb 22 20:28	0° $\mathfrak{X}$		inferior conj	11999 Jan 06 04:57	24° $\mathfrak{Z}$ 11'52	-3°58'54
morning set	11998 Feb 25 06:11	4° $\mathfrak{X}$ 20'20		minimum elong	11999 Jan 06 12:55	23° $\mathfrak{Z}$ 56'22	3°55'36
desc. node	11998 Mar 06 13:33	20° $\mathfrak{X}$ 56'17		morning rise	11999 Jan 14 03:48	19° $\mathfrak{Z}$ 35'37	
				direct	11999 Jan 16 05:46	19° $\mathfrak{Z}$ 20'06	
superior conj	11998 Mar 08 00:31	23° $\mathfrak{X}$ 27'32	-0°11'16	asc. node	11999 Jan 19 04:29	19° $\mathfrak{Z}$ 52'46	
minimum elong	11998 Mar 07 23:30	23° $\mathfrak{X}$ 23'13	0°10'56	morning max el	11999 Jan 24 02:08	23° $\mathfrak{Z}$ 12'53	18°16'52
behind sun begin	11998 Mar 07 17:19	22° $\mathfrak{X}$ 56'34			11999 Jan 29 11:30	0° $\mathfrak{A}$	
behind sun end	11998 Mar 08 05:42	23° $\mathfrak{X}$ 49'49		morning set	11999 Feb 08 19:46	18° $\mathfrak{A}$ 16'04	
	11998 Mar 11 20:58	0° $\mathfrak{Y}$			11999 Feb 15 01:02	0° $\mathfrak{X}$	
max. Earth dist.	11998 Mar 15 08:46	5° $\mathfrak{Y}$ 46'42	1.43092 AU				
evening rise	11998 Mar 21 21:49	16° $\mathfrak{Y}$ 15'12		superior conj	11999 Feb 18 05:03	5° $\mathfrak{X}$ 49'40	0°25'04
	11998 Mar 30 21:31	0° $\mathcal{B}$		minimum elong	11999 Feb 18 06:52	5° $\mathfrak{X}$ 57'55	0°25'11
	11998 Apr 22 06:11	0° $\Pi$		desc. node	11999 Feb 21 10:08	11° $\mathfrak{X}$ 35'12	
evening max el	11998 Apr 22 21:20	0° $\Pi$ 38'48	21°53'59	max. Earth dist.	11999 Feb 25 18:53	19° $\mathfrak{X}$ 09'24	1.41111 AU
asc. node	11998 Apr 30 04:24	5° $\Pi$ 48'20		evening rise	11999 Mar 02 10:55	26° $\mathfrak{X}$ 56'11	
retrograde	11998 May 02 04:38	6° $\Pi$ 07'30			11999 Mar 04 08:17	0° $\mathfrak{Y}$	
evening set	11998 May 06 18:10	4° $\Pi$ 15'13			11999 Mar 24 13:44	0° $\mathcal{B}$	
	11998 May 10 13:09	30° $\mathfrak{R}$ $\mathcal{B}$		evening max el	11999 Apr 05 13:06	14° $\mathcal{B}$ 27'31	23°13'52

retrograde	11999 Apr 16 00:11	20°♄37'42		retrograde	12000 Mar 29 16:12	5°♄03'57	
asc. node	11999 Apr 17 01:41	20°♄32'25		asc. node	12000 Apr 02 23:02	3°♄41'38	
evening set	11999 Apr 21 01:10	18°♄31'00		evening set	12000 Apr 04 05:05	2°♄44'47	
inferior conj	11999 Apr 26 10:12	12°♄05'00	2°33'43		12000 Apr 06 20:33	30°♄♂	
minimum elong	11999 Apr 26 08:09	12°♄12'06	2°32'43	min. Earth dist.	12000 Apr 08 18:29	27°♄33'37	0.68282 AU
min. Earth dist.	11999 Apr 25 22:53	12°♄44'04	0.68731 AU	inferior conj	12000 Apr 09 18:04	26°♄14'52	1°59'51
morning rise	11999 May 01 15:01	5°♄58'14		minimum elong	12000 Apr 09 15:55	26°♄22'02	1°58'54
direct	11999 May 05 23:18	4°♄13'17		morning rise	12000 Apr 15 02:54	20°♄16'03	
morning max el	11999 May 14 09:53	9°♄04'09	21°02'15	direct	12000 Apr 18 22:39	18°♄52'27	
desc. node	11999 May 20 11:47	16°♄05'27		morning max el	12000 Apr 26 09:28	23°♄01'35	19°50'59
	11999 May 30 13:24	0°♄			12000 May 02 08:17	0°♄	
morning set	11999 Jun 13 23:31	21°♄47'42		desc. node	12000 May 06 08:33	5°♄29'15	
	11999 Jun 19 03:45	0°♄		greatest brilliancy	12000 May 10 00:48	10°♄47'24	-0.6m
max. Earth dist.	11999 Jun 21 12:12	3°♄48'07	1.42924 AU		12000 May 22 18:36	0°♄	
				morning set	12000 May 23 00:19	0°♄21'56	
superior conj	11999 Jun 28 14:37	15°♄35'52	-1°52'52	max. Earth dist.	12000 Jun 03 00:18	17°♄32'06	1.44539 AU
minimum elong	11999 Jun 28 21:22	16°♄04'31	1°53'06				
	11999 Jul 06 21:34	0°♄		superior conj	12000 Jun 08 02:09	25°♄40'23	-2°10'44
evening rise	11999 Jul 10 07:54	6°♄06'56		minimum elong	12000 Jun 08 05:41	25°♄54'42	2°11'27
asc. node	11999 Jul 14 00:19	12°♄41'07			12000 Jun 10 17:57	0°♄	
	11999 Jul 25 01:01	0°♄		evening rise	12000 Jun 21 12:53	18°♄02'06	
evening max el	11999 Jul 26 19:29	1°♄55'58	18°04'33		12000 Jun 28 14:50	0°♄	
retrograde	11999 Aug 02 11:45	5°♄21'19		asc. node	12000 Jun 29 21:13	2°♄04'54	
evening set	11999 Aug 04 22:44	4°♄53'33		evening max el	12000 Jul 09 09:30	15°♄16'16	18°07'47
inferior conj	11999 Aug 11 17:00	29°♄55'27	1°22'29	retrograde	12000 Jul 15 18:24	18°♄36'37	
minimum elong	11999 Aug 11 19:15	29°♄50'04	1°21'14	evening set	12000 Jul 18 13:27	17°♄56'04	
	11999 Aug 11 15:06	30°♄♄		inferior conj	12000 Jul 24 17:32	12°♄39'33	2°18'08
min. Earth dist.	11999 Aug 14 21:21	26°♄54'15	0.60764 AU	minimum elong	12000 Jul 24 20:09	12°♄32'28	2°16'48
desc. node	11999 Aug 16 10:20	25°♄34'10		min. Earth dist.	12000 Jul 27 11:02	9°♄43'00	0.63002 AU
morning rise	11999 Aug 18 12:59	24°♄00'44		morning rise	12000 Jul 31 00:58	6°♄27'20	
direct	11999 Aug 25 03:20	21°♄51'09		desc. node	12000 Aug 02 07:42	5°♄01'54	
morning max el	11999 Sep 08 09:47	29°♄47'23	27°54'56	direct	12000 Aug 06 17:27	3°♄57'23	
	11999 Sep 08 14:51	0°♄		morning max el	12000 Aug 20 17:41	11°♄59'34	27°51'18
	11999 Sep 30 03:40	0°♄			12000 Sep 04 00:45	0°♄	
asc. node	11999 Oct 10 01:34	18°♄44'15			12000 Sep 21 14:11	0°♄	
morning set	11999 Oct 11 07:15	21°♄17'14		morning set	12000 Sep 24 04:22	5°♄08'16	
	11999 Oct 15 09:23	0°♄		asc. node	12000 Sep 25 22:15	8°♄42'00	
max. Earth dist.	11999 Oct 17 04:56	3°♄58'41	1.31499 AU	max. Earth dist.	12000 Sep 29 08:05	15°♄52'28	1.32186 AU
superior conj	11999 Oct 18 13:14	6°♄57'12	1°14'30	superior conj	12000 Oct 01 21:21	21°♄23'33	0°55'20
minimum elong	11999 Oct 18 11:01	6°♄44'58	1°14'38	minimum elong	12000 Oct 01 19:11	21°♄11'47	0°55'10
evening rise	11999 Oct 25 06:17	21°♄44'30			12000 Oct 05 19:40	0°♄	
	11999 Oct 29 04:50	0°♄		evening rise	12000 Oct 08 17:32	6°♄19'30	
desc. node	11999 Nov 12 07:09	24°♄21'53			12000 Oct 21 01:12	0°♄	
	11999 Nov 16 15:05	0°♄		desc. node	12000 Oct 29 04:27	11°♄26'24	
evening max el	11999 Nov 21 04:38	4°♄54'14	25°21'55	evening max el	12000 Nov 01 15:32	15°♄08'41	23°45'02
retrograde	11999 Dec 05 01:09	11°♄52'02		retrograde	12000 Nov 15 04:03	21°♄53'33	
evening set	11999 Dec 10 22:31	10°♄33'05		evening set	12000 Nov 19 19:55	21°♄06'10	
min. Earth dist.	11999 Dec 15 16:46	7°♄53'39	0.57191 AU	min. Earth dist.	12000 Nov 26 01:54	18°♄05'03	0.55578 AU
inferior conj	11999 Dec 18 13:00	5°♄59'03	-5°08'27	inferior conj	12000 Nov 28 00:30	16°♄55'41	-5°48'51
minimum elong	11999 Dec 18 20:52	5°♄45'48	5°05'59	minimum elong	12000 Nov 28 03:08	16°♄51'45	5°47'55
morning rise	11999 Dec 26 21:33	1°♄45'09		morning rise	12000 Dec 06 12:14	13°♄01'17	
direct	11999 Dec 29 03:36	1°♄30'04		direct	12000 Dec 09 05:44	12°♄42'44	
asc. node	12000 Jan 06 01:39	4°♄51'14		morning max el	12000 Dec 19 18:45	17°♄43'42	20°11'37
morning max el	12000 Jan 07 04:42	5°♄52'44	19°02'47	asc. node	12000 Dec 22 22:46	21°♄11'07	
	12000 Jan 22 11:06	0°♄			12000 Dec 28 23:26	0°♄	
morning set	12000 Jan 23 19:14	2°♄38'03		morning set	12001 Jan 07 01:09	17°♄15'18	
					12001 Jan 13 06:18	0°♄	
superior conj	12000 Feb 01 04:00	19°♄02'57	0°54'18				
minimum elong	12000 Feb 01 06:52	19°♄16'42	0°54'29	superior conj	12001 Jan 14 16:38	2°♄53'28	1°15'55
	12000 Feb 07 01:00	0°♄		minimum elong	12001 Jan 14 19:20	3°♄07'03	1°16'20
max. Earth dist.	12000 Feb 08 01:56	1°♄52'10	1.38901 AU	max. Earth dist.	12001 Jan 20 08:57	14°♄00'01	1.36706 AU
desc. node	12000 Feb 08 06:47	2°♄13'51		evening rise	12001 Jan 24 03:32	20°♄59'59	
evening rise	12000 Feb 11 21:24	8°♄33'11		desc. node	12001 Jan 25 03:30	22°♄47'58	
	12000 Feb 25 05:58	0°♄			12001 Jan 29 06:29	0°♄	
evening max el	12000 Mar 18 02:59	28°♄18'55	24°33'42		12001 Feb 18 04:42	0°♄	
	12000 Mar 19 21:44	0°♄		evening max el	12001 Feb 28 16:20	12°♄09'21	25°46'37

retrograde	12001 Mar 13 03:40	19° $\Upsilon$ 19'13			12002 Jan 22 02:53	0° $\text{H}$		
evening set	12001 Mar 19 04:16	16° $\Upsilon$ 50'48		evening max el	12002 Feb 11 05:52	25° $\text{H}$ 53'26	26°45'24	
asc. node	12001 Mar 20 20:26	15° $\Upsilon$ 16'02			12002 Feb 16 02:07	0° $\Upsilon$		
min. Earth dist.	12001 Mar 23 10:46	12° $\Upsilon$ 14'48	0.67403 AU	retrograde	12002 Feb 24 09:50	3° $\Upsilon$ 16'20		
inferior conj	12001 Mar 24 22:31	10° $\Upsilon$ 21'40	1°16'05	evening set	12002 Mar 02 20:52	0° $\Upsilon$ 43'31		
minimum elong	12001 Mar 24 20:49	10° $\Upsilon$ 27'04	1°15'25		12002 Mar 03 17:24	30° $\text{R}$ $\text{H}$		
morning rise	12001 Mar 30 13:58	4° $\Upsilon$ 32'10		min. Earth dist.	12002 Mar 06 21:39	26° $\text{H}$ 41'31	0.66121 AU	
direct	12001 Apr 02 22:06	3° $\Upsilon$ 28'25		asc. node	12002 Mar 07 17:49	25° $\text{H}$ 42'42		
morning max el	12001 Apr 09 16:43	7° $\Upsilon$ 08'41	18°54'46	inferior conj	12002 Mar 08 21:28	24° $\text{H}$ 20'59	0°22'15	
desc. node	12001 Apr 23 05:14	25° $\Upsilon$ 19'32		minimum elong	12002 Mar 08 20:52	24° $\text{H}$ 22'45	0°22'11	
greatest brilliancy	12001 Apr 23 08:41	25° $\Upsilon$ 32'38	-0.8m	morning rise	12002 Mar 14 22:04	18° $\text{H}$ 42'37		
	12001 Apr 26 06:31	0° $\text{B}$		direct	12002 Mar 17 19:53	17° $\text{H}$ 55'51		
morning set	12001 May 02 07:19	9° $\text{B}$ 20'31		morning max el	12002 Mar 24 06:05	21° $\text{H}$ 19'54	18°14'56	
	12001 May 15 13:41	0° $\text{II}$			12002 Mar 31 03:20	0° $\Upsilon$		
max. Earth dist.	12001 May 16 17:15	1° $\text{II}$ 47'55	1.45501 AU	desc. node	12002 Apr 10 01:53	15° $\Upsilon$ 29'12		
				morning set	12002 Apr 12 14:51	19° $\Upsilon$ 33'35		
superior conj	12001 May 18 16:56	4° $\text{II}$ 54'55	-2°10'58		12002 Apr 19 03:46	0° $\text{B}$		
minimum elong	12001 May 18 13:09	4° $\text{II}$ 40'04	2°11'34					
evening rise	12001 Jun 02 18:37	28° $\text{II}$ 57'37		superior conj	12002 Apr 27 23:57	13° $\text{B}$ 55'55	-1°50'59	
	12001 Jun 03 10:01	0° $\text{B}$		minimum elong	12002 Apr 27 14:52	13° $\text{B}$ 20'22	1°50'46	
asc. node	12001 Jun 16 18:13	21° $\text{B}$ 04'53		max. Earth dist.	12002 Apr 29 12:35	16° $\text{B}$ 19'10	1.45737 AU	
evening max el	12001 Jun 22 22:36	28° $\text{B}$ 51'00	18°29'17		12002 May 08 07:09	0° $\text{II}$		
	12001 Jun 24 04:34	0° $\Omega$		evening rise	12002 May 14 00:34	8° $\text{II}$ 55'35		
retrograde	12001 Jun 29 09:40	2° $\Omega$ 20'10		greatest brilliancy	12002 May 25 03:49	26° $\text{II}$ 10'58	-0.8m	
evening set	12001 Jul 02 12:55	1° $\Omega$ 24'58			12002 May 27 16:50	0° $\text{B}$		
	12001 Jul 04 10:56	30° $\text{R}$ $\text{B}$		asc. node	12002 Jun 03 15:18	9° $\text{B}$ 32'05		
inferior conj	12001 Jul 08 06:42	25° $\text{B}$ 52'08	2°53'01	evening max el	12002 Jun 06 08:14	12° $\text{B}$ 33'13	19°08'07	
minimum elong	12001 Jul 08 08:40	25° $\text{B}$ 46'15	2°51'55	retrograde	12002 Jun 13 05:53	16° $\text{B}$ 23'40		
min. Earth dist.	12001 Jul 10 10:11	23° $\text{B}$ 18'27	0.64997 AU	evening set	12002 Jun 16 17:48	15° $\text{B}$ 12'39		
morning rise	12001 Jul 14 03:18	19° $\text{B}$ 31'26		inferior conj	12002 Jun 22 04:51	9° $\text{B}$ 25'07	3°10'55	
desc. node	12001 Jul 20 04:59	16° $\text{B}$ 51'19		minimum elong	12002 Jun 22 05:45	9° $\text{B}$ 22'10	3°10'00	
direct	12001 Jul 20 16:04	16° $\text{B}$ 50'34		min. Earth dist.	12002 Jun 23 17:33	7° $\text{B}$ 26'57	0.66626 AU	
morning max el	12001 Aug 03 04:24	24° $\text{B}$ 47'26	27°13'07	morning rise	12002 Jun 27 17:07	3° $\text{B}$ 02'24		
	12001 Aug 07 21:43	0° $\Omega$		direct	12002 Jul 03 21:49	0° $\text{B}$ 21'05		
	12001 Aug 28 11:34	0° $\text{H}$		desc. node	12002 Jul 07 02:11	0° $\text{B}$ 57'09		
morning set	12001 Sep 07 16:10	18° $\text{H}$ 31'28		morning max el	12002 Jul 16 15:15	7° $\text{B}$ 57'24	26°08'09	
max. Earth dist.	12001 Sep 12 02:52	27° $\text{H}$ 23'41	1.33395 AU		12002 Aug 02 20:01	0° $\Omega$		
asc. node	12001 Sep 12 18:56	28° $\text{H}$ 46'13			12002 Aug 20 22:27	0° $\text{H}$		
	12001 Sep 13 09:13	0° $\text{B}$		morning set	12002 Aug 21 15:09	1° $\text{H}$ 17'05		
				max. Earth dist.	12002 Aug 25 11:07	8° $\text{H}$ 33'01	1.35103 AU	
superior conj	12001 Sep 16 00:40	5° $\text{B}$ 32'49	0°31'00					
minimum elong	12001 Sep 15 23:11	5° $\text{B}$ 24'55	0°30'41	superior conj	12002 Aug 30 20:34	19° $\text{H}$ 17'36	0°02'00	
evening rise	12001 Sep 23 04:25	20° $\text{B}$ 51'11		minimum elong	12002 Aug 30 20:29	19° $\text{H}$ 17'06	0°01'44	
	12001 Sep 27 14:46	0° $\text{H}$		behind sun begin	12002 Aug 30 14:29	18° $\text{H}$ 46'34		
evening max el	12001 Oct 14 03:26	25° $\text{H}$ 13'20	22°04'18	behind sun end	12002 Aug 31 02:28	19° $\text{H}$ 47'42		
desc. node	12001 Oct 16 01:49	26° $\text{H}$ 58'53		asc. node	12002 Aug 30 15:36	18° $\text{H}$ 52'16		
	12001 Oct 20 14:26	0° $\text{H}$			12002 Sep 05 00:39	0° $\text{B}$		
retrograde	12001 Oct 26 19:46	1° $\text{H}$ 31'32		evening rise	12002 Sep 07 12:49	5° $\text{B}$ 13'12		
evening set	12001 Oct 30 00:44	1° $\text{H}$ 08'38			12002 Sep 21 06:08	0° $\text{H}$		
	12001 Nov 02 10:11	30° $\text{R}$ $\text{H}$		evening max el	12002 Sep 26 01:37	5° $\text{H}$ 44'38	20°35'13	
inferior conj	12001 Nov 07 20:23	27° $\text{H}$ 11'26	-5°38'07	desc. node	12002 Oct 02 23:14	10° $\text{H}$ 30'05		
minimum elong	12001 Nov 07 14:28	27° $\text{H}$ 19'45	5°36'46	retrograde	12002 Oct 07 06:56	11° $\text{H}$ 18'53		
min. Earth dist.	12001 Nov 07 08:43	27° $\text{H}$ 27'49	0.54670 AU	evening set	12002 Oct 09 11:10	11° $\text{H}$ 07'14		
morning rise	12001 Nov 16 05:30	23° $\text{H}$ 24'23		inferior conj	12002 Oct 18 12:34	7° $\text{H}$ 11'50	-4°29'31	
direct	12001 Nov 19 16:44	22° $\text{H}$ 57'46		minimum elong	12002 Oct 18 02:32	7° $\text{H}$ 26'19	4°26'18	
morning max el	12001 Dec 01 18:51	28° $\text{H}$ 42'31	21°42'19	min. Earth dist.	12002 Oct 19 16:22	6° $\text{H}$ 31'41	0.54680 AU	
	12001 Dec 03 02:09	0° $\text{H}$		morning rise	12002 Oct 26 17:34	3° $\text{H}$ 12'38		
asc. node	12001 Dec 09 19:48	8° $\text{H}$ 35'56		direct	12002 Oct 31 01:22	2° $\text{H}$ 32'24		
	12001 Dec 21 11:52	0° $\text{B}$		morning max el	12002 Nov 13 08:13	8° $\text{H}$ 59'20	23°28'01	
morning set	12001 Dec 22 10:57	2° $\text{B}$ 00'28		asc. node	12002 Nov 26 16:45	26° $\text{H}$ 50'16		
					12002 Nov 28 11:54	0° $\text{H}$		
superior conj	12001 Dec 29 15:04	17° $\text{B}$ 10'02	1°30'09	morning set	12002 Dec 06 22:35	16° $\text{H}$ 47'17		
minimum elong	12001 Dec 29 16:55	17° $\text{B}$ 19'46	1°30'49		12002 Dec 13 01:04	0° $\text{B}$		
max. Earth dist.	12002 Jan 02 20:38	25° $\text{B}$ 51'42	1.34751 AU					
	12002 Jan 04 22:40	0° $\approx$		superior conj	12002 Dec 13 20:08	1° $\text{B}$ 43'09	1°37'32	
evening rise	12002 Jan 07 02:00	4° $\approx$ 08'08		minimum elong	12002 Dec 13 20:53	1° $\text{B}$ 47'11	1°38'20	
desc. node	12002 Jan 12 00:19	13° $\approx$ 13'28		max. Earth dist.	12002 Dec 16 16:09	7° $\text{B}$ 46'43	1.33183 AU	




































































































































evening rise	12002 Dec 21 13:11	17° $\text{Z}$ 48'09			12003 Dec 04 12:21	0° $\text{Z}$	
	12002 Dec 27 23:10	0° $\approx$		evening rise	12003 Dec 05 09:53	1° $\text{Z}$ 51'50	
desc. node	12002 Dec 29 21:14	3° $\approx$ 25'13		desc. node	12003 Dec 16 18:13	23° $\text{Z}$ 16'37	
	12003 Jan 16 10:35	0° $\text{X}$			12003 Dec 20 20:32	0° $\approx$	
evening max el	12003 Jan 24 19:03	9° $\text{X}$ 21'41	27°22'42	evening max el	12004 Jan 07 05:54	22° $\approx$ 20'48	27°31'38
retrograde	12003 Feb 07 09:37	16° $\text{X}$ 46'50		retrograde	12004 Jan 21 01:56	29° $\approx$ 40'56	
evening set	12003 Feb 14 04:44	14° $\text{X}$ 15'56		evening set	12004 Jan 28 01:06	27° $\approx$ 19'29	
min. Earth dist.	12003 Feb 18 01:04	10° $\text{X}$ 45'52	0.64480 AU	min. Earth dist.	12004 Jan 31 18:56	24° $\approx$ 17'15	0.62551 AU
inferior conj	12003 Feb 20 12:24	8° $\text{X}$ 07'03	-0°41'38	inferior conj	12004 Feb 03 16:19	21° $\approx$ 31'30	-1°54'41
minimum elong	12003 Feb 20 13:40	8° $\text{X}$ 03'39	0°40'44	minimum elong	12004 Feb 03 20:10	21° $\approx$ 22'15	1°52'34
asc. node	12003 Feb 22 15:10	5° $\text{X}$ 55'36		asc. node	12004 Feb 09 12:29	16° $\approx$ 54'26	
morning rise	12003 Feb 27 00:29	2° $\text{X}$ 42'08		morning rise	12004 Feb 10 17:45	16° $\approx$ 23'11	
direct	12003 Mar 01 13:36	2° $\text{X}$ 08'48		direct	12004 Feb 13 00:13	15° $\approx$ 59'31	
morning max el	12003 Mar 07 23:02	5° $\text{X}$ 27'55	17°52'11	morning max el	12004 Feb 19 16:32	19° $\approx$ 23'50	17°47'00
	12003 Mar 24 10:06	0° $\text{Y}$			12004 Feb 27 12:25	0° $\text{X}$	
morning set	12003 Mar 25 03:13	1° $\text{Y}$ 11'39		morning set	12004 Mar 06 15:32	13° $\text{X}$ 57'59	
desc. node	12003 Mar 27 22:30	5° $\text{Y}$ 52'54		desc. node	12004 Mar 13 19:06	26° $\text{X}$ 25'32	
					12004 Mar 15 21:23	0° $\text{Y}$	
superior conj	12003 Apr 07 17:15	23° $\text{Y}$ 31'02	-1°15'45	superior conj	12004 Mar 18 08:42	4° $\text{Y}$ 09'42	-0°34'32
minimum elong	12003 Apr 07 09:21	22° $\text{Y}$ 59'22	1°15'02	minimum elong	12004 Mar 18 05:16	3° $\text{Y}$ 55'22	0°33'59
	12003 Apr 11 19:05	0° $\text{Z}$		max. Earth dist.	12004 Mar 25 01:43	15° $\text{Y}$ 09'28	1.44042 AU
max. Earth dist.	12003 Apr 12 08:13	0° $\text{Z}$ 51'51	1.45234 AU	evening rise	12004 Apr 02 03:23	27° $\text{Y}$ 52'13	
evening rise	12003 Apr 23 14:34	18° $\text{Z}$ 21'08			12004 Apr 03 12:34	0° $\text{Z}$	
	12003 May 01 06:24	0° $\text{II}$			12004 Apr 24 02:22	0° $\text{II}$	
greatest brilliancy	12003 May 08 14:41	10° $\text{II}$ 54'02	-0.6m	evening max el	12004 May 02 11:30	10° $\text{II}$ 05'16	21°10'28
evening max el	12003 May 20 12:45	26° $\text{II}$ 18'58	20°02'42	asc. node	12004 May 07 09:40	14° $\text{II}$ 02'57	
asc. node	12003 May 21 12:27	27° $\text{II}$ 16'09		retrograde	12004 May 11 02:59	15° $\text{II}$ 08'29	
	12003 May 25 08:14	0° $\text{III}$		evening set	12004 May 15 10:27	13° $\text{II}$ 24'53	
retrograde	12003 May 28 04:21	0° $\text{III}$ 41'43		inferior conj	12004 May 20 16:47	7° $\text{II}$ 12'11	3°07'03
	12003 May 30 21:00	30° $\text{RII}$		minimum elong	12004 May 20 15:39	7° $\text{II}$ 16'05	3°06'12
evening set	12003 Jun 01 01:39	29° $\text{II}$ 14'19		min. Earth dist.	12004 May 21 01:23	6° $\text{II}$ 42'16	0.68540 AU
inferior conj	12003 Jun 06 09:01	23° $\text{II}$ 13'25	3°14'52	morning rise	12004 May 25 20:38	0° $\text{II}$ 55'51	
minimum elong	12003 Jun 06 08:50	23° $\text{II}$ 14'02	3°14'03		12004 May 27 00:58	30° $\text{RII}$	
min. Earth dist.	12003 Jun 07 07:17	21° $\text{II}$ 58'03	0.67818 AU	direct	12004 May 31 01:34	28° $\text{Z}$ 39'11	
morning rise	12003 Jun 11 15:43	16° $\text{II}$ 52'45			12004 Jun 04 12:16	0° $\text{II}$	
direct	12003 Jun 17 09:22	14° $\text{II}$ 20'17		desc. node	12004 Jun 09 20:17	4° $\text{II}$ 13'04	
desc. node	12003 Jun 23 23:17	16° $\text{II}$ 53'45		morning max el	12004 Jun 10 11:22	4° $\text{II}$ 50'30	23°16'34
morning max el	12003 Jun 29 01:13	21° $\text{II}$ 19'56	24°46'00		12004 Jun 29 19:46	0° $\text{III}$	
	12003 Jul 06 13:17	0° $\text{III}$		morning set	12004 Jul 15 04:56	24° $\text{III}$ 11'23	
	12003 Jul 27 01:31	0° $\text{II}$			12004 Jul 18 15:06	0° $\text{II}$	
morning set	12003 Aug 03 21:01	13° $\text{II}$ 14'29		max. Earth dist.	12004 Jul 19 08:31	1° $\text{II}$ 15'12	1.39528 AU
max. Earth dist.	12003 Aug 07 10:55	19° $\text{II}$ 39'56	1.37217 AU				
	12003 Aug 12 22:57	0° $\text{III}$		superior conj	12004 Jul 27 01:05	15° $\text{II}$ 01'53	-1°04'48
superior conj	12003 Aug 14 06:00	2° $\text{III}$ 30'32	-0°30'37	minimum elong	12004 Jul 27 05:40	15° $\text{II}$ 23'08	1°04'42
minimum elong	12003 Aug 14 08:02	2° $\text{III}$ 40'23	0°30'41	asc. node	12004 Aug 03 09:03	28° $\text{II}$ 55'41	
asc. node	12003 Aug 17 12:19	8° $\text{III}$ 56'45			12004 Aug 03 22:24	0° $\text{III}$	
evening rise	12003 Aug 22 16:27	19° $\text{III}$ 19'47		evening rise	12004 Aug 05 12:22	3° $\text{III}$ 03'06	
	12003 Aug 28 03:31	0° $\text{IV}$		evening max el	12004 Aug 21 14:15	29° $\text{III}$ 05'03	18°38'04
evening max el	12003 Sep 08 13:50	17° $\text{IV}$ 01'49	19°25'51		12004 Aug 22 13:41	0° $\text{IV}$	
retrograde	12003 Sep 18 02:34	21° $\text{IV}$ 46'50		retrograde	12004 Aug 29 16:11	3° $\text{IV}$ 08'35	
evening set	12003 Sep 19 22:59	21° $\text{IV}$ 36'53		evening set	12004 Aug 31 15:24	2° $\text{IV}$ 54'56	
desc. node	12003 Sep 19 20:38	21° $\text{IV}$ 37'53		desc. node	12004 Sep 05 18:02	0° $\text{IV}$ 31'24	
inferior conj	12003 Sep 28 15:27	17° $\text{IV}$ 29'57	-2°43'46		12004 Sep 06 12:29	30° $\text{RII}$	
minimum elong	12003 Sep 28 08:17	17° $\text{IV}$ 41'32	2°40'55	inferior conj	12004 Sep 08 14:19	28° $\text{III}$ 28'45	-0°53'30
min. Earth dist.	12003 Oct 01 02:57	15° $\text{IV}$ 54'06	0.55620 AU	minimum elong	12004 Sep 08 12:10	28° $\text{III}$ 32'50	0°52'45
morning rise	12003 Oct 06 15:17	13° $\text{IV}$ 00'46		min. Earth dist.	12004 Sep 11 18:54	26° $\text{III}$ 05'12	0.57303 AU
direct	12003 Oct 11 19:09	12° $\text{IV}$ 00'45		morning rise	12004 Sep 16 05:30	23° $\text{III}$ 21'46	
morning max el	12003 Oct 25 18:42	19° $\text{IV}$ 02'27	25°14'16	direct	12004 Sep 22 02:40	21° $\text{III}$ 55'57	
	12003 Nov 03 23:42	0° $\text{V}$		morning max el	12004 Oct 06 09:52	29° $\text{III}$ 25'12	26°42'58
asc. node	12003 Nov 13 13:36	15° $\text{V}$ 42'05			12004 Oct 07 00:04	0° $\text{IV}$	
	12003 Nov 20 17:10	0° $\text{VI}$			12004 Oct 27 19:04	0° $\text{V}$	
morning set	12003 Nov 21 10:14	1° $\text{VI}$ 31'01		asc. node	12004 Oct 30 10:24	5° $\text{V}$ 01'45	
				morning set	12004 Nov 04 20:16	16° $\text{V}$ 07'20	
superior conj	12003 Nov 28 05:23	16° $\text{VI}$ 25'36	1°38'35		12004 Nov 11 03:55	0° $\text{VI}$	
minimum elong	12003 Nov 28 05:00	16° $\text{VI}$ 23'29	1°39'22	superior conj	12004 Nov 11 16:45	1° $\text{VI}$ 11'28	1°33'41
max. Earth dist.	12003 Nov 29 19:08	19° $\text{VI}$ 53'03	1.32079 AU				

minimum elong	12004 Nov 11 15:24	1° $\text{♁}$ 03'59	1°34'17	superior conj	12005 Oct 27 04:19	15° $\text{♁}$ 54'08	1°23'07
max. Earth dist.	12004 Nov 12 02:56	2° $\text{♁}$ 08'15	1.31458 AU	minimum elong	12005 Oct 27 02:18	15° $\text{♁}$ 42'57	1°23'25
evening rise	12004 Nov 18 13:26	16° $\text{♁}$ 12'20		evening rise	12005 Nov 02 21:30	0° $\text{♁}$ 42'34	
	12004 Nov 25 10:23	0° $\text{♁}$			12005 Nov 02 13:35	0° $\text{♁}$	
desc. node	12004 Dec 02 15:16	12° $\text{♁}$ 39'27			12005 Nov 18 14:57	0° $\text{♁}$	
	12004 Dec 15 01:50	0° $\text{♁}$		desc. node	12005 Nov 19 12:24	1° $\text{♁}$ 21'39	
evening max el	12004 Dec 19 11:42	4° $\text{♁}$ 37'56	27°07'16	evening max el	12005 Dec 01 09:53	16° $\text{♁}$ 03'14	26°08'50
retrograde	12005 Jan 02 09:52	11° $\text{♁}$ 50'19		retrograde	12005 Dec 15 08:09	23° $\text{♁}$ 07'27	
evening set	12005 Jan 09 06:41	9° $\text{♁}$ 46'39		evening set	12005 Dec 21 17:15	21° $\text{♁}$ 30'17	
min. Earth dist.	12005 Jan 13 02:06	7° $\text{♁}$ 04'25	0.60442 AU	min. Earth dist.	12005 Dec 25 22:59	18° $\text{♁}$ 54'40	0.58317 AU
inferior conj	12005 Jan 16 05:50	4° $\text{♁}$ 25'41	-3°13'35	inferior conj	12005 Dec 29 01:22	16° $\text{♁}$ 39'09	-4°30'36
minimum elong	12005 Jan 16 12:32	4° $\text{♁}$ 11'34	3°10'27	minimum elong	12005 Dec 29 09:46	16° $\text{♁}$ 23'47	4°27'28
	12005 Jan 22 18:28	30° $\text{♁}$		morning rise	12006 Jan 06 05:04	12° $\text{♁}$ 12'51	
morning rise	12005 Jan 23 21:16	29° $\text{♁}$ 37'14		direct	12006 Jan 08 07:52	11° $\text{♁}$ 58'03	
direct	12005 Jan 25 23:47	29° $\text{♁}$ 19'43		asc. node	12006 Jan 13 06:57	13° $\text{♁}$ 24'39	
asc. node	12005 Jan 26 09:44	29° $\text{♁}$ 20'25		morning max el	12006 Jan 16 15:30	16° $\text{♁}$ 02'13	18°33'46
	12005 Jan 29 02:45	0° $\text{♁}$			12006 Jan 26 10:08	0° $\text{♁}$	
morning max el	12005 Feb 02 07:17	2° $\text{♁}$ 58'58	18°00'20	morning set	12006 Feb 01 15:41	11° $\text{♁}$ 40'57	
morning set	12005 Feb 17 21:28	27° $\text{♁}$ 33'10					
	12005 Feb 19 05:16	0° $\text{♁}$		superior conj	12006 Feb 10 13:36	28° $\text{♁}$ 42'42	0°38'24
superior conj	12005 Feb 28 00:38	15° $\text{♁}$ 57'12	0°04'55	minimum elong	12006 Feb 10 16:03	28° $\text{♁}$ 54'06	0°38'30
minimum elong	12005 Feb 28 01:04	15° $\text{♁}$ 59'05	0°05'08		12006 Feb 11 06:17	0° $\text{♁}$	
behind sun begin	12005 Feb 27 17:29	15° $\text{♁}$ 25'41		desc. node	12006 Feb 15 12:22	7° $\text{♁}$ 42'43	
behind sun end	12005 Feb 28 08:38	16° $\text{♁}$ 32'24		max. Earth dist.	12006 Feb 17 22:55	11° $\text{♁}$ 59'46	1.40177 AU
desc. node	12005 Feb 28 15:44	17° $\text{♁}$ 03'28		evening rise	12006 Feb 22 03:15	19° $\text{♁}$ 06'28	
max. Earth dist.	12005 Mar 07 14:50	28° $\text{♁}$ 56'02	1.42292 AU		12006 Feb 28 20:52	0° $\text{♁}$	
	12005 Mar 08 06:17	0° $\text{♁}$		evening max el	12006 Mar 22 00:08	0° $\text{♁}$	
evening rise	12005 Mar 13 05:10	8° $\text{♁}$ 02'08		retrograde	12006 Mar 28 19:43	7° $\text{♁}$ 41'22	23°48'16
	12005 Mar 27 16:15	0° $\text{♁}$		asc. node	12006 Apr 08 18:33	14° $\text{♁}$ 08'19	
evening max el	12005 Apr 15 05:11	23° $\text{♁}$ 52'12	22°27'27	evening set	12006 Apr 11 04:14	13° $\text{♁}$ 41'36	
asc. node	12005 Apr 24 06:55	29° $\text{♁}$ 36'37		inferior conj	12006 Apr 14 00:31	11° $\text{♁}$ 55'54	
retrograde	12005 Apr 25 00:10	29° $\text{♁}$ 39'05		minimum elong	12006 Apr 19 11:00	5° $\text{♁}$ 27'28	2°20'33
evening set	12005 Apr 29 18:36	27° $\text{♁}$ 40'11		min. Earth dist.	12006 Apr 19 08:51	5° $\text{♁}$ 34'48	2°19'34
inferior conj	12005 May 05 02:04	21° $\text{♁}$ 17'58	2°48'45		12006 Apr 18 18:24	6° $\text{♁}$ 24'07	0.68585 AU
minimum elong	12005 May 05 00:15	21° $\text{♁}$ 24'17	2°47'48	morning rise	12006 Apr 24 00:04	30° $\text{♁}$	
min. Earth dist.	12005 May 04 21:47	21° $\text{♁}$ 32'51	0.68791 AU	direct	12006 Apr 24 17:12	29° $\text{♁}$ 23'50	
morning rise	12005 May 10 05:47	15° $\text{♁}$ 07'24			12006 Apr 28 19:57	27° $\text{♁}$ 48'13	
direct	12005 May 14 21:27	13° $\text{♁}$ 10'32		morning max el	12006 May 04 03:59	0° $\text{♁}$	
morning max el	12005 May 24 00:35	18° $\text{♁}$ 29'57	21°48'57	desc. node	12006 May 06 19:49	2° $\text{♁}$ 20'27	20°30'16
desc. node	12005 May 27 17:12	22° $\text{♁}$ 33'01			12006 May 14 14:02	11° $\text{♁}$ 37'12	
	12005 Jun 02 13:51	0° $\text{♁}$		morning set	12006 May 27 08:55	0° $\text{♁}$	
	12005 Jun 22 22:43	0° $\text{♁}$		max. Earth dist.	12006 Jun 04 18:51	12° $\text{♁}$ 49'24	
morning set	12005 Jun 25 11:15	3° $\text{♁}$ 59'43			12006 Jun 13 17:17	26° $\text{♁}$ 54'36	1.43672 AU
max. Earth dist.	12005 Jul 01 09:44	13° $\text{♁}$ 39'12	1.41769 AU		12006 Jun 15 15:12	0° $\text{♁}$	
superior conj	12005 Jul 09 01:21	26° $\text{♁}$ 41'26	-1°37'07	superior conj	12006 Jun 20 02:49	7° $\text{♁}$ 21'34	-2°02'13
minimum elong	12005 Jul 09 07:57	27° $\text{♁}$ 10'23	1°37'07	minimum elong	12006 Jun 20 08:49	7° $\text{♁}$ 46'30	2°02'40
	12005 Jul 10 22:26	0° $\text{♁}$		evening rise	12006 Jul 02 13:26	28° $\text{♁}$ 39'40	
evening rise	12005 Jul 19 20:54	16° $\text{♁}$ 13'26			12006 Jul 03 07:48	0° $\text{♁}$	
asc. node	12005 Jul 21 05:50	18° $\text{♁}$ 44'47		asc. node	12006 Jul 08 02:42	8° $\text{♁}$ 19'44	
	12005 Jul 27 13:07	0° $\text{♁}$		evening max el	12006 Jul 19 12:17	24° $\text{♁}$ 55'17	18°03'40
evening max el	12005 Aug 04 23:03	11° $\text{♁}$ 45'57	18°11'06	retrograde	12006 Jul 26 00:20	28° $\text{♁}$ 16'52	
retrograde	12005 Aug 12 00:34	15° $\text{♁}$ 21'12		evening set	12006 Jul 28 14:38	27° $\text{♁}$ 44'06	
evening set	12005 Aug 14 06:47	14° $\text{♁}$ 59'44		inferior conj	12006 Aug 04 02:26	22° $\text{♁}$ 38'11	1°48'47
inferior conj	12005 Aug 21 10:53	10° $\text{♁}$ 13'05	0°39'40	minimum elong	12006 Aug 04 05:01	22° $\text{♁}$ 31'40	1°47'27
minimum elong	12005 Aug 21 12:10	10° $\text{♁}$ 10'16	0°38'50	min. Earth dist.	12006 Aug 07 02:55	19° $\text{♁}$ 36'06	0.61732 AU
desc. node	12005 Aug 23 15:26	8° $\text{♁}$ 16'47		morning rise	12006 Aug 10 16:56	16° $\text{♁}$ 34'40	
min. Earth dist.	12005 Aug 24 18:26	7° $\text{♁}$ 18'59	0.59445 AU	desc. node	12006 Aug 10 12:49	16° $\text{♁}$ 41'53	
morning rise	12005 Aug 28 14:13	4° $\text{♁}$ 32'36		direct	12006 Aug 17 09:02	14° $\text{♁}$ 15'01	
direct	12005 Sep 04 00:03	2° $\text{♁}$ 38'08		morning max el	12006 Aug 31 13:33	22° $\text{♁}$ 15'47	27°57'52
morning max el	12005 Sep 18 08:28	10° $\text{♁}$ 27'43	27°39'40		12006 Sep 07 09:03	0° $\text{♁}$	
	12005 Oct 03 12:15	0° $\text{♁}$		morning set	12006 Sep 26 16:19	0° $\text{♁}$	
asc. node	12005 Oct 17 07:08	24° $\text{♁}$ 40'50		asc. node	12006 Oct 04 04:10	14° $\text{♁}$ 35'03	
	12005 Oct 19 21:07	0° $\text{♁}$		max. Earth dist.	12006 Oct 04 03:52	14° $\text{♁}$ 33'32	
morning set	12005 Oct 20 02:53	0° $\text{♁}$ 30'19			12006 Oct 09 18:00	26° $\text{♁}$ 25'37	1.31727 AU
max. Earth dist.	12005 Oct 26 11:48	14° $\text{♁}$ 22'16	1.31336 AU		12006 Oct 11 09:07	0° $\text{♁}$	

superior conj	12006 Oct 11 14:17	0° $\mathbb{M}$ 28'30	1°07'02	max. Earth dist.	12007 Sep 22 17:48	8° $\mathbb{Q}$ 09'31	1.32641 AU
minimum elong	12006 Oct 11 12:02	0° $\mathbb{M}$ 16'05	1°07'01				
evening rise	12006 Oct 18 08:09	15° $\mathbb{M}$ 17'36		superior conj	12007 Sep 25 20:41	14° $\mathbb{Q}$ 48'35	0°45'38
	12006 Oct 25 13:18	0° $\mathbb{J}$		minimum elong	12007 Sep 25 18:43	14° $\mathbb{Q}$ 38'02	0°45'24
desc. node	12006 Nov 06 09:39	19° $\mathbb{J}$ 07'45		evening rise	12007 Oct 02 19:30	29° $\mathbb{Q}$ 51'57	
evening max el	12006 Nov 13 00:06	26° $\mathbb{J}$ 39'26	24°42'17		12007 Oct 02 21:00	0° $\mathbb{M}$	
	12006 Nov 17 00:25	0° $\mathbb{Z}$			12007 Oct 19 14:22	0° $\mathbb{J}$	
retrograde	12006 Nov 26 18:46	3° $\mathbb{Z}$ 33'03		desc. node	12007 Oct 24 06:57	5° $\mathbb{J}$ 36'37	
evening set	12006 Dec 02 04:33	2° $\mathbb{Z}$ 28'02		evening max el	12007 Oct 25 10:30	6° $\mathbb{J}$ 46'04	23°01'36
	12006 Dec 06 23:43	30° $\mathbb{R}$ $\mathbb{J}$		retrograde	12007 Nov 07 16:09	13° $\mathbb{J}$ 20'54	
min. Earth dist.	12006 Dec 07 11:49	29° $\mathbb{J}$ 41'22	0.56435 AU	evening set	12007 Nov 11 16:59	12° $\mathbb{J}$ 45'32	
inferior conj	12006 Dec 10 00:31	28° $\mathbb{J}$ 04'46	-5°30'33	min. Earth dist.	12007 Nov 18 19:38	9° $\mathbb{J}$ 29'35	0.55095 AU
minimum elong	12006 Dec 10 06:51	27° $\mathbb{J}$ 54'39	5°28'48	inferior conj	12007 Nov 20 04:26	8° $\mathbb{J}$ 42'28	-5°51'31
morning rise	12006 Dec 18 11:19	23° $\mathbb{J}$ 59'46		minimum elong	12007 Nov 20 03:27	8° $\mathbb{J}$ 43'53	5°50'45
direct	12006 Dec 20 21:03	23° $\mathbb{J}$ 43'51		morning rise	12007 Nov 28 15:28	4° $\mathbb{J}$ 52'52	
morning max el	12006 Dec 30 13:10	28° $\mathbb{J}$ 22'26	19°29'13	direct	12007 Dec 01 16:06	4° $\mathbb{J}$ 31'19	
asc. node	12006 Dec 31 04:06	28° $\mathbb{J}$ 59'29		morning max el	12007 Dec 12 21:09	9° $\mathbb{J}$ 50'52	20°47'41
	12007 Jan 01 02:48	0° $\mathbb{Z}$		asc. node	12007 Dec 18 01:12	15° $\mathbb{J}$ 49'10	
morning set	12007 Jan 16 18:13	26° $\mathbb{Z}$ 09'57			12007 Dec 26 15:39	0° $\mathbb{Z}$	
	12007 Jan 18 15:57	0° $\mathbb{W}$		morning set	12008 Jan 01 02:07	10° $\mathbb{Z}$ 51'49	
superior conj	12007 Jan 24 18:52	12° $\mathbb{W}$ 12'51	1°04'24	superior conj	12008 Jan 08 12:06	26° $\mathbb{Z}$ 15'48	1°22'49
minimum elong	12007 Jan 24 21:47	12° $\mathbb{W}$ 27'07	1°04'40	minimum elong	12008 Jan 08 14:30	26° $\mathbb{Z}$ 28'06	1°23'21
max. Earth dist.	12007 Jan 31 04:55	24° $\mathbb{W}$ 23'39	1.37948 AU		12008 Jan 10 08:15	0° $\mathbb{W}$	
desc. node	12007 Feb 02 09:03	28° $\mathbb{W}$ 19'46		max. Earth dist.	12008 Jan 13 13:42	6° $\mathbb{W}$ 23'36	1.35839 AU
	12007 Feb 03 07:35	0° $\mathbb{X}$		evening rise	12008 Jan 17 12:04	13° $\mathbb{W}$ 51'43	
evening rise	12007 Feb 03 22:26	1° $\mathbb{X}$ 05'32		desc. node	12008 Jan 20 05:49	18° $\mathbb{W}$ 51'03	
	12007 Feb 22 02:24	0° $\mathbb{Y}$			12008 Jan 26 17:51	0° $\mathbb{X}$	
evening max el	12007 Mar 11 09:16	21° $\mathbb{Y}$ 32'46	25°06'11		12008 Feb 16 22:28	0° $\mathbb{Y}$	
retrograde	12007 Mar 23 08:49	28° $\mathbb{Y}$ 30'08		evening max el	12008 Feb 21 22:58	5° $\mathbb{Y}$ 22'33	26°13'55
evening set	12007 Mar 29 02:37	26° $\mathbb{Y}$ 06'48		retrograde	12008 Mar 05 17:59	12° $\mathbb{Y}$ 38'38	
asc. node	12007 Mar 29 01:36	26° $\mathbb{Y}$ 08'55		evening set	12008 Mar 11 23:12	10° $\mathbb{Y}$ 07'57	
min. Earth dist.	12007 Apr 02 12:58	21° $\mathbb{Y}$ 10'25	0.67948 AU	asc. node	12008 Mar 14 22:59	7° $\mathbb{Y}$ 09'47	
inferior conj	12007 Apr 03 17:40	19° $\mathbb{Y}$ 36'27	1°42'31	min. Earth dist.	12008 Mar 16 03:16	5° $\mathbb{Y}$ 46'28	0.66904 AU
minimum elong	12007 Apr 03 15:38	19° $\mathbb{Y}$ 43'06	1°41'40	inferior conj	12008 Mar 17 20:05	3° $\mathbb{Y}$ 41'03	0°54'33
morning rise	12007 Apr 09 04:58	13° $\mathbb{Y}$ 41'08		minimum elong	12008 Mar 17 18:45	3° $\mathbb{Y}$ 45'08	0°54'04
direct	12007 Apr 12 19:37	12° $\mathbb{Y}$ 26'12			12008 Mar 21 01:23	30° $\mathbb{R}$ $\mathbb{X}$	
morning max el	12007 Apr 19 22:38	16° $\mathbb{Y}$ 21'46	19°25'05	morning rise	12008 Mar 23 15:05	27° $\mathbb{X}$ 55'51	
	12007 Apr 30 14:41	0° $\mathbb{B}$		direct	12008 Mar 26 18:46	26° $\mathbb{X}$ 59'32	
desc. node	12007 May 01 10:47	1° $\mathbb{B}$ 13'09			12008 Apr 01 19:30	0° $\mathbb{Y}$	
greatest brilliancy	12007 May 02 15:40	2° $\mathbb{B}$ 59'16	-0.7m	morning max el	12008 Apr 02 08:40	0° $\mathbb{Y}$ 31'12	18°35'46
morning set	12007 May 14 19:17	21° $\mathbb{B}$ 25'02		desc. node	12008 Apr 17 07:28	21° $\mathbb{Y}$ 12'37	
	12007 May 20 08:29	0° $\mathbb{I}$			12008 Apr 22 22:09	0° $\mathbb{B}$	
max. Earth dist.	12007 May 27 07:21	10° $\mathbb{I}$ 52'38	1.45028 AU	morning set	12008 Apr 23 11:19	0° $\mathbb{B}$ 51'44	
				max. Earth dist.	12008 May 09 02:04	25° $\mathbb{B}$ 18'26	1.45697 AU
superior conj	12007 May 31 04:37	17° $\mathbb{I}$ 02'10	-2°13'18	superior conj	12008 May 09 13:57	26° $\mathbb{B}$ 04'53	-2°04'50
minimum elong	12007 May 31 05:19	17° $\mathbb{I}$ 04'58	2°14'05	minimum elong	12008 May 09 07:13	25° $\mathbb{B}$ 38'34	2°05'08
	12007 Jun 08 05:16	0° $\mathbb{C}$			12008 May 12 02:02	0° $\mathbb{I}$	
evening rise	12007 Jun 14 08:53	10° $\mathbb{C}$ 09'34		evening rise	12008 May 25 04:08	20° $\mathbb{I}$ 38'57	
asc. node	12007 Jun 24 23:39	27° $\mathbb{C}$ 34'14			12008 May 31 01:13	0° $\mathbb{C}$	
	12007 Jun 26 13:45	0° $\mathbb{Q}$					
evening max el	12007 Jul 03 02:22	8° $\mathbb{Q}$ 23'03	18°14'49	greatest brilliancy	12008 Jun 02 05:06	3° $\mathbb{C}$ 24'58	-0.8m
retrograde	12007 Jul 09 10:59	11° $\mathbb{Q}$ 45'12		asc. node	12008 Jun 10 20:40	16° $\mathbb{C}$ 21'07	
evening set	12007 Jul 12 09:34	10° $\mathbb{Q}$ 58'33		evening max el	12008 Jun 15 14:18	22° $\mathbb{C}$ 01'34	18°43'45
inferior conj	12007 Jul 18 08:49	5° $\mathbb{Q}$ 35'08	2°35'11	retrograde	12008 Jun 22 04:42	25° $\mathbb{C}$ 37'58	
minimum elong	12007 Jul 18 11:14	5° $\mathbb{Q}$ 28'17	2°33'56	evening set	12008 Jun 25 11:41	24° $\mathbb{C}$ 35'56	
min. Earth dist.	12007 Jul 20 20:39	2° $\mathbb{Q}$ 46'21	0.63894 AU	inferior conj	12008 Jul 01 02:10	18° $\mathbb{C}$ 56'35	3°02'28
	12007 Jul 23 15:29	30° $\mathbb{R}$ $\mathbb{C}$		minimum elong	12008 Jul 01 03:43	18° $\mathbb{C}$ 51'48	3°01'27
morning rise	12007 Jul 24 11:25	29° $\mathbb{C}$ 18'37		min. Earth dist.	12008 Jul 02 23:18	16° $\mathbb{C}$ 37'07	0.65745 AU
desc. node	12007 Jul 28 10:09	27° $\mathbb{C}$ 07'37		morning rise	12008 Jul 06 18:56	12° $\mathbb{C}$ 34'39	
direct	12007 Jul 31 03:08	26° $\mathbb{C}$ 42'32		direct	12008 Jul 13 04:46	9° $\mathbb{C}$ 52'34	
	12007 Aug 08 12:29	0° $\mathbb{Q}$		desc. node	12008 Jul 14 07:25	9° $\mathbb{C}$ 56'56	
morning max el	12007 Aug 13 22:45	4° $\mathbb{Q}$ 43'44	27°38'46	morning max el	12008 Jul 26 09:40	17° $\mathbb{C}$ 41'42	26°48'15
	12007 Sep 02 01:05	0° $\mathbb{P}$			12008 Aug 05 16:54	0° $\mathbb{Q}$	
morning set	12007 Sep 17 21:41	28° $\mathbb{P}$ 15'02			12008 Aug 24 23:30	0° $\mathbb{P}$	
	12007 Sep 18 18:41	0° $\mathbb{U}$		morning set	12008 Aug 31 04:28	11° $\mathbb{P}$ 23'01	
asc. node	12007 Sep 21 00:34	4° $\mathbb{U}$ 34'32		max. Earth dist.	12008 Sep 04 08:21	19° $\mathbb{P}$ 31'00	1.34070 AU

asc. node	12008 Sep 06 21:14	24° $\cap$ 39'49			12009 Jul 30 16:34	0° $\Omega$	
			morning set		12009 Aug 13 20:48	23° $\Omega$ 49'49	
superior conj	12008 Sep 08 21:12	28° $\cap$ 48'13 0°19'14			12009 Aug 17 04:52	0° $\cap$	
minimum elong	12008 Sep 08 20:12	28° $\cap$ 43'01 0°18'56	max. Earth dist.		12009 Aug 17 12:55	0° $\cap$ 37'59	1.35958 AU
	12008 Sep 09 10:55	0° $\underline{\Omega}$					
evening rise	12008 Sep 16 05:36	14° $\underline{\Omega}$ 20'22	superior conj		12009 Aug 23 13:04	12° $\cap$ 20'28 -0°11'29	
	12008 Sep 24 03:08	0° $\mathbb{M}$	minimum elong		12009 Aug 23 13:47	12° $\cap$ 24'04 0°11'40	
evening max el	12008 Oct 06 01:51	16° $\mathbb{M}$ 58'02 21°24'14	behind sun begin		12009 Aug 23 09:26	12° $\cap$ 02'15	
desc. node	12008 Oct 10 04:19	20° $\mathbb{M}$ 21'10	behind sun end		12009 Aug 23 18:09	12° $\cap$ 45'55	
retrograde	12008 Oct 18 04:20	22° $\mathbb{M}$ 59'01	asc. node		12009 Aug 24 17:55	14° $\cap$ 45'38	
evening set	12008 Oct 20 21:05	22° $\mathbb{M}$ 42'15	evening rise		12009 Aug 31 12:19	28° $\cap$ 37'03	
inferior conj	12008 Oct 29 20:55	18° $\mathbb{M}$ 47'23 -5°15'28			12009 Sep 01 04:34	0° $\underline{\Omega}$	
minimum elong	12008 Oct 29 12:18	18° $\mathbb{M}$ 59'27 5°13'14	evening max el		12009 Sep 18 05:50	27° $\underline{\Omega}$ 47'42 20°03'05	
min. Earth dist.	12008 Oct 30 02:06	18° $\mathbb{M}$ 40'07 0.54561 AU			12009 Sep 20 17:59	0° $\mathbb{M}$	
morning rise	12008 Nov 07 04:22	14° $\mathbb{M}$ 58'11	desc. node		12009 Sep 27 01:43	2° $\mathbb{M}$ 53'44	
direct	12008 Nov 11 00:26	14° $\mathbb{M}$ 26'27	retrograde		12009 Sep 28 18:06	3° $\mathbb{M}$ 01'30	
morning max el	12008 Nov 23 15:49	20° $\mathbb{M}$ 28'56 22°26'10	evening set		12009 Sep 30 17:01	2° $\mathbb{M}$ 51'27	
	12008 Dec 01 13:34	0° $\text{X}$			12009 Oct 07 18:18	30° $\text{R}$ $\underline{\Omega}$	
asc. node	12008 Dec 03 22:12	3° $\text{X}$ 36'46	inferior conj		12009 Oct 09 16:09	28° $\underline{\Omega}$ 52'11 -3°47'18	
morning set	12008 Dec 15 12:57	25° $\text{X}$ 38'42	minimum elong		12009 Oct 09 06:43	29° $\underline{\Omega}$ 06'23 3°43'54	
	12008 Dec 17 14:03	0° $\text{Z}$	min. Earth dist.		12009 Oct 11 10:44	27° $\underline{\Omega}$ 48'08 0.54968 AU	
			morning rise		12009 Oct 17 19:14	24° $\underline{\Omega}$ 41'54	
superior conj	12008 Dec 22 13:42	10° $\text{Z}$ 40'28 1°34'04	direct		12009 Oct 22 11:25	23° $\underline{\Omega}$ 54'24	
minimum elong	12008 Dec 22 15:06	10° $\text{Z}$ 47'55 1°34'50			12009 Nov 04 11:07	0° $\mathbb{M}$	
max. Earth dist.	12008 Dec 26 04:53	18° $\text{Z}$ 16'35 1.34034 AU	morning max el		12009 Nov 05 03:10	0° $\mathbb{M}$ 37'03 24°14'12	
evening rise	12008 Dec 30 16:21	27° $\text{Z}$ 14'27	asc. node		12009 Nov 20 19:07	22° $\mathbb{M}$ 08'32	
	12009 Jan 01 02:45	0° $\approx$			12009 Nov 24 23:33	0° $\text{X}$	
desc. node	12009 Jan 06 02:39	9° $\approx$ 11'19	morning set		12009 Nov 30 00:49	10° $\text{X}$ 25'12	
	12009 Jan 19 01:07	0° $\text{X}$					
evening max el	12009 Feb 03 12:29	19° $\text{X}$ 01'08 27°04'14	superior conj		12009 Dec 06 20:51	25° $\text{X}$ 18'47 1°38'43	
retrograde	12009 Feb 16 21:16	26° $\text{X}$ 25'29	minimum elong		12009 Dec 06 21:07	25° $\text{X}$ 20'11 1°39'32	
evening set	12009 Feb 23 12:19	23° $\text{X}$ 52'32	max. Earth dist.		12009 Dec 09 03:46	0° $\text{Z}$ 16'12 1.32655 AU	
min. Earth dist.	12009 Feb 27 11:03	20° $\text{X}$ 04'42 0.65471 AU			12009 Dec 09 00:45	0° $\text{Z}$	
inferior conj	12009 Mar 01 15:54	17° $\text{X}$ 35'12 -0°03'37	evening rise		12009 Dec 14 07:57	11° $\text{Z}$ 05'26	
minimum elong	12009 Mar 01 16:00	17° $\text{X}$ 34'56 0°03'19	desc. node		12009 Dec 23 23:34	29° $\text{Z}$ 15'09	
transit middle	12009 Mar 01 16:00	17° $\text{X}$ 34'56 0°03'19			12009 Dec 24 09:55	0° $\approx$	
transit begin	12009 Mar 01 13:04	17° $\text{X}$ 43'16			12010 Jan 14 17:53	0° $\text{X}$	
transit end	12009 Mar 01 18:56	17° $\text{X}$ 26'38	evening max el		12010 Jan 17 00:42	2° $\text{X}$ 17'37 27°30'06	
asc. node	12009 Mar 01 20:21	17° $\text{X}$ 22'37	retrograde		12010 Jan 30 18:05	9° $\text{X}$ 41'46	
morning rise	12009 Mar 07 21:08	12° $\text{X}$ 02'22	evening set		12010 Feb 06 15:39	7° $\text{X}$ 13'29	
direct	12009 Mar 10 15:08	11° $\text{X}$ 21'40	min. Earth dist.		12010 Feb 10 10:27	3° $\text{X}$ 56'12 0.63697 AU	
morning max el	12009 Mar 16 23:55	14° $\text{X}$ 41'54 18°03'11	inferior conj		12010 Feb 13 02:30	1° $\text{X}$ 12'35 -1°11'39	
	12009 Mar 28 02:22	0° $\text{Y}$	minimum elong		12010 Feb 13 04:47	1° $\text{X}$ 06'43 1°10'14	
morning set	12009 Apr 04 07:17	11° $\text{Y}$ 41'37			12010 Feb 14 07:15	30° $\text{R}$ $\approx$	
desc. node	12009 Apr 04 04:06	11° $\text{Y}$ 28'36	asc. node		12010 Feb 16 17:41	27° $\approx$ 47'48	
	12009 Apr 15 15:43	0° $\text{Z}$	morning rise		12010 Feb 19 20:08	25° $\approx$ 54'40	
			direct		12010 Feb 22 06:06	25° $\approx$ 25'58	
superior conj	12009 Apr 18 23:09	5° $\text{Z}$ 14'14 -1°37'22	morning max el		12010 Feb 28 17:32	28° $\approx$ 45'59 17°47'47	
minimum elong	12009 Apr 18 13:51	4° $\text{Z}$ 37'33 1°36'50			12010 Mar 01 21:47	0° $\text{X}$	
max. Earth dist.	12009 Apr 21 22:12	9° $\text{Z}$ 53'15 1.45613 AU	morning set		12010 Mar 17 06:32	23° $\text{X}$ 50'22	
	12009 May 04 20:57	0° $\mathbb{I}$			12010 Mar 20 21:15	0° $\text{Y}$	
evening rise	12009 May 05 01:48	0° $\mathbb{I}$ 18'46	desc. node		12010 Mar 22 00:42	1° $\text{Y}$ 56'15	
greatest brilliancy	12009 May 18 03:28	20° $\mathbb{I}$ 15'05 -0.7m					
	12009 May 25 00:42	0° $\text{Z}$	superior conj		12010 Mar 30 01:01	15° $\text{Y}$ 14'11 -0°58'27	
asc. node	12009 May 28 17:45	4° $\text{Z}$ 31'02	minimum elong		12010 Mar 29 18:54	14° $\text{Y}$ 49'18 0°57'44	
evening max el	12009 May 29 21:49	5° $\text{Z}$ 45'00 19°29'31	max. Earth dist.		12010 Apr 04 16:52	24° $\text{Y}$ 19'57 1.44803 AU	
retrograde	12009 Jun 06 02:14	9° $\text{Z}$ 48'09			12010 Apr 08 07:12	0° $\text{Z}$	
evening set	12009 Jun 09 18:05	8° $\text{Z}$ 30'02	evening rise		12010 Apr 14 13:12	9° $\text{Z}$ 40'42	
inferior conj	12009 Jun 15 03:11	2° $\text{Z}$ 36'23 3°14'10			12010 Apr 28 02:10	0° $\mathbb{I}$	
minimum elong	12009 Jun 15 03:38	2° $\text{Z}$ 34'54 3°13'18	evening max el		12010 May 12 23:42	19° $\mathbb{I}$ 29'54 20°30'10	
min. Earth dist.	12009 Jun 16 09:34	0° $\text{Z}$ 56'04 0.67182 AU	asc. node		12010 May 15 14:53	21° $\mathbb{I}$ 51'55	
	12009 Jun 17 02:56	30° $\text{R}$ $\mathbb{I}$	retrograde		12010 May 21 01:05	24° $\mathbb{I}$ 09'43	
morning rise	12009 Jun 20 12:44	26° $\mathbb{I}$ 14'06	evening set		12010 May 25 02:31	22° $\mathbb{I}$ 35'28	
direct	12009 Jun 26 12:52	23° $\mathbb{I}$ 35'52	inferior conj		12010 May 30 09:07	16° $\mathbb{I}$ 29'08 3°12'55	
desc. node	12009 Jul 01 04:35	24° $\mathbb{I}$ 52'57	minimum elong		12010 May 30 08:31	16° $\mathbb{I}$ 31'12 3°12'06	
	12009 Jul 07 20:47	0° $\text{Z}$	min. Earth dist.		12010 May 31 01:29	15° $\mathbb{I}$ 32'55 0.68174 AU	
morning max el	12009 Jul 08 20:22	0° $\text{Z}$ 58'27 25°34'53	morning rise		12010 Jun 04 14:15	10° $\mathbb{I}$ 09'50	

direct	12010 Jun 10 02:31	7° $\Pi$ 43'25		morning max el	12011 Jun 03 17:09	27° $\mathcal{B}$ 58'03	22°38'31
desc. node	12010 Jun 18 01:39	11° $\Pi$ 27'07		desc. node	12011 Jun 04 22:37	29° $\mathcal{B}$ 14'32	
morning max el	12010 Jun 21 06:14	14° $\Pi$ 24'27	24°08'19		12011 Jun 05 15:22	0° $\Pi$	
	12010 Jul 03 23:08	0° $\mathcal{E}$			12011 Jun 27 14:30	0° $\mathcal{E}$	
	12010 Jul 23 13:54	0° $\Omega$		morning set	12011 Jul 07 15:06	15° $\mathcal{E}$ 50'19	
morning set	12010 Jul 26 17:54	5° $\Omega$ 22'34		max. Earth dist.	12011 Jul 12 08:35	23° $\mathcal{E}$ 43'26	1.40505 AU
max. Earth dist.	12010 Jul 30 10:35	11° $\Omega$ 51'26	1.38179 AU		12011 Jul 15 24:00	0° $\Omega$	
superior conj	12010 Aug 06 16:50	25° $\Omega$ 16'01	-0°45'05	superior conj	12011 Jul 20 04:27	7° $\Omega$ 26'24	-1°19'00
minimum elong	12010 Aug 06 19:55	25° $\Omega$ 30'47	0°45'05	minimum elong	12011 Jul 20 10:03	7° $\Omega$ 51'45	1°18'55
	12010 Aug 09 03:48	0° $\mathcal{M}$		asc. node	12011 Jul 29 11:20	24° $\Omega$ 42'27	
asc. node	12010 Aug 11 14:35	4° $\mathcal{M}$ 47'35		evening rise	12011 Jul 30 04:34	26° $\Omega$ 03'55	
evening rise	12010 Aug 15 13:01	12° $\mathcal{M}$ 34'02			12011 Aug 01 06:39	0° $\mathcal{M}$	
	12010 Aug 24 22:38	0° $\mathcal{L}$		evening max el	12011 Aug 15 04:12	21° $\mathcal{M}$ 45'09	18°24'13
evening max el	12010 Aug 31 23:38	9° $\mathcal{L}$ 24'49	19°03'02	retrograde	12011 Aug 22 18:11	25° $\mathcal{M}$ 34'25	
retrograde	12010 Sep 09 20:42	13° $\mathcal{L}$ 50'53		evening set	12011 Aug 24 20:16	25° $\mathcal{M}$ 17'51	
evening set	12010 Sep 11 17:17	13° $\mathcal{L}$ 40'01		desc. node	12011 Aug 31 20:33	21° $\mathcal{M}$ 12'11	
desc. node	12010 Sep 13 23:09	13° $\mathcal{L}$ 00'02		inferior conj	12011 Sep 01 11:03	20° $\mathcal{M}$ 43'08	-0°11'14
inferior conj	12010 Sep 20 02:54	9° $\mathcal{L}$ 25'47	-1°55'57	minimum elong	12011 Sep 01 10:37	20° $\mathcal{M}$ 44'00	0°11'16
minimum elong	12010 Sep 19 21:54	9° $\mathcal{L}$ 34'24	1°53'57	transit middle	12011 Sep 01 10:37	20° $\mathcal{M}$ 44'00	0°11'16
min. Earth dist.	12010 Sep 22 23:40	7° $\mathcal{L}$ 27'49	0.56253 AU	transit begin	12011 Sep 01 08:05	20° $\mathcal{M}$ 49'06	
morning rise	12010 Sep 27 23:27	4° $\mathcal{L}$ 40'19		transit end	12011 Sep 01 13:09	20° $\mathcal{M}$ 38'53	
direct	12010 Oct 03 11:04	3° $\mathcal{L}$ 29'47		min. Earth dist.	12011 Sep 04 18:35	18° $\mathcal{M}$ 03'57	0.58180 AU
morning max el	12010 Oct 17 15:04	10° $\mathcal{L}$ 45'04	25°55'03	morning rise	12011 Sep 08 21:29	15° $\mathcal{M}$ 21'08	
	12010 Nov 01 08:02	0° $\mathcal{M}$		direct	12011 Sep 15 01:03	13° $\mathcal{M}$ 42'47	
asc. node	12010 Nov 07 15:57	11° $\mathcal{M}$ 12'49		morning max el	12011 Sep 29 09:00	21° $\mathcal{M}$ 21'28	27°11'31
morning set	12010 Nov 14 11:58	25° $\mathcal{M}$ 06'00			12011 Oct 06 22:09	0° $\mathcal{L}$	
	12010 Nov 16 18:12	0° $\mathcal{X}$			12011 Oct 25 04:26	0° $\mathcal{M}$	
superior conj	12010 Nov 21 07:15	10° $\mathcal{X}$ 03'21	1°37'13	asc. node	12011 Oct 25 12:43	0° $\mathcal{M}$ 41'02	
minimum elong	12010 Nov 21 06:26	9° $\mathcal{X}$ 58'49	1°37'56	morning set	12011 Oct 29 20:46	9° $\mathcal{M}$ 36'35	
max. Earth dist.	12010 Nov 22 08:57	12° $\mathcal{X}$ 25'36	1.31753 AU	superior conj	12011 Nov 05 18:56	24° $\mathcal{M}$ 48'12	1°29'54
evening rise	12010 Nov 28 07:52	25° $\mathcal{X}$ 16'49		minimum elong	12011 Nov 05 17:16	24° $\mathcal{M}$ 38'53	1°30'22
	12010 Nov 30 15:00	0° $\mathcal{Z}$		max. Earth dist.	12011 Nov 05 17:34	24° $\mathcal{M}$ 40'36	1.31344 AU
desc. node	12010 Dec 10 20:35	18° $\mathcal{Z}$ 55'18			12011 Nov 08 02:55	0° $\mathcal{X}$	
	12010 Dec 17 23:16	0° $\approx$		evening rise	12011 Nov 12 13:36	9° $\mathcal{X}$ 42'00	
evening max el	12010 Dec 30 09:40	15° $\approx$ 00'00	27°25'28		12011 Nov 22 22:26	0° $\mathcal{Z}$	
retrograde	12011 Jan 13 07:20	22° $\approx$ 17'48		desc. node	12011 Nov 27 17:40	8° $\mathcal{Z}$ 02'07	
evening set	12011 Jan 20 06:15	20° $\approx$ 02'51		evening max el	12011 Dec 12 12:46	26° $\mathcal{Z}$ 56'35	26°46'33
min. Earth dist.	12011 Jan 24 00:01	17° $\approx$ 10'11	0.61666 AU		12011 Dec 16 03:20	0° $\approx$	
inferior conj	12011 Jan 27 00:44	14° $\approx$ 25'21	-2°27'48	retrograde	12011 Dec 26 11:25	4° $\approx$ 05'03	
minimum elong	12011 Jan 27 05:50	14° $\approx$ 13'46	2°25'10	evening set	12012 Jan 02 04:20	2° $\approx$ 12'08	
morning rise	12011 Feb 03 08:11	9° $\approx$ 25'10			12012 Jan 05 13:15	30° $\mathcal{R}$ $\mathcal{Z}$	
asc. node	12011 Feb 03 14:58	9° $\approx$ 20'15		min. Earth dist.	12012 Jan 06 02:56	29° $\mathcal{Z}$ 34'19	0.59525 AU
direct	12011 Feb 05 12:24	9° $\approx$ 04'41		inferior conj	12012 Jan 09 07:05	27° $\mathcal{Z}$ 03'41	-3°47'12
morning max el	12011 Feb 12 10:21	12° $\approx$ 34'29	17°50'17	minimum elong	12012 Jan 09 14:47	26° $\mathcal{Z}$ 48'25	3°43'54
	12011 Feb 24 05:03	0° $\mathcal{H}$		morning rise	12012 Jan 17 04:05	22° $\mathcal{Z}$ 24'06	
morning set	12011 Feb 28 03:08	6° $\mathcal{H}$ 59'50		direct	12012 Jan 19 06:04	22° $\mathcal{Z}$ 08'08	
desc. node	12011 Mar 08 21:19	22° $\mathcal{H}$ 31'35		asc. node	12012 Jan 21 12:15	22° $\mathcal{Z}$ 27'45	
superior conj	12011 Mar 11 03:08	26° $\mathcal{H}$ 23'06	-0°17'16	morning max el	12012 Jan 26 22:46	25° $\mathcal{Z}$ 57'08	18°11'54
minimum elong	12011 Mar 11 01:32	26° $\mathcal{H}$ 16'18	0°16'53		12012 Jan 30 09:56	0° $\approx$	
	12011 Mar 13 06:18	0° $\mathcal{Y}$		morning set	12012 Feb 11 14:56	20° $\approx$ 50'52	
max. Earth dist.	12011 Mar 18 08:11	8° $\mathcal{Y}$ 24'18	1.43355 AU		12012 Feb 16 11:55	0° $\mathcal{H}$	
evening rise	12011 Mar 25 06:12	19° $\mathcal{Y}$ 25'33		superior conj	12012 Feb 21 04:35	8° $\mathcal{H}$ 36'37	0°19'58
	12011 Apr 01 03:44	0° $\mathcal{B}$		minimum elong	12012 Feb 21 06:05	8° $\mathcal{H}$ 43'25	0°20'06
	12011 Apr 22 19:49	0° $\Pi$		desc. node	12012 Feb 23 17:56	13° $\mathcal{H}$ 10'15	
evening max el	12011 Apr 25 20:10	3° $\Pi$ 16'43	21°42'27	max. Earth dist.	12012 Feb 28 19:18	21° $\mathcal{H}$ 54'11	1.41429 AU
asc. node	12011 May 02 12:07	8° $\Pi$ 09'51		evening rise	12012 Mar 04 16:17	29° $\mathcal{H}$ 58'21	
retrograde	12011 May 04 23:17	8° $\Pi$ 38'40			12012 Mar 04 16:41	0° $\mathcal{Y}$	
evening set	12011 May 09 11:13	6° $\Pi$ 48'39			12012 Mar 24 15:44	0° $\mathcal{B}$	
inferior conj	12011 May 14 17:48	0° $\Pi$ 31'41	3°00'31	evening max el	12012 Apr 07 12:29	17° $\mathcal{B}$ 05'12	23°01'45
minimum elong	12011 May 14 16:20	0° $\Pi$ 36'46	2°59'38	retrograde	12012 Apr 17 19:19	23° $\mathcal{B}$ 09'14	
min. Earth dist.	12011 May 14 20:56	0° $\Pi$ 20'44	0.68702 AU	asc. node	12012 Apr 18 09:26	23° $\mathcal{B}$ 07'37	
	12011 May 15 02:53	30° $\mathcal{R}$ $\mathcal{B}$		evening set	12012 Apr 22 18:36	21° $\mathcal{B}$ 04'28	
morning rise	12011 May 19 21:15	24° $\mathcal{B}$ 17'27		min. Earth dist.	12012 Apr 27 17:41	15° $\mathcal{B}$ 12'19	0.68766 AU
direct	12011 May 24 20:36	22° $\mathcal{B}$ 08'37		inferior conj	12012 Apr 28 03:11	14° $\mathcal{B}$ 39'25	2°37'57

































































































































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morning rise	12012 May 03 07:38	8°  31'43		minimum elong	12013 Apr 12 09:14	28°  56'09	2°04'39
direct	12012 May 07 17:52	6°  43'38		morning rise	12013 Apr 17 19:29	22°  48'51	
morning max el	12012 May 16 08:30	11°  41'25	21°13'59	direct	12013 Apr 21 16:59	21°  22'14	
desc. node	12012 May 21 19:30	17°  54'46		morning max el	12013 Apr 29 06:58	25°  36'53	20°00'40
	12012 May 30 17:22	0°  II			12013 May 03 05:11	0°  	
morning set	12012 Jun 16 10:40	25°  II09'55		desc. node	12013 May 08 16:19	7°  13'25	
	12012 Jun 19 11:54	0°  ☿			12013 May 24 01:37	0°  II	
max. Earth dist.	12012 Jun 23 12:40	6°  ☿30'52	1.42644 AU	morning set	12013 May 26 12:34	3°  II46'02	
				max. Earth dist.	12013 Jun 05 23:41	20°  II07'50	1.44334 AU
superior conj	12012 Jun 30 19:26	18°  ☿41'17	-1°49'02				
minimum elong	12012 Jul 01 02:16	19°  ☿10'30	1°49'12	superior conj	12013 Jun 11 10:31	28°  II54'26	-2°09'03
	12012 Jul 07 07:06	0°  Ω		minimum elong	12013 Jun 11 14:52	29°  II12'09	2°09'42
evening rise	12012 Jul 12 06:52	8°  Ω56'29			12013 Jun 12 02:35	0°  ☿	
asc. node	12012 Jul 15 08:10	14°  Ω25'52		evening rise	12013 Jun 24 15:01	20°  ☿59'58	
	12012 Jul 24 18:40	0°  ♍			12013 Jun 29 21:29	0°  Ω	
evening max el	12012 Jul 28 15:21	4°  ♍38'54	18°05'36	asc. node	12013 Jul 02 05:04	3°  Ω52'40	
retrograde	12012 Aug 04 09:39	8°  ♍06'23		evening max el	12013 Jul 12 05:16	17°  Ω56'26	18°06'08
evening set	12012 Aug 06 19:23	7°  ♍40'19		retrograde	12013 Jul 18 14:44	21°  Ω16'49	
inferior conj	12012 Aug 13 16:06	2°  ♍44'59	1°11'58	evening set	12013 Jul 21 08:31	20°  Ω38'24	
minimum elong	12012 Aug 13 18:09	2°  ♍40'09	1°10'49	inferior conj	12013 Jul 27 14:28	15°  Ω24'31	2°11'06
	12012 Aug 16 14:47	30°  ♋Ω		minimum elong	12013 Jul 27 17:06	15°  Ω17'29	2°09'44
min. Earth dist.	12012 Aug 16 21:29	29°  Ω44'59	0.60420 AU	min. Earth dist.	12013 Jul 30 09:52	12°  Ω25'53	0.62677 AU
desc. node	12012 Aug 17 17:57	29°  Ω00'36		morning rise	12013 Aug 02 23:41	9°  Ω14'08	
morning rise	12012 Aug 20 13:59	26°  Ω53'38		desc. node	12013 Aug 04 15:19	8°  Ω09'52	
direct	12012 Aug 27 03:22	24°  Ω47'55		direct	12013 Aug 09 16:10	6°  Ω46'35	
	12012 Sep 07 11:28	0°  ♍		morning max el	12013 Aug 23 17:50	14°  Ω48'58	27°54'12
morning max el	12012 Sep 10 10:28	2°  ♍42'29	27°52'20		12013 Sep 05 02:02	0°  ♍	
	12012 Sep 30 10:28	0°  ♌			12013 Sep 23 01:02	0°  ♌	
asc. node	12012 Oct 11 09:29	20°  ♌26'21		morning set	12013 Sep 26 23:40	7°  ♌46'52	
morning set	12012 Oct 13 01:24	23°  ♌52'14		asc. node	12013 Sep 28 06:10	10°  ♌22'47	
	12012 Oct 15 22:39	0°  ♍		max. Earth dist.	12013 Oct 02 06:02	18°  ♌48'24	1.32048 AU
max. Earth dist.	12012 Oct 19 01:58	6°  ♍52'00	1.31438 AU				
				superior conj	12013 Oct 04 14:44	23°  ♌56'05	0°58'35
superior conj	12012 Oct 20 06:04	9°  ♍27'45	1°16'58	minimum elong	12013 Oct 04 12:31	23°  ♌44'02	0°58'28
minimum elong	12012 Oct 20 03:54	9°  ♍15'42	1°17'08		12013 Oct 07 09:02	0°  ♍	
evening rise	12012 Oct 26 23:02	24°  ♍15'03		evening rise	12013 Oct 11 10:11	8°  ♍49'54	
	12012 Oct 29 16:17	0°  ♌			12013 Oct 22 05:25	0°  ♌	
desc. node	12012 Nov 13 14:51	26°  ♌22'43		desc. node	12013 Oct 31 12:07	13°  ♌38'38	
	12012 Nov 16 06:11	0°  ♌		evening max el	12013 Nov 04 19:04	18°  ♌19'09	24°00'09
evening max el	12012 Nov 23 07:37	8°  ♌00'38	25°34'56	retrograde	12013 Nov 18 09:35	25°  ♌06'55	
retrograde	12012 Dec 07 04:35	15°  ♌00'04		evening set	12013 Nov 23 06:24	24°  ♌15'04	
evening set	12012 Dec 13 05:29	13°  ♌36'10		min. Earth dist.	12013 Nov 29 05:50	21°  ♌18'16	0.55777 AU
min. Earth dist.	12012 Dec 17 19:54	10°  ♌58'27	0.57472 AU	inferior conj	12013 Dec 01 08:36	20°  ♌01'29	-5°45'35
inferior conj	12012 Dec 20 18:13	8°  ♌57'58	-4°59'15	minimum elong	12013 Dec 01 12:23	19°  ♌55'45	5°44'30
minimum elong	12012 Dec 21 02:22	8°  ♌43'56	4°56'35	morning rise	12013 Dec 09 20:21	16°  ♌04'44	
morning rise	12012 Dec 29 01:43	4°  ♌40'56		direct	12013 Dec 12 11:32	15°  ♌47'05	
direct	12012 Dec 31 06:44	4°  ♌26'02		morning max el	12013 Dec 22 19:06	20°  ♌42'02	19°59'56
asc. node	12013 Jan 07 09:28	7°  ♌12'24		asc. node	12013 Dec 25 06:36	23°  ♌20'39	
morning max el	12013 Jan 09 02:58	8°  ♌43'26	18°54'32		12013 Dec 30 02:46	0°  ♌	
	12013 Jan 22 21:35	0°  ≈		morning set	12014 Jan 09 18:19	19°  ♌44'39	
morning set	12013 Jan 25 13:11	5°  ≈09'33			12014 Jan 14 18:48	0°  ≈	
superior conj	12013 Feb 03 01:08	21°  ≈43'12	0°50'20	superior conj	12014 Jan 17 11:59	5°  ≈28'40	1°13'06
minimum elong	12013 Feb 03 03:56	21°  ≈56'32	0°50'29	minimum elong	12014 Jan 17 14:46	5°  ≈42'33	1°13'29
	12013 Feb 07 11:48	0°  ♌		max. Earth dist.	12014 Jan 23 09:07	16°  ≈53'20	1.37020 AU
desc. node	12013 Feb 09 14:37	3°  ♌49'06		evening rise	12014 Jan 27 02:59	23°  ≈46'30	
max. Earth dist.	12013 Feb 10 02:40	4°  ♌42'42	1.39237 AU	desc. node	12014 Jan 27 11:20	24°  ≈23'59	
evening rise	12013 Feb 13 23:36	11°  ♌26'52			12014 Jan 30 15:50	0°  ♌	
	12013 Feb 25 12:03	0°  ♍			12014 Feb 19 04:59	0°  ♍	
	12013 Mar 20 04:27	0°  ♌		evening max el	12014 Mar 03 15:44	14°  ♍46'15	25°36'31
evening max el	12013 Mar 21 02:25	0°  ♌55'34	24°22'01	retrograde	12014 Mar 16 00:18	21°  ♍53'33	
retrograde	12013 Apr 01 11:57	7°  ♌36'12		evening set	12014 Mar 21 23:08	19°  ♍26'15	
asc. node	12013 Apr 05 06:47	6°  ♌31'24		asc. node	12014 Mar 23 04:10	18°  ♍19'24	
evening set	12013 Apr 06 23:07	5°  ♌18'35		min. Earth dist.	12014 Mar 26 06:34	14°  ♍45'00	0.67557 AU
min. Earth dist.	12013 Apr 11 13:35	0°  ♌02'10	0.68379 AU	inferior conj	12014 Mar 27 16:31	12°  ♍56'29	1°23'27
	12013 Apr 11 14:14	30°  ♋♍		minimum elong	12014 Mar 27 14:42	13°  ♍02'17	1°22'41

morning rise	12014 Apr 02 06:49	7° $\Upsilon$ 05'28		min. Earth dist.	12015 Mar 09 18:26	29° $\text{X}$ 14'09	0.66332 AU
direct	12014 Apr 05 16:34	5° $\Upsilon$ 58'57		asc. node	12015 Mar 10 01:32	28° $\text{X}$ 53'19	
morning max el	12014 Apr 12 13:09	9° $\Upsilon$ 42'53	19°02'04	inferior conj	12015 Mar 11 16:25	26° $\text{X}$ 57'17	0°31'09
desc. node	12014 Apr 25 13:03	27° $\Upsilon$ 00'19		minimum elong	12015 Mar 11 15:36	26° $\text{X}$ 59'43	0°30'57
greatest brilliancy	12014 Apr 25 19:05	27° $\Upsilon$ 23'02	-0.7m	morning rise	12015 Mar 17 15:28	21° $\text{X}$ 16'57	
	12014 Apr 27 12:31	0° $\text{B}$		direct	12015 Mar 20 14:44	20° $\text{X}$ 27'50	
morning set	12014 May 05 17:12	12° $\text{B}$ 36'49		morning max el	12015 Mar 27 01:41	23° $\text{X}$ 53'37	18°19'48
	12014 May 16 21:37	0° $\Pi$			12015 Apr 01 03:58	0° $\Upsilon$	
max. Earth dist.	12014 May 19 15:50	4° $\Pi$ 19'06	1.45400 AU	desc. node	12015 Apr 12 09:43	17° $\Upsilon$ 07'28	
				morning set	12015 Apr 15 20:30	22° $\Upsilon$ 37'17	
superior conj	12014 May 22 03:50	8° $\Pi$ 14'54	-2°12'15		12015 Apr 20 11:50	0° $\text{B}$	
minimum elong	12014 May 22 01:14	8° $\Pi$ 04'40	2°12'57				
	12014 Jun 04 17:49	0° $\text{B}$		superior conj	12015 May 01 10:54	17° $\text{B}$ 14'55	-1°55'11
evening rise	12014 Jun 06 00:24	2° $\text{B}$ 04'30		minimum elong	12015 May 01 02:12	16° $\text{B}$ 40'56	1°55'06
asc. node	12014 Jun 19 02:02	22° $\text{B}$ 56'41		max. Earth dist.	12015 May 02 11:00	18° $\text{B}$ 49'04	1.45752 AU
	12014 Jun 24 09:08	0° $\Omega$			12015 May 09 14:56	0° $\Pi$	
evening max el	12014 Jun 25 18:43	1° $\Omega$ 29'37	18°24'59	evening rise	12015 May 17 09:36	12° $\Pi$ 09'52	
retrograde	12014 Jul 02 04:55	4° $\Omega$ 56'35		greatest brilliancy	12015 May 27 19:02	28° $\Pi$ 21'57	-0.8m
evening set	12014 Jul 05 06:55	4° $\Omega$ 03'43			12015 May 28 20:44	0° $\text{B}$	
	12014 Jul 09 20:12	30° $\text{R}$ $\text{B}$		asc. node	12015 Jun 05 23:04	11° $\text{B}$ 29'16	
inferior conj	12014 Jul 11 02:01	28° $\text{B}$ 33'21	2°48'52	evening max el	12015 Jun 09 05:01	15° $\text{B}$ 10'59	19°01'16
minimum elong	12014 Jul 11 04:07	28° $\text{B}$ 27'09	2°47'42	retrograde	12015 Jun 16 00:30	18° $\text{B}$ 57'16	
min. Earth dist.	12014 Jul 13 07:45	25° $\text{B}$ 55'10	0.64722 AU	evening set	12015 Jun 19 11:08	17° $\text{B}$ 48'36	
morning rise	12014 Jul 17 00:06	22° $\text{B}$ 13'27		inferior conj	12015 Jun 24 22:59	12° $\text{B}$ 03'16	3°09'07
desc. node	12014 Jul 22 12:37	19° $\text{B}$ 37'14		minimum elong	12015 Jun 25 00:04	11° $\text{B}$ 59'48	3°08'11
direct	12014 Jul 23 13:47	19° $\text{B}$ 33'23		min. Earth dist.	12015 Jun 26 13:53	9° $\text{B}$ 59'16	0.66415 AU
morning max el	12014 Aug 06 04:15	27° $\text{B}$ 32'05	27°20'38	morning rise	12015 Jun 30 12:21	5° $\text{B}$ 40'39	
	12014 Aug 08 12:11	0° $\Omega$		direct	12015 Jul 06 18:32	2° $\text{B}$ 58'45	
	12014 Aug 29 19:09	0° $\text{R}$		desc. node	12015 Jul 09 09:51	3° $\text{B}$ 23'32	
morning set	12014 Sep 10 13:01	21° $\text{R}$ 14'28		morning max el	12015 Jul 19 15:03	10° $\text{B}$ 38'46	26°19'06
	12014 Sep 14 21:45	0° $\text{B}$			12015 Aug 03 23:33	0° $\Omega$	
max. Earth dist.	12014 Sep 15 02:06	0° $\text{B}$ 22'21	1.33184 AU		12015 Aug 22 08:46	0° $\text{R}$	
asc. node	12014 Sep 15 02:50	0° $\text{B}$ 26'09		morning set	12015 Aug 24 14:07	4° $\text{R}$ 05'53	
				max. Earth dist.	12015 Aug 28 11:48	11° $\text{R}$ 33'32	1.34823 AU
superior conj	12014 Sep 18 18:53	8° $\text{B}$ 08'05	0°35'00	asc. node	12015 Sep 01 23:29	20° $\text{R}$ 31'57	
minimum elong	12014 Sep 18 17:15	7° $\text{B}$ 59'22	0°34'44				
evening rise	12014 Sep 25 21:13	23° $\text{B}$ 22'03		superior conj	12015 Sep 02 16:04	21° $\text{R}$ 56'51	0°06'40
	12014 Sep 29 01:26	0° $\text{R}$		minimum elong	12015 Sep 02 15:42	21° $\text{R}$ 54'59	0°06'24
evening max el	12014 Oct 17 06:13	28° $\text{R}$ 22'36	22°18'50	behind sun begin	12015 Sep 02 10:13	21° $\text{R}$ 26'49	
desc. node	12014 Oct 18 09:26	29° $\text{R}$ 26'23		behind sun end	12015 Sep 02 21:11	22° $\text{R}$ 23'11	
	12014 Oct 19 00:49	0° $\text{X}$			12015 Sep 06 13:05	0° $\text{B}$	
retrograde	12014 Oct 30 02:37	4° $\text{X}$ 45'38		evening rise	12015 Sep 10 06:05	7° $\text{B}$ 45'41	
evening set	12014 Nov 02 12:26	4° $\text{X}$ 20'00			12015 Sep 22 04:08	0° $\text{R}$	
min. Earth dist.	12014 Nov 10 12:51	0° $\text{X}$ 46'01	0.54752 AU	evening max el	12015 Sep 29 02:30	8° $\text{R}$ 48'13	20°47'20
inferior conj	12014 Nov 11 06:09	0° $\text{X}$ 21'39	-5°43'39	desc. node	12015 Oct 05 06:48	13° $\text{R}$ 17'45	
minimum elong	12014 Nov 11 01:26	0° $\text{X}$ 28'18	5°42'31	retrograde	12015 Oct 10 13:30	14° $\text{R}$ 29'27	
	12014 Nov 11 21:32	30° $\text{R}$ $\text{R}$		evening set	12015 Oct 12 20:26	14° $\text{R}$ 16'49	
morning rise	12014 Nov 19 15:49	26° $\text{R}$ 34'23		inferior conj	12015 Oct 21 21:56	10° $\text{R}$ 22'06	-4°43'02
direct	12014 Nov 23 00:11	26° $\text{R}$ 09'13		minimum elong	12015 Oct 21 12:00	10° $\text{R}$ 36'17	4°40'01
	12014 Dec 02 19:16	0° $\text{X}$		min. Earth dist.	12015 Oct 22 20:06	9° $\text{R}$ 50'27	0.54619 AU
morning max el	12014 Dec 04 21:07	1° $\text{X}$ 47'42	21°27'37	morning rise	12015 Oct 30 03:33	6° $\text{R}$ 26'11	
asc. node	12014 Dec 12 03:38	10° $\text{X}$ 36'16		direct	12015 Nov 03 08:25	5° $\text{R}$ 48'15	
	12014 Dec 22 23:41	0° $\text{B}$		morning max el	12015 Nov 16 11:32	12° $\text{R}$ 09'01	23°11'51
morning set	12014 Dec 25 03:38	4° $\text{B}$ 28'27		asc. node	12015 Nov 29 00:35	28° $\text{R}$ 44'10	
					12015 Nov 29 18:23	0° $\text{X}$	
superior conj	12015 Jan 01 09:07	19° $\text{B}$ 41'25	1°28'25	morning set	12015 Dec 09 15:06	19° $\text{X}$ 15'33	
minimum elong	12015 Jan 01 11:08	19° $\text{B}$ 51'54	1°29'04		12015 Dec 14 14:35	0° $\text{B}$	
max. Earth dist.	12015 Jan 05 19:46	28° $\text{B}$ 45'30	1.35018 AU				
	12015 Jan 06 10:46	0° $\approx$		superior conj	12015 Dec 16 13:21	4° $\text{B}$ 12'35	1°36'49
evening rise	12015 Jan 09 23:13	6° $\approx$ 48'49		minimum elong	12015 Dec 16 14:16	4° $\text{B}$ 17'33	1°37'37
desc. node	12015 Jan 14 08:07	14° $\approx$ 50'47		max. Earth dist.	12015 Dec 19 14:12	10° $\text{B}$ 40'05	1.33389 AU
	12015 Jan 23 08:59	0° $\text{X}$		evening rise	12015 Dec 24 08:44	20° $\text{B}$ 24'49	
evening max el	12015 Feb 14 05:20	28° $\text{X}$ 31'57	26°37'57		12015 Dec 29 09:11	0° $\approx$	
	12015 Feb 15 19:05	0° $\Upsilon$		desc. node	12016 Jan 01 04:57	5° $\approx$ 04'54	
retrograde	12015 Feb 27 07:16	5° $\Upsilon$ 53'36			12016 Jan 17 08:15	0° $\text{X}$	
evening set	12015 Mar 05 16:49	3° $\Upsilon$ 21'14		evening max el	12016 Jan 27 18:44	12° $\text{X}$ 03'37	27°18'48
	12015 Mar 09 02:30	30° $\text{R}$ $\text{X}$		retrograde	12016 Feb 10 07:56	19° $\text{X}$ 28'35	

evening set	12016 Feb 17 02:05	16° $\text{H}$ 57'03		retrograde	12017 Jan 23 01:20	2° $\text{H}$ 28'37	
min. Earth dist.	12016 Feb 20 23:02	13° $\text{H}$ 22'25	0.64746 AU	evening set	12017 Jan 30 00:20	0° $\text{H}$ 05'05	
inferior conj	12016 Feb 23 08:41	10° $\text{H}$ 45'47	-0°31'17		12017 Jan 30 03:17	30° $\text{R}$	
minimum elong	12016 Feb 23 09:37	10° $\text{H}$ 43'14	0°30'33	min. Earth dist.	12017 Feb 02 18:19	26° $\approx$ 59'15	0.62857 AU
asc. node	12016 Feb 24 22:53	9° $\text{H}$ 04'06		inferior conj	12017 Feb 05 14:26	24° $\approx$ 13'39	-1°43'09
morning rise	12016 Feb 29 18:55	5° $\text{H}$ 18'37		minimum elong	12017 Feb 05 17:52	24° $\approx$ 05'16	1°41'11
direct	12016 Mar 03 09:17	4° $\text{H}$ 43'25		asc. node	12017 Feb 10 20:13	19° $\approx$ 52'11	
morning max el	12016 Mar 09 18:15	8° $\text{H}$ 02'28	17°54'31	morning rise	12017 Feb 12 13:48	19° $\approx$ 02'46	
	12016 Mar 24 18:13	0° $\text{Y}$		direct	12017 Feb 14 21:09	18° $\approx$ 37'52	
morning set	12016 Mar 27 04:46	4° $\text{Y}$ 03'31		morning max el	12017 Feb 21 11:53	22° $\approx$ 00'36	17°46'40
desc. node	12016 Mar 29 06:20	7° $\text{Y}$ 29'21			12017 Feb 27 16:23	0° $\text{H}$	
				morning set	12017 Mar 09 13:53	16° $\text{H}$ 40'32	
superior conj	12016 Apr 10 01:39	26° $\text{Y}$ 42'09	-1°21'42	desc. node	12017 Mar 16 02:55	28° $\text{H}$ 00'38	
minimum elong	12016 Apr 09 17:14	26° $\text{Y}$ 08'36	1°21'00		12017 Mar 17 06:56	0° $\text{Y}$	
	12016 Apr 12 03:28	0° $\text{B}$		superior conj	12017 Mar 21 13:26	7° $\text{Y}$ 10'19	-0°40'48
max. Earth dist.	12016 Apr 14 06:58	3° $\text{B}$ 23'15	1.45359 AU	minimum elong	12017 Mar 21 09:18	6° $\text{Y}$ 53'12	0°40'13
evening rise	12016 Apr 26 01:11	21° $\text{B}$ 38'04		max. Earth dist.	12017 Mar 28 01:00	17° $\text{Y}$ 44'13	1.44260 AU
	12016 May 01 12:40	0° $\text{II}$			12017 Apr 04 20:09	0° $\text{B}$	
greatest brilliancy	12016 May 10 16:46	13° $\text{II}$ 42'54	-0.6m	evening rise	12017 Apr 05 13:07	1° $\text{B}$ 05'28	
evening max el	12016 May 22 10:21	28° $\text{II}$ 56'12	19°53'35		12017 Apr 25 03:27	0° $\text{II}$	
asc. node	12016 May 22 20:10	29° $\text{II}$ 20'27		evening max el	12017 May 05 09:54	12° $\text{II}$ 42'12	20°59'39
	12016 May 23 13:00	0° $\text{B}$		asc. node	12017 May 09 17:22	16° $\text{II}$ 16'56	
retrograde	12016 May 29 22:45	3° $\text{B}$ 13'22		retrograde	12017 May 13 21:34	17° $\text{II}$ 39'13	
evening set	12016 Jun 02 18:39	1° $\text{B}$ 48'18		evening set	12017 May 18 03:28	15° $\text{II}$ 57'56	
	12016 Jun 04 18:00	30° $\text{R}$ $\text{II}$		inferior conj	12017 May 23 09:46	9° $\text{II}$ 46'45	3°08'56
inferior conj	12016 Jun 08 02:24	25° $\text{II}$ 49'14	3°15'02	minimum elong	12017 May 23 08:47	9° $\text{II}$ 50'11	3°08'06
minimum elong	12016 Jun 08 02:23	25° $\text{II}$ 49'17	3°14'13	min. Earth dist.	12017 May 23 20:20	9° $\text{II}$ 10'07	0.68460 AU
min. Earth dist.	12016 Jun 09 02:44	24° $\text{II}$ 27'21	0.67674 AU	morning rise	12017 May 28 13:53	3° $\text{II}$ 29'37	
morning rise	12016 Jun 13 09:46	19° $\text{II}$ 28'08		direct	12017 Jun 02 20:43	1° $\text{II}$ 10'23	
direct	12016 Jun 19 05:11	16° $\text{II}$ 53'59		desc. node	12017 Jun 12 04:02	6° $\text{II}$ 13'29	
desc. node	12016 Jun 25 07:00	19° $\text{II}$ 05'01		morning max el	12017 Jun 13 11:17	7° $\text{II}$ 29'37	23°30'02
morning max el	12016 Jul 01 01:09	23° $\text{II}$ 59'39	24°58'55		12017 Jul 01 00:30	0° $\text{B}$	
	12016 Jul 06 09:50	0° $\text{B}$		morning set	12017 Jul 18 10:22	27° $\text{B}$ 17'58	
	12016 Jul 27 09:12	0° $\text{Q}$			12017 Jul 20 00:34	0° $\text{Q}$	
morning set	12016 Aug 05 22:49	16° $\text{Q}$ 10'52		max. Earth dist.	12017 Jul 22 10:24	4° $\text{Q}$ 09'44	1.39179 AU
max. Earth dist.	12016 Aug 09 12:45	22° $\text{Q}$ 39'43	1.36885 AU				
	12016 Aug 13 10:24	0° $\text{M}$		superior conj	12017 Jul 30 00:47	17° $\text{Q}$ 53'06	-0°59'37
superior conj	12016 Aug 16 03:16	5° $\text{M}$ 14'45	-0°25'30	minimum elong	12017 Jul 30 04:59	18° $\text{Q}$ 12'42	0°59'33
minimum elong	12016 Aug 16 04:55	5° $\text{M}$ 22'55	0°25'37		12017 Aug 05 09:19	0° $\text{M}$	
asc. node	12016 Aug 18 20:09	10° $\text{M}$ 36'34		asc. node	12017 Aug 05 16:52	0° $\text{M}$ 36'33	
evening rise	12016 Aug 24 10:35	21° $\text{M}$ 54'54		evening rise	12017 Aug 08 07:56	5° $\text{M}$ 42'34	
	12016 Aug 28 12:30	0° $\text{A}$			12017 Aug 22 17:23	0° $\text{A}$	
evening max el	12016 Sep 10 12:34	19° $\text{A}$ 57'48	19°34'48	evening max el	12017 Aug 24 11:25	1° $\text{A}$ 54'42	18°43'51
retrograde	12016 Sep 20 07:13	24° $\text{A}$ 50'12		retrograde	12017 Sep 01 18:04	6° $\text{A}$ 03'49	
desc. node	12016 Sep 21 04:13	24° $\text{A}$ 48'00		evening set	12017 Sep 03 16:23	5° $\text{A}$ 51'04	
evening set	12016 Sep 22 03:56	24° $\text{A}$ 40'22		desc. node	12017 Sep 08 01:40	3° $\text{A}$ 59'29	
inferior conj	12016 Sep 30 22:27	20° $\text{A}$ 35'39	-3°00'47	inferior conj	12017 Sep 11 18:09	1° $\text{A}$ 28'01	-1°09'29
minimum elong	12016 Sep 30 14:35	20° $\text{A}$ 48'06	2°57'43	minimum elong	12017 Sep 11 15:17	1° $\text{A}$ 33'18	1°08'23
min. Earth dist.	12016 Oct 03 05:59	19° $\text{A}$ 07'57	0.55423 AU		12017 Sep 13 17:43	30° $\text{R}$ $\text{M}$	
morning rise	12016 Oct 08 23:13	16° $\text{A}$ 11'49		min. Earth dist.	12017 Sep 14 21:08	29° $\text{M}$ 10'36	0.57013 AU
direct	12016 Oct 14 00:06	15° $\text{A}$ 15'21		morning rise	12017 Sep 19 10:49	26° $\text{M}$ 26'27	
morning max el	12016 Oct 27 21:58	22° $\text{A}$ 12'09	24°59'12	direct	12017 Sep 25 05:35	25° $\text{M}$ 04'47	
	12016 Nov 03 19:04	0° $\text{M}$			12017 Oct 06 16:20	0° $\text{A}$	
asc. node	12016 Nov 14 21:28	17° $\text{M}$ 31'06		morning max el	12017 Oct 09 12:18	2° $\text{A}$ 30'46	26°31'31
	12016 Nov 21 05:29	0° $\text{A}$			12017 Oct 29 03:23	0° $\text{M}$	
morning set	12016 Nov 23 02:51	4° $\text{A}$ 00'07		asc. node	12017 Nov 01 18:17	6° $\text{M}$ 46'57	
				morning set	12017 Nov 07 13:16	18° $\text{M}$ 37'47	
superior conj	12016 Nov 29 22:06	18° $\text{A}$ 54'00	1°38'49		12017 Nov 12 17:50	0° $\text{A}$	
minimum elong	12016 Nov 29 21:53	18° $\text{A}$ 52'49	1°39'36	superior conj	12017 Nov 14 09:18	3° $\text{A}$ 39'42	1°34'48
max. Earth dist.	12016 Dec 01 16:17	22° $\text{A}$ 45'05	1.32211 AU	minimum elong	12017 Nov 14 08:05	3° $\text{A}$ 32'57	1°35'26
	12016 Dec 05 01:15	0° $\text{B}$		max. Earth dist.	12017 Nov 14 23:32	4° $\text{A}$ 58'53	1.31518 AU
evening rise	12016 Dec 07 04:10	4° $\text{B}$ 25'15		evening rise	12017 Nov 21 06:52	18° $\text{A}$ 43'25	
desc. node	12016 Dec 18 01:52	24° $\text{B}$ 59'38			12017 Nov 26 20:39	0° $\text{B}$	
	12016 Dec 21 01:53	0° $\approx$		desc. node	12017 Dec 04 22:55	14° $\text{B}$ 27'09	
evening max el	12017 Jan 09 06:00	25° $\approx$ 07'30	27°32'16		12017 Dec 15 16:51	0° $\approx$	
	12017 Jan 15 10:09	0° $\text{H}$					



evening max el	12017 Dec 22 12:37	7° $\approx$ 30'53	27°13'03	desc. node	12018 Nov 21 20:04	3° $\approx$ 16'16	
retrograde	12018 Jan 05 10:43	14° $\approx$ 44'56		evening max el	12018 Dec 04 12:07	19° $\approx$ 04'25	26°19'36
evening set	12018 Jan 12 08:23	12° $\approx$ 37'57		retrograde	12018 Dec 18 10:45	26° $\approx$ 10'00	
min. Earth dist.	12018 Jan 16 03:05	9° $\approx$ 53'26	0.60762 AU	evening set	12018 Dec 24 22:08	24° $\approx$ 28'35	
inferior conj	12018 Jan 19 06:18	7° $\approx$ 12'30	-3°01'34	min. Earth dist.	12018 Dec 29 01:35	21° $\approx$ 52'52	0.58621 AU
minimum elong	12018 Jan 19 12:37	6° $\approx$ 58'58	2°58'31	inferior conj	12019 Jan 01 04:46	19° $\approx$ 32'52	-4°19'37
morning rise	12018 Jan 26 19:43	2° $\approx$ 21'04		minimum elong	12019 Jan 01 13:05	19° $\approx$ 17'20	4°16'24
direct	12018 Jan 28 22:33	2° $\approx$ 02'55		morning rise	12019 Jan 09 06:53	15° $\approx$ 03'07	
asc. node	12018 Jan 28 17:32	2° $\approx$ 03'06		direct	12019 Jan 11 09:11	14° $\approx$ 34'11	
morning max el	12018 Feb 05 03:18	5° $\approx$ 39'21	17°57'06	asc. node	12019 Jan 15 14:47	15° $\approx$ 52'44	
morning set	12018 Feb 20 17:32	0° $\approx$ 09'03		morning max el	12019 Jan 19 12:47	18° $\approx$ 48'17	18°27'25
	12018 Feb 20 15:33	0° $\approx$			12019 Jan 27 16:44	0° $\approx$	
desc. node	12018 Mar 02 23:31	18° $\approx$ 37'37		morning set	12019 Feb 04 10:15	14° $\approx$ 13'08	
					12019 Feb 12 17:29	0° $\approx$	
superior conj	12018 Mar 03 01:50	18° $\approx$ 47'47	-0°00'46	superior conj	12019 Feb 13 12:00	1° $\approx$ 25'40	0°33'45
minimum elong	12018 Mar 03 01:47	18° $\approx$ 47'33	0°00'31	minimum elong	12019 Feb 13 14:16	1° $\approx$ 36'05	0°33'52
behind sun begin	12018 Mar 02 17:42	18° $\approx$ 12'11		desc. node	12019 Feb 17 20:09	9° $\approx$ 16'57	
behind sun end	12018 Mar 03 09:52	19° $\approx$ 22'50		max. Earth dist.	12019 Feb 20 23:14	14° $\approx$ 45'11	1.40505 AU
	12018 Mar 09 15:37	0° $\approx$		evening rise	12019 Feb 25 07:13	22° $\approx$ 04'10	
max. Earth dist.	12018 Mar 10 14:32	1° $\approx$ 34'52	1.42578 AU		12019 Mar 02 04:43	0° $\approx$	
evening rise	12018 Mar 16 12:15	11° $\approx$ 07'39			12019 Mar 22 22:19	0° $\approx$	
	12018 Mar 28 21:28	0° $\approx$		evening max el	12019 Mar 31 19:10	10° $\approx$ 18'00	23°36'16
evening max el	12018 Apr 18 04:12	26° $\approx$ 28'42	22°15'39	retrograde	12019 Apr 11 14:00	16° $\approx$ 39'20	
	12018 Apr 22 05:28	0° $\approx$		asc. node	12019 Apr 13 12:00	16° $\approx$ 22'16	
asc. node	12018 Apr 26 14:40	2° $\approx$ 02'48		evening set	12019 Apr 16 18:11	14° $\approx$ 28'57	
retrograde	12018 Apr 27 19:08	2° $\approx$ 09'29		min. Earth dist.	12019 Apr 21 13:23	8° $\approx$ 51'47	0.68644 AU
evening set	12018 May 02 11:50	0° $\approx$ 12'50		inferior conj	12019 Apr 22 04:07	8° $\approx$ 01'14	2°25'29
	12018 May 02 17:47	30° $\approx$ 08'00		minimum elong	12019 Apr 22 01:59	8° $\approx$ 08'32	2°24'30
inferior conj	12018 May 07 18:59	23° $\approx$ 51'48	2°52'11	morning rise	12019 Apr 27 09:46	1° $\approx$ 56'25	
minimum elong	12018 May 07 17:16	23° $\approx$ 57'50	2°51'15	direct	12019 May 01 14:26	0° $\approx$ 17'30	
min. Earth dist.	12018 May 07 16:37	24° $\approx$ 00'04	0.68778 AU	morning max el	12019 May 09 17:57	4° $\approx$ 56'09	20°41'11
morning rise	12018 May 12 22:33	17° $\approx$ 40'11		desc. node	12019 May 16 21:50	13° $\approx$ 23'50	
direct	12018 May 17 16:10	15° $\approx$ 40'10			12019 May 28 14:45	0° $\approx$	
morning max el	12018 May 26 23:50	21° $\approx$ 07'33	22°01'35	morning set	12019 Jun 08 06:54	16° $\approx$ 13'02	
desc. node	12018 May 30 00:59	24° $\approx$ 25'27		max. Earth dist.	12019 Jun 16 17:04	29° $\approx$ 32'49	1.43423 AU
	12018 Jun 03 13:43	0° $\approx$			12019 Jun 16 23:48	0° $\approx$	
	12018 Jun 24 06:14	0° $\approx$		superior conj	12019 Jun 23 09:14	10° $\approx$ 30'30	-1°59'09
morning set	12018 Jun 28 20:36	7° $\approx$ 16'45		minimum elong	12019 Jun 23 15:36	10° $\approx$ 57'09	1°59'31
max. Earth dist.	12018 Jul 04 10:32	16° $\approx$ 24'45	1.41449 AU		12019 Jul 04 16:50	0° $\approx$	
				evening rise	12019 Jul 05 13:42	1° $\approx$ 31'57	
superior conj	12018 Jul 12 04:09	29° $\approx$ 41'01	-1°32'32	asc. node	12019 Jul 10 10:31	10° $\approx$ 04'49	
minimum elong	12018 Jul 12 10:34	0° $\approx$ 09'20	1°32'30	evening max el	12019 Jul 22 08:08	27° $\approx$ 36'35	18°03'34
	12018 Jul 12 08:27	0° $\approx$			12019 Jul 25 09:42	0° $\approx$	
evening rise	12018 Jul 22 18:28	18° $\approx$ 58'31		retrograde	12019 Jul 28 21:24	0° $\approx$ 59'03	
asc. node	12018 Jul 23 13:39	20° $\approx$ 27'22		evening set	12019 Jul 31 10:32	0° $\approx$ 28'05	
	12018 Jul 28 19:31	0° $\approx$			12019 Aug 01 10:27	30° $\approx$ 08'00	
evening max el	12018 Aug 07 19:17	14° $\approx$ 30'46	18°13'52	inferior conj	12019 Aug 07 00:33	25° $\approx$ 24'56	1°39'50
retrograde	12018 Aug 14 23:44	18° $\approx$ 09'12		minimum elong	12019 Aug 07 03:03	25° $\approx$ 18'45	1°38'30
evening set	12018 Aug 17 04:47	17° $\approx$ 49'10		min. Earth dist.	12019 Aug 10 02:33	22° $\approx$ 22'40	0.61399 AU
inferior conj	12018 Aug 24 11:36	13° $\approx$ 05'40	0°27'01	desc. node	12019 Aug 12 20:30	20° $\approx$ 01'02	
minimum elong	12018 Aug 24 12:30	13° $\approx$ 03'43	0°26'21	morning rise	12019 Aug 13 16:58	19° $\approx$ 24'17	
desc. node	12018 Aug 25 23:06	11° $\approx$ 48'41		direct	12019 Aug 20 08:39	17° $\approx$ 07'57	
min. Earth dist.	12018 Aug 27 19:33	10° $\approx$ 14'38	0.59112 AU	morning max el	12019 Sep 03 13:51	25° $\approx$ 07'15	27°57'36
morning rise	12018 Aug 31 16:49	7° $\approx$ 29'36			12019 Sep 08 01:17	0° $\approx$	
direct	12018 Sep 07 01:14	5° $\approx$ 39'07			12019 Sep 28 01:27	0° $\approx$	
morning max el	12018 Sep 21 09:43	13° $\approx$ 26'23	27°33'32	asc. node	12019 Oct 06 11:45	16° $\approx$ 14'01	
	12018 Oct 04 14:30	0° $\approx$		morning set	12019 Oct 06 22:44	17° $\approx$ 10'33	
asc. node	12018 Oct 19 15:02	26° $\approx$ 23'15		max. Earth dist.	12019 Oct 12 15:13	29° $\approx$ 18'26	1.31636 AU
	12018 Oct 21 09:31	0° $\approx$			12019 Oct 12 22:48	0° $\approx$	
morning set	12018 Oct 22 20:32	3° $\approx$ 02'56		superior conj	12019 Oct 14 07:20	2° $\approx$ 59'07	1°09'49
				minimum elong	12019 Oct 14 05:05	2° $\approx$ 46'42	1°09'52
superior conj	12018 Oct 29 20:59	18° $\approx$ 23'11	1°25'05	evening rise	12019 Oct 21 00:49	17° $\approx$ 47'11	
minimum elong	12018 Oct 29 19:04	18° $\approx$ 12'26	1°25'26		12019 Oct 26 22:54	0° $\approx$	
max. Earth dist.	12018 Oct 29 08:23	17° $\approx$ 12'57	1.31321 AU	desc. node	12019 Nov 08 17:18	21° $\approx$ 12'05	
	12018 Nov 04 02:49	0° $\approx$					
evening rise	12018 Nov 05 14:25	3° $\approx$ 12'30					
	12018 Nov 19 18:02	0° $\approx$					

evening max el	12019 Nov 16 03:33	29°  47'41	24°56'32	minimum elong	12020 Sep 27 12:21	17°  10'58	0°49'01
	12019 Nov 16 08:45	0° 			12020 Oct 03 09:43	0° 	
retrograde	12019 Nov 29 23:03	6°  42'46		evening rise	12020 Oct 04 12:11	2°  12'22'27	
evening set	12019 Dec 05 13:04	5°  32'58			12020 Oct 19 10:39	0° 	
min. Earth dist.	12019 Dec 10 15:27	2°  34'12	0.56686 AU	desc. node	12020 Oct 25 14:35	7°  15'54'36	
inferior conj	12019 Dec 13 07:02	1°  30'6'10	-5°23'28	evening max el	12020 Oct 27 13:59	9°  15'56'53	23°16'48
minimum elong	12019 Dec 13 14:02	0°  35'44'46	5°21'28	retrograde	12020 Nov 09 22:13	16°  15'35'22	
	12019 Dec 15 00:25	30°  18'17		evening set	12020 Nov 14 04:28	15°  15'55'57	
morning rise	12019 Dec 21 17:12	26°  15'58'04		min. Earth dist.	12020 Nov 20 23:38	12°  15'45'35	0.55249 AU
direct	12019 Dec 24 01:27	26°  15'42'32		inferior conj	12020 Nov 22 13:30	11°  15'50'37	-5°51'48
	12020 Jan 01 02:26	0° 		minimum elong	12020 Nov 22 13:51	11°  15'50'07	5°51'01
asc. node	12020 Jan 02 11:57	1°  31'45'53		morning rise	12020 Dec 01 00:54	7°  15'59'37	
morning max el	12020 Jan 02 12:14	1°  31'53'32	19°19'30	direct	12020 Dec 03 22:58	7°  15'39'13	
morning set	12020 Jan 19 11:48	28°  39'58		morning max el	12020 Dec 14 22:20	12°  15'52'05	20°34'36
	12020 Jan 20 03:50	0° 		asc. node	12020 Dec 19 09:02	17°  15'54'26	
					12020 Dec 27 00:08	0° 	
superior conj	12020 Jan 27 15:08	14°  15'50'10	1°00'55	morning set	12021 Jan 02 19:03	13°  15'30'37	
minimum elong	12020 Jan 27 18:04	15°  15'04'21	1°01'10				
max. Earth dist.	12020 Feb 03 05:34	27°  15'15'42	1.38279 AU	superior conj	12021 Jan 10 06:50	28°  15'34'05	1°20'29
desc. node	12020 Feb 04 16:48	29°  15'54'35		minimum elong	12021 Jan 10 09:21	29°  15'30'15'4	1°20'58
	12020 Feb 04 18:01	0° 			12021 Jan 10 20:49	0° 	
evening rise	12020 Feb 06 23:25	3°  15'55'46		max. Earth dist.	12021 Jan 15 13:42	9°  15'18'25	1.36138 AU
	12020 Feb 23 06:52	0° 		evening rise	12021 Jan 19 10:30	16°  15'35'29	
evening max el	12020 Mar 13 08:49	24°  15'09'33	24°55'01	desc. node	12021 Jan 21 13:33	20°  15'27'03	
	12020 Mar 21 00:57	0° 			12021 Jan 27 02:09	0° 	
retrograde	12020 Mar 25 04:50	1°  15'02'42			12021 Feb 16 17:18	0° 	
	12020 Mar 29 00:13	30°  15'18'17		evening max el	12021 Feb 23 22:23	7°  15'59'42	26°04'39
asc. node	12020 Mar 30 09:22	29°  15'04'20		retrograde	12021 Mar 08 14:46	15°  15'13'39	
evening set	12020 Mar 30 20:56	28°  15'40'48		evening set	12021 Mar 14 18:25	12°  15'43'40	
min. Earth dist.	12020 Apr 04 08:21	23°  15'39'14	0.68076 AU	asc. node	12021 Mar 17 06:44	10°  15'16'21	
inferior conj	12020 Apr 05 11:14	22°  15'10'34	1°48'58	min. Earth dist.	12021 Mar 18 23:19	8°  15'17'11	0.67091 AU
minimum elong	12020 Apr 05 09:09	22°  15'17'27	1°48'04	inferior conj	12021 Mar 20 14:23	6°  15'15'54	1°02'30
morning rise	12020 Apr 10 21:37	16°  15'13'57		minimum elong	12021 Mar 20 12:54	6°  15'20'29	1°01'57
direct	12020 Apr 14 14:03	14°  15'55'57		morning rise	12021 Mar 26 08:06	0° 	
morning max el	12020 Apr 21 19:35	18°  15'55'57	19°33'48		12021 Mar 27 06:31	30°  15'18'17	
	12020 Apr 30 17:24	0° 		direct	12021 Mar 29 13:20	29°  15'18'30'20	
desc. node	12020 May 02 18:34	2°  15'55'31			12021 Mar 31 21:38	0° 	
greatest brilliancy	12020 May 04 11:54	5°  15'26'07	-0.7m	morning max el	12021 Apr 05 04:40	3°  15'04'35	18°42'01
morning set	12020 May 17 06:55	24°  15'46'32		desc. node	12021 Apr 19 15:15	22°  15'51'45	
	12020 May 20 16:10	0° 			12021 Apr 24 05:24	0° 	
max. Earth dist.	12020 May 29 06:28	13°  15'26'07	1.44873 AU	morning set	12021 Apr 26 19:24	4°  15'02'17	
				max. Earth dist.	12021 May 12 00:40	27°  15'48'56	1.45646 AU
superior conj	12020 Jun 02 14:17	20°  15'18'59	-2°12'47				
minimum elong	12020 Jun 02 16:04	20°  15'26'10	2°13'34	superior conj	12021 May 13 01:05	29°  15'24'27	-2°07'26
	12020 Jun 08 13:49	0° 		minimum elong	12021 May 12 19:19	29°  15'30'15'1	2°07'51
evening rise	12020 Jun 16 12:31	13°  15'13'10'40			12021 May 13 10:10	0° 	
asc. node	12020 Jun 26 07:26	29°  15'22'48		evening rise	12021 May 28 11:20	23°  15'22'48'45	
	12020 Jun 26 16:51	0° 			12021 Jun 01 08:04	0° 	
evening max el	12020 Jul 04 22:15	11°  15'02'02	18°12'00	greatest brilliancy	12021 Jun 04 12:45	5°  15'05'57	-0.9m
retrograde	12020 Jul 11 06:45	14°  15'02'31'14		asc. node	12021 Jun 13 04:25	18°  15'02'14'22	
evening set	12020 Jul 14 04:06	13°  15'03'8'43		evening max el	12021 Jun 18 10:35	24°  15'39'03	18°38'22
inferior conj	12020 Jul 20 04:58	8°  15'17'38	2°29'27	retrograde	12021 Jun 24 23:39	28°  15'12'42	
minimum elong	12020 Jul 20 07:28	8°  15'10'39	2°28'10	evening set	12021 Jun 28 05:20	27°  15'13'03	
min. Earth dist.	12020 Jul 22 18:49	5°  15'02'53	0.63587 AU	inferior conj	12021 Jul 03 20:53	21°  15'35'53	2°59'23
morning rise	12020 Jul 26 09:14	2°  15'02'33		minimum elong	12021 Jul 03 22:35	21°  15'30'41	2°58'20
desc. node	12020 Jul 29 17:50	0°  15'05'40		min. Earth dist.	12021 Jul 05 20:13	19°  15'11'16	0.65488 AU
	12020 Jul 30 00:01	30°  15'18'17		morning rise	12021 Jul 09 14:56	15°  15'14'15	
direct	12020 Aug 02 01:20	29°  15'28'27		direct	12021 Jul 16 01:49	12°  15'32'31	
	12020 Aug 05 06:19	0° 		desc. node	12021 Jul 16 15:06	12°  15'33'36	
morning max el	12020 Aug 15 22:38	7°  15'30'02	27°43'53	morning max el	12021 Jul 29 09:31	20°  15'24'39	26°57'31
	12020 Sep 02 05:48	0° 			12021 Aug 06 15:21	0° 	
	12020 Sep 19 06:33	0° 			12021 Aug 26 08:27	0° 	
morning set	12020 Sep 19 17:35	0°  15'55'00		morning set	12021 Sep 03 02:09	14°  15'11'08'19	
asc. node	12020 Sep 22 08:26	6°  15'14'18		max. Earth dist.	12021 Sep 07 08:26	22°  15'11'31'50	1.33822 AU
max. Earth dist.	12020 Sep 24 16:20	11°  15'06'39	1.32471 AU	asc. node	12021 Sep 09 05:03	26°  15'11'19'09	
					12021 Sep 10 23:39	0° 	
superior conj	12020 Sep 27 14:24	17°  15'02'22'02	0°49'13				

superior conj	12021 Sep 11 15:53	1° $\underline{\mathfrak{A}}$ 24'59	0°23'33	max. Earth dist.	12022 Aug 20 14:09	3° $\mathfrak{M}$ 38'44	1.35650 AU
minimum elong	12021 Sep 11 14:42	1° $\underline{\mathfrak{A}}$ 18'44	0°23'14				
evening rise	12021 Sep 18 22:33	16° $\underline{\mathfrak{A}}$ 52'04		superior conj	12022 Aug 26 09:12	15° $\mathfrak{M}$ 01'32	-0°06'36
	12021 Sep 25 10:48	0° $\mathfrak{M}$		minimum elong	12022 Aug 26 09:37	15° $\mathfrak{M}$ 03'37	0°06'49
evening max el	12021 Oct 09 03:52	20° $\mathfrak{M}$ 05'22	21°37'57	behind sun begin	12022 Aug 26 03:59	14° $\mathfrak{M}$ 35'14	
desc. node	12021 Oct 12 11:57	22° $\mathfrak{M}$ 56'57		behind sun end	12022 Aug 26 15:14	15° $\mathfrak{M}$ 32'03	
retrograde	12021 Oct 21 11:28	26° $\mathfrak{M}$ 12'50		asc. node	12022 Aug 27 01:43	16° $\mathfrak{M}$ 25'04	
evening set	12021 Oct 24 08:17	25° $\mathfrak{M}$ 54'08			12022 Sep 02 16:10	0° $\underline{\mathfrak{A}}$	
inferior conj	12021 Nov 02 06:52	21° $\mathfrak{M}$ 58'37	-5°24'43	evening rise	12022 Sep 03 05:53	1° $\underline{\mathfrak{A}}$ 10'32	
minimum elong	12021 Nov 01 23:04	22° $\mathfrak{M}$ 09'32	5°22'50		12022 Sep 20 11:04	0° $\mathfrak{M}$	
min. Earth dist.	12021 Nov 02 06:02	21° $\mathfrak{M}$ 59'46	0.54581 AU	evening max el	12022 Sep 21 05:44	0° $\mathfrak{M}$ 48'06	20°13'56
morning rise	12021 Nov 10 14:55	18° $\mathfrak{M}$ 10'40		desc. node	12022 Sep 29 09:20	5° $\mathfrak{M}$ 50'44	
direct	12021 Nov 14 07:51	17° $\mathfrak{M}$ 40'53		retrograde	12022 Oct 02 00:07	6° $\mathfrak{M}$ 09'11	
morning max el	12021 Nov 26 18:48	23° $\mathfrak{M}$ 37'07	22°10'32	evening set	12022 Oct 04 00:30	5° $\mathfrak{M}$ 58'46	
	12021 Dec 02 09:46	0° $\mathfrak{X}$		inferior conj	12022 Oct 13 00:42	2° $\mathfrak{M}$ 01'06	-4°02'57
asc. node	12021 Dec 06 06:01	5° $\mathfrak{X}$ 34'05		minimum elong	12022 Oct 12 14:55	2° $\mathfrak{M}$ 15'36	3°59'33
morning set	12021 Dec 18 05:32	28° $\mathfrak{X}$ 06'57		min. Earth dist.	12022 Oct 14 14:20	1° $\mathfrak{M}$ 05'22	0.54848 AU
	12021 Dec 19 02:55	0° $\mathfrak{Z}$			12022 Oct 16 12:13	30° $\mathfrak{R}$ $\underline{\mathfrak{A}}$	
				morning rise	12022 Oct 21 04:27	27° $\underline{\mathfrak{A}}$ 54'59	
superior conj	12021 Dec 25 07:22	13° $\mathfrak{Z}$ 11'04	1°32'48	direct	12022 Oct 25 17:42	27° $\underline{\mathfrak{A}}$ 10'08	
minimum elong	12021 Dec 25 08:56	13° $\mathfrak{Z}$ 19'22	1°33'31		12022 Nov 03 11:38	0° $\mathfrak{M}$	
max. Earth dist.	12021 Dec 29 03:36	21° $\mathfrak{Z}$ 10'31	1.34277 AU	morning max el	12022 Nov 08 06:40	3° $\mathfrak{M}$ 47'36	23°58'07
evening rise	12022 Jan 02 12:48	29° $\mathfrak{Z}$ 53'09		asc. node	12022 Nov 23 02:56	23° $\mathfrak{M}$ 59'52	
	12022 Jan 02 14:13	0° $\approx$			12022 Nov 26 09:23	0° $\mathfrak{X}$	
desc. node	12022 Jan 08 10:22	10° $\approx$ 49'14		morning set	12022 Dec 02 17:20	12° $\mathfrak{X}$ 53'37	
	12022 Jan 20 04:44	0° $\mathfrak{X}$					
evening max el	12022 Feb 06 11:53	21° $\mathfrak{X}$ 40'19	26°58'05	superior conj	12022 Dec 09 13:50	27° $\mathfrak{X}$ 47'44	1°38'25
retrograde	12022 Feb 19 19:04	29° $\mathfrak{X}$ 04'29		minimum elong	12022 Dec 09 14:16	27° $\mathfrak{X}$ 50'05	1°39'14
evening set	12022 Feb 26 08:48	26° $\mathfrak{X}$ 31'21			12022 Dec 10 14:14	0° $\mathfrak{Z}$	
min. Earth dist.	12022 Mar 02 08:11	22° $\mathfrak{X}$ 38'42	0.65706 AU	max. Earth dist.	12022 Dec 12 01:14	3° $\mathfrak{Z}$ 08'03	1.32830 AU
inferior conj	12022 Mar 04 11:20	20° $\mathfrak{X}$ 12'05	0°05'52	evening rise	12022 Dec 17 02:54	13° $\mathfrak{Z}$ 40'28	
minimum elong	12022 Mar 04 11:09	20° $\mathfrak{X}$ 12'34	0°06'01		12022 Dec 25 18:30	0° $\approx$	
transit middle	12022 Mar 04 11:09	20° $\mathfrak{X}$ 12'34	0°06'01	desc. node	12022 Dec 26 07:15	0° $\approx$ 55'53	
transit begin	12022 Mar 04 08:24	20° $\mathfrak{X}$ 20'30			12023 Jan 15 06:15	0° $\mathfrak{X}$	
transit end	12022 Mar 04 13:55	20° $\mathfrak{X}$ 04'39		evening max el	12023 Jan 20 00:25	5° $\mathfrak{X}$ 01'01	27°28'07
asc. node	12022 Mar 04 04:05	20° $\mathfrak{X}$ 32'57		retrograde	12023 Feb 02 17:00	12° $\mathfrak{X}$ 25'54	
morning rise	12022 Mar 10 14:53	14° $\mathfrak{X}$ 37'20		evening set	12023 Feb 09 13:46	9° $\mathfrak{X}$ 56'33	
direct	12022 Mar 13 10:11	13° $\mathfrak{X}$ 54'36		min. Earth dist.	12023 Feb 13 09:03	6° $\mathfrak{X}$ 34'51	0.63973 AU
morning max el	12022 Mar 19 19:19	17° $\mathfrak{X}$ 15'56	18°06'58	inferior conj	12023 Feb 15 23:29	3° $\mathfrak{X}$ 52'36	-1°00'46
	12022 Mar 29 07:47	0° $\mathfrak{Y}$		minimum elong	12023 Feb 16 01:24	3° $\mathfrak{X}$ 47'37	0°59'31
desc. node	12022 Apr 06 11:54	13° $\mathfrak{Y}$ 05'50		asc. node	12023 Feb 19 01:27	0° $\mathfrak{X}$ 52'16	
morning set	12022 Apr 07 11:03	14° $\mathfrak{Y}$ 39'41			12023 Feb 20 03:13	30° $\mathfrak{R}$ $\approx$	
	12022 Apr 17 00:01	0° $\mathfrak{Z}$		morning rise	12023 Feb 22 15:09	28° $\approx$ 32'13	
				direct	12023 Feb 25 02:09	28° $\approx$ 02'01	
superior conj	12022 Apr 22 09:14	8° $\mathfrak{Z}$ 30'27	-1°42'30		12023 Mar 01 23:43	0° $\mathfrak{X}$	
minimum elong	12022 Apr 21 23:52	7° $\mathfrak{Z}$ 53'40	1°42'04	morning max el	12023 Mar 03 12:46	1° $\mathfrak{X}$ 21'35	17°48'59
max. Earth dist.	12022 Apr 24 20:39	12° $\mathfrak{Z}$ 23'23	1.45672 AU	morning set	12023 Mar 20 06:37	26° $\mathfrak{X}$ 38'07	
	12022 May 06 04:19	0° $\mathfrak{I}$			12023 Mar 22 06:14	0° $\mathfrak{Y}$	
evening rise	12022 May 08 11:45	3° $\mathfrak{I}$ 34'47		desc. node	12023 Mar 24 08:31	3° $\mathfrak{Y}$ 32'08	
greatest brilliancy	12022 May 20 21:48	22° $\mathfrak{I}$ 37'26	-0.7m				
	12022 May 25 23:44	0° $\mathfrak{E}$		superior conj	12023 Apr 02 07:56	18° $\mathfrak{Y}$ 21'27	-1°04'41
asc. node	12022 May 31 01:29	6° $\mathfrak{E}$ 30'55		minimum elong	12023 Apr 02 01:09	17° $\mathfrak{Y}$ 53'57	1°03'58
evening max el	12022 Jun 01 18:51	8° $\mathfrak{E}$ 22'13	19°21'40	max. Earth dist.	12023 Apr 07 15:33	26° $\mathfrak{Y}$ 51'56	1.44966 AU
retrograde	12022 Jun 08 20:47	12° $\mathfrak{E}$ 20'47			12023 Apr 09 15:15	0° $\mathfrak{Z}$	
evening set	12022 Jun 12 11:13	11° $\mathfrak{E}$ 05'12		evening rise	12023 Apr 17 23:44	12° $\mathfrak{Z}$ 57'12	
inferior conj	12022 Jun 17 20:56	5° $\mathfrak{E}$ 13'37	3°13'13		12023 Apr 29 06:54	0° $\mathfrak{I}$	
minimum elong	12022 Jun 17 21:33	5° $\mathfrak{E}$ 11'37	3°12'22	evening max el	12023 May 15 21:40	22° $\mathfrak{I}$ 07'38	20°20'16
min. Earth dist.	12022 Jun 19 05:31	3° $\mathfrak{E}$ 26'55	0.66997 AU	asc. node	12023 May 17 22:39	24° $\mathfrak{I}$ 00'37	
	12022 Jun 22 02:57	30° $\mathfrak{R}$ $\mathfrak{I}$		retrograde	12023 May 23 19:33	26° $\mathfrak{I}$ 41'21	
morning rise	12022 Jun 23 07:23	28° $\mathfrak{I}$ 51'02		evening set	12023 May 27 19:29	25° $\mathfrak{I}$ 09'32	
direct	12022 Jun 29 09:08	26° $\mathfrak{I}$ 11'33		inferior conj	12023 Jun 02 02:19	19° $\mathfrak{I}$ 05'07	3°13'49
desc. node	12022 Jul 03 12:17	27° $\mathfrak{I}$ 12'23		minimum elong	12023 Jun 02 01:52	19° $\mathfrak{I}$ 06'41	3°13'00
	12022 Jul 07 20:19	0° $\mathfrak{E}$		min. Earth dist.	12023 Jun 02 20:46	18° $\mathfrak{I}$ 02'03	0.68061 AU
morning max el	12022 Jul 11 20:19	3° $\mathfrak{E}$ 39'29	25°46'49	morning rise	12023 Jun 07 07:57	12° $\mathfrak{I}$ 45'14	
	12022 Jul 31 22:15	0° $\mathfrak{Q}$		direct	12023 Jun 12 22:08	10° $\mathfrak{I}$ 16'31	
morning set	12022 Aug 16 20:52	26° $\mathfrak{Q}$ 41'49		desc. node	12023 Jun 20 09:24	13° $\mathfrak{I}$ 33'49	
	12022 Aug 18 15:46	0° $\mathfrak{M}$		morning max el	12023 Jun 24 06:11	17° $\mathfrak{I}$ 04'22	24°21'33

	12023 Jul 05 00:15	0°☿			12024 Jun 27 20:35	0°☿		
	12023 Jul 24 22:24	0°♌		morning set	12024 Jul 09 22:09	19°☿01'33		
morning set	12023 Jul 29 21:08	8°♌23'26		max. Earth dist.	12024 Jul 14 10:06	26°☿34'46	1.40171 AU	
max. Earth dist.	12023 Aug 02 12:17	14°♌48'34	1.37840 AU		12024 Jul 16 09:43	0°♌		
superior conj	12023 Aug 09 15:02	28°♌03'20	-0°39'54	superior conj	12024 Jul 22 05:23	10°♌21'28	-1°14'00	
minimum elong	12023 Aug 09 17:44	28°♌16'21	0°39'55	minimum elong	12024 Jul 22 10:39	10°♌45'27	1°13'54	
	12023 Aug 10 15:12	0°♍		asc. node	12024 Jul 30 19:10	26°♌24'23		
asc. node	12023 Aug 13 22:25	6°♍27'57		evening rise	12024 Aug 01 00:52	28°♌45'47		
evening rise	12023 Aug 18 07:40	15°♍10'54			12024 Aug 01 16:28	0°♍		
	12023 Aug 26 03:09	0°♎		evening max el	12024 Aug 17 00:53	24°♍32'50	18°28'37	
evening max el	12023 Sep 03 21:39	12°♎18'17	19°10'35	retrograde	12024 Aug 24 18:44	28°♍26'43		
retrograde	12023 Sep 13 00:02	16°♎50'42		evening set	12024 Aug 26 19:48	28°♍11'14		
evening set	12023 Sep 14 20:22	16°♎40'15		desc. node	12024 Sep 02 04:14	24°♍43'43		
desc. node	12023 Sep 16 06:47	16°♎18'34		inferior conj	12024 Sep 03 13:25	23°♍39'28	-0°25'50	
inferior conj	12023 Sep 23 08:32	12°♎28'49	-2°12'57	minimum elong	12024 Sep 03 12:25	23°♍41'27	0°25'37	
minimum elong	12023 Sep 23 02:44	12°♎38'33	2°10'36	min. Earth dist.	12024 Sep 06 20:12	21°♍05'23	0.57867 AU	
min. Earth dist.	12023 Sep 26 02:27	10°♎38'18	0.56015 AU	morning rise	12024 Sep 11 01:34	18°♍22'40		
morning rise	12023 Oct 01 06:17	7°♎49'10		direct	12024 Sep 17 03:04	16°♍48'45		
direct	12023 Oct 06 15:19	6°♎42'21		morning max el	12024 Oct 01 10:48	24°♍24'07	27°02'20	
morning max el	12023 Oct 20 17:55	13°♎53'10	25°41'18		12024 Oct 06 13:51	0°♎		
	12023 Nov 02 10:59	0°♏			12024 Oct 25 14:51	0°♏		
asc. node	12023 Nov 09 23:48	13°♏00'08		asc. node	12024 Oct 26 20:35	2°♏25'18		
morning set	12023 Nov 17 04:45	27°♏35'53		morning set	12024 Oct 31 14:01	12°♏08'20		
	12023 Nov 18 07:28	0°♐						
superior conj	12023 Nov 23 23:54	12°♐32'08	1°37'49	superior conj	12024 Nov 07 11:30	27°♏17'11	1°31'21	
minimum elong	12023 Nov 23 23:14	12°♐28'27	1°38'34	minimum elong	12024 Nov 07 09:57	27°♏08'29	1°31'54	
max. Earth dist.	12023 Nov 25 05:44	15°♐16'56	1.31853 AU	max. Earth dist.	12024 Nov 07 14:10	27°♏32'06	1.31371 AU	
evening rise	12023 Dec 01 01:47	27°♐49'47			12024 Nov 08 16:42	0°♐		
	12023 Dec 02 03:00	0°♑		evening rise	12024 Nov 14 06:47	12°♐13'18		
desc. node	12023 Dec 13 04:14	20°♑40'28			12024 Nov 23 06:22	0°♑		
	12023 Dec 19 00:47	0°♒		desc. node	12024 Nov 29 01:20	9°♑53'14		
evening max el	12024 Jan 02 10:13	17°♒50'22	27°28'22	evening max el	12024 Dec 14 14:22	29°♑54'23	26°54'35	
retrograde	12024 Jan 16 07:27	25°♒08'59			12024 Dec 14 16:45	0°♒		
evening set	12024 Jan 23 06:31	22°♒51'40		retrograde	12024 Dec 28 12:48	7°♒04'04		
min. Earth dist.	12024 Jan 27 00:15	19°♒55'45	0.61979 AU	evening set	12025 Jan 04 07:20	5°♒07'17		
inferior conj	12024 Jan 29 23:52	17°♒10'19	-2°15'52	min. Earth dist.	12025 Jan 08 04:39	2°♒28'14	0.59845 AU	
minimum elong	12024 Jan 30 04:31	16°♒59'32	2°13'24	inferior conj	12025 Jan 11 08:49	29°♒54'29	-3°35'18	
asc. node	12024 Feb 05 22:48	12°♒12'31		minimum elong	12025 Jan 11 16:12	29°♒39'31	3°32'02	
morning rise	12024 Feb 06 05:12	12°♒07'06			12025 Jan 11 06:06	30°♒♊		
direct	12024 Feb 08 10:07	11°♒45'35		morning rise	12025 Jan 19 03:56	25°♒11'42		
morning max el	12024 Feb 15 05:57	15°♒13'21	17°48'43	direct	12025 Jan 21 06:01	24°♒55'15		
	12024 Feb 25 12:50	0°♋		asc. node	12025 Jan 22 20:06	25°♒05'08		
morning set	12024 Mar 02 00:29	9°♋40'14		morning max el	12025 Jan 28 19:16	28°♒40'33	18°07'24	
desc. node	12024 Mar 10 05:06	24°♋06'37			12025 Jan 30 01:28	0°♋		
				morning set	12025 Feb 13 10:20	23°♋26'08		
superior conj	12024 Mar 13 06:20	29°♋19'58	-0°23'22		12025 Feb 16 22:41	0°♋		
minimum elong	12024 Mar 13 04:07	29°♋10'34	0°22'56	superior conj	12025 Feb 23 04:32	11°♋24'37	0°14'42	
	12024 Mar 13 15:47	0°♌		minimum elong	12025 Feb 23 05:42	11°♋29'49	0°14'52	
max. Earth dist.	12024 Mar 20 07:41	11°♌01'26	1.43609 AU	behind sun begin	12025 Feb 23 02:54	11°♋17'18		
evening rise	12024 Mar 27 15:02	22°♌36'52		behind sun end	12025 Feb 23 08:30	11°♋42'19		
	12024 Apr 01 10:25	0°♍		desc. node	12025 Feb 25 01:42	14°♋44'58		
	12024 Apr 22 14:21	0°♎		max. Earth dist.	12025 Mar 02 19:38	24°♋37'56	1.41741 AU	
evening max el	12024 Apr 27 18:59	5°♎54'35	21°31'05		12025 Mar 06 01:23	0°♎		
asc. node	12024 May 03 19:54	10°♎29'27		evening rise	12025 Mar 07 22:05	3°♎01'27		
retrograde	12024 May 06 17:56	11°♎09'47			12025 Mar 25 18:48	0°♏		
evening set	12024 May 11 04:19	9°♎22'00		evening max el	12025 Apr 10 11:45	19°♏42'32	22°49'42	
inferior conj	12024 May 16 10:45	3°♎06'34	3°03'04	retrograde	12025 Apr 20 14:23	25°♏40'32		
minimum elong	12024 May 16 09:25	3°♎11'14	3°02'11	asc. node	12025 Apr 20 17:14	25°♏40'28		
min. Earth dist.	12024 May 16 15:49	2°♎48'57	0.68659 AU	evening set	12025 Apr 25 12:01	23°♏37'43		
	12024 May 18 17:44	30°♏♊		inferior conj	12025 Apr 30 20:10	17°♏13'37	2°42'03	
morning rise	12024 May 21 14:18	26°♏51'35		minimum elong	12025 Apr 30 18:13	17°♏20'22	2°41'04	
direct	12024 May 26 15:39	24°♏39'52		min. Earth dist.	12025 Apr 30 12:28	17°♏40'19	0.68786 AU	
	12024 Jun 05 01:51	0°♐		morning rise	12025 May 06 00:18	11°♏04'59		
morning max el	12024 Jun 05 16:45	0°♐36'52	22°51'42	direct	12025 May 10 12:26	9°♏13'49		
desc. node	12024 Jun 06 06:25	1°♐11'46		morning max el	12025 May 19 07:19	14°♏18'54	21°25'59	




































































































































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	12025 May 31 20:31	0°♄			12026 May 03 21:33	0°♄	
morning set	12025 Jun 19 21:26	28°♄31'17		desc. node	12026 May 11 00:05	8°♄58'41	
	12025 Jun 20 19:51	0°♄			12026 May 25 08:15	0°♄	
max. Earth dist.	12025 Jun 26 13:19	9°♄14'59	1.42346 AU	morning set	12026 May 30 00:54	7°♄10'54	
				max. Earth dist.	12026 Jun 08 23:05	22°♄44'26	1.44113 AU
					12026 Jun 13 11:07	0°♄	
superior conj	12025 Jul 03 23:44	21°♄45'34	-1°44'58				
minimum elong	12025 Jul 04 06:33	22°♄15'00	1°45'04				
	12025 Jul 08 16:45	0°♄		superior conj	12026 Jun 14 18:23	2°♄07'46	-2°06'56
evening rise	12025 Jul 15 05:30	11°♄45'23		minimum elong	12026 Jun 14 23:26	2°♄28'29	2°07'33
asc. node	12025 Jul 17 15:59	16°♄10'21		evening rise	12026 Jun 27 16:39	23°♄56'57	
	12025 Jul 25 18:03	0°♄			12026 Jul 01 04:52	0°♄	
evening max el	12025 Jul 31 11:19	7°♄22'47	18°07'06	asc. node	12026 Jul 04 12:52	5°♄40'15	
retrograde	12025 Aug 07 07:56	10°♄52'45		evening max el	12026 Jul 15 01:02	20°♄37'27	18°04'53
evening set	12025 Aug 09 16:25	10°♄28'23		retrograde	12026 Jul 21 11:15	23°♄58'05	
inferior conj	12025 Aug 16 15:38	5°♄35'55	1°00'56	evening set	12026 Jul 24 03:46	23°♄21'43	
minimum elong	12025 Aug 16 17:27	5°♄31'44	0°59'51	inferior conj	12026 Jul 30 11:42	18°♄10'36	2°03'33
min. Earth dist.	12025 Aug 19 21:54	2°♄37'36	0.60079 AU	minimum elong	12026 Jul 30 14:20	18°♄03'41	2°02'10
desc. node	12025 Aug 20 01:39	2°♄29'29		min. Earth dist.	12026 Aug 02 08:58	15°♄10'18	0.62348 AU
	12025 Aug 23 07:55	30°♄		morning rise	12026 Aug 05 22:42	12°♄02'19	
morning rise	12025 Aug 23 15:26	29°♄48'09		desc. node	12026 Aug 06 23:02	11°♄21'34	
direct	12025 Aug 30 03:40	27°♄46'19		direct	12026 Aug 12 15:08	9°♄37'20	
	12025 Sep 06 09:11	0°♄		morning max el	12026 Aug 26 18:01	17°♄39'35	27°56'15
morning max el	12025 Sep 13 11:21	5°♄39'11	27°48'44		12026 Sep 06 01:21	0°♄	
	12025 Oct 01 16:11	0°♄			12026 Sep 24 11:20	0°♄	
asc. node	12025 Oct 13 17:18	22°♄08'32		morning set	12026 Sep 29 18:44	10°♄25'09	
morning set	12025 Oct 15 19:23	26°♄26'47		asc. node	12026 Sep 30 13:59	12°♄03'43	
	12025 Oct 17 11:41	0°♄		max. Earth dist.	12026 Oct 05 03:43	21°♄43'50	1.31926 AU
max. Earth dist.	12025 Oct 21 22:50	9°♄44'47	1.31393 AU				
				superior conj	12026 Oct 07 07:58	26°♄28'31	1°01'43
superior conj	12025 Oct 22 22:50	11°♄57'59	1°19'16	minimum elong	12026 Oct 07 05:44	26°♄16'17	1°01'39
minimum elong	12025 Oct 22 20:42	11°♄46'11	1°19'30		12026 Oct 08 22:27	0°♄	
evening rise	12025 Oct 29 15:48	26°♄45'29		evening rise	12026 Oct 14 02:47	11°♄20'25	
	12025 Oct 31 04:18	0°♄			12026 Oct 23 11:27	0°♄	
desc. node	12025 Nov 15 22:31	28°♄21'51		desc. node	12026 Nov 02 19:46	15°♄49'00	
	12025 Nov 17 01:53	0°♄		evening max el	12026 Nov 07 22:32	21°♄29'15	24°15'02
evening max el	12025 Nov 26 10:18	11°♄05'19	25°47'18	retrograde	12026 Nov 21 14:47	28°♄19'26	
retrograde	12025 Dec 10 07:44	18°♄06'30		evening set	12026 Nov 26 16:17	27°♄23'02	
evening set	12025 Dec 16 11:48	16°♄37'49		min. Earth dist.	12026 Dec 02 09:39	24°♄30'08	0.55992 AU
min. Earth dist.	12025 Dec 20 22:49	14°♄01'16	0.57760 AU	inferior conj	12026 Dec 04 16:12	23°♄06'14	-5°41'16
inferior conj	12025 Dec 23 22:51	11°♄55'13	-4°49'32	minimum elong	12026 Dec 04 21:00	22°♄58'49	5°39'57
minimum elong	12025 Dec 24 07:12	11°♄40'33	4°46'40	morning rise	12026 Dec 13 03:47	19°♄06'47	
morning rise	12026 Jan 01 05:11	7°♄35'03		direct	12026 Dec 15 16:49	18°♄49'53	
direct	12026 Jan 03 09:16	7°♄20'16		morning max el	12026 Dec 25 19:02	23°♄39'06	19°48'47
asc. node	12026 Jan 09 17:17	9°♄35'20		asc. node	12026 Dec 27 14:22	25°♄31'52	
morning max el	12026 Jan 12 00:55	11°♄32'46	18°46'50		12026 Dec 31 02:30	0°♄	
	12026 Jan 24 07:20	0°♄		morning set	12027 Jan 12 11:30	22°♄14'15	
morning set	12026 Jan 28 07:15	7°♄41'07			12027 Jan 16 07:06	0°♄	
superior conj	12026 Feb 05 22:31	24°♄24'07	0°46'12	superior conj	12027 Jan 20 07:30	8°♄04'37	1°10'08
minimum elong	12026 Feb 06 01:13	24°♄36'52	0°46'21	minimum elong	12027 Jan 20 10:20	8°♄18'43	1°10'27
	12026 Feb 08 22:42	0°♄		max. Earth dist.	12027 Jan 26 09:16	19°♄46'24	1.37337 AU
desc. node	12026 Feb 11 22:20	5°♄23'55		desc. node	12027 Jan 29 19:02	25°♄59'50	
max. Earth dist.	12026 Feb 13 03:11	7°♄31'40	1.39566 AU	evening rise	12027 Jan 30 02:45	26°♄34'17	
evening rise	12026 Feb 17 02:10	14°♄21'27			12027 Feb 01 01:24	0°♄	
	12026 Feb 26 18:39	0°♄			12027 Feb 20 06:31	0°♄	
	12026 Mar 20 17:55	0°♄		evening max el	12027 Mar 06 15:09	17°♄23'39	25°26'09
evening max el	12026 Mar 24 01:48	3°♄32'22	24°10'17	retrograde	12027 Mar 18 20:45	24°♄27'57	
retrograde	12026 Apr 04 07:40	10°♄08'31		evening set	12027 Mar 24 17:48	22°♄01'57	
asc. node	12026 Apr 07 14:35	9°♄19'10		asc. node	12027 Mar 25 11:55	21°♄21'20	
evening set	12026 Apr 09 17:02	7°♄52'35		min. Earth dist.	12027 Mar 29 02:13	17°♄15'23	0.67702 AU
min. Earth dist.	12026 Apr 14 08:38	2°♄30'51	0.68461 AU	inferior conj	12027 Mar 30 10:20	15°♄31'47	1°30'31
inferior conj	12026 Apr 15 04:39	1°♄23'10	2°11'11	minimum elong	12027 Mar 30 08:26	15°♄37'56	1°29'43
minimum elong	12026 Apr 15 02:29	1°♄30'30	2°10'12	morning rise	12027 Apr 04 23:32	9°♄39'11	
	12026 Apr 16 05:28	30°♄		direct	12027 Apr 08 10:57	8°♄29'48	
morning rise	12026 Apr 20 12:01	25°♄21'54		morning max el	12027 Apr 15 09:41	12°♄17'38	19°09'47
direct	12026 Apr 24 11:19	23°♄52'13		desc. node	12027 Apr 27 20:48	28°♄42'04	

greatest brilliancy	12027 Apr 28 09:21	29° $\Upsilon$ 28'54	-0.7m	morning rise	12028 Mar 19 08:43	23° $\text{H}$ 51'52	
	12027 Apr 28 17:39	0° $\text{B}$		direct	12028 Mar 22 09:31	23° $\text{H}$ 00'16	
morning set	12027 May 09 03:37	15° $\text{B}$ 55'24		morning max el	12028 Mar 28 21:20	26° $\text{H}$ 27'54	18°25'03
	12027 May 18 05:21	0° $\Pi$			12028 Apr 01 00:52	0° $\Upsilon$	
max. Earth dist.	12027 May 22 14:27	6° $\Pi$ 51'11	1.45287 AU	desc. node	12028 Apr 13 17:27	18° $\Upsilon$ 46'31	
				morning set	12028 Apr 18 02:49	25° $\Upsilon$ 43'44	
superior conj	12027 May 25 14:30	11° $\Pi$ 35'01	-2°13'03		12028 Apr 20 19:32	0° $\text{B}$	
minimum elong	12027 May 25 13:05	11° $\Pi$ 29'26	2°13'48				
	12027 Jun 06 01:44	0° $\text{E}$		superior conj	12028 May 03 22:00	20° $\text{B}$ 35'11	-1°59'00
evening rise	12027 Jun 09 05:35	5° $\text{E}$ 10'26		minimum elong	12028 May 03 13:52	20° $\text{B}$ 03'23	1°59'03
asc. node	12027 Jun 21 09:49	24° $\text{E}$ 48'14		max. Earth dist.	12028 May 04 09:28	21° $\text{B}$ 19'58	1.45752 AU
	12027 Jun 25 01:29	0° $\Omega$			12028 May 09 22:36	0° $\Pi$	
evening max el	12027 Jun 28 14:44	4° $\Omega$ 08'49	18°21'03	evening rise	12028 May 19 18:13	15° $\Pi$ 23'57	
retrograde	12027 Jul 05 00:13	7° $\Omega$ 33'46			12028 May 29 01:31	0° $\text{E}$	
evening set	12027 Jul 08 01:00	6° $\Omega$ 43'09		greatest brilliancy	12028 May 29 08:51	0° $\text{E}$ 28'21	-0.8m
inferior conj	12027 Jul 13 21:29	1° $\Omega$ 15'15	2°44'17	asc. node	12028 Jun 07 06:51	13° $\text{E}$ 26'17	
minimum elong	12027 Jul 13 23:42	1° $\Omega$ 08'47	2°43'06	evening max el	12028 Jun 11 01:40	17° $\text{E}$ 49'30	18°54'48
	12027 Jul 14 23:12	30° $\text{R}$ $\text{E}$		retrograde	12028 Jun 17 19:10	21° $\text{E}$ 31'57	
min. Earth dist.	12027 Jul 16 05:24	28° $\text{E}$ 33'00	0.64441 AU	evening set	12028 Jun 21 04:33	20° $\text{E}$ 25'35	
morning rise	12027 Jul 19 21:06	24° $\text{E}$ 56'22		inferior conj	12028 Jun 26 17:15	14° $\text{E}$ 42'21	3°06'59
desc. node	12027 Jul 24 20:20	22° $\text{E}$ 26'43		minimum elong	12028 Jun 26 18:30	14° $\text{E}$ 38'24	3°06'02
direct	12027 Jul 26 11:38	22° $\text{E}$ 17'24		min. Earth dist.	12028 Jun 28 10:21	12° $\text{E}$ 32'45	0.66192 AU
	12027 Aug 08 21:04	0° $\Omega$		morning rise	12028 Jul 02 07:46	8° $\text{E}$ 19'57	
morning max el	12027 Aug 09 04:01	0° $\Omega$ 17'24	27°27'33	direct	12028 Jul 08 15:20	5° $\text{E}$ 37'46	
	12027 Aug 31 01:56	0° $\text{M}$		desc. node	12028 Jul 10 17:34	5° $\text{E}$ 53'21	
morning set	12027 Sep 13 09:34	23° $\text{M}$ 57'04		morning max el	12028 Jul 21 14:50	13° $\text{E}$ 21'06	26°29'42
	12027 Sep 16 10:02	0° $\text{A}$			12028 Aug 04 01:46	0° $\Omega$	
asc. node	12027 Sep 17 10:38	2° $\text{A}$ 06'16			12028 Aug 22 18:36	0° $\text{M}$	
max. Earth dist.	12027 Sep 18 01:01	3° $\text{A}$ 20'41	1.32982 AU	morning set	12028 Aug 26 12:45	6° $\text{M}$ 54'38	
				max. Earth dist.	12028 Aug 30 12:25	14° $\text{M}$ 35'27	1.34547 AU
superior conj	12027 Sep 21 12:56	10° $\text{A}$ 43'23	0°38'55	asc. node	12028 Sep 03 07:19	22° $\text{M}$ 12'12	
minimum elong	12027 Sep 21 11:10	10° $\text{A}$ 33'56	0°38'39				
evening rise	12027 Sep 28 13:55	25° $\text{A}$ 53'15		superior conj	12028 Sep 04 11:21	24° $\text{M}$ 36'23	0°11'15
	12027 Sep 30 12:43	0° $\text{M}$		minimum elong	12028 Sep 04 10:45	24° $\text{M}$ 33'16	0°10'58
	12027 Oct 18 20:57	0° $\text{J}$		behind sun begin	12028 Sep 04 06:25	24° $\text{M}$ 10'55	
evening max el	12027 Oct 20 09:14	1° $\text{J}$ 33'09	22°33'40	behind sun end	12028 Sep 04 15:05	24° $\text{M}$ 55'38	
desc. node	12027 Oct 20 17:06	1° $\text{J}$ 52'07			12028 Sep 07 01:29	0° $\text{A}$	
retrograde	12027 Nov 02 09:13	8° $\text{J}$ 00'36		evening rise	12028 Sep 11 23:17	10° $\text{A}$ 18'58	
evening set	12027 Nov 06 00:10	7° $\text{J}$ 31'52			12028 Sep 22 05:48	0° $\text{M}$	
min. Earth dist.	12027 Nov 13 16:59	4° $\text{J}$ 04'29	0.54852 AU	evening max el	12028 Oct 01 03:45	11° $\text{M}$ 54'04	20°59'57
inferior conj	12027 Nov 14 15:47	3° $\text{J}$ 32'11	-5°47'44	desc. node	12028 Oct 06 14:29	16° $\text{M}$ 03'36	
minimum elong	12027 Nov 14 12:21	3° $\text{J}$ 37'03	5°46'48	retrograde	12028 Oct 12 20:17	17° $\text{M}$ 42'21	
	12027 Nov 22 02:58	30° $\text{R}$ $\text{M}$		evening set	12028 Oct 15 06:24	17° $\text{M}$ 28'28	
morning rise	12027 Nov 23 01:58	29° $\text{M}$ 44'22		inferior conj	12028 Oct 24 07:36	13° $\text{M}$ 34'02	-4°55'36
direct	12027 Nov 26 07:32	29° $\text{M}$ 20'34		minimum elong	12028 Oct 23 21:58	13° $\text{M}$ 47'40	4°52'50
	12027 Nov 30 08:18	0° $\text{J}$		min. Earth dist.	12028 Oct 24 23:54	13° $\text{M}$ 10'58	0.54579 AU
morning max el	12027 Dec 07 23:05	4° $\text{J}$ 52'36	21°13'17	morning rise	12028 Nov 01 13:51	9° $\text{M}$ 40'58	
asc. node	12027 Dec 14 11:24	12° $\text{J}$ 38'31		direct	12028 Nov 05 15:44	9° $\text{M}$ 05'17	
	12027 Dec 24 10:39	0° $\text{B}$		morning max el	12028 Nov 18 14:52	15° $\text{M}$ 19'38	22°55'41
morning set	12027 Dec 27 20:20	6° $\text{B}$ 57'21			12028 Nov 29 22:43	0° $\text{J}$	
				asc. node	12028 Nov 30 08:22	0° $\text{J}$ 39'43	
superior conj	12028 Jan 04 03:17	22° $\text{B}$ 13'56	1°26'34	morning set	12028 Dec 11 07:39	21° $\text{J}$ 44'45	
minimum elong	12028 Jan 04 05:27	22° $\text{B}$ 25'07	1°27'09		12028 Dec 15 03:51	0° $\text{B}$	
	12028 Jan 07 22:53	0° $\approx$					
max. Earth dist.	12028 Jan 08 19:06	1° $\approx$ 40'27	1.35296 AU	superior conj	12028 Dec 18 06:41	6° $\text{B}$ 43'09	1°35'58
evening rise	12028 Jan 12 20:43	9° $\approx$ 31'04		minimum elong	12028 Dec 18 07:46	6° $\text{B}$ 49'02	1°36'45
desc. node	12028 Jan 16 15:47	16° $\approx$ 28'16		max. Earth dist.	12028 Dec 21 12:31	13° $\text{B}$ 34'52	1.33609 AU
	12028 Jan 24 15:35	0° $\text{H}$		evening rise	12028 Dec 26 04:31	23° $\text{B}$ 02'50	
	12028 Feb 16 00:15	0° $\Upsilon$			12028 Dec 29 19:30	0° $\approx$	
evening max el	12028 Feb 17 04:47	1° $\Upsilon$ 10'58	26°29'58	desc. node	12029 Jan 02 12:39	6° $\approx$ 44'51	
retrograde	12028 Mar 01 04:29	8° $\Upsilon$ 30'57			12029 Jan 17 07:52	0° $\text{H}$	
evening set	12028 Mar 07 12:31	5° $\Upsilon$ 59'09		evening max el	12029 Jan 29 18:21	14° $\text{H}$ 45'25	27°14'13
asc. node	12028 Mar 11 09:17	2° $\Upsilon$ 03'48		retrograde	12029 Feb 12 06:03	22° $\text{H}$ 10'05	
min. Earth dist.	12028 Mar 11 15:00	1° $\Upsilon$ 47'01	0.66539 AU	evening set	12029 Feb 18 23:11	19° $\text{H}$ 37'58	
inferior conj	12028 Mar 13 11:09	29° $\text{H}$ 34'01	0°39'45	min. Earth dist.	12029 Feb 22 20:45	15° $\text{H}$ 58'46	0.65009 AU
minimum elong	12028 Mar 13 10:08	29° $\text{H}$ 37'05	0°39'27	inferior conj	12029 Feb 25 04:44	13° $\text{H}$ 24'29	-0°21'10
	12028 Mar 13 02:34	30° $\text{R}$ $\text{H}$		minimum elong	12029 Feb 25 05:21	13° $\text{H}$ 22'47	0°20'36

asc. node	12029 Feb 26 06:39	12° $\text{H}$ 13'46		inferior conj	12030 Feb 08 12:15	26° $\approx$ 55'43	-1°31'42
morning rise	12029 Mar 03 13:09	7° $\text{H}$ 55'15		minimum elong	12030 Feb 08 15:16	26° $\approx$ 48'14	1°29'57
direct	12029 Mar 06 04:48	7° $\text{H}$ 18'08		asc. node	12030 Feb 13 04:00	22° $\approx$ 52'28	
morning max el	12029 Mar 12 13:29	10° $\text{H}$ 37'18	17°57'11	morning rise	12030 Feb 15 09:36	21° $\approx$ 42'22	
	12029 Mar 26 01:40	0° $\text{Y}$		direct	12030 Feb 17 17:50	21° $\approx$ 16'13	
morning set	12029 Mar 30 06:50	6° $\text{Y}$ 57'18		morning max el	12030 Feb 24 07:13	24° $\approx$ 37'41	17°46'42
desc. node	12029 Mar 31 14:05	9° $\text{Y}$ 06'14			12030 Feb 28 17:20	0° $\text{H}$	
				morning set	12030 Mar 12 12:38	19° $\text{H}$ 24'46	
superior conj	12029 Apr 13 10:28	29° $\text{Y}$ 55'03	-1°27'27	desc. node	12030 Mar 18 10:41	29° $\text{H}$ 36'16	
minimum elong	12029 Apr 13 01:38	29° $\text{Y}$ 19'59	1°26'49		12030 Mar 18 16:16	0° $\text{Y}$	
	12029 Apr 13 11:43	0° $\text{B}$					
max. Earth dist.	12029 Apr 17 05:42	5° $\text{B}$ 55'08	1.45465 AU	superior conj	12030 Mar 24 18:43	10° $\text{Y}$ 13'13	-0°47'06
evening rise	12029 Apr 29 11:39	24° $\text{B}$ 55'26		minimum elong	12030 Mar 24 13:53	9° $\text{Y}$ 53'17	0°46'28
	12029 May 02 19:07	0° $\text{II}$		max. Earth dist.	12030 Mar 31 00:05	20° $\text{Y}$ 18'38	1.44460 AU
greatest brilliancy	12029 May 13 15:24	16° $\text{II}$ 20'28	-0.6m		12030 Apr 06 03:47	0° $\text{B}$	
	12029 May 23 20:24	0° $\text{B}$		evening rise	12030 Apr 08 23:07	4° $\text{B}$ 20'13	
asc. node	12029 May 25 03:59	1° $\text{B}$ 24'30			12030 Apr 26 05:40	0° $\text{II}$	
evening max el	12029 May 25 07:49	1° $\text{B}$ 34'13	19°44'51	evening max el	12030 May 08 08:11	15° $\text{II}$ 19'59	20°49'04
retrograde	12029 Jun 01 17:15	5° $\text{B}$ 46'11		asc. node	12030 May 12 01:11	18° $\text{II}$ 30'16	
evening set	12029 Jun 05 11:44	4° $\text{B}$ 23'30		retrograde	12030 May 16 16:10	20° $\text{II}$ 11'00	
	12029 Jun 09 15:31	30° $\text{R}$ II		evening set	12030 May 20 20:29	18° $\text{II}$ 32'07	
inferior conj	12029 Jun 10 19:53	28° $\text{II}$ 26'15	3°14'57	inferior conj	12030 May 26 02:51	12° $\text{II}$ 22'31	3°10'36
minimum elong	12029 Jun 10 20:02	28° $\text{II}$ 25'45	3°14'07	minimum elong	12030 May 26 01:59	12° $\text{II}$ 25'29	3°09'45
min. Earth dist.	12029 Jun 11 22:18	26° $\text{II}$ 57'55	0.67514 AU	min. Earth dist.	12030 May 26 15:24	11° $\text{II}$ 39'05	0.68369 AU
morning rise	12029 Jun 16 03:59	22° $\text{II}$ 04'43		morning rise	12030 May 31 07:16	6° $\text{II}$ 04'34	
direct	12029 Jun 22 01:05	19° $\text{II}$ 29'05		direct	12030 Jun 05 15:58	3° $\text{II}$ 42'47	
desc. node	12029 Jun 27 14:43	21° $\text{II}$ 19'15		desc. node	12030 Jun 14 11:46	8° $\text{II}$ 16'13	
morning max el	12029 Jul 04 01:10	26° $\text{II}$ 40'47	25°11'42	morning max el	12030 Jun 16 11:16	10° $\text{II}$ 09'54	23°43'29
	12029 Jul 07 03:04	0° $\text{B}$			12030 Jul 02 04:17	0° $\text{B}$	
	12029 Jul 28 16:09	0° $\text{Q}$			12030 Jul 21 09:37	0° $\text{Q}$	
morning set	12029 Aug 09 00:13	19° $\text{Q}$ 07'17		morning set	12030 Jul 21 15:17	0° $\text{Q}$ 23'59	
max. Earth dist.	12029 Aug 12 14:39	25° $\text{Q}$ 41'38	1.36556 AU	max. Earth dist.	12030 Jul 25 12:16	7° $\text{Q}$ 05'45	1.38831 AU
	12029 Aug 14 21:34	0° $\text{np}$					
				superior conj	12030 Aug 02 00:07	20° $\text{Q}$ 44'04	-0°54'27
superior conj	12029 Aug 19 00:17	7° $\text{np}$ 59'20	-0°20'26	minimum elong	12030 Aug 02 03:55	21° $\text{Q}$ 01'59	0°54'23
minimum elong	12029 Aug 19 01:35	8° $\text{np}$ 05'50	0°20'35		12030 Aug 06 20:21	0° $\text{np}$	
asc. node	12029 Aug 21 04:00	12° $\text{np}$ 17'15		asc. node	12030 Aug 08 00:45	2° $\text{np}$ 18'11	
evening rise	12029 Aug 27 04:38	24° $\text{np}$ 30'52		evening rise	12030 Aug 11 03:17	8° $\text{np}$ 22'12	
	12029 Aug 29 22:16	0° $\text{A}$			12030 Aug 23 09:40	0° $\text{A}$	
evening max el	12029 Sep 13 11:40	22° $\text{A}$ 56'07	19°44'15	evening max el	12030 Aug 27 08:48	4° $\text{A}$ 46'01	18°50'03
desc. node	12029 Sep 23 11:55	27° $\text{A}$ 56'02		retrograde	12030 Sep 04 20:21	9° $\text{A}$ 00'53	
retrograde	12029 Sep 23 12:25	27° $\text{A}$ 56'02		evening set	12030 Sep 06 17:53	8° $\text{A}$ 48'55	
evening set	12029 Sep 25 09:39	27° $\text{A}$ 46'14		desc. node	12030 Sep 10 09:21	7° $\text{A}$ 26'01	
inferior conj	12029 Oct 04 06:00	23° $\text{A}$ 43'32	-3°17'41	inferior conj	12030 Sep 14 22:28	4° $\text{A}$ 28'59	-1°25'46
minimum elong	12029 Oct 03 21:29	23° $\text{A}$ 56'46	3°14'25	minimum elong	12030 Sep 14 18:52	4° $\text{A}$ 35'29	1°24'21
min. Earth dist.	12029 Oct 06 09:12	22° $\text{A}$ 24'07	0.55245 AU	min. Earth dist.	12030 Sep 17 23:36	2° $\text{A}$ 18'01	0.56736 AU
morning rise	12029 Oct 12 07:37	19° $\text{A}$ 24'47			12030 Sep 21 17:53	30° $\text{R}$ np	
direct	12029 Oct 17 05:29	18° $\text{A}$ 31'39		morning rise	12030 Sep 22 16:33	29° $\text{np}$ 32'56	
morning max el	12029 Oct 31 01:27	25° $\text{A}$ 23'31	24°43'44	direct	12030 Sep 28 08:52	28° $\text{np}$ 15'13	
	12029 Nov 04 09:06	0° $\text{ml}$			12030 Oct 05 01:24	0° $\text{A}$	
asc. node	12029 Nov 17 05:17	19° $\text{ml}$ 21'15		morning max el	12030 Oct 12 14:53	5° $\text{A}$ 37'45	26°19'24
	12029 Nov 22 17:08	0° $\text{x}$			12030 Oct 30 10:29	0° $\text{ml}$	
morning set	12029 Nov 25 19:30	6° $\text{x}$ 30'05		asc. node	12030 Nov 04 02:08	8° $\text{ml}$ 32'57	
				morning set	12030 Nov 10 06:14	21° $\text{ml}$ 08'43	
superior conj	12029 Dec 02 14:56	21° $\text{x}$ 23'30	1°38'53		12030 Nov 14 07:34	0° $\text{x}$	
minimum elong	12029 Dec 02 14:54	21° $\text{x}$ 23'14	1°39'42				
max. Earth dist.	12029 Dec 04 13:36	25° $\text{x}$ 38'07	1.32358 AU	superior conj	12030 Nov 17 01:54	6° $\text{x}$ 08'43	1°35'46
	12029 Dec 06 14:17	0° $\text{B}$		minimum elong	12030 Nov 17 00:50	6° $\text{x}$ 02'44	1°36'27
evening rise	12029 Dec 09 22:41	6° $\text{B}$ 59'56		max. Earth dist.	12030 Nov 17 20:07	7° $\text{x}$ 49'54	1.31587 AU
desc. node	12029 Dec 20 09:37	26° $\text{B}$ 42'54		evening rise	12030 Nov 24 00:26	21° $\text{x}$ 15'30	
	12029 Dec 22 08:08	0° $\approx$			12030 Nov 28 07:25	0° $\text{B}$	
evening max el	12030 Jan 12 05:59	27° $\approx$ 53'45	27°32'08	desc. node	12030 Dec 07 06:38	16° $\text{B}$ 14'54	
	12030 Jan 14 14:24	0° $\text{H}$			12030 Dec 16 11:41	0° $\approx$	
retrograde	12030 Jan 26 00:37	5° $\text{H}$ 15'59		evening max el	12030 Dec 25 13:25	10° $\approx$ 23'41	27°18'08
evening set	12030 Feb 01 23:17	2° $\text{H}$ 50'34		retrograde	12031 Jan 08 11:29	17° $\approx$ 39'19	
	12030 Feb 05 09:27	30° $\text{R}$ $\approx$		evening set	12031 Jan 15 09:44	15° $\approx$ 29'19	
min. Earth dist.	12030 Feb 05 17:29	29° $\approx$ 40'55	0.61157 AU	min. Earth dist.	12031 Jan 19 03:56	12° $\approx$ 42'13	0.61077 AU

inferior conj	12031 Jan 22 06:27	9° $\approx$ 59'29	-2°49'29	evening max el	12031 Dec 07 14:16	22° $\approx$ 05'44	26°29'48
minimum elong	12031 Jan 22 12:20	9° $\approx$ 46'35	2°46'35	retrograde	12031 Dec 21 13:05	29° $\approx$ 12'26	
morning rise	12031 Jan 29 17:48	5° $\approx$ 05'02		evening set	12031 Dec 28 02:32	27° $\approx$ 26'54	
asc. node	12031 Jan 31 01:19	4° $\approx$ 49'00		min. Earth dist.	12032 Jan 01 04:03	24° $\approx$ 50'44	0.58930 AU
direct	12031 Jan 31 21:01	4° $\approx$ 46'09		inferior conj	12032 Jan 04 07:46	22° $\approx$ 26'41	-4°08'19
morning max el	12031 Feb 07 23:14	8° $\approx$ 20'06	17°54'19	minimum elong	12032 Jan 04 15:56	22° $\approx$ 11'06	4°05'02
	12031 Feb 22 01:14	0° $\approx$		morning rise	12032 Jan 12 08:11	17° $\approx$ 53'24	
morning set	12031 Feb 23 13:56	2° $\approx$ 46'44		direct	12032 Jan 14 10:11	17° $\approx$ 38'14	
desc. node	12031 Mar 05 07:16	20° $\approx$ 12'29		asc. node	12032 Jan 17 22:34	18° $\approx$ 23'49	
				morning max el	12032 Jan 22 09:51	21° $\approx$ 34'22	18°21'31
superior conj	12031 Mar 06 03:33	21° $\approx$ 40'39	-0°06'35		12032 Jan 28 20:56	0° $\approx$	
minimum elong	12031 Mar 06 03:00	21° $\approx$ 38'12	0°06'16	morning set	12032 Feb 07 05:02	16° $\approx$ 46'45	
behind sun begin	12031 Mar 05 19:20	21° $\approx$ 04'58			12032 Feb 14 04:32	0° $\approx$	
behind sun end	12031 Mar 06 10:39	22° $\approx$ 11'21					
	12031 Mar 11 00:53	0° $\approx$		superior conj	12032 Feb 16 10:47	4° $\approx$ 10'27	0°28'57
max. Earth dist.	12031 Mar 13 14:07	4° $\approx$ 13'39	1.42856 AU	minimum elong	12032 Feb 16 12:48	4° $\approx$ 19'43	0°29'04
evening rise	12031 Mar 19 19:50	14° $\approx$ 15'27		desc. node	12032 Feb 20 03:53	10° $\approx$ 51'40	
	12031 Mar 30 03:03	0° $\approx$		max. Earth dist.	12032 Feb 23 23:37	17° $\approx$ 30'57	1.40834 AU
evening max el	12031 Apr 21 03:11	29° $\approx$ 06'14	22°03'55	evening rise	12032 Feb 28 11:41	25° $\approx$ 03'54	
	12031 Apr 22 01:10	0° $\approx$			12032 Mar 02 12:42	0° $\approx$	
asc. node	12031 Apr 28 22:28	4° $\approx$ 27'42			12032 Mar 22 22:12	0° $\approx$	
retrograde	12031 Apr 30 14:01	4° $\approx$ 40'36		evening max el	12032 Apr 02 18:35	12° $\approx$ 55'10	23°24'12
evening set	12031 May 05 05:01	2° $\approx$ 46'17		retrograde	12032 Apr 13 09:16	19° $\approx$ 10'32	
	12031 May 07 20:20	30° $\approx$ 8'8		asc. node	12032 Apr 14 19:46	19° $\approx$ 00'54	
inferior conj	12031 May 10 11:54	26° $\approx$ 26'36	2°55'24	evening set	12032 Apr 18 11:44	17° $\approx$ 02'07	
minimum elong	12031 May 10 10:16	26° $\approx$ 32'18	2°54'29	inferior conj	12032 Apr 23 21:09	10° $\approx$ 35'18	2°30'10
min. Earth dist.	12031 May 10 11:28	26° $\approx$ 28'08	0.68759 AU	minimum elong	12032 Apr 23 19:04	10° $\approx$ 42'30	2°29'11
morning rise	12031 May 15 15:22	20° $\approx$ 13'57		min. Earth dist.	12032 Apr 23 08:16	11° $\approx$ 19'40	0.68699 AU
direct	12031 May 20 10:59	18° $\approx$ 10'48		morning rise	12032 Apr 29 02:20	4° $\approx$ 29'22	
morning max el	12031 May 29 23:10	23° $\approx$ 46'02	22°14'22	direct	12032 May 03 08:57	2° $\approx$ 47'11	
desc. node	12031 Jun 01 08:42	26° $\approx$ 19'30		morning max el	12032 May 11 16:11	7° $\approx$ 32'19	20°52'20
	12031 Jun 04 11:13	0° $\approx$		desc. node	12032 May 18 05:32	15° $\approx$ 11'19	
	12031 Jun 25 13:17	0° $\approx$			12032 May 28 19:55	0° $\approx$	
morning set	12031 Jul 02 05:22	10° $\approx$ 32'53		morning set	12032 Jun 10 18:34	19° $\approx$ 13'00	
max. Earth dist.	12031 Jul 07 11:26	19° $\approx$ 11'59	1.41125 AU		12032 Jun 17 08:13	0° $\approx$	
	12031 Jul 13 18:18	0° $\approx$		max. Earth dist.	12032 Jun 18 16:58	2° $\approx$ 12'14	1.43162 AU
superior conj	12031 Jul 15 06:28	2° $\approx$ 39'58	-1°27'49	superior conj	12032 Jun 25 14:59	13° $\approx$ 37'59	-1°55'47
minimum elong	12031 Jul 15 12:37	3° $\approx$ 07'25	1°27'45	minimum elong	12032 Jun 25 21:37	14° $\approx$ 05'56	1°56'06
evening rise	12031 Jul 25 15:40	21° $\approx$ 43'09			12032 Jul 05 02:04	0° $\approx$	
asc. node	12031 Jul 25 21:31	22° $\approx$ 10'29		evening rise	12032 Jul 07 13:24	4° $\approx$ 23'01	
	12031 Jul 30 03:08	0° $\approx$		asc. node	12032 Jul 11 18:20	11° $\approx$ 49'53	
evening max el	12031 Aug 10 15:36	17° $\approx$ 16'51	18°17'02		12032 Jul 23 20:34	0° $\approx$	
retrograde	12031 Aug 17 23:10	20° $\approx$ 58'42		evening max el	12032 Jul 24 03:56	0° $\approx$ 18'31	18°03'54
evening set	12031 Aug 20 03:07	20° $\approx$ 39'59		retrograde	12032 Jul 30 18:42	3° $\approx$ 42'21	
inferior conj	12031 Aug 27 12:43	15° $\approx$ 59'36	0°13'50	evening set	12032 Aug 02 06:40	3° $\approx$ 13'08	
minimum elong	12031 Aug 27 13:12	15° $\approx$ 58'36	0°13'22		12032 Aug 07 01:24	30° $\approx$ 8'8	
transit middle	12031 Aug 27 13:12	15° $\approx$ 58'36	0°13'22	inferior conj	12032 Aug 08 22:57	28° $\approx$ 12'41	1°30'20
transit begin	12031 Aug 27 11:15	16° $\approx$ 02'43		minimum elong	12032 Aug 09 01:20	28° $\approx$ 06'54	1°29'03
transit end	12031 Aug 27 15:09	15° $\approx$ 54'30		min. Earth dist.	12032 Aug 12 02:16	25° $\approx$ 10'49	0.61059 AU
desc. node	12031 Aug 28 06:47	15° $\approx$ 21'22		desc. node	12032 Aug 14 04:10	23° $\approx$ 22'57	
min. Earth dist.	12031 Aug 30 20:49	13° $\approx$ 12'11	0.58783 AU	morning rise	12032 Aug 15 17:17	22° $\approx$ 15'09	
morning rise	12031 Sep 03 19:47	10° $\approx$ 28'16		direct	12032 Aug 22 08:21	20° $\approx$ 02'22	
direct	12031 Sep 10 02:41	8° $\approx$ 41'52		morning max el	12032 Sep 05 14:13	28° $\approx$ 00'02	27°56'33
morning max el	12031 Sep 24 11:05	16° $\approx$ 26'26	27°26'37		12032 Sep 07 12:33	0° $\approx$	
	12031 Oct 05 14:32	0° $\approx$			12032 Sep 28 09:41	0° $\approx$	
asc. node	12031 Oct 21 22:54	28° $\approx$ 06'27		asc. node	12032 Oct 07 19:35	17° $\approx$ 55'11	
	12031 Oct 22 21:23	0° $\approx$		morning set	12032 Oct 08 17:07	19° $\approx$ 46'06	
morning set	12031 Oct 25 14:05	5° $\approx$ 35'51			12032 Oct 13 12:17	0° $\approx$	
max. Earth dist.	12031 Nov 01 04:56	20° $\approx$ 04'17	1.31314 AU	max. Earth dist.	12032 Oct 14 12:20	2° $\approx$ 11'47	1.31557 AU
superior conj	12031 Nov 01 13:38	20° $\approx$ 52'52	1°26'55	superior conj	12032 Oct 16 00:16	5° $\approx$ 30'00	1°12'30
minimum elong	12031 Nov 01 11:48	20° $\approx$ 42'35	1°27'19	minimum elong	12032 Oct 15 22:02	5° $\approx$ 17'39	1°12'35
	12031 Nov 05 16:09	0° $\approx$		evening rise	12032 Oct 22 17:29	20° $\approx$ 17'28	
evening rise	12031 Nov 08 07:24	5° $\approx$ 43'23			12032 Oct 27 09:14	0° $\approx$	
	12031 Nov 20 22:41	0° $\approx$		desc. node	12032 Nov 10 00:59	23° $\approx$ 15'31	
desc. node	12031 Nov 24 03:46	5° $\approx$ 10'41			12032 Nov 15 10:39	0° $\approx$	



































































































































evening max el	12032 Nov 18 06:52	2°  55'48	25°10'26		12033 Oct 20 10:43	0° 	
retrograde	12032 Dec 02 02:57	9°  52'18		desc. node	12033 Oct 27 22:16	10°  10'22	
evening set	12032 Dec 07 21:03	8°  37'37		evening max el	12033 Oct 30 17:26	13°  07'18	23°31'57
min. Earth dist.	12032 Dec 12 18:55	5°  56'21	0.56951 AU	retrograde	12033 Nov 13 04:01	19°  49'14	
inferior conj	12032 Dec 15 13:06	4°  30'03	-5°15'34	evening set	12033 Nov 17 15:33	19°  05'35	
minimum elong	12032 Dec 15 20:38	3°  54'34	5°13'18	min. Earth dist.	12033 Nov 24 03:29	16°  00'19	0.55422 AU
morning rise	12032 Dec 23 22:29	29°  55'50		inferior conj	12033 Nov 25 22:10	14°  57'34	-5°50'43
	12032 Dec 23 15:16	30°  R 		minimum elong	12033 Nov 25 23:48	14°  55'09	5°49'53
direct	12032 Dec 26 05:27	29°  40'36		morning rise	12033 Dec 04 09:50	11°  04'52	
	12032 Dec 28 17:51	0° 		direct	12033 Dec 07 05:24	10°  45'29	
asc. node	12033 Jan 03 19:43	3°  32'22		morning max el	12033 Dec 17 23:10	15°  51'52	20°22'02
morning max el	12033 Jan 04 10:58	4°  30'00	19°10'17	asc. node	12033 Dec 21 16:47	20°  00'40	
	12033 Jan 20 15:12	0° 			12033 Dec 28 07:08	0° 	
morning set	12033 Jan 21 05:29	1°  ≈10'46		morning set	12034 Jan 05 12:01	15°  34'14	
					12034 Jan 12 09:25	0° 	
superior conj	12033 Jan 29 11:41	17°  ≈28'39	0°57'17	superior conj	12034 Jan 13 01:45	1°  ≈22'43	1°17'59
minimum elong	12033 Jan 29 14:35	17°  ≈42'38	0°57'29	minimum elong	12034 Jan 13 04:22	1°  ≈36'00	1°18'25
	12033 Feb 05 04:35	0°  X		max. Earth dist.	12034 Jan 18 13:44	12°  ≈12'25	1.36442 AU
max. Earth dist.	12033 Feb 05 06:16	0°  X07'35	1.38616 AU	evening rise	12034 Jan 22 09:15	19°  ≈19'48	
desc. node	12033 Feb 06 00:33	1°  X29'39		desc. node	12034 Jan 23 21:17	22°  ≈02'45	
evening rise	12033 Feb 09 00:49	6°  X47'25			12034 Jan 28 10:57	0°  X	
	12033 Feb 23 11:58	0°  Y			12034 Feb 17 14:44	0°  Y	
evening max el	12033 Mar 16 08:19	26°  Y46'21	24°43'35	evening max el	12034 Feb 26 21:46	10°  Y36'31	25°55'06
	12033 Mar 19 22:54	0°  8		retrograde	12034 Mar 11 11:27	17°  Y48'21	
retrograde	12033 Mar 28 00:42	3°  835'07		evening set	12034 Mar 17 13:30	15°  Y19'07	
asc. node	12033 Apr 01 17:06	1°  857'40		asc. node	12034 Mar 19 14:28	13°  Y21'42	
evening set	12033 Apr 02 15:06	1°  814'39		min. Earth dist.	12034 Mar 21 19:14	10°  Y47'36	0.67263 AU
	12033 Apr 03 22:35	30°  R  Y		inferior conj	12034 Mar 23 08:32	8°  Y50'34	1°10'12
min. Earth dist.	12033 Apr 07 03:34	26°  Y07'55	0.68195 AU	minimum elong	12034 Mar 23 06:56	8°  Y55'37	1°09'35
inferior conj	12033 Apr 08 04:40	24°  Y44'34	1°55'09	morning rise	12034 Mar 29 01:00	3°  Y02'24	
minimum elong	12033 Apr 08 02:33	24°  Y51'37	1°54'13	direct	12034 Apr 01 07:48	2°  Y00'54	
morning rise	12033 Apr 13 14:12	18°  Y46'45		morning max el	12034 Apr 08 00:48	5°  Y38'13	18°48'43
direct	12033 Apr 17 08:26	17°  Y25'43		desc. node	12034 Apr 21 23:00	24°  Y31'11	
morning max el	12033 Apr 24 16:41	21°  Y30'25	19°42'51		12034 Apr 25 12:17	0°  8	
	12033 May 01 18:26	0°  8		morning set	12034 Apr 30 04:11	7°  815'03	
desc. node	12033 May 05 02:18	4°  838'19			12034 May 14 18:15	0°  II	
greatest brilliancy	12033 May 07 11:19	8°  804'29	-0.6m	max. Earth dist.	12034 May 14 23:21	0°  II19'57	1.45575 AU
morning set	12033 May 20 18:47	28°  809'00					
	12033 May 21 23:37	0°  II		superior conj	12034 May 16 12:15	2°  II44'28	-2°09'35
max. Earth dist.	12033 Jun 01 05:40	16°  II00'26	1.44698 AU	minimum elong	12034 May 16 07:32	2°  II26'01	2°10'07
				evening rise	12034 May 31 18:05	26°  II57'41	
superior conj	12033 Jun 05 23:27	23°  II34'44	-2°11'50		12034 Jun 02 15:21	0°  ☿	
minimum elong	12033 Jun 06 02:15	23°  II45'59	2°12'36	asc. node	12034 Jun 15 12:13	20°  ☿07'06	
	12033 Jun 09 22:24	0°  ☿		evening max el	12034 Jun 21 06:47	27°  ☿16'44	18°33'19
evening rise	12033 Jun 19 15:34	16°  ☿10'32			12034 Jun 24 19:17	0°  Ω	
	12033 Jun 27 21:40	0°  Ω		retrograde	12034 Jun 27 18:42	0°  Ω47'51	
asc. node	12033 Jun 28 15:14	1°  Ω11'07		evening set	12034 Jun 30 23:04	29°  ☿50'37	
evening max el	12033 Jul 07 18:03	13°  Ω41'20	18°09'35		12034 Jun 30 16:28	30°  R  ☿	
retrograde	12033 Jul 14 02:40	17°  Ω01'59		inferior conj	12034 Jul 06 15:47	24°  ☿15'45	2°55'56
evening set	12033 Jul 16 22:46	16°  Ω19'37		minimum elong	12034 Jul 06 17:38	24°  ☿10'09	2°54'51
inferior conj	12033 Jul 23 01:20	11°  Ω00'56	2°23'15	min. Earth dist.	12034 Jul 08 17:21	21°  ☿46'08	0.65226 AU
minimum elong	12033 Jul 23 03:54	10°  Ω53'52	2°21'56	morning rise	12034 Jul 12 11:12	17°  ☿54'30	
min. Earth dist.	12033 Jul 25 17:09	8°  Ω06'30	0.63272 AU	direct	12034 Jul 18 23:05	15°  ☿13'13	
morning rise	12033 Jul 29 07:17	4°  Ω47'21		desc. node	12034 Jul 18 22:47	15°  ☿13'13	
desc. node	12033 Aug 01 01:30	3°  Ω07'05		morning max el	12034 Aug 01 09:23	23°  ☿08'06	27°06'10
direct	12033 Aug 04 23:38	2°  Ω15'27			12034 Aug 07 11:30	0°  Ω	
morning max el	12033 Aug 18 22:32	10°  Ω17'21	27°48'14		12034 Aug 27 16:58	0°  ♍	
	12033 Sep 03 09:20	0°  ♍		morning set	12034 Sep 05 23:31	16°  ♍52'28	
	12033 Sep 20 18:01	0°  ♌		max. Earth dist.	12034 Sep 10 08:11	25°  ♍31'28	1.33587 AU
morning set	12033 Sep 22 13:12	3°  ♌34'18		asc. node	12034 Sep 11 12:54	27°  ♍58'25	
asc. node	12033 Sep 24 16:14	7°  ♌54'12			12034 Sep 12 12:24	0°  ♌	
max. Earth dist.	12033 Sep 27 14:39	14°  ♌03'35	1.32315 AU				
				superior conj	12034 Sep 14 10:22	4°  ♌00'48	0°27'45
superior conj	12033 Sep 30 07:55	19°  ♌54'55	0°52'42	minimum elong	12034 Sep 14 09:01	3°  ♌53'36	0°27'27
minimum elong	12033 Sep 30 05:48	19°  ♌43'26	0°52'31	evening rise	12034 Sep 21 15:25	19°  ♌23'04	
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evening rise	12033 Oct 07 04:48	4°  ♍52'49					




































































































































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desc. node	12034 Oct 14 19:38	25° $\mathbb{M}$ 29'24		minimum elong	12035 Aug 29 05:14	17° $\mathbb{M}$ 42'07	0°02'02
retrograde	12034 Oct 24 18:35	29° $\mathbb{M}$ 26'25		behind sun begin	12035 Aug 28 23:11	17° $\mathbb{M}$ 11'26	
evening set	12034 Oct 27 19:41	29° $\mathbb{M}$ 05'34		behind sun end	12035 Aug 29 11:17	18° $\mathbb{M}$ 12'51	
inferior conj	12034 Nov 05 16:45	25° $\mathbb{M}$ 09'13	-5°32'43	asc. node	12035 Aug 29 09:36	18° $\mathbb{M}$ 04'17	
minimum elong	12034 Nov 05 09:56	25° $\mathbb{M}$ 18'47	5°31'07		12035 Sep 04 04:17	0° $\mathbb{L}$	
min. Earth dist.	12034 Nov 05 10:03	25° $\mathbb{M}$ 18'36	0.54622 AU	evening rise	12035 Sep 05 23:21	3° $\mathbb{L}$ 43'08	
morning rise	12034 Nov 14 01:23	21° $\mathbb{M}$ 21'57			12035 Sep 20 21:27	0° $\mathbb{M}$	
direct	12034 Nov 17 15:13	20° $\mathbb{M}$ 53'55		evening max el	12035 Sep 24 06:00	3° $\mathbb{M}$ 49'11	20°25'13
morning max el	12034 Nov 29 21:33	26° $\mathbb{M}$ 44'00	21°55'15	desc. node	12035 Oct 01 17:02	8° $\mathbb{M}$ 43'57	
	12034 Dec 03 00:02	0° $\mathbb{X}$		retrograde	12035 Oct 05 06:20	9° $\mathbb{M}$ 17'26	
asc. node	12034 Dec 08 13:48	7° $\mathbb{X}$ 32'01		evening set	12035 Oct 07 08:37	9° $\mathbb{M}$ 06'26	
morning set	12034 Dec 20 22:09	0° $\mathbb{Z}$ 34'52		inferior conj	12035 Oct 16 09:35	5° $\mathbb{M}$ 10'10	-4°17'58
	12034 Dec 20 15:31	0° $\mathbb{Z}$		minimum elong	12035 Oct 15 23:35	5° $\mathbb{M}$ 24'46	4°14'37
				min. Earth dist.	12035 Oct 17 18:03	4° $\mathbb{M}$ 22'46	0.54745 AU
superior conj	12034 Dec 28 01:10	15° $\mathbb{Z}$ 41'46	1°31'22	morning rise	12035 Oct 24 13:58	1° $\mathbb{M}$ 07'56	
minimum elong	12034 Dec 28 02:54	15° $\mathbb{Z}$ 50'53	1°32'03	direct	12035 Oct 29 00:17	0° $\mathbb{M}$ 25'37	
max. Earth dist.	12035 Jan 01 02:25	24° $\mathbb{Z}$ 04'05	1.34526 AU	morning max el	12035 Nov 11 10:08	6° $\mathbb{M}$ 57'36	23°41'58
	12035 Jan 04 02:01	0° $\mathbb{Z}$		asc. node	12035 Nov 25 10:45	25° $\mathbb{M}$ 51'39	
evening rise	12035 Jan 05 09:31	2° $\mathbb{Z}$ 32'21			12035 Nov 27 18:14	0° $\mathbb{X}$	
desc. node	12035 Jan 10 18:07	12° $\mathbb{Z}$ 26'46		morning set	12035 Dec 05 09:53	15° $\mathbb{X}$ 21'44	
	12035 Jan 21 09:27	0° $\mathbb{X}$					
evening max el	12035 Feb 09 11:17	24° $\mathbb{X}$ 19'06	26°51'31	superior conj	12035 Dec 12 06:55	0° $\mathbb{Z}$ 16'42	1°37'57
	12035 Feb 16 19:23	0° $\mathbb{Y}$		minimum elong	12035 Dec 12 07:31	0° $\mathbb{Z}$ 20'00	1°38'47
retrograde	12035 Feb 22 16:49	1° $\mathbb{Y}$ 42'52			12035 Dec 12 03:50	0° $\mathbb{Z}$	
	12035 Feb 28 01:21	30° $\mathbb{X}$		max. Earth dist.	12035 Dec 14 22:54	6° $\mathbb{Z}$ 00'14	1.33014 AU
evening set	12035 Mar 01 05:07	29° $\mathbb{X}$ 09'49		evening rise	12035 Dec 19 22:05	16° $\mathbb{Z}$ 15'56	
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asc. node	12035 Mar 06 11:50	23° $\mathbb{X}$ 43'36		desc. node	12035 Dec 28 15:01	2° $\mathbb{Z}$ 36'16	
inferior conj	12035 Mar 07 06:36	22° $\mathbb{X}$ 48'41	0°15'09		12036 Jan 15 23:08	0° $\mathbb{X}$	
minimum elong	12035 Mar 07 06:11	22° $\mathbb{X}$ 49'55	0°15'10	evening max el	12036 Jan 23 00:12	7° $\mathbb{X}$ 43'57	27°25'30
transit middle	12035 Mar 07 06:11	22° $\mathbb{X}$ 49'55	0°15'10	retrograde	12036 Feb 05 15:48	15° $\mathbb{X}$ 09'09	
transit begin	12035 Mar 07 05:14	22° $\mathbb{X}$ 52'42		evening set	12036 Feb 12 11:41	12° $\mathbb{X}$ 38'56	
transit end	12035 Mar 07 07:08	22° $\mathbb{X}$ 47'08		min. Earth dist.	12036 Feb 16 07:30	9° $\mathbb{X}$ 12'45	0.64249 AU
morning rise	12035 Mar 13 08:32	17° $\mathbb{X}$ 12'01		inferior conj	12036 Feb 18 20:18	6° $\mathbb{X}$ 32'10	-0°50'00
direct	12035 Mar 16 05:11	16° $\mathbb{X}$ 27'09		minimum elong	12036 Feb 18 21:51	6° $\mathbb{X}$ 28'04	0°48'57
morning max el	12035 Mar 22 14:50	19° $\mathbb{X}$ 49'52	18°11'08	asc. node	12036 Feb 21 09:13	3° $\mathbb{X}$ 58'27	
	12035 Mar 30 11:52	0° $\mathbb{Y}$		morning rise	12036 Feb 25 10:01	1° $\mathbb{X}$ 09'19	
desc. node	12035 Apr 08 19:40	14° $\mathbb{Y}$ 43'00		direct	12036 Feb 27 22:08	0° $\mathbb{X}$ 37'28	
morning set	12035 Apr 10 15:31	17° $\mathbb{Y}$ 39'46		morning max el	12036 Mar 05 08:03	3° $\mathbb{X}$ 56'43	17°50'31
	12035 Apr 18 08:18	0° $\mathbb{Z}$		morning set	12036 Mar 22 07:14	29° $\mathbb{X}$ 27'02	
					12036 Mar 22 15:03	0° $\mathbb{Y}$	
superior conj	12035 Apr 25 19:44	11° $\mathbb{Z}$ 47'56	-1°47'19	desc. node	12036 Mar 25 16:16	5° $\mathbb{Y}$ 07'37	
minimum elong	12035 Apr 25 10:28	11° $\mathbb{Z}$ 11'35	1°47'01				
max. Earth dist.	12035 Apr 27 19:02	14° $\mathbb{Z}$ 53'04	1.45715 AU	superior conj	12036 Apr 04 15:24	21° $\mathbb{Y}$ 29'48	-1°10'52
	12035 May 07 11:55	0° $\mathbb{I}$		minimum elong	12036 Apr 04 07:58	20° $\mathbb{Y}$ 59'55	1°10'08
evening rise	12035 May 11 21:29	6° $\mathbb{I}$ 50'21		max. Earth dist.	12036 Apr 09 14:15	29° $\mathbb{Y}$ 23'24	1.45118 AU
greatest brilliancy	12035 May 23 15:09	24° $\mathbb{I}$ 56'03	-0.7m		12036 Apr 09 23:32	0° $\mathbb{Z}$	
	12035 May 27 01:10	0° $\mathbb{Z}$		evening rise	12036 Apr 20 10:22	16° $\mathbb{Z}$ 13'43	
asc. node	12035 Jun 02 09:19	8° $\mathbb{Z}$ 29'51			12036 Apr 29 12:25	0° $\mathbb{I}$	
evening max el	12035 Jun 04 15:49	10° $\mathbb{Z}$ 59'30	19°14'10	greatest brilliancy	12036 May 05 09:25	8° $\mathbb{I}$ 40'30	-0.6m
retrograde	12035 Jun 11 15:24	14° $\mathbb{Z}$ 53'36		evening max el	12036 May 17 19:35	24° $\mathbb{I}$ 45'06	20°10'39
evening set	12035 Jun 15 04:27	13° $\mathbb{Z}$ 40'30		asc. node	12036 May 19 06:29	26° $\mathbb{I}$ 07'39	
inferior conj	12035 Jun 20 14:52	7° $\mathbb{Z}$ 51'04	3°12'01	retrograde	12036 May 25 14:01	29° $\mathbb{I}$ 12'45	
minimum elong	12035 Jun 20 15:38	7° $\mathbb{Z}$ 48'31	3°11'07	evening set	12036 May 29 12:32	27° $\mathbb{I}$ 43'20	
min. Earth dist.	12035 Jun 22 01:40	5° $\mathbb{Z}$ 58'05	0.66805 AU	inferior conj	12036 Jun 03 19:38	21° $\mathbb{I}$ 40'50	3°14'28
morning rise	12035 Jun 26 02:17	1° $\mathbb{Z}$ 28'19		minimum elong	12036 Jun 03 19:20	21° $\mathbb{I}$ 41'52	3°13'39
	12035 Jun 28 01:53	30° $\mathbb{X}$		min. Earth dist.	12036 Jun 04 16:09	20° $\mathbb{I}$ 31'03	0.67938 AU
direct	12035 Jul 02 05:39	28° $\mathbb{I}$ 47'44		morning rise	12036 Jun 09 01:49	15° $\mathbb{I}$ 20'27	
desc. node	12035 Jul 05 19:59	29° $\mathbb{I}$ 33'55		direct	12036 Jun 14 17:53	12° $\mathbb{I}$ 49'39	
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morning max el	12035 Jul 14 20:15	6° $\mathbb{Z}$ 20'22	25°58'22	morning max el	12036 Jun 26 06:08	19° $\mathbb{I}$ 43'55	24°34'42
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morning set	12035 Aug 19 20:33	29° $\mathbb{L}$ 32'15			12036 Jul 25 06:43	0° $\mathbb{L}$	
	12035 Aug 20 02:34	0° $\mathbb{M}$		morning set	12036 Jul 31 23:55	11° $\mathbb{L}$ 22'35	
max. Earth dist.	12035 Aug 23 15:08	6° $\mathbb{M}$ 38'39	1.35352 AU	max. Earth dist.	12036 Aug 04 14:07	17° $\mathbb{L}$ 46'41	1.37503 AU
					12036 Aug 11 02:43	0° $\mathbb{M}$	

superior conj	12036 Aug 11 12:58	0° $\mathbb{M}$ 49'33	-0°34'44	minimum elong	12037 Jul 25 10:49	13° $\Omega$ 37'29	1°08'49
minimum elong	12036 Aug 11 15:17	1° $\mathbb{M}$ 00'49	0°34'46	asc. node	12037 Aug 02 03:04	28° $\Omega$ 06'04	
asc. node	12036 Aug 15 06:20	8° $\mathbb{M}$ 08'12			12037 Aug 03 02:51	0° $\mathbb{M}$	
evening rise	12036 Aug 20 02:12	17° $\mathbb{M}$ 47'02		evening rise	12037 Aug 03 20:55	1° $\mathbb{M}$ 26'38	
	12036 Aug 26 09:53	0° $\underline{\mathbf{A}}$		evening max el	12037 Aug 19 21:44	27° $\mathbb{M}$ 21'00	18°33'28
evening max el	12036 Sep 05 19:58	15° $\underline{\mathbf{A}}$ 12'34	19°18'36		12037 Aug 23 05:57	0° $\underline{\mathbf{A}}$	
retrograde	12036 Sep 15 03:51	19° $\underline{\mathbf{A}}$ 51'40		retrograde	12037 Aug 27 19:48	1° $\underline{\mathbf{A}}$ 19'55	
evening set	12036 Sep 17 00:09	19° $\underline{\mathbf{A}}$ 41'31		evening set	12037 Aug 29 19:50	1° $\underline{\mathbf{A}}$ 05'27	
desc. node	12036 Sep 17 14:27	19° $\underline{\mathbf{A}}$ 34'06			12037 Sep 01 15:54	30° $\mathbb{R}$ $\mathbb{M}$	
inferior conj	12036 Sep 25 14:42	15° $\underline{\mathbf{A}}$ 32'39	-2°29'59	desc. node	12037 Sep 04 11:52	28° $\mathbb{M}$ 14'18	
minimum elong	12036 Sep 25 08:08	15° $\underline{\mathbf{A}}$ 43'26	2°27'21	inferior conj	12037 Sep 06 16:19	26° $\mathbb{M}$ 36'38	-0°40'59
min. Earth dist.	12036 Sep 28 05:20	13° $\underline{\mathbf{A}}$ 49'55	0.55792 AU	minimum elong	12037 Sep 06 14:41	26° $\mathbb{M}$ 39'46	0°40'29
morning rise	12036 Oct 03 13:33	10° $\underline{\mathbf{A}}$ 58'45		min. Earth dist.	12037 Sep 09 22:01	24° $\mathbb{M}$ 08'05	0.57560 AU
direct	12036 Oct 08 19:55	9° $\underline{\mathbf{A}}$ 55'37		morning rise	12037 Sep 14 06:05	21° $\mathbb{M}$ 25'07	
morning max el	12036 Oct 22 20:55	17° $\underline{\mathbf{A}}$ 01'39	25°27'01	direct	12037 Sep 20 05:22	19° $\mathbb{M}$ 55'33	
	12036 Nov 02 11:43	0° $\mathbb{M}$		morning max el	12037 Oct 04 12:49	27° $\mathbb{M}$ 27'35	26°52'19
asc. node	12036 Nov 11 07:38	14° $\mathbb{M}$ 47'29			12037 Oct 07 00:05	0° $\underline{\mathbf{A}}$	
morning set	12036 Nov 18 21:28	0° $\mathbb{A}$ 05'04			12037 Oct 27 00:37	0° $\mathbb{M}$	
	12036 Nov 18 20:32	0° $\mathbb{A}$		asc. node	12037 Oct 29 04:26	4° $\mathbb{M}$ 09'24	
				morning set	12037 Nov 03 07:10	14° $\mathbb{M}$ 39'13	
superior conj	12036 Nov 25 16:35	15° $\mathbb{A}$ 00'19	1°38'17				
minimum elong	12036 Nov 25 16:05	14° $\mathbb{A}$ 57'31	1°39'04	superior conj	12037 Nov 10 04:03	29° $\mathbb{M}$ 45'24	1°32'43
max. Earth dist.	12036 Nov 27 02:41	18° $\mathbb{A}$ 08'13	1.31968 AU	minimum elong	12037 Nov 10 02:37	29° $\mathbb{M}$ 37'23	1°33'16
evening rise	12036 Dec 02 19:50	0° $\mathbb{Z}$ 22'31			12037 Nov 10 06:40	0° $\mathbb{A}$	
	12036 Dec 02 15:29	0° $\mathbb{Z}$		max. Earth dist.	12037 Nov 10 10:46	0° $\mathbb{A}$ 22'52	1.31412 AU
desc. node	12036 Dec 14 12:00	22° $\mathbb{Z}$ 24'49		evening rise	12037 Nov 17 00:03	14° $\mathbb{A}$ 44'00	
	12036 Dec 19 04:08	0° $\approx$			12037 Nov 24 15:24	0° $\mathbb{Z}$	
evening max el	12037 Jan 04 10:38	20° $\approx$ 38'56	27°30'26	desc. node	12037 Dec 01 09:04	11° $\mathbb{Z}$ 42'52	
retrograde	12037 Jan 18 07:15	27° $\approx$ 58'18			12037 Dec 14 20:41	0° $\approx$	
evening set	12037 Jan 25 06:25	25° $\approx$ 38'43		evening max el	12037 Dec 17 15:39	2° $\approx$ 49'37	27°01'44
min. Earth dist.	12037 Jan 29 00:11	22° $\approx$ 39'26	0.62293 AU	retrograde	12037 Dec 31 13:55	10° $\approx$ 00'43	
inferior conj	12037 Jan 31 22:38	19° $\approx$ 53'42	-2°04'02	evening set	12038 Jan 07 09:47	8° $\approx$ 00'12	
minimum elong	12037 Feb 01 02:51	19° $\approx$ 43'46	2°01'45	min. Earth dist.	12038 Jan 11 06:00	5° $\approx$ 19'34	0.60165 AU
asc. node	12037 Feb 07 06:32	15° $\approx$ 06'23		inferior conj	12038 Jan 14 10:02	2° $\approx$ 43'00	-3°23'21
morning rise	12037 Feb 08 01:51	14° $\approx$ 47'39		minimum elong	12038 Jan 14 17:03	2° $\approx$ 28'28	3°20'08
direct	12037 Feb 10 07:35	14° $\approx$ 25'00			12038 Jan 17 22:40	30° $\mathbb{R}$ $\mathbb{Z}$	
morning max el	12037 Feb 17 01:25	17° $\approx$ 50'47	17°47'33	morning rise	12038 Jan 22 03:11	27° $\mathbb{Z}$ 57'09	
	12037 Feb 25 19:38	0° $\mathbb{H}$		direct	12038 Jan 24 05:29	27° $\mathbb{Z}$ 40'10	
morning set	12037 Mar 04 22:09	12° $\mathbb{H}$ 20'40		asc. node	12038 Jan 25 03:47	27° $\mathbb{Z}$ 43'37	
desc. node	12037 Mar 12 12:53	25° $\mathbb{H}$ 41'02			12038 Jan 30 02:26	0° $\approx$	
	12037 Mar 15 01:29	0° $\mathbb{Y}$		morning max el	12038 Jan 31 15:31	1° $\approx$ 22'04	18°03'24
				morning set	12038 Feb 16 05:56	26° $\approx$ 00'55	
superior conj	12037 Mar 16 10:01	2° $\mathbb{Y}$ 17'21	-0°29'32		12038 Feb 18 09:25	0° $\mathbb{H}$	
minimum elong	12037 Mar 16 07:08	2° $\mathbb{Y}$ 05'15	0°29'02				
max. Earth dist.	12037 Mar 23 07:07	13° $\mathbb{Y}$ 37'12	1.43852 AU	superior conj	12038 Feb 26 04:52	14° $\mathbb{H}$ 12'53	0°09'20
evening rise	12037 Mar 31 00:09	25° $\mathbb{Y}$ 48'09		minimum elong	12038 Feb 26 05:39	14° $\mathbb{H}$ 16'18	0°09'30
	12037 Apr 02 17:36	0° $\mathbb{B}$		behind sun begin	12038 Feb 25 23:18	13° $\mathbb{H}$ 48'09	
	12037 Apr 23 12:18	0° $\mathbb{II}$		behind sun end	12038 Feb 26 11:59	14° $\mathbb{H}$ 44'22	
evening max el	12037 Apr 30 17:40	8° $\mathbb{II}$ 31'30	21°19'55	desc. node	12038 Feb 27 09:30	16° $\mathbb{H}$ 19'11	
asc. node	12037 May 06 03:43	12° $\mathbb{II}$ 46'29		max. Earth dist.	12038 Mar 05 19:44	27° $\mathbb{H}$ 19'22	1.42041 AU
retrograde	12037 May 09 12:33	13° $\mathbb{II}$ 40'09			12038 Mar 07 10:29	0° $\mathbb{Y}$	
evening set	12037 May 13 21:22	11° $\mathbb{II}$ 54'35		evening rise	12038 Mar 11 04:19	6° $\mathbb{Y}$ 04'47	
inferior conj	12037 May 19 03:43	5° $\mathbb{II}$ 40'37	3°05'22		12038 Mar 26 22:53	0° $\mathbb{B}$	
minimum elong	12037 May 19 02:30	5° $\mathbb{II}$ 44'52	3°04'29	evening max el	12038 Apr 13 10:53	22° $\mathbb{B}$ 19'03	22°37'43
min. Earth dist.	12037 May 19 10:41	5° $\mathbb{II}$ 16'23	0.68601 AU	retrograde	12038 Apr 23 09:23	28° $\mathbb{B}$ 11'07	
	12037 May 23 16:28	30° $\mathbb{R}$ $\mathbb{B}$		asc. node	12038 Apr 23 00:58	28° $\mathbb{B}$ 10'32	
morning rise	12037 May 24 07:25	29° $\mathbb{B}$ 24'56		evening set	12038 Apr 28 05:19	26° $\mathbb{B}$ 10'21	
direct	12037 May 29 10:42	27° $\mathbb{B}$ 10'31		inferior conj	12038 May 03 13:04	19° $\mathbb{B}$ 47'15	2°45'52
	12037 Jun 05 01:24	0° $\mathbb{II}$		minimum elong	12038 May 03 11:12	19° $\mathbb{B}$ 53'45	2°44'55
morning max el	12037 Jun 08 16:27	3° $\mathbb{II}$ 15'12	23°05'02	min. Earth dist.	12038 May 03 07:13	20° $\mathbb{B}$ 07'37	0.68794 AU
desc. node	12037 Jun 08 14:05	3° $\mathbb{II}$ 09'15		morning rise	12038 May 08 16:58	13° $\mathbb{B}$ 37'34	
	12037 Jun 29 02:18	0° $\mathbb{B}$		direct	12038 May 13 06:59	11° $\mathbb{B}$ 43'21	
morning set	12037 Jul 13 04:40	22° $\mathbb{B}$ 10'52		morning max el	12038 May 22 06:17	16° $\mathbb{B}$ 56'04	21°38'15
max. Earth dist.	12037 Jul 17 11:50	29° $\mathbb{B}$ 27'10	1.39827 AU	desc. node	12038 May 26 11:00	21° $\mathbb{B}$ 35'26	
	12037 Jul 17 19:27	0° $\Omega$			12038 Jun 01 22:47	0° $\mathbb{II}$	
					12038 Jun 22 03:44	0° $\mathbb{B}$	
superior conj	12037 Jul 25 05:55	13° $\Omega$ 14'58	-1°08'55	morning set	12038 Jun 23 07:43	1° $\mathbb{B}$ 50'46	

max. Earth dist.	12038 Jun 29 14:01	11°☿59'05	1.42040 AU		12039 Jun 14 19:46	0°☿	
superior conj	12038 Jul 07 03:28	24°☿47'35	-1°40'41	superior conj	12039 Jun 18 01:43	5°☿19'02	-2°04'29
minimum elong	12038 Jul 07 10:13	25°☿16'54	1°40'44	minimum elong	12039 Jun 18 07:21	5°☿42'16	2°05'00
	12038 Jul 10 02:40	0°♊		evening rise	12039 Jun 30 17:44	26°☿51'36	
evening rise	12038 Jul 18 03:42	14°♊32'21			12039 Jul 02 13:04	0°♊	
asc. node	12038 Jul 19 23:51	17°♊53'58		asc. node	12039 Jul 06 20:41	7°♊26'31	
	12038 Jul 26 21:06	0°♋		evening max el	12039 Jul 17 20:47	23°♊17'53	18°04'03
evening max el	12038 Aug 03 07:19	10°♋06'16	18°09'02	retrograde	12039 Jul 24 07:54	26°♊38'54	
retrograde	12038 Aug 10 06:29	13°♋39'00		evening set	12039 Jul 26 23:12	26°♊04'32	
evening set	12038 Aug 12 13:43	13°♋16'14		inferior conj	12039 Aug 02 09:12	20°♊56'12	1°55'28
inferior conj	12038 Aug 19 15:33	8°♋26'50	0°49'16	minimum elong	12039 Aug 02 11:48	20°♊49'29	1°54'07
minimum elong	12038 Aug 19 17:05	8°♋23'23	0°48'20	min. Earth dist.	12039 Aug 05 08:14	17°♊54'44	0.62019 AU
desc. node	12038 Aug 22 09:16	5°♋59'18		morning rise	12039 Aug 08 22:04	14°♊50'21	
min. Earth dist.	12038 Aug 22 22:34	5°♋30'35	0.59739 AU	desc. node	12039 Aug 09 06:38	14°♊35'33	
morning rise	12038 Aug 26 17:14	2°♋42'50		direct	12039 Aug 15 14:23	12°♊28'08	
direct	12038 Sep 02 04:13	0°♋44'56		morning max el	12039 Aug 29 18:12	20°♊29'49	27°57'28
morning max el	12038 Sep 16 12:22	8°♋36'03	27°44'13		12039 Sep 06 22:40	0°♋	
	12038 Oct 02 20:55	0°♌			12039 Sep 25 21:20	0°♌	
asc. node	12038 Oct 16 01:11	23°♌50'25		morning set	12039 Oct 02 13:36	13°♌01'52	
morning set	12038 Oct 18 13:12	28°♌59'58		asc. node	12039 Oct 02 21:52	13°♌44'20	
	12038 Oct 19 00:36	0°♍		max. Earth dist.	12039 Oct 08 01:09	24°♌37'30	1.31810 AU
max. Earth dist.	12038 Oct 24 19:34	12°♍36'08	1.31357 AU				
				superior conj	12039 Oct 10 01:07	28°♌59'47	1°04'45
superior conj	12038 Oct 25 15:31	14°♍27'03	1°21'28	minimum elong	12039 Oct 09 22:52	28°♌47'25	1°04'42
minimum elong	12038 Oct 25 13:27	14°♍15'34	1°21'44		12039 Oct 10 12:04	0°♍	
evening rise	12038 Nov 01 08:33	29°♍14'56		evening rise	12039 Oct 16 19:22	13°♍50'02	
	12038 Nov 01 16:58	0°♎			12039 Oct 24 19:09	0°♎	
desc. node	12038 Nov 18 06:12	0°♏18'54		desc. node	12039 Nov 05 03:26	17°♎56'58	
	12038 Nov 18 01:08	0°♐		evening max el	12039 Nov 11 02:03	24°♎38'40	24°29'53
evening max el	12038 Nov 29 12:46	14°♐07'58	25°59'08		12039 Nov 18 12:00	0°♐	
retrograde	12038 Dec 13 10:42	21°♐10'51		retrograde	12039 Nov 24 19:44	1°♐30'53	
evening set	12038 Dec 19 17:33	19°♐37'34		evening set	12039 Nov 30 01:47	0°♐29'51	
min. Earth dist.	12038 Dec 24 01:33	17°♐01'42	0.58053 AU		12039 Dec 01 06:46	30°♑♎	
inferior conj	12038 Dec 27 03:00	14°♐50'25	-4°39'20	min. Earth dist.	12039 Dec 05 13:31	27°♎40'29	0.56219 AU
minimum elong	12038 Dec 27 11:26	14°♐35'18	4°36'19	inferior conj	12039 Dec 07 23:30	26°♎09'42	-5°35'51
morning rise	12039 Jan 04 07:59	10°♐27'02		minimum elong	12039 Dec 08 05:12	26°♎00'43	5°34'18
direct	12039 Jan 06 11:18	10°♐12'17		morning rise	12039 Dec 16 10:44	22°♎07'19	
asc. node	12039 Jan 12 01:00	11°♐59'17		direct	12039 Dec 18 21:50	21°♎51'02	
morning max el	12039 Jan 14 22:34	14°♐20'15	18°39'38	morning max el	12039 Dec 28 18:40	26°♎34'34	19°38'04
	12039 Jan 25 16:15	0°♑		asc. node	12039 Dec 29 22:09	27°♎44'15	
morning set	12039 Jan 31 01:25	10°♑12'09			12039 Dec 31 21:05	0°♐	
				morning set	12040 Jan 15 04:49	24°♐43'34	
superior conj	12039 Feb 08 20:12	27°♑05'05	0°41'55		12040 Jan 17 19:23	0°♑	
minimum elong	12039 Feb 08 22:46	27°♑17'08	0°42'01				
	12039 Feb 10 09:50	0°♒		superior conj	12040 Jan 23 03:15	10°♑40'36	1°06'58
desc. node	12039 Feb 14 06:07	6°♒58'23		minimum elong	12040 Jan 23 06:09	10°♑54'49	1°07'16
max. Earth dist.	12039 Feb 16 03:35	10°♒18'46	1.39893 AU	max. Earth dist.	12040 Jan 29 09:34	22°♑38'34	1.37663 AU
evening rise	12039 Feb 20 05:09	17°♒16'27		desc. node	12040 Feb 01 02:49	27°♑35'15	
	12039 Feb 28 01:53	0°♓		evening rise	12040 Feb 02 02:56	29°♑22'33	
	12039 Mar 21 11:47	0°♈			12040 Feb 02 11:25	0°♒	
evening max el	12039 Mar 27 01:09	6°♈08'33	23°58'27		12040 Feb 21 09:30	0°♓	
retrograde	12039 Apr 07 03:17	12°♈39'55		evening max el	12040 Mar 08 14:36	20°♓00'14	25°15'27
asc. node	12039 Apr 09 22:16	12°♈04'06		retrograde	12040 Mar 20 17:01	27°♓00'58	
evening set	12039 Apr 12 10:49	10°♈25'49		evening set	12040 Mar 26 12:19	24°♓36'24	
min. Earth dist.	12039 Apr 17 03:36	4°♈58'42	0.68534 AU	asc. node	12040 Mar 26 19:36	24°♓20'33	
inferior conj	12039 Apr 17 21:48	3°♈56'51	2°16'31	min. Earth dist.	12040 Mar 30 21:46	19°♓44'31	0.67843 AU
minimum elong	12039 Apr 17 19:38	4°♈04'12	2°15'32	inferior conj	12040 Apr 01 04:03	18°♓06'02	1°37'22
	12039 Apr 20 24:00	30°♑♓		minimum elong	12040 Apr 01 02:04	18°♓12'29	1°36'31
morning rise	12039 Apr 23 04:31	27°♓54'18		morning rise	12040 Apr 06 16:11	12°♓11'55	
direct	12039 Apr 27 05:40	26°♓21'27		direct	12040 Apr 10 05:20	10°♓59'34	
	12039 May 04 06:17	0°♈		morning max el	12040 Apr 17 06:18	14°♓51'26	19°17'49
morning max el	12039 May 05 02:28	0°♈48'13	20°21'03		12040 Apr 28 22:11	0°♈	
desc. node	12039 May 13 07:49	10°♈43'54		desc. node	12040 Apr 29 04:34	0°♈23'30	
	12039 May 26 14:45	0°♉		greatest brilliancy	12040 Apr 30 01:54	1°♈42'26	-0.7m
morning set	12039 Jun 02 13:10	10°♉35'05		morning set	12040 May 11 14:27	19°♈14'24	
max. Earth dist.	12039 Jun 11 22:33	25°♉20'54	1.43885 AU		12040 May 18 13:13	0°♉	

max. Earth dist.	12040 May 24 13:07	9° $\Pi$ 22'46	1.45160 AU		12041 Apr 22 03:14	0° $\mathcal{B}$	
superior conj	12040 May 28 00:49	14° $\Pi$ 53'23	-2°13'23	superior conj	12041 May 07 09:11	23° $\mathcal{B}$ 54'53	-2°02'23
minimum elong	12040 May 28 00:35	14° $\Pi$ 52'30	2°14'10	minimum elong	12041 May 07 01:46	23° $\mathcal{B}$ 25'53	2°02'36
	12040 Jun 06 10:03	0° $\mathcal{E}$		max. Earth dist.	12041 May 07 08:04	23° $\mathcal{B}$ 50'32	1.45731 AU
evening rise	12040 Jun 11 10:12	8° $\mathcal{E}$ 13'58			12041 May 11 06:35	0° $\Pi$	
asc. node	12040 Jun 22 17:37	26° $\mathcal{E}$ 38'10		evening rise	12041 May 23 02:23	18° $\Pi$ 36'20	
	12040 Jun 24 23:45	0° $\mathcal{Q}$			12041 May 30 07:19	0° $\mathcal{E}$	
evening max el	12040 Jun 30 10:42	6° $\mathcal{Q}$ 47'24	18°17'33	greatest brilliancy	12041 May 31 21:21	2° $\mathcal{E}$ 28'56	-0.8m
retrograde	12040 Jul 06 19:38	10° $\mathcal{Q}$ 10'41		asc. node	12041 Jun 09 14:38	15° $\mathcal{E}$ 21'38	
evening set	12040 Jul 09 19:13	9° $\mathcal{Q}$ 22'14		evening max el	12041 Jun 13 22:14	20° $\mathcal{E}$ 27'31	18°48'42
inferior conj	12040 Jul 15 17:11	3° $\mathcal{Q}$ 56'45	2°39'21	retrograde	12041 Jun 20 13:57	24° $\mathcal{E}$ 06'32	
minimum elong	12040 Jul 15 19:31	3° $\mathcal{Q}$ 50'03	2°38'06	evening set	12041 Jun 23 22:03	23° $\mathcal{E}$ 02'29	
min. Earth dist.	12040 Jul 18 03:14	1° $\mathcal{Q}$ 10'49	0.64151 AU	inferior conj	12041 Jun 29 11:41	17° $\mathcal{E}$ 21'22	3°04'34
	12040 Jul 19 05:31	30° $\mathcal{R}$ $\mathcal{E}$		minimum elong	12041 Jun 29 13:06	17° $\mathcal{E}$ 16'56	3°03'34
morning rise	12040 Jul 21 18:23	27° $\mathcal{E}$ 39'04		min. Earth dist.	12041 Jul 01 06:57	15° $\mathcal{E}$ 06'21	0.65955 AU
desc. node	12040 Jul 26 03:59	25° $\mathcal{E}$ 18'46		morning rise	12041 Jul 05 03:24	10° $\mathcal{E}$ 59'11	
direct	12040 Jul 28 09:37	25° $\mathcal{E}$ 01'33		direct	12041 Jul 11 12:13	8° $\mathcal{E}$ 17'01	
	12040 Aug 07 21:22	0° $\mathcal{Q}$		desc. node	12041 Jul 13 01:14	8° $\mathcal{E}$ 25'27	
morning max el	12040 Aug 11 03:45	3° $\mathcal{Q}$ 02'19	27°33'52	morning max el	12041 Jul 24 14:40	16° $\mathcal{E}$ 03'32	26°39'53
	12040 Aug 31 08:08	0° $\mathcal{P}$			12041 Aug 05 02:51	0° $\mathcal{Q}$	
morning set	12040 Sep 15 05:54	26° $\mathcal{P}$ 38'18			12041 Aug 24 04:12	0° $\mathcal{P}$	
	12040 Sep 16 22:15	0° $\mathcal{E}$		morning set	12041 Aug 29 11:05	9° $\mathcal{P}$ 41'56	
asc. node	12040 Sep 18 18:33	3° $\mathcal{E}$ 46'14		max. Earth dist.	12041 Sep 02 12:58	17° $\mathcal{P}$ 37'06	1.34286 AU
max. Earth dist.	12040 Sep 19 23:48	6° $\mathcal{E}$ 18'13	1.32790 AU	asc. node	12041 Sep 05 15:13	23° $\mathcal{P}$ 52'06	
superior conj	12040 Sep 23 06:52	13° $\mathcal{E}$ 17'43	0°42'43	superior conj	12041 Sep 07 06:28	27° $\mathcal{P}$ 14'44	0°15'45
minimum elong	12040 Sep 23 04:59	13° $\mathcal{E}$ 07'37	0°42'28	minimum elong	12041 Sep 07 05:39	27° $\mathcal{P}$ 10'25	0°15'28
evening rise	12040 Sep 30 06:38	28° $\mathcal{E}$ 23'55		behind sun begin	12041 Sep 07 04:02	27° $\mathcal{P}$ 02'04	
	12040 Oct 01 00:42	0° $\mathcal{M}$		behind sun end	12041 Sep 07 07:15	27° $\mathcal{P}$ 18'47	
	12040 Oct 18 06:32	0° $\mathcal{J}$			12041 Sep 08 14:08	0° $\mathcal{E}$	
desc. node	12040 Oct 22 00:46	4° $\mathcal{J}$ 14'50		evening rise	12041 Sep 14 16:27	12° $\mathcal{E}$ 51'30	
evening max el	12040 Oct 22 12:30	4° $\mathcal{J}$ 43'52	22°48'42		12041 Sep 23 10:26	0° $\mathcal{M}$	
retrograde	12040 Nov 04 15:40	11° $\mathcal{J}$ 15'24		evening max el	12041 Oct 04 05:16	14° $\mathcal{M}$ 59'55	21°12'51
evening set	12040 Nov 08 11:57	10° $\mathcal{J}$ 43'12		desc. node	12041 Oct 08 22:08	18° $\mathcal{M}$ 45'12	
min. Earth dist.	12040 Nov 15 21:07	7° $\mathcal{J}$ 22'08	0.54973 AU	retrograde	12041 Oct 16 03:13	20° $\mathcal{M}$ 55'05	
inferior conj	12040 Nov 17 01:20	6° $\mathcal{J}$ 41'53	-5°50'30	evening set	12041 Oct 18 16:48	20° $\mathcal{M}$ 39'44	
minimum elong	12040 Nov 16 23:14	6° $\mathcal{J}$ 44'53	5°49'40	inferior conj	12041 Oct 27 17:23	16° $\mathcal{M}$ 45'12	-5°07'05
morning rise	12040 Nov 25 12:00	2° $\mathcal{J}$ 53'14		minimum elong	12041 Oct 27 08:13	16° $\mathcal{M}$ 58'04	5°04'35
direct	12040 Nov 28 14:54	2° $\mathcal{J}$ 30'40		min. Earth dist.	12041 Oct 28 03:42	16° $\mathcal{M}$ 30'40	0.54562 AU
morning max el	12040 Dec 10 00:49	7° $\mathcal{J}$ 56'05	20°59'20	morning rise	12041 Nov 05 00:16	12° $\mathcal{M}$ 54'28	
asc. node	12040 Dec 15 19:14	14° $\mathcal{J}$ 41'40		direct	12041 Nov 08 23:05	12° $\mathcal{M}$ 20'56	
	12040 Dec 24 20:56	0° $\mathcal{Z}$		morning max el	12041 Nov 21 18:05	18° $\mathcal{M}$ 28'53	22°39'42
morning set	12040 Dec 29 13:10	9° $\mathcal{Z}$ 26'00			12041 Dec 01 00:50	0° $\mathcal{J}$	
superior conj	12041 Jan 05 21:42	24° $\mathcal{Z}$ 46'26	1°24'30	asc. node	12041 Dec 02 16:15	2° $\mathcal{J}$ 35'36	
minimum elong	12041 Jan 05 24:00	24° $\mathcal{Z}$ 58'16	1°25'04	morning set	12041 Dec 14 00:14	24° $\mathcal{J}$ 13'10	
	12041 Jan 08 11:19	0° $\mathcal{A}$			12041 Dec 16 17:08	0° $\mathcal{Z}$	
max. Earth dist.	12041 Jan 10 18:46	4° $\mathcal{A}$ 35'17	1.35585 AU	superior conj	12041 Dec 21 00:08	9° $\mathcal{Z}$ 13'12	1°34'56
evening rise	12041 Jan 14 18:36	12° $\mathcal{A}$ 13'37		minimum elong	12041 Dec 21 01:25	9° $\mathcal{Z}$ 19'58	1°35'43
desc. node	12041 Jan 17 23:35	18° $\mathcal{A}$ 05'11		max. Earth dist.	12041 Dec 24 11:01	16° $\mathcal{Z}$ 28'59	1.33835 AU
	12041 Jan 24 23:00	0° $\mathcal{H}$		evening rise	12041 Dec 29 00:32	25° $\mathcal{Z}$ 40'30	
	12041 Feb 15 12:38	0° $\mathcal{Y}$			12041 Dec 31 06:27	0° $\mathcal{A}$	
evening max el	12041 Feb 19 04:18	3° $\mathcal{Y}$ 49'01	26°21'29	desc. node	12042 Jan 04 20:25	8° $\mathcal{A}$ 23'44	
retrograde	12041 Mar 04 01:33	11° $\mathcal{Y}$ 06'56			12042 Jan 18 09:22	0° $\mathcal{H}$	
evening set	12041 Mar 10 08:03	8° $\mathcal{Y}$ 35'45		evening max el	12042 Feb 01 17:53	17° $\mathcal{H}$ 25'46	27°09'06
asc. node	12041 Mar 13 17:00	5° $\mathcal{Y}$ 12'44		retrograde	12042 Feb 15 04:01	24° $\mathcal{H}$ 50'16	
min. Earth dist.	12041 Mar 14 11:23	4° $\mathcal{Y}$ 18'35	0.66741 AU	evening set	12042 Feb 21 20:04	22° $\mathcal{H}$ 17'39	
inferior conj	12041 Mar 16 05:45	2° $\mathcal{Y}$ 09'35	0°48'09	min. Earth dist.	12042 Feb 25 18:16	18° $\mathcal{H}$ 33'52	0.65260 AU
minimum elong	12041 Mar 16 04:33	2° $\mathcal{Y}$ 13'14	0°47'44	inferior conj	12042 Feb 28 00:34	16° $\mathcal{H}$ 02'04	-0°11'17
	12041 Mar 18 01:26	30° $\mathcal{R}$ $\mathcal{H}$		minimum elong	12042 Feb 28 00:53	16° $\mathcal{H}$ 01'11	0°10'52
morning rise	12041 Mar 22 01:54	26° $\mathcal{H}$ 25'45		transit middle	12042 Feb 28 00:53	16° $\mathcal{H}$ 01'11	0°10'52
direct	12041 Mar 25 04:15	25° $\mathcal{H}$ 31'36		transit begin	12042 Feb 27 22:40	16° $\mathcal{H}$ 07'24	
morning max el	12041 Mar 31 17:06	29° $\mathcal{H}$ 01'16	18°30'38	transit end	12042 Feb 28 03:06	15° $\mathcal{H}$ 54'59	
	12041 Apr 01 16:01	0° $\mathcal{Y}$		asc. node	12042 Feb 28 14:24	15° $\mathcal{H}$ 23'29	
desc. node	12041 Apr 16 01:15	20° $\mathcal{Y}$ 25'19		morning rise	12042 Mar 06 07:14	10° $\mathcal{H}$ 30'53	
morning set	12041 Apr 21 09:46	28° $\mathcal{Y}$ 51'08		direct	12042 Mar 09 00:10	9° $\mathcal{H}$ 51'52	


































































































































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	12042 Mar 27 08:39	0° 		minimum elong	12043 Feb 11 12:25	29°  30'32	1°18'54
morning set	12042 Apr 02 09:28	9°  52'08			12043 Feb 11 00:48	30° 	
desc. node	12042 Apr 02 21:53	10°  43'02		asc. node	12043 Feb 15 11:46	25°  54'31	
	12042 Apr 14 20:06	0° 		morning rise	12043 Feb 18 05:09	24°  21'22	
				direct	12043 Feb 20 14:17	23°  53'52	
superior conj	12042 Apr 16 19:45	3°  08'49	-1°33'02	morning max el	12043 Feb 27 02:32	27°  14'26	17°47'07
minimum elong	12042 Apr 16 10:37	2°  32'40	1°32'26		12043 Mar 01 13:44	0° 	
max. Earth dist.	12042 Apr 20 04:25	8°  26'17	1.45551 AU	morning set	12043 Mar 15 11:50	22°  10'09	
evening rise	12042 May 02 22:00	28°  12'10			12043 Mar 20 01:31	0° 	
	12042 May 04 02:01	0° 		desc. node	12043 Mar 20 18:29	1°  12'04	
greatest brilliancy	12042 May 16 12:11	18°  51'16	-0.7m				
	12042 May 24 12:49	0° 		superior conj	12043 Mar 28 00:33	13°  17'37	-0°53'25
asc. node	12042 May 27 11:45	3°  26'45		minimum elong	12043 Mar 27 19:01	12°  54'55	0°52'44
evening max el	12042 May 28 05:08	4°  11'46	19°36'25	max. Earth dist.	12043 Apr 02 22:57	22°  51'58	1.44648 AU
retrograde	12042 Jun 04 11:47	8°  18'51			12043 Apr 07 11:36	0° 	
evening set	12042 Jun 08 04:51	6°  58'37		evening rise	12043 Apr 12 09:18	7°  35'31	
inferior conj	12042 Jun 13 13:29	1°  03'16	3°14'35		12043 Apr 27 09:00	0° 	
minimum elong	12042 Jun 13 13:48	1°  02'13	3°13'43	evening max el	12043 May 11 06:21	17°  57'32	20°38'44
	12042 Jun 14 08:29	30°  11'11		asc. node	12043 May 14 08:57	20°  11'38	
min. Earth dist.	12042 Jun 14 18:01	29°  28'29	0.67342 AU	retrograde	12043 May 19 10:43	22°  42'31	
morning rise	12042 Jun 18 22:21	24°  11'17		evening set	12043 May 23 13:29	21°  06'06	
direct	12042 Jun 24 21:05	22°  04'15		inferior conj	12043 May 28 19:57	14°  58'13	3°11'56
desc. node	12042 Jun 29 22:25	23°  13'51		minimum elong	12043 May 28 19:14	15°  00'42	3°11'07
morning max el	12042 Jul 07 01:13	29°  21'54	25°24'16	min. Earth dist.	12043 May 29 10:33	14°  07'52	0.68270 AU
	12042 Jul 07 16:03	0° 		morning rise	12043 Jun 03 00:43	8°  13'28	
	12042 Jul 29 22:42	0° 		direct	12043 Jun 08 11:19	6°  15'11	
morning set	12042 Aug 12 01:10	22°  02'07		desc. node	12043 Jun 16 19:27	10°  12'04	
max. Earth dist.	12042 Aug 15 16:24	28°  04'20	1.36235 AU	morning max el	12043 Jun 19 11:13	12°  14'54	23°56'49
	12042 Aug 16 08:41	0° 			12043 Jul 03 07:12	0° 	
					12043 Jul 22 18:28	0° 	
superior conj	12042 Aug 21 20:59	10°  14'35	-0°15'26	morning set	12043 Jul 24 19:32	3°  02'00	
minimum elong	12042 Aug 21 21:58	10°  14'26	0°15'36	max. Earth dist.	12043 Jul 28 14:00	10°  01'53	1.38484 AU
behind sun begin	12042 Aug 21 20:20	10°  13'20					
behind sun end	12042 Aug 21 23:35	10°  15'32		superior conj	12043 Aug 04 22:59	23°  03'33	-0°49'14
asc. node	12042 Aug 23 11:53	13°  15'31		minimum elong	12043 Aug 05 02:24	23°  04'44	0°49'13
evening rise	12042 Aug 29 22:32	27°  05'54			12043 Aug 08 07:32	0° 	
	12042 Aug 31 08:53	0° 		asc. node	12043 Aug 10 08:36	3°  15'18	
evening max el	12042 Sep 16 11:00	25°  05'49	19°54'08	evening rise	12043 Aug 13 22:20	11°  00'40	
	12042 Sep 22 02:05	0° 			12043 Aug 24 08:25	0° 	
desc. node	12042 Sep 25 19:33	0°  15'48		evening max el	12043 Aug 30 06:22	7°  03'03	18°56'46
retrograde	12042 Sep 26 17:58	1°  02'14		retrograde	12043 Sep 07 22:57	11°  05'50	
evening set	12042 Sep 28 15:56	0°  15'21		evening set	12043 Sep 09 19:53	11°  04'31	
	12042 Oct 01 16:38	30°  15'11		desc. node	12043 Sep 12 16:58	10°  05'53	
inferior conj	12042 Oct 07 13:53	26°  05'13	-3°34'09	inferior conj	12043 Sep 18 03:14	7°  30'43	-1°42'21
minimum elong	12042 Oct 07 04:49	27°  05'23	3°30'48	minimum elong	12043 Sep 17 22:52	7°  38'24	1°40'36
min. Earth dist.	12042 Oct 09 12:34	25°  04'22	0.55088 AU	min. Earth dist.	12043 Sep 21 02:12	5°  26'31	0.56472 AU
morning rise	12042 Oct 15 16:17	22°  03'31		morning rise	12043 Sep 25 22:38	2°  40'18	
direct	12042 Oct 20 11:06	21°  04'27		direct	12043 Oct 01 12:29	1°  26'27	
morning max el	12042 Nov 03 04:58	28°  03'42	24°28'01	morning max el	12043 Oct 15 17:32	8°  05'16	26°06'38
	12042 Nov 04 15:39	0° 			12043 Oct 31 16:12	0° 	
asc. node	12042 Nov 19 13:10	21°  11'46		asc. node	12043 Nov 06 09:59	10°  19'32	
	12042 Nov 24 04:14	0° 		morning set	12043 Nov 12 23:05	23°  13'18	
morning set	12042 Nov 28 12:07	8°  15'16			12043 Nov 15 21:06	0° 	
superior conj	12042 Dec 05 07:49	23°  15'23	1°38'50	superior conj	12043 Nov 19 18:30	8°  17'44	1°36'38
minimum elong	12042 Dec 05 07:57	23°  15'16	1°39'40	minimum elong	12043 Nov 19 17:34	8°  17'33	1°37'20
max. Earth dist.	12042 Dec 07 10:54	28°  15'17	1.32509 AU	max. Earth dist.	12043 Nov 20 16:43	10°  17'57	1.31666 AU
	12042 Dec 08 03:34	0° 		evening rise	12043 Nov 26 18:06	23°  17'48'00	
evening rise	12042 Dec 12 17:19	9°  15'24			12043 Nov 29 18:41	0° 	
desc. node	12042 Dec 22 17:21	28°  15'13		desc. node	12043 Dec 09 14:21	18°  15'57	
	12042 Dec 23 15:25	0° 			12043 Dec 17 09:31	0° 	
	12043 Jan 14 13:46	0° 		evening max el	12043 Dec 28 14:06	13°  15'51	27°22'29
evening max el	12043 Jan 15 05:50	0°  15'54	27°31'24	retrograde	12044 Jan 11 12:03	20°  15'24	
retrograde	12043 Jan 28 23:51	8°  15'22		evening set	12044 Jan 18 10:41	18°  15'05	
evening set	12043 Feb 04 21:59	5°  15'19		min. Earth dist.	12044 Jan 22 04:34	15°  15'07	0.61392 AU
min. Earth dist.	12043 Feb 08 16:27	2°  15'41	0.63446 AU	inferior conj	12044 Jan 25 06:13	12°  15'01	-2°37'27

minimum elong	12044 Jan 25 11:40	12°  33'50	2°34'41			12044 Dec 16 02:03	0° 	
morning rise	12044 Feb 01 15:28	7°  48'29		retrograde		12044 Dec 23 14:58	2°  13'38	
asc. node	12044 Feb 02 09:05	7°  37'26		evening set		12044 Dec 30 06:21	0°  24'08	
direct	12044 Feb 03 19:10	7°  28'48				12044 Dec 30 23:34	30°  R 	
morning max el	12044 Feb 10 19:02	11°  00'27	17°51'56	min. Earth dist.		12045 Jan 03 06:14	27°  347'10	0.59249 AU
	12044 Feb 23 10:17	0°  H		inferior conj		12045 Jan 06 10:15	25°  319'27	-3°56'44
morning set	12044 Feb 26 10:38	5°  H25'35		minimum elong		12045 Jan 06 18:11	25°  304'00	3°53'25
desc. node	12044 Mar 06 15:04	21°  H47'48		morning rise		12045 Jan 14 08:52	20°  342'44	
				direct		12045 Jan 16 10:47	20°  327'11	
superior conj	12044 Mar 08 05:46	24°  H35'07	-0°12'29	asc. node		12045 Jan 19 06:18	20°  357'03	
minimum elong	12044 Mar 08 04:39	24°  H30'19	0°12'08	morning max el		12045 Jan 24 06:38	24°  319'25	18°16'07
behind sun begin	12044 Mar 07 23:07	24°  H06'28				12045 Jan 28 21:56	0°  R	
behind sun end	12044 Mar 08 10:11	24°  H54'07		morning set		12045 Feb 09 00:00	19°  R21'00	
	12044 Mar 11 10:12	0°  Y				12045 Feb 14 15:29	0°  H	
max. Earth dist.	12044 Mar 15 13:37	6°  Y51'56	1.43130 AU					
evening rise	12044 Mar 22 03:52	17°  Y24'47		superior conj		12045 Feb 18 09:56	6°  H56'21	0°24'00
	12044 Mar 30 09:03	0°  B		minimum elong		12045 Feb 18 11:41	7°  H04'19	0°24'07
	12044 Apr 21 10:34	0°  II		desc. node		12045 Feb 21 11:42	12°  H26'52	
evening max el	12044 Apr 23 02:06	1°  II43'56	21°52'18	max. Earth dist.		12045 Feb 25 23:56	20°  H15'54	1.41161 AU
asc. node	12044 Apr 30 06:12	6°  II50'34		evening rise		12045 Mar 02 16:36	28°  H04'54	
retrograde	12044 May 02 08:47	7°  II11'38				12045 Mar 03 20:57	0°  Y	
evening set	12044 May 06 22:07	5°  II19'38				12045 Mar 23 23:29	0°  B	
	12044 May 11 11:58	30°  R 		evening max el		12045 Apr 05 17:56	15°  B32'31	23°12'06
inferior conj	12044 May 12 04:49	29°  B01'22	2°58'19	retrograde		12045 Apr 16 04:24	21°  B41'47	
minimum elong	12044 May 12 03:16	29°  B06'44	2°57'26	asc. node		12045 Apr 17 03:28	21°  B37'27	
min. Earth dist.	12044 May 12 06:18	28°  B56'10	0.68735 AU	evening set		12045 Apr 21 05:10	19°  B35'18	
morning rise	12044 May 17 08:14	22°  B47'49		min. Earth dist.		12045 Apr 26 03:05	13°  B47'36	0.68742 AU
direct	12044 May 22 05:52	20°  B41'34		inferior conj		12045 Apr 26 14:08	13°  B09'26	2°34'37
morning max el	12044 May 31 22:32	26°  B24'31	22°27'15	minimum elong		12045 Apr 26 12:05	13°  B16'30	2°33'38
desc. node	12044 Jun 02 16:24	28°  B14'32		morning rise		12045 May 01 18:54	7°  B02'31	
	12044 Jun 04 05:49	0°  II		direct		12045 May 06 03:27	5°  B17'07	
	12044 Jun 25 19:59	0°  B		morning max el		12045 May 14 14:35	10°  B08'55	21°03'49
morning set	12044 Jul 04 13:28	13°  B47'13		desc. node		12045 May 20 13:18	16°  B59'56	
max. Earth dist.	12044 Jul 09 12:26	22°  B00'14	1.40793 AU			12045 May 30 00:22	0°  II	
	12044 Jul 14 04:02	0°  B		morning set		12045 Jun 14 05:58	22°  II58'42	
						12045 Jun 18 16:25	0°  B	
superior conj	12044 Jul 17 08:13	5°  B37'34	-1°22'59	max. Earth dist.		12045 Jun 21 17:07	4°  B53'26	1.42886 AU
minimum elong	12044 Jul 17 14:06	6°  B03'55	1°22'54					
asc. node	12044 Jul 27 05:21	23°  B53'20		superior conj		12045 Jun 28 20:12	16°  B44'33	-1°52'10
evening rise	12044 Jul 27 12:28	24°  B26'48		minimum elong		12045 Jun 29 02:59	17°  B13'22	1°52'23
	12044 Jul 30 11:43	0°  B				12045 Jul 06 11:26	0°  B	
evening max el	12044 Aug 12 12:02	20°  B03'53	18°20'43	evening rise		12045 Jul 10 12:41	7°  B13'29	
retrograde	12044 Aug 19 22:56	23°  B49'34		asc. node		12045 Jul 14 02:09	13°  B34'57	
evening set	12044 Aug 22 01:51	23°  B32'03				12045 Jul 24 08:10	0°  B	
inferior conj	12044 Aug 29 14:15	18°  B54'46	0°00'05	evening max el		12045 Jul 26 23:47	3°  B01'28	18°04'41
minimum elong	12044 Aug 29 14:14	18°  B54'47	0°00'09	retrograde		12045 Aug 02 16:20	6°  B27'09	
transit middle	12044 Aug 29 14:14	18°  B54'47	0°00'09	evening set		12045 Aug 05 03:07	5°  B59'39	
transit begin	12044 Aug 29 10:44	19°  B01'59		inferior conj		12045 Aug 11 21:44	1°  B01'54	1°20'18
transit end	12044 Aug 29 17:45	18°  B47'33		minimum elong		12045 Aug 11 23:57	0°  B56'37	1°19'04
desc. node	12044 Aug 29 14:21	18°  B54'32				12045 Aug 12 23:33	30°  R 	
min. Earth dist.	12044 Sep 01 22:10	16°  B11'35	0.58455 AU	min. Earth dist.		12045 Aug 15 02:13	28°  B00'55	0.60713 AU
morning rise	12044 Sep 05 23:07	13°  B28'25		desc. node		12045 Aug 16 11:46	26°  B48'06	
direct	12044 Sep 12 04:21	11°  B46'17		morning rise		12045 Aug 18 17:59	25°  B07'41	
morning max el	12044 Sep 26 12:31	19°  B27'47	27°18'52	direct		12045 Aug 25 08:13	22°  B58'39	
	12044 Oct 05 11:51	0°  B				12045 Sep 07 16:10	0°  B	
asc. node	12044 Oct 23 06:44	29°  B50'32		morning max el		12045 Sep 08 14:44	0°  B54'35	27°54'41
	12044 Oct 23 08:38	0°  B				12045 Sep 29 16:54	0°  B	
morning set	12044 Oct 27 07:28	8°  B08'44		asc. node		12045 Oct 10 03:26	19°  B37'27	
				morning set		12045 Oct 11 11:21	22°  B21'53	
superior conj	12044 Nov 03 06:14	23°  B22'45	1°28'38			12045 Oct 15 01:31	0°  B	
minimum elong	12044 Nov 03 04:29	23°  B13'00	1°29'05	max. Earth dist.		12045 Oct 17 09:26	5°  B05'54	1.31489 AU
max. Earth dist.	12044 Nov 03 01:28	22°  B56'09	1.31325 AU					
	12044 Nov 06 05:36	0°  B		superior conj		12045 Oct 18 17:08	8°  B01'13	1°15'03
evening rise	12044 Nov 10 00:26	8°  B14'55		minimum elong		12045 Oct 18 14:55	7°  B49'00	1°15'11
	12044 Nov 21 04:41	0°  B		evening rise		12045 Oct 25 10:10	22°  B48'28	
desc. node	12044 Nov 25 11:27	7°  B04'10				12045 Oct 28 20:10	0°  B	
evening max el	12044 Dec 09 16:11	25°  B05'59	26°39'08	desc. node		12045 Nov 12 08:38	25°  B17'46	

	12045 Nov 15 21:41	0°♄		evening max el	12046 Nov 02 20:57	16°♄18'17	23°47'09
evening max el	12045 Nov 21 09:59	6°♄03'18	25°23'47	retrograde	12046 Nov 16 09:44	23°♄03'26	
retrograde	12045 Dec 05 06:31	13°♄01'15		evening set	12046 Nov 21 02:22	22°♄15'23	
evening set	12045 Dec 11 04:25	11°♄41'37		min. Earth dist.	12046 Nov 27 07:23	19°♄14'51	0.55607 AU
min. Earth dist.	12045 Dec 15 22:08	9°♄02'25	0.57229 AU	inferior conj	12046 Nov 29 06:33	18°♄04'29	-5°48'28
inferior conj	12045 Dec 18 18:39	7°♄07'02	-5°06'52	minimum elong	12046 Nov 29 09:25	18°♄00'12	5°47'30
minimum elong	12045 Dec 19 02:35	6°♄53'37	5°04'23	morning rise	12046 Dec 07 18:21	14°♄09'42	
morning rise	12045 Dec 27 03:07	2°♄52'41		direct	12046 Dec 10 11:28	13°♄51'19	
direct	12045 Dec 29 08:58	2°♄37'40		morning max el	12046 Dec 20 23:44	18°♄51'28	20°09'56
asc. node	12046 Jan 06 03:29	5°♄52'04		asc. node	12046 Dec 24 00:37	22°♄09'25	
morning max el	12046 Jan 07 09:24	6°♄59'37	19°01'36		12046 Dec 29 11:55	0°♄	
	12046 Jan 22 02:00	0°♄		morning set	12047 Jan 08 05:05	18°♄18'50	
morning set	12046 Jan 23 23:17	3°♄42'08			12047 Jan 13 21:51	0°♄	
superior conj	12046 Feb 01 08:31	20°♄08'17	0°53'28	superior conj	12047 Jan 15 20:52	3°♄57'49	1°15'18
minimum elong	12046 Feb 01 11:22	20°♄21'56	0°53'38	minimum elong	12047 Jan 15 23:35	4°♄11'28	1°15'43
	12046 Feb 06 15:15	0°♄		max. Earth dist.	12047 Jan 21 13:52	15°♄06'53	1.36750 AU
desc. node	12046 Feb 08 08:22	3°♄05'16		evening rise	12047 Jan 25 08:21	22°♄05'56	
max. Earth dist.	12046 Feb 08 06:57	2°♄58'54	1.38950 AU	desc. node	12047 Jan 26 05:05	23°♄39'16	
evening rise	12046 Feb 12 02:37	9°♄40'20			12047 Jan 29 19:59	0°♄	
	12046 Feb 24 17:36	0°♄			12047 Feb 18 13:51	0°♄	
evening max el	12046 Mar 19 07:48	29°♄23'39	24°32'03	evening max el	12047 Mar 01 21:09	13°♄14'06	25°45'15
	12046 Mar 19 22:43	0°♄		retrograde	12047 Mar 14 08:08	20°♄23'42	
retrograde	12046 Mar 30 20:31	6°♄08'05		evening set	12047 Mar 20 08:29	17°♄55'25	
asc. node	12046 Apr 04 00:48	4°♄49'44		asc. node	12047 Mar 21 22:12	16°♄26'54	
evening set	12046 Apr 05 09:11	3°♄49'06		min. Earth dist.	12047 Mar 24 15:06	13°♄18'44	0.67425 AU
	12046 Apr 08 21:21	30°♄		inferior conj	12047 Mar 26 02:37	11°♄26'10	1°17'45
min. Earth dist.	12046 Apr 09 22:43	28°♄37'13	0.68299 AU	minimum elong	12047 Mar 26 00:53	11°♄31'39	1°17'02
inferior conj	12046 Apr 10 22:03	27°♄19'12	2°01'09	morning rise	12047 Mar 31 17:53	5°♄36'29	
minimum elong	12046 Apr 10 19:54	27°♄26'24	2°00'10	direct	12047 Apr 04 02:16	4°♄32'19	
morning rise	12046 Apr 16 06:47	21°♄20'14		morning max el	12047 Apr 10 21:08	8°♄13'05	18°55'46
direct	12046 Apr 20 02:47	19°♄56'11		desc. node	12047 Apr 24 06:50	26°♄12'22	
morning max el	12046 Apr 27 14:02	24°♄06'03	19°52'18	greatest brilliancy	12047 Apr 24 11:20	26°♄29'24	-0.8m
	12046 May 02 17:00	0°♄			12047 Apr 26 18:28	0°♄	
desc. node	12046 May 07 10:07	6°♄22'45		morning set	12047 May 03 13:37	10°♄30'44	
	12046 May 23 06:39	0°♄			12047 May 16 02:04	0°♄	
morning set	12046 May 24 06:57	1°♄33'17		max. Earth dist.	12047 May 17 22:02	2°♄51'58	1.45491 AU
max. Earth dist.	12046 Jun 04 05:06	18°♄36'35	1.44509 AU				
superior conj	12046 Jun 09 08:14	26°♄50'17	-2°10'28	superior conj	12047 May 19 23:22	6°♄05'31	-2°11'14
minimum elong	12046 Jun 09 11:56	27°♄05'17	2°11'10	minimum elong	12047 May 19 19:48	5°♄51'30	2°11'53
	12046 Jun 11 06:53	0°♄			12047 Jun 03 22:47	0°♄	
evening rise	12046 Jun 22 18:08	19°♄09'56		evening rise	12047 Jun 04 00:23	0°♄06'29	
	12046 Jun 29 03:37	0°♄		asc. node	12047 Jun 17 20:01	21°♄59'55	
asc. node	12046 Jun 30 23:02	2°♄59'26		evening max el	12047 Jun 24 02:57	29°♄55'31	18°28'37
evening max el	12046 Jul 10 13:50	16°♄21'32	18°07'34		12047 Jun 24 04:46	0°♄	
retrograde	12046 Jul 16 22:49	19°♄41'56		retrograde	12047 Jun 30 13:53	3°♄24'18	
evening set	12046 Jul 19 17:40	19°♄01'43		evening set	12047 Jul 03 16:57	2°♄29'27	
inferior conj	12046 Jul 25 22:01	13°♄45'33	2°16'37		12047 Jul 06 18:06	30°♄	
minimum elong	12046 Jul 26 00:38	13°♄38'29	2°15'16	inferior conj	12047 Jul 09 10:55	26°♄56'58	2°52'05
min. Earth dist.	12046 Jul 28 15:46	10°♄48'43	0.62952 AU	minimum elong	12047 Jul 09 12:55	26°♄51'01	2°50'57
morning rise	12046 Aug 01 05:42	7°♄33'35		min. Earth dist.	12047 Jul 11 14:44	24°♄22'37	0.64962 AU
desc. node	12046 Aug 03 09:09	6°♄12'29		morning rise	12047 Jul 15 07:45	20°♄36'19	
direct	12046 Aug 07 22:09	5°♄04'01		desc. node	12047 Jul 21 06:28	17°♄56'49	
morning max el	12046 Aug 21 22:37	13°♄06'15	27°51'47	direct	12047 Jul 21 20:38	17°♄55'35	
	12046 Sep 04 11:28	0°♄		morning max el	12047 Aug 04 09:16	25°♄52'45	27°14'10
	12046 Sep 22 05:03	0°♄			12047 Aug 08 04:19	0°♄	
morning set	12046 Sep 25 08:38	6°♄13'31		morning set	12047 Aug 29 00:49	0°♄	
asc. node	12046 Sep 27 00:08	9°♄35'05		max. Earth dist.	12047 Sep 08 20:37	19°♄36'32	
max. Earth dist.	12046 Sep 30 12:46	17°♄00'18	1.32166 AU	asc. node	12047 Sep 13 07:35	28°♄30'40	1.33361 AU
					12047 Sep 13 20:49	29°♄38'38	
					12047 Sep 14 00:58	0°♄	
superior conj	12046 Oct 03 01:20	22°♄27'54	0°56'02				
minimum elong	12046 Oct 02 23:10	22°♄16'04	0°55'54	superior conj	12047 Sep 17 04:45	6°♄36'51	0°31'50
	12046 Oct 06 11:53	0°♄		minimum elong	12047 Sep 17 03:13	6°♄28'45	0°31'33
evening rise	12046 Oct 09 21:25	7°♄23'30		evening rise	12047 Sep 24 08:16	21°♄54'31	
	12046 Oct 21 13:28	0°♄			12047 Sep 28 05:55	0°♄	
desc. node	12046 Oct 30 05:54	12°♄24'26		evening max el	12047 Oct 15 08:44	26°♄22'28	22°06'26



































































































































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	12047 Oct 19 19:17	0° $\mathbb{A}$			12048 Sep 04 16:30	0° $\mathbb{A}$	
retrograde	12047 Oct 28 01:40	2° $\mathbb{A}$ 41'22		evening rise	12048 Sep 07 16:45	6° $\mathbb{A}$ 16'26	
evening set	12047 Oct 31 07:23	2° $\mathbb{A}$ 18'03			12048 Sep 20 15:55	0° $\mathbb{M}$	
	12047 Nov 06 02:22	30° $\mathbb{R}\mathbb{M}$		evening max el	12048 Sep 26 06:36	6° $\mathbb{M}$ 52'26	20°36'57
min. Earth dist.	12047 Nov 08 14:14	28° $\mathbb{M}$ 38'15	0.54676 AU	desc. node	12048 Oct 03 00:38	11° $\mathbb{M}$ 34'48	
inferior conj	12047 Nov 09 02:41	28° $\mathbb{M}$ 20'47	-5°39'26	retrograde	12048 Oct 07 12:44	12° $\mathbb{M}$ 27'43	
minimum elong	12047 Nov 08 20:58	28° $\mathbb{M}$ 28'49	5°38'05	evening set	12048 Oct 09 17:22	12° $\mathbb{M}$ 15'56	
morning rise	12047 Nov 17 11:52	24° $\mathbb{M}$ 33'43		inferior conj	12048 Oct 18 18:45	8° $\mathbb{M}$ 20'44	-4°32'11
direct	12047 Nov 20 22:39	24° $\mathbb{M}$ 07'19		minimum elong	12048 Oct 18 08:43	8° $\mathbb{M}$ 35'11	4°28'59
morning max el	12047 Dec 03 00:07	29° $\mathbb{M}$ 51'18	21°40'15	min. Earth dist.	12048 Oct 19 21:47	7° $\mathbb{M}$ 41'44	0.54663 AU
	12047 Dec 03 03:47	0° $\mathbb{A}$		morning rise	12048 Oct 26 23:45	4° $\mathbb{M}$ 22'05	
asc. node	12047 Dec 10 21:41	9° $\mathbb{A}$ 32'37		direct	12048 Oct 31 07:12	3° $\mathbb{M}$ 42'09	
	12047 Dec 22 03:27	0° $\mathbb{B}$		morning max el	12048 Nov 13 13:34	10° $\mathbb{M}$ 08'20	23°25'50
morning set	12047 Dec 23 14:51	3° $\mathbb{B}$ 04'06		asc. node	12048 Nov 26 18:39	27° $\mathbb{M}$ 45'36	
					12048 Nov 28 01:32	0° $\mathbb{A}$	
superior conj	12047 Dec 30 19:08	18° $\mathbb{B}$ 14'07	1°29'45	morning set	12048 Dec 07 02:27	17° $\mathbb{A}$ 50'50	
minimum elong	12047 Dec 30 21:02	18° $\mathbb{B}$ 24'01	1°30'26		12048 Dec 12 17:15	0° $\mathbb{B}$	
max. Earth dist.	12048 Jan 04 01:28	26° $\mathbb{B}$ 59'11	1.34786 AU				
	12048 Jan 05 13:49	0° $\mathbb{A}$		superior conj	12048 Dec 14 00:05	2° $\mathbb{B}$ 46'49	1°37'22
evening rise	12048 Jan 08 06:32	5° $\mathbb{A}$ 13'38		minimum elong	12048 Dec 14 00:52	2° $\mathbb{B}$ 51'03	1°38'11
desc. node	12048 Jan 13 01:51	14° $\mathbb{A}$ 05'02		max. Earth dist.	12048 Dec 16 20:50	8° $\mathbb{B}$ 54'06	1.33208 AU
	12048 Jan 22 14:50	0° $\mathbb{H}$		evening rise	12048 Dec 21 17:28	18° $\mathbb{B}$ 52'56	
evening max el	12048 Feb 12 10:44	26° $\mathbb{H}$ 58'41	26°44'21		12048 Dec 27 13:19	0° $\mathbb{A}$	
	12048 Feb 15 20:31	0° $\mathbb{Y}$		desc. node	12048 Dec 29 22:41	4° $\mathbb{A}$ 16'51	
retrograde	12048 Feb 25 14:26	4° $\mathbb{Y}$ 21'31			12049 Jan 15 18:59	0° $\mathbb{H}$	
evening set	12048 Mar 03 01:15	1° $\mathbb{Y}$ 48'47		evening max el	12049 Jan 24 23:56	10° $\mathbb{H}$ 27'11	27°22'10
	12048 Mar 05 01:04	30° $\mathbb{R}\mathbb{H}$		retrograde	12049 Feb 07 14:19	17° $\mathbb{H}$ 52'18	
min. Earth dist.	12048 Mar 07 02:09	27° $\mathbb{H}$ 46'04	0.66153 AU	evening set	12049 Feb 14 09:16	15° $\mathbb{H}$ 21'20	
asc. node	12048 Mar 07 19:36	26° $\mathbb{H}$ 55'08		min. Earth dist.	12049 Feb 18 05:42	11° $\mathbb{H}$ 50'36	0.64523 AU
inferior conj	12048 Mar 09 01:43	25° $\mathbb{H}$ 25'59	0°24'13	inferior conj	12049 Feb 20 16:50	9° $\mathbb{H}$ 12'01	-0°39'29
minimum elong	12048 Mar 09 01:04	25° $\mathbb{H}$ 27'54	0°24'06	minimum elong	12049 Feb 20 18:01	9° $\mathbb{H}$ 08'48	0°38'36
morning rise	12048 Mar 15 02:04	19° $\mathbb{H}$ 47'20		asc. node	12049 Feb 22 16:59	7° $\mathbb{H}$ 06'42	
direct	12048 Mar 18 00:07	19° $\mathbb{H}$ 00'13		morning rise	12049 Feb 27 04:38	3° $\mathbb{H}$ 46'46	
morning max el	12048 Mar 24 10:23	22° $\mathbb{H}$ 24'27	18°15'36	direct	12049 Mar 01 17:57	3° $\mathbb{H}$ 13'08	
	12048 Mar 30 13:49	0° $\mathbb{Y}$		morning max el	12049 Mar 08 03:16	6° $\mathbb{H}$ 32'10	17°52'26
desc. node	12048 Apr 10 03:30	16° $\mathbb{Y}$ 21'36			12049 Mar 23 23:19	0° $\mathbb{Y}$	
morning set	12048 Apr 12 20:36	20° $\mathbb{Y}$ 42'19		morning set	12049 Mar 25 08:17	2° $\mathbb{Y}$ 17'59	
	12048 Apr 18 16:20	0° $\mathbb{B}$		desc. node	12049 Mar 28 00:05	6° $\mathbb{Y}$ 44'21	
superior conj	12048 Apr 28 06:28	15° $\mathbb{B}$ 06'47	-1°51'49	superior conj	12049 Apr 07 23:18	24° $\mathbb{Y}$ 40'02	-1°16'54
minimum elong	12048 Apr 27 21:27	14° $\mathbb{B}$ 31'29	1°51'38	minimum elong	12049 Apr 07 15:18	24° $\mathbb{Y}$ 08'00	1°16'11
max. Earth dist.	12048 Apr 29 17:20	17° $\mathbb{B}$ 23'03	1.45746 AU		12049 Apr 11 07:44	0° $\mathbb{B}$	
	12048 May 07 19:29	0° $\mathbb{H}$		max. Earth dist.	12049 Apr 12 12:55	1° $\mathbb{B}$ 55'14	1.45257 AU
evening rise	12048 May 14 06:51	10° $\mathbb{H}$ 05'46		evening rise	12049 Apr 23 20:57	19° $\mathbb{B}$ 30'52	
greatest brilliancy	12048 May 25 07:32	27° $\mathbb{H}$ 11'53	-0.8m		12049 Apr 30 18:15	0° $\mathbb{H}$	
	12048 May 27 04:06	0° $\mathbb{B}$		greatest brilliancy	12049 May 08 20:15	12° $\mathbb{H}$ 01'12	-0.6m
asc. node	12048 Jun 03 17:05	10° $\mathbb{B}$ 28'18		evening max el	12049 May 20 17:19	27° $\mathbb{H}$ 23'04	20°01'22
evening max el	12048 Jun 06 12:42	13° $\mathbb{B}$ 37'38	19°07'01	asc. node	12049 May 21 14:13	28° $\mathbb{H}$ 13'44	
retrograde	12048 Jun 13 10:00	17° $\mathbb{B}$ 27'22			12049 May 23 17:45	0° $\mathbb{B}$	
evening set	12048 Jun 16 21:45	16° $\mathbb{B}$ 16'41		retrograde	12049 May 28 08:26	1° $\mathbb{B}$ 44'56	
inferior conj	12048 Jun 22 08:54	10° $\mathbb{B}$ 29'28	3°10'26	evening set	12049 Jun 01 05:33	0° $\mathbb{B}$ 17'51	
minimum elong	12048 Jun 22 09:51	10° $\mathbb{B}$ 26'24	3°09'31		12049 Jun 01 14:38	30° $\mathbb{R}\mathbb{H}$	
min. Earth dist.	12048 Jun 23 21:56	8° $\mathbb{B}$ 30'24	0.66604 AU	inferior conj	12049 Jun 06 12:58	24° $\mathbb{H}$ 17'14	3°14'50
morning rise	12048 Jun 27 21:21	4° $\mathbb{B}$ 06'41		minimum elong	12049 Jun 06 12:49	24° $\mathbb{H}$ 17'43	3°14'01
direct	12048 Jul 04 02:15	1° $\mathbb{B}$ 25'18		min. Earth dist.	12049 Jun 07 11:32	23° $\mathbb{H}$ 00'54	0.67801 AU
desc. node	12048 Jul 07 03:42	1° $\mathbb{B}$ 58'43		morning rise	12049 Jun 11 19:46	17° $\mathbb{H}$ 56'28	
morning max el	12048 Jul 16 20:06	9° $\mathbb{B}$ 02'04	26°09'37	direct	12049 Jun 17 13:40	15° $\mathbb{H}$ 23'48	
	12048 Aug 02 07:20	0° $\mathbb{Q}$		desc. node	12049 Jun 24 00:49	17° $\mathbb{H}$ 52'11	
	12048 Aug 20 12:56	0° $\mathbb{M}$		morning max el	12049 Jun 29 06:05	22° $\mathbb{H}$ 24'19	24°47'48
morning set	12048 Aug 21 19:53	2° $\mathbb{M}$ 22'35			12049 Jul 05 21:43	0° $\mathbb{B}$	
max. Earth dist.	12048 Aug 25 15:59	9° $\mathbb{M}$ 39'38	1.35062 AU		12049 Jul 26 14:26	0° $\mathbb{Q}$	
asc. node	12048 Aug 30 17:28	19° $\mathbb{M}$ 44'17		morning set	12049 Aug 04 02:11	14° $\mathbb{Q}$ 21'10	
				max. Earth dist.	12049 Aug 07 16:02	20° $\mathbb{Q}$ 46'53	1.37170 AU
					12049 Aug 12 14:00	0° $\mathbb{M}$	
superior conj	12048 Aug 31 00:51	20° $\mathbb{M}$ 21'53	0°02'58				
minimum elong	12048 Aug 31 00:41	20° $\mathbb{M}$ 21'04	0°02'43				
behind sun begin	12048 Aug 30 18:45	19° $\mathbb{M}$ 50'46		superior conj	12049 Aug 14 10:33	3° $\mathbb{M}$ 35'38	-0°29'34

minimum elong	12049 Aug 14 12:30	3°  45'10	0°29'39	superior conj	12050 Jul 28 05:56	16°  07'39	-1°03'47
asc. node	12049 Aug 17 14:09	9°  48'48		minimum elong	12050 Jul 28 10:27	16°  28'36	1°03'42
evening rise	12049 Aug 22 20:32	20°  23'32		asc. node	12050 Aug 04 10:51	29°  47'34	
	12049 Aug 27 17:59	0°  ♁			12050 Aug 04 13:25	0°  ♁	
evening max el	12049 Sep 08 18:31	18°  ♁08'29	19°27'04	evening rise	12050 Aug 06 16:39	4°  ♁07'13	
retrograde	12049 Sep 18 08:05	22°  ♁54'36			12050 Aug 22 14:35	0°  ♁	
desc. node	12049 Sep 19 22:04	22°  ♁47'19		evening max el	12050 Aug 22 18:43	0°  ♁10'22	18°38'49
evening set	12049 Sep 20 04:32	22°  ♁44'39		retrograde	12050 Aug 30 21:17	4°  ♁14'40	
inferior conj	12049 Sep 28 21:18	18°  ♁38'04	-2°47'03	evening set	12050 Sep 01 20:21	4°  ♁01'11	
minimum elong	12049 Sep 28 14:00	18°  ♁49'49	2°44'09	desc. node	12050 Sep 06 19:31	1°  ♁44'02	
min. Earth dist.	12049 Oct 01 08:15	17°  ♁03'21	0.55588 AU		12050 Sep 09 06:33	30°  ♁	
morning rise	12049 Oct 06 21:11	14°  ♁09'43		inferior conj	12050 Sep 09 19:42	29°  ♁35'23	-0°56'36
direct	12049 Oct 12 00:43	13°  ♁10'10		minimum elong	12050 Sep 09 17:24	29°  ♁39'42	0°55'46
morning max el	12049 Oct 26 00:03	20°  ♁11'12	25°12'16	min. Earth dist.	12050 Sep 13 00:02	27°  ♁12'41	0.57265 AU
	12049 Nov 03 09:19	0°  ♁		morning rise	12050 Sep 17 11:01	24°  ♁29'10	
asc. node	12049 Nov 13 15:30	16°  ♁36'15		direct	12050 Sep 23 07:56	23°  ♁03'51	
	12049 Nov 20 09:05	0°  ♁♁			12050 Oct 07 01:20	0°  ♁	
morning set	12049 Nov 21 14:08	2°  ♁34'29		morning max el	12050 Oct 07 15:03	0°  ♁32'34	26°41'28
					12050 Oct 28 09:26	0°  ♁	
superior conj	12049 Nov 28 09:16	17°  ♁28'51	1°38'37	asc. node	12050 Oct 31 12:17	5°  ♁54'25	
minimum elong	12049 Nov 28 08:55	17°  ♁26'57	1°39'25	morning set	12050 Nov 06 00:11	17°  ♁10'07	
max. Earth dist.	12049 Nov 29 23:41	20°  ♁59'58	1.32093 AU		12050 Nov 11 20:34	0°  ♁♁	
	12049 Dec 04 04:12	0°  ♁♁					
evening rise	12049 Dec 05 13:59	2°  ♁55'52		superior conj	12050 Nov 12 20:35	2°  ♁13'52	1°33'55
desc. node	12049 Dec 16 19:38	24°  ♁08'32		minimum elong	12050 Nov 12 19:16	2°  ♁06'33	1°34'32
	12049 Dec 20 08:42	0°  ♁♁		max. Earth dist.	12050 Nov 13 07:19	3°  ♁13'42	1.31462 AU
evening max el	12050 Jan 07 10:50	23°  ♁26'44	27°31'46	evening rise	12050 Nov 19 17:23	17°  ♁15'08	
	12050 Jan 17 01:56	0°  ♁♁			12050 Nov 26 01:09	0°  ♁♁	
retrograde	12050 Jan 21 06:46	0°  ♁♁47'01		desc. node	12050 Dec 03 16:42	13°  ♁33'41	
	12050 Jan 25 07:15	30°  ♁♁			12050 Dec 15 08:13	0°  ♁♁	
evening set	12050 Jan 28 05:54	28°  ♁25'18		evening max el	12050 Dec 20 16:44	5°  ♁44'08	27°08'13
min. Earth dist.	12050 Jan 31 23:46	25°  ♁22'33	0.62597 AU	retrograde	12051 Jan 03 14:56	12°  ♁56'53	
inferior conj	12050 Feb 03 21:00	22°  ♁36'45	-1°52'23	evening set	12051 Jan 10 11:50	10°  ♁52'48	
minimum elong	12050 Feb 04 00:47	22°  ♁27'40	1°50'16	min. Earth dist.	12051 Jan 14 07:08	8°  ♁10'17	0.60480 AU
asc. node	12050 Feb 09 14:19	18°  ♁02'46		inferior conj	12051 Jan 17 10:50	5°  ♁31'11	-3°11'19
morning rise	12050 Feb 10 22:09	17°  ♁28'03		minimum elong	12051 Jan 17 17:29	5°  ♁17'10	3°08'11
direct	12050 Feb 13 04:44	17°  ♁04'13		morning rise	12051 Jan 25 02:00	0°  ♁42'21	
morning max el	12050 Feb 19 20:47	20°  ♁28'12	17°46'52	direct	12051 Jan 27 04:32	0°  ♁24'46	
	12050 Feb 27 00:42	0°  ♁♁		asc. node	12051 Jan 27 11:35	0°  ♁25'07	
morning set	12050 Mar 07 20:08	15°  ♁02'45		morning max el	12051 Feb 03 11:39	4°  ♁03'38	17°59'53
desc. node	12050 Mar 14 20:39	27°  ♁16'22		morning set	12051 Feb 19 01:48	28°  ♁37'07	
	12050 Mar 16 10:58	0°  ♁♁			12051 Feb 19 19:46	0°  ♁♁	
superior conj	12050 Mar 19 14:13	5°  ♁16'59	-0°35'45	superior conj	12051 Mar 01 05:42	17°  ♁03'18	0°03'46
minimum elong	12050 Mar 19 10:39	5°  ♁02'07	0°35'13	minimum elong	12051 Mar 01 06:02	17°  ♁04'46	0°03'59
max. Earth dist.	12050 Mar 26 06:29	16°  ♁13'09	1.44078 AU	behind sun begin	12051 Feb 28 22:17	16°  ♁30'36	
evening rise	12050 Apr 03 09:35	29°  ♁01'05		behind sun end	12051 Mar 01 13:48	17°  ♁38'51	
	12050 Apr 04 00:51	0°  ♁♁		desc. node	12051 Mar 01 17:15	17°  ♁54'00	
	12050 Apr 24 12:09	0°  ♁♁			12051 Mar 08 19:35	0°  ♁♁	
evening max el	12050 May 03 16:09	11°  ♁09'04	21°08'56	max. Earth dist.	12051 Mar 08 19:44	0°  ♁00'38	1.42331 AU
asc. node	12050 May 08 11:25	15°  ♁02'27		evening rise	12051 Mar 14 11:03	9°  ♁10'14	
retrograde	12050 May 12 07:05	16°  ♁11'23			12051 Mar 28 03:30	0°  ♁♁	
evening set	12050 May 16 14:22	14°  ♁28'03		evening max el	12051 Apr 16 09:58	24°  ♁56'17	22°25'44
inferior conj	12050 May 21 20:40	8°  ♁15'34	3°07'25		12051 Apr 23 02:22	0°  ♁♁	
minimum elong	12050 May 21 19:34	8°  ♁19'23	3°06'34	asc. node	12051 Apr 25 08:42	0°  ♁23'06	
min. Earth dist.	12050 May 22 05:33	7°  ♁44'41	0.68531 AU	retrograde	12051 Apr 26 04:22	0°  ♁42'17	
morning rise	12050 May 27 00:34	1°  ♁59'07			12051 Apr 29 01:17	30°  ♁♁	
	12050 May 30 07:29	30°  ♁♁		evening set	12051 Apr 30 22:34	28°  ♁43'40	
direct	12050 Jun 01 05:45	29°  ♁42'06		inferior conj	12051 May 06 05:58	22°  ♁21'37	2°49'30
	12050 Jun 03 06:18	0°  ♁♁		minimum elong	12051 May 06 04:11	22°  ♁27'52	2°48'33
desc. node	12050 Jun 10 21:51	5°  ♁09'07		min. Earth dist.	12051 May 06 01:59	22°  ♁35'33	0.68794 AU
morning max el	12050 Jun 11 16:14	5°  ♁54'34	23°18'26	morning rise	12051 May 11 09:40	16°  ♁10'52	
	12050 Jun 30 07:14	0°  ♁♁		direct	12051 May 16 01:37	14°  ♁13'34	
morning set	12050 Jul 16 10:33	25°  ♁19'11		morning max el	12051 May 25 05:23	19°  ♁34'05	21°50'40
	12050 Jul 19 04:52	0°  ♁♁		desc. node	12051 May 28 18:46	23°  ♁27'36	
max. Earth dist.	12050 Jul 20 13:39	2°  ♁21'22	1.39482 AU		12051 Jun 02 23:30	0°  ♁♁	
					12051 Jun 23 11:16	0°  ♁♁	

morning set	12051 Jun 26 17:27	5°☿09'07		max. Earth dist.	12052 Jun 13 22:05	27°♄58'06	1.43644 AU
max. Earth dist.	12051 Jul 02 14:45	14°☿44'15	1.41730 AU		12052 Jun 15 04:19	0°☿	
superior conj	12051 Jul 10 06:38	27°☿48'22	-1°36'15	superior conj	12052 Jun 20 08:34	8°☿29'20	-2°01'41
minimum elong	12051 Jul 10 13:13	28°☿17'15	1°36'15	minimum elong	12052 Jun 20 14:40	8°☿54'40	2°02'07
	12051 Jul 11 12:33	0°♌		evening rise	12052 Jul 02 18:22	29°☿45'11	
evening rise	12051 Jul 21 01:29	17°♌18'21			12052 Jul 02 21:45	0°♌	
asc. node	12051 Jul 22 07:37	19°♌37'01		asc. node	12052 Jul 08 04:29	9°♌12'16	
	12051 Jul 28 02:22	0°♍		evening max el	12052 Jul 19 16:34	25°♌59'02	18°03'38
evening max el	12051 Aug 06 03:24	12°♍50'31	18°11'25	retrograde	12052 Jul 26 04:46	29°♌20'43	
retrograde	12051 Aug 13 05:19	16°♍26'14		evening set	12052 Jul 28 18:53	28°♌48'14	
evening set	12051 Aug 15 11:21	16°♍04'59		inferior conj	12052 Aug 04 07:01	23°♌42'42	1°46'57
inferior conj	12051 Aug 22 15:51	11°♍18'43	0°37'08	minimum elong	12052 Aug 04 09:34	23°♌36'15	1°45'36
minimum elong	12051 Aug 22 17:03	11°♍16'05	0°36'20	min. Earth dist.	12052 Aug 07 07:42	20°♌40'35	0.61685 AU
desc. node	12051 Aug 24 16:56	9°♍30'21		morning rise	12052 Aug 10 21:47	17°♌39'35	
min. Earth dist.	12051 Aug 25 23:27	8°♍25'04	0.59402 AU	desc. node	12052 Aug 10 14:20	17°♌52'45	
morning rise	12051 Aug 29 19:25	5°♍38'51		direct	12052 Aug 17 13:51	15°♌20'24	
direct	12051 Sep 05 05:05	3°♍44'53		morning max el	12052 Aug 31 18:27	23°♌21'00	27°57'56
morning max el	12051 Sep 19 13:30	11°♍34'05	27°38'51		12052 Sep 06 17:02	0°♍	
	12051 Oct 04 00:07	0°♎			12052 Sep 26 06:43	0°♎	
asc. node	12051 Oct 18 09:01	25°♎32'43		morning set	12052 Oct 04 08:20	15°♎38'30	
	12051 Oct 20 13:07	0°♏		asc. node	12052 Oct 04 05:44	15°♎25'06	
morning set	12051 Oct 21 06:55	1°♏33'11		max. Earth dist.	12052 Oct 09 22:30	27°♎31'19	1.31709 AU
max. Earth dist.	12051 Oct 27 16:12	15°♏27'28	1.31330 AU		12052 Oct 11 01:39	0°♏	
superior conj	12051 Oct 28 08:11	16°♏56'27	1°23'32	superior conj	12052 Oct 11 18:14	1°♏31'17	1°07'38
minimum elong	12051 Oct 28 06:11	16°♏45'21	1°23'51	minimum elong	12052 Oct 11 15:59	1°♏18'52	1°07'39
	12051 Nov 03 05:56	0°♐		evening rise	12052 Oct 18 12:02	16°♏20'12	
evening rise	12051 Nov 04 01:24	1°♐45'00			12052 Oct 25 04:02	0°♐	
	12051 Nov 19 02:47	0°♑		desc. node	12052 Nov 06 11:06	20°♐03'19	
desc. node	12051 Nov 20 13:52	2°♑15'00		evening max el	12052 Nov 13 05:34	27°♐47'56	24°44'25
evening max el	12051 Dec 02 15:08	17°♑10'24	26°10'28		12052 Nov 15 17:37	0°♑	
retrograde	12051 Dec 16 13:29	24°♑14'51		retrograde	12052 Nov 27 00:20	4°♑41'45	
evening set	12051 Dec 22 22:52	22°♑37'07		evening set	12052 Dec 02 10:46	3°♑36'03	
min. Earth dist.	12051 Dec 27 04:17	20°♑01'30	0.58351 AU	min. Earth dist.	12052 Dec 07 17:20	0°♑49'49	0.56465 AU
inferior conj	12051 Dec 30 06:46	17°♑45'23	-4°28'39		12052 Dec 09 00:46	30°♑♐	
minimum elong	12051 Dec 30 15:11	17°♑29'58	4°25'31	inferior conj	12052 Dec 10 06:25	29°♐12'22	-5°29'28
morning rise	12052 Jan 07 10:17	13°♑18'37		minimum elong	12052 Dec 10 12:54	29°♐02'00	5°27'40
direct	12052 Jan 09 12:56	13°♑03'50		morning rise	12052 Dec 18 17:10	25°♐06'55	
asc. node	12052 Jan 14 08:49	14°♑26'06		direct	12052 Dec 21 02:38	24°♐51'06	
morning max el	12052 Jan 17 20:03	17°♑07'32	18°32'55	morning max el	12052 Dec 30 18:01	29°♐28'59	19°27'50
	12052 Jan 26 23:46	0°♒		asc. node	12052 Dec 31 05:59	29°♐58'30	
morning set	12052 Feb 02 19:51	12°♒44'23			12052 Dec 31 06:35	0°♑	
				morning set	12053 Jan 16 22:16	27°♑13'14	
superior conj	12052 Feb 11 18:19	29°♒47'45	0°37'24		12053 Jan 18 07:28	0°♒	
minimum elong	12052 Feb 11 20:43	29°♒58'56	0°37'31				
	12052 Feb 11 20:57	0°♒		superior conj	12053 Jan 24 23:18	13°♒17'12	1°03'38
desc. node	12052 Feb 16 13:53	8°♒33'00		minimum elong	12053 Jan 25 02:13	13°♒31'26	1°03'54
max. Earth dist.	12052 Feb 19 03:58	13°♒05'29	1.40222 AU	max. Earth dist.	12053 Jan 31 10:00	25°♒30'15	1.37995 AU
evening rise	12052 Feb 23 08:44	20°♒13'34		desc. node	12053 Feb 02 10:35	29°♒10'08	
	12052 Feb 29 09:26	0°♓			12053 Feb 02 21:45	0°♒	
	12052 Mar 21 08:27	0°♓		evening rise	12053 Feb 04 03:33	2°♒11'46	
evening max el	12052 Mar 29 00:34	8°♓45'25	23°46'30		12053 Feb 21 13:30	0°♓	
retrograde	12052 Apr 08 22:49	15°♓11'32		evening max el	12053 Mar 11 14:08	22°♓36'52	25°04'32
asc. node	12052 Apr 11 06:02	14°♓47'03		retrograde	12053 Mar 23 13:11	29°♓33'37	
evening set	12052 Apr 14 04:33	12°♓59'23		evening set	12053 Mar 29 06:45	27°♓10'29	
min. Earth dist.	12052 Apr 18 22:37	7°♓26'50	0.68601 AU	asc. node	12053 Mar 29 03:25	27°♓17'28	
inferior conj	12052 Apr 19 14:57	6°♓31'01	2°21'39	min. Earth dist.	12053 Apr 02 17:15	22°♓13'22	0.67974 AU
minimum elong	12052 Apr 19 12:48	6°♓38'21	2°20'39	inferior conj	12053 Apr 03 21:42	20°♓40'08	1°43'59
morning rise	12052 Apr 24 21:04	0°♓27'12		minimum elong	12053 Apr 03 19:39	20°♓46'50	1°43'05
	12052 Apr 25 12:06	30°♓♒		morning rise	12053 Apr 09 08:51	14°♓44'37	
direct	12052 Apr 29 00:06	28°♓51'05		direct	12053 Apr 12 23:47	13°♓29'12	
	12052 May 02 18:36	0°♓		morning max el	12053 Apr 20 03:07	17°♓25'18	19°26'14
morning max el	12052 May 07 00:28	3°♓24'11	20°31'43		12053 Apr 30 01:42	0°♓	
desc. node	12052 May 14 15:36	12°♓30'21		desc. node	12053 May 01 12:22	2°♓05'26	
	12052 May 26 20:47	0°♄		greatest brilliancy	12053 May 02 20:06	4°♓01'51	-0.7m
morning set	12052 Jun 05 01:23	13°♄59'22		morning set	12053 May 15 01:48	22°♓34'56	

	12053 May 19 21:01	0°♂				12054 Apr 23 10:42	0°♂	
max. Earth dist.	12053 May 27 12:05	11°♂55'32	1.45013 AU	morning set		12054 Apr 24 17:23	2°♂00'22	
superior conj	12053 May 31 10:51	18°♂11'13	-2°13'14	superior conj		12054 May 10 20:26	27°♂14'46	-2°05'22
minimum elong	12053 May 31 11:46	18°♂14'51	2°14'03	minimum elong		12054 May 10 13:52	26°♂49'05	2°05'42
	12053 Jun 07 18:29	0°♂		max. Earth dist.		12054 May 10 06:50	26°♂21'36	1.45691 AU
evening rise	12053 Jun 14 14:19	11°♂16'27				12054 May 12 14:41	0°♂	
asc. node	12053 Jun 25 01:25	28°♂27'32		evening rise		12054 May 26 10:07	21°♂47'37	
	12053 Jun 26 01:20	0°♂				12054 May 31 13:48	0°♂	
evening max el	12053 Jul 03 06:39	9°♂26'29	18°14'23	greatest brilliancy		12054 Jun 03 07:56	4°♂21'48	-0.9m
retrograde	12053 Jul 09 15:14	12°♂48'29		asc. node		12054 Jun 11 22:27	17°♂15'53	
evening set	12053 Jul 12 13:38	12°♂02'09		evening max el		12054 Jun 16 18:41	23°♂05'20	18°42'55
inferior conj	12053 Jul 18 13:08	6°♂39'02	2°33'56	retrograde		12054 Jun 23 08:52	26°♂41'16	
minimum elong	12053 Jul 18 15:33	6°♂32'09	2°32'40	evening set		12054 Jun 26 15:40	25°♂39'35	
min. Earth dist.	12053 Jul 21 01:15	3°♂49'49	0.63851 AU	inferior conj		12054 Jul 02 06:18	20°♂00'32	3°01'43
morning rise	12053 Jul 24 15:58	0°♂22'42		minimum elong		12054 Jul 02 07:52	19°♂55'40	3°00'42
	12053 Jul 25 03:58	30°♂♂		min. Earth dist.		12054 Jul 04 03:44	17°♂40'19	0.65711 AU
desc. node	12053 Jul 28 11:41	28°♂14'24		morning rise		12054 Jul 07 23:16	13°♂38'35	
direct	12053 Jul 31 07:43	27°♂46'55		direct		12054 Jul 14 09:14	10°♂56'38	
	12053 Aug 07 02:30	0°♂		desc. node		12054 Jul 15 08:57	11°♂00'05	
morning max el	12053 Aug 14 03:35	5°♂48'09	27°39'33	morning max el		12054 Jul 27 14:32	18°♂46'11	26°49'33
	12053 Sep 01 13:26	0°♂				12054 Aug 06 02:28	0°♂	
morning set	12053 Sep 18 02:00	29°♂18'55				12054 Aug 25 13:28	0°♂	
	12053 Sep 18 10:15	0°♂		morning set		12054 Sep 01 09:01	12°♂27'38	
asc. node	12053 Sep 21 02:23	5°♂25'51		max. Earth dist.		12054 Sep 05 13:14	20°♂37'45	1.34036 AU
max. Earth dist.	12053 Sep 22 22:29	9°♂15'46	1.32613 AU	asc. node		12054 Sep 07 23:03	25°♂31'08	
superior conj	12053 Sep 26 00:41	15°♂51'35	0°46'24	superior conj		12054 Sep 10 01:20	29°♂51'41	0°20'08
minimum elong	12053 Sep 25 22:43	15°♂40'55	0°46'11	minimum elong		12054 Sep 10 00:18	29°♂46'16	0°19'50
evening rise	12053 Oct 02 23:20	0°♂54'30				12054 Sep 10 02:55	0°♂	
	12053 Oct 02 13:10	0°♂		evening rise		12054 Sep 17 09:28	15°♂23'03	
	12053 Oct 18 23:37	0°♂				12054 Sep 24 17:12	0°♂	
desc. node	12053 Oct 24 08:26	6°♂34'47		evening max el		12054 Oct 07 07:00	18°♂05'47	21°26'09
evening max el	12053 Oct 25 15:55	7°♂54'34	23°03'48	desc. node		12054 Oct 11 05:46	21°♂22'48	
retrograde	12053 Nov 07 21:55	14°♂29'53		retrograde		12054 Oct 19 10:13	24°♂07'39	
evening set	12053 Nov 11 23:36	13°♂53'54		evening set		12054 Oct 22 03:35	23°♂50'35	
min. Earth dist.	12053 Nov 19 01:08	10°♂38'46	0.55115 AU	inferior conj		12054 Oct 31 03:11	19°♂55'38	-5°17'20
inferior conj	12053 Nov 20 10:38	9°♂50'35	-5°51'49	minimum elong		12054 Oct 30 18:42	20°♂07'32	5°15'09
minimum elong	12053 Nov 20 09:53	9°♂51'39	5°51'03	min. Earth dist.		12054 Oct 31 07:31	19°♂49'33	0.54564 AU
morning rise	12053 Nov 28 21:46	6°♂00'47		morning rise		12054 Nov 08 10:42	16°♂06'39	
direct	12053 Dec 01 22:01	5°♂39'25		direct		12054 Nov 12 06:21	15°♂35'11	
morning max el	12053 Dec 13 02:16	10°♂58'05	20°45'48	morning max el		12054 Nov 24 21:08	21°♂36'49	22°23'58
asc. node	12053 Dec 18 03:05	16°♂45'44				12054 Dec 01 23:50	0°♂	
	12053 Dec 26 06:14	0°♂		asc. node		12054 Dec 05 00:04	4°♂31'37	
morning set	12054 Jan 01 06:02	11°♂54'20		morning set		12054 Dec 16 16:48	26°♂41'00	
						12054 Dec 18 06:16	0°♂	
superior conj	12054 Jan 08 16:16	27°♂18'55	1°22'18	superior conj		12054 Dec 23 17:41	11°♂43'02	1°33'48
minimum elong	12054 Jan 08 18:41	27°♂31'19	1°22'49	minimum elong		12054 Dec 23 19:07	11°♂50'40	1°34'32
	12054 Jan 09 23:56	0°♂		max. Earth dist.		12054 Dec 27 09:36	19°♂22'30	1.34067 AU
max. Earth dist.	12054 Jan 13 18:36	7°♂29'46	1.35881 AU	evening rise		12054 Dec 31 20:44	28°♂18'12	
evening rise	12054 Jan 17 16:45	14°♂56'20				12055 Jan 01 17:49	0°♂	
desc. node	12054 Jan 20 07:19	19°♂41'07		desc. node		12055 Jan 07 04:07	10°♂01'34	
	12054 Jan 26 07:05	0°♂				12055 Jan 19 12:20	0°♂	
	12054 Feb 16 05:34	0°♂		evening max el		12055 Feb 04 17:18	20°♂05'05	27°03'27
evening max el	12054 Feb 22 03:48	6°♂26'23	26°12'39	retrograde		12055 Feb 18 01:53	27°♂29'33	
retrograde	12054 Mar 06 22:28	13°♂42'14		evening set		12055 Feb 24 16:45	24°♂56'35	
evening set	12054 Mar 13 03:28	11°♂11'39		min. Earth dist.		12055 Feb 28 15:34	21°♂08'06	0.65502 AU
asc. node	12054 Mar 16 00:48	8°♂20'10		inferior conj		12055 Mar 02 20:12	18°♂38'56	-0°01'37
min. Earth dist.	12054 Mar 17 07:38	6°♂49'31	0.66931 AU	minimum elong		12055 Mar 02 20:14	18°♂38'50	0°01'21
inferior conj	12054 Mar 19 00:12	4°♂44'36	0°56'17	transit middle		12055 Mar 02 20:14	18°♂38'50	0°01'21
minimum elong	12054 Mar 18 22:51	4°♂48'47	0°55'47	transit begin		12055 Mar 02 17:15	18°♂47'19	
	12054 Mar 23 09:05	30°♂♂		transit end		12055 Mar 02 23:13	18°♂30'22	
morning rise	12054 Mar 24 19:01	28°♂59'13		asc. node		12055 Mar 02 22:11	18°♂33'15	
direct	12054 Mar 27 22:56	28°♂02'31		morning rise		12055 Mar 09 01:09	13°♂05'52	
	12054 Apr 01 17:55	0°♂		direct		12055 Mar 11 19:21	12°♂24'53	
morning max el	12054 Apr 03 13:01	1°♂34'31	18°36'38	morning max el		12055 Mar 18 04:09	15°♂45'13	18°03'42
desc. node	12054 Apr 18 09:03	22°♂04'09						

	12055 Mar 28 14:50	0°♿	minimum elong	12056 Feb 14 09:16	2°♿11'40	1°08'00
desc. node	12055 Apr 05 05:39	12°♿19'35		12056 Feb 16 14:48	30°♿	
morning set	12055 Apr 05 12:42	12°♿48'21	asc. node	12056 Feb 17 19:32	28°♿57'34	
	12055 Apr 16 04:32	0°♿	morning rise	12056 Feb 21 00:23	26°♿59'07	
			direct	12056 Feb 23 10:31	26°♿30'12	
superior conj	12055 Apr 20 05:29	6°♿23'38 -1°38'22	morning max el	12056 Feb 29 21:48	29°♿50'07	17°47'56
minimum elong	12055 Apr 19 20:10	5°♿46'55 1°37'52		12056 Mar 01 01:48	0°♿	
max. Earth dist.	12055 Apr 23 02:57	10°♿56'25 1.45622 AU	morning set	12056 Mar 17 11:28	24°♿56'06	
	12055 May 05 09:18	0°♿		12056 Mar 20 10:46	0°♿	
evening rise	12055 May 06 08:10	1°♿28'18	desc. node	12056 Mar 22 02:14	2°♿47'09	
greatest brilliancy	12055 May 19 07:42	21°♿17'21 -0.7m				
	12055 May 25 10:03	0°♿	superior conj	12056 Mar 30 06:57	16°♿22'47 -0°59'40	
asc. node	12055 May 29 19:33	5°♿27'24	minimum elong	12056 Mar 30 00:42	15°♿57'24 0°58'59	
evening max el	12055 May 31 02:19	6°♿48'47 19°28'18	max. Earth dist.	12056 Apr 04 21:39	25°♿23'36 1.44828 AU	
retrograde	12055 Jun 07 06:21	10°♿51'14		12056 Apr 07 19:45	0°♿	
evening set	12055 Jun 10 22:00	9°♿33'29	evening rise	12056 Apr 14 19:38	10°♿50'34	
inferior conj	12055 Jun 16 07:10	3°♿40'07 3°13'52		12056 Apr 27 13:28	0°♿	
minimum elong	12055 Jun 16 07:39	3°♿38'32 3°13'01	evening max el	12056 May 13 04:22	20°♿34'10 20°28'40	
min. Earth dist.	12055 Jun 17 13:52	1°♿58'53 0.67162 AU	asc. node	12056 May 15 16:43	22°♿50'31	
	12055 Jun 19 03:34	30°♿	retrograde	12056 May 21 05:13	25°♿13'02	
morning rise	12055 Jun 21 16:52	27°♿17'44	evening set	12056 May 25 06:27	23°♿39'07	
direct	12055 Jun 27 17:13	24°♿39'21	inferior conj	12056 May 30 13:04	17°♿33'05 3°13'04	
desc. node	12055 Jul 02 06:07	25°♿52'43	minimum elong	12056 May 30 12:30	17°♿35'02 3°12'14	
	12055 Jul 07 22:19	0°♿	min. Earth dist.	12056 May 31 05:45	16°♿35'49 0.68163 AU	
morning max el	12055 Jul 10 01:14	2°♿02'40 25°36'30	morning rise	12056 Jun 04 18:17	11°♿13'38	
	12055 Jul 31 04:48	0°♿	direct	12056 Jun 10 06:49	8°♿46'55	
morning set	12055 Aug 15 01:39	24°♿55'05	desc. node	12056 Jun 18 03:12	12°♿24'35	
	12055 Aug 17 19:45	0°♿	morning max el	12056 Jun 21 11:09	15°♿28'55 24°10'07	
max. Earth dist.	12055 Aug 18 17:52	1°♿44'08 1.35919 AU		12056 Jul 03 09:18	0°♿	
				12056 Jul 23 03:15	0°♿	
superior conj	12055 Aug 24 17:24	13°♿24'16 -0°10'29	morning set	12056 Jul 26 23:14	6°♿29'37	
minimum elong	12055 Aug 24 18:03	13°♿27'32 0°10'41	max. Earth dist.	12056 Jul 30 15:41	12°♿57'46 1.38136 AU	
behind sun begin	12055 Aug 24 13:20	13°♿03'53				
behind sun end	12055 Aug 24 22:46	13°♿51'13	superior conj	12056 Aug 06 21:30	26°♿21'13 -0°44'03	
asc. node	12055 Aug 25 19:43	15°♿36'50	minimum elong	12056 Aug 07 00:31	26°♿35'39 0°44'02	
evening rise	12055 Sep 01 16:16	29°♿39'41		12056 Aug 08 18:59	0°♿	
	12055 Sep 01 20:14	0°♿	asc. node	12056 Aug 11 16:25	5°♿39'19	
evening max el	12055 Sep 19 10:37	28°♿53'56 20°04'32	evening rise	12056 Aug 15 17:10	13°♿37'40	
	12055 Sep 20 14:39	0°♿		12056 Aug 24 11:17	0°♿	
desc. node	12055 Sep 28 03:10	3°♿59'19	evening max el	12056 Sep 01 04:11	10°♿30'30 19°03'59	
retrograde	12055 Sep 29 23:45	4°♿08'47	retrograde	12056 Sep 10 01:58	14°♿57'26	
evening set	12055 Oct 01 22:51	3°♿58'41	evening set	12056 Sep 11 22:30	14°♿46'38	
inferior conj	12055 Oct 10 22:07	29°♿59'41 -3°50'18	desc. node	12056 Sep 14 00:37	14°♿10'28	
minimum elong	12055 Oct 10 12:36	0°♿13'58 3°46'52	inferior conj	12056 Sep 20 08:29	10°♿32'48 -1°59'13	
	12055 Oct 10 21:54	30°♿	minimum elong	12056 Sep 20 03:20	10°♿41'39 1°57'08	
min. Earth dist.	12055 Oct 12 16:05	28°♿56'43 0.54948 AU	min. Earth dist.	12056 Sep 23 04:54	8°♿35'50 0.56219 AU	
morning rise	12055 Oct 19 01:14	25°♿50'02	morning rise	12056 Sep 28 05:08	5°♿48'11	
direct	12055 Oct 23 17:03	25°♿02'51	direct	12056 Oct 03 16:30	4°♿38'06	
	12055 Nov 04 08:57	0°♿	morning max el	12056 Oct 17 20:18	11°♿52'47 25°53'16	
morning max el	12055 Nov 06 08:29	1°♿44'54 24°12'06		12056 Oct 31 20:25	0°♿	
asc. node	12055 Nov 21 20:58	23°♿02'14	asc. node	12056 Nov 07 17:47	12°♿05'49	
	12055 Nov 25 14:38	0°♿	morning set	12056 Nov 14 15:52	26°♿08'56	
morning set	12055 Dec 01 04:40	11°♿27'48		12056 Nov 16 10:34	0°♿	
superior conj	12055 Dec 08 00:45	26°♿21'24 1°38'39	superior conj	12056 Nov 21 11:06	11°♿06'03 1°37'20	
minimum elong	12055 Dec 08 01:03	26°♿23'01 1°39'28	minimum elong	12056 Nov 21 10:19	11°♿01'43 1°38'04	
	12055 Dec 09 17:02	0°♿	max. Earth dist.	12056 Nov 22 13:23	13°♿31'35 1.31760 AU	
max. Earth dist.	12055 Dec 10 08:18	1°♿22'09 1.32673 AU	evening rise	12056 Nov 28 11:53	26°♿20'10	
evening rise	12055 Dec 15 12:07	12°♿08'59		12056 Nov 30 06:32	0°♿	
	12055 Dec 24 23:35	0°♿	desc. node	12056 Dec 10 22:00	19°♿47'13	
desc. node	12055 Dec 25 01:00	0°♿06'12		12056 Dec 17 09:57	0°♿	
	12056 Jan 14 22:30	0°♿	evening max el	12056 Dec 30 14:40	16°♿06'11 27°26'00	
evening max el	12056 Jan 18 05:36	3°♿22'46 27°29'57	retrograde	12057 Jan 13 12:18	23°♿24'10	
retrograde	12056 Jan 31 22:55	10°♿47'10	evening set	12057 Jan 20 11:13	21°♿08'55	
evening set	12056 Feb 07 20:20	8°♿18'47	min. Earth dist.	12057 Jan 24 04:59	18°♿15'49 0.61709 AU	
min. Earth dist.	12056 Feb 11 15:11	5°♿00'54 0.63733 AU	inferior conj	12057 Jan 27 05:35	15°♿30'49 -2°25'26	
inferior conj	12056 Feb 14 07:03	2°♿17'21 -1°09'24	minimum elong	12057 Jan 27 10:35	15°♿19'24 2°22'50	

morning rise	12057 Feb 03 12:44	10°  30'12	min. Earth dist.	12058 Jan 06 08:06	0°  41'01	0.59569 AU
asc. node	12057 Feb 03 16:50	10°  27'08		12058 Jan 07 05:14	30° 	
direct	12057 Feb 05 17:01	10°  09'36	inferior conj	12058 Jan 09 12:16	28°  09'58	-3°44'59
morning max el	12057 Feb 12 14:40	13°  39'05 17°50'00	minimum elong	12058 Jan 09 19:55	27°  54'44	3°41'40
	12057 Feb 23 18:47	0° 	morning rise	12058 Jan 17 09:02	23°  29'55	
morning set	12057 Feb 28 07:39	8°  04'20	direct	12058 Jan 19 11:00	23°  13'55	
desc. node	12057 Mar 08 22:50	23°  22'03	asc. node	12058 Jan 21 14:05	23°  31'24	
			morning max el	12058 Jan 27 03:12	27°  02'22	18°11'14
superior conj	12057 Mar 11 08:29	27°  29'55 -0°18'29		12058 Jan 29 18:20	0° 	
minimum elong	12057 Mar 11 06:46	27°  22'36 0°18'06	morning set	12058 Feb 11 19:10	21°  54'47	
	12057 Mar 12 19:51	0° 		12058 Feb 16 02:33	0° 	
max. Earth dist.	12057 Mar 18 13:01	9°  28'20 1.43395 AU				
evening rise	12057 Mar 25 12:18	20°  34'11	superior conj	12058 Feb 21 09:28	9°  42'21	0°18'53
	12057 Mar 31 15:43	0° 	minimum elong	12058 Feb 21 10:55	9°  48'50	0°19'02
	12057 Apr 22 02:50	0° 	desc. node	12058 Feb 23 19:26	14°  00'43	
evening max el	12057 Apr 26 00:55	4°  20'42 21°40'51	max. Earth dist.	12058 Mar 01 00:14	22°  59'17	1.41476 AU
asc. node	12057 May 02 13:57	9°  10'35		12058 Mar 05 05:43	0° 	
retrograde	12057 May 05 03:26	9°  41'40	evening rise	12058 Mar 05 21:58	1°  06'05	
evening set	12057 May 09 15:11	7°  51'56		12058 Mar 25 02:09	0° 	
inferior conj	12057 May 14 21:43	1°  35'13 3°01'05	evening max el	12058 Apr 08 17:16	18°  09'17	23°00'03
minimum elong	12057 May 14 20:17	1°  40'11 3°00'11	retrograde	12058 Apr 18 23:31	24°  12'27	
min. Earth dist.	12057 May 15 01:08	1°  23'16 0.68699 AU	asc. node	12058 Apr 19 11:16	24°  11'20	
	12057 May 16 01:11	30° 	evening set	12058 Apr 23 22:36	22°  07'55	
morning rise	12057 May 20 01:11	25°  20'52	inferior conj	12058 Apr 29 07:06	15°  43'00	2°38'53
direct	12057 May 25 00:49	23°  11'37	minimum elong	12058 Apr 29 05:07	15°  49'54	2°37'54
morning max el	12057 Jun 03 22:00	29°  02'11 22°40'21	min. Earth dist.	12058 Apr 28 21:52	16°  15'01	0.68772 AU
	12057 Jun 04 20:26	0° 	morning rise	12058 May 04 11:31	9°  35'10	
desc. node	12057 Jun 05 00:11	0°  09'55	direct	12058 May 08 22:01	7°  46'38	
	12057 Jun 27 02:31	0° 	morning max el	12058 May 17 13:14	12°  45'25	21°15'37
morning set	12057 Jul 07 21:01	16°  59'08	desc. node	12058 May 22 21:05	18°  48'50	
max. Earth dist.	12057 Jul 12 13:41	24°  49'21 1.40457 AU		12058 May 31 04:15	0° 	
	12057 Jul 15 13:54	0° 	morning set	12058 Jun 17 17:04	26°  12'05	
				12058 Jun 20 00:39	0° 	
superior conj	12057 Jul 20 09:32	8°  33'06 -1°18'03	max. Earth dist.	12058 Jun 24 17:38	7°  35'48	1.42601 AU
minimum elong	12057 Jul 20 15:05	8°  58'13 1°17'56				
asc. node	12057 Jul 29 13:09	25°  03'45	superior conj	12058 Jul 02 00:57	19°  49'09	-1°48'17
evening rise	12057 Jul 30 08:59	27°  08'47	minimum elong	12058 Jul 02 07:47	20°  18'28	1°48'26
	12057 Jul 31 21:14	0° 		12058 Jul 07 21:08	0° 	
evening max el	12057 Aug 15 08:38	22°  50'50 18°24'50	evening rise	12058 Jul 13 11:36	10°  02'18	
retrograde	12057 Aug 22 23:10	26°  40'47	asc. node	12058 Jul 16 09:58	15°  01'54	
evening set	12057 Aug 25 01:05	26°  24'23		12058 Jul 25 04:45	0° 	
desc. node	12057 Aug 31 22:04	22°  26'23	evening max el	12058 Jul 29 19:42	5°  44'00	18°05'49
inferior conj	12057 Sep 01 16:17	21°  50'04 -0°14'08	retrograde	12058 Aug 05 14:20	9°  11'54	
minimum elong	12057 Sep 01 15:45	21°  51'09 0°14'08	evening set	12058 Aug 07 23:52	8°  46'06	
transit middle	12057 Sep 01 15:45	21°  51'09 0°14'08	inferior conj	12058 Aug 14 20:56	3°  51'08	1°09'43
transit begin	12057 Sep 01 14:02	21°  54'36	minimum elong	12058 Aug 14 22:57	3°  46'27	1°08'34
transit end	12057 Sep 01 17:28	21°  47'43	min. Earth dist.	12058 Aug 18 02:26	0°  51'26	0.60371 AU
min. Earth dist.	12057 Sep 04 23:41	19°  11'40 0.58135 AU	desc. node	12058 Aug 18 19:31	0° 	
morning rise	12057 Sep 09 02:55	16°  28'53		12058 Aug 19 02:19	30° 	
direct	12057 Sep 15 06:16	14°  51'08	morning rise	12058 Aug 21 19:05	28°  00'20	
morning max el	12057 Sep 29 14:09	22°  29'15 27°10'17	direct	12058 Aug 28 08:17	25°  02'55'09	
	12057 Oct 06 06:14	0° 		12058 Sep 07 06:56	0° 	
	12057 Oct 24 19:31	0° 	morning max el	12058 Sep 11 15:28	3°  49'26	27°51'52
asc. node	12057 Oct 25 14:33	1°  33'50		12058 Sep 30 23:27	0° 	
morning set	12057 Oct 30 00:45	10°  40'12	asc. node	12058 Oct 12 11:17	21°  18'43	
			morning set	12058 Oct 14 05:28	24°  56'10	
superior conj	12057 Nov 05 22:48	25°  51'22 1°30'12		12058 Oct 16 14:49	0° 	
minimum elong	12057 Nov 05 21:09	25°  42'11 1°30'43	max. Earth dist.	12058 Oct 20 06:26	7°  58'30	1.31432 AU
max. Earth dist.	12057 Nov 05 22:01	25°  47'00 1.31347 AU				
	12057 Nov 07 19:25	0° 	superior conj	12058 Oct 21 09:57	10°  31'00	1°17'28
evening rise	12057 Nov 12 17:33	10°  45'31	minimum elong	12058 Oct 21 07:47	10°  19'00	1°17'39
	12057 Nov 22 12:10	0° 	evening rise	12058 Oct 28 02:55	25°  18'19	
desc. node	12057 Nov 27 19:08	8°  55'24		12058 Oct 30 08:00	0° 	
evening max el	12057 Dec 12 17:55	28°  03'50 26°47'43	desc. node	12058 Nov 14 16:20	27°  41'36	
	12057 Dec 14 22:18	0° 		12058 Nov 16 14:54	0° 	
retrograde	12057 Dec 26 16:32	5°  12'27	evening max el	12058 Nov 24 12:55	9°  08'42	25°36'41
evening set	12058 Jan 02 09:40	3°  19'03	retrograde	12058 Dec 08 09:56	16°  08'19	

evening set	12058 Dec 14 11:16	14° $\text{Z}$ 43'46		min. Earth dist.	12059 Nov 30 11:18	22° $\text{Z}$ 27'37	0.55803 AU
min. Earth dist.	12058 Dec 19 01:13	12° $\text{Z}$ 06'11	0.57510 AU	inferior conj	12059 Dec 02 14:35	21° $\text{Z}$ 09'53	-5°45'04
inferior conj	12058 Dec 21 23:45	10° $\text{Z}$ 04'59	-4°57'37	minimum elong	12059 Dec 02 18:34	21° $\text{Z}$ 03'50	5°43'54
minimum elong	12058 Dec 22 07:59	9° $\text{Z}$ 50'48	4°54'54	morning rise	12059 Dec 11 02:21	17° $\text{Z}$ 12'44	
morning rise	12058 Dec 30 07:09	5° $\text{Z}$ 47'31		direct	12059 Dec 13 17:09	16° $\text{Z}$ 55'14	
direct	12059 Jan 01 11:58	5° $\text{Z}$ 32'39		morning max el	12059 Dec 24 00:01	21° $\text{Z}$ 49'28	19°58'20
asc. node	12059 Jan 08 11:17	8° $\text{Z}$ 12'57		asc. node	12059 Dec 26 08:26	24° $\text{Z}$ 19'10	
morning max el	12059 Jan 10 07:35	9° $\text{Z}$ 49'25	18°53'28		12059 Dec 30 14:00	0° $\text{Z}$	
	12059 Jan 23 12:19	0° $\approx$		morning set	12060 Jan 10 22:14	20° $\text{Z}$ 48'10	
morning set	12059 Jan 26 17:14	6° $\approx$ 13'04			12060 Jan 15 10:19	0° $\approx$	
superior conj	12059 Feb 04 05:40	22° $\approx$ 48'06	0°49'28	superior conj	12060 Jan 18 16:14	6° $\approx$ 33'06	1°12'27
minimum elong	12059 Feb 04 08:26	23° $\approx$ 01'18	0°49'37	minimum elong	12060 Jan 18 19:02	6° $\approx$ 47'01	1°12'49
	12059 Feb 08 02:14	0° $\text{X}$		max. Earth dist.	12060 Jan 24 14:03	18° $\approx$ 00'20	1.37063 AU
desc. node	12059 Feb 10 16:06	4° $\text{X}$ 39'41		evening rise	12060 Jan 28 07:50	24° $\approx$ 52'38	
max. Earth dist.	12059 Feb 11 07:39	5° $\text{X}$ 48'52	1.39280 AU	desc. node	12060 Jan 28 12:47	25° $\approx$ 14'50	
evening rise	12059 Feb 15 04:51	12° $\text{X}$ 33'42			12060 Jan 31 05:29	0° $\text{X}$	
	12059 Feb 26 00:00	0° $\text{Y}$			12060 Feb 19 14:43	0° $\text{Y}$	
	12059 Mar 20 08:44	0° $\text{Z}$		evening max el	12060 Mar 03 20:32	15° $\text{Y}$ 51'00	25°35'04
evening max el	12059 Mar 22 07:15	2° $\text{Z}$ 00'14	24°20'22	retrograde	12060 Mar 16 04:42	22° $\text{Y}$ 57'59	
retrograde	12059 Apr 02 16:17	8° $\text{Z}$ 40'18		evening set	12060 Mar 22 03:17	20° $\text{Y}$ 30'51	
asc. node	12059 Apr 06 08:37	7° $\text{Z}$ 38'57		asc. node	12060 Mar 23 06:00	19° $\text{Y}$ 29'43	
evening set	12059 Apr 08 03:12	6° $\text{Z}$ 22'52		min. Earth dist.	12060 Mar 26 10:51	15° $\text{Y}$ 48'52	0.67580 AU
min. Earth dist.	12059 Apr 12 17:48	1° $\text{Z}$ 05'45	0.68392 AU	inferior conj	12060 Mar 27 20:33	14° $\text{Y}$ 01'00	1°24'58
inferior conj	12059 Apr 13 15:22	29° $\text{Y}$ 53'13	2°06'52	minimum elong	12060 Mar 27 18:43	14° $\text{Y}$ 06'52	1°24'13
minimum elong	12059 Apr 13 13:12	0° $\text{Z}$ 00'30	2°05'54	morning rise	12060 Apr 02 10:41	8° $\text{Y}$ 09'45	
	12059 Apr 13 13:21	30° $\text{R}$ $\text{Y}$		direct	12060 Apr 05 20:40	7° $\text{Y}$ 02'49	
morning rise	12059 Apr 18 23:21	23° $\text{Y}$ 53'02		morning max el	12060 Apr 12 17:33	10° $\text{Y}$ 47'16	19°03'07
direct	12059 Apr 22 21:08	22° $\text{Y}$ 25'57		desc. node	12060 Apr 25 14:33	27° $\text{Y}$ 52'59	
morning max el	12059 Apr 30 11:35	26° $\text{Y}$ 41'26	20°02'05	greatest brilliancy	12060 Apr 25 22:28	28° $\text{Y}$ 22'46	-0.7m
	12059 May 03 12:22	0° $\text{Z}$			12060 Apr 27 00:13	0° $\text{Z}$	
desc. node	12059 May 09 17:52	8° $\text{Z}$ 06'57		morning set	12060 May 05 23:34	13° $\text{Z}$ 47'19	
	12059 May 24 13:36	0° $\text{II}$			12060 May 16 09:59	0° $\text{II}$	
morning set	12059 May 27 19:16	4° $\text{II}$ 57'30		max. Earth dist.	12060 May 19 20:33	5° $\text{II}$ 22'58	1.45391 AU
max. Earth dist.	12059 Jun 07 04:35	21° $\text{II}$ 12'31	1.44308 AU	superior conj	12060 May 22 10:14	9° $\text{II}$ 25'29	-2°12'27
superior conj	12059 Jun 12 16:34	0° $\text{III}$ 04'05	-2°08'40	minimum elong	12060 May 22 07:51	9° $\text{II}$ 16'06	2°13'09
minimum elong	12059 Jun 12 21:04	0° $\text{III}$ 22'26	2°09'20		12060 Jun 04 06:39	0° $\text{III}$	
	12059 Jun 12 15:34	0° $\text{III}$		evening rise	12060 Jun 06 06:05	3° $\text{III}$ 13'09	
evening rise	12059 Jun 25 20:14	22° $\text{III}$ 07'23		asc. node	12060 Jun 19 03:51	23° $\text{III}$ 51'42	
	12059 Jun 30 10:42	0° $\Omega$			12060 Jun 23 15:35	0° $\Omega$	
asc. node	12059 Jul 03 06:53	4° $\Omega$ 46'41		evening max el	12060 Jun 25 23:02	2° $\Omega$ 34'01	18°24'21
evening max el	12059 Jul 13 09:35	19° $\Omega$ 01'10	18°05'53	retrograde	12060 Jul 02 09:07	6° $\Omega$ 00'40	
retrograde	12059 Jul 19 19:08	22° $\Omega$ 21'33		evening set	12060 Jul 05 10:56	5° $\Omega$ 08'08	
evening set	12059 Jul 22 12:42	21° $\Omega$ 43'27			12060 Jul 10 22:47	30° $\text{R}$ $\text{III}$	
inferior conj	12059 Jul 28 18:58	16° $\Omega$ 29'57	2°09'28	inferior conj	12060 Jul 11 06:14	29° $\text{III}$ 38'06	2°47'49
minimum elong	12059 Jul 28 21:36	16° $\Omega$ 22'57	2°08'06	minimum elong	12060 Jul 11 08:21	29° $\text{III}$ 31'51	2°46'39
min. Earth dist.	12059 Jul 31 14:37	13° $\Omega$ 31'04	0.62633 AU	min. Earth dist.	12060 Jul 13 12:17	26° $\text{III}$ 59'18	0.64686 AU
morning rise	12059 Aug 04 04:26	10° $\Omega$ 19'49		morning rise	12060 Jul 17 04:32	23° $\text{III}$ 18'18	
desc. node	12059 Aug 05 16:53	9° $\Omega$ 20'14		desc. node	12060 Jul 22 14:10	20° $\text{III}$ 43'13	
direct	12059 Aug 10 20:55	7° $\Omega$ 52'40		direct	12060 Jul 23 18:20	20° $\text{III}$ 38'24	
morning max el	12059 Aug 24 22:45	15° $\Omega$ 55'04	27°54'32	morning max el	12060 Aug 06 09:05	28° $\text{III}$ 37'20	27°21'39
	12059 Sep 05 12:16	0° $\text{II}$			12060 Aug 07 16:57	0° $\Omega$	
	12059 Sep 23 15:50	0° $\text{III}$			12060 Aug 29 08:07	0° $\text{II}$	
morning set	12059 Sep 28 03:53	8° $\text{III}$ 51'19		morning set	12060 Sep 10 17:27	22° $\text{II}$ 19'39	
asc. node	12059 Sep 29 07:59	11° $\text{III}$ 15'00			12060 Sep 14 13:24	0° $\text{III}$	
max. Earth dist.	12059 Oct 03 10:35	19° $\text{III}$ 55'07	1.32027 AU	asc. node	12060 Sep 15 04:40	1° $\text{III}$ 18'26	
				max. Earth dist.	12060 Sep 15 06:47	1° $\text{III}$ 29'23	1.33147 AU
superior conj	12059 Oct 05 18:41	24° $\text{III}$ 59'42	0°59'16	superior conj	12060 Sep 18 22:58	9° $\text{III}$ 12'18	0°35'51
minimum elong	12059 Oct 05 16:28	24° $\text{III}$ 47'36	0°59'10	minimum elong	12060 Sep 18 21:18	9° $\text{III}$ 03'25	0°35'34
	12059 Oct 08 01:23	0° $\text{III}$		evening rise	12060 Sep 26 01:04	24° $\text{III}$ 25'37	
evening rise	12059 Oct 12 14:01	9° $\text{III}$ 53'11			12060 Sep 28 16:51	0° $\text{III}$	
	12059 Oct 22 18:34	0° $\text{Z}$		evening max el	12060 Oct 17 11:35	29° $\text{III}$ 32'17	22°21'03
desc. node	12059 Nov 01 13:36	14° $\text{Z}$ 35'59			12060 Oct 17 23:07	0° $\text{Z}$	
evening max el	12059 Nov 06 00:28	19° $\text{Z}$ 28'16	24°02'18	desc. node	12060 Oct 18 10:56	0° $\text{Z}$ 27'21	
retrograde	12059 Nov 19 15:14	26° $\text{Z}$ 16'22		retrograde	12060 Oct 30 08:32	5° $\text{Z}$ 56'02	
evening set	12059 Nov 24 12:45	25° $\text{Z}$ 23'50					

evening set	12060 Nov 02 19:08	5°♂29'56			12061 Sep 21 15:27	0°♂	
min. Earth dist.	12060 Nov 10 18:25	1°♂57'01	0.54759 AU	evening max el	12061 Sep 29 07:34	9°♂56'54	20°49'06
inferior conj	12060 Nov 11 12:29	1°♂31'32	-5°44'40	desc. node	12061 Oct 05 08:20	14°♂22'38	
minimum elong	12060 Nov 11 08:00	1°♂37'52	5°43'34	retrograde	12061 Oct 10 19:20	15°♂39'09	
	12060 Nov 14 07:05	30°♂		evening set	12061 Oct 13 02:46	15°♂26'20	
morning rise	12060 Nov 19 22:14	27°♂44'15		inferior conj	12061 Oct 22 04:11	11°♂31'43	-4°45'32
direct	12060 Nov 23 06:10	27°♂19'19		minimum elong	12061 Oct 21 18:17	11°♂45'49	4°42'32
	12060 Dec 01 10:05	0°♂		min. Earth dist.	12061 Oct 23 01:32	11°♂01'15	0.54610 AU
morning max el	12060 Dec 05 02:23	2°♂57'01	21°25'32	morning rise	12061 Oct 30 09:50	7°♂36'17	
asc. node	12060 Dec 12 05:28	11°♂33'32		direct	12061 Nov 03 14:21	6°♂58'38	
	12060 Dec 22 14:56	0°♂		morning max el	12061 Nov 16 16:55	13°♂18'34	23°09'36
morning set	12060 Dec 25 07:32	5°♂32'36		asc. node	12061 Nov 29 02:24	29°♂39'45	
					12061 Nov 29 07:13	0°♂	
superior conj	12061 Jan 01 13:13	20°♂46'02	1°28'00	morning set	12061 Dec 09 18:58	20°♂19'26	
minimum elong	12061 Jan 01 15:15	20°♂56'40	1°28'38		12061 Dec 14 06:42	0°♂	
max. Earth dist.	12061 Jan 06 00:38	29°♂53'34	1.35058 AU				
	12061 Jan 06 01:56	0°♂		superior conj	12061 Dec 16 17:19	5°♂16'35	1°36'37
evening rise	12061 Jan 10 03:48	7°♂54'54		minimum elong	12061 Dec 16 18:16	5°♂21'45	1°37'25
desc. node	12061 Jan 14 09:34	15°♂42'25		max. Earth dist.	12061 Dec 19 18:55	11°♂47'46	1.33419 AU
	12061 Jan 22 21:09	0°♂		evening rise	12061 Dec 24 13:03	21°♂29'56	
evening max el	12061 Feb 14 10:10	29°♂37'19	26°36'46		12061 Dec 28 23:29	0°♂	
	12061 Feb 14 19:37	0°♂		desc. node	12062 Jan 01 06:26	5°♂56'51	
retrograde	12061 Feb 27 11:49	6°♂58'43			12062 Jan 16 17:29	0°♂	
evening set	12061 Mar 05 21:07	4°♂26'27		evening max el	12062 Jan 27 23:35	13°♂09'12	27°18'11
min. Earth dist.	12061 Mar 09 22:52	0°♂18'39	0.66369 AU	retrograde	12062 Feb 10 12:35	20°♂34'08	
asc. node	12061 Mar 10 03:21	0°♂05'27		evening set	12062 Feb 17 06:35	18°♂02'33	
	12061 Mar 10 05:12	30°♂		min. Earth dist.	12062 Feb 21 03:38	14°♂27'16	0.64787 AU
inferior conj	12061 Mar 11 20:36	28°♂02'15	0°33'00	inferior conj	12062 Feb 23 13:04	11°♂50'55	-0°29'09
minimum elong	12061 Mar 11 19:44	28°♂04'50	0°32'47	minimum elong	12062 Feb 23 13:56	11°♂48'33	0°28'28
morning rise	12061 Mar 17 19:26	22°♂21'40		asc. node	12062 Feb 25 00:42	10°♂15'38	
direct	12061 Mar 20 18:56	21°♂32'10		morning rise	12062 Mar 01 23:01	6°♂23'28	
morning max el	12061 Mar 27 05:58	24°♂58'07	18°20'26	direct	12062 Mar 04 13:35	5°♂47'59	
	12061 Mar 31 13:10	0°♂		morning max el	12062 Mar 10 22:28	9°♂06'58	17°54'48
desc. node	12061 Apr 12 11:11	17°♂59'33			12062 Mar 25 07:08	0°♂	
morning set	12061 Apr 16 02:14	23°♂45'59		morning set	12062 Mar 28 09:53	5°♂10'24	
	12061 Apr 20 00:19	0°♂		desc. node	12062 Mar 30 07:49	8°♂20'57	
superior conj	12061 May 01 17:19	18°♂25'31	-1°55'56	superior conj	12062 Apr 11 07:43	27°♂51'42	-1°22'48
minimum elong	12061 May 01 08:43	17°♂51'54	1°55'53	minimum elong	12062 Apr 10 23:13	27°♂17'51	1°22'08
max. Earth dist.	12061 May 02 15:38	19°♂52'44	1.45757 AU		12062 Apr 12 16:00	0°♂	
	12061 May 09 03:15	0°♂		max. Earth dist.	12062 Apr 15 11:40	4°♂27'13	1.45376 AU
evening rise	12061 May 17 15:43	13°♂19'40		evening rise	12062 Apr 27 07:30	22°♂48'17	
greatest brilliancy	12061 May 27 22:37	29°♂22'39	-0.8m		12062 May 02 00:29	0°♂	
	12061 May 28 08:22	0°♂		greatest brilliancy	12062 May 11 21:43	14°♂48'36	-0.6m
asc. node	12061 Jun 06 00:53	12°♂25'42		evening max el	12062 May 23 14:54	0°♂01'02	19°52'20
evening max el	12061 Jun 09 09:26	16°♂15'36	19°00'19	asc. node	12062 May 23 22:00	0°♂18'41	
retrograde	12061 Jun 16 04:36	20°♂01'16			12062 May 23 14:29	0°♂	
evening set	12061 Jun 19 15:04	18°♂52'55		retrograde	12062 May 31 02:52	4°♂17'27	
inferior conj	12061 Jun 25 03:02	13°♂07'54	3°08'35	evening set	12062 Jun 03 22:34	2°♂52'41	
minimum elong	12061 Jun 25 04:09	13°♂04'20	3°07'38		12062 Jun 06 20:39	30°♂	
min. Earth dist.	12061 Jun 26 18:15	11°♂03'03	0.66386 AU	inferior conj	12062 Jun 09 06:21	26°♂53'53	3°14'58
morning rise	12061 Jun 30 16:34	6°♂45'16		minimum elong	12062 Jun 09 06:22	26°♂53'49	3°14'08
direct	12061 Jul 06 22:56	4°♂03'22		min. Earth dist.	12062 Jun 10 06:59	25°♂31'04	0.67652 AU
desc. node	12061 Jul 09 11:22	4°♂25'58		morning rise	12062 Jun 14 13:50	20°♂32'43	
morning max el	12061 Jul 19 19:53	11°♂43'51	26°20'35	direct	12062 Jun 20 09:28	17°♂58'24	
	12061 Aug 03 10:18	0°♂		desc. node	12062 Jun 26 08:29	20°♂04'37	
	12061 Aug 21 22:58	0°♂		morning max el	12062 Jul 02 06:02	25°♂04'58	25°00'44
morning set	12061 Aug 24 18:49	5°♂11'56			12062 Jul 06 16:55	0°♂	
max. Earth dist.	12061 Aug 28 16:44	12°♂41'14	1.34782 AU		12062 Jul 27 21:41	0°♂	
asc. node	12061 Sep 02 01:19	21°♂24'24		morning set	12062 Aug 07 03:55	17°♂18'19	
				max. Earth dist.	12062 Aug 10 17:55	23°♂47'55	1.36840 AU
					12062 Aug 14 01:12	0°♂	
superior conj	12061 Sep 02 20:19	23°♂01'43	0°07'38				
minimum elong	12061 Sep 02 19:54	22°♂59'36	0°07'21				
behind sun begin	12061 Sep 02 14:35	22°♂32'19		superior conj	12062 Aug 17 07:46	6°♂20'40	-0°24'29
behind sun end	12061 Sep 03 01:13	23°♂26'56		minimum elong	12062 Aug 17 09:21	6°♂28'30	0°24'35
	12061 Sep 06 04:51	0°♂		asc. node	12062 Aug 19 22:00	11°♂29'30	
evening rise	12061 Sep 10 10:01	8°♂49'37		evening rise	12062 Aug 25 14:40	22°♂59'32	



	12062 Aug 29 03:12	0°♄			12063 Aug 23 00:19	0°♄	
evening max el	12062 Sep 11 17:19	21°♄05'26	19°36'03	evening max el	12063 Aug 25 15:53	3°♄00'53	18°44'40
retrograde	12062 Sep 21 12:49	25°♄58'53		retrograde	12063 Sep 02 23:12	7°♄10'50	
desc. node	12062 Sep 22 05:44	25°♄57'27		evening set	12063 Sep 04 21:24	6°♄58'13	
evening set	12062 Sep 23 09:36	25°♄49'03		desc. node	12063 Sep 09 03:10	5°♄12'22	
inferior conj	12062 Oct 02 04:22	21°♄44'34	-3°04'01	inferior conj	12063 Sep 12 23:34	2°♄35'34	-1°12'35
minimum elong	12062 Oct 01 20:22	21°♄57'11	3°00'54	minimum elong	12063 Sep 12 20:34	2°♄41'05	1°11'27
min. Earth dist.	12062 Oct 04 11:18	20°♄18'01	0.55400 AU	min. Earth dist.	12063 Sep 16 02:19	0°♄19'01	0.56974 AU
morning rise	12062 Oct 10 05:11	17°♄21'30			12063 Sep 16 13:14	30°♄	
direct	12062 Oct 15 05:44	16°♄25'26		morning rise	12063 Sep 20 16:22	27°♄34'47	
morning max el	12062 Oct 29 03:19	23°♄21'28	24°57'07	direct	12063 Sep 26 10:52	26°♄13'35	
	12062 Nov 04 02:53	0°♄			12063 Oct 06 09:46	0°♄	
asc. node	12062 Nov 15 23:17	18°♄25'26		morning max el	12063 Oct 10 17:30	3°♄39'07	26°29'59
	12062 Nov 21 21:07	0°♄			12063 Oct 29 17:07	0°♄	
morning set	12062 Nov 24 06:45	5°♄03'59		asc. node	12063 Nov 02 20:07	7°♄40'27	
				morning set	12063 Nov 08 17:13	19°♄41'42	
					12063 Nov 13 10:16	0°♄	
superior conj	12062 Dec 01 02:00	19°♄57'42	1°38'48	superior conj	12063 Nov 15 13:10	4°♄43'17	1°35'00
minimum elong	12062 Dec 01 01:50	19°♄56'44	1°39'38	minimum elong	12063 Nov 15 12:00	4°♄36'43	1°35'40
max. Earth dist.	12062 Dec 02 20:49	23°♄52'08	1.32229 AU	max. Earth dist.	12063 Nov 16 03:58	6°♄05'33	1.31520 AU
	12062 Dec 05 17:11	0°♄		evening rise	12063 Nov 22 10:52	19°♄47'29	
evening rise	12062 Dec 08 08:19	5°♄29'44			12063 Nov 27 11:29	0°♄	
desc. node	12062 Dec 19 03:24	25°♄52'11		desc. node	12063 Dec 06 00:27	15°♄20'41	
	12062 Dec 21 14:24	0°♄			12063 Dec 16 00:32	0°♄	
evening max el	12063 Jan 10 10:55	26°♄13'43	27°32'19	evening max el	12063 Dec 23 17:42	8°♄38'26	27°13'56
	12063 Jan 14 23:02	0°♄		retrograde	12064 Jan 06 15:51	15°♄52'50	
retrograde	12063 Jan 24 06:10	3°♄35'05		evening set	12064 Jan 13 13:33	13°♄45'28	
evening set	12063 Jan 31 05:06	1°♄11'21		min. Earth dist.	12064 Jan 17 08:10	11°♄00'38	0.60799 AU
	12063 Feb 01 19:05	30°♄		inferior conj	12064 Jan 20 11:20	8°♄19'24	-2°59'13
min. Earth dist.	12063 Feb 03 23:07	28°♄05'01	0.62897 AU	minimum elong	12064 Jan 20 17:34	8°♄05'58	2°56'12
inferior conj	12063 Feb 06 19:04	25°♄19'22	-1°40'48	morning rise	12064 Jan 28 00:27	3°♄27'33	
minimum elong	12063 Feb 06 22:25	25°♄11'11	1°38'54	asc. node	12064 Jan 29 19:21	3°♄09'47	
asc. node	12063 Feb 11 22:02	21°♄01'37		direct	12064 Jan 30 03:18	3°♄09'19	
morning rise	12063 Feb 13 18:09	20°♄08'11		morning max el	12064 Feb 06 07:43	6°♄45'26	17°56'43
direct	12063 Feb 16 01:38	19°♄43'07			12064 Feb 21 05:41	0°♄	
morning max el	12063 Feb 22 16:08	23°♄05'37	17°46'38	morning set	12064 Feb 21 21:59	1°♄14'38	
	12063 Feb 28 03:28	0°♄					
morning set	12063 Mar 10 18:35	17°♄46'22		superior conj	12064 Mar 03 07:04	19°♄55'35	-0°01'58
desc. node	12063 Mar 17 04:26	28°♄52'07		minimum elong	12064 Mar 03 06:55	19°♄54'57	0°01'43
	12063 Mar 17 20:20	0°♄		behind sun begin	12064 Mar 02 22:50	19°♄19'37	
superior conj	12063 Mar 22 19:04	8°♄18'49	-0°42'03	behind sun end	12064 Mar 03 15:00	20°♄30'11	
minimum elong	12063 Mar 22 14:48	8°♄01'10	0°41'27	desc. node	12064 Mar 03 01:03	19°♄29'18	
max. Earth dist.	12063 Mar 29 05:48	18°♄48'51	1.44289 AU		12064 Mar 09 04:44	0°♄	
	12063 Apr 05 08:19	0°♄		max. Earth dist.	12064 Mar 10 19:32	2°♄40'58	1.42620 AU
evening rise	12063 Apr 06 19:23	2°♄15'30		evening rise	12064 Mar 16 18:18	12°♄17'28	
	12063 Apr 25 13:32	0°♄			12064 Mar 28 08:40	0°♄	
evening max el	12063 May 06 14:33	13°♄47'02	20°58'06	evening max el	12064 Apr 18 09:00	27°♄33'55	22°13'53
asc. node	12063 May 10 19:12	17°♄17'12			12064 Apr 21 00:26	0°♄	
retrograde	12063 May 15 01:41	18°♄43'10		asc. node	12064 Apr 26 16:28	3°♄05'51	
evening set	12063 May 19 07:23	17°♄02'11		retrograde	12064 Apr 27 23:20	3°♄13'41	
inferior conj	12063 May 24 13:41	10°♄51'14	3°09'16	evening set	12064 May 02 15:48	1°♄17'20	
minimum elong	12063 May 24 12:43	10°♄54'34	3°08'25		12064 May 04 00:11	30°♄	
min. Earth dist.	12063 May 25 00:32	10°♄13'36	0.68452 AU	inferior conj	12064 May 07 22:54	24°♄56'29	2°52'53
morning rise	12063 May 29 17:51	4°♄33'56		minimum elong	12064 May 07 21:12	25°♄02'27	2°51'57
direct	12063 Jun 04 00:55	2°♄14'23		min. Earth dist.	12064 May 07 20:49	25°♄03'47	0.68785 AU
desc. node	12063 Jun 13 05:32	7°♄10'40		morning rise	12064 May 13 02:28	18°♄44'41	
morning max el	12063 Jun 14 16:09	8°♄34'42	23°31'51	direct	12064 May 17 20:22	16°♄44'13	
	12063 Jul 01 11:27	0°♄		morning max el	12064 May 27 04:39	22°♄12'40	22°03'15
morning set	12063 Jul 19 15:54	28°♄26'19		desc. node	12064 May 30 02:30	25°♄21'01	
	12063 Jul 20 14:01	0°♄			12064 Jun 02 22:20	0°♄	
max. Earth dist.	12063 Jul 23 15:30	5°♄16'41	1.39135 AU		12064 Jun 23 18:27	0°♄	
				morning set	12064 Jun 29 02:40	8°♄26'31	
superior conj	12063 Jul 31 05:34	18°♄59'26	-0°58'37	max. Earth dist.	12064 Jul 04 15:28	17°♄30'21	1.41410 AU
minimum elong	12063 Jul 31 09:41	19°♄18'44	0°58'32		12064 Jul 11 22:22	0°♄	
	12063 Aug 06 00:15	0°♄					
asc. node	12063 Aug 06 18:43	1°♄29'30		superior conj	12064 Jul 12 09:20	0°♄48'22	-1°31'39
evening rise	12063 Aug 09 12:09	6°♄47'18					

minimum elong	12064 Jul 12 15:43	1°♎16'34	1°31'37	asc. node	12065 Jul 10 12:21	10°♎58'31	
evening rise	12064 Jul 22 22:57	20°♎03'53		evening max el	12065 Jul 22 12:24	28°♎41'31	18°03'35
asc. node	12064 Jul 23 15:30	21°♎20'36			12065 Jul 23 23:36	0°♎	
	12064 Jul 28 09:09	0°♎		retrograde	12065 Jul 29 01:52	2°♎04'12	
evening max el	12064 Aug 07 23:36	15°♎36'10	18°14'17	evening set	12065 Jul 31 14:50	1°♎33'30	
retrograde	12064 Aug 15 04:29	19°♎15'05			12065 Aug 03 07:33	30°♎♎	
evening set	12064 Aug 17 09:21	18°♎55'15		inferior conj	12065 Aug 07 05:10	26°♎30'43	1°37'51
inferior conj	12064 Aug 24 16:35	14°♎12'11	0°24'24	minimum elong	12065 Aug 07 07:38	26°♎24'37	1°36'32
minimum elong	12064 Aug 24 17:24	14°♎10'25	0°23'47	min. Earth dist.	12065 Aug 10 07:21	23°♎28'31	0.61349 AU
desc. node	12064 Aug 26 00:37	13°♎02'57		desc. node	12065 Aug 12 22:00	21°♎13'35	
min. Earth dist.	12064 Aug 28 00:33	11°♎21'39	0.59064 AU	morning rise	12065 Aug 13 21:51	20°♎30'33	
morning rise	12064 Aug 31 22:01	8°♎36'48		direct	12065 Aug 20 13:28	18°♎14'41	
direct	12064 Sep 07 06:17	6°♎46'49		morning max el	12065 Sep 03 18:44	26°♎13'45	27°57'34
morning max el	12064 Sep 21 14:45	14°♎33'44	27°32'42		12065 Sep 07 07:16	0°♎	
	12064 Oct 04 01:22	0°♎			12065 Sep 27 15:17	0°♎	
asc. node	12064 Oct 19 16:53	27°♎16'16		asc. node	12065 Oct 06 13:35	17°♎06'48	
	12064 Oct 21 01:07	0°♎		morning set	12065 Oct 07 02:51	18°♎15'04	
morning set	12064 Oct 23 00:33	4°♎07'00			12065 Oct 12 15:04	0°♎	
max. Earth dist.	12064 Oct 29 12:47	18°♎19'34	1.31313 AU	max. Earth dist.	12065 Oct 12 19:43	0°♎25'27	1.31621 AU
superior conj	12064 Oct 30 00:51	19°♎26'47	1°25'29	superior conj	12065 Oct 14 11:14	4°♎02'57	1°10'25
minimum elong	12064 Oct 29 22:56	19°♎16'07	1°25'51	minimum elong	12065 Oct 14 08:59	3°♎50'33	1°10'28
	12064 Nov 03 19:02	0°♎		evening rise	12065 Oct 21 04:40	18°♎50'55	
evening rise	12064 Nov 05 18:19	4°♎16'16			12065 Oct 26 13:46	0°♎	
	12064 Nov 19 06:15	0°♎		desc. node	12065 Nov 08 18:48	22°♎08'33	
desc. node	12064 Nov 21 21:35	4°♎11'01			12065 Nov 15 09:42	0°♎	
evening max el	12064 Dec 04 17:23	20°♎12'57	26°21'12	evening max el	12065 Nov 16 08:58	0°♎57'01	24°58'36
retrograde	12064 Dec 18 16:04	27°♎18'45		retrograde	12065 Nov 30 04:32	7°♎52'14	
evening set	12064 Dec 25 03:44	25°♎36'47		evening set	12065 Dec 05 19:10	6°♎41'44	
min. Earth dist.	12064 Dec 29 06:55	23°♎01'00	0.58659 AU	min. Earth dist.	12065 Dec 10 20:54	3°♎58'18	0.56722 AU
inferior conj	12065 Jan 01 10:10	20°♎40'26	-4°17'37	inferior conj	12065 Dec 13 12:50	2°♎14'25	-5°22'12
minimum elong	12065 Jan 01 18:29	20°♎24'52	4°14'21	minimum elong	12065 Dec 13 19:57	2°♎02'48	5°20'08
morning rise	12065 Jan 09 12:04	16°♎10'11			12065 Dec 17 04:23	30°♎♎	
direct	12065 Jan 11 14:17	15°♎55'15		morning rise	12065 Dec 21 22:56	28°♎05'50	
asc. node	12065 Jan 15 16:36	16°♎55'53		direct	12065 Dec 24 06:59	27°♎50'22	
morning max el	12065 Jan 19 17:20	19°♎54'49	18°26'33		12065 Dec 30 19:17	0°♎	
	12065 Jan 27 05:19	0°♎		morning max el	12066 Jan 02 17:00	2°♎22'37	19°18'09
morning set	12065 Feb 04 14:27	15°♎17'46		asc. node	12066 Jan 02 13:46	2°♎14'53	
	12065 Feb 12 07:59	0°♎		morning set	12066 Jan 19 15:49	29°♎43'48	
					12066 Jan 19 19:04	0°♎	
superior conj	12065 Feb 13 16:47	2°♎31'56	0°32'45				
minimum elong	12065 Feb 13 18:59	2°♎42'07	0°32'51	superior conj	12066 Jan 27 19:34	15°♎55'05	1°00'09
desc. node	12065 Feb 17 21:40	10°♎08'16		minimum elong	12066 Jan 27 22:28	16°♎09'13	1°00'22
max. Earth dist.	12065 Feb 21 04:16	15°♎51'41	1.40554 AU	max. Earth dist.	12066 Feb 03 10:34	28°♎22'29	1.38328 AU
evening rise	12065 Feb 25 12:47	23°♎12'29			12066 Feb 04 08:09	0°♎	
	12065 Mar 01 17:12	0°♎		desc. node	12066 Feb 04 18:20	0°♎45'40	
	12065 Mar 22 07:10	0°♎		evening rise	12066 Feb 07 04:32	5°♎02'33	
evening max el	12065 Apr 01 00:00	11°♎22'53	23°34'30		12066 Feb 22 18:06	0°♎	
retrograde	12065 Apr 11 18:15	17°♎43'21		evening max el	12066 Mar 14 13:40	25°♎14'15	24°53'24
asc. node	12065 Apr 13 13:48	17°♎28'03			12066 Mar 20 07:35	0°♎	
evening set	12065 Apr 16 22:12	15°♎33'12		retrograde	12066 Mar 26 09:11	2°♎06'47	
min. Earth dist.	12065 Apr 21 17:36	9°♎55'17	0.68659 AU	asc. node	12066 Mar 31 11:10	0°♎13'03	
inferior conj	12065 Apr 22 08:03	9°♎05'38	2°26'31		12066 Mar 31 17:49	30°♎♎	
minimum elong	12065 Apr 22 05:56	9°♎12'54	2°25'31	evening set	12066 Apr 01 01:02	29°♎45'03	
morning rise	12065 Apr 27 13:38	3°♎00'38		min. Earth dist.	12066 Apr 05 12:35	24°♎42'47	0.68096 AU
direct	12065 May 01 18:35	1°♎21'15		inferior conj	12066 Apr 06 15:14	23°♎14'50	1°50'20
morning max el	12065 May 09 22:36	6°♎00'45	20°42'39	minimum elong	12066 Apr 06 13:08	23°♎21'44	1°49'25
desc. node	12065 May 16 23:20	14°♎17'52		morning rise	12066 Apr 12 01:28	17°♎18'03	
	12065 May 28 02:10	0°♎		direct	12066 Apr 15 18:11	15°♎59'35	
morning set	12065 Jun 08 13:24	17°♎23'52		morning max el	12066 Apr 23 00:05	20°♎00'12	19°35'01
	12065 Jun 16 12:36	0°♎			12066 May 01 03:37	0°♎	
max. Earth dist.	12065 Jun 16 21:51	0°♎37'16	1.43391 AU	desc. node	12066 May 03 20:05	3°♎48'29	
				greatest brilliancy	12066 May 05 16:15	6°♎29'11	-0.6m
superior conj	12065 Jun 23 14:55	11°♎39'07	-1°58'32	morning set	12066 May 18 13:29	25°♎57'31	
minimum elong	12065 Jun 23 21:21	12°♎06'05	1°58'55		12066 May 21 04:24	0°♎	
	12065 Jul 04 06:39	0°♎		max. Earth dist.	12066 May 30 11:17	14°♎30'23	1.44852 AU
evening rise	12065 Jul 05 18:34	2°♎38'21					

superior conj	12066 Jun 03 20:29	21° $\Pi$ 28'56	-2°12'39	evening rise	12067 May 29 17:20	24° $\Pi$ 58'25	
minimum elong	12066 Jun 03 22:28	21° $\Pi$ 36'54	2°13'26		12067 Jun 01 20:36	0° $\Xi$	
	12066 Jun 09 02:48	0° $\Xi$		greatest brilliancy	12067 Jun 05 14:48	6° $\Xi$ 00'25	-0.9m
evening rise	12066 Jun 17 17:54	14° $\Xi$ 18'31		asc. node	12067 Jun 14 06:15	19° $\Xi$ 09'58	
asc. node	12066 Jun 27 09:16	0° $\Omega$ 17'10		evening max el	12067 Jun 19 14:59	25° $\Xi$ 43'41	18°37'31
	12066 Jun 27 04:57	0° $\Omega$		retrograde	12067 Jun 26 03:51	29° $\Xi$ 16'53	
evening max el	12066 Jul 06 02:32	12° $\Omega$ 06'32	18°11'35	evening set	12067 Jun 29 09:19	28° $\Xi$ 17'36	
retrograde	12066 Jul 12 11:00	15° $\Omega$ 27'36		inferior conj	12067 Jul 05 01:03	22° $\Xi$ 40'45	2°58'34
evening set	12066 Jul 15 08:11	14° $\Omega$ 43'24		minimum elong	12067 Jul 05 02:47	22° $\Xi$ 35'27	2°57'30
inferior conj	12066 Jul 21 09:18	9° $\Omega$ 22'38	2°28'06	min. Earth dist.	12067 Jul 07 00:42	20° $\Xi$ 15'24	0.65458 AU
minimum elong	12066 Jul 21 11:48	9° $\Omega$ 15'38	2°26'48	morning rise	12067 Jul 10 19:20	16° $\Xi$ 19'05	
min. Earth dist.	12066 Jul 23 23:25	6° $\Omega$ 30'30	0.63546 AU	direct	12067 Jul 17 06:20	13° $\Xi$ 37'27	
morning rise	12066 Jul 27 13:48	3° $\Omega$ 07'43		desc. node	12067 Jul 17 16:35	13° $\Xi$ 38'05	
desc. node	12066 Jul 30 19:20	1° $\Omega$ 14'05		morning max el	12067 Jul 30 14:23	21° $\Xi$ 29'54	26°58'40
direct	12066 Aug 03 05:56	0° $\Omega$ 33'58			12067 Aug 06 23:53	0° $\Omega$	
morning max el	12066 Aug 17 03:27	8° $\Omega$ 35'32	27°44'30		12067 Aug 26 22:06	0° $\Pi$	
	12066 Sep 02 17:30	0° $\Pi$		morning set	12067 Sep 04 06:39	15° $\Pi$ 13'10	
	12066 Sep 19 21:49	0° $\underline{\Delta}$		max. Earth dist.	12067 Sep 08 13:13	23° $\Pi$ 38'31	1.33792 AU
morning set	12066 Sep 20 21:50	1° $\underline{\Delta}$ 59'18		asc. node	12067 Sep 10 06:55	27° $\Pi$ 11'06	
asc. node	12066 Sep 23 10:15	7° $\underline{\Delta}$ 06'24			12067 Sep 11 15:34	0° $\underline{\Delta}$	
max. Earth dist.	12066 Sep 25 20:56	12° $\underline{\Delta}$ 13'19	1.32449 AU				
				superior conj	12067 Sep 12 19:59	2° $\underline{\Delta}$ 28'40	0°24'25
superior conj	12066 Sep 28 18:20	18° $\underline{\Delta}$ 25'27	0°49'58	minimum elong	12067 Sep 12 18:46	2° $\underline{\Delta}$ 22'13	0°24'07
minimum elong	12066 Sep 28 16:16	18° $\underline{\Delta}$ 14'17	0°49'46	evening rise	12067 Sep 20 02:25	17° $\underline{\Delta}$ 54'59	
	12066 Oct 04 01:53	0° $\mathbb{M}$			12067 Sep 26 01:22	0° $\mathbb{M}$	
evening rise	12066 Oct 05 15:59	3° $\mathbb{M}$ 25'27		evening max el	12067 Oct 10 09:00	21° $\mathbb{M}$ 13'17	21°39'52
	12066 Oct 19 21:21	0° $\mathbb{X}$		desc. node	12067 Oct 13 13:26	23° $\mathbb{M}$ 58'10	
desc. node	12066 Oct 26 16:05	8° $\mathbb{X}$ 52'48		retrograde	12067 Oct 22 17:17	27° $\mathbb{M}$ 21'34	
evening max el	12066 Oct 28 19:19	11° $\mathbb{X}$ 05'34	23°18'55	evening set	12067 Oct 25 14:43	27° $\mathbb{M}$ 02'33	
retrograde	12066 Nov 11 03:52	17° $\mathbb{X}$ 44'29		inferior conj	12067 Nov 03 13:02	23° $\mathbb{M}$ 07'00	-5°26'25
evening set	12066 Nov 15 10:55	17° $\mathbb{X}$ 04'27		minimum elong	12067 Nov 03 05:24	23° $\mathbb{M}$ 17'42	5°24'33
min. Earth dist.	12066 Nov 22 05:02	13° $\mathbb{X}$ 54'49	0.55270 AU	min. Earth dist.	12067 Nov 03 11:28	23° $\mathbb{M}$ 09'12	0.54583 AU
inferior conj	12066 Nov 23 19:33	12° $\mathbb{X}$ 58'49	-5°51'50	morning rise	12067 Nov 11 21:09	19° $\mathbb{M}$ 19'10	
minimum elong	12066 Nov 23 20:08	12° $\mathbb{X}$ 57'58	5°51'03	direct	12067 Nov 15 13:39	18° $\mathbb{M}$ 49'38	
morning rise	12066 Dec 02 07:01	9° $\mathbb{X}$ 07'36		morning max el	12067 Nov 28 00:03	24° $\mathbb{M}$ 45'08	22°08'28
direct	12066 Dec 05 04:42	8° $\mathbb{X}$ 47'21			12067 Dec 02 17:56	0° $\mathbb{X}$	
morning max el	12066 Dec 16 03:19	13° $\mathbb{X}$ 59'24	20°32'52	asc. node	12067 Dec 07 07:50	6° $\mathbb{X}$ 29'29	
asc. node	12066 Dec 20 10:50	18° $\mathbb{X}$ 51'35		morning set	12067 Dec 19 09:23	29° $\mathbb{X}$ 09'50	
	12066 Dec 27 14:01	0° $\mathbb{Z}$			12067 Dec 19 18:53	0° $\mathbb{Z}$	
morning set	12067 Jan 03 22:56	14° $\mathbb{Z}$ 23'41					
				superior conj	12067 Dec 26 11:21	14° $\mathbb{Z}$ 14'18	1°32'28
superior conj	12067 Jan 11 10:59	29° $\mathbb{Z}$ 52'51	1°19'56	minimum elong	12067 Dec 26 12:57	14° $\mathbb{Z}$ 22'47	1°33'12
minimum elong	12067 Jan 11 13:31	0° $\approx$ 05'46	1°20'25	max. Earth dist.	12067 Dec 30 08:18	22° $\mathbb{Z}$ 17'07	1.34306 AU
	12067 Jan 11 12:23	0° $\approx$			12068 Jan 03 05:17	0° $\approx$	
max. Earth dist.	12067 Jan 16 18:36	10° $\approx$ 25'12	1.36177 AU	evening rise	12068 Jan 03 17:12	0° $\approx$ 57'37	
evening rise	12067 Jan 20 15:11	17° $\approx$ 40'47		desc. node	12068 Jan 09 11:51	11° $\approx$ 40'17	
desc. node	12067 Jan 22 15:04	21° $\approx$ 17'56			12068 Jan 20 16:11	0° $\mathbb{H}$	
	12067 Jan 27 15:24	0° $\mathbb{H}$		evening max el	12068 Feb 07 16:41	22° $\mathbb{H}$ 45'01	26°57'15
	12067 Feb 17 01:14	0° $\Upsilon$			12068 Feb 19 06:49	0° $\Upsilon$	
evening max el	12067 Feb 25 03:13	9° $\Upsilon$ 04'22	26°03'24	retrograde	12068 Feb 20 23:42	0° $\Upsilon$ 09'16	
retrograde	12067 Mar 09 19:14	16° $\Upsilon$ 18'09			12068 Feb 22 15:24	30° $\mathbb{R}$ $\mathbb{H}$	
evening set	12067 Mar 15 22:40	13° $\Upsilon$ 48'14		evening set	12068 Feb 27 13:13	27° $\mathbb{H}$ 36'08	
asc. node	12067 Mar 18 08:32	11° $\Upsilon$ 27'32		min. Earth dist.	12068 Mar 02 12:41	23° $\mathbb{H}$ 42'50	0.65736 AU
min. Earth dist.	12067 Mar 20 03:40	9° $\Upsilon$ 21'06	0.67113 AU	asc. node	12068 Mar 04 05:54	21° $\mathbb{H}$ 44'35	
inferior conj	12067 Mar 21 18:30	7° $\Upsilon$ 20'21	1°04'12	inferior conj	12068 Mar 04 15:36	21° $\mathbb{H}$ 16'31	0°07'52
minimum elong	12067 Mar 21 16:59	7° $\Upsilon$ 25'02	1°03'37	minimum elong	12068 Mar 04 15:23	21° $\mathbb{H}$ 17'11	0°07'59
morning rise	12067 Mar 27 12:00	1° $\Upsilon$ 33'28		transit middle	12068 Mar 04 15:23	21° $\mathbb{H}$ 17'11	0°07'59
direct	12067 Mar 30 17:29	0° $\Upsilon$ 34'12		transit begin	12068 Mar 04 12:48	21° $\mathbb{H}$ 24'37	
morning max el	12067 Apr 06 09:02	4° $\Upsilon$ 08'52	18°43'00	transit end	12068 Mar 04 17:57	21° $\mathbb{H}$ 09'45	
desc. node	12067 Apr 20 16:46	23° $\Upsilon$ 44'01		morning rise	12068 Mar 10 18:55	15° $\mathbb{H}$ 41'32	
	12067 Apr 24 17:37	0° $\mathbb{B}$		direct	12068 Mar 13 14:25	14° $\mathbb{H}$ 58'30	
morning set	12067 Apr 28 01:37	5° $\mathbb{B}$ 12'21		morning max el	12068 Mar 19 23:36	18° $\mathbb{H}$ 19'58	18°07'31
max. Earth dist.	12067 May 13 05:32	28° $\mathbb{B}$ 53'19	1.45638 AU		12068 Mar 28 19:38	0° $\Upsilon$	
	12067 May 13 22:35	0° $\mathbb{I}$		desc. node	12068 Apr 06 13:24	13° $\Upsilon$ 57'11	
				morning set	12068 Apr 07 16:35	15° $\Upsilon$ 47'18	
					12068 Apr 16 12:43	0° $\mathbb{B}$	
superior conj	12067 May 14 07:39	0° $\mathbb{I}$ 35'33	-2°07'53				
minimum elong	12067 May 14 02:05	0° $\mathbb{I}$ 13'42	2°08'20				

superior conj	12068 Apr 22 15:37	9°♄40'31	-1°43'26			12069 Feb 28 13:03	0°♄	
minimum elong	12068 Apr 22 06:16	9°♄03'46	1°43'02	morning max el		12069 Mar 03 17:02	2°♄25'49	17°49'08
max. Earth dist.	12068 Apr 25 01:21	13°♄26'47	1.45680 AU	morning set		12069 Mar 20 11:35	27°♄43'55	
	12068 May 05 16:38	0°♄				12069 Mar 21 19:42	0°♄	
evening rise	12068 May 08 18:04	4°♄44'37		desc. node		12069 Mar 24 10:02	4°♄23'02	
greatest brilliancy	12068 May 21 01:55	23°♄39'36	-0.7m					
	12068 May 25 10:00	0°♄		superior conj		12069 Apr 02 13:52	19°♄29'56	-1°05'54
asc. node	12068 May 31 03:20	7°♄27'34		minimum elong		12069 Apr 02 06:58	19°♄02'00	1°05'10
evening max el	12068 Jun 01 23:21	9°♄26'29	19°20'34	max. Earth dist.		12069 Apr 07 20:16	27°♄55'13	1.44992 AU
retrograde	12068 Jun 09 00:56	13°♄24'22				12069 Apr 09 03:53	0°♄	
evening set	12068 Jun 12 15:11	12°♄09'07		evening rise		12069 Apr 18 06:06	14°♄06'39	
inferior conj	12068 Jun 18 00:59	6°♄17'52	3°12'54			12069 Apr 28 18:30	0°♄	
minimum elong	12068 Jun 18 01:38	6°♄15'44	3°12'01	evening max el		12069 May 16 02:18	23°♄11'38	20°18'54
min. Earth dist.	12068 Jun 19 09:54	4°♄30'12	0.66973 AU	asc. node		12069 May 18 00:29	24°♄58'42	
morning rise	12068 Jun 23 11:35	29°♄55'11		retrograde		12069 May 23 23:41	27°♄44'25	
	12068 Jun 23 09:26	30°♄		evening set		12069 May 27 23:26	26°♄12'56	
direct	12068 Jun 29 13:33	27°♄15'35		inferior conj		12069 Jun 02 06:18	20°♄08'48	3°13'56
desc. node	12068 Jul 03 13:46	28°♄12'57		minimum elong		12069 Jun 02 05:52	20°♄10'14	3°13'06
	12068 Jul 06 14:57	0°♄		min. Earth dist.		12069 Jun 03 01:02	19°♄04'44	0.68045 AU
morning max el	12068 Jul 12 01:13	4°♄44'12	25°48'25	morning rise		12069 Jun 07 12:00	13°♄48'48	
	12068 Jul 31 10:06	0°♄		direct		12069 Jun 13 02:27	11°♄19'49	
morning set	12068 Aug 17 01:44	27°♄47'43		desc. node		12069 Jun 20 10:53	14°♄31'16	
	12068 Aug 18 06:26	0°♄		morning max el		12069 Jun 24 11:05	18°♄08'38	24°23'23
max. Earth dist.	12068 Aug 20 19:10	4°♄45'47	1.35609 AU			12069 Jul 04 09:55	0°♄	
						12069 Jul 24 11:37	0°♄	
superior conj	12068 Aug 26 13:34	16°♄06'04	-0°05'37	morning set		12069 Jul 30 02:27	9°♄30'30	
minimum elong	12068 Aug 26 13:54	16°♄07'49	0°05'49	max. Earth dist.		12069 Aug 02 17:26	15°♄55'23	1.37792 AU
behind sun begin	12068 Aug 26 08:07	15°♄38'39						
behind sun end	12068 Aug 26 19:41	16°♄37'02		superior conj		12069 Aug 09 19:42	29°♄08'45	-0°38'51
asc. node	12068 Aug 27 03:36	17°♄17'08		minimum elong		12069 Aug 09 22:20	29°♄21'25	0°38'52
	12068 Sep 02 07:53	0°♄				12069 Aug 10 06:20	0°♄	
evening rise	12068 Sep 03 09:52	2°♄13'54		asc. node		12069 Aug 14 00:18	7°♄20'11	
	12068 Sep 19 15:40	0°♄		evening rise		12069 Aug 18 11:50	16°♄14'50	
evening max el	12068 Sep 21 10:39	1°♄55'26	20°15'29			12069 Aug 25 16:39	0°♄	
desc. node	12068 Sep 29 10:50	6°♄56'33		evening max el		12069 Sep 04 02:20	13°♄24'49	19°11'41
retrograde	12068 Oct 02 05:51	7°♄17'33		retrograde		12069 Sep 13 05:29	17°♄58'10	
evening set	12068 Oct 04 06:31	7°♄07'02		evening set		12069 Sep 15 01:48	17°♄47'46	
inferior conj	12068 Oct 13 06:49	3°♄09'39	-4°05'52	desc. node		12069 Sep 16 08:16	17°♄29'12	
minimum elong	12068 Oct 12 20:59	3°♄24'11	4°02'27	inferior conj		12069 Sep 23 14:18	13°♄36'40	-2°16'13
min. Earth dist.	12068 Oct 14 19:46	2°♄15'02	0.54830 AU	minimum elong		12069 Sep 23 08:22	13°♄46'37	2°13'49
	12068 Oct 19 01:05	30°♄		min. Earth dist.		12069 Sep 26 07:45	11°♄47'18	0.55984 AU
morning rise	12068 Oct 21 10:36	29°♄04'07		morning rise		12069 Oct 01 12:09	8°♄57'55	
direct	12068 Oct 25 23:30	28°♄19'36		direct		12069 Oct 06 20:54	7°♄51'31	
	12068 Nov 01 16:18	0°♄		morning max el		12069 Oct 20 23:14	15°♄01'35	25°39'18
morning max el	12068 Nov 08 12:04	4°♄56'23	23°55'55			12069 Nov 01 22:30	0°♄	
asc. node	12068 Nov 23 04:46	24°♄54'12		asc. node		12069 Nov 10 01:39	13°♄53'21	
	12068 Nov 25 23:58	0°♄		morning set		12069 Nov 17 08:39	28°♄38'49	
morning set	12068 Dec 02 21:13	13°♄56'50				12069 Nov 17 23:44	0°♄	
superior conj	12068 Dec 09 17:46	28°♄51'01	1°38'18	superior conj		12069 Nov 24 03:47	13°♄34'50	1°37'55
minimum elong	12068 Dec 09 18:14	28°♄53'35	1°39'08	minimum elong		12069 Nov 24 03:09	13°♄31'22	1°38'40
	12068 Dec 10 06:29	0°♄		max. Earth dist.		12069 Nov 25 10:13	16°♄22'58	1.31871 AU
max. Earth dist.	12068 Dec 12 05:51	4°♄14'49	1.32852 AU	evening rise		12069 Dec 01 05:51	28°♄53'11	
evening rise	12068 Dec 17 07:08	14°♄44'44				12069 Dec 01 18:45	0°♄	
	12068 Dec 25 08:21	0°♄		desc. node		12069 Dec 13 05:47	21°♄32'27	
desc. node	12068 Dec 26 08:47	1°♄47'37				12069 Dec 18 12:16	0°♄	
	12069 Jan 14 12:40	0°♄		evening max el		12070 Jan 02 15:10	18°♄55'50	27°28'41
evening max el	12069 Jan 20 05:20	6°♄06'27	27°27'48	retrograde		12070 Jan 16 12:20	26°♄14'35	
retrograde	12069 Feb 02 21:48	13°♄31'26		evening set		12070 Jan 23 11:23	23°♄57'01	
evening set	12069 Feb 09 18:24	11°♄02'00		min. Earth dist.		12070 Jan 27 05:09	21°♄00'36	0.62022 AU
min. Earth dist.	12069 Feb 13 13:46	7°♄39'40	0.64015 AU	inferior conj		12070 Jan 30 04:37	18°♄15'06	-2°13'32
inferior conj	12069 Feb 16 04:01	4°♄57'33	-0°58'29	minimum elong		12070 Jan 30 09:11	18°♄04'29	2°11'06
minimum elong	12069 Feb 16 05:51	4°♄52'45	0°57'18	morning rise		12070 Feb 06 09:39	13°♄11'30	
asc. node	12069 Feb 19 03:14	2°♄02'47		asc. node		12070 Feb 06 00:33	13°♄19'25	
	12069 Feb 21 23:37	30°♄		direct		12070 Feb 08 14:41	12°♄49'50	
morning rise	12069 Feb 22 19:23	29°♄36'48		morning max el		12070 Feb 15 10:12	16°♄17'17	17°48'32
direct	12069 Feb 25 06:33	29°♄06'21				12070 Feb 25 02:14	0°♄	

morning set	12070 Mar 03 05:02	10° $\text{H}$ 44'28			12071 Jan 30 05:43	0° $\approx$	
desc. node	12070 Mar 11 06:40	24° $\text{H}$ 57'06		morning set	12071 Feb 14 14:35	24° $\approx$ 29'25	
					12071 Feb 17 13:24	0° $\text{H}$	
superior conj	12070 Mar 14 11:44	0° $\text{Y}$ 26'38	-0°24'35	superior conj	12071 Feb 24 09:27	12° $\text{H}$ 29'52	0°13'38
minimum elong	12070 Mar 14 09:23	0° $\text{Y}$ 16'42	0°24'09	minimum elong	12071 Feb 24 10:32	12° $\text{H}$ 34'42	0°13'46
	12070 Mar 14 05:27	0° $\text{Y}$		behind sun begin	12071 Feb 24 06:37	12° $\text{H}$ 17'11	
max. Earth dist.	12070 Mar 21 12:29	12° $\text{Y}$ 05'01	1.43644 AU	behind sun end	12071 Feb 24 14:27	12° $\text{H}$ 52'12	
evening rise	12070 Mar 28 21:09	23° $\text{Y}$ 45'20		desc. node	12071 Feb 26 03:16	15° $\text{H}$ 35'15	
	12070 Apr 01 22:34	0° $\text{B}$		max. Earth dist.	12071 Mar 04 00:33	25° $\text{H}$ 42'19	1.41781 AU
	12070 Apr 22 22:49	0° $\text{II}$			12071 Mar 06 14:38	0° $\text{Y}$	
evening max el	12070 Apr 28 23:42	6° $\text{II}$ 58'22	21°29'30	evening rise	12071 Mar 09 03:49	4° $\text{Y}$ 08'45	
asc. node	12070 May 04 21:41	11° $\text{II}$ 29'36			12071 Mar 26 05:41	0° $\text{B}$	
retrograde	12070 May 07 22:04	12° $\text{II}$ 12'37		evening max el	12071 Apr 11 16:31	20° $\text{B}$ 46'17	22°47'59
evening set	12070 May 12 08:15	10° $\text{II}$ 25'06		retrograde	12071 Apr 21 18:34	26° $\text{B}$ 43'26	
inferior conj	12070 May 17 14:40	4° $\text{II}$ 09'54	3°03'33	asc. node	12071 Apr 21 18:59	26° $\text{B}$ 43'26	
minimum elong	12070 May 17 13:21	4° $\text{II}$ 14'28	3°02'40	evening set	12071 Apr 26 15:58	24° $\text{B}$ 40'52	
min. Earth dist.	12070 May 17 20:00	3° $\text{II}$ 51'17	0.68651 AU	min. Earth dist.	12071 May 01 16:37	18° $\text{B}$ 42'44	0.68791 AU
	12070 May 20 18:09	30° $\text{K}$ 8		inferior conj	12071 May 02 00:03	18° $\text{B}$ 16'55	2°42'52
morning rise	12070 May 22 18:14	27° $\text{B}$ 54'48		minimum elong	12071 May 01 22:07	18° $\text{B}$ 23'36	2°41'54
direct	12070 May 27 19:51	25° $\text{B}$ 42'42		morning rise	12071 May 07 04:10	12° $\text{B}$ 08'06	
	12070 Jun 05 03:27	0° $\text{II}$		direct	12071 May 11 16:34	10° $\text{B}$ 16'30	
morning max el	12070 Jun 06 21:37	1° $\text{II}$ 40'48	22°53'36	morning max el	12071 May 20 12:03	15° $\text{B}$ 22'39	21°27'41
desc. node	12070 Jun 07 07:55	2° $\text{II}$ 07'01		desc. node	12071 May 25 04:49	20° $\text{B}$ 38'49	
	12070 Jun 28 08:27	0° $\text{B}$			12071 Jun 01 07:07	0° $\text{II}$	
morning set	12070 Jul 11 04:01	20° $\text{B}$ 10'02		morning set	12071 Jun 21 03:45	29° $\text{II}$ 40'44	
max. Earth dist.	12070 Jul 15 15:15	27° $\text{B}$ 40'44	1.40121 AU		12071 Jun 21 08:38	0° $\text{B}$	
	12070 Jul 16 23:37	0° $\text{Q}$		max. Earth dist.	12071 Jun 27 18:19	10° $\text{B}$ 19'32	1.42308 AU
superior conj	12070 Jul 23 10:25	11° $\text{Q}$ 27'51	-1°13'00	superior conj	12071 Jul 05 05:08	22° $\text{B}$ 52'30	-1°44'10
minimum elong	12070 Jul 23 15:38	11° $\text{Q}$ 51'35	1°12'54	minimum elong	12071 Jul 05 11:58	23° $\text{B}$ 21'57	1°44'16
asc. node	12070 Jul 31 21:03	27° $\text{Q}$ 16'55			12071 Jul 09 06:57	0° $\text{Q}$	
evening rise	12070 Aug 02 05:15	29° $\text{Q}$ 50'22		evening rise	12071 Jul 16 10:08	12° $\text{Q}$ 50'12	
	12070 Aug 02 07:17	0° $\text{P}$		asc. node	12071 Jul 18 17:50	17° $\text{Q}$ 02'45	
evening max el	12070 Aug 18 05:21	25° $\text{P}$ 38'27	18°29'17		12071 Jul 26 05:55	0° $\text{P}$	
retrograde	12070 Aug 25 23:49	29° $\text{P}$ 33'07		evening max el	12071 Aug 01 15:37	8° $\text{P}$ 26'53	18°07'20
evening set	12070 Aug 28 00:43	29° $\text{P}$ 17'47		retrograde	12071 Aug 08 12:35	11° $\text{P}$ 57'15	
desc. node	12070 Sep 03 05:42	25° $\text{P}$ 57'42		evening set	12071 Aug 10 20:52	11° $\text{P}$ 33'08	
inferior conj	12070 Sep 04 18:46	24° $\text{P}$ 46'24	-0°28'53	inferior conj	12071 Aug 17 20:28	6° $\text{P}$ 41'05	0°58'33
minimum elong	12070 Sep 04 17:38	24° $\text{P}$ 48'36	0°28'36	minimum elong	12071 Aug 17 22:14	6° $\text{P}$ 37'02	0°57'31
min. Earth dist.	12070 Sep 08 01:22	22° $\text{P}$ 13'10	0.57823 AU	min. Earth dist.	12071 Aug 21 02:51	3° $\text{P}$ 43'02	0.60030 AU
morning rise	12070 Sep 12 07:05	19° $\text{P}$ 30'24		desc. node	12071 Aug 21 03:06	3° $\text{P}$ 42'28	
direct	12070 Sep 18 08:19	17° $\text{P}$ 57'03		morning rise	12071 Aug 24 20:30	0° $\text{P}$ 53'49	
morning max el	12070 Oct 02 15:59	25° $\text{P}$ 31'49	27°00'57		12071 Aug 26 12:16	30° $\text{K}$ Q	
	12070 Oct 06 20:13	0° $\text{L}$		direct	12071 Aug 31 08:35	28° $\text{Q}$ 52'32	
	12070 Oct 26 05:43	0° $\text{L}$			12071 Sep 05 10:06	0° $\text{P}$	
asc. node	12070 Oct 27 22:28	3° $\text{L}$ 17'59		morning max el	12071 Sep 14 16:22	6° $\text{P}$ 45'12	27°48'14
morning set	12070 Nov 01 17:59	13° $\text{L}$ 11'30			12071 Oct 02 04:56	0° $\text{L}$	
superior conj	12070 Nov 08 15:22	28° $\text{L}$ 19'52	1°31'39	asc. node	12071 Oct 14 19:13	23° $\text{L}$ 00'38	
minimum elong	12070 Nov 08 13:50	28° $\text{L}$ 11'19	1°32'12	morning set	12071 Oct 16 23:26	27° $\text{L}$ 29'57	
max. Earth dist.	12070 Nov 08 18:38	28° $\text{L}$ 38'03	1.31378 AU		12071 Oct 18 03:53	0° $\text{L}$	
	12070 Nov 09 09:20	0° $\text{J}$		max. Earth dist.	12071 Oct 23 03:18	10° $\text{L}$ 50'31	1.31380 AU
evening rise	12070 Nov 15 10:46	13° $\text{J}$ 16'20		superior conj	12071 Oct 24 02:42	13° $\text{L}$ 00'31	1°19'45
	12070 Nov 23 20:38	0° $\text{B}$		minimum elong	12071 Oct 24 00:35	12° $\text{L}$ 48'47	1°20'00
desc. node	12070 Nov 30 02:51	10° $\text{B}$ 46'00		evening rise	12071 Oct 30 19:40	27° $\text{L}$ 48'04	
	12070 Dec 14 18:28	0° $\approx$			12071 Oct 31 20:20	0° $\text{J}$	
evening max el	12070 Dec 15 19:27	1° $\approx$ 00'40	26°55'35	desc. node	12071 Nov 16 24:00	29° $\text{J}$ 16'05	
retrograde	12070 Dec 29 17:52	8° $\approx$ 10'29			12071 Nov 17 12:04	0° $\text{B}$	
evening set	12071 Jan 05 12:32	6° $\approx$ 13'13		evening max el	12071 Nov 27 15:38	12° $\text{B}$ 13'06	25°49'08
min. Earth dist.	12071 Jan 09 09:44	3° $\approx$ 33'55	0.59889 AU	retrograde	12071 Dec 11 13:09	19° $\text{B}$ 14'34	
inferior conj	12071 Jan 12 13:54	0° $\approx$ 59'46	-3°33'06	evening set	12071 Dec 17 17:37	17° $\text{B}$ 45'13	
minimum elong	12071 Jan 12 21:13	0° $\approx$ 44'53	3°29'49	min. Earth dist.	12071 Dec 22 04:10	15° $\text{B}$ 08'49	0.57797 AU
	12071 Jan 13 19:42	30° $\text{K}$ 3		inferior conj	12071 Dec 25 04:26	13° $\text{B}$ 02'00	-4°47'46
morning rise	12071 Jan 20 08:45	26° $\text{B}$ 16'33		minimum elong	12071 Dec 25 12:49	12° $\text{B}$ 47'14	4°44'51
direct	12071 Jan 22 10:51	26° $\text{B}$ 00'03		morning rise	12072 Jan 02 10:36	8° $\text{B}$ 41'23	
asc. node	12071 Jan 23 21:51	26° $\text{B}$ 08'26		direct	12072 Jan 04 14:31	8° $\text{B}$ 26'39	
morning max el	12071 Jan 29 23:38	29° $\text{B}$ 44'53	18°06'49				

asc. node	12072 Jan 10 19:05	10°♄36'06		asc. node	12072 Dec 27 16:14	26°♄30'19	
morning max el	12072 Jan 13 05:33	12°♄38'31	18°45'45		12072 Dec 30 12:04	0°♄	
	12072 Jan 24 21:47	0°♄		morning set	12073 Jan 12 15:28	23°♄17'16	
morning set	12072 Jan 29 11:19	8°♄44'19			12073 Jan 15 22:44	0°♄	
superior conj	12072 Feb 07 03:06	25°♄28'47	0°45'18	superior conj	12073 Jan 20 11:48	9°♄08'33	1°09'25
minimum elong	12072 Feb 07 05:47	25°♄41'23	0°45'25	minimum elong	12073 Jan 20 14:39	9°♄22'41	1°09'46
	12072 Feb 09 13:17	0°♄		max. Earth dist.	12073 Jan 26 14:16	20°♄52'45	1.37386 AU
desc. node	12072 Feb 12 23:53	6°♄14'23		desc. node	12073 Jan 29 20:34	26°♄50'15	
max. Earth dist.	12072 Feb 14 08:13	8°♄37'26	1.39614 AU	evening rise	12073 Jan 30 07:42	27°♄39'57	
evening rise	12072 Feb 18 07:30	15°♄28'04			12073 Jan 31 15:23	0°♄	
	12072 Feb 27 06:57	0°♄			12073 Feb 19 17:03	0°♄	
	12072 Mar 20 00:23	0°♄		evening max el	12073 Mar 06 19:57	18°♄27'18	25°24'34
evening max el	12072 Mar 24 06:36	4°♄36'13	24°08'33	retrograde	12073 Mar 19 01:07	25°♄31'04	
retrograde	12072 Apr 04 11:56	11°♄11'43		evening set	12073 Mar 24 21:55	23°♄05'16	
asc. node	12072 Apr 07 16:19	10°♄25'28		asc. node	12073 Mar 25 13:41	22°♄30'12	
evening set	12072 Apr 09 21:04	8°♄55'59		min. Earth dist.	12073 Mar 29 06:29	18°♄17'57	0.67729 AU
min. Earth dist.	12072 Apr 14 12:49	3°♄33'30	0.68478 AU	inferior conj	12073 Mar 30 14:21	16°♄35'02	1°32'01
inferior conj	12072 Apr 15 08:35	2°♄26'38	2°12'22	minimum elong	12073 Mar 30 12:26	16°♄41'14	1°31'12
minimum elong	12072 Apr 15 06:25	2°♄33'58	2°11'22	morning rise	12073 Apr 05 03:23	10°♄42'13	
	12072 Apr 17 05:00	30°♄		direct	12073 Apr 08 15:04	9°♄32'23	
morning rise	12072 Apr 20 15:51	26°♄25'10		morning max el	12073 Apr 15 14:04	13°♄20'43	19°10'48
direct	12072 Apr 24 15:25	24°♄55'01		desc. node	12073 Apr 27 22:20	29°♄33'46	
morning max el	12072 May 02 09:14	29°♄16'26	20°12'05		12073 Apr 28 05:23	0°♄	
	12072 May 03 02:25	0°♄		greatest brilliancy	12073 Apr 28 12:58	0°♄28'18	-0.7m
desc. node	12072 May 11 01:37	9°♄51'27		morning set	12073 May 09 09:57	17°♄04'36	
	12072 May 24 20:21	0°♄			12073 May 17 17:57	0°♄	
morning set	12072 May 30 07:30	8°♄21'08		max. Earth dist.	12073 May 22 19:04	7°♄53'37	1.45272 AU
max. Earth dist.	12072 Jun 09 03:53	23°♄47'51	1.44089 AU				
	12072 Jun 13 00:16	0°♄		superior conj	12073 May 25 20:47	12°♄44'08	-2°13'09
superior conj	12072 Jun 15 00:17	3°♄16'00	-2°06'31	minimum elong	12073 May 25 19:36	12°♄39'27	2°13'56
minimum elong	12072 Jun 15 05:28	3°♄37'14	2°07'06		12073 Jun 05 14:52	0°♄	
evening rise	12072 Jun 27 21:43	25°♄02'53		evening rise	12073 Jun 09 11:09	6°♄17'41	
	12072 Jun 30 18:32	0°♄		asc. node	12073 Jun 21 11:37	25°♄42'01	
asc. node	12072 Jul 04 14:41	6°♄33'06			12073 Jun 24 10:53	0°♄	
evening max el	12072 Jul 15 05:17	21°♄40'56	18°04'42	evening max el	12073 Jun 28 19:02	5°♄12'23	18°20'32
retrograde	12072 Jul 21 15:36	25°♄01'36		retrograde	12073 Jul 05 04:25	8°♄37'05	
evening set	12072 Jul 24 07:56	24°♄25'33		evening set	12073 Jul 08 05:01	7°♄46'47	
inferior conj	12072 Jul 30 16:10	19°♄14'47	2°01'51	inferior conj	12073 Jul 14 01:43	2°♄19'14	2°43'13
minimum elong	12072 Jul 30 18:47	19°♄07'55	2°00'29	minimum elong	12073 Jul 14 03:58	2°♄12'43	2°41'59
min. Earth dist.	12072 Aug 02 13:41	16°♄14'17	0.62304 AU		12073 Jul 16 01:38	30°♄	
morning rise	12072 Aug 06 03:26	13°♄06'49		min. Earth dist.	12073 Jul 16 09:57	29°♄36'25	0.64399 AU
desc. node	12072 Aug 07 00:28	12°♄31'17		morning rise	12073 Jul 20 01:34	26°♄00'29	
direct	12072 Aug 12 19:52	10°♄42'12		desc. node	12073 Jul 24 21:47	23°♄32'35	
morning max el	12072 Aug 26 22:52	18°♄44'24	27°56'31	direct	12073 Jul 26 16:11	23°♄21'45	
	12072 Sep 05 11:07	0°♄			12073 Aug 07 23:17	0°♄	
	12072 Sep 24 02:08	0°♄		morning max el	12073 Aug 09 08:49	1°♄21'53	27°28'31
morning set	12072 Sep 29 22:55	11°♄28'32			12073 Aug 30 14:48	0°♄	
asc. node	12072 Sep 30 15:53	12°♄55'25		morning set	12073 Sep 13 13:58	25°♄01'23	
max. Earth dist.	12072 Oct 05 08:12	22°♄49'21	1.31900 AU		12073 Sep 16 01:44	0°♄	
				asc. node	12073 Sep 17 12:32	2°♄58'02	
superior conj	12072 Oct 07 11:54	27°♄31'09	1°02'22	max. Earth dist.	12073 Sep 18 05:44	4°♄27'09	1.32950 AU
minimum elong	12072 Oct 07 09:40	27°♄18'53	1°02'19				
	12072 Oct 08 14:59	0°♄		superior conj	12073 Sep 21 17:00	11°♄46'46	0°39'43
evening rise	12072 Oct 14 06:36	12°♄22'48		minimum elong	12073 Sep 21 15:12	11°♄37'10	0°39'29
	12072 Oct 23 01:24	0°♄		evening rise	12073 Sep 28 17:47	26°♄56'03	
desc. node	12072 Nov 02 21:14	16°♄45'20			12073 Sep 30 04:33	0°♄	
evening max el	12072 Nov 08 03:59	22°♄37'55	24°17'19		12073 Oct 18 01:36	0°♄	
retrograde	12072 Nov 21 20:29	29°♄28'28		evening max el	12073 Oct 20 14:38	2°♄41'57	22°35'51
evening set	12072 Nov 26 22:41	28°♄31'23		desc. node	12073 Oct 20 18:33	2°♄51'27	
min. Earth dist.	12072 Dec 02 15:11	25°♄39'04	0.56017 AU	retrograde	12073 Nov 02 15:05	9°♄09'57	
inferior conj	12072 Dec 04 22:13	24°♄14'11	-5°40'30	evening set	12073 Nov 06 06:51	8°♄40'42	
minimum elong	12072 Dec 05 03:13	24°♄06'27	5°39'08	min. Earth dist.	12073 Nov 13 22:31	5°♄14'17	0.54866 AU
morning rise	12072 Dec 13 09:49	20°♄14'20		inferior conj	12073 Nov 14 22:05	4°♄40'52	-5°48'32
direct	12072 Dec 15 22:29	19°♄57'34		minimum elong	12073 Nov 14 18:53	4°♄45'25	5°47'36
morning max el	12072 Dec 25 23:58	24°♄46'04	19°47'11	morning rise	12073 Nov 23 08:21	0°♄52'58	
				direct	12073 Nov 26 13:32	0°♄29'21	

morning max el	12073 Dec 08 04:18	6° $\text{♊}$ 00'33	21°11'17	morning rise	12074 Nov 02 20:03	10° $\text{♍}$ 49'17	
asc. node	12073 Dec 14 13:17	13° $\text{♊}$ 35'01		direct	12074 Nov 06 21:34	10° $\text{♍}$ 13'51	
	12073 Dec 24 01:51	0° $\text{♊}$		morning max el	12074 Nov 19 20:10	16° $\text{♍}$ 27'23	22°53'34
morning set	12073 Dec 28 00:16	8° $\text{♊}$ 00'19			12074 Nov 30 11:02	0° $\text{♊}$	
				asc. node	12074 Dec 01 10:16	1° $\text{♊}$ 34'17	
superior conj	12074 Jan 04 07:26	23° $\text{♊}$ 17'26	1°26'05	morning set	12074 Dec 12 11:32	22° $\text{♊}$ 47'19	
minimum elong	12074 Jan 04 09:37	23° $\text{♊}$ 28'45	1°26'41		12074 Dec 15 20:11	0° $\text{♊}$	
	12074 Jan 07 14:25	0° $\text{♊}$					
max. Earth dist.	12074 Jan 09 00:02	2° $\text{♊}$ 47'16	1.35338 AU	superior conj	12074 Dec 19 10:40	7° $\text{♊}$ 45'53	1°35'44
evening rise	12074 Jan 13 01:22	10° $\text{♊}$ 36'01		minimum elong	12074 Dec 19 11:48	7° $\text{♊}$ 51'57	1°36'31
desc. node	12074 Jan 16 17:20	17° $\text{♊}$ 18'54		max. Earth dist.	12074 Dec 22 17:13	14° $\text{♊}$ 41'04	1.33634 AU
	12074 Jan 24 04:22	0° $\text{♊}$		evening rise	12074 Dec 27 08:51	24° $\text{♊}$ 06'44	
	12074 Feb 15 04:29	0° $\text{♊}$			12074 Dec 30 10:17	0° $\text{♊}$	
evening max el	12074 Feb 17 09:38	2° $\text{♊}$ 15'02	26°28'44	desc. node	12075 Jan 03 14:11	7° $\text{♊}$ 35'42	
retrograde	12074 Mar 02 08:59	9° $\text{♊}$ 34'41			12075 Jan 17 18:06	0° $\text{♊}$	
evening set	12074 Mar 08 16:48	7° $\text{♊}$ 02'58		evening max el	12075 Jan 30 23:13	15° $\text{♊}$ 50'05	27°13'37
asc. node	12074 Mar 12 11:04	3° $\text{♊}$ 14'38		retrograde	12075 Feb 13 10:44	23° $\text{♊}$ 14'52	
min. Earth dist.	12074 Mar 12 19:24	2° $\text{♊}$ 50'08	0.66573 AU	evening set	12075 Feb 20 03:42	20° $\text{♊}$ 42'43	
inferior conj	12074 Mar 14 15:19	0° $\text{♊}$ 37'38	0°41'35	min. Earth dist.	12075 Feb 24 01:21	17° $\text{♊}$ 02'55	0.65042 AU
minimum elong	12074 Mar 14 14:16	0° $\text{♊}$ 40'50	0°41'15	inferior conj	12075 Feb 26 09:07	14° $\text{♊}$ 28'53	-0°19'03
	12074 Mar 15 03:49	30° $\text{♊}$		minimum elong	12075 Feb 26 09:40	14° $\text{♊}$ 27'21	0°18'31
morning rise	12074 Mar 20 12:41	24° $\text{♊}$ 55'14		asc. node	12075 Feb 27 08:27	13° $\text{♊}$ 24'58	
direct	12074 Mar 23 13:42	24° $\text{♊}$ 03'16		morning rise	12075 Mar 04 17:16	8° $\text{♊}$ 59'25	
morning max el	12074 Mar 30 01:38	27° $\text{♊}$ 31'06	18°25'43	direct	12075 Mar 07 09:07	8° $\text{♊}$ 22'02	
	12074 Apr 01 08:26	0° $\text{♊}$		morning max el	12075 Mar 13 17:46	11° $\text{♊}$ 41'11	17°57'36
desc. node	12074 Apr 14 19:01	19° $\text{♊}$ 37'46			12075 Mar 26 14:36	0° $\text{♊}$	
morning set	12074 Apr 19 08:37	26° $\text{♊}$ 51'21		morning set	12075 Mar 31 12:08	8° $\text{♊}$ 04'02	
	12074 Apr 21 08:17	0° $\text{♊}$		desc. node	12075 Apr 01 15:39	9° $\text{♊}$ 57'30	
					12075 Apr 14 00:29	0° $\text{♊}$	
superior conj	12074 May 05 04:23	21° $\text{♋}$ 44'27	-1°59'39	superior conj	12075 Apr 14 16:42	1° $\text{♋}$ 04'26	-1°28'33
minimum elong	12074 May 04 20:22	21° $\text{♋}$ 13'07	1°59'45	minimum elong	12075 Apr 14 07:49	0° $\text{♋}$ 29'08	1°27'55
max. Earth dist.	12074 May 05 14:08	22° $\text{♋}$ 22'32	1.45752 AU	max. Earth dist.	12075 Apr 18 10:31	6° $\text{♋}$ 58'41	1.45481 AU
	12074 May 10 11:15	0° $\text{♋}$		evening rise	12075 Apr 30 18:04	26° $\text{♋}$ 05'13	
evening rise	12074 May 21 00:14	16° $\text{♋}$ 32'22			12075 May 03 07:16	0° $\text{♋}$	
	12074 May 29 13:47	0° $\text{♋}$		greatest brilliancy	12075 May 14 19:55	17° $\text{♋}$ 23'46	-0.6m
greatest brilliancy	12074 May 30 12:16	1° $\text{♋}$ 27'19	-0.8m		12075 May 24 02:40	0° $\text{♋}$	
asc. node	12074 Jun 08 08:38	14° $\text{♋}$ 21'14		asc. node	12075 May 26 05:45	2° $\text{♋}$ 21'25	
evening max el	12074 Jun 12 06:04	18° $\text{♋}$ 53'02	18°53'55	evening max el	12075 May 26 12:22	2° $\text{♋}$ 38'13	19°43'35
retrograde	12074 Jun 18 23:18	22° $\text{♋}$ 34'57		retrograde	12075 Jun 02 21:22	6° $\text{♋}$ 49'26	
evening set	12074 Jun 22 08:29	21° $\text{♋}$ 28'55		evening set	12075 Jun 06 15:40	5° $\text{♋}$ 27'04	
inferior conj	12074 Jun 27 21:19	15° $\text{♋}$ 45'59	3°06'25	inferior conj	12075 Jun 11 23:53	29° $\text{♋}$ 30'06	3°14'47
minimum elong	12074 Jun 27 22:36	15° $\text{♋}$ 41'55	3°05'26	minimum elong	12075 Jun 12 00:04	29° $\text{♋}$ 29'29	3°13'57
min. Earth dist.	12074 Jun 29 14:43	13° $\text{♋}$ 35'36	0.66160 AU		12075 Jun 11 14:55	30° $\text{♋}$	
morning rise	12074 Jul 03 12:01	9° $\text{♋}$ 23'34		min. Earth dist.	12075 Jun 13 02:36	28° $\text{♋}$ 00'49	0.67495 AU
direct	12074 Jul 09 19:44	6° $\text{♋}$ 41'27		morning rise	12075 Jun 17 08:06	23° $\text{♋}$ 08'27	
desc. node	12074 Jul 11 19:03	6° $\text{♋}$ 55'17		direct	12075 Jun 23 05:25	20° $\text{♋}$ 32'40	
morning max el	12074 Jul 22 19:40	14° $\text{♋}$ 25'15	26°31'08	desc. node	12075 Jun 28 16:13	22° $\text{♋}$ 18'22	
	12074 Aug 04 12:19	0° $\text{♋}$		morning max el	12075 Jul 05 06:04	27° $\text{♋}$ 45'10	25°13'24
	12074 Aug 23 08:52	0° $\text{♋}$			12075 Jul 07 08:58	0° $\text{♋}$	
morning set	12074 Aug 27 17:23	7° $\text{♋}$ 59'23			12075 Jul 29 04:43	0° $\text{♋}$	
max. Earth dist.	12074 Aug 31 17:20	15° $\text{♋}$ 42'02	1.34513 AU	morning set	12075 Aug 10 05:12	20° $\text{♋}$ 13'14	
asc. node	12074 Sep 04 09:11	23° $\text{♋}$ 03'43		max. Earth dist.	12075 Aug 13 19:44	26° $\text{♋}$ 48'26	1.36514 AU
					12075 Aug 15 12:31	0° $\text{♋}$	
superior conj	12074 Sep 05 15:33	25° $\text{♋}$ 39'59	0°12'11	superior conj	12075 Aug 20 04:42	9° $\text{♋}$ 03'46	-0°19'25
minimum elong	12074 Sep 05 14:54	25° $\text{♋}$ 36'36	0°11'54	minimum elong	12075 Aug 20 05:57	9° $\text{♋}$ 09'56	0°19'34
behind sun begin	12074 Sep 05 10:56	25° $\text{♋}$ 16'05		asc. node	12075 Aug 22 05:51	13° $\text{♋}$ 09'00	
behind sun end	12074 Sep 05 18:52	25° $\text{♋}$ 57'09		evening rise	12075 Aug 28 08:39	25° $\text{♋}$ 34'05	
	12074 Sep 07 17:30	0° $\text{♋}$			12075 Aug 30 13:31	0° $\text{♋}$	
evening rise	12074 Sep 13 03:12	11° $\text{♋}$ 21'39		evening max el	12075 Sep 14 16:24	24° $\text{♋}$ 02'29	19°45'34
	12074 Sep 22 18:38	0° $\text{♋}$		retrograde	12075 Sep 24 18:01	29° $\text{♋}$ 03'28	
evening max el	12074 Oct 02 08:47	13° $\text{♋}$ 01'19	21°01'41	desc. node	12075 Sep 24 13:22	29° $\text{♋}$ 03'22	
desc. node	12074 Oct 07 15:56	17° $\text{♋}$ 06'10		evening set	12075 Sep 26 15:21	28° $\text{♋}$ 53'39	
retrograde	12074 Oct 14 02:04	18° $\text{♋}$ 50'30		inferior conj	12075 Oct 05 11:54	24° $\text{♋}$ 51'12	-3°20'46
evening set	12074 Oct 16 12:41	18° $\text{♋}$ 36'24		minimum elong	12075 Oct 05 03:17	25° $\text{♋}$ 04'33	3°17'29
inferior conj	12074 Oct 25 13:46	14° $\text{♋}$ 41'58	-4°57'51	min. Earth dist.	12075 Oct 07 14:31	23° $\text{♋}$ 32'52	0.55223 AU
minimum elong	12074 Oct 25 04:12	14° $\text{♋}$ 55'30	4°55'07				
min. Earth dist.	12074 Oct 26 05:17	14° $\text{♋}$ 20'01	0.54575 AU				

morning rise	12075 Oct 13 13:34	20° $\Omega$ 33'08		morning rise	12076 Sep 22 22:10	0° $\Omega$ 40'59	
direct	12075 Oct 18 11:04	19° $\Omega$ 40'22			12076 Sep 24 17:30	30° $\mathbb{R}$ $\mathbb{M}$	
morning max el	12075 Nov 01 06:46	26° $\Omega$ 31'34	24°41'40	direct	12076 Sep 28 14:13	29° $\mathbb{M}$ 23'46	
	12075 Nov 04 14:55	0° $\mathbb{M}$			12076 Oct 02 11:41	0° $\Omega$	
asc. node	12075 Nov 18 07:10	20° $\mathbb{M}$ 14'57		morning max el	12076 Oct 12 20:06	6° $\Omega$ 45'51	26°17'45
	12075 Nov 23 08:42	0° $\mathbb{A}$			12076 Oct 29 23:47	0° $\mathbb{M}$	
morning set	12075 Nov 26 23:23	7° $\mathbb{A}$ 32'49		asc. node	12076 Nov 04 04:00	9° $\mathbb{M}$ 26'19	
				morning set	12076 Nov 10 10:09	22° $\mathbb{M}$ 12'11	
					12076 Nov 13 23:59	0° $\mathbb{A}$	
superior conj	12075 Dec 03 18:50	22° $\mathbb{A}$ 26'11	1°38'53	superior conj	12076 Nov 17 05:46	7° $\mathbb{A}$ 11'54	1°35'58
minimum elong	12075 Dec 03 18:49	22° $\mathbb{A}$ 26'08	1°39'42	minimum elong	12076 Nov 17 04:43	7° $\mathbb{A}$ 06'06	1°36'39
max. Earth dist.	12075 Dec 05 18:06	26° $\mathbb{A}$ 44'04	1.32371 AU	max. Earth dist.	12076 Nov 18 00:34	8° $\mathbb{A}$ 56'22	1.31592 AU
	12075 Dec 07 06:28	0° $\mathbb{B}$			12076 Nov 24 04:27	22° $\mathbb{A}$ 19'15	
evening rise	12075 Dec 11 02:49	8° $\mathbb{B}$ 03'27		evening rise	12076 Nov 27 22:34	0° $\mathbb{B}$	
desc. node	12075 Dec 21 11:07	27° $\mathbb{B}$ 34'29			12076 Nov 27 22:34	0° $\mathbb{B}$	
	12075 Dec 22 21:15	0° $\approx$		desc. node	12076 Dec 07 08:08	17° $\mathbb{B}$ 07'45	
evening max el	12076 Jan 13 10:55	28° $\approx$ 59'21	27°32'11		12076 Dec 15 20:47	0° $\approx$	
	12076 Jan 14 13:07	0° $\mathbb{H}$		evening max el	12076 Dec 25 18:28	11° $\approx$ 30'33	27°18'52
retrograde	12076 Jan 27 05:31	6° $\mathbb{H}$ 21'54		retrograde	12077 Jan 08 16:33	18° $\approx$ 46'28	
evening set	12076 Feb 03 04:04	3° $\mathbb{H}$ 56'17		evening set	12077 Jan 15 14:49	16° $\approx$ 36'08	
min. Earth dist.	12076 Feb 06 22:16	0° $\mathbb{H}$ 46'09	0.63193 AU	min. Earth dist.	12077 Jan 19 08:59	13° $\approx$ 48'36	0.61119 AU
	12076 Feb 07 17:13	30° $\mathbb{R}$ $\approx$		inferior conj	12077 Jan 22 11:23	11° $\approx$ 05'38	-2°47'09
inferior conj	12076 Feb 09 16:54	28° $\approx$ 00'55	-1°29'25	minimum elong	12077 Jan 22 17:12	10° $\approx$ 52'52	2°44'15
minimum elong	12076 Feb 09 19:50	27° $\approx$ 53'37	1°27'41	morning rise	12077 Jan 29 22:27	6° $\approx$ 10'45	
asc. node	12076 Feb 14 05:50	24° $\approx$ 01'53		asc. node	12077 Jan 31 03:08	5° $\approx$ 55'31	
morning rise	12076 Feb 16 13:57	22° $\approx$ 47'16		direct	12077 Feb 01 01:42	5° $\approx$ 51'47	
direct	12076 Feb 18 22:18	22° $\approx$ 20'55		morning max el	12077 Feb 08 03:35	9° $\approx$ 25'22	17°53'58
morning max el	12076 Feb 25 11:31	25° $\approx$ 42'15	17°46'45		12077 Feb 21 15:19	0° $\mathbb{H}$	
	12076 Feb 29 03:00	0° $\mathbb{H}$		morning set	12077 Feb 23 18:23	3° $\mathbb{H}$ 51'39	
morning set	12076 Mar 12 17:28	20° $\mathbb{H}$ 30'26		desc. node	12077 Mar 05 08:52	21° $\mathbb{H}$ 03'46	
	12076 Mar 18 05:49	0° $\mathbb{Y}$					
desc. node	12076 Mar 18 12:15	0° $\mathbb{Y}$ 27'26		superior conj	12077 Mar 06 08:50	22° $\mathbb{H}$ 47'51	-0°07'46
				minimum elong	12077 Mar 06 08:09	22° $\mathbb{H}$ 44'58	0°07'29
superior conj	12076 Mar 25 00:30	11° $\mathbb{Y}$ 21'37	-0°48'22	behind sun begin	12077 Mar 06 00:46	22° $\mathbb{H}$ 12'57	
minimum elong	12076 Mar 24 19:32	11° $\mathbb{Y}$ 01'09	0°47'43	behind sun end	12077 Mar 06 15:33	23° $\mathbb{H}$ 16'54	
max. Earth dist.	12076 Mar 31 04:57	21° $\mathbb{Y}$ 22'54	1.44491 AU		12077 Mar 10 14:14	0° $\mathbb{Y}$	
	12076 Apr 05 16:11	0° $\mathbb{B}$		max. Earth dist.	12077 Mar 13 19:01	5° $\mathbb{Y}$ 18'36	1.42899 AU
evening rise	12076 Apr 09 05:29	5° $\mathbb{B}$ 29'59		evening rise	12077 Mar 20 01:55	15° $\mathbb{Y}$ 24'39	
	12076 Apr 25 16:24	0° $\mathbb{I}$			12077 Mar 29 14:38	0° $\mathbb{B}$	
evening max el	12076 May 08 12:51	16° $\mathbb{I}$ 24'06	20°47'30		12077 Apr 21 03:44	0° $\mathbb{I}$	
asc. node	12076 May 12 02:58	19° $\mathbb{I}$ 29'19		evening max el	12077 Apr 21 07:57	0° $\mathbb{I}$ 10'40	22°02'11
retrograde	12076 May 16 20:18	21° $\mathbb{I}$ 14'10		asc. node	12077 Apr 29 00:14	5° $\mathbb{I}$ 29'33	
evening set	12076 May 21 00:25	19° $\mathbb{I}$ 35'37		retrograde	12077 Apr 30 18:11	5° $\mathbb{I}$ 44'02	
inferior conj	12076 May 26 06:47	13° $\mathbb{I}$ 26'15	3°10'49	evening set	12077 May 05 08:57	3° $\mathbb{I}$ 50'01	
minimum elong	12076 May 26 05:57	13° $\mathbb{I}$ 29'07	3°09'59		12077 May 08 20:12	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	12076 May 26 19:38	12° $\mathbb{I}$ 41'48	0.68363 AU	inferior conj	12077 May 10 15:49	27° $\mathbb{B}$ 30'31	2°56'01
morning rise	12076 May 31 11:16	7° $\mathbb{I}$ 08'08		minimum elong	12077 May 10 14:12	27° $\mathbb{B}$ 36'09	2°55'05
direct	12076 Jun 05 20:13	4° $\mathbb{I}$ 46'02		min. Earth dist.	12077 May 10 15:40	27° $\mathbb{B}$ 31'04	0.68764 AU
desc. node	12076 Jun 14 13:17	9° $\mathbb{I}$ 12'55		morning rise	12077 May 15 19:17	21° $\mathbb{B}$ 17'43	
morning max el	12076 Jun 16 16:09	11° $\mathbb{I}$ 14'12	23°45'13	direct	12077 May 20 15:10	19° $\mathbb{B}$ 14'07	
	12076 Jul 01 15:09	0° $\mathbb{B}$		morning max el	12077 May 30 03:58	24° $\mathbb{B}$ 50'26	22°16'05
	12076 Jul 20 23:09	0° $\Omega$		desc. node	12077 Jun 01 10:15	27° $\mathbb{B}$ 14'43	
morning set	12076 Jul 21 20:42	1° $\Omega$ 31'11			12077 Jun 03 19:00	0° $\mathbb{I}$	
max. Earth dist.	12076 Jul 25 17:18	8° $\Omega$ 11'40	1.38785 AU		12077 Jun 25 01:31	0° $\mathbb{B}$	
				morning set	12077 Jul 02 11:21	11° $\mathbb{B}$ 41'53	
superior conj	12076 Aug 02 04:49	21° $\Omega$ 49'23	-0°53'25	max. Earth dist.	12077 Jul 07 16:21	20° $\mathbb{B}$ 17'01	1.41082 AU
minimum elong	12076 Aug 02 08:33	22° $\Omega$ 06'58	0°53'22		12077 Jul 13 08:16	0° $\Omega$	
	12076 Aug 06 11:28	0° $\mathbb{M}$					
asc. node	12076 Aug 08 02:35	3° $\mathbb{M}$ 10'13		superior conj	12077 Jul 15 11:35	3° $\Omega$ 46'42	-1°26'54
evening rise	12076 Aug 11 07:27	9° $\mathbb{M}$ 25'58		minimum elong	12077 Jul 15 17:42	4° $\Omega$ 13'58	1°26'50
	12076 Aug 22 19:46	0° $\Omega$		evening rise	12077 Jul 25 20:06	22° $\Omega$ 47'57	
evening max el	12076 Aug 27 13:18	5° $\Omega$ 51'45	18°50'59	asc. node	12077 Jul 25 23:20	23° $\Omega$ 03'03	
retrograde	12076 Sep 05 01:33	10° $\Omega$ 07'30			12077 Jul 29 17:16	0° $\mathbb{M}$	
evening set	12076 Sep 06 22:59	9° $\Omega$ 55'38		evening max el	12077 Aug 10 19:57	18° $\mathbb{M}$ 22'00	18°17'31
desc. node	12076 Sep 10 10:47	8° $\Omega$ 37'59		retrograde	12077 Aug 18 03:58	22° $\mathbb{M}$ 04'25	
inferior conj	12076 Sep 15 03:59	5° $\Omega$ 36'11	-1°29'00	evening set	12077 Aug 20 07:45	21° $\mathbb{M}$ 45'53	
minimum elong	12076 Sep 15 00:14	5° $\Omega$ 42'55	1°27'30	inferior conj	12077 Aug 27 17:45	17° $\mathbb{M}$ 05'57	0°11'06
min. Earth dist.	12076 Sep 18 04:49	3° $\Omega$ 26'09	0.56695 AU				





































































































































minimum elong	12077 Aug 27 18:08	17° $\mathbb{M}$ 05'09	0°10'42	retrograde	12078 Jul 31 23:13	4° $\mathbb{M}$ 47'46	
transit middle	12077 Aug 27 18:08	17° $\mathbb{M}$ 05'09	0°10'42	evening set	12078 Aug 03 11:00	4° $\mathbb{M}$ 18'49	
transit begin	12077 Aug 27 15:32	17° $\mathbb{M}$ 10'37			12078 Aug 09 10:29	30° $\mathbb{R}$ $\mathcal{Q}$	
transit end	12077 Aug 27 20:44	16° $\mathbb{M}$ 59'40		inferior conj	12078 Aug 10 03:39	29° $\mathcal{Q}$ 18'43	1°28'15
desc. node	12077 Aug 28 08:13	16° $\mathbb{M}$ 35'27		minimum elong	12078 Aug 10 05:59	29° $\mathcal{Q}$ 13'03	1°26'59
min. Earth dist.	12077 Aug 31 01:50	14° $\mathbb{M}$ 19'08	0.58735 AU	min. Earth dist.	12078 Aug 13 07:07	26° $\mathcal{Q}$ 16'59	0.61013 AU
morning rise	12077 Sep 04 01:02	11° $\mathbb{M}$ 35'23		desc. node	12078 Aug 15 05:37	24° $\mathcal{Q}$ 36'14	
direct	12077 Sep 10 07:45	9° $\mathbb{M}$ 49'32		morning rise	12078 Aug 16 22:14	23° $\mathcal{Q}$ 21'40	
morning max el	12077 Sep 24 16:05	17° $\mathbb{M}$ 33'39	27°25'39	direct	12078 Aug 23 13:12	21° $\mathcal{Q}$ 09'25	
	12077 Oct 05 00:33	0° $\mathcal{Q}$		morning max el	12078 Sep 06 19:09	29° $\mathcal{Q}$ 06'45	27°56'20
asc. node	12077 Oct 22 00:45	28° $\mathcal{Q}$ 59'24			12078 Sep 07 16:11	0° $\mathbb{M}$	
	12077 Oct 22 12:48	0° $\mathbb{M}$			12078 Sep 28 23:13	0° $\mathcal{Q}$	
morning set	12077 Oct 25 18:02	6° $\mathbb{M}$ 39'33		asc. node	12078 Oct 08 21:27	18° $\mathcal{Q}$ 48'00	
				morning set	12078 Oct 09 21:12	20° $\mathcal{Q}$ 50'16	
superior conj	12077 Nov 01 17:28	21° $\mathbb{M}$ 56'06	1°27'17		12078 Oct 14 04:32	0° $\mathbb{M}$	
minimum elong	12077 Nov 01 15:39	21° $\mathbb{M}$ 45'56	1°27'43	max. Earth dist.	12078 Oct 15 16:49	3° $\mathbb{M}$ 18'29	1.31545 AU
max. Earth dist.	12077 Nov 01 09:19	21° $\mathbb{M}$ 10'39	1.31313 AU				
	12077 Nov 05 08:30	0° $\mathcal{Q}$		superior conj	12078 Oct 17 04:08	6° $\mathbb{M}$ 33'29	1°13'02
evening rise	12077 Nov 08 11:17	6° $\mathcal{Q}$ 46'51		minimum elong	12078 Oct 17 01:55	6° $\mathbb{M}$ 21'09	1°13'09
	12077 Nov 20 11:36	0° $\mathcal{Q}$		evening rise	12078 Oct 23 21:18	21° $\mathbb{M}$ 20'53	
desc. node	12077 Nov 24 05:14	6° $\mathcal{Q}$ 04'34			12078 Oct 28 00:28	0° $\mathcal{Q}$	
evening max el	12077 Dec 07 19:25	23° $\mathcal{Q}$ 13'19	26°31'10	desc. node	12078 Nov 11 02:25	24° $\mathcal{Q}$ 11'04	
	12077 Dec 18 21:14	0° $\approx$			12078 Nov 15 15:44	0° $\mathcal{Q}$	
retrograde	12077 Dec 21 18:15	0° $\approx$ 20'08		evening max el	12078 Nov 19 12:12	4° $\mathcal{Q}$ 04'30	25°12'21
	12077 Dec 24 14:29	30° $\mathbb{R}$ $\mathcal{Q}$		retrograde	12078 Dec 03 08:20	11° $\mathcal{Q}$ 01'07	
evening set	12077 Dec 28 07:57	28° $\mathcal{Q}$ 34'06		evening set	12078 Dec 09 02:59	9° $\mathcal{Q}$ 45'44	
min. Earth dist.	12078 Jan 01 09:16	25° $\mathcal{Q}$ 57'47	0.58974 AU	min. Earth dist.	12078 Dec 14 00:16	7° $\mathcal{Q}$ 04'46	0.56988 AU
inferior conj	12078 Jan 04 13:01	23° $\mathcal{Q}$ 33'14	-4°06'12	inferior conj	12078 Dec 16 18:46	5° $\mathcal{Q}$ 14'39	-5°14'08
minimum elong	12078 Jan 04 21:09	23° $\mathcal{Q}$ 17'39	4°02'55	minimum elong	12078 Dec 17 02:24	5° $\mathcal{Q}$ 01'59	5°11'49
morning rise	12078 Jan 12 13:12	18° $\mathcal{Q}$ 59'27		morning rise	12078 Dec 25 04:04	1° $\mathcal{Q}$ 02'59	
direct	12078 Jan 14 15:10	18° $\mathcal{Q}$ 44'14		direct	12078 Dec 27 10:50	0° $\mathcal{Q}$ 47'49	
asc. node	12078 Jan 18 00:22	19° $\mathcal{Q}$ 26'36		asc. node	12079 Jan 04 21:33	4° $\mathcal{Q}$ 32'31	
morning max el	12078 Jan 22 14:18	22° $\mathcal{Q}$ 39'51	18°20'44	morning max el	12079 Jan 05 15:39	5° $\mathcal{Q}$ 14'29	19°09'01
	12078 Jan 28 08:32	0° $\approx$			12079 Jan 21 06:17	0° $\approx$	
morning set	12078 Feb 07 09:12	17° $\approx$ 50'37		morning set	12079 Jan 22 09:28	2° $\approx$ 14'17	
	12078 Feb 13 19:09	0° $\mathcal{H}$					
superior conj	12078 Feb 16 15:32	5° $\mathcal{H}$ 16'02	0°27'56	superior conj	12079 Jan 30 16:05	18° $\approx$ 33'20	0°56'28
minimum elong	12078 Feb 16 17:30	5° $\mathcal{H}$ 25'02	0°28'03	minimum elong	12079 Jan 30 18:58	18° $\approx$ 47'15	0°56'41
desc. node	12078 Feb 20 05:27	11° $\mathcal{H}$ 42'43			12079 Feb 05 18:50	0° $\mathcal{H}$	
max. Earth dist.	12078 Feb 24 04:31	18° $\mathcal{H}$ 36'18	1.40879 AU	max. Earth dist.	12079 Feb 06 11:14	1° $\mathcal{H}$ 14'03	1.38660 AU
evening rise	12078 Feb 28 17:14	26° $\mathcal{H}$ 11'34		desc. node	12079 Feb 07 02:04	2° $\mathcal{H}$ 20'40	
	12078 Mar 03 01:27	0° $\mathcal{Y}$		evening rise	12079 Feb 10 05:54	7° $\mathcal{H}$ 53'57	
	12078 Mar 23 07:45	0° $\mathcal{B}$			12079 Feb 23 23:29	0° $\mathcal{Y}$	
evening max el	12078 Apr 03 23:24	13° $\mathcal{B}$ 59'49	23°22'30	evening max el	12079 Mar 17 13:09	27° $\mathcal{Y}$ 51'06	24°42'02
retrograde	12078 Apr 14 13:30	20° $\mathcal{B}$ 14'20			12079 Mar 19 20:32	0° $\mathcal{B}$	
asc. node	12078 Apr 15 21:32	20° $\mathcal{B}$ 06'02		retrograde	12079 Mar 29 05:01	4° $\mathcal{B}$ 39'20	
evening set	12078 Apr 19 15:44	18° $\mathcal{B}$ 06'10		asc. node	12079 Apr 02 18:53	3° $\mathcal{B}$ 06'08	
min. Earth dist.	12078 Apr 24 12:27	12° $\mathcal{B}$ 23'00	0.68706 AU	evening set	12079 Apr 03 19:11	2° $\mathcal{B}$ 19'02	
inferior conj	12078 Apr 25 01:04	11° $\mathcal{B}$ 39'31	2°31'11		12079 Apr 06 02:04	30° $\mathbb{R}$ $\mathcal{Y}$	
minimum elong	12078 Apr 24 23:00	11° $\mathcal{B}$ 46'41	2°30'10	min. Earth dist.	12079 Apr 08 07:47	27° $\mathcal{Y}$ 11'38	0.68209 AU
morning rise	12078 Apr 30 06:11	5° $\mathcal{B}$ 33'27		inferior conj	12079 Apr 09 08:39	25° $\mathcal{Y}$ 48'59	1°56'30
direct	12078 May 04 13:05	3° $\mathcal{B}$ 50'47		minimum elong	12079 Apr 09 06:31	25° $\mathcal{Y}$ 56'05	1°55'33
morning max el	12078 May 12 20:52	8° $\mathcal{B}$ 36'51	20°53'58	morning rise	12079 Apr 14 18:03	19° $\mathcal{Y}$ 51'02	
desc. node	12078 May 19 07:07	16° $\mathcal{B}$ 05'39		direct	12079 Apr 18 12:32	18° $\mathcal{Y}$ 29'32	
	12078 May 29 07:06	0° $\mathbb{I}$		morning max el	12079 Apr 25 21:13	22° $\mathcal{Y}$ 34'58	19°44'11
morning set	12078 Jun 12 01:09	20° $\mathbb{I}$ 47'14			12079 May 02 03:47	0° $\mathcal{B}$	
	12078 Jun 17 20:57	0° $\mathcal{Q}$		desc. node	12079 May 06 03:52	5° $\mathcal{B}$ 31'53	
max. Earth dist.	12078 Jun 19 21:56	3° $\mathcal{Q}$ 17'32	1.43126 AU	greatest brilliancy	12079 May 08 16:21	9° $\mathcal{B}$ 10'17	-0.6m
				morning set	12079 May 22 01:27	29° $\mathcal{B}$ 20'37	
superior conj	12078 Jun 26 20:41	14° $\mathcal{Q}$ 46'53	-1°55'08		12079 May 22 11:41	0° $\mathbb{I}$	
minimum elong	12078 Jun 27 03:21	15° $\mathcal{Q}$ 15'03	1°55'24	max. Earth dist.	12079 Jun 02 10:36	17° $\mathbb{I}$ 05'29	1.44676 AU
	12078 Jul 05 15:56	0° $\mathcal{Q}$					
evening rise	12078 Jul 08 18:16	5° $\mathcal{Q}$ 29'39		superior conj	12079 Jun 07 05:38	24° $\mathbb{I}$ 45'01	-2°11'37
asc. node	12078 Jul 12 20:09	12° $\mathcal{Q}$ 43'28		minimum elong	12079 Jun 07 08:37	24° $\mathbb{I}$ 57'02	2°12'23
	12078 Jul 24 00:50	0° $\mathbb{M}$			12079 Jun 10 11:18	0° $\mathcal{Q}$	
evening max el	12078 Jul 25 08:14	1° $\mathbb{M}$ 23'42	18°03'56	evening rise	12079 Jun 20 20:55	17° $\mathcal{Q}$ 18'38	
					12079 Jun 28 10:13	0° $\mathcal{Q}$	

asc. node	12079 Jun 29 17:02	2°Ω05'31			12080 Jun 23 07:35	0°Ω	
evening max el	12079 Jul 08 22:21	14°Ω46'14	18°09'13	retrograde	12080 Jun 27 22:56	1°Ω52'29	
retrograde	12079 Jul 15 07:00	18°Ω06'47		evening set	12080 Jul 01 03:06	0°Ω55'35	
evening set	12079 Jul 18 02:55	17°Ω24'45			12080 Jul 02 10:44	30°R☿	
inferior conj	12079 Jul 24 05:44	12°Ω06'22	2°21'49	inferior conj	12080 Jul 06 20:00	25°☿21'03	2°55'02
minimum elong	12079 Jul 24 08:19	11°Ω59'18	2°20'29	minimum elong	12080 Jul 06 21:53	25°☿15'22	2°53'56
min. Earth dist.	12079 Jul 26 21:49	9°Ω11'37	0.63232 AU	min. Earth dist.	12080 Jul 08 21:53	22°☿50'44	0.65192 AU
morning rise	12079 Jul 30 11:57	5°Ω52'58		morning rise	12080 Jul 12 15:38	18°☿59'50	
desc. node	12079 Aug 02 02:59	4°Ω16'32		direct	12080 Jul 19 03:38	16°☿18'38	
direct	12079 Aug 06 04:18	3°Ω21'25		desc. node	12080 Jul 19 00:18	16°☿18'42	
morning max el	12079 Aug 20 03:26	11°Ω23'18	27°48'43	morning max el	12080 Aug 01 14:16	24°☿13'50	27°07'16
	12079 Sep 03 20:32	0°♊			12080 Aug 06 18:47	0°Ω	
	12079 Sep 21 09:06	0°♊			12080 Aug 27 06:16	0°♊	
morning set	12079 Sep 23 17:27	4°♊38'48		morning set	12080 Sep 06 04:01	17°♊58'02	
asc. node	12079 Sep 25 18:08	8°♊46'43		max. Earth dist.	12080 Sep 10 12:58	26°♊38'54	1.33555 AU
max. Earth dist.	12079 Sep 28 19:13	15°♊10'12	1.32291 AU	asc. node	12080 Sep 11 14:47	28°♊51'00	
					12080 Sep 12 04:09	0°♊	
superior conj	12079 Oct 01 11:53	20°♊58'34	0°53'24				
minimum elong	12079 Oct 01 09:45	20°♊47'00	0°53'15	superior conj	12080 Sep 14 14:31	5°♊05'17	0°28'37
	12079 Oct 05 14:57	0°♊		minimum elong	12080 Sep 14 13:07	4°♊57'53	0°28'20
evening rise	12079 Oct 08 08:37	5°♊56'05		evening rise	12080 Sep 21 19:20	20°♊26'50	
	12079 Oct 20 22:30	0°♊			12080 Sep 26 10:46	0°♊	
desc. node	12079 Oct 28 23:42	11°♊08'22		evening max el	12080 Oct 12 11:24	24°♊22'12	21°54'01
evening max el	12079 Oct 31 22:50	14°♊16'36	23°34'10	desc. node	12080 Oct 14 21:04	26°♊30'56	
retrograde	12079 Nov 14 09:45	20°♊59'03			12080 Oct 21 02:29	0°♊	
evening set	12079 Nov 18 22:04	20°♊14'45		retrograde	12080 Oct 25 00:29	0°♊36'24	
min. Earth dist.	12079 Nov 25 08:58	17°♊10'14	0.55440 AU	evening set	12080 Oct 28 02:17	0°♊15'11	
inferior conj	12079 Nov 27 04:15	16°♊06'29	-5°50'37		12080 Oct 29 01:51	30°R♊	
minimum elong	12079 Nov 27 06:08	16°♊03'43	5°49'44	inferior conj	12080 Nov 05 23:02	26°♊18'48	-5°34'11
morning rise	12079 Dec 05 15:59	12°♊13'32		minimum elong	12080 Nov 05 16:23	26°♊28'06	5°32'38
direct	12079 Dec 08 11:08	11°♊54'21		min. Earth dist.	12080 Nov 05 15:34	26°♊29'15	0.54624 AU
morning max el	12079 Dec 19 04:11	17°♊00'00	20°20'20	morning rise	12080 Nov 14 07:44	22°♊31'36	
asc. node	12079 Dec 22 18:40	20°♊59'07		direct	12080 Nov 17 21:08	22°♊03'48	
	12079 Dec 28 20:06	0°♊		morning max el	12080 Nov 30 02:51	27°♊53'12	21°53'10
morning set	12080 Jan 06 15:57	16°♊53'15			12080 Dec 02 04:44	0°♊	
	12080 Jan 13 00:53	0°♊		asc. node	12080 Dec 08 15:42	8°♊28'54	
					12080 Dec 20 07:10	0°♊	
superior conj	12080 Jan 14 05:57	2°♊27'30	1°17'23	morning set	12080 Dec 21 02:04	1°♊38'55	
minimum elong	12080 Jan 14 08:36	2°♊40'51	1°17'50				
max. Earth dist.	12080 Jan 19 18:43	13°♊20'17	1.36482 AU	superior conj	12080 Dec 28 05:14	16°♊46'14	1°31'00
evening rise	12080 Jan 23 14:01	20°♊26'12		minimum elong	12080 Dec 28 07:00	16°♊55'31	1°31'41
desc. node	12080 Jan 24 22:48	22°♊54'17		max. Earth dist.	12081 Jan 01 07:14	25°♊11'59	1.34560 AU
	12080 Jan 29 00:14	0°♊			12081 Jan 03 17:02	0°♊	
	12080 Feb 17 23:19	0°♊		evening rise	12081 Jan 05 14:01	3°♊38'08	
evening max el	12080 Feb 28 02:36	11°♊41'47	25°53'43	desc. node	12081 Jan 10 19:36	13°♊18'29	
retrograde	12080 Mar 11 15:55	18°♊53'23			12081 Jan 20 21:06	0°♊	
evening set	12080 Mar 17 17:44	16°♊24'16		evening max el	12081 Feb 09 16:07	25°♊24'33	26°50'29
asc. node	12080 Mar 19 16:16	14°♊33'15			12081 Feb 15 05:11	0°♊	
min. Earth dist.	12080 Mar 21 23:35	11°♊52'03	0.67290 AU	retrograde	12081 Feb 22 21:25	2°♊48'13	
inferior conj	12080 Mar 23 12:39	9°♊55'34	1°11'54	evening set	12081 Mar 01 09:29	0°♊15'13	
minimum elong	12080 Mar 23 11:01	10°♊00'43	1°11'14		12081 Mar 01 17:00	30°R♊	
morning rise	12080 Mar 29 04:56	4°♊07'12		min. Earth dist.	12081 Mar 05 09:43	26°♊16'54	0.65967 AU
direct	12080 Apr 01 11:58	3°♊05'19		asc. node	12081 Mar 06 13:39	24°♊55'55	
morning max el	12080 Apr 08 05:12	6°♊43'03	18°49'40	inferior conj	12081 Mar 07 10:51	23°♊53'47	0°17'06
desc. node	12080 Apr 22 00:35	25°♊24'16		minimum elong	12081 Mar 07 10:23	23°♊55'09	0°17'05
greatest brilliancy	12080 Apr 22 10:31	26°♊02'17	-0.8m	morning rise	12081 Mar 13 12:33	18°♊16'49	
	12080 Apr 25 00:15	0°♊		direct	12081 Mar 16 09:24	17°♊31'38	
morning set	12080 Apr 30 10:26	8°♊25'33		morning max el	12081 Mar 22 19:06	20°♊54'29	18°11'40
	12080 May 14 06:33	0°♊			12081 Mar 29 22:53	0°♊	
max. Earth dist.	12080 May 15 04:06	1°♊24'15	1.45568 AU	desc. node	12081 Apr 08 21:14	15°♊35'19	
				morning set	12081 Apr 10 21:05	18°♊47'57	
superior conj	12080 May 16 18:44	3°♊55'38	-2°09'55		12081 Apr 17 20:52	0°♊	
minimum elong	12080 May 16 14:14	3°♊37'59	2°10'30				
evening rise	12080 May 31 23:57	28°♊07'17		superior conj	12081 Apr 26 02:05	12°♊58'19	-1°48'12
	12080 Jun 02 03:55	0°♊		minimum elong	12081 Apr 25 16:51	12°♊22'08	1°47'54
asc. node	12080 Jun 15 14:01	21°♊02'43		max. Earth dist.	12081 Apr 27 23:39	15°♊56'35	1.45723 AU
evening max el	12080 Jun 21 11:10	28°♊21'43	18°32'35		12081 May 07 00:10	0°♊	

evening rise	12081 May 12 03:41	8°♊00'18			12082 Apr 10 12:01	0°♊	
greatest brilliancy	12081 May 23 19:07	25°♊58'17	-0.7m	max. Earth dist.	12082 Apr 10 18:56	0°♊27'19	1.45141 AU
	12081 May 26 11:59	0°♊		evening rise	12082 Apr 21 16:42	17°♊23'54	
asc. node	12081 Jun 02 11:05	9°♊26'38			12082 Apr 29 23:59	0°♊	
evening max el	12081 Jun 04 20:18	12°♊04'19	19°13'11	greatest brilliancy	12082 May 06 17:08	9°♊56'00	-0.6m
retrograde	12081 Jun 11 19:32	15°♊57'46		evening max el	12082 May 19 00:09	25°♊49'45	20°09'20
evening set	12081 Jun 15 08:25	14°♊45'01		asc. node	12082 May 20 08:14	27°♊06'02	
inferior conj	12081 Jun 20 18:55	8°♊55'55	3°11'36		12082 May 24 23:40	0°♊	
minimum elong	12081 Jun 20 19:44	8°♊53'16	3°10'42	retrograde	12082 May 26 18:05	0°♊16'32	
min. Earth dist.	12081 Jun 22 06:03	7°♊02'02	0.66774 AU		12082 May 28 11:05	30°♋♊	
morning rise	12081 Jun 26 06:29	2°♊33'08		evening set	12082 May 30 16:26	28°♊47'25	
	12081 Jul 01 01:05	30°♋♊		inferior conj	12082 Jun 04 23:33	22°♊45'13	3°14'30
direct	12081 Jul 02 10:03	29°♊52'29		minimum elong	12082 Jun 04 23:18	22°♊46'06	3°13'41
	12081 Jul 03 20:01	0°♊		min. Earth dist.	12082 Jun 05 20:23	21°♊34'27	0.67920 AU
desc. node	12081 Jul 05 21:32	0°♊35'42		morning rise	12082 Jun 10 05:51	16°♊24'45	
morning max el	12081 Jul 15 01:09	7°♊25'50	26°00'01	direct	12082 Jun 15 22:09	13°♊53'42	
	12081 Aug 01 14:38	0°♊		desc. node	12082 Jun 22 18:40	16°♊40'28	
	12081 Aug 19 16:53	0°♊		morning max el	12082 Jun 27 11:00	20°♊48'53	24°36'32
morning set	12081 Aug 20 01:25	0°♊39'14			12082 Jul 05 08:46	0°♊	
max. Earth dist.	12081 Aug 23 20:12	7°♊47'04	1.35308 AU		12082 Jul 25 19:33	0°♊	
				morning set	12082 Aug 02 05:06	12°♊30'08	
superior conj	12081 Aug 29 09:29	18°♊47'10	-0°00'48	max. Earth dist.	12082 Aug 05 19:14	18°♊54'20	1.37455 AU
minimum elong	12081 Aug 29 09:33	18°♊47'30	0°01'02		12082 Aug 11 17:36	0°♊	
behind sun begin	12081 Aug 29 03:29	18°♊16'44					
behind sun end	12081 Aug 29 15:36	19°♊18'19		superior conj	12082 Aug 12 17:31	1°♊55'29	-0°33'41
asc. node	12081 Aug 29 11:27	18°♊57'10		minimum elong	12082 Aug 12 19:46	2°♊06'24	0°33'44
	12081 Sep 03 19:54	0°♊		asc. node	12082 Aug 16 08:07	9°♊00'47	
evening rise	12081 Sep 06 03:22	4°♊47'44		evening rise	12082 Aug 21 06:17	18°♊51'34	
	12081 Sep 20 05:27	0°♊			12082 Aug 26 23:51	0°♊	
evening max el	12081 Sep 24 11:01	4°♊58'06	20°26'52	evening max el	12082 Sep 07 00:39	16°♊19'54	19°19'47
desc. node	12081 Oct 01 18:29	9°♊50'21		retrograde	12082 Sep 16 09:19	21°♊00'01	
retrograde	12081 Oct 05 12:10	10°♊27'18		evening set	12082 Sep 18 05:39	20°♊49'54	
evening set	12081 Oct 07 14:49	10°♊16'11		desc. node	12082 Sep 18 15:56	20°♊44'46	
inferior conj	12081 Oct 16 15:49	6°♊20'05	-4°20'44	inferior conj	12082 Sep 26 20:30	16°♊41'18	-2°33'17
minimum elong	12081 Oct 16 05:48	6°♊34'40	4°17'25	minimum elong	12082 Sep 26 13:48	16°♊52'17	2°30'35
min. Earth dist.	12081 Oct 17 23:31	5°♊33'52	0.54734 AU	min. Earth dist.	12082 Sep 29 10:37	14°♊59'44	0.55764 AU
morning rise	12081 Oct 24 20:14	2°♊18'24		morning rise	12082 Oct 04 19:27	12°♊08'16	
direct	12081 Oct 29 06:14	1°♊36'21		direct	12082 Oct 10 01:29	11°♊05'33	
morning max el	12081 Nov 11 15:34	8°♊07'31	23°39'41	morning max el	12082 Oct 24 02:14	18°♊10'46	25°24'59
asc. node	12081 Nov 25 12:39	26°♊47'20			12082 Nov 02 21:59	0°♊	
	12081 Nov 27 08:07	0°♊		asc. node	12082 Nov 12 09:31	15°♊41'48	
morning set	12081 Dec 05 13:47	16°♊25'47			12082 Nov 19 12:29	0°♊	
	12081 Dec 11 19:58	0°♊		morning set	12082 Nov 20 01:21	1°♊08'44	
superior conj	12081 Dec 12 10:53	1°♊20'49	1°37'49	superior conj	12082 Nov 26 20:27	16°♊03'48	1°38'21
minimum elong	12081 Dec 12 11:31	1°♊24'19	1°38'38	minimum elong	12082 Nov 26 19:58	16°♊01'12	1°39'08
max. Earth dist.	12081 Dec 15 03:33	7°♊07'46	1.33042 AU	max. Earth dist.	12082 Nov 28 07:09	19°♊14'56	1.31984 AU
evening rise	12081 Dec 20 02:22	17°♊21'05			12082 Dec 03 07:14	0°♊	
	12081 Dec 26 17:42	0°♊		evening rise	12082 Dec 03 23:54	1°♊26'43	
desc. node	12081 Dec 28 16:28	3°♊28'14		desc. node	12082 Dec 15 13:27	23°♊17'10	
	12082 Jan 15 06:45	0°♊			12082 Dec 19 15:56	0°♊	
evening max el	12082 Jan 23 05:04	8°♊49'48	27°25'03	evening max el	12083 Jan 05 15:35	21°♊45'20	27°30'44
retrograde	12082 Feb 05 20:31	16°♊15'02		retrograde	12083 Jan 19 12:08	29°♊04'53	
evening set	12082 Feb 12 16:14	13°♊44'47		evening set	12083 Jan 26 11:15	26°♊45'05	
min. Earth dist.	12082 Feb 16 12:10	10°♊17'56	0.64289 AU	min. Earth dist.	12083 Jan 30 05:03	23°♊45'19	0.62331 AU
inferior conj	12082 Feb 19 00:45	7°♊37'35	-0°47'50	inferior conj	12083 Feb 02 03:21	20°♊59'32	-2°01'43
minimum elong	12082 Feb 19 02:13	7°♊33'40	0°46'49	minimum elong	12083 Feb 02 07:28	20°♊49'45	1°59'28
asc. node	12082 Feb 21 11:02	5°♊09'40		asc. node	12083 Feb 08 08:23	16°♊14'50	
morning rise	12082 Feb 25 14:11	2°♊14'24		morning rise	12083 Feb 09 06:16	15°♊53'07	
direct	12082 Feb 28 02:28	1°♊42'18		direct	12083 Feb 11 12:06	15°♊30'19	
morning max el	12082 Mar 06 12:16	5°♊01'26	17°50'44	morning max el	12083 Feb 18 05:40	18°♊55'50	17°47'28
	12082 Mar 23 04:14	0°♊			12083 Feb 26 08:11	0°♊	
morning set	12082 Mar 23 12:14	0°♊33'42		morning set	12083 Mar 06 02:45	13°♊26'23	
desc. node	12082 Mar 26 17:50	5°♊59'33		desc. node	12083 Mar 13 14:25	26°♊32'40	
					12083 Mar 15 14:52	0°♊	
superior conj	12082 Apr 05 21:22	22°♊39'08	-1°12'01				
minimum elong	12082 Apr 05 13:50	22°♊08'50	1°11'18	superior conj	12083 Mar 17 15:31	3°♊25'39	-0°30'46

minimum elong	12083 Mar 17 12:31	3° $\Upsilon$ 13'01	0°30'17	superior conj	12084 Feb 27 09:54	15° $\Upsilon$ 19'45	0°08'11
max. Earth dist.	12083 Mar 24 12:01	14° $\Upsilon$ 42'24	1.43883 AU	minimum elong	12084 Feb 27 10:35	15° $\Upsilon$ 22'46	0°08'22
evening rise	12083 Apr 01 06:24	26° $\Upsilon$ 58'19		behind sun begin	12084 Feb 27 03:51	14° $\Upsilon$ 52'55	
	12083 Apr 03 05:32	0° $\Sigma$		behind sun end	12084 Feb 27 17:19	15° $\Upsilon$ 52'33	
	12083 Apr 23 21:17	0° $\Pi$		desc. node	12084 Feb 28 10:59	17° $\Upsilon$ 10'22	
evening max el	12083 May 01 22:22	9° $\Pi$ 36'39	21°18'16	max. Earth dist.	12084 Mar 06 00:43	28° $\Upsilon$ 25'14	1.42084 AU
asc. node	12083 May 07 05:28	13° $\Pi$ 47'32			12084 Mar 06 23:32	0° $\Upsilon$	
retrograde	12083 May 10 16:39	14° $\Pi$ 44'18		evening rise	12084 Mar 11 10:10	7° $\Upsilon$ 13'41	
evening set	12083 May 15 01:16	12° $\Pi$ 59'01			12084 Mar 26 09:45	0° $\Sigma$	
inferior conj	12083 May 20 07:36	6° $\Pi$ 45'16	3°05'48	evening max el	12084 Apr 13 15:40	23° $\Sigma$ 23'53	22°35'56
minimum elong	12083 May 20 06:25	6° $\Pi$ 49'25	3°04'55	asc. node	12084 Apr 23 02:46	29° $\Sigma$ 14'05	
min. Earth dist.	12083 May 20 14:51	6° $\Pi$ 20'03	0.68597 AU	retrograde	12084 Apr 23 13:34	29° $\Sigma$ 15'03	
morning rise	12083 May 25 11:21	0° $\Pi$ 29'26		evening set	12084 Apr 28 09:16	27° $\Sigma$ 14'32	
	12083 May 26 01:25	30° $\Sigma$		inferior conj	12084 May 03 16:58	20° $\Sigma$ 51'34	2°46'40
direct	12083 May 30 14:54	28° $\Sigma$ 14'40		minimum elong	12084 May 03 15:06	20° $\Sigma$ 58'02	2°45'42
	12083 Jun 04 17:20	0° $\Pi$		min. Earth dist.	12084 May 03 11:22	21° $\Sigma$ 11'02	0.68802 AU
desc. node	12083 Jun 09 15:39	4° $\Pi$ 06'14		morning rise	12084 May 08 20:50	14° $\Sigma$ 41'43	
morning max el	12083 Jun 09 21:19	4° $\Pi$ 20'24	23°06'52	direct	12084 May 13 11:07	12° $\Sigma$ 47'04	
	12083 Jun 29 13:39	0° $\Sigma$		morning max el	12084 May 22 11:02	18° $\Sigma$ 00'52	21°39'54
morning set	12083 Jul 14 10:20	23° $\Sigma$ 19'39		desc. node	12084 May 26 12:33	22° $\Sigma$ 30'32	
	12083 Jul 18 09:03	0° $\Omega$			12084 Jun 01 08:35	0° $\Pi$	
max. Earth dist.	12083 Jul 18 16:56	0° $\Omega$ 33'56	1.39784 AU		12084 Jun 21 16:10	0° $\Sigma$	
				morning set	12084 Jun 23 13:56	3° $\Sigma$ 00'48	
superior conj	12083 Jul 26 10:47	14° $\Omega$ 21'35	-1°07'55	max. Earth dist.	12084 Jun 29 18:56	13° $\Sigma$ 04'20	1.42003 AU
minimum elong	12083 Jul 26 15:37	14° $\Omega$ 43'50	1°07'49				
asc. node	12083 Aug 03 04:50	28° $\Omega$ 58'43		superior conj	12084 Jul 07 08:47	25° $\Sigma$ 55'07	-1°39'53
	12083 Aug 03 17:36	0° $\Pi$		minimum elong	12084 Jul 07 15:30	26° $\Sigma$ 24'23	1°39'54
evening rise	12083 Aug 05 01:11	2° $\Pi$ 31'30			12084 Jul 09 16:38	0° $\Omega$	
evening max el	12083 Aug 21 02:08	28° $\Pi$ 26'57	18°34'11	evening rise	12084 Jul 18 08:16	15° $\Omega$ 37'49	
	12083 Aug 22 19:53	0° $\Sigma$		asc. node	12084 Jul 20 01:38	18° $\Omega$ 46'53	
retrograde	12083 Aug 29 00:50	2° $\Sigma$ 26'40			12084 Jul 26 09:44	0° $\Pi$	
evening set	12083 Aug 31 00:43	2° $\Sigma$ 12'21		evening max el	12084 Aug 03 11:35	11° $\Pi$ 11'12	18°09'18
	12083 Sep 04 18:25	30° $\Sigma$		retrograde	12084 Aug 10 11:09	14° $\Pi$ 44'22	
desc. node	12083 Sep 05 13:22	29° $\Pi$ 27'58		evening set	12084 Aug 12 18:10	14° $\Pi$ 21'51	
inferior conj	12083 Sep 07 21:37	27° $\Pi$ 43'56	-0°44'01	inferior conj	12084 Aug 19 20:23	9° $\Pi$ 32'53	0°46'52
minimum elong	12083 Sep 07 19:52	27° $\Pi$ 47'18	0°43'27	minimum elong	12084 Aug 19 21:51	9° $\Pi$ 29'35	0°45'57
min. Earth dist.	12083 Sep 11 03:08	25° $\Pi$ 16'12	0.57518 AU	desc. node	12084 Aug 22 10:45	7° $\Pi$ 13'05	
morning rise	12083 Sep 15 11:34	22° $\Pi$ 33'11		min. Earth dist.	12084 Aug 23 03:30	6° $\Pi$ 36'58	0.59690 AU
direct	12083 Sep 21 10:33	21° $\Pi$ 04'11		morning rise	12084 Aug 26 22:19	3° $\Pi$ 49'29	
morning max el	12083 Oct 05 17:58	28° $\Pi$ 35'43	26°50'55	direct	12084 Sep 02 09:09	1° $\Pi$ 52'05	
	12083 Oct 07 03:36	0° $\Sigma$		morning max el	12084 Sep 16 17:21	9° $\Pi$ 43'01	27°43'39
	12083 Oct 27 14:59	0° $\Pi$			12084 Oct 02 08:53	0° $\Sigma$	
asc. node	12083 Oct 30 06:17	5° $\Pi$ 02'49		asc. node	12084 Oct 16 03:00	24° $\Sigma$ 43'13	
morning set	12083 Nov 04 11:05	15° $\Pi$ 43'01		morning set	12084 Oct 18 17:15	0° $\Pi$ 04'11	
	12083 Nov 10 23:08	0° $\Sigma$			12084 Oct 18 16:27	0° $\Pi$	
				max. Earth dist.	12084 Oct 25 00:00	13° $\Pi$ 42'52	1.31344 AU
superior conj	12083 Nov 11 07:53	0° $\Sigma$ 48'47	1°32'58				
minimum elong	12083 Nov 11 06:28	0° $\Sigma$ 40'55	1°33'33	superior conj	12084 Oct 25 19:23	15° $\Pi$ 30'41	1°21'55
max. Earth dist.	12083 Nov 11 15:12	1° $\Sigma$ 29'34	1.31413 AU	minimum elong	12084 Oct 25 17:20	15° $\Pi$ 19'17	1°22'13
evening rise	12083 Nov 18 04:00	15° $\Sigma$ 47'49			12084 Nov 01 08:58	0° $\Sigma$	
	12083 Nov 25 05:47	0° $\Sigma$		evening rise	12084 Nov 01 12:26	0° $\Sigma$ 18'40	
desc. node	12083 Dec 02 10:30	12° $\Sigma$ 36'15			12084 Nov 17 12:03	0° $\Sigma$	
	12083 Dec 15 01:17	0° $\approx$		desc. node	12084 Nov 18 07:39	1° $\Sigma$ 13'55	
evening max el	12083 Dec 18 20:45	3° $\approx$ 57'09	27°02'48	evening max el	12084 Nov 29 18:05	15° $\Sigma$ 16'51	26°00'56
retrograde	12084 Jan 01 19:01	11° $\approx$ 08'31		retrograde	12084 Dec 13 16:06	22° $\Sigma$ 20'02	
evening set	12084 Jan 08 15:01	9° $\approx$ 07'30		evening set	12084 Dec 19 23:20	20° $\Sigma$ 46'07	
min. Earth dist.	12084 Jan 12 11:07	6° $\approx$ 26'37	0.60206 AU	min. Earth dist.	12084 Dec 24 06:56	18° $\Sigma$ 10'19	0.58091 AU
inferior conj	12084 Jan 15 15:07	3° $\approx$ 49'39	-3°21'03	inferior conj	12084 Dec 27 08:33	15° $\Sigma$ 58'18	-4°37'25
minimum elong	12084 Jan 15 22:05	3° $\approx$ 35'13	3°17'51	minimum elong	12084 Dec 27 17:00	15° $\Sigma$ 43'06	4°34'22
	12084 Jan 20 23:29	30° $\Sigma$		morning rise	12085 Jan 04 13:22	11° $\Sigma$ 34'26	
morning rise	12084 Jan 23 08:00	29° $\Sigma$ 03'23		direct	12085 Jan 06 16:32	11° $\Sigma$ 19'43	
direct	12084 Jan 25 10:18	28° $\Sigma$ 46'20		asc. node	12085 Jan 12 02:52	13° $\Sigma$ 01'44	
asc. node	12084 Jan 26 05:40	28° $\Sigma$ 48'57		morning max el	12085 Jan 15 03:12	15° $\Sigma$ 27'05	18°38'37
	12084 Jan 29 16:23	0° $\approx$			12085 Jan 25 06:02	0° $\approx$	
morning max el	12084 Feb 01 19:54	2° $\approx$ 27'47	18°02'52	morning set	12085 Jan 31 05:33	11° $\approx$ 16'33	
morning set	12084 Feb 17 10:14	27° $\approx$ 05'42					
	12084 Feb 18 23:48	0° $\Upsilon$		superior conj	12085 Feb 09 00:53	28° $\approx$ 10'59	0°40'56

minimum elong	12085 Feb 09 03:25	28° $\approx$ 22'50	0°41'04	superior conj	12086 Jan 23 07:36	11° $\approx$ 45'01	1°06'15
	12085 Feb 10 00:18	0° $\mathbb{H}$		minimum elong	12086 Jan 23 10:30	11° $\approx$ 59'14	1°06'32
desc. node	12085 Feb 14 07:37	7° $\mathbb{H}$ 49'26		max. Earth dist.	12086 Jan 29 14:33	23° $\approx$ 45'06	1.37710 AU
max. Earth dist.	12085 Feb 16 08:36	11° $\mathbb{H}$ 25'12	1.39945 AU	desc. node	12086 Feb 01 04:19	28° $\approx$ 25'52	
evening rise	12085 Feb 20 10:36	18° $\mathbb{H}$ 24'18		evening rise	12086 Feb 02 07:56	0° $\mathbb{H}$ 28'42	
	12085 Feb 27 14:11	0° $\mathbb{Y}$			12086 Feb 02 01:26	0° $\mathbb{H}$	
	12085 Mar 20 19:18	0° $\mathbb{B}$			12086 Feb 20 20:17	0° $\mathbb{Y}$	
evening max el	12085 Mar 27 05:58	7° $\mathbb{B}$ 13'09	23°56'41	evening max el	12086 Mar 09 19:27	21° $\mathbb{Y}$ 04'39	25°13'57
retrograde	12085 Apr 07 07:33	13° $\mathbb{B}$ 43'45		retrograde	12086 Mar 21 21:25	28° $\mathbb{Y}$ 04'51	
asc. node	12085 Apr 10 00:06	13° $\mathbb{B}$ 10'28		evening set	12086 Mar 27 16:28	25° $\mathbb{Y}$ 40'27	
evening set	12085 Apr 12 14:51	11° $\mathbb{B}$ 29'53		asc. node	12086 Mar 27 21:28	25° $\mathbb{Y}$ 29'42	
min. Earth dist.	12085 Apr 17 07:49	6° $\mathbb{B}$ 01'58	0.68550 AU	min. Earth dist.	12086 Apr 01 02:04	20° $\mathbb{Y}$ 47'52	0.67863 AU
inferior conj	12085 Apr 18 01:45	5° $\mathbb{B}$ 00'59	2°17'40	inferior conj	12086 Apr 02 08:06	19° $\mathbb{Y}$ 10'04	1°38'50
minimum elong	12085 Apr 17 23:35	5° $\mathbb{B}$ 08'19	2°16'39	minimum elong	12086 Apr 02 06:06	19° $\mathbb{Y}$ 16'35	1°37'58
	12085 Apr 22 04:10	30° $\mathbb{R}$ $\mathbb{Y}$		morning rise	12086 Apr 07 20:05	13° $\mathbb{Y}$ 15'46	
morning rise	12085 Apr 23 08:22	28° $\mathbb{Y}$ 58'13		direct	12086 Apr 11 09:30	12° $\mathbb{Y}$ 02'56	
direct	12085 Apr 27 09:47	27° $\mathbb{Y}$ 24'54		morning max el	12086 Apr 18 10:46	15° $\mathbb{Y}$ 55'23	19°18'57
	12085 May 03 05:16	0° $\mathbb{B}$			12086 Apr 29 09:21	0° $\mathbb{B}$	
morning max el	12085 May 05 07:04	1° $\mathbb{B}$ 52'30	20°22'28	desc. node	12086 Apr 30 06:07	1° $\mathbb{B}$ 16'05	
desc. node	12085 May 13 09:22	11° $\mathbb{B}$ 37'34		greatest brilliancy	12086 May 01 05:47	2° $\mathbb{B}$ 43'32	-0.7m
	12085 May 26 02:31	0° $\mathbb{II}$		morning set	12086 May 12 20:57	20° $\mathbb{B}$ 24'51	
morning set	12085 Jun 02 19:45	11° $\mathbb{II}$ 45'56			12086 May 19 01:37	0° $\mathbb{II}$	
max. Earth dist.	12085 Jun 12 03:19	26° $\mathbb{II}$ 24'56	1.43855 AU	max. Earth dist.	12086 May 25 17:55	10° $\mathbb{II}$ 26'36	1.45141 AU
	12085 Jun 14 08:42	0° $\mathbb{E}$					
superior conj	12085 Jun 18 07:34	6° $\mathbb{E}$ 27'54	-2°03'59	superior conj	12086 May 29 07:08	16° $\mathbb{II}$ 03'27	-2°13'24
minimum elong	12085 Jun 18 13:18	6° $\mathbb{E}$ 51'35	2°04'30	minimum elong	12086 May 29 07:07	16° $\mathbb{II}$ 03'25	2°14'12
evening rise	12085 Jun 30 22:45	27° $\mathbb{E}$ 58'13			12086 Jun 06 23:02	0° $\mathbb{E}$	
	12085 Jul 02 02:44	0° $\mathbb{O}$		evening rise	12086 Jun 12 15:45	9° $\mathbb{E}$ 22'04	
asc. node	12085 Jul 06 22:29	8° $\mathbb{O}$ 20'04		asc. node	12086 Jun 23 19:26	27° $\mathbb{E}$ 32'42	
evening max el	12085 Jul 18 01:02	24° $\mathbb{O}$ 22'26	18°03'56		12086 Jun 25 10:27	0° $\mathbb{O}$	
retrograde	12085 Jul 24 12:18	27° $\mathbb{O}$ 43'33		evening max el	12086 Jul 01 15:03	7° $\mathbb{O}$ 51'59	18°17'03
evening set	12085 Jul 27 03:24	27° $\mathbb{O}$ 09'28		retrograde	12086 Jul 07 23:55	11° $\mathbb{O}$ 15'02	
inferior conj	12085 Aug 02 13:43	22° $\mathbb{O}$ 01'31	1°53'42	evening set	12086 Jul 10 23:19	10° $\mathbb{O}$ 26'54	
minimum elong	12085 Aug 02 16:19	21° $\mathbb{O}$ 54'51	1°52'20	inferior conj	12086 Jul 16 21:30	5° $\mathbb{O}$ 01'45	2°38'06
min. Earth dist.	12085 Aug 05 13:00	18° $\mathbb{O}$ 59'55	0.61972 AU	minimum elong	12086 Jul 16 23:51	4° $\mathbb{O}$ 55'00	2°36'52
morning rise	12085 Aug 09 02:51	15° $\mathbb{O}$ 56'03		min. Earth dist.	12086 Jul 19 07:50	2° $\mathbb{O}$ 15'22	0.64110 AU
desc. node	12085 Aug 09 08:10	15° $\mathbb{O}$ 46'49			12086 Jul 21 12:11	30° $\mathbb{R}$ $\mathbb{E}$	
direct	12085 Aug 15 19:08	13° $\mathbb{O}$ 34'14		morning rise	12086 Jul 22 22:57	28° $\mathbb{E}$ 44'14	
morning max el	12085 Aug 29 23:04	21° $\mathbb{O}$ 35'45	27°57'37	desc. node	12086 Jul 27 05:30	26° $\mathbb{E}$ 26'15	
	12085 Sep 06 07:08	0° $\mathbb{P}$		direct	12086 Jul 29 14:14	26° $\mathbb{E}$ 06'59	
	12085 Sep 25 11:42	0° $\mathbb{A}$			12086 Aug 07 17:50	0° $\mathbb{O}$	
morning set	12085 Oct 02 17:46	14° $\mathbb{A}$ 06'07		morning max el	12086 Aug 12 08:37	4° $\mathbb{O}$ 07'47	27°34'40
asc. node	12085 Oct 02 23:41	14° $\mathbb{A}$ 36'30			12086 Aug 31 20:30	0° $\mathbb{P}$	
max. Earth dist.	12085 Oct 08 05:39	25° $\mathbb{A}$ 44'02	1.31792 AU	morning set	12086 Sep 16 10:15	27° $\mathbb{P}$ 42'53	
					12086 Sep 17 13:45	0° $\mathbb{A}$	
superior conj	12085 Oct 10 05:02	0° $\mathbb{M}$ 03'17	1°05'22	asc. node	12086 Sep 19 20:22	4° $\mathbb{A}$ 38'05	
minimum elong	12085 Oct 10 02:47	29° $\mathbb{A}$ 50'53	1°05'21	max. Earth dist.	12086 Sep 21 04:29	7° $\mathbb{A}$ 25'01	1.32767 AU
	12085 Oct 10 04:27	0° $\mathbb{M}$					
evening rise	12085 Oct 16 23:12	14° $\mathbb{M}$ 53'17		superior conj	12086 Sep 24 10:54	14° $\mathbb{A}$ 21'22	0°43'30
	12085 Oct 24 09:29	0° $\mathbb{J}$		minimum elong	12086 Sep 24 09:00	14° $\mathbb{A}$ 11'08	0°43'16
desc. node	12085 Nov 05 04:54	18° $\mathbb{J}$ 53'31		evening rise	12086 Oct 01 10:30	29° $\mathbb{A}$ 26'59	
evening max el	12085 Nov 11 07:28	25° $\mathbb{J}$ 47'42	24°32'00		12086 Oct 01 16:41	0° $\mathbb{M}$	
	12085 Nov 16 14:57	0° $\mathbb{Z}$			12086 Oct 18 14:21	0° $\mathbb{J}$	
retrograde	12085 Nov 25 01:19	2° $\mathbb{Z}$ 40'05		desc. node	12086 Oct 23 02:14	5° $\mathbb{J}$ 13'41	
evening set	12085 Nov 30 08:00	1° $\mathbb{Z}$ 38'24		evening max el	12086 Oct 23 17:52	5° $\mathbb{J}$ 52'33	22°50'47
	12085 Dec 03 19:04	30° $\mathbb{R}$ $\mathbb{J}$		retrograde	12086 Nov 05 21:24	12° $\mathbb{J}$ 24'29	
min. Earth dist.	12085 Dec 05 18:59	28° $\mathbb{J}$ 49'30	0.56251 AU	evening set	12086 Nov 09 18:30	11° $\mathbb{J}$ 51'44	
inferior conj	12085 Dec 08 05:23	27° $\mathbb{J}$ 17'48	-5°34'55	min. Earth dist.	12086 Nov 17 02:34	8° $\mathbb{J}$ 31'29	0.54991 AU
minimum elong	12085 Dec 08 11:15	27° $\mathbb{J}$ 08'33	5°33'18	inferior conj	12086 Nov 18 07:29	7° $\mathbb{J}$ 50'13	-5°50'58
morning rise	12085 Dec 16 16:37	23° $\mathbb{J}$ 14'58		minimum elong	12086 Nov 18 05:38	7° $\mathbb{J}$ 52'52	5°50'09
direct	12085 Dec 19 03:26	22° $\mathbb{J}$ 58'47		morning rise	12086 Nov 26 18:15	4° $\mathbb{J}$ 01'23	
morning max el	12085 Dec 28 23:32	27° $\mathbb{J}$ 41'38	19°36'37	direct	12086 Nov 29 20:45	3° $\mathbb{J}$ 39'00	
asc. node	12085 Dec 30 00:00	28° $\mathbb{J}$ 43'22		morning max el	12086 Dec 11 05:55	9° $\mathbb{J}$ 03'33	20°57'27
	12085 Dec 31 03:37	0° $\mathbb{Z}$		asc. node	12086 Dec 16 21:05	15° $\mathbb{J}$ 38'15	
morning set	12086 Jan 15 08:48	25° $\mathbb{Z}$ 47'00			12086 Dec 25 11:43	0° $\mathbb{Z}$	
	12086 Jan 17 10:54	0° $\approx$		morning set	12086 Dec 30 17:04	10° $\mathbb{Z}$ 28'53	

superior conj	12087 Jan 07 01:49	25°  49'52	1°24'02	superior conj	12087 Dec 22 04:08	10°  16'21	1°34'41
minimum elong	12087 Jan 07 04:09	26°  01'49	1°24'35	minimum elong	12087 Dec 22 05:26	10°  23'18	1°35'27
	12087 Jan 09 02:54	0°  ≈		max. Earth dist.	12087 Dec 25 15:44	17°  35'39	1.33861 AU
max. Earth dist.	12087 Jan 11 23:38	5°  ≈41'55	1.35624 AU	evening rise	12087 Dec 30 04:54	26°  34'52	
evening rise	12087 Jan 15 23:14	13°  ≈18'33			12087 Dec 31 21:19	0°  ≈	
desc. node	12087 Jan 19 01:04	18°  ≈55'42		desc. node	12088 Jan 05 21:54	9°  ≈14'39	
	12087 Jan 25 11:59	0°  ✕			12088 Jan 18 20:06	0°  ✕	
	12087 Feb 15 18:41	0°  Υ		evening max el	12088 Feb 02 22:45	18°  ✕30'43	27°08'22
evening max el	12087 Feb 20 09:09	4°  Υ53'24	26°20'19	retrograde	12088 Feb 16 08:41	25°  ✕55'19	
retrograde	12087 Mar 05 06:03	12°  Υ11'07		evening set	12088 Feb 23 00:33	23°  ✕22'40	
evening set	12087 Mar 11 12:22	9°  Υ40'00		min. Earth dist.	12088 Feb 26 22:49	19°  ✕38'16	0.65295 AU
asc. node	12087 Mar 14 18:52	6°  Υ23'48		inferior conj	12088 Feb 29 04:55	17°  ✕06'43	-0°09'12
min. Earth dist.	12087 Mar 15 15:48	5°  Υ22'11	0.66768 AU	minimum elong	12088 Feb 29 05:11	17°  ✕06'00	0°08'49
inferior conj	12087 Mar 17 09:55	3°  Υ13'41	0°49'55	transit middle	12088 Feb 29 05:11	17°  ✕06'00	0°08'49
minimum elong	12087 Mar 17 08:41	3°  Υ17'27	0°49'30	transit begin	12088 Feb 29 02:40	17°  ✕13'04	
	12087 Mar 20 05:05	30°  ✕✕		transit end	12088 Feb 29 07:42	16°  ✕58'57	
morning rise	12087 Mar 23 05:52	27°  ✕29'38		asc. node	12088 Feb 29 16:13	16°  ✕35'07	
direct	12087 Mar 26 08:28	26°  ✕35'07		morning rise	12088 Mar 06 11:20	11°  ✕35'18	
	12087 Apr 01 19:23	0°  Υ		direct	12088 Mar 09 04:27	10°  ✕55'59	
morning max el	12087 Apr 01 21:27	0°  Υ05'01	18°31'26	morning max el	12088 Mar 15 13:05	14°  ✕15'36	18°00'44
desc. node	12087 Apr 17 02:48	21°  Υ17'02			12088 Mar 26 21:14	0°  Υ	
morning set	12087 Apr 22 15:44	29°  Υ59'49		morning set	12088 Apr 02 14:53	10°  Υ59'22	
	12087 Apr 22 15:46	0°  ♄		desc. node	12088 Apr 02 23:26	11°  Υ34'24	
					12088 Apr 14 08:51	0°  ♄	
superior conj	12087 May 08 15:39	25°  ♄04'56	-2°02'59	superior conj	12088 Apr 17 02:05	4°  ♄18'36	-1°34'04
minimum elong	12087 May 08 08:22	24°  ♄36'31	2°03'13	minimum elong	12088 Apr 16 16:55	3°  ♄42'20	1°33'31
max. Earth dist.	12087 May 08 12:51	24°  ♄53'59	1.45730 AU	max. Earth dist.	12088 Apr 20 09:13	9°  ♄29'54	1.45567 AU
	12087 May 11 19:08	0°  ♄		evening rise	12088 May 03 04:25	29°  ♄22'03	
evening rise	12087 May 24 08:25	19°  ♄45'17			12088 May 03 14:16	0°  ♄	
	12087 May 30 19:43	0°  ♄		greatest brilliancy	12088 May 16 16:28	19°  ♄53'40	-0.7m
greatest brilliancy	12087 Jun 02 00:26	3°  ♄27'00	-0.8m		12088 May 23 21:18	0°  ♄	
asc. node	12087 Jun 10 16:28	16°  ♄16'54		asc. node	12088 May 27 13:34	4°  ♄23'22	
evening max el	12087 Jun 15 02:39	21°  ♄31'28	18°47'49	evening max el	12088 May 28 09:40	5°  ♄15'37	19°35'10
retrograde	12087 Jun 21 18:07	25°  ♄09'59		retrograde	12088 Jun 04 15:54	9°  ♄21'56	
evening set	12087 Jun 25 02:02	24°  ♄06'16		evening set	12088 Jun 08 08:47	8°  ♄02'02	
inferior conj	12087 Jun 30 15:49	18°  ♄25'23	3°03'51	inferior conj	12088 Jun 13 17:29	2°  ♄06'57	3°14'21
minimum elong	12087 Jun 30 17:16	18°  ♄20'52	3°02'51	minimum elong	12088 Jun 13 17:50	2°  ♄05'47	3°13'29
min. Earth dist.	12087 Jul 02 11:23	16°  ♄09'39	0.65926 AU	min. Earth dist.	12088 Jun 14 22:20	0°  ♄31'12	0.67323 AU
morning rise	12087 Jul 06 07:44	12°  ♄03'12			12088 Jun 15 07:53	30°  ♄♄	
direct	12087 Jul 12 16:40	9°  ♄21'06		morning rise	12088 Jun 19 02:29	25°  ♄44'50	
desc. node	12087 Jul 14 02:47	9°  ♄28'17		direct	12088 Jun 25 01:26	23°  ♄07'39	
morning max el	12087 Jul 25 19:30	17°  ♄07'59	26°41'11	desc. node	12088 Jun 29 23:58	24°  ♄34'33	
	12087 Aug 05 12:47	0°  ♄			12088 Jul 06 19:43	0°  ♄	
	12087 Aug 24 18:15	0°  ♄		morning max el	12088 Jul 07 06:07	0°  ♄26'04	25°25'54
morning set	12087 Aug 30 15:38	10°  ♄46'34			12088 Jul 29 11:05	0°  ♄	
max. Earth dist.	12087 Sep 03 17:48	18°  ♄43'34	1.34252 AU	morning set	12088 Aug 12 06:05	23°  ♄07'39	
asc. node	12087 Sep 06 17:03	24°  ♄43'30			12088 Aug 15 23:36	0°  ♄	
				max. Earth dist.	12088 Aug 15 21:25	29°  ♄49'45	1.36191 AU
superior conj	12087 Sep 08 10:37	28°  ♄18'15	0°16'40	superior conj	12088 Aug 22 01:22	11°  ♄46'40	-0°14'26
minimum elong	12087 Sep 08 09:45	28°  ♄13'42	0°16'22	minimum elong	12088 Aug 22 02:17	11°  ♄51'12	0°14'36
	12087 Sep 09 06:08	0°  ♄		behind sun begin	12088 Aug 21 23:34	11°  ♄37'40	
evening rise	12087 Sep 15 20:19	13°  ♄54'12		behind sun end	12088 Aug 22 04:59	12°  ♄04'44	
	12087 Sep 24 00:05	0°  ♄		asc. node	12088 Aug 23 13:43	14°  ♄48'55	
evening max el	12087 Oct 05 10:21	16°  ♄07'27	21°14'42	evening rise	12088 Aug 30 02:31	28°  ♄08'48	
desc. node	12087 Oct 09 23:36	19°  ♄47'20			12088 Aug 31 00:24	0°  ♄	
retrograde	12087 Oct 17 09:01	22°  ♄03'35		evening max el	12088 Sep 16 15:47	27°  ♄01'18	19°55'34
evening set	12087 Oct 19 23:11	21°  ♄47'58			12088 Sep 20 06:24	0°  ♄	
inferior conj	12087 Oct 28 23:34	17°  ♄53'26	-5°09'08	desc. node	12088 Sep 25 21:02	2°  ♄06'23	
minimum elong	12087 Oct 28 14:31	18°  ♄06'09	5°06'42	retrograde	12088 Sep 26 23:37	2°  ♄09'48	
min. Earth dist.	12087 Oct 29 09:06	17°  ♄40'01	0.54558 AU	evening set	12088 Sep 28 21:45	1°  ♄59'54	
morning rise	12087 Nov 06 06:30	14°  ♄03'00			12088 Oct 04 08:33	30°  ♄♄	
direct	12087 Nov 10 04:55	13°  ♄29'45		inferior conj	12088 Oct 07 19:52	27°  ♄59'23	-3°37'18
morning max el	12087 Nov 22 23:23	19°  ♄36'55	22°37'36	minimum elong	12088 Oct 07 10:42	28°  ♄13'19	3°33'53
	12087 Dec 01 11:55	0°  ♄		min. Earth dist.	12088 Oct 09 17:54	26°  ♄49'20	0.55064 AU
asc. node	12087 Dec 03 18:04	3°  ♄30'27		morning rise	12088 Oct 15 22:17	23°  ♄46'02	
morning set	12087 Dec 15 04:06	25°  ♄16'04					
	12087 Dec 17 09:19	0°  ♄					

direct	12088 Oct 20 16:46	22°♄56'19		direct	12089 Oct 01 17:55	2°♄34'54	
morning max el	12088 Nov 03 10:18	29°♄42'42	24°25'53	morning max el	12089 Oct 15 22:47	9°♄53'08	26°04'50
	12088 Nov 03 17:34	0°♄			12089 Oct 31 05:00	0°♄	
asc. node	12088 Nov 19 14:59	22°♄05'26		asc. node	12089 Nov 06 11:49	11°♄12'24	
	12088 Nov 23 19:28	0°♄		morning set	12089 Nov 13 02:58	24°♄42'08	
morning set	12088 Nov 28 15:58	10°♄02'02			12089 Nov 15 13:33	0°♄	
superior conj	12088 Dec 05 11:42	24°♄55'19	1°38'47	superior conj	12089 Nov 19 22:20	9°♄40'18	1°36'45
minimum elong	12088 Dec 05 11:52	24°♄56'12	1°39'37	minimum elong	12089 Nov 19 21:26	9°♄35'19	1°37'30
max. Earth dist.	12088 Dec 07 15:27	29°♄36'30	1.32528 AU	max. Earth dist.	12089 Nov 20 21:09	11°♄46'47	1.31677 AU
	12088 Dec 07 19:49	0°♄		evening rise	12089 Nov 26 22:06	24°♄51'08	
evening rise	12088 Dec 12 21:28	10°♄38'02			12089 Nov 29 10:09	0°♄	
desc. node	12088 Dec 22 18:48	29°♄16'22		desc. node	12089 Dec 09 15:48	18°♄53'43	
	12088 Dec 23 04:53	0°♄			12089 Dec 16 19:49	0°♄	
	12089 Jan 13 16:48	0°♄		evening max el	12089 Dec 28 19:04	14°♄21'29	27°23'01
evening max el	12089 Jan 15 10:42	1°♄43'56	27°31'15	retrograde	12090 Jan 11 17:00	21°♄38'37	
retrograde	12089 Jan 29 04:38	9°♄07'37		evening set	12090 Jan 18 15:38	19°♄25'35	
evening set	12089 Feb 05 02:38	6°♄40'24		min. Earth dist.	12090 Jan 22 09:32	16°♄35'08	0.61437 AU
min. Earth dist.	12089 Feb 08 21:10	3°♄26'10	0.63487 AU	inferior conj	12090 Jan 25 11:02	13°♄50'52	-2°35'06
inferior conj	12089 Feb 11 14:21	0°♄41'41	-1°18'12	minimum elong	12090 Jan 25 16:24	13°♄38'49	2°32'22
minimum elong	12089 Feb 11 16:52	0°♄35'16	1°16'40	morning rise	12090 Feb 01 20:00	8°♄52'54	
	12089 Feb 12 06:55	30°♄		asc. node	12090 Feb 02 10:53	8°♄43'13	
asc. node	12089 Feb 15 13:34	27°♄03'41		direct	12090 Feb 03 23:46	8°♄33'06	
morning rise	12089 Feb 18 09:23	25°♄25'34		morning max el	12090 Feb 10 23:17	12°♄04'24	17°51'37
direct	12089 Feb 20 18:40	24°♄57'53			12090 Feb 23 00:18	0°♄	
morning max el	12089 Feb 27 06:46	28°♄18'18	17°47'13	morning set	12090 Feb 26 15:03	6°♄29'20	
	12089 Feb 28 20:44	0°♄		desc. node	12090 Mar 07 16:33	22°♄37'48	
morning set	12089 Mar 15 16:39	23°♄15'17					
	12089 Mar 19 15:09	0°♄		superior conj	12090 Mar 09 11:00	25°♄41'11	-0°13'41
desc. node	12089 Mar 20 20:00	2°♄02'35		minimum elong	12090 Mar 09 09:46	25°♄35'54	0°13'19
				behind sun begin	12090 Mar 09 05:03	25°♄15'36	
superior conj	12089 Mar 28 06:21	14°♄25'30	-0°54'38	behind sun end	12090 Mar 09 14:29	25°♄56'09	
minimum elong	12089 Mar 28 00:41	14°♄02'17	0°53'58		12090 Mar 11 23:49	0°♄	
max. Earth dist.	12089 Apr 03 03:41	23°♄55'07	1.44678 AU	max. Earth dist.	12090 Mar 16 18:22	7°♄55'18	1.43168 AU
	12089 Apr 07 00:12	0°♄		evening rise	12090 Mar 23 09:53	18°♄32'48	
evening rise	12089 Apr 12 15:38	8°♄44'37			12090 Mar 30 21:01	0°♄	
	12089 Apr 26 20:14	0°♄			12090 Apr 21 16:31	0°♄	
evening max el	12089 May 11 10:57	19°♄01'05	20°37'15	evening max el	12090 Apr 24 06:49	2°♄47'33	21°50'40
asc. node	12089 May 14 10:44	21°♄39'52		asc. node	12090 May 01 07:59	7°♄51'15	
retrograde	12089 May 19 14:50	23°♄45'09		retrograde	12090 May 03 12:54	8°♄14'16	
evening set	12089 May 23 17:23	22°♄09'04		evening set	12090 May 08 02:02	6°♄22'34	
inferior conj	12089 May 28 23:51	16°♄01'28	3°12'11	inferior conj	12090 May 13 08:41	0°♄04'33	2°58'57
minimum elong	12089 May 28 23:10	16°♄03'49	3°11'19	minimum elong	12090 May 13 07:11	0°♄09'50	2°58'01
min. Earth dist.	12089 May 29 14:46	15°♄10'05	0.68259 AU		12090 May 13 10:00	30°♄	
morning rise	12089 Jun 03 04:42	9°♄42'34		min. Earth dist.	12090 May 13 10:28	29°♄58'21	0.68732 AU
direct	12089 Jun 08 15:35	7°♄17'57		morning rise	12090 May 18 12:08	23°♄50'51	
desc. node	12089 Jun 16 21:01	11°♄16'45		direct	12090 May 23 10:02	21°♄44'11	
morning max el	12089 Jun 19 16:06	13°♄53'44	23°58'39	morning max el	12090 Jun 02 03:20	27°♄28'12	22°29'05
	12089 Jul 02 17:47	0°♄		desc. node	12090 Jun 03 17:58	29°♄09'23	
	12089 Jul 22 07:57	0°♄			12090 Jun 04 12:18	0°♄	
morning set	12089 Jul 25 00:56	4°♄34'51			12090 Jun 26 08:13	0°♄	
max. Earth dist.	12089 Jul 28 19:03	11°♄07'37	1.38435 AU	morning set	12090 Jul 05 19:25	14°♄55'36	
				max. Earth dist.	12090 Jul 10 17:28	23°♄05'22	1.40750 AU
superior conj	12089 Aug 05 03:41	24°♄38'33	-0°48'13		12090 Jul 14 18:05	0°♄	
minimum elong	12089 Aug 05 07:01	24°♄54'24	0°48'11				
	12089 Aug 07 22:44	0°♄		superior conj	12090 Jul 18 13:18	6°♄43'40	-1°22'02
asc. node	12089 Aug 10 10:25	4°♄50'54		minimum elong	12090 Jul 18 19:08	7°♄09'50	1°21'57
evening rise	12089 Aug 14 02:30	12°♄04'09		asc. node	12090 Jul 28 07:09	24°♄45'10	
	12089 Aug 23 20:20	0°♄		evening rise	12090 Jul 28 16:53	25°♄30'57	
evening max el	12089 Aug 30 10:55	8°♄43'43	18°57'46		12090 Jul 31 02:17	0°♄	
retrograde	12089 Sep 08 04:15	13°♄05'25		evening max el	12090 Aug 13 16:25	21°♄08'29	18°21'13
evening set	12089 Sep 10 01:06	12°♄54'11		retrograde	12090 Aug 21 03:48	24°♄54'45	
desc. node	12089 Sep 12 18:28	12°♄01'00		evening set	12090 Aug 23 06:33	24°♄37'24	
inferior conj	12089 Sep 18 08:50	8°♄37'49	-1°45'37	inferior conj	12090 Aug 30 19:22	20°♄00'30	-0°02'40
minimum elong	12089 Sep 18 04:19	8°♄45'44	1°43'48	minimum elong	12090 Aug 30 19:16	20°♄00'44	0°02'52
min. Earth dist.	12089 Sep 21 07:26	6°♄34'40	0.56433 AU	transit middle	12090 Aug 30 19:16	20°♄00'44	0°02'52
morning rise	12089 Sep 26 04:21	3°♄48'18		transit begin	12090 Aug 30 15:48	20°♄07'48	

transit end	12090 Aug 30 22:43	19° $\mathring{\text{M}}$ 53'38		minimum elong	12091 Aug 13 04:39	2° $\mathring{\text{M}}$ 01'50	1°16'54
desc. node	12090 Aug 30 15:55	20° $\mathring{\text{M}}$ 07'35			12091 Aug 15 07:45	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
min. Earth dist.	12090 Sep 03 03:13	17° $\mathring{\text{M}}$ 17'59	0.58413 AU	min. Earth dist.	12091 Aug 16 07:05	29° $\mathring{\text{O}}$ 06'12	0.60672 AU
morning rise	12090 Sep 07 04:27	14° $\mathring{\text{M}}$ 34'55		desc. node	12091 Aug 17 13:19	28° $\mathring{\text{O}}$ 00'30	
direct	12090 Sep 13 09:28	12° $\mathring{\text{M}}$ 53'20		morning rise	12091 Aug 19 22:59	26° $\mathring{\text{O}}$ 13'14	
morning max el	12090 Sep 27 17:34	20° $\mathring{\text{M}}$ 34'16	27°17'45	direct	12091 Aug 26 13:07	24° $\mathring{\text{O}}$ 04'43	
	12090 Oct 05 21:05	0° $\mathring{\text{A}}$			12091 Sep 07 16:24	0° $\mathring{\text{M}}$	
asc. node	12090 Oct 24 08:34	0° $\mathring{\text{M}}$ 42'22		morning max el	12091 Sep 09 19:42	2° $\mathring{\text{M}}$ 00'19	27°54'18
	12090 Oct 24 00:02	0° $\mathring{\text{M}}$			12091 Sep 30 06:23	0° $\mathring{\text{A}}$	
morning set	12090 Oct 28 11:24	9° $\mathring{\text{M}}$ 11'17		asc. node	12091 Oct 11 05:17	20° $\mathring{\text{A}}$ 28'50	
				morning set	12091 Oct 12 15:26	23° $\mathring{\text{A}}$ 24'46	
superior conj	12090 Nov 04 10:03	24° $\mathring{\text{M}}$ 24'51	1°28'57		12091 Oct 15 17:57	0° $\mathring{\text{M}}$	
minimum elong	12090 Nov 04 08:19	24° $\mathring{\text{M}}$ 15'13	1°29'26	max. Earth dist.	12091 Oct 18 13:52	6° $\mathring{\text{M}}$ 11'04	1.31478 AU
max. Earth dist.	12090 Nov 04 05:50	24° $\mathring{\text{M}}$ 01'20	1.31324 AU				
	12090 Nov 06 22:13	0° $\mathring{\text{A}}$		superior conj	12091 Oct 19 21:01	9° $\mathring{\text{M}}$ 03'26	1°15'34
evening rise	12090 Nov 11 04:19	9° $\mathring{\text{A}}$ 17'17		minimum elong	12091 Oct 19 18:49	8° $\mathring{\text{M}}$ 51'16	1°15'43
	12090 Nov 21 18:22	0° $\mathring{\text{B}}$		evening rise	12091 Oct 26 14:01	23° $\mathring{\text{M}}$ 50'40	
desc. node	12090 Nov 26 12:55	7° $\mathring{\text{B}}$ 56'52			12091 Oct 29 11:57	0° $\mathring{\text{A}}$	
evening max el	12090 Dec 10 21:21	26° $\mathring{\text{B}}$ 12'31	26°40'29	desc. node	12091 Nov 13 10:08	26° $\mathring{\text{A}}$ 12'08	
	12090 Dec 15 12:40	0° $\mathring{\text{A}}$			12091 Nov 16 05:34	0° $\mathring{\text{B}}$	
retrograde	12090 Dec 24 20:07	3° $\mathring{\text{A}}$ 20'19		evening max el	12091 Nov 22 15:19	7° $\mathring{\text{B}}$ 10'52	25°25'43
evening set	12090 Dec 31 11:43	1° $\mathring{\text{A}}$ 30'18		retrograde	12091 Dec 06 11:56	14° $\mathring{\text{B}}$ 09'05	
	12091 Jan 02 22:20	30° $\mathring{\text{R}}$ $\mathring{\text{B}}$		evening set	12091 Dec 12 10:19	12° $\mathring{\text{B}}$ 48'46	
min. Earth dist.	12091 Jan 04 11:24	28° $\mathring{\text{B}}$ 53'12	0.59289 AU	min. Earth dist.	12091 Dec 17 03:30	10° $\mathring{\text{B}}$ 09'50	0.57261 AU
inferior conj	12091 Jan 07 15:28	26° $\mathring{\text{B}}$ 25'01	-3°54'36	inferior conj	12091 Dec 20 00:18	8° $\mathring{\text{B}}$ 13'41	-5°05'23
minimum elong	12091 Jan 07 23:21	26° $\mathring{\text{B}}$ 09'35	3°51'17	minimum elong	12091 Dec 20 08:18	8° $\mathring{\text{B}}$ 00'06	5°02'49
morning rise	12091 Jan 15 13:51	21° $\mathring{\text{B}}$ 47'49		morning rise	12091 Dec 28 08:39	3° $\mathring{\text{B}}$ 58'56	
direct	12091 Jan 17 15:43	21° $\mathring{\text{B}}$ 32'14		direct	12091 Dec 30 14:18	3° $\mathring{\text{B}}$ 43'58	
asc. node	12091 Jan 20 08:08	21° $\mathring{\text{B}}$ 59'31		asc. node	12092 Jan 07 05:20	6° $\mathring{\text{B}}$ 51'48	
morning max el	12091 Jan 25 11:03	25° $\mathring{\text{B}}$ 23'58	18°15'25	morning max el	12092 Jan 08 14:05	8° $\mathring{\text{B}}$ 05'15	19°00'28
	12091 Jan 29 08:03	0° $\mathring{\text{A}}$			12092 Jan 22 17:02	0° $\mathring{\text{A}}$	
morning set	12091 Feb 10 04:11	20° $\mathring{\text{A}}$ 24'11		morning set	12092 Jan 25 03:20	4° $\mathring{\text{A}}$ 45'06	
	12091 Feb 15 06:16	0° $\mathring{\text{H}}$					
superior conj	12091 Feb 19 14:44	8° $\mathring{\text{H}}$ 01'20	0°22'57	superior conj	12092 Feb 02 13:00	21° $\mathring{\text{A}}$ 12'32	0°52'37
minimum elong	12091 Feb 19 16:25	8° $\mathring{\text{H}}$ 08'59	0°23'04	minimum elong	12092 Feb 02 15:51	21° $\mathring{\text{A}}$ 26'05	0°52'47
desc. node	12091 Feb 22 13:10	13° $\mathring{\text{H}}$ 16'43			12092 Feb 07 05:47	0° $\mathring{\text{H}}$	
max. Earth dist.	12091 Feb 27 04:54	21° $\mathring{\text{H}}$ 20'46	1.41202 AU	desc. node	12092 Feb 09 09:50	3° $\mathring{\text{H}}$ 55'10	
evening rise	12091 Mar 03 22:13	29° $\mathring{\text{H}}$ 12'01		max. Earth dist.	12092 Feb 09 12:01	4° $\mathring{\text{H}}$ 04'54	1.38995 AU
	12091 Mar 04 10:01	0° $\mathring{\text{Y}}$		evening rise	12092 Feb 13 07:49	10° $\mathring{\text{H}}$ 46'29	
	12091 Mar 24 09:44	0° $\mathring{\text{B}}$			12092 Feb 25 05:36	0° $\mathring{\text{Y}}$	
evening max el	12091 Apr 06 22:47	16° $\mathring{\text{B}}$ 36'36	23°10'24	evening max el	12092 Mar 19 01:39	0° $\mathring{\text{B}}$	
retrograde	12091 Apr 17 08:38	22° $\mathring{\text{B}}$ 45'00			12092 Mar 19 12:38	0° $\mathring{\text{B}}$ 27'28	24°30'23
asc. node	12091 Apr 18 05:18	22° $\mathring{\text{B}}$ 41'31		retrograde	12092 Mar 31 00:50	7° $\mathring{\text{B}}$ 11'20	
evening set	12091 Apr 22 09:11	20° $\mathring{\text{B}}$ 38'44		asc. node	12092 Apr 04 02:40	5° $\mathring{\text{B}}$ 56'42	
inferior conj	12091 Apr 27 18:03	14° $\mathring{\text{B}}$ 13'02	2°35'34	evening set	12092 Apr 05 13:16	4° $\mathring{\text{B}}$ 52'31	
minimum elong	12091 Apr 27 16:01	14° $\mathring{\text{B}}$ 20'04	2°34'35		12092 Apr 09 20:53	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$	
min. Earth dist.	12091 Apr 27 07:15	14° $\mathring{\text{B}}$ 50'21	0.68749 AU	min. Earth dist.	12092 Apr 10 02:56	29° $\mathring{\text{Y}}$ 39'55	0.68317 AU
morning rise	12091 May 02 22:46	8° $\mathring{\text{B}}$ 06'00		inferior conj	12092 Apr 11 02:02	28° $\mathring{\text{Y}}$ 22'39	2°02'23
direct	12091 May 07 07:37	6° $\mathring{\text{B}}$ 20'07		minimum elong	12092 Apr 10 23:53	28° $\mathring{\text{Y}}$ 29'51	2°01'25
morning max el	12091 May 15 19:19	11° $\mathring{\text{B}}$ 12'56	21°05'29	morning rise	12092 Apr 16 10:38	22° $\mathring{\text{Y}}$ 23'30	
desc. node	12091 May 21 14:49	17° $\mathring{\text{B}}$ 53'36		direct	12092 Apr 20 06:54	20° $\mathring{\text{Y}}$ 59'01	
	12091 May 30 11:28	0° $\mathring{\text{H}}$		morning max el	12092 Apr 27 18:35	25° $\mathring{\text{Y}}$ 09'37	19°53'37
morning set	12091 Jun 15 12:30	24° $\mathring{\text{H}}$ 09'04			12092 May 02 01:29	0° $\mathring{\text{B}}$	
	12091 Jun 19 05:17	0° $\mathring{\text{B}}$		desc. node	12092 May 07 11:36	7° $\mathring{\text{B}}$ 15'03	
max. Earth dist.	12091 Jun 22 22:12	5° $\mathring{\text{B}}$ 58'27	1.42852 AU		12092 May 22 18:55	0° $\mathring{\text{H}}$	
				morning set	12092 May 24 13:35	2° $\mathring{\text{H}}$ 43'39	
superior conj	12091 Jun 30 01:50	17° $\mathring{\text{B}}$ 52'28	-1°51'26	max. Earth dist.	12092 Jun 04 09:55	19° $\mathring{\text{H}}$ 40'04	1.44484 AU
minimum elong	12091 Jun 30 08:39	18° $\mathring{\text{B}}$ 21'26	1°51'39				
	12091 Jul 07 01:31	0° $\mathring{\text{O}}$		superior conj	12092 Jun 09 14:18	27° $\mathring{\text{H}}$ 59'07	-2°10'10
evening rise	12091 Jul 11 17:31	8° $\mathring{\text{O}}$ 19'09		minimum elong	12092 Jun 09 18:10	28° $\mathring{\text{H}}$ 14'47	2°10'53
asc. node	12091 Jul 15 03:59	14° $\mathring{\text{O}}$ 27'39			12092 Jun 10 20:03	0° $\mathring{\text{B}}$	
	12091 Jul 24 17:01	0° $\mathring{\text{M}}$		evening rise	12092 Jun 22 23:23	20° $\mathring{\text{B}}$ 16'38	
evening max el	12091 Jul 28 04:06	4° $\mathring{\text{M}}$ 05'43	18°04'43		12092 Jun 28 16:48	0° $\mathring{\text{O}}$	
retrograde	12091 Aug 03 20:55	7° $\mathring{\text{M}}$ 31'39		asc. node	12092 Jul 01 00:54	3° $\mathring{\text{O}}$ 52'56	
evening set	12091 Aug 06 07:29	7° $\mathring{\text{M}}$ 04'25		evening max el	12092 Jul 10 18:07	17° $\mathring{\text{O}}$ 25'27	18°07'17
inferior conj	12091 Aug 13 02:29	2° $\mathring{\text{M}}$ 07'00	1°18'06	retrograde	12092 Jul 17 03:11	20° $\mathring{\text{O}}$ 45'51	
				evening set	12092 Jul 19 21:50	20° $\mathring{\text{O}}$ 05'58	



inferior conj	12092 Jul 26 02:28	14°Ω50'10	2°15'02	inferior conj	12093 Jul 09 15:08	28°☾01'11	2°51'06
minimum elong	12092 Jul 26 05:05	14°Ω43'06	2°13'42	minimum elong	12093 Jul 09 17:09	27°☾55'10	2°49'58
min. Earth dist.	12092 Jul 28 20:29	11°Ω53'02	0.62907 AU	min. Earth dist.	12093 Jul 11 19:16	25°☾26'09	0.64919 AU
morning rise	12092 Aug 01 10:25	8°Ω38'26		morning rise	12093 Jul 15 12:11	21°☾40'37	
desc. node	12092 Aug 03 10:40	7°Ω21'38		desc. node	12093 Jul 21 07:59	19°☾01'51	
direct	12092 Aug 08 02:51	6°Ω09'13		direct	12093 Jul 22 01:10	19°☾00'03	
morning max el	12092 Aug 22 03:32	14°Ω11'29	27°52'15	morning max el	12093 Aug 04 14:08	26°☾57'35	27°15'18
	12092 Sep 03 22:19	0°♊			12093 Aug 07 10:26	0°Ω	
	12092 Sep 21 20:06	0°♊			12093 Aug 28 14:03	0°♊	
morning set	12092 Sep 25 12:56	7°♊17'29		morning set	12093 Sep 09 01:06	20°♊41'25	
asc. node	12092 Sep 27 01:59	10°♊26'38		max. Earth dist.	12093 Sep 13 12:25	29°♊37'50	1.33329 AU
max. Earth dist.	12092 Sep 30 17:23	18°♊06'29	1.32143 AU	asc. node	12093 Sep 13 22:39	0°♊30'23	
					12093 Sep 13 16:44	0°♊	
superior conj	12092 Oct 03 05:21	23°♊31'02	0°56'45	superior conj	12093 Sep 17 08:52	7°♊40'42	0°32'42
minimum elong	12092 Oct 03 03:10	23°♊19'08	0°56'37	minimum elong	12093 Sep 17 07:18	7°♊32'26	0°32'25
	12092 Oct 06 04:21	0°♊			12093 Sep 24 12:10	22°♊57'41	
evening rise	12092 Oct 10 01:18	8°♊26'17		evening rise	12093 Sep 27 21:17	0°♊	
	12092 Oct 21 02:20	0°♊			12093 Oct 15 14:04	27°♊31'09	22°08'28
desc. node	12092 Oct 30 07:26	13°♊21'39		evening max el	12093 Oct 17 04:47	29°♊00'21	
evening max el	12092 Nov 03 02:25	17°♊26'59	23°49'21	desc. node	12093 Oct 18 09:59	0°♊	
retrograde	12092 Nov 16 15:29	24°♊12'35		retrograde	12093 Oct 28 07:34	3°♊50'39	
evening set	12092 Nov 21 08:51	23°♊23'53		evening set	12093 Oct 31 14:01	3°♊26'55	
min. Earth dist.	12092 Nov 27 12:54	20°♊24'00	0.55629 AU		12093 Nov 08 11:16	30°♊	
inferior conj	12092 Nov 29 12:38	19°♊12'38	-5°48'04	inferior conj	12093 Nov 09 08:58	29°♊29'31	-5°40'34
minimum elong	12092 Nov 29 15:43	19°♊08'01	5°47'05	minimum elong	12093 Nov 09 03:28	29°♊37'16	5°39'17
morning rise	12092 Dec 08 00:29	15°♊17'34		min. Earth dist.	12093 Nov 08 19:46	29°♊48'05	0.54690 AU
direct	12092 Dec 10 17:13	14°♊59'20		morning rise	12093 Nov 17 18:15	25°♊42'25	
morning max el	12092 Dec 21 04:46	19°♊58'47	20°08'17	direct	12093 Nov 21 04:39	25°♊16'12	
asc. node	12092 Dec 24 02:27	23°♊07'10			12093 Dec 02 03:03	0°♊	
	12092 Dec 29 00:05	0°♊		morning max el	12093 Dec 03 05:23	0°♊59'22	21°38'08
morning set	12093 Jan 08 09:04	19°♊22'04		asc. node	12093 Dec 10 23:29	10°♊28'17	
	12093 Jan 13 13:31	0°♊			12093 Dec 21 19:07	0°♊	
superior conj	12093 Jan 16 01:10	5°♊01'54	1°14'40	morning set	12093 Dec 23 18:44	4°♊06'47	
minimum elong	12093 Jan 16 03:54	5°♊15'36	1°15'04	superior conj	12093 Dec 30 23:12	19°♊17'15	1°29'22
max. Earth dist.	12093 Jan 21 18:52	16°♊13'42	1.36794 AU	minimum elong	12093 Dec 31 01:08	19°♊27'19	1°30'01
evening rise	12093 Jan 25 13:14	23°♊11'37		max. Earth dist.	12094 Jan 04 06:14	28°♊05'25	1.34825 AU
desc. node	12093 Jan 26 06:35	24°♊29'43			12094 Jan 05 05:13	0°♊	
	12093 Jan 29 09:41	0°♊		evening rise	12094 Jan 08 11:04	6°♊18'07	
	12093 Feb 17 23:27	0°♊		desc. node	12094 Jan 13 03:23	14°♊55'40	
evening max el	12093 Mar 02 01:59	14°♊18'09	25°43'46		12094 Jan 22 03:10	0°♊	
retrograde	12093 Mar 14 12:35	21°♊27'24		evening max el	12094 Feb 12 15:33	28°♊02'50	26°43'21
evening set	12093 Mar 20 12:40	18°♊59'15			12094 Feb 14 18:33	0°♊	
asc. node	12093 Mar 22 00:02	17°♊36'45		retrograde	12094 Feb 25 18:59	5°♊25'34	
min. Earth dist.	12093 Mar 24 19:25	14°♊21'50	0.67454 AU	evening set	12094 Mar 04 05:35	2°♊52'55	
inferior conj	12093 Mar 26 06:42	12°♊29'51	1°19'19		12094 Mar 07 05:37	30°♊	
minimum elong	12093 Mar 26 04:57	12°♊35'25	1°18'36	min. Earth dist.	12094 Mar 08 06:36	28°♊49'31	0.66183 AU
morning rise	12093 Mar 31 21:48	6°♊39'56		asc. node	12094 Mar 08 21:24	28°♊06'19	
direct	12093 Apr 04 06:25	5°♊35'22		inferior conj	12094 Mar 10 05:55	26°♊29'53	0°26'07
morning max el	12093 Apr 11 01:32	9°♊16'35	18°56'42	minimum elong	12094 Mar 10 05:14	26°♊31'56	0°25'58
desc. node	12093 Apr 24 08:19	27°♊03'54		morning rise	12094 Mar 16 06:02	20°♊50'58	
greatest brilliancy	12093 Apr 24 14:12	27°♊26'09	-0.8m	direct	12094 Mar 19 04:18	20°♊03'31	
	12093 Apr 26 06:34	0°♊		morning max el	12094 Mar 25 14:40	23°♊27'57	18°16'14
morning set	12093 May 03 19:52	11°♊39'50			12094 Mar 31 00:07	0°♊	
	12093 May 15 14:40	0°♊		desc. node	12094 Apr 11 04:59	17°♊12'46	
max. Earth dist.	12093 May 18 02:40	3°♊54'37	1.45480 AU	morning set	12094 Apr 14 02:15	21°♊49'55	
					12094 Apr 19 05:04	0°♊	
superior conj	12093 May 20 05:44	7°♊15'00	-2°11'31	superior conj	12094 Apr 29 12:51	16°♊16'29	-1°52'36
minimum elong	12093 May 20 02:22	7°♊01'50	2°12'10	minimum elong	12094 Apr 29 03:54	15°♊41'28	1°52'28
	12093 Jun 03 11:45	0°♊		max. Earth dist.	12094 Apr 30 21:59	18°♊25'58	1.45749 AU
evening rise	12093 Jun 04 06:05	1°♊14'17			12094 May 08 07:58	0°♊	
asc. node	12093 Jun 17 21:51	22°♊54'24		evening rise	12094 May 15 13:00	11°♊14'53	
	12093 Jun 23 08:34	0°♊		greatest brilliancy	12094 May 26 11:14	28°♊12'22	-0.8m
evening max el	12093 Jun 24 07:18	0°♊59'20	18°28'02		12094 May 27 15:38	0°♊	
retrograde	12093 Jun 30 18:06	4°♊27'48		asc. node	12094 Jun 04 18:54	11°♊24'17	
evening set	12093 Jul 03 20:59	3°♊33'18					
	12093 Jul 07 22:13	30°♊					

evening max el	12094 Jun 07 17:08	14°☿41'39	19°06'04	asc. node	12095 May 22 16:02	29°♊11'29	
retrograde	12094 Jun 14 14:07	18°☿30'46			12095 May 23 13:36	0°☿	
evening set	12094 Jun 18 01:41	17°☿20'25		retrograde	12095 May 29 12:30	2°☿48'15	
inferior conj	12094 Jun 23 12:56	11°☿33'32	3°10'00	evening set	12095 Jun 02 09:26	1°☿21'28	
minimum elong	12094 Jun 23 13:56	11°☿30'21	3°09'04		12095 Jun 03 22:13	30°♊	
min. Earth dist.	12094 Jun 25 02:17	9°☿33'37	0.66572 AU	inferior conj	12095 Jun 07 16:53	25°♊21'07	3°14'50
morning rise	12094 Jun 29 01:34	5°☿10'45		minimum elong	12095 Jun 07 16:47	25°♊21'28	3°13'59
direct	12094 Jul 05 06:40	2°☿29'19		min. Earth dist.	12095 Jun 08 15:46	24°♊03'49	0.67786 AU
desc. node	12094 Jul 08 05:11	3°☿00'10		morning rise	12095 Jun 12 23:48	19°♊00'14	
morning max el	12094 Jul 18 00:57	10°☿06'41	26°11'12	direct	12095 Jun 18 17:56	16°♊27'22	
	12094 Aug 02 18:27	0°♊		desc. node	12095 Jun 25 02:18	18°♊50'39	
	12094 Aug 21 03:17	0°♊		morning max el	12095 Jun 30 10:56	23°♊28'41	24°49'33
morning set	12094 Aug 23 00:37	3°♊28'23			12095 Jul 06 05:45	0°☿	
max. Earth dist.	12094 Aug 26 20:58	10°♊47'04	1.35021 AU		12095 Jul 27 03:15	0°♊	
asc. node	12094 Aug 31 19:19	20°♊36'26		morning set	12095 Aug 05 07:14	15°♊27'31	
				max. Earth dist.	12095 Aug 08 21:04	21°♊53'32	1.37125 AU
superior conj	12094 Sep 01 05:06	21°♊26'26	0°03'56		12095 Aug 13 04:59	0°♊	
minimum elong	12094 Sep 01 04:54	21°♊25'21	0°03'42				
behind sun begin	12094 Aug 31 23:02	20°♊55'25		superior conj	12095 Aug 15 15:01	4°♊40'26	-0°28'34
behind sun end	12094 Sep 01 10:45	21°♊55'20		minimum elong	12095 Aug 15 16:54	4°♊49'37	0°28'38
	12094 Sep 05 08:19	0°♊		asc. node	12095 Aug 18 16:00	10°♊40'55	
evening rise	12094 Sep 08 20:41	7°♊19'59		evening rise	12095 Aug 24 00:32	21°♊26'59	
	12094 Sep 21 02:24	0°♊			12095 Aug 28 08:36	0°♊	
evening max el	12094 Sep 27 11:39	8°♊00'32	20°38'40	evening max el	12095 Sep 09 23:10	19°♊14'58	19°28'19
desc. node	12094 Oct 04 02:09	12°♊39'40		retrograde	12095 Sep 19 13:34	24°♊02'11	
retrograde	12094 Oct 08 18:33	13°♊36'46		desc. node	12095 Sep 20 23:32	23°♊56'22	
evening set	12094 Oct 10 23:38	13°♊24'49		evening set	12095 Sep 21 10:04	23°♊52'16	
inferior conj	12094 Oct 20 00:59	9°♊29'42	-4°34'50	inferior conj	12095 Sep 30 03:06	19°♊46'01	-2°50'18
minimum elong	12094 Oct 19 14:57	9°♊44'07	4°31'39	minimum elong	12095 Sep 29 19:40	19°♊57'57	2°47'20
min. Earth dist.	12094 Oct 21 03:14	8°♊51'55	0.54658 AU	min. Earth dist.	12095 Oct 02 13:31	18°♊12'26	0.55557 AU
morning rise	12094 Oct 28 06:03	5°♊31'32		morning rise	12095 Oct 08 03:03	15°♊18'30	
direct	12094 Nov 01 13:08	4°♊51'53		direct	12095 Oct 13 06:13	14°♊19'25	
morning max el	12094 Nov 14 18:57	11°♊17'08	23°23'30	morning max el	12095 Oct 27 05:21	21°♊19'49	25°10'16
asc. node	12094 Nov 27 20:26	28°♊40'06			12095 Nov 03 18:23	0°♊	
	12094 Nov 28 15:00	0°♊		asc. node	12095 Nov 14 17:19	17°♊30'06	
morning set	12094 Dec 08 06:17	18°♊53'42			12095 Nov 21 00:54	0°♊	
	12094 Dec 13 09:34	0°♊		morning set	12095 Nov 22 18:01	3°♊37'59	
superior conj	12094 Dec 15 04:01	3°♊49'48	1°37'11	superior conj	12095 Nov 29 13:08	18°♊32'12	1°38'39
minimum elong	12094 Dec 15 04:50	3°♊54'14	1°38'00	minimum elong	12095 Nov 29 12:50	18°♊30'30	1°39'28
max. Earth dist.	12094 Dec 18 01:26	10°♊00'24	1.33240 AU	max. Earth dist.	12095 Dec 01 04:14	22°♊06'53	1.32107 AU
evening rise	12094 Dec 22 21:45	19°♊57'00			12095 Dec 04 20:07	0°♊	
	12094 Dec 28 03:44	0°♊		evening rise	12095 Dec 06 18:06	4°♊00'01	
desc. node	12094 Dec 31 00:14	5°♊08'08		desc. node	12095 Dec 17 21:10	25°♊01'00	
	12095 Jan 16 03:58	0°♊			12095 Dec 20 21:02	0°♊	
evening max el	12095 Jan 26 04:47	11°♊31'58	27°21'39	evening max el	12096 Jan 08 15:49	24°♊33'05	27°31'56
retrograde	12095 Feb 08 19:01	18°♊57'06			12096 Jan 15 20:15	0°♊	
evening set	12095 Feb 15 13:48	16°♊26'07		retrograde	12096 Jan 22 11:40	1°♊53'33	
min. Earth dist.	12095 Feb 19 10:19	12°♊54'46	0.64558 AU		12096 Jan 28 17:02	30°♊	
inferior conj	12095 Feb 21 21:13	10°♊16'25	-0°37'18	evening set	12096 Jan 29 10:45	29°♊31'35	
minimum elong	12095 Feb 21 22:21	10°♊13'23	0°36'29	min. Earth dist.	12096 Feb 02 04:38	26°♊28'20	0.62640 AU
asc. node	12095 Feb 23 18:46	8°♊17'20		inferior conj	12096 Feb 05 01:43	23°♊42'30	-1°50'00
morning rise	12095 Feb 28 08:45	4°♊50'53		minimum elong	12096 Feb 05 05:24	23°♊33'36	1°47'56
direct	12095 Mar 02 22:15	4°♊16'59		asc. node	12096 Feb 10 16:05	19°♊11'50	
morning max el	12095 Mar 09 07:28	7°♊35'58	17°52'45	morning rise	12096 Feb 12 02:33	18°♊33'27	
	12095 Mar 24 12:31	0°♊		direct	12096 Feb 14 09:16	18°♊09'26	
morning set	12095 Mar 26 13:24	3°♊24'18		morning max el	12096 Feb 21 01:04	21°♊33'09	17°46'48
desc. node	12095 Mar 29 01:35	7°♊35'25			12096 Feb 27 12:30	0°♊	
				morning set	12096 Mar 08 00:50	16°♊08'25	
superior conj	12095 Apr 09 05:23	25°♊49'07	-1°18'03	desc. node	12096 Mar 14 22:11	28°♊07'41	
minimum elong	12095 Apr 08 21:17	25°♊16'43	1°17'21		12096 Mar 16 00:28	0°♊	
	12095 Apr 11 20:24	0°♊					
max. Earth dist.	12095 Apr 13 17:41	2°♊58'54	1.45275 AU	superior conj	12096 Mar 19 19:51	6°♊25'17	-0°37'01
evening rise	12095 Apr 25 03:21	20°♊40'48		minimum elong	12096 Mar 19 16:09	6°♊09'53	0°36'28
	12095 May 01 06:07	0°♊		max. Earth dist.	12096 Mar 26 11:23	17°♊17'56	1.44112 AU
greatest brilliancy	12095 May 10 01:39	13°♊07'50	-0.6m	evening rise	12096 Apr 03 15:54	0°♊11'04	
evening max el	12095 May 21 21:53	28°♊27'15	20°00'00		12096 Apr 03 13:02	0°♊	

	12096 Apr 23 22:00	0°♂		evening rise	12097 Mar 14 16:57	10°♂18'58	
evening max el	12096 May 03 20:51	12°♂13'40	21°07'17		12097 Mar 27 14:43	0°♂	
asc. node	12096 May 08 13:14	16°♂02'38		evening max el	12097 Apr 16 14:43	26°♂00'43	22°24'02
retrograde	12096 May 12 11:13	17°♂15'01			12097 Apr 21 08:10	0°♂	
evening set	12096 May 16 18:17	15°♂31'59		asc. node	12097 Apr 25 10:30	1°♂41'51	
inferior conj	12096 May 22 00:34	9°♂19'44	3°07'48	retrograde	12097 Apr 26 08:33	1°♂45'50	
minimum elong	12096 May 21 23:30	9°♂23'25	3°06'56		12097 Apr 30 20:27	30°♂	
min. Earth dist.	12096 May 22 09:45	8°♂47'51	0.68528 AU	evening set	12097 May 01 02:32	29°♂47'30	
morning rise	12096 May 27 04:32	3°♂03'06		inferior conj	12097 May 06 09:53	23°♂25'38	2°50'13
direct	12096 Jun 01 09:58	0°♂45'45		minimum elong	12097 May 06 08:07	23°♂31'49	2°49'16
desc. node	12096 Jun 10 23:20	6°♂05'41		min. Earth dist.	12097 May 06 06:10	23°♂38'36	0.68797 AU
morning max el	12096 Jun 11 21:07	6°♂59'19	23°20'14	morning rise	12097 May 11 13:34	17°♂14'43	
	12096 Jun 29 18:30	0°♂		direct	12097 May 16 05:46	15°♂16'58	
morning set	12096 Jul 16 16:09	26°♂27'14		morning max el	12097 May 25 10:11	20°♂38'38	21°52'23
	12096 Jul 18 18:29	0°♂		desc. node	12097 May 28 20:16	24°♂22'30	
max. Earth dist.	12096 Jul 20 18:43	3°♂27'35	1.39438 AU		12097 Jun 02 08:44	0°♂	
					12097 Jun 22 23:37	0°♂	
superior conj	12096 Jul 28 10:46	17°♂13'38	-1°02'47	morning set	12097 Jun 26 23:38	6°♂19'07	
minimum elong	12096 Jul 28 15:13	17°♂34'17	1°02'41	max. Earth dist.	12097 Jul 02 19:41	15°♂49'37	1.41685 AU
	12096 Aug 04 04:23	0°♂					
asc. node	12096 Aug 04 12:43	0°♂40'11		superior conj	12097 Jul 10 11:56	28°♂55'59	-1°35'22
evening rise	12096 Aug 06 20:54	5°♂11'31		minimum elong	12097 Jul 10 18:30	29°♂24'47	1°35'23
	12096 Aug 21 18:31	0°♂			12097 Jul 11 02:30	0°♂	
evening max el	12096 Aug 22 23:08	1°♂15'57	18°39'35	evening rise	12097 Jul 21 06:04	18°♂24'01	
retrograde	12096 Aug 31 02:23	5°♂21'05		asc. node	12097 Jul 22 09:30	20°♂30'24	
evening set	12096 Sep 02 01:17	5°♂07'44			12097 Jul 27 15:39	0°♂	
desc. node	12096 Sep 06 20:59	2°♂56'53		evening max el	12097 Aug 06 07:44	13°♂56'02	18°11'47
inferior conj	12096 Sep 10 01:02	0°♂42'23	-0°59'40	retrograde	12097 Aug 13 10:05	17°♂32'14	
minimum elong	12096 Sep 09 22:36	0°♂46'56	0°58'46	evening set	12097 Aug 15 15:54	17°♂11'13	
	12096 Sep 10 23:31	30°♂		inferior conj	12097 Aug 22 20:49	12°♂25'24	0°34'32
min. Earth dist.	12096 Sep 13 05:10	28°♂20'32	0.57220 AU	minimum elong	12097 Aug 22 21:56	12°♂22'56	0°33'47
morning rise	12096 Sep 17 16:30	25°♂37'00		desc. node	12097 Aug 24 18:25	10°♂44'59	
direct	12096 Sep 23 13:09	24°♂12'12		min. Earth dist.	12097 Aug 26 04:28	9°♂32'10	0.59353 AU
	12096 Oct 06 00:21	0°♂		morning rise	12097 Aug 30 00:37	6°♂46'11	
morning max el	12096 Oct 07 20:13	1°♂40'33	26°40'04	direct	12097 Sep 05 10:06	4°♂52'44	
	12096 Oct 27 23:26	0°♂		morning max el	12097 Sep 19 18:32	12°♂41'37	27°38'07
asc. node	12096 Oct 31 14:08	6°♂47'51			12097 Oct 03 11:24	0°♂	
morning set	12096 Nov 06 04:08	18°♂14'00		asc. node	12097 Oct 18 10:53	26°♂25'58	
	12096 Nov 11 13:00	0°♂			12097 Oct 20 04:47	0°♂	
				morning set	12097 Oct 21 10:57	2°♂37'33	
superior conj	12096 Nov 13 00:26	3°♂17'22	1°34'09	max. Earth dist.	12097 Oct 27 20:38	16°♂34'23	1.31323 AU
minimum elong	12096 Nov 12 23:09	3°♂10'13	1°34'47				
max. Earth dist.	12096 Nov 13 11:47	4°♂20'36	1.31462 AU	superior conj	12097 Oct 28 12:03	18°♂00'15	1°23'58
evening rise	12096 Nov 19 21:21	18°♂19'06		minimum elong	12097 Oct 28 10:05	17°♂49'15	1°24'18
	12096 Nov 25 15:50	0°♂			12097 Nov 02 22:03	0°♂	
desc. node	12096 Dec 03 18:13	14°♂25'16		evening rise	12097 Nov 04 05:18	2°♂48'56	
	12096 Dec 14 14:56	0°♂			12097 Nov 18 14:33	0°♂	
evening max el	12096 Dec 20 21:49	6°♂51'35	27°09'09	desc. node	12097 Nov 20 15:22	3°♂09'58	
retrograde	12097 Jan 03 20:01	14°♂04'40		evening max el	12097 Dec 02 20:24	18°♂19'01	26°12'06
evening set	12097 Jan 10 17:02	12°♂00'09		retrograde	12097 Dec 16 18:50	25°♂23'41	
min. Earth dist.	12097 Jan 14 12:15	9°♂17'18	0.60526 AU	evening set	12097 Dec 23 04:31	23°♂45'23	
inferior conj	12097 Jan 17 15:54	6°♂37'50	-3°08'59	min. Earth dist.	12097 Dec 27 09:36	21°♂09'45	0.58393 AU
minimum elong	12097 Jan 17 22:28	6°♂23'56	3°05'52	inferior conj	12097 Dec 30 12:13	18°♂52'59	-4°26'42
morning rise	12097 Jan 25 06:48	1°♂48'36		minimum elong	12097 Dec 30 20:38	18°♂37'31	4°23'30
direct	12097 Jan 27 09:20	1°♂30'57		morning rise	12098 Jan 07 15:33	14°♂25'42	
asc. node	12097 Jan 27 13:23	1°♂31'04		direct	12098 Jan 09 18:05	14°♂10'56	
morning max el	12097 Feb 03 16:03	5°♂09'22	17°59'21	asc. node	12098 Jan 14 10:37	15°♂28'47	
morning set	12097 Feb 19 06:09	29°♂41'51		morning max el	12098 Jan 18 00:38	18°♂14'05	18°31'57
	12097 Feb 19 10:06	0°♂			12098 Jan 26 12:54	0°♂	
				morning set	12098 Feb 02 23:59	13°♂48'38	
					12098 Feb 11 11:29	0°♂	
superior conj	12097 Mar 01 10:48	18°♂10'06	0°02'37				
minimum elong	12097 Mar 01 11:03	18°♂11'11	0°02'50				
behind sun begin	12097 Mar 01 03:09	17°♂36'28		superior conj	12098 Feb 11 23:00	0°♂53'34	0°36'26
behind sun end	12097 Mar 01 18:56	18°♂45'48		minimum elong	12098 Feb 12 01:22	1°♂04'32	0°36'32
desc. node	12097 Mar 01 18:49	18°♂45'16		desc. node	12098 Feb 16 15:26	9°♂24'15	
	12097 Mar 08 08:48	0°♂		max. Earth dist.	12098 Feb 19 08:55	14°♂11'31	1.40272 AU
max. Earth dist.	12097 Mar 09 00:36	1°♂05'40	1.42378 AU	evening rise	12098 Feb 23 14:12	21°♂21'21	

	12098 Feb 28 21:54	0°♿		max. Earth dist.	12099 Feb 01 15:02	26°♿37'36	1.38038 AU
	12098 Mar 21 16:54	0°♿			12099 Feb 03 11:46	0°♿	
evening max el	12098 Mar 30 05:24	9°♿50'04	23°44'48	desc. node	12099 Feb 03 12:07	0°♿01'36	
retrograde	12098 Apr 10 03:06	16°♿15'23		evening rise	12099 Feb 05 08:36	3°♿18'42	
asc. node	12098 Apr 12 07:50	15°♿53'03			12099 Feb 22 00:27	0°♿	
evening set	12098 Apr 15 08:35	14°♿03'29		evening max el	12099 Mar 12 19:00	23°♿42'08	25°02'58
min. Earth dist.	12098 Apr 20 02:50	8°♿30'11	0.68614 AU		12099 Mar 21 12:00	0°♿	
inferior conj	12098 Apr 20 18:54	7°♿35'13	2°22'43	retrograde	12099 Mar 24 17:33	0°♿38'20	
minimum elong	12098 Apr 20 16:46	7°♿42'32	2°21'43		12099 Mar 27 17:50	30°♿	
morning rise	12098 Apr 26 00:56	1°♿31'14		evening set	12099 Mar 30 10:53	28°♿15'22	
	12098 Apr 29 04:25	30°♿		asc. node	12099 Mar 30 05:11	28°♿27'13	
direct	12098 Apr 30 04:15	29°♿54'38		min. Earth dist.	12099 Apr 03 21:32	23°♿17'34	0.67995 AU
	12098 May 01 04:36	0°♿		inferior conj	12099 Apr 05 01:44	21°♿45'02	1°45'24
morning max el	12098 May 08 05:06	4°♿28'37	20°33'09	minimum elong	12099 Apr 04 23:41	21°♿51'47	1°44'30
desc. node	12098 May 15 17:07	13°♿24'11		morning rise	12099 Apr 10 12:45	15°♿49'20	
	12098 May 27 08:20	0°♿		direct	12099 Apr 14 03:56	14°♿33'28	
morning set	12098 Jun 06 07:56	15°♿10'22		morning max el	12099 Apr 21 07:37	18°♿30'09	19°27'26
max. Earth dist.	12098 Jun 15 02:56	29°♿02'50	1.43611 AU		12099 Apr 30 12:10	0°♿	
	12098 Jun 15 17:08	0°♿		desc. node	12099 May 02 13:53	2°♿58'49	
				greatest brilliancy	12099 May 04 00:31	5°♿05'42	-0.7m
superior conj	12098 Jun 21 14:21	9°♿38'19	-2°01'07	morning set	12099 May 16 08:23	23°♿46'23	
minimum elong	12098 Jun 21 20:31	10°♿04'01	2°01'33		12099 May 20 09:10	0°♿	
	12098 Jul 03 11:28	0°♿		max. Earth dist.	12099 May 28 16:55	13°♿00'16	1.44997 AU
evening rise	12098 Jul 03 23:20	0°♿52'00					
asc. node	12098 Jul 09 06:21	10°♿06'15		superior conj	12099 Jun 01 17:08	19°♿21'49	-2°13'11
evening max el	12098 Jul 20 20:52	27°♿04'09	18°03'35	minimum elong	12099 Jun 01 18:15	19°♿26'18	2°13'59
	12098 Jul 25 02:12	0°♿			12099 Jun 08 07:20	0°♿	
retrograde	12098 Jul 27 09:14	0°♿25'57		evening rise	12099 Jun 15 19:48	12°♿24'57	
evening set	12098 Jul 29 23:10	29°♿53'44		asc. node	12099 Jun 26 03:16	29°♿22'27	
	12098 Jul 29 16:44	30°♿			12099 Jun 26 12:53	0°♿	
inferior conj	12098 Aug 05 11:37	24°♿48'35	1°45'01	evening max el	12099 Jul 04 10:59	10°♿31'26	18°13'55
minimum elong	12098 Aug 05 14:10	24°♿42'12	1°43'41	retrograde	12099 Jul 10 19:31	13°♿53'14	
min. Earth dist.	12098 Aug 08 12:30	21°♿46'28	0.61640 AU	evening set	12099 Jul 13 17:44	13°♿07'14	
desc. node	12098 Aug 11 15:49	19°♿05'07		inferior conj	12099 Jul 19 17:28	7°♿44'24	2°32'39
morning rise	12098 Aug 12 02:39	18°♿45'51		minimum elong	12099 Jul 19 19:55	7°♿37'30	2°31'22
direct	12098 Aug 18 18:40	16°♿27'08		min. Earth dist.	12099 Jul 22 05:51	4°♿54'48	0.63813 AU
morning max el	12098 Sep 01 23:20	24°♿27'28	27°57'55	morning rise	12099 Jul 25 20:33	1°♿28'14	
	12098 Sep 07 00:05	0°♿			12099 Jul 28 02:40	30°♿	
	12098 Sep 26 20:46	0°♿		desc. node	12099 Jul 29 13:10	29°♿22'51	
asc. node	12098 Oct 05 07:36	16°♿17'47		direct	12099 Aug 01 12:21	28°♿52'47	
morning set	12098 Oct 05 12:27	16°♿42'44			12099 Aug 06 05:49	0°♿	
max. Earth dist.	12098 Oct 11 02:57	28°♿37'49	1.31695 AU	morning max el	12099 Aug 15 08:25	6°♿53'58	27°40'13
	12098 Oct 11 17:59	0°♿			12099 Sep 02 01:19	0°♿	
				morning set	12099 Sep 19 06:18	0°♿23'40	
superior conj	12098 Oct 12 22:08	2°♿34'49	1°08'14		12099 Sep 19 01:32	0°♿	
minimum elong	12098 Oct 12 19:53	2°♿22'23	1°08'16	asc. node	12099 Sep 22 04:16	6°♿18'27	
evening rise	12098 Oct 19 15:52	17°♿23'33		max. Earth dist.	12099 Sep 24 03:05	10°♿22'38	1.32589 AU
	12098 Oct 25 18:46	0°♿					
desc. node	12098 Nov 07 12:36	20°♿59'40		superior conj	12099 Sep 27 04:41	16°♿55'29	0°47'09
evening max el	12098 Nov 14 10:57	28°♿56'52	24°46'28	minimum elong	12099 Sep 27 02:41	16°♿44'42	0°46'57
	12098 Nov 15 14:23	0°♿			12099 Oct 03 05:13	0°♿	
retrograde	12098 Nov 28 05:50	5°♿50'51		evening rise	12099 Oct 04 03:10	1°♿57'54	
evening set	12098 Dec 03 16:52	4°♿44'28			12099 Oct 19 09:18	0°♿	
min. Earth dist.	12098 Dec 08 22:44	1°♿58'39	0.56494 AU	desc. node	12099 Oct 25 09:54	7°♿33'41	
inferior conj	12098 Dec 11 12:11	0°♿20'24	-5°28'21	evening max el	12099 Oct 26 21:15	9°♿03'40	23°05'55
minimum elong	12098 Dec 11 18:48	0°♿09'47	5°26'30	retrograde	12099 Nov 09 03:35	15°♿39'27	
	12098 Dec 12 00:56	30°♿		evening set	12099 Nov 13 06:05	15°♿02'52	
morning rise	12098 Dec 19 22:54	26°♿14'31		min. Earth dist.	12099 Nov 20 06:34	11°♿48'31	0.55131 AU
direct	12098 Dec 22 08:05	25°♿58'47		inferior conj	12099 Nov 21 16:43	10°♿59'20	-5°52'06
	12098 Dec 31 07:19	0°♿		minimum elong	12099 Nov 21 16:12	11°♿00'04	5°51'19
morning max el	12098 Dec 31 22:47	0°♿36'01	19°26'31	morning rise	12099 Nov 30 03:54	7°♿09'23	
asc. node	12099 Jan 01 07:47	0°♿58'06		direct	12099 Dec 03 03:47	6°♿48'11	
morning set	12099 Jan 18 02:16	28°♿17'12		morning max el	12099 Dec 14 07:18	12°♿06'03	20°44'03
	12099 Jan 18 22:46	0°♿		asc. node	12099 Dec 19 04:53	17°♿43'15	
					12099 Dec 26 20:20	0°♿	
superior conj	12099 Jan 26 03:41	14°♿22'16	1°02'53	morning set	12100 Jan 02 09:56	12°♿58'10	
minimum elong	12099 Jan 26 06:35	14°♿36'28	1°03'09				

superior conj	12100 Jan 09 20:24	28° $\text{Z}$ 23'24	1°21'46	superior conj	12100 Dec 24 21:41	12° $\text{Z}$ 47'22	1°33'29
minimum elong	12100 Jan 09 22:51	28° $\text{Z}$ 35'54	1°22'18	minimum elong	12100 Dec 24 23:10	12° $\text{Z}$ 55'11	1°34'14
	12100 Jan 10 15:22	0° $\approx$		max. Earth dist.	12100 Dec 28 14:22	20° $\text{Z}$ 30'26	1.34098 AU
max. Earth dist.	12100 Jan 14 23:31	8° $\approx$ 37'31	1.35916 AU	evening rise	12101 Jan 02 01:09	29° $\text{Z}$ 23'45	
evening rise	12100 Jan 18 21:25	16° $\approx$ 02'23			12101 Jan 02 08:38	0° $\approx$	
desc. node	12100 Jan 21 08:50	20° $\approx$ 32'47		desc. node	12101 Jan 08 05:39	10° $\approx$ 53'43	
	12100 Jan 26 20:02	0° $\text{X}$			12101 Jan 19 23:18	0° $\text{X}$	
	12100 Feb 16 12:37	0° $\text{Y}$		evening max el	12101 Feb 05 22:08	21° $\text{X}$ 10'46	27°02'35
evening max el	12100 Feb 23 08:37	7° $\text{Y}$ 31'45	26°11'22	retrograde	12101 Feb 19 06:30	28° $\text{X}$ 35'16	
retrograde	12100 Mar 08 02:56	14° $\text{Y}$ 47'23		evening set	12101 Feb 25 21:10	26° $\text{X}$ 02'16	
evening set	12100 Mar 14 07:42	12° $\text{Y}$ 16'53		min. Earth dist.	12101 Mar 01 20:03	22° $\text{X}$ 13'08	0.65538 AU
asc. node	12100 Mar 17 02:34	9° $\text{Y}$ 32'12		asc. node	12101 Mar 03 23:56	19° $\text{X}$ 45'50	
min. Earth dist.	12100 Mar 18 11:58	7° $\text{Y}$ 54'06	0.66960 AU	inferior conj	12101 Mar 04 00:28	19° $\text{X}$ 44'17	0°00'26
inferior conj	12100 Mar 20 04:20	5° $\text{Y}$ 49'40	0°58'03	minimum elong	12101 Mar 04 00:27	19° $\text{X}$ 44'21	0°00'39
minimum elong	12100 Mar 20 02:56	5° $\text{Y}$ 53'59	0°57'31	transit middle	12101 Mar 04 00:27	19° $\text{X}$ 44'21	0°00'39
morning rise	12100 Mar 25 22:56	0° $\text{Y}$ 04'07		transit begin	12101 Mar 03 21:28	19° $\text{X}$ 52'52	
	12100 Mar 26 01:44	30° $\text{R}$ $\text{X}$		transit end	12101 Mar 04 03:26	19° $\text{X}$ 35'50	
direct	12100 Mar 29 03:06	29° $\text{X}$ 07'00		morning rise	12101 Mar 10 05:11	14° $\text{X}$ 10'57	
	12100 Apr 01 06:55	0° $\text{Y}$		direct	12101 Mar 12 23:35	13° $\text{X}$ 29'40	
morning max el	12100 Apr 04 17:22	2° $\text{Y}$ 39'18	18°37'29	morning max el	12101 Mar 19 08:25	16° $\text{X}$ 50'06	18°04'12
desc. node	12100 Apr 19 10:34	22° $\text{Y}$ 56'51			12101 Mar 29 02:47	0° $\text{Y}$	
	12100 Apr 23 22:54	0° $\text{Z}$		desc. node	12101 Apr 06 07:11	13° $\text{Y}$ 11'51	
morning set	12100 Apr 25 23:26	3° $\text{Z}$ 10'16		morning set	12101 Apr 06 18:08	13° $\text{Y}$ 56'27	
max. Earth dist.	12100 May 11 11:34	27° $\text{Z}$ 25'45	1.45692 AU		12101 Apr 16 17:04	0° $\text{Z}$	
superior conj	12100 May 12 02:54	28° $\text{Z}$ 25'41	-2°05'52	superior conj	12101 Apr 21 11:48	7° $\text{Z}$ 34'12	-1°39'21
minimum elong	12100 May 11 20:31	28° $\text{Z}$ 00'42	2°06'14	minimum elong	12101 Apr 21 02:28	6° $\text{Z}$ 57'27	1°38'53
	12100 May 13 03:01	0° $\text{II}$		max. Earth dist.	12101 Apr 24 07:39	12° $\text{Z}$ 00'33	1.45636 AU
evening rise	12100 May 27 16:04	22° $\text{II}$ 57'08			12101 May 05 21:24	0° $\text{II}$	
	12100 Jun 01 02:11	0° $\text{Z}$		evening rise	12101 May 07 14:29	2° $\text{II}$ 38'44	
greatest brilliancy	12100 Jun 04 10:33	5° $\text{Z}$ 18'42	-0.9m	greatest brilliancy	12101 May 20 11:40	22° $\text{II}$ 19'37	-0.7m
asc. node	12100 Jun 13 00:15	18° $\text{Z}$ 11'37			12101 May 25 19:33	0° $\text{Z}$	
evening max el	12100 Jun 17 23:03	24° $\text{Z}$ 09'53	18°42'06	asc. node	12101 May 30 21:19	6° $\text{Z}$ 24'33	
retrograde	12100 Jun 24 13:01	27° $\text{Z}$ 45'22		evening max el	12101 Jun 01 06:46	7° $\text{Z}$ 53'26	19°27'09
evening set	12100 Jun 27 19:37	26° $\text{Z}$ 44'02		retrograde	12101 Jun 08 10:27	11° $\text{Z}$ 55'09	
inferior conj	12100 Jul 03 10:25	21° $\text{Z}$ 05'17	3°01'00	evening set	12101 Jun 12 01:54	10° $\text{Z}$ 37'45	
minimum elong	12100 Jul 03 12:01	21° $\text{Z}$ 00'19	2°59'57	inferior conj	12101 Jun 17 11:09	4° $\text{Z}$ 44'41	3°13'37
min. Earth dist.	12100 Jul 05 08:11	18° $\text{Z}$ 44'17	0.65678 AU	minimum elong	12101 Jun 17 11:41	4° $\text{Z}$ 42'58	3°12'44
morning rise	12100 Jul 09 03:35	14° $\text{Z}$ 43'19		min. Earth dist.	12101 Jun 18 18:11	3° $\text{Z}$ 02'29	0.67139 AU
direct	12100 Jul 15 13:40	12° $\text{Z}$ 01'27			12101 Jun 21 05:58	30° $\text{R}$ $\text{II}$	
desc. node	12100 Jul 16 10:25	12° $\text{Z}$ 04'06		morning rise	12101 Jun 22 21:01	28° $\text{II}$ 22'11	
morning max el	12100 Jul 28 19:23	19° $\text{Z}$ 51'26	26°50'50	direct	12101 Jun 28 21:34	25° $\text{II}$ 43'40	
	12100 Aug 06 11:27	0° $\text{Z}$		desc. node	12101 Jul 03 07:36	26° $\text{II}$ 53'20	
	12100 Aug 26 03:07	0° $\text{Z}$			12101 Jul 07 21:27	0° $\text{Z}$	
morning set	12100 Sep 02 13:35	13° $\text{Z}$ 33'16		morning max el	12101 Jul 11 06:07	3° $\text{Z}$ 07'47	25°38'08
max. Earth dist.	12100 Sep 06 18:05	21° $\text{Z}$ 45'23	1.33997 AU		12101 Jul 31 16:41	0° $\text{Z}$	
asc. node	12100 Sep 09 00:56	26° $\text{Z}$ 23'49		morning set	12101 Aug 16 06:31	26° $\text{Z}$ 01'34	
	12100 Sep 10 18:42	0° $\text{Z}$			12101 Aug 18 10:19	0° $\text{Z}$	
superior conj	12100 Sep 11 05:29	0° $\text{Z}$ 56'14	0°21'02	max. Earth dist.	12101 Aug 19 22:52	2° $\text{Z}$ 51'42	1.35875 AU
minimum elong	12100 Sep 11 04:24	0° $\text{Z}$ 50'35	0°20'45	superior conj	12101 Aug 25 21:44	14° $\text{Z}$ 29'20	-0°09'30
evening rise	12100 Sep 18 13:21	16° $\text{Z}$ 26'50		minimum elong	12101 Aug 25 22:19	14° $\text{Z}$ 32'19	0°09'41
	12100 Sep 25 07:16	0° $\text{Z}$		behind sun begin	12101 Aug 25 17:18	14° $\text{Z}$ 07'06	
evening max el	12100 Oct 08 12:11	19° $\text{Z}$ 14'53	21°28'08	behind sun end	12101 Aug 26 03:21	14° $\text{Z}$ 57'34	
desc. node	12100 Oct 12 07:15	22° $\text{Z}$ 25'42		asc. node	12101 Aug 26 21:34	16° $\text{Z}$ 29'28	
retrograde	12100 Oct 20 16:08	25° $\text{Z}$ 17'43			12101 Sep 02 11:42	0° $\text{Z}$	
evening set	12100 Oct 23 10:07	25° $\text{Z}$ 00'22		evening rise	12101 Sep 02 20:14	0° $\text{Z}$ 43'40	
inferior conj	12100 Nov 01 09:28	21° $\text{Z}$ 05'23	-5°19'15	evening max el	12101 Sep 20 15:29	0° $\text{Z}$ 01'53	20°06'05
minimum elong	12100 Nov 01 01:07	21° $\text{Z}$ 17'05	5°17'07		12101 Sep 20 14:44	0° $\text{Z}$	
min. Earth dist.	12100 Nov 01 12:59	21° $\text{Z}$ 00'28	0.54561 AU	desc. node	12101 Sep 29 04:39	5° $\text{Z}$ 06'28	
morning rise	12100 Nov 09 17:02	17° $\text{Z}$ 16'38		retrograde	12101 Oct 01 05:30	5° $\text{Z}$ 17'47	
direct	12100 Nov 13 12:17	16° $\text{Z}$ 45'26		evening set	12101 Oct 03 04:49	5° $\text{Z}$ 07'38	
morning max el	12100 Nov 26 02:29	22° $\text{Z}$ 46'18	22°21'48	inferior conj	12101 Oct 12 04:13	1° $\text{Z}$ 08'52	-3°53'16
	12100 Dec 02 09:00	0° $\text{Z}$		minimum elong	12101 Oct 11 18:37	1° $\text{Z}$ 23'14	3°49'50
asc. node	12100 Dec 06 01:53	5° $\text{Z}$ 27'56		min. Earth dist.	12101 Oct 13 21:28	0° $\text{Z}$ 07'06	0.54929 AU
morning set	12100 Dec 17 20:40	27° $\text{Z}$ 45'02			12101 Oct 14 02:16	30° $\text{R}$ $\text{Z}$	
	12100 Dec 18 22:07	0° $\text{Z}$		morning rise	12101 Oct 20 07:21	26° $\text{Z}$ 59'52	

direct	12101 Oct 24 22:49	26°♄13'00	
	12101 Nov 04 02:27	0°♄	
morning max el	12101 Nov 07 13:52	2°♄54'20	24°09'50
asc. node	12101 Nov 22 22:49	23°♄57'08	
	12101 Nov 26 05:20	0°♄	
morning set	12101 Dec 02 08:31	12°♄31'22	
superior conj	12101 Dec 09 04:38	27°♄24'58	1°38'33
minimum elong	12101 Dec 09 04:58	27°♄26'47	1°39'23
	12101 Dec 10 09:11	0°♄	
max. Earth dist.	12101 Dec 11 12:50	2°♄29'02	1.32697 AU
evening rise	12101 Dec 16 16:18	13°♄13'27	
	12101 Dec 25 13:12	0°♄	
desc. node	12101 Dec 26 02:33	0°♄58'23	